

Category: Thermosystems



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Description: **Glow Pin Inspection / Cleaning AT2000S**

Overview

This bulletin discusses how to properly check and clean the Glow Pin assembly on an AT2000S if starting issues begin to occur.

Heater Removal

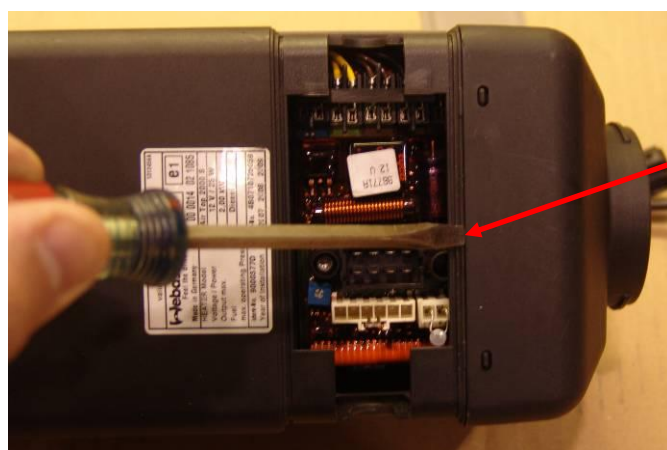
With the heater in the off position, open the top cover of the heater and disconnect the wire harness from the control unit. Disconnect and remove the fuel line, combustion air intake tube and exhaust pipe from the bottom of the heater. Loosen and remove the (4) M6 nuts and washers from the mounting studs on the bottom of the heater. Disconnect all connected air ducts; the unit can now be removed from the vehicle.



Wire harness / Control Unit Cover

Disassembly of the Heater

Step 1: With a small flat screw driver (carefully) remove the two end covers from the heater. Use caution as the plastic pieces are fragile.

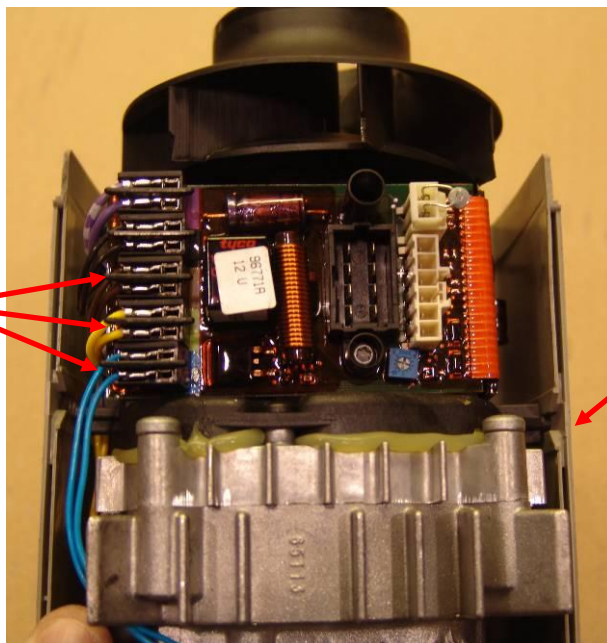


Carefully place the screwdriver tip between the top cover and end cover to remove.

Step 2: With the end covers removed, remove the top cover of the heater. To remove the lower case, pull the case apart where the fan motor assembly meets the heat exchanger (both sides). There are two plastic pins that are on the fan motor assembly that lock into the lower case.

Remove the following three connectors.

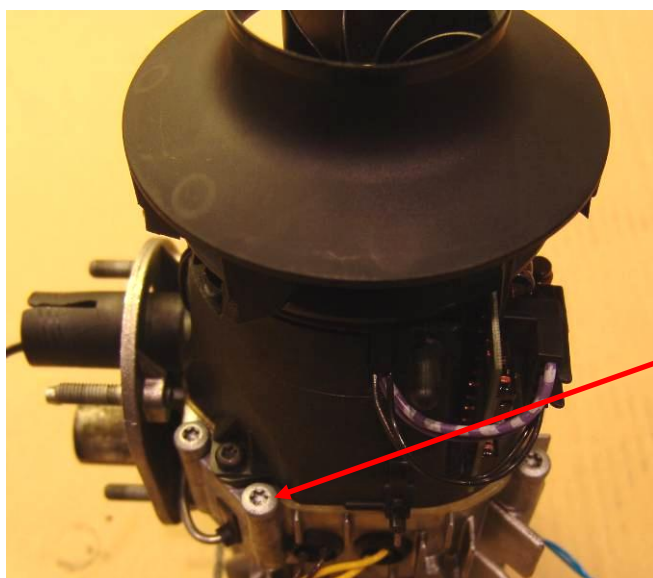
1. Brown (Control Unit)
2. Yellow (Glow Pin)
3. Blue (Overheat Sensor)



Pull lower case apart at this location to release locating pins.

Removal of the Fan Assembly

Remove the (5) T25 (Torx) head screws that hold on the fan motor assembly. Remove the fan assembly.

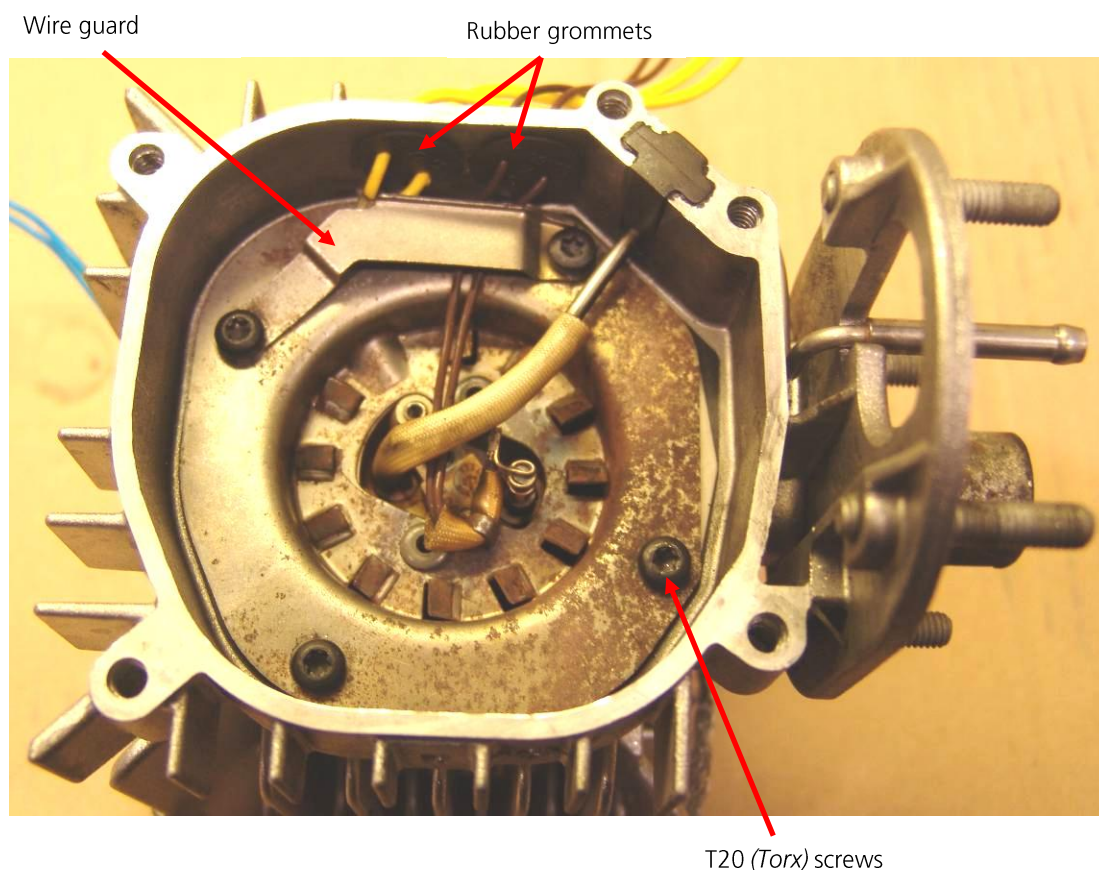


(Torx) screws

Removal of the Burner Insert

Step 1: There are (4) T20 (Torx) screws that hold the burner insert to the heat exchanger. Remove these and pay special attention to the position of the wire guard to ensure it is re-installed in the same direction.

Step 2: There are 2 grommets with the glow pin and flame sensor wires running through them that must be removed from the heat exchanger prior to burner removal.



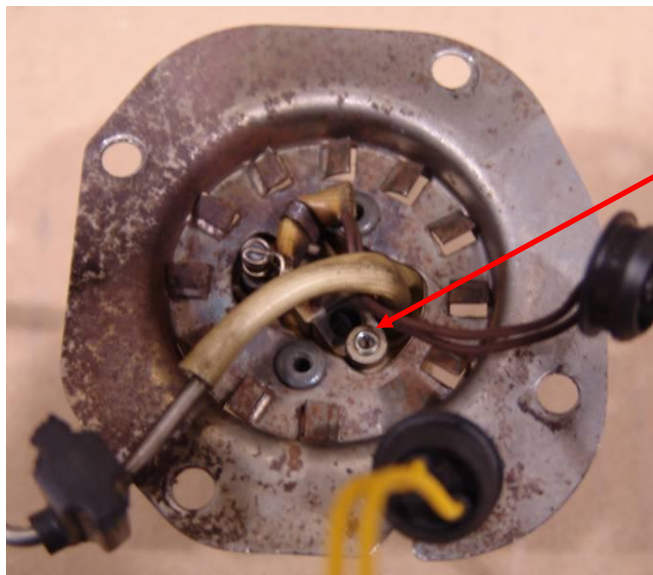
Step 3: When removing the burner insert from the heat exchanger, the grommet that the fuel line runs through may have to be persuaded to be removed. If it will not slide out easily then a small screw driver may be used to get it started.

Warning: Do NOT pry on the fuel line as damage may occur.

Checking / Cleaning the Glow Pin

With the burner insert removed from the heat exchanger; there is a hole in the burner mat where the glow pin is visible. Check to see if there is any type of visible crystals or build up on the glow pin.

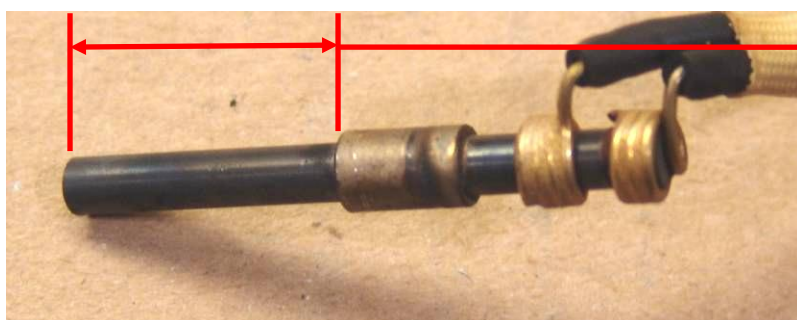
Step 1: Remove the glow pin by loosening the Hex key screw using a 2mm "Allen wrench". The glow pin should slide out easily; if difficult gently twist using needle nose pliers while trying to remove it.



2mm Hex Screw

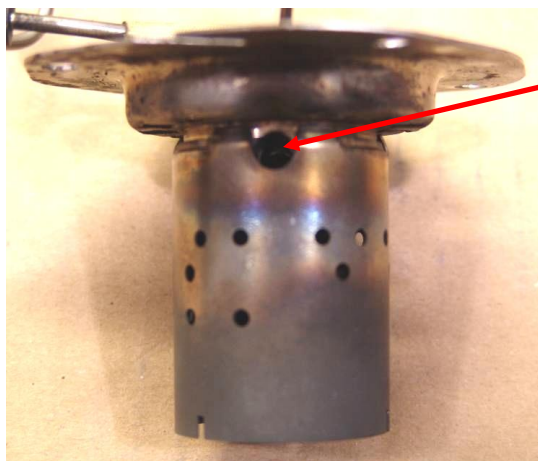
Step 2: After the glow pin has been removed examine it to make sure there is no build up of any kind. If there is build up on the glow pin remove it using a shop rag or paper towel.

Warning: Do NOT use any type of chemical cleaner to clean the glow pin. If the buildup doesn't come off with shop rag, replace the glow pin.



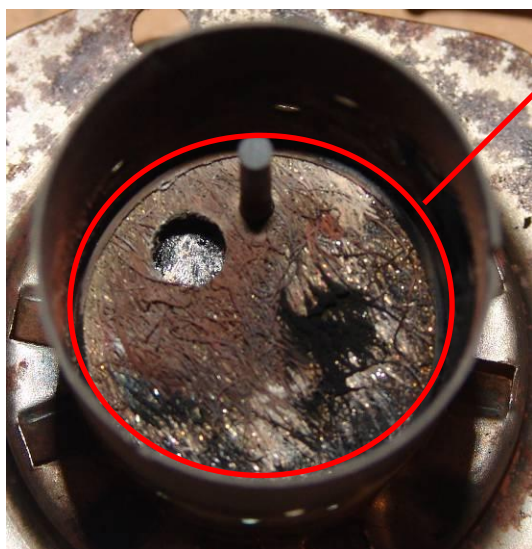
The marked area should be free from any build up of foreign debris.

Step 3: After the glow pin has been cleaned, check the opening where the glow pin came from and make sure to remove any type of debris that may be left in that area. Run a small screw driver or pick through the hole to remove any debris.



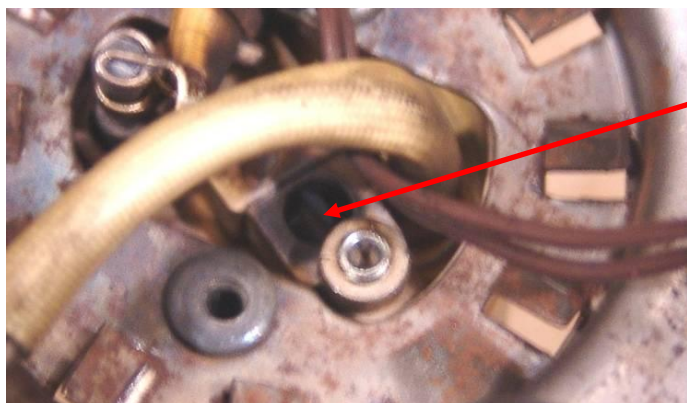
Glow pin opening

Step 4: While the burner insert is removed also inspect the burner mat to make sure it is still in good shape. If the burner mat looks questionable (sections of the burner mat fleece missing or burner swelled in center) replace the burner insert assembly.



Inspect burner mat

Step 5: After inspecting the burner mat, also make sure the starting hole of the burner insert is clear.



Starting hole is next to the 2mm hex screw for the glow pin

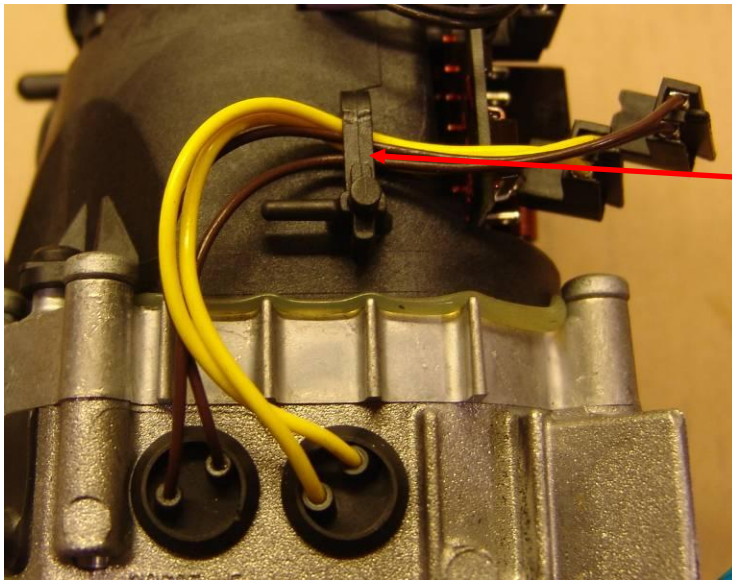
Reassembly of the heater

Step 1: After the glow pin and glow pin area has been cleaned, slide the glow pin back into the burner insert and tighten the 2mm hex key screw to .5 Nm (4.4 in/lb)

Step 2: Install the burner insert back into the heat exchanger (**replace all gaskets in the heater**). Be sure to put the grommets back in the correct location and that they are installed to seal properly. With the burner insert back in the heat exchanger, tighten the T20 screws to 6 Nm (4.4 ft/lb).

Step 3: Place the combustion air fan on the heater (**with new gasket installed**) and tighten the T25 screws to 6 Nm (4.4 ft/lb).

Step 4: Connect the glow pin, flame detector and overheat sensor wires to the control unit, making sure that the color coded wires are installed in the correct location. Also check to verify the flame detector and glow pin wires are underneath the plastic clip on the fan motor.



Make sure glow pin and flame detector wires run under this plastic clip

Step 5: Reassemble the heaters plastic pieces back onto the heater. Make sure the end pieces of the heater go in the correct sides. Place the rubber gasket back onto the bottom of the heater.

Step 6: Install heater back into vehicle and test to verify that it is functioning properly.

If you have any questions, contact our technical support team at (800) 860-7866 or via email at info@webasto-us.com.