

Instruction Sheet

A034U640 (Issue 1)

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US EPA Compliant Service Part Kits A034T573 and A034E251 for GGHG and GGHH Generator Sets

US EPA COMPLIANT SERVICE PARTS

NOTE: This kit is intended for use on US domestic EPA certified generator sets only.

All parts included in the kit must be installed to maintain compliance.

The fuel trim valve included must be calibrated according to the specific calibration linked to the generator set serial number. After the kit is installed, the calibration can be obtained from the InCal website. On the InCal website, download and install the calibration title that matches the generator set serial number.

To download from the InCal website:

1. Go to www.cumminspower.com.
2. Click on **Services**.
3. Click on software updates and InCal for registered users.
4. Login.
5. Under models, click the radio button named **Woodward**.
6. Download to your computer. This will download all the Woodward calibration files.

To load the calibration to the fuel trim valve:

1. Connect to the Woodward interface harness.
2. Start the generator set and connect with the Woodward software tool.
3. Click File → Load configuration file to the control.
4. Select the file name that matches the generator set serial number.
5. Click OK.

6. If it asks to make sure your prime mover is in a safe position, click OK. Fuel trim valve calibration is complete.

GENERAL INFORMATION

These instructions describe the installation of a US EPA Compliant Service Part kit on GGHG and GGHH generator sets.

The following parts are included in this kit.

Part Description	Quantity	
	A034T573	A034E251
Fuel Control Valve	1	1
MAP Sensor Kit	1	1
Electronic Governor	–	1

GENERAL PRECAUTIONS

Read these installation instructions completely and become familiar with safety warnings, cautions, and the installation procedure before starting.

⚠ WARNING *AC voltages and currents present an electrical shock hazard that can cause severe personal injury or death. Incorrect installation, service, or parts replacement can result in severe personal injury, death, and/or equipment damage. Only trained and experienced personnel are to perform the following procedures.*

⚠ CAUTION *If present, always disconnect a battery charger from its AC source before disconnecting the battery cables. Otherwise, disconnecting the cables can result in voltage spikes high enough to damage the DC control circuits of the generator set.*

⚠ WARNING *Ignition of explosive battery gases can cause severe personal injury or death. Arcing at battery terminals, light switch or other*

equipment, flame, pilot lights, and sparks can ignite battery gas. Do not smoke, or switch trouble light ON or OFF near a battery. Discharge static electricity from body before touching batteries by first touching a grounded metal surface.

Make certain the battery area has been well-ventilated before working on or near the battery—Wear goggles—Stop the generator set and disconnect the charger before disconnecting battery cables. Arcing can ignite explosive hydrogen gas given off by batteries, causing severe personal injury. Arcing can occur when a cable is removed or re-attached, or when the negative (–) battery cable is connected and a tool used to connect or disconnect the positive (+) battery cable touches the frame or other grounded metal part of the generator set. Always remove the negative (–) cable first, and reconnect it last. Make certain hydrogen from the battery, engine fuel, and other explosive fumes are fully dissipated. This is especially important if the battery has been connected to a battery charger.

⚠WARNING Accidental starting of the generator set can cause severe personal injury or death. Prevent accidental starting by disconnecting the negative [–] cable from the battery terminal.

KIT INSTALLATION

1. Make sure the generator set is shut down and disabled.
 - a. Place the generator set O/Manual/Auto switch in the O (OFF) position and make sure the circuit breaker is in the OPEN position.
 - b. If the unit is connected to a fuel supply, shut off the fuel supply.
 - c. Turn off and disconnect the battery charger (if equipped).

⚠WARNING Ignition of explosive battery gases can cause severe personal injury. Do not smoke or cause any spark, arc, or flame while servicing batteries.

- d. Disconnect the negative (–) cable from the battery to prevent accidental starting.

Allow the unit to cool thoroughly (to the touch) before installing this kit.

2. Close all fuel supply valves for the generator set.

⚠WARNING Fuel and fumes are flammable. Fire, explosion, and personal injury can result from unsafe practices. During these procedures, make sure that the fuel valves are shut off and any spills are promptly wiped up.

3. Disconnect the engine harness from the fuel control valve.
4. Disconnect the existing fuel lines to the fuel control valve.
5. Remove the existing fuel control valve and replace it with the one included in this kit (see Figure 1).
6. Reconnect the fuel supply lines.
7. For **governor kit A034E251**, install the governor actuator (see Figure 2) on the adapter plate (0154–3131 – not included in this kit). Torque the socket head screws to 5.4–6.8 N•m (48–60 in-lbs).
8. Install the MAP sensor kit, as described in Instruction Sheet A032X103.
9. Connect the generator set battery cables; positive (+) cable first, then the ground (–) cable.
10. Open the fuel supply valves for the generator set.
11. Download the Woodward calibration file to your computer and load the calibration to the fuel trim valve, as described on page 1.

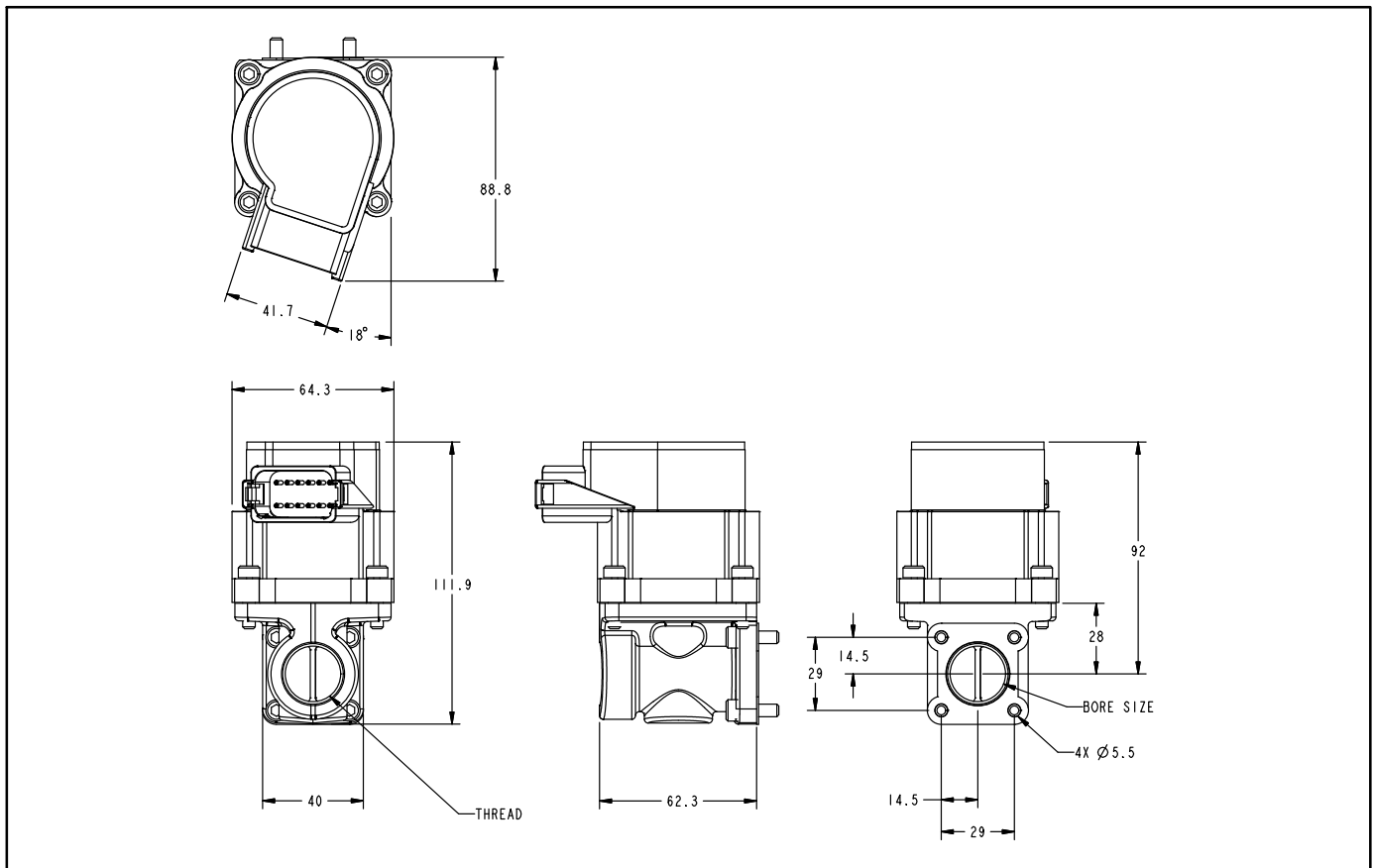


FIGURE 1. FUEL CONTROL VALVE

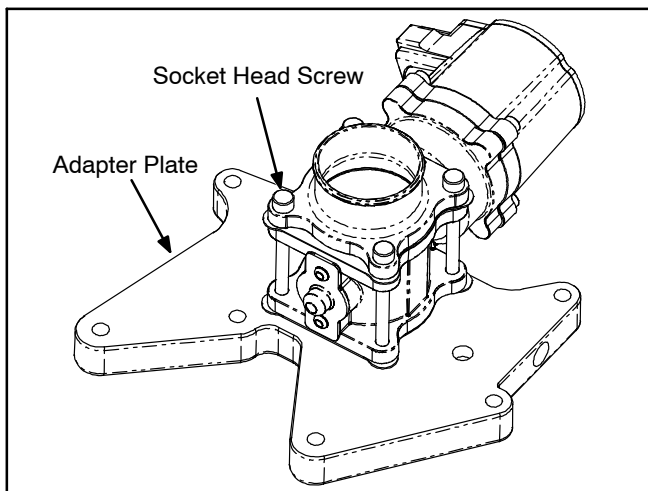


FIGURE 2. GOVERNOR ASSEMBLY FOR KIT A034E251

CHECKING THE INSTALLATION

1. Start the generator set and allow the unit to warm up, while observing all connections made to confirm there are no leaks.

If there are leaks, stop the generator set and remedy the leaks as necessary. Do not place the set in service until all leaks have been repaired.

2. If the generator set does not start, recheck the fuel line connections and orientation of check valves, and be sure fuel supply valves are open. Rework as necessary.