## HOLDING TANK PUMP OUT CONTROLLER

Part Number: 3350-HTPO Holding Tank

Pump Out Controller

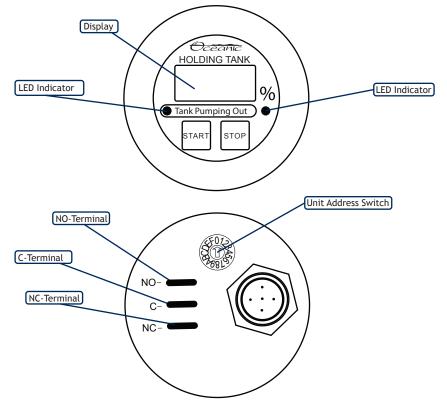
INSTALLATION AND OPERATING INSTRUCTIONS



The 3350-HTPO Holding Tank Pump Out Controller is designed to display the contents of the Holding Tank and control the pump out of the Holding 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 Transfer Pump.

It has a standard NMEA2000 $^\circ$  micro sized male plug to link to the NMEA2000 $^\circ$  network and 3 x  $^{1/2}$  male spade terminals to link to the transfer pump wiring.



### SAFETY WARNING

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.



## **INSTALLATION AND LOCATION**

The 3350-HTPO Holding Tank Pump Out Controller displays the tank level as a % level, it should be situated within sight of the helm position.

If there are multiple helm positions then multiple instruments can be installed. In this event the pump control wiring can be connected in parallel so that either instrument can control the pump out of the tank.

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.

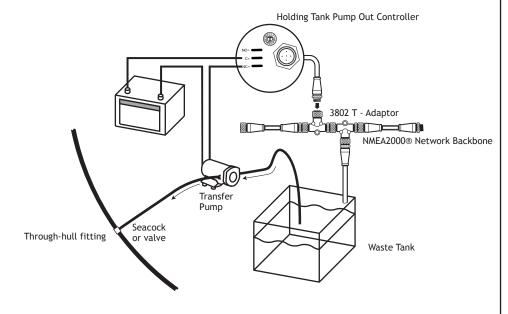
A mounting hole providing clearance for a 2" / 52mm diameter should be cut at the desired location. The instrument should be inserted from the front with it's gasket. The mounting ring nut is attached at the rear and tightened sufficiently to hold the instrument securely.

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 CORRECTLY THE UNIT CANNOT AUTOMATICALLY STOP A TRANSFER.

#### WIRING AND NETWORK

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 wiring to the transfer pump should be as follows:



The power control cables on the back of the 3350 HTPO should be connected to the "C" and "NO" terminals.

# 2 OPERATION

The 3350-HTPO Holding Tank Pump Out Controller can be operated in either Manual or Automatic modes.

### MANUAL OPERATION

When the user wants to empty a tank he simply presses the green START button which will cause the relay to start the transfer pump if the level in the Holding Tank is more than 10%.

The user can stop the transfer at any time by pressing the red STOP button.

### **AUTOMATIC OPERATION**

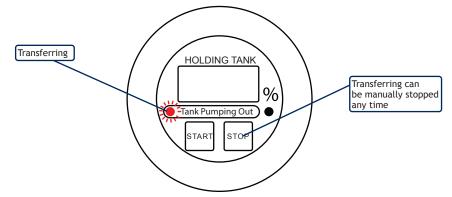
The unit is designed to automatically stop the transfer, when the level in the tank falls below 10%.

### **DURING TRANSFER**

Whilst pumping out the red LED will flash to indicate that a transfer is in progress.

As soon as the tank level has reached 10% the relay will stop the transfer automatically.

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



If the ship's power is removed during the pump out the transfer will stop. For safety reasons when the power is restored the unit will NOT restart the transfer unless the START button is pressed again or the automatic start feature is enabled and the tank level is below the user settable threshold.

### MAINTENANCE

The 3350-HTPO controller 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.

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