

Air Conditioning Systems Technical Bulletin

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Zone Controller

Mitsubishi Electric introduces Zone Controller that has the ability to control 4 or 8 zones. Zone Controller consists of a Zone Control Interface and a Zone Remote Controller and is available in both 24V AC and 240V AC. The Zone Remote Controller allows monitoring and operating of ducted unit and also individual zones. Schedule operation of ducted unit and zones are also available. It is equipped with three built-in sensors (temperature, brightness & occupancy) which allows for comfortable air environment and also helps to reduce energy consumption.

Zone Controller allows for the connection of up to five temperature sensors which helps in better control of the unit by doing averaging of the sensors values. It performs fan speed control depending on the number of open outlets and the difference between the set temperature and space temperature.

Zone Controller also has an option to connect optional Wi-Fi interface (MAC-558IF-E) that allows to control ducted unit and individual zones from virtually anywhere via smart phone, tablet or PC*.

* Requires internet connection for Wi-Fi network and for smart phone, tablet or PC.



1. Component Parts

Zone Controller	ton rate Set to 26.8°C (♥ ▲ 17.8°C (♥ ▲ 17.8°C (♥ ▲ 18.0°C (♥ ▲	Averages native		
	Zone Remote Controller	Zone Controller Interface	Cable	
Model Name	PAC-ZC40L-E (4 Zone, AC24V) PAC-ZC40H-E (4Zone, AC240V) PAC-ZC80L-E (8 Zone, AC24V) PAC-ZC80H-E (8 Zone, AC 240V)			

2. Optional Parts List:

Optional Parts	UNE SECONDERSE		
	Additional Zone Remote Controller	Thermistor	Wi-Fi Interface
Model Name	PAR-ZC01M-E	PAC-SE41TS-E	MAC-558IF-E

3. Compatible Units

The zone controller will be compatible with the following units.

Series	Model Name	Connectable
	PEA-RP 100GAA	\checkmark
PEA	PEA-RP 125GAA	\checkmark
	PEA-RP 140GAA	\checkmark
	PEA-RP 170GAA	\checkmark
	PEA-RP 200GAA	\checkmark
	PEA-RP 250GAA	*
PEAD	PEAD-RP71JAA.TH	\checkmark
	PEAD-RP100JAA.TH	\checkmark
	PEAD-RP125JAA.TH	\checkmark
	PEAD-RP140JAA.TH	\checkmark

*Units manufactured after January 2014 will be compatible. Previous models will require a control board change.

** For City Multi ducted indoor units please contact your Mitsubishi Electric Sales representative.

4. Fan Speed Control Logic

When the fan speed of the unit is set to auto, Zone Controller will control the fan speed according to the number of opened outlets and the temperature difference between the set and space temperature.

Example of 3 step model

Fan Steps	Ratio of open outlets	Temp. Difference (Cool: Room temp-Set temp, Heat: Set temp-Room temp)						
3 step model		More than 6°C	Under 6°C More than 5°C	Under 5°C More than 4°C	Under 4°C More than 3°C	Under 3°C More than 2°C	Under 2°C More than 1°C	Under 1°C
	More than 66%	Hi		Hi	Hi	Mid	Mid	
	More than 33% Under 66%	Hi		Mid	Mid	Low	Low	
	Less than 33%	Mid		Low	Low	Low	Low	

5. External Dimension



6. Wiring Diagrams

6.1. Wiring diagram for 24VAC 4 and 8 zone option

Zone dampers, damper cables and 24AC transformer are field supplied. Zone controller has RJ12 connections for zone dampers; pin configuration is compatible with most zone damper manufacturers.



6.2 Wiring diagram for 240VAC 4 and 8 zone option

Zone dampers are field supplied, terminal blocks have open/close and common terminal. Spring return zone dampers are not compatible.



6.3 Supplying power to zone controller for models with separate indoor/outdoor supply



6.4 Supplying power to zone controller for models fed from outdoor unit (S1 S2 S3). Limitations apply*



*If interconnecting wiring exceeds 30m, 2.5mm2 cable must be used. If wiring exceeds 50m, a separate power supply is required for zone controller.

For 240V 4 and 8 zone model, each damper cable cannot exceed 30m.

6.5 Optional sensor wiring diagram

Option sensor (PAC-SE41TS-E) connects to terminal CN201/ CN202 of the Zone Control Interface. Maximum sensor wiring length is

12m



6.6 Optional Wi-Fi interface wiring diagram







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