

**INSTALLATION  
INSTRUCTIONS**

**Coolant Shut-Off Thermostat**

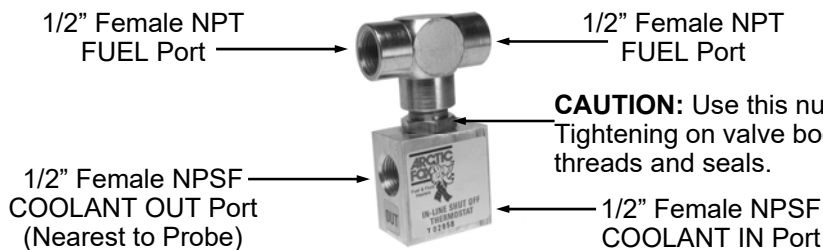
**S-400 & S-440 Model—Fuel Temperature Sensing—Coolant Shut-Off Thermostats**

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.

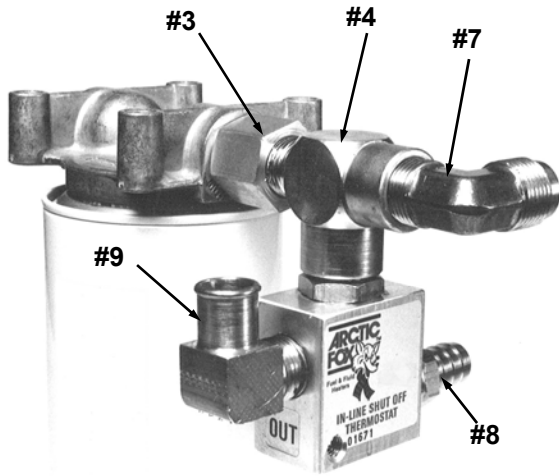
S-400 BT or S-440 BT is supplied by Arctic Fox with mounting bracket and thermostat-to-bracket attachment hardware, vehicle chassis mounting hardware is installer supplied.

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

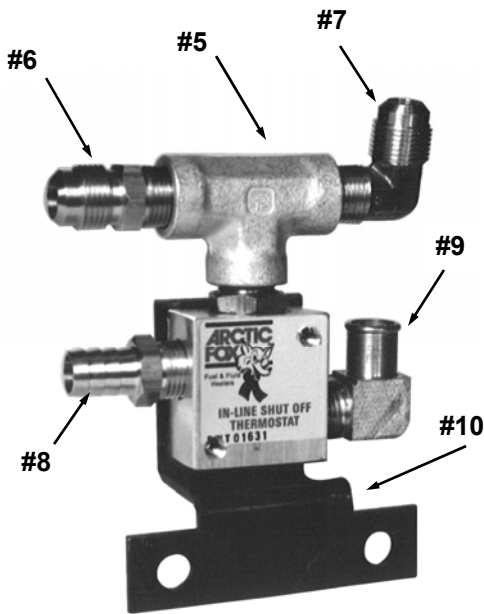
S-400 T or S-440 T or S-400 or S-440 ST may also be installed by suspending the thermostat from its TEE fitting attached to the fuel system (it is the responsibility of the installer to properly support the thermostat and fuel system components if this method of installation is chosen).

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

### WARRANTY

The Phillips & Temro Industries and Arctic Fox warranty statements are located on the website at [phillipsandtemro.com/terms](http://phillipsandtemro.com/terms)