

# Uneven or Increased Handle Effort After Control Installation – Commander 3000 Classic Panel Mount Remote Control

## **Models Affected**

Commander 3000 Classic Panel Mount Remote Control

**Remote Control Part Numbers** 

827270A41	827270A47
827270A42	827270A48
827270A43	827270A49
827270A45	827270A57
827270A46	827270A58

Box date code 6/1/2001 (June 1, 2001) thru 7/7/2002 (July 7, 2002).

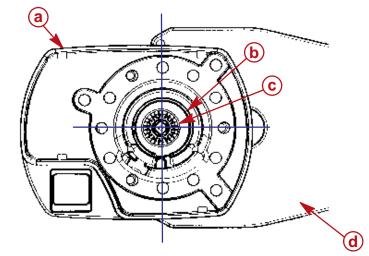
P/N 827270A\_\_\_ ASSEMBLED IN MEXICO PLT. 22 6/1/2001 11:48:11 S/N 1234

# Situation

If the amount of effort required to shift the control handle of an affected Commander 3000 panel mount control seems high or feels uneven (easier to shift from neutral to forward or from neutral to reverse and then harder in the opposite direction), the control's bezel may have been misaligned during installation. This condition may be caused by tightening the remote control module to the bezel plate with the remote control handle shaft not properly centered in the bezel plate hub opening. This may occur if the handle is placed into the bushing and bezel opening with the brass handle retaining nut tightened to 17 Nm (150 lb-in.). The handle hub may then rotate in a slightly non-concentric manner, causing the handle to drag or bind in one direction but not the other. If this misalignment condition is extreme, the handle may feel tight in both directions.

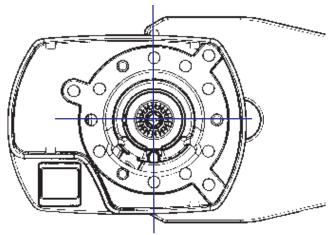
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**Misaligned Condition** 



- a Bezel
- **b** Handle Hub Opening
- c Handle
- d Remote Control Module

#### **Properly Aligned**

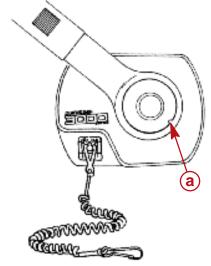


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### Correction

This procedure may be followed when installing the control for the first time or if this condition is found after the control has been completely installed.

**NOTE:** Verify that the control handle friction screw located on the hub of the bezel plate is backed off before checking for this condition.



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a - Control Handle Friction Screw Location

With the shift and throttle cables disconnected from the engine end, rotate the shift/throttle handle to the full throttle positions (both forward and reverse), feeling for handle rotation that is even in both directions. If the handle effort is higher in one direction over the other, remove the throttle only button and the handle nut. Pull off the control handle then remove the bezel cover plate. It is not necessary to remove the trim wiring, just pull the handle assembly out from the bezel and leave the wiring connected.

**NOTE:** Refer to the remote control installation manual for proper control handle removal procedures.

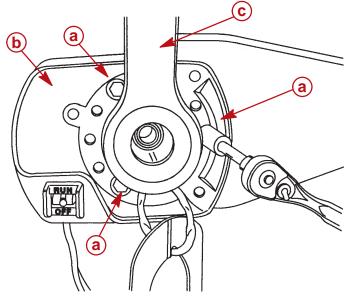
Loosen the (3) 1/4-20 screws securing the module assembly to the bezel plate just enough to allow for module free movement.

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Hint: The following instructions are written assuming the original control handle is being used. However, using a spare control handle as an alignment tool makes this procedure easier. You may leave the original handle assembly hang while performing the centering procedure.

Pull the trim switch harness out far enough to allow slack and let the bezel cover plate hang.



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- a Mounting Screws (3)
- b Bezel
- Remote Control Handle

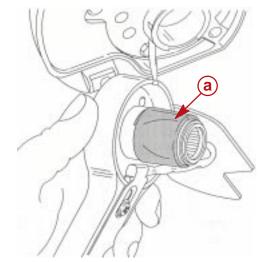
Place the handle hub bushing back into position in the bezel plate opening. Using the handle hub as a centering tool, and with the bezel plate cover out of the way, push the handle hub in firmly towards the module letting the module align itself with the bezel plate. Using a  $\frac{1}{4}$  in. drive 7/16 in. deep well socket and a short extension, begin tightening one or two of the 1/4-20 screws just enough to loosely draw the module up to the bezel plate while rotating the handle back and fourth several times, allowing the module to center itself into position.

Remove the handle assembly and finish tightening the (3) 1/4-20 screws securely. Install the bezel cover plate and handle assembly back into position. Place a small drop of Loctite 271 (only needed if the original locking material seal was broken) onto the brass handle nut threads and tighten to 17 Nm (150 lb-in.). This procedure should help improve the component alignment and reduce or even out the normal handle friction rate. The handle should now rotate in both directions with the same amount of effort. Reconnect the throttle and shift cables at the engine end.

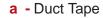
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### **OPTIONAL HANDLE CENTERING AID**

Wrapping a temporary piece of duct tape around the handle hub two times will help center the module to the bezel opening even quicker and may not require rotation of the handle. If used, don't forget to remove the tape before securing the handle to the module for the final assembly.



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### Warranty

This service bulletin is issued as a procedural change to be used when installing one of the listed Commander 3000 Classic Panel Mount Remote Controls into a boat. Warranty would only apply to a previously installed Commander 3000 Classic Panel Mount Remote Control that is listed on this bulletin and has the described misalignment condition.

Mercury Marine will credit the dealer for the cost of labor through September 30, 2005. Submit a warranty claim through your normal warranty processing channel, listing:

- Outboard/MerCruiser serial number
- 0.5 hour labor
- Flat Rate Code and Labor NJC 0.5
- Part Code 346
- Failure Code 00

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