



# kumo cloud















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# Manage your comfort from anywhere with kumo cloud®

- Easy to configure zoning
- Fahrenheit or Celsius
- Program & Control
  - On/Off
  - Mode & Set Temperature
  - Fan Speed & Vane Control
- Error push notifications
- Filter push notifications
- High and low push
- Auto changeover: System mode is determined using a patent pending algorithm calculating the difference between the room temperature and set point plus weighted consideration for zone priority.
  - Adjustable Minimum Run Time after a change over event

- Adjustable Maximum Wait Time before a changeover event temperature alarms
- Compatible with Google Home and Amazon Alexa smart assistants
- Compatible software platforms:
  - iOS 9.0 or later
  - Android 4.4 or later
  - Fire OS 4.4 or later

# **Wireless Interface 2**

- Allows for Mitsubishi Electric indoor units to communicate with kumo cloud app and web service
- Wireless connection via Wi-Fi network
- Connected to indoor unit via CN105
- One Wireless Interface required per connected indoor unit
- Dimensions: 1.82" H x 0.69"
   W x 2.92" D

- Radio protocol: IEEE 802.11 b/g/n - via Wi-Fi network
- Internet access required for initial setup and scheduling
- Contains a CN105 connection to allow for kumo cloud and MHK2 RedLINK™ Wireless Remote Controller to be used on the same indoor unit



PAC-USWHS002-WF-2

## kumo station®

#### **Specifications**

- 4 outputs to control auxiliary heat, humidifier\*\*, dehumidifier\*\*, ERV or HRV\*
- Controls 1 or 2 stages of supplemental heat\*
- Wireless Interface 2 required to connect to kumo cloud<sup>®</sup>
- 24 VAC power supply required. Supplied by others
- Compatible with kumo cloud 2.6 or later



# Wireless Temperature and Humidity Sensor for kumo cloud®

#### **Specifications**

- One wireless remote sensor per Wireless Interface 2
- Connects via Bluetooth Low Energy with Wireless Interface 2
- Specified open range 33 feet (10 m)
- Battery powered (1 year battery life)
- Push notifications when battery is low through kumo cloud app



PAC-USWHS003-TH-1

## **Outdoor Air Temperature Sensor**

#### **Specifications**

- Used with kumo station to control backup heat and heat pump staging
- Wire length 60 ft (18.3 m) in the box
- Wire length can be a maximum of 200 ft (60.9 m) with field supplied 18/2AWG wire
- Operating Ambient Temperature Range: -40° F to 120° F (-40° C to 49° C)



C7089U1006/U

#### **IT Extender**

- Extends CN105 connection an additional 50 feet
- For use with kumo station, Wireless Interface 2, and USNAP Interface



PAC-WHS01IE-E

<sup>\*</sup>Ducted indoor unit fan interlock may be required. Check Install Manual for details.

<sup>\*\*</sup>Requires Wireless Temperature and Humidity Sensor

## **Wireless Controllers**

## kumo touch™

#### **Features**

- Wireless RedLINK remote controller and receiver
- Large, backlit, easy-to-read touchscreen display
- Fahrenheit or Celsius
- Dual set point control with system change over

#### **Specifications**

User functions allow user to set:

- On/Off
- · Operation modes: Cool/Heat/Drying/Fan
- Temperature (set points for heat & cool)
- Fan speed setting
- Airflow direction
- Day/Time display with 12-hour and 24-hour clock
- Filter sign display
- · Adjustable auto deadband
- Space temperature offset adjustment
- Hide indoor temperature or humidity from being displayed
- Lockout function for On, Off, Mode, Fan Speed, Setpoint, and Vane Direction commands.
- Hold function

- Both controller and receiver enabled with RedLINK™ 3.0 reliability
- Works with Wireless Interface 2 on all CITY MULTI®,
   P-Series and M-Series indoor units
- Temporary schedule override
- Schedule for Residential or Commercial applications
- Scheduling options include: no schedule, Mon-Sun, Mon-Fri/Sat-Sun, Mon-Fri/Sat/Sun, Mon/Tues/Wed/ Thu/Fri/Sat/Sun
- Diagnostics: displays and records error codes
- Uses two AA alkaline batteries (included)
- Dimensions:

MRCH2 Controller: 4-5/64" H x 4-5/64" W x 1-1/16" D MIFH2 Receiver: 2-15/16" H x 1-25/32" W x 20/32" D MRC2 Cable: 39-23/64" (connects receiver to CN105 connection on indoor unit)



## **Wireless Controller Kit and Accessories**

# Deluxe Hand-Held Wireless Controller with Advanced Features

#### **Specifications**

- Powerful Mode function allows the system to temporarily run at a lower or higher temperature with an increased fan speed. This helps to quickly bring the room to your optimal comfort level
- Wide Vane setting provides a wider horizontal air distribution on select models
- Indirect or Direct Airflow for personalized comfort (FS Model only)

#### MSZ-FS

- Wide Vane
- L-Vane
- R-Vane
- Powerful
- Indirect/Direct
- Natural Flow

#### MFZ-KJ

- Powerful
- 2Flow/1Flow
- Sleep

#### MLZ-KP

- Wide Vane
- Sleep

#### SLZ-KF

- Individual Vane Settings
- 3D i-see Sensor®
  » Direct/Indirect
  Airflow
- Long
- Louver

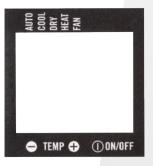


\* FS hand held

#### **Hand-Held Stickers**

### **Specifications**

- Attached to indoor unit hand-held remote controllers display area
- Allows user to read indoor unit mode
- Two different stickers available for M-Series deluxe handheld wireless remote controllers:
  - FH Model handheld wireless remote controllers
  - EF, KJ, KP, and KF Model handheld wireless remote controllers
- Available for order on the Literature and Promo Item website



#### **Hand-Held Wireless Controller**

- Operation Modes: Heat/Cool/Auto/Dry
- Adjustable fan speed
- 12-hour on/off timer
- Set horizontal vane position
- Power off timer and clock adjustment
- Smart Set to program multiple settings into one quick-press feature
- Econo Cool energy efficiency cooling option
- Requires 2 AAA batteries



## Wireless Controllers Kits and Accessories

### Remote Controller and Receiver for Ceiling Cassettes

#### PAR-SF9FA-E (receiver) Specifications

- Signal receiver for use with PAR-SL100A-E remote controller
- Compatible with M-Series model SLZ-KF\*\*NA(.TH)
- Compatible with CITY MULTI® model PLFY-P\*\*NFMU-E

- Requires one receiver per indoor unit
- For use with 3D i-see Sensor®
- CN90 connection



(controller)

(receiver)

#### PAR-SR4LU-E (receiver) Specifications

- For use with the PLP-41EAEU panel
- Signal receiver for use with PAR-FL32MA-E and PAR-SL100A-E handheld remote controllers
- Compatible with the P-series PLA-EA7 or CITY MULTI® Series PLFY-(E)P\*\*NEMU-E

CN90 connection



PAR-SL100A-E (controller)

#### Hand-Held Wireless Controller and Receiver for Concealed Indoor Units

#### PAR-FL32MA-E (controller) Specifications

- For use with PAR-FA32MA Wireless MA Remote Controller Receiver
- Maximum signal receiving distance is approximately 22 feet
- Controls group operation for up to 16 indoor units in a single group
- On/Off timer (one setting per day)
- Dimensions: 2-1/4" x 6-1/4" x 3/4"

- User functions:
  - On/Off
  - Set temperature
  - Operation modes: Heat/Cool/ Dry/Fan
  - Fan speed setting
  - Airflow direction (depending on indoor unit)



**PAR-FA32MA Specifications** 

- On/Off lamp to indicate unit operation and error status
- Emergency heat and cool operation from receiver (at preset parameter) from the receiver for when the remote is not operational
- Wiring: connects using two-wire, stranded, non-polar control wire to TB-15 connection terminal on the indoor unit.
- Dimensions: 2-3/4" W x 4-3/4" H x 7/8" D





# Remote Controller Kit with and without i-see Sensor™

#### **Specifications**

- For use with P-Series ceiling-suspended units
- See compatibility table on page 12
- Kits contain:
  - (1) Wireless remote controller receiver (PAR-SL93B-E)
  - (1) Wireless remote controller with cradle
  - (2) AAA LR03 alkaline batteries
  - (2) 4.1 x 16 wood screws
  - (1) Wireless remote controller receiver with i-see Sensor (PAR-SA92MW-E)
  - (2) Cord retaining clips
  - (1) Connection cord fixing seal (12 x 30 size)



PAR-SL93B-E



PAR-SA92MW-E

# Wired Controllers

#### **Touch MA Remote Controller**

- User-friendly, customizable full color touch panel display
- Ability to add a custom logo on the display
- Large icons with 180 color patterns
- Daily and weekly timers
- Password protected
- Requires MAC-334IF-E for use with M-Series ductless products
- The MELRemo app and Bluetooth® Low Energy (BLE) technology supports communication with smartphones or tablets in multiple languages



PAR-CT01MAU-SB



### **Simple MA Controller**

#### **Specifications**

- Controls group operation for up to 16 indoor units in a single group
- Supports Fahrenheit and Celsius
- User defined functions:
  - On/Off
  - Operation modes: Heat/Cool/Auto/Dry
  - Fan speed setting Airflow direction
- Set temperature range: 40° F to 95° F depending on operation mode and indoor unit connected
- Set temperature range limit for cool and heat mode
- LOSSNAY<sup>®</sup>: Simple MA for interlocked system can set high/low/stop on LOSSNAY
- Room temperature can be sensed either at indoor unit (default) or at the remote controller
- Dimensions: 2-3/4" W x 9/16" D x 4-3/4" H
- Requires MAC-334IF-E for use with M-Series ductless products.



- User defined functions:
  - On/Off
  - Operation modes: Heat/Cool/Auto/Dry
  - Room temperature setting & Temperature range striction
  - Manual vane angle (P-Series cassette indoor units)
  - Smooth maintenance (P-Series only)
  - Auto-off timer & Weekly timer
- Energy save functions for 3D i-see Sensor®
- B&W Inversion
- Setback Mode
- Draft reduction mode
- Daylight Saving Time (DST)
- Dimensions: 4-3/4" W x 9/16" D x 4-3/4" H
- Requires MAC-334IF-E for use with M-Series ductless products
- Room temperature displays room temperature sensed either at the indoor unit (default) or at the controller



PAC-YT53CRAU-J



PAR-40MAAU

# **Third Party Controls Interface**

## **BACnet® & MODBUS® Interface**

### **Specifications**

- Allows for third-party home automation/building management system to control indoor unit
- One interface required per indoor unit
- Powered from indoor unit CN105 connection
- Compatible with remote controllers
- Dimensions: 3.74" x 2" x 0.75"
- Cable length: 37"



PAC-UKPRC001-CN-1

#### **BACnet Points Table**

Object Type	Object Name							
	Drive ON/OFF State							
	Mode State							
Monitor Only	Fan Speed State							
Points	Air Direction State							
	Inlet Temperature							
	Fault Code							

Object Type	Object Name						
	Drive ON/OFF Setup						
	Set point						
Commandable	Mode Setup						
Points	Fan Speed Setup						
	Air Direction Setup						
	Temperature Units						

Object Type	Object Name						
	ON/OFF						
	Mode						
Commandable	Set point						
Points	Fan Speed						
	Air Direction						
Monitor Only	Fault Codes						
Points	Room Temperature						

#### **Flush Mount Sensor**

#### **Specifications**

- Remote sensing of space temperature up to 100 feet
  - Requires field supplied 22-2 AWG wire for installation
- Dimensions: Sensor Head is Ø0.74" W x 0.65" L
- Mounting Requirements: Drywall 1/2" hole,
   Solid Walls 1/4" hole
- Paintable
- For M-Series ducted and P-Series indoor units



PAC-USSEN001-FM-1

### M-Series Sensor M21EAA307

#### **Specifications**

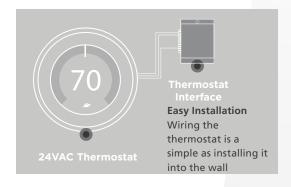
• Remote M-Series Ductless Temperature Sensor



# **Third Party Controls Interface**

#### **Thermostat Interface**

- Connect your favorite third party 24VAC thermostat (provided by others)
- One Thermostat Interface per indoor unit and third party thermostat (supplied by others)
- Connects to indoor unit CN105 connection
- Modes of operation: cooling/heating/ ventilation (fan)/off
- Fan speed control: high/medium/low
- Delayed off adjustable setting: 0, 5 (default),
   10, or 30 minutes
- Indoor unit fan speed setting: auto (default), medium, high, or custom auto
- Two-stage heat and cool thermostat operation
  - Capacity is adjusted based on zone temperature rate of change measured by the return air sensor (highly recommended)
  - Full capacity (default)
- Auto recovery after power failure
- 24VAC transformer required (Sold separately or supplied by third party)
- VLP24-210 is a compact 24VAC 5VA transformer available for purchase
- Dimensions:1.437 x 2.375 x 1.437 inch (HxWxD)











VPL24-210

# **Third Party Controls Interface**

#### **USNAP** Interface

- Allows indoor units to participate in Demand Response Events
- Works with CTA 2045 Universal Communication Modules (UCMs)
- 3 LEDS to display device status
  - Communication with UCM
  - Communication to indoor unit
  - Demand Response Events
- System reset



PAC-WHS01UP-E

Controls	M-Series														
		Floor N	/lount		Wall Mount										
Compatibility	<i>'</i>	MFZ -KA	MFZ -KJ	MSY/ MSZ-D	MSZ -FH	MSZ -FE	MSZ -FS	MSZ -EF	MSY/ MSZ-GE	MSY/ MSZ-GL	MSZ -HE	MSZ -HM	MSZ -WR	MSZ -JP	
BACnet® & Modbus Interface  Thermostat Interface  PAC-  Thermostat Interface  PAC-  THORMAN	-USWHS002-WF-1 -USWHS002-WF-2 -UKPRC001-CN-1 -US444CN-1 -WHS01UP-E	•	•	NA-8		09(12) NA-8 & 18NA	•	•	NA-8, NA-9 & GE24NA	•		•	-	•	
kumo touch™ Wireless Thermostat & Receiver	K2	•	•	NA-8		09(12) NA-8 & 18NA	٠	١	NA-8, NA-9 & GE24NA	•		•	•	•	
Wireless Controller Varionsee	uxe SG ies by model, Part Manual Part Number		•		•		•	•							
Hand-held Wireless Vario Controller see	ndard KM ies by model, Part Manual Part Number	•		•		•			•	•					
Hand-held Wireless Vario Controller see	derate MS ies by model, Part Manual Part Number										•	•	•	•	
Controller & (con Receiver for PAR.	t-FL32MA ntroller) t-FA32MA eiver)														
Kit	:-SL93B-E R-SA92MW-E)														
Remote Controller  72 Deluxe MA PAR-Remote Controller		MAC- 334IF-E Required		MAC- 334IF-E Required NA-8		MAC- 334IF-E Required 09(12) NA-8 & 18NA	MAC- 334IF-E Required	MAC- 334IF-E Required	MAC- 334IF-E Required NA-8, NA-9 & GE24NA	MAC- 334IF-E Required		MAC- 334IF-E Required	MAC- 334IF-E Required	MAC- 334IF-E Required	
Corner Panel Receiver and Remote PAR- PAR-	R-SL100A-E R-SF9FA-E R-SL100A-E R-FL32MA-E R-SR4LU-E	=	= CN10	5 Com	patibi	lity	0	= TB15	5 Comp	patibili	ty				

M-Series						P-Series										
Air Ha	Air Handler Horizontal Ducted				Ceiling S	uspended	Horizonta	al Ducted	Ducted Wall I		Ce	iling Casse	tte	Air H	andler	
MVZ -AA4 -AA7	SVZ -KP	SEZ -KD	SEZ -KD 4	SLZ-KA & KF	MLZ -KP	PCA -GA	PCA -KA	PEA -AA	PEAD -AA	PKA -HA	PKA -KA	PLA -AA	PLA -BA	PLA -EA	PVA -AA4	PVA -AA7
•	•		KD4.1TH & KD4R1.TH	•			KA4, KA4.TH, KA6 & KA7	AA4, AAR1.TH & AA6	AA4, AA5, & AA7	HA4, HA6, & HA7	KA4.TH, KA6 & KA7		BA4 & BA6	•	•	•
•	•		KD4.1TH & KD4R1.TH	•	•		KA4, KA4.TH, KA6 & KA7	AA4 & AA4R1.TH	AA4, AA5, & AA7	■ HA4, HA6, & HA7	KA4.TH, KA6 & KA7		BA4 & BA6	•	•	•
							Optional	•		•	•	•		Optional		
					•			•								
0	0	0	0	0		Included In Kit	Included In Kit	Receiver Required	Receiver Required	Receiver Built In	Receiver Built In		Receiver Required	Receiver Required	Receiver Required	Receiver Required
						•	•									
0	0	0	0	0	MAC- 334IF-E Required	0	0	0	0	0	0	0	0	0	0	0
				SLZ-KF only												
														•		



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