

## INSTALLATION INSTRUCTIONS

Original Issue Date: 3/94

Model: 6-2000 kW

Market: Industrial

Subject: Run Relay Kits PA-273743, PA-273743-SD, PA-273743-F, PA-273744, and PA-273744-SD

### Introduction

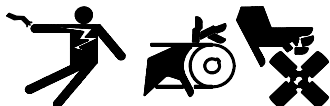
The run relay kit may control air intake and/or radiator louvers and is energized only when the generator set is running. Alarms, lights, and other signalling devices can also be connected to the 3PDT relay. See Figure 1. The contacts are rated for a maximum of 10 amps at 28 VDC, 10 amps at 120 VAC, and 6 2/3 amps at 250 VAC. Read the instructions completely before mounting the run relay kit.

Read the entire installation procedure and compare the kit parts with the parts list at the end of this publication before beginning installation. Perform the steps in the order shown.

### Safety Precautions

Observe the following safety precautions while installing the kit.

#### WARNING



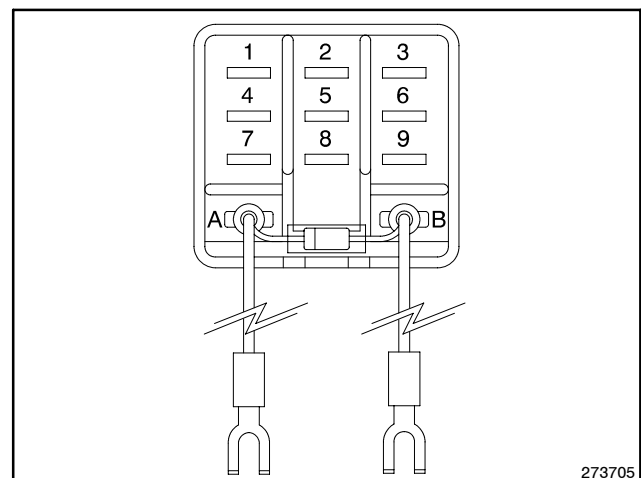
**Accidental starting.**  
**Can cause severe injury or death.**

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

**Disabling the generator set. Accidental starting can cause severe injury or death.** Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the

battery. Follow these precautions to prevent starting of the generator set by an automatic transfer switch, remote start/stop switch, or engine start command from a remote computer.

1. Move the generator master switch to the OFF-RESET position. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
2. Install the run relay (273705 or 273706) in the junction box. It is connected to the controller safeguard terminal strip by the wiring harness provided. Use insulated 18-ga. stranded wire to connect the relay to the controller safeguard terminal strip if the relay kit is mounted in a location remote from the generator set. Do not mount the run relay kit more than 61.5 m (200 ft.) from the generator set.
3. Mark positions for drilling two holes 63.5 mm (2.5 in.) apart center to center.
4. Drill two 4.0 mm (0.156 in.) holes. Install the relay in the desired location using the enclosed hardware.



**Figure 1** Run Relay

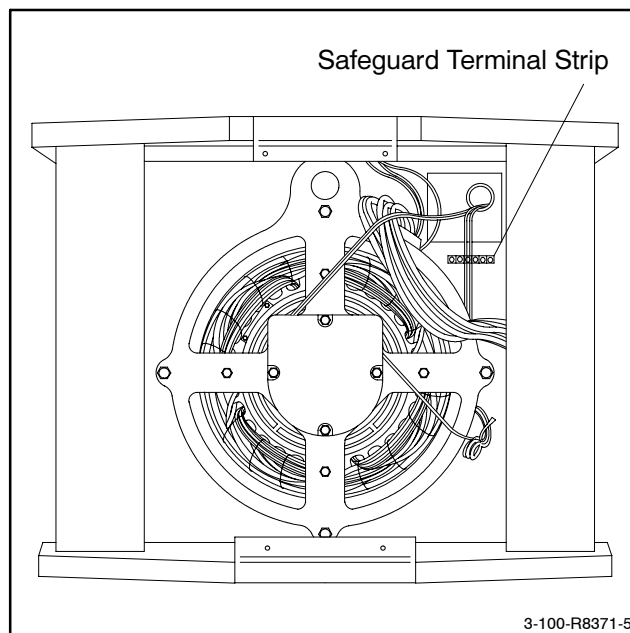
5. Locate the safeguard terminal strip in junction box. See Figure 2. Connect the red wire of the run relay to terminal 70 (+) and the black lead to terminal 7N (-) of the safeguard terminal strip. Connect the relay kit according to the diagram in Figure 3.

**Note:** Do not reverse the leads to the safeguard terminal strip because this will damage the diode and/or blow the controller fuse.

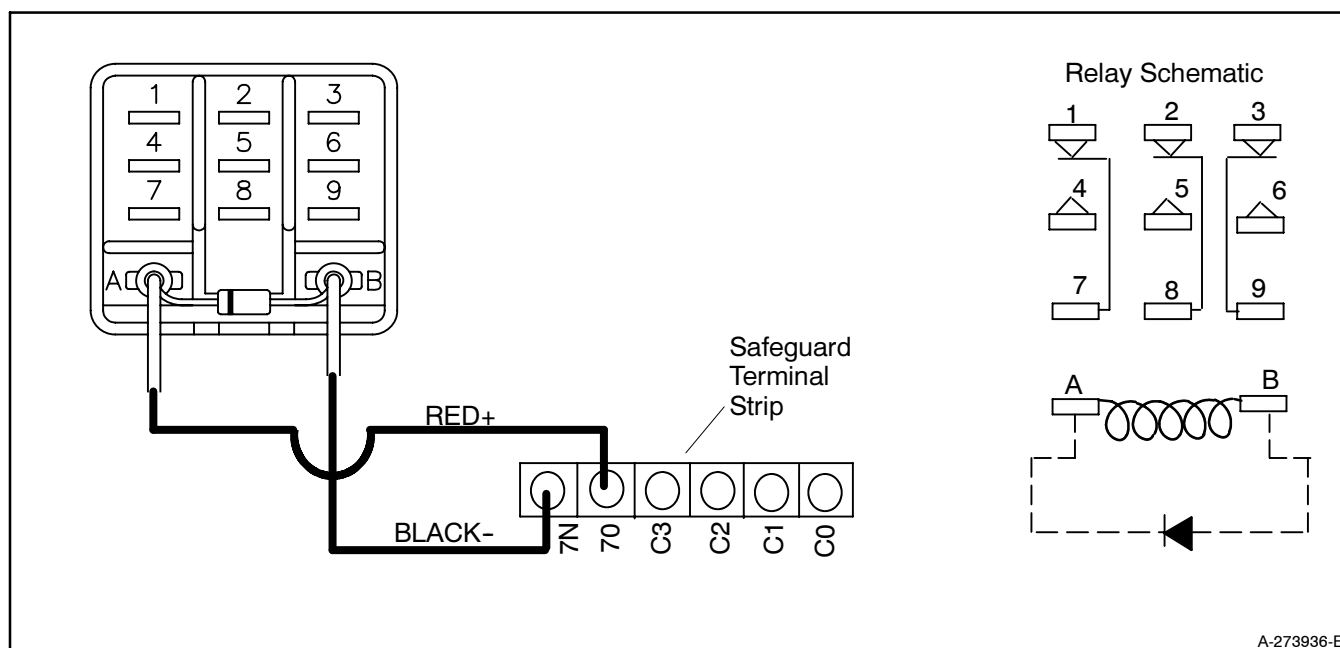
6. Mount the run relay using 2 screws (X-49-26), 2 washers (X-25-9), and 2 nuts (X-6210-3).

An adequate electrical supply is required to connect the customer-provided devices to the run relay for necessary operation. Check the electrical requirements of the customer-provided accessories prior to installation. The customer-provided accessories should comply with applicable national, state, and local electrical codes.

7. Reconnect the generator set engine starting battery, negative (-) lead last.



**Figure 2** Location of Safeguard Terminal Strip, Typical



**Figure 3** Connections for Run Relay Kit

## Parts List

Kits: PA-273743/PA-273743-SD/PA-273743-F and PA-273744/PA-273744-SD			
Qty.	Description	PA-273743, PA-273743-SD, PA-273743-F	PA-273744, PA-273744-SD
2	Washer, plain	X-25-9	X-25-9
2	Screw, RHM, 6-32 x 1/2	X-49-26	X-49-26
2	Nut, whiz, 6-32	X-6210-3	X-6210-3
1	Relay, run	273705	273706