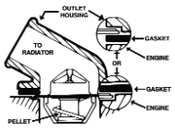
Basic Thermostats

Installation Instructions

For Most Reverse Poppet Thermostats

Caution: Failure to comply with these instructions may result in serious injury.

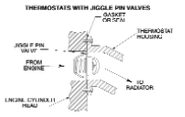
1. Allow cooling system to cool before servicing.
2. Prevent accidental starting of the engine by removing the ignition key.
3. Drain and flush cooling system.
4. Remove the outlet housing and take out old thermostat and gasket.
5. Clean gasket mounting surfaces.
6. Install thermostat with copper pellet toward engine (see installation sketch).
7. Install new gasket by aligning bolt holes.
8. Replace outlet housing. Tighten bolts evenly.
9. Refill cooling system and run engine with radiator cap removed to normal operating temperature while checking for leaks.
10. After engine has reached normal operating temperature, shut off engine and allow engine to cool and recheck coolant level. Add coolant if needed. Test radiator pressure cap and replace if needed. Install radiator pressure cap.



Off-set Thermostats

Offset Thermostats

Many Japanese and American car models now use the offset flange thermostat design as original equipment. These thermostats are equipped with a jiggle pin valve in the flange. This valve prevents air lock from occurring in the cooling system by allowing trapped air to escape while also reducing coolant leakage through the flange. Air lock and leakage hinder the operation of a thermostat during engine warm up. The offset design with the jiggle pin valve helps the engine to reach its designated operating temperature more quickly and precisely.



Installation Instructions

For Offset Thermostats With Jiggle Pin Valves

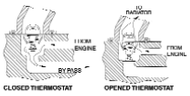
Caution: Failure to comply with these instructions may result in serious injury.

1. Allow cooling system to cool before servicing.
2. Prevent accidental starting of the engine by removing the ignition key.
3. Drain and flush cooling system.
4. Remove the outlet housing and take out old thermostat and gasket.
5. Clean gasket mounting surfaces.
6. Install thermostat so that the jiggle pin valve is positioned toward the high side of the housing with the copper pellet toward the engine (see installation sketch).
7. Install new gasket or rubber seal.
8. Replace outlet housing. Tighten bolts evenly.
9. Refill cooling system and run engine with radiator cap removed to normal operating temperature while checking for leaks.
10. After engine has reached normal operating temperature, shut off engine and allow engine to cool and recheck coolant level. Add coolant if needed. Test radiator pressure cap and replace if needed. Install radiator pressure cap.

Bypass Thermostats

Bypass Thermostats

This design of thermostats uses a bypass system to speed engine warm up. When the engine is cool the thermostat is closed. This allows coolant to circulate through the engine by way of a bypass canal located directly below the thermostat. As the engine warms up, the thermostat begins to open allowing coolant to pass through to the radiator. At the same time a lower poppet or bypass valve moves down to block the bypass canal. When the thermostat is fully open the bypass is fully blocked circulating all coolant through the radiator.



Installation Instructions

For Bypass Design Thermostats

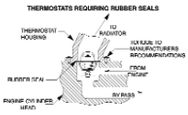
Caution: Failure to comply with these instructions may result in serious injury.

1. Allow cooling system to cool before servicing.
2. Prevent accidental starting of the engine by removing the ignition key.
3. Drain and flush cooling system.
4. Remove the outlet housing and take out old thermostat and gasket.
5. Clean gasket mounting surfaces.
6. Install thermostat with copper pellet and bypass valve toward engine (see installation sketch).
7. Install new gasket by aligning bolt holes.
8. Replace outlet housing. Tighten bolts evenly.
9. Refill cooling system and run engine with radiator cap removed to normal operating temperature while checking for leaks.
10. After engine has reached normal operating temperature, shut off engine and allow engine to cool and recheck coolant level. Add coolant if needed. Test radiator pressure cap and replace if needed. Install radiator pressure cap.

Rubber Seal Thermostats

Rubber Seal Thermostats

Many of today's thermostats require a rubber seal which mounts to the flange. In most (but not all) of these thermostat designs the rubber seal replaces the conventional fiber composition gasket.



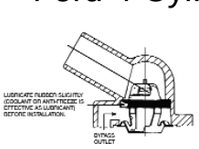
Installation Instructions

For Thermostats With Rubber Seals

Caution: Failure to comply with these instructions may result in serious injury.

1. Allow cooling system to cool before servicing.
2. Prevent accidental starting of the engine by removing the ignition key.
3. Drain and flush cooling system.
4. Remove the outlet housing and take out old thermostat and rubber seal.
5. Clean seal mounting surfaces.
6. Make sure rubber seal is installed on the thermostat flange. Insert the thermostat into the thermostat housing so that the copper pellet is toward the engine (see installation sketch).
7. Replace outlet housing. Tighten bolts evenly.
8. Refill cooling system and run engine with radiator cap removed to normal operating temperature while checking for leaks.
9. After engine has reached normal operating temperature, shut off engine and allow engine to cool and recheck coolant level. Add coolant if needed. Test radiator pressure cap and replace if needed. Install radiator pressure cap.

Ford 4 Cyl. Thermostats



Installation Instructions

Stant® 13828, 13829 Series Thermostats

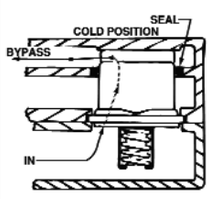
Caution: Failure to comply with these instructions may result in serious injury.

1. Allow cooling system to cool before servicing.
2. Prevent accidental starting of the engine by removing the ignition key.
3. Drain and flush cooling system.
4. Remove the outlet housing, thermostat, rubber seal and gasket.
5. Clean the gasket and seal mounting surfaces.
6. Insert the thermostat into the outlet housing, pushing firmly to properly seal the thermostat in the housing as shown in the illustration. Lubricate the rubber seal slightly (coolant or anti-freeze is effective) to help seat the thermostat in the housing.
7. Install new gasket by aligning bolt holes.
8. Replace outlet housing. Tighten bolts evenly.
9. Refill cooling system and run engine with radiator cap removed to normal operating temperature while checking for leaks.
10. After engine has reached normal operating temperature, shut off engine and allow engine to cool and recheck coolant level. Add coolant if needed. Test radiator pressure cap and replace if needed. Install radiator pressure cap.

Saturn Thermostats

Heavy Duty Thermostats

INSTALLATION
Heavy Duty Thermostats Requiring Metal Clad Seals



For best results the cooling system should be drained and flushed before new thermostat is installed.

Remove housing or casting covering the thermostat and remove old thermostat and seal.

Install new seal making sure that it is precisely parallel to the housing.

The housing counterbore where the thermostat flange fits must be cleaned and free of any obstruction that would prevent full seating of the flange.

Install thermostat per drawing. Thermostat must align with seal.

Replace housing or casting covering the thermostat.

Refill cooling system while motor is running. When motor reaches normal operating temperature, again check coolant level. Inspect all connections for leaks.