



Audio-Visual (Chime) Alarm Kit PA-292496 Standby Generator Sets

The Audio-Visual (A/V) alarm warns the operator of fault shutdown and pre-alarm conditions (except battery charging fault and low battery voltage) from a location remote of the generator set. The pre-alarms are available only with Dec-3 controllers. Included in the A/V alarm kit is a chime alarm, an alarm silence switch, and a common fault lamp. See Figure 1.

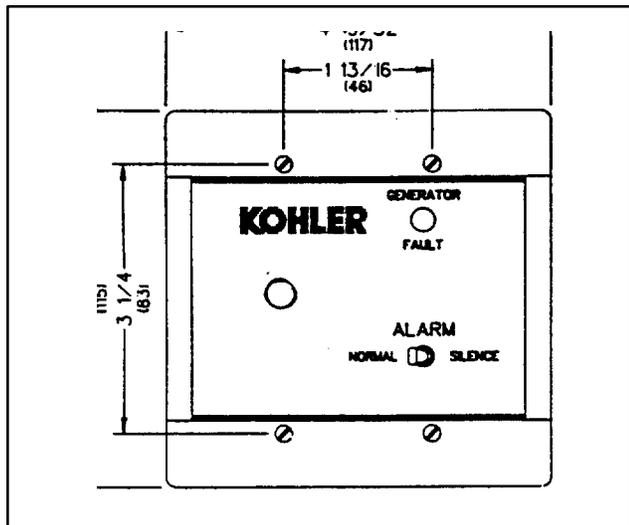


Figure 1. A/V Alarm Panel

If a fault shutdown or pre-alarm condition occurs, the chime alarm will sound and the common fault lamp will light. The chime alarm is defeated by moving the A/V alarm switch to SILENCE. **With Dec-3 controllers**, the fault lamp will remain lit until the fault condition is corrected and the controller is reset. **With Manual/ Relay controllers**, the fault lamp will go out when the generator RUN/STOP switch is moved to the STOP position.

See “Resetting” section following. To properly monitor the condition of the generator, the A/V alarm(s) should be mounted in a location readily

observable by operating personnel at a normal work station.

NOTE

Any combination of A/V alarms and/or remote annunciators totaling three may be connected to the generator set controller.

NOTE

The audio-visual alarm kit should not be directly connected to a Dec-3 controller. A dry contact kit must be used when installing an audio-visual alarm kit to a generator set with a Dec-3 controller. The A/V alarm kit can then be connected to the dry contact kit allowing better access to electrical connections and providing protection for the controller.



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.

NOTE

Applicable local and national electrical codes must be observed when installing the A/V alarm wiring system.

A/V Alarm Installation

1. Move controller master switch to OFF/RESET position. Disconnect generator set battery, negative lead first.
2. Mount a suitable two-gang electrical box (not supplied) in location selected for each A/V alarm. A/V alarm panel requires a minimum mounting depth of 3/4 in. (19 mm). Be sure to include sufficient room for wiring. The electrical box(es) should be mounted flush with the surrounding wall surface where possible. See Figure 2.

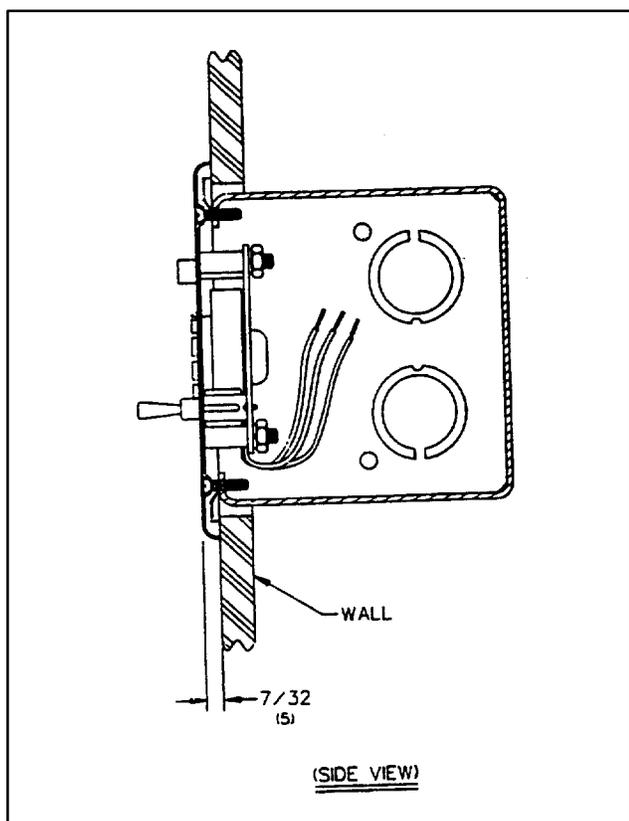


Figure 2. Electrical Box Mounting

3. Use three conductors of 18 or 20 gauge stranded wire 1000 ft. (305 m) max. to connect A/V alarm to generator set. Use of color-coded wire is recommended for easy identification. Be sure lengths are adequate to allow routing through walls, ductwork, and around obstructions.

Strip one end of each wire length and connect to A/V panel leads. Secure wire connections with wire nuts (not supplied). Attach A/V panel to electrical box with four machine screws (292828).

- 4a. Connection to Dry Contact Kit and Dec-3 Controller:

Remove controller cover to access terminal strip on controller circuit board. Lower controller circuit board panel to horizontal position. Route alarm leads through controller opening to circuit board terminal strip. Strip lead ends and crimp on spade terminals (not supplied). See Figure 3. Raise controller circuit board panel to a vertical position and replace controller cover

NOTE

Use the instructions included with the dry contact kit for specific installation and electrical connection information.

- 4b. Connection to Relay Controller:

Open generator set junction box panel to gain access to terminal strip. Strip lead ends and crimp on spade terminals (not supplied). Route leads through conduit into junction box. Connect red lead to terminal 32. Connect black lead and white leads to terminal 7N. See Figure 4a. Replace junction box panel. See Figure 4b if a dry contact kit is used.

NOTE

When used with the manual/relay controller, the A/V alarm will not signal (audible alarm) that all faults have been cleared while in the SILENCE position. Return switch to NORMAL for both audible and visual alarms. Placing switch in SILENCE position will only allow visual alarm to signal should a fault occur.

5. Reconnect generator set battery, negative lead last. Move controller master switch to AUTO for start-up by remote transfer switch or remote start/stop switch.

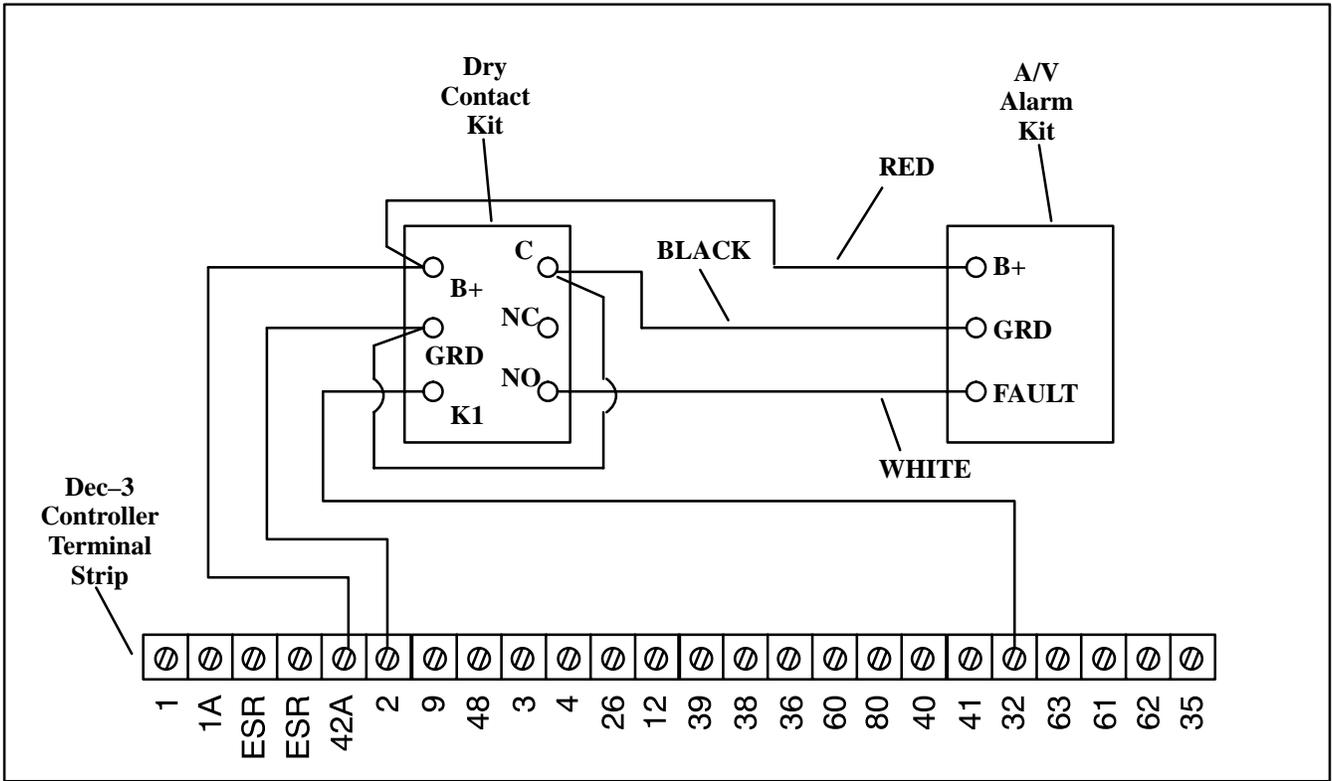


Figure 3. A/V Alarm Connections to Dec-3 Controller using Dry Contact Kit

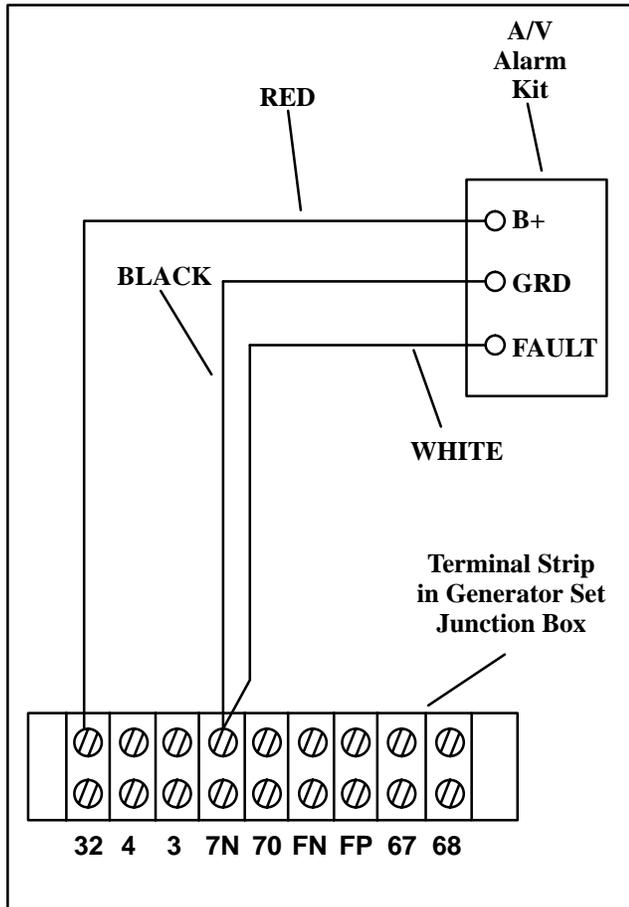


Figure 4a. A/V Alarm Connections to Manual/Relay Controller

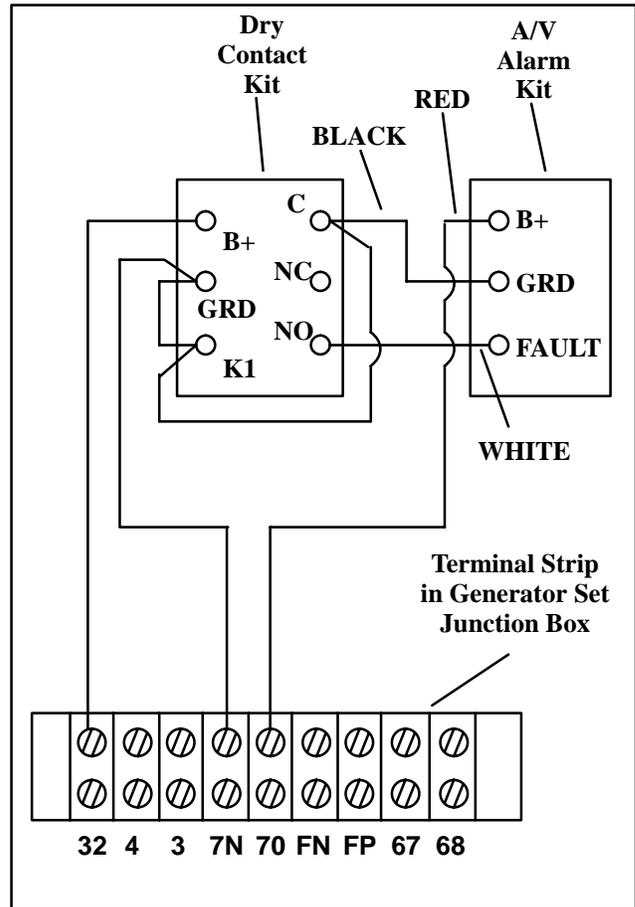


Figure 4b. A/V Alarm Connections to Manual/Relay Controller using (optional) Dry Contact Kit

6. Move A/V alarm switch to NORMAL. If chime alarm sounds or lamp remains lit, refer to "Resetting" section following.

Resetting A/V Alarm with Dec-3 Controller

Use the following procedure to reset the controller and A/V alarm after a fault alarm under normal circumstances. Should an actual emergency exist, appropriate action should be taken.

1. Move A/V alarm switch to SILENCE to stop chime alarm. A/V lamp remains lit. Move controller alarm switch to the SILENCE position (if so equipped).
2. Disconnect generator set from load with line circuit breaker or automatic transfer switch.
3. Correct cause of fault alarm. (See Generator Operation Manual and/or Service Manual.)
4. Move generator master switch to OFF/RESET and then to the RUN position for start-up.
5. Verify that cause of alarm has been corrected. A/V fault lamp should go out and chime alarm should sound. The controller alarm horn should sound (if so equipped).
6. Reconnect generator to load via line circuit breaker or automatic transfer switch.
7. Move generator master switch to AUTO position for start-up by automatic transfer switch or remote start/stop switch. Move A/V chime alarm switch to NORMAL.

NOTE

Until the alarm switch is moved to NORMAL, the alarm will continue to sound. This signals that the fault has been cleared but the alarm switch is not in its proper operating (normal) position. This also provides audible protection against inadvertent switching to SILENCE which would otherwise deactivate the A/V alarm system.

8. Move controller chime alarm switch to the NORMAL position for standard operation.

Resetting A/V Alarm with Manual/Relay Controller

Use the following procedure to reset the controller and A/V alarm after a fault alarm under normal circumstances. Should an actual emergency exist, appropriate action should be taken.

1. Move A/V alarm switch to SILENCE to stop chime alarm. A/V lamp remains lit.
2. Disconnect generator set from load with line circuit breaker or automatic transfer switch.
3. Move generator set master switch to the OFF position. The A/V alarm fault lamp will go out.
4. Correct cause of fault alarm. (See Service Manual.)
5. Move generator master switch to the RUN position for start-up.
6. Verify that cause of alarm has been corrected. A/V fault lamp should be out.

NOTE

With manual/relay controller, the A/V alarm does not sound with switch in SILENCE position even after faults are cleared. The A/V switch must be returned to the NORMAL position.

7. Reconnect generator to load via line circuit breaker or automatic transfer switch.
8. Move A/V alarm switch to NORMAL. No audio or visual alarm should occur.

PARTS LISTING

Description	Qty.	Part No.
Panel Assy.	1	A-292497
Screws, mounting	4	292828