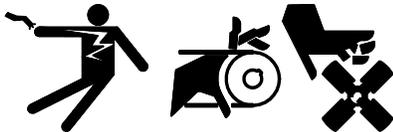


Customer Connection Kit PA-256886 Standby Generator Sets

The customer connection kit allows easy and convenient connection of controller accessories without accessing the controller terminal strip. A (single relay or ten relay) dry contact kit must be used between the customer connection kit and any external connections. This is done to isolate the controller circuit board from any electrical interference. The controller accessories or customer supplied warning devices (lights, horns, etc.) are then connected to the dry contact kit. The terminal strip in the customer connection kit simulates the one located in the Decision-Maker™ 3 microprocessor controller, except for terminals 1 and 1A used for the emergency stop kit.

 **WARNING**



Accidental starting.

Can cause severe injury or death.

Disconnect battery cables before working on generator set (negative lead first and reconnect it last).

Accidental starting can cause severe injury or death. Turn Generator Master Switch to OFF position, disconnect power to battery charger, and remove battery cables (remove negative lead first and reconnect it last) to disable generator set before working on any equipment connected to generator. The generator set can be started by automatic transfer switch or remote start/stop switch unless these precautions are followed.

INSTALLATION

1. Disconnect battery, negative lead first.
2. Preassemble customer connection box by placing terminal strip (marker) 273770 over studs in connection box 256878. Place terminal block 273769 over studs and secure using two plain washers X-25-48 and nuts X-70-12. Install grommet 243319 in the 1 inch dia. hole. Install button (hole) plug in 7/8 inch dia. hole.
3. Select a location as close as practical to the generator set for mounting the connection box. Due to the size of the connection box, most installations will not allow mounting on the generator set. The top of the controller may be used to mount the connection box as long as rigid conduit is not required.
4. Using connection box as a template, drill four 0.281 dia. holes in mounting surface. If using controller cover as a mounting location, remove controller cover before drilling to prevent metal chips from falling in controller box. Remove burrs and metal chips from connection box. Use four 1/4 inch screws, plain washers, and nuts (not supplied) to mount connection box.
5. Using customer-supplied wiring, connect leads between controller terminal strip and terminal strip in customer connection box. See Figure 1. Leads 42A and 2 are voltage supply and should be sized according to load and distance using stranded copper wire. To determine the gauge of these leads, calculate the total distance between controller and remote annunciator or customer-supplied warning devices.

Use 18-20 ga. up to 100 ft. (305 m).

Use 14 ga. for 100 ft. (30.5 m) to 500 ft. (152 m).

Use 10 ga. for 500 ft. (152 m) to 1000 ft. (305 m).

All other (signal) leads should be 18-20 ga. stranded copper wire. All wiring between controller box and customer connection box must be in separate conduit. Use knockouts and/or holes in customer connection box, as necessary.

6. Replace controller cover and screws.
7. Locate Dry Contact Kit as close as practical to customer connection kit in order to eliminate electrical interference. Using customer-supplied wiring, connect leads between terminal strip in customer connection box and dry contact kit. See Figure 1. See dry contact kit instructions for further information.

Leads 42A and 2 are voltage supply and should be sized according to load and distance using stranded copper wire. To determine the gauge of these leads, calculate the total distance between controller and remote annunciator or customer-supplied warning devices.

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All other (signal) leads should be 18-20 ga. stranded copper wire. All wiring between customer connection box and dry contact kit must be in separate conduit. Use knockouts and/or holes in customer connection box, as necessary.

8. Install customer connection box cover 256880 using four screws X-6216-6.
9. Make connections to dry contact kit, as necessary. See dry contact kit instructions for further information.
10. Reconnect battery, negative lead last.

Parts Listing

| Part No. | Description | Qty. |
|----------|--------------------------|------|
| X-25-48 | Washer, plain | 2 |
| X-301-29 | Plug, button (hole) | 1 |
| X-6216-6 | Screw | 4 |
| X-70-12 | Nut | 2 |
| 243319 | Grommet | 1 |
| 256878 | Box, dry contact | 1 |
| 256880 | Cover, dry contact | 1 |
| 273769 | Block, terminal | 1 |
| 273770 | Strip, terminal (marker) | 1 |

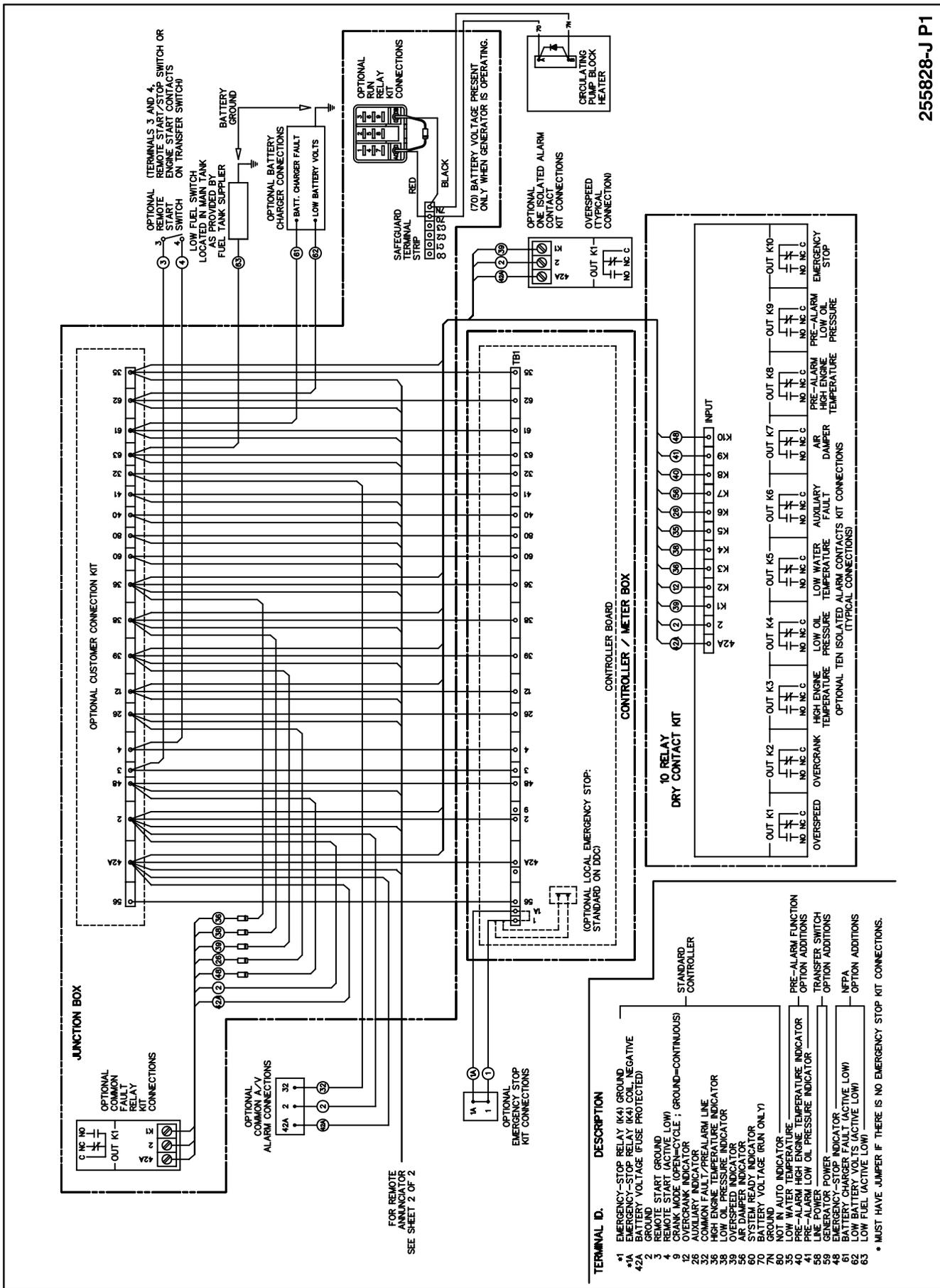


Figure 1. Wiring Diagram