

# Waiter Legacy

# Waiter TS

Electronic Climate Controller  
August 26, 2022



## Installation Manual

[www.WaiterECC.com](http://www.WaiterECC.com)

## SYSTEM DESCRIPTION

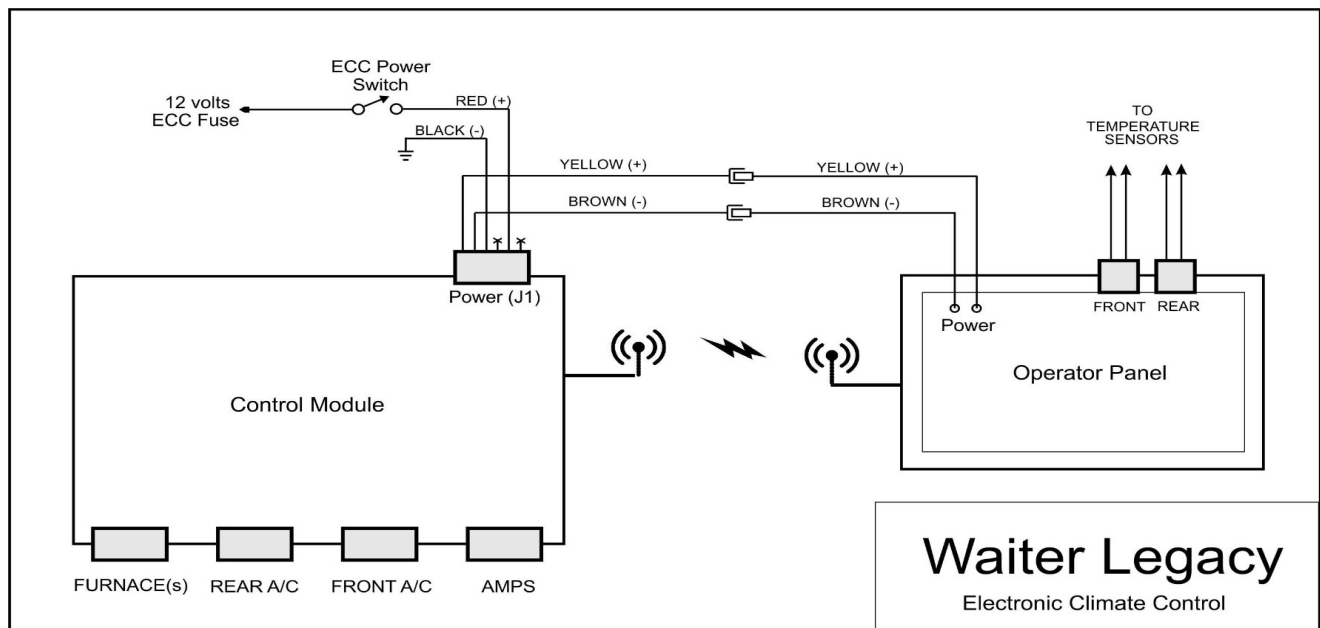
Waiter Legacy and Waiter TS are designed to be direct replacements for older, failing Intellitec ECC systems. The replacement system is made up of two main components, a custom control circuit board and operators panel or touchscreen. This provides all the functionality of the original Intellitec system, plus several new features that brings a 25 year old system up to date.

Waiter Legacy and TS systems are completely plug and play. The original temperature sensors plug into the back of the operators panel. DC power (5.7 volts) for the operator panel is supplied by the control module via the two original IPX communication wires (yellow and brown wires).

The only recommendation we make is to install a switch (included) in the 12 volt supply to the control module. This allows the system to be turned off/on without messing with fuses or plugs.

Kit includes:

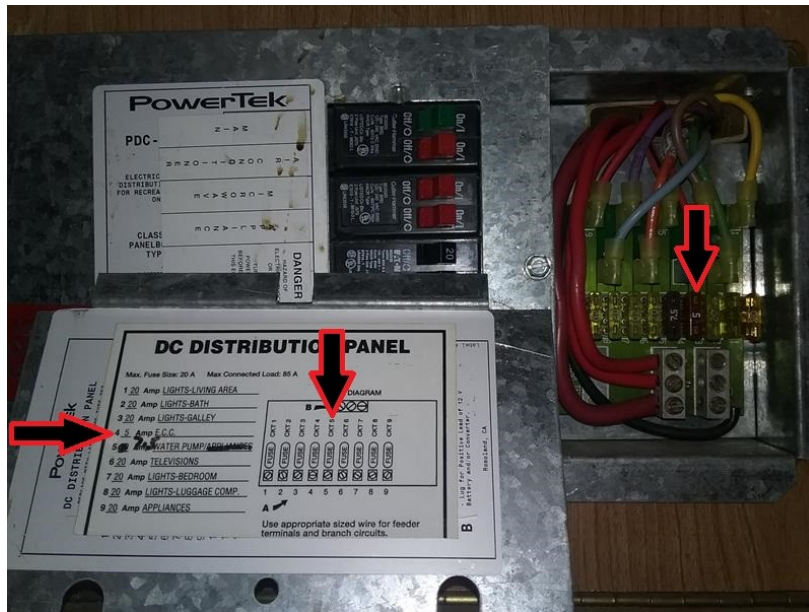
- Custom control circuit board
- Operator panel or touchscreen assembly
- One power switch with lug connectors
- Early model kits include new temperature sensors and connectors
- Later model kits include new control module housing and a power adapter



# STEP by STEP INSTALL

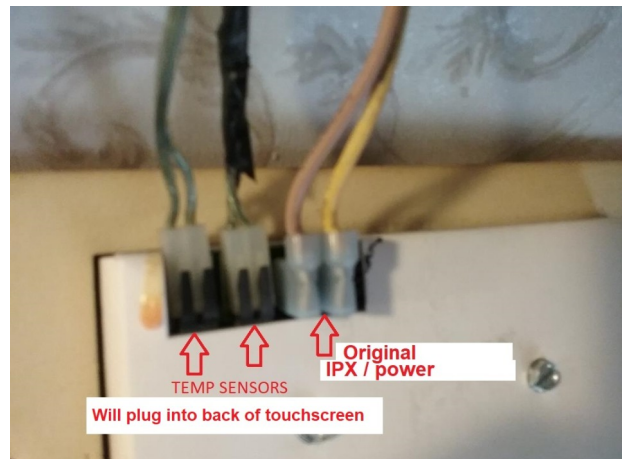
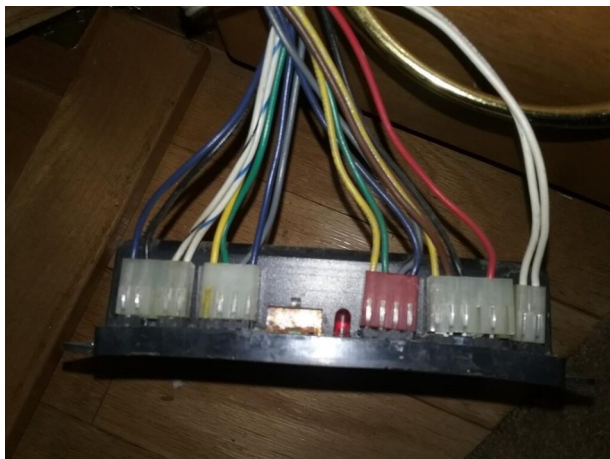
## 1) REMOVE 12 VOLT FUSE

Remove the 12 volt fuse (5 amp) marked ECC. The 12 volt fuses are located in the power distribution panel, you'll need to remove the cover from the 12 volt portion to get access to the fuses. Your DC distribution panel may differ from the one in the photo.



## 2) REMOVE ORIGINAL OPERATOR PANEL and CONTROL MODULE

Photograph the connectors and wires before disconnecting them. They should look similar to this



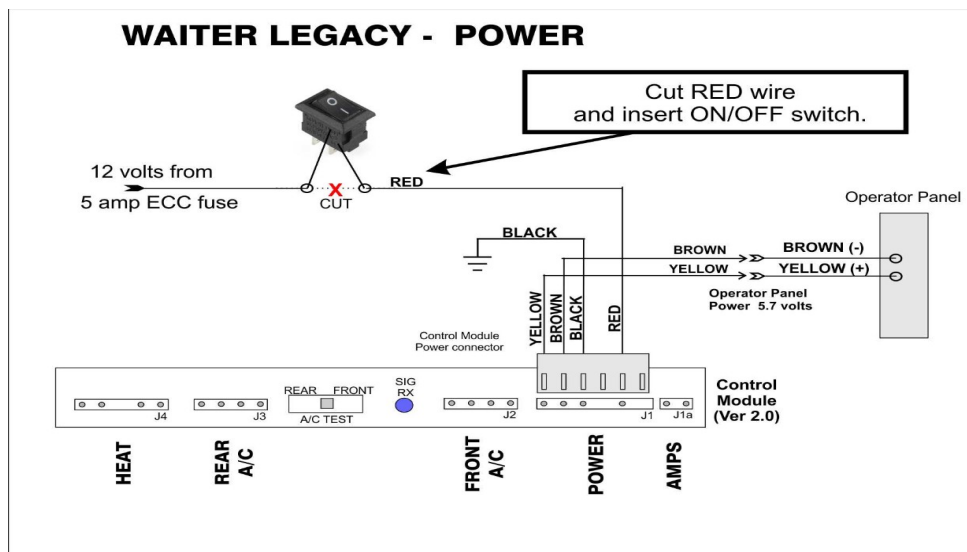
## WARNING

The Intellitec operator panel **MUST** be completely disconnected and removed prior to plugging in the new system.

**Failure to do this will destroy the Intellitec operator panel.**

### 3) 12 VOLT POWER ON/OFF SWITCH

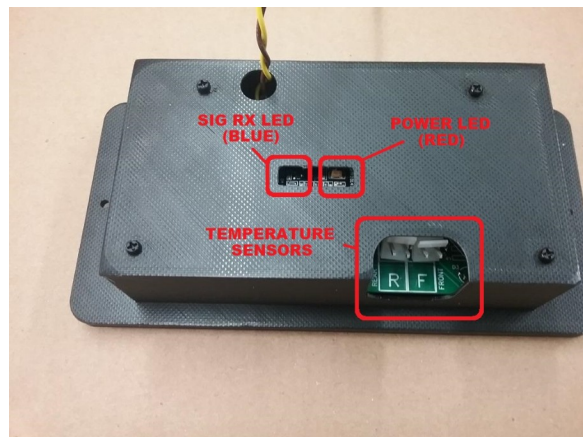
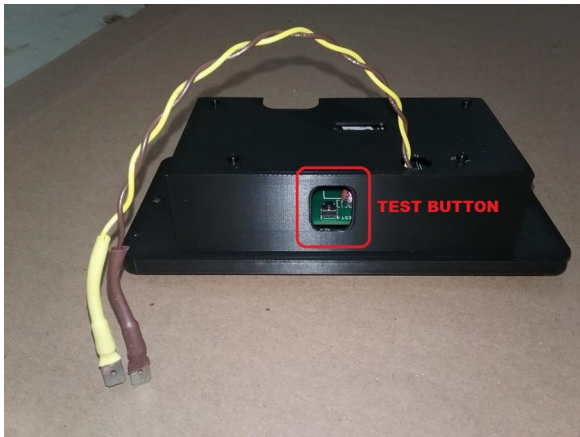
Cut the RED wire that feeds 12 volts to the control module. Install the ON/OFF switch between the ends that were cut. The enclosed switch has two RED wires attached. Connect these to the two ends of the RED wires you just cut. Mount the switch in a panel or simply tie it to the wire bundle near the connector plugs on the control module. Use the spade lugs (included) to connect the switch.



### 4) CONNECT SENSORS AND POWER TO OPERATOR PANEL / TOUCHSCREEN

On the rear of the operator panel, plug in the two temperature sensor connectors (note FRONT and REAR)

There are two wires, yellow (+) and brown (-), that come out of the rear of the operator panel. Connect these to the yellow (or red) and brown (or white) wires that were removed from the old operator panel. If the lug connectors are bare metal, use the two pieces of shrink tubing (included in kit) over the lugs to keep them from shorting together. (These were the old original IPX wires (yellow and brown) .  
NOTE – On some motor-homes, instead of Yellow and Brown wires, you'll find Red and White wires.



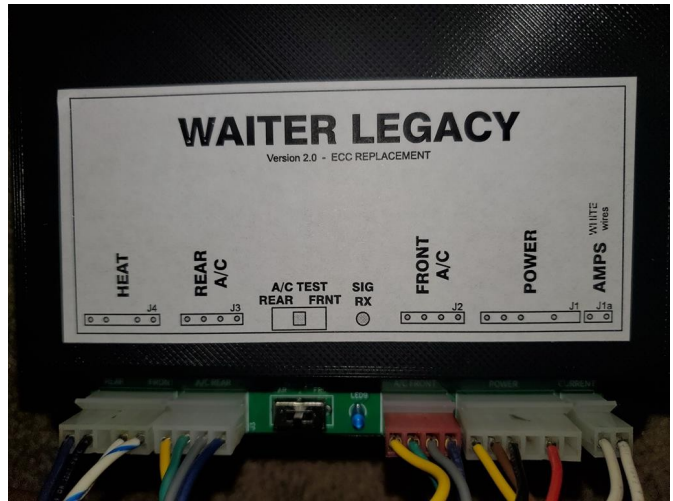
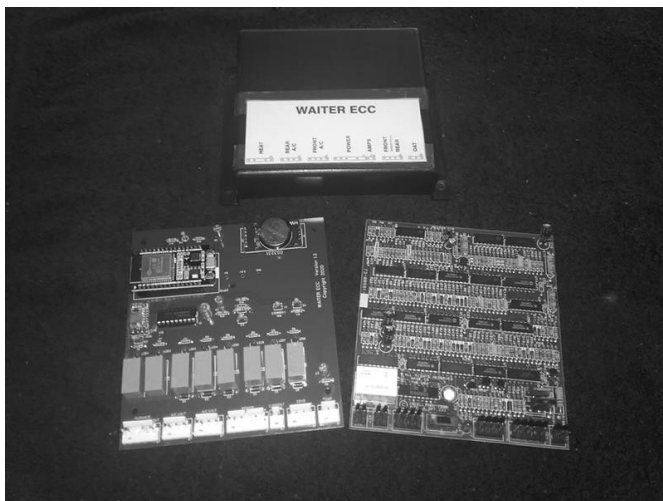
YELLOW (or RED) to YELLOW (5.7 volt +)

BROWN (or WHITE) to BROWN (ground)

**WARNING – The Yellow and Brown wires have 5.7 volts on them. If these are reversed, you could damage the operator panel.**

### 5) INSTALL NEW CIRCUIT BOARD IN ENCLOSURE

The new controller circuit board replaces the original circuit board inside the original control module enclosure. To remove the cover, use a sharp screwdriver blade and gently pry the top half apart near the four tabs on the side of the enclosure. Remove the old board, then clean the enclosure with warm soapy water.

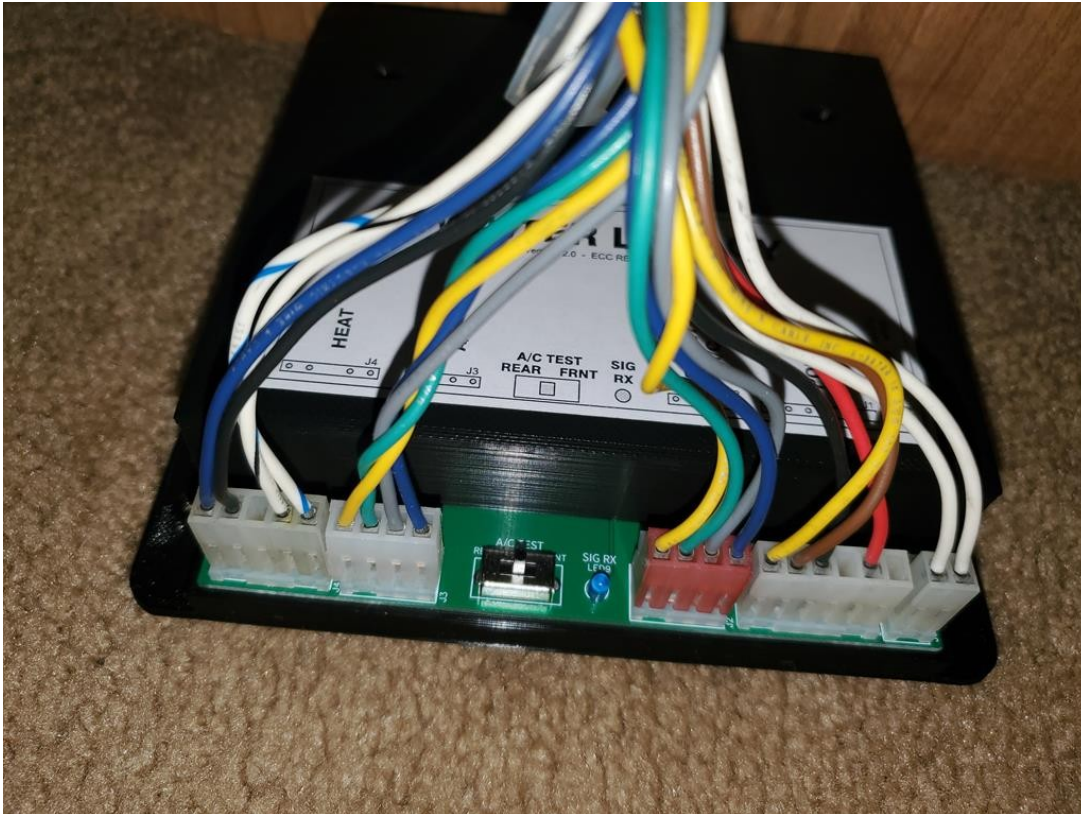


The new circuit board will snap into place on the bottom part of the enclosure. Snap the top cover into place.

Place the new Waiter Legacy sticker on the enclosure.

## 6) CONNECT THE PLUGS TO THE NEW CIRCUIT CARD / MODULE

NOTE: If your motor-home has an A/C FAN BYPASS MODULE plugged into the old Intellitec control module, this bypass module is not used and must not be connected. See APPENDIX A for instructions.



## 7) RE-INSTALL THE ECC FUSE, TURN POWER SWITCH ON

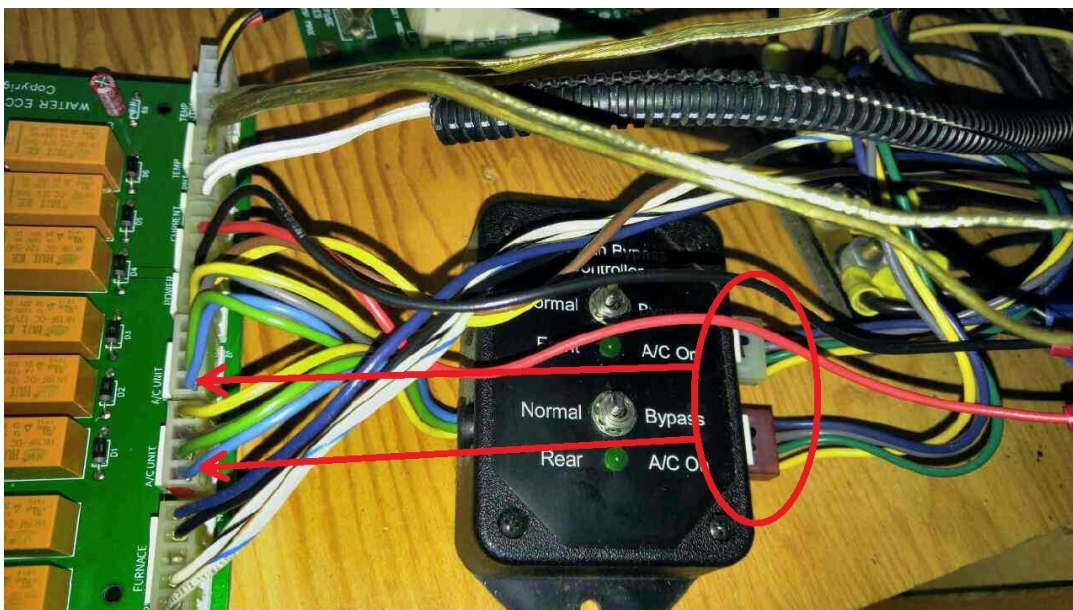
The control module and operator panel / touchscreen should boot up and connect. You should see the SIG RX LED blinking at least every ten seconds.

## APPENDIX A

### A/C FAN BYPASS MODULE

Some motor homes (Discovery) may have an A/C Fan Bypass Controller module installed. This module is not used in the Waiter ECC system and must be disconnected or it'll interfere with the operation of the Waiter ECC .

There are two 4 wire connectors plugged into the bypass unit (right). Remove these two connectors and plug them directly into the A/C plugs on the new Waiter ECC control module. You can remove the module or leave it screwed in place, but it is no longer needed and will interfere with the Waiter ECC if connected.



So why did Fleetwood add this module?

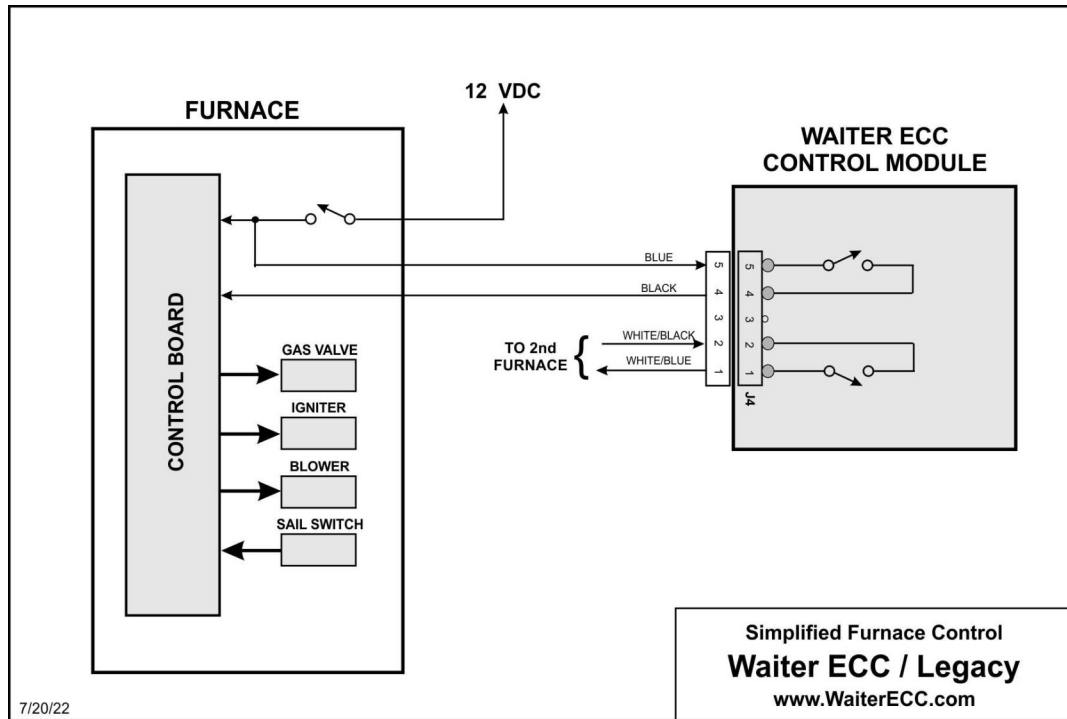
This module only allows the blowers to run if the compressor is running. The problem with this is that the FAN HI and FAN LO (no air conditioner running) are disabled, because the blowers don't run unless the compressor is running.

The main reason behind this was that in the AC-AUTO mode, the fan would keep running even after the temperature was low and the compressor was no longer needed.

In the Waiter ECC system, when operating in the A/C AUTO mode, the blower only runs when the compressor is running, blower speed is set by temperature. When the temperature drops below the set point, the compressor will turn off, and approximately 30 seconds later, the blower is commanded off.

# APPENDIX B

## SIMPLIFIED FURNACE DIAGRAM



## SIMPLIFIED A/C CONTROL DIAGRAM

