MODEL: PAC-US445CN-1



Job Name:

System Reference: Date:



SPECIFICATIONS:

- Allows users to control Mitsubishi Electric indoor units with a third-party thermostat
- · Thermostats tested:
 - ecobee
 - Honeywell®
 - Nest® *1
 - Lyric®
 - INNCOM® (with fan speed control)
- · Indoor unit modes: Cool, Heat, Fan, and Off
 - Auto mode
- Provides 3 input terminals to control fan speed control:
 - High
 - Medium
 - Low
- One Thermostat Interface per indoor unit
- Works with PAA intelli-HEAT $^{\text{TM}}$ indoor unit
 - Includes PAA wire harness
 - Previous PAC-US444CN-1 is not compatible with PAA intelli-HEAT™ indoor unit
- Connection: CN105 IT Terminal
- Dimensions: (H x W x D) 3.96 in x 3.17 in x 0.93 in
- Terminal Block: 20-30 VAC Rated

NOTES:

*1 Non-learning Nest thermostats require installation of 2.2k mW resistors between terminals TC-Y1 and C-W1 on the PAC-US445CN-1

TERMINALS:

Connector	Purpose	Purpose	
TC	Common (In)	To Transformer	
С	Common (Out)	To Thermostat	
TR	24VAC (In)	To Transformer	
R	24VAC (Out)	To Thermostat	
G3	Fan High	High Fan Speed	
G2	Fan Medium	Medium Fan Speed	
G1	Fan Low	Low Fan Speed	
Y2	Y2	Stage 2 Cooling	
Y1	Y1	Stage 1 Cooling	
W2	W2	Stage 2 Heating	
W1	W1	Stage 1 Heating	
G	G	Fan	

ADVANCED FEATURES:

- · Thermo-OFF time delay
 - Stay in heat or cool mode for 2 hours once W or Y is no longer active (default)
 - Turn off the unit or go into fan mode immediately when set point is met
- · Fan speed setting for when setpoint is met in cooling or heating
 - OFF (default)
 - Extra low
- · Fan Speed
 - Custom Auto (default, more comfortable than Auto)
 - Medium
 - High
 - Auto (more efficient than Custom Auto)
- · Two-stage thermostat operation
 - W1/Y1: Capacity is adjusted automatically based on room (default)
 - W2/Y2: Full capacity
- · Adjustable static pressure settings
- Enable CN24 backup heat operation during defrost
- · Auto recovery after power failure
- Select the thermostat power supply source on PAA intelli-HEAT $^{\text{TM}}$
- Set Emergency and test mode operations PAA intelli-HEAT™
- OFF Thermostat controls heat and fan signals (default)
- ON Test mode operation
- Thermostat Interface DIP switch settings for intelli-HEAT™
 - OFF G & Y (default)
 - ON Y1 & Y2

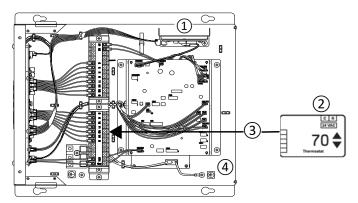
ACCESSORIES:

Transformer (VPL24-210)

REQUIREMENTS:

- · Compatible Mitsubishi Electric indoor unit
 - See compatibility chart on page 3
- 24VAC Thermostat or I/O Controller (field supplied)
- 24VAC circuit for HVAC Thermostat (field supplied)

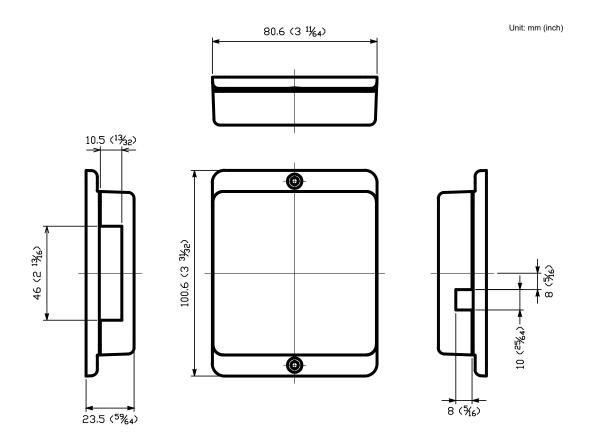
WIRING DIAGRAM: PAC-US445CN-1 WHEN USED WITH PAA intelli-HEAT™ INDOOR UNIT



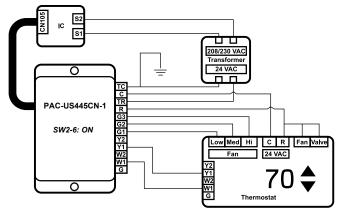
①Thermostat Interface	②Third-party thermostat
③Thermostat control signals (R, C, W1, W2, Y1, Y2, G)	④PAA unit control box

DIMENSIONS AND WIRING DIAGRAMS: PAC-US445CN-1

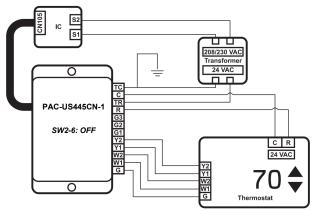
DIMENSIONS:



WIRING DIAGRAMS:



Single-stage Cooling and Heating with Dedicated Fan Speed Relays



Two-stage Cooling and Heating

COMPATIBILITY CHART: PAC-US445CN-1

	CITY MULTI®
PMFY-NMBU	(E) NO (ER5) ADPT (After April 2012)
PEFY-NMU	(NMU-E) NO
PEFY-NMAU	(E) NO (E2) ADPT (After April 2012) (E3) OK (E4) OK
PEFY-NMHSU	(E) ADPT OK (After Oct 2015)
PEFY-NMHU	(E) NO (E2) ADPT (After April 2012)
PEFY-NMLU	(E) NO
PEFY-NMSU	(E) NO (ER2) ADPT (After June 2012)
PLFY- NAMU	(A) NO (E) NO
PLFY- NBMU	(E) NO (ER2) ADPT (After April 2012) (E2) OK
PLFY- NCMU	(E) NO (ER4) ADPT (After June 2012)
PLFY- NEMU	(E) OK
PLFY- NLMU	(E) NO
PCFY- VKM	NO
PLFY-NFMU	ОК
PCFY- NGMU	(E) NO
PCFY- NKMU	(E) NO (E.TH) NO (ER1.TH) ADPT (After June 2012)
PFFY-NEMU	(E) ADPT (After April 2012)
PFFY-NRMU	(E) ADPT (After April 2012)
PVFY-E00	(A) OK (B) OK
PVFY-NAMU	(E) OK
PKFY-NAMU	(E) NO
PKFY-NFMU	(E) NO
PKFY-NGMU	(E) NO
PKFY-NBMU	(E) NO (E2) ADPT (E2R1) ADPT (After April 2012)
PKFY-NHMU	(E) NO (E2) ADPT (After May 2012)
PKFY-NKMU	(E) NO (E2) ADPT (E2.TH) ADPT (After June 2012)
PKFY-NLMU	(E) OK

	M-Series		
MSZ/Y-A	NO		
MSZ/Y-D	(NA) NO (NA-8) OK		
MSZ-EF	ОК		
MSZ-FD	NO		
MSZ-FE	09, 12 (NA) NO 09, 12 (NA-8) OK 18 (NA) OK		
MSZ-FH	ОК		
MSZ-FS	ОК		
MSZ/Y-GE	06 to 18 (NA) NO (NA-8) OK (NA-9) OK 24 (NA) OK		
MSZ/Y-GL	ОК		
MSZ/Y-GS	ОК		
MSZ-HE	NO		
MSZ-HM	ОК		
MSZ-JP	ОК		
MS-WA	NO		
MSZ-WR	ОК		
MFZ-KA	ОК		
MFZ-KJ	ОК		
MVZ	(AA4) OK (AA7) OK		
SVZ-KP	ОК		
SEZ-KD	(NA) NO (KD4) OK (KD4) OK		
SLZ-KA	ОК		
SLZ-KF	ОК		
MLZ-KP	ОК		

P-Series		
PCA	(GA) NO (KA) NO (KA4) OK (KA4.TH) OK (KA6) OK (KA7) OK	
PEA	(AA) NO (AA4) OK (AA4R1.TH) OK (AA6) OK	
PEAD	(AA) NO (AA4) OK (AA5) OK (AA7) OK	
РКА	(FA) NO (GA) NO (HAL) NO (HAL) NO (HA4) OK (HA6) OK (HA7) OK (KA) NO (KA4) OK (KA6) OK (KA7) OK (KA7) OK	
PLA	(AA) NO (BA) NO (BA-1) NO (BA4) OK (BA6) OK (EA7) OK	
PVA	(AA4) OK (AA7) OK	
PAA	(AA1) OK (BA1) OK (CA1) OK	

Legend:

OK = Compatible

NO = Not compatible

ADPT = Install IT signal adapter PAC-IT51AD-E or PAC-IT52AD-E for compatibility

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