

Tecma Wall Switch and Controller Troubleshooting Guide

****Problems with new or initial installation-** It is extremely unlikely there is an issue with the wall switch or controller.

Note: All electrical connections must be made before power is applied to the controller or wall switch may function erratically.

Marine Wall Switch/Controller:

- Analog Wall Switch comes in One or Two button versions
- Grey hard plastic overlay with white buttons
- Wall Switch is also the controller
- Change water level with dial on back of wall switch

Marine Wall Switch/Controller Wiring:

- Grey/ Black – Tank Sensors
- Blue/ Black – Solenoid Valve
- Brown/ Black – Macerator Pump
- Red/ Black – Power In

RV Wall Switch:

- Tan Soft button keypad that plugs into controller behind toilet
- Comes in One or Two button versions
 - One button wall switch cannot perform any function other than to flush – (Cannot change water level)
- See manual for all extra wall switch functions

RV Controller Wiring:

- Red/Black wires, Black Plug w/ Grey Casing – Wall Switch
- Red/Black wires, Grey Plug w/ Grey Casing – Full Tank Sensor
- Green/Yellow wires, Grey Plug w/ Grey Casing – Mid Tank Sensor
- Blue/Black wires, Black Plug – Solenoid Valve
- Brown/Black wires, Black Plug – Macerator Pump

Issues/Symptoms:

No LEDs lit on keypad

1. Thetford system is in sleep mode (8 hours since last use)
 - a. Press either keypad button – system will reactivate from sleep mode.
2. No voltage to controller at toilet – Voltage should be 10 VDC minimum
 - a. Check 30A circuit breaker or fuse (40A for RV Tecma)
 - b. Check the voltage at the connection to the large red and black controller wires.

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Keypad LEDs were lit but go out when flushing begins

1. Improper size of self-resetting circuit breaker – Should be 30A for Marine and 40A for RV Tecma
2. Improper supply wiring size – 8 gauge minimum supply to controller harness
3. Bad connection or corrosion to the large red and black controller wires at the controller or at the power source connection

Keypad **Blue** LEDs keep flashing back and forth

1. Keypad Red/Black connector is connected to the Full Tank Sensor Red/Black connector on the controller

Tank level **Red** LED always on (Tank is known to be empty)

1. Full Tank sensor disconnected
 - a. Visually check sensor connections
2. The harness to the tank sensor has a short or opens to the red and black wires
 - a. Can be tested for short with continuity test between red and black wires
 - b. Can be tested for open with continuity tester by connecting the red/black connector to the green/white connector on one end of the harness and checking the continuity at the other end
3. Something is physically against on <1” from the tank sensor, such as wires, metallic tape, wood, metal, etc.

Tank level **Yellow** LED always on

1. MID Tank sensor has a short to the green and white wires.
 - a. Can be tested for short with continuity test between green and white wires
2. Something is physically resting against the tank sensor.

Tank level **Red** LED always on and flashes when flush button is pressed – toilet doesn't flush

1. Tank is full and locked out
 - a. Empty tank or press and hold the flush button for 6 to 8 seconds to override tank lockout.
 - i. (CAUTION – Only override lockout if you know that there is still some room in the tank to hold the waste. Flushing into a completely full tank can result in waste going where you don't want it!)

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Tank unlock LED on (Only available on Marine)

1. Keypad was programmed to disable “tank lock-out”
 - a. Press both keypad buttons simultaneously twice quickly to return to lock-out enabled mode.

Tank sensors don’t work – indicator always Green

1. On used boats or RV’s a sludge buildup on the sides of the tank can prevent the sensors from working properly. Tanks must be plastic or fiberglass (but not with metal fillers in the resin) and less than ½” thick.
 - a. Clean tank with Thetford Level Gauge Cleaner.

Water Add button does not work (Marine version only) but water does fill during flush cycle

1. Keypad probably defective

Water Saver button does not work (RV version only) but Normal Flush button works

1. Keypad probably defective

Normal Flush button does not work (RV version only) but Water Saver button works

1. Keypad probably defective

Fills with water but empties the bowl slowly during flush

1. Low Voltage
 - a. Check for proper supply wire size to controller
 - b. Charge batteries or run off inverter with generator on
2. 24V toilet in a 12V RV or Boat installation
3. Check valve is partially plugged/ Clog in pump
 - a. Paper towels or wipes will not macerate and will clog pump
 - b. Plunging toilet while attempting to flush may unclog toilet. Be sure to shut off water supply to toilet first.

Fills with water but does not empty bowl – (No motor sound present)

1. Low voltage will not allow motor to spin fast enough and will clog pump
 - a. Changing batteries or running off inverter with generator on may provide sufficient voltage to unclog toilet but be sure to shut off water supply to toilet first.
2. Macerator pump is clogged
 - a. Paper towels or wipes will not macerate and will clog pump
 - b. Plunging toilet while attempting to flush may unclog toilet. Be sure to shut off water supply to toilet first.

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Fills with water but does not empty bowl – (Motor sound present)

1. Check valve is partially plugged/ Clog in pump
 - a. Paper towels or wipes will not macerate and will clog pump
 - b. Plunging toilet while attempting to flush may unclog toilet. Be sure to shut off water supply to toilet first.

Does not fill with water when either keypad button is pressed but macerator motor runs

1. Check connection to water supply inlet at controller and at solenoid pump
 - a. If connections are good, follow instructions on how to check voltage
2. Check fresh water solenoid valve screen for debris

Installing two Tecma toilets and wish to use only one set of tank sensors

1. Each toilet requires its own set of tank sensors

What is the 4 conductor connector for?

1. The 4 conductor connector was intended for future accessories but has been eliminated on current production.

Can I use an EZ Fit on a pressurized fresh water system?

1. Yes, if you have the correct model of EZ Fit. You must have an EZ Fit with a solenoid valve.



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