



Kubota Water Heater Installation Instructions

(Multi-Models)

The following instructions are intended to assist the user in the installation of the Kubota Water Heater Kit. It is recommended the following procedure be performed by a Multi-Quip Authorized Service Center (ASC) or by a Multi-Quip Field Service Manager. Generator or engine failures caused by improper field installation are not covered under a Multi-Quip Limited Warranty. Please read all assembly instructions before installing the kit.

REQUIRED TOOLS

- Hammer
- Ratchet W/ Extension
- 1 inch socket
- 6-8 inch hole/hammer punch
- Channel Lock Pliers
- Tape
- Paint (High Temperature Resistant)

PARTS

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

Table 1. Kubota Water Heater Installation Kit				
Item No.	Part No.	Description	QTY.	Remarks
1	13543	Kit, Kubota Water Heater, Multi-Models	1	Includes items 2-3
2	14062	Heater, 400W, 115VAC, Kubota Block	1	
3	14254	Instructions, Kubota Water Heater	1	
4	777055	Carton, 6" x 6" x 6"	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.

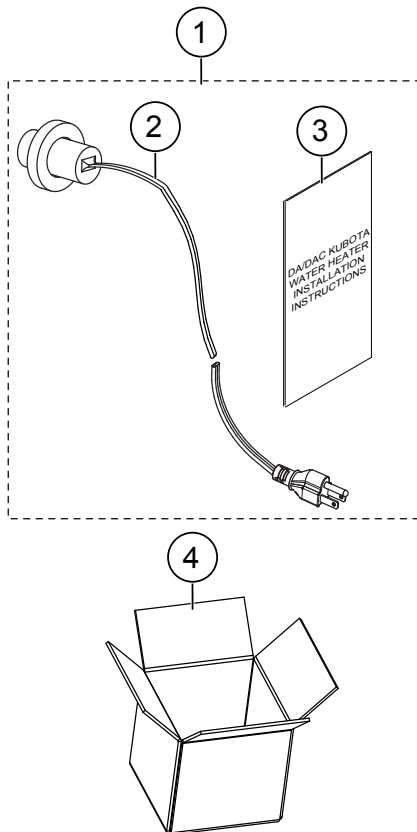


Figure 1. Kubota Water Heater Installation Kit

BATTERY CABLE DISCONNECTION

1. Disconnect the negative cable (**BLACK**) from the negative terminal on the battery. See Figure 2.

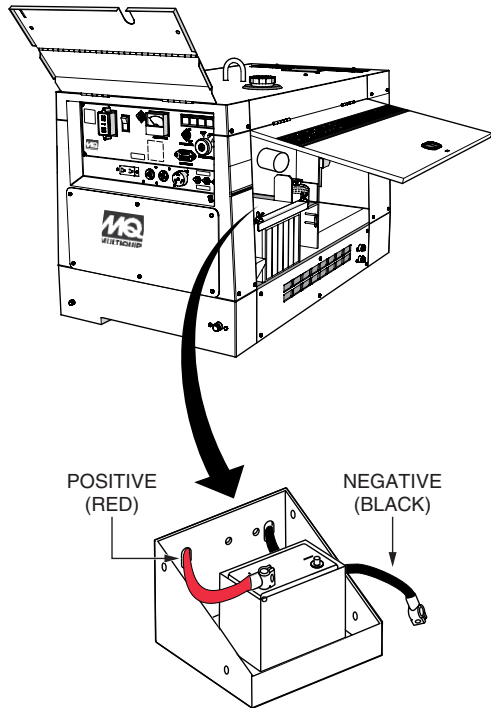


Figure 2. Battery Cable Disconnection

HEATER ELEMENT PREPARATION

1. Locate the Kubota Water Heater element and cordset (Figure 3) in the kit.

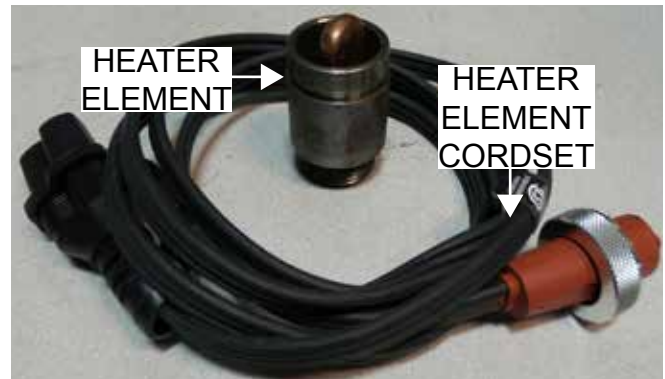


Figure 3. Heater Element and Cordset

2. Thoroughly clean both ends of the heater element and cover each side with masking tape as shown in Figure 4. Make sure the heater element body is exposed.

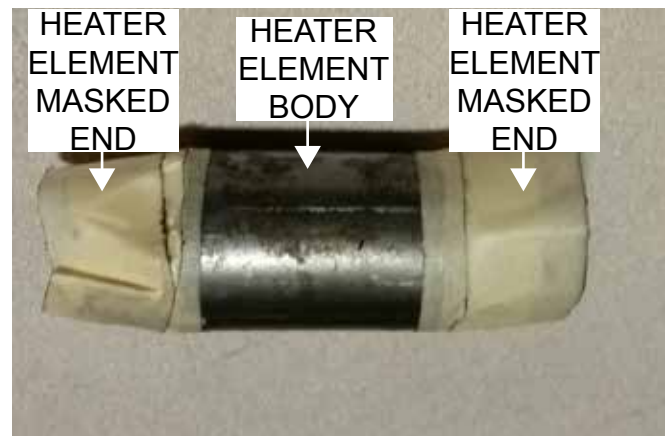


Figure 4. Tape Masked Heater Element

3. Paint the heater element body with a high temperature resistant paint to protect the heater element against corrosion. Allow the paint to fully dry.
4. Once the paint has dried on the heater element body, remove the masking tape from the heater side (non-threaded) of the heater element.

NOTICE

DO NOT remove the masking tape from the threaded end of the heater element until the heater element is ready for cordset installation.

COOLANT DRAINING

1. Locate and place a clean container below the coolant drain port (Figure 5) to catch drained coolant. The collected coolant will be reused later. Make sure no foreign particulates or contaminants are present in the drained coolant.
2. Using an open-ended wrench, remove the coolant drain plug and drain approximately 1/2-3/4 gallons of coolant (Figure 5) from the coolant reservoir.

NOTICE

This will lower the coolant level below the base of the cylinder head.



Figure 5. Coolant Drain Plug Removal

FREEZE PLUG REMOVAL

1. Before accessing freeze plug on the engine block, make sure to cover the generator (Figure 6) and other nearby components with an absorbent material to catch any excess coolant.



Figure 6. Covered Generator

2. Locate the freeze plug (Figure 7) on the engine block.



Figure 7. Engine Block Freeze Plug

3. Using a 6"-8" punch and hammer, tap one edge of the freeze plug (Figure 8) until it becomes loose or offset from its original set placement.

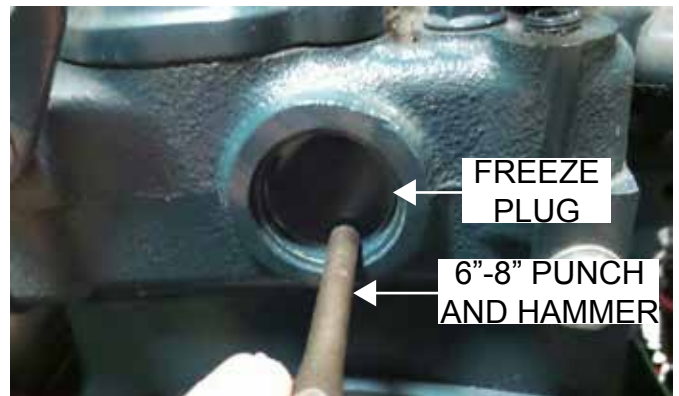


Figure 8. Freeze Plug Loosening

4. Using channel locks, remove the freeze plug from the engine block as shown in Figure 9.

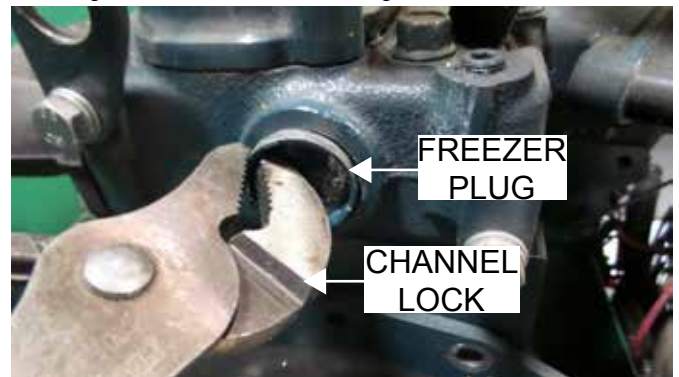


Figure 9. Channel Lock Freeze Plug Removal

ENGINE WATER HEATER ELEMENT INSTALLATION

1. Clean the freeze plug corehole of any debris or contaminants.
2. Align and insert the heater element's heater side (non-tape masked) into the freeze plug corehole as shown in Figure 10.

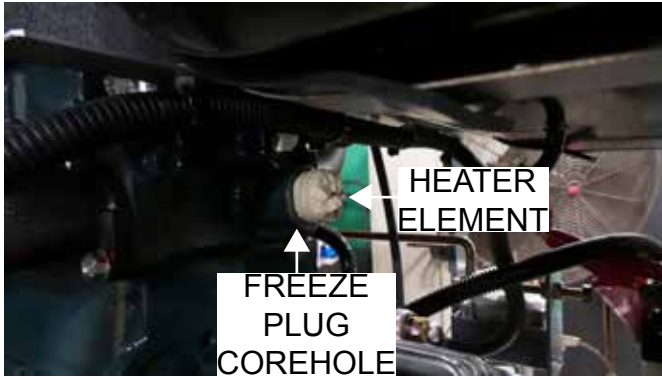


Figure 10. Installed Heater Element

3. Locate the 1" socket extension in the kit and place it over the tape masked threaded end of the heater element to protect threads as shown in Figure 11.
4. Using a hammer, tap the 1" socket extension and heater element into the engine block freeze plug corehole (Figure 11) until the heater element is flush with the engine block surface.

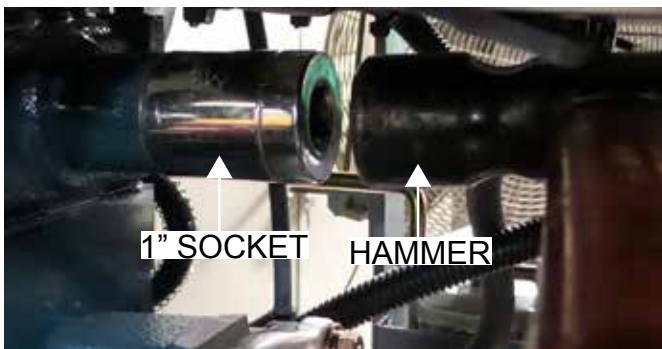


Figure 11. Setting Heater Element

NOTICE

Make sure the heater element is tapped in straight. Unaligned and skewed heater element installation may result in engine and generator damage and coolant leakage in the unit.

5. Remove the 1" socket extension and masking tape from the threaded end of the heater element.
6. Locate the heater element cordset in the kit.

7. Tighten and secure the heater element cordset (Figure 12) to the threaded end of the heater element.

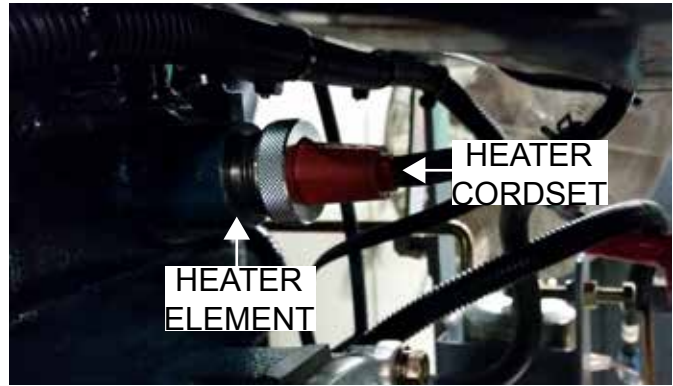


Figure 12. Cordset to Heater Element

8. Using zip ties, route the engine water heater cordset away from any hot surfaces and moving components.

POST-INSTALLATION TESTING

1. Remove the coolant port access panel on top of the generator (Figure 13) and refill the coolant reservoir with the 1/2-3/4 gallons of coolant previously drained.



Figure 13. Coolant Port Access Panel Removal

2. Reconnect the negative cable (**BLACK**) to the negative terminal on the battery.
3. Reinstall the coolant access panel and run the engine for approximately 10-15 minutes to ensure engine thermostat functionality.

NOTICE

The thermostat will open to allow complete coolant circulation from the radiator to the engine block.

4. Turn the engine off and let cool. Check the unit for any leaks around the water heater. If leaks are present, repair them immediately and check the heater element for misalignment in the freezer plug corehole.
5. Inspect the coolant level for a final time before using the generator on a work area.



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(Multi-Models)

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

Service Department

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
310-537-3700

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