INSTRUCTION SHEET

Network Operations Center (NOC) Interface Instruction

Model No. 006594-0*

*Available as a kit prior to 2015. NOC Interface installed at factory beginning in 2015.

DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury.

(000191)

IMPORTANT: Follow all safety protocols and remove the unit from service as outlined in the Owner's Manual before initiating installation.

Purpose

This interface provides dry contacts for connecting up to 4 signals to a remote system. The NOC is designed to be mounted into either the Protector Series or CPL QT Gaseous models. Follow the appropriate installation instructions for the application.

Signals are:

Generator Running - Driven by the fuel line. This relay will be energized anytime the fuel signal is active.

Generator Fail - Driven by the common alarm output. This relay will be energized anytime the common alarm output on the Protector Series or CPL QT controller is active.

Low Fuel Level - Available on Protector Series Diesel units only. Driven by header J13 on the Protector Series controller. The controller will energize this relay when it identifies a low fuel level condition based on the analog fuel sender input.

Utility Loss - Driven by the Utility sense connection at the customer connect terminal block. This relay will be energized when utility is available and will de-energize when utility is not available.

NOTE: This means the Normally Open (NO) relay contacts will be closed when utility is present.

Contents

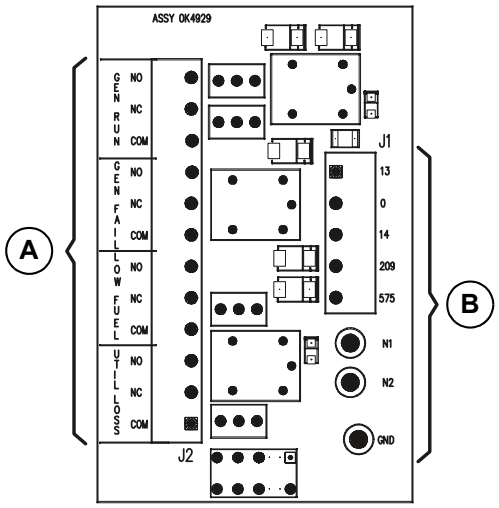
NOC Interface (0K5122) Contents						
Quantity	**Part Number**	**Description**		**Quantity**	**Part Number**	**Description**
1	0H7270A	Snap Track, 5 inch		1	097234F	Plug, Amp mini-universal 6 pin Mate 'n Lok
1	0K4929	PCB Assembly		2	036933	Screw, PPHM #10-32 X 3/8
1	0K5123	Wire Harness, Protector Series		6	028739A	Tie Wrap, 3.9 inch, black
1	0K5121	Wire Harness, CPL QT Series (if applicable)		1	0K5122	Instruction Sheet

⚠DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury.

(000191)

NOTE: Set the generator to the OFF mode, remove the 7.5 Amp fuse, disconnect the battery negative (-) black cable and turn off all power sources, including battery charger and Utility Sense, to the control panel before beginning installation.



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A – Output Connections (Dry Relay Contacts) Connect to customer interface equipment
B – Input Connections Connect to the generator signals
Relay contact ratings: • Both the Normally Open and Normally Closed contacts are available for each relay. • 1A maximum, 30 VAC/DC maximum
Terminal block connection:
• Terminal blocks are suitable for 18 to 26AWG discreet wire or a standard spade lug

Figure 1. NOC Interface PCB Assembly

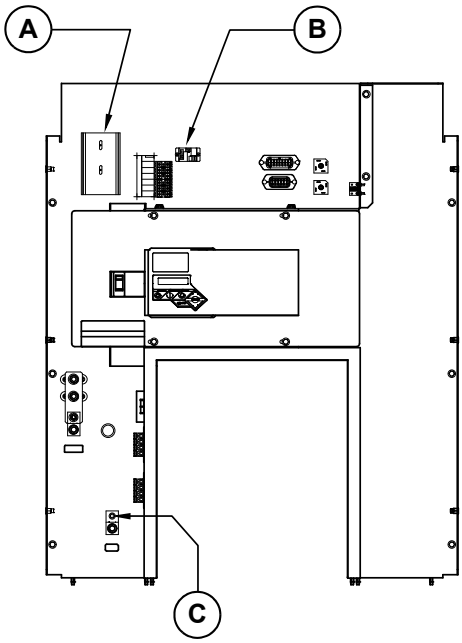
Procedure - Protector Models (if applicable)

SNAP TRACK INSTALLATION

1. Identify the snap track mounting location as shown below. See Figure 2.

NOTE: Verify there is adequate clearance behind the control panel before drilling. Re-route any wire harnesses that may become damaged during drilling and installation.

2. Drill two 1/8 inch holes, in the panel, at the dimple locations. Locating dimples for the snap track have been added to the sheet metal beginning in the 4th quarter of 2013. If locating dimples are not available, hold the snap track in the area shown in Figure 2, and mark the hole locations in the center of each slot in the snap track. Set the snap track aside and drill two 1/8 inch holes in the panel at the marked location.
3. Mount the snap track to the generator panel using the two screws included. Tighten the screws until the back of the snap track is drawn flush with the generator panel. Do **NOT** use washers with the screws. This could raise the head of the screw and could cause the screw to contact the PCB assembly.
4. Snap the PCB into the snap track. Press the PCB firmly into the snap track until it locks into place. When fully inserted, the PCB will be held firmly in place and will **NOT** be able to slide up or down in the snap track.



Protector Series

A – Snap Track Mounting Location

B – Relay Location

C – Ground Post Mounting Screw

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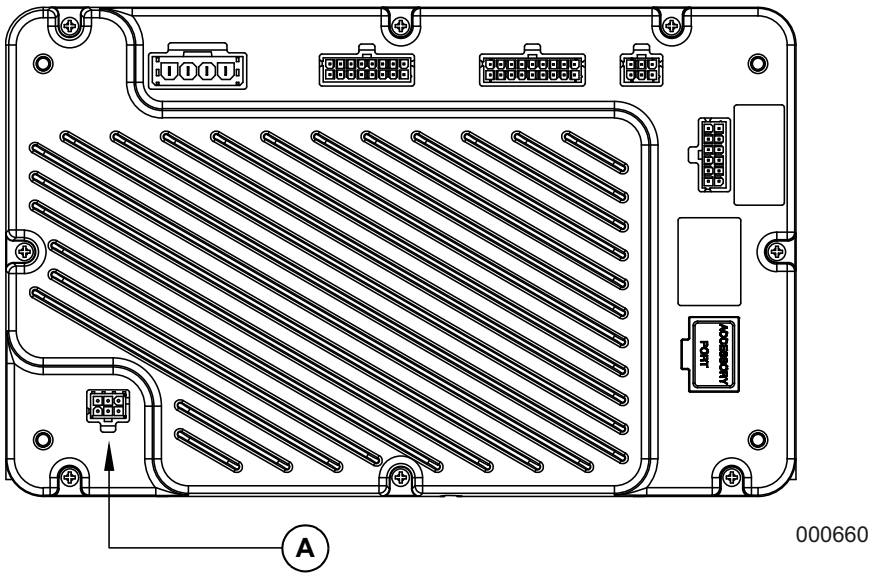
Figure 2. Snap Track Mounting Location - C2 (Horizontal for C1)

WIRING CONNECTIONS

5. Connect the spade terminal of Wire13, in the kit harness, into the #13 location of the terminal block on the PCB assembly (0K4929).
6. Connect the spade terminal of Wire 0 in the kit harness into the #0 location of the terminal block of the PCB assembly (0K4929).
7. Connect the spade terminal of Wire 14, in the kit harness, into the #14 location of the terminal block on the PCB assembly (0K4929).
8. Connect the spade terminal of Wire 209 to the 209 location of the terminal block on the PCB assembly (0K4929).
9. Connect the spade terminal of Wire 575 to the 575 location of the terminal block on the PCB assembly (0K4929).
10. Connect the N1 and N2 wires coming from the PCB assembly into the N1 and N2 terminals on the customer connect block.
11. Connect the green 12AWG ground wire soldered into the PCB assembly to the mounting screw on the ground post. See wire diagram.
12. Unplug and discard the 2 pin wire loop plugged into the common alarm relay connector.
13. Plug the 2 pin connector of the kit harness into the common alarm relay connector.
14. Disconnect the Wire 0 going to the relay.
15. Plug the male terminal of Wire 0 in the kit harness into the Wire 0 just disconnected from the relay.
16. Plug the female terminal of Wire 40, in the kit harness, into the original #0 location on the relay.
17. Disconnect Wire 13 going to the relay.

18. Plug the male terminal of Wire 13, in the kit harness, into Wire 13 just disconnected from the relay.
19. Plug the female terminal of Wire 13, in the kit harness, back into the original #13 location on the relay.
20. Disconnect Wire 14 going to the relay.
21. Plug the male terminal of Wire 14, in the kit harness, into the Wire 14 just disconnected from the relay.
22. Plug the female terminal of Wire 14, in the kit harness, into the original #14 location on the relay.
23. Wiring the low fuel signal wire. The low fuel signal (Wire 575) is connected to pin 5 of J13 on the Protector Series controller. See Figure 3 for the location of J13.



A – Header J13

Figure 3. Protector Series Controller Rear View

If a diesel overfill alarm kit **IS** being installed on the generator, there will already be a wire harness plugged into j13. Temporarily unplug the existing wire harness, insert the Wire 575 into position 5 and plug the harness back into J13. The 6 pin connector housing, included in the kit, will **NOT** be used and can be discarded.

If a diesel overfill alarm kit is **NOT** being installed on the generator, insert Wire 575 into position 5 of the connector housing included with this kit and plug into J13.

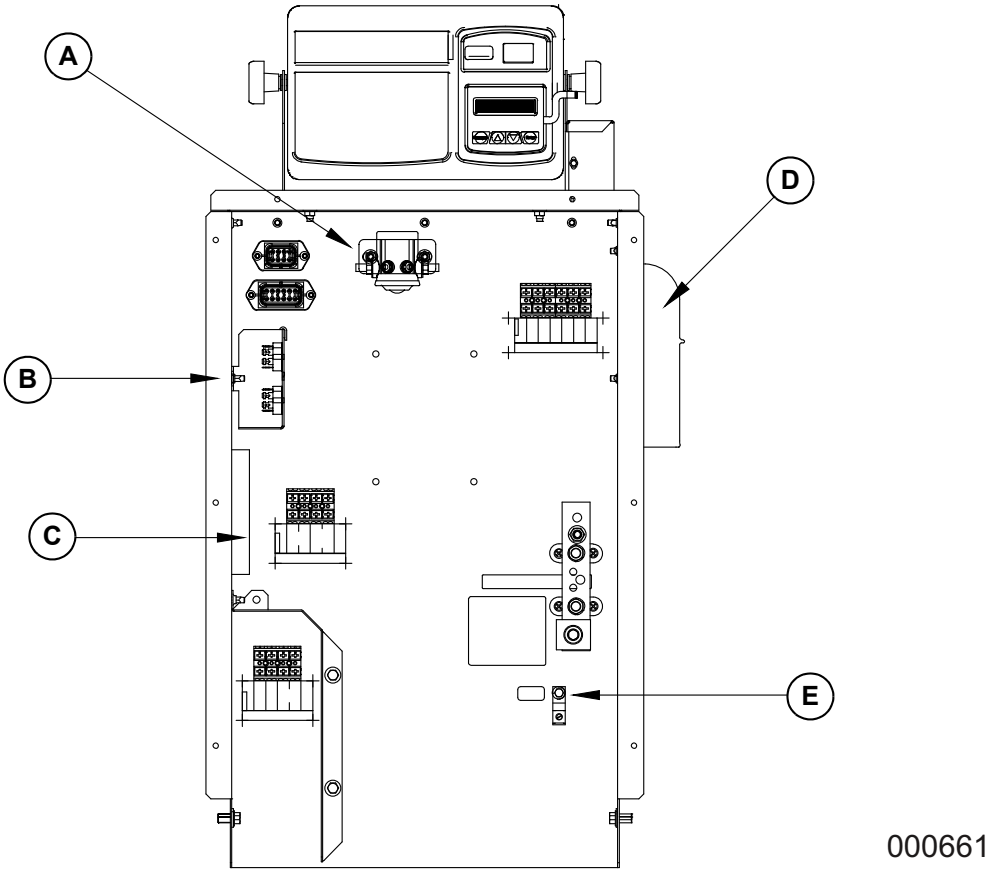
24. Use the included tie wraps to secure the harness in place.

This completes the installation.

Procedure - CPL QT Gaseous Units (if applicable)

SNAP TRACK INSTALLATION

1. Identify the snap track mounting location as shown below. See Figure 4.



A – Starter Contactor (On back of panel)
B – Diode Bridge DB1
C – Snap Track Mounting Location
D – Route wire harness through this opening
E – Ground Post Mounting Screw

Figure 4. Snap Track Mounting Location

NOTE: Verify there is adequate clearance behind the control panel before drilling. Re-route any wire harnesses that may become damaged during drilling and installation.

2. Drill two 1/8 inch holes, in the panel, at the dimple locations. Locating dimples for the snap track have been added to the sheet metal beginning in the 4th quarter of 2013. If locating dimples are not available, hold the snap track in the area shown in Figure 4, and mark the hole locations in the center of each slot in the snap track. Set the snap track aside and drill two 1/8 inch holes in the panel at the marked location.
3. Mount the snap track to the generator panel using the two screws included. Tighten the screws until the back of the snap track is drawn flush with the generator panel. Do **NOT** use washers with the screws. This could raise the head of the screw and could cause the screw to contact the PCB assembly.
4. Snap the PCB into the snap track. Press the PCB firmly into the snap track until it locks into place. When fully inserted, the PCB will be held firmly in place and will **NOT** be able to slide up or down in the snap track.

WIRING CONNECTIONS

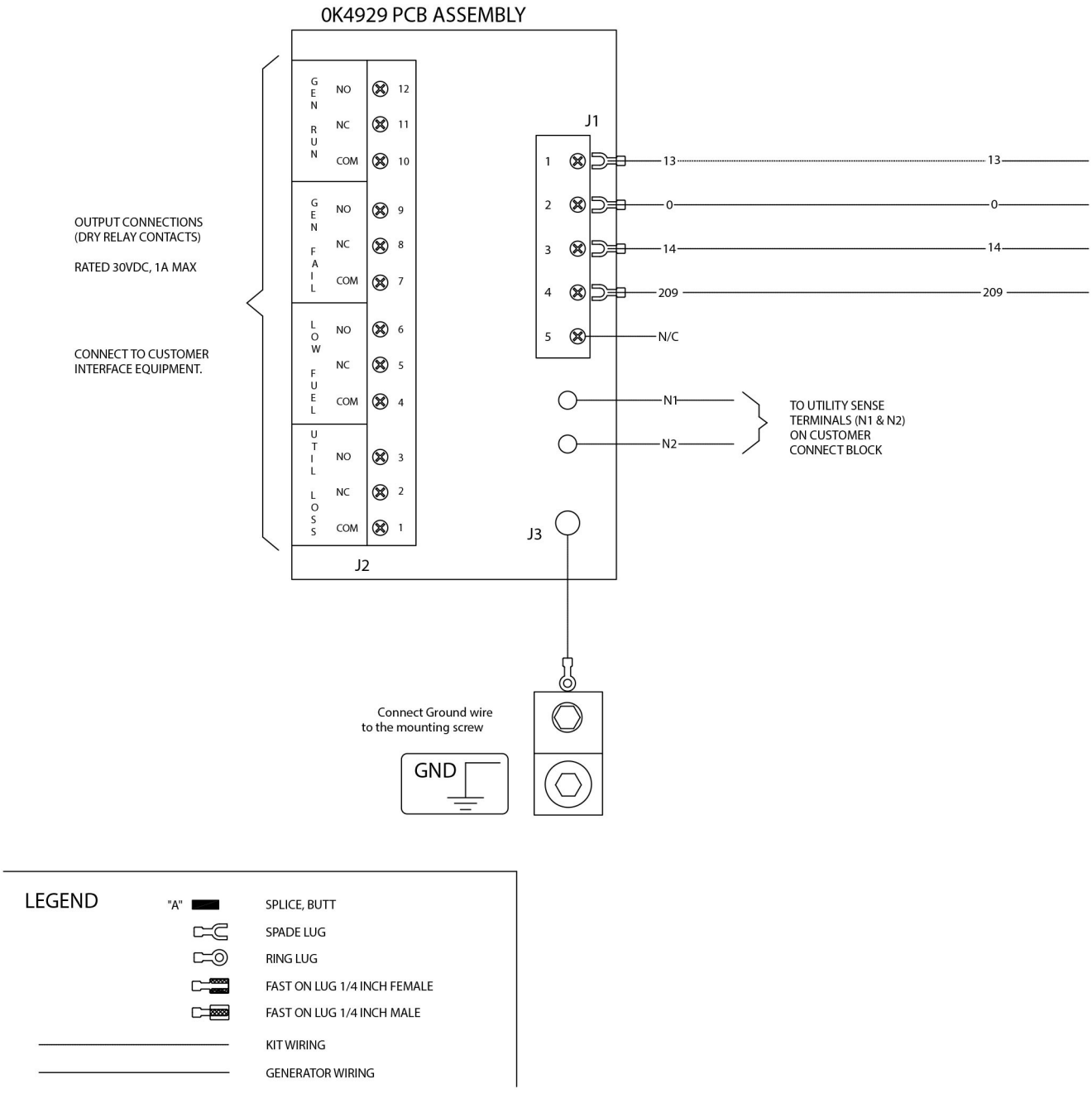
5. Connect the spade terminal of Wire13, in the kit harness, into the #13 location of the terminal block on the PCB assembly (0K4929).
6. Connect the spade terminal of Wire 0 in the kit harness into the #0 location of the terminal block of the PCB assembly (0K4929).
7. Connect the spade terminal of Wire 14, in the kit harness, into the #14 location of the terminal block on the PCB assembly (0K4929).
8. Connect the spade terminal of Wire 209 to the 209 location of the terminal block on the PCB assembly (0K4929).

NOTE: There will be no connection made to the 575 location of the terminal block on the 0K4929 assembly in the CPL QT gaseous units.

9. Connect the N1 and N2 wires coming from the PCB assembly into the N1 and N2 terminals on the customer connect block.
10. Connect the green 12AWG ground wire soldered into the PCB assembly to the mounting screw on the ground post. See wire diagram.
11. Locate the common alarm wires at the back of the engine controller. The common wires are approximately 12 inches long and are terminated with a 1/4 inch male FASTON tab.
12. Plug the female terminal of Wire 209 into one of the two common alarm wires.
13. Plug the female terminal of Wire 210 into the remaining common alarm wire.
14. Remove the nut and connect the ring lug of Wire 0 to the #0 wire location on the starter contactor. Torque the nut to 15 in/lbs maximum.
15. Remove the nut and connect the ring lug of Wire 13 to the #13 location on the starter contactor. Torque the nut to 35 in/lbs maximum.
16. Disconnect the Wire 14 going to diode bridge DB1.
17. Plug the male terminal of Wire 14, in the kit harness, into the #14 wire just disconnected from DB1.
18. Plug the female terminal of Wire 14, in the kit harness, into the original #14 location on DB1.
19. Use the included tie wraps to secure the harness in place.

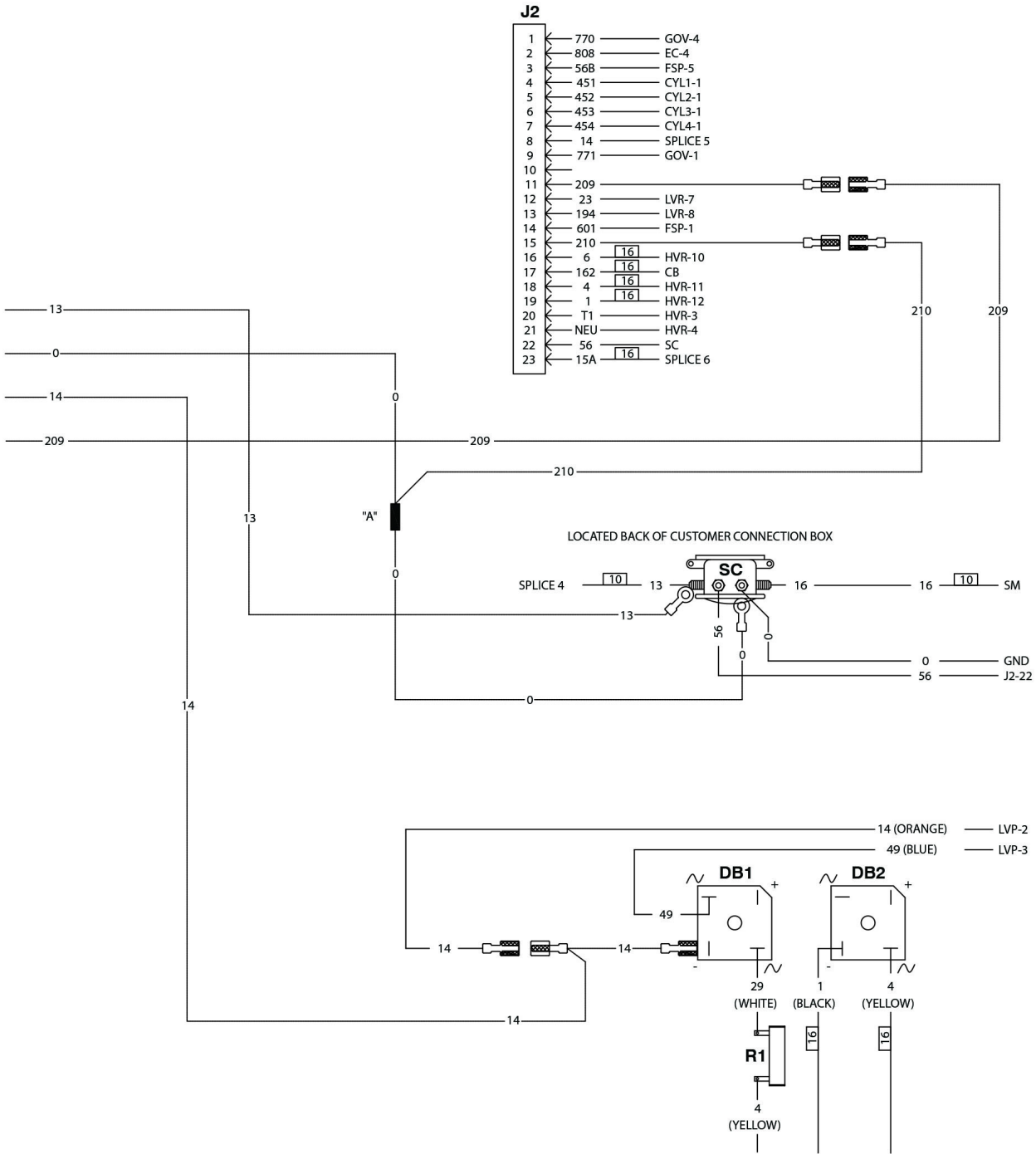
This completes the installation.

CPL QT SERIES



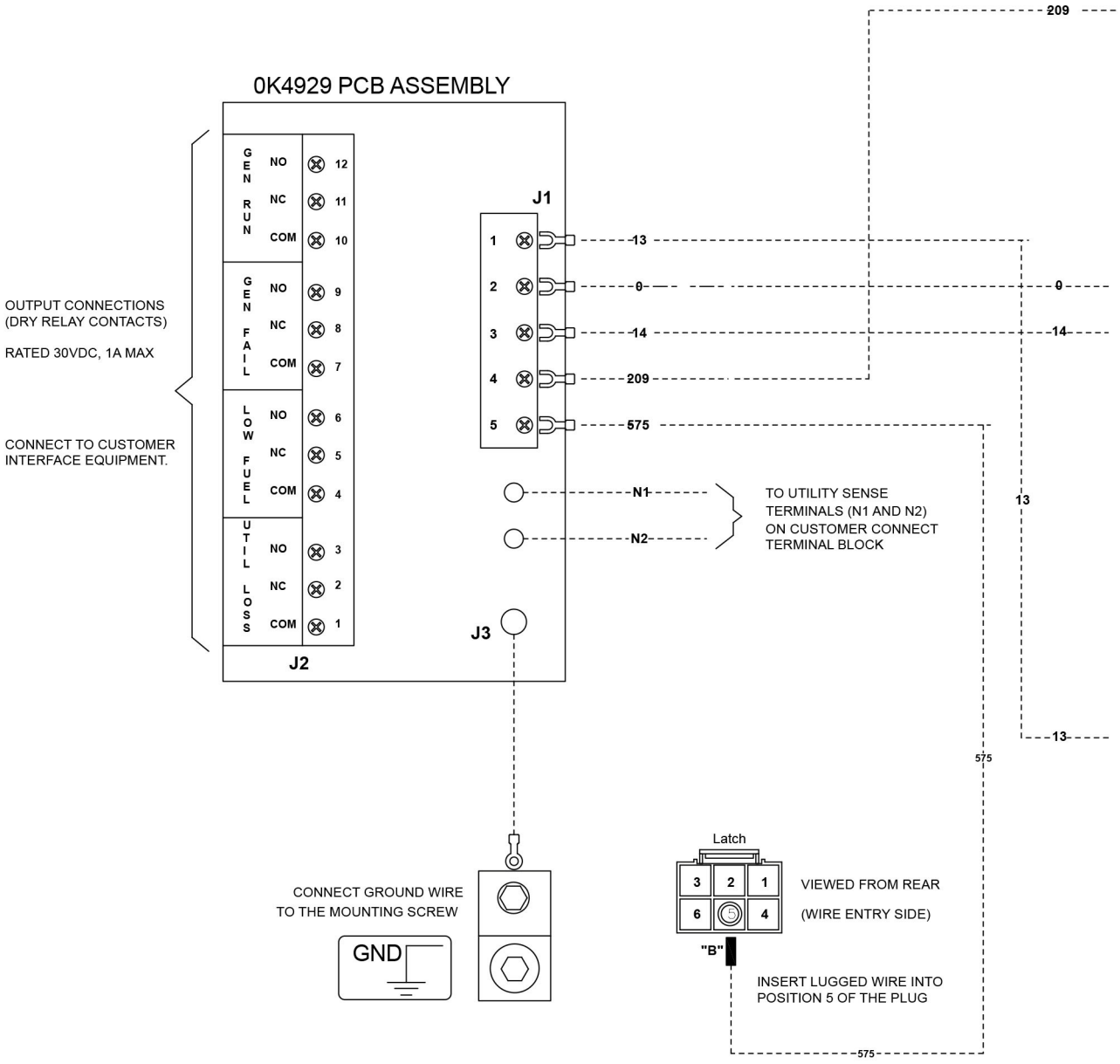
PAGE 1 OF 2

CPL QT SERIES

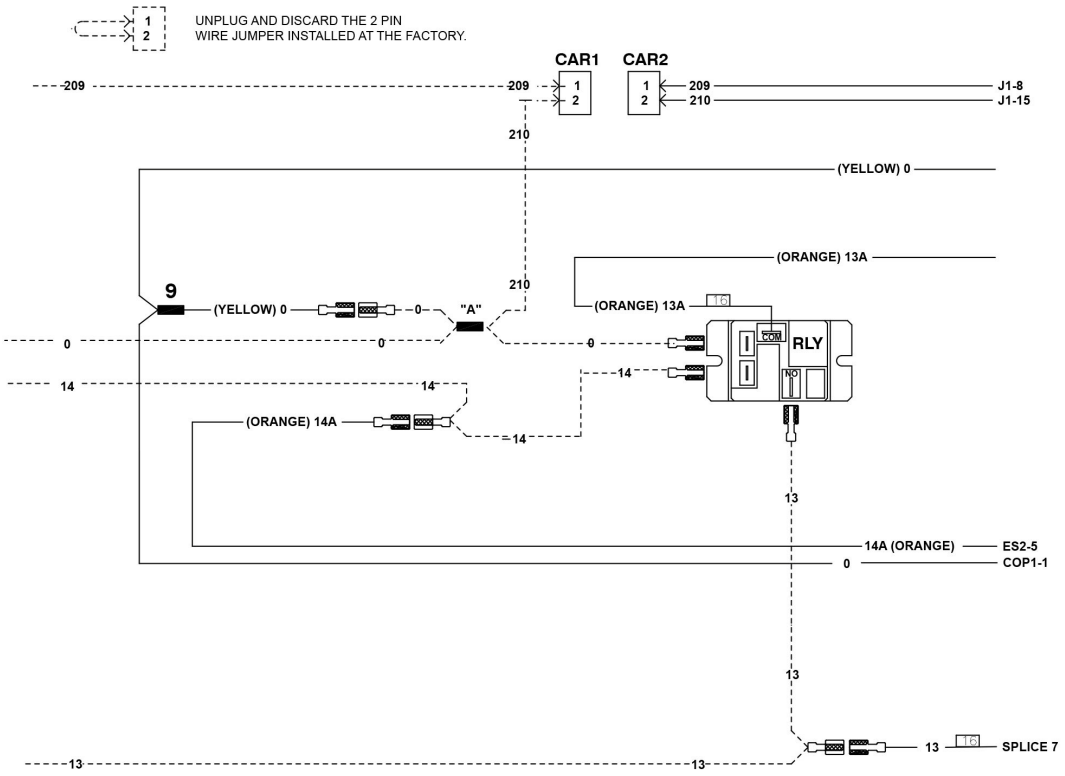


PAGE 2 OF 2

PROTECTOR SERIES



PROTECTOR SERIES



LEGEND

"A"	SPLICE, BUTT
"B"	SOCKET, AMP MINI UNIVERSAL MATE N LOK
	RING LUG
	FAST ON LUG FEMALE
	FAST ON LUG MALE
	KIT WIRING
	GENERATOR WIRING

PAGE 2 OF 2

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