

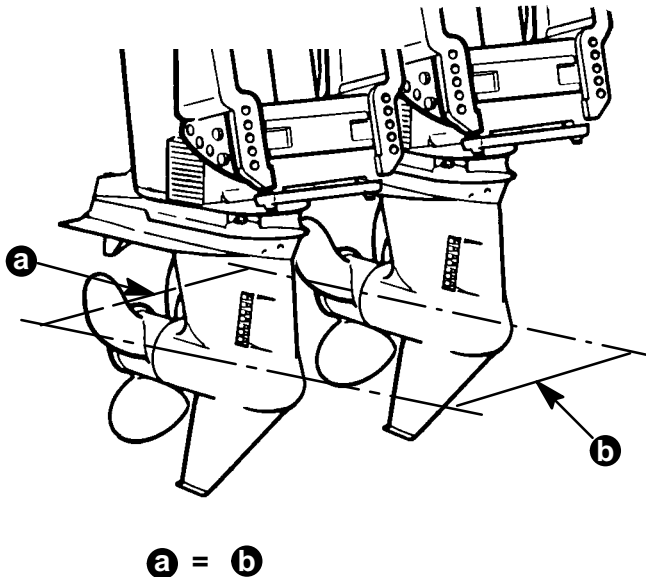
## OUTBOARD INSTALLATION – 135 THRU 200 HP

This bulletin address several areas of concern that affect dual V-6 Mariner and Mercury installations.

### DUAL OUTBOARD CENTERLINE SPACING

Mariner and Mercury dual installations should be installed with the outboard motors parallel to the centerline of the boat.

The propshaft centerline dimension (a) must equal the distance measured at the leading edge of the gearcases (b).



### QUICKSILVER MIRAGE PROPELLER USE ON MARINER/ MERCURY 135-150-175-200

The Mirage propeller line is generally not recommended for these V-6 outboard applications, except for offshore applications.

In offshore applications, where the propeller is run fully submerged, the Mirage propeller will hold better in heavy seas and allows the boat to remain on plane at a lower throttle setting. Acceleration and possibly top speed may be slightly reduced.

### STAINLESS STEEL TILT PIN - P/N 17-49930 A1

Some boats, particularly bass boats, are designed with a transom angle of more than 12 degrees, which allows the outboard to be trimmed "in" or "under" further. This improves acceleration and reduces the time to plane, and will aid a heavily loaded boat.

Once on plane, the outboard should be trimmed out to avoid a bow-steer condition. This condition, when attempting a turn or encountering a diagonal, moderate wake, may result in a more abrupt turn than originally intended.

To limit the amount of trim "in" or "under", a stainless steel tilt pin, (P/N **17-49930A1**) is available. Trim "in" can be limited to the minimum transom bracket trim hole desired.

NOTE: The shipping bolt should not be used in this application other than on a temporary basis. The shipping bolt is not corrosion resistant and is not designed for long term use as a trim limit pin.

### TRANSOM MOUNTING BOLTS

Because of the variance in transom thicknesses, several lengths of outboard transom mounting bolts are available.

P/N **10-814259** 1/2-20 x 4.00 in. (102 mm) long.  
2 1/4 in. (57 mm) thread length.

P/N **10-67755--1** 1/2-20 x 4 1/2 in. (114 mm) long.  
2 1/4 in. (57 mm) thread length.

P/N **10-67755--2** 1/2-20 x 6 1/2 in. (165 mm) long.  
2 3/4 in. (70 mm) thread length.

NOTE: The 4 1/2 in. (114 mm) length is shipped with each outboard.

Use the shortest bolt possible for your particular installation to avoid interference with steering, remote cables, etc. Refer to the Installation Manual for correct bolt installation.

Marine grade brass nuts (P/N **11-91962**) and stainless steel backing washers (P/N **12-28421**) are available for use with the above transom mounting bolts.

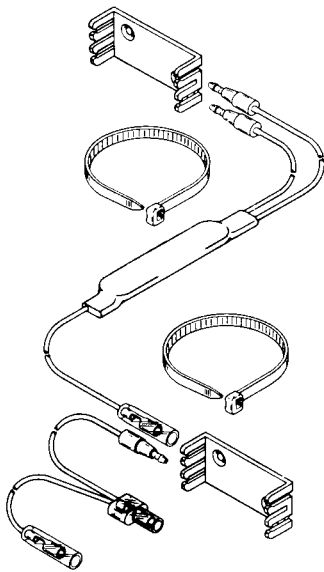
## EXTRA LENGTH OIL RESERVOIR LINES - P/N 41729A3

If boat design requires locating the V-6 Remote Oil Reservoir beyond the reach of the oil hose shipped with the outboard, a 30' oil hose is available. Order P/N 41729A3 Oil Hose Extension Kit. The kit includes instructions to remove/ replace the oil hose connectors from the original oil hose.

## USE OF LANYARD SWITCH (P/N 87-814324A2) ON DUAL STANDARD (RIGHT HAND) ROTATION OUTBOARDS

If an installation involves dual standard (right hand) rotation outboards, a diode kit (P/N 812497A2) is available to allow a single lanyard stop switch control two outboards.

The diode kit is standard equipment with a counter-rotation outboard.



Diode Kit - P/N 812497A2

A dual engine Lanyard Kit is available without the diode option. This kit consists of two lanyard stop switches, order P/N 87-814324A2.

**IMPORTANT: Please refer to WARNING! on page 64 of the 1991 Quicksilver Accessory Guide for information on the advantages and disadvantages of a Lanyard Stop Switch.**

## TROUBLESHOOTING OUTBOARD/ BOAT ELECTRICAL PROBLEMS

Electrical problems often can be troublesome and time consuming to find and correct.

Electrically isolating the outboard from the boat will often help.

A 2 ft. Ignition/Choke Assembly, P/N 84-816626A2, can be used as a troubleshooting tool to remotely start and run an outboard. Unplug the harness(es) routed to the console and plug in the 2 ft. harness at the outboard. If the outboard starts and runs, the electrical problem is upstream from the outboard and a process of elimination should find the problem in short order.

## IMPORTANCE OF OUTBOARD BREAK-IN

Proper break-in of an outboard motor will assure all moving parts "wear-in" evenly to assure long engine life and optimum performance,

The Operation and Maintenance Manual ("Owner's Manual") shipped with every outboard specifies the recommended break-in procedure.

If you have a Mariner or Mercury or Force outboard(s) rigged for test and evaluation, demonstrations, photo work, etc., follow the procedure as specified to assure best performance and engine life.

## WIRING HARNESS DIELECTRIC GREASE

A silicon dielectric grease, P/N 92-823506A1 is available for sealing wiring harness plug connections (outboard to key/ choke harness, for example). This grease effectively seals out water and moisture condensation for a watertight corrosion resistant electrical connection.

## LIQUID NEOPRENE WIRING SEALER

A Liquid Neoprene Sealer, P/N 92-25711--2, is available for sealing wiring connections under cowls, at gauge connections, or at other accessory connections where moisture may affect operation and electrical continuity.