Installation for Pilot Brake Control

Electronic Brake Control For 2 to 6 brake applications

READ THIS FIRST:

Read and follow all instructions carefully before wiring brake control. Keep these instructions with the brake control for future reference.

Components of the Brake Control (Shown "Right Side Up")



- A. Power Knob
- B. Manual Slide Knob
- C. Anchor and Pivot Holes
- D. Two Digit Power Display
- E. Optional Ball Mount Interface

Important Facts to Remember

- Do not mount or activate RF generating items (cell phones, two way radios) near (less than 12") the brake control.
- Reversing the connection to a breakaway battery on the trailer will destroy the brake control.
- Disconnect trailer plug from the tow vehicle prior to testing a breakaway switch, or you may destroy the brake control.

2 Digit Power Display Legend

Right Side Up

Upside Down



 Manual Slide or Tow Vehicle Brakes applied, unit is wired properly and trailer NOT Connected.



 Unit has power and is Connected to a trailer load.

3.8. 88

 Manual Slide or Tow Vehicle Brakes applied and trailer Connected, typical ones and tenths voltage display.



 Manual Slide or Tow Vehicle Brakes applied and trailer Connected, typical tens and ones voltage display.

NOTE: Display shows tenths of a volt up to 9.9. After 9.9 the display shows whole digits only.

Installation Guide



- A. Mounting Bracket
- **B**. #6 x 3/8" Screws
- C. Mounting Holes

NOTE: Drilling or use of longer screws may damage unit.

- 1. Securely mount *bracket* to a solid surface.
- 2. Insert supplied #6 x 3/8"screws on each side into the mounting holes.
- **3.** Adjust control to desired position and tighten *screws* until snug.

Optional Mounting Ball (Purchased Separately)



- A. Double Sided Tape
- B. Mounting Ball
- C. Foam Gasket
- C. Mounting Screw
- 1. Using *mounting ball*, find a desired location.
- 2. Attach *double sided tape* to back of *mounting ball*.
- 3. With the other side of the *double-sided tape*, **temporarily** attach *mounting ball* to desired location.
- 4. Using *mounting ball* as a template drill (3) 1/16" holes for a #6 screw size.

NOTE: Check behind dash for wires, etc. before drilling.

- Permanently secure mounting ball using
 (3) #6 x 3/8" screws supplied.
- 6. Insert *mounting screw* through bottom of the control.
- Place foam gasket on top of the control inserting mounting screw through hole in gasket.
- 8. Attach control to *mounting ball*.

Right Side Up

9. Rotate control to desired position and tighten *mounting screw* until snug.

Changing the Display Orientation

Upside Down



To change the display orientation from <u>*right</u></u> <u>side up</u> to <u>upside down</u>:</u>*

- 1. Connect white, red and blue wire to tow vehicle.
- 2. While applying the brake pedal or *manual slide knob*, connect Black Wire (Battery) to the tow vehicle.
- 3. Display should now be upside down.

NOTE: If using a wiring harness, apply brake pedal or *manual slide knob* while snapping connector to tow vehicle.

Right Side Up

Upside Down



To change the display orientation from <u>upside</u> <u>down</u> to <u>right side up</u>.

- 1. Disconnect Black Wire (Battery) from tow vehicle.
- 2. Wait 5 seconds.
- 3. Reconnect Black Wire (Battery) **DO NOT** apply brake pedal or *manual slide knob* while connecting wire.

Adjusting the Power to the Trailer Brakes

Once the control has been installed, it is necessary to set the power needed to stop the trailer during a braking event.

- 1. Connect trailer to tow vehicle.
- 2. Locate the *manual slide knob* and *power knob* on the control.
- 3. While applying the *manual slide knob* turn *power knob* until display reads 4.0.
- 4. Drive tow vehicle and trailer on a dry level paved surface at 25 mph and apply *manual slide knob*.

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- □ Turn power down using *power knob*. ✓ If braking was not sufficient:
- Turn power up using *power knob.* Repeat Step (4) until power has been set to a point just below wheel lock up or at a sufficient force as to achieve maximum braking power.

NOTE:

- Always warm the trailer's brakes before setting the power. Warm trailer brakes tend to be more responsive than cold brakes. To warm trailer brakes, drive a short distance (1/4 mile) at 45 MPH with manual slide engaged approximately halfway.
- 2. Braking performance may be sluggish in sub-freezing temperatures. Allow adequate

Pilot Troubleshooting Chart

time for the controller to warm prior to use in sub-freezing temperatures.

 The power should never be at a level high enough to cause trailer brakes to lock up. Skidding trailer wheels can cause loss of directional stability of trailer and tow vehicle. The power may need to be adjusted for different load weights and road conditions.

Situation	Probable Cause	
No Trailer connected,	1. Poor connection on POWER (BLACK wire) or GROUND (WHITE wire).	
Manual Slide Knob or Brake Pedal is activated:		
No "." on two digit display.		
Tow Vehicle connected to trailer,	1. Corrosion on trailer plug contact.	
Manual Slide Knob or Brake Pedal NOT ACTIVATED:	2. Poor connection on POWER (BLACK wire) or GROUND (WHITE wire).	
No ".C" on two digit display.	3. Poor connection on BRAKE line (BLUE wire).	
	4. 12 volts from external source on BRAKE line (BLUE wire).	
Tow Vehicle connected to trailer,		
Manual Slide Knob or Brake Pedal is activated:		
A. Only "." on two digit display.	1. Poor connection on BRAKE line (BLUE wire).	
B. 0.0 or less than 1.0 on two digit display.	1. Power set too low.	
	2. Poor connection on BRAKE line (BLUE wire).	
	3. BLACK & WHITE wires reversed, control destroyed.	
C.5.0 - 6.0 on two digit display. (Power set to MAX)	1. Open on GROUND line (WHITE wire).	
Braking with foot pedal is too aggressive.	1. Power set too high.	
Braking with foot pedal is too light.	1. Power set too low.	