



service bulletin

No. 88-4

A. Crankshaft Supersession – V6 Outboards Model 135/150/200

B. Proper Torque – Switch Box Mounting Screws – Model 50/60/115

C. Remote Control Shift Cable Adjustment – 1988 Model Magnum II and XR4

A. CRANKSHAFT SUPERSESSION – V6 OUTBOARDS MODELS 135/150/200

Model V135/150 crankshaft P/N 455–8744A2 has been superseded by V200 crankshaft assembly (with upper end cap bearing and center main bearing) P/N 455–8745A5. DO NOT use the original V135/150 upper end cap bearing, (a) Figure 1, or center main bearing assemblies, (b) with crankshaft P/N 455–8745A5. Use only the end cap bearing and center main assemblies supplied with the crankshaft.

B. PROPER TORQUE – SWITCH BOX MOUNTING SCREWS – MODEL 50–60–115

Occasionally the Mercury Marine Service Department gets complaints of loose switch boxes due to the mounting screws coming loose. When this happens, the switch boxes have an intermittent ground that can cause detonation. Therefore, it is recommended when servicing a 50–60 or 115 horsepower outboard for any reason, be certain to apply Loctite 271 to the screws and torque them to 60 lbs. in.

C. REMOTE CONTROL SHIFT CABLE ADJUSTMENT 1988 MODEL MAGNUM II AND XR4

To insure proper shifting and prolonged gear life the shift cable on the 1988 Magnum II and XR4 must be adjusted as shown below. The original instructions were incorrect in that they instructed the installer to set up the shift cable adjustment like the V6 Outboards. The correct shift adjustment procedure for the Magnum II and XR4 is to adjust like the In-Line 6 Outboards. All written instructions are in process of being corrected.

Shift Cable Installation and Adjustment to Engine Magnum II and XR4

NOTE: Attach shift cable to engine first. Shift cable is the first cable to move when remote control handle is advanced from neutral position toward in-gear position.

If remote control has a neutral lock release, secure the release in the depressed position using a piece of tape. Now you can locate the true neutral detent.

NOTE: Rotate remote control handle back and forth. You will feel three detent positions; center detent is neutral.

1. Position remote control handle in neutral detent.
2. Manually shift engine into neutral (propeller will rotate freely).
3. Adjust cable barrel to attain the same length between cable barrel and hole in end of cable guide as exists between barrel retainer and shift actuator stud, with a slight preload toward reverse.
4. Install cable barrel and place end of shift cable on shift actuator stud then place plastic washer on stud and secure with locknut.
5. If used, remove tape from control handle.
6. Check shift cable adjustment as follows:
 - a. **Shift remote control in forward gear.** Now, check prop shaft. The shaft should not be able to turn counterclockwise. If it does, adjust cable barrel closer to cable end guide.
 - b. **Shift remote control into neutral.** The prop shaft now should turn freely without drag. If not, adjust cable barrel away from cable end guide. Repeat steps a and b.
 - c. **Shift remote control into reverse as the prop shaft is rotated by hand.** The prop shaft should not be able to turn in either direction. If it does, adjust cable barrel away from cable end guide. Repeat steps a thru c.
 - d. **Shift remote control into neutral.** The prop shaft should turn freely without drag. If not, adjust cable barrel closer to cable end guide. Repeat steps a thru d.

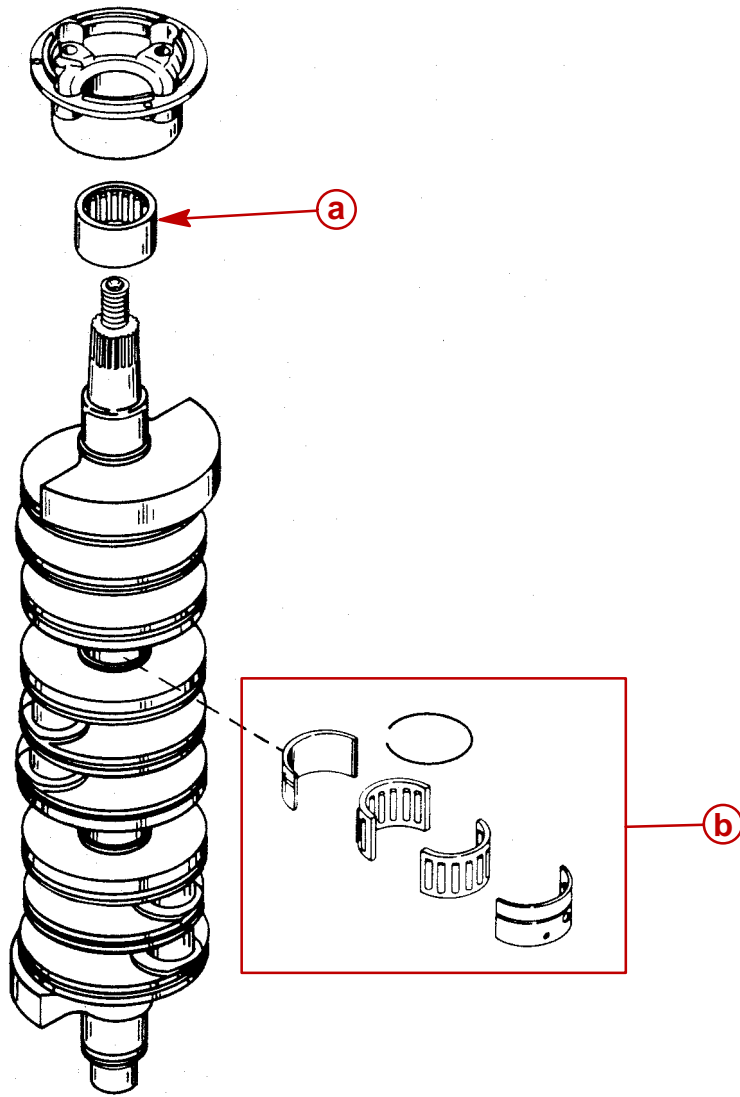


Figure 1.