

INSTALLATION INSTRUCTIONS

Original Issue Date: **9/93**

Model: **6-2000 kW**

Market: **Industrial**

Subject: **Audio/Visual Alarm Kits PA-292856 and PA-292856-SD**

The Audio/Visual (A/V) alarm warns the operator at a remote location of fault shutdowns and prealarm conditions (except battery charger fault and low battery voltage). The A/V alarm kit includes an alarm horn, an alarm silence switch, and a common fault lamp. See Figure 1. If a fault shutdown or prealarm condition occurs, the alarm horn sounds and the common fault lamp lights. Quiet the alarm horn by moving the A/V alarm switch to SILENCE; the A/V lamp remains lit until the fault is corrected. See Resetting section following. Mount the A/V alarm(s) in a location readily observable by operating personnel at a normal workstation.

NOTE

Connect any combination of A/V alarms and/or remote annunciators totaling up to three to a generator output function on TB1.

NOTE

Kit requires failure relay kit, common failure relay kit, or dry contact kit.



WARNING

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

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

Disabling generator set. Accidental starting can cause severe injury or death. 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 the generator set or connected equipment. The generator set can be started by an automatic transfer switch or remote start/stop switch unless these precautions are followed.

NOTE

Observe applicable local, state, and national electrical codes when installing the A/V alarm wiring system.

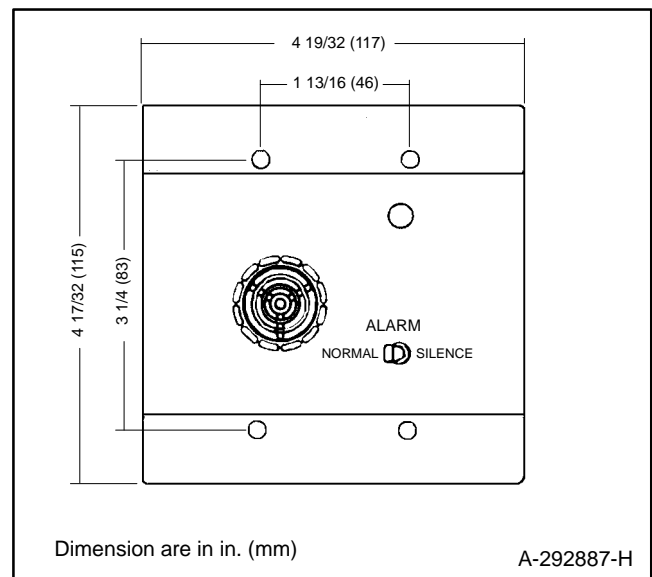


Figure 1. A/V Alarm Panel

Installation

1. Place the generator set master switch in the OFF position.
2. Disconnect the generator set engine starting battery(ies), negative (-) lead first. Disconnect power to the battery charger, if equipped.
3. Remove controller cover to access controller circuit board.

4. Mount a two-gang electrical box (not supplied) in a location selected for the A/V alarm(s). Mount the electrical box(es) flush with the surrounding wall surface. See Figure 2.

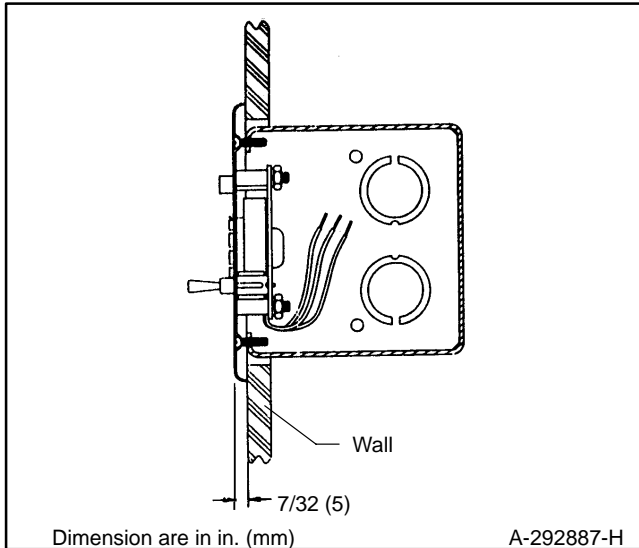


Figure 2. Electrical Box Mounting

5. Cut three lengths of 18-gauge (minimum) stranded wire long enough to connect each A/V alarm to the generator set controller. Use color-coded wire for easy identification. Make wires long enough to allow routing through walls and ductwork, and around obstructions.
6. Strip each end of the wire and connect to A/V panel leads 2 (black), 32 (white), and 42A (red). Secure wire connections with wire nuts, not supplied. Attach A/V panel to electrical box with four machine screws (292828).

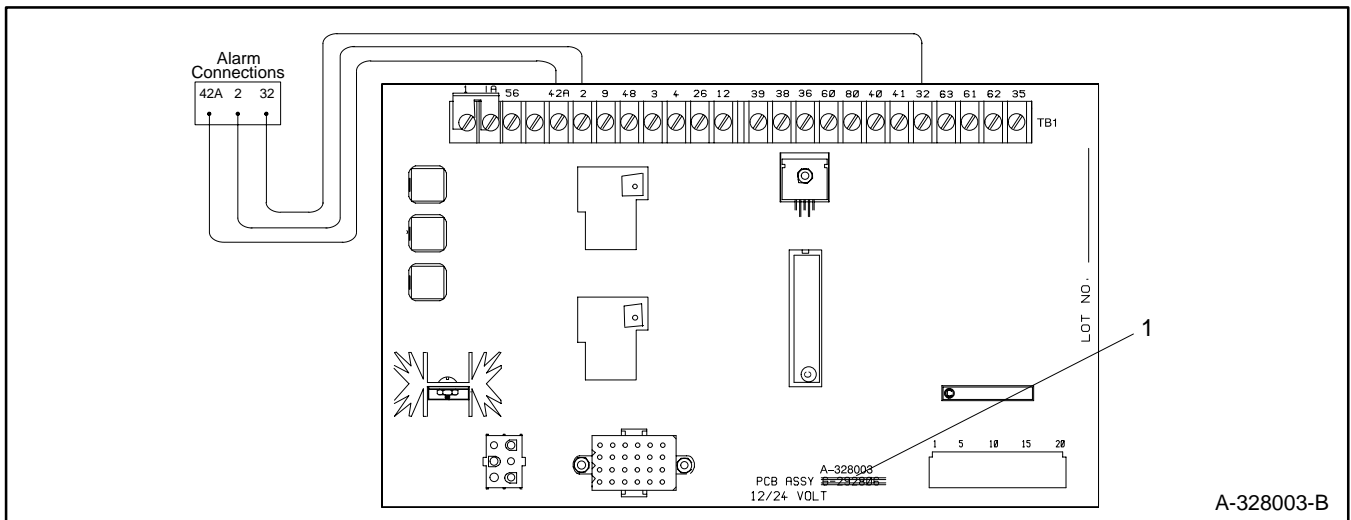
7. Route alarm leads through controller port and harness loops to circuit board terminal strip. Cut the lead connected to A/V terminal 2 (black). Strip end and connect to controller circuit board terminal 2. Repeat procedure for leads 32 (white) and 42A (red). Connection of leads 42A, 2, and 32 varies with controller circuit board.

Determine the type of generator set controller by the circuit board part number on the controller circuit board. The alphacharacter in the circuit board part number may be different from the one shown. See Figure 3.

Circuit Board Part Number	Terminal Strip Qty.	Wiring Diagram
A-328003	TB1	Figure 4
A-336415	TB1 and TB2	Figure 5
A-352160	TB1, TB2, TB3, and TB4	Figure 6

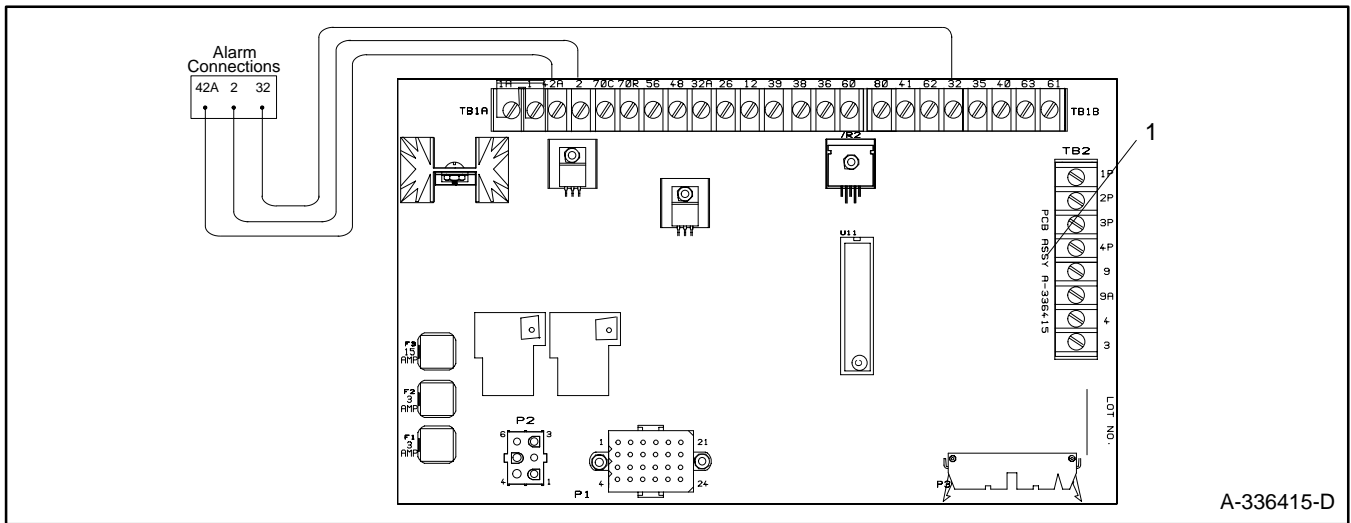
Figure 3. Generator Set Controller Identification

8. Replace the controller cover.
9. Check that the generator set master switch is in the OFF position.
10. Reconnect generator set engine starting battery, negative (–) lead last. Move generator master switch to AUTO for startup by remote transfer switch or remote start/stop switch.
11. Move A/V alarm switch to NORMAL. A/V alarm lamp should not be lit. If alarm horn sounds or lamp remains lit, refer to RESETTING section following.



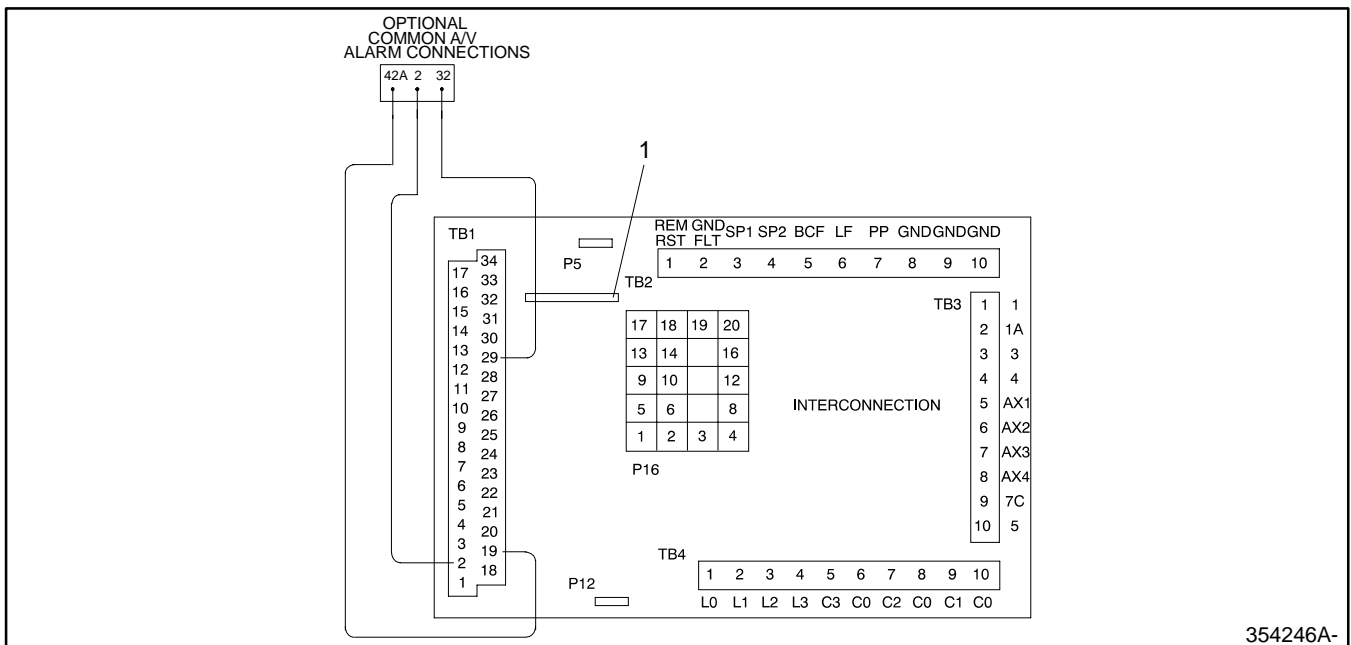
1. Circuit board part number location

Figure 4. Controller Circuit Board A-328003 Wiring Diagram



1. Circuit board part number location

Figure 5. Controller Circuit Board A-336415 Wiring Diagram



1. Circuit board part number location

Figure 6. Controller Circuit Board A-352160 Wiring Diagram

Resetting

Use the following procedure to reset the controller and A/V alarm after a fault alarm.

1. Move controller alarm horn switch to SILENCE position. Move A/V alarm switch to SILENCE to stop alarm horn. A/V lamp remains lit.
2. Disconnect generator set from load with line circuit breaker or automatic transfer switch.
3. Correct cause of fault alarm (refer to generator set service manual).
4. Move generator master switch to OFF/RESET and then to the RUN position for startup. A/V alarm horn sounds and lamp darkens.
5. Verify that the cause of the alarm has been corrected.
6. Reconnect generator set to load via line circuit breaker or automatic transfer switch.
7. Move generator set master switch to AUTO position for startup by remote transfer switch or remote start/stop switch. Move A/V alarm switch to NORMAL.
8. Move controller alarm horn switch to NORMAL.

Audio/Visual Alarm Kit

Parts List		
Kit: PA-292856, PA-292856-SD		
Qty.	Description	Part Number
4	Screw, mounting	292828
1	Panel Assembly, A/V alarm (PA-292856)	A-292887
1	Panel Assembly, A/V alarm (PA-292856-SD)	A-292887-SD