



# Fuel Transfer Controller

## Installation and Operating Instructions

### Part Numbers:

### 3350-FTC Fuel Transfer Controller

### Introduction

The 3350-FTC Fuel Transfer Controller is designed to display the contents of the “Day” or “Consumption” Fuel Tank and control the pumping of fuel from the storage or “Bunker” tanks into that tank.

The 3350-FTC 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 Fuel Transfer Pump.

It has a standard NMEA2000 micro sized male plug to link to the NMEA2000 network and 3 x ¼” male spade terminals to link to the transfer 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-FTC Fuel Transfer Controller displays the “Day” or “Consumption” tank level as a % level and so it should be situated within sight of the helm position.

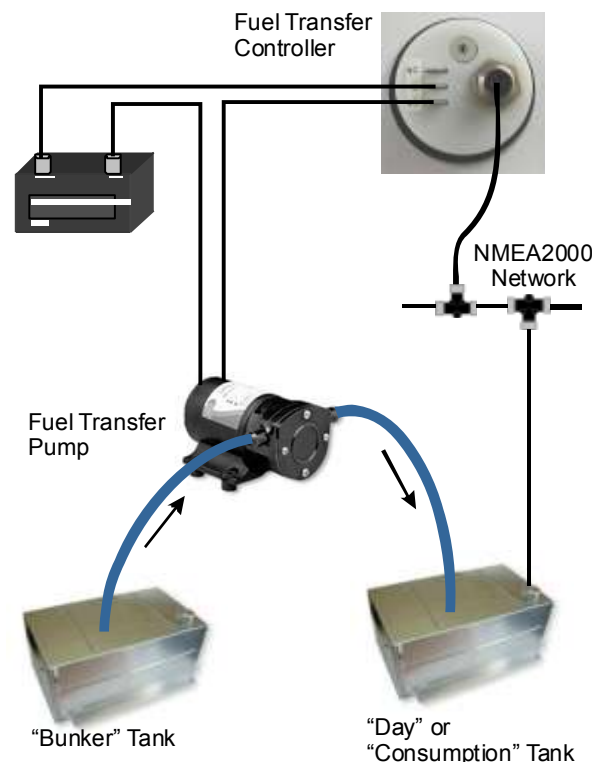
If there are multiple helm positions then multiple instruments can be installed. In this event the pump control wiring can be connected in parallel so that either instrument can control the filling of the Day tank.

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 “Day” or “Consumption” tank level sender. If this is not done then the unit CANNOT stop a transfer and a fuel spill could happen.**

The wiring to the transfer pump should be as follows:



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

### Display

When power is applied to the NMEA2000 network this unit will display the fuel tank level in the tank that

has its unit address switch exactly matching the unit address switch on the back of this unit.

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

### **Manual Operation**

When the user wants to refill the “Day” or “Consumption” tank he simply presses the green START button which will cause the relay to start the fuel transfer pump if the level in the Day Tank is less than 95%.

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

### **Automatic Operation**

The unit can be set to automatically start the Fuel transfer if the level in the Day tank falls below a user settable value. This feature can be enabled by the user setting the automatic start level to either 0%, 10%, 20% or 30%.

This is done by pressing and holding the STOP button and pressing the START button until the display shows the required start level percentage. If the value is set to 0% then the automatic start feature will remain disabled and not be functional.

### **During Fuel Transfer**

Whilst the fuel is transferring the red LED will flash to indicate that a Fuel transfer is in progress.

As soon as the tank level has reached 95% then 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 fuel transfer the transfer will stop. For safety reasons when the power is restored the unit will NOT restart the transfer unless the START button is depressed again or the automatic start feature is enabled and the tank level is below the user settable threshold.

### **Calibration**

No calibration of this instrument is required.

### **Cleaning**

The 3350-FTC 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.