



# DA/DAC7000 Series Generators

## MQPILHEATERKIT

The following instructions are intended to assist the user with the installation of the in-line fuel heater on the DA/DAC7000 Series Generators. The in-line fuel heater is recommended for de-gelling fuel in cold weather starting conditions (ambient temperatures ranging at or below  $\leq 32^{\circ}\text{F}$ ).

### OPERATING INSTRUCTIONS (TEMP. $\leq 32^{\circ}\text{F}$ )

These operating instructions are to assist in correct generator start-up when ambient temperatures are  $\leq 32^{\circ}\text{F}$ .

1. Insert the ignition key into the ignition switch.
2. Turn the ignition key clockwise to the **RUN** position.
3. Let the fuel heater warm-up for **5 minutes**.
4. Turn the ignition key clockwise to the **START** position.

### REQUIRED TOOLS

- 9/16", 10mm, 17mm Socket and 6" Extension
- Standard Screwdriver
- Phillips-head Screwdriver
- Needle Nose Pliers
- Side Cutters
- Torque Wrench (35 ft-lbs./47.45 N•m)

### PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.

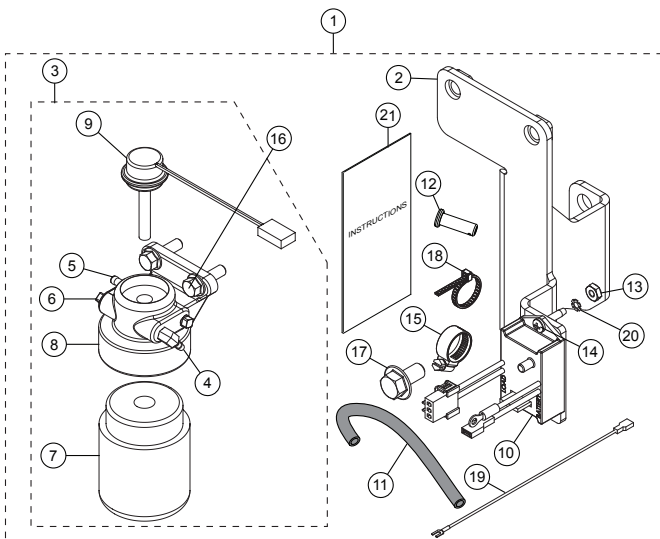


Figure 1. MQPILHEATERKIT

### NOTICE

ITEMS 11, 12, 15, 17, 18, and 19 will be packaged loose. All other items will be pre-assembled prior to shipment.

Table 1. MQPILHEATERKIT

Item No.	Part No.	Description	QTY.	Remarks
1	MQPIL-HEATERKIT	Kit, MQPILHEATERKIT	1	Includes items 2-21
2	59042	Bracket, Filter Mount W/A, DA7000	1	
3	59043	Fuel Filter/Heater, W/ Fittings	1	Includes items 4-9
4	17206	Fitting, 90 5BARB - 1/4 MP	1	
5	17207	Fitting, SRT 1/4MP - 5/16 BEAD, BRASS	1	
6	16185	Fitting, Plug 1/4MP SQ HD	2	
7	EE58631	Filter, Fuel/Water Separator, 5 Micron	1	
8	EE58632	Head Assembly, Fuel Filter/Heater, 1/4 NPT	1	
9	EE58635	Heater Kit, Top Load Fuel	1	
10	59035	Control, Heater, W/Terms, DA7000	1	
11	60028	Tank Fuel Line (1.5 Feet L.)	2	1 PC=1 FT.
12	8153	Pin, Clevis 3/16 X 7/8	1	
13	13287	Nut, Nyloc 8-32	2	
14	15175	SCREW, PHP 8-32 X 3/4	2	
15	19473	Clamp, Hose Worm #2, 1/4-5/8	3	
16	22106	Screw, HHFS 3/8-16 X 1.25 ZN	2	
17	23767	Screw, HHF M10-1.25 X 20mm GRD 10.9	2	
18	1662	Zip Ties	6	
19	59049	Wire Assembly, DA7000 HEATER POWER	1	
20	10114	Washer, Ext. SHKP, #8	1	
21	59037	Instructions, MQPILHEATER-KIT	1	

## WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

## PREPARATION

1. Make sure generator is turned off and engine is cool.
2. Place the generator in an area free of dirt and debris. Make sure it is on secure level ground. If trailer mounted, place chock blocks underneath each wheel to prevent the generator from rolling.
3. Open the right side cabinet panel to gain access to the engine fuel supply and battery location.

## BATTERY CABLE DISCONNECTION

1. Disconnect the negative cable (**BLACK**) from the negative terminal on the battery first, then disconnect the positive cable (**RED**) from the positive terminal on the battery. See Figure 2.

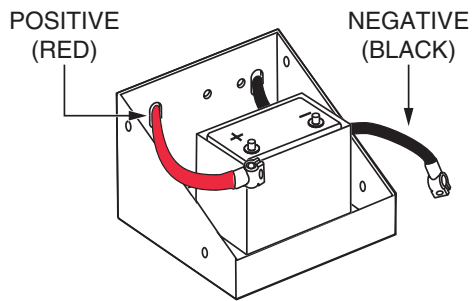


Figure 2. Battery Cable Disconnection

## FUEL DRAINING

1. Locate the fuel drain connection on the front of the cabinet (see Figure 3).

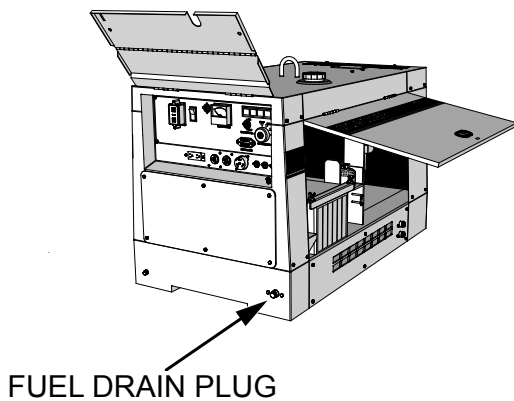


Figure 3. Fuel Draining

2. Drain the fuel into a fuel safety container.

## ZIP TIE REMOVAL

1. Using side cutters, remove the one zip tie located on the coolant drain line.

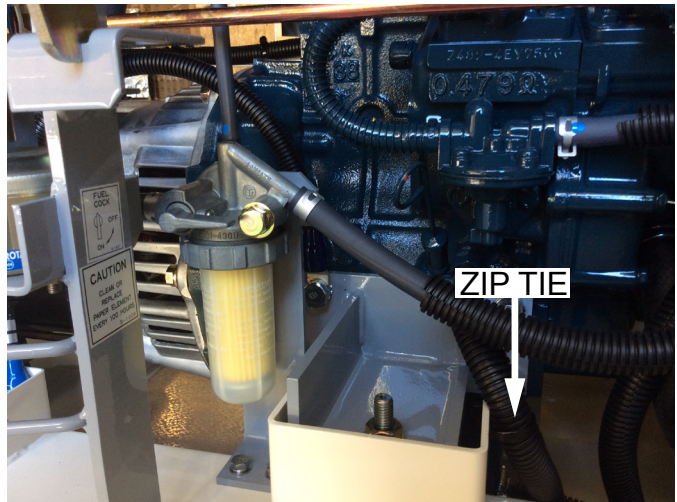


Figure 4. Zip Tie Removal

## MOUNTING BRACKET (BLACK) INSTALLATION

1. Using a 17mm socket with 6" extension, remove the two M10-1.25 X 10mm engine mount bolts shown in Figure 5.
2. Set the two M10-1.25 X 10mm engine mount bolts aside in a safe location, or discard. The bolts will not be used further.

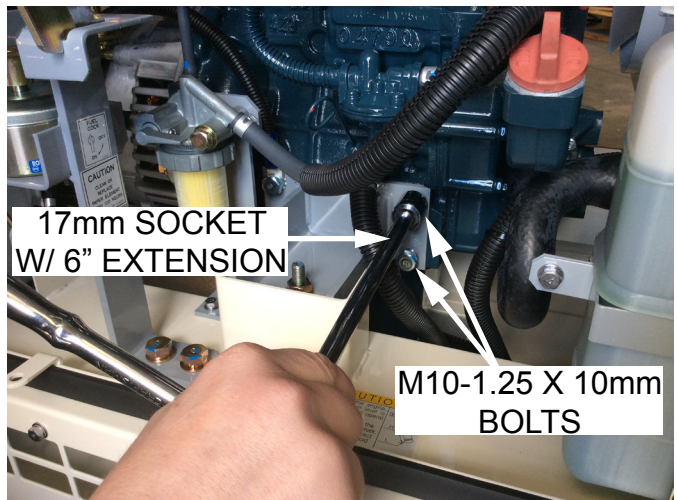
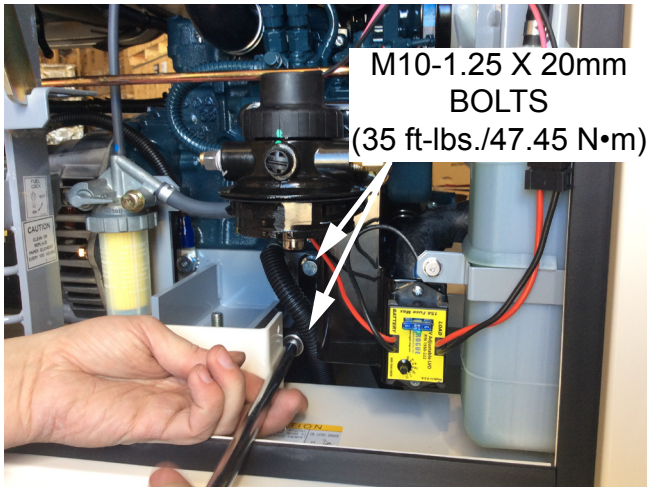


Figure 5. Engine Mount Bolt Removal

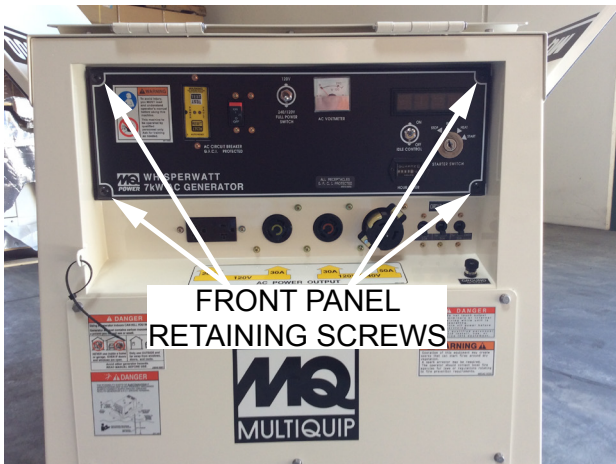
3. Remove the new mounting bracket (P/N 59042) and two M10-1.25 X 20mm screws (P/N 23767) from the kit.
4. Unscrew the fuel filter (P/N EE58631) from the head assembly (P/N EE58632) to allow socket access when mounting the bracket.

- Align the two mounting bracket holes where the original engine mounting bolts were as shown in Figure 6.
- Using a 9/16" socket with 6" extension, tighten the two M10-1.25 X 20mm screws (P/N 23767) to secure the mounting bracket into the engine block (Figure 6).
- Torque the two M10-1.25 X 20mm screws (P/N 23767) to 35 ft-lbs. (47.45 N•m).



**Figure 6. Mounting Bracket Installation**

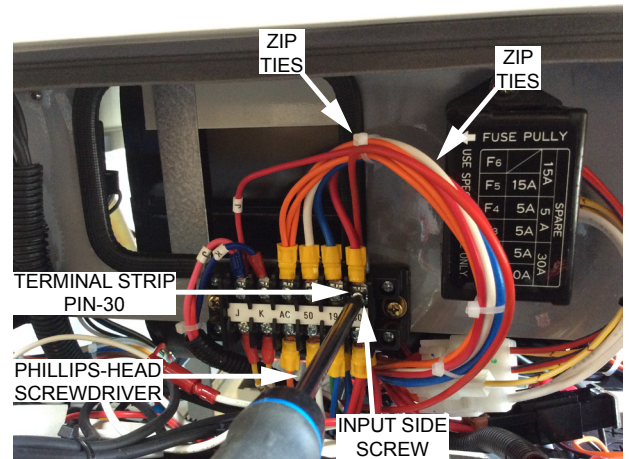
- Reinstall the fuel filter (P/N EE58631) to the head assembly (P/N EE58632) until tight.
- Using a Phillips-head screwdriver, remove the four retaining screws that secure the front panel. See Figure 7.



**Figure 7. Front Panel Retaining Screw Removal**

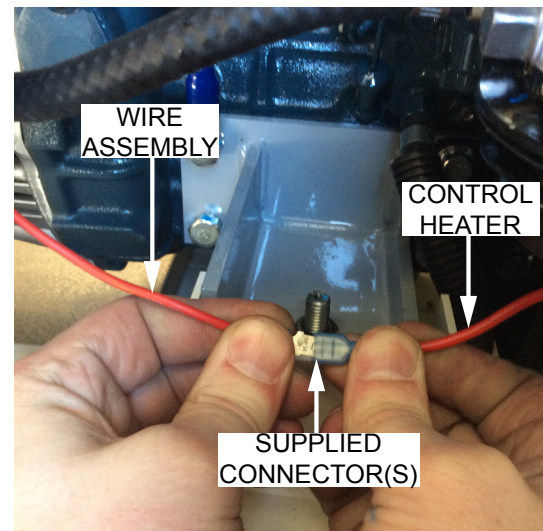
- Locate terminal strip, pin 30, behind the panel shown in Figure 8.
- Remove the plastic protective cover and loosen the top side screw from terminal strip, pin 30 using a Phillips-head screwdriver as shown in Figure 8.

- Insert the spade connection from the wire assembly (P/N 59049) into terminal strip, pin 30 and tighten the screw. See Figure 8.
- Reinstall the plastic protective cover and secure the loose wire assembly (P/N 59049) using two zip ties (P/N 1662) as shown in Figure 8.



**Figure 8. Terminal Installation**

- Using a Phillips-head screwdriver, reinstall the four retaining screws that secure the front panel. See Figure 7.
- Route the wire assembly (P/N 59049) alongside the battery ground cable and connect to the control heater (P/N 59035) using the supplied connector as shown in Figure 9.



**Figure 9. Wiring Connection**

- Using three zip ties (P/N 1662), secure the wire assembly (P/N 59035) to prevent the wire from rubbing damages.

- Set the heater control to the 11.5V position as shown in Figure 10.

**NOTICE**

Failure to set the heater control in the 11.5V position may cause unintended battery drain.

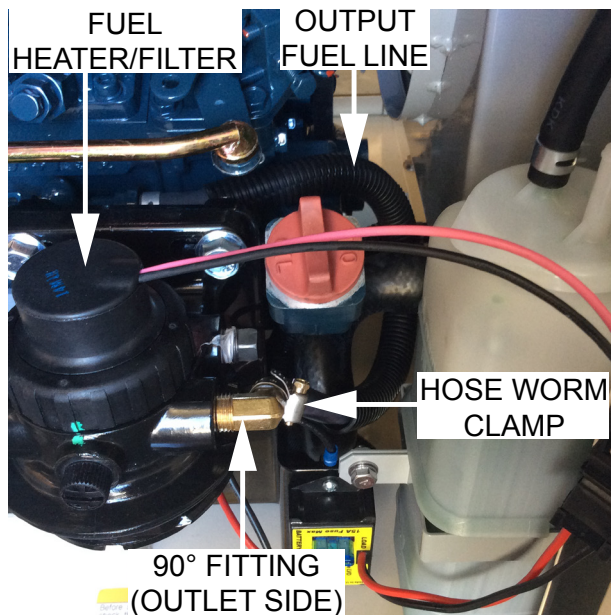


**Figure 10. Switch Setting**

**TANK FUEL LINE INSTALLATION**

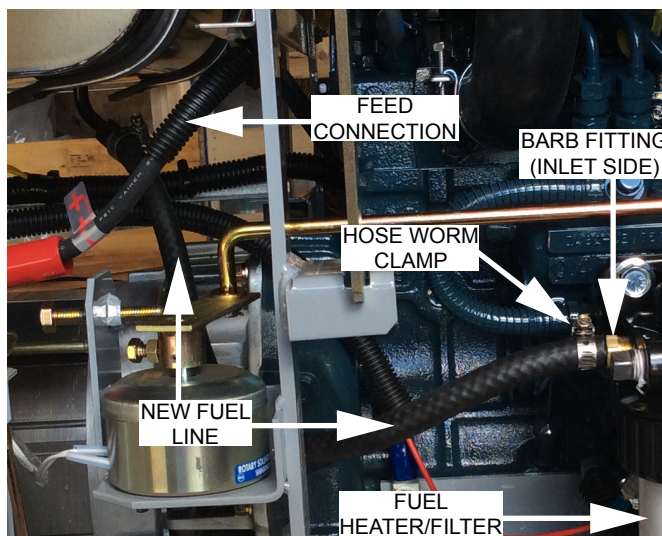
- Remove the new fuel line (P/N 60028) and fuel line plug (P/N 8153) from the kit.
- Using your needle nose pliers, remove the **OUTPUT** fuel line from the factory fuel filter as shown in Figure 11.

- Route and connect the **OUTPUT** fuel line to the fuel heater/filter 90° fitting (**OUTLET** side) using one hose worm clamp (P/N 19473) and standard screwdriver as shown in Figure 11.



**Figure 11. Fuel Line Removal and Connection**

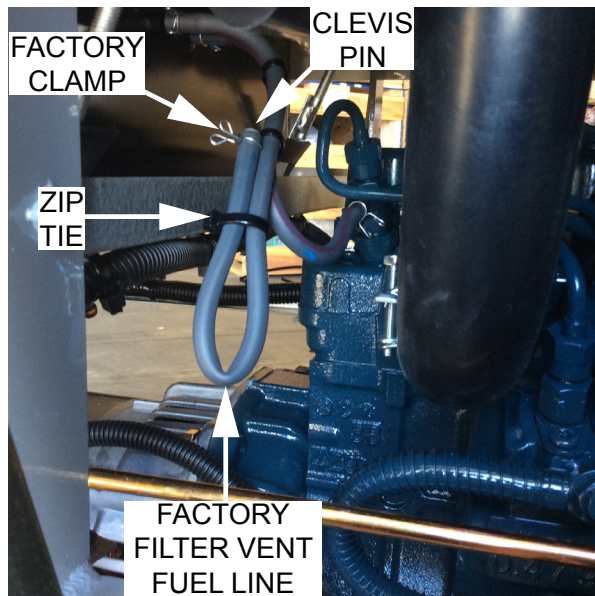
- Using needle nose pliers, remove the feed connection from the factory fuel tank. Discard the feed connection, it will be **REPLACED** with the new fuel line (P/N 60028).
- Connect the new fuel line to the fuel tank and fuel heater/filter barb fitting (**INLET** side) using two hose worm clamps (P/N 19473) and standard screwdriver as shown in Figure 12.



**Figure 12. New Fuel Line Connection**

- Using needle nose pliers, remove the vent fuel line (Figure 13) from the top of the factory filter.

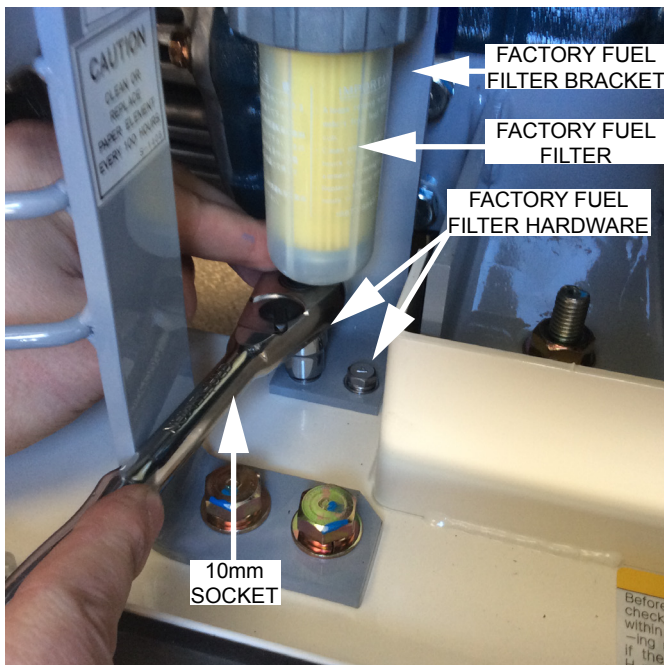
7. Plug the vent fuel line opening with the clevis pin (P/N 8153). Secure the vent fuel line and clevis pin with a zip tie and the factory clamp.



**Figure 13. Plugging Factory Vent Fuel Line**

#### FACTORY FILTER AND BRACKET REMOVAL

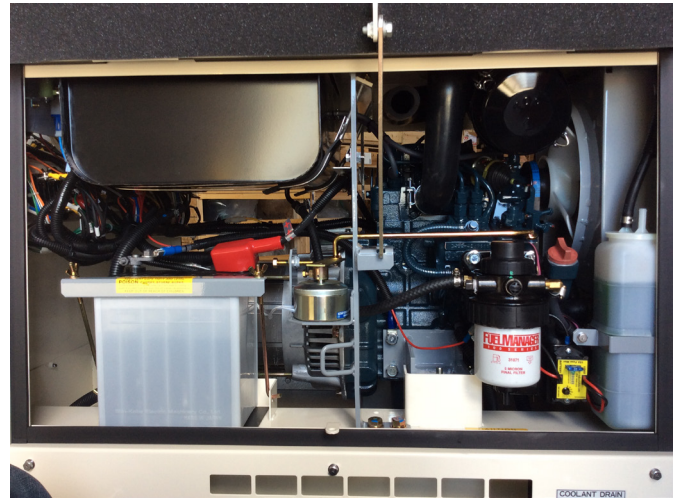
1. Using a 10mm socket, remove and discard the factory fuel filter bracket and hardware as shown in Figure 14.



**Figure 14. Factory Fuel Filter and Bracket Removal**

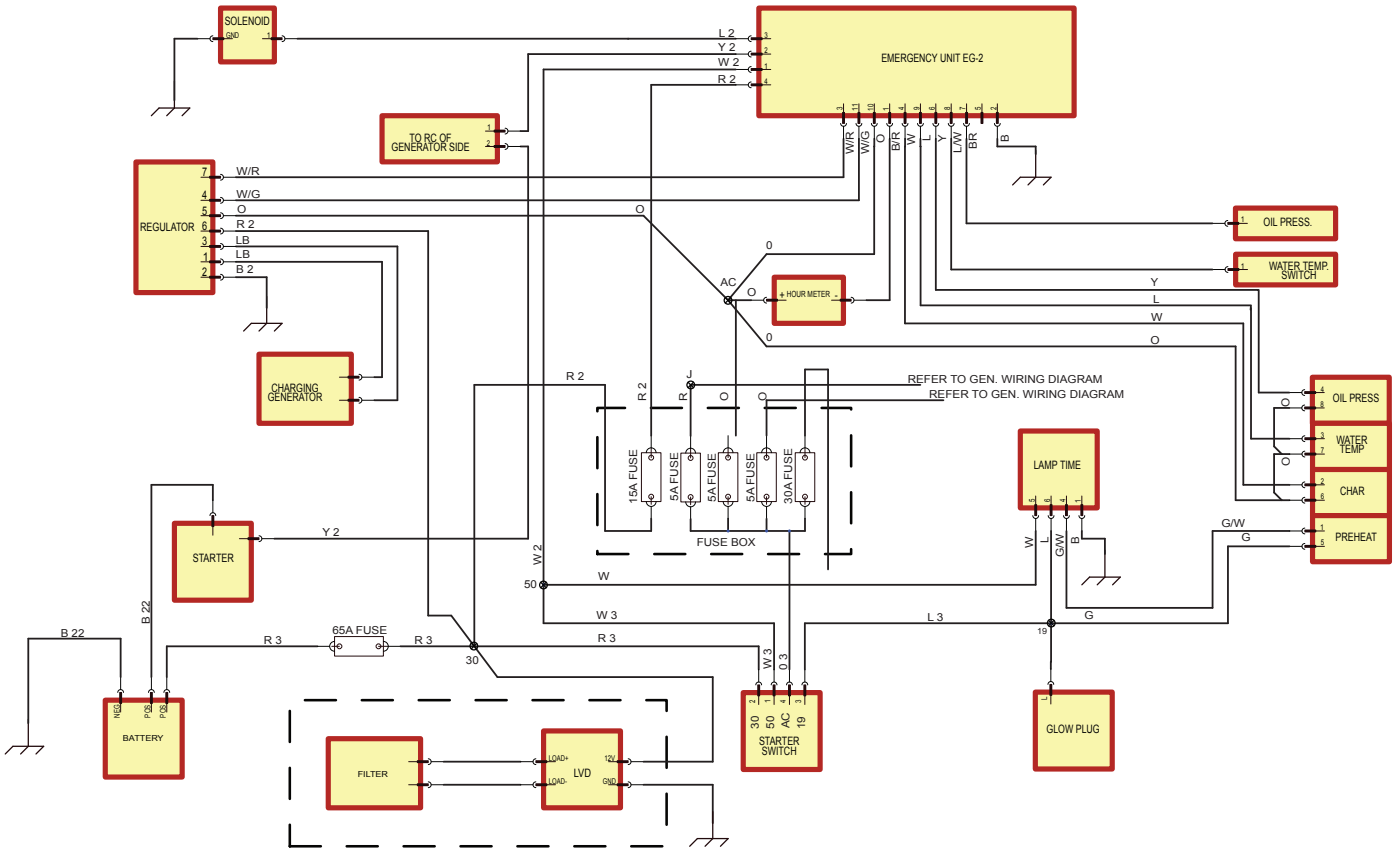
#### INSPECTION

1. Connect the negative cable (**BLACK**) to the negative terminal on the battery first, then connect the positive cable (**RED**) to the positive terminal on the battery.
2. Test the unit for any leaks and proper operation.
3. Check that your installed MQPILHEATERKIT appears similar to the correctly installed MQPILHEATERKIT as shown in Figure 15.



**Figure 15. Correctly Installed MQPILHEATERKIT**

# MQPILHEATERKIT WIRING DIAGRAM





# DA/DAC7000 Series Generators

## MQPILHEATERKIT

## HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL  
NUMBER ON-HAND WHEN CALLING

### UNITED STATES

#### *Multiquip Corporate Office*

18910 Wilmington Ave. Tel. (800) 421-1244  
Carson, CA 90746 Fax (310) 537-3927  
Contact: mq@multiquip.com

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800-421-1244 Fax: 310-537-4259  
310-537-3700

#### *Technical Assistance*

800-478-1244 Fax: 310-943-2238

#### *MQ Parts Department*

800-427-1244 Fax: 800-672-7877  
310-537-3700 Fax: 310-637-3284

#### *Warranty Department*

800-421-1244 Fax: 310-943-2249  
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