



Installation Instructions

Tracer Concierge™ System

Part 2 of 2: Setup for Small Buildings



Order Numbers: X13760358001 Tracer 10-inch Display

Please retain this document for future reference.

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.

August 2020

BAS-SVN208G-EN

TRANE
TECHNOLOGIES





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 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 recommended for the work being undertaken. **ALWAYS** refer to appropriate MSDS sheets and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection, and handling recommendations.
- If there is a risk of arc or flash, technicians **MUST** put on all PPE in accordance with NFPA 70E or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit.

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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Revision History

- Updated the literature number from X39641273001F to BAS-SVN208*-EN.
- Updated the Order number in the Front Cover.
- Updated the Tracer SC to System Controller throughout the document.
- Updated the Change UC400 to XM Module in the Step 10.
- Updated the Special Recommendations for Single Zone RTU Installations section in the Step 11.
- Updated the Tracer ES to Tracer Ensemble in the Step 17.
- Updated the potential causes for up or down arrow are disabled problem in the Troubleshooting and Common Questions section.



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Installation Order

- Hardware setup (Steps 1-8). See Tracer Concierge System Part 1 of 2: Hardware Setup (BAS-SVN135*-EN).
- Setup System Controller and display (Steps 9-17, this document).

Step 9: Verify Package Contents

Table 1. Packaged contents

Item	Quantity
10.1 in. Display	1
Display power cord	1
Installation Instructions	1
User Guide	1
USB-to-Ethernet Adapter	1
VESA Mounting Bracket	1
Ethernet Cable	1

Note: *Tracer Concierge 2.0 requires System Controller 4.0 as of December 2016.*

Step 10: Installation Checklist

Verify that hardware installation is complete:

- Verify the System Controller panel is attached to the wall and power is wired to it.
 - Verify XM Module I/O terminations are wired appropriately per the submittal.
 - Verify System Controller Air-Fi® Wireless is addressed properly and/or the Air-Fi Wireless Network Best Practice guide BAS-SVX55. See also Step 11.
- Verify that any rooftop units and VAV boxes with Air-Fi Wireless are addressed properly per the submittal and/or the Air-Fi Wireless Network Best Practice Guide BAS-SVX55.
- Verify the Ethernet Cable for the customer's network is connected to System Controller Ethernet Port 1 (if applicable).
- Follow this best practice for ReliaTel BCI for Constant Volume Rooftops: install a duct temperature probe (part number 4190-7020) in the return air duct and wire the sensor to the BCI-R's space temperature input. Unless the HVAC system is a Changeover System, in which case place the duct temperature probe in the return air duct, before/upstream of the bypass damper.



Step 11: Air-Fi® Wireless Setup

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Installation Locations

To provide the best signal quality between wireless devices, mount WCIs and WCSs in direct, unobstructed, line-of-sight paths. Where this is not possible, try to minimize the number of barriers between a WCS and a WCI. In general, sheetrock walls and ceiling tiles offer little restriction to the transmission of the radio signal throughout the building.

General guidelines are as follows:

- Locate wireless devices so that they are easily accessible and their covers can be removed.
- Locate wireless devices in direct line of sight when possible.
- Avoid metal, concrete, and brick obstructions between wireless devices.
- Avoid placing devices inside metal enclosures.
- Locate wireless receivers in elevated space.
- Vertically mount wireless devices.

When selecting a WCS location, avoid the following:

- Areas of direct sunlight
- Areas in the direct airstream of air diffusers
- Exterior walls and other walls that have a temperature differential between the two sides
- Areas that are close to heat sources such as sunlight, appliances, concealed pipes, chimneys, or other heat-generating equipment
- Drafty areas
- Dead spots behind doors, projections screens, or corners
- Walls that are subject to high vibration
- Areas with high humidity
- High traffic areas (to reduce accidental damage or tampering)
- Placing the sensor inside metal enclosures

Typical Signal Range

The WCI has a typical signal range (radius) of 200 ft—potentially more for line-of-sight installations, less for obstructed installations. The exception is for WCIs mounted inside the return plenum of a rooftop unit (RTUs), which have a range limited to 100 ft.

Special Recommendations for Single Zone RTU Installations

In RTU/VAV systems, there is adequate network density, which minimizes the need for repeaters. The recommended mounting location for RTU installations is in the return plenum, above the roof penetration. This location provides the best overall sensor and communication link quality.

Trane has special recommendations for coordinator and repeater placement on sites without VAV boxes. We recommend relocating the WCI below the roof deck in a serviceable location on these applications.

Wireless Communicating Sensors (WCS) Height Requirements

The recommended maximum mounting height is 54 inches from the bottom of the back plate to the floor. If a parallel approach by a person in a wheelchair is required, reduce the maximum height to 48 inches.

WCS Mounting Surfaces

Using the hardware provided, mount the back plate of the sensor to a flat surface such as sheetrock or plaster, or to an electrical junction box. The sensor must be mounted plumb for accurate temperature control and to ensure proper air movement through the

Step 11: Air-Fi® Wireless Setup

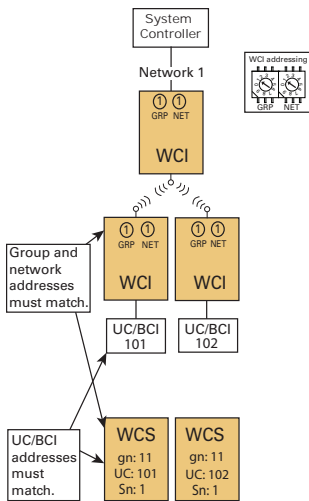
sensor.

- If mounting onto sheetrock or plaster, use the plastic threaded anchors (pre-drilling holes is not usually necessary) and the two M3.5 x 20 mm mounting screws.
- For mounting onto an electrical junction box, use the two 6-32 x 3/4 in. screws.

Air-Fi® Addressing

Air-Fi addressing of WCS and WCI determines which devices can communicate on an Air-Fi network. **GRP and NET must be set the same for all WCS and WCI on the Air-Fi network.** WCS address is configured on the sensor's display. **WCS Address must match the appropriate unit controller rotary address setting.** See Air-Fi WCS Configuration Instructions X3964126601 or Air-Fi WCS Quick Reference Guide BAS-SVU029*-EN for more information.

Figure 1. Air-Fi addressing example: WCIs and WCSs



Establishing an Air-Fi® Network

When all aspects of hardware installation are complete, you are ready to power up the system and establish the wireless network.

Best Practice: Power up all devices in the network at the same time. If you are unable to do this, power them up in the following order:

1. All WCIs.
2. All unit controllers: UC210, UC400, UC600, BCI-I, BCI-R.
3. The System Controller.
4. WCSs, if present.

Note: If the coordinator WCI is powered up 1 hour or more before the other devices on the network, then you must open the network manually or with Tracer TU.

Automatic Network Formation and Sensor Association

A WCI that is connected to a System Controller is auto-assigned as the network coordinator. The coordinator WCI allows all WCIs and WCSs having matching addresses to automatically join the network. (For more details about the process of network establishment, see the Air-Fi® Wireless System IOM (BAS-SVX40).

After the network is formed, WCSs automatically associate with their designated controllers.



Step 11: Air-Fi® Wireless Setup

Note: The network must be open for a WCS to join the network, but does not need to be open for the WCS to be manually assigned to a controller.

WCS: Network Joining and Controller Association

After addresses are set, the WCS will immediately attempt to join the network and associate with the controller.

- Error code E2 will appear on the sensor display until the WCS successfully joins the network. Until network joining is successful, the WCS will repeat its attempt to join every 60 minutes.
- Association between the WCS and the controller will automatically be initiated. The WCS will repeat its attempt to associate every 15 minutes until successful. Error code E1 will be displayed until association is successful.
- You can press the center button twice at any time to cause the WCS to re-attempt to join the network and to associate with the WCI.

Adding Additional WCIs to an Existing Network

1. Press the OPEN_NET button on the System Controller WCI to open the network for joining for one hour. Every member WCI will indicate that the network is open. Any WCI with a correct rotary address setting that is located within radio range of a network member, will join the network.

Note: Pressing the OPEN_NET button on a member WCI will open only that one WCI.

2. Observe the green NWK LED illuminate on a WCI that joins the network.

Related Literature

- BAS-SVX40: Air-Fi® Wireless System Installation, Operation, and Maintenance: Describes how to address, install, modify, and troubleshoot an Air-Fi® Wireless system.
- X39641264001: Air-Fi® Wireless Communications Interface (WCI) Installation Instructions: A quick-start guide to addressing and installing a WCI.
- X39641265001: Air-Fi® Wireless Communications Sensor (WCS) Installation Instructions: A quick-start guide to addressing and installing a WCS.
- X39641266001: Air-Fi® Wireless Communications Sensor (WCS) Configuration Instructions: A quick-start guide to configuring a WCS.

Step 12: Tracer UC210 Setup for Changeover Systems

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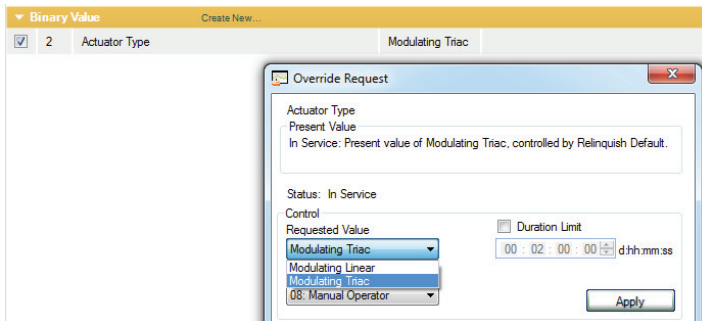
Best Practice: Install a duct temperature probe (part number 4190-7020) in the return air duct, before/upstream of the bypass damper. This temperature is used in the changeover application of System Controller to control the VAS AHU member. Wire the sensor to the rooftop's space temperature input.

Note: *It is important that the sensor be located upstream of the bypass, so that it reflects the air temperature from the zones and is unaffected by the bypassed airflow.*

With Tracer TU, setup Tracer UC210s for use with dampers without flow sensing:

1. Change the box type to generic.
2. Set the box size to 100 CFM.
3. Adjust setpoints to percent value.
4. Disconnect transducer from UC module (no flow ring).
5. Put binary value, index #13, "Diagram Flow Sensor Failure" out of service, normal.
6. Change analog value, index #52 "PD Mode Min Air Valve Position" from 40% to 10% (or whatever the desired minimum cool flow is).
7. Setup Bypass Damper UC210 with correct actuator type binary value #2, "Actuator Type." Select **Modulating Triac** (default) or **Modulating Linear**.

Figure 2. Actuator type



Step 13: System Controller Setup

Step 13: System Controller Setup

This section describes how to set up your System Controller to interact with the Tracer 10-inch Display. System Controller should be setup by Trane personnel.

Note: See *System Controller Installation and Setup BAS-SVX31* for further details on setting up System Controller.

Setup the System Controller as you would typically. Ensure that you do the following:

- Name the System Controller suitably, as the name appears on the display.
- Set Units of measure
- Set the IP Address (optional)
- Set the Date/Time
- Enable wireless communication

Discover and Install Rooftop Units and VAV Boxes

Discover and install rooftop units and VAV boxes. Tracer Concierge is designed for Trane controls. Non-Trane or non-standard unit controls may not have their setpoint properly controlled by Tracer Concierge. See Technical Support for more details.

Create a Tracer 10-inch Display User

Create a new System Controller user for Tracer Concierge. Tracer 10-inch Display will use these credentials to authenticate with System Controller. Below is an example System Controller user. You may choose to set your own user name and password rather than use the example.

User name: LocalDisplay

Password: Tr4cer#

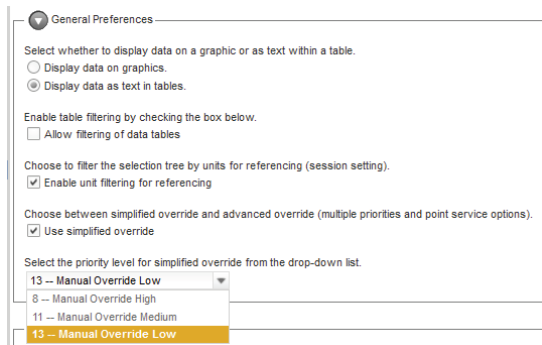
First Name: Local

Last Name: Display

Role: Tracer Concierge or Tracer Concierge without Schedules. In most cases, choose the "Tracer Concierge" role. If you do not want Schedules to appear on the display, choose "Tracer Concierge without Schedules" role.

Note: If the system will include a VAV system (VAV, changeover, or changeover bypass) and therefore a VAS, then set the user preference for default priority level to 11 or 8. This allows the display user to override the individual VAV boxes to occupied.

Figure 3. Override priority



Setup Areas (optional)

Tracer 10-inch Display shows spaces and areas. Areas are optional, and can be used to

Step 13: System Controller Setup

coordinate lights with HVAC or multiple HVAC units together. Areas can also be used to show lighting BOPs on the display.

Name areas suitably, as area names are shown on the Tracer Display main screen.

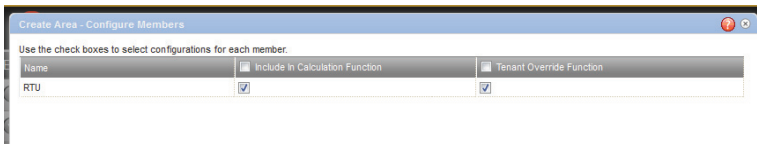
Note: Spaces and area names will that are longer than 12 characters will wrap on the main screen.

Coordinate Multiple HVAC Units with an Area

To coordinate or share setpoints among multiple HVAC units, do the following with area control:

When adding the HVAC member, check that the space will participate in calculations. This is required to calculate the average Space Temperature (even if there is only one RTU in the area) to be shown on the display.

Figure 4. Configure area members



Important: For every space that is a member of an Area, create **Global Referencers** to send setpoints from area (as adjusted on the display) to its members. This ensures that the points are synchronized between the space and area, so the user sees the setpoints accurately on the display. For example, the offset must be the same for the display to show the actual setpoint for the space.

Figure 5. Global referencers

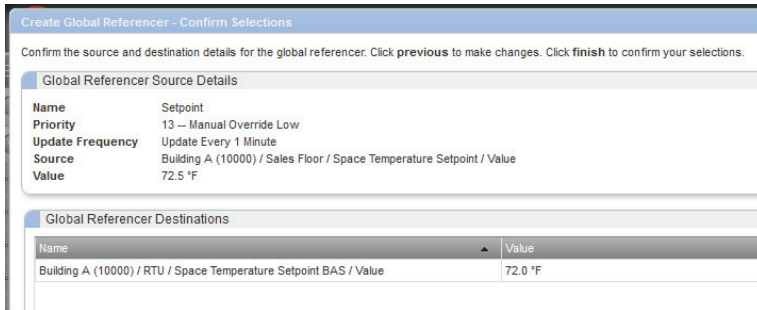


Table 2. Global referencers

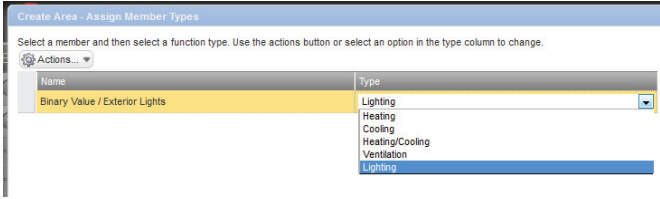
Source (Area)	Destination (RTU)
Space Temperature Setpoint	Space Temperature Setpoint BAS
Occupied Offset	Occupied Offset
Standby Offset	Occupied Standby Offset
Unoccupied Heating Setpoint	Unoccupied Heating Setpoint
Unoccupied Cooling Setpoint	Unoccupied Cooling Setpoint

Lighting Only Control

To control lights from the main screen, setup an area with **Lighting** member types.

Step 13: System Controller Setup

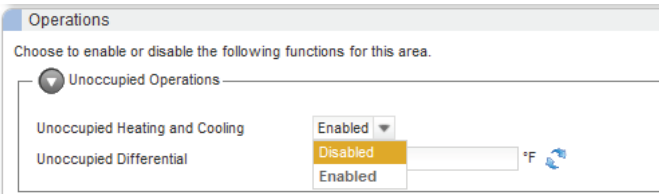
Figure 6. Assign lighting member types



After creating an area for only lighting members:

1. Click the Configuration tab.
2. Set **Unoccupied Heating and Cooling** to **Disable**.

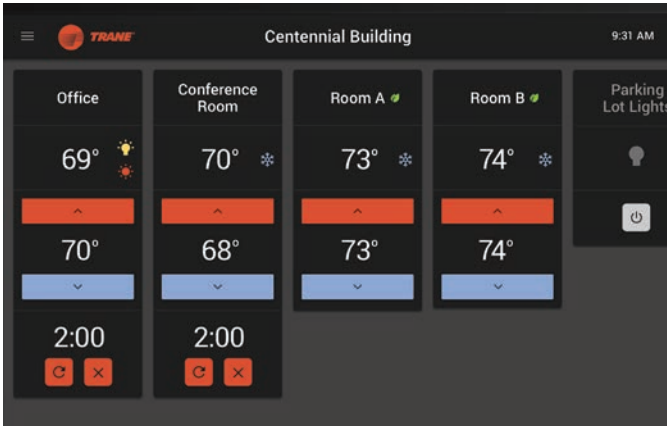
Figure 7. Unoccupied operations



Important: This will prevent the area from turning on the lights during unoccupied heating and cooling.

When an area has only lighting members, the Tracer Display main screen shows a light bulb and override button. No up/down arrows are shown. See the “Parking Lot Lights” example in [Figure 8](#).

Figure 8. Lighting only area



Lighting Controlled With HVAC

When lighting is to be controlled with HVAC, include lighting BOPs as **Lighting** member types with the RTU in the area. When an area has a lighting member, a light bulb icon appears on the Tracer Display main screen for that area. See the “Office” example in [Figure 9](#).

Step 13: System Controller Setup

Figure 9. HVAC-only area and HVAC lighting area

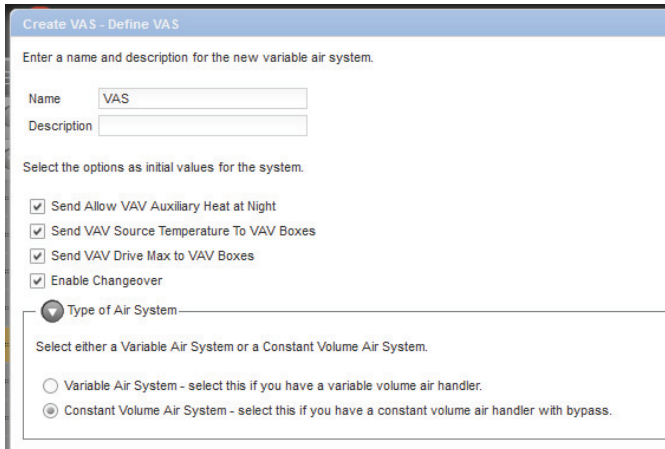


Changeover Systems

Create a Variable Air system

1. Click the **Enable Changeover** checkbox.
2. Select either Variable Air System or Constant Volume Air System.
3. Enable the optional **Optimization** functions and click **Next**.

Figure 10. Create VAS



Note: Duct Static Optimization is not supported for Constant Volume systems.

4. Select the Air Handler, VAV boxes, and Ventilation members. Ensure that you do not have the Constant Volume AHU in an area.
5. Check the appropriate boxes for tagging and priority heat. See System Controller online help for more information.

Step 13: System Controller Setup

Figure 11. Create VAS

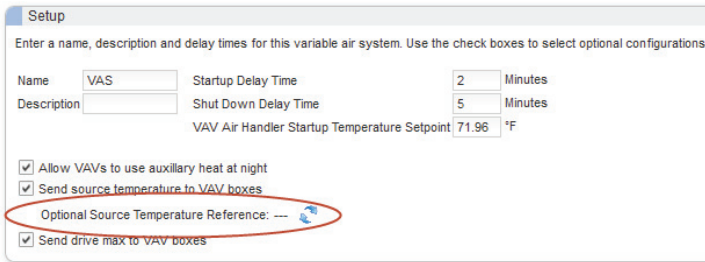


- Under **Functions**, define the number of normal and strong opposite callers required for the system to changeover. Define the minimum changeover time or use the default.
- Choose the device controlling the bypass damper, such as the UC210 with Bypass Damper Control programming.

Note: To set the bypass configuration, an Air Handler member must be defined.

- Set the Discharge Temperature limits and deadbands.
- If the Air Handler does not have a Discharge Air Temperature (DAT) sensor, do the following:
 - For the VAVs, provide a source temperature from elsewhere in the system. Reference a value from elsewhere in the system to the source temperature of the VAV members.

Figure 12. VAS setup - Source temperature reference



- For the Air Handler, manually set the DAT of the Air Handler to a reasonable value, even if the point is out of service. Note that the Discharge Air Temperature (DAT) of the Air Handler has an effect on the VAS system based on the DAT High and Low Limit definition. Using ReliTel controls as an example, when there is no DAT sensor, the BCI-R will set the value for DAT to "65,535" and put the point out of service. When the point is out of service, it's no longer "in fault" and therefore VAS uses the value for the sequence. Because 65,535 is greater than the DAT High Limit, VAS puts the unit in Fan Only mode. To avoid this issue when there is no DAT sensor, leave the DAT point out of service and set it to a value within the limit range so that the system will operate correctly.

Schedules

- Tracer Concierge only supports System Controller schedules that are type: HVAC and Binary. Analog and multi-state schedules will not appear on the Tracer 10-inch Display.
- Schedule names will appear on the Tracer 10-inch Display, so name schedules suitably. Best practices for schedule names:
 - Name schedules with 24 characters or less.
 - End the name with the word **Schedule**. For example, Store Schedule or Parking Lot Lights Schedule.

Note: Schedule names longer than 24 characters will wrap and then end in ellipsis for longer names.

- Schedule members should be areas, such as lighting and/or HVAC areas or spaces such as constant volume rooftop units.

Step 13: System Controller Setup

Custom Graphics

All graphics for Tracer Concierge must be custom graphics. Tracer Concierge will not show standard or template graphics.

Order Custom Graphics from Centralized Graphics. On the Graphics Order Sheet, check the Tracer Concierge box, so the graphics are suitable for Tracer 10-inch Display.

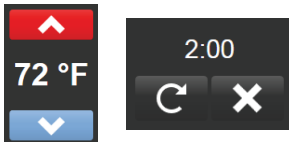
Graphics should be 1280x720 resolution.

- Graphic names will appear on the Tracer 10-inch Display, so name graphics suitably.
- Name graphics with 24 characters or less. There is not a fixed limit on name length, but longer names will not display well in Tracer Concierge.
- Give graphics descriptive names. For example, First Floor Temps.
- Add property references, such as:
 - Temperatures
 - Flood Fill for floorplans
 - Setpoints. As a best practice, use the new setpoint widget that looks like the main screen.
 - Overrides. As a best practice, use the new override widget that looks like the main screen.
- System Controller graphic navigation buttons are not supported in Tracer Concierge. Instead, use target or link.

Best practices for custom graphics

- Limit or do not use navigation between custom graphics. Each graphic will appear in the menu.
- No external links to the web.
- No links to stock System Controller web pages, such as Building Summary, Status screens, Alarms, Schedules, and Data Logs. These links will be disabled on the Tracer 10-inch Display screen.
- Use the new setpoint and override widgets.
- Avoid elements better suited for the System Controller web interface: binary toggle, list box, setpoint box, override buttons, and navigation buttons.

Figure 13. Setpoint and override widgets



- Check the point references by using **Utilities | Resolve Graphic** to ensure there are not template point references.
 - Verify the points are referenced properly.
 - Verify all points have a specific Object Name and that none are left with **Default** as the Object Name. Except for navigation objects, which may be left at default.

Important: Any graphic that has a point with **Default** as the Object Name will not be shown on the display.

Step 14: Mounting the Display

Figure 14. Resolve graphic

Point mappings can be changed by clicking on the value in the table

StatusText_6	Parts:10000 Twin Cities Parts:10000	Analog Value	RM CoolDeviationCalc Twin Cities Parts:Conf RM HeatDeviationCalc	value	
StatusText_7	Conference Room Bypass Damper:14444	VAV Box Space Temp Control	Conference Room Bypass Damper	Duct Static Pressure Local	
StatusText_8	Conference Room Bypass Damper:14444	VAV Box Space Temp Control	Conference Room Bypass Damper	Duct Static Pressure Setpoint BAS	
StatusText_9	Conference Room Bypass Damper:14444	VAV Box Space Temp Control	Conference Room Bypass Damper	Air Valve Position Command	
StatusText_10	RTU-01 Conference Room:14555	Rooftop Unit CV	RTU-01 Conference Room	Occupancy Status	
StatusText_11	RTU-01 Conference Room:14555	Rooftop Unit CV	RTU-01 Conference Room	Heat Cool Mode Status	
StatusText_12	RTU-01 Conference Room:14555	Rooftop Unit CV	RTU-01 Conference Room	Space Temperature Active	
StatusText_13	RTU-01 Conference Room:14555	Rooftop Unit CV	RTU-01 Conference Room	Space Temperature Setpoint Active	
StatusText_14	RTU-01 Conference Room:14555	Rooftop Unit CV	RTU-01 Conference Room	Discharge Air Temperature	

Save Cancel Help

- Alternatively, in the graphic HTML file, check that the template flag is set to false. If it is set to true, return to the Resolve Graphic utility.

Step 14: Mounting the Display

Note: The Display is designed for conditioned indoor environments only.

Note: The display can be connected to System Controller:

- Directly by Ethernet cable
- By the optional Wi-Fi router
- On the customer network with the System Controller

Important: If using the Trane Wi-Fi router, the Tracer 10-inch Display must be powered up after the System Controller and router to ensure the router uses the correct default addresses for System Controller and the display. Alternatively, the display may be hardwired to the System Controller.

The Display mounts to the wall using a VESA mount. The required VESA mounting bracket size is 75 mm x 75 mm. A VESA mount (Order Number X05010511010) is available as an accessory from Trane, but any standard VESA mount should be acceptable. Brand, tilt, swivel and any other features are acceptable.

1. Select the wall space to mount the display. Mounting constraints are as follows:
 - The display must be powered continuously so mount it near an electrical outlet.
 - The display communicates to the System Controller using either Wi-Fi or Ethernet cable connection. Use standard Wi-Fi guidelines to select the display location.
 - The display should be accessible for any users that are allowed to make adjustments using the Display.
2. Disassemble the VESA mount.
3. Install the wall section onto the wall.
4. Install the display section of the VESA mount onto the Display enclosure using the 4 screws included with the VESA mount.
5. Re-assemble the VESA mount so the Display is now on the wall.

Step 15: Powering the Display

Step 15: Powering the Display

1. Connect the Ethernet cable from System Controller Port 2 to the Tracer 10-inch Display USB Port 1. Or alternatively for a Wi-Fi connection, connect the Ethernet cable from System Controller Port 2 to the Wi-Fi router Port 1.
2. Plug in the display power adapter to an appropriate wall outlet.
3. If the display does not power up, then press the power switch on the back of the display.

Figure 15. Back of the display



Note: The actual locations of power button and ports may vary.

Step 16: Display Setup

Step 16: Display Setup

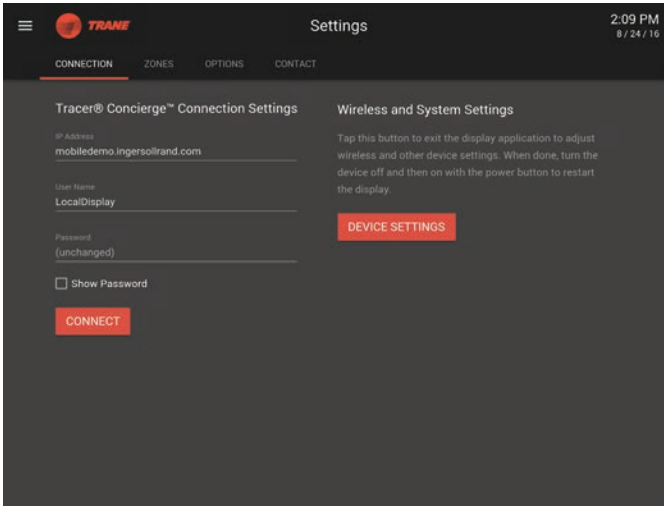
This section describes how to setup your Tracer 10-inch Display. This should be performed by Trane personnel.

Important: *If using the Trane Wi-Fi router, the Tracer 10-inch Display must be powered up after the System Controller and router to ensure the router uses the correct default addresses for System Controller and the display. Alternatively, the display may be hardwired to the System Controller.*

Configuring the Display

1. Select the **Connection** tab.

Figure 16. Connection tab



2. Tap **Device Settings**.
3. If connecting to System Controller via the wireless network:
 - a. Choose **Wi-Fi** and wait for the display to refresh available Wi-Fi networks.
 - b. If using the Wi-Fi router from Trane, select **ciscosb1** and verify security is **WPA2 PSK**.
 - c. Enter the Wi-Fi password: **Simple#Retail**.
 - d. Verify that the display is connected to ciscosb1.

Note: *If there are problems connecting, forget the network and start over.*

4. If connecting to System Controller directly via an Ethernet cable:
 - a. Choose **More | Ethernet**.
 - b. Select **Use static IP** and set the following:
 - IP Address: 192.168.2.11 Note: This address will work when the display is connected to System Controller Port 2, which defaults to 192.168.2.10.
 - Gateway: 192.168.2.10 (System Controller Port 2 address)
 - Netmask: 255.255.255.0
 - DNS 1: 192.168.2.10 (System Controller Port 2 address)
 - DNS 2: (blank)

Step 16: Display Setup

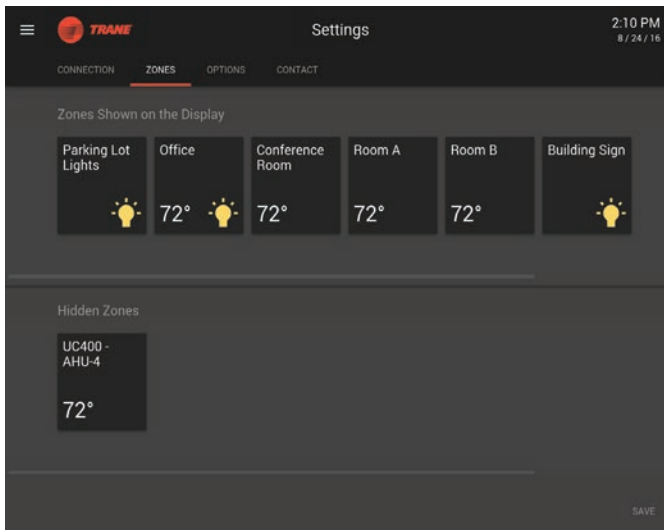
Note: Wi-Fi must be disabled to use a wired Ethernet connection between the Tracer 10-inch Display and System Controller.

5. To exit the Device Settings screen, use the Back button located on the back of the display near the power button to return to the Connections tab.
6. Enter the **IP Address** of System Controller. It defaults to System Controller Port 2.
7. Enter the **User Name** and **Password** of the System Controller user you previously setup. Hostname may be used in place of the IP address. However, it must be a fully qualified hostname.
8. Click **Connect**.

Note: Do not add a port in the IP address field. Tracer Concierge will attempt a secure connection (via https) first. If not available, it will establish a standard connection (http).

9. Select the **Zones** tab.

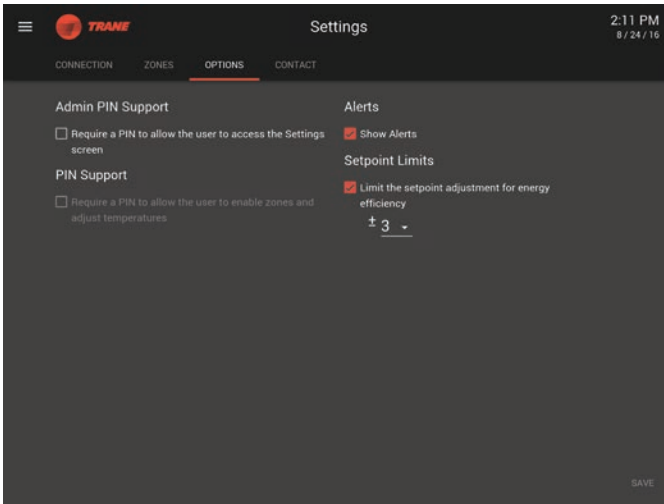
Figure 17. Zones tab



10. Set the zone order by dragging areas and spaces into selected positions. To hide a zone from the display, drag it to the bottom row. If an area is controlling the space setpoint via a global referencer, place the area in the upper row and the space in the bottom row to hide it.
11. Select the **Options** tab.
12. If desired, enable **Admin PIN Support**. Admin PIN requires users to enter the Admin PIN to view or modify System Controller connection settings, Zone configuration, display options, and contact information.
13. PIN support prevents non-authorized users (new employees or the general public) from changing a setting on the Tracer 10-inch Display.

Step 16: Display Setup

Figure 18. Options tab

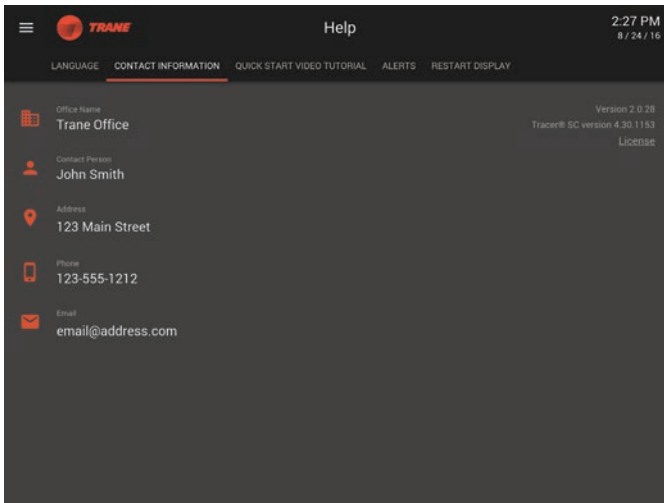


14. Setpoint limit defaults to +/-3 degrees. From the Options tab, you can change the setpoint limit from 1-9 or disable it entirely.

Note: This setpoint limit applies to the setpoints on the main screen and will not apply to any custom graphics.

15. Select the **Contact** tab, enter contact information for the person who supports Tracer Concierge system.

Figure 19. Contact tab



Step 17: Project Commissioning Checklist

Verify:

- Display main screen shows all the intended zones.
- Date and time are correct.
- Schedules are listed correctly.
- Graphics are listed correctly and appear correctly.
- Contact information is correct.
- Setpoint control on the display:
 - Adjust setpoints to max/min. The adjustment buttons are grayed out when the limit is reached.
 - Verify rooftop control to setpoint. Use the System Controller web interface to verify that the setpoint is sent to the rooftop.
- Verify override control at the display:
 1. In the System Controller web interface, override a zone/area, or a space not in an area, to unoccupied at level 14 with a 15 minute timer. This is a higher priority than the schedule (level 15), but not as high as the display (level 13). The override should take affect over the schedule, but the display will be able to control.
 2. In Tracer Concierge, tap the power icon to override the area occupied. Verify that the area occupies and that the display gives a 2 hour timer.
 3. Tap the **Reset** icon to verify that Tracer Concierge resets the timer to 2 hours.
 4. Tap **X** to verify that Tracer Concierge cancels the override.
 5. In the System Controller Web interface, release the override made in Step 1 or wait for the 15 minute timer to run out. Verify that you leave the system with the zone controlled by the schedule as normal operation intends.
- Verify remote access (if applicable) with Tracer Ensemble, System Controller web interface, and/or Tracer BAS Operator Suite mobile application.
- Backup System Controller and any unit controllers.

Troubleshooting and Common Questions

Problem	Explanation/Resolution
Widgets on custom graphics do not follow the setpoint limit range set on the Options tab within Settings	Even though they look similar to the main screen, these widgets do not follow the Setpoint limit range set on the Options tab. The limits for the widgets are set within Tracer Graphics Editor widget property dialog.
Communication loss	If communication loss occurs between the System Controller and the display, or between System Controller and the unit controllers, some elements of the screen may disappear temporarily and/or the display may restart. When this occurs, in addition to troubleshooting the communication loss, press the power button to restart the display.
Changes to site via the System Controller web interface	If the System Controller programming changes (such as schedules added, zones renamed, or graphics loaded), after the display has been started, the display should reflect the changes after a few minutes and may restart. If the display does not update in a timely manner, restart the display by pressing the power button on the back of the display.
Up or down arrow are disabled	Potential causes: <ul style="list-style-type: none"> • Setpoint is controlled locally at the zone sensor (such as thumbwheel). • The user does not have access to the setpoint. • The setpoint is controlled at a higher priority. • The setpoint is out of the range of the limits. The range is applied to the relinquish default value of the setpoint.
Setpoint doesn't seem to be controlling the HVAC	Check in the System Controller web user interface that the unit controller is receiving the setpoint. Notes regarding priority level: <ul style="list-style-type: none"> • The main screen controls the setpoint of zone (area or space) at control priority level 13 as default or at the user's simplified override level. • Custom graphics with a setpoint widget, similar to the main screen, can have the override priority set in TGE as a property of the widget. If you want the custom graphic to write at the same level as the display main screen, keep the default override priority (level 13).
No timer appears for a space that is controlled by an area before unoccupied transition	When approaching an unoccupied time (within two hours), the display will show a countdown timer to unoccupied mode on the main screen. This works well for spaces and areas that are members of a schedule. No timer will appear for a space that is controlled by an area, if the area is the member of the schedule. For example, changeover systems require the VAV boxes (spaces) to be members of an area as well as the VAS. Also, the area should be setup as a member of a schedule to control occupancy. Therefore, as the schedule approaches an unoccupied period, the display main screen will not show a countdown timer for any of the VAV boxes, since the VAV boxes are controlled by the Area rather than directly as Schedule members. The VAV box on the main screen will go from occupied mode to unoccupied mode without any countdown timer. No functionality is affected. The system will control as programmed.

Troubleshooting and Common Questions

Troubleshooting Air-Fi®: WCI does not join network

Possible cause	Explanation/Resolution
Not enough time allowed for joining	Give the WCI more time to join. If the network closes before the WCI has joined, re-open if necessary by pressing the OPEN NET button on another member WCI.
Wrong address	For factory addressed WCIs, verify address is correct. Verify each WCI address after installation. If sensor is installed, check for error code at sensor. Initiate network formation and resolve by exception.
No power	Ensure that: <ul style="list-style-type: none"> • The WCI is wired correctly. • The corresponding controller is wired to equipment correctly and is powered On.
Too much traffic	Try a different channel by selecting a different net address or by using Tracer TU. A better channel may be found by trial and error or by using a purchased tool such as WiSpy.
Outside of radio range or too many obstacles	Relocate WCI or add a repeater
Defective WCI	Replace

See the Tracer Concierge for Small Buildings User Guide (BAS-SVU031) for additional troubleshooting.

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