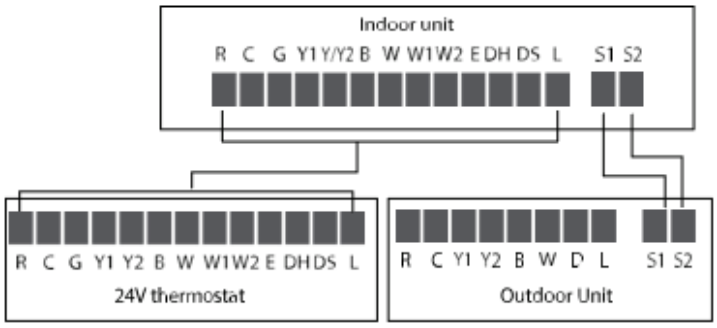
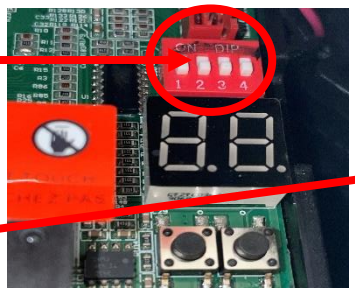
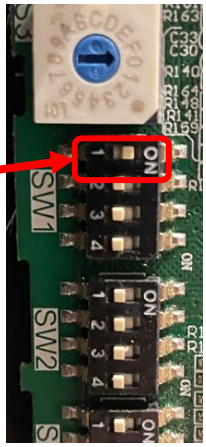
Scenario 1

- _____ Communication + _____ Heat-Pump Thermostat
  - System operation with **RS485** (***S1/S2***) and third-party heat pump thermostat
- Wire thermostat according to preference
  - Can handle up to _____ – configure for Heat Pump operation *(**B** Terminal for Heat)*
  - Emergency heat no longer requires a SPDT relay
  - **Y1** and **Y2** outputs are available to adjust capacity control algorithm
  - **W** terminal allows for conventional thermostat use



- Outdoor Unit (**ODU**)
  - Dip switches should be in the _____ position
    - *Factory default*
- Indoor Unit *(**IDU**)*
  - Turn _____ bit 1 to the _____ position
    - *Factory default **OFF***





***NOTE:* Auto detection is available**

- **RS485** communication terminals **S1/S2** utilized on all communicating systems

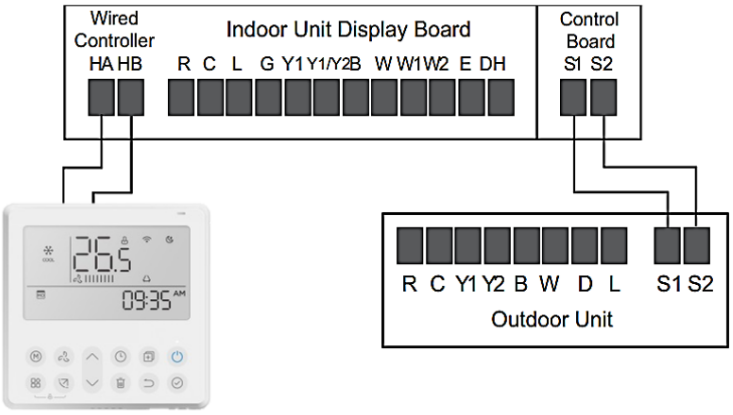
ODU

IDU

- **24V** communication terminals at the indoor unit

Scenario 2

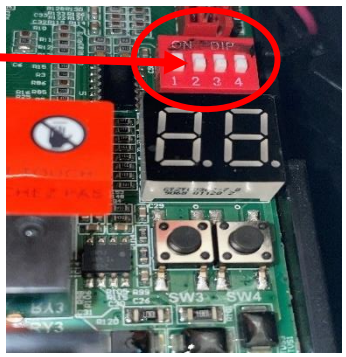
- _____ Communication
  - System operation with **RS485** (***S1/S2***) and **HA/HB**
- System operation with KSACN1401AAA Controller
  - Fully native communicating system using RS485
  - Turbo/Dry Modes/Follow Me/Low-Medium-High Fan Operation
  - Emergency heat mode available
  - Service modes and functions are set via KSACN1401AAA
  - Wall controller must be ordered as an accessory



DO NOT CONNECT 24 VOLT WIRING!

- ***None of the 24-volt connections are active in this scenario***
- ***The system will operate with the native controller as a traditional ductless system***
- ***Wiring the wired controller and the 24-volt thermostat could cause communication issues and damage the communication board***

- Outdoor Unit (**ODU**)
  - Dip switches should be in the _____ position
    - ➢ *Factory default*



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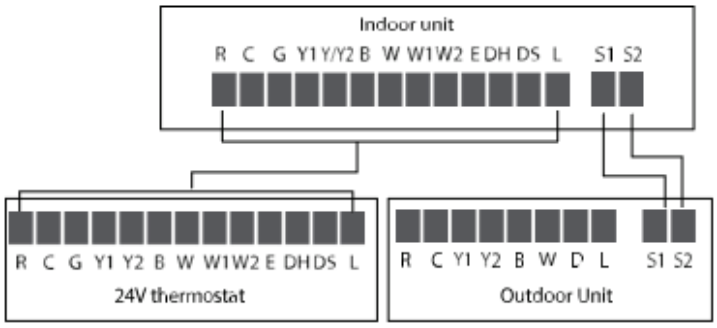

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  - Dip switches should be in the _____ position
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- Indoor Unit *(**IDU**)*
  - Turn _____ bit 1 to the _____ position
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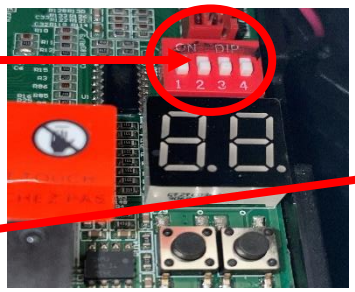
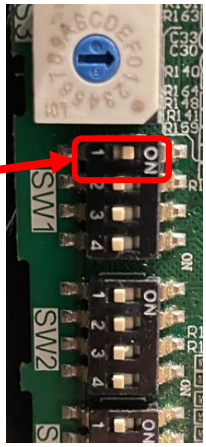




***NOTE:* Auto detection is available**

- **RS485** communication terminals **S1/S2** utilized on all communicating systems

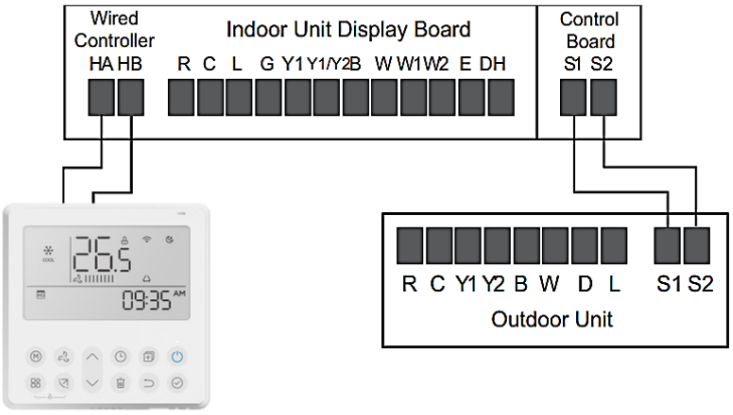
ODU

IDU

- **24V** communication terminals at the indoor unit

Scenario 2

- _____ Communication
  - System operation with **RS485** (***S1/S2***) and **HA/HB**
- System operation with KSACN1401AAA Controller
  - Fully native communicating system using RS485
  - Turbo/Dry Modes/Follow Me/Low-Medium-High Fan Operation
  - Emergency heat mode available
  - Service modes and functions are set via KSACN1401AAA
  - Wall controller must be ordered as an accessory



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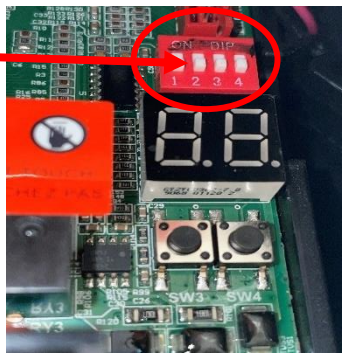
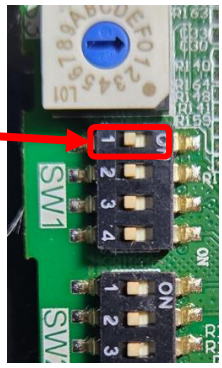
- ***The system will operate with the native controller as a traditional ductless system***
- ***Wiring the wired controller and the 24-volt thermostat could cause communication issues and damage the communication board***

- Outdoor Unit (**ODU**)
  - Dip switches should be in the _____ position
    - ➢ *Factory default*



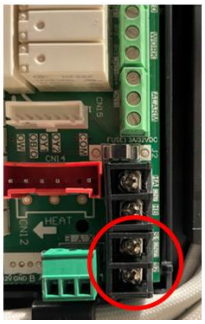
- Indoor Unit *(**IDU**)*
  - Verify _____ bit-1 to the _____ position
    - *Factory default **OFF***



***NOTE:** *Auto detection is available*

- **RS485** communication terminals **S1/S2** Utilized on all communicating systems

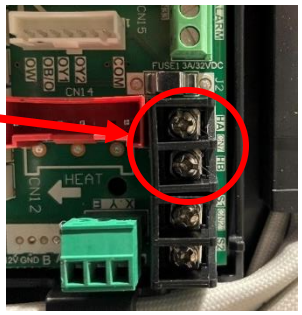
ODU



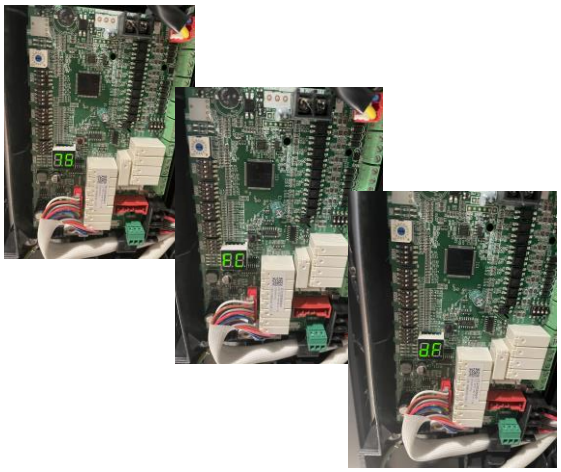
IDU

- Wall controller wiring
  - KSACN1401AAA utilizes 2 Conductors
  - _____ landed on **HA/HB**

- Indoor unit connections
  - **HA/HB**



- **Forced Auto/Cooling/Defrost**
- Only Available When KSACN1001AAA Wired Controller is Used
- Use Black Button on Communication Board for Operation
  - Press _____ for Forced Auto
  - Press _____ for Forced Cooling
  - After 2 Presses _____ Button for Forced Defrost



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] 4°F (2°C)	
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 out-door 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.	
9	Rotary Switch S3	1, 2	Set outdoor temperature Limitation (for auxiliary heating or compressor)	Table A		
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 setpoint.	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	SW4-1,2,3	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 leak detected	[default] L output 24V or alarm relay close when any fault detected	
20	SW5-4	1, 2, 3	R output selection	R stop output 24V when refrigerant sen-sor fault or R454B refrigerant leak detected	[default] R keep output 24V even when refrigerant sensor fault or R454B refrigerant leak detected	

CONTROL SCENARIO		
	24V Tstat, S1 + S2	1
	Wired Controller S1 + S2	2
	Full 24V	3