
INSTALLATION INSTRUCTIONS

Original Issue Date: 6/97

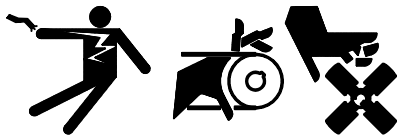
Model: 20-100 kW (Ford-Powered)

Market: Industrial

Subject: **Battery Rack and Cables Kits PA-326020, PA-326020-SD, PA-326061, PA-326061-SD, PA-326156, PA-326156-SD**

The battery rack and cables kit provides a safe and convenient means of securing generator set batteries to the generator set skid. Battery cables supplied in the kit finalize the battery connections. Observe the following safety precautions while installing the 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.

WARNING



Sulfuric acid in batteries.

Can cause severe injury or death.

Use protective goggles and clothes. Battery acid can cause permanent damage to eyes, burn skin, and eat holes in clothing.

WARNING






Explosion.

Can cause severe injury or death. Relays in battery charger cause arcs or sparks.

Locate battery in a well-ventilated area. Isolate battery charger from explosive fumes.

Battery acid. Sulfuric acid in batteries can cause severe injury or death. Sulfuric acid in battery can cause permanent damage to eyes, burn skin, and eat holes in clothing. Always wear splash-proof safety goggles when working near the battery. If battery acid is splashed in the eyes or on skin, immediately flush the affected area for 15 minutes with large quantities of clean water. Seek immediate medical aid in the case of eye contact. Never add acid to a battery after placing the battery in service, as this may result in hazardous spattering of battery acid.

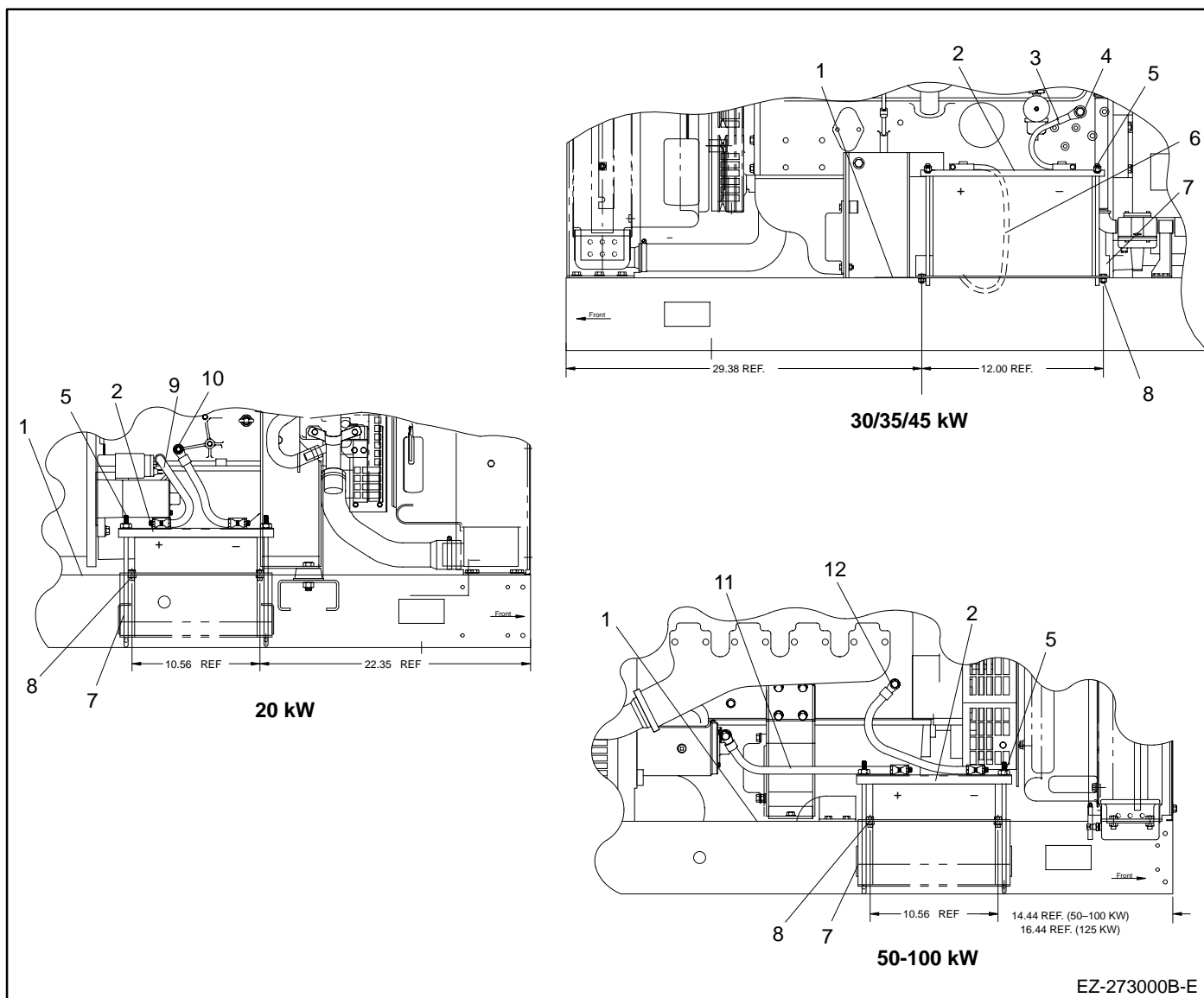
Battery gases. Explosion can cause severe injury or death. Battery gases can cause an explosion. Do not smoke or permit flame or spark to occur near a battery at any time, particularly when it is charging. Avoid touching terminals with tools, etc., to prevent burns and sparks that could cause an explosion. Remove wristwatch, rings, and any other jewelry before handling battery. Never connect negative (–) battery cable to positive (+) connection terminal of starter solenoid. Do not test battery condition by shorting terminals together. Sparks could ignite battery gases or fuel vapors. Ventilate any compartment containing batteries to prevent accumulation of explosive gases. To avoid sparks, do not disturb battery charger connections while battery is being charged. Always turn battery charger off before disconnecting battery connections. Remove negative lead first and reconnect it last when disconnecting battery.

 WARNING	
	
Hazardous voltage. Can cause severe injury or death. Operate generator set only with all guards and electrical enclosures in place.	Moving rotor.

Short circuits. Hazardous voltage can cause severe injury or death. Short circuits can cause bodily injury and/or equipment damage. Do not contact electrical connections with tools or jewelry while adjustments are made. Remove wristwatch, rings, and jewelry before servicing equipment.

Installation

1. Place the generator set master switch in the OFF position.
2. Disconnect power to battery charger, if equipped.
3. Disconnect the generator set engine starting battery, negative (–) lead first.
4. Mount battery rack (324017, 326019, or 326157) to generator set skid using screws (X-125-3) and nuts (X-6210-7). See Figure 1 for mounting location.
5. Install battery (not supplied). See Figure 1 for placement of polarity.
6. Install angle bolts (286316) to battery rack and attach to battery clamp (256982 or 324033) using plain washers (X-25-44) and lock nuts (X-101-4). Torque nuts to 12-16 ft. lbs. (16-22 Nm). See Figure 1.
7. Install warning decal (273780) onto generator set skid. See Figure 1 for location.
8. Connect battery cable (244723, X-545-37, or X-545-50) to positive (+) terminal of generator set starter motor. See Figure 1.
9. Connect negative battery cable (X-545-98, X-545-46, or X-545-60) to ground connection on engine as shown in Figure 1 with screw and washer.
10. Connect positive (+) battery cable (244723, X-545-37, or X-545-50) to battery positive (+) terminal.
11. Check that the generator set master switch is in the OFF position.
12. Connect negative (–) battery cable to battery negative (–) terminal.
13. Reconnect power to battery charger, if equipped.



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| 1. Warning decal (273780) | 8. Screw (X-125-3) and nut (X-6210-7) |
| 2. Battery clamp (256982 or 324033) | 9. Battery cable positive (+) 15.0 in (244723) |
| 3. Battery cable negative (-) 16.0 in (X-545-46) | 10. Battery cable negative (-) 15.0 in (X-545-98), screw (X-6238-10), and lock washer (X-22-14) |
| 4. Screw (X-125-3) and lock washer (X-22-16) | 11. Battery cable positive (+) 34.0 in (X-545-50) |
| 5. Angle bolt (286316), washer (X-25-44), and nut (X-101-4) | 12. Battery cable negative (-) 20.0 in (X-545-60), screw (X-6024-5), lock washer (X-22-14), and plain washer (X-25-34) |
| 6. Battery cable positive (+) 34.0 in (X-545-37) | |
| 7. Battery rack (324017) | |

Figure 1. Battery Rack and Cables Kit

Battery Rack and Cables Kit

Parts List					
Kits: PA-326020, PA-326020-SD, PA-326061, PA-326061-SD, PA-326156, PA-326156-SD			Unique Parts		
Qty.	Description	Common Parts	PA-326020 PA-326020-SD	PA-326061 PA-326061-SD	PA-326156 PA-326156-SD
1	Washer, lock		X-22-14	X-22-16	X-22-15
2	Washer, plain	X-25-44			
1	Washer, plain				X-25-34
2	Nut, hex 5/16-24	X-101-4			
2	Screw, h.c. 5/16 x 0.750	X-125-3			
1	Screw, h.c. 5/16 x 0.625			X-125-23	
1	Cable, battery negative (black)		X-545-98	X-545-46	X-545-60
1	Cable, battery positive (red)		244723	X-545-37	X-545-50
1	Screw, h.c. 7/16-20 x 0.750				X-6024-5
2	Nut, spiralock	X-6210-7			
1	Screw, h.c. 3/8-16 x 0.750		X-6238-10		
1	Clamp, battery		256982	324033	256982
1	Decal, warning	273780			
2	Bolt, angle	286316			
1	Rack, battery		326019	324017	326157