

Ensure steam supply to the radiator is turned off during installation. If the radiator valve is broken, switch off the boiler during installation.

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If upgrading from an existing air vent, remove it to reveal the 1/8" hole.

Add PTFE/Teflon tape (not supplied) or other appropriate sealant to the male thread of the new TRV.



Step 3





Thread the TRV into the 1/8" vent hole of the radiator. Screw it clockwise until the thread feels tight, ensuring that the vent riser points upwards.

Add PTFE/Teflon tape (not supplied) or other appropriate sealant to the male thread of the air vent. (not supplied).

Screw the air vent into the 1/6" hole of the TRV body. Use a wrench on the hexagonal shaft of the air vent.

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# ESC Castrads® Est. 2006

#### Setting the Temperature

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### Valve Components

# Vent Orifice Sizing



Set and Forget

Thermostatic radiator valves (TRVs) respond to the ambient room temperature. Start by setting the valve to the middle point (3 in the diagram above) and leaving it for several hours during a heating cycle. If the room is too hot, turn it down half a turn. If it's too cool, turn it up half a turn. Always wait several hours between adjustments.





#### Tools Required

The valve surface will scratch if using a wrench with teeth. Only use flat-faced wrenches. Tighten the vent into the valve body using a wrench on the hexagonal shaft of the vent, not the circular body of the vent. We supply Maid O' Mist Jacobus air vents with our TRVs, including an orifice pack with 5 different gauges. Add the correct orifice to the air vent according to the radiator's distance from the boiler, as illustrated above. Too big an orifice might not allow enough time for the TRV to react.

# How TRVs Work



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Further Information





Air vent only:

- 1. Steam enters the radiator and forces air out through the vent.
- Steam reaches the air vent, closing the internal mechanism.
  Radiator is now filled with steam.
  Larger than necessary radiator

#### With TRV:

- 1. Steam enters the radiator.
- 2. TRV slows or completely stops air from escaping the radiator.
- 3. This prevents more steam from entering the radiator.
- 4. TRV is closed while the room is at temperature, then opens again when the room cools.

Steam heat systems function best at low pressure. The efficacy of any steam TRV is reduced when the boiler is set to an operating pressure above 1.5 PSIG. Ensure your system is also well balanced and correctly vented to get the most responsive temperature control from your TRVs.

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Further information such as instructional videos and technical drawings can be found by scanning the above QR code.

# Windsor TRV One-Pipe Steam

Installation Guide



Castrads<sup>®</sup>