FeverWarn Models FW1100A and FW1100B





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Safety Precautions

- Follow the advice in this instruction manual.
- The scanner must only be used for the purposes described in this manual.
- The scanner is intended for indoor use only.
- The scanner should not be used or stored in direct or reflected sunlight.
- Operate the scanner only in ambient temperatures between 40°F 105°F.
- Do not expose the scanner to extreme temperatures.
- Store the device in a clean and dry area.
- Do not submerge the scanner in water.
- Do not drop the scanner.
- · Do not disassemble the scanner unit.
- If you experience problems with your scanner, contact FeverWarn support.

IMPORTANT: THE MANUFACTURER RESERVES THE RIGHT TO ALTER THE SPECIFICATIONS OF THIS PRODUCT WITHOUT PRIOR NOTICE

Unpacking the Boxes

Your FeverWarn boxes should include:

- 1100 Series FeverWarn
- 5V 3000mA power cable with switch
- Getting Started Document
- Two mounting brackets L-shaped bracket for attaching device to optional stand. Flat bracket to mount the scanner to a wall.
- 1/2 in. machine screws
- External tooth lock washer

Other (not in the box, but included with your purchase):

- Access to Crystalball software (one-year free access included FW1100B only)
- Access to FeverWarn app (lifetime free access included all models)
- Technical support Email: support@machinesense.com Telephone: 443-457-1165

Optional Equipment

FeverWarn Floor Stand

Supports Models FW-1100A3 and FW-1100B3 Self-Service Thermal Hand Scanner (FW-FS-1000)

FeverWarn Wall-Mount/Desktop Stand

Supports Models FW-1100A3 and FW-1100B3 Self-Service Thermal Hand Scanner (FW-DS-1000)



Mounting Bracket





Stand

Overview

Congratulations on your purchase of a FeverWarn temperature scanning system. We thank you, and we are here to support your effective use of the product. This document covers the FW1100A and FW1100B FeverWarn scanners. Information that applies only to the specific models is noted.

Please use this document to get your FeverWarn scanner up and running. For new FeverWarn customers, we suggest you read through the entire document before starting. If you have experience with the product, and only need specific instructions, please use the table of contents to navigate to the information you need.

Let's get started.

Components Inside the FeverWarn Stand (option) Box

- 1. Base floor plate, 12 in. x 12 in. (Figure 1).
- 2. Extendable pole, three (3) sections (Figure 1).



Figure 1

Connecting the FeverWarn Unit to the Optional Stand

- 1. Remove the mounting screw (countersunk screw) from bottom of pole (Figure 2).
- 2. Attach the extendable pole to the base using the mounting screw in the bottom of the stand (**Figure 2**) with a Philips screwdriver. Mounted pole (not extended yet) will look like (**Figure 3**).
- 3. Fully extend the two extension sections of the pole and retighten by hand. **(Figure 4)**.
- 4. Locate the stand mount bracket and hardware (screw and lock washer) from the box your FeverWarn unit came in. (Figure 5).
- 5. Connect the bracket to the pole with the screw and lock washer (**Figure 6**).

(continued on next page)



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6

Connecting the FeverWarn Unit to the Optional Stand

(continued)

- 6. Remove the FeverWarn unit from its box and remove the four (4) screws which are holding the attached wall bracket to the back of the unit. This will remove the wall bracket and allow you to replace it with the stand bracket. Hold onto these four (4) screws you will be using them in the next step.
- 7. Use the four (4) screws you removed from the back of the FeverWarn unit (See step 6 above.) to attach the FeverWarn unit to the stand mount bracket. (Figure 7 and Figure 8).
- 8. Plug all the cables into their respective connectors in the scanner (Figure 9).
- 9. Set the unit in its location and plug the scanner into an outlet.



Figure 8

Figure 7

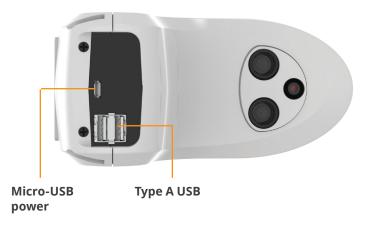


Figure 9

Creating a MachineSense Crystalball Account for Your FeverWarn Scanner (Model FW1100B only)

The model FW1100B can be used with MachineSense's CrystalBall software to access, review, and store collected data. If you don't have an account, please follow the instructions below. If you already have a MachineSense Crystalball account, you'll only need to onboard your new device by logging into MachineSense's Crystalball, navigating to the "Machines" page, and then proceeding to step 5 on the next page.

- Using either a Firefox or Chrome browser, go to crystalball.machinesense.com and click the blue "CREATE NEW ACCOUNT" button (Figure 10).
- 2. On the next page (**Figure 11**), fill in all the fields and click the "**NEXT**" button.
- 3. Next (Figure 12), enter the serial number and the machine identification ID (MAC ID) from the product registration label located on the FeverWarn scanner and click "NEXT". This will onboard your FeverWarn scanner and create a default location, zone, and gate, which can be changed later if desired.

NOTE: The dashes and colons shown on the label must be included

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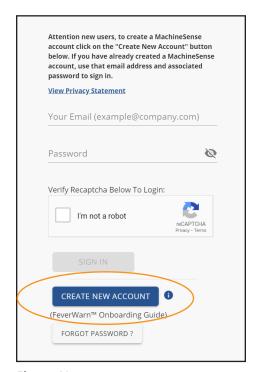


Figure 10

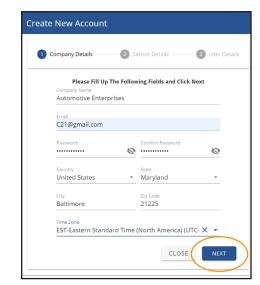


Figure 11

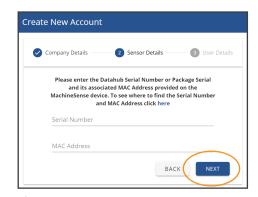


Figure 12

Creating a MachineSense Crystalball Account for Your FeverWarn Scanner (Model FW1100B only)

(continued)

- 4. Check the "I agree to the Terms and Conditions" box on the next screen and then click on "CREATE NEW ACCOUNT" (Figure 13).
- 5. If you have more scanners to onboard, do so now by clicking the "FEVERWARN QUICK INSTALLATION" button on the next screen (Figure 14). Up to 20 FeverWarn units can be added.

That's it! You have created your MachineSense Crystalball account and onboarded your new FeverWarn model FW1100B scanner(s).

NOTE: This procedure will onboard your new device to a default "location" (where the building is located, i.e., "Baltimore") and "zone" (where within the location that the scanner is placed, i.e., "Northwest Door"). If you want to change these names, see the "Customizing your Crystalball account" section in this user guide.

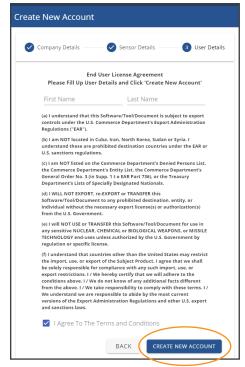


Figure 13



Figure 14

Initial Testing

IMPORTANT: The FeverWarn 1100 scanner is preset at the factory. It is not necessary to calibrate the device before using.

- 1. Plug the USB power adapter, which is wired into the scanner base, into a nearby standard 120 VAC outlet to power up the scanner.
- 2. There will be a white screen for less than three (3) seconds. User will see a yellow screen with black writing stating "Configuring. Please wait" for approximately 2-3 seconds. When the process is complete, you should see a black screen that says, "Scanner Ready," as shown in Figure 15.
- 3. Place your hand about one to four inches from the scanner's snout and hold it there for a few seconds. The screen will display 'GO' in green, and you should hear a beep. (**Figure 16**). If the screen displays 'STOP' in red, it indicates that the person being scanned has a fever, and the individual should take the proper precautions.

IMPORTANT: Initially, it may take a few scans to establish the normal temperature for that location. If you see any other indications on the screen, please call technical support.

- 4. If everything is working as indicated above, take your scanner to its final indoor location and prepare for installation.
- 5. If you have FeverWarn model FW1100B, it will record all scans to the Crystalball cloud via WiFi. FeverWarn model FW1100A is a standalone scanner with no cloud connectivity available. FeverWarn 1100A records all scans to the mobile app. Proceed to the section of the manual entitled, "Installing and Using the FeverWarn App."



Figure 15



Figure 16

Installing the FeverWarn App

To configure your FW1100 scanner with the FeverWarn app, download the FeverWarn Mobile Support App from either the Apple App Store or the Android Google Play Store.

Before you begin the steps in this section, be sure your scanner assembly is in its intended location. This will allow the device to scan for available WiFi connections.

- 1. Install the app on your mobile device:
 - a. On Android devices, go to the Google Play Store and search for "FeverWarn 1100A-B Mobile Support".
 - b. On Apple (iOS) devices go to the App Store and search for "F-Warn 1100A-B Mobile Support".
- 2. Tap on the app to begin. You will receive a prompt to log into your existing account. If you do not have an existing account, tap **CREATE ACCOUNT** to set up a new account and onboard your scanner (Figure 17a).
- 3. If you need to create an account, the app will ask for the MAC ID of your scanner (you will find the MAC ID on the back of the scanner unit) so have that handy (Figure 17b). You must enter the MAC ID as shown, with colons and lower-case letters (example: ac:67:dc:9b:fc).
- 4. The app will prompt you to enter your credentials, including your name, email, company name, etc., This allows the app to create your new account. Fill in the requested information and then tap the "COMPLETE ACCOUNT OPERATION" button at the bottom of the screen (Figure 17c).

IMPORTANT: MachineSense allows for one email address per customer. If you manage two or more company's scanners, you either must put all the sensors under one account or use different email addresses for separate accounts.

IMPORTANT: No spaces or "special" characters are allowed in the credentials fields.

(continued on next page)



Figure 17a



Figure 17b



Figure 17c

Installing the FeverWarn App

(continued)

- 5. If you already have an account and are logged in to the app, you will see a screen like **Figure 18**. To onboard your new device, tap ONBOARD NEW DEVICE.
- 6. Enter the MAC ID of your scanner. You will find the MAC ID on the back of the scanner unit. You must enter the MAC ID as shown, with colons and lower-case letters (example: ac:67:dc:9b:fc). When you have double-checked that the MAC ID you entered matches the MAC ID on the device, tap **NEXT**.
- 7. After a few seconds, a screen will indicate you have successfully onboarded the scanner (Figure 19). If you have more devices to onboard, tap **ON-BOARD ANOTHER DEVICE** button. If you get a failure message, try a couple more times before calling for help as sometimes the connection requires a retry or two to get it right.

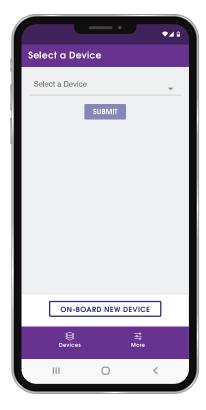


Figure 18

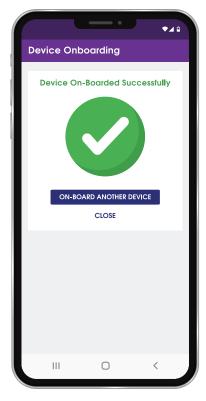
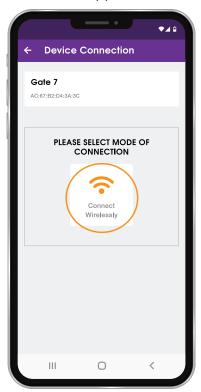


Figure 19

Connecting to a Device

- 1. From the home screen, tap **SELECT A DEVICE** from the drop-down list.
- 2. Choose a device from the list, or search for a device by name using the **SEARCH BAR**. Confirm your selection by pressing **SUBMIT**.
 - a. The app will search for your scanner, and when it is found, the app will ask you to connect wirelessly to the device (Figure 20). Tap the **Connect Wirelessly** button. You'll see a pop-up on your screen similar to Figure 21. NOTE: Your scanner will have a different WiFi network name than the one shown here. Tap **Connect** in the lower-right corner to connect to your scanner. Make sure that:
 - WiFi is turned on.
 - The FeverWarn device is powered on.
 - You are within range (about 30 feet) of the device.
- 3. After a few seconds, you will receive confirmation that the scanner connected successfully.
- 4. You are now on the "Home screen" (Figure 22) where you can navigate the app with the following options:
 - a. Scans and Reports
 - b. Device Settings
 - c. Network Connectivity (Model 1100B ONLY)
 - d. Device Support





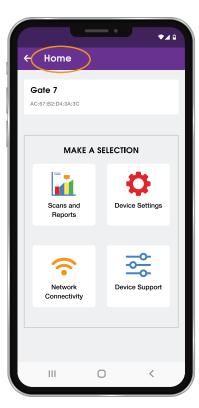


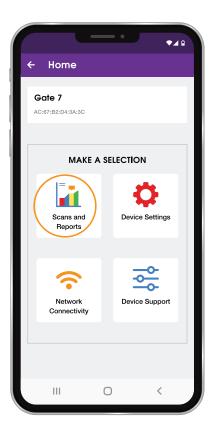
Figure 20 Figure 21 Figure 22

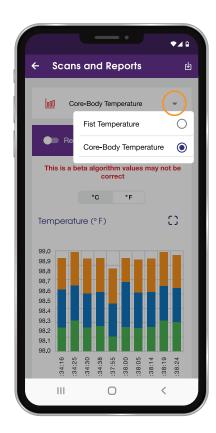
Scans and Reports

1. From the **DEVICE HOME SCREEN**, tap **SCANS AND REPORTS** (Figure 23).

Two reports are available:

- a. Core-Body Temperature
- b. Fist Temperature (surface temperature)
- 2. Use the drop-down arrow to select your report (Figure 24).
- 3. Select an option from the drop-down menu.
- 4. The graph will display on the screen.
- 5. You can toggle the graph between Celsius and Fahrenheit values.
- 6. Refresh the graph data by pressing the **REFRESH** Circle at the top right of the report.
- 7. Turn on **REALTIME UPDATES**, which will add scans as they happen, by pressing the toggle switch (**Figure 25**). When real-time updates are turned on, the toggle switch will turn orange, otherwise, the switch is white.





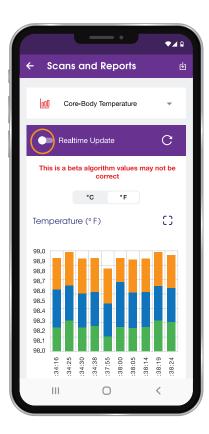
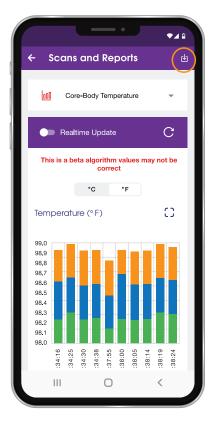
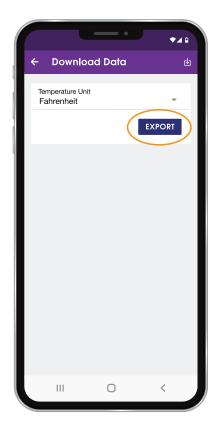


Figure 23 Figure 24 Figure 25

Downloading Reports

- 1. You can **DOWNLOAD** the report by selecting the download **!** icon from the SCANS AND REPORTS banner (Figure 26).
- 2. After selecting the **DOWNLOAD** icon, you will be prompted to choose Fahrenheit or Celsius.
- 3. Press EXPORT (Figure 27).
- 4. Name the file.
- 5. Press **OK** to download the report to your device (**Figure 28**).





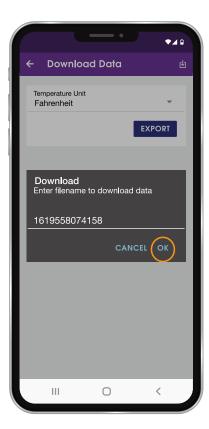


Figure 26 Figure 27 Figure 28

Device Settings

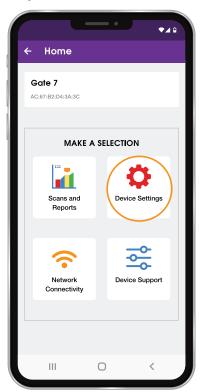
You can adjust many of the settings on your FeverWarn scanner. Adjusting these settings is not required as your scanner comes configured from the factory.

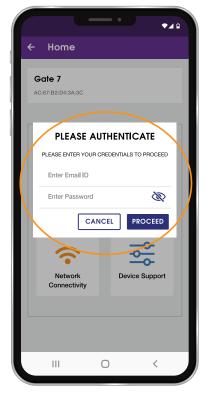
These are advanced features of your device. Please read through them thoroughly before attempting to adjust the device settings.

- 1. To configure the settings in your FeverWarn scanner, start from the home screen and tap Device Settings (Figure 29).
- 2. Because you are attempting to change the parameters of the scanner, you will be asked to re-enter your user email and password (the same that you used to log in to the app). Press **PROCEED** (Figure 30).

You are now at the Device Settings master screen (Figure 31). From here, you can:

- Manually recalibrate the scanner's temperature readings.
- Change the range of acceptable temperatures with Edit Threshold.
- Set the scanner to alarm based on core body temperature or fist temperature.
- 4. Change the display settings including units of temperature, the temperature scanned and the time.
- 5. Provide custom messages to display after a scan.
- 6. Adjust the volume of the alarm.





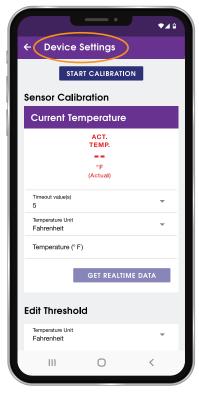


Figure 30 Figure 31 Figure 29

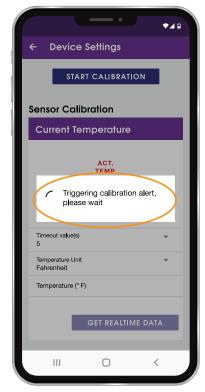
Calibration

Your FeverWarn scanner was calibrated at the factory to scan and record accurate temperatures in Fahrenheit or Celsius. However, you do have the option to recalibrate the sensor. This process requires a handheld medical thermometer, and you should have a second person helping you.

- 1. To begin, tap **START CALIBRATION**.
- 2. A pop-up will appear to verify you want to proceed with the calibration. Triggering a calibration alert will disable thermal detection. It will be enabled again after completing the calibration process. Faulty calibration will cause the scanner to behave incorrectly. Do not start the calibration process until you have read and understood the process. Tap YES to proceed (Figure 32). Wait while the alert is triggered (Figure 33).
- 3. Wait for the device to be ready to calibrate. You will see a message "Calibration started successfully" (Figure 34).

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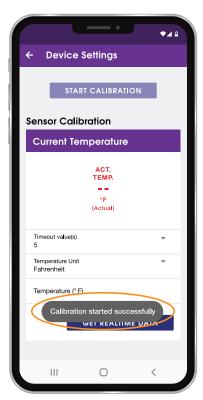


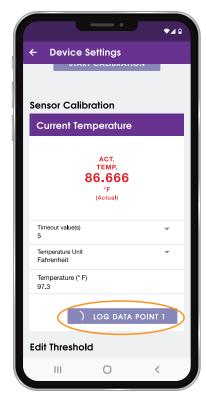
Figure 34

Calibration (continued)

- 4. A pop-up screen will ask if you want to start the calibration. Tap **YES** to proceed or **NO** to cancel.
- 5. 'Current Temperature' allows you to select the timeout value, temperature unit and enter a temperature (Figure 35).
- 6. The value for the temperature field must be taken using a medical thermometer. Use the medical thermometer to scan the temperature of your fist. Put that value in the Temperature field.
- 7. Once values are selected/entered, tap 'Get Realtime Data'.
- 8. After clicking 'Get Realtime Data' verify temperature using a medical thermometer - place fist under sensor and tap the 'Log Data Point 1' (Figure 36).
- 9. After successfully logging data point 1, warm up your fist to create an elevated temperature. Take the temperature of your fist with the medical thermometer and log it in the temperature field. Immediately place your warmed fist under the FeverWarn sensor and tap 'Log Data Point 2' (Figure 37).
- 10. It is important to keep your fist stable until the data point is captured.

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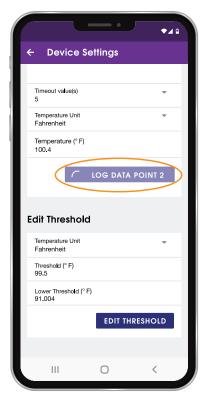
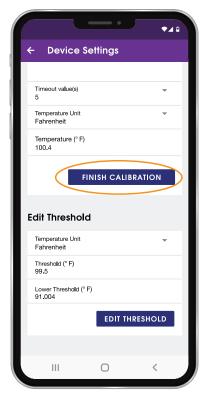


Figure 36 Figure 37

Figure 35

Calibration (continued)

- 11. Once data point 2 is captured, click 'Finish Calibration' (Figure 38).
- 12. 'Calibration completed successfully' pop up will appear (Figure 39).



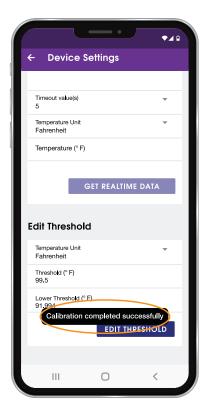


Figure 38 Figure 39

Edit Temperature Threshold

You can optionally adjust the range of acceptable temperatures through the Device Settings.

- 1. Tap Device Settings from the home screen.
- 2. Scroll to **EDIT THRESHOLD** from the Device Settings panel.
- Tap EDIT THRESHOLD. (Figure 40).
- 4. Select units in Fahrenheit or Celsius
- 5. Enter an upper boundary for **THRESHOLD**.
- 6. Enter a lower boundary for **LOWER THRESHOLD**.
- 7. Tap **SAVE**.

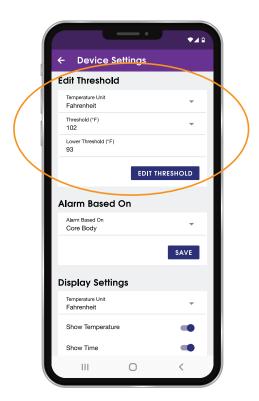


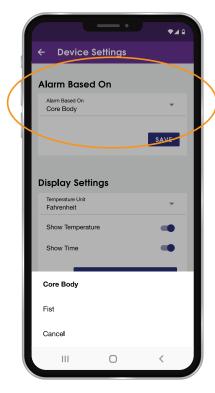
Figure 40

Edit Alarm Based On Temperature Type

- 1. You can choose to have an alert based on **CORE BODY** temperature or **FIST TEMPERATURE**.
- 2. To change the alert, select the arrow in the **ALARM BASED ON** the drop-down field (Figure 41).
- 3. Select your choice.
- 4. Press SAVE.

Edit Display Settings

- 1. You can modify the information displayed on the FeverWarn Scanner unit by changing **DISPLAY SETTINGS** for the device.
- 2. In Device Settings, scroll to **DISPLAY SETTINGS**.
- 3. Change display units from Fahrenheit to Celsius by pressing the arrow in the TEMPERATURE UNIT field (Figure 42).
- 4. Select if you want to show the scanned **TEMPERATURE** or the **TIME** on the scanner using the toggle switches.
- 5. Press **SAVE DISPLAY SETTINGS** to save your changes.



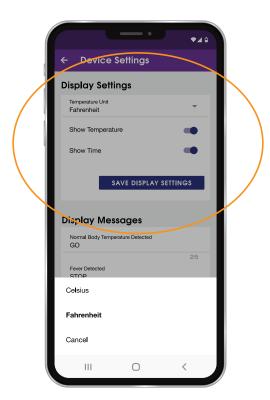


Figure 41 Figure 42

Edit Messages to Display

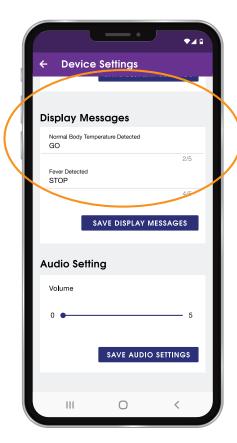
You can provide custom messages for your FeverWarn scanner to display after a temperature reading.

- 1. In the **DEVICE SETTINGS** panel, scroll to **DISPLAY MESSAGES** (Figure 43).
- 2. You can enter up to 5 characters to display after a temperature scan.
- 3. Select the message you want to edit. Change the text to your desired message.
- 4. Press **SAVE DISPLAY MESSAGES** to save your changes.

Adjust Scanner Volume

You may adjust the volume of the tones the FeverWarn Scanner makes by scrolling to **AUDIO SETTING** (**Figure 44**).

- 1. Use the slider to change the volume from **0** to **5**.
- 2. When you have selected the appropriate volume, press **SAVE AUDIO SETTINGS**.



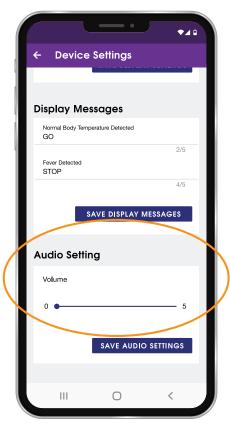


Figure 43 Figure 44

Network Connectivity (1100B Model only)

The FW1100B model allows you to connect your FeverWarn scanner to the internet so scan data goes directly to the cloud. To attach your FeverWarn scanner to your WiFi network, select **Network Connectivity** from the mobile app home screen (Figure 45).

- 1. The app will scan and show all available networks.
- 2. Choose the network you want to connect to. You should choose a network with good signal strength.
- 3. Enter the credentials for the network you want to join (ask your system administrator if you do not know your network credentials).
- 4. You can select if you want an automatic IP assignment (DHCP) or if you want to assign a STATIC IP. If you do not have a preference, use DHCP.
- 5. You must restart the device to finish setting the network. Before restarting the device, make sure the device has been onboarded either via Crystalball or via the app.
- 6. When you have successfully connected to a network, the network name (SSID) will have a green dot next to it and the IP address will display underneath (Figure 46).

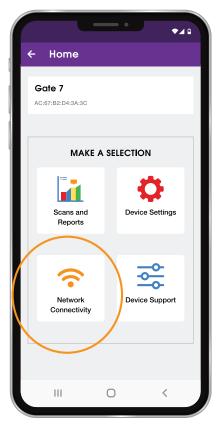




Figure 45 Figure 46

Device Support

Device Support lets you restore factory settings, calibrations, and apply updates to your FeverWarn scanner. To access Device Support, tap its icon from the scanner home screen. (Figure 47).

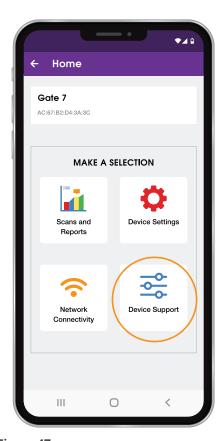
You must re-enter your email and password to access Device Support.

Once you've logged in, you may (Figure 48):

- RESTORE FACTORY SETTINGS. This option returns the device to the state it was when you took it from its box. THIS WILL DELETE ALL DATA ON THE DEVICE. (This will not off-board the device).
- 2. RESTORE PREVIOUS CALIBRATION
- 3. Apply software updates and patches to the device.

To use these features, please contact customer support to guide you.

- Email: support@machinesense.com
- Telephone: 443-457-1165



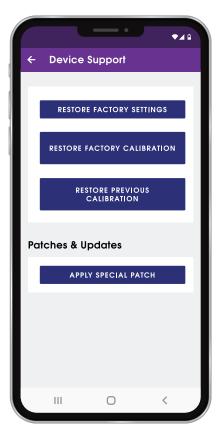


Figure 47

Figure 48

Installation

Planning the Location

- 1. Plan the location of your FeverWarn before installation.
- 2. Carefully read the entire **Getting Started with FeverWarn** guide and consider the connections to be made before determining your FeverWarn components' installation locations.

Installing the FeverWarn Scanner

- 1. The scanner should be mounted in a convenient area for those who will be scanning their fists. The height should be about 48 inches from the floor.
- 2. Provide power for your scanner by plugging the included power supply into a nearby 120 VAC source. The scanner should boot up, and the screen should illuminate. This can take a few minutes during startup.
- 3. Your sensor is now up and running. Test it by placing your hand about one to four inches from the scanner's snout and hold it there for a few seconds. The screen will display 'GO' in green, and you should hear a beep. If the screen displays 'STOP' in red, it indicates that the person being scanned has a possible fever, and further processing is required.

Recommendations for Accurate Scanning

In summer-like weather: Fist

Under most conditions, a fist temperature measurement is adequate.

Steps to scan:

- 1. Simply make a fist.
- 2. With your arm straight place your fist (or back of the hand) 1 inch below the scanner for two seconds (Figure 40).
- 3. GO/NO-GO instructions will be observed by the word 'GO' in green with an audible beep or the word 'STOP' in red and an audible buzzer. A 'GO' screen means no fever has been detected, a 'STOP' screen means a possible fever has been detected and further processing is required.



When very cold outside the individual being scanned must expose their covered wrist for an easy accurate scan.

Steps to scan:

- 1. Simply pull up your sleeve approximately 2 inches (5 cm) above palm side (Figure 50).
- 2. With your arm straight place your inner wrist area 1 inch below the scanner for two seconds.
- 3. GO/NO-GO instructions will be observed by the word 'GO' in green with an audible beep or the word 'STOP' in red and an audible buzzer. A 'GO' screen means no fever has been detected, a 'STOP' screen means a possible fever has been detected and further processing is required.

In extremely cold weather: Forearm

During extreme cold weather a forearm scan might be necessary.

Steps to scan:

- 1. Simply pull up your sleeve approximately 2 inches (5 cm) above palm side (Figure 51).
- 2. With your arm straight place your forearm 1 inch below the scanner for two seconds.
- 3. GO/NO-GO instructions will be observed by the word 'GO' in green with an audible beep or the word 'STOP' in red and an audible buzzer. A 'GO' screen means no fever has been detected, a 'STOP' screen means a possible fever has been detected and further processing is required.



Figure 49



Figure 50



Figure 51

Customizing Your Crystalball Account

(Model FW1100B only)

The procedure for onboarding your FW1100B scanner makes some assumptions about scanner locations and zones that you might want to change. This section will help you customize your MachineSense Crystalball account.

- 1. Browse to **crystalball.machinesense.com** and login with your established credentials.
- 2. After logging in, you will be on the "Resources" page. Click on the hamburger menu (three stacked horizontal lines) in the upper-left area of the page and then click on "Machines" (Figure 52).
 - NOTE: The Resources page is where you will find various documents to help you use your FeverWarn.



Figure 52

(continued on next page)

Customizing Your Crystalball Account

(Model FW1100B only) (continued)

- 3. On the Machines page (Figure 53), click on the location that you want to edit. Here, it's "Baltimore." From here, if you're going to change the location name, click the three-dot menu to the right of the Location header, click "Rename," and then type in the new location name.
- 4. You'll see the new FW1100B scanner, "DemoFW1100B," listed there in the Baltimore location. If you want to rename the machine, click the gear icon to the machine's right, and you will see the machine's details (Figure 54). Now, click the three-dot menu icon to the right of the pop-up banner and then click "Rename," which will allow you to change your machine name

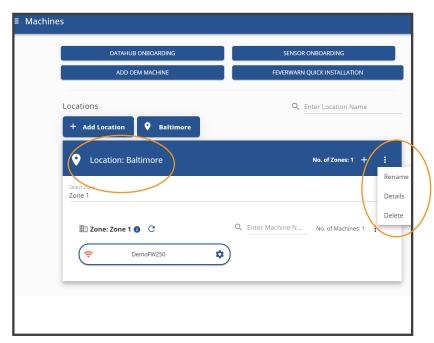


Figure 53

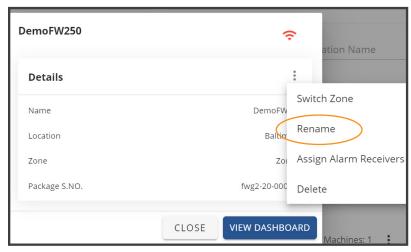


Figure 54

Final Words

Your FeverWarn scanning system is now 100% operational. Browse to **crystalball.machinesense.com** and log in with your company's credentials to electronically access this and other helpful documentation and videos. Videos are available on www.machinesense.com and on the YouTube FeverWarn channel.

Should you need additional support, please contact customer support.

Contact Customer Support

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