
INSTALLATION INSTRUCTIONS

Original Issue Date: **4/95**
 Model: **7CCKM/CCKMR (with LP Liquid-Withdrawal Fuel System)**
 Market: **RV/Mobile**
 Subject: **LP Fuel Regulator Relocation Service Kit 227954**

This kit relocates the primary and secondary fuel regulators to a vertical position allowing for drainage of any accumulated contaminants from the primary fuel regulator. After installation of this kit, service the unit every 50 hours of operation by draining the contaminants from the collection pipe into a suitable container and disposing of it in an environmentally safe manner.

A flash fire can cause severe injury or death. Do not smoke or permit flame or spark to occur near carburetor, fuel line, fuel filter, fuel pump, or other potential sources of spilled fuel or fuel vapors. Use a suitable container to catch all fuel when removing fuel line or carburetor.



Accidental starting.
Can cause severe injury or death.

Disconnect battery cables before working on generator set (negative lead first and reconnect it last).

Accidental starting can cause severe injury or death. Disconnect battery cables (remove negative lead first and reconnect it last) to disable generator set before working on any equipment connected to generator set. The generator set can be started by the remote start/stop switch unless this precaution is followed.



Explosive fuel vapors.
Can cause severe injury or death.

Use extreme care when handling, storing, and using fuels.

Explosive fuel vapors can cause severe injury or death. All fuels are highly explosive in a vapor state. Use extreme care when handling and storing fuels. Store fuel in a well-ventilated area away from spark-producing equipment and out of the reach of children. Never add fuel to the tank while the engine is running since spilled fuel may ignite on contact with hot parts or from ignition spark. Do not smoke or permit flame or spark to occur near potential sources of spilled fuel or fuel vapors. Keep fuel lines and connections tight and in good condition. Do not replace flexible fuel lines with rigid lines. Flexible sections are used to avoid breakage due to vibration. If any fuel leakage, fuel accumulation, or electrical sparks are noted, **DO NOT OPERATE GENERATOR SET.** Repair systems before resuming generator set operation

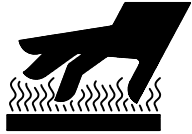
Explosive fuel vapors can cause severe injury or death. Take additional precautions when using the following fuels:

⚠ WARNING
<p>Fire. Can cause severe injury or death.</p> <p>Do not smoke or permit flame or spark to occur near fuel or fuel system.</p>

Propane (LP)—Adequate ventilation is mandatory. Propane is heavier than air; install gas detectors low in room. Inspect detectors often.

Explosive fuel vapors can cause severe injury or death. Spilled fuel can cause an explosion. Use a container to catch fuel when draining fuel system. Wipe up all spilled fuel after draining system.

Explosive fuel vapors can cause severe injury or death. Fuel leakage can cause an explosion. Check LP liquid withdrawal gas fuel system for leakage using a soap-water solution with fuel system test pressurized not less than 90 psi (621 kPa). Do not use test solutions that contain ammonia or chlorine, since the soap will not bubble for an accurate leakage test.

⚠ WARNING

Hot engine and exhaust system. Can cause severe injury or death.
Do not work on generator set until it is allowed to cool.

Hot parts can cause severe injury or death. Do not touch hot engine parts. An engine gets hot while running and exhaust system components get extremely hot.

Installation

1. Move the controller master switch to the STOP position. Disconnect the generator set starting battery, negative (-) lead first.
2. If removing the generator set from a coach disconnect the fuel lines, load leads, remote start leads, and exhaust system. Remove the generator set from the coach according to the procedure supplied by the coach manufacturer.
3. Remove the screws securing the hood to the generator set. Remove the hood and outlet screen to expose the generator set engine end.
4. Disconnect the fuel lines from both the primary and secondary fuel regulators.
5. Disconnect the primary and secondary fuel regulator mounting brackets from the generator. Save the mounting hardware.

NOTE

On previously operated generator sets inspect the condition of the primary and secondary fuel regulators. Clean or replace regulators as required.

6. Remove the entire fuel regulator assembly from the generator set.
7. Disconnect the antidiesel solenoid from the primary fuel regulator.
8. Remove the two screws securing the primary fuel regulator to the mounting bracket. Save the mounting hardware and the primary fuel regulator with pipe nipple and condensation hose attached. Discard the bracket. See Figure 1.
9. Disconnect the condensation hose from the hose connector.

10. Remove the hose connector from the street elbow.
11. Remove the street elbow from the primary fuel regulator and discard.
12. Install the hose connector into the primary fuel regulator and attach condensation hose. See Figure 2.
13. Disconnect the secondary fuel regulator from the mounting bracket. Save the mounting hardware and the secondary fuel regulator. Discard the mounting bracket.
14. Disconnect and remove the secondary fuel regulator fuel line connected to the carburetor and replace with fuel line (227938) supplied in the kit.
15. Cut a drain hole in the generator tray. See Figure 2 for hole location and size.
16. Mount the secondary fuel regulator bracket (227940) to the generator using hardware removed in step 4.

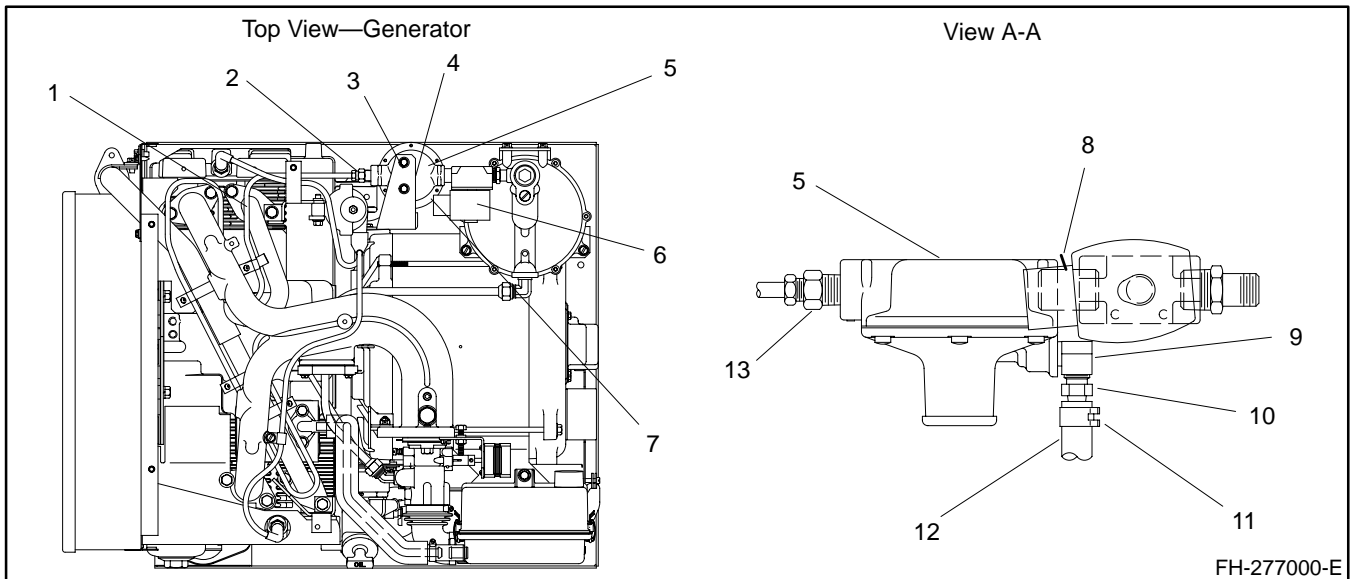
NOTE

Assemble major components prior to installing regulator assembly on generator set.

NOTE

Do not use any type of tape on pipe connections. Use pipe sealant on all pipe connections. Use care to prevent excess pipe sealant from entering pipe. Foreign material trapped inside pipe may cause damage to fuel regulators.

17. Remove the street elbow from the primary regulator side of the antidiesel solenoid.
18. Connect tee fitting (X-203-15) to existing pipe nipple in the bottom of the primary regulator.



1. Fuel Line (227420)
2. Fuel Fitting (X-6290-2)
3. Two 8-32 Screws and Two #8 Washers
4. Regulator Bracket (227414)
Two 10-24 Screws and Two #10 Washers
5. Primary Fuel Regulator (278889)
6. Antidiesel Solenoid (A-227540)

7. See View A-A
8. Pipe Nipple (X-204-9)
9. Street Elbow (X-555-2)
10. Hose Connector (X-380-1)
11. Hose Clamp (X-309-14)
12. Hose (X-386-75)
13. Fuel Fitting (X-6290-2)

Figure 1. LP Liquid-Withdrawal Unit With Primary Fuel Regulators Mounted In Original Horizontal Position

19. Connect street elbow (X-274-6) to the antidiesel solenoid. See Figure 2.
20. Install pipe nipple (X-204-8) between street elbow (X-274-6) and tee fitting (X-203-15). See Figure 2.
21. Connect pipe (X-204-21) to bottom of tee fitting. Connect pipe cap (X-268-9) to base of pipe. See Figure 2.
22. Secure the primary fuel regulator to mounting bracket (227939). Use hardware removed in step 7.
23. Align components as shown in Figure 2.
24. Mount the secondary fuel regulator to mounting bracket (227940). Use hardware removed in step 12. Place spacers (265861) between the fuel regulator and mounting bracket. Do not final tighten hardware at this time. See Figure 2.
25. Secure the primary fuel regulator mounting bracket to the generator. Use hardware removed in step 4. Do not final tighten hardware at this time.
26. Align all components and final tighten the four mounting bracket screws.
27. Connect fuel line (227951) to the top of the primary fuel regulator.
28. Connect the existing fuel line to the fuel line (227951) from the primary fuel regulator with an inverted flare union (227952). Torque connections to 15 ft. lbs. (20Nm). See Figure 2.
29. Connect fuel line to secondary fuel regulator. Reposition elbow to accept fuel line.
30. Cut insulation sleeve (227578) into two 8 in. (203 mm) lengths.
31. Install sleeves over fuel lines as shown in Figure 2.
32. Remove generator controller cover.
33. Disconnect the fuel line adjacent to the controller at the fuel shutoff solenoid. See Figure 2.
34. Remove existing fittings from the street elbow connected to the fuel shutoff solenoid.
35. Connect restricted pipe adapter (227941) to the existing fittings. See Figure 2.
36. Reinstall fittings on the street elbow.
37. Reattach fuel line.
38. Reinstall controller cover.
39. Install reflective liner (227405). Peel off reflective liner backing to expose adhesive. With surfaces clean and dry position reflective liner under intake manifold making sure to cover the exhaust manifold and all adjacent fuel lines. Cut liner as required. Secure reflective liner with wire as needed. See Figure 2.
40. Check all pipe joints for air leaks.
41. Replace the generator hood and outlet screen using existing hardware.
42. Reinstall generator set in the coach. Connect the fuel lines, load leads, remote start leads, and exhaust system. Reconnect the generator set starting battery, negative (-) lead last.

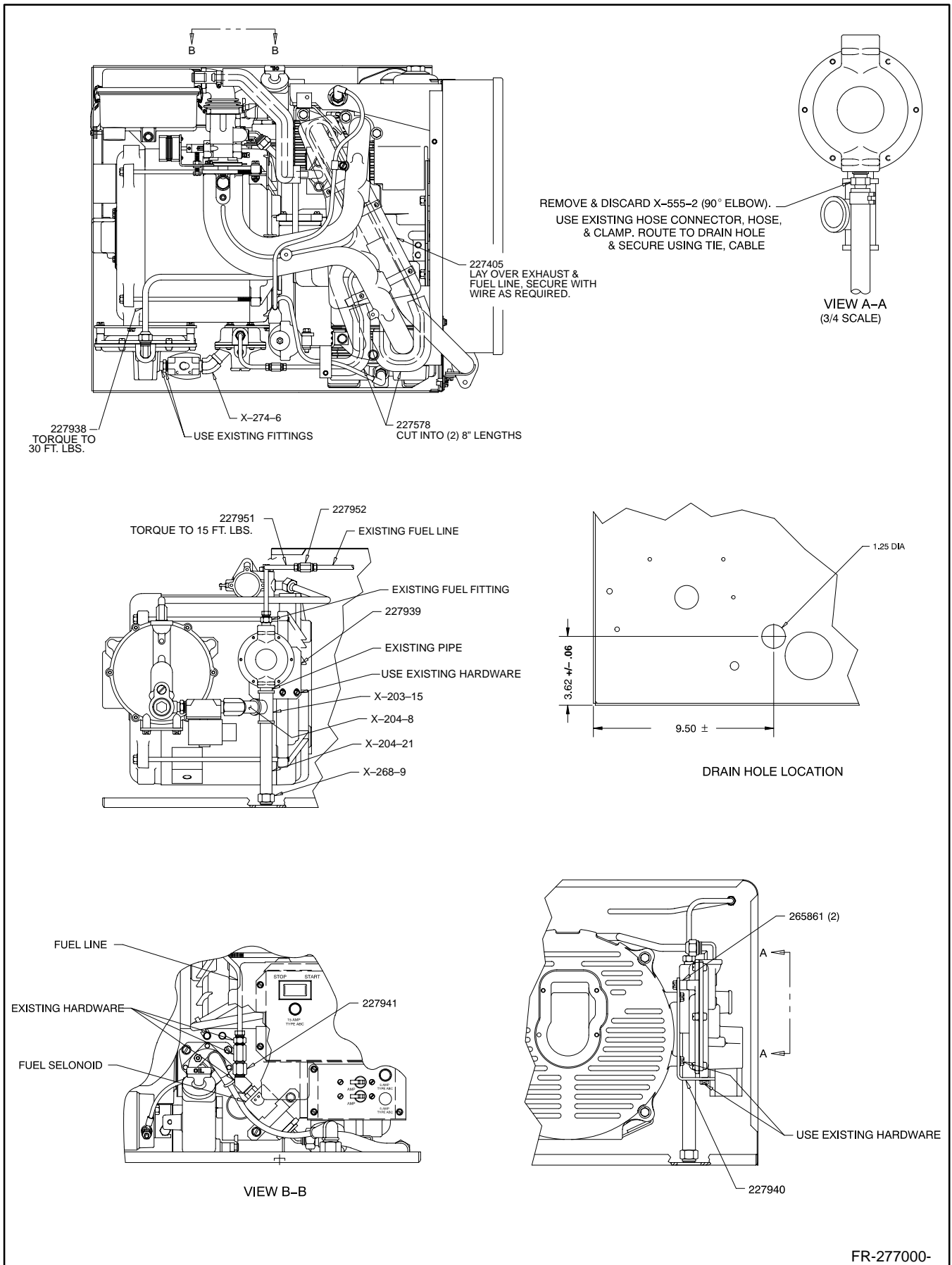


Figure 2. LP Liquid-Withdrawal Unit with Primary and Secondary Fuel Regulators Mounted in Vertical Position

Parts List

KIT 227954

Qty.	Description	Part Number
1	Tee, black iron	X-203-15
1	Pipe	X-204-21
1	Nipple, pipe 3/8 x 1-1/2	X-204-8
1	Cap, pipe	X-268-9
1	Elbow, street	X-274-6
1	Liner, reflective	227405
1	Insulation, sleeve	227578
1	Line, fuel	227938
1	Bracket, fuel regulator	227939
1	Bracket, fuel regulator	227940
1	Adapter, restricted pipe	227941
1	Line, fuel	227951
1	Union, inverted flare	227952
2	Spacer	265861