OPERATING MANUAL

Model Numbers:
APXBASEG2 | APXBASEDG2 | APXBASEG2EU | APXBASEDG2EU

Before attempting to install or operate this product, please read these instructions carefully. Failure to do so may result in damage to the product and may void the warranty.

R.F. Technologies, Inc.
330 Lexington Drive, Buffalo Grove, IL 60089
(800) 598-2370

IMPORTANT SAFETY INFORMATION

1. Read and keep these instructions.
2. Follow all cautions and warnings.
3. Do not operate near water.
4. Do not install the base near sources of heat.
5. Refer all service requirements to R. F. Technologies. Do not attempt to service this equipment yourself.

SYSTEM OVERVIEW

Features

- Apex Advanced is designed for use in single lane, dual lane, and tandem lane drive-thru configurations
- Apex is compliant with the 1.9GHz band DECT* communications
  *Digital Enhanced Cordless Telecommunications
- Color LED touch screen
- Echo Cancellation
- 10 Levels of Digital Noise Reduction
- 3 Sound enhancing filter options
- Supports up to 32 registered headsets
- Supports up to 15 auto-greeter messages
- Supports up to 15 reminder messages
- Supports 3 external alert inputs
- Built-in Speed-of-Service Metrics

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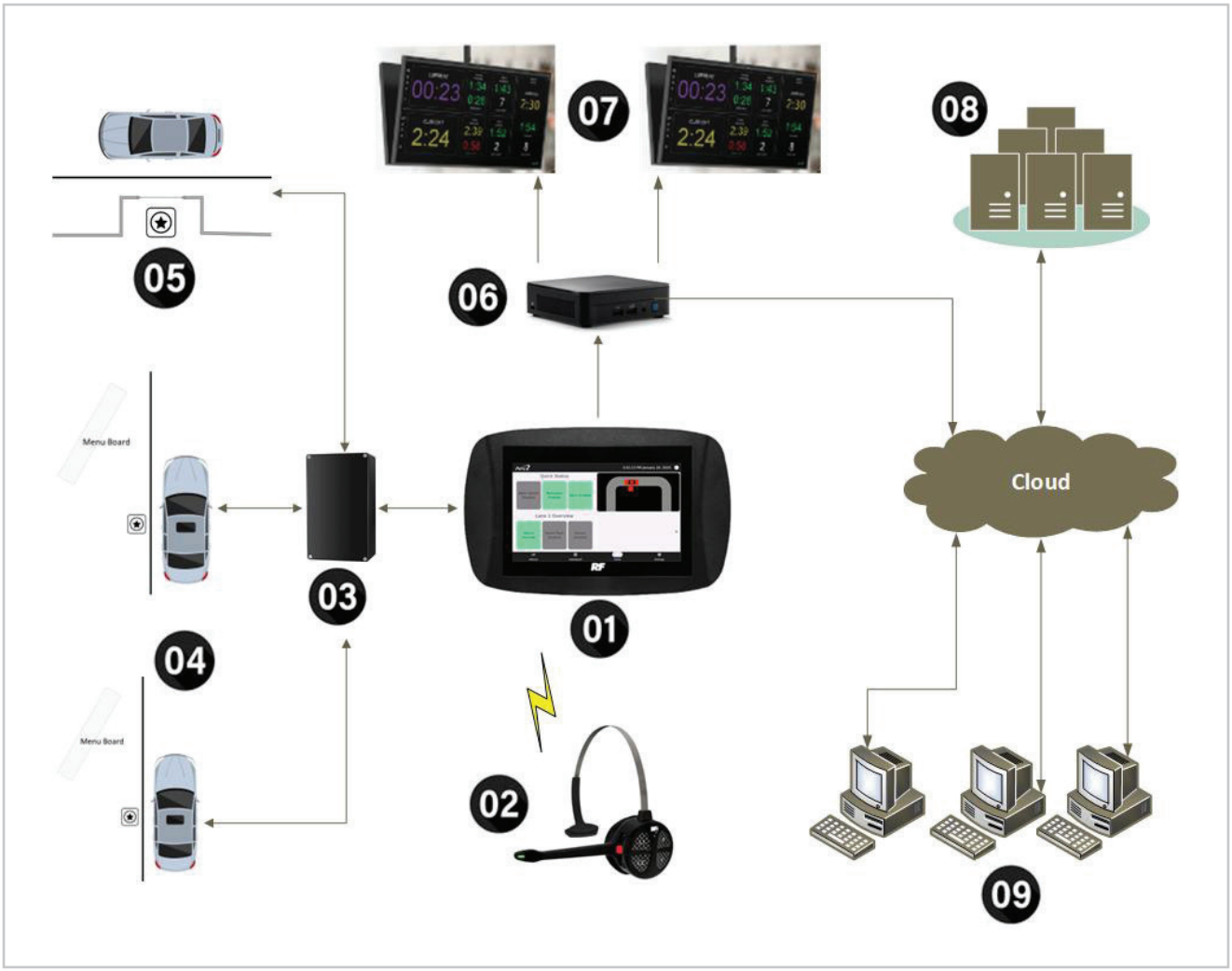
SYSTEM COMPONENTS



1. Apex Advanced Dual-Lane Base Station
2. Apex Cashier Headset
3. Apex Control Module
4. Speaker Post, Apex Digital Microphone, Apex Speaker, Loop
5. Pick-up Window Loop
6. Apex Advanced Timer Controller
7. Speed of Service Remote Displays
8. Apex Advanced Cloud Server
9. Apex Cloud Portal, Enterprise and Store Support

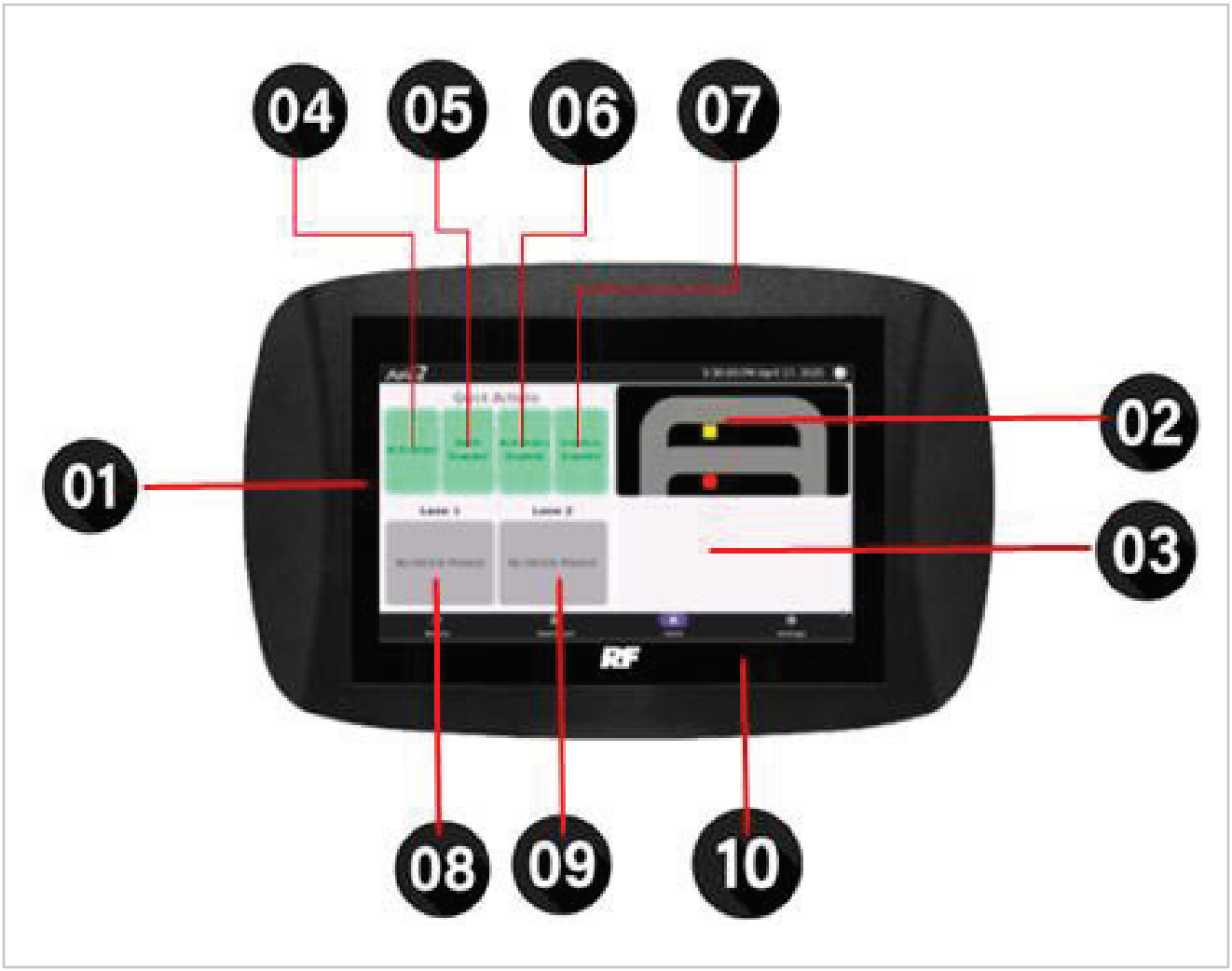
OPERATING PRECAUTIONS

- The Apex Advanced system is for indoor use only.
- Avoid installation of the system where the unit will be exposed to direct sunlight for extended periods or near sources of heat or cold.
- Avoid installation of the system where the unit may be splashed or sprayed with water.
- Do not use this system in places where flammable gases can collect.
- Ensure that all plugs and wires are fully inserted and connected to the system.
- Do not disassemble any component of this system. Unauthorized repair or attempt at repair voids the warranty.
- Do not install this system near any other source of radio frequency emission.

Touch Panel Operation

- Use only one finger to operate the touch panel. Using more than one finger may cause the touch panel to not operate correctly.
- Do not use pens or other hard-tipped or sharp objects to operate the touch screen. This includes long fingernails.
- Do not use excessive force to operate the touch panel.
- Do not install any protective films or glare protectors on the touch panel. They may cause the touch panel to malfunction.
- Do not clean the touch panel with any harsh or abrasive chemicals or materials.
- Do not use any sprays or liquids to clean the touch panel.

OPERATING CONTROLS AND FUNCTIONS

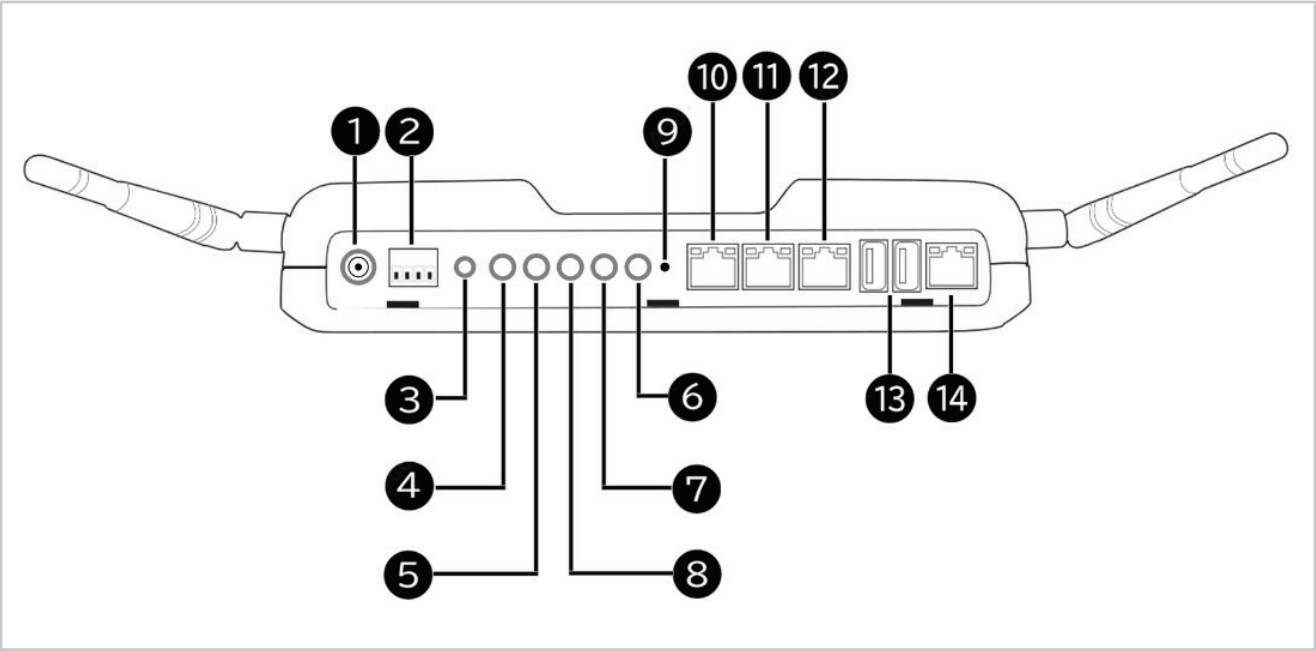


1. 7”x 4 ¾ “, Color LCD, Touch Screen
2. Lane Type/Car Present Indicator
   Shows the lane type and configuration, and the car present at each location.
3. Communications Status Window
   Shows the talk and page communications between the headsets and the base station.
4. AI Enabled Button
   Quickly disables the vehicle detector tone in the headset when the AI is taking the orders.
   AI Disabled – Vehicle detector tone will beep in the headsets when a car is present.
   AI Enabled – Stops the vehicle detector tone from beeping in the headsets when a car is present.
5. Alerts Enabled
   Enables/disables system wide alerts.
6. Reminders Enabled
   Enables/disables reminder messages.
7. Greeters Enabled
   Enables/disables the auto-greeter.
8. Vehicle Present – Lane 1
   Shows when a vehicle is present in Lane 1.
9. Vehicle Present – Lane 2
   Shows when a vehicle is present in Lane 2.
10. Menu Selection Task Bar
    Quick-access icons that open programming menus.
    Password required for access.
    Home – Returns to the main screen
    Settings – Opens the Settings Menu
    Status – Quick view screen showing the status of all the settings

INTERACTIVE HELP MENU

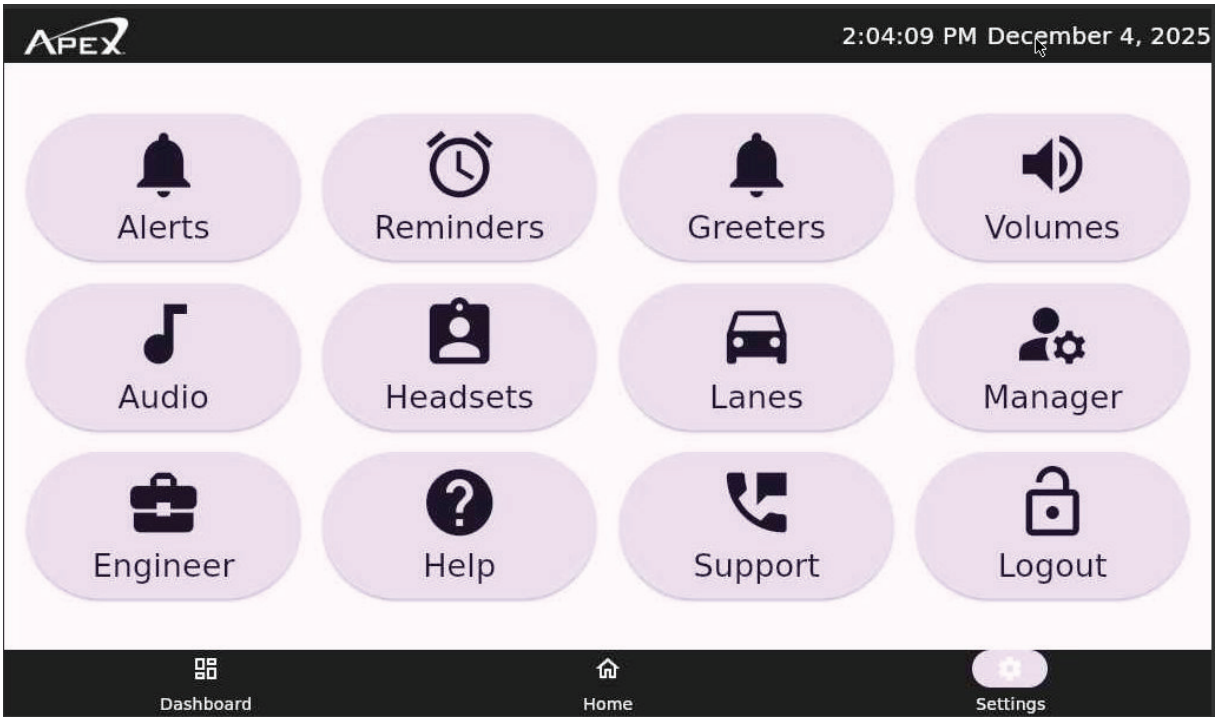
At the top, right corner of every screen is an information icon. This icon will display a QR code that will take you to the appropriate help menu on the R.F. Technologies Apex Advanced web site.

BASE STATION CONNECTIONS



1. Power
2. External Vehicle Detector Output
3. 2.5mm Audio Port, Alert Circuit X 3
4. 3.5mm Audio Port, Aux 2 Audio In
5. 3.5mm Audio Port, Aux 2 Audio Out
6. 3.5mm Audio Port, Kitchen Speaker for Lane 1 and 2
7. 3.5mm Audio Port, Aux 1 Out
8. 3.5mm Audio Port, Aux 1 Audio In
9. Base Station Reset Button
10. RJ45 for Future Lane Expansion
11. RJ45, Lane 2 to Speaker Post
12. RJ45, Lane 1 to Speaker Post
13. Dual USB Ports
14. RJ45, Network Port

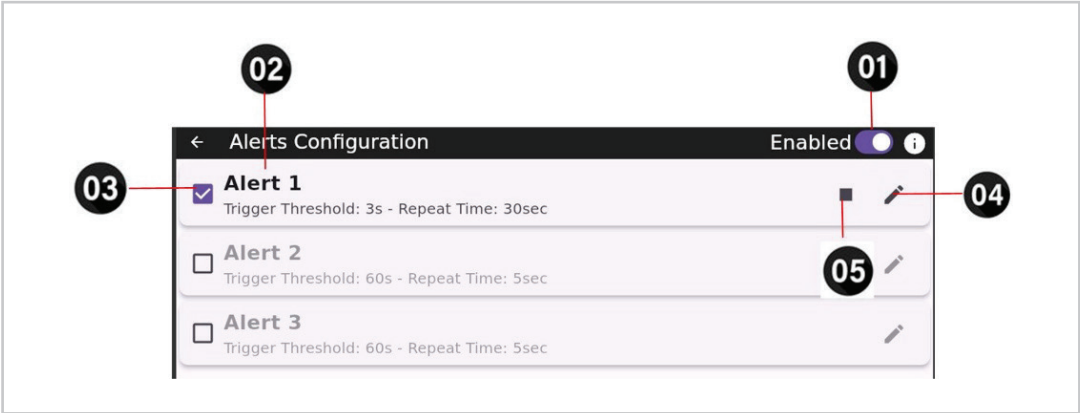
BASE STATION PROGRAMMING



All base station programming is found under the settings icon on the Menu Selection Task Bar on the bottom of the Apex screen. All menus are password protected. The default password is **RF1989**. It is highly recommended to change this password to prevent unauthorized users from making settings changes.

ALERTS

Up to three external alerts can be connected to the base station to automatically play an alert to the headsets and external speakers when triggered. These alerts can be delayed to play after a predetermined period of time. For example – a door alarm can be connected to the base station to sound an alert if a door is opened for more than 5 minutes. The alert can be programmed to repeat until the alert is cleared.



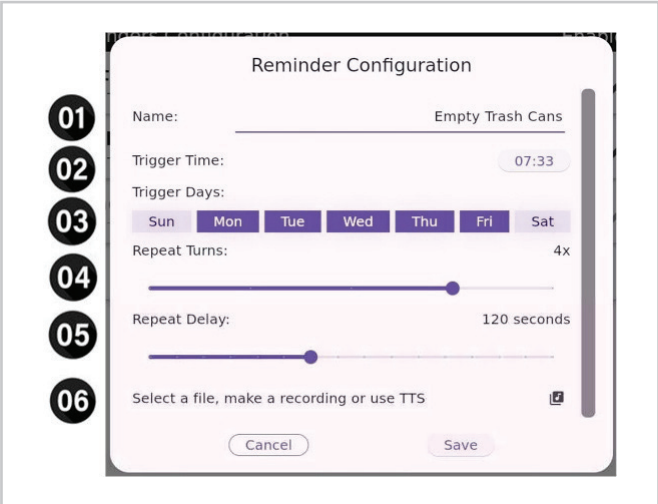
1. Enable Alert Functionality
2. Name of Alert
3. Enable this Alert
4. Edit Alert Settings
5. Play Alert (Manager Headset Required)

1. Name of the Alert
2. Trigger Threshold
   The amount of time in seconds that the alert must be active before the alert is sounded.
3. Repeat Time
   The amount of time in seconds before the alert is repeated.
4. Alert Audio to Use
   Refer to section – **Programming Audio Files** – for instruction on how to program an audio file.

REMINDERS

Up to fifteen reminder messages can be programmed to automatically play to the headsets or external speaker. These reminders can be scheduled to play on any combination of days. The reminder can be set to repeat up to five times with up to a five-minute delay between messages.

1. Enable Reminder Functionality
2. Name of Reminder
3. Enable the Reminder to be Played
4. Delete Reminder
5. Edit Reminder

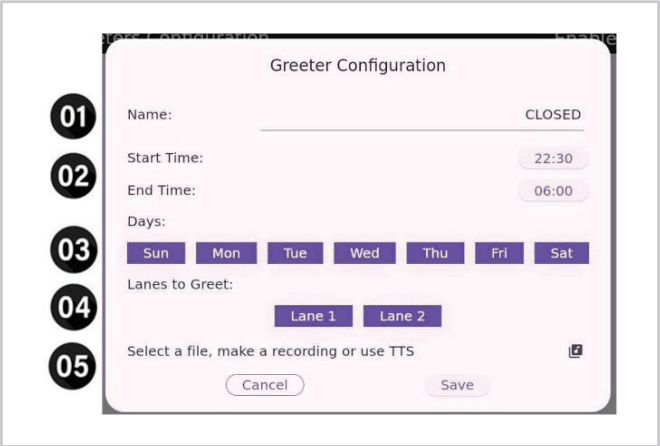


1. Reminder Name
2. Trigger Time
   The time the reminder message will play.
3. Trigger Days
   The days that the reminder will play.
4. Repeat Turns
   The number of times the reminder will repeat.
5. Replay Delay
   The number of seconds between playing the reminder message.
6. Alert Audio to Use
   Refer to section – **Programming Audio Files** – for instruction on how to program an audio file.

GREETER

Up to fifteen greeter messages can be programmed to automatically play when a vehicle arrives at the menu board. These messages can be scheduled to play on different days or change throughout the day.

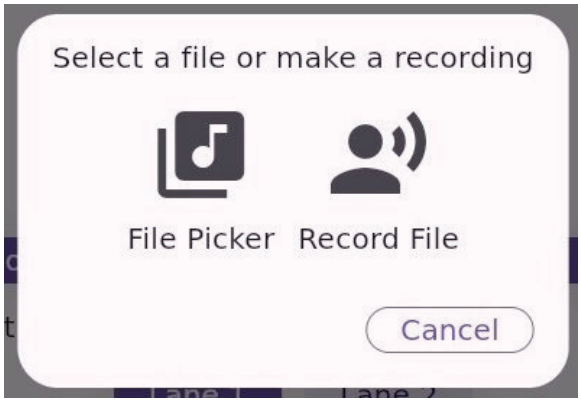
1. Enable Greeter Functionality
2. Greeter Name
3. Enable Greeter Message
4. Delete Greeter Message
5. Edit Greeter Message



1. Greeting Name
2. Start and End Time to Play the Greeting
3. Days to Play the Greeting
4. Lanes to Play the Greeting
5. Alert Audio to Use
   Refer to section – **Programming Audio Files** – for instruction on how to program an audio file.

PROGRAMMING AUDIO FILES

There are two ways to create audio files to use in the Apex system. You can load a previously created audio file or you can record a voice greeting.



File Picker

File picker allows you to select an audio file from a storage device. The following audio formats are supported: WAV, MP3, MP4, AAC.

1. Navigate to the storage device the audio file is on.
2. Select the audio file to be used.
3. Save configuration.

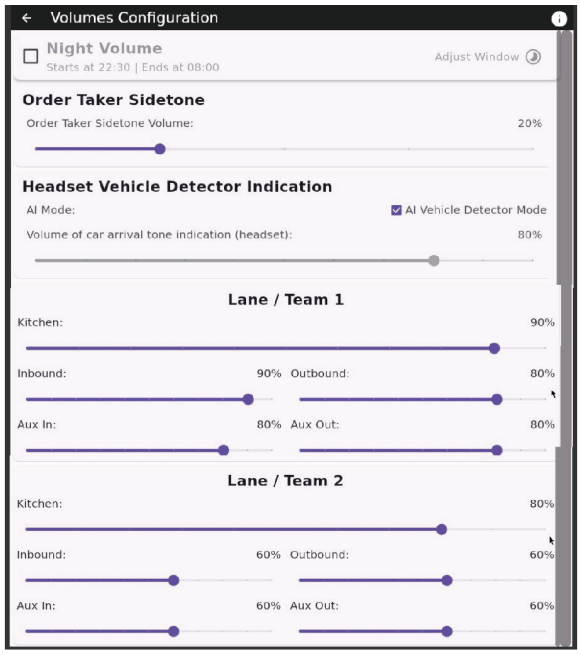
Record File

Record Files allows you to record a message. A manager headset is required.

1. Press the Record File icon.
2. Press the page button on the headset. If using push-to-page (PTP), hold the page button while making the recording.
3. Press the Record button.
4. Record your message.
5. Press the Stop button when your recording is finished.
6. Press Preview to hear the message played back to the manager headset.
7. Press the Confirm button to keep the recorded message.
8. Save the configuration.

VOLUME CONFIGURATION

Volume Configurations is where the various volume levels are set for the system. The volumes that can be set are Night Volume, Order Taker Sidetone, Headset Vehicle Detector Indicator, and Lane Volumes.



Night Volume

The Night Volume feature automatically reduces the volume of the speaker post speaker by 20% for municipalities that have a maximum volume restriction for night use.

1. The check box enables and disables the Night Volume feature.
2. Press the Adjust Window button to set the beginning and end times for the Night Volume feature.
3. Adjust the slider for the times the volume is to be reduced.
4. Press OK to accept the time.

Order Taker Sidetone

When you are talking on the headset, part of your voice is routed back to the earphone on the headset so you know that the headset is working. Depending on volume levels, this sidetone volume may be too loud in the headset. The order taker sidetone feature allows you to reduce the volume of the sidetone on the headset. This only affects a headset that is currently talking. It does not change the volume level of any listening headset.

To adjust the sidetone volume, simply slide the tone adjustment to the desired volume level.

Headset Vehicle Detector Indication

Headset Vehicle Detector Indication controls the volume level of the tone that is heard on the headset when a car is at the order post. AI Mode disables the vehicle detector tone when an AI system is taking the order. This can be triggered on or off from a quick button on the main screen.

To adjust the volume level of the vehicle detection tone simply slide the tone adjustment to the desired volume level.

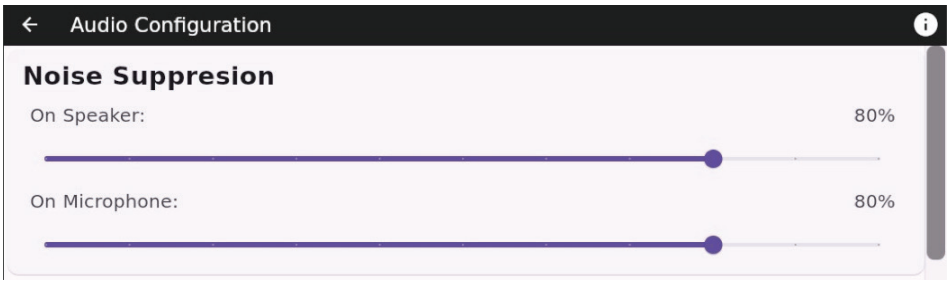
Lane/Team Volume Settings

The Lane/Team Volume Settings control all of the volumes associated with the lane. The volumes of the kitchen speaker, inbound mic, outbound speaker, auxiliary input, and auxiliary output can be independently set.

1. Kitchen
   Sets the volume of the audio going to the kitchen speaker.
2. Inbound
   Sets the volume of the audio coming from the microphone in the speaker post.
3. Outbound
   Sets the volume level of the audio going to the speaker in the speaker post.
4. AUX In
   Sets the volume level of the audio coming in from an external source, like an AI system.
5. AUX Out
   Sets the volume level of audio being sent to the speaker post from an external source, like an AI system.

AUDIO CONFIGURATIONS

Under the Audio Configuration Menu are the settings for noise suppression, echo cancellation, audio filters, and the routing for alerts, reminders, greetings, kitchen speaker, and aux outputs.



Apex Advanced can decrease ambient noise from both drive-thru lane as well as kitchen noise from inside of the store. Best practice is to keep noise suppression as low as possible to give the best sound quality.

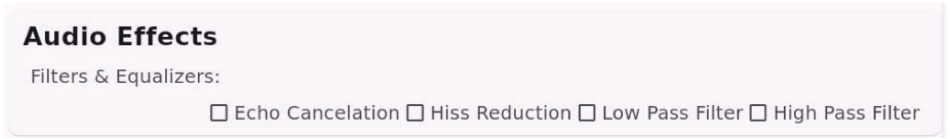
On Speaker

This setting decreases ambient noise from the kitchen from being picked up by an open mic on the headset and sent out to the speaker in the speaker post.

On Microphone

This setting decreases ambient noise from the lane from being picked up by the microphone in the speaker post.

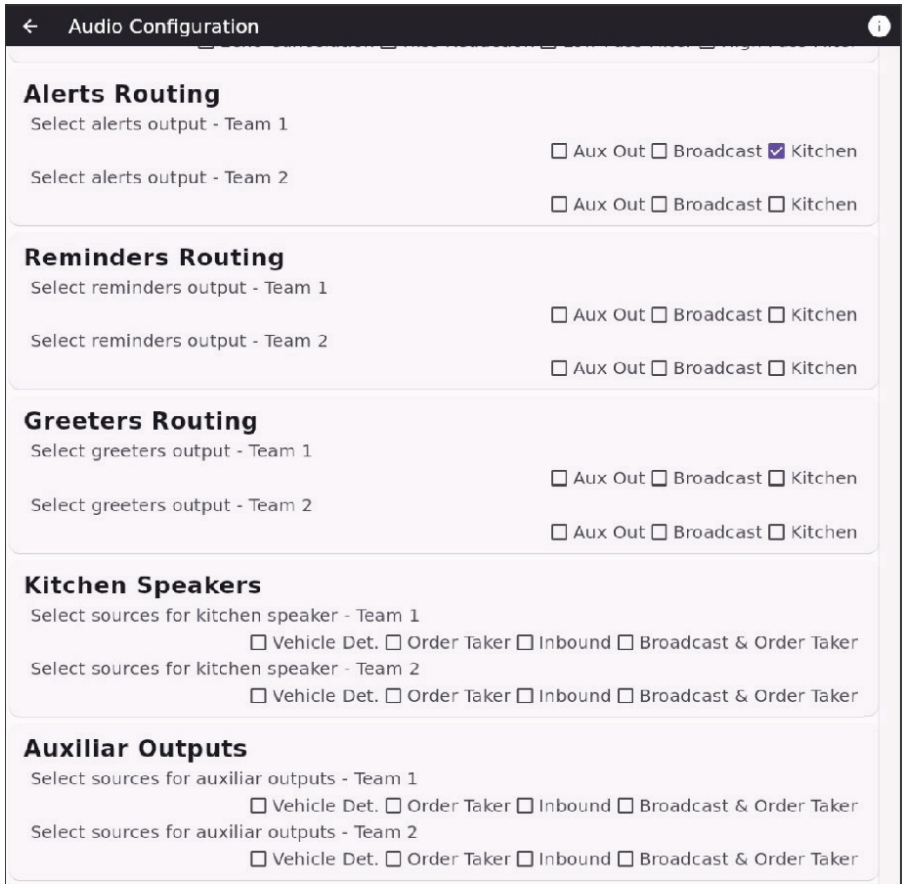
Audio Effects



Audio Effects decreases the echo effect at the speaker post as well as reduce electric hiss, low tone ambient noise, and high tone ambient noise. These settings allow you to tune out specific noise, if present, giving you the clearest sound quality possible. Best practice is to turn off any filter that is not necessary for sound quality. Each filter processes the audio and will make the audio quality less natural.

Routing

Routing allows you to direct the system audio to the various outputs of the system. Each setting is individually controlled to allow you the maximum control over the system audio.



Alerts, Reminders, Greeters Routing

Alerts, reminder, and greeter messages can be sent independently to the outputs for each lane.

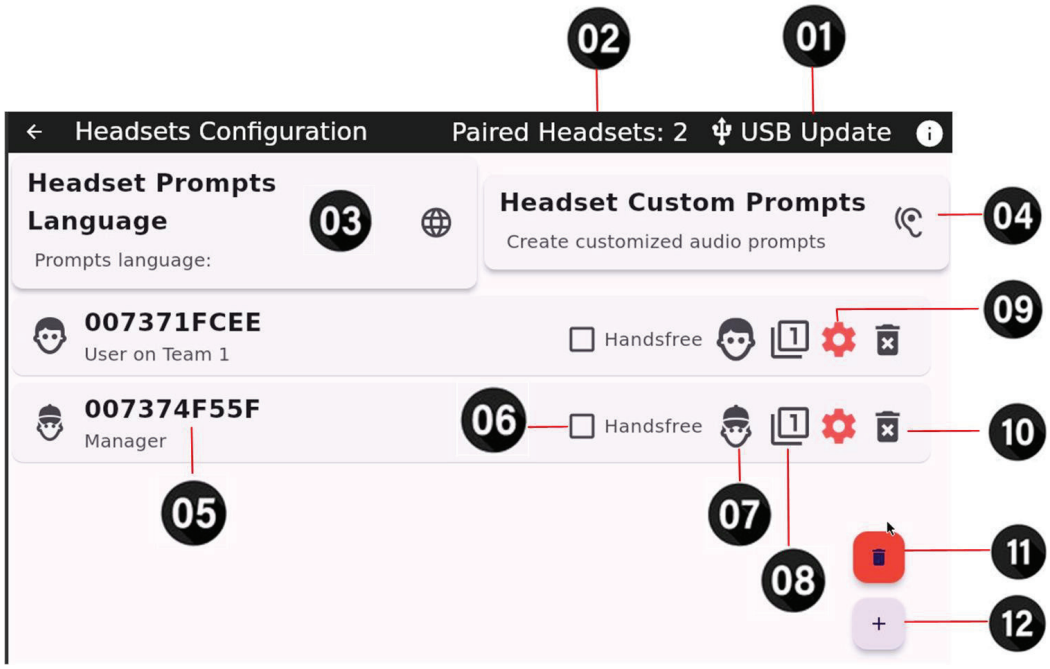
- Kitchen Speaker – Overhead speaker in the kitchen
- Broadcast – Sent to all the headsets assigned to that lane.
- Aux Out – Sent to a secondary speaker

Kitchen Speakers and Auxiliar Outputs

System sound can be sent independently to the kitchen speakers and auxiliary outputs for each lane.

- Broadcast and Order Taker – Send audio to all headsets assigned to the lane.
- Inbound – Sound coming in from the microphone in the speaker post.
- Order Taker – Sends sound to only the order taker headset with a talk channel open to the speaker post.
- Vehicle Det. – Plays the vehicle detection tone when a car arrives at the speaker post. One beep indicates a car is has not been greeted on lane 1 and two beeps indicate that a car has not been greeted on lane 2. The beeps continue until the car has been greeted.

HEADSET PROGRAMMING



1. USB Update

   Updates to the software for the headsets are done automatically over-the-air when available. This happens as a background event that does not affect the functionality of the headsets. The USB Update is used by R. F. Technologies only and requires a proprietary programming cable. This is not used on an installed system.

2. Paired Headsets

   This shows the number of headsets currently programmed to this base station. Apex Advanced supports up to 32 connected headsets.

3. Headset Language Prompts

   The headset supports three different languages for the voice prompts that are played on the headset. The headset can be set to English, Spanish, or French. There is also a custom section that allows a user to record voice prompts in any language they choose.

4. Headset Custom Prompts

   Headset Custom Prompts allows a user to record voice prompts in any language they choose. Refer to section – **Programming Audio Files** – for instruction on how to program an audio file.

5. Headset Identification

   Headset Identification displays all of the headsets registered to the system.

   - Displays the communication ID of the headset
   - Displays if the headset is assigned to a crew member or is a manager headset
   - Displays which lane the headset is connected to

6. Handsfree

   The handsfree feature automatically opens a talk channel to the speaker post when a vehicle is present. A beep is heard on the headset and then the talk channel is opened. Only one headset can be programmed to handsfree mode. This feature is not recommended for use because it is possible to send audio to the speaker post that you do not want the customer to hear.

HEADSET PROGRAMMING, CONTINUED

7. Crew/Manager

   This sets the headset to either be a crew headset or a manager headset. There can only be one manager headset programmed at any time.

8. Team Assignment

   This assigns which team/lane the headset is initially assigned to when using a dual-lane drive-thru. This does not appear if using a single-lane drive-thru.

9. Headset Advanced Options

   This displays the current settings for the headset. A green icon indicates a headset that is up to date. A yellow icon indicates that a headset is awaiting a voice prompt change. A red icon means the headset needs a firmware upgrade.

   Headset Prompts – The version number of the prompts being used

   Available Prompts – Displays the language the headset is programmed in

   Firmware Version – The version of firmware on the headset

   Available Firmware Version – The version of firmware waiting to be upgraded. The upgrade will happen automatically in the background.

10. Delete Headset

    Removes a single headset from the system.

11. Delete All Headsets

    Removes all headsets from the system.

12. Register a Headset

    Enables the pairing mode on the base station. To pair a new headset to the system –

    1. Press the ***Register a Headset*** icon on the base station. Pairing is now active. The prompt will show the number of open slots left on the system. It will also show the last device paired to the system.
    2. Press and hold the L1 and P buttons on the headset until the LED on the mic boom starts flashing green and yellow. You will hear the headset start beeping. Pairing can take up to one minute. Pairing is complete when the beeping stops and the LED on the headset changes to green.
    3. When all headsets have been paired press the Exit button on the base station to resume normal operation.

HEADSET MODES OF OPERATION

Push-to-Talk –
The headset works like a walkie-talkie. Press and hold the lane button on the headset to talk to the speaker post. Release the lane button to close the talk channel.

Talk Lock –
Press and release the lane button to lock open a talk channel to the speaker post. Press and release the lane button a second time to close the talk channel.

Hands Free –
Only one headset registered to the system can be put in hands free mode. In hands free mode the headset will automatically open the talk channel to the speaker post when a car arrives. A beep will be heard on the headset and then the talk channel will be opened. This mode of operation is not recommended. Opening the talk channel automatically can inadvertently send a private cashier conversation to the customer at the post.

Push-to-Page –
Page is internal, headset to headset communications that do not go to the speaker post. The headset works like a walkie-talkie. Press and hold the page button on the headset to talk to store personnel. Release the page button to close the page channel.

Page Lock –
Press and release the page button to lock open a page channel to talk to store personnel. Press and release the page button a second time to close the page channel. When using the Speedteam feature, all headsets will be put in page lock mode.

The most common configuration is to have the headset in Talk-Lock mode to speak to the speaker post and Push-to Page mode for internal communications.

SETTING HEADSET MODES OF OPERATION

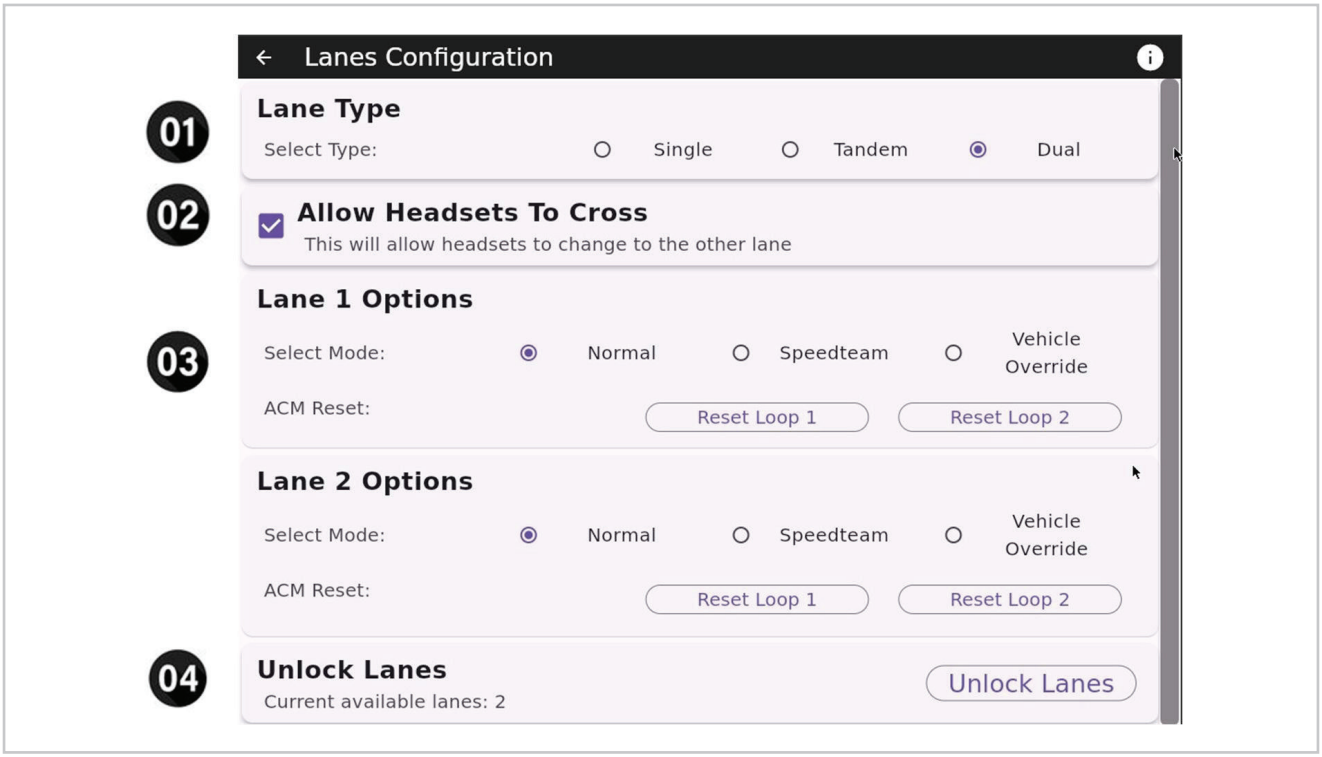
Setting the different headset modes of operation is done on the headset, with the exception of setting the hands-free mode.

Talk Lock –
On the headset, press and hold the ‘L1’ and the ‘V’ buttons until you hear the voice prompt, “Lane Talk Lock On”. Press and hold the ‘L1’ and the ‘V’ buttons a second time to turn Talk Lock off. You will hear the voice prompt, “Talk Lock Off”.

Page Lock –
On the headset, press and hold the ‘P’ and ‘V’ buttons until you hear the voice prompt, “Page Lock On”. Press and hold the ‘P’ and ‘V’ buttons a second time to turn Page Lock off. You will hear the voice prompt, “Page Lock Off”.

Hands Free –
Only one headset per lane can be set to Hands Free mode. Hand Free mode is set in the Headset Configuration Menu.

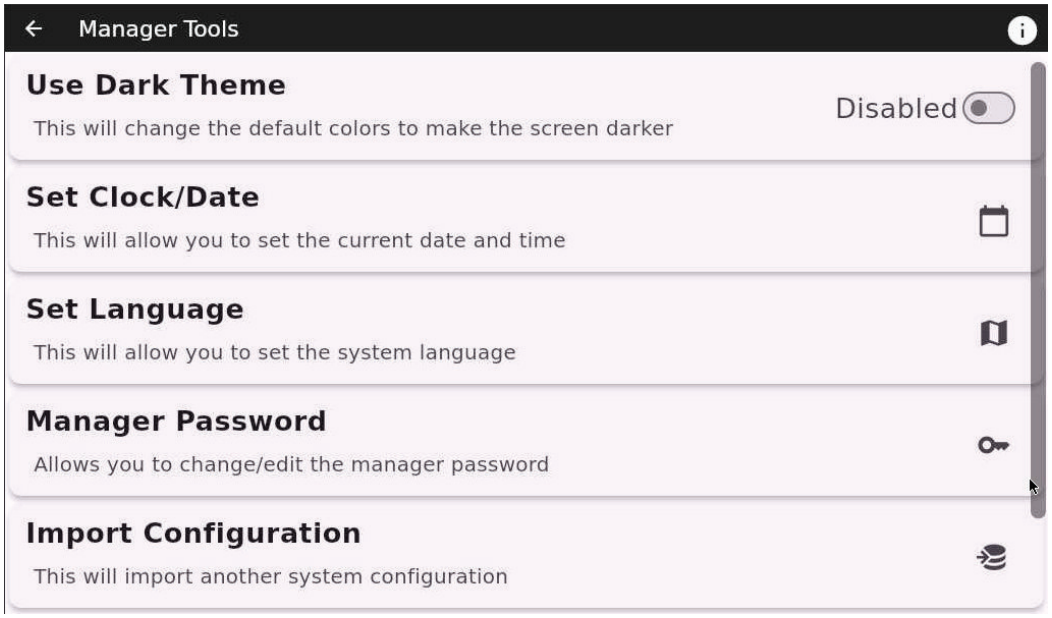
LANE CONFIGURATION



1. Lane Type
   Apex Advances supports single, tandem, or dual lane drive-thru configurations. Tandem and dual lane drive-thru configurations require the second lane to be unlocked.
2. Allow Headsets to Cross
   On a tandem or dual lane configuration this feature allows the headsets to talk to both lanes from the same headset. If this is disabled the headsets can only talk to the lane the headset is assigned to in **Headset Programming**.
3. Lane Options
   Select Mode –
   - Normal – The lane operates in the normal way.
   - Speedteam – Speedteam is a mode that is used when a cashier is taking orders out in the lane. Speedteam disables vehicle detection and places all headsets in Page Lock. This allows the cashier taking orders outside to stay in constant contact with the inside of the store.
   - Vehicle Override – This disables vehicle detection and opens a talk channel to the speaker post. This allows the system to be used if there is a problem with the vehicle detector.

   ACM Reset –
   The vehicle detectors are internal to the Apex Control Module (ACM). ACM Reset allows you to reset these vehicle detectors from the base station.
4. Unlock Lanes
   Apex Advanced is sold to support a single lane drive-thru only. The Unlock Lanes is used by R.F. Technologies to enable the second lane for use in a dual lane or tandem lane configuration.

MANAGER MENU



Dark Theme – Allows the system to be displayed in a dark mode to reduce brightness.

Set Clock/Date – Allows the manager to change the system time or date.

Set Language – Allows the manager to change the language on the base station to another language. This does not change the voice prompts or messages.

Manager Password – Allows the manager to set or change the manager password to access the system settings. The default password is **RF1989**. It is highly recommended to change this password to prevent unauthorized users from making settings changes.

Import Configuration – Allows the manager to quickly import saved configuration settings.

Export Configuration Settings – Allows the manager to export the system configuration settings.

ENGINEERING MENU

The Engineering Menu is reserved for R.F. Technologies only.

HELP MENU

The Help Menu icon will display a QR code that will take you to the appropriate help menu on the R.F. Technologies Apex Advanced web site.

SUPPORT

This allows a store to send a request for help to the R. F. Technologies help desk. Not currently implemented.

FCC INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device (headset), pursuant to Part 15 of the FCC Rules and this equipment has been tested and found to comply with the limits for a Class B digital device (base station), pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation of the device.

To comply with FCC and IC RF Exposure requirements, the base must be installed and operated such that a minimum separation distance of 20 cm is maintained between the base and all persons during normal operation. Changes or modifications not expressly approved by R.F. Technologies, Inc. could void the user's authority to operate this equipment.

FOR THE U.S.A.

The FCC ID number for the base station and headset is listed below:

FCC ID: TOMAPXBAG2

FCC ID : TOMAPXHS

FOR CANADA

ICES-003

CAN ICES-3(A)/NNB-3(A)