

# TruVu™ ET Display (part no. EQT3)

## Installation and Start-up Guide







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

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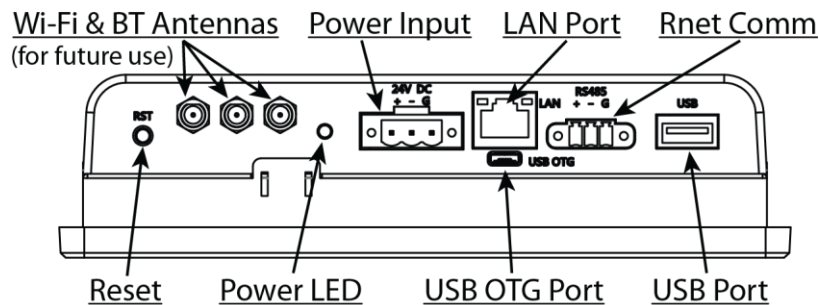
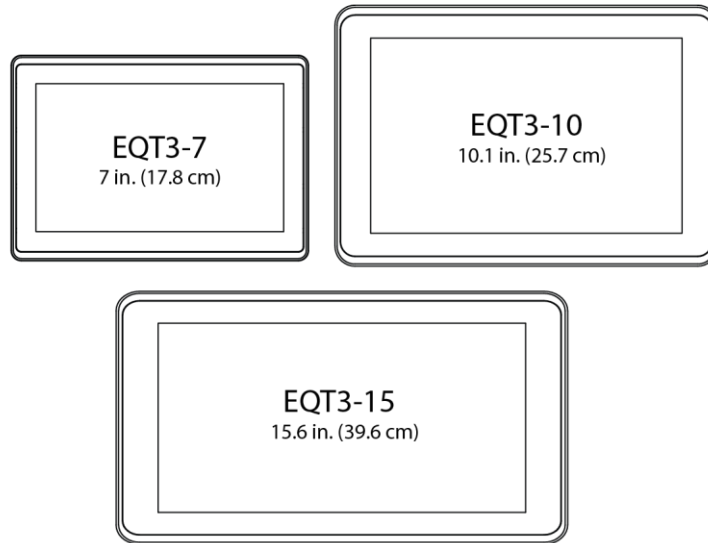






## What is the TruVu™ ET display?

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



Reset	Hold for 3 seconds to reboot the TruVu™ ET display device.
Wi-Fi Antenna	For future use
Power LED	Power indicator
Power Input*	Port that connects to the power supply
LAN Port	RJ-45 Ethernet connection to Service Port on TruVu™ controllers
Comm Input	Port that connects to the controller
USB OTG Port	Micro-USB port used for factory programming
Rnet Com	EIA-485 based serial port for controller communication to Rnet
USB Port	Type A USB port used for capturing screenshots, transferring files, upgrading the application, and <i>connecting to the controller</i> (page 9) by i-Vu® XT or TruVu™ controllers only




## Specifications

<b>Power</b>	24 VDC (±15%), 1 A, Class 2	
	<b>TruVu™ ET display 7</b>	<b>TruVu™ ET display 10</b>
<b>Display</b>	7" TFT (Widescreen)	10.1" TFT (Widescreen)
Resolution	1024 x 600 pixels (170 ppi)	1280 x 800 pixels (149 ppi)
Brightness	320 cd/m (typ.)	350 cd/m (typ.)
Contrast ratio	1000:1 (typ.)	800:1 (typ.)
Viewing angle	-75~70(H); -75~75(V)	-85~85(H); -85~85(V)
Max colors	16.7M (8-bit)	16.7M (8-bit)
Touch	Projected Capacitive Multi-Touch (P-CAP)	Projected Capacitive Multi-Touch (P-CAP)
	<b>TruVu™ ET display 15</b>	
Display	15.6" TFT (Widescreen)	
Resolution	1366 x 768 pixels (252 ppi)	
Brightness	400 nits	
Contrast ratio	500:1 (typ.)	
Viewing angle	-85~85(H); -85~80(V)	
Max colors	16.7M (8-bit)	
Touch	Projected Capacitive Multi-Touch (P-CAP)	
<b>Operating Conditions</b>	-4 °F to 122 °F (-20 °C to 50 °C), 10% to 90% RH (non-condensing) Front IP65 Water and Dust Proof (Rear: IP20); Vibration tested to IEC60068-2-64	
<b>Storage Temperatures</b>	-13 °F to 158 °F (-25 °C to 70 °C)	
<b>Communication</b>		
Comm Input	2-wire EIA-485 port for connection to the Rnet sensor network (115kbps)	
USB	Port for upgrades, screen captures, file transfers, and controller communication for i-Vu® XT or TruVu™ controllers	
USB OTG	Port for factory programming (firmware upgrades)	
LAN	RJ-45 Ethernet connection to Service Port on TruVu™ controllers	
<b>System</b>	OS: Android 11.0	
Processor	MT8365 Quad-core Cortex-A53 up to 2.0GHz	
System Memory	(7" and 10" models) 3 GB LPDDR4 RAM to store variable data and LCD data (15" model) 4 GB LPDDR4 RAM to store variable data and LCD data	
Storage	32 GB onboard eMMC Flash memory to store program code and screen file	
<b>Mounting</b>	Wall or panel mounting within the building interior Wall mounting kit (7" and 10" only)	



**Certifications**

Europe:  Mark, UK: 

North America: Canada and USA: 

CE (Class B), FCC (Class B), CSA 62368-1, ANSI/UL 62368-1, IEC 62368-1, Vibration tested to EN60068-2-6, IP65 rated (front) IP20 rated (rear)

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**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).

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**Device  
Identification**

See serial number on the back of the TruVu™ ET display.

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## Mounting the TruVu™ ET display

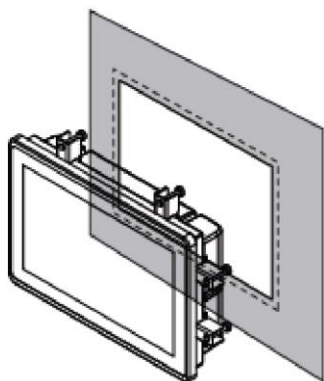
The TruVu™ ET display must be mounted within the building interior. You can mount the TruVu™ ET display:

- 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

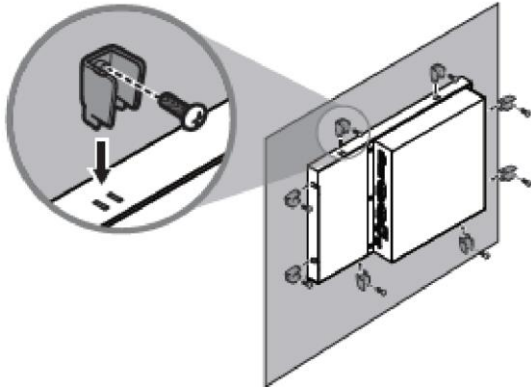
- 1 Cut opening in the panel door to size specified in punchout table below.



Part #	Punchout Size, Width x Height
TruVu™ ET display-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)
TruVu™ ET display-15	14.48 x 8.93 in. (36.8 x 22.7 cm)



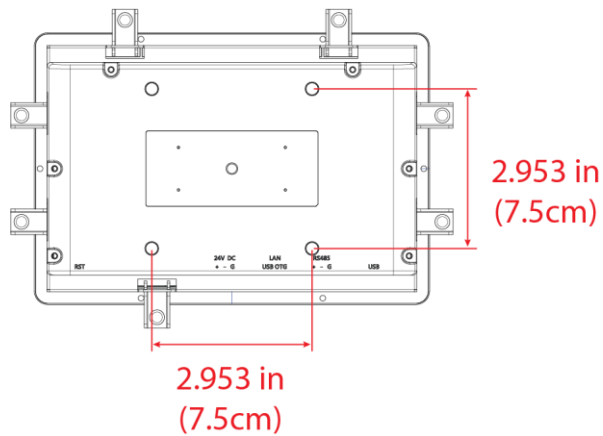
- 2 Mount the TruVu™ ET display securing with the clips provided.



## Option 2 - Backplane or VESA mounting

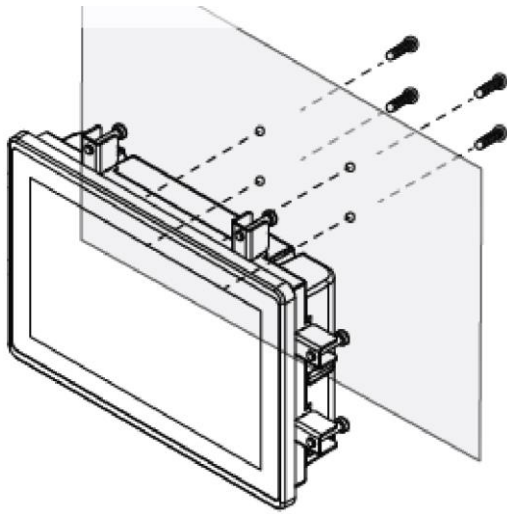
- 1 Refer to the drawings below to determine the proper mounting holes to use for each size TruVu™ ET display.

EQT3-7, EQT3-10, or EQT3-15





- 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).



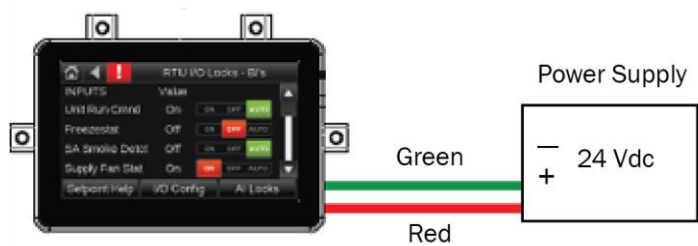
#### WARNINGS

- 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.

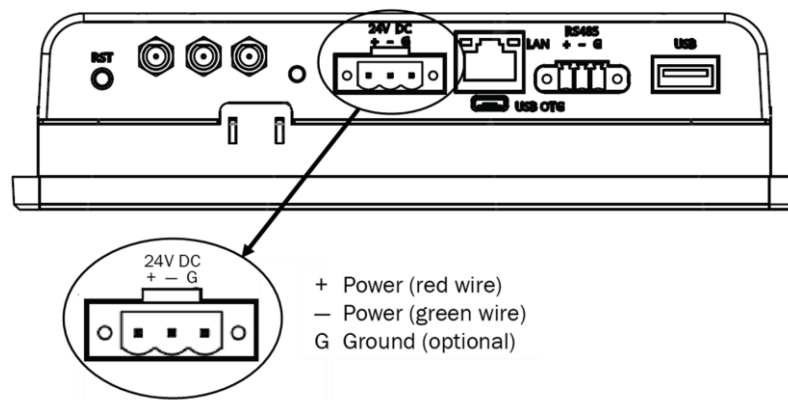


**CAUTION** The TruVu™ ET display can share a power supply with the Carrier controller as long as:

- 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.

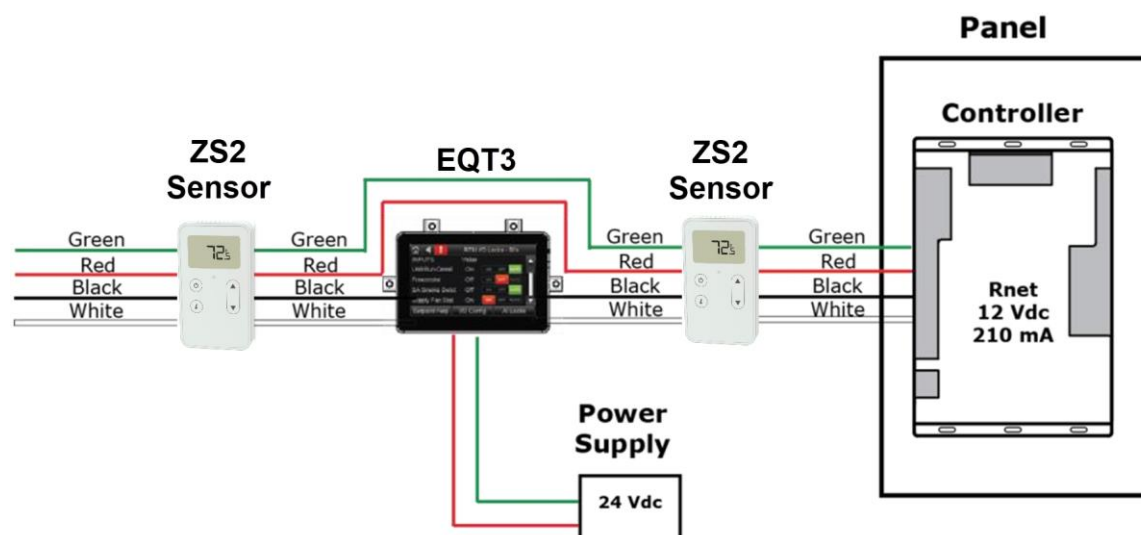
**NOTE** The TruVu™ ET display:

- 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).

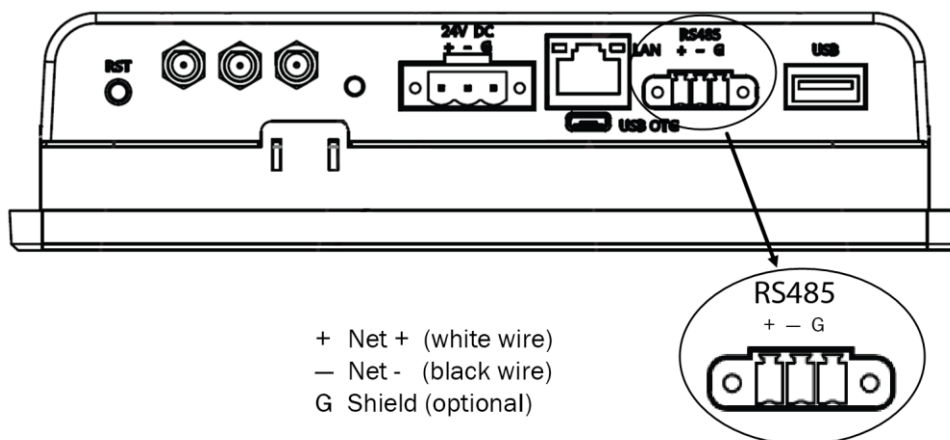


**CAUTION** The TruVu™ ET display can share a power supply with the controller as long as:

- 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.

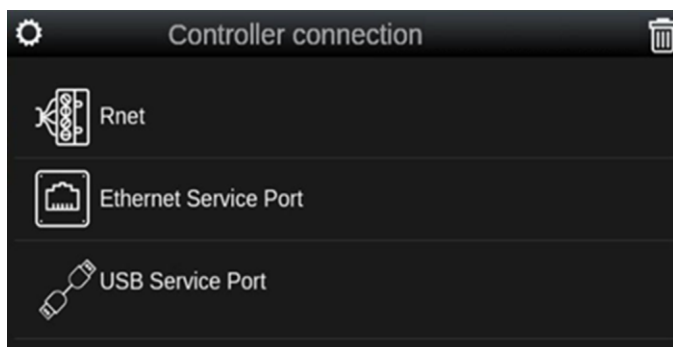
**NOTE** You must have TruVu™ ET display driver version 107-XX-XXXX or later for USB port functionality to work.



## Interface selection

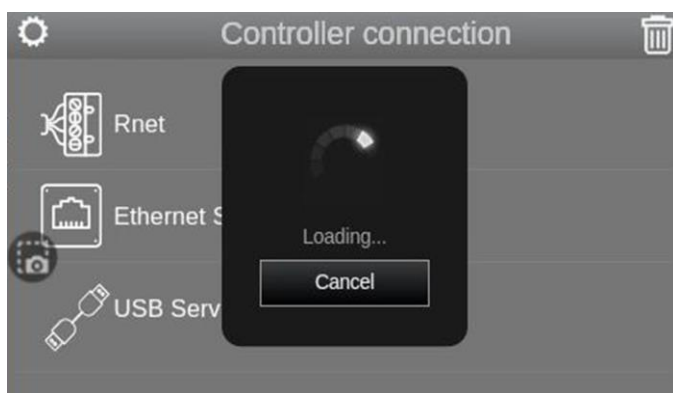
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On startup, the TruVu™ ET display asks which connection type should be used.



**NOTE:** The USB Service Port option is available for use by TruVu™ controllers, only.

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**.

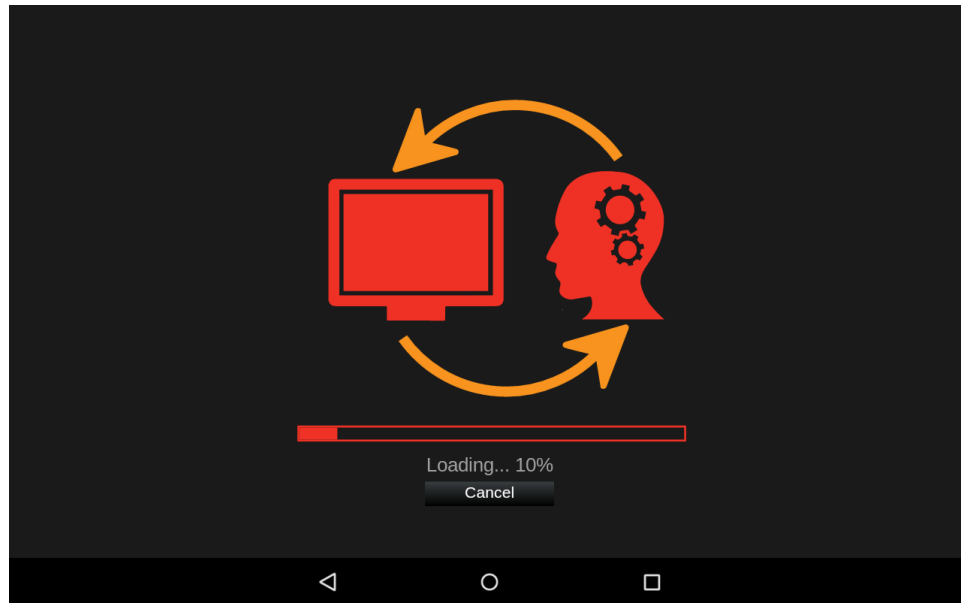





## Setting up the TruVu™ ET display

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* (page 17).
- 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* (page 17) 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

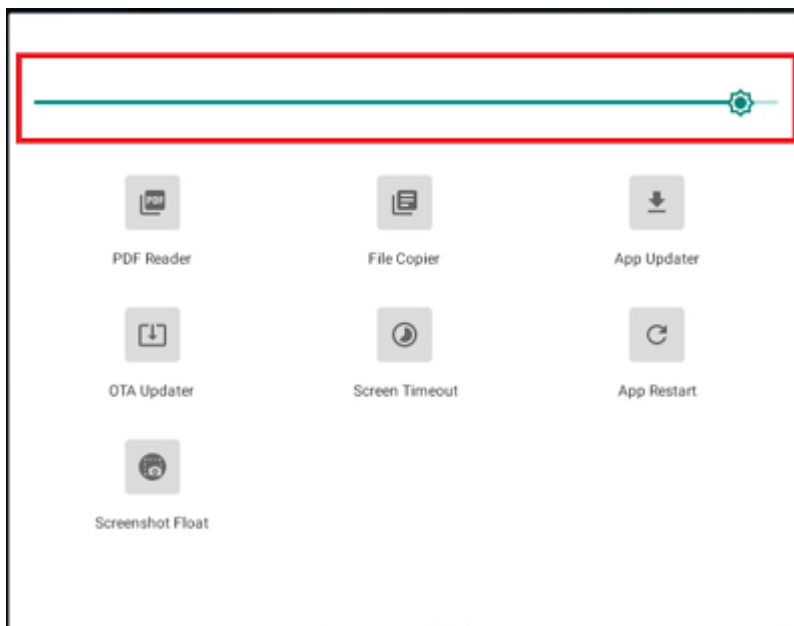
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Configure touchscreen settings on the **Quick Settings** pane. To display the pane, swipe down from the top of the touchscreen.

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### Brightness

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



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### 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 17).

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### App Restart

Restart the TruVu™ ET display application on the device.

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## To update the touchscreen

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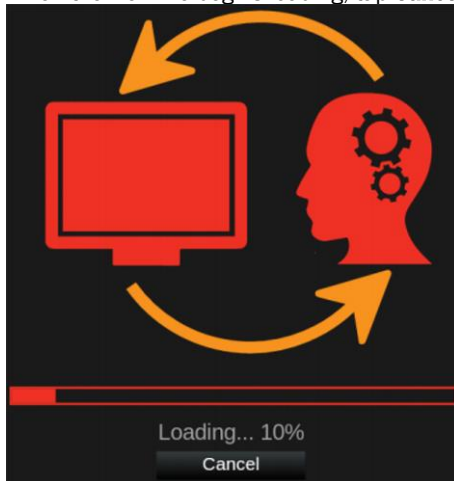
To update the TruVu™ ET display software, do the following.


**NOTE:** You must have a USB drive that is FAT32 compatible and no more than 32GB.

- 1 Download the latest TruVu™ ET display zip file and associated .MD5 file, for the appropriate model, to the root directory of your USB drive.
- 2 Insert the USB drive into the USB port on the TruVu™ ET display.
- 3 Swipe down from the top of the touchscreen to open the **Quick Settings** pane and tap **OTA Updater**.
- 4 Tap **Update Image** when it becomes enabled.
- 5 Select the radio button on the available firmware to begin the installation.
- 6 After the installation, tap **Reboot Now**.

## 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

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



## Working with files

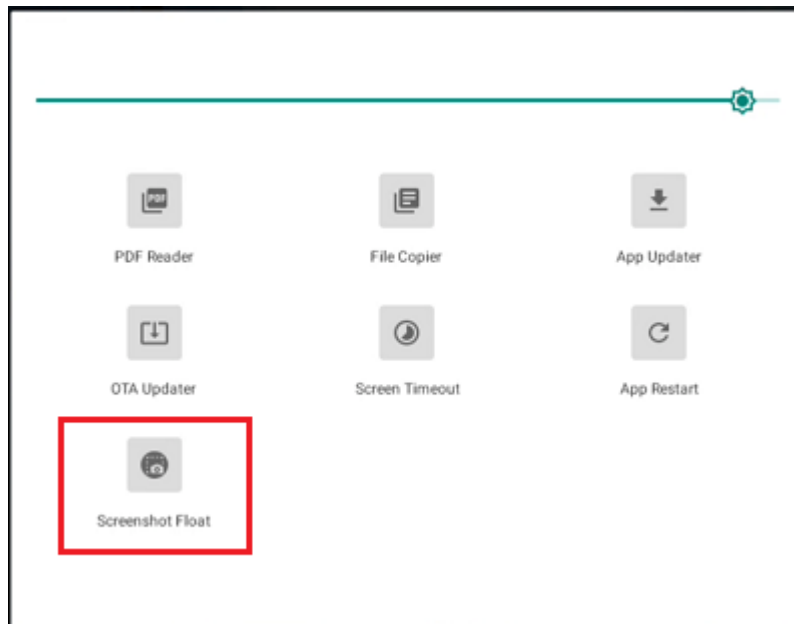
With your USB drive connected through the USB port on the TruVu™ ET display, you can do the following:


- 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.


- 1 Enable **Screenshot Float** from the **Quick Settings** pane. To display the pane, swipe down from the top of the touchscreen.



- 2 Insert your USB drive into the USB port of the TruVu™ ET display.
- 3 Go to the screen you would like to screenshot and tap the screenshot icon  on the TruVu™ ET display screen.



### TIPS

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

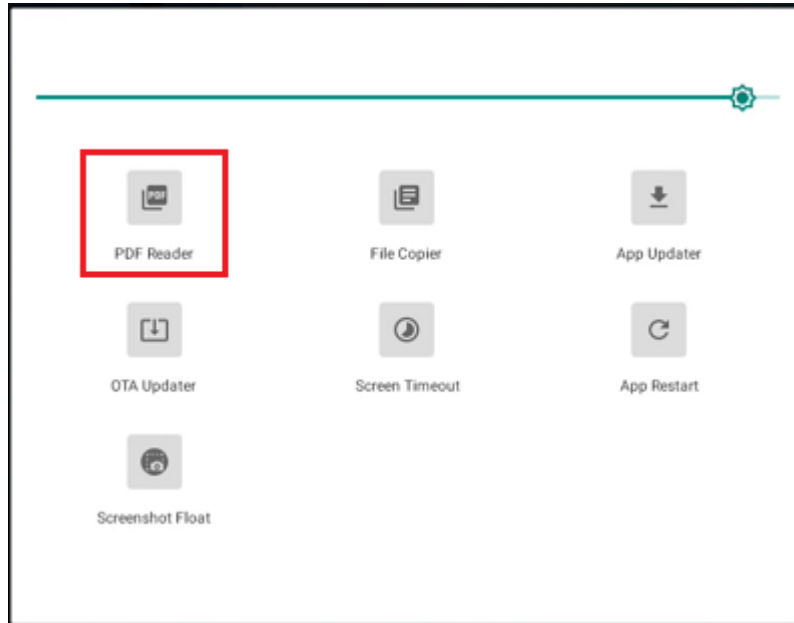


## Viewing files

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You can view PDF files from your USB drive.

- 1 Display the **Quick Settings** pane by swiping down from the top of the touchscreen.
- 2 To open the .pdf viewer, tap the **PDF Reader** icon.



- 3 Browse to the desired file located either on the USB drive or on the TruVu™ ET display once you have copied the file from a USB drive using the **File Copier**.

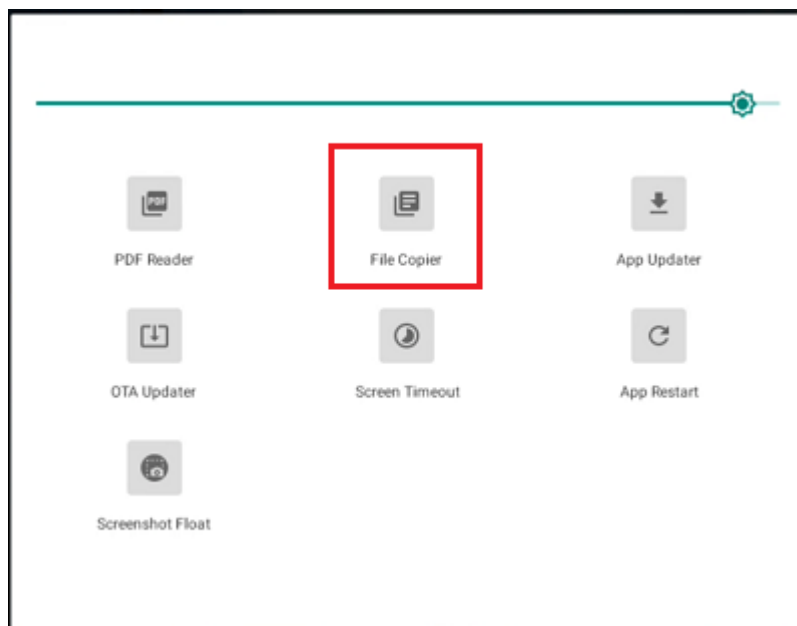


## Copying files

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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 Tap the **File Copier** 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.

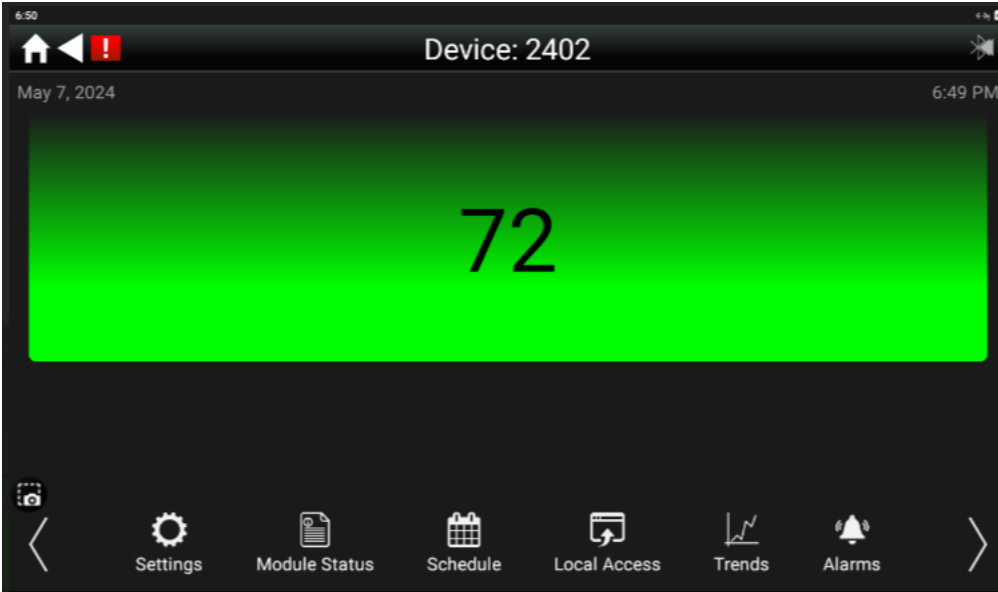

To create custom screens, you must install ViewBuilder v7.0 or later with the latest cumulative patch. In ViewBuilder, add the appropriate TruVu™ ET Display size to the Custom Touch Initialization Properties window as follows.

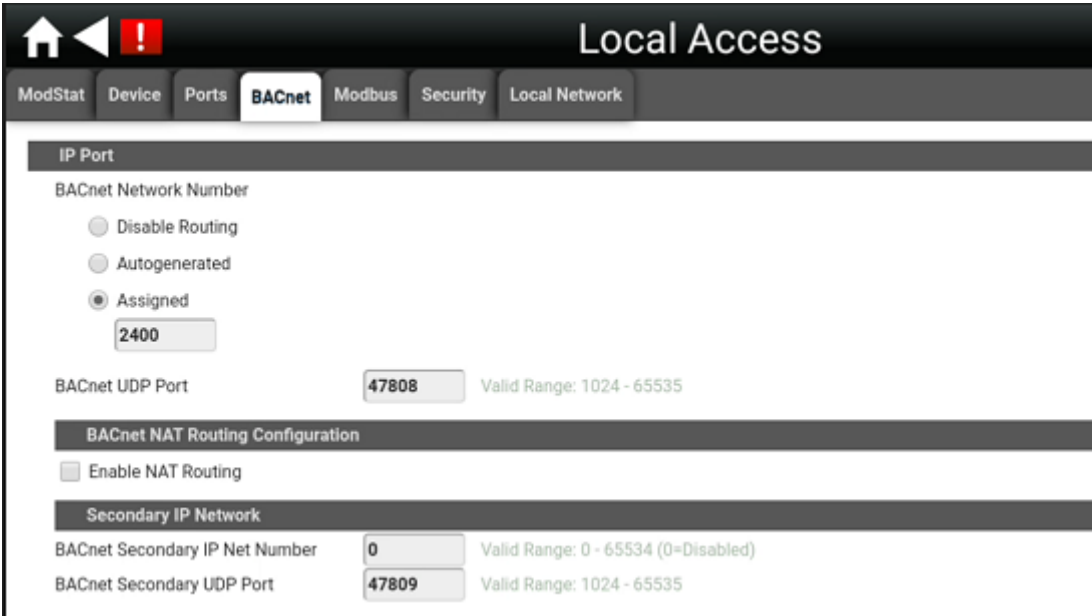
Name	Width	Height	Pixels Per Inch
EQT3 - 7	1024	600	170
EQT3 - 10	1280	800	149
EQT3 - 15	1366	768	252

 **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	
Displays if the screen you selected requires a password. Enter your password, then touch <b>Done</b> . Each screen is programmed with one of the following password levels:	
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

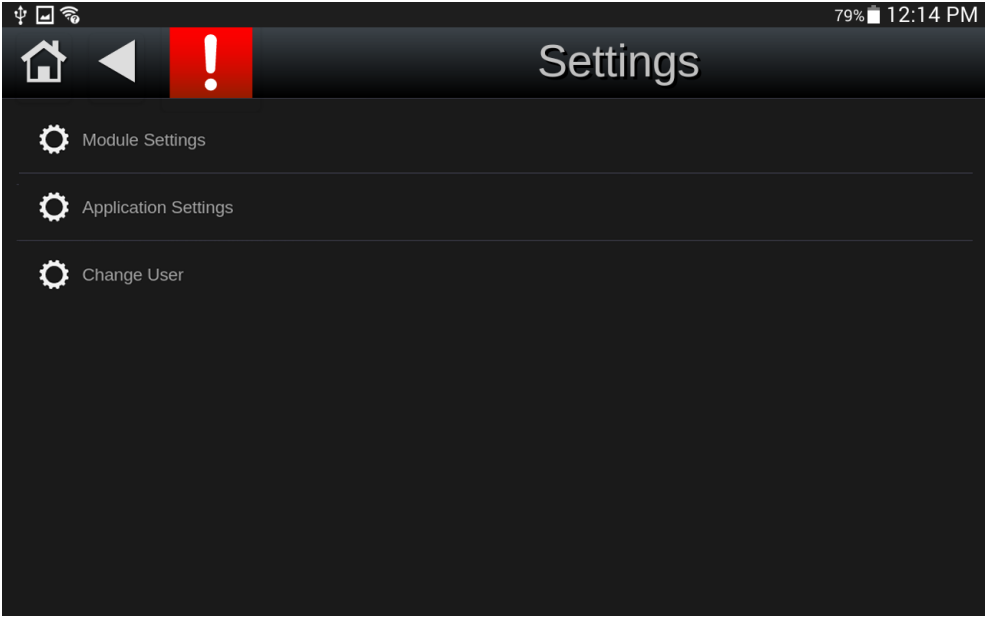
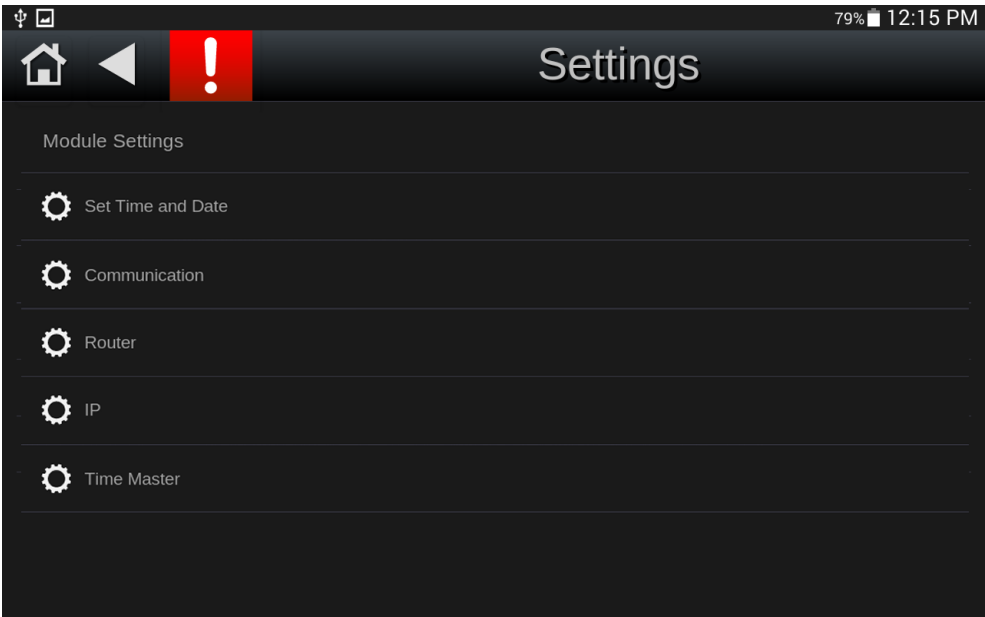


Screen name	Description
System	 <p>Displays the BACnet device instance number, the controller's date and time, temperature read from the controller's prime variable, and zone color. Touch a button to jump to the <b>Settings</b>, <b>Module Status</b>, <b>Schedule</b>, <b>Local Access</b>, <b>Trends</b>, or <b>Alarms</b> screen. Touch  to capture a screenshot. See <i>capturing screenshots</i> (page 14).</p>

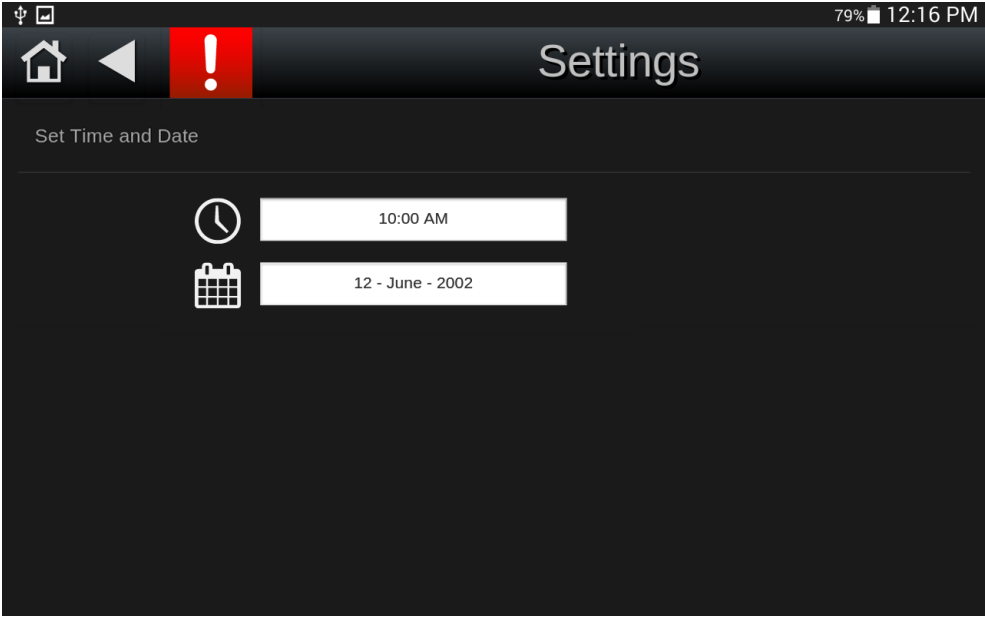
Local Access	 <p>Local access browser for IP-based controllers. View and configure controller information using the tabs at the top of this screen.</p>
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**NOTE** Password protection available with i-Vu® v8.5 or later systems.



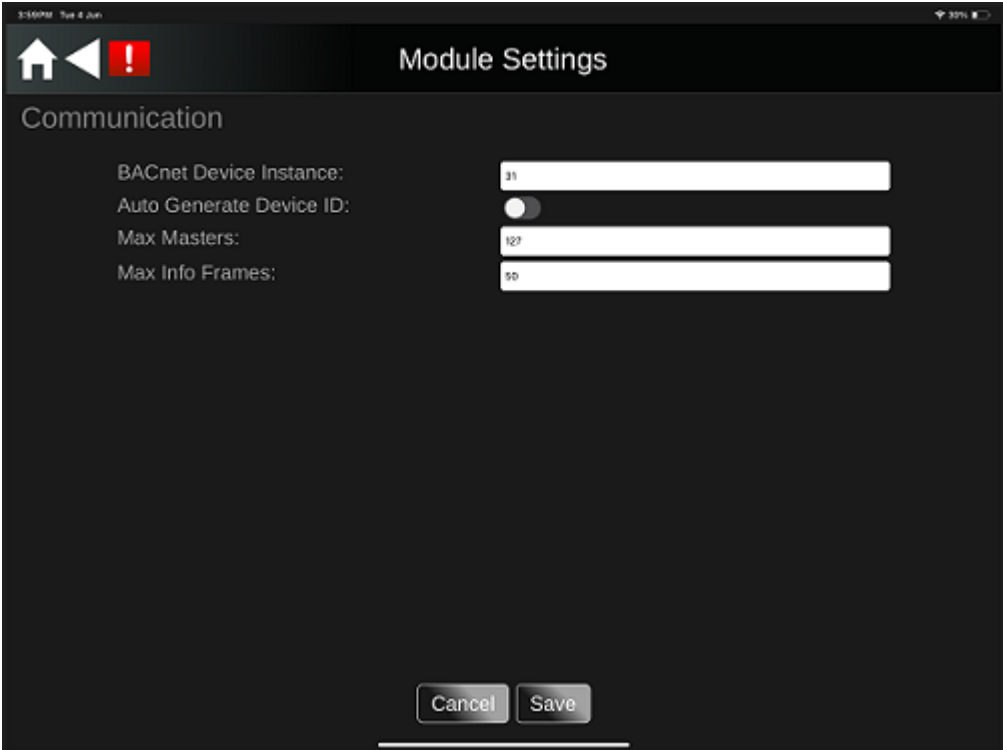
Screen name	Description
Settings	<div></div> <p>Touch an option to jump to <b>Module Settings</b>, <b>Application Settings</b>, or to change the current user.</p>
Module Settings	<div></div> <p>Touch an option to jump to the <b>Set Time and Date</b>, <b>Communication</b>, <b>Router</b>, <b>IP</b>, or <b>Time Master</b> screen.</p>



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.

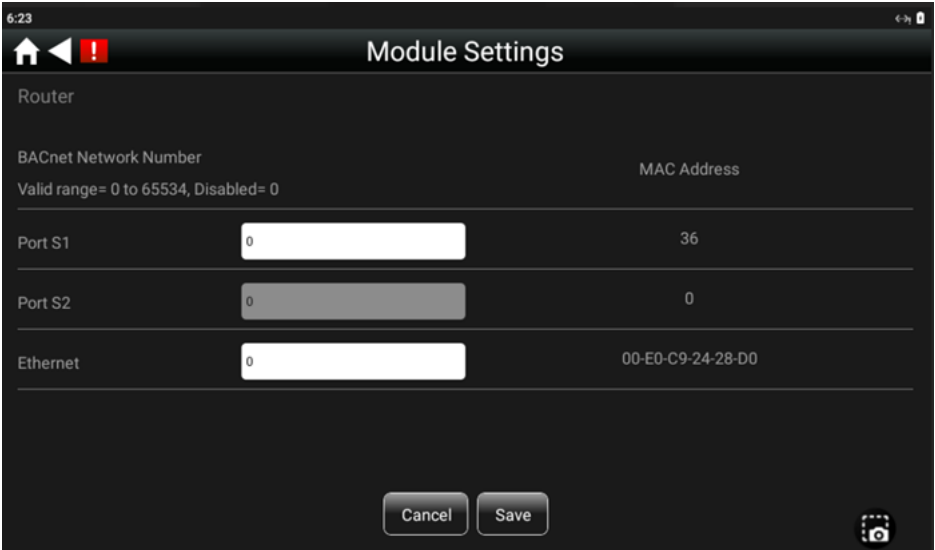
- For a router, set this value to a high number such as 200.
- In non-router controllers, use the following formula to calculate this value:

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

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	 <p>The screenshot shows the 'Module Settings' screen for a Router. The title bar at the top says 'Module Settings'. Below it, the word 'Router' is displayed. The main content area has two columns: 'BACnet Network Number' and 'MAC Address'. Under 'BACnet Network Number', there is a note 'Valid range= 0 to 65534, Disabled= 0'. There are three rows of input fields: 'Port S1' with a value of '0', 'Port S2' with a value of '0', and 'Ethernet' with a value of '0'. Each input field has a numeric keypad icon to its right. The 'MAC Address' column shows the value '36' for Port S1, '0' for Port S2, and '00-E0-C9-24-28-D0' for Ethernet. At the bottom of the screen are two buttons: 'Cancel' and 'Save'. There is also a small icon in the bottom right corner.</p>




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.



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

**OPN Controllers**

**NOTE** IP Network is typically 1600.



Settings

IP

You must restart your controller for changes to take effect

IP Network:

XXXX

Valid range= 0 to 65534, Disabled= 0

Current IP Address:

192.168.168.1

Current Subnet Mask:

255.255.255.0

Current Gateway IP Address:

192.168.168.254

Current UDP Port:

47808

Assigned IP Address:

192.168.168.1

Assigned Subnet Mask:

255.255.255.0

Assigned Gateway IP Address:

192.168.168.254

Assigned UDP Port:

47808

Cancel

Save



Screen name	Description
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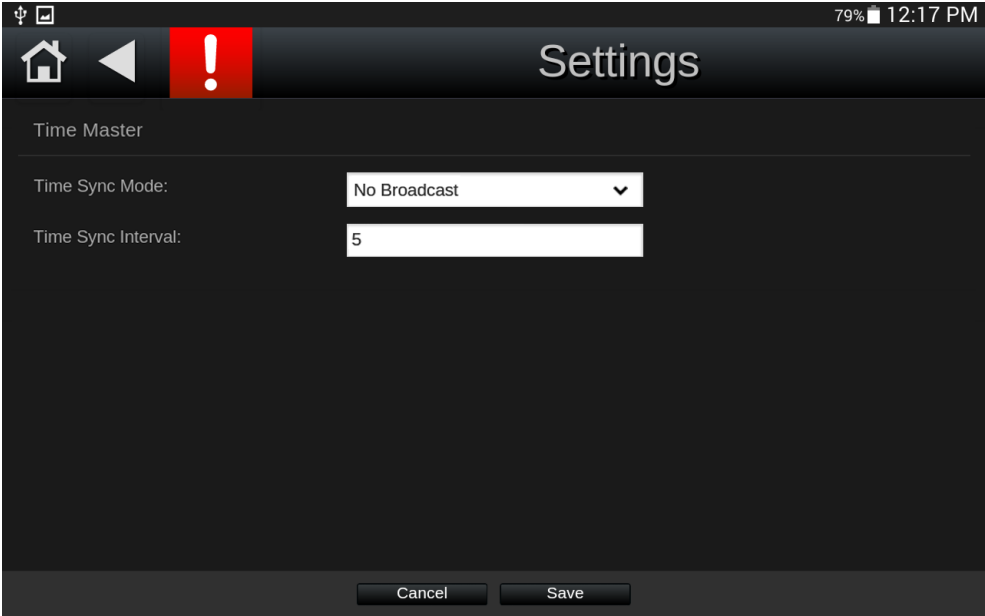
**I-Vu® XT or TruVu™ Controllers**

The screenshot displays the 'Module Settings' screen for an I-Vu® XT or TruVu™ Controller. The screen is titled 'Module Settings' and has a status bar at the top showing '3:03 PM Tue 4 Jun' and '20%'. The screen is divided into two main sections: 'IP' and 'Module Settings'. The 'IP' section contains the following fields:

- IP Network: [Empty field]
- Assigned IP Address: 192.168.100.56
- Assigned Subnet Mask: 255.255.255.0
- Assigned Gateway IP Address: 192.168.100.1
- Assigned UDP Port: 47808

At the bottom of the screen, there are two buttons: 'Cancel' and 'Save'.



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.

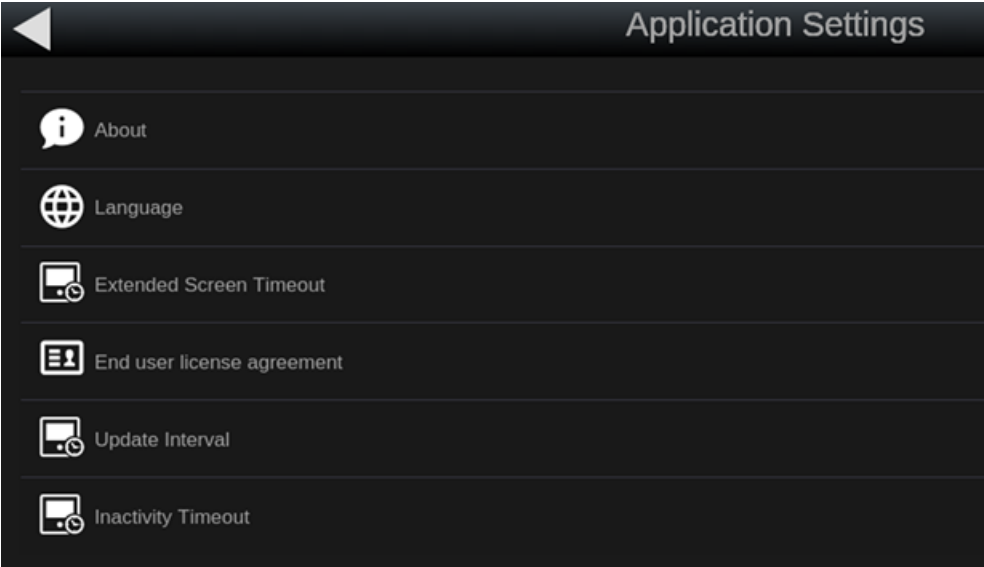
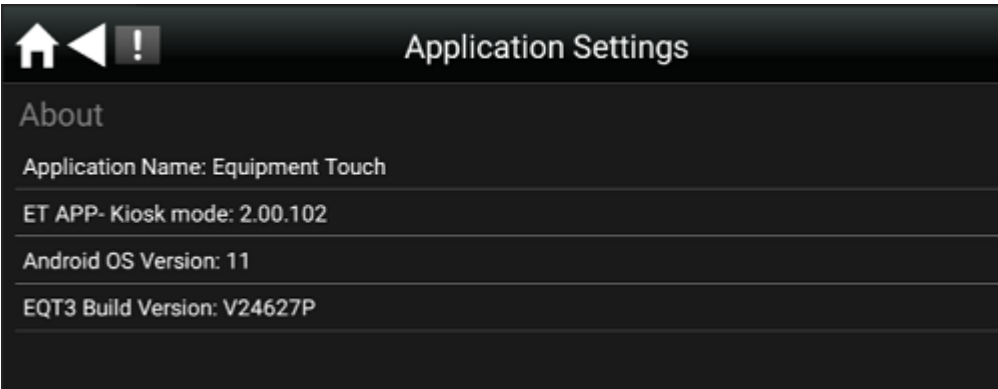
**Time Sync Mode** - Tap in the number below that represents your selection:

- **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.

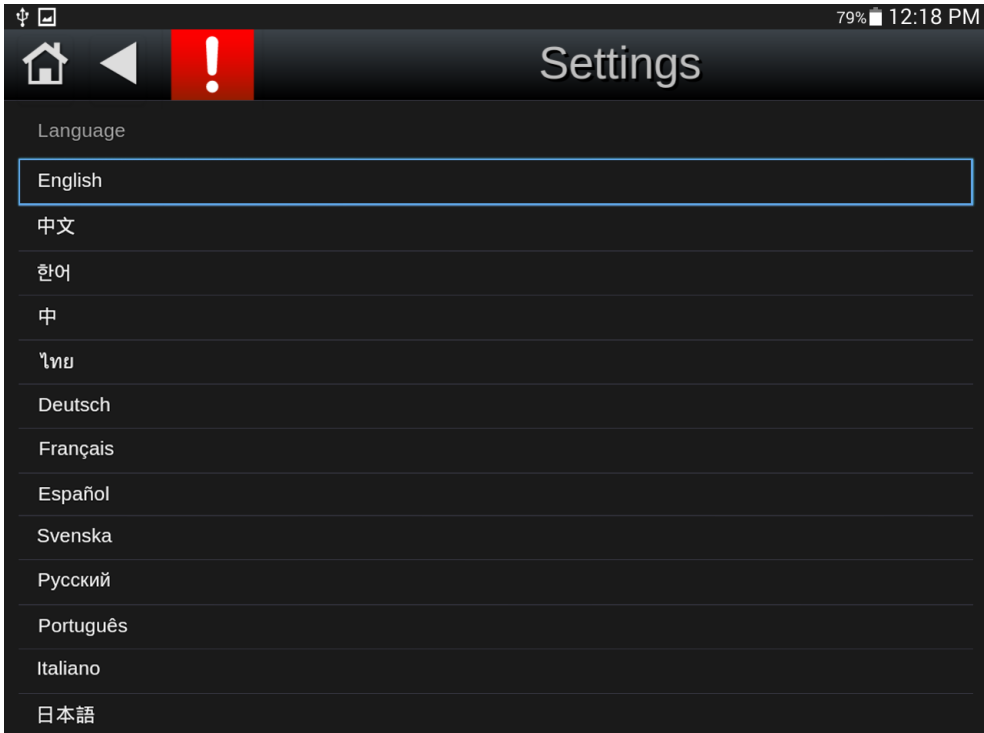
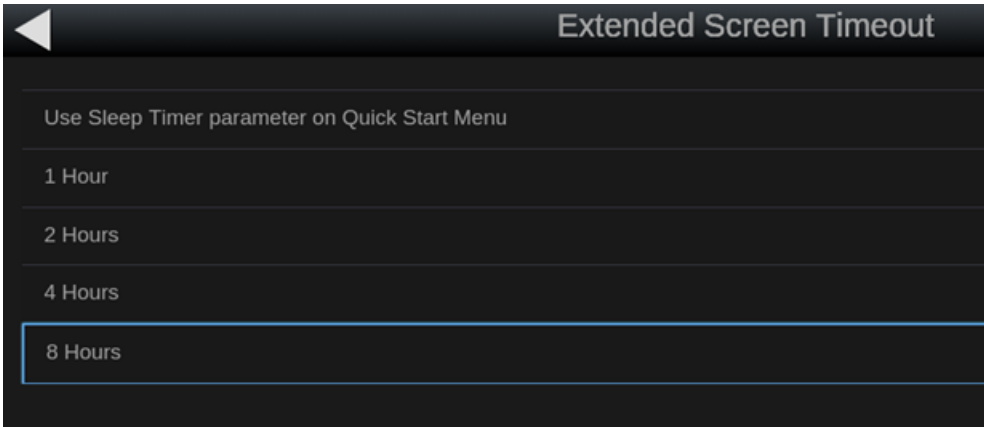
**Time Sync Interval** - Enter how often local or global time broadcast should be sent (1-9999 minutes). If **Time Sync Interval** is set to zero, no time sync messages are sent.

**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.

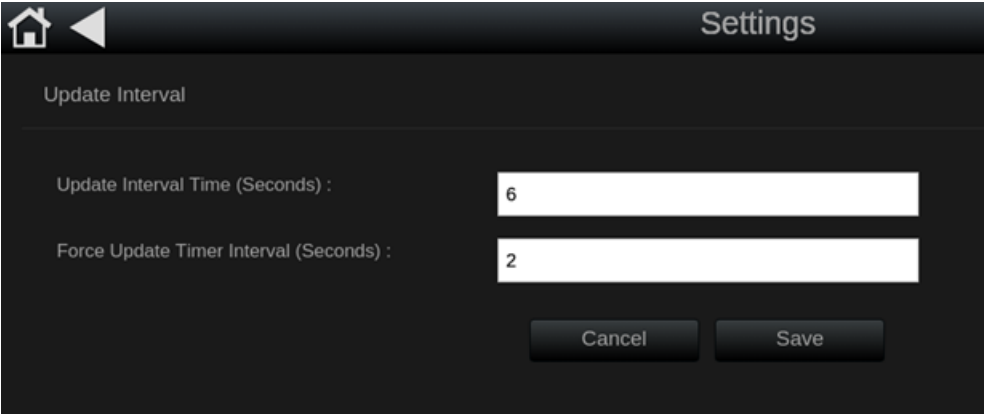
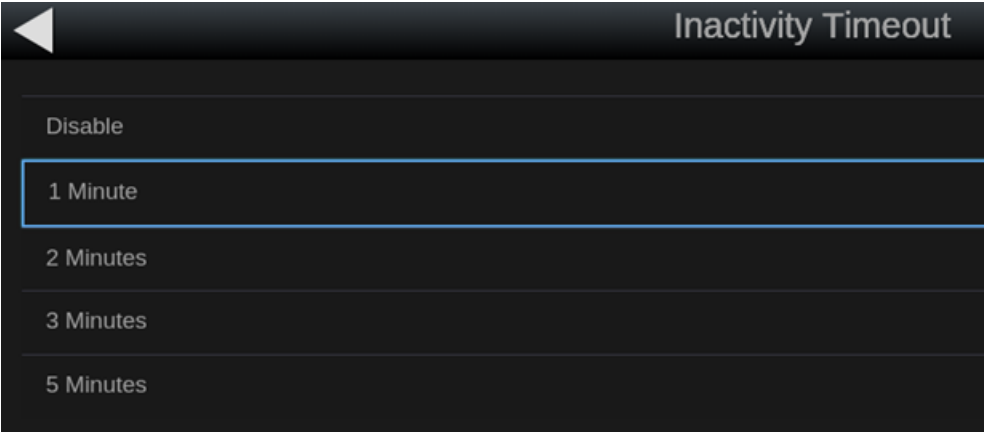


Screen name	Description
Application Settings	 <p>Lets you access information about the app, select which language to use for the TruVu™ ET display system screens, and adjust your timeout settings.</p>
About	 <p>Displays information about the TruVu™ ET display.</p>



Screen name	Description															
Language	<div></div> <div><table><tr><td>English</td><td>German</td><td>Portuguese</td></tr><tr><td>Simplified Chinese</td><td>French</td><td>Italian</td></tr><tr><td>Korean</td><td>Spanish</td><td>Japanese</td></tr><tr><td>Traditional Chinese</td><td>Swedish</td><td></td></tr><tr><td>Thai</td><td>Russian</td><td></td></tr></table></div> <p>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.</p>	English	German	Portuguese	Simplified Chinese	French	Italian	Korean	Spanish	Japanese	Traditional Chinese	Swedish		Thai	Russian	
English	German	Portuguese														
Simplified Chinese	French	Italian														
Korean	Spanish	Japanese														
Traditional Chinese	Swedish															
Thai	Russian															
Extended Screen Timeout	<div></div> <p>Allows you to select the time until the TruVu™ ET display screen powers off, and the user is logged out.</p>															



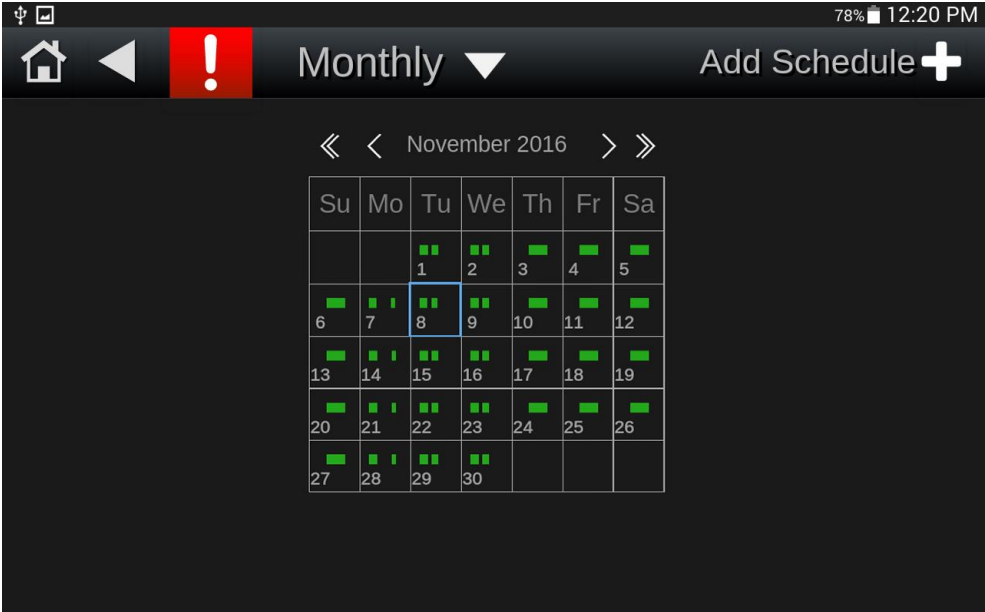
Screen name	Description
Update Interval	 <p>Carrier recommends leaving these values at the default settings that appear in the image above.</p>
Inactivity Timeout	 <p>Allows you to select the number of minutes of inactivity until the Standby screen appears and the user is logged out. If the TruVu™ ET display screen is not accessed, the Standby screen remains until Screen Timeout. The Inactivity Timer can also be disabled.</p>



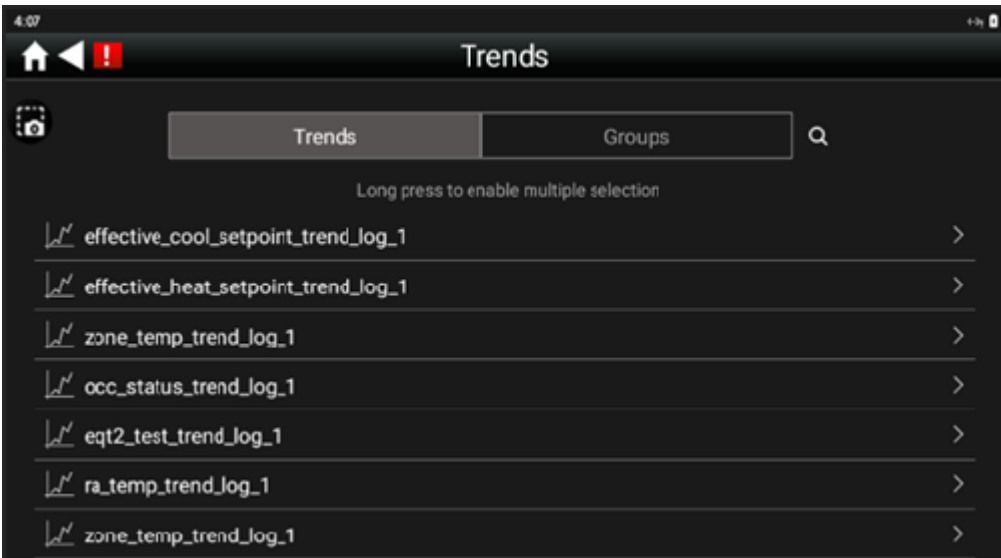
Screen name	Description
Module Status	<div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>78%<div></div>12:18 PM</div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>Module Status</div></div> <div><div>08/09/2016 13: 00: 05 CM: 5</div><div>Device Instance: 0000002</div><div>Downloaded by: Server 08/09/16 11: 53 Administrator</div><div>Application Software Version: PRG: harsha_fan_coil</div><div>Flash Archive Status: Valid on 08/09/16 11: 55: 03</div><div>1 PRGs initialized .1 PRGs running.</div><div>Module status: Firmware sections in flash memory ====</div><div>Reset counters: 39 Power failures 38 Brownouts 46 Commanded boots 0 System errors 0 Watchdog timeouts</div><div>System error message history: Type Specific Warning message history: Could not launch IP networking .08/09/16 11: 54: 48 Net0 interface bind error 0x1506 08/09/16 11: 54: 48 Could not launch IP networking .08/09/16 11: 53: 03 Net0 interface bind error 0x1506 08/09/16 11: 53: 03 Information message history: RESET: BACnet reinitialize warmstart 08/09/16 11: 54: 45 Locale initialized to 11(1) 08/09/16 11: 54: 40 Module formatted.PRG database cleared .08/09/16 11: 53: 03 POWERUP: BACnet reinitialize coldstart 08/09/16 11: 52: 58</div><div>ARC156 reconfigurations during the last hour(cleared upon reset): Total.....3 Initiated by this node.....4</div><div>Core board hardware: Type = 123,board = 36,manufactured on 10/27/2015,S/N 200592268 P RAM: 16384 kBytes;FLASH: 8192 kBytes,type = 4 Base board hardware: Type = 123,board = 37,manufactured on 10/27/2015,S/N LOE5A0016P</div><div>Free heap space = 936172.</div><div>Database size = 11501266,used = 599398,free = 10901868.</div><div>Flash storage size = 6275072 Archive storage size = 6029312 File storage size = 245760(max = 6275072),used = 243776,free = 1984</div><div>Raw physical switches = 05 BE0000 00000000</div><div>Network Information: Ethernet MAC address = 00 - E0 - C9 - 21 - E5 - 42 Current IP Address = 23.56 .78 .9 Current Subnet Mask = 78.89 .23 .48 Current Gateway Addr = 67.23 .56 .12 Assigned IP Address = 23.56 .78 .9 Assigned Subnet Mask = 78.89 .23 .48 Assigned Gateway Addr = 67.23 .56 .12</div></div>

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



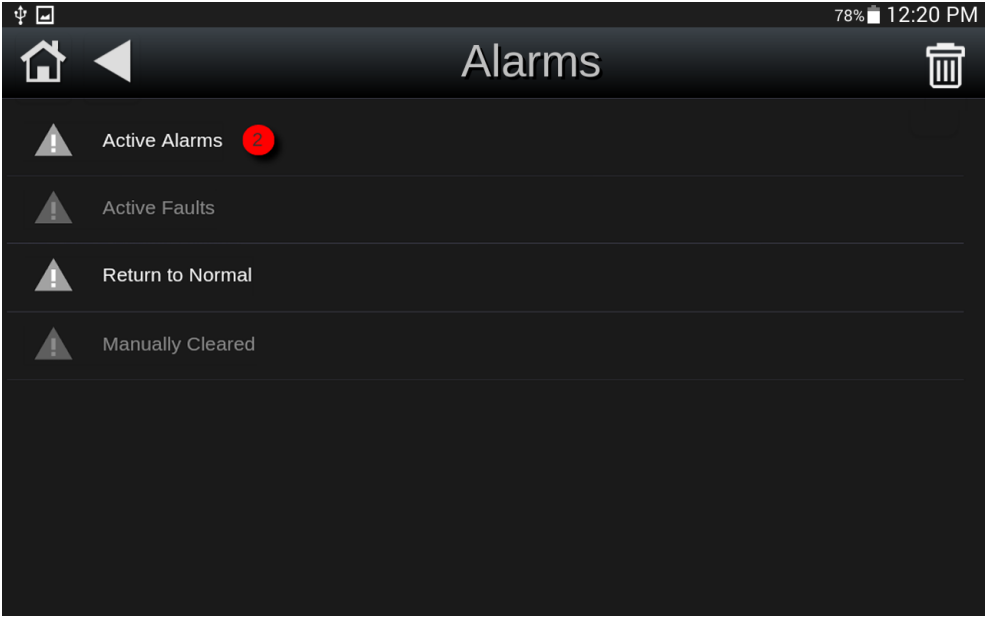
Screen name	Description
Schedule	

Lets you view, add, edit, or delete BACnet schedules in the controller. See *Viewing or creating schedules* (page 38).

Trends	
--------	---

Lets you view trends and create trend groups for points that have trending enabled. See *Viewing trends* (page 35).



Screen name	Description
Alarms	

Lets you view alarms from the controller. See *Viewing alarms* (page 33).



## Setting timeouts

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


Name	Description	Notes
<b>Screen Timeout</b>	Adjust the length of time before the device goes to sleep.	<ul style="list-style-type: none"> <li>• Logs the user out</li> <li>• Can be overridden by <i>Extended Screen Timeout</i> (page 17)</li> <li>• Found in <b>Quick Settings</b>, see <i>To Edit the touchscreen settings</i> (page 12)</li> </ul>
<b>Extended Screen Timeout</b>	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"> <li>• Logs the user out</li> <li>• Overrides Screen Timeout</li> <li>• Found in <b>Application Settings</b>, see <i>TruVu™ ET display screens</i> (page 17)</li> </ul>
<b>Inactivity Timeout</b>	Allows you to select the number of minutes of inactivity until the Standby screen appears.	<ul style="list-style-type: none"> <li>• Logs the user out</li> <li>• Can be disabled</li> <li>• Found in <b>Application Settings</b>, see <i>TruVu™ ET display screens</i> (page 17)</li> </ul>

**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.



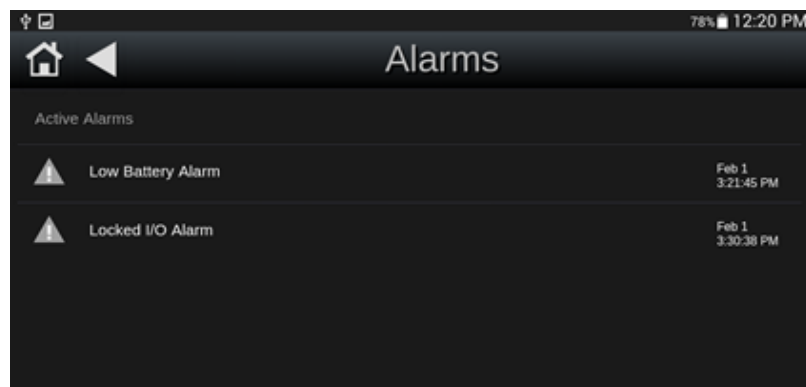
## Viewing alarms


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

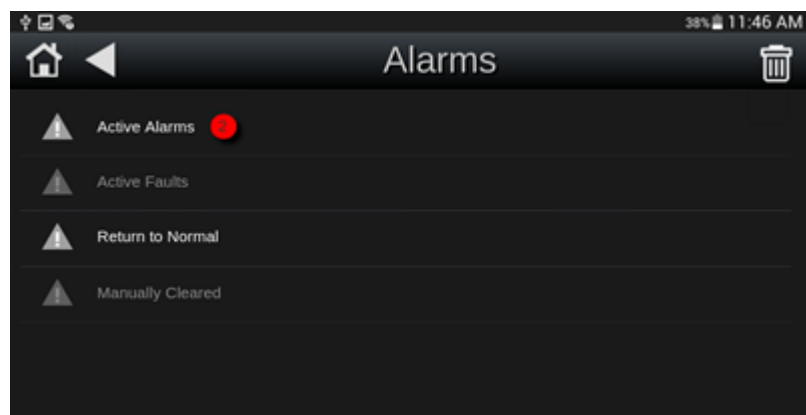
-  turns red. The button remains red as long as Active Alarms or Active Faults exist.
- The alarm is added to the **Active Alarms** or **Active Faults** screen. See the table below.

## To view alarms


- Touch  to see **Active Alarms**.



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





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



Touch **Trends** on the **System** screen. This screen shows any points in the control program that have trending enabled.



To view a single trend, touch a trend.



To view multiple trends on a trend graph, long press on on any trend point to enable multiple selection. Then touch each point you want to see on the graph (up to 4 points) and 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.

## To create a trend group

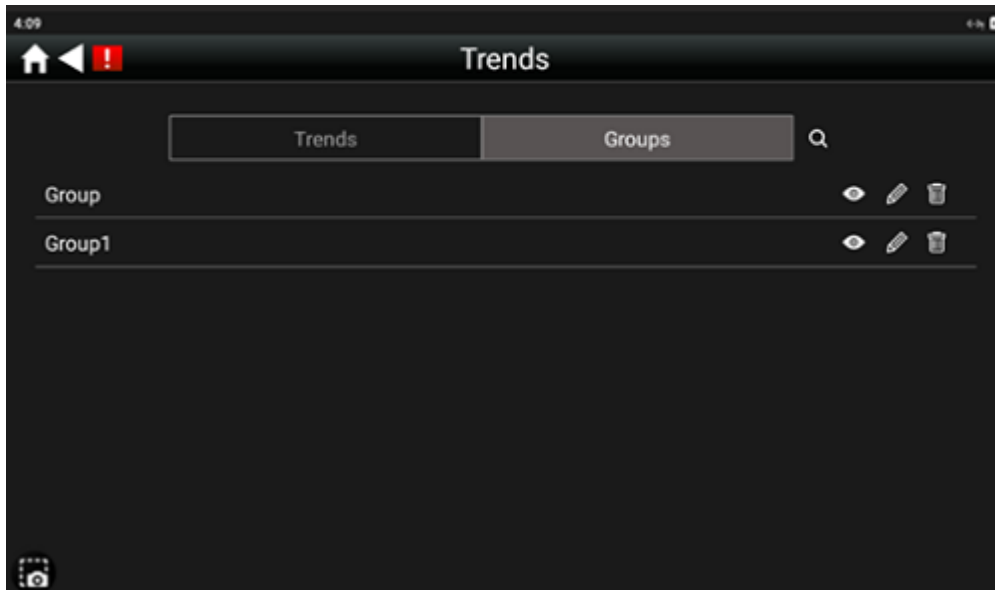
You can select up to 4 trends to save as a group.







- 1 Touch **Trends** on the **System** screen.
- 2 Long press on any trend point to enable multiple selection. Then touch each point you want to group together (up to 4 points).
- 3 Touch **Create Group**.
- 4 Enter a group name, then touch **Save**.



Groups are displayed on the **Trends > Groups** page.



Touch the following icons to view, edit, or delete a group.

Icon	Description
	View the group's trend points on a graph.
	Edit the trends within the group. In editing mode you can: <ul style="list-style-type: none"> <li>temporarily hide the trend using the toggle switch</li> <li>delete a trend from the group by touching </li> <li>add trends (up to 4) by touching <b>Add Trends</b>. Then select the trend(s) using the list or search bar and touch <b>Select</b>.</li> </ul> After making changes, click <b>Save</b> .
	Delete the group.



## 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...
<b>Dated</b>	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.
<b>Weekly</b>	Every week on the specified days. For example, every Monday through Friday, 8:00 am to 5:00 pm.
<b>Continuous</b>	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.

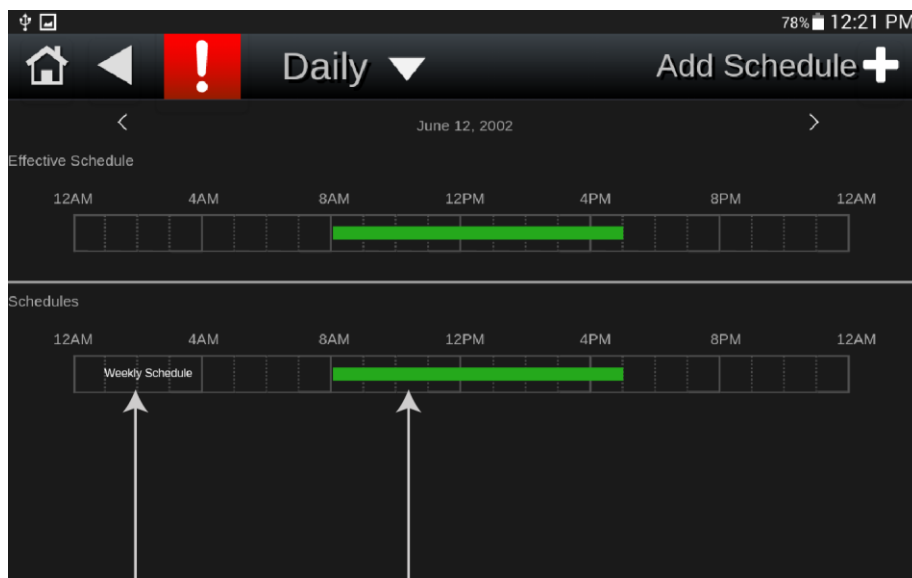
- 8 Touch **Save Schedule** when finished.



### 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.

- 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.

Select the required days

Sun Mon Tue Wed Thu Fri Sat

☐ All day event

Start Time

08:00 AM

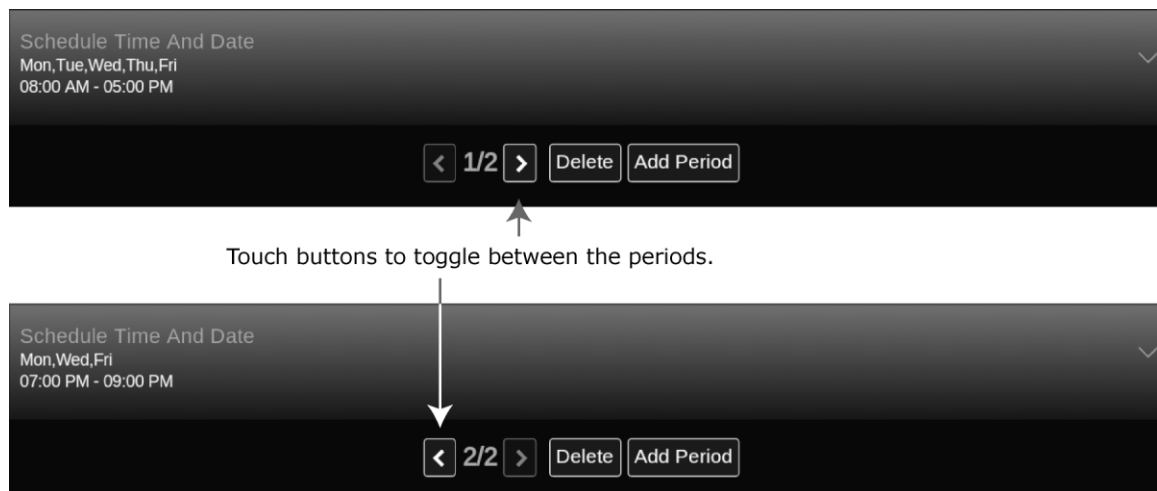
End Time

05:00 PM

Cancel Save

- 5 Touch **Save**.



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



**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.



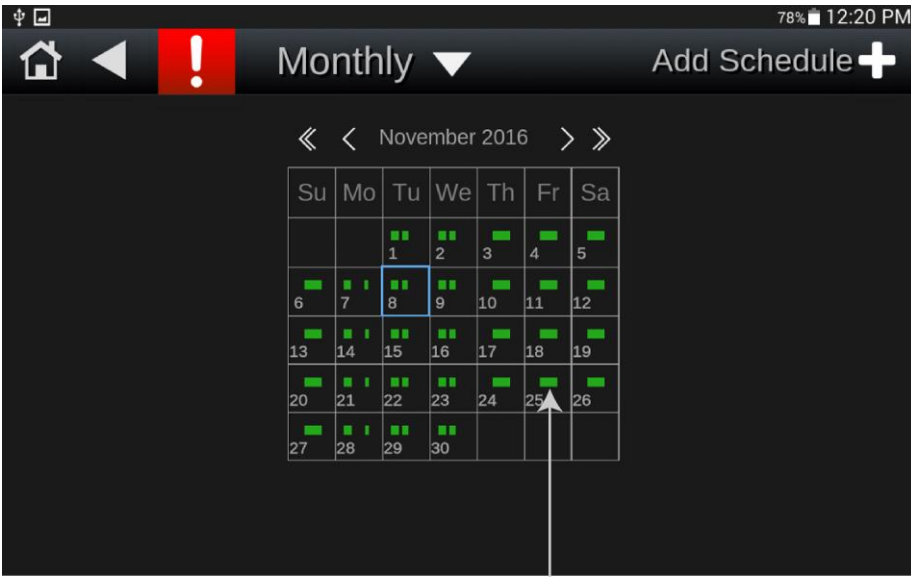
## To view schedules

- 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...
<b>Monthly</b> (default view)	Which days in the current month have schedules (indicated by green boxes).

Touch a day to see its schedule(s)

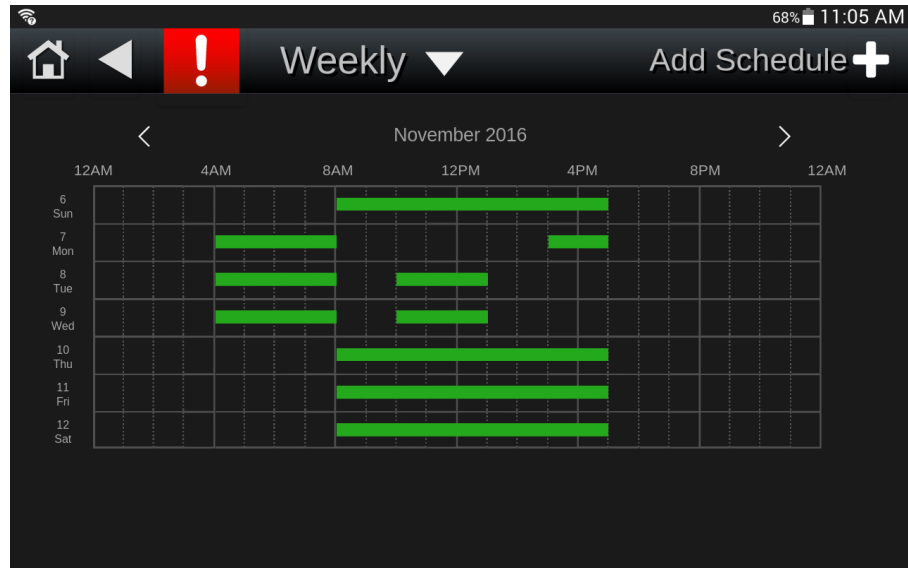


Select...

To see...

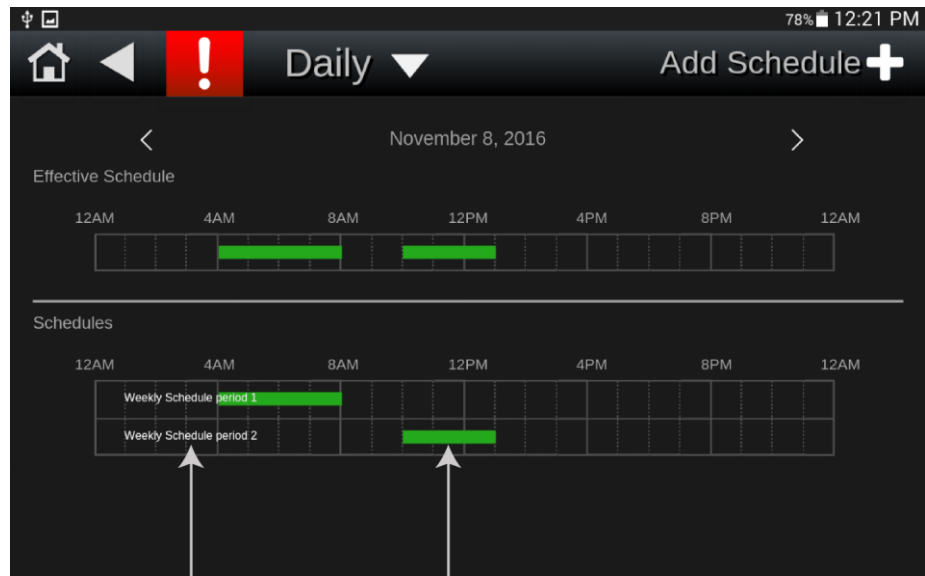
Weekly

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 38) 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.

66

Cancel

Auto

Force

- Binary values such as check boxes or text toggles



## Compliance

### CE and UKCA Compliance

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**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

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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*
9/19/24	Wiring for power	Added caution note regarding sharing power	X-TS-JC-J
	Mounting the TruVu™ ET display	Added 15 in model	X-PM-NS-R
	To create a schedule	Removed note regarding period limit Updated image for step 4	
	To create a trend group	New topic	
	To view trends	Clarified procedure for viewing single and multiple trends	
	TruVu™ ET display screens	Updated images Removed Router note Removed references to Browser	
	Copying files	New image	
	Viewing files	New image	
	Capturing screenshots	New procedure	
	To edit the touchscreen settings	Updated image	
	What is the TruVu™ ET display?	Added TruVu™ controller compatibility	
9/18/23	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
8/22/31	Specifications	Added North American Cert mark	X-O-DR-E-DR
	TruVu™ ET display Screens	Added Local Access Page	X-PM-DS-O-DS
8/31/22	Compliance	Added UKCA compliance	X-PM-AB-R-BH
	To view alarms	Added note regarding not displaying alarms for ZN controllers	X-TR-GG-E

\* For internal use only







