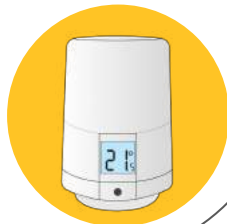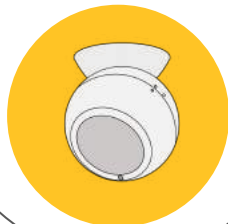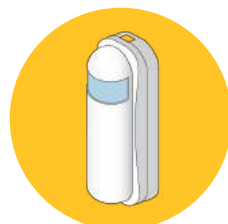# Design and Installation Schematics

Wet Radiator
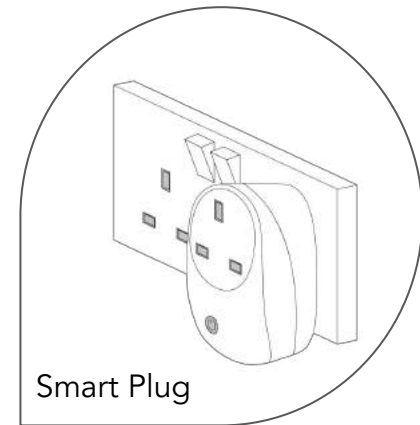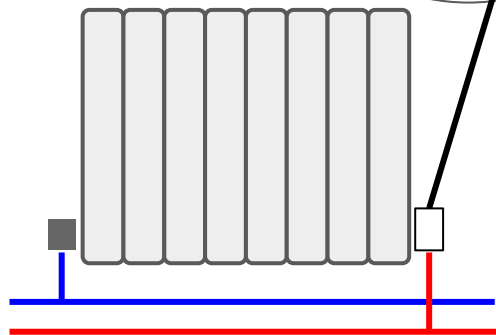

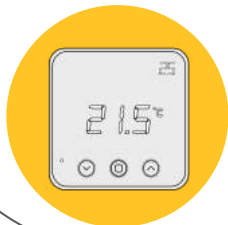Temperature Control
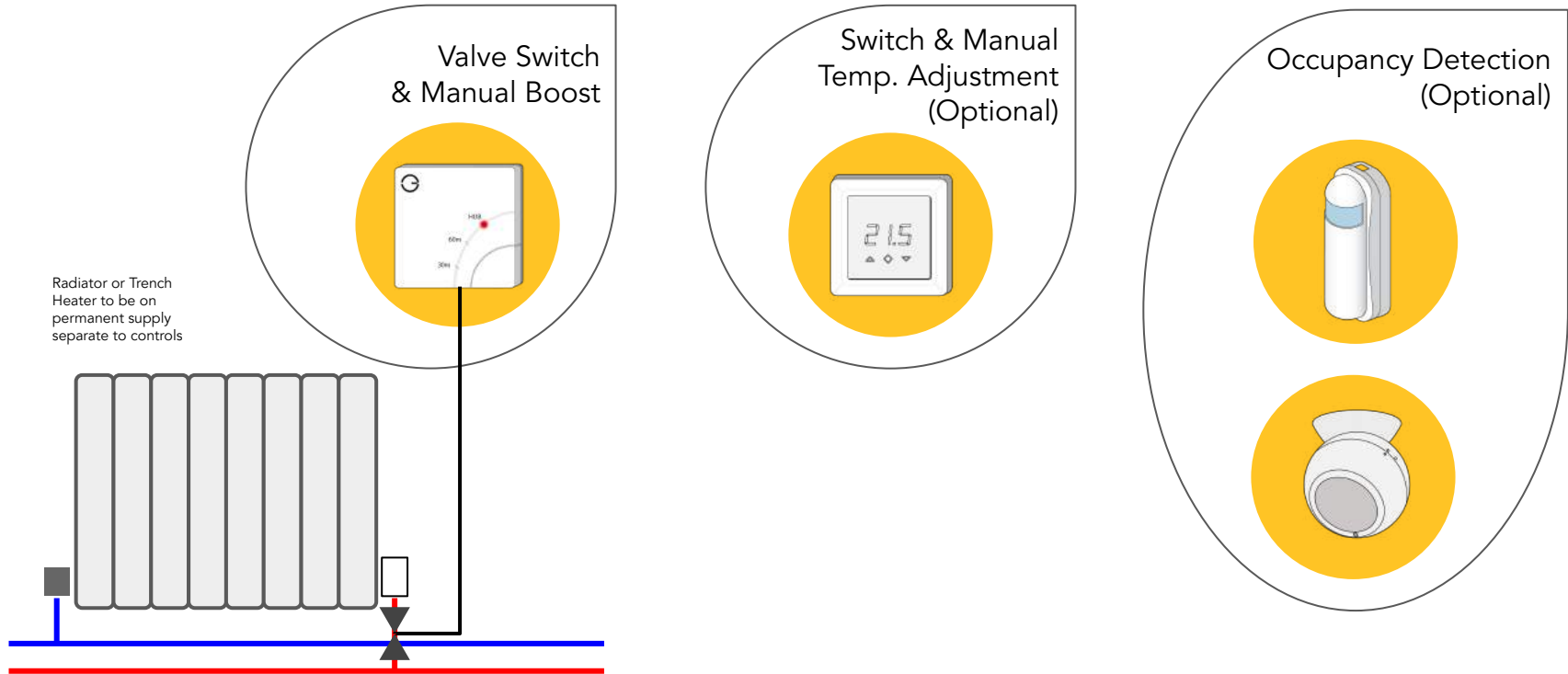& Manual Adjustment

Occupancy Detection
(Optional)

Manual Temperature
Adjustment & View
(Optional)

21°

21.5°

Smart Plug

Programming:
Zone = Radiator

Feature: When room is vacated Wet Radiators are automatically disabled

Wet Radiator w/ Electric Actuator

Valve Switch & Manual Boost

Switch & Manual Temp. Adjustment (Optional)

Occupancy Detection (Optional)

Radiator or Trench Heater to be on permanent supply separate to controls

Programming: Zone = TPI

Feature: When room is vacated Wet Radiators or Trench Heaters are automatically disabled
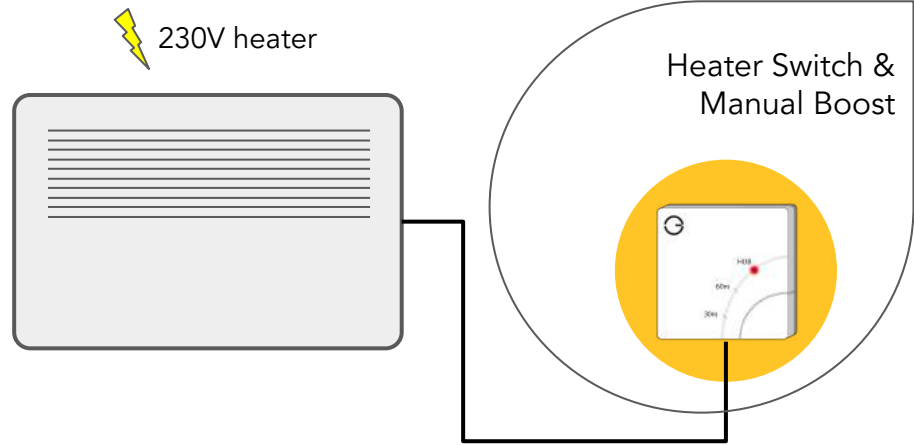
Wet Radiator w/ Electric Actuator - Electrical connections
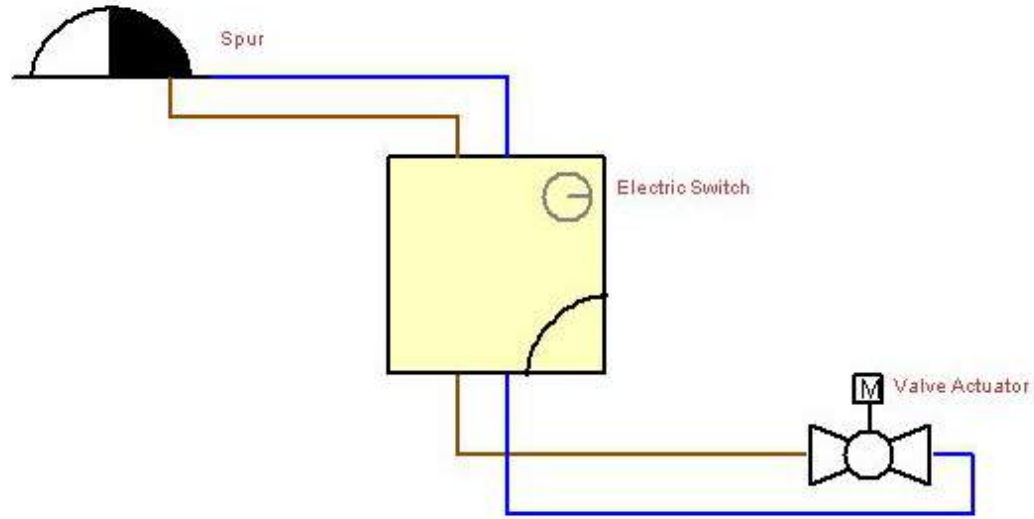
Electric Heater

Switch & Manual
Temp. Adjustment
(Optional)

Occupancy Detection
(Optional)

Manual Temperature
Adjustment & View
(Optional)

230V heater

Heater Switch &
Manual Boost

Programming:
Zone = TPI

Feature: When room is vacated Electric Radiators are automatically disabled

Electric Heater - Electrical connections

Electric Switch

Spur

Electric Heater

1
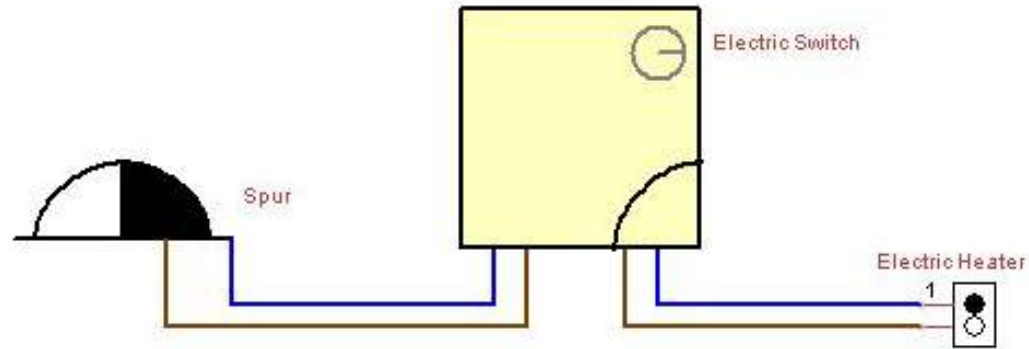
Total load <13A

Fan Convector Unit (heating)
No factory fitted control panel

genius HUB

Occupancy Detection
(Optional)
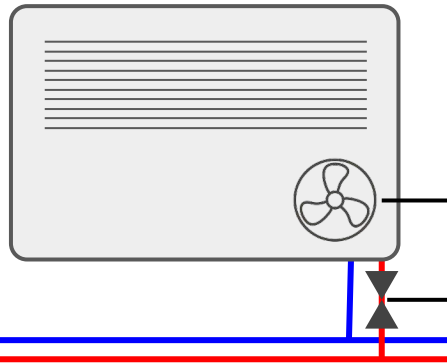
Valve & Fan Switch
and Manual Boost

Switch & Manual
Temp. Adjustment
(Optional)

Programming:
Zone = TPI

Feature: When room is vacated FCU is automatically disabled
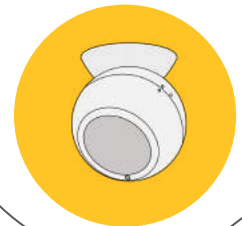
Fan Convector Unit (heating) - Electrical connections
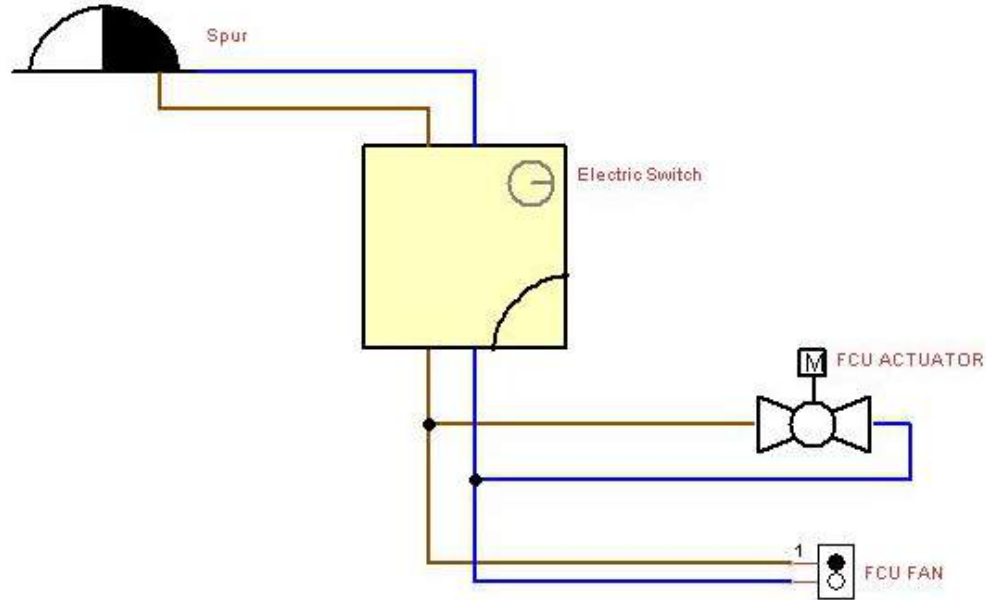
Fan Convector Unit (heating)
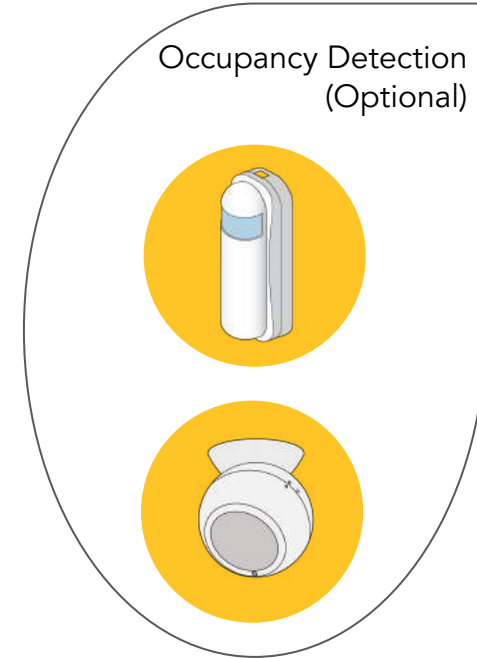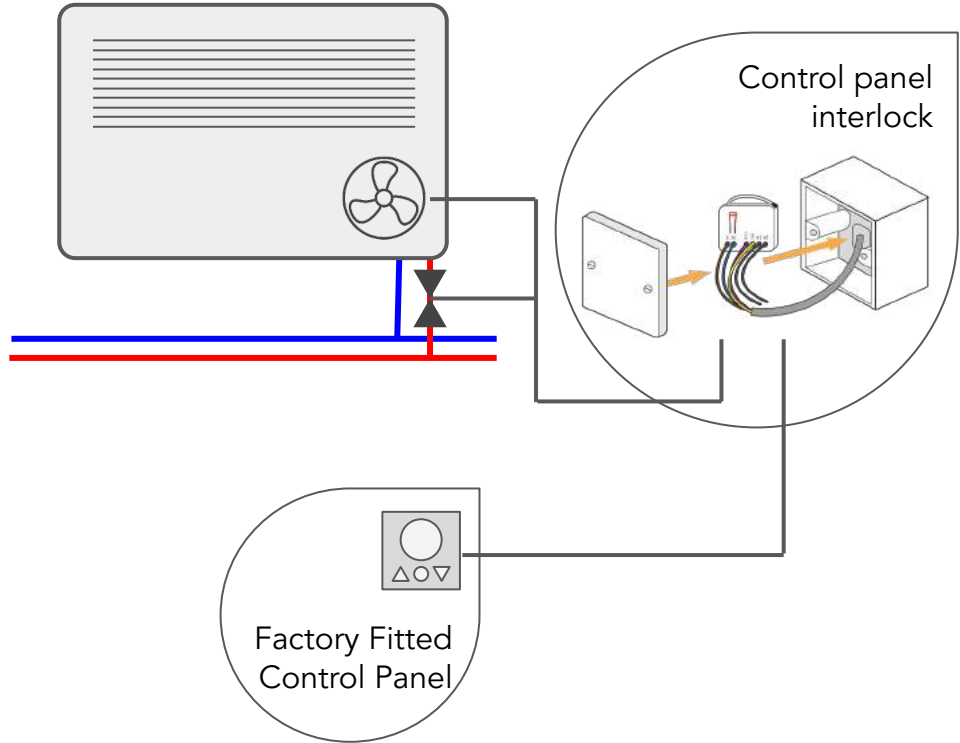## With factory fitted control panel

Control panel interlock

Factory Fitted Control Panel

Occupancy Detection (Optional)
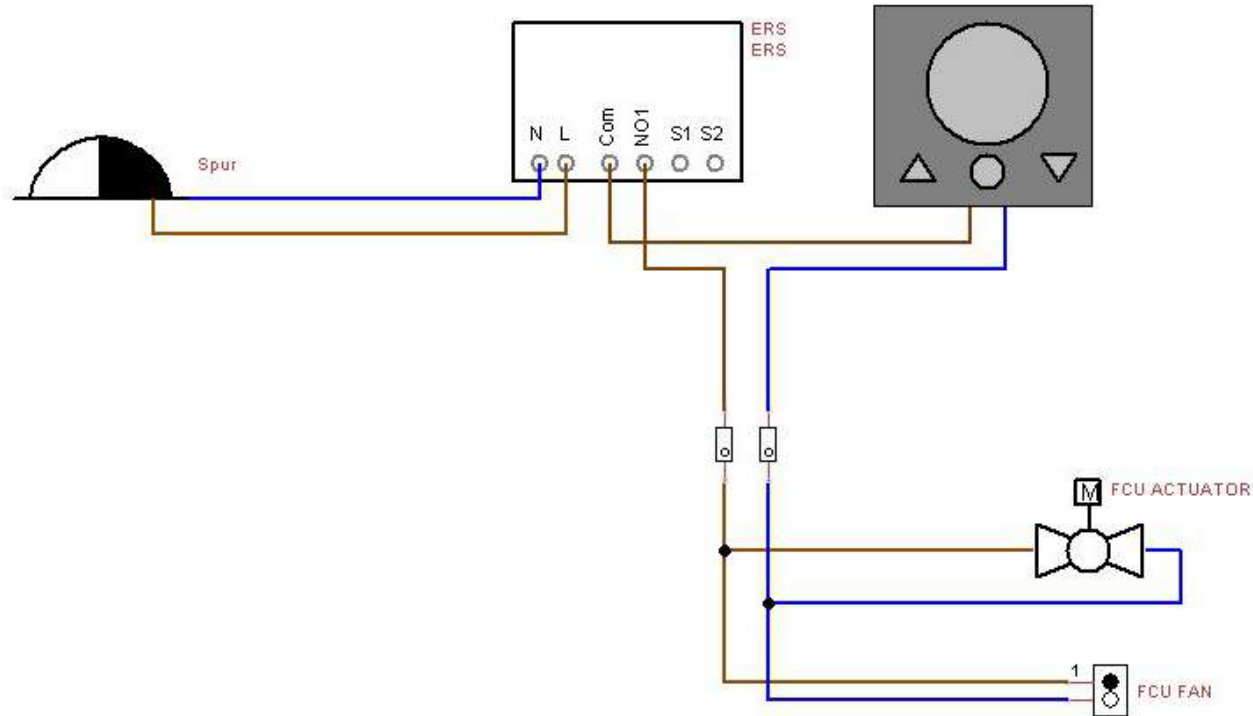
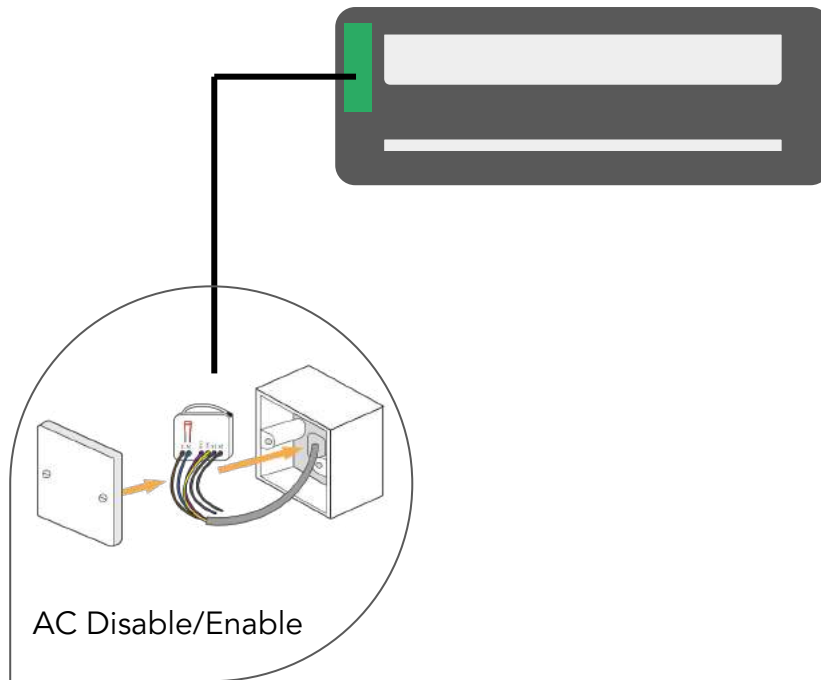Feature: When room is vacated FCU is automatically disabled

Fan Convector Unit (heating) - Electrical connections
With factory fitted control panel

Air Conditioning (heating & cooling)
With factory fitted control panel

Occupancy Detection

Required

Optional

AC Disable/Enable

Feature: When room is vacated AC is automatically disabled
When room temperature goes below a front protect setpoint AC is automatically enabled
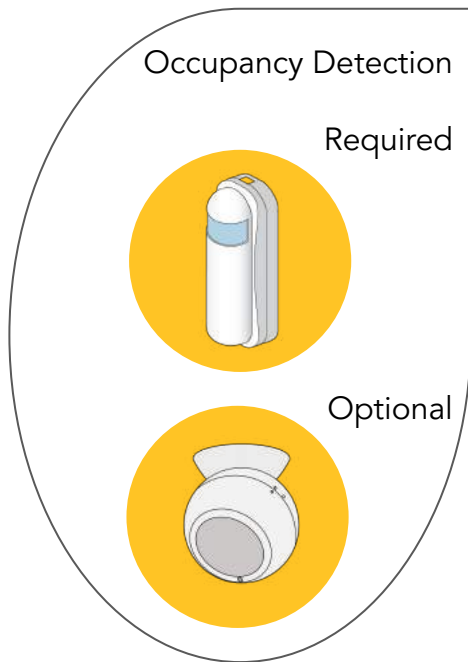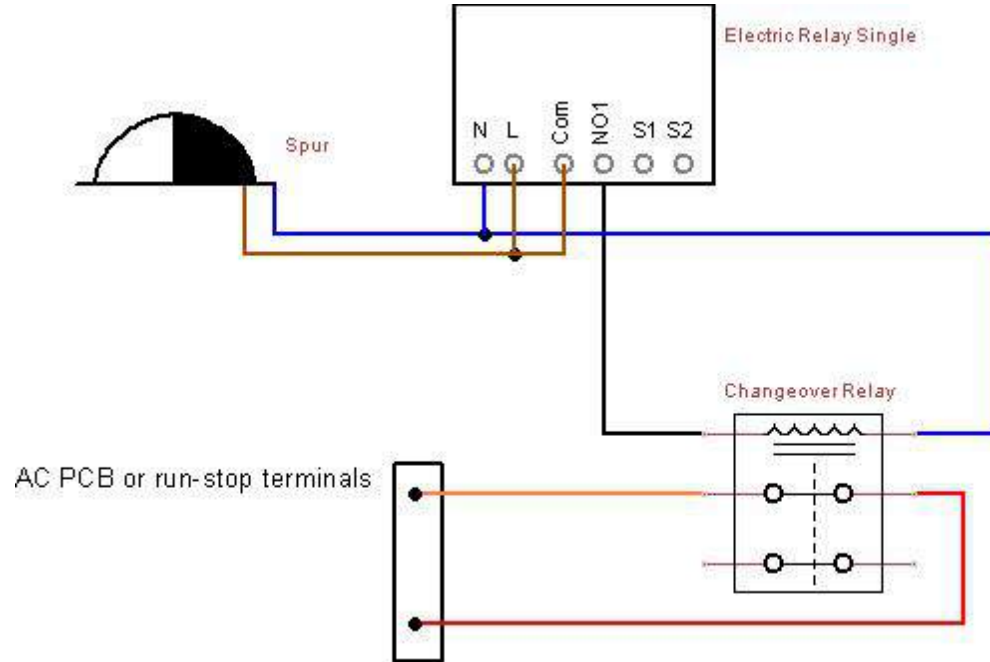
Programming:
AC Zone = ON/OFF for occupancy
AC Zone = TPI for frost protect
Group for both zones

Air Conditioning (heating & cooling)
- Electrical connections

Air Conditioning (heating & cooling) - Electrical connections
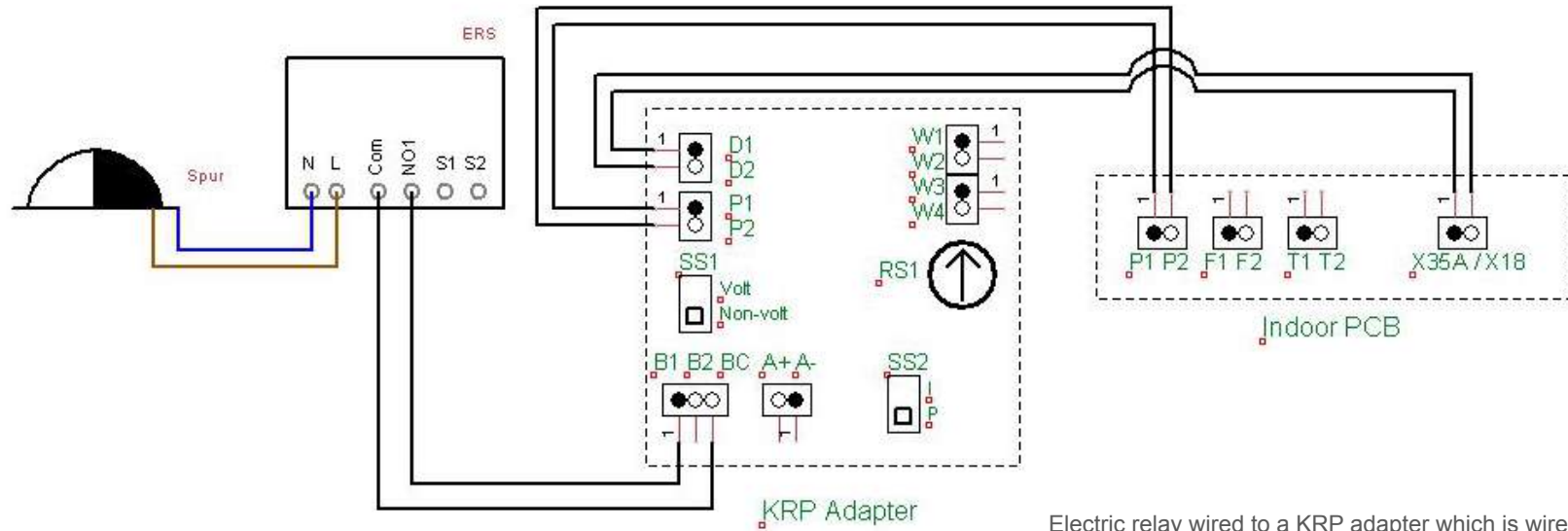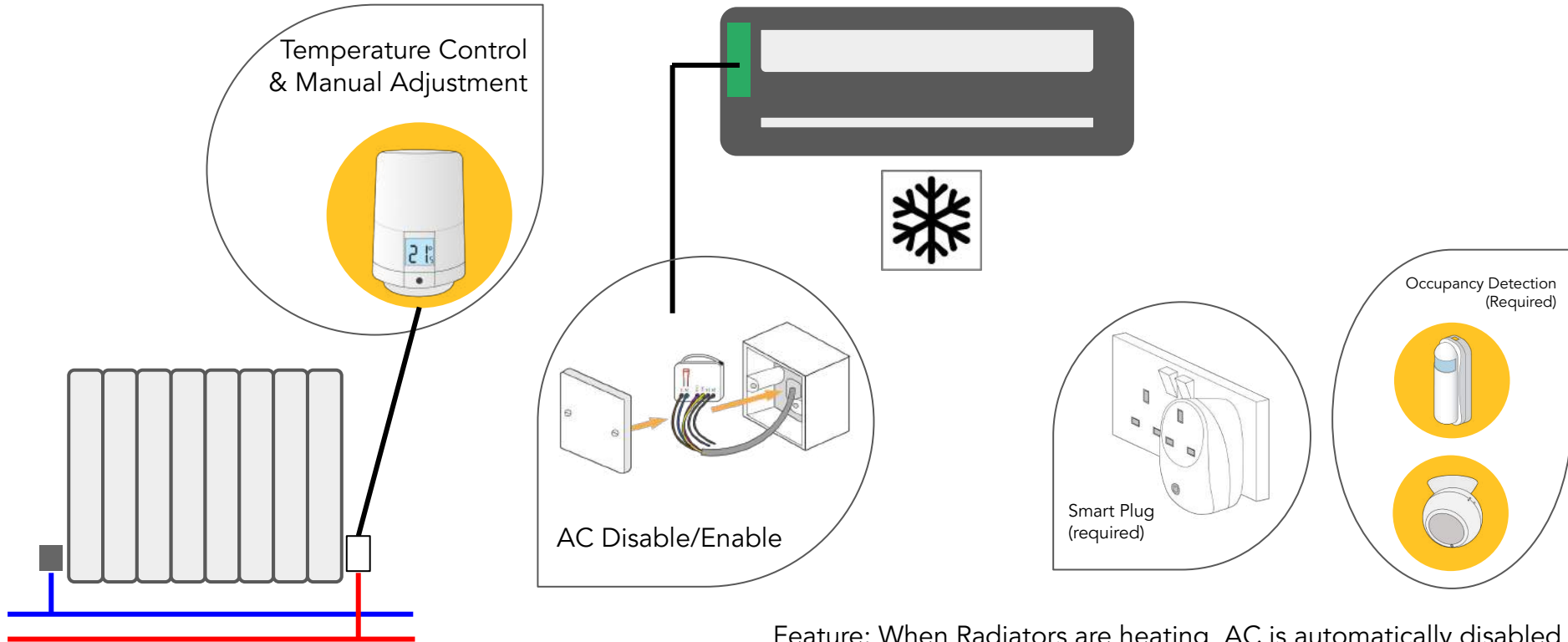

Electric relay wired to a KRP adapter which is wired to the PCB. KRP Adapters are NOT supplied by Genius Hub
- **RS1 - Position 2**
- **SS1 - non-volt**
- **SS2 - P**
- **D1, D2 to connect to X35A (power supply)**

Radiator and Air Conditioning (cooling)
With factory fitted control panel

Temperature Control & Manual Adjustment
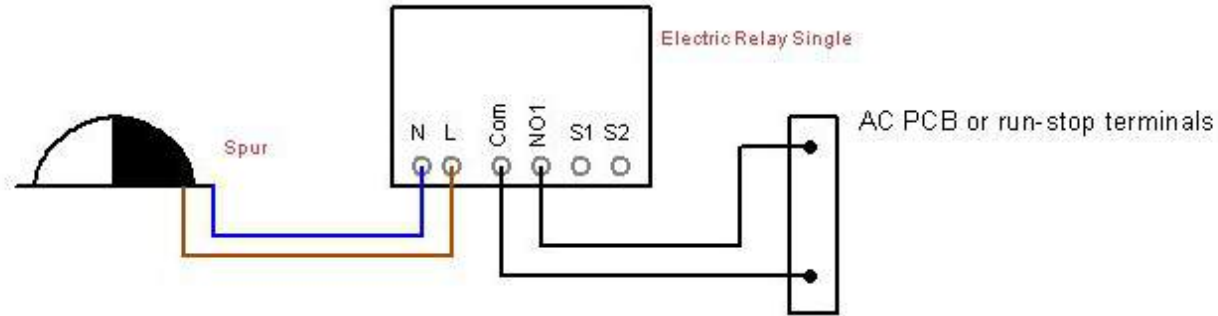
21°

AC Disable/Enable

Smart Plug (required)

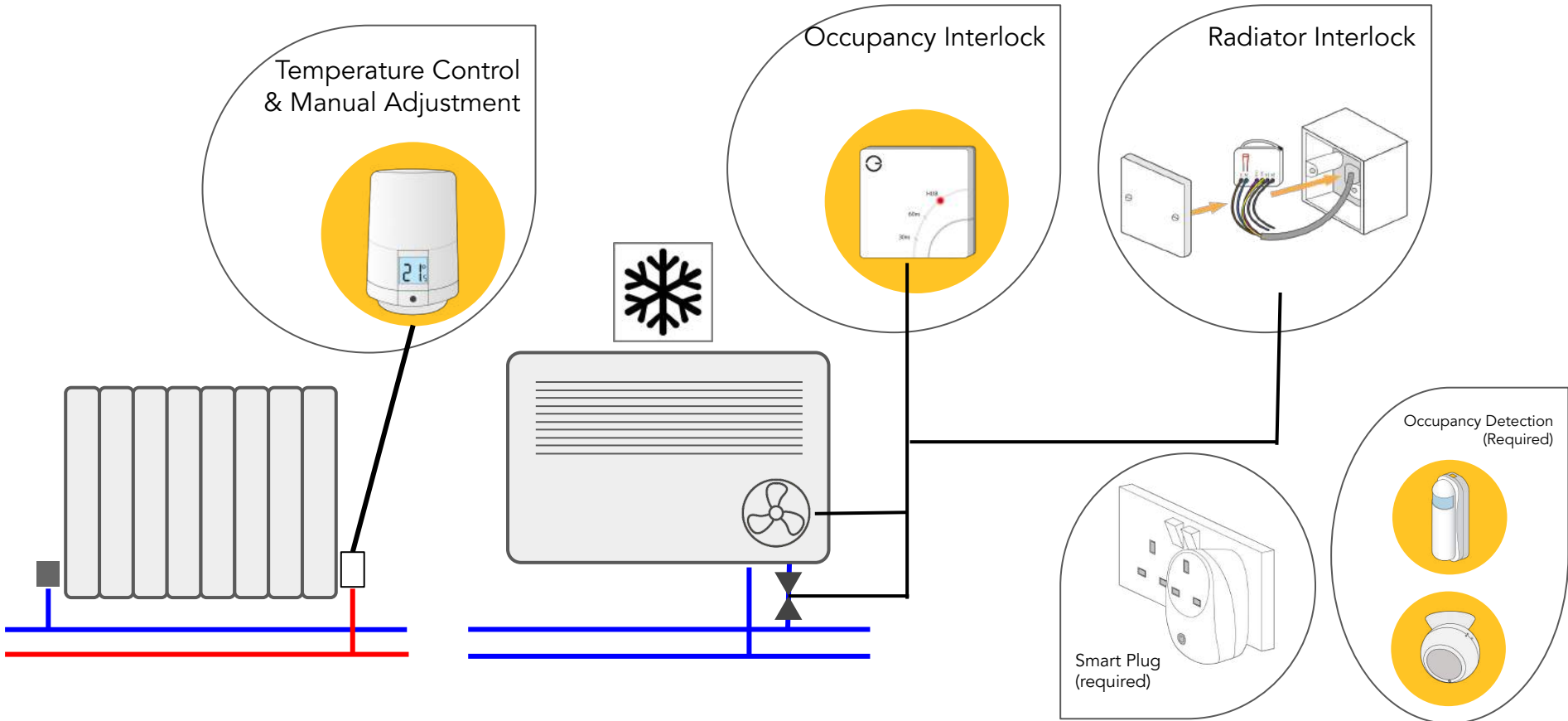Occupancy Detection (Required)

Programming:
Rad Zone = Radiator
AC Zone = On/Off (and TPI for frost protection)

Feature: When Radiators are heating, AC is automatically disabled
When room is vacated Radiators are automatically disabled (not the AC)

Radiator and Air Conditioning (cooling)
- Electrical connections

Electric Relay Single

N   L   Com   NO1   S1   S2

Spur

AC PCB or run-stop terminals

Radiator and FCU (cooling)

Temperature Control
& Manual Adjustment

Occupancy Interlock

Radiator Interlock
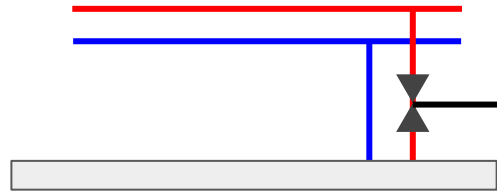
Occupancy Detection
(Required)

Smart Plug
(required)

Programming:
Rad Zone = Radiator (includes WRV & ERS)
FCU Zone = On/Off (Includes ESW)
Occupancy triggers assigned to both zones

Feature: When Radiators are heating, FCU is automatically disabled
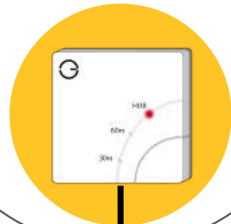When room is vacated Radiators and FCU are automatically disabled

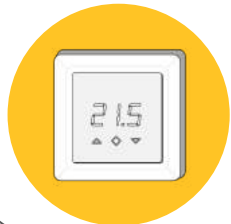# Radiator and FCU (cooling) - Electrical connections
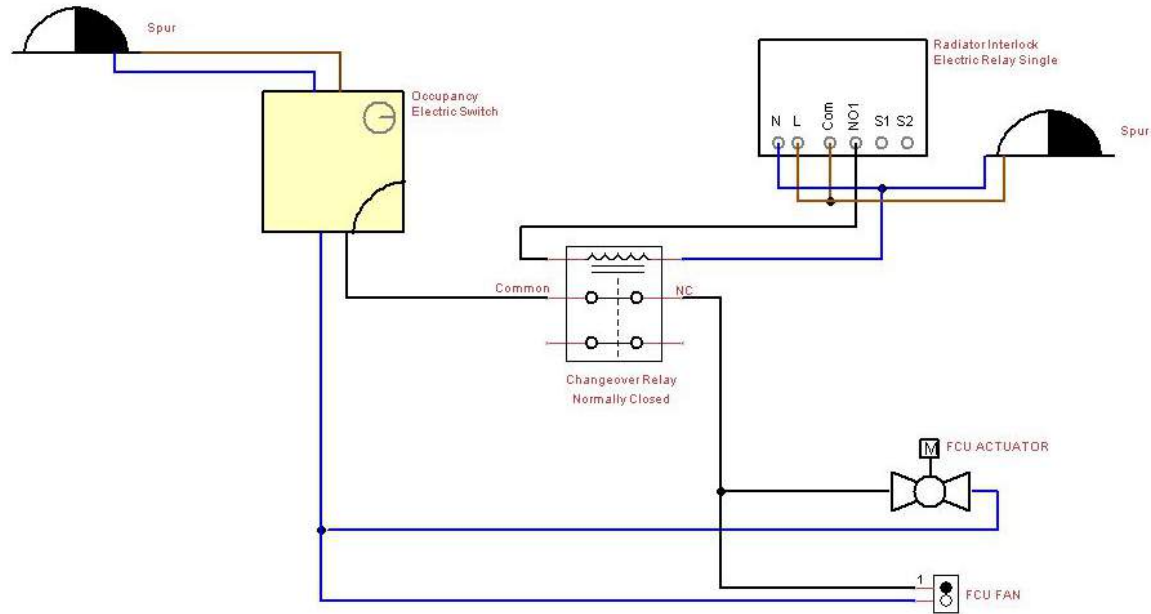
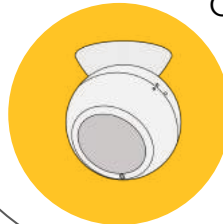# Overhead Radiant Panel (Wet)

Valve Switch &
Manual Boost

Switch & Manual
Temp. Adjustment
(Optional)
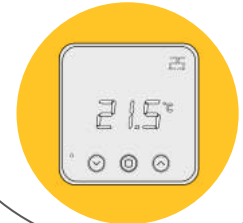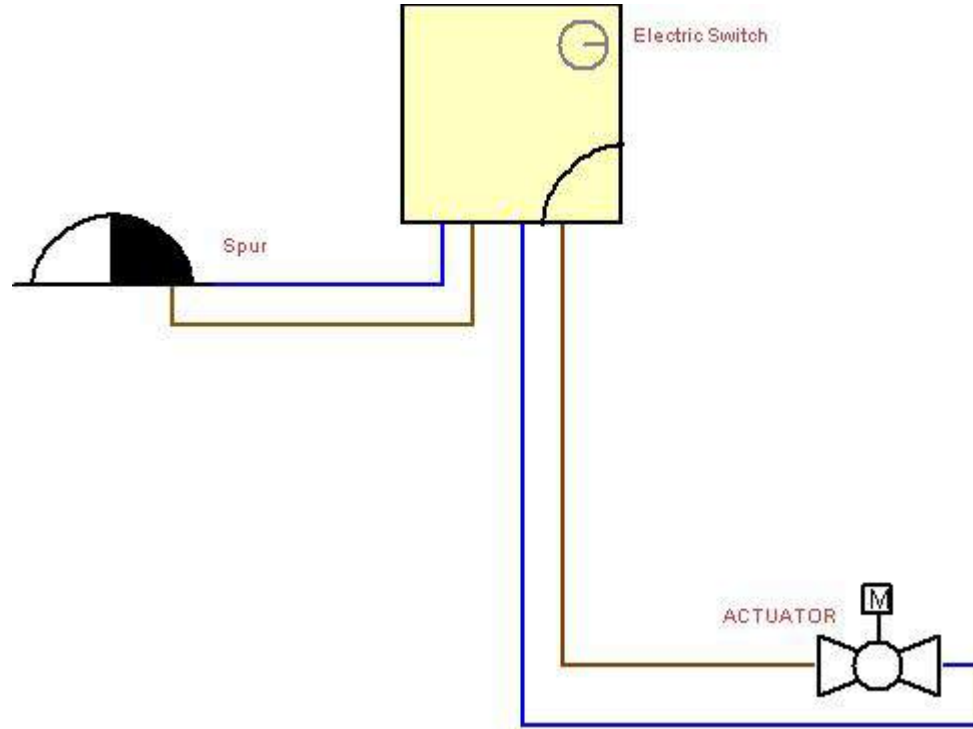
Occupancy Detection

Required

Optional

Manual Temperature
Adjustment & View
(Optional)

Programming:
Zone = TPI

Feature: When room is vacated Radiant Panels are automatically disabled

Overhead Radiant Panel (Wet) - Electrical connections

Overhead Radiant Panel (Elec.)

230V panel

Switch & Manual Boost

Occupancy Detection

Required

Optional

Manual Temperature Adjustment & View (Optional)

Switch & Manual Temp. Adjustment (Optional)

Programming:
Zone = TPI

Feature: When room is vacated Radiant Panels are automatically disabled
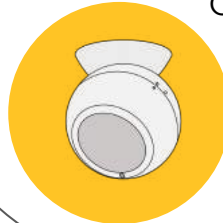
Overhead Radiant Panel (Elec.) - Electrical connections
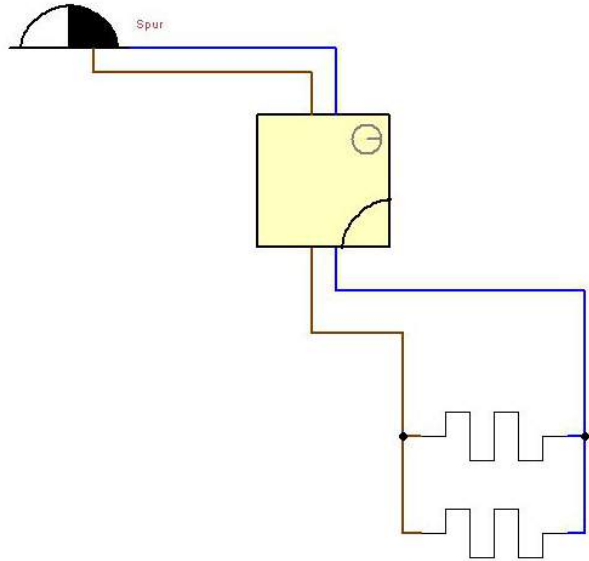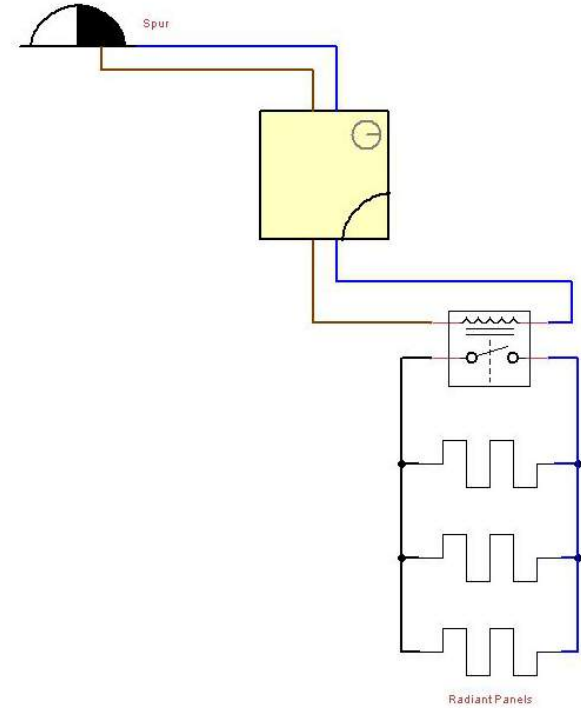
Total load <13A

Total load >13A
(contactor required)

Radiators and Ventilation (MVHR)

Temperature Control & Manual Adjustment

Occupancy Detection (Required)

Ventilation Disable/Enable

21°
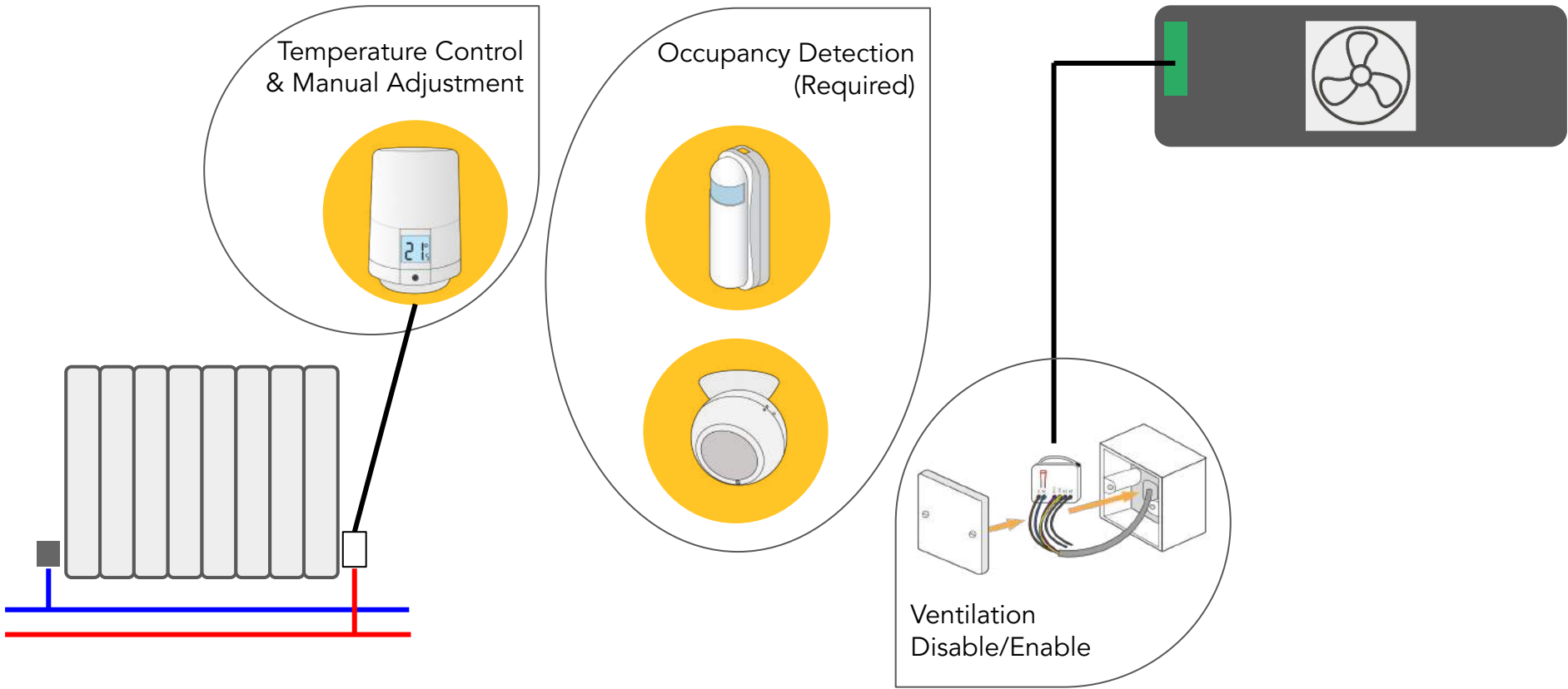
Programming:
Rad Zone = Radiator
MVHR Zone = ON/OFF
Occupancy triggers assigned to both zones

Feature: When room is vacated Radiators and MVHR are automatically disabled

Radiators and Ventilation (MVHR)
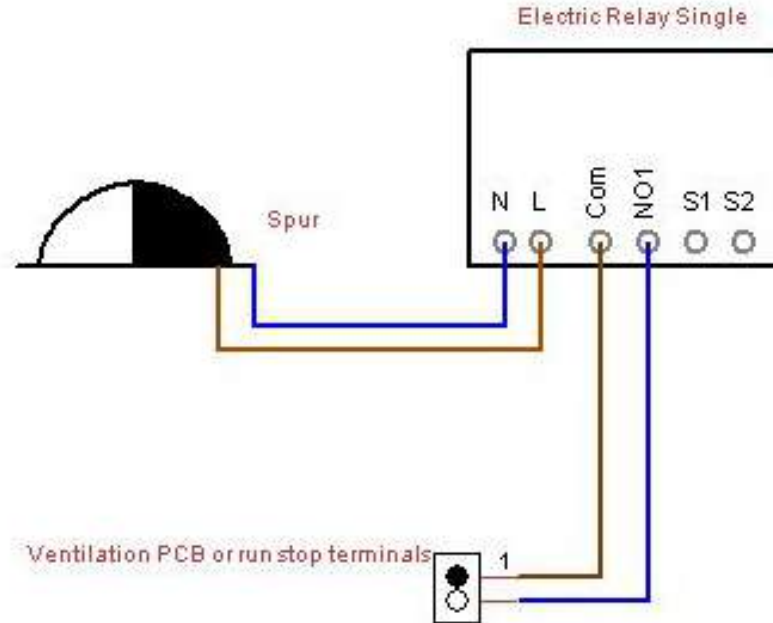# - Electrical connections

Electric Relay Single

Spur

N L Com NO1 S1 S2

Ventilation PCB or run stop terminals   1

Daikin Ventilation (MVHR) - Electrical connections
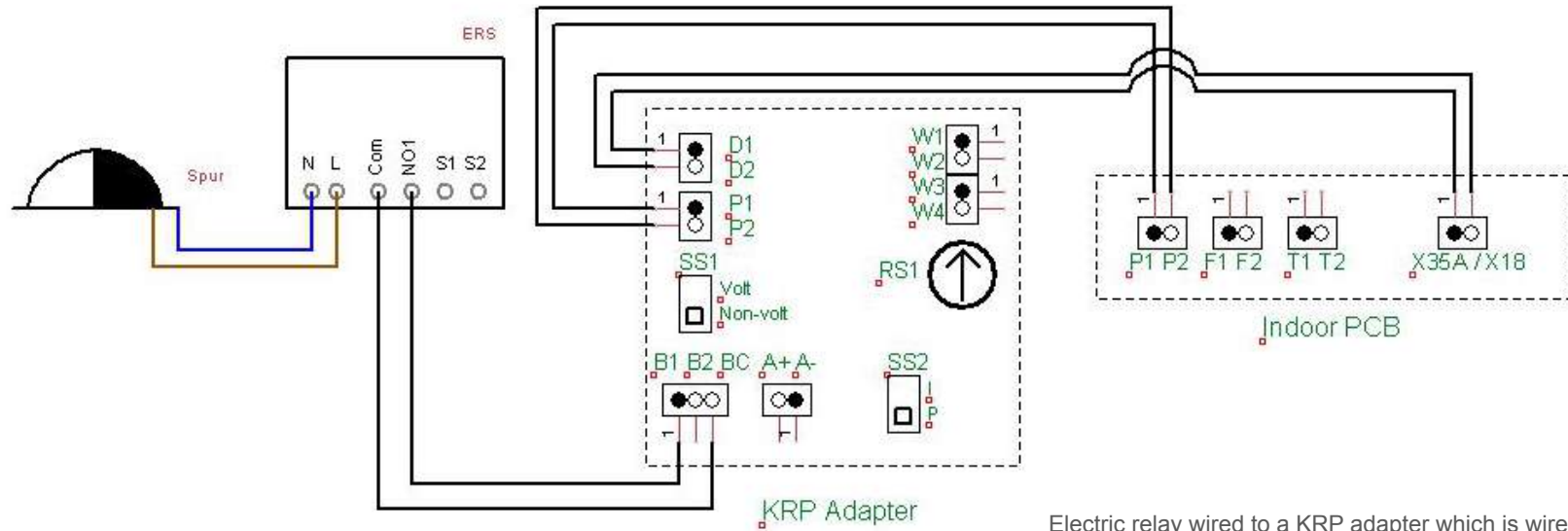
Electric relay wired to a KRP adapter which is wired to the PCB. KRP Adapters are NOT supplied by Genius Hub

- **RS1 - Position 2**
- **SS1 - non-volt**
- **SS2 - P**
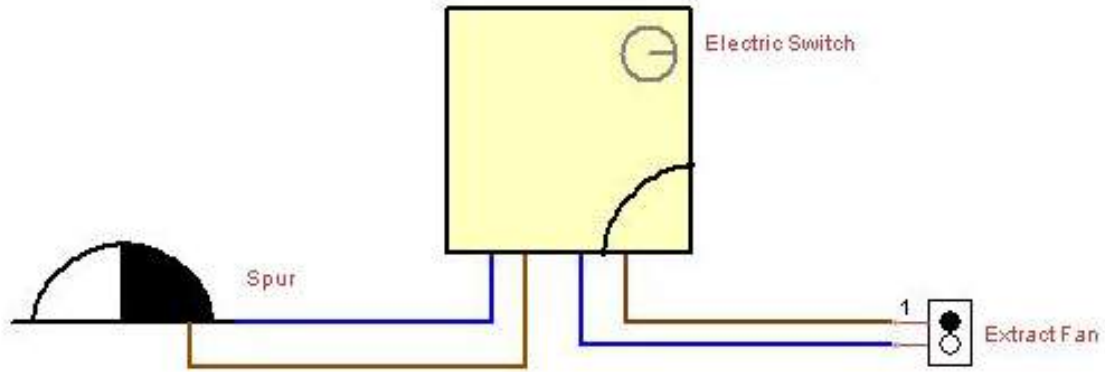- **D1, D2 to connect to X35A (power supply)**

Extract Fan

Fan Switch &
Manual Boost

Occupancy Detection
(Required)

Feature: When room is vacated Fan is automatically disabled
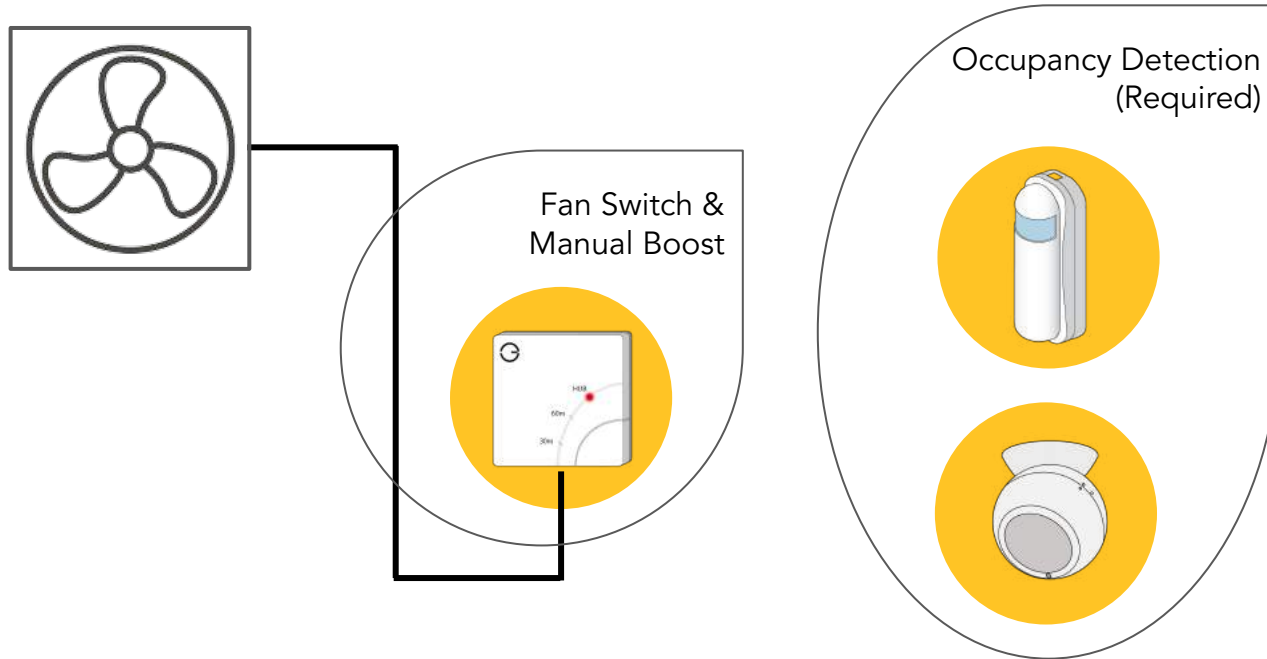
Extract Fan - Electrical connections

Water Heater

Heater Switch &
Manual Boost

Occupancy Detection
(Optional)
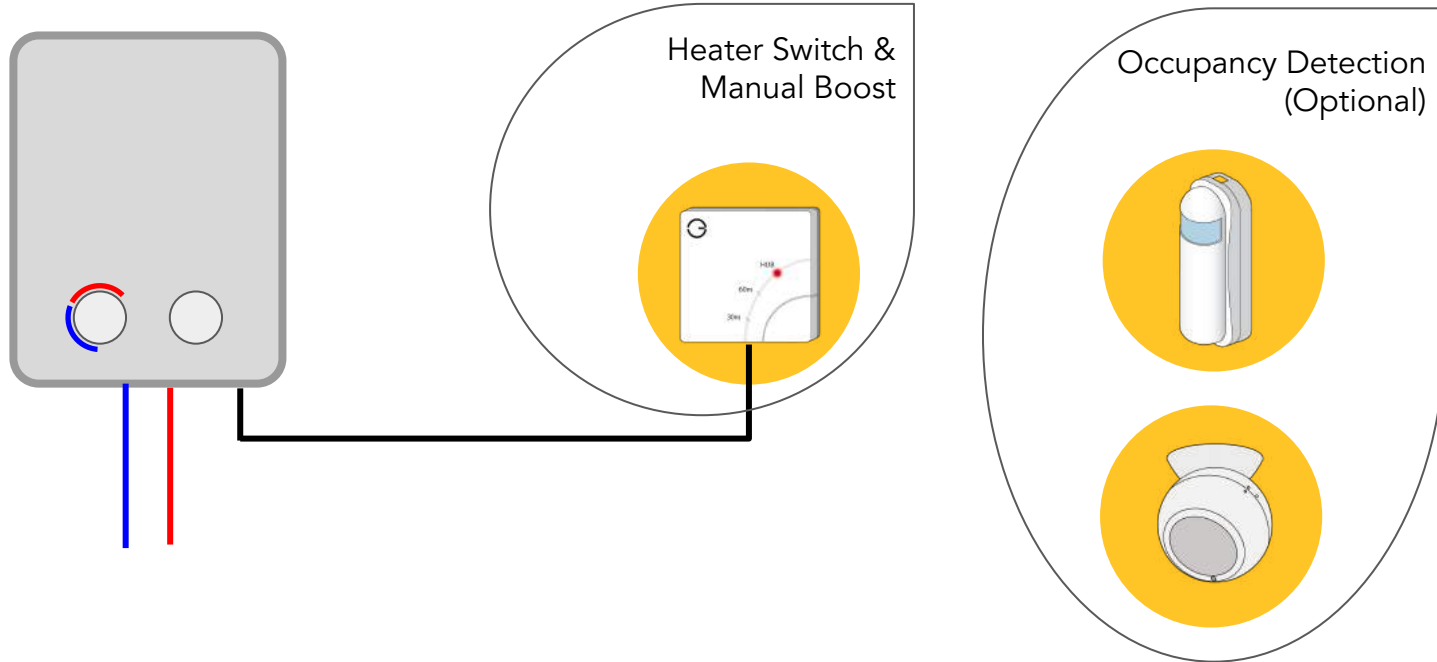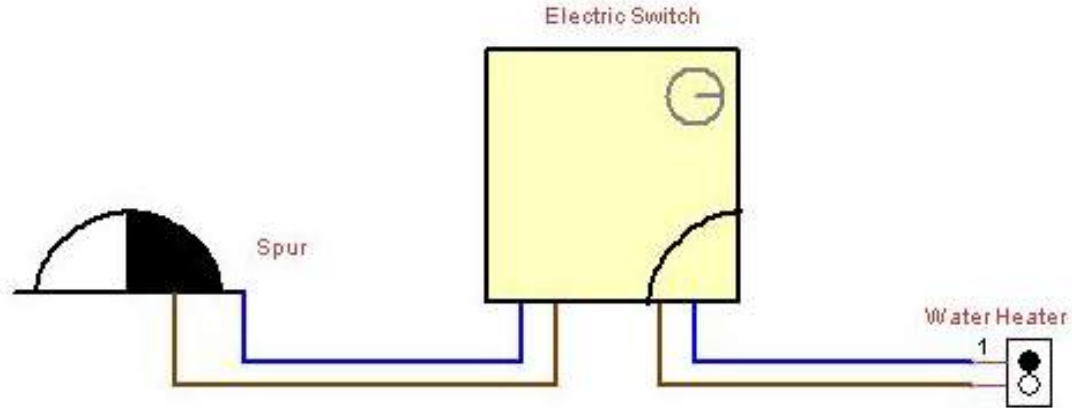
Programming:
Zone = ON/OFF
Occupancy triggers for all areas assigned to zone

Feature: When area is vacated Water Heater is automatically disabled

Water Heater - Electrical connections

Electric Switch

Spur

Water Heater

1

Total load <13A

DHW Tank (Gas)

Immersion Switch
Temp. Monitoring &
Manual Boost

Occupancy Detection
(Optional)

Zone Valve Switch &
Manual Boost
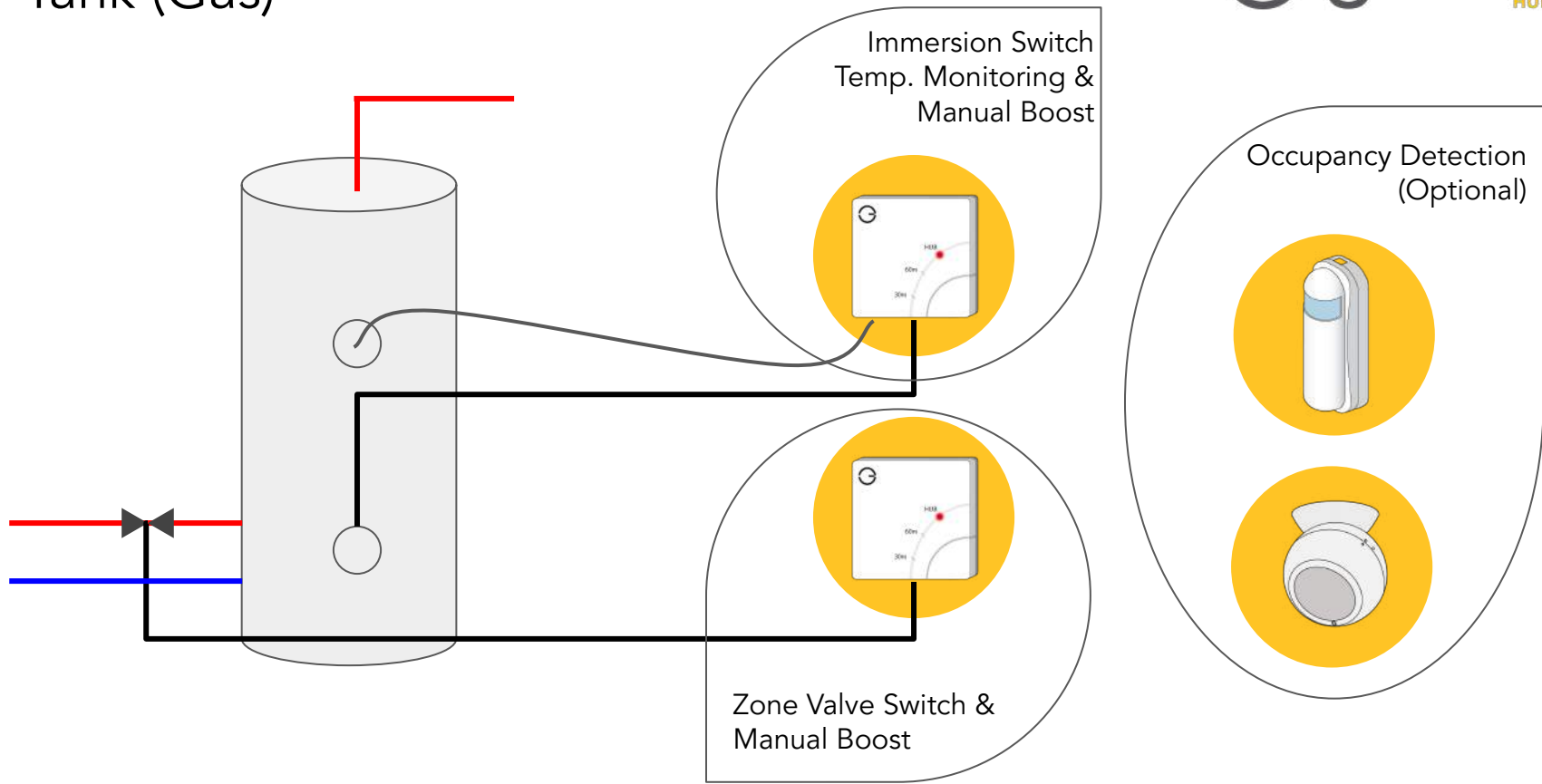
Programming:
Zone = TPI (boiler)
Occupancy triggers for all areas assigned to TPI zone
Zone = ON/Off (backup)

Feature: When area is vacated DHW is automatically disabled
Independent control of heating sources (remote electric immersion backup)

DHW Tank (Gas) - Electrical connections

Spur

ESW
DHW Immersion

DHW Immersion Element

Total load <13A

Spur fed from plant room

Spur

ESW
Zone Valve

ZONE VALVE
DHW ZONE VAVLE

M

Cylinder Stat

DHW Tank (Electric)

Immersion Switch
Temp. Monitoring &
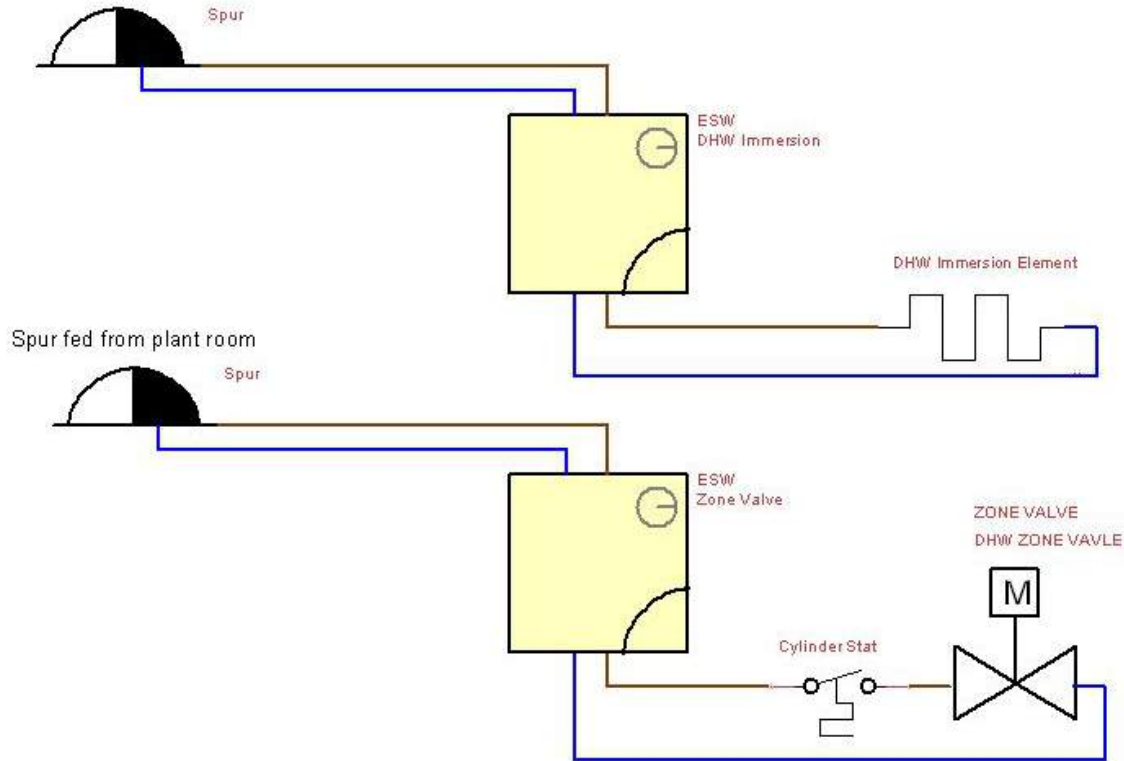Manual Boost

Occupancy Detection
(Optional)

Immersion Switch &
Manual Boost

Programming:
Zone = TPI (Main)
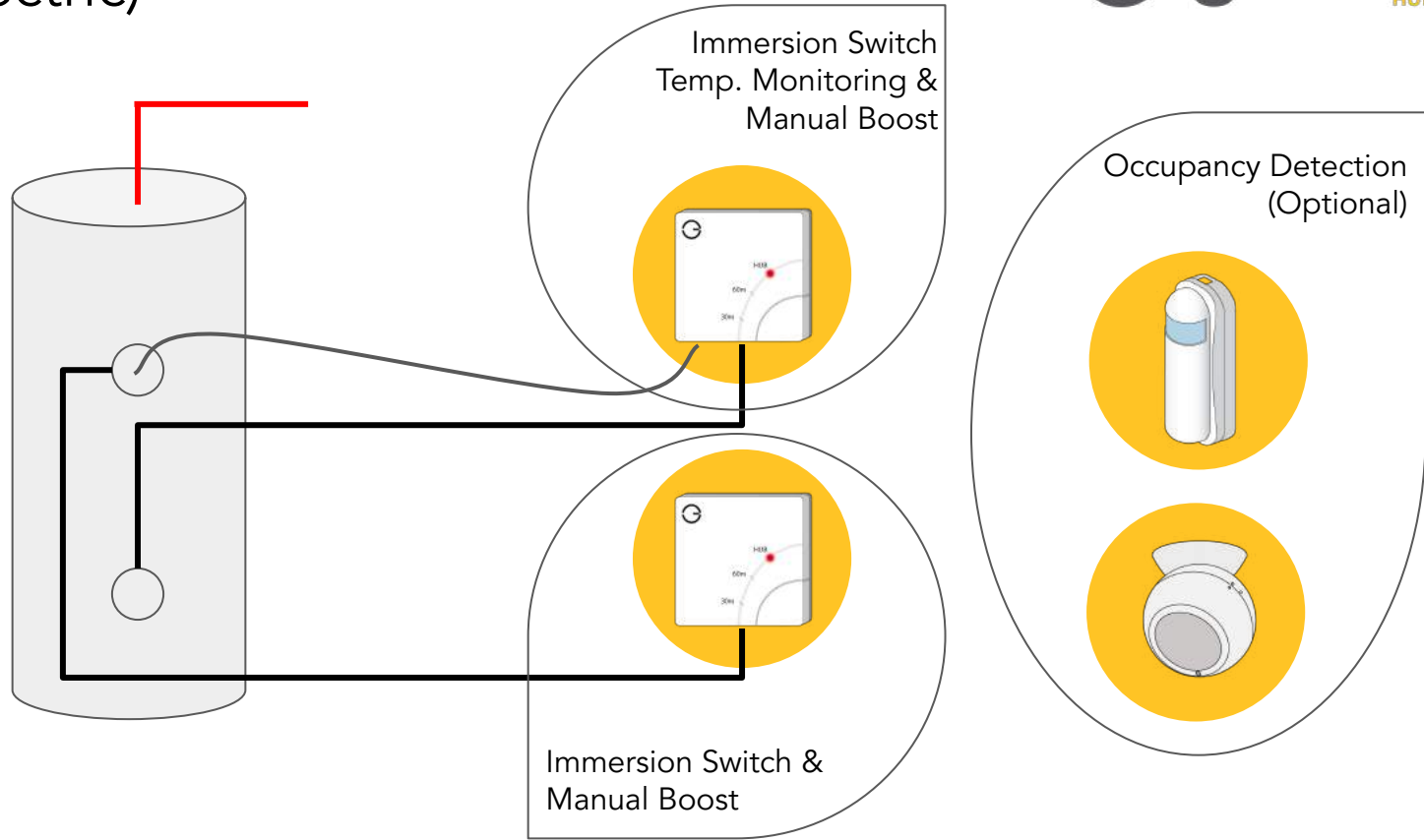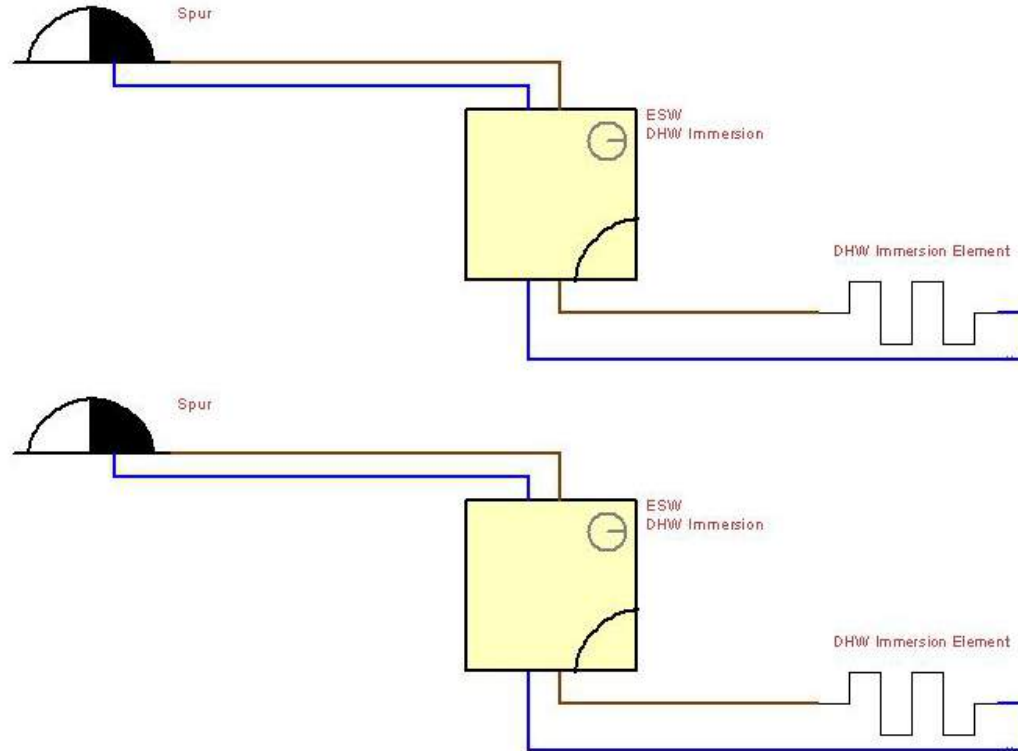Occupancy triggers for all areas assigned to TPI zone
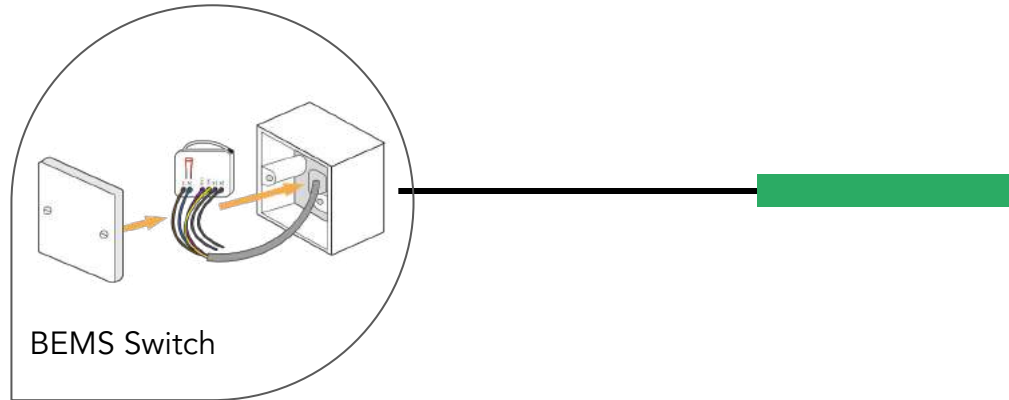Zone = ON/Off (Backup)

Feature: When area is vacated DHW is automatically disabled
Independent control of heating sources (remote electric immersion backup)

DHW Tank (Electric) - Electrical connections

Total load <13A

BEMS

BEMS Switch

Feature: all zones to interface with a BEMS

BEMS - Electrical connections