

Controls

Use any compatible 24-Volt stat

24-Volt Interface Kit KSAIC0601230

- This kit is used to connect a Single zone or Multi-zone Ductless System to a standard 24-Volt wall style thermostat.
- For Multi-zone systems, any combination of Wireless, Wired and 24-Volt Interface Kits on each of the indoor units can be used.
- Keeps the Inverter Compressor operating as a Variable Speed System.
- For units with special functions such as louver "Swing", OEM wireless might still be needed.

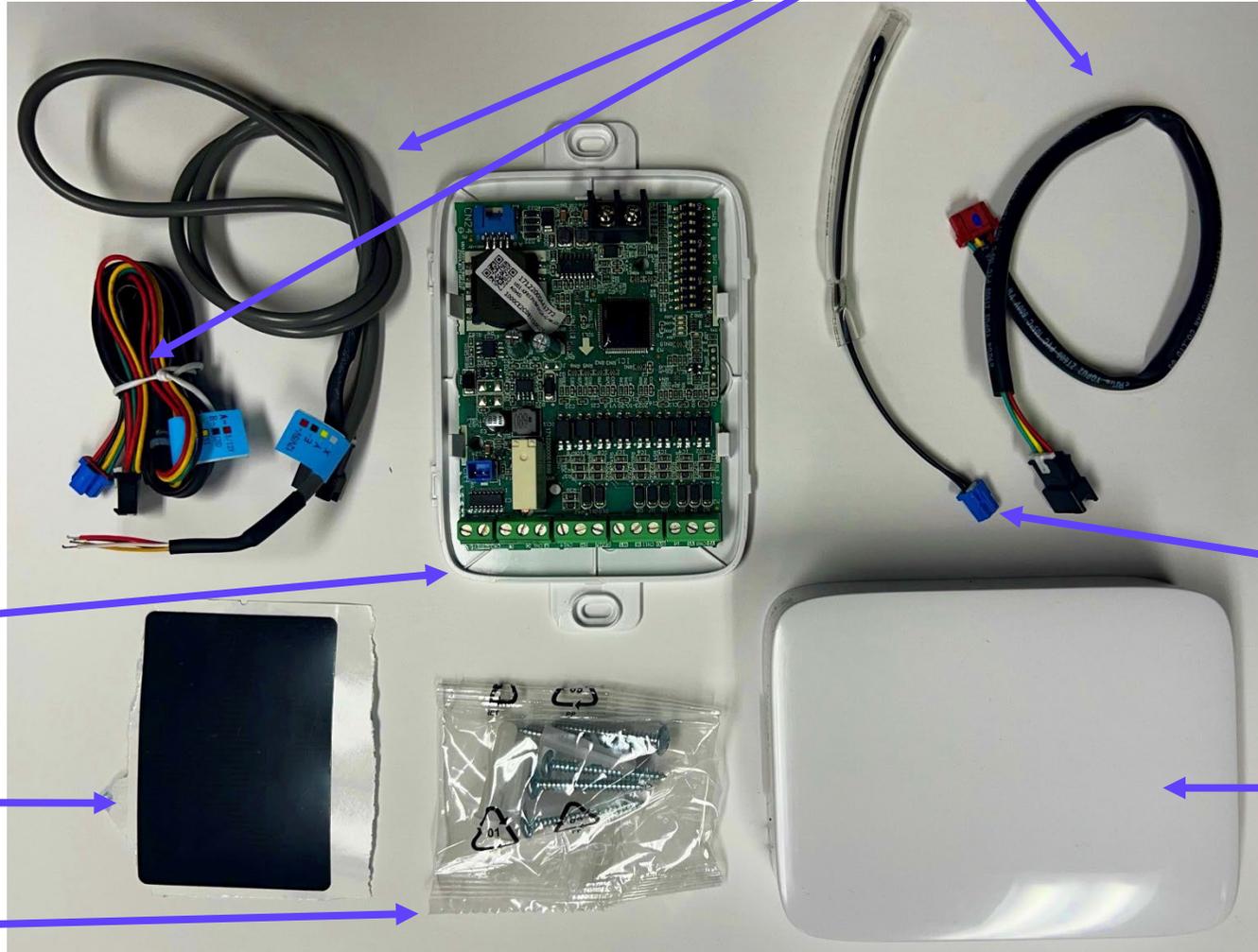


Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- What you get
- One per single zone
- For Multi's, each IDU with a 24-Volt stat will require one.

4-wire cable assortment (qty. 3)
Usage depends on indoor unit.



Interface

Indoor Unit Display Cover

Mounting kit

TI Room Air Sensor

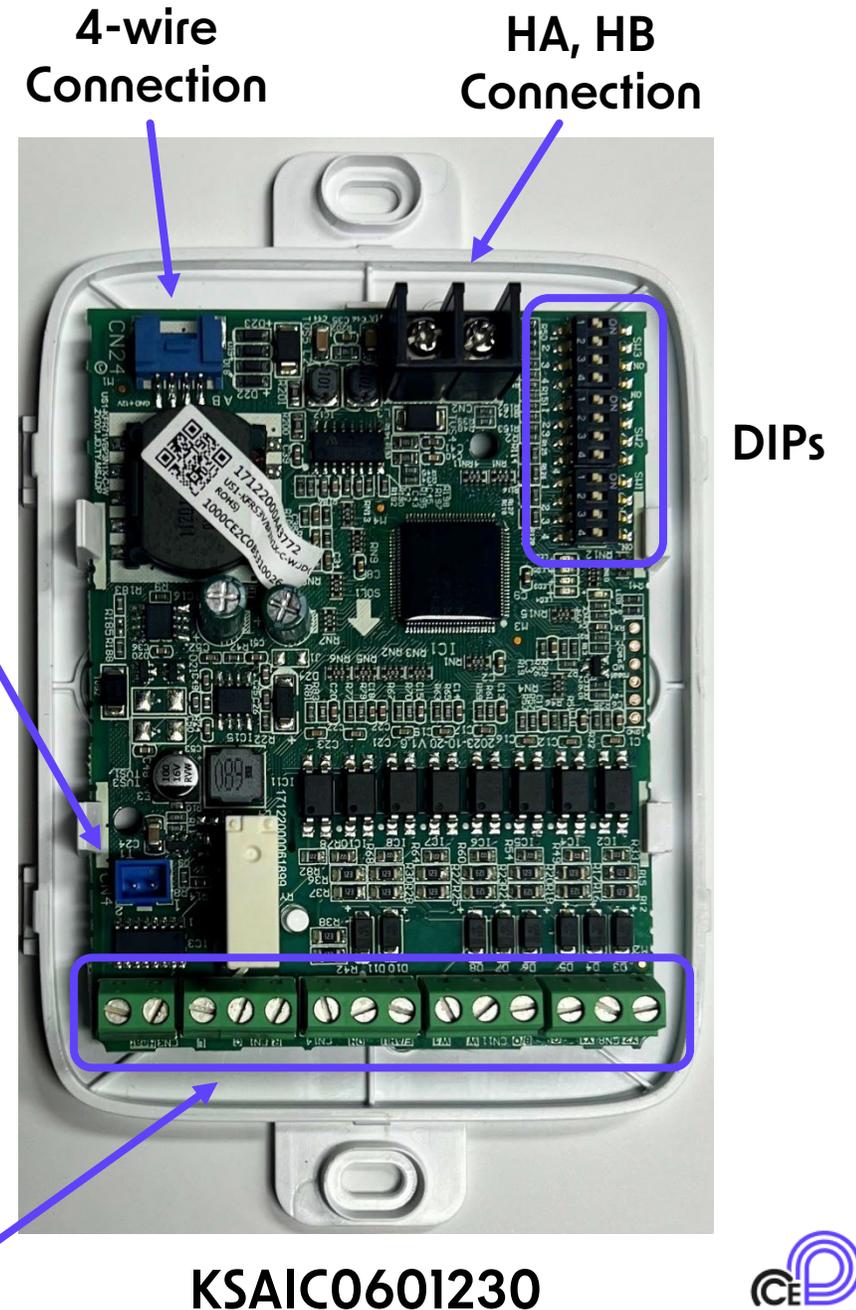
Interface Cover



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- Mount indoors only in a cool dry space
- Compatible with indoor multifunctional boards (XYE) Return air thermistor
- HA, HB port (2-wire) and RS485 port (4-wire) available.
- 24V Thermostat Configurations
- Supports an optional 24V thermostat with DIP switch configuration.
- Transformer not included and must be field provided.
- Additional Connections
- Optional connection for On/Off Heat Source (12V, 20mA)



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- Two ways to connect to indoor unit, do not connect both at same time.
- HA, HB (2-wire) connection requires field supplied 16/2 or 18/2 stranded wire.
- 4-wire connection has factory supplied wire harness

HA, HB indoor units:

- 45MBD Ducted
- 45MBC Cassette
- 45MCC 1-way Cassette
- 45MCF Underceiling

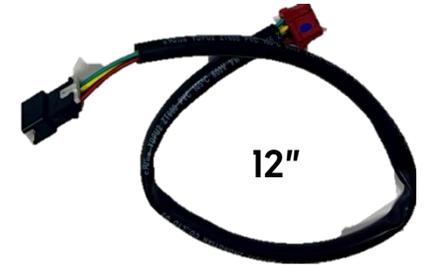
4-wire indoor units:

- 45MHH High Wall
- 45MAHA / 615AHA High Wall
- 45MPHA / 615PHA High Wall
- 45MBF Floor Console



HA, HB 2-wire
Connection

4-wire
Connection



12"



32"

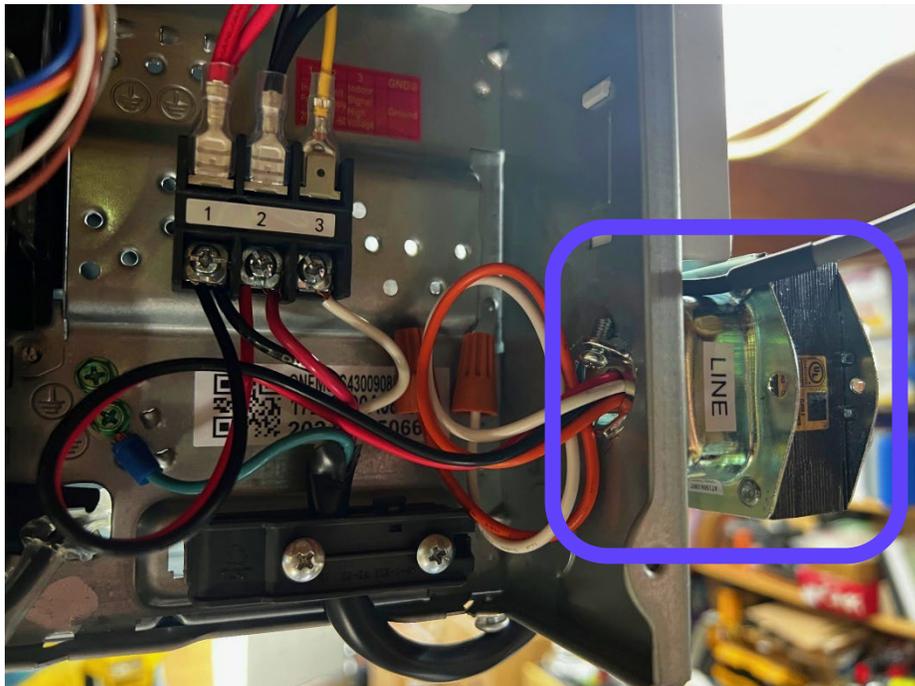
32"

Controls

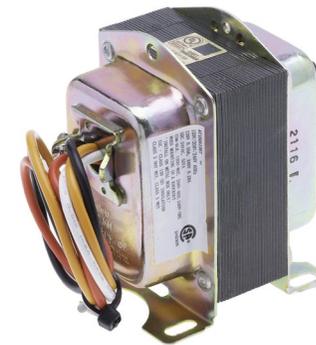
Resideo AT150F1022 Transformer, 120/208/240 Vac w/ 9" Lead Wires & Plate, Panel Mounted, or Knockout

24-Volt Interface Kit KSAIC0601230 (cont.)

- Some indoor units will be easier than others to mount a transformer.
- If grabbing power from the indoor unit, a 208/240 VAC to 24 VAC - 40VA will be needed.
- Base the line side of the transformer on the power source being used.



Example using a transformer mounted on the knockout of a MBD indoor unit



Honeywell AT150A1007 Transformer, 120V/208V/240V with Universal Mount, Foot, Plate or Knockout

Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- Wiring for 1-Stage Heat Pump, no backup heat
- Set thermostat up as Heat Pump

| Terminal | Purpose |
|----------|---------------------------|
| Y2 | Heat Pump |
| G | Fan Control |
| B/O | Reversing Valve (on Heat) |
| R | 24-Volt Power |
| C | 24-Volt Common |

This diagram for all the below units:

HA, HB indoor units:

- 45MBD Ducted
- 45MBC Cassette
- 45MCC 1-way Cassette
- 45MCF Underceiling

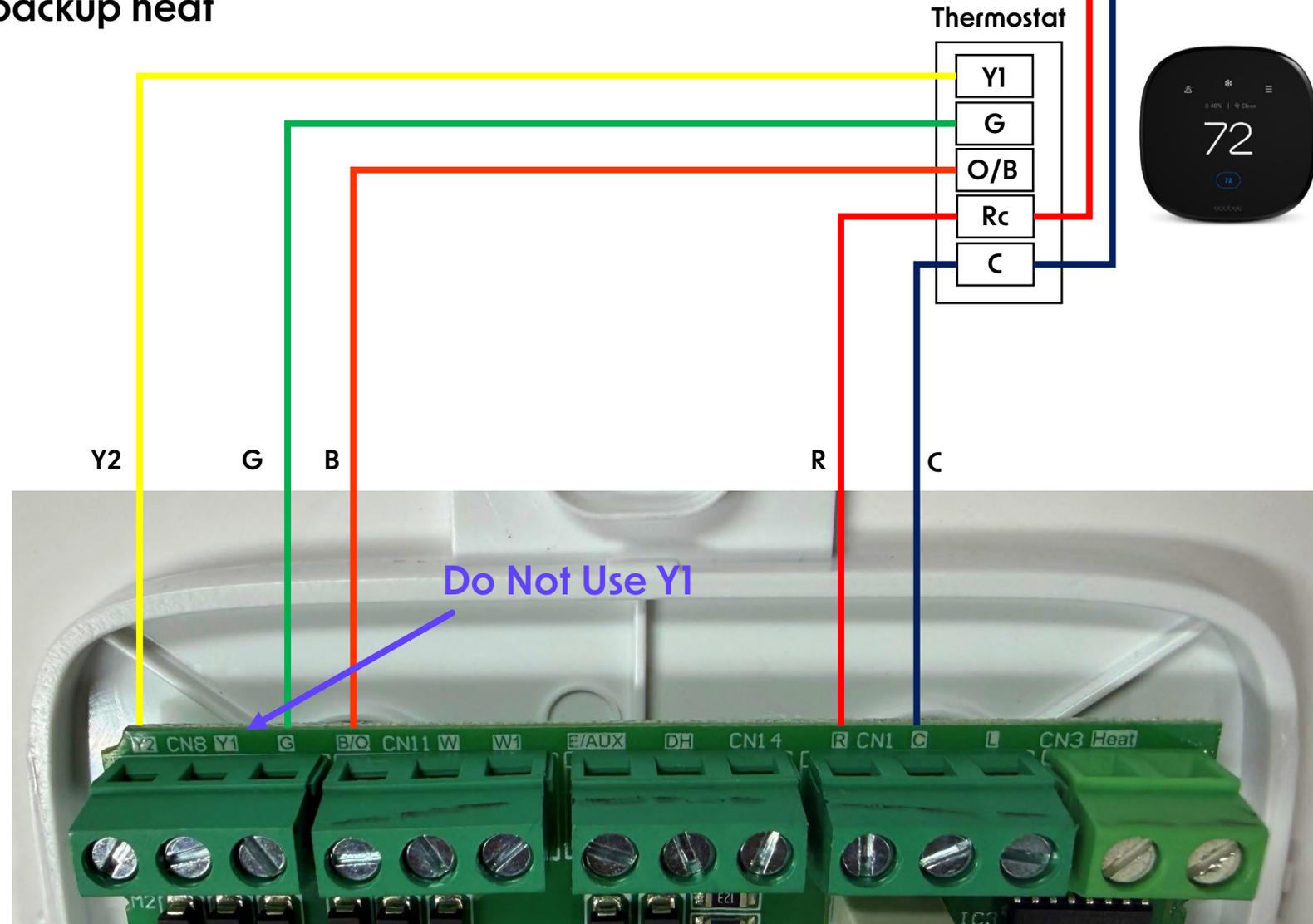
4-wire indoor units:

- 45MHH High Wall
- 45MAHA / 615AHA High Wall
- 45MPHA / 615PHA High Wall
- 45MBF Floor Console

Field Supplied
Dedicated 24V
Transformer



Heat Pump Wiring Diagram



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- Wiring for 1-Stage Heat / 1-Stage Cool, no backup heat
- Set thermostat up as Heat Pump

| Terminal | Purpose |
|----------|----------------|
| Y2 | Cooling |
| G | Fan Control |
| W | Heat |
| R | 24-Volt Power |
| C | 24-Volt Common |

This diagram for all the below units:

HA, HB indoor units:

- 45MBD Ducted
- 45MBC Cassette
- 45MCC 1-way Cassette
- 45MCF Underceiling

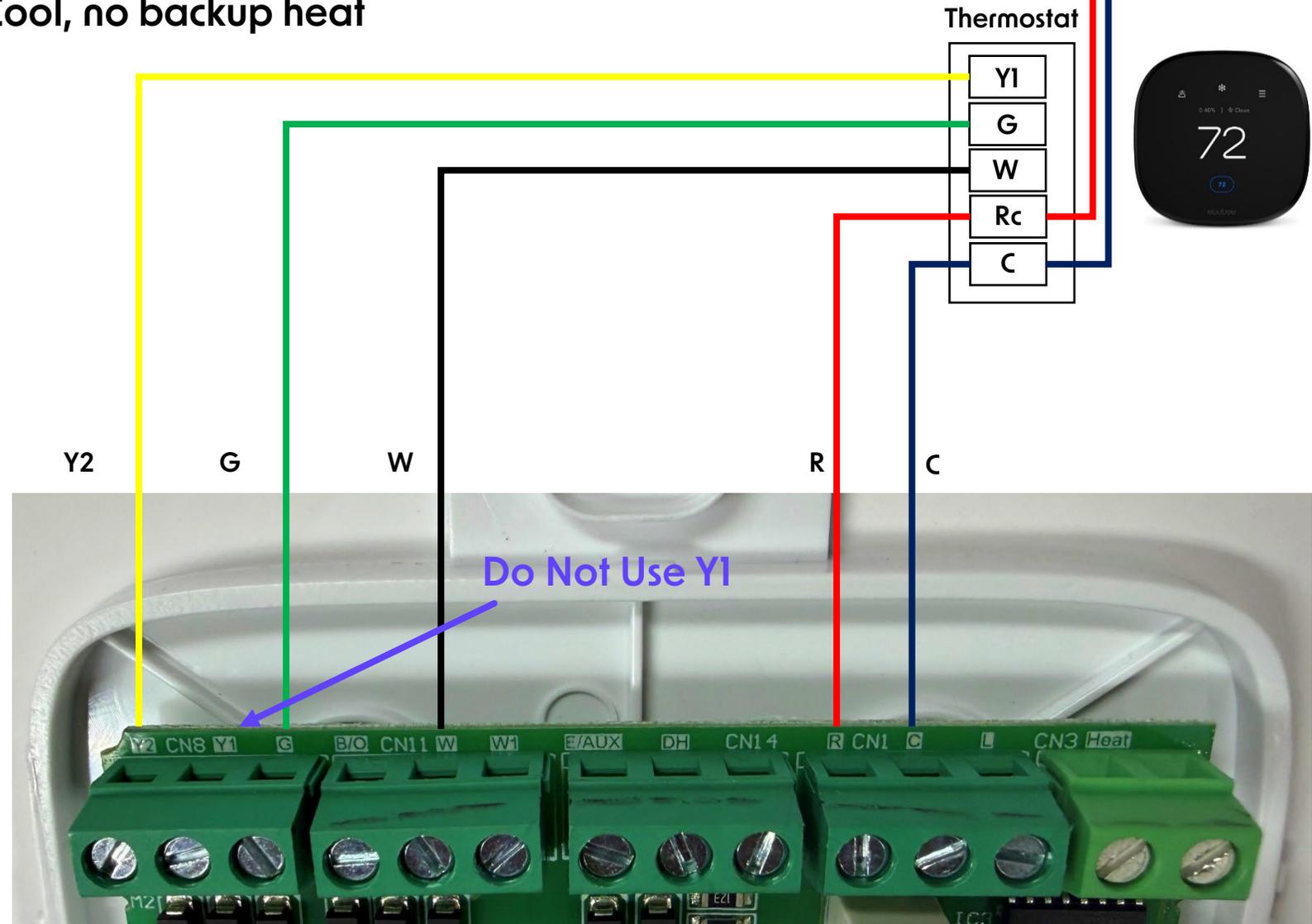
4-wire indoor units:

- 45MHH High Wall
- 45MAHA / 615AHA High Wall
- 45MPHA / 615PHA High Wall
- 45MBF Floor Console

Field Supplied
Dedicated 24V
Transformer



Conventional Wiring Diagram



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

45MBD ONLY (use only if connecting back up heat source)

- Wiring for 1-Stage Heat Pump, with external backup heat
- Set thermostat up as Heat Pump

| Terminal | Purpose |
|------------|---------------------------|
| Y2 | Heat Pump |
| G | Fan Control |
| B/O | Reversing Valve |
| W1 | Electric Heating (CN3) |
| R | 24-Volt Power |
| C | 24-Volt Common |
| Heat (CN3) | To Heat Relay 12VDC, 20mA |
| Heat (CN3) | |



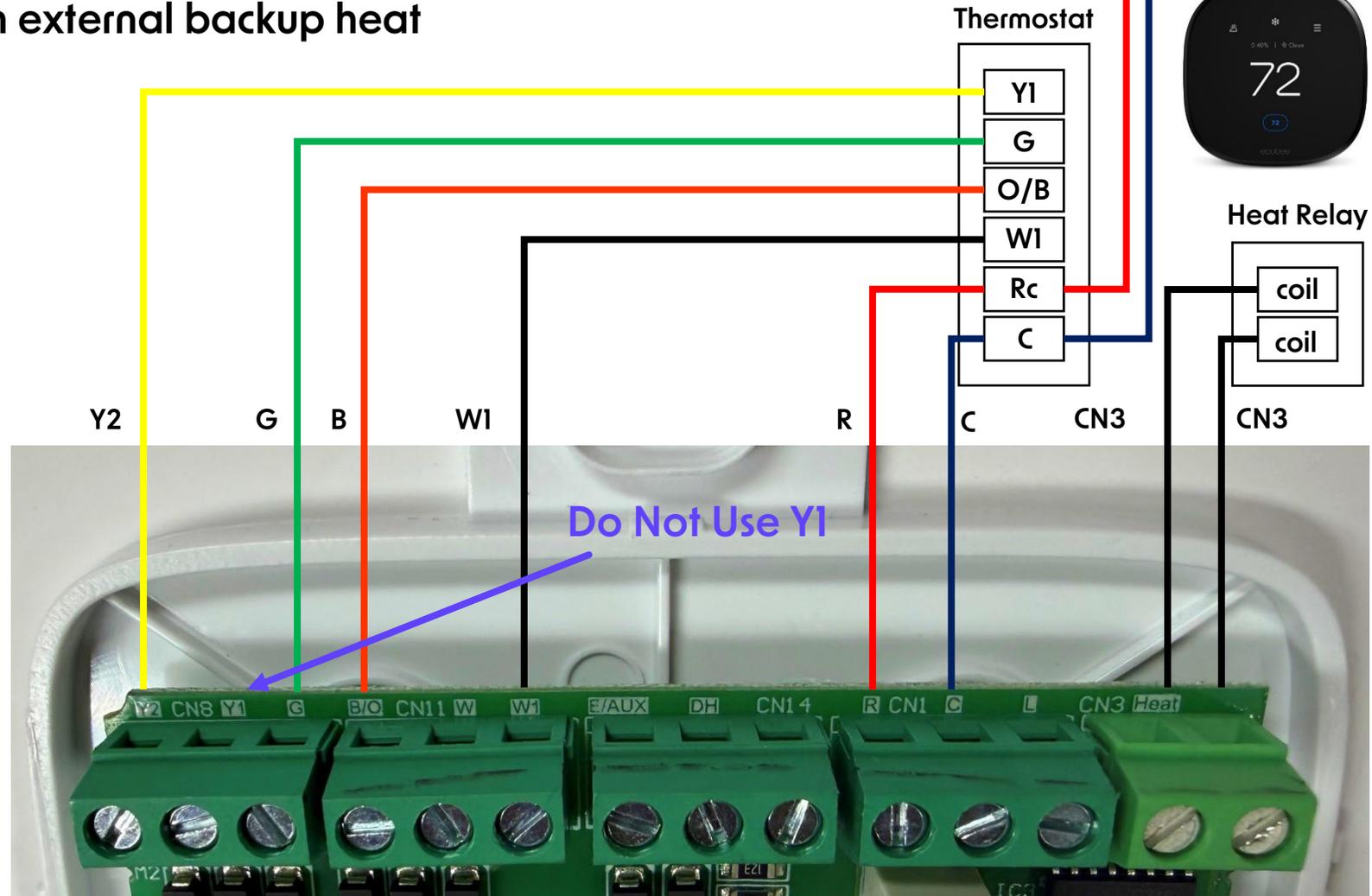
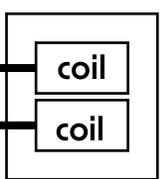
45MBD only

Heat Pump Wiring Diagram

Field Supplied
Dedicated 24V
Transformer



Heat Relay



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

45MBD ONLY (use only if connecting back up heat source)

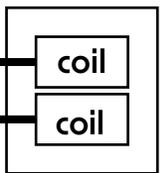
- Wiring for 1-Stage Heat / 1-Stage Cool, with external backup heat
- Set thermostat up as Heat Pump

Conventional Wiring Diagram

Field Supplied
Dedicated 24V
Transformer



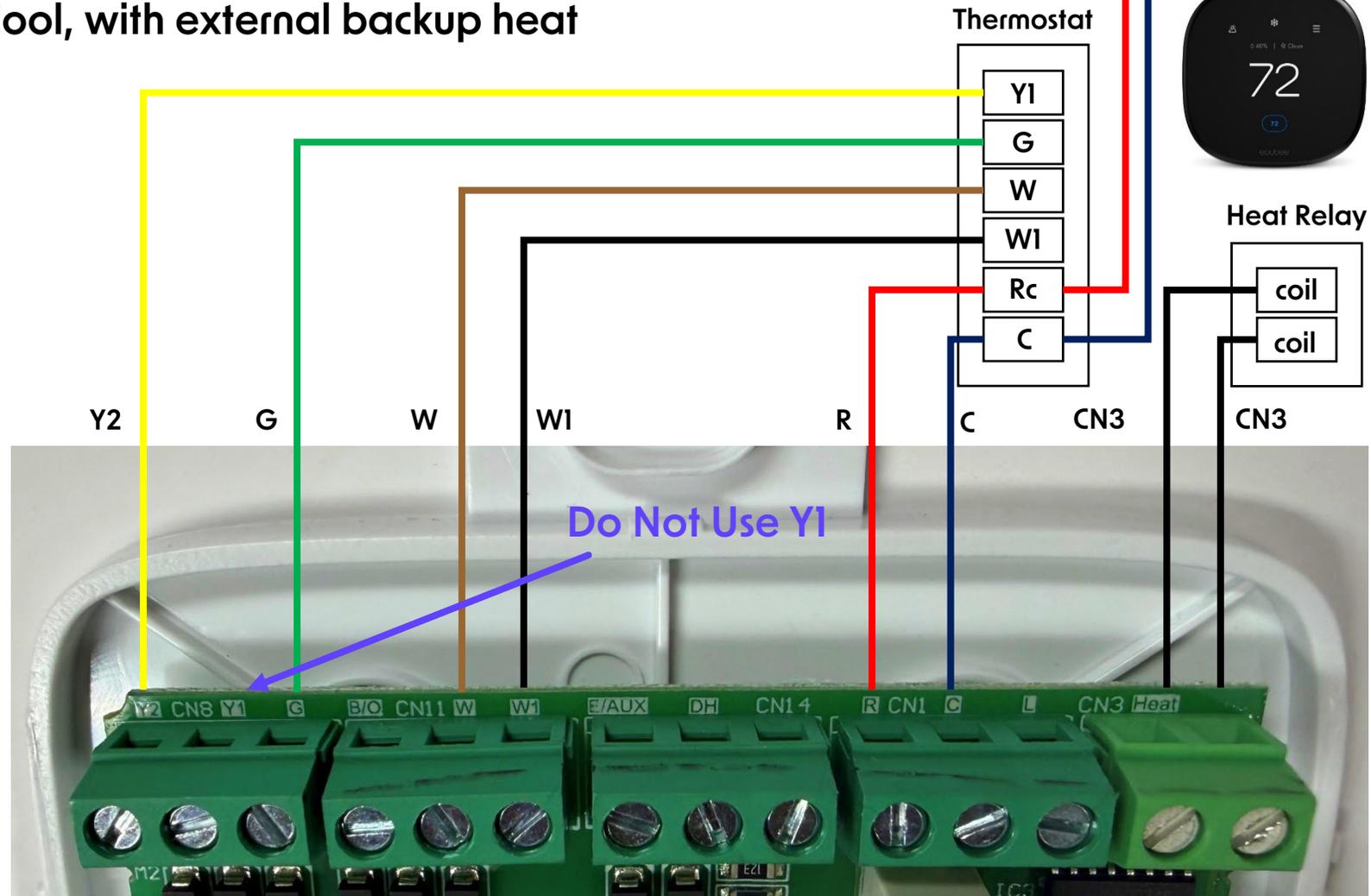
Heat Relay



| Terminal | Purpose |
|------------|---------------------------|
| Y2 | Cool |
| G | Fan Control |
| W | Heat |
| W1 | Electric Heating (CN3) |
| R | 24-Volt Power |
| C | 24-Volt Common |
| Heat (CN3) | To Heat Relay 12VDC, 20mA |
| Heat (CN3) | |



45MBD only



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

601 T1 Sensor

Without 601 T1 Sensor

- When the 601 calls for heating – Set point 86°F (30°C) displays on IDU
- When the 601 calls for cooling – Set point 60°F (17°C) displays on IDU
- When the 601 calls for fan only – IDU displays Return Air T1 Sensor Temperature

With 601 T1 Sensor

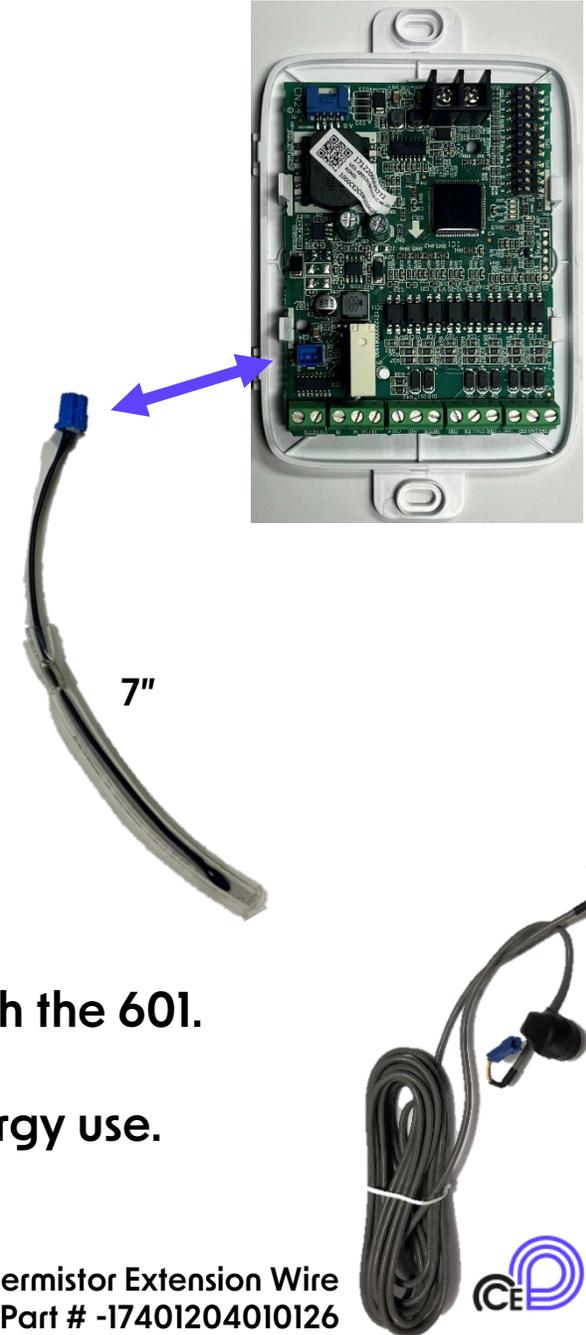
- When the 601 calls for heating – Set point varies based on 601 T1 value
- When the 601 calls for cooling – Set point varies based on 601 T1 value
- When the 601 calls for fan only – IDU displays 601 T1 Sensor Temperature

Notes:

16' extensions wires for the T1 sensor are available if needed. None are included with the 601.

Fan does not operate during Thermal OFF, Heat or Cool.

601 T1 sensor closest to the thermostat location provides better comfort and less energy use.



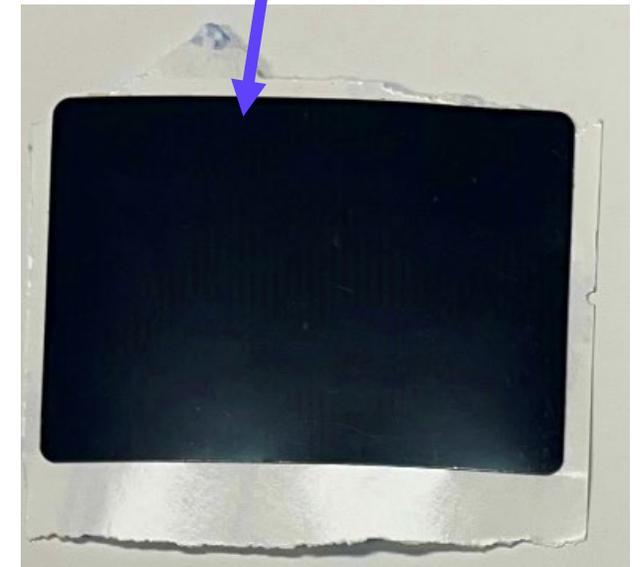
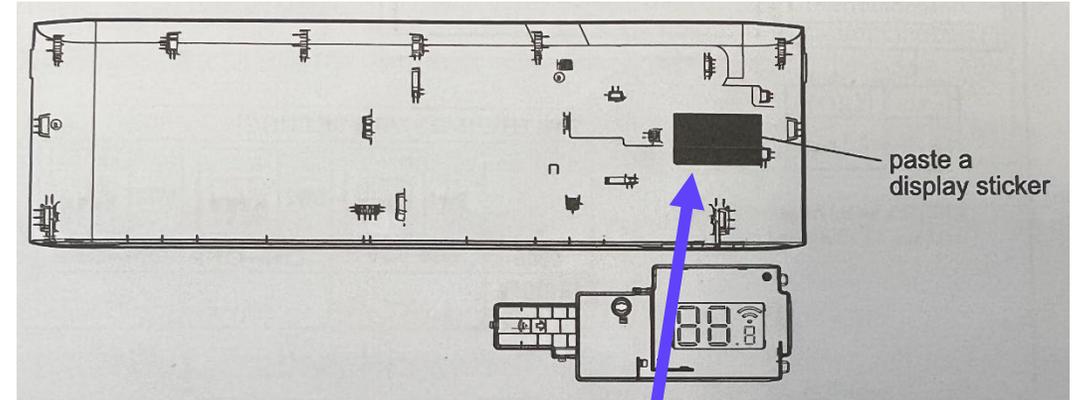
16' Return Air Thermistor Extension Wire
Part # -17401204010126



Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

- The displayed set points on the indoor does will not match the actual setting of the 24-Vot Thermostat.
- While the LED display can be tuned off using the Wireless Controller, it can accidentally be turned back ON or if a power recycles occurs the LED will turn default to ON again.
- For this reason, we recommend using the included display cover to hide display.
- Remove display assembly and place label on inside of front cover.
- Be sure to line up the cover (sticker) where the display shows through the front panel of the unit.



Indoor Unit
Display Cover

Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

Quick Settings / for R-454B equipment only

1.

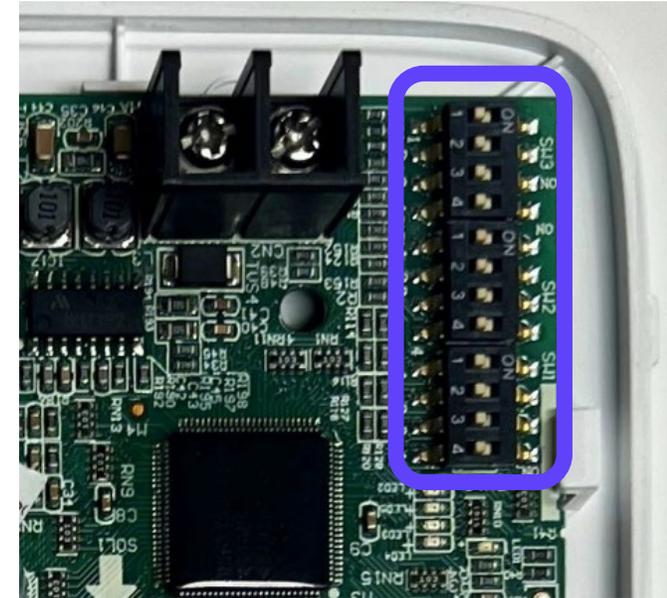
| System Type | SW2-3 | SW2-4 | SW3-4 |
|-------------|-------|-------|-------|
| Single Zone | OFF | ON | OFF |
| Multi-Zone | ON | OFF | OFF |

2. Fan Speed Setting

| Cooling Fan Speed | | | | | |
|-------------------|----------|-----|-----|------|-------|
| Speed Selection | Auto Fan | Low | Med | High | Turbo |
| SW1-1 | OFF | OFF | OFF | OFF | ON |
| SW1-2 | OFF | OFF | ON | ON | OFF |
| SW1-3 | OFF | ON | OFF | ON | OFF |

| Heating Fan Speed | | | | | |
|-------------------|----------|-----|-----|------|-------|
| Speed Selection | Auto Fan | Low | Med | High | Turbo |
| SW1-4 | OFF | OFF | OFF | OFF | ON |
| SW2-1 | OFF | OFF | ON | ON | OFF |
| SW2-2 | OFF | ON | OFF | ON | OFF |

Done!



DIPs

SW3

SW2

SW1

Controls

24-Volt Interface Kit KSAIC0601230 (cont.)

Full DIP Explanations and Setting Options

Skip is used "Quick Settings"

Select system type bases on "GA" or "Non-GA" classification from Table 5 and Table 6 on next page.

NOTES:

1. An * indicates the denoted Dip Switch is not applicable in this specific configuration.

| Additional Settings | | | | |
|---------------------|---|-------------|--------------|---|
| | Description | ON | OFF | Note |
| SW2-3 | System type | Multi-Split | Single Split | |
| SW2-4 | Split selection code 1 | See Table 5 | See Table 5 | Multi-zone do not have this function |
| SW3-2 | Prolonged non-temperature time setting | 60 Min. | 30 Min. | |
| SW3-3 | Heat port on/off temperature difference | 2°F | 4°F | |
| SW3-4 | Split selection code 2 | See Table 5 | See Table 5 | This code is valid only when the SW2-4 DIP is OFF |

| Table 5 | | | | |
|---|-------|-------|-------|---------|
| Combination | SW2-3 | SW2-4 | SW3-4 | Note |
| Indoor unit type 1 (GA) + split single-zone outdoor unit type 2 (Non-GA) | OFF | OFF | OFF | Default |
| Indoor unit type 1 (GA) + split single-zone outdoor unit type 1 (GA) | OFF | ON | * | - |
| Indoor unit type 2 (Non-GA) + multi-zone outdoor unit type 1 (GA) or; Indoor unit type 2 (Non-GA) + single-zone outdoor unit type 2 (Non-GA) | OFF | OFF | ON | - |
| Indoor unit type 1 (GA) + multi-zone outdoor unit | ON | * | OFF | - |
| Indoor unit type 2 (Non-GA) + multi-zone outdoor unit | ON | * | ON | - |

Controls

24-Volt Interface Kit KSAIC0601230 (end)

Full DIP Explanations and Setting Options (end)

Skip is used "Quick Settings"

| Table 6 – R-454B Units | | |
|------------------------|---------|-----------------|
| GA/Non-GA | IDU/ODU | Model |
| GA | ODU | 37MHRA |
| | | 37MARA |
| | | 37MAHA |
| | | 37MPRA |
| | | 37MVRA |
| | | 37MBRA |
| | | 37MBHA |
| | IDU | All R-454B IDUs |
| Non-GA | ODU | 37MGRA |
| | | 37MGHA |

| Table 6 – R-410A Units | | |
|------------------------|---------|--------|
| GA/Non-GA | IDU/ODU | Model |
| GA | ODU | 38MARB |
| | | 38MBRC |
| | | 38MPRB |
| | IDU | 40MAHB |
| | | 40MBCA |
| | | 40MBFA |
| Non-GA | ODU | 38MGRB |
| | | 38MGHB |
| | IDU | 40MBCQ |
| | | 40MBFQ |
| | | 40MBDQ |

