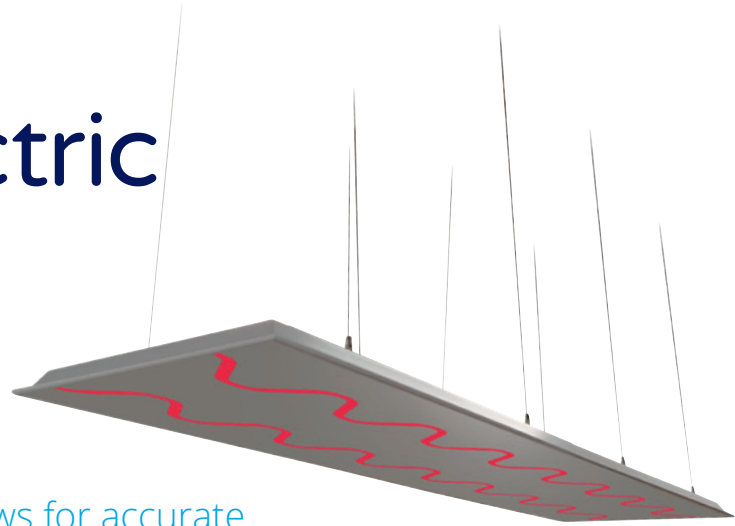# Thermatile Electric Radiant Panels Controls Kit

The electric radiant panels control kit allows for accurate controls of radiant panels within a specified zone or area.

Control kits are available to control up to 12-off parallel panels within a zone.

Master Control Kit

Includes the below Items:

- Black IP Box (wired as per wiring W5038)
- Digital Thermostat
- Black bulb Sensor

Slave Control Kit

Includes the below Items:

- Black IP Box (wired as per wiring W5039)

Digital thermostat

- Power supply AC 230 V
- LCD display mode
- Operating temperature range 0°C - 50°C
- Setting temperature range 5°C - 37°C
- Order code: 40-0013

SPC black bulb temperature sensor

- Measures effective temperature
- Flame retardant ABS housing
- Compact casing
- IP30 Rated
- Ambient range -10°C – 60°C
- Order code: 40-0002

Black Bulb Sensor Installation

· Select a location on the walk of the controlled space which will give a representative sample of prevailing room conditions
· Avoid installing the sensor in direct sunlight, on an outside wall or near heat sources
· An ideal mounting height is 1.5m from the floor
· In a sports hall, the black bulb sensor needs protection from potential ball damage
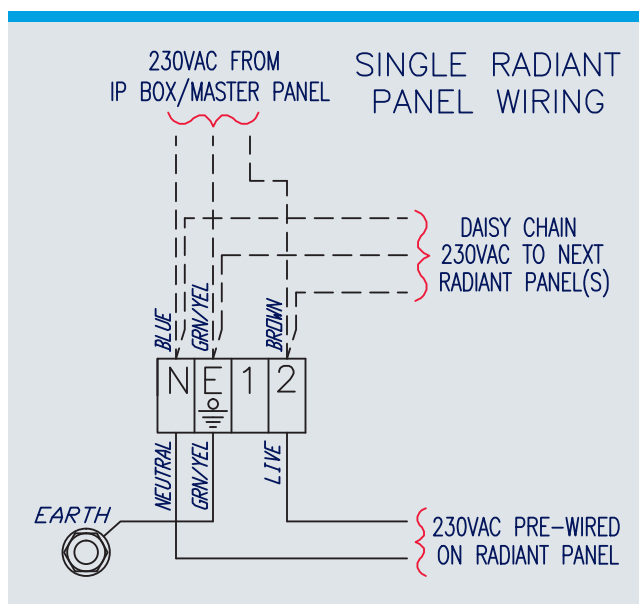
Thermostat Installation

· The thermostat itself can be mounted remotely or inaccessibly
· Only the black bulb sensor, which is wired to the thermostat, needs to be mounted in the space
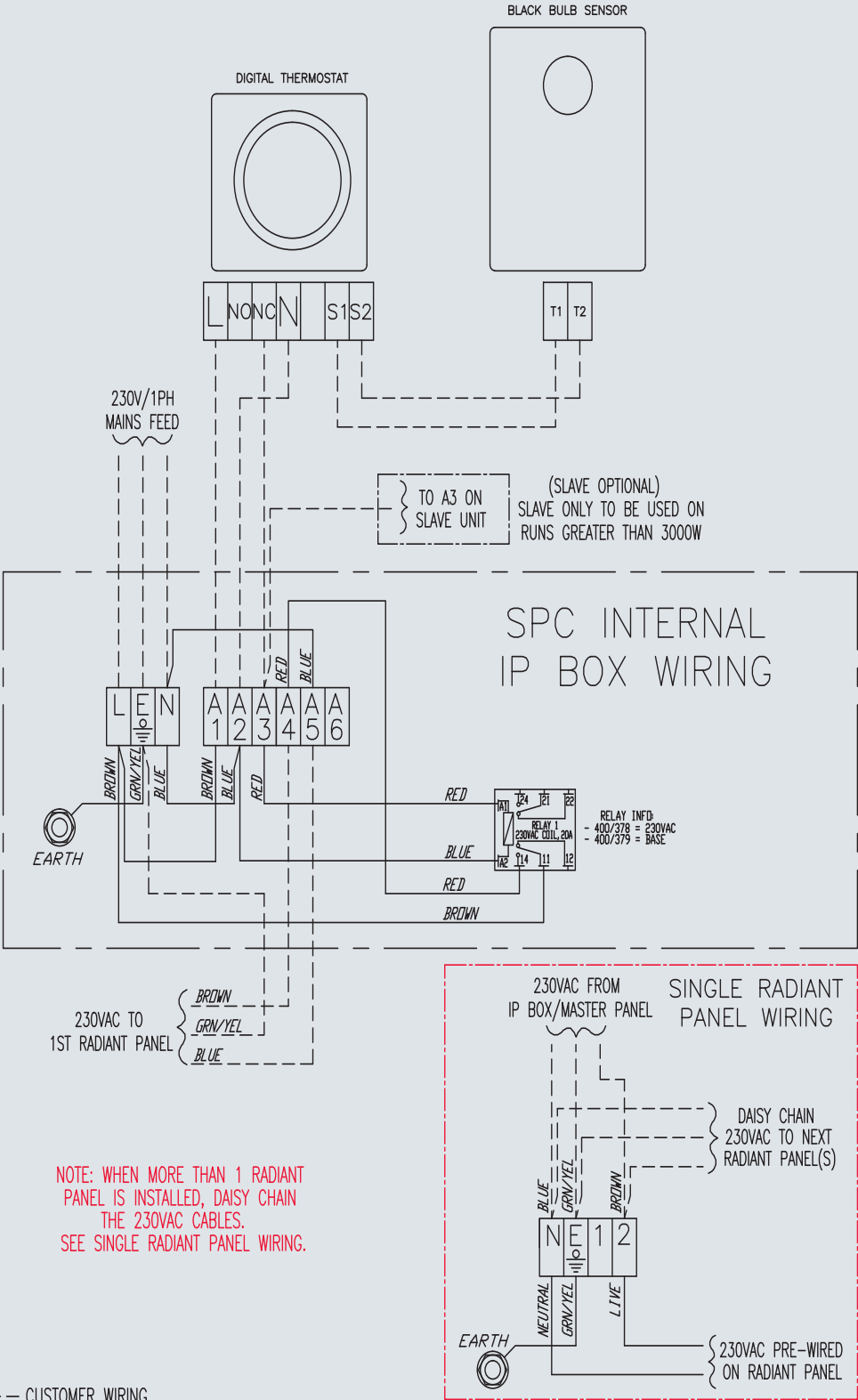
Electrical Connections

All wiring must be undertaken in line with current local regulations (latest IET edition) by a competent and qualified installer.

Each panel incorporates an electrical bracket with sealed terminal box. A 230V single phase supply is required for each panel and an earth connection must be included.

Wiring Diagram

W5038 = Master Control Kit

BLACK BULB SENSOR

DIGITAL THERMOSTAT

L NONC N S1 S2   T1 T2

230V/1PH
MAINS FEED

TO A3 ON
SLAVE UNIT

(SLAVE OPTIONAL)
SLAVE ONLY TO BE USED ON
RUNS GREATER THAN 3000W

SPC INTERNAL
IP BOX WIRING

L E N   A1 A2 A3 A4 A5 A6

RED BLUE

BROWN
GRN/YEL
BLUE
BROWN
BLUE
RED

EARTH

RED

BLUE

RED

BROWN

24 21 22
RELAY 1
230VAC COIL, 20A
A1
A2 14 11 12

RELAY INFO:
400/378 = 230VAC
400/379 = BASE

230VAC TO
1ST RADIANT PANEL
BROWN
GRN/YEL
BLUE

NOTE: WHEN MORE THAN 1 RADIANT
PANEL IS INSTALLED, DAISY CHAIN
THE 230VAC CABLES.
SEE SINGLE RADIANT PANEL WIRING.

230VAC FROM
IP BOX/MASTER PANEL

SINGLE RADIANT
PANEL WIRING

DAISY CHAIN
230VAC TO NEXT
RADIANT PANEL(S)

BLUE
GRN/YEL
BROWN

N E 1 2

NEUTRAL
GRN/YEL
LIVE

EARTH

230VAC PRE-WIRED
ON RADIANT PANEL

- - - CUSTOMER WIRING

W5039 = Slave Control Kit

230V/1PH
MAINS FEED

FROM A3 ON
MASTER UNIT

SPC INTERNAL
IP BOX WIRING

L E N | A1 A2 A3 A4 A5 A6

RED BLUE

BROWN GRN/YEL BLUE | BROWN BLUE RED

EARTH

RED
BLUE
RED
BROWN

RELAY INFO:
- 400/378 = 230VAC
- 400/379 = BASE

A1 24 21 22
RELAY 1
230VAC COIL, 20A
A2 14 11 12

230VAC TO
1ST RADIANT PANEL
{ BROWN
  GRN/YEL
  BLUE }

NOTE: WHEN MORE THAN 1 RADIANT
PANEL IS INSTALLED, DAISY CHAIN
THE 230VAC CABLES.
SEE SINGLE RADIANT PANEL WIRING.

230VAC FROM
IP BOX/MASTER PANEL

SINGLE RADIANT
PANEL WIRING

DAISY CHAIN
230VAC TO NEXT
RADIANT PANEL(S)

BLUE GRN/YEL BROWN

N E 1 2

NEUTRAL GRN/YEL LIVE

EARTH

230VAC PRE-WIRED
ON RADIANT PANEL

– – – CUSTOMER WIRING

W5040 = Standalone Panel Control Kit

BLACK BULB SENSOR

DIGITAL THERMOSTAT

| L | NONC | N | S1 | S2 |

| T1 | T2 |

230V/1PH
MAINS FEED

DAISY CHAIN
230VAC TO NEXT
RADIANT PANEL(S)

BLUE GRN/YEL BROWN

| N | E | 1 | 2 |

NEUTRAL GRN/YEL LIVE

EARTH

230VAC PRE-WIRED
ON RADIANT PANEL
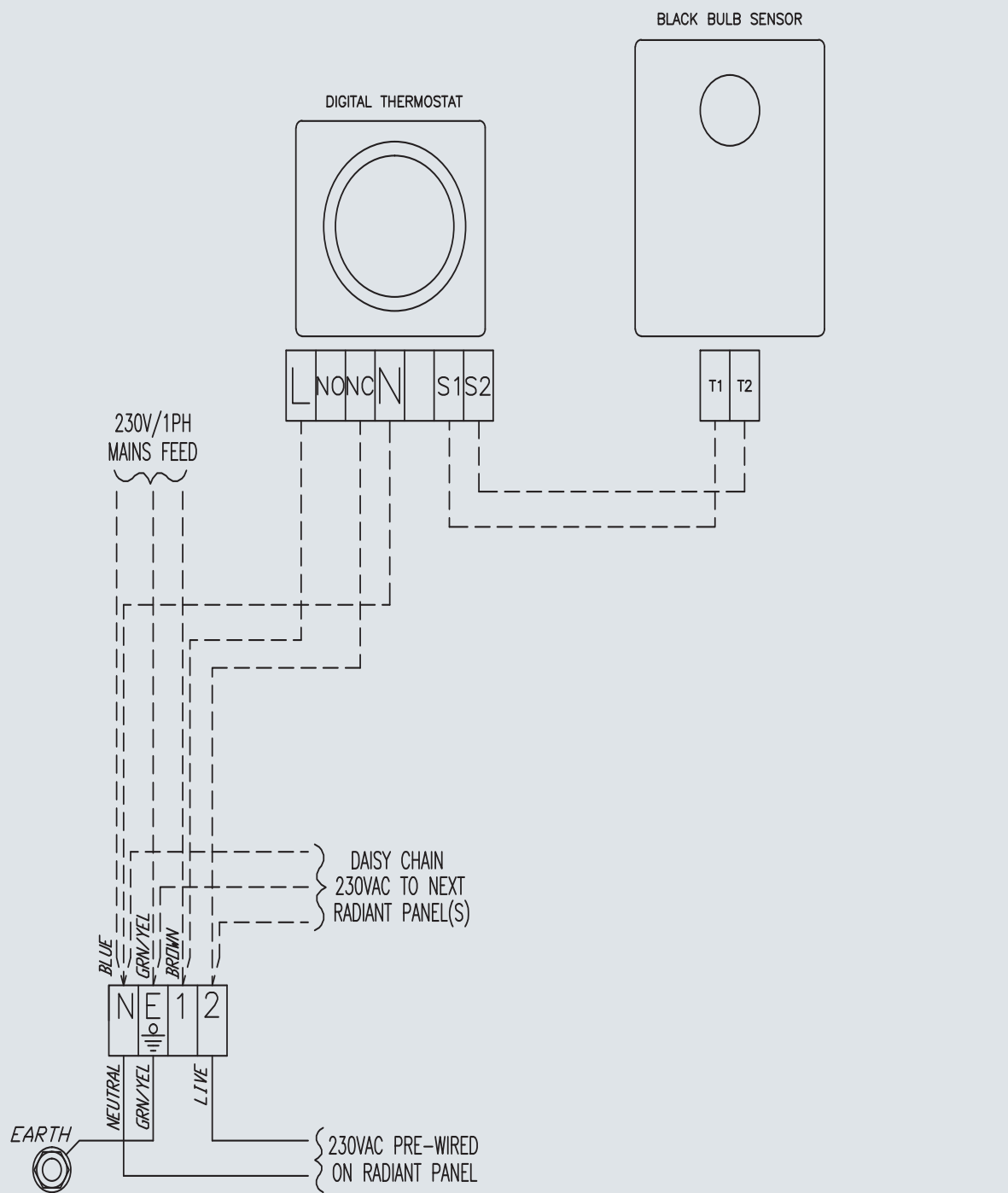
NOTE: WIRING FOR MAXIMUM OF 2-OFF 600 x 600
PANELS & 1-OFF 600 x 1200 PANEL ONLY.
FOR MORE PANELS IN RUNS, SEE WIRING W5038.

——— CUSTOMER WIRING