

## 86-88 Suzuki Samurai Heater Control Valve (SKU# SER-HCV)

### Installation Instructions



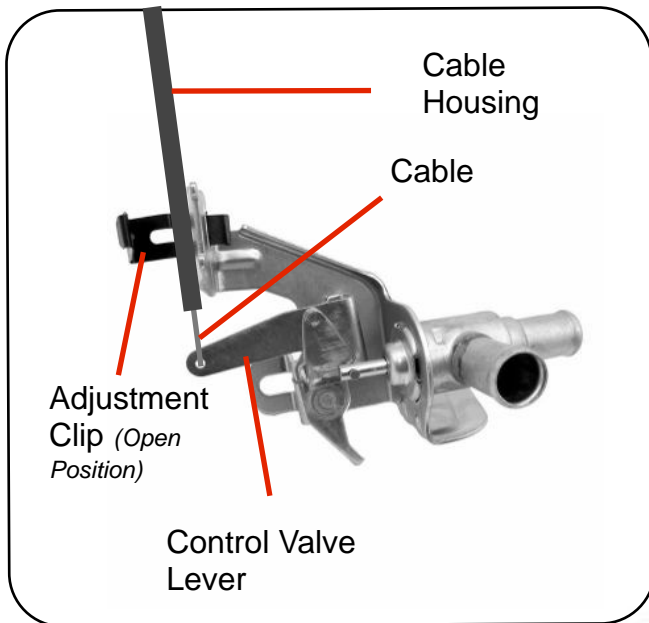
**CAUTION:** Safety glasses should be worn at all times when working with vehicles and related tools and equipment.



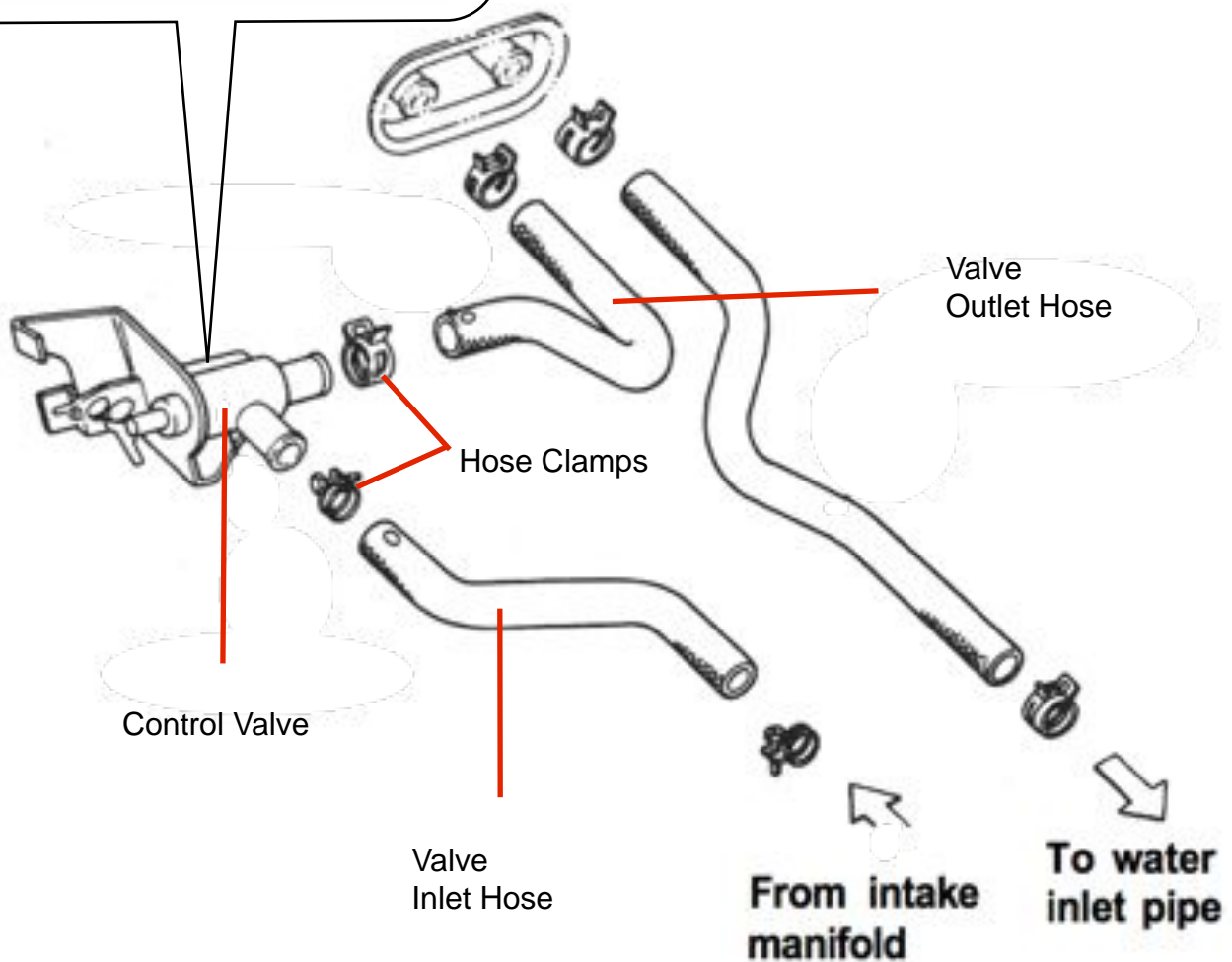
#### Suggested Tools:

- Standard Screwdriver
- Phillips Screwdriver
- Channel Lock Pliers
- White Permanent Marker
- Drain Pan





## Control Valve Parts





### Step 1

This job should be done with the engine cold.



### Step 2

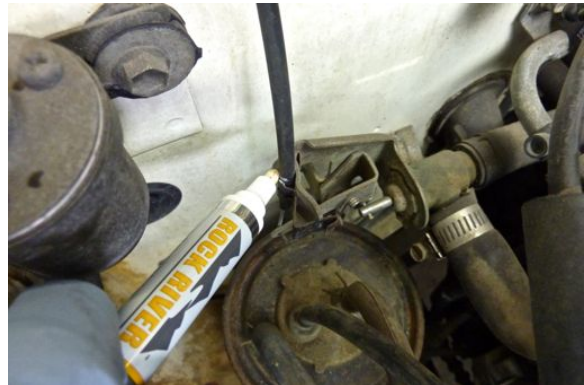
Place a clean drain pan under the vehicle directly below the heater control valve.

Note: The Heater Control Valve is located on the passenger side firewall, in the engine compartment.



### Step 3

Slide the temperature control valve all the way to "Cool".



### Step 4

Mark the position of the cable housing in the adjustment clip with a white permanent marker.

Note: This is done so that the cable can be returned in its original location so the proper temperature control valve-to-lever adjustment can be kept within range.





### Step 5

Disconnect the control cable housing by unsnapping the adjustment clip.



### Step 6

Unhook the cable from the control valve lever.



### Step 7

Gently position the cable to the side out of the way. Do not kink the cable.

**Note:** Inspect the cable for wear and correct operation. If the cable needs replacing we invite you to click [HERE](#) to see the high quality replacement cable offered by Low Range.



### Step 8

Inspect the condition of the inlet and outlet hoses. If either are found to be cracked, bulging, or brittle; replace the hose(s).

Click [HERE](#) for more information about our high quality hose kits.



### Step 9

Loosen the hose clamp on the valve inlet hose using a standard screwdriver and slide the clamp back (toward the engine) on the hose.

Note: If the OEM hose clamp is still used here you will need a 7mm socket.



### Step 10

Using channel lock pliers, gently loosen the hose by twisting it. Do **NOT** remove the hose yet.

Caution: Be gentle. Do not damage the hose if you plan on reusing it.



### Step 11

Loosen the valve outlet hose using channel lock pliers and slide it back on the hose (toward the cab).



### Step 12

Using channel lock pliers, gently loosen the hose by twisting it. Again, do not remove the hose from the valve yet.





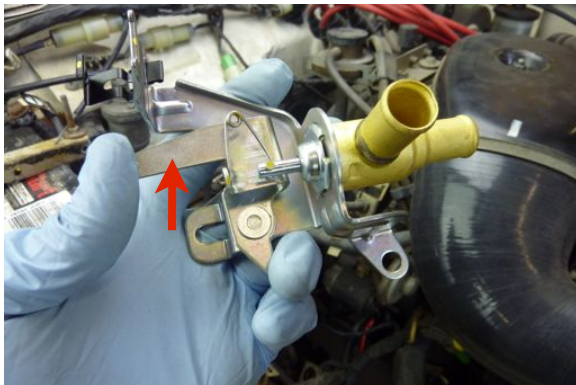
### Step 13

Remove the passenger side mounting screw using a phillips screwdriver.



### Step 14

Remove the driver side mounting screw using a phillips screwdriver.



### Step 15

Close the new control valve by pushing the lever up as shown.

Note: This will minimize coolant lose during installation.



### Step 16

Be sure the old control valve is still closed (control valve lever up) as well.



### Step 17

Disconnect the valve outlet hose.

**Caution:** A small amount of coolant may escape from this hose.



### Step 18

Install the new control valve in the outlet hose.



### Step 19

Remove the valve inlet hose from the old control valve.

**Caution:** A small amount of coolant may escape from this hose as well.



### Step 20

Install the inlet hose on the new control valve.





### Step 21

Reposition the inlet hose clamp and tighten.



### Step 22

Reposition the outlet hose clamp.



### Step 23

Install the passenger side mounting screw; but do not tighten it yet.



### Step 24

Install the driver side mounting screw and tighten.





### Step 25

Tighten the passenger side mounting screw.



### Step 26

Hook the cable into the control valve lever.



### Step 27

Using the white mark as a reference, position the control cable housing in the same position as it was when removed.



### Step 28

Reattach the adjustment clip as shown.

Note: Be sure it snaps securely into place.



## Step 29

With the temperature control still in the "cool" position . . .



## Step 29 Continued

. . . check to see that the control valve lever is all the way up, in the closed position.

If it is not all the way up. Unsnap the cable clip, slide the cable and cable housing and lever, up. Then re-snap the cable restraint.



## Step 30

Slide the temperature control to the "HOT" position . . . . .



## Step 31

. . . . and check to see that the lever is all the way down, in the open position.





## Step 32

Remove the radiator cap (See Picture Below) and add back any coolant that was lost during the repair. Be sure the radiator is full and the coolant overflow is between the "FULL" and "LOW" marks (See Figure A). Replace the cap and start the engine. Let the engine run until it reaches operating temperature, usually about 20 minutes. Periodically, check for leaks while the engine is warming up. If any leaks are observed, stop the engine, let it cool back down and repair as needed. Leaks are most common at the hose clamps and may need additional tightening or positioning. After several warm-up and cool-down cycles, with the engine cold, recheck and top-off the coolant in the radiator. Then check and add coolant to the overflow bottle as well, if needed.

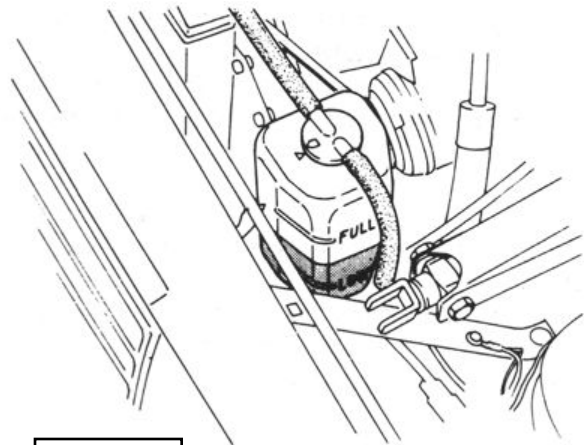


**Radiator Cap**



## Caution:

Never remove a radiator cap when the engine is hot. Hot coolant can cause serious burns.



**Figure A**



## Congratulations!

You have successfully replaced a heater temperature control valve. We hope these instructions have been helpful.

As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F 8am-5pm MST. Thank you for purchasing from Low Range Off-Road.



These instructions are designed as a general installation guide. Installation of many Low Range Off-Road products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 801-805-6644 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

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