

TruVu™ ET Display (part no. EQT2)

Installation and Start-up Guide





Verify that you have the most current version of this document from www.hvacpartners.com, the **Carrier Partner Community** website, or your local Carrier office.

Important changes are listed in **Document revision history** at the end of this document.

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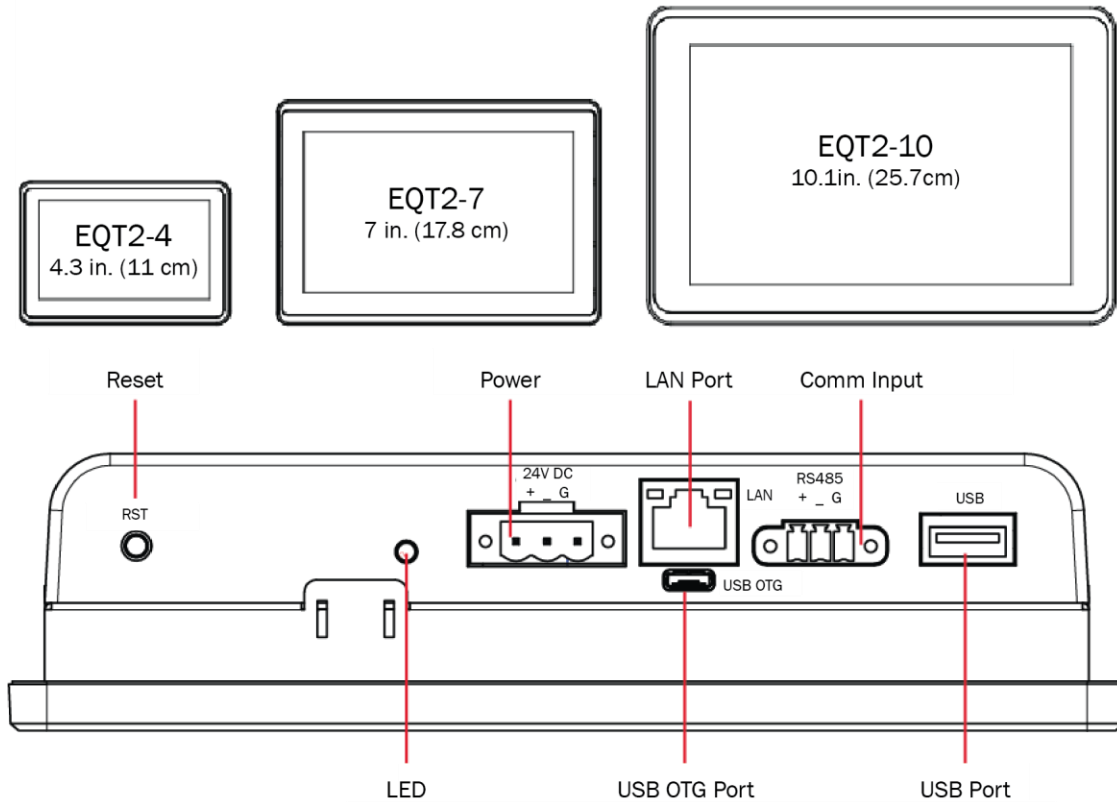
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What is the TruVu™ ET display?

The TruVu™ ET display is a touchscreen device that you can attach to all Carrier Open controllers to view or change its property values, schedule equipment, view trends and alarms, and more, without having to access the system's server.



LED*	Connection indicator.
Power Input*	Port that connects to the power supply.
Comm Input	Port that connects to the controller.
Reset	Hold for 3 seconds to reboot the TruVu™ ET display device.
LAN Port	RJ-45 Ethernet connection to Service Port on TruVu™ controllers
USB OTG Port	Used for factory programming.
USB Port	Use for capturing screenshots, transferring files, upgrading the application, and connecting to the controller (page 10) by i-Vu® XT or TruVu™ controllers only.



* Placement varies with size of unit

What is the TruVu™ ET display?



Specifications

	TruVu™ ET display4	TruVu™ ET display7	TruVu™ ET display10
Power	24 Vdc, 1.0A	24 Vdc, 1.0A	24 Vdc, 1.0A
Display: TFT	4.3" TFT (Widescreen)	7" TFT (Widescreen)	10.1" TFT (Widescreen)
Resolution	480 x 272 pixels (128 ppi)	1024 x 600 pixels (170 ppi)	1280 x 800 pixels (149 ppi)
Brightness	400 cd/m (typ.)	320 cd/m (typ.)	350 cd/m (typ.)
Contrast ratio	1000:1 (typ.)	1000:1 (typ.)	800:1 (typ.)
Viewing angle	-75~50(H); -75~75(V)	-75~70(H); -75~75(V)	-85~85(H); -85~85(V)
Max colors	16.7M (8-bit)	16.7M (8-bit)	16.7M (8-bit)
Touch	Projected Capacitive Multi-Touch (P-CAP)	Projected Capacitive Multi-Touch (P-CAP)	Projected Capacitive Multi-Touch (P-CAP)
Operating Conditions	-4 °F to 140 °F (-20 °C to 60 °C), 10% to 90% RH (non-condensing) Front IP65 Water and Dust Proof (Rear: IP20); Vibration tested to IEC60068-2-64		
Storage Temperatures	-13 °F to 158 °F (-25 °C to 70 °C)		
Communication	EIA-485 based serial port for controller communication to Rnet port for upgrades, screen captures, file transfers, and controller communication for i-Vu® XT or TruVu™ controllers (for future use)		
Comm Input	port for factory programming		
USB	RJ-45 Ethernet connection to Service Port on TruVu™ controllers		
USB OTG			
LAN			
System	OS: Android 6.0		
Processor	Freescale Cortex A9 i.MX6 Dual Core 1 GHz		
System Memory	1GB LPDDR3 RAM to store variable data and LCD data.		
Storage	8 GB on-board eMMC Flash memory to store program code and screen file		
Mounting	Wall or panel mounting within the building interior Wall mounting kit (7" and 10" only)		

Listed by	CE (Class B), FCC (Class B), UL 60950, Vibration tested to EN60068-2-6, IP65 rated (front) IP20 rated (rear)
Real-time clock	A 365-day real time clock/calendar chip; the time and date will be maintained for a minimum of 72 hours after loss of power (at room temperature)
Device Identification	The serial number is found on a label on the back of the TruVu™ ET display
Compliance	United States of America: FCC CFR, Part 15, Class B Canada: Industry Canada Compliant, ICES-003, Class A cUL Listed UL 916, PAZX7, Energy Management Equipment Europe:  Mark, UK:  EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment RoHS Compliant: 2015/863/EU REACH Compliant

Mounting the TruVu™ ET display

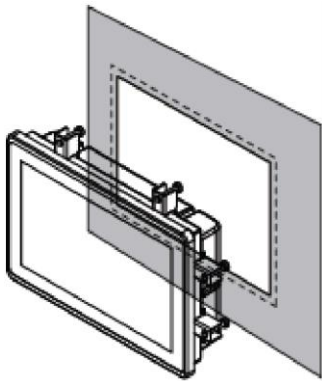
The TruVu™ ET display must be mounted within the building interior. You can mount the TruVu™ ET display:

- In a panel with the controller or on the panel door
- On a wall within 500 feet (152 meters) from the controller
- Within 100 feet (30 meters) of its power supply
- With a wall mounting kit (7" and 10" only)

You can mount the panel using either of the two options below.

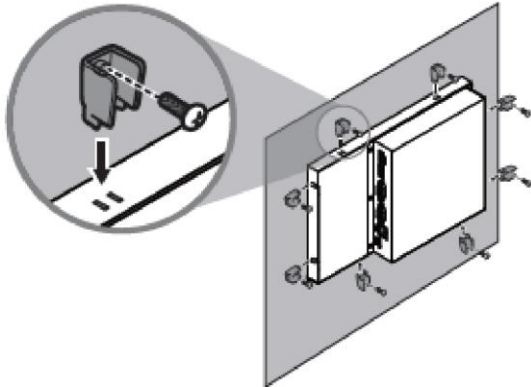
Option 1 - Panel mounting

- 1 Cut opening in the panel door to size specified in punchout table below.



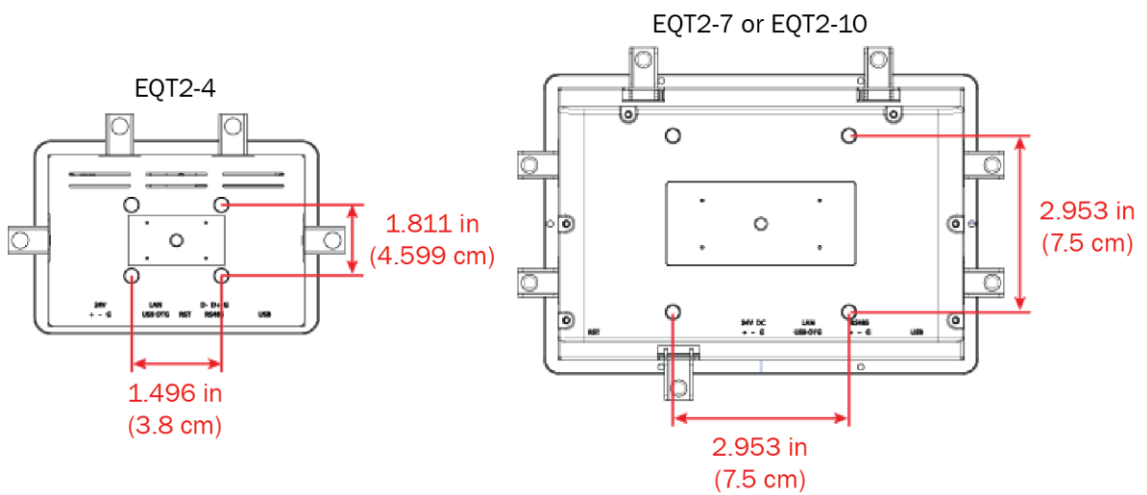
Part #	Punchout Size, Width x Height
TruVu™ ET display-4	4.331 x 2.914 in. (11 x 7.4 cm)
TruVu™ ET display-7	6.9 x 4.646 in. (17.5 x 11.8 cm)
TruVu™ ET display-10	9.607 x 6.26 in. (24.4 x 15.9 cm)

- 2 Mount the TruVu™ ET display securing with the clips provided.



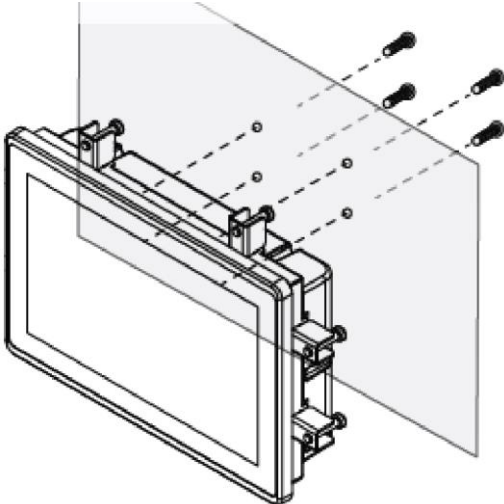
Option 2 - Backplane or VESA mounting

- 1 Refer to the drawings below to determine the proper mounting holes to use for each size TruVu™ ET display.



NOTE The TruVu™ ET display-4 does not use the standard VESA mounting holes.

- 2 Use the screws provided to mount the backplate or to the VESA bracket.



Wiring the TruVu™ ET display

Wiring for power

Connect the TruVu™ ET display to either a:

- 24 VDC power supply using 2-conductor wire 18 AWG.
- 24 VAC power supply using a **NSA-A/PS24-24V-S** low voltage power supply

NOTE Must be within 100 feet (30 meters).

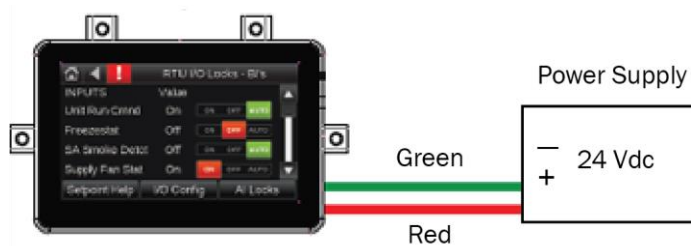
WARNINGS

- Do not apply line voltage (main).
- Do not share power between the Carrier controller's 24 Vac transformer and an external 24 Vdc power supply unless both devices are half-wave.

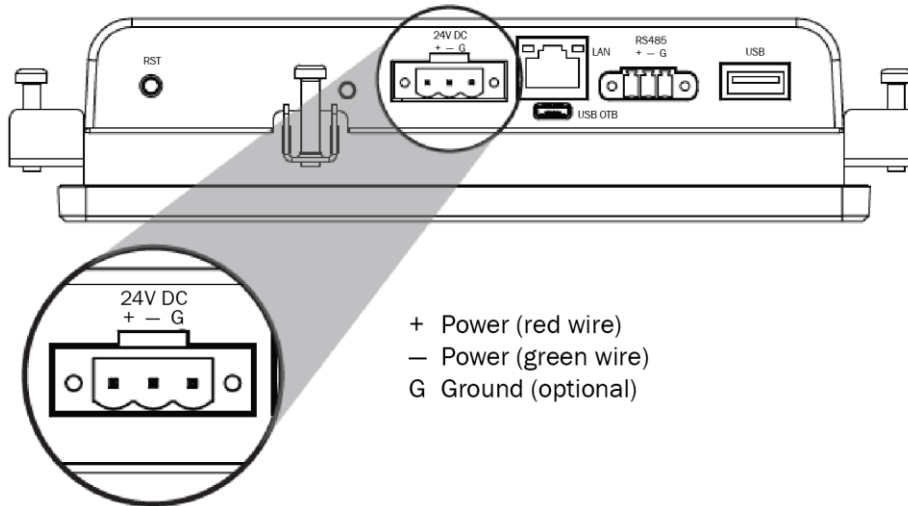


CAUTION The TruVu™ ET display can share a power supply with the Carrier controller as long as:

- The power supply is DC power.
- You maintain the same polarity.
- You use the power source only for Carrier controllers.



NOTE Purchase a power supply from a third-party manufacturer.



Wiring for Communication - Rnet configuration

You can connect the TruVu™ ET display to a controller's Rnet port using 2-conductor wire 22 AWG. The Rnet can have one TruVu™ ET display, plus ZS sensors and/or a wireless adapter that communicates with wireless sensors.

NOTE The TruVu™ ET display:

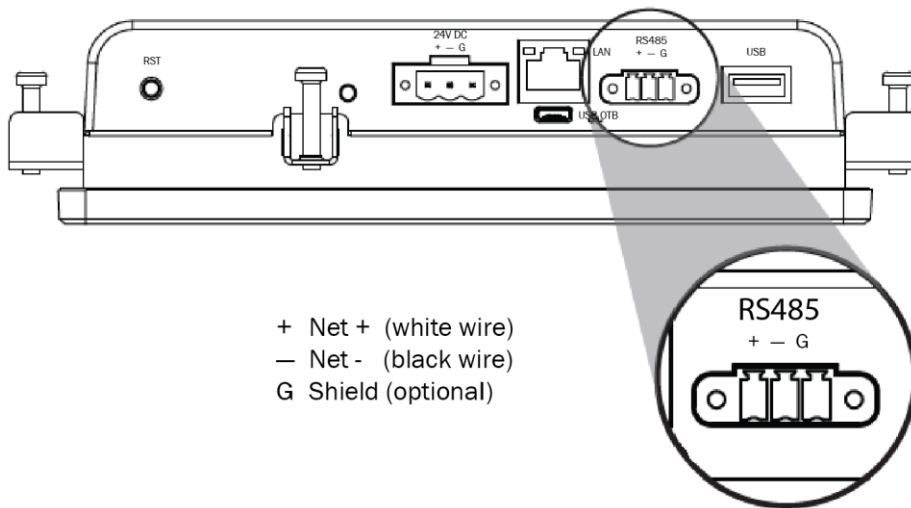
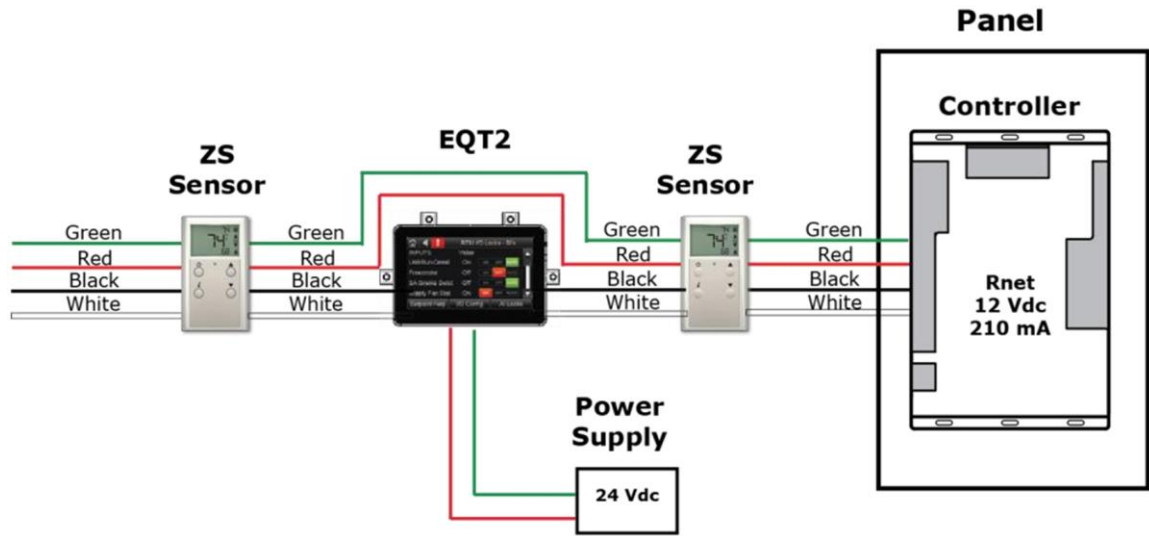
- Cannot share the Rnet with an Equipment Touch.
- Does not get its power from the Rnet; it must be powered by an external 24 Vdc DC power source.
- Must be within 500 feet (152 meters).



CAUTION The TruVu™ ET display can share a power supply with the controller as long as:

- The power source shared by the controller and TruVu ET display is DC power.
- The same polarity is maintained.

- The power source is used only for Carrier® controllers.



⚠ CAUTION If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Wiring for Communication - Ethernet port connection

To connect to the Ethernet service port of a controller, connect a patch cable from the Ethernet port on the TruVu™ ET display to the Ethernet service port on the controller.

NOTES

- Your controller must have drv_fwex_104.00.2182 or later for Ethernet service port functionality to work.
- Wiring must be within 328 feet (100 meters).

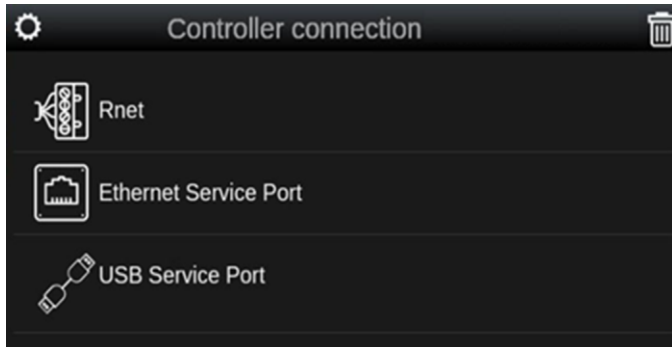
Wiring for Communication - USB port connection

This function is supported by TruVu™ controllers only. To connect to the USB service port of a controller, connect a USB Type-A cable from the USB port on the TruVu™ ET display interface to the USB port on the controller.

NOTE You must have TruVu™ ET display driver version 107-XX-XXXX or later for USB port functionality to work.

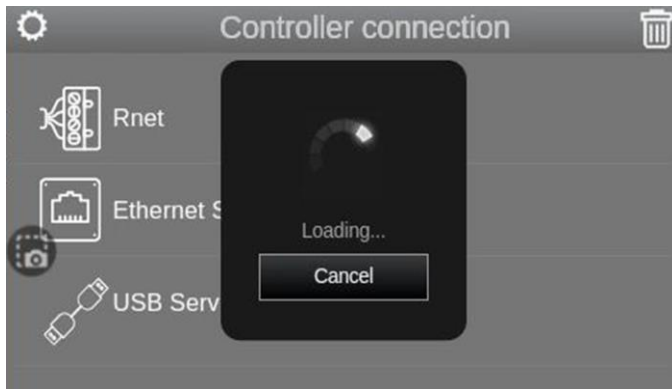
Interface selection

On startup, the TruVu™ ET display asks which connection type should be used.



NOTE: The USB Service Port option is available for future use by TruVu Dual IP Advanced Application controllers, and VAV, VVTZC and VVTBP controllers (subject to availability).

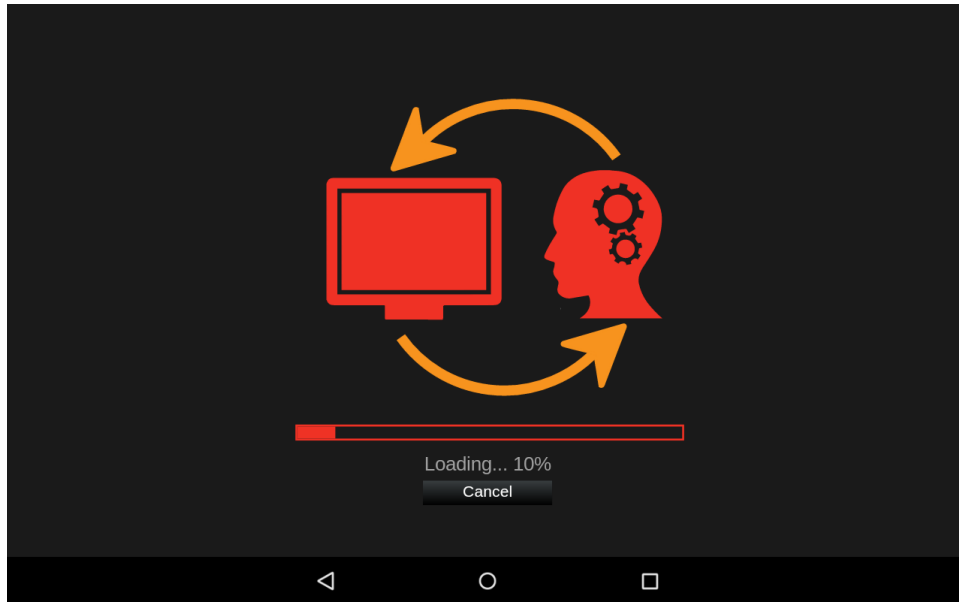
The TruVu™ ET display remembers this selection the next time the interface is powered on. To change the connection type, wait until the interface is attempting to connect and tap **Cancel**.




Setting up the TruVu™ ET display

After successfully connecting the power and communication wiring, one of the following appears:

- If you do not have custom screens, the System screen appears. See TruVu™ ET display screens.
- If you have custom screens for the TruVu™ ET display, the following screen appears while the files load. Then the Home screen appears.



Touch  to access the Application Settings without connecting to the controller. See TruVu™ ET display screens for information on the Application Settings screen.

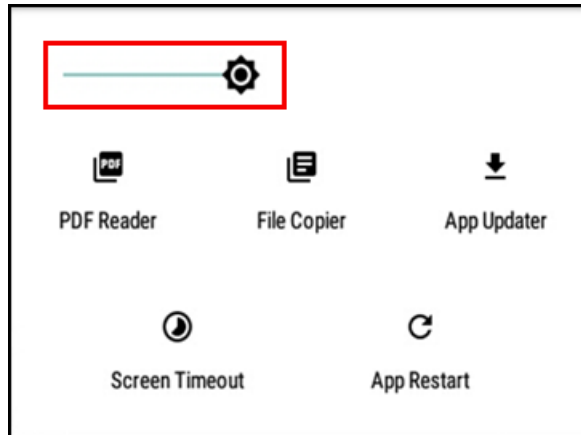
NOTE The TruVu™ ET display can take up to 20 seconds to start updating after communication is established, and up to 20 seconds to indicate a loss of communication.

To edit the touchscreen settings

Changes to the display are made on the **Quick Settings** pane. To display the pane, swipe down from the top of the touchscreen.

Brightness

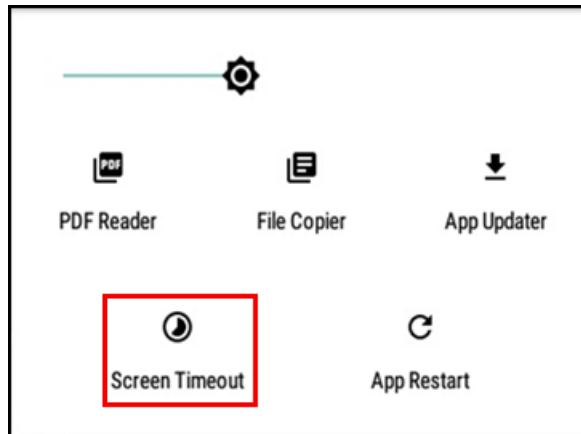
Adjust the brightness of the screen by sliding the brightness control left or right.



Screen Timeout

Adjust the length of time before the device goes to sleep. Tap **Screen Timeout**, and then select the number of minutes.

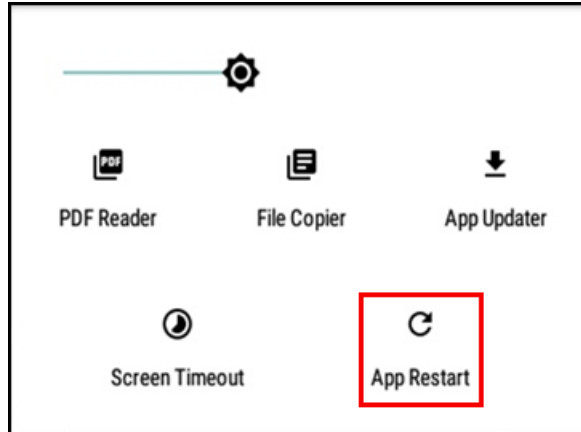
When the device has been inactive for the time set, the screen darkens and the user is logged out.



NOTE Use the Extended Screen Timeout to set longer screen timeouts. See *TruVu™ ET display screens* (page 18).

App Restart

Restart the TruVu™ ET display application on the device.



To update the touchscreen

To update the TruVu™ ET display software, do the following.

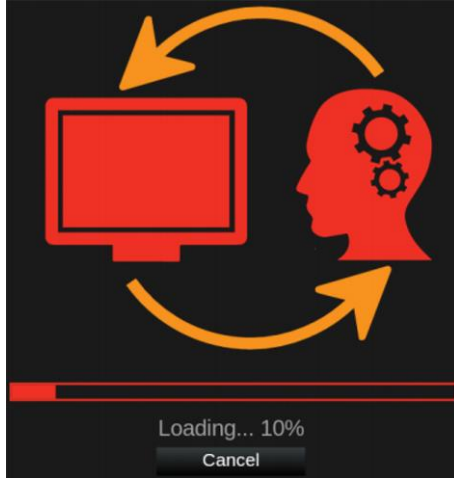
- 1 Download the latest TruVu™ ET display zip file and associated .MD5 file, for the appropriate model (4.3", 7" or 10"), to the root directory of your USB drive.
- 2 Insert the USB drive into the USB port on the TruVu™ ET display.
- 3 Press the **Reset** button on the TruVu™ ET display.
- 4 The touchscreen will automatically begin to install the updates as it boots up.


When installing or upgrading the application, you must clear the TruVu™ ET display cache before connecting to a controller. See *To clear the cache* (page 15) for instructions.

NOTE: An "update_flag" file is written to the USB drive after the update in order to prevent an accidental upgrade of the OS in the event the USB drive is left in the EQT2. If you are updating more than one EQT2 with the same USB drive, you must manually delete this "update_flag" file from the USB drive after each update.

To clear the cache

- 1 The cache must be cleared before a file appears on the device. If a file already appears on the device, go to the **Quick Settings** pane, and tap **App Restart** before proceeding to the next step.
- 2 When the view file begins loading, tap **Cancel**.



- 3 When the **Waiting for Connection** screen appears, tap  at the top, right of the screen.
- 4 Tap **OK** to clear the cache.

To update the device language

- 1 On the **System** screen in **Settings**, click **Languages**.
- 2 Select the desired language.

Working with files


With your USB drive connected through the USB port on the TruVu™ ET display, you can do the following:

- Save screenshots to the USB drive
- View any .pdf files from your USB drive on the TruVu™ ET display
- Copy files from the USB drive to the TruVu™ ET display

Capturing screenshots

You can capture and save screenshots of the display to a USB drive.

To take a screenshot

- 1 Insert your USB drive into the USB port of the TruVu™ ET display.
- 2 Tap the **Screenshot**  button on the TruVu™ ET display screen.

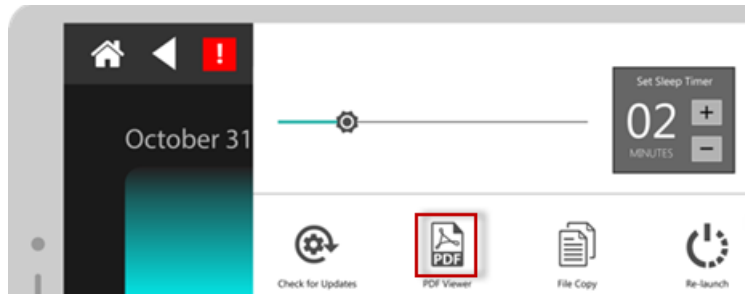
NOTES:

- The file is saved to the **/screenshots** folder on your USB drive.
- You can drag the screenshot icon to any location on the screen.

Viewing files

PDF files from your USB drive can be viewed from the **Quick Settings** pane.

- 1 To display the pane, swipe down from the top of the touchscreen.
- 2 To open the .pdf viewer, click the **PDF Viewer** icon.



- 3 Browse to the desired file either on the USB drive or that have been copied to the TruVu™ ET display using **Copy Files**.

Copying files

You can transfer files from your USB drive to the TruVu™ ET display device.

- 1 Display the **Quick Settings** pane by swiping down from the top of the touchscreen.
- 2 Click the **File Copy** icon.




- 3 Browse to the desired file on the USB drive and click **OK**.


TruVu™ ET display screens


The TruVu™ ET Display displays the system screens below, in addition to any custom-designed screens. System screens live in the app.

To create custom screens, you must install ViewBuilder v7.0 or later with the latest cumulative patch. In ViewBuilder, add the appropriate TruVu™ ET Display size to the Custom Touch Initialization Properties window as follows.

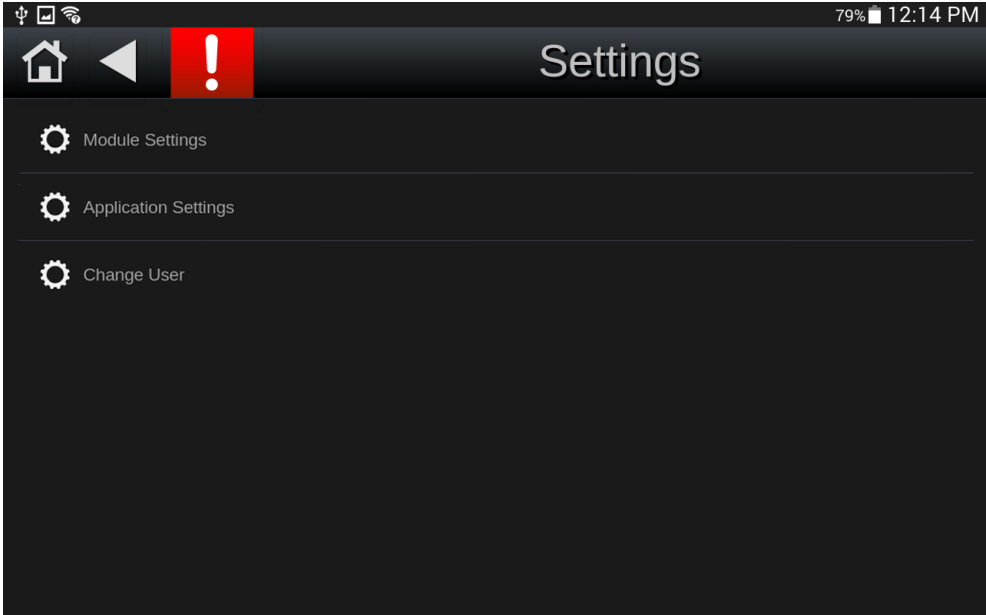
Name	Width	Height	Pixels Per Inch
EQT2 - 4	480	270	128
EQT2 - 8	1024	600	170
EQT2 - 10	1280	800	149

 **NOTE** If you do not have custom screens, you cannot see any screens or buttons pertaining to module settings, schedules, trends, or alarms, and you cannot change the current user.

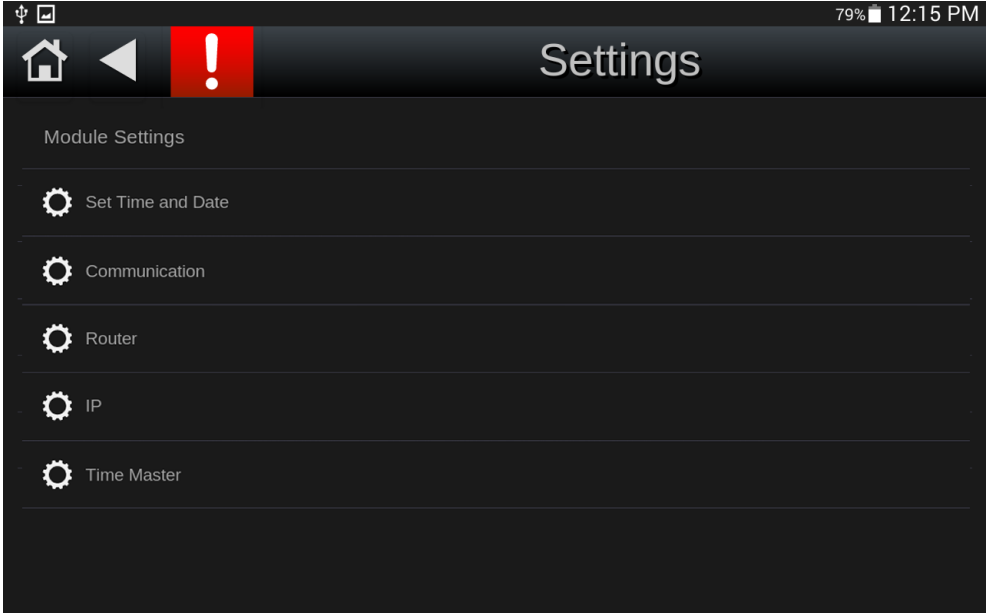
Screen name	Description										
Login	 <p>Displays if the screen you selected requires a password. Enter your password, then touch Done.</p> <p>Each screen is programmed with one of the following password levels:</p> <table border="1"> <thead> <tr> <th>A screen requiring this password level...</th> <th>Can be accessed by...</th> </tr> </thead> <tbody> <tr> <td>User</td> <td>A user logged in with the User, Admin, or Factory password</td> </tr> <tr> <td>Admin</td> <td>A user logged in with the Admin or Factory password</td> </tr> <tr> <td>Factory</td> <td>A user logged in with the Factory password</td> </tr> <tr> <td>No password</td> <td>Anyone</td> </tr> </tbody> </table>	A screen requiring this password level...	Can be accessed by...	User	A user logged in with the User, Admin, or Factory password	Admin	A user logged in with the Admin or Factory password	Factory	A user logged in with the Factory password	No password	Anyone
A screen requiring this password level...	Can be accessed by...										
User	A user logged in with the User, Admin, or Factory password										
Admin	A user logged in with the Admin or Factory password										
Factory	A user logged in with the Factory password										
No password	Anyone										

Screen name	Description
System	 <p>The screenshot shows a mobile interface for a BACnet device. At the top, it displays 'Device : 2402'. Below that, the date 'October 11, 2022' and time '3:50 PM' are shown. A large central display shows the number '72'. At the bottom, there is a navigation bar with icons for 'Local Access', 'Module Status', 'Schedule', 'Trends', 'Alarms', and 'Browse'. A camera icon is also present on the left side of the screen.</p> <p>Displays the BACnet device instance number, the controller's date and time, temperature read from the controller's prime variable, and zone color. Touch a button to jump to the Settings, Module Status, Schedule, Browser, Trends, or Alarms screen. Touch the camera (📷) to capture a screenshot (page 16).</p>

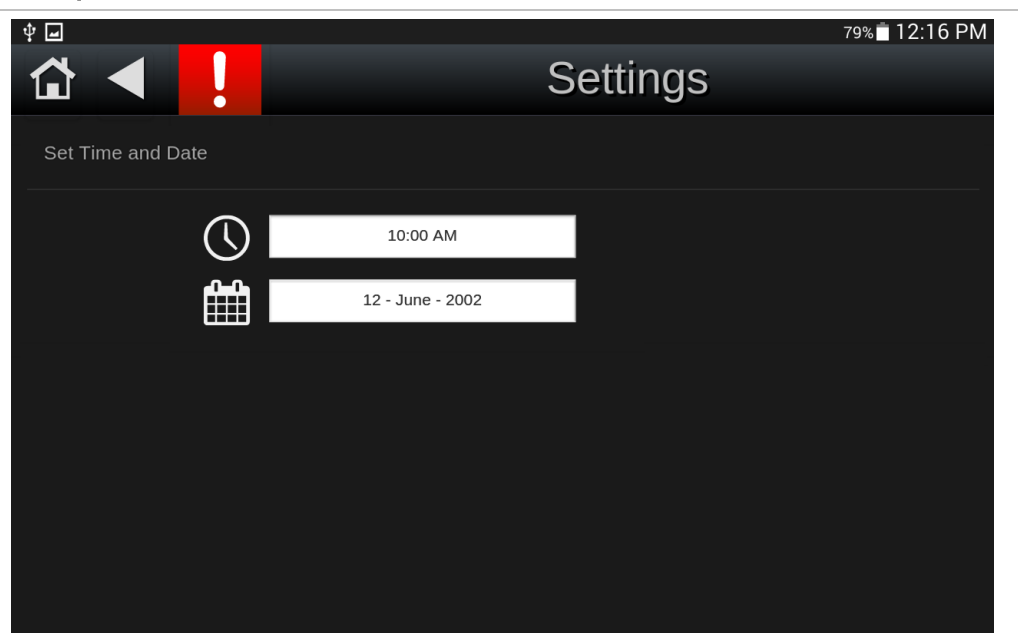
Local Access Browser	 <p>The screenshot shows the 'Local Access' screen with a 'BACnet' tab selected. Below the tabs, there is a section for 'IP Port' configuration. Under 'BACnet Network Number', there are three radio button options: 'Disable Routing', 'Autogenerated', and 'Assigned'. The 'Assigned' option is selected, and a text input field below it contains the value '2400'.</p> <p>Local access browser for IP-based controllers. View and configure controller information using the tabs at the top of this screen.</p> <p>NOTE Password protection available with i-Vu® 8.5.</p>
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Screen name	Description
Settings	

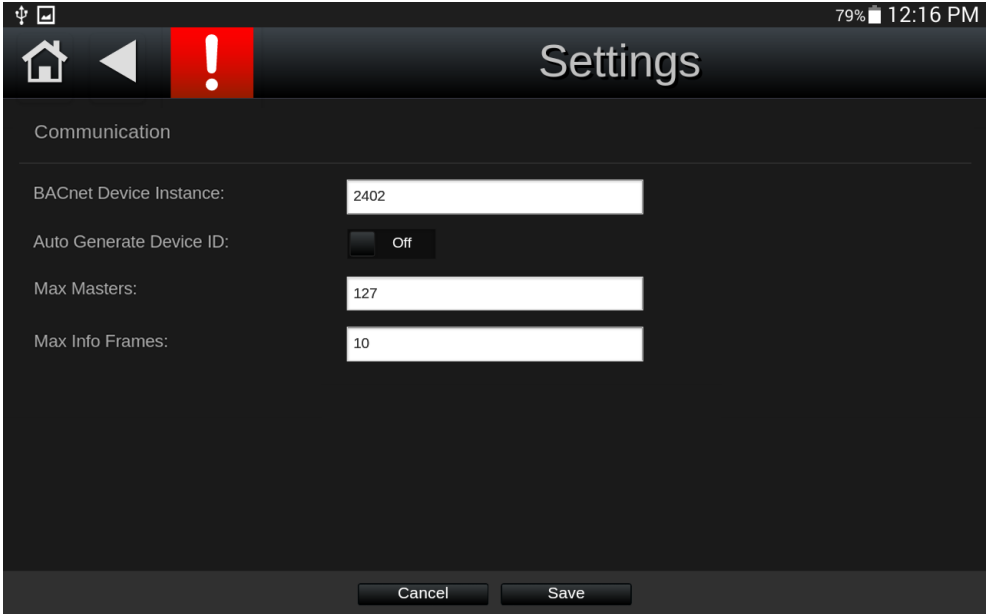
Touch an option to jump to **Module Settings**, **Application Settings**, or to change the current user.

Module Settings	
-----------------	---

Touch an option to jump to the **Set Time and Date**, **Communication**, **Router**, **IP**, or **Time Master** screen.

Screen name	Description
Set Time and Date	

Touch the time or date field to edit it.

Screen name	Description
Communication	

Lets you edit the controller's information described below. Touch a field to type in new information.

BACnet Device Instance number

Auto Generate Device ID – Turn Off or On.

The following fields pertain to a controller residing on an MS/TP network:

Max Masters - Set this to the highest MAC address (up to 127) on the MS/TP network. If you later add a device with a higher address, you must change this field to that new address.

NOTE This setting should only be changed on the highest addressed device on the MS/TP network. There is no need to change it on any other device. Carrier recommends setting the Master to the address of that device, or one higher.

Max Info Frames - Specifies the maximum number of information messages a controller may transmit before it must pass the token to the next controller.

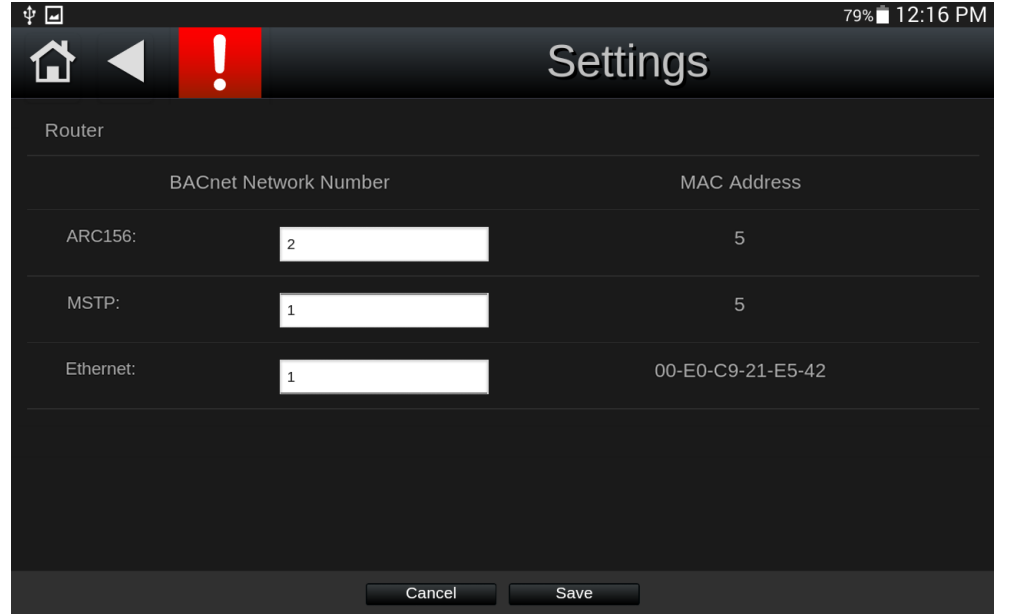
CAUTION Increasing this number allows the controller to transmit more messages while it has the token, but it also increases the overall time it takes for the token to pass through the network.

- For a router, set this value to a high number such as 200.
- In non-router controllers, use the following formula to calculate this value:

$$[2 - (\text{devices} * (.002 + (80/\text{baud})))] / [(600/\text{baud}) * \text{devices}] = \text{Max Info Frames}$$

For example, if the network has 15 devices at 19200 baud, Max Info Frames would be 4.

NOTE You may need to increase the result of the formula for controllers that need to communicate many values to other devices.

Screen name	Description
Router	

Lets you view or edit the router's ARC156 or MS/TP network number. Touch a field to tap in the new number on the keypad.

NOTE BACnet Ethernet network support will be added in a future release.

Screen name	Description
IP	OPN Controllers

NOTE IP Network would typically be 1600.

Settings

IP

You must restart your controller for changes to take effect

IP Network:
Valid range= 0 to 65534, Disabled= 0

Current IP Address:

Current Subnet Mask:

Current Gateway IP Address:

Current UDP Port:

Assigned IP Address:

Assigned Subnet Mask:

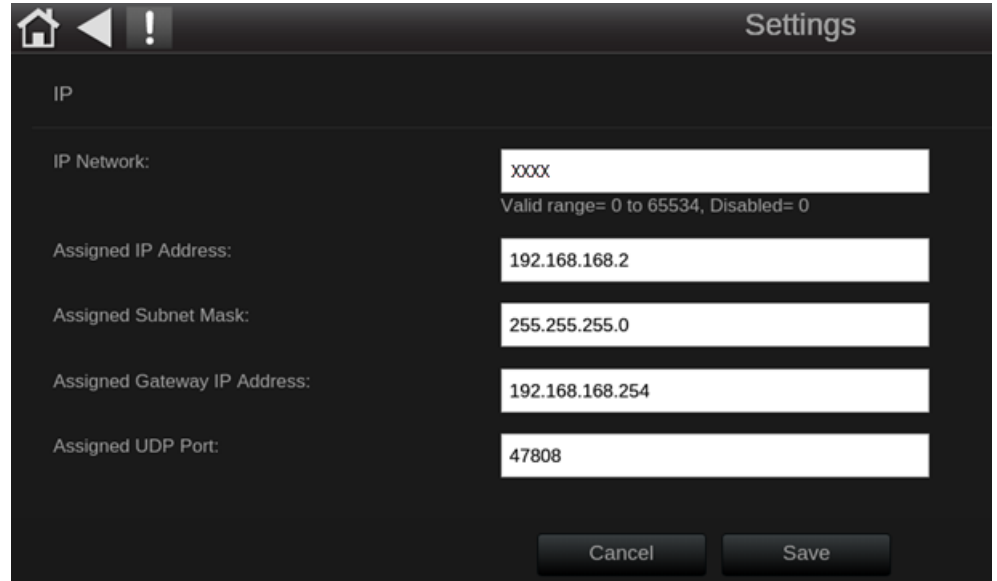
Assigned Gateway IP Address:

Assigned UDP Port:

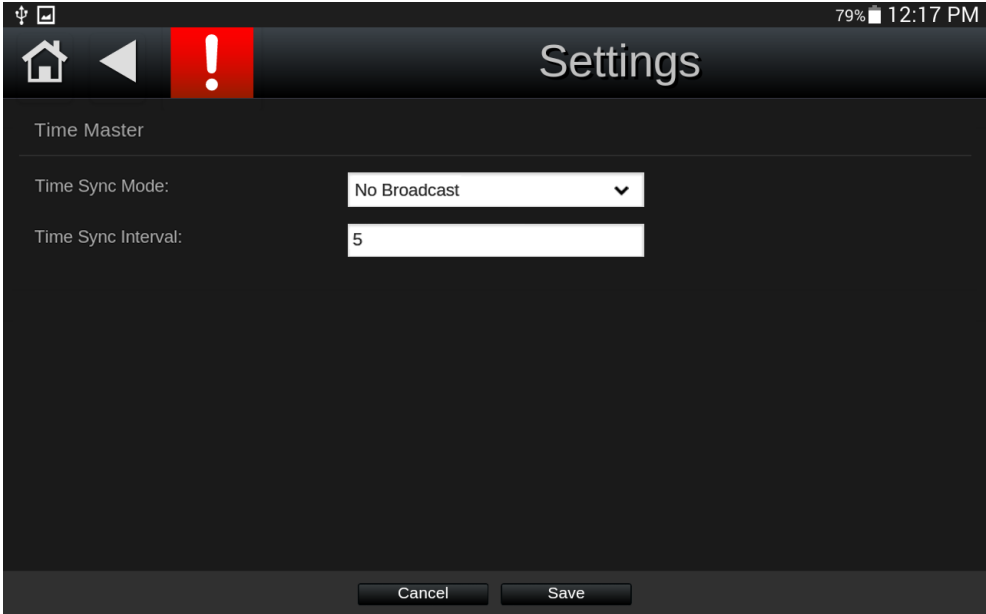
Cancel Save

Screen name	Description
-------------	-------------

HVu® XT or TruVu™ Controllers



Lets you view or edit network addresses and the UDP Port. Touch a field to tap in the new number on the keypad.

Screen name	Description
Time Master	

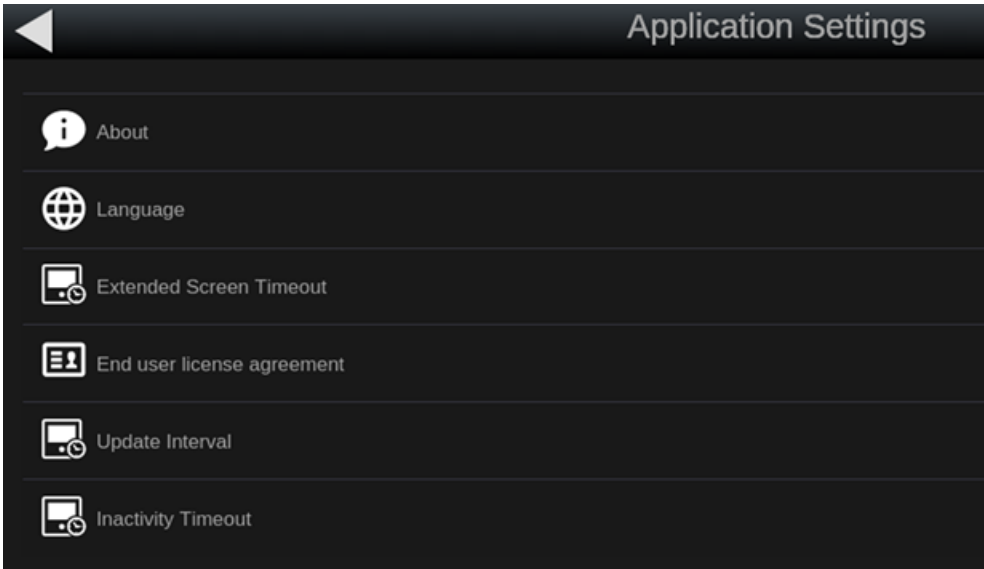
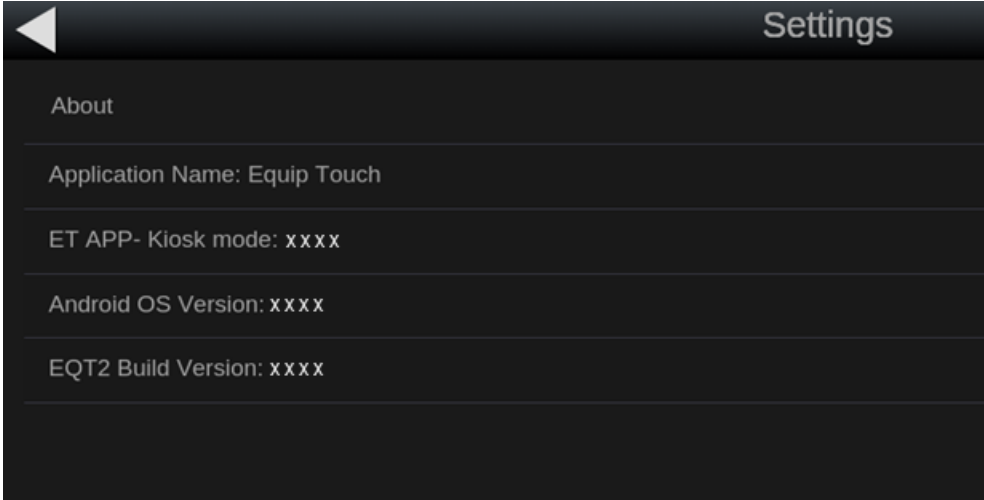
If the system does not have a front-end, you should designate a controller to be the BACnet Time Master. If a controller is the BACnet Time Master, this screen lets you configure how it sends time synchronization broadcasts.

Time Sync Mode - Tap in the number below that represents your selection:

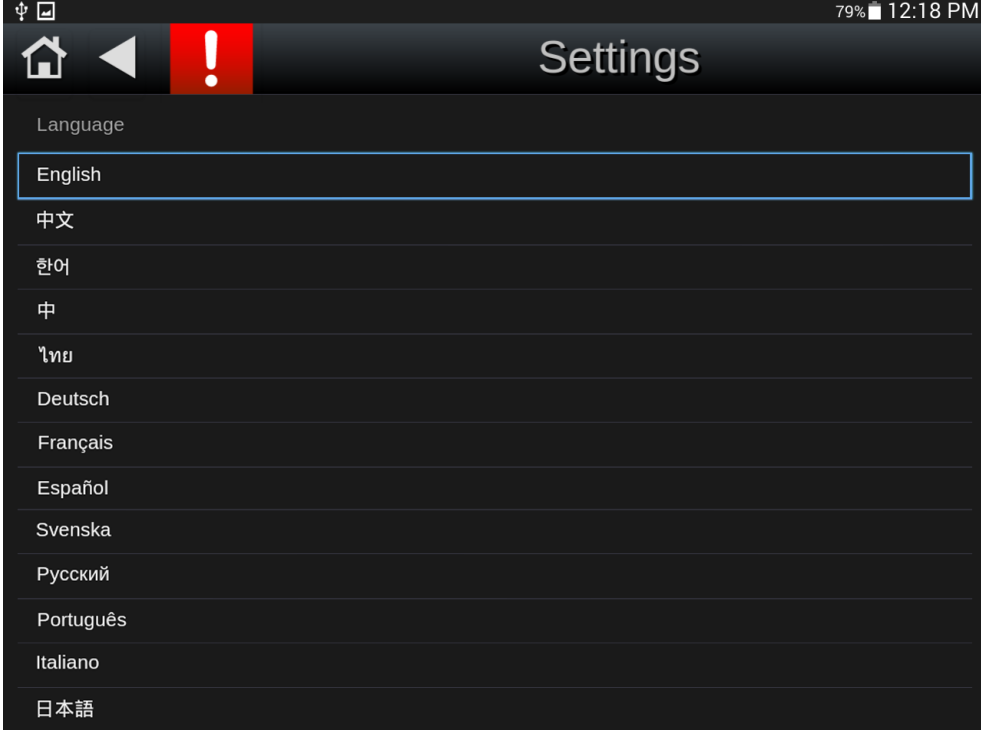
- **0 = No Broadcast** - The controller will not act as Time Master.
- **1 = Local Broadcast** - If it doesn't already exist, a BACnet address with network number and MAC address length both set to zero is added to the controller's **Time Synchronization Recipients** list found on the driver's **Device** page in the i-Vu® interface. The controller will then send time broadcasts only to controllers on its ARCnet or MS/TP network.
- **2 = Global Broadcast** - If it doesn't already exist, a global address with network number set to 65535 and MAC address length set to zero is added to the controller's **Time Synchronization Recipients** list found on the driver's **Device** page in the i-Vu® interface. The controller will then send time broadcasts to all its connected networks.

Time Sync Interval - Enter how often local or global time broadcast should be sent (1-9999 minutes). If **Time Sync Interval** is set to zero, no time sync messages are sent.

NOTE If the controller looks through its Time Synchronization Recipient List and finds an entry with MAC address length set to zero and network number set to 65535, the controller's BACnet Time Master mode is set for Global Broadcast. If there is no global broadcast entry in the recipient list, the controller then looks for a local broadcast address (MAC address length set to zero and network number set to zero or to the same network number as the module's). If such an entry is found, the BACnet Time Master mode is set for Local Broadcast. Otherwise, the mode defaults to Disabled/None.

Screen name	Description
Application Settings	
<p>Lets you access information about the app, select which language to use for the TruVu™ ET display system screens, and adjust your timeout settings.</p>	
About	
<p>Displays information about the TruVu™ ET display.</p>	

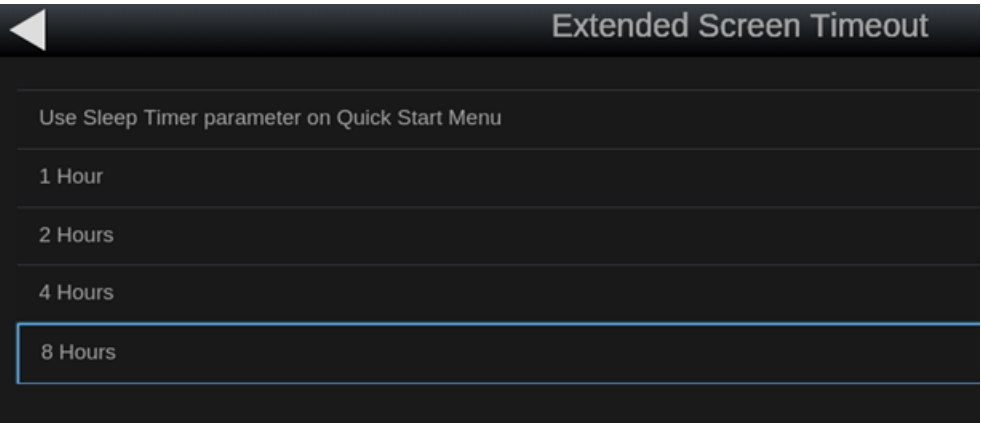
Screen name	Description
-------------	-------------

Screen name	Description
Language	

- | | | |
|---------------------|---------|------------|
| English | German | Portuguese |
| Simplified Chinese | French | Italian |
| Korean | Spanish | Japanese |
| Traditional Chinese | Swedish | |
| Thai | Russian | |

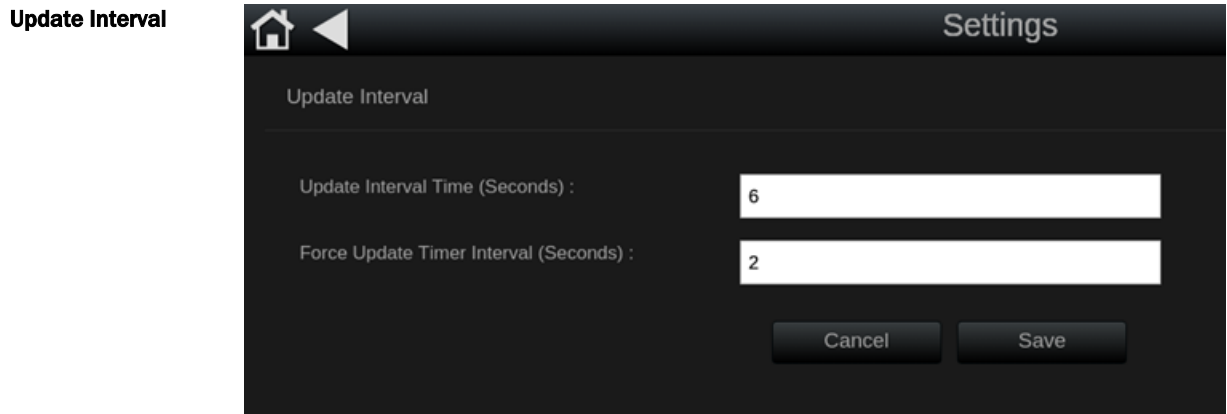
If optional languages were defined when the touchscreen file was created, this screen lets you select which language to use for TruVu™ ET display system screens. If custom screens were included in the touchscreen file, they will display in the language that they were created in.

Extended Screen Timeout	Description
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Allows you to select the time until the TruVu™ ET display screen powers off, and the user is logged out.

Screen name	Description
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Carrier Corporation recommends leaving these values at the default settings that appear in the image above.

Inactivity Timeout	
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Allows you to select the number of minutes of inactivity until the Standby screen appears and the user is logged out. If the TruVu™ ET display screen is not accessed, the Standby screen remains until Screen Timeout. The Inactivity Timer can also be disabled.

Screen name	Description
Module Status	

Module Status provides information about the controller, its firmware, and network information and communication status, and error conditions.

Screen name	Description
Schedule	

Lets you view, add, edit, or delete BACnet schedules in the controller. See *Viewing or creating schedules* (page 39).

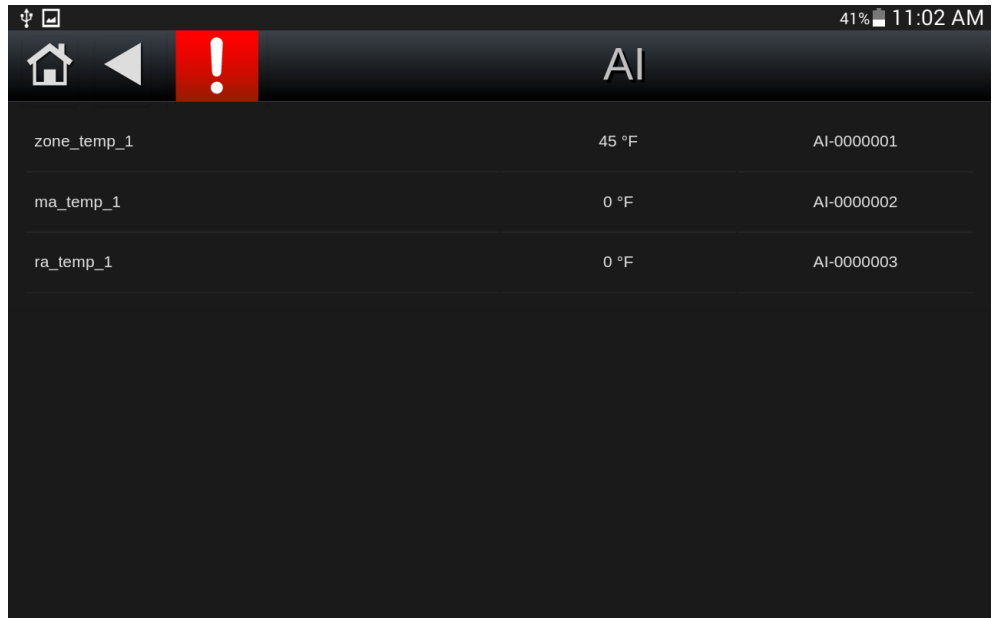
Screen name	Description
Browser	

Touch any of the above options to see that type of BACnet objects found in the controller. Or, you can touch **View All Objects** to see them all.

Screen name

Description

Below is an example of the AI BACnet objects in the controller. The screen shows the BACnet object name, current value, and BACnet object instance number.

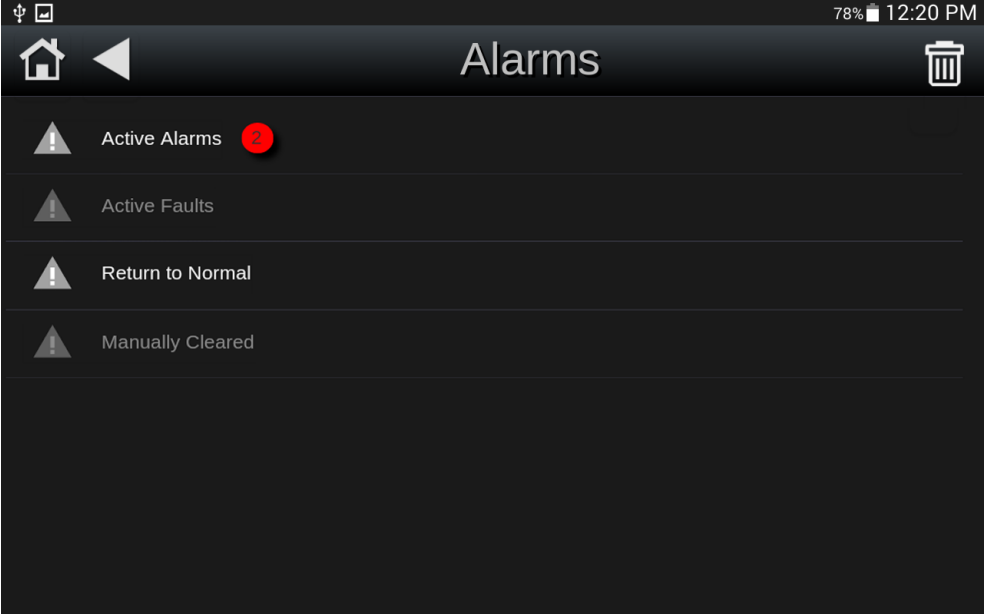


Touch an object in the above screen to see the details shown below.

Screen name	Description																						
	<p>The screenshot shows the 'AI' screen with a red alarm icon. The data is as follows:</p> <table border="1"> <tr><td>Object Identifier:</td><td>AI-0000001</td></tr> <tr><td>Object Name:</td><td>zone_temp_1</td></tr> <tr><td>Object Type:</td><td>Analog Input</td></tr> <tr><td>Present Value:</td><td>45 °F</td></tr> <tr><td>Status Flags</td><td></td></tr> <tr><td>In Alarm:</td><td>True</td></tr> <tr><td>Fault:</td><td>True</td></tr> <tr><td>Overridden:</td><td>False</td></tr> <tr><td>Out of Service:</td><td>False</td></tr> <tr><td>Event State:</td><td>Fault</td></tr> <tr><td>Out of Service:</td><td>True</td></tr> </table>	Object Identifier:	AI-0000001	Object Name:	zone_temp_1	Object Type:	Analog Input	Present Value:	45 °F	Status Flags		In Alarm:	True	Fault:	True	Overridden:	False	Out of Service:	False	Event State:	Fault	Out of Service:	True
Object Identifier:	AI-0000001																						
Object Name:	zone_temp_1																						
Object Type:	Analog Input																						
Present Value:	45 °F																						
Status Flags																							
In Alarm:	True																						
Fault:	True																						
Overridden:	False																						
Out of Service:	False																						
Event State:	Fault																						
Out of Service:	True																						

Trends	Description
	<p>The screenshot shows the 'Trends' screen with a red alarm icon. The list of trends is:</p> <ul style="list-style-type: none"> ref_vfd_ctl_1-2_trend_log ret_fan_ctl_1-2_trend_log ret_fan_ctl_2-2_trend_log ret_fan_ctl_3-2_trend_log ret_fan_ctl_4-2_trend_log rf_vrcnpos_spt_1-2_trend_log rf_vrcnpos_spt_2-2_trend_log rf_vrcnpos_spt_3-2_trend_log <p>A 'View Trends' button is located at the bottom right of the list.</p>

Lets you view trends for points that have trending enabled. See *Viewing trends* (page 38).

Screen name	Description
Alarms	 A screenshot of a mobile application interface titled "Alarms". The screen has a dark background. At the top, there is a status bar showing 78% battery and 12:20 PM. Below the status bar is a navigation bar with a home icon, a back arrow, the title "Alarms", and a trash can icon. The main content area contains a list of four items, each with a warning icon (exclamation mark in a triangle): "Active Alarms" with a red circle containing the number "2", "Active Faults", "Return to Normal", and "Manually Cleared".

Lets you view alarms from the controller. See *Viewing alarms* (page 36).

Setting timeouts


There are three timeouts available in the TruVu™ ET display. See the table below for descriptions and functionality.

Name	Description	Notes
Screen Timeout	Adjust the length of time before the device goes to sleep.	<ul style="list-style-type: none"> • Logs the user out • Can be overridden by Extended Screen Timeout • Found in Quick Settings, see <i>To Edit the touchscreen settings</i> (page 13)
Extended Screen Timeout	Adjust the length of time before the device goes to sleep. This option has longer timeout options than Screen Timeout.	<ul style="list-style-type: none"> • Logs the user out • Overrides Screen Timeout • Found in Application Settings, see <i>TruVu™ ET display screens</i> (page 18)
Inactivity Timeout	Allows you to select the number of minutes of inactivity until the Standby screen appears.	<ul style="list-style-type: none"> • Logs the user out • Can be disabled • Found in Application Settings, see <i>TruVu™ ET display screens</i> (page 18)

NOTE If the **Inactivity Timeout** is set for a shorter time than **Screen Timeout**, the user is logged out before the device goes to sleep.

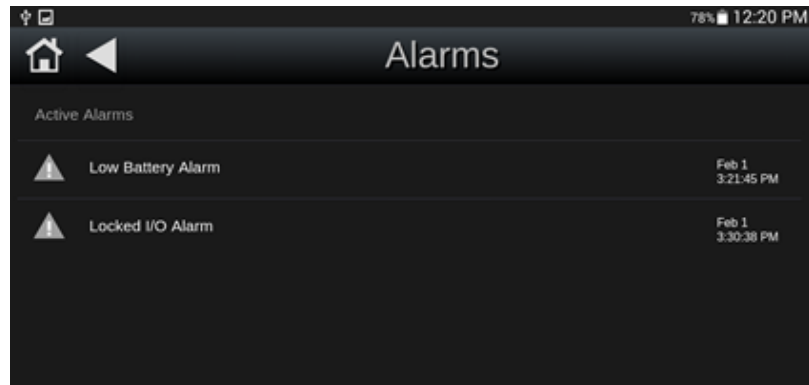
Viewing alarms


When the controller generates an alarm, the following actions occur in the TruVu™ ET display:

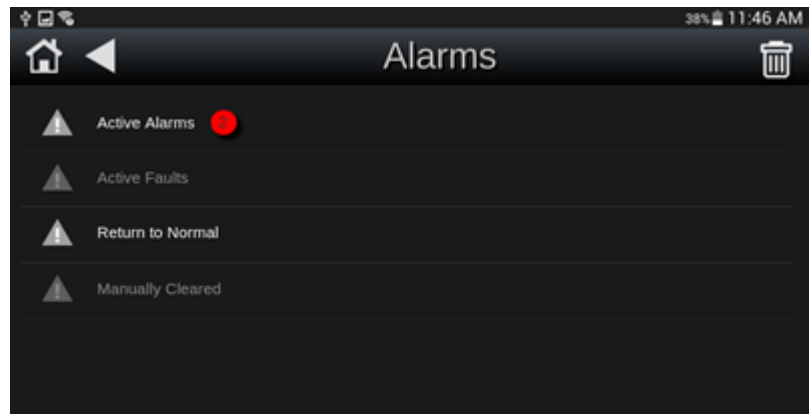
-  turns red. The button remains red as long as Active Alarms or Active Faults exist.
- The alarm is added to the **Active Alarms** or **Active Faults** screen. See the table below.


To view alarms

- Touch  to see **Active Alarms**.



- Touch  **Alarms** on the **System** screen to see current alarms.



Touch...	To...
Active Alarms	See all alarms except those that are defined as Faults in the control program.
Active Faults	See alarms that are defined as Faults in the control program.
Return-To-Normal	See alarms that returned to a normal state.
Manually cleared	See alarms that you cleared using the Clear Active button.
	Delete all active alarms.

NOTES

- The TruVu™ ET display can hold up to 100 alarms.
- The TruVu™ ET display does not display alarms for ZN line controllers.

Viewing trends

A controller can read and store point values for any point in the control program that has trending enabled. In the TruVu™ ET display, you can view trend data for up to 4 points on a trend graph.

To view trends



- 1 Touch **Trends** on the **System** screen.
- 2 The next screen shows any points in the control program that have trending enabled. Touch each point that you want to see on a trend graph (up to 4 points).
- 3 Touch **View Trends**.



Touch any marker on the graph to see the data and time of the trend sample, the point name, and the trend sample's value

Pinch-zoom the graph to zoom in and out. Touch **Reset zoom** to restore the graph to its original state.

Creating or viewing schedules

To set up scheduling functionality

You can define BACnet schedules for each time clock microblock in the controller's control program(s).


To allow a user to create schedules in the TruVu™ ET display:

- 1 In the i-Vu® or Field Assistant tree, expand the controller, and then select the **Driver** page.
- 2 Scroll down to **TouchScreen Control** and verify that **TouchScreen Schedule Edit Enable** is checked.



CAUTION If scheduling will be by the Equipment Touch App, you should disable scheduling in the TruVu™ ET display so that they do not overwrite each other's schedules. To disable scheduling, uncheck **TouchScreen Schedule Edit Enable**.

To create a schedule

- 1 Touch  **Schedule** on the **System** screen.
- 2 If the controller has multiple control programs that have a time clock microblock, touch the schedule object that you want to add a schedule to.
- 3 Touch **Add Schedule**.
- 4 Touch the **Schedule Name** field, and enter a unique name.
- 5 Touch **Schedule Type**, and select one of the following:
 - **ON Schedule** for an occupied period
 - **OFF Schedule** for an unoccupied period that is to override an ON schedule. For example, a holiday schedule that is to override a weekly schedule.
- 6 ON Schedule only—Select one of the following:
 - **Normal** for a typical occupied period
 - **Override** for a occupied period that is to override an OFF schedule.
- 7 Select one of the following:

Select...	To use the schedule...
Dated	For a specified period of time between a start and end date. For example, 7:00 am to 7:00 pm every day between July 1st and July 22.
Weekly	Every week on the specified days. For example, every Monday through Friday, 8:00 am to 5:00 pm.
Continuous	Continuously between 2 specified dates/times, For example, a non-stop schedule that starts June 1st at 12:00 am and ends August 31st at 11:50 pm.

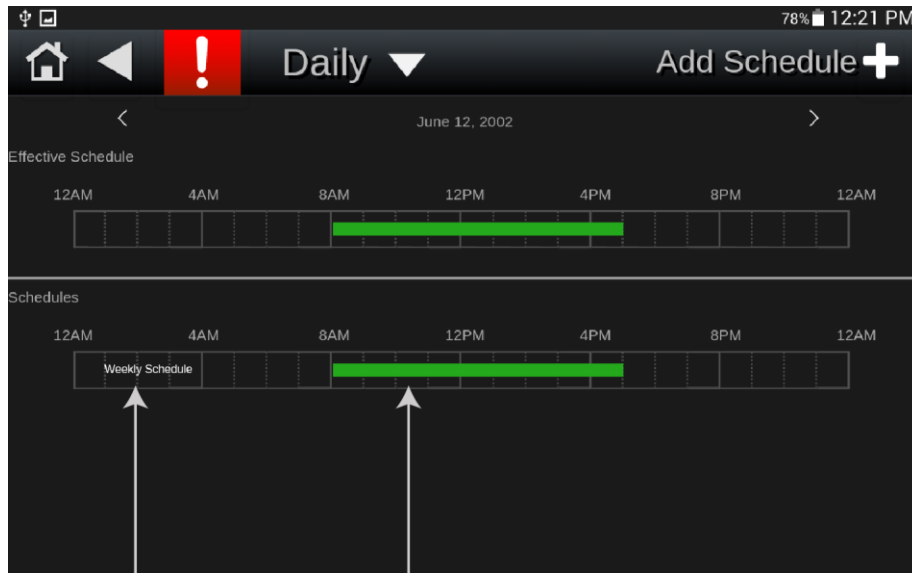
- 8 Touch **Save Schedule** when finished.

To add multiple periods to a weekly schedule

A weekly schedule can have multiple periods. For example, the first period could be every Monday through Friday, 8:00 am to 5:00 pm. The second period could be every Monday through Wednesday, 6:00 pm to 8:00 pm.

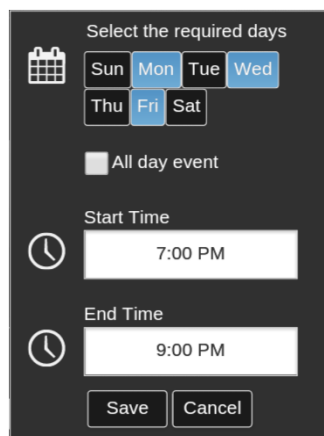
NOTE You can create up to 4 periods for a day, and up to 28 periods in a week.

- 1 Following the instructions above, create a weekly schedule for the first period. The schedule name is saved as **Weekly Schedule**.
- 2 In the **Daily** view, touch **Weekly Schedule** or the green bar beside it.



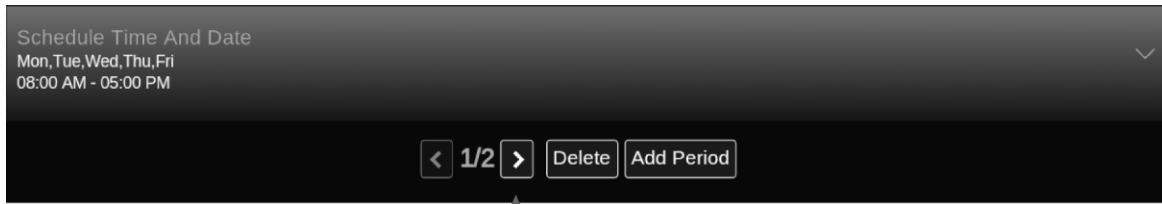
Touch the schedule's name or green bar

- 3 Touch **Add Period**.
- 4 Select the criteria for the new period.

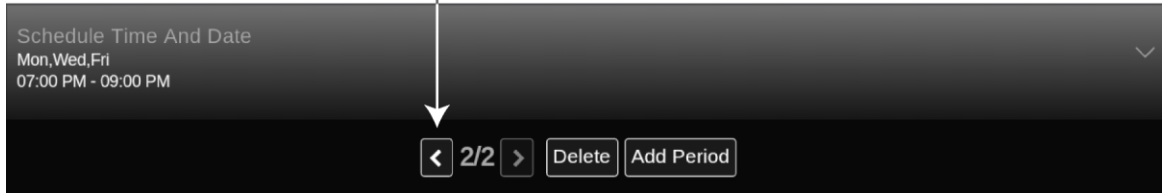


- 5 Touch **Save**.

You can touch the buttons shown below to toggle between the two schedules.





Touch buttons to toggle between the periods.



NOTE You can also add a period to a Weekly Schedule by touching **Add Schedule** and adding another weekly schedule. When you save it, it is appended to the existing weekly schedule as a separate period.

To view schedules

- 1 Touch  on the **System** screen.
- 2 If the controller has multiple control programs that have a time clock microblock, touch the schedule object that you want to see.
- 3 The calendar shows the schedules for the current month. Touch  to change the view to **Weekly** or **Daily**.



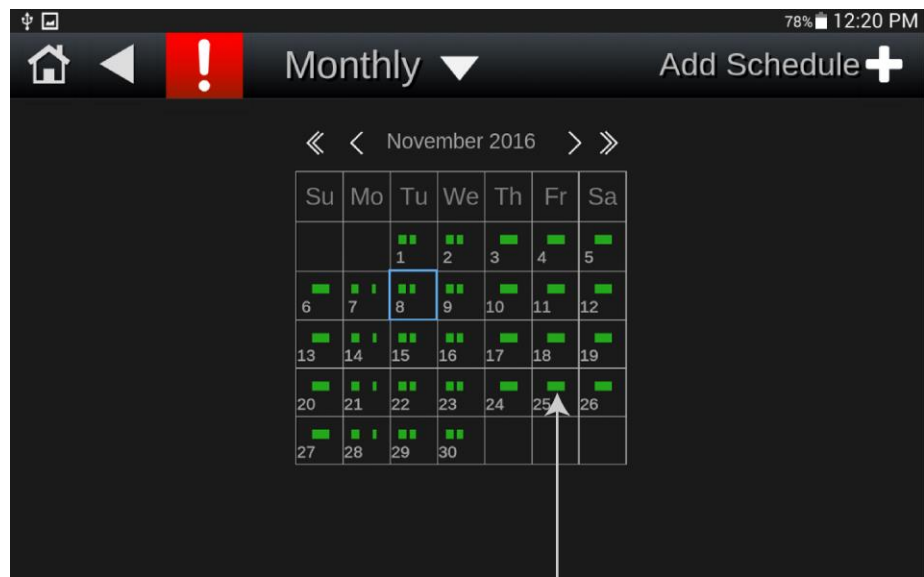
TIP Quickly tap the screen 3 times with one finger to zoom in.

Select...

To see...

Monthly
(default view)

Which days in the current month have schedules (indicated by green boxes).



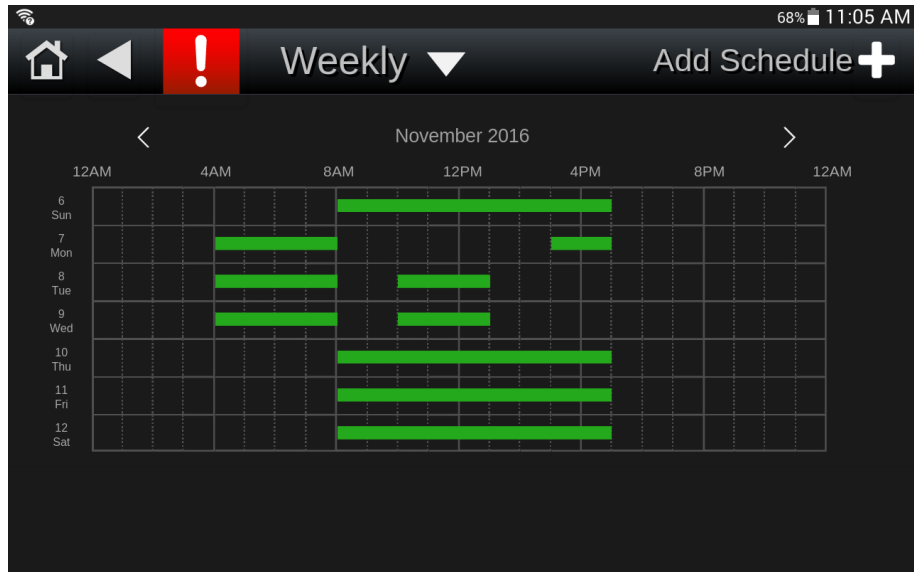
Touch a day to see its schedule(s)

Select...

To see...

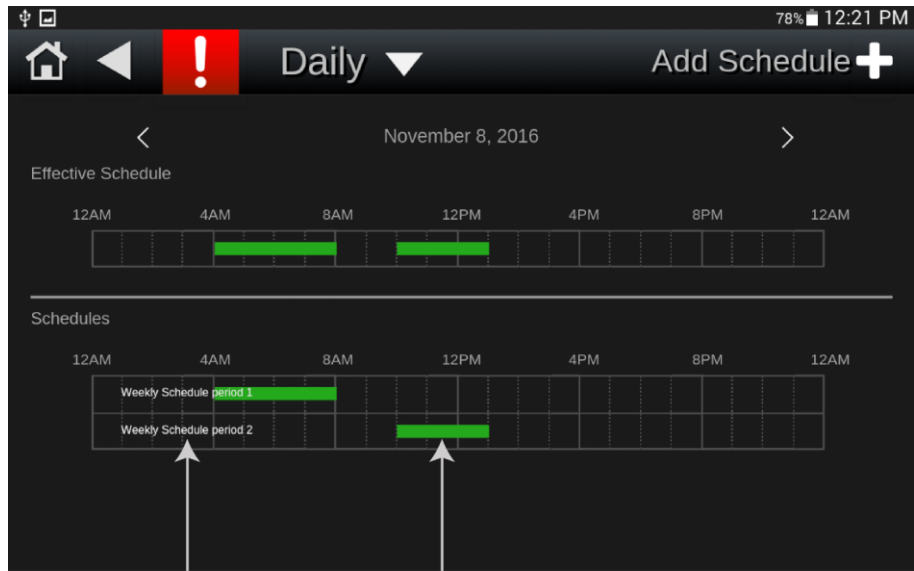
Weekly

Which days of the week shown have schedules (indicated by green bars).



Daily

The **Effective Schedule** is the combined result of the day's schedule(s).



Touch a schedule's name or green bar to edit or delete the schedule.

See *To create a schedule* (page 39) for field descriptions.

NOTES

- If you see **Schedule editing disabled** at the top of the screen instead of **Add Schedule**, scheduling is being done through another application and is disabled for the TruVu™ ET display.
- You cannot edit a schedule's **Type** (Dated, Weekly, Continuous), its **Priority** (Normal or Override), or whether the schedule is an **ON Schedule** or **Off Schedule**. If you need to change any of these settings, delete the schedule and then make a new one.

Forcing values (CCN points only)

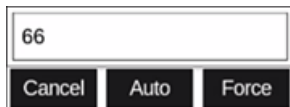
If a point has been set up to allow users to force the value, tap the value on the screen to open a dialog box that allows you to set the value you want. Only points created with CCN microblocks can be set to be forced. A forced point appears surrounded by a yellow border.

Forced	Unforced
75.00	106.79

You can force:

- Numeric values such as temperature

NOTE When editing a numerical value, **Auto** releases the force back to the systems automatic setting.



- Binary values such as check boxes or text toggles

Compliance

CE and UKCA Compliance



WARNING This is a Class B product. In a light industrial environment, this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1 This device may not cause harmful interference.
- 2 This device must accept any interference received, including interference that may cause undesired operation.



IMPORTANT Any changes or modifications not expressly approved by manufacturer could void the user's authority to operate the equipment.

NOTE This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with this document, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
7/25/24	Wiring for power	Added caution note regarding sharing power	X-TS-JC-J
	Wiring for Communication - Ethernet port connection	Added wire length note	X-PM-DS-E
8/30/23	TruVu™ ET display Screens	Added Local Access Page	X-PM-DS-O-DS
8/31/22	To view alarms	Added note regarding not displaying alarms for ZN controllers	X-TR-GG-E
	Specifications	Added Compliance row	X-PM-AB-R-BH
	Compliance	Added UKCA compliance	
	What is the TruVu™ ET display?	Added connecting to a controller via USB port	X-PM-IM-O-IM
	Specifications	Added LAN port function	
	Wiring for Communication - USB port connection	New topic	
	Interface selection	Added USB port option	
	Setting up the TruVu™ ET display	Added note regarding communication response times	
All	Replaced all instances of "NextGen" with i-Vu® XT or TruVu™	X-D	
11/4/20	Specifications	Added LAN port definition	X-AE-EE-O-RD
4/1/20	Wiring for Communication - Rnet configuration	New topic	X-AE-EE-O-RD
	Wiring for Communication - Ethernet port connection	New topic	
	Interface selection	New topic	
3/27/19	Specifications	Edited Power	X-AE-AR-E
11/13/18	To update the touchscreen	Edited Edit Updater steps	C-TS-RD-KK
9/28/18	To connect to the controller	Edited graphic to support ZS sensors	X-AE-E-KK
	To view schedules	Added how to zoom	
	Interface screens	Added screen dimensions and ppi for new screen size in ViewBuilder	
8/22/18	Rnet configuration	Added topic	X-O-CP
6/15/18	Wiring the device	Edited the comm wiring graphic to reflect RS485	X-TS-AP-E-KK
6/1/18	Connecting the device Wiring the device	Added note "Purchase a power supply from a third-party manufacturer"	C-TS-RD-E-KK
	Graphics containing text	Edited for standards	D-KK
4/24/18	What is	Added LED callout to diagram	A-D-KK
	Specifications	Added Specifications section	
	Screens	Added Login row to table	
	Compliance	Added Compliance section	

* For internal use only

