DUCTLESS & CROSSOVER

Mingledorff’s Technical Services / SE

03/19/2025

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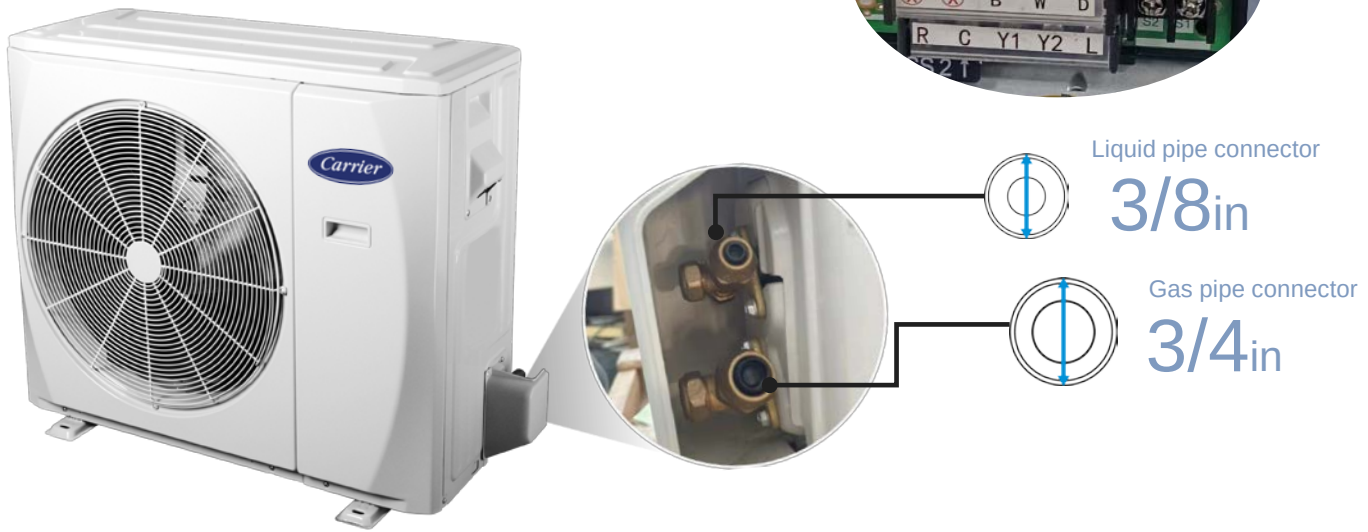
WHY CROSSOVER?

Variable Speed Compressor (Inverter)

Energy efficient
Better humidity control
Quieter
Smaller footprint
Horizontal discharge

Whole Home (Centralized Ducted) Solution

Pairs with Fan Coil/Furnace
Refrigerant line set
Separate powering of Indoor and Outdoor
Built-in 24V Interface



CROSSOVER SOLUTIONS: OUTDOORS

Performance

Heating: -22F to 75F
Cooling: -22F to 122F

37MU**H**A

18 / 24 / 30 / **36 / 48 /** 60

Pairs with AHUs, Coil , Fan coils & Furnace.

Comfort

Heating: -13F to 75F
Cooling: -13F to 122F

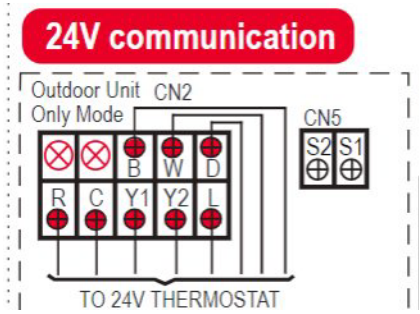
37MU**R**A

18 / 24 / 30 / 36 **/ 48 / 60**

Pairs with AHU, Fan coils & Furnace.

Features

- Variable Speed Compressor
- Compact design
- Built-in 24 V Interface
- Crankcase Heater & Basepan Heater
- 3/8” liquid, 3/4" suction



CROSSOVER LINEUP: INDOORS

Performance

Air Handler New!

45MU**H**A

18 || 24 30 || 36 48 || 60

Features

Built - in 24V Interface
Dip Switch – 3 SKUs
Filter Cabinet: 1” / 2” / 4”
115 / 230 V Compatible
3/8” liquid, 3/4" suction
230V Aux Heat 5-25KW

|| - Dip Switch (Higher Capacity by Default)

Coil with Interface

45MU**L**A

18 / 24 / 30 / 36 / 48

Features

Pairs with any furnace
Powered through furnace

Comfort

Air Handler

45MU**A**A

18 / 24 30 / 36 48 / 60

Features

Built - in 24V Interface
1” Filter
115 / 230 V Compatible
3/8” liquid, 3/4" suction
230V Aux Heat 5-25KW

Crossover Solutions: Fully Electric

37MU**H**A

45MU**H**A

37MU**H**A / 37MU**R**A

45MU**A**A

37MU**H**A / 37MU**R**A

Carrier Fan coils

Fan Coils	R-410A	R-454B	Cool Stage	Motor
Infinity (High)#	FE4B	Early 2025	VS	VS ECM
Performance (Mid)	FT4B	FT5	2	VS ECM
Comfort (Entry)	FJ4	FJ5	1	MS ECM
	F54	TBD	2	MS ECM
Multi-Family	FMA4X	FMA5X	1	MS ECM
	FMU(C)4Z	FMU(C)5Z	1	MS ECM
	FMU(C)4X	FMU(C)5X	1	PSC
	FMA4P*	FMA5L	1	PSC
Builder	FG4	FG5	2	VS ECM

100% Electric

Crossover Solutions: Dual Fuel

37MU**H**A

37MU**H**A / 37MU**R**A

Any Furnace

45MU**L**A

Carrier Furnace

Carrier Coil

Gas Furnace	R-454B	Stage	AFUE
Infinity (High)#	59MN7C	VS	99%
	59TN6C	2	97%
	58TN[illegible]B	2	80%
	59CU5B	1	95%
	58CU0B	1	80%
Performance (Mid)	59TP6C	2	97%
	58TP0B	2	80%
	59SP6B	1	97%
	58SP0B	1	80%
Comfort (Entry)	59SC6A	1	97%
	59SC2E	1	92%
	58SC0B	1	80%
	58SB0B	1	80%
	59SU5	1	95%
	58SU0B	1	80%

Early 2025

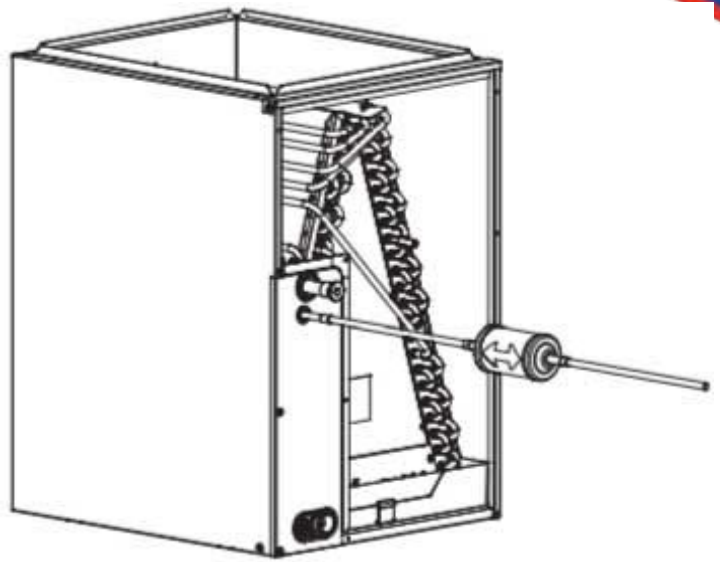
Evap COIL	R-410a	R454b	Orient
V-COILS#	CVPVA	CVAVA	Vert
	CVPMA	CVAMA	MP
A-COILS	CAPMP	CAAMP	MP
SLAB-COILS	CSPHP	CSAHP	SLAB HORZ

Early 2025

100% Dual Fuel

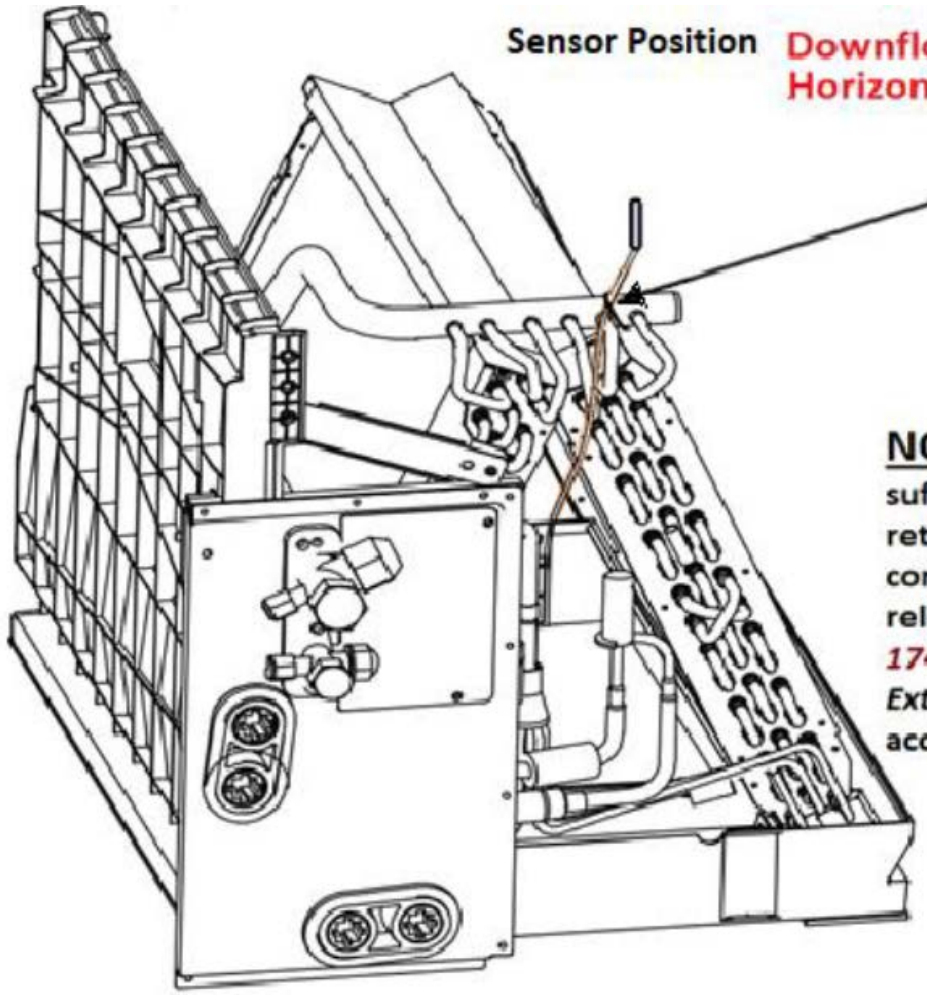
37MURA

- Liquid line drier may be used (optional)
- All new piping, not required
- Existing piping, recommended to protect EEV



Bi- flow Liquid Line Drier

40MUAA T1 RETURN AIR SENSOR POSITION



Sensor Position Downflow and Horizontal right airflow.

Strap this sensor to the header. Strap to the tubing that surrounds the cable. Make sure that the sensor is at least 3 inches away from the piping.

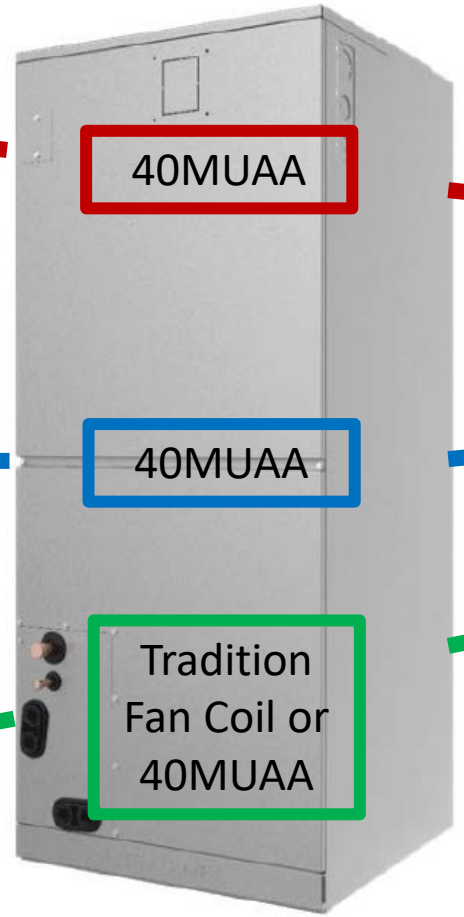
NOTE: This procedure should be sufficient for most applications. If return air ductwork or other conditions require sensor relocation, use RC part number *17401204010126, Return Air Extension,* to extend the sensor to acceptable placement in the duct.

For more information see TIC 2024-0017

SCENARIO SELECTION

Scenario #1
Scenario #2
Scenario #3

24Vac



S1/S2 Communication
16/2 wire

HA HB /Communication
16/2 wire

S1/S2 Communication
16/2 wire

24Vac

24Vac

Note for ALL Scenarios: Do Not Remove Indoor TXV/EXV!!

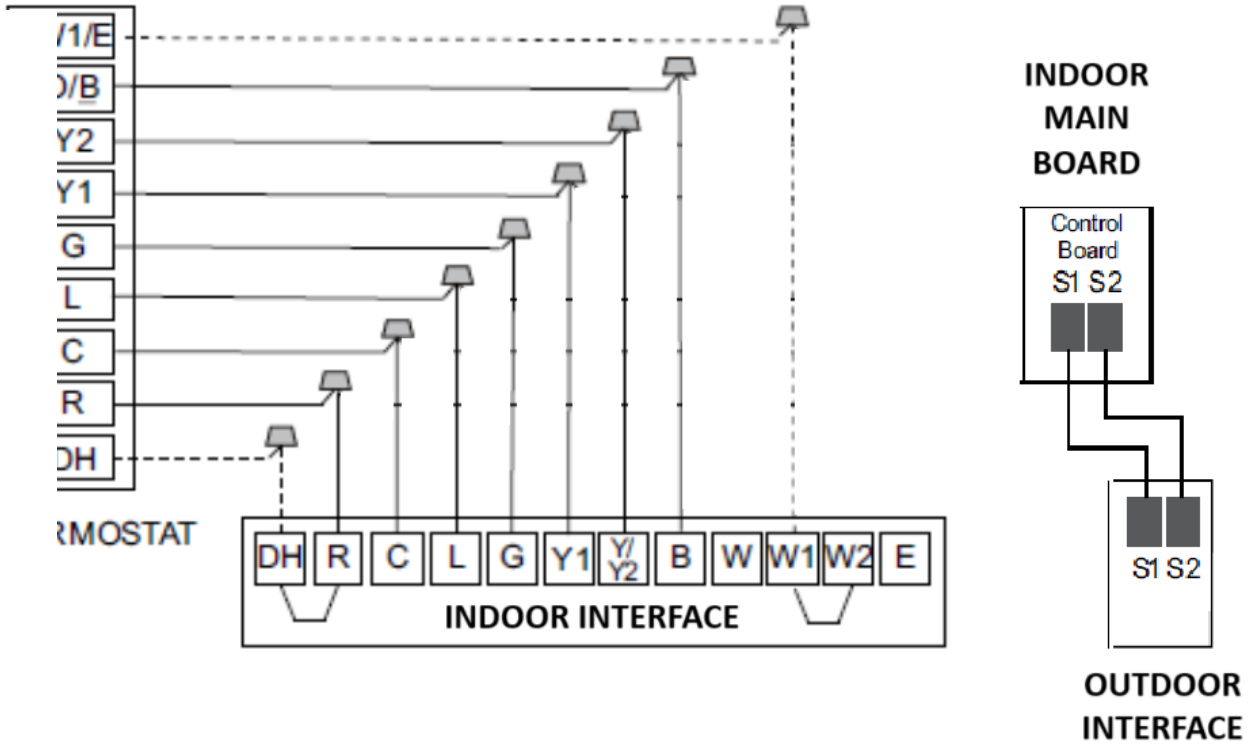
SCENARIO DIP SWITCHES

Set dip switches as needed, then proceed to the listed page # for wiring & setup notes.

	Scenario #1 Pages #4-6	Scenario #2 Page #7-8	Scenario #3 Page #9-13+
Indoor unit 40MU	Turn SW1-1 on Turn off S4-2 for Dehum	Turn SW1-1 off (all off)	Turn on SW1-1 & SW1-4 Turn off S4-2 for Dehum
Outdoor unit 38MU	All off	All off	Turn on #2

SCENARIO 1

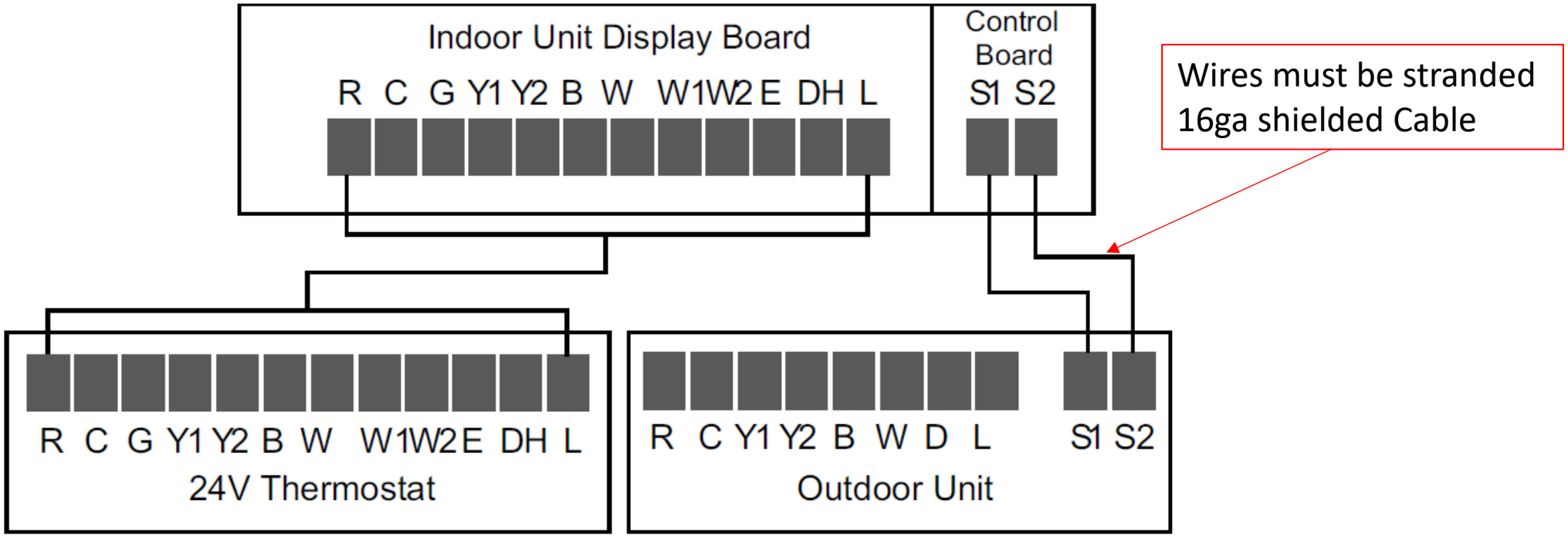
SCENARIO 1: WIRING FOR 24VAC 3H/2C HEAT PUMP WITH AUX HEAT STRIPS AND DEHUMIDIFICATION USING RS485 COMMUNICATION TO THE OUTDOOR



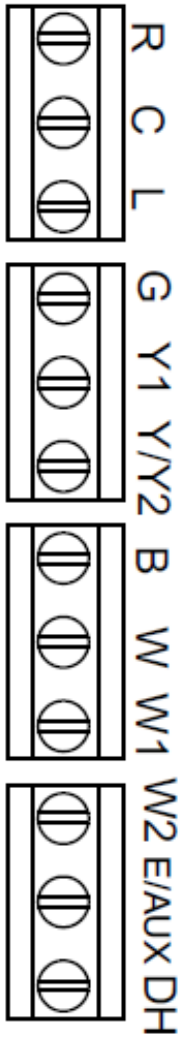
SCENARIO 1

Scenario 1 - Non-Polarity RS485 Communication + 24V Thermostat

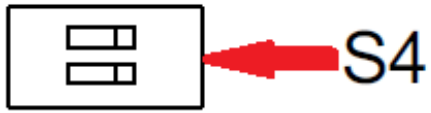
This is the preferred method when using a 24V thermostat and when the indoor unit communicates with the outdoor unit via RS485 protocol.



SCENARIO 1



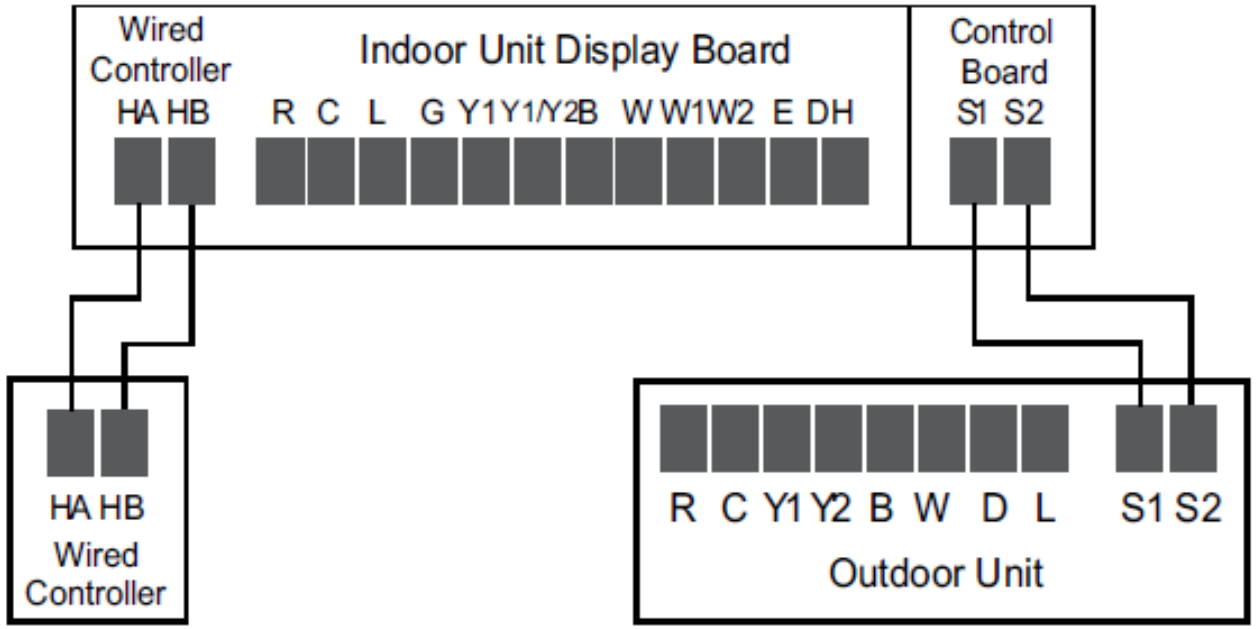
- (R) 24VAC Power
- (C) 24VAC Common
- (G) Fan
- (Y1) Low Stage Blower Operation
- (Y/Y2) High Stage Blower Operation
- (B) Reversing Valve (Energized in Heat)
- (W1) First Stage Electric Heat
- (W2) Second Stage Electric Heat
- (DH) Dehumidification (during cool modes only)



S4 1: ON W1 and W2 Jumped / OFF=Separate
S4 2: ON DH Terminal Disabled / OFF=Enabled

SCENARIO 2

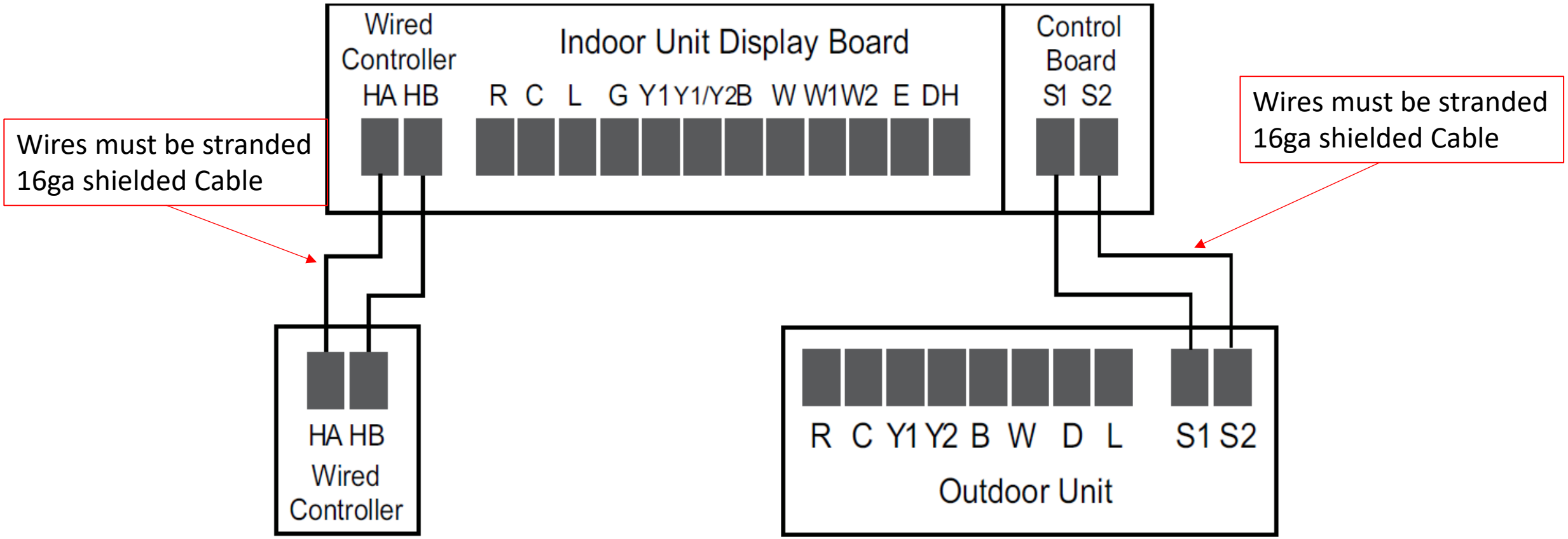
SCENARIO 2: FULL RS485 2 WIRE COMMUNICATION (DEFAULT)



SCENARIO 2

Scenario 2 - Non-Polarity RS485 Communication

This is the preferred method of control with wired controller KSACN1001(Not included)



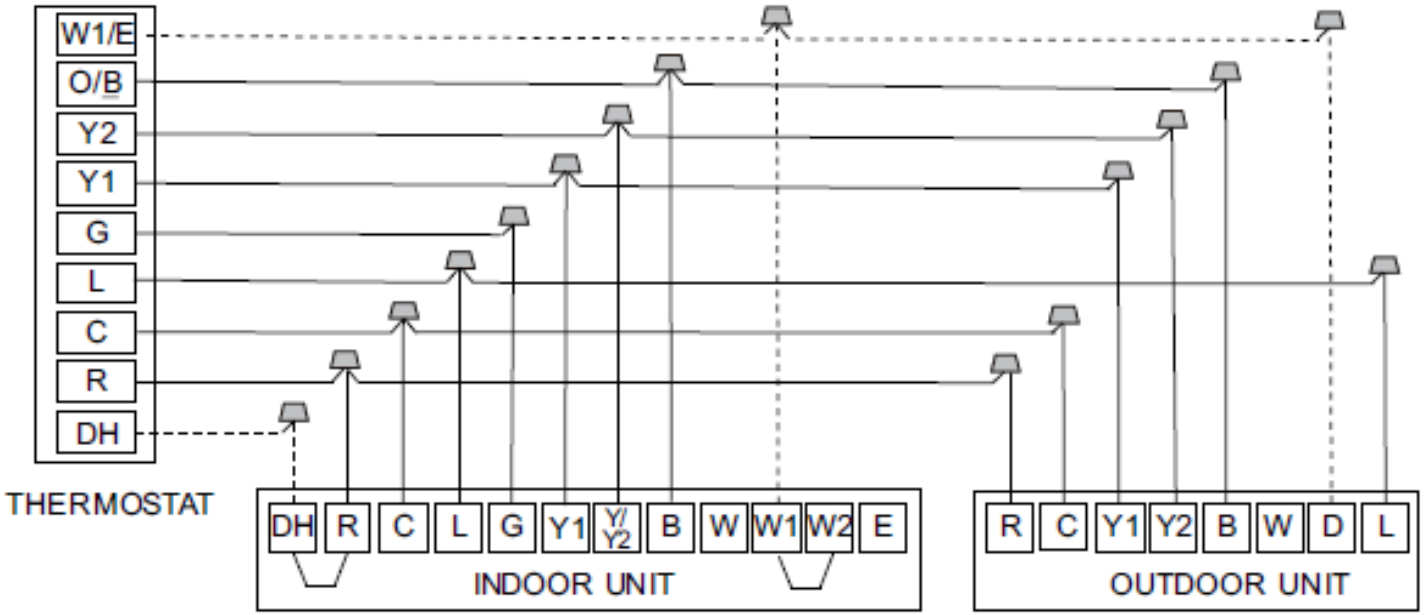
SCENARIO 2

SCENARIO 2: DO NOT CONNECT 24 VOLT WIRING

- None of the 24VAC connections are active in this scenario
- Uses 24VAC wiring in scenarios 1 and 3 only
- Never wire a native controller and a 24VAC TSTAT at the same time

SCENARIO 3

SCENARIO 3: 24VAC WIRING FOR 3H/2C HEAT PUMP WITH AUX HEAT STRIPS AND DEHUMIDIFICATION



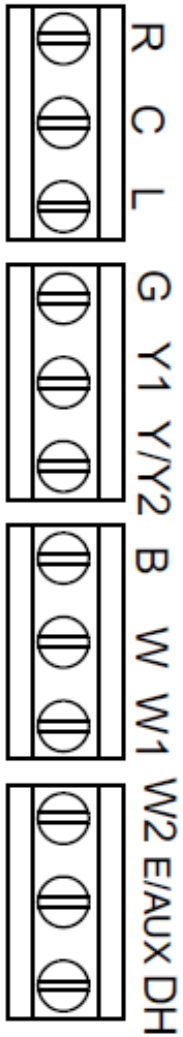
- **W** is not used in heat pump configuration
- **E/AUX** is not used except for TSTATs with a separate tap
- **L** is only used if you have a TSTAT with an alarm light

SCENARIO 3: 24VAC TO TSTAT AND OUTDOOR WIRING

Wire TSTAT according to preference

- Can drive the heat pump as conventional using Y1 and Y2 for cool and W for heat
- Can be wired as up to a 4 heat/2 cool heat pump with electric heat & dehumidification
- Always setup the TSTAT to energize the reversing valve in heat (B)
- Y1 and Y2 are available to adjust the range of the capacity request algorithm
- There will be indoor fan operation during defrost (up to 3 minutes of cold blow)

SCENARIO 3 / 40MUAA



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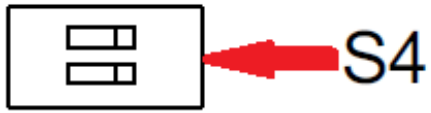
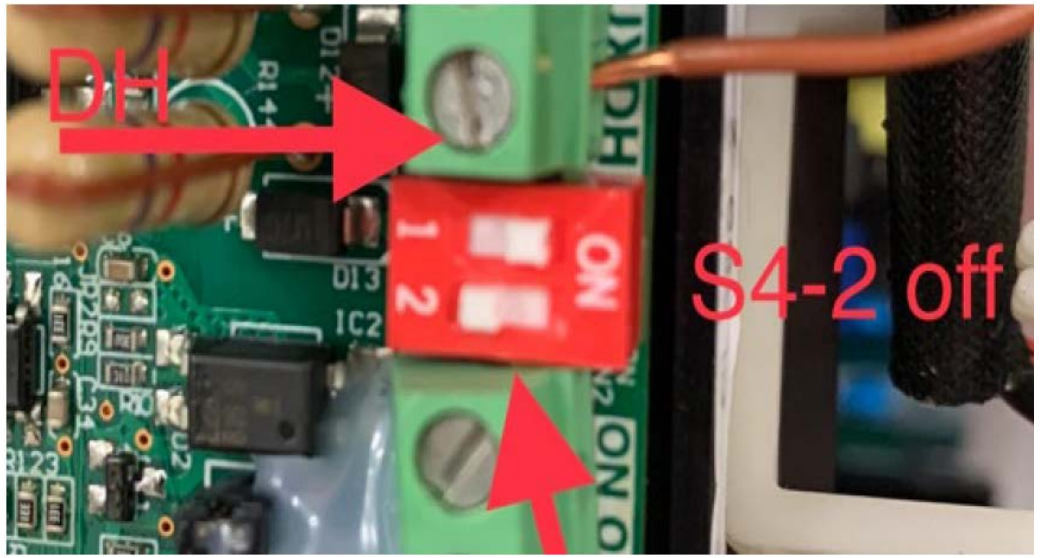


S4 1: ON W1 and W2 Jumped / OFF=Separate
S4 2: ON DH Terminal Disabled / OFF=Enabled

SCENARIO 3

- Heat Pump thermostats should be setup for B not O
- If electric heat is installed, then airflow dip switches need to be set
  - SW4-1, SW4-2, SW4-3
  - Install manual has indoor unit sizes crossed with electric heater sizes
- S4-2 is Default On (jumps R & DH) - turn OFF for dehumidification
  - DH terminal and S4-2 shown in picture
- D terminal from ODU goes to W1 on IDU

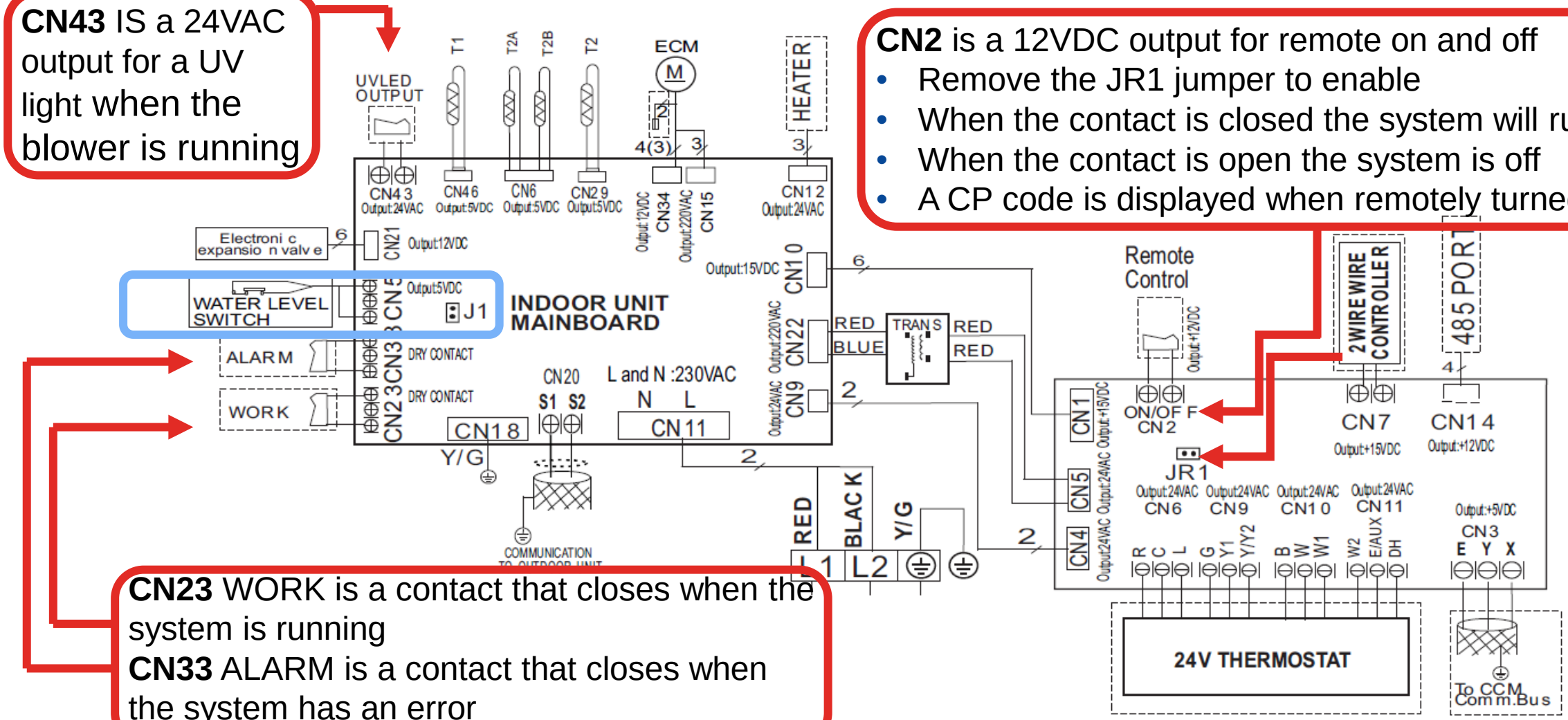


THE CROSSOVER 40MUAA

GENERAL WIRING AND CN TERMINAL CONNECTORS

CN43 IS a 24VAC output for a UV light when the blower is running

CN2 is a 12VDC output for remote on and off
- Remove the JR1 jumper to enable
- When the contact is closed the system will run
- When the contact is open the system is off
- A CP code is displayed when remotely turned off



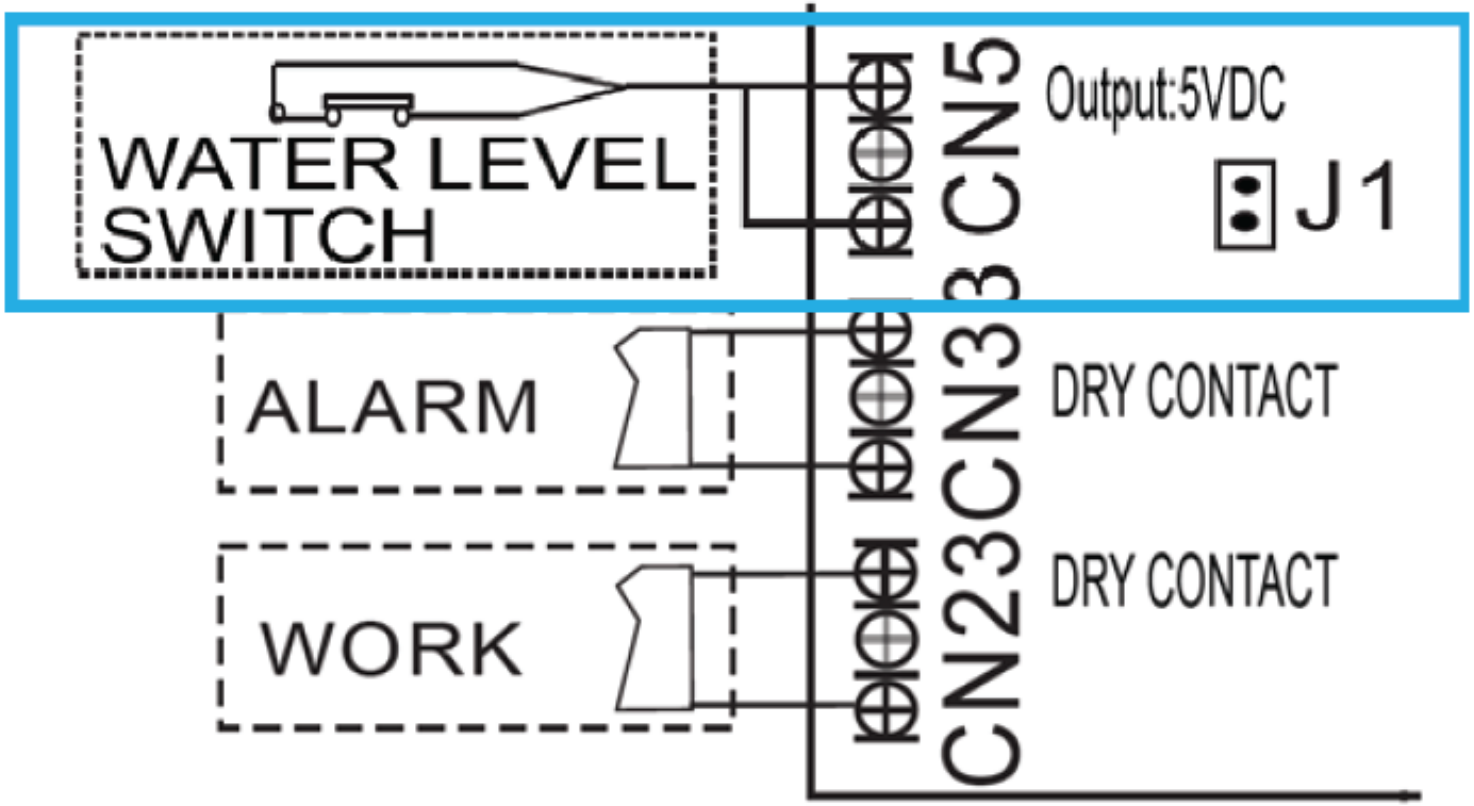
CN23 WORK is a contact that closes when the system is running
CN33 ALARM is a contact that closes when the system has an error

THE CROSSOVER 40MUAA

CONDENSATE MANAGEMENT

WATER LEVEL SWITCH CN5 FOR SCENARIOS 1 & 2 ONLY

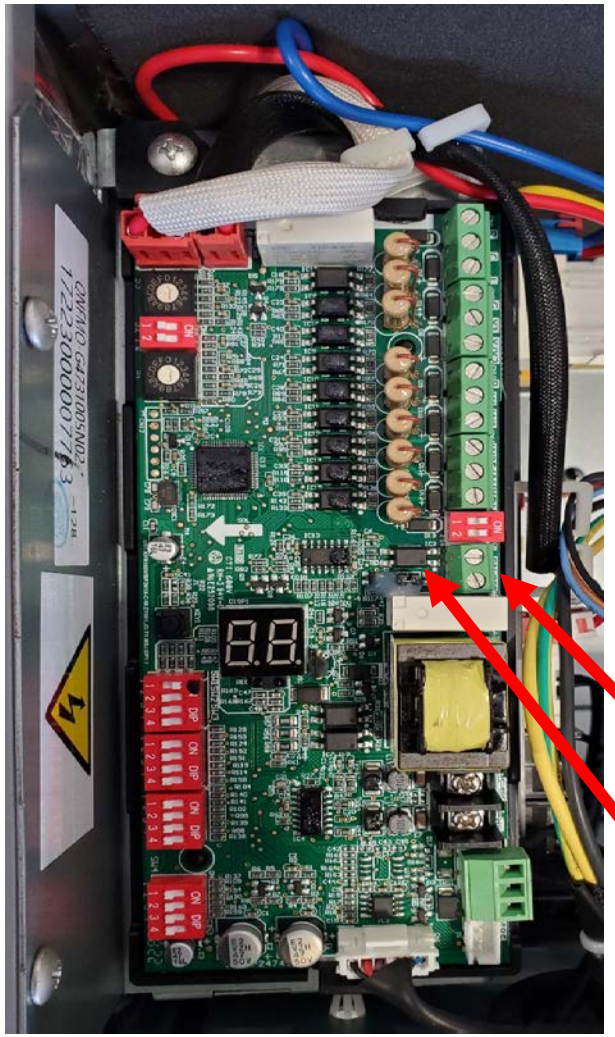
- To enable this switch, jumper **J1** must be removed
- A field supplied float switch can be directly connected to **CN5**
- Closed contacts = normal
  Open contacts = overflow
- When an overflow condition occurs, a signal is sent to the system to turn it off
- Alarm **EE** or **EH0E** appears



FOR SCENARIO 3 BREAK R TO THE TSTAT AFTER AN IN-LINE FUSE HAS BEEN ADDED

THE CROSSOVER 40MUAA FANCOIL

GENERAL WIRING AND CN TERMINAL CONNECTORS



CN23 WORK

CN33 ALARM

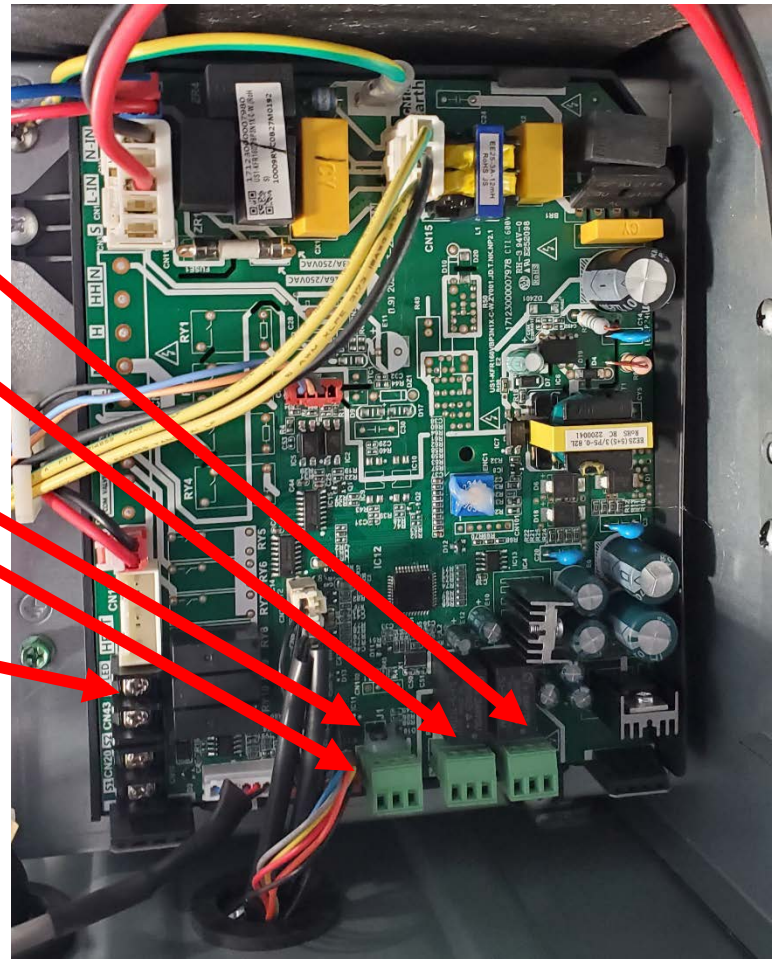
J1 JUMPER

CN5 WATER LEVEL

CN43 UV LED

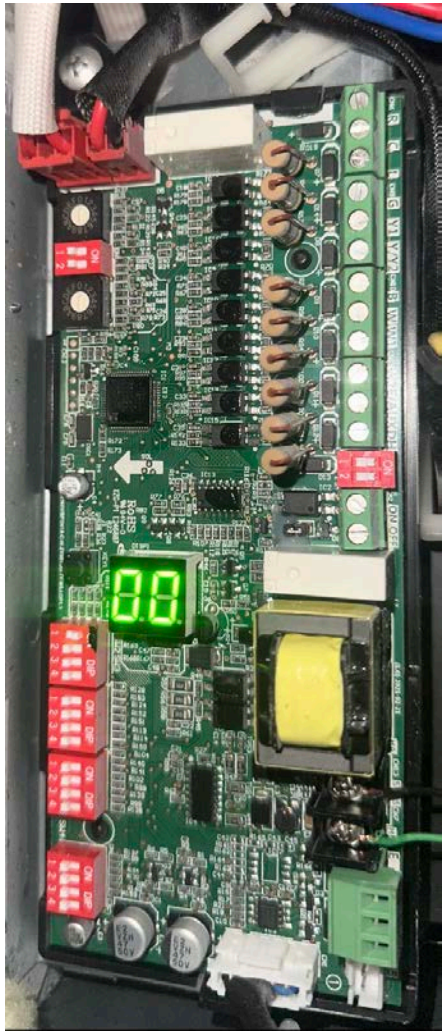
CN2 ON/OFF

JR1 JUMPER



40MUAA DISPLAY MODES OF OPERATION

- IDLE/STANDBY 00
- CONSTANT FAN 01
- COOLING Y1 02
- COOLING Y2 03
- COOL/DEHUM Y1 04
- COOL/DEHUM Y2 05
- HP HEATING Y1 06
- HP HEATING Y2 07
- W1 ELECTRIC HEAT 08
- W2 ELECTRIC HEAT 09
- Y1/Y2/W1 AUX HEAT 10
- Y1/Y2/W2 AUX HEAT 11
- EMERGENCY HEAT 12



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- IDLE/STANDBY 00
- CONSTANT FAN 01
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- COOL/DEHUM Y1 04
- COOL/DEHUM Y2 05
- HP HEATING Y1 06
- HP HEATING Y2 07
- W1 ELECTRIC HEAT 08
- W2 ELECTRIC HEAT 09
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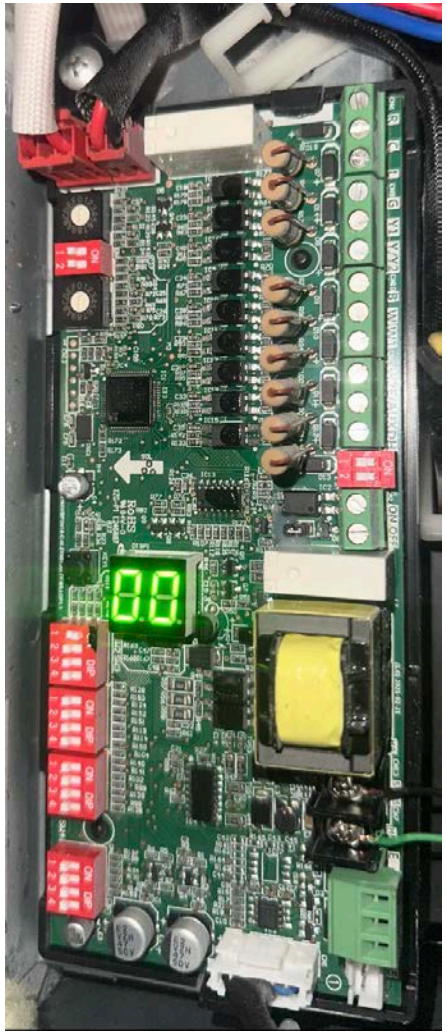
- Y1/Y2/W2 AUX HEAT 11
- EMERGENCY HEAT 12



Mingledorff's INC

Crossover Ecobee Setup

ECOBEE 6 SETUP AT FIRST POWER UP

SELECT YOU'RE AN ECOBEE PRO!

ECOBEE 6 SETUP AT FIRST POWER UP

SELECT ONLY RC IS CONNECTED & SINGLE OR VARIABLE SPEED FAN

ECOBEE 6 SETUP AT FIRST POWER UP

VERIFY THE ECOBEE SEES THE CORRECT WIRING

- G for fan circuit
- C for the common circuit
- Y1 for low range compressor
- Y2 for high range compressor
- O/B for reversing valve
- Rc for 24 VAC power
- W1 for heat strips on 3 heat / 2 cool
- W2 for heat strips on 4 heat / 2 cool
- ACC+ for dehumidification
- (ACC- not shown)

ECOBEE 6 SETUP AT FIRST POWER UP

ACCESSORY SETUP: SELECT DEHUMIDIFIER & 1 WIRE (ACC+)

ECOBEE 6 SETUP AT FIRST POWER UP

SELECT AIR TO AIR & ENERGIZE THE O/B REVERSING VALVE ON HEAT

ECOBEE 6 SETUP AT FIRST POWER UP

ALLOW SIMULTANEOUS HEAT PUMP AND AUX HEAT: SELECT ENABLE

- **Standard models can produce 100% HP heat down to 17 degrees F**
- **High Heat models can produce 100% HP heat down to 5 degrees F**

Exact Parameters Vary by Capacity

ECOBEE 6 SETUP AT FIRST POWER UP

CONFIGURE THE COMPRESSOR MINIMUM OUTDOOR TEMPERATURE

- **Disable or set at zero (or below)**
- **Ecobee default is 35 degrees F**
- **<u>Prevent a nuisance service call by making sure you set this on all Ecobee installations</u>**

ECOBEE 6 SETUP AT FIRST POWER UP

HEATING TYPE: SELECT FURNACE
FAN CONTROL: BY THERMOSTAT

ECOBEE 6 SETUP AT FIRST POWER UP

RELAY STATE FOR DEHUMIDIFICATION

- **Set the relay state when your dehumidifier is active to Open**

ECOBEE 6 SETUP AT FIRST POWER UP

GO TO ☰ > ⚙ > SETTINGS > INSTALLATION SETTINGS > EQUIPMENT > DEHUMIDIFIER

- **Set Dehumidify with fan to NO**
- **Verify Dehumidifier Active is OPEN**

GO TO ☰ > ⚙ > SYSTEM > DEHUMIDIFIER

- **Set Dehumidifier to ON**
- **Set desired humidity to comfort**

OOPS!

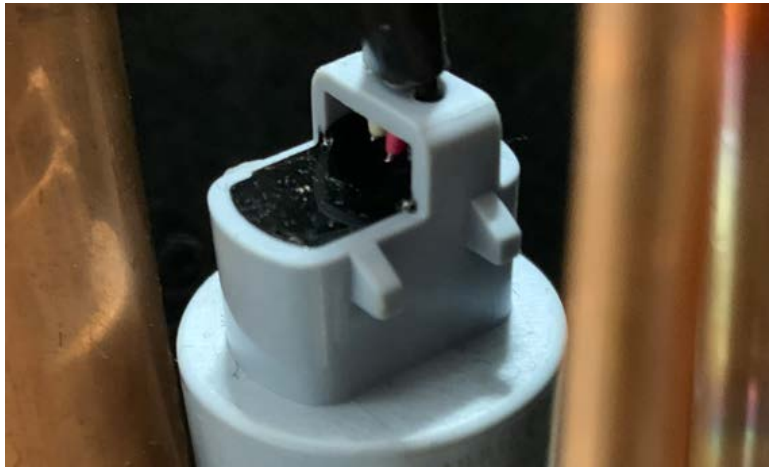
If an error was made during the wiring and configuration phase, no worries you can easily re-run the Equipment setup by tapping MENU → SETTINGS → INSTALLATION SETTINGS → EQUIPMENT → RECONFIGURE EQUIPMENT.

SCENARIO 3 OPERATION WITH 24V ONLY

- Combined with Suction Sensor Used to Calculate Demand
- No Longer Solely Depending on T1 Indoor Ambient Thermistor to Set Target Compared to the Gen 1 Air Handler
- When the Demand is Removed the Values are Used for the Next Demand
- Y1=Low Demand=Lower Compressor Speed
  - 20-50% capacity range (varies by unit size)
- Y2=Hi Demand=Higher Compressor Speed
  - 40-120% capacity range (varies by unit size)

SCENARIO 3 OPERATION WITH 24V ONLY

- The Greater the Difference Between CTT and CT the More the Compressor Will Speed Up
- In Cooling-When CT is a Warmer Value-the Gap Between CT and CTT will Increase Which Will Speed Up The Compressor
- In Heating-When CT is a Cooler Value-the Same as Above Applies-the Compressor Will Speed Up
- FREQUENCY LIMIT PROTECTIONS WILL ALWAYS HAVE PRIORITY OVER DEMAND
  - (CTT) Coil Target Temperature
    - Cool / Y1=53° / Y2=45°
    - Heat / Y1=120° / Y2=128°
  - (CT) Coil Temperature



DUCTLESS / DE-BUGGING TOOL

- Debugging Tool
  - 17222000A55927
- Replacement LNS connection cable
  - 17401203006177
- Replacement 5V Harness Kit
  - RC6600059

R-454B REFRIGERANT CHARGE (DUCTLESS)

hinst: Height Above Floor Level to Center of Indoor Unit / feet (meters)

Mc or Mrel: Refrigerant Charge Amount / pounds (kilograms)

Mc or Mrel	6.0 (1.8)	6.5 (2.0)	7.0 (2.1)	7.5 (2.3)	8.0 (2.4)	8.5 (2.6)	9.0 (2.7)	9.5 (2.9)	10 (3.0)
4.0 (1.8)	33 (3.1)	28 (2.6)	24 (2.2)	21 (1.9)	18 (1.7)	16 (1.5)	14 (1.3)	13 (1.2)	12 (1.1)
4.5 (2.0)	41 (3.8)	35 (3.3)	30 (2.8)	26 (2.5)	23 (2.2)	21 (1.9)	18 (1.7)	16 (1.5)	15 (1.4)
5.0 (2.3)	51 (4.7)	43 (4.0)	37 (3.5)	33 (3.0)	29 (2.7)	25 (2.4)	23 (2.1)	20 (1.9)	18 (1.7)
5.5 (2.5)	61 (5.7)	52 (4.9)	45 (4.2)	39 (3.7)	35 (3.2)	31 (2.8)	27 (2.5)	24 (2.3)	22 (2.1)
6.0 (2.7)	73 (6.8)	62 (5.8)	54 (5.0)	47 (4.4)	41 (3.8)	36 (3.4)	32 (3.0)	29 (2.7)	26 (2.4)
6.5 (3.0)	86 (8.0)	73 (6.8)	63 (5.9)	55 (5.0)	48 (4.5)	43 (4.0)	38 (3.5)	34 (3.2)	31 (2.9)
7.0 (3.2)	100 (9.3)	85 (7.9)	73 (6.8)	64 (5.9)	56 (5.2)	50 (4.6)	44 (4.1)	40 (3.7)	36 (3.3)
7.5 (3.4)	114 (10.6)	97 (9.0)	84 (7.8)	73 (6.8)	64 (6.0)	57 (5.3)	51 (4.7)	46 (4.2)	41 (3.8)
8.0 (3.6)	130 (12.1)	111 (10.3)	95 (8.9)	83 (7.7)	73 (6.8)	65 (6.0)	58 (5.4)	52 (4.8)	47 (4.4)
8.5 (3.9)	147 (13.6)	125 (11.6)	108 (10.0)	94 (8.7)	83 (7.7)	73 (6.8)	65 (6.1)	59 (5.4)	53 (4.9)
9.0 (4.1)	164 (15.3)	140 (13.1)	121 (11.3)	105 (9.8)	93 (8.6)	82 (7.6)	73 (6.8)	66 (6.1)	59 (5.5)
9.5 (4.3)	183 (17.0)	156 (14.5)	135 (12.5)	117 (10.9)	103 (9.6)	91 (8.5)	81 (7.6)	73 (6.8)	66 (6.1)
10.0 (4.5)	203 (18.9)	173 (16.1)	149 (13.9)	130 (12.1)	114 (10.6)	101 (9.4)	90 (8.4)	81 (7.5)	73 (6.8)

A-min: Required Minimum Room Area / Square Feet (Square Meters)

A2L DETECTION SEQUENCE - 1:1 COMBINATIONS

When a leak is detected:

-Error code EHC1 will be displayed

-IDU fan sets to turbo; louvers fully open

-Continuous audible alarm from IDU

-ODU shuts down

If leak drops below the LFL threshold:

-Audible alarm resets after 2 minutes

-Error code clears after 5 minutes

*If the leak is above the LFL threshold, the audible alarm can be turned off by pressing any button on the wireless remote/wired controller(but will not remove the error code)

*Power cycling the ODU for 5 minutes will reset the audible alarm and the error code

A2L DETECTION SEQUENCE - MULTI ZONE

When a leak is detected:

- -Error code EHC1 is displayed on IDU detecting leak
- -All other units not detecting will display ECC1
- -IDU fans set to Turbo fan speed; louvers fully open(all units)
- -Continuous audible alarm from IDU detecting leak
- -ODU shuts down; emergency shut off valves in ODU close

If leak drops below LFL threshold:

- -Audible alarm resets after 2 minutes
- -Error codes clear after 5 minutes
- -Emergency shut off valves open after 2.5 hours
- -ODU resumes operation after 2.5 hours

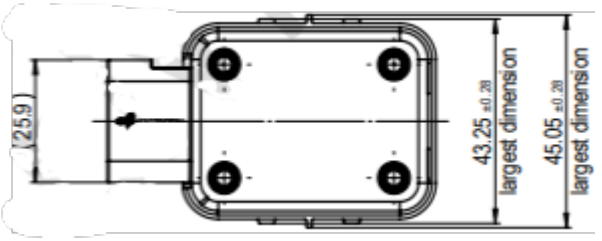
*The ODU/shut off valves can be reset by holding down the ODU inquiry button for 10 seconds

*Power cycling the ODU will not reset the 2.5-hour counter

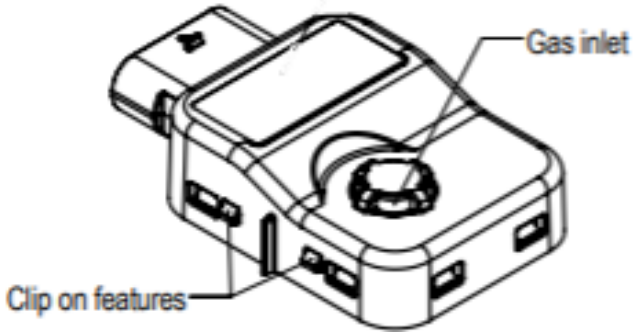
R454B SENSOR GENERAL SPECS

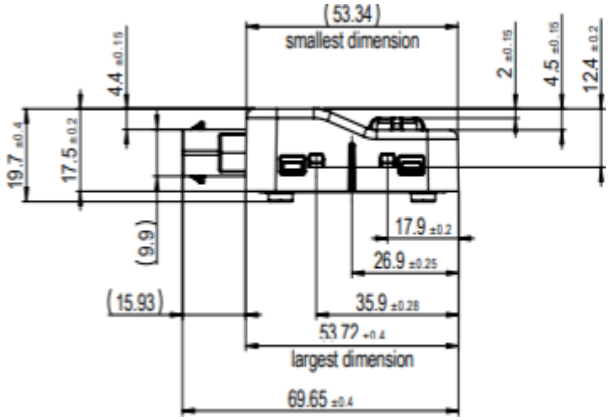
- **Specs**
  - DC supply voltage / 5VDC
  - Operating temperature range / -40F…203F
  - Operating maximum dewpoint temperature / 104F
  - Operating altitude range / -1378 feet…10000 feet above sea level
  - Sensor shelf life-TBD-equipped with life cycle counter

- **Dimensions**



- Top view





DISCONNECTING SENSOR

- Prior to checking/replacing sensor be sure to unlock from connection
- Locate gray lock and move to unlock position

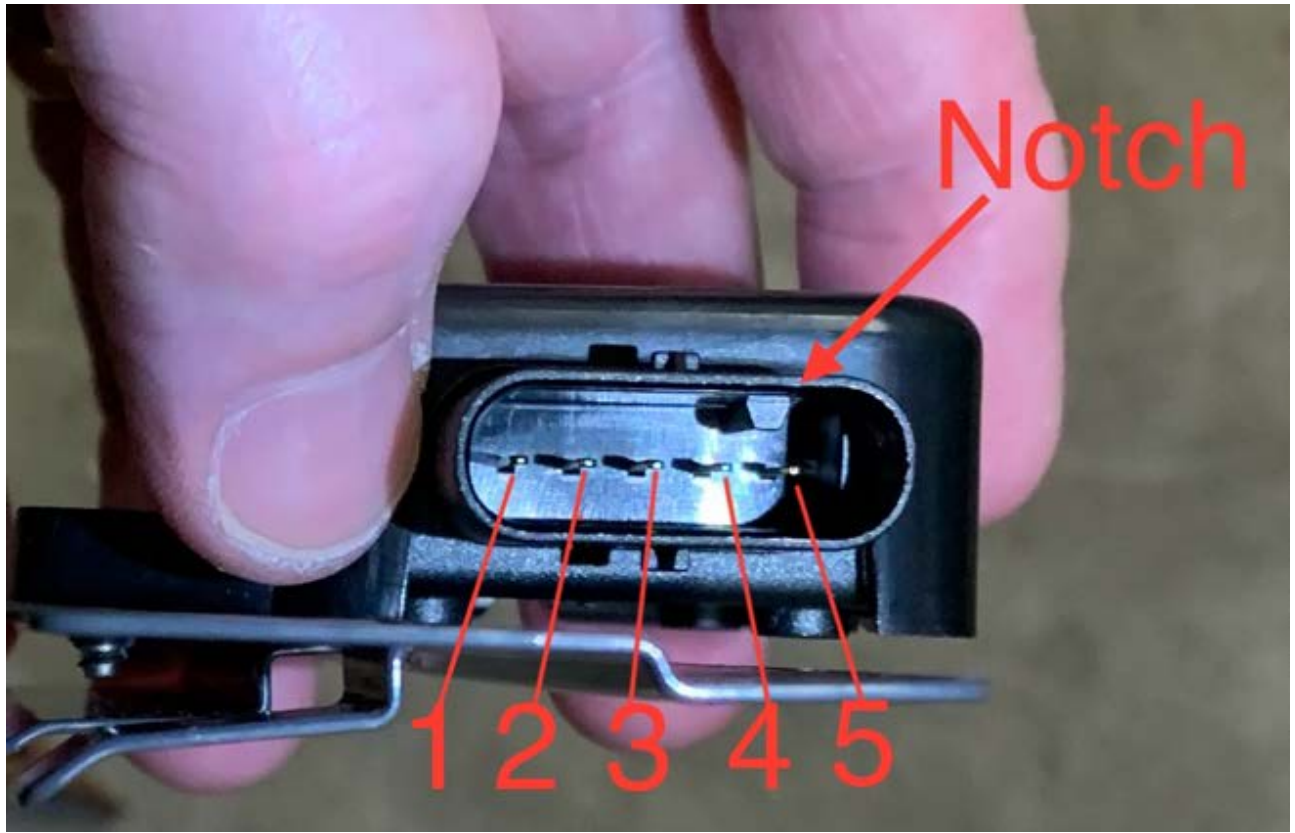
Locked

Unlocked

R454B SENSOR RESISTANCE CHECK

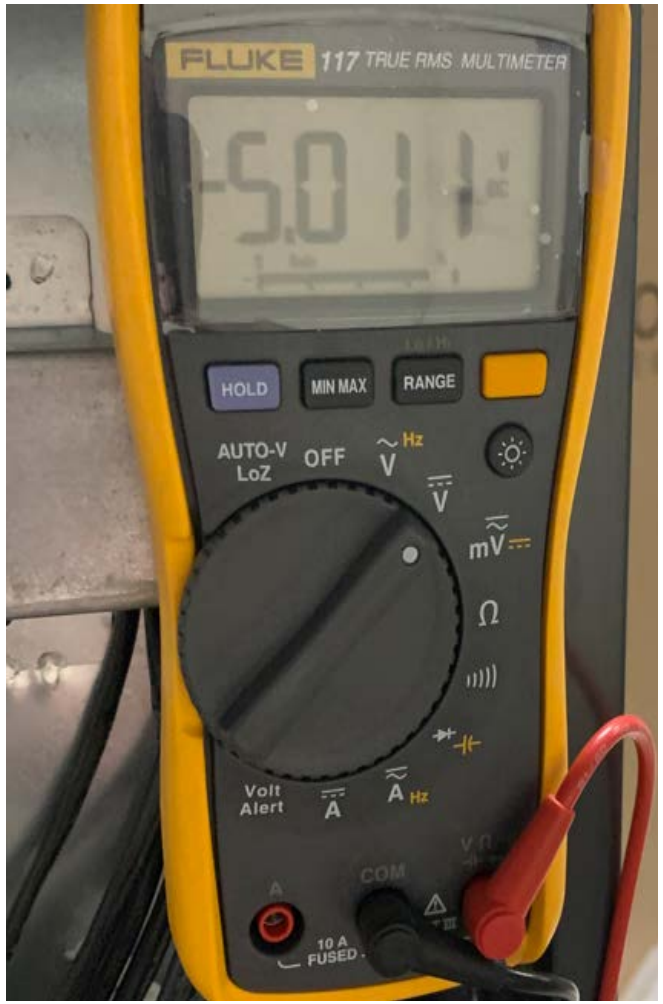
- Use plastic notch inside pin connection area for pin orientation
- The pin closest to the notch is Pin 5
- Resistance between pins 2~3 should be around 70K ohms

Pin 1-input voltage
Pin 2-signal voltage dc+
Pin 3-signal voltage dc-
Pin 4-ground
Pin 5-not used



R454B SENSOR VOLTAGE CHECK

- The sensor must be disconnected prior to checking dc voltage
- Please use caution when checking live connections
- Check the voltage at the pin connections inside sensor harness
- Pin 1~4= 5 VDC
- Pin 2~3= 0~1.6 VDC(range)



IDU'S WITHOUT SENSORS

All IDU's will have sensors except for:

-Entry Tier High Walls

-Value Tier will have two SKU's:

- one with a sensor (to be matched with multi-zone)
- one without a sensor (to be matched with 1:1's)

* The entry tier/value tier high walls that do not come with a sensor will trigger an FH CC sensor malfunction code if attempted to be matched with multi-zone

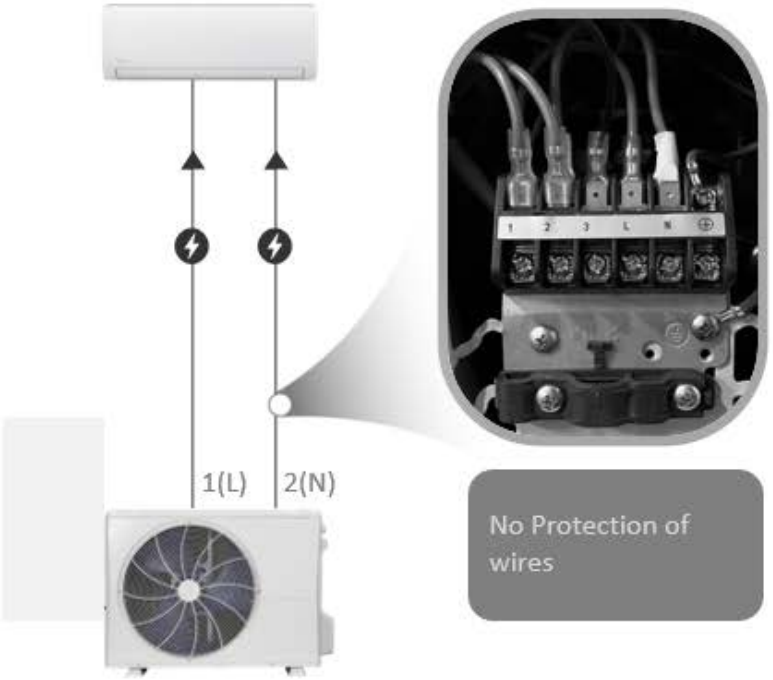
Indoor Unit Type	Leak Sensor Connection Location
Value Tier High Wall	Display Board
Value Tier High Wall	No Sensor
Entry Tier High Wall	No Sensor

PURON ADVANCE OUTDOOR WIRING CHANGE

- In-Line Fuses have been added to current production

All unit **except crossover** will be fused

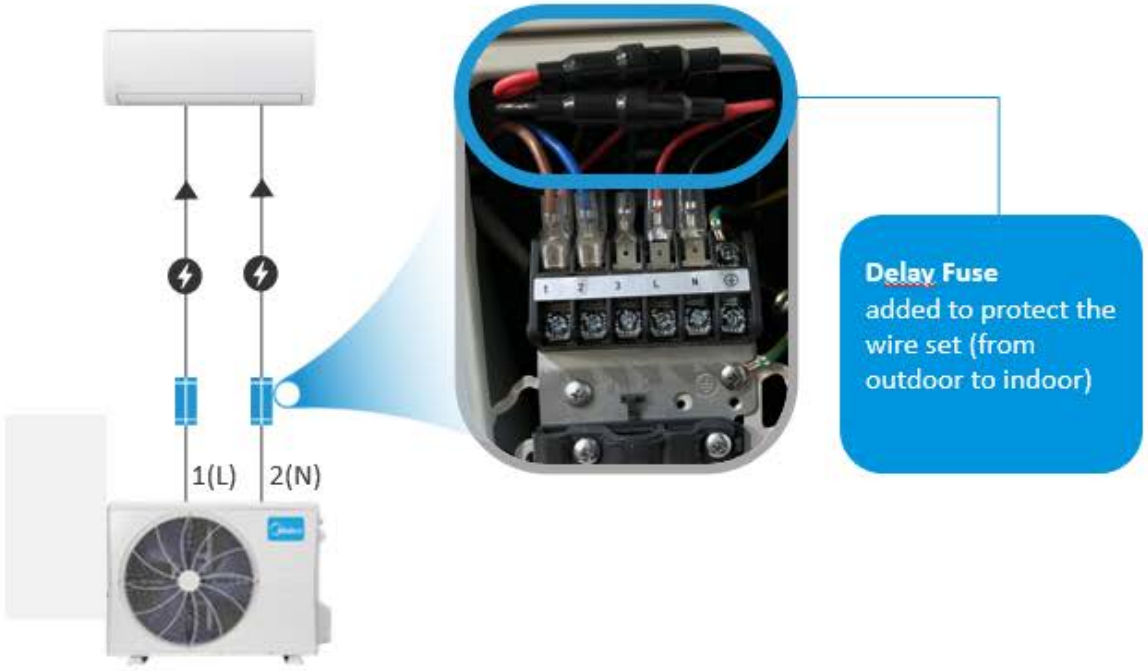
R410A Systems



No Protection of wires

When the wires are scratched or the connection is loose at the terminal, it is easy to cause fire due to short-circuit.

R454B Systems



Delay Fuse added to protect the wire set (from outdoor to indoor)

System Protection

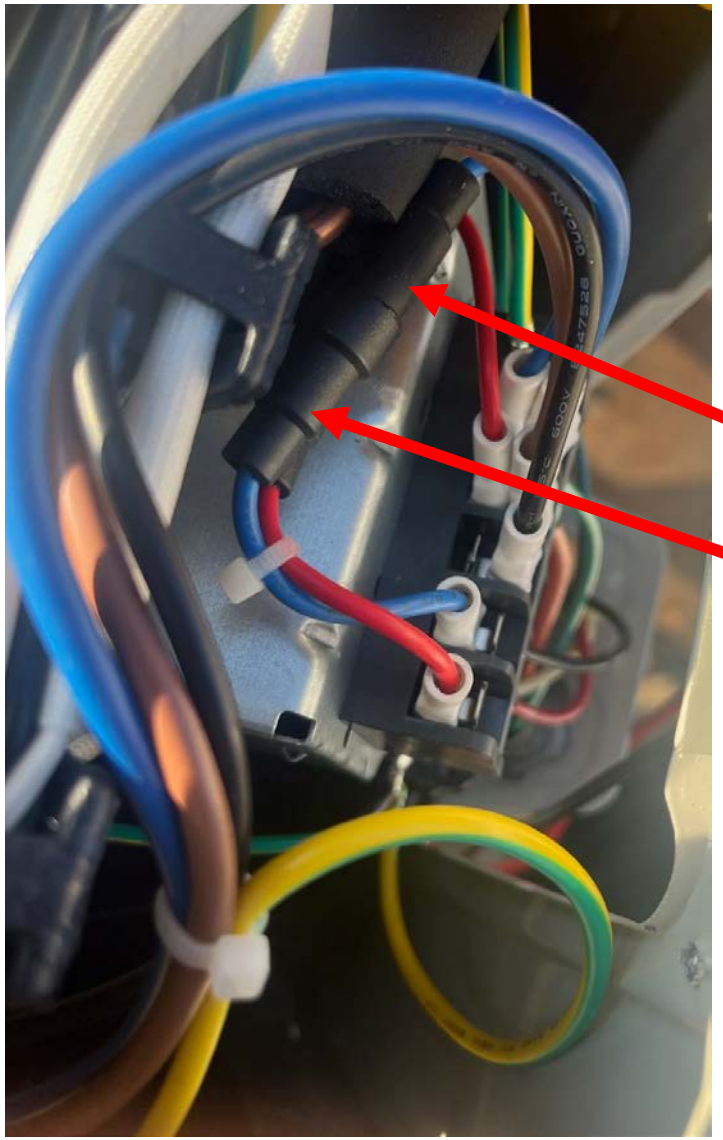
Cut off the electricity when there's over current

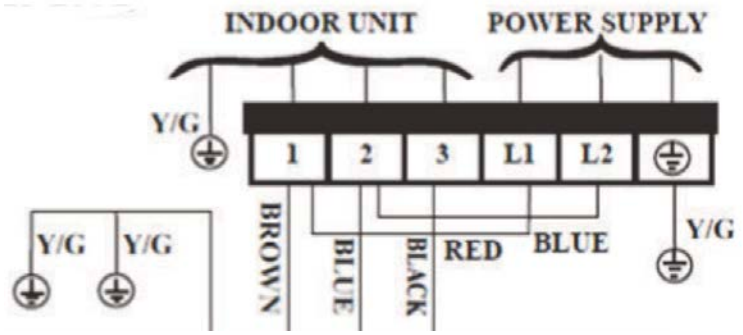
Easy Installation

The fuse is detachable so it's easy to handle when wiring and replacing the fuse

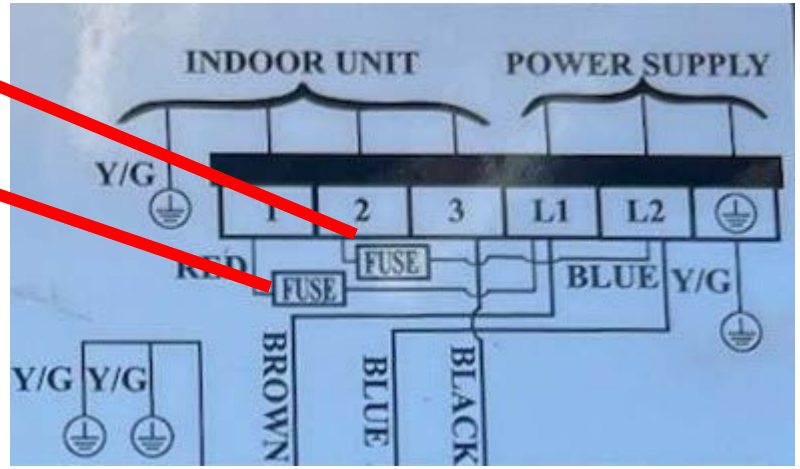
PURON ADVANCE OUTDOOR WIRING CHANGE

UPDATE: INLINE FUSES HAVE BEEN ADDED TO THE INDOOR POWER





Old Schematic



New Schematic

- 9-24K use T5H250V
- 30K up and all Multi-Zone use T15h250V

R454B HIGH WALL & 1 WAY CASSETTE

Improvements / 70% More Resistant To Formicary Corrosion

To combat the problem of formicary corrosion and reduce the refrigerant-based repairs. Currently avalible on HW and one way cassette modles.

North American House

The residual organic compounds produce formic and acetic acids in the presence of air and moisture in the room.

Formicary Corrosion leads to Refrigerant Leakage

The acids collect on the coil surface resulting in formicary corrosion.

High costs of Refrigerant-based Repairs

To fix the leaking tube problem is highly-cost and the corrosion cannot be prevented fundamentally.

R410A TP2 Copper	V.S	R454B TU1 Copper
99.90%	purity	≥99.97%
25.9%	perforation ratio	7.4%
220-255	thermal conductivity λ/W*(m*°C) -1	380 15% Increase

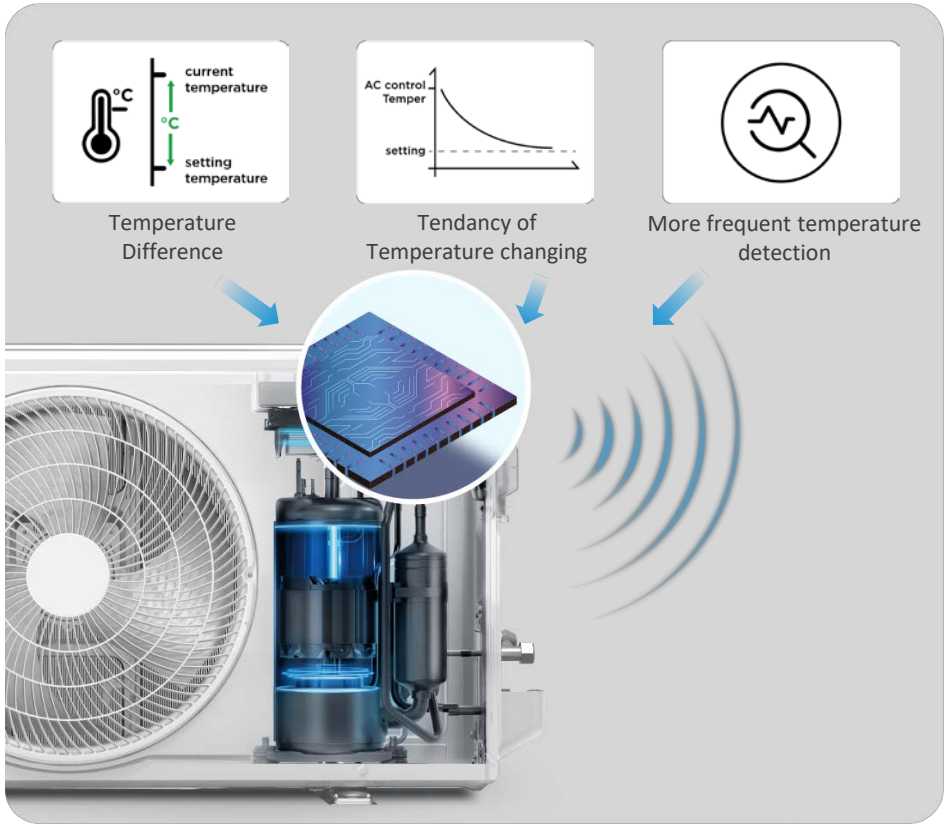
deoxygenized copper

R454B IMPROVEMENTS

Conventional inverter algorithm can only control the compressor output by analyzing the temperature difference between the present and the set, and there's only 25 gears of output to adjust. However, new Inverter Algorithm can analyze more factors including temperature difference and temperature difference changes, with a more frequent temperature detection to guarantee a more accurate and smooth control of the compressor output.

Traditional Inverter

New Inverter



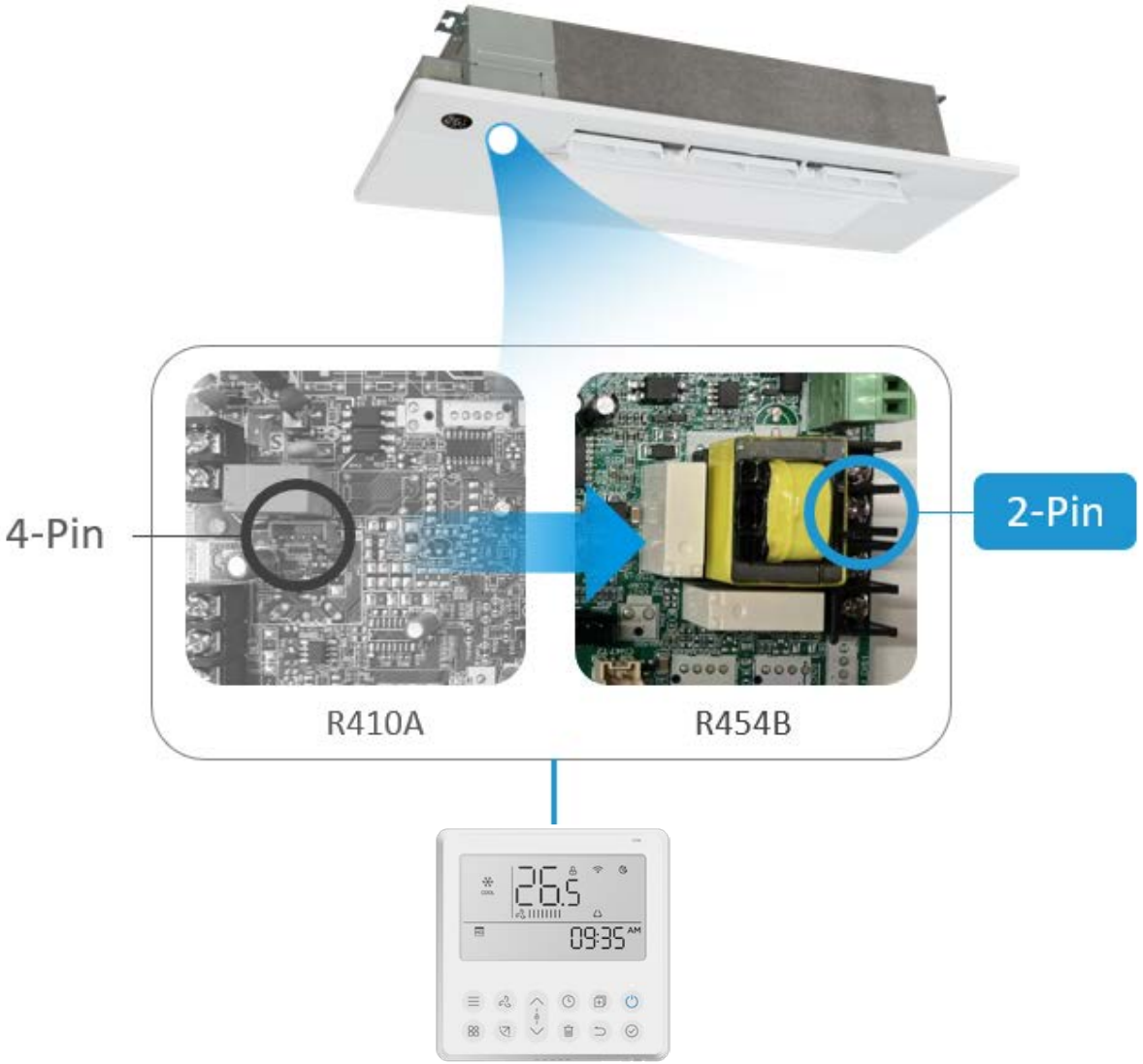
R454B IMPROVEMENTS

Connection to RS485 Wired Controller

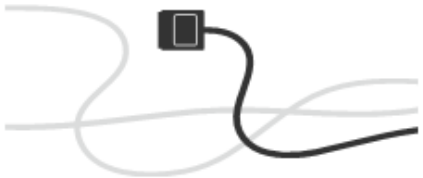
RS485 controller enables a weekly and 24 hour timer, allowing homeowners to set personal operating times on a daily basis.

- 485 connection makes simpler installation
- Connection through multifunction board

R454B IMPROVEMENTS

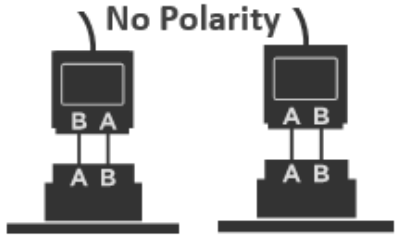


Friendly for the installers' operation



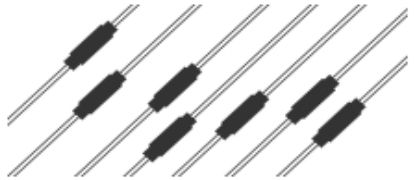
Easy for Wire Preparation

2-pin electrical wire is more common in the market.



Easy for wiring operation

Both sides of the 2 pin connector can be inserted directly to the interface, getting rid of troublesome matchups caused of a 4-pin interface



Easy for wire extension

Easy to connect multiple 2-pin wires

Flexible for more Applications

Allowing for group connection for up to 16 units and dual wired controller for 1 unit

R454B IMPROVEMENTS

More Flexible IDU Combinations, Higher Efficiency, Fitting More Space

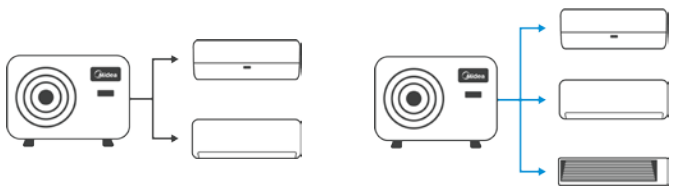
R410A 18K, 2 ports

R454B 18K, 3 ports

Capacity	Zone	Port
18K	2 zone or 3 zone	3 ports available
24K	3 zone or 4 zone	4 ports available
30K	4 zone or 5 zone	5 ports available
36K	4 zone or 5 zone	5 ports available
48K	5 zone or 6 zone	6 ports available

Flexible Combinations

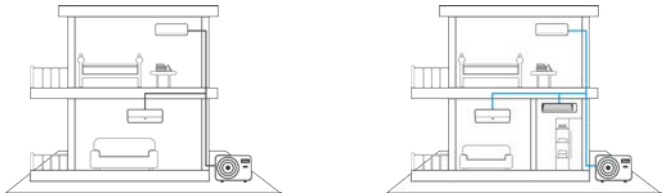
R410A 18K **R454B 18K**



with one more port, the end user has one more option to choose their preferred indoor units.

More Spaces

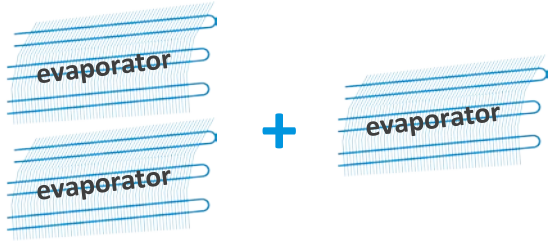
R410A 18K **R454B 18K**



Each outdoor condenser can connect to one more indoor unit which means each system can power up one more room.

Higher Efficiency & capacity Up to XX SEER2*

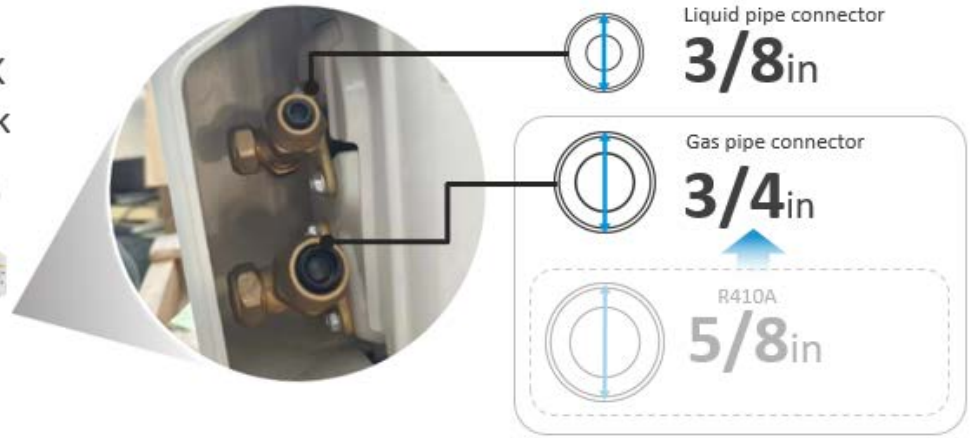
R454B 18K



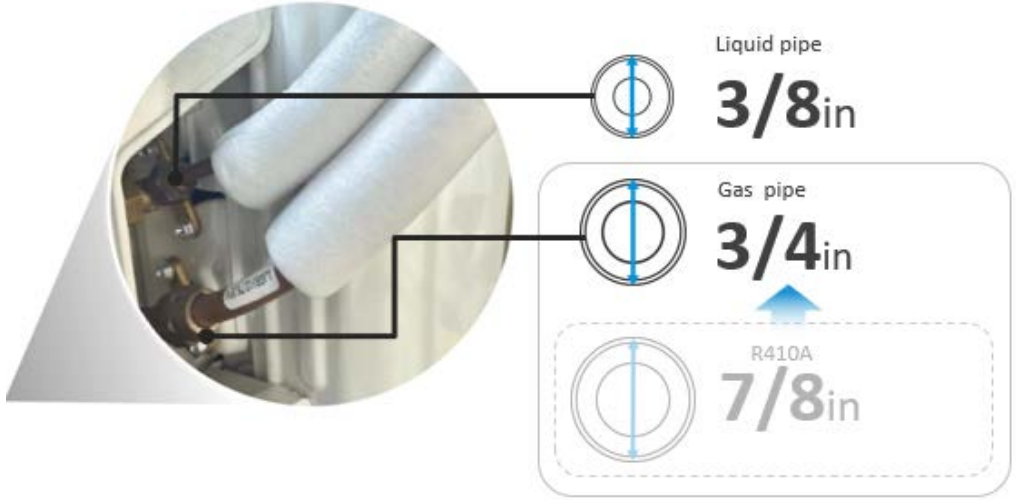
With one more evaporator added, the heat exchange area is expanded which leads to the increasing of efficiency.

R454B IMPROVEMENTS

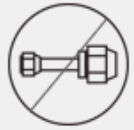
Regular 24K
Extreme 18k



60k



Pipe diameters = Connector diameters



The connectors of the stop valves of the gas pipe and liquid pipe are separately unified to 3/8 in and 3/4 in which are the same as the diameters of the gas pipe and liquid pipe, so there's no need of an flare-to-flare adaptor.

Match with the industry common size

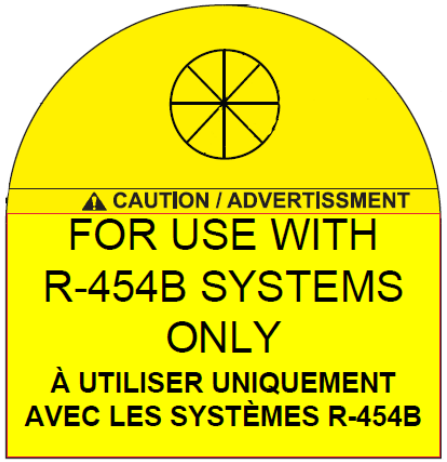
With a smaller diameter, it's easier for the installer to bend the gas pipe when they are handling the pipe connection.

The industry common size pipes are easier to buy in the market and it helps to reduce the pipe sizes the installers needs to store.

PURON ADVANCE PRODUCT LABELING

Packaging

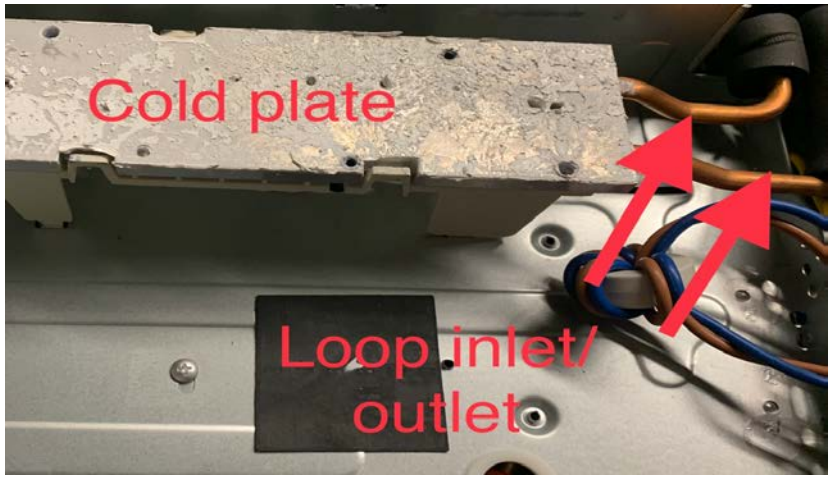
Equipment



Refrigerant Valve Hangtag

Service Port Red Cap

CONDUCTIVE GREASE



- Remove all inverter mounting screws to reveal gas loop/cold plate/inverter plate location in ODU
- Anytime the inverter is replaced the cold plate has to have conductive grease reapplied to it
- Conductive grease part# 38AQ68001