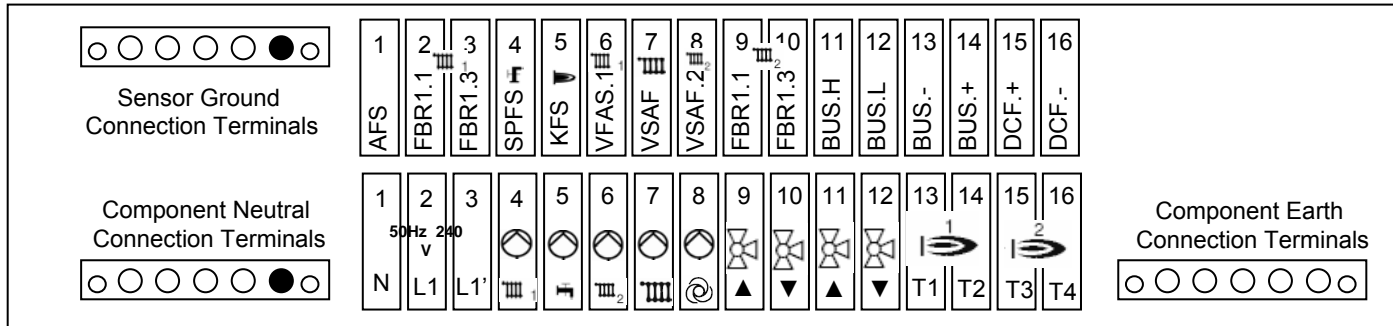


MHS BOILERS

Ultramax KKM6/E6/E8 (4031/1111/1121) Cascade/System Manger Housing Wiring Guide WAG1

Low Voltage Connection Terminals (Only screened cables or MHS supplied sensor to be used.)



240 Volt Connection Terminals

Low Voltage Connection Terminals (Upper Terminal Rail)

1. AFS. Outside air sensor (Connect sensor ground to common ground rail)
2. FBR1.1. Telephone Modem Enable for Heat Zone 1 (Volt free)
3. FBR1.3. Telephone Modem Enable for Heat Zone 1 (Volt free)
4. SPFS. HWS Sensor (Connect sensor ground to common ground rail)
5. KFS. Low Loss Header Sensor (Connect sensor ground to common ground rail)
6. VFAS. Flow Sensor Heating Zone 1 (Connect sensor ground to common ground rail)
7. VFAS. (Not Used With Ultramax Controller Configuration)
8. VFAS. Flow Sensor Heating Zone 2 (Connect sensor ground to common ground rail)
9. FBR1.1. Telephone Modem Enable for Heat Zone 2 (Volt free)
10. FBR1.3. Telephone Modem Enable for Heat Zone 2 (Volt free)
11. BUS H. COCO Unit and Optional BM/BM8 Room Unit (Up to two BM/BM8 Units)
12. BUS L. COCO Unit and Optional BM/BM8 Room Unit (Up to two BM/BM8 Units)
13. BUS -. COCO Unit and Optional BM/BM8 Room Unit (Up to two BM/BM8 Units)
14. BUS +. COCO Unit and Optional BM/BM8 Room Unit (Up to two BM/BM8 Units)
15. DCF +. (Optional Extra) Time Clock Radio Control Module
16. DCF -. (Optional Extra) Time Clock Radio Control Module

240 Volt Connection Terminals (Lower Terminal Rail)

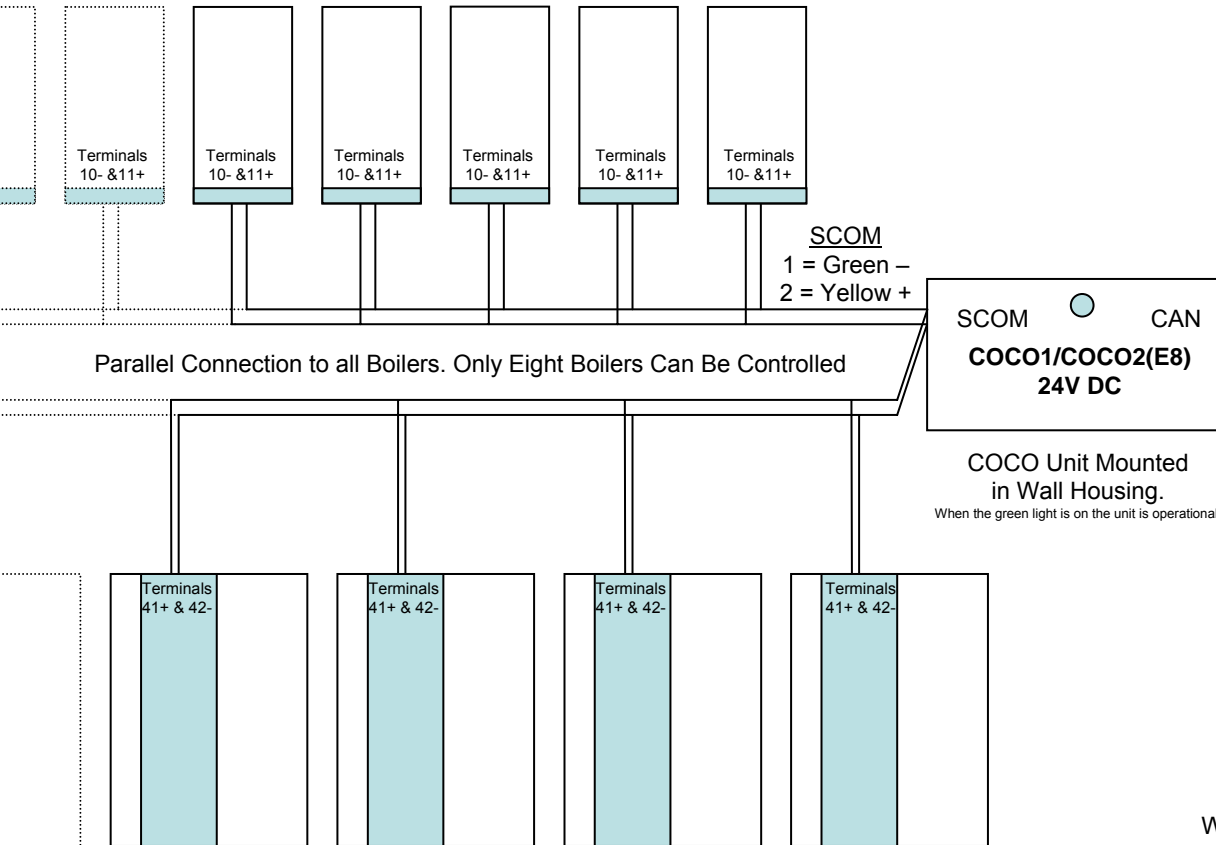
1. N Permanent 240 Volt Neutral Supply.
2. L1 Permanent 240 Volt Live Supply. (Clock Supply.)
3. L1' Permanent 240 Volt Live Supply (Switching Relay Supply.)
4. Heating Zone 1 Circulating Pump 240 Volt Output. (2 Amps Max.)
5. HWS Charging Pump 240 Volt Output. (2 Amps Max.)
6. Heating Zone 2 Circulating Pump 240 Volt Output. (2 Amps Max.)
7. (Not Used With Ultramax Controller Configuration.)
8. HWS Secondary Circulating Pump 240 Volt Output. (2 Amps Max.)
9. Heating Zone 1 Mixing Valve Opening Output. 240 Volt Output. (2 Amps Max.)
10. Heating Zone 1 Mixing Valve Closing Output. 240 Volt Output. (2 Amps Max.)
11. Heating Zone 2 Mixing Valve Opening Output. 240 Volt Output. (2 Amps Max.)
12. Heating Zone 2 Mixing Valve Closing Output. 240 Volt Output. (2 Amps Max.)
13. T1 (Not Used With Ultramax Controller Configuration.)
14. T2 (Not Used With Ultramax Controller Configuration.)
15. T3 (Not Used With Ultramax Controller Configuration.)
16. T4 (Not Used With Ultramax Controller Configuration.)

Please note: Screened cables must be used for all low voltage, sensor and boiler communication circuits. The screening must be earthed at both ends. Boiler communication and room unit connections are polarity sensitive.



Ultramax COCO Communication Converter & BM/BM8 Room Unit Wiring Guide

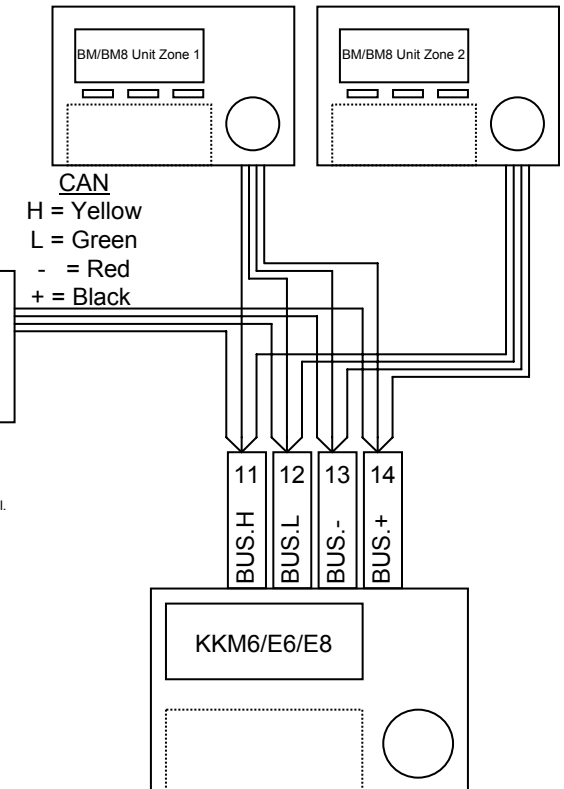
Up To Eight Ultramax WM Boilers Can Be Controlled Via One KKM 4031/ One Boiler via E6&E8.
 The units Volt Free Enable must be made to allow the unit to operate. Terminals 4 & 5.



Up To Eight Ultramax Floor Standing Boilers Can Be Controlled Via One KKM 4031/ One Boiler via E6&E8
 The units Volt Free Enable must be made to allow the unit to operate. Terminals 10 & 11.

If Required A Mixture of Ultramax Boiler Types and Outputs Can Be Controlled via The KKM 4031 controller

Up to two BM/BM8 room units can be connected to a KKM/E6/E8



When BM/BM8 room units are connected the respective zone's circulating pumps must be controlled via the control unit.

To enhance the temperature control of the individual heating zones, flow sensors and 3 way valves can also be connected to and controlled via the controller unit.