



Holding Tank Pump Out Controller

Installation and Operating Instructions

Part Numbers:

3350-HTPO Holding Tank Pump Out Controller

Introduction

The 3350-HTPO Holding Tank Pump Out Controller is designed to display the contents of the holding Tank and control the pumping out of that tank.

The 3350-HTPO is housed in a standard 2" / 52mm diameter panel gauge instrument that contains a blue LED digital display, front panel "START" and "STOP" buttons and a 10 Amp changeover relay to control the pumping out pump.

It has a standard NMEA2000 micro sized male plug to link to the NMEA2000 network and 3 x 1/4" male spade terminals to link to the pump wiring.

Safety Instructions

This instrument should only be installed by a person competent and experienced in working on electrical systems on boats.

Before beginning work the battery should be disconnected to avoid the risk of a short circuit, a fire or an explosion.

Before drilling any holes to mount the unit or to run the cabling always make sure it is safe to do so.

Mounting Options

The instrument is designed to be panel mounted in a 2" or 52mm clearance hole and requires clearance of at least 100mm behind the hole to allow for cable connections to be run without undue stress.

It is fixed to the panel by using a reversible rear mounting ring nut which can accommodate panels of up to 25mm thick.

The front of the instrument is sealed to IP67 and when correctly mounted in a panel using the supplied gasket will provide an IP67 seal to the panel.

Location and installation

The 3350-HTPO Holding Tank Pump Out Controller displays the holding tank level as a % level and controls the pumping out of that tank so it should be situated at a suitable location to facilitate those actions.

A mounting hole providing clearance for a 2" / 52mm diameter should be cut at the desired location. The instrument should be inserted from the front with its gasket. The mounting ring nut is attached at the rear and tightened sufficiently to hold the instrument securely.

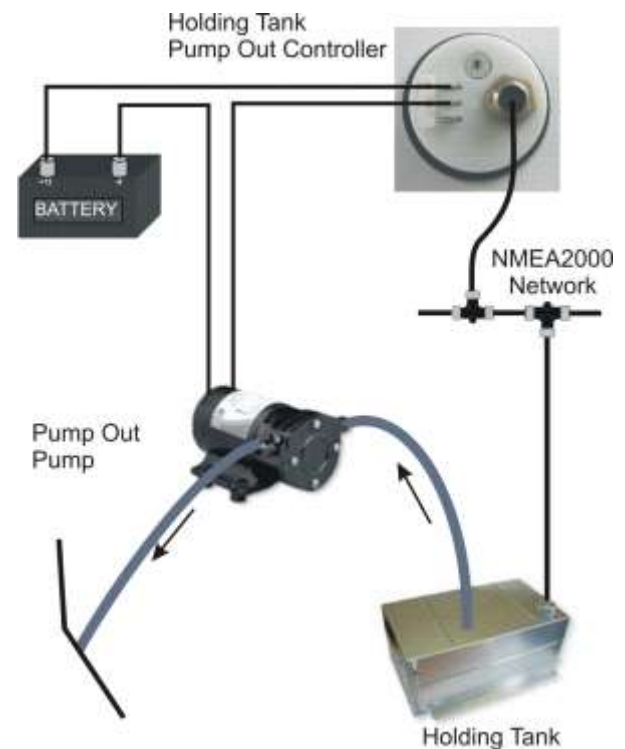
The male NMEA2000 micro plug should be attached to a Tee connector on the NMEA2000 network either directly or by using a NMEA2000 micro drop cable.

The unit address switch on the back of the instrument must be set to exactly match the unit address switch on the holding tank level sender. If this is not done then the unit CANNOT display the holding tank level or control the pump out.

The NMEA2000 network supports up to 16 holding tanks providing each tank has a different unit address. We recommend that the first holding tank be set to unit address "0", the next to unit address "1" and so on.

The gauge unit address for each tank MUST match the unit address of its tank.

The wiring to the transfer pump should be as follows:



The pump power control cables to the back of the 3350-HTPO should be connected to the “C” and “NO” terminals.

If desired this circuit could also include a key switch in series with the pump power control to prevent pump out by unauthorised persons.

Display

When power is applied to the NMEA2000 network this unit will display the holding tank level in the tank that has it's unit address switch to match the unit address switch on the back of this unit.

This display is on a three character blue LED display that shows the holding tank level as a percentage from 0% being empty to 100% being full. This LED varies it's brightness to match the ambient light level.

Operation

When the user wants to start the holding tank pump out this is done by pressing the green “START” button

The user can stop the pump out at any time by pressing the red “STOP” button.

Automatic Operation

In light of legislation concerning where and when holding tanks may be pumped out there is NO automatic pump out settable on this unit.

During Pump Out

Whilst the pump is running the red LED will flash to indicate the Tank is pumping out.

As soon as the holding tank level has been reduced to 10% then the relay will stop the pump automatically to prevent the pump from running dry. If the user wishes to pump below this level then this can be done by pressing and holding the “Start” button.

Please note that the user can stop the pump out at any time by pressing the red STOP button.

If the ship's power is removed during pump out the pump will stop. For safety reasons when the power is restored the unit will NOT restart the pump until the START button is depressed again.

Calibration

No calibration of this instrument is required.

Cleaning

The 3350-HTPO instrument can be cleaned with mild soap and water. Do NOT use solvents or abrasive or pressure washers as these could damage the front of the instrument.