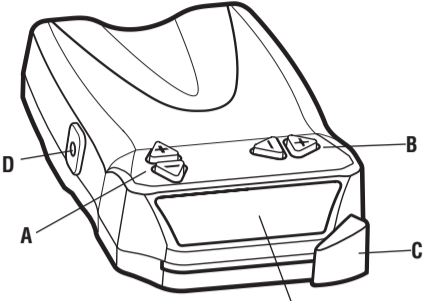


Instructions For The Installation And Operation Of Electronic Brake Control For 2, 4, 6 & 8 brake applications

READ THIS FIRST:
Read and follow all instructions carefully before installing or operating the Brake Control. Keep these instructions with the Brake Control for future reference.

Components of the Brake Control



- A. Output (Gain) Control
- B. Sync Control
- C. Manual Slide Control
- D. Bracket Mounting Holes
- E. LED Display

This Package Includes:

- (1) Brake Control Unit
- (1) Mounting Bracket
- (4) Mounting Screws
- (1) Warranty Card

Material Required:

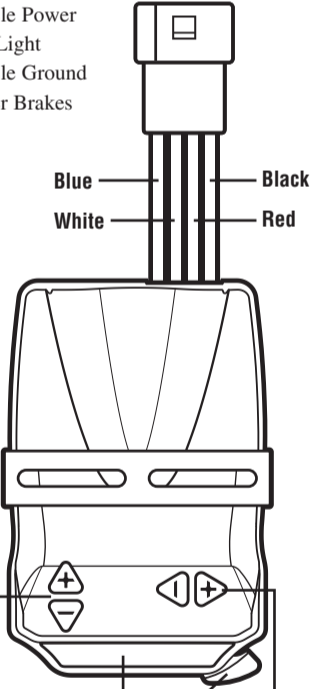
- 10 Ga. wire
- 30 Amp auto-reset circuit breaker
- Assorted ring terminal & butt connectors
- 4" cable ties (6-10)

Tools Required:

- Assorted end wrenches
- Drill with 1/8" bit
- Wire connector crimp tool
- Probe type circuit tester
- Wire cutter/stripper
- Screwdriver or 1/4" Nut Driver

Wiring & Controls

- Black:** Vehicle Power
- Red:** Stop Light
- White:** Vehicle Ground
- Blue:** Trailer Brakes



- Output (Gain) Control**
More Output (+)
Less Output (-)
- Output / Sync Display**
- Manual Control**
Slide To Apply Brakes
- Sync Control**
More Aggressive Braking (+)
Less Aggressive Braking (-)

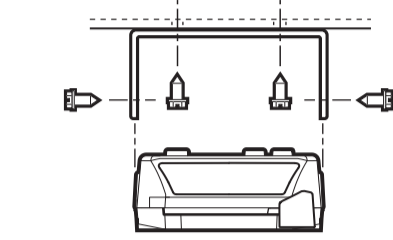
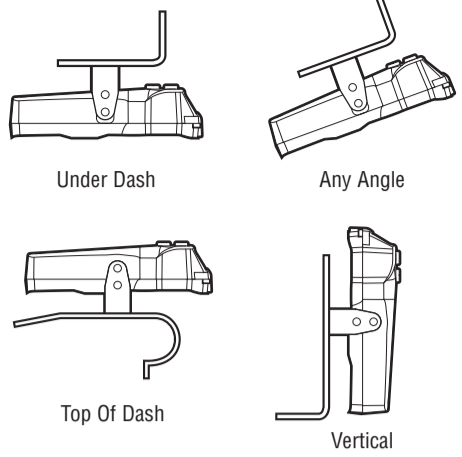
Output (Gain) Control

The Output (Gain) Control establishes the maximum amount of power available to the trailer brakes.

As the Gain is increased more power will be available to the brakes when the brake pedal is pressed or the manual control is used. The Output (Gain) Control would be adjusted during initial setup, when trailer load changes, when different trailers are used or to adjust for a change in road conditions.

The Gain setting is shown on the digital display when a trailer is connected and the brake pedal is pressed or the Manual Control is actuated. The Gain setting is shown as 0 through 10 with 0 being the minimum and 10 the maximum.

Mounting



Important:

Make sure area behind panel is clear before drilling. Use bracket as template to mark hole locations. Drill (2) 1/8" dia. Holes and mount bracket with Screws provided. Mount brake control to bracket using the remaining (2) screws.

1. Determine a suitable mounting location.
 - A) The unit must be mounted securely to a solid surface.
 - B) The unit must be easily reached by the driver.
 - C) The area behind the mounting location must be clear so nothing will be damaged when drilling.
2. Hold the mounting bracket in the position selected and mark hole locations through the slots in the bracket.
3. Using a 1/8" dia. bit, drill holes in the marked locations.
4. With a screwdriver or a 1/4" nut driver, secure the bracket in place using (2) self tapping screws (provided). Be careful not to strip the holes by over-tightening.
5. Mount the brake control unit in the bracket using the other (2) self tapping screws as shown in the illustration.

Sync Control

The Sync Control adjusts trailer brake aggressiveness. The trailer brakes become more aggressive as the Sync "+" button is pressed.

To view the Sync setting on the display, press the brake pedal (trailer must be connected) and press either the + or - Sync button. The display will change to the Sync mode.

The Sync setting is shown as 00 through 90 with 00 being the least aggressive and 90 being the most aggressive.

The Sync adjustment has no effect on the Manual Control.

The Sync Control would be adjusted for individual driver preference or changing road conditions.

Manual Control

The Manual Control is located on the front of the Brake Control Unit at the right side.

The Manual Control only applies the trailer brakes and would be used during initial setup and in situations where it is desirable to reduce speed slowly.

When the Manual Control is moved to the left, the control begins to apply the trailer brakes. The further to the left it is moved the harder the brakes are applied until the maximum setting by the Output (Gain) Control is reached.

The Gain setting will be shown on the display and can be adjusted when using the Manual Control.

The Manual Control activates all trailer stoplights. **NOTE:** Some tow vehicles' stoplights may also activate.

Digital Display

The Digital display shows the Gain setting when the control is activated. It is used to setup and monitor the Brake Control and can be used when trouble shooting.

Display Examples

Single Decimal
Control Activated
No Trailer Connected

Output (Gain) Display
Control Activated
Trailer Connected

Sync Display
Brake Pedal Pushed
Sync Control Activated
Trailer Connected

Setup

Preliminary Adjustments:

With the trailer connected press and hold the brake pedal, the Display will show the Gain setting.

Adjust to approx. 2.0 by pushing the Gain button up or down as needed.

While still holding the brake pedal press either Sync button. The display will change to the Sync setting.

Adjust to 4.0 by pressing the Sync button (+ or -) as necessary.

Test Drive

In an open area, such as a large parking lot, drive forward and apply the trailer brakes using the Manual Control.

If the trailer brakes are weak adjust the Output (Gain) Control up.

If the trailer brakes jerk or lockup adjust the Output (Gain) Control down.

Repeat this step until firm braking is felt with out jerking or lockup.

Once the Gain is set, drive forward and press the brake pedal, the tow vehicle and trailer should make a smooth stop.

If the stop seems slow and more aggressive braking is desired, push the Sync Up (+) button while holding the brake pedal.

If the stop seems too aggressive press the Sync Down (-) button while holding the brake pedal.

After making a Sync adjustment the Display will show the setting until the brake pedal is released.

Make several stops at various speeds and adjust the Sync until stops are smooth and firm. Slight adjustment of the Output (Gain) Control may also be desirable.

NOTE: If any problems occur during Setup refer to the Trouble Shooting section of these instructions.

Usage Tips

Light pressure on the brake pedal will activate the trailer's brakes with no effect on the tow vehicle's brakes. This is useful for gradual slowing on steep grades or before stops.














Periodic adjustment of the Sync and Output controls may be necessary to correct for changing road conditions, trailer loading, brake wear, and/or driver preference.

On some vehicles, operating the Brake Control's Manual Control will not disengage "Cruise Control".

When Towing (in most applications) with Hazard Flashers on the Digital Display will flash with the Hazard Flashers. If the Brake Control is set aggressively pulsing may be felt in the trailer brakes.

Installation of a Pulse Preventor will isolate the brake control from the flashers and eliminate the flash/pulse situation.

Troubleshooting Chart: Test Without Trailer First

	Condition	Display	Probable Causes	Possible Solution
No Trailer Brakes, Pedal or Manual	Decimal point does not light when brake pedal or manual control is used	 Blank	No power to control, no ground, reversed black and white wires, circuit breaker blown	Check and repair connections, refer to "wiring" section
	Decimal point does not light when brake pedal is pushed does light with manual	 Pedal  Manual	No connection or incorrect connection at stoplight switch, blown fuse in stoplight circuit	Check and repair connections, refer to "wiring" section, check stoplight circuit
	Decimal on all the time	 Decimal Only	Red wire connected to the wrong side of the stoplight switch or to wrong switch (cruise control)	Check and repair connections, refer to "wiring" section
	Display shows output Setting	 Output Setting	Brake control unit miswired	Check and repair connections, refer to "wiring" section
	Display shows OL when activated	 Flashing OL	Short in blue wire circuit	Locate and correct short
	Display shows Er	 Error	Internal brake control problem	Return unit to dealer for evaluation
With Trailer Connected	No trailer brakes, pedal or manual	 Decimal Only	No connection between brake control and brakes - blue wire circuit	Confirm connection to trailer connector, confirm connector terminal positions, check trailer
	No trailer brakes, pedal or manual	 Output Setting	Miswired trailer connector	Confirm trailer connector terminal positions
	No trailer brakes, pedal or manual	 Flashing OL	Short or overload in trailer brakes	Trouble shoot trailer brake circuit per brake manufacturer's instructions
	No trailer brakes, pedal or manual	 Error	Internal brake control problem	Return unit to dealer for evaluation
	Weak or no trailer brakes	 Output Setting	Miswired trailer connector Output (Gain) setting too low	Check and correct connector wire positions Increase Output (Gain) Control
	Trailer brakes on all the time	 Blank	Miswired trailer connector	Check and correct connector wire positions