Controls

45MUAA Control Overview (not the same as 45MBAA)

- The 45MUAA is NOT powered from the outdoor unit.
- The 45MUAA can be powered with 115VAC or 208/230VAC, same terminals – must change wire harness for 115VAC.
- Electric Heat Kits are always wired to 208/230VAC.
- The 45MUAA must use a 24-Volt thermostat or a 1401 Wired Controller. (all controls purchased separately).
- The 24-Volt control can be wired to the fan coil using 18 gauge solid or stranded wire.
- Do not connect a 1401 Wired Controller and a 24-Volt Thermostat at the same time.

KSACN1401AAA

or

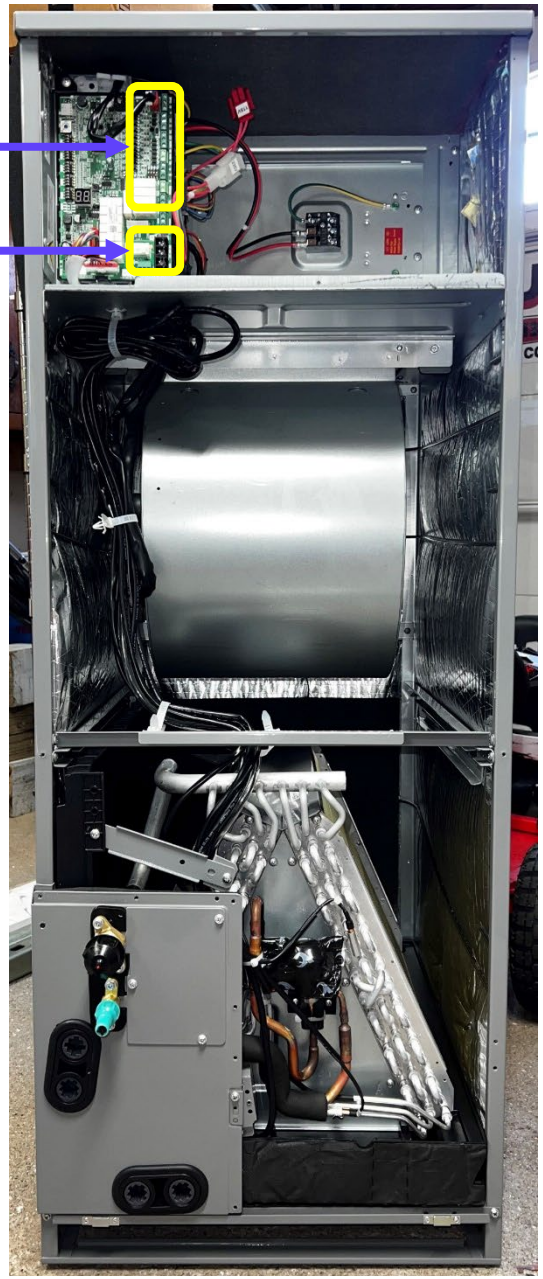
24-Volt

or

Stat of choice

choice depends on features needed

1401 Connections



Controls

45MUHA Control Overview

- The 45MUHA is NOT powered from the outdoor unit.
- The 45MUHA can be powered with 115VAC or 208/230VAC, same terminals – No need to change wire harness
- Electric Heat Kits are always wired to 208/230VAC.
- The 45MUHA must use a 24-Volt thermostat or a 1401 Wired Controller. (all controls purchased separately).
- The 24-Volt control can be wired to the fan coil using 18 gauge solid or stranded wire.
- Do not connect a 1401 Wired Controller and a 24-Volt Thermostat at the same time.

KSACN1401AAA

or

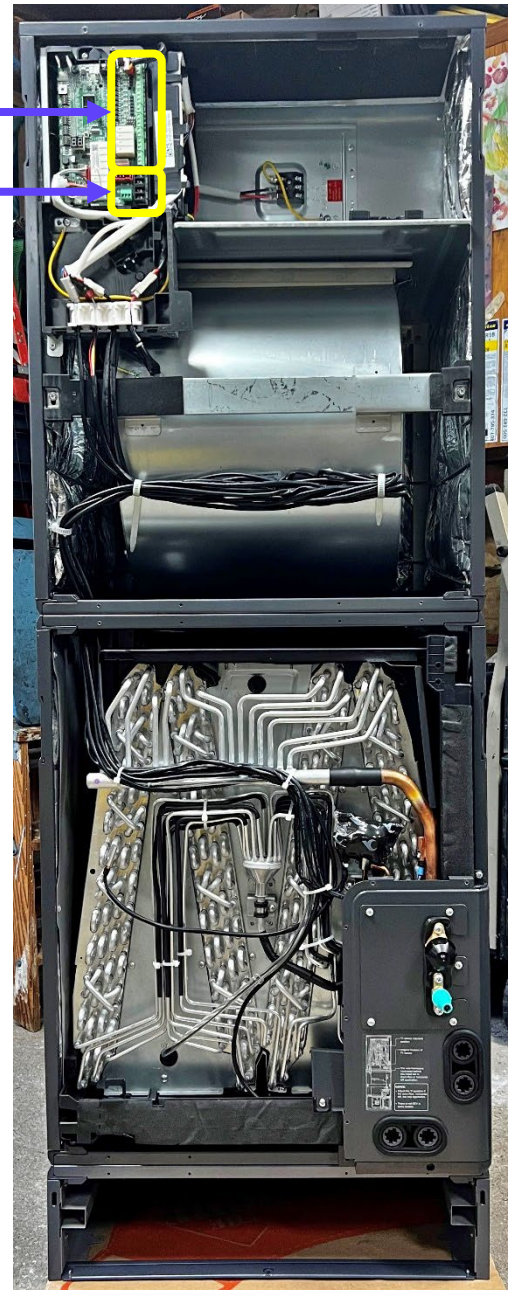
24-Volt

or

Stat of choice

choice depends on features needed

1401 Connections



Controls

45MU(A,H)A Thermostat Choices:

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control

- Most 24-Volt thermostats will work for a 45MU(A,H)A with an Electric Heat package, refer to the Application/Installation instructions for specific details for the model installing.
- We strongly recommend that these systems are always wired to operate as a Heat Pump, not Conventional.

Heat Pump Wiring –	Heat Pump Lock Out Available
Conventional Wiring –	No Heat Pump Lock Out Available

- The 45MU(A,H)A with an Electric Heat package does not require the thermostat to sense outside temperature to operate.

ecobee

Cielo

Honeywell

Nest

VIVE

Controls

45MU(A,H)A/37MU(R,H)A Control Scenario Overview

Scenario 1 & 3
24-Volt Control

Control Type & Wiring Selection – SW1 DIP Switches

Each Scenario has its own wiring type and gauge requirement.

Best

Control Scenario 1: 24-Volt Thermostat (new install)
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

Control Scenario 2: 1401 Wired Control (new install)
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to Control: 16 gauge Stranded 2-wire
Set SW1-4 to ON

Scenario 2
1401 Wired Control

Control Scenario 3: 24-Volt Thermostat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set DIP SW1-1 & SW1-4 to ON

NOTE: The 45MU(A,H)A will also "Auto Detect" the type of control if SW1 DIPs are left OFF (default setting)

Controls

Scenario 1 & 3

24-Volt Control

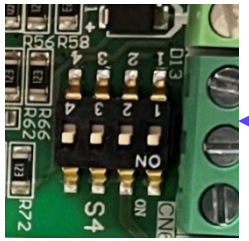
Scenario 2

1401 Wired Control

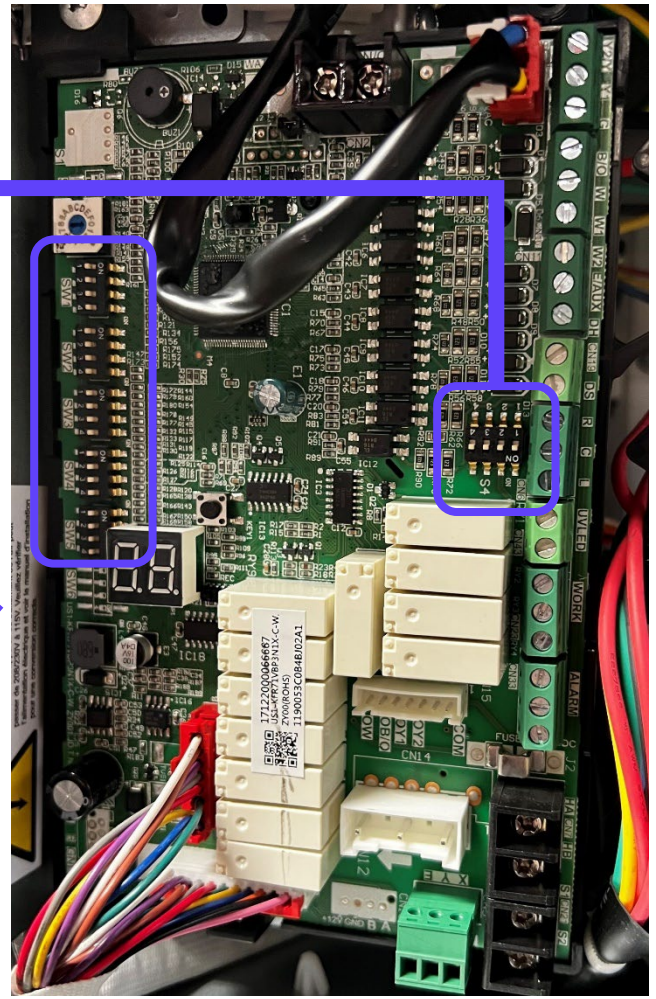
45MU(A,H)A Quick Setup Guide

Application: Heat Pump with or without Electric heat

SW1-1 – Leave OFF for 1401 Wired Control, Scenario 2
SW1-1 – Turn ON for 24-Volt Control, Scenario 1
SW1-1 & SW1-4 – Turn both ON for 24-Volt Control, Scenario 3



S4 All defaulted to ON



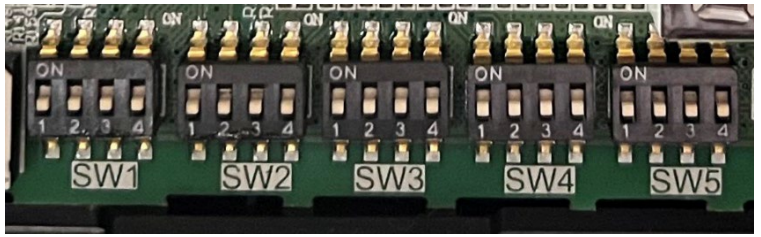
45MU(H)A Communication Board

SW4-1~3 – If electric heat kit is installed set using charts provided, if no kit leave all OFF.

S4-4 – Leave ON if no electric heat kit.
S4-4 – Leave ON if using 24-Volt control with 5, 8 or 10kW electric heat kits
S4-4 – Turn OFF only if using 24-Volt control with 15, 20 or 25kW electric heat kits

For this application, all others can remain in their default position.

45MU(H)A – SW1 ~ SW5 All defaulted to OFF



Controls

37MU(R,H)A Control Scenario Overview (end)

Scenario 1 & 3

24-Volt Control

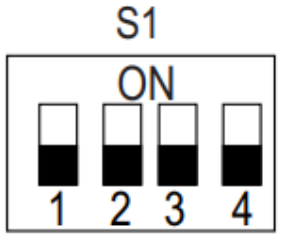
Scenario 2

1401 Wired Control

37MU(R,H)A Set Up Options (<u>needs to match indoor control scenario</u>)

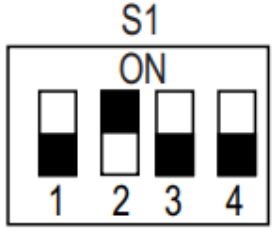
Control Scenario 1 & 2: S1, S2 Connections
Outdoor unit S1 DIP switch settings

All S1 OFF for S1, S2 Connections (default)



Control Scenario 3: 24-Volt Connections
Outdoor unit S1 DIP switch settings

Set S1-2 to ON for 24-Volt Connections



37MU(R,H)A DIP Switches
Located above low voltage terminal block

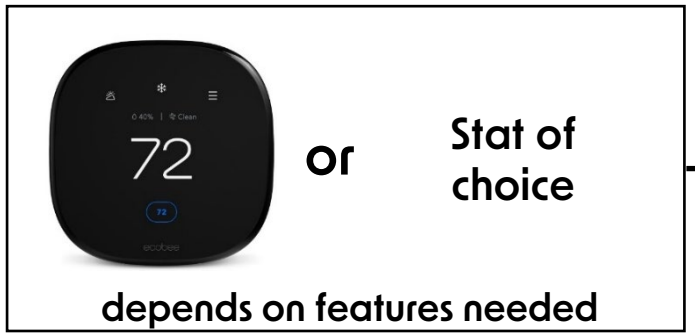
Attention:
R & C at the ODU do not provide 24-Volts. Scenario 3 supplies 24-Volts to the ODU from the MU(A,H)A.

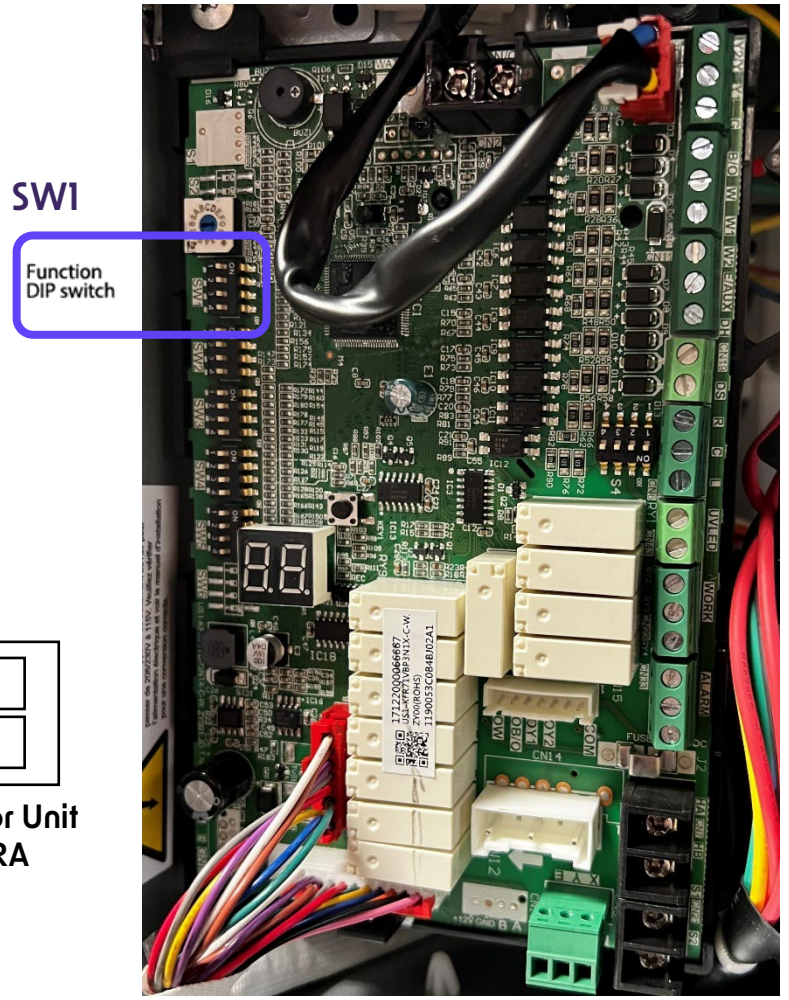
Controls

45MU(A,H)A Control Scenario 1

Control Selection – SW1 DIP Switches

Control Scenario 1: 24-Volt Thermostat (new install)
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON





45MU(A,H)A Communication Board

Controls

Scenario 1

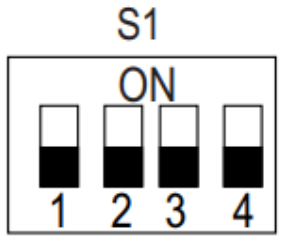
24-Volt Option

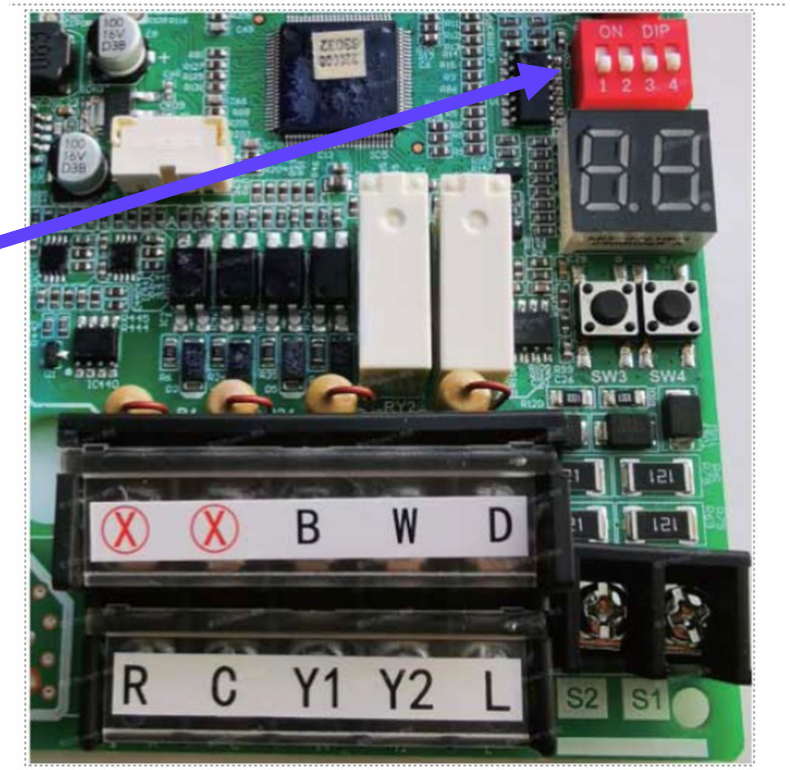
45MU(A,H)A Control Scenario 1 (cont.)

37MU(R,H)A Set Up Options (<u>needs to match indoor control scenario</u>)

Control Scenario 1: S1, S2 Connections
Outdoor unit S1 DIP switch settings

All S1 OFF for S1, S2 Connections (default)





37MU(R,H)A DIP Switches
Located above low voltage terminal block

Attention:
R & C at the ODU do not provide 24-Volts.
Scenario 3 supplies 24-Volts to the ODU from the MU(A,H)A.

Controls

45MU(A,H)A Control Scenario 1 (cont.)

Control Scenario 1 24-Volt Staging Options

Control Scenario 1: 24-Volt Thermostat (new install)

Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

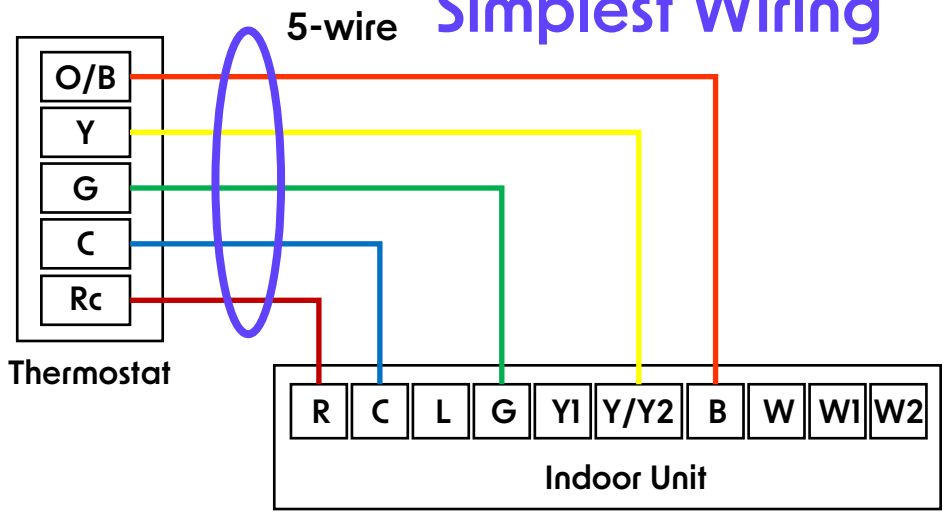
Heat Pump Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

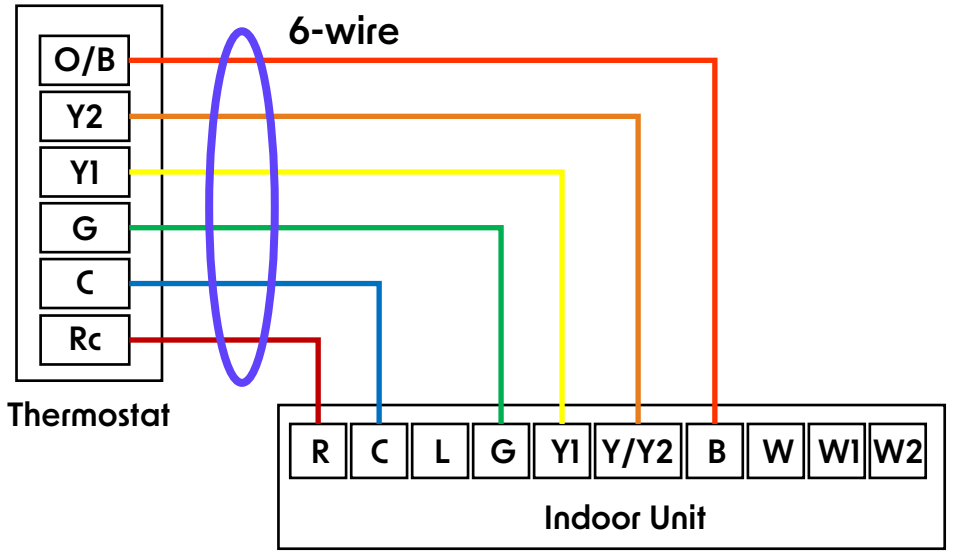
Advanced Wiring

Simplest Wiring



1 Stage Heat Pump & 1 Stage Cool

Preferred connection without an Electric Heat Kit



2 Stage Heat & 2 Stage Cool
2 Stage Heat Pump

Controls

45MU(A,H)A Control Scenario 1 (cont.)

Control Scenario 1 24-Volt Staging Options (cont.)

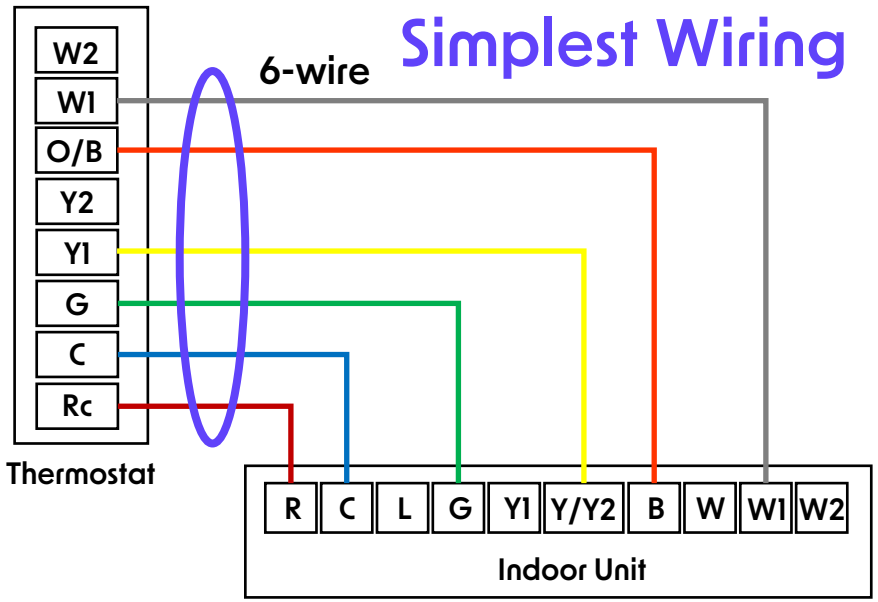
Control Scenario 1: 24-Volt Thermostat (new install)

Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

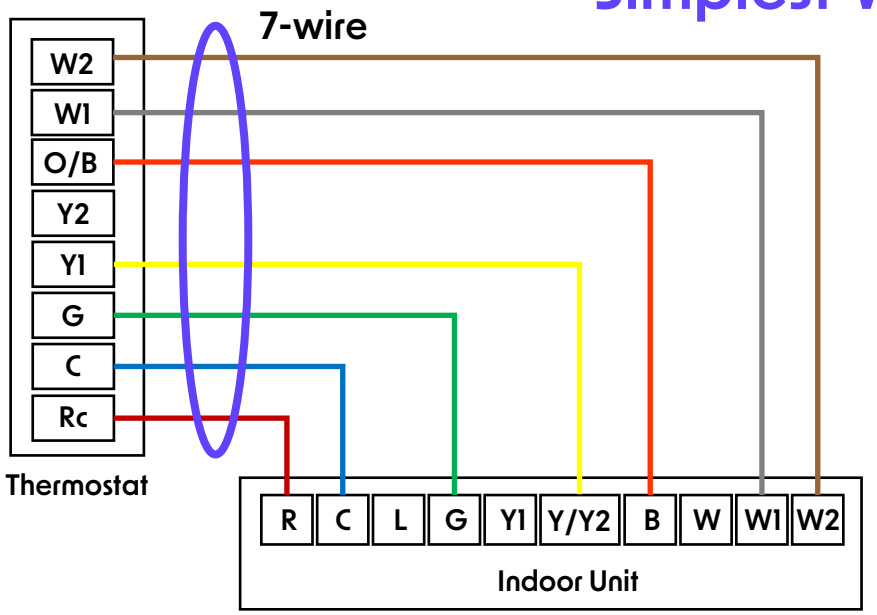
Heat Pump Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

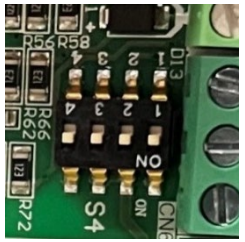


2 Stage Heat & 1 Stage Cool
1 Stage Heat Pump
1 Stage Electric Heat



3 Stage Heat & 1 Stage Cool
1 Stage Heat Pump
2 Stage Electric Heat

TURN OFF DIP Switch S4-4



Controls

45MU(A,H)A Control Scenario 1 (end)

Control Scenario 1 24-Volt Staging Options (end)

Control Scenario 1: 24-Volt Thermostat (new install)

Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

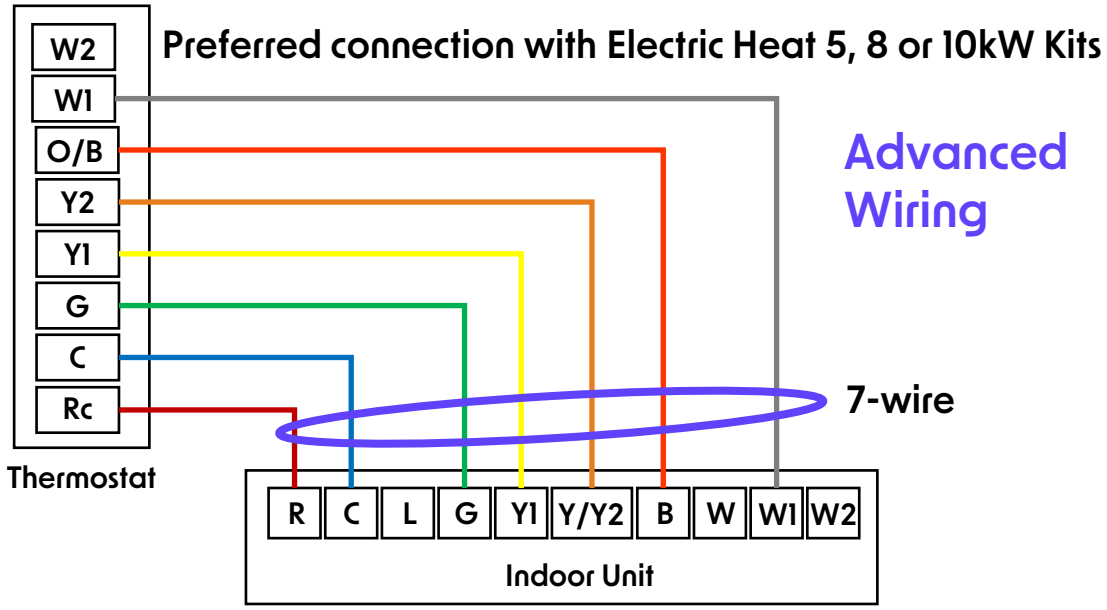
Heat Pump Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Advanced Wiring

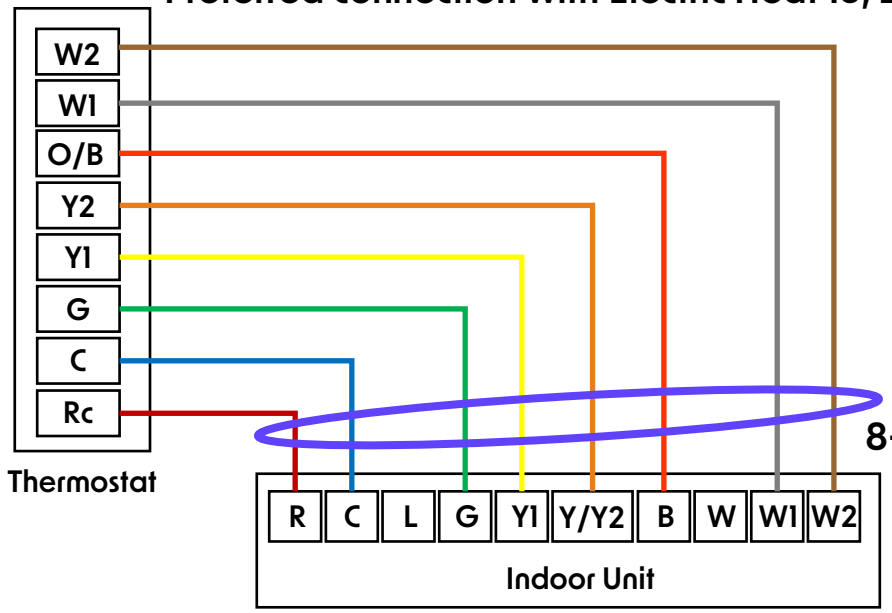
Preferred connection with Electric Heat 5, 8 or 10kW Kits



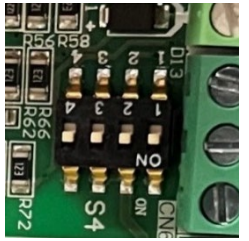
Advanced Wiring

3 Stage Heat & 2 Stage Cool
2 Stage Heat Pump
1 Stage Electric Heat

Preferred connection with Electric Heat 15, 20 or 25kW Kits



TURN OFF DIP Switch S4-4



4 Stage Heat & 2 Stage Cool
2 Stage Heat Pump
2 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 1 (cont.)

Control Scenario 1 24-Volt Staging Options

Control Scenario 1: 24-Volt Thermostat (new install)

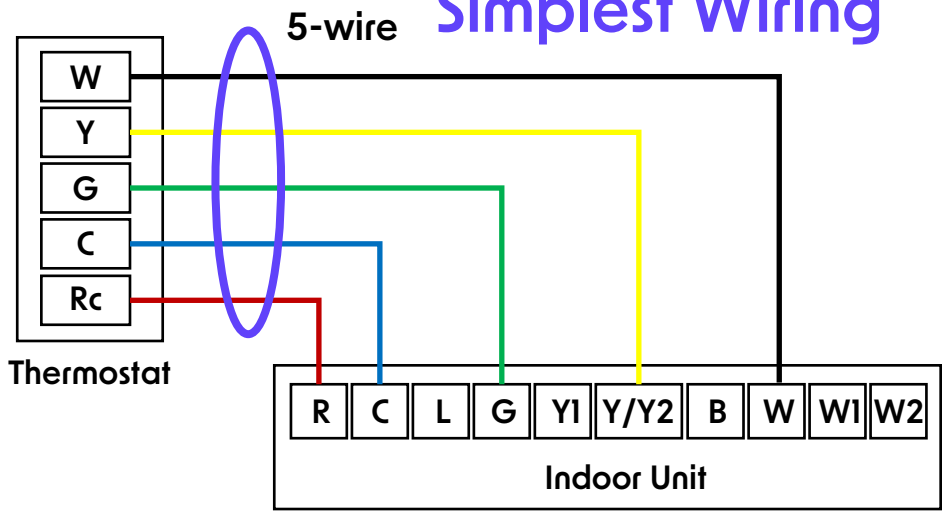
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Conventional Wiring Diagram

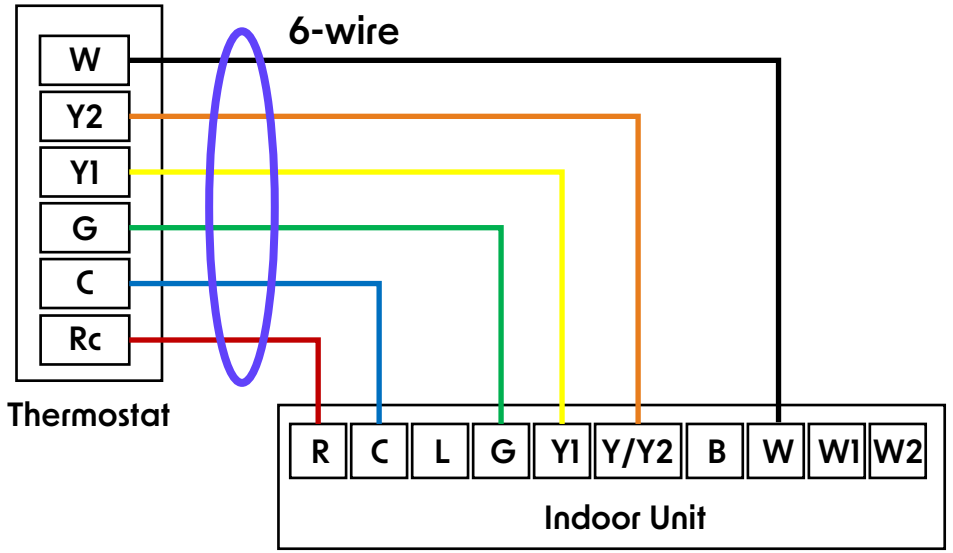
Simplest Wiring



1 Stage Heat Pump & 1 Stage Cool

Advanced Wiring

Preferred connection without an Electric Heat Kit



1 Stage Heat Pump & 2 Stage Cool

Controls

45MU(A,H)A Control Scenario 1 (end)

Control Scenario 1 24-Volt Staging Options (end)

Control Scenario 1: 24-Volt Thermostat (new install)

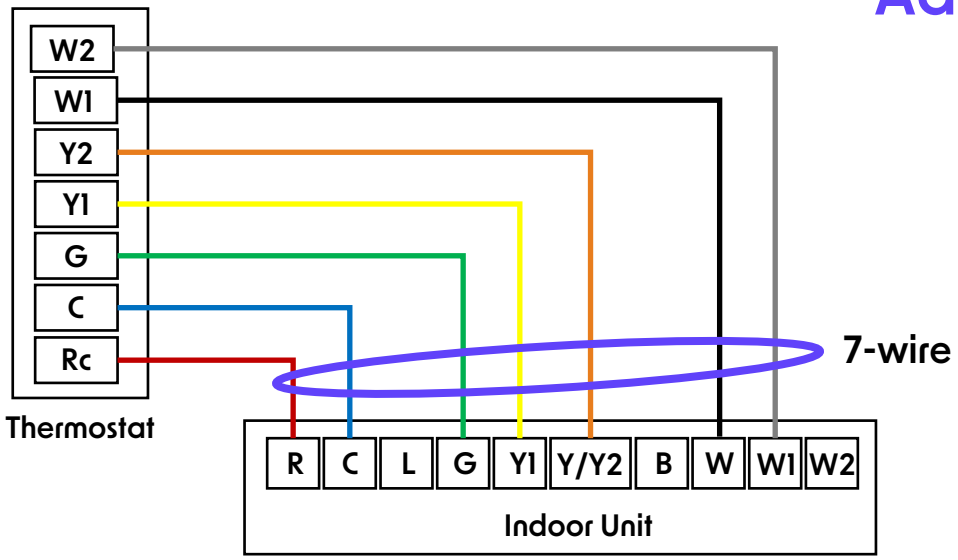
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 to ON

Conventional Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Advanced Wiring



2 Stage Heat & 2 Stage Cool

1 Stage Heat Pump
1 Stage Electric Heat

Controls

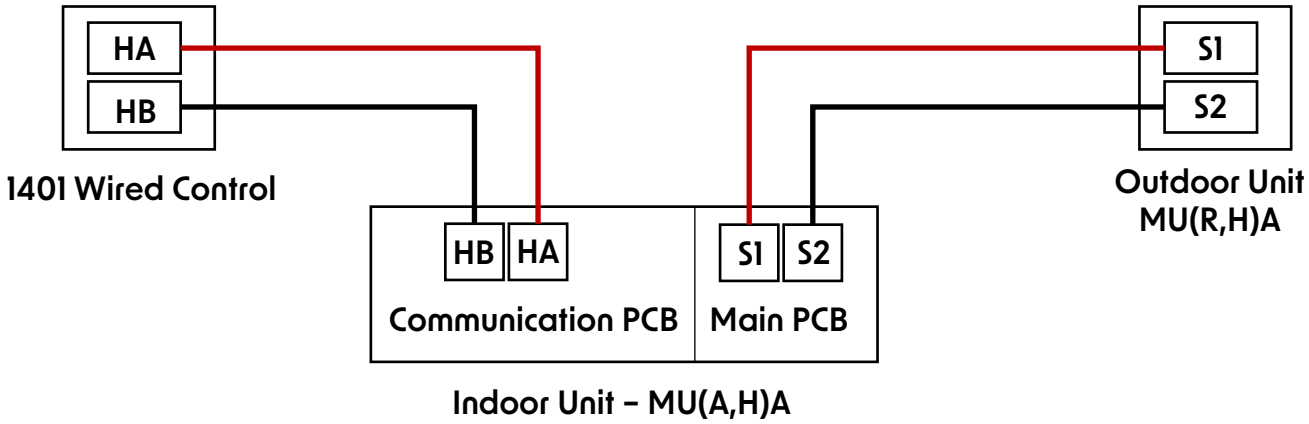
45MU(A,H)A Control Scenario 2

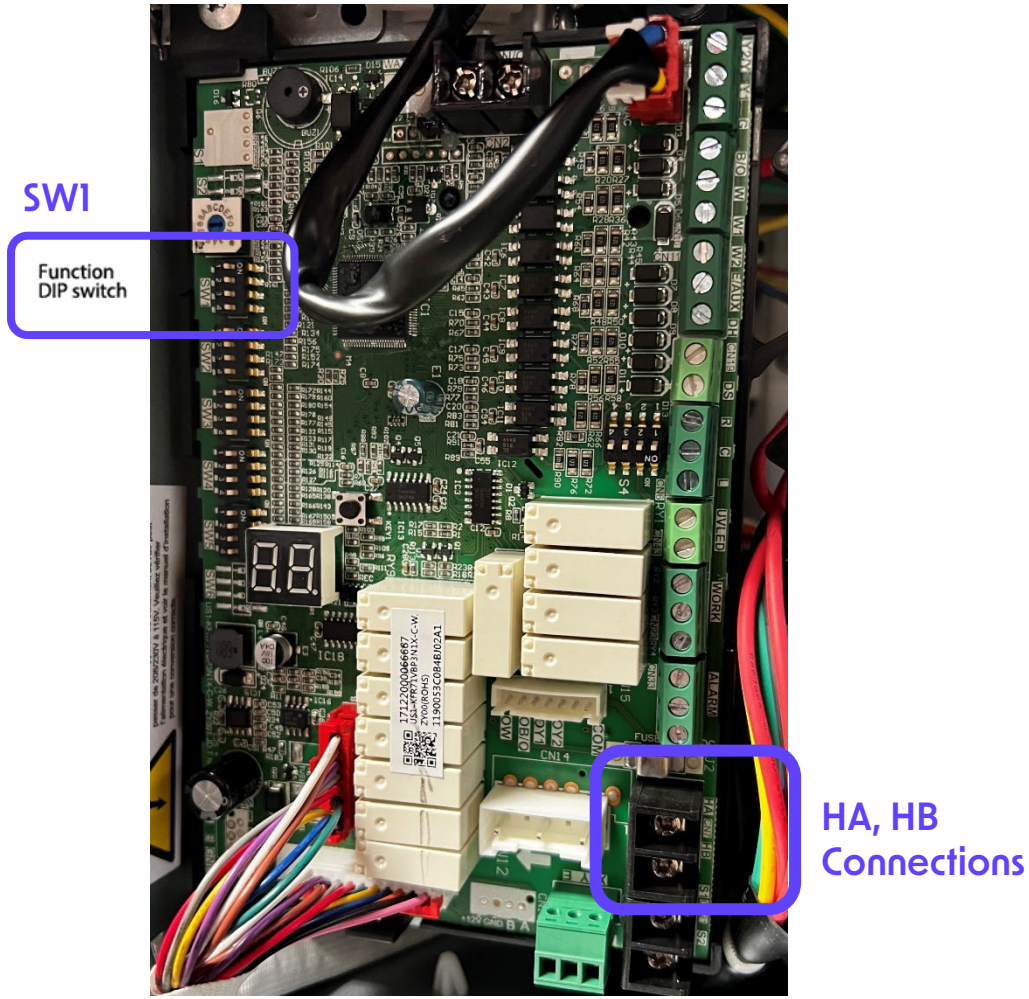
Scenario 2

1401 Wired Control

Control Selection – SW1 DIP Switches

Control Scenario 2: Wired Control 1401 (new install)
Control Wire ODU to IDU: 16 gauge Stranded (Shielded) 2-wire
Control Wire IDU to Control: 16 gauge Stranded 2-wire
Set SW1-4 to ON





45MU(R,H)A Communication Board

Controls

Scenario 2

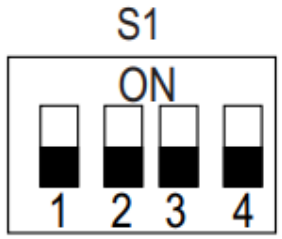
1401 Wired Control

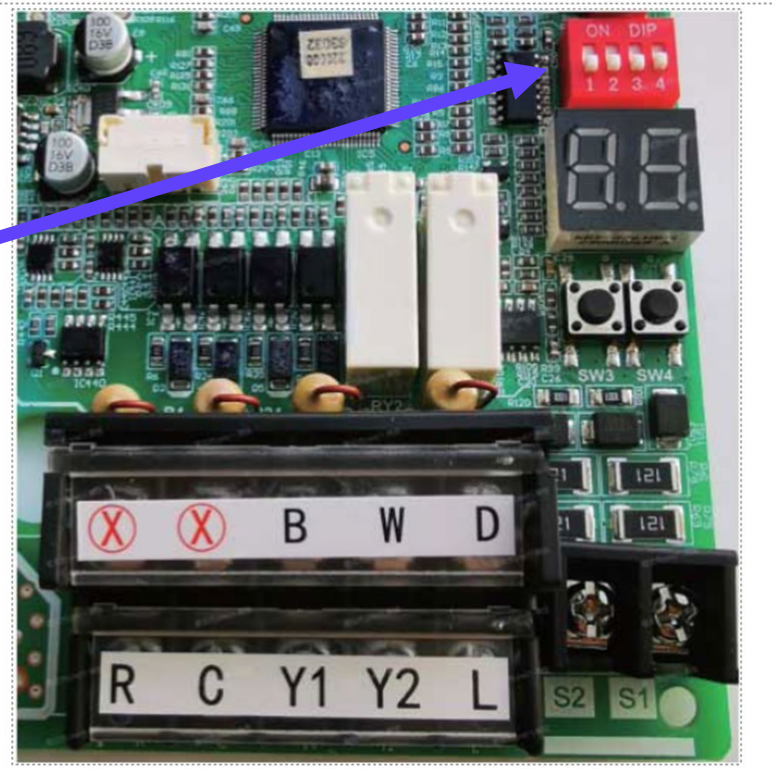
45MU(A,H)A Control Scenario 2 (end)

37MU(R,H)A Set Up Options (needs to match indoor control scenario)

Control Scenario 2: S1, S2 Connections
Outdoor unit S1 DIP switch settings

All S1 OFF for S1, S2 Connections (default)





37MU(R,H)A DIP Switches
Located above low voltage terminal block

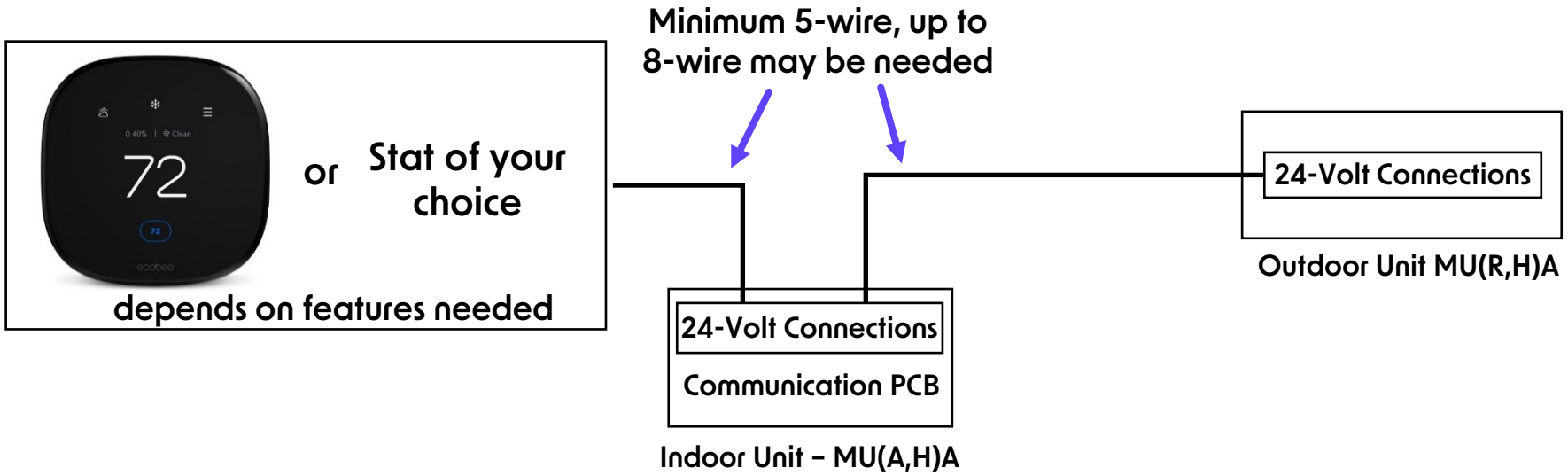
Attention:
R & C at the ODU do not provide 24-Volts.
Scenario 3 supplies 24-Volts to the ODU from the MU(A,H)A.

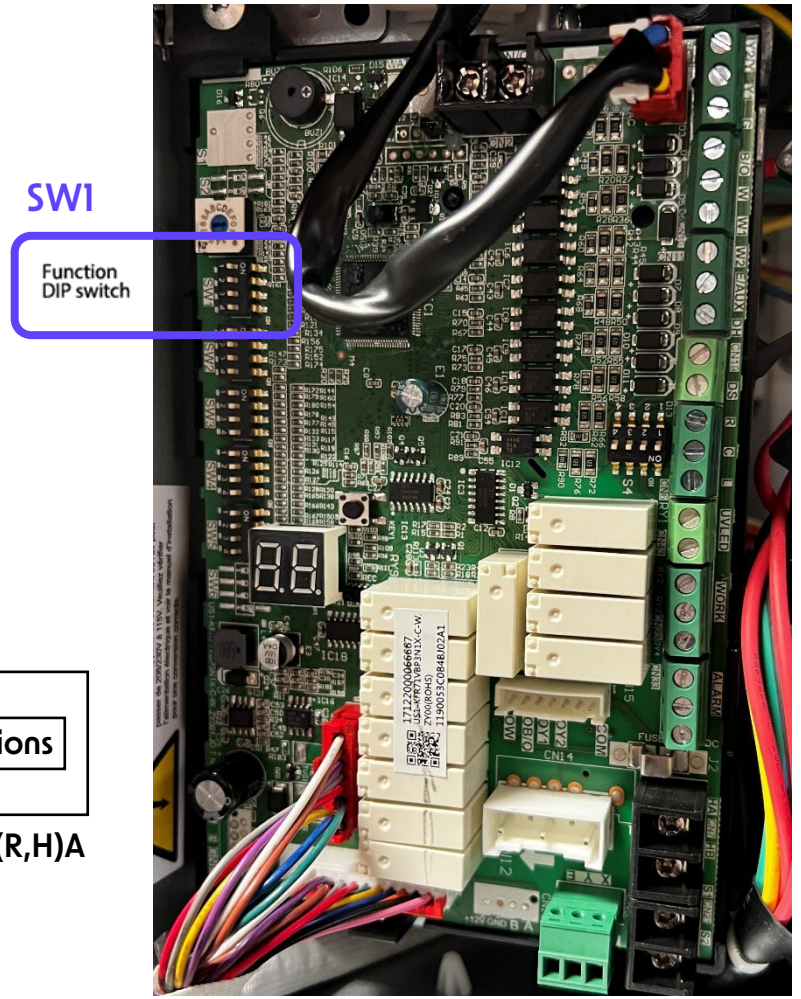
Controls

45MU(A,H)A Control Scenario 3

Control Selection – SW1 DIP Switches

Control Scenario 3: 24-Volt Stat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON





45MU(A,H)A Communication Board

Controls

Scenario 3

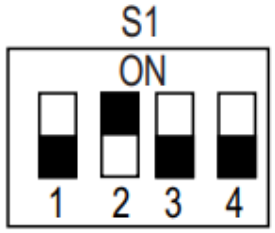
24-Volt Option

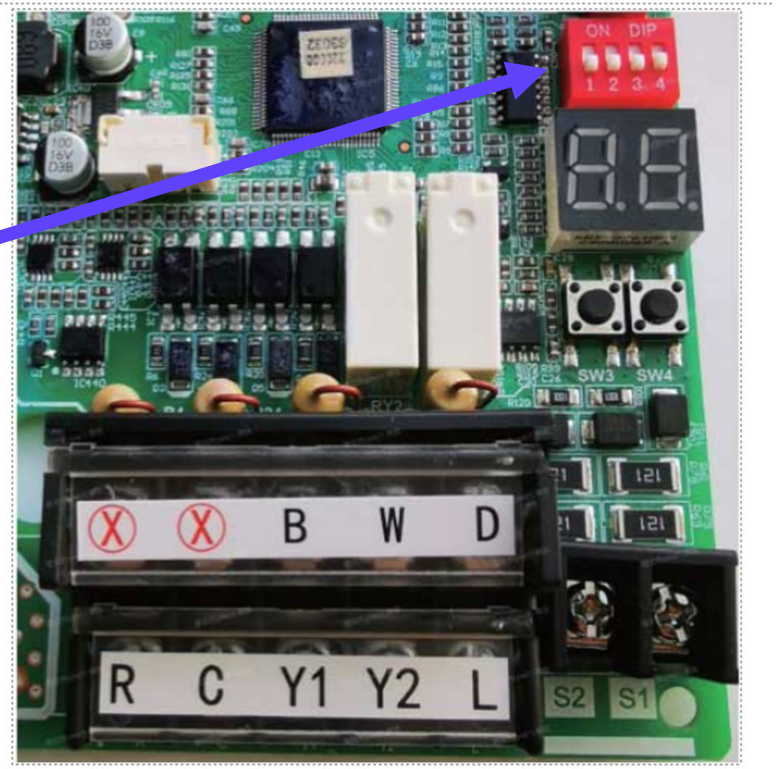
45MU(A,H)A Control Scenario 3 (cont.)

37MU(R,H)A Set Up Options (<u>needs to match indoor control scenario</u>)

Control Scenario 3: 24-Volt Connections
Outdoor unit S1 DIP switch settings

Set S1-2 to ON for 24-Volt Connections





37MU(R,H)A DIP Switches
Located above low voltage terminal block

Attention:
R & C at the ODU do not provide 24-Volts.
Scenario 3 supplies 24-Volts to the ODU from the MU(A,H)A.

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Scenario 3

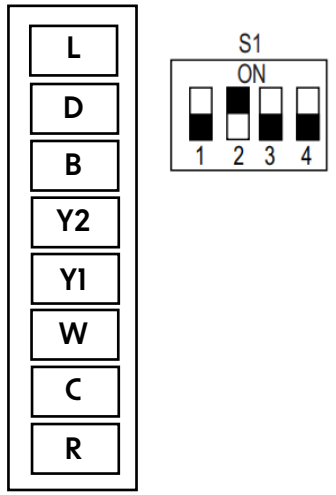
24-Volt Option

37MU(R,H)A Set Up Options (needs to match indoor control scenario)

Only in applications where a Defrost (D-terminal) or Error (L-terminal) signal is needed, an R wire from the Indoor Unit to the Outdoor would be required.

CONNECTOR	PURPOSE
R	24V Power Connection
C	Common
Y1	Low Demand
Y2	High Demand
B	Heating Reverse Valve
W	Heating Control
D	Defrost Control
L	System Fault Signal

Set S1-2 to ON at ODU for 24-Volt Connections



Outdoor Unit MU(R,H)A

Applications would include:

- Thermostats that accept a 24-Volt Error signal from outdoor unit (L-terminal).
- Applications that use a Defrost signal (D-terminal) to activate a relay to shut down the indoor fan during defrost.
- Applications that use a Defrost signal (D-terminal) to bring on the electric heat kit, field supplied relay required.

Controls

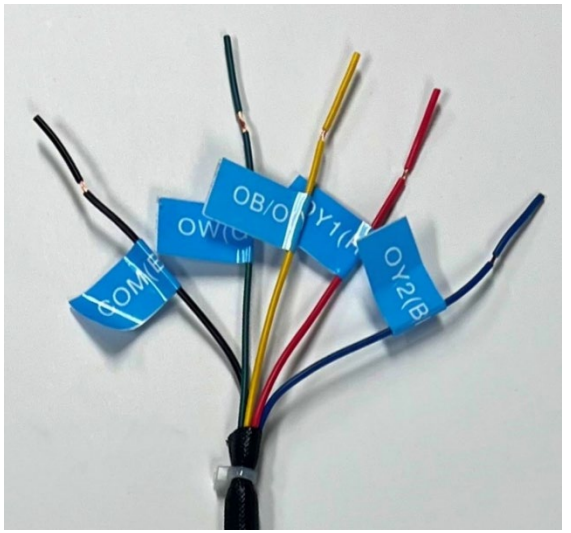
45MU(A,H)A Control Scenario 3 (cont.)

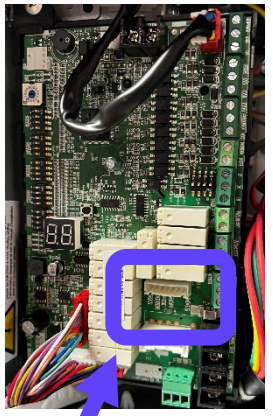
This cable must be used for scenario 3.
Located in accessory box packed with indoor unit

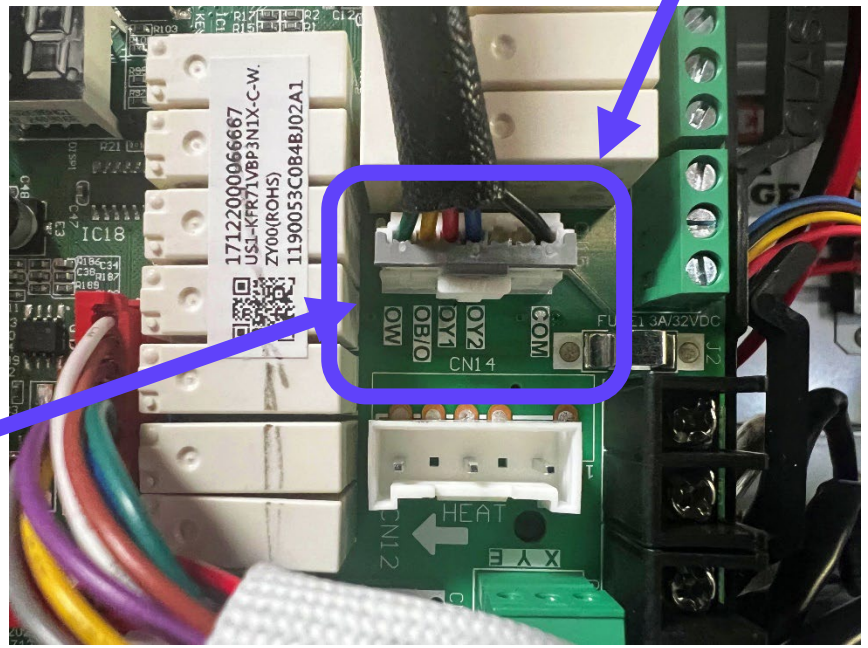
Wire	Color
Com	Black
OW	Green
OB/O	Yellow
OY1	Red
OY2	Blue

Scenario 3

24-Volt Option







Controls

45MU(A,H)A Control Scenario 3 (cont.)

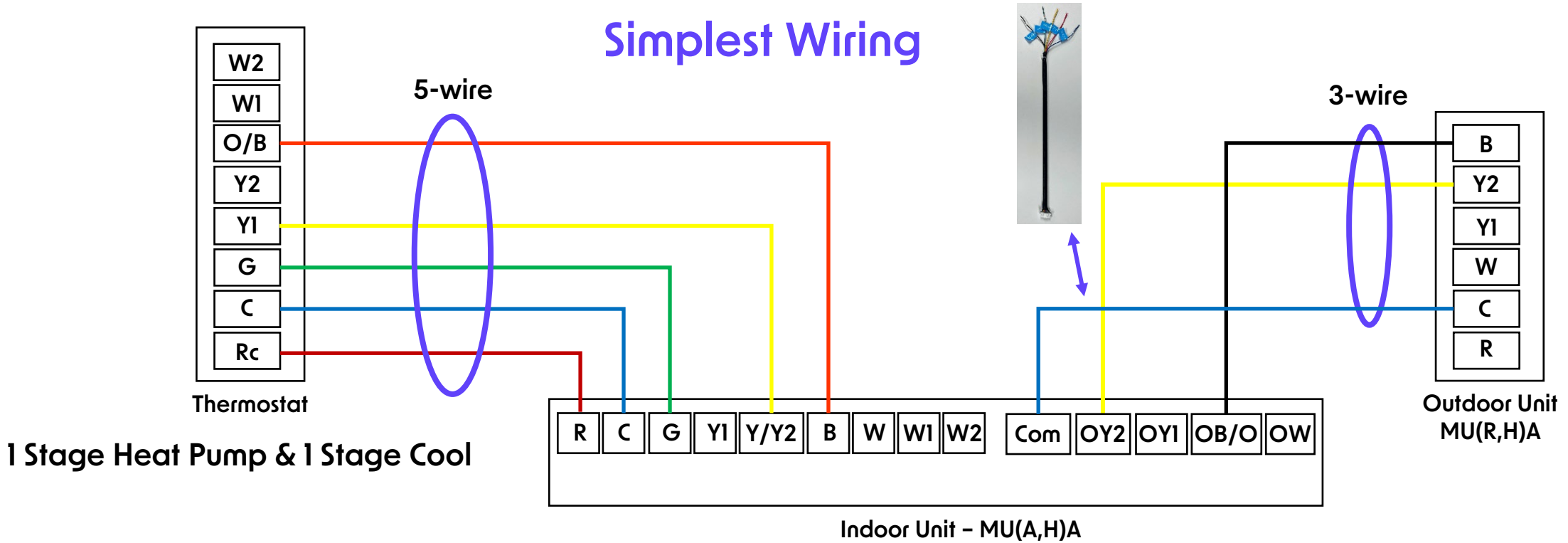
Heat Pump Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Control Scenario 3 24-Volt Staging Options

Control Scenario 3: 24-Volt Stat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON



1 Stage Heat Pump & 1 Stage Cool

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

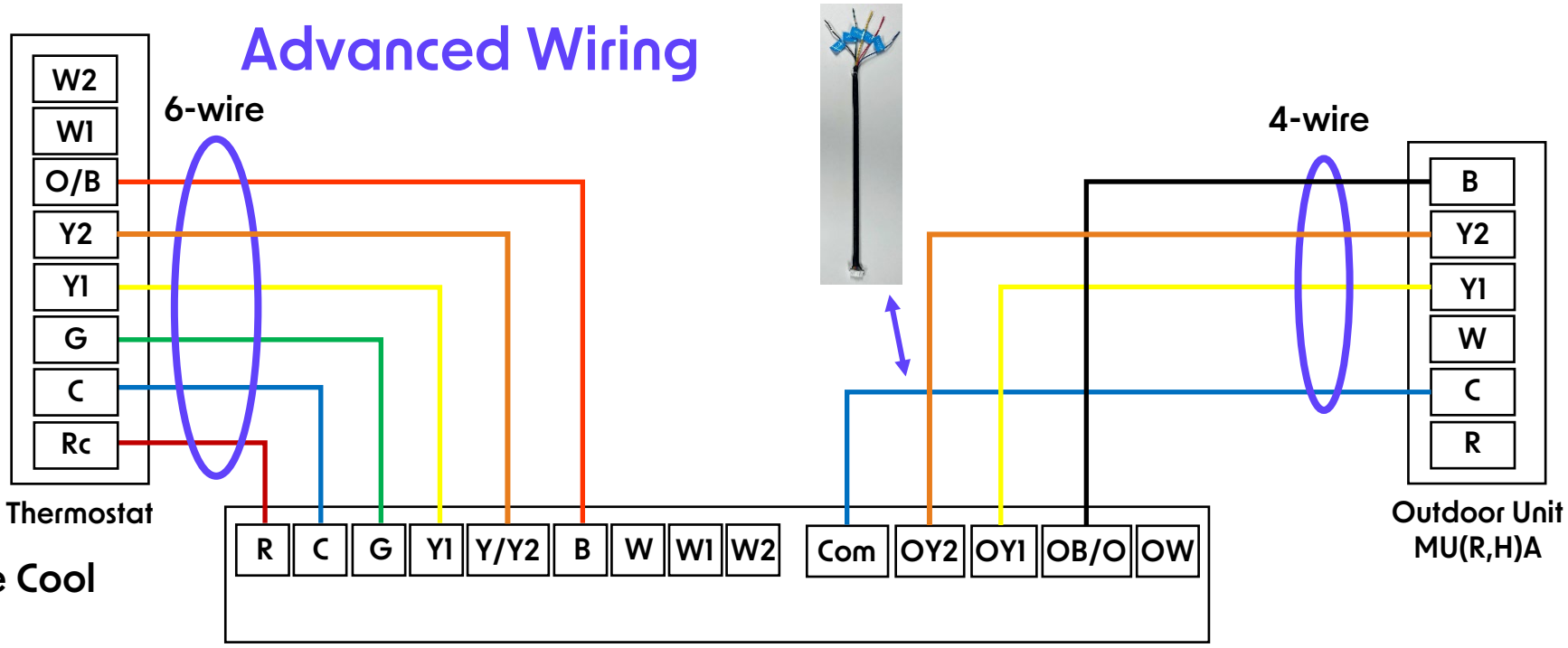
Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Heat Pump Wiring Diagram

Control Scenario 3: 24-Volt Stat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON

Preferred connection without an Electric Heat Kit



2 Stage Heat & 2 Stage Cool
2 Stage Heat Pump

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

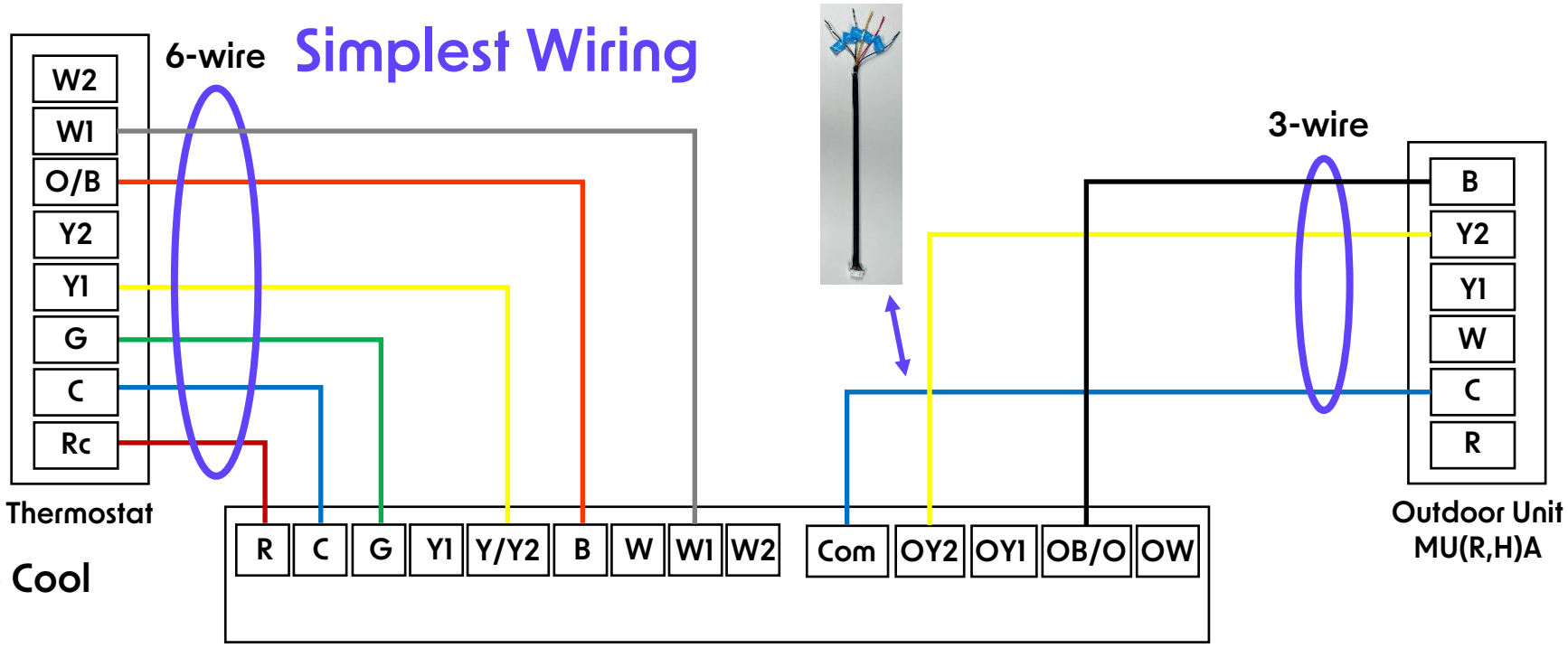
Heat Pump Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Control Scenario 3: 24-Volt Stat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON

Simplest Wiring



Electric Heat Kits 15, 20 or 25kW
W1 & W2 call at same time

2 Stage Heat & 1 Stage Cool
1 Stage Heat Pump
1 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

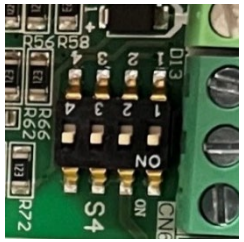
Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

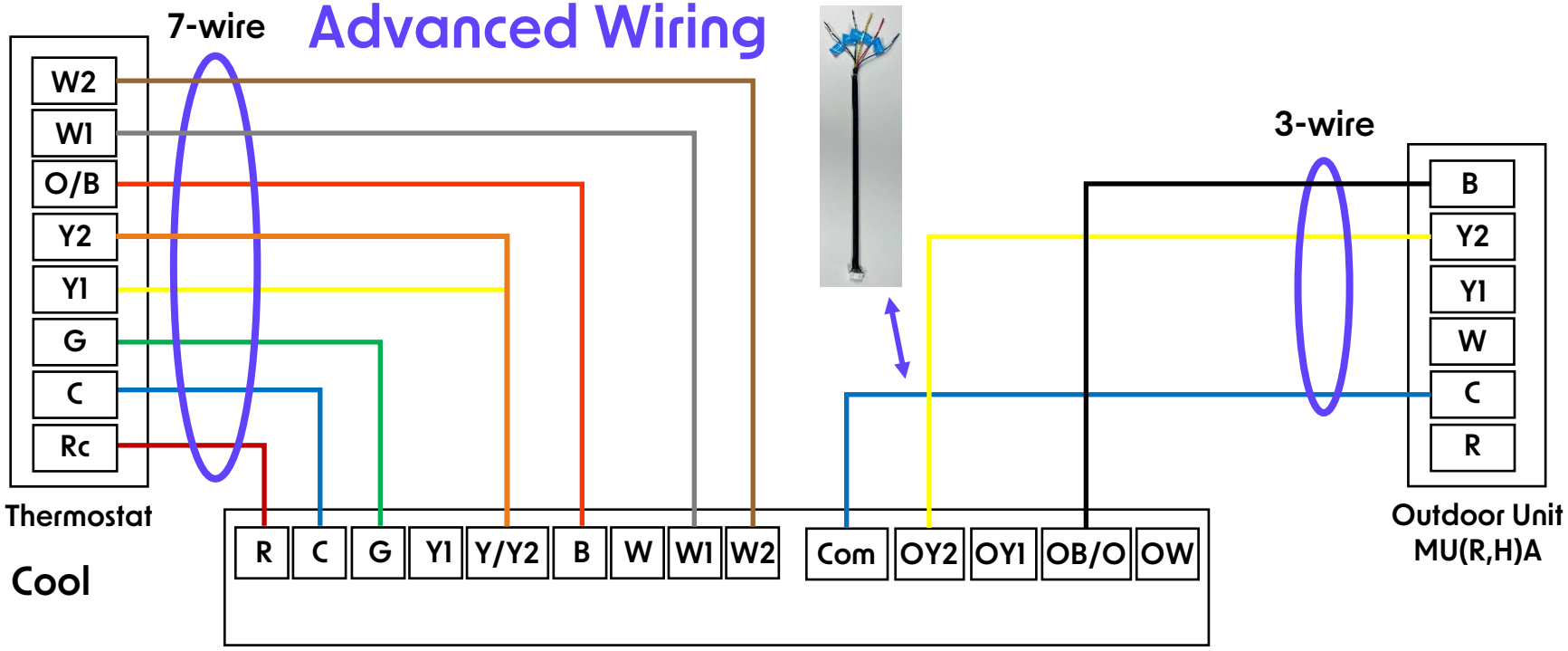
Heat Pump Wiring Diagram

Control Scenario 3: 24-Volt Stat (typically for retrofit application)
Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON

Preferred connection with
Electric Heat 15, 20 or 25kW Kits



TURN OFF DIP
switch S4-4
to separate
W1 & W2 in IDU



3 Stage Heat & 1 Stage Cool
1 Stage Heat Pump
2 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

Heat Pump Wiring Diagram

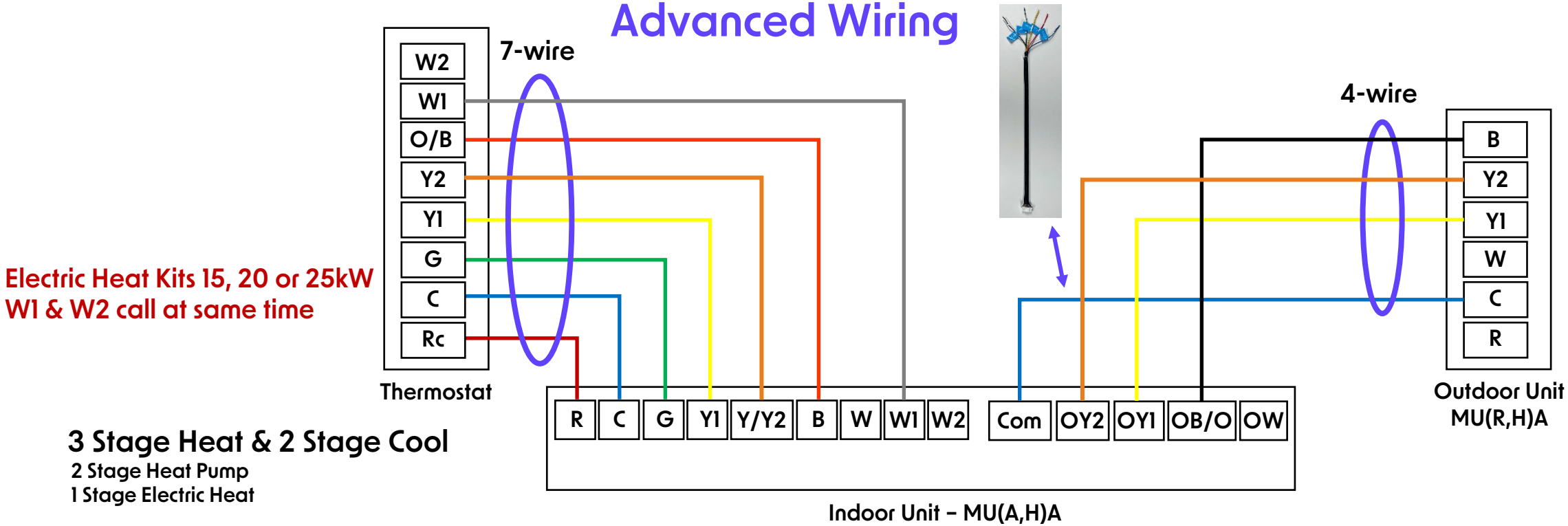
Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Control Scenario 3: 24-Volt Stat (typically for retrofit application)

Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON

Advanced Wiring



Electric Heat Kits 15, 20 or 25kW
W1 & W2 call at same time

3 Stage Heat & 2 Stage Cool
2 Stage Heat Pump
1 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

Indoor Unit Terminal Info

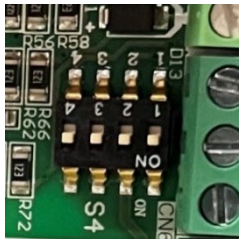
CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Heat Pump Wiring Diagram

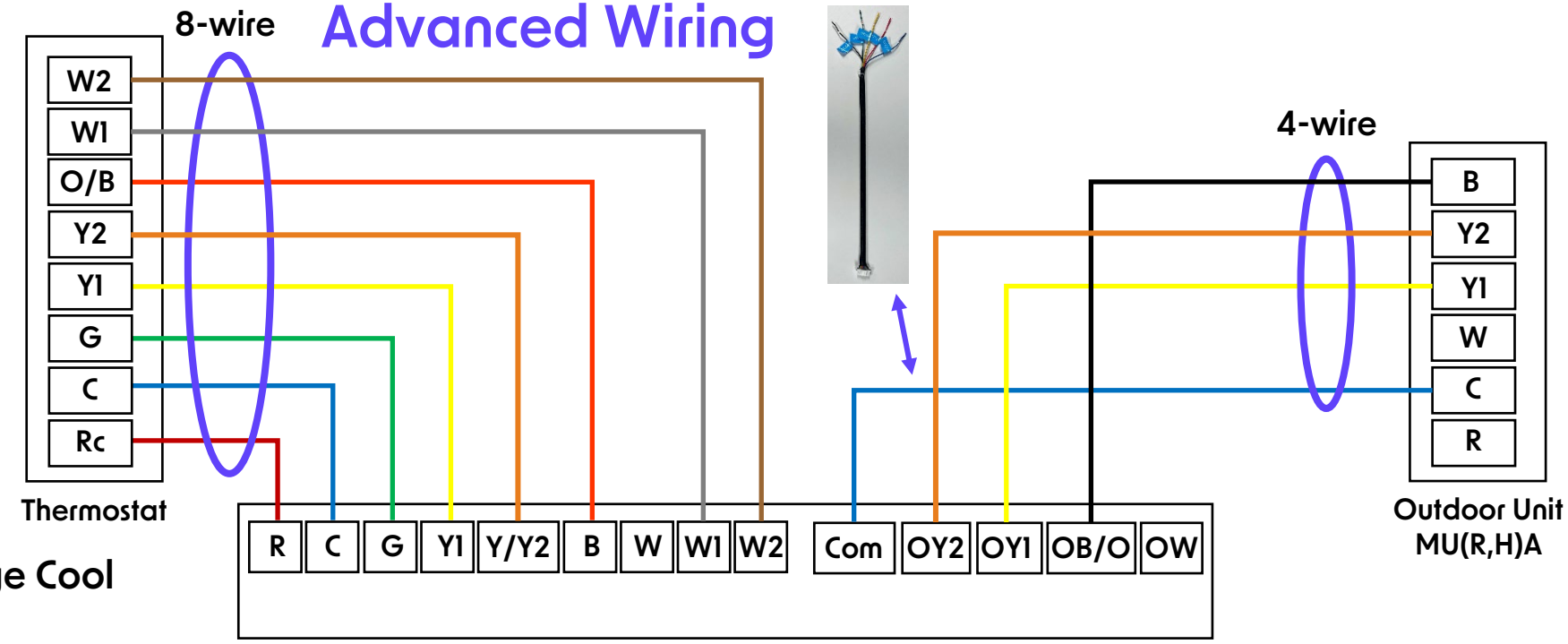
Control Scenario 3: 24-Volt Stat (typically for retrofit application)

Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON

Preferred connection with
Electric Heat 15, 20 or 25kW Kits



TURN OFF DIP
switch S4-4
to separate
W1 & W2 in IDU



4 Stage Heat & 2 Stage Cool
2 Stage Heat Pump
2 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

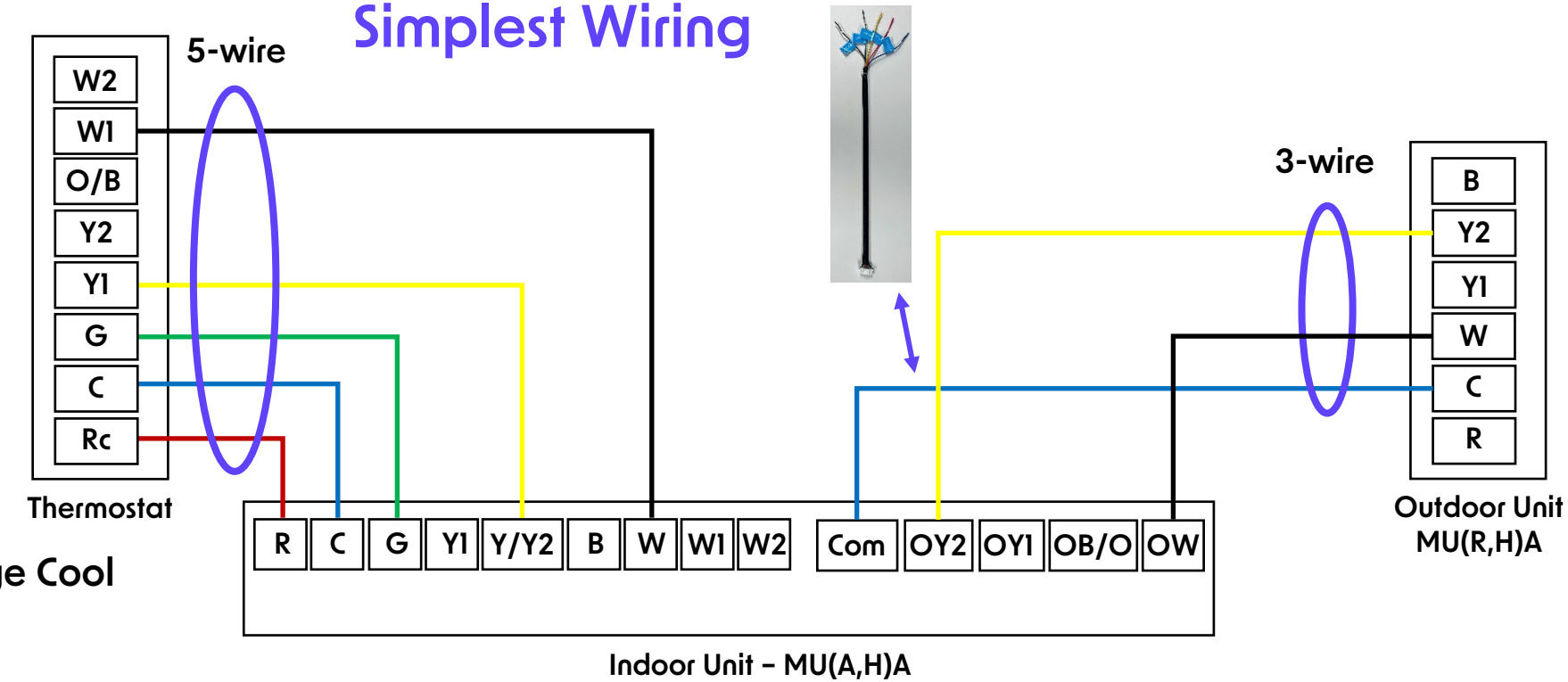
Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Conventional Wiring Diagram

Control Scenario 3: 24-Volt Stat (typically for retrofit application)

Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON



2 Stage Heat & 1 Stage Cool
1 Stage Heat Pump
1 Stage Electric Heat

Controls

45MU(A,H)A Control Scenario 3 (cont.)

Control Scenario 3 24-Volt Staging Options (cont.)

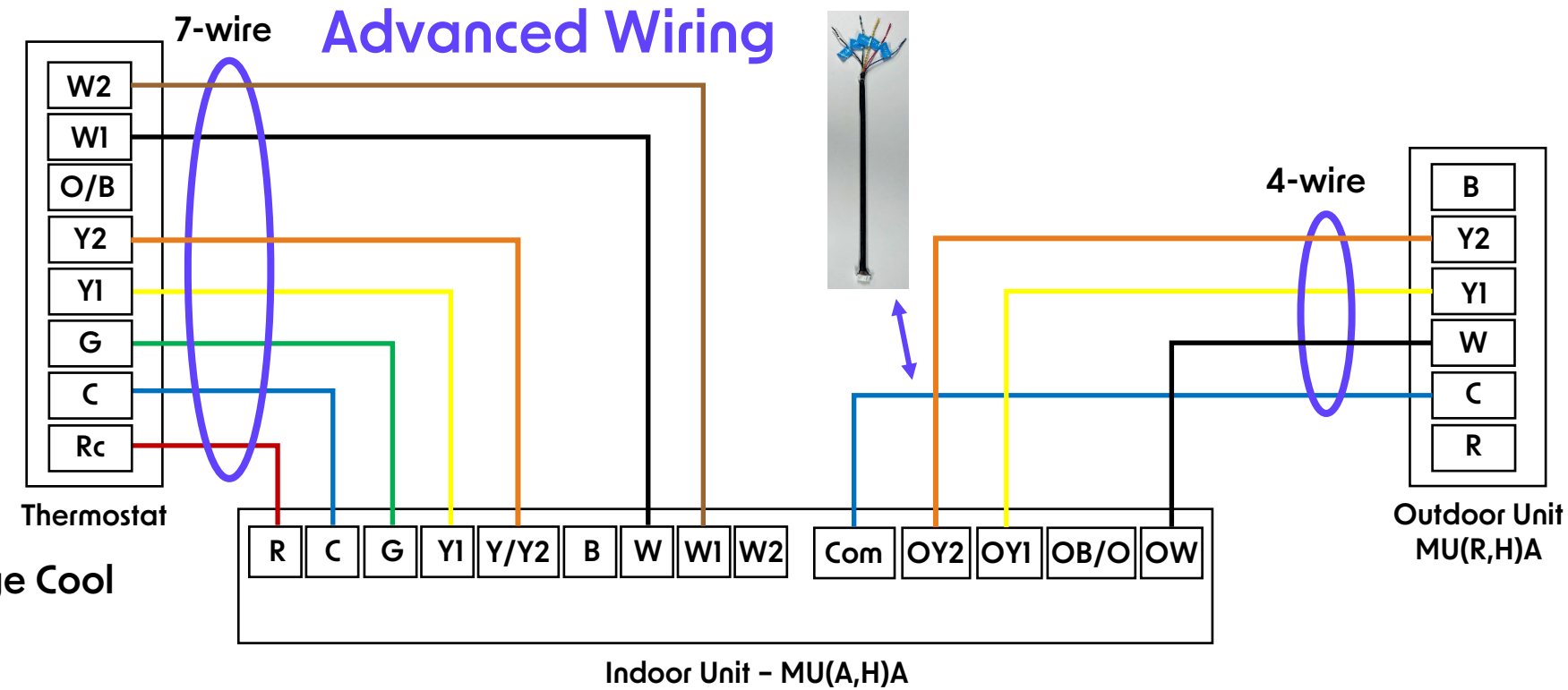
Conventional Wiring Diagram

Indoor Unit Terminal Info

CONNECTOR	PURPOSE
R	24V Power Connector
C	Common
G	Fan Control
Y1	Low Demand
Y/Y2	High Demand
B	Heating Reverse Valve
W	Conventional Heat Control
W1	Stage 1 Electric Housing
W2	Stage 2 Electric Housing
E/AUX	Emergency Heating
DH	Dehumidification
DS	Reserved Signal
L	System Fault

Control Scenario 3: 24-Volt Stat (typically for retrofit application)

Control Wire ODU to IDU: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Control Wire IDU to stat: Minimum 5-wire, up to 8-wire may be needed, 18 gauge solid or stranded.
Set SW1-1 & SW1-4 to ON



3 Stage Heat & 2 Stage Cool
2 Stage Heat Pump
1 Stage Electric Heat

Controls

45MU(A,H)A Set Up Options

Anti-blow, Cooling Only Settings – SW1 DIP Switches
Scenarios – 1, 2, 3

SW1-2: Anti-cold Blow Protection Option
Default value is OFF – Anti-Cold is active.

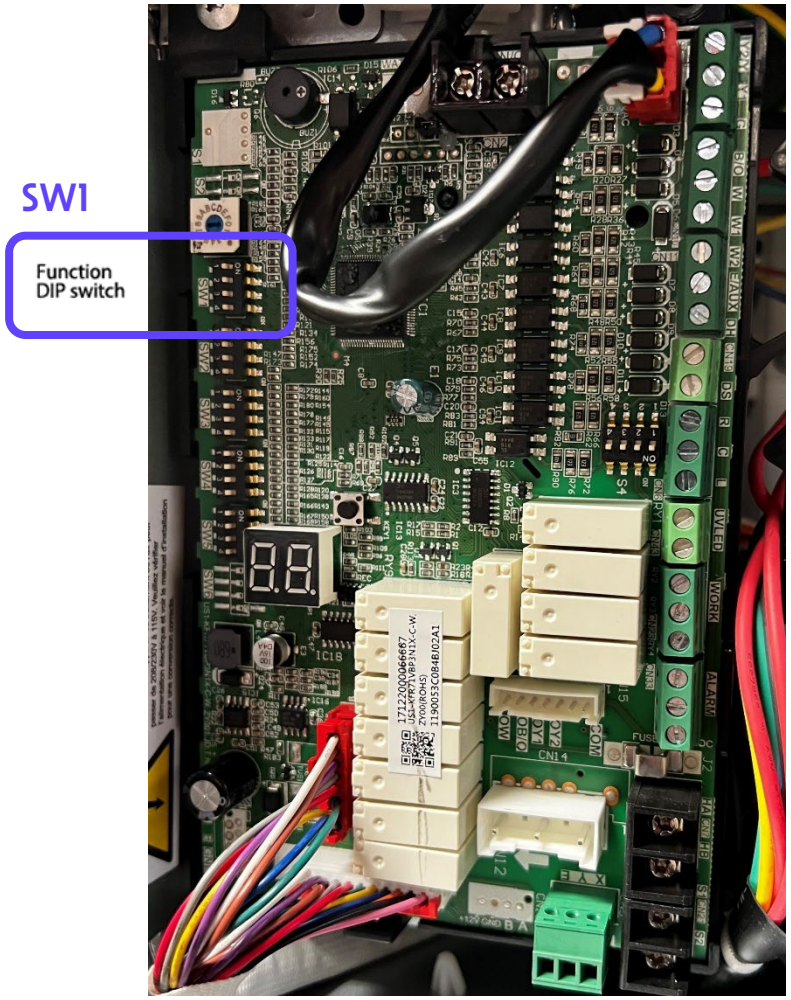
SW1-3: Single cooling / heating and cooling options
Default is OFF for Heating and Cooling, ON for Cooling Only System.

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control



45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options (cont.)

Electric Heat & Staging Settings – SW2 DIP Switches
Scenario – 2

SW2-1: Control Scenario 1
Compressor Running Compensation (Demand working with heat pump+ Electric heat) Default is OFF for Faster Compressor, ON for Slower Compressor

SW2-1: Control Scenario 2
Temperature differential to activate first stage auxiliary heat.
Default is OFF 4°F, ON for 2°F

SW2-2: Electric heat on delay.
Default is OFF for NO delay, ON for YES

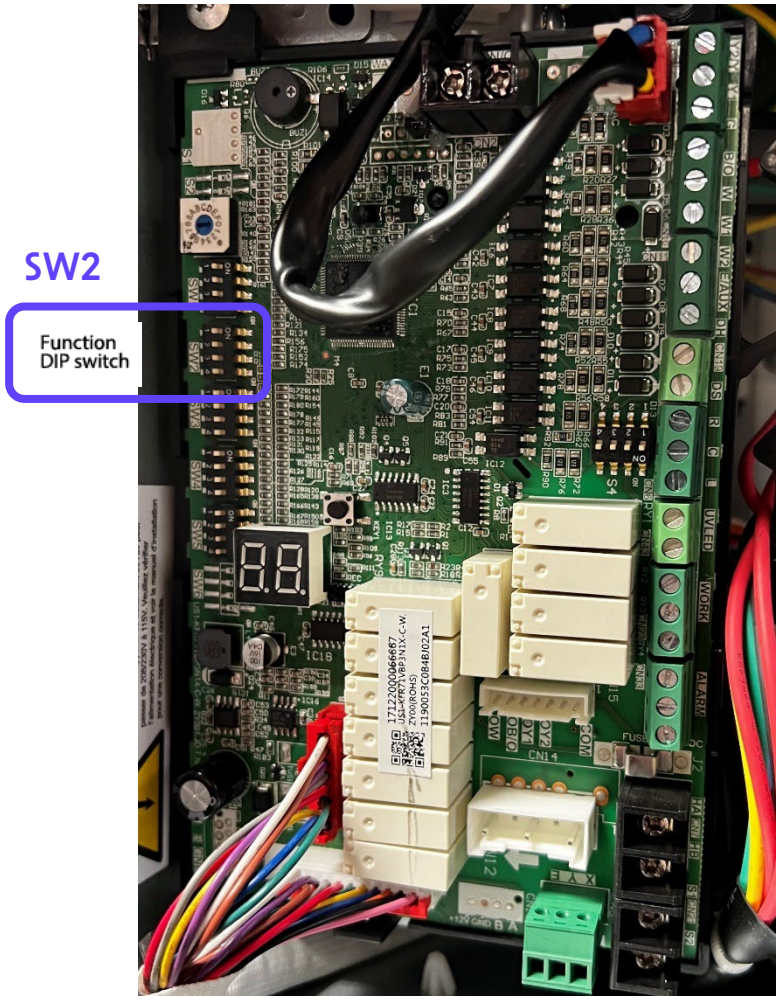
SW2-3: Electric auxiliary heating delay to start time (works with SW2-2)
Default is OFF for 15 min, ON for 30 min

Scenario – 1 & 2

SW2-4: Compressor/Auxiliary heat outdoor ambient lockout.
Default OFF – Compressor allowed to operate to low limit set by S3
ON – Electric heating allowed to operate to high limit set by S3
See S3 switch info for more details.

Scenario 1 & 3
24-Volt Control

Scenario 2
1401 Wired Control



45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options (cont.)

S3	S3 (°F)	S3	S3 (°F)	S3	S3 (°F)
0	OFF	5	-8	A	25
1	-22	6	-4	B	32
2	-18	7	3	C	36
3	-15	8	10	D	39
4	-11	9	18	E	43
				F	46

S3 Rotary Switch & DIP SW2-4 – Ambient temperature controlled by electric heating or compressor.

Scenarios – 1, 2

Scenario – 1

SW2-4 OFF – Compressor

The operation of heat pump is limited by the outdoor temperature, and the operation of auxiliary heat is not limited.

The system makes judgments based on the following rules:

1) The compressor cannot be operated when the outdoor temperature is lower than the S3 DIP switch.
2) The compressor can be operated when the outdoor temperature is ≥S3 DIP switch temperature +2 °C.

Scenario 2

SW2-4 ON – Compressor/Auxiliary heat outdoor ambient lockout

The operation of heat pump is limited by the outdoor temperature, and the operation of auxiliary heat is not limited.

The system makes judgments according to the following rules:

1) The compressor can be operated when the outdoor temperature is ≥ S3 DIP switch temperature +2 °C.
2) The compressor cannot be operated when the outdoor temperature is lower than the S3 DIP switch temperature.

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control

45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options (cont.)

Scenario 1 & 3
24-Volt Control

Scenario 2
1401 Wired Control

Runtime, Temp Differential Settings – SW3 DIP Switches

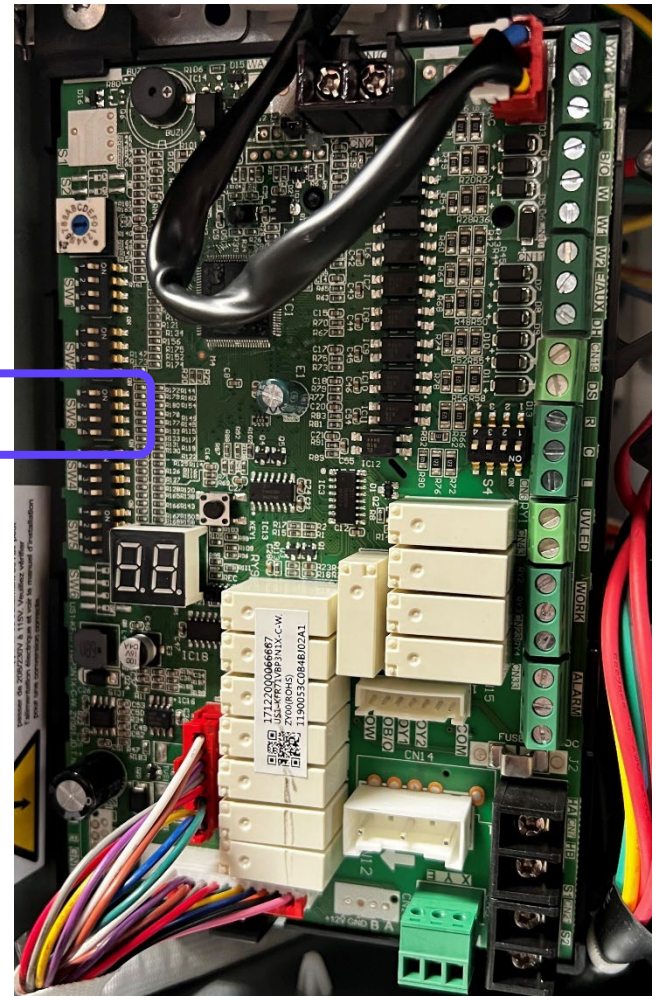
Scenario – 1
SW3-1: Continuous runtime
Default is OFF for 90 min, ON for 30 min

SW3-2: Cooling and heating Y2 temperature differential adjustment
Default is OFF for 4°F, ON for 2°F

SW3-3: Compressor Running (demand working with heat pump+ Electric heat)
Default is OFF for Faster Compressor, ON for Compressor slower speed

Scenario – 2
SW3-3: Temperature differential to activate second stage auxiliary heating
Default is OFF for 6°F, ON for 4°F

Scenarios – 1, 3
SW3-4: 3 Fan speed of cooling mode when 24V Thermostat is applied for.
Default is OFF for High, ON for Turbo

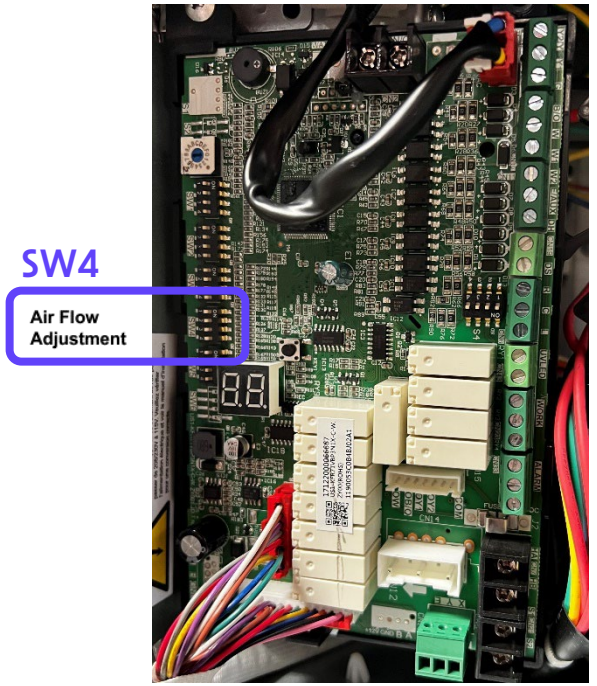


45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options – External Static Pressure Settings (cont.)

CAPACITY	EXTERNAL STATIC PRESSURE RANGE	FAN SPEED	ELECTRIC AUXILIARY HEAT MODULE	24V THERMOSTAT		WIRED CONTROLLER		AIRFLOW VOLUME (CFM)
				DIP SWITCH	24V TERMINAL ENGAGED	DIP SWITCH	MODE	
36K (3 Ton)	0 - 0.80 in.wc.	Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	1188
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	1082
		Cooling Medium	—	—	Y1	—	Cool	971
		Cooling Low	—	—	—	—	Cool	865
		Heat Pump Turbo	—	—	—	—	Heat	1112
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	1059
		Heat Pump Medium	—	—	B+Y1	—	Heat	794
		Heat Pump Low	—	—	—	—	Heat	582
		Electric auxiliary heat module 0(Default)	20kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	1306
		Electric auxiliary heat module 1	15kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	1241
		Electric auxiliary heat module 2	10kW, 8kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	1176
		Electric auxiliary heat module 3	5kW, 8kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	1112
		Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	1600
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	1471
		Cooling Medium	—	—	Y1	—	Cool	1282
		Cooling Low	—	—	—	—	Cool	1094
		Heat Pump Turbo	—	—	—	—	Heat	1471
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	1324
		Heat Pump Medium	—	—	B+Y1	—	Heat	1141
		Heat Pump Low	—	—	—	—	Heat	976

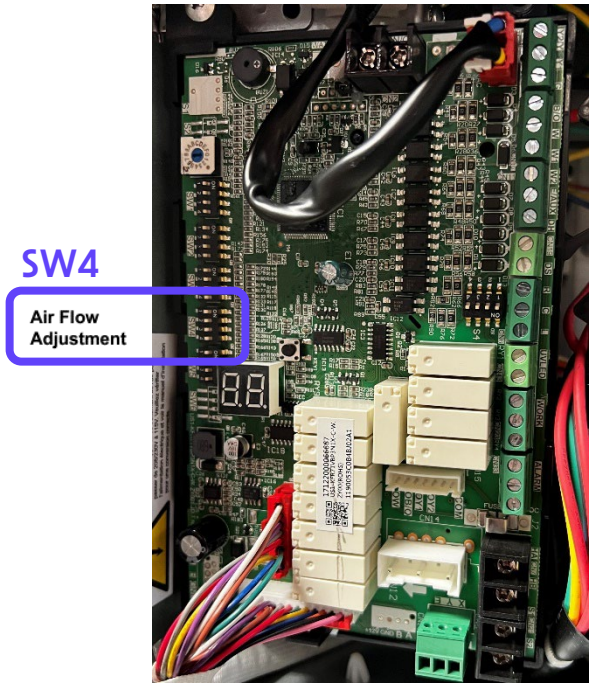


45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options – External Static Pressure Settings

CAPACITY	EXTERNAL STATIC PRESSURE RANGE	FAN SPEED	ELECTRIC AUXILIARY HEAT MODULE	24V THERMOSTAT		WIRED CONTROLLER		AIRFLOW VOLUME (CFM)
				DIP SWITCH	24V TERMINAL ENGAGED	DIP SWITCH	MODE	
18K (1.5 Ton)	0 - 0.80 in.wc.	Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	618
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	576
		Cooling Medium	—	—	Y1	—	Cool	529
		Cooling Low	—	—	—	—	Cool	488
		Heat Pump Turbo	—	—	—	—	Heat	565
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	541
		Heat Pump Medium	—	—	B+Y1	—	Heat	435
		Heat Pump Low	—	—	—	—	Heat	400
		Electric auxiliary heat module 0(Default)	10kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	653
		Electric auxiliary heat module 1	10kW, 8kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	624
		Electric auxiliary heat module 2	8kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	594
		Electric auxiliary heat module 3	5kW, 3kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	565
24K (2 Ton)	0 - 0.80 in.wc.	Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	824
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	759
		Cooling Medium	—	—	Y1	—	Cool	694
		Cooling Low	—	—	—	—	Cool	629
		Heat Pump Turbo	—	—	—	—	Heat	788
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	753
		Heat Pump Medium	—	—	B+Y1	—	Heat	641
		Heat Pump Low	—	—	—	—	Heat	524
		Electric auxiliary heat module 0(Default)	15kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	871
		Electric auxiliary heat module 1	15kW, 10kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	841
		Electric auxiliary heat module 2	10kW, 8kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	818
		Electric auxiliary heat module 3	5kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	788

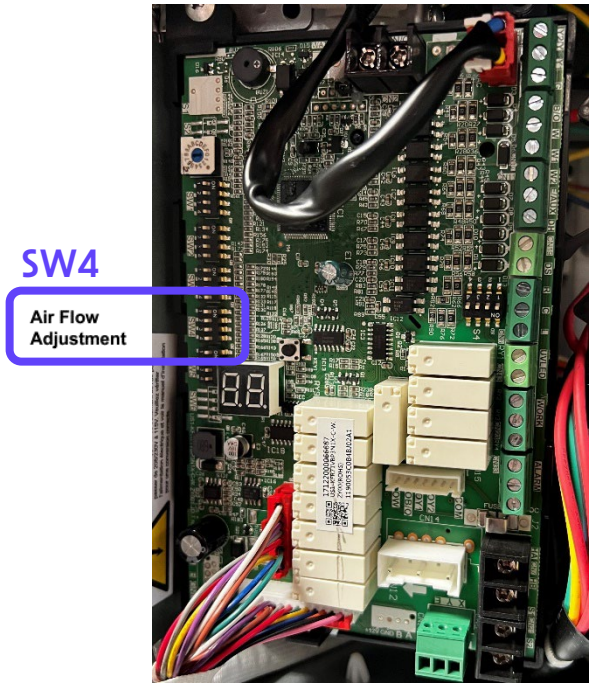


45MU(A,H)A
Communication Board

Controls

45MU(A,H)A Set Up Options – External Static Pressure Settings (cont.)

CAPACITY	EXTERNAL STATIC PRESSURE RANGE	FAN SPEED	ELECTRIC AUXILIARY HEAT MODULE	24V THERMOSTAT		WIRED CONTROLLER		AIRFLOW VOLUME (CFM)
				DIP SWITCH	24V TERMINAL ENGAGED	DIP SWITCH	MODE	
30K(2.5 Ton)	0 - 0.80 in.wc.	Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	988
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	894
		Cooling Medium	—	—	Y1	—	Cool	806
		Cooling Low	—	—	—	—	Cool	712
		Heat Pump Turbo	—	—	—	—	Heat	918
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	876
		Heat Pump Medium	—	—	B+Y1	—	Heat	665
		Heat Pump Low	—	—	—	—	Heat	453
		Electric auxiliary heat module 0(Default)	15kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	1088
		Electric auxiliary heat module 1	15kW, 10kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	1029
		Electric auxiliary heat module 2	10kW, 8kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	976
		Electric auxiliary heat module 3	5kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	918



45MU(A,H)A
Communication Board

Controls

45MU(A,H)A Set Up Options – External Static Pressure Settings (end)

CAPACITY	EXTERNAL STATIC PRESSURE RANGE	FAN SPEED	ELECTRIC AUXILIARY HEAT MODULE	24V THERMOSTAT		WIRED CONTROLLER		AIRFLOW VOLUME (CFM)
				DIP SWITCH	24V TERMINAL ENGAGED	DIP SWITCH	MODE	
48K (4 Ton)	0 - 0.80 in.wc.	Electric auxiliary heat module 0(Default)	20kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	1741
		Electric auxiliary heat module 1	15kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	1653
		Electric auxiliary heat module 2	10kW, 8kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	1559
		Electric auxiliary heat module 3	8kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	1471
		Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	1806
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	1582
		Cooling Medium	—	—	Y1	—	Cool	1359
		Cooling Low	—	—	—	—	Cool	1135
		Heat Pump Turbo	—	—	—	—	Heat	1659
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	1582
		Heat Pump Medium	—	—	B+Y1	—	Heat	1247
		Heat Pump Low	—	—	—	—	Heat	976
60K (5 Ton)	0 - 0.80 in.wc.	Cooling Turbo	—	SW3-4=ON	Y2/Y	—	Cool	1806
		Cooling High	—	SW3-4=OFF	Y2/Y	—	Cool	1582
		Cooling Medium	—	—	Y1	—	Cool	1359
		Cooling Low	—	—	—	—	Cool	1135
		Heat Pump Turbo	—	—	—	—	Heat	1659
		Heat Pump High	—	—	B+Y2/Y, W	—	Heat	1582
		Heat Pump Medium	—	—	Y1	—	Heat	1247
		Heat Pump Low	—	—	—	—	Heat	976
		Electric auxiliary heat module 0(Default)	25kW	SW4-1=OFF SW4-2=OFF SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=OFF	Heat + AUX, AUX	2171
		Electric auxiliary heat module 1	15kW, 20kW	SW4-1=OFF SW4-2=OFF SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=OFF SW4-3=ON	Heat + AUX, AUX	2029
		Electric auxiliary heat module 2	10kW, 15kW	SW4-1=OFF SW4-2=ON SW4-3=OFF	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=OFF	Heat + AUX, AUX	1894
		Electric auxiliary heat module 3	10kW	SW4-1=OFF SW4-2=ON SW4-3=ON	W1, W2, AUX	SW4-1=OFF SW4-2=ON SW4-3=ON	Heat + AUX, AUX	1753

NOTE: The constant airflow volume motor is applied. So the airflow volume is constant at all ESP within stated range.

45MU(A,H)A
Communication Board

Controls

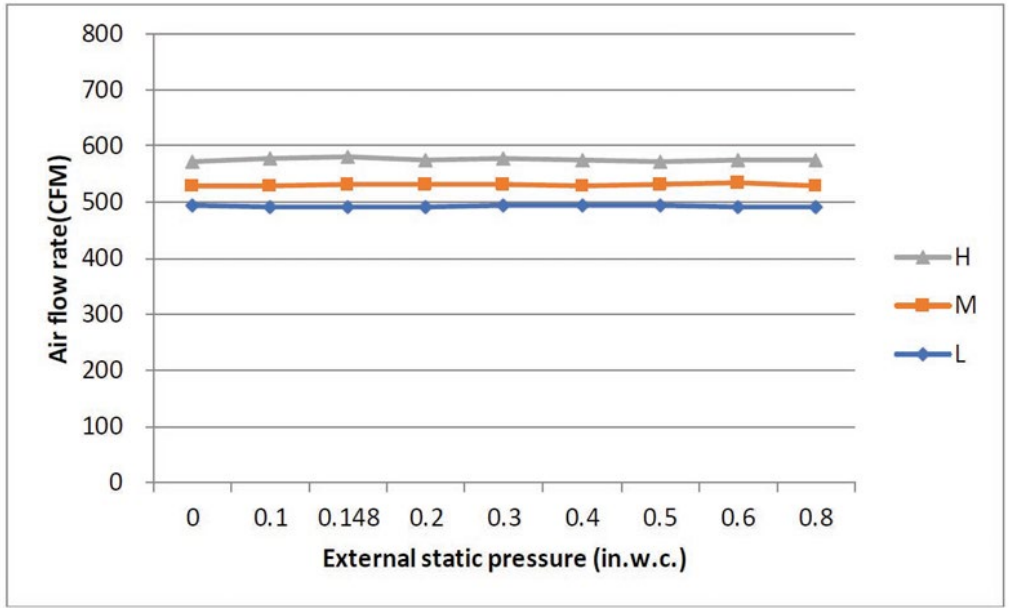
45MU(A,H)A Set Up Options – Maximum Cooling and Heating Fan Speed

- "Fine turning" for Heating and Cooling CFM can be done through a service setting.
- These settings do not affect W1 and W2 fan speeds.
- For detailed explanation and all charts and settings go to the Install Manual for the Indoor Unit or the Appendix of this guide.

COOLING	Default	-1	-2	-3	-4	-5	-6	-7
TURBO	618	598	578	558	538	518	498	478
HIGH	576	556	536	516	496	476	456	436
MIDDLE	529	509	489	469	449	429	418	418
LOW	488	468	448	428	408	400	400	400
COOLING	Default	-8	-9 ~ -40	+1	+2	+3	+4	+5 ~ +20
TURBO	618	458	453	635	635	635	635	635
HIGH	576	435	435	596	616	618	618	618
MIDDLE	529	418	418	549	569	589	600	600
LOW	488	400	400	508	528	548	568	582

HEATING	Default	-1	-2	-3	-4	-5	-6 ~ -40	+1	+2
TURBO	565	545	525	505	485	465	453	585	605
HIGH	541	521	501	481	461	441	435	561	581
MIDDLE	435	418	418	418	418	418	418	455	475
LOW	400	400	400	400	400	400	400	420	440
HEATING	Default	+3	+4	+5	+6	+7	+8	+9	+10~+20
TURBO	565	625	635	635	635	635	635	635	635
HIGH	541	601	618	618	618	618	618	618	618
MIDDLE	435	495	515	535	555	575	595	600	600
LOW	400	460	480	500	520	540	560	580	582

18K



Images taken from 45MUAA Install Manual.

Controls

45MU(A,H)A Set Up Options

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control

Error/Alarm Relay Settings L Terminal – SW5-3 DIP Switch
Scenarios – 1, 2, 3

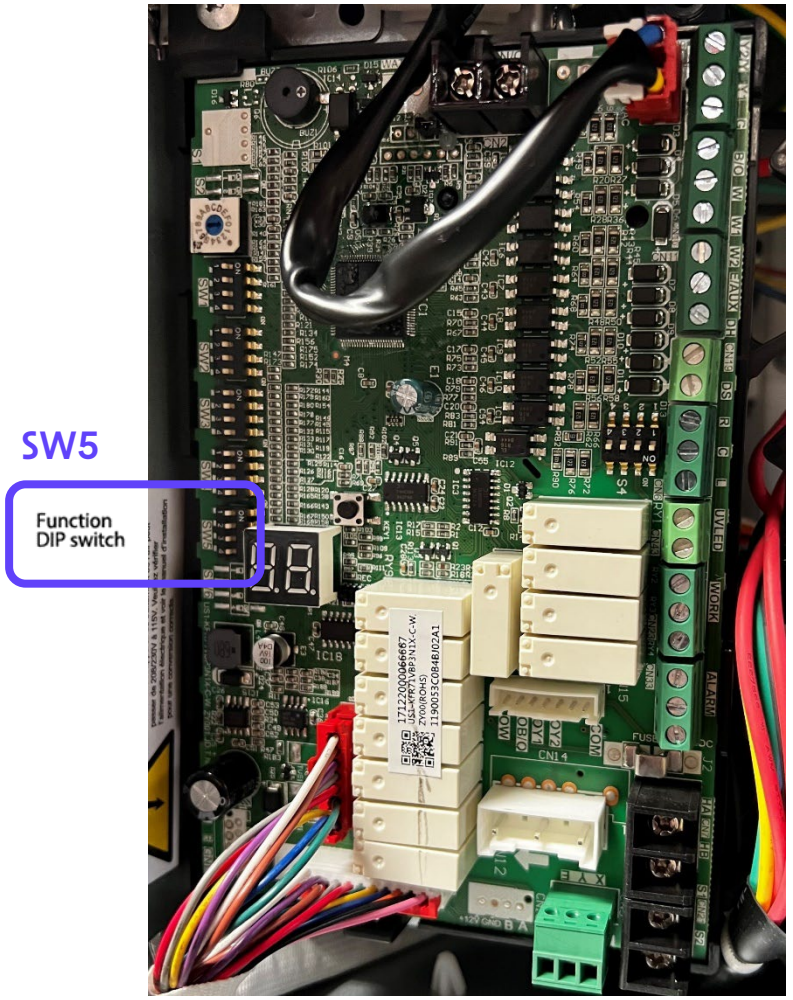
SW5-3: OFF (default) – L output 24-volt on error/alarm relay closes when any fault detected.

SW5-3: ON – L output 24-volt on error/alarm closes only when refrigerant sensor fault or R-454B refrigerant leak detected.

R Terminal Output Selection – SW5-4 DIP Switch
Scenarios – 1, 2, 3

SW5-4: OFF (default) – R keeps output 24-volt even when refrigerant sensor fault or R-454B refrigerant leak detected.

SW5-4: ON – R stops output 24-volt when refrigerant sensor fault or R-454B refrigerant leak detected.



45MU(A,H)A Communication Board

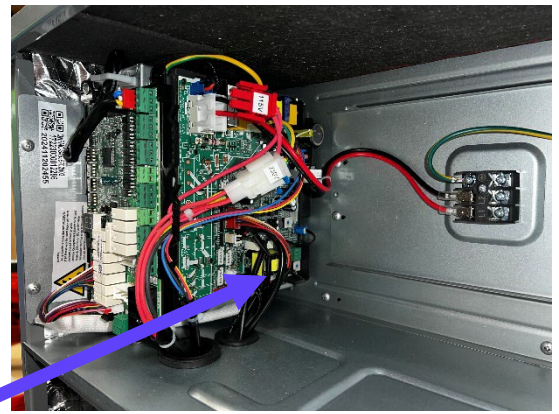
Controls

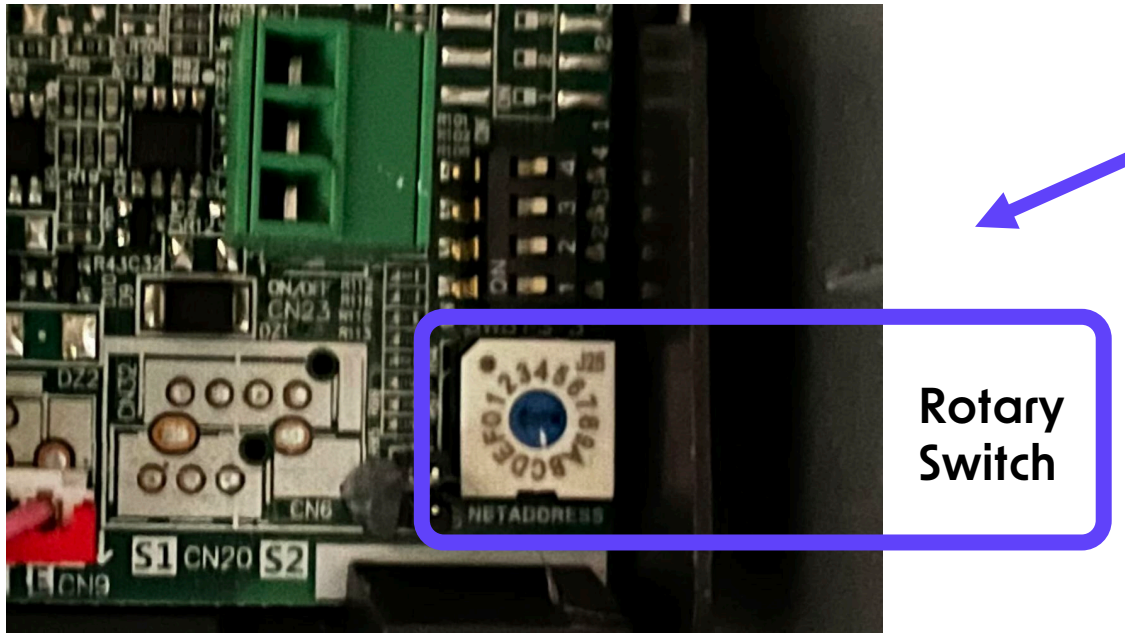
45MU(A,H)A Set Up Options (cont.)

Scenario – 2

S1 – Net Address Setting

- If one control per indoor unit (IDU), no change needed
- If two or more IDU per control, each S1 must have different value, up to 16 max



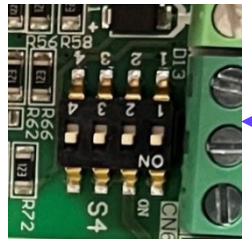


Controls

Scenario 1 & 3

24-Volt Control

45MU(A,H)A Set Up Options (cont.)



S4 DIP Switch Function, both defaulted to ON
Scenarios – 1, 3

(only used with 24-Volt Control Option)

- S4-1 – No function currently, Do Not Use
- S4-2 – ON Dehumidification Not Available
- S4-2 – OFF Dehumidification Available
  - A demand call for cooling is required (Y1 or Y2).
  - With a DH demand from the thermostat, the indoor fan will drop to low speed.
  - Y1 + DH (04 Mode) will drop the compressor to low turn down.
  - Y2 + DH (05 Mode) will drop the compressor to medium turn down.

We recommend Cooling mode over Dehumidification mode for most applications. If you have specific humidity needs, please consult with your sales representative.

45MU(A,H)A Communication Board

Controls

45MU(A,H)A Set Up Options (cont.)

Scenario 1 & 3

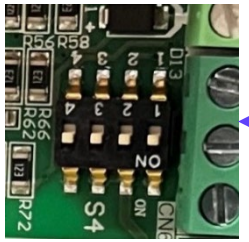
24-Volt Control

S4 DIP Switch Function, both defaulted to ON
Scenarios – 1, 3

(only used with 24-Volt Control Option)

- S4-3 – No function currently, Do Not Use

- S4-4 – ON = W1 & W2 close on W1 call
- S4-4 – OFF = Independent W1, W2 operation



45MU(A,H)A Communication Board

Controls

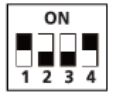
45MU(A,H)A Set Up Options (cont.)

Full DIP/Rotary Switch Explanations

Scenario 1
24-Volt Control – S1, S2 to ODU

Scenario 2
1401 Wired Control – S1, S2 to ODU

Scenario 3
24-Volt Control – 24-Volt to ODU

SW1	Control type	IDU and ODU Connection	Note
	Wired controller / 24V thermostat	(S1+S2) / 24V connection	Auto Discovery
	Wired controller	S1+S2	Scenario 2
	24V Thermostat	S1+S2	Scenario 1 (no outdoor unit clean function[*1])
	24V Thermostat	24V connection	Scenario 3

[*1] Outdoor unit clean function means reversing outdoor fan to blow away dust and other attachments on the fins

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control

NO.	DIAL CODE	CONTROL SCENARIO	FUNCTION	ON	OFF	NOTE
1	SW1-2	1,2,3	Anti-cold blow protection option	NO	[Default] YES	
2	SW1-3	1,2,3	Single cooling / heating and cooling options	Cooling	[Default] Cooling & Heating	
3	SW2-1	1	Compressor Running (demand working with heat pump+ Electric heat)	Compressor slower speed	[Default] Faster Compressor	Only affects compressor and W1
4	SW2-1	2	Temperature differential to activate first stage auxiliary heat (the GAP of T1 and Ts), Wire controller demand with heat pump + Electric heat working together	2°F (1°C)	[Default]	
5	SW2-2	2	Electric heat on delay	YES	[Default] NO	
6	SW2-3	2	Electric auxiliary heating delay to start time	30 minutes	[Default] 15 minutes	Based on SW2-2 is ON
7	SW2-4	1	Compressor	The operation of heat pump is limited by the outdoor temperature, and the operation of auxiliary heat is not limited.The system makes judgments according to the following rules: 1) The compressor can be operated when the outdoor temperature is ⩾ S3 DIP switch temperature +2 °C. 2) The compressor cannot be operated when the outdoor temperature is lower than the S3 DIP switch temperature.	[Default] The operation of heat pump is limited by the outdoor temperature, and the operation of auxiliary heat is not limited. The system makes judgments based on the following rules: 1) The compressor cannot be operated when the outdoor temperature is lower than the S3 DIP switch. 2) The compressor can be operated when the outdoor temperature is ⩾S3 DIP switch temperature +2 °C.	SW2-4 and S3 need to working together
8	SW2-4	2	Compressor/Auxiliary heat outdoor ambient lockout	The operation of heat pump is limited by the outdoor temperature, and the operation of auxiliary heat is not limited.The system makes judgments according to the following rules: 1) The compressor can be operated when the outdoor temperature is ≥S3 DIP switch temperature +2 °C. 2) The compressor cannot be operated when the outdoor temperature is lower than the S3 DIP switch temperature.	[Default] Only one heat pump or auxiliary heat can be operated.The system makes judgments according to the following rules: 1) When the outdoor temperature is lower than the S3 DIP switch temperature, the compressor is not allowed to operated, but auxiliary heat is allowed to operated; 2) When the outdoor temperature is ≥S3 DIP switch temperature +2(°C), the compressor can be operated, but auxiliary heat cannot be operated.	

Controls

45MU(A,H)A Set Up Options (end)

Full DIP/Rotary Switch Explanations

Scenario 1
24-Volt Control – S1, S2 to ODU

Scenario 2
1401 Wired Control – S1, S2 to ODU

Scenario 3
24-Volt Control – 24-Volt to ODU

SW1	Control type	IDU and ODU Connection	Note
ON 1 2 3 4	Wired controller / 24V thermostat	(S1+S2) / 24V connection	Auto Discovery
ON 1 2 3 4	Wired controller	S1+S2	Scenario 2
ON 1 2 3 4	24V Thermostat	S1+S2	Scenario 1 (no outdoor unit clean function[*1])
ON 1 2 3 4	24V Thermostat	24V connection	Scenario 3

[*1]: Outdoor unit clean function means reversing outdoor fan to blow away dust and other attachments on the fins

Scenario 1 & 3

24-Volt Control

Scenario 2

1401 Wired Control

NO.	DIAL CODE	CONTROL SCENARIO	FUNCTION	ON	OFF	NOTE
9	Rotary Switch S3	1,2	Set outdoor temperature Limitation (for auxiliary heating or compressor)	Table A		SW2-4 and S3 need to working together
10	SW3-1	1	Maximum continuous runtime allowed before system automatically stages up capacity to satisfy set point. This adds 1 to 5°F to the user set point in the calculated control point to increase capacity and satisfy user set point	30 minutes	[Default] 90 minutes	
11	SW3-2	1	Cooling and heating Y/Y2 temperature differential adjustment.	Compressor slower speed	[Default] Faster Compressor	Only affects compressor
12	SW3-3	1	Compressor Running (demand working with heat pump+ Electric heat)	Compressor slower speed	[Default] Faster Compressor	Only affects compressor and W2
13	SW3-3	2	Temperature differential to activate second stage auxiliary heating (the GAP of T1 and Ts) Wire controller demand with heat pump + Electric heat working together	4°F(2°C)	[Default] 6°F (3°C)	
14	SW3-4	1,3	Fan speed of cooling mode when 24V Thermostat is applied for.	Turbo	High	
15	SW4-1 SW4-2 SW4-3	1,2,3	Electric heat nominal CFM adjustment	Available settings are 000/001/010/011. Each digit corresponds an individual switch position. For example [SW4-1 OFF, SW4-2 ON, SW4 -3 OFF] = 010		
16	SW4-4	2	Temperature differential to activate third stage auxiliary heating (the GAP of T1 and Ts) Wire controller demand with heat pump+ Electric heat working together	6°F(3°C)	[Default] 8°F (4°C)	Only valid for product which has three stage auxiliary heating.
17	S4-4	1,3	Default ON	[Default] For single stage supplemental heat,W1 and W2 are connected	For dual stage supplemental heat, W1 and W2 are controlled independently.	
18	S4-2	1,3	DH function selection	[Default] Dehumidification control not available	Dehumidification feature is enabled through thermostat	
19	SW5-3	1,2,3	L or Alarm relay selection	L output 24V or alarm relay close only when refrigerant sensor fault or R454B refrigerant leakage be detected	[Default] L output 24V or alarm relay close when any fault be detected	
20	SW5-4	1,3	R output selection	R stops output 24V when R454B refrigerant leakage is detected	[default] R keeps output 24V even when R454B refrigerant leakage is detected	

Controls

Scenario 1 & 3
24-Volt Control

Scenario 2
1401 Wired Control

37MU(R,H)A Set Up Options

Full DIP Switch Explanations

All dipswitches are defaulted to OFF

- SW-2 changes the method of communication
- SW-3 increases compressor speed to reduce runtime
- SW-4 enhanced defrosting

Dial Code	Features	ON	OFF
SW-1	Function to be defined	N/A	N/A
SW-2	Communication Method Code	24V Communication (scenario 3 only)	S1, S2 Communication (scenarios 1 and 2 only)
SW-3	Recovery Time Enhancement (scenario 3 only)	Increases compressor frequency for quicker recovery to set point	Default Settings (scenario 1 and 2 only)
SW-4	Enhanced Defrosting Function (all 3 scenarios)	Enhanced Defrosting	Default Setting (standard defrost algorithm)