ORCA MARINE COOLING SYSTEMS BELLINGHAM, WA 98226

260 Mercruiser Installation Instructions 300083 76 - 78 Full system

- 1. We recommend you disconnect the battery before working on the engine. Drain the system according to your owner's manual. Remove hoses at the thermostat housing and bend them out of the way. Remove and discard the 1-3/4" hose. Remove the thermostat housing and thermostat, clean the surface and secure the KA-118A water outlet in place with the gasket underneath. **DO NOT REPLACE THE THERMOSTAT HERE.**
- 2. Remove the temperature sending unit located in the intake manifold just starboard of the thermostat boss. Replace with the $1/2 \times 2$ brass nipple and then thread on the 1/2 brass tee with the center leg facing to starboard. The 5/8H x 1/2M brass elbow will go in the top of the tee and the sending unit will thread into the side opening.
- 3. Remove the 1/2" plug from the side of the circulating pump and replace it with the 1/2" x 5/8" brass hose barb. Use the 5/8" x 16" wire hose to connect the two hose barbs unless you are installing a heater.

HEATER INSTALLATION: Connect the inlet side of the heater to the elbow on the top of the tee. The outlet side from the heater will connect to the fitting on the circulating pump.

- 4. Install KA131 bracket in the upper, inner hole in the head on the port side of the engine and the KA132 bracket in the outer, upper hole in the head on the starboard side.
- 5. Remove the exhaust elbows from the manifolds. Carefully clean the surfaces and install the new block-off gaskets provided. Replace the elbows.
- 6. Slip the 1-3/4" x 3" non-wire hose and existing clamp over the circulating pump fitting. Insert the double elbow into the hose and clamp it so the end is upright.
- 7. Stick the cushion tapes to the brackets and set the heat exchanger in place. Secure with clamps provided. Use the 1-3/4" x 8" non-wire hose and clamps to connect the heat exchanger to the elbow attached to the circulating pump.
- 8. Thread the 1-1/4" raw water hose between the block and the gas filter up to the heat exchanger. Measure, cut and install with the existing clamp.

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- 9. Bring up the 1" hoses from the lower, inside rear fittings on the exhaust manifolds and connect them to the 1" fittings on the KA-118A water outlet. The existing 1" hoses from the top front of the exhaust manifolds will have the inline thermostats spliced in and connected to the 1" fittings on the expansion tank. The arrows on the inline housings will point towards the heat exchanger expansion tank. Secure with clamps.
- 10. Remove the hoses on the inside of the exhaust elbows. Connect the 1" \times 3" hose to the starboard leg of the copper tee and the 1" \times 15" hose to the port. The 1-1/4" \times 28" hose will connect the tee to the heat exchanger and the hoses can then be secured to the exhaust elbows with the clamps provided.
- 11. Check all clamps for tightness and that no hoses are kinked or will touch moving parts. Fill system with a maximum 50/50 mix of antifreeze and distilled water. Idle to temperature and top off if necessary.

CAUTION:

INSTALLATION OF THE COOLANT RECOVERY BOTTLE IS CRITICAL TO THE OPERATION OF THIS SYSTEM.

IT MAY BE INSTALLED ANYWHERE BUT MUST MAINTAIN THE LIQUID LEVEL IN THE BOTTLE BETWEEN THE WARM AND COLD LINES AT ALL TIMES.

THE RECOVERY BOTTLE ALLOWS FOR EXPANSION AND CONTRACTION OF THE ANTI-FREEZE SOLUTION IN NORMAL OPERATION AND HELPS KEEP THE SYSTEM FULL.

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