

INSTALLATION INSTRUCTIONS

Original Issue Date: 6/14
Model: 24RCL, 30RCL, and 38RCLB
Market: Residential/Light Commercial
Subject: Oil Pan Heater Kits GM93357-KP1-QS and GM93357-KP2

Introduction

The oil pan heater warms the oil pan when the ambient temperature falls below 4°C (40°F), making starting easier and warmup quicker. See Figure 1 for heater kit specifications.

The adhesive application of the oil pan heater allows for a quick and easy installation. See Figure 2 for illustrations of installed heater kits.

Note: The oil pan heater must be connected to a utility power source.

Supply a utility power source for the oil pan heater if one is not already available. See the drawings supplied with the generator set for conduit/stub-up locations.

For the 120 VAC kit, the oil pan heater cord plugs into a 120 VAC receptacle. For the 240 VAC kit, the oil pan heater cord connects directly to a 240 VAC power source.

Read the entire installation procedure before beginning installation. Perform the steps in the order shown.

Kit Number	GM93357-KP1-QS	GM93357-KP2
Voltage	120 VAC	240 VAC
Amps	1.3	0.6
Watts	150	150
Thermostat ON	4 ± 4°C (40 ± 7°F)	
Thermostat OFF	16 ± 3°C (60 ± 5°F)	

Figure 1 Heater Specifications

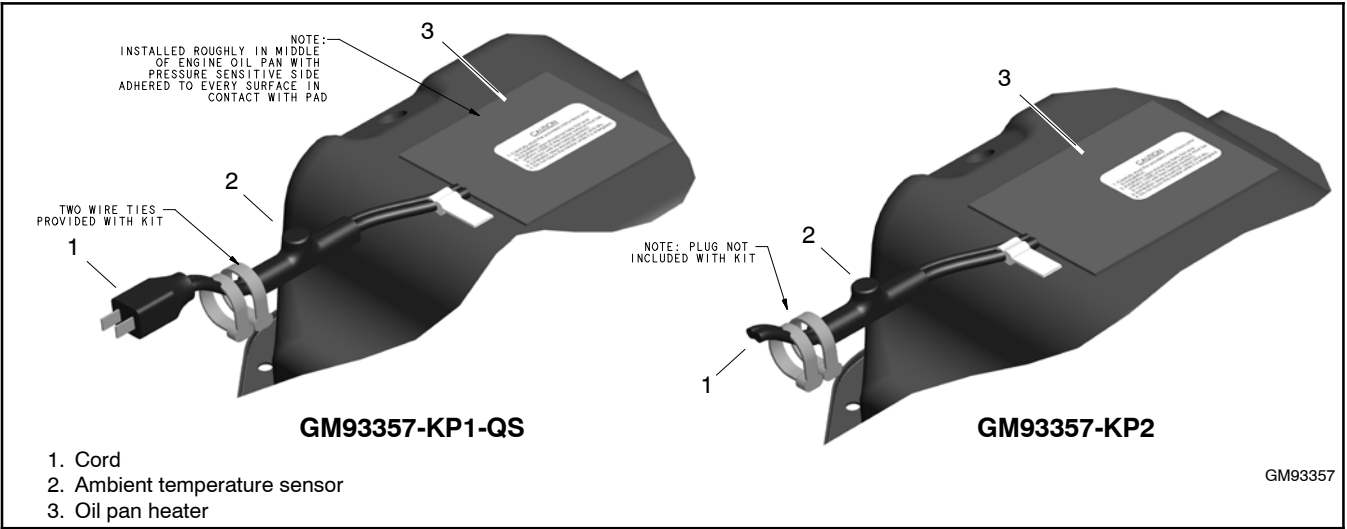

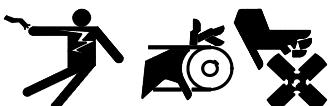



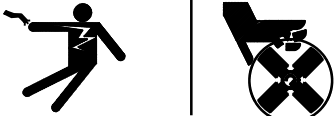
Figure 2 Oil Pan Heater (120 VAC and 240 VAC Shown)

Safety Precautions



Observe the following safety precautions while installing the kit.

 WARNING

<p>Accidental starting. Can cause severe injury or death.</p> <p>Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.</p>

Disabling the generator set. Accidental starting can cause severe injury or death. Before working on the generator set or equipment connected to the set, disable the generator set as follows: (1) Press the generator set off/reset button to shut down the generator set. (2) Disconnect the power to the battery charger, if equipped. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent the starting of the generator set by the remote start/stop switch.

 WARNING

<p>Hazardous voltage. Moving parts. Can cause severe injury or death.</p> <p>Operate the generator set only when all guards and electrical enclosures are in place.</p>

Engine block heater. Hazardous voltage can cause severe injury or death. The engine block heater can cause electrical shock. Remove the engine block heater plug from the electrical outlet before working on the block heater electrical connections.

 WARNING

<p>Hot engine and exhaust system. Can cause severe injury or death.</p> <p>Do not work on the generator set until it cools.</p>

Servicing the engine oil pan heater. Heated components can cause severe injury. The oil pan heater will rapidly become hot when energized. Do not touch the oil pan heater while it is hot. Disconnect power to the engine oil pan heater and allow to cool before servicing it or nearby parts.

Installation Procedure

1.1 Remove the generator set from service.

1. Press the OFF button on the generator set controller.
2. Disconnect the utility power to the generator set.
3. Disconnect the generator set engine starting battery, negative (-) lead first.

1.2 Install the oil pan heater.

Note: Center the oil pan heater on the bottom of the oil pan with the pressure sensitive side adhered to every surface in contact with the pad.

4. Determine where the oil pan heater will be installed and clean the installation area with a non-oil based solvent such as isopropyl alcohol or heptane.
5. Slowly peel the adhesive cover from the oil pan heater.
6. Position and apply the heater pad to the bottom surface of the oil pan.

Note: The heater pad should be between 21°C and 38°C (70°F and 100°F) when applied to the oil pan.

7. To ensure a good adhesive bond, use a heat gun to warm the heater pad. Apply pressure evenly to remove any air pockets.

Note: To prevent damage, the power cord must not touch any heated surfaces or moving components. Ensure adequate clearance from hot surfaces or moving parts.

8. Use the wire ties provided to secure the power cord as needed and to provide strain relief. When secured, ensure that the power cord does not touch any hot surfaces or moving parts and provide adequate clearance for the cord.

Note: To energize the oil pan heater, the oil pan heater must be connected to a utility power source. See the drawings supplied with the generator set for conduit/stub-up locations.

9. Connect the oil pan heater to a power source. For 120 VAC kits, plug the cord into a 120 VAC receptacle. For 240 VAC kits, connect the cord leads to a 240 VAC power source. Do not touch the oil pan heater when hot!

1.3 Restore the generator set to service.

10. Reconnect the generator set engine starting battery, negative (-) lead last.
11. Reconnect the utility power to the generator set.

Oil Pan Heater Kit, 120 VAC

Kit: GM93357-KP1-QS		
Qty.	Description	Part Number
1	Heater, Oil Pan	GM93424
1	Assembly Drawing, Oil Pan Heater	GM93357
1	Installation Instructions, Oil Pan Heater	TT-1633

Oil Pan Heater Kit, 240 VAC

Kit: GM93357-KP2		
Qty.	Description	Part Number
1	Oil Pan Heater	GM93486
1	Assembly Drawing, Oil Pan Heater	GM93357
1	Installation Instructions, Oil Pan Heater	TT-1633

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