Super Duty Wiring Kit Installation

SPECIAL TOOLS REQUIRED

For a professional installation you will need a heat gun and a quality crimp tool as shown in Figure 1. The crimp tool should be designed to dimple the non-insulated (bare) terminals provided in this kit.

Figure 2 - Proper Crimp

A proper crimp is shown in Figure 2. Use a piece of heat shrinkable sleeving included in the kit to insulate each crimped terminal.

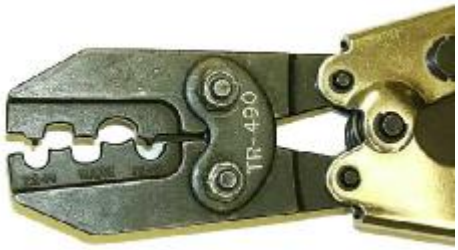

Figure 1 - Crimp Tool

INSTALLATION

1. IMPORTANT - BEFORE YOU BEGIN

Shift Mode Switch: A pair of plugs with wire loops are located on the Fuse Panel for selecting Time or RPM shifting. The wiring diagram shows how to connect a Timer and an RPM-activated switch for operating a standard two-speed pneumatic shifter or a high current electric shifter. If you only want to shift on RPM, it is not necessary to connect a timer, and vice-versa. Be sure to install the correct plug.

Shifter: This kit is compatible with all electric and air (CO2) shifters. For air shifters use the 18 awg wire included with the kit labeled AIR SHIFTER. If you are using a spring-loaded (cocking type) electric shifter, connect it to the Fuse Panel terminal marked SPRING SHIFTER. This terminal has 12v applied through normally-closed relay contacts when the Ignition switch is on. Power is removed from this terminal when the shift relay closes. Other large electric solenoid type shifters can require more than 50 amps when power is applied for the shift. If you are using this type of shifter, you should use 10 awg wire connected to the terminal labeled ELECT SHIFTER. There are two 30 amp fuses located close to each other on the Fuse Panel near the Battery stud. Both fuses are required for these high current electric solenoids, otherwise only one shifter fuse is required.

2. MOUNTING EQUIPMENT

Mount the Switch Panel, Fuse Panel, and all other electrical equipment before you begin installing the wiring. Mount the Fuse Panel near the ignition unit or near the Master Disconnect Switch, whichever is more convenient for connecting the primary power using the 8 awg wire supplied.

3. CONNECTING ACCESSORIES

Several labeled wires are included for common accessories such as cooling fan, water pump, fuel pump, transbrake, etc. These wires are color-coded and labeled to make inspection and troubleshooting easy. You'll want to connect some accessories so that they can be easily disconnected and removed. For these accessories, use a terminal block or insulated push-on connector. Be sure to leave a wire loop or plenty of slack at each connection to prevent wires from pulling out due to chassis flex, etc.

4. IGNITION WIRES

A special pre-assembled green and violet twisted pair cable connects a crank trigger or magnetic pickup distributor to the ignition unit. Route this cable away from other wires in the harness. Another twisted pair cable with orange and black wires are supplied for connecting to the coil.

5. TESTING

Plug in the Switch Panel connector into the Fuse Panel socket after all other connections are completed. Turn on power and verify all fuse indicator LED's on the Fuse Panel are illuminated. This indicates all fuses are good. On the Switch Panel, briefly turn on the Ignition, Fuel Pump, Fan, and Aux switches. Verify the LED corresponding to each output illuminates, indicating that the fuel pump, water pump, cooling fan, and auxillary output switches and relays are functioning. Note that only the water pump is On when the Fan/Water Pump switch is in the Water Pump position, and both the cooling fan and water pump are On when the switch is in the Fan position. Also note that the Ignition Switch must be On for the Fuel Pump circuit to operate.

6. WIRING TIPS

a. Use the wiring diagram for reference and route all wires before doing any final dress work.
b. Make sure the battery, Fuse Panel, and all other ground wires are securely fastened to clean steel.
c. Use masking tape or loose cable ties to temporarily hold wires together along frame rails.
d. Final dress your harness by starting at each accessory and working your way toward cable bundles. Do not route wires along the bottom of the chassis or anywhere else they might be scraped or damaged. Secure with cable ties every 4 - 6 inches. Dress cable bundles in a similar manner, working your way toward the Fuse Panel and ignition unit. Lay wires flat and parallel along frame rails for a professional appearance. (This also makes tracing wires much easier.)
e. Make connections to the Fuse Panel and ignition unit last, being sure to leave a service loop or plenty of slack in each wire or bundle to allow for movement of all rubber-mounted units.

WARRANTY

K & R Performance Engineering is doing its part to restore quality and pride in American made products. It is with this goal in mind that we proudly offer a full two-year parts and labor warranty against design defects, defective materials, and workmanship under normal service use conditions. Any defect affecting operation will be repaired free of charge and promptly returned.

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