

5.2 Electrical Installation

The Tillerpilot operates from a 12v DC supply. It is supplied with a high quality six pin waterproof connector ready fitted, which is used to supply the power, NMEA and (where appropriate) Corus data. The mating 6-pin bulkhead socket is also supplied with the unit.

The six pin bulkhead socket should be mounted in a convenient position close to where the Tillerpilot is to be fitted, and wired in accordance with Fig 5.4.

Important - If the vessel has more than one separate battery bank, when connecting the Tillerpilot to the power supply always ensure that the pilot and all interfaced equipment - whether Corus or NMEA - are connected to the same battery bank, even though they each have independent connections to the switch panel. This is to avoid a possible voltage drop between the interfaced equipment which would render the equipment inoperative.

* Mount the bulkhead socket on a vertical surface to prevent standing water gathering around or in the socket. Always fit the protective cap when the pilot is not plugged in.

* Use a suitable gauge cable for the run from the socket to the supply (see Fig 5.5).

* Connect to the vessel's switch panel via a 10 Amp fuse or breaker.

* Do not fit other electronic or electrical equipment to this cable, or "tap into" the supply from a nearby cable - always wire each piece of equipment to its own breaker in the switch panel.

* Ensure all wire ends are tinned, and any connections are well made. Poor contact will result in loss of thrust from the Tillerpilot and slower speed of response.

* If in any doubt, employ a qualified engineer to install the equipment.

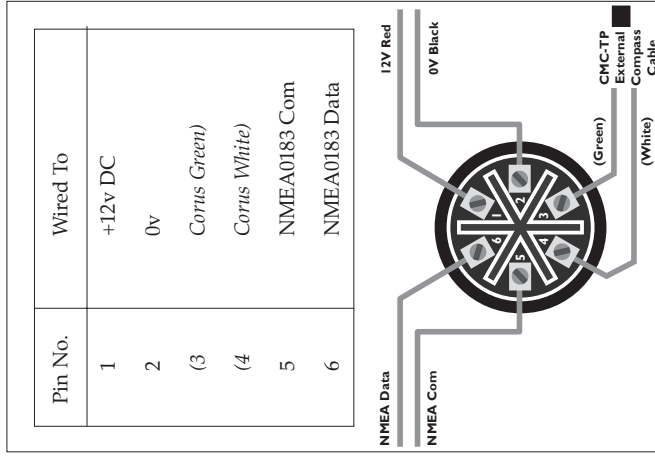


Fig 5.4 - Six pin socket connections - rear view

The Tillerpilot is linked to the ATC600 external compass via a connecting lead CMC-TP (not supplied), which is wired to the Tillerpilot bulkhead socket's Corus input (terminals 3 & 4), and then plugged into the Compass.

The CMC-TP is used purely to supply Corus data to the Tillerpilot, and does not carry any power supply. The ATC600 must always have it's own 12v power supplied via a CPC02 or CPC05 Corus Power Cable.

5.3 Interfacing Via NMEA

The Tillerpilot's state-of-the-art electronics include a built-in NMEA processor, which means that NMEA0183 compatible equipment can be connected directly to the Wheelpilot, without any need for a separate interface unit (Fig 5.6).

Due to the vast number of different manufacturers and models of navigational equipment, Simrad cannot guarantee correct operation and installation of this equipment. Therefore, before connecting any equipment to the Tillerpilot it is important that the unit's manual is referred to with regard to interfacing via NMEA.

When connecting to the Tillerpilot's NMEA interface, two wires are used - a DATA wire and a COMMON (Com) wire. These should be connected to the six-pin bulkhead socket as follows:

Pin No.	Wired To
5	NMEA-Com (-)
6	NMEA-Data (+)

It should be noted that some manufacturer's equipment does not have a dedicated Common connection. In this case, the DATA connection will usually be labelled NMEA OUT, and the NMEA Common connection on the Tillerpilot (terminal 5) should be connected directly to 0v (terminal 2). If in any doubt, refer to the manufacturer, or Simrad's Product Support department for advice.

If a navigational receiver (GPS etc) is connected to the Tillerpilot, it can extract the NMEA sentences necessary for the NavLock function to operate. Other functions such as Sail To Wind may also be available if NMEA0183 compatible equipment transmitting the correct NMEA sentences is interfaced.

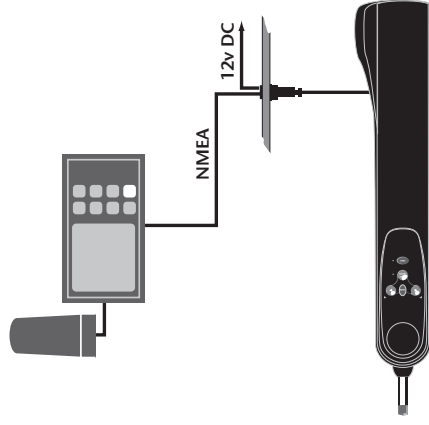


Fig 5.6 - Interfacing to Tillerpilot via NMEA