
INSTALLATION INSTRUCTIONS

Current Transformer Kits for Safeguard Circuit Breaker Kits and Controllers without Meters 180-300 kW Standby Generator Sets

Applications for generator set models may vary depending upon voltage/frequency connection. Contact an authorized distributor/dealer for proper selection of kit.

PA-274833	PA-274833-SD
PA-274838	PA-274838-SD
PA-275515	PA-275515-SD
PA-276988	PA-279277-SD
PA-279277	PA-279278-SD
PA-279278	PA-279279-SD
PA-279279	PA-324185-SD
	PA-324195-SD



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.

INSTALLATION

1. Move generator master switch to OFF position.
2. Remove generator set battery cables, negative lead first.
3. Kits PA-324185-SD and PA-324195-SD only:
Mount current transformers to bracket (299966) using 1/4-14 x 0.750-in. drill screw (X-794-1).

4. Mount current transformer to roof of junction box using 12, 10-24 x 0.625-in. r.h.m. screws (X-50-8), 0.219 x 0.500 x 0.049-in plain washers (X-25-36), and 10-24 whiz nuts (X-6210-5). See Figures 1 and 2. Items referenced in Figure 2 apply to Figure 1.

NOTE

Current transformers must be mounted with dot or “HI” toward generator.

5. Remove 1B from safeguard terminal strip (terminal 70) and connect to safeguard breaker pole 2-load terminal. See Figure 3 for location of safeguard circuit breaker. Make remaining current transformer connections as shown in Figures 4 and 5. Items referenced in Figure 5 apply to Figure 4. See Figure 6 for voltage reconnection.

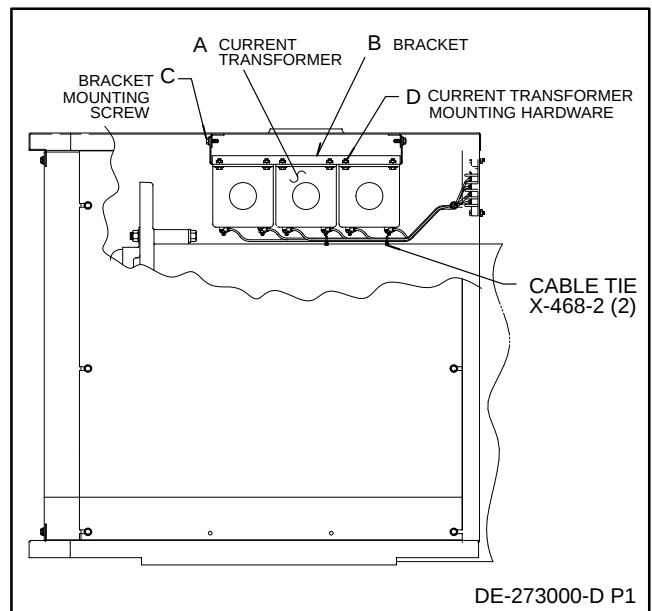


Figure 1. Current Transformer Mounting

Kit No.	Item A Current Transformer	Item B Bracket	Item C Bracket Mounting Screw	Item D Current Transformer Mounting Hardware
PA-276988	279272 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-274833 & PA-274833-SD	273258 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-274838 & PA-274838-SD	272678 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-275515 & PA-275515-SD	272691 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-279277 & PA-279277-SD	279272 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-279278 & PA-279278-SD	279273 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-279279 & PA-279279-SD	272690 (3)	N.R.	N.R.	X-50-8 (12), X-25-36 (12), X-6210-5 (12)
PA-324185-SD	272691 (3)	299966	X-794-1 (4)	N.R.
PA-324195-SD	272960 (3)	299966	X-794-1 (4)	N.R.

N.R. Not Required

**Figure 2. Hardware for Current Transformer Kits
(Items are referenced in Figure 1.)**

NOTE

Generator sets with 120-240 volt connections require one turn of output leads through current transformer. Generator sets with 480-600 volt connections require two turns of output leads through current transformer.

6. Reconnect generator set battery cables, negative lead last.
7. Move generator set master switch to normal operating position.

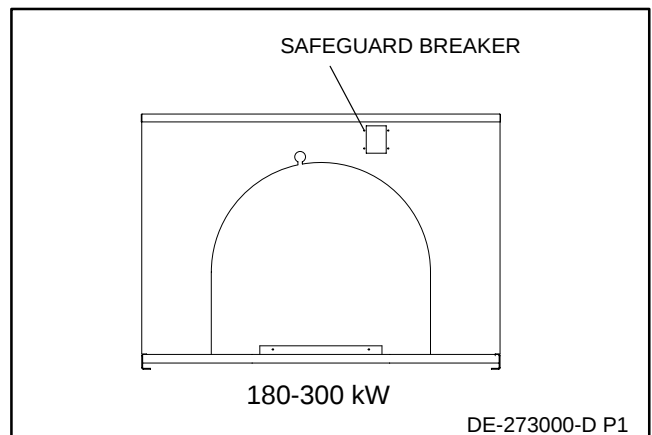
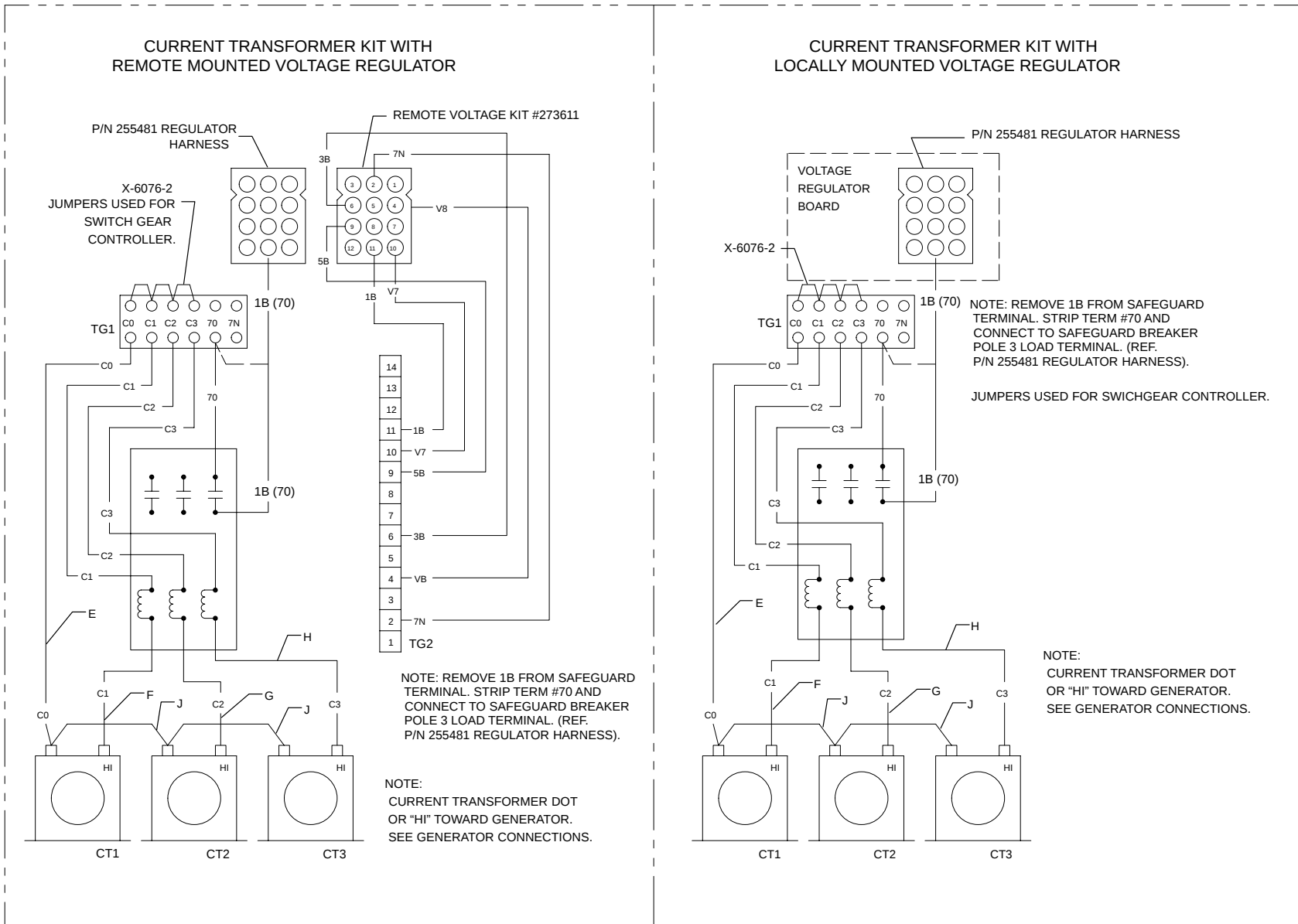


Figure 3. Safeguard Breaker Locations

Figure 4. Current Transformer Circuit Connections

DE-273000-D P1



Kit No.	Item E	Item F	Item G	Item H	Item J
PA-276988	SWC0-1830-1414	SWC1-1830-1414	SWC2-1830-1414	SWC3-1830-1414	SWC0-1808-1313 (2)
PA-274833 & PA-274833-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-274838 & PA-274838-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-275515 & PA-275515-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-279277 & PA-279277-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-279278 & PA-279278-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-279279 & PA-279279-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-324185-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)
PA-324195-SD	SWC0-1630-1423	SWC1-1635-1414	SWC2-1635-1414	SWC3-1635-1414	LW-1608-1414 (2)

Figure 5. Current Transformer Leads
(Items are referenced in Figure 4.)

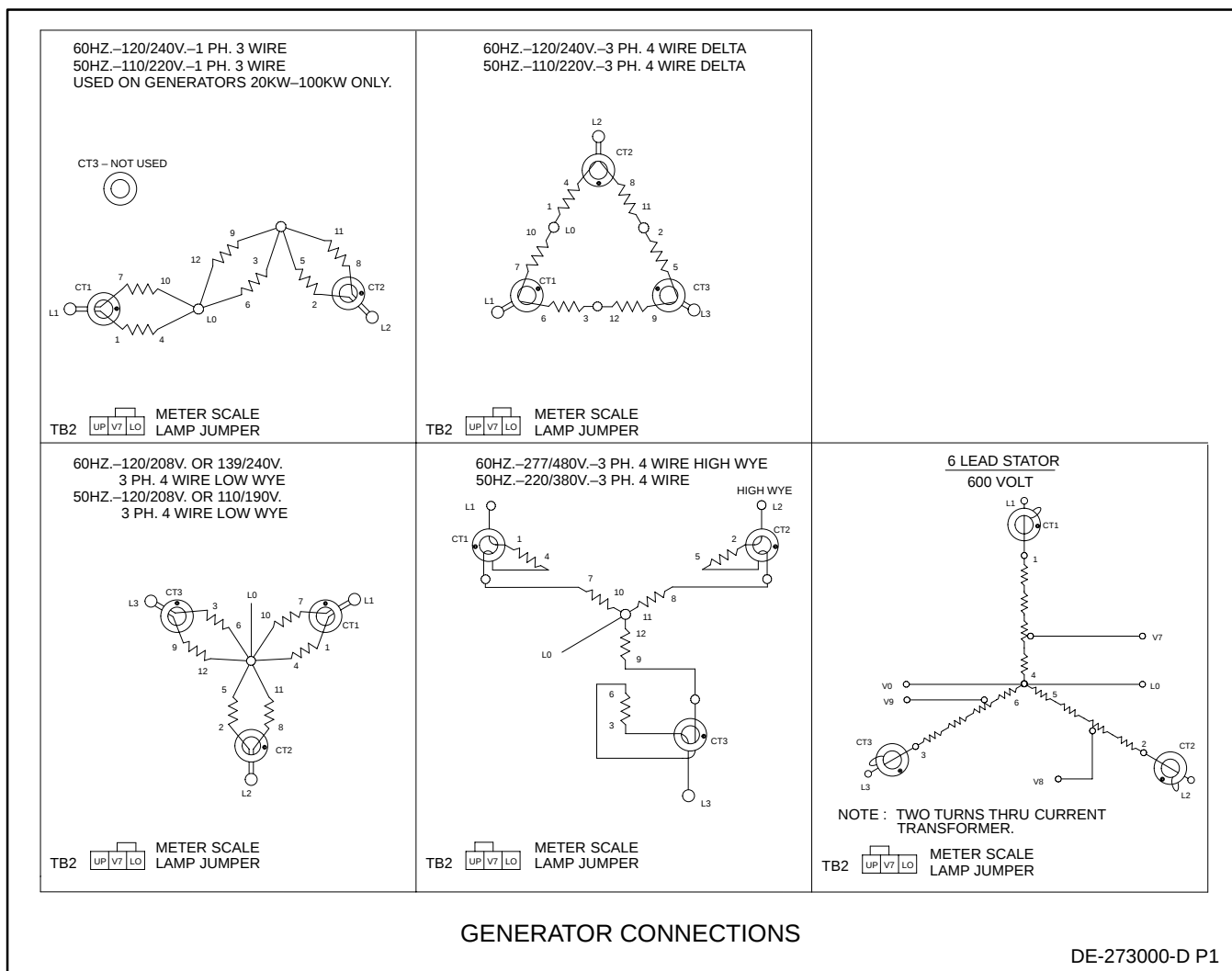


Figure 6. Generator Connections

Parts List		
Kits: PA-274833, PA-274833-SD, PA-274838, PA-274838-SD, PA-279277, PA-279277-SD, PA-279278, PA-279278-SD, PA-279279, PA-279279-SD, PA-275515, and PA-275515-SD		
Description	Qty.	Part No.
Lead	2	LW-1608-1414
Lead	1	SWC0-1630-1423
Lead	1	SWC1-1635-1414
Lead	1	SWC2-1635-1414
Lead	1	SWC3-1635-1414
Washer, 0.219 x 0.500 x 0.049 in. plain	12	X-25-36
Tie, cable	2	X-468-2
Screw, 10-24 x 0.625 in. r.h.m.	12	X-50-8
Jumper	1	X-6076-2
Nut, 10-24 whiz	12	X-6210-5
Transformer, current (Kits PA-274833 & PA-274833-SD)	3	273258
Transformer, current (Kits PA-274838 & PA-274838-SD)	3	272678
Transformer, current (Kits PA-279277 & PA-279277-SD)	3	279272
Transformer, current (Kits PA-279278 & PA-279278-SD)	3	279273
Transformer, current (Kits PA-279279 & PA-279279-SD)	3	272690
Transformer, current (Kits PA-275515 & PA-275515-SD)	3	272691

Parts List		
Kit: PA-276988		
Description	Qty.	Part No.
Lead	2	SWC0-1808-1313
Lead	1	SWC0-1830-1414
Lead	1	SWC1-1830-1414
Lead	1	SWC2-1830-1414
Lead	1	SWC3-1830-1414
Washer, 0.219 x 0.500 x 0.049 in. plain	12	X-25-36
Tie, cable	2	X-468-2
Screw, 10-24 x 0.625 in. r.h.m.	12	X-50-8
Jumper	1	X-6076-2
Nut, 10-24 whiz	12	X-6210-5
Transformer, current	3	279272

Parts List		
Kit: PA-324185-SD		
Description	Qty.	Part No.
Lead	2	LW-1608-1414
Lead	1	SWC0-1630-1423
Lead	1	SWC1-1635-1414
Lead	1	SWC2-1635-1414
Lead	1	SWC3-1635-1414
Tie, cable	2	X-468-2
Jumper	1	X-6076-2
Screw, 1/4-14 x 0.750 in. drill	4	X-794-1
Transformer, current	3	272691
Bracket, current transformer mounting	1	299966

Parts List		
Kit: PA-324195-SD		
Description	Qty.	Part No.
Lead	2	SWC0-1808-1313
Lead	1	SWC0-1830-1414
Lead	1	SWC1-1830-1414
Lead	1	SWC2-1830-1414
Lead	1	SWC3-1830-1414
Tie, cable	2	X-468-2
Jumper	1	X-6076-2
Screw, 1/4-14 x 0.750 in. drill	4	X-794-1
Transformer, current	3	279272
Bracket, current transformer mounting	1	299966