

INSTALLATION INSTRUCTIONS

96113731 – KIT, SOLENOID HARNESS, PROCONTROL, 28V

Overview

This kit will allow you to upgrade your existing valve manifold wiring to work with the ProControl System. Please note, this wiring can only be used on 28V Series products. Anything preceding what is listed here will not work with this conversion. If your handheld transmitter is similar to figure 1 you will be able to use this kit. *Note: It is recommended that you read through this manual completely before performing any work.*

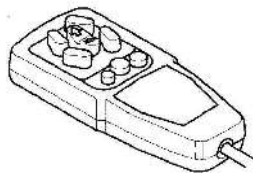


Figure 1

Tools Required

Gravity or Down Pressure Plows

- SAE socket set
- SAE wrench set
- Needle nose pliers

Down pressure plow proceed to step 9 in this manual.

Gravity plow:

- Sno-Way EIS Pin Removal tool SW # 96108632 or equivalent
- Wire stripping and crimping tool
- Heat shrink gun

Installation Notes

1. If this is a gravity plow we will need to modify the supplied harness. Remove the blue secondary lock within the 14 pin connector. See figure 2. If this is a down pressure plow proceed to step 9.

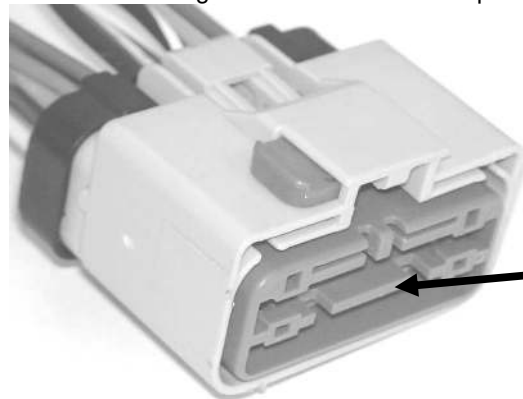


Figure 2

Remove blue
secondary pin lock
to expose pins

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- Using Sno-Way EIS Pin Removal tool SW # 96108632 or equivalent remove pins 2 (Tan/White), 5 (Blue) and 14 (Yellow).
- Once the pins are removed install the (3) supplied cavity plugs 96108142. This will prevent moisture from penetrating the connector. Re-install the blue secondary pin lock (removed in step 1).

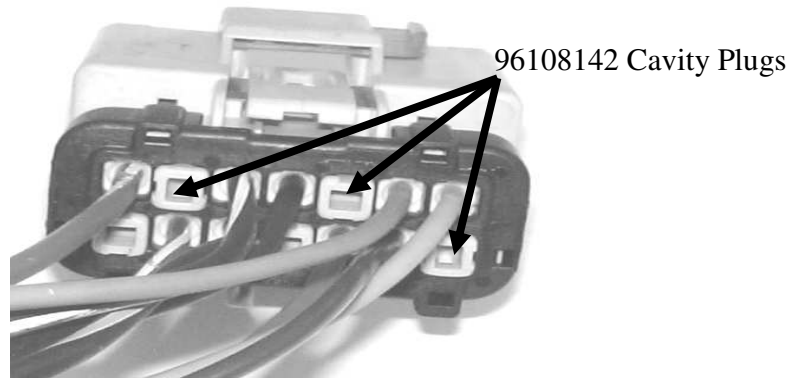


Figure 2

- Locate the area of the brown wire in pin # 13 where the two brown wires join. This section has approximately 1.5" of heat shrink. Cut the wires on both sides of the heat shrink. Discard the brown wire with the 90 degree flag terminal attached. See figure 3.

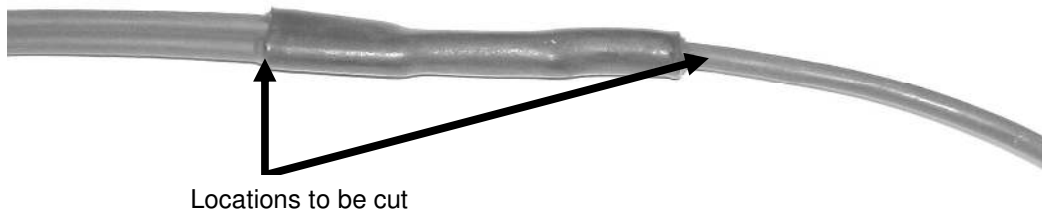


Figure 3

- Strip the cut end of the remaining brown wires to prepare them for the butt connector. Using the supplied butt connector 96112964 crimp the butt connector to the remaining brown wires to reconnect the wires (brown wire still connected to 14 pin connector and brown wire with ring terminal attached). Use a heat gun to activate the heat shrink tube of the butt connector. See figure 4.

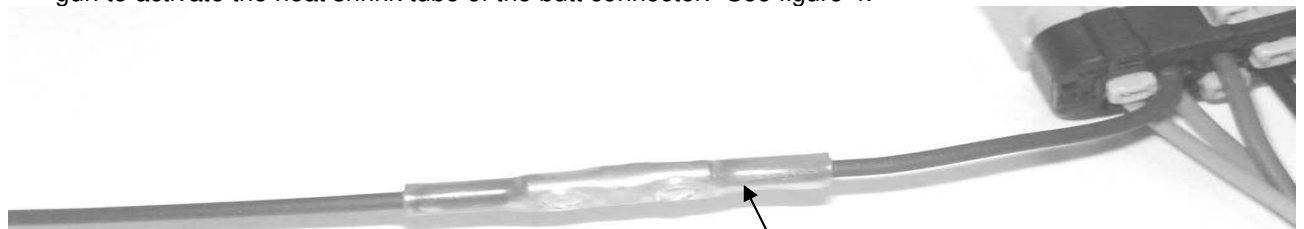


Figure 4

Butt Connector
96112964

6. Locate the red/white wire (pin 1) with the eight .25" terminals attached. On the terminals detailed below cut wires directly behind terminal leaving as much wire as possible. Discard the two .25" terminals. See figure 5 below.

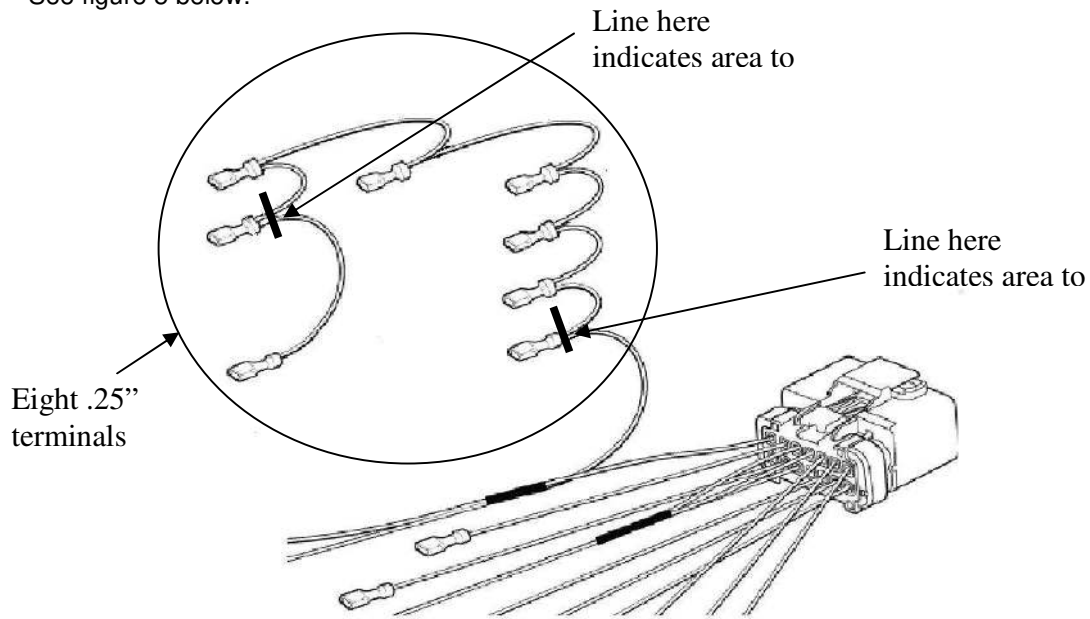


Figure 5

7. Strip the insulation from the wire cut in step 5 and crimp on the supplied butt connectors 96112964. Use a heat gun to activate the heat shrink tube of the butt connector. See figure 6.

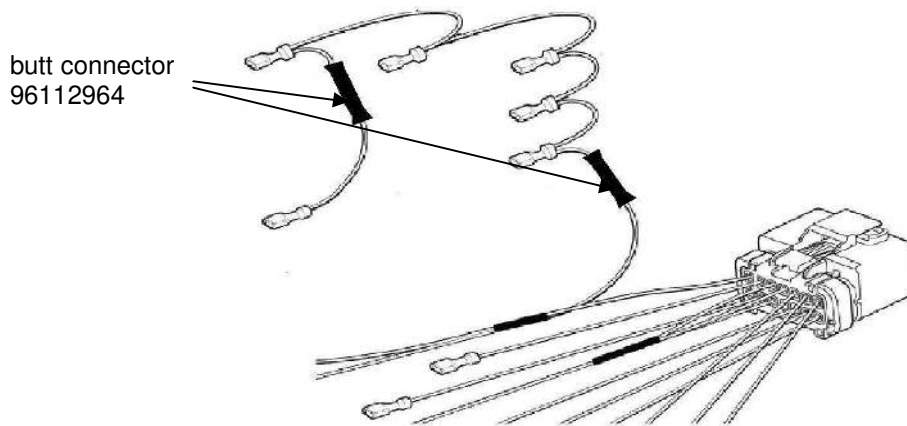


Figure 6

8. Gravity plows do not have a pressure switch or valves E and F. It is recommended that this is noted somewhere accessible for future troubleshooting.
9. Remove the old wiring harness from the valve manifold and solenoid.
10. Install your new wiring harness following the wiring schematic on page 4. Ensure wires are free of pinch points and are protected under the pump cover. Zip ties can be installed where desired to help secure the wiring.
11. Run the plow through all of its cycles to verify operation. If problems are found check the wiring connections. When servicing your valve wiring from now on, you should refer to it as have the ProControl Wiring System.



28V POWER UNIT SOLENOID FUNCTION AND WIRING LOCATION

FLOW FUNCTION	MOTOR SOLENOID	A	B	C	D	E	F	G	H	PRESSURE SWITCH
WIRE COLOR	BROWN	RED	BLUE/WHITE	TAN	GREEN	BLUE	TAN/WHITE	ORANGE	VIOLET	YELLOW AND BROWN
RAISE	X			X			X			
DOWN (FLOAT)			X				X			
DOWN PRESSURE™	X		X			X				X
DRIVE SIDE WING EXTEND	X							X		
DRIVE SIDE WING RETRACT	X								X	
PASS. SIDE WING EXTEND	X	X								
PASS. SIDE WING RETRACT	X				X					
VEE POSITION	X				X				X	
SCOOP POSITION	X	X						X		
ANGLE LEFT	X	X							X	
ANGLE RIGHT	X				X			X		

NOTE: COIL E MUST BE DEACTIVATED FOR ANGLE AND WING FUNCTIONS

