

Thermo-Bob 4™ Installation Manual

'KT4A' Kit

2013-2015 KTM 450 SX-F
2013-2015 KTM 450 XC-F
2013-2015 Husky FC450

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IM_KT4A_V2

Thermo-Bob 4™ Installation: KT4A Kit

Proper installation is critical: if you are not familiar with or feel uncomfortable with heated, pressurized liquid cooling systems, you should have a professional install the kit. Improper installation can cause engine overheating and possible engine damage.

Overview of installation: Drain the engine coolant into a suitable container, don't drain it when it's hot, keep it away from pets as it's toxic, refill the cooling system after all parts are installed, double-check that all clamps are tight, and verify that the radiators are full after the first heat-and-cool cycle.

Figure 2 and 3 show a completed installation. Details are described below:

- 1) After draining the coolant, remove the factory radiator hose at the cylinder head and cut away the bottom bend of the original hose as shown in Figure 1.
- 2) Review Figure 2, which is a completed installation from the right side of the bike. Install the supplied hose connector onto the cylinder head coolant exit barb, and reinstall and tighten the factory KTM clamp to hold it in place. Slide a supplied large clamp onto the hose connector, then slide the Thermo-Bob 3 onto the hose connector as shown - do not tighten this clamp yet.
- 3) Along with another of the supplied large clamps, slide the remainder of the factory coolant hose (which is still connected to the radiator inlet barb on the bottom of the upper frame tube) onto the top of the Thermo-Bob 3 as shown in Figure 2. Based on how the factory hose up to the radiators looks at this point, consider if shortening it by ¼ inch where it connects to the Thermo-Bob would reduce any kinking in the factory hose, and do so if required.
- 4) Tighten both large supplied clamps appropriately where the hoses attach to the Thermo-Bob.
- 5) Slide a supplied small clamp 2 inches up onto one end of the bypass hose, then slide the bypass hose onto the Thermo-Bob's brass barb. Slide the clamp down to the end of the bypass hose, and tighten the clamp appropriately.
- 6) Now move to the left side of the bike. Remove a 5/8 inch (16 mm) long section of the factory lower hose that exits the bottom of the left radiator and insert the supplied bypass tee as shown in Figure 3. Use the other two supplied large clamps, and tighten appropriately.
- 7) Cut the supplied bypass hose (colored blue in Figures 2 and 3) to an appropriate length (measure twice, cut once!) for it to attach to the brass barb on the bypass tee as shown in Figure 3. **TIP: After determining the proper length and cutting the hose, slide the remaining supplied small clamp an inch or two up the bypass hose, then dip the end of the hose in a cup of coolant and wipe off the outside. This will lubricate the inside of the bypass hose, making it easier to slide on to the brass barb on the bypass tee.**
- 8) Slide the small supplied clamp down over the bypass tee's brass barb and tighten appropriately. Refill the cooling system. Pour the final 10 fluid ounces in slowly, as air is purging through the small bleed hole in the Thermo-Bob's thermostat. Install the radiator cap.
- 9) Re-check that all clamps are tight. Start the engine and let it run for 3 or 4 minutes, running the engine up to 3000 rpm a couple of times over that period to purge any final air into the radiator upper tanks. In this 3-4 minute period, you can inspect the cooling system as it heats for any leaks. Shut off the engine, let the bike completely cool, and remove the radiator cap to top off the system.

GENERAL NOTES:

- Figures 4 and 5 display how to correctly index the thermostat in the housing if it is ever replaced.
- The Thermo-Bob 4 housing has an additional threaded port for a KOSO or TRAIL TECH temperature sending unit (BSPP 1/8-28). Since the sensor uses two wires internally, an external ground is not required so it's best to use Teflon tape or a good Teflon sealant on the temperature sensor threads during installation to avoid leaks.
- Since these bikes do not have a coolant overflow tank, the first heat cycle after radiator filling will purge a few fluid ounces of coolant onto the ground due to thermal expansion, just like a stock bike.
- The Thermo-Bob can be left on the bike year-round, it simply holds up minimum coolant temperatures where you want them to be to allow the engine oil to boil off any water that gets past the rings in the natural occurrence of all running engines.



Figure 1: Cut original hose just above bend.

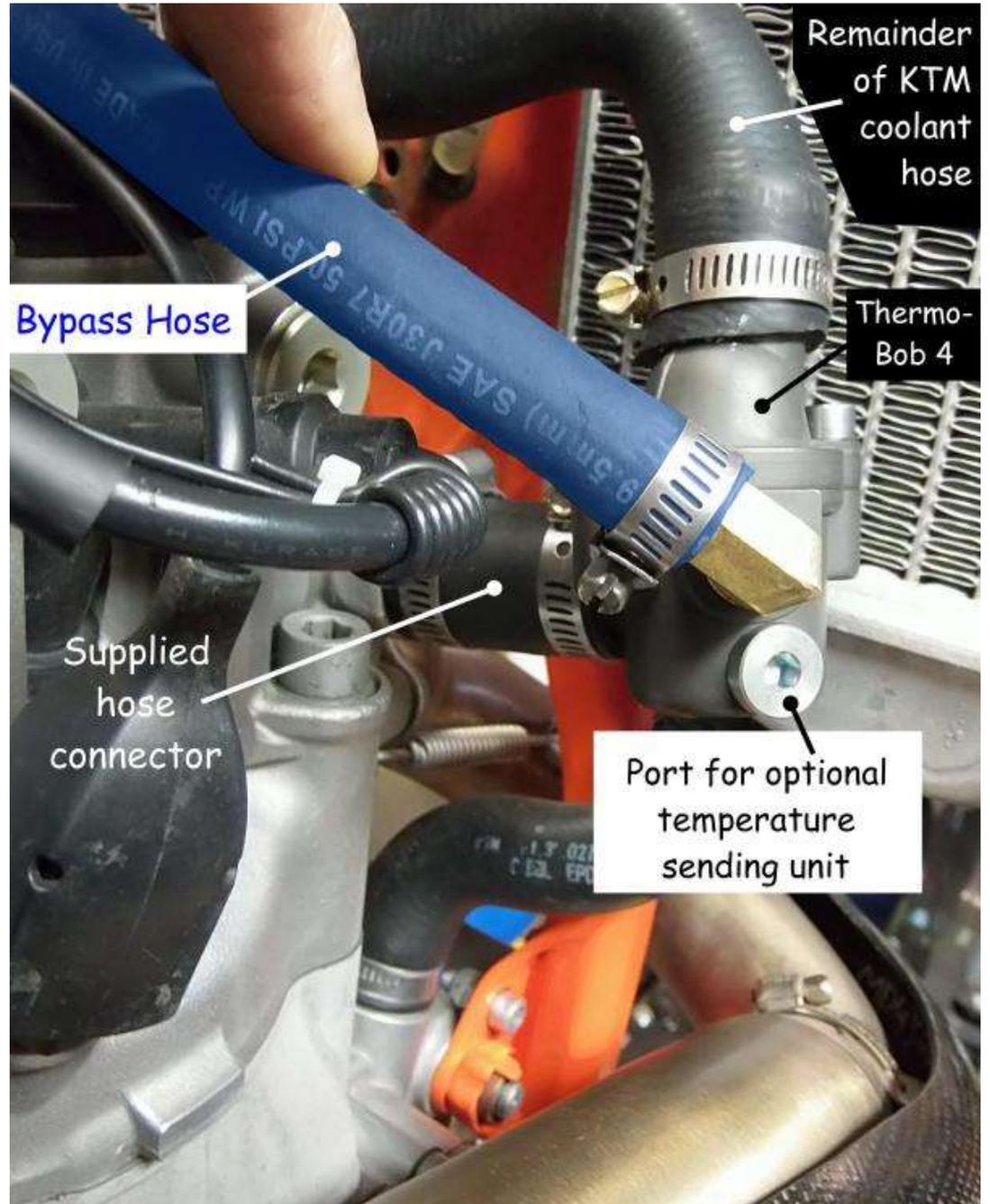


Figure 2: Installation Complete (Right side).

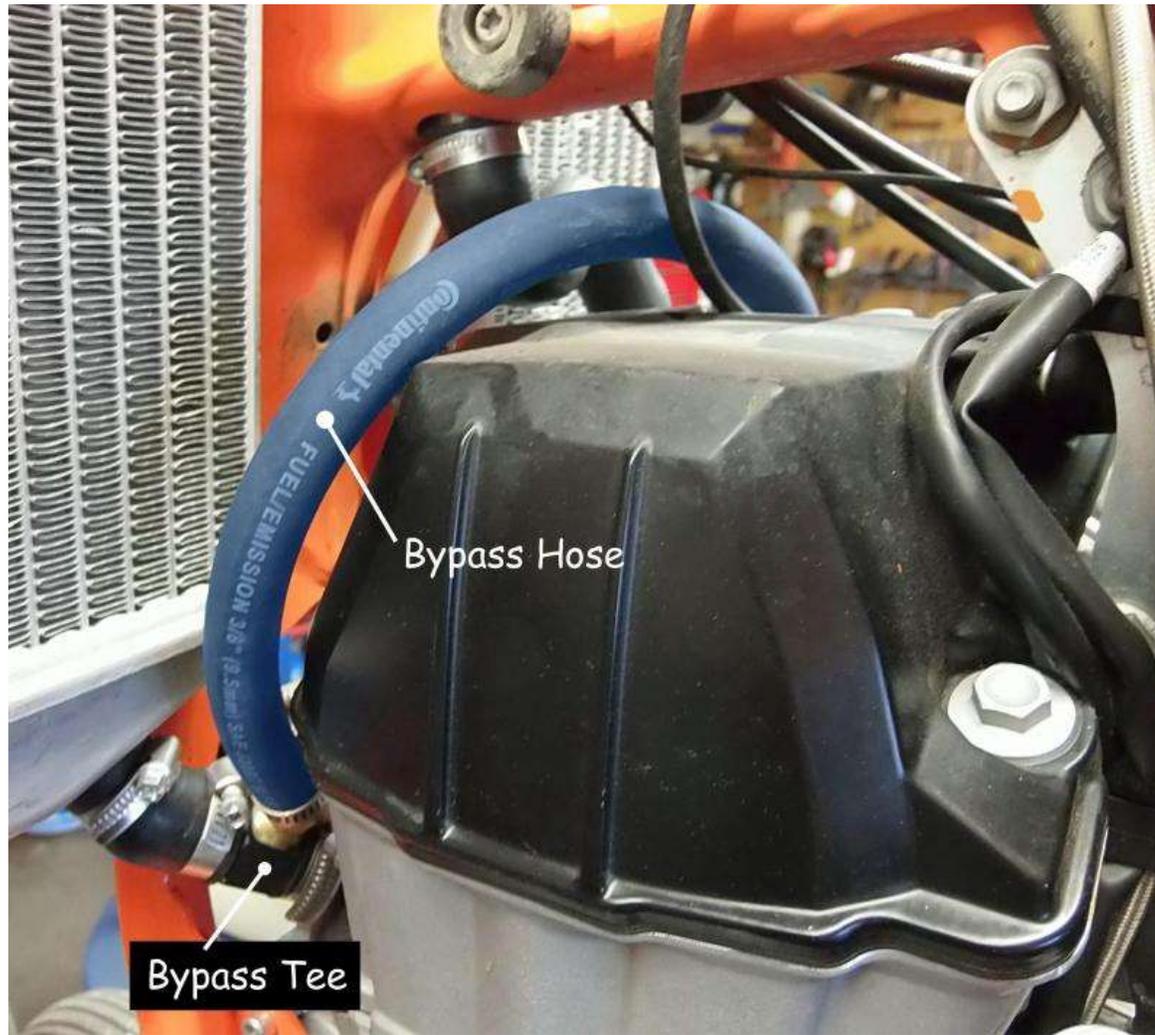


Figure 3: Installation Complete (Left side).
Bypass hose has been colored blue for easy identification.

If you ever replace your thermostat, pay attention to orientation...



Figure 4: Improperly indexed thermostat
Will not seat properly.



Figure 5: Properly indexed thermostat
Will sit flush.