

## Kubota RTV-X Series X900 X1120 X1140 (2013 - Current)

### Direct-Fit Cab Heater with Defrost

351

#### STEP 1: PRE-INSTALLATION

- 1) Open the hood.
- 2) Remove the main center skid plate, this will be to run heater hose.

#### STEP 2: INSTALL LOUVERS

- 3) Set the DEFROST PLENUM TRIM piece on the dash defrost location (**PIC01**) and trace the air flow opening and the (2) screw holes.
- 4) On each side of the air flow trace, use a ½” drill bit and make two holes.
- 5) Connect the two ½” holes with cuts to create the opening (**PIC02**). We used an air saw but any handheld cutting tool will work.
- 6) For the screw holes, use a ¼” drill bit for your openings.
- 7) Install the defrost vent (**PIC03**). Have someone hold the backside adapter in place while the face of the vent is installed using the (2) black screws provided.
  - Connect the 36” run of 2.5” duct to the backside adapter before installing.
- 8) Using a 2.5” hole-saw drill out the holes for the floor louvers. See **PIC04**, **PIC05** and **PIC06** for how we installed ours.
- 9) These are two piece louvers, screw off the adapters on both louvers and install the duct barbs on both adapters.
- 10) Cut 36” and 24” pieces of duct and secure them to the adapters with the zip ties provided.
- 11) For the passenger side floor louver, set the louver face in the hole and screw on the adapter (with the 36” piece of duct) from the backside of the panel.
- 12) For the driver side floor louver, set the louver face in the hole and screw on the adapter (with the 24” piece of duct) from the backside of the panel
- 13) The duct hose will be attached to the heater box in STEP 4.

#### STEP 3: WIRING

- 14) Install the rocker switch in one of the factory switch holes (**PIC07**).
- 15) Using the wiring harness provided, plug the switch connector into the back of the rocker switch.
- 16) Locate the 12v accessory wires (bullet connectors) located on the driver side. These wires are taped up on wire loom so you will have to remove the tape to locate.
- 17) Using the wiring harness provided, connect the bullet connectors from our wiring harness to the factory wires (**PIC08**).
- 18) Leave the connector for the fan blower, this will be connected to the heater in STEP 4.

#### STEP 4: MOUNTING THE HEATER

- 19) The heater mounts on the driver side of the machine on a square framing bar and the fender panel (**PIC09**).
- 20) You’ll need a 3/8” socket (magnetic if possible) with an extension to install the 2 self-tapping screws into the square framing bar.
- 21) Use a ¼” drill bit to drill through the fender panel on the 3 installation holes on the front bracket. The bracket holes are smaller than ¼” so you will enlarge the bracket holes.
- 22) Use the 3 bolts and nuts provided to secure the front bracket to the fender panel.

- 23) You can now plug the blower connector from the wiring harness to the heater blower.
- 24) Attach the (3) runs of duct to the heater box with the zip ties provided.

#### **STEP 5: SPLICE INTO THE COOLANT LINES**

- 25) From the front driver side wheel, locate the lower radiator hose.
- 26) Using line clamps, cut off the flow of coolant on each side of where you will make the cut to install the return line Y-Fitting (**PIC10**).
- 27) Insert the aluminum 1" Y-Fitting and secure using the hose clamps provided.
  - Make sure the 5/8" splice fitting is point toward the radiator. You want the coolant to return to the radiator line keeping the same flow.
- 28) Using a 1" hole-saw (or larger), cut a hole for the heater hose to run through in the plastic firewall just off the driver side of the radiator (**PIC11**).
- 29) Cut a 3-foot piece of hose and connect it from the higher heater core fitting (relative to gravity) to the return line Y-Fitting.
- 30) Raise the bed and locate the Allen-head plug coming off of the thermostat housing (**PIC12**) (**PIC13**).
- 31) Remove the plug and drain the coolant from the engine.
- 32) Using the 3/8 NPT to 5/8 fitting add pipe thread tape and install it where you removed the Allen-head plug.
- 33) With the main skid plate section removed you will run the remaining run of heater hose from the heater box to the Inlet Fitting.
- 34) First, attach the inlet heater hose to the lower heater core fitting (relative to gravity) and secure with the hose clamp provided.
  - See **PIC09** for where the hoses run up the front of the machine to the heater box.
- 35) As the hose comes off the heater box it will do down the front of the radiator and over to the passenger side, then begin to go under the machine.
- 36) As you run the hose under the machine, take the slack out of the line and tie out of the way of the drive shaft with the extra zip ties, if needed.
- 37) Feed the hose to the engine (**PIC14**) and connect the inlet heater hose to the Inlet Fitting.
- 38) Make sure all connections are secured with hose clamps.

#### **STEP 6: REFILL COOLANT**

- 39) Refill the radiator and check for leaks.
- 40) Start the machine and allow the engine to warm up and circulate the coolant.
- 41) Drive the vehicle and put it under a good load, this will help expel air from the system.
- 42) When done let the machine cool down, recheck the coolant level and refill if needed.
- 43) Coolant will be consumed as the air is expelled from the system. It is possible you will need to run the machine and recheck fluid levels multiple times before working out all the air.



PIC01



PIC02



PIC03



PIC04



PIC05



PIC06



PIC07



PIC08



PIC09



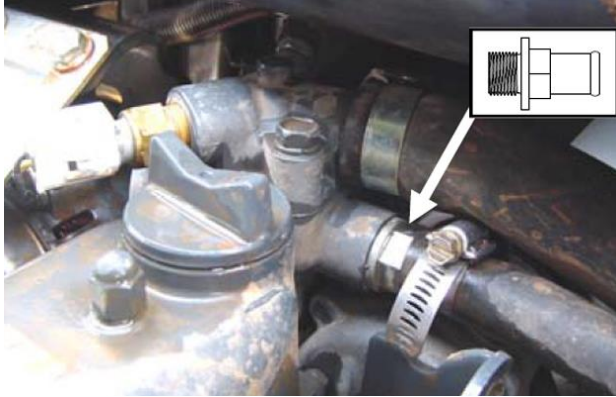
PIC10



PIC11



PIC12 (RTV900)



PIC13 (RTV1120 / RTV1140)



PIC14

