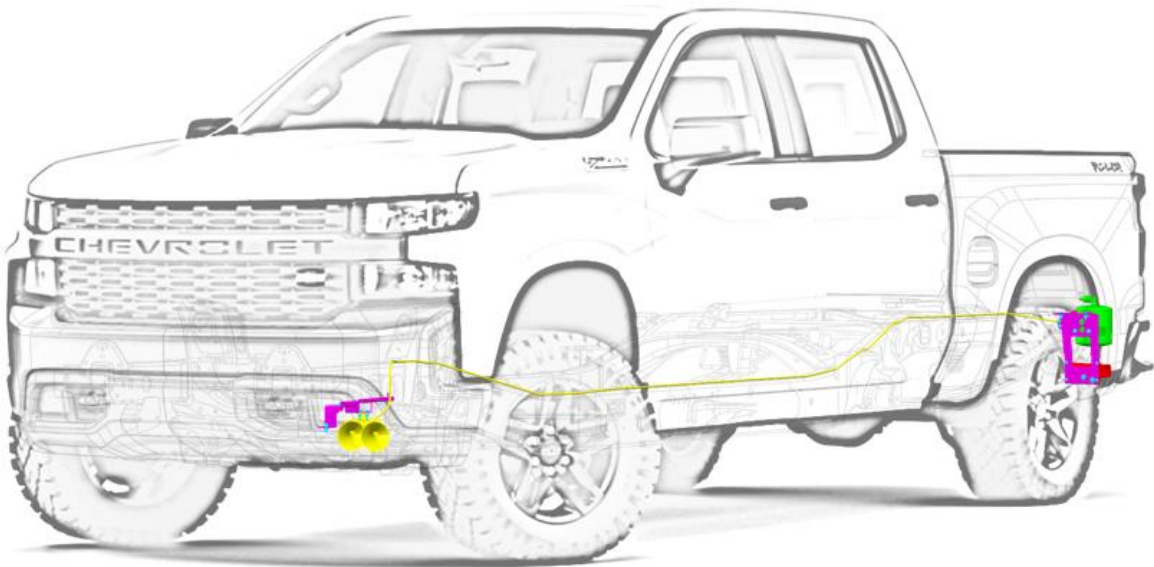




GMTRK4 INSTALLATION MANUAL

REV: BETA (4/4/2020)



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GMTRK4

Installation and Operation Manual

Table of Contents

1. LIST OF FIGURES
2. How to Use this Manual
 - 2.1. Interactive Manual using Adobe Reader
 - 2.2. Your Kit SKU Number and this Manual
 - 2.3. Illustration/Photo Details and Orientation
3. Safety First
4. Application Chart
 - 4.1. Bolt-On Vehicle List
 - 4.2. **Excluded Vehicles
 - 4.3. Aftermarket Product Compatibility
5. Installation Overview
 - 5.1. Kit Layout and System Location(s)
 - 5.2. Install Process Outline
 - 5.3. Approximate Installation Time
6. List of Tools and Supplies
 - 6.1. Standard Tool List (Required)
 - 6.2. Special Tool List (Recommended)
 - 6.3. Shop Consumables List (Recommended)
7. Parts List
 - 7.1. Before Starting, Review Parts List
 - 7.2. Pre-Packaged Electro-Mechanical Kit Items
 - 7.3. Air Fittings and Related Items
 - 7.4. Electrical Small Components and Related Items
 - 7.5. Bolt-On Mounting Brackets & Special Hardware
 - 7.6. Hardware, Fasteners and Soft Parts
 - 7.7. Add-On Accessories
8. Bench Assembly
 - 8.1. Assemble Air Fittings to Air Tank
 - 8.2. Assemble Air Filter to Air Compressor
 - 8.3. Disassemble Trumpets from Air Horn Drivers
 - 8.4. Assemble Air Horn Driver to Horn Bracket (GMTRK-4-301)
 - 8.5. Insert Square Neck Bolts onto Brackets (GMTRK-4-102, 201)
9. On-Vehicle Mechanical Assembly
 - 9.1. Trim Driver's Side OE Leaf Spring Shackle Bolt
 - 9.2. Install Air Tank & Compressor Bracket (GMTRK-4-201) & Bolt Plate (-102)
 - 9.3. Install Air Tank
 - 9.4. Install Air Compressor
 - 9.5. Connect Air Compressor Leader Hose to Air Tank
 - 9.6. Remove OE Engine Shield & OE Clip-On Nut
 - 9.7. Install Air Horn Driver Sub-Assembly & Connect Air Tubing
 - 9.8. Connect Air Horn Tubing to Air Tank
 - 9.9. Final Trumpet Installation



GMTRK4

Installation and Operation Manual

10. On-Vehicle Electrical Installation
 - 10.1. Relay and Fuse Diagram for Air Horn System
 - 10.2. Suggested Wire Routing for Air Horn System
 - 10.3. Disconnect Vehicle Battery(s)
 - 10.4. Connect Wiring to Fuse and Relay
 - 10.5. Install Horn Button
 - 10.6. Connect Pressure Switch
 - 10.7. Connect Air Compressor
 - 10.8. Connect Air Horn Solenoid(s)
 - 10.9. Secure Wiring to Vehicle
11. Final Steps & Testing
 - 11.1. Reconnect Vehicle Battery(s)
 - 11.2. Test Air Compressor
 - 11.3. Test Train Horns
 - 11.4. Test Quick Connect Coupler
12. General Operation
 - 12.1. Compressor Operation
 - 12.2. Horn Operation
13. Routine Maintenance
14. Warranty Information

End of Table of Contents



GMTRK4

Installation and Operation Manual

1. LIST OF FIGURES

- Figure 1 – Above Vehicle View Showing Kit Layout (2019 Silverado 1500 Crew Cab Short Bed Shown)
- Figure 2 – Under Vehicle View of Air Horn Installed – Behind Front Bumper (2020 Silverado Shown)
- Figure 3 – Under Vehicle view of Air Tank Installed – Behind Driver Bed Side (2020 Silverado Shown)
- Figure 4 – Under Vehicle view of Air Compressor Installed – Behind Driver Wheel (2020 Silverado Shown)
- Figure 5 – Air Fittings installed on Air Tank (Side Exploded view, as shown resting on bench)
- Figure 6 – Air Fittings Orientation (Top, Back & Inboard view, as shown if installed in Vehicle)
- Figure 7 – Air Compressor remote Air Filter and Tubing (shown without Air Compressor)
- Figure 8 – Removing Trumpets from Air Horn Driver, Exploded View
- Figure 9 – Air Horn Fitting Orientation (Air Horn Driver shown assembled to Bracket as if sitting on bench)
- Figure 10 – Air Horn Driver Assembled to Bracket (Exploded View)
- Figure 11 – GMTRK-4-102 Plate with Bolts pressed in place (Exploded View)
- Figure 12 – GMTRK-4-201 Tank Bracket with Bolts pressed in place (Exploded View)
- Figure 13 – Underbody view of Driver's side Leaf Spring Shackle Bolt (2020 Silverado shown)
- Figure 14 – Underbody view of Driver's side Leaf Spring Shackle Bolt trimmed (2020 Silverado shown)
- Figure 15 – Underbody view of Driver's side mounting holes (2020 Silverado shown)
- Figure 16 – Installing GMTRK-4-102 Bolt Plate (2020 Silverado shown)
- Figure 17 – Air Tank & Compressor Bracket installation (Exploded View)
- Figure 18 – Air Tank Bracket installed onto OE Rock Guard (2020 Silverado Shown)
- Figure 19 – Installing Air Tank onto Air Tank Bracket (2020 Silverado Shown)
- Figure 20 – Air Tank Assembly onto Bracket (Exploded View)
- Figure 21 – Air Compressor Assembly onto Bracket (Exploded View)
- Figure 22 – Air Compressor Leader Hose Route & Zip Ties (Shown as if installed in vehicle)
- Figure 23 – Engine Shield Bolts removal (2020 Silverado 5.3L Shown)
- Figure 24 – Engine Shield Clip-On Nut removal; Hardware H6 & H9 shown installed (2020 Silverado Shown)
- Figure 25 – Air Horn Sub-Assembly installed over Frame with H12 Clip-On Nut (2020 Silverado Shown)
- Figure 26 – Air Horn Sub-Assembly installed with Engine Shield in place (2020 Silverado Shown)
- Figure 27 – Installing Air Horn Sub-Assembly over Frame (Exploded View)
- Figure 28 – Connecting Air Tubing to Air Horn Driver (Shown as if installed in vehicle)
- Figure 29 – 102 Air Horn Tubing Routed through Front Suspension Tower (Shown as if installed on Vehicle)
- Figure 30 – Air Tank Air Tubing Route with Rubber Grommets (Shown as if installed in vehicle)
- Figure 31 – Re-attaching Trumpets (Exploded View shown as if installed in vehicle)
- Figure 32 – Suggested Ignition Relay Diagram for Air Horn System (Single 220 Horn Shown)
- Figure 33 – Suggested Wire Routing for Horn, Air Compressor, and Pressure Switch (GMTRK4 Shown)
- Figure 34 – Relay and Fuse location example under hood (2020 Silverado 5.3L Shown)
- Figure 35 – Horn Button Installed in Dash and OE Upfitter Switches (Shown in example vehicles)

End of Figures



GMTRK4

Installation and Operation Manual

2. How to Use this Manual

2.1. Interactive Manual using Adobe Reader

It is recommended to open this digital PDF using Adobe Reader[®] to take advantage of following key features:

- **Hyperlinks** ([blue underlined text](#)) allow access to additional content via internet; click/tap to activate
 - Includes [Installation Figures](#) and "[Figure xx](#)"
 - **Table of Contents** page allows easily navigating this manual; click/tap any section line to go to it
 - **Bookmarks** allow quickly navigating to any section; click/tap
 - **Zoom IN** on pictures by pressing "CTRL and +" at same time on PC, or pinch in on smart devices
 - **Zoom OUT** on pictures by pressing "CTRL and -" at same time on PC, or pinch out on smart devices
-

2.2. Your Kit SKU Number and this Manual

This manual covers installation, testing, and operation of following SKU part numbers

2.2.1. **GMTRK4** (i.e., 102 Train Horn System)

NOTE: Illustrations and pictures contained herein may represent only one kit part number. Where critical differences exist between kits (i.e., different parts, orientation, mounting points, etc.), additional text, or necessary graphics are provided to minimize confusion.

Parts list explicitly state kit differences with **(BOLD TEXT)** inside parenthesis, shown below part number.

2.3. Illustration/Photo Details and Orientation

This manual may use digitally created illustrations, and/or actual photos of example vehicle. These graphics may not include exact items found on your vehicle (i.e., electrical wiring, fuel lines, body panels, etc.). Illustrations typically will be missing details and are for clarity to show critical mounting locations and orientation on vehicle.



Throughout manual yellow arrows with text reading "FRONT", may be present over illustrations and pictures. These arrows specify direction toward front of vehicle and provide clarity to how illustration is viewed.



GMTRK4

Installation and Operation Manual

3. Safety First

Read manual thoroughly before starting installation of this kit. Verify you have all parts listed and that you clearly understand this installation procedure. Contact Kleinn technical support for any questions.

Installation of this kit requires **moderate mechanical aptitude**; seek professional help if you're not competent using hand tools in tight uncomfortable spaces, and around possibly rusted and sharp vehicle parts.

Before starting, obtain proper tools required to perform installation correctly, adequate lighting, eye protection, hearing protection for operating train horns, and hand protection to guard against sharp edges and metal burrs, which may be present on kit parts and vehicle parts.

Throughout this manual the following words may be used; be aware of their meaning and application.

CAUTION: means damage could occur to vehicle, or kit parts during, or after installation

WARNING: means injury could occur to you or others, including damage to vehicle, or kit parts

DANGER: means serious injury or death could occur to you or others during installation

End of Section



GMTRK4

Installation and Operation Manual

4. Application Chart

4.1. Bolt-On Vehicle List

GMTRK4 is a direct bolt-on aftermarket product for GM vehicles listed in below chart; every effort has been made to verify correct fitment on these vehicles in their factory, non-modified conditions.

MODEL YR	MODEL	DRIVE	ENGINE	BODY	TRIM
2019-2020	SILVERADO 1500	ALL	ALL	ALL	ALL**
2019-2020	SIERRA 1500	ALL	ALL	ALL	ALL**

NOTE: All vehicles listed may require drilling holes for ground wires and installing switches, based on preference of installed switch locations and wire grounding points.

It is also recommended to shorten one OE Bolt by cutting/grinding its non threaded end to provide Air Tank clearance – see Mechanical Assembly section.

4.2. **Excluded Vehicles

4.2.1. N/A

4.3. Aftermarket Product Compatibility

4.3.1. This kit has been designed to be compatible with following products from leading manufacturers:

- Most aftermarket suspension systems that directly-bolt on (i.e., utilize OE mounting points)
- Aftermarket power steps and rocker steps/running boards
- Aftermarket exhaust systems

4.3.2. **This kit has NOT been designed** to be compatible with any of the following products:

- Aftermarket front bumpers that do not have same empty space behind Driver's side of OE bumper
- Aftermarket fender flares that require cutting rear bed sides and OE rock guarding

NOTE: Review this manual in full before unpacking items and verify correct space and mounting locations exist with your aftermarket product(s). *To install this kit alongside your other aftermarket product(s), modification to included parts, your vehicle, or aftermarket product(s) may be required.*

End of Section



GMTRK4

Installation and Operation Manual

5. Installation Overview

5.1. Kit Layout and System Location(s)

GMTRK4 consists of following components, located on vehicle, as follows:

ITEM	DESCRIPTION	VEHICLE LOCATION	MOUNTING METHOD	APPROX. INSTALL TIME
1	6260RC Air Compressor	Underbody, Driver Side <i>(behind Rear Tire, inside Bed Side)</i>	Bracket bolts to Bed & Wheel Rock Guard	1-2 Hours
2	6260RT .5 Gal. Air Tank	Underbody, Driver Side <i>(behind Rear Tire, inside Bed Side)</i>	Bracket bolts to Bed & Wheel Rock Guard	1-2 Hours
3	102 Series Air Horn with Air Solenoid	Front Bumper, Driver Side <i>(behind Bumper, outside Frame)</i>	Bracket bolts to Frame above Engine Shield	1-2 Hours

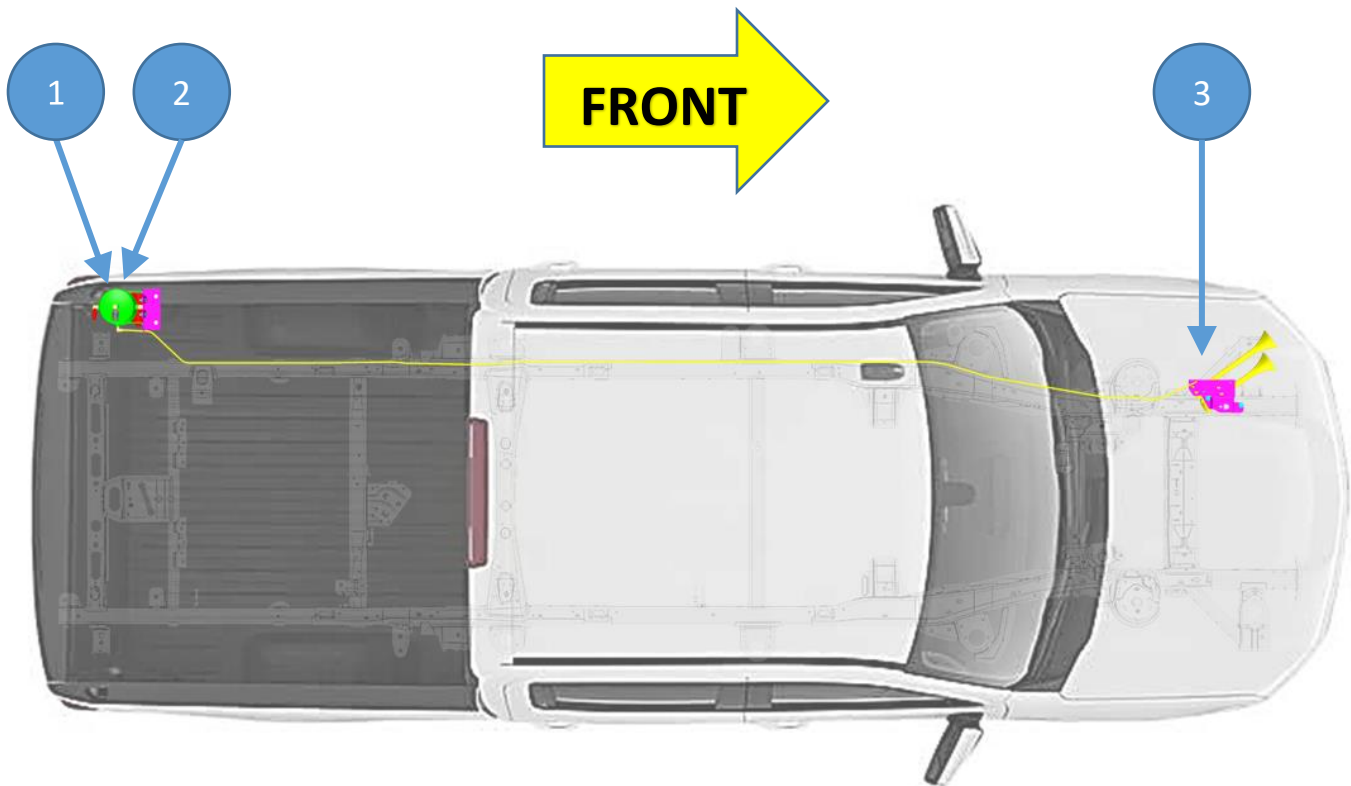


Figure 1 – Above Vehicle View Showing Kit Layout (2019 Silverado 1500 Crew Cab Short Bed Shown)



Figure 2 – Under Vehicle View of Air Horn Installed – Behind Front Bumper (2020 Silverado Shown)



Figure 3 – Under Vehicle view of Air Tank Installed – Behind Driver Bed Side (2020 Silverado Shown)



Figure 4 – Under Vehicle view of Air Compressor Installed – Behind Driver Wheel (2020 Silverado Shown)





GMTRK4

Installation and Operation Manual

5.2. Install Process Outline

For person(s) with prior experience installing GMTRK4, a reminder of install steps are listed below:

UNPACKAGE KIT (SECTION 7)

1. Layout and organize all parts on bench

BENCH ASSEMBLY (SECTION 8)

2. Assemble Air Fittings to Air Tank
3. Remove Air Horn Trumpets and assemble Air Horn Driver to Bracket (GMTRK-4-301)
4. Insert Square Neck Bolts onto Brackets (GMTRK-4-102, 201)

ON-VEHICLE, MECHANICAL (SECTION 9)

5. Trim (Cut/Grind) Driver's Rear Leaf Spring Shackle Bolt
6. Install Air Tank & Air Compressor Bracket (GMTRK-4-102, 103/104, 201)
7. Install Air Tank
8. Install Air Compressor
9. Remove/pull down Engine Shield to gain access to Driver's Frame Mount
10. Install Air Horn sub-assembly (GMTRK-4-301 w/Horn Drivers)
11. Connect Air Compressor to Air Tank
12. Connect Air Horn Tubing to Air Tank

ON-VEHICLE, ELECTRICAL (SECTION 10)

13. Install Relay & Fuse, route Wiring, and install Horn Button
14. Connect all Electrical items (Air Horn, Pressure Switch, Air Compressor)

FINAL STEPS (SECTION 11)

15. Install Trumpets onto Air Horn Drivers & Final Tighten Air Horns
16. Test system and adjust, as needed

5.3. Approximate Installation Time

GMTRK4 is a multi-faceted product consisting of mechanical, electrical, and pneumatic components.

For a typical home mechanic, auto enthusiast, or technician installing this kit for first time, a professional installation job with setup and testing of final product, is estimated to take:

- **4-8 Hours**

End of Section



GMTRK4

Installation and Operation Manual

6. List of Tools and Supplies

6.1. Standard Tool List (Required)

- 6.1.1. Basic mechanic's 3/8" drive socket sets with extensions
 - Inch Size Sockets (1/4" – 1" Hex)
 - Metric Size Sockets (6mm – 20mm Hex)
- 6.1.2. Basic mechanic's combination wrenches (box/open-end)
 - Inch Size Wrenches (1/4" – 1" Hex)
 - Metric Size Wrenches (6mm – 20mm Hex)
- 6.1.3. Basic mechanic's screwdriver set (Philips, Flat Head)
- 6.1.4. Diagonal Cutter/Wire Cutter Pliers
- 6.1.5. Wire Strippers
- 6.1.6. Wire Terminal Crimpers
- 6.1.7. Slip-Joint Pliers
- 6.1.8. Vise Grips, or Locking Pliers
- 6.1.9. Small pry bar, or large flat blade screwdriver
- 6.1.10. Utility Knife, or Utility Razor blade
- 6.1.11. Magnetic retrieval tool

6.2. Special Tool List (Recommended)

- 6.2.1. Power Hand Grinder, Air Grinder with Cut-Off wheel, or Hacksaw
- 6.2.2. 10-100 ft-lbs. torque wrench
- 6.2.3. 20-150 in-lbs. torque wrench
- 6.2.4. Multi-Meter for 12V DC electrical systems, or equivalent
- 6.2.5. 12V DC Test Light, or equivalent
- 6.2.6. Trim Panel Tool, for removing wiring and body clips, when needed

6.3. Shop Consumables List (Recommended)

- 6.3.1. Quality Electrical tape
- 6.3.2. Di-electric grease for electrical connections
- 6.3.3. Heat Shrink tubing for electrical connections
- 6.3.4. Medium-Strength ThreadLocker (i.e., Blue Loctite® PN 242), or equivalent
- 6.3.5. Low-Strength ThreadLocker (i.e., Purple Loctite® PN 222), or equivalent
- 6.3.6. Black/Clear Silicone for drilling holes in body
- 6.3.7. Sand Paper, or Wire Brushes for installing ground wires
- 6.3.8. Extra plastic zip ties > 6" long
- 6.3.9. Extra NPT sealant (i.e., Kleinn Air Horn Juice, Teflon tape, etc.)
- 6.3.10. Touch-up paint for frame/chassis/body (i.e., primer or black epoxy)
- 6.3.11. Typical cleanup supplies



GMTRK4

Installation and Operation Manual

7. Parts List




7.1. Before Starting, Review Parts List

Unpackage and organize Kit across a large work area and verify all parts are included, as listed below. Contact Kleinn support if any questions arise.

- 7.1.1. Review pre-packaged Kit items (i.e., K1, K2, etc.)
- 7.1.2. Review Air Fittings and Tubing (i.e., F1, F2, etc.)
- 7.1.3. Review Wiring and Accessories (i.e., E1, E2, etc.)
- 7.1.4. Review Bolt-On Mounting Brackets (i.e., M1, M2, etc.)
- 7.1.5. Review Hardware/Fasteners (i.e., H1, H2, etc.)
- 7.1.6. Review Add-On Accessories (i.e., X1, X2, etc.)
- 7.1.7. Familiarize yourself with how parts assemble

7.2. Pre-Packaged Electro-Mechanical Kit Items

NOTE: Items in this section come in their own packages and may include additional items inside package

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
K1	1	6260RC	6260RC AIR COMPRESSOR KIT – INCLUDES HARDWARE, REMOTE AIR FILTER, AIR TUBING, FITTINGS, EXTRA FILTER	
K2	1	6260RT	AIR TANK, 6" OD, .5 GAL., 5-PORT	
K3	1	102-1	102 SERIES, BLACK AIR HORN KIT – INCLUDES SOLENOID, HARDWARE	



GMTRK4

Installation and Operation Manual

7.3. Air Fittings and Related Items

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
F1	1	2121	1/4" NPT PRESSURE SWITCH, 90-120 PSI (view location on Air Tank)	
F2	1	52145	1/4" NPT, 145 PSI SAFETY VALVE (view location on Air Tank)	
F3	1	51414L	1/4" NPT X 1/4" TUBE FITTING, MALE 90 DEG. ELBOW (view location on Air Tank)	
F4	2	51414NPTL	1/4" NPT X 1/4" NPT FEMALE, 90 DEG. ELBOW (view location on Air Tank)	
F5	1	52835	1/4" NPT DRAIN VALVE (view location on Air Tank)	
F6	N/R **	54440	1/4" NPT "T" MANIFOLD, FEMALE **GMTRK4XTREME ONLY	
F7	N/R **	51414	1/4" NPT X 1/4" TUBE FITTING, MALE STRAIGHT **GMTRK4XTREME ONLY	





GMTRK4

Installation and Operation Manual

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
F8	N/R **	50041	1/4" NPT PLUG, INTERNAL HEX DRIVE **GMTRK4XTREME ONLY	
F9	N/R **	51414F	1/4" NPT X 1/4" TUBE FITTING, FEMALE STRAIGHT **GMTRK4XTREME ONLY	
F10	1	KLEINN AIR HORN JUICE	THREAD SEALANT FOR NPT FITTINGS	
F11	1	25014-1	1/4" AIR TUBING, 18 FT. LONG	


7.4. Electrical Small Components and Related Items

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
E1	1	6850 WIRE KIT	ELECTRICAL WIRE, CONNECTORS, RELAY, FUSE, AND ZIPTIES <ul style="list-style-type: none"> • PURPLE (18 GA.) – 12 FT • YELLOW (18 GA.) – 40 FT • RED (18 GA.) – 20 FT • RED (12 GA.) – 2 FT • BLACK (12 GA.) – 2 FT 	
E2	1	LOOM PACK	WIRE LOOM, CORRUGATED AND SPLIT <ul style="list-style-type: none"> • 1/8" X 15 FT • 1/4" X 18 FT 	



GMTRK4

Installation and Operation Manual

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
E3	1	320	TERMINATOR – NICKEL PLATED REMOTE HORN BUTTON	

7.5. Bolt-On Mounting Brackets & Special Hardware

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
M1	N/R **	GMTRK-4-101	6450 COMPRESSOR BRACKET, CUT & FORMED **GMTRK4XTREME ONLY	
M2	1	GMTRK-4-102	TANK & COMPRESSOR BOLT PLATE, CUT	
M3	1	GMTRK-4-103	TANK & COMPRESSOR SPACER- CHEVY, CUT	
M4	1	GMTRK-4-104	TANK & COMPRESSOR SPACER- GMC, CUT	
M5	1	GMTRK-4-201	TANK BRACKET, CUT, FORMED & MACHINED	
M6	1	GMTRK-4-301	HORN BRACKET, WELDMENT	



GMTRK4

Installation and Operation Manual

7.6. Hardware, Fasteners and Soft Parts

NOTE: Pictures only indicative, not to scale and may not represent exact item

ITEM	QTY.	DESCRIPTION	WHERE USED	PICTURE
H1	4	(#10-24 X 1.25" LONG) SQUARE NECK BOLT, GRADE 2, ZINC-PLATED	COMPRESSOR TO BRACKET (4)	
H2	4	(#10 ID X .69" OD) FLAT WASHER, FENDER, ZINC- PLATED	COMPRESSOR TO BRACKET (4)	
H3	4	(#10) LOCK WASHER, SPLIT, ZINC- PLATED	COMPRESSOR TO BRACKET (4)	
H4	4	(#10-24) HEX NUT, GRADE 2, ZINC- PLATED	COMPRESSOR TO BRACKET (4)	
H5	4	(5/16"-18 X 1.00" LONG) SQUARE NECK BOLT, GRADE 2, ZINC-PLATED	TANK BRACKET MOUNTING (2) TANK TO BRACKET (2)	
H6	1	(5/16"-18 X 1.00" LONG) RIBBED NECK CARRIAGE BOLT, GRADE 2, ZINC-PLATED	HORN BRACKET MOUNTING (1)	
H7	1	(5/16"-18 X 1.25" LONG) FLAT HEAD CAP SCREW, ALLOY STEEL, BLACK-OXIDE	TANK BRACKET MOUNTING (1)	
H8	N/R **	(5/16"-18 X 1.25" LONG) SQUARE NECK BOLT, GRADE 2, ZINC-PLATED	COMPRESSOR BRACKET MOUNTING (1) **GMTRK4XTREME ONLY	
H9	9	(5/16" ID X 0.88" OD) FLAT WASHER, USS, ZINC- PLATED	HORN BRACKET MOUNTING (2) 102 HORN TO BRACKET (2) TANK BRACKET MOUNTING (3) TANK TO BRACKET (2)	



GMTRK4

Installation and Operation Manual




ITEM	QTY.	DESCRIPTION	WHERE USED	PICTURE
H10	6	(5/16") LOCK WASHER, SPLIT, ZINC- PLATED	HORN BRACKET MOUNTING (1) TANK BRACKET MOUNTING (3) TANK TO BRACKET (2)	
H11	6	(5/16"-18) HEX NUT, GRADE 2, ZINC- PLATED	HORN BRACKET MOUNTING (1) TANK BRACKET MOUNTING (3) TANK TO BRACKET (2)	
H12	1	(M8 X 1.25 X 14.5 OFFSET) NO-SLIP, CLIP-ON BARREL NUT, ZINC-PLATED	HORN BRACKET MOUNTING (1)	
H13	1	(1/4" ID X 0.63" OD X 1/4" THICK) PRESS-IN RUBBER GROMMET	HORN TO TANK TUBING (1)	
H14	2	(1/4"-20 X 1.00" LONG) SQUARE NECK BOLT, GRADE 2, ZINC-PLATED	102 HORN TO BRACKET (2)	
H15	2	(1/4" ID X 0.63" OD) FLAT WASHER, USS, ZINC- PLATED	102 HORN TO BRACKET (2)	
H16	2	(1/4") LOCK WASHER, SPLIT, ZINC- PLATED	102 HORN TO BRACKET (2)	
H17	2	(1/4"-20) HEX NUT, GRADE 2, ZINC- PLATED	102 HORN TO BRACKET (2)	



GMTRK4

Installation and Operation Manual

7.7. Add-On Accessories

ITEM	QTY	PART NUMBER	DESCRIPTION	PICTURE
X1	N/R **	1302L	QUICK COUPLER MOUNT KIT - BRACKET, HARDWARE, FITTINGS, 1/4" X 15FT AIR TUBING **GMTRK4XTREME ONLY	
X2	N/R **	INF-1	INFLATOR KIT – COIL AIR HOSE, QUICK CONNECT COUPLER/COVER, TIRE CHUCK, STORAGE BAG **GMTRK4XTREME ONLY	
X3	N/R **	59830	DIGITAL TIRE INFLATOR **GMTRK4XTREME ONLY	

End of Section

8. Bench Assembly

Complete following steps off vehicle to facilitate final installation.

8.1. Assemble Air Fittings to Air Tank

- 8.1.1. Gather all necessary Air Fittings and Air Tank; ensure all threads on fittings and inside ports are clean.
- 8.1.2. Apply two small drops of [Kleinn Air Horn Juice](#) to each male pipe thread.
- 8.1.3. Attach Air Fittings to Air Tank, per below illustrations; ensure they are oriented correctly.

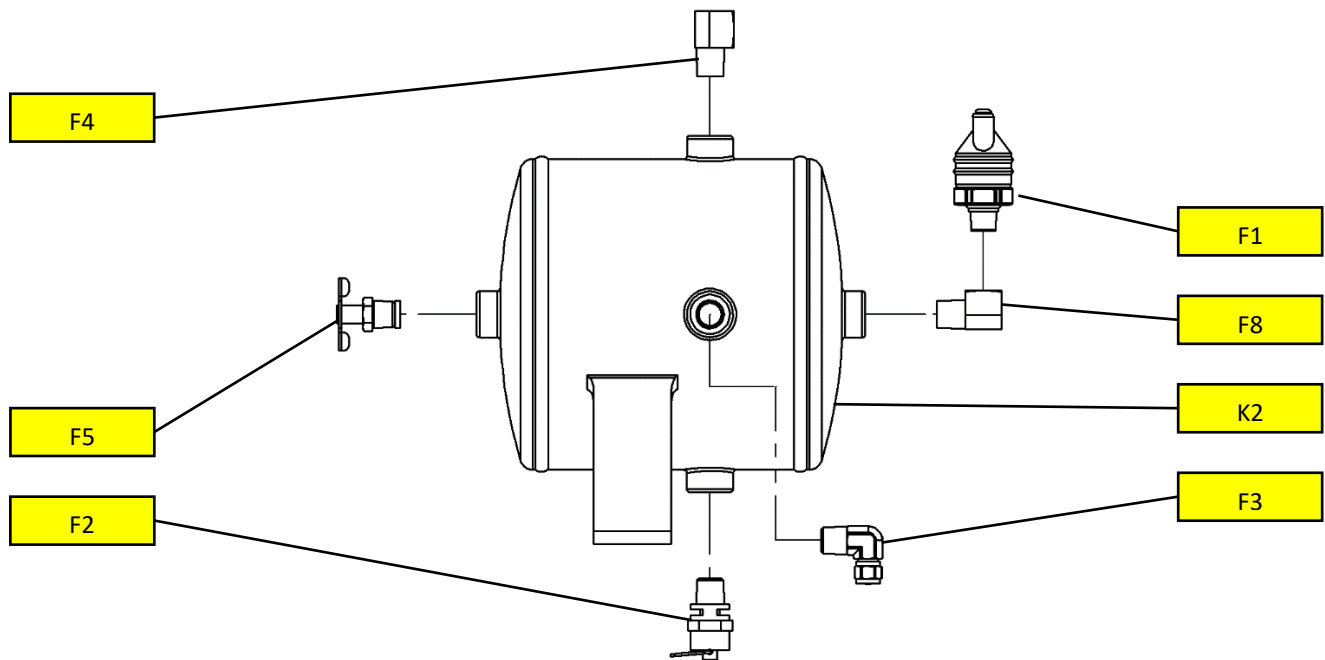


Figure 5 – Air Fittings installed on Air Tank (Side Exploded view, as shown resting on bench)

- 8.1.4. Hand-tighten each fitting, then further tighten 1/4-1/2 turn using proper sized box-end wrench; adjust as necessary to match fitting orientation, as shown below.

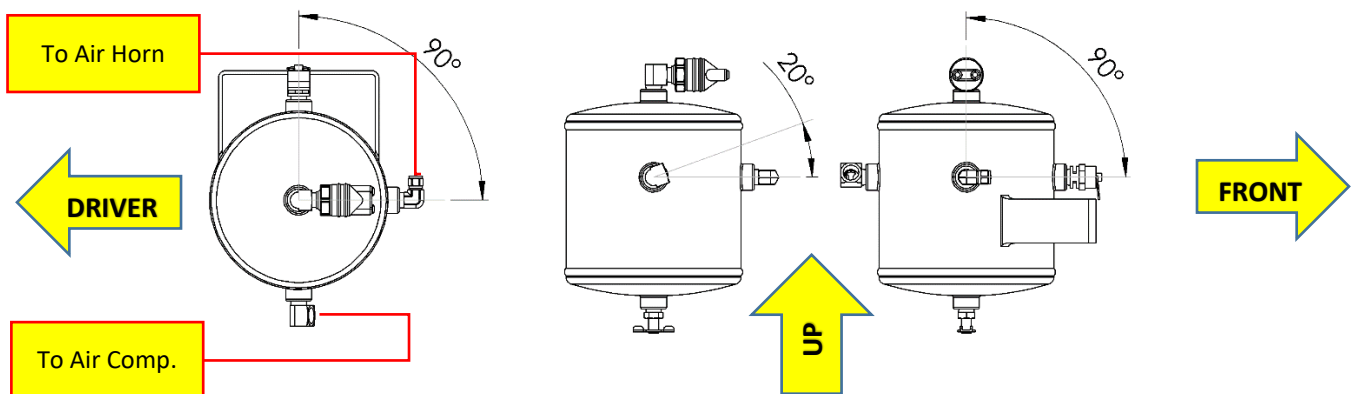


Figure 6 – Air Fittings Orientation (Top, Back & Inboard view, as shown if installed in Vehicle)

8.2. Assemble Air Filter to Air Compressor

- 8.2.1. Remove Compressor from packaging, included hardware, and air filter.
- 8.2.2. Review included directions in Compressor package on remote Air Filter; select location on Vehicle where to mount Air Filter, or if desired, Filter housing may be secured to included Bracketry using Zip Ties.
- 8.2.3. Pry-open plastic Air Filter housing and install foam Filter inside. Attach fittings for Filter to end of Air Compressor and Filter housing. Follow instructions included in Compressor package.

NOTE: Air Filter Tubing is rigid and may be difficult to install over Barb Fittings; if necessary, use Hair Dryer, Candle, or Heat Gun at a safe distance to soften end of Air Tubing and place over Fitting. Do not bend Tubing excessively and cause it to kink; use even heat if necessary, to bend Tubing sharply.



Figure 7 – Air Compressor remote Air Filter and Tubing (shown without Air Compressor)

8.3. Disassemble Trumpets from Air Horn Drivers

- 8.3.1. Remove Air Horns and included Hardware from packaging; Air Tubing is not used.
- 8.3.2. Disassemble Trumpets from Air Horn Drivers by firmly grasping Trumpet near bottom Metal Collar and twisting counter-clockwise, as shown below. If necessary, use pliers with rag or soft material over jaw.

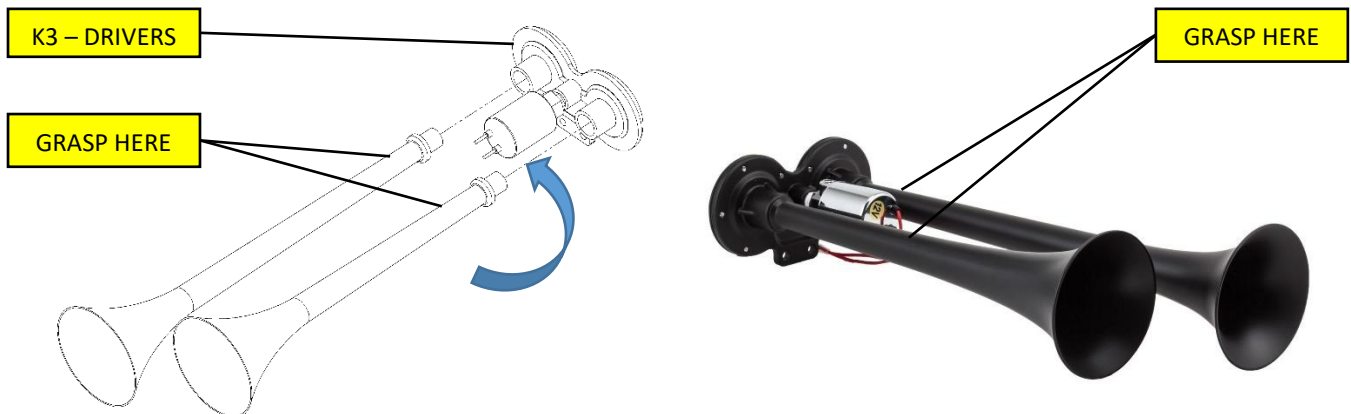


Figure 8 – Removing Trumpets from Air Horn Driver, Exploded View

8.4. Assemble Air Horn Driver to Horn Bracket (GMTRK-4-301)

- 8.4.1. Before assembling Air Horn Driver to Bracket, adjust orientation of Air Horn Fitting, as shown below, by further tightening Solenoid using an appropriate Wrench. If desired, Solenoid may be removed, threads cleaned and re-installed with Air Horn Juice, then tightened to proper orientation.

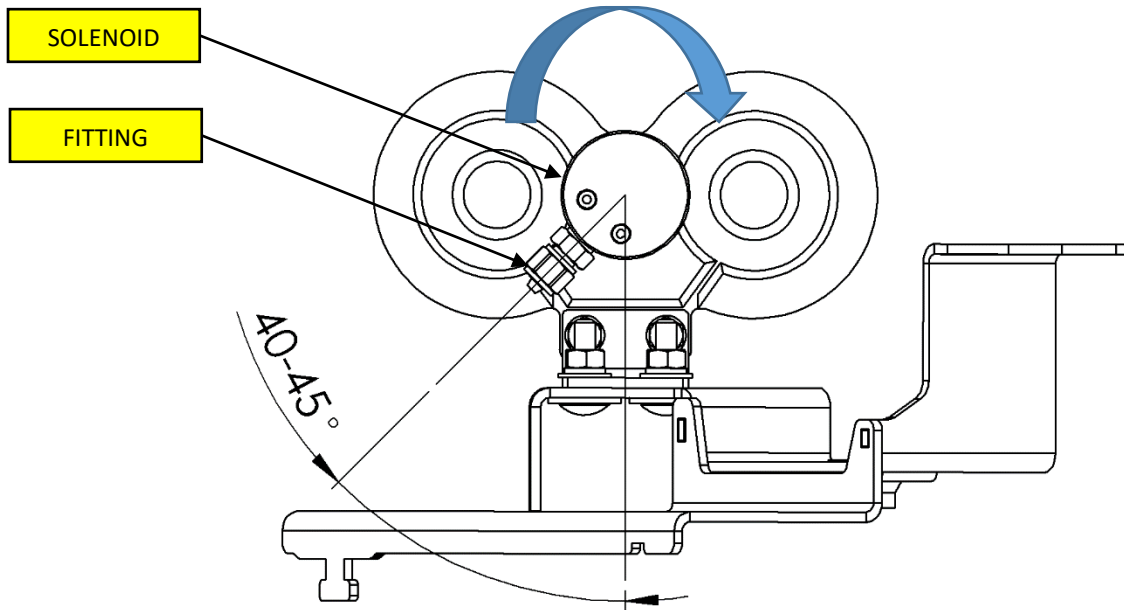


Figure 9 – Air Horn Fitting Orientation (Air Horn Driver shown assembled to Bracket as if sitting on bench)

Installation and Operation Manual

8.4.2. Using [Hardware #H9, H14, H15, H16, H17](#) and Hardware included in Horn package (*) install Air Horn Driver, as shown below. Snug-tighten H17 fasteners only, as Driver may need to be repositioned for proper Trumpet clearance on vehicle. **Final torque Air Horn included hardware to 37 in-lbs.**

NOTE A: when installing Air Horn Driver, ensure included L-Bracket is oriented properly, as shown.

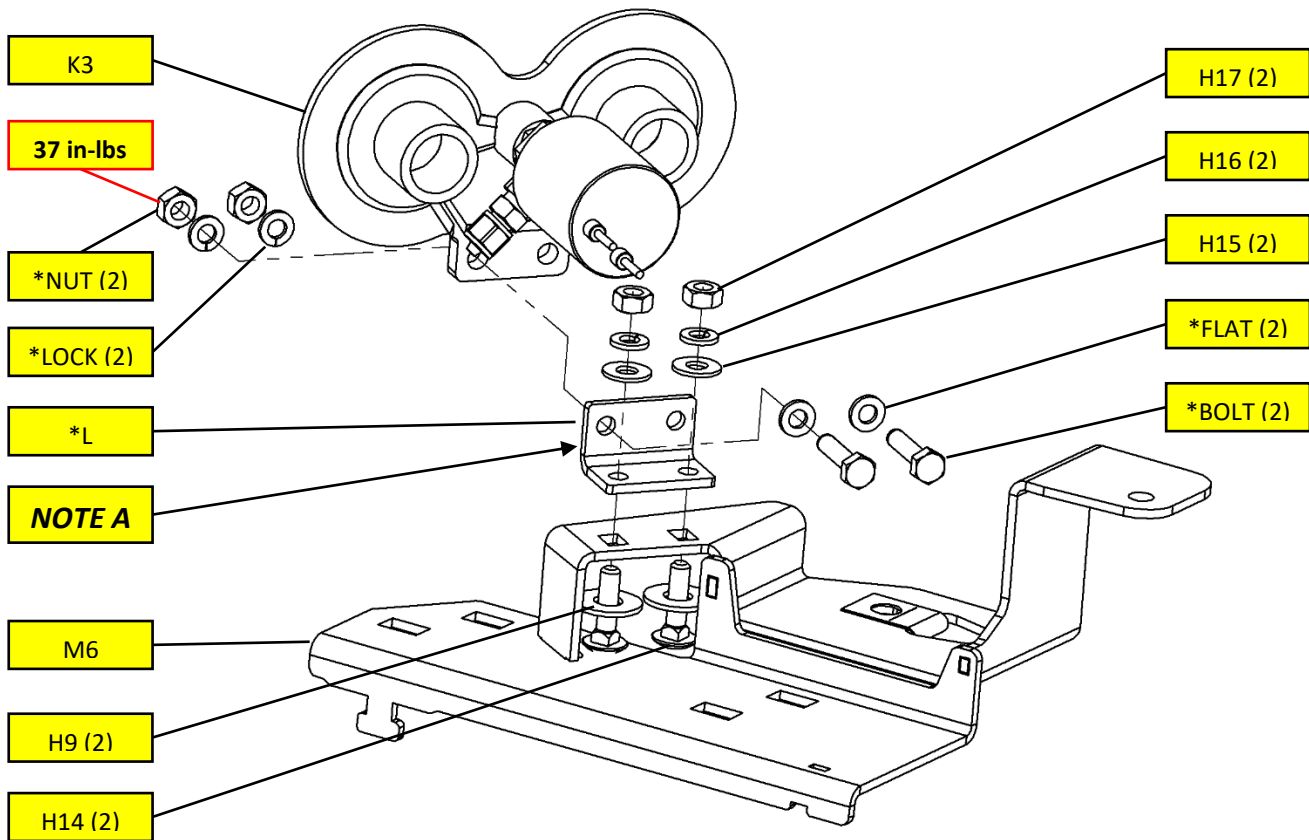


Figure 10 – Air Horn Driver Assembled to Bracket (Exploded View)

8.5. Insert Square Neck Bolts onto Brackets (GMTRK-4-102, 201)

- 8.5.1. Using [Hardware #H5](#) press each Carriage/Square Neck Bolt into corresponding square holes in GMTRK-4-102 Plate, as shown below. It may be necessary to use a deep socket and rubber mallet to set each Bolt flush. This step is required to facilitate installation in Vehicle.

NOTE: if any Bolts fit loosely, secure them to back side of Bracket using electrical tape or similar.

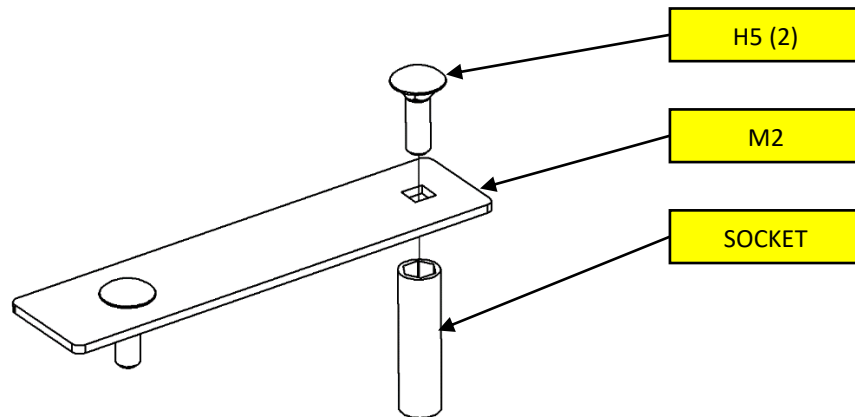


Figure 11 – GMTRK-4-102 Plate with Bolts pressed in place (Exploded View)

- 8.5.2. Repeat above process using [Hardware #H1 & H5](#) with GMTRK-4-201, as shown below.

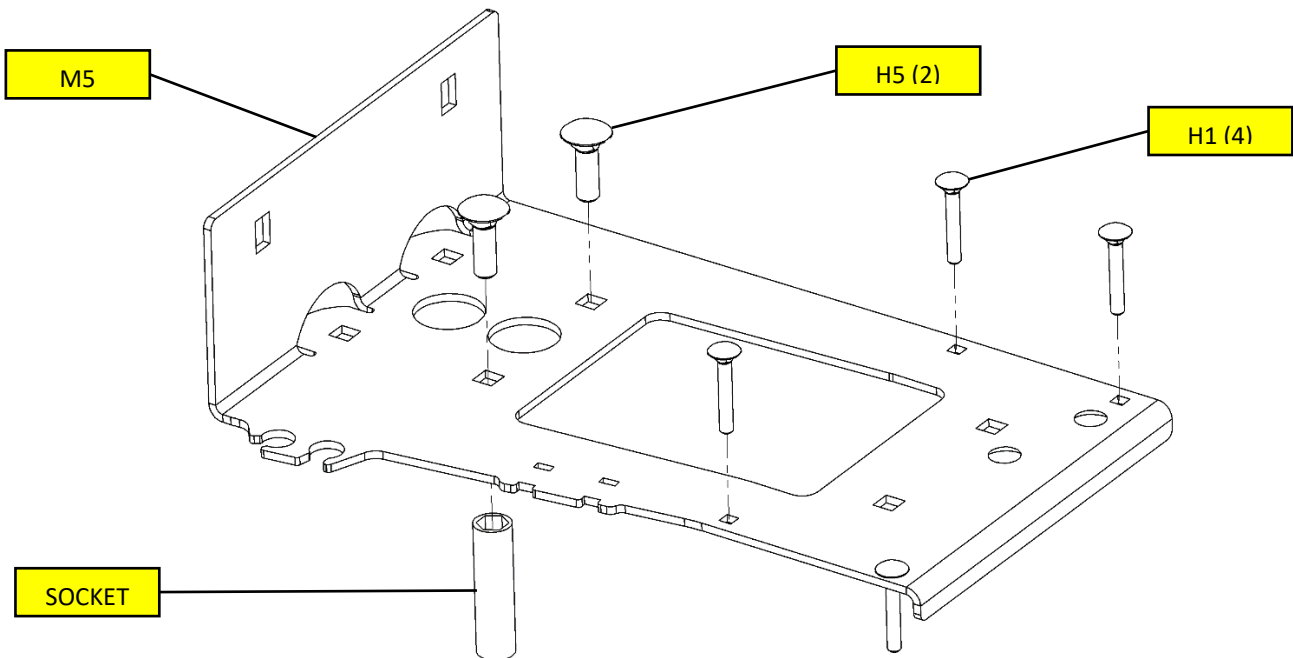


Figure 12 – GMTRK-4-201 Tank Bracket with Bolts pressed in place (Exploded View)

9. On-Vehicle Mechanical Assembly

Complete following steps on-vehicle using a lift, vehicle ramps, or other safe lifting method.

DANGER: Follows all manufacturer's instructions for safely lifting vehicle; reference owner's manual.

9.1. Trim Driver's Side OE Leaf Spring Shackle Bolt

9.1.1. Locate Driver's side Leaf Spring Shackle area directly behind rear tire (i.e., OE rock guard), as shown below.

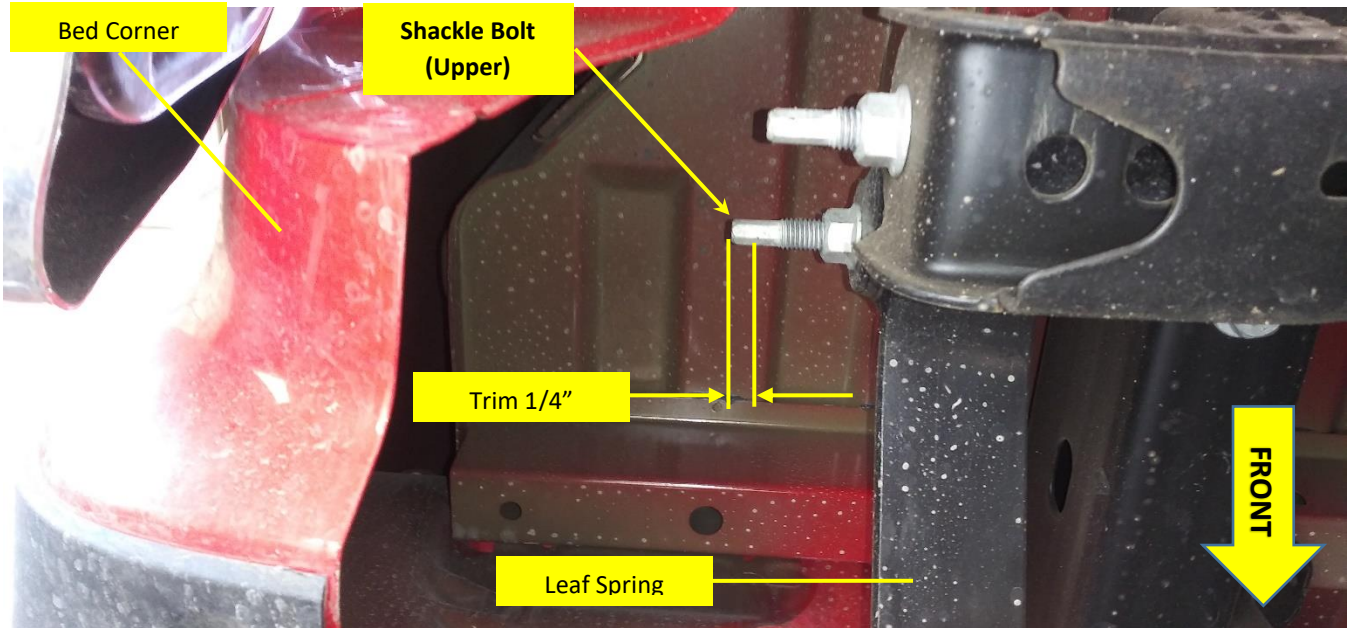


Figure 13 – Underbody view of Driver's side Leaf Spring Shackle Bolt (2020 Silverado shown)

9.1.2. Using a Hand Grinder, Hacksaw, or Air Grinder with Abrasive Cut-off wheel, trim 1/4" off end of Upper Shackle Bolt. Remove sharp edges with a file, or similar, then touch up with primer, or auto paint.

WARNING: ensure use of safety glasses and ear protection while grinding under vehicle.

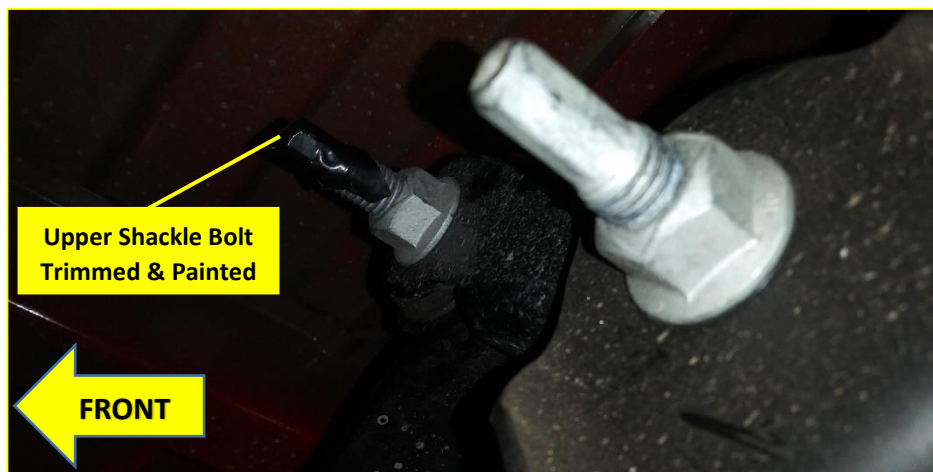


Figure 14 – Underbody view of Driver's side Leaf Spring Shackle Bolt trimmed (2020 Silverado shown)

9.2. Install Air Tank & Compressor Bracket (GMTRK-4-201) & Bolt Plate (-102)

9.2.1. Return to Driver's side installation area (i.e., OE Rock Guard) and locate mounting holes, as shown below.

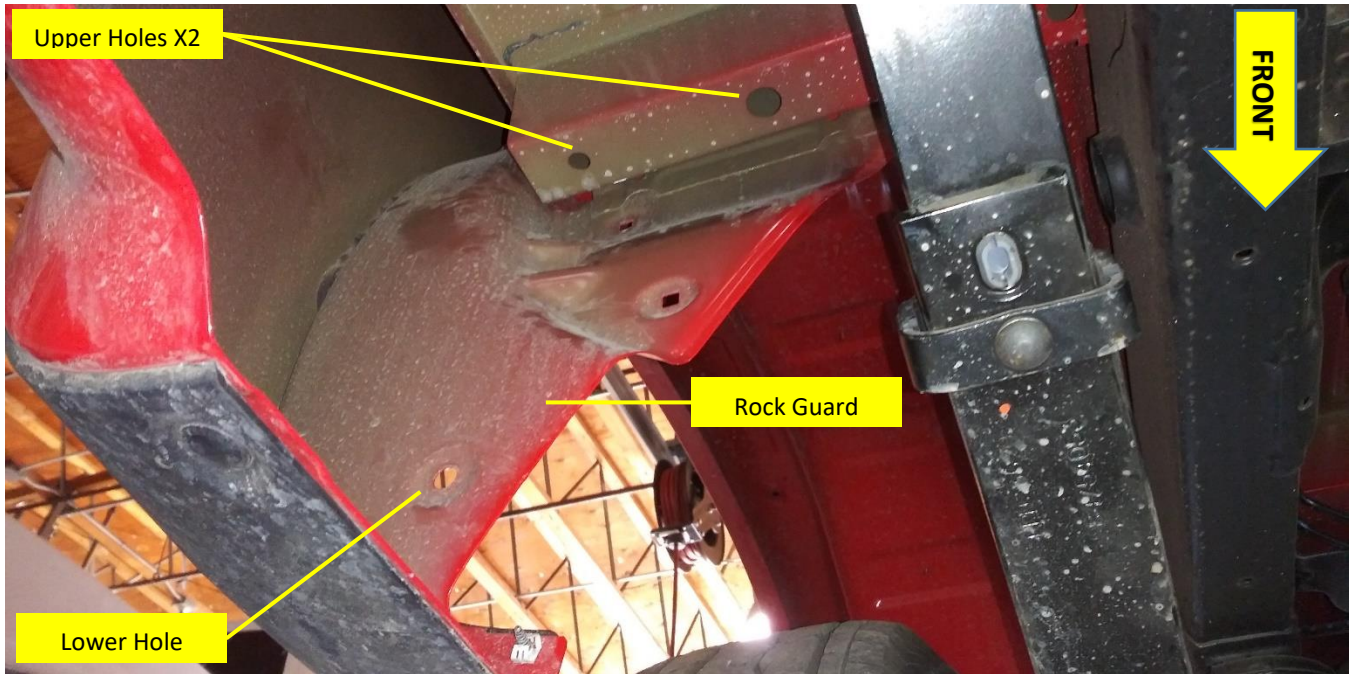


Figure 15 – Underbody view of Driver's side mounting holes (2020 Silverado shown)

9.2.2. Insert Bolt Plate (M2) with Bolts previously pressed in place into Bed Support Brace, as shown below. This can be done easily by grasping long side of Plate, rotating into Support Brace and dropping in place.

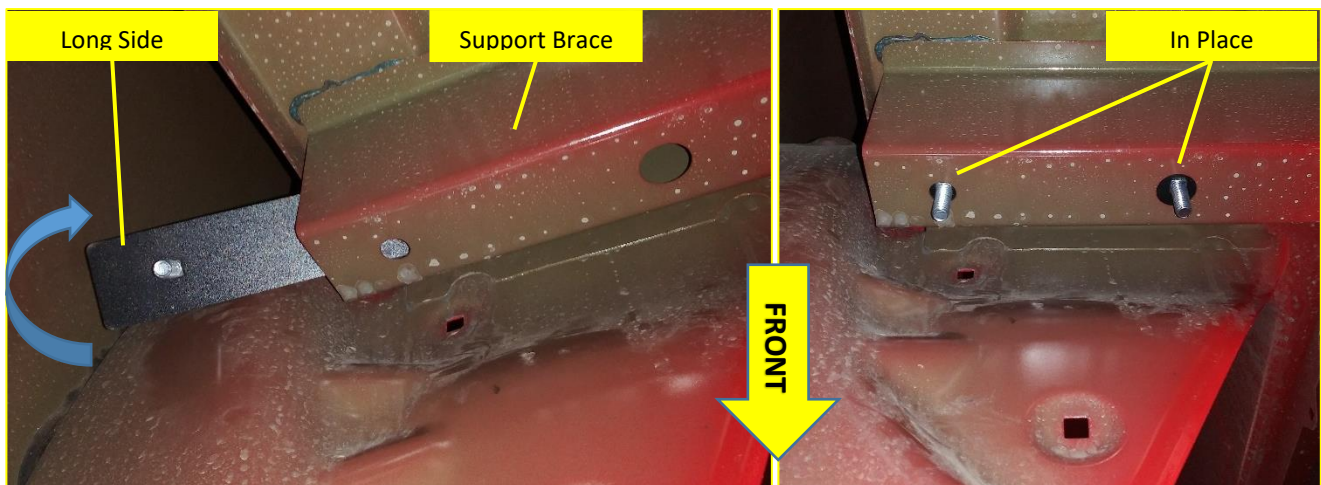


Figure 16 – Installing GMTRK-4-102 Bolt Plate (2020 Silverado shown)

Installation and Operation Manual

9.2.3. Using [Hardware #H7, H9, H10, H11 & M3/M4](#), install Air Tank & Compressor Bracket (M5), as shown below. It is recommended to apply medium-strength Loctite to Bolts and **final torque to 75 in-lbs**.

****NOTE:** Spacer is placed between Bracket and OE Rock Guard; Chevys use M3 and GMCs M4

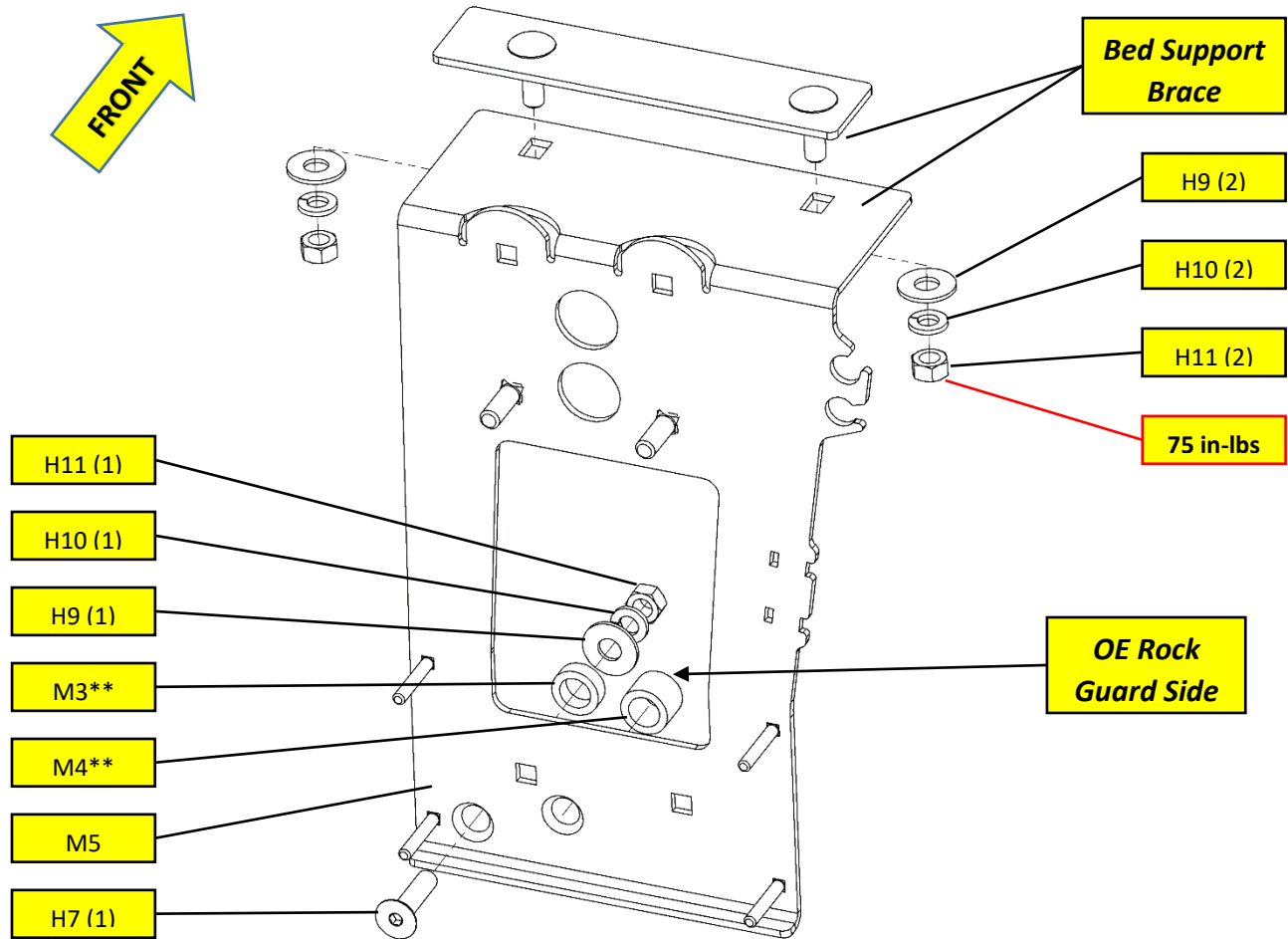


Figure 17 – Air Tank & Compressor Bracket installation (Exploded View)

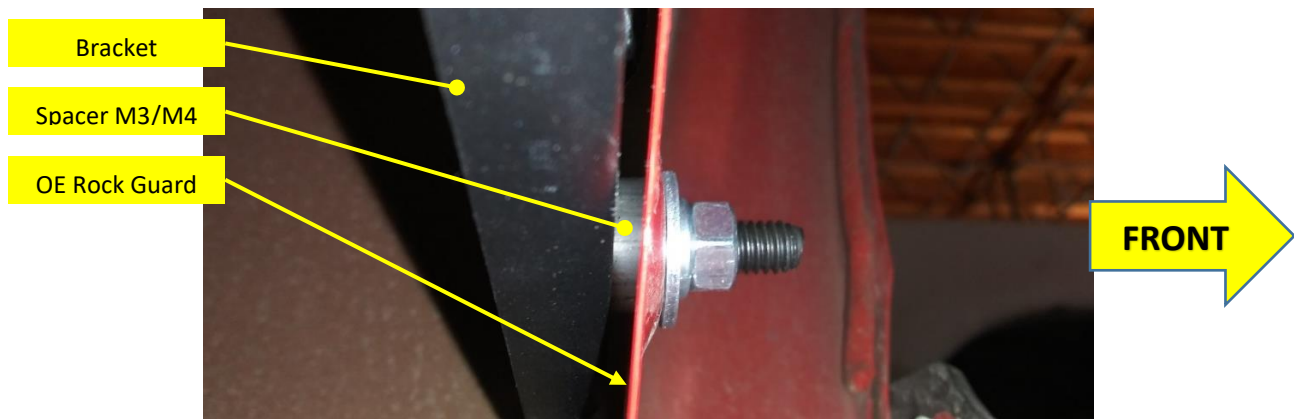


Figure 18 – Air Tank Bracket installed onto OE Rock Guard (2020 Silverado Shown)

9.3. Install Air Tank

- 9.3.1. Take pre-assembled Air Tank with Air Fittings and position over two (2) Square Neck Bolts protruding from Air Tank Bracket. Use vice grips or a hand clamp to hold Tank to Bracket to facilitate installing hardware.

NOTE: Insert Air Tank between rear leaf spring shackle and bed side at an angle, using a twisting motion and rotating it into place over Bolts. Clearance is tight during insertion process; use care not to knock out Bolts previously installed into Bracket.



Figure 19 – Installing Air Tank onto Air Tank Bracket (2020 Silverado Shown)

Installation and Operation Manual

9.3.2. Using [Hardware #H9, H10 & H11](#) install Air Tank, as shown below. Position Air Tank up/down and sideways as needed to obtain clearance all around it from body. It is recommended to apply medium-strength Loctite to Bolts and **final torque to 75 in-lbs.**

NOTE: Ensure Air Pressure Relief valve is properly aligned with hole and ring can be pulled freely.

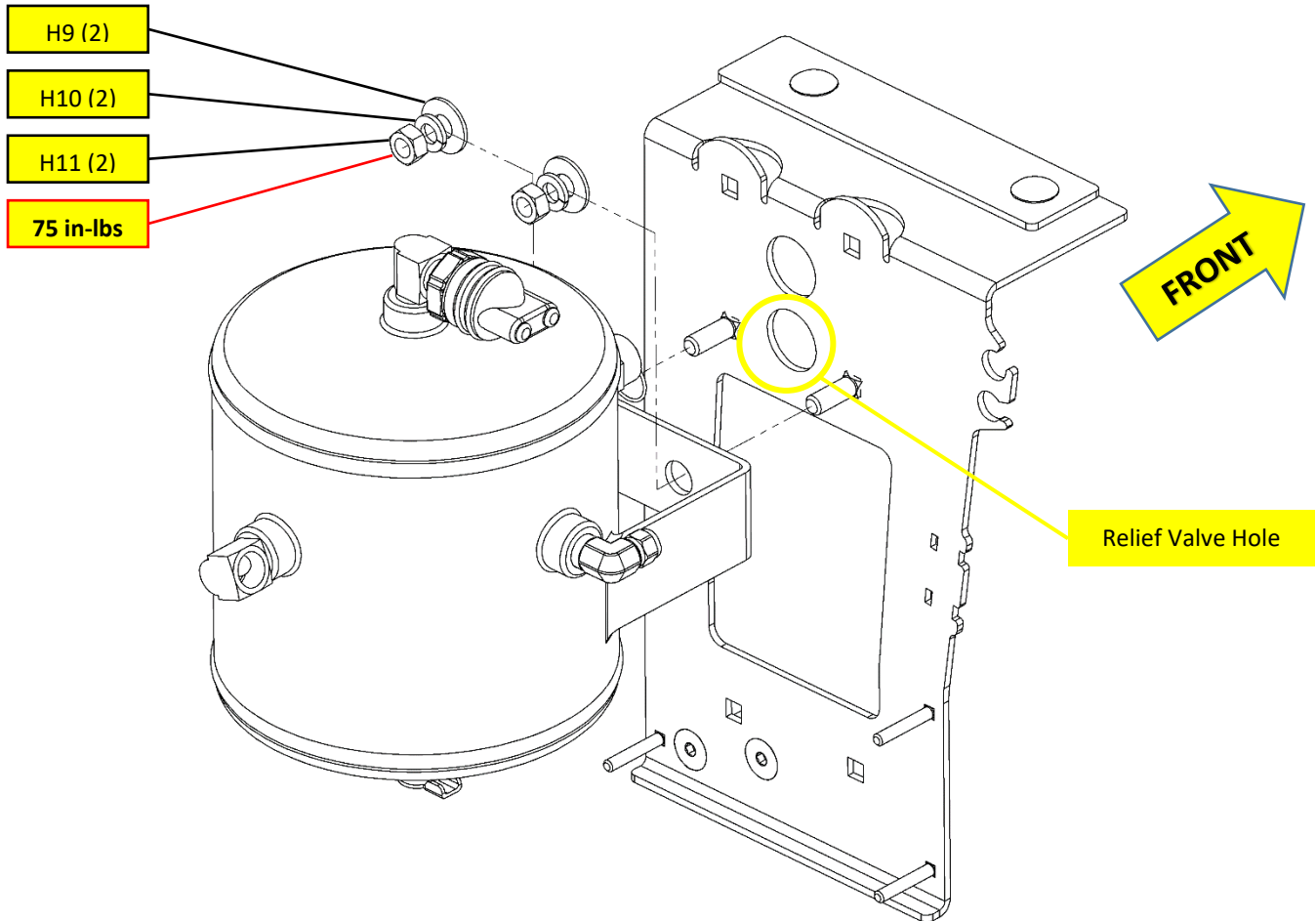


Figure 20 – Air Tank Assembly onto Bracket (Exploded View)

9.4. Install Air Compressor

9.4.1. Place Air Compressor over four (4) Square Neck Bolts protruding from Air Tank & Compressor Bracket.

NOTE: Insert Air Compressor over Bolts using same method as Air Tank between rear leaf spring shackle and bed side at an angle using a twisting motion and rotating it into place over Bolts. Use care not to knock out Bolts previously installed, or small brass collars in Compressor Feet.

9.4.2. Using [Hardware #H2, H3 & H4](#) install Air Compressor, as shown below. It is recommended to apply low-strength Loctite to Bolts and **final torque to 20 in-lbs**.

NOTE: Ensure Air Compressor Leader Hose is routed as shown and aligned with Zip Tie holes.

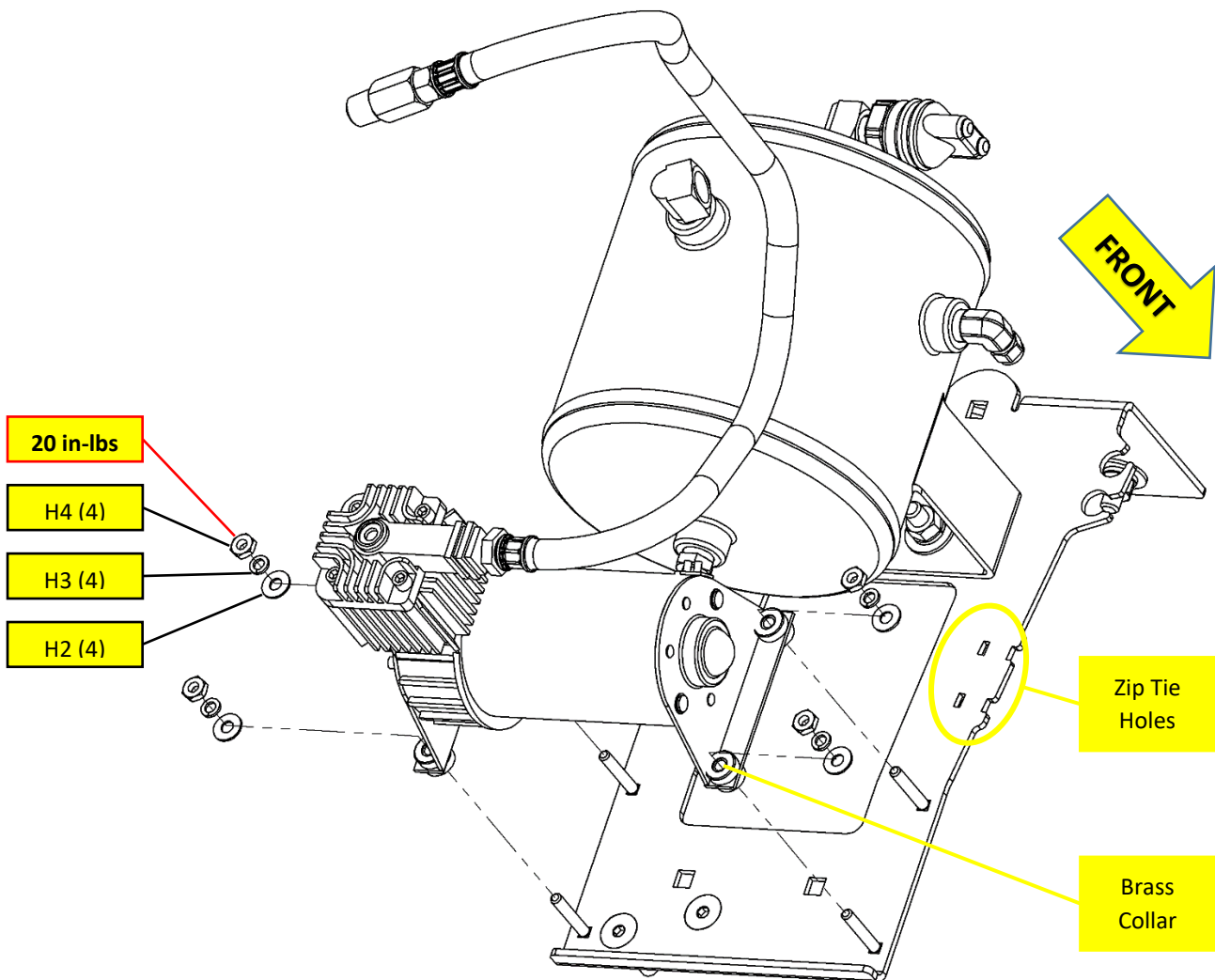


Figure 21 – Air Compressor Assembly onto Bracket (Exploded View)

9.5. Connect Air Compressor Leader Hose to Air Tank

- 9.5.1. Route Air Compressor Leader Hose to proper Air Tank port, as shown below.
- 9.5.2. Apply two small drops of Kleinn Air Horn Juice to male pipe thread on end of Leader Hose and hand tighten; use wrench to further tighten 1/4-1/2 Turn.

CAUTION: do NOT over tighten “**Leader End**” of Leader Hose onto Fitting; over tightening may damage one-way ball valve. Read all instructions accompanying Air Compressor thoroughly.

- 9.5.3. Secure Leader Hose to Bracket using supplied zip ties.

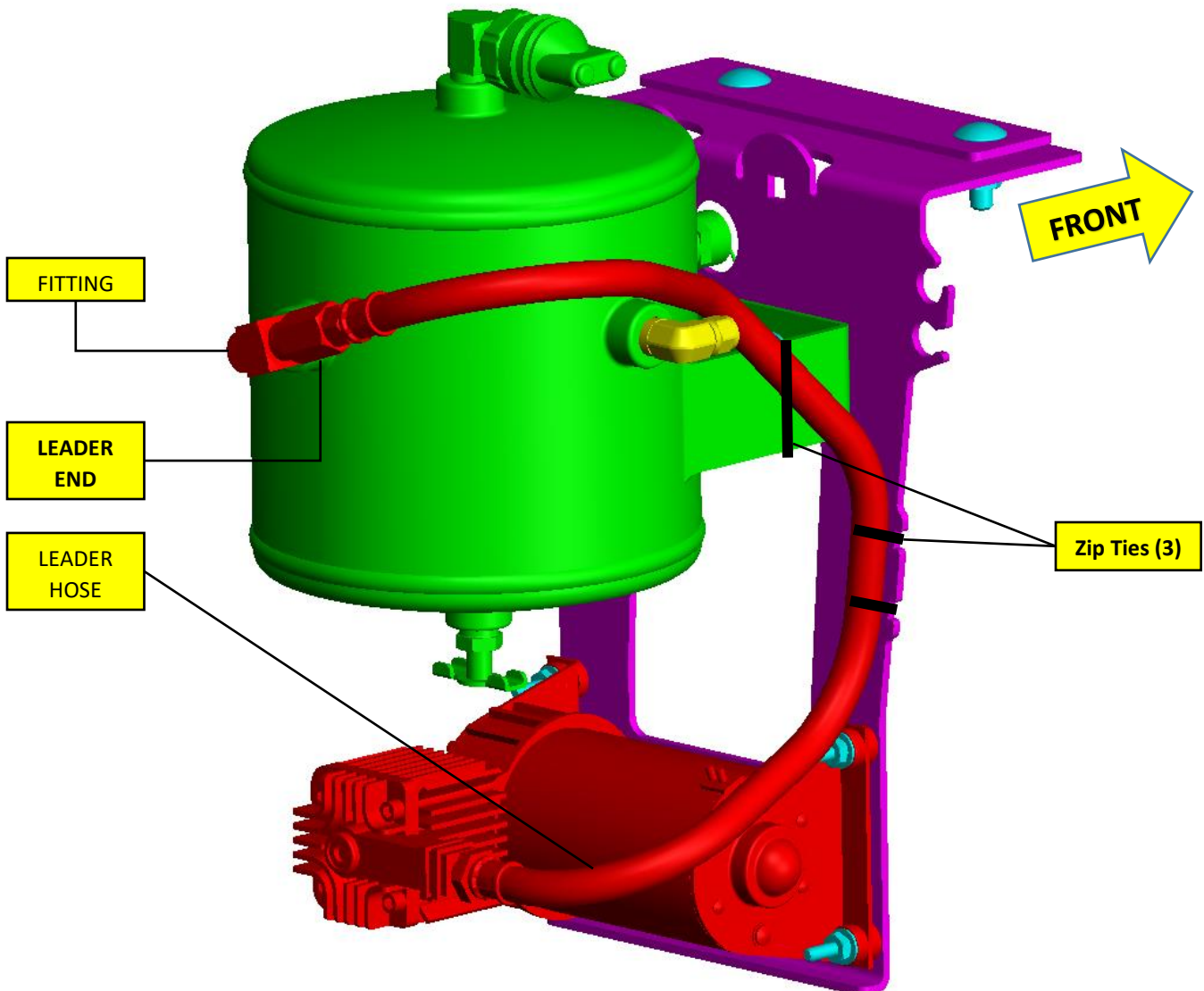


Figure 22 – Air Compressor Leader Hose Route & Zip Ties (Shown as if installed in vehicle)

9.6. Remove OE Engine Shield & OE Clip-On Nut

- 9.6.1. Locate Engine Shield behind Front Bumper. Depending on engine, Shield may be secured using four (4) Bolts or more and look different than shown. Remove OE Bolts, as shown below and retain for later.

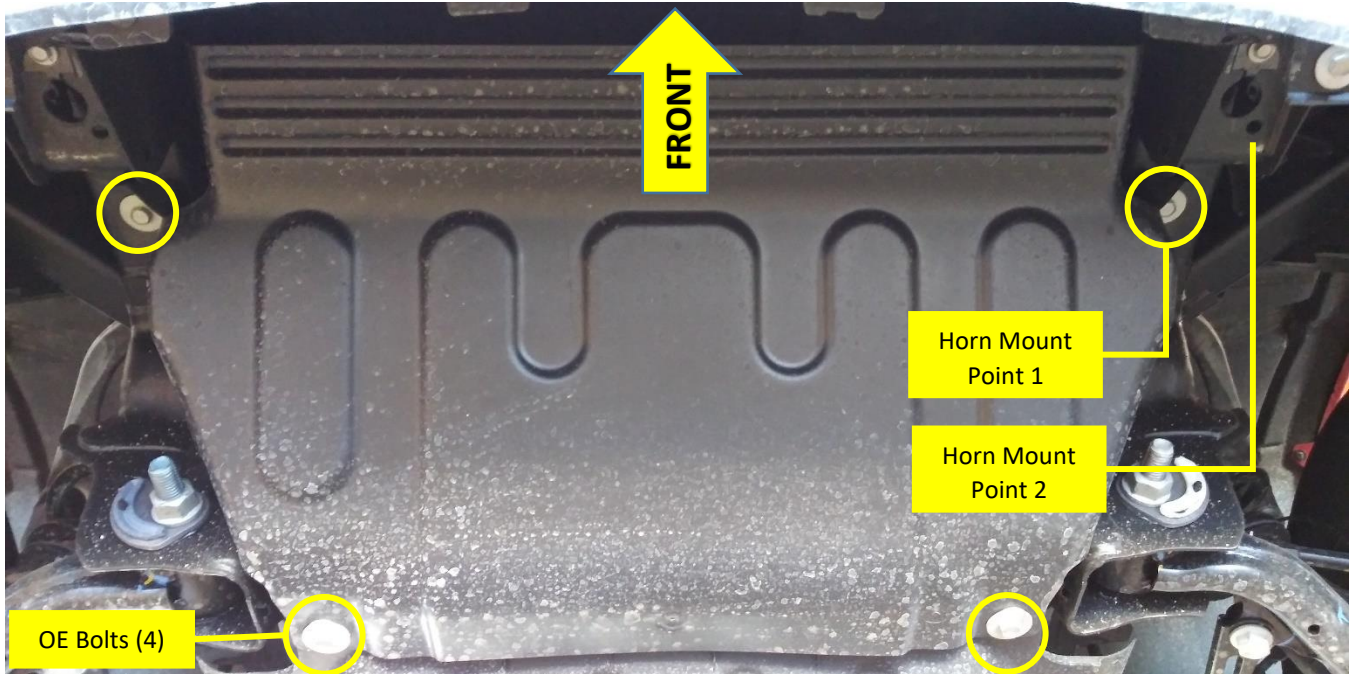


Figure 23 – Engine Shield Bolts removal (2020 Silverado 5.3L Shown)

- 9.6.2. Once Engine Shield is removed, remove OE Clip-On frame nut, as shown below; clip may be discarded.

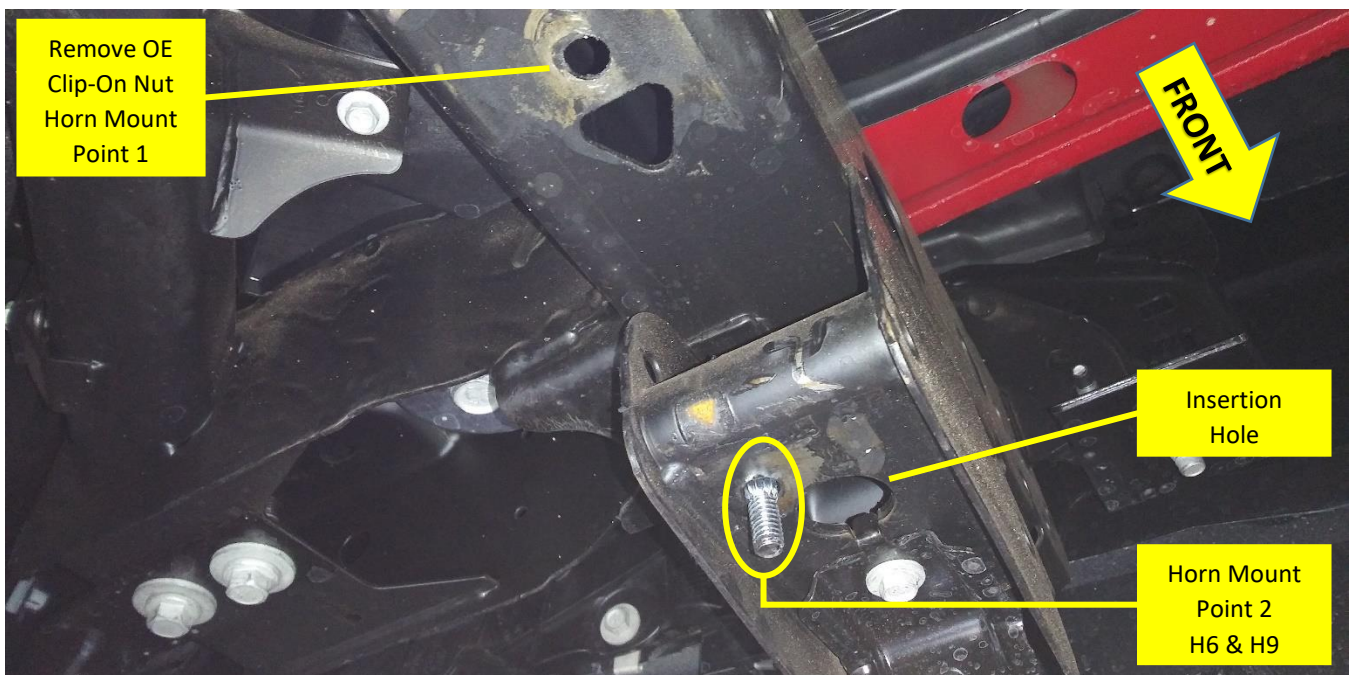


Figure 24 – Engine Shield Clip-On Nut removal; Hardware H6 & H9 shown installed (2020 Silverado Shown)

Installation and Operation Manual

9.7. Install Air Horn Driver Sub-Assembly & Connect Air Tubing

- 9.7.1. Place Air Horn Driver sub-assembly over frame and attach using [Hardware #H9, H10, H11, & H12](#), as shown in below illustrations. An extendable magnet tool may facilitate inserting H9 & H10 through “Horn Mount Point 2”. Apply medium-strength Loctite to fasteners and **final torque to 75 in-lbs.**

NOTE: Hardware H12 (Clip-On Nut) *must go over BOTH Bracket and Frame.* First spread Clip-On nut open using a pry bar and pliers if having difficulty installing over both parts.

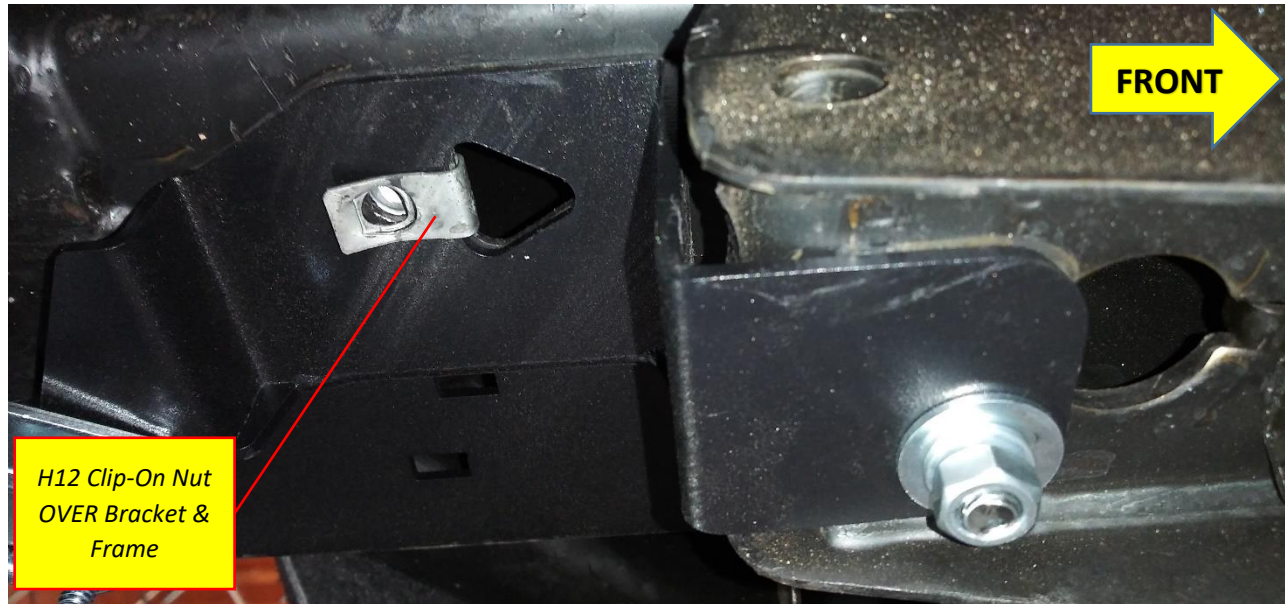


Figure 25 – Air Horn Sub-Assembly installed over Frame with H12 Clip-On Nut (2020 Silverado Shown)

- 9.7.2. Reinstall OE Engine Shield, as shown below and **final torque to 120 in-lbs.**

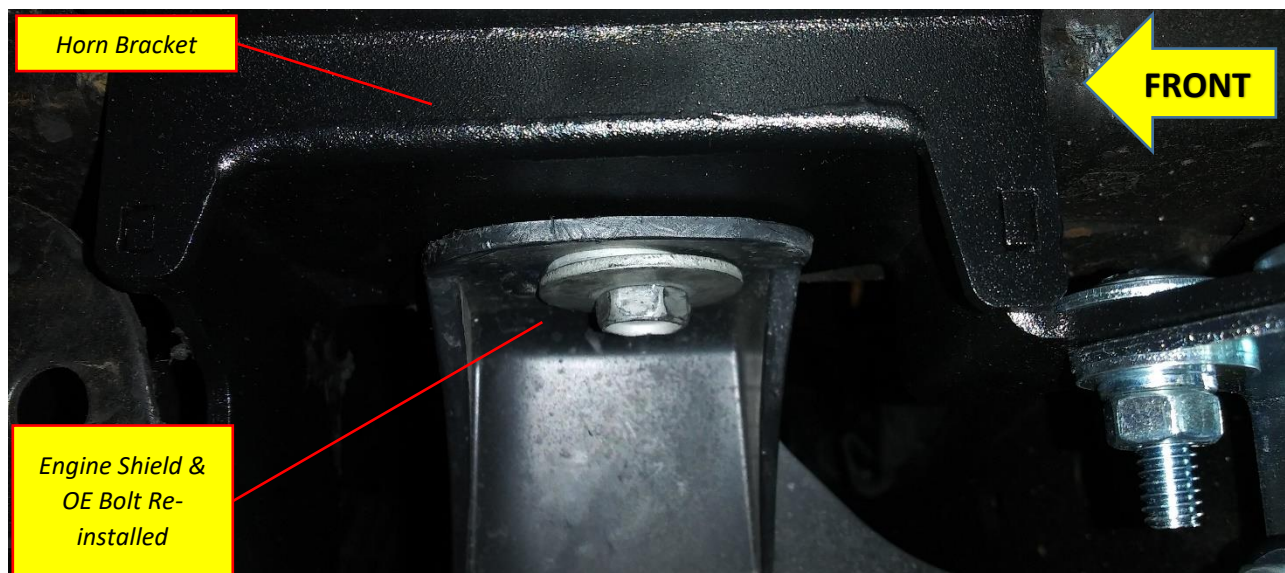


Figure 26 – Air Horn Sub-Assembly installed with Engine Shield in place (2020 Silverado Shown)

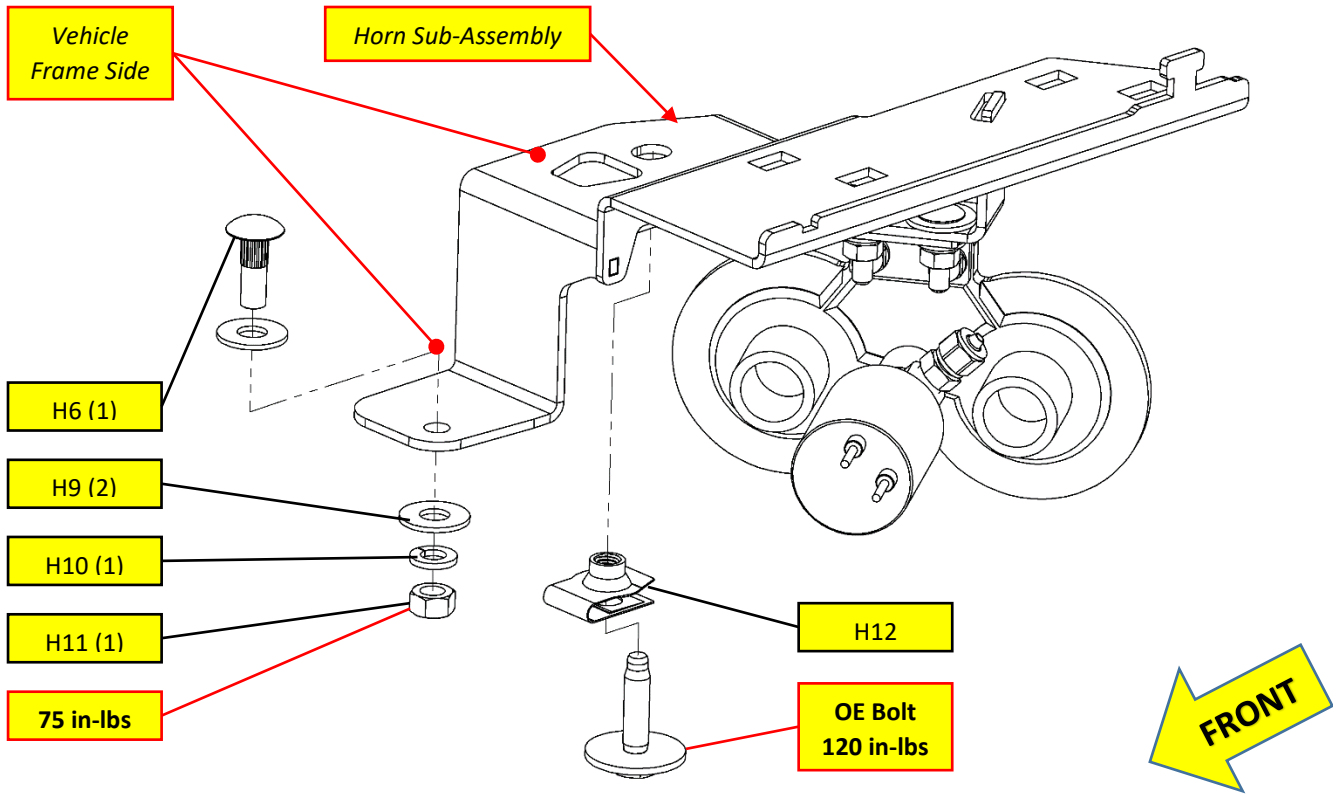


Figure 27 – Installing Air Horn Sub-Assembly over Frame (Exploded View)

9.7.3. Connect Air Tubing to Air Horn Driver, as shown below. It is recommended to pre-connect Solenoid power (PWR) wiring and grounds (GND) at this time.

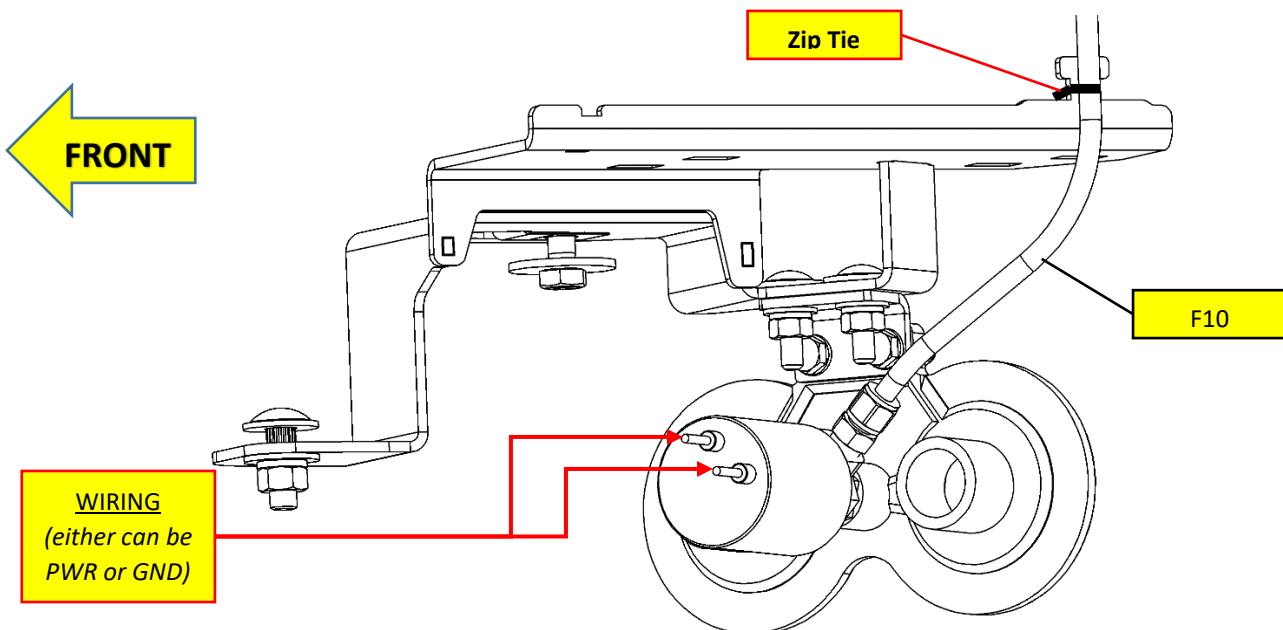


Figure 28 – Connecting Air Tubing to Air Horn Driver (Shown as if installed in vehicle)

9.8. Connect Air Horn Tubing to Air Tank

9.8.1. Route Air Tubing from Air Horn to Air Tank, as desired. However, it is recommended to place tubing inside included 1/4" Loom and run along top of frame rail, through front suspension tower, as shown below.

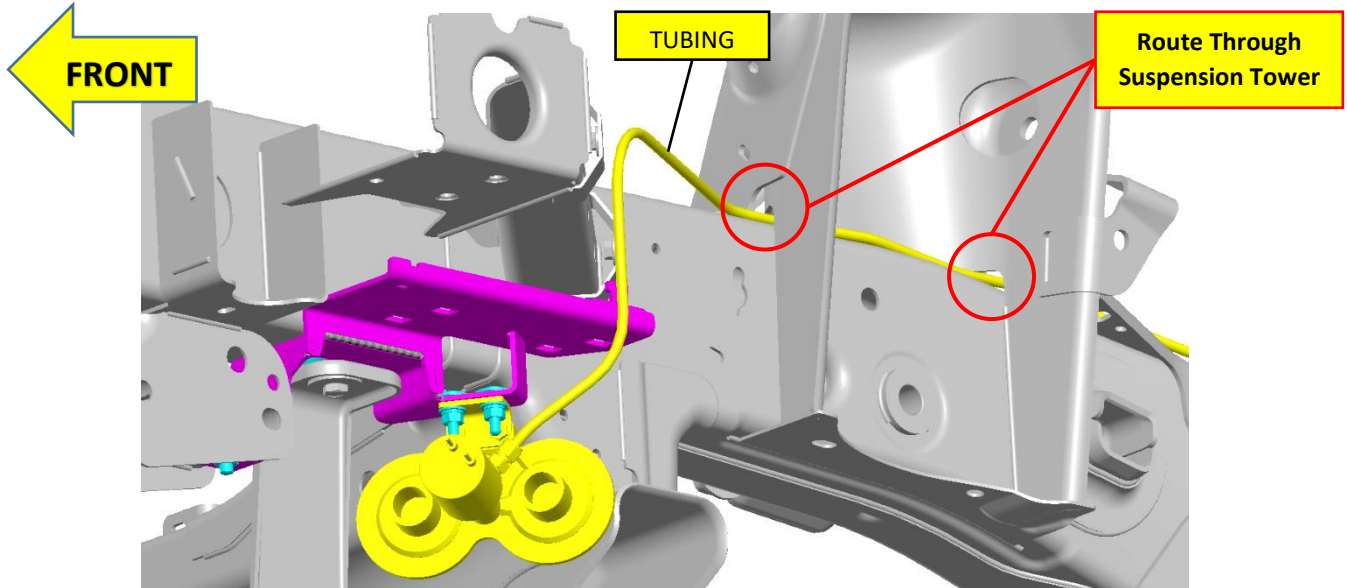


Figure 29 – 102 Air Horn Tubing Routed through Front Suspension Tower (Shown as if installed on Vehicle)

9.8.2. Place [#H13 Rubber Grommet](#) over Air Tubing before connecting to Air Tank, then insert grommet into small hole on Air Tank Bracket, as shown below. Use of grease on Grommet will help insertion.

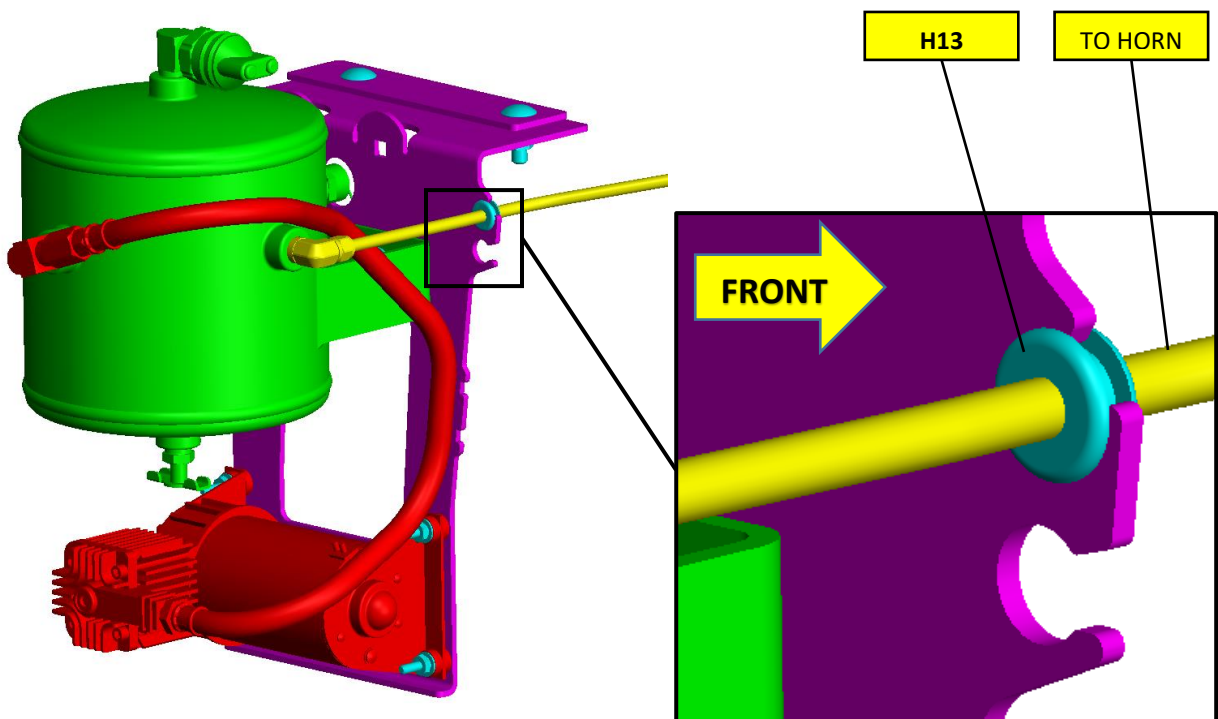


Figure 30 – Air Tank Air Tubing Route with Rubber Grommets (Shown as if installed in vehicle)

Installation and Operation Manual

9.9. Final Trumpet Installation

- 9.9.1. Re-attach Trumpets to Air Horn Driver, as shown below. Ensure Trumpets are firmly tightened by grasping Metal Collar/Throat, as performed earlier.
- 9.9.2. Reposition Air Horn Driver if needed to ensure at least 1/4" of space exists between them and vehicle, especially any moving parts such as Brake Cables, Lines, Wiring, etc. **Final torque fasteners to 37 in-lbs.**

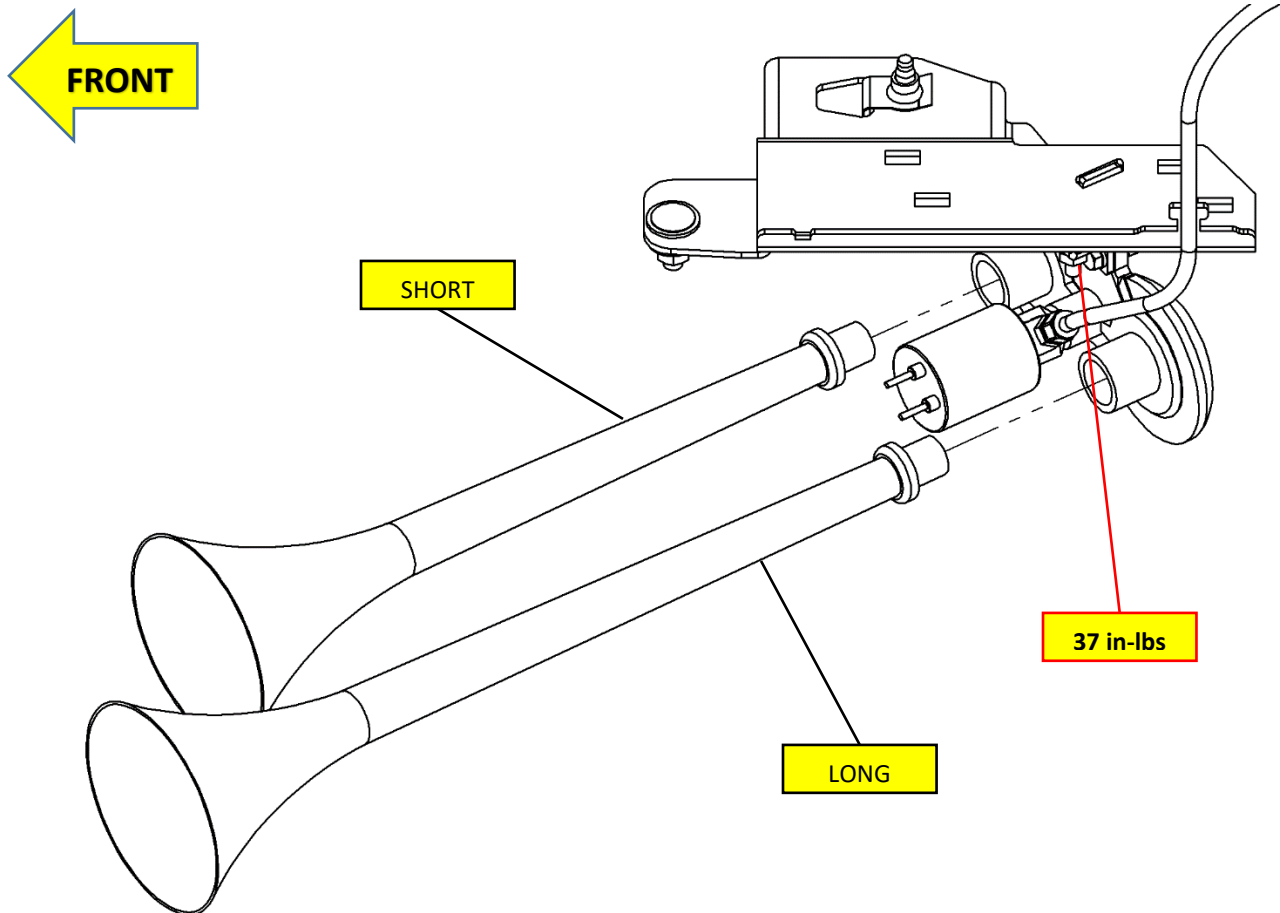


Figure 31 – Re-attaching Trumpets (Exploded View shown as if installed in vehicle)

10. On-Vehicle Electrical Installation

CAUTION: Follow all recommended safety precautions for working on vehicle's electrical system; consult vehicle owner's manual for further instruction.

10.1. Relay and Fuse Diagram for Air Horn System

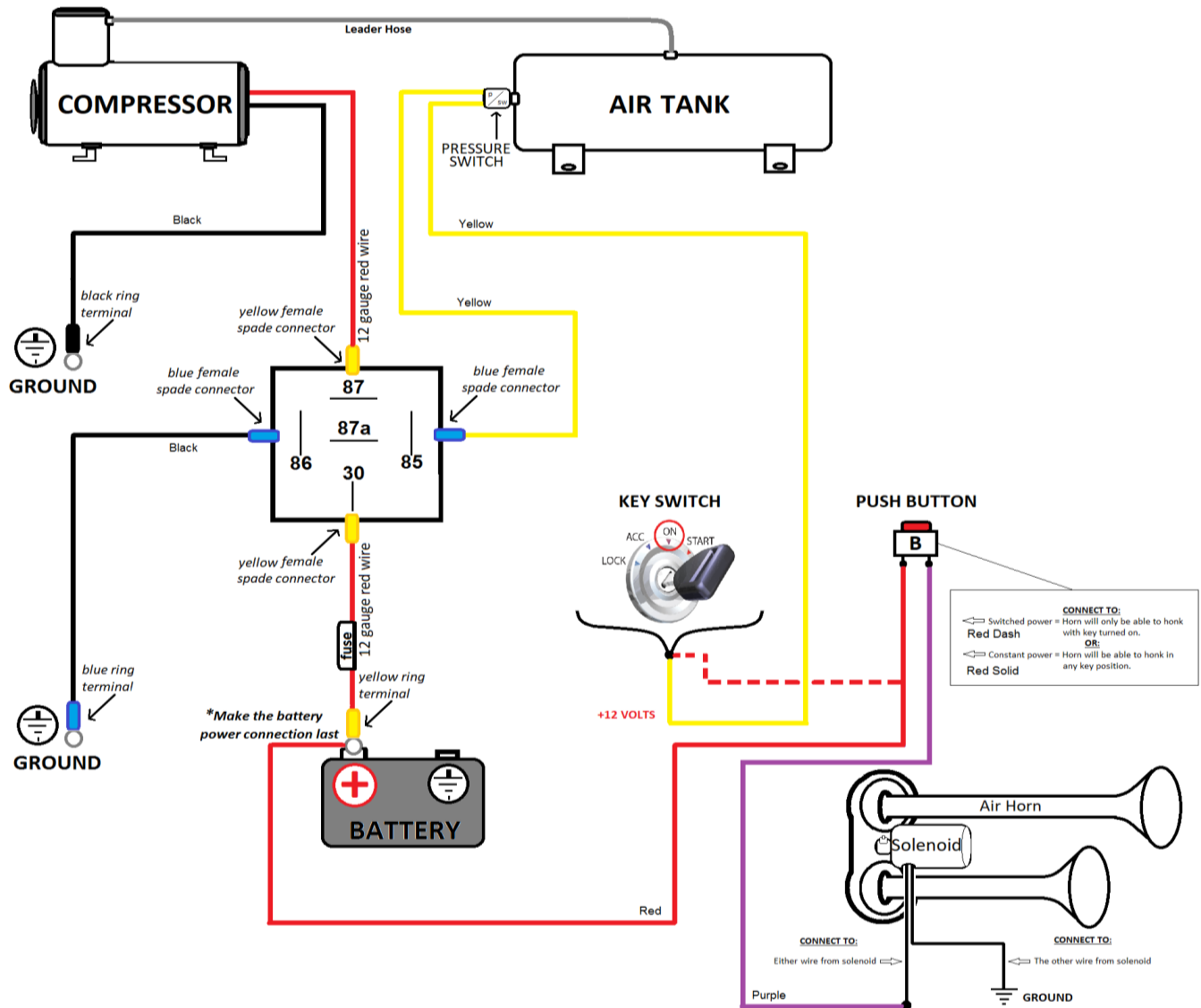


Figure 32 – Suggested Ignition Relay Diagram for Air Horn System (Single 220 Horn Shown)

10.2. Suggested Wire Routing for Air Horn System

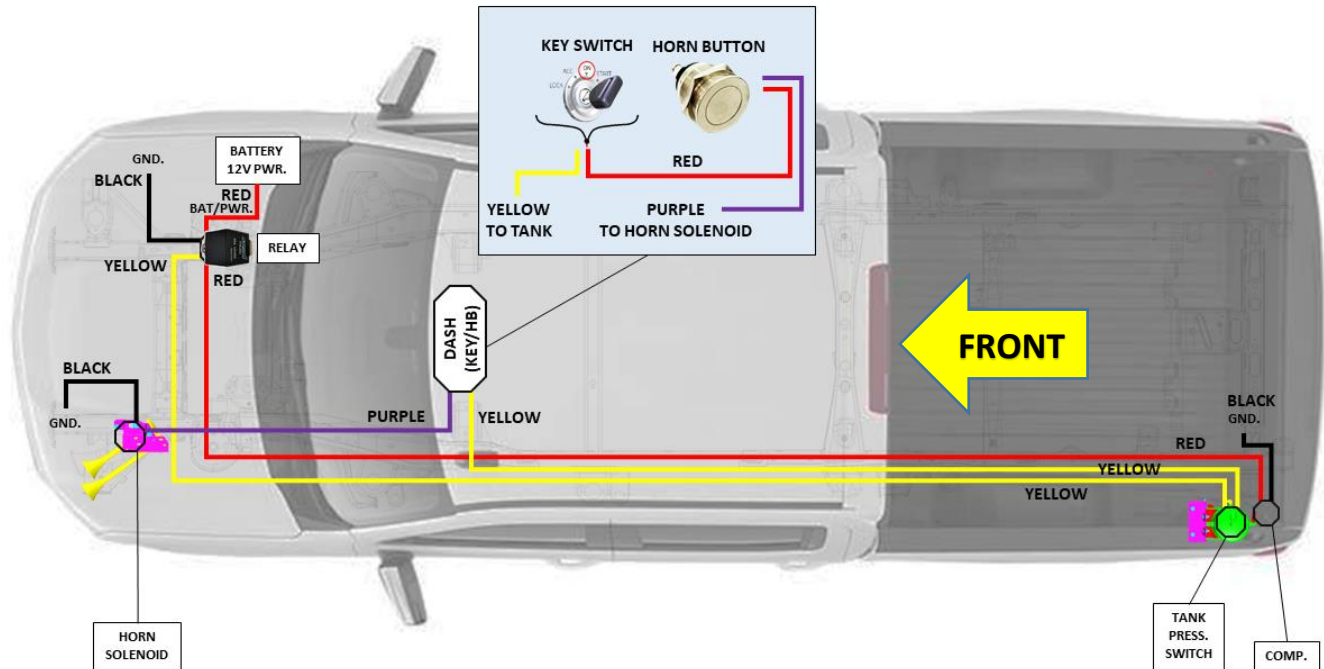


Figure 33 – Suggested Wire Routing for Horn, Air Compressor, and Pressure Switch (GMTRK4 Shown)

10.3. Disconnect Vehicle Battery(s)

10.3.1. Consult Owner's Manual.

10.4. Connect Wiring to Fuse and Relay

10.4.1. Find a suitable location for supplied Fuse and Relay. Shown below is an example location under hood next to Battery mounted on firewall. Use supplied self-tapping screws, as necessary.

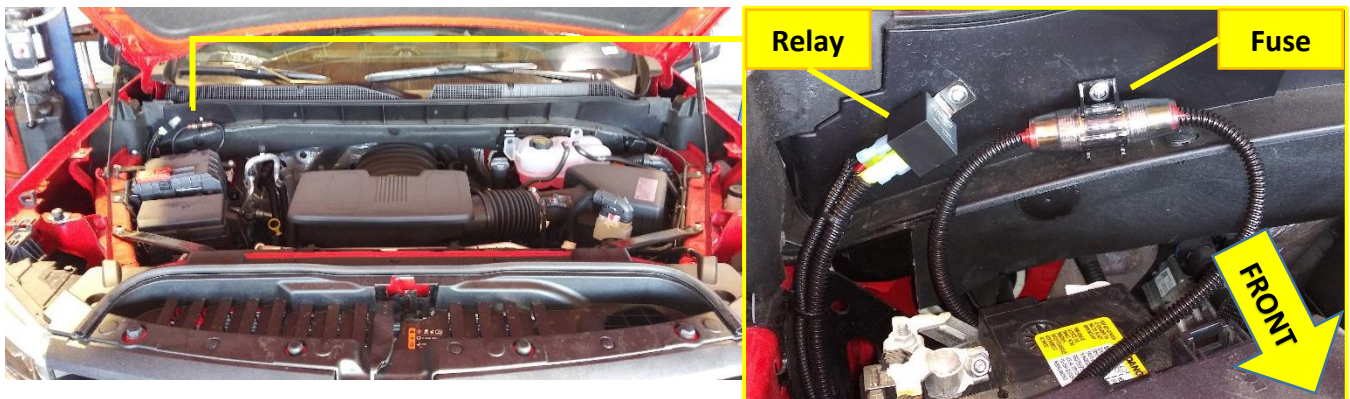


Figure 34 – Relay and Fuse location example under hood (2020 Silverado 5.3L Shown)

10.4.2. Install supplied fuse holder on end of power wire by cutting the loop in fuse holder and connecting supplied Ring terminal to one end and Butt connector on other end.

CAUTION: Do not install 30-amp fuse until all electrical connections are final.

10.5. Install Horn Button

- 10.5.1. Find a suitable location for Horn Button (i.e., in dash, center console, etc.); verify location has 1"+ of clearance behind for terminal connectors. Mark location for drilling.
- 10.5.2. Drill a 3/4" hole at location. Route Horn Button wires to hole then slide push-button retaining nut over wires and connect wiring. Install Button into hole and tighten retaining nut from backside.



Figure 35 – Horn Button Installed in Dash and OE Upfitter Switches (Shown in example vehicles)

NOTE: FOR VEHICLES WITH OE/FACTORY UPFITTER SWITCHES:

If your vehicle is equipped with factory upfitter (i.e., auxiliary) switches, you may elect to use them for your Kleinn Air Horn kit; consult Owner's Manual, or dealership for further instructions on what wire terminals/fuse block location to use and programming required.

10.6. Connect Pressure Switch

- 10.6.1. Route wiring, as desired to Air Tank and connect to Pressure Switch, per wiring diagram.
NOTE: Either pressure switch wire can be connected to Relay or Ignition; they are identical.

10.7. Connect Air Compressor

- 10.7.1. Route wiring, as desired to Air Compressor and connect, per wiring diagram.

10.8. Connect Air Horn Solenoid(s)

- 10.8.1. Route wiring, as desired to Air Horn and connect to Solenoid(s), per wiring diagram.
NOTE: Either Air Solenoid wire can be connected to Power (PWR) or Ground (GND); they are identical.

10.9. Secure Wiring to Vehicle

- 10.9.1. Insert all wiring into included wire loom and ensure loom is away from all sharp edges, hot/moving vehicle parts (i.e., exhaust, engine, radiator) and fasten securely to vehicle using supplied zip ties, or equivalent.



GMTRK4

Installation and Operation Manual

11. Final Steps & Testing

11.1. Reconnect Vehicle Battery(s)

CAUTION: Before connecting vehicle battery(s), verify all wiring is properly connected and no shorts exists. Use of Multi-Meter, or Test Light is recommended to check continuity of all connections.

11.2. Test Air Compressor

- 11.2.1. Turn vehicle ignition to on position and allow compressor to fill Air Tank. Initial fill may take approximately 1.5-3 minutes; Air Compressor should shut off automatically once full pressure is achieved.
- 11.2.2. If compressor runs excessively (i.e., 5 minutes or more), disconnect electrical power to Air Compressor and listen for air leaks in system. Repair any problems and retest; contact Kleinn technical support if problem persists.
- 11.2.3. Inspect all air line connections (i.e., Air Tank fittings, Quick Connect fittings, Air Horn fittings, etc.) for leaks by using a soap and water solution sprayed directly onto fittings
- 11.2.4. System must be pressurized or at least Air Compressor running
- 11.2.5. If an air leak is found:
- 11.2.6. Safely release air pressure from system (i.e., slowly open drain valve)
- 11.2.7. Disassemble leaky connection, re-seal and reinstall fittings as needed

11.3. Test Train Horns

- 11.3.1. Allow Air Compressor to run and shut-off automatically (i.e., Air Tank is full)
- 11.3.2. Verify all tubing and electrical wire is securely fastened to vehicle, brackets, or kit parts; if necessary, use extra zip ties to hold tubing and wire in place
- 11.3.3. Ensure all nearby persons have adequate hearing protection and provide courtesy warning to neighbors or others in vicinity

WARNING: NEVER operate train horns with ears close to trumpets or in an enclosed space without substantial hearing protection (i.e., > Ear Plugs and Ear Muffs) for all persons closer than 100 feet from vehicle. Never operate train horns outdoors when persons are near vehicle without adequate hearing protection.

- 11.3.4. Briefly activate Horns by pressing Horn Button for one (1) second; repeat three (3) times with a short rest period between (i.e., 1-3 seconds)
- 11.3.5. Horns should sound as expected and be loud; [click to listen to example 230 Kit](#)
- 11.3.6. Horn sound/loudness will taper quickly as Air Tank loses pressure
- 11.3.7. Allow Air Compressor to refill tank, if needed and activate Horns for longer three (3) second period to ensure Horns are functioning properly.

11.4. Test Quick Connect Coupler

- 11.4.1. Allow Air Compressor to refill tank, if needed
- 11.4.2. Attach supplied INF-1 inflator kit to Quick Connect Coupler and verify adequate air pressure is available
- 11.4.3. Test fill tires on vehicle, bicycle, etc.
- 11.4.4. Use Air Blow Gun
- 11.4.5. Use Air Impact Gun

End of Section



GMTRK4

Installation and Operation Manual

12. General Operation

12.1. Compressor Operation

WARNING: NEVER operate Air Compressor above its MAXIMUM PRESSURE RATING (see label on body). Operation exceeding maximum pressure will damage Compressor and potential Air System failure.

- 12.1.1. Kleinn's Oil-Less Compressor is equipped with an automatic thermal overload protection circuit, designed to protect air compressor from overheating and permanent damage.
- 12.1.2. Automatic thermal overload protector will automatically reset after 30 minutes.
- 12.1.3. To prevent discharge of vehicle's battery and for best performance, keep vehicle's engine running while using Air Compressor for any prolonged use (i.e., filling tires, using air tools, etc.).

12.2. Horn Operation

- 12.2.1. Allow Air Compressor to run until it shuts off automatically (i.e., Air Tank is full), or for at least one minute in between horn activations.
- 12.2.2. Press Horn Button to activate Horns
- 12.2.3. Horn sound/loudness will taper quickly as Air Tank loses pressure.
- 12.2.4. Horns should sound for 3-7 seconds depending on kit and tank size

WARNING: NEVER operate train horns with ears near trumpets or in an enclosed space without [hearing protection](#) (i.e., > Ear Plugs/Muffs) for all persons closer than 100 feet from vehicle. Never operate train horns outdoors when persons are near vehicle without hearing protection.

End of Section

13. Routine Maintenance

Perform following steps at least once during recommended intervals.

- 13.1. Yearly, or every 12000 miles verify all mounting fasteners are properly torqued; applying witness marks across fasteners and mounting parts is good practice to quickly ensure fasteners have not moved.
- 13.2. Yearly, or every 12000 miles inspect OE wiring, tubing, cables, etc. where Kit parts may touch, to verify no abrasion or rubbing.
- 13.3. Yearly, or every 12000 miles remove all road grime and mud from mounting brackets and kit parts using clean water from a garden hose; pay special attention to corners where dirt may collect. Touch up all paint chips using automotive grade enamel in either spray, or brush form.

NOTE: High-pressure washers may damage part finishes and *must* be used with care. Do this more frequently if traveling regularly off-road, or in winter climates with road salts.

- 13.4. Yearly, or every 12000 miles check electrical and air fitting connections and wires for abrasion, corrosion, or other damage. Replace damaged components.

NOTE: if system runs continuously or turns on unexpectedly, leaks or intermittent electrical connection may be present.

- 13.5. Monthly, or every 10 hours of compressor run time, drain moisture from Air Tank using Drain Valve installed at bottom of Tank.

WARNING: Failure to regularly drain Air Tank may result in corrosion inside Tank and possible failure in Tank or Air Tubing, causing injury.

- 13.6. Yearly, or every 12000 miles clean, or replace Air Compressor Air Filter element. Replacement frequency depends on operating frequency and conditions of environment (i.e., daily use requires more frequent changes).

NOTE: NEVER lubricate or add liquids to Compressor

End of Section