ecojay

Specification Sheet

SmartZonePLUS-MC

Commercial & Residential HVAC
Expandable Zoning System up to 33 Zones

ECOJAY SmartZone Controllers feature the latest and most advanced zone controls available in their class and are designed to deliver reliable operation for years. The **ECOJAY SmartZonePLUS** family features simple expandability up to 33 zones by adding any mix of SmartZonePLUS one and four zone expander boards to a single Main Controller (**MC**). The **MC** (Main Controller) operates the equipment and one zone (ZONE1).

SmartZonePLUS integrates residential and commercial grade controls into the SmartZonePLUS-MC for maximum flexibility and optimum control when needed. Convenient timesaving screwless wiring terminals, push button/dipswitch panels and full function color system display simplify installation and troubleshooting.

Ecojay's SmartZonePLUS Economy feature enables users to conveniently switch individual zones or the entire System into ECONOMY MODE.

PLUS Features

- UP to 33 Zones
- Configurable Balance points for Heat Pump Aux Heat and Compressor (outdoor temp sensor required)
- Humidity Control from Zone 1 Thermostat
- Adaptive Opposing Call Changeover
- Adjustable Time/Temperature FRESH AIR Damper Control (Minutes per Hour with Outdoor temperature limits (with optional Outdoor Air Sensor)
- Intelligent 2 cool, 3 heat, time/temp staging or ZONE 1 thermostat
- Monitors # of calls for cool and heat, total zones, minutes before changeover, outdoor air temp, supply air temp, limit settings, purge, fresh air & equipment mode from the SmartZonePLUS-MC
- Smart Limit Control™ (SLC) protects compressor from short cycling and low temp, and heat exchanger hi temp

Easy Installation & Configuration

- Heat Pump, Dual Fuel and Gas/Electric Systems
- 3-Stage Heating and 2-Stage Cooling Equipment
- Quick-Connect Screwless Terminals
- Simple pushbutton and dipswitch configuration
- Monitor entire system from SmartZone Panel, including Supply Air Temp, Cut-Out, Purge, Delay and Economy
- Color Coded Diagnostic LED Indicators for each Thermostat Input
- Color LED Indicators show damper position (RED=Close, GREEN=Open)

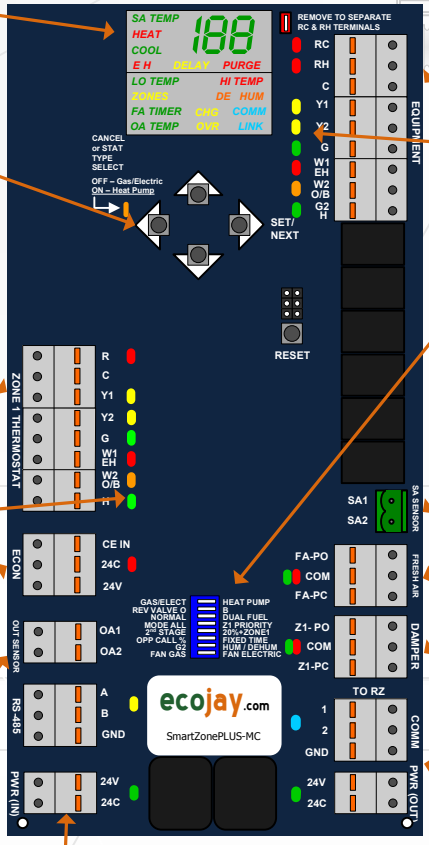
Economy Features

- ECONOMY Mode built-in to EVERY ZONE
- User can switch between zone control and conventional 'single-thermostat' control
- Smart-Staging (including built-in Dual Fuel)

Convenient Customer Features

- Automatic Changeover for Maximum Comfort
- Customer never needs access to the SmartZone Panel
- Enable Emergency Heat from Heat Pump Thermostat
- Energize Fan from any Thermostat
- Superior 5-Year Limited Factory Warranty

SmartZonePLUS-MC (Main Controller)



ZPMC

DIGITAL DISPLAY SYSTEM & COMM STATUS, SUPPLY & OUTDOOR TEMP, DIAGNOSTIC INFO

SIMPLE SETUP Pushbuttons for Temp Limits, Thermostat Setup, Humidity, Fresh Air & Balance Points

USE ANY THERMOSTAT HEAT PUMP OR GAS/ELECTRIC Single Stage, Two Stage & Humidity

LED Status Lights QUICKLY indicate Thermostat Calls

ECONOMY INPUT Easy System Setback

Outdoor Temperature

24VAC Terminal with LED indicator

CONTROL EQUIPMENT up to 2-STAGE Cooling 3-STAGE Heating 2-SPEED Fan Humidiy

LED Status Lights QUICKLY indicate Equipment Calls & Equipment Transformer

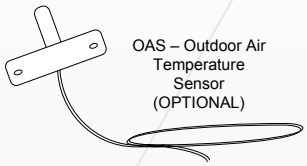
HEAT PUMP or GAS/ELECTRIC SYSTEMS DUAL FUEL CAPABILITY Including Settable Balance Points

SUPPLY AIR TEMP SENSOR with plug-in connector INCLUDED

Adjustable Time/Temp FRESH AIR CONTROL

2-WIRE DAMPERS (POWER CLOSE/SPRING OPEN) **and 3-WIRE DAMPERS** (POWER OPEN/POWER CLOSE) *2-Color LEDS Indicate Damper position*

COMMUNICATION and POWER TERMINALS for connecting additional Zones (E1 & E4)



OAS – Outdoor Air Temperature Sensor (OPTIONAL)

ecojay SmartZone, the SMART choice.

See SmartZonePLUS E1/E4 Spec Sheet for adding zones to the SmartZonePLUS-MC

Included with SmartZonePLUS-MC

- **Plastic Enclosure** with wire knockouts and multiple mounting options
- **Supply Air Temperature Sensor Probe**
- **SmartZonePLUS Install Guide**
- **Superior 5-Year Limited Factory Warranty**

MORE INFORMATION AVAILABLE ONLINE

ecojay.com

SmartZonePLUS-MC

Commercial & Residential HVAC
Expandable Zoning System up to 33 Zones

SPECIFICATIONS

POWER	ZPMC	14VA MAX (350 mA @ 24VAC)
	SYSTEM	14VA + Thermostat (3VA) + Damper (3 to 10 VA) = Total Transformer Size
	PROTECTION	Integrated Electronic Auto-Reset Fused links (Field supplied transformer should also be fused)
OUTPUTS	EQUIPMENT	**2 AMP @ 24VAC Contact Rating** **RH** – 24VAC *HOT* from Heating Transformer on Equipment (RED) **RC** – 24VAC *HOT* from Cooling Transformer on Equipment (RED) **C** – 24VAC COMMON from Transformer on Equipment (none) **Y1** – 1st Stage Compressor (YELLOW) **Y2** – 2nd Stage Compressor (YELLOW) **G** – Fan (GREEN) **W1/EH** – 1st Stage Heat OR Emergency Heat (RED) **W2/OB** – 2nd Stage Heat OR Reversing Valve (RED) **G2/H** – High Speed Fan OR Humidity Control (ORANGE)
	DAMPERS	**10 AMP @ 24VAC Contact Rating (40VA)** Power-Close / Spring-Open Dampers (10VA) Power-Open / Spring-Close Dampers (10VA) Power-Open / Power-Close Dampers (3VA)
	COMMUNICATION	**COMM –** 3 wire reliable communications to MC (BLUE) [Use Cat5 Cable ONLY] **RS485** – External RS485 port for PC or automation system interface
INPUTS	THERMOSTAT	***LABEL** – DESCRIPTION (LED COLOR)* **R** – 24VAC *HOT* (RED) **C** – Common (NONE) **Y1** – 1st Stage Compressor (YELLOW) **Y2** – 2nd Stage Compressor (YELLOW) **G** – Fan (GREEN) **W1/EH** – 1st Stage Heating OR Emergency Heat (RED) **W2/O/B** – 2nd Stage Heating OR Reversing Valve (ORANGE) **H** – Humidity Control (Orange)
	ECONOMY	**CE INPUT** – System Wide Economy Mode (RED)
	TEMPERATURE	**10K Type III Thermistor** SA Sensor – Supply Air Temperature Sensor (Provided with MC) OA Sensor – Outdoor Air Temperature Sensor (Optional)

CONFIGURATION	DIP SWITCHES	DISPLAY MENU
	Gas/Electric *or* Heat Pump **Reversing Valve O** *or* B **Normal** *or* Dual Fuel for Heat Pump **Priority for ALL Zones** *or* for Zone ONE **Allow 2nd Stage ALWAYS** *or* ONLY with 20% Calling Zones **Opposing Call Time Dynamic % Changeover** *or* Fixed time **Multi-Speed Fan Control** *or* Humidity Control **Fan Gas (with plenum switch)** *or* Fan Electric (with MC)	**Supply Air Temperature** **Outdoor Temperature** **Zones calling for Heat/Cool** **Total Zones** **Change Over time** **Low Temp / High Temp Cutouts** **Humidify / Dehumidify** **Fresh Air**

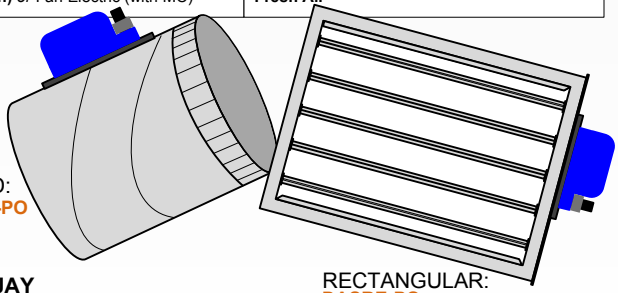
OTHER REFERENCES

- **ECOJAY SmartZonePLUS-E1/E4 Spec Sheet**
- **ECOJAY SmartZonePLUS Install Guide** for quick step by step process for installation
- **ECOJAY SmartZone System Manual** for a full guide to ECOJAY Zoning products
- **ECOJAY SmartZone Troubleshooting Guide** for additional support
- References available at **ecojay.com** or by calling 1-888-523-ECOJ

INCLUDED: Stainless Steel **Supply Air Temp (SAS)** Probe with 10ft wire lead.

EZ Plug-In

DAMPERS AVAILABLE
IN OVER 60 DIFFERENT SIZES AND STYLES



ROUND: **DASRO-PO**

RECTANGULAR: **DASRE-PO**

ECOJAY PART NUMBERS

ZONE CONTROLS	Up to 8 ZONES	ZS2X	SmartZone-2X	2-Zone Controller w/ Supply Sensor
		ZS4X	SmartZone-4X	4-Zone Controller w/ Supply Sensor
		ZS8X	SmartZone-8X	8-Zone System (Using 4X4 LINK) w/ Supply Sensor
		ZSKIT#	SmartZone-KIT	Order by # of zones, up to 8 Zones
	Up to 33 ZONES	ZPMC	SmartZonePLUS-MC	Main Controller (Controls Equipment & Zone 1) w/ Supply Sensor
		ZPE1	SmartZonePLUS-E1	1-Zone Expander Module (for use with SZP-MC)
		ZPE4	SmartZonePLUS-E4	4-Zone Expander Module (for use with SZP-MC)
		ZPKIT#	SmartZonePLUS-KIT	Order by # of zones, up to 33 Zones
DAMPERS	SUPPLY	DSUS	Supply ROund – Spring Open	Spring Open (Fail Open)/ Power Close Round Supply Damper
		DSUP	Supply ROund – Power Open	Power Open/ Power Close Round Supply Damper
		DSEP	Supply RECtangular – Power Open	Power Open/ Power Close Rectangular Supply Damper
	BYPASS	DBUM	Bypass ROund – SPC	Static Pressure Controlled Round Bypass Damper
		DBEM	Bypass RECtangular – SPC	Static Pressure Controlled Rectangular Bypass Damper
		DBUB	Bypass ROund – Barometric	Barometric (Weight-Arm) Controlled Round Bypass Damper

ecojay.com
MORE INFORMATION ABOUT THESE PRODUCTS AVAILABLE ONLINE

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