

51500

UNIVERSAL BRAKE CONTROL WIRING KIT

KIT INCLUDES:

- (1) 30 AMP CIRCUIT BREAKER
- (2) #10 RING TERMINALS
- (2) 3/8" RING TERMINALS
- (2) 1/2" RING TERMINALS
- (3) 12-10 GAUGE BUTT CONNECTORS
- (1) 10' - 10 GA BLK/WHT DUPLEX WIRE
- (1) 20' - 10 GA BLUE X-LINKED WIRE
- (8) 8.5" CABLE TIES

TOOLS NEEDED:

- TEST LIGHT
- WIRE STRIPPER/CUTTER
- CRIMP TOOL
- 3/8" BOX END WRENCH



English

REFER TO ILLUSTRATIONS ON BACK OF PAGE FOR DIRECTIONS BELOW.

1. Mount the 30 Amp circuit breaker near the tow vehicle's positive battery terminal. Determine the length of 10 ga. wire needed to connect one side of circuit breaker with the positive side of battery. Once length is determined, cut that length of black wire from duplex and strip 3/8" of insulation of each end of the wire. Continue by crimping one #10 ring terminal to one end of the wire and one 3/8" or 1/2" ring terminal (determined by battery terminal size) to the other side of the wire. Attach #10 ring terminal side of wire to stud on circuit breaker labeled "BAT". Tighten nut with 3/8" box end wrench.

Attention: The opposite end of the wire will be attached to positive side of battery in the last step.

2. Feed the 10 ga. duplex wire from the brake controller into the engine compartment to the battery. Cut length as necessary.

Attention: When passing the duplex wire through the fire wall into the engine compartment, utilize an existing grommet, add a grommet or fill the hole with silicone rubber to insulate and protect the wire.

3. On the end of the duplex wire you just ran to the battery, crimp a 3/8" or 1/2" ring terminal to the white wire and a #10 ring terminal to the black wire in the same manner as Step 1.

4. Attach the black wire to the circuit breaker stud labeled "AUX". Tighten nut with 3/8" box end wrench.

5. In the cockpit, attach the black duplex wire to the brake controller's battery wire (typically black) using one of the supplied yellow butt connectors or by soldering the leads together and insulating with heat shrink tubing.

6. Attach the white duplex wire to the brake controller's ground wire (typically white) using one of the supplied yellow butt connectors or by soldering the leads together and insulating with heat shrink tubing.

7. 1989-1991 E & F Series Van and Trucks with Anti-Lock Brakes. (All other vehicles continue to Step 8.)

Locate the semi-circle turn signal harness connector (as shown) located on the steering column under the dash. The connector will have two rows of wires, a row of four and a row of seven. Attach the stop signal wire (typically red) from the brake controller to the light green wire using a wire tap.

LIGHT GREEN WIRE



Do NOT connect to the Red wire with green stripe as serious damage may occur. (continue to step 9.)

8. Locate the brake pedal switch on the back side of the vehicle's brake pedal. Determine which side of the switch is the "cold" or switched side by probing the terminals of the switch with a test light or volt meter. The cold terminal will only indicate power when the brake pedal is depressed. Attach the stop signal wire (typically red) from the brake controller to the cold side of the stop signal wire using a wire tap.

9. Feed the 10 ga. blue cross-linked wire from the brake controller to the trailer connector at the rear of the vehicle, taking up any slack in the wire. **Attention: When passing the cross-linked wire through any sheet metal, utilize an existing grommet, add a grommet or fill the hole with silicone rubber to insulate and protect the wire.**

10. Attach the blue cross-linked wire to the brake controller's electric brake wire (typically blue) using one of the supplied yellow butt connectors or by soldering the leads together and insulating with heat shrink tubing.

11. At the rear of the vehicle, trim any loose blue wire. Attach the blue wire to the vehicle's trailer connectors electric brake terminal. (see the connector's wiring diagram for the correct terminal location.)

12. Secure any loose wires with the cable ties provided.

13. Connect the black power wire from the circuit breaker to the positive side of the battery. Connect the white ground wire from the brake controller to the negative side of the battery. Reconnect the tow vehicle's negative battery cable to the battery.

Attention: The Black Power wire must be connected directly to the tow vehicle's positive(+) battery terminal via the self-resetting 30 amp circuit breaker. Do not attempt to connect this wire to the vehicle's fuse panel or any other accessory wiring. Failure to connect directly to the vehicle's battery may damage vehicle wiring and cause trailer brake failure.

ELECTRIC BRAKE CONTROL WIRING DIAGRAM

WARNING!!! READ AND FOLLOW ALL WARNINGS AND CAUTIONS PRINTED ON TOW VEHICLE BATTERY

CAUTION!!!
DISCONNECT TOW VEHICLES
NEGATIVE(-) BATTERY CABLE
BEFORE INSTALLATION OF
BRAKE CONTROL WIRING



12-10 GA BUTT CONNECTOR

GROUND (WHITE)
BATT (BLACK)
STOP SIGNAL (RED)
ELEC BRK (BLUE)



3/8" or 1/2"
RING TERMINAL

#10 RING
TERMINAL

30 AMP
AUTO-RESETTING
CIRCUIT BREAKER

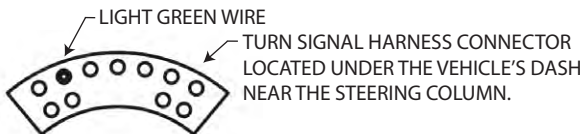
WIRE TAP

TRAILER CONNECTOR
AT REAR OF VEHICLE

BREAK PEDAL SWITCH
CONNECT TO COLD(SWITCHED) SIDE
"ONLY ON WHEN PEDAL IS DEPRESSED"

BRAKE PEDAL

ATTENTION: ALL 1989-1991 FORD E & F-SERIES VANS AND TRUCKS WITH ANTI-LOCK BRAKES.
DO NOT CONNECT TO BRAKE PEDAL SWITCH.



SPLICE THE RED STOP SIGNAL WIRE FROM THE BRAKE CONTROLLER TO THE LIGHT GREEN WIRE ON THE TURN SIGNAL HARNESS USING A WIRE TAP.