

V4214 HEATER KIT - 15,000 BTU INSTALLATION & OWNER'S MANUAL

The contents of this envelope are the property of the owner.
Be sure to leave with the owner when installation is complete.

HEATER INSTALLATION

BEFORE YOU START

HELPFUL REMINDERS:

- A. Read and understand all instructions before beginning.
 - B. If wiring to overhead console V4238, finish wiring this and any other accessories before bolting roof in place.
- NOTE: do not dimple metal roof by overtightening bolts.

APPROXIMATE INSTALLATION TIME: 2-3 HOURS

TOOLS REQUIRED:

SCREWDRIVER (PHILLIPS AND REGULAR)
DRILL-SCREW GUN
7/16" DRILL BIT
ADJUSTABLE WRENCH (MEDIUM)
3/16" ALLEN DRIVER
3/8" DRIVE RATCHET
12 MM 3/8" DRIVE SOCKET
KNIFE SHEARS (FOR CUTTING HOSES)
WIRE CRIMPER
FUNNEL
DRAIN PAN
TEFLON TAPE

1. PREPARATION

- 1.1 Place a drain pan under the radiator and drain the coolant from the radiator by loosening the drain plug. Set aside for refilling radiator.
- 1.2 (See figures 1 and 2). Install the supplied weather stripping around the motor and along the rear bottom edge of the heater. If equipped, remove the plugs from the copper tubes on the top of the heater. Lastly, remove and retain the two Phillips head screws from the bottom right side of the heater as shown in Figure 2.
- 1.3 Remove the driver's side rubber cup holder from the vehicle dash board by grasping the lip and pulling up.
- 1.4 Remove the two Allen head screws from the driver's side of the plastic foot well that sits in front of the dash board.

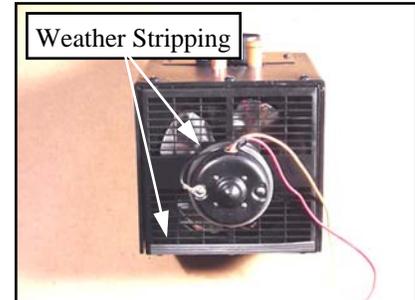


Figure 1

2. INSTALLING THE HEATER

- 2.1 (See figure 2). Position the heater under the dashboard on the driver's side by resting the motor on the top of the fender well and tipping the front up under the dash. **NOTE: It may be necessary to pull the bottom of the dashboard out to clear while positioning the heater.** The lip of the dashboard will hold the heater in position while installing the mounting bracket with the allen head screws removed in step 1.4, and the Phillips head screws removed in step 1.2.
- 2.2 (See figures 3 and 4). Insert the flexible duct provided, through the hole in the dash where the cup holder was removed. Working from under the hood, connect the flexible duct to the duct adaptor on the heater with the large hose clamp provided. Trim the flexible duct so that no more than 2" protrudes from the cup holder hole in the dash. Next, install the round louvered vent provided to the metal adaptor ring by snapping it into place. Install the round louver to the other end of the flexible duct with the remaining large clamp. Install the louver to the dashboard with three self-drilling screws provided.

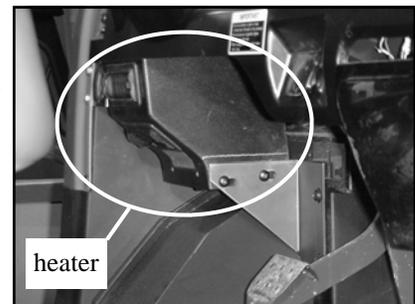


Figure 2



Figure 3

3. PLUMBING

- 3.1 (See figures 4, 5 and 6). Route one end of the supplied heater hose over the round frame tube next to the hood hinge and install to one of the copper tubes on the top of the heater using one of the supplied 1" hose clamps. Route the hose to the underside of the vehicle and along the driver's side frame rail following the existing wiring harness as shown.
- 3.2 (See figure 7 next page). Cut lower radiator hose as shown and install tee fitting provided with 1-1/2" hose clamps. Cut heater hose to length and install to 5/8" outlet of tee with 1" hose clamp provided.

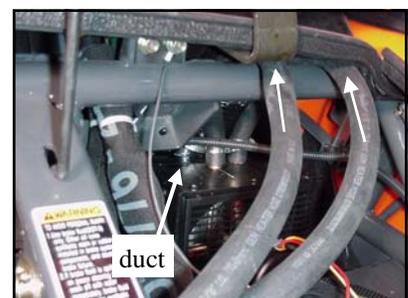


Figure 4

3. PLUMBING (continued)

3.3 (See figures 4, 5 and 8). Attach one end of the remaining piece of hose to the other copper tube on the top of the heater and route in the same manner as the hose in the previous step. Continue this hose up the front of the engine as shown.

3.4 (See figure 9). Remove the plug from the thermostat housing. Install supplied nipple with Teflon tape (not provided). Cut heater hose to length and install to nipple with 1" hose clamp.

3.5 (See Figure 10). Cut into the hose routed to the thermostat housing and install the supplied in-line shut-off valve with 1" hose clamps as shown. Confirm valve is open.



Figure 5



Figure 6 (hose routing)

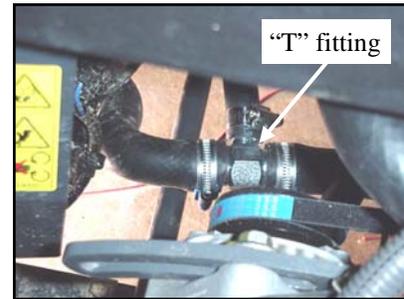


Figure 7 ("T" fitting)



Figure 8

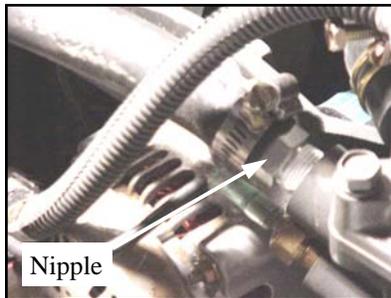


Figure 9

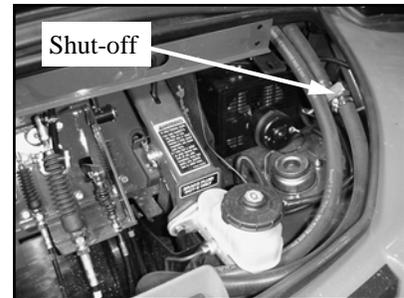


Figure 10

ROUTE AND CONNECT WIRING (WITH OVERHEAD CONSOLE)

1. Connect black wire from wiring kit to black wire on heater. Route the other end of the black wire over to the ground connection on the passenger side under the hood. (See figure 11).
2. Connect 8 foot wire harness to orange and red leads on the back of the heater. Route harness along driver's side frame rail following the same path as the heater hoses. Run the wiring over to the driver's side rear cab bar.
3. Connect seven foot section of wire harness to eight foot section and route up the rear driver's side corner of the cab with the wiring from the overhead console.
4. Connect the wires to the leads labeled "heater" on the back side of the overhead console. The orange wire connects to the "heater high" wire and the red connects to the "heater low" wire. There is a designated two speed switch and circuit breaker in the console for the heater.



Figure 11

ROUTE AND CONNECT WIRING (WITHOUT OVERHEAD CONSOLE)

1. Drill 7/16" diameter hole in dashboard and mount switch as shown. (See figure 12).
2. Connect black wire from wiring kit to black wire on heater. Route the other end of the black wire over to the ground connection on the passenger side under the hood. (See figure 11).
3. Connect 6 inch harness to orange and red leads on the heater. Connect orange lead to terminal labeled "H" on switch. Connect red wire to terminal labeled "L" on switch. Install 18" piece of split loom around these wires.
4. Connect red wire from 8 foot harness to terminal labeled "B" on switch. The orange wire will not be used for this installation. Route harness along driver's side frame rail following the same path as the heater hoses. Run the wiring over to the driver's side rear cab bar area and connect to fuse holder from the wiring harness kit. Connect opposite end of fuse holder to battery positive terminal.



Figure 12

ANTI-DRAFT BARRIER

1. Install anti-draft barrier by working around hoses and cables. (See figure 13). Note that the slots for the heater hoses (not shown) will need to be cut and folded down around the heater hoses.
2. Loosen the orange, front cowling of the vehicle by removing the four button head allen bolts (2 each side) from the dashboard area and the two hex head bolts underneath the headlights. The cowl does not need to be completely removed, just lift up the front to install the foam seal provided by adhering it as shown. (See figure 14). NOTE: the self-adhesive foam seal will adhere best if applied to a clean, dry surface at room temperature.

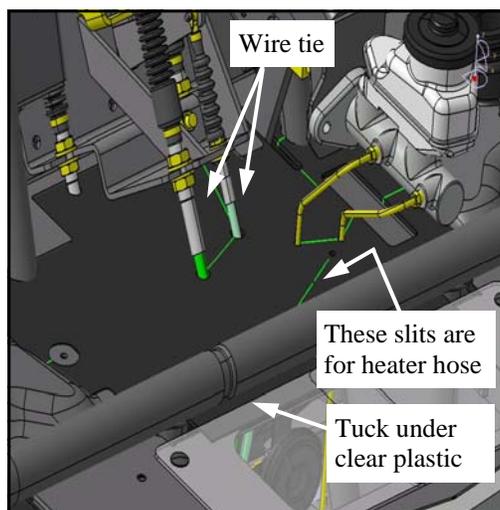


Figure 12

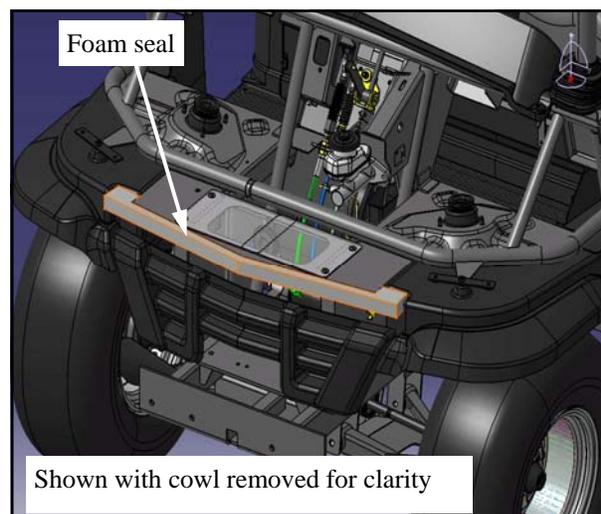


Figure 13

FINISHING TOUCHES

1. Secure hoses and wires under the vehicle with large wire ties provided. Make sure the hoses and wires are clear and secured away from moving parts such as the drive shaft.
2. Use the trim rubber provided to protect the hoses from sharp edges that they may rub against. For example, the reinforcing angles on the underside of the vehicle floor. NOTE: The trim rubber can be cut to length with shears so that it can be used in several places.



WARNING *Wear hand and eye protection due to possible contact with hot fluid and/or steam*

3. Refill cooling system. Start engine and check system for leaks. Run the engine at full throttle with the heater on and the radiator cap off. Allow engine to warm up until thermostat opens (the upper radiator hose will get hot). The heater and heater hoses should already be warm at this point. If one of the heater hoses is cooler than the other, then there is still air trapped in the heater. In this case, put the radiator cap back on and temporarily place clamp on left radiator hose to force coolant through the heater. Remove clamp once hoses reach the same temperature. Allow engine to cool, remove radiator cap and top off the radiator.

V4214 HEATER KIT - 15,000 BTU**SERVICE PARTS**

KUBOTA P/N	CODE NO.	QTY.	DESCRIPTION
70000-01136	V4214P1	1	15,000 BTU HEATER UNIT ONLY - WITH TOP HOSE PORTS
70000-01030	9HR0050	1	HEATER REPLACEMENT CORE - 15,000 BTU
70000-01031	9HR0058	1	HEATER REPLACEMENT MOTOR - 15,000 BTU
70000-01029	9HR0047	1	HEATER REPLACEMENT FAN BLADE - 15,000 BTU
70000-01137	V4214P2	1	HEATER BRACKET (CUSTOM)
70000-01026	9HR0044	1	IN-LINE SHUT-OFF VALVE
70000-01027	9HR0045	1	3/8" NPT NIPPLE
70000-01025	9HR0042	1	1" x 1" x 5/8" TEE
70000-01034	9HR0061	1	16' HEATER HOSE
70000-01032	9HR0060-1.0	6	1" HOSE CLAMPS
70000-01033	9HR0060-1.5	2	1-1/2" HOSE CLAMPS
70000-01028	9HR0046	1	ROTARY HEATER SWITCH
70000-01080	AC1018	1	CUSTOM WIRE KIT FOR KUBOTA RTV 900
70000-01049	9PRO1-12	1	TRIM RUBBER (12")
70000-01138	V4214P3	1	ANTI-DRAFT BARRIER - SHEET RUBBER
70000-01140	V4214P5	1	FOAM SEAL WITH ADHESIVE
70000-01142	V4214P7	1	KUBOTA RTV 900 HEATER ADAPTOR KIT (CONTENTS: PLASTIC LOUVER, FLEX HOSE, AND TWO 3" HOSE CLAMPS)
70000-01143	V4214P8	1	KUBOTA RTV 900 LOUVER ADAPTOR (CONTENTS: METAL RING PLATE WITH THREE BOLT HOLES, AND THREE SELF-DRILLING SCREWS)
70000-01141	V4214P6	1	INSTALLATION INSTRUCTIONS, HEATER KIT - 15,000 BTU
70000-01042	9PR20-17	1	1/2" WEATHER SEAL RUBBER (17") (ONE/KIT)