No. 99-6

→ WARRANTY INFORMATION

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## Proper Shift Set-up For The Commander 3000 Classic Control When Used With Alpha One Product

## **Models**

ALL Alpha One Product with Shift Assist

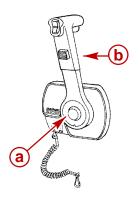
## **Situation**

When there is pre-load on the shift cable from the control box, the throttle only button may stick in a partially engaged position. This condition causes the control handle to malfunction in the <u>Advance throttle only</u> mode.

## Correction

The following procedure should be used for setting up the shift cable adjustment on all Alpha One product equipped with a Shift Assist Assembly. (The round black plastic spring loaded device that is attached to the shift plate).

After adjusting the shift cables per Service Manual #14 (90-818177--2) make sure that the handle on control box is placed in the neutral position. (Shown below)

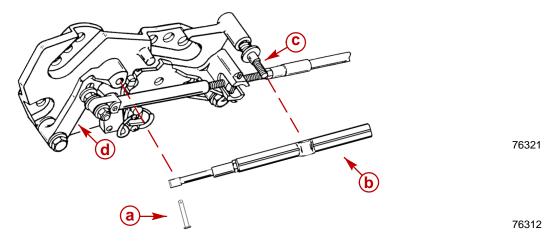


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a - Throttle Only Button

**b** - Shift Handle (Neutral Position)

Now the Shift Assist Assembly must just slip over the stud on the shift plate assembly and the clevis pin must insert into the shift lever and the control cable with no effort. (The shift assembly should not require compression or extension to fit onto the shift plate with the control handle placed in neutral position.)

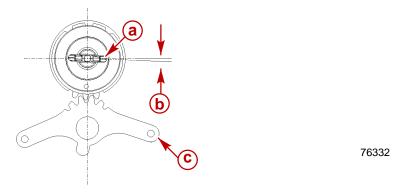


- a Clevis Pin
- **b** Shift Assist Assembly
- c Shift Plate Anchor Stud
- d Shift Lever

There should be no pressure on either side of the shift assist assembly attaching point. Failure to adjust properly could apply excessive load to the cable and cause the throttle only portion of the control to hang up and malfunction.

If the shift assist assembly requires effort to fit over the anchor stud and clevis pin, the shift cable from the control box is adjusted incorrectly. Remove the shift cable and reposition the adjustment barrel as required to allow the shift assist assembly to be attached with no effort.

Excessive cable preload causes misalignment of the throttle only drive pin (a) in the center hub assembly so that it is not in the true neutral position. This does not allow the button to pop out because of interference with the shift gear when the slots are not in alignment. If the button is not all of the way popped out and the handle is forced, the lock ring is carried along with the shift gear. This will damage the housing notches or break the lock ring. When everything is in true neutral (no tension / compression) with the slots lined up, the throttle only button should pop out just fine.



- a Throttle Only Drive Pin
- **b** Excessive Cable Preload
- c Shift Cable Force (Tension or Compression)

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