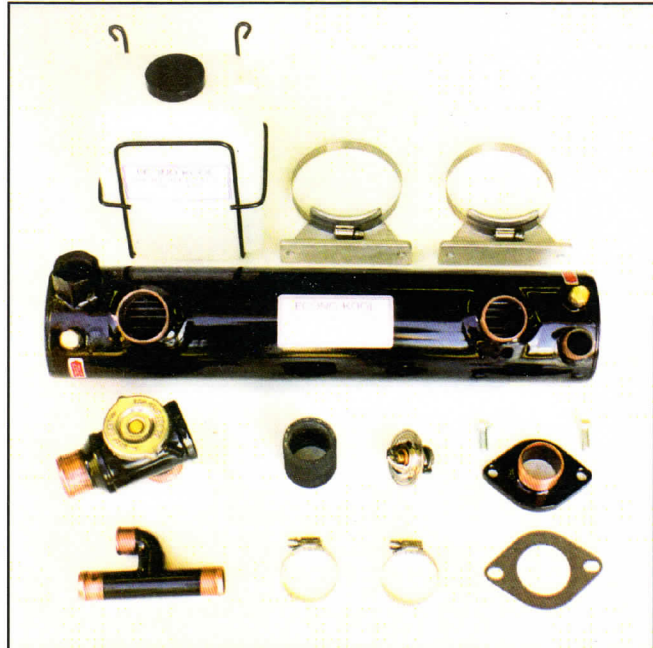


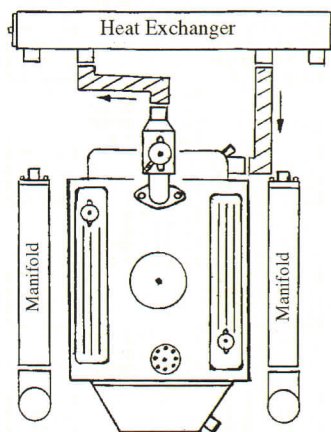
Econo-Kool

FRESHWATER COOLING KITS

1. Econo-Kool is the most economical Heat Exchanger Kit on the market today.
2. Econo-Kool kits are specially designed for the "do it yourself" installer who supplies only the hose and hose clamps.
3. Order Part No. SK 4068 for small block engines to 360 C.I.D.
Order Part No. SK 4008 for big block engines to 500 C.I.D.
Purchasers should state make (Chev, Chrysler, Ford) and C.I.D. of engine to ensure correct size.



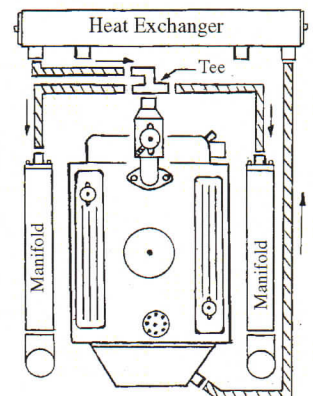
Exhaust manifolds remain on raw water system. V6-V8 engines 262-305-360 CID, both Sterndrive (I/O) and inboard. Especially designed to take advantage of the low capacity raw water pumps used on sterndrive engines. This Econo-Kool system can be installed onto engines with high mounted alternators and/or v-drives.



FRESH WATER
SCHEMATIC

Extend the life of your engine while protecting it from corrosion with this EASY TO INSTALL, quality built, and uniquely designed heat exchanger cooling system.

1. Get improved fuel efficiency through more uniform engine operating temperatures
2. Adapts to use of cabin heater in cooler climates
3. Simplifies winterizing
4. Dual zinc anodes help control electrolysis
5. Kit includes detailed installation instructions
6. Benefit of inhibiting rust antifreeze protection
7. Workmanship and materials are fully guaranteed



SEAWATER
SCHEMATIC

Modern manufacturing techniques have evolved into a less expensive assembly process, while maintaining quality. These savings are passed on to you.

Econo-Kool

Econo-Kool

#4068 & #4008

INSTALLATION INSTRUCTIONS FOR SMALL & LARGE BLOCK ENGINES.
FOR COOLING ENGINE BLOCK *ONLY*.

Read through these instructions prior to beginning installation. You may need to purchase some hose and fittings.

Note: Buyer should state make (Chev, Chrysler, or Ford) and C.I.D. of engine in order to insure the proper size and parts supplied.

1. Remove any temperature sending units from the thermostat housing. Housings are held in place by two bolts on the front of the intake manifold, ahead of the carburetor.
2. Pry loose the original thermostat housing and discard.
3. Clean gasket surface. Using the new housing, gasket, thermostat, bolts (supplied), replace the new housing. It may be helpful to use gasket sealer.

IMPORTANT! Install the thermostat with brass or copper sensor toward the engine and pointed end toward the housing.

Note: GM Engines have a recess in the intake manifold for the thermostat;
Ford & Chrysler engines use a recess in the housing for the thermostat.

4. Connect the filler cap assembly to the new thermostat housing using short 1-1/2" I.D. hose (supplied). Filler cap assembly may be swiveled to point at 1-1/2" water connection on the heat exchanger.
5. Heat exchanger must be mounted below fresh water pump inlet using mounting brackets (included). The best location is on the stringers across the front of the engine. The 1" pipe thread on the heat exchanger should be to the starboard side and hose connections pointing up. Second choice of locating the heat exchanger is along the starboard side of the engine with 1" pipe thread to the aft.
6. Mount the overflow recovery tank. It may be mounted in any convenient location. The small hose connection on the filler cap assembly must connect to the bottom hose connection on the recovery tank using clear plastic hose (supplied).

7. Connecting hose fittings:

RAW WATER (see saltwater schematic)

Using a hose-to-thread adaptor (not supplied), connect raw water supply to 1" threaded port on the heat exchanger. Raw water may come from the stern drive or an engine-mounted pump. An engine with oil coolers (power steering, transmission, or engine oil), should have raw water going through them and be between the heat exchanger and the water source.

The 1" hose connection on the heat exchanger is raw water out of the heat exchanger. Using 1" I.D. hose, connect this hose fitting to a raw water tee. The 1" hose should be long enough to place the tee up between the exhaust manifolds.

Side hose connections on the tee connect to each exhaust manifold.

8. Hosing the fresh water connections:

(see Fresh Water Schematic)

Filler cap assembly's 1-1/2" hose connection must connect to 1-1/2" hose connection on the heat exchanger. There is supplied a 1-1/2" x 90 degree elbow that may be useful to make this connection.

The 1-3/4" O.D. hose connection on the heat exchanger must connect to the engine water pump. The 1-3/4" x 90 degree elbow (supplied) may be useful to make this connection.

Note: Volvo engines and some Mercruiser engines are equipped with an engine-mounted seawater pump. If so, connect pump discharge to threaded 1" NPT pipe thread on heat exchanger. Stern drive pump impeller must be in good condition to properly supply water to heat exchanger. A properly pumping impeller will deliver approximately 10-12 G.P.M. Manifold and riser must be free of rust scale to allow seawater to exit. Most problems occur when you start-up in the springtime after boat has been idle during the winter.

Note: An Auto Parts store usually has a good selection of curved hoses & flex hoses which may be helpful in making these connections.

9. By-pass connections:

Using the 1/2" NPT pipe nipple, pipe cross, and 5/8" to 1/2" NPT hose adaptor, screw into the intake manifold near the thermostat so 5/8" hose points forward. The temperature sender and alarm senders should be screwed into the cross, or plug with pipe plug.

Remove the pipe plug on the water pump, just above the large hose connection, and screw in the other 5/8" x 1/2" NPT hose adaptor. Connect this to the cross by using 5/8" I.D. hose.

If a hot water heater or cabin heater is used, it should be connected in this circuit. Heater and heater hoses must always be below the filler cap on the engine when your boat is at a running angle. Do Not use a shut-off valve in this by-pass circuit.

10. Fill engine with coolant. A maximum of 50/50 antifreeze solution is recommended. Do not mix stronger. Leave fill cap off until the engine warms up at 1000 to 1200 rpm at a fast idle. Once the engine warms, replace the filler cap.

Fill the overflow recovery tank to HOT level.

Note: Re-tighten hose clamps after first engine warm up.

11. Be sure engine is operating properly before leaving the dock. It is the operator's responsibility to watch your temperature gauge. Normal temperature should be 160 degrees, although most electric gauges are not very accurate. After the first trip, the operator should know what a "normal" reading is on their gauge.

Check zincs every 25 hours of operation.

If assistance is required, telephone 360-734-2788; reference either 4068 or 4008.

PARTS LIST FOR
ECONO-KOOL

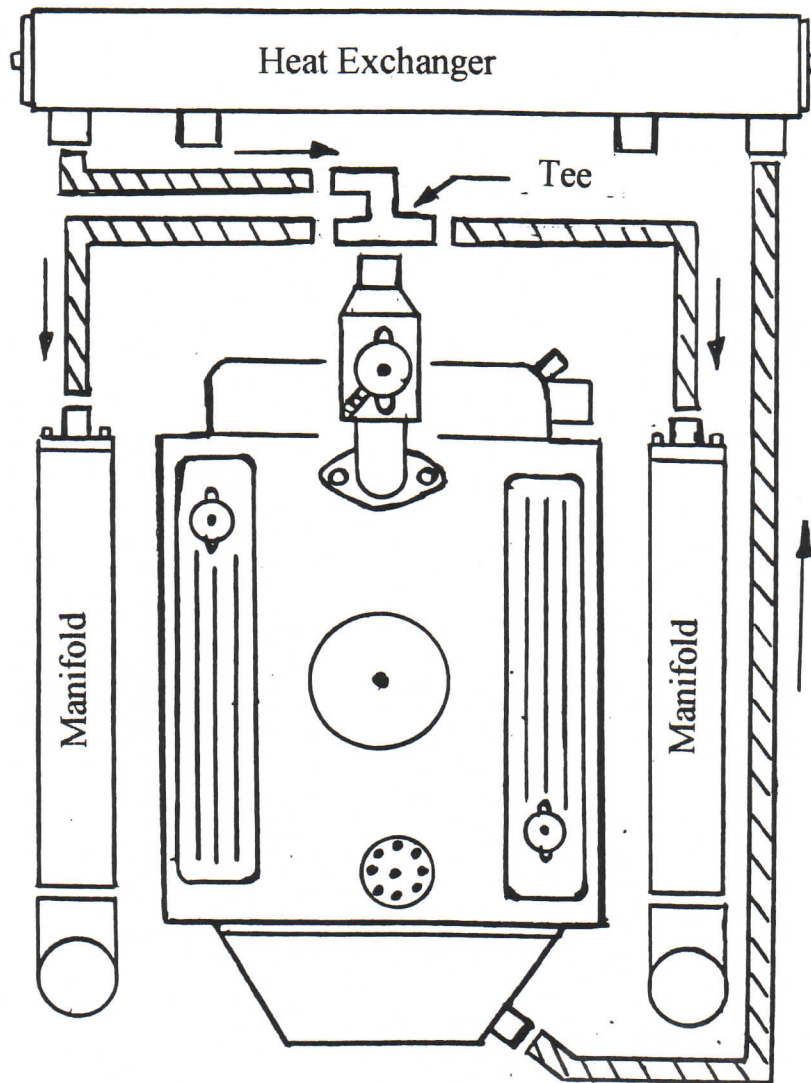
#4068 *SMALL BLOCK ENGINE V-6 & V-8*

#4008 *BIG BLOCK ENGINES V-8*

- One Heat exchanger 4" x 18-1/4" long-3 pass for #4068,
or
Heat exchanger 4" x 25-1/4" long-3 pass for #4008
- Two Heat exchanger mounting brackets w/clamps
- One Overflow recovery tank
- One Filler cap assembly w/14# cap
- One Thermostat housing w/gasket & bolts
- One Thermostat 160 degrees
- One Sea water divider tee
- One 1-1/2" x 2" hose w/clamps
- One Pipe cross
- One Pipe nipple
- One Pipe plug
- Two Hose-to-pipe fittings (for by-pass)\
- One 1-1/2" x 90 degree elbow
- One 1-3/4" x 90 degree elbow
- Instruction Sheet

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ECONO-KOOL



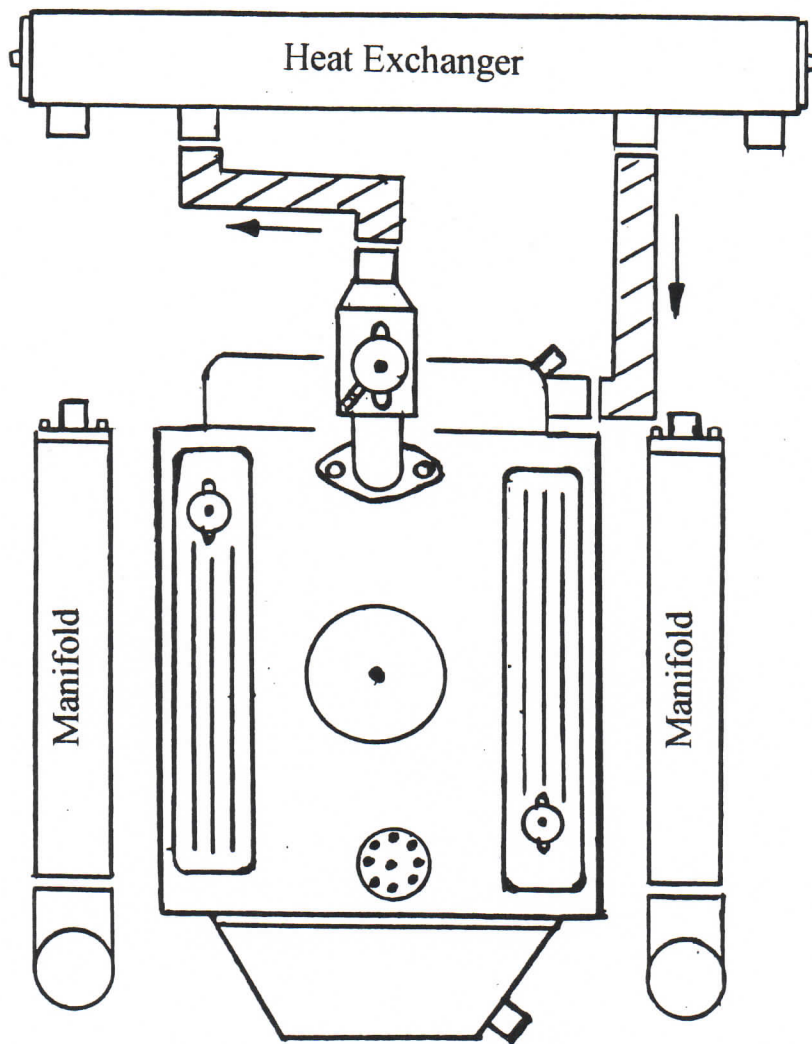
SEAWATER SCHEMATIC for *V-8 ENGINES, MERCUISER, OMC & VOLVO*

Note: Volvo engines and some Mercruiser engines are equipped with an engine-mounted seawater pump. If so, connect pump discharge to threaded (1" N.P.T.) pipe thread on heat exchanger.

Stem drive pump impeller must be in good condition to properly supply water to heat exchanger. A properly pumping impeller will deliver approximately 10-12 G.P.M.

Manifold and riser must be free of rust scale to allow seawater to exit. Most problems occur when you start-up in springtime after boat has been idle during the winter.

ECONO-KOOL



FRESH WATER SCHEMATIC for
V-8 ENGINES, MERCURISER, OMC & VOLVO
COOLING OF ENGINE BLOCK ONLY