

INSTALLATION INSTRUCTIONS

Original Issue Date: 8/11

Model: 17/18RES/RESL, RGEN17/18, 20RES/RESL, and 20RESA/RESAL

Market: Residential/Commercial

Subject: Carburetor Heater Kits GM57969-KP1, -KP1LX, -KP1QS and -S

Introduction

The carburetor heater kit is recommended for improved cold starting in locations where the ambient temperature drops below 0°C (32°F). The carburetor heater prevents condensation and carburetor icing. The heater turns on when the temperature at the thermostat falls below approximately 4°C (40°F) and turns off when the temperature rises above approximately 16°C (60°F).

The carburetor heater fits into a threaded boss below the air cleaner on the generator set's engine. Figure 1 shows the location for the carburetor heater. See Figure 2 for an illustration of the carburetor heater.

The heater requires a continuous source of power. Plug the carburetor heater into one of the 120 VAC receptacles provided. On some models, the 120 VAC receptacles are used for a battery charger and other optional accessories. If all of the receptacles are used, the installer must provide another 120 VAC receptacle for the carburetor heater. The circuit must be backed up by the generator set to provide power at all times.

Read the entire installation procedure and compare the kit parts with the parts list at the end of this publication before beginning installation. Perform the steps in the order shown.

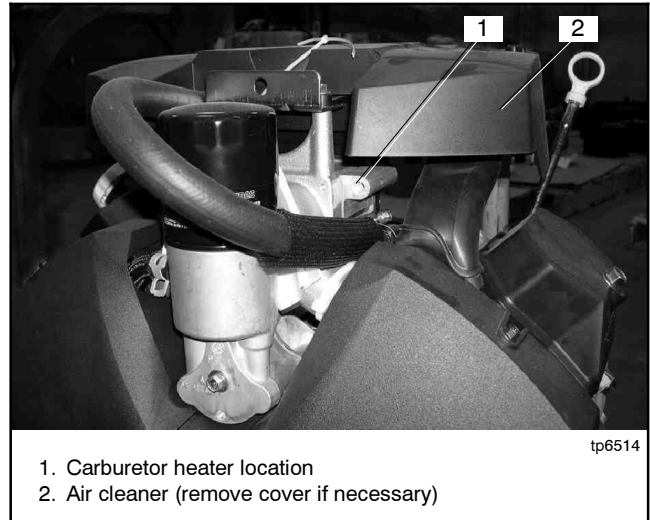


Figure 1 Carburetor Heater Location (bulkhead removed to show heater location)

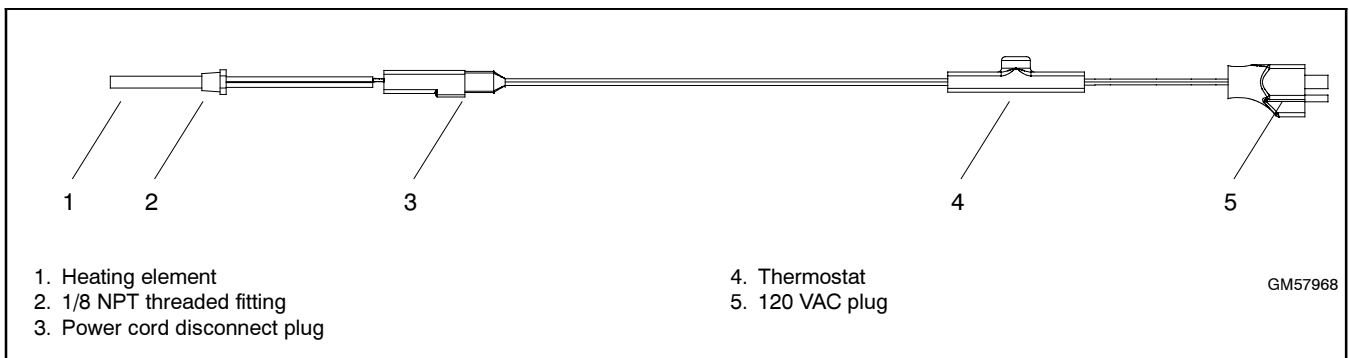



Figure 2 Carburetor Heater

Safety Precautions

Observe the following safety precautions while installing the kit.


⚠ WARNING



**Accidental starting.
Can cause severe injury or death.**

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.

Disabling the generator set. Accidental starting can cause severe injury or death. Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent starting of the generator set by an automatic transfer switch, remote start/stop switch, or engine start command from a remote computer.

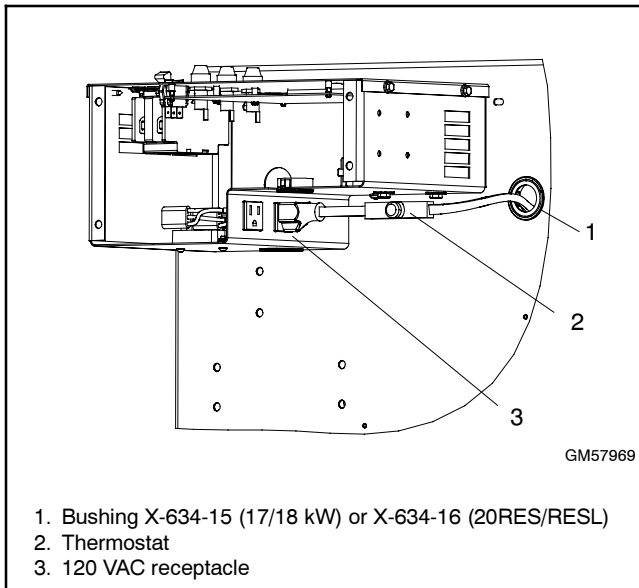
⚠ WARNING

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

Servicing the engine heater. Hot parts can cause minor personal injury or property damage. Install the heater before connecting it to power. Operating the heater before installation can cause burns and component damage. Disconnect power to the heater and allow it to cool before servicing the heater or nearby parts.

Installation Procedure

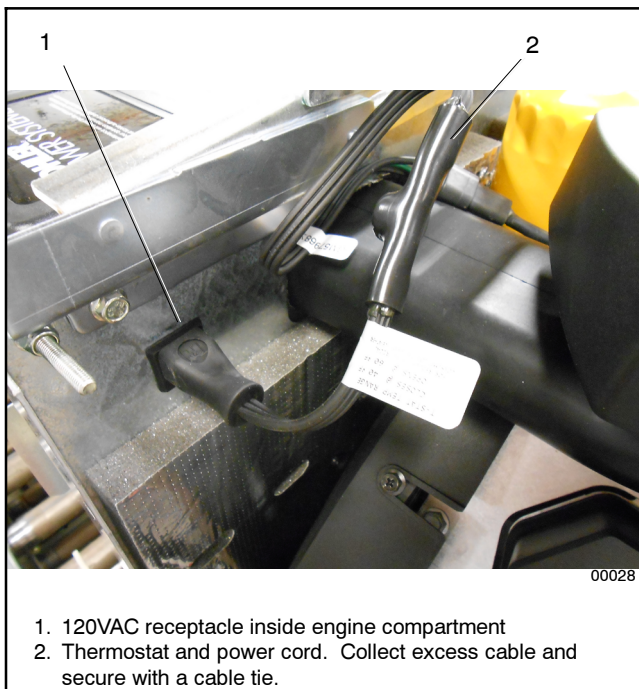
1. Turn off the generator set.
 - a. 17/18RES/RESL: Move the generator set master switch to the OFF position.
 - b. 20RES/RESL: Press the OFF button on the generator set controller and remove the F3 fuse from the RDC/DC controller.
 - c. 20RESA/RESAL: Press the OFF button on the generator set controller.
2. Disconnect the utility power to the generator set.
3. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
4. For Model 20RESA/RESAL, skip to step 8.
5. Open the enclosure roof and remove the air intake end panel to access the air cleaner and the receptacles below the controller.
6. Remove and discard the existing plug from the opening in the bulkhead. See Figure 3.
7. Install bushing X-634-15 (models 17/18) or X-634-16 (model 20RES/RESL) in the opening. No bushing is required for the Model 20RESA/RESAL.
8. For easier access to the carburetor heater location, remove the air cleaner cover.
9. Disconnect the heater element from the power cord at the plug connector. See Figure 2.
10. Insert the carburetor heater into the boss on the engine and tighten. See Figure 1.
11. Plug in the power cord:
 - a. 17/18 kW and Model 20RES/RESL: Thread the heater's power cord through the opening in the bulkhead. See Figure 3.

Plug the power cord into one of the receptacles under the controller or the receptacle provided by the installer. See Figure 3 or Figure 4.
 - b. Model 20RESA/RESAL: Plug the power cord into the receptacle provided inside the engine compartment. Collect the excess cable and secure with a cable tie. See Figure 4.
12. Reconnect the power cord to the heater at the plug.



1. Bushing X-634-15 (17/18 kW) or X-634-16 (20RES/RESL)
2. Thermostat
3. 120 VAC receptacle

Figure 3 Heater Cord with Thermostat, 17/18 kW and Model 20RES/RESL

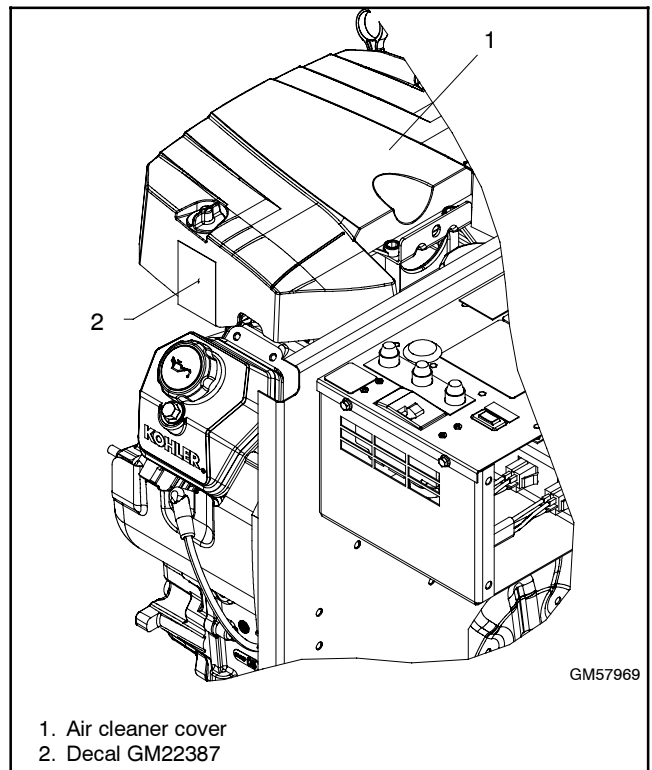


1. 120VAC receptacle inside engine compartment
2. Thermostat and power cord. Collect excess cable and secure with a cable tie.

Figure 4 Heater Cord with Thermostat, Model 20RESA/RESAL

13. Affix decal GM22387 onto the air cleaner cover as shown in Figure 5.
14. Replace the air cleaner cover.
15. Check that the generator set master switch is in the OFF position (models 17/18).

16. Reconnect the generator set engine starting battery, negative (-) lead last.
17. Reconnect the utility power to the generator set.
18. 20RES/RESL: Reinstall the F3 controller fuse.
19. For standby operation, move the generator set master switch to the AUTO position, or press the AUTO button on the generator set controller.
20. Reinstall the enclosure panel(s), and close and lock the roof.



1. Air cleaner cover
2. Decal GM22387

Figure 5 Decal Location on Air Cleaner Cover

Parts List

Heater, Carburetor, 17/18/20 kW Residential

Kit: GM57969-KP1, -KP1LX, -S, -KP1QS		
Qty.	Description	Part Number
1	Decal, Caution Hot Carburetor Heater	GM22387
1	Heater, Carburetor	GM57968
1	Instruction, Installation	TT-1482
1	Bushing, 1.000 x 1.375 in. NPT	X-634-15
1	Bushing, 1.312 x 1.50 in. NPT	X-634-16

Notes