

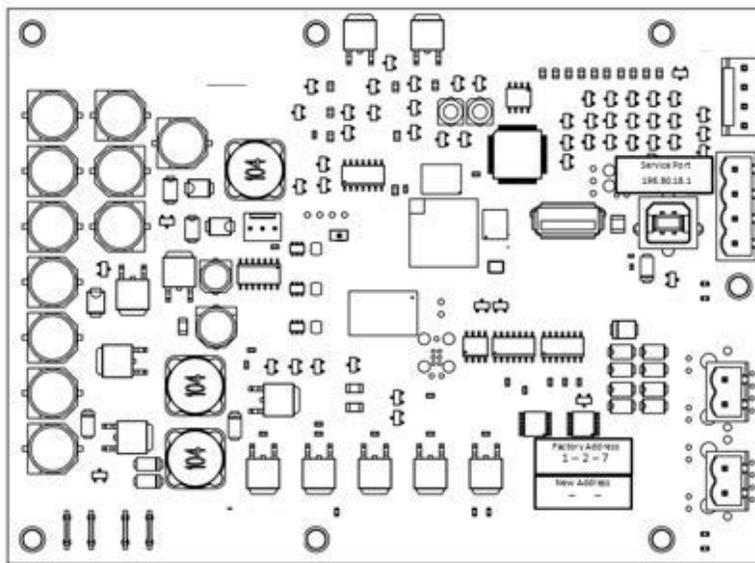


## Installation Instructions

# BACnet® Communication Interface for ReliaTel™ Controllers (BCI2-R)

for use with Voyager™, Odyssey™, and  
Precedent™

Ordering Number: BAYBCIR200\*



### **⚠ SAFETY WARNING**

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



# Introduction

Read this manual thoroughly before operating or servicing this unit.

## Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

**NOTICE** Indicates a situation that could result in equipment or property-damage only accidents.

## Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

## Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

### ⚠ WARNING

#### Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury. All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in **NEC** and your local/state/national electrical codes.

### ⚠ WARNING

#### Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

**⚠ WARNING****Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- **All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.**
- **Non-Trane personnel should always follow local regulations.**

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## Overview

This installation document contains information about the BACnet Communication Interface for rooftop air conditioning units with ReliaTel unit control.

The following Trane products are supported:

- Voyager and Voyager Commercial constant volume (CV) units.
- Voyager and Voyager Commercial variable air volume (VAV) units.
- Precedent packaged air conditioning unit.
- Odyssey split system air conditioning equipment.

This controller allows the above named equipment the capability to:

- Communicate on a BACnet communications network.
- Be part of a Tracer SC system controller network.

- Provide customers the flexibility to choose the best possible vendor for their building subsystems.
- Easily incorporate Trane products into legacy non-Trane systems in existing buildings.

The BCI2-R controller is available as a factory-installed option or field-installed kit. The features and functions described in this manual apply to either option. The following sections describe:

- A brief overview of the BACnet protocol.
- Field kit inspection and controller specifications.
- Controller mounting and installation.
- Field-installed wiring.
- LEDs

## BACnet Protocol

The Building Automation and Control Network (BACnet and ANSI/ASHRAE Standard 135-2004) protocol is a standard that allows building automation systems or components from different manufacturers to share information and control functions. BACnet provides building owners the capability to connect various types of building control systems or subsystems together for a variety of reasons. In addition, multiple vendors can use this protocol to share information for monitoring and supervisory control between systems and devices in a multi-vendor interconnected system.

The BACnet protocol identifies standard objects (data points) called BACnet objects. Each object has a defined list of properties that provide information about that object. BACnet also defines a number of standard application services that are used to access data and manipulate these objects and provides a client/server communication between devices. For more information on BACnet protocol, refer to ["Additional Resources," p. 25.](#)

### BACnet Testing Laboratory (BTL) Certification

The BCI2-R supports the BACnet communication protocol and has been designed to meet the requirements of the BACnet Building Controller (B-BC) profile. For more details, refer to the BTL website at [www.bacnetassociation.org](http://www.bacnetassociation.org).



# Field Kit Parts, Specifications, Dimensions, and Components

## Field Kit Parts

Prior to installation, open the box and verify that the following parts are enclosed:

- One (1) BCI2-R controller
- One (1) RTRM controller
- One (1) 2 ft. edge protection for mounting brackets
- One (1) Drive Interface Module (DIM) bracket (Voyager II)
- One (1) BCI2-R Integration Guide (BAS-SV0P53\*-EN)
- One (1) USB service port cable
- One (1) Bushing for field wiring
- One (1) USB service port label
- One (1) BCI2-R jumper harness - WIRCUN024901
- One (1) BCI2-R information label
- Two (2) screws for BCI2-R mounting (Voyager)
- Two (2) screws for mounting DIM bracket (Voyager II)
  - X25240209030
- Two (2) screws for mounting angle bracket (Precedent/Odyssey)
  - X25113900000
- Two (2) screws for the USB bulkhead port connector
- Two (2) 4-wire cable harnesses
  - 438576780100 (Voyager II, Voyager III)
  - X19051278010 (Odyssey and Precedent)

- Four (4) BCI2-R mounting brackets
  - 439548160001 (Voyager)
  - 436913270001 (Precedent)
  - 436913290001 (Precedent)
  - X05011183010 (Precedent / Odyssey)
- Three (3) screws for BCI2-R mounting bracket (Voyager)
  - X25330033410
- Four (4) screws for BCI2-R mounting (Odyssey and Precedent)
- Four (4) screws for mounting Precedent 2 piece field bracket
  - X25290029010
- Six (6) screws for mounting Precedent field brackets
  - X25020626010

**Important:** Contact the Trane Parts Center nearest your area should there be any damaged or missing components.

**Note:** One copy of the appropriate service literature ships inside the control panel of each unit.

## Specifications

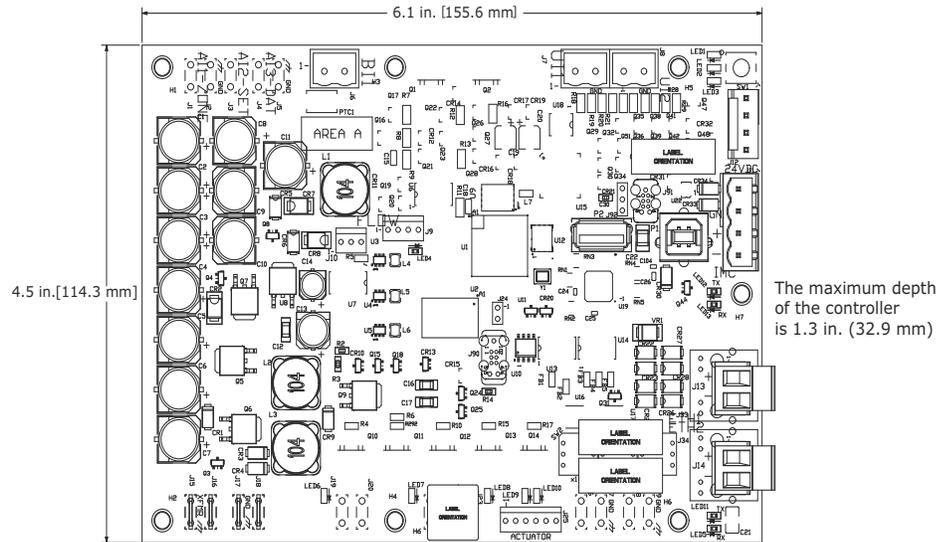
The following table provides specifications and requirements for the BCI2-R controller.

**Table 1. Specifications and requirements**

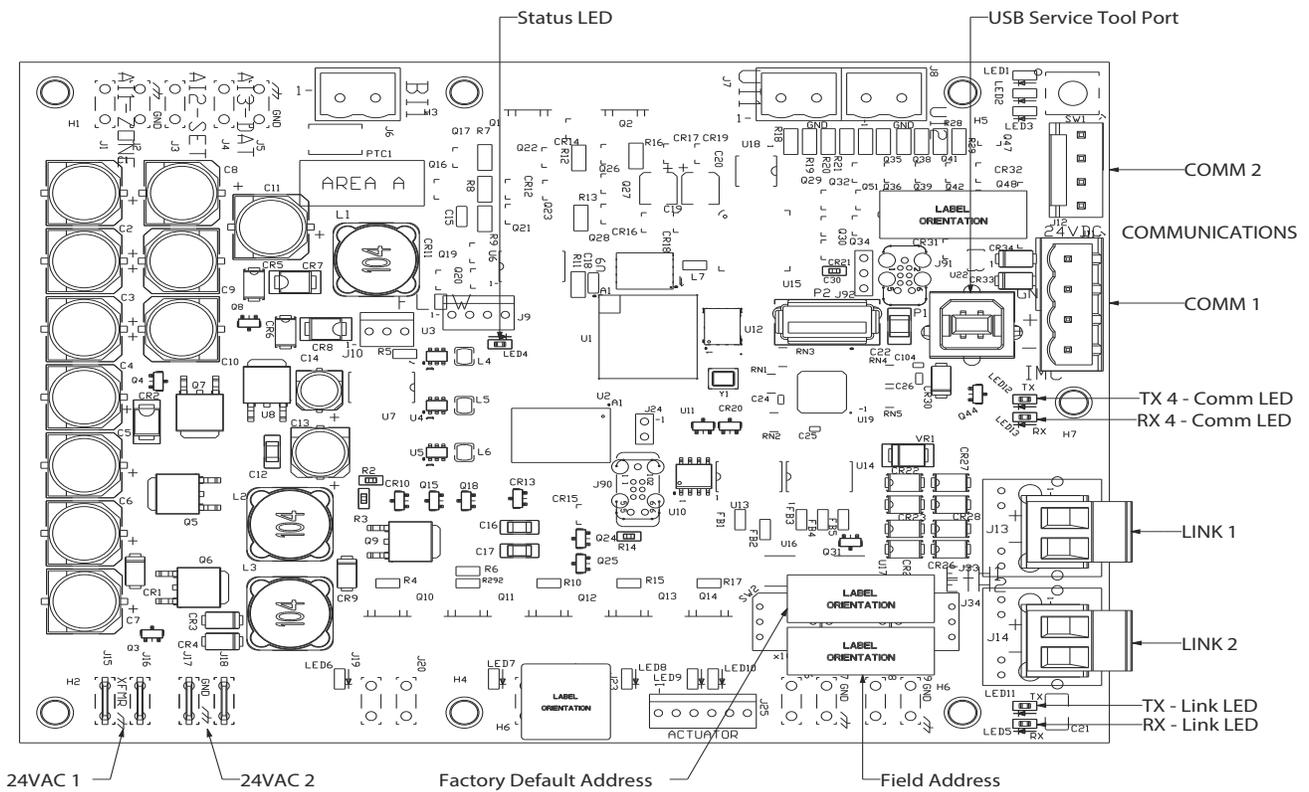
Storage	
Temperature:	-44°C to 95°C (-48°F to 203°F)
Relative humidity:	Between 5% to 95% (noncondensing)
The BCI2-R controller has been designed to withstand the effects of dust and corrosion.	
Operating	
Temperature:	-40°C to 70°C (-40°F to 158°F)
Humidity:	Between 5% to 95% (noncondensing)
Power:	24 Vdc ±15%, maximum load 90 mA

# Dimensions and Components

**Dimensions:** The length and width of the controller are shown here



**Components:** Status LEDs and other commonly used components are referenced in figure below.





# Mounting and Installing the Controller

**Important:** Read the following safety warnings prior to installation. Procedures presented in this guide should be performed only by qualified HVAC technicians.

**Notes:** In addition to these instructions, refer to the specific rooftop unit literature when installing the controller.

To install the BCI2-R controller:

1. Disconnect all power from the rooftop unit.
2. Mount the BCI2-R controller using the supplied screws and brackets. The following figures depict mounting positions for various rooftop units.
3. Route and connect the wiring harness as described in ["Connecting the Factory Wiring Harness,"](#) p. 15.
4. Install the USB bulkhead port in the designated area of the rooftop unit, by using the supplied screws.

**Note:** The USB bulkhead port is a remote extension of the USB port located on the BCI2-R module. Each rooftop unit will have a designated port location. As an example, [Figure 1, p. 8](#), shows where the port is located on Voyager II rooftop units.

5. Complete wiring procedures as described in ["Field Wiring Procedures,"](#) p. 15.

**⚠ WARNING**

**Live Electrical Components!**

Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

When it is necessary to work with live electrical components, have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks.

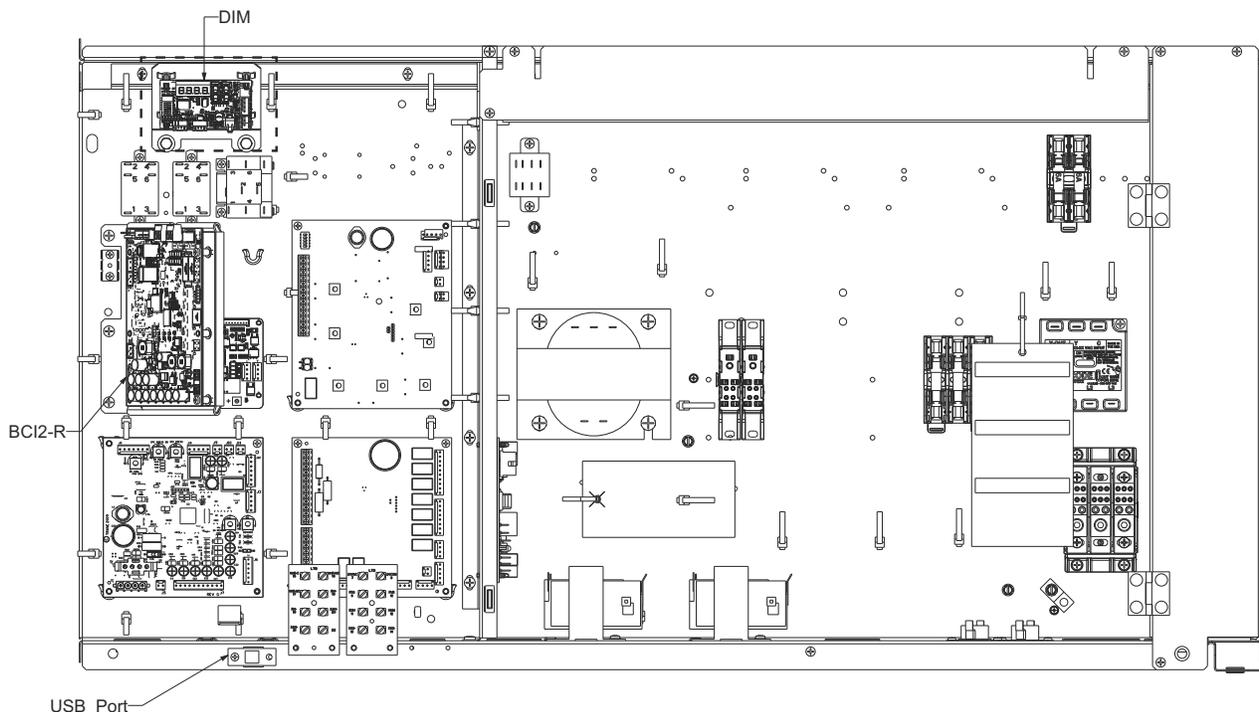
**⚠ WARNING**

**Hazardous Voltage!**

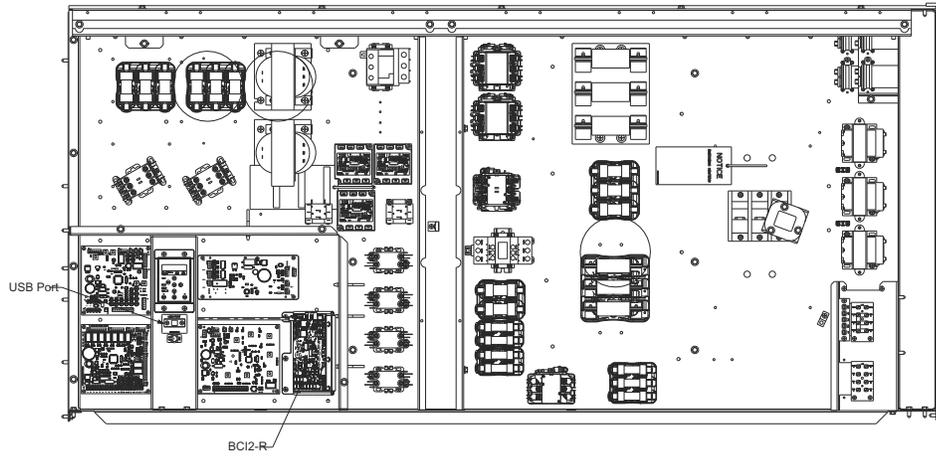
Failure to disconnect power before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Verify that no power is present with a voltmeter.

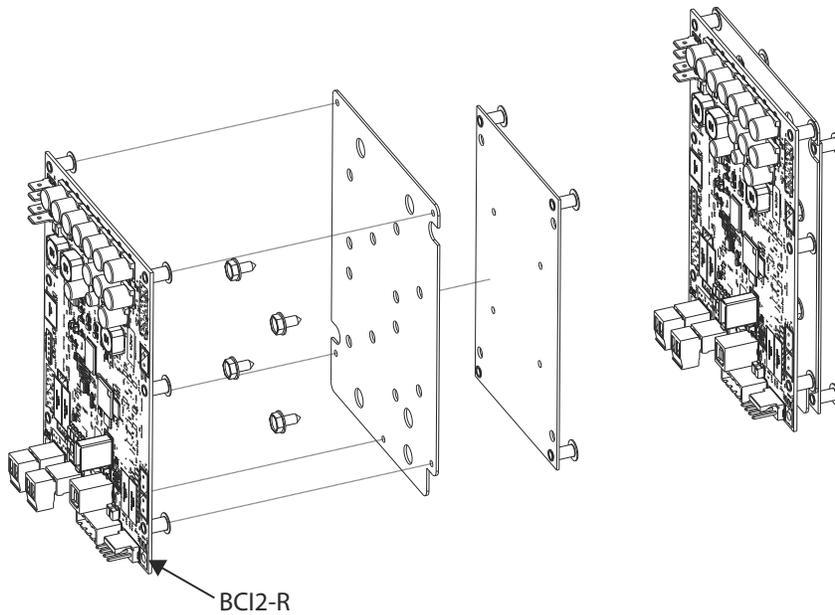
Figure 1. Voyager II (all units)



**Figure 2. Voyager III commercial (all units)**



**Figure 3. Bracket and plate assembly**





## Mounting and Installing the Controller

Figure 4. Precedent (T/Y) ZC036 With or Without LowNox, 17 Seer With LowNox

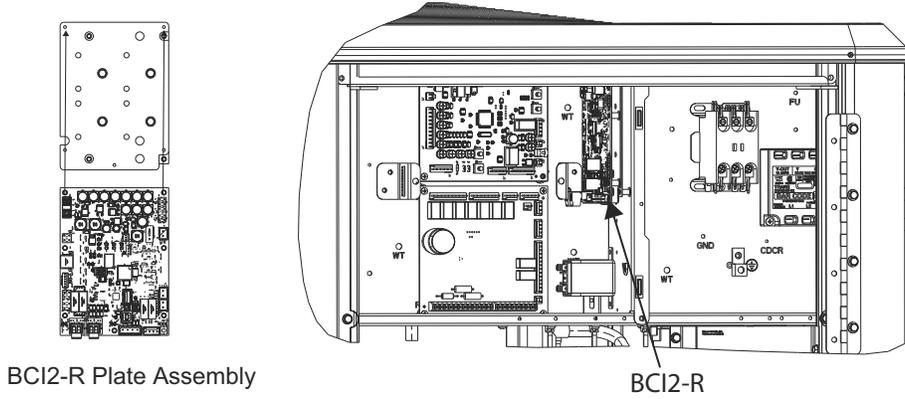


Figure 5. Precedent (T/Y) HC036, 17 Seer Without LowNox

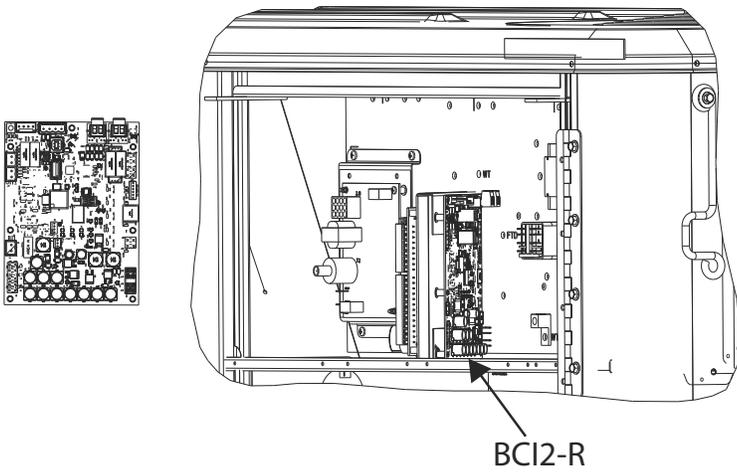
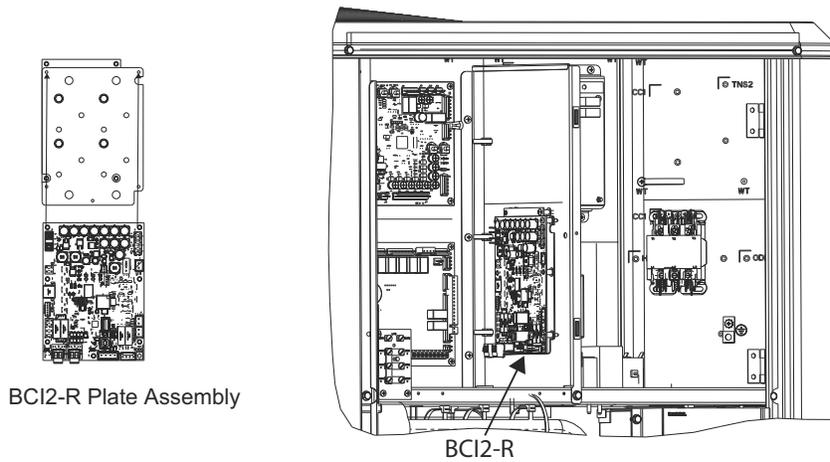
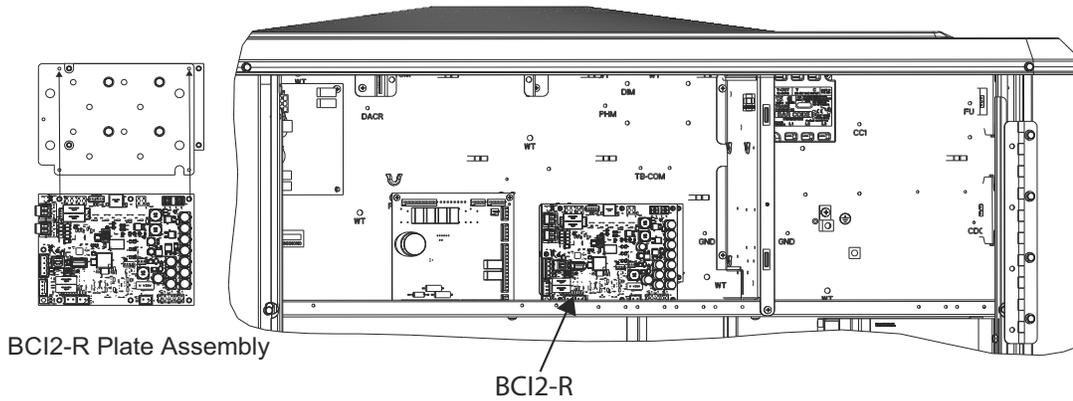


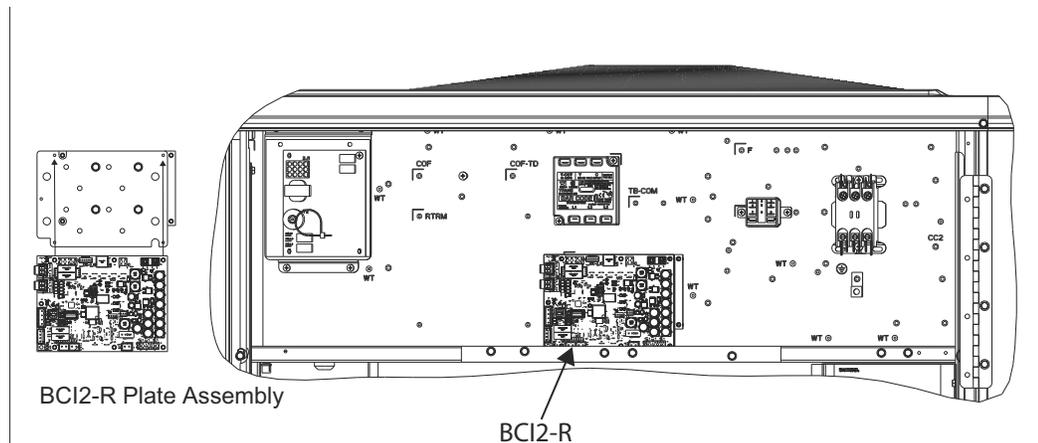
Figure 6. Precedent (T/Y) SC(036-060), WSC(036-048), W/DHC036



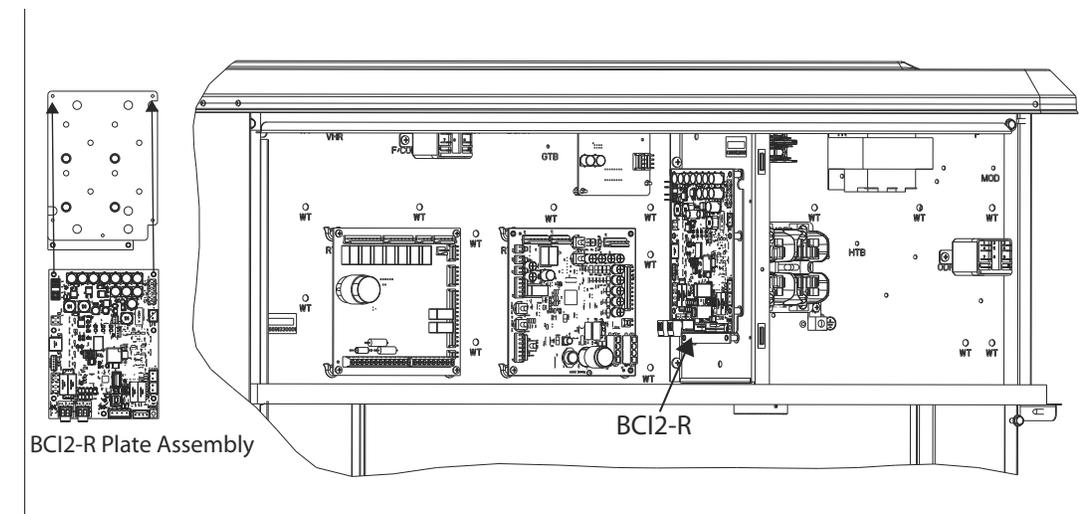
**Figure 7. Precedent (T/Y) ZC048-060 With or Without LowNox, 17 Seer With LowNox**



**Figure 8. Precedent (T/Y) HC047-067, 17 Seer - (Without LowNox), (T/Y) HC060, HC102**



**Figure 9. Precedent (T/Y) ZC060-102, (T/Y) SC072-120, W/DHC047-067, WSC060-120**





## Mounting and Installing the Controller

Figure 10. Precedent (T/Y) HC120, (T/Y) ZC120, W/DHC120

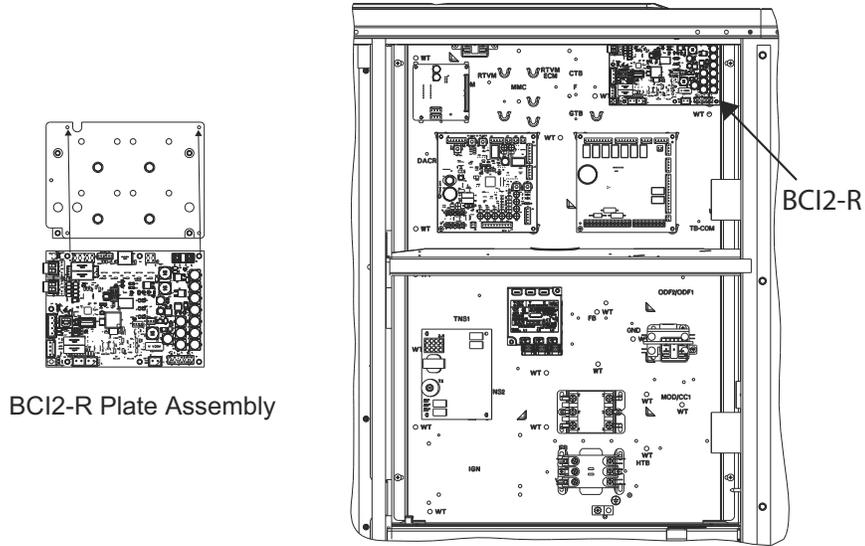


Figure 11. Odyssey (6-12.5 tons)

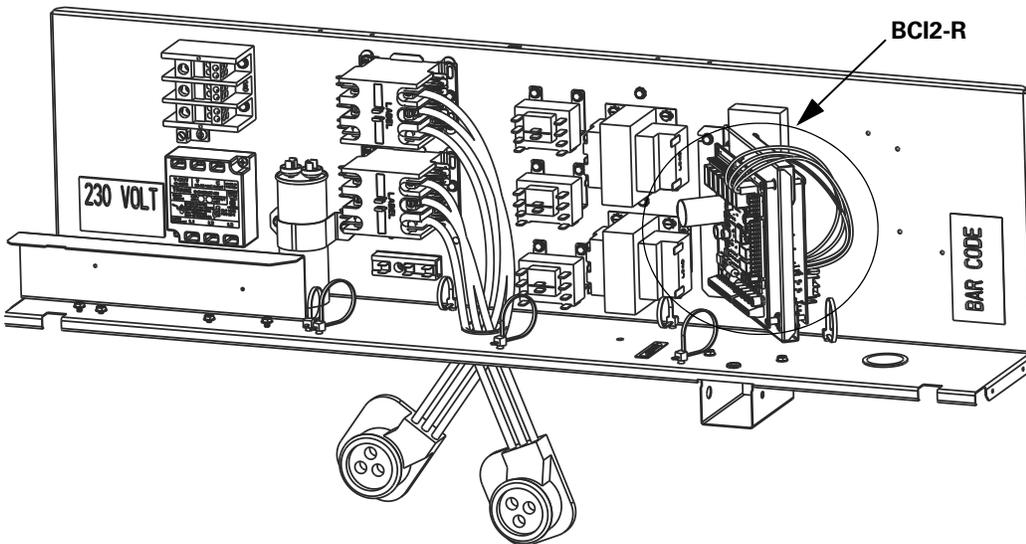
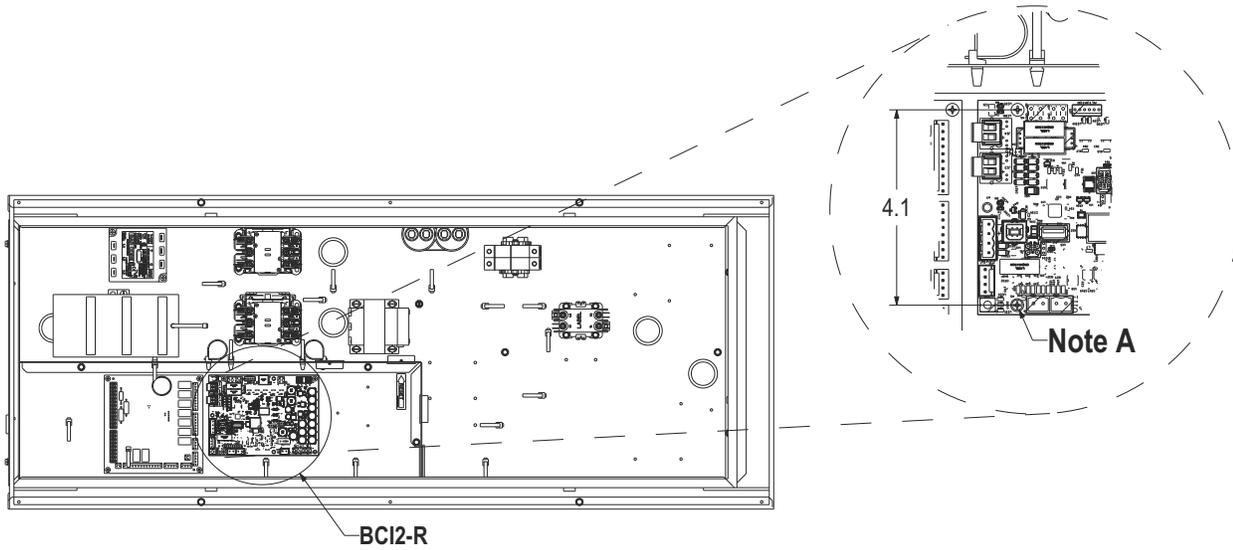


Figure 12. Odyssey (15-20 tons)



Note A: Add additional mounting hole (0.116in Diameter) with 1/8" drill bit shown in the above area.



# Setting Rotary Dial Address Using the Embedded BCI2 Software Tool

Previous versions of BCI-R had rotary dials to set the controller address. The BCI2-R controller does not have rotary dials to set the address. A default address is set at the factory and recorded on a label applied to the circuit board. The address can be changed using the embedded BCI2 Service Tool. Follow these instructions to change the address of the controller.

1. Use a USB-A to USB-B cable. Plug the USB-B end into the Service Port on the BCI2. Plug the USB-A end into a laptop.
2. Open a browser in the laptop.
3. Enter 198.80.18.1
4. The BCI2 Service Tool will be served up from the BCI2 controller.

5. Navigate to **Installation > Identification and Communication > Protocol Configuration > Edit.**
6. Set the Rotary Dial Setting (address) by clicking the line and typing in the new address.
7. If the Device ID needs to be changed, check the box next to Use Software Device ID and enter the desired device ID.

For more information about rotary switches, see [“Understanding Rotary Dial Setting and BACnet Device IDs,”](#) p. 21.

**Note:** All devices are MSTP masters with valid rotary switch addresses of 001 to 127 for BACnet MSTP and 1 to 999 for BACnet Air-Fi.

Figure 13. Setting the controller address with the embedded BCI2 service tool



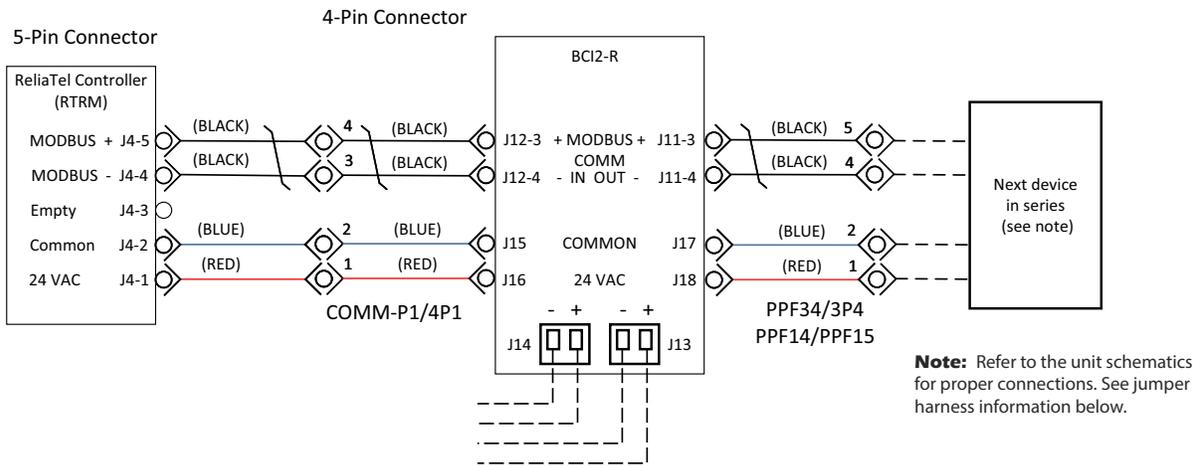
# Field Wiring Procedures

**Important:** Use 18 AWG, (24 pF/ft. max), communication wire (Trane purple wire); strip no more than 2 in. (5 cm) of the outer conductor of shielded wire. For more information, refer to the Unit Controller Wiring Guide, BAS-SVN03\*-EN.

## Connecting the Factory Wiring Harness

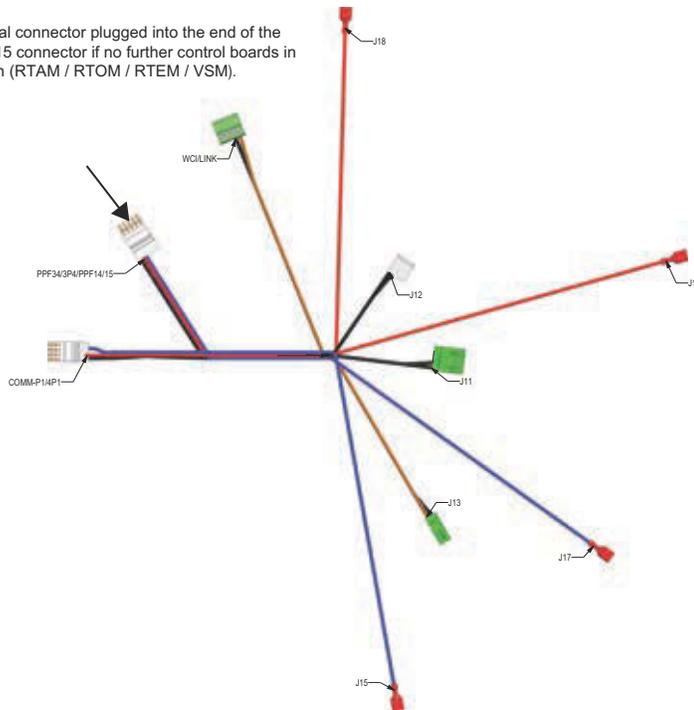
1. Remove power from the entire unit to ensure that all circuits are unpowered.
2. Connect the ReliaTel connection harnesses to J4 and COMM-P1/4P1 as shown in Figure 14. You may need to refer to specific rooftop unit wiring diagram for more details.
3. Restore power to the unit.

**Figure 14. Generic BC12-R harness wiring diagram**



**Figure 15. BC12-R jumper harness**

**IMPORTANT:** Remove male terminal connector plugged into the end of the PPF34/3P4/PPF14/15 connector if no further control boards in communication chain (RTAM / RTOM / RTEM / VSM).



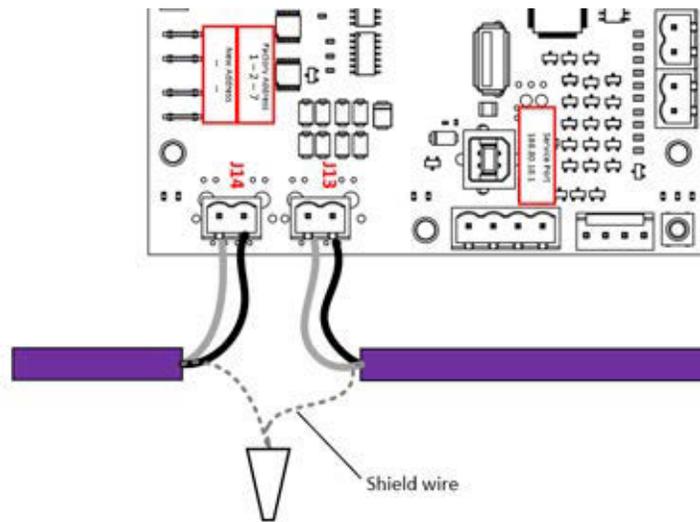
## BACnet Wiring

1. Remove power from the entire unit to ensure that all circuits are unpowered.
2. BCI2-R comes from the factory set to BACnet MSTP communications protocol. See “[Configuring the BCI2-R,](#)” p. 18 or the tag on circuit board for instructions on how to change the communications protocol.
3. Attach the communication link wiring to the BACnet terminal block J13 and J14 of the BCI2-R controller.

4. Wire and tape the shields together or connect the shields using a wire nut as shown in [Figure 16, p. 16.](#)
5. Restore power to the unit.

**Note:** Do not ground the shield at the BCI2-R. The entire grounding shield must be grounded only once per segment. Typically, the entire shield will be connected as one segment and grounded at the building management controller. All four terminals on the BCI2-R terminal block will always be in use.

**Figure 16. BACnet wiring**



## Terminator Wiring

The BCI2-R does not have an end of line termination built in like BCI-R had. If the BCI2-R is at the end of the link, a separate terminator will need to be installed. See, X39641151-01 Tracer BACnet Terminator Installation Instructions for more details.

## Wiring the Air-Fi® Wireless Communications Interface (WCI)

If a wireless receiver is used as a wireless communications interface, follow these instructions.

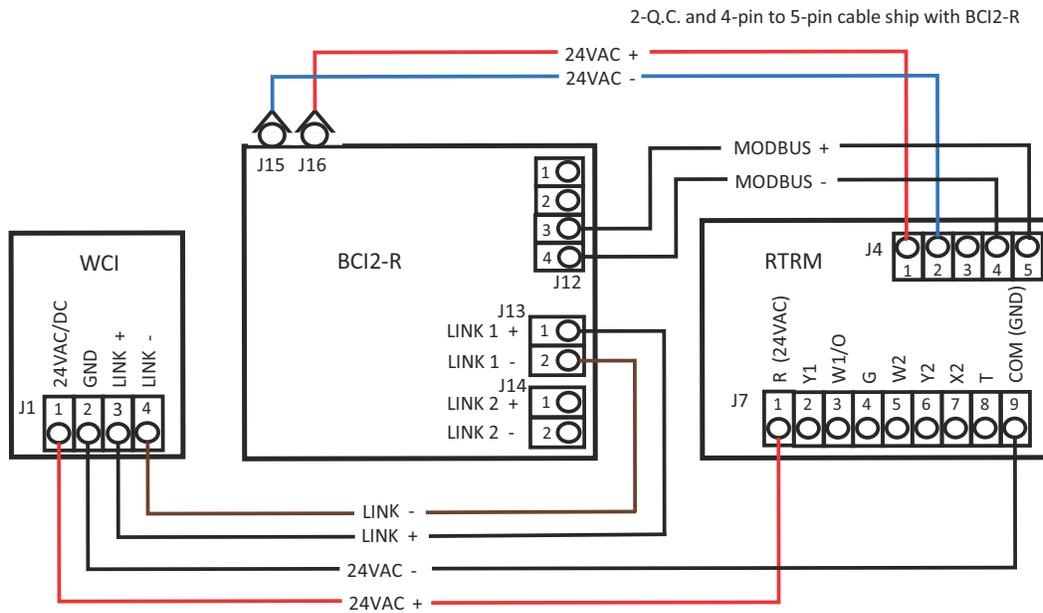
**Note:** For more information regarding the WCI, refer to “[Air-Fi Wireless Communication Installation Instructions](#)”, BAS-SVN038\*-EN.

Set the communications protocol to Air-Fi Wireless by following these instructions:

1. Use a USB-A to USB-B cable. Plug the USB-B end into the Service Port on the BCI2. Plug the USB-A end into a laptop.
2. Open a browser in the laptop.
3. Enter 198.80.18.1

4. The BCI2 Service Tool will be served up from the BCI2 controller.
5. Navigate to **Installation > Identification and Communication > Protocol Configuration > Edit.**
6. Set the System Protocol to BACnet Air-Fi. and click Save.
7. Route the wires from the WCI through either:
  - a. The opening at the back of the back plate.
  - b. The hole in the bottom of the cover.
8. Remove power from the entire unit to ensure that all circuits are unpowered.
9. Connect the IMC wires (brown and black) to the BCI2-R controller and the ground and the 24 Vdc/Vac wires (black and red) as shown in [Figure 17, p. 17.](#)
10. Restore power to the unit.

Figure 17. Wiring the Air-Fi wireless communication interface (WCI)





# Configuring the BCI2-R

The BCI2-R can be configured with either the embedded BCI2 Service Tool or the Tracer TU service tool.

**Note:** The BCI2-R controller is fully configured from the factory for use with Tracer SC based systems. Additional configuration, or the use of Tracer TU, may be necessary. Additionally, the BCI2-R self-configures itself to match the unit type upon initial power-up. However, you may want to change the controller default name to one that is more meaningful.

## Using the Embedded BCI2 Service Tool

This section describes how to configure the BCI2-R controller using the BCI service tool.

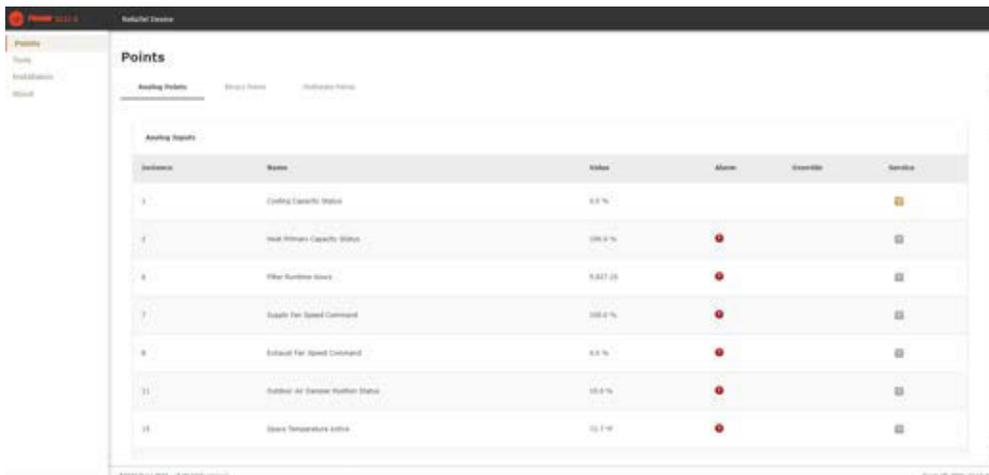
1. Use a USB-A to USB-B cable. Plug the USB-B end into the Service Port on the BCI2. Plug the USB-A end into a laptop.

2. Open a browser in the laptop.
3. Enter 198.80.18.1
4. The BCI2 Service Tool will be served up from the BCI2 controller.
5. Navigate to **Installation > Identification and Communication > Protocol Configuration > Edit**.
6. Set the Communication Protocol with the drop down menu. See [Figure 18, p. 18](#).
7. Set the Rotary Dial Setting (address) by clicking the line and typing in the new address.
8. If the Device ID needs to be changed, check the box next to Use Software Device ID and enter the desired device ID.
9. To override or put points in/out of service, navigate to **Points > [point type]**. See [Figure 20, p. 19](#), [Figure 20, p. 19](#), and [Figure 21, p. 19](#).

Figure 18. BCI2 service tool protocol configuration screen



Figure 19. BCI2 Service Tool points



**Figure 20. BCI2 Service Tool override**

Override Space Temperature BAS

Override Details

Release manual overrides

Control point value

Change value to:

65 °F

---

Present Value

The value is controlled to 65.0 °F by BCI2 Service Tool since March 24, 2022, 1:52 PM

**Figure 21. BCI2 Service Tool points service**

Service Space Temperature Active

Change the point service to

In Service

Out Of Service

Set value to

72.7 °F

## Using Tracer TU

This section describes how to first connect to the Tracer TU software and then configure the BCI2-R controller. If Tracer TU is not installed, refer to the "Tracer TU Service Tool Getting Started Guide" (TTU-SVN02\*-EN). Tracer TU software, Version 11.6 or higher, is required.

To connect to Tracer TU:

1. Connect the USB cable directly from the laptop to the BCI2-R service port, or to an equipment control panel USB port connected to the controller.

**Important:** *If using a PC with multiple USB ports, connect by using the same process outlined below for the same piece of equipment. This is normal operation. Observe existing USB standards for cable length. (For more information go to informational Web sites, such as <http://www.USB.org>.)*

2. Click either the **Tracer TU** desktop icon or the **Tracer TU** program item in the Tracer TU group on the **Start** menu.

The Tracer TU splash screen appears briefly followed by the **Startup Task Panel**.

## Configuring the BCI2-R

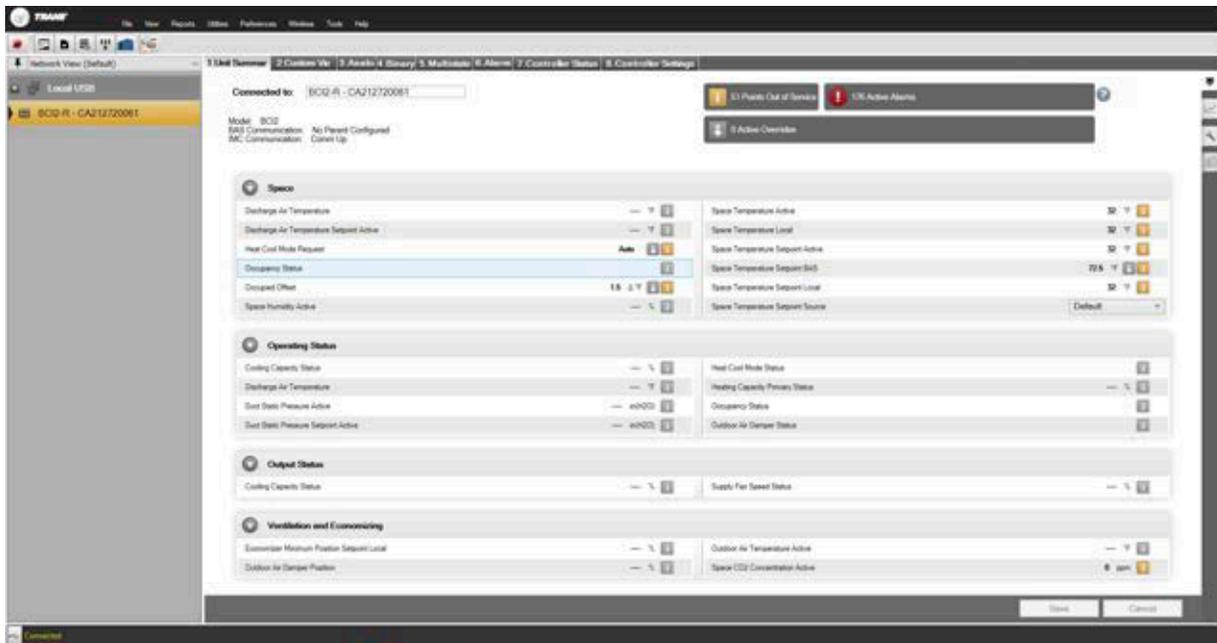
Figure 22. Startup task panel



3. Select the **Direct Connection (USB cable)** radio button if it is not already selected.

4. Click the **Connect** button and the **Unit Summary** page will appear after successful connection.

Figure 23. TU unit summary

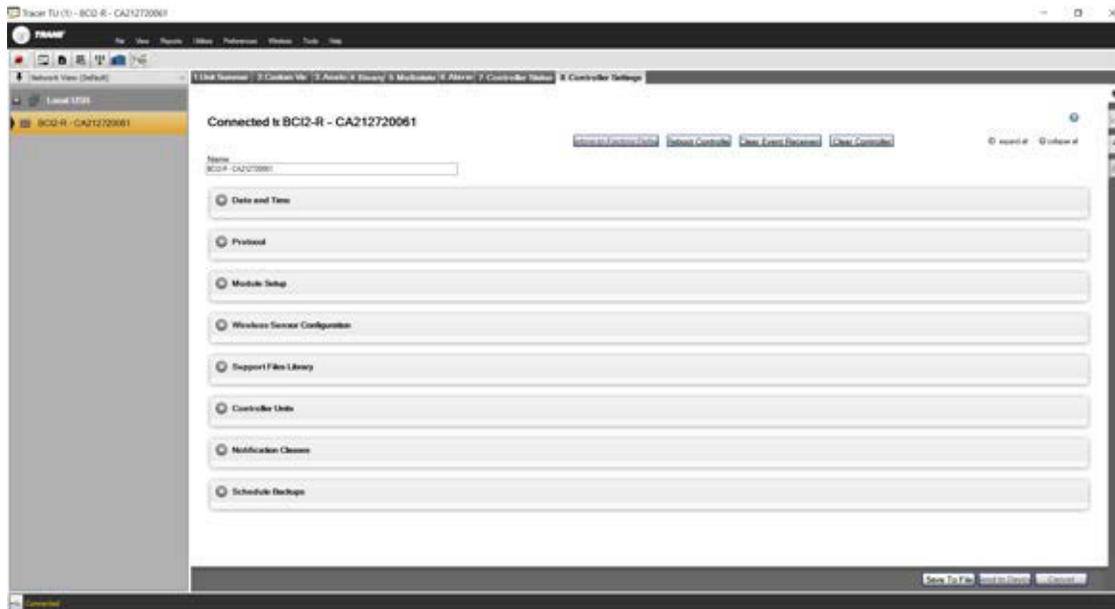


To configure the BCI2-R controller:

1. Select the **Controller Settings Utility** tab from the vertical tab set located on the right side of the TU window.

**Note:** The content of this screen is based on the type of controller that is connected and the system protocol used to communicate with the controller.

**Figure 24. TU controller setting**



2. Enter a meaningful name for the controller.
3. Click the **Controller Units** expanding box label to display its contents.
4. Confirm the preferred units of measure for data communicated across the BACnet link.
5. Click the **Protocol** expanding box heading to display its contents.
6. Select the preferred **Baud Rate** in the drop-down list box.
7. If a software Device ID is required, check the **Use Software Device ID** box and enter a BACnet Device ID.
8. Click **Save**.

## Understanding Rotary Dial Setting and BACnet Device IDs

### Rotary Switch Values

The rotary dial setting value is the physical address of a device on a network. It is often referred to as the MAC address. The term is generic and is used to denote the physical address of many types of networks.

For example, the rotary dial value of a BACnet MS/TP network has a valid range of zero (0) to 255 and can be represented by a single byte. The rotary dial value of an Ethernet network is six bytes in length. Each device must

be assigned a unique rotary switch value. Failure to assign a unique address to each device will result in communication errors.

### BACnet Device ID

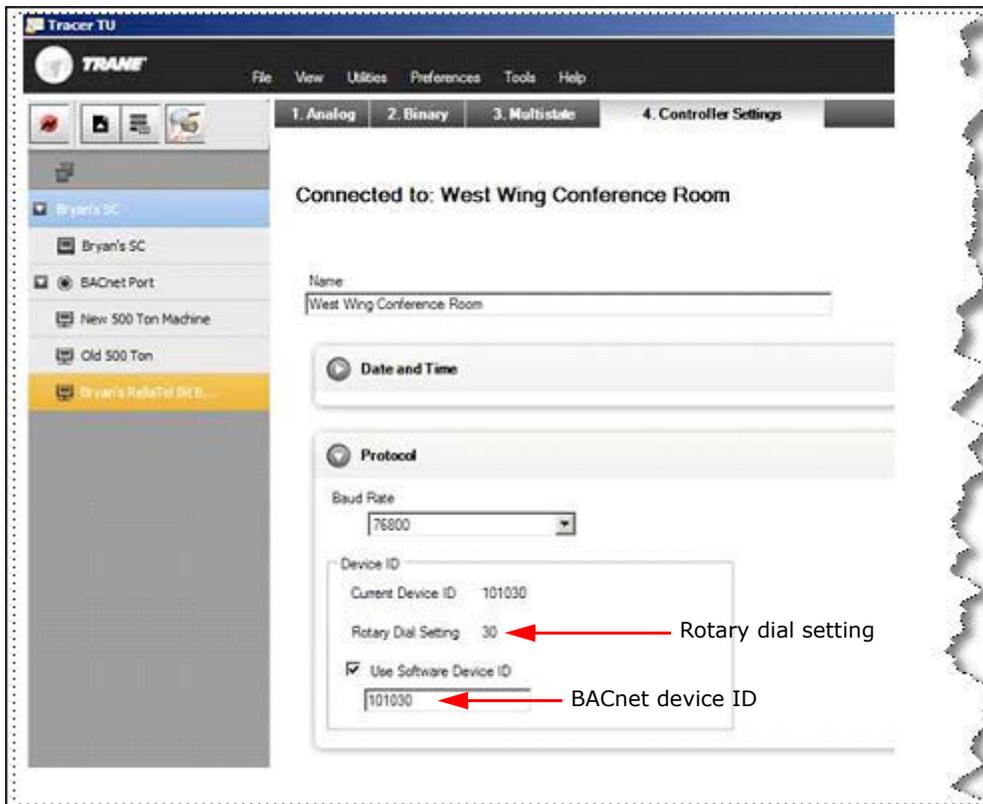
The BACnet Device ID uniquely identifies each BACnet device as a logical address. The valid range of this address is 0 to 4194303. The logical address in an Internet Protocol (IP) network is the IP address, which is four bytes in length and is typically written in the format of 192.168.1.125. Failure to assign unique address to each device will result in communication errors.

Tracer SC uses the rotary switch value to create the BACnet device ID. The Tracer SC adds an SC rotary switch address and a link number to artificially create a unique BACnet Device ID for each node.

Figure 25, p. 22 shows how Tracer TU displays the rotary dial settings and the resulting BACnet device ID:

- The rotary dial values on the BCI2-R are set to 30 (0,3,0).
- The Tracer SC created a BACnet device ID of 101030.
- The Tracer SC address is "0,1,0".
- The BCI2-R is installed on link 1.

Figure 25. Example showing rotary dial setting and BACnet device ID



## What To Do After Adding Options or Equipment to the Unit

Restoring the BCI2-R controller is necessary if the unit setup has changed after the initial self-configuration process. This process is called “clearing the controller”.

For example, an economizer was added to the machine after the initial installation. In order for the BCI2-R controller to recognize the economizer, it must be cleared.

The BCI2-R controller self-configures upon initial power-up to match the connected equipment type. This configuration is then permanently stored in the memory of the controller. Through this process, the controller generates the correct list of BACnet points.

### Clearing the BCI2-R Controller

Clearing the controller is necessary to collect equipment information and reinstall the configuration.

### Using the BCI2 Service Tool to Clear the Controller

1. Use a USB-A to USB-B cable. Plug the USB-B end into the Service Port on the BCI2. Plug the USB-A end into a laptop.

2. Open a browser in the laptop.
3. Enter 198.80.18.1
4. The BCI2 Service Tool will be served up from the BCI2 controller.
5. Navigate to **Tools > Backup and Restore > Clear Controller**. When prompted, click **Continue**.
6. The BCI2-R is cleared and ready to accept a new configuration.

### Using Tracer TU to Clear the Controller

1. Establish the connection between Tracer TU and the BCI2-R controller.
2. Select the **Controller Settings Utility** tab from the vertical tab set located on the right side of the TU window.
3. On the controller settings page, there is a **Clear Controller** button is located in the upper right portion of the screen display.
4. Click the **Clear Controller** button and a pop-up window will appear with a message that asks for confirmation to reset the device. Click **Yes**.
5. A pop-up window will appear confirming that the controller has been reset and that the controller will be restarted. Click **OK**.

6. Follow the steps in [“Configuring the BCI2-R”](#) to reconfigure the controller.

## Updating the Application Code

The application code in the BCI2-R controller can be upgraded in the field by using Tracer TU. Follow the instructions in Tracer TU to upgrade the application code.

## Managing Device Units on the Controller Units Screen

The BCI2-R device units can be viewed and managed on the Controller Units screen from Tracer TU or from System Units in the BCI2 Service Tool.

When the BCI2-R first powers up, or after the controller has been cleared, a list of points (the role document) is created from the information supplied to the BCI2-R from the ReliaTel RTRM module through the Modbus link.

**Note:** *The BCI2-R creates the role document immediately (often within one second).*

Immediately after the points are created, the device units are set and saved and appear on the Controller Units or System Units screen. The values that correspond to the device units are set to default to SI values.

If you are using either the embedded BCI2 Service Tool or Tracer TU to change the Device Units to IP by clearing the controller, it is best to either unplug the Modbus cable to the BCI2-R, or to power down the entire unit (the BCI2-R). By doing this, the BCI2-R will not see Modbus traffic. This method will enable the Device Units radio button selection, which allows you to make changes.



# LEDs

**Table 2. Interpreting the LEDs**

LED type	LED activity	Indicates
Status LED 4 (green)	Solid on	Normal operation
	Steady blink pattern, 50% on and 50% off, repeating	BCI2 not connected to equipment (ReliaTel, IntelliPak, or CH530)
	Short/long flash pattern, repeating	Alarms or point faults are present
	Not illuminated	The controller is OFF
	2 blinks followed by a pause, repeating	The controller is booting
	3 blinks followed by a pause, repeating	Controller firmware is updating
	4 blinks followed by a pause, repeating	Data storage error, replace controller
	5 blinks followed by a pause, repeating	System error, restart controller or clear controller
Link Tx	Tx flickering/blinking green	Data is being transferred
	Not illuminated	No data transferring or not connected
Link Rx	Rx flickering/blinking yellow	Normally illuminated; will be illuminated even if no data transferred or not connected to the Link
	Not illuminated	No data transferring or not connected
IMC Tx	Tx flickering/blinking green	Data is being transferred
	Not illuminated	No data transferring or not connected
IMC Rx	Rx flickering/blinking yellow	Data is being transferred
	Not illuminated	No data transferring or not connected



## Additional Resources

Use the following documents and links as additional resources:

- *BACnet Communication Interface for ReliaTel (BCI2-R) Integration Guide* (BAS-SVP053\*-EN)
- Product support online:
  - [www.bacnet.org](http://www.bacnet.org)
  - [www.bacnetassociation.org](http://www.bacnetassociation.org)
  - [www.ashrae.org](http://www.ashrae.org)
- *Tracer BACnet Terminator Installation Instructions* (X39641151-01)
- *Tracer TU Help online*
- *Tracer TU Service Tool Getting Started Guide* (TTU-SVN02\*-EN) (X39641083)

**Note:** For further assistance, contact your local Trane sales office.

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