

INSTALLATION INSTRUCTIONS FOR MODEL WCS-201HS (WITHOUT ZONES) AND WCS-201HZ (WITH ZONES) MICROPROCESSOR AIR CONDITIONING SYSTEM CONTROLLER.

APPLICATION.

The WCS-201 microprocessor air conditioning controller is suitable for installation with all water source air conditioning units. The WCS-201 will operate with reverse cycle, cool/electric element heat or cool only air conditioning units. The WCS-201HS & HZ are both suitable for any of these unit types with the power relay board selected to suit the application. The relay boards are in two categories, heat pump and cool/electric heat. The models available are listed below.

Reverse cycle without zones	Reverse cycle with zones	Description
PCB-079HP/S-1010	PCB-079HP/Z-1010	10 amp cool control relay, 10 amp heat control relay
PCB-079HP/S-3010	PCB-079HP/Z-3010	30 amp cool relay, 10 amp heat control relay

Cool Electric Heat without zones	Cool Electric Heat With Zones	Description
PCB-079EH/S-1010	PCB-079EH/Z-1010	10 amp cool control relay, 10 amp heat control relay
PCB-079EH/S-3010	PCB-079EH/Z-3010	30 amp cool relay, 10 amp heat control relay
PCB-079EH/S-3025	PCB-079EH/Z-3025	30 amp cool relay, 25 amp heat relay

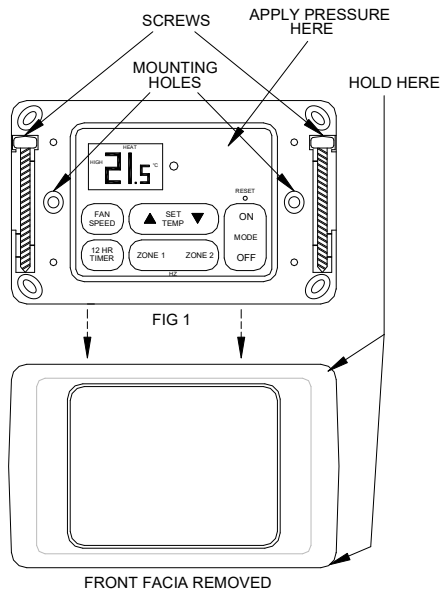
PACKING CHECKLIST.

The WCS-201 when supplied consists of the following items:

- WCS-201HS (HZ) slim fascia wall control.
- PCB-079* main power board.
- 5 metre interconnecting lead with quick connect plugs at each end of lead.
- Installation and operating instructions and wiring diagram.

INSTALLATION PROCEDURE.

A) WCS-201 Room Wall Control.



The WCS-201 has a removable front fascia, which conceals the mounting holes behind. To remove the fascia, apply pressure gently to the centre area of the control while holding the outside fascia. The control will then pop away from fascia.

Check the wall where the WCS-201 is to be located is flat and true before fastening the control. Fixing the control to a distorted surface may damage the control.

Fasten the control through the mounting holes with screws provided as indicated in Fig 1.

Drill hole in wall to allow cable entry.

Install interconnecting cable supplied. Fill around cable entry hole with foam or cover hole with PVC tape to prevent draft from wall cavity affecting control operation. **Do not use aluminium duct tape.**

B) PCB-079* Power Relay Board.

Install the PCB in a well ventilated location where it will not be exposed to moisture or high temperatures ie in a location suitable for electrical control equipment.

The PCB is equipped with four (4) mounting tabs. Ensure the PCB is fastened to a flat and true surface as distortion of PCB could cause damage.

After installing PCB, connect the 240V active to the terminal "L" and the neutral to terminal "N". Check the polarity is correct. For connection of control outputs refer to appropriate PCB wiring diagram (see page 3 of these instructions).

PCB-079* DIP SWITCH SETTINGS AND SERVICE INFORMATION.

Dip Switch Settings.

Function	Auto Restart	Fan Speed	Display	Time
Switch No.	1	2	3	4
ON	No auto restart	1	°F	Service
OFF	Auto restart	3	°C	Normal

Note: Bold & shaded letters & figures in the above table indicate standard (default) settings.

- The dip switches are located on the PCB.
- Before altering dip switch settings, turn off power to the PCB board at the main supply switch.

Dip Switch Functions.

Dip Switch No.	Position
1	ON - No auto restart after power failure.
	OFF - With auto restart after power failure.
2	ON - Single fan speed operation (high).
	OFF - Three speed fan operation.
3	ON - Temperature displayed in °F.
	OFF - Temperature displayed in °C.
4	ON - Fast counting (service mode).
	OFF - Normal counting.

INTERLOCK OVERRIDE.

Connection points “CVS” on the PCB can be used in conjunction with condenser pump interlock module “CPIM” (available from Hanwest) to provide water flow verification and condenser water pump start should any control require heat/cool in multi control installations. Interlock override bridging plug “JP1” located on the PCB allows bypass of the CVS terminals if they are not required. The standard (default) setting of the JP1 interlock override is in the open position for use with CPIM interlock module. If a CPIM interlock module is not being used or not required then JP1 must be bridged (closed) or control will not operate.

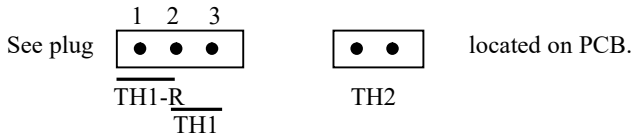
Warning: If condenser pump interlock module is being used and JP1 is bridged (closed), the module will be bypassed which may result in severe damage to the air conditioning unit.

COOL/HEAT SELECTOR JP2.

Jumper JP2 (located in centre of PCB) must be in heat/cool position for all reverse cycle and electric heat models.

Move jumper to “cool” position only for cool only units.

SENSOR (TEMPERATURE) AVERAGING.



To make touch pad on board sensor TH1 active, sensor pins 2 & 3 are bridged with jumper (default, as supplied).

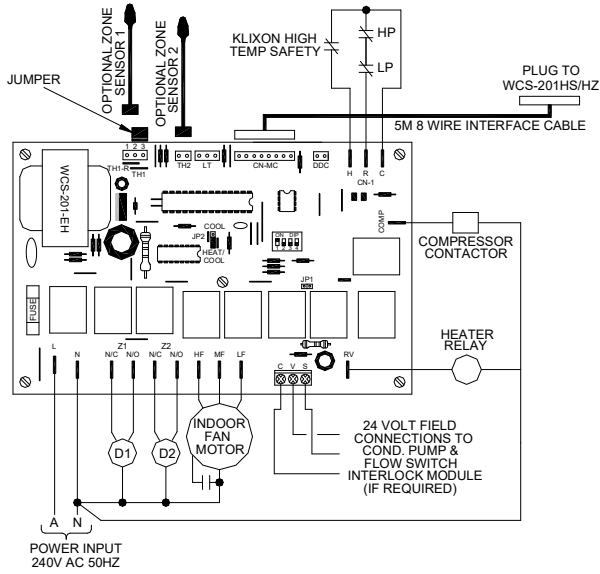
To average between on board sensor TH1 and one remote sensor, follow above step and then connect remote sensor to plug TH2. For 2 zone control (must be HZ or TZ zone wall control for this option) when both optional zone sensors are required, sensor for zone 1 connected to TH1-R (pins 1 & 2) after jumper is removed. Zone sensor 2 is connected to plug TH2. When setup in this arrangement the touch pad on board sensor is not operational.

LOW TEMPERATURE SENSOR (REVERSE CYCLE PCB’s ONLY).

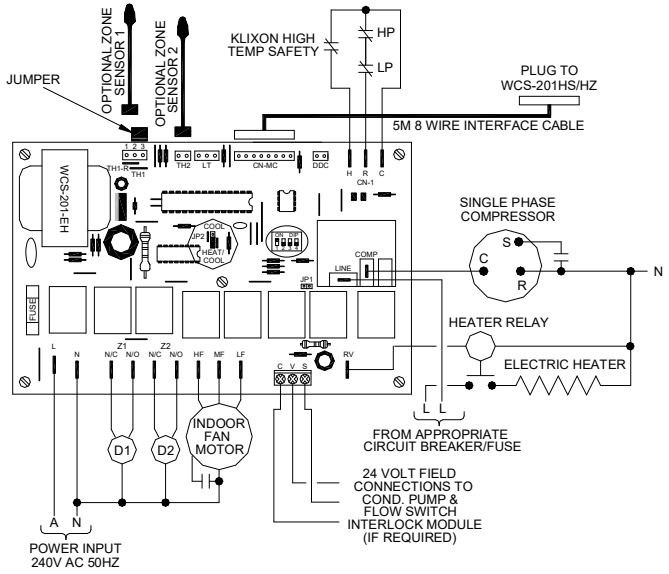
Plug “LT” for low water temperature safety sensor must be connected or control will not operate.

PCB-079EH/* & PCB-079HP* WIRING DIAGRAMS

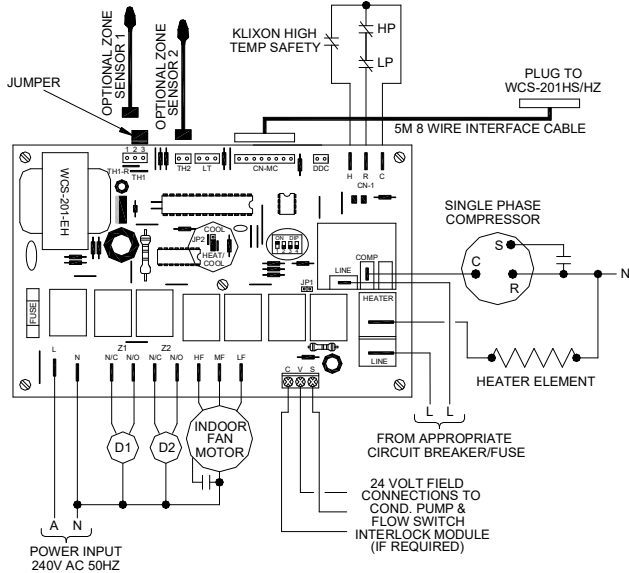
PCB-079EH/S-1010 & PCB-079EH/Z-1010



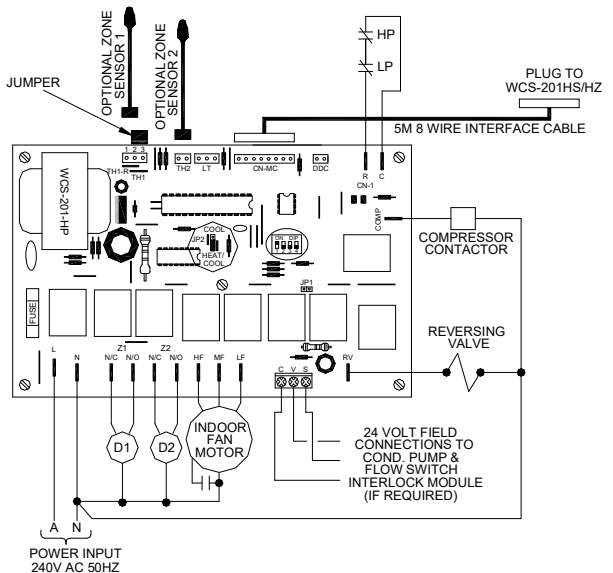
PCB-079EH/S-3010 & PCB-079EH/Z-3010



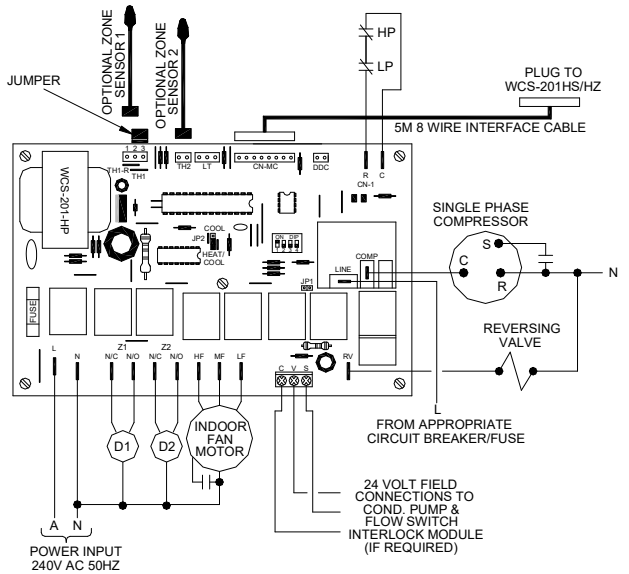
PCB-079EH/S-3025 & PCB-079EH/Z-3025



PCB-079HP/S-1010 & PCB-079HP/Z-1010



PCB-079HP/S-3010 & PCB-079HP/Z-3010



NOTE: TERMINALS Z1 (N/C, N/O) & Z2 (N/C/ N/O) APPLY TO THE PCB'S WITH ZONES ONLY.

LEGEND.

- PCB-079EH/S* - ELECTRIC HEAT NO ZONES.
- PCB-079EH/Z* - ELECTRIC HEAT 2 ZONES.
- PCB-079HP/S* - REVERSE CYCLE NO ZONES.
- PCB-079HP/Z* - REVERSE CYCLE 2 ZONES.