

# T15e Tag

# Deployment & User Guide

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## We Are Now Securitas Healthcare

STANLEY Healthcare is now Securitas Healthcare. We are currently rebranding all our products and documentation, but until that process is complete you may still see visual references to STANLEY Healthcare in this document. All descriptions of functionality are accurate to the best of our knowledge.



To comply with FCC and IC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

Le dispositif doit être placé à une distance d'au moins 20 cm à partir de toutes les personnes au cours de son fonctionnement normal. Les antennes utilisées pour ce produit ne doivent pas être situés ou exploités conjointement avec une autre antenne ou transmetteur.

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# Introduction

The T15e Tag adds advanced temperature monitoring capabilities to Securitas Healthcare's market-leading family of Wi-Fi tags, making it ideal for use in all hospital departments.

## Temperature and Vaccines for Children (VFC) Monitoring:

The tag uses a single probe to provide continuous measurement and data logging of refrigerators or freezers across the organization.

The T15e Tag can be supplied with a NIST traceable Certificate of Calibration\* compliant to ISO 17025:2017, and meets all the Centers for Disease Control and Prevention's (CDC) requirements for VFC Data Loggers.

\*<u>Note:</u> While NIST calibration is valid for a two-year period, upon receipt of the tag, customers can expect the remaining duration until re-calibration to fall within a range of 18 to 24 months.

The T15e Tag provides local audible and visual alerts, and works with Securitas Healthcare's MobileView platform to provide real-time alerting and reporting for temperature monitoring solutions.





## What's in the Box?

The T15e Tag is supplied with the following components:

- T15e Tag
- 2 AA Batteries
- 3 Meter USB-C Temperature Probe
- 3 Meter USB-C Contact Sensor Cable and Contacts
- Tag Mounting Bracket
- Plastic Glycol Vial
- 2 Alcohol Prep Pads
- Various Mounting Accessories



# **Pre-Requisites**

## **Minimum Requirements**

Components	Version
MobileView	5.4 and above
Engine	5.4 and above
Deployment Manager (DM)	iOS: Version 5.5.3 and above Android™: Version 1.2.0.13 and above <u>Deployment Manager App Requirements:</u> iOS: 14. x and above. Android <sup>™</sup> OS: 8 and above

# **Reference Documentation**

The following articles can be accessed by logging into the Securitas Healthcare Support Community site at the following URL: <u>www.securitashealthcare.com/support</u>.

KB	Document Name
11755	T15e Tag Data Sheet
11756	T15e Tag Release Notes
11754	T15e Tag Deployment & User Guide (This doc)
See KB	Refer to any MobileView Administrator Guide from 5.4 and above
9758	Deployment Manager Setup & User Guide (iOS)
12457	Deployment Manager User Guide (Android)

# **T15e Features**

## **T15e Tag Key Features**

## Large Display and Push Button Functionality

The tag's display shows the current temperature, the minimum and maximum temperatures measured since the last audit, battery, and power status, and alarm indications. The buttons are used to navigate and select the tag's menu options, activate the tag, and perform manual audits with a single press.

### Audio and Visual Indications

T15e Tags include a buzzer with 4 different distinct sounds and 3 LEDs for status indications, such as tag activation, alerts, and low battery.

### Wi-Fi & Cyber Security

The tag supports 802.1x Enterprise security networks with a PEAP-MSCHAPv2 protocol. Additionally, they support a HTTPs connection with MobileView Servers using the TLS1.2 protocol. This allows a MobileView Server authentication using pre-installed X.509 certificates.

## Bluetooth Low Energy (BLE) Communication

T15e Tags use BLE technology to communicate with the Deployment Manager (DM) app for device configuration and setup.

## Beaconing and Bidirectional (BD) Communication

The tags utilize lightweight beaconing communication (for standard messages) and Bidirectional Wi-Fi communication with full network association and authentication. This unique combination provides a flexible and scalable solution for advanced applications. The tags can operate with one network SSID in a secure or non-secure mode and is able to store up to two application server connections. The T15e Tags also support both static IP configuration and DHCP.

### **Battery and External Power Options**

The tags are powered by 2 AA batteries, which is the <u>recommended power source</u>, and an optional power adaptor that can be used to save battery life. Battery levels are constantly monitored by the device and MobileView. The tag will use external power whenever available (batteries are recommended as a backup if external power is used).



#### Multi-Purpose USB-C Connector Interface

The T15e Tag has 3 multi-purpose USB-C connector ports. Power, temperature probe, and contact sensor inputs can be attached to any of the 3 ports, and are automatically recognized by the tag.

#### **Detachable Temperature Probe and Contact Sensor**

T15e Tags are supplied with a 3-meter USB-C temperature probe cable for temperature monitoring, and a USB-C Contact Sensor cable for refrigerator and freezer door monitoring.

#### **Programmable Logging Interval**

Logging intervals can be programmed to 5, 15, 30, or 60-minute intervals using pre-configured static configurations.

#### Manual Audit with a Single Button Press

The CDC requires healthcare facilities to inspect physically (also called "audit") each VFC-enabled device at least twice a day (once during the morning and once during the afternoon shift). A physical inspection is logged when the main button on the front of the tag is pressed.

#### Stores up to 64,000 Records

The T15e Tag's onboard memory can store up to 64,000 sampled temperature records. Additionally, temperature data is also sent to MobileView (if the tag is configured to sync with MobileView).

#### Easy Battery Replacement

The tag uses 2x 1.5V Alkaline AA batteries. Battery levels are constantly monitored and easily replaced by opening the battery cover on the back of the tag. The tag's memory is retained during battery replacement.

#### **Off-Line Temperature Monitoring**

The T15e Tag can store data during times of network connectivity failures. Recorded data is then automatically synchronized with MobileView within 24 hours after normal network connectivity has resumed, or immediately by performing a manual sync from the tag. Off-line data is viewed via MobileView Reports.

#### **Flexible Mounting Options**

The tag's external sensors, and convenient form factor, allows for secure mounting on variety of assets using its supplied cradle. Other industry-specific mounting accessories can be supplied by Securitas Healthcare.



## Multi-Language Text Display

The tag's display text can be set to 5 additional languages (besides English); French, Swedish, Finnish, Spanish, and Portuguese.

# **Tag Descriptions**

The following describes the parts of the T15e Tag:



**Bottom View:** 



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No.	Description
1	3 indication LEDs – See LED and Buzzer Indications
2	LCD Screen*
3	Buzzer – See LED and Buzzer Indications
4	Navigation Arrow Buttons and Select Button See <u>Using the T15e Tag</u>
5	Mute Alarm/Audit button
6	Battery Cover
7	USB-C Screw Tightening Hole (for securing the cable plug to the tag)
8	Multi-Purpose USB-C Connectors (Power, Temperature Probe, and Contact Sensor plugs can be plugged into any of the USB-C connectors).

## **Screen Values**

The following explains the tag's screen values\*:



No.	Description
1	Current temperature
2	The tag's configured temperature range.
3	Recorded temperature values since the last audit.

\*<u>Note:</u> If the tag is used in a low-temperature environment -below 10°C (50°F)-, the display's refresh may take a few seconds. It is therefore recommended to use the tag's display menu when the tag is in a room-temperature environment.



# **Status Icons**

The tag's status icons are displayed across the top of the LCD screen. The following table explains the Status lcons:

lcon	Description
	Full Battery
	Battery Level Medium
	Battery Low
اي	Depleted Battery. Change battery immediately
-	Power cable plugged in and supplying power to the tag
<b>≷</b> ♣	Power cable disconnected
<b>.</b>	Temperature out-of-range Alert / Local Alarm
€t	Bidirectional (BD) Session in progress
<b>\$</b> 0	BLE Session in progress
•	Contact Sensor Closed
	Contact Sensor Open
▲	Warning message – See <b>Viewing</b> Warnings.

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# **Tag Functions**

The navigation buttons are used to navigate and select a menu option, change the temperature scale and enable or disable the button sound. The tag's main button is used for tag activation, muting alarms, and performing temperature audits.

# Accessing and Using the Tag's Menu Options

The tag's menu options are indicated by the menu icon  $|i\equiv|$ .

- 1. Press the **Select** button to access the menu.
- 2. Use the **left arrow** button for up, and the **right arrow** button for down, to navigate through the menu.
- 3. To select an option, navigate to the required option and press the Select button.



## **Tag Menu Options**

Option	Description	
Main Screen	Displays the tag's main screen.	
<b>BLE Activation</b>	Select this option to activate a BLE session with the Deployment Manager (DM) app. The BLE will be active for 30 min.	
Tag Sync	Select this option to activate a BD session with MobileView.	
Show Thresholds	Shows or Hides temperature out-of-range threshold values on the main screen.	
Min/Max Values	Shows the recorded temperature and humidity values since the last audit.	
Warnings	Shows any current warning messages. See Viewing Warnings	
About	Shows the tag's MAC and Firmware (FW) version	
Languages	Changes the screen display language. English is the default setting. Other available languages include French, Swedish, Finnish, Spanish, and Portuguese.	

# Activating and Configuring the Tag

T15e Tags arrive deactivated and must be activated and configured before use.

# **Tag Activation**

The tag is automatically activated once power is supplied to the tag (battery or external power). The tag will beep when it turns on and is activated, and a blue LED will flash. The tag will also automatically activate its BLE and will be ready for configuration via the DM app. The tag's BLE will be activated for 30 min.

Additionally, if the tag was deactivated using the DM app, the tag can be activated again by pressing the main button 🕜 on the front of the tag for 2 seconds until a beep is heard.

# **Tag Configuration**

<u>NOTE:</u> The following <u>Deployment Manager</u> procedures are for the iOS version. For the Android<sup>™</sup> version, please refer to the Deployment Manager (Android) User Guide KB 12457. However, please review the sections below and refer to the Android<sup>™</sup> guide when necessary.

It is recommended to use the Deployment Manager (DM) Setup & User Guide (iOS) together with the procedures below.

T15e Tag parameters must be initially configured using the DM app's BLE Tag Functions feature. The feature needs to be enabled using a product key. See Enabling BLE Tag Functions below.



## **Enabling BLE Tag Functions**

BLE Tag Functions is enabled (disabled by default) using the product key <u>PERF2197</u>. The key only needs to be entered in once. If you delete the DM app, the key will need to be re-entered. <u>NOTE:</u> This key opens Wi-Fi channels 1-11. Opening channels 12 and 13 is country-dependent and requires a specific key from Securitas Support.

- 1. Open the DM app.
- 2. Tap the **Settings** icon.



3. Tap Product Key.



4. Enter the Product Key PERF2197.





5. Tap Add Key.



- 6. Ensure that you can now manage **BLE** tags.
- 7. Tap Close.
- 8. BLE Tag Functions > Tag Management is now enabled.





## **Enabling Secured Tag Communication with MobileView**

<u>NOTE</u>: This section is for sites that are using MobileView in a secured mode and require secure BD (Bidirectional) tag sessions. For more information on using MobileView in a secured mode, refer to the latest MobileView Deployment Guide.

Skip this section if the site is not using MobileView in a secured Mode or if you will be deploying the tag in a UD (Unidirectional) environment. See <u>Configuring Tags.</u>

T15e Tags support an HTTPS connection with MobileView Servers using the TLS1.2 protocol. This allows a MobileView Server authentication using pre-installed X.509 certificates.

## The Securitas T15e Tag Certificate

To allow a MobileView Server authentication using the Server's SSL certificate, the T15e Tag must be preloaded with a Root CA certificate that authenticates the MobileView Server's SSL certificate. This can be done either directly, or through an Intermediate Certificate using a Chain of Trust (see <u>Chain of Trust</u>).

The T15e Tag must be pre-loaded with only a <u>Root CA</u> certificate. Any other certificate that is pre-loaded to the tag will fail the Server's SSL certificate verification.

## Note the following:

Unlike Web Browsers, an IoT device such as the T15e Tag, does not support a CA with Cross Certification embedded, which is also referred to as Qualified Subordination. The enterprise can still employ this mechanism for securing its other applications. Please consult your certification vendor for any additional details.

## **Certificate Format**

T15e Tags can be pre-loaded with a Root CA certificate in X.509v3 PEM format (also known as Base64 encoded certificates that starts with

"-----BEGIN CERTIFICATE-----" and ends with "-----END CERTIFICATE-----").

## **MobileView Server Certificates**

The following certificates must be pre-installed on the MobileView Server to allow the certificate validation to be performed by T15e Tags:

- SSL Certificate issued for this specific server
- All Intermediate Certificates
- Root CA Certificate

If one of the above certificates from the <u>Chain of Trust</u> is not installed on the MobileView Server, the T15e Tag will fail the Server's SSL certificate verification.



## MobileView Server Host Name

The MobileView Server's host name must always include its domain (i.e. mv-srv-1.corp.aeroscout.com). The domain must correspond to the CN set in 'subject' field of the MobileView Server's SSL certificate.

## **Certificate Definitions**

T15e Tag certificate-based authentication of the MobileView Server is based on the following definitions:

## Chain of Trust

A certificate chain is an ordered list of certificates, containing an SSL Certificate, Intermediate Certificates and a Root CA Certificate, that enable the receiver to verify that the sender and all CA's are trustworthy.

The chain must begin with the MobileView Server's SSL certificate, and each certificate in the chain must be signed by the entity identified by the next certificate in the chain.

The below figure illustrates a certification path from the Server's SSL Certificate to the Root CA Certificate, where the Chain of Trust begins:



## The Root CA certificate

The chain ends with a Root CA Certificate. The Root CA Certificate is always signed by the CA itself. Using this certificate T15e Tags are able to verify the signatures of all certificates in the chain.

## The Intermediate Certificate



Any certificate that sits between the SSL Certificate and the Root CA Certificate is called a chain or Intermediate Certificate. The Intermediate Certificate is the signer/issuer of the SSL Certificate. The Root CA Certificate is the signer/issuer of the Intermediate Certificate. If the Intermediate Certificate is not installed on the MobileView Server (where the SSL certificate is installed) it will prevent T15e Tags from completing the server's SSL certificate verification.

## Loading a Secured Certificate to the Tags

Ensure you have the secured MobileView Certificate available on your mobile device (either as an email attachment or in a file-sharing application). Refer to <u>Enabling Secured Tag Communication with MobileView</u> and <u>Exporting a Secured Certificate from MobileView</u>.

## <u>NOTE:</u> <u>Previously installed Certificates will be deleted. For more information about removing or updating</u> <u>Certificates, refer to the Deployment Manager Setup & User Guide – 'Managing Tag Certificate Files'</u> <u>section.</u>

From your mobile device, perform either of the following:

### Loading from Email:

- 1. Tap the required Certificate in your email.
- The default file operation list will open. Select 'Copy to Deployment Manager'. If you don't have 'Copy to Deployment Manager' in your list, tap Save to Files and save the file to either your iCloud Drive or any other file-sharing application (see Loading from a File Sharing Application below).



3. Deployment Manager opens. Tap Save.





- 4. Tap OK.
- 5. Configure the tag accordingly. See Configuring Tags

#### Loading from a File Sharing Application:

1. Tap the required Certificate in your file-sharing application, for example, iCloud Drive.



2. Deployment Manager opens. Tap Save.



- 3. Tap OK.
- 4. Configure the tag accordingly. See <u>Configuring Tags.</u>



## **Configuring Tags**

Tag configurations can be saved, loaded, or exported. See <u>Saving, Exporting, Importing, and Loading Tag</u> <u>Configurations.</u>

<u>NOTE:</u> Up to 50 tags can be configured at once. You can also use the Make Tag Blink feature to see which tags you are configuring. See <u>Make Tag Blink</u>.

1. Ensure the tag's BLE is activated, which is indicated by the BLE \* icon. BLE is activated when the tag is powered on for the first time.

If the tag's BLE is not activated, press the **Select** button on the tag to access the menu options. Use the arrow buttons to navigate, and then select **BLE Activation**.

Ensure the BLE  $^{\bigstar}$  icon is displayed on the main screen.

- 2. Open the DM app.
- 3. Under BLE Tag Functions, tap Tag Management.







4. Tap **Detect** or swipe down on the screen to detect the tags.

Detect

5. Tap to select the required T15e Tag(s) and then tap **Configuration**. Up to 50 tags can be configured at once.



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$\otimes$	Tag Configuration	$\odot \bigcirc$
WIRELESS		
	sociation ciation mode, the tag periodical pdates from the server	y associates to the
TRANSMISSION	I SETTINGS	
Data Frame	Format	IBSS >
Configuratio	n ID	175 >
Channels		1,6,11 >
General	() Wireless	

6. Configure the tag accordingly (See <u>About UD and BD Deployments</u>). <u>NOTE</u>: <u>VFC sites must use the BD</u> <u>Deployment only.</u>



## About UD and BD Deployments

The following table shows the differences between a UD (Unidirectional) and BD (Bidirectional) deployment:

UD Deployment	BD Deployment
Does not support CDC requirements for VFC deployments.	Supports CDC requirements for VFC deployments.
Tags only transmit real-time temperature data to MobileView.	Tags transmit and receive values and configuration data from MobileView via a Bidirectional session automatically every 24 hours (providing there are no network issues).
Does not support Offline data uploads.	Supports Offline upload of temperature values and audit checks.
Does not support remote firmware upgrade.	Supports firmware upgrades via a BD session from MobileView.
Local Alarm is set only by using the DM app.	Local Alarm is configured in MobileView.

## UD (Unidirectional) Deployment Configuration

Configure the following in the DM app:

1. Turn Wireless Association Off (enabled by default).



- 2. Set the site's Data Frame Format (default is IBSS).
- 3. Select a Configuration ID and then tap Apply



These are pre-defined configurations. One ID <u>must</u> be selected. You can view more details about each ID by tapping on the information icon 🔞.

ID	Description
ID 174	1min Beacon (sets the tag's transmission and logging interval to 1min).
ID 175	5min Beacon (sets the tag's transmission and logging interval to 5min).
ID 176	15min Beacon (sets the tag's transmission and logging interval to 15min).
ID 177	30min Beacon (sets the tag's transmission and logging interval to 30min).
ID 178	60min Beacon (sets the tag's transmission and logging interval to 60min).

- 4. Set the Wi-Fi Channels accordingly (default is 1, 6, 11) and then tap Apply
- 5. Tap Sensor Settings (this option is only available if Wireless Association is turned Off).



6. Configure the Sensor Settings:



## a. <u>Temperature Units:</u>

Select the temperature unit (Celsius/Fahrenheit).



### b. Temperature & Alarm Settings:

**Local Alarm:** The Local Alarm includes 3 components; Buzzer, Alert LED, and the on-screen Bell icon. These are all triggered if the configured temperature values are out of range. By default, the (in UD mode) Local Alarm is 'On', and can be turned 'Off' by toggling the button.

NOTE: The buzzer will continue to sound unless muted on the tag itself.

**Min & Max Temperature Thresholds:** Set the minimum and maximum temperature threshold values. The tag's Local Alarm will be triggered when a value is out of its configured range.

Alarm Delay Period: Select the time period that a tag's value must be out of a configured range before an alarm is triggered. For example; if the alarm delay period is set to 5 minutes and the tag's value is out of its configured range, the alarm will only be triggered if its value does not normalize within the set time of 5 minutes.

**NOTE:** The tag will immediately move out of alarm mode when the temperature is back within the configured limits.

- 7. Apply the tag configuration by tapping the check icon  $\bigvee$
- 8. Tap **Apply** to apply the settings to the tag(s).
- 9. Ensure all tag configurations are successful and then tap **Done**.





## **BD (Bidirectional) Deployment Configuration**

NOTE: The T15e Tag supports any HTTP server ports used to host MobileView (i.e. 80, 443, 8080, and 8443).

<u>NOTE:</u> It is recommended not to configure the tag for a BD session if Wi-Fi connectivity is poor or nonexistent. Battery life is impacted when a tag attempts to establish a BD session and fails repeatedly over a period of weeks, due to a lack of Wi-Fi network availability.

Configure the following in the DM app:

1. Ensure **Wireless Association** is enabled (default). **NOTE:** When **Wireless Association** is enabled, the **Sensor Settings** tab is disabled. The tag will now receive sensor settings from MobileView.

$\otimes$	Tag Configuration	on 💮	
WIRELESS			
Wireless Ass	ociation		$\bigcirc$
	iation mode, the tag perio odates from the server	dically associates to	o the
TRANSMISSION	SETTINGS		
Data Frame F	Format	IBSS+CCX	>
Configuration	ı ID	175	>
Channels		1,6,11	>

- 2. Set the site's Data Frame Format (default is CCX).
- 3. Select a Configuration ID and tap Apply

These are pre-defined configurations. One ID <u>must</u> be selected. You can view more details about each ID by tapping on the information icon



The following table explains each Configuration ID:

ID	Description
ID 174	1min Beacon, 1 day BD (sets the tag's transmission and logging interval to 1min and sets a BD session for every day).
ID 175	5min Beacon, 1 day BD (sets the tag's transmission and logging interval to 5min and sets a BD session for every day).
ID 176	15min Beacon, 1 day BD (sets the tag's transmission and logging interval to 15min and sets a BD session for every day).
ID 177	30min Beacon, 1 day BD (sets the tag's transmission and logging interval to 30min and sets a BD session for every day).
ID 178	60min Beacon, 1 day BD (sets the tag's transmission and logging interval to 60min and sets a BD session for every day).

- 4. Set the Wi-Fi Channels accordingly (default is 1, 6, 11) and then tap Apply
- 5. Tap Wireless (this option is only available if Wireless Association is enabled).

	(	
General	• Wireless	

6. Enter the required Wireless Settings:



$\otimes$	Wireless Settings	$\odot \odot$
IP SETTINGS		
Address Type		DHCP >
Auto IP Renew	wal	None >
APPLICATION SE	RVERS	
Add Applicat	ion Server	
WI-FI		
Add Wi-Fi Ne	etwork	
Remove Root	Certificate Files	

## **IP SETTINGS:**

a. Tap on Address Type and select either DHCP (The DHCP server automatically assigns the tag an IP address every time the tag is associated with the network),

<u>-OR-</u>

Static IP (the IP address and connection settings are specified manually).

NOTE: The Static IP setting is not available if more than one tag is selected.

- b. Auto IP Renewal is not available and is set to None.
- c. If Static IP is selected, enter the IP Address, Subnet and Gateway.

Static IP	
IP Address	IP Address
Subnet	Subnet
Gateway	Gateway



## APPLICATION SERVERS (a minimum of 1 must be added, with a maximum of 2):

### a. Tap Add Application Server.

The following screen is displayed if you have not loaded a secure Certificate from MobileView. To load a secured Certificate, refer to the *Enabling Secured Tag Communication with MobileView* section.

$\otimes$	Add Application Server	$\oslash$
Host	Server IP/Host Na	ame
Port		443
Protoco	I HTTPS	>
AVAILABLE	ECERTIFICATE	
on your de Manager. Base64 er changed t to the tag,	ficate is not available. Locate the root certificate and open the certificate with Deploym The root certificate must use X.509 with acoding and must have the file extension o *.certificate. After a root certificate is load the tag uses that certificate to authenticate w's server certificate and ensure a secure n.	led

Any loaded secured Certificate from MobileView is displayed:

Add Applic	cation Server
Host	Server IP/Host Name
Port	443
Protocol	HTTPS >
AVAILABLE CERTIFICATE	
Secured Connect	
Remove Certificate	



Enter the MobileView Server details:

- For Host details, enter only the <u>MobileView PC Name</u>. Do not use an IP as this will cause the connection to fail.
- > The Server's **Port** (default is 443).
- Protocol: HTTPS (default setting) uses a loaded root certificate to authenticate MobileView's server certificate to ensure a secured connection. Use HTTP if you are not using a secured connection.
- b. Tap the **Apply** icon<sup>12</sup> to apply the settings.

<u>NOTE:</u> An HTTPS configuration can only be applied if a certificate is loaded. A **Missing Information** message appears if no HTTPS certificate is loaded.



OK

WI-FI (1 must be added):

- a. Tap Add Wi-Fi Network.
- b. Enter the Network's SSID. (NOTE: The SSID is case sensitive).
- c. Select the Authentication method; Open / WPA2-PSK / 802.1X (PEAP-MSCHAPv2).
- d. For WPA2-PSK enter the Authentication Key.



🛞 🛛 Add Wi-	-Fi Network 🔗
SSID	Network SSID
Authentication	WPA2-PSK ¥
	)pen
WPA	A2-PSK
802.1X (PEA	P-MSCHAPv2)
Kev	Authentication Key

e. For **802.1x (PEAP-MSCHAPv2)**, enter in the appropriate **Domain Name \ Username** (separated with a backslash\) and **Password**.

dd Wi-Fi Network	$\odot$	
Netw	ork SSID	
80	2.1X 🗸	
WPA2-PSK (PEAP-MSCHAPv2)		
Domain\L	Isername	
Network F	Network Password	
	80 WPA2-PSK (PEAP-MSCHAPv2) Domain\U	

f. Tap the Apply icon

## **Remove Root Certificate Files**

Turning this option on will delete any certificate currently stored on the tag, after the tag configuration has been applied in step 7 below. For more information about removing or updating Certificates, refer to the Deployment Manager Setup & User Guide – 'Managing Tag Certificate Files' section.



Remove Root Certificate Files

- 7. Apply the tag configuration by tapping the check icon
- 8. Tap **Apply** to apply the settings to the tag(s).
- 9. Ensure all tag configurations are successful and then tap **Done**.




#### Saving, Exporting, Importing, and Loading Tag Configurations

Tag configurations, tag settings, and wireless settings can be saved, exported, or loaded. Saved files are stored in the DM app. Additionally, .tfg3 files that have been sent to you can be imported. Saved or exported configurations can be loaded to single or multiple tags. <u>Refer to the Deployment Manager Setup & User Guide for more information</u>.

#### Saving Configurations

Configurations are saved to your DM app.

- 1. From either the Tag Configuration, Tag Settings, or Wireless Settings screens, tap
- 2. Select Save Configuration.
- 3. Enter a **name** for the file.
- 4. Tap Save File.

The configuration is saved.

5. Tap **OK**.

#### **Exporting a Configuration**

- 1. From either the Tag Configuration, Tag Settings, or Wireless Settings screens, tap
- 2. Select Export Configuration.
- 3. Enter a name for the file.
- 4. Tap Export File.
- 5. Select where to export the file.

The file will be exported in a .tfg3 format. The file can then be sent from your mobile device to other recipients. The file can also be used for troubleshooting by Securitas Healthcare Support.



#### Importing and Loading a Tag's Configuration

Tag configurations that have been saved to your app can be loaded to single or multiple tags. Saved configurations could either be files that you saved or files that have been sent to you by a Securitas Support representative.

When receiving configuration files from Securitas, the file must be imported and saved to the DM app first.

#### Importing .tfg3 Files:

- **iOS Mail** Tapping the file will open the default file operation list. Select 'Copy to Deployment Manager'. The application will open allowing you to save the file.
- **Google Drive App** Tap the 3 dots menu (in the file row) and select 'Export'. The default file operation list will open. Select 'Copy to Deployment Manager'. The application will open allowing you to save the file.
- **Dropbox App** Tap the 3 dots menu (in the file row) and select "Export". The default file operation list will open. Select 'Copy to Deployment Manager'. The application will open allowing you to save the file.
- **Gmail App** Tap the file attachment in the email and then tap the share icon in the top right corner. The default file operation list will open. Select 'Copy to Deployment Manager'. The application will open allowing you to save the file.

Additionally, when using the above methods, the file can also be saved to your **iCloud Drive** by tapping on **'Save to File'**.



#### Loading a Saved Configuration to a Single Tag

- 1. From either the Tag Configuration, Tag Settings or Wireless Settings screens, tap
- 2. Select Load Configuration.
- 3. Select the required file.
- 4. Tap Load File.

The configuration will be loaded.

Load Successful Your configuration has been successfully loaded to the current configuration	
ОК	

5. Tap **OK**.

#### Loading a Saved Configuration to Multiple Tags

- 1. From the **Detected BLE Tags** list, select the required tags.
- 2. Tap on Configuration.
- 3. Tap the **Options** icon
- 4. Select Load Configuration.
- 5. Select the required file.
- 6. Tap Load File.

The configuration will be loaded.

7. Tap **OK**.



#### Viewing a Tag's Current Configuration

You can view a tag's current configuration by doing the following:

- 1. Enable the tag's BLE.
- 2. Detect the tag.
- 3. Tap the information icon i of the tag to view.



4. The tag's details will be displayed in read-only mode.







- 5. You can view the tag's sensor settings (UD deployments) by tapping the **Sensor Settings** tab.
- 6. If the tag is configured for BD deployments, then tap the **Wireless** tab to view the settings.
- 7. To Save, Load, or Export configurations, tap

#### **Editing Transmission and Sensor Settings (UD Deployments)**

<u>NOTE:</u> Only one tag can be edited at a time. If you need to edit multiple tags, edit one tag, save the configuration, and then load the new configuration to the other tags. See <u>Saving, Exporting, Importing and</u> <u>Loading Tag Configurations.</u>

Tag Transmission and/or Sensor Settings of UD deployed tags are edited by doing the following:

- 1. Enable the tag's BLE.
- 2. Open the DM app and **Detect** the tag.
- 3. Tap the information icon  $\tilde{i}$  of the tag to edit.





4. The tag's details will be displayed in read-only mode.



- 5. To Edit the tag's **TRANSMISSION SETTINGS**, tap the **Edit Configuration** icon on the **Tag Details** screen.
- 6. Edit the tag's configuration accordingly. See <u>UD (Unidirectional) Deployment Configuration</u>. If you are changing the tag's deployment from UD to BD, then see <u>BD (Bidirectional) Deployment Configuration</u>.





7. To Edit the tag's Sensor Settings, tap the Sensor Settings tab.



8. If needed, tap the Edit Configuration 20 icon.

$\otimes$	Tag Setting	gs 💮 ⊘
TEMPERATUR	E UNITS	
Ce	Isius	Fahrenheit
TEMPERATUR	E & ALARM SETTINGS	
Local Alarm	1	
Min Temper	ature Threshold	2.0°
Max Tempe	rature Threshold	8.0°
Alarm Delay	/ Period	5 min >

- 9. Edit the tag's sensor settings accordingly.
  - a. Temperature Units:

Select the temperature unit (Celsius/Fahrenheit).

#### b. Temperature & Alarm Settings:

**Local Alarm:** The Local Alarm includes 3 components; Buzzer, Alert LED, and the on-screen Bell icon. These are all triggered if the configured temperature values are out of range. By default, the (in UD mode) Local Alarm is 'On', and can be turned 'Off' by toggling the button.

NOTE: The buzzer will continue to sound unless muted on the tag itself.

**Min & Max Temperature Thresholds:** Set the minimum and maximum temperature threshold values. The tag's Local Alarm will be triggered when a value is out of its configured range.

Alarm Delay Period: Select the time period that a tag's value must be out of a configured range before an alarm is triggered. For example; if the alarm delay period is set to 5 minutes and the tag's value is out of its configured range, the alarm will only be triggered if its value does not normalize within the set time of 5 minutes.



**NOTE:** The tag will immediately move out of alarm mode when the temperature is back within the configured limits.

- 10. To Save, Load or Export a configuration, tap the **Options** icon.
- 11. Tap the Apply icon to apply the new configuration.
- 12. Ensure all tag configurations are successful and then tap **Done**.

#### **Editing Transmission and Wireless Settings (BD Deployments)**

<u>NOTE:</u> Only one tag can be edited at a time. If you need to edit multiple tags, edit one tag, save the configuration and then load the new configuration to the other tags. See Saving, Exporting, Importing and Loading Tag Configurations.

Tag Transmission and/or Wireless Settings of BD deployed tags are edited by doing the following:

- 1. Enable the tag's BLE.
- 2. Open the DM app and **Detect** the tag.
- 3. Tap the information icon i of the tag to edit.





4. The tags details will be displayed in read-only mode.



- 5. To Edit the tag's **TRANSMISSION SETTINGS**, tap the **Edit Configuration** icon on the **Tag Details** screen.
- 6. Edit the **Tag Configuration** accordingly. See <u>BD (Bidirectional) Deployment Configuration</u>. If you are changing the tag's deployment from BD to UD, see <u>UD (Unidirectional) Deployment Configuration</u>.

$\otimes$	Tag Configuration	$\odot$	$\oslash$
WIRELESS			
Wireless Asso	ociation		$\bigcirc$
	ation mode, the tag periodically dates from the server	associates to	o the
TRANSMISSION	SETTINGS		
Data Frame F	ormat	CCX	>
Configuration	ID	175	>
Channels		1,6,11	>



7. To Edit the tag's Wireless Settings, tap the Wireless tab.

	(((*	Ċ
General	Wireless	Sensor Settings

8. If needed, tap the Edit Configuration  $\bigotimes$  icon.

$\otimes$	Wireless Settings	$\odot \odot$
IP SETTINGS		
Address Type		DHCP >
Auto IP Renew	wal	None >
APPLICATION SE	RVERS	
Server 1		
Add Applicat	ion Server	
WI-FI		
Network 1		•••• >
FILES ON TAG		
App Server Ro Test Cert 2.ce		
1051 0611 2.00	a tinoato	
Remove Root	Certificate Files	

- 9. Edit the tag's wireless settings accordingly. See the <u>BD (Bidirectional) Deployment Configuration</u> section.
- 10. The **FILES ON TAG** section shows if the tag has a loaded certificate. A certificate can be removed or updated if required. For more information refer to the *Deployment Manager Setup & User Guide Managing Tag Certificate Files* section.
- 11. To Save, Load or Export a configuration, tap the **Options** icon.
- 12. Tap the Apply icon to apply the new configuration.
- 13. Ensure all tag configurations are successful and then tap **Done**.

#### Secure Unidirectional Message Transmission

NOTE: Requires tag Firmware version 2.03.18 and above.

The T15e Tag supports the transmission of secure messages with a unique key that is assigned to the tag. Secured tag messages are then decrypted and validated by the Engine before being sent to MobileView.

For configuration procedures, refer to the Location Engine Deployment Guide 5.5 and above – Securing Tag Unidirectional Messages section.

## Make Tag Blink

Whether you have a single tag or a bunch of tags that you are configuring, you can use the Deployment Manager to make the tag(s) blink to help you identify which tag(s) you are configuring.

- 1. Open the DM app and detect the tag(s).
- 2. Select one or multiple tags.

$\bigcirc$	Detect BLE Tags			$\odot$
Q Tag MAC	Address			087 453
2 Tags Found		1 Ta	ag Sele	cted
000CCC1EE T15e / Firmwa		0		i
000CCC179 T15h / Firmwa		0		i
×	*		•••	1
Deactivate	Configuration		More	



- 3. Tap More.
- 4. Tap Make tag blink.

Cancel	
Make tag blink	
Select Operation	

5. The tag(s) blink.

## **Tag Temperature Calibration**

Recalibration is done using the Deployment Manager app and ensures that the actual probe measurement is in line with the reference probe.

#### NOTE the following before you begin:

- This Calibration process does not replace the NIST recalibration
- The Calibration feature requires Deployment Manager iOS version 5.6.0 and above or Android version 1.2.0.16 and above.
- The Calibration feature requires a specific license. Please contact Securitas Healthcare Support for license details.
- The following Deployment Manager procedures are for the iOS version. For the Android<sup>™</sup> version, please refer to the Deployment Manager (Android) User Guide KB 12457.

## Calibrating a Tag

The following procedure explains how to perform a temperature calibration adjustment on a T15e Tag using the Deployment Manager app.

- 1. Open the DM app.
- Ensure you have entered the Calibration license into Deployment Manager Settings icon > Product Key.



3. Activate the tag's BLE by pressing the **Select** button on the tag and selecting **BLE Activation**.

Ensure the BLE \* icon is displayed on the tag's main screen.

4. In the DM app, under **BLE Tag Functions**, tap **Tag Management**.

TED Functions	
℁× TED Disconnected	>
Tag Management	
O Detect Exciters	
Interference	
BLE Tag Functions	
Tag Management	>

5. Tap **Detect** or swipe down on the screen to detect the tag.

Detect

6. Tap to select the required T15e Tag to calibrate and then tap **Calibration**.

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$\bigcirc$	Detect Bl	LE Tags			$\bigcirc$
Q Tag MAC	Address				087 658
1 Tag Found			1 Ta	g Sele	cted
000CCC1E T15e / Firmw			0		i
	X	×			
Calibration	Deactivate	Configuration		Mo	ore

7. The tag's current **Temperature Offset Constant** and **Temperature Offset Coefficient** are retrieved and shown.





8. Adjust the **Temperature Offset Constant** and **Temperature Offset Coefficient** as required. The Temperature Offset Constant can range from -9.95°C to 9.95°C and the Coefficient can range from - 1.999 to 1.999.

$\otimes$	Tag Ca	libration		$\odot$
TEMPERATUR	RE CALIBRATION	4		
Temperatur	e Offset Cons	tant (C°)		0.10
-9.95	0.00	9.95		
	-0-		-	+
Temperatur	e Offset Coef	ficient		1.040
-1.999	0.000	1.999		
		)-1	-	+

- 9. Tap the tick icon to save the settings.
- 10. Tap **Apply** to confirm.



11. Ensure the update is successful.



# Temperature Sensor & VFC Deployments

This section explains how to configure the T15e Tag for use as a Temperature Sensor and assumes familiarity with MobileView.

## **Configuring MobileView**

Please refer to the latest MobileView Administrators Guide on the Securitas Healthcare Knowledge base and perform the following. Ensure the tag is available in MobileView under the 'Tags' tab.

If the tag is set up for UD, MobileView will <u>only receive</u> data from the tag and trigger alerts according to configured events.

If the tag is set up for BD, MobileView will transmit data, such as temperature threshold values to the tag, and receive data from the tag. Alerts will be triggered according to configured events.

### Creating / Editing a Category

- 1. Create or edit a **Category** and give it a meaningful name.
- 2. Define the temperature thresholds (this can be done on an Asset or Category level):

General > Applications > Business Status Values > Custom Properties > Temperature > Humidity	!		
Temperature			
Define the temperature threshold values for this category.			
O Use the default thresholds set for category: 😡 All Assets	Tempe	rature Thresh	olds Summary
<ul> <li>This category does not have temperature thresholds.</li> </ul>	$\bigcirc$	ОК	12°C<=T<=13°C
Set custom temperature thresholds for this category:		Warning	10°C<=T<12°C or 13° C <t<=15°c< td=""></t<=15°c<>
Minimum temperature: 10 °C Maximum temperature: 15 °C		Critical	T<10°C or 15°C <t< td=""></t<>
✓ Set temperature status to "Warning" if asset temperature is within 2 °C of thresholds.			
Trigger alert after: 0 Hours (0-3) 0 Minutes (0-59)			



#### Setting Thresholds on a Category Level:

Setting these values automatically enables the T15e Tag's Local Alarm. The entered values will be sent to the tag via a BD session which may require a few hours to update. You can perform an immediate sync action from the tag itself. See <u>Performing a Manual Sync with MobileView</u>.

Select **Set custom temperature thresholds for this category**, and enter the thresholds for all assets that will be placed in this category. Assets in this category can either inherit these thresholds or be configured individually – see <u>Setting Thresholds on an Asset Level below</u>.

- Set the Minimum and/or Maximum temperature thresholds. Both or one temperature threshold can be entered. If a single threshold is entered, for example just the Maximum Temperature, the tag will only monitor and alert when the Maximum Temperature value is reached.
- Set temperature status to.... This option will change the temperature status to 'Warning' if the temperature is within a specified value of the set thresholds. For example: If the min threshold is 10 and the 'Warning' status is set to 2, the temperature status will change to 'Warning' if the min temperature reaches 13 (2 below the max threshold of 15).
- Trigger alert after: Define the time period that a tag's value must be out of a configured range before an Alert is sent. For example; if the time threshold is set to 15 min and the tag's value is out of its configured range, an alert will be triggered if its value does not normalize within the set time of 15 min.

#### Setting Thresholds on an Asset Level:

If configuring temperature thresholds on individual assets, select **Set custom temperature thresholds for this asset** and enter the appropriate values. See above for descriptions.



#### **Configuring Events**

Events are configured in MobileView to trigger alerts according to specified parameters.

The following Events should be used for the T15e Tag:

Event Name	Description
Temperature	Triggers alerts when the temperature values are out of a configured range.
Battery Level	Monitors the tag's battery level and triggers alerts accordingly. Additionally, an alert can be triggered if the tag has no batteries or they are removed.
Out of Sight	Triggers alerts if the tag fails to report for a specified time.
External Power (Optional)	Triggers an alert if the tag's external power supply is disconnected for a period of time.
Sensor Tag Error	Triggers alerts when a sensor error occurs which prevents data from being received. Such as, a probe disconnection or probe malfunction etc.

#### **Temperature Event**

This event issues an alert based on temperature readings transmitted by active tags equipped with a temperature sensor. You can set specific conditions for the alert or inherit the asset/category thresholds and set the delay time before an alert is triggered.

<u>Best Practice Note:</u> It is recommended to inherit the configuration from the Asset / Category. Only set local conditions when required.

Event Conditions							
Temperature events are triggered when an asset's temperature report meets the defined conditions.							
Set event condition in absolute terms:     Temperature is:     Temperature is:     Temperature is:     C							
Set event conditions relative to assets' predefined limits:							
Alert when reported temperature exceeds the upper: Warning V limit.							
Alert when reported temperature exceeds the lower: Warning V limit.							
Alert when reported temperature returns within limits Set trigger time:							
Only trigger after:      Hours (0-23)							
0 Minutes (0-59)							
0 Seconds (0-59)							
O Asset default time							
* Alert when no temperature reports have been received for: 90 Minutes (1-1440)							
* Remind me every: 5 Minutes (1-1440)							



#### **Event Conditions**

Configure the Event Conditions according to the following:

Set event condition in absolute terms: If you want to set a specific (not inherited from the asset / category level) temperature range that triggers an alert, enter it here.

Set event conditions relative to the assets' predefined limits: Select this option to use thresholds defined on the asset / category level.

#### Set trigger time:

- Only Trigger after: Define the time period that a tag's value must be out of a configured range before an Alert is sent. For example; if the time threshold is set to 15 min and the tag's value is out of its configured range, an alert will be triggered if its value does not normalize within the set time of 15 min.
- Asset default time: Select this option to use the value defined on the Asset / Category level.
- Alert when no temperature reports have been received for: <u>NOTE</u>: <u>This option must not be used as it</u> will be removed in a future version. It is recommended to create a <u>Sensor Tag Error Event</u> instead. See <u>Sensor Tag Error Event</u>.

<u>Best Practice Note:</u> It is recommended to inherit the configuration from the Asset / Category. Only set local conditions when required.

#### Actions

Set the actions accordingly.

Actions				
Action Type: Email	Activate When: Alert Fires	×		
* Subject Template:	Short Message 1 V			
	MobileView Alert: Event name: \$EventName\$, Asset name: \$AssetNa	ime\$, Area ma		
* Message Template:	Measurements & Sensor Message 🗸			
	MobileView Alert:%nl%%nl%%tab%Event Type: \$EventType\$,%nl%%	6tab%Event n		
* To:	stanley@stanley.com			
Action Type: Instant N	Notifier Message V Activate When: Alert Fires V	×		
<ul> <li>Do not activate the</li> </ul>	e alarm sound			
Alert Sound: ale	rtSiren.mp3 🗸 🗸 🕑			
Users:				
Departments:				
* Selected Alert Fields:	Time, Priority, Name, Category, Temperature, Reason, S	tatus,Locatior		
Display Asset Picture	. <b>V</b>			
Display Corrective Ac	ction Instructions:			
If you do not select a spec	cific department and/or user(s), all users will receive the alerts.			

When using the <u>Email</u> Action Type, select the Message Template as Measurements Message. This email template contains details about the contact sensor value.

Additionally, when using INF, you can choose to display the Sensor Type and Value in the **Selected Alert** Fields.



#### Battery Level Event

This Event issues an alert if a tag's battery power reaches a certain level or if the tag has no battery.

Event Conditions
Battery Level events are triggered when a tag's battery level reaches a specified threshold.         For tags which report battery status only:       Battery Status Less than:         For tags which report battery capacity:       Image: Battery Capacity Less Than:         Image: Battery Capacity Capacity Capacity Capacity Capacity Less Than:       Image: Dot Status Capacity Cap

#### **Event Conditions**

Configure the Event Conditions according to the following:

For tags which report battery status only (Recommended setting): Select a level under which an alert will be generated. For example if you select Medium, the alert will be issued when the battery power level falls below Medium.

#### Actions

Set the actions accordingly.

#### **Out of Sight Event**

This event will trigger an alert if the tag fails to report for specified period.

Event Conditions							
Out of Sight Event Monitors are triggered when new location reports stop being received.							
Asset has not reported its location for:	0	Days (0-30)					
	0	Hours (0-23)					
	0	Minutes (0-59)					
	0	Seconds (0-59)					
Remind me every: 5 Minutes (1-1440)							

#### **Event Conditions**

Configure the Event Conditions according to the following:

Asset has not reported its location for: Specify the time that should elapse without receiving a report for the asset to be considered out of sight.

#### Actions

Set the actions accordingly.



#### **External Power Event (Optional)**

This event will trigger an alert if the tag's external power is disconnected for a period of time. This event does not need to be configured if you are running the tags with batteries only.

Event Conditions
External power events are triggered upon power disconnection from tags which support external power and meets the defined condition. * Power is disconnected for: 1 Minutes (1-1440)

#### **Event Conditions**

Configure the Event Conditions according to the following:

**Power is disconnected for**: Specify the time that should elapse after the tag's external power is disconnected, before an alert is triggered.

#### Actions

Set the actions accordingly.

#### Sensor Tag Error Event

This event will trigger an alert if an error occurs with the tag's sensor preventing data from being transmitted, such as a probe or contact disconnection or malfunction.

Sensor tag error events are triggered when an error occurs on the sensor tag which prevents receiving data. Example of sensor tag errors are probe disconnection, probe malfunction, etc. * Sensor has an error for: 0 Minutes (0-1440)	Event Conditions
	disconnection, probe malfunction, etc.

#### **Event Conditions**

Configure the Event Conditions according to the following:

Sensor has an error for: Specify the time that should elapse after a sensor error occurs, before an alert is triggered.

#### **Actions**

Set the actions accordingly.

# **Configuring the Contact Sensor**

This section explains how to configure the T15e Tag's Contact Sensor and assumes familiarity with MobileView.

The Contact Sensor can be used to monitor the door of the fridge or freezer that the temperature is being monitored. An alert will be triggered if the door has been left open for a configured amount of time.

#### **Best Practices**

- The Door Open Event (how long the door can remain open) should be triggered according to the fridge's contents.
- An Event can be created to automatically dismiss the Door Open Event. This event can be created to avoid users from manually dismissing the event from the system. It is recommended if it an action audit is not required.

## **Configuring the Sensor Monitoring Event**

The Contact Sensor Monitoring Event is configured in MobileView to trigger alerts when a fridge's or freezer's door is left open for a configured period of time.

#### Configuring a Door Open Event

The following section explains how to create a door open event using the Sensor Monitor Event.

- 1. Create a Sensor Monitor Event according to the following:
  - Select Sensor Monitor Event.
  - > Add a new Sensor Monitor Event and name the event accordingly, such as VFC Fridge Door.
  - Set **Priority** to **High**.
  - Set the Reset Interval to 86400. (This prevents triggering additional alerts, for this Asset, if the alert is triggered again before the reset interval time – wait time)



l	3 Add Sensor Monitor Event								
(	General Properties > Applications > Subscribers > Event Conditions > Actions > Corrective Action > Scheduling								
	General Properties								
	* Event Name VFC Fridge Door Priority: High V Reset Interval (in seconds): 86400	Description							

2. Under Subscribers, subscribe to the correct category.

Gener	ral	Properties >	Applications >	Subscribe	ers > Event Conditions	> Actions >	Corrective Action >	Scheduling
Sul	bs	cribers						
e	8	All Assets						
8	<u>e</u> )	Select:	Subscribed Ca	ategories:	Door Contacts	<b>.</b>		
	_		Subscribed Gr	roups:				

3. Under Event Conditions, select the Sensor Type as Contact Sensor.

🐉 Add Sensor Monitor Event						
General Properties > Applications > Subscribers > Event Conditions > Actions > Corrective Action > Scheduling						
Event Conditions						
Sensor events are triggered when an asset's sensor measurement report meets the defined conditions. Sensor Type: Contact Sensor  Sensor level is:  Sensor level is:  Only trigger after:  Minutes (0-59) Seconds (0-59) Seconds (0-59) Minutes (1-1440)						

- > Set 'Sensor Level is = '0' -. This value will trigger an alert when the door is opened.
- > Only trigger after: This setting triggers the alert when a door has been open for a configured period. For example, when a door has been left open for 30 seconds an alert is triggered.
- Optional: Remind me every: Once an alert has been dismissed, this setting can be used to check if the condition still persists and trigger an alarm every X minutes. The alert is generated during the next tx Interval. This setting should be used if a long tx interval has been set for the tag and where responding to alerts is time sensitive.
- 4. Under **Actions**, select the required action to be taken when an alert is triggered, such as sending an Instant Notifier or email alert.

When using the <u>Email</u> Action Type, select the Message Template as Measurements Message. This email template contains details about the contact sensor value.

Additionally, when using INF, you can choose to display the Sensor Type and Value in the **Selected Alert** Fields.





- 5. Under **Scheduling**, select the scheduling time when the alert must be active. For example, monitor the door during night hours only.
- 6. Click **Finish**.

#### **Configuring an Automatic Dismiss Door Open Event**

This event will automatically dismiss the Door Open Event once the door is closed.

- 1. Create a **Sensor Monitor Event** according to the following:
  - Select Sensor Monitor Event.
  - Add a new Sensor Monitor Event and name the event accordingly, such as Auto Dismiss Open Door Alert.
  - > Set **Priority** to **Medium**.
  - Set the **Reset Interval** to 300.

👌 Add Sensor Monitor Event							
General Properties > Applications > Subscribers > Event Conditions > Actions > Corrective Action > Scheduling							
General Properties							
<ul> <li>Event Name         Auto Dismiss Open Door Alert         Priority: Medium ♥         Reset Interval (in seconds): 300     </li> </ul>	Description						

2. Under Subscribers, subscribe to the correct category.

Ge	neral	Properties >	Applications >	Subscribe	rs > Event Con	ditions > Ac	tions > Corrective Action	Scheduling	
\$	ubs	cribers							
	ø	All Assets							
	۲	Select:	Subscribed Ca	tegories:	Door Contacts				
	_		Subscribed Gro	oups:					



3. Under Event Conditions, select the Sensor Type as Contact Sensor.



- Set 'Sensor Level is = '1' -. This value triggers an event when the door is closed.
- Only trigger after: Set this to '0'. This means the event will be triggered immediately once the door is closed.
- Optional: Remind me every: Once an alert has been dismissed, this setting can be used to check if the condition still persists and trigger an alarm every X minutes. The alert is generated during the next tx Interval. This setting should be used if a long tx interval has been set for the tag and where responding to alerts is time sensitive.
- 4. Under Actions, create a new action according to the following:
  - Action Type: Dismiss Event
  - > Activate When: Alerts Fires
  - Event to activate action on: Select the name of the event created above (configuring a Door Open Event)

🕂 Add Sensor Monitor Event				
General Properties > Applications > Subscribers > Event Conditions > Actions > Corrective Action > Scheduling				
Actions				
Action Type: Dismiss Event  V Activate When: Alert Fires V				
Event to activate action on: VFC Fridge Door				
Event type to activate action on: Sensor Monitor				
Search By: Asset				
+ Add Action Integration Parameters				

5. Click **Next** and then click **Finish**.

# **Mounting and Connecting**

## **Connecting the Power Adapter and Sensors**

#### **IMPORTANT!**

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- Batteries are recommended as a backup if external power is used.
- <u>Do not</u> connect two USB-C power adapters to the tag at the same time.
- It is highly recommended to use an approved Securitas power supply with the TAG (SKU: ADP-1500-U, ADP-1500-E). If a different power supply is used, ensure to connect the power cable to the power outlet <u>first</u> and then to the T15e Tag's USB-C port.

NOTE: The AC/DC adaptor must be safety approved according to IEC/EN/UL 60950-1 with a rated voltage of 5Vdc and rated current up to 3A maximum.

- The T15e Tag is not designed to be powered using a PC's USB outlet. If a PC's USB outlet is used, the Contact Sensor icon on the tag will always show as "closed", regardless of the actual state of the Contact Sensor.
- T15e Tags are compatible with USB 2.0 cables. Using USB 3.0 cables may result in inconsistent behavior of the tag.
- <u>**Do not**</u> connect two USB-C temperature probes to the tag at the same time. This will cause incorrect temperature values.
- <u>**Do not**</u> connect two USB-C contact sensors to the tag at the same time. This will cause incorrect alert triggering.
- The T15e Tag is only able to monitor Normally Open (NO) contacts.
- Make sure the plugs are tightened to the tag.

The T15e Tag has 3 USB-C ports and each cable has a USB-C connector with a tightening screw:





There is no specific port for each connector. <u>The Power, Temperature probe and Contact Sensor cables can</u> <u>be plugged into any port</u>.

Plug a connector into any port and tighten the tightening screw. The tag will automatically pick up the source that is connected.



## Mounting the Tag



The tag must be mounted no higher than 2 meters from the ground.

The tag comes with a mounting cradle and double-sided tape for easy mounting. Additionally, Velcro and screws can be used (not supplied).





#### Mounting with Double-Sided Tape

Place double-sided tape in each square on the mounting cradle and mount the cradle accordingly. See <u>Mounting the Tag and Temperature Probe</u>.



## Placing the Tag in the Cradle

Place the tag at an angle into the mounting cradle and make sure it clicks in place:





#### Removing the Tag from the Cradle

Push the mounting cradle's clip up and remove the tag:





## Mounting the Tag and Temperature Probe

The 3-meter Temperature Probe cable has been designed with a 1-meter Teflon flat section. The flat section enables the cable to be easily fed through a fridge's or freezer's door seal and helps prevent wear and tear to the cable.





1. Mount the tag on the outside of the unit or in another location close to the unit.



2. Feed the Probe part of the cable (flat section) through the fridge or freezer door seal.



3. Immerse the Probe slowly into the plastic glycol vial's cap, by turning it until the Probe's spring makes contact with the vial's cap. Fill the vial with Propylene Glycol after the probe is inserted.

<u>NOTE:</u> To measure temperature as low as -50°C, it is recommended to fill the vial with Glycol. When measuring temperatures down to -80°C, it is recommended to use Ethanol.



**NOTE:** The vial can be used only in temperatures as low as -80°C. In temperatures lower than - 80°C the sensor should be used without the vial.



4. Mount the vial in the fridge or freezer accordingly. The vial can be mounted with Velcro, tie-wraps, double-sided tape, or the supplied tube holder.



5. Use the supplied cable tie mounts to attach the cable to the surface, to prevent it from becoming loose or being moved.

## Installing the Contact Sensor

The supplied 3m Contact Sensor can be used to monitor the opening and closing of the monitored fridge or freezer door.

Install the Contact Sensor accordingly. NOTE: The placement of the Contact Sensor will vary.



# Using the T15e Tag

## Muting/Unmuting the Tag Button Sound

The tag button sound can be muted or unmuted by pressing the button  $\square$  under the speaker icon  $\P$ .

## **Changing the Temperature Conversion**

The tag can display the temperature in either Celsius or Fahrenheit. To change the temperature conversion,

press the button winder the conversion icon <sup>C</sup>.

## **Muting an Alarm**

The tag has a local alarm that will sound if the configured temperature values are out of range. The alarm can be muted by pressing the main button .





## Show/Hide Thresholds

You can choose to either show or hide the temperature thresholds on the main screen by doing the following:

- 1. Press the **Select** button to access the menu.
- 2. Navigate to the 'Show/Hide Thresholds' option using the arrow buttons  $\bigcirc$ .

Main Screen			
BLE Activation			
Tag sync			
Show Thresholds			
$\downarrow   \downarrow   \downarrow$			

3. Press the **Select** button

## Changing the Display Language

The tag's display is set to English by default, but supports 5 additional languages; French, Swedish, Finnish, Spanish, and Portuguese. To change the display language, follow the procedure below:

- 1. Press the **Select** button to access the menu.
- 2. Navigate to the 'Languages' option using the arrow buttons  $\bigcirc$   $\bigcirc$ .







3. Press the **Select** button

Back to Menu	
English	$\checkmark$
Française	
Svenska	
↑ (	$\downarrow$

- 4. Navigate to the required language using the arrow buttons
- 5. Press the **Select** button to select the required language.

## Performing an Audit – Manual Inspection

For VFC deployments, the CDC requirements include performing a manual inspection of the device twice a day (12 hours apart) to verify that it is operating normally. This activity is called an "Audit."

Pressing and holding the main button 🗹 for three to five seconds displays 'Audit report has been recorded successfully'. This validates the inspection in accordance with CDC requirements. The operation is also logged by the tag and is sent to MobileView along with the current temperature, and the Minimum and Maximum Temperature values recorded since the last Audit. The Min and Max measurement values of the last audit are also renewed.





## **Viewing Min/Max Values**

The tag stores the last recorded temperature and humidity audit values. These can be viewed by selecting **Min/Max Values** from the tag's menu:

BLE Activation
Tag Sync
Show Thresholds
Min/Max Values

## Performing a Manual Sync with MobileView

If the tag has been set up to associate with MobileView via Bidirectional communication, a manual sync can be performed from the tag itself at any time. Typically a sync with MobileView is automatically performed every 24 hours.

If changes to the configuration of the tag have been made in MobileView, you can perform an immediate sync from the tag by doing the following:

- 1. From the tag itself, press the **Select** button to access the menu.
- 2. Navigate to the 'Tag Sync' option using the arrow buttons

Main S	creen			
BLE Activation				
Tag sy	nc			
Show Thresholds				
$\uparrow$	Ч	$\downarrow$		

- 3. Press the Select button
- A Bidirectional sync session will be initiated with MobileView. This will be indicated by the 'BD in Process' icon


## **Viewing Warnings**

NOTE: Requires tag Firmware version 2.03.17 and above.

Warnings are triggered when there is a network connectivity issue with BD-configured tags. When a warning is triggered, the warning icon is shown on the tag's display.



3. Press the Select button

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- 4. The Warning message(s) are displayed. See Warning Messages below.
- 5. Press the **Select** button to exit the Warning screen.



### Warning Messages

The following table explains the possible warning messages and the recommended actions.

Warning Message	Recommended Action
Access Point connection failed	<ul> <li>Ensure the Access Point is in range and working</li> <li>Ensure the Access Point's SSID/User Name/Password/Key are entered correctly in the tag configuration</li> </ul>
DNS server query failed	<ul> <li>Ensure the DNS Server is available</li> <li>Ensure the DNS IP address is correct</li> <li>Ensure the App Server Host Name is correct Consult your local IT department</li> </ul>
No response from Tag Controller	<ul> <li>Ensure access to the MobileView Server is not blocked by a firewall</li> <li>Ensure the MobileView Server (TC service) is running</li> </ul>
Wrong root CA Certificate	Verify the tag's installed root CA certificate is correct and valid. Consult your local IT department.
Tag Controller connection timeout	The Tag Controller may be busy and can't send a new command. Either perform a manual BD session or wait about 30 minutes during which the tag will perform 1 retry.
Invalid time setting. Logs are discarded	<ul> <li>Ensure the tag's Real-time clock is configured:</li> <li>Configure the tag using the Deployment Manager or perform a manual BD session with MobileView.</li> <li><u>Note:</u> Stored tag logs are discarded if the tag's Real-time clock is not in sync with Deployment Manager and/or MobileView.</li> </ul>
Failed to obtain IP Address	<ul> <li>Ensure the DHCP Server is available</li> <li>Ensure the DHCP settings are correct</li> <li>Ensure the DHCP Server is not blocked by a firewall</li> <li>If a static-IP address has been used, ensure it is correct and available</li> <li>Consult your local IT department</li> </ul>

## **Updating Tag Firmware**

Tags that are setup to associate with MobileView can have their Firmware updated via a Bidirectional session by doing the following:

- 1. From Tags tab in MobileView, click on the Tag Configuration icon  $\overset{\checkmark}{\sim}$  .
- 2. From the Repository tab, upload the new Firmware and then click Save.
- 3. Select the Firmware Selection tab.
- 4. Select the required firmware for the T15e Tag.
- 5. Click Save.
- 6. Tag firmware will be updated during the next BD session. You can initiate an immediate sync by following the steps in the *Performing a Manual Sync with MobileView* section.

## Swapping or Removing Inactive Tags in MobileView

When swapping or removing inactive tags in MobileView, data may be lost. Additionally, the tag's Local Alarm will be deactivated and the tag's configured threshold vales will be deleted. It is therefore recommended to perform a manual sync from the tag before swapping or removing. See <u>Performing a Manual Sync with</u> <u>MobileView</u>.



## **LED and Buzzer Indications**

The tag has 3 LEDs and a buzzer for indications:



The following table explains the tag's LED and buzzer indications:

Action	Buzzer	LED #	LED	LED Color
Activation	Long beep	LED 3	3 blinks	Blue
Local Temperature Alert	Alarm tone	LED 2	Blinks	Red
Alert Dismiss	Long beep	LED 2	LED stops blinking	-
External Power Connection	Short beep	LED 1	LED turns on	Blue
External Power Disconnection	Long beep	LED 1	LED turns off	
Muting Buzzer	Short beep	LED 3	1 Blink	Blue
Un-Muting Buzzer	Short beep	LED 3	1 Blink	Blue
Changing Temperature Unit	Short beep	LED 3	1 Blink	Blue
Menu Option Selection	Long beep	LED 3	1 Blink	Blue
Audit	Audit tone	LED 3	3 Blinks	Blue
Low Battery	-	LED 2	Blinks	Yellow
Make Tag Blink	-	LED 3	Blinks	Blue



# **MobileView Battery & Power Indications**

MobileView provides the following power indications for the T15e Tag:

External Power	Battery Powered	lcon	Description
Plugged in	Yes		Battery + Power Tag battery full.
			Battery + Power Tag battery medium.
		<b>•</b>	Battery + Power Tag battery low.
Plugged in	No	<u>C</u>	Power - No Batteries
Disconnected	Yes		Battery Only Tag battery full.
			Battery Only Tag battery medium.
			Battery Only Tag battery low.



### **Replacing the Batteries**

The tag is supplied with 2x 1.5V Alkaline AA batteries. Replace the batteries by opening the battery cover. The tag retains its memory during battery replacements.

Recommended replacement batteries: 2x 1.5V Alkaline AA batteries





**CAUTION**: Risk of Explosion if Battery is replaced by Incorrect Type. Dispose of Used Batteries According to the Instructions. **ATTENTION**: Risque d'explosion si la batterie est remplacée par un type incorrect. Mettre au rebus les batteries usagées selon les instructions.

### **Tag Recalibration**

The T15e Tag should be recalibrated with the probe as a single unit. Removal of the probe with the tag is required during the recalibration process. See <u>Tag Recalibration</u>.



# Reports

The following section explains the T15e Tag MobileView Reports.

The following reports are located in the Environmental Monitoring > Reports tab.

# **Battery Level Report**

This report shows the history of the tag's battery level. Additionally the **Battery / PWR** column shows if the tag is being powered by an external power source.

Not PWRD indicates that the tag is running on battery power only.

PWRD indicates that the tag is using an external power source and battery.

Tag ID	Tag Model	Asset Name	Category	Battery / PWR	Last Report Date	Last Battery Replacement Date	Estimated Remaining Battery Capacity (%)	Estimated Remaining Battery Life	Estimated Replacement Date
000CCC11E9 DB	T2s	Unattached tag		High	23/01/19 5:29:04 PM		97.0		
000CCC11EB 88	T2s	Unattached tag		High					
000CCC11F5 01	T2s	Unattached tag		High					
000CCC11F5 70	T2s	Unattached tag		High					
000CCC1502 02	T15	Unattached tag		High / Not PWRD	23/01/19 5:23:26 PM				
000CCC1502 21	T15	Unattached tag		High / Not PWRD	23/01/19 5:31:19 PM				
000CCC1502 25	T15	000CCC1502 25	0_T15	High / Not PWRD	23/01/19 5:30:57 PM				
000CCC1502 28	T15	000CCC1502 28	0_T15	High / Not PWRD	23/01/19 5:30:49 PM				
000CCC1502 35	T15	Unattached tag		High / Not PWRD	23/01/19 5:30:46 PM				
000CCC1502 3E	T15	Unattached tag		High / Not PWRD	23/01/19 5:30:42 PM				
000CCC1502 40	T15	000CCC1502 40	0_T15	High / Not PWRD	23/01/19 5:31:25 PM				
000CCC1502 44	T15	000CCC1502 44	0_T15	High / Not PWRD	23/01/19 5:29:48 PM				
000CCC1502 48	T15	Unattached tag		High / Not PWRD	23/01/19 5:13:51 PM				
000CCC3002 A8		Unattached tag		High					
000CCC3002 B4		Unattached tag		High					
000CCC3002 C5		Unattached tag		High					
000CCC3002 D0		Unattached tag		High					
23/01/19 5:31:3	3 DM	-							Page 20 of 3



## VFC Audit Report (and offline data)

This report is used to show the VFC Audit history (BD and UD deployments) and offline data. Offline data (BD deployments only) is data that was not uploaded to MobileView in real-time (due to network failures) and was uploaded during a BD session or a manual sync.

Offline data is indicated with an asterisk (\*).

VFC A	udit Report				STANLEY Healthcare
	bileView Admin, 23/01				Signed B
Category: 0_T15,		5.44.22 PM			
* This report conta	ins offline data, The re	-			and processed offline.
Audit Time	Asset Name	Last Reported Temperature (°C)	Min Reported Temperature (°C)	Max Reported Temperature (°C)	Current Location
*17/01/19 4:13:40					
PM	000CCC150225	136.9	136.88	137.16	AS Building/Floor 6/Floor6 - MV Side1
17/01/19 4:16:53	000CCC150225	136.9	136.88 136.9	N =7	-
PM 17/01/19 4:16:53 PM 17/01/19 4:21:08 PM				137.16	MV Side1 AS Building/Floor 6/Floor6 -
17/01/19 4:16:53 PM 17/01/19 4:21:08	000CCC150225	136.9	136.9	137.16 136.9	MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 -
17/01/19 4:16:53 PM 17/01/19 4:21:08 PM 17/01/19 4:22:43	000CCC150225 000CCC150225	136.9 -200.24	136.9 -200.24	137.16 136.9 138.95	MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 -
17/01/19 4:16:53 PM 17/01/19 4:21:08 PM 17/01/19 4:22:43 PM 17/01/19 4:23:16	000CCC150225 000CCC150225 000CCC150225	136.9 -200.24 -200.21	136.9 -200.24 -200.24	137.16 136.9 138.95 -200.21	MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 - MV Side1 AS Building/Floor 6/Floor6 -

## **Temperature History Report**

This report retrieves historical data, showing the temperature read from an asset during a given period.

Date	Temperature (°C)	Location	Tag ID
10/12/18 4:30:18 PM	22.64	AS Building/Floor 6/Floor6 - MV Side1	000CCC150231
10/12/18 2:56:38 PM	25.48	AS Building/Floor 6/Floor6 - MV Side1	000CCC150231
Total number of results: 2			

# **Condition Monitoring Audit (and offline data)**

This report provides a history of temperature readings, and contact sensor values, over time for a group of assets. The report shows detailed data for each asset separately. Additionally, the report supports Offline data.

Offline data (BD deployments only) is data that was not uploaded to MobileView in real-time (due to network failures) and was uploaded during a BD session or a manual sync.

Offline data is indicated with an asterisk (\*).

Condition Monitoring Audit					
Report run by: MobileVie	w Admin, 12/12/18 10:33:10 AM			Signed By:	
Period: 09/12/18 12:05:0	0 AM - 12/12/18 10:33:09 AM				
Asset: Kevin T15 Tag					
Condition Type: Tempera	ature				
Assets located in: Any Lo	ration				
	ine data, The reports which are marked with				
Date	Tag ID	h an asterisk were logged and proce Temperature (°C)	essed offline. Location		
Date Asset Name:	Tag ID Kevin T15 Tag				
Date Asset Name: Range:	Tag ID				
Date Asset Name: Range: Asset ID:	Tag ID Kevin T15 Tag 11.5 °C to 19.0 °C				
Date Asset Name: Range: Asset ID: Category:	Tag ID Kevin T15 Tag 11.5 °C to 19.0 °C Kevin T15 Tag				
Date Asset Name: Range: Asset ID: Category: 10/12/18 5:47:57 PM *	Tag ID Kevin T15 Tag 11.5 °C to 19.0 °C Kevin T15 Tag Blood Fridge	Temperature (*C)	Location		
Date Asset Name: Range: Asset ID: Category: 10/12/18 5:47:57 PM * 10/12/18 5:42:56 PM *	Tag ID           Kevin T15 Tag           11.5 °C to 19.0 °C           Kevin T15 Tag           Blood Fridge           000CCC150231	Temperature (*C) 23.53	Location Not available		
Date Asset Name: Range: Asset ID: Category: 10/12/18 5:47:57 PM * 10/12/18 5:42:56 PM * 10/12/18 5:37:54 PM *	Tag ID           Kevin T15 Tag           11.5 °C to 19.0 °C           Kevin T15 Tag           Blood Fridge           000CCC150231           000CCC150231	Temperature (*C) 23.53 23.72	Location Not available Not available		
Date Asset Name: Range: Asset ID: Category: 10/12/18 5:47:57 PM * 10/12/18 5:47:56 PM * 10/12/18 5:37:54 PM * 10/12/18 5:37:54 PM *	Tag ID           Kevin T15 Tag           11.5 °C to 19.0 °C           Kevin T15 Tag           Blood Fridge           000CCC150231           000CCC150231           000CCC150231	Temperature (*C) 23.53 23.72 23.74	Location Not available Not available Not available		
* This report contains off Date Asset Name: Range: Asset ID: Category: 10/12/18 5:47:57 PM * 10/12/18 5:47:57 PM * 10/12/18 5:37:54 PM * 10/12/18 5:32:29 PM * 10/12/18 5:27:27 PM *	Tag ID           Kevin T15 Tag           11.5 °C to 19.0 °C           Kevin T15 Tag           Blood Fridge           000CCC150231           000CCC150231           000CCC150231           000CCC150231           000CCC150231	Temperature (*C) 23.53 23.72 23.74 23.89	Location Not available Not available Not available Not available		

# **Tag Models & Accessories**

Models & Accessories	SKU
T15e Tag	ТАG-1500-Е
T15e Tag with NIST Certification	TAG-1500-E-NIST
T15e Tag Replacement Probe	TAC-1500-E-PROBE
External Power for T15e Tag, NA Outlet	ADP-1500-U
External Power for T15e Tag, Europe Outlet	ADP-1500-E
External Power for T15e Tag, United Kingdom Outlet	ADP-1500-UK

# **Approved Barcode Readers**

The following barcode readers have been tested with the T15e Tags:

- Honeywell, Xenon XP 1950HD
- Zebra Symbol DS4308



# Appendix

# Exporting a Secured Certificate from MobileView

#### **IMPORTANT NOTE:**

The following procedure is a suggested method of obtaining the root certificate. <u>Please verify that this</u> <u>method is acceptable with your IT department.</u> <u>If this method is not acceptable or does not work, please</u> <u>request the required root certificate from your IT department.</u>

A secured server Certificate is exported from MobileView by doing the following:

- 1. Open the <u>secured MobileView</u> in a browser (use the full DNS name).
- 2. Click on the Lock icon in the browser- IE or Chome.



- 3. Click on View certificates (IE) or Certificate (Chrome).
- 4. Click on the **Certification Path** tab.



5. Double click on certification name.

### Securitas Healthcare

Certificate	X
General Details Certification Path	
Certificate Information	
This certificate is intended for the following purpose(s):	
Ensures the identity of a remote computer	
Issued to: -1237	-
Issued by: RNDCASRV	
Valid from 27/03/2019 to 26/03/2021	
Install Certificate Issuer Stater	ment
Learn more about certificates	
	OK

6. Select the Details tab and then click on Copy to file...

Field	Value	*
Serial number Serial number		=
Signature hash algorith Signature Issuer Valid from Valid to	m RNDCASRV, corp, aerosc	
Subject		-
		to File



- 7. Click **Next** on the Welcome Page
- 8. Select Base-64 encoded X.509 (.CER).



- 9. Click **Next** to Export the File.
- 10. Enter the file's name and select a location to save the file (the extension will be \*.cer).

File to Export		
Specify the name of the fi	ile you want to export	
File name:		
C:\	\SSL\myt15cert.cer	Browse

11. Click **Next** and then **Finish**.

The Certificate is saved.



12. Navigate to the location of the saved Certificate. Locate the Certificate and rename its extension from *.cer* to *.certificate*. Example; *mycert.certificate*.

13. Send the secured Certificate to your mobile device, either by email or any other file sharing app.

### Securitas Healthcare

# **Tag Specifications**

#### **Environmental Specifications**

- **Operating Temperature Range:** 0°C to 50°C (32°F to 122°F)
- Tag Storage Temperature Range: -20°C to 60°C (-4°F to 140°F)
- Humidity: 0% to 95% RH non-condensing
- Ingress Protection Rating: IP-54

#### **Temperature Probe & Monitored Temperature Range**

- Cable Length: Total 3m (2m ~4mm diameter PVC cable with 1m thin Teflon section 2x1.2mm)
- Probe Type: 2-wire waterproof RTD
- Connector: USB-C
- Probe Length: ~6mm diameter, 70mm length
- Probe Temperature Measurement Range: -200°C to +140°C (-328°F to +284°F)
- Accuracy: +/-0.5° C (+/-1° F)

#### **Tag Memory**

- 64 Mbit Flash memory
- Able to store up to 64.000 temperature readings

#### Physical and Mechanical

- **Dimensions LWH**: 114 x 77 x 20.3mm (4.4 x 3 X 0.8inch)
- Weight: 150g (5.3oz) with batteries

#### Connectors

- 3 x USB-C Multi-purpose connectors



#### Electrical

- Battery: 2 x 1.5V Alkaline AA replaceable batteries\*
- External Power (USB-C Interface): 5V/1A Adapter (Optional)
   <u>\*Battery life may vary in low temperatures</u>
   <u>NOTE:</u> The power supply is proprietary and must be purchased from Securitas Healthcare.

#### Display

– E-ink

#### Audio and Visual Indications

- Audio: Buzzer- 85dBA@10cm
- LEDS: 3 dual-color LEDS

#### Radio

- **Transmission power**: up to +19dBm (~81mW)
- Patented clear channel sensing avoids interference with wireless networks

#### Range

- Outdoor range: Up to 200m (650 feet)
- Indoor range: Up to 80m (260 feet)

#### Communication

- BLE (Bluetooth Low Energy): BLE 5.0 [2.402 GHz 2.480 GHz (2.4GHz bands)]
- Wi-Fi: 802.11 radio (2.4 GHz); b/g/n compliant

#### **Wi-Fi Security Modes**

- Open, non-encrypted
- WPA2-PSK(AES)
- 802.1x Enterprise security (PEAP-MSCHAPv2)

#### Logging Rates

- 5 minutes, 15 minutes, 30 minutes and 60 minutes

#### **Contact Sensor Cable**

- Cable Length: 3m ~4mm diameter PCV
- Connector: USB-C
- Inputs: Single normally open (NO)



#### Certification

#### Radio, EMC:

FCC Part 15 Subpart C, Subpart B, RSS-247, EN 300-328, EN 301-489 Radio Equipment Directive 2014/53/EU (RED), Radio Equipment Directive S.I.2017/1206 (RED) RoHS 2 Directive 2011/65/EU, RoHS 2 Directive S.I.2012/3032

#### Safety:

CE, UKCA, EN62368/UL62368/IEC62368, Japan 201-200712

# **Regulatory Compliance and Warranty**

# FCC Warning

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

**WARNING**: This device complies with Part 15 of the FCC Rules and RSS-247 of Innovation, Science and Economic Development Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

# Canada—Innovation, Science, and Economic Development Canada

This device contains licence-exempt transmitter(s)/receiver(s) that comply with the Innovation, Science, and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.



# **EU&GB Declaration of Conformity**

This declaration of conformity is issued under the sole responsibility of the manufacturer who declares that the T15e radio equipment is in conformity with the following relevant Union harmonisation legislations:

Radio Equipment Directive 2014/53/EU (RED), Radio Equipment Directive S.I.2017/1206 (RED)

# RoHS

RoHS 2 Directive 2011/65/EU, RoHS 2 Directive S.I.2012/3032

## **CE Conformance**

CE

### Australia



### Japan

€ R 201-200712

# **United Kingdom**





### UL



## Brazil

#### www.gov.br/anatel/pt-br/

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

# Warranty

Limited Hardware Warranty for AeroScout® Hardware

Warrantor ("Securitas Healthcare")	Securitas Healthcare LLC or the Securitas Healthcare LLC corporate affiliate that sold Customer the Hardware
Hardware	AeroScout® Hardware
Warranty Period	Generally: 1 year from date of delivery TAG Hardware specifically designated for sterilization via autoclave or other sterilization methods warranted for lesser of 1 year from date of delivery or 350 sterilization cycles.

- 1. Limited Hardware Warranty. Securitas Healthcare warrants to the original purchaser ("Customer") that the Hardware ("Hardware") shall be free from defects in material and workmanship under normal use for Warranty Period. This Limited Hardware Warranty shall not apply to, and the term Hardware shall not include, any embedded or accompanying software. This Limited Hardware Warranty extends only to the original purchaser of the Hardware and is non-transferrable or assignable. This Limited Hardware Warranty shall not be enlarged and no obligation shall arise out of Securitas Healthcare's rendering of technical advice or service in connection with the purchase of the Hardware.
- 2. Conditions of Warranty and Exclusions. This Limited Hardware Warranty applies only if the Hardware was purchased from Securitas Healthcare or its authorized distributor. Securitas Healthcare reserves the right to reject warranty claims for Hardware purchased from unauthorized sellers. This Limited Hardware Warranty is conditioned upon proper use of the Hardware. This Limited Hardware Warranty shall not apply to Hardware provided for beta, evaluation, testing, or demonstration purposes for which Securitas Healthcare does not receive a payment of purchase price or license fee.

The Limited Hardware Warranty does not cover:

- Hardware that has not been installed, operated, repaired, or maintained in accordance with the documentation instructions supplied by Securitas Healthcare
- Defects or damage caused by accident, misuse, abuse, abnormal use, abnormal conditions, improper storage, negligence, neglect, or unusual physical, electrical or electromechanical stress
- Defects or damage caused by exposure to liquid or moisture that is inconsistent with the specifications and instructions applicable to the Hardware according to the appliable documentation and terms and conditions
- Defects or damage to plastics (including defects in appearance, cosmetics, decorative or structural items including framing and non-operative parts)
- Equipment that has the serial number removed, defaced, damaged, altered, or made illegible
- Ordinary wear and tear
- Defects or damage caused by the use of accessories, products, or ancillary/peripheral equipment not furnished or approved by Securitas Healthcare
- Defects or damage caused by service, testing, adjustment, installation, maintenance, alteration, or modification in any way by anyone other than Securitas Healthcare, or its authorized partner



- Defects or damage resulting from external causes such as collision with an object, fire, flooding, windstorm, lightning, power surge, and earthquake
- Batteries (other than Dead on Arrival for batteries provided by Securitas Healthcare) and defects or damage caused by batteries
- Damages or defects from sterilization outside of environmental specifications stated in applicable user documentation
- Hugs<sup>®</sup> Infant Protection Tags and Kisses<sup>®</sup> Tags
- **3.** Warranty Remedy and Procedure. Customer's sole and exclusive remedy and Securitas Healthcare's sole obligation under this Limited Hardware Warranty is, in Securitas Healthcare's sole discretion, repair or replacement of the Hardware or refund of the purchase price. Securitas Healthcare replacement parts may be new or refurbished. Securitas Healthcare reserves the right to provide replacement Hardware or components of similar form and function, as long as the functionality is equal or better than Customer's original Hardware or components.

Securitas Healthcare's obligations under this Limited Hardware Warranty are contingent on Customer returning the affected Hardware in accordance with Securitas Healthcare's then-current Return Material Authorization (RMA) procedures. Customer shall be responsible for all insurance, postage and shipping costs incurred in returning affected Hardware to Securitas Healthcare.

Any replacement or repaired Hardware will be covered by this Limited Hardware Warranty only for the remainder of the original Warranty Period.

#### 4. Hardware and Warranty Disclaimers.

a. EXCEPT AS SPECIFIED IN THIS LIMITED WARRANTY, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, SATISFACTORY QUALITY, NON-INTERFERENCE, ACCURACY OF INFORMATIONAL CONTENT, OR ARISING FROM A COURSE OF DEALING, LAW, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW AND ARE EXPRESSLY DISCLAIMED BY SECURITAS HEALTHCARE, ITS SUPPLIERS AND LICENSORS.

TO THE EXTENT AN IMPLIED WARRANTY CANNOT BE EXCLUDED, SUCH WARRANTY IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD. BECAUSE SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, THE ABOVE LIMITATION MAY NOT APPLY. THESE WARRANTIES GIVE CUSTOMER SPECIFIC LEGAL RIGHTS, AND CUSTOMER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. This disclaimer and exclusion shall apply even if the express warranty set forth above fails of its essential purpose.

5. Limitation of Liability. IN NO EVENT WILL SECURITAS HEALTHCARE, ITS AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, SUPPLIERS AND LICENSORS BE LIABLE FOR THE FOLLOWING, REGARDLESS OF THE THEORY OF LIABILITY OR WHETHER ARISING OUT OF THE USE OR INABILITY TO USE THE HARDWARES OR OTHERWISE, EVEN IF A PARTY BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES: (A) INDIRECT, INCIDENTAL, EXEMPLARY, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES; (B) LOSS OR CORRUPTION OF DATA OR INTERRUPTED OR LOSS OF BUSINESS; OR (C) LOSS OF REVENUE, PROFITS, GOODWILL OR ANTICIPATED SALES OR SAVINGS. All liability of Securitas Healthcare, its affiliates, officers, directors, employees, agents, suppliers and licensors collectively, to Customer, whether based in warranty, contract, tort (including negligence), or otherwise, shall not exceed the purchase price paid by Customer to Securitas Healthcare or its authorized distributor that gave rise to the claim. This limitation of liability is cumulative and not per incident. Nothing in this Limited Hardware Warranty limits or excludes any liability that cannot be limited or excluded under applicable law.



**6. Severability**. If any portion of this Limited Hardware Warranty is held to be illegal or unenforceable, such partial illegality or unenforceability shall not affect the enforceability of the remainder of the Limited Hardware Warranty.



4600 Vine Street Lincoln, NE 68503 +1 888 622 6992

North America info@securitashealthcare.com

International global@securitashealthcare.com

#### About Securitas Healthcare

Securitas Healthcare empowers caregivers to deliver connected, productive and safe care. Its innovative portfolio of healthcare solutions helps over 15,000 hospitals, clinics and senior living organizations worldwide protect people, use assets efficiently and understand their operations for a caring and healing environment. Securitas Healthcare is proud to be part of Securitas, the world's leading intelligent protective services partner. For more information, visit us at securitashealthcare.com