
INSTALLATION INSTRUCTIONS

Original Issue Date: 7/93

Model: **6-2000 kW (with Microprocessor Controller only)**

Market: **Industrial**

Subject: **Remote Emergency Stop Kits PA-293906 and PA-293906-SD**

The emergency stop kit allows immediate shutdown of the generator set from a remote location. Mount the emergency stop switch(es) in a location easily accessible by operating personnel at a normal workstation. See Figure 1.

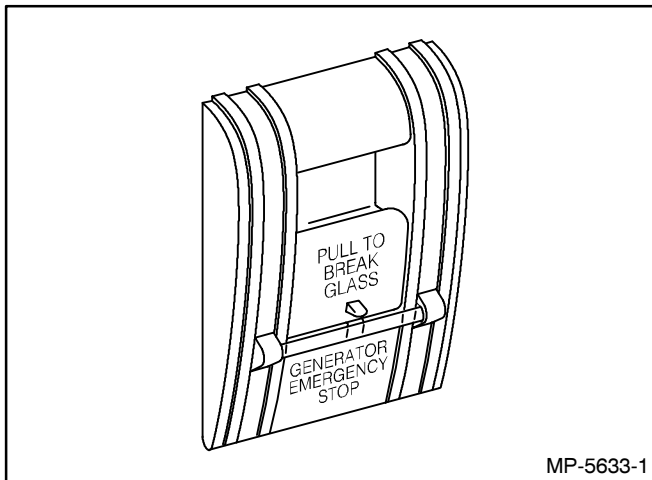


Figure 1. Controller Circuit Board Connections

If the emergency stop switch is activated, the controller emergency stop lamp lights and the unit shuts down. On some 200–2000 kW generator sets using Detroit Diesel Series 71, 92, and 149 engines, the air damper will close and the air damper lamp will also light. The generator set cannot be restarted until the emergency stop switch(es) is reset by replacing the glass piece, and the controller is reset by placing the generator set master switch in the OFF/RESET position. On some 200–2000 kW generator sets using Detroit Diesel Series 71, 92, and 149 engines, the engine air damper must also be reset; refer to generator operation manual for procedure. Connect as many emergency stop switches as required; however, connect multiple switches in series so the system functions correctly.

The emergency stop switch is connected to controller circuit board terminals TB1-1 and 1A (see Figure 2). On sets without a local (controller-mounted) emergency stop switch, remove jumper from terminals TB1-1 and 1A before installing the kit. When the emergency stop switch is activated, contacts in the switch open to deenergize the K4 relay and shut down the generator set.

Installation



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Turn generator set 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.

1. Move the generator set master switch to the OFF/RESET position. Disconnect battery cables, negative lead first. Disconnect power to battery charger.
2. Remove controller cover to access controller circuit board. Lower controller circuit board panel to a horizontal position if so equipped.
3. On generator sets not equipped with a local (controller-mounted) emergency stop switch, remove jumper from terminals TB1-1 and 1A.
4. Verify that the emergency stop switch leads are from the normally closed contacts. Use an ohmmeter to make the continuity test. Tape to insulate the normally open contact leads as they will not be used.
5. Determine the approximate mounting location(s) for the emergency stop switch(es) and cut two lengths of 16-gauge min. stranded wire long enough to connect the controller and switch(es). Strip one end of each wire length and connect to switch leads using wire nuts (not supplied). Connect the two

white leads from the switch to lead from terminal 1. Connect the two black leads from the switch to lead from terminal 1A.

6. Mount emergency stop switch(es) in desired location(s). Use #6 round head wood screws (not supplied). Use supplied machine screws when mounting in a single-gang electrical box.
7. Route switch leads through controller port and harness loops to circuit board terminal strip. Cut leads to length, strip ends and connect to circuit board terminals TB1-1 and 1A (see Figure 2).
8. If generator set is equipped with a local (controller-mounted) emergency stop switch, proceed as follows:
 - a. Remove local emergency stop leads from terminals TB1-1 and 1A .
 - b. Connect remote emergency stop leads to terminals TB1 and 1A.
 - c. Splice local emergency stop leads in series with remote switch lead connected to terminal TB1-1 as shown in Figure 2.
9. Replace controller cover and hardware.
10. With generator set master switch in OFF position, reconnect generator battery leads, negative lead last and reconnect power to battery charger.

Resetting Procedure

1. Replace glass rod on emergency stop switch (an extra piece of glass is supplied with each switch). Controller auxiliary lamp is on.
2. On some 200–2000 kW generator sets using Detroit Diesel Series 71, 92, and 149 engines, reset engine air damper as described in generator set service manual. The air damper lamp should go out.
3. Move generator set master switch to the OFF/RESET position to reset the controller.
4. Move generator set master switch to RUN position for local starting or to AUTO position for startup by automatic transfer switch or remote start switch.

Parts List

Qty.	Description	Part Number
1	Switch, emergency stop	A-222654
2	Rod, glass*	222655

* Part of A-222654 emergency stop switch. One glass rod is installed on the switch and an additional replacement glass rod is located inside the switch. Additional glass rods are available as a service part.

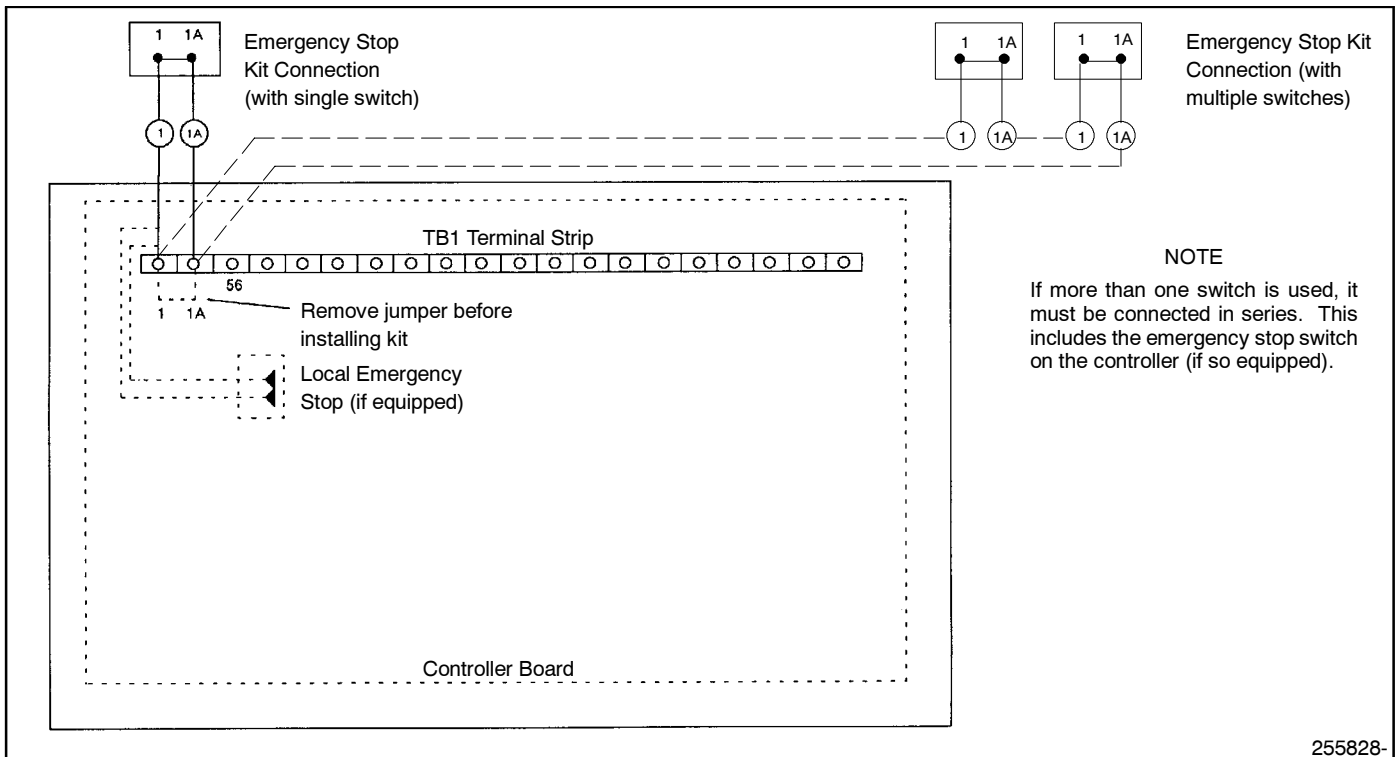


Figure 2. Remote Emergency Stop Switch Connections