
INSTALLATION INSTRUCTIONS

Remote Mount Voltage Regulator Kits PA-273611 and PA-273611-SD For 20-300 kW Standby Generator Sets

The remote mount voltage regulator kit is recommended whenever the voltage adjustment potentiometer is located beyond 15 ft. (4.3 m) from the generator set. Maximum distance between the generator set and voltage regulator is 1000 ft. (287.4 m). Maximum recommended distance between the voltage adjustment potentiometer and voltage regulator is 15 ft. (4.3 m).

NOTE

A remote voltage adjustment potentiometer kit (PA-328066 or PA-328066-SD) is required when relocating the voltage regulator.

**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.

⚠ WARNING	
 Hazardous voltage.	 Moving rotor.
Can cause severe injury or death.	
Do not operate generator set without all guards and electrical enclosures in place.	

Hazardous voltage can cause severe injury or death. Perform electrical service only as prescribed in equipment manual. Be sure that generator is properly grounded. Never touch electrical leads or appliances with wet hands, when standing in water, or on wet ground as the chance of electrocution is especially prevalent under such conditions. Wiring should be inspected at the interval recommended in the service schedule—replace leads that are frayed or in poor condition. The function of a generator set is to produce electricity and wherever electricity is present, there is the hazard of electrocution.

NOTE

All electrical connections should be made by a certified electrician or competent electrical technician.

INSTALLATION

1. Move generator master switch to OFF position. Allow generator set to cool.
2. Remove generator set battery cables, negative lead first.

3. Remove left side (as viewed when facing the controller) access panel from junction box. Remove remaining panels if greater access is desired.
4. Disconnect the AC wiring harness from the voltage regulator.

NOTE

The voltage adjustment potentiometer in the controller will remain disabled, as it will be replaced by a remote voltage adjustment potentiometer kit (PA-328066 or PA-328066-SD).

5. Remove voltage regulator from junction box; save voltage regulator and hardware for reuse.
6. Position wiring harness (273941) against the rear of the junction box. Using terminal strip as a template, drill two 0.188-in. (4.7-mm) diameter holes (see Figure 1).

NOTE

If space allows, use the top voltage regulator mounting hole to locate terminal strip.

NOTE

Observe all appropriate safety procedures for use of power tools when drilling holes. Remove all burrs and metal chips from the work area before continuing installation procedure.

7. Install marker strip (263268) and wiring harness (273941) using two 8-32 x 0.750-in. r.h.m. screws (X-51-11), 0.188 x 0.438 x 0.049-in. plain washers (X-25-48), and 8-32 whiz nuts (X-6210-4). Connect harness connector to AC wiring harness from Step 4.
8. Locate the remote regulator mounting plate assembly (A-263266) at the desired position. Using the plate as a template, drill four 0.219-in. (5.5-mm) diameter holes.

NOTE

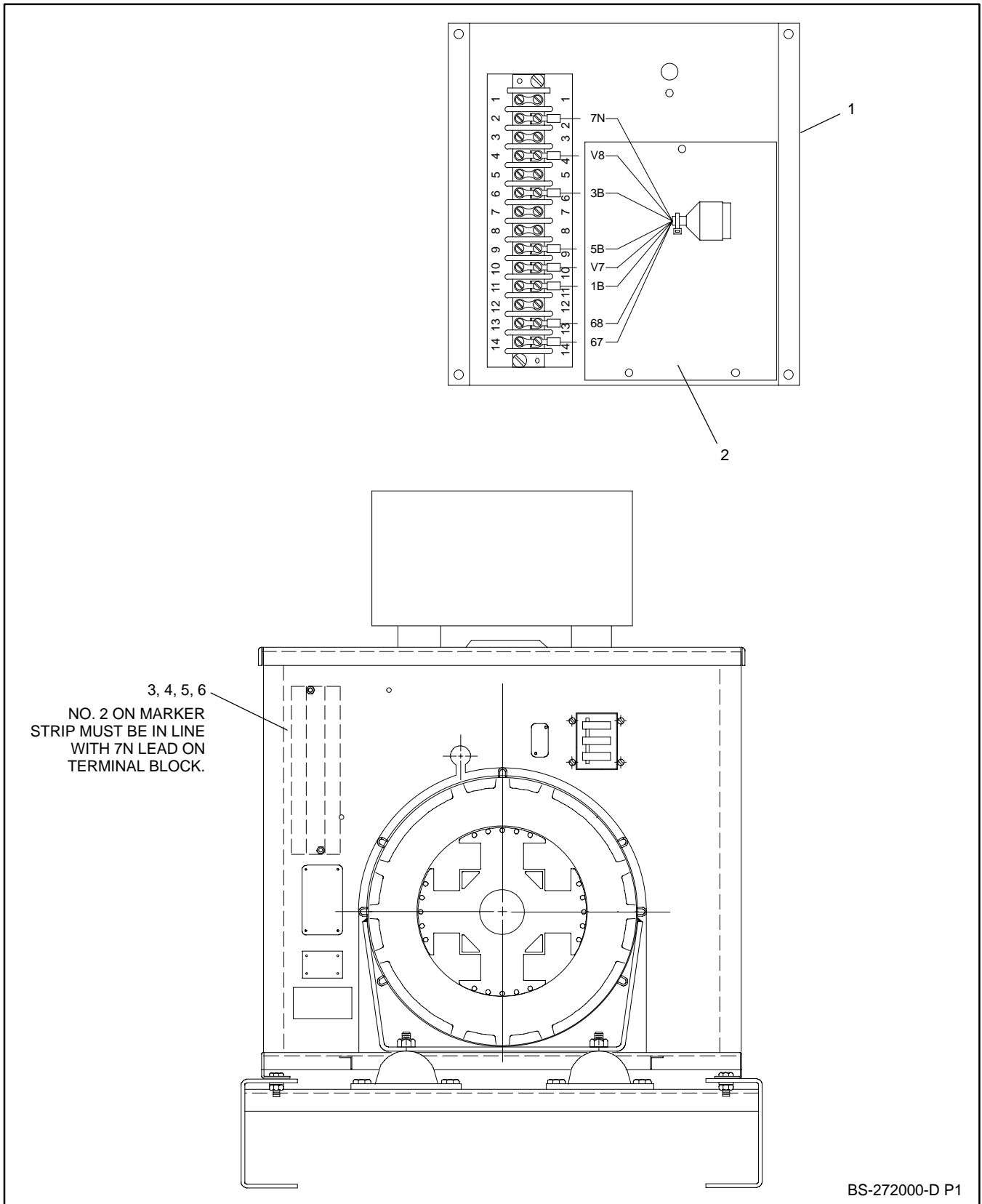
Observe all appropriate safety procedures for use of power tools when drilling holes. Remove all burrs and metal chips from the work area before continuing installation procedure.

9. Mount the voltage regulator to the mounting plate assembly using original hardware.
10. Install the regulator mounting plate assembly (hardware not supplied).
11. Install the remote voltage adjustment potentiometer kit according to the instructions provided with the kit.
12. Using customer-supplied wire, connect the remote voltage adjustment potentiometer to the regulator mounting plate terminal strip as shown in Figure 2.

NOTE

The remote adjustment potentiometer kit should be located within 15 ft. (4.3 m) of the voltage regulator.

13. Using customer-supplied wire, connect wiring harness terminal TG2 to the remote-mount voltage regulator terminal strip (see Figure 2). Use 18-gauge stranded copper wire for distances up to 100 ft. (28.7 m), 16-gauge for up to 500 ft. (143.6 m), and 14-gauge for up to 1000 ft. (287.4 m) to connect wiring harness to the remote voltage regulator terminal strip.
14. Replace junction box access panels.
15. Reconnect generator set battery cables, negative lead last.
16. Move generator set master switch to RUN or START position. Test operation of voltage adjust potentiometer; adjust potentiometer as required. Stop generator set.

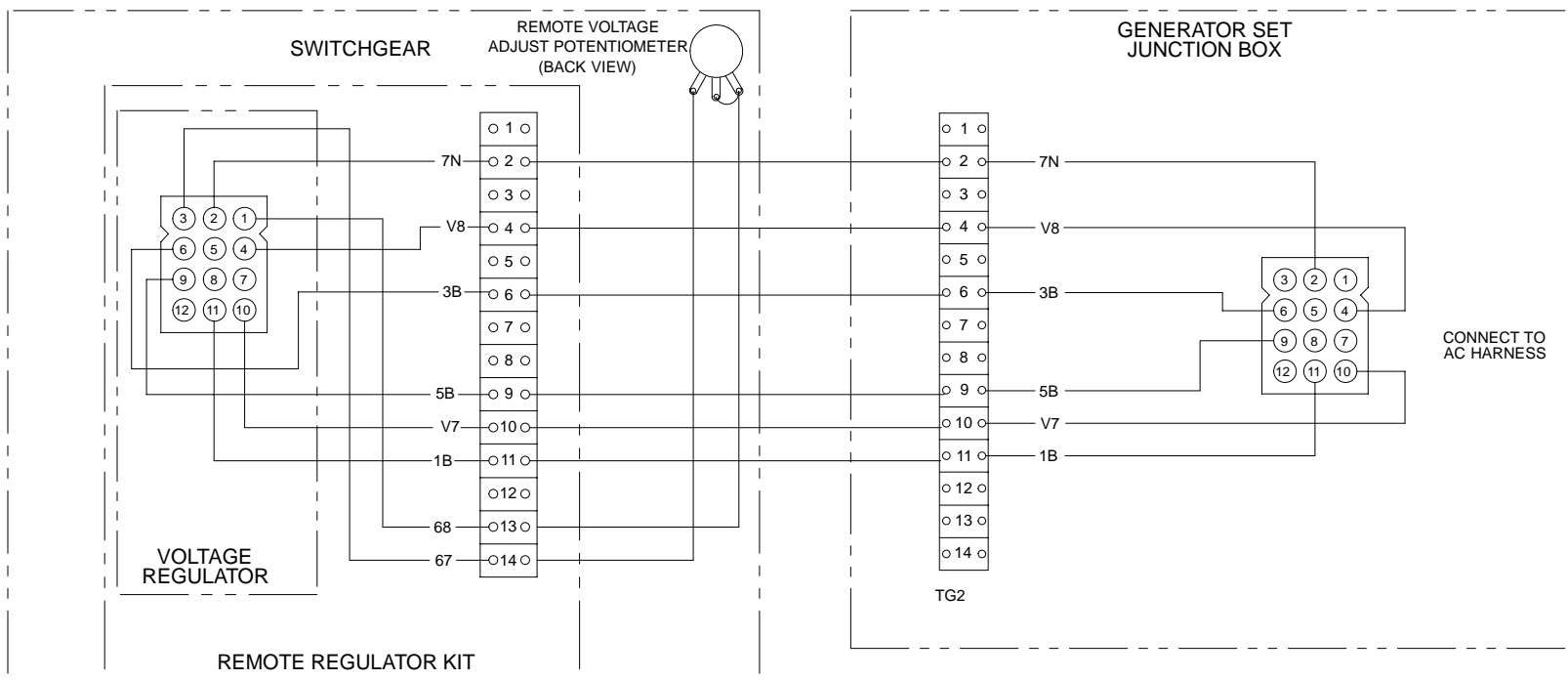


- 1. Remote Regulator Mounting Plate Assembly (A-263266)
- 2. Regulator Assembly
- 3. Wiring Harness (273941)

- 4. Plain Washer (X-25-48) qty. 2
- 5. 8-32 Whiz Nut (X-6210-4) qty. 2
- 6. Marker Strip (263268)

Figure 1. Remote Voltage Regulator Kit Installation

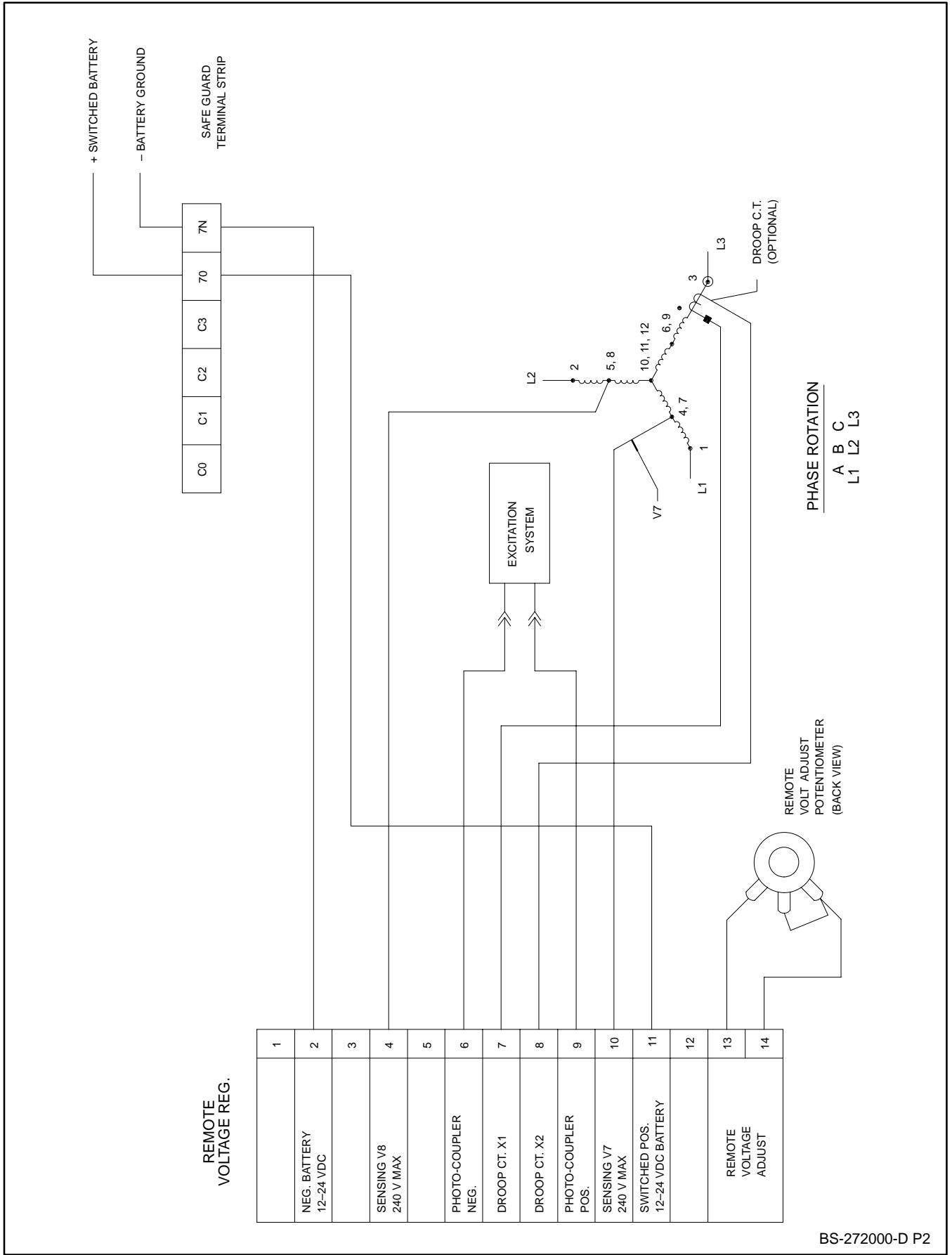
CONNECTIONS BETWEEN TERMINAL BLOCKS AND TO REMOTE VOLTAGE ADJUST POTENTIOMETER ARE CUSTOMER SUPPLIED



LEGEND	
3B	PHOTO-COUPLING
5B	PHOTO-COUPLING
67	VOLTAGE ADJUST
68	VOLTAGE ADJUST
V7	AC VOLTAGE SENSING
V8	AC VOLTAGE SENSING
7N	BATTERY GROUND
1B	BATTERY VOLTAGE PLUS

Figure 2. Wiring Diagram

BS-272000-D P1



BS-272000-D P2

Figure 3. Schematic Diagram

Parts List

Kits: PA-273611 and PA-273611-SD

Description	Qty.	Part No.
Plate Assembly, remote regulator mounting (* includes)	1	A-263266
* Screw, 8-32 x 0.750 in. r.h.m.	2	X-51-11
* Plate, mounting	1	263267
* Strip, marker	1	263268
* Strip, terminal	1	269244
* Harness, wiring	1	273609
Harness, wiring (includes)	1	273941
* Lead	1	SWV7-1809-8522
* Lead	1	SWV8-1809-8522
* Lead	1	SW1B-1809-8522
* Lead	1	SW3B-1809-8522
* Lead	1	SW58-1809-8522
* Lead	1	SW7N-1809-8522
* Jumper	1	X-6073-2
* Strip, terminal	1	269244
* Connector	1	287536
Washer, 0.188 x 0.438 x 0.049 in. plain	2	X-25-48
Screw, 8-32 x 0.750 in. r.h.m.	2	X-51-11
Nut, 8-32 whiz	2	X-6210-4
Strip, marker	1	263268

* Included in previous assembly.