

TO: SERVICE MANAGER MECHANICS
PARTS MANAGER

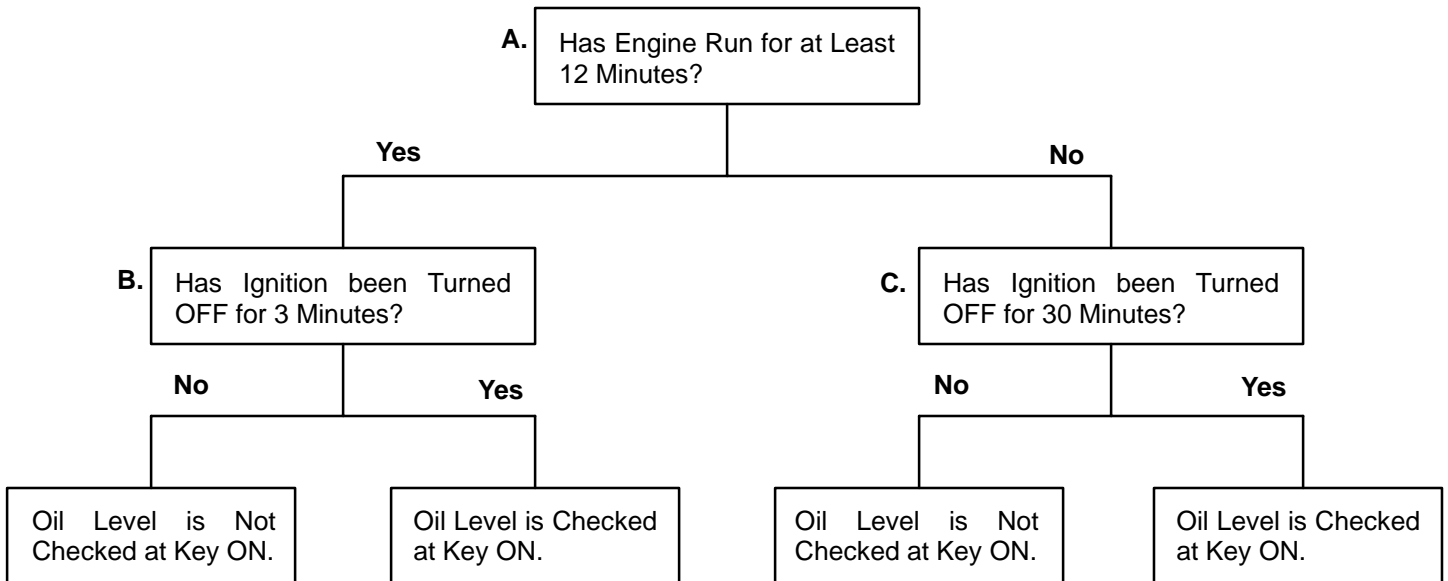
No. 91-2

MERCUISER HI-PERFORMANCE SERIES

LOW OIL LEVEL WARNING SYSTEM

Operation

1. The low oil level system consists of a module and a sensor. The module monitors the sensor for low oil level. The module is wired into the audio-warning system to activate the horn when it senses low oil level. The module also contains a diagnostic check of the audio-warning system. The horn will sound for 2 seconds each time the key is turned to the run position. Because of this feature, boat companies should be informed to use key switches with an accessory position or an accessory panel on the dash wired separately from the key switch. All boat accessories should be wired to accessory position of the key switch or accessory panel.
2. The fused red lead from the oil level module must be wired directly to the battery. The oil level module must have a constant (uninterrupted) 12-volt source at all times for the module to work properly.
3. Oil level is checked only when the ignition key is turned on, and only according to the following logic:
Horn will always sound for 2 seconds at key "on" regardless of engine on/off times.



NOTE: If oil level is okay, horn will stop after the 2 second diagnostic check. If oil level is low and above conditions are met, horn will continue after the 2 second diagnostic check.

4. The oil level module uses the above logic for the following reasons:
 - a. 12 minutes - after 12 minutes of engine operation the oil will be at normal operating temperature.
 - b. 3 minutes - the time it takes oil at normal operating temperature to drain from top of engine back to the oil sump.
 - c. 30 minutes - the time it takes cold oil to drain from the top of the engine back to the oil sump.
5. The oil level sensor checks the oil level in the sump, per the above logic, when the key switch is turned to the run position. It does not constantly monitor oil level during boat operation. The oil level sensor replaces the oil pressure switch in the audio-warning system. An oil pressure gauge is strongly recommended and should be monitored by the boat operator. Normal oil pressure at 2000 RPM is 30-70 PSI (207-483 KPA).

The oil level warning system is wired into the audio-warning system. If the operator gets a continuous warning horn after the 2 second diagnostic time and the oil level is okay, the rest of the audio-warning monitored components should be checked. If the horn goes off during operation, the rest of the audio-warning monitored components should be checked.

⚠ WARNING

The oil level sensor is a consumer friendly warning system to alert the boat operator of low oil level in the engine sump. However, it is not a substitute for manually checking the oil level with the engine dipstick before leaving the dock and every three hours of operation.