



OVERVIEW

CoolAutomation and Legrand have partnered up to provide a seamless integration solution for HVAC Climate control as part of the Vantage Control Systems.

The CoolAutomation devices make it easy for compatible HVAC systems to communicate with a Vantage InFusion System.

They allow full HVAC control through Vantage digital keypads, touchscreens, and a mobile app, in addition to motion sensors and timers. It can also provide feedback of the actual temperature and setpoints on Equinox touchscreens.

ABOUT COOLAUTOMATION

CoolAutomation's solutions are the next evolution of climate and IoT technologies, connecting VRF, VRV, Split, Mini-Split, and other HVAC systems to the local network with open communication protocols. This allows closed and proprietary HVAC systems to communicate with external systems, offering unmatched management of an environment's climate control.

To learn more, visit: <https://coolautomation.com/>

COMPATIBLE VANTAGE SYSTEM CONFIGURATION

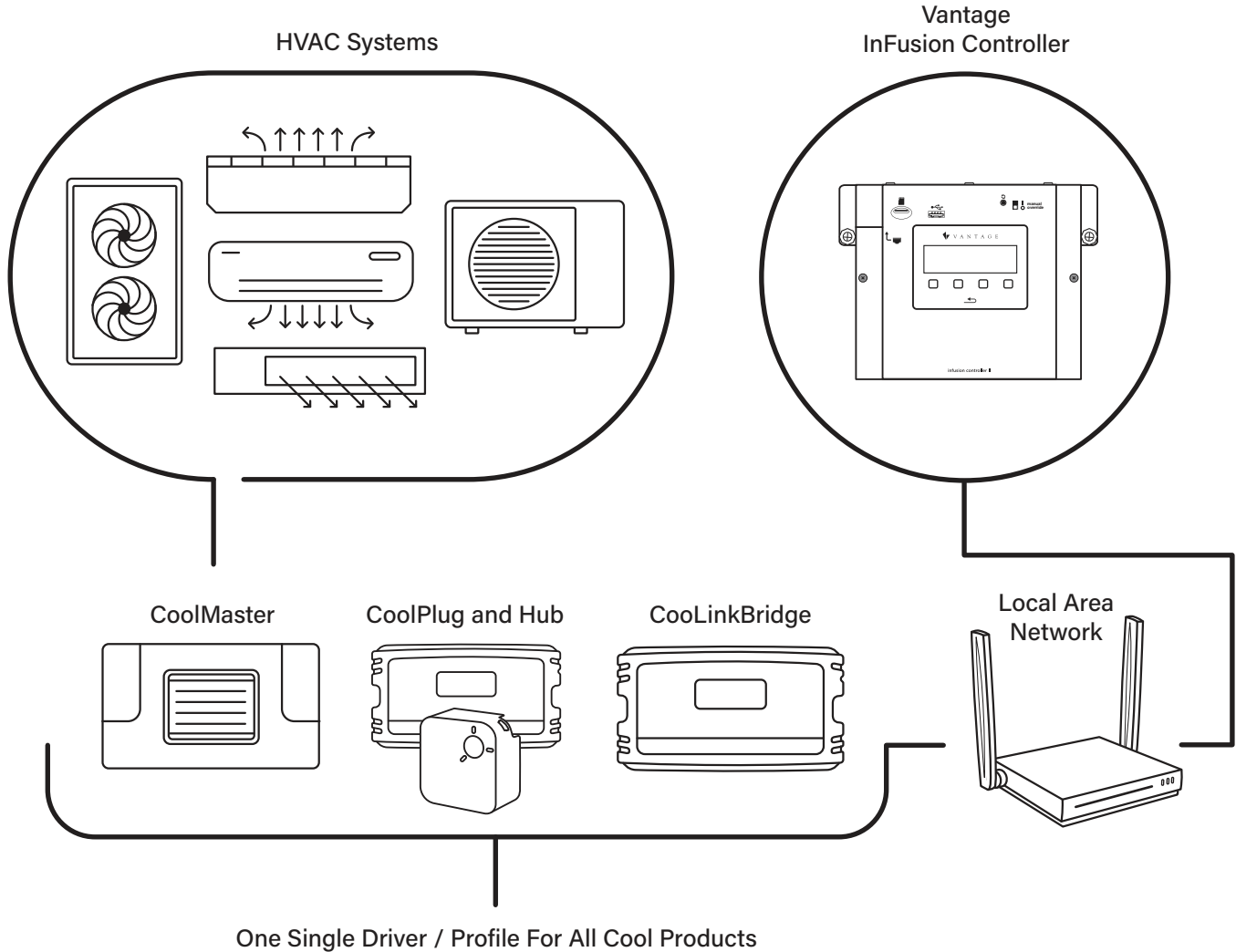
- Certified to work with Equinox products (EQ41, EQ73, and Equinox mobile app, EQ40), using the climate widget
- Certified to work with keypads by the usual task assignment
- Certified with InFusion Controller II, Design Center 4.5, and Equinox 1.6.3
- NOT compatible with older TPTs like 650
- The EQ40 is limited to offering setpoint and HVAC mode, and sets HVAC parameters by assigning it to a digital keypad button
- Keypads can be setup to operate HVAC parameters through the standard HVAC control procedures in Design Center

INITIAL REQUIREMENTS

- Compatible HVAC unit (per compatibility list)
- Total number of HVAC indoor units and HVAC outdoor units to connect
- Network connection to the Local Area Network (LAN) router (DHCP or Static IP assigned)
- CoolAutomation Setup Utility (Free download here: <https://support.coolautomation.com/hc/en-us/articles/5139558696733-Quick-Installation-Tool>)
- IP Address of the CoolAutomation Device (see FAQ, page 25)
- TCP Port Number of the CoolAutomation device (default TCP port number 10102)
- HVAC Indoor Unit (IDU) unique address on the CoolAutomation device to be able to use correct zone parameters on the DC file (example: L1.100, L3.201, etc)
- For VRF and VRV systems - the HVAC system centralized addressing has to be set and commissioned on the units for the CoolMaster Auto Discovery (ask your A/C contractor/installer)

SYSTEM DIAGRAM

CoolAutomation devices will always connect directly to the air conditioning systems, via two wire communication lines. In some cases, the connection will happen at the HVAC Indoor unit, and in other cases it will happen at the HVAC Outdoor units. The CoolAutomation device will communicate with Vantage over a TCP port connection on the Local Area Network. No need for external Cloud-based connections – making the integration and communication reliable, secure, fast and immune to Internet connection issues.



The CoolAutomation line-up of devices is designed for covering a wide range of HVAC systems, HVAC manufacturers and HVAC technologies. The Vantage InFusion communication driver for CoolAutomation is compatible with the following CoolAutomation devices:

- CoolMaster Product Line (CoolMasterNet, CoolMaster, CoolMasterPro)
- CoolLinkHub (with CoolPlugs)
- CoolLinkBridge (with Radiant Heat, Conventional Thermostats, etc)

HVAC SYSTEMS AND COMPATIBILITY

The connection of the CoolAutomation device to the HVAC system depends on HVAC system type, manufacturer, and overall project specifics. Visit [CoolAutomation's Support Center](#) for online documentation, videos, and step-by-step tutorials on how to connect the CoolAutomation Device to the HVAC system.

HEAT PUMPS



UNDERFLOOR HEATING



ZONING SYSTEMS



UNITARY / DX



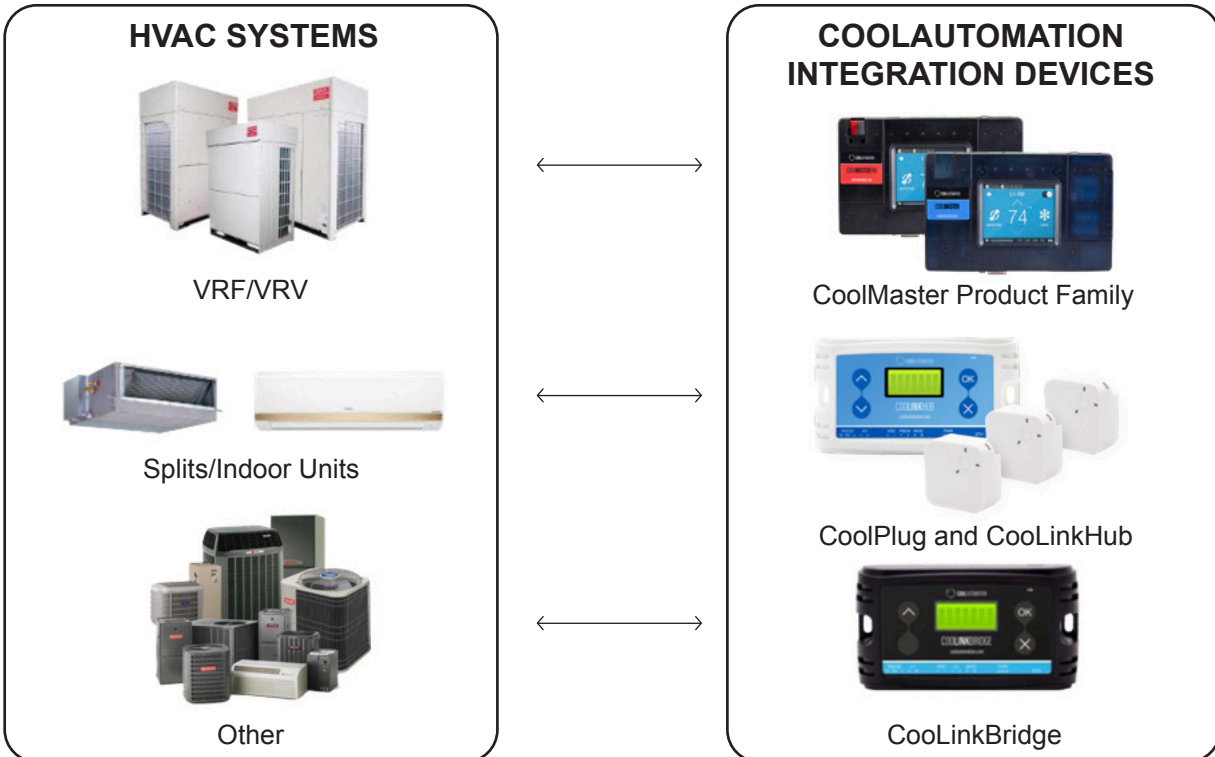
MINI-SPLIT / MULTI-SPLIT SYSTEM



VRF SYSTEMS



INTEGRATION PLATFORMS



COOLAUTOMATION DEVICE HVAC COMPATIBILITY LIST

• Visit the CoolAutomation Support Center for the latest list of Compatible HVAC systems in your market:

<https://support.coolautomation.com/hc/en-us/sections/5009071299101-Compatibility>

• CoolMaster HVAC Compatibility List:

<https://support.coolautomation.com/hc/en-us/articles/5009159720349-CoolMaster-HVAC-Home-Automation-compatibility->

• CoolPlug & CoolLinkHub Compatibility List

<https://support.coolautomation.com/hc/en-us/articles/5038125257373-CoolPlug-CoolLinkHub-HVAC-Home-Automation-compatibility>

• CoolLinkBridge Compatibility List:

<https://support.coolautomation.com/hc/en-us/articles/5038458341661-CoolLinkBridge-HVAC-Home-Automation-compatibility>

SUPPORTED FEATURES

SUPPORTED CONTROL FEATURES:

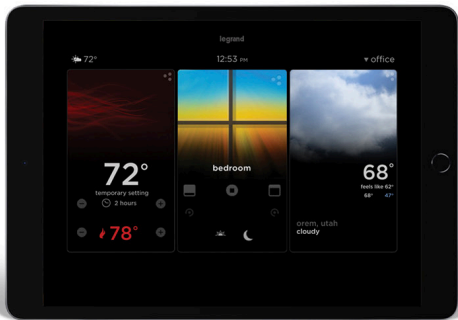
- Operation Mode (Cool / Heat / Auto)
- Setpoint (C or F)
- Fan Speed
- Dry Mode (dehumidify)
- Fan Mode (procedure fan_on)

SUPPORTED FEEDBACK FEATURES:

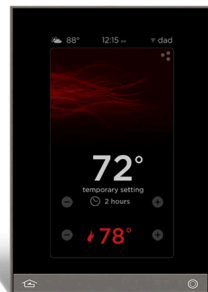
- Operation Mode
 - Setpoint (Cool and heat and auto are always the same)
 - Fan Speed
 - Operation Status (heat/cool/idle)
 - Indoor Temperature - *Possibility to use an external*
 - Outdoor Temperature - *If using an external sensor*
 - Dry Mode On, Fan Mode On*
-

WIDGETS

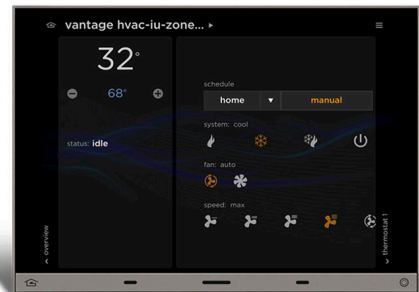
Please see the following examples of the widgets on Equinox devices.



DASHBOARD
EQ73 / iPad / Android Tablet



EQ41 / iPhone
Android Phone

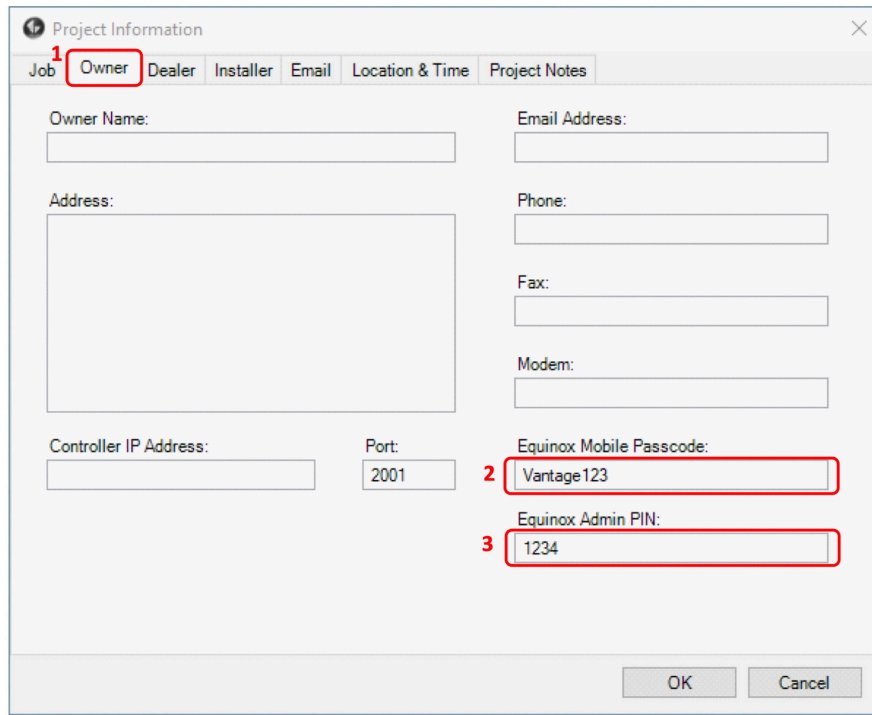


FULL SCREEN
EQ73

VANTAGE INTEGRATION SETUP

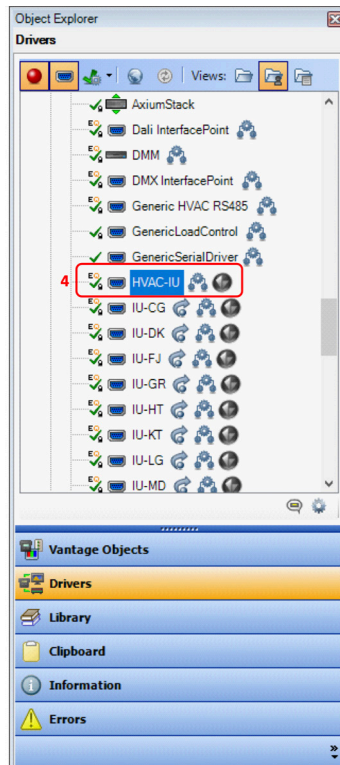
DESIGN CENTER SETUP PROCESS

1. Project Settings - Click on *Settings* | *Project Information* | *Owner* (tab).
2. Fill out the Equinox Mobile Passcode: (alpha/numeric)
3. Fill out the Equinox Admin PIN: (numeric)



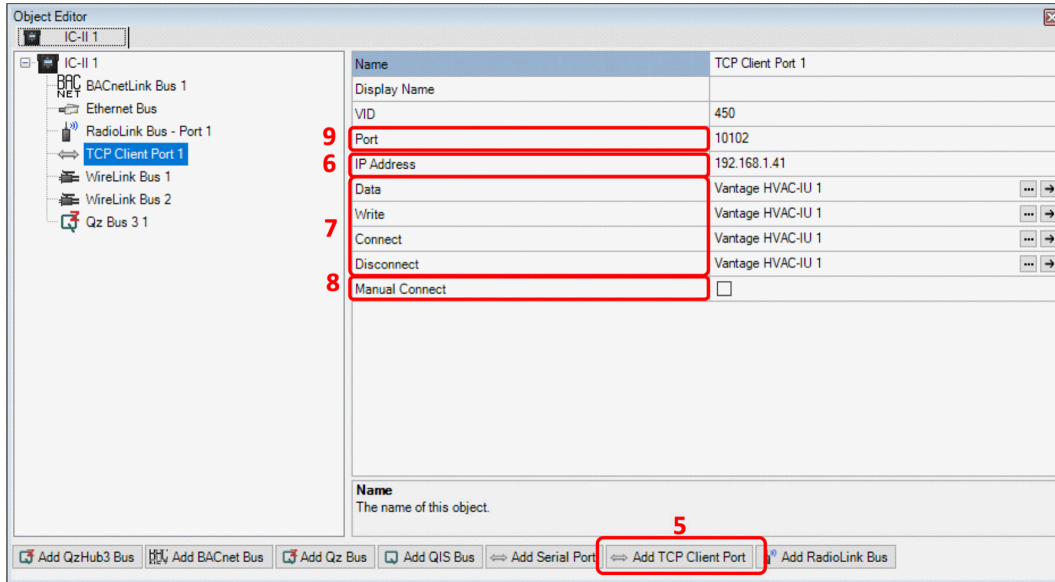
The screenshot shows the 'Project Information' dialog box with the 'Owner' tab selected. The 'Owner' tab is highlighted with a red box and a '1'. The 'Equinox Mobile Passcode' field contains 'Vantage123' and is highlighted with a red box and a '2'. The 'Equinox Admin PIN' field contains '1234' and is highlighted with a red box and a '3'. Other fields include Owner Name, Address, Email Address, Phone, Fax, Modem, Controller IP Address, and Port (set to 2001). The dialog has 'OK' and 'Cancel' buttons at the bottom.

4. Add the driver - In the *Object Explorer*, select *Drivers>Vantage* and double-click or drag the Vantage *HVAC-IU* to add it to the project.



VANTAGE INTEGRATION SETUP *(continued)*

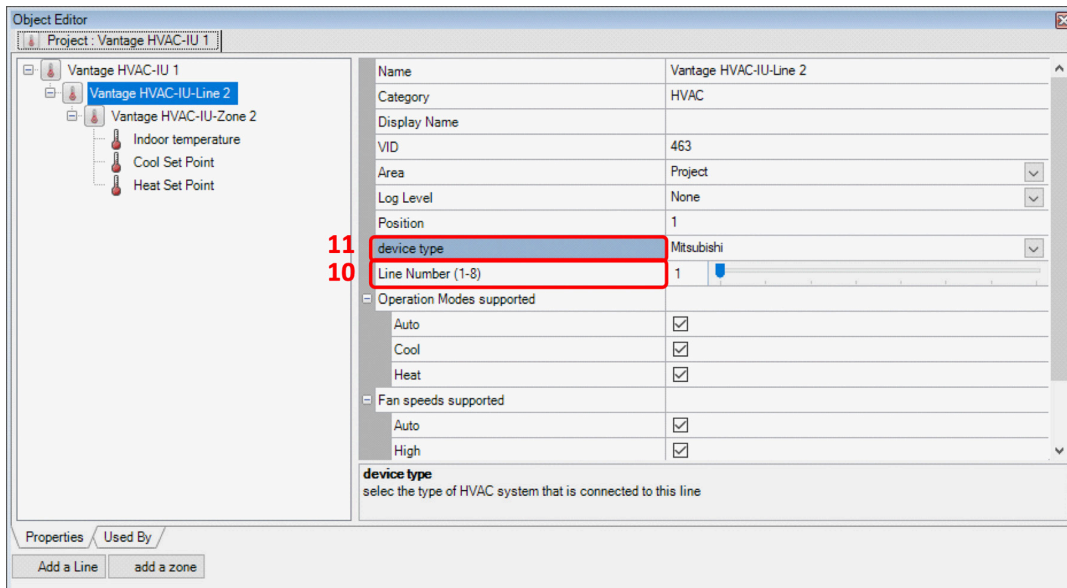
5. **Add Port** – Select a new TCP port.
6. For the TCP port, add the CoolDevice IP address (you can find the IP Address of your CoolDevice directly on the CoolMaster Touchscreen or using the CoolAutomation Setup Utility).
7. Add the Driver to the Data, Write, Connect, and Disconnect fields of the port.
8. Leave *Manual Connect* unchecked.
9. **Set Port** – Set the port to 10102 (This must match what is configured on the CoolDevice, which comes with Default TCP Port 10102)



10. **Line Settings : Set the Device Type** – Use the drop-down list to select the brand of your HVAC equipment connected to the Line Number used on the CoolAutomation device.
11. **Line Settings : Set the Line Number** – Set (1-8) for each physical HVAC communication line added on the CoolAutomation device. Default is Line Number 1.

IMPORTANT NOTES:

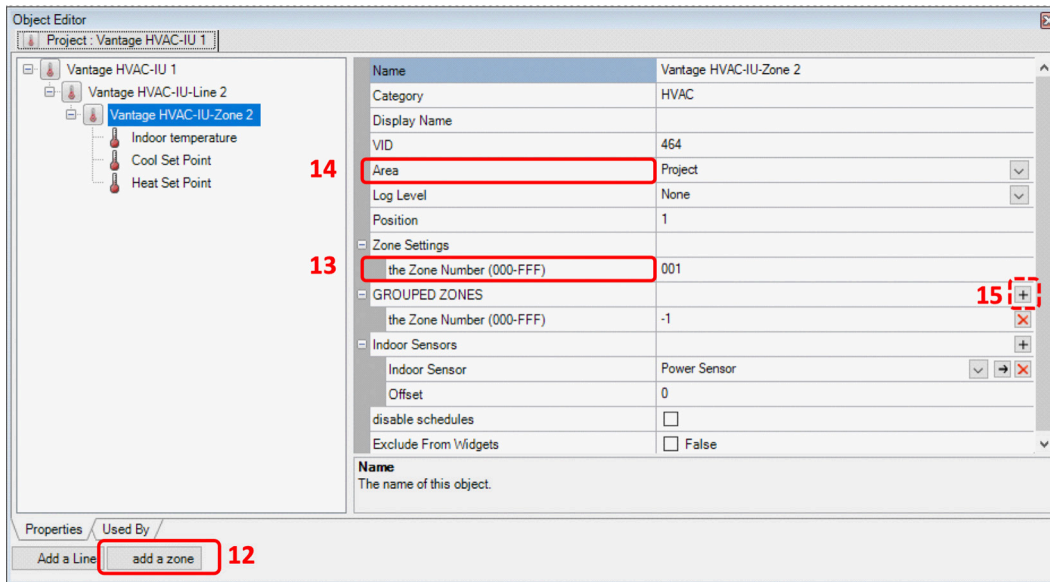
- When using a CoolLinkHub with Wireless CoolPlugs connected: Use Line Number 2
- When using a CoolLinkHub with Wired CoolPlugs connected: Use Line Number 5



12. **Add Zones** – Add one zone for each individual UIDs on the CoolAutomation Device Line (see *Tech Notes* for more information)
13. **Zone Settings** – Set the main Zone Number (000-FFF) for each zone added to that Line. (3 digits, should match the ID on the CoolAutomation Device Line)

VANTAGE INTEGRATION SETUP (continued)

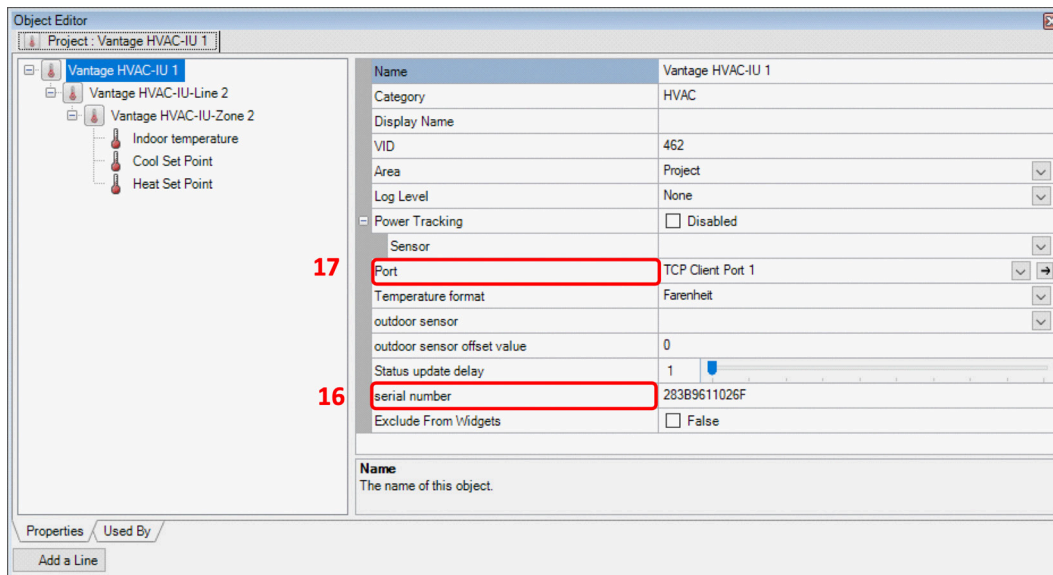
- 14. Set the Areas** – Change the area where the interface is installed. Each zone can be assigned its own area as well.
- 15. Optional** – if zones are grouped on the CoolAutomation Device, use the + icon to add them to the driver. More details under *Important Notes and Recommendations* (pg 28).



- 16. Serial Number** – Enter the serial number that is found on the back of the CoolAutomation Device (also printed on the box). This is required for establishing the TCP/IP connection. Example of Serial Number below:

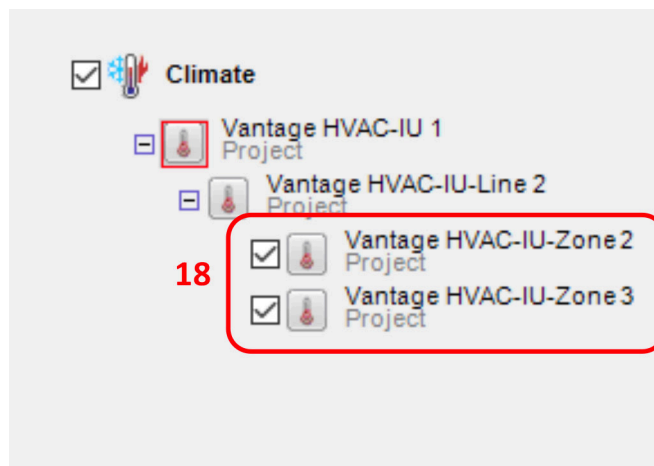


- 17. Set Port** – Set the port that was setup in step 5.



VANTAGE INTEGRATION SETUP *(continued)*

18. Activate Widget – In the *Equinox View*, select the climate widget and select which zones are valid per profile.



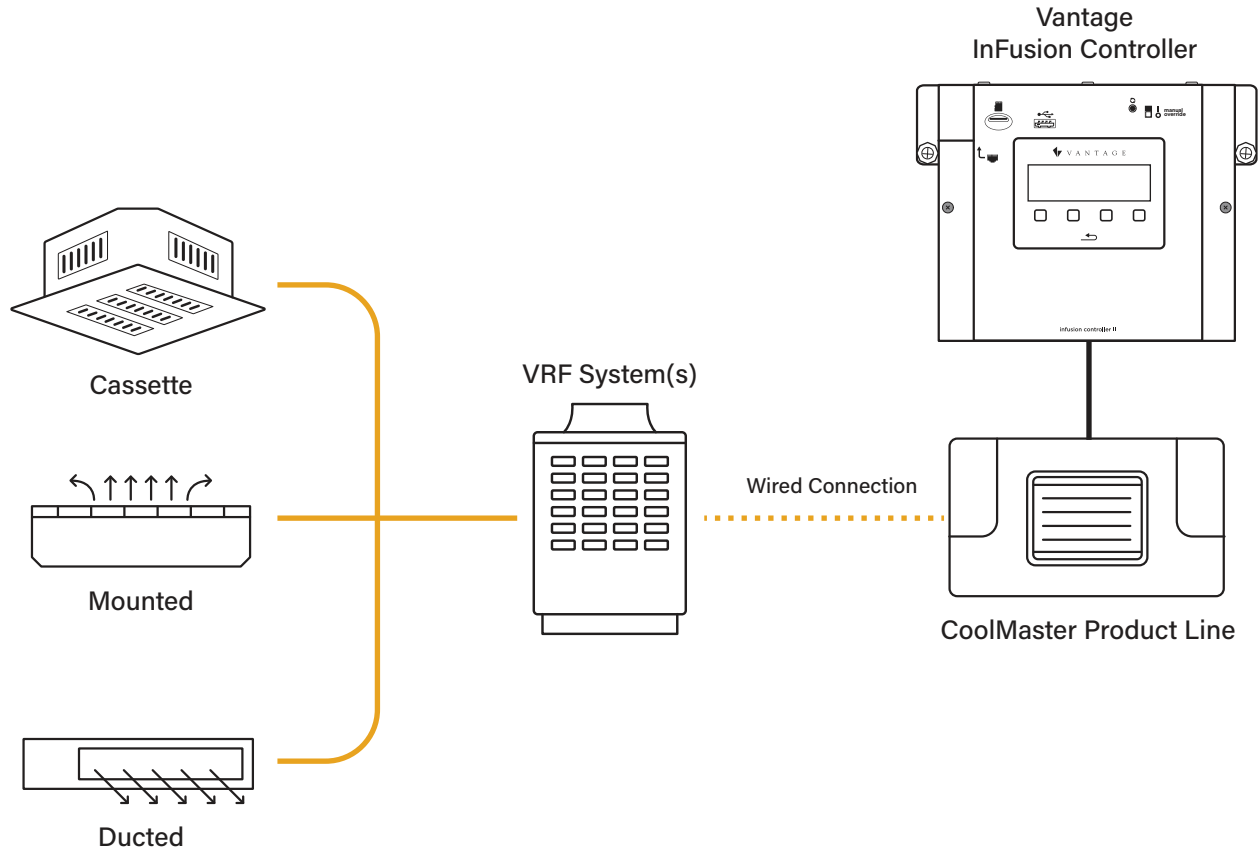
19. Program the Controller– Press *F5* so the controller accepts all the changes applied.

COOLMASTER UNIVERSAL VRF BRIDGE

The CoolMaster product line offers the ability to integrate, control and manage any VRF or VRV HVAC system through a single device. The devices are Plug & Play and do not require prior technical HVAC knowledge. Simply unbox, ensure it is configured to the right HVAC brand using the built-in display, connect as indicated, and done.

The product line includes 2 type of devices: CoolMaster and CoolMasterPro. CoolMaster fits most residential and small-medium commercial settings where the number of indoor units is limited, whereas CoolMasterPro addresses the needs of the mid-to-large commercial market, and comes with comprehensive integration capabilities for very large VRF/VRV installations or sites with numerous indoor or sensor units and more advanced building monitoring, management, service or control requirements.

NOTE: CoolMaster and CoolMasterPro replaced the CoolMasterNet product with its current licensing model.



COOLMASTER HARDWARE FEATURES

- Seamless integration of multiple types of HVAC systems with Vantage .
- Interfaces via RS232 (ASCII), RS485 (MODBUS RTU, BACNET MSTP), Ethernet (ASCII, MODBUS IP, BACNET IP) for all HVAC brands
- Simultaneous multi-brand HVAC support (optional)
- Touch screen display, for system management and control
- Configurable I/O's (optional)
- Control & monitoring of HVAC indoor units operation
- Control.CoolRemote.net — Remote access from Smartphone, Tablet and PC platforms
- HVAC systems diagnostics (optional)
- Direct KNX connection (optional)
- Cloud integration by API (optional)

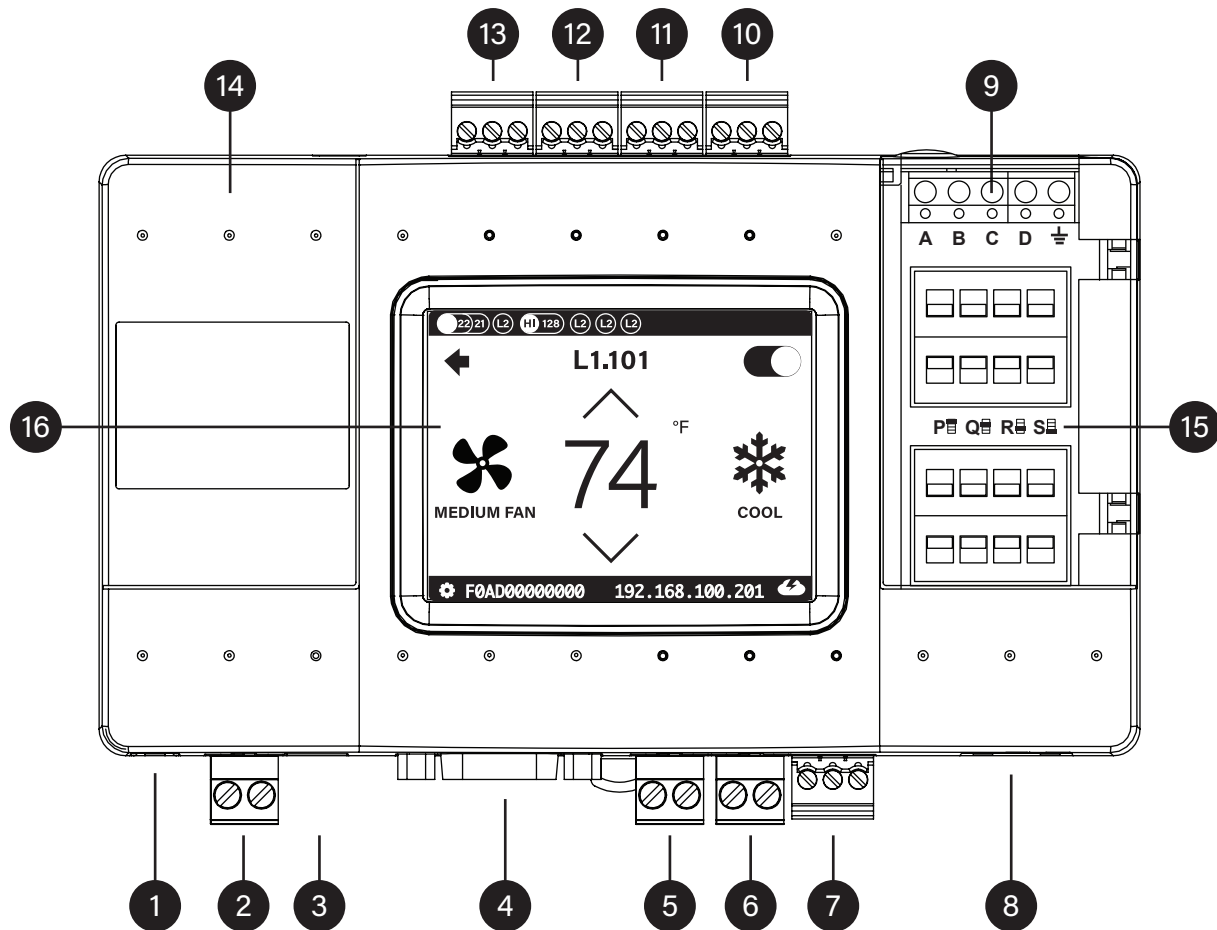
COOLMASTER SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Hardware Dimensions	90mm x 156mm x 35mm (3.54" x 6.14" x 1.33")
Weight	266g (0.58lbs)
Communication Protocol	TCP/IP Recommended or Serial
HVAC Connection Line	Two screw terminals
Power Supply	AC Power supply adapter 100V - 240V 50/60Hz to 12V
LCD Display Information	On / Off Control Auto, Cool, Heat, Fan, Dry mode selection Set Temperature Control, Fan Speed Control Swing Control, Filter Reset Sign Group Operations
HVAC Manufacturer Compatibility List*	Daikin (DK) Mitsubishi Electric (ME), Mitsubishi Heavy (MH) Samsung (SM) LG (LG) Trane (TR) Carrier Midea (MD), Midea (MD) Toshiba (TO) Carrier Toshiba Fujitsu (FJ) Gree (GR) Hitachi (HT) Panasonic (PN) Haier (HA) Chigo (CG) Rheem (RH)

*Visit the CoolAutomation Support Center for the latest list of Compatible HVAC systems in your market:

<https://support.coolautomation.com/hc/en-us/sections/5009071299101-Compatibility>

COOLMASTER HARDWARE DIAGRAM

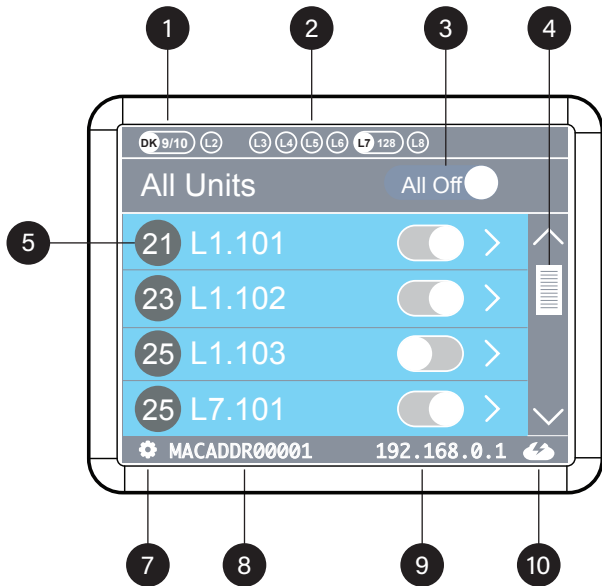


- | | |
|--|---|
| <ul style="list-style-type: none"> 1. USB Type A (Host) 2. Power (Direct 12V-24V DC) 3. Power Plug (100V-240V AC) 4. RS232 Port 5. L1 — HVAC Line 1 6. L2 — HVAC Line 2 7. L3 — RS485 8. Ethernet Port | <ul style="list-style-type: none"> 9. GPIOs 10. L7 — HVAC Line 7 11. L6 — HVAC Line 6 12. L5 — HVAC Line 5 13. L4 — HVAC Line 4 14. USB Mini (Device Port) 15. DIP Switches P, Q, R, S 16. LCD Touch Screen |
|--|---|

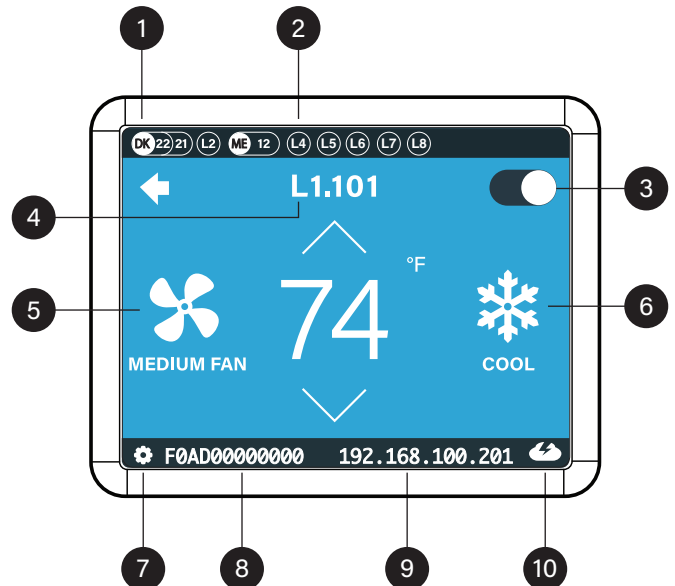
COOLMASTER TOUCHSCREEN DETAILS

After successful installation, the LCD screen will show all the detected indoor units and their statuses

SCREEN #1: MAIN LIST OF INDOOR UNITS



SCREEN #2: CONTROL OF INDOOR UNIT



1. Active HVAC Line (example: DK 9/10) (Groups/Units)
2. Inactive HVAC Line
3. All ON/OFF Operation Button
4. Scrollbar
5. Connected indoor unit with zone number (L1.101) and Set-Point temperature indication (Ex: 21 Celsius).
6. Indoor Unit Operation Button (ON/OFF)
7. Settings Menu Button
8. CoolMaster Device MAC address
9. CoolMaster Device IP address
10. CoolMaster Cloud Connectivity Status



Connected – Communicating



Connected - Idle



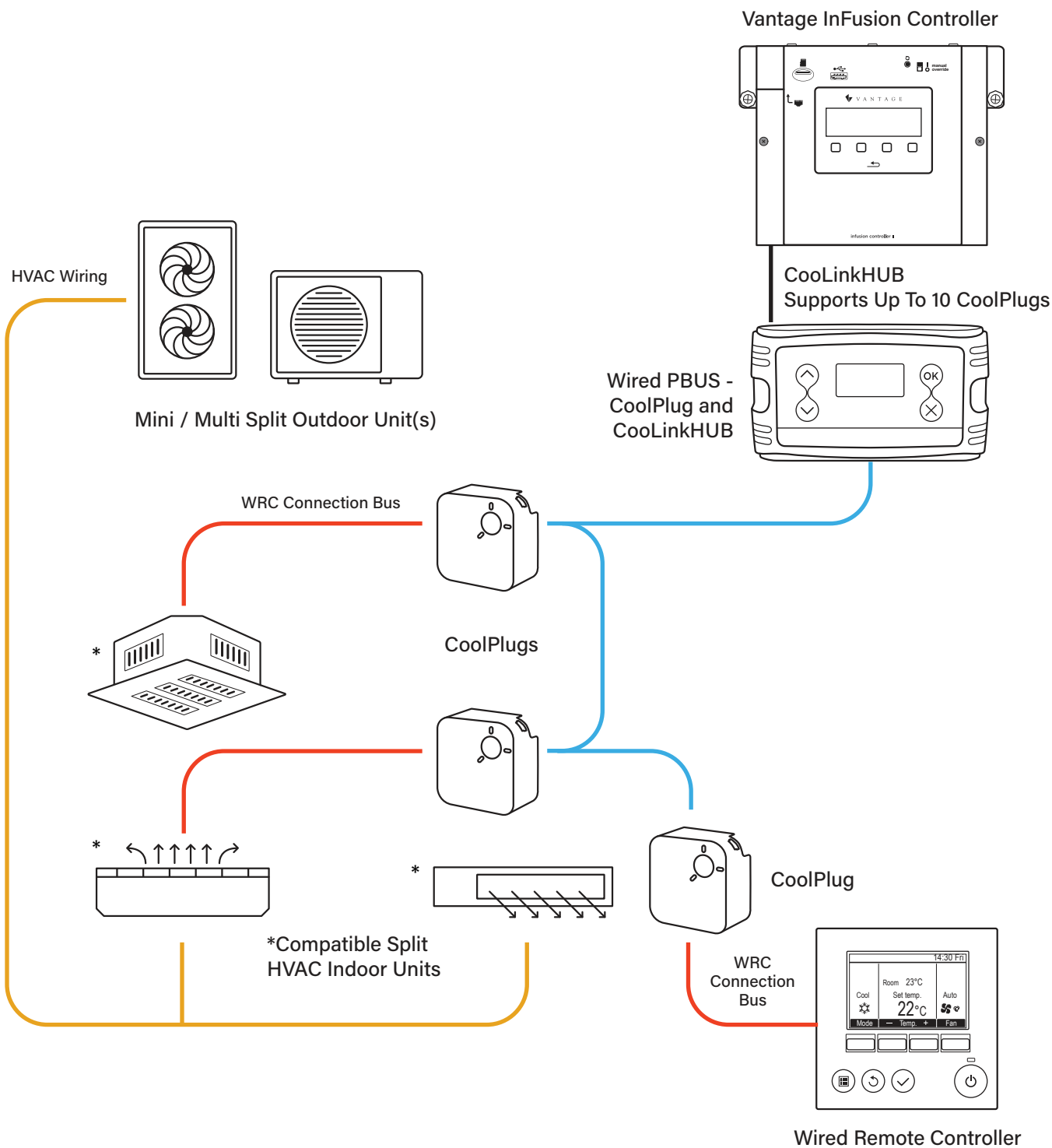
Disconnected - with error code

1. Active HVAC Line (Ex: DK 22/21) Groups/Units
2. Inactive HVAC Lines
3. Turn unit ON/OFF Operation Button
4. Indoor Unit (IDU) address
5. Fan Speed Control Button
6. HVAC Unit Mode Control Button
7. Settings Menu Button
8. CoolMaster Device MAC Address
9. CoolMaster Device IP Address
10. CoolMaster Cloud Connectivity Status

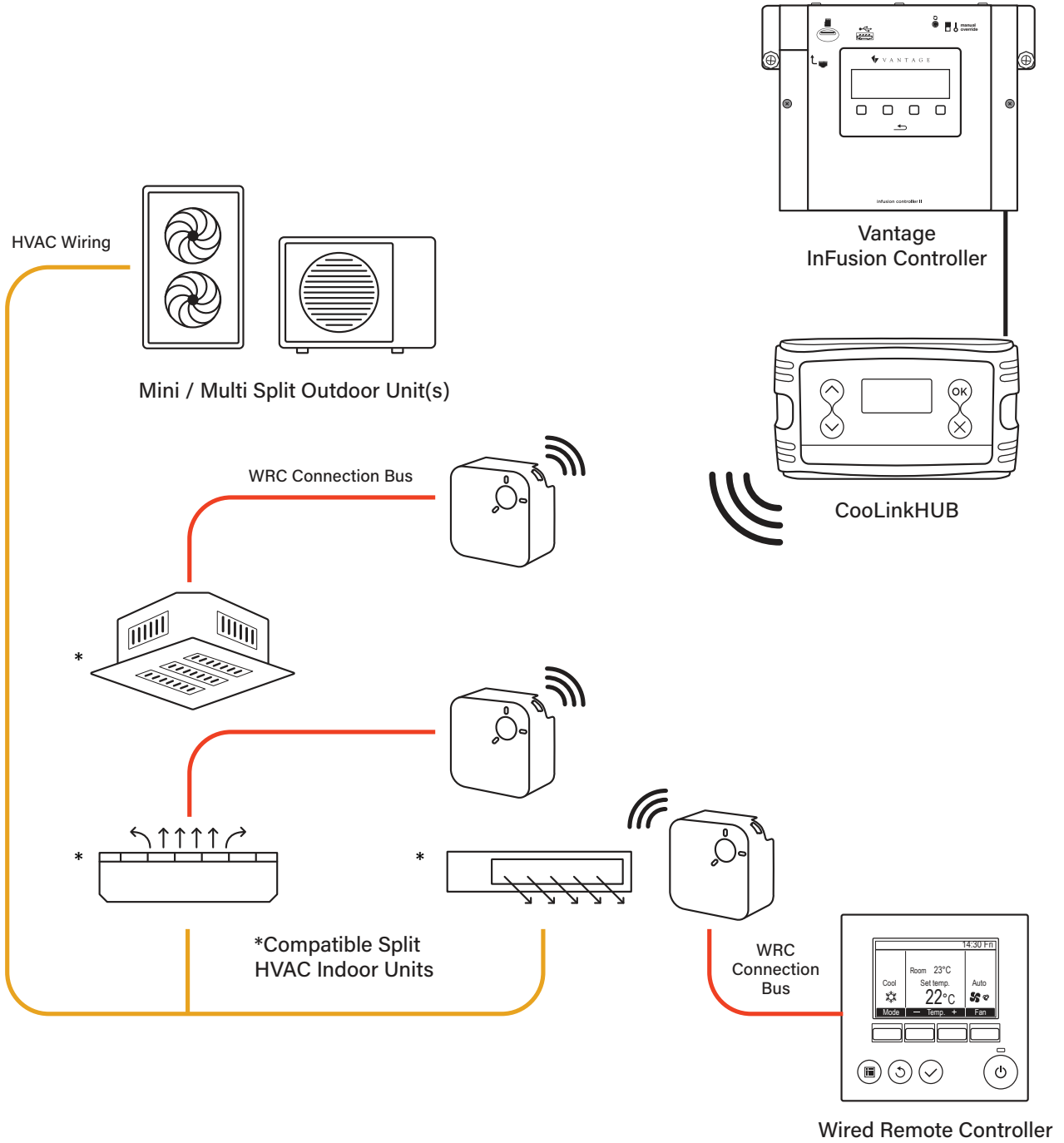
COOLINKHUB - SMALL AND MID-CAPACITY SPLIT SYSTEMS

The Wired and Wireless Interface Adapter is used for integration of Multi-Split and Split HVAC Systems. CoolPlug and CoolLinkHub are CoolAutomation's solution to help you remotely access and control indoor VRF, indoor VRV, Multi-split and mini-split air conditioning systems. This solution enables simple integration with the Vantage Control System, as shown below.

SPLIT WIRED SYSTEM DIAGRAM



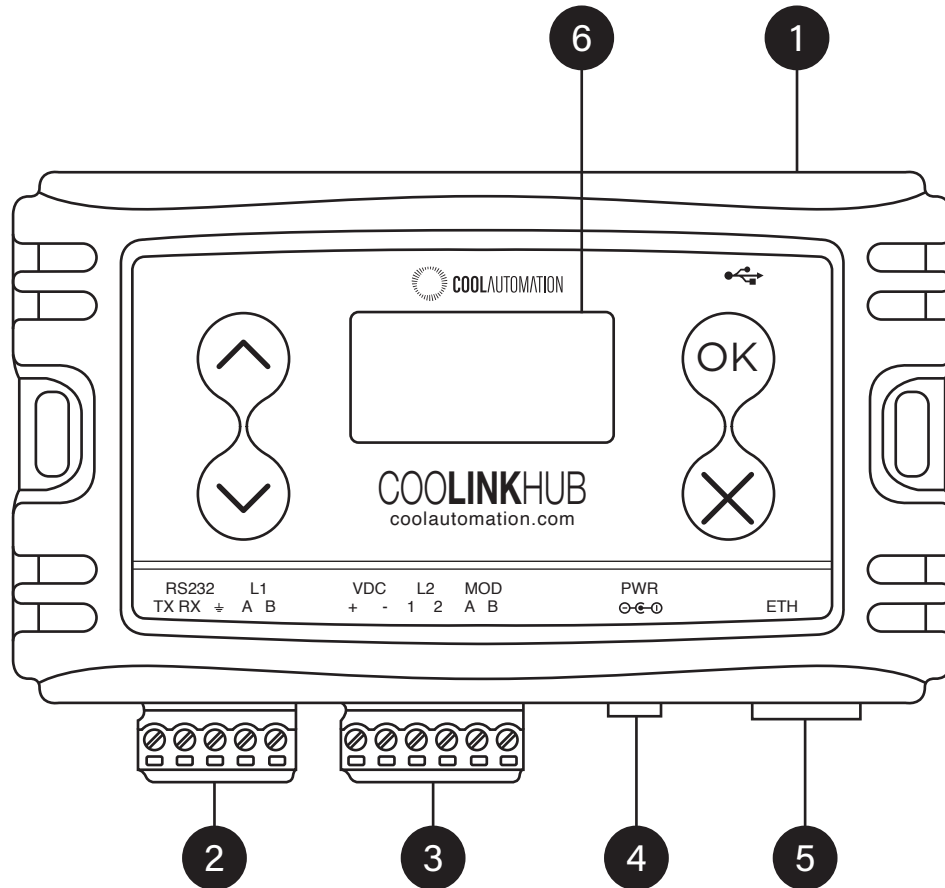
SPLIT WIRELESS SYSTEM DIAGRAM



COOLINKHUB PRODUCT OVERVIEW

Wired and Wireless Interface Adapter for the integration of Multi-Split and Split HVAC Systems. CoolPlug and CoolLinkHub are CoolAutomation's solution to help you remotely access and control indoor VRF, indoor VRV, Multi-split and mini-split air conditioning systems. The solution enables simple integration with the Vantage Control System.

The solution supports HVAC professionals striving to deliver a great customer experience and Home Automation integrators needing to save time on complex HVAC integration.



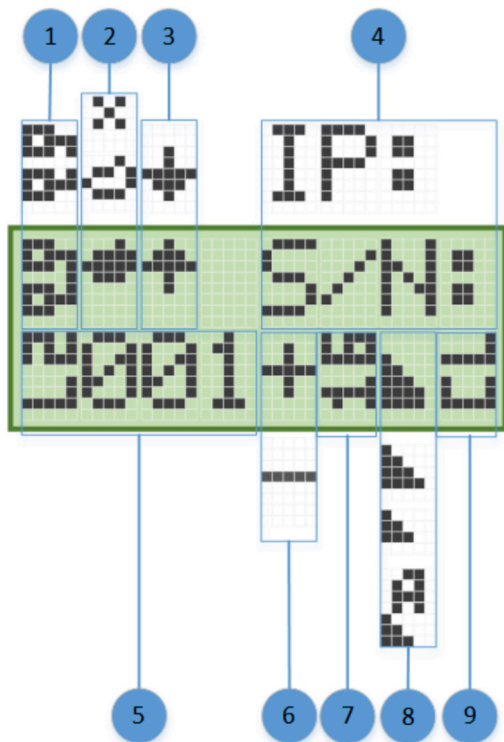
1. Mini USB Device Connector
2. RS232, I/O Connector
3. HVAC L2, Modbus Connector
4. Power / Position of KNX option
5. Ethernet Connector
6. LCD Screen

COOLINKHUB SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Hardware Dimensions, HWD	2.56" x 4.64" x 1.25" (65mm x 118mm x 32mm)
Weight	0.26 lb (0.12 kg)
Surrounding Temperature Limits	14°F - 140°F (-10°C - 60°C)
Operating Humidity	0 - 96%
Maximum PBU Wiring Length	3280 ft (1000 m)
Maximum RS232 Wiring Length	82 ft (25 m)
Maximum Ethernet Cable Length	450 ft (137 m)
CoolPlug - Wired Communication	PBUS Interface 2 wire, shielded, polarized, twisted pair 20-24 AWG
CoolPlug - Wireless Communication	2.4 GHz, Spread spectrum 802.15.4, Wireless mesh
Maximum Connected CoolPlug Units	10
Wireless Range	65 ft (20 m)
RS232 Communication	ASCII Interface
Power Supply	External power supply, 9-24 VDC
Power Consumption	1 Watt

COOLINKHUB LCD SCREENS

CoolLinkHub is equipped with an alphanumeric 8x2 characters LCD that presents most of the important device parametric and status information.



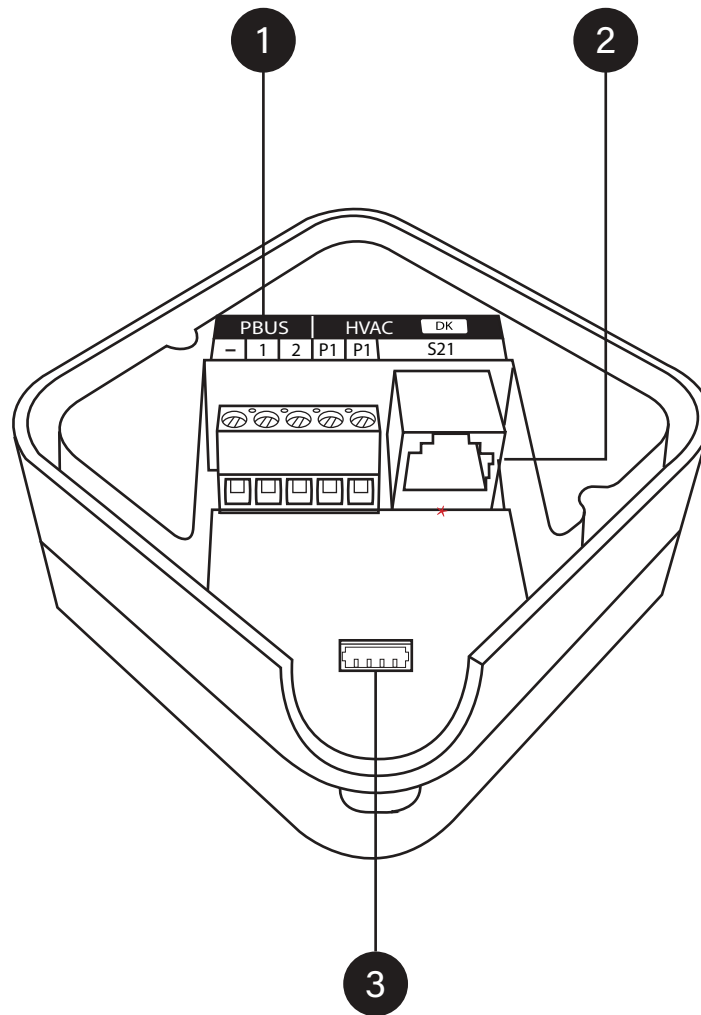
1. ETH Network Connection Status: Disconnected, Connected
2. CoolRemote Cloud Connection Status: Not Connected, Connected, Communication in progress
3. HVAC Line Communication Status: RX, TX
4. Every one minute IP address (if acquired) and S/N are displayed
5. Indoor Unit UID (L2.001 shown)
6. Indoor Unit Status: ON, OFF
7. Set Temperature
8. Fan Speed: High, Medium, Low, Auto
9. Operation Mode: CL-Cool, HT - Heat, FA - Fan, DR - Dry, AU - Auto

COOLPLUG PRODUCT OVERVIEW

CoolPlug is a plug & play device. The integration and installation process is simple and can be synced with CoolLinkHub via a wired or wireless connection. CoolPlug's wireless capabilities are ideal for retro-fit projects, as it eliminates the need for drilling or opening up walls and ceilings. Contact CoolAutomation to confirm compatibility with your HVAC indoor unit and to obtain the right model CoolPlug for it.

CoolPlug and CoolLinkHub work together to create a universal communication channel which enables split HVAC indoor units to work with Vantage Control systems.

CoolPlug and CoolLinkHub provide automation integrators local and remote access to control, monitor, and manage compatible Split, Multi-Split, or Mini-Split HVAC systems through the creation of a bi-directional and universal communication channel between the HVAC and automation systems.



1. PBUS Connector
2. *S21 Connector
3. Connector

***NOTE:** In this example, the S21 Connector is for Daikin. Your version of CoolPlug might have a different connector, depending on different brands of HVAC you are connecting to.

COOLPLUG SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Hardware Dimensions, HWD	2.44" x 2.44" x 1.22" (62mm x 62mm x 31mm)
Weight	0.26 (0.12kg)
Surrounding Temperature Limits	14°F - 140°F (-10°C - 60°C)
Operating Humidity	0 - 96%
Maximum PBVS Wiring Length	3280 ft (1000m)
CoolLinkHub Communication	PBUS Interface 2 wire, shielded, polarized, twisted pair 20-24 AWG
Wireless Communication (Wireless Model Only)	2.4 GHz, Spread spectrum 802.15.4, Wireless mesh
Wireless Range	65 ft (20m)
Indoor HVAC Connectivity	2 Wire, non-polar, 20-24 AWG 3 Wire, polar, 20-24 AWG (Based on the specific indoor unit terminal connections)
Power Supply	8-20 VDC, From indoor unit
Power Consumption	0.4 Watt

COOLPLUG MODELS

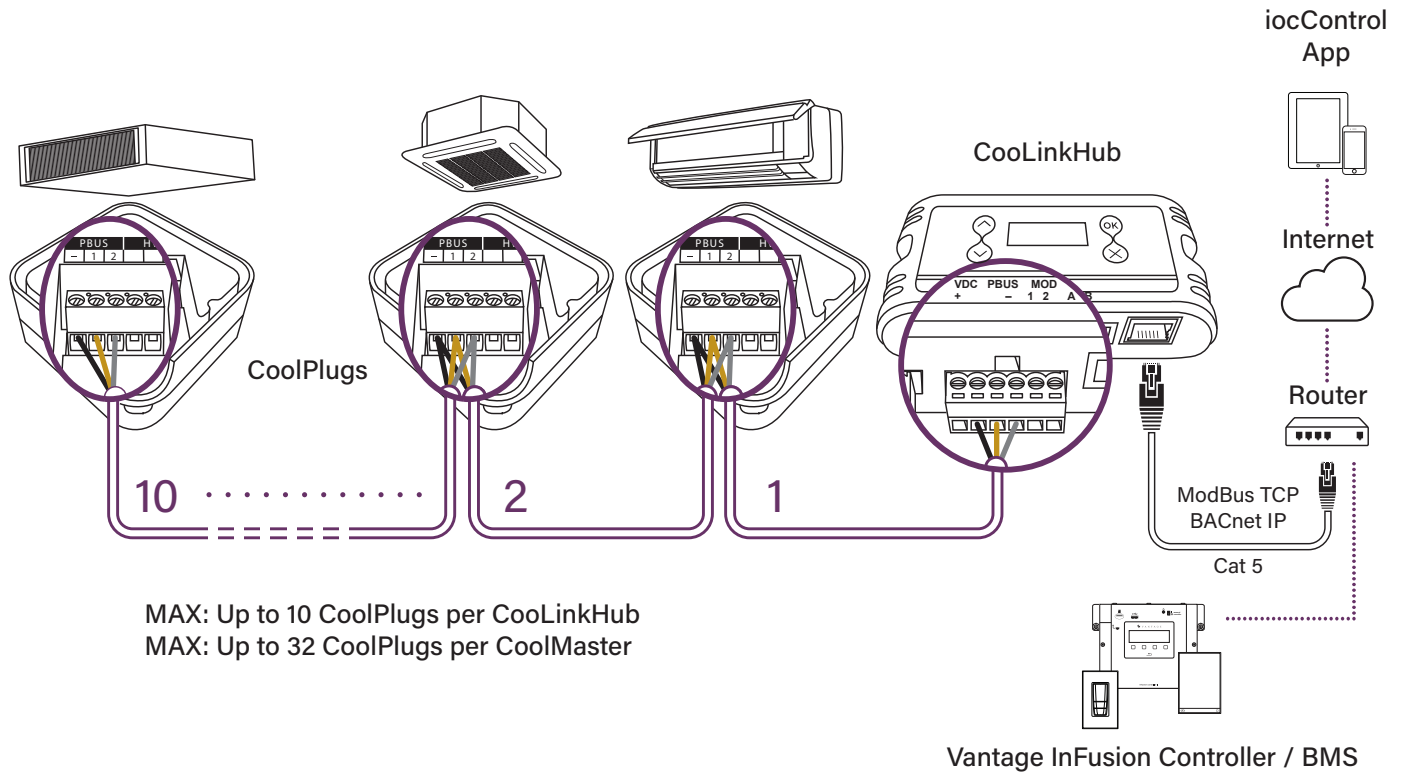
CoolPlug models are HVAC manufacturer specific. Each CoolPlug has a small round sticker with letters on the back (DK, DKS, etc.) indicating the HVAC manufacturer that the CoolPlug is compatible with.

<https://support.coolautomation.com/hc/en-us/articles/4612206118813-CoolPlug-Models>

COOLPLUG MODEL / STICKER	HVAC VENDOR	CABLE INCLUDED	TERMINALS
HVAC - [DK]	Daikin	S21, S21 Narrow	S21, P1 P2, S403
HVAC - [DKS]	Daikin Siesta Series	Siesta	
HVAC - [SA] [TO] [PN]	Sanyo Toshiba Panasonic		A B, R1 R2
HVAC - [PN] [CAPRA]	Panasonic Capra	CAPRA	CN-CNT
HVAC - [FJ]	Fujitsu / General	FJ003	2 Wires, 3 Wires
HVAC - [ME]	Mitsubishi Electric	CN105	CN105, 1 2
HVAC - [MH]	Mitsubishi Heavy		2 Wires Only
HVAC - [HT]	Hitachi		VRF Only
HVAC - [MD]	Midea		X Y E
HVAC - [LG]	LG	LG Split Cable	
HVAC - [GR]	Gree		GMV5 VRF Only
HVAC - [GRTS]	Gree	4 Wire x 4	4 Wires, 2 Wires
HVAC - [SM]	Samsung		4 Wires, 2 Wires

WIRED PBUS - DAISY CHAIN DIAGRAM

PBUS Cable: 2 Wire, shielded, twisted pair 20-24 AWG



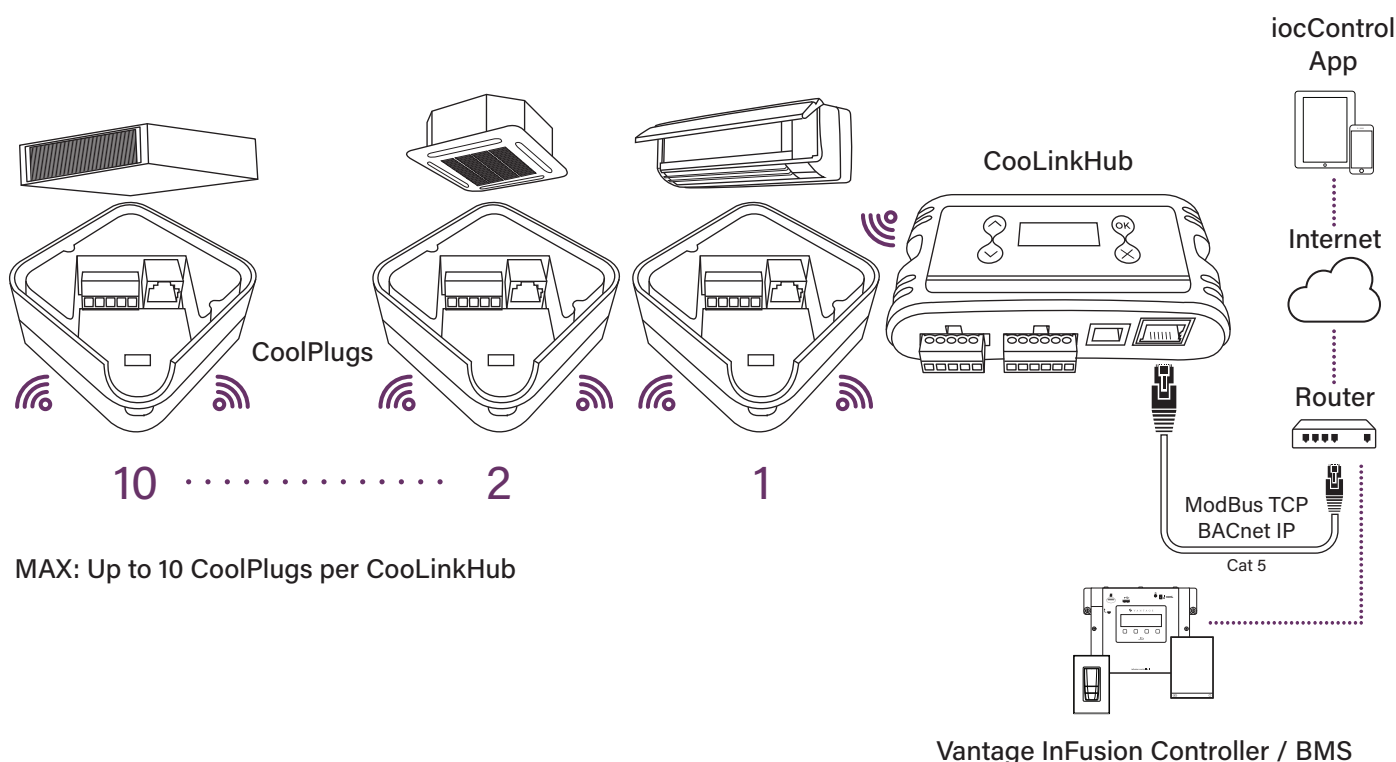
HVAC CONNECTION: WIRELESS TO WIRELESS COOLPLUG-COOLINKHUB NETWORK

WRLS Cool Plugs and WRLS CoolLinkHub communicate with each other using CoolAutomation’s 2.4 GHz proprietary and secured mesh network. Each WRLS CoolLinkHub creates a network and automatically connects to all paired devices within this network (WRLS CoolPlugs). Pairing of the WRLS CoolPlugs with the specific WRLS CoolLinkHub can be factory pre-set (prior to shipment) or configured locally. Up to 10 CoolPlug devices can be connected to a single CoolLinkHub.

The recommended distance between each of the two devices (CoolPlug / CoolLinkHub) is up to 20m (50 ft) line of sight. Please note that concrete walls, ceilings, and other types of obstacles or noise caused from electro-magnetic fields (generated by power cables or other sources), can significantly impact signal strength and will result in reduced distance.

The network topology is a mesh type network, meaning that each device acts as receiver and a transmitter, and repeats the signal. For planning purposes, make sure you have connectivity between each of the two devices (CoolPlug with its neighbor CoolPlug, or CoolPlug with the CoolLinkHub).

WIRING DIAGRAM: WIRELESS INTERFACE 2.4GHZ (MESH)



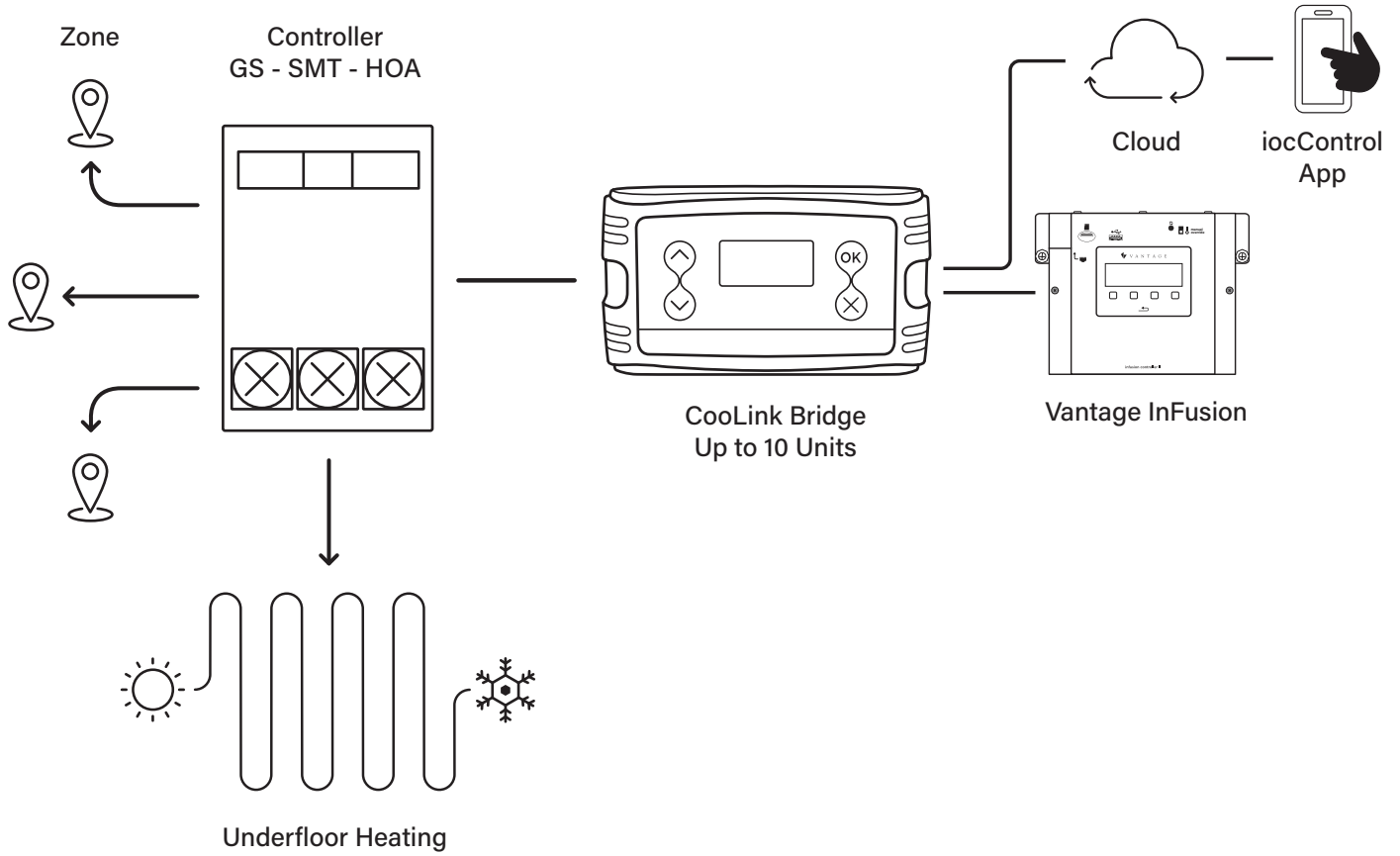
VIDEO: HOW TO PAIR COOLPLUG WIRELESS WITH COOLINKHUB

<https://www.youtube.com/watch?v=AtL1hdMHkOU>

COOLINK BRIDGE - AUXILIARY AND COMPLIMENTARY CLIMATE SYSTEMS

The CoolLinkBridge is an Interface Adapter for the integration of conventional and complimentary climate systems, such as Underfloor Heat systems, conventional On/Off, and 24V control systems.

UNDERFLOOR HEAT SYSTEMS DIAGRAM



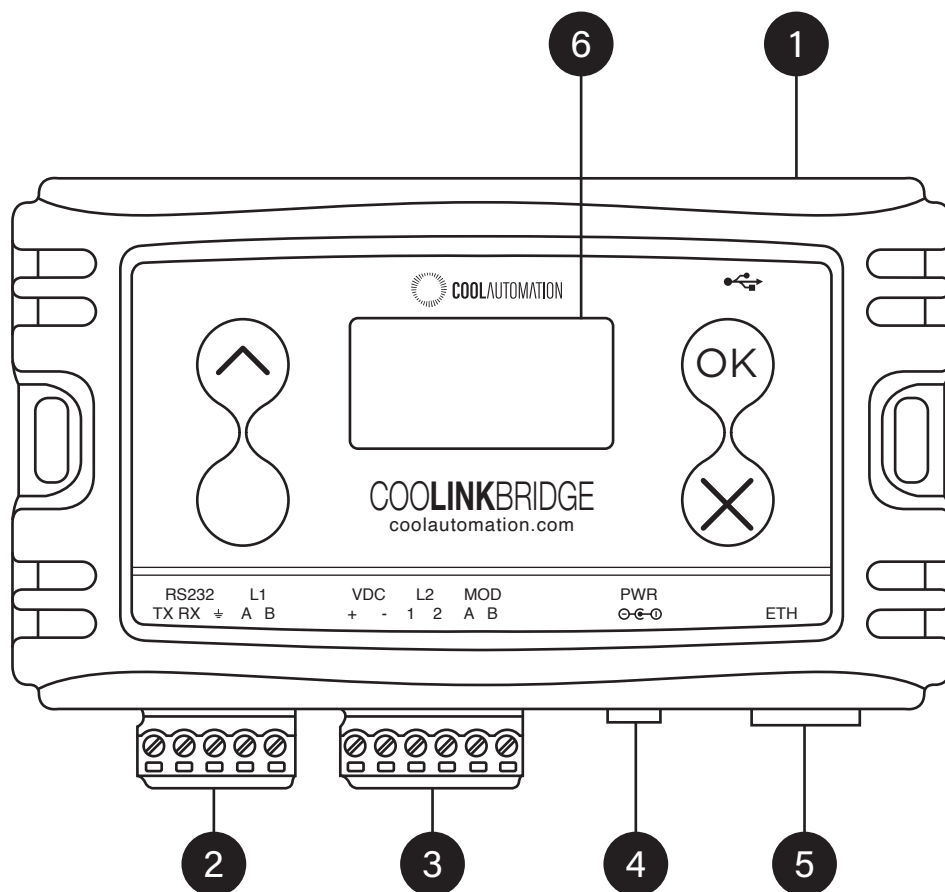
COOLINKBRIDGE PRODUCT OVERVIEW

Auxiliary HVAC systems such as HVAC Zone Control Units, Heat Pumps and Underfloor Heating systems have their own communication protocol and interfaces, which can be complex to integrate into most home and building automation systems, smart home device, or cloud-based control applications. CoolAutomation's offering includes a variety of controllers for non-VRF HVAC systems, such as heat pumps, fan coils, rooftop and packaged units, chillers, on/off controllers and analog & digital external sensors.

CoolLinkBridge opens a seamless and universal communication channel for CoolAutomation-approved 3rd party 24V conventional thermostats, Underfloor Heating controllers, Heat Pumps, Fan coils, rooftops and packaged units, on/off controllers and analog and digital external sensors to connect and communicate with the Vantage Control system. Contact CoolAutomation for more information on these parts.

Underfloor Heating: Allows control of hydronic and electric underfloor heating zones.

24V Control: Allows control of fan coils, heat pumps, rooftop and packaged units via a connection to a 24V control smart touchscreen controller.



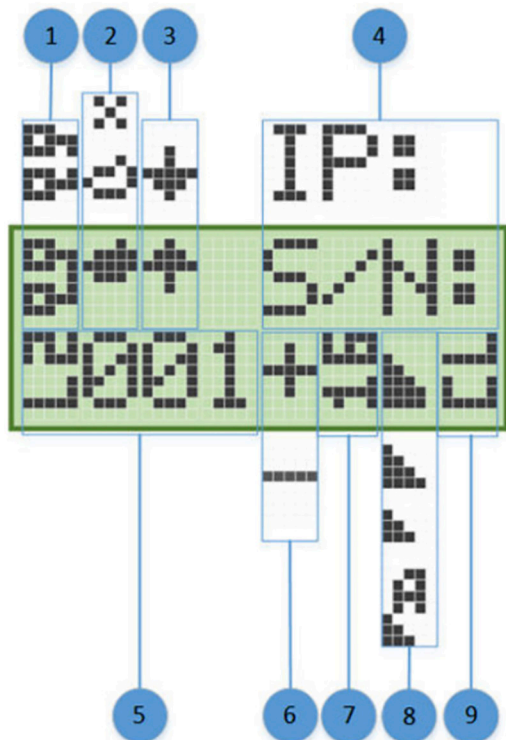
1. Mini USB Device Connector
2. RS232, I/O Connector
3. HVAC L2, Modbus Connector
4. Power / Position of KNX option
5. Ethernet Connector
6. LCD Screen

COOLINKBRIDGE SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Hardware Dimensions, HWD	2.56" x 4.50" x 1.22" (65mm 115mm x 31mm)
Weight	266g (0.58lbs)
Ambient Operating Temperature	14°F - 140° F (-10°C - 60°C)
Operating Humidity	0 - 96% non-condensing
Ambient Storage Temperature	-4°F - 158° F (-20°C - 70°C)
Storage Humidity	0 - 96% non-condensing
LCD Size	2 x 8
LCD Color	Grey
LCD Interface	HD44780
Direct HVAC Connection	Connection to HVAC indoor unit
MODBUS (A / B)	RS-485 Communication line
Ethernet	100 Mbps
RS-232	9600Bps, ASCII
USB Device	12 Mbps
Maximum Allowable Wiring Length To BMS Over RS232	82 ft (25m)
Maximum Allowable Wiring Length To BMS Over RS-485	3,300 ft (1000 m)
Maximum Allowable wiring Length T0 Router Over Ethernet	450 ft (137 m)
Power Supply Min Load	5V60mA (via mini USB); 12V/35mA; 24V/20mA
Power Supply Max Load	5V/100mA (via mini USB); 12V/70mA; 24V/40mA

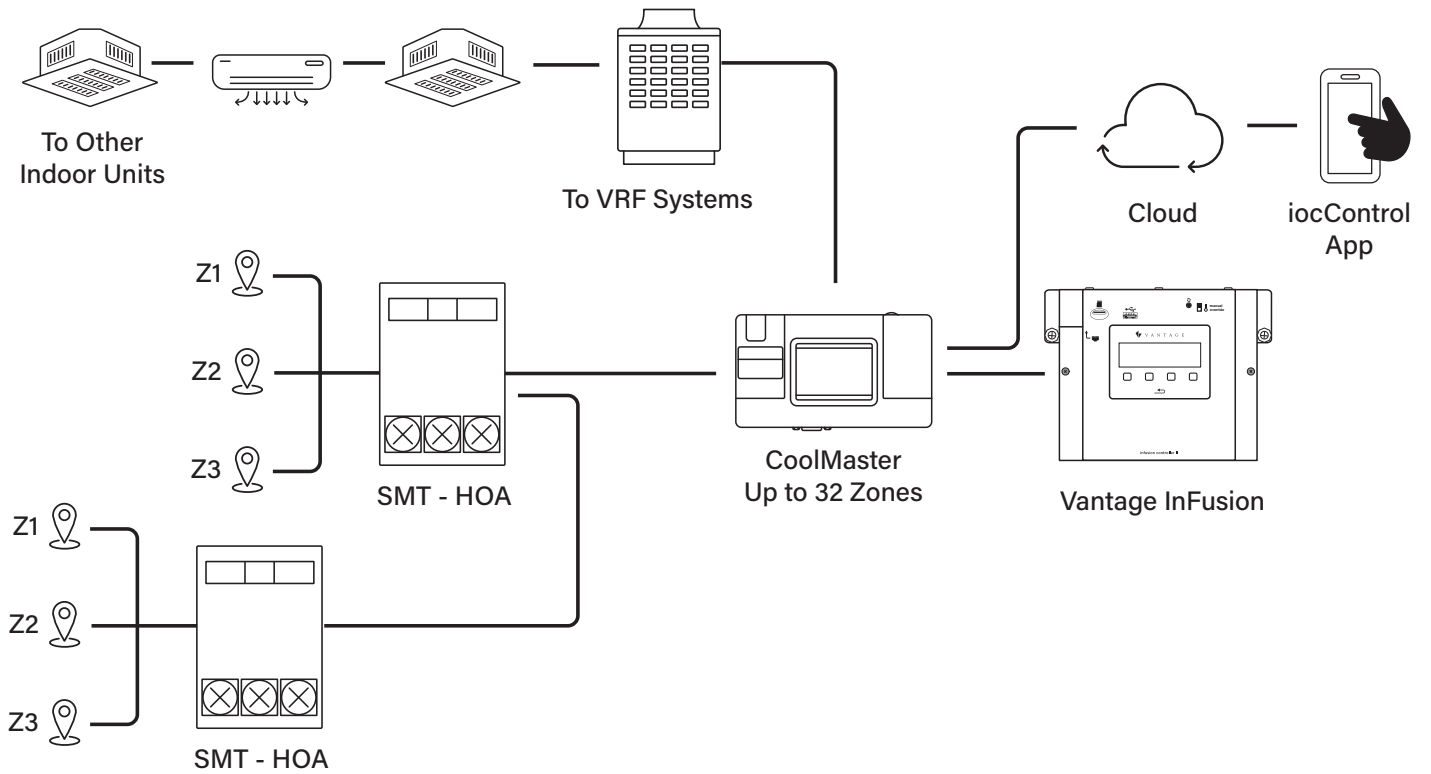
COOLINKBRIDGE LCD SCREEN

The CoolLinkBridge is equipped with an alphanumeric 8x2 characters LCD that presents important device parameters and status information.



1. ETH Network Connection Status: Disconnected, Connected
2. CoolRemote Cloud Connection Status: Not Connected, Connected, Communication in progress
3. HVAC Line Communication Status: RX, TX
4. IP Address (if acquired) and S/N Display (1 min toggle)
5. Indoor Unit UID (L2.001 shown)
6. Indoor Unit Status: ON, OFF
7. Set Temperature
8. Fan Speed: High, Medium, Low, Auto
9. Operation Mode: CL - Cool, HT - Heat, FA - Fan, DR - Dry, AU - Auto

UNDERFLOOR HEATING CONTROLS WITH VRF DIAGRAM



IMPORTANT NOTES AND RECOMMENDATIONS

- By default, 1 line and 1 zone is created automatically. If needed, add additional zones and lines to the driver.
- Each zone represents one HVAC indoor unit.
- The zone numbers (UIDs) can be found on the LCD screen of the CoolAutomation Device.
- The CoolAutomation device allows you to group multiple A/C indoor units together for easier control of common areas.
 - You can add grouped units to a single zone by adding the main zone and clicking on the “GROUPED ZONES +” icon.
 - For each unit added, set the indoor unit’s number. Group zones will follow the main zone, so no separate command need to be sent.

WARNING: If you have a group where you forgot to set the zone number (0-999), then no groups will be used for that main zone.

- A full program is required after changing the address or other properties.
- It is possible to display temperature from the Vantage FLUSHSENSOR on the widget instead of using the built-in A/C sensor readings from the CoolAutomation device.

NOTE: This is merely for display purposes, the HVAC unit cannot use this temperature for control actions.

FREQUENTLY ASKED QUESTIONS

How does CoolPlug communicate with a Vantage InFusion system?

The CoolPlug interface communicates with a Vantage InFusion system via one of the network gateway devices:

CoolLinkHub – This is the most common setup. The CoolPlug can communicate with the CoolLinkHub via either a wireless (mesh) or a hard-wired network. You can connect up to 10 CoolPlugs to a CoolLinkHub

CoolMaster – The CoolPlug can communicate with a CoolMaster via a hard-wired network. You can connect up to 32 CoolPlugs to a CoolMaster (and up to 255 to a CoolMasterPro).

How do I know if the CoolAutomation device is installed correctly?

The best way to test out successful installation and communication between the CoolAutomation device and the HVAC system is via the CoolAutomation iocControl App – which is free and included with all CoolAutomation devices. From there you can test out and confirm proper HVAC control with On/Off commands, set point changes, mode changes, and more.

Do I need to have external Cloud/Internet connection enabled for my CoolAutomation controller?

No, all CoolAutomation devices operate as offline HVAC communication gateways for full control and integration, with no need for external communications. The integration with Vantage systems and all control commands and communication resides local at the Local Area Network level. However, connecting the CoolAutomation devices to the CoolAutomation Cloud allows for easier remote support and remote service capabilities.

Why does my CoolMaster/CoolLinkHub/CoolLinkBridge not communicate properly with my Vantage system or terminal application?

The two keys to establishing communication are:

- 1) Knowing the IP address assigned to the CoolAutomation device,
- 2) Knowing the port number that the CoolAutomation device uses to communicate to other devices on the network

The IP address that is assigned to the interface, from the DHCP server, will show in the lower right corner of the CoolMaster screen and the upper left corner of the CoolLinkHub or CoolLinkBridge screen. The IP address of CoolLinkHub and CoolLinkBridge is shown for a few seconds every one minute. Once you know the IP address, be sure to use port number 10102. Communication to the CoolAutomation device can be tested using a terminal program (e.g., PuTTY) using Raw TCP – or it can be tested using the [CoolAutomation Setup Utility](#).

What is the iocControl App?

iocControl is CoolAutomation’s free App for quick and simple HVAC Control from any mobile device and/or Desktop computer. It allows for simple and advanced remote control, schedule, real-time status and malfunction error codes of your HVAC system(s). Simply install the app and register your CoolAutomation device(s) and you are ready to go.

More information here: <https://coolautomation.com/products/controlapp/>

SUPPORT

For questions or issues related to Vantage products, please contact Vantage Technical Support

Phone: 1(800)555-9891, Option 1 then Option 3

Email: vantagetech@legrand.com

Hours: Mon – Fri, 9AM – 7PM EST

For questions or issues related to CoolAutomation products, please contact CoolAutomation Technical Support:

Phone: 1(206)360-5769 (Call or Text)

Online: <https://support.coolautomation.com/hc/en-us/requests/new>

Hours: Mon – Fri, 8AM – 6PM EST