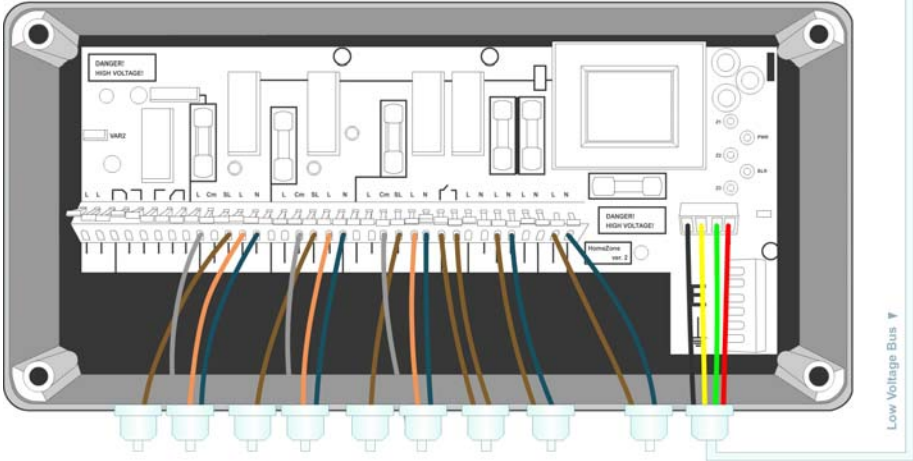
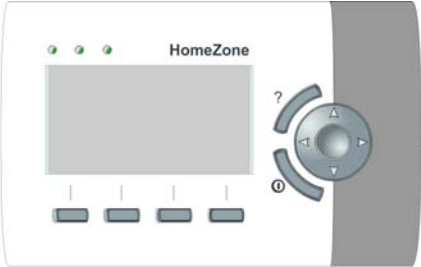


HOMEZONE INSTALLER MANUAL



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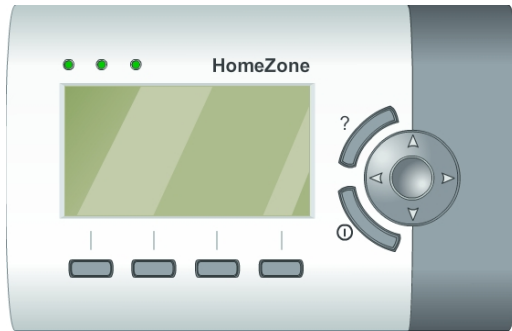
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01 | INTRODUCTION

The HomeZone System is comprised of two pieces:

1.1 HOMEZONE PROGRAMMER

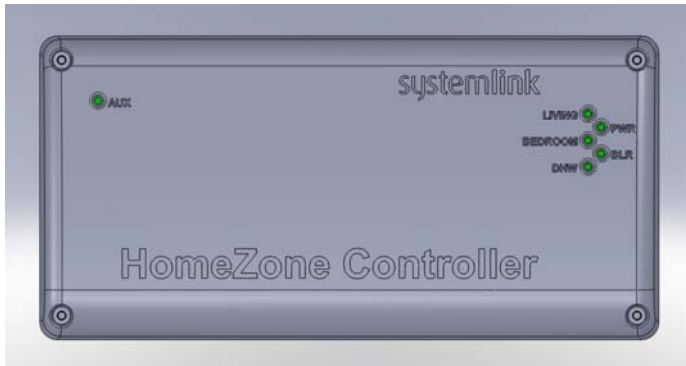


The HomeZone Programmer is connected to the HomeZone Controller by a 4-wire low voltage BUS. The HomeZone Programmer is powered from the Controller via the low voltage BUS.

CAUTION! Under no circumstances should Mains be connected to the HomeZone Programmer as irreparable damage will occur.

1.2 HOMEZONE CONTROLLER

The HomeZone Controller is a pre-configured electronic wiring centre that connects the controls (HomeZone Programmer and thermostats), pumps and boilers together in a logical and easy to understand way. The HomeZone Controller does all the complex cross wiring for the installer internally.



CAUTION! Switch off power supply before opening the HomeZone Controller. Installation should be carried out by a qualified professional.

All wiring related to the HomeZone printed circuit board MUST be in accordance with current statutory wiring regulations and any local regulations that apply. The power supply must be 230V AC~50Hz, Single Phase.

Attaching the HomeZone Controller board to more than one phase will cause irreparable damage. To ensure single phase, we recommend that power be introduced only at the mains input terminals (57, 58) and that all other mains inputs be derived from suitable outputs on the board itself.

CAUTION! Devices attached to the HomeZone Controller MUST be properly earthed in accordance with manufacturer's specifications.

The method of connection to the mains electricity supply MUST facilitate complete electrical isolation of the entire installation. A fused double pole switch, with at least 3mm (1/8") contact separation in both poles, serving only the HomeZone Controller should be used.

The HomeZone Controller will then provide for:

- Power Supply: 1 set of terminals for electrical mains supply connection fused at 5 Amps (57/Live, 58/Neutral).
- 3 sets of Live/Neutral terminals for power supply connection to boilers etc., fused at 3 Amps (51/52, 53/54 and 55/56).
- Zones 1-3: 3 sets of terminals to which external temperature controls and pumps or motorised valves may be connected, fused at 1 Amp.
- Control: 2 sets of terminals to provide either Switched or Voltage Free control to Boilers (61, 62 and 63, 64).
- Auxiliary Outputs: 2 sets of Auxiliary Output Relay terminals to facilitate auxiliary functions (71, 72, 73 and 74, 75, 76).
- Auxiliary Inputs: 2 Auxiliary Input Terminals (81, 82) to receive 230V AC supplies, any one of which will cause the auxiliary double pole relay to switch contacts, without back feeding to any other input.

CAUTION! Under no circumstances, should high and low voltage circuits be conducted through contacts on the same relay, as this would not comply with minimum clearance requirements specified by international wiring regulations. If a control is required on a circuit of different voltage than the primary circuit, the auxiliary control relay should be used.

02 | SITING OF THE HOMEZONE

The **HomeZone Controller** will typically be mounted in the utility room or plant room.

The **HomeZone Programmer** will typically be mounted in a main living area of the house that is easily accessible by the occupants so that adjustments can be easily made. Particular attention should be paid to its position if the internal thermostat is in use. In this case, generally it should be installed in an area of the house that gives a realistic representation of the overall temperature in that zone.

It should not be placed close to sources of direct heat, e.g. radiator, TV, computer, etc. or in direct sunlight. It should also not be placed close to a door or window opening where it may be exposed to draughts. It should be fixed to the wall at a height of approximately 1.5m.

The **HomeZone Programmer** can be mounted on a standard electrical patras box and has a plug-in terminal block for the 4-core low voltage BUS cable. This can be unplugged from the Programmer and wired in place during early electrical fixing work.

03 | CONTROLLING TEMPERATURE

An Internal Thermostat has been built into the HomeZone, which can be assigned to either of the 2 heating zones, normally to the zone in which the the Programmer is situated. This can be assigned at system start-up or accessed through “Advanced Settings” in the main menu.

If the Internal Thermostat is being used and has been applied to a certain zone, a link must be placed between the 2 terminals provided for a room thermostat, in that particular zone, i.e. if the Internal Thermostat is applied to the Living Area Zone, a link must be inserted between terminals 13 and 14 or if it is applied to the Bedroom Area Zone a link must be inserted between terminals 23 and 24. Room Thermostats can otherwise be used for both heating zones and the Internal Thermostat can be disabled.

An example would be; the internal thermostat is assigned to the Living Area Zone (where the **HomeZone Programmer** is located), a standard room thermostat is connected for

the Bedroom Area Zone and a standard cylinder thermostat is connected for the Domestic Hot Water zone.

NOTE! If no thermostats of any kind are connected to the HomeZone controller, a link must be inserted in the thermostat common/Cm and switch-live/SL terminals on the controller.

04 | ELECTRICAL CONNECTIONS TO THE *HOMEZONE CONTROLLER*

CAUTION! Under no circumstances should Mains be connected to the HomeZone Programmer as irreparable damage will occur.

CAUTION! Switch off power supply before opening the HomeZone Controller. Installation should be carried out by a qualified professional.

4.1 CONNECTING MAINS SUPPLY

- 1) Connect the 'Live' input from the external Double Pole Switch to the HomeZone Controller Mains Supply 'L' terminal (57).
- 2) Connect the 'Neutral' input from the external Double Pole Switch to the HomeZone Controller Mains Supply 'N' terminal (58).
- 3) Connect the 'Earth' to the Earth Block on the PCB.

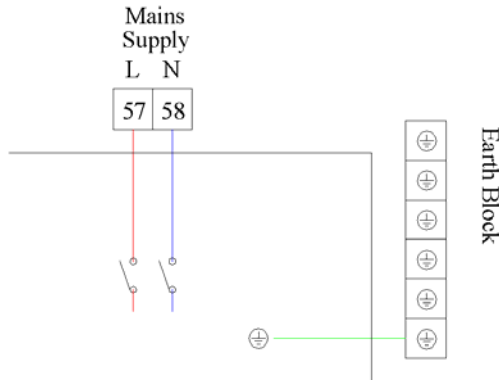


Figure 1. Connecting Mains Supply and Earth

NOTE! As soon as a 230V AC Mains Supply is connected to 57 and 58 on the HomeZone Controller, the following terminals become "Live" and serve as Mains Outputs; 11, 21, 31, 51, 53, 55.

4.2 CONNECTING STANDARD ROOM/CYLINDER THERMOSTATS

Thermostats should be connected in the following manner:

The Common on the thermostat should be fed from the terminal marked “Cm” on the Controller, i.e. terminal 13 on Living Area Zone and the Switch wire from the thermostat should be connected to the terminal marked “SL”, i.e. terminal 14 on Living Area Zone. See Figure 2.

If a power supply is required for the thermostat one is available at each zone e.g. terminals 11/Live and 16/Neutral on Living Area Zone. A Cylinder Thermostat is connected in the same fashion except to Zone 3, the Domestic Hot Water Zone.

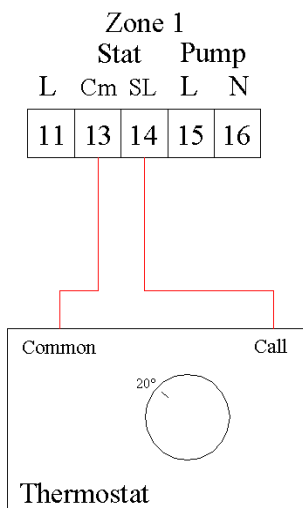


Figure 2. Connecting a Thermostat

4.3 CONNECTING ZONE PUMPS

Zone Pumps should be connected in the following manner:

The 230V AC supply to the pump should be fed from the terminals marked Pump L and N in each zone on the HomeZone Controller, e.g. terminals 15/Live and 16/Neutral on Living Area Zone or terminals 35/Live and 36/Neutral on Domestic Hot Water Zone.

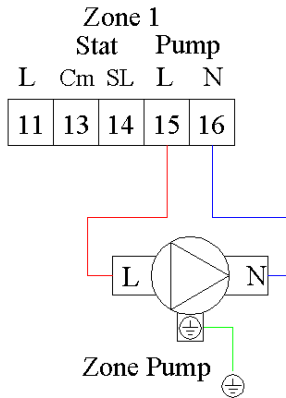


Figure 3. Connecting a Zone Pump

4.4 CONNECTING ZONE MOTORISED VALVES

Zone Motorised Valves should be connected in the following manner:

The 230V AC permanent supply to the motorised valve if required should be fed from the terminal marked L and N in each zone on the **HomeZone Controller**, e.g. terminals 15/Live and 16/Neutral on Living Area Zone or terminals 35/Live and 36/Neutral on Domestic Hot Water Zone.

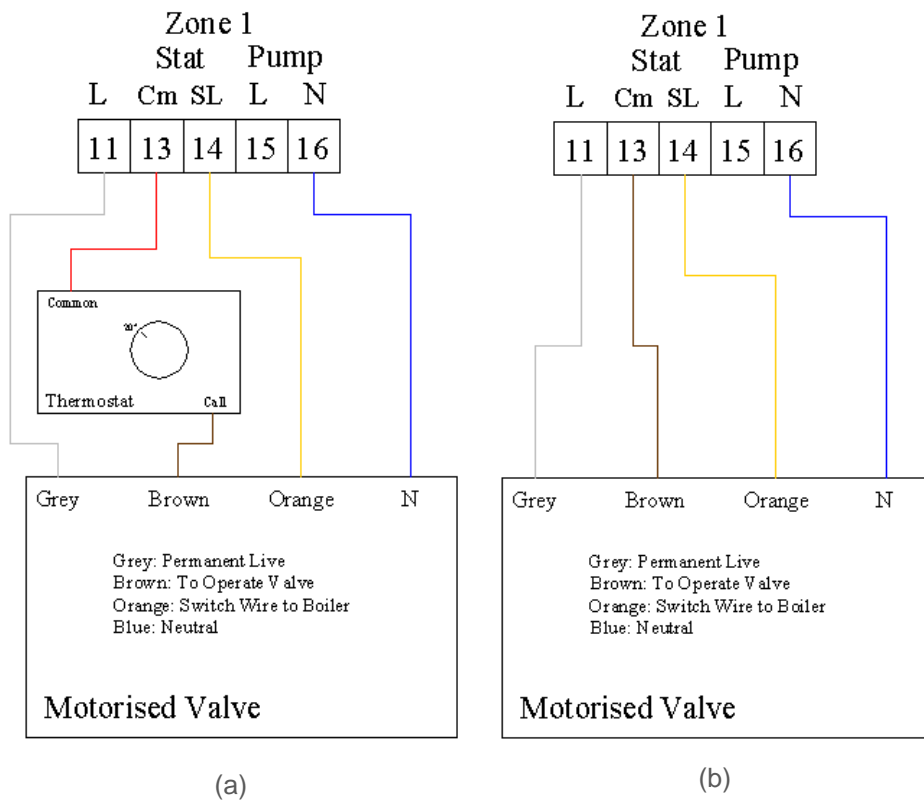


Figure 4. Connecting a Motorised Valve using, (a) HomeZone's Internal Thermostat, or (b) A Room Thermostat

4.5 CONNECTING HEAT SOURCES

4.5.1 BOILER REQUIRING PERMANENT POWER SUPPLY

A boiler with permanent power supply should be attached to the HomeZone controller in accordance with manufacturer's instructions and with the following connection method;

- 1) Connect a 230V~ 'Live' output from any one of the HomeZone Power Supplies (51, 53 or 55) to the boiler's permanent live point if required. This supply is fused to 3amps on the HomeZone.

- 2) Connect a 'Neutral' output from any one of the HomeZone Power Supplies (52, 54 or 56) to the boiler's neutral terminal.

4.5.2 'VOLTAGE FREE' OR 'LOW VOLTAGE' BOILER CONNECTION

A 'Voltage Free' connection may be provided to the boiler as follows;

- 1) Connect the Output from the boilers' control panel to the appropriate HomeZone control terminal (61).

- 2) Connect the Input from the boiler's control panel to the appropriate HomeZone control terminal (62).

On some boilers a link is removed for external controls. If this is the case, remove the link in the boiler and connect these two terminals directly to terminals 61 and 62 on the HomeZone Controller as shown in Figure 5.

HomeZone Terminal Block

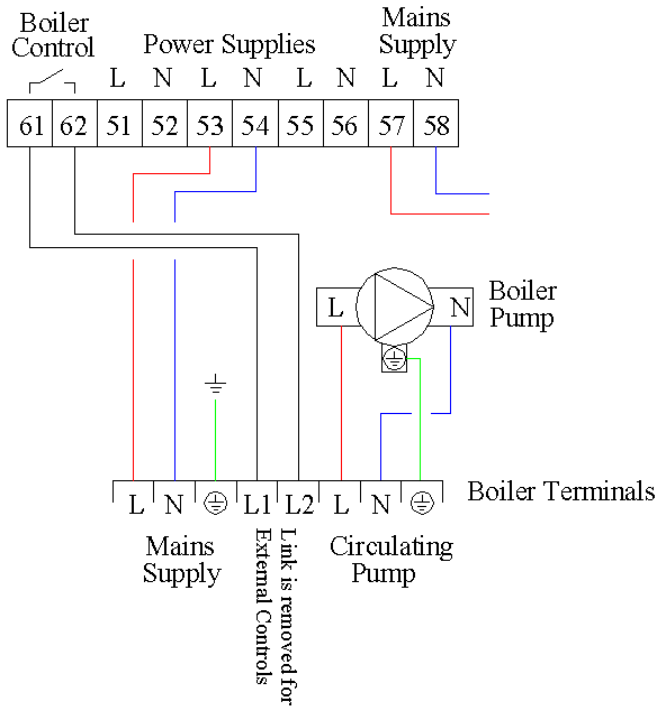


Figure 5. Connections to Boiler with separate supply and switch control

4.5.3 SWITCHED POWER SUPPLY BOILER CONNECTION

A switched power supply may be provided to a boiler as follows (Figure 6);

1) Connect a 230V~ 'Live' output from any one of the HomeZone Power Supplies (51, 53 or 55) to one side of the Boiler Control Relay, terminal 61 on the HomeZone Controller.

2) Now a 'Switched-Live' 230V~AC output can be connected from the other side of the normally open Boiler Control Relay, terminal 62 of the HomeZone Controller to the boiler's Switch-Live terminal input. The 'Switched-Live' will automatically energise when any zone calls.

HomeZone Terminal Block

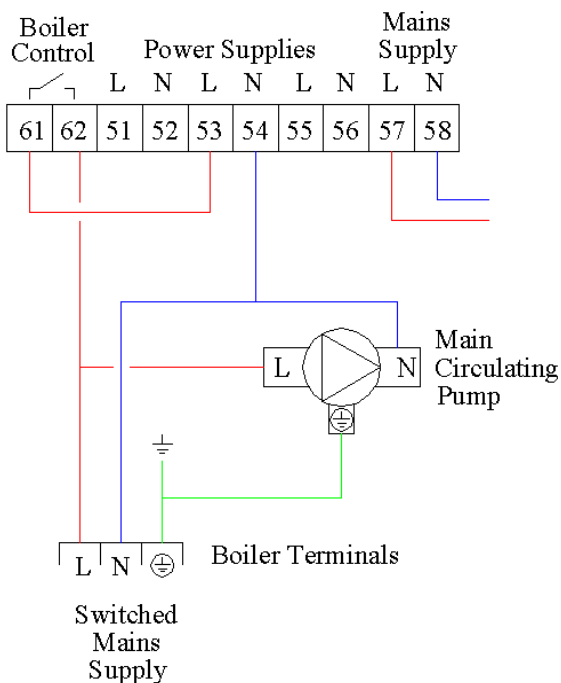


Figure 6. Connections to Boiler requiring Switched Mains Supply

4.5.4 INTERCONNECTING A SOLID FUEL BOILER AND AN OIL OR GAS BOILER TO THE HOMEZONE:

An auxiliary relay has been provided to allow the connection of a solid fuel appliance to the system. Typically a Pipe Thermostat connected to the Auxiliary Relay Input (81) is used to control the switching “on” of pumps on the solid fuel circuit, using the normally open auxiliary relay (73) to dissipate excess heat to one of the heating zones. The Zones themselves are wired up as normal. The normally closed auxiliary relay (75,76) may be used to lock out the oil or gas boiler until the excess heat produced by the solid fuel appliance has been dissipated. This facilitates the solid fuel appliance and the oil or gas boiler working seamlessly together.

Note! Any Solid Fuel Appliance should be installed in accordance with manufacturer's instructions.

HomeZone Terminal Block

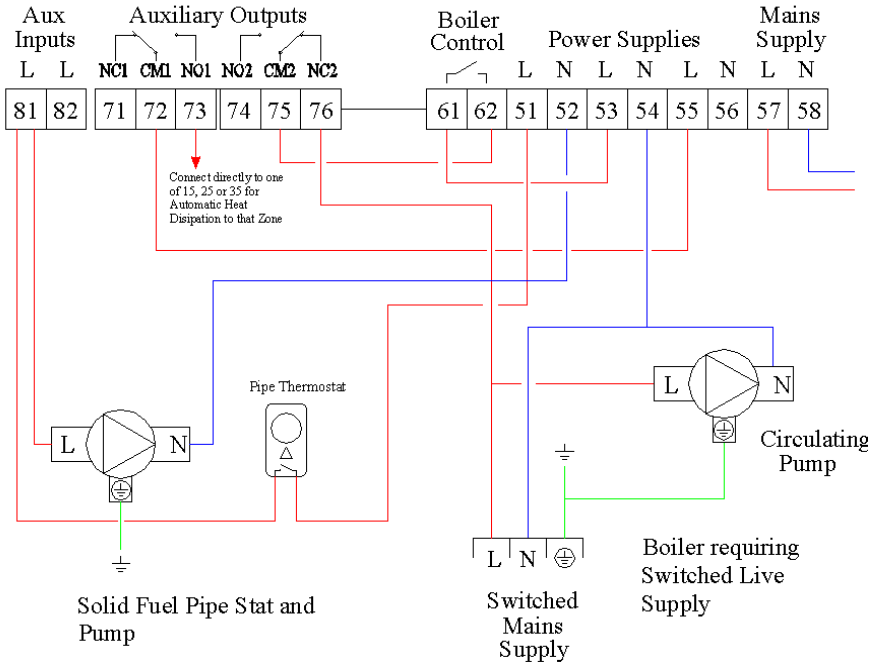


Figure 7. Connecting a Solid Fuel Appliance and a Switch Live Boiler

05 | TROUBLESHOOTING:

