

INSTALLATION INSTRUCTIONS

Original Issue Date: 7/93

Model: 6-2000 kW

Market: Industrial

Subject: Remote Emergency Stop Kits PA-293906, PA-293906-SD, and PA-293906-F

Introduction

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.

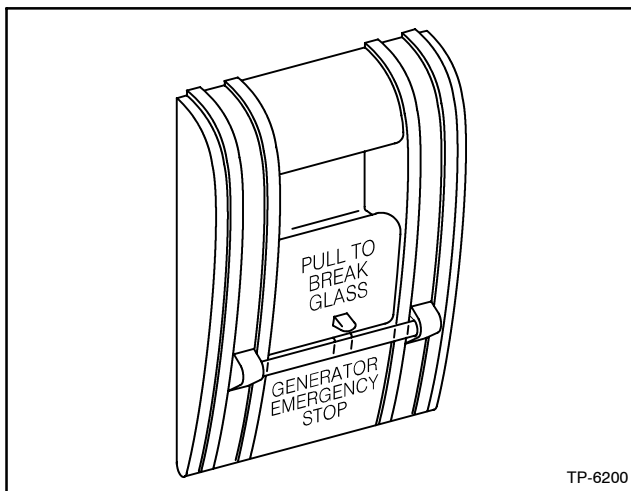


Figure 1 Controller Circuit Board Connections

If the emergency stop switch is activated, the controller emergency stop lamp lights and the unit shuts down. 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.

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.

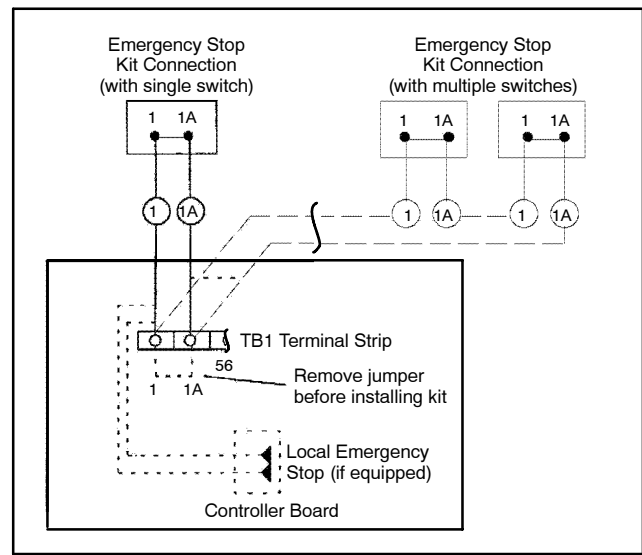
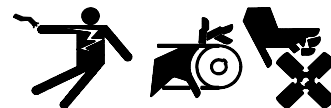


Figure 2 Remote Emergency Stop Switch Connections

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.

Installation Procedure

1. Place the generator set master switch in the OFF position.
2. Disconnect the power to the battery charger, if equipped.
3. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
4. Remove controller cover to access controller circuit board. Lower controller circuit board panel to a horizontal position, if so equipped.
5. On generator sets not equipped with a local (controller-mounted) emergency stop switch, remove jumper from terminals TB1-1 and 1A.
6. 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.
7. Determine the approximate mounting location(s) for the emergency stop switch(es) and cut two lengths of 16-gauge (minimum) 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.
8. 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.
9. 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).
10. If the 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.
11. Replace controller cover and hardware.
12. Check that the generator set master switch is in the OFF position.
13. Reconnect the generator set engine starting battery, negative (-) lead last.
14. Reconnect power to the battery charger, if equipped.

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. Move the generator set master switch to the OFF/ RESET position to reset the controller.
3. Move the generator set master switch to the RUN position for local starting or to AUTO position for startup by automatic transfer switch or remove start switch.

Parts List

Qty.	Description	Part Number
1	Switch, emergency stop	A-222654
2	Rod, glass*	2226554
* 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.		