Smart Switch Toilet Controller Set-Up Instructions

Model: SMF-001

The unique Smart Switch Programmable Toilet Controller was designed for all electric marine toilets with a single motor/pump flushing system. The stylish control panel provides fully automatic programmed flushing when either button is pushed. The Half Flush provides for a water/holding tank save mode. This device will turn it's own power on and off there-for drawing **no power** when not in use.

This Product has been Factory Preset and will operate without making any further adjustments.

Should you require altering these settings please follow instructions on following page's.

Programming:

Programmable Time Options:

Both Full & Half flush cycles are programmable from 1 to 240 seconds.

Factory Default: Half Flush = 10 seconds, Half Flush = 6 seconds

We recommend Full Flush is used for solids flushing and Half Flush is used for liquid flushing.

Advisory Warning

1.5 litres per flush is the recommended minimum Full Flush setting for discharge lines of less than 6 feet. Dilution is the secret to efficient waste transfer through pipes and must be considered when programming your timer. Increase your flush volume appropriately if the discharge line is greater than 6 feet in length."

Programming the Device:

Full Flush

Press and hold, for three seconds both the Full & Half Flush buttons at the same time, the Holding Tanking LED will display three quick flashes to indicate you have entered program mode. Release both buttons. Push the Full Flush button the number of seconds required for the cycle e.g. (If you need a 12 second Full Flush cycle then push the Full Flush button 12 times) the LED will give one quick flash for each valid key push, now push the Half Flush button the device will program itself give three quick flashes and automatically exit out of program mode.

Half Flush

Press and hold, for three seconds both the Full & Half Flush buttons at the same time, the Holding Tanking LED will display three quick flashes to indicate you have entered program mode. Release both buttons. Push the Half Flush button the number of seconds required for the cycle e.g. (If you need a 6 second Half Flush cycle then push the Half Flush button 6 times) the LED will give one quick flash for each valid key push, now push the Full Flush button the device will program itself give three quick flashes and automatically exit out of program mode

The device is now programmed and ready for use.

Please see Over Current Protection Setup Page 4

Electrical Specifications:

Supply Voltage	=	12, 24 or 32 Volts DC (Auto-sensing)
Quiescent Current	=	Zero Amps
Input	=	EMI protected
Data Retention	=	40 years (without power)
Motor Output	=	80 Amps
Protection	=	Reverse Polarity, Over Voltage, Over Temperature, Short Circuit.

Wiring

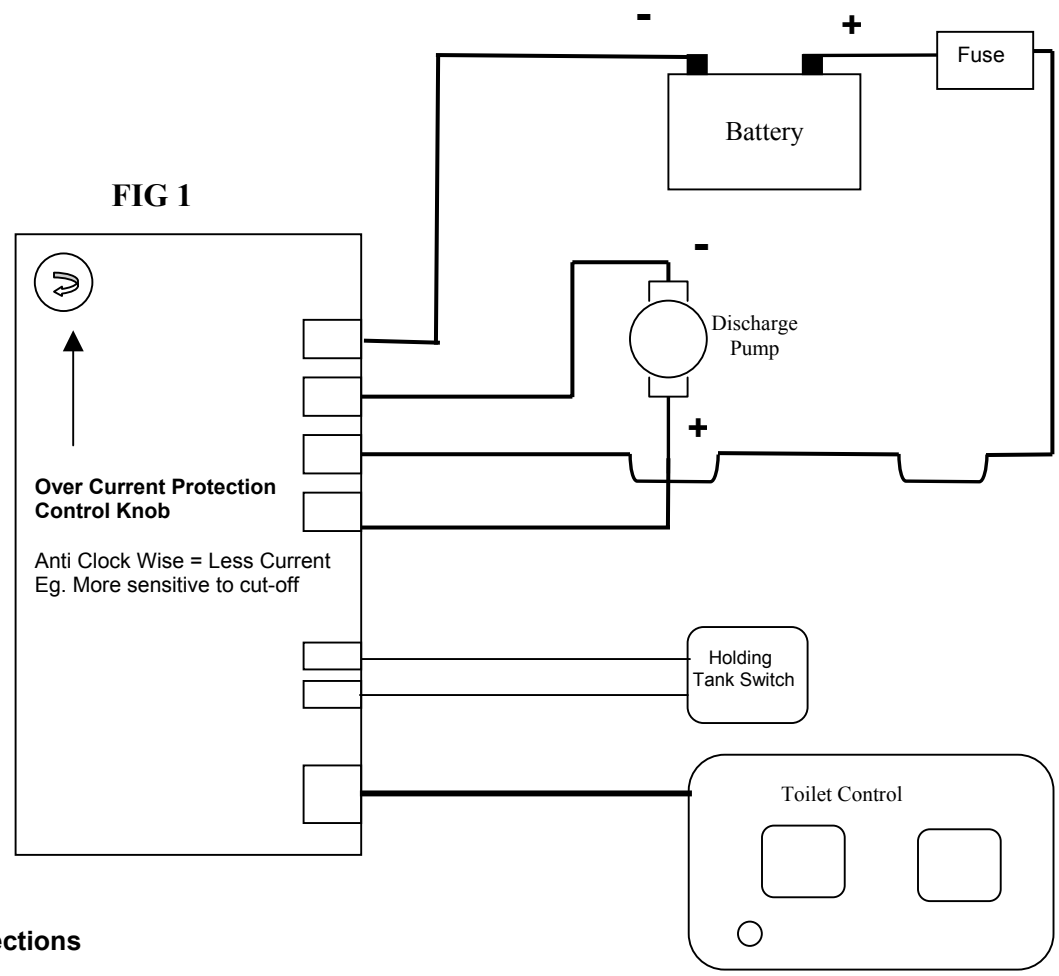
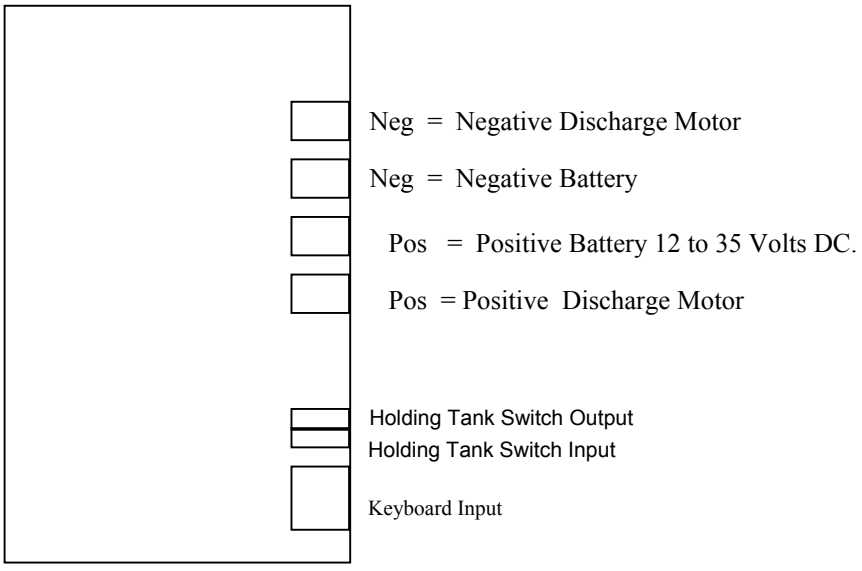


FIG 1

Connections



Full:

Pushing this button will activate the system for the programmed time.

Half:

Pushing this button will activate the system for the programmed time.

Holding Tank Full: (Optional)

If the vessel is fitted with a holding tank full sensor switch, it can be wired to the controller as per diagram FIG 1. If this sensor is on due to Tank Full it will disable the controller until the tank has been emptied. If this feature is not required leave the Float Switch Input unconnected. Note : This input is looking for a positive signal when tank is full.

ERROR CODES: **Please see NOTE 1A under Fitting Instructions**

Over Current Protection Setup:

This feature will prevent the discharge motor or wiring from burning out causing extensive and expensive repairs due to blockages.

After programming the cycle times turn the Over Current Protection Control Knob (As seen in Fig 1) fully clockwise and push the auto button to ensure the system is fully operational.

Start turning the Over Current Protection Control Knob in small amounts anti-clockwise and with every adjustment push and hold the EMPTY button for a few seconds. Repeat this until the motor cuts off and the LED flashes five times. You have adjusted to far therefore turn clockwise a small amount until the motor does not cut off. This system is now set.

Over Current Protection:

If the discharge motor jams the unit has built-in over current protection circuitry, which will cut the motor off and display **five quick flashes** on the Holding Tank Full LED and the FILL button will be disabled. Once the blockage is removed push either the AUTO button to resume the operation. If the blockage is still present the above will happen again.

Short Circuit Protection Discharge Motor:

If the discharge motor has a fault or is shorted the unit has built-in protection circuitry, which will cut the discharge motor off and display **three sets of two quick flashes** on the Holding Tank Full LED. All operations will be cancelled.

Open Circuit Detection:

If the discharge motor or wiring is open circuit the unit will display **ten quick flashes** on the Holding Tank Full LED.

Over heat protection:

The device has over temperature automatic cut-off.

Fault	LED Code	Action
Over Current Discharge Motor	● ● ● ● ●	Adjust Over Current Control Knob
Short Circuit Discharge Motor	● ● ● ● ● ●	Call authorized Dealer
Open Circuit Discharge Motor	● ● ● ● ● ● ● ● ● ●	Check wiring

" Warning "

This device should be fuse protected and mounted in a dry area as close to the Toilet as is practical. DO NOT cover the ventilation slot on the top of this device.

If the keyboard is mounted in an area where it may experience moisture or wetting, please ensure a bead of silicon is placed around the keyboard to waterproof if.

Fitting Face Panel:

Drill a small hole approx 6mm through the wall for the cable, align panel-ensuring level and fasten with screws supplied. Remove the protective film from the clip on surround panel and clean with a soft cloth. Clip in place.