

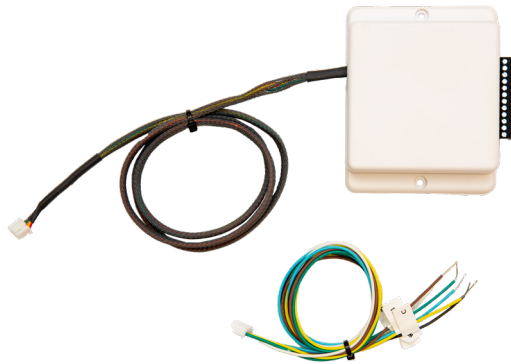
MODEL: PAC-US445CN-1



Job Name:

System Reference:

Date:



SPECIFICATIONS:

- Allows users to control Trane® 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™ 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
C	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 - Stay in heat or cool mode for 2 hours once W or Y is no longer active (default)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™
- 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

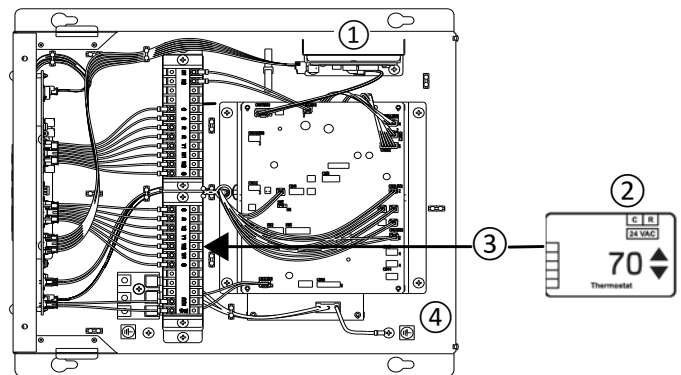
ACCESSORIES:

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)

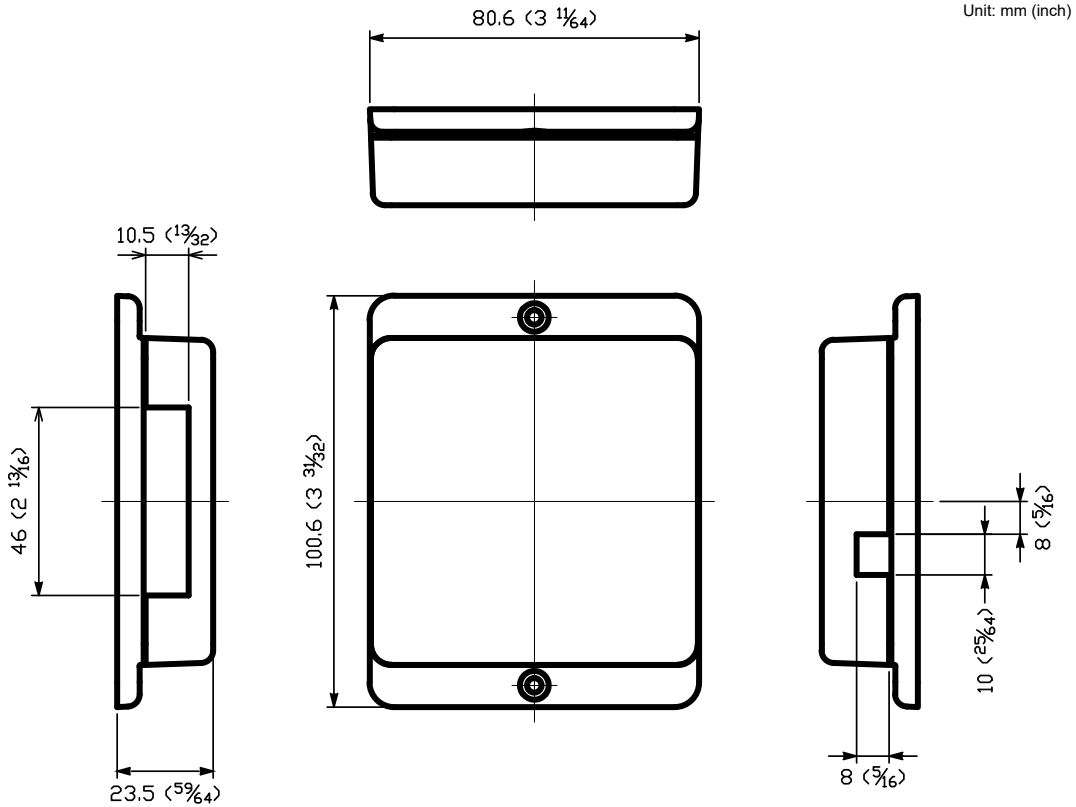
WIRING DIAGRAM: PAC-US445CN-1 WHEN USED WITH PAA intelli-HEAT™ INDOOR UNIT



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

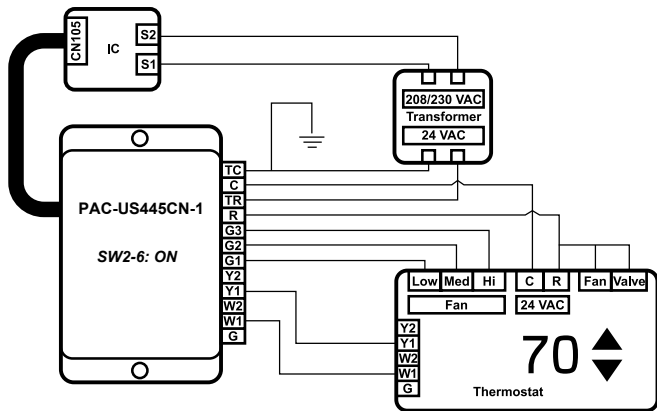
DIMENSIONS AND WIRING DIAGRAMS: PAC-US445CN-1

DIMENSIONS:

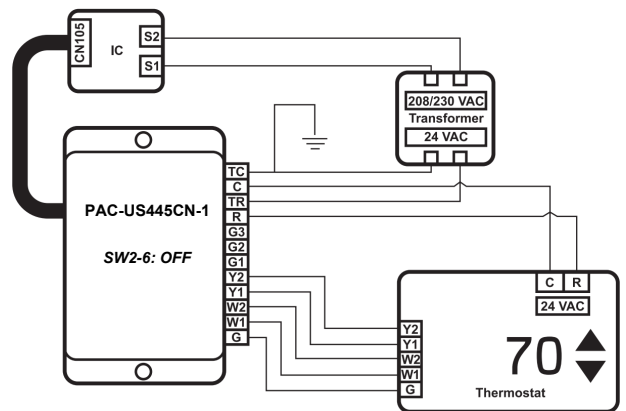


WIRING DIAGRAMS:

set SW2-6 to t



Single-stage Cooling and Heating with Dedicated Fan Speed Relays



Two-stage Cooling and Heating

COMPATIBILITY CHART: PAC-US445CN-1

CITY MULTI®	
TPMFY*BM	OK
TPEFY*MA	OK
TPEFY*MH	ADPT (After April 2012)
TPEFY*MS	ADPT (After June 2012)
TPLFY*EM	OK
TPKFY*LM	NO
TPLFY*FM	OK
TPCFY*KM	ADPT (After June 2012)
TPFFY*CS	ADPT (After April 2012)
TPFFY*RE	ADPT (After April 2012)
TPVFY*AM	OK
TPKFY*BM	ADPT (After April 2012)
TPKFY*HM	ADPT (After May 2012)
TPKFY*KM	ADPT (After June 2012)
TPKFY*LM	ADPT (After June 2012)

Nv-Series	
MSZ-EF	OK
WPH	OK
WST	OK
WMT	OK
WEL	OK
FKS	OK
AMT	OK
DKS	OK
CKS	OK
UKS	OK

P-Series	
TPCA	OK
TPEAD	OK
TPKA	(HA7) OK (KA7) OK (LA) OK
TPLA	OK
TPVA	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