

Installation Instructions

Remote Expander (Type 1)



The Remote Expander (Type 1), PN 20310017, increases the number of Remote Controls that can be used with ComNav's 1001, 1101, 1201, 2001 and 5001 Autopilots. The Expander allows control of the Autopilot to be taken at any of the Remote Controls connected to it.

- On the 2001 Autopilot, there are two Remote connectors. An Expander may be connected to either, or both, of the connectors, allowing up to eight Remotes to be used. All the Remotes connected to an individual Expander must all either be a **tiller steering** type (models 201, 211, 221, 222 or TS-202), or must all be the **power steering (push button)** type (model 101).
- The 1001, 1101, 1201 and 5001 Autopilots have one Remote connector, so up to four Remotes may be connected to those Autopilots, using the Expander. All models of ComNav Remote Controls, in any combination of types, may be used.

⇒ **Caution:** for the Remote Expander to operate correctly, the Autopilot it is used with **must** have the latest firmware. As of 12 June 2009, the latest firmware revision for each of the compatible Autopilot Systems is:

- 1001: 2.03A
- 1101: Head 3.00A, SPU 4.00A
- 1201: Head 1.00A, SPU 1.00A
- 2001: 2.08
- 5001: Head 3.01, SPU 2.01

Installation

The Remote Expander should be mounted under the dash in a **dry** location. The 10 foot cable attached to the Expander must be able to reach the rear of the Autopilot.

1. Mount the Expander using four fasteners (not provided), suitable for the surface being used; the fasteners go in the holes in the lips at the case's bottom edges.
2. Route the cable which is attached to the Expander over to the Autopilot, and plug it into the Remote connector.
3. Plug up four Remote Controls into the receptacles on the Expander.

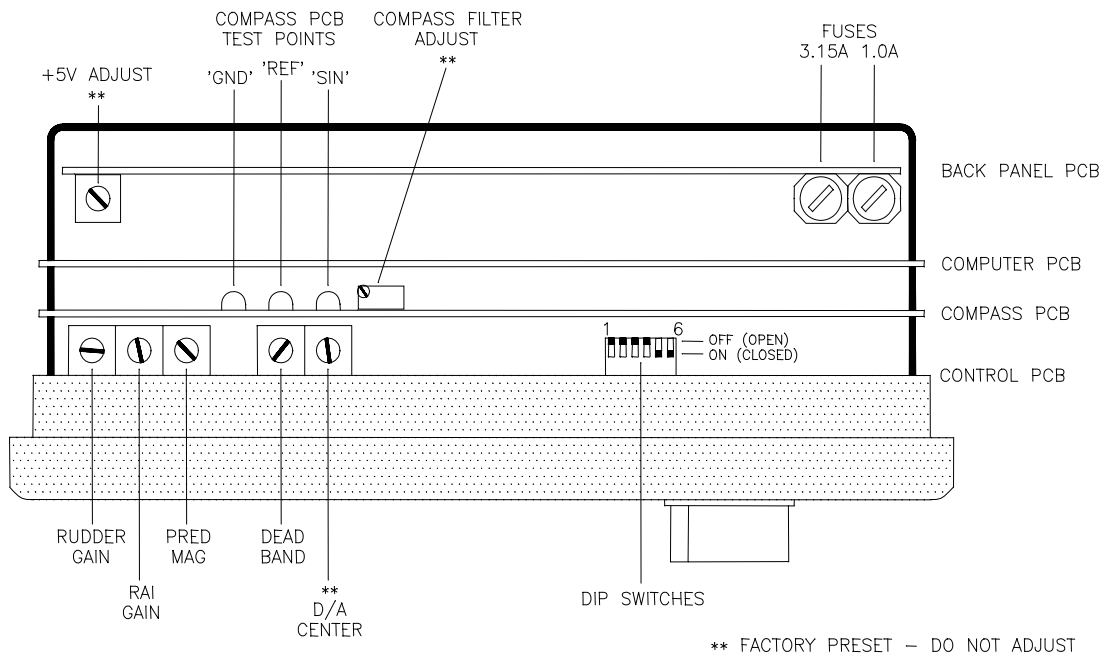
2001 Autopilot

If the Remote Expander is plugged into the 2001 Autopilot's REMOTE 1 receptacle:

- If all Remotes are the **tiller steering** type, set DIP Switch 5 to the ON¹ (or CLOSED) position. *Note: you will have to remove the backshell of the 2001 (see the figure below to locate the DIP switches).*
- If all Remotes are the **power steering** type, set DIP Switch 5 to the OFF (or OPEN) position.

If the Remote Expander is plugged into the Autopilot's REMOTE 2 receptacle:

- If all Remotes are the **tiller steering** type, set DIP Switch 6 to the ON (or CLOSED) position.
- If all Remotes are the **power steering** type, set DIP Switch 6 to the OFF (or OPEN) position.



Top View of a 2001 Autopilot (back shell removed)

¹ Both DIP Switches are ON (CLOSED) when the 2001 is shipped from the factory

Calibration

The TS202 Remote must be calibrated before it can be used with an Autopilot System, no matter whether it is connected directly to the Autopilot or through the Remote Expander.

Please refer to the TS-202's Installation & Operation manual for calibration instructions.

⇒ *None of the other models of compatible Remote Controls require calibration.*

Testing

1. Turn on the Autopilot System.
2. Choose any Remote Control. Following the usual "take control" steps described in the Autopilot's and/or Remote's Installation & Operation manual, take control of the Autopilot with the Remote you have chosen.
3. Check that the LED on the cover of the Remote Expander above the receptacle used for the Remote is illuminated.
4. Observe the display on the Remote. It should show the same display as the Control Head.
5. Check that this Remote functions normally.
6. Observe all the other Remote Controls you have connected to the Expander. Their displays should show all 8's (8=8=8=8).
7. Repeat Steps 2 - 6 on all other Remote Controls.