

Heater Control Valve

As many of you may be aware by now, the Heater Control Valve can be an Achilles heel for the Triumphs. Water valves come in a variety of designs, globe, ball, etc. The Valve style used in the Triumphs used to control the flow to the cockpit heater use a diaphragm to keep the water inside. The problem with this design, is that when the diaphragm eventually fails, and it will, all things eventually fail, it is catastrophic in nature. What do I mean by this, well, when a Ball valve fails it simply leaks. It drips incessantly, it's a nuisance, but it's still just a leak. When the Triumph valve fails, it leaks dramatically, your cooling system drains itself through the torn diaphragm, and the engine will quickly drain itself, and overheat.

This whole issue bubbled to the surface this fall as several members suffered Heater Control Valve failures (mine started dripping in sympathy), as they began to use heaters that sat unused all summer. I have been aware of this shortcoming for some time, and it's for this reason that I have a small emergency kit of plumbing parts which would allow me to replace the valve with some plumbing fittings should the situation arise. If you are concerned, go to a local plumbing supply or home improvement store and buy the following; 1.5" long 3/8" NPT Nipple, 3/8" elbow, and 3/8" NPT male to 1/2" hose adapter. These simple items will allow you to remove the leaking valve, and replace it with some fittings that will allow you to keep going, with full heat on, not a great summer solution, but it will get you home.

The solution detailed below, will allow you to replace the risky original valve with a newer technology, ball valve, which has a much more satisfying failure mode of dripping, rather than dumping your precious anti-freeze all over the street. This is simple fix, and I encourage you to give this one a try, Here we go; Here's a photo of what you start with.



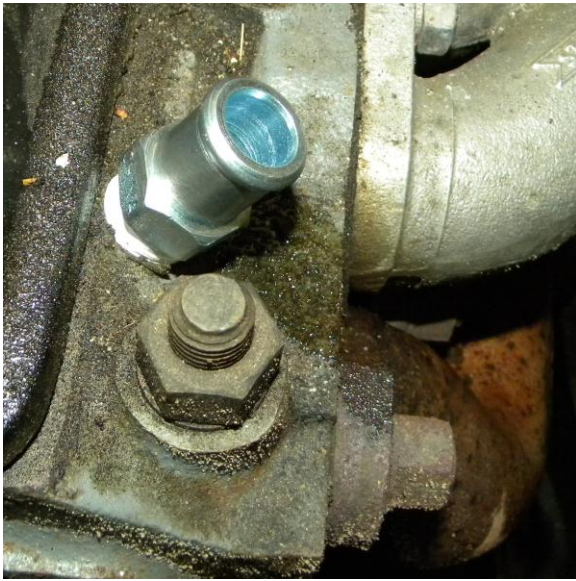
It's the original

Triumph Valve complete with control cable.

We are going to replace the entire valve assembly with a more reliable unit. The replacement parts should be available at any Parts Supply chain store. Buy #5851 Heater Control Valve, I bought two, one for the TR3B and one for the TR6. One came in Plastic, and the other in Steel, as shown in the photo. I personally prefer the Plastic one, but they both work. You also need a Heater Hose Fitting from Dorman #56152, this fitting comes in long or short versions, and either should work. I thought the short fitting would help minimize kinking. The key thing is that it is 3/8" NPT at one end, and 5/8" hose fitting at the other.



Step one is as always, remove the old valve and hoses. You may want to drop the coolant



level a bit, or it will lower itself all over your floor. Place some thread sealant on the Hose Adapter and firmly screw it into the hole in your head. Yes, I said it. Here's the only compromise in the whole affair, the original hoses were all 1/2", and in this case the new fittings are all 5/8". This means we need to convert somewhere. It also means you need some scraps of both 5/8 and 1/2 heater hose. You need to cut the hose sections so that the hoses bend smoothly without kinking, and so that the control cable fits comfortably into the new valve. Checkout my photo. Here's the tricky

part. The piece of 1/2" goes from the valve to the Firewall port. This means you need to force a piece of 1/2" hose onto a 5/8" port on the valve. Attach this hose to the valve first. I clamped the valve in a vise, lubed the hose with WD40, and heated the hose with a heat gun. Once it's



hot, it slides right on, but be careful, I ended up donating some skin off a knuckle. It slid onto the plastic valve much easier. Don't forget the clamps, and put the whole assembly together. Bob's rule is to never put the screw

part of the clamp down. This way if the fitting leaks, the screw stays high and dry, and can still be removed. This completes the plumbing portion of the job, don't forget to top off the radiator. The last part of the job is the control cable.

You need to bend a loop in the end of the cable that fits over the control lever. This was surprisingly difficult, the wire is extremely stiff and difficult to bend. Be persistent, you will get there. To keep



the wire in place, I added a #10 washer, and a short length of Vacuum hose. This setup is actually easier to operate, and at worst, if it fails, it will just drip rather than emptying out your cooling system. For what it's worth, I put the same setup in my TR3B, by adding a second choke cable to control the valve. For those of you unfamiliar with the TR3, there was a manual valve in the same location, so you needed to lift the hood to adjust the heat. Not my idea of fun on a cold day.

Bob Waldeck