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## INSTALLATION INSTRUCTIONS

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Original Issue Date: **6/10**

Model: **30RESA and 30REYG**

Market: **Residential, Commercial**

Subject: **Air Intake Resonator Kit GM75873 for LP-Fueled Generator Sets**

### Introduction

Air intake resonator kit GM75873 improves the engine starting on model 30RESA and 30REYG generator sets operating on LP fuel.

All 30RESA and 30REYG with specification numbers beginning with GM69190 and operating on LP fuel are affected.

**Note:** Only units running on LP gas need this kit installed.

Generator sets with specification numbers starting with GM74628 have factory-installed resonator boxes and do not require the service kit.

### Before Installation

Obtain the items described below before installing the kit.

- GM42033, E-Controls Interface Kit (includes GCP software, connecting cable, and instructions).
- A personal computer (laptop).
- ECM calibration file. Request the file from the Generator Field Service Department.
- Air cleaner assembly GM36199 ONLY IF the existing air cleaner has been modified.

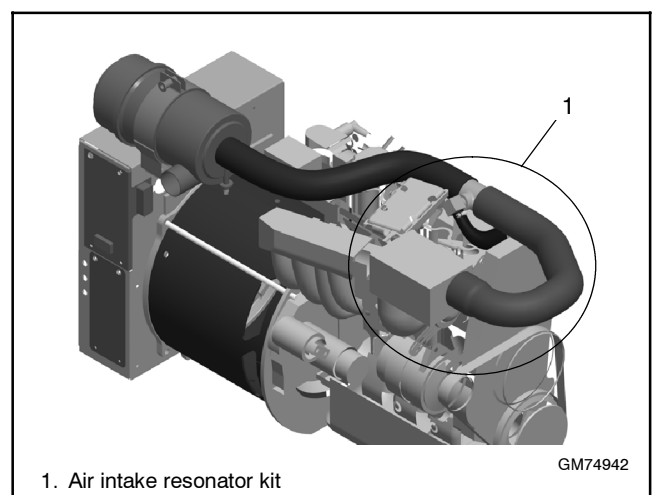
It will be necessary to reprogram the engine ECM by loading a new calibration file after the air resonator box is installed. Contact the Kohler Power Systems Generator Field Service Department to obtain a new ECM calibration file. Please provide the unit serial number to obtain the correct calibration for your unit.

The engine ECM troubleshooting/reprogramming tool GM42033 (Interface E-Controls GCP software) and a personal computer are required for reprogramming the engine ECM. Service kit GM42033 includes GCP software, instructions, and the cable to connect the ECM to a personal computer. If you do not have Service Kit GM42033, it will be necessary to purchase it to perform the installation of the engine ECM software.

If the air cleaner was modified prior to the availability of this kit, obtain and install a replacement air cleaner assembly, GM36199.

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.

See Figure 1 for the installed kit illustration.

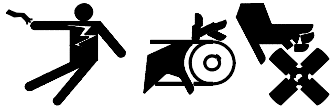


**Figure 1** Air Intake Resonator Kit, Installed

## 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.

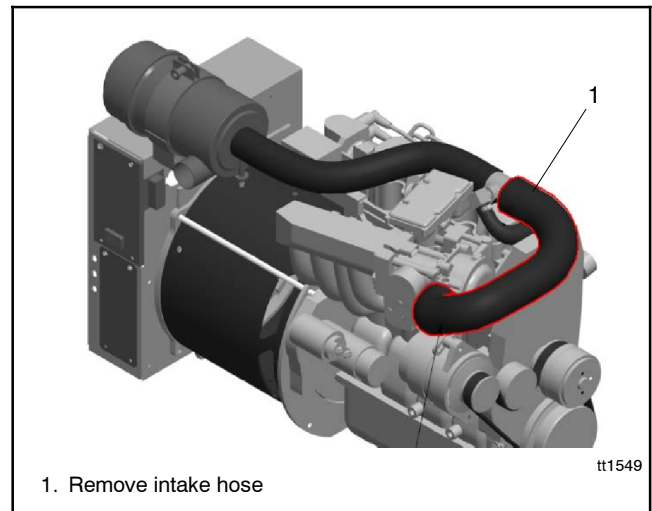
**Disabling the generator set. Accidental starting can cause severe injury or death.** Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove 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.

## Installation Procedure

1. Place the generator set master switch in the OFF position.
2. Disconnect the power to the battery charger, if equipped.
3. Disconnect the generator set engine starting battery(ies), negative (-) lead first.
4. If the air cleaner was modified prior to the availability of this kit, replace the air cleaner assembly.

5. Remove the molded rubber intake hose between mixer and crankcase vent tee as seen in Figure 2.

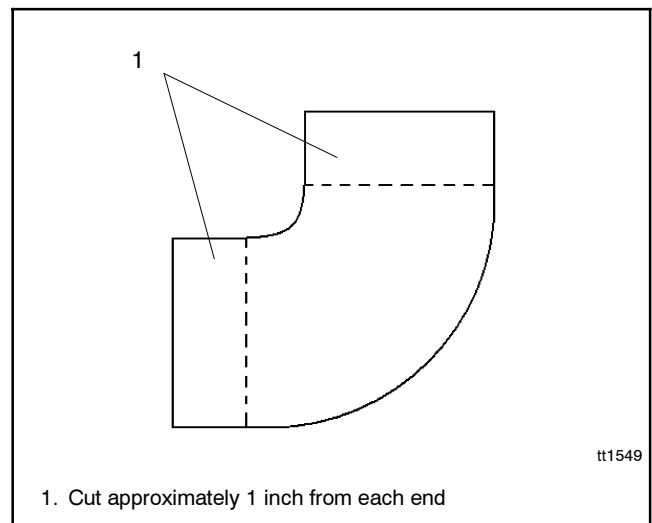
**Note:** Save both hose clamps. They will be re-used.



**Figure 2** Intake Hose

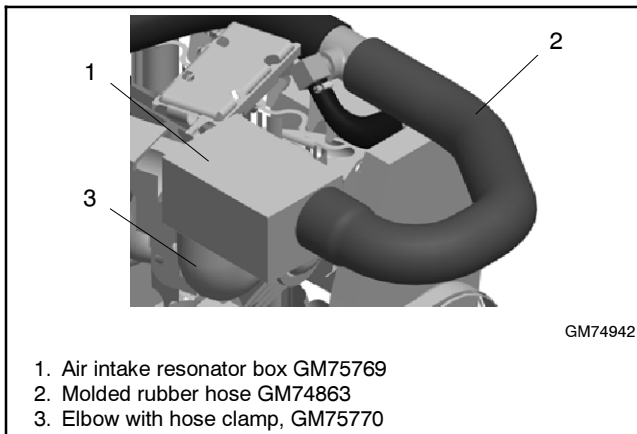
**Note:** If the generator set has a sound enclosure or no enclosure, skip step 6 and proceed to step 7.

6. For generator sets with weather enclosures ONLY: remove approximately 1 inch from each end of rubber elbow GM75770, supplied with the kit. There are visible parting lines in the rubber where the elbow should be cut.



**Figure 3** Elbow GM75770 Modification for Weather Enclosures Only

7. Pre-assemble the kit components: molded rubber intake hose GM74863, air-resonator box GM75769, and rubber elbow GM75770 with supplied hose clamp. See Figure 4.



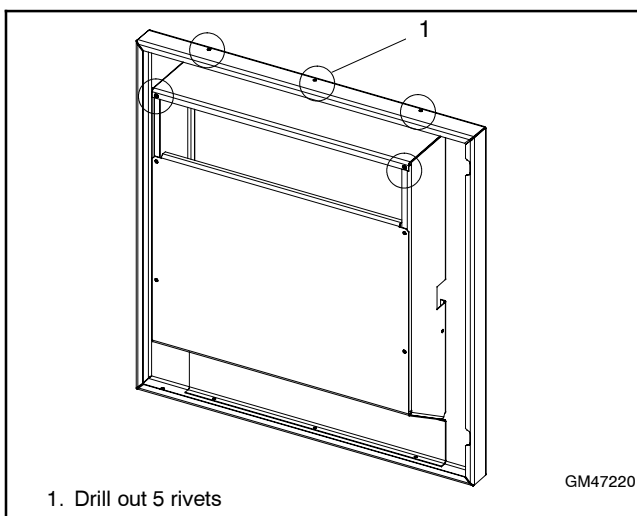
**Figure 4** Assemble Kit Parts

8. Install the resonator assembly in the location of the molded rubber hose removed in step 5. See Figure 1. Use the hose clamps that were removed in step 5 to secure the new assembly.

**Note:** On units with sound enclosures, follow steps 9 through 11 to replace the upper duct panel on the right front door. For all other models, proceed to step 12.

#### Models with Sound Enclosures

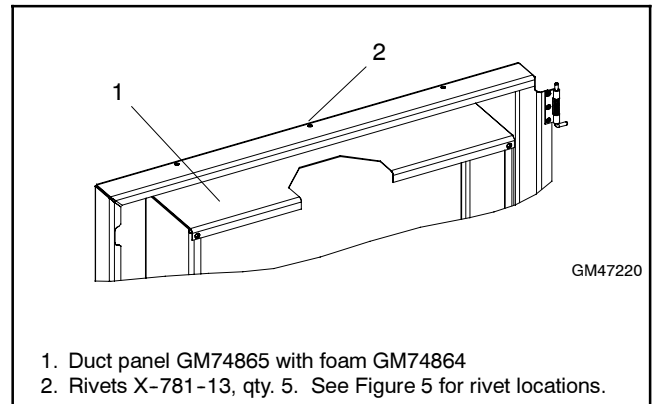
9. On the front right door (adjacent to air-intake resonator) drill out the five rivets that attach the upper duct panel to the door assembly as seen in Figure 5. Remove and discard the panel.



**Figure 5** Sound Enclosure Front Right Door

10. Bond the supplied self-adhesive foam (GM74864, provided with the kit) to the supplied new upper duct panel (GM74865) with notch. The foam and panel should be mated in a similar fashion to the panel assembly removed in step 9.

11. Place the new duct panel/foam assembly in place of the removed assembly. Using the five supplied rivets, fasten the new assembly into place as seen in Figure 6.



**Figure 6** Duct/Foam Assembly Installation on Right Front Door of Sound Enclosure

#### All Models

12. Check that the generator set master switch is in the OFF position.
13. Reconnect the generator set engine starting battery, negative (-) lead last.
14. Reconnect power to the battery charger, if equipped.
15. Proceed to the next section, Reprogram the Engine ECM.

## Reprogram the Engine ECM

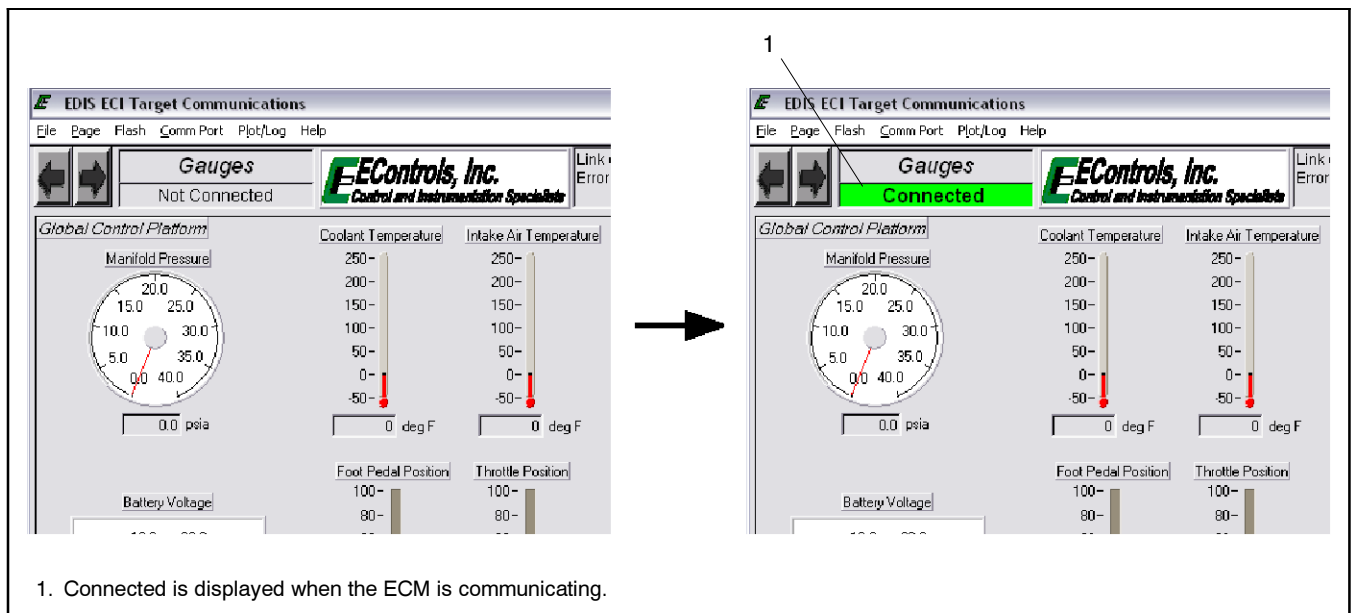
A personal computer with Diagnostic Scan Tool (DST) software, also referred to as GCP Display software, is required for reprogramming the engine ECM. The GCP software CD, E-Com cable, and Engine Service Manual are available as Kohler Service Kit GM42033. Reprogram the engine ECM with the partial calibration file received from the Kohler Power Systems Field Service Department.

Refer to Engine Service Manual TP-6724 or TP-6215, provided with service kit GM42033, for instructions to load the GCP software onto your PC. The manuals also contain instructions to connect the ECM to your PC and to start and run the software.

### Engine ECM Reprogramming Procedure

1. Obtain the ECM calibration file from the Kohler Power Systems Field Service Department.

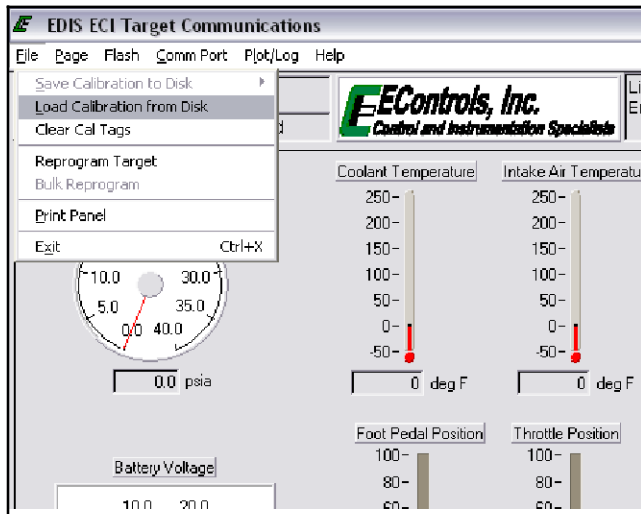
2. Save the calibration file to the C:\ drive on the PC that will be used to update the engine ECM.
3. Open the GCP Display software.
4. When prompted, enter the password. See Engine Service Manual TP-6724 for password information, if necessary.
5. Plug the E-Com cable into the ECM and PC. For instructions, see Engine Service Manual TP-6215 or TP-6724.
6. Turn the engine over by setting the generator set controller's master switch to RUN for a second and then turning it off. This will wake up the ECM. As long as the ECM is connected to the PC, it will stay awake. The GCP Display screen will display *Connected* highlighted in green as shown in Figure 7.



**Figure 7** GCP Display Software Screens

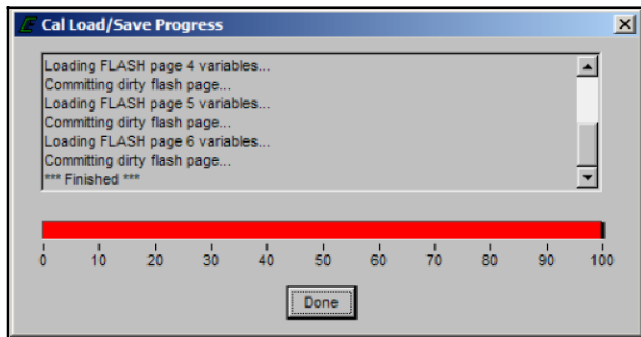
7. In GCP software, select File>Load Calibration from Disk. See Figure 8.

The Load Calibration from Disk command uploads a calibration from a partial calibration file stored on a disk to the ECM flash memory.



**Figure 8** Reprogram Target

8. Wait for the file to load. A progress screen will notify you when the file load is finished. See Figure 9.



**Figure 9** Calibration Load Progress Screen

## Parts List

### Kit, 1.6L Resonator Conversion

Kit: GM75873		
Qty.	Description	Part Number
1	Air Intake Resonator, includes *	GM75872
1 *	Resonator	GM75769
1 *	Elbow with clamp	GM75770
1	Panel, duct	GM74865
1	Foam, duct	GM74864
1	Hose, molded rubber	GM74863
5	Rivet	X-781-13
1	Installation Instructions	TT-1549

## Notes