



INSTALLATION INSTRUCTIONS COOLANT SHUT-OFF THERMOSTAT

B-481—08/10

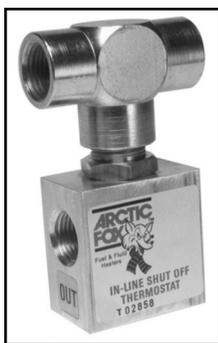
S-400 & S-440 Model—Fuel Temperature Sensing—Coolant Shut-Off Thermostats

The S-400 and S-440 model thermostats are used to automatically shut off coolant supply to any fuel warming device using engine coolant as a heat source. Complete coolant shut off is achieved by the time the fuel reaches optimum operating temperature.

S-400 (Silver Body) Stops coolant flow at +95° F (+35° C) Allows coolant flow at +78° F (+25° C) or colder.

S-440 (Gold tone Body) Stops coolant flow at +125° F (+52° C) Allows coolant flow at +104° F (+40° C) or colder.

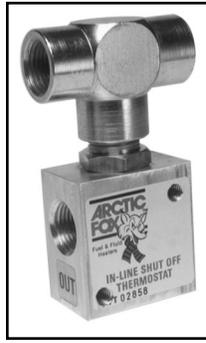
NOTE: For biodiesel applications exceeding B-20, call Arctic Fox Applications Engineering for compatible products.



Model S-400 T or S-440 T
(S-400 or S-440 with A-289 tee)



Model S-400 ST or S-440 ST
(S-400 or S-440 with A-284 Street tee)



Model S-400 HT or S-440 HT
(S-400 or S-440 with 2 holes drilled and tapped with A-289 tee)



Model S-400 BT or S-440 BT
(S-400 or S-440 with bracket, 2 bolts, 2 washers, and A-289 tee)

NOTE: All of the above models are designed to completely shut off coolant flow and therefore should NEVER be installed in series with any other vehicle component or system that is dependent upon a continuous flow of coolant.

Mounting of the S-400 T or S-440 T model thermostats can be achieved several ways by choosing one of the four base models above.

S-400 T or S-440 T, S-400 HT or S-440 HT can be mounted using an installer supplied bracket, The HT models are tapped for 5/16" UNC threads.

S-400 BT or S-440 BT is supplied by Arctic Fox with mounting bracket and thermostat-to-bracket attachment hardware, vehicle chassis mounting hardware is installer supplied.

S-400 ST or S-440 ST may be installed directly into the fuel OUT port of the filter head.

S-400 T or S-440 T or S-400 or S-440 ST may also be installed by suspending the thermostat from its TEE fitting attached to the fuel system (it is the responsibility of the installer to properly support the thermostat and fuel system components if this method of installation is chosen).

Regardless of which model thermostat is chosen it can be placed anywhere in the fuel supply line where it is convenient, including directly to the fuel warmer itself. Bear in mind however that the critical component to protect from cold fuel is the fuel filter. If space is available, consider installing it after the fuel filter. This will provide maximum fuel temperature through the filter, and possibly reduce the total length of coolant line required for installation.

See reverse for mounting and fitting suggestions.

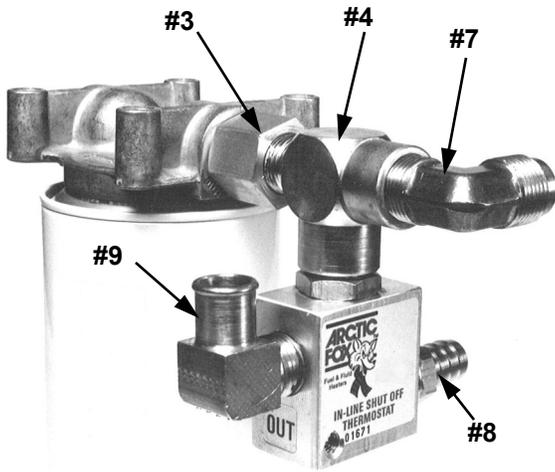


Figure A

Filter Head Mounted S-400ST Shut-Off Thermostat
(Includes Item #4 from Parts List on right)

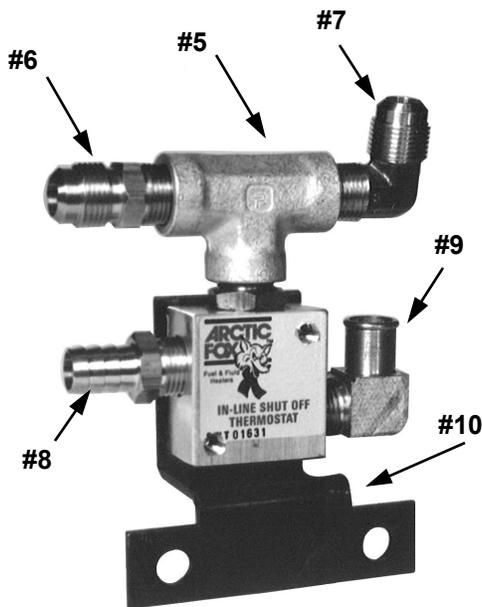


Figure B

Frame Mounted S-400BT Shut-Off Thermostat
(Includes Items #5 & #10 from Parts List on Right)

PARTS LIST

All fittings listed below can be purchased separately from Arctic Fox, and may be applied to any configuration of Shut-Off Thermostat. Arctic Fox has a wide range of fittings, hose, hose insulation and other components available to complete your professional installation.

ITEM #	PART #	DESCRIPTION
3	A-277	Adapter—3/8" male NPT x 1/2" female NPT (Typical application—Detroit & Mack filter heads)
	A-280	Adapter—7/8" SAE straight (O-Ring) x 1/2" NPT (Typical application—Cummins/ Fleetguard filter heads)
4	A-284	Pipe Tee—Street—1/2" NPT (Steel)
5	A-289	Pipe Tee—1/2" NPT (Steel)
6	A-287	Connector—Male Flare—45° - #8 x 1/2" NPT (Brass)
	A-285	Connector—Male Flare—45° - #10 x 1/2" NPT (Brass)
	A-278	Connector—Male Flare—45° - #12 x 1/2" NPT (Brass)
7	A-281	Connector—Male Flare—45° - #8 x 1/2" NPT 90° Elbow—(Brass)
	A-283	Connector—Male Flare—45° - #10 x 1/2" NPT 90° Elbow—(Brass)
	A-290	Connector—Male Flare—45° - #12 x 1/2" NPT 90° Elbow—(Brass)
8	A-630	Adapter—5/8" Hose Barb x 1/2" NPT (Brass)
	A-652	Adapter—3/4" Hose Barb x 1/2" NPT (Brass)
9	A-631	Adapter—5/8" Hose Barb x 1/2" NPT 90° Elbow (Brass)
	A-653	Adapter—3/4" Hose Barb x 1/2" NPT 90° Elbow (Brass)
10	A-315	Mounting Bracket

5-YEAR—600,000 MILE (1,000,000 km) thermostat warranty

This warranty is expressly limited to persons who purchase Arctic Fox Shut-Off Thermostat Models S-400 T, S-440 T, S-400 ST, S-440 ST, S-400 HT, S-440 HT, S-400 BT, S-440 BT. These models are warranted against defects in materials and workmanship for a period of five years or 600,000 miles (1,000,000 km) from date of purchase by the user. This warranty does not cover thermostats which are altered or used for a purpose other than that for which it was intended or used in a manner inconsistent with any instructions regarding its use. Warranty shall be denied on any thermostat which has been exposed to fuel and/or cooling systems which were not maintained according to the recommendation of the vehicle's engine manufacturer. The exclusive remedy for any unit found to be defective under this warranty is limited to the repair or replacement of the defective unit without charge, and Arctic Fox shall NOT be liable for any consequential or incidental damages, including labor charges. In order to qualify for this warranty, the alleged defective unit must be returned directly to the Arctic Fox factory, postage or freight prepaid, and Arctic Fox will return the repaired or replaced unit postage or freight prepaid. Final determination of defects shall be made by Arctic Fox in accordance with procedures established by Arctic Fox. No agent, employee, or representative of Arctic Fox has any authority to bind any affirmation, representation or warranty concerning Arctic Fox products except as stated herein.

There are no warranties which extend beyond the description of express non-consumer product warranty as stated above. The above warranty is in lieu of any other warranty, express or implied, and expressly excludes any warranty of merchantability or fitness for a particular purpose.

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