



How to Test if Your Fireplace Main Control Valve is Bad

Time to Complete: 5 minutes, Recommended Tools [Gardner](#)

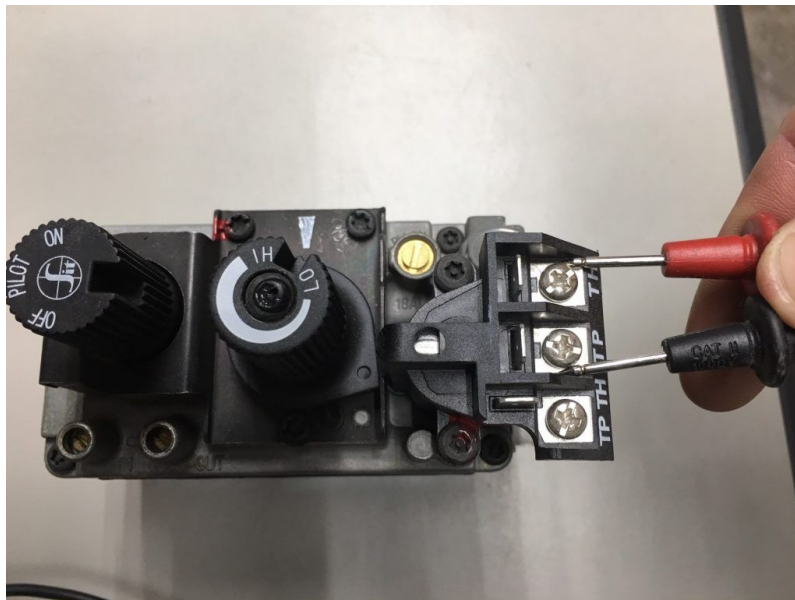
[Bender Digital Multimeter](#)

Test #1 – Resistance Test

One way to test if your main control valve is bad is by testing resistance. We can do this with our [Digital Multimeter](#).

First lets make sure it is in the correct setting. We what it in the Ohm's setting (Ohms is basically a term that refers to resistance). This is sometimes shown in symbol form: Ω

First, find you need to find “Zero” but touching your multimeter leads together. If it reads anything other than zero, you'll want to subtract this number from the number you will



read on the valve. To test the valve, disconnect all wires from the TP and TH terminals, then place your meter leads on these terminals:

You should get a reading that should fall within the following parameters:

SIT 820 -1.75 to 2.75 R

Honeywell VS8420 -3.1 to 3.6 R

Robert Shaw/Dexen – 1.5 to 1.7 R

[A SIT 820](#) valve looks like this



A Honeywell VS8420 valve looks like this



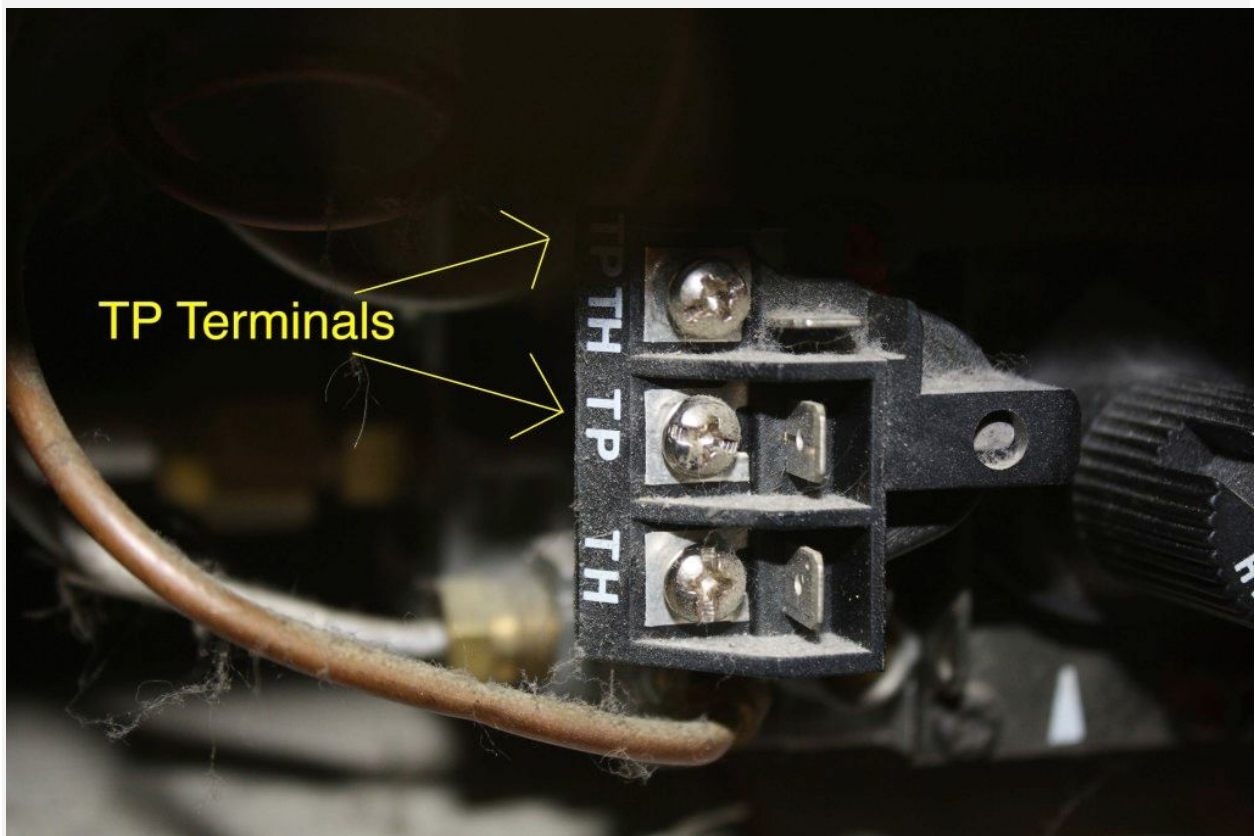
A Robert Shaw/Dexen Valve looks like this:



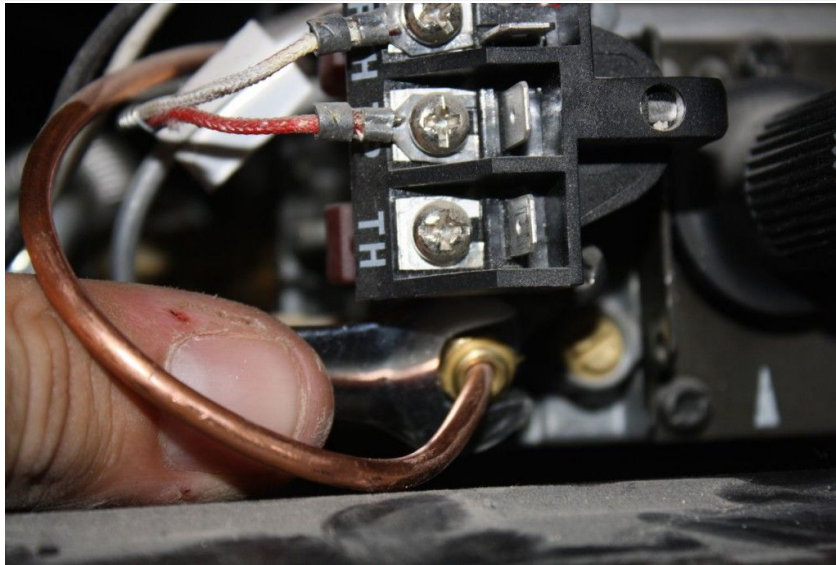
Test #2: Thermocouple Magnet Test

Typically, for this next test you may be experiencing random occurrences of **your pilot going out**. This test is for the SIT valve only. It is a way to check and see if there is something wrong with the valve and not the thermocouple itself.

First, disconnect the all the wires from the front terminals:



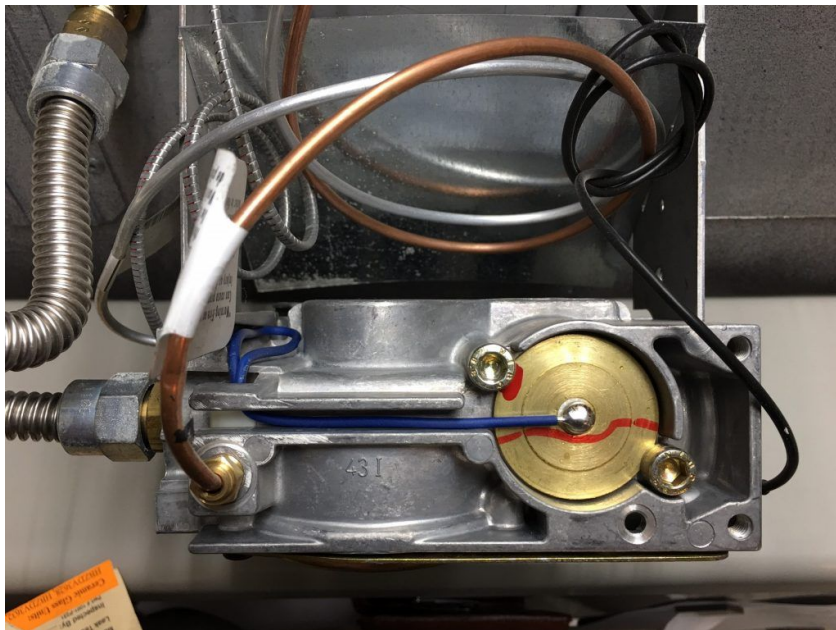
Then, unscrew the thermocouple from the valve (the copper colored tube):



Next, you will have to test the magnet on the back side of the valve.

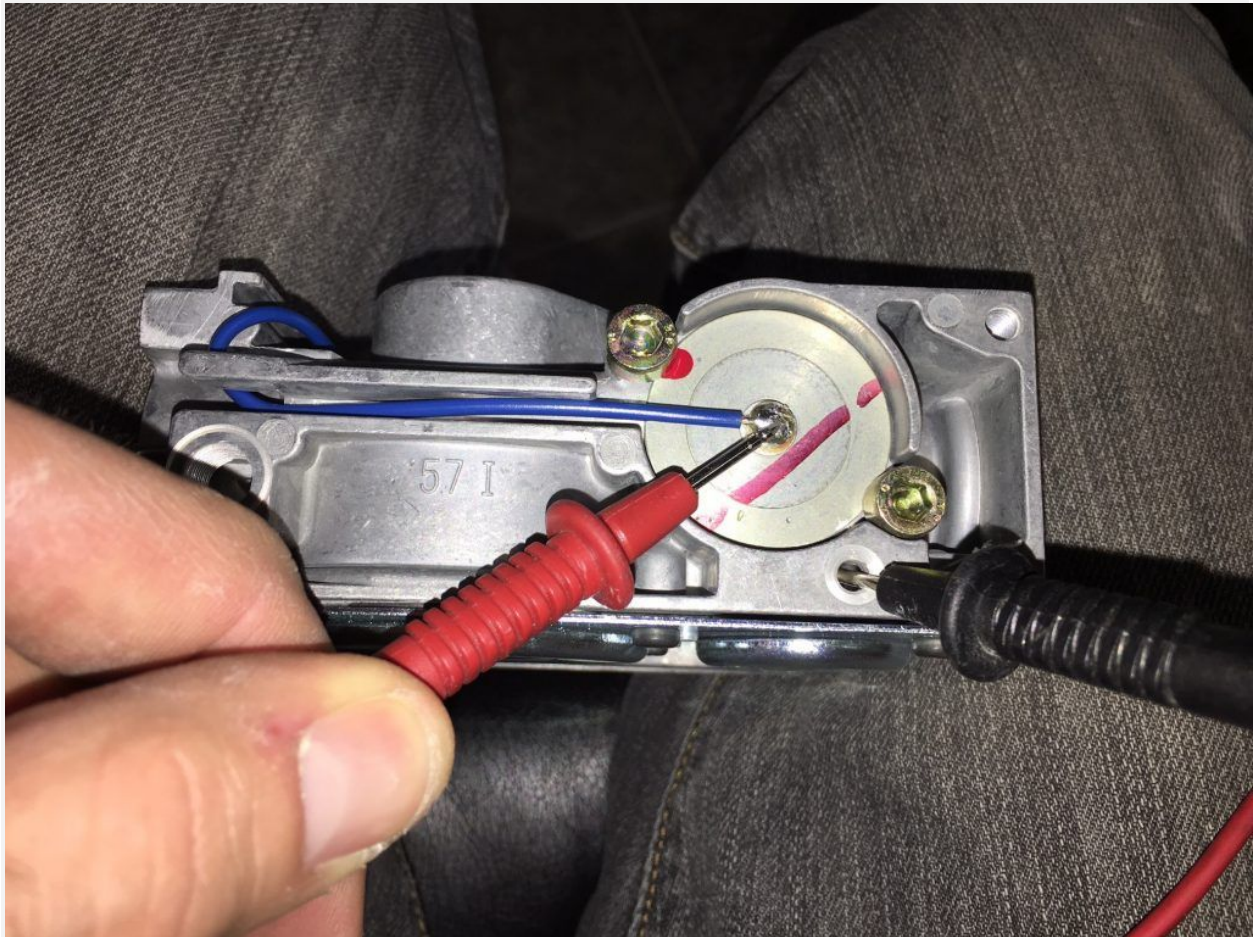
Depending on how much space you have, you may have to remove the valve entirely.

Here is a picture of the back of a SIT valve



Put your [Multimeter](#) in the Ohms setting. Remember to touch both of your leads together and make sure the read zero. If the do not, you will need to subtract this number from your reading.

Now put one lead on the soldered point on the back of the valve and one to the ground:



A good reading here is anywhere between 0 and 0.2. If it is more than 0.2 then replace the valve.

<http://www.mygasfireplacerepair.com/2012/05/the-main-burner-flame-will-not-come-on/>