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# Ductless Indoor Unit Group Control Using the **KSACN0101AAA** Wired Controller



# Overview



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# Overview & Compatibility

# Overview & Compatibility



- Multi head control is compatible with specific indoor combinations listed on the following slide. Indoor units capable of using the KSACN0101AAA Wired Controller are compatible with group control functionality due to the one-way communication style of the KSACN0101AAA controller. Note that controller compatibility is subject to change. Please consult the Compatibility Charts for the latest compatibility.

**Note:** High tier (40MPHA) and Entry tier (40MHH) are not compatible and cannot be used in group control. Group control compatibility depends on the KSACN0101AAA controller. If a unit is not compatible with this controller, then group control is not supported for that unit.

Optional individual and zone control can be achieved by using the KSACN0401AAA, KSACN0501AAA, KSACN0601AAA, or KSACN0701AAA controllers in addition to the KSACN0101AAA controller.

# Overview & Compatibility (cont.)



	Indoor unit type		HIGH WALL			CASSETTE		DUCTED		CONSOLE	
	Indoor Family Name	Single Zone / Multi-zone	40MPHA	40MAQ	40MHH	40MBQB*C	40MBCQ	40MBQB*D	40MBDQ	40MBQB*F	40MBFQ
WIRED CONTROLLERS	KSACN0101AAA	Single Zone & Multi-zone		○		○	○ 9 - 18	●	○	○	○
	KSACN0401AAA	Single Zone & Multi-zone	○	○ †	○						○ 9 - 12 ‡
	KSACN0501AAA	Single Zone & Multi-zone				○	○	○	●		○ 18-58
	KSACN0601AAA	Single Zone & Multi-zone	○	○ †	○						○ 9 - 12 ‡
	KSACN0701AAA	Single Zone & Multi-zone				○	○	○	●**		○ 18-58

○	Optional
●	Standard

## Notes:

† 7 Day programmable compatible with indoor units starting with Serial Number 0216V10001.

‡ Compatible with indoor units starting with Serial Number 0117V10001.

\*\* Starting with Serial Number 2820V10001 (Week 28, Year 2020)

\*24V interface compatible with all indoor units starting with Serial Number 4216V10001 unless noted

† 24V Interface compatible with all the sizes except sizes 12 and 58. Starting with Serial Number 1419V10001 the sizes 12 and 58 are shipped with the compatible control board.

Units built prior these serial number would require a Control Board Replacement on the Indoor unit.

1 Require a Control Board Replacement on the Indoor unit for compatibility, consult EPIC for the latest product revision

Board replacement for forward compatibility is not covered as a warranty claim

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# Wiring & Splicing

# Wiring & Splicing Requirements



- Each indoor unit will require a wiring extension of the **A & B** Signal wires to make the connection to the **KSACN0101AAA** controller.
- The maximum wire length from the controller to indoor unit shall not be greater than 66ft per page 5 of the Installation Manual. The maximum cumulative wiring length shall be no greater than 164ft per the **KSACN0101AAA** submittal. The wiring shall be field supplied and compliant with the Wiring Specifications listed in the **KSACN0101AAA** submittal. Wiring extensions available through RCD (Part # 17401204001601) can be cut and spliced to obtain an extension and the male plug compatible with the existing plug on the indoor unit .

Wiring Type	Size	Maximum Length
Sheathed vinyl cord or cable	16 – 18AWG (0.75 – 1.25MM <sup>2</sup> )	164ft (50m)

**Note:** Additionally, group control functionality requires wires to be spliced. All splicing should be performed by trained personnel in accordance with all applicable NEC & CEC codes.

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# KSACN0101AAA Installation

# KSACN0101AAA Installation Overview

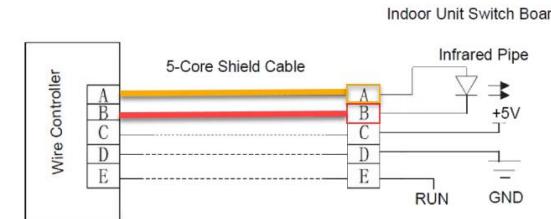


**Please follow all directions in the KSACN0101AAA Installation Instructions when installing these controllers.**

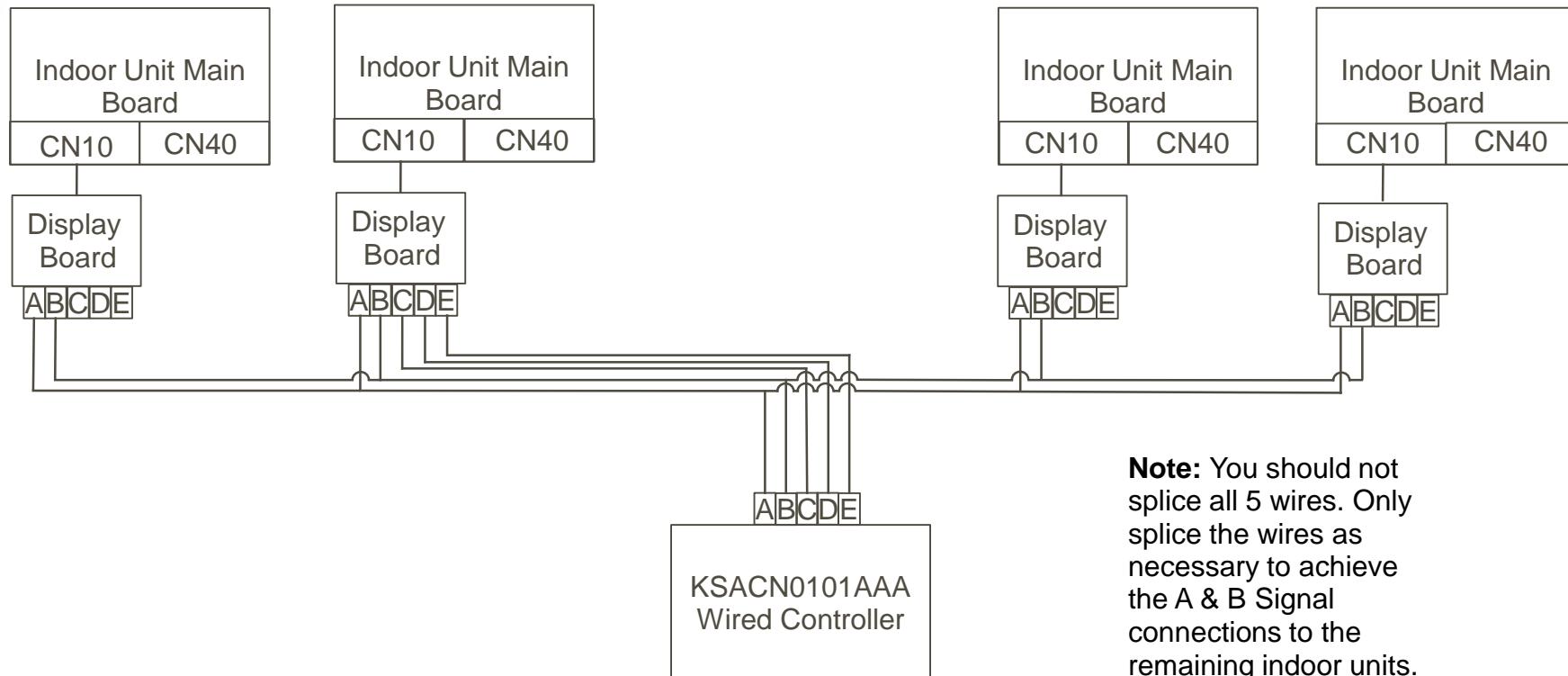
- 1 Remove the upper part of the controller assembly and mount the back plate.
- 2 Route the wires through the controller body. Ensure all wire routing guidelines from the Installation Instructions are followed.
- 3 Connect the wiring plug to one of the indoor units as specified. Wiring extensions are available through RCD in 19ft lengths (KSACN0101AAA Wiring Extension Part #: 17401204001601).
- 4 Splice the A & B Signal wires to make the connections to the remaining indoor units.



**CONNECTION DIAGRAM**



# Group Control Connection Diagram



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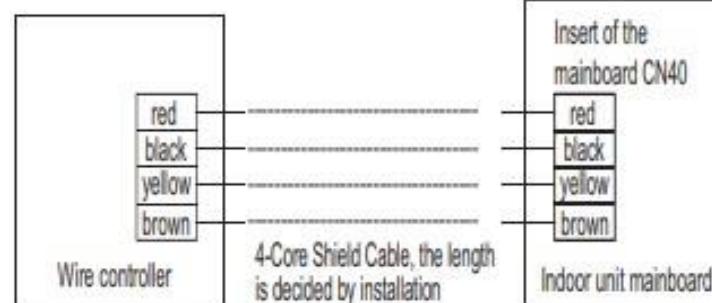
# KSACN0(4/5/6/7)01AAA Installation

# KSACN0(4/5/6/7)01AAA Installation Overview



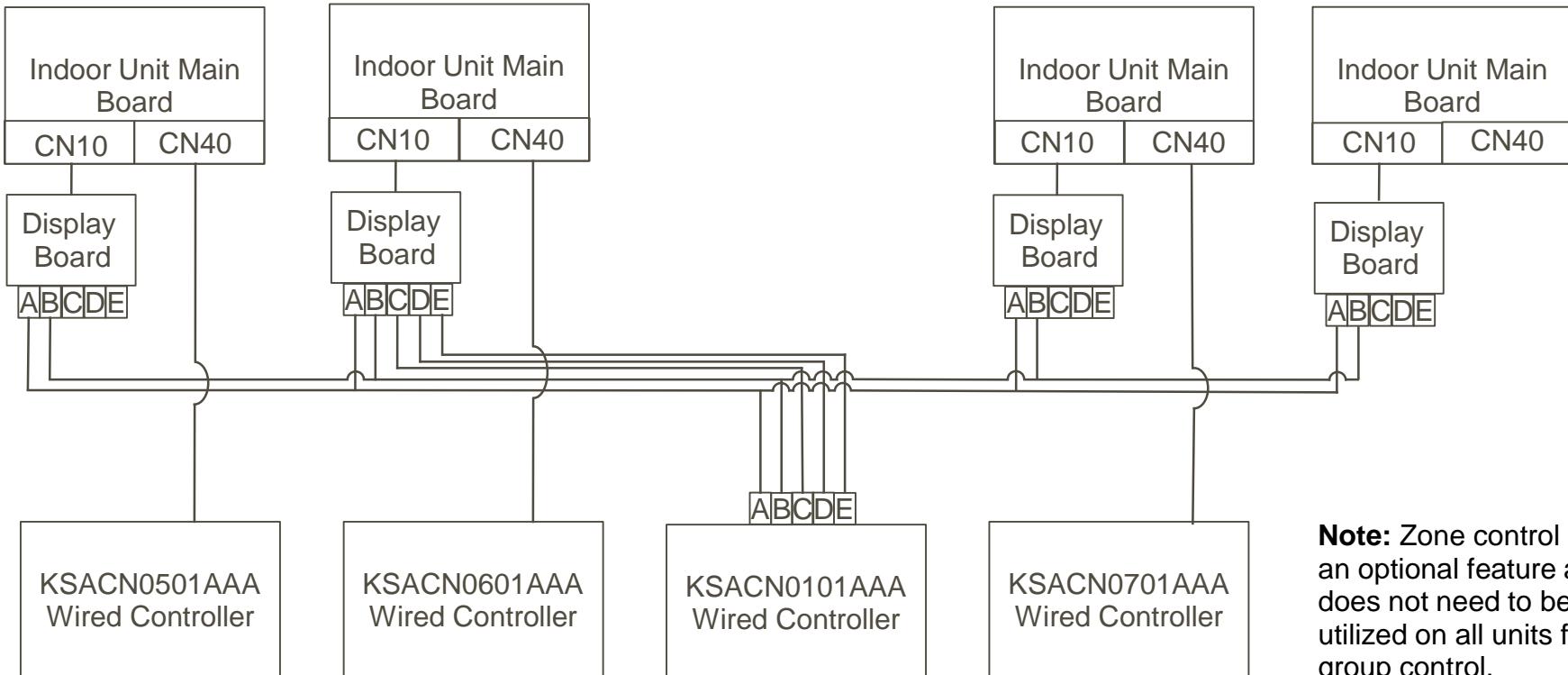
Optional individual and zone control can be achieved by using the KSACN0(4/5/6/7)01AAA controllers in addition to the KSACN0101AAA controller. **Please follow all directions in the KSACN0(4/5/6/7)01AAA Installation Instructions when installing these controllers.**

- 1 Remove the upper part of the controller assembly and mount the back plate.
- 2 Route the wires through the controller body. Ensure all wire routing guidelines from the Installation Instructions are followed.
- 3 Connect the wiring plug to the indoor unit as specified. Wiring extensions are available through RCD in 19ft lengths (Wiring Extension Part #: 17401204000769).



**Note:** The 40MAQ, 619P\*B, and DHMPHA units require the additional installation of a display and adaptor board. Refer to the controller Installation instructions, Appendix 1.

# Group and Zone Control Connection Diagram



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# Operation

# Operation



- Group control is achieved through the one-way communication of the KSACN0101AAA controller. Adjusting a setting on the KSACN0101AAA controller will adjust that setting on all indoor units it is connected to.
- Adjusting a setting on the KSACN0501AAA or KSACN0401AAA controller will adjust that setting only on the unit it is directly connected to (via the Extension Cable).
- When adjusting a setting on the KSACN0501AAA or KSACN0401AAA controller all other units will remain in group control mode at the setting specified on the KSACN0101AAA controller.
- Using the Follow Me functionality on the KSACN0501AAA or KSACN0401AAA controller will allow remote thermostat capabilities at the KSACN0501AAA or KSACN0401AAA controller for the unit it is directly connected to. Using Follow Me on the KSACN0101AAA will allow remote thermostat capabilities at the KSACN0101AAA for all units it is connected to.
- If an indoor unit is using Follow Me functionality with a KSACN0501AAA or KSACN0401AAA controller and a group command, such as mode change or setpoint adjustment, is sent from the KSACN0101AAA controller, then the Follow Me functionality will be shut off from the KSACN0501AAA or KSACN0401AAA controller and the indoor units will revert to reading the temperature from the indoor unit return air sensor.



# Thank You!