USER MANUAL

WALTECH SMART DONGLE

DEVICE APPEARANCE

POWER LED

TO
WALTECH THERMOSTAT

8 CORE CABLE

3 CORE CABLE

ERROR LED

TO
CONTROLLER
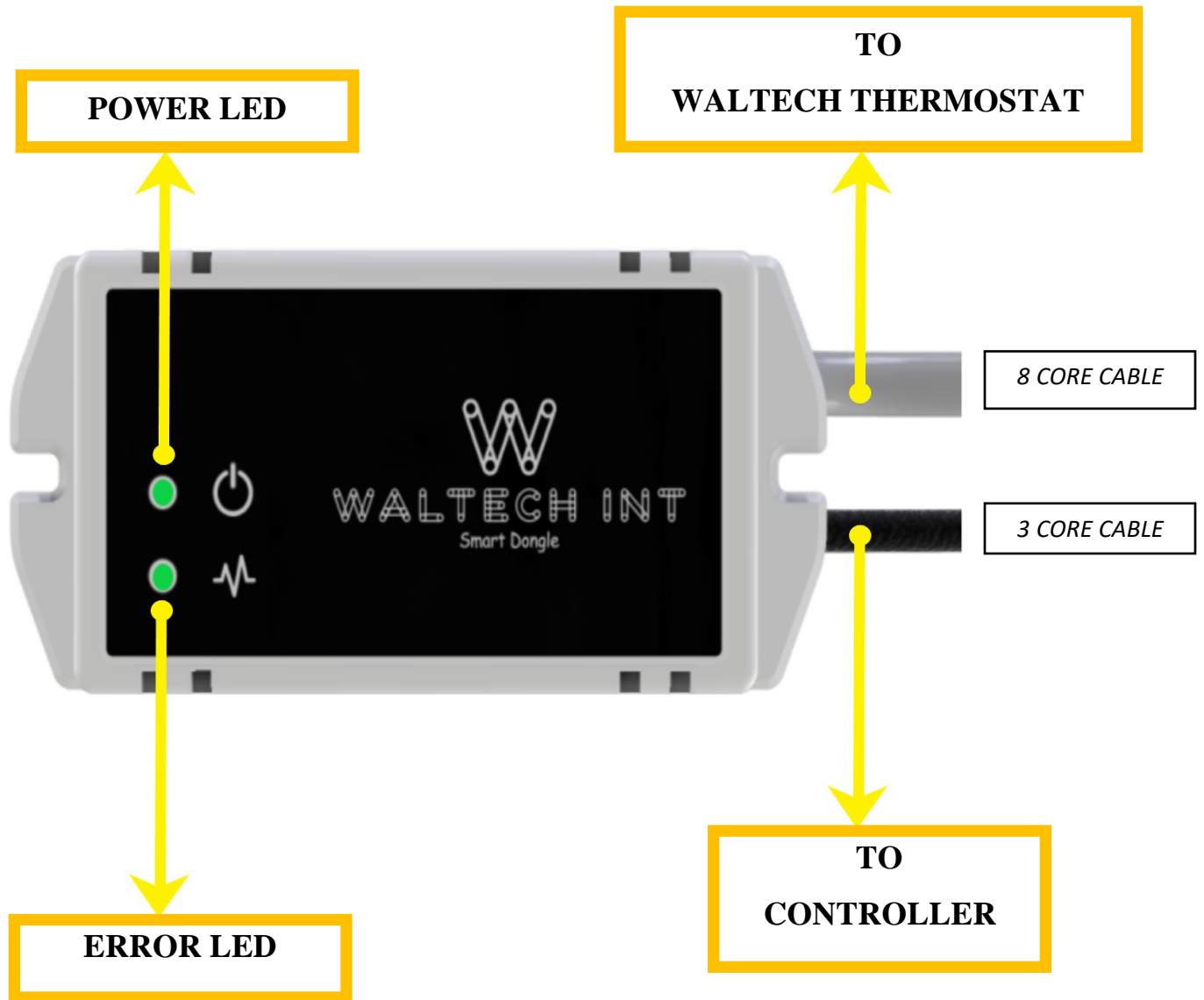
DEVICE OPERATION

1) POWER LED

- Power Led turns ON, when the device is turned ON.
- This LED operates full time.

2) ERROR LED

- Error Led blinks in case of error.
- There are 3 different error codes :

  1. E1 (Error Led blinks once in 30 seconds) Loss of communication with controller

  2. E5 (Error Led blinks 5 times in 30 sec.) Freeze sensor open circuit

  3. E4 (Error Led blinks 4 times in 30 sec.) Outdoor Temprature Sensor(only for heat Pump Model)

<u>OVERVIEW</u>

The Waltech Smart Dongle was designed for the Dometic 3 wire system with a AC/ Furnace/ Heat Pump/ Heat Strip and 2 speed fans.

Stage 1. The control will run the Heat Pump or Heat Strip (Room Temp. 2 points below Set Temp.)

Stage 2. The control will run the Furnace and the Heat Pump or Heat Strip will turn off. (Room Temp. 4 points below Set Temp.)

- If the user wants only the Furnace to start immediately, then a jumper should be placed between Heat 1 and Heat 2. All 8 dongle wires need to be connected to the thermostat, and the jumper is to be

removed from terminal 1-3. The Dometic fault codes will also show on the dongle.

- If the user connects this to a Dometic controller system that has a heat strip and a furnace, there is a different dongle models for Heatstrip and Heat Pump. This dongle has the capability to work on an AC and furnace system without a heat pump or heat strip.

- If the user connects the dongle to a Dometic system with Furnace and AC, with no Heat Strip or Heat Pump, the jumper between Heat 1 and Heat 2 should be installed. The operation and fault code is described the same as with the Heat Strip model.

WORKING PRINCIPLE

NOTE

1. Both Heat 1 & Heat 2 cannot be turned ON in the Controller. [Only one Heater can be turned ON]

2. In the controller, AC will not be turned ON when the heat pump or heat strip is turned ON.

3. So, we recommend the users to put Heat 1 as Heat Pump or Heat strip and Heat 2 as Furnace in WalTech Thermostat.

4. If the user has only Furnace, then we recommend to put Furnace as Heat 1 & Heat 2 in WalTech Thermostat.

5. In the controller, Heat 1 is considered as a heat pump or Heat Strip and Heat 2 is considered as a furnace.

6. The output of the controller depends on Waltech Thermostat Fan Mode, not on Heat 1 and Heat 2 selection.

Waltech Thermostat Input		Controller Output
AC	*Fan Mode*	
AC	Auto	AC & Corresponding Fan ON
AC	High	AC & Fan High ON
AC	Low	AC & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Furnace	Heat pump	Auto	All Relays off	Furnace & Corresponding Fan ON
Furnace	Heat pump	High	Heat pump & Fan High ON	Furnace & Fan High ON
Furnace	Heat pump	Low	Heat pump & Fan Low ON	Furnace & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Heat pump	Furnace	Auto	Heat Pump & Corresponding Fan ON	Furnace & Corresponding Fan ON
Heat pump	Furnace	High	Heat Pump & Fan High ON	Furnace & Fan High ON
Heat pump	Furnace	Low	Heat Pump & Fan Low ON	Furnace & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Furnace	Furnace	Auto	All Relays off	Furnace ON
Furnace	Furnace	High	Heat Pump & Fan High ON	Furnace & Fan High ON
Furnace	Furnace	Low	Heat Pump & Fan Low ON	Furnace & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Heat pump	Heat pump	Auto	Heat Pump & Corresponding Fan ON	Furnace & Corresponding Fan ON
Heat pump	Heat pump	High	Heat Pump & Fan High ON	Furnace & Fan High ON
Heat pump	Heat pump	Low	Heat Pump & Fan Low ON	Furnace & Fan Low ON

| Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Furnace	Heat strip	Auto	All Relays off	Furnace & Corresponding Fan ON
Furnace	Heat strip	High	Heat strip & Fan High ON	Furnace & Fan High ON
Furnace	Heat strip	Low	Heat strip & Fan Low ON	Furnace & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Heat strip	Furnace	Auto	Heat strip & Corresponding Fan ON	Furnace & Corresponding Fan ON
Heat strip	Furnace	High	Heat strip & Fan High ON	Furnace & Fan High ON
Heat strip	Furnace	Low	Heat strip & Fan Low ON	Furnace & Fan Low ON

Waltech Thermostat Input			Controller Output	
Heat 1	*Heat 2*	*Fan Mode*	*Heat 1 ON*	*Both Heat 1 and Heat 2 ON*
Heat strip	Heat strip	Auto	Heat strip & Corresponding Fan ON	Furnace & Corresponding Fan ON
Heat strip	Heat strip	High	Heat strip & Fan High ON	Furnace & Fan High ON
Heat strip	Heat strip	Low	Heat strip & Fan Low ON	Furnace & Fan Low ON

WIRING DETAILS & DESCRIPTION

Before installation, we advise you to understand the basic wiring principle of your existing Dometic 3-wire thermostat. If you open the thermostat cover, you will see 3 wires connected to the thermostat. These wires are connected from the controller of your RV to the thermostat as shown in the picture below.
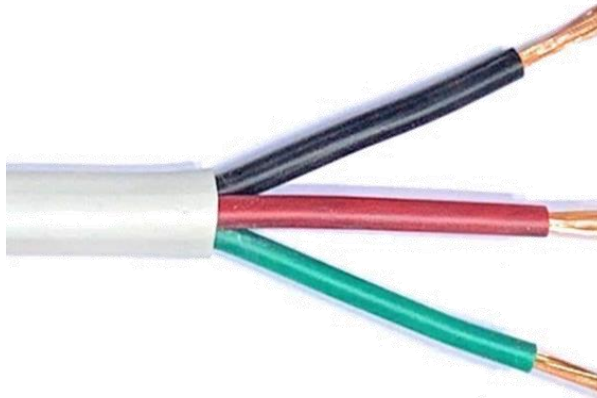
- Please tag the wires based on their function when you disconnect them before installation.
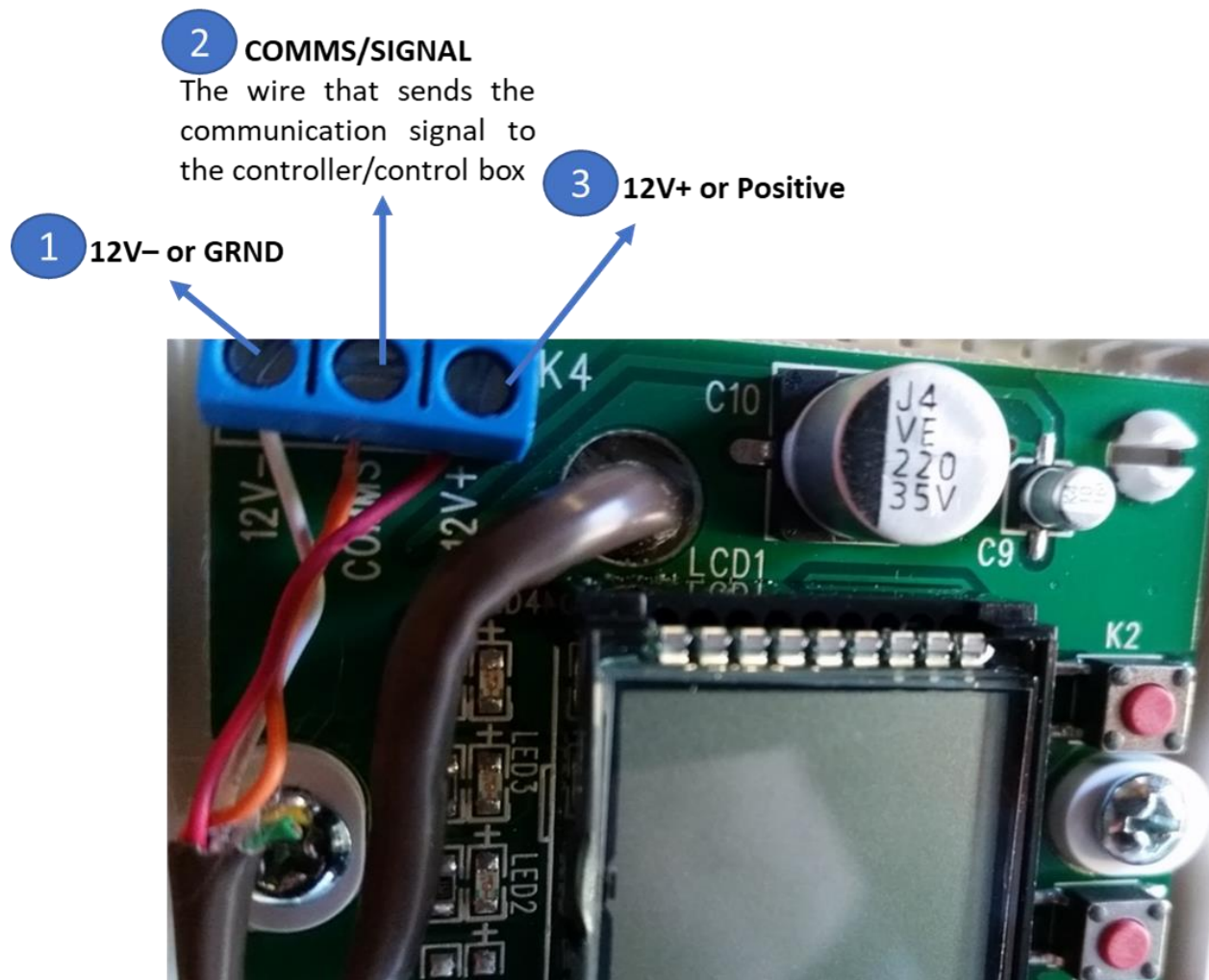
- WalTech Smart dongle has two wire outputs; one is eight wire side, and another a three-wire side.

- These three wires from the controller should be connected to the three-wire side of the smart dongle, as shown in the picture below

3 wire side of Smart Dongle

① 12V- or GRND
Connect the **black wire** to 12V- DC from the controller.

③ 12V+ or Positive
Connect the **red wire** to 12V+ DC from the controller.

② COMMS/SIGNAL
Connect the **green wire** to the communication wire from the controller. **SIGNAL/SENSE/COMMS**

8 wire side of Smart Dongle

- The eight-wire side should be connected to the Waltech Thermostat, as shown in the pic below. Please also ensure that the wall bracket is inserted before the wiring is done.

1, Red-
7.5V to 32V AC/DC

2, Black-
Ground

3, Orange-
Relay Common

4, Yellow-
Heater-2

5, White-
Heater-1

6, Blue-
Fan Low

7, Green-
Fan High

8, Brown-
AC / Compressor

8 core cable from smart dongle

7.5V TO 35V AC/DC

GROUND

RELAY COMMON

HEATER 2

HEATER 1

FAN LOW

FAN HIGH

AC

3 core cable from smart dongle

- 12V DC FROM SUPPLY

+ 12V DC FROM SUPPLY

SIGNAL
+12V TO THERMOSTAT