



AIR SOLUTIONS

QUALITY AIR MANAGEMENT PRODUCTS FROM A NAME YOU TRUST



TOTAL CONTROL

Certified System
ISO 9001
GM-SAI Global

AIR SPRINGS



AIR SPRING CONTROLS



COMPRESSORS



TANKS



FITTINGS



APPLICATION GUIDE & PRODUCT CATALOGUE

/// **PACBRAKE**® COMPANY



As a proud family run business since 1961, Pacbrake Company™ has been committed to providing its customers with the highest quality products for a wide range of vehicles. Over the years, the expertise and innovation of Pacbrake's dedicated staff transformed the company from an engine brake distributor, into an industry leading manufacturer of automotive products. To this day, Pacbrake remains devoted to improving its product design through continuous research and development in order to provide customers with the most advanced automotive systems available, setting the standard for performance and durability across the trucking industry.

Behind every Pacbrake product stands a team of qualified engineers, state of the art manufacturing facilities and an internationally recognized ISO 9001: 2015 quality management system.

Pacbrake's dedication to quality and service over the past 50 years has given them the experience to develop the number one air management system. The AMP™ product line continues to exceed customer expectations.



HISTORY

1960-1980

- *Pacbrake Company™ incorporates in 1961*

1980-1990

- *Pacbrake develops new engine brake technology for Detroit Diesel™, Caterpillar™ and Cummins™ engines*
- *Pacbrake becomes the first company to patent a combination engine brake that utilizes an exhaust valve*

1990-2000

- *Pacbrake starts supplying engine and exhaust brakes to Freightliner™, Kenworth™ and Detroit Diesel™*
- *Becomes the largest North American exhaust brake manufacturer*

2000-2010

- *Starts supplying valves to the US Military*
- *Pacbrake expands R&D efforts and starts development of aftermarket products*
- *Starts supplying thermal management valves to Navistar™*
- *Expands aftermarket product line to include more tow/haul solutions (air springs, in-cab controls and onboard air)*

2010-PRESENT

- *Pacbrake celebrates 50 years in business*
- *Supplies first hot EGR valve to Navistar™*
- *Develops the first engine brake for Cummins™ ISB engine*
- *Launches the first engine shutoff valve for the oil and gas industry*
- *Develops new AMP™ heavy duty air compressor line*
- *Pacbrake develops a large range of AMP™ air springs for various suspension applications*
- *Pacbrake designs new AMP™ wireless air spring controls app and airboard*



The contents of this catalogue are subject to change without notice. Contact Pacbrake for the most up-to-date information on our products



AMP: Air Management By Pacbrake
AIR SUSPENSION & ONBOARD AIR

AMP AIR MANAGEMENT SYSTEM OVERVIEW

AIR SUSPENSION

The Benefits of Air Springs

Air Spring and Kit Features

Air Spring Application Guide

Chevrolet/GMC

Dodge/Ram

Ford

Freightliner

Mazda

Mercedes

Nissan

Sterling

Toyota

Universal Fit

Spacer Kits

AIR SPRING CONTROLS

Wireless Air Spring Controls

Wireless Air Spring Controls Kit

In-Cab Controls: Mechanical Gauge

Premium In-Cab Control Kits

Basic Electrical In-Cab Control Kits

Basic Paddle Valve In-Cab Control Kits

In-Cab Controls: Digital Gauge

Premium In-Cab Control Kits

Basic Electrical In-Cab Control Kits

ONBOARD AIR MANAGEMENT SYSTEMS

Onboard Air Features

Onboard Air Kits

HP325 Series Air Compressor Kits

HP625 Series Air Compressor Kits

Compressor Mounting Brackets

Air Tank: Kits & Accessories

COMPONENTS AND SPECIFICATIONS

Air Spring Specifications

Single Convoluted Air Spring

Double Convoluted Air Spring

Roll Plates

Spacer Kits

Hardware Specs

Sleeve Style Air Spring

In-Coil Air Spring

Air Spring Controls Specifications

In-Cab Control Gauge Assembly

Mechanical Air Gauges

Digital Air Gauges

Paddle Valve Switches

Electrical Switches

Brackets

Solenoid Specifications

3-Way, 2-Position

4-Way, 2-Position

3-Way, 2-Position

Onboard Air Specifications

HP325 Series Compressor

HP425 Series Compressor

HP625 Series Compressor

Steel Air Tanks (1/2, 2 1/2, 5 Gallon)

Aluminum Air Tanks (1/2, 2 1/2, 5 Gallon)

Pneumatic & Hydraulic Fittings

Push-to-Connect Fittings

Hose Barb Fittings

Pipe Fittings

SAE 45° Flare Fitting

Compression Fitting

JIC [SAE 37°] Flare Fitting

ISO 6149 Fittings

Check Valves & Quick Exhaust Valves

SAE 100R5 End Fittings

SAE 100R5 Medium Pressure Hydraulic Hose

Airline Tubing

FREQUENTLY ASKED QUESTIONS

MAINTENANCE TIPS

WARRANTY

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AIR SUSPENSION



AIR SPRING CONTROLS



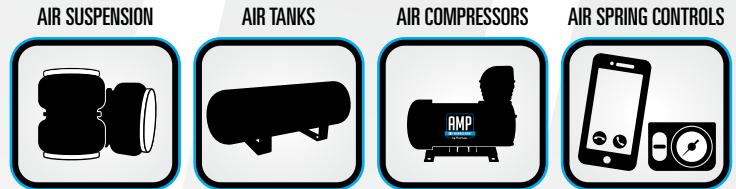
ONBOARD AIR



COMPONENTS

AMP AIR MANAGEMENT SYSTEM OVERVIEW

AMP offers a range of air management products. Our adjustable air springs can be used to custom-level your truck's stance, adding support from front-to-back and side-to-side. You can inflate them manually or add air spring controls which allow you to control your air springs with the touch of a button. If you require more air for your air springs (or other pneumatic accessories) you can add one of our onboard air kits which allows you to compress and store pressurized air.



AIR MANAGEMENT

1: AIR SUSPENSION

AMP offers a variety of air spring solutions. Check our application guide to find the best system for your vehicle (see page 5). With the addition of an AMP air spring kit, you can inflate your air springs enough to support your vehicle's load without overtaxing its suspension, resulting in a level stance, comfortable ride and stable handling.

LIFETIME WARRANTY

EASY BOLT ON INSTALLATION

AIR MANAGEMENT

2: AIR SPRING CONTROLS

Operate your AMP air springs from your phone with the new AMP Wireless controls app, or the driver's seat with AMP in-cab controls. Various dash activation switch kits are available depending on your air spring and accessory requirements (see page 12).



AIR MANAGEMENT

3: ONBOARD AIR

Onboard air (OBA) gives you the ability to compress and store pressurized air on your vehicle. Pacbrake offers air management components, pre-made OBA kits and customized OBA kits. All kits come complete with compressor(s), air tank, fittings, pressure switch, relay(s), electrical connectors and all applicable accessories (see page 19).



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

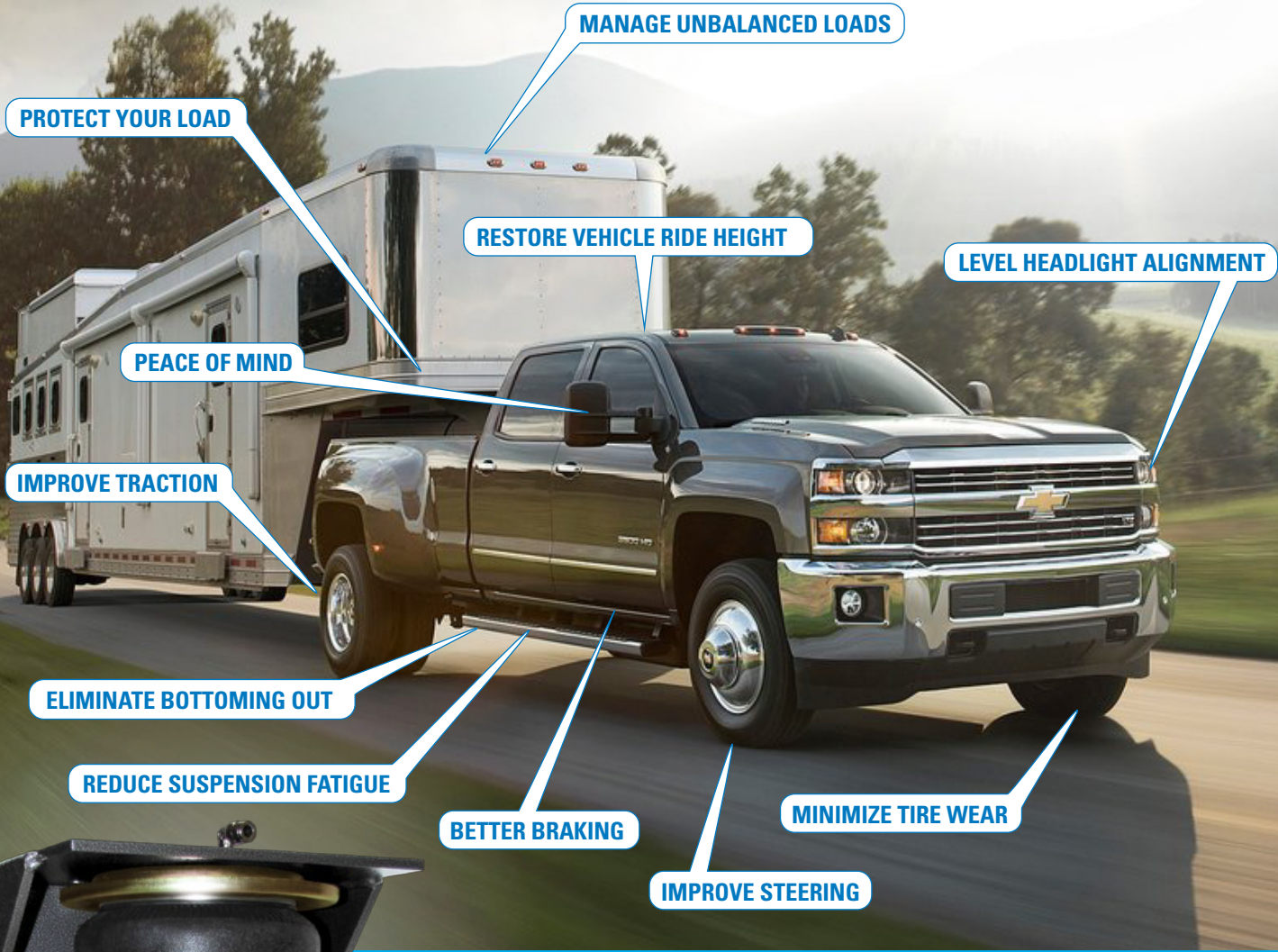
COMPONENTS

WARRANTY



Adjustable AIR SPRINGS

ADDED SUPPORT FOR AN OVERALL SMOOTH & SAFE RIDE



ADJUSTABLE AIR SPRING SOLUTIONS FOR COMMON TOW/HAUL PROBLEMS

Use Pacbrake's heavy duty air springs to eliminate your vehicle's sag, sway and bottoming out. Level your truck's stance while providing added support for an overall smooth & safe ride.



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

Adjustable AIR SPRINGS

ADDED SUPPORT FOR AN OVERALL SMOOTH & SAFE RIDE

- » ELIMINATES VEHICLE SAG, SWAY & BOTTOMING OUT
- » BETTER BRAKING & IMPROVED STEERING
- » FRONT-TO-BACK & SIDE-TO-SIDE ADJUSTABILITY
- » IDEAL FOR HEAVY HAULERS OR UNEVENLY DISTRIBUTED LOADS

THE #1 SOLUTION FOR YOUR COMMON TOW/HAUL PROBLEMS

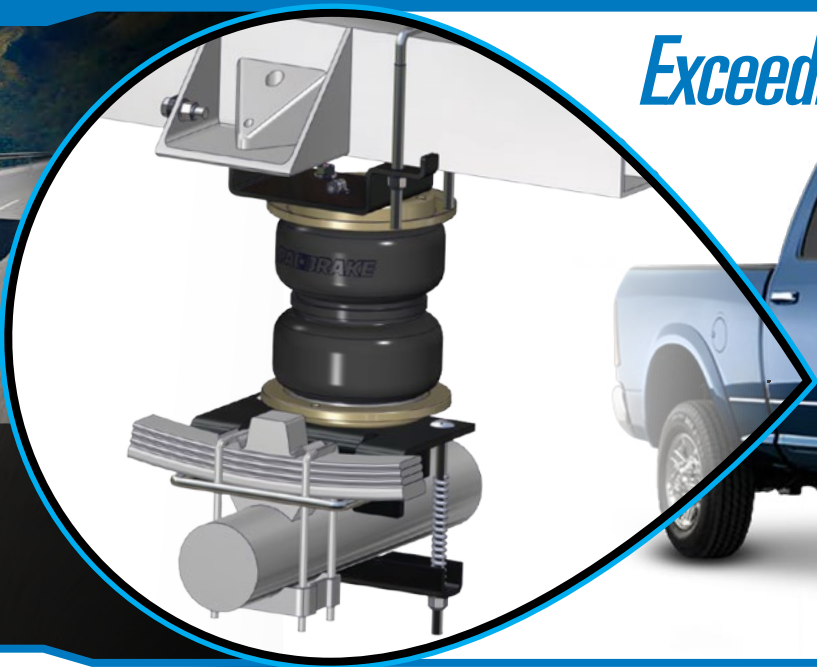


Your truck's suspension was designed as a compromise between capacity and comfort. So when you haul heavy loads or pull a trailer, the rear springs can be pushed to their limit resulting in excessive bounce, sagging ride height, and an overall feeling of instability.

It doesn't have to be this way. With the simple addition of an AMP air spring kit, you can eliminate overtaxing your suspension by providing the extra support of an inflated air spring, resulting in a leveled stance, comfortable ride and stable handling.



Exceeding the competition in design



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

HEAVY DUTY DESIGN & BUILD

ONE PIECE ALUMINUM ANODIZED END CAPS

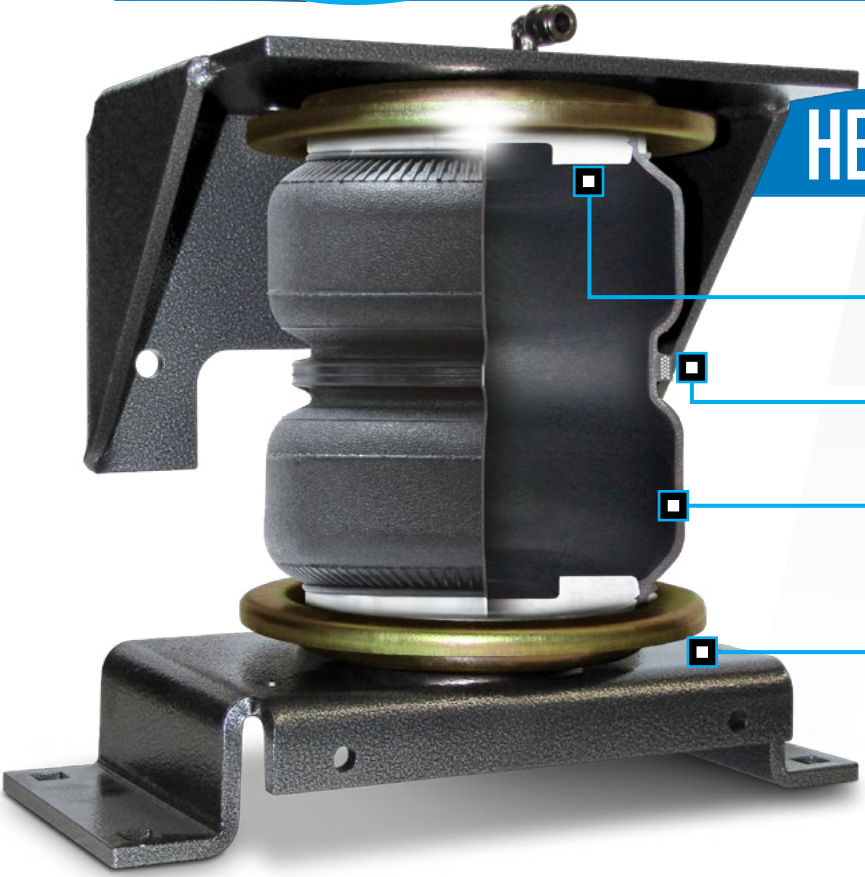
20 SUPPORT WIRES

TWO-PLY RUBBER

CORROSION RESISTANT ROLL PLATES & POWDER COATED BRACKETS

RATED UP TO 5,000 LBS*

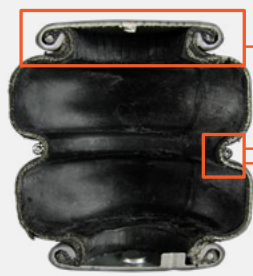
*Applications vary. Kits containing HP10068 Rated to 5320 lbs. Never exceed manufacturer's recommended Gross Vehicle Weight Rating



DARE TO COMPARE...

Use Pacbrake's heavy duty air springs to level your truck's stance while providing added support for an overall smooth and safe ride.

CHECK OUT THE COMPETITION...



1/8" Steel End Caps

Only 9 Support Wires

Part #: 6781 (Date: 2015)



1/4" Fiber Reinforced Thermoplastic Composite End Caps

Only 15 Support Wires

Part #: 58437 (Date: 2018)

Information as of May 14, 2018



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

MODEL	YEAR	KIT #		FRAME MOUNT			
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CHEVROLET/GMC

Chevrolet/GMC SUVs

JIMMY/BLAZER (4WD)	1969-1991	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
JIMMY/BLAZER (2WD)	1973-1991	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001

Chevrolet/GMC Pickup Trucks

CHEVROLET COLORADO/GMC CANYON (2WD/4WD) ◆	2004-2012	HP10224 ◆	SS	Inside	No	2 Hrs	HP10001
CHEVROLET COLORADO/GMC CANYON (2WD/4WD) ◆	2009-2012	HP10226 ◆	SS	Inside	No	2 Hrs	HP10173

Chevrolet Silverado/GMC Sierra 1500

C-10 (2WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
C-10 (2WD)	1973-1987	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
K-10 (4WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
K-10 (4WD)	1973-1987	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
SIERRA/SILVERADO K/C 1500 Δ (2WD/4WD)	1988-1998	HP10088 ***/Δ HP10120 ***/Δ	DC	Inside	Yes	3 Hrs	HP10000D HP10001
SIERRA/SILVERADO 1500HD (2WD/4WD) HEAVY LOADS	2001-2006	HP10072 ****	DC	Inside	No	2½ Hrs	HP10000D
SIERRA/SILVERADO 1500 (2WD/4WD)	1999-2007	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
SILVERADO 1500HD (2WD/4WD)	2001-2005	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
SIERRA 1500HD (2WD/4WD)	2001-2008	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
SIERRA/SILVERADO 1500 (2WD/4WD) FOR SHORT (69.3") AND MEDIUM (78.7") TRUCK BED LENGTHS	2007-2018	HP10216	DC	Inside	Yes	3 Hrs	HP10000D
SIERRA/SILVERADO 1500 (2WD/4WD) FOR SHORT (69.3") AND MEDIUM (78.7") TRUCK BED LENGTHS	2007-2018	HP10144	SS	Outside	No	2 Hrs	HP10001
SIERRA/SILVERADO 1500 (2WD/4WD) FOR LONG (97.8") TRUCK BED LENGTHS	2007-2018	HP10178	SS	Outside	No	2 Hrs	HP10001

Chevrolet Silverado/GMC Sierra 2500

C-20 (2WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
C-20 (2WD)	1973-1987	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
K-20 (4WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
SIERRA/SILVERADO K/C 2500 Δ (2WD/4WD)	1988-1998	HP10088 ***/Δ HP10120 ***/Δ	DC	Inside	Yes	3 Hrs	HP10000D HP10001
SIERRA/SILVERADO 2500 Δ (2WD/4WD) (DRUM BRAKES ONLY)	1999-2000	HP10088 ***/Δ HP10120 ***/Δ	DC	Inside	Yes	3 Hrs	HP10000D HP10001

	REPLACEMENT AIR SPRING		AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
	VEHICLE MODIFICATION REQUIRED		SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
** WILL ONLY FIT WITH STOCK WHEELS AND TIRES	†† HP10070 KITS FIT WITH A DRAW TITE 15000 5th WHEEL HITCH
*** FOR 'C' CHANNEL FRAMES	††† FOR ALL TRUCKS, INCLUDING THOSE WITH 5th WHEEL HITCHES. NOT FOR CHASSIS CAB TRUCKS
**** FOR HYDRO FORMED FRAMES	‡ THE HP10002 KITS FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 4WD VEHICLES
◆ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	‡‡ THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
Δ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	◆ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH



MODEL	YEAR	KIT #	S	FRAME MOUNT	Hand	Clock	#
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CHEVROLET/GMC

Chevrolet Silverado/GMC Sierra 2500 continued							
SIERRA/SILVERADO 2500HD (2WD/4WD) <i>Not for commercial cab and chassis</i>	2001-2010	HP10005	DC	Inside	No	2 Hrs	HP10000D
SIERRA/SILVERADO 2500HD (2WD/4WD) <i>Not for commercial cab and chassis</i>	2011-2019	HP10171 †††	DC	Inside	No ♦	2½ Hrs	HP10000D

Chevrolet Silverado/GMC Sierra 3500

C-30 (2WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
C-30 (2WD)	1973-1987	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
K-30 (4WD)	1973-1987	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
SIERRA/SILVERADO K/C 3500 Δ (2WD/4WD)	1988-2000	HP10088 ***/Δ HP10120 ***/Δ	DC	Inside	Yes	3 Hrs	HP10000D HP10001
SIERRA/SILVERADO 3500 (2WD/4WD) <i>Not for commercial cab and chassis</i>	2001-2010	HP10005	DC	Inside	No	2 Hrs	HP10000D
SIERRA/SILVERADO 3500HD (2WD/4WD) <i>Not for commercial cab and chassis</i>	2011-2019	HP10171 †††	DC	Inside	No ♦	2½ Hrs	HP10000D

Chevrolet/GMC Motorhomes (Class C Vans)

CLASS C MOTORHOME G3500 (2WD) <i>Dual rear wheels</i>	2013-2015	HP10227	SC	Inside	No	2 Hrs	HP10083
CLASS C MOTORHOME G4500 (2WD) <i>Dual rear wheels</i>	2013-2015	HP10227	SC	Inside	No	2 Hrs	HP10083

DODGE/RAM

Dodge SUVs

RAM CHARGER (2WD/4WD)	1974-1993	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
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Dodge Pickup Trucks

DAKOTA (4WD)	1987-2004	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
DAKOTA (2WD/4WD) ♦	2005-2011	HP10220 ♦	SS	Outside	Yes	2½ Hrs	HP10001
DAKOTA RT (2WD)	2000-2001	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
W-100 (2WD/4WD)	1969-1993	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
W-100 (2WD/4WD) HEAVY LOADS	1969-1993	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
D-150, W-150 (2WD/4WD)	1969-1993	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
D-150, W-150 (2WD/4WD) HEAVY LOADS	1969-1993	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
D-250, W-250 (2WD/4WD)	1969-1993	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
D-350, W-350 (2WD/4WD)	1969-1993	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D

#	REPLACEMENT AIR SPRING	S	AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
Hand	VEHICLE MODIFICATION REQUIRED	Clock	SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
** WILL ONLY FIT WITH STOCK WHEELS AND TIRES	†† HP10070 KITS FIT WITH A DRAW TITE 15000 5th WHEEL HITCH
*** FOR 'C' CHANNEL FRAMES	††† FOR ALL TRUCKS, INCLUDING THOSE WITH 5th WHEEL HITCHES. NOT FOR CHASSIS CAB TRUCKS
**** FOR HYDRO FORMED FRAMES	‡ THE HP10002 KITS FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 4WD VEHICLES
♦ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	‡‡ THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
Δ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	♦ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

MODEL	YEAR	KIT #		FRAME MOUNT			
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DODGE/RAM

Ram 1500

RAM 1500 (2WD / 4WD)	1994-2001	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
RAM 1500 (2WD) HEAVY LOADS	1994-2001	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
RAM 1500 (2WD / 4WD) HEAVY LOADS	2002-2008	HP10071	DC	Inside	No	2½ Hrs	HP10000D
RAM MEGA CAB 1500 (4WD)	2006-2008	HP10002 ‡	DC	Inside	No	2 Hrs	HP10000D
RAM MEGA CAB 1500 (2WD)	2006-2008	HP10089 ††	SC	Inside	No	2 Hrs	HP10083
RAM 1500 (4WD)	2009-2018	HP10207	DC	N/A	Yes	2½ Hrs	HP10000D
RAM 1500 (2WD / 4WD) INNER COIL AIR SPRING	2009-2018	HP10188	IC	N/A	No	2 Hrs	HP10189

Ram 2500

RAM 2500 (2WD / 4WD)	1994-2002	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
RAM 2500 (4WD)	2003-2013	HP10002 ‡	DC	Inside	No	2 Hrs	HP10000D
RAM 2500 (2WD)	2003-2013	HP10089 ††	SC	Inside	No	2 Hrs	HP10083
RAM MEGA CAB 2500 (4WD)	2006-2008	HP10002 ‡	DC	Inside	No	2 Hrs	HP10000D
RAM MEGA CAB 2500 (2WD)	2006-2008	HP10089 ††	SC	Inside	No	2 Hrs	HP10083
RAM 2500 (2WD / 4WD)	2014-2019	HP10206	DC	N/A	No	2 Hrs	HP10000D

Ram 3500

RAM 3500 (2WD / 4WD)	1994-2002	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
RAM 3500 (4WD)	2003-2019	HP10002 ‡	DC	Inside	No	2 Hrs	HP10000D
RAM 3500 (2WD)	2003-2019	HP10089 ††	SC	Inside	No	2 Hrs	HP10083
RAM MEGA CAB 3500 (4WD)	2006-2019	HP10002 ‡	DC	Inside	No	2 Hrs	HP10000D
RAM MEGA CAB 3500 (2WD)	2006-2019	HP10089 ††	SC	Inside	No	2 Hrs	HP10083
RAM 3500 (2WD / 4WD) CHASSIS CAB <small>The HP10136 must be purchased for vehicles that have a round axle tube with the breather located approximately 7" from the spring pack.</small>	2007-2019	HP10002 ‡ & HP10136	DC	Inside	No	2 Hrs	HP10000D

Dodge Vans/Commercial Vehicles

RAM 4500 (2WD / 4WD) CHASSIS CAB	2007-2009	HP10121	DC	Inside	No	3 Hrs	HP10068
RAM 4500 (2WD / 4WD) CHASSIS CAB	2010-2019	HP10321	DC	Inside	No	2 Hrs	HP10068
RAM 5500 (2WD / 4WD) CHASSIS CAB	2007-2009	HP10121	DC	Inside	No	3 Hrs	HP10068
RAM 5500 (2WD / 4WD) CHASSIS CAB	2010-2019	HP10321	DC	Inside	No	2 Hrs	HP10068
SPRINTER 2500 (2WD)	2007-2009	HP10147	DC	Inside	Yes	2½ Hrs	HP10000D

	REPLACEMENT AIR SPRING		AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
	VEHICLE MODIFICATION REQUIRED		SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
** WILL ONLY FIT WITH STOCK WHEELS AND TIRES	†† HP10070 KITS FIT WITH A DRAW TITE 15000 5th WHEEL HITCH
*** FOR 'C' CHANNEL FRAMES	††† FOR ALL TRUCKS, INCLUDING THOSE WITH 5th WHEEL HITCHES. NOT FOR CHASSIS CAB TRUCKS
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◆ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	†† THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
△ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	◆ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH



MODEL	YEAR	KIT #	S	FRAME MOUNT			
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FORD

Ford SUVs

BRONCO (4WD)	1980-1996	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
BRONCO II (4WD)	1983-1990	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001

Ford Pickup Trucks

RANGER ** (2WD/4WD)	1998-2010	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-100 (4WD) HEAVY LOADS	1966-1996	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-100 (4WD) LIGHT LOADS	1966-1996	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
F-100 (2WD) HEAVY LOADS	1968-1996	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-100 (2WD) LIGHT LOADS	1968-1996	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001

Ford F-150

F-150 (4WD) HEAVY LOADS	1966-1996	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-150 (2WD) HEAVY LOADS	1968-1996	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-150 (2WD) LIGHT LOADS	1968-1996	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
F-150 (2WD/4WD) INCLUDING HERITAGE	1997-2003	HP10033 *	SS	Outside	Yes	2½ Hrs	HP10001
F-150 (2WD/4WD) HEAVY LOADS <i>Will not fit fx2</i>	2004-2008	HP10004	DC	Outside	No	2 Hrs	HP10000D
F-150 (2WD/4WD) EXCLUDES HERITAGE	2004-2009	HP10153	SS	Outside	No	2½ Hrs	HP10173
F-150 (2WD/4WD) EXCLUDES HERITAGE & F-150 RAPTOR <i>Will not fit newer style, aluminum body trucks</i>	2010-2014	HP10155	SS	Outside	No	2½ Hrs	HP10001
F-150 (4WD)	2004-2014	HP10212	DC	Inside	No	2½ Hrs	HP10000D
F-150 (4WD)	2015-2019	HP10215	SC	Inside	No	2½ Hrs	HP10083
TRANSIT 150 (2WD)	2015-2019	HP10307	DC	Inside	No	2½ Hrs	HP10000D

Ford F-250

F-250 (2WD) UNDER 7500 GVWR	1969-1979	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-250 (2WD)	1980-1996	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-250 (4WD) '97 HEAVY DUTY OVER 8600 GVWR	1980-1997	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-250 LIGHT DUTY (2WD/4WD) UNDER 7500 GVWR	1997-1998	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-250 SUPER DUTY (2WD/4WD)	1999-2010	HP10070 ††	DC	Outside	Yes	3 Hrs	HP10000D
F-250 SUPER DUTY (2WD)	2005-2010	HP10182 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-250 SUPER DUTY (4WD)	2005-2010	HP10181 †††	DC	Inside	No ♦	4 Hrs	HP10000D

	REPLACEMENT AIR SPRING		AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
	VEHICLE MODIFICATION REQUIRED		SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
** WILL ONLY FIT WITH STOCK WHEELS AND TIRES	†† HP10070 KITS FIT WITH A DRAW TITE 15000 5th WHEEL HITCH
*** FOR 'C' CHANNEL FRAMES	††† FOR ALL TRUCKS, INCLUDING THOSE WITH 5th WHEEL HITCHES. NOT FOR CHASSIS CAB TRUCKS
**** FOR HYDRO FORMED FRAMES	‡ THE HP10002 KITS FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 4WD VEHICLES
◆ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	‡‡ THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
△ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	◆ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

MODEL	YEAR	KIT #		FRAME MOUNT			
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FORD

Ford F-250 Continued

F-250 SUPER DUTY (2WD/4WD) <i>Will not fit vehicles with factory installed 5th wheel hitch</i>	2010-2016	HP10070 ††	DC	Outside	Yes	3 Hrs	HP10000D
F-250 SUPER DUTY (2WD)	2011-2016	HP10194 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-250 SUPER DUTY (4WD)	2011-2016	HP10247 †††	DC	Inside	No ♦	2 Hrs	HP10068
F-250 SUPER DUTY (4WD)	2017-2019	HP10304 †††	DC	Inside	Yes	2½ Hrs	HP10000D
TRANSIT 250 (2WD)	2015-2019	HP10307	DC	Inside	No	2½ Hrs	HP10000D

Ford F-350

F-350 (2WD)	1970-1997	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-350 (4WD) EXCEPT SUPER HD CHASSIS	1980-1997	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-350 SUPER DUTY (2WD) 11,200 GVWR & UNDER	1999-2004	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
F-350 SUPER DUTY (2WD/4WD)	1999-2010	HP10070 ††	DC	Outside	Yes	3 Hrs	HP10000D
F-350 SUPER DUTY (2WD)	2005-2010	HP10182 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-350 SUPER DUTY (4WD)	2005-2010	HP10181 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-350 SUPER DUTY (2WD/4WD) <i>Will not fit vehicles with factory installed 5th wheel hitch</i>	2010-2016	HP10070 ††	DC	Outside	Yes	3 Hrs	HP10000D
F-350 SUPER DUTY (2WD)	2011-2016	HP10194 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-350 SUPER DUTY (4WD)	2011-2016	HP10247 †††	DC	Inside	No ♦	2 Hrs	HP10068
F-350 SUPER DUTY (4WD)	2017-2019	HP10304 †††	DC	Inside	Yes	2½ Hrs	HP10000D
TRANSIT 350 (2WD) <i>Will not fit 350HD or DRW vehicles</i>	2015-2019	HP10307	DC	Inside	No	2½ Hrs	HP10000D

Ford F-450

F-450 SUPER DUTY (2WD)	2011-2014	HP10194 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-450 SUPER DUTY (4WD)	2011-2014	HP10193 †††	DC	Inside	No ♦	4 Hrs	HP10000D
F-450 SUPER DUTY (2WD/4WD)	2008-2010	HP10187 †††	DC	Inside	No	4 Hrs	HP10000D
F-450 SUPER DUTY (2WD/4WD)	2015-2016	HP10195 †††	DC	Inside	No	3 Hrs	HP10000D
F-450 SUPER DUTY (4WD)	2017-2019	HP10304 †††	DC	Inside	Yes	2½ Hrs	HP10000D
F-450 SUPER DUTY (2WD/4WD) COMMERCIAL CAB & CHASSIS	2012-2019	HP10324	DC	Outside	Yes	3 Hrs	HP10068

Ford F-550

F-550 SUPER DUTY (2WD/4WD) COMMERCIAL CAB & CHASSIS	2012-2019	HP10324	DC	Outside	Yes	3 Hrs	HP10068
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	REPLACEMENT AIR SPRING		AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
	VEHICLE MODIFICATION REQUIRED		SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
** WILL ONLY FIT WITH STOCK WHEELS AND TIRES	†† HP10070 KITS FIT WITH A DRAW TITE 15000 5th WHEEL HITCH
*** FOR 'C' CHANNEL FRAMES	††† FOR ALL TRUCKS, INCLUDING THOSE WITH 5th WHEEL HITCHES. NOT FOR CHASSIS CAB TRUCKS
**** FOR HYDRO FORMED FRAMES	‡ THE HP10002 KITS FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 4WD VEHICLES
◆ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	‡‡ THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
△ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	◆ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH



MODEL	YEAR	KIT #	S	FRAME MOUNT			
FREIGHTLINER							
SPRINTER, 2500 (2WD)	2007-2014	HP10147	DC	Inside	Yes	3 Hrs	HP10000D
MAZDA							
MAZDA PICK-UPS (2WD / 4WD) <small>Will only fit with stock wheels and tires</small>	1998-2010	HP10019 †	DC	Outside	Yes	3 Hrs	HP10000D
MERCEDES							
SPRINTER, 2500 (2WD)	2010-2014	HP10147	DC	Inside	Yes	3 Hrs	HP10000D
NISSAN							
TITAN (2WD / 4WD)	2004-2015	HP10222	DC	Inside	Yes	2 Hrs	HP10000D
STERLING							
BULLET 4500, BULLET 5500 (2WD / 4WD) CHASSIS CAB	2007-2009	HP10121	DC	Inside	No	3 Hrs	HP10068
TOYOTA							
Toyota Tacoma ALL TOYOTA KITS REQUIRE A MINIMUM OF 5" BETWEEN THE TIRE AND FRAME AND WILL ONLY FIT WITH STOCK WHEELS AND TIRES 1995-2004. THIS DOES NOT APPLY TO HP10311.							
TOYOTA TACOMA (4WD)	1995-2004	HP10191	SS	Outside	Yes	3 Hrs	HP10173
TOYOTA TACOMA (4WD)	2005-2014	HP10165	SS	Outside	No	3 Hrs	HP10199
TOYOTA TACOMA (4WD)	2005-2019	HP10311	SC	Inside	No	2½ Hrs	HP10083
TOYOTA TACOMA PRERUNNER (2WD)	2005-2019	HP10311	SC	Inside	No	2½ Hrs	HP10083
TOYOTA TACOMA (4WD)	2005-2019	HP10328	SS	Outside	No	2½ Hrs	HP10001
TOYOTA TACOMA PRERUNNER (2WD)	2005-2019	HP10328	SS	Outside	No	2½ Hrs	HP10001
Toyota Tundra ALL TOYOTA KITS REQUIRE A MINIMUM OF 5" BETWEEN THE TIRE AND FRAME AND WILL ONLY FIT WITH STOCK WHEELS AND TIRES 1995-2004							
TOYOTA TUNDRA (2WD / 4WD)	2001-2006	HP10126	SC	Outside	No	2½ Hrs	HP10083
TOYOTA TUNDRA (2WD / 4WD) <small>Trucks in which the upper jounce bumper pad protrudes 1" below the frame</small>	2001-2006	HP10158	SC	Outside	No	2½ Hrs	HP10083
TOYOTA TUNDRA (2WD / 4WD)	2007-2019	HP10128	SC	Outside	No	2½ Hrs	HP10083
UNIVERSAL FIT							
FABRICATORS REAR END SPRINGF (SMALL AIR SPRINGS)	N/A	HP10130	DC	N/A	N/A	N/A	HP10000D
FABRICATORS FRONT AIR SPRING KIT (LARGE AIR SPRINGS)	N/A	HP10086	DC	N/A	N/A	N/A	HP10068

S	REPLACEMENT AIR SPRING	S	AIR SPRING STYLE	DC	DOUBLE CONVOLUTED	SS	SLEEVE STYLE
	VEHICLE MODIFICATION REQUIRED		SUGGESTED INSTALLATION TIME	SC	SINGLE CONVOLUTED	IC	IN-COIL

* THE HP10033 KIT REQUIRES 6" BETWEEN THE TIRE AND FRAME	† HP10019 KITS FIT WITH A REESE 5th WHEEL RAIL KIT (MODELS 30033, 30035 & 30729)
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◆ SEE MANUAL (LINKED TO KIT#) OR CONTACT PACBRAKE FOR SPECIFIC SUB-MODEL APPLICATIONS	‡‡ THE HP10089 KITS WILL NOT FIT WITH THE 3349 & 3319 SUPERGLIDE 5th WHEEL RAIL KITS ON 2WD VEHICLES
△ IF THE FRAME TO AXLE PAD DISTANCE IS 7.25" OR LESS, USE KIT HP10120	◆ DRILLING MAY BE REQUIRED ON TRUCKS WITH AN AFTERMARKET 5th WHEEL HITCH

AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY



PACBRAKE



AMP AIR SPRING SPACERS FOR LIFTED TRUCKS

Pacbrake's air spring spacer kits allow for installation of air springs* on lifted trucks while still keeping them at their lifted height. Made of high quality carbon steel with protective powder coating, Pacbrake spacers have been manufactured for maximum strength and corrosion resistance.









**NOTE: For use only with single or double convoluted air springs*

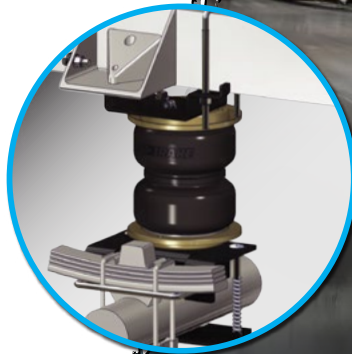


KITS	PART #
2" SPACERS	HP10152
4" SPACERS	HP10154
6" SPACERS	HP10156

AMP WIRELESS CONTROLS

AMP Wireless Air Spring Controls give you the ability to adjust your air spring pressure with your phone. It is the perfect means to control your vehicle's air suspension system, giving you the freedom to adjust your air springs from both inside and outside of the vehicle.

-  **Adjust your air springs independently to accommodate different loads and road conditions**
-  **The App has 3 built-in memory settings for customized adjustments and reads real time pressure feedback**
-  **Military grade robust pneumatic solenoids designed to withstand extreme environments**
-  **IP67 rated controller that is waterproof and debris resistant**
-  **Easily serviceable parts with replaceable components that are simple to access**
-  **Pre-assembled plug and play harnesses for quick and effortless install**
-  **1 Hour Install with common mechanic tools
No drilling required**
-  **Universal fit – Fits the frame of any vehicle and works with any air spring or onboard air system**



WHO NEEDS ANOTHER REMOTE?
CONTROL YOUR AIR SPRINGS
 FROM YOUR PHONE! TRY OUR AMP WIRELESS APP

AMP WIRELESS CONTROLS AIR BOARD ASSEMBLY

Comes complete with everything required for install:
 Air lines, connectors & mounting hardware.

Proudly made in Canada. 🍁



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

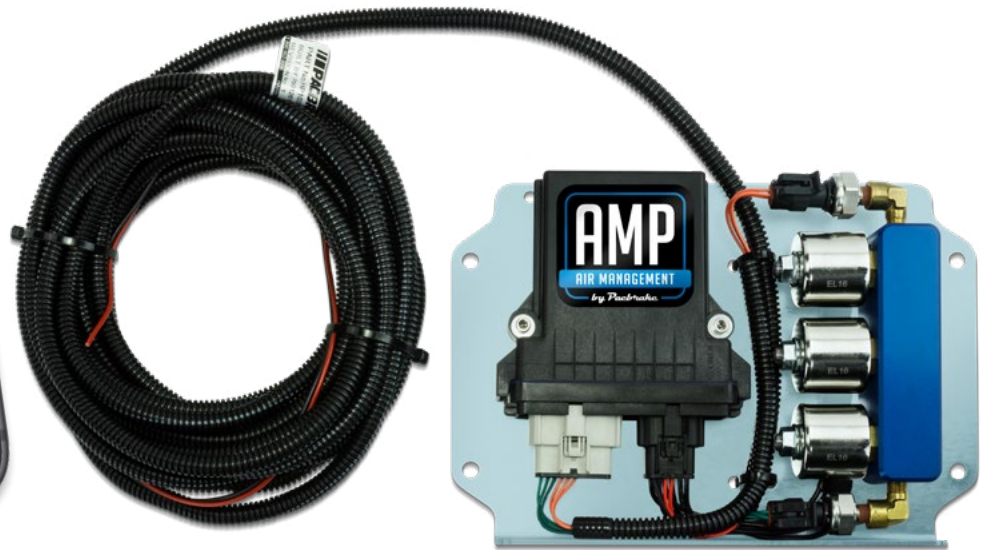
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*Smartphone not included in the kit

Wireless Air Spring Controls



AMP Wireless Air Spring Controls give you the ability to adjust your air spring pressure from your phone, with the touch of a button. No more fiddling around with an air chuck and pressure gauge, no more running wires or drilling holes through your vehicle's dash and no more plastic remotes.



NOTE: Phone is not included

WIRELESS AIR SPRING CONTROLS

Who needs another remote control? AMP Wireless Air Spring Controls give you the ability to adjust your air spring pressure from your phone with the touch of a button. It is the perfect means to control your vehicle's air suspension system. Adjust your air springs independently from inside and outside of the vehicle.

HP10316 - for ANDROID
HP10325 - for iOS

WIRELESS AIR SPRING CONTROLS (INDEPENDENT ACTIVATION)

THE KIT COMES WITH EVERYTHING REQUIRED FOR INSTALL

- AMP Wireless Controls air board assembly (controller, solenoid block, pressure sensors and harnesses)
- Phone app
- Airlines, pressure connectors and mounting hardware
- Proudly made in Canada, the AMP Wireless Controls come with a 2 year warranty.*

*Refer warranty terms and conditions for additional details.

NOTE: This kit is for vehicles that already have an onboard air system.



SPECIFICATIONS	
MAXIMUM AIR PRESSURE	150 psi (gauge) [10.3 bar]
CONTINUOUS AIR TEMPERATURE	-40°F to +248°F [-40°C to +85°C]
AMBIENT TEMPERATURE RANGE	-40°F to +248°F [-40°C to +85°C]
SUPPLY VOLTAGE	12 VDC Switched Ignition (HP10316) 12 VDC Nominal (9V - 14.5V) (HP10325)
CURRENT DRAW (STANDBY MODE)	35 mA (HP10316), 30 mA (HP10325)
CURRENT DRAW (BLUETOOTH CONN.)	80 mA (HP10316), 40 mA (HP10325)
CURRENT DRAW (SOLENOIDS)	1.5A ea.
MOBILE DEVICE OPERATING SYSTEM	Android 4.2 or Newer (Jellybean) Apple™ iOS 10.3 or newer
PRESSURE FEEDBACK UNITS	PSI
PRESSURE FEEDBACK ACCURACY	±1
INGRESS PROTECTION (WEATHERPROOF)	IP67 Controller and Connectors
MAXIMUM FRAME SIZE** (WXH)	4.750 x 9.125" [120 x 232 mm]

** Frame size refers to the cross sectional dimensions of the frame. At the time of this release, 4.750" x 9.125" is sufficient for any pickup truck currently on the market.

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AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

Quick & Effortless Inflation Power



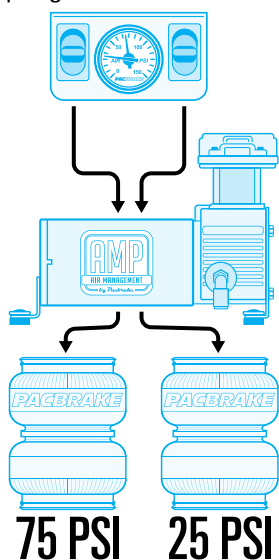
IN-CAB CONTROLS SYSTEMS

Operate your Air Springs (or other pneumatic accessories) right from the driver's seat with AMP In-Cab Controls

ACTIVATION OPTIONS:

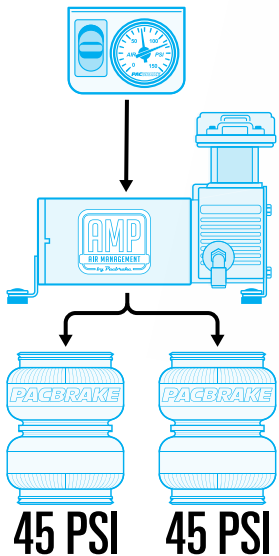
INDEPENDENT ACTIVATION

Inflation is achieved with two separate switches, allowing for individual inflation / deflation of air springs



SIMULTANEOUS ACTIVATION

Inflation is achieved with one switch that inflates / deflates both air springs at the same time.



PERFECT FOR A MULTITUDE OF AIR APPLICATIONS!



ELECTRICAL IN-CAB CONTROL

Featuring a digital gauge or back-lit (dual or single) needle gauge, an ON/OFF compressor switch(es), inflation/deflation switch(es) for the air springs. Choose between simultaneous or independent air spring inflation.

In addition to a stackable solenoid block, each kit comes complete with a nylon hose, wire, fittings, fasteners, electrical terminals and in-line fuse holders.



PADDLE VALVE IN-CAB CONTROLS

An economical option for operating air springs with inflation/deflation switch(es) that attach directly to the HP325 series compressor and the air springs. Choose between simultaneous or independent air spring inflation. Available with a digital gauge or a back-lit needle gauge.

AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

Mechanical In-Cab Controls



Set your ride height from the comfort of your driver's seat with AMP's in-cab controls. Take your towing, hauling, 4x4ing and all other onboard air management to the next level.



PREMIUM IN-CAB CONTROL KITS - MECHANICAL GAUGE

In-cab control kits come with everything you need to operate your air springs (or other pneumatic accessories) from the driver's seat. Various dash activation switch kits are available depending on your air spring operation requirements. 'Independent' inflation is achieved with 2 separate switches, allowing inflation/deflation of each air spring individually. 'Simultaneous' inflation uses a single switch that inflates/deflates both air springs at the same time.



HP10135

AIR SPRING DASH SWITCH (SIMULTANEOUS ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air tank options: - ½ gallon air tank (HP10053)
 - 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
 HP10110 is for 105-135 psi, HP10111 is for 85-105 psi



HP10098

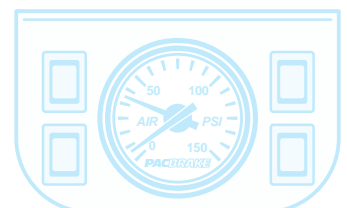
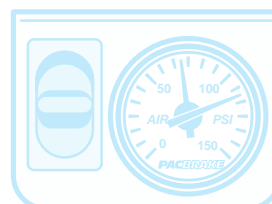
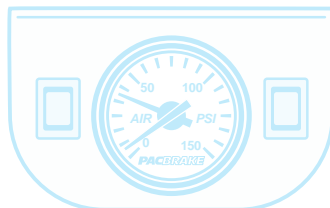
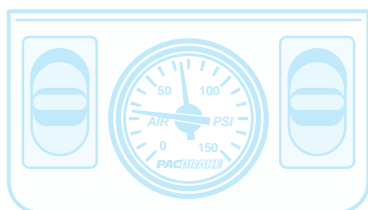
AIR SPRING DASH SWITCHES (INDEPENDENT ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air Tank Options: - ½ gallon air tank (HP10053)
 - 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
 HP10110 is for 105-135 psi, HP10111 is for 85-105 psi



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

ELECTRICAL IN-CAB CONTROL KITS – MECHANICAL GAUGE

(FOR USE WITH EXISTING ONBOARD AIR)

These kits allow operation of your air springs either simultaneously or independently from the comfort of your driver's seat. Featuring back-lit dual needle gauge, an ON/OFF activation switch to control compressor operation, and switch(es) for inflation/deflation of the air springs.

Pacbrake's unique two way solenoid block gives you the option to stack and combine additional blocks to run your vehicle's air accessories from one central block.

In addition to the solenoid block, each kit comes complete with a nylon hose, wire, fittings, fasteners, electrical terminals and in-line fuse holders.



HP10022 SIMULTANEOUS ACTIVATION

SPECIFIC KIT INFO:

- Air spring inflation kit
- 12 VDC electric actuated two-way pneumatic solenoids
- Solenoids are stackable for multi-application use
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system



HP10062 INDEPENDENT ACTIVATION

SPECIFIC KIT INFO:

- Air spring inflation kit
- 12 VDC electric actuated two-way pneumatic solenoids
- Solenoids are stackable for multi-application use
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system

PADDLE VALVE IN-CAB CONTROL KITS – MECHANICAL GAUGE

(FOR USE WITH EXISTING ONBOARD AIR)

An economical option for operating air spring kits with a pneumatic dash switch(es) that attach directly to the tank and the air springs. Choose between simultaneous or independent air spring inflation/deflation.

- Simultaneous inflation is done with a single switch and inflates/deflates both air springs equally, at the same time.
- Independent inflation utilizes 2 separate switches, allowing one to inflate/deflate an air spring individually. Air tank and solenoid blocks are not required for this method of in-cab air control operation, however, should you decide to add an air tank for stored onboard air, you can do so by adding either our 1/2 gallon or 2 1/2 gallon air tank kit (HP10053/HP10050).



HP10133 SIMULTANEOUS ACTIVATION

This HP10133 dash activation kit is designed to integrate in-cab air spring control with a pre-existing air system

Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system.



HP10124 INDEPENDENT ACTIVATION

This HP10124 dash activation kit is designed to intergrate in-cab air spring control with a pre-existing air system

Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system.

Digital In-Cab Controls



AMP digital in-cab control systems display pressure from 0 psi to 220 psi at 1 psi increments. They allow for continuous monitoring and adjusting of air spring pressure. Choose from independent or simultaneous control.

PREMIUM IN-CAB CONTROL KITS - DIGITAL GAUGE

In-cab control kits come with everything you need to operate your air springs (or other pneumatic accessories) from the driver's seat. Various dash activation switch kits are available depending on your air spring operation requirements. 'Independent' inflation allows inflation/deflation of each air spring individually. 'Simultaneous' inflation inflates/deflates both air springs at the same time.



HP10231 AIR SPRING DASH SWITCH (SIMULTANEOUS ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air tank options: – ½ gallon air tank (HP10053)
– 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
HP10110 is for 105-135 psi, HP10111 is for 85-105 psi



HP10256 AIR SPRING DASH SWITCHES (INDEPENDENT ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air Tank Options: – ½ gallon air tank (HP10053)
– 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
HP10110 is for 105-135 psi, HP10111 is for 85-105 psi



HP10274 AIR SPRING DASH SWITCH (SIMULTANEOUS ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air tank options: – ½ gallon air tank (HP10053)
– 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
HP10110 is for 105-135 psi, HP10111 is for 85-105 psi



HP10273 AIR SPRING DASH SWITCHES (INDEPENDENT ACTIVATION)

HP325 AIR COMPRESSOR SPECIFICATIONS:

- 12 VDC
- 33% duty cycle (20 Minutes @ 100 psi), 1.2 CFM
- 150 psi max operating pressure, draws 18 amps

Air Tank Options: – ½ gallon air tank (HP10053)
– 2½ gallon air tank (HP10050)

***NOTE:** If adding an air tank, a pressure switch is required
HP10110 is for 105-135 psi, HP10111 is for 85-105 psi

AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

BASIC ELECTRICAL IN-CAB CONTROL KITS – DIGITAL GAUGE

(FOR USE WITH EXISTING ONBOARD AIR)

These kits allow operation of your air springs either simultaneously or independently from the comfort of your driver's seat. Featuring a digital gauge, an ON/OFF activation switch to control compressor operation, and switch(es) for inflation/deflation of the air springs.

Pacbrake's unique two way solenoid block gives you the option to stack and combine additional blocks to run your vehicle's air accessories from one central block.

In addition to the solenoid block, each kit comes complete with a nylon hose, wire, fittings, fasteners, electrical terminals and in-line fuse holders.



HP10262 SIMULTANEOUS ACTIVATION

SPECIFIC KIT INFO:

- Air spring inflation kit
- 12 VDC electric actuated two-way pneumatic solenoids
- Solenoids are stackable for multi-application use
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system



HP10261 INDEPENDENT ACTIVATION

SPECIFIC KIT INFO:

- Air spring inflation kit
- 12 VDC electric actuated two-way pneumatic solenoids
- Solenoids are stackable for multi-application use
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system

BASIC PADDLE VALVE IN-CAB CONTROL KITS – DIGITAL GAUGE

(FOR USE WITH EXISTING ONBOARD AIR)

An economical option for operating air spring kits with a pneumatic dash switch(es) that attach directly to the tank and the air springs. Choose between simultaneous or independent air spring inflation/deflation.

- Simultaneous inflation is done with a single switch and inflates/deflates both air springs equally, at the same time.
- Independent inflation utilizes 2 separate switches, allowing one to inflate/deflate an air spring individually. Air tank and solenoid blocks are not required for this method of in-cab air control operation, however, should you decide to add an air tank for stored onboard air, you can do so by adding either our 1/2 gallon or 2 1/2 gallon air tank kit (HP10053/HP10050).



HP10281 SIMULTANEOUS ACTIVATION

SPECIFIC KIT INFO:

- Basic kit
- Features digital gauge and paddle Switch
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system



HP10272 INDEPENDENT ACTIVATION

SPECIFIC KIT INFO:

- Air spring inflation kit
- 12 VDC electric actuated two-way pneumatic solenoids
- Solenoids are stackable for multi-application use
- Use this kit in conjunction with one of our air tank kits and air compressor kits to build your own customizable onboard air system

Additional quality air products from a name you trust

Pacbrake's AMP line offers a growing range of dependable air management products and customizable air management system solutions for your vehicle.



ONBOARD AIR SYSTEMS



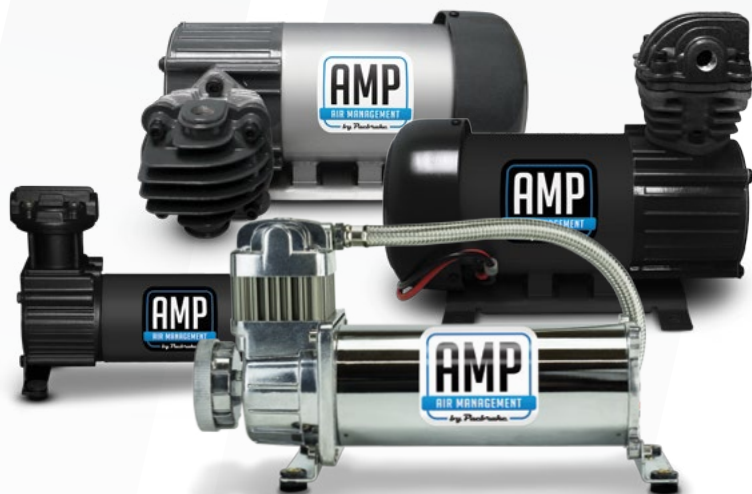
AMP AIR COMPRESSORS

HP325 SERIES - Our 1/4 HP AMP air compressors have a 33% duty cycle (20 minutes @ 100 psi) and are offered in both 12 and 24 VDC.

HP425 SERIES - Our 1/4 HP AMP air compressors have a 50% duty cycle (30 minutes on / 30 minutes off) and are offered in 12 VDC.

HP625 SERIES - Our 3/4 HP AMP air compressors have a 100% duty cycle (1 Hour @ 100 psi) and are offered in two pump head configurations: vertical (available in 12 and 24 VDC) & horizontal (12 VDC).

All AMP compressors have a max working pressure of 150 psi and are an oil-less design. They contain sealed bearings, a PTFE piston ring & a copper wire wound permanent magnet motor.



AMP AIR TANKS

Available in three air tank sizes:

1/2 gallon (C11940), 2 1/2 gallon (HP10013) and 5 gallon (HP10014).

Choose from polished aluminum or steel tanks. All of our steel air tanks are painted and have a rust inhibitor internally applied. Each tank meets ASME specifications and has a maximum working pressure of 150 psi (steel) or 200 psi (aluminum). Multiple NPT ports are provided for auto drains and various air accessories.

All of our air tank kits have welded on mounting brackets. Kits include a 25 ft coiled air hose & accessories.



*Quick & Effortless
Inflation Power*

PERFECT FOR A MULTITUDE OF AIR APPLICATIONS!

AIR SUSPENSION



AIR HORNS



INFLATABLES



FLAT TIRES



SMALL AIR TOOLS



HP325 SERIES ONBOARD AIR KITS

AMP onboard air systems are all 33% duty cycle (20 minutes @ 100 psi) and increase air volume depending on the tank size (for compressed air storage).

Each onboard air system comes complete with compressor, air tank, fittings, pressure switch, relay(s), electrical connectors and all applicable accessories.



HP10163 ONBOARD AIR KIT (WITH 1/2 GALLON AIR TANK)

Compressor Model: HP10143 (12 VDC)

KIT INCLUDES:

- 1/2 Gallon Air Tank (C11940)
- Curly Hose Air Accessory Kit (C11657)
- All necessary wiring, harnesses, fittings and fasteners



HP10164 ONBOARD AIR KIT (WITH 2 1/2 GALLON AIR TANK)

Compressor Model: HP10143 (12 VDC)

KIT ALSO INCLUDES:

- 2 1/2 Gallon Air Tank (HP10013)
- Curly Hose Air Accessory Kit (C11657)
- All necessary wiring, harnesses, fittings and fasteners

HP325 SERIES AIR COMPRESSOR KITS

Pacbrake's HP325 series AMP air compressors have a 33% duty cycle (20 minutes @ 100 psi) and are offered in both 12 and 24 VDC. These 1/4 horsepower compressors have an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a hard anodized aluminum sleeve.

The Premium Air Compressor Kit offers pre-built wiring harnesses for the ultimate ease of installation.

- Sealed bearings
- Cast aluminum cylinder head
- Hard anodized aluminum cylinder
- PTFE piston ring
- Mountable in any orientation



HP10066 PREMIUM KIT 12VDC KIT

Compressor Model: HP10143 (12 VDC)

Compressor Size: 8.7" x 4" x 6.2" (LxWxH)

221 mm x 102 mm x 158 mm

Compressor Weight: 5.5 lbs [2.5 kg]



HP10142 BASIC 12VDC KIT

HP10151 BASIC 24VDC KIT

Compressor Model: HP10143 (12 VDC)

HP10139 (24 VDC)

Compressor Size: 8.7" x 4" x 6.2" (LxWxH)

221 mm x 102 mm x 158 mm

Compressor Weight: 5.5 lbs [2.5 kg]



HP10142-B BASIC 12VDC BLACK KIT

Compressor Model: HP10143-B (12 VDC)

Compressor Size: 8.7" x 4" x 6.2" (LxWxH)

221 mm x 102 mm x 158 mm

Compressor Weight: 5.5 lbs [2.5 kg]

Compressor Kits

HP625 SERIES AIR COMPRESSOR KITS

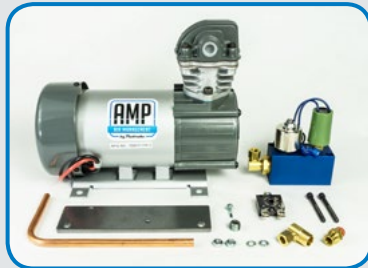
Pacbrake offers various kit options for the HP625 air compressor. The 'premium' kits come complete with pre-built wiring harnesses, for the ultimate ease of installation. All kits include an unloader block, which is required for the HP625 series air compressor when used with an air tank.



HP10631
BASIC 12 VDC (H)
 Head Configuration: Horizontal
 Compressor Model: HP10625H
 Compressor Size (LxWxH)
 11.5" x 9.5" x 6"
 [293 mm x 242 mm x 153 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10628
PREMIUM 12 VDC KIT (H)
 Head Configuration: Horizontal
 Compressor Model: HP10625H
 Compressor Size (LxWxH)
 11.5" x 9.5" x 6"
 [293 mm x 242 mm x 153 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10632
BASIC 12 VDC (V)
 Head Configuration: Vertical
 Compressor Model: HP10625V
 Compressor Size (LxWxH)
 11.5" x 6" x 9.5"
 [293 mm x 153 mm x 242 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10629
PREMIUM 12 VDC KIT (V)
 Head Configuration: Vertical
 Compressor Model: HP10625V
 Compressor Size (LxWxH)
 11.5" x 6" x 9.5"
 [293 mm x 153 mm x 242 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10633
BASIC 24 VDC (V)
 Head Configuration: Vertical
 Compressor Model: HP10625V-24
 Compressor Size (LxWxH)
 11.5" x 6" x 9.5"
 [293 mm x 153 mm x 242 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10630
PREMIUM 24 VDC KIT (V)
 Head Configuration: Vertical
 Compressor Model: HP10625V-24
 Compressor Size (LxWxH)
 11.5" x 6" x 9.5" (LxWxH)
 [293 mm x 153 mm x 242 mm]
 Compressor Weight: 18.5 lbs [8.4 kg]



HP10116 (12 VDC)
HP10116-24 (24 VDC)
UNLOADER ASSEMBLY
 (FOR USE WITH TANKS)
 The HP625 series compressor requires the use of an unloader assembly when used with an air tank



HP10115
OPTIONAL AIR INTAKE KIT
 HP10115 is designed for compressor installations with significant exposure to the elements

COMPRESSOR MOUNTING BRACKETS

These Universal Brackets can be mounted anywhere to keep your AMP compressor safe and stable



HP10204
COMPRESSOR BRACKET - HP325 SERIES
 Universal Brackets: Mount Anywhere
 Size: 5.5" x 5.125" x 12" [140 mm x 130 mm x 305 mm] (LxWxH)
 Weight: 4.1 lbs [1.86 kg]
 Material: Zinc Plated Carbon Steel
 Compressor Sold Separately



HP10205
COMPRESSOR BRACKET - HP625 SERIES
 Universal Brackets: Mount Anywhere
 Size: 6.125" x 7.25" x 12.25" [156 mm x 184 mm x 311 mm] (LxWxH)
 Weight: 5.6 lbs [2.54 kg]
 Material: Zinc Plated Carbon Steel
 Compressor Sold Separately

AIR TANK: KITS & ACCESSORIES

Working in conjunction with air compressors, air tanks store the compressed air and hold it until it is required. Storing compressed air allows for quicker product activation, especially when operating more than one product simultaneously. Pacbrake offers three air tank sizes to meet everyone's needs: a ½ gallon tank, a 2½ gallon tank and a 5 gallon tank. Each premium air tank kit comes complete with an air tank, mounting fasteners, airline, fittings, air accessories, an air nozzle and more.

PREMIUM STEEL AIR TANK KITS



HP10053
½ GALLON AIR TANK KIT
TANK SPECIFICS (C11940):
Ports: 2 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 6.4" x 5.5" x 6.5" (LxWxH)
 [163 mm x 140 mm x 152 mm]
Weight: 3.4 lbs [1.54 kg]
Welded on Mounting Brackets



HP10051
5 GALLON AIR TANK KIT
TANK SPECIFICS (HP10014):
Ports: 5 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 24.0" x 9.9" x 11.0" (LxWxH)
 [610 mm x 251 mm x 279 mm]
Weight: 17.8 lbs [8.07 kg]
Welded on Mounting Brackets
** Not approved for use with an HP325 AMP series compressor*



HP10050
2½ GALLON AIR TANK KIT
TANK SPECIFICS (HP10013):
Ports: 5 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 21.0" x 6.9" x 8.9" (LxWxH)
 [533 mm x 175 mm x 203 mm]
Weight: 9.8 lbs [4.45 kg]
Welded on Mounting Brackets

BASIC STEEL AIR TANK KITS



HP10093
2½ GALLON AIR TANK KIT
TANK SPECIFICS (HP10013):
Ports: 5 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 21.0" x 6.9" x 8.9" (LxWxH)
 [533 mm x 175 mm x 203 mm]
Weight: 9.8 lbs [4.45 kg]
Welded on Mounting Brackets



HP10094
5 GALLON AIR TANK KIT
TANK SPECIFICS (HP10014):
Ports: 5 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 24.0" x 9.9" x 11.0" (LxWxH)
 [610 mm x 251 mm x 279 mm]
Weight: 17.8 lbs [8.07 kg]
Welded on Mounting Brackets
** Not approved for use with an HP325 series compressor*

ACCESSORY KITS



C11657
AIR TANK CURLY HOSE & ACCESSORY KIT
 A 25' curly hose with an assortment of accessories is easily stored in a heavy duty nylon bag. Just attach the curly hose to the quick disconnect chuck off of the air compressor (external air source) and perform a variety of jobs including: inflating tires, air mattresses, footballs, beach toys and blowing air (for cleaning, dusting, quick removal of debris) as well as checking air pressure



HP10302
AIR SPRING ACCUMULATOR TANK KIT
 This kit increases the volume of your air spring system and reduces the harsh ride associated with some air springs
TANK SPECIFICS (C11940):
Ports: 2 x ¼" (-4) NPT
Rust Inhibitor: Applied to inside of tank
Max Working Pressure: 150 psi
Size: 6.4" x 5.5" x 6.5" (LxWxH)
 [163 mm x 140 mm x 152 mm]
Weight: 3.4 lbs [1.54 kg]
Welded on Mounting Brackets



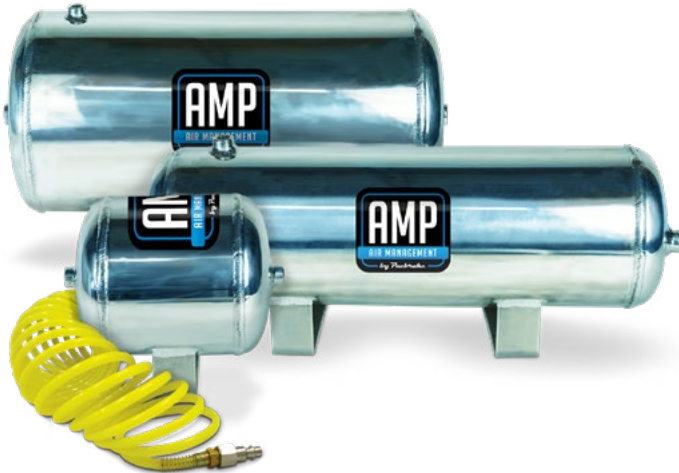
AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY



ALUMINUM AIR TANK KITS

AMP's polished aluminum tanks are made with less corrosive and lighter material than the standard steel tanks. These tanks also work in conjunction with air compressors to store the compressed air and hold it until it is required. This allows for quicker activation, especially when operating more than one product simultaneously. Pacbrake offers three air tank sizes: a ½ gallon tank, a 2½ gallon tank and a 5 gallon tank. Each premium air tank kit comes complete with an air tank, mounting fasteners, airline, fittings, air accessories, an air nozzle and more.

PREMIUM ALUMINUM AIR TANK KITS



HP10266
½ GALLON AIRTANK KIT
TANK SPECIFICS (HP10257):
Ports: 2 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 8.4" x 5.9" x 7.1" (LxWxH)
 [213.05 mm x 150 mm x 180 mm]
Weight: 1.98 lbs [0.9 kg]
Welded on Mounting Brackets



HP10268
5 GALLON AIRTANK KIT
TANK SPECIFICS (HP10259):
Ports: 2 x ¾" (-6) NPT
 2 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 20.1" x 9.2" x 10.3" (LxWxH)
 [510 mm x 234 mm x 262 mm]
Weight: 7.9 lbs [3.6 kg]
Welded on Mounting Brackets
** Not approved for use with an HP325 AMP series compressor*



HP10267
2 ½ GALLON AIRTANK KIT
TANK SPECIFICS (HP10258):
Ports: 6 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 23.3" x 5.9" x 7.3" (LxWxH)
 [592 mm x 150 mm x 186 mm]
Weight: 4.9 lbs [2.2 kg]
Welded on Mounting Brackets

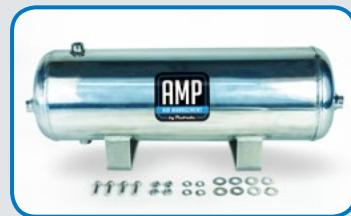
BASIC ALUMINUM AIR TANK KITS



HP10263
½ GALLON AIRTANK KIT
TANK SPECIFICS (HP10257):
Ports: 2 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 8.4" x 5.9" x 7.1" (LxWxH)
 [213.05 mm x 150 mm x 180 mm]
Weight: 1.98 lbs [0.9 kg]
Welded on Mounting Brackets



HP10265
5 GALLON AIRTANK KIT
TANK SPECIFICS (HP10259):
Ports: 2 x ¾" (-6) NPT
 2 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 20.1" x 9.2" x 10.3" (LxWxH)
 [510 mm x 234 mm x 262 mm]
Weight: 7.9 lbs [3.6 kg]
Welded on Mounting Brackets
** Not approved for use with an HP325 AMP series compressor*



HP10264
2 ½ GALLON AIR TANK KIT
TANK SPECIFICS (HP10258):
Ports: 6 x ¼" (-4) NPT
Max Working Pressure: 200 psi
Size: 23.3" x 5.9" x 7.3" (LxWxH)
 [592 mm x 150 mm x 186 mm]
Weight: 4.9 lbs [2.2 kg]
Welded on Mounting Brackets

SINGLE CONVOLUTED AIR SPRING

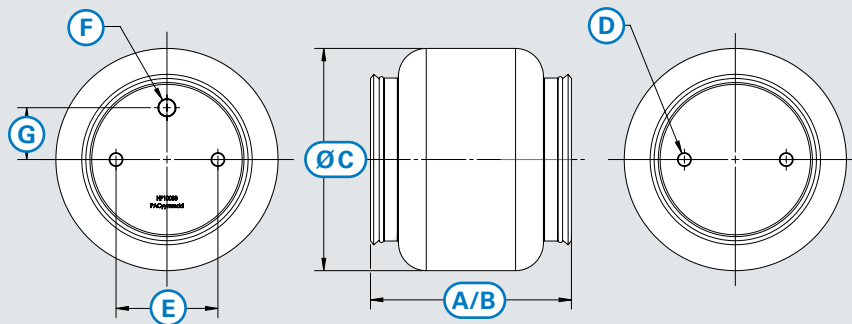
- 6061-T6 aluminum black anodized end caps
- Nylon reinforced rubber air spring
- 20 reinforcement wires



HP10083

- A Working Height:** 1.9" to 7.1" [48.3 mm to 180.3 mm]
- B Free Height:** 5.43" [137.8 mm]
- C Maximum Diameter:** 7" [177.8 mm]
- D Mounting Hole Callout:** 4 x 3/8" - 24
- E Mounting Hole Spacing:** 2 x 2.75" [69.9 mm]
- F Port Callout:** 1/4" (-4) NPT
- G Port Spacing:** 1.40" [35.6 mm]

SPECIFICATIONS	
CLEARANCE:	.5" [12.7 mm] radial clearance required around air spring to avoid abrasion or puncture
INFLATION PRESSURE:	5 psi to 100 psi [34.5 kPa to 690 kPa] <i>Note: maintain a minimum of 5 psi [34 kPa] in air springs at all times</i>
MAXIMUM WORKING LOAD:	2446 lbf [10.9 kN]
WORKING TEMPERATURE RANGE:	-40°F to 158°F [-40°C to 70°C]



DOUBLE CONVOLUTED AIR SPRING

- 6061-T6 aluminum black anodized end caps
- Nylon reinforced rubber air spring
- 20 reinforcement wires



HP10000D

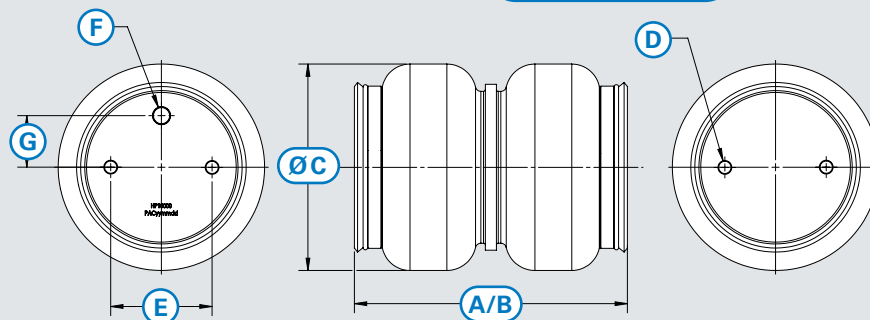
- A Working Height:** 3.0" to 8.4" [76.2 mm to 213.4 mm]
- B Free Height:** 7.41" [188.1 mm]
- C Maximum Diameter:** 6.30" [160 mm]
- D Mounting Hole Callout:** 4 x 3/8" - 24
- E Mounting Hole Spacing:** 2 x 2.75" [69.9 mm]
- F Port Callout:** 1/4" (-4) NPT
- G Port Spacing:** 1.40" [35.6 mm]



HP10068

- A Working Height:** 2.9" to 9.5" [73.7 mm to 241.3 mm]
- B Free Height:** 7.35" [186.7 mm]
- C Maximum Diameter:** 7.24" [184 mm]
- D Mounting Hole Callout:** 4 x 3/8" - 24
- E Mounting Hole Spacing:** 2 x 2.75" [69.9 mm]
- F Port Callout:** 3/8" (-6) NPT
- G Port Spacing:** 1.40" [35.6 mm]

SPECIFICATIONS	
CLEARANCE:	.5" [12.7 mm] radial clearance required around air spring to avoid abrasion or puncture
INFLATION PRESSURE:	5 psi to 100 psi [34.5 kPa to 690 kPa] <i>Note: maintain a minimum of 5 psi [34 kPa] in air springs at all times</i>
MAXIMUM WORKING LOAD:	HP10000 – 2446 lbf [10.9 kN] HP10068 – 2660 lbf [11.8 kN]
WORKING TEMPERATURE RANGE:	-40°F to 158°F [-40°C to 70°C]

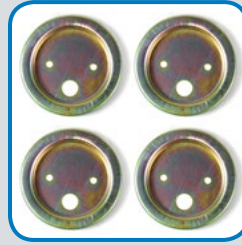
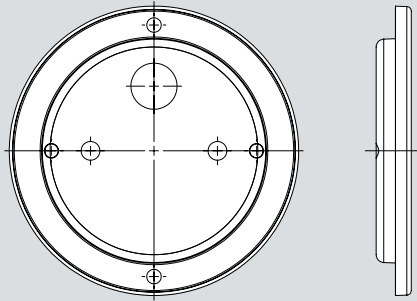


Air Spring Specifications

ROLL PLATES

Note: For use with double convoluted air springs

- Provides a landing surface when bellows roll over end-caps during compression
- .075" [2 mm] thick carbon steel
- Electroplated for corrosion resistance



HP10054

For use with Air Springs: HP10000D
HP10083



HP10069

For use with Air Springs: HP10068

SPACER KITS

NOTE: For use with double and single convoluted air springs

- Install with air springs to add additional height for "lifted" vehicles
- Bolt pattern compatible with all single and double convoluted AMP air springs
- Powder coated low carbon steel construction
- .120" tube, .250" plate, .200" welds
- Mounting hardware included



HP10156

6" SPACER

A Height: 6" [152.4 mm]
B Diameter: 4" [101.6 mm]
C Mounting Hole Callout: 2 x 3/8"-24 thru
D Mounting Hole Callout: 2 x 7/16" thru



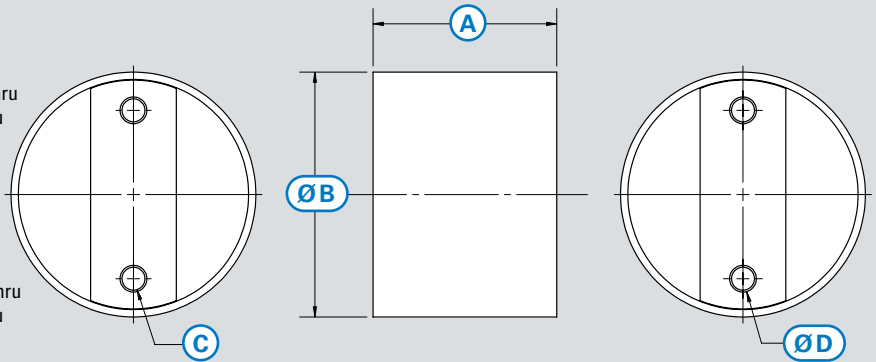
HP10152
2" SPACER

A Height: 2" [50.8 mm]
B Diameter: 4" [101.6 mm]
C Mounting Hole Callout: 2 x 3/8"-24 thru
D Mounting Hole Callout: 2 x 7/16" thru



HP10154
4" SPACER

A Height: 4" [101.6 mm]
B Diameter: 4" [101.6 mm]
C Mounting Hole Callout: 2 x 3/8"-24 thru
D Mounting Hole Callout: 2 x 7/16" thru



HARDWARE

- Hex head and carriage bolts - Grade 5 strength equivalence (where applicable), zinc chromate plated
- Flat head and button head cap screws - ASME B18.3, ASTM F835, black phosphate
- U-bolts - Grade 2 strength equivalence, zinc chromate plated

AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

SLEEVE STYLE AIR SPRING

- 6061-T6 aluminum black anodized end caps
- Nylon reinforced rubber air spring

SPECIFICATIONS

CLEARANCE:	.5" [12.7 mm] radial clearance required around air spring to avoid abrasion or puncture
INFLATION PRESSURE:	5 psi to 100 psi [34.5 kPa to 690 kPa] <i>Note: maintain a minimum of 5 psi [34 kPa] in air springs at all times</i>
MAXIMUM WORKING LOAD:	900 lbf [4 kN]
WORKING TEMPERATURE RANGE:	-40°F to 158°F [-40°C to 70°C]



HP10199

- A Extended Height:** 9.65" [245 mm]
- B Compressed Height:** 2.95" [75 mm]
- C Maximum Diameter:** 5.10" [130 mm]
- D Upper Mounting Thread Callout:** 3/4" - 16
- E Lower Mounting Thread Callout:** 1/2" - 13
- F Port Callout:** 1/8" (-2) NPT



HP10185

- A Extended Height:** 9.88" [251 mm]
- B Compressed Height:** 2.95" [75 mm]
- C Maximum Diameter:** 5.10" [130 mm]
- D Upper Mounting Thread Callout:** 3/4" - 16
- E Lower Mounting Thread Callout:** 1/2" - 13
- F Port Callout:** 1/8" (-2) NPT



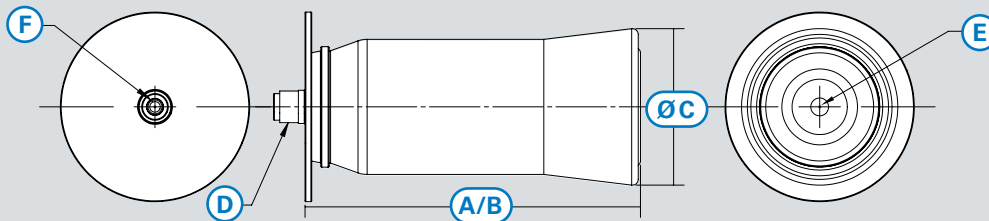
HP10173

- A Extended Height:** 11.73" [298 mm]
- B Compressed Height:** 4.17" [106 mm]
- C Maximum Diameter:** 5.10" [130 mm]
- D Upper Mounting Thread Callout:** 3/4" - 16
- E Lower Mounting Thread Callout:** 1/2" - 13
- F Port Callout:** 1/8" (-2) NPT



HP10001

- A Extended Height:** 13.86" [352 mm]
- B Compressed Height:** 5.16" [131 mm]
- C Maximum Diameter:** 5.10" [130 mm]
- D Upper Mounting Thread Callout:** 3/4" - 16
- E Lower Mounting Thread Callout:** 1/2" - 13
- F Port Callout:** 1/8" (-2) NPT



IN-COIL AIR SPRING

- Grey polyurethane
- Can be folded for insertion between coils

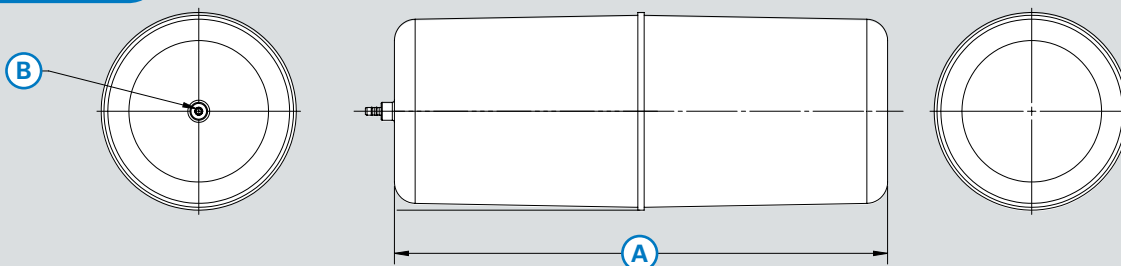


HP10189

- A Free Height:** 11.7" [297.2 mm]
- B Port Callout:** 3/16" [4.8 mm] OD Barb

SPECIFICATIONS

CLEARANCE:	.5" [12.7 mm] radial clearance required around air spring to avoid abrasion or puncture
INFLATION PRESSURE:	5 psi - 35 psi [34.5 kPa to 241 kPa] Maintain a minimum of 5 psi [34 kPa] in air springs at all times
MAXIMUM WORKING LOAD:	1,000 lbf [46 kN]
WORKING TEMPERATURE RANGE:	-40°F to 158°F [-40°C to 70°C]



Air Spring Controls Specifications

IN-CAB CONTROL ASSEMBLY – MECHANICAL GAUGE

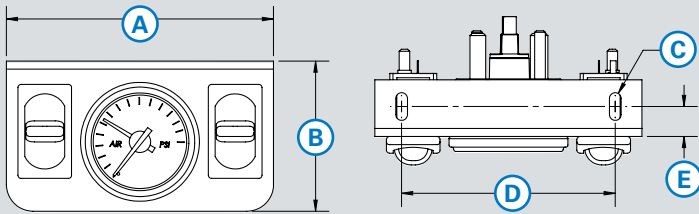
■ Requires a minimum of 6" [101.6mm] clearance behind bracket for routing of air lines

HP0098 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP0096	Bracket – Dual Paddle Valve	1
HP10010	Double Input Needle Gauge	1
HP1204	Paddle Switch	2



HP0098
INDEPENDENT INFLATION
 DUAL INPUT, DUAL PADDLE VALVE
A: 5.00" [127.0mm]
B: 2.81" [71.4mm]
C: .22" x .52" [5.6mm x 13.2mm]
D: 4" [101.6mm]
E: .56" [14.26mm]

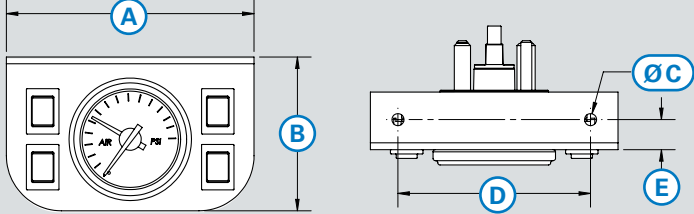


HP0084 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP1158	Bracket – Quadruple Electrical Switch	1
HP10010	Double Input Needle Gauge	1
HP1039	3-Way Electrical Switch	2
HP1127	2-Way Electrical Switch	2



HP0084
INDEPENDENT INFLATION
 DUAL INPUT, QUADRUPLE ELECTRICAL SWITCH
A: 4.5" [114.3mm]
B: 2.8" [71.0mm]
C: .22" [5.6mm]
D: 3.5" [88.9mm]
E: .55" [13.85mm]

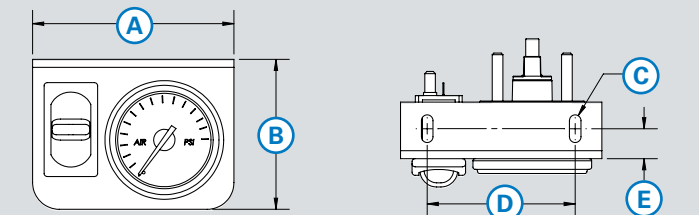


HP0117 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP0097	Bracket – Single Paddle Valve	1
HP20520	Single Input Needle Gauge	1
HP1204	Paddle Switch	1



HP0117
SIMULTANEOUS INFLATION
 SINGLE INPUT, SINGLE PADDLE VALVE
A: 3.78" [95.9mm]
B: 2.81" [71.4mm]
C: .22" x .52" [5.6mm x 13.2mm]
D: 2.78" [70.49mm]
E: .56" [14.26mm]

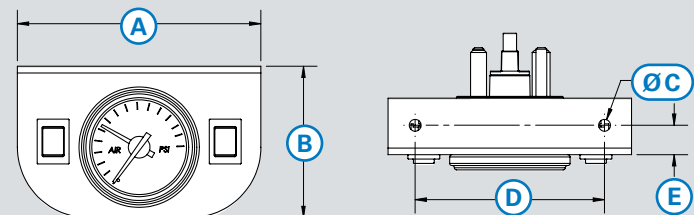


HP0089 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP1157	Bracket – Dual Electrical Switch	1
HP20520	Single Input Needle Gauge	1
HP1039	3-Way Electrical Switch	1
HP1127	2-Way Electrical Switch	1



HP0089
SIMULTANEOUS INFLATION
 DUAL INPUT, DUAL ELECTRICAL SWITCH
A: 4.5" [114.3mm]
B: 2.8" [71.0mm]
C: .22" [5.6mm]
D: 2.07" [52.6mm]
E: .55" [13.85mm]



IN-CAB CONTROL ASSEMBLY – DIGITAL GAUGE

■ Requires a minimum of 6" [101.6mm] clearance behind bracket for routing of air lines

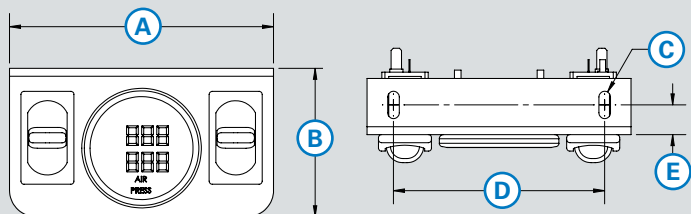
GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP0096	Bracket – Dual Paddle Valve	1
HP10218	Digital Air Gauge	1
HP1204	Paddle Switch	2



INDEPENDENT INFLATION DUAL INPUT, DUAL PADDLE VALVE (ORDER PARTS SEPARATELY)

- A: 5.00" [127.0mm]
- B: 2.81" [71.4mm]
- C: .22" x .52" [5.6mm x 13.2mm]
- D: 4" [101.6mm]
- E: .56" [14.26mm]



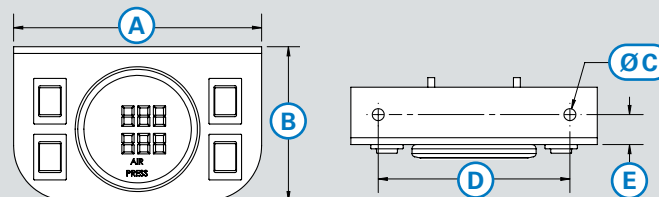
HP10269 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP1158	Bracket – Quadruple Electrical Switch	1
HP10275	Digital Air Gauge	1
HP1039	3-Way Electrical Switch	2
HP1127	2-Way Electrical Switch	2



HP10269 INDEPENDENT INFLATION DUAL INPUT, QUADRUPLE ELECTRICAL SWITCH

- A: 4.5" [114.3mm]
- B: 2.8" [71.0mm]
- C: .22" [5.6mm]
- D: 3.5" [88.9mm]
- E: .55" [13.85mm]



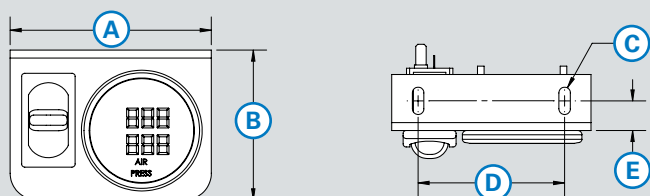
GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP0097	Bracket – Single Paddle Valve	1
HP10218	Digital Air Gauge	1
HP1204	Paddle Switch	1



SIMULTANEOUS INFLATION SINGLE INPUT, SINGLE PADDLE VALVE (ORDER PARTS SEPARATELY)

- A: 3.78" [95.9mm]
- B: 2.81" [71.4mm]
- C: .22" x .52" [5.6mm x 13.2mm]
- D: 2.78" [70.49mm]
- E: .56" [14.26mm]



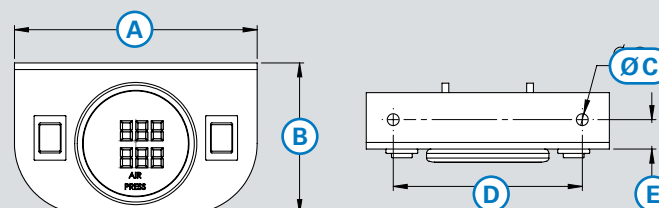
HP10280 GAUGE ASSEMBLY CONTENTS

PART #	DESCRIPTION	QUANTITY
HP1157	Bracket – Dual Electrical Switch	1
HP10275	Digital Air Gauge	1
HP1039	3-Way Electrical Switch	1
HP1127	2-Way Electrical Switch	1



HP10280 SIMULTANEOUS INFLATION DUAL INPUT, DUAL ELECTRICAL SWITCH

- A: 4.5" [114.3mm]
- B: 2.8" [71.0mm]
- C: .22" [5.6mm]
- D: 2.07" [52.6mm]
- E: .55" [13.85mm]



Air Spring Controls Specifications

MECHANICAL AIR GAUGES

- Air pressure shown from 0 psi to 150 psi in 10 psi increments – numeric markings at 0, 50, 100 & 150 psi
- Black bezel, white dial face
- Available with single input (single needle), or dual input (dual needle)
- Installation hole $\varnothing 2\text{-}1/16"$ [$\varnothing 52.5$ mm] (Gauge body min 2", bezel max 2.2")
- Mounting hardware provided



HP10010 DUAL NEEDLE

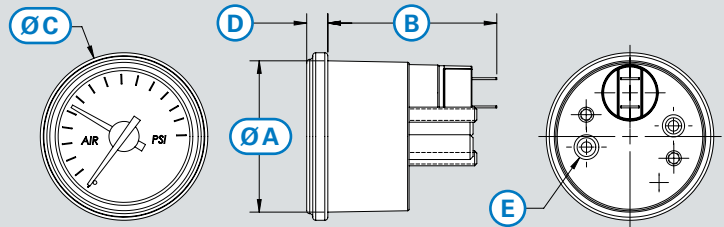
- A: 2.01" [51.1 mm]
- B: 2.25" [57 mm]
- C: 2.23" [56.5 mm]
- D: .28" [7.1 mm]
- E: 2 x 1/8" (-2) NPT Male



HP20520 SINGLE NEEDLE

- A: 2.01" [51.1 mm]
- B: 2.25" [57 mm]
- C: 2.23" [56.5 mm]
- D: .28" [7.1 mm]
- E: 1 x 1/8" (-2) NPT Male

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	0 psi to 150 psi [0 kPa to 1034 kPa]
ACCURACY:	+/- 3 psi [+/- 21 kPa]
WORKING TEMPERATURE RANGE:	-20°F to 175°F [-29°C to 79°C]
VIBRATION:	.030" harmonic motion, 20 Hz to 60 Hz for 1/3 hour per axis
SHOCK:	44 g to 55 g, 9 ms to 13 ms half sine, 25 shocks
HUMIDITY:	48 hours at 95% R.H. and 100°F [38°C]
SALT SPRAY (BEZEL FACE):	ASTM 117, 48 hours



DIGITAL AIR GAUGE KITS

- Pressure shown from 0 psi to 220 psi – 1 psi increments
- 12 VDC supply voltage, 3 A fuse required within 20" [500 mm] of power source
- Black bezel, black face, blue digits – two stage dimming feature – can dim when headlight switch is engaged
- If signal is lost, display will flash as a warning
- Installation hole $\varnothing 2\text{-}1/16"$ [$\varnothing 52.5$ mm]
- 24" [600 mm] wire pigtail extending from gauge
- EMC Tested – CE certified



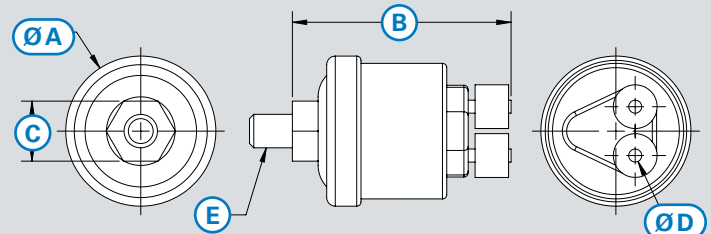
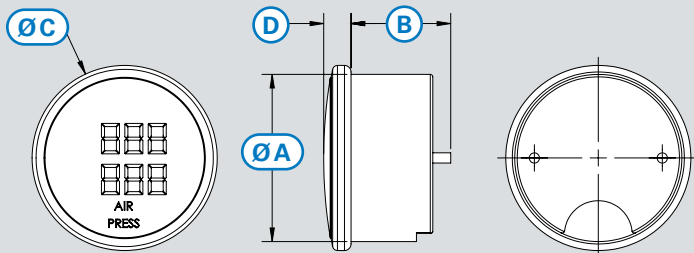
HP10218 KIT* DUAL INPUT

- A: 2.05" [51.9 mm]
 - B: 1.22" [31 mm]
 - C: 2.27" [57.5 mm]
 - D: .34" [8.5 mm]
- *Kit includes gauge & 2 HP10219 sensors



HP10219 AIR PRESSURE SENSOR

- A: 1.75" [44.5 mm]
- B: 2.55" [64.8 mm]
- C: .70" [17.8 mm]
- D: 2 x .15" [2 x 3.9 mm]
- E: 1/8" (-2) NPT Male



PADDLE VALVE (PNEUMATIC SWITCHES)

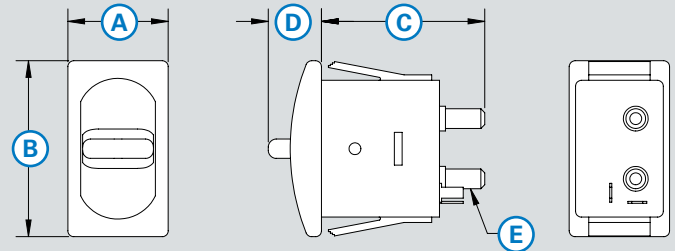
- 3-way dead center paddle style actuator
- 27.5° throw
- Black thermoplastic construction – meets FMVSS 302 flammability requirements
- Supply and delivery ports: barbed fitting – accepts 3/16" ID tube – vented to atmosphere through rear of switch
- Fits .89" x 1.61" [22.6mm x 40.9 mm] openings, R.063" [R1.6mm] max corner radii, .084" to .125" [2.13mm to 3.18mm] panel thickness
- Rated for steady state direct current (DC) of 7.5 A maximum
- Maximum voltage of 15 VDC at zero current
- Maximum 25% duty cycle – maximum "on" time 60 seconds
- Voltage drop across lead wire terminal will not exceed 0.52 VDC at 7 A direct current
- 24" [609 mm] wire leads

SPECIFICATIONS

MAXIMUM WORKING PRESSURE:	150 psi [1,034 kPa]
BLOW OFF PRESSURE AND MINIMUM FLOW RATE:	30 SFCM @ 150 psi [850 L/min @ 1,034 kPa]
TEMPERATURE RANGE:	-40°F to 165°F [-25°C to 120°C]



HP1204
3 POSITION (ON)-OFF-(ON)
A: 1.00" [25.4mm]
B: 1.78" [45.2mm]
C: 1.63" [41.4mm]
D: .56" [14.2mm]
E: Accepts 3/16" ID Tubing



ELECTRICAL SWITCHES

- Snap-in mounting
- Fit .520" x .776" [13.2mm x 19.7mm] openings
- .187" [4.75mm] wide blade terminals
- Plastic body

SPECIFICATIONS

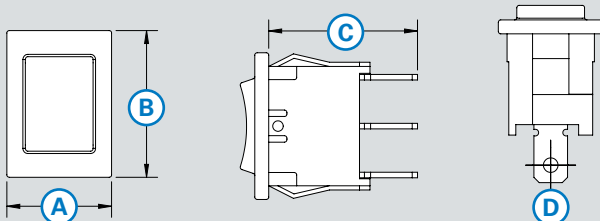
WORKING TEMPERATURE: -4°F to 185°F [-20°C to 85°C]



HP1039
3 POSITION SPDT
MOMENTARY
(ON)-OFF-(ON)
Rating: 16 A @ 125 VAC, 10A @ 250 VA
A: .59" [15.0mm]
B: .83" [21.0mm]
C: .85" [21.5mm]
D: .187" [4.75mm]



HP1127
ON-OFF 2 POSITION SPST
(ILLUMINATES RED WHEN ON)
Rating: 10 A @ 12 VDC
A: .59" [15.0mm]
B: .83" [21.0mm]
C: .85" [21.5mm]
D: .187" [4.75mm]



BRACKETS

- Any AMP gauge can be used with any bracket
- 14 gauge steel
- Matte black



HP0096
DUAL PADDLE VALVE
Accepted Switches: HP1204



HP0097
SINGLE PADDLE VALVE
Accepted Switches: HP1204



HP1158
QUADRUPLE ELECTRICAL SWITCH
Accepted Switches: HP1039
 HP1127



HP1157
DUAL ELECTRICAL SWITCH
Accepted Switches: HP1039
 HP1127

Solenoid Specifications

SOLENOID OPERATED PNEUMATIC DIRECTIONAL CONTROL VALVES

Pacbrake offers various vacuum and air solenoid configurations to meet any specialty requirement or mounting location. Our engineered commercial-duty and severe-duty solenoids have been through some of the toughest testing grounds the world has to offer.

Pacbrake's experience designing cost effective hydraulic and pneumatic solenoids with demanding requirements has equipped Pacbrake with the experience to integrate solenoid controls into any application.



KEY FEATURES

- Vacuum and air solenoids
- 2 and 3 way solenoid configurations
- Stackable applications available
- 12 and 24 volt solenoids rated for automotive use
- Severe-duty applications

3-WAY, 2-POSITION

- 'IN' port normally closed
- 'CYL' port normally open to exhaust (atmosphere)
- 18" [457 mm] long 18 AWG wire lead length
- Anodized aluminum valve body
- Zinc chromate plated carbon steel solenoid body

SPECIFICATIONS

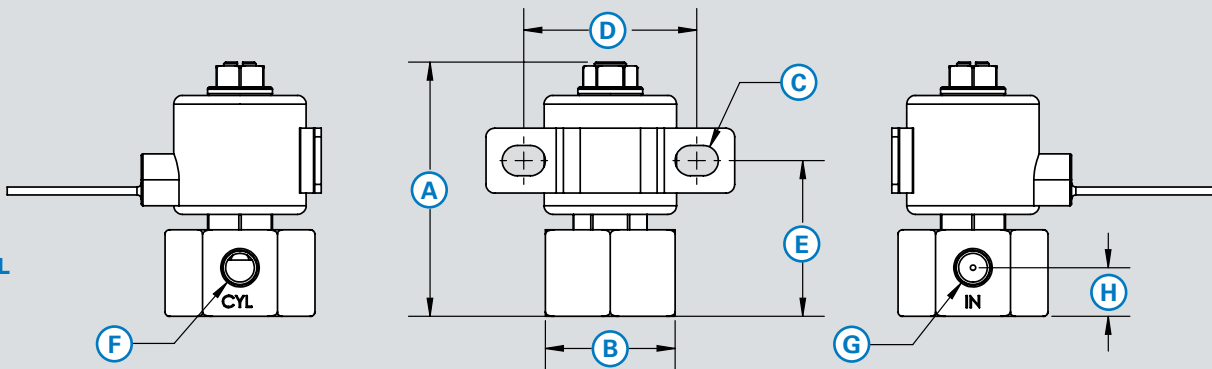
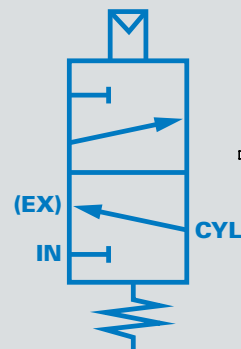
WORKING TEMPERATURE RANGE:	-40°F to 185°F [-40°C to 85°C]
MAXIMUM WORKING PRESSURE:	0 psi to 150 psi [0 kPa to 1034 kPa]
ORIFICE SIZE:	2 x 3/32" [2 x 2.38 mm]



C11935 PNEUMATIC SOLENOID
Voltage Range: 12 VDC
Coil Resistance: 10 Ω
A: 2.91" [74.0 mm]
B (Hex): 1.50" [38.1 mm]
C: .35" X .50" [8.9 mm X 12.7 mm]
D: 2.00" [50.8 mm]
E: 1.8" [45.7 mm]
F (Port): 1/8"-27 (-2) NPTF
G (Port): 1/8"-27 (-2) NPTF
H: .563" [14.3 mm]



C11979 PNEUMATIC SOLENOID
Voltage Range: 24 VDC
Coil Resistance: 50 Ω
A: 2.91" [74.0 mm]
B (Hex): 1.50" [38.1 mm]
C: .35" X .50" [8.9 mm X 12.7 mm]
D: 2.00" [50.8 mm]
E: 1.8" [45.7 mm]
F (Port): 1/8"-27 (-2) NPTF
G (Port): 1/8"-27 (-2) NPTF
H: .563" [14.3 mm]



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

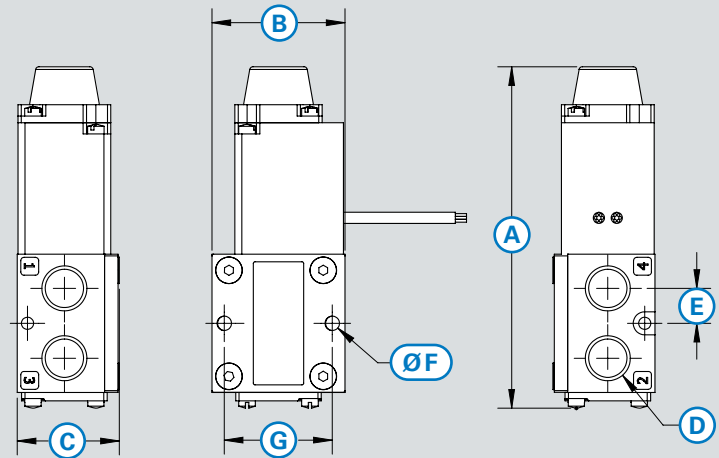
4-WAY, 2-POSITION

- 6 Watt
- .5 Amps current holding
- Spring return with flush non-locking override
- 1/8" (-2) NPTF
- Lubricant free assembly
- Loctite applied to fasteners
- Energize time: 0.012 ms
- De-energize time: 0.006 sec
- Designed to meet NEMA 4/IP65
- Flow capacity: 197 NI/m @ 6 bar upstream /5 bar downstream [9.3 SCM @ 80 psig upstream/atmosphere downstream]
- 15" [457 mm] long 18 AWG pigtail



C11829
LIGHT DUTY SOLENOID
Voltage Range: 12 VDC
Coil Resistance: 25 Ω
A: 3.14" [79.8 mm]
B: 1.19" [30.2 mm]
C: .90" [22.9 mm]
D: 4 x 1/8" (-2) NPTF
E: 4 x .31" [4 x 7.9 mm]
F: 3 x .11" [3 x 2.8 mm] Thru
G: .97" [24.6 mm]

SPECIFICATIONS	
WORKING TEMPERATURE RANGE:	-40°F to 185°F [-40°C to 85°C]
WORKING PRESSURE:	28" Hg to 150 psig [Vacuum to 10 bar]
FLOW RATE:	Cv 0.20



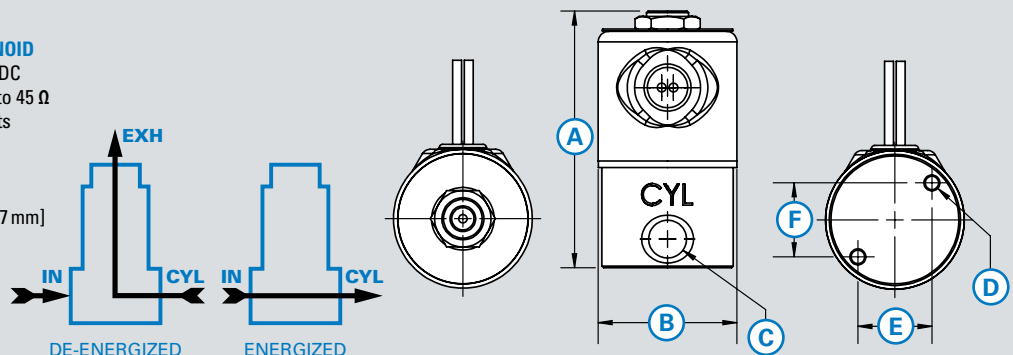
3-WAY, 2-POSITION

- Direct acting, spring return
- Inlet – normally closed, Cyl – normally open to vent (atmosphere)
- 1/4" (-4) NPTF IN and CYL port
- 6" [152 mm] long 18 AWG (UL 3173) pigtail
- Brass solenoid base
- Zinc chromate plated carbon steel solenoid body
- 1N4006 internal suppression diode
- NEMA 1 Protection



C10611
HEAVY DUTY SOLENOID
Voltage Range: 24 VDC
Coil Resistance: 36 to 45 Ω
Max Power: 14 Watts
A: 3.052" [77.5 mm]
B: 1.560" [39.6 mm]
C: 2 x 1/4" (-4) NPT
D: 10-32 UNF .380 [9.7 mm]
E: .880" [22.4 mm]
F: .880" [22.4 mm]

SPECIFICATIONS	
WORKING TEMPERATURE RANGE:	-40°F to 248°F [-40°C to 120°C]
MAXIMUM WORKING PRESSURE:	0 psi to 135 psi [0 kPa to 931 kPa]
FLOW RATE	Cv 0.18
PROOF PRESSURE:	500 psi [3448 kPa]
BURST PRESSURE:	6000 psi [41369 kPa]
ORIFICE SIZE:	2 x 3/32" [1.52+/-0.08 mm 2 x 2.38 mm]
MAX FREQUENCY:	300 Cpm
RESPONSE TIME:	5-15 ms



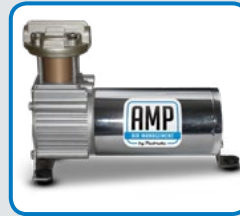
Compressor Specifications

HP325 SERIES AMP AIR COMPRESSORS

Pacbrake's HP325 series air compressors have a 33% (20 minutes @ 100 psi) duty cycle and are offered in both 12 and 24 VDC. These ¼ horsepower compressors utilize an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a hard anodized aluminum sleeve.

The Premium Air Compressor Kit offers pre-built wiring harnesses for the ultimate ease in installation.

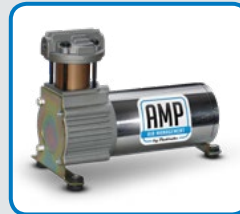
- Sealed bearings
- Cast aluminum cylinder head
- Hard anodized aluminum cylinder
- PTFE piston ring
- Mountable in any orientation



HP10143
HP325 12 VDC AIR COMPRESSOR
Duty Cycle: 33% (20 Minutes @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 12 VDC
Size: 8.7" x 4" x 6.2" (LxWxH)
 [221 mm x 102 mm x 158 mm]
Weight: 5.5 lbs [2.49 kg]

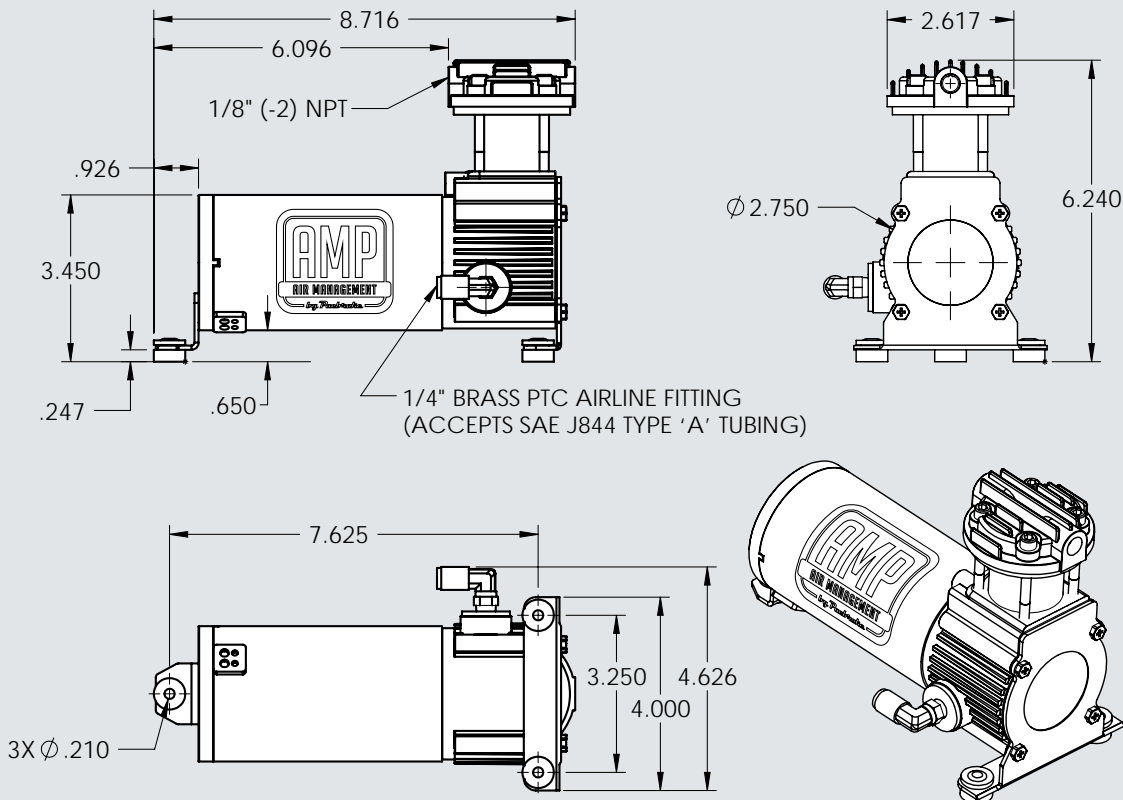


HP10143-B
HP325 12 VDC AIR COMPRESSOR
Duty Cycle: 33% (20 Minutes @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 12 VDC
Size: 8.7" x 4" x 6.2" (LxWxH)
 [221 mm x 102 mm x 158 mm]
Weight: 5.5 lbs [2.49 kg]



HP10139
HP325 24 VDC AIR COMPRESSOR
Duty Cycle: 33% (20 Minutes @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 24 VDC
Size: 8.7" x 4" x 6.2" (LxWxH)
 [221 mm x 102 mm x 158 mm]
Weight: 5.5 lbs [2.49 kg]

HP325 SERIES AIR COMPRESSOR DIMENSIONS (IN INCHES)



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

12 VDC SPECIFICATIONS

GENERAL DATA

PART NUMBER	HP10143
WEIGHT	5.5 lbs [2.49 kg]
AMBIENT TEMPERATURE RANGE	-40°F to 158°F [-40°C to 70°C]
MAX DUTY CYCLE	33% (20 minutes @ 100 psi)
INGRESS PROTECTION	IP55 w/remote intake (included)

PNEUMATIC DATA

RATED FLOW	1.1 SCFM
MAX WORKING PRESSURE	150 psi [1034 kPa]
MAX RESTART PRESSURE	135 psi [931 kPa]

ELECTRICAL MOTOR DATA

MOTOR TYPE	Permanent magnet DC
OPERATING VOLTAGE	12 VDC ± 15%
MAXIMUM CURRENT DRAW	17 A
NOMINAL POWER	¼ HP
NOMINAL SPEED	3000 RPM

*Operating life may be dependent on application

24 VDC SPECIFICATIONS

GENERAL DATA

MODEL	HP10139
WEIGHT	5.5 lbs [2.49 kg]
AMBIENT TEMPERATURE RANGE	-40°F to 158°F [-40°C to 70°C]
MAX DUTY CYCLE	33% (20 minutes @ 100 psi)
INGRESS PROTECTION	IP55 w/remote intake (included)

PNEUMATIC DATA

RATED FLOW	1.1 SCFM
MAX WORKING PRESSURE	150 psi [1034 kPa]
MAX RESTART PRESSURE	135 psi [931 kPa]

ELECTRICAL MOTOR DATA

MOTOR TYPE	Permanent magnet DC
OPERATING VOLTAGE	24 VDC ± 15%
MAXIMUM CURRENT DRAW	9 A
NOMINAL POWER	¼ HP
NOMINAL SPEED	3000 RPM

*Operating life may be dependent on application

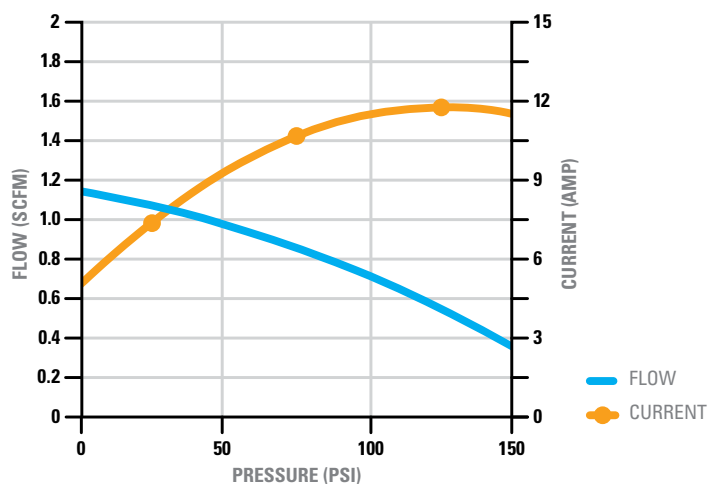
12 VDC TANK FILL TIME

TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
½ Gallon	HP10053	23 seconds	23 seconds
2 ½ Gallon	HP10050	157 seconds	130 seconds

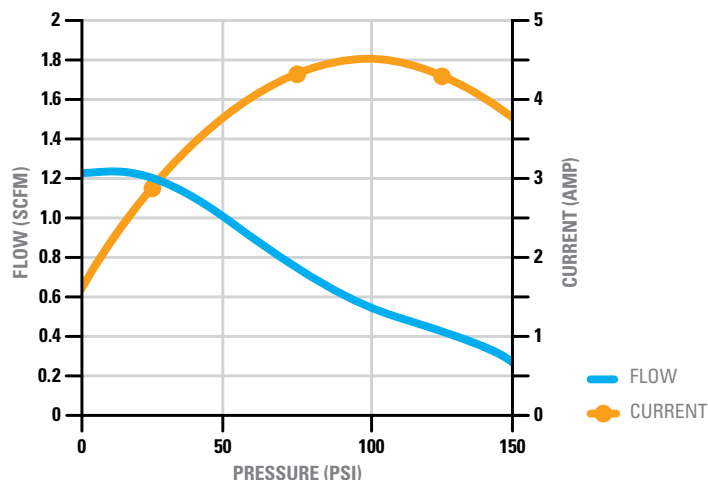
24 VDC TANK FILL TIME

TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
½ Gallon	HP10053	33 seconds	25 seconds
2 ½ Gallon	HP10050	174 seconds	155 seconds

HP325 12 VDC - CURRENT & FLOW RATE VS PRESSURE (13.8 VDC)



HP325 24 VDC - CURRENT & FLOW RATE VS PRESSURE (27.6 VDC)



Compressor Specifications



Introducing Pacbrake's NEW 425 series compressors with a 50% duty cycle, capable of filling a 5 gallon air tank in less than 5 minutes. Heavy duty compressors for wherever the road takes you.

HP425 SERIES AMP AIR COMPRESSORS

Pacbrake's HP425 series air compressors have a 50% duty cycle [30 min on/30 min off] and are offered in 12 VDC. These ¼ horsepower compressors utilize an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a hard anodized aluminum sleeve.

- High temperature sealed bearings
- PTFE piston rings (Oil-less design)
- Hard anodized aluminum cylinder sleeve
- Copper wire wound permanent magnet motor
- Check valve to prevent hard start-up
- Mountable in any orientation
- Thermal switch limit 221°F (105°C), Auto reset at 185°F (85°C)
- Crank case mounted air filter, IP52 (Remote, IP67)

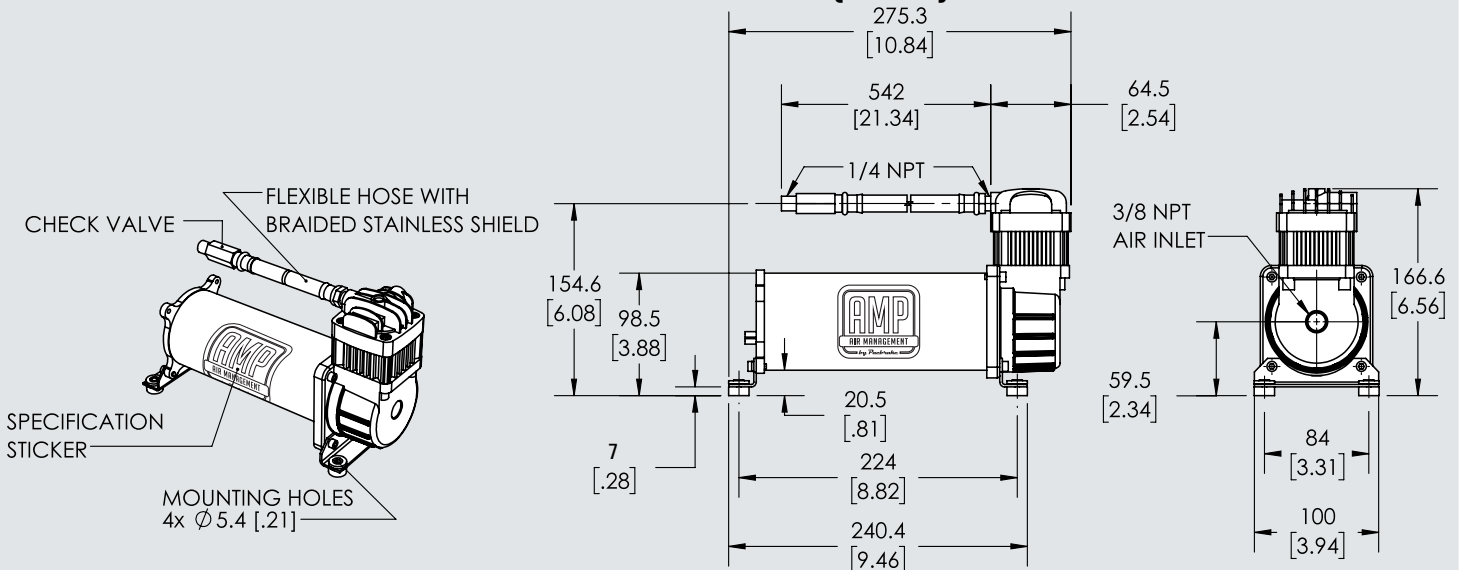


HP10300
HP425 12 VDC AIR COMPRESSOR
Duty Cycle: 50% [30 min on / 30 min off]
Max Working Pressure: 200psi [1379 kPa]
Voltage: 12 VDC
Size: 10.8" x 3.9" x 6.6" (LxWxH)
 [275 mm x 100 mm x 167 mm]
Weight: 10.26 lbs [4.65 kg]



HP10300-B
HP425 12 VDC AIR COMPRESSOR
Duty Cycle: 50% [30 min on / 30 min off]
Max Working Pressure: 200psi [1379 kPa]
Voltage: 12 VDC
Size: 10.8" x 3.9" x 6.6" (LxWxH)
 [275 mm x 100 mm x 167 mm]
Weight: 10.26 lbs [4.65 kg]

HP425 SERIES AIR COMPRESSOR DIMENSIONS IN MILLIMETERS (INCHES)



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

AIR MANAGEMENT

FOR ALL YOUR ADVENTURES

HP425 12 VDC SPECIFICATIONS

GENERAL DATA

PART NUMBER	Chrome [HP10300], Black [HP10300-B]
WEIGHT	10.26 lbs [4.65 kg]
AMBIENT TEMPERATURE RANGE	-40°F to 158°F [-40°C to 70°C]
MAX DUTY CYCLE	50% [30 min on / 30 min off]

PNEUMATIC DATA

RATED FLOW	1.75 SCFM [0.05 m ³ / min]
MAX WORKING PRESSURE	200psi [1379 kPa]
MAX CONTINUOUS RUN TIME	30 min
MAX CURRENT	23 A

ELECTRICAL MOTOR DATA

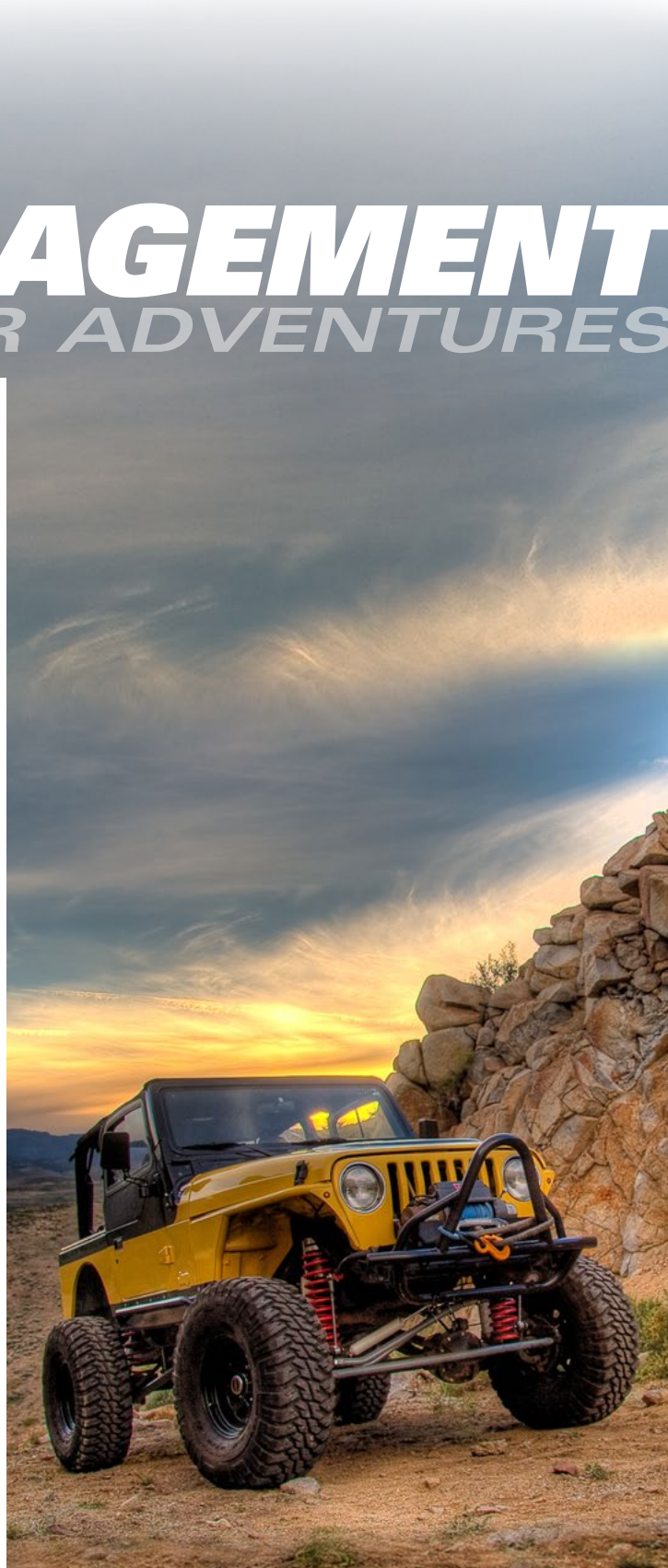
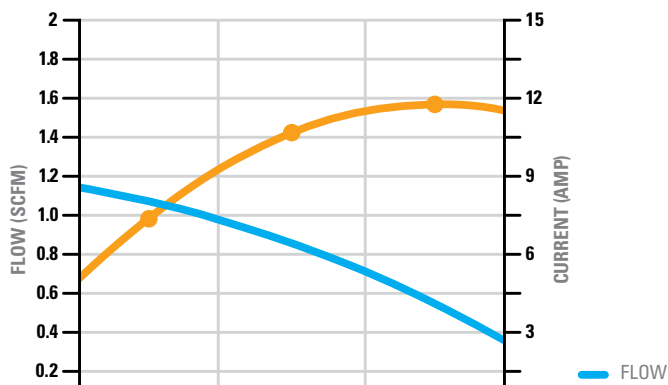
OPERATING VOLTAGE	12 VDC ± 15%
NOMINAL POWER	.25 hp [0.18 kW]
NOMINAL VOLTAGE	12 VDC

**Operating life may be dependent on application*

HP425 12 VDC TANK FILL TIME

TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
½ Gallon	HP10053	24 seconds	21 seconds
2½ Gallon	HP10050	135 seconds	110 seconds
5 Gallon	HP10094	255 seconds	230 seconds

HP325 12 VDC - CURRENT & FLOW RATE VS PRESSURE (13.8 VDC)



Compressor Specifications

HP625 SERIES AMP AIR COMPRESSORS

Pacbrake's heavy duty HP625 series air compressors have a 100% duty cycle (1 hour @ 100 psi) and are offered in two pump head configurations: vertical and horizontal. These 3/4 horsepower compressors utilize an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a cast steel cylinder with a hard anodized aluminum sleeve. The HP625 series compressors require an unloader assembly when used with an air tank:

- HP10116 (12 VDC compressor)
- HP10116-24 (24 VDC compressor)

HP625 series heavy duty air compressors are designed with a cotton air intake filter located below the cylinder head. This type of filtration is acceptable when the compressor is mounted in an area free from moisture and subjected to minimal airborne debris.

Pacbrake's optional remote air intake kit (HP10115) is designed for compressor installations with significant exposure to the elements.

- Vertical (12 VDC & 24 VDC) or Horizontal (12VDC) head configuration
- Sealed bearings
- Cast steel cylinder with hard anodized aluminum sleeve
- PTFE piston ring
- Mountable in any orientation



HP10625V: Gunmetal Gray
HP10625V-B: Matte Black
12 VDC AIR COMPRESSOR (VERTICAL)

Duty Cycle: 100% (1 Hour @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 12 VDC
Size: 11.5" x 6" x 9.5" (LxWxH)
 [293 mm x 153 mm x 242 mm]
Weight: 18.5 lbs [8.39 kg]



HP10625H: Gunmetal Gray
HP10625H-B: Matte Black
12 VDC AIR COMPRESSOR (HORIZONTAL)

Duty Cycle: 100% (1 Hour @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 12 VDC
Size: 11.5" x 9.5" x 6" (LxWxH)
 [293 mm x 242 mm x 153 mm]
Weight: 18.5 lbs [8.39 kg]



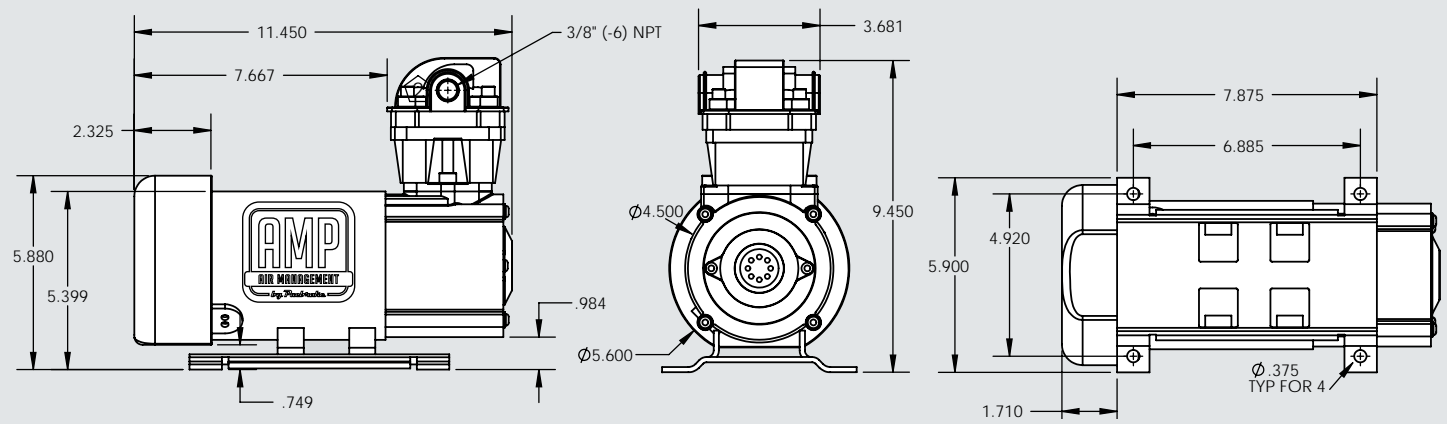
HP10625V-24: Gunmetal Gray
HP10625V-24B: Matte Black
24 VDC AIR COMPRESSOR (VERTICAL)

Duty Cycle: 100% (1 Hour @ 100 psi)
Max Working Pressure: 150 psi [1034 kPa]
Voltage: 24 VDC
Size: 11.5" x 6" x 9.5" (LxWxH)
 [293 mm x 153 mm x 242 mm]
Weight: 18.5 lbs [8.39 kg]

12 VDC TANK FILL TIME			
TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
1/2 Gallon	HP10053	12 seconds	8 seconds
2 1/2 Gallon	HP10050	60 seconds	46 seconds
5 Gallon	HP10094	156 seconds	127 seconds

24 VDC TANK FILL TIME			
TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
1/2 Gallon	HP10053	11 seconds	9 seconds
2 1/2 Gallon	HP10050	55 seconds	46 seconds
5 Gallon	HP10094	127 seconds	110 seconds

HP625 SERIES VERTICAL AIR COMPRESSOR (AVAILABLE IN 12 VDC & 24 VDC) DIMENSIONS (IN INCHES)



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

12 VDC SPECIFICATIONS

GENERAL DATA

PART NUMBER	HP10625V (Vertical), HP10625H (Horizontal)
WEIGHT	18.5 lbs [8.39 kg]
AMBIENT TEMPERATURE RANGE	-22°F to 158°F [-30°C to 70°C]
MAX DUTY CYCLE	100% (1 hour @ 100 psi)
INGRESS PROTECTION	IP52 (IP55 w/remote intake)

PNEUMATIC DATA

RATED FLOW	3.4 SCFM
MAX WORKING PRESSURE	150 psi [1034 kPa]
MAX RESTART PRESSURE	5 psi [35 kPa]

ELECTRICAL MOTOR DATA

MOTOR TYPE	Permanent magnet DC
OPERATING VOLTAGE	12 VDC ± 15%
MAXIMUM CURRENT DRAW	42 A
NOMINAL POWER	¾ HP
NOMINAL SPEED	3000 RPM

*Operating life may be dependent on application

24 VDC SPECIFICATIONS

GENERAL DATA

PART NUMBER	HP10625V-24 (Vertical)
WEIGHT	18.5 lbs [8.39 kg]
AMBIENT TEMPERATURE RANGE	-22°F to 158°F [-30°C to 70°C]
MAX DUTY CYCLE	100% (1 hour @ 100 psi)
INGRESS PROTECTION	IP52 (IP55 w/remote intake)

PNEUMATIC DATA

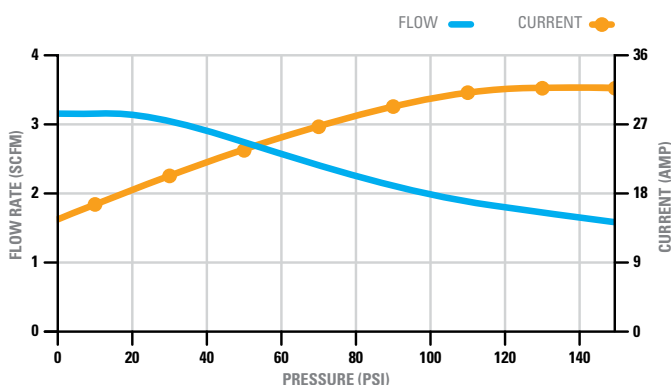
RATED FLOW	3.4 SCFM
MAX WORKING PRESSURE	150 psi [1034 kPa]
MAX RESTART PRESSURE	5 psi [35 kPa]

ELECTRICAL MOTOR DATA

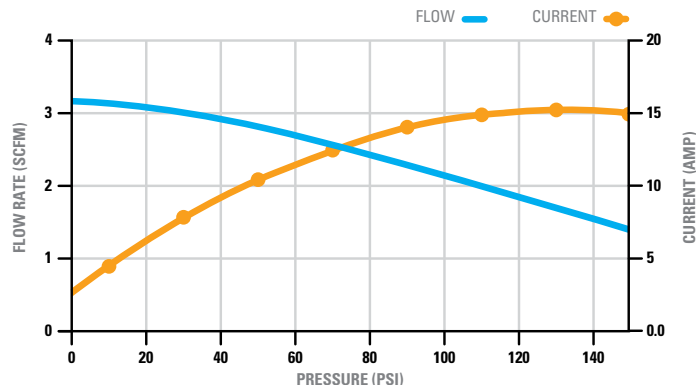
MOTOR TYPE	Permanent magnet DC
OPERATING VOLTAGE	24 VDC ± 15%
MAXIMUM CURRENT DRAW	21 A
NOMINAL POWER	¾ HP
NOMINAL SPEED	3000 RPM

*Operating life may be dependent on application

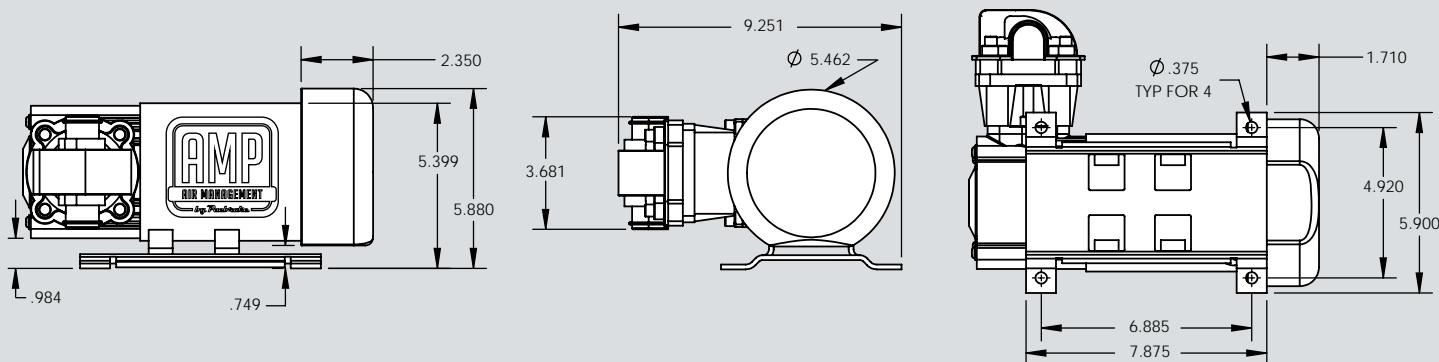
HP625 12 VDC - CURRENT & FLOW RATE VS PRESSURE (13.8 VDC)



HP625 24 VDC - CURRENT AND FLOW RATE VS. PRESSURE (27.6 VDC)



HP625 SERIES HORIZONTAL AIR COMPRESSOR (AVAILABLE IN 12 VDC ONLY) DIMENSIONS (IN INCHES)



Air Tank Specifications



STEEL AIR TANKS

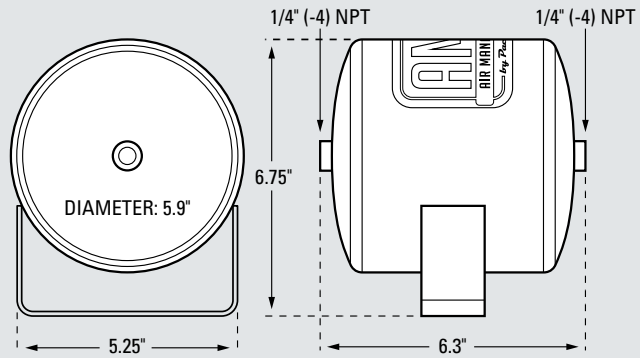
Air tanks work in conjunction with an air compressor to store compressed air and hold it until needed. Storing air allows for quicker product activation and is especially valuable when operating more than one product. These air tanks have welded on mounting brackets. AMP steel air tanks are powder coated, have an anti-rust inhibitor applied internally and meet ASME specifications.

1/2 GALLON AIR TANK

- Welded on mounting brackets
- Anti-rust coating
- 2 x 1/4" (-4) NPT Ports



C11940
1/2 GALLON AIR TANK
 Weight: 3.8 lbs [1.72 kg]
 Max Working Pressure: 150 psi [1034 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]

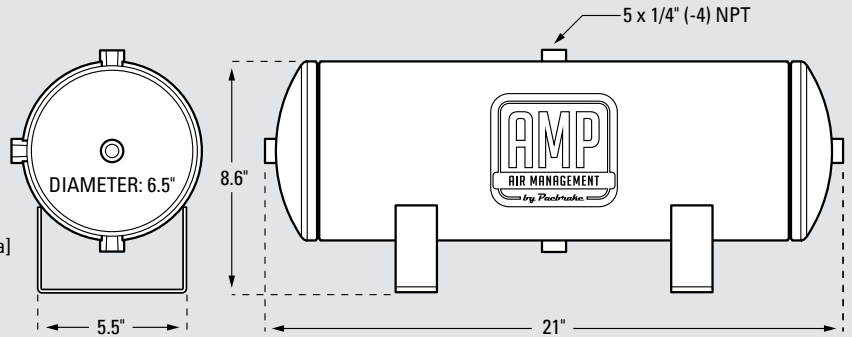


2 1/2 GALLON AIR TANK

- Welded on mounting brackets
- Anti-rust coating
- 5 x 1/4" (-4) NPT Ports



HP10013
2 1/2 GALLON AIR TANK
 Weight: 9.8 lbs [4.45 kg]
 Max Working Pressure: 150 psi [1034 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]

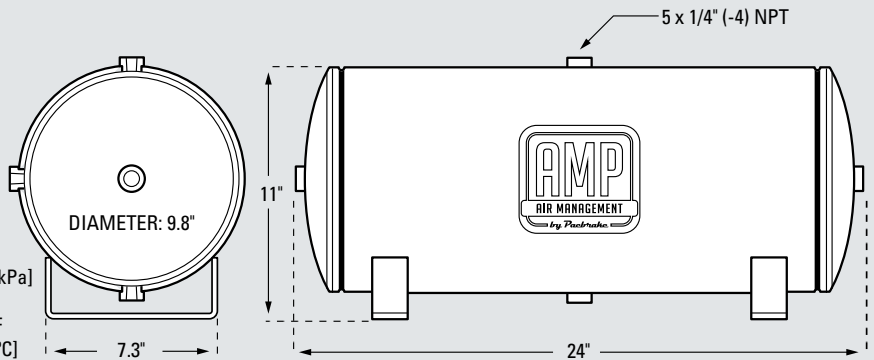


5 GALLON AIR TANK

- Welded on mounting brackets
- Anti-rust coating
- 5 x 1/4" (-4) NPT



HP10014
5 GALLON AIR TANK
 Weight: 17.8 lbs [8.07 kg]
 Max Working Pressure: 150 psi [1034 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]



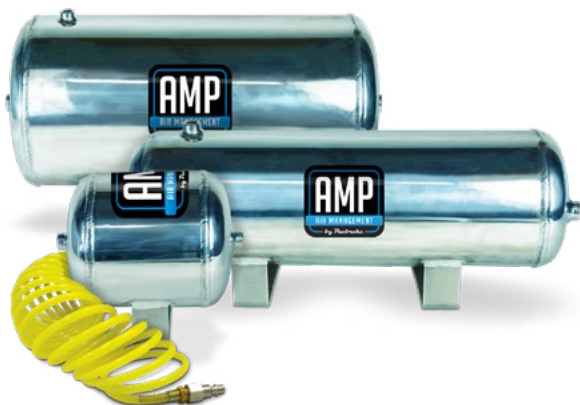
AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY



ALUMINUM AIR TANKS

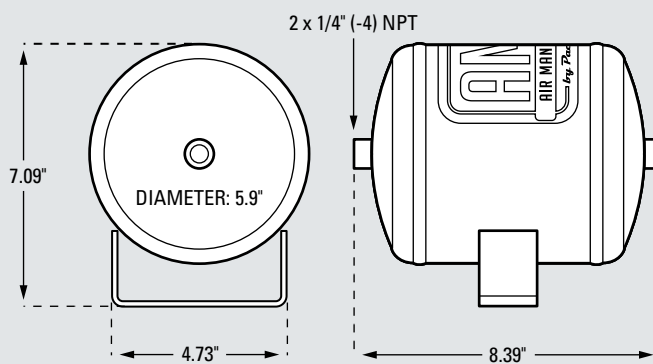
Aluminum tanks are made with less corrosive and lighter material than the standard steel tanks. These tanks also work in conjunction with air compressors to store the compressed air and hold it until it is required. This allows for quicker activation, especially when operating more than one product simultaneously. Pacbrake offers three air tank sizes: a 1/2 gallon tank, a 2 1/2 gallon tank and a 5 gallon tank.

1/2 GALLON AIR TANK

- Welded on mounting brackets
- Polished aluminum
- 2 x 1/4" (-4) NPT Ports



HP10257
1/2 GALLON AIR TANK
 Weight: 1.98 lbs [0.9 kg]
 Wall Thickness: .1" [2.5 mm]
 Max Working Pressure: 200 psi [1380 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]

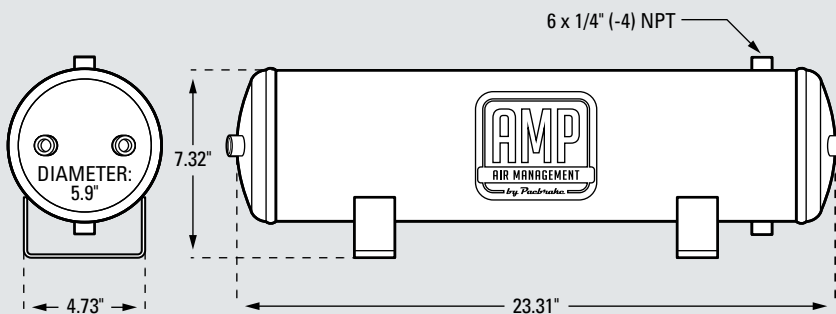


2 1/2 GALLON AIR TANK

- Welded on mounting brackets
- Polished aluminum
- 6 x 1/4" (-4) NPT Ports



HP10258
2 1/2 GALLON AIR TANK
 Weight: 4.9 lbs [2.2 kg]
 Wall Thickness: .1" [2.5 mm]
 Max Working Pressure: 200 psi [1380 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]

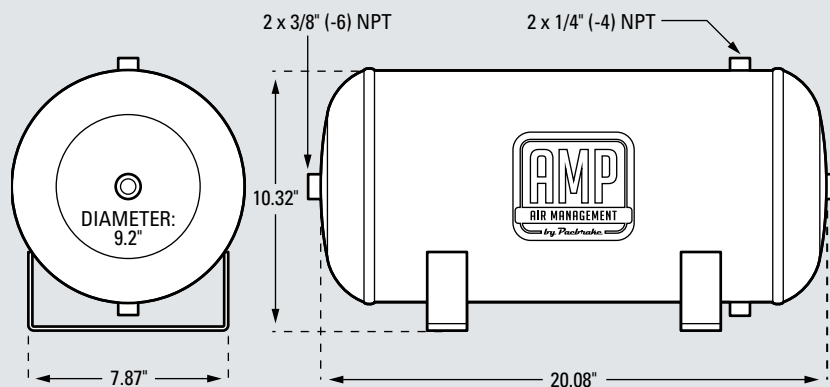


5 GALLON AIR TANK

- Welded on mounting brackets
- Polished aluminum
- 2 x 3/8" (-6) NPT Ports and 2 x 1/4" (-4) NPT Ports



HP10259
5 GALLON AIR TANK
 Weight: 7.94 lbs [3.6 kg]
 Wall Thickness: .12" [2.9 mm]
 Max Working Pressure: 200 psi [1380 kPa]
 Burst Pressure: 600 psi [4137 kPa]
 Working Temperature: -40°F to 248°F
 [-40°C to 120°C]



PUSH-TO-CONNECT FITTINGS

- For use with air, water and oil
- DOT fittings are approved for automotive air brake systems using DOT approved nylon tube
- Non-DOT fittings are for use with standard nylon tube or DOT approved
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS		
DOT:	MAXIMUM WORKING PRESSURE	¼" OD Tube: 300 psi [2.07 mPa]
	WORKING TEMPERATURE RANGE:	-40°F to 200°F [40°C to 93°C]
NON-DOT:	MAXIMUM WORKING PRESSURE	½" OD Tube: 350 psi [2.41 mPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 250 psi [1.72 mPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 300 psi [2.07 mPa]
	WORKING TEMPERATURE RANGE	-10°F to 200°F [23°C to 93°C]



HP1152
FEMALE PIPE BULKHEAD
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Female
NON-DOT



HP1019
MALE PIPE 90° SWIVEL ELBOW
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1099
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1210
FEMALE PIPE CONNECTOR
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Female
NON-DOT



HP1122
MALE PIPE 90° SWIVEL ELBOW
Material: Brass
Fitting End A: 1/8" OD Tube
Fitting End B: 1/8" (-2) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1214
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 3/8" OD Tube
Fitting End B: 1/4" (-4) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1245
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 3/8" (-6) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1098
MALE PIPE CONNECTOR
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Male
NON-DOT



HP1385
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 3/8" (-6) NPT Male (Pre-Applied Sealant)
DOT



HP1100
MALE PIPE 90° SWIVEL ELBOW
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Male
NON-DOT



HP1176
UNION TEE
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" OD Tube
Fitting End C: 1/4" OD Tube
DOT

HOSE BARB FITTINGS

- General purpose fittings for air, water, low pressure and vacuum applications
- Tube/hose requires securing with clamps or ferrules
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	Dependent on tube/hose
WORKING TEMPERATURE RANGE:	-40°F to 220°F [40°C to 104°C]



C11868
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10686
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/8" ID Tube
Fitting End B: 10/32" UNF Male



C11867
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10568
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/8" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C11833
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 3/8" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10501
UNION TEE
Material: Brass
Fitting End A: 0.170" ID Tube
Fitting End B: 0.170" ID Tube

Pneumatic & Hydraulic Fittings

PIPE FITTINGS

- General purpose fittings for use with air, natural gas, water and oil
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	5,000 psi [34.5 mPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 120°C]



C20092
90° STREET ELBOW
Material: Brass
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Female



HP1096
BUSHING
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/8" (-2) NPT Female



C11722
MALE HEX NIPPLE
Material: Brass
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Male



HP1171
90° STREET ELBOW
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/4" (-4) NPT Female



C3086
HEX HEAD PLUG
Material: Brass
Fitting End A: 1/8" (-2) NPT Male



HP1153
CLOSE NIPPLE
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/4" (-4) NPT Male



HP1387
90° STREET ELBOW
Material: Brass
Fitting End A: 3/8" (-6) NPT Male
Fitting End B: 3/8" (-6) NPT Female



C10575
HEX NIPPLE
Material: Steel
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/8" (-2) NPT Male



HP1386
PLUG
Material: Zinc Plated Steel
Fitting End A: 3/8" (-6) NPT Male



HP1388
BUSHING
Material: Brass
Fitting End A: 3/8" (-6) NPT Male
Fitting End B: 1/4" (-4) NPT Female



C10583
HEX NIPPLE
Material: Steel
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Male



C10567
STREET TEE
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Male



HP1238
BUSHING
Material: Brass
Fitting End A: 3/4" (-12) NPT Male
Fitting End B: 3/8" (-6) NPT Female



C18008
CROSS
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female
Fitting End D: 1/8" (-2) NPT Female



C11737
TEE
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female

SAE 45° FLARE FITTINGS

- Incompatible with JIC (SAE 37°)
- For use with air, natural gas, water, oil, refrigerant & gasoline

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	1/4" (-4) SAE 45°: 1,400 psi [9.65 MPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 120°C]



C10680
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male



C10770
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/4" (-4) NPT Male



C11786
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male



C10685
MALE PIPE 45° ELBOW
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male

COMPRESSION FITTINGS

- For use with air, water and oil
- DOT fittings are approved for automotive air brake systems
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS		
DOT:	MAXIMUM WORKING PRESSURE	¼" OD Tube: 300 psi [2.07 MPa]
	WORKING TEMPERATURE RANGE:	-40°F to 200°F [-40°C to 93°C]
NON-DOT:	MAXIMUM WORKING PRESSURE	½" OD Tube: 400 psi [2.76 MPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 200 psi [1.38 MPa]
	WORKING TEMPERATURE RANGE	-65°F to 250°F [-54°C to 120°C]



HP1151
FEMALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Female DOT



C11796
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ⅛" (-2) NPT Male DOT



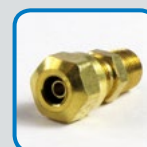
C10576
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Male DOT



HP1120
FEMALE PIPE CONNECTOR
Material: Brass
Fitting End A: ⅛" OD Tube Nylon
Fitting End B: ⅛" (-2) NPT Female NON-DOT



HP1236
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 3/8" OD Tube Brass/Copper/Aluminum
Fitting End B: 3/8" (-6) NPT Male NON-DOT



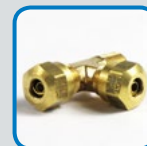
C10570
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ⅛" (-2) NPT Male DOT



C10591
MALE PIPE 45° ELBOW
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ⅛" (-2) NPT Male DOT



C10572
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Male DOT



C11795
MALE PIPE RUN TEE
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" OD Tube Nylon
Fitting End C: ⅛" (-2) NPT Male DOT

JIC (SAE 37°) FLARE FITTINGS

- JIC (Joint Industrial Council) also known as SAE 37° meeting SAE J514 – incompatible with SAE 45°
- For use with air, natural gas, water, oil, refrigerant & gasoline
- NPT compatible with NPTF when Teflon® tape or thread sealant is utilized

SPECIFICATIONS		
MAXIMUM WORKING PRESSURE	¼" (-4) JIC:	-28" Hg to 5,000 psi [-0.94 kPa to 9.65 MPa]
WORKING TEMPERATURE RANGE:		-60°F to 400°F [-54°C to 204°C]



C3467
MALE PIPE CONNECTOR
Material: Steel
Fitting End A: ¼" (-4) JIC Male
Fitting End B: ⅛" (-2) NPTF Male



C3468
90° ELBOW
Material: Steel
Fitting End A: ¼" (-4) JIC Male
Fitting End B: ⅛" (-2) NPTF Male

ISO 6149 FITTINGS

- For use in hydraulic power applications
- NPT compatible with NPTF when Teflon® tape or thread sealant is utilized

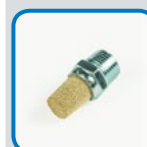


P55116
FEMALE PIPE CONNECTOR
Material: Brass Body, FKM Seal
Fitting End A: M14 X 1.5 ISO 6149-3 Male
Fitting End B: ⅛" (-2) NPTF Female

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	0 psi to 1000 psi [0 mPa to 6.9 mPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 121°C]

PNEUMATIC ACCESSORIES

Effective for muffling air valve noise, filtering exhaust/intake air & pressure/vacuum equalization



C10774
POROUS BRONZE AIR SILENCER
Material: Bronze/Steel
Fitting End A: ⅛" (-2) NPTF Male
Max Rated: 5 SCFM @ 90 psi



C10833
POROUS BRONZE AIR SILENCER
Material: Bronze
Fitting End A: 10-32 UNF Male
Filtration: 40 µm
Max Rated: 2 CFM @ 90 psi

Pneumatic & Hydraulic Fittings

CHECK VALVES

- Pneumatic Operation
- Zero Reverse Leakage
- Corrosion Proof (Brass or Stainless Steel)

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	150 psi [1.03 MPa]
WORKING TEMPERATURE RANGE:	-40°F to 248°F [-40° to 120° C]
MINIMUM FLOW RATE	3.5 SCFM at 5 psi [0.03 MPa]
MAXIMUM CRACKING PRESSURE	5 psi [0.03 MPa]



C20506
Material: Stainless Steel
External Hex: Standard Size
Inlet: 1/8" (-2) NPT Male
Outlet: 1/8" (-2) NPT Female



C20512
Material: Brass
External Hex: Standard Size
Inlet: 1/4" (-4) NPT Male
Outlet: 1/4" (-4) NPT Male

QUICK EXHAUST VALVES (QEV)

When installed directly onto pneumatic cylinders, a QEV will allow for quick pneumatic cylinder retraction times, by allowing the compressed air within the pneumatic cylinder to vent directly to atmosphere through the QEV, rather than be pushed back through a length of plumbing back to the activation solenoid.

SPECIFICATIONS	
PRESSURE RANGE	3.9 psi to 145 psi [26.9 kPa to 1,000 kPa]
WORKING TEMPERATURE RANGE:	-40°F to 165°F [-40°C to 74°C]



C10555
QUICK EXHAUST VALVES
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female



C10580
QUICK EXHAUST VALVE
Fitting End A: 1/4" NPT (-4) Female
Fitting End B: 1/4" NPT (-4) Female
Fitting End C: 1/4" NPT (-4) Female

SAE 100R5 END FITTINGS

- Steel reusable end fittings for sae 100R5 (non skive) hose

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	Hose size dependent
WORKING TEMPERATURE RANGE:	-40°F to 250°F [-40°C to 121°C]



C11041
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/8" (-2) NPT Male



C11042
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/4" (-4) NPT Male



C11043
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/4" (-4) SAE 45° Female

SAE 100R5 MEDIUM PRESSURE HYDRAULIC HOSE (HR5)

For medium pressure hydraulic service in the handling of most hydraulic fluids, gasoline, diesel fuels, lubricating oils, air and water. Recommended for power steering and power steering return lines, fuel filters, turbochargers, tilt lines, lube oil lines and machine tools. Not suitable for use with phosphate esters. Cover is not removed. Meets DOT FMVSS – 106 (Non skive).

- Constructed with a textile inner braid with a single wire braid reinforcement & a cotton braided black cover
- Oil and heat-resistant synthetic rubber inner tube
- For fittings CW500 Crimp/SR500 (series) Reusable



C10107
SAE 100R5 MEDIUM PRESSURE HYDRAULIC HOSE
Radius: 1/4" (-4) Nominal ID Hose
Actual ID: 3/16" [4.76 mm]
Hose OD: .52" [13.21 mm]

SPECIFICATIONS	
WORKING PRESSURE	3000 psi [20.68 MPa]
TEMPERATURE RANGE:	-40°F to 250°F [-40°C to 121°C]
MINIMUM BURST PRESSURE	12,000 psi [82.73 MPa]
MINIMUM BEND RADIUS	3' [76.2 mm]



NYLON TUBING

Nylon is strong and has a very high pressure rating making it ideal for pneumatic applications. Its strength allows it to be manufactured with thin walls while still maintaining a high pressure ratings. Nylon is also stable when exposed to light and heat sources. The combination of high pressure rating, high flow rate, flexibility, and strength make it the perfect choice for the Pacbrake AMP system.

AIRLINE TUBING

- DOT tubing is approved for automotive air brake systems

AIRLINE TUBING (NYLON)					
COLOR	SIZE	LENGTH	PART #	STANDARD	DOT
Black	1/8"	20' [6.10 m]	HP1123-20	SAE J844	X
Black	1/8"	30' [9.14 m]	HP1123-30	SAE J844	X
Black	1/8"	40' [12.19 m]	HP1123-40	SAE J844	X
Black	1/8"	50' [15.24 m]	HP1123-50	SAE J844	X
Black	1/4"	20' [6.10 m]	M8280-20	N/A	X
Black	1/4"	30' [9.14 m]	M8280-30	N/A	X
Black	1/4"	40' [12.19 m]	M8280-40	N/A	X
Black	1/4"	50' [15.24 m]	M8280-50	N/A	X
Black	3/8"	20' [6.10 m]	HP1215-20	SAE J844	✓
Black	3/8"	30' [9.14 m]	HP1215-30	SAE J844	✓
Black	3/8"	40' [12.19 m]	HP1215-40	SAE J844	✓
Black	3/8"	50' [15.24 m]	HP1215-50	SAE J844	✓
Red	1/4"	20' [6.10 m]	M8675-20	SAE J844	✓
Red	1/4"	30' [9.14 m]	M8675-30	SAE J844	✓
Red	1/4"	40' [12.19 m]	M8675-40	SAE J844	✓
Red	1/4"	50' [15.24 m]	M8675-50	SAE J844	✓
Blue	1/4"	20' [6.10 m]	M8685-20	SAE J844	✓
Blue	1/4"	30' [9.14 m]	M8685-30	SAE J844	✓
Blue	1/4"	40' [12.19 m]	M8685-40	SAE J844	✓
Blue	1/4"	50' [15.24 m]	M8685-50	SAE J844	✓
Green	1/4"	20' [6.10 m]	M8676-20	SAE J844	✓
Green	1/4"	30' [9.14 m]	M8676-30	SAE J844	✓
Green	1/4"	40' [12.19 m]	M8676-40	SAE J844	✓
Green	1/4"	50' [15.24 m]	M8676-50	SAE J844	✓
Yellow	6 mm	20' [6.10 m]	M8299-20	N/A	X
Yellow	6 mm	30' [9.14 m]	M8299-30	N/A	X
Yellow	6 mm	40' [12.19 m]	M8299-40	N/A	X
Yellow	6 mm	50' [15.24 m]	M8299-50	N/A	X



HP1123

M8280

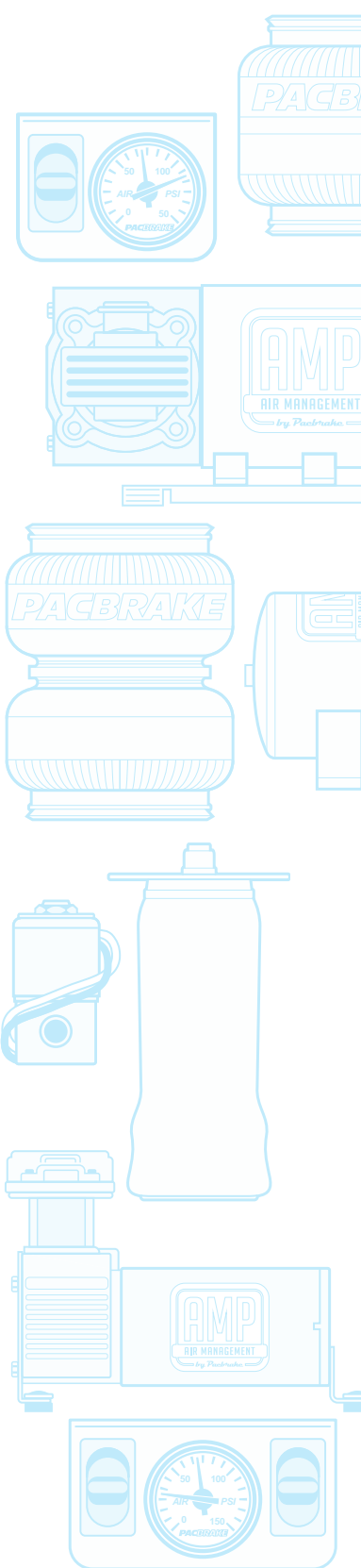
HP1215

M8675

M8685

M8676

M8299



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY



FREQUENTLY ASKED QUESTIONS

IF I HAVE UNEVEN WEIGHT DISTRIBUTION, IS IT EASY TO CUSTOMIZE THE AMOUNT OF AIR IN EACH SPRING?

Yes. Whether you have manual fill valves or in-cab controls with onboard air, you can easily adjust each air spring's pressure to level out your vehicle. The manual fill valves are installed so that the fill valves are easily accessible, usually positioned out of the license plate at the rear of the vehicle. In-cab controls (with onboard air) allow you to adjust each air spring's pressure from the comfort of your driver's seat.

DO AIR SPRINGS REPLACE MY EXISTING SUSPENSION?

No, the air springs are an addition to your existing suspension, not a substitution. Kits are easily installed and do not affect your vehicle's factory suspension.

IF I CHOOSE TO INSTALL THE AMP AIR SUSPENSION KIT, CAN I INCREASE MY MAXIMUM LOAD CAPACITY?

No. You must never exceed your GVWR (Gross Vehicle Weight Rating). The air springs simply provide you with added support and therefore better control for an overall smooth and safe ride.

WILL THE INSTALLATION TAKE A LONG TIME TO COMPLETE?

No. The installation is fairly simple and can usually be completed within 2-3 hours. If installing the kit with an onboard air system, the installation procedure is a little different and may vary depending on the vehicle application.

IMPORTANT:

An air suspension kit will not increase the GVWR (Gross Vehicle Weight Rating), as the GVWR is determined by the axle rating. Do not exceed the maximum capacity listed by the vehicle manufacturer.

BEFORE YOU START:

NOTE: Some vehicles are equipped with a rear wheel brake proportioning valve. Check with the manufacturer before installing the air spring kit, as it may affect braking performance.

1. Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
2. Pacbrake recommends using a good quality anti-seize on all fasteners. This will reduce the chance of corrosion on the fasteners and will help facilitate removal, if required at a later date.

MAINTENANCE TIPS FOR AIR SPRINGS AND ONBOARD AIR SYSTEMS

AIR SUSPENSION

The primary causes for air spring failure is the misuse and incorrect installation (loose components). Proper installation is critical. Ensure air springs maintain a minimum of ½" clearance from surrounding components while at maximum inflation pressure. Maintenance of air springs is essential to prolong service life, providing safety and enjoyment for years to come.

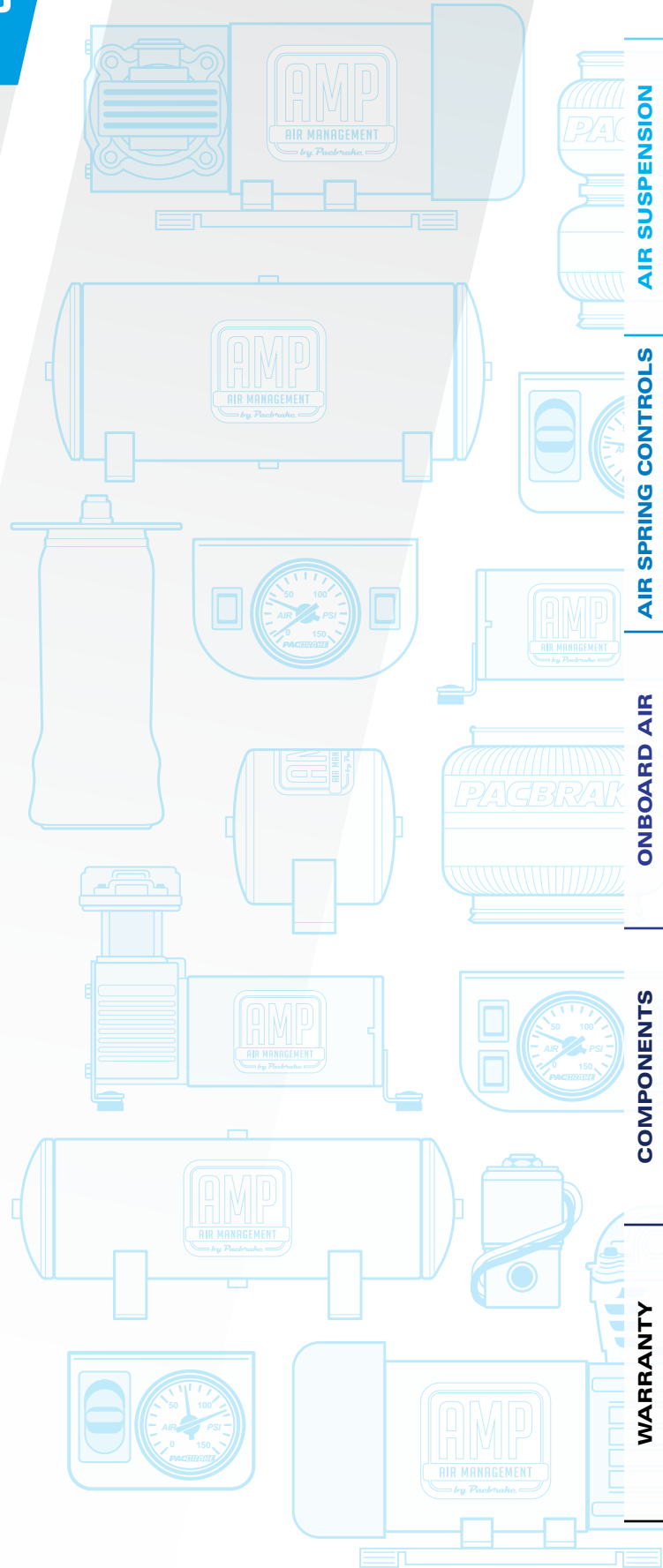
- EVERY 6 MONTHS:**
- Inspect that all hardware is tight – see installation manual for torque values.
 - Inspect the air spring system (air springs, airlines & fittings) for leaks, using a soap and water solution.
 - Inspect the air springs for damage (abrasion, heat cracking) and replace if necessary.
 - Inspect the air spring brackets for damage (bent, cracked) or misalignment – replace or re-align if necessary.

Take the time to clean all debris such as road salts, grime and oils from the air spring every time you wash your vehicle. Approved cleaning solutions are soap and water, methyl alcohol, ethyl alcohol, and isopropyl alcohol. Never use caustic cleaners, organic solvents or steam clean your air springs.

ONBOARD AIR SYSTEMS

The primary cause for onboard air system failures are air leaks – these will shorten compressor life by causing it to refill more frequently. A correctly sealed air system will provide enjoyment for years to come.

- EVERY 2-3 MONTHS:**
- It is important to fully drain the air tank – this removes water/moisture from the system, which can adversely affect solenoid valves by either jamming from freezing at cold temperatures or jamming from contaminants which are carried in by water. In areas of high humidity the compressor will produce more moisture and should have the tank drained more frequently.
 - Inspect all wiring for chafing, loose, or corroded terminals. Check attachment points for the compressor, air tank & solenoid valves. Repair as necessary.
 - Remove the air intake filter, clean in a mild soap and water solution, air dry and replace.



AIR SUSPENSION

AIR SPRING CONTROLS

ONBOARD AIR

COMPONENTS

WARRANTY

Warranty

Pacbrake's AMP Air Spring & Air Management
Limited Warranty

This Pacbrake warranty applies to all AMP Air Spring and Air Management Systems listed below.

This warranty is non-transferable to next vehicle owner or another vehicle. The Air Spring and Air Management Systems are products of Pacbrake Company and are warranted to be free of defects in construction and operation under normal use and service for the Warranty Coverage periods set forth. There are no representations or warranties, which extend beyond the terms hereof.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING NO WARRANTY OF MERCHANTABILITY AND NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

PRODUCT WARRANTED

Warranty Coverage applies to ALL Pacbrake AIR SPRING and AIR MANAGEMENT SYSTEM models.

WARRANTY COVERAGE

Air Springs

- **Lifetime warranty on the original air springs to the original purchaser on the vehicle of first installation**

Convolute Air Springs: Delivered on or after March 1st, 2010.

Sleeve Style Air Springs: Delivered on or after March 1st, 2014.

Polyurethane Air Springs: Delivered on or after March 1st, 2014.

- **Replacement air springs 6 months warranty**

Air Spring Mounting Brackets, Spacers & Fasteners:

- Two (2) years or 24,000 miles (38,000 kms), whichever shall occur first*. Delivered on or after March 1st, 2018.

Air Management Control Components including

Air Compressors, Switches, Solenoids, Gauges, Air Tanks:

- Two (2) years or 24,000 miles (38,000 kms), whichever shall occur first*. Delivered on or after March 1st, 2018.

O-Rings, Fittings, Hoses and Accessories:

- One (1) year or 12,000 miles (19,000 kms), whichever shall occur first*.

**Component failure as a result of corrosion is NOT covered by warranty.*

Air Spring and Air Management Systems Replacement Component and/or Assemblies Coverage Period:

- Six (6) months unlimited mileage or the remainder of the original warranty, whichever is longer.

Labor Charges:

Labor charges associated with repair or replacement of this product is the sole responsibility of the vehicle owner.

PACPRO®

PERFORMANCE PARTS by PACBRAKE



**INCREASED
PERFORMANCE FOR
HARDWORKING TRUCKS**

- » Increase Driving Control
- » Improve Mechanical Suspension
- » Optimize Engine Operation



TIE ROD SLEEVES



LEVELING KITS



AIR HORNS



REMOTE OIL FILTER



MAX FLOW ELBOW



SPRING KITS



SWITCHES

EXHAUST & ENGINE BRAKES

PACBRAKE'S HEAVY DUTY BRAKING FOR HEAVY DUTY HAULING

Tow With *Confidence*
Brake With *Authority*



With today's trucks capable of towing/hauling over 30,000 lbs, additional control & stopping power has never been more necessary. Pacbrake engine and exhaust brakes are unmatched in braking performance.



EXHAUST BRAKES



LOADLEASH



ENGINE BRAKES



REPLACEMENT PARTS



ISO 9001
QMI-SAI Global





ADJUSTABLE AIR SPRINGS

ADDED SUPPORT FOR AN OVERALL SMOOTH & SAFE RIDE



AMP: THE #1 SOLUTION FOR YOUR TOW/HAUL PROBLEMS

EASY BOLT ON INSTALLATION

LIFETIME WARRANTY



AMP ONBOARD AIR MANAGEMENT SYSTEMS

Air Compressors · Air Tanks · Air Spring Controls

EXHAUST & ENGINE BRAKES

PACBRAKE'S HEAVY DUTY BRAKING FOR HEAVY DUTY HAULING

*Tow With **Confidence**
Brake With **Authority***



With today's trucks capable of towing/hauling over 30,000 lbs, additional control & stopping power has never been more necessary. Pacbrake engine and exhaust brakes are unmatched in braking performance.

ISO 9001
QMI-SAI Global



EXHAUST BRAKES



LOADLEASH



ENGINE BRAKES



REPLACEMENT PARTS

APPLICATION GUIDE & PRODUCT CATALOGUE

III PACBRAKE[®] COMPANY



As a proud family run business since 1961, Pacbrake Company™ has been committed to providing its customers with the highest quality products for a wide range of vehicles. Over the years, the expertise and innovation of Pacbrake's dedicated staff transformed the company from an engine brake distributor, into an industry leading manufacturer of automotive products. To this day, Pacbrake remains devoted to improving its product design through continuous research and development in order to provide customers with the most advanced automotive systems available, setting the standard for performance and durability across the trucking industry.

Behind every Pacbrake product stands a team of qualified engineers, state of the art manufacturing facilities and an internationally recognized ISO 9001: 2008 quality management system.

Pacbrake's dedication to quality and service over the past 50 years has given them the experience to develop the number one air management system on the market. The AMP™ product line continues to exceed customer expectations.



HISTORY

1960-1980

- Pacbrake Company™ incorporates in 1961

1980-1990

- Pacbrake develops new engine brake technology for Detroit Diesel™, Caterpillar™ and Cummins™ engines
- Pacbrake becomes the first company to patent a combination engine brake that utilizes an exhaust valve

1990-2000

- Pacbrake starts supplying engine and exhaust brakes to Freightliner™, Kenworth™ and Detroit Diesel™
- Becomes the largest North American exhaust brake manufacturer

2000-2010

- Starts supplying valves to the US Military
- Pacbrake expands R&D efforts and starts development of aftermarket products
- Starts supplying thermal management valves to Navistar™
- Expands aftermarket product line to include more tow/haul solutions (air springs, in-cab controls and onboard air)

2010-PRESENT

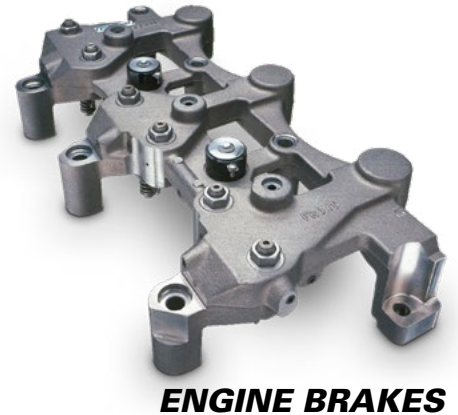
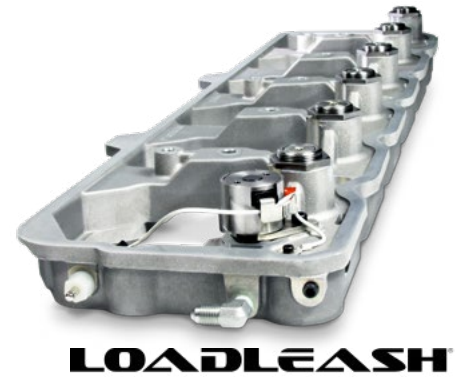
- Pacbrake celebrates 50 years in business
- Supplies first hot EGR™ valve to Navistar™
- Develops the first engine brake for Cummins™ ISB engine
- Launches the first engine shutoff valve for the oil and gas industry
- Develops new AMP™ heavy duty air compressor line
- Pacbrake develops a large range of AMP™ air springs for various suspension applications
- Pacbrake supplies first AMP™ onboard air system for an OEM



The contents of this catalogue are subject to change without notice. Contact Pacbrake for the most up-to-date information on our products

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DELIVERING CONSTANT BACKPRESSURE THROUGHOUT THE ENTIRE OPERATING RPM RANGE FOR UNMATCHED STOPPING POWER

PRXB XB PACBRAKE'S PRESSURE REGULATED EXHAUST BRAKE — for the Majority of Diesel Engines

PRXB offers the highest braking power to lowest price ratio available. Pacbrake's flagship product is the unquestioned leader in the supplemental brake industry. It has changed the way people think about exhaust brakes by providing performance, safety and durability that is unmatched by any other exhaust brake on the market.

- ▶ Delivers the strongest braking horsepower, greatest speed reductions & shortest stopping distances possible without the use of service brakes.
- ▶ Maintains optimum retarding performance by maximizing the exhaust backpressure throughout the entire operating RPM range.
- ▶ Delivers maximum exhaust pressure (braking) as low as 1200 RPM through to the maximum allowable engine RPM.
- ▶ Provides increased performance and peace of mind with technology that protects the engine from the potential of overpressure.

Upgrade any standard exhaust brake to a PRXB for an improved design and a longer lasting brake with significantly increased performance. Tow & haul with complete control.



PRXB EXHAUST BRAKE OPERATION

REGULATION SPRING

ARM (Operated By Spring)

BUTTERFLY VALVE (Closed)

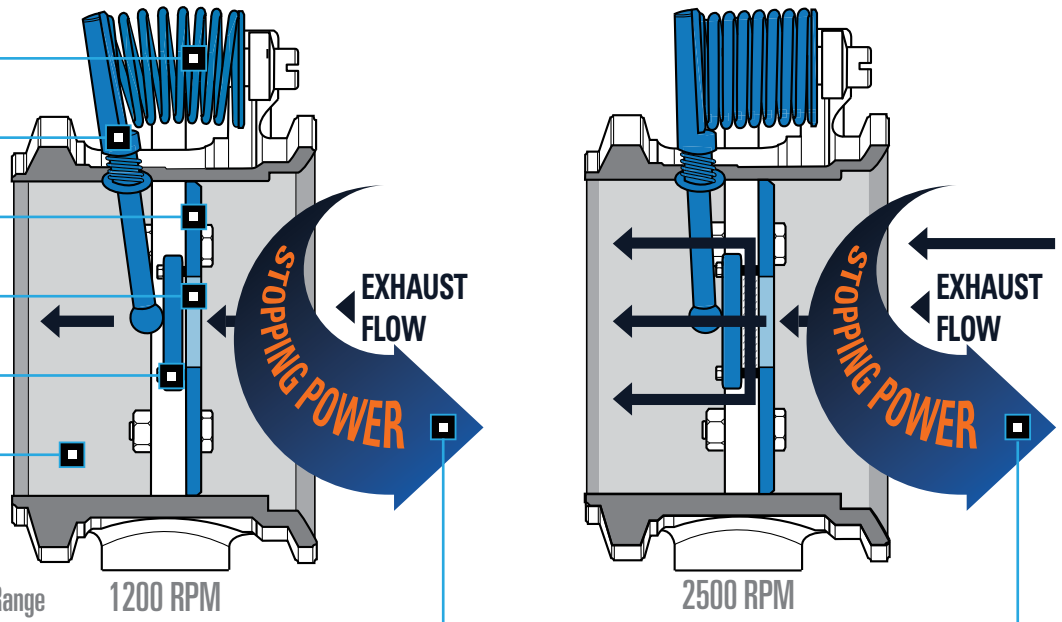
ORIFICE (Hole In Butterfly Valve)

WASTEGATE (Covering Orifice)

EXHAUST BRAKE HOUSING

BACKPRESSURE

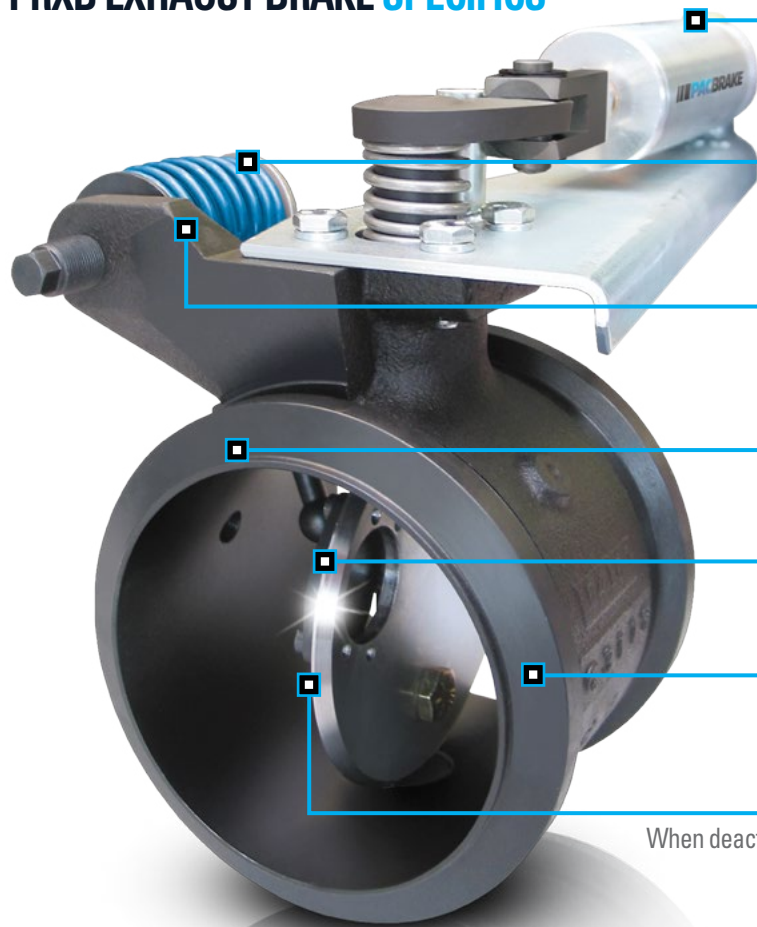
Maximum Over The Entire Operating RPM Range



1200 RPM

2500 RPM

PRXB EXHAUST BRAKE SPECIFICS



STAINLESS STEEL SEALED AIR CYLINDER

Hard anodized aluminum & stainless steel body & shaft with high performance seals

AUTOMATIC LOW RPM ADJUSTMENT

Optimum retarding performance maintained by maximizing exhaust backpressure throughout the entire operating RPM range

MAXIMUM ALLOWABLE EXHAUST BACKPRESSURE LIMIT

Designed & factory preset to meet standards & requirements set by the engine manufacturer

NO OVERPRESSURE POTENTIAL

Spring controlled, pressure regulated mechanisms

90° CLOSING, NON-CONTACTING BUTTERFLY VALVE

Designed to maximize backpressure while preventing seizing

ARCOR® NITRIDE HOUSING & COMPONENTS

Industry exclusive process that increases resistance to wear & corrosion while strengthening & adding lubricity

FREE FLOW EXHAUST

When deactivated, exhaust flow is unrestricted and won't interfere with power output

PRECISION MOUNTING SURFACE

Both contacting surfaces are machined, eliminating the need for troublesome gaskets

Slows from 50 MPH to 20 MPH 1500 ft Sooner
than vehicles equipped with standard exhaust brakes

FEATURES & BENEFITS

- ▶ Delivers maximum backpressure throughout the entire operating RPM range
- ▶ Withstands extremely high exhaust temperatures
- ▶ Compliant with latest emission regulations
- ▶ Severe duty & military approved
- ▶ No risk of engine overpressure
- ▶ Decreased service brake wear

GET 50% MORE BRAKE POWER with PRXB Exhaust Brake Upgrades for RVs

Over 80% of diesel motorhomes have a non-pressure regulating fixed orifice Pacbrake (installed at the factory). Now it's time to take braking to a whole new level with Pacbrake's PRXB.

It is a direct, bolt-in upgrade resulting in a dramatic boost in performance over the existing fixed orifice exhaust brake. The PRXB will outperform any exhaust brake on the market in the low to mid RPM range.

Upgrade a coach's existing exhaust brake to a PRXB for a dramatic boost in safety and braking performance



EXHAUST BRAKE COMPLETE KIT COMPONENTS*



*Kit contents may vary

EVERY PRXB AUTOMOTIVE KIT COMES WITH EVERYTHING REQUIRED FOR A COMPLETE INSTALLATION

KIT CONTENTS: PRXB Exhaust Brake, Controller (when required, for some applications) & AMP Onboard Air Kit (HP325 Series Compressor, ½ Gallon Air Tank, 25 ft Curly Air Hose, Air Accessories & Fittings Kit).

HP325 AMP AIR COMPRESSOR

These ¼ horsepower compressors have an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a hard anodized aluminum sleeve.

- 1.1 SCFM
- 150 PSI max working pressure
- - 40°F min / 158°F max ambient temperature

½ GALLON AMP AIR TANK KIT

Working in conjunction with an air compressor, an air tank stores the compressed air until required. Storing air allows for quicker product activation and is especially valuable when operating more than one product.

- Welded on mounting brackets
- 2 - ¼" NPT ports
- Rust inhibitor applied to inside of tank
- 150 PSI max working pressure

AIR TANK CURLY HOSE & ACCESSORY KIT

A 25 ft curly hose with an assortment of accessories is easily stored in a heavy duty nylon bag. Attach the curly hose with the quick disconnect chuck to the compressor to perform a variety of tasks including: filling tires, checking air pressure & cleaning (dusting & quick removal of debris) etc.

HARNESS

Custom plug & play wiring harness with weather proof connectors. ‡

Hardware used in all kits are Grade 5. ‡

PRXB EXHAUST BRAKE OPTIONS



DirectMount

Pacbrake's DirectMount exhaust brakes go behind the turbo in place of the exhaust elbow. It's a direct bolt-on kit that is easy to install. No fabricating. †



InLineMount

Pacbrake's InLineMount exhaust brakes mount in the exhaust system between the engine and muffler/cat.

‡Where applicable

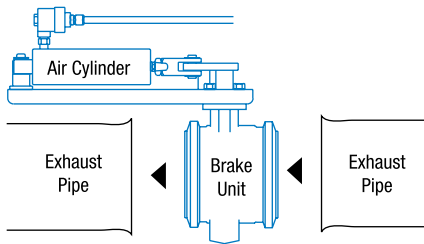
† For most applications

PRXB MOUNTING OPTIONS

INLINEMOUNT

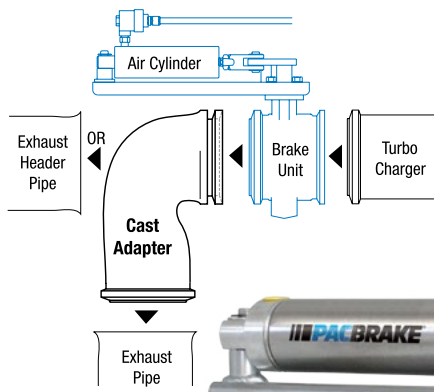
Some vehicle configurations do not allow for clearance around the turbocharger, for installation of a DirectMount exhaust brake, these applications require an InLineMount. Inline exhaust brakes require a minimum 7" of straight exhaust pipe which is then cut out and exhaust flange adapters are installed in its place. Ensure the exhaust brake is mounted as close to the turbocharger as possible and away from road spray.

NOTE: Clamped joints that exist between the brake and the engine must be welded to ensure that the joints cannot separate or leak under pressure. No flex pipe is allowed between the exhaust brake and the turbocharger.



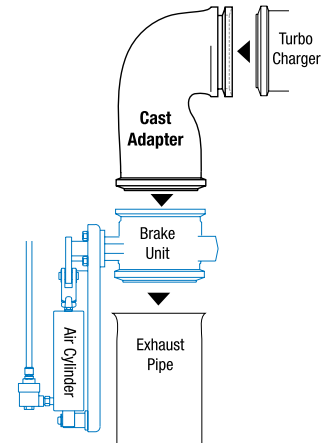
DIRECTMOUNT

This application is preferred because of the reduced number of connections between the exhaust brake and the turbocharger. The mating surfaces are both machined cast iron which eliminates any chance of exhaust leaks. For vehicles with straight back systems shortening of the header pipe is required to maintain an adequate amount of flex pipe. Vehicles with a 90° header pipe use a cast elbow to interface with the stock header pipe. Pacbrake offers replacement header pipes for some truck models.



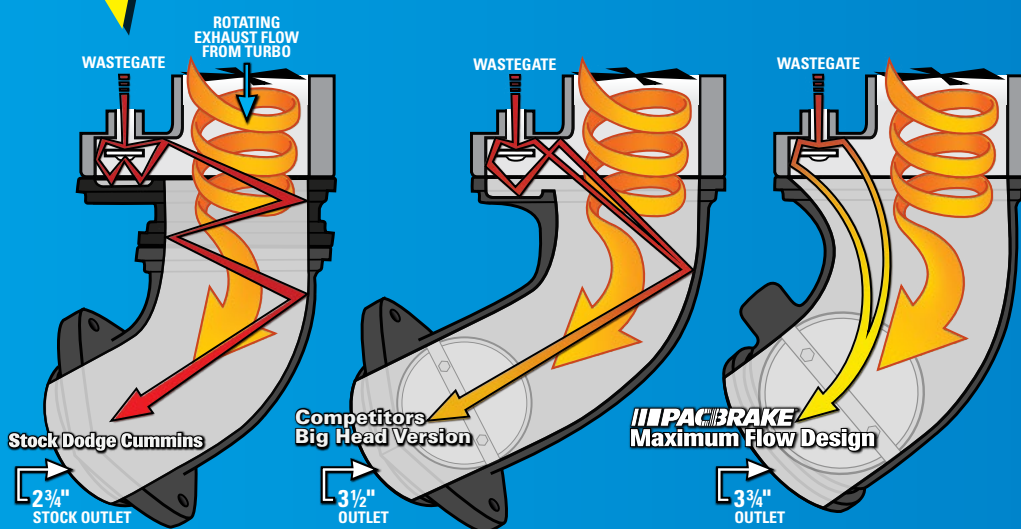
TURBO MOUNT WITH CAST ADAPTER

This application is the preferred option for vehicles with a tight 90° bent header pipe post turbocharger. The cast adapter is constructed from cast iron with machined mating surfaces on both ends, eliminating any chance of exhaust leaks.



MAX FLOW

- » Eliminates turbo lag
- » Gain in horsepower & torque
- » Lowers exhaust gas temperatures
- » Increases exhaust flow & fuel mileage



DODGE 1994-2002 (WITH 4" EXHAUST)

The maximum exhaust flow design accelerates the escape of gases through the wastegate which spools the turbocharger faster resulting in decreased turbo lag. In turn, this increases horsepower and torque while lowering exhaust gas temperatures. The brake's 5 bolt flange bolts directly to the turbocharger outlet (DirectMount design) eliminating the restrictive factory flange. Exhaust pipe adapters are available to fit factory and all larger aftermarket exhaust systems.

PR XB

**STRONGEST BRAKING HORSEPOWER,
GREATEST SPEED REDUCTIONS**

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

ACCESSORIES

SWITCH-PAC

TRANSMISSION SHIFT-LEVER MOUNTED ON/OFF SWITCH

Pacbrake's transmission shift-lever mounted exhaust brake switch adds to driver convenience. This switch allows for fingertip control of the exhaust brake actuation from the transmission gear lever while you down shift.

Adding the Switch-Pac eliminates the need to drill a hole in the vehicle dash for a standard toggle switch. The sleek black finish matches the factory transmission gear lever and suits all interior colors. The C18040 and C18041 include a stylish light feature in the ON/OFF switch. Switch brackets are available to fit 3/4" and 5/8" transmission shift-levers and custom sizes can be built to suit all applications. (See PRXB Exhaust Brake Application Guide, page 8-14)



ECM BYPASS SYSTEM

FOR DODGE RAM DIESEL TRUCKS

If your engine's electronic control module (ECM) has a delay activating your Pacbrake exhaust brake this kit may be the answer. Pacbrake offers an ECM Bypass System which will reduce the delay in activating the exhaust brake by more than 50%. This kit contains an accelerator pedal mounted micro switch which comes with all the components for a complete installation.

Keep in mind that when bypassing the engines ECM you can loose some features designed into the ECM by the factory. 2003 and 2007 Dodge Rams have a warm-up feature programmed into the ECM which activates the exhaust brake at idle when the temperature is below 175° F. This feature will be lost and is generally not a concern for vehicles in warmer climates. Another feature that will be affected on manual transmission vehicles is the progressive braking feature. When you overshoot your cruise control set speed, the Pacbrake exhaust brake automatically activates and slows the vehicle to your preset cruise set speed.



DON'T LET STEEP HILLS OVERPOWER YOUR TRUCK'S BRAKING SYSTEM

EXHAUST BRAKE PRESSURE TESTER

A MUST HAVE FOR EXHAUST BRAKE TROUBLESHOOTING.

The C10600 Exhaust brake backpressure test kit allows for quick and easy diagnoses of exhaust brake performance issues. An exhaust brake can be compromised by a cracked manifold, exhaust leaks or an inoperative air systems.

Prepare for road test check or set exhaust brake back pressure. Pacbrake test gauge kit # C10600, contains all the necessary parts to perform back pressure testing. The gauge is a dampened (liquid filled) to accurately read backpressure.

- 1 Remove the 1/8" NPT plug located in the exhaust brake body and install fitting. Install the steel tube into the fitting installed in the exhaust brake. Insert fittings into the neoprene hose, moistening the fittings and firmly pushing the hose onto the barbed end. Install one end of the hose to the steel tube and the other to the gauge. Tighten all fittings securely. Route neoprene hose into cab.
- 2 Warm the engine to normal operating temperature.
- 3 Road test the vehicle by providing long durations of maximum RPM with the exhaust brake applied. This is best achieved with weight in the vehicle and a downhill grade.
- 4 Read and record the pressure achieved on the gauge at the governed engine speed. Consult the engine manufacture or Pacbrake technical support for specified back pressure.



GAUGE



COMPLETE KIT

PACBRAKE FOOT SWITCH

UNIVERSAL APPLICATIONS*

For vehicles with a supplemental braking system. The Pacbrake switch C11745 convenient floor-mounted ON/OFF switch provides easy access for exhaust brake activation.

*Not applicable for all applications.



**Greatly decreased
stopping distances without
the use of service brakes**

PACBRAKE



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	SWITCH PAC (OPTIONAL)	ECM BYPASS (OPTIONAL)
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DODGE RAM TRUCKS WITH STANDARD TRANSMISSIONS

1994-2002 DirectMount

1994-1998 Cummins 5.9L 6BT 12 Valve Engine with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories. Includes Heavy Duty Exhaust Valve Springs.	C44072	C18040	Included
1998½ Cummins 5.9L ISB 24 Valve Engine with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44074 + C14004	C18041	C14004 (Required)
1999-2002 Cummins 5.9L ISB 24 Valve Engine with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44074	C18041	C12015

1994-2002 InLineMount

1994-1998 Cummins 5.9L 6BT 12 Valve Engine	Stock ✱ ✱	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44060	C18040	Included
1998½ Cummins 5.9L ISB 24 Valve Engine	Stock ✱ ✱	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44062	C18041	Included
1999-2002 Cummins 5.9L ISB 24 Valve Engine	Stock ✱ ✱	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44064	C18041	C12015

* **NOTE:** All 1994-2002 trucks using a DirectMount kit that have 4" aftermarket exhaust systems require an additional adapter – C11342

** **NOTE:** For vehicle's in which the factory HX/HY35 turbo charger has been changed to an aftermarket turbo charger, use only an inline kit. A mounting group must also be purchased with the kit. **Exhaust Size:** 4" – C11400, 3.5" – C11420, 3" – C11440

2003-2004½ DirectMount

2003-2004 Cummins 5.9L ISB 24 Valve Engine (Built up to Jan 4, '04)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44030	C18042	C14037
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44031	C18042	C14037
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40110 EXHAUST BRAKE ONLY	C18042	C14037

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	SWITCH PAC (OPTIONAL)	ECM BYPASS (OPTIONAL)
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DODGE RAM TRUCKS WITH STANDARD TRANSMISSIONS cont'

2003-2004½ DirectMount cont'

2004½ Cummins 5.9L ISB 24 Valve Engine (Built Jan 5, '04-Jul 25, '04)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44045	C18042	C20135
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44037	C18042	C20135
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	C18042	C20135

2003-2004½ InLineMount

2003-2004 Cummins 5.9L ISB 24 Valve Engine (Built up to Jan 4, '04)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44047	C18042	C14037
2004½ Cummins 5.9L ISB 24 Valve Engine (Built Jan 5, '04-Jul 25, '04)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44047	C18042	C20135

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.

2003-2007 InLineMount

2003-2007 Cummins 5.9L ISB 24 Valve Engine	4"	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44068	C18042	C14037 (2003-2004) C20135 (2004½) C20141 (2005-2007)
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2005-2007 DirectMount

2005 Cummins 5.9L ISB 24 Valve Engine (Built Jul 26, '04-Jun 27, '05)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44045	C18042	C20141
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44037	C18042	C20141
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	C18042	C20141
2006-2007 Cummins 5.9L ISB 24 Valve Engine (Built after Jun 27, '05)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44045	C18042	N/A
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44037	C18042	N/A
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	C18042	N/A

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	SWITCH PAC (OPTIONAL)	ECM BYPASS (OPTIONAL)
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DODGE RAM TRUCKS WITH STANDARD TRANSMISSIONS cont'

2005-2007 InLineMount					
2005 Cummins 5.9L ISB 24 Valve Engine (Built Jul 26, '04-Jun 27, '05)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44047	C18042	C20141
2006-2007 Cummins 5.9L ISB 24 Valve Engine (Built after Jun 27, '05)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44047	C18042	N/A

2007½-2018 InLineMount					
2007½-2018 Cummins 6.7L ISB 24 Valve Engine	4"	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44038	N/A	N/A
2007½-2018 Cummins 6.7L ISB 24 Valve Engine	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44039	N/A	N/A

APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	TRANSMISSION CONTROLLER
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DODGE RAM TRUCKS WITH AUTOMATIC TRANSMISSIONS

1994-2002 DirectMount				
1994-1995 Cummins 5.9L 6BT 12 Valve Engine - 47RH Auto Trans with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories. Includes Heavy Duty Exhaust Valve Springs.	C44073	Included
1996-1998 Cummins 5.9L 6BT 12 Valve Engine - 47RE Auto Trans with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories. Includes Heavy Duty Exhaust Valve Springs.	C44076	Included
1998½-2002 Cummins 5.9L ISB 24 Valve Engine - 47RE Auto Trans with 3" Stock Exhaust with HX/HY35 Turbo	Stock ✱	DirectMount 4" PRXB Exhaust Brake Kit with MAX FLOW Design (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44075	Included

* **NOTE:** All 1994-2002 trucks using a DirectMount kit that have 4" aftermarket exhaust systems require an additional adapter – C11342
 ** **NOTE:** For vehicle's in which the factory HX/HY35 turbo charger has been changed to an aftermarket turbo charger, use only an inline kit. A mounting group must also be purchased with the kit. **Exhaust Size:** 4" – C11400, 3.5" – C11420, 3" – C11440

PRXB/EXHAUST BRAKES
LOADLEASH ENGINE BRAKES
PACBRAKE ENGINE BRAKES
WARRANTY



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	TRANSMISSION CONTROLLER
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DODGE RAM TRUCKS WITH AUTOMATIC TRANSMISSIONS cont'

1994-2002 InLineMount

1994-1995 Cummins 5.9L 6BT 12 Valve Engine - 47RH Auto Trans	Stock ✖ ✖	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44059	Included
1996-1998 Cummins 5.9L 6BT 12 Valve Engine - 47RE Auto Trans	Stock ✖ ✖	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44061	Included
1998½ Cummins 5.9L ISB 24 Valve Engine - 47RE Auto Trans	Stock ✖ ✖	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44063	Included
1999-2002 Cummins 5.9L ISB 24 Valve Engine - 47RE Auto Tran	Stock ✖ ✖	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories. If the factory cast elbow has been removed a mounting group must be added.	C44065	Included

* **NOTE:** All 1994-2002 trucks using a DirectMount kit that have 4" aftermarket exhaust systems require an additional adapter – C11342

** **NOTE:** For vehicle's in which the factory HX/HY35 turbo charger has been changed to an aftermarket turbo charger, use only an inline kit. A mounting group must also be purchased with the kit. **Exhaust Size:** 4" – C11400, 3.5" – C11420, 3" – C11440

2003-2004½ DirectMount

2003-2004 Cummins 5.9L ISB 24 Valve Engine - 47 / 48RE Auto Trans (Built up to Jan 4, '04)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44049	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44032	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40110 EXHAUST BRAKE ONLY	Not Included
2004½ Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built Jan 5, '04-Jul 25, '04)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44052	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44033	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	Not Included

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	TRANSMISSION CONTROLLER
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DODGE RAM TRUCKS WITH AUTOMATIC TRANSMISSIONS cont'

2003-2004 1/2 InLineMount

2003-2004 Cummins 5.9L ISB 24 Valve Engine - 47 / 48RE Auto Trans (Built up to Jan 4, '04)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44051	Included
2004 1/2 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built Jan 5, '04-Jul 25, '04)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44051	Included

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.

2003-2007 InLineMount

2003-2005 Cummins 5.9L ISB 24 Valve Engine - 47 / 48RE Auto Trans (Built up to Jun 27, '05)	4"	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44067	Included
2006-2007 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built after Jun 27, '05)	4"	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44068	N/A

2005-2007 DirectMount

2005 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built up to Jun 27, '05)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44052	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44033	Included
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	Not Included
2006-2007 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built after Jun 27, '05)	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44045	N/A
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). For Vehicles with Existing Onboard Air.	C44037	N/A
	Stock	DirectMount 4" PRXB High Performance Exhaust Brake. UPGRADE – Replaces Fixed Orifice Exhaust Brake.	C40111 EXHAUST BRAKE ONLY	N/A

NOTE: All above DirectMount 2003-2007 kits will NOT work with Banks Turbo Back Monster® Exhaust. However, they will work with Banks Cat Back Monster® Exhaust.



APPLICATION	EXHAUST SIZE	DESCRIPTION	PRXB KIT #	TRANSMISSION CONTROLLER
DODGE RAM TRUCKS WITH AUTOMATIC TRANSMISSIONS cont'				
2005-2007 InLineMount				
2005 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built up to Jun 27, '05)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44051	Included
2006-2007 Cummins 5.9L ISB 24 Valve Engine - 48RE Auto Trans (Built after Jun 27, '05)	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44047	N/A
2007½-2018 InLineMount				
2007½-2018 Cummins 6.7L ISB 24 Valve Engine - 68RFE Auto Trans	4"	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44038	N/A
2007½-2018 Cummins 6.7L ISB 24 Valve Engine - 68RFE Auto Trans	5"	InLineMount 5" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C44039	N/A

APPLICATION	DESCRIPTION	PRXB KIT #	SWITCH PAC (OPTIONAL)	ECM BYPASS (OPTIONAL)
FORD TRUCKS WITH STANDARD TRANSMISSIONS				
1995-2007 InLineMount				
1995-1998 Powerstroke 7.3L 16 Valve Engine (Built before November 1998)	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40008	N/A	N/A
1999-2003 Powerstroke 7.3L 16 Valve Engine (Built November 1998 & newer)	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40009	C18041	N/A
2003-2007 Powerstroke 6.0L 32 Valve Engine	InLineMount 4" PRXB Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40010	Included	N/A

NOTE: All above kits are for vehicles with factory exhaust systems. Vehicles with aftermarket 4" O.D. exhaust systems will need 2 adapters – C11342

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



PRXB/EXHAUST BRAKES

APPLICATION	DESCRIPTION	PRXB KIT #	SWITCH PAC (OPTIONAL)	TRANSMISSION CONTROLLER
FORD TRUCKS WITH AUTOMATIC TRANSMISSIONS				
1995-2007 InLineMount				
1995-1998 Powerstroke 7.3L 16 Valve Engine - E40D Auto Trans (Built before November 1998)	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40008	N/A	REQUIRED (Call Pacbrake)
1999-2003 Powerstroke 7.3L 16 Valve Engine - 4R110 Auto Trans (Built November 1998 & newer)	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40019	N/A	Included
2003-2007 Powerstroke 6.0L 32 Valve Engine - 5R140 Auto Trans	InLineMount 4" PRXB Exhaust Brake Kit with (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40007	N/A	Included

NOTE: All above kits are for vehicles with factory exhaust systems. Vehicles with aftermarket 4" O.D. exhaust systems will need 2 adapters – C11342

APPLICATION	DESCRIPTION	PRXB KIT #
GM TRUCKS WITH AUTOMATIC TRANSMISSIONS (LB7/LLY/LBZ)		
2001-2007 InLineMount		
2001-2005 Duramax 6.6L 32 Valve Engine-Allison 1000 Series Auto Trans without optional 2nd alternator	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40075
2006-2007 Classic Duramax 6.6L 32 Valve Engine-Allison 1000 Series Auto Trans without optional 2nd alternator	InLineMount 4" PRXB High Performance Exhaust Brake Kit (Air Actuated). Comes with Air Tank, Hose & Accessories.	C40070

NOTE: C40070 & C40075 Kits are designed for vehicles without optional 2nd alternator. Vehicles with the 2nd alternator, will have to fabricate their own mounting for the compressor.

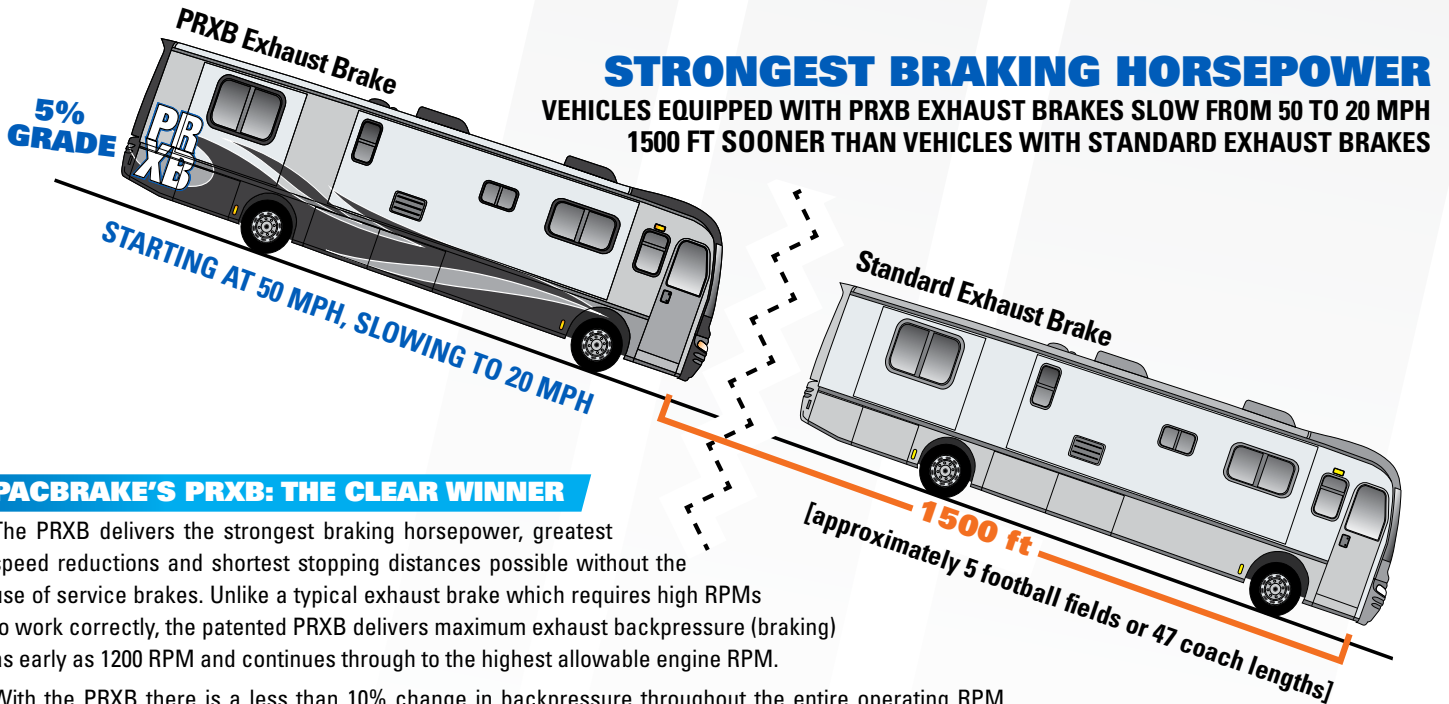
All above kits are for vehicles with factory exhaust systems. Vehicles with aftermarket 4" O.D. exhaust systems will need 2 adapters – C11342

CHECK VIN #: Check the vehicles VIN to confirm the 8th digit is either a 1, 2 or letter D. These vehicles are approved for Pacbrake PRXB kits

VIN NUMBER	8TH DIGIT OF VIN	YEARS	ENGINE RPO CODE	PRXB PART #	DESCRIPTION/APPLICATION
	1 or 2	2001-2005	LB7/LLY	C40075	Automatic Transmission only. Vehicles without optional 2nd alternator
	D	2006-2007	LLY/LBZ	C40070	Automatic Transmission only. Vehicles without optional 2nd alternator
	D	2006-2007.5	LLY/LBZ	C40070	Automatic Transmission only. Vehicles without optional 2nd alternator

MAINTENANCE	
Superlube – Exhaust Brake Maintenance	C18037

PRXB PACBRAKE'S PRESSURE REGULATED EXHAUST BRAKE RV UPGRADES



PACBRAKE'S PRXB: THE CLEAR WINNER

The PRXB delivers the strongest braking horsepower, greatest speed reductions and shortest stopping distances possible without the use of service brakes. Unlike a typical exhaust brake which requires high RPMs to work correctly, the patented PRXB delivers maximum exhaust backpressure (braking) as early as 1200 RPM and continues through to the highest allowable engine RPM.

With the PRXB there is a less than 10% change in backpressure throughout the entire operating RPM range. This is a result of a wastegate integrated into the butterfly valve that regulates the amount of exhaust flow being passed through. The flow is controlled by a spring loaded arm, whose pressure rating and location are key factors in the functionality of the PRXB. Located outside of the housing and away from the heat, the spring is able to maintain its strength and durability for years of proper and precise braking performance.

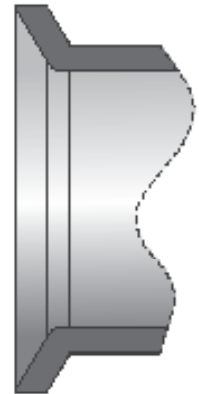
Notice the difference while
DRIVING THROUGH MOUNTAIN PASSES & DOWN STEEP HILLS



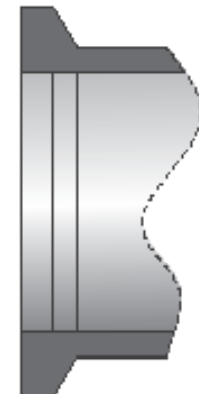


ENGINE MODEL	FLANGE	PRXB PART#	FRONT CLAMP ATTACHES TO TURBO	REAR CLAMP ATTACHES TO EXHAUST
RV UPGRADES (BRAKE ONLY)				
Cummins C8.3	4" Half Marmon	C40100	C11355 (x1)	C11350 (x1)
Cummins C8.3	4" Full Marmon	C40101	C10310 (x1)	C11350 (x1)
Cummins ISL †	4" Half Marmon	C40102	C11355 (x1)	C11350 (x1)
Cummins ISL †	4" Full Marmon	C40103	C11355 (x1)	C11350 (x1)
Caterpillar 3116 / 3116E / 3126	4" Full Marmon	C40105	C10310 (x1)	C11350 (x1)
Caterpillar 3126B / C-7	4" Full Marmon	C40106B	C10310 (x1)	C11350 (x1)
Cummins ISC	4" Full Marmon	C40107	C10310 (x1)	C11350 (x1)
Cummins ISC	4" Full Marmon	C40108	C11355 (x1)	C11350 (x1)
Cummins ISC	4" Half Marmon	C40109	C11355 (x1)	C11350 (x1)
Caterpillar 3126B / C-7	4" Inline	C40113	C11350 (x2)	
Cummins ISL †	4" Full Marmon	C40114	C10310 (x1)	C11350 (x1)
Cummins C8.3	4" Inline	C40115	C11350 (x2)	
Cummins ISB	4" Inline	C40116	C11350 (x2)	
Cummins ISC	4" Inline	C40117	C11350 (x2)	
Caterpillar 3116 / 3126	4" Inline	C40119	C11350 (x2)	
Caterpillar C-9	5" Full Marmon	C40203	C11750 (x1)	C10620 (x1)
Caterpillar C-9	5" Inline	C40206	C10720 (x1)	C10620 (x1)
Cummins ISB pre Oct '02	3.5" Full Marmon	C40301	C14094 (x1)	C20063 (x1)
Cummins ISB post Oct '02	3.5" Full Marmon	C40304	C14094 (x1)	C20063 (x1)
Cummins ISC/ISL	3.5" Full Marmon	C40017*	C11355 (x1)	C20065 (x1)
Cummins ISC CPL 1096 Only†	3.5" Full Marmon	C40020*	C11355 (x1)	C20065 (x1)

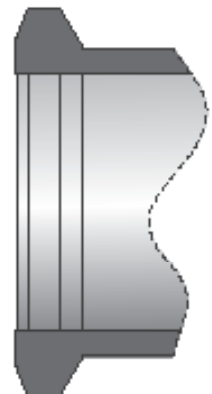
FLANGE STYLES



FULL MARMON



HALF MARMON



† ISL WITH CPL 1096 MUST USE C40020

* KIT INCLUDES STAINLESS STEEL V-CLAMPS. (STAINLESS STEEL V-CLAMPS ARE AVAILABLE FOR ALL APPLICATIONS.)

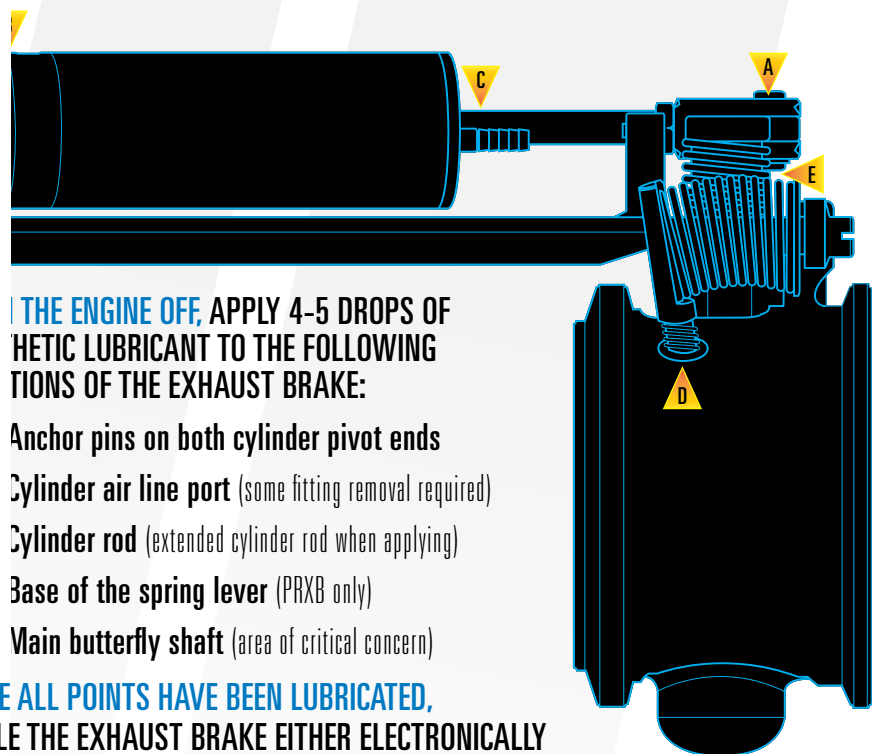
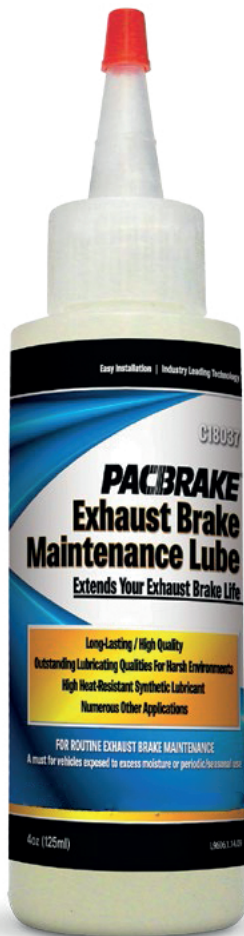
PRXB/EXHAUST BRAKES
LOADLEASH ENGINE BRAKES
PACBRAKE ENGINE BRAKES
WARRANTY

SUPERLUBE

SuperLube is a multi-purpose, high-heat resistant, synthetic lubricant that penetrates and protects exhaust brakes from binding or sticking.

Superior to petroleum based lubricants, SuperLube's long-lasting high quality formula was specifically developed to reduce friction wear as well as prevent rust & corrosion, making it a must-have for vehicles exposed to excess moisture and for preparing vehicles for storage that are used seasonally.

- » HIGH HEAT-RESISTANT SYNTHETIC LUBRICANT
- » DIAGRAM ON BOTTLE INDICATES EXHAUST BRAKE LUBE POINTS
- » LONG-LASTING / HIGH QUALITY / SUPERIOR TO PETROLEUM BASED LUBES
- » OUTSTANDING LUBRICATING QUALITIES FOR HARSH ENVIRONMENT



WITH THE ENGINE OFF, APPLY 4-5 DROPS OF SYNTHETIC LUBRICANT TO THE FOLLOWING POINTS OF THE EXHAUST BRAKE:

- Anchor pins on both cylinder pivot ends
- Cylinder air line port (some fitting removal required)
- Cylinder rod (extended cylinder rod when applying)
- Base of the spring lever (PRXB only)
- Main butterfly shaft (area of critical concern)

ONCE ALL POINTS HAVE BEEN LUBRICATED, CYCLE THE EXHAUST BRAKE EITHER ELECTRONICALLY OR MANUALLY TO WORK-IN THE LUBRICANT.

PR XB

PACBRAKE'S PRESSURE REGULATED EXHAUST BRAKES

— for the Majority of Diesel Engines

Don't Let
STEEP HILLS
OVERPOWER
Your Truck



EXCEEDS ALL COMPETITORS
BRAKING PERFORMANCE

- » Increased Driving Control
- » Shortened Stopping Distances
- » Reduced Service Brake Wear



EVERY* AUTOMOTIVE PRXB KIT INCLUDES AN
AMP ONBOARD AIR SYSTEM

Compressor • Air Tank • Air Accessories Kit

*Excluding kits designed specifically for vehicles with an existing onboard air system

Medium Duty Exhaust Brake Application Guide



How to use the Medium Duty Exhaust Brake Application Guide:

- 1 Choose a **COMPLETE KIT**
- 2 Choose an **INDIVIDUAL GROUP**
- 3 Make your own **CUSTOM KIT: BRAKE + MOUNTING GROUP + CONTROL GROUP**

ENGINE***	NOTES	COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP
FORD										
F450/550 (SEE LIGHT DUTY APPLICATIONS)										
F650										
7.3 Powerstroke 3" Exhaust		N/A	N/A	C20366	C40104	C11440	N/A	N/A	C11808	L7041
Cat 3126B/E/C7	Late 90° pipe	N/A	N/A	N/A	C40113	C11400	C10319	L7024	C11775	L7043
		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
F750										
7.3 Powerstroke 3" Exhaust		N/A	N/A	C20366	C40104	C11440	N/A	N/A	C11808	L7041
Cat 3126B/E/C7	Late 90° pipe	N/A	N/A	N/A	C40113	C11400	C10319	L7024	C11775	L7043
		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cat 3126B/E/C7	2004+ Horizontal pipe	N/A	N/A	C20353	C40106B	C10310	C10319	L7024	C11775	L7043
Powerstroke 6.0L										
Cummins ISB 02 EGR up to 230 HP	Engines built after Oct '02.									
LCF										
Powerstroke 4.5L		TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
FREIGHTLINER										
FL50/60/ 70/80										
Cat 3116 **		N/A	N/A	C20350	C40105	C11558	C10318	L7024	C11774	L7043
Cat 3116E/3126		N/A	N/A	C20350	C40105	C11558	C10319	L7024	C11775	L7043
Cat 3126B/C7 (Built pre 2000)		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cat C7 (Built post 2000)		C12026 (EXB)	C12027 (EXB)	C20353	C40106B	C11546	C10319	L7024	C11775	L7043
Cummins B5.9L *	3" Exhaust pipe	N/A	N/A	C10295	N/A	C11542	C10211	L7044	C11773	L7045
	3 1/2" Exhaust pipe	N/A	N/A	C10295	N/A	C11543	C10211	L7044	C11773	L7045
Cummins ISB (Built prior to Oct '02)	3" Exhaust pipe	C17101 (EXB)	C17201 (EXB)	C10299	C40304	C11542 (EXB) C11555 (PRXB)	C10218	L7044	C11753	L7045
	3 1/2" Exhaust pipe	C17151 (EXB)	C17251 (EXB)	C10299	C40304	C11543 (EXB) C11574 (PRXB)	C10218	L7044	C11753	L7045
Cummins C8.3L *		C13036 (EXB)	N/A	C20340	C40101	C11546	C10211	L7044	C11753	L7045
Cummins ISC	Engines built before Oct '03.	C16070 (EXB)	N/A	C20395	C40107	C11546	C10218	L7044	C11753	L7045

† OBA – ONBOARD AIR
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ENGINE***	NOTES	COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP

FREIGHTLINER cont'

M2 - 106										
Cat C7		N/A	N/A	C20353	C40106B	C11546	C20123 + F/L Switch A06-37217-056	L7055	C20124 + F/L Switch A06-37217-056	L7055
Cat C9		N/A	N/A	C20277	TBA	C11750 + F/L pipe	C20123 + F/L Switch A06-37217-056	L7055	C20124 + F/L Switch A06-37217-056	L7055
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20393	TBA	C11350 + F/L pipe	C20123 + F/L Switch A06-37217-056	L7055	C20124 + F/L Switch A06-37217-056	L7055

M2 - 112										
Cat C9		N/A	N/A	C20278	C40203	C11556	C20123 + F/L Switch A06-37217-056	L7055	C20124 + F/L Switch A06-37217-056	L7055

CARGO										
Cummins ISB (Built prior to Oct '02)		N/A	N/A	C10277	N/A	C11542	C10218	L7044	C11753	L7045
	w/ 3" exhaust pipe	N/A	N/A	C10277	N/A	C11542	C10218	L7044	C11753	L7045
	w/ 3 1/2" exhaust pipe	N/A	N/A	C10277	N/A	C11543	C10218	L7044	C11753	L7045
Cummins ISB EGR up to 230 HP	Engines built after Oct '02	N/A	N/A	C10901	C40301	C11606 (EXB) C11604 (PRXB)	C10218	L7044	C11753	L7045

GMC/CHEVROLET

C4500/5500**										
Isuzu 6.6L	Engine ECUs w/ 2-56 pin & 1-72 pin connector only Trucks built before 2006 **	C20045 (EXB)	C20046 (EXB)	C20044	C40300	C20040	C20041 + C19500 Dash Switch	L7050	C20042 + C19500 Dash Switch	L7050

C6500/7500/ 8500										
Cat 3116 **		C12004 (EXB)	C12005 (EXB)	C20350	C40105	C10310	C10318	L7024	C11774	L7043
Cat 3116E/3126		C12009 (EXB)	C12011 (EXB)	C20350	C40105	C10310	C10319	L7024	C11775	L7043
Cat 3126B/E/C7		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043

T6500/750/ 8500										
Cat 3116E/3126		N/A	N/A	C20350	C40105	C11558	C10319	L7024	C11775	L7043
Cat 3126B/E/C7		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043

C4500/5500*** WABCO REPLACEMENT										
Isuzu 6.6L	***This kit includes 3.5" Exhaust adapters	C44048	C44048	N/A	N/A	N/A	N/A	N/A	N/A	N/A

HINO

100-300 SERIES 2004+										
J08E-TA/B 6 CYL	w/ standard trans w/ Aisin auto trans	C40013	C40014	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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ENGINE***	NOTES	INDIVIDUAL GROUPS								
		COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP
KENWORTH										
T300										
Cat 3116E/3126		N/A	N/A	C20350	C40105	C11558	C10319	L7024	C11775	L7043
Cat 3126B / C7 (Pre 2004)		N/A	N/A	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cat C7 (2004+)		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cummins ISB 02 EGR up to 230 HP	Engines built after Oct '02	N/A	N/A	C10901	C40301	C11563 (EXB) C11564 (PRXB)	C10218	L7044	C11753	L7045
Cummins C8.3 L *	Engines built before Oct '03	N/A	N/A	C20340	C40101	C11561 + Cust Supplied Flex	C10211	L7044	C11773	L7045
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20395	C40107	C11561 + Cust Supplied Flex	C10218	L7044	C11753	L7045
Cummins ISC	Trucks built before Jan '05	N/A	N/A	C20394	C40107	C11559 + Cust Supplied Flex	C10218	L7044	C11753	L7045
Cummins ISC	Trucks built after Jan '05	N/A	N/A	C20394	C40107	C11591 + Cust Supplied Flex	C10218	L7044	C11753	L7045
T800SH										
Cummins ISL (2004+)		N/A	N/A	C20346	C40103	C11554	C10218	L7044	C11753	L7045
W900S										
Cummins ISL (2004+)		N/A	N/A	C20346	C40103	C11554	C10218	L7044	C11753	L7045
NAVISTAR/IHC										
1000 SERIES										
VT365 6.0L		N/A	TBA (PRXB)	N/A	TBA	TBA	N/A	N/A	TBA	TBA
3800/4700/4900/5000/7000 SERIES										
DT466E (1998-99)	w/ 90° pipe Pre 1998 call for application	N/A	N/A	C20379	C40302	C11550 (EXB) C11583 (PRXB)	C10216	L7028	C11808	L7041
DT466E (2000-04 1/2)	w/o multiplex wiring Built before Jan '04	N/A	N/A	C20371	C40303	C11550 (EXB) C11583 (PRXB)	C10216	L7028	C11808	L7041
DT466E	Built after Jan '04	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
DT / HT530E (Pre 2002)	w/o multiplex wiring	N/A	N/A	C20373	C40302	C11550 (EXB) C11583 (PRXB)	C10216	L7028	C11808	L7041
T444E 7.3L	InLineMount	N/A	N/A	C20366	C40104	C11440	C10216	N/A	C11777	L7041
4200										
VT365 6.0L		N/A	TBA (PRXB)	N/A	TBA	TBA	N/A	N/A	TBA	TBA

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ENGINE***	NOTES	INDIVIDUAL GROUPS								
		COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP
NAVISTAR/IHC cont'										
4300/4400										
VT365 6.0L		N/A	TBA (PRXB)	N/A	TBA	TBA	N/A	N/A	TBA	TBA
DT466E (2000-2004 1/2)	w/ multiplex wiring	N/A	N/A	C20371	C40303	C11550 (EXB) C11583 (PRXB)	C10220	L7049	C11777	L7041
DT530E (2000-2004 1/2)	w/ multiplex wiring	N/A	N/A	C20373	C40303	C11550 (EXB) C11583 (PRXB)	C10220	L7049	C11777	L7041
HT530E (2002+)	w/ multiplex wiring	N/A	N/A	C20375	C40302	C11550 (EXB) C11583 (PRXB)	C10220	L7049	C11777	L7041
7000 SERIES										
DT466E (2000-2004 1/2)	w/ 30° Pipe	N/A	N/A	C20371	C40303	C11360 (EXB) + Intl Pipe # 3575127C1	C10216	L7028	C11808	L7041
	w/o Multiplex wiring built before Jan '04	N/A	N/A	C20371	C40303	C20063 (PRXB) + Intl Pipe # 3575127C1	C10216	L7028	C11808	L7041
DT466E (2004 1/2)	Built after Jan '04	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
DT/HT530E (Pre 2002)	w/o multiplex wiring	N/A	N/A	C20373	C40302	C11360 (EXB) + Intl Pipe # 3575127C1 C20063 (PRXB) + Intl Pipe # 3575127C1	C10216	L7028	C11808	L7041
HT530E (2002+)	w/ multiplex wiring	N/A	N/A	C20375	C40302	C11360 (EXB) + Intl Pipe # 3575128C1 C20063 (PRXB) + Intl Pipe # 3575128C1	C10220	L7049	C11777	L7049
8000 SERIES										
DT/HT530E (Pre 2002)		N/A	N/A	C20373	C40302	C11584 (EXB) C11586 (PRXB)	C10216	L7028	C11808	L7041
HT530E (2002+)		N/A	N/A	C20375	C40302	C11584 (EXB) C11586 (PRXB)	C10220	L7049	C11777	L7049
8100 W/ ABS										
Cummins ISM (Pre Oct '02)		C13057 (EXB)	N/A	C20265	C40204	C11750	C10224	L7044	N/A	N/A
9100 W/ ABS										
Cummins ISM (Pre Oct '02)		C13057 (EXB) + C11544	N/A	C20265	C40204	C11750 + C11544	C10224	L7044	N/A	N/A
CF										
VT275 4.5L		TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

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PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

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ENGINE***	NOTES	INDIVIDUAL GROUPS								
		COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP
NAVISTAR/IHC cont'										
CXT										
DT466E (2004 1/2+)		TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
DT/HT466/530	All w/ multiplex wiring	N/A	N/A	Above	Above	Above	C10220	L7049	C11777	L7049
DT466E (2000-2004 1/2)	Jake exhaust brake replacement unit (InLineMount 3.5")	C40016	N/A	N/A		N/A	N/A	N/A	N/A	N/A
DT466E (Pre-2000)/DT530E/HT530E	Jake exhaust brake replacement unit (InLineMount 3.5")	C40015	N/A	N/A		N/A	N/A	N/A	N/A	N/A

PETERBILT

320										
Cat 3126B/E/C7		C12026 (EXB)	C12027 (EXB)	C20353	C40106B	C11546	C10319	L7024	C11775	L7043
Cat C10		N/A	N/A	TBA	TBA	C11556	C10319	L7024	N/A	N/A
Cummins ISC	Engines built before Oct '03	C16070 (EXB)	N/A	C20395	C40107	C11554	C10218	L7044	C11753	L7045
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20387	C40108	C11554	C10218	L7044	C11753	L7045
Cummins ISL	Engines built before Oct '03	N/A	N/A	C20358	C40103	C11554	C10218	L7044	C11753	L7045
Cummins ISL	Engines built after Oct '03	N/A	N/A	C20346	C40103	C11554	C10218	L7044	C11753	L7045
330/335										
Cat 3116E/3126		N/A	N/A	C20350	C40105	C11558	C10319	L7024	C11775	L7043
Cat 3126B/E/C7		C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cummins C8.3L *		N/A	N/A	C20325	C40100	C11562	C10211	L7044	C11773	L7045
Cummins ISC	Engines built before Oct '03	N/A	N/A	C20335	C40109	C11562 + Cust Supplied Flex	C10218	L7044	C11753	L7045
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20387	C40108	C11562	C10218	L7044	C11753	L7045

STERLING

8000										
Cat 3126B/E/C7	90° Pipe	N/A	N/A	C20353	C40106B	C11558	C10319	L7024	C11775	L7043
Cat 3126B/E	S Pipe	C16062 (EXB)	C16072 (EXB)	N/A	C40113	C11400	C10319	L7024	C11775	L7043
Cat C15		N/A	N/A	C20285	C40202	C11750	C10319	L7024	N/A	N/A
ACTERA (MX)										
Cat C7		C16062 (EXB)	C16072 (EXB)	N/A	C40113	C11400	C10319	L7024	C11775	L7043
Cummins ISC	Engines built before Oct '03	C16070 (EXB)	N/A	C20395	C40107	C11546	C10218	L7044	C11753	L7045
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20394	C40107	C11546	C10218	L7044	C11753	L7045

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ENGINE***	NOTES	COMPLETE KITS		BRAKES		MOUNTING GROUP	CONTROL GROUP w/ ONBOARD AIR		CONTROL GROUP w/o ONBOARD AIR	
		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP

STERLING cont'

HX 111, 113, 122 (VERTICAL EXHAUST)

Cat C7		C12026 (EXB)	C12027 (EXB)	C20353	C40106B	C11546	C10319	L7024	C11775	L7043
Cat C9		N/A	N/A	C20278	C40203	C11750	C10319	L7024	C11775	L7043
Cummins ISC	Engines built after Oct '03 w/ factory cast elbow	N/A	N/A	C20393	C40107	C11554	C10218	L7044	C11753	L7045
Cummins ISC	Engines built after Oct '03 w/o factory cast elbow	N/A	N/A	C20393	C40107	C11525	C10218	L7044	C11753	L7045

HX 101(ALL), 111, 113, 122 (HORIZONTAL EXHAUST)

Cat C7		C16062 (EXB)	C16072 (EXB)	N/A	C40113	C11400	C10319	L7024	C11775	L7043
Cat C9		N/A	N/A	C20278	C40203	C11556	C10319	L7024	C11775	L7043
Cummins ISC	Engines built after Oct '03	N/A	N/A	C20394	C40107	C11526	C10218	L7044	C11753	L7045

CARGO

Cummins ISB (Pre Oct '02)		N/A	N/A	C10277	N/A	C11542	C10218	L7044	C11753	L7045
	w/ 3" exhaust pipe	N/A	N/A	C10277	N/A	C11542	C10218	L7044	C11753	L7045
	w/ 3 1/2" exhaust pipe	N/A	N/A	C10277	N/A	C11543	C10218	L7044	C11753	L7045
Cummins ISB 02 EGR up to 230 HP	Engines built after Oct '02	N/A	N/A	C10901	C40301	C11606 (EXB) C11604 (PRXB)	C10218	L7044	C11753	L7045

THOMAS BUS

SAF-LINER HDX

Cat C7		N/A	N/A	C20353	C40106B	C11575 + Cust Supplied Flex	C10319	L7024	C11775	L7043
Cummins ISC	Engines built after Oct '03	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

SAF-LINER C2

Cat C7		TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
Cummins B5.9L *	3" Exhaust pipe	C14100 (EXB)	C14200 (EXB)	C10287	N/A	C11542	C10211	L7044	C11773	L7045
	3 1/2" Exhaust pipe	C14150 (EXB)	C14250 (EXB)	C10287	N/A	C11543	C10211	L7044	C11773	L7045
Cummins ISB (Pre Oct '02)	3" Exhaust pipe	C17100 (EXB)	C17200 (EXB)	C10297	N/A	C11542	C10218	L7044	C11753	L7045
	3 1/2" Exhaust pipe	C17150 (EXB)	C17250 (EXB)	C10297	N/A	C11543	C10218	L7044	C11753	L7045
Cummins C8.3L *		N/A	N/A	C20330	N/A	C11541	C10211	L7044	C11753	L7045
Cummins ISC	Engines built before Oct '03	N/A	N/A	C10328	N/A	C11541	C10218	L7044	C11753	L7045

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		VEHICLES w/ OBA†	VEHICLES w/o OBA†	EXB	PRXB		CONTROL GROUP VEHICLES w/ OBA†	INFO GROUP	CONTROL GROUP VEHICLES w/o OBA†	INFO GROUP
WESTERN STAR										
Cat 3126B/E/C7	3700	C20650 (EXB)	C20655 (EXB)	C20353	C40106B	C11558	C10319	L7024	C11775	L7043

APPLICATIONS USING FOOT SWITCH

All	All w/o ABS, w/o Allison	N/A	N/A	Above	Above	Above	C12051	L7058	C12052	L7059
All	All w/ ABS, w/o Allison	N/A	N/A	Above	Above	Above	Above + C12029	L7058	Above + C12029	L7059
All	All w/o Allison requiring cruise control disable	N/A	N/A	Above	Above	Above	Above + C12053	L7058	Above + C12053	L7059

APPLICATIONS THAT NEED WARM UP

All	All using foot switch	Above	Above	Above	Above	Above	Above + C12050	Above	Above + C12050	Above
All	All not using foot switch	Above	Above	Above	Above	Above	Above + TBA	Above	Above + TBA	Above

MISCELLANEOUS UNIVERSAL APPLICATIONS

Cummins C8.3L *	DirectMount	C10320	N/A	C20325	C40100	C11541	C10211	L7044	C11753	L7045
	InLineMount	C12001-65	N/A	C20365	C40115	C11400	C10211	L7044	C11753	L7045
w/ foot switch **	InLineMount w/ 3" Exhaust Pipe	N/A	C12000	C10300	N/A	C11440	C11790	L7009	C11770	L7009
w/ throttle switch **	InLineMount w/ 3" Exhaust Pipe	N/A	C12003	C10300	N/A	C11440	C10211	L7009	C11773	L7009
w/ foot switch **	InLineMount w/ 4" Exhaust Pipe	N/A	N/A	C10300	N/A	C11400	C11790	L7009	C11770	L7009
w/ throttle switch **	InLineMount w/ 4" Exhaust Pipe	C12001	N/A	C10300	N/A	C11400	C10211	L7009	C11773	L7009

ALLISON AUTOMATIC TRANSMISSION INTERFACE GROUPS - REQUIRED FOR AFTERMARKET INSTALLATIONS

3000 series transmissions in vehicles w/ Allison VIM	C13060E			
3000 series transmissions in vehicles w/o Allison VIM - Freightliner vehicles and Sterling vehicles w/ MX and HX chassis	C13060FE			
1000/2000 series transmissions - not required for Duramax Pickup or Hino Truck applications	C11981			

† OBA – ONBOARD AIR

* ENGINES MAY REQUIRE HEAVY DUTY VALVE SPRINGS

** CALL TO VERIFY APPLICATION

*** MORE APPLICATIONS AVAILABLE CALL FOR INFORMATION

Solenoid Specifications



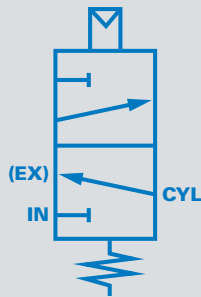
SOLENOID OPERATED PNEUMATIC DIRECTIONAL CONTROL VALVES

Pacbrake offers various vacuum and air solenoid configurations to meet any specialty requirement or mounting location. Our engineered commercial-duty and severe-duty solenoids have been exposed to some of the toughest testing grounds the world has to offer.

Pacbrake's experience designing cost effective hydraulic and pneumatic solenoids with demanding requirements has equipped Pacbrake with the experience to integrate solenoid controls into any application.

3-WAY, 2-POSITION

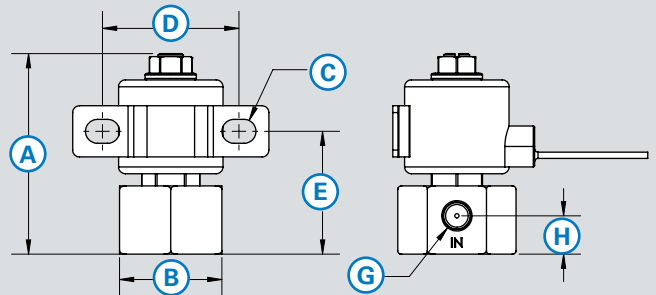
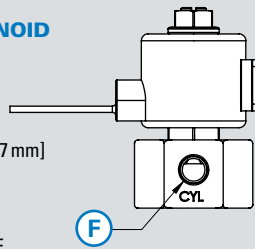
- 'IN' port normally closed
- 'CYL' port normally open to exhaust (atmosphere)
- 18" [457 mm] long 18 AWG wire leads
- Anodized aluminum valve body
- Zinc chromate plated carbon steel solenoid body



SPECIFICATIONS	
WORKING TEMPERATURE RANGE:	-40°F to 185°F [-40°C to 85°C]
MAXIMUM WORKING PRESSURE:	0 psi to 150 psi [0 kPa to 1034 kPa]
ORIFICE SIZE:	3/32" x 2 [2.38 mm x 2]



C11935 PNEUMATIC SOLENOID
Voltage Range: 12 VDC*
Coil Resistance: 10 Ω
A: 2.91" [74.0 mm]
B (Hex): 1.50" [38.1 mm]
C: .35" X .50" [8.9mm X 12.7 mm]
D: 2.00" [50.8 mm]
E: 1.8" [45.7 mm]
F (Port): 1/8"-27 (-2) NPTF
G (Port): 1/8"-27 (-2) NPTF
H: .563" [14.3 mm]



*Also available in 24VDC part #: C11979

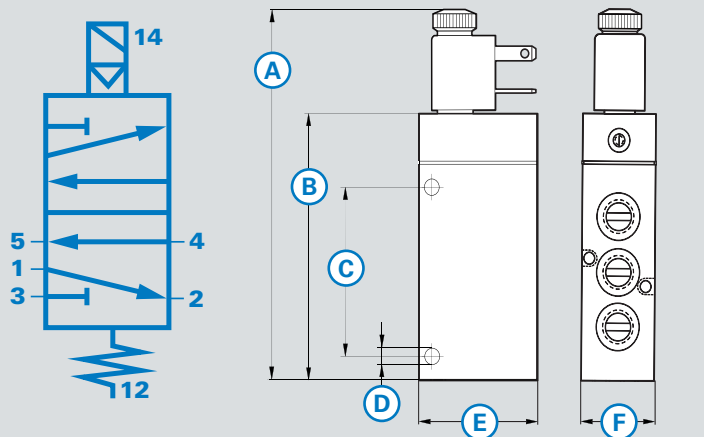
5/2-WAY SOLENOID VALVE

- Single solenoid with spring return
- Continuous duty cycle
- IP65 to DIN 40050 with plug protection

SPECIFICATIONS	
AMBIENT TEMPERATURE RANGE:	14°F to 140°F [-10°C to 60°C]
MAXIMUM WORKING PRESSURE:	29 psi to 145 psi [2 bar to 10 bar]
FLOW CV:	0.5 l [500 min]



C10560 5/2 WAY SOLENOID VALVE
Voltage Range: 12 VDC
Weight: 0.62 lbs [0.28 kg]
A: 5.04" [128 mm]
B: 3.44" [87.5 mm]
C: 2.19" [55.5 mm]
D: 0.22" [5.5 mm]
E: 1.57" [40 mm]
F: 0.87" [22 mm]
Port: 1/8" (-2) NPT



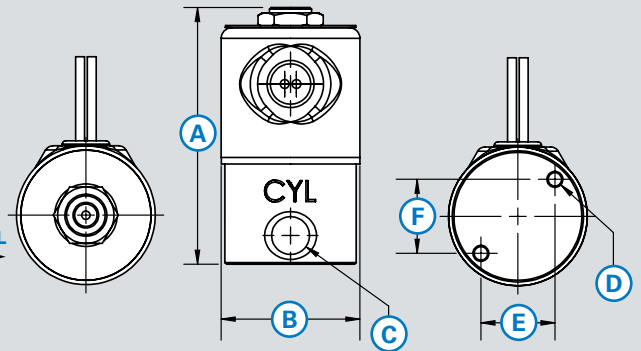
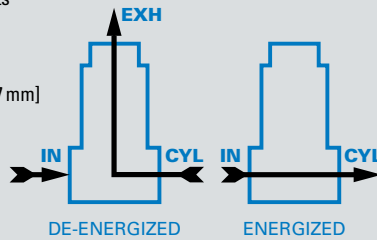
3-WAY, 2-POSITION

- Direct acting, spring return
- Inlet – normally closed, Cyl – normally open to vent (atmosphere)
- 1/4" (-4) NPT IN and CYL port
- 6" [152 mm] long 18 AWG (UL 3173) pigtail
- Brass solenoid base
- Zinc chromate plated carbon steel solenoid body
- 1N4006 internal suppression diode
- NEMA 1 Protection

SPECIFICATIONS	
WORKING TEMPERATURE RANGE:	-40°F to 248°F [-40°C to 120°C]
MAXIMUM WORKING PRESSURE:	0 psi to 135 psi [0 kPa to 931 kPa]
FLOW RATE	Cv 0.18
PROOF PRESSURE:	500 psi [3448 kPa]
BURST PRESSURE:	6000 psi [41369 kPa]
ORIFICE SIZE:	3/32" x 2 [1.52+/-0.08 mm 2.38 mm x 2]
MAX FREQUENCY:	300 Cpm
RESPONSE TIME:	5-15 ms



C10611
HEAVY DUTY SOLENOID
Voltage Range: 24 VDC
Coil Resistance: 36 to 45 Ω
Max Power: 14 Watts
A: 3.05" [77.5 mm]
B: 1.56" [39.6 mm]
C: 1/4" (-4) NPT x 2
D: 10-32 UNF .38" [9.7 mm]
E: .88" [22.4 mm]
F: .88" [22.4 mm]



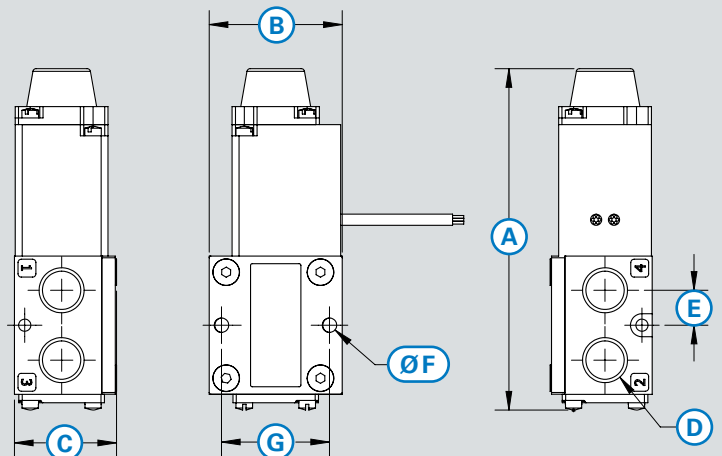
4-WAY, 2-POSITION

- 6 Watt
- .5 Amps current holding
- Spring return with flush non-locking override
- 1/8" (-2) NPTF
- Lubricant free assembly
- Loctite applied to fasteners
- Energize time: 0.012 ms
- De-energize time: 0.006 sec
- Designed to meet NEMA 4/IP65
- Flow capacity: 197 NI/m @ 6 bar upstream /5 bar downstream atmosphere [9.3 SCM @ 80 psig upstream /atmosphere downstream]
- 15" [457 mm] long 18 AWG pigtail

SPECIFICATIONS	
WORKING TEMPERATURE RANGE:	-40°F to 185°F [-40°C to 85°C]
WORKING PRESSURE:	28" Hg to 150 psig [Vacuum to 10 bar]
FLOW RATE:	Cv 0.20



C11829
LIGHT DUTY SOLENOID
Voltage Range: 12 VDC
Coil Resistance: 25 Ω
A: 3.14" [79.8 mm]
B: 1.19" [30.2 mm]
C: 0.90" [22.9 mm]
D: 1/8" (-2) NPTF x 4
E: 0.31" x 4 [7.9 mm x 4]
F: 0.11" x 3 [2.8 mm x 3] Thru
G: 0.97" [24.6 mm]



Adapter & Clamp Specifications

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



EXHAUST BRAKE ADAPTERS & CLAMPS

When installing an exhaust brake there are two different mounting configurations. One of the most typical exhaust brake installation is the InLineMount. For this type of install adapters are required to seal the airflow from the exhaust brake to the exhaust pipe. They are mounted on either side of the brake and clamped into place.

The second type of exhaust brake, for Dodge 2003 and newer vehicles, are exceptions as they are installed using a DirectMount configuration. This type of install does not require adapters as one side of the brake attaches directly to the turbocharger and the other side directly to the exhaust pipe.

Pacbrake's exhaust brake adapters are stainless steel* and have machined flanges so that they are perfectly matched when connected to the exhaust brake housing. The adapters combined with the stainless steel* V-Clamps, ensure that there is a perfect airtight seal between all exhaust brake joints.

See the PRXB replacement parts table to find the specific part numbers of replacement adapters and clamps for Pacbrake exhaust brakes (pages 32-37).

*Where Applicable

ADAPTERS

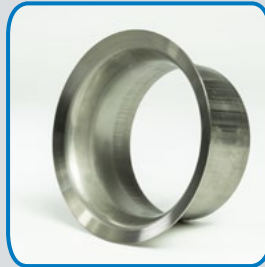
- Stainless steel (where applicable)
- Precision machined flanges
- No gaskets required



C11342



C11346



C11347



C11354



C20118

CLAMPS

- Stainless steel
- Available for Pacbrake exhaust brakes* (some are OEM only)
- Sizes 2.75" To 5" exhaust brakes
- 40° Flange angle



C10310



C10350



C10355



C10720



C11750



C14093



C14094



C14096



C20063

See Pacbrake's EXHAUST BRAKE REPLACEMENT PARTS GUIDE on pages 32-37 to find the appropriate part number for replacement adapters, clamps & cylinders for your Pacbrake exhaust brake

CYLINDERS: PNEUMATIC ACTUATORS



Pacbrake's pneumatic actuators are known for their reliability and lengthy service life. Constructed with a stainless steel body and shaft, these actuators have excellent corrosion resistance enabling them to withstand demanding conditions. Single acting designs are available with return springs which can act as both a simpler method of control, as well as a fail-safe measure. Various seal materials can be recommended depending on the operating temperatures of your application. Dual acting cylinders are available for some applications contact Pacbrake for more information.

CYLINDERS

Pneumatic-Single Acting

- Spring return, normally retracted
- Clear Anodized, front & rear end caps
- Clevis mount
- Operating pressure 100-150 psi
- Buna HBNR seal*
- Non repairable

Pneumatic-Dual Acting

- Clear Anodized, front & rear end caps
- Clevis mount
- Operating pressure 100-150 psi
- Buna HBNR seal*
- Non repairable

MATERIALS

CYLINDER BODY	AISI 304 Stainless steel
PISTON	6061-T6 Aluminum
PISTON SHAFT	AISI 304 Stainless steel
END CAPS	6061-T6 Aluminum
BUSHING	Composite, G10300 + 52100 + PTFE

*Viton seals are also available. Contact Pacbrake for more information



C10578



C10579



C11300



C11530



C10595



C11596



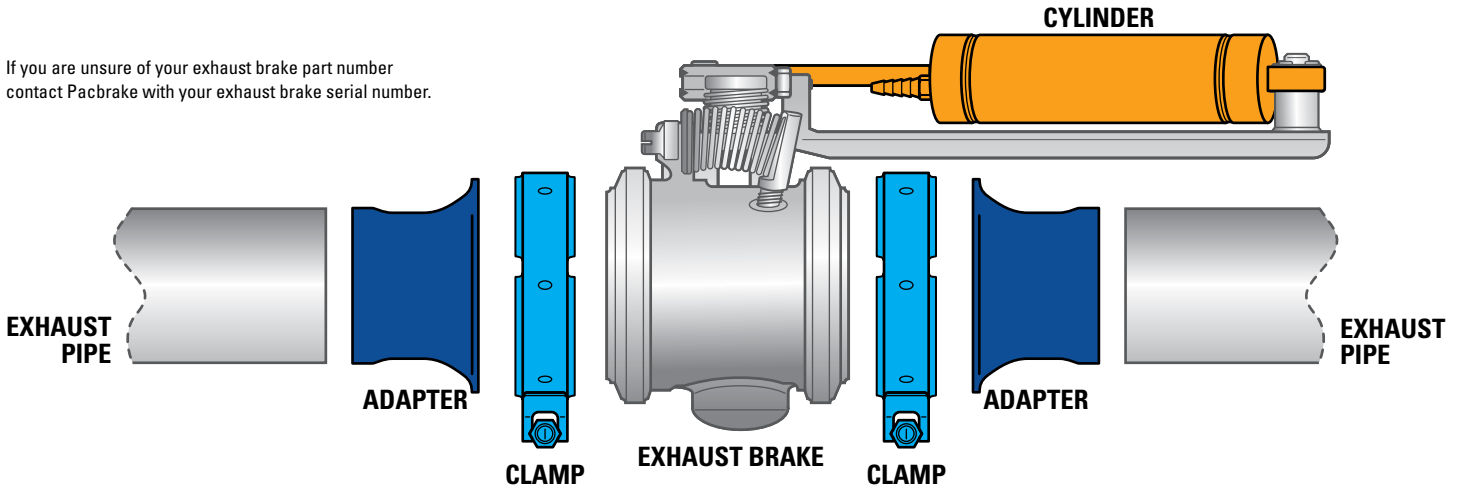
C11602



C11876

Exhaust Brake Replacement Parts Guide

If you are unsure of your exhaust brake part number contact Pacbrake with your exhaust brake serial number.



BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
				TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
		FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C10100	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11596
C10150	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11596
C10175	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11596
C10200	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C10579*
C10240	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11596
C10245	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11596
C10250	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11596
C10250W	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C10579*
C10252	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11596
C10265	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11596
C10275	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C10579*
C10277	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10280	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C10579*
C10284	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10285	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10287	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10288	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10290	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11898
C10290AT	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11898
C10292	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11898
C10292AT	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11898
C10293	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11898
C10295	2 3/4"	C14094	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10297	2 3/4"	C14096	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10299	2 3/4"	C14094	N/A	N/A	N/A	N/A	C11901	N/A	C11902	N/A	N/A	N/A	N/A	C11876
C10300	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11530
C10300-30	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10300-35	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10300-40	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part#s

† Original Equipment Manufacturer (OEM)

BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
				TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
		FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C10300-55	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10300-60	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10300-65	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10325	4"	C10310	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C10328	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10330	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10335	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10337	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10340	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10345	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10350	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10353	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10360	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10361	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10370	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10372	4"	C10310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C10373	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10376	3"	N/A	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10585*
C10380	2 3/4"	N/A	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11898
C10382	4"	C10310	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11530
C10383	3"	N/A	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10585*
C10386	3"	N/A	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10585*
C10388	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10390	4"	C10310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C10392	4"	C10310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C10395	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10397	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10399	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C10401	4"	C10310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C10900	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10901	3"	C14094	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10902	3"	C14094	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10903	3"	C14094	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10904	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10905	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10906	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10907	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10911	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C10912	3"	C14096	C14093	N/A	C11909	N/A	C20521	N/A	N/A	N/A	N/A	N/A	N/A	C11876
C20044	3 1/2"	C20061	C20063	N/A	N/A	N/A	C11368	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C20060	3 1/2"	C20061	C20063	N/A	N/A	N/A	C20067	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C20245	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20246	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11602
C20265	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20266	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11602

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part#s

† Original Equipment Manufacturer (OEM)

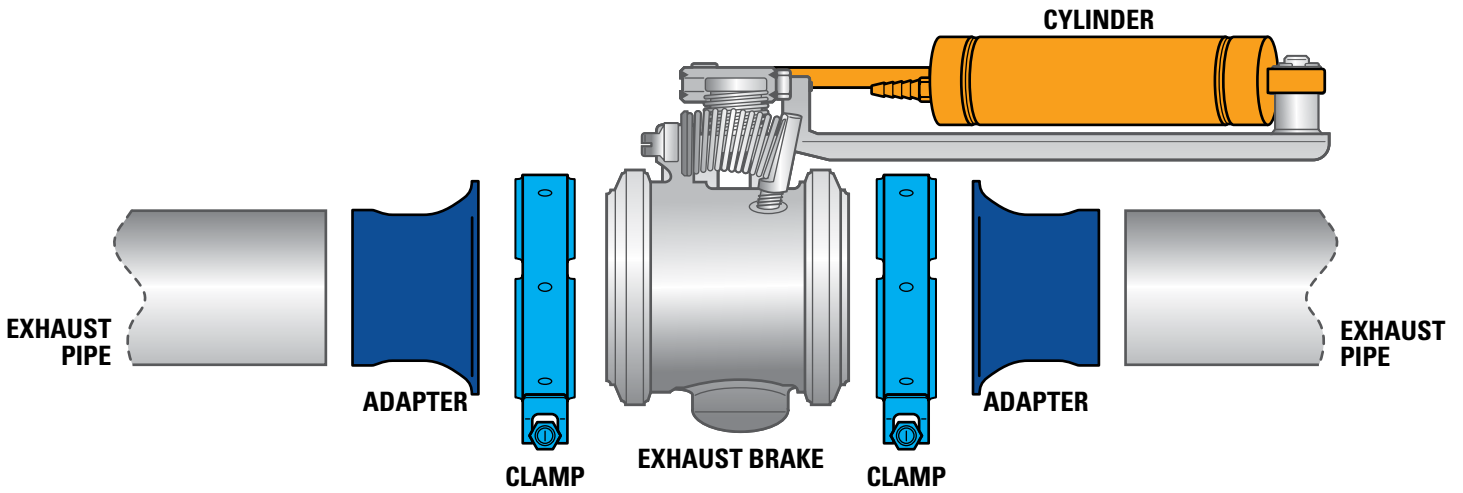
Exhaust Brake Replacement Parts Guide

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
		FRONT	REAR	TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
				FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C20270	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C10525	C11354	C11354	C11596
C20274	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20275	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20276	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C10578*
C20277	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20278	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20279	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20281	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20285	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20290	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20295	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C20305	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20325	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20330	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20335	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20340	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20342	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20344	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20345	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20346	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20347	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20348	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20349	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20350	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20351	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20352	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20353	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20354	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20355	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part#s

† Original Equipment Manufacturer (OEM)

BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
		FRONT	REAR	TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
				FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C20356	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20357	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20358	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11530
C20359	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20360	4"	C11360	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20361	4"	C11360	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20362	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20363	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20364	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20365	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20366	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20367	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20368	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11876
C20369	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20370	4"	C11360	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20371	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20373	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20374	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11876
C20375	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20376	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C20379	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20380	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20381	4"	C11365	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20383	3.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C20384	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20385	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11876
C20386	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20387	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20388	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20389	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20390	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20391	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C20392	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20393	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20394	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20395	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20399	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C20405	4"	OEM †	OEM †	N/A	N/A	N/A	N/A	N/A	OEM †	N/A	N/A	N/A	N/A	C11530
C20406	4"	OEM †	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OEM †	N/A	N/A	C11530
C20525	5"	N/A	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OEM †	C11602
C40100	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40101	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11530
C40102	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40103	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40104	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11530

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part #s

† Original Equipment Manufacturer (OEM)

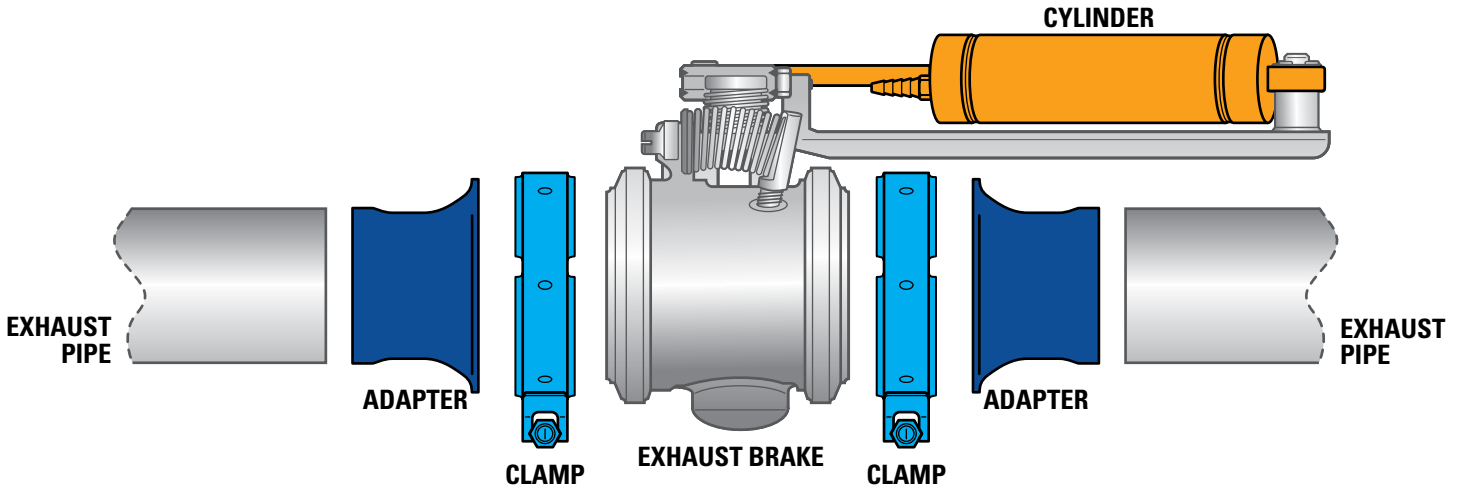
Exhaust Brake Replacement Parts Guide

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY



BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
		FRONT	REAR	TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
				FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C40105	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11530
C40106B	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40107	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40108	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11530
C40109	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40110	4"	OEM †	OEM †	N/A	N/A	N/A	N/A	N/A	OEM †	N/A	N/A	N/A	N/A	C11530
C40111	4"	OEM †	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OEM †	N/A	N/A	C11530
C40112	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11530
C40113	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40114	4"	C10310	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40115	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40116	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40117	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40118	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40119	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40120	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40123	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40124	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40125	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40126	4"	N/A	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11530
C40127	4"	N/A	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40128	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11530
C40129	4"	C11355	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40130	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40131	4"	OEM †	C11350	N/A	N/A	N/A	C11346	N/A	C11347	N/A	C11342	N/A	N/A	C11596
C40132	4"	C11350	C11350	N/A	N/A	C11346	C11346	C11347	C11347	C11342	C11342	N/A	N/A	C11596
C40133	4"	OEM †	OEM †	N/A	N/A	N/A	N/A	N/A	N/A	N/A	OEM †	N/A	N/A	C11596
C40200	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40201	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part#s

† Original Equipment Manufacturer (OEM)

BRAKE PART #	SIZE	CLAMP PART #		ADAPTER PART #										CYLINDER KIT #
		FRONT	REAR	TO 2.75" PIPE		TO 3" PIPE		TO 3.5" PIPE		TO 4" PIPE		TO 5" PIPE		
				FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	
C40202	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40203	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40204	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40205	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40206	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40207	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40208	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40209	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40210	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40211	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40213	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40214	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40215	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40216	5"	C11750	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	C11602
C40217	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40218	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40219	5"	OEM †	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	N/A	C11354	OEM †
C40220	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40221	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	OEM †	OEM †	C11602
C40222	5"	C10720	C10720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C10525	C11354	C11354	C11602
C40300	3 1/2"	C20061	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40301	3 1/2"	C14094	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40302	3 1/2"	C20063	OEM †	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40303	3 1/2"	C20063	OEM †	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40304	3 1/2"	C14094	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40305	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11530
C40306	3 1/2"	***	***	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C40307	3 1/2"	***	***	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C11596
C40308	3 1/2"	C11365 **	OEM †	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40309	3 1/2"	C11365 **	OEM †	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40310	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11530
C40311	3 1/2"	C14096	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40312	3 1/2"	C14096	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11530
C40313	3 1/2"	C14096	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40315	3 1/2"	C14096	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40316	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40317	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40318	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40319	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596
C40320	3 1/2"	C11360	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11530
C40321	3 1/2"	C11355	C20063	N/A	N/A	N/A	C11368	N/A	C20118	N/A	N/A	N/A	N/A	C11596

* Requires additional parts: C10833 x 1, C10420 x 3, C18002 x 1, C18003 x 1 & C10430 x 1

** Requires replacement gasket: C11612

*** Bolt flange connection, contact Pacbrake for Part #s

† Original Equipment Manufacturer (OEM)

Compressor Specifications



HP325 SERIES AMP AIR COMPRESSORS

Pacbrake's HP325 series air compressors have a 33% (20 minutes @ 100 psi) duty cycle and are offered in both 12 and 24 VDC. These ¼ horsepower compressors utilize an oil-less design, sealed bearings, a PTFE piston ring, a copper wire wound permanent magnet motor and a hard anodized aluminum cylinder.

The Premium Air Compressor Kit offers pre-built wiring harnesses for the ultimate ease in installation.

- Sealed bearings
- Cast aluminum cylinder head
- Hard anodized aluminum cylinder
- PTFE piston ring
- Mountable in any orientation



Pacbrake's PRXB product line features AMP HP325 series compressors.

12 VDC SPECIFICATIONS

GENERAL DATA

PART NUMBER	HP10142
WEIGHT	5.5 lbs [2.49 kg]
AMBIENT TEMPERATURE RANGE	-40°F to 158°F [-40°C to 70°C]
MAX DUTY CYCLE	33% (20 minutes @ 100 psi)
INGRESS PROTECTION	IP55 w/remote intake (included)

PNEUMATIC DATA

RATED FLOW	1.1 SCFM
MAX WORKING PRESSURE	150 psi [1034 kPa]
MAX RESTART PRESSURE	135 psi [931 kPa]

ELECTRICAL MOTOR DATA

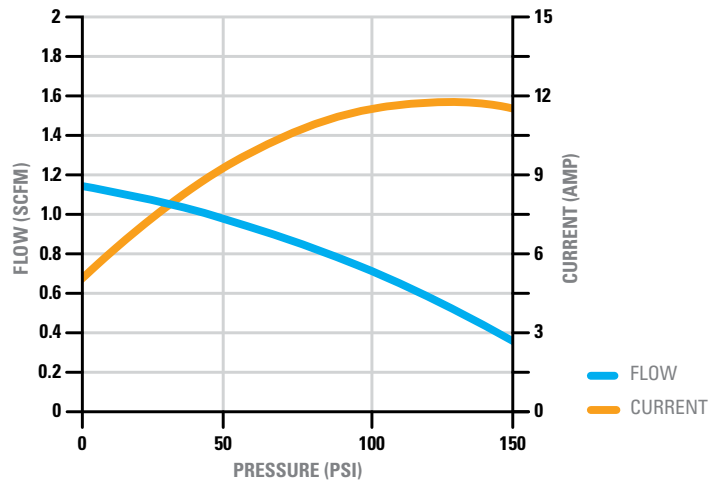
MOTOR TYPE	Permanent Magnet DC
OPERATING VOLTAGE	12 VDC ± 15%
MAXIMUM CURRENT DRAW	17 A
NOMINAL POWER	¼ HP
NOMINAL SPEED	3000 RPM

*Operating life may be dependent on application

12 VDC TANK FILL TIME

TANK SIZE	TANK PART #	0 to 100 psi	100 to 150 psi
½ Gallon	HP10053	23 seconds	23 seconds
2½ Gallon	HP10050	157 seconds	130 seconds

HP325 12 VDC - CURRENT & FLOW RATE VS PRESSURE (13.8 VDC)





PUSH-TO-CONNECT FITTINGS

- For use with air, water and oil
- DOT fittings are approved for automotive air brake systems using DOT approved nylon tube
- Non-DOT fittings are for use with standard nylon tube or DOT approved
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS		
DOT:	MAXIMUM WORKING PRESSURE	¼" OD Tube: 300 psi [2.07 mPa]
	WORKING TEMPERATURE RANGE:	-40°F to 200°F [40°C to 93°C]
NON-DOT:	MAXIMUM WORKING PRESSURE	½" OD Tube: 350 psi [2.41 mPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 250 psi [1.72 mPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 300 psi [2.07 mPa]
	WORKING TEMPERATURE RANGE	-10°F to 200°F [23°C to 93°C]



HP1152
FEMALE PIPE BULKHEAD
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Female
NON-DOT



HP1019
MALE PIPE 90° SWIVEL ELBOW
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1099
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1210
FEMALE PIPE CONNECTOR
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Female
NON-DOT



HP1122
MALE PIPE 90° SWIVEL ELBOW
Material: Brass
Fitting End A: 1/8" OD Tube
Fitting End B: 1/8" (-2) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1214
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 3/8" OD Tube
Fitting End B: 1/4" (-4) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1245
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 3/8" (-6) NPT Male (Pre-Applied Sealant)
NON-DOT



HP1098
MALE PIPE CONNECTOR
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/8" (-2) NPT Male
NON-DOT



HP1385
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 3/8" (-6) NPT Male (Pre-Applied Sealant)
DOT



HP1100
MALE PIPE 90° SWIVEL ELBOW
Material: Nickel Plated Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" (-4) NPT Male
NON-DOT



HP1176
UNION TEE
Material: Brass
Fitting End A: 1/4" OD Tube
Fitting End B: 1/4" OD Tube
Fitting End C: 1/4" OD Tube
DOT

HOSE BARB FITTINGS

- General purpose fittings for air, water, low pressure and vacuum applications
- Tube/hose requires securing with clamps or ferrules
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	Dependent on tube/hose
WORKING TEMPERATURE RANGE:	-40°F to 220°F [40°C to 104°C]



C11868
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10686
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/8" ID Tube
Fitting End B: 10/32" UNF Male



C11867
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10568
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/8" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C11833
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 3/8" ID Tube
Fitting End B: 1/8" (-2) NPT Male



C10501
UNION TEE
Material: Brass
Fitting End A: 0.170" ID Tube
Fitting End B: 0.170" ID Tube

Pneumatic / Hydraulic Fittings & Accessories

PIPE FITTINGS

- General purpose fittings for use with air, natural gas, water and oil
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	5,000 psi [34.5 mPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 120°C]



C20092
90° STREET ELBOW
Material: Brass
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Female



HP1096
BUSHING
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/8" (-2) NPT Female



C11722
MALE HEX NIPPLE
Material: Brass
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Male



HP1171
90° STREET ELBOW
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/4" (-4) NPT Female



C3086
HEX HEAD PLUG
Material: Brass
Fitting End A: 1/8" (-2) NPT Male



HP1153
CLOSE NIPPLE
Material: Brass
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/4" (-4) NPT Male



HP1387
90° STREET ELBOW
Material: Brass
Fitting End A: 3/8" (-6) NPT Male
Fitting End B: 3/8" (-6) NPT Female



C10575
HEX NIPPLE
Material: Steel
Fitting End A: 1/4" (-4) NPT Male
Fitting End B: 1/8" (-2) NPT Male



HP1386
PLUG
Material: Zinc Plated Steel
Fitting End A: 3/8" (-6) NPT Male



HP1388
BUSHING
Material: Brass
Fitting End A: 3/8" (-6) NPT Male
Fitting End B: 1/4" (-4) NPT Female



C10583
HEX NIPPLE
Material: Steel
Fitting End A: 1/8" (-2) NPT Male
Fitting End B: 1/8" (-2) NPT Male



C10567
STREET TEE
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Male



HP1238
BUSHING
Material: Brass
Fitting End A: 3/4" (-12) NPT Male
Fitting End B: 3/8" (-6) NPT Female



C18008
CROSS
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female
Fitting End D: 1/8" (-2) NPT Female



C11737
TEE
Material: Brass
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female

SAE 45° FLARE FITTINGS

- Incompatible with JIC (SAE 37°)
- For use with air, natural gas, water, oil, refrigerant & gasoline

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	1/4" (-4) SAE 45°: 1,400 psi [9.65 MPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 120°C]



C10680
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male



C10770
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/4" (-4) NPT Male



C11786
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male



C10685
MALE PIPE 45° ELBOW
Material: Brass
Fitting End A: 1/4" (-4) SAE 45° Male
Fitting End B: 1/8" (-2) NPT Male

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

COMPRESSION FITTINGS

- For use with air, water and oil
- DOT fittings are approved for automotive air brake systems
- Require the use of teflon® tape or pipe sealant – some fittings may come with pipe sealant pre-applied

SPECIFICATIONS		
DOT:	MAXIMUM WORKING PRESSURE	¼" OD Tube: 300 psi [2.07 MPa]
	WORKING TEMPERATURE RANGE:	-40°F to 200°F [-40°C to 93°C]
NON-DOT:	MAXIMUM WORKING PRESSURE	½" OD Tube: 400 psi [2.76 MPa]
	MAXIMUM WORKING PRESSURE	¾" OD Tube: 200 psi [1.38 MPa]
	WORKING TEMPERATURE RANGE	-65°F to 250°F [-54°C to 120°C]



HP1151
FEMALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Female
DOT



C11796
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ½" (-2) NPT Male
DOT



C10576
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Male
DOT



HP1120
FEMALE PIPE CONNECTOR
Material: Brass
Fitting End A: ⅜" OD Tube Nylon
Fitting End B: ⅜" (-2) NPT Female
NON-DOT



HP1236
MALE PIPE 90° ELBOW
Material: Brass
Fitting End A: ⅜" OD Tube Brass/
Copper/Aluminum
Fitting End B: ⅜" (-6) NPT Male
NON-DOT



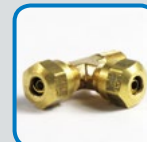
C10570
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ⅜" (-2) NPT Male
DOT



C10591
MALE PIPE 45° ELBOW
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ⅜" (-2) NPT Male
DOT



C10572
MALE PIPE CONNECTOR
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" (-4) NPT Male
DOT



C11795
MALE PIPE RUN TEE
Material: Brass
Fitting End A: ¼" OD Tube Nylon
Fitting End B: ¼" OD Tube Nylon
Fitting End C: ⅜" (-2) NPT Male
DOT

JIC (SAE 37°) FLARE FITTINGS

- JIC (Joint Industrial Council) also known as SAE 37° meeting SAE J514 – incompatible with SAE 45°
- For use with air, natural gas, water, oil, refrigerant & gasoline
- NPT compatible with NPTF when Teflon® tape or thread sealant is utilized

SPECIFICATIONS		
MAXIMUM WORKING PRESSURE	½" (-4) JIC:	-28" Hg to 5,000 psi [-0.94 kPa to 9.65 MPa]
WORKING TEMPERATURE RANGE:		-60°F to 400°F [-54°C to 204°C]



C3467
MALE PIPE CONNECTOR
Material: Steel
Fitting End A: ¼" (-4) JIC Male
Fitting End B: ½" (-2) NPTF Male



C3468
90° ELBOW
Material: Steel
Fitting End A: ¼" (-4) JIC Male
Fitting End B: ½" (-2) NPTF Male

ISO 6149 FITTINGS

- For use in hydraulic power applications
- NPT compatible with NPTF when Teflon® tape or thread sealant is utilized



P55116
FEMALE PIPE CONNECTOR
Material: Brass Body, FKM Seal
Fitting End A: M14 X 1.5
ISO 6149-3 Male
Fitting End B: ⅜" (-2) NPTF Female

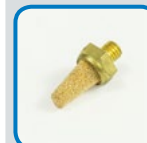
SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	0 psi to 1000 psi [0 mPa to 6.9 mPa]
WORKING TEMPERATURE RANGE:	-65°F to 250°F [-54°C to 121°C]

PNEUMATIC ACCESSORIES

Effective for muffling air valve noise, filtering exhaust/intake air & pressure/vacuum equalization



C10774
POROUS BRONZE AIR SILENCER
Material: Bronze/Steel
Fitting End A: ⅜" (-2) NPTF Male
Max Rated: 5 SCFM @ 90 psi



C10833
POROUS BRONZE AIR SILENCER
Material: Bronze
Fitting End A: 10-32 UNF Male
Filtration: 40 µm
Max Rated: 2 CFM @ 90 psi

Pneumatic / Hydraulic Fittings & Accessories

CHECK VALVES

- Pneumatic Operation
- Zero Reverse Leakage
- Corrosion Proof (Brass or Stainless Steel)



C20506
Material: Stainless Steel
External Hex: Standard Size
Inlet: 1/8" (-2) NPT Male
Outlet: 1/8" (-2) NPT Female



C20512
Material: Brass
External Hex: Standard Size
Inlet: 1/4" (-4) NPT Male
Outlet: 1/4" (-4) NPT Male

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	150 psi [1.03 MPa]
WORKING TEMPERATURE RANGE:	-40°F to 248°F [-40° to 120° C]
MINIMUM FLOW RATE	3.5 SCFM at 5 psi [0.03 MPa]
MAXIMUM CRACKING PRESSURE	5 psi [0.03 MPa]

QUICK EXHAUST VALVES (QEV)

When installed directly onto pneumatic cylinders, a QEV will allow for quick pneumatic cylinder retraction times, by allowing the air compressed air within the pneumatic cylinder to vent directly to atmosphere through the QEV, rather than be pushed back through a length of plumbing back to the activation solenoid.

SPECIFICATIONS	
PRESSURE RANGE	3.9 psi to 145 psi [26.9 kPa to 1,000 kPa]
WORKING TEMPERATURE RANGE:	-40°F to 165°F [-40°C to 74°C]



C10555
QUICK EXHAUST VALVES
Fitting End A: 1/8" (-2) NPT Female
Fitting End B: 1/8" (-2) NPT Female
Fitting End C: 1/8" (-2) NPT Female



C10580
QUICK EXHAUST VALVE
Fitting End A: 1/4" NPT (-4) Female
Fitting End B: 1/4" NPT (-4) Female
Fitting End C: 1/4" NPT (-4) Female

SAE 100R5 END FITTINGS

- Steel reusable end fittings for sae 100R5 (non skive) hose



C11041
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/8" (-2) NPT Male



C11042
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/4" (-4) NPT Male



C11043
SAE 100R5 END FITTINGS
Material: Steel
Fitting End A: 1/4" Nominal ID Hose
Fitting End B: 1/4" (-4) SAE 45° Female

SPECIFICATIONS	
MAXIMUM WORKING PRESSURE	Hose size dependent
WORKING TEMPERATURE RANGE:	-40°F to 250°F [-40°C to 121°C]

SAE 100R5 MEDIUM PRESSURE HYDRAULIC HOSE (HR5)

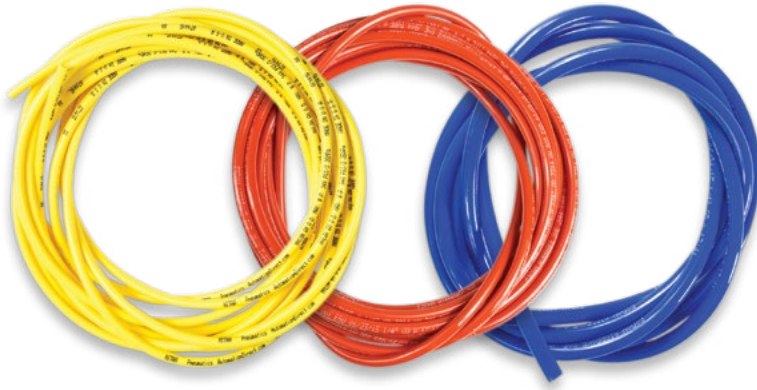
For medium pressure hydraulic service in the handling of most hydraulic fluids, gasoline, diesel fuels, lubricating oils, air and water. Recommended for power steering and power steering return lines, fuel filters, turbochargers, tilt lines, lube oil lines and machine tools. Not suitable for use with phosphate esters. Cover is not removed. Meets DOT FMVSS – 106 (Non skive).

- Constructed with a textile inner braid with a single wire braid reinforcement & a cotton braided black cover
- Oil and heat-resistant synthetic rubber inner tube
- For fittings CW500 Crimp/SR500 (series) Reusable



C10107
SAE 100R5 MEDIUM PRESSURE HYDRAULIC HOSE
Radius: 1/4" (-4) Nominal ID Hose
Actual ID: 3/16" [4.76 mm]
Hose OD: .52" [13.21 mm]

SPECIFICATIONS	
WORKING PRESSURE	3000 psi [20.68 MPa]
TEMPERATURE RANGE:	-40°F to 250°F [-40°C to 121°C]
MINIMUM BURST PRESSURE	12,000 psi [82.73 MPa]
MINIMUM BEND RADIUS	3' [76.2 mm]



NYLON TUBING

Nylon is strong and has a very high pressure rating making it ideal for pneumatic applications. Its strength allows it to be manufactured with thin walls while still maintaining a high pressure ratings. Nylon is also stable when exposed to light and heat sources. The combination of high pressure rating, high flow rate, flexibility and strength make it the perfect choice for the Pacbrake PRXB system.

NYLON TUBING

■ DOT tubing is approved for automotive air brake systems

AIRLINE TUBING (NYLON)					
COLOR	SIZE	LENGTH	PART #	STANDARD	DOT
Black	1/8"	20' [6.10 m]	HP1123-20	SAE J844	X
Black	1/8"	30' [9.14 m]	HP1123-30	SAE J844	X
Black	1/8"	40' [12.19 m]	HP1123-40	SAE J844	X
Black	1/8"	50' [15.24 m]	HP1123-50	SAE J844	X
Black	1/4"	20' [6.10 m]	M8280-20	N/A	X
Black	1/4"	30' [9.14 m]	M8280-30	N/A	X
Black	1/4"	40' [12.19 m]	M8280-40	N/A	X
Black	1/4"	50' [15.24 m]	M8280-50	N/A	X
Black	3/8"	20' [6.10 m]	HP1215-20	SAE J844	✓
Black	3/8"	30' [9.14 m]	HP1215-30	SAE J844	✓
Black	3/8"	40' [12.19 m]	HP1215-40	SAE J844	✓
Black	3/8"	50' [15.24 m]	HP1215-50	SAE J844	✓
Red	1/4"	20' [6.10 m]	M8675-20	SAE J844	✓
Red	1/4"	30' [9.14 m]	M8675-30	SAE J844	✓
Red	1/4"	40' [12.19 m]	M8675-40	SAE J844	✓
Red	1/4"	50' [15.24 m]	M8675-50	SAE J844	✓
Blue	1/4"	20' [6.10 m]	M8685-20	SAE J844	✓
Blue	1/4"	30' [9.14 m]	M8685-30	SAE J844	✓
Blue	1/4"	40' [12.19 m]	M8685-40	SAE J844	✓
Blue	1/4"	50' [15.24 m]	M8685-50	SAE J844	✓
Green	1/4"	20' [6.10 m]	M8676-20	SAE J844	✓
Green	1/4"	30' [9.14 m]	M8676-30	SAE J844	✓
Green	1/4"	40' [12.19 m]	M8676-40	SAE J844	✓
Green	1/4"	50' [15.24 m]	M8676-50	SAE J844	✓
Yellow	6 mm	20' [6.10 m]	M8299-20	N/A	X
Yellow	6 mm	30' [9.14 m]	M8299-30	N/A	X
Yellow	6 mm	40' [12.19 m]	M8299-40	N/A	X
Yellow	6 mm	50' [15.24 m]	M8299-50	N/A	X



HP1123



M8280



HP1215



M8675



M8685



M8676



M8299

LOAD LEASH®

ENGINE BRAKES by PACBRAKE

APPLICATIONS: Cummins ISB 6.7L Engines & Paccar PX-7 Engines
Cummins ISB 5.9L 24V Common Rail Engines

Designed For The
HEAVY HAULER

THE ONLY ENGINE BRAKE FOR ISB & PX-7 DIESEL ENGINES

As the only true engine brake available for the class 3-5 truck market, Pacbrake's LoadLeash provides big-rig engine braking performance. In addition to enhanced vehicle control & reduced brake fade, Pacbrake's LoadLeash can extend service brake life by up to 500%.

PERFORMANCE Provides over 300 retarding horsepower.*

DESIGN Lightweight support housing replaces the factory valve cover spacer with no valve cover height increase.

SAVINGS Extends the life of your service brake by up to 5 times while reducing truck & trailer brake wear.

WARRANTY 18 month warranty for new vehicles.
12 month/100,000 mile warranty on parts & labor for used vehicles.

COMPLIANT WITH EMISSION STANDARDS & ALL SOUND BYLAW REQUIREMENTS

LoadLeash offers
an increase in safety,
ride comfort & savings

*P67 Applications

LOADLEASH[®]

ENGINE BRAKES by PACBRAKE



PRXB/EXHAUST BRAKES

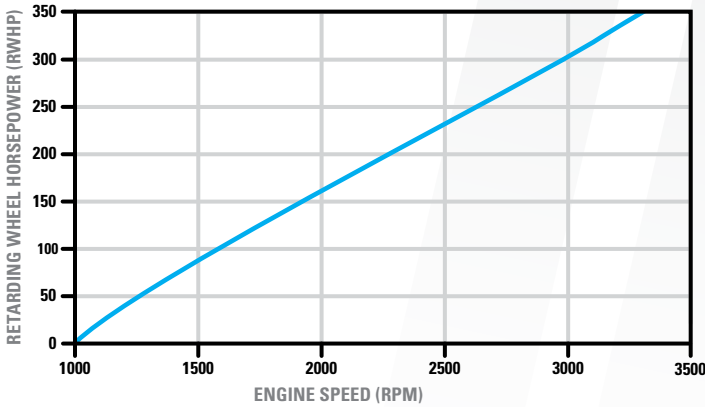
LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

APPLICATIONS: Cummins ISB 6.7L Engines & Paccar PX-7 Engines
Cummins ISB 5.9L 24V Common Rail Engines

P67 LOADLEASH - RWHP VS RPM - 10% GRADE



OFFERING AN INCREASE IN SAFETY & SAVINGS

- » Up to 5 Times Greater Service Brake Life
- » Provides Over 300 Retarding Horsepower*

*P67 Applications

Let Pacbrake's integrated LoadLeash engine brake show you what real braking is all about!

LOADLEASH ENGINE BRAKE SPECIFICS

ALUMINUM SUPPORT HOUSING

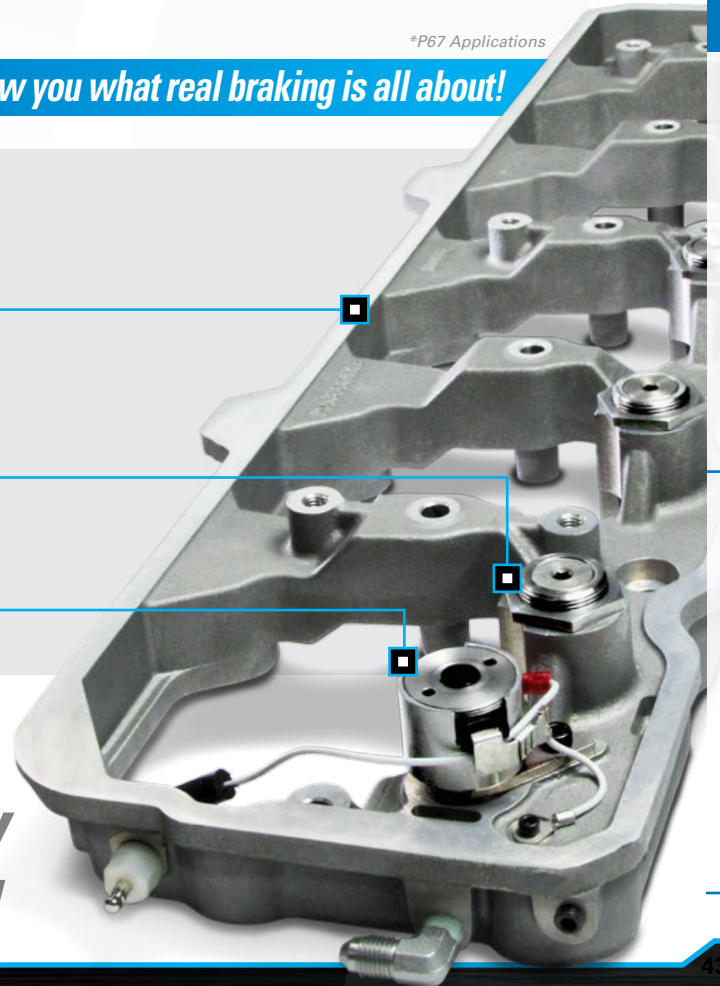
Lightweight support housing replaces the factory valve cover spacer with no valve height increase

MODULAR ENGINE BRAKE CONTROL COMPONENT

Easily serviceable

HYDRAULIC CONTROL SOLENOID

One per brake assembly



Quick & Controlled Braking For Heavy Duty Trucks Just Got Easier!

PACBRAKE LOADLEASH ENGINE BRAKE APPLICATION GUIDE

FOR CUMMINS ISB 6.7L & ISB 5.9L COMMON RAIL 24V DIESEL ENGINES

Aftermarket devices that will install in conjunction with the LoadLeash

APPLICATION	AFTERMARKET TURBO CHARGERS	ARP HEAD STUDS	H&S MINI MAXX	EDGE CTS	DPF & EGR DELETES	PART #
2003-EARLY 2006 DODGE RAM (STD) 2500/3500 with Cummins ISB 5.9L 24V Common Rail Diesel Engines (FOR ENGINES WITH 3 INJECTOR HARNESSSES) <small>NOTE: FOR STANDARD TRANSMISSION ONLY. MUST BE USED IN CONJUNCTION WITH AN EXHAUST BRAKE.</small>	✓	✓ <small>*IMPORTANT NOTES BELOW</small>	✓	✓	N/A	P55006
LATE 2006-2007 DODGE RAM (STD) 2500/3500 with Cummins ISB 5.9L 24V Common Rail Diesel Engines (FOR ENGINES WITH INTEGRATED INJECTOR HARNESS/VALVE COVER GASKET) <small>NOTE: FOR STANDARD TRANSMISSION ONLY. MUST BE USED IN CONJUNCTION WITH AN EXHAUST BRAKE.</small>	✓	✓ <small>*IMPORTANT NOTES BELOW</small>	✓	✓	N/A	P55007
2007 1/2-2013 RAM (STD/AUTO) 2500/3500/4500/5500 Trucks with Cummins ISB 6.7L Diesel Engine <small>PICK-UP/CHASSIS CAB & STERLING CHASSIS CAB</small>	✗	✓ <small>*IMPORTANT NOTES BELOW</small>	✓	✓	✓	P55003
2014-2018 RAM (STD/AUTO) 2500/3500/4500/5500 Trucks with Cummins ISB 6.7L Diesel Engine <small>PICK-UP & CHASSIS CAB</small>	✗	✓ <small>*IMPORTANT NOTES BELOW</small>	✓	✓	✓	P55004
COMMERCIAL TRUCKS (STD/AUTO) <small>** ENGINE MUST USE HARMONIC BALANCER (CUMMINS PART # 4938209) **</small>	✗	✓ <small>*IMPORTANT NOTES BELOW</small>	✓	✓	✓	P55005

6.7L VEHICLES MUST HAVE A VGT TURBO, CONTROLLED BY THE ECU

IMPORTANT NOTE TO ALL INSTALLERS:

*THE LOADLEASH MAY BE INSTALLED WITH ARP2000 STUDS (PART # 247-4202) WITH NO OTHER REQUIRED PARTS. IF INSTALLED WITH CUSTOM AGE 625 STUDS (PART # 247-4204) **YOU MUST PURCHASE OUR PAC/ARP STUD KIT (PART # P55127, SHOWN)**

Please ensure the vehicle meets all the prerequisites prior to ordering & installing the P-67 LoadLeash engine brake.



LOADLEASH

KIT COMPONENTS: FEATURES & BENEFITS

- » Automotive grade wiring w/ abrasion protection
- » Precision cast aluminum valve cover spacer
- » IP67 rated controller housing
- » Forged heavy duty bridges
- » SAE & ISO rated fittings
- » Intelligent controller
- » SAE rated hose



LOADLEASH[®]

ENGINE BRAKES by PACBRAKE

APPLICATIONS: Cummins ISB 6.7L Engines & Paccar PX-7 Engines
Cummins ISB 5.9L 24V Common Rail Engines

Don't Let The Downgrades

AFFECT THE UPGRADES

- » Extends service brake life by up to 5 times
- » Provides over 300 braking horsepower*

OFFERING AN INCREASE IN
**SAFETY &
SAVINGS**

COMPLIANT WITH EMISSION STANDARDS
& ALL SOUND BYLAW REQUIREMENTS

*P67 Applications

PACBRAKE

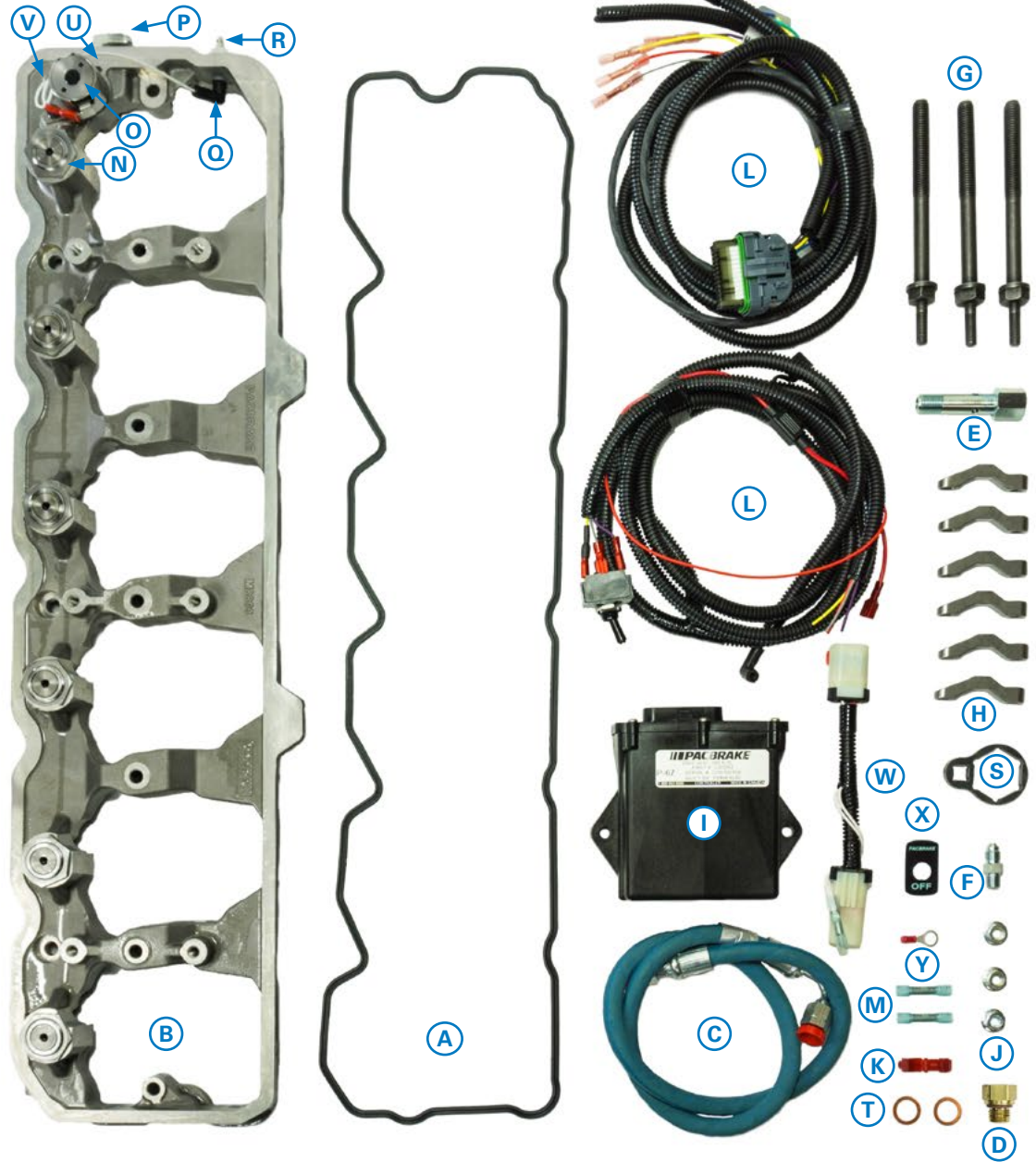
PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

P67 LOADLEASH ENGINE BRAKE COMPLETE KIT COMPONENTS



P67 LOADLEASH COMPONENTS & REPLACEMENT PARTS

PART #	COMPONENT	PART #	COMPONENT
A	P55111 Gasket Lower	N	P55106 SMBC, with Jam nut
B	P55102 Assembly Housing	O	M4400 Solenoid with Seals
C	P55101 Assembly Hose	P	C3468 Fitting 90° JIC 1/8" (-2) NPT
D	P55116 ORB Fitting (P55004 & P55005 kits only)	Q	P55119 Harness Solenoid
E	M3466 Bolt, Banjo (P55003 kit only)	R	P34654 Terminal, Thru Head & O-Ring
F	C3467 Fitting JIC 1/8" (-2) NPT	S	P55109 SMBC Jam Nut Wrench
G	M5510 Double Ended Bolt (x 3)	T	C20510 Copper Washer (x 2) (P55003 kits only)
H	M5512 Crosshead (x 6)	U	P55122 Solenoid Holddown Kit
I	C20284 Controller	V	P55120 Solenoid Ground Harness
J	M5514 Nut, Hex Flange M8 x 1.25 (x 3)	W	C20533 Jumper Harness
K	M8194 Scotchlock T-Tap, 18-22 AWG Gauge	X	P01305 Switch Plate
L	C20283 Harness (x 2)	Y	M8107 Ring Terminal 18-22 AWG
M	M8028 Butt Splice 16-14 AWG (x 2)		

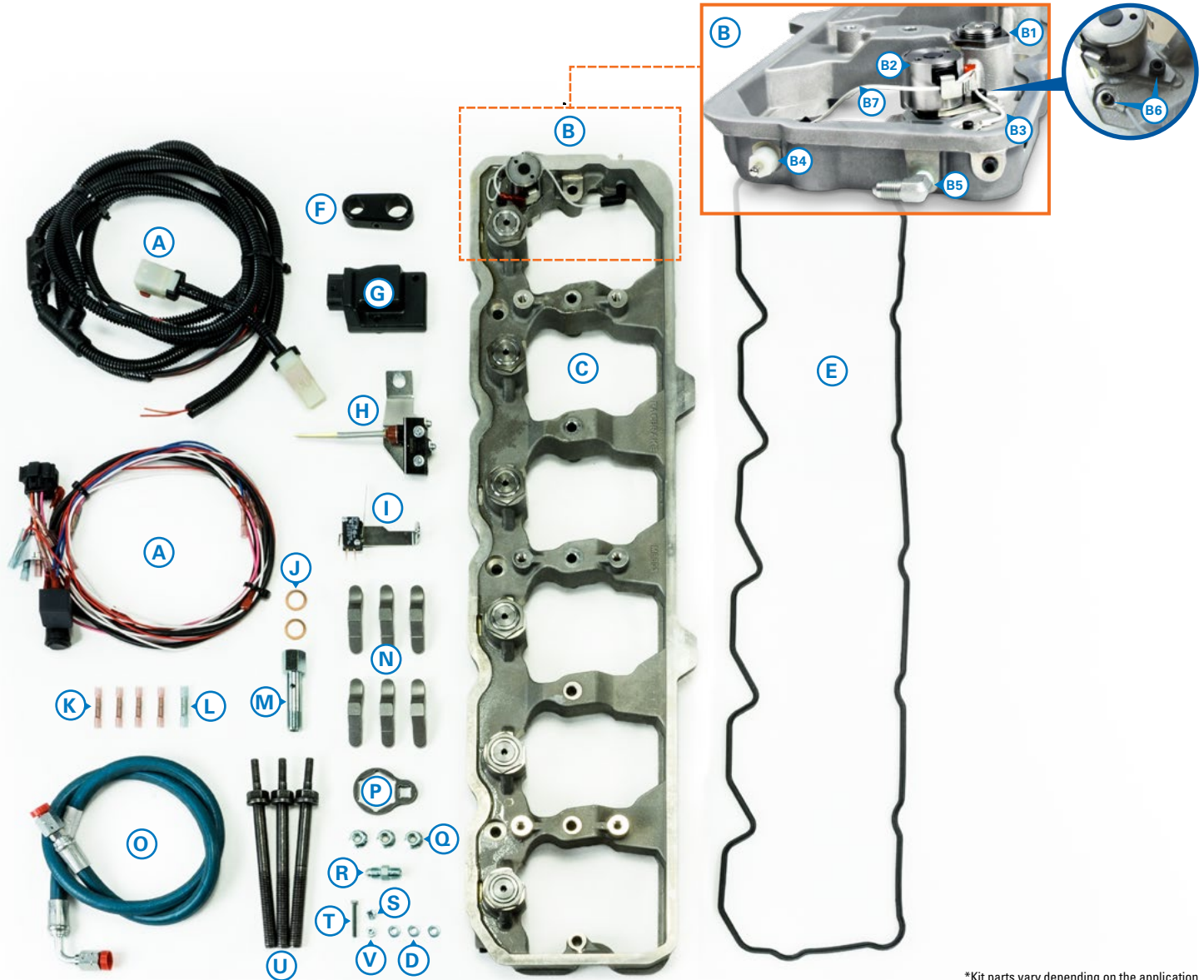
PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

P59 LOADLEASH ENGINE BRAKE COMPLETE KIT COMPONENTS*



*Kit parts vary depending on the application

P59 LOADLEASH COMPONENTS & REPLACEMENT PARTS

	PART #	COMPONENT
A	C20582	Harness
B1	P55106	SMBC, with Jam Nut (x6)
B2	M4400	Solenoid, with Seals
B3	P55120	Harness Ground, Solenoid
B4	P34654	Terminal, Thru Head & O-Ring (1 each)
B4	P34655	Terminal, Thru Head & O-Ring (1 each)
B5	C3468	Fitting, 90° #4 JIC-1/8" NPT
B6	P55122	Solenoid Holddown Kit & Ground Harness
B7	P55119	Harness, Power Solenoid
C	P55102	Assembly Housing
D	C20587	Washer (x3)
E	P55111	Gasket Lower Kit
F	C18039	Shifter Switch Bracket
G	C20583	Controller
H	C20097	Clutch Switch

	PART #	COMPONENT
I	C20302	Throttle Switch 2006-2007
J	C20510	Copper Washer (x2)
K	M8112	Butt Splice (x4)
L	M8128	Butt Splice
M	C3466	Bolt, Banjo
N	M5512	Crosshead (x 6)
O	P55101	Assembly Hose
P	P55109	SMBC Jam Nut Wrench
Q	M5514	Nut, Hex Flange M8 x 1.25 (x 3)
R	C3467	Fitting 90° JIC 1/8"(-2) NPT
S	C20586	Nut, Nyloc #8-32
T	C20584	Screw, Machine, #8-32
U	M5510	Double Ended Bolt (x 3)
V	C20585	Nut, #8-32

The official onboard air for PRXB exhaust brakes



ADJUSTABLE AIR SPRINGS

ADDED SUPPORT FOR AN OVERALL SMOOTHER SAFER RIDE



AMP: THE #1 SOLUTION FOR YOUR TOW/HAUL PROBLEMS

EASY BOLT ON INSTALLATION

LIFETIME WARRANTY



AMP ONBOARD AIR MANAGEMENT SYSTEMS

Air Compressors • Air Tanks • In-Cab Controls

*Designed & Manufactured
for Premium Performance*



ENGINE BRAKE FEATURES & BENEFITS

- ▶ Improves control on hills, exit ramps and flat ground deceleration
- ▶ Increases service brake life – reducing vehicle maintenance costs
- ▶ Reduces tire wear by eliminating wheel hop and lock-up skid
- ▶ Single housing design for easy installation and servicing
- ▶ 3 levels of retarding power (low/med/high)
- ▶ Increases the resale value of the vehicle
- ▶ State of the art CNC machining

For over 20 years Pacbrake has successfully designed and manufactured premium engine brakes in-house. The precise machining and timing requirements of engine brakes make them the most challenging supplemental brake solution to design and manufacture. Requiring a true understanding of their integration into the engine, this braking device is something that very few companies can successfully produce. With over 55 years of experience and approved OEM products, Pacbrake has the ability to supply the highest quality engine brakes available today.

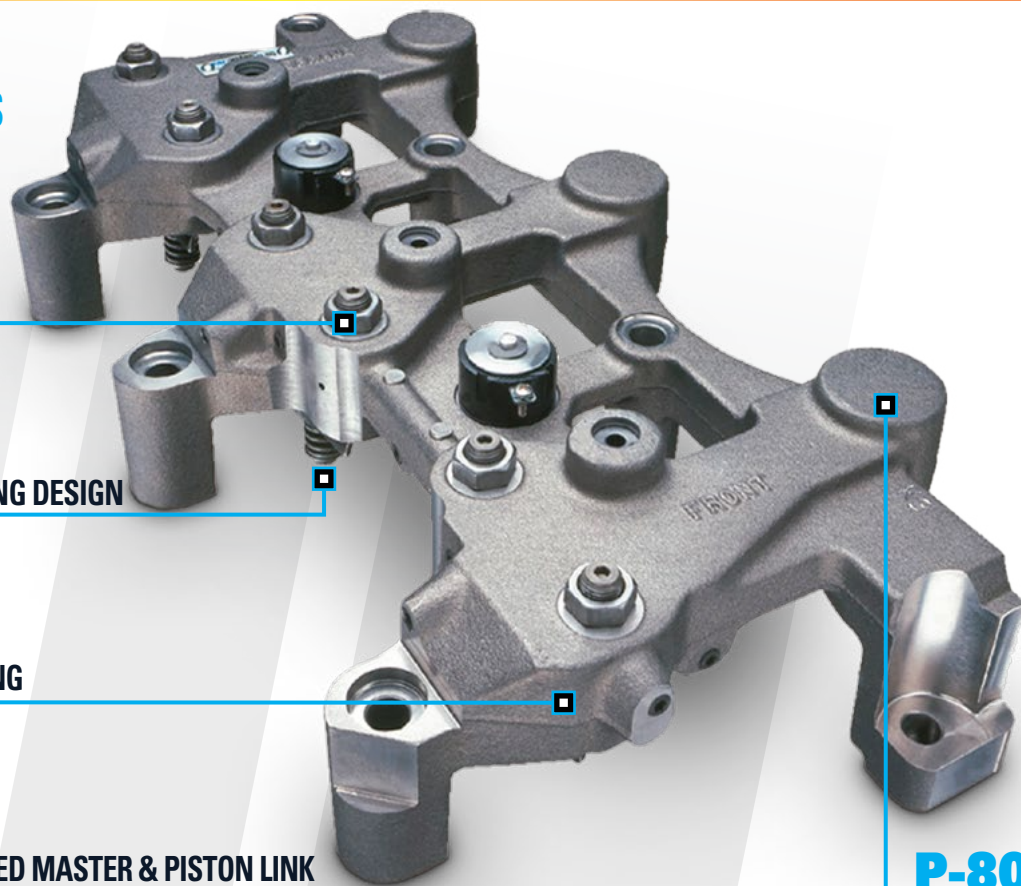
ENGINE BRAKE SPECIFICS

PATENTED PACBRAKE PACLASH

HEAVY DUTY COMPRESSION SPRING DESIGN

POSITIVE CONTROL VALVE INDEXING

PRECISION MACHINED & HARDENED MASTER & PISTON LINK



P-80

AFTERMARKET ENGINE BRAKES

PACBRAKE - DESIGNED, TESTED & PROVEN

Every Pacbrake product is developed within the rigorous specifications of each engine manufacturer and is backed by the best warranty in the industry. Pacbrake is directly connected to over 3000 VOEM truck dealers, engine company dealers and independent repair shops that are located worldwide: US, Canada, Europe, Australia and Mexico.

AFTERMARKET ENGINE BRAKES KITS

	MODEL	DESCRIPTION	PART #
CUMMINS	N-14 Plus	P-14 engine brake complete kit CPL 2025, 2026, 2390, 2391, 2398, 2591, 2592	P14014
	N-14 Plus	P-14A engine brake complete kit CPL 1987, 1833, 1807	P14018
	N-14 Plus	P-14B engine brake complete kit CPL 2003, 1896, 1852, 1844, 1809	P14022

N-14 Plus, P-14, P-14A and P14-B complete kits contain dash switches and engine harness. Consult VOEM for vehicle harness if not equipped.

AFTERMARKET REPLACEMENT HOUSING

	MODEL	SERIAL #	PART #
CUMMINS	P-14	140002 to 143503 +	P14007
	P-14A	340000 to 340040 +	P14009
	P-14B	640000 to 640041 +	P14011

	MODEL	SERIAL #	PART #
DETROIT	P-80	080000 to 092400	Frt P80001 Housing; Rear P80002 Housing
	P-80	800250B to 800384B +	Frt P80001 Housing; Rear P80002 Housing
	P-80A	092500 to 098624 +	Frt P80006 Housing; Rear P80007 Housing

Dual hole master piston retainers started at 088089 for P-80. All P-80A have dual hole retainers.

* Consult Pacbrake for serial number verification



FEATURES

PATENTED PACBRAKE PACLASH

LEADING TECHNOLOGY

LONGEST WARRANTY

Engine Brake Parts & Kits

PACBRAKE ENGINE BRAKE PARTS LIST FOR CATERPILLAR ENGINES

PACBRAKE PART #	DESCRIPTION
CATERPILLAR PARTS	
P00813CT	HARNESS
P00825CT	HARNESS - COE, CAT
P01030	SPRING RETAINER
P01040	TERMINAL
P01081	SOLENOID SEAL - UPPER
P01082	SOLENOID SEAL - CENTER
P01083	SOLENOID SEAL - LOWER
P01218	SWITCH
P01244	MACHINE SCREW
P01265	SCREW
P01282	SOLENOID SCREEN
P01283	SOLENOID RETAINER
P01304	TOGGLE SWITCH - ON/OFF
P01305	SWITCH PLATE - OFF
P01492	CAPSCREW - 1/4 X 1/2 HEXHEAD
P01495	CLUTCH SWITCH ASSEMBLY
P01497	SWITCH SPRING
P01500	CONTROL VALVE
P01512	TERMINAL
P01531	SWITCH BRACKET
P01534	DIODE
P01537	MACHINE SCREW
P01538	WASHER - #6 PLATED
P01558	MACHINE SCREW 6-32 X 1/4
P01559	LOCK WASHER
P01722	CAPSCREW, 10-24 X 1/4
P02183	SWITCH LEVER
P02186	NUT - 1/4" HEX NF
P02190	FLAT WASHER - 1/4"
P02411	O-RING
P01244	SUPERSEPEDTO P0124 - MACHINE SCREW 6-32 X 1 RH
P02957	TOGGLE SWITCH - 1/2/3
P02970	TOGGLE SWITCH ASSEMBLY
P03586	TOGGLE SWITCH HI/LOW/OFF
P03776	TOGGLE SWITCH ASSEMBLY
P03777	SWITCH PLATE - HI/LOW/OFF
P03790	CAPSCREW - 1/4-20 X 3/8
P39008	ENGINE RETARDER HOUSING - P39B
P03795	CAPSCREW - 1/4-20 X 1/2
P04205	SOLENOID - 12 VOLT
P04205 - 24	SOLENOID - 24 VOLT
P05610	RETAINER - CAT
P05611	SNAP RING - CAT
P05612	MASTER PISTON
P05639	SEAL
P05647	OIL SUPPLY ADAPTER
P05653	SUPERSEDEDTO C11819
P05654	FLANGED NUT
P05656	PLAIN WASHER - CAT
P07450	SOLENOID HARNESS - CAT
P07500	INNER CONTROL VALVE SPRING
P07832	CENTER SLAVE SPRING - CAT
P07833	OUTER SLAVE SPRING - CAT

PACBRAKE PART #	DESCRIPTION
CATERPILLAR PARTS cont'	
P09353	FLANGED NUT
P09355	JAMNUT 1/2 NF
P11433	INNER SLAVE SPRING
P11434	OUTER CONTROL VALVE SPRING
P11435	INNER CONTROL VALVE SPRING
P11494	SOLENOID SOCKET
P11722	BREATHER HOSE - CATERPILLAR
P11841	MASTER PISTON SPRING
P11930	CONTROL VALVE
P12246A	WOBBLE SWITCH
P12246T	WOBBLE SWITCH
P12261T	WOBBLE SWITCH & BRACKET GROUP
P12269	MOUNTING BRACKET
P13158	MASTER PISTON SPRING - FLAT
P13469	CROSSHEAD
P14908	CLAMP
P15561	SNAP RING
P16505	SUPERSEDED TO P01030 - ACCUMULATOR WASHER
P34601	TUNE UP KIT - CAT 3406/B/C
P34606	PAFLASH ADJUSTING SCREW - WHITE
P34620	HEX NUT - 7/16-18 GR8
P34625	SUPPORT BRACKET WASHER
P34628	HEX NUT 3/4
P34630	MOUNTING WASHER - P36
P34633	WOBBLE SWITCH
P34639	SWITCH
P34643	SUPPORT BASE - P36
P34647	STUD-SUPPORT BASE
P34648	SOLENOID HARNESS - CATERPILLAR
P34650	CONTROL VALVE COVER
P34654	O-RING - VITON
P34655	TERMINAL
P34656	TERMINAL ADAPTER
P34670	FELLER GAUGE - .080"
P34675	FEELER GAUGE - .102"-P37
P38015	PLAIN WASHER
P39008	ENGINE RETARDER HOUSING - P39B
P39009	SUPERSEDED TO P39008
P39010	TUNE-UP KIT (P39)
P39015	SOLENOID 12 VOLT D/L
P39030	SLAVE PISTON
P39032	SLAVE PISTON SPRING
P39037	SLAVE RETAINER P39B
P39038	SNAP RING
P39040	MASTER PISTON
P39041	MASTER RETAINER P39
P39042	SNAP RING
P39044	MASTER CLIP - P39
P39045	SUPERCEDED TO P39168
P39046	MASTER LINK SPRING
P39048	SUPPORT TUBE - P39
P39051	PAFLASH ADJUSTING SCREW - P14
P39070	ATTACHING PARTS GROUP - P39

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

Engine Brake Parts & Kits

PACBRAKE ENGINE BRAKE PARTS LIST FOR CATERPILLAR & CUMMINS ENGINES

PACBRAKE PART #	DESCRIPTION
CATERPILLAR PARTS cont'	
P39072	CAPSCREW – P39 SERIES
P39073	NUT – HEAVY HEX
P39074	WASHER – P39
P39076	SUPERSEDED TO P39084
P39077	STUD – P39
P39078	WIRE CLIP – P39
P39079	SUPERSEDED TO P39084
P39084	PAFLASH ADJUSTING SCREW – P39B
P39100	INNER CONTROL VALVE SPRING
P39135	SLAVE PISTON LINK
P39148	MASTER PISTON – P39D
P39159	SET SCREW – P39D
P39160	NUT 3/8-24, P39D
P39161	SLAVE LINK P39D
P39162	SLAVE PISTON ASSEMBLY
P39163	SLAVE PISTON RETAINER
P39164	INNER SLAVE SPRING – P39D
P39168	MASTER LINK – P39B/D/E
P60045	RELAY – 12 VOLT CN
P60100	SELF DRILL & TAP SCREW
CUMMINS PARTS	
P00807C	HARNESS
P00821C	HARNESS
P01017	MASTER PISTON – 7/8"
P01022	SLAVE PISTON SPRING
P01023	RETAINING RING
P01030	SPRING RETAINER
P01040	TERMINAL
P01081	SOLENOID SEAL – UPPER
P01082	SOLENOID SEAL – CENTER
P01083	SOLENOID SEAL – LOWER
P01094	NUT – 1/2" NC, HEAVY HEX
P01178	SWITCH BRACKET
P01180	SWITCH COVER
P01181	NUT – HEX
P01199	STUD ASSY
P01218	SWITCH
P01219	THROTTLE SWITCH ASSEMBLY
P01234	STUD SPACER
P01244	MACHINE SCREW
P01265	SCREW
P01282	SOLENOID SCREEN
P01283	SOLENOID RETAINER
P01304	TOGGLE SWITCH – ON/OFF
P01305	SWITCH PLATE – OFF
P14007	ENGINE RETARDER HOUSING – P14
P14009	ENGINE RETARDER HOUSING – P14A
P01492	CAPSCREW – 1/4 X 1/2 HEXHEAD
P01495	CLUTCH SWITCH ASSEMBLY
P01497	SWITCH SPRING
P01512	TERMINAL
P01519	OUTER CONTROL VALVE SPRING
P01531	SWITCH BRACKET
P01534	DIODE

PACBRAKE PART #	DESCRIPTION
CUMMINS PARTS cont'	
P01538	WASHER – #6 PLATED
P01558	MACHINE SCREW 6-32 X 1/4
P01559	LOCK WASHER
P01722	CAPSCREW, 10-24 X 1/4
P02183	SWITCH LEVER
P02186	NUT – 1/4" HEX NF
P02190	FLAT WASHER - 1/4"
P02299	TERMINAL ASSEMBLY
P02390	SOLENOID HARNESS – CUMMINS
P02514	STUD WASHER
P02610P	TEAR-OFF GASKET (PAPER)
P02744	MACHINE SCREW 6-32 X 1 RH
P02856	STUD ASSEMBLY
P02957	TOGGLE SWITCH – 1/2/3
P02969	OIL SUPPLY SCREW
P02970	TOGGLE SWITCH ASSEMBLY
P03790	CAPSCREW – 1/4-20 X 3/8
P03795	CAPSCREW – 1/4-20 X 1/2
P04089	MASTER PISTON
P04136	CONTROL VALVE COVER
P04205	SOLENOID – 12VOLT
P04205-24	SOLENOID – 24VOLT
P04841	VALVE COVER GASKET (CORK)
P07447	MASTER PISTON SPRING
P07500	INNER CONTROL VALVE SPRING
P07623	SLAVE PISTON – CUMMINS
P08532	VALVE COVER GASKET (CORK)
P08895	SLAVE PISTON RETAINER
P09353	FLANGED NUT
P09355	JAMNUT 1/2 NF
P09916	SET SCREW
P10180	SEAL – CUMMINS
P11436	OUTER CONTROL VALVE SPRING
P11437	INNER CONTROL VALVE SPRING
P11470	SPACER STUD – CAT
P11494	SOLENOID SOCKET
P11930	CONTROL VALVE
P12246A	WOBBLE SWITCH
P12246T	WOBBLE SWITCH
P12261T	WOBBLE SWITCH & BRACKET GROUP
P12269	MOUNTING BRACKET
P12504	ATTACHING GROUP
P13294	GASKET – CUMMINS (METAL)
P14007	ENGINE RETARDER HOUSING – P14
P14008	PAFLASH ADJUSTING SCREW – P14
P14009	ENGINE RETARDER HOUSING – P14A
P14011	ENGINE RETARDER HOUSING – P14B
P14013	TUNE-UP KIT P14/A/B
P14014	ENGINE BRAKE BASE KIT P-14 N14PLUS 12V S/L (Check CPL #s)
P14015	MOUNTING GROUP P14
P14018	ENGINE BRAKE BASE KIT P14A 94N14 12V S/L (Check CPL #s)
P14022	ENGINE BRAKE BASE KIT P14B 94N14 12V S/L (Check CPL #s)

PACBRAKE ENGINE BRAKE PARTS LIST FOR CUMMINS & DETROIT ENGINES

PACBRAKE PART #	DESCRIPTION
CUMMINS PARTS cont'	
P14035	ENGINE CONTROL GROUP – P14
P14068	SWITCH GROUP
P14100	COLLAR
P14848	GASKET – P38 (METAL)
P14873	CROSSHEAD
P14908	CLAMP
P15561	SNAP RING
P16846	GASKET (METAL)
P16846-3	GASKET (METAL 3 PACK)
P18792	MASTER PISTON SPRING – 455 B/C
P19103	SLAVE PISTON -N14
P19104	OUTER SLAVE PISTON SPRING – N14
P19105	INNER SLAVE PISTON SPRING – N14
P19139	SLAVE PISTON SPRING RETAINER
P20800	HARNES P14
P20925	MASTER PISTON ASSEMBLY – N14
P34655	TERMINAL
P38011	TUNE-UP KIT CUMMINS 88NT
P38015	PLAIN WASHER
P38020	MASTER PISTON
P38025	OIL SUPPLY SCREW P-38
P38045	INJECTOR ADJUSTING SCREW
P38070	PACLASH ADJUSTING SCREW P-38
P40012	GASKET KIT – CUMMINS (CORK)
P40022	GASKET KIT – CUMMINS (METAL)
P40024	TUNE-UP KIT WITH GASKETS
P40055	SLAVE PISTON SPRING
P40060	SLAVE PISTON P40
P40070	PACLASH ADJUSTING SCREW – BLUE
P40071	PACLASH ADJUSTING SCREW
P40072	PACLASH ADJUSTING SCREW – RED
P60045	RELAY – 12 VOLT CN
P60100	SELF DRILL & TAP SCREW
P60125	SWITCH PLATE
DETROIT PARTS	
P01040	TERMINAL
P01081	SOLENOID SEAL – UPPER
P01082	SOLENOID SEAL – CENTER
P01083	SOLENOID SEAL – LOWER
P01218	SWITCH
P01244	MACHINE SCREW
P01265	SCREW
P01282	SOLENOID SCREEN
P01283	SOLENOID RETAINER
P01287	OIL CONNECTOR
P01304	TOGGLE SWITCH – ON/OFF
P01305	SWITCH PLATE – OFF
P01492	CAPSCREW – 1/4 X 1/2 HEXHEAD
P01495	CLUTCH SWITCH ASSEMBLY
P01497	SWITCH SPRING
P01500	CONTROL VALVE
P01512	TERMINAL
P01531	SWITCH BRACKET
P01534	DIODE

PACBRAKE PART #	DESCRIPTION
DETROIT PARTS cont'	
P01538	WASHER – #6 PLATED
P01558	MACHINE SCREW 6-32 X 1/4
P01559	LOCK WASHER
P01722	CAPSCREW, 10-24 X 1/4
P02183	SWITCH LEVER
P02186	NUT-1/4" HEX NF
P02190	FLAT WASHER – 1/4"
P02744	MACHINE SCREW 6-32 X 1 RH
P02957	TOGGLE SWITCH – 1/2/3
P02970	TOGGLE SWITCH ASSEMBLY
P03790	CAPSCREW 1/4-20 X 3/8
P03795	CAPSCREW 1/4-20 X 1/2
P04205	SOLENOID – 12 VOLT
P04205-24	SOLENOID – 24 VOLT
P07500	INNER CONTROL VALVE SPRING
P09353	FLANGED NUT
P09355	JAMNUT 1/2 NF
P11434	OUTER CONTROL VALVE SPRING
P11435	INNER CONTROL VALVE SPRING
P11494	SOLENOID SOCKET
P12246A	WOBBLE SWITCH
P12246T	WOBBLE SWITCH
P12261T	WOBBLE SWITCH & BRACKET GROUP
P12269	MOUNTING BRACKET
P14908	CLAMP
P15561	SNAP RING
P17658	MASTER PISTON SPRING – 760A/765
P34650	CONTROL VALVE COVER
P38015	PLAIN WASHER
P50007	FLANGE NUT
P50072	PACLASH ADJUSTING SCREW – P50
P50150	CONTROL GROUP – P50 DDECII
P50155	CONTROL GROUP – P50 DDEC III
P60004	OUTER SLAVE PISTON – P63C
P60008	SLAVE PISTON
P60013	FLAT SPRING – P63/A/B/C
P60016	MASTER PISTON
P60019	SPRING PLATE
P60021	CAPSCREW – 12PT
P60022	WASHER
P60023	SPACER BAR
P60029	INNER SLAVE PISTON – LARGE
P60030	BRIDGE SPRING
P60031	MASTER PISTON – LARGE
P60045	RELAY - 12 VOLT CN
P60046	HARNES – DDEC
P60047	HARNES – THRU HEAD
P60048	HARNES – UNDER COVER
P60049	JUMPER WIRE – P63
P60050	ATTACHING PARTS GROUP P61/P63
P60051	HARNES – UNDER COVER – P-50
P60053	CONTROL VALVE SPRING – P63
P60054	ACCUMULATOR SPRING – P63
P60059	ACCUMULATOR SPRING – INNER P63

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

Engine Brake Parts & Kits

PACBRAKE ENGINE BRAKE PARTS LIST FOR DETROIT & MACK ENGINES

PACBRAKE PART #	DESCRIPTION
DETROIT PARTS cont'	
P60060	ACCUMULATOR PISTON – P50/61/63
P60061	OUTER ACCUMULATOR SPRING – P63
P60063	HARNESS –THRU HEAD, DDEC III
P60064	MASTER PISTON – P63
P60065	OUTER SLAVE PISTON – LARGE
P60066	INNER SLAVE PISTON – LARGE
P60070	SLAVE PISTON BRIDGE – SERIES 60
P60073	PACLASH ADJUSTING SCREW
P60085	HARNESS EXTENSION – COE, DDEC II
P60086	BRIDGE SPRING RETAINER P63
P60090	INNER SLAVE SPRING – P63C
P60096	SHOULDER BOLT – P63C
P60100	SELF DRILL & TAP SCREW
P60101	TUNE UP KIT – P61/P63/A/B/C
P60122	PACLASH ADJUSTING SCREW – P61
P60125	SWITCH PLATE
P60150	CONTROL GROUP – DDEC II
P60154	CONTROL GROUP – DDC ENABLE
P60155	CONTROL GROUP – DDEC III
P63012	RETROFIT KIT – P50-P63B
P63013	RETROFIT KIT – P63C
P80001	ENGINE RETARDER HOUSING – P80 FRONT
P80002	ENGINE RETARDER HOUSING – P80 REAR
P80003	MOUNTING GROUP – P80/A
P80004	SPACER GROUP P – 80/A
P80010	TUNE-UP KIT – P80
P80011	SLAVE PISTON – 7/8" P80
P80012	SET SCREW, 10-24 X 1/2
P80013	MASTER PISTON SPRING – P80
P80014	CAPSCREW-M12 X 150MM – P80
P80015	CAPSCREW M12 X 180MM – P80
P80016	WASHER – P80
P80017	RETAINER – P80
P80018	MASTER PISTON – 1", P80
P80019	SPACER – CYLINDER HEAD – P80
P80024	RETAINER – P80
P80026	SET SCREW – 3/8- 16 X 3/4
P80027	HEX NUT – 3/8 GR8-P80
P80028	ENGINE BRAKE BASE KIT P-80A 12.7L 2001 DDC S60 – 12 VOLT S/L (Check CPL #S)
P80029	RETAINER – P80A
P80031	COMPRESSION SPRING P80A
P80033	LINK – P80A
P80034	RETROFIT KIT – P80
P80035	ADJUSTING SCREW AND NUT P-80A
P80037	TUNE-UP KIT – P80A
P80048	HARNESS-UNDER COVER P80
P80086	BRIDGE SPRING RETAINER – P80
P80087	SHOULDER BOLT – 5/16 X 1.5 – P80
P80088	SPRING RETAINER P80A
P80089	INNER BRIDGE SPRING – P80A
P80090	OUTER BRIDGE SPRING – P80A
P80091	SHOULDER BOLT – P80
P80100	UPDATE KIT P-80
P80155	CONTROL GROUP – P80, DDECIV

PACBRAKE PART #	DESCRIPTION
MACK PARTS	
P01040	TERMINAL
P01081	SOLENOID SEAL-UPPER
P01082	SOLENOID SEAL-CENTER
P01083	SOLENOID SEAL-LOWER
P01218	SWITCH
P01244	MACHINE SCREW
P01265	SCREW
P01282	SOLENOID SCREEN
P01283	SOLENOID RETAINER
P01304	TOGGLE SWITCH – ON/OFF
P01305	SWITCH PLATE – OFF
P01492	CAPSCREW – 1/4 X 1/2 HEXHEAD
P01495	CLUTCH SWITCH ASSEMBLY
P01497	SWITCH SPRING
P01512	TERMINAL
P01531	SWITCH BRACKET
P01534	DIODE
P01537	MACHINE SCREW
P01538	WASHER – #6 PLATED
P01558	MACHINE SCREW 6-32 X 1/4
P01559	LOCK WASHER
P01722	CAPSCREW, 10-24 X 1/4
P01793	TERMINAL
P02183	SWITCH LEVER
P02186	NUT – 1/4" HEX NF
P02190	FLAT WASHER-1/4"
P02744	MACHINE SCREW 6-32 X 1 RH
P03790	CAPSCREW 1/4-20 X 3/8
P03795	CAPSCREW – 1/4-20 X 1/2
P04205	SOLENOID – 12 VOLT
P07500	INNER CONTROL VALVE SPRING
P09353	FLANGED NUT
P09355	JAMNUT 1/2 NF
P11494	SOLENOID SOCKET
P12246A	WOBBLE SWITCH
P12246T	WOBBLE SWITCH
P12261T	WOBBLE SWITCH & BRACKET GROUP
P12269	MOUNTING BRACKET
P14908	CLAMP
P60045	RELAY – 12 VOLT CN
P60100	SELF DRILL & TAP SCREW

ENGINE BRAKE SOLENOIDS

PACBRAKE | CATERPILLAR | CUMMINS | DETROIT | MACK

PACBRAKE'S FOUR ENGINE BRAKE SOLENOIDS COVER OVER THIRTY POSSIBLE OEM PART NUMBERS. MAKING PACBRAKE YOUR ONE STOP SUPPLIER FOR RESTORING MAXIMUM ENGINE BRAKE PERFORMANCE WHILE REDUCING MAINTENANCE COSTS.

HOW DO YOU KNOW WHEN TO REPLACE THEM?

In most cases either a solenoid works or doesn't. A simple test to start with is to apply a positive power source to the terminal and a negative source to the other tab (in the case of a dual lead or the main body of a single lead). A good solenoid should pull the armature down with a minimum of 8 volts at ambient temperature (12 VDC).

Later model engines have the ability to detect solenoid problems within the engine ECU. When one of the solenoids fails to operate, the engine ECU will log a fault code. This is evident by the "CEL" check engine light coming on. By scanning the engine ECU to retrieve the fault code, it can be determined what problem was detected by cross referencing the fault code against the engine manufacturer's chart. Please keep in mind that bad electrical connections or wires shorting out will generate the same codes as a defective solenoid, so always check the connections and wiring harnesses before replacing a solenoid. Another check which can be performed is a simple check of the coils resistance (ohms). Pacbrake 12 VDC solenoids should have a resistance of 15.5 ohms +/- 15% and 24 VDC coils should have a resistance of 60 ohms +/- 15% at ambient temperature. Keep in mind that as the solenoid's temperature increases so does the resistance (ohms). In some cases, a solenoid will perform normally until it reaches a certain temperature then it may momentarily act as an open circuit or short to ground. This situation can only be diagnosed by heating the solenoid up to operating temperature while checking the resistance throughout the heating process, watching for fluctuations in resistance in the meter. Heating can be achieved by energizing the solenoid for a ten minute period.

HOW MANY SEALS DOES A SOLENOID CONTAIN?

Four. Three externally, visible seals and one internal, non-replaceable sealed inside the main body. After replacing the three external seals, torque the solenoid, if you have oil coming out the bottom, the internal seal is leaking and solenoid replacement is necessary.

Solenoid torque is one of the most common reasons for solenoid failures, either the correct tool wasn't used for removal or it was over-torqued. The solenoid cap, which is pressed onto the main body, determines the coil to armature clearance. The larger the clearance, the more voltage it takes to energize the solenoid. Only use the correct tool to remove and install a solenoid and do not exceed specified torque.

With all these points in mind, the question is: How much time does it take to test a solenoid verses replacing it?

BENEFITS

RESTORE MAXIMUM ENGINE
BRAKE PERFORMANCE
WHILE REDUCING VEHICLE
MAINTENANCE COSTS

			SOLENOIDS						
ENGINE MODEL	JACOBS BRAKE MODEL #	SOLENOID TYPE*	JACOBS PART #	CUMMINS PART #	CAT PART #	DETROIT PART #	MACK PART #	PACBRAKE SOLENOID	
CUMMINS	NH/NT 855	20, 25, 25B, 30, 30E, 400, 400H, 401A, 401B, 401C	Single Lead 12 VDC	016440, 4205	3871463	N/A	N/A	N/A	P04205
	KT, KTC, KTA,	K200, K1150, K1200	Single Lead 12 VDC	003784, 004205, 008674	3871463	N/A	N/A	N/A	P04205 + P02390
	L10	404, 404B, 404BG, 404C, 404D	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	3871463	N/A	N/A	N/A	P04205
	L10	404D	Single Lead 24 VDC	016441, 020236, 1020238	3871464	N/A	N/A	N/A	P04205-24
	M11, M11 Plus	411	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	3871707	N/A	N/A	N/A	P04205
	M11, M11 Plus	411	Dual Lead 24 VDC	1024617	3871709	N/A	N/A	N/A	P04206
	M11, M11 Plus	411	Single Lead 24 VDC	016441, 020236, 020238	3871708	N/A	N/A	N/A	P04205-24
	ISM	411C	Single Lead 12 VDC	1024610	3871711	N/A	N/A	N/A	P04205
	ISM	411D, 411E	Single Lead 12 VDC	1024613	3871707	N/A	N/A	N/A	P04205
	88 NT	430 FT, 430 STC	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	3871708	N/A	N/A	N/A	P04205
	88 NT	430 FT, 430 STC	Single Lead 24 VDC	016441, 021254	3871708	N/A	N/A	N/A	P04205-24
	N14	440, 440A	Single Lead 12 VDC	016440	3871463	N/A	N/A	N/A	P04205
	N14	440, 440A	Dual Lead 24 VDC	016441	3871708	N/A	N/A	N/A	P04205-24
	N14 Plus	450A, 450B, 455	Single Lead 12 VDC	021252, 1024613	3871635, 3871707	N/A	N/A	N/A	P04205
	N14 Plus	450A, 450B, 455	Single Lead 24 VDC	024616	3871708	N/A	N/A	N/A	P04205-24
N14 Plus	450A, 450B, 455	Dual Lead 24 VDC	1021253, 1024617	3871637, 3871709	N/A	N/A	N/A	P04206	
CATERPILLAR	3176, C10, C12	310, 310A, 312A, C317, C317A, 317B, 317C, 317D, 317E	Dual Lead 12 VDC	1019650	N/A	143-6627 163-1533	N/A	N/A	P39015
	3176, C10, C12	310, 310A, 312A, C317, C317A, 317B, 317C, 317D, 317E	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	N/A	143-2558 154-7028 163-1550	N/A	N/A	P04205
	C10, C12	C310A, C312A	Dual Lead 24 VDC	1021253	N/A	143-6669	N/A	N/A	P04206
	3306	C336, 336A	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	N/A	143-2558 163-1550	N/A	N/A	P04205
	3306	C336, 336A	Single Lead 24 VDC	020236, 1020238	N/A	143-6643 143-6645	N/A	N/A	P04205-24
	3406, B, C	C346, C346A, C346B, C346C, C346D, C349A	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	N/A	143-2558 163-1550	N/A	N/A	P04205
	3406E, C15, C16[340, 340A, 340B, 340C, 340D, 340E[Dual Lead 12 VDC	019650, 1020239, 1021252, 1024610	N/A	143-6627 163-1533	N/A	N/A	P39015
	3406E, C15, C16	340, 340A, 340B, 340C, 340D, 340E	Dual Lead 24 VDC		N/A	163-1553	N/A	N/A	P04206
DETROIT DIESEL	Detroit	6/71, 6V71, 8V71, 8V92, 6V92, 12V71, 12V92	Single Lead 12 VDC	016440	N/A	N/A	4205	N/A	P04205
	S60	760, 760A, 765, 770, 790, 790B, 790C, 790D, 795, 797, 797A	Single Lead 12 VDC	016440, 1020239, 1021252, 024612, 1024613	N/A	N/A	1024612	N/A	P04205
	S60 24 VDC Vehicles	760, 760A, 765, 770, 790, 790B, 790C, 790D, 795, 797, 797A	Single Lead 24 VDC	016441, 020236, 1020238	N/A	N/A	1024619	N/A	P04205-24
	S60	797B	Dual Lead 12 VDC	034737	N/A	N/A	1034737	N/A	P39015
MACK	Mack	675, 676, 677	Single Lead 12 VDC	016440	N/A	N/A	N/A	4205	P04205
	Mack E6, E7	680A, 680B	Single Lead 12 VDC	016440, 1020239, 1021252, 1024613	N/A	N/A	N/A	16440	P04205

PRXB/EXHAUST BRAKES

LOADLEASH ENGINE BRAKES

PACBRAKE ENGINE BRAKES

WARRANTY

ENGINE BRAKE TUNE-UP KITS



KITS CONTAIN
SEAL RINGS, O-RINGS,
FASTENERS, CONTROL
VALVES, COIL SPRINGS,
SOLENOID LEAD WIRES,
LEAF SPRINGS & MORE...*

*Tune-up kit contents vary depending on application

GET BACK BIG POWER

TUNE-UP YOUR ENGINE BRAKE, NO MATTER WHAT BRAND

WHAT YOU NEED TO KNOW ABOUT ENGINE BRAKE MAINTENANCE AND THE RESTORATION OF YOUR ENGINE BRAKE PERFORMANCE...Engine brakes perform an essential part of diesel engine operation. They provide a major role in retarding the engine on downgrades and during regular stopping. Consequently, they save substantially on service brakes and add a dimension of safety and speed control of the vehicle.

Almost all class 8 vehicles come from the factory equipped with engine brakes.

Engine brakes are used regularly and their moving parts wear over time. It's not unusual to see a 20% to 25% decline of engine retarding with normal wear over 300,000 miles. As a driver, you may not notice the declining efficiency of the engine brake as the loss is gradual. With the decline of your engine brake efficiency come more regular use and wear and tear of your service brakes.

A single brake re-line will cost you many times more than an engine brake tune-up kit. Your dealer may recommend that you take the advantage of tuning up your engine brake at 250,000 - 300,000 miles or as the fuel injectors or valves are set.

Because engine brake removal is a part of the process in the maintenance of the fuel injectors and valve setting, it is an ideal time to perform engine brake maintenance with a Pacbrake engine brake tune-up kit.

Make safety a priority while saving time and money with Pacbrake's premium quality tune-up kit parts at a fraction of the OEM cost. Ask your local dealer about engine brake maintenance today.

TUNE-UP KITS FOR PACBRAKE ENGINE BRAKES

ENGINE	PACBRAKE MODEL #	PART #
CATERPILLAR		
C15	P39A/B/D/E	P39010
C16	P39A/B/D/E	P39010
3406E	P39A/B	P39010
3406B/C	P36	P34601

CUMMINS		
N-14	P14A/B	P14013
88/NT	P38	P38011
855	P30/40	P40024

DETROIT		
Series 60	P61, P63A/B/C	P60101
Series 60	P80	P80010
Series 60	P80A	P80037
Series 60	P80C	P80037

TUNE-UP KITS FOR JACOBS / OEM ENGINE BRAKES

ENGINE	JACOBS MODEL #	PACBRAKE PART #	JACOBS PART #	ENGINE BRAKE PART #
CATERPILLAR				
C10	310A	P19502	19502	143-6626
C12	312A	P19502	19502	143-6626
3176	317D/E	P19502	19502	143-6626
C15	340C/D/E	P19654	19654	143-6628
C16	340C/D/E	P19654	19654	143-6628
3406E	340A/B	P19654	19654	143-6628
3406B/C	346A/B/C/D	P34601	14087	143-6479

CUMMINS				
L10	404/B/BG/D	P19848	19848, 20131	3871540, 3871580, 3871586
M11	411	P19848	19848	3871580
ISM	411C	P19848	19848	3871580
N-14	440/A, 450A/B	P20923	20923	3871568
N-14+	455B/C	P20923	20923	3871704
88/89NT	430	P38011	017690	3871538
NH/NT	425A, 400/H, 425A	P40024	017689	3871537
NH/NT	401/A/B/C, 420, 425A	P40026	017687, 017688, 017689	3871536
855	44B, 400/H, 425A	P40024	013950	3871418
855	401/A/B/C, 420, 425	P40026	017687, 017688, 017689	3871536

DETROIT				
8V-71/92	71A, 92A	P69201	017056	17056
8V-71/92	71A, 92A	P89201	017056	17057
Series 50	750/A	P20530	20530	20530
Series 60	760	P19875	19875	19875
Series 60	760A, 765/A	P20531	20531	20531
Series 60	760A, 765/A, 770	P20520 ♦	N/A	N/A
Series 60	790	TBA	29013	29013
Series 60	795	TBA	29013	29013
Series 60	797	TBA	32146	32146

MACK				
E6-2V	675A	P18676	18676	4559-18676
E6-4V	680A	P18677	18677	4559-18677
E7	680B	P18678	18678	4559-18678
E-Tech Aset	690	TBA	31180	4559-31180

♦ Tune up Kit (econo) Contains no lash adjusting screws



CATERPILLAR REPLACEMENT PARTS CROSSOVER LIST

CAT PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Tune-up Kits		
143-6479	P34601	3406/B/CTUNE-UP KIT
143-6626	P19502	TUNE-UP KIT C10/C12
143-6628	P19654	TUNE-UP KIT JAKE 340/A/B/C

Replacement Engine Brake Solenoids		
01-021253	P04206	SOLENOID 12 VOLT D/L
163-1533	P39015	SOLENOID 12 VOLT D/L
163-1547	P04205-24	SOLENOID 24 VOLT S/L
163-1553	P04206	SOLENOID 24 VOLT D/L
2U-1490	P04205	SOLENOID 12 VOLT

Complete Parts List		
01-021253	P04206	SOLENOID 24 VOLT D/L
OS-1614	P01492	CAPSCREW-HEX
102-8780	P11930	CONTROL VALVE
143-2533	P11283	CONTROL VALVE
143-2534	P11284	SNAP RING, CONTROL VALVE
143-2536	P11823	SPRING, CONTROL VALVE – INNER
143-2539	P12991	RETAINING RING
143-2544	P14928	COVER, CONTROL VALVE
143-2545	P15561	SNAP RING
143-2546	P01030	WASHER ACCUMULATOR
143-2557	P15906	SPACER GASKET
143-2559	P01023	RETAINING RING
143-2561	P01180	SWITCH COVER
143-2562	P01244	SELF-TAPPING SCREW
143-2563	P01512	TERMINAL
143-2564	P01534	DIODE
143-2565	P01558	6-32 x 1/4 RD SL MACHINE SCREW
143-2570	P03586	SWITCH – HI/LOW/OFF
143-2574	P03777	PLATE – HI/LOW/OFF
143-2584	P05639	SEAL
143-2590	P39100	INNER CONTROL VALVE SPRING
143-6455	P12246T	WOBBLE SWITCH
143-6456	P12261T	WOBBLE SWITCH & BRACKET GROUP
143-6458	P12269	MOUNTING BRACKET
143-6479	P34601	3406/B/CTUNE-UP KIT
143-6545	P60045	RELAY
143-6549	P01304	TOGGLE SWITCH – ON/OFF
143-6557	P17368	SOLENOID HARNESS
143-6564	P17593	RELAY BASE ASSEMBLY
143-6584	P39046	SPRING
143-6589	P18222	CONTROL VALVE COVER
143-6618	P19353	SPRING, MASTER PISTON-FLAT
143-6626	P19502	TUNE UP KIT C10/C12

CAT PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
143-6628	P19654	TUNE UP KIT JAKE 340/A/B/C
143-6642	P01081	UPPER SEAL RING
143-6684	P02390	SOLENOID HARNESS – CUMMINS
143-6692	P60125	SWITCH PLATE
143-6699	P07450	SOLENOID HARNESS – CAT
143-6703	P11251	COLLAR, CONTROL VALVE
143-6705	P09355	HEX NUT
143-6721	P14908	CLAMP
148-7445	P11253	OUTER CONTROL VALVE SPRING
148-7448	P01518	INNER CONTROL VALVE SPRING
155-5586	P01305	PLATE – OFF
163-1533	P39015	SOLENOID 12 VOLT D/L
163-1547	P04205-24	SOLENOID 24 VOLT S/L
163-1553	P04206	SOLENOID 24 VOLT D/L
171-2425	P02299	TERMINAL ASSEMBLY
171-4737	P01500	CONTROL VALVE
1Q-9544	P11722	BREATHER HOSE – CAT
1Q-9551	P03790	1/4- 20 x 3/8 BHSC NYLON PATCH
1Q-9830	P01218	SWITCH
2U-1467	P11433	SPRING
2U-1468	P07832	CENTER SLAVE SPRING – CAT
2U-1469	P07833	OUTER SLAVE SPRING – CAT
2U-1471	P05611	SNAP RING – CAT
2U-1478	P01265	SCREW
2U-1481	P05612	MASTER PISTON
2U-1485	P01722	SCREW-SOCKET HEAD
2U-1487	P11434	CONTROL VALVE SPRING – OUTER
2U-1488	P11435	CONTROL VALVE SPRING – INNER
2U-1490	P04205	SOLENOID 12 VOLT
2U-1492	P01082	CENTER SOL. SEAL VITON
2U-1493	P01083	LOWER SOL SEAL VITON
2U-1501	P05653	5/16 X 1NC PLTHX SERR FLG SCRW – SUPERSEDED TO C11819
2U-1522	P01031	3/8- 24 X 3/4 SOC SET FLPT ALLOY
2U-1526	P13158	FLAT SPRING
3L-8187	P01559	LOCK WASHER
7C-0030	P05647	OIL SUPPLY ADAPTER
7C-0031	P02411	O-RING
7C-0033	P11470	SPACER STUD –CAT
7C-0048	P13469	CROSSHEAD
9L-7712	P01026	JAM NUT-HEX 3/8 NF
9L-9814	P05654	5/16- 18 SERR FLNGE ZINC NUT
9M-1974	P05656	PLAIN WASHER – CAT
SOLENOID	P01282	SCREEN, SOLENOID
SOLENOID	P01283	RETAINER, SOLENOID

ENGINE BRAKE DISCLAIMER: See engine brake disclaimer on following pages

CUMMINS REPLACEMENT PARTS CROSSOVER LIST

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Kits & Housings		
3804594	P14018	ENGINE BRAKE BASE KIT 94N14-450A 12 VOLT S/L (Check CPL #s)
3804597	P14022	ENGINE BRAKE BASE KIT 94N14-450B 12 VOLT S/L (Check CPL #s)
3804603	P14014	ENGINE BRAKE BASE KIT N14PLUS-455B 12 VOLT S/L (Check CPL #s)

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Tune-up Kits & Gaskets		
3871418	P40024	TUNE-UP KIT (25B,30,30E,400,400H, 425A)
3871481	P16846	GASKET-EACH-455B/C N-14 P-14
3871537	P40026	TUNE-UP KIT CUMMINS 88 (JAKE 425A)
3871568	P20923	TUNE-UP KIT
3871580	P19848	TUNE-UP KIT CUMMINS L10/M11
3871657	P20923	TUNE-UP KIT 455B/C N14 PLUS
4025000	P13294 (need 3)	GASKET - CUMMINS
4025002	P14848 (need 3)	GASKET P38 METAL

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Solenoids		
3871463	P04205	SOLENOID 12 VOLT
3871464	P04205-24	SOLENOID 24 VOLT S/L
3871465	P04206	SOLENOID 24 VOLT D/L
3871636	P04205-24	SOLENOID 24 VOLT S/L
3871637	P04206	SOLENOID 24 VOLT D/L
3871707	P04205	SOLENOID 12 VOLT
3871707	P04206	SOLENOID 24 VOLT D/L
3871708	P04205-24	SOLENOID 24 VOLT S/L
3871709	P04206	SOLENOID 24 VOLT D/L
3871711	P39015	SOLENOID 12 VOLT D/L
4024760	P04206	SOLENOID 24 VOLT D/L

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List		
199225	P02969	SCREW
205643	P19295	CAPSCREW N-14
217788	P02514	STUD WASHER
3063531	P02856	MOUNTING STUD
3063533	P01234	STUD SPACER
3063546	P01199	STUD ASSEMBLY
3063548	P02856	STUD ASSEMBLY
3073972	P34655	PLUG CONNECTOR
3251588	P10180	SEAL - CUMMINS
3412330	P26170	CAP, CONTROL VALVE - 440B/C

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
3804594	P14018 (Check CPL #s)	ENGINE BRAKE BASE KIT 94N14-450A 12 VOLT S/L
3804597	P14022 (Check CPL #s)	ENGINE BRAKE BASE KIT 94N14-450B 12 VOLT S/L
3804603	P14014 (Check CPL #s)	ENGINE BRAKE BASE KIT N14PLUS-455B 12 VOLT S/L
3871201	P01012	CONTROL VALVE SPRING
3871203	P01017	MASTER PISTON - 7/8
3871205	P01022	SLAVE PISTON SPRING
3871206	P01023	RETAINING RING
3871207	P01026	JAM NUT-HEX 3/8 NF
3871208	P01030	SPRING RETAINER
3871209	P01031	3/8-24 X 3/4 SOC SET FLPT ALLOY
3871210	P01033	CAPSCREW
3871211	P01040	TERMINAL
3871217	P01082	CENTER SOL. SEAL VITON
3871218	P01083	LOWER SOL SEAL VITON
3871220	P01094	NUT - 1/2" NC, HEX
3871222	P01178	SWITCH BRACKET
3871224	P01180	SWITCH COVER
3871225	P01181	NUT-HEX
3871228	P01500	CONTROL VALVE
3871236	P01244	SELF-TAPPING SCREW
3871238	P01265	SCREW
3871243	P01304	TOGGLE SWITCH - ON/OFF
3871244	P01305	PLATE - OFF
3871248	P01492	CAPSCREW-HEX
3871249	P01512	TERMINAL
3871250	P01518	INNER CONTROL VALVE SPRING
3871251	P01519	OUTER CONTROL VALVE SPRING
3871252	P01531	CLAMP
3871253	P01534	DIODE
3871255	P01538	WASHER
3871257	P01558	6-32 x 1/4 RD SL MACHINE SCREW
3871258	P01559	LOCK WASHER
3871260	P01722	SCREW- SOCKET HEAD
3871264	P02390	SOLENOID HARNESS - CUMMINS
3871265	P60125	SWITCH PLATE
3871266	P02610P (need 3)	TEAR-OFF GASKET
3871267	P02856	STUD ASSEMBLY
3871268	P02957	TOGGLE SWITCH
3871303	P03586	SWITCH-HI/LOW/OFF
3871318	P03777	PLATE-HI/LOW/OFF
3871321	P03790	1/4 -20 x 3/8 BHSC NYLON PATCH
3871330	P04089	MASTER PISTON
3871331	P04136	CONTROL VALVE COVER

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CUMMINS REPLACEMENT PARTS CROSSOVER LIST

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
3871336	P11433	SPRING
3871338	P06796	BRACKET, THROTTLE SWITCH
3871344	P07447	MASTER PISTON SPRING
3871345	P39100	INNER CONTROL VALVE SPRING
3871347	P07623	SLAVE PISTON-P30E
3871348	P07671	FUEL ASSEMBLY SWITCH
3871351	P09353	PAFLASH JAMNUT
3871359	P09916	SET SCREW
3871364	P11251	COLLAR, CONTROL VALVE
3871365	P11252	COVER, CONTROL VALVE
3871366	P11253	OUTER CONTROL VALVE SPRING
3871372	P11283	CONTROL VALVE
3871373	P11284	SNAP RING, CONTROL VALVE
3871379	P09355	HEX NUT
3871383	P11544	BUTTON HEAD SCREW
3871388	P11720	SPRING
3871390	P11823	SPRING, CONTROL VALVE - INNER
3871391	P11841	MASTER PISTON SPRING
3871393	P11930	CONTROL VALVE
3871395	P12246T	WOBBLE SWITCH
3871397	P12261T	WOBBLE SWITCH & BRACKET GROUP
3871399	P12269	MOUNTING BRACKET
3871404	P13155	O-RING
3871418	P40024	TUNE-UP KIT (25B, 30, 30E, 400, 400H, 425A)
3871423	P14035	ENGINE CONTROL GROUP (CUMMINS)
3871438	P14619	HARNESS
3871444	P38025	OIL SUPPLY SCREW
3871445	P14928	COVER, CONTROL VALVE
3871446	P15561	SNAP RING
3871463	P04205	SOLENOID 12 VOLT
3871464	P04205-24	SOLENOID 24 VOLT S/L
3871465	P04206	SOLENOID 24 VOLT D/L
3871478	P16810	MASTER PISTON SPRING
3871481	P16846	GASKET - EACH - 455B/C N-14 P-14
3871486	P60045	RELAY
3871518	P17412	SPRING, MASTER PISTON - FLAT
3871530	P02299	TERMINAL ASSEMBLY

CUMMINS PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
3871538	P38011	TUNE-UP KIT CUMMINS 88 (JAKE 430, TEC430A)
3871548	P18187	WIRE HARNESS
3871549	P01218	SWITCH
3871561	P18792	SPRING, MASTER PISTON - FLAT
3871568	P20923	TUNE-UP KIT
3871580	P19848	TUNE-UP KIT CUMMINS L10/M11
3871594	P02970	TOGGLE SWITCH ASSEMBLY
3871612	P38045	INJECTOR SCREW
3871634	P21296	HARNESS
3871636	P04205-24	SOLENOID 24 VOLT S/L
3871637	P04206	SOLENOID 24 VOLT D/L
3871638	P01081	UPPER SEAL RING
3871642	P19103	SLAVE PISTON
3871643	P19104	OUTER SLAVE SPRING (455A/B)
3871644	P19105	INNER SLAVE SPRING (455A/B)
3871645	P19139	SLAVE PISTON RETAINER (455A/B)
3871648	P01314	ON/OFF TOGGLE SWITCH
3871652	P20800	HARNESS (450A/B/455B/C)
3871657	P20923	TUNE-UP KIT 455B/C N14 PLUS
3871663	P17593	RELAY BASE ASSEMBLY
3871680	P01955	SWITCH HARNESS
3871700	P02183	ACTUATING ROD - P01495 CLUTCH SW
3871702	P02411	O-RING
3871707	P04206	SOLENOID 24 VOLT D/L
3871708	P04205-24	SOLENOID 24 VOLT S/L
3871709	P04206	SOLENOID 24 VOLT D/L
3871711	P39015	SOLENOID 12 VOLT D/L
4024760	P04206	SOLENOID 24 VOLT D/L
4025000	P13294 (need 3)	GASKET - CUMMINS
4025002	P14848 (need 3)	GASKET - P38 METAL

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DETROIT DIESEL REPLACEMENT PARTS CROSSOVER LIST

DETROIT PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Tune-up Kits		
017506	P69201	DDC 6V 71/92TUNE-UP KIT
017507	P89201	DDC 8V 71/92TUNE-UP KIT
019875	P19875	TUNE-UP KIT 760
020530	P20530	750 TUNE-UP KIT
020531	P20531	TUNE-UP KIT 760A/765/765A

Replacement Engine Brake Solenoids		
13472	P04205-24	SOLENOID 24 VOLT S/L
16440	P04205	SOLENOID 12 VOLT
16441	P04205-24	SOLENOID 24 VOLT S/L
20236	P04205-24	SOLENOID 24 VOLT S/L
20239	P04205	SOLENOID 12 VOLT
024612	P04205	SOLENOID 12 VOLT
024613	P04205	SOLENOID 12 VOLT
024616	P04205-24	SOLENOID 24 VOLT S/L
024619	P04205-24	SOLENOID 24 VOLT S/L
1024612	P04205	SOLENOID 12 VOLT
1024619	P04205-24	SOLENOID 24 VOLT S/L

Complete Parts List		
001012	P01012	CONTROL VALVE SPRING
001023	P01023	RETAINING RING
001026	P01026	JAM NUT-HEX 3/8 NF
001031	P01031	3/8-24 x 3/4 SOC SET FLPT ALLOY
001040	P01040	TERMINAL
001082	P01082	CENTER SOL SEAL VITON
001083	P01083	LOWER SOL SEAL VITON
001218	P01218	SWITCH
001265	P01265	SCREW
001282	P01282	SCREEN, SOLENOID
001283	P01283	RETAINER, SOLENOID
001287	P01287	OIL CONNECTOR
001288	P01288	SLAVE PISTON SPRING
001304	P01304	TOGGLE SWITCH - ON/OFF
001332	P01332	SEAL
001340	P01340	1/4 NF THIN WALL NUT PLATED
001341	P01341	SCREW-HEX
001492	P01492	CAPSCREW-HEX
001518	P01518	INNER CONTROL VALVE SPRING
001519	P01519	OUTER CONTROL VALVE SPRING
001521	P11930	CONTROL VALVE
001531	P01531	CLAMP
001534	P01534	DIODE
001538	P01538	WASHER
001558	P01558	6-32 x 1/4 RD SL MACHINE SCREW

DETROIT PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
001559	P01559	LOCK WASHER
001722	P01722	SCREW-SOCKET HEAD
002017	P02017	O-RING
002299	P02299	TERMINAL ASSEMBLY
002390	P02390	SOLENOID HARNESS - CUMMINS
002744	P02744	SCREW SUPERSEDED TO P012144
002769	P14908	CLAMP
003571	P60150	CAB GROUP 760/765
003586	P03586	SWITCH - HI/LOW/OFF
003777	P03777	PLATE - HI/LOW/OFF
004653	P04653	SEAL BUSHING
004665	P04665	HARNESS
005383	P05383	HARNESS
005384	P05384	HARNESS
006833	P60014	CABLE TIE
007500	P39100	INNER CONTROL VALVE SPRING
010843	P10843	SPRING, OUTER CONTROL VALVE
011395	P09355	HEX NUT
011426	P11426	BRIDGE ADJUSTING SCREW
011434	P11434	CONTROL VALVE SPRING, OUTER
011720	P11720	SPRING
011930	P11930	CONTROL VALVE
012246	P12246T	WOBBLE SWITCH
012261	P12261T	WOBBLE SWITCH & BRACKET GROUP
012269	P12269	MOUNTING BRACKET
012981	P12981	MASTER PISTON
012983	P12983	ACCUMULATOR PISTON
012990	P12990	SPRING, ACCUMULATOR
012991	P12991	RETAINING RING
012996	P12996	BUTTON HEAD SCREW (760 ONLY)
013472	P04205-24	SOLENOID 24 VOLT S/L
014908	P14908	CLAMP
016440	P04205	SOLENOID 12 VOLT
016441	P04250-24	SOLENOID 24 VOLT S/L
016505	P01030	WASHER ACCUMULATOR
016535	P16535	SPRING, MASTER PISTON-FLAT
016557	P16557	COLLAR, CONTROL VALVE
016732	P05383	HARNESS
016733	P05384	HARNESS
016766	P16766	HEX NUT
016771	P16771	BRIDGE
017048	P17048	SLAVE PISTON
017506	P69201	DDC 6V 71/92TUNE-UP KIT
017507	P89201	DDC 8V 71/92TUNE-UP KIT
017565	P17565	MASTER PISTON

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DETROIT DIESEL REPLACEMENT PARTS CROSSOVER LIST

DETROIT PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
017658	P17658	SPRING, MASTER PISTON
018188	P01218	SWITCH
019096	P50150	ENGINE CONTROL GROUP DDEC III AND IV
019504	P07500	SPRING
019576	P19576	SLAVE TORSION SPRING
019740	P19740	BUTTON HEAD SCREW
019741	P19741	WASHER
019875	P19875	TUNE-UP KIT 760
020218	P60155	ENGINE CONTROL GROUP DDEC III
020229	P01081	UPPER SEAL RING
020236	P04205-24	SOLENOID 24 VOLT S/L
020239	P04205	SOLENOID 12 VOLT
020382	P20382	POWER-LASH ASSEMBLY
020530	P20530	750 TUNE-UP KIT
020531	P20531	TUNE-UP KIT 760A/765/765A
021184	P60022	FLAT WASHER
024612	P04205	SOLENOID 12 VOLT
024613	P04205	SOLENOID 12 VOLT
024616	P04205-24	SOLENOID 24 VOLT S/L
024619	P04205-24	SOLENOID 24 VOLT S/L
029118	P80019	790/795/797 SPACERTUBE
1024612	P04205	SOLENOID 12 VOLT
1024619	P04205-24	SOLENOID 24 VOLT S/L

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MACK REPLACEMENT PARTS CROSSOVER LIST

MACK PART #	PACBRAKE PART #	DESCRIPTION
Replacement Engine Brake Tune-up Kits		
4559-18676	P18676	TUNE-UP KIT MACK 675
4559-18677	P18677	TUNE-UP KIT 680A
4559-18678	P18678	TUNE-UP KIT 680B

Replacement Engine Brake Solenoids		
4559-1024614	P04205	SOLENOID 12 VOLT
4559-16440	P04205	SOLENOID 12 VOLT
4559-24612	P04205	SOLENOID 12 VOLT
4559-24613	P04205	SOLENOID 12 VOLT

Complete Parts List		
4559-1023	P01023	RETAINING RING
4559-1024614	P04205	SOLENOID 12 VOLT
4559-1026	P01026	JAM NUT - HEX 3/8 NF
4559-1030	P01030	SPRING RETAINER
4559-1082	P01082	CENTER SOL. SEAL VITON
4559-1083	P01083	LOWER SOL SEAL VITON
4559-11283	P11283	CONTROL VALVE
4559-11434	P11434	CONTROL VALVE SPRING, OUTER
4559-11435	P11435	CONTROL VALVE SPRING, INNER
4559-1180	P01180	SWITCH COVER
4559-11930	P11930	CONTROL VALVE
4559-12246	P12246T	WOBBLE SWITCH
4559-12261	P12261T	WOBBLE SWITCH & BRACKET GROUP
4559-12269	P12269	MOUNTING BRACKET
4559-12757	P34650	CONTROL VALVE COVER
4559-1282	P01282	SCREEN, SOLENOID
4559-1283	P01283	RETAINER, SOLENOID
4559-12991	P12991	RETAINING RING
4559-13158	P13158	FLAT MASTER PISTON SPRING-CAT
4559-1492	P01492	CAPSCREW - HEX
4559-1512	P01512	TERMINAL

MACK PART #	PACBRAKE PART #	DESCRIPTION
Complete Parts List cont'		
4559-1521	P11930	CONTROL VALVE
4559-1531	P01531	CLAMP
4559-1534	P01534	DIODE
4559-1538	P01538	WASHER
4559-1558	P01558	6-32 x 1/4 RD SL MACHINE SCREW
4559-1559	P01559	LOCK WASHER
4559-16440	P04205	SOLENOID 12 VOLT
4559-1722	P01722	SCREW-SOCKET HEAD
4559-18188	P01218	SWITCH
4559-18676	P18676	TUNE-UP KIT MACK 675
4559-18677	P18677	TUNE-UP KIT 680A
4559-18678	P18678	TUNE-UP KIT 680B
4559-20229	P01081	UPPER SOL. SEAL VITON
4559-2030	P02030	FLAT SPRING
4559-2299	P02299	TERMINAL ASSEMBLY
4559-2411	P02411	O-RING
4559-24612	P04205	SOLENOID 12 VOLT
4559-24613	P04205	SOLENOID 12 VOLT
4559-2614	P02614	SWITCH BRACKET
4559-2615	P02615	ARM
4559-2744	P02744	SCREW
4559-3586	P03586	SWITCH - HI/LOW/OFF
4559-3777	P03777	PLATE - HI/LOW/OFF
4559-3790	P03790	1/4-20 x 3/8 BHSC NYLON PATCH
4559-6833	P60014	CABLETIE
4559-7500	P39100	INNER CONTROL VALVE SPRING

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APPLICATION GUIDE & PRODUCT CATALOGUE

/// PACBRAKE[®] COMPANY



As a proud family run business since 1961, Pacbrake Company™ has been committed to providing its customers with the highest quality products for a wide range of vehicles. Over the years, the expertise and innovation of Pacbrake's dedicated staff transformed the company from an engine brake distributor, into an industry leading manufacturer of automotive products. To this day, Pacbrake remains devoted to improving its product design through continuous research and development in order to provide customers with the most advanced automotive systems available, setting the standard for performance and durability across the trucking industry.

Behind every Pacbrake product stands a team of qualified engineers, state of the art manufacturing facilities and an internationally recognized ISO 9001: 2008 quality management system.

Making headway into the aftermarket, Pacbrake is proud to introduce their PacPro line of heavy duty performance parts that help increase drive control, improve mechanical suspension as well as optimize engine operation.



HISTORY

1960-1980

- *Pacbrake Company™ incorporates in 1961*

1980-1990

- *Pacbrake develops new engine brake technology for Detroit Diesel™, Caterpillar™ and Cummins™ engines*
- *Pacbrake becomes the first company to patent a combination engine brake that utilizes an exhaust valve*

1990-2000

- *Pacbrake starts supplying engine and exhaust brakes to Freightliner™, Kenworth™ and Detroit Diesel™*
- *Becomes the largest North American exhaust brake manufacturer*

2000-2010

- *Starts supplying valves to the US Military*
- *Pacbrake expands R&D efforts and starts development of aftermarket products*
- *Starts supplying thermal management valves to Navistar™*
- *Expands aftermarket product line to include more tow/haul solutions (air springs, in-cab controls and onboard air)*



2010-PRESENT

- *Pacbrake celebrates 50 years in business*
- *Supplies first hot EGR valve to Navistar™*
- *Develops the first engine brake for Cummins™ ISB engine*
- *Launches the first engine shut-off valve for the oil and gas industry*
- *Develops new AMP™ heavy duty air compressor line*
- *Pacbrake supplies first AMP™ onboard air system for an OEM*
- *Pacbrake introduces PacPro heavy duty performance parts featuring leveling kits, air horns, springs and more*

The contents of this catalogue are subject to change without notice. Contact Pacbrake for the most up-to-date information on our products

VEHICLE ACCESSORIES

VEHICLE ACCESSORIES

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LEVELING KITS



SPRING KITS



OIL FILTER RELOCATION KITS



MAX FLOW ELBOW



TIE ROD SLEEVES



SWITCHES



AIR HORNS



Performance Solutions FOR HARDWORKING TRUCKS

AIR HORNS

Let'em know you're there with PacPro air horns kits. Premium kits come with a horn and an onboard air kit. For those with an onboard air system Pacbrake also offers basic kits.

APPLICATION	YEAR	MODEL	KIT #
Air Horns			
Universal Large Horn	N/A	Premium Kit	HP10238
Universal Large Horn	N/A	Basic Kit (for Vehicle with an Onboard Air System)	HP10234
Universal Dual Horns	N/A	Premium Kit	HP10213
Universal Dual Horns	N/A	Basic Kit (for Vehicle with an Onboard Air System)	HP10073
Universal Horn Trio	N/A	Premium Kit	HP10237
Universal Horn Trio	N/A	Basic Kit (for Vehicle with an Onboard Air System)	HP10235
Universal Triple Train Horn	N/A	Premium Kit	HP10314
Universal Triple Train Horn	N/A	Basic Kit (for Vehicle with an Onboard Air System)	HP10254

LARGE HORN

PACPRO AIR OPERATED, LARGE AIR HORNS ARE MADE FROM CAST ALUMINUM WITH A CHROME FINISH.



PREMIUM KIT | HP10238



PREMIUM KITS CONTAIN:

- All components from the basic kit
- HP325 12VDC compressor (HP10143)
- Half gallon air tank (C11940)
- Curly hose air accessory kit (C11657)
- All necessary wiring, harnesses, fittings & fasteners

BASIC KIT | HP10234



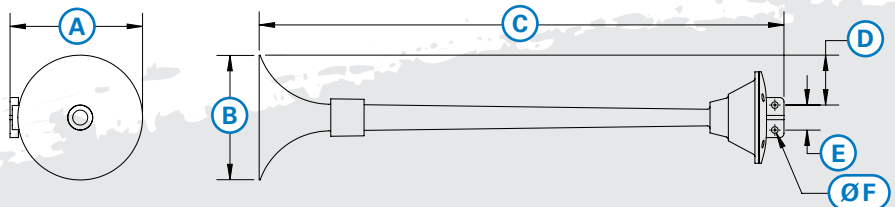
- For vehicles with onboard air systems

SPECIFICATIONS

DECIBEL RATING AT 6 M [20 FT]	110 db @ 100 psig (gauge) [689 kPa]
FUNDAMENTAL FREQUENCY	1800 to 3550 Hz
OPERATING TEMPERATURE RANGE	-40°F to 248°F [-40°C to 120°C]
OPERATING AIR PRESSURE	100 to 135 psig (gauge) [689 to 931 kPa]
ACTUATION TYPE	Manual or solenoid
AIR INLET PORT	1/4" (-4) NPT

HP10236

Weight: 2.4 lbs [1.1 kg]
A Width: 6.30" [160 mm]
B Height: 5.91" [150 mm]
C Length: 24.80" [640 mm]
D Height: 2.36" [60 mm]
E Bolt Spacing: 1.14" [29.0 mm]
F Mounting Holes: .31" [7.9 mm]



PACPRO[®]

PERFORMANCE PARTS by PACBRAKE

UNIVERSAL
APPLICATIONS

EASY
INSTALLATION

HEAVY DUTY
DESIGN & BUILD

Truck Owner: Travis Haecker
Sponsored by PacPro




BRINGING THE NOISE

AIR HORNS

Let'em know you're there with PacPro Air Horns



-  Universal Applications
-  Premium kits come with an air compressor and air tank
Basic kits for those who already have onboard air
-  Heavy duty design and build – Cast aluminum horns with chrome or matte black finish and heavy duty components
-  Easy Install – All necessary wiring, harnesses, fittings and fasteners
-  Large, Dual or Trio horn configurations to choose from

AIR HORNS

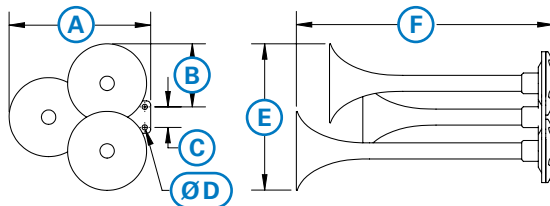
TRIPLE TRAIN HORN

PACPRO AIR OPERATED, TRIPLE TRAIN HORNS ARE MADE WITH CAST STAINLESS STEEL AND ZINC ALLOY WITH A CHROME FINISH.



SPECIFICATIONS

DECIBEL RATING AT 6 M [20 FT]	110 db @ 100 psig (gauge) [689 kPa]
FUNDAMENTAL FREQUENCY	300 to 550 Hz
OPERATING TEMPERATURE RANGE	-40°F to 248°F [-40°C to 120°C]
OPERATING AIR PRESSURE	85 to 150 psig (gauge) [345 to 1034 kPa]
ACTUATION TYPE	Manual or solenoid
AIR INLET PORT	1/4" (-4) NPT



PREMIUM KIT | HP10314



PREMIUM KITS CONTAIN:

- All components from the basic kit
- HP325 12VDC compressor (HP10143)
- Half gallon air tank (C11940)
- Curly hose air accessory kit (C11657)
- All necessary wiring, harnesses, fittings & fasteners

BASIC KIT | HP10254



- For vehicles with onboard air systems

HP10282

Weight: 8.0 lbs [3.6 kg]
A Width: 11.8" [300 mm]
B Height: 5.0" [125 mm]
C Bolt Spacing: 2.0" [50.8 mm]
D Mounting Hole: 0.375" [9.5 mm]
E Height: 11.0" [280 mm]
F Length: 15.3" [390 mm]

MORE PRODUCTS FROM A NAME YOU TRUST



AMP WIRELESS CONTROLS

AMP Wireless Air Spring Controls give you the ability to adjust your air spring pressure with your phone from both inside and outside of the vehicle.

- ③ 3 Customizable Presets
- 🛢 Independent Air Spring Controls
- 🔌 Pre-assembled Plug & Play Harness
- 🔧 Robust Heavy Duty Solenoids
- ★ Simple Customization
- 🔧 Easily Serviceable



DUAL HORNS

PACPRO AIR OPERATED, DUAL AIR HORNS ARE MADE WITH CAST ALUMINUM WITH A CHROME FINISH.



PREMIUM KIT | HP10213



PREMIUM KITS CONTAIN:

- All components from the basic kit
- HP325 12VDC compressor (HP10143)
- Half gallon air tank (C11940)
- Curly hose air accessory kit (C11657)
- All necessary wiring, harnesses, fittings & fasteners

BASIC KIT | HP10073



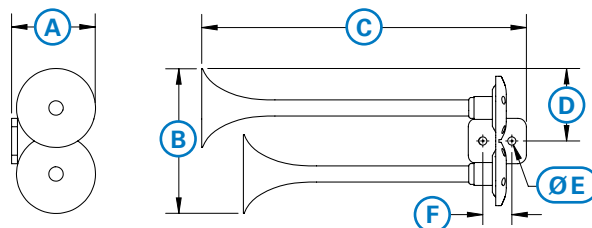
- For vehicles with onboard air systems

SPECIFICATIONS

DECIBEL RATING AT 6 M [20 FT]	125 db @ 100 psig (gauge) [689 kPa]
FUNDAMENTAL FREQUENCY	1800 to 3550 Hz
OPERATING TEMPERATURE RANGE	-40°F to 248°F [-40°C to 120°C]
OPERATING AIR PRESSURE	100 to 135 psig (gauge) [689 to 931 kPa]
ACTUATION TYPE	Manual or solenoid
AIR INLET PORT	1/4" (-4) NPT

HP10028

- Weight: 1.4 lbs [0.6 kg]
- A Width: 3.74" [95 mm]
- B Height: 6.89" [175 mm]
- C Length: 14.57" [360 mm]
- D Height: 3.43" [87.2 mm]
- E Mounting Holes: .38" [9.5 mm]
- F Mounting Holes: 1.38" [35 mm]



HORN TRIO

PACPRO AIR OPERATED, AIR HORN TRIOS ARE MADE WITH CAST ALUMINUM & FINISHED IN A MATTE BLACK.



PREMIUM KIT | HP10237



PREMIUM KITS CONTAIN:

- All components from the basic kit
- HP325 12VDC compressor (HP10143)
- Half gallon air tank (C11940)
- Curly hose air accessory kit (C11657)
- All necessary wiring, harnesses, fittings & fasteners

BASIC KIT | HP10235



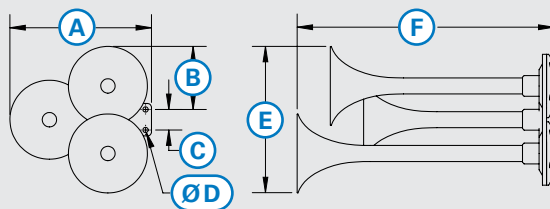
- For vehicles with onboard air systems

SPECIFICATIONS

DECIBEL RATING AT 6 M [20 FT]	125 db @ 100 psig (gauge) [689 kPa]
FUNDAMENTAL FREQUENCY	1800 to 3550 Hz
OPERATING TEMPERATURE RANGE	-40°F to 248°F [-40°C to 120°C]
OPERATING AIR PRESSURE	100 to 135 psig (gauge) [689 to 931 kPa]
ACTUATION TYPE	Manual or solenoid
AIR INLET PORT	1/4" (-4) NPT

HP10239

- Weight: 1.7 lbs [0.7 kg]
- A Width: 6.69" [170 mm]
- B Height: 2.98" [75.8 mm]
- C Bolt Spacing: .96" [24.5 mm]
- D Mounting Hole: .25" [6.4 mm]
- E Height: 6.89" [175 mm]
- F Length: 11.61" [300 mm]



STAGE 1 LEVELING KITS

Install Pacbrake's lightweight aluminum spacers above the factory coil springs to level your truck's stance.

LIFETIME WARRANTY

HEAVY DUTY DESIGN & BUILD

EASY INSTALLATION

2" LEVELING KIT (CAST ALUMINUM) | HP10026

Diesel & gasoline engines produce incredible amounts of torque and are quite heavy, which in turn puts pressure on the front coil springs. Over time, the additional weight reduces the height of the front suspension, causing it to sit much lower than the rear. Pacbrake has a solution, by installing our lightweight cast aluminum spacers above the factory coil springs to level the vehicle's stance.

*A coil spring compressor is required for installation.



BLOW-OUT PRICING

SPECIFICATIONS	
MATERIAL	Cast aluminum
FINISH	Powder coated
HARDWARE	A2 Stainless Steel
LIFT HEIGHTS	2" [50.8mm]

APPLICATION	YEAR	DRIVE /LIFT	MAX TIRE SIZE	KIT #
Leveling Kits				
Chevrolet				
Silverado 1500 (BILLET ALUMINUM)	2007-2018	2WD/4WD 1.5" or 2.25" LIFT	33"	HP10251
Dodge				
Ram 1500 (CAST ALUMINUM)	1994-2001	4WD 2" LIFT	N/A	HP10026
Ram 1500 Mega Cab (BILLET ALUMINUM)	1994-2009	4WD 2" LIFT	35"	HP10290
Ram 1500 Non-Mega Cab (BILLET ALUMINUM)	2006-2019	4WD 2" LIFT	35"	HP10252
Ram 2500 (CAST ALUMINUM)	1994-2013	4WD 2" LIFT	N/A	HP10026
Ram 2500 (BILLET ALUMINUM)	1994-2013	4WD 2" LIFT	35"	HP10290
Ram 2500 (BILLET ALUMINUM)	2014-2019	4WD 1.75" LIFT	33"	HP10291
Ram 3500 (CAST ALUMINUM)	1994-2012	4WD 2" LIFT	N/A	HP10026
Ram 3500 (BILLET ALUMINUM)	1994-2013	4WD 2" LIFT	35"	HP10290
Ram 3500 (BILLET ALUMINUM)	2013-2019	4WD 1.75" LIFT	33"	HP10291
Ford				
F-150 (BILLET ALUMINUM)	2004-2019	2WD/4WD 2" LIFT	4WD-35" 2WD-33"	HP10253
F-250 Super Duty (BILLET ALUMINUM)	2005-2010	4WD 2.5" LIFT	35"	HP10292
F-250 Super Duty (BILLET ALUMINUM)	2011-2019	4WD 2.5" LIFT	35"	HP10294
F-350 Super Duty (BILLET ALUMINUM)	2005-2010	4WD 2.5" LIFT	35"	HP10292
F-350 Super Duty (BILLET ALUMINUM)	2011-2019	4WD 2.5" LIFT	35"	HP10294
F-450 Super Duty (BILLET ALUMINUM)	2005-2010	4WD 2.5" LIFT	35"	HP10292
F-550 Super Duty (BILLET ALUMINUM)	2005-2010	4WD 2.5" LIFT	35"	HP10292
GMC				
Sierra 1500 (BILLET ALUMINUM)	2007-2018	2WD/4WD 1.5" or 2.25" LIFT	33"	HP10251

LEVELING KITS (BILLET ALUMINUM)

- Levels the stance of a vehicle by raising the front end a fixed amount
- Increases both the ground and wheel well clearance to allow for installation of larger tires
- Designed with safety and ease of installation in mind, these kits require no strut preloading, cutting, or modification of factory installed parts



SPECIFICATIONS

MATERIAL	CNC machined 6061-T6 aluminum
FINISH	Blue anodized per MIL-A8625F type II, class 2
HARDWARE	Class 10.9 fasteners and grade B7 studs
LIFT HEIGHTS	1.5", 2" or 2.5" [38 mm, 50.8 mm or 57 mm]

GM/CHEVROLET KIT | HP10251



DODGE RAM KIT | HP10252



FORD KIT | HP10253



DODGE RAM KIT | HP10290



DODGE RAM KIT | HP10291



FORD KIT | HP10292



FORD KIT | HP10294



LEVEL STANCE



NO MODIFICATION

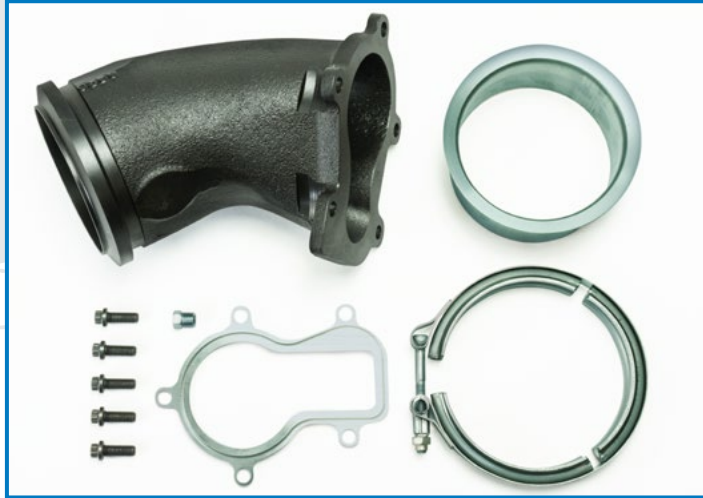


LARGER TIRES

MAX FLOW ELBOW

This 4" cast iron elbow is designed to replace the restrictive stock Dodge elbow and increase your exhaust flow. There is a pre-tapped 1/8" NPT port for pyrometer (can be used to measure exhaust system backpressure) and the elbow can be used when an InLine exhaust brake installation is required.

C44083



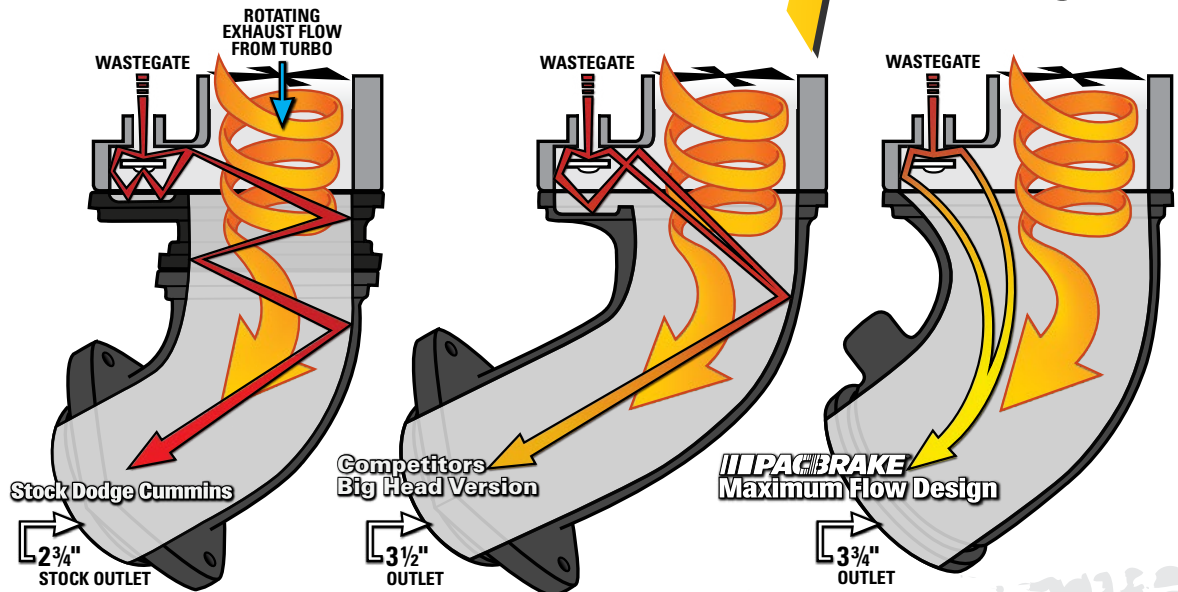
BENEFITS

- Gain horsepower, torque and fuel mileage
- Eliminate turbo lag
- Lower exhaust gas temperature

ADDITIONAL KIT INFO

- Full marmon 4" exhaust outlet
- Includes exhaust adapter, "V" clamp
- 12 point fasteners & flange gasket

MAX FLOW



APPLICATION | YEAR | MODEL

KIT #

Max Flow Dodge Elbow

Dodge

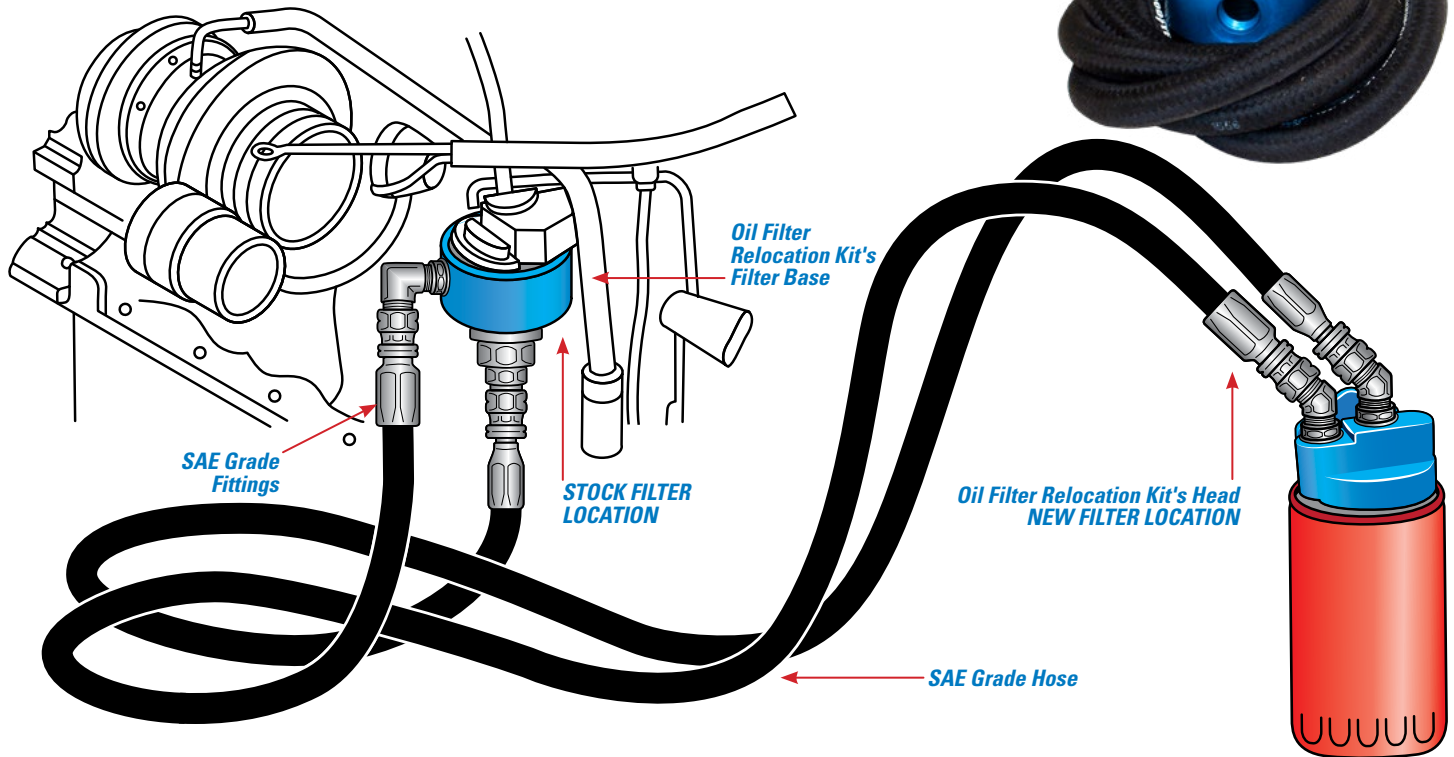
1994-2002

Ram Trucks (Equipped with Cummins & 4" Exhaust)

C44083

OIL FILTER RELOCATION KITS

PacPro oil filtration relocation kit provides easy access & serviceability to the engine's oil filter. An oil filter relocation kit is most beneficial for those who have twin turbos, as the installation of the second turbo denies access to the stock filter location. Pacbrake has designed this high quality filtration relocation kit using SAE grade hose, approved SAE fittings and CNC machined anodized aluminum filter head and base.



HP10007, HP10125 & HP10174



HP10006 & HP10016



HP10305



APPLICATION	YEAR	MODEL	KIT #
Oil Filter Relocation Kits			
Dodge	1994-2002	Ram 5.9L Cummins Engines w/ Filter Thread of 1" - 16 UN	HP10006
Dodge	2003-2007	Ram 5.9L Cummins Engines w/ Filter Thread of 1" - 16 UN	HP10016
Dodge	2007 ½-2009	Ram 6.7L Cummins Engines* w/ Filter Thread of 1" - 16 UN	HP10016
Dodge	2010-2019	Ram 6.7L Cummins Engine w/ Filter Thread of 1" - 16 UN	HP10305
Universal	N/A	Universal Mounting Kit for Cummins 3.9 L / 5.9 L Engines w/ Filter Thread of 1" - 16 UN	HP10007
Universal	N/A	Universal Mounting Kit for Cummins Engines w/ Filter Thread of M27 x2.0 (Metric)	HP10125
Universal	N/A	Universal Mounting Kit for Cummins Engines w/ Filter Thread of 1 1/8" - 16 UN	HP10174

EXHAUST & ENGINE BRAKES

PACBRAKE'S HEAVY DUTY BRAKING FOR HEAVY DUTY HAULING

Tow With *Confidence*
Brake With *Authority*



With today's trucks capable of towing/hauling over 30,000 lbs, additional control & stopping power has never been more necessary. Pacbrake engine and exhaust brakes are unmatched in braking performance.



EXHAUST BRAKES



LOADLEASH



ENGINE BRAKES



REPLACEMENT PARTS



ISO 9001
QMI-SAI Global

Learn more about Pacbrake's Exhaust & Engine Brake product lines.

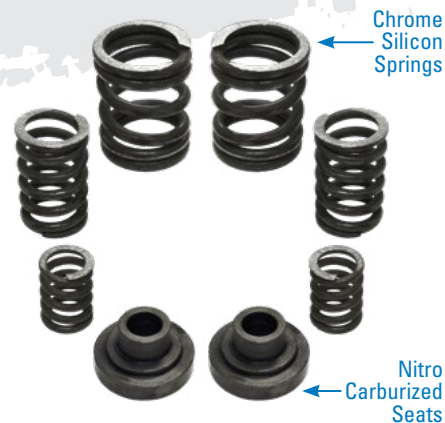


SPRING KITS

Pacbrake offers a wide variety of spring kits for all applications of 6BT & 4BT Cummins engines. Whether you are installing an exhaust brake or governor spring kits, we have the kit for you.

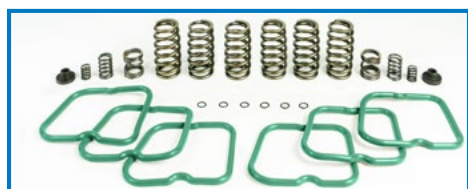
Heavy duty valve springs are Cummins OEM 3916691 white strip springs. The 60lbs spring is required for exhaust brake applications and is suggested for all governor spring installs.

Governor spring kits allow the Bosch P7100 to spin the engine RPM up to 4000 RPM. Each kit comes complete with parts for either 3000 or 4000 RPM. Pacbrake's governor spring kits are recommended for vehicles that have 5 speed standard transmissions. They are perfect for those who tow heavy loads and want more responsive power.



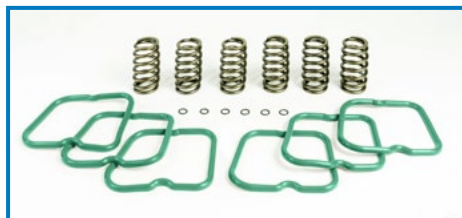
PREMIUM KIT | HP10244*

6 HD VALVE SPRING WITH 6 VALVE COVER GASKETS, 6 HOLD DOWN BOLT SEALS & GOVERNOR SPRING KIT.



BASIC KIT | HP10241

6 HD VALVE SPRING WITH 6 VALVE COVER GASKETS AND 6 HOLD DOWN BOLT SEALS.



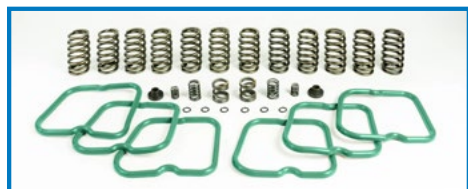
SPRING KIT | HP10246*

6 HD VALVE SPRINGS & GOVERNOR SPRING KIT.



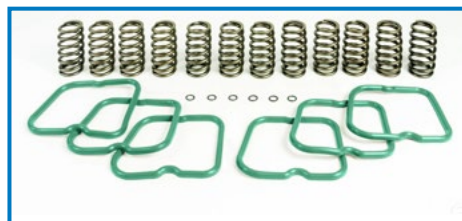
PREMIUM KIT | HP10243*

12 HD VALVE SPRING WITH 6 VALVE COVER GASKETS, 6 HOLD DOWN BOLT SEALS & GOVERNOR SPRING KIT.



BASIC KIT | HP10240

12 HD VALVE SPRING WITH 6 VALVE COVER GASKETS AND 6 HOLD DOWN BOLT SEALS.



SPRING KIT | HP10245*

12 HD VALVE SPRINGS & GOVERNOR SPRING KIT.



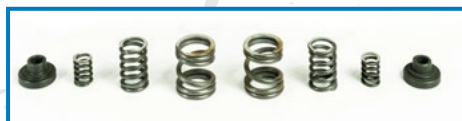
GASKETS KIT | HP10242

6 VALVE COVER GASKETS, 6 HOLD DOWN BOLT SEALS.



GOVERNOR SPRING KIT | HP10029*

GOVERNOR SPRING KIT.



* PLEASE NOTE: THIS KIT IS NOT LEGAL FOR SALE OR USE IN CALIFORNIA. This kit may not meet emission standards for your area. Check your local regulations prior to installing.

APPLICATION	YEAR	MODEL	KIT #
Governor Springs			
Dodge Ram (2500/3500)	1994-1998	Cummins 12 Valve Engine with a P7100 Injection Pump	HP10029
Heavy Duty Valve Springs/Gasket Kits			
Dodge Ram	1994-1998	Cummins 12 Valve Engine	HP10040 – HP10242
Dodge Ram	1994-1998	Cummins 12 Valve Engine with a P7100 Injection Pump	HP10043 – HP10246

SWITCHES

Increase accessory control with the flick of a switch.

SWITCH-PAC

TRANSMISSION SHIFT-LEVER MOUNTED ON/OFF SWITCH.

The PacPro Switch-Pac is a shifter-mounted switch, perfect for air horns, auxiliary lights & almost anything else you wish to control. It is available in momentary or latching & eliminates the need to drill a hole in the vehicles dash.

The sleek black finish matches the factory transmission gear lever and suits all interior colors. The convenient fingertip control location provides easy access for accessory activation. Kits are available in lighted, non-lighted latching switches & non-lighted momentary switch versions. Switch brackets are available to fit 3/4" and 5/8" transmission shift-levers & 2003 + Dodge Ram Automatic transmission shifter-levers.



SWITCHES	3/4" SHIFTER KIT #	5/8" SHIFTER KIT #	DODGE AUTO SHIFTER KIT #
PacPro Switch-Pac Kits			
Momentary	C10126	C10128	C10129
Non-Lighted	C10127	C18042	C10135
Lighted	C18040	C18041	C10136

PACPRO FOOT SWITCH | C11745

UNIVERSAL APPLICATIONS.

The convenient floor-mounted momentary ON/OFF switch provides easy access for a multitude of applications including exhaust brake activation and air horn switch.



APPLICATION	YEAR	MODEL	KIT #
PacPro Foot Switch Kit			
Universal	N/A	N/A	C11745

4WD 2 WHEEL LOW KIT | C18056

FOR MANEUVERING A TRUCK (AND A TRAILER) IN TIGHT, UPHILL CONDITIONS.

The 4WD 2 Wheel Low kit allows the operator to engage the transfer case into 4WD low range without engaging the front wheel drive. Hit the dash activation switch to provide an extra low gear for backing up, which eliminates any front and rear wheel hop.



THIS KIT CONTAINS:

- Nylon tubing
- Brass fittings
- Plated hardware
- 12VDC 3-way vacuum solenoid

APPLICATION	YEAR	MODEL	KIT #
4WD 2 Wheel Low Kit			
Dodge	1994-2002	Ram Trucks	C18056

PERFORMANCE OVERRIDE KIT | C18053

BE ABLE TO OVERRIDE THE POWER OF YOUR VEHICLE WITH THE FLICK OF A SWITCH.

This kit has the ability to cut your engine's horsepower by approximately 1/2, by preventing full fuel flow to the injectors. This switch is designed for situations when you don't want the vehicle operator to experience the full power of the engine.



THIS KIT CONTAINS:

- Nylon tubing
- 12VDC 3-way solenoid
- Brass fittings
- Zinc plated drill screws

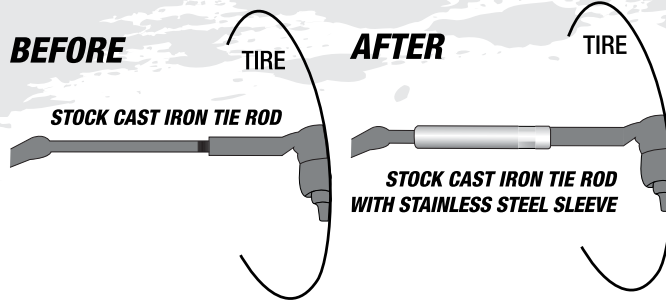
APPLICATION	YEAR	MODEL	KIT #
Performance Override Kit			
Dodge	1994-1998	Dodge Ram Diesel Trucks with a Bosch P7100 Injection Pump	C18053

TIE ROD SLEEVES

Increase your vehicle's performance with reinforced tie rods.

TIE ROD SLEEVES | HP10025

For safety and security, PacPro stainless steel tie rod sleeves reinforce the stock cast iron tie rods to prevent them from bending and ultimately breaking. This kit is recommended for those who go off-roading, but many may be interested in this inexpensive kit to ensure the safety of their vehicle and passengers.



FEATURES/BENEFITS:

- 303 Stainless Steel
- Easy installation
- CNC machined parts
- Maintains front end alignment
- Strengthens stock tie rods

APPLICATION	YEAR	MODEL	KIT #
Tie Rod Sleeves			
Chevrolet/GMC	1999-2006	Full Size Trucks (Including SUV & Hummer)	HP10025
Chevrolet/GMC	1999-2008	2500HD, 3500 (Tie Rod must be M14 x 1.5 Thread)	HP10025

MARKETING MATERIALS

BANNERS, COUNTER DISPLAYS, POSTERS, BROCHURES & MORE

ORDER PACBRAKE MARKETING MATERIAL FROM OUR DEALER PORTAL TODAY



It has never been easier to sell Pacbrake products thanks to our various display, brochure and catalogue options. To help with your sales efforts, we've made it fast and easy for you to get the tools you need:

1. Login to pacbrake.
2. Click MARKETING MATERIALS on the left hand side
3. Select whether you need NEW or REPLACEMENT materials
4. Complete the online form and you're done!



AIR SOLUTIONS

QUALITY AIR MANAGEMENT PRODUCTS FROM A NAME YOU TRUST



EASY BOLT ON
INSTALLATION

LIFETIME
WARRANTY



AMP: THE #1 SOLUTION FOR YOUR TOW/HAUL PROBLEMS



Learn more about AMP: Pacbrake's Air Management product line.





POWERHALT

AIR INTAKE EMERGENCY SHUT-OFF VALVES *by PACBRAKE*

Diesel Engine Overspeed **PROTECTION**

- » Rigorous vibration, corrosion and endurance testing
- » Designed to withstand large temperature ranges
- » Compact lightweight design
- » Low power consumption
- » Low maintenance
- » Multiple activation options and valve sizes available

**INDUSTRY LEADING
2 YEAR WARRANTY**



ISO 9001
GM-SAI Global



APPLICATION GUIDE & PRODUCT CATALOGUE

/// PACBRAKE[®] COMPANY



As a proud family run business since 1961, Pacbrake Company™ has been committed to providing its customers with the highest quality products for a wide range of applications. Pacbrake is recognized as a leading manufacturer in the design of engine brakes, exhaust brakes and various valving solutions for diesel engine applications.

Current with today's standards, Pacbrake develops valves that push the limits on environments, temperatures, torques and control strategies. One such product is PowerHalt, a growing line of Air Intake Emergency Shut-Off Valves, which are specifically geared towards diesel engines working in the oil and gas industry.

With over 2 million valves in service to-date, across a wide range of markets and applications, Pacbrake has the experience to ensure the PowerHalt product line is designed to the highest industry standards. Behind every Pacbrake product stands a team of qualified engineers, state of the art CNC manufacturing processes and an internationally recognized ISO 9001:2008 quality management system. Each product is backed by the best warranty in the industry.

HISTORY

1960-1980

- Pacbrake Company™ incorporates in 1961

1980-1990

- Pacbrake develops new engine brake technology for Detroit Diesel™, Caterpillar™ and Cummins™ engines
- Pacbrake becomes the first company to patent a combination engine brake that utilizes an exhaust valve

1990-2000

- Pacbrake starts supplying engine and exhaust brakes to Freightliner™, Kenworth™ and Detroit Diesel™
- Becomes the largest North American exhaust brake manufacturer

2000-2010

- Starts supplying valves to the US and Canadian military
- Starts supplying thermal management valves to Navistar™
- Pacbrake expands aftermarket product line to include more tow/haul solutions (air springs, in-cab controls and onboard air)

2010-PRESENT

- Pacbrake celebrates 50 years in business
- Supplies first hot EGR valve to Navistar™
- Develops the first engine brake for Cummins™ ISB engine
- Develops a line of heavy duty air springs and compressors
- Launches the first positive air shut-off valve for the oil and gas industry, in an electric configuration
- Develops a complete line of PowerHalt PH2 emergency air intake shut-off valves in various actuation configurations – electric, pneumatic, pull cable, etc
- Introduces PowerHalt PH3, a fully automatic valve: auto control/reset options
- Releases PowerHalt PH1, a line of lightweight, economical, mechanical valves
- Introduces PowerHalt PH5, the safest and most reliable valve for diesel engines



The contents of this catalogue are subject to change without notice. Contact Pacbrake for the most up-to-date information on our products

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PH1



PH2



PH3



PH5

PH 1

PH 2

PH 3

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COMPONENTS

WARRANTY



POWERHALT

AIR INTAKE EMERGENCY SHUT-OFF VALVES *by PACBRAKE*

Diesel Engine Overspeed Protection

Validated OEM Supplier
ISO 9001 Quality Management System



LEADERS IN VALVING TECHNOLOGY

Pacbrake brings forward vast expertise to its PowerHalt shut-off valve product line from over 50 years of valving experience and millions of valves in service to-date.

POWERHALT PROVIDES:

A complete air intake shutdown system, to prevent catastrophic damage to equipment and personnel during a diesel engine runaway

- ▶ Direct replacement to existing product lines
- ▶ Butterfly type valves in various design configurations
- ▶ Simple operating procedures
- ▶ Custom designs (customer co-development for new projects)



POWERHALT APPLICATIONS

Class 3-5 Pick-up / Chassis Cab Trucks

Class 6-8 Commercial Heavy Duty Trucks

Stationary Applications (*generators, light towers, pumps, etc*)

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PRODUCT LINE OPTIONS

PH1



- » 1.75" to 2.5" sizes available
- » Compact and lightweight
- » Low maintenance, pull cable valve

PowerHalt's PH1 is a cost-effective solution for your safety needs. This option is recommended when the operator works in close proximity to the equipment.



PH2

- » 2.8" to 5.5" sizes available
- » Designed for extreme environments
- » Rigorously tested, zero leakage

PowerHalt's PH2 comes with various control and actuation options that cover a broad range of industry applications and requirements. Custom kits are available for most pick-up truck applications.



PH3

- » 1.75" to 4" sizes available
- » Compact and lightweight
- » Maintenance free, Smart system

PowerHalt's PH3 offers hands-free operation with an electronic reset function as well as various control options.



PH5

- » 1.75" to 5" sizes available
- » Operator friendly controls
- » Rigorously tested

PowerHalt's PH5 is the newest member of the PowerHalt family. It is electrically activated and available in an automatic engine speed sensing mode or a manual control configuration.

Don't Gamble on
SAFETY

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

Diesel Engine Safety Overview



IS YOUR SITE AT RISK? IT'S YOUR OBLIGATION TO PROVIDE A SAFE WORK SITE

Oil and gas production, refining, petrochemical processing, and mining are all industries where flammable hydrocarbon emissions or leaks may occur in a diesel engine's operating environment.

If you work in or provide services to these industries and you are around a diesel engine, you need to be aware of the risk to your crew and equipment.

Diesel engines do not usually incorporate a throttle valve to limit air into the engine, as their speed is primarily driven by the rate of fuel flow. The risk occurs when the diesel engine is operating in an environment that contains airborne hydrocarbons or other combustibles. This can occur from any number of sources, such as gas pocket vents, fuel leaks, atomized oil spray, or even grain dust. In this state, the engine experiences uncontrolled combustion, which may lead to an overspeed condition and catastrophic engine failure or backfire. The risk continues to rise from there, as the engine's behavior can then translate to ignition of the local atmosphere, which has been shown to cause explosions. In addition to the potential for explosion, the equipment driven by the engine may also experience unpredictable behavior and become a risk to personnel in the vicinity.

Since the early 2000's, the North American oil and gas industry has seen dozens of deaths and hundreds of injuries related to diesel engine overspeed events. In that time period, the same industries have also lost hundreds of millions in equipment damage and financial losses. This is entirely preventable.

PowerHalt – Air Intake Emergency Shut off valve by Pacbrake will starve the engine of air: safely and effectively shutting it down, protecting your crew and equipment.



PH 1
PH 2
PH 3
PH 5
COMPONENTS
WARRANTY

If you run a diesel engine it has the potential to ingest combustible vapors. **Emergency air intake shut-off valves (also known as positive air shut-off valves) are the only safe way to shut down your engine during runaway conditions.**

Your biggest challenge is to know your industry, application and risks...

The information below will help you define the industries and applications that can expose your diesel engines to these dangerous conditions:



INDUSTRY

- Oil & Gas
- Power Generation
- Transportation
- Petrochemical Processing
- Mining
- Fire Suppression
- Agriculture
- Marine
- Airport - Refueling
- Construction

APPLICATIONS

- Lighting Units
- Ambulances
- Lighting Trucks
- Underground Equipment
- Bulk Haulers
- Tankers
- Power Generators
- Grain Processing Plants
- Drilling Rigs
- Cranes
- Forklifts
- Work Boats
- Refinery Processing
- Vehicles
- Frac Trucks
- Barges
- Fueling Vehicles
- Tow Vehicles
- Support Vehicles
- Welders
- Pump Trucks
- Fire Trucks
- Vacuum Trucks

QUESTIONS AND CONSIDERATIONS

Is this application operated offshore or on ground?

- Offshore applications may have specific regulations for your equipment
- Corrosion is a concern for offshore applications so PowerHalt valves are all corrosion tested to ASTM B117 96Hrs Salt-Fog to ensure product longevity

Can manual reset be achieved easily and without placing workers at risk?

- Frequent safety checks may prove cumbersome when manually resetting the valve if it is difficult to access. Our electronic reset option is best suited to these applications
- Routing of the switch or pull cable is an important consideration to make. Pull cables are a great low cost option if your application and regulations allow

Does your system have a compressed air source?

- Pneumatically actuated valves require an air source of 60psig (minimum) to 145 psig (maximum)

Does your engine require dual shut-off valves? (This changes the specification for control)

- Large V-engines may require two or more shut-off valves
- The automatic reset option is recommended to prevent incidents where only one valve is re-opened after a shutdown, preventing engine damage

Does your application require auxiliary/multiple sources for activation in case of emergency?

- The PowerHalt PH3 series can incorporate multiple auxiliary inputs from external sources for activation of the shut off valve in the event of an emergency
- Ideal for secondary emergency monitoring systems as well as multiple locations for manual override input



PH 1

PH 2

PH 3

PH 5

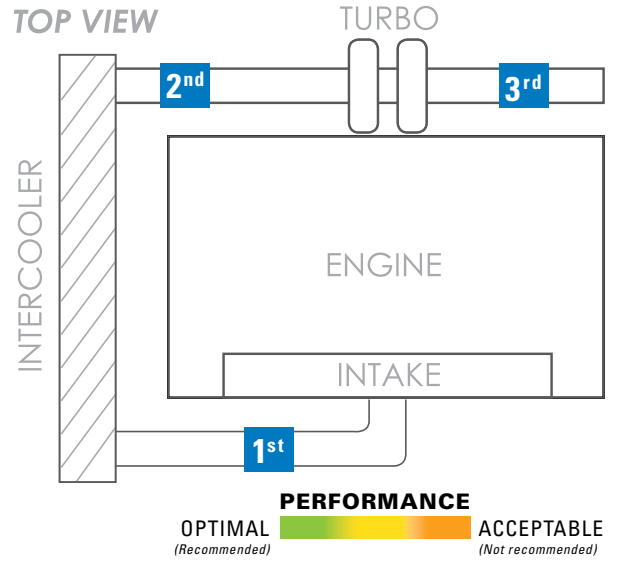
COMPONENTS

WARRANTY

VALVE INSTALLATION LOCATION

In order of preferred location to least preferred

- 1st POST INTERCOOLER**
 - Low Plumbing Leakage Risk
 - Moderate Charge Air Temperature
 - Fast Shutdown Response Time
- 2nd POST TURBO**
 - Moderate Plumbing Leakage Risk
 - High Charge Air Temperature
 - Moderate Shutdown Response Time
- 3rd PRE TURBO**
 - High Plumbing Leakage Risk
 - Low Charge Air Temperature
 - Slow Shutdown Response Time



KIT CONTENTS

	ACTUATION	RESET	Controller	Harness	Membrane Switch	Toggle Switch	Magnetic Pick-Up	Pneumatic Solenoid	Pull-Cable
PH1	Pull-Cable	Manual							✓
PH2	Automatic Electric	Manual	✓	✓		✓	✓		
	Automatic Pneumatic	Manual	✓	✓		✓	✓	✓	
	Automatic Electric with Pull-Cable	Manual	✓	✓		✓	✓		✓
	Manual Electric	Manual		✓		✓			
	Manual Pneumatic	Manual		✓		✓		✓	
	Manual Electric with Pull-Cable	Manual	✓	✓		✓	✓		✓
	Pull-Cable	Manual							✓
PH3	Automatic Electric	Automatic	✓	✓	✓		✓		
	Manual Electric	Automatic	✓	✓		✓			
PH5	Automatic Electric	Manual	✓	✓		✓	✓		
	Manual Electric	Manual		✓		✓			



PH 1
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COMPONENTS
WARRANTY

System Selection Guide

CONTROL OPTIONS

OPERATOR CONTROL (MANUAL – PH3)

Manually controlled shut-off valves are more cost effective than automatic systems. However, they should only be used when the operator works in close proximity to the engine and has a clear, safe, and accessible location for shutdown activation during an emergency.



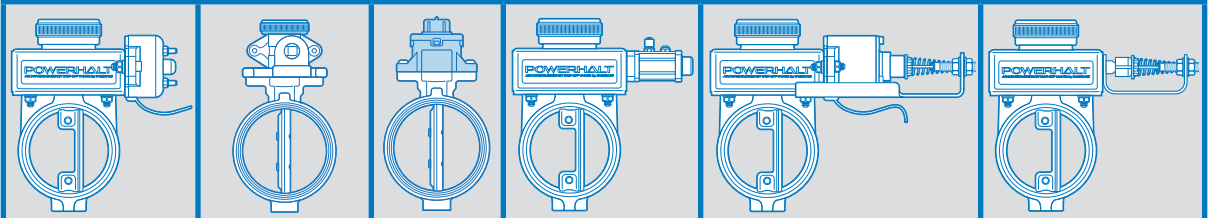
POWERGUARD CONTROLLER (AUTOMATIC – PH2/PH3/PH5)

This system provides hands-free activation of the shut-off valve. It has additional safety benefits by utilizing our PowerGuard controller and magnetic pick-up. This system includes a manual override for direct operation of the shut-off valve, which allows the operator to perform routine safety checks and tests.



ACTUATION OPTIONS

ACTUATION OPTIONS



CONTROL OPTIONS AVAILABLE	Electric (Pull Solenoid)	Electric (Pull Solenoid)	Electric (Actuator)	Pneumatic	Electric (Pull Solenoid) + Pull-Cable	Pull-Cable
Operator Control (Manual)	✓	✓	✓	✓	✓	✓
PowerGuard (Automatic)	✓	✓	✓	✓	✓	
AVAILABLE WITH	PH2	PH5	PH3	PH2	PH2	PH1, PH2

RESET OPTIONS

MANUAL RESET (PH1, PH2 & PH5)

- The knob must be manually turned to reset the valve
- Some safety procedures require this option

ELECTRONIC RESET (PH3)

- The PowerHalt controller will electronically reset the shut-off valve, the operator will not have to turn a knob
- PH3 is available to be configured in manual reset mode, to be in compliance with CSA B621-14 and B622-14

PH 1
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COMPONENTS
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COMPONENT OVERVIEW

POWERGUARD CONTROLLER



- Monitors engine speed and activates the shut-off valve, shutting down the engine, when the user-set trip speed is reached (automatic applications only)
- Digital micro processor

PULL CABLE WITH FACEPLATE



- Stainless steel high quality pull cables are pre-assembled for easy installation and safety
- Braided lines capable of a tight radius
- Red T-handle with large nameplate for easy location

MEMBRANE SWITCH



- Low profile membrane switch with trip, test and reset functions and LED lights

HARNESS



- Custom plug and play wiring harness with weather tight connectors

TOGGLE SWITCH



- Military style toggle switch with safety cover plate to prevent false trip hazards
- Provides a means to shut down the engine or to test the valve

MOUNTING KITS



- The mounting kit comes with the appropriate mounting group to include 2 hoses and 4 clamps, ensuring a successful installation into your system
- Adapters and piping are also available as separate options

MAGNETIC PICK UP



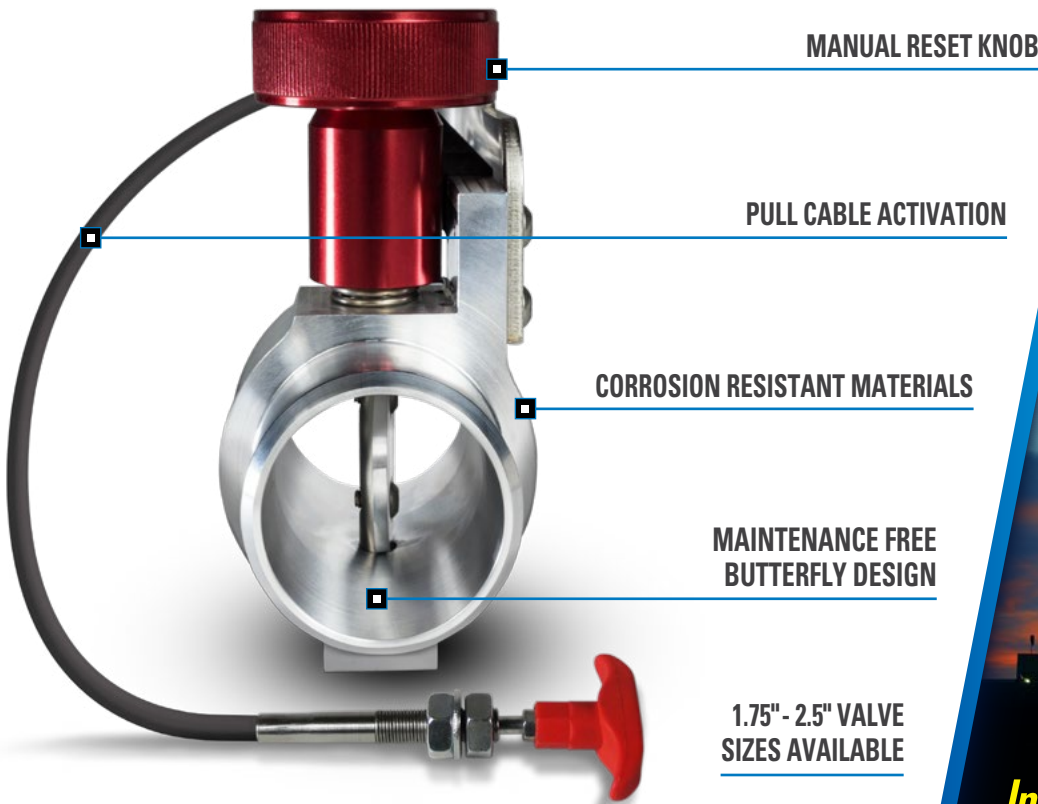
- Measures flywheel RPM and sends a signal to the PowerGuard controller to shut down the engine when engine runaway occurs
- Various thread sizes available
- Robust designs for extreme working environments

PNEUMATIC SOLENOID



- Auto vent to allow for quick release of air pressure
- Available in 12VDC and 24VDC
- OEM grade solenoid with millions in service to-date

An extensively tested, cost-effective and easy to operate valve



PowerHalt's PH1 air intake emergency shut-off valve provides a reliable and safe method for shutting down an engine. PH1 is a simple, cost-effective valve that can be customized for specific client needs.

Increased
PROTECTION
Reduced Cost

A Complete Installation with Customizable Solutions

- ▶ PH1 is a customizable valve – Choose the valve for your application, mounting kit and pull cable and receive all the components necessary for a complete installation
- ▶ EASY INSTALLATION
- ▶ LOW PART COUNT

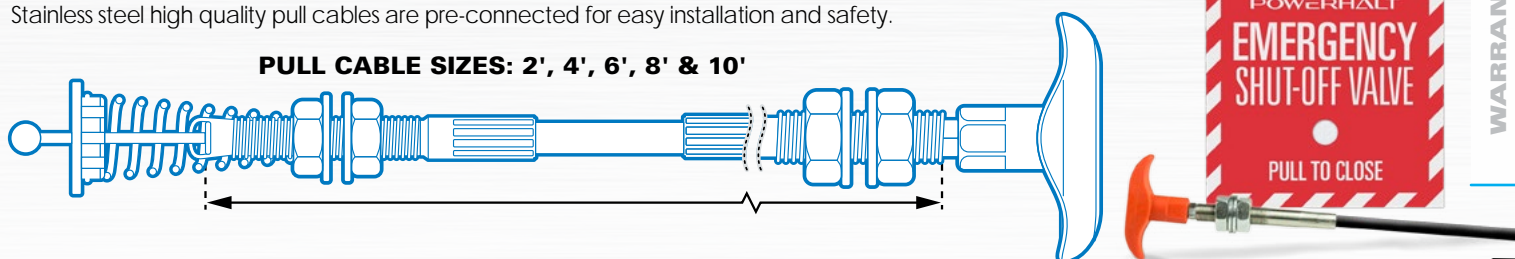
PH1 VALVE SIZES



PH1 PULL CABLE OPTIONS

Stainless steel high quality pull cables are pre-connected for easy installation and safety.

PULL CABLE SIZES: 2', 4', 6', 8' & 10'



PH1 POWERHALT SHUT-OFF VALVES

MAKE / MODEL	SIZE	CONTROL / RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL APPLICATION					
Generic	1.75"	Manual	Pull Cable*	C50148	6390
Generic	2.0"	Manual	Pull Cable*	C50145	6390
Generic	2.25"	Manual	Pull Cable*	C50146	6390
Generic	2.5"	Manual	Pull Cable*	C50147	6390

***NOTE: A mounting group & pull cable are not included. See charts below to add correct sizes for specific applications.**

PH1 POWERHALT SHUT-OFF VALVE ACCESSORIES

ACCESSORY	MAKE / MODEL	SIZE	PART #
PULL CABLE (MUST ADD TO PH1 VALVE KIT FOR A COMPLETE SYSTEM)			
Pull Cable	Universal	2 ft	C50018
Pull Cable	Universal	4 ft	C50022
Pull Cable	Universal	6 ft	C50026
Pull Cable	Universal	8 ft	C50030
Pull Cable	Universal	10 ft	C50035

MOUNTING GROUP (MUST ADD TO PH1 VALVE KIT FOR A COMPLETE SYSTEM)			
Mounting Group	Universal	1.75"	C50117
Mounting Group	Universal	2.0"	C50118
Mounting Group	Universal	2.25"	C50119
Mounting Group	Universal	2.5"	C50116

PH 1

PH 2

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COMPONENTS

WARRANTY

A highly engineered product with extensive testing and validation



LARGE VISIBLE RESET KNOB

ELECTRICAL, PNEUMATIC & MANUAL ACTIVATION OPTIONS

CORROSION RESISTANT MATERIALS

INNOVATIVE SEALING SYSTEMS

12 VDC OR 24 VDC SYSTEMS

2.8" - 5.5" VALVE SIZES AVAILABLE

PowerHalt's PH2 air intake emergency shut-off valves range from basic manual pull cable valves to fully automatic manual reset systems, with an array of mounting kits, accessories & control options for most industry applications.

INDUSTRY
Leading Safety Solutions

A Complete Installation - All In One Box

- ▶ Kits include all necessary hose adapters, clamps, and hardware required for an install
- ▶ Truck/Engine kit cross reference guides for easy kit specification
- ▶ **EASY INSTALLATION**
- ▶ Weather tight plug & play wiring harness, custom to each application
- ▶ **LOW PART COUNT**



PH2 POWERGUARD AUTOMATIC CONTROL

AN INTELLIGENT CONTROLLER OFFERING HANDS-FREE ACTIVATION

Monitors engine speed input and automatically activates the shut-off valve, stopping the engine when the user-set trip speed is reached

PH2 SWITCH FEATURES



- ◀ Military style toggle switch with safety cover to prevent false trip hazards
- Provides a manual means to shutdown the engine or test the valve

PH2 FEATURES

- » Rigorous vibration, corrosion and endurance testing
- » Zero leakage, designed for extreme environments
- » In compliance with CSA B621-14 and B622-14

PH2 POWERHALT SHUT-OFF VALVES*

MAKE / MODEL	SIZE	CONTROL / RESET	ACTUATION	KIT #	INSTALL MANUAL
--------------	------	-----------------	-----------	-------	----------------

CLASS 3-5 PICK-UP TRUCK / CHASSIS CAB TRUCKS

DODGE

1994-2002 Dodge Ram with a 5.9L Cummins Diesel Engine	3.5"	Manual/Manual	Electric	C50200	6209
1994-2002 Dodge Ram with a 5.9L Cummins Diesel Engine	3.5"	Auto/Manual	Electric	C50200A	6284
2007.5-2009 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Manual/Manual	Electric	C50201	6265
2007.5-2009 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Auto/Manual	Electric	C50201A	6283
2010-2012 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Manual/Manual	Electric	C50202	6265
2010-2012 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Auto/Manual	Electric	C50202A	6283
2013-2017 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Manual/Manual	Electric	C50204	6266
2013-2017 Dodge Ram with a 6.7L Cummins Diesel Engine	3.5"	Auto/Manual	Electric	C50204A	6279

FORD

2011-2016 Ford with a 6.7L Powerstroke Diesel Engine	3.5"	Manual/Manual	Electric	C50207	6278
2011-2016 Ford with a 6.7L Powerstroke Diesel Engine	3.5"	Auto/Manual	Electric	C50207A	6285

GM / CHEVROLET

2011-2016 GMC / CHEV with a 6.6L (LML) Duramax Diesel Engine	2.8"	Manual/Manual	Electric	C50210	6296
2011-2016 GMC / CHEV with a 6.6L (LML) Duramax Diesel Engine	2.8"	Auto/Manual	Electric	C50210A	6297

***Note:** All PH2 kits are 12VDC unless otherwise stated

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH2 POWERHALT SHUT-OFF VALVES*

MAKE / MODEL	SIZE	CONTROL / RESET	ACTUATION	KIT #	INSTALL MANUAL
CLASS 6 - 8 COMMERCIAL HEAVY DUTY TRUCKS					
Any Commercial Truck	Generic	Manual/Manual	Pull Cable	Contact Pacbrake	6351
Any Commercial Truck	Generic	Manual/Manual	Pneumatic	Contact Pacbrake	6252
Any Commercial Truck	3.0"	Manual/Manual	Electric	C50218	6274
Any Commercial Truck (24 VDC)	3.0"	Manual/Manual	Electric	C50218-24	6274
Any Commercial Truck	3.0"	Auto/Manual	Electric	C50218A	6275
Any Commercial Truck (24 VDC)	3.0"	Auto/Manual	Electric	C50218A-24	6275
Any Commercial Truck	3.5"	Manual/Manual	Electric	C50217	6274
Any Commercial Truck	3.5"	Auto/Manual	Electric	C50217A	6275
Volvo/Mack	3.5"	Auto/Manual	Pneumatic	C50285A	6438
Any Commercial Truck	4.0"	Manual/Manual	Electric	C50209	6274
Any Commercial Truck (24 VDC)	4.0"	Manual/Manual	Electric	C50209-24	6274
Any Commercial Truck	4.0"	Auto/Manual	Electric	C50209A	6275
Any Commercial Truck (24 VDC)	4.0"	Auto/Manual	Electric	C50209A-24	6275
Commercial Truck with a Detroit DD13, 15 or 16 Engine	4.0"	Manual/Manual	Electric	C50205	6290
Commercial Truck with a Detroit DD13, 15 or 16 Engine	4.0"	Auto/Manual	Electric	C50205A	6289
Kenworth T800 with an ISX Diesel Engine	4.0"	Manual/Manual	Electric	C50219	6311
Kenworth T800 with an ISX Diesel Engine	4.0"	Auto/Manual	Electric	C50219A	6312
Any Commercial Truck	5.0"	Auto/Manual	Electric	C50247A	6275
Any Commercial Truck (24 VDC)	5.0"	Auto/Manual	Electric	C50247A-24	6275
Any Commercial Truck	5.0"	Manual/Manual	Electric	C50247	6274

**Note: All PH2 kits are 12VDC unless otherwise stated*

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COMPONENTS

WARRANTY

PH2 POWERHALT SHUT-OFF VALVES*

MAKE / MODEL	SIZE	CONTROL / RESET	ACTUATION	KIT #	INSTALL MANUAL
Any Commercial Truck (24 VDC)	5.0"	Manual/Manual	Electric	C50247-24	6274

STATIONARY EQUIPMENT

UNIVERSAL APPLICATION

Generic	2.8"-5.0"	Auto/Manual	Electric – Double Pull Cable	Contact Pacbrake	6372
Generic	2.8"-5.0"	Manual/Manual	Pull Cable	Contact Pacbrake	6351
Generic	4.0"	Manual/Manual	Electric	C50209	6274
Generic (24 VDC)	4.0"	Manual/Manual	Electric	C50209-24	6274
Generic	4.0"	Auto/Manual	Electric	C50209A	6275
Generic (24 VDC)	4.0"	Auto/Manual	Electric	C50209A-24	6275
Generic	5.0"	Auto/Manual	Electric	C50247A	6275
Generic (24 VDC)	5.0"	Auto/Manual	Electric	C50247A-24	6275
Generic	5.0"	Manual/Manual	Electric	C50247	6274
Generic (24 VDC)	5.0"	Manual/Manual	Electric	C50247-24	6274
Generic	5.5"	Auto/Manual	Electric	C50239A	6275

GENERATORS

Cummins/DS-GA A-E/QSB7	3.0"	Auto/Manual	Electric – Micro Switch	C50220A	6320
Cummins/C60D6R/QSB5 Cummins/C80D6R/QSB5 Cummins/100D6R/QSB	3.0"	Auto/Manual	Electrical – Micro Switch	C50227A	6333
Cummins/DSFAA-35 kw/DSFAB-40kw/DS-FAC-50 kw/DSFAD-60 kw/DSFAE-80 kw	3.0"	Auto/Manual	Electrical – Micro Switch	C50231A	6375
Cummins/C300 D6R/QSM	4.0"	Auto/Manual	Electric – Micro Switch	C50232A	6337
Cummins/DFEG (350)/FEH (400)/DFEJ (450)/DFEK (500) (24 VDC)	5.0"	Auto/Manual	Electrical – Micro Switch	C50237A	6378
Generic	5.0"	Auto/Manual	Electric	C50247A	6275
Generic (24 VDC)	5.0"	Auto/Manual	Electric	C50247A-24	6275
Generic	5.0"	Manual/Manual	Electric	C50247	6274
Generic (24 VDC)	5.0"	Manual/Manual	Electric	C50247-24	6274

*Note: All PH2 kits are 12VDC unless otherwise stated

A smart system with the safest control options on the market



WEATHER PROOF CONNECTOR

VALVE POSITION FEEDBACK

ELECTRONIC VALVE RESET

(Manual reset mode is in compliance with CSA B621-14 & B622-14)

CORROSION RESISTANT MATERIALS

MAINTENANCE FREE BUTTERFLY VALVE DESIGN

12 VDC OR 24 VDC SYSTEMS

1.75" - 4" VALVE SIZES AVAILABLE

PowerHalt's PH3 air intake emergency shut-off valves are available with various control options. They have a wide range of operating temperatures and working conditions for a variety of applications to meet industry needs.

KEY BENEFITS

- ▶ Easy to install kits for many applications
- ▶ Electronic reset for in-cab control/comfort when testing shut-off valve
- No more lifting the hood to manually reset (Manual reset mode is in compliance with CSA B621-14 & B622-14)
- ▶ Control option available with PowerGuard automatic overspeed limiter or manual PowerGuard

PH3 POWERGUARD CONTROL OPTIONS



◀ **POWERGUARD CONTROLLER (AUTOMATIC)**

This system provides hands-free activation of the shut-off valve. It has additional safety benefits by utilizing our PowerGuard Automatic controller and magnetic pick-up. This system includes a manual override for direct operation of the shutoff valve, which allows the operator to perform routine safety checks and tests. PH3 is available to be configured in manual reset mode to be in compliance with CSA B621-14 and B622-14



◀ **OPERATOR CONTROL (MANUAL)**

Manually controlled shut-off valves are more economical than automatic systems. However, they should only be used when the operator works in close proximity to the engine and has a clear, safe, and accessible location for shutdown activation during an emergency

INCREASE
Your Up Time



PH3 FEATURES

- » Rigorous vibration, corrosion and endurance testing
- » Designed to withstand a wide range of temperatures
- » Low power consumption and maintenance
- » Operator friendly operation with manual override and electronic reset
- » Support for multiple programmable trip speeds
- » In compliance with CSA B621-14 and B622-14

CONTROL COMPONENTS



Membrane Switch



Magnetic Pick-up



Toggle Switch



Panel Light Indicator

PH3 POWERHALT SHUT-OFF VALVES

DESCRIPTION	SIZE	CONTROL/ RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL KITS (COMMERCIAL TRUCKS/STATIONARY EQUIPMENT)					
Automatic MAG 3/8" WITH 5' HARNESS	1.75"	Auto/Auto or Manual	Electric	C50224A	6325/6452
Automatic MAG 3/8" WITH 10' HARNESS	1.75"	Auto/Auto or Manual	Electric	C50224A-10	6325/6452
Automatic CUMMINS CRANK POSITION WIRE T-JUMPER WITH 10' HARNESS	1.75"	Auto/Auto or Manual	Electric	C50224A-J10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	1.75"	Auto/Auto or Manual	Electric	C50224A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	1.75"	Auto/Auto or Manual	Electric	C50224A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	1.75"	Manual/Auto	Electric	C50224T	6481
Manual 10' HARNESS - 12 & 24 VDC	1.75"	Manual/Auto	Electric	C50224T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	1.75"	Manual/Auto	Electric	C50224T-15	6481
Automatic MAG 3/8" WITH 5' HARNESS	2.0"	Auto/Auto or Manual	Electric	C50225A	6325/6452
Automatic MAG 3/8" WITH 10' HARNESS	2.0"	Auto/Auto or Manual	Electric	C50225A-10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	2.0"	Auto/Auto or Manual	Electric	C50225A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	2.0"	Auto/Auto or Manual	Electric	C50225A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	2.0"	Manual/Auto	Electric	C50225T	6481
Manual 10' HARNESS - 12 & 24 VDC	2.0"	Manual/Auto	Electric	C50225T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	2.0"	Manual/Auto	Electric	C50225T-15	6481
Automatic MAG 3/8" WITH 5' HARNESS	2.25"	Auto/Auto or Manual	Electric	C50252A	6325/6452
Automatic MAG 3/8" WITH 10' HARNESS	2.25"	Auto/Auto or Manual	Electric	C50252A-10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	2.25"	Auto/Auto or Manual	Electric	C50252A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	2.25"	Auto/Auto or Manual	Electric	C50252A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	2.25"	Manual/Auto	Electric	C50252T	6481
Manual 10' HARNESS - 12 & 24 VDC	2.25"	Manual/Auto	Electric	C50252T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	2.25"	Manual/Auto	Electric	C50252T-15	6481

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH3 POWERHALT SHUT-OFF VALVES

DESCRIPTION	SIZE	CONTROL/ RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL KITS (COMMERCIAL TRUCKS/STATIONARY EQUIPMENT)					
Automatic MAG 3/8" WITH 5' HARNESS	2.5"	Auto/Auto or Manual	Electric	C50243A	6325/6452
Automatic MAG 3/8" WITH 10' HARNESS	2.5"	Auto/Auto or Manual	Electric	C50243A-10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	2.5"	Auto/Auto or Manual	Electric	C50243A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	2.5"	Auto/Auto or Manual	Electric	C50243A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	2.5"	Manual/Auto	Electric	C50243T	6481
Manual 10' HARNESS - 12 & 24 VDC	2.5"	Manual/Auto	Electric	C50243T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	2.5"	Manual/Auto	Electric	C50243T-15	6481
Automatic MAG 3/8" WITH 5' HARNESS	2.75"	Auto/Auto or Manual	Electric	C50244A	6325/6452
Automatic MAG 3/8" WITH 10' HARNESS	2.75"	Auto/Auto or Manual	Electric	C50244A-10	6325/6452
Automatic CUMMINS CRANK POSITION WIRE T-JUMPER WITH 10' HARNESS	2.75"	Auto/Auto or Manual	Electric	C50244A-J10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	2.75"	Auto/Auto or Manual	Electric	C50244A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	2.75"	Auto/Auto or Manual	Electric	C50244A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	2.75"	Manual/Auto	Electric	C50244T	6481
Manual 10' HARNESS - 12 & 24 VDC	2.75"	Manual/Auto	Electric	C50244T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	2.75"	Manual/Auto	Electric	C50244T-15	6481
Automatic MAG 3/4" WITH 5' HARNESS	3.0"	Auto/Auto or Manual	Electric	C50226A	6325/6452
Automatic MAG 3/4" WITH 10' HARNESS	3.0"	Auto/Auto or Manual	Electric	C50226A-10	6325/6452
Automatic CUMMINS CRANK POSITION WIRE T-JUMPER WITH 10' HARNESS	3.0"	Auto/Auto or Manual	Electric	C50226A-J10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	3.0"	Auto/Auto or Manual	Electric	C50226A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	3.0"	Auto/Auto or Manual	Electric	C50226A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	3.0"	Manual/Auto	Electric	C50226T	6481
Manual 10' HARNESS - 12 & 24 VDC	3.0"	Manual/Auto	Electric	C50226T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	3.0"	Manual/Auto	Electric	C50226T-15	6481

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH3 POWERHALT SHUT-OFF VALVES

DESCRIPTION	SIZE	CONTROL/ RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL KITS (COMMERCIAL TRUCKS/STATIONARY EQUIPMENT)					
Automatic MAG 3/4" WITH 5' HARNESS	3.5"	Auto/Auto or Manual	Electric	C50256A	6325/6452
Automatic MAG 3/4" WITH 10' HARNESS	3.5"	Auto/Auto or Manual	Electric	C50256A-10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	3.5"	Auto/Auto or Manual	Electric	C50256A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	3.5"	Auto/Auto or Manual	Electric	C50256A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	3.5"	Manual/Auto	Electric	C50256T	6481
Manual 10' HARNESS - 12 & 24 VDC	3.5"	Manual/Auto	Electric	C50256T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	3.5"	Manual/Auto	Electric	C50256T-15	6481
Automatic MAG 3/4" WITH 5' HARNESS	4.0"	Auto/Auto or Manual	Electric	C50228A	6325/6452
Automatic MAG 3/4" WITH 10' HARNESS	4.0"	Auto/Auto or Manual	Electric	C50228A-10	6325/6452
Automatic CUMMINS CRANK POSITION WIRE T-JUMPER WITH 10' HARNESS	4.0"	Auto/Auto or Manual	Electric	C50228A-J10	6325/6452
Automatic – R Terminal R TERMINAL WITH 5' HARNESS	4.0"	Auto/Auto or Manual	Electric	C50228A-R	6325/6452
Automatic – R Terminal R TERMINAL WITH 10' HARNESS	4.0"	Auto/Auto or Manual	Electric	C50228A-R10	6325/6452
Manual 5' HARNESS - 12 & 24 VDC	4.0"	Manual/Auto	Electric	C50228T	6481
Manual 10' HARNESS - 12 & 24 VDC	4.0"	Manual/Auto	Electric	C50228T-10	6481
Manual 15' HARNESS - 12 & 24 VDC	4.0"	Manual/Auto	Electric	C50228T-15	6481

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH3 POWERHALT SHUT-OFF VALVES

MAKE / MODEL	SIZE	CONTROL / RESET	ACTUATION	KIT #	INSTALL MANUAL
CLASS 3-5 PICK-UP TRUCK / CHASSIS CAB TRUCKS					
2013 - 2017 Dodge Ram	3.5"	Auto / Auto or Manual	Electric	C50254A	6409
2017 Ford 6.7L Powerstroke	2.75"	Auto / Auto or Manual	Electric	C50278A	6423
2017 GM Duramax	2.75"	Auto / Auto or Manual	Electric	C50287A	6446
2011-2015 Mercedes Sprinter (3.0L V6)	2.25"	Auto / Auto or Manual	Electric	C50230A	6313

CLASS 6 - 8 COMMERCIAL HEAVY DUTY TRUCKS

Detroit DD 13, 15 or 16 Engine	4.0"	Auto / Auto or Manual	Electric	C50223A	6332
Mack/Volvo Generic	3.5"	Auto / Auto or Manual	Electric	C50255A	6410
Mack/Volvo Generic FOR USE WITH "R" TERMINAL	3.5"	Auto / Auto or Manual	Electric	C50255A-R	6410
MX13 Engine (PUSH-IN TYPE MAG)	4.0"	Auto / Auto or Manual	Electric	C50242A	6369

STATIONARY EQUIPMENT

COMPRESSOR

Doosan 1600 - Automatic MAG 5/8" WITH 10' HARNESS	4.0"	Auto / Auto or Manual	Electric	C50315A	6325/6452
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LIGHT TOWER

PH3 - LTW20/20KW/BV- 4LEZ Engine	2.0"	Auto / Auto or Manual	Electric	C50222A	6325/6452
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WELDERS

PH3 Vantage 400 Welder	1.75"	Auto / Auto or Manual	Electric	C50224A	6325/6452
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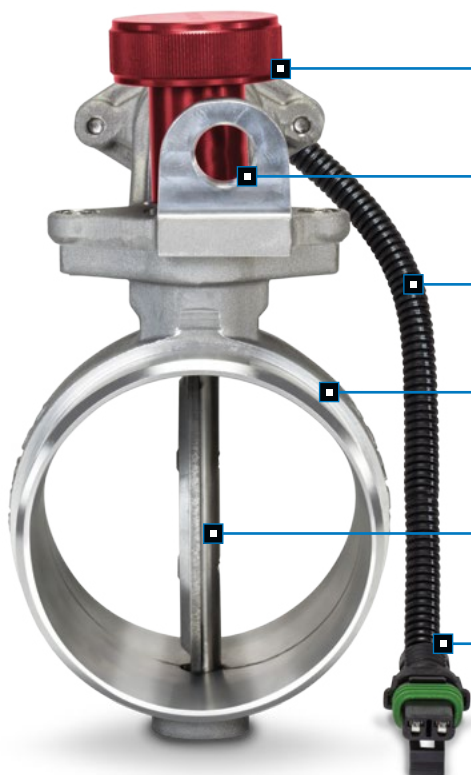
UNIVERSAL

Isuzu 3CJ Engine	1.75"	Auto / Auto or Manual	Electric	C50246A	6325/6452
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PH3 POWERHALT SHUT-OFF VALVE ACCESSORIES

ACCESSORY	MAKE / MODEL	SYSTEM VOLTAGE	KIT #	INSTALL MANUAL
AUXILIARY INPUT JUMPER HARNESS				
Auxiliary Input Jumper Harness	Universal	12VDC	C50159	6396
Auxiliary Input Jumper Harness	Universal	24VDC	C50159-24	6396

Introducing PH5 – the newest member of the PowerHalt family



LARGE VISIBLE RESET KNOB

VALVE POSITION FEEDBACK (OPTIONAL)

ELECTRICAL ACTIVATION

CORROSION RESISTANT MATERIALS

**MAINTENANCE FREE
BUTTERFLY VALVE DESIGN**

12 VDC OR 24 VDC SYSTEMS

**1.75" - 5" VALVE
SIZES AVAILABLE**

PowerHalt's PH5 air intake emergency shut-off valve is electrically activated and available in automatic engine speed sensing or manual control configurations.



PROTECTION
For Your Equipment & Crew

PH5 FEATURES

- » Operator friendly operation with manual reset and override
- » High temperature design for challenging thermal applications
- » Rigorous vibration, corrosion and endurance testing
- » In compliance with CSA B621-14 and B622-14

KEY BENEFITS

- ▶ Easy to install kits with multiple universal applications
- ▶ Kits include all necessary hose adapters, clamps and hardware for installation. Weather tight plug & play wiring harnesses
- ▶ Control option available with PowerGuard automatic overspeed limiter or a manual control configuration is also available

PH5 POWERGUARD CONTROL OPTIONS



POWERGUARD CONTROLLER (AUTOMATIC)

Monitors engine speed through a gear tooth sensor mounted to the transmission bell housing using an existing auxiliary port or by the drilling and tapping of a new port. The controller has a programmable trip point – when the programmed pre-set speed is exceeded, emergency engine shutdown will occur automatically. Emergency shutdown can be activated at any time through a manual override switch

- ▶ **Automatically** activates after programmable engine speed trip point is exceeded
- ▶ **Manual** override from cab/panel mounted switch

CONTROL COMPONENTS



Valve Position Switch

Magnetic Pick-up

Toggle Switch

Panel Light Indicator

PH5 POWERHALT SHUT-OFF VALVES

DESCRIPTION	SIZE	CONTROL/ RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL KITS					
Automatic Generic	1.75"	Auto/Manual	Electric	C50290A-12	6447/6448
Automatic Generic (24 VDC)	1.75"	Auto/Manual	Electric	C50290A-24	6447/6448
Manual Generic	1.75"	Manual/Manual	Electric	C50290-12	6447/6448
Manual Generic (24 VDC)	1.75"	Manual/Manual	Electric	C50290-24	6447/6448
Automatic Generic	2.0"	Auto/Manual	Electric	C50291A-12	6447/6448
Automatic Generic (24 VDC)	2.0"	Auto/Manual	Electric	C50291A-24	6447/6448
Manual Generic	2.0"	Manual/Manual	Electric	C50291-12	6447/6448
Manual Generic (24 VDC)	2.0"	Manual/Manual	Electric	C50291-24	6447/6448
Automatic Generic	2.25"	Auto/Manual	Electric	C50292A-12	6447/6448
Automatic Generic (24 VDC)	2.25"	Auto/Manual	Electric	C50292A-24	6447/6448
Manual Generic	2.25"	Manual/Manual	Electric	C50292-12	6447/6448
Manual Generic (24 VDC)	2.25"	Manual/Manual	Electric	C50292-24	6447/6448
Automatic Generic	2.5"	Auto/Manual	Electric	C50293A-12	6447/6448
Automatic Generic (24 VDC)	2.5"	Auto/Manual	Electric	C50293A-24	6447/6448
Manual Generic	2.5"	Manual/Manual	Electric	C50293-12	6447/6448
Manual Generic (24 VDC)	2.5"	Manual/Manual	Electric	C50293-24	6447/6448
Automatic Generic	2.75"	Auto/Manual	Electric	C50294A-12	6447/6448
Automatic Generic (24 VDC)	2.75"	Auto/Manual	Electric	C50294A-24	6447/6448
Manual Generic	2.75"	Manual/Manual	Electric	C50294-12	6447/6448
Manual Generic (24 VDC)	2.75"	Manual/Manual	Electric	C50294-24	6447/6448

*** Note:** All PH5 kits are 12VDC unless otherwise stated

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH5 POWERHALT SHUT-OFF VALVES

DESCRIPTION	SIZE	CONTROL/ RESET	ACTUATION	KIT #	INSTALL MANUAL
UNIVERSAL KITS (COMMERCIAL TRUCKS/STATIONARY EQUIPMENT)					
Automatic Generic	3.0"	Auto/Manual	Electric	C50295A-12	6447 / 6448
Automatic Generic (24 VDC)	3.0"	Auto/Manual	Electric	C50295A-24	6447 / 6448
Manual Generic	3.0"	Manual/Manual	Electric	C50295-12	6447 / 6448
Manual Generic (24 VDC)	3.0"	Manual/Manual	Electric	C50295-24	6447 / 6448
Automatic Generic	3.5"	Auto/Manual	Electric	C50296A-12	6447 / 6448
Automatic Generic (24 VDC)	3.5"	Auto/Manual	Electric	C50296A-24	6447 / 6448
Manual Generic	3.5"	Manual/Manual	Electric	C50296-12	6447 / 6448
Manual Generic (24 VDC)	3.5"	Manual/Manual	Electric	C50296-24	6447 / 6448
Automatic Generic	4.0"	Auto/Manual	Electric	C50297A-12	6447 / 6448
Automatic Generic (24 VDC)	4.0"	Auto/Manual	Electric	C50297A-24	6447 / 6448
Manual Generic	4.0"	Manual/Manual	Electric	C50297-12	6447 / 6448
Manual Generic (24 VDC)	4.0"	Manual/Manual	Electric	C50297-24	6447 / 6448
Automatic Generic	5.0"	Auto/Manual	Electric	C50298A-12	6447 / 6448
Automatic Generic (24 VDC)	5.0"	Auto/Manual	Electric	C50298A-24	6447 / 6448
Manual Generic	5.0"	Manual/Manual	Electric	C50298-12	6447 / 6448
Manual Generic (24 VDC)	5.0"	Manual/Manual	Electric	C50298-24	6447 / 6448
COMMERCIAL TRUCKS					
Commercial Truck with a Detroit DD13, 15 or 16 Engine	4.0"	Auto/Manual	Electric	C50303A-12	6447 / 6448
Commercial Truck with a Detroit DD13, 15 or 16 Engine	4.0"	Manual/Manual	Electric	C50303-12	6447 / 6448

**Note: All PH5 kits are 12VDC unless otherwise stated*

PH5 POWERHALT SHUT-OFF VALVE ACCESSORIES

ACCESSORY	KIT #	INSTALL MANUAL
VALVE POSITION SWITCH		
Valve Position Switch (NORMALLY OPEN)	C50288	6447
Valve Position Switch (NORMALLY CLOSED)	C50289	6447

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

POWERHALT

AIR INTAKE EMERGENCY SHUT-OFF VALVES

Specification & Data Section

VALVE OPTIONS

PH1



- 1.75" to 2.5" sizes available
- Manual activation, pull cable valve
- Fully mechanical with manual reset
- Compact and lightweight

PH2



- 2.8" to 5.5" sizes available
- PowerGuard (automatic) or operator control (manual) activations available, manual reset
- Electric, pneumatic or pull cable activated
- Zero leakage
- In compliance with CSA B621-14 and B622-14

PH3



- 1.75" to 4" sizes available
- PowerGuard (automatic) or operator control (manual) activations available
- Smart system with electronic reset
- Compact and lightweight
- In compliance with CSA B621-14 and B622-14

PH5



- 1.75" to 5" sizes available
- PowerGuard (automatic) or operator control (manual) activations available, manual reset
- High temperature design for challenging thermal applications
- In compliance with CSA B621-14 and B622-14

PH1 Data Sheet



PH1 AIR INTAKE EMERGENCY SHUT-OFF VALVE

- Reliable and safe emergency shut down for diesel engines
- Simple pull cable activation method, with operator friendly manual reset
- Aluminum flap and housing for durable seal and low weight
- Designed for challenging thermal applications
- Wide range of sizes available
- Robust design; Tested to 18.6 g_{rms} vibration cycle
- Components corrosion tested to ASTM B117, 96hrs Salt Fog
- Corrosion resistant pull cable

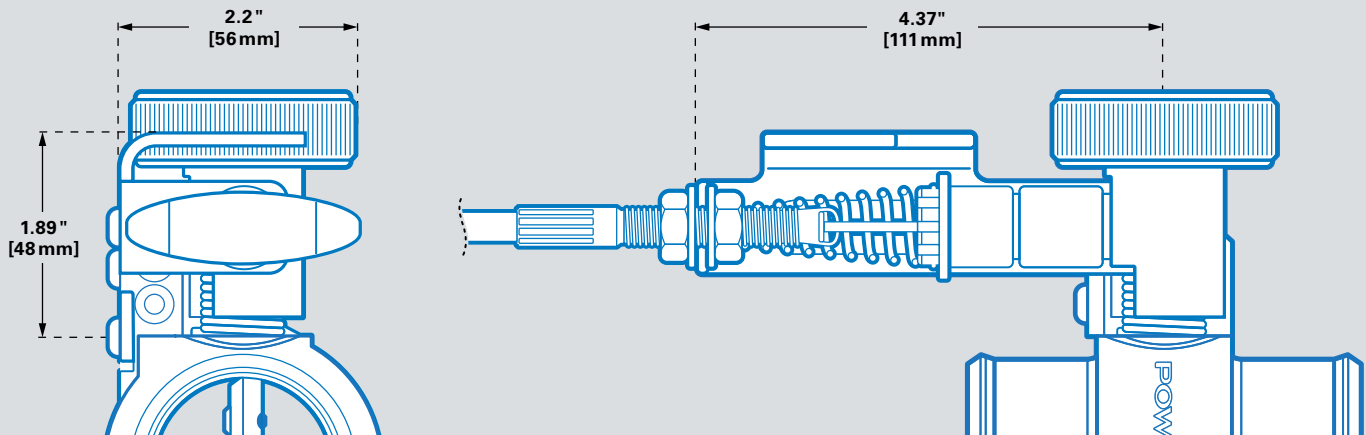
APPLICATIONS

- Lighting Units
- Bulk Haulers
- Drilling Rigs
- Refinery Processing
- Fueling Vehicles
- Pump Trucks
- Frac Trucks
- Grain Processing Plants
- Ambulances
- Tankers
- Cranes
- Vehicles
- Tow Vehicles
- Fire Trucks
- Work Boats
- Barges
- Lighting Trucks
- Power Generators
- Forklifts
- Welders
- Support Vehicles
- Vacuum Trucks
- Underground Equipment

PRODUCT DESCRIPTION

MAXIMUM INTAKE BOOST AIR PRESSURE	40 psig (gauge) [2.76 bar]
CONTINUOUS INTAKE AIR TEMPERATURE	-70°F to 350°F [-55°C to 175°C]
AMBIENT TEMPERATURE RANGE	-40°F to 248°F [-40°C to 120°C] (valve body)
RESTING POSITION	Valve open
ACTIVATED POSITION	Valve closed
STANDARD MOUNTING OPTIONS	Hose to hose
PIPE SIZES SUPPORTED	Ø1.75 in to Ø2.75 in [Ø44.5 mm to 70 mm]

PULL CABLE ACTIVATION



MINIMUM CABLE ACTIVATION PULL FORCE	11.2 lbf [50 N]
MINIMUM STROKE FOR ACTIVATION	.47" [12 mm]
ACTIVATION	Pull to shut valve

PH 1

PH 2

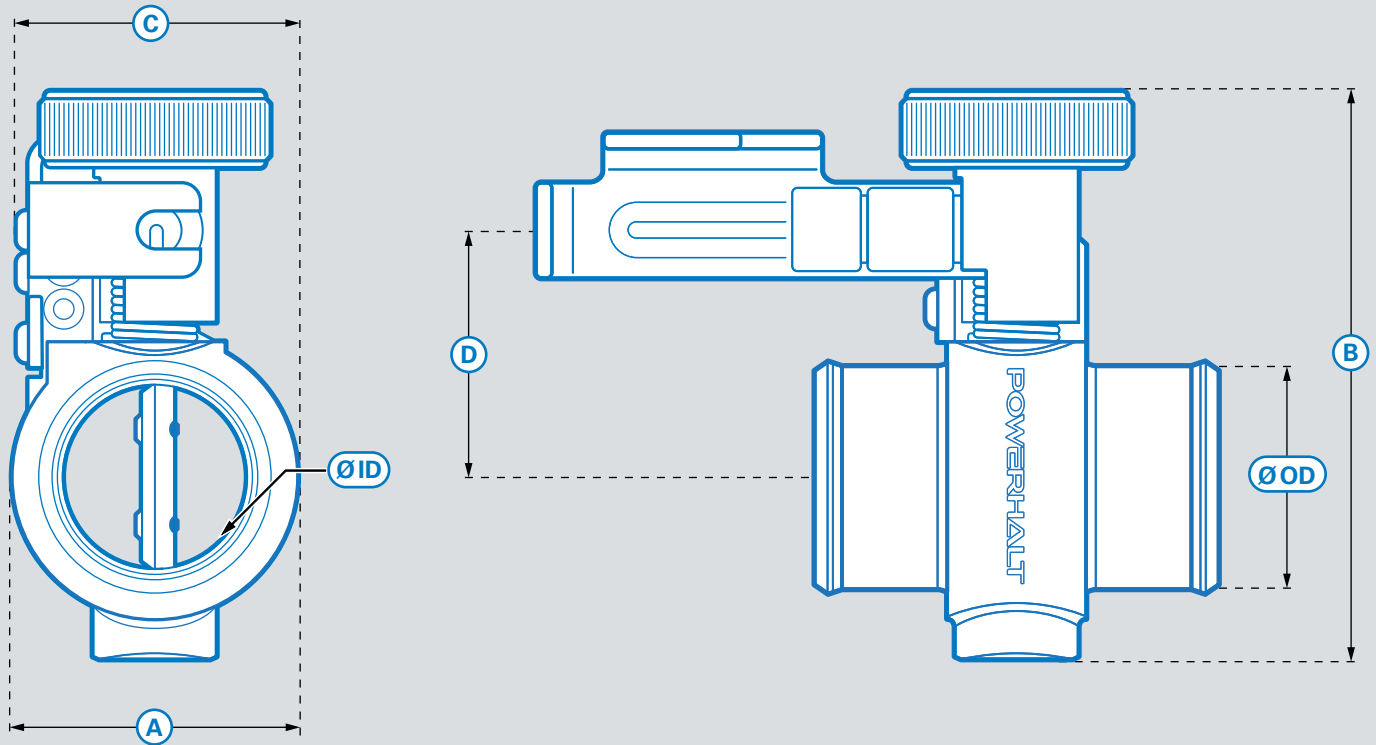
PH 3

PH 5

COMPONENTS

WARRANTY

PHYSICAL CHARACTERISTICS



VALVE CORE DIMENSIONS

NOMINAL VALVE SIZE ØOD	BORE ØID	HOUSING (OD) A	HEIGHT B	WIDTH C	TRIGGER D	WEIGHT
1.75" [44.5 mm]	1.40" [35.5 mm]	2.56" [65 mm]	5.11" [129.8 mm]	2.44" [61.9 mm]	2.22" [57 mm]	3.3 lb [1.5 kg]
2.0" [51 mm]	1.65" [42 mm]	2.56" [65 mm]	5.11" [129.8 mm]	2.44" [61.9 mm]	2.22" [57 mm]	3.3 lb [1.5 kg]
2.25" [57 mm]	1.89" [48 mm]	2.56" [65 mm]	5.11" [129.8 mm]	2.44" [61.9 mm]	2.22" [57 mm]	3.1 lb [1.4 kg]
2.5" [64 mm]	2.17" [55 mm]	3.21" [81.5 mm]	5.35" [135.9 mm]	2.76" [70.1 mm]	2.34" [59.5 mm]	3.5 lb [1.6 kg]

PH1 VALVES



C50148
1.75"
OD Ø: 1.75" [44.5 mm]
ID Ø: 1.40" [35.5 mm]
A: 2.56" [65 mm]
B: 5.11" [129.8 mm]
C: 2.44" [61.9 mm]
D: 2.22" [57 mm]
Weight: 3.3 lb [1.5 kg]
NOTE: Valve only. Must add pull cable & mounting group



C50145
2.0"
OD Ø: 2.0" [51 mm]
ID Ø: 1.65" [42 mm]
A: 2.56" [65 mm]
B: 5.11" [129.8 mm]
C: 2.44" [61.9 mm]
D: 2.22" [57 mm]
Weight: 3.3 lb [1.5 kg]
NOTE: Valve only. Must add pull cable & mounting group



C50146
2.25"
OD Ø: 2.25" [57 mm]
ID Ø: 1.89" [48 mm]
A: 2.56" [65 mm]
B: 5.11" [129.8 mm]
C: 2.44" [61.9 mm]
D: 2.22" [57 mm]
Weight: 3.1 lb [1.4 kg]
NOTE: Valve only. Must add pull cable & mounting group

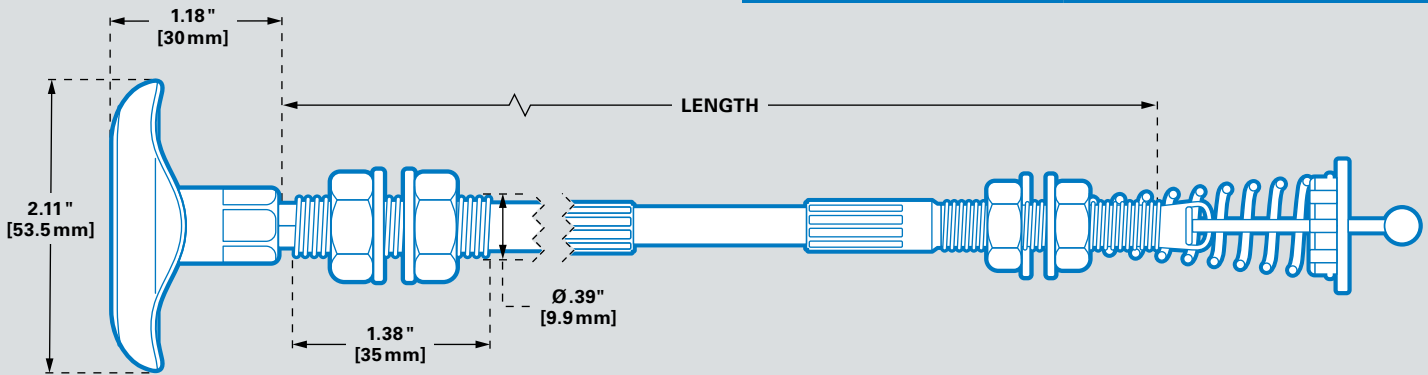


C50147
2.5"
OD Ø: 2.5" [64 mm]
ID Ø: 2.17" [55 mm]
A: 3.21" [81.5 mm]
B: 5.35" [135.9 mm]
C: 2.76" [70.1 mm]
D: 2.34" [59.5 mm]
Weight: 3.5 lb [1.6 kg]
NOTE: Valve only. Must add pull cable & mounting group

PULL CABLES & FACEPLATE

- Stainless steel high quality pull cables are pre-assembled for easy installation and safety
- Braided cable, capable of a small bend radius for tight installation conditions
- Red T-handle with large nameplate for clear identification of emergency shut-down location

SPECIFICATIONS	
TOTAL DEGREES OF ALL BENDS	360° maximum
MINIMUM CABLE BEND RADIUS	4" [102 mm]
DEFAULT POSITION	Handle retracted
CABLE WEIGHT (REFERENCE)	0.64 lb [0.29 kg] for 6' [1829 mm] Length
THROUGH-HOLE SIZE	7/16" [11 mm]
AMBIENT TEMPERATURE RANGE	-40°F to 185°F [-40°C to 85°C]



**C3817
FACEPLATE**
Height: 4.25" [108 mm]
Width: 4.25" [108 mm]



**C50018
PULL CABLE**
Length: 2' [610 mm]



**C50022
PULL CABLE**
Length: 4' [1220 mm]



**C50026
PULL CABLE**
Length: 6' [1829 mm]



**C50030
PULL CABLE**
Length: 8' [2438 mm]



**C50035
PULL CABLE**
Length: 10' [3048 mm]

MOUNTING KITS



- The mounting kit comes with the appropriate mounting group to include 2 hoses and 4 clamps, ensuring a successful installation into your system
 - Adapters and piping are also available as separate options
- For special application requirements, please contact your PowerHalt sales representative**

For information on Mounting Groups (Hose, Clamps CAC Pipe) see COMPONENT SECTION page 61

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

How to use the PH1 Custom Order Chart:

- 1 Choose a: **VALVE MODEL** + **VALVE SIZE** + **PULL CABLE** + **MOUNTING GROUP**
- 2 Place order using PH1 part numbers . *Example PH1 Valve Order:* C50148 C50018 C50117
- 3 Choose any other custom valve components. See Component Section.

PH1 POWERHALT SHUT-OFF VALVES CUSTOM ORDER CHART

VALVE MODEL	PH1	PART #	CONTENTS
VALVE SIZE <i>(OUTSIDE DIMENSION)</i>		C50148	1.75" Valve
		C50145	2.0" Valve
		C50146	2.25" Valve
		C50147	2.5" Valve
PULL CABLE		C50018	2 ft
		C50022	4 ft
		C50026	6 ft
		C50030	8 ft
		C50035	10 ft
MOUNTING GROUP		C50117	1.75"
		C50118	2.0"
		C50119	2.25"
		C50116	2.5"

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY



PH2 AIR INTAKE EMERGENCY SHUT-OFF VALVE

- Reliable and safe emergency shut down for diesel engines
- Multiple activation methods with operator friendly manual reset
- Optional smart controller with low power consumption
- Enclosed drive system is debris and corrosion resistant
- Highly durable O-ring material providing zero leakage when shut
- Designed for a wide range of temperatures
- Robust design; Tested to MIL-STD-810G vibration and 10,000 activations
- Corrosion tested to ASTM B117, 96 hours salt fog
- Wide range of sizes available
- In compliance with CSA B621-14 and B622-14

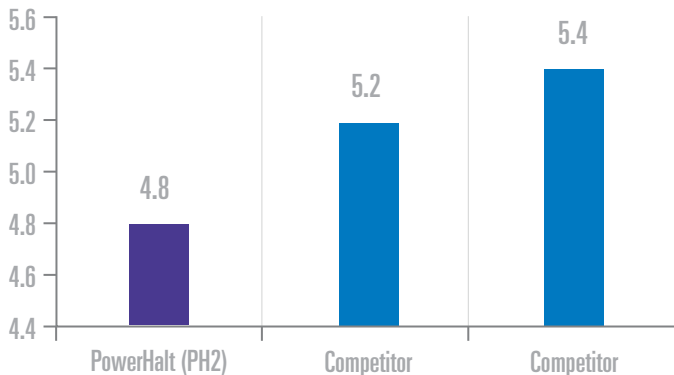
PRODUCT DESCRIPTION	
MAXIMUM INTAKE BOOST AIR PRESSURE	40 psig [2.76 bar] (gauge)
CONTINUOUS INTAKE AIR TEMPERATURE	-67°F to +392°F [-55°C to +200°C] (depending on seal selection)
AMBIENT TEMPERATURE RANGE	-40°F to +248°F [-40°C to +120°C] (depending on actuator)
VALVE OPERATION	Energize to close
STANDARD MOUNTING OPTIONS	Hoses and clamps NOTE: 5.5" [139.7 mm] nominal valve size comes with M6x1x8 mounting holes for optional additional support
PIPE SIZES SUPPORTED	Ø2.5" to Ø5.5" [Ø64 mm to Ø140 mm]

SEAL SELECTIONS	
MATERIAL	CONTINUOUS INTAKE AIR TEMPERATURE
FLUOROSILICONE	-70°F to +350°F [-56°C to +175°C]
VITON	-4°F to +392°F [-20°C to +200°C]

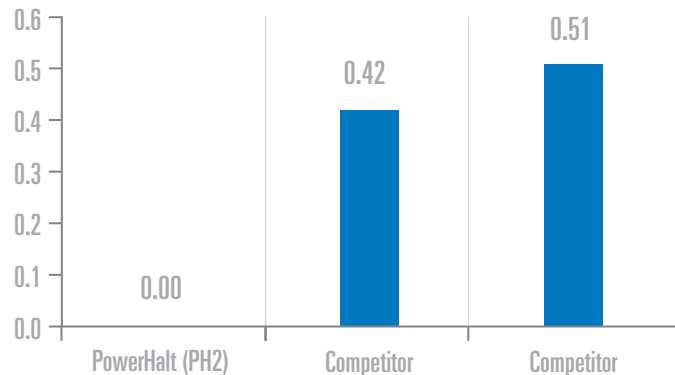
APPLICATIONS

- Lighting Units
- Bulk Haulers
- Drilling Rigs
- Refinery Processing
- Fueling Vehicles
- Pump Trucks
- Frack Trucks
- Grain Processing Plants
- Ambulances
- Tankers
- Cranes
- Vehicles
- Tow Vehicles
- Fire Trucks
- Work Boats
- Barges
- Lighting Trucks
- Power Generators
- Forklifts
- Welders
- Support Vehicles
- Vacuum Trucks
- Underground Equipment

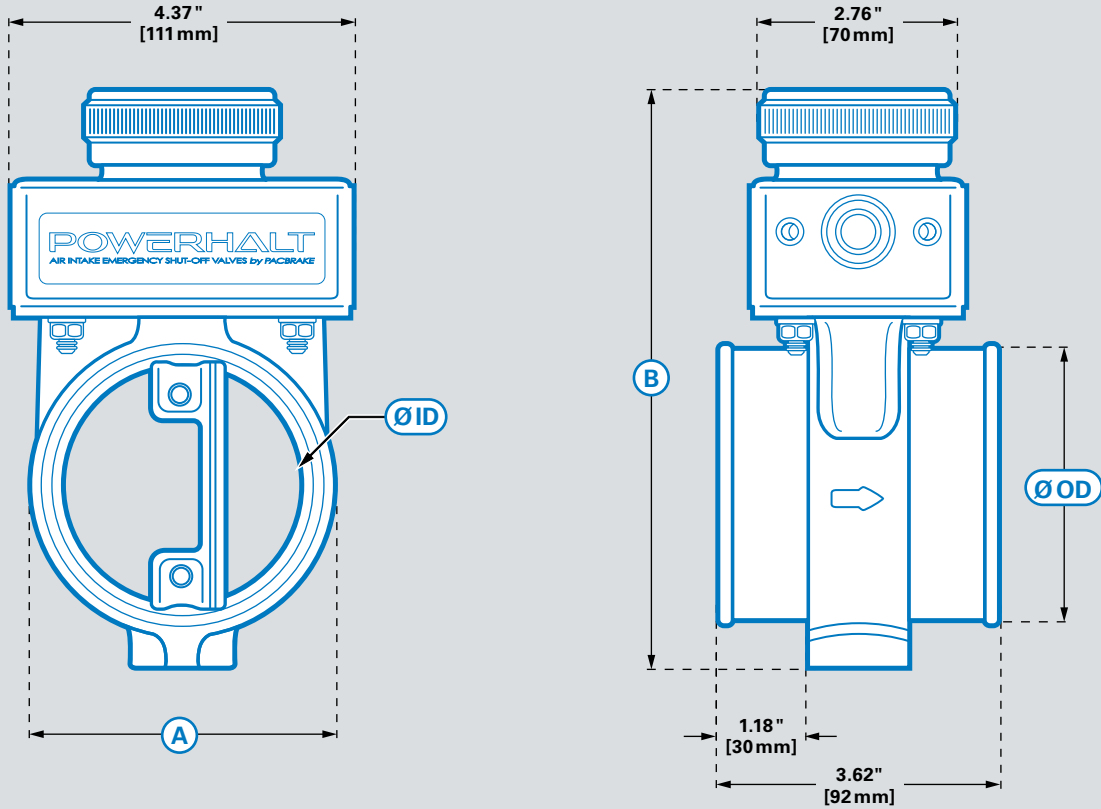
TIME TO SHUT-DOWN THE ENGINE (SEC)



LEAKAGE RATE (CLOSED VALVE)



PHYSICAL CHARACTERISTICS



VALVE CORE DIMENSIONS

NOMINAL VALVE SIZE ØOD	BORE ØID	WIDTH A	HEIGHT B	WEIGHT
2.8" [71.0 mm]	2.28" [58 mm]	3.19" [81 mm]	6.94" [176.3 mm]	3.25 lb [1.46 kg]
3.0" [76.2 mm]	2.48" [63 mm]	3.2" [81.5 mm]	7.05" [179.3 mm]	3.26 lb [1.48 kg]
3.5" [89 mm]	3.09" [78.5 mm]	3.89" [99 mm]	7.44" [189.1 mm]	3.41 lb [1.55 kg]
4.0" [102 mm]	3.6" [91.5 mm]	4.41" [112 mm]	7.95" [202.1 mm]	3.61 lb [1.64 kg]
5.0" [127 mm]	4.59" [116.5 mm]	5.27" [134 mm]	8.94" [227 mm]	3.86 lb [1.75 kg]
5.5" [139.7 mm]	5.1" [126.5 mm]	5.9" [151 mm]	9.37" [238.1 mm]	4.32 lb [1.96 kg]

PH2 BASE VALVES *(Can only be ordered when ordering a single pull cable, see PH2 valve reference chart, page 40-41)*

	<p>2.8" FVMQ*: C50007 VITON: TBA Weight: 3.25 lb [1.46 kg]</p>		<p>3.0" FVMQ*: C50067 VITON: TBA Weight: 3.26 lb [1.48 kg]</p>		<p>3.5" FVMQ*: C50008 VITON: C50162 Weight: 3.41 lb [1.55 kg]</p>
	<p>4.0" FVMQ*: C50097 VITON: TBA Weight: 3.61 lb [1.64 kg]</p>		<p>5.0" FVMQ*: C50010 VITON: C50078 Weight: 3.86 lb [1.75 kg]</p>		<p>5.5" FVMQ*: C50241 VITON: TBA Weight: 4.32 lb [1.96 kg]</p>

*FVMQ - FLUOROSILICONE

PH 1

PH 2

PH 3

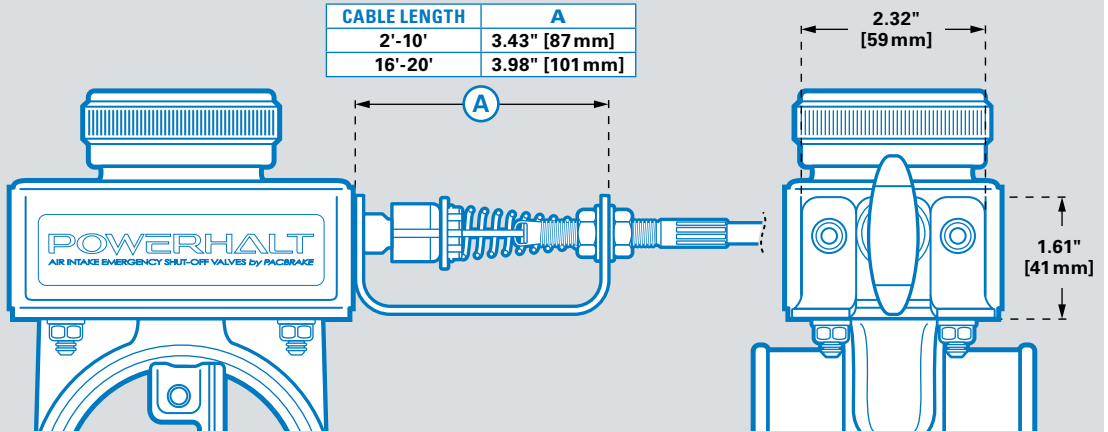
PH 5

COMPONENTS

WARRANTY

PH2 Activation Specifications

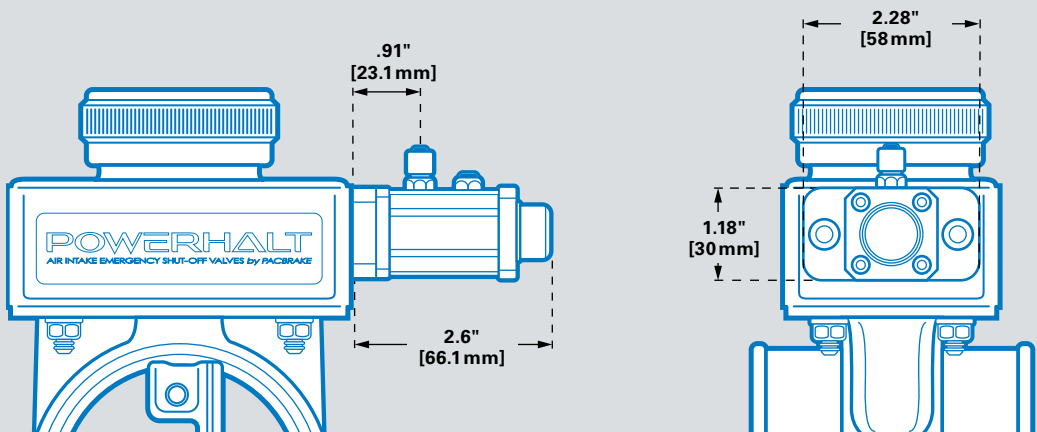
SINGLE PULL CABLE ACTIVATION



SPECIFICATIONS	
CABLE ACTIVATION PULL FORCE	20.2 lbf [90 N]
MINIMUM STROKE FOR ACTIVATION	.47" [12 mm]
ACTIVATION	Pull to close
ACTUATOR WEIGHT (CABLE WEIGHED SEPARATELY)	.53 lb [0.24 kg]

For information on PULL CABLES see page 35

PNEUMATIC ACTIVATION



SPECIFICATIONS	
MINIMUM AIR SUPPLY PRESSURE FOR ACTIVATION	60 psig [4.1 bar]
MAXIMUM AIR SUPPLY PRESSURE	145 psig [10 bar]
PNEUMATIC CYLINDER TEMPERATURE RANGE	-40°F to +158°F [-40°C to +70°C]
PNEUMATIC CONNECTION	Tube: 6 mm OD, 4 mm ID, nylon, soft nylon, or polyurethane
AIR SYSTEM CLEANLINESS	Contaminant particle size < .16 µm [40 µm]
ACTIVATION	Provide pressure to close valve
ACTUATOR WEIGHT	.44 lb [0.20 kg]

PH 1

PH 2

PH 3

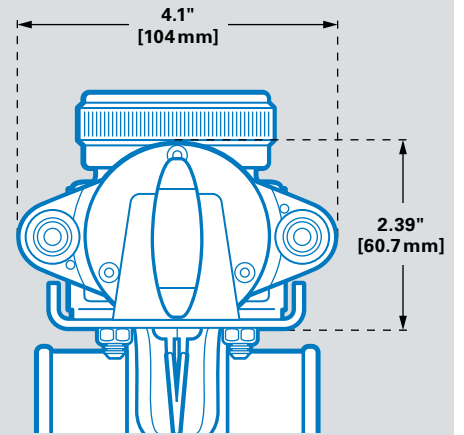
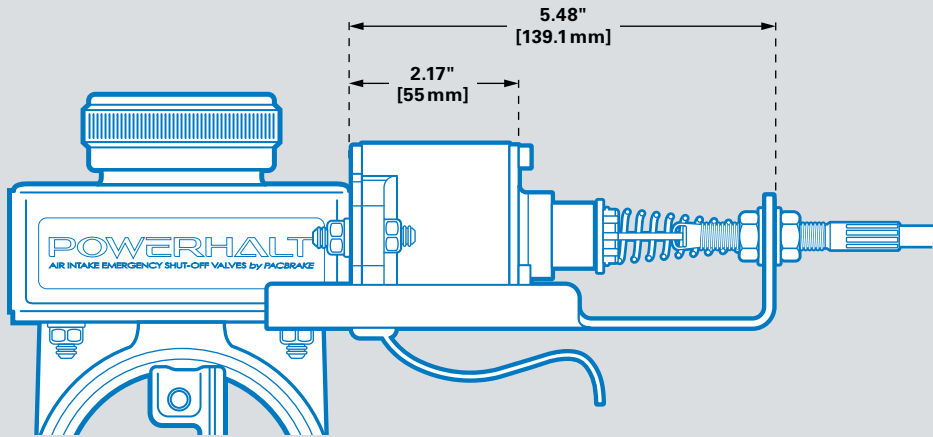
PH 5

COMPONENTS

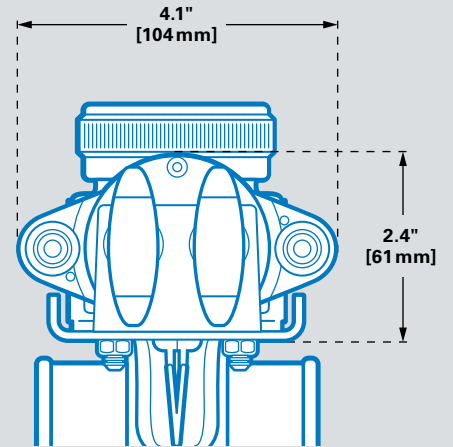
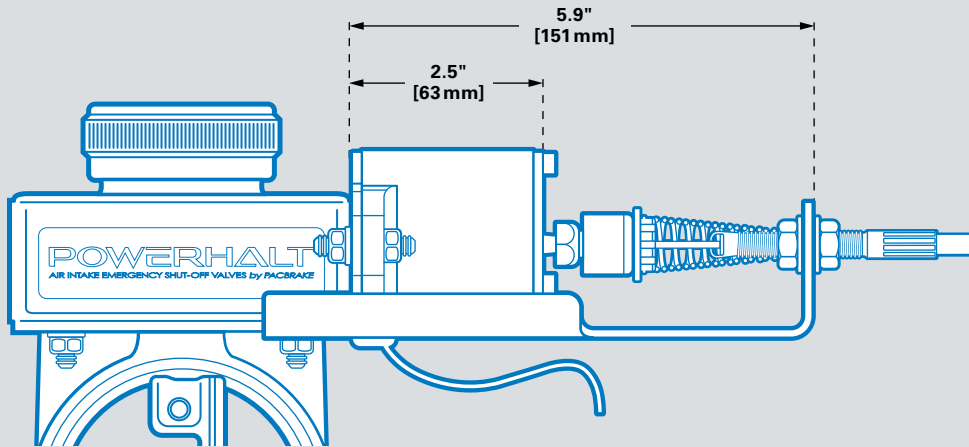
WARRANTY

ELECTRIC PULL CABLE ACTIVATION*

12 / 24 VDC WITH SINGLE PULL CABLE



12 / 24 VDC WITH DUAL PULL CABLES (AVAILABLE WITH SOLENOID OPTION ONLY)



*Not available with 16' & 20' pull cables

PULL CABLE CONFIGURATION		
	SINGLE	DUAL
NUMBER OF CABLES	SINGLE	DUAL
CABLE ACTIVATION PULL FORCE	20.2 lbf [90 N]	22 lbf [98 N]
MINIMUM STROKE FOR ACTIVATION	.47" [12mm]	.47" [12mm]
ACTIVATION	Pull to close	Pull to close

ELECTRICAL CONFIGURATION		
	12 VDC	24 VDC
VOLTAGES	12 VDC	24 VDC
RESISTANCE	1.7 Ω +/- 10%	3.9 Ω +/- 10%
DUTY CYCLE	10 sec ON/90 sec OFF	10 sec ON/90 sec OFF
ACTIVATION	Power to close	Power to close
ELECTRICAL CONNECTOR	Metri-Pack, 280 Series Female, 2 Pin (Delphi #15300027)	Metri-Pack, 280 Series Female, 2 Pin (Delphi #15300027)
ACTUATOR WEIGHT (CABLE WEIGHED SEPARATELY)	2.1 lb [0.96 kg]	2.4 lb [1.08 kg]

For information on PULL CABLES see page 35

PH 1

PH 2

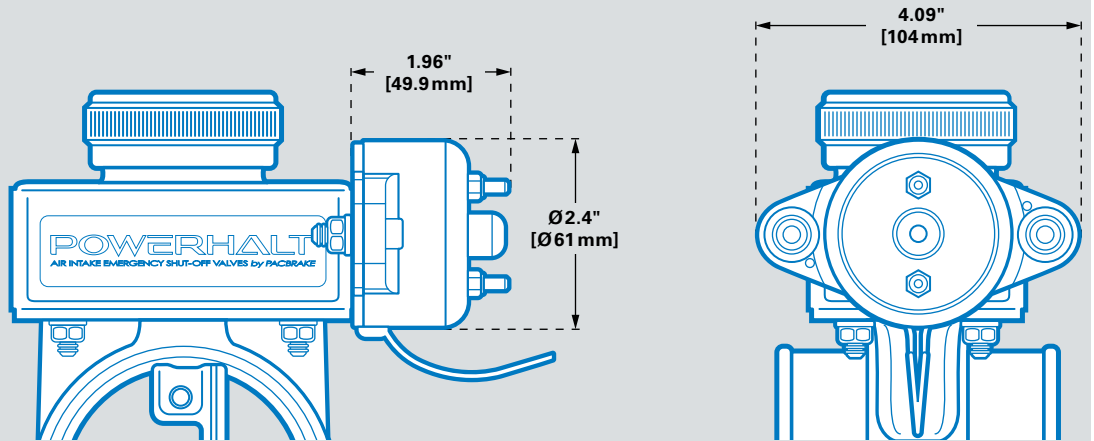
PH 3

PH 5

COMPONENTS

WARRANTY

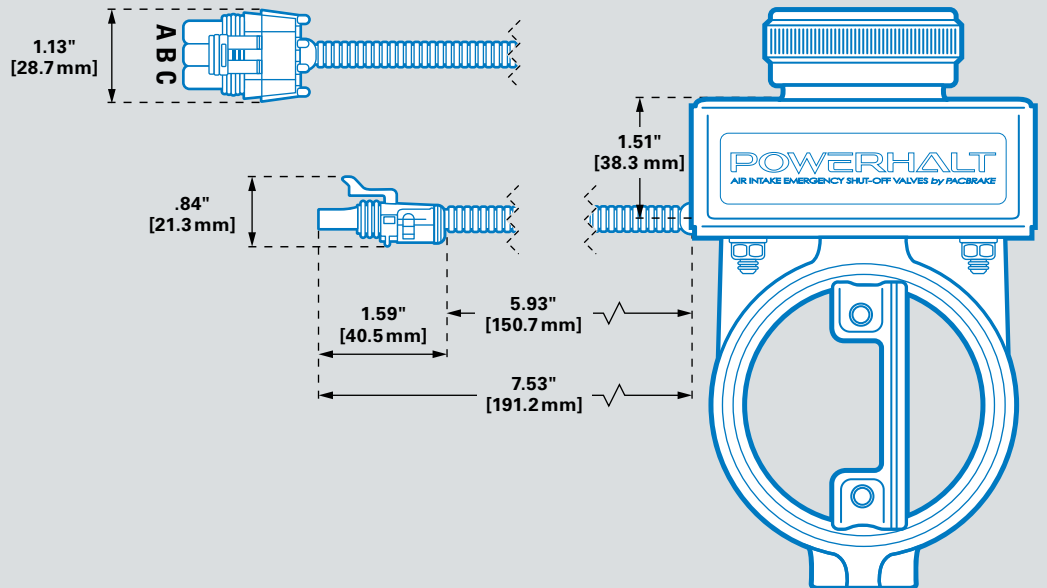
12 / 24 VDC ELECTRIC ACTIVATION



SPECIFICATIONS		
VOLTAGES	12 VDC	24 VDC
RESISTANCE	1.7 Ω +/- 10%	3.9 Ω +/- 10%
DUTY CYCLE	10 sec ON / 90 sec OFF	10 sec ON / 90 sec OFF
ACTIVATION	Power to close	Power to close
ELECTRICAL CONNECTOR	Metri-Pack, 280 Series Female, 2 Pin (Delphi # 15300027)	Metri-Pack, 280 Series Female, 2 Pin (Delphi # 15300027)
ACTUATOR WEIGHT	0.84 kg [1.9 lb]	0.84 kg [1.9 lb]

POSITION FEEDBACK OPTION (WITH MICRO SWITCH)

- Position feedback is available with the micro switch valve assemblies.
- Position feedback allows the integrator to control indicator lights, to provide the operator with position feed back.



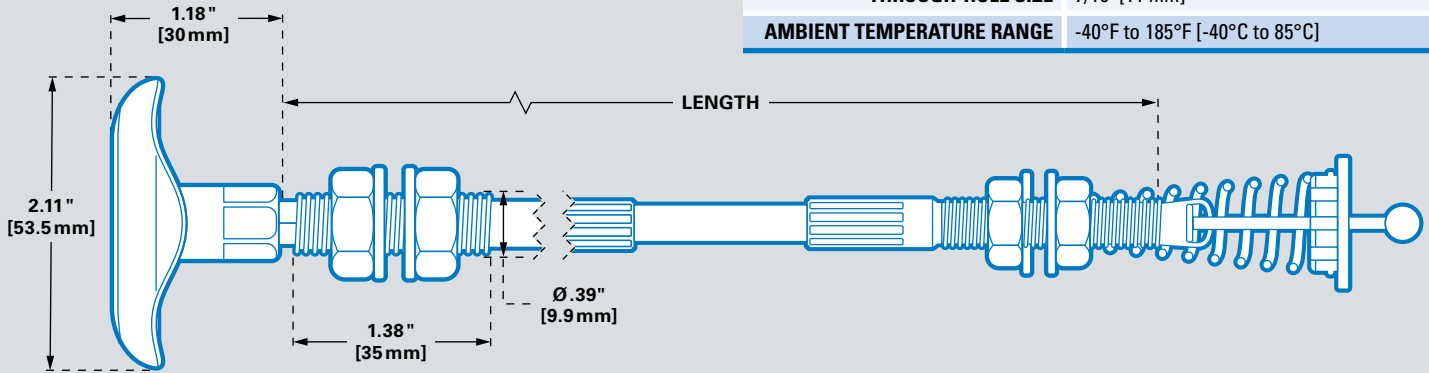
SPECIFICATIONS			
PINOUT	A = NO	B = COM	C = NC
CURRENT RATING	3.0 A @ 30 VDC		3.0 A @ 125 VAC
CONNECTOR	Weather-Pack, Female, 3 Pin (Delphi #12015793)		

For information on Mounting Groups (Hose, Clamps CAC Pipe) see COMPONENT SECTION page 61-64

PULL CABLES & FACEPLATE

- Stainless steel high quality pull cables are pre-assembled for easy installation and safety
- Braided cable, capable of a small bend radius for tight installation conditions
- Red T-handle with large nameplate for clear identification of emergency shut-down location

SPECIFICATIONS	
TOTAL DEGREES OF ALL BENDS	360° maximum
MINIMUM CABLE BEND RADIUS	4" [102 mm]
DEFAULT POSITION	Handle retracted
CABLE WEIGHT (REFERENCE)	0.64 lb [0.29 kg] for 6' [1829 mm] Length
THROUGH-HOLE SIZE	7/16" [11 mm]
AMBIENT TEMPERATURE RANGE	-40°F to 185°F [-40°C to 85°C]



**C3817
FACEPLATE**
Height: 4.25" [108 mm]
Width: 4.25" [108 mm]



**C50018
PULL CABLE**
Length: 2' [610 mm]



**C50022
PULL CABLE**
Length: 4' [1220 mm]



**C50026
PULL CABLE**
Length: 6' [1829 mm]



**C50030
PULL CABLE**
Length: 8' [2438 mm]



**C50035
PULL CABLE**
Length: 10' [3048 mm]



**C50149*
PULL CABLE**
Length: 16' [4877 mm]
Must also purchase
C50161 Cable Mounting
Group



**C50160*
PULL CABLE**
Length: 20' [6096 mm]
Must also purchase
C50161 Cable Mounting
Group

*Only available for single pull cable valves



POWERHALT

AIR INTAKE EMERGENCY SHUT-OFF VALVES by PACBRAKE

PowerHalt – Air Intake Emergency Shut-off valves by Pacbrake will starve the engine of air: safely and effectively shutting it down, protecting your crew and equipment.



INDUSTRY LEADING

SAFETY SOLUTIONS

PH2 Specific Components for Automatic Activation

POWERGUARD AUTOMATIC CONTROLLER

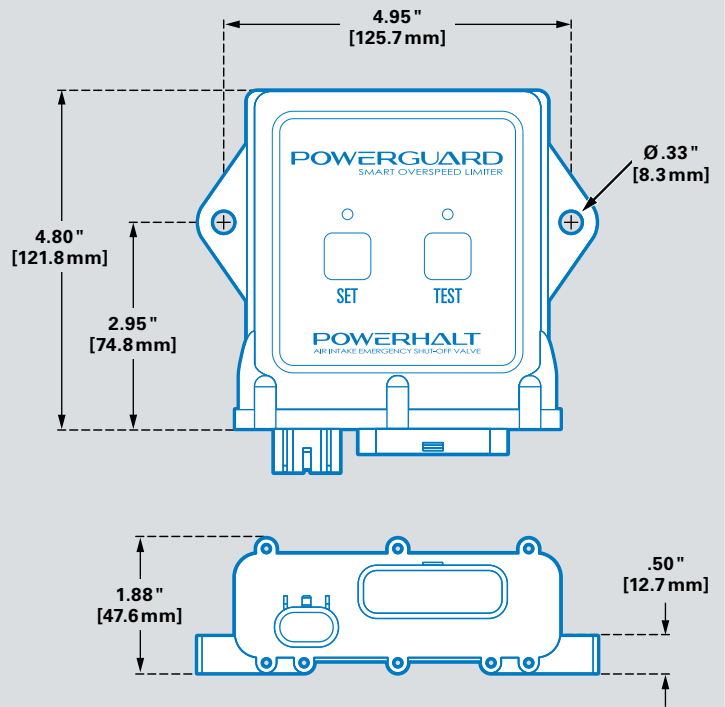
PowerGuard Automatic Control monitors engine speed through a gear tooth sensor mounted to the bell housing using an existing auxiliary port or by the drilling and tapping of a new port. The controller has a programmable trip speed – when the programmed trip speed is exceeded, emergency engine shutdown will occur automatically. Emergency shutdown can be activated at any time through a manual override switch.

- Automatically activates when programmed trip speed is exceeded

AUTOMATIC SPECIFICATIONS	
CONTROLLER HOUSING	SAE J1455
MATERIAL COMPLIANCE	-40°F to +185°F [-40°C to 85°C]
CONTROLLER VOLTAGE	12/24 VDC (10.8 to 28 VDC)
POWER CONSUMPTION (IDLE)	30 mA max continuous, nominal



C20568
CONTROLLER



CRANK POSITION SENSOR T JUMPER



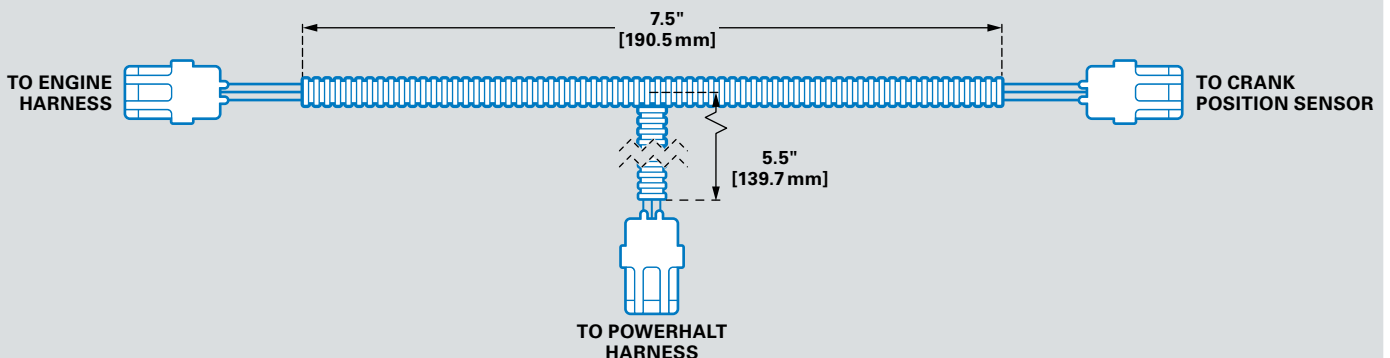
Optional T jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

C20577
CRANK POSITION SENSOR T JUMPER

APPLICATION: Cummins ISB, ISC, ISL

NOTE: Crank Position Sensor MUST supply 0-5 VDC Square Wave

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor
ENGINE HARNESS CONNECTOR	Apex 2.8 series (54200315)
CRANK POSITION SENSOR CONNECTOR	Apex 2.8 series (54200315)



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

MAGNETIC PICK UP

- Measures RPM and sends a signal to the PowerGuard switch to shutdown the engine when engine runaway occurs
- Robust designs that are capable of surviving extreme working environments

INSTALLATION TORQUES

THREAD SIZE	INSTALLATION TORQUE
3/8 - 24 UNF	44 ± 4 in-lbf [5.0 ± 0.5 N•m]
5/8 - 18 UNF	18 ± 2 ft-lbf [24.4 ± 2.7 N•m]
3/4 - 16 UNF	60 ± 2 ft-lbf [81.3 ± 2.7 N•m]

VARIABLE RELUCTANCE SENSOR SPECS

MANUFACTURER	Eaton Fuller
MANUFACTURER PART #	4307352
CONNECTOR	Deutsch DT Series, Part # DT06-2S-E003

HALL EFFECT SENSOR SPECIFICATIONS

TEMPERATURE RANGE	-40°F to +221°F [-40°C to 105°C]
SIGNAL OUTPUT	0 to 5 VDC TTL
CONNECTOR	Weather-Pack, Male, 3 Pin (Delphi # 12010717)



C50137
MAG PICK UP ADAPTER
INTERNAL THREAD: 3/8 - 24 UNF
EXTERNAL THREAD: 3/4 - 16 UNF



NOTE: If you have either of the flywheels with the "X" you require C50137 adapter and a C50095 Hall Effect sensor



C50032
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2" [50.8 mm]
THREAD: 3/8 - 24 UNF



C50033
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2" [50.8 mm]
THREAD: 5/8 - 18 UNF



C50034
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2.5" [63.5 mm]
THREAD: 3/4 - 16 UNF



C50095
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 3" [76.2 mm]
THREAD: 3/8 - 24 UNF



C50279
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2.5" [63.5 mm]
THREAD: 5/8 - 18 UNF

CRANK POSITION WIRE JUMPER



Optional single wire jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

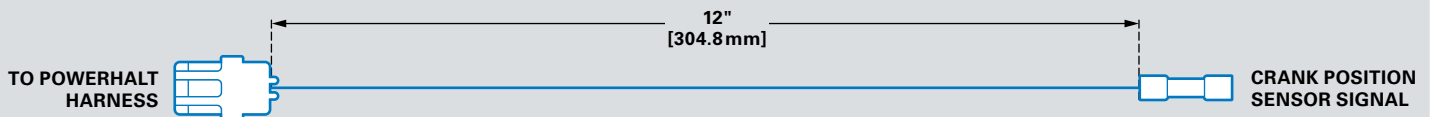
C20656
CRANK POSITION WIRE JUMPER

APPLICATION: Universal

NOTE: Crank Position Sensor MUST supply 0-5 VDC TTL Square Wave

SPECIFICATIONS

TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor



PH 1

PH 2

PH 3

PH 5

COMPONENTS

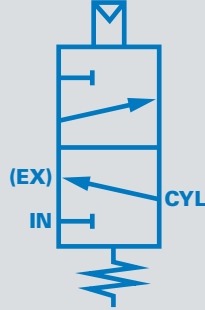
WARRANTY

PH2 Specific Components for Automatic/Manual Activation

PNEUMATIC SOLENOID

Pacbrake's experience designing cost effective pneumatic solenoids with demanding requirements has equipped Pacbrake with the experience to integrate solenoid controls into any application. PH2 offers many pneumatic solenoid configurations for various requirements and applications.

- 'IN' port normally closed
- 'CYL' port normally open to exhaust (atmosphere)
- 18" [457 mm] long 18 AWG wire leads
- Anodized aluminum valve body
- Zinc chromate plated carbon steel solenoid body



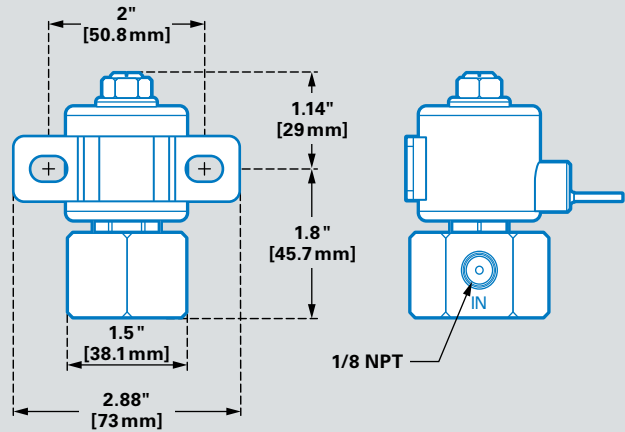
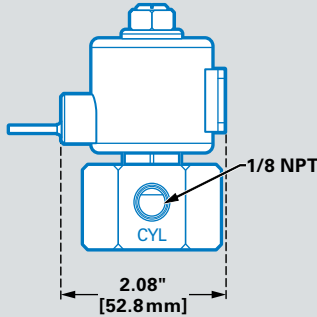
SPECIFICATIONS	
TEMPERATURE RATING	-40°F to +185°F [-40°C to +85°C]
AIR PRESSURE	10.34 bar (gauge) [150 psig] max operating pressure
NOMINAL VOLTAGE	12 VDC/24 VDC
CURRENT RATING	1.5 A max (12VDC) 0.8 A max (24 VDC)
PORT THREAD	IN - 1/8" (-2) NPT Male CYL - 1/8" (-2) NPT Male
CONNECTOR	Metri-Pack, 280 Series Female, 2 Pin (Delphi #15300027)



C20529
PNEUMATIC SOLENOID
Voltage Range: 12 VDC
Coil Resistance: 10 Ω



C20532
PNEUMATIC SOLENOID
Voltage Range: 24 VDC
Coil Resistance: 50 Ω

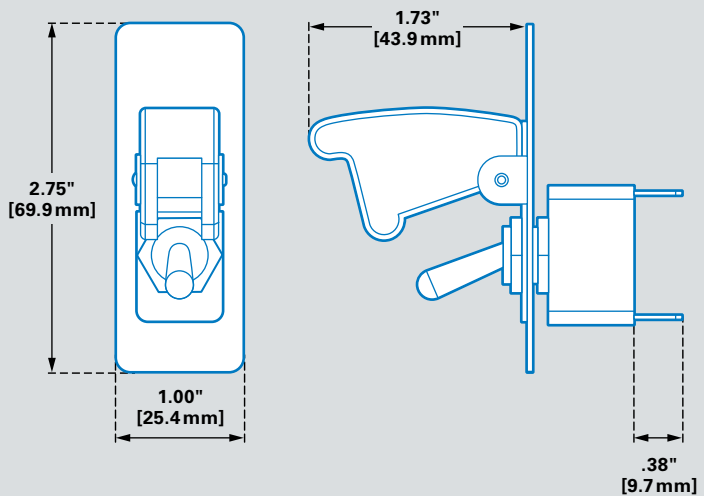


TOGGLE SWITCH KIT



- Military style toggle switch with safety guard to prevent false trip hazards
- Provides means to shut-off the engine or to test the valve
- Pull/Push button options available
- For manual and automatic activation

C50274
TOGGLE SWITCH KIT
Kit Includes: C3716 - Switch
C3717 - Switch Guard
C3816 - Switch Plate



SPECIFICATIONS	
THRU-HOLE DRILL SIZE	.5" [12.7 mm]
TEMPERATURE RATING	-13°F to +176°F [-25°C to +80°C]
RATED CURRENT	6.25 A @ 12 VDC
MOUNTING PANEL THICKNESS	.266" [6.75 mm] Maximum

WIRING HARNESS



Custom plug & play wiring harness with weather tight connectors.

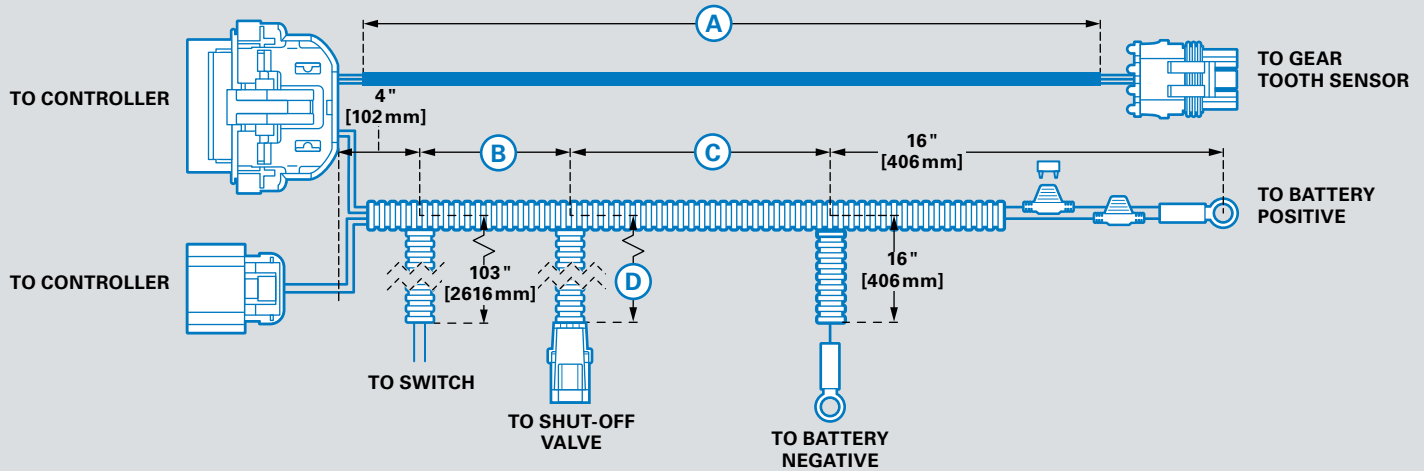
- Sealed connectors
- Environmentally resistant to fuel, oil and solvent compatible

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor

WIRING HARNESS WITH MAGNETIC PICK-UP

PART #	A	B	C	D
C20528	108" [2743mm]	3.5" [89mm]	101" [2565mm]	99" [2515mm]

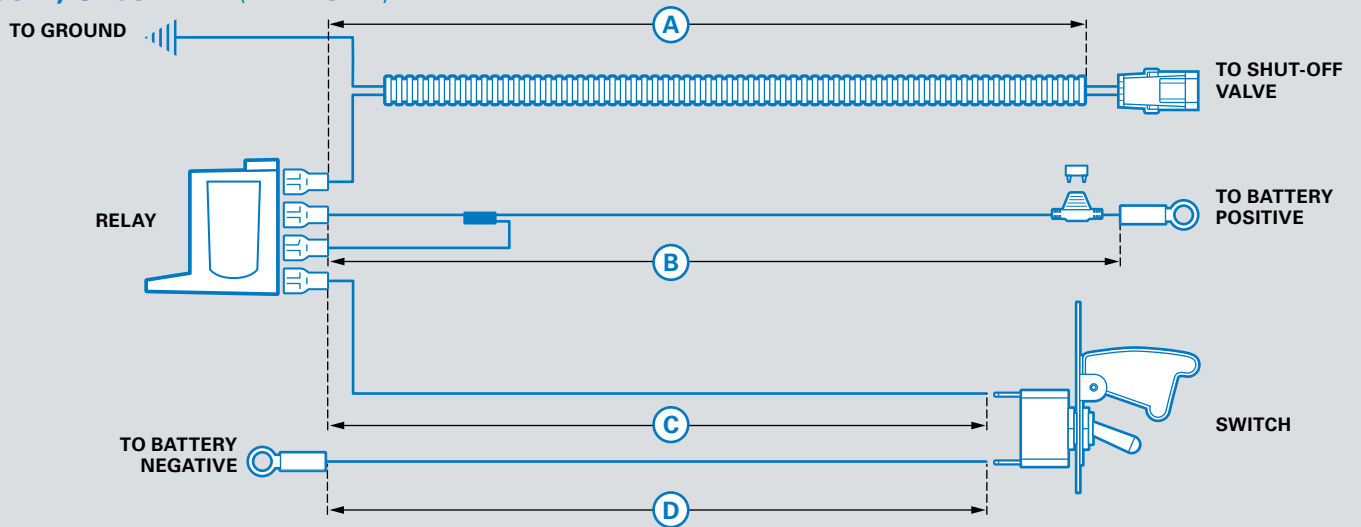
C20528 (AUTOMATIC)



WIRING HARNESS WITHOUT MAGNETIC PICK-UP

PART #	A	B	C	D
C20527 (12 VDC)	150" [3810mm]	53" [1346mm]	96" [2438mm]	84" [2134mm]
C20527-24 (24 VDC)	150" [3810mm]	53" [1346mm]	96" [2438mm]	84" [2134mm]

C20527, C20527-24 (MANUAL)



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

**BASE VALVE BODY
(NO ACTUATION)**

**ELECTRIC
(12/24VDC)**

**ELECTRIC
W/MICRO SWITCH**

PNEUMATIC

2.8"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50007	C50057 & C50057-L
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50012	C50041
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50068	C50073
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	C50011
VITON	TBA

3.0"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50067	C50065
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50066	C50081
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50069	C50074
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	C50099
VITON	TBA

3.5"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50008	C50058
VITON	C50162	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50016	C50043
VITON	C50163	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50070	C50075
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	C50015
VITON	TBA

4.0"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50009	C50059
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50020	C50045
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50071	C50076
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	C50019
VITON	TBA

5.0"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50010	C50060
VITON	C50078	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50025	C50048
VITON	TBA	C50079

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50072	C50077
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	C50023
VITON	TBA

5.5"



SEAL	VALVE BODY	W/ MICRO SWITCH
FLUOROSILICONE	C50240 & C50240-L	C50241
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50187	C50133
VITON	TBA	TBA

SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	C50121
VITON	TBA	TBA

SEAL	PNEUMATIC
FLUOROSILICONE	TBA
VITON	TBA

SINGLE PULL CABLE

SINGLE PULL CABLE* ELECTRIC (12/24VDC)

*NOTE: MUST ALSO ORDER 2'-10" PULL CABLE

DUAL PULL CABLE* ELECTRIC (12/24VDC)

*NOTE: MUST ALSO ORDER TWO 2'-10" PULL CABLES

DUAL PULL CABLE* W/ MICRO SWITCH

**NOTE: MUST ALSO ORDER TWO 2'-10" PULL CABLES



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50013	C50134
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50120	C50126
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	C50151 & C50152
VITON	TBA	TBA

2.8"



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50080	C50085
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50122	C50127
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA

3.0"



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50017	C50044
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50123	C50128
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA

3.5"



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50021	C50046
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50124	C50129
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA

4.0"



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50024	C50047
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	C50125	C50130
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA

5.0"



2'-10" CABLE 16'-20" CABLE

- | | |
|---------------------|---------------------|
| ORDER ONE OF EACH: | ORDER ONE OF EACH: |
| • A BASE VALVE BODY | • A BASE VALVE BODY |
| • A PULL CABLE | • A PULL CABLE |
| • C50000 | • C50161 |



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	C50251 & C50251-L
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA



SEAL	12 VDC	24 VDC
FLUOROSILICONE	TBA	TBA
VITON	TBA	TBA

5.5"

How to use the PH2 Custom Order Chart:

- 1 Choose a: **VALVE MODEL** + **VALVE SIZE** + **SEAL** + **ACTUATION OPTION** + **CONTROL OPTION** + **MOUNTING GROUP**
- 2 Place order using PH2 VALVE ORDER CODE. Example PH2 Code: 28 S1 P1 T1 C50101

PH2 POWERHALT SHUT-OFF VALVES CUSTOM ORDER CHART

VALVE MODEL	PH2		
VALVE SIZE (OUTSIDE DIMENSION)	28	2.8"	
	30	3.0"	
	35	3.5"	
	40	4.0"	
	50	5.0"	
SEAL	S1	Fluorosilicone (-70°F to +350°F / -56°C to +175°C)	
ACTUATION OPTIONS	P1	Pneumatic (12V 3-Way Solenoid + Pneumatic Cylinder) Manually open valve to run and solenoid energized + air to cylinder to shut valve	
	P2	Pneumatic (24V 3-Way Solenoid + Pneumatic Cylinder) Manually open valve to run and solenoid energized + air to cylinder to shut valve	
	C1	Pull Cable (with T-Handle) Manually open valve to run and t-handle cable pulled to shut valve	
	E1	Electric (12V Solenoid) Manually open valve to run and solenoid energized to shut valve	
	E2	Electric (24V Solenoid) Manually open valve to run and solenoid energized to shut valve	
	M1	Electric + Pull Cable (12V Solenoid) Manually open valve to run and solenoid energized or cable pulled to shut valve *MUST PURCHASE THE PACBRAKE PULL CABLE SEPARATELY (see Component Section)	
	M2	Electric + Pull Cable (24V Solenoid) Manually open valve to run and solenoid energized or cable pulled to shut valve *MUST PURCHASE THE PACBRAKE PULL CABLE SEPARATELY (see Component Section)	
	R1	Electric + Dual Pull Cable (12V Solenoid) Manually open valve to run and solenoid energized or cable pulled to shut valve *MUST PURCHASE TWO PACBRAKE PULL CABLES SEPARATELY (see Component Section)	
R2	Electric + Dual Pull Cable (24V Solenoid) Manually open valve to run and solenoid energized or cable pulled to shut valve *MUST PURCHASE TWO PACBRAKE PULL CABLES SEPARATELY (see Component Section)		
CONTROL OPTIONS	T1	Manual (Toggle Switch with Cover)	
	A1	Automatic (Controller with Harness) **MUST PURCHASE A MAGNETIC PICK-UP SEPARATELY (see Component Section)	
MOUNTING GROUPS	There are many mounting groups available depending on the application, see the COMPONENT SECTION, page 61-64.		



PH3 AIR INTAKE EMERGENCY SHUT-OFF VALVE

Pacbrake PowerHalt 3 Emergency Air Intake Shut-Off Valve is an electronically controlled emergency engine shut down system which forces engine shut down by blocking an engine's air intake path. It is available in an automatic engine speed sensing model where shutdown occurs if engine speed exceeds a pre-set speed (or by manual override). Alternatively, a manual activation only configuration is available where an operator will activate emergency engine shut-down. The valves electronically return to open position after emergency engine shutdown, all while providing feedback to the operator that the valve is held closed via in-cab/panel lights.

- Reliable and safe emergency shut down for diesel engines
- Operator friendly fully automatic operation with manual override (automatic kits only)
- In compliance with CSA B621-14 and B622-14
- Operator controlled manual activation kit available
- Enclosed drive system is debris and corrosion resistant
- Aluminum flap and housing for durable seal
- High temperature design for challenging thermal applications
- Corrosion tested to ASTM B117 – 96 hours Salt Fog
- Robust design – tested to 18.6 g_{rms} vibration and 100k+ cycles fatigue
- Low power consumption with smart control
- Supports multiple trip input sources
- Capable of supporting 2 different programmable trip speeds

APPLICATIONS

- Lighting Units
- Bulk Haulers
- Drilling Rigs
- Refinery Processing
- Fueling Vehicles
- Pump Trucks
- Frac Trucks
- Grain Processing Plants
- Ambulances
- Tankers
- Cranes
- Vehicles
- Tow Vehicles
- Fire Trucks
- Work Boats
- Barges
- Lighting Trucks
- Power Generators
- Forklifts
- Welders
- Support Vehicles
- Vacuum Trucks
- Underground Equipment

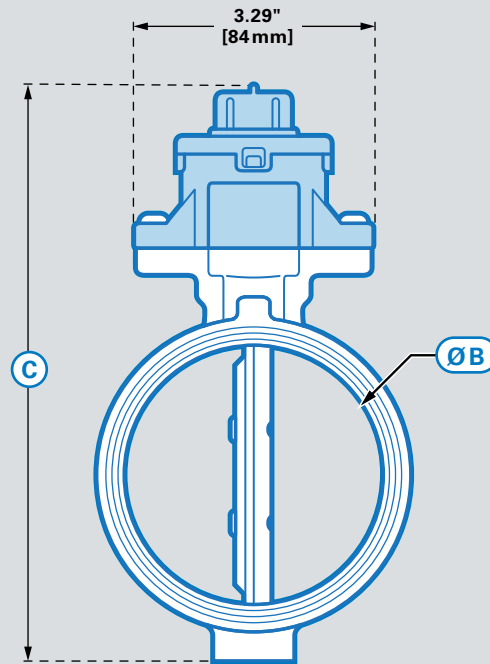
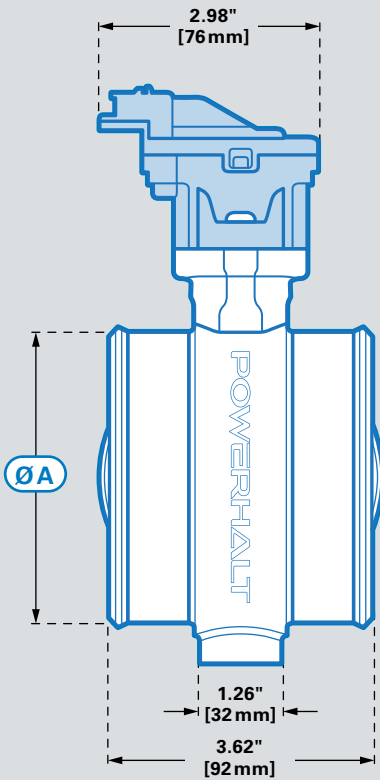
PRODUCT DESCRIPTION

MAXIMUM INTAKE BOOST AIR PRESSURE*	50 psi [3.45 bar]
CONTINUOUS INTAKE AIR TEMPERATURE	-70°F to 350°F [-56°C to +175°C]
AMBIENT TEMPERATURE RANGE	-40°F to 248°F [-40°C to +120°C]
RESTING POSITION	Valve open
ACTIVATED POSITION	Valve closed
STANDARD MOUNTING FLANGES	Hose to Hose
PIPE SIZES SUPPORTED	Ø 1.75" to Ø 4.5" [Ø 44.5 mm to Ø 114 mm]

VALVE CORE DIMENSIONS

HOSE BORE DIAMETER ØA	VALVE BORE DIAMETER ØB	HEIGHT C	WEIGHT
1.75" [44.5 mm]	1.40" [35.5 mm]	5.87" [149 mm]	1.7 lb [0.75 kg]
2.0" [51 mm]	1.65" [42 mm]	5.87" [149 mm]	1.6 lb [0.73 kg]
2.25" [57 mm]	1.89" [48 mm]	5.87" [149 mm]	1.56 lb [0.71 kg]
2.5" [64 mm]	2.17" [55 mm]	6.69" [170 mm]	2.0 lb [0.90 kg]
2.75" [70 mm]	2.40" [61 mm]	6.69" [170 mm]	1.9 lb [0.87 kg]
3.0" [76 mm]	2.64" [67 mm]	6.69" [170 mm]	1.8 lb [0.84 kg]
3.5" [89 mm]	3.15" [80 mm]	7.87" [200 mm]	2.2 lb [1.0 kg]
4.0" [102 mm]	3.66" [93 mm]	7.87" [200 mm]	2.4 lb [1.1 kg]

PHYSICAL CHARACTERISTICS



PH3 VALVES



C50087
1.75"
A Ø: 1.75" [44.5 mm]
B Ø: 1.40" [35.5 mm]
C: 5.87" [149 mm]
Weight: 1.7 lb [0.75 kg]



C50088
2.0"
A Ø: 2.0" [51 mm]
B Ø: 1.65" [42 mm]
C: 5.87" [149 mm]
Weight: 1.6 lb [0.73 kg]



C50089
2.25"
A Ø: 2.25" [57 mm]
B Ø: 1.89" [48 mm]
C: 5.87" [149 mm]
Weight: 1.56 lb [0.71 kg]



C50097
2.5"
A Ø: 2.5" [64 mm]
B Ø: 2.17" [55 mm]
C: 6.69" [170 mm]
Weight: 2.0 lb [0.90 kg]



C50096
2.75"
A Ø: 2.75" [70 mm]
B Ø: 2.4" [61 mm]
C: 6.69" [170 mm]
Weight: 1.9 lb [0.87 kg]



C50090
3.0"
A Ø: 3.0" [76 mm]
B Ø: 2.64" [67 mm]
C: 6.69" [170 mm]
Weight: 1.8 lb [0.84 kg]



C50098
3.5"
A Ø: 3.5" [89 mm]
B Ø: 3.15" [80 mm]
C: 7.87" [200 mm]
Weight: 2.4 lb [1.1 kg]



C50086
4.0"
A Ø: 4.0" [102 mm]
B Ø: 3.66" [93 mm]
C: 7.87" [200 mm]
Weight: 2.2 lb [1.0 kg]

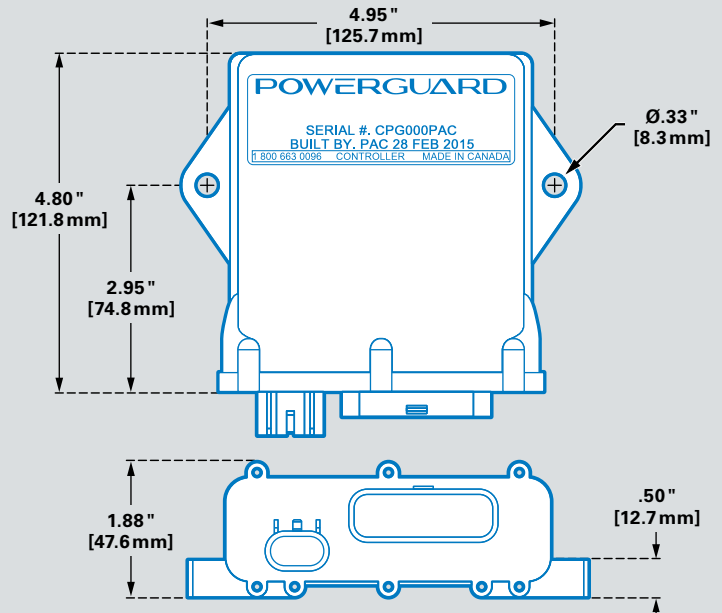
For information on Mounting Groups (Hose, Clamps CAC Pipe) see COMPONENT SECTION page 61-64

POWERGUARD CONTROLLER

AUTOMATIC CONTROLLER

PowerGuard Automatic Control monitors engine speed through a gear tooth sensor mounted to the transmission bell housing using an existing auxiliary port or by the drilling and tapping of a new port. The controller has a programmable trip speed – when the programmed trip speed is exceeded, emergency engine shutdown will occur automatically. Emergency shutdown can be activated at any time through a manual override button. All control and programming is completed using a membrane switch mounted in a vehicle’s cab or on a control panel. An auxiliary input harness is available to expand systems to utilize external trip input signals or switches.

- Automatically activates when programmed trip speed is exceeded
- Manual override, programming and valve position feedback from cab/panel mounted membrane switch



AUTOMATIC SPECIFICATIONS	
CONTROLLER HOUSING MATERIAL COMPLIANCE	SAE J1455 -40°F to +185°F [-40°C to 85°C]
CONTROLLER VOLTAGE	12/24 VDC (10.8 to 28 VDC)
CONTROL METHOD	PID, PWM, H-Bridge
POWER CONSUMPTION (IDLE)	35 mA max continuous, nominal
POWER CONSUMPTION (VALVE ACTUATED)	6.5 A continuous, nominal



C20545 (HALL EFFECT)
C20552 (VR & R-TERMINAL)
AUTOMATIC CONTROLLER
 Valve: PH3


MAGNETIC PICK UP

- Measures RPM and sends a signal to the PowerGuard switch to shutdown the engine when engine runaway occurs
- Robust designs that are capable of surviving extreme working environments


INSTALLATION TORQUES	
THREAD SIZE	INSTALLATION TORQUE
3/8 - 24 UNF	44 ± 4 in-lbf [5.0 ± 0.5 N•m]
5/8 - 18 UNF	18 ± 2 ft-lbf [24.4 ± 2.7 N•m]
3/4 - 16 UNF	60 ± 2 ft-lbf [81.3 ± 2.7 N•m]

VARIABLE RELUCTANCE SENSOR SPECS	
MANUFACTURER	Eaton Fuller
MANUFACTURER PART #	4307352
CONNECTOR	Deutsch DT Series, Part # DT06-2S-E003


HALL EFFECT SENSOR SPECIFICATIONS	
TEMPERATURE RANGE	-40°F to +221°F [-40°C to 105°C]
SIGNAL OUTPUT	0 to 5 VDC TTL
CONNECTOR	Weather-Pack, Male, 3 Pin (Delphi # 12010717)




C50137
MAG PICK UP ADAPTER
 INTERNAL THREAD: 3/8 - 24 UNF
 EXTERNAL THREAD: 3/4 - 16 UNF




C50032
MAG PICK UP HALL EFFECT SENSOR
 LENGTH: 2" [50.8 mm]
 THREAD: 3/8 - 24 UNF




C50033
MAG PICK UP HALL EFFECT SENSOR
 LENGTH: 2" [50.8 mm]
 THREAD: 5/8 - 18 UNF




C50034
MAG PICK UP HALL EFFECT SENSOR
 LENGTH: 2.5" [63.5 mm]
 THREAD: 3/4 - 16 UNF



C50095
MAG PICK UP HALL EFFECT SENSOR
 LENGTH: 3" [76.2 mm]
 THREAD: 3/8 - 24 UNF



C50279
MAG PICK UP HALL EFFECT SENSOR
 LENGTH: 2.5" [63.5 mm]
 THREAD: 5/8 - 18 UNF



C50132
MAG PICK UP VARIABLE RELUCTANCE SENSOR
 MOUNTING: Push in style

NOTE: If you have either of the flywheels with the "X" you require C50137 adapter and a C50095 Hall Effect sensor

PH3 Specific Components for Automatic Activation

CRANK POSITION WIRE JUMPER



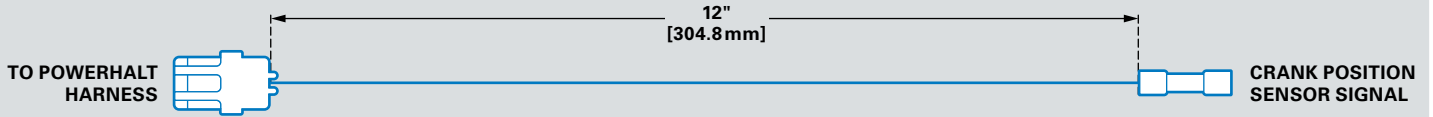
Optional single wire jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

C20656 CRANK POSITION WIRE JUMPER

APPLICATION: Universal

NOTE: Crank Position Sensor MUST supply 0-5 VDC TTL Square Wave

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor



CRANK POSITION SENSOR T JUMPER



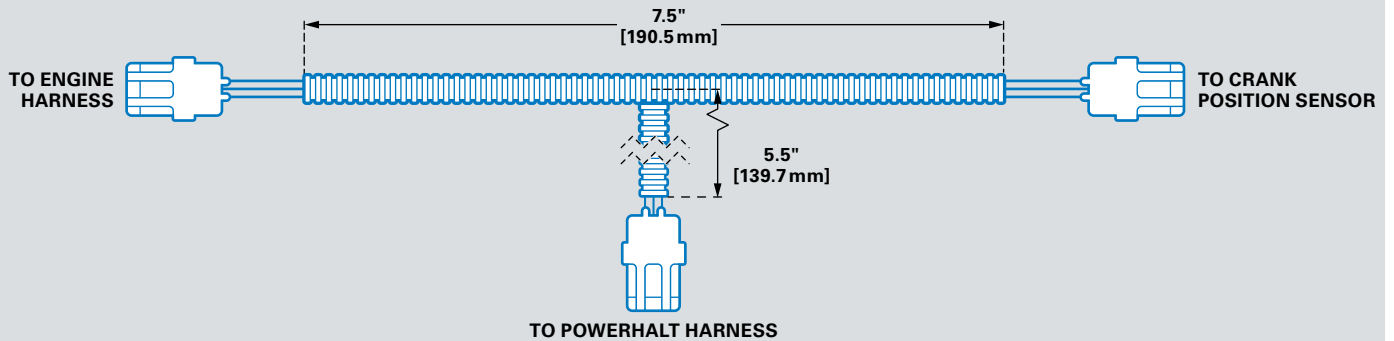
Optional T jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

C20577 CRANK POSITION SENSOR T JUMPER

APPLICATION: Cummins ISB, ISC, ISL

NOTE: Crank Position Sensor MUST supply 0-5 VDC Square Wave

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor
ENGINE HARNESS CONNECTOR	Apex 2.8 series (54200315)
CRANK POSITION SENSOR CONNECTOR	Apex 2.8 series (54200315)



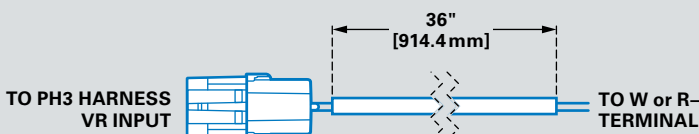
W OR R-TERMINAL

The PowerHalt PH3 R or W-Terminal kit is an addition to the PH3 system that utilizes a Variable Reluctance (VR) sensor to read engine speed to determine proper and safe shut down event. Alternative to a VR sensor is to measure on the R or W-Terminal on an automotive engine's alternator stator tap. The output is used as a tachometer signal with AC voltage waveform similar to that of a VR sensor. The benefit of using the alternator output reduces the need for an external sensor, as the installation process is greatly simplified.

SPECIFICATIONS	
TEMPERATURE RATING	-40°F to +221°F [-40°C to +105°C]
VOLTAGE RATING	60 VDC



C20592 W OR R-TERMINAL



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

WIRING HARNESS



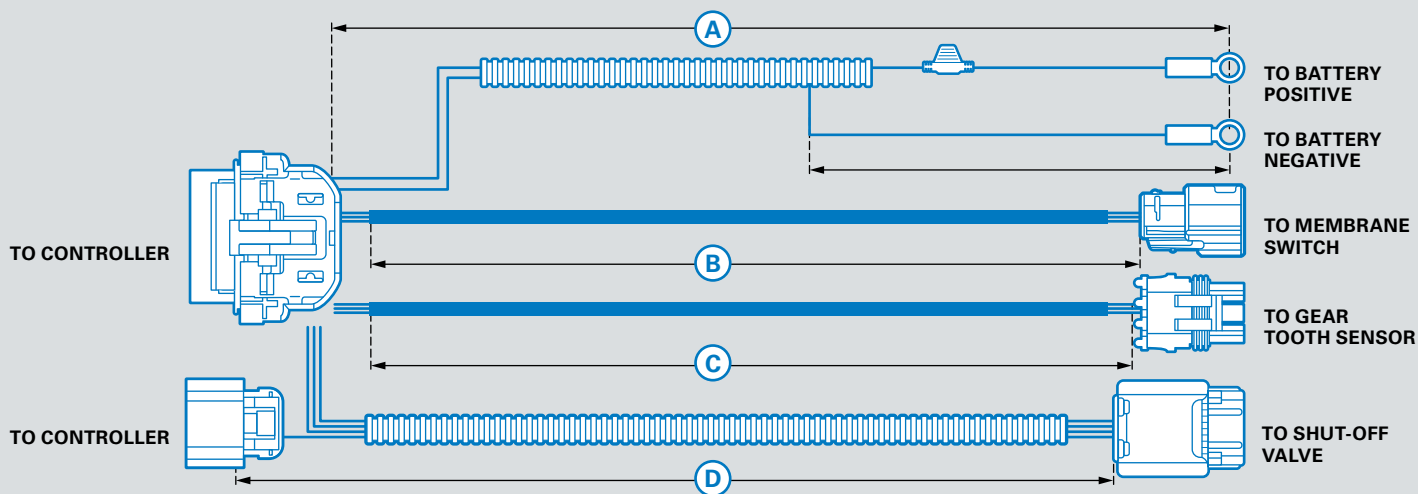
Custom plug & play wiring harness with weather tight connectors.

- Sealed connectors
- Environmentally resistant to fuel, oil and solvent

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor

WIRING HARNESS WITH MAGNETIC PICK-UP

PART #	A	B	C	D	ENGINE RPM SPEED SENSOR
C20535	128" [3251 mm]	108" [2745 mm]	132" [3353 mm]	125" [3175 mm]	Hall Effect (3 Pins), Weather-Pack Connector
C20544	49" [1245 mm]	48" [1220 mm]	57" [1370 mm]	61" [1550 mm]	Hall Effect (3 Pins), Weather-Pack Connector
C20538	120" [3050 mm]	70" [1780 mm]	50" [1270 mm]	95" [2415 mm]	OEM Signal Input, Hall Effect
C20567	128" [3251 mm]	108" [2745 mm]	132" [3353 mm]	125" [3175 mm]	VR (2 Pins), Deutsch DT Connector
C20543	49" [1245 mm]	48" [1220 mm]	57" [1370 mm]	61" [1550 mm]	VR (2 Pins), T-Connection
C20534	128" [3251 mm]	108" [2745 mm]	108" [2745 mm]	105" [2670 mm]	VR (2 Pins), Weather-Pack Connector



PH3 Specific Components for Automatic/Manual Activation

TOGGLE SWITCH KIT



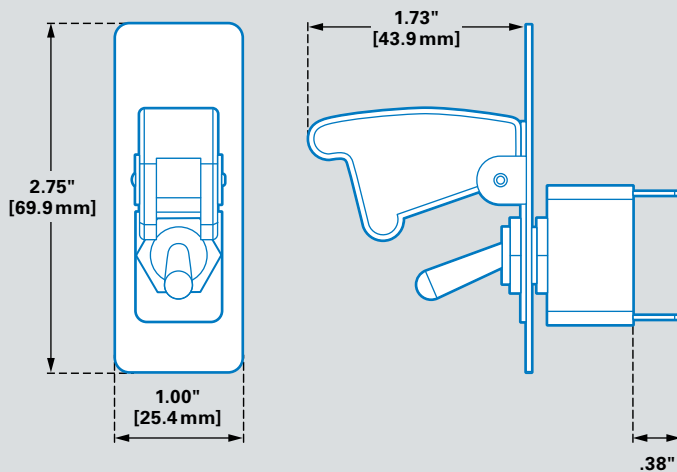
- Military style toggle switch with safety guard to prevent false trip hazards
- Provides means to shut-off the engine or to test the valve
- Pull/Push button options available
- For manual and automatic activation

C50274

TOGGLE SWITCH KIT

Kit Includes: C3716 - Switch
C3717 - Switch Guard
C3816 - Switch Plate

SPECIFICATIONS	
THRU-HOLE DRILL SIZE	.5" [12.7 mm]
TEMPERATURE RATING	-13°F to +176°F [-25°C to +80°C]
RATED CURRENT	6.25 A @ 12 VDC
MOUNTING PANEL THICKNESS	.266" [6.75 mm] Maximum



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PH3 Specific Components for Automatic/Manual Activation

MEMBRANE SWITCH



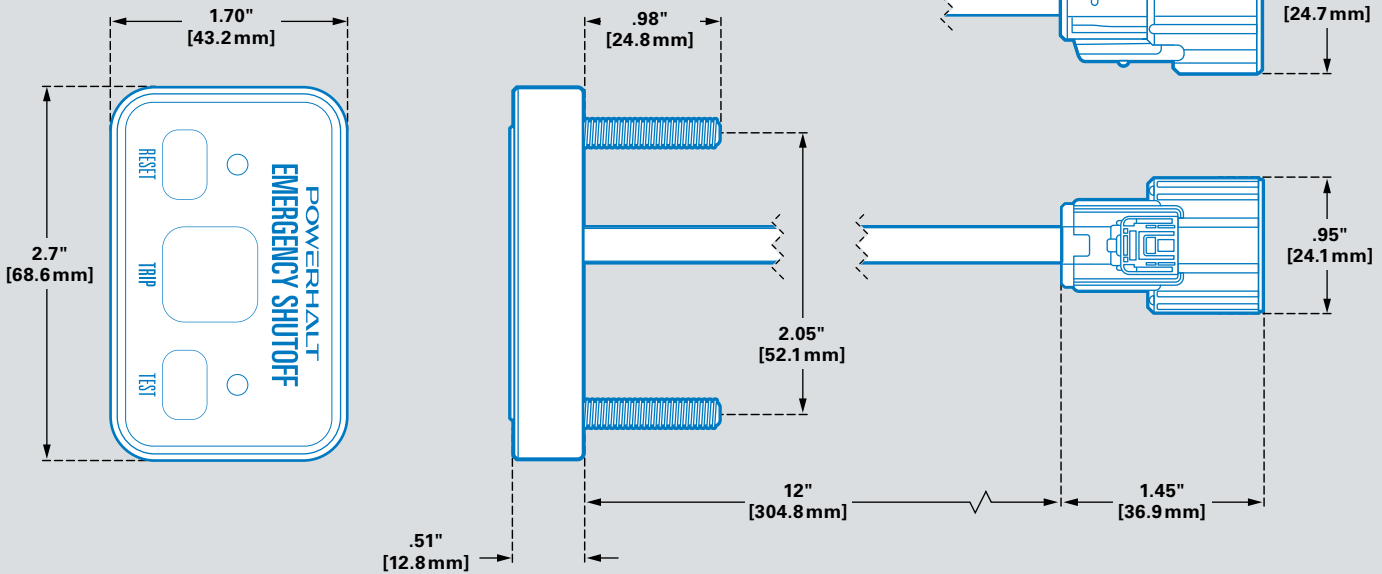
PowerHalt's PH3 membrane switch is a low profile membrane switch that has trip, test, reset and set-up functions with LED lights.

C20541
MEMBRANE SWITCH

SPECIFICATIONS	
ELECTRICAL CONNECTOR HOLE DRILL SIZE	1.125" [28.5 mm]
MOUNTING HOLE DRILL SIZE	.25" [6.4 mm]
TEMPERATURE RATING	-40°F to +185°F [-40°C to +85°C]
INSTALLATION TORQUE	20 ± 5 in-lbf [2.25 ± 0.5 N•m]

SWITCH FEATURES

- RESET** Used during the setup procedure. (Has a red LED indicator above the button)
Also used to reset valve to open position when in manual reset mode for compliance with CSA B621-14 and B622-14.
- TRIP** Used for a manual activation. (Manual override button)
- TEST** Used to test the automatic function and during the setup procedures. (Has a green LED indicator above the button)



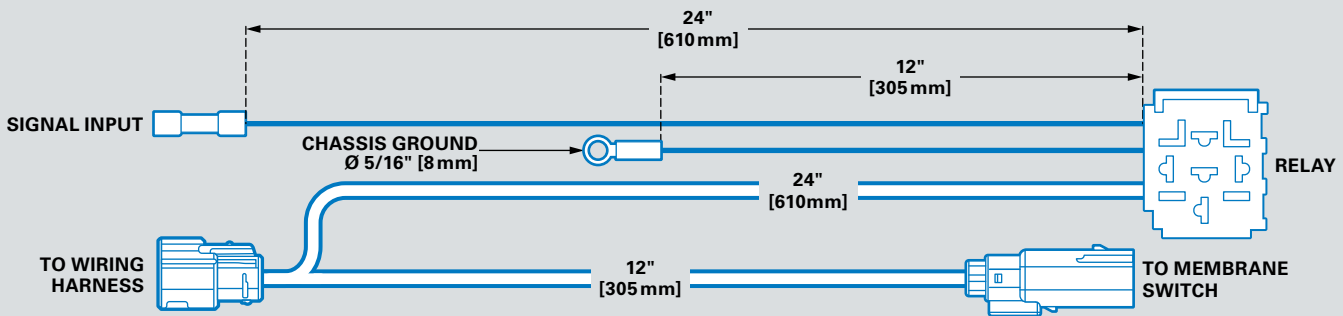
AUXILIARY TRIP INPUT HARNESS



- Expands the standard PowerGuard PH3 wiring harness (with membrane switch) to allow for an external trip signal (emergency shut down will be activated when 12 VDC or 24 VDC voltage is supplied)
- Integrates in-line with membrane switch and wiring harness connection

C50159 & C50159-24 (24VDC)
AUXILIARY TRIP INPUT HARNESS

SPECIFICATIONS	
SIGNAL VOLTAGE	12/24 VDC, nominal
CURRENT SOURCE/SINK REQUIREMENT	300 mA (12 V) or 480 mA (24 V)
SWITCHING RESPONSE TIME	50 ms
ENVIRONMENTAL RESISTANCE	Fuel, oil, and solvent compatible
FLAMMABILITY RATING	FT2
WIRING	SAE J1128, Tinned Copper Conductor



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

POWERGUARD CONTROLLER

MANUAL CONTROLLER

PowerGuard Manual Control will force emergency shutdown when an operator or external device activates an emergency trip switch. By default, the time that system will remain activated after trip is 30 seconds. However, a user may choose to utilize the 15 and 180 second durations by connecting to the optional controller pin-out. A supplied light will illuminate when the valve is held closed to provide feedback to an operator that an engine may not yet be started.

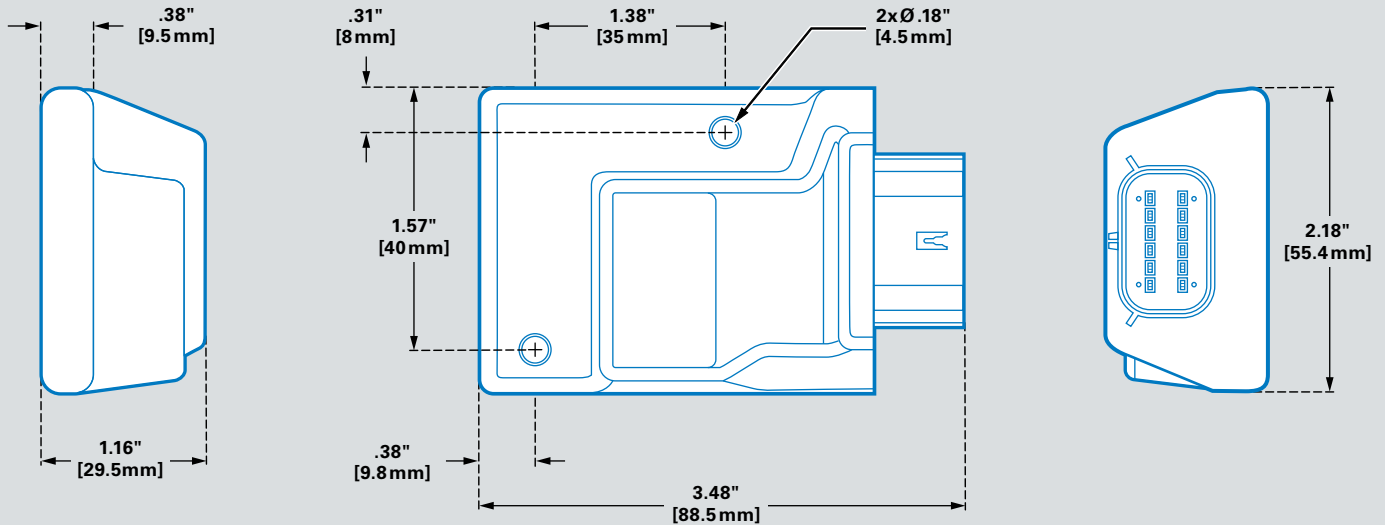
- Multiple manual valve trip inputs with different actuation durations
- Compact controller size ideal for tight overall integration and packaging
- Indicator light to display valve status

MANUAL SPECIFICATIONS	
CONTROLLER VOLTAGE	12 VDC nominal (10.8 to 14 VDC)
SEAL RATING	IP 67
VALVE ACTUATION DURATION	15/30/180 seconds (30 seconds default)
INSTALLATION TORQUE	30 ± 5 in-lb [3.39 ± 0.56 N•m]
CURRENT CONSUMPTION (IDLE/VALVE ACTUATED)	10 mA/4.9 A, nominal
RATED SERVICE TEMPERATURE	-40 °F to +185 °F [-40°C to +85°C]



C20576
MANUAL CONTROLLER
Activation: Manual

MANUAL CONTROLLER



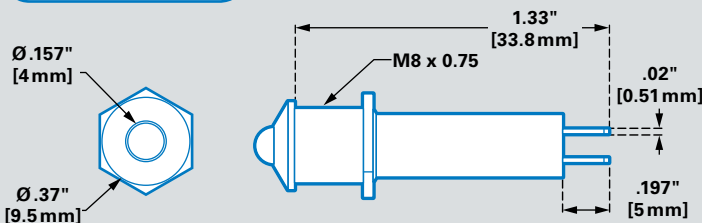
PANEL INDICATOR LIGHT (OPTIONAL)



Get instant notification on the status of your PowerHalt Valve with this LED panel indicator warning light for your dash.

C11313
PANEL INDICATOR LIGHT
APPLICATION: PH3 manual with toggle switch

SPECIFICATIONS	
THRU-HOLE DRILL SIZE	.315" [8 mm]
TEMPERATURE RATING	-40°F to +185°F [-40°C to +85°C]
SUPPLY VOLTAGE	12 VDC nominal (10.8 - 13.2 VDC)
CONNECTION	.11" x .02" [2.79 mm x 0.5 mm] quick connect terminals
MOUNTING PANEL THICKNESS	.266" [6.75 mm] maximum



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

WIRING HARNESS



Custom plug & play wiring harness with weather tight connectors.

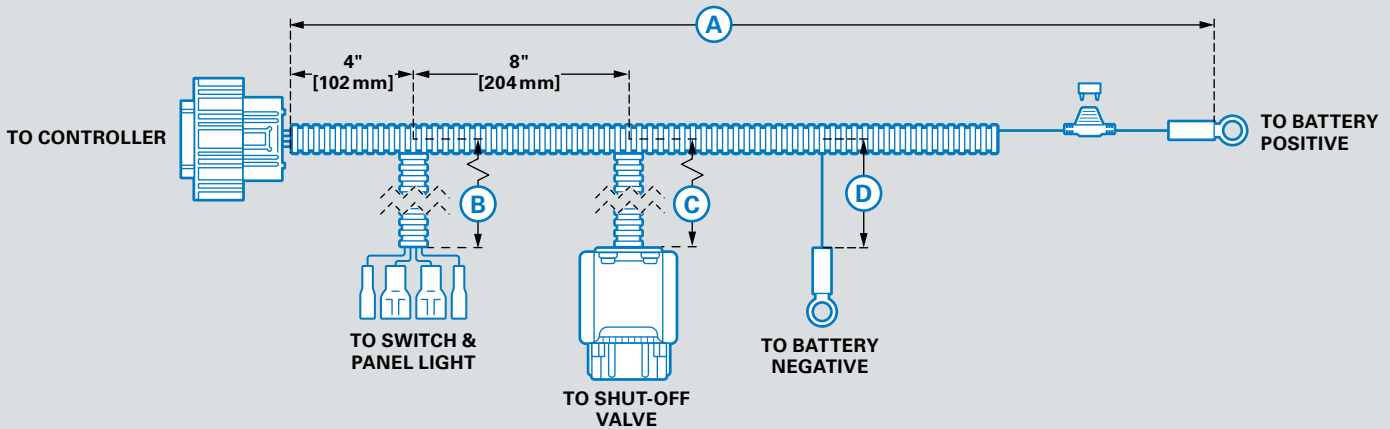
- Sealed connectors
- Environmentally resistant to fuel, oil and solvent

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor

WIRING HARNESS & TOGGLE SWITCH (WITHOUT MAGNETIC PICK-UP)

PART #	A	B	C	D
C20574	120" [3050 mm]	115" [2920 mm]	108" [2743 mm]	9" [230 mm]
C20575	60" [1525 mm]	58" [1475 mm]	60" [1524 mm]	9" [230 mm]

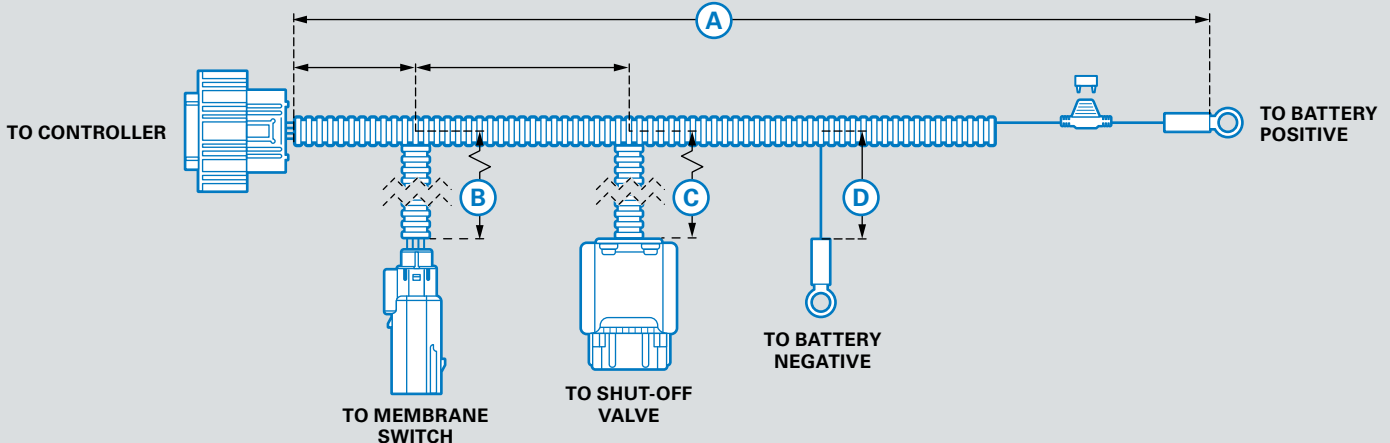
C20574, C20575



WIRING HARNESS & MEMBRANE SWITCH (WITHOUT MAGNETIC PICK-UP)

PART #	A	B	C	D
C20279	115" [2921 mm]	115" [2921 mm]	108" [2743 mm]	9" [230 mm]
C20580	60" [1524 mm]	58" [1473 mm]	60" [1524 mm]	9" [230 mm]

C20579, C20580



PH 1
PH 2
PH 3
PH 5
COMPONENTS
WARRANTY
50

How to use the PH3 Custom Order Chart:

- 1 Choose a: **VALVE MODEL** + **VALVE SIZE** + **CONTROL OPTION** + **MOUNTING GROUP** *
- 2 Place order using PH3 part numbers. *Example PH3 Valve Order:* C50087 C50094 C50117 *
- 3 Choose any other custom valve components. See Component Section.

PH3 POWERHALT SHUT-OFF VALVES CUSTOM ORDER CHART

VALVE MODEL	PH3	PART #	CONTENTS	
VALVE SIZE (OUTSIDE DIMENSION)		C50087	1.75" Valve	
		C50088	2.0" Valve	
		C50089	2.25" Valve	
		C50097	2.5" Valve	
		C50096	2.75" Valve	
		C50090	3.0" Valve	
		C50098	3.5" Valve	
		C50086	4.0" Valve	
CONTROL OPTIONS**	AUTOMATIC + MAGNETIC SENSOR SEE PAGE 45 †	C50094	Automatic Controller Membrane Switch 5' long Harness	
		C50093	Automatic Controller Membrane Switch 10' long Harness	
	MANUAL	C50270	Manual Controller Membrane Switch 5' Harness	
		C50271	Manual Controller Membrane Switch 10' Harness	
		C50272	Manual Controller Toggle Switch 5' Harness	
		C50273	Manual Controller Toggle Switch 10' Harness	
	MOUNTING GROUPS			There are many mounting groups available depending on the application, see the COMPONENT SECTION, page 61-64.

* AUTOMATIC CONTROL OPTIONS MUST ALSO ADD A MAGNETIC PICK-UP, SEE PAGE 45

** PICK THE CONTROL KIT OPTIONS BASED ON THE LENGTH OF HARNESS

† NOT FOR USE WITH VR SENSOR OR R-TERMINAL HARNESS. PLEASE CONTACT POWERHALT REPRESENTATIVE FOR MORE INFORMATION.

PH5 Data Sheet



PH5 AIR INTAKE EMERGENCY SHUT-OFF VALVE

Pacbrake PowerHalt 5 Air Intake Emergency Shut-Off Valve is an electronically controlled emergency engine shutdown system which forces engine shutdown by blocking an engine's air intake path. It is available in an automatic engine speed sensing model where shutdown occurs if engine speed exceeds a pre-set speed (or by manual override). Alternatively, a manual activation only configuration is available where an operator or external input will activate emergency engine shut-down.

- Reliable and safe emergency shut down for diesel engines
- Operator friendly automatic operation with manual reset and override
- Aluminum flap and housing for durable seal
- High temperature design for challenging thermal applications
- In compliance with CSA B621-14 and B622-14
- Corrosion tested to ASTM B117-96 hours Salt Fog
- Designed for 18.6 G_{RMS} vibration (7.7 G_{RMS} for 5" bore)
- Robust design – designed to pass 100k+ fatigue cycles, validated to pass 10k fatigue cycles
- IP67 rated valve enclosure

APPLICATIONS

- Lighting Units
- Bulk Haulers
- Drilling Rigs
- Refinery Processing
- Fueling Vehicles
- Pump Trucks
- Frac Trucks
- Grain Processing Plants
- Ambulances
- Tankers
- Cranes
- Vehicles
- Tow Vehicles
- Fire Trucks
- Work Boats
- Barges
- Lighting Trucks
- Power Generators
- Forklifts
- Welders
- Support Vehicles
- Vacuum Trucks
- Underground Equipment

PRODUCT DESCRIPTION

MAXIMUM INTAKE BOOST AIR PRESSURE*	50 psi [3.45 bar]
CONTINUOUS INTAKE AIR TEMPERATURE	-40°F to 392°F [-55°C to +200°C]
AMBIENT TEMPERATURE RANGE	-40°F to 248°F [-40°C to +120°C]
RESTING POSITION	Valve open
ACTIVATED POSITION	Valve closed
STANDARD MOUNTING FLANGES	Hose to Hose
PIPE SIZES SUPPORTED	Ø 1.75" to Ø 5.5" [Ø 44.5 mm to Ø 140 mm]

VALVE CORE DIMENSIONS

HOSE BORE DIAMETER ØA	VALVE BORE DIAMETER ØB	HEIGHT C	WEIGHT
1.75" [44.5 mm]	1.40" [35.5 mm]	6.06" [154 mm]	3.3 lb [1.49 kg]
2.0" [51 mm]	1.65" [42 mm]	6.06" [154 mm]	3.2 lb [1.47 kg]
2.25" [57 mm]	1.89" [48 mm]	6.06" [154 mm]	3.2 lb [1.45 kg]
2.5" [64 mm]	2.17" [55 mm]	6.89" [175 mm]	3.6 lb [1.64 kg]
2.75" [70 mm]	2.40" [61 mm]	6.89" [175 mm]	3.6 lb [1.62 kg]
3.0" [76 mm]	2.64" [67 mm]	6.89" [175 mm]	3.5 lb [1.59 kg]
3.5" [89 mm]	3.15" [80 mm]	8.07" [205 mm]	4.1 lb [1.88 kg]
4.0" [102 mm]	3.66" [93 mm]	8.07" [205 mm]	3.9 lb [1.79 kg]
5.0" [127 mm]	4.65" [118 mm]	9.09" [231 mm]	4.8 lb [2.17 kg]

PH 1

PH 2

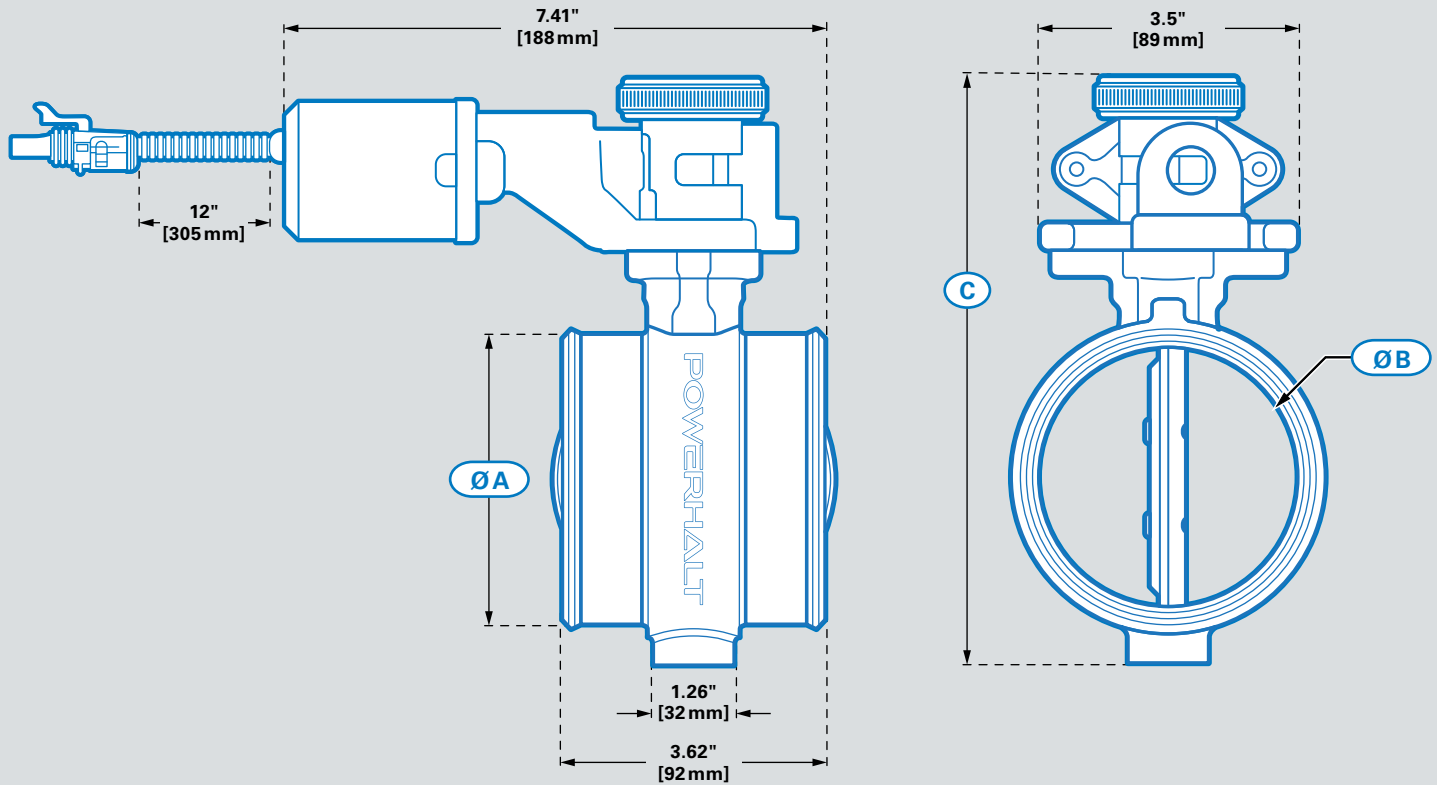
PH 3

PH 5

COMPONENTS

WARRANTY

PHYSICAL CHARACTERISTICS



PH5 VALVES



C50175-12 (12 VDC)
C50175-24 (24 VDC)
1.75"
A Ø: 1.75" [44.5 mm]
B Ø: 1.40" [35.5 mm]
C: 6.06" [154 mm]
Weight: 3.3 lb [1.49 kg]



C50176-12 (12 VDC)
C50176-24 (24 VDC)
2.0"
A Ø: 2.0" [51 mm]
B Ø: 1.65" [42 mm]
C: 6.06" [154 mm]
Weight: 3.2 lb [1.47 kg]



C50177-12 (12 VDC)
C50177-24 (24 VDC)
2.25"
A Ø: 2.25" [57 mm]
B Ø: 1.89" [48 mm]
C: 6.06" [154 mm]
Weight: 3.2 lb [1.45 kg]



C50178-12 (12 VDC)
C50178-24 (24 VDC)
2.5"
A Ø: 2.5" [64 mm]
B Ø: 2.17" [55 mm]
C: 6.89" [175 mm]
Weight: 3.6 lb [1.64 kg]



C50179-12 (12 VDC)
C50179-24 (24 VDC)
2.75"
A Ø: 2.75" [70 mm]
B Ø: 2.4" [61 mm]
C: 6.89" [175 mm]
Weight: 3.6 lb [1.62 kg]



C50180-12 (12 VDC)
C50180-24 (24 VDC)
3.0"
A Ø: 3.0" [76 mm]
B Ø: 2.64" [67 mm]
C: 6.89" [175 mm]
Weight: 3.5 lb [1.59 kg]



C50181-12 (12 VDC)
C50181-24 (24 VDC)
3.5"
A Ø: 3.5" [89 mm]
B Ø: 3.15" [80 mm]
C: 8.07" [205 mm]
Weight: 4.1 lb [1.88 kg]



C50182-12 (12 VDC)
C50182-24 (24 VDC)
4.0"
A Ø: 4.0" [102 mm]
B Ø: 3.66" [93 mm]
C: 8.07" [205 mm]
Weight: 3.9 lb [1.79 kg]



C50183-12 (12 VDC)
C50183-24 (24 VDC)
5.0"
A Ø: 5.0" [127 mm]
B Ø: 4.65" [118 mm]
C: 9.09" [231 mm]
Weight: 4.8 lb [2.17 kg]

For information on Mounting Groups (Hose, Clamps CAC Pipe) see COMPONENT SECTION page 61-64

PH 1
PH 2
PH 3
PH 5
COMPONENTS
WARRANTY

PH5 Specific Components for Automatic Activation

POWERGUARD AUTOMATIC CONTROLLER

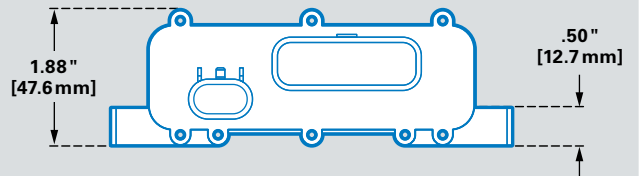
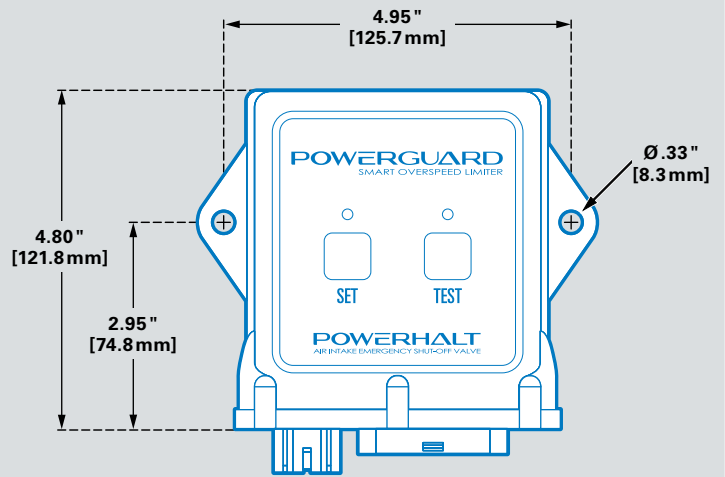
PowerGuard Automatic Control monitors engine speed through a gear tooth sensor mounted to the transmission bell housing using an existing auxiliary port or by the drilling and tapping of a new port. The controller has a programmable trip speed – when the programmed trip speed is exceeded, emergency engine shutdown will occur automatically. Emergency shutdown can be activated at any time through a manual override switch.

- Automatically activates when programmed trip speed is exceeded
- Manual override from cab/panel mounted switch

AUTOMATIC SPECIFICATIONS	
CONTROLLER HOUSING MATERIAL COMPLIANCE	SAE J1455 -40°F to +185°F [-40°C to 85°C]
CONTROLLER VOLTAGE	12/24 VDC (10.8 to 28 VDC)
MAXIMUM RELAY RATING	20 A @ 28 VDC
POWER CONSUMPTION (IDLE)	30 mA max continuous, nominal



**C20568
CONTROLLER**



CRANK POSITION SENSOR T JUMPER

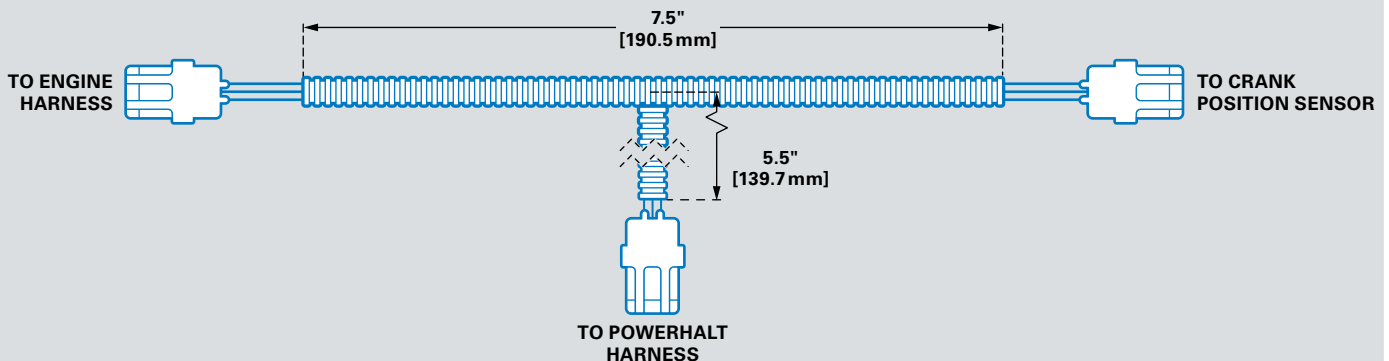


Optional T jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

**C20577
CRANK POSITION SENSOR T JUMPER**

APPLICATION: Cummins ISB, ISC, ISL
NOTE: Crank Position Sensor MUST supply 0-5 VDC Square Wave

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor
ENGINE HARNESS CONNECTOR	Apex 2.8 series (54200315)
CRANK POSITION SENSOR CONNECTOR	Apex 2.8 series (54200315)



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

MAGNETIC PICK UP

- Measures RPM and sends a signal to the PowerGuard switch to shutdown the engine when engine runaway occurs
- Robust designs that are capable of surviving extreme working environments

INSTALLATION TORQUES

THREAD SIZE	INSTALLATION TORQUE
3/8 - 24 UNF	44 ± 4 in-lbf [5.0 ± 0.5 N•m]
5/8 - 18 UNF	18 ± 2 ft-lbf [24.4 ± 2.7 N•m]
3/4 - 16 UNF	60 ± 2 ft-lbf [81.3 ± 2.7 N•m]

VARIABLE RELUCTANCE SENSOR SPECS

MANUFACTURER	Eaton Fuller
MANUFACTURER PART #	4307352
CONNECTOR	Deutsch DT Series, Part # DT06-2S-E003

HALL EFFECT SENSOR SPECIFICATIONS

TEMPERATURE RANGE	-40°F to +221°F [-40°C to 105°C]
SIGNAL OUTPUT	0 to 5 VDC TTL
CONNECTOR	Weather-Pack, Male, 3 Pin (Delphi # 12010717)



C50137
MAG PICK UP ADAPTER
INTERNAL THREAD: 3/8 - 24 UNF
EXTERNAL THREAD: 3/4 - 16 UNF



NOTE: If you have either of the flywheels with the "X" you require C50137 adapter and a C50095 Hall Effect sensor



C50032
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2" [50.8mm]
THREAD: 3/8 - 24 UNF



C50033
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2" [50.8mm]
THREAD: 5/8 - 18 UNF



C50034
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2.5" [63.5mm]
THREAD: 3/4 - 16 UNF



C50095
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 3" [76.2mm]
THREAD: 3/8 - 24 UNF



C50279
MAG PICK UP HALL EFFECT SENSOR
LENGTH: 2.5" [63.5mm]
THREAD: 5/8 - 18 UNF

CRANK POSITION WIRE JUMPER



Optional single wire jumper harness for reading OEM Crank Position Sensor signal. Compatible with C20535 and C20544 harnesses.

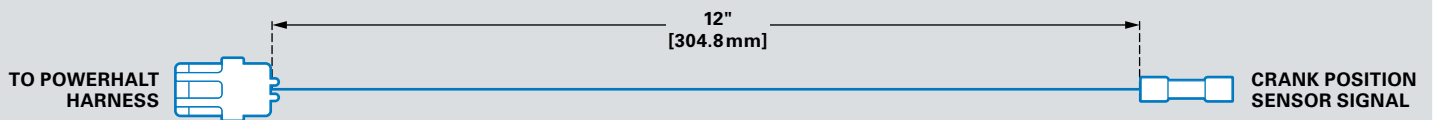
C20656
CRANK POSITION WIRE JUMPER

APPLICATION: Universal

NOTE: Crank Position Sensor MUST supply 0-5 VDC TTL Square Wave

SPECIFICATIONS

TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor



PH5 Specific Components for Automatic/Manual Activation

TOGGLE SWITCH KIT

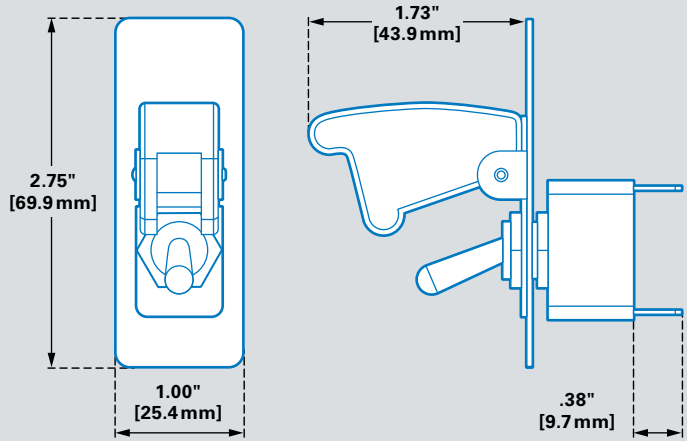


- Military style toggle switch with safety guard to prevent false trip hazards
- Provides means to shut-off the engine or to test the valve
- Pull/Push button options available
- For manual and automatic activation

C50274

TOGGLE SWITCH KIT

Kit Includes: C3716 - Switch
C3717 - Switch Guard
C3816 - Switch Plate



SPECIFICATIONS	
THRU-HOLE DRILL SIZE	.5" [12.7 mm]
TEMPERATURE RATING	-13°F to +176°F [-25°C to +80°C]
RATED CURRENT	6.25 A @ 12 VDC
MOUNTING PANEL THICKNESS	.266" [6.75 mm] Maximum

VALVE POSITION SWITCH (OPTIONAL)



Optional valve position switch, allows for additional indicator of valve position. Switch is supplied with a harness and is easily installed into provision in all PH5 valves. Available in 2 different configurations: Normally Open and Normally Closed.

SPECIFICATIONS	
TEMPERATURE RATING	-40°F to +302°F [-40°C to +150°C]
SUPPLY VOLTAGE	9 to 32 VDC nominal
INGRESS PROTECTION	IP 67
MOUNTING THREADS	M18 x 1.5 6 g
CURRENT RATING	1A
INSTALLATION TORQUE	28 ± 2 in-lbf [38 ± 2.8 N*m]



C50288
VALVE POSITION SWITCH
CONFIGURATION: Normally open



C50289
VALVE POSITION SWITCH
CONFIGURATION: Normally closed

PANEL INDICATOR LIGHT (OPTIONAL)

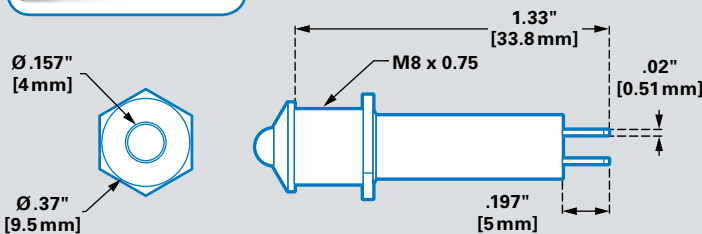


Get instant notification on the status of your PowerHalt Valve with this LED panel indicator warning light for your dash.

C50313
PANEL INDICATOR LIGHT

APPLICATION: PH3 manual with toggle switch

SPECIFICATIONS	
THRU-HOLE DRILL SIZE	.315" [8 mm]
TEMPERATURE RATING	-40°F to +185°F [-40°C to +85°C]
SUPPLY VOLTAGE	12 VDC nominal (10.8 - 13.2 VDC)
CONNECTION	.11" x .02" [2.79 mm x 0.5 mm] quick connect terminals
MOUNTING PANEL THICKNESS	.266" [6.75 mm] maximum



LOW POWER WIRING HARNESS



Custom plug & play wiring harness with weather tight connectors.

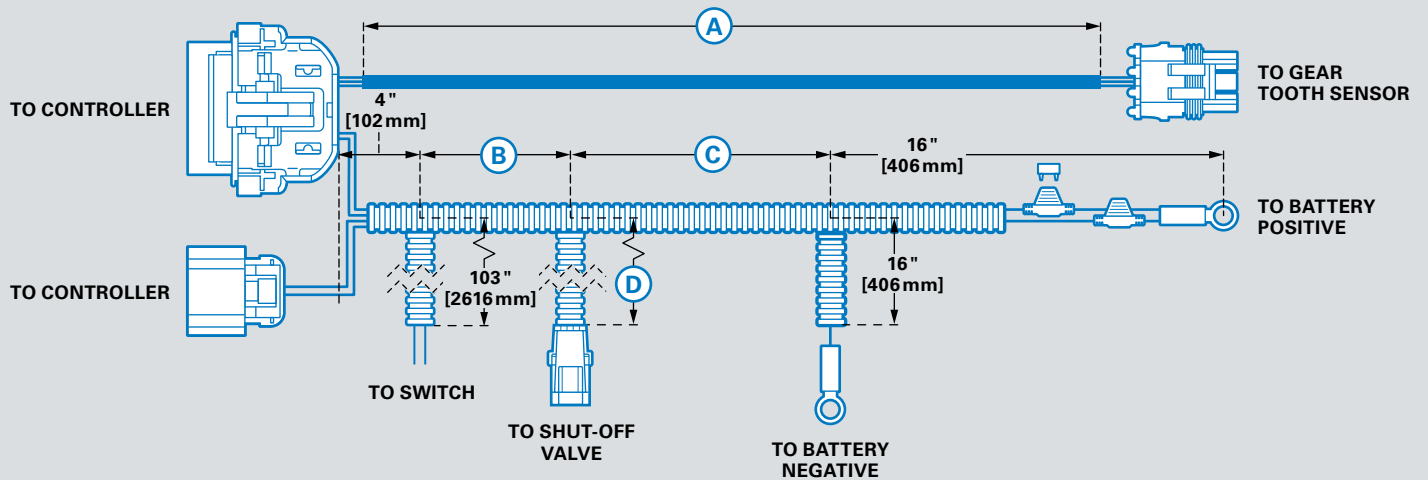
- Sealed connectors
- Environmentally resistant to fuel, oil and solvent compatible

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor

WIRING HARNESS WITH MAGNETIC PICK-UP

PART #	A	B	C	D
C20528	108" [2743 mm]	3.5" [89 mm]	101" [2565 mm]	99" [2515 mm]

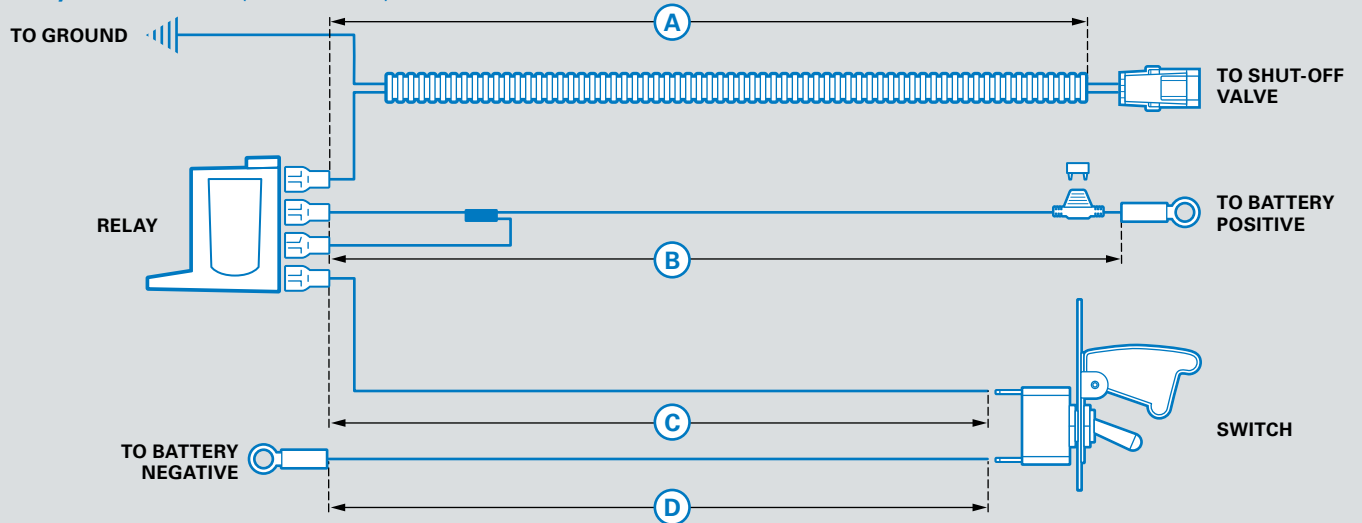
C20528 (AUTOMATIC)



WIRING HARNESS WITHOUT MAGNETIC PICK-UP

PART #	A	B	C	D
C20527 (12 VDC)	150" [3810 mm]	53" [1346 mm]	96" [2438 mm]	84" [2134 mm]
C20527-24 (24 VDC)	150" [3810 mm]	53" [1346 mm]	96" [2438 mm]	84" [2134 mm]

C20527, C20527-24 (MANUAL)



PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

HIGH POWER WIRING HARNESS



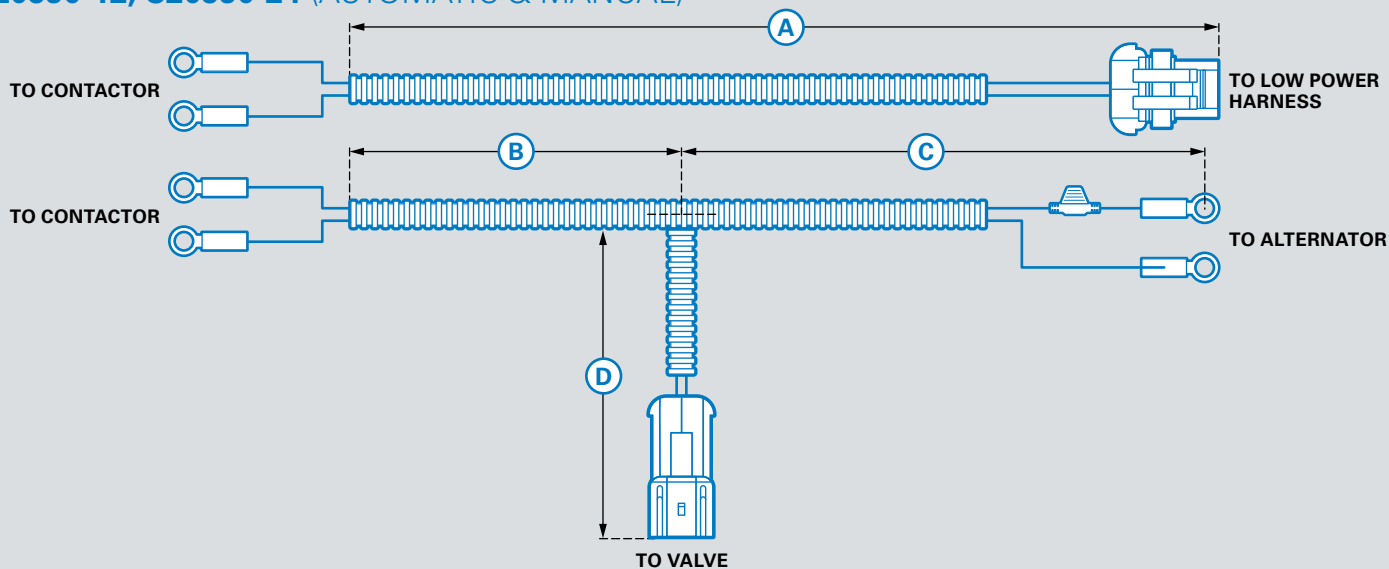
Used in conjunction with the low power wiring harness, to supply high power current to the PH5 solenoid. Integrates with existing low power wiring harness.

- Sealed connectors
- Environmentally resistant to fuel, oil and solvent compatible

SPECIFICATIONS	
TEMPERATURE RATING (CONTINUOUS)	-40°F to +221°F [-40°C to +105°C]
FLAMMABILITY RATING	FT2
ROHS COMPLIANT	Yes
WIRING	SAE J1128, Tinned Copper Conductor

PART #	WIRING HARNESS WITH MAGNETIC PICK-UP			
	A	B	C	D
C20590-12 (12 VDC)	12" [305 mm]	96" [2438 mm]	48" [1219 mm]	6" [152 mm]
C20590-24 (24 VDC)	12" [305 mm]	96" [2438 mm]	48" [1219 mm]	6" [152 mm]

C20590-12, C20590-24 (AUTOMATIC & MANUAL)



CONTACTOR



The contactor relay works in conjunction with the PH5 high power wiring harness.

C50302-12
12 VDC CONTACTOR
 APPLICATION: PH5 12 VDC valve
 ELECTRIC CYCLE LIFE: 100,000
 RESISTANCE 5.4 Ω @ 25°C

C50302-24
24 VDC CONTACTOR
 APPLICATION: PH5 24 VDC valve
 ELECTRIC CYCLE LIFE: 60,000
 RESISTANCE 20.1 Ω @ 25°C

SPECIFICATIONS	
MAX DUTY CYCLE	25% Duty Cycle
MAX ON TIME	6 min
CURRENT RATING	Carry/Interrupt: 150/250 A
TEMPERATURE RANGE	-40 to 82°C
SEALED	IP66 & IP67 Rating
STUD SIZE	Contact: 5/16"-24
TORQUE	Contact: 45 in-lb MAX
STUD SIZE	Coil: #10-32
TORQUE	Coil: 15 in-lb MAX

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

How to use the PH5 Custom Order Chart:

- 1 Choose a: **VALVE MODEL** + **VALVE SIZE** + **CONTROL OPTION** + **MOUNTING GROUP** *
- 2 Place order using PH5 part numbers. *Example PH5 Valve Order:* C50175-12 C50304A-12 C50117 *
- 3 Choose any other custom valve components. See Component Section.

PH5 POWERHALT SHUT-OFF VALVES CUSTOM ORDER CHART

VALVE MODEL	PH5	PART #	CONTENTS
VALVE SIZE (OUTSIDE DIMENSION)		C50175-12 (12 VDC) C50175-24 (24 VDC)	1.75" Valve
		C50176-12 (12 VDC) C50176-24 (24 VDC)	2.0" Valve
		C50177-12 (12 VDC) C50177-24 (24 VDC)	2.25" Valve
		C50178-12 (12 VDC) C50178-24 (24 VDC)	2.5" Valve
		C50179-12 (12 VDC) C50179-24 (24 VDC)	2.75" Valve
		C50180-12 (12 VDC) C50180-24 (24 VDC)	3.0" Valve
		C50181-12 (12 VDC) C50181-24 (24 VDC)	3.5" Valve
		C50182-12 (12 VDC) C50182-24 (24 VDC)	4.0" Valve
		C50183-12 (12 VDC) C50183-24 (24 VDC)	5.0" Valve
CONTROL OPTIONS**	AUTOMATIC + MAGNETIC SENSOR SEE PAGE 55	C50304A-12	Automatic Controller Toggle Switch 12 VDC Harnesses
		C50304A-24	Automatic Controller Toggle Switch 24 VDC Harnesses
	MANUAL	50304-12	Toggle Switch 12 VDC Harnesses
		50304-24	Toggle Switch 24 VDC Harnesses
MOUNTING GROUPS			There are many mounting groups available depending on the application, see the COMPONENT SECTION, page 61-64.

* AUTOMATIC CONTROL OPTIONS MUST ALSO ADD A MAGNETIC PICK-UP, SEE PAGE 55
 ** PICK THE CONTROL KIT OPTIONS BASED ON THE LENGTH OF HARNESS

HEAVY DUTY CLAMPS

Pacbrake offers two types of heavy duty clamps: spring loaded t-bolt or constant tension gear clamps. These clamps are designed to compensate for fluctuations in hose line assemblies. When temperature and/or pressure changes cause hose lines to expand or contract, Pacbrake's clamps adjust accordingly to provide consistent band tension.



**C3975
GEAR CLAMP**
Min: 1.75" [44.5 mm]
Max: 2.625" [66.7 mm]
Band width: 0.625"
[15.9 mm]
SAE: 262



**C3976
GEAR CLAMP**
Min: 2.25" [57.2 mm]
Max: 3.125" [79.4 mm]
Band width: 0.625"
[15.9 mm]
SAE: 312



**C3873
SPRING LOADED**
Min: 3.25" [82.6 mm]
Max: 3.563" [90.5 mm]
Band width: 0.75"
[19.1 mm]
SAE: 76



**C3977
SPRING LOADED**
Min: 3.875" [98.4 mm]
Max: 4.188" [106.4 mm]
Band width: 0.75"
[19.1 mm]
SAE: 96



**C3878
SPRING LOADED**
Min: 4.5" [114.3 mm]
Max: 4.813" [122.2 mm]
Band width: 0.75"
[19.1 mm]
SAE: 116



**C3881
SPRING LOADED**
Min: 5.25" [133.4 mm]
Max: 5.563" [141.3 mm]
Band width: 0.75"
[19.1 mm]
SAE: 140



**C3798
SPRING LOADED**
Min: 5.75" [146 mm]
Max: 6.06" [154 mm]
Band width: 0.75"
[19.1 mm]
SAE: 156



**C3871
SPRING LOADED**
Min: 2.75" [69.9 mm]
Max: 3.063" [77.8 mm]
Band width: 0.75"
[19.1 mm]
SAE: 60



**C3874
SPRING LOADED**
Min: 3.5" [88.9 mm]
Max: 3.813" [96.8 mm]
Band width: 0.75"
[19.1 mm]
SAE: 84



**C3876
SPRING LOADED**
Min: 4.063" [103.2 mm]
Max: 4.375" [111.1 mm]
Band width: 0.75"
[19.1 mm]
SAE: 102



**C3879
SPRING LOADED**
Min: 4.75" [120.7 mm]
Max: 5.063" [128.6 mm]
Band width: 0.75"
[19.1 mm]
SAE: 124



**C3882
SPRING LOADED**
Min: 5.5" [139.7 mm]
Max: 5.813" [147.6 mm]
Band width: 0.75"
[19.1 mm]
SAE: 148



**C3872
SPRING LOADED**
Min: 3.0" [76.2 mm]
Max: 3.313" [84.1 mm]
Band width: 0.75"
[19.1 mm]
SAE: 68



**C3875
SPRING LOADED**
Min: 3.75" [95.3 mm]
Max: 4.063" [103.2 mm]
Band width: 0.75"
[19.1 mm]
SAE: 92



**C3877
SPRING LOADED**
Min: 4.125" [104.8 mm]
Max: 4.438" [112.7 mm]
Band width: 0.75"
[19.1 mm]
SAE: 104



**C3880
SPRING LOADED**
Min: 5.125" [130.2 mm]
Max: 5.438" [138.1 mm]
Band width: 0.75"
[19.1 mm]
SAE: 136



**C3883
SPRING LOADED**
Min: 5.688" [144.5 mm]
Max: 6.0" [152.4 mm]
Band width: 0.75"
[19.1 mm]
SAE: 154

CONSTANT TENSION GEAR CLAMPS	
STANDARD	SAE J1508 Type SLHD
SAE SIZES	262, 312
SIZE RANGE	1.75" to 3.125" [44.5 mm to 79.4 mm]
INSTALLATION TORQUE	70 in-lbf [7.9 N•m]

SPRING LOADED T-BOLT CLAMPS	
STANDARD	SAE J1508 Type SLTB
SAE SIZES	60, 68, 76, 84, 92, 96, 102, 104, 116, 124, 136, 140, 148, 154, 156
SIZE RANGE	2.75" to 6.06" [69.9 mm to 154 mm]
INSTALLATION TORQUE	70 in-lbf [7.9 N•m]

PH 1

PH 2

PH 3

PH 5

COMPONENTS

WARRANTY

PowerHalt Components

MOUNTING KITS



- The mounting kit comes with the appropriate mounting group to include 2 hoses and 4 clamps, ensuring a successful installation into your system
 - Adapters and piping are also available as separate options
- For special application requirements, please contact your PowerHalt sales representative**

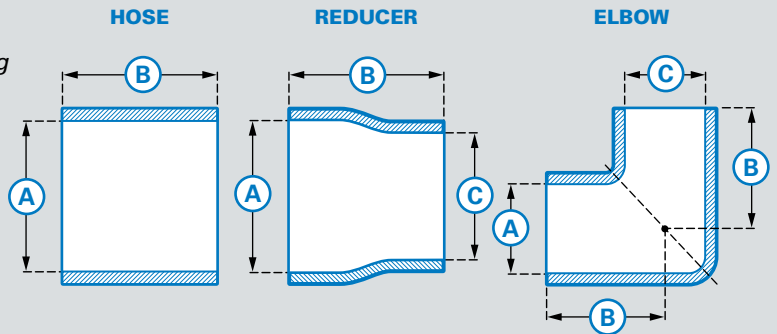
MOUNTING KITS (comes with 2 silicone hoses and 4 clamps)		
VALVE SIZE	DESCRIPTION	PART #
1.75"	To 1.75" Pipe (Straight Hose)	C50117
2.0"	To 2.0" Pipe (Straight Hose)	C50118
2.25"	To 2.25" Pipe (Straight Hose)	C50119
2.5"	To 2.5" Pipe (Straight Hose)	C50116
2.8"	To 2.5" Pipe (Reducer Hose)	C50100
	To 2.75" Pipe (Straight Hose)	C50101
3.0"	To 3.0" Pipe (Straight Hose)	C50105
	To 3.0" Pipe (Reducer Hose)	C50103
3.5"	To 3.5" Pipe (Straight Hose)	C50104
	To 3.5" Pipe (Reducer Hose)	C50106
4.0"	To 4.0" Pipe (Straight Hose)	C50107
	To 4.5" Pipe (Reducer Hose)	C50108
	To 4.5" Pipe (Reducer Hose)	C50109
5.0"	To 5.0" Pipe (Straight Hose)	C50110
	To 5.5" Pipe (Reducer Hose)	C50111
5.5"	To 5.5" Pipe (Straight Hose)	C50112

SILICONE HOSES & REDUCERS



Pacbrake's silicone hoses are designed to operate under the most extreme conditions found anywhere in a modern engine. For use where connections are required between rigid or flexible metal pipes. Hoses and reducers are ideal for joining pipes of similar or differing diameters.

SPECIFICATIONS	
TEMPERATURE RATING	-67°F to 347°F [-55°C to 175°C]
PRESSURE RATING	Conforms to SAE J20 (20R1 HD SW)
HOSE SIZES	1.5" to 5.5" [38 mm to 139.7 mm]



C3912
HOSE-1.75"
A: 1.75" [44.5 mm]
B: 3.0" [76.2 mm]



C3913
HOSE-2.0"
A: 2.0" [50.8 mm]
B: 3.0" [76.2 mm]



C3914
HOSE-2.25"
A: 2.25" [57.2 mm]
B: 3.0" [76.2 mm]



C3997
HOSE-2.5"
A: 2.5" [63.5 mm]
B: 3.0" [76.2 mm]



C3784
HOSE-2.75"
A: 2.75" [69.9 mm]
B: 3.0" [76.2 mm]



C3828
HOSE-3.0"
A: 3.0" [76.2 mm]
B: 3.0" [76.2 mm]



C3789
HOSE-3.5"
A: 3.5" [88.9 mm]
B: 3.0" [76.2 mm]

PH 1
PH 2
PH 3
PH 5
COMPONENTS
WARRANTY



C3859
HOSE - 3.5"
A: 3.5" [88.9 mm]
B: 4.0" [101.6 mm]



C3792
HOSE - 4.0"
A: 4.0" [101.6 mm]
B: 3.0" [76.2 mm]



C3797
HOSE - 5"
A: 5.0" [127 mm]
B: 3.0" [76.2 mm]



C5009
HOSE - 5.5"
A: 5.5" [139.7 mm]
B: 3.0" [76.2 mm]



C4070
REDUCER
A: 1.75" [44.5 mm]
B: 3.0" [76.2 mm]
C: 1.5" [38.1 mm]



C4108
REDUCER
A: 2.5" [63.5 mm]
B: 3.0" [76.2 mm]
C: 1.75" [44.5 mm]



C3835
REDUCER
A: 2.75" [69.9 mm]
B: 3.0" [76.2 mm]
C: 1.75" [44.5 mm]



C3783
REDUCER
A: 2.75" [69.9 mm]
B: 3.0" [76.2 mm]
C: 2.5" [63.5 mm]



C3786
REDUCER
A: 3.0" [76.2 mm]
B: 3.0" [76.2 mm]
C: 2.75" [69.9 mm]



C3866
REDUCER
A: 3.5" [88.9 mm]
B: 3.0" [76.2 mm]
C: 2.5" [63.5 mm]



C3831
REDUCER
A: 3.5" [88.9 mm]
B: 3.0" [76.2 mm]
C: 2.75" [69.9 mm]



C3788
REDUCER
A: 3.5" [88.9 mm]
B: 3.0" [76.2 mm]
C: 3.0" [76.2 mm]



C3860
REDUCER
A: 3.5" [88.9 mm]
B: 3.0" [76.2 mm]
C: 3.25" [82.6 mm]



C3861
REDUCER
A: 3.75" [95.3 mm]
B: 3.0" [76.2 mm]
C: 3.5" [88.9 mm]



C3791
REDUCER
A: 4.0" [101.6 mm]
B: 3.0" [76.2 mm]
C: 3.5" [88.9 mm]



C3862
REDUCER
A: 4.0" [101.6 mm]
B: 3.0" [76.2 mm]
C: 3.75" [95.3 mm]



C3863
REDUCER
A: 4.25" [108 mm]
B: 3.0" [76.2 mm]
C: 4.0" [101.6 mm]



C3794
REDUCER
A: 4.5" [114.3 mm]
B: 3.0" [76.2 mm]
C: 4.0" [101.6 mm]



C3796
REDUCER
A: 5.0" [127 mm]
B: 3.0" [76.2 mm]
C: 4.5" [114.3 mm]



C3864
REDUCER
A: 5.0" [127 mm]
B: 3.0" [76.2 mm]
C: 4.75" [120.7 mm]



C3865
REDUCER
A: 5.25" [133.4 mm]
B: 3.0" [76.2 mm]
C: 5.0" [127 mm]



C3799
REDUCER
A: 5.5" [139.7 mm]
B: 3.0" [76.2 mm]
C: 5.0" [127 mm]



C3832
120° ELBOW
A: 2.75" [69.9 mm]
B: 5.0" [127 mm]
C: 2.75" [69.9 mm]



C3857
90° ELBOW
A: 3.0" [76.2 mm]
B: 5.0" [127 mm]
C: 2.75" [69.9 mm]



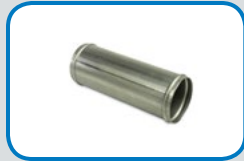
C3834
90° ELBOW
A: 3.5" [88.9 mm]
B: 5.0" [127 mm]
C: 2.75" [69.9 mm]



C3829
90° ELBOW
A: 3.5" [88.9 mm]
B: 5.0" [127 mm]
C: 3.0" [76.2 mm]

CAC PIPE

- AISI 409 stainless steel
- Pre beaded pipe ends
- Mandrel bent



**C3830
CAC PIPE**
Replacement Pipe
For Kit #:
C50202 & C50202A



**C3827
CAC PIPE**
Replacement Pipe
For Kit #:
C50201 & C50201A



**C3826
CAC PIPE**
Replacement Pipe
For Kit #:
C50200 & C50200A



**C3833
CAC PIPE**
Replacement Pipe
For Kit #:
C50204, C50204A &
C50254A



**C3884
CAC PIPE**
Replacement Pipe
For Kit #:
C50203 & C50203A

BEAD RING KITS

- Reduce the chances of blowing silicone hoses off
- Easy to install (tack weld in) bead rings
- Each kit contains two rings



**C50138
BEAD RING KIT**
Pipe Size: 2.5" [63.5mm]



**C50139
BEAD RING KIT**
Pipe Size: 3.0" [76.2mm]



**C50140
BEAD RING KIT**
Pipe Size: 3.5" [88.9mm]



**C50141
BEAD RING KIT**
Pipe Size: 4.0" [101.6mm]



**C50142
BEAD RING KIT**
Pipe Size: 4.5" [114.3mm]



**C50143
BEAD RING KIT**
Pipe Size: 5.0" [127mm]

POWERHALT

AIR INTAKE EMERGENCY SHUT-OFF VALVES *by PACBRAKE*

Diesel Engines are used in many work places where combustible gases and vapors exist. Such environments are prone to conditions for engine runaway, resulting in catastrophic loss to life and property. Because of this risk, governments and industries now mandate operators to utilize Emergency Shut -Off Valve as a safety device.

ELIMINATING THE RISK OF

DIESEL ENGINE RUNAWAY

CUSTOMER INFORMATION

Company Name _____ Email _____
 Buyers Name _____ Phone Number _____
 Buyers Title _____ Fax _____
 Company Address _____
 Product Ship-To Address _____
 Special Shipping Instructions/Packaging _____

APPLICATION INFORMATION

Ground (Stationary) Ground (Mobile) Marine

Additional Application Information? _____

ENGINE INFORMATION

Engine Make _____ Engine Year _____
 Model _____ Serial/VIN # _____
 Any Additional Add-On Aftermarket Performance Products on the Engine? _____

AIR INTAKE SYSTEM INFORMATION [at shut-off valve location(s)]

Intake Air Temperature _____ Intake Air Pressure _____
 Intake Pipe Material _____
 Intake Pipe Outside Diameter _____ Hose Inside Diameter _____

ENGINE SYSTEM CONTROL INFORMATION

Preferred Activation Type:

Electric Pull Cable Pneumatic
 12VDC 24VDC Pull Cable Length _____ Available Pressure _____

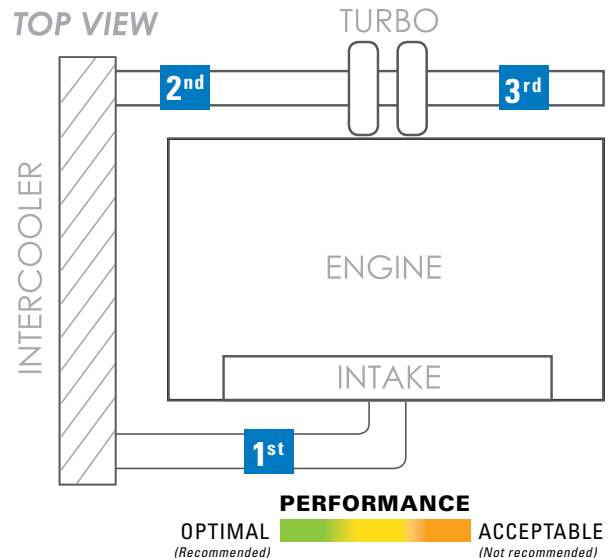
Automatic Control Option? Yes No _____
 Magnetic Pick-Up for RPM Sensing Can Be Installed? (PowerGuard Kit) Yes No _____

Additional Valve Features Required:

Auto-Reset Function Fuel Shutdown Function Proximity Switch with Valve Position Sensing

In order of preferred location to least preferred

- 1st POST INTERCOOLER**
 - Low Plumbing Leakage Risk
 - Moderate Charge Air Temperature
 - Fast Shutdown Response Time
- 2nd POST TURBO**
 - Moderate Plumbing Leakage Risk
 - High Charge Air Temperature
 - Moderate Shutdown Response Time
- 3rd PRE TURBO**
 - High Plumbing Leakage Risk
 - Low Charge Air Temperature
 - Slow Shutdown Response Time



Pacbrake's heavy duty product lines include braking, air management, shut-off valves & vehicle accessories.



AMP AIR SOLUTIONS

by Pacbrake

QUALITY AIR MANAGEMENT PRODUCTS FROM A NAME YOU TRUST



PACPRO

PERFORMANCE PARTS by PACBRAKE



AIR HORNS



LEVELING KITS



SPRING KITS



MAX FLOW ELBOW



TIE ROD SLEEVES



REMOTE OIL FILTER



SWITCHES

EXHAUST & ENGINE BRAKES

PACBRAKE'S HEAVY DUTY BRAKING FOR HEAVY DUTY HAULING



EXHAUST BRAKES



LOADLEASH



ENGINE BRAKES



REPLACEMENT PARTS