

Polara

iNavigator 3 System Manual

350-058 Rev. F

11/9/2017

Contents

1. Safety Information	5
2. System Description	5
2.1 iN3 Accessible Pedestrian Signal Station	5
2.1.1 Technical Specification	6
2.2 iPHCU3W – PED Head Control Unit 3-Wire.....	6
2.2.1 Technical Specifications	6
3. System Installation	7
3.1 iN3	7
3.1.1 Connecting an External Button	8
3.2 iPHCU3W	10
4. Technical Support Contact	11
5. Using The Polara Field Service App for iOS to Change PBS Settings.....	11
5.1 Bluetooth Connection	12
5.2 PBS Status	13
5.3 Changing the PBS Password.....	14
5.4 Assigning a Name to a PBS	15
5.5 Setting the PBS Time and Date	15
5.6 PBS Configuration Options	16
5.7 Adjusting Button Push Force	19
5.8 Quiet Time	19
5.9 Wireless Sync.....	21
6. Using the Polara Field Service App for iOS to Upload Audio Files.....	22
7. Using the Polara Field Service App for iOS to Access the Health Log.....	24
8. Using the Polara Field Service App for iOS for Firmware Updates	25
9. Using the Polara Field Service App for iOS to Program Calendar Features	27
9.1 Enable the Calendar Feature.....	27
9.2 Using the Calendar Feature	29
10. Using Polara Field Service App for PC to Change PBS Settings.....	31
10.1 Download Polara Field Service App for PC (Intelligent Config) Application	31
10.2 iN-DGL BLE Dongle	31
10.3 Application Installation.....	31
10.4 Running the Application.....	32
10.5 Bluetooth Connection.....	33
10.6 Status Page	34
10.6.1 Assigning a Name to a PBS	34
10.7 Changing the PBS Password.....	35
10.8 Setting the PBS Time and Date	36

10.9 Settings	37
10.9.1 Adjusting Push Force.....	38
10.10 Quiet Time	38
10.11 Wireless Sync	39
10.12 Calendar Events	41
10.13 Diagnostics	44
10.14 Health Log	45
11. Using the Polara Field Service App for PC to Upload Audio Files	46
11.1 Audio Update	46
11.2 Convert Audio Files	47
12. Firmware Update	48
13. Keeping Up to Date	49
14. Configuration Settings Details	50
14.1 Volume Settings	50
14.1.1 Locate Volume.....	50
14.1.2 Information Message Volume	50
14.1.3 Standard Walk Volume	50
14.1.4 Extended Walk Volume	50
14.1.5 Volume Over Ambient.....	50
14.1.6 Locate Volume Over Ambient.....	51
14.2 Walk Interval Settings	51
14.2.1 Walk Mode Sound	51
14.2.2 Walk Sound Pause	51
14.2.3 Walk Sound Trigger	51
14.2.4 Maximum Walk Time	51
14.2.5 Sound/Vibrate Timer	52
14.2.6 Sound/Vibrate Re-Trigger	52
14.3 Clearance Interval Settings	53
14.3.1 Cancel on Clearance	53
14.3.2 Clearance Mode Sound.....	53
14.3.3 Clearance Tone Pause	53
14.4 Don't Walk Interval Settings	53
14.4.1 Locate Sound.....	53
14.4.2 Locate Tone Time.....	53
14.4.3 Wait Message	54
14.4.4 Direction Message.....	54
14.4.5 Information Message.....	54
14.4.6 Push Confirm Message.....	54
14.5 Other Settings	55
14.5.1 Button Push Force	55
14.5.2 Cancel on Walk.....	55

14.5.3	Extended Push Time	55
14.5.4	Second Language.....	55
14.5.5	Ping Pong.....	56
14.5.6	External Speaker Option	56
14.5.7	Double Walk.....	56
14.5.8	Limit Push Recall.....	56
15.	Regulatory Notice.....	57
16.	iNav Mounting Hole Diagram	58

1. Safety Information



Caution! The equipment covered in this manual must be installed and operated as specified in this manual. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.



Caution! Risk of electric shock. The installer must be aware of the presence of hazardous voltage levels which may be exposed during the installation of this equipment.

For personal safety, the use of insulating gloves and safety glasses is recommended.

2. System Description

2.1 iN3 Accessible Pedestrian Signal Station

The iN3 is an Accessible Pedestrian Signal pushbutton station (PBS). These PBSs are typically used in pairs, mounted on poles at each end of a pedestrian crosswalk. Its purpose is to transmit a request for a Walk Sign to a traffic signal controller by pressing its pushbutton, then to provide audible and vibro-tactile feedback to the pedestrian, indicating the current status of the pedestrian signal sign. The iN3 is designed for operation with the iPHCU3W. Each iN3 / iPHCU3W operates independently of any other with the exception that units with their (PED call) button terminals connected in parallel are all activated by a single button push. Alternatively, the iN3 has a Wireless Sync feature to provide a link between PBSs on the same PED phase, such that a button press on one unit enables Walk and Clearance sounds on the linked unit. Wireless Sync supports both standard and extended push modes. Configuration of the iN3 via Bluetooth may only be performed on a single PBS at a time.



2.1.1 Technical Specification

Operating Voltage/Current: 24 VDC/0.3 A max

External Connections:

3 wires to iPHCU3W, optional 2 wires to cabinet PED call inputs

Bluetooth Low Energy for setup and maintenance

Operating Temperature Range: -34°C to +74°C

Relative Humidity: 95% for Operating Temp.

Storage Temperature Range: -40°C to + 85°C

Ingress Protection: NEMA 4X (IP65), follow instructions for proper protection

Pushbutton Operating Force Range: 1 to 3 lbs

Maximum Audio Output Level: 100 dbA @ 1 meter

Dimensions W x D x H: 128 X 55 X 343 (mm)

Weight: 4 lb

Designed for Outdoor Use, Wet Location and Overvoltage Category: NEMA 250 4X

2.2 iPHCU3W – PED Head Control Unit 3-Wire

2.2.1 Technical Specifications

Input Voltage / Current: 120VAC / 18VA MAX

Output: 24 VDC / 0.2 A continuous, 0.3 A surge

Operating Temperature Range: -34°C to +74°C

Relative Humidity: 95% for Operating Temp.

Storage Temperature Range: -40°C to + 85°C

Dimensions W x D x H: 188 X 39 X 96 (mm)

Weight: 0.6 lb

Mounted in an all-weather enclosure provided by the customer. Designed for PED Head Enclosure indoor use, Overvoltage Category: NEMA 250 Type 1

Main Supply Voltage Fluctuation $\pm 10\%$ of rated voltage

Circuit Breaker Specification

Voltage Rating: 120VAC

Current Rating: 1A

Time Characteristics: Medium Time Large

3. System Installation

Prior to system installation, a 3-wire cable must be installed between the Pedestrian Signal Head and the pole where the PBS will be mounted. AWG 18 wire is recommended for this installation and should meet all applicable regulatory requirements. 3-wire cable can be purchased when ordering your iN3 system, if desired.

Removing power from the pedestrian signal head during installation is recommended for protection from electric shock.

3.1 iN3

The iN3 PBS has two mounting holes vertically spaced at 6.0 inches. The mounting is compatible with standard pushbutton frames with 6 inch mounting holes and a wiring hole about 3.5 inches below the lower mounting hole. The suggested mounting height is 42 inches from ground level to the center of the arrow button. **The iN3 PBS must be mounted only in the normal upright orientation, with the connection terminals at the bottom. Any other mounted orientation will void the warranty as moisture could collect inside the unit.**

Before mounting the PBSs on their poles, go to the traffic signal controller cabinet and set the PED phases to recall. Remove existing buttons/frames from poles. Check holes for mounting fit and drill and tap ¼-20 as needed. Route the 3-wire cable between the pedestrian signal head and the pole.

If the PBS has a label with street names, the first name (before @) indicates the street being crossed. Locate the unit in accordance with the label.

Remove 3 screws from the lower cover surrounding the pushbutton, using a Torx T15 security driver bit. Lift off the lower cover. Remove all screws securing the sign and sign plate if present. Verify the arrow on the button is oriented toward the associated crosswalk. If necessary, the button / diaphragm assembly may be pulled off and rotated as needed. **Please use caution as the metal diaphragm is sharp.**

With the sign and lower cover removed, position the PBS against the pole and route the wires forward through the opening at the bottom end of the module. Position the wire such that 3 or 4 inches of wire is available at the bottom of the PBS. Attach the PBS to the pole using the provided ¼-20 bolts with washers.

NOTE: The use of a speed wrench or short socket is recommended. Insert the bottom bolt with washers on bolt before holding the iN3 PBS to the pole to prevent the washers from falling into the unit.



Connect the two wires from the traffic signal cabinet (if available) to the terminals of the larger black terminal block labeled **BUTTON/PLC**. Wire polarity is not important. Connect the three wires from the iPHCU3W to the terminal block on the right. Make sure the wiring matches at both ends according to the Data, GND, and PWR labels at the terminals. With the power on, check that the PBS is operational. Recheck tightness of all connections.

3.1.1 Connecting an External Button

The iN3 PBS supports connection of an external button such as the Polara Bulldog BDSP-014. Pressing the external button is equivalent to pressing the iN3 button, but without the associated push confirmation sound. The button wire pair should connect to the large terminal block labeled “Button/PLC” with one wire to each terminal. Polarity is not important. The external button would be connected in parallel with the button wires to the traffic signal cabinet. More than one external button is acceptable.

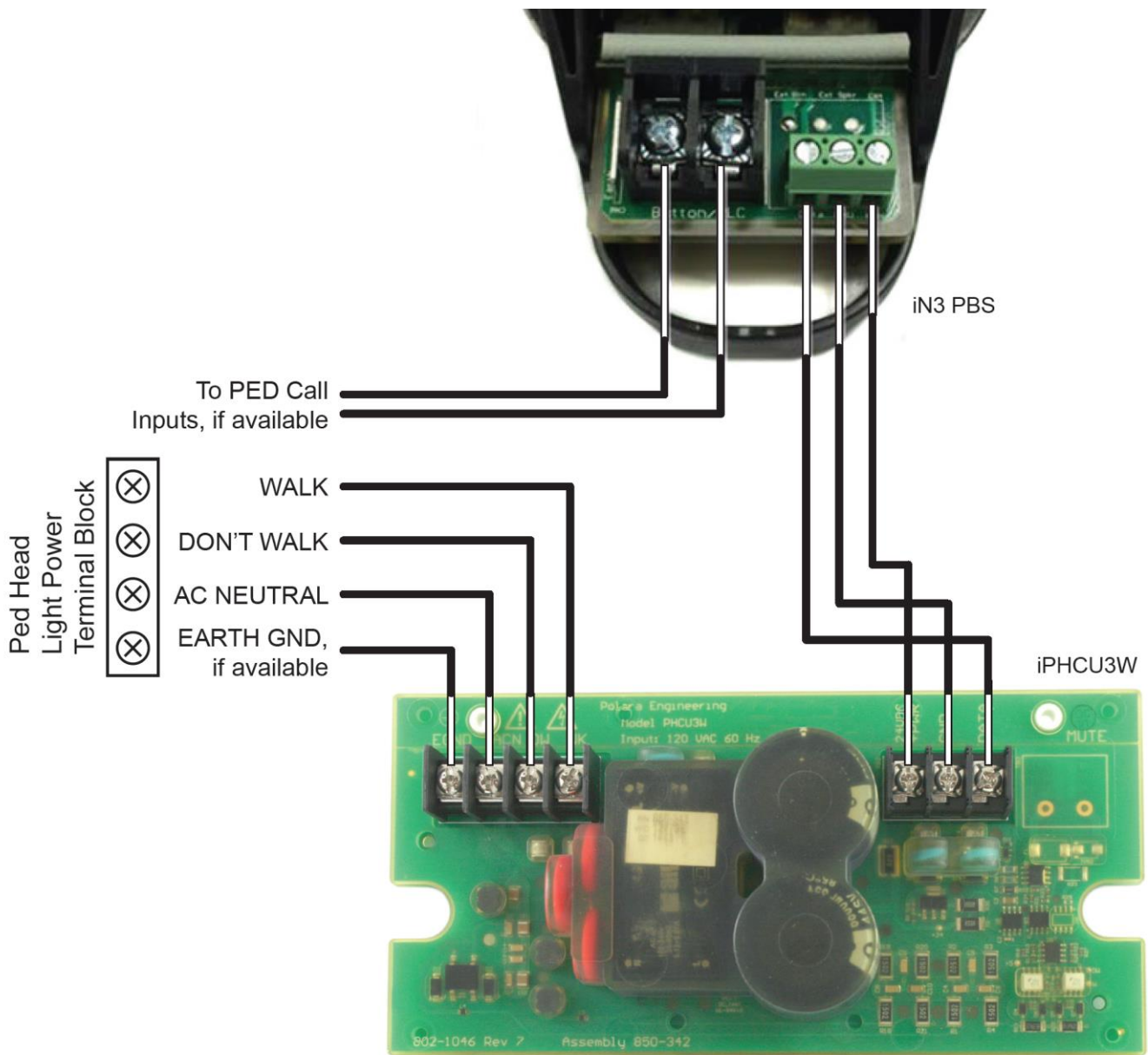


Pole-mounted iN3 PBS

Re-install the lower cover and the sign. Additional environmental protection can be gained by adding rubber washers or grommets on the sign screws, or with the use of a silicone sealant.

Safety protection may be compromised if installed or utilized in a configuration not state in this system manual. Disconnect input power to iN3 before field installation.

The iN3 PBS is now ready to use. For programming and configuration of the iN3 PBS, please refer to the Polara Field Service App for iOS User Guide (starting on page 11 of this manual) or the Polara Field Service App for PC User Guide (starting on page 31 of this manual).



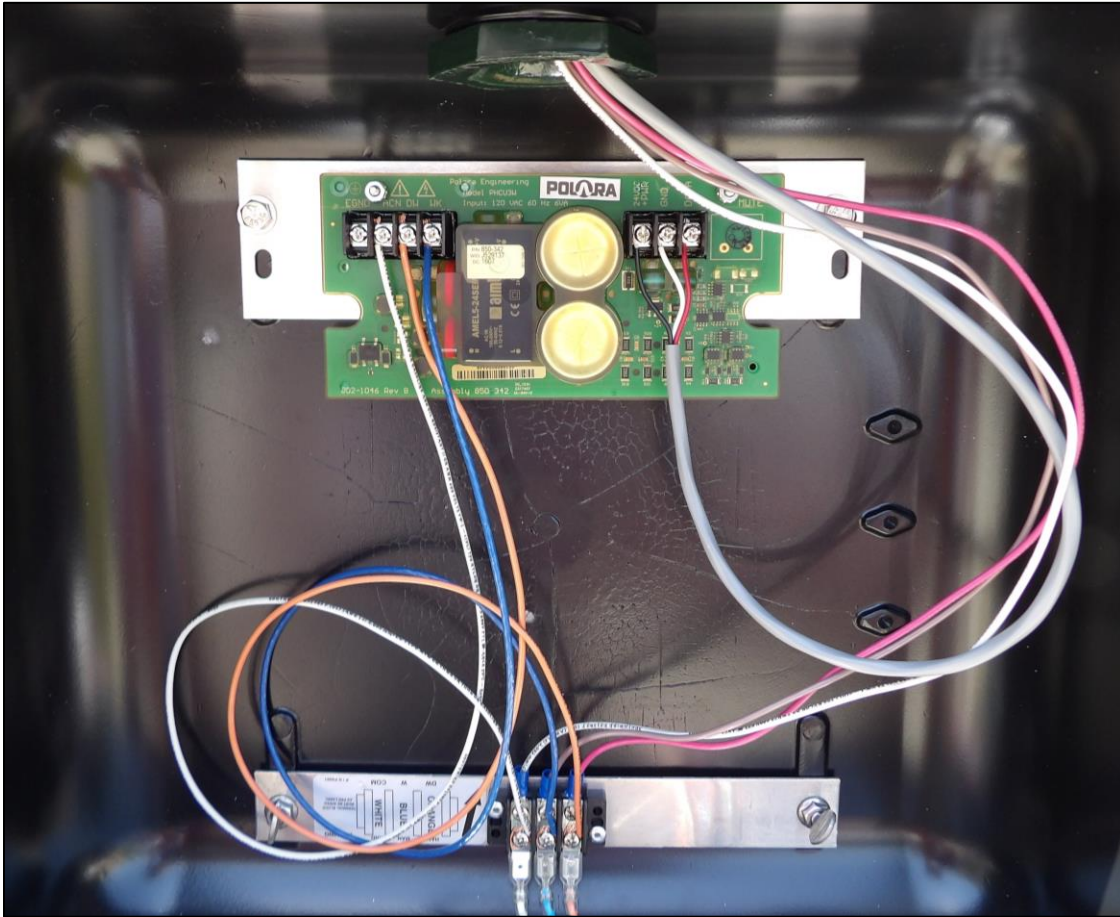
iPHCU3W and iN3 PBS Wiring (Reference Only)

3.2 iPHCU3W

The iPHCU3W normally installs inside the Pedestrian Signal Head (PED Head). It is supplied with a hardware kit which includes a mounting plate and associated screws and nuts. The photo shows an example of a typical installation. Typically, tapped ¼-20 holes are present. If they are not, a hole (or holes) to match the mounting plate needs to be drilled and tapped. While a single screw is sufficient to secure the iPHCU3W bracket to the PED Head, a second screw may be used for additional stability. Distance between holes should be 9.3”.

Attach the iPHCU3W to the mounting plate with the supplied hardware. Insert the 6-32 screws from the back of the assembly and secure with the 6-32 nuts. The nuts should be on the top of the assembly as seen in the photo below.

Fasten the assembly to the ped head with the ¼-20 screws.



iPHCU3W Installed in PED Head

Install jumper wires to connect the light power terminal block to the iPHCU3W input power terminal block. There should be jumper wires for AC Neutral, Walk, and Don't Walk. AWG 18 wire is recommended for this installation and should meet all applicable regulatory requirements.

Connect the wires from previously installed 3 wire cable to the output terminal block of the PHCU3W.

4. Technical Support Contact

Polara
714-521-0900 or 888-340-4872

The latest version of this manual is available in PDF format at www.polara.com.

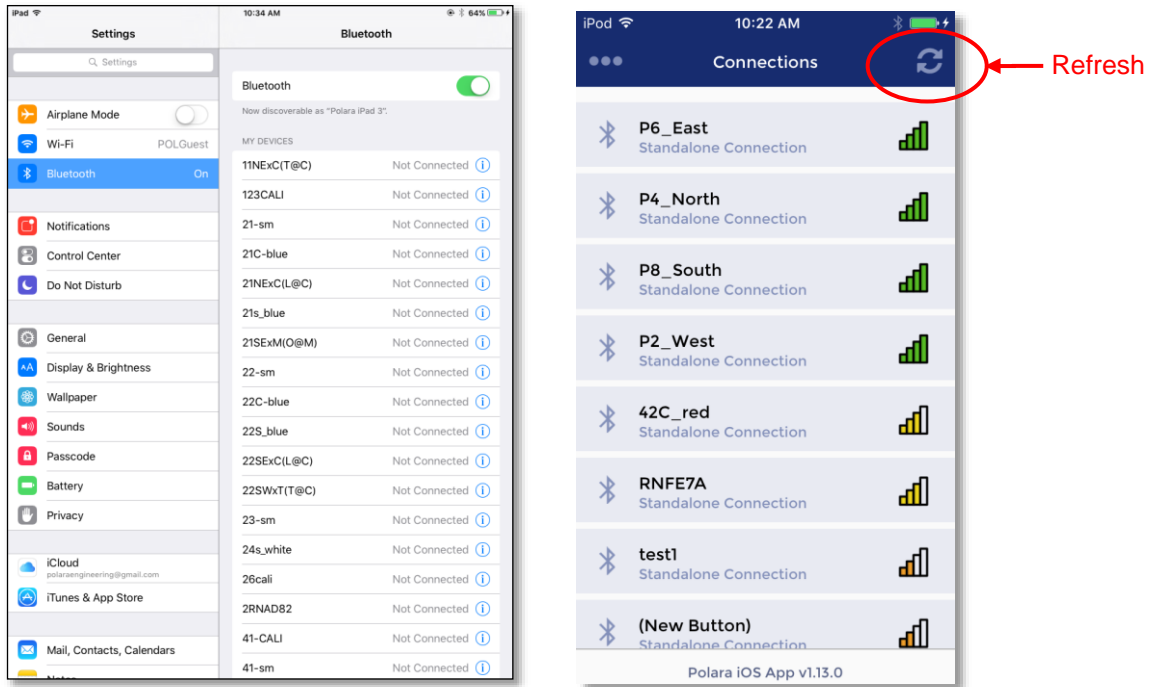
5. Using The Polara Field Service App for iOS to Change PBS Settings

All of the available setup and maintenance procedures may be performed using a compatible iOS device. Your device must have iOS version 9.0 or higher.

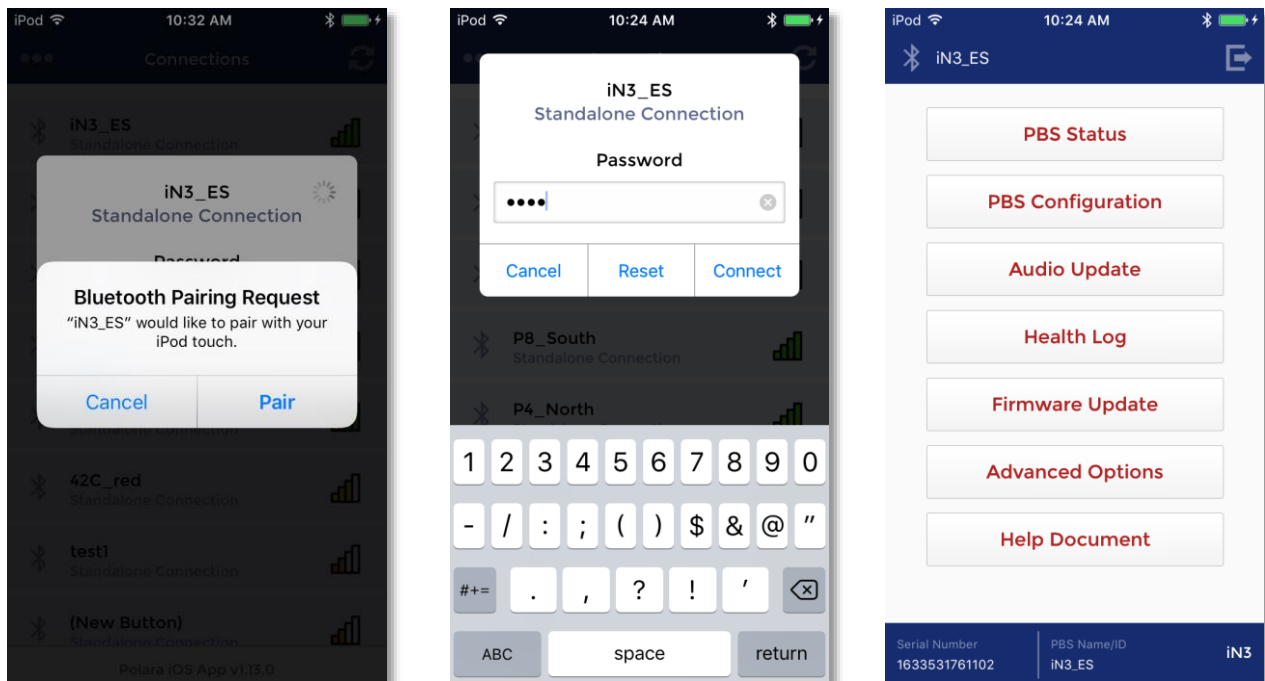
The Polara Field Service App will need to be installed on your device. For more information on installation, please visit Polara's web site - www.polara.com.

5.1 Bluetooth Connection

Before starting the Polara Field Service App, make sure your device has Bluetooth set to ON in Settings. Start the app. Tap the refresh symbol at the top right. This will display a list of all available devices. Tap a name to select, enter the password (factory default is 1234), then tap “Connect”. This will display the main menu.

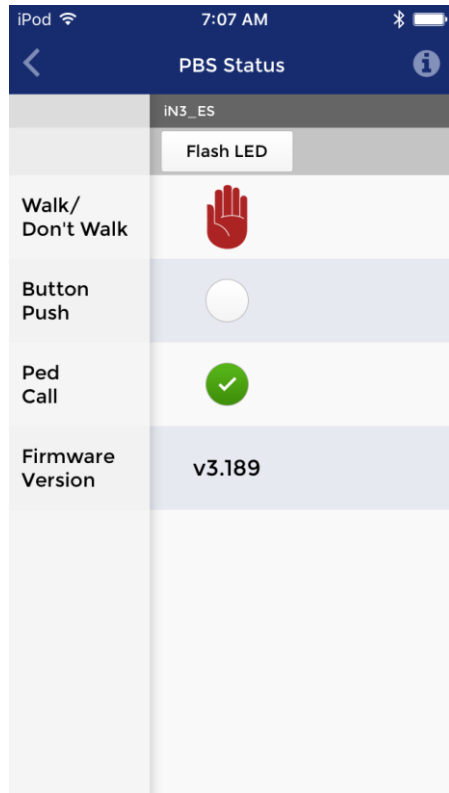


Enabling Bluetooth and Device Connection Screens



Pairing, Login Screen, and Main Menu

5.2 PBS Status



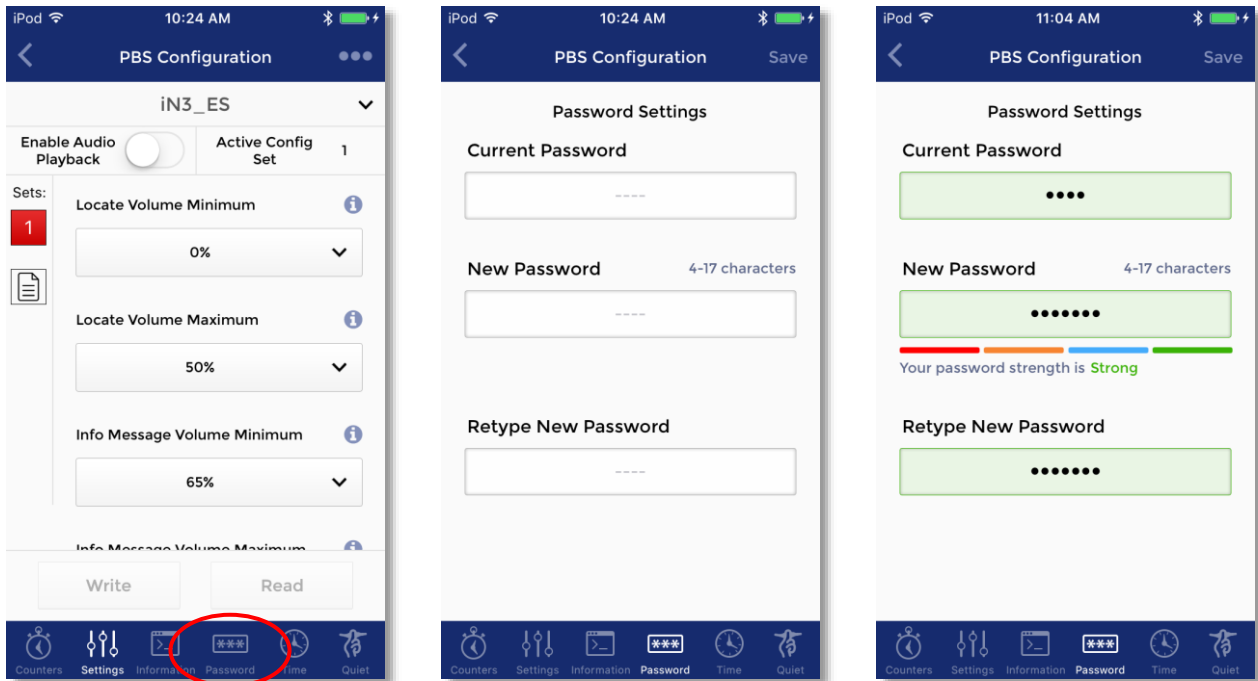
On this PBS Status screen, the information is shown live from what is occurring in the PBS.

Tapping on the Flash LED button will flash the pilot LED on the PBS for a few seconds.

Tapping anywhere else on the PBS's column will provide a shortcut to the PBS Configuration Settings.

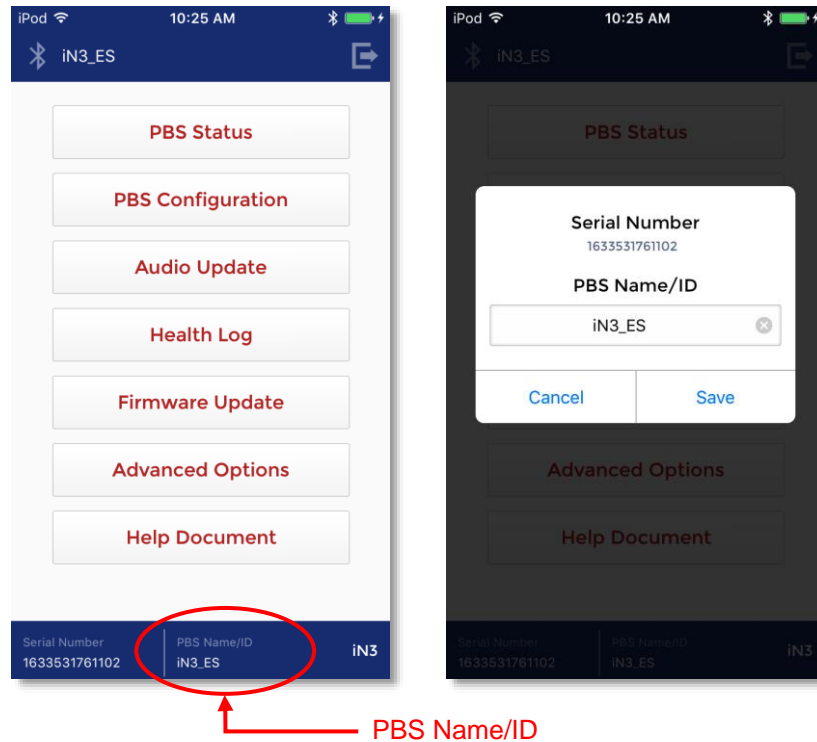
5.3 Changing the PBS Password

Each unit will require that the password be changed from default in order to avoid the repeating “Change Password” voice message. At the main menu, tap “PBS Configuration. Tap “Password” at the bottom of the screen. Tap in the boxes and enter the old and new passwords as shown on the screen below. Tap “Save” in the upper right corner.



5.4 Assigning a Name to a PBS

Each PBS may be given a name to help identify it while performing configuration and updates. You may want to use a name that will include the location. While viewing the home page, tap on the current name at the bottom of the page. Tap in the name box and type a new name as desired, then tap “Save”.



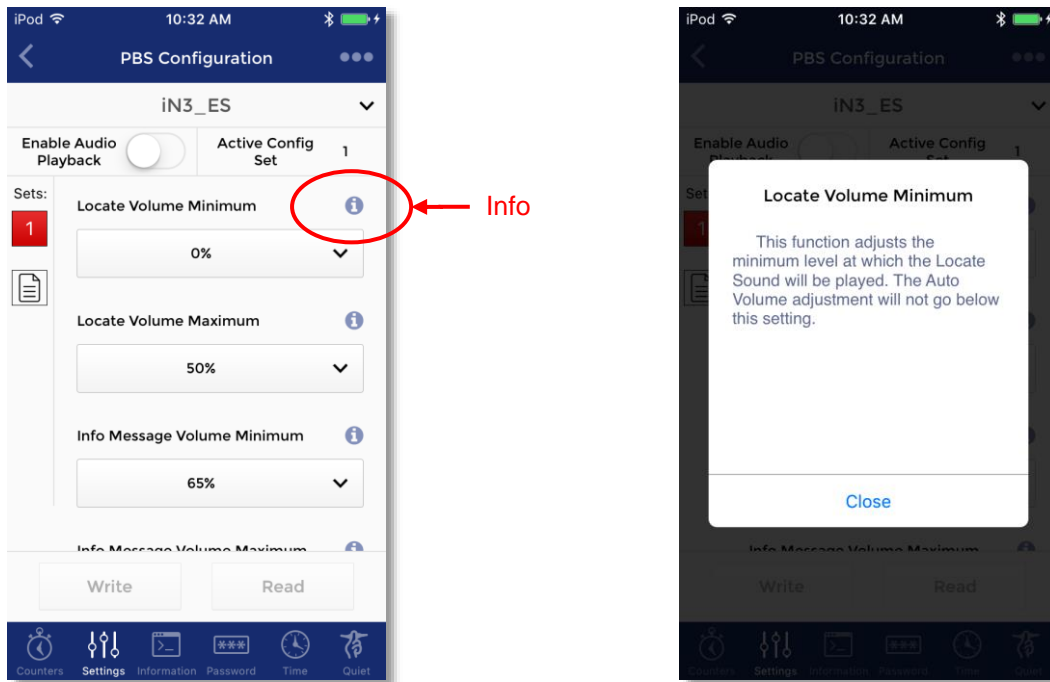
5.5 Setting the PBS Time and Date



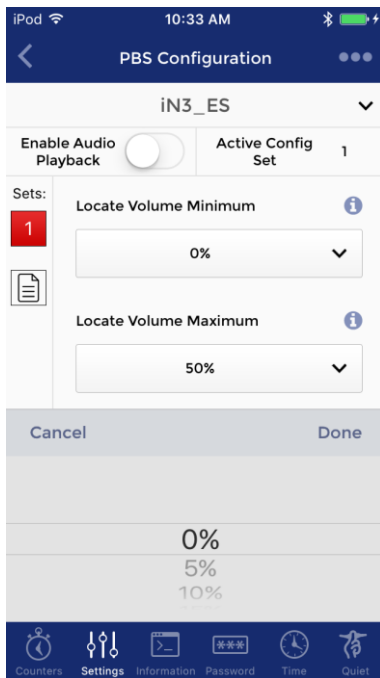
While viewing the main menu, tap on “PBS Configuration”. Tap on the “Time” symbol at the bottom of the page. Tap to choose a method of obtaining the time, then tap on “Save” to update the PBS clock.

5.6 PBS Configuration Options

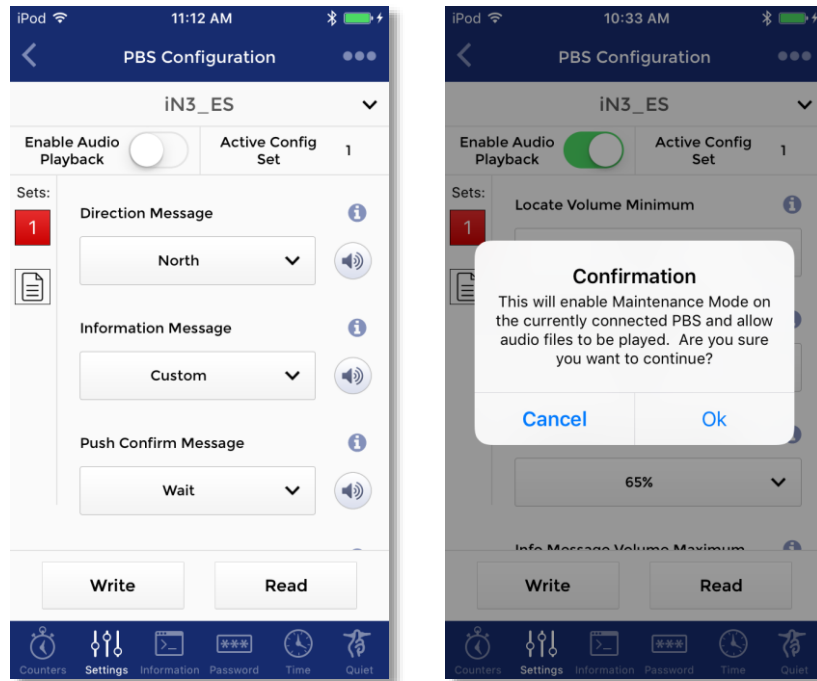
From the Polara App main menu, tap the box for “PBS Configuration”. This presents an extensive list of operational settings that may be adjusted according to desired operation. You can swipe the list up and down to find the setting to be changed. To the right of each setting title is an information button. Tap this button for a description of the setting.



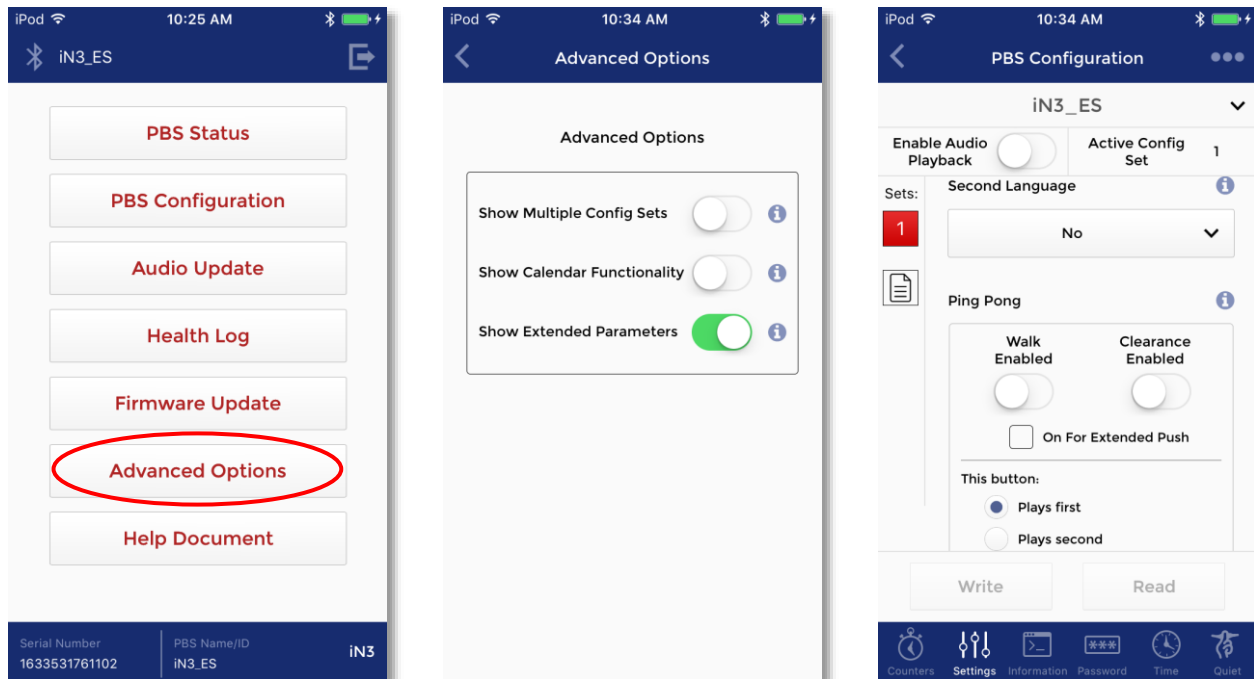
Tap in the option box to access the options for that setting. Swipe up or down to select an option. Press “Done” to select a new option or “Cancel” to proceed without any change.



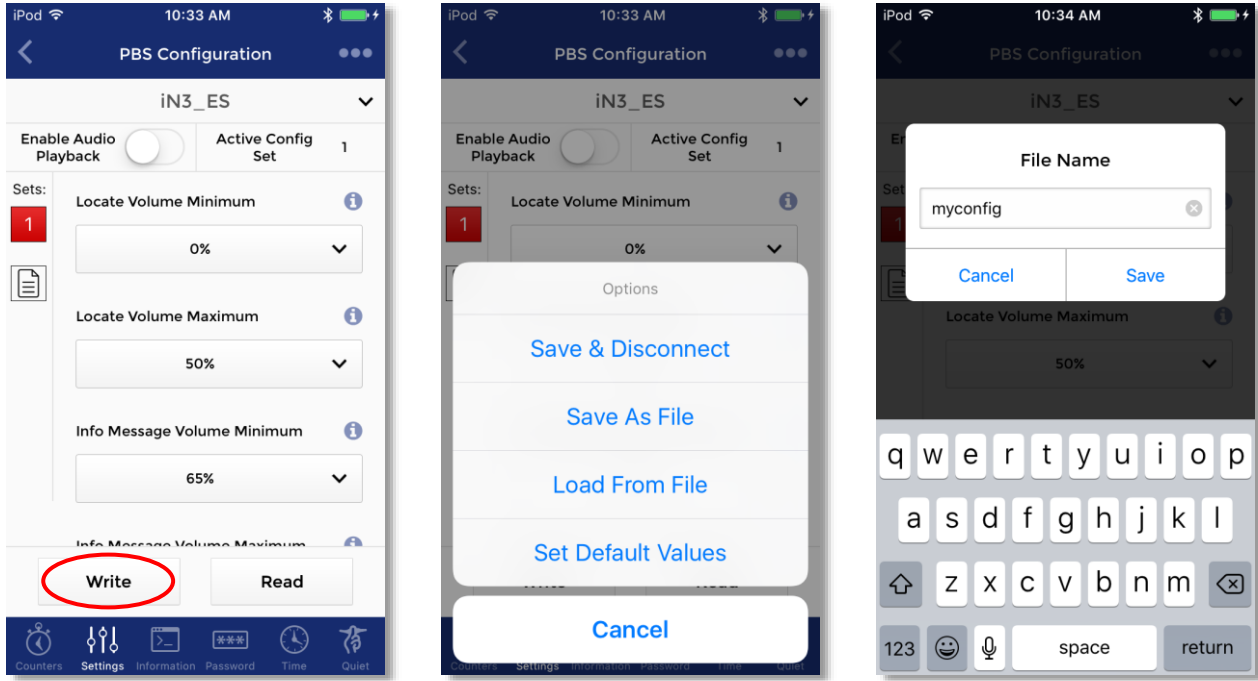
Options for selecting sounds have a button with a speaker symbol. To listen to sounds, use the slider to Enable Audio Playback. Then, tap the speaker symbol to listen to a sample of the sound. Sounds will play out of the PBS's speaker.



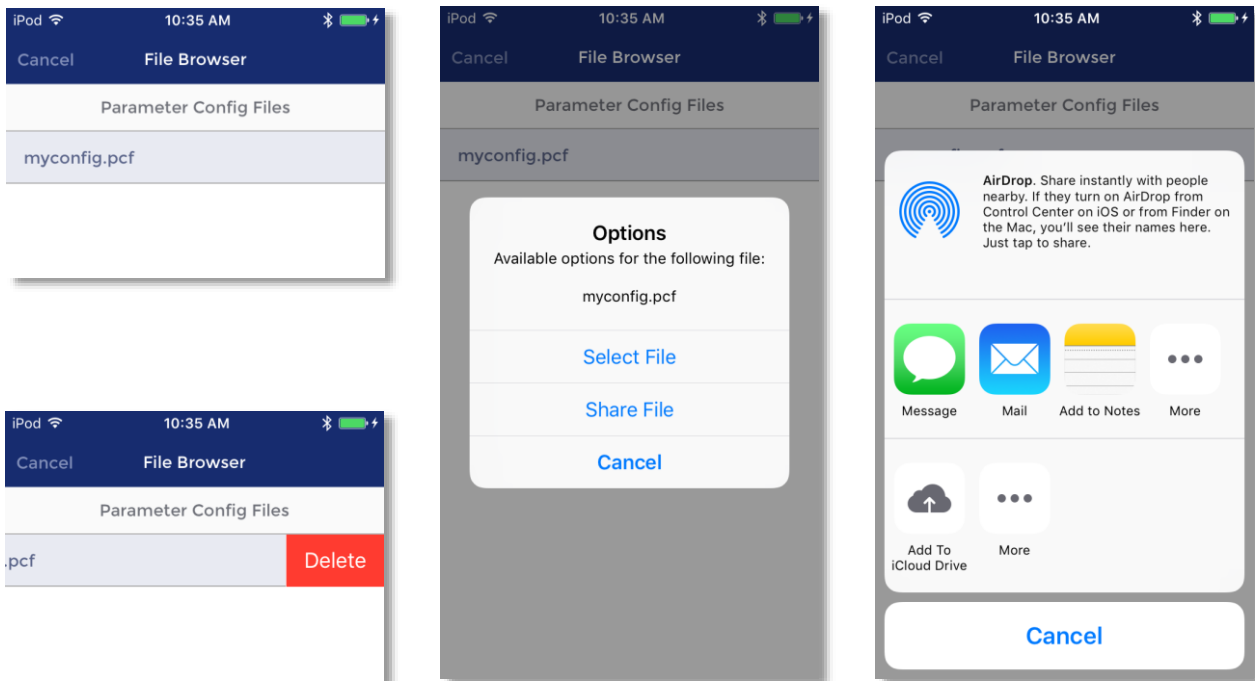
Note: The following 'advanced' settings are hidden by default: Ping Pong, Second Language, External Speaker (for -ES units), Double Walk, and Limit Push Recall. To enable the modification of these settings, return to the Main Menu and tap on the Advance Options button. Enable the switch for Show Extended Parameters. Then return to the PBS Configuration screen.



When you are finished selecting desired settings, tap the Write button to write the settings to the connected button. Tap the menu symbol at the top right to access additional options. After saving new settings to buttons, walk the entire intersection to test each PBS for proper operation to verify that the new settings work as intended.



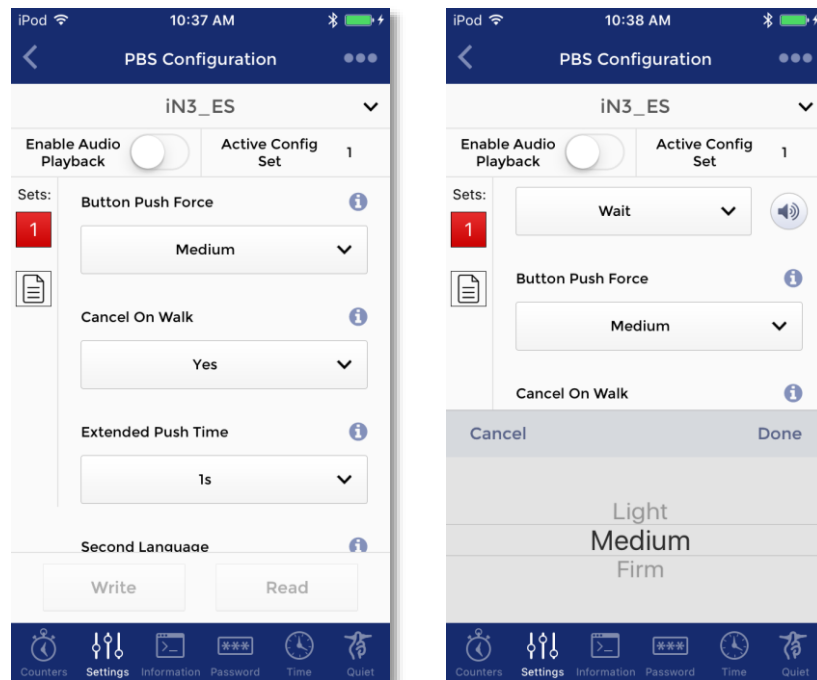
The currently displayed settings may be saved to a file and recalled for later uploading to other PBSs. Tap “Save As File” and enter a file name to create a file. Tap “Load From File” to browse previously saved configuration files. Tap a file name to load the file. Tap “Select File” to load into the iOS device. Tap the desired Configuration set and then tap write to save to the PBS. To delete files, swipe from the right to the left to show the delete button, then tap the Delete button.



To email a file to another device, tap on the file name and select “Share File”, then select Mail.

5.7 Adjusting Button Push Force

Starting at the main menu, tap on “PBS Configuration”. Scroll down the page to find “Button Push Force”.



Tap inside the setting box. Swipe to select Light, Medium, or Firm, then tap “Done”.

Save the new setting as described previously in the PBS Configuration section.

5.8 Quiet Time

The iN3 PBS has a feature to easily allow the button to become quieter at a specified time of day. This is useful, for example, when a residential street experiences a lot of traffic during the day, but very little in the evening. In this scenario, it may be useful to have the iN3 PBS set loud enough to be heard over traffic during the day, but be nearly inaudible in the evening hours, as not to disturb residents living nearby. Quiet Time allows for a reduction in volume between a specified time interval within a 24-hour day.

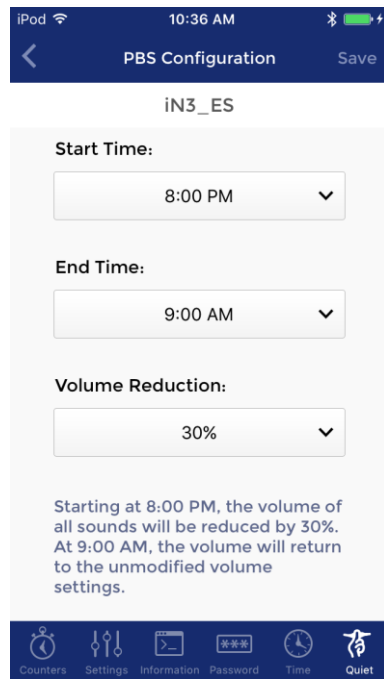
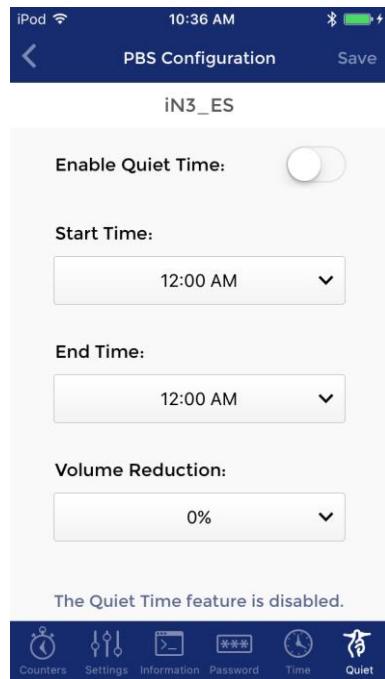
The details of the features operation is such that if the current time of day falls between the selected start and end time of the Quiet Time period, then all Minimum and Maximum volume settings will be reduced by the specified reduction amount.

Note: The “Minimum” volume setting can be reduced down to 0%, but the “Maximum” volume setting will only be reduced down to 25%. This follows what is settable in the configuration parameters or settings screen.

The table below shows what the effective volume settings would be with the Quiet Time set to reduce the volume by 30%. With the values set as shown in the screenshots, between the hours of 9:00am and 7:59pm, the volume will be as set configured in settings (shown in the “set value” column). At 8:00pm to 8:59am the following morning, the volumes will be reduced as shown in the “reduced value” column.

Setting Name	Set Value	Reduced Value
Locate Volume Minimum	0%	0%
Locate Volume Maximum	50%	25%
Information Message Minimum	65%	35%
Information Message Maximum	100%	70%
Std Walk Minimum	30%	0%
Std Walk Maximum	60%	30%
Ext Walk Minimum	60%	30%
Ext Walk Maximum	80%	50%

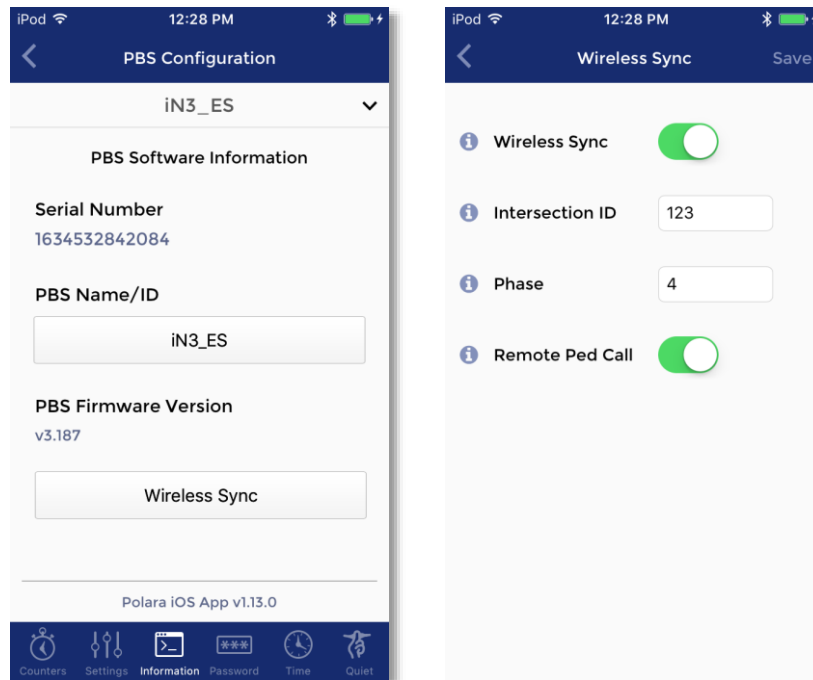
From the PBS Configuration Menu, select the Quiet Time icon at the bottom right of the page. Enter the desired settings, then tap the Save button.



5.9 Wireless Sync

Use this feature to configure PBS to PBS wireless links for units that do not have PED call wiring to the traffic signal controller. This function provides a link between PBSs on the same PED phase such that a button press on one unit enables the Walk and Clearance sound on the other units. Both standard and extended push status is transmitted.

When the Wireless Sync feature is active, the PBS will not accept Bluetooth connections via an iOS device or PC. However, 5 seconds after an Extended Push, the PBS will accept connections until the start of the next Clearance cycle.



Display the main Configuration page. Tap 'Information' at the bottom of the screen. On the Information screen, tap 'Wireless Sync'.

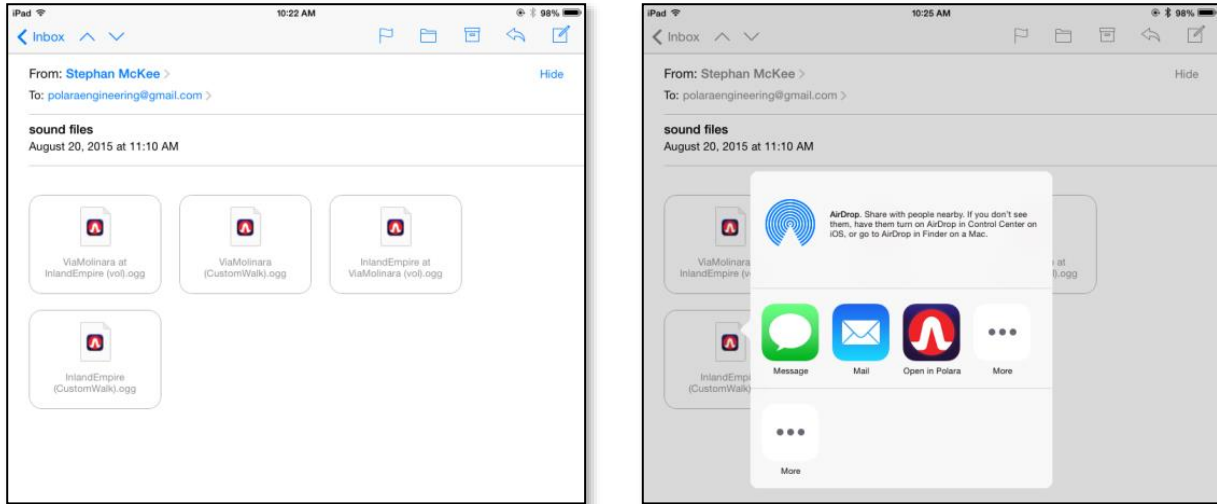
Enable this function by tapping the 'Wireless Sync' switch at the top of the screen.

The Intersection ID is used to prevent any possible interference between nearby intersections which are also using this feature. Tap the 'Intersection ID' box and enter a number between 0 and 65535 and tap 'Save'. Any number is acceptable as long as it is different from that used on any nearby intersection. In the same manner, enter the PED phase number for this PBS. Each PBS should be configured using the same procedure. PBS units with the same Intersection ID and Phase numbers will exchange button push information.

When the Remote Ped Call option is enabled, if that unit receives a button push indication from a Wireless Sync transmission, then it will also cause a Ped Call indication in the form of a contact closure on the terminal block wires to the traffic cabinet. This can be useful if one side of intersection has button wires to the traffic cabinet but the other side does not. Then any button pushed from the unit without wires can transmit the button press status wirelessly to the other unit causing a Ped Call to be asserted. In this situation, only the units with button wires going to the traffic cabinet should have this option enabled.

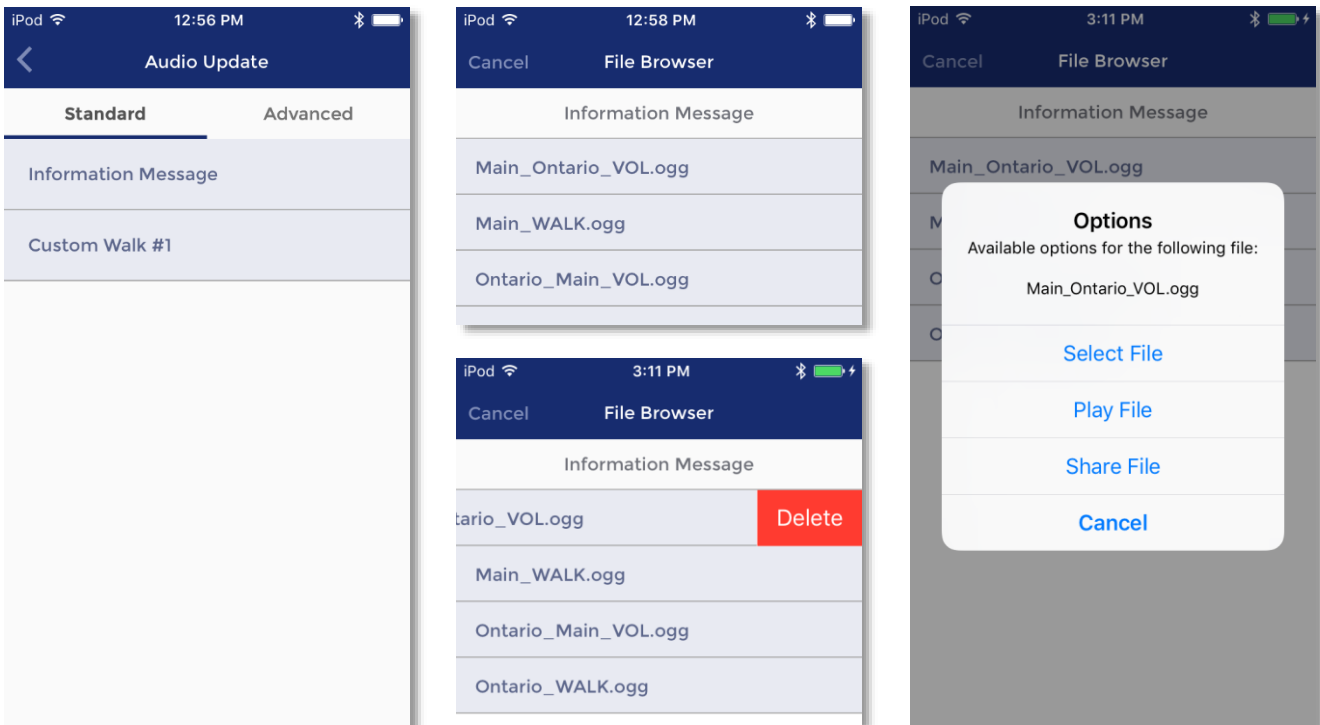
6. Using the Polara Field Service App for iOS to Upload Audio Files

Audio files to be uploaded must be received as an email attachment on your iOS device. With the email app open and the message displayed, tap on the attachment, then tap “Open in Polara”.



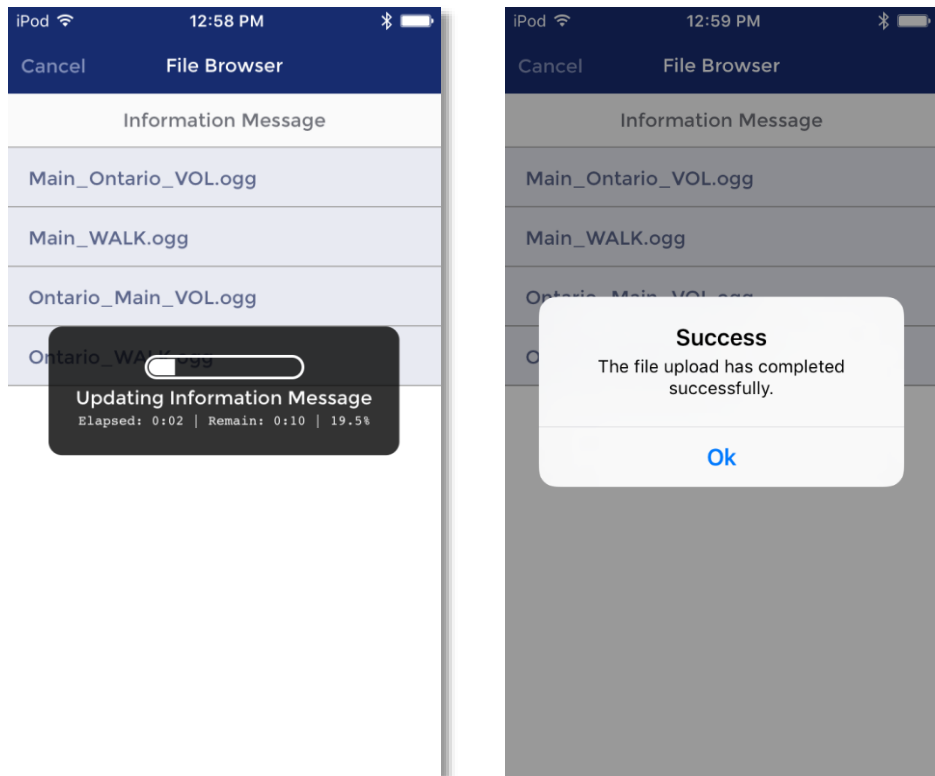
From the Polara App main menu, Tap on “Audio Update”.

To add a new Information Message file, tap on “Information Message”. This displays a list of available voice files loaded into the Polara App. Tap on the name of the file you wish to load as the Information Message sound in the PBS. Then tap the Select File button. You can also preview the file by clicking Play File or Share the file through E-Mail and other services. To delete files, swipe from the right to the left to show the delete button, then tap the Delete button.



Note: Files ending with the suffix VOL should be loaded as an Information Message and files with the suffix WALK should be loaded as Custom Walk.

As soon as the Select File button is tapped, the file will begin to upload. Once the file has completed uploading, click OK on the dialog box to return to the Audio Update screen.



Repeat this process for each file to be uploaded. Typically, a custom set will include two files, one for Information Message and one for Custom Walk #1. To enable these new custom files, go to PBS Configuration and set the Information Message option to “Custom”, and set the Walk Mode Sound option to “Custom Walk #1”.

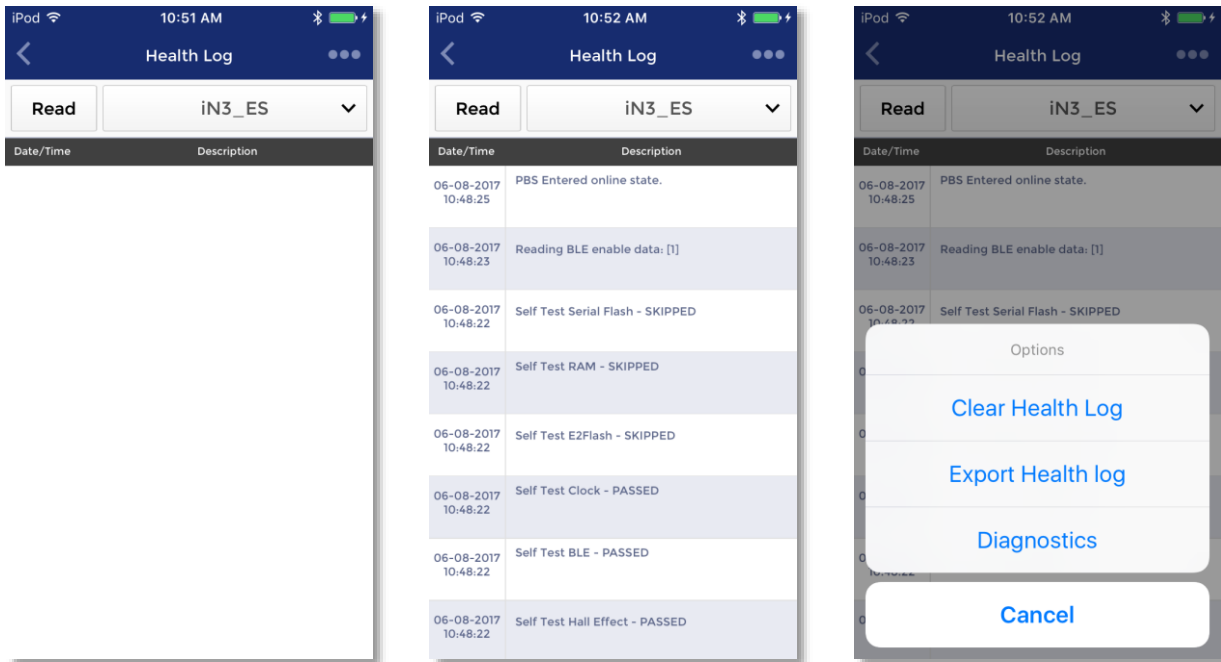
Note: If additional audio sound customization is required beyond what is listed in the Audio Update screen, use the Intelligent Config PC Application for more audio upload options. This includes adding second language audio files.

Finish by walking the intersection to confirm the system is both operating properly and playing correct messages.

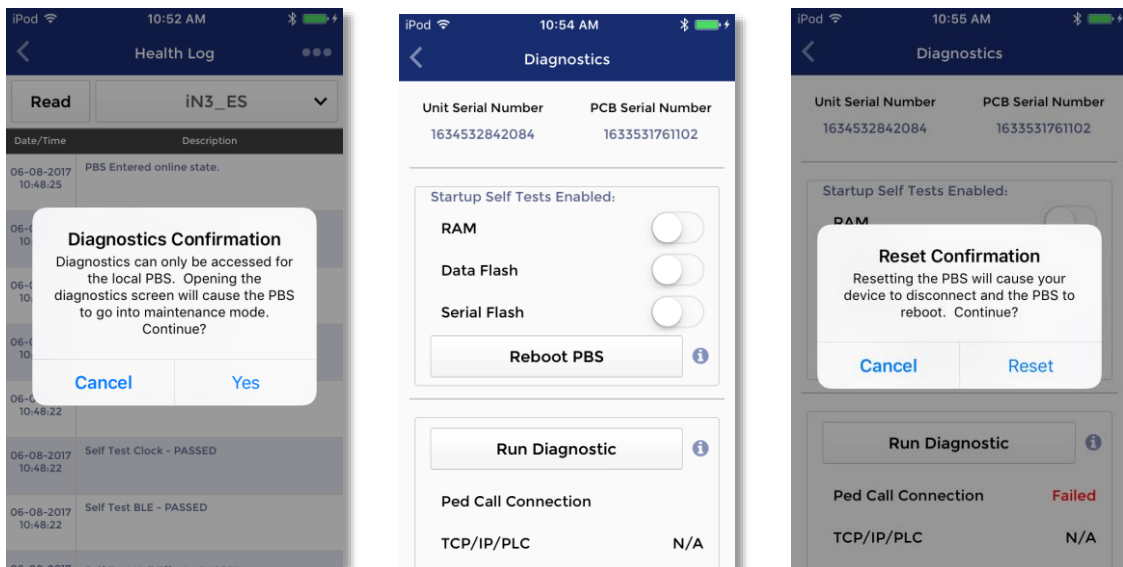
7. Using the Polara Field Service App for iOS to Access the Health Log

The Health Log contains a list of events, including both normal conditions and error conditions. Each PBS maintains a separate log. These can be very useful for troubleshooting.

Tap the box for “Health Log” at the Polara App main menu. The Name / ID of the currently connected device is visible at the top. To read the Health Log from this device tap “Read” at the top left. The current log is downloaded and displayed. Swipe the screen to browse through the log. Tap the 3 dot symbol at the top right to access a list of actions. You can choose to clear the Health Log, export the Health Log to an email address, or access diagnostics. For help with a particular issue, or a message of concern, email the log to support@polara.com.



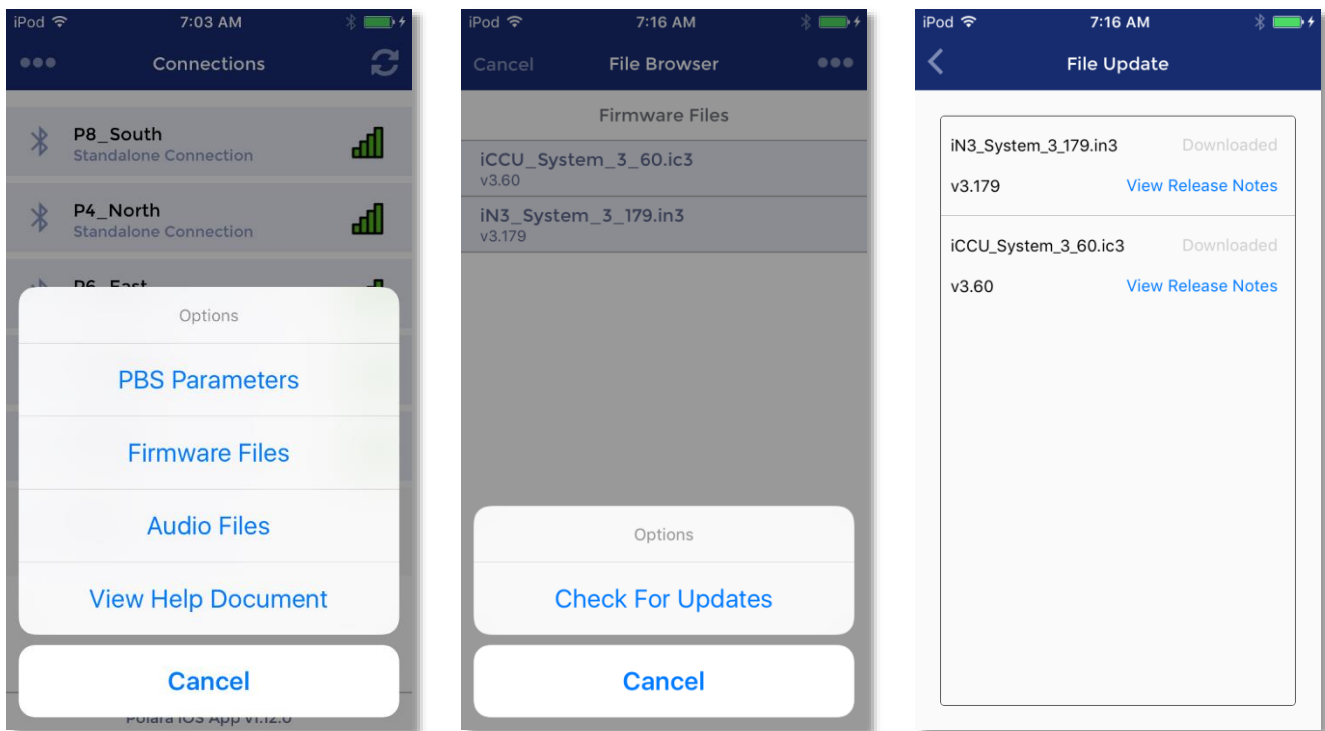
Selecting “Diagnostics” will show some self-testing and maintenance options as shown in the sample screens below.



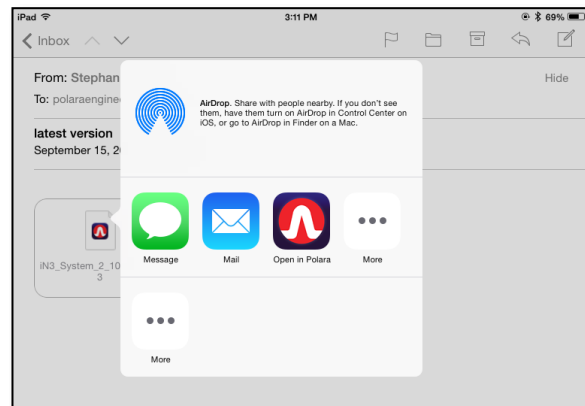
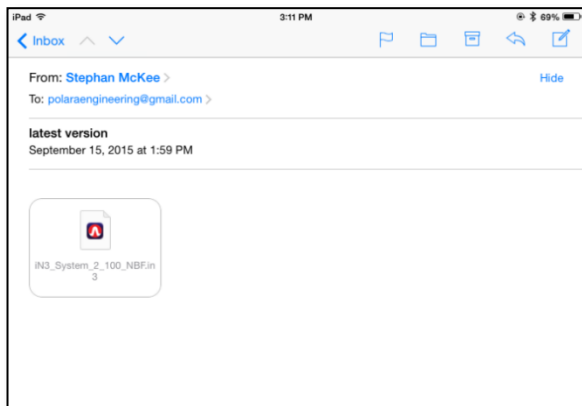
8. Using the Polara Field Service App for iOS for Firmware Updates

Firmware files are automatically bundled with the Polara Field Service App. The latest firmware at the time of App release is ready and pre-installed for updating.

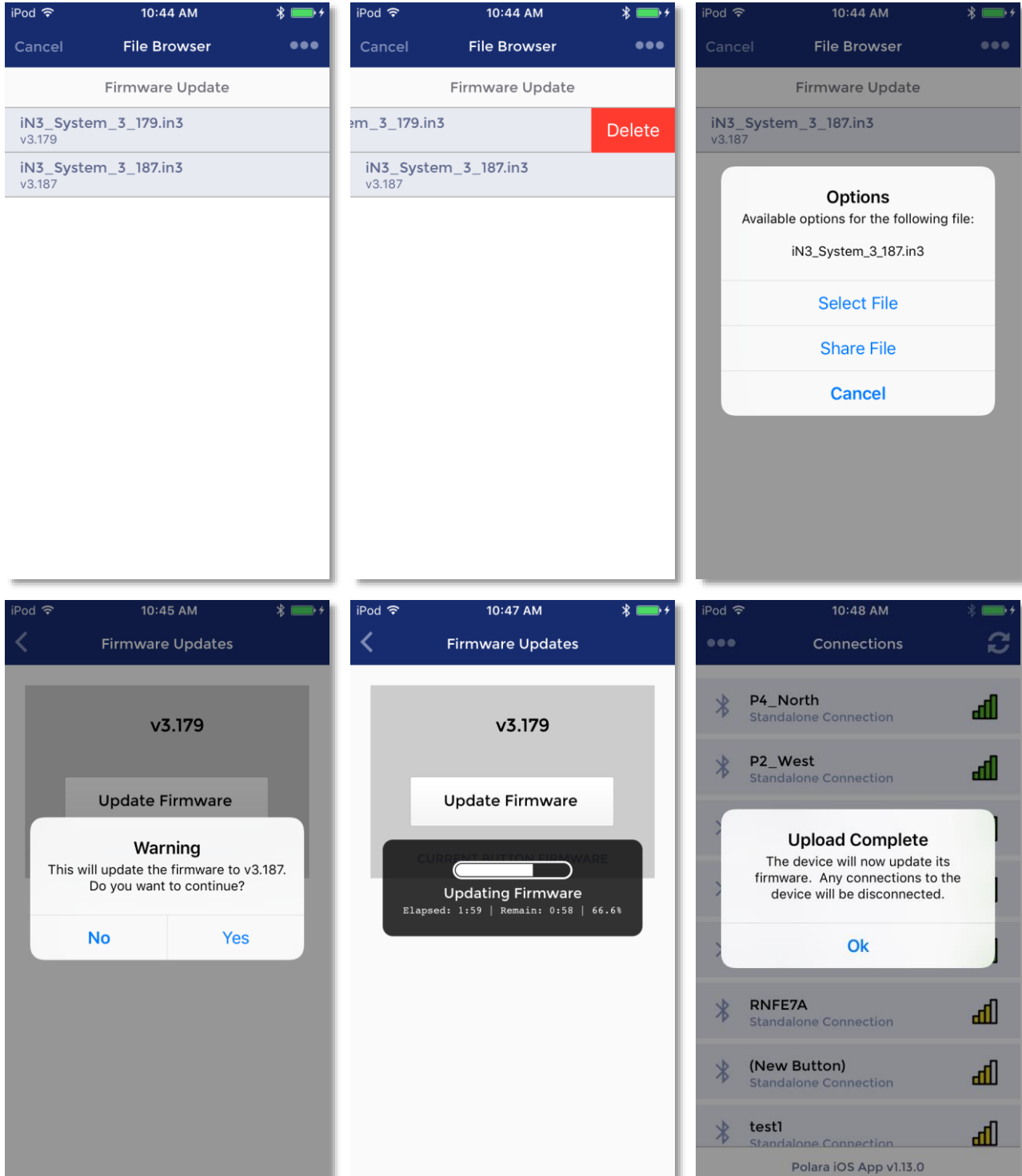
The iOS App also has the ability to connect to polara.com to check for new updates directly from within the App. Your device must be connected to the internet in order to perform the check. While disconnected from any units, tap the three dots on the upper left of the connection screen. Tap on the Firmware Files option to browse all firmware files on your iOS device. Tap the three dots in the upper right corner of the File Browser screen. Tap the Check For Updates button. The device will connect to the internet and check for the latest firmware files from polara.com and provide them for download. You can tap on View Release Notes to see what the changes are from the previous version or tap the Download button to download the file to your device.



Firmware files to be uploaded can also be received as an email attachment on your iOS device. With the email app open and the message displayed, tap on the attachment, then tap "Open in Polara".



To update the firmware of the connected device, tap the Update Firmware button. The list of available firmware update files will appear. Tap the file you wish to upload and tap Select File to begin the firmware update process. When the process is complete, a message is displayed confirming the success. To delete files, swipe from the right to the left to show the delete button, then tap the Delete button.



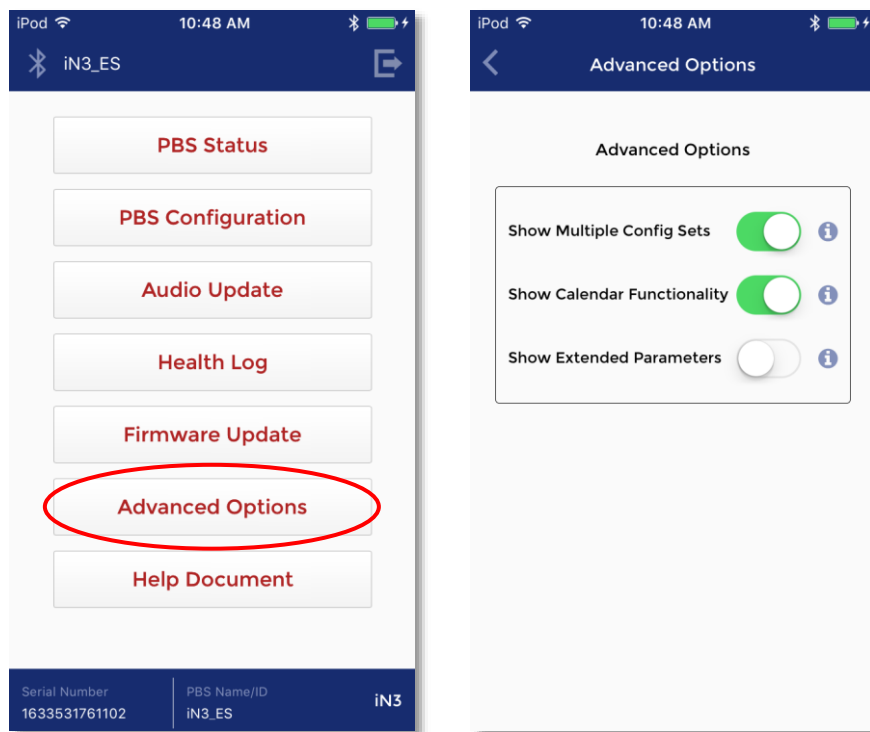
9. Using the Polara Field Service App for iOS to Program Calendar Features

9.1 Enable the Calendar Feature

Each PBS has its own time and date clock. The Calendar Feature may be used to change the PBS options on the basis of time. Each PBS can hold four Configuration Sets. During the configuration process, one of these sets is active.

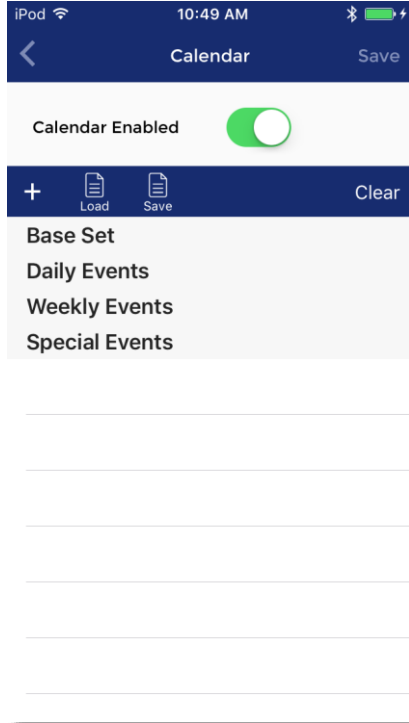
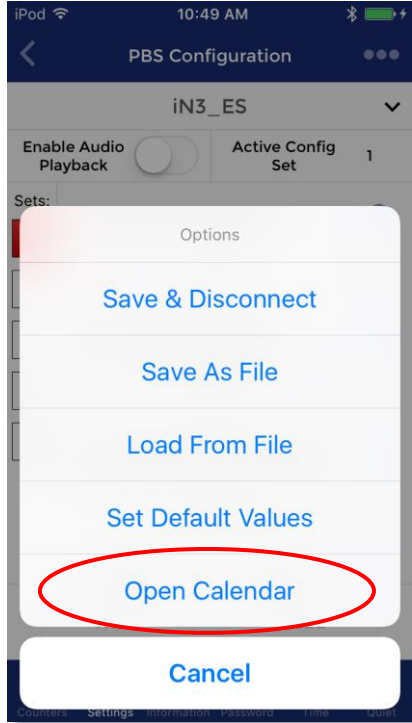
By default, the Calendar feature is disabled to simplify the configuration view and to avoid confusion. In order to gain access to the Calendar feature, click on the “Advanced Options” buttons from the main menu.

Turn on the features for “Show Multiple Config Sets” and “Show Calendar Functionality”



Now, go back to the main menu by clicking the < arrow in the upper left corner, then choose the PBS Configuration menu option.

Now that the Show Calendar Functionality is enabled, the Calendar feature must also be enabled. From the main menu, click PBS Configuration. Click the 3 small dots on the upper right corner and select Open Calendar. Use the slider to enable the calendar feature. Then click Save.

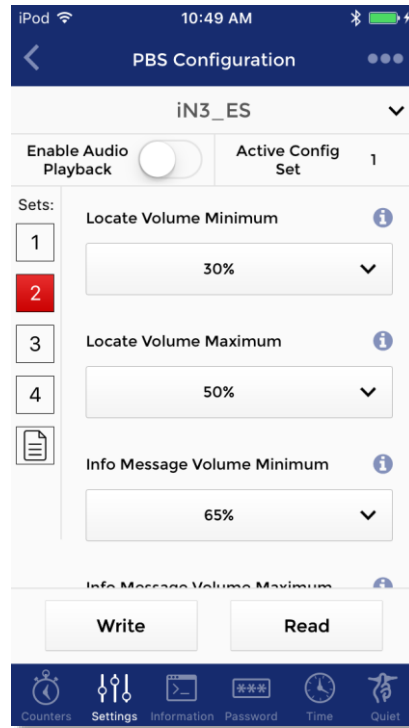
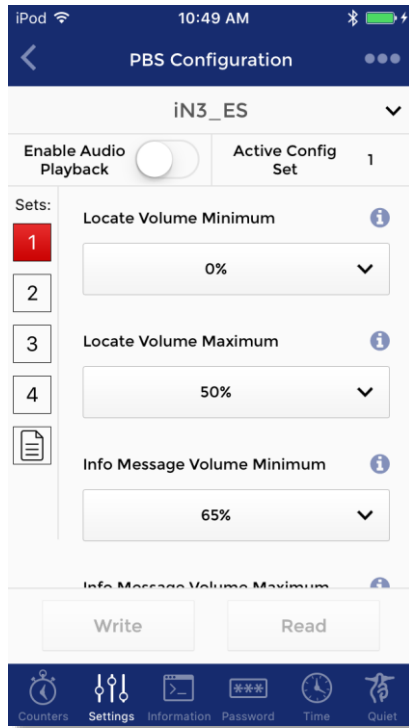


9.2 Using the Calendar Feature

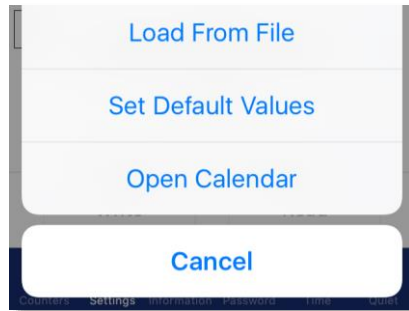
In order to illustrate the process of creating new Calendar Events, the below instructions show how to setup a Calendar Events scheme to lower the unit's volume from 6pm at night to 6am in the morning every day.

Set the volumes to a low setting then make sure the "1" red square is highlighted. Then click Write.

Set the volumes to a higher setting then click the "2" so it is highlighted red. Then click Write.



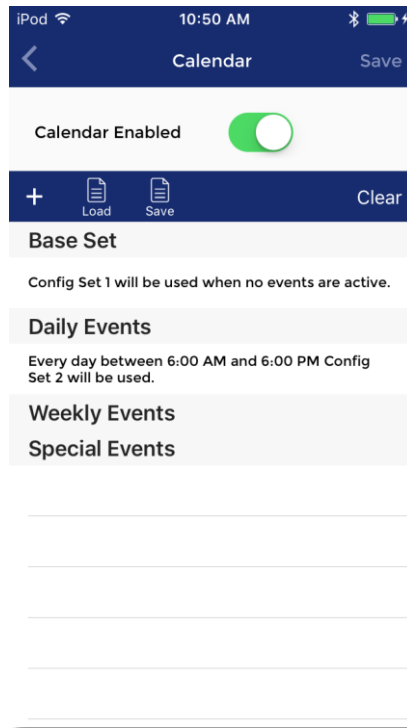
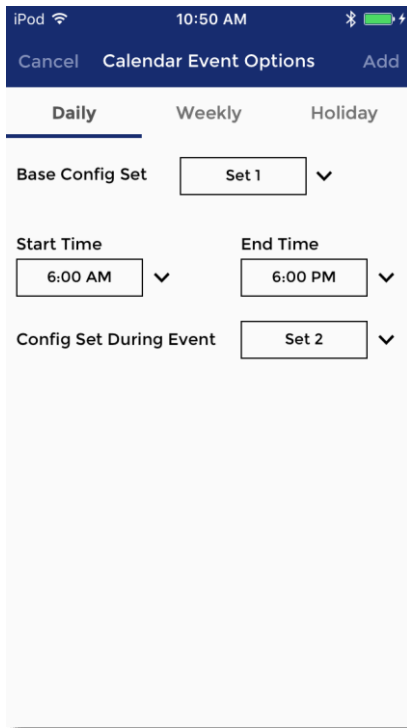
Next, click on the three small dots in the upper right corner and choose “Open Calendar”



Click the plus icon (+) to add a new Calendar Event.

A new window will appear which will allow you to add a new event. Keep the Daily option selected, then choose Config Set 1 as the Base Config Set. Then select a start time of 6AM and an end time of 6PM. Then set the option for Config Set During Event to be Config Set 2.

Click Add in the upper right corner.



What this is doing is creating an event which occurs every day at 6am which changes the button’s active Config Set to 2. Then, at 6pm, the active Config Set will change back to 1.

Set “Calendar Enabled” to turn the calendar function on. Tap “Save” when finished.

10. Using Polara Field Service App for PC to Change PBS Settings

10.1 Download Polara Field Service App for PC (Intelligent Config) Application

The Intelligent Config application is available for download from www.polara.com.

10.2 iN-DGL BLE Dongle

The Intelligent Config application requires the use of the Polara iN-DGL BLE dongle to communicate with the Polara iN3 PBS.

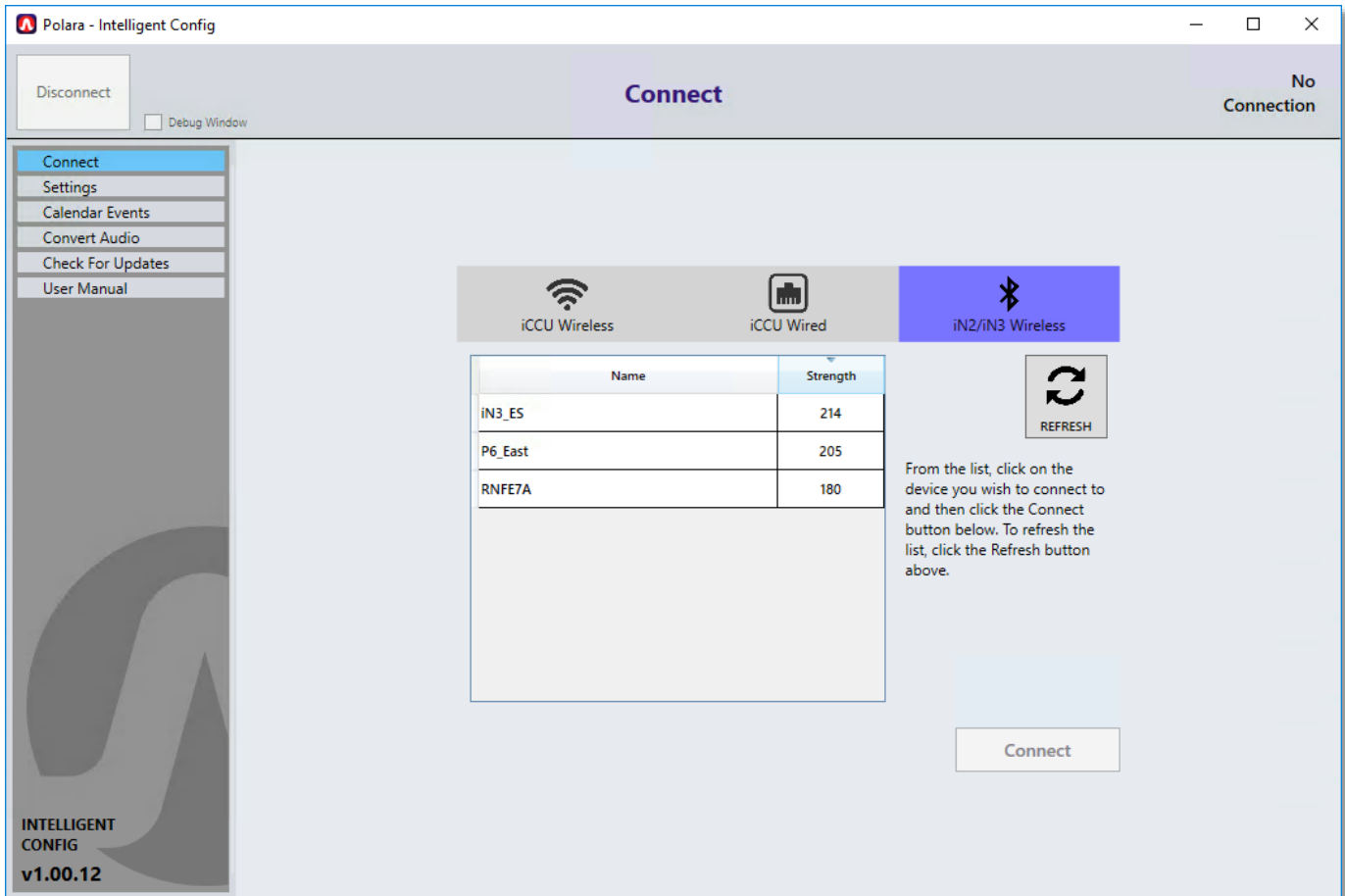
10.3 Application Installation

Your computer must be running Windows 7, 8, 8.1, or Windows 10. Also you must have .NET Framework 4.0 or higher installed in order for the application to run. The installation process will include this step if necessary, however your computer must be connected to the internet to access those installation files. A driver program for the BLE dongle will be installed as needed. Locate the downloaded installation file, extract the IntelligentConfigSetupVxxxx.exe file if necessary, then double-click to begin. Follow the on-screen instructions to complete the installation.

10.4 Running the Application

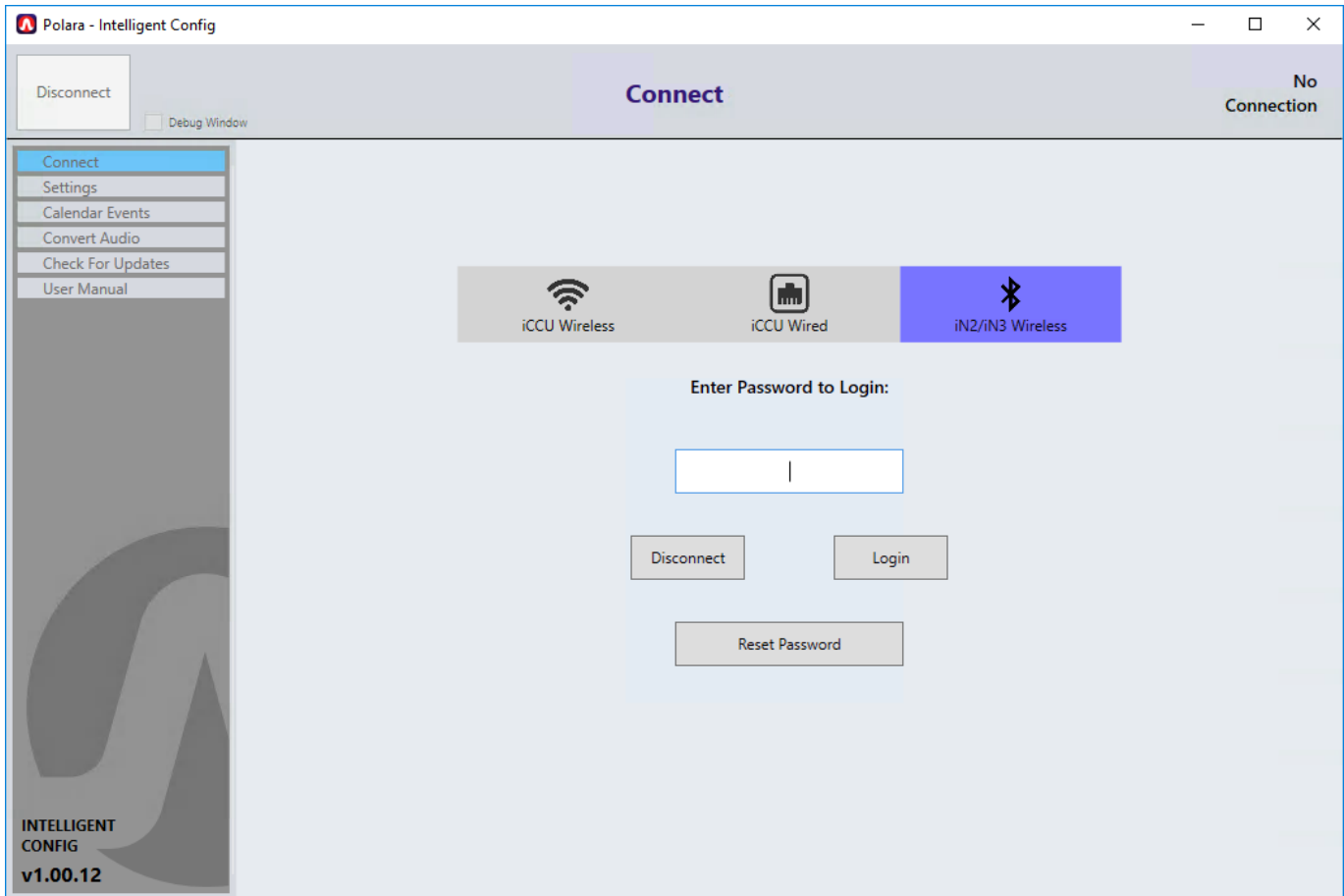
Make sure you have a Polara iN-DGL BLE Dongle connected to a USB port on your computer. Click on the Intelligent Config icon in the Start Menu to run the application.

A screen similar to this should appear.



10.5 Bluetooth Connection

Click on the name of the target unit and click 'Connect'. This will take you to the login page.

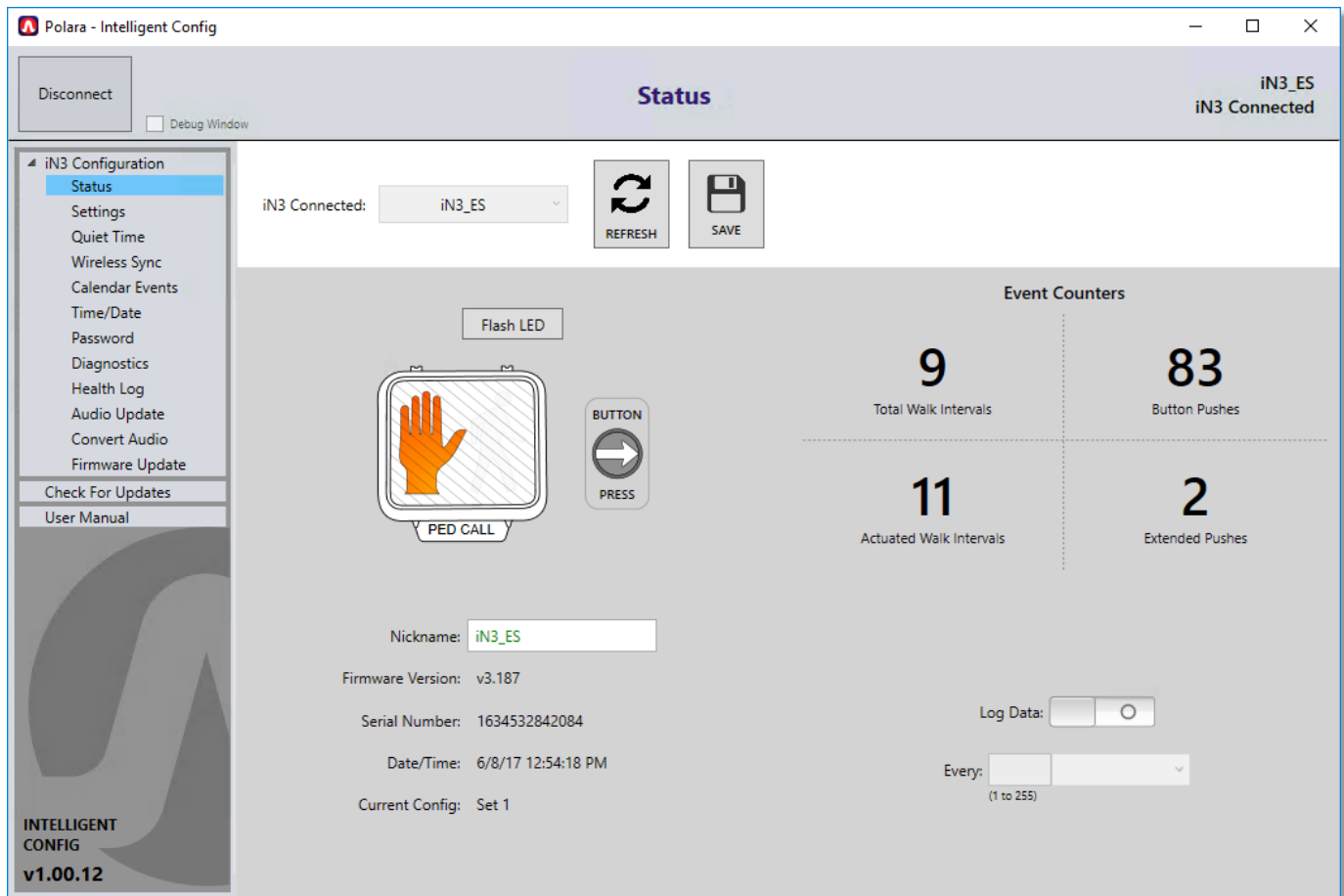


Login Page

Type in the password (Factory default is 1234), and click 'Login'. You may click 'Disconnect' to cancel, or click 'Reset Password' if the password is unknown. You will be prompted to call Polara for assistance in resetting the password.

After login, the Status page will appear.

10.6 Status Page



Status Page

The status page provides information about the connected PBS.

The panel on the left contains a menu of pages containing the various setup and maintenance functions. Online help is available on each page by hovering the mouse pointer over a function button.

10.6.1 Assigning a Name to a PBS

On the Status Page, enter the desired name into the Nickname field. Then click 'SAVE'. The name of the button is immediately changed. Subsequent Bluetooth connections to the PBS will use the new name.

10.7 Changing the PBS Password

The factory default password is “1234”, but should be changed immediately after installation. Click ‘Password’ from the menu on the left. The Change Password page appears. Enter the appropriate information, then click ‘Change Password’. The password is now changed.

The screenshot shows a web browser window titled "Polara - Intelligent Config". The interface has a top navigation bar with a "Disconnect" button, a "Debug Window" checkbox, and the text "iN3_ES iN3 Connected". A left sidebar menu lists various configuration options, with "Password" highlighted. The main content area is titled "Password" and contains a form with the following fields and elements:

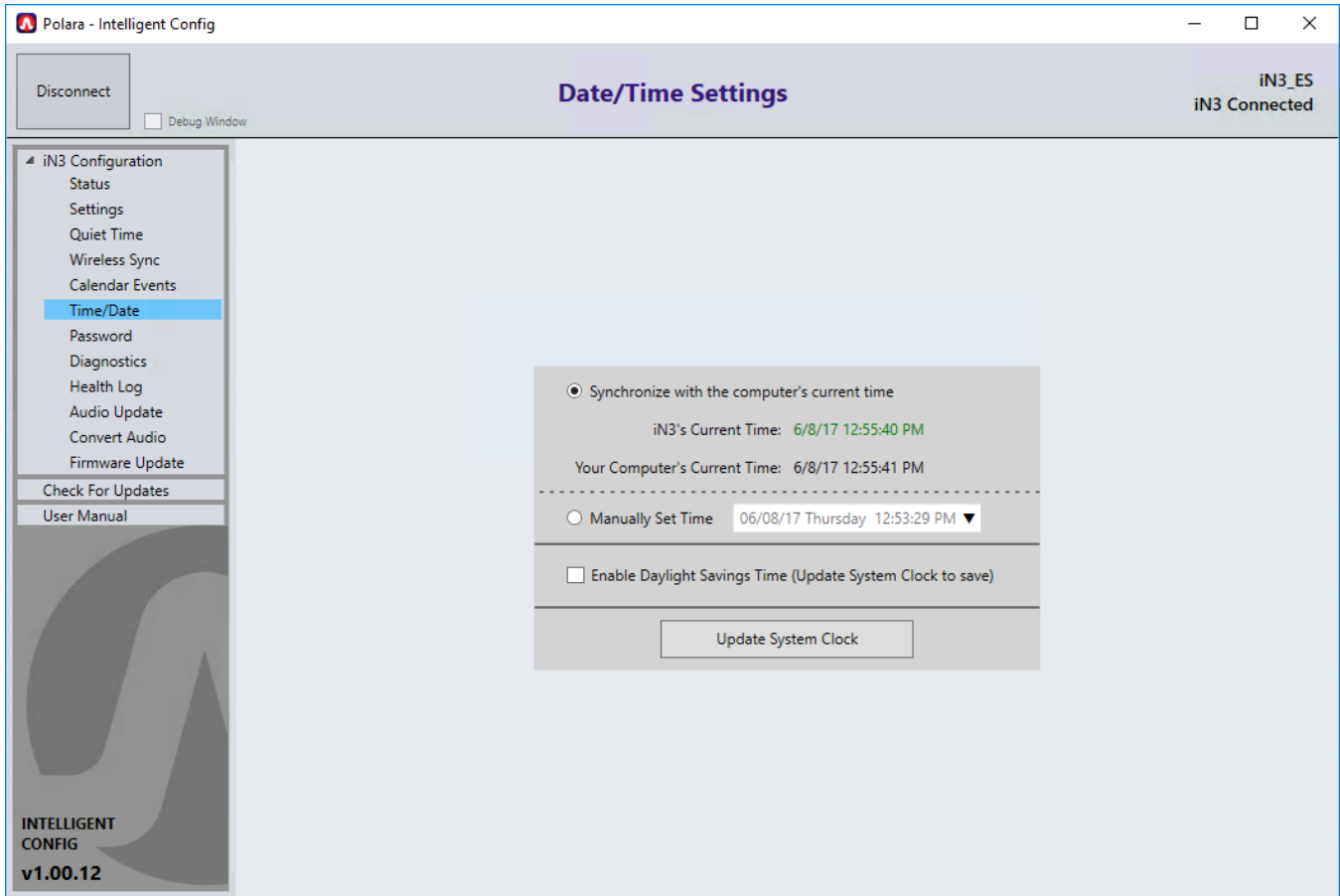
- Current Password:** A text input field containing four dots.
- New Password:** A text input field containing seven dots, with a label "4-17 characters" to its right.
- Strength Indicator:** Text below the New Password field reads "Your password strength is: **Very Strong**".
- Retype New Password:** A text input field containing seven dots.
- Change Password:** A button located at the bottom right of the form.

At the bottom left of the sidebar, the text "INTELLIGENT CONFIG v1.00.12" is visible.

Password Page

10.8 Setting the PBS Time and Date

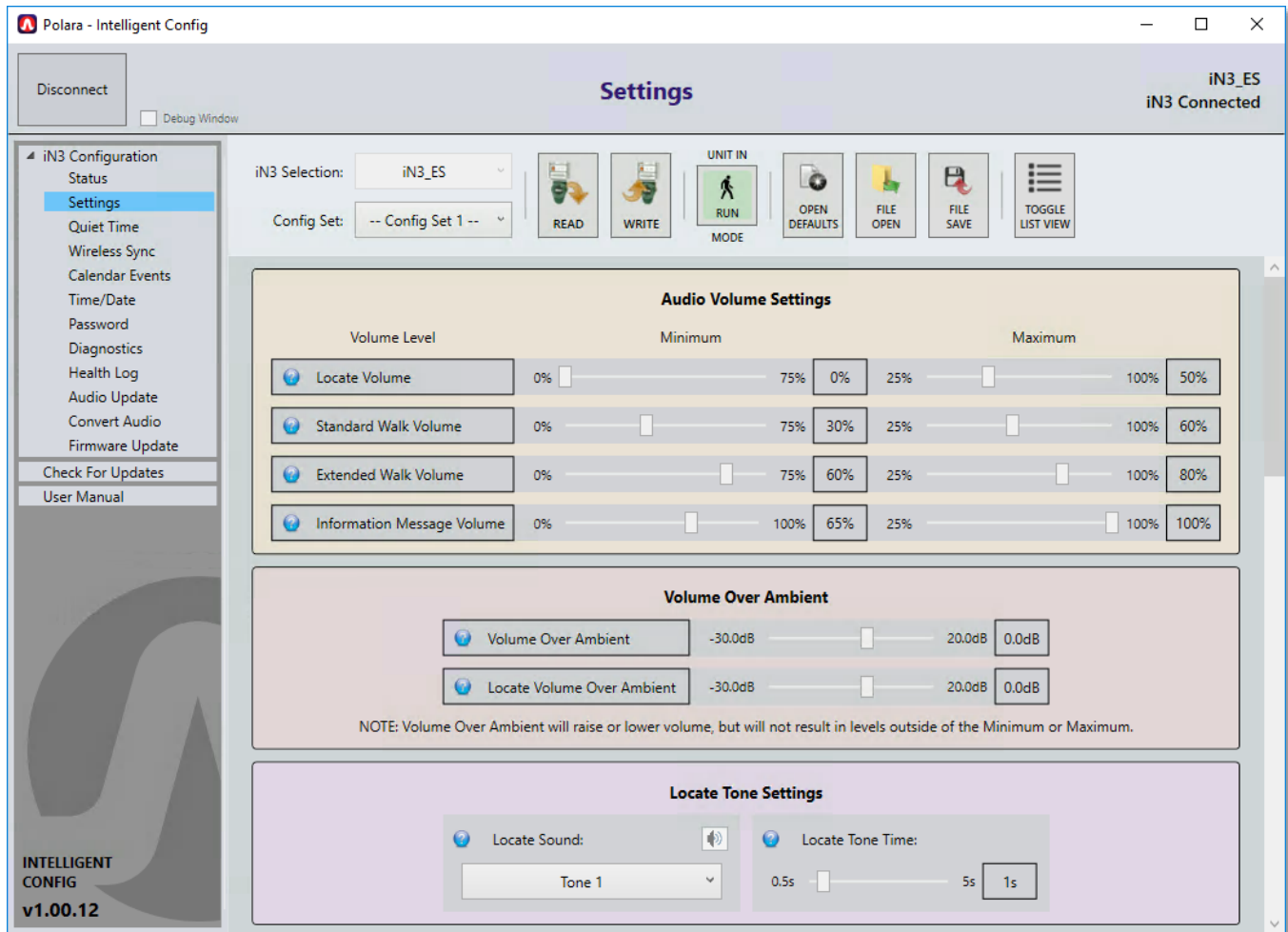
From the left menu, select 'Time/Date'. Choose to synchronize from your computer's clock, or manually set the time and date. Then click 'Update System Clock'.



Date/Time Page

10.9 Settings

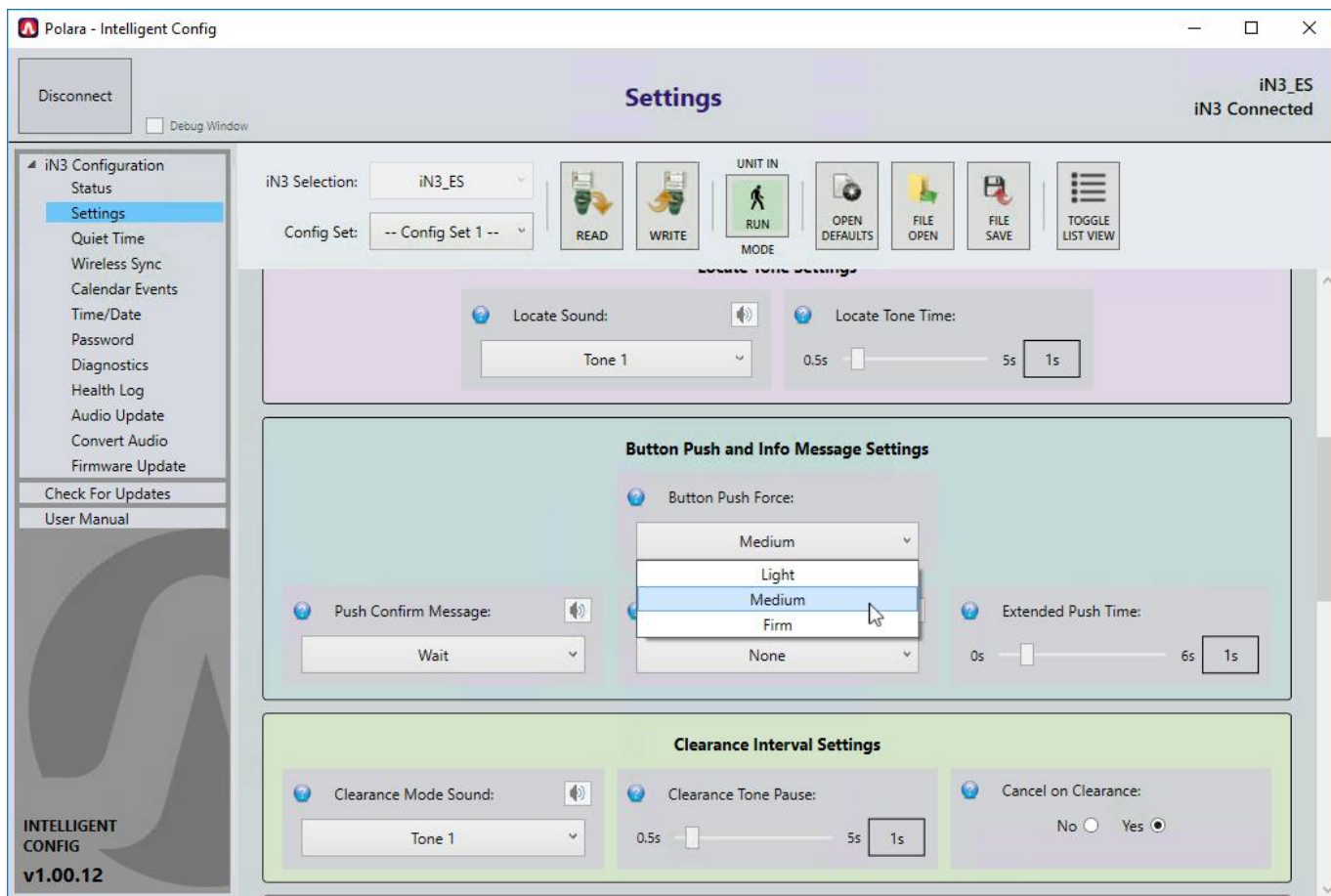
This is the main configuration page where the operating characteristics such as volume levels and sounds may be selected and uploaded. Settings may be saved to a file for later retrieval to write to multiple PBS units. When this page is opened, the settings in the PBS are not loaded automatically. Click the 'READ' button to load the PBS's settings. Make any changes necessary and click the 'WRITE' button to write the settings to the connected PBS.



In order to test play sounds on the button, the PBS must be in maintenance mode. Click the 'UNIT IN RUN MODE' button at the top of the page to switch to Maintenance mode. Then the speaker icons next to some of the settings will be enabled.

10.9.1 Adjusting Push Force

Within the Settings page, in the Button Push and Info Message Settings section, click the dropdown for Button Push Force. Select Light, Medium, or Firm. When finished, be sure to click Write to save all changes.



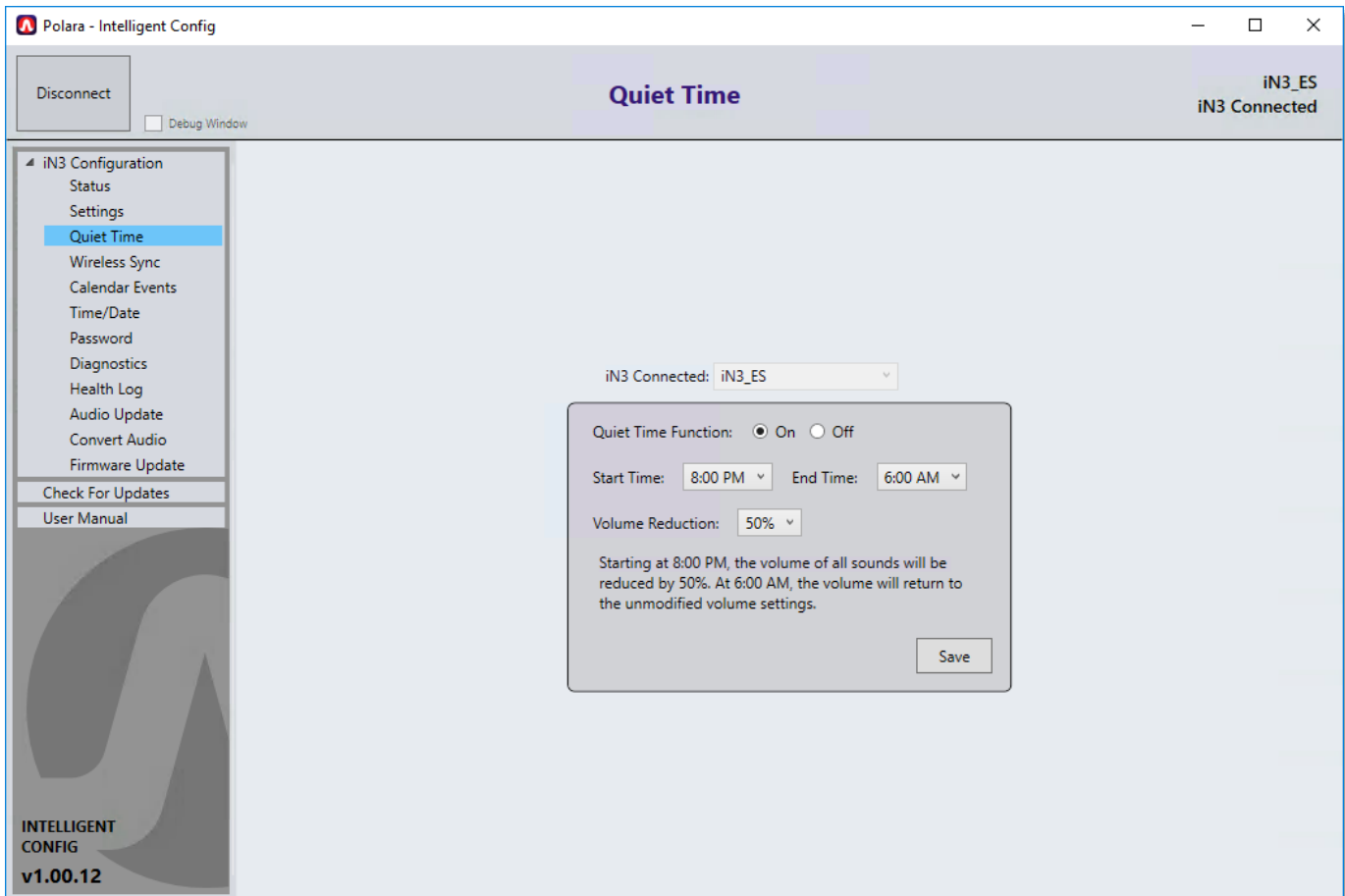
10.10 Quiet Time

The details of the features operation is such that if the current time of day falls between the selected start and end time of the Quiet Time period, then all Minimum and Maximum volume settings will be reduced by the specified reduction amount.

Note: The “Minimum” volume setting can be reduced down to 0%, but the “Maximum” volume setting will only be reduced down to 25%. This follows what is settable in the configuration parameters or settings screen.

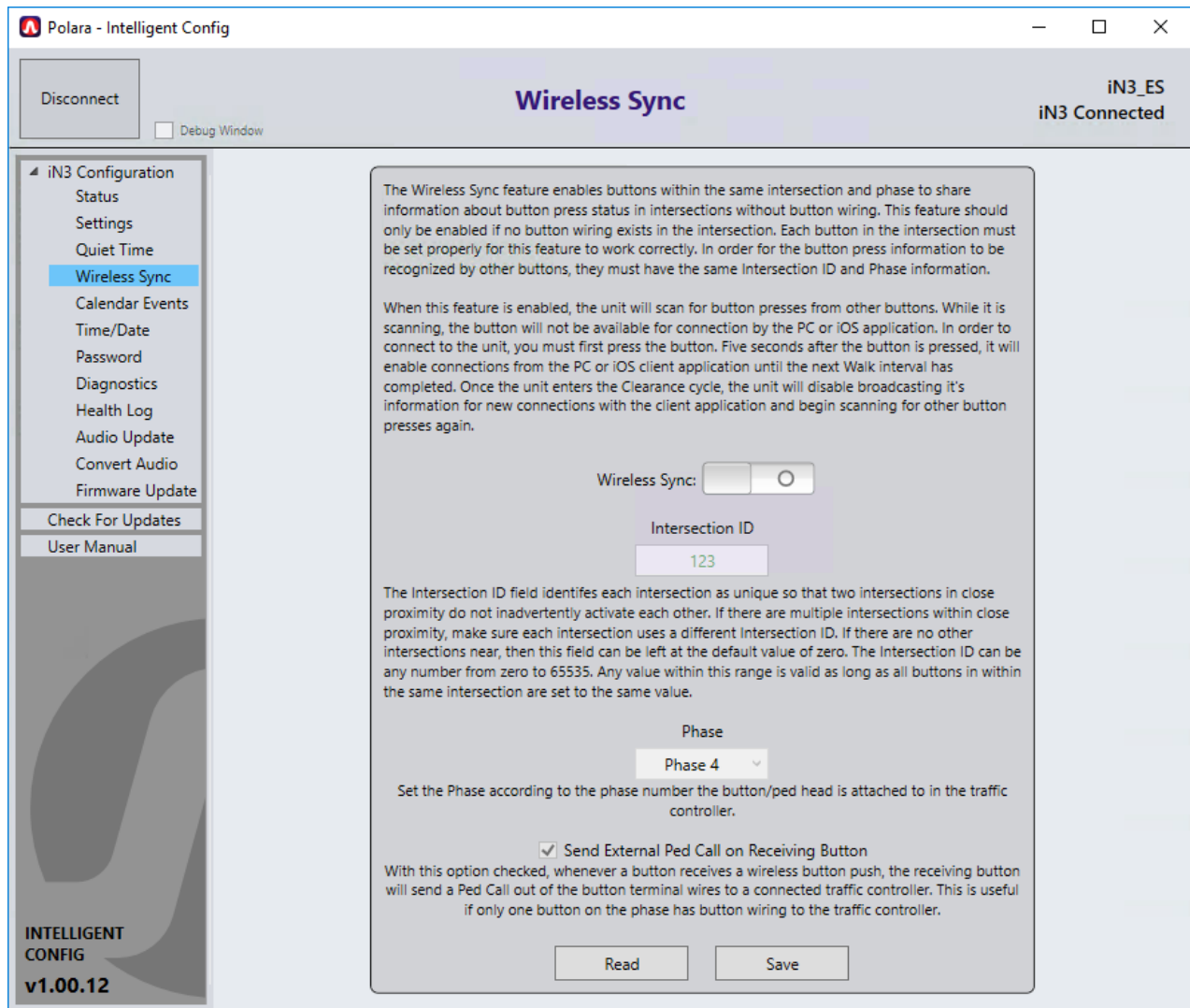
The table below shows what the effective volume settings would be with the Quiet Time set to reduce the volume by 30%. With the values set as shown in the screenshots, between the hours of 9:00am and 7:59pm, the volume will be as set configured in settings (shown in the “set value” column). At 8:00pm to 8:59am the following morning, the volumes will be reduced as shown in the “reduced value” column.

Setting Name	Set Value	Reduced Value
Locate Volume Minimum	0%	0%
Locate Volume Maximum	50%	25%
Information Message Minimum	65%	35%
Information Message Maximum	100%	70%
Std Walk Minimum	30%	0%
Std Walk Maximum	60%	30%
Ext Walk Minimum	60%	30%
Ext Walk Maximum	80%	50%



10.11 Wireless Sync

Use this page to configure PBS to PBS wireless links for units that do not have PED call wiring to the traffic signal controller. This function provides a link between PBSs on the same PED phase such that a button press on one unit enables the Walk and Clearance sound on the other units. Both standard and extended push status is transmitted.



To use this feature, click the enable switch in the center of the screen. Enter an Intersection ID, which can be any number from 0 to 65535. Select the correct PED phase for this PBS from the drop down list. Click 'Save' to apply the settings to the PBS. Repeat these steps for each PBS, using the same Intersection ID for all units on the intersection.

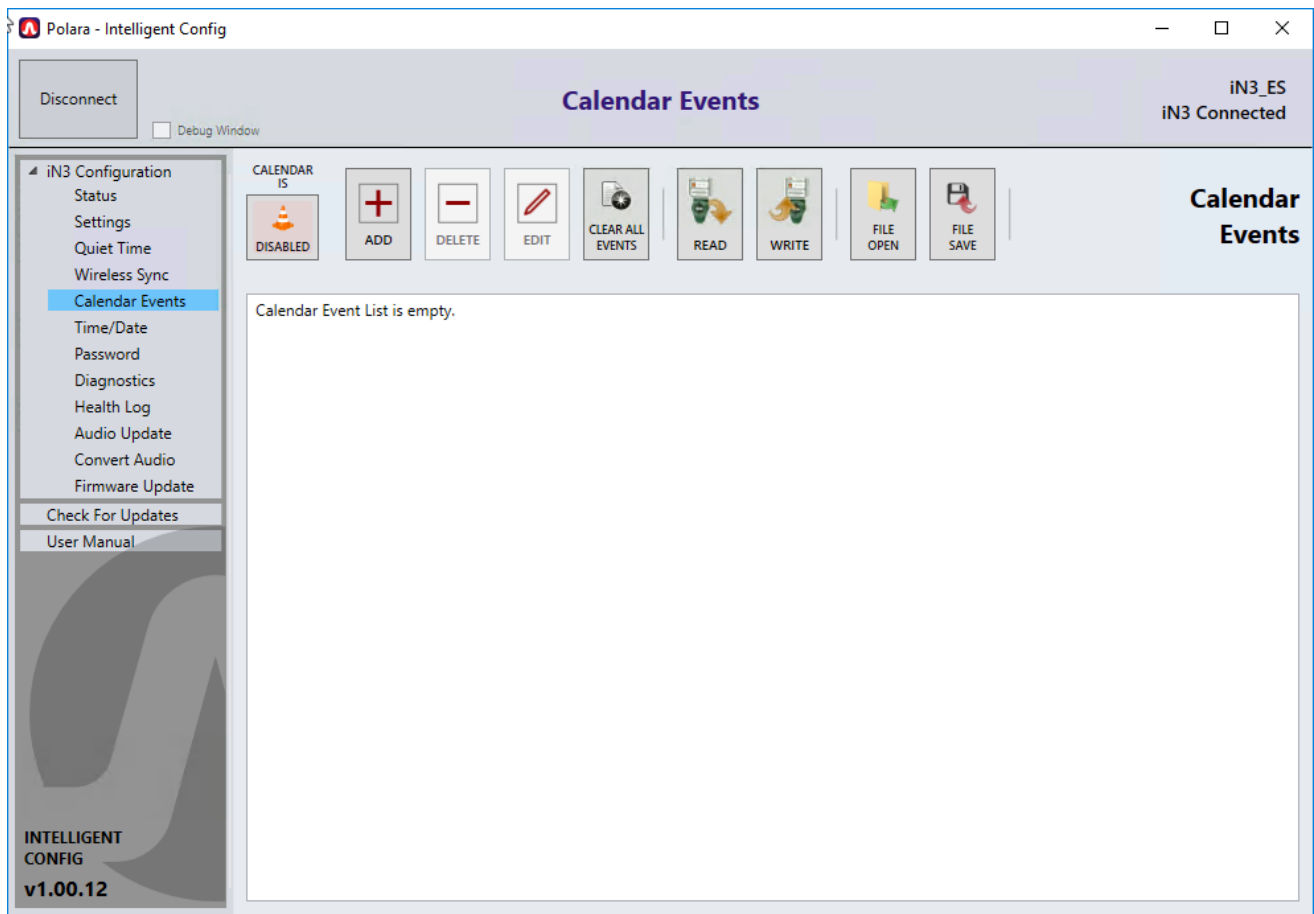
After a button press, the button switches from scanning mode to BLE Connection mode. This means that the button is no longer scanning for additional button pushes from remote buttons. This causes the possibility of an extended push to be missed on the unit in which the first push originated. For example: There are pedestrians on two sides of the walkway. A pedestrian on the Southwest corner performs a short push on the unit. The unit on the Southeast corner receives the Wireless Sync indicator that a button press occurs and turns on its pilot light. If a pedestrian on the Southwest corner now performs an extended push, the unit on the Southeast corner will not get a notification that an extend push occurred. Therefore, the Southwest corner unit might play sounds at a different volume than the Southeast corner unit.

When the "Send External Ped Call on Receiving Button" option is enabled, if that unit receives a button push indication from a Wireless Sync transmission, then it will also cause a Ped Call indication in the form of a contact closure on the terminal block wires to the traffic cabinet. This can be used if one side of intersection has button wires to the traffic cabinet but the other side does not. Then any button pushed from the unit without wires can transmit the button press status

wirelessly to the other unit causing a Ped Call to be asserted. In this situation, only the units with button wires going to the traffic cabinet should have this option enabled.

10.12 Calendar Events

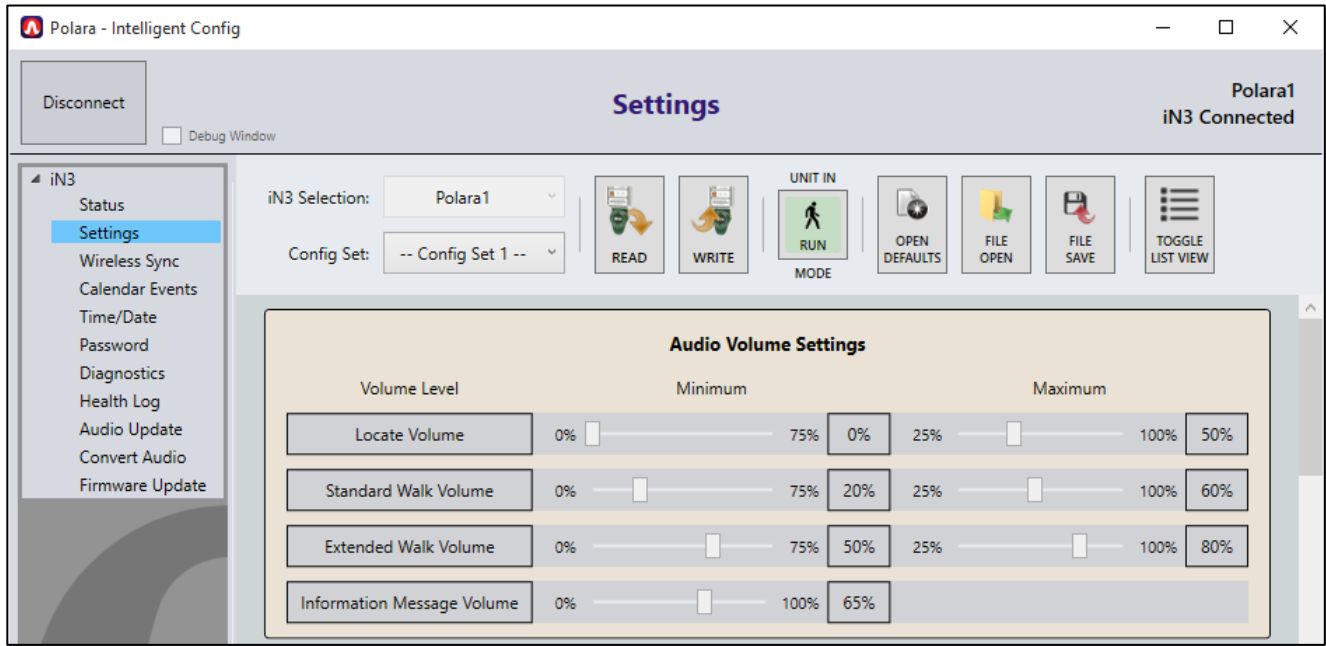
Calendar Events allow the configuration of time based changes to operating characteristics from four possible configuration sets. This feature enables changes to the settings based on the time of day, day of week, or specific day of the year. For example, you can have low volumes in the early morning and at night, while raising the volume during the day.



In order to illustrate the process of creating new Calendar Events, the below instructions show how to setup a Calendar Events scheme to lower the unit's volume from 6pm at night to 6am in the morning every day.

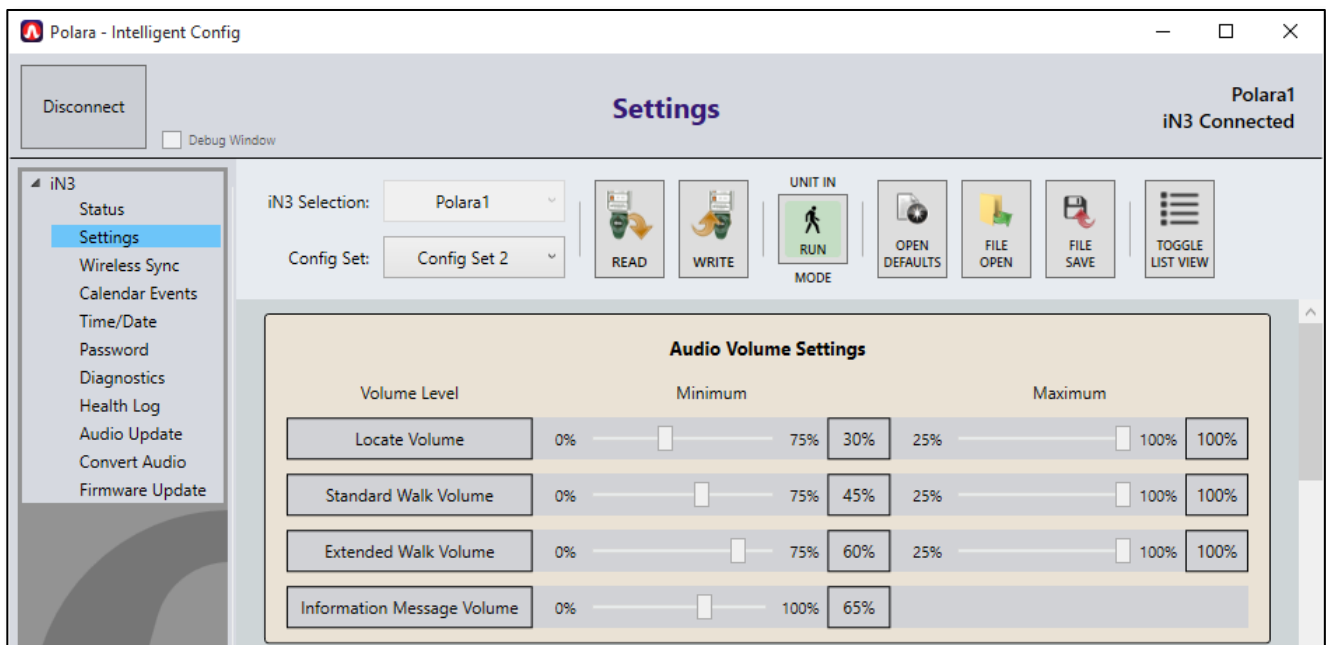
Step 1:

In the Settings page, 'WRITE' the low volumes in "Config Set 1".



Step 2:

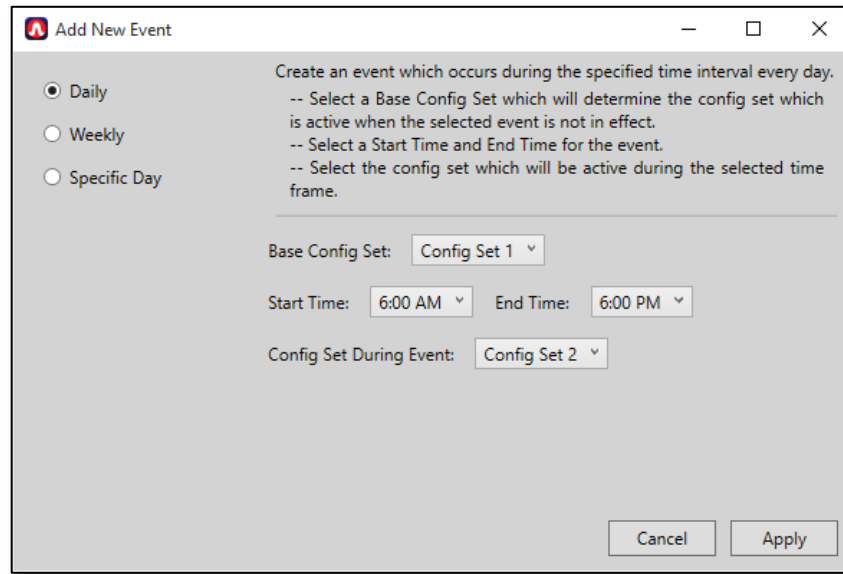
'WRITE' the higher volumes to "Config Set 2".



Step 3:

In the Calendar Events page, Click the 'ADD' button.

A dialog box will appear which will allow you to add a new event. Keep the Daily option selected, then choose 'Config Set 1' as the Base Config Set. Then select a start time of 6AM and an end time of 6PM. Then set the option for Config Set During Event to be 'Config Set 2'.

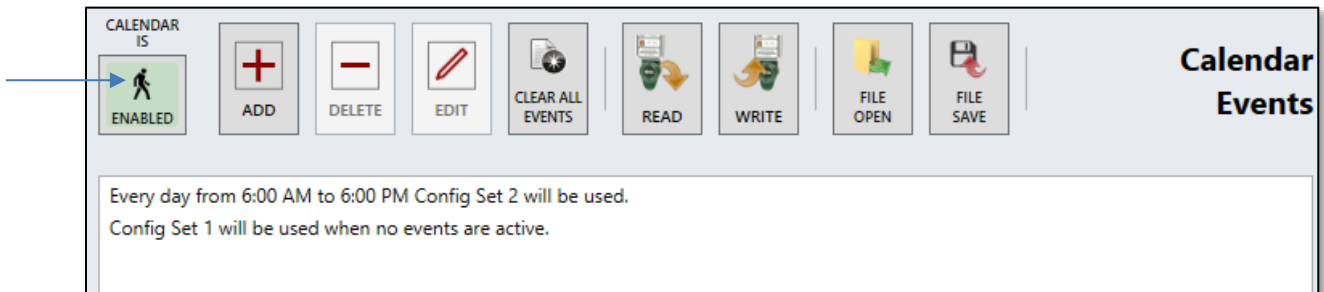


Then click 'Apply'.

What this is doing is creating an event which occurs every day at 6am which changes the button's active Config Set to 2. Then, at 6pm, the active Config Set will change back to 1.

Step 4:

Click the button in the top right corner which says "CALENDAR IS DISABLED". When clicked, it will change to "CALENDAR IS ENABLED". The Calendar Events will not occur unless this option is enabled.



10.13 Diagnostics

Helps to determine if there is a problem with the PBS hardware, and allows a reboot.

Polara - Intelligent Config

Disconnect Debug Window

Diagnostics iN3_ES
iN3 Connected

iN3 Selection: iN3_ES

Serial Number
1634532842084

Memory Tests: Enable one or more memory tests to run on the unit. The memory tests will run upon the next reboot of the system. Click the Reboot PBS button. The unit will disconnect and restart. Check the Health Log for the test results.

RAM Data Flash Serial Flash

Reboot PBS

Run Diagnostic

Ped Call Connection	N/A	Hall Effect Sensor	N/A
TCP/IP / PLC	N/A	Microphone	N/A
iCCU Detected	N/A	Speaker	N/A
Ped Head Data Line	N/A	Clock	N/A
Pilot LED	N/A		

INTELLIGENT CONFIG v1.00.12

10.14 Health Log

Use this screen to read the health log from the unit. The log can be cleared and exported to a text file.

Polara - Intelligent Config

Disconnect Debug Window

Health Log iN3_ES
iN3 Connected

iN3 Connected: iN3_ES

Total Events: 298

READ CLEAR EXPORT

ID	Date/Time	Description
276	6/8/2017 10:48:22 AM	Self Test Serial Flash - SKIPPED
277	6/8/2017 10:48:22 AM	Self Test RAM - SKIPPED
278	6/8/2017 10:48:22 AM	Self Test E2Flash - SKIPPED
279	6/8/2017 10:48:22 AM	Self Test Clock - PASSED
280	6/8/2017 10:48:22 AM	Self Test BLE - PASSED
281	6/8/2017 10:48:22 AM	Self Test Hall Effect - PASSED
282	6/8/2017 10:48:22 AM	Self Test Pilot LED - PASSED
283	6/8/2017 10:48:22 AM	Self Test Ped Head Data Input - SKIPPED
284	6/8/2017 10:48:22 AM	Self Test External Button Input - SKIPPED
285	6/8/2017 10:48:22 AM	Self Test Microphone - PASSED
286	6/8/2017 10:48:22 AM	Self Test Speaker - PASSED
287	6/8/2017 10:48:22 AM	Self Test TCP/IP - PASSED
288	6/8/2017 10:48:22 AM	Reading BLE enable data: [1]
289	6/8/2017 10:48:23 AM	Reading BLE enable data: [1]
290	6/8/2017 10:48:25 AM	PBS Entered online state.
291	6/8/2017 10:51:55 AM	Watchdog Error on task: [18]
292	6/8/2017 10:52:31 AM	External Button Input voltage detected, input active
293	6/8/2017 10:52:38 AM	PBS Entered online state.
294	6/8/2017 10:53:43 AM	[Self Test Error] BLE Host Down [120]
295	6/8/2017 10:54:32 AM	[SecurityManager] Password has been changed.
296	6/8/2017 10:55:26 AM	PBS Entered online state.
297	6/8/2017 10:55:43 AM	[Self Test Error] BLE Host Down [120]
298	6/8/2017 11:12:35 AM	PBS Entered online state.

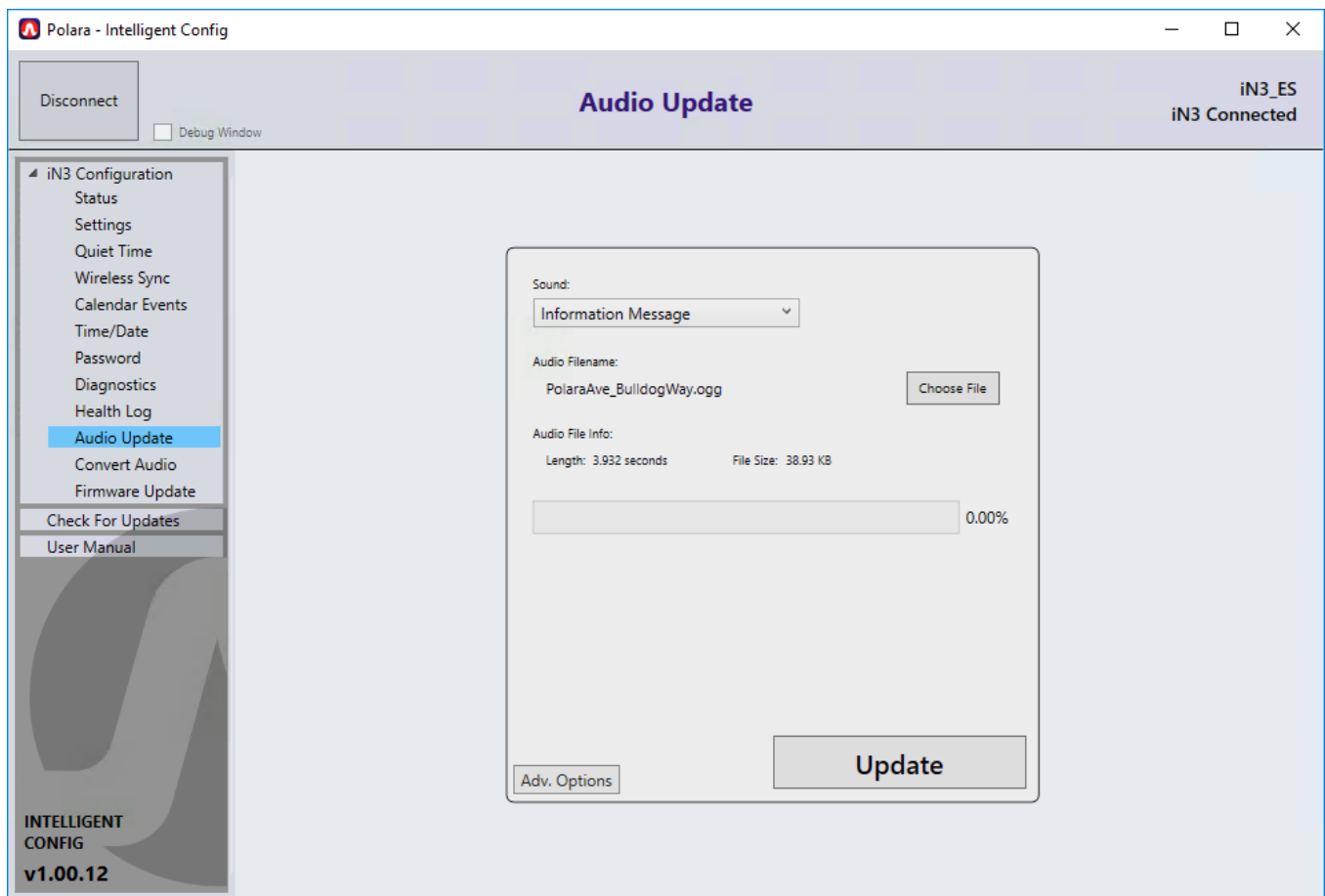
INTELLIGENT CONFIG v1.00.12

11. Using the Polara Field Service App for PC to Upload Audio Files

11.1 Audio Update

From the left menu, click 'Audio Update'.

The Audio Update page allows you to upload audio files to provide new sounds. From the Sound dropdown, choose the sound slot to update, for example the "Information Message" slot. Then click 'Choose File' and select the file to upload to that sound slot. Click 'Update' to send the sound file to the PBS.



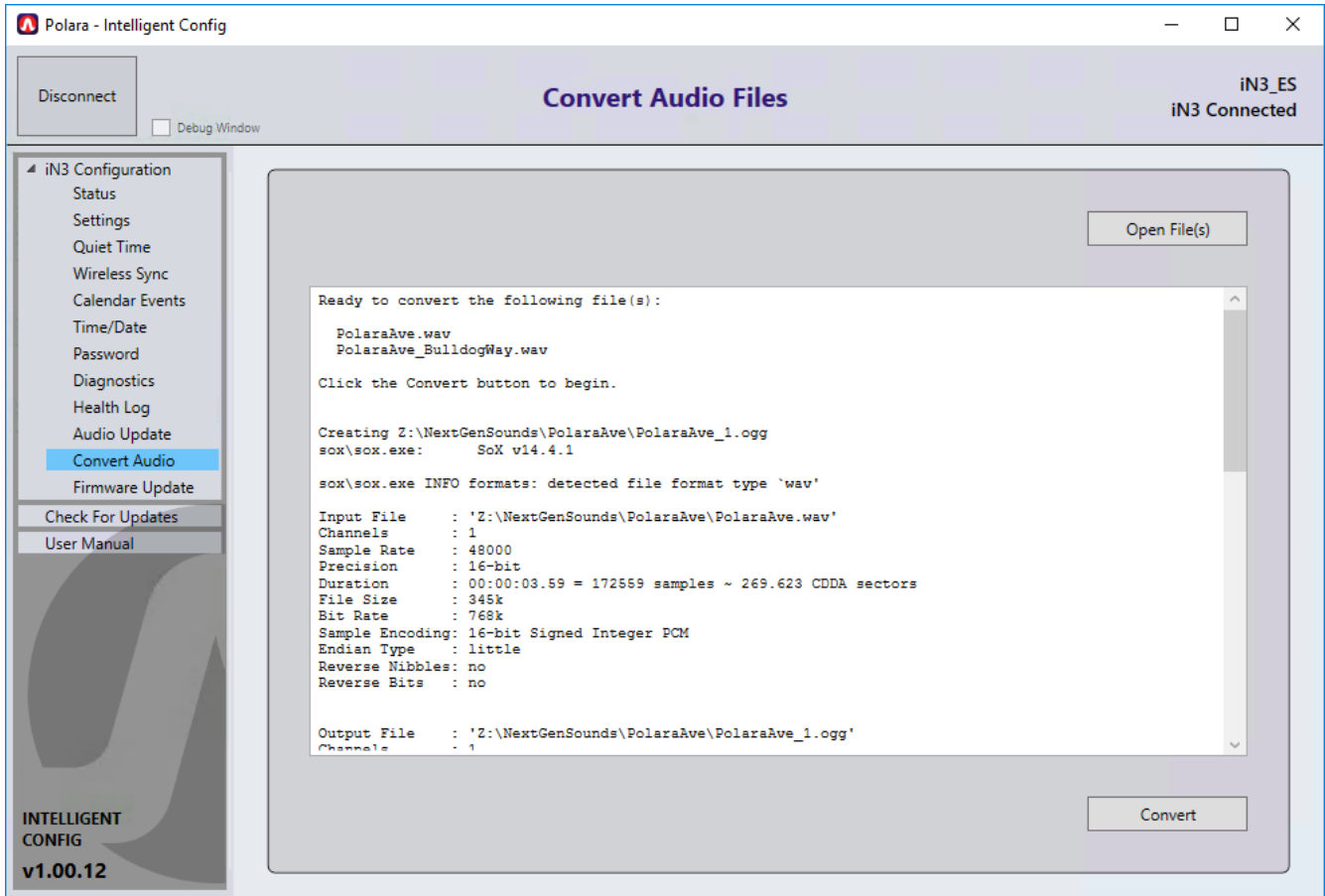
The Intelligent Config application has the ability to reprogram all standard sounds in the unit in order to reset the sounds back to factory default. To access this feature, click the Adv. Options menu and select "Reset/Verify Default Sounds".

The Intelligent Config application also includes the ability to program sounds in Spanish for use with the Second Language option (see section 14.5.4). In the Adv. Options menu, select "Write Spanish Sounds" and a default set of walk and countdown sounds will be loaded into the unit.

To program additional sounds beyond those available in the Sound dropdown menu, select "Generate Example Audio Upload Script" in the Adv. Options menu and select a location. Then modify the script to add or remove the desired sounds to program. Then select "Upload Files Using Script..." and select the modified script to perform the update. Be sure to convert any custom-made sounds using the Convert Audio Files screen prior to uploading to the unit.

11.2 Convert Audio Files

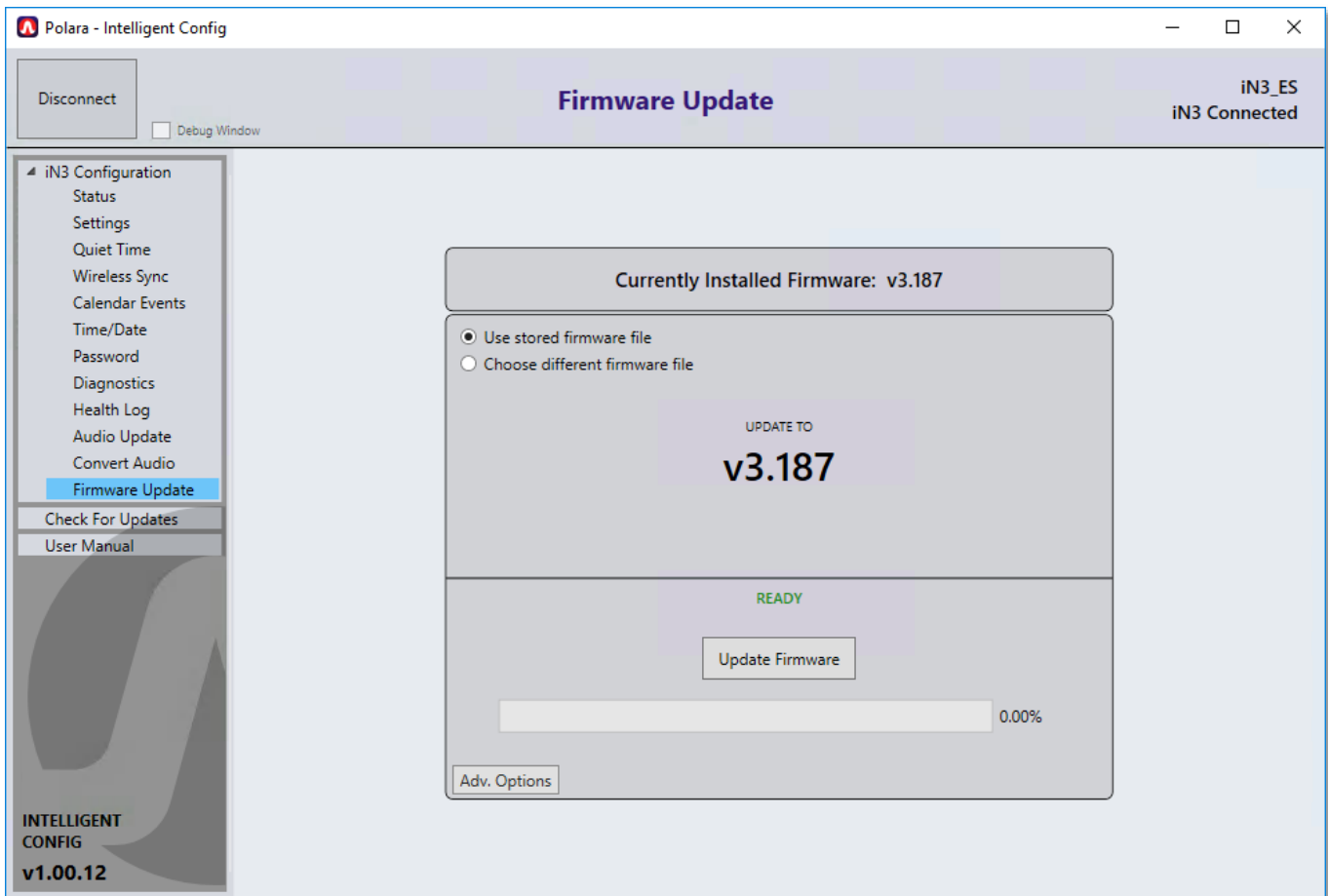
Use this feature to convert audio files to the appropriate format for the iN3 PBS. Simply click 'Open Files' and select the files you wish to convert. Then click 'Convert'. The converted sound files will be saved to your PC, ready to upload to the PBS, as previously described.



12. Firmware Update

From the left menu, click 'Firmware Update'.

This page allows you to upload the latest firmware to the iN3 PBS. The Intelligent Config App is bundled with a firmware file that represents the most up to date version available at the time the App was released. To use this version select "Use stored firmware file". Additionally, the App will automatically check online for the latest version of firmware. Alternatively, you may obtain the latest firmware file from www.polara.com. To use a different firmware file, select "Choose different firmware file". Click 'Update Firmware' to begin the update.

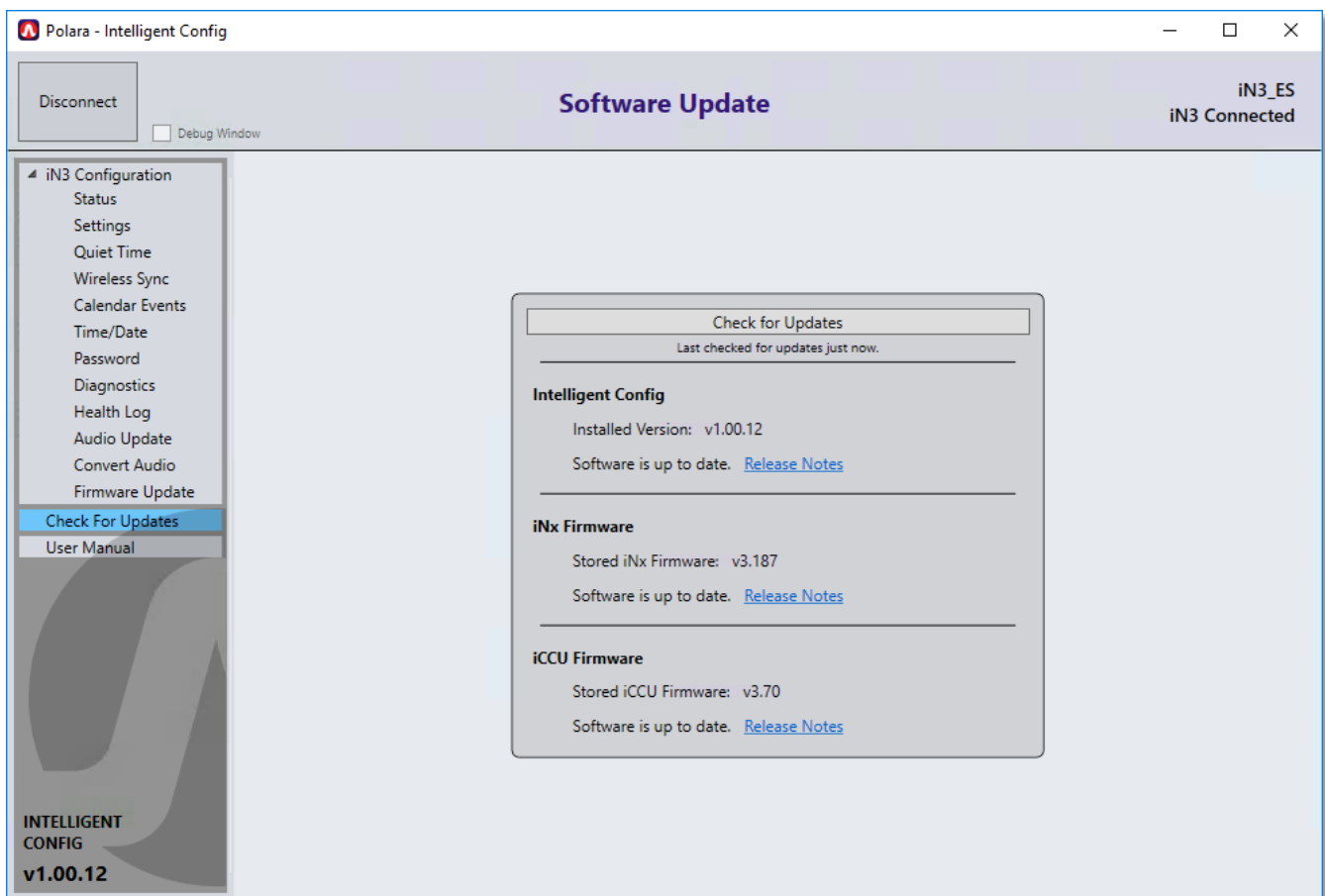


13. Keeping Up to Date

The Intelligent Config application is able to connect to the internet to check for new versions of itself and for new versions of the iN3 firmware.

Make sure your computer has internet access in order to check for updates.

After opening the application, click on the 'Check For Updates' menu item and it will automatically connect to the internet and check for updates. If any updates are available, a button will appear allowing you to download and install the new update.



14. Configuration Settings Details

This section will provide details on each of the settings which can be accessed from the PBS Configuration / Settings screens on each application, PC or iOS. Most of the below information is available by tapping or clicking on the information button next to each setting in any application.

14.1 Volume Settings

The iNav PBS has an internal microphone which will detect ambient noise and will auto adjust the sound output volume to compensate for ambient noise. Each of the volume settings below have a minimum and a maximum setting. These settings control the limits at which the auto volume adjustment has control. The volume settings are entered as a percent from 0% to 100% in 5% increments. Minimum volume levels are available from 0% to 75% and maximum volume levels are available from 25% to 100%. If, for example, a minimum level is set to 20% and a maximum level is set to 60%, then the auto volume adjustment will never be lowered to below 20% of what the unit is capable of and will never be raised above 60% of what the unit is capable of.

14.1.1 Locate Volume

This function adjusts the volume level at which the Locate (14.4.1) sounds will be played.

Factory Default: Minimum 0%, Maximum 50%

14.1.2 Information Message Volume

This function adjusts the volume level at which the Information Message (14.4.5), Push Confirm Message (14.4.6), and periodic Wait Message (14.4.3) sounds will be played.

Factory Default: Minimum 65%, Maximum 100%

14.1.3 Standard Walk Volume

This function adjusts the volume level for the walk and clearance sounds when activated using a standard-length button push.

Factory Default: Minimum 30%, Maximum 60%

14.1.4 Extended Walk Volume

This function adjusts the volume level for the walk and clearance sounds when activated using an extended button push.

Factory Default: Minimum 60%, Maximum 80%

14.1.5 Volume Over Ambient

This function can increase or decrease the playback volume of all sounds except the locate sound relative to the measured ambient sound pressure, but still be within the set minimum and maximum settings. This compensation function is adjustable from -30dB to +20dB over ambient in 5dB steps.

Factory Default: 0dB

14.1.6 Locate Volume Over Ambient

This function can increase or decrease the playback volume of the locate sound relative to the measured ambient sound pressure, but still be constrained within the set minimum and maximum settings. This compensation function is adjustable from -30dB to +20dB over ambient in 2.5dB steps.

Factory Default: 0%

14.2 Walk Interval Settings

14.2.1 Walk Mode Sound

This function selects the preferred sound played during the Walk interval. The available options are: None, Cuckoo (N/S), Chirp (E/W), Standard Walk, Custom Walk 1, Custom Walk 2, Custom Walk 3, Walk Sign is On for All Crossings, Rapid Tick 1, Rapid Tick 2, Rapid Tick 3, Canadian Melody, Australian Walk, Walk Sign is On.

Note: The length of button vibration during the Walk interval matches the duration of the walk sound.

Factory Default: Standard Walk

14.2.2 Walk Sound Pause

This function selects the length of silence between walk sounds.

The available options are selected in seconds: 0, ½, 1, 1½, 2, 2½, 3, 4, 5, 6, 7, 8, 9, and 10

Factory Default: 0.5 seconds

14.2.3 Walk Sound Trigger

This function selects the condition that will play walk sounds at the next pedestrian Walk interval.

The available options are:

- Always On: Recall Mode Conditions - Plays every Walk interval.
- Any Push: Short or Extended button push.
- Extended Push: Extended push only.

Note: Do not use Extended Push on crosswalks set to Rest-in-Walk. If a blind person does not push and hold the button, and if a car never triggers the cross street, they may never get a Walk indication.

Factory Default: Any Push

14.2.4 Maximum Walk Time

This function selects the maximum time a walk message and vibrating button will activate during a Walk interval. This acts as a safety limit for the maximum possible time an intersection should ever be in Walk.

The available options are selected in seconds: 30, 35, 40, 45, 50, 55, 60, 90, 120, 150, 180, 210, 240, 300

Factory Default: 30 seconds

14.2.5 Sound/Vibrate Timer

This function selects the number of times (1, 2 or 3) or the length of the time in seconds the walk sound is played. Use this function to limit the sound timer for Rest-in-Walk situations, or to limit the walk sound time in the event of a system failure.

The Sound/Vibrate Timer setting can optionally shorten the amount of time the walk sound plays and the button vibrates during the Walk interval. There is no option that will extend the sound/vibration. Only a serious malfunction can result in an extended sound or vibration beyond the end of the Walk interval. There are settings available that can help reduce the risk to pedestrians in the event of such a malfunction.

The available options are:

- Full Walk: The selected walk sound will repeat until the Walk interval ends.
- 1 Message: The selected walk sound will play one time, or until the Walk interval ends, whichever occurs first.
- 2 Message: The selected walk sound will play two times, or until the Walk interval ends, whichever occurs first.
- 3 Messages: The selected walk sound will play three times, or until the Walk interval ends, whichever occurs first.
- Time in seconds from 4 - 50: The selected walk sound will play through the amount of time specified, or until the Walk interval ends, whichever occurs first.

For each of the above options, if Cancel on Clearance is set to Yes, any currently playing sound clip will be truncated at the time the Walk interval ends. Otherwise, the currently playing sound clip will complete. The repetition period for the walk sound will be the length of the sound clip plus the selected Walk Sound Pause time. The button vibration time is synchronized with the sound time.

Factory Default: 20 seconds

14.2.6 Sound/Vibrate Re-Trigger

This function is primarily used when the Sound/Vibrate Timer setting is not set to Full Walk and is intended for use in intersections set to Rest-in-Walk. It is also important in the following situation: If the Walk interval is able to turn on without a button push (Recall Mode) and the Walk Sound Trigger option is NOT set to Always On, the locate tone will continue into the Walk interval, just like in a Rest-in-Walk timeout. The choices below determine the response to a button push while the locate tone is playing during the Walk interval.

The available options are:

- Button Push - Typically used in Rest-in-Walk situations. After initial timeout, sound restarts immediately with button push as long as crosswalk is still in the Walk interval.
- New Walk - After timeout, a new Walk interval is required before the next walk sound is played which is also complemented with the vibrating button.

Factory Default: New Walk

14.3 Clearance Interval Settings

14.3.1 Cancel on Clearance

This function gives the choice to cancel or complete the walk sound when the intersection timing changes from the Walk interval to the Clearance interval. This function is primarily applicable where walk messages are quite long. It must be carefully examined before turning this function off since it can falsely extend the Walk interval sounds into the Clearance interval. Regulations may not allow this function, so changing the default must be carefully considered.

The available options are: No, Yes

Factory Default: Yes

14.3.2 Clearance Mode Sound

This function allows the choice of different clearance sounds.

The available options are: None, Tone 1 thru Tone 4, Countdown, Canadian Melody

If the Countdown option is selected, the Countdown numbers are automatically selected based on the previous Clearance intervals. The starting number is chosen by measuring the length of the two previous Clearance intervals and choosing the shorter of the two. Due to the measurement necessity, the Countdown will not be heard until the third Clearance interval encountered after power up.

Note: If ped recycle is activated on the traffic controller and ped recycle can interrupt the clearance cycle, it is not recommended to use countdown due to the timing changes causing the count to be incorrect.

Note: If the Second Language option is enabled, the Countdown function is tied into the language options. The Countdown language will be in the same language the pedestrian selects when performing an extended push.

Factory Default: Tone 1

14.3.3 Clearance Tone Pause

This function selects the length of silence between clearance sounds.

The available options are selected in seconds: ½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5

Factory Default: 1 second

14.4 Don't Walk Interval Settings

14.4.1 Locate Sound

This function allows the choice of a few standard locate sounds.

The available options are: None, Tone 1 thru Tone 4

Factory Default: Tone 1

14.4.2 Locate Tone Time

This function selects the start to start repetition time of the locate sounds.

The available options are selected in seconds: ½, 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5

Factory Default: 1 second

14.4.3 Wait Message

The Wait Message is an optional feature which will switch the locate sound to a verbal "Wait" following a button push and button push confirmation sound. There are four timing options of 4, 6, 8 and 10 seconds. Also, the Wait Message can be triggered by any push or only an extended push. The Wait Message is available regardless of the Walk Sound Trigger setting.

The available options are: Off, Any Push 4s, Any Push 6s, Any Push 8s, Any Push 10s, Extended Push 4s, Extended Push 6s, Extended Push 8s, Extended Push 10s

Factory Default: Off

14.4.4 Direction Message

This function selects the spoken direction to be played when a direction message is configured as part of the Information Message setting.

The available options are: N, NE, E, SE, S, SW, W, NW

Factory Default: North

14.4.5 Information Message

This option details what notice occurs when the button is held down for the extended push time. This typically allows for a custom message that gives blind pedestrians additional information on the street they are crossing and its cross street. The options noted as 'with Pulse' give a vibrotactile pulse at the beginning of a button push and a second pulse when the button is held down for the extended push time. The options noted as 'no Pulse' only have a vibrotactile pulse at the beginning of the button push and only the sound will play at the extended push time.

The sound options are:

- Tick: A click sound is heard. This is the same sound file that is configurable as Click in the Push Confirm Message setting.
- Custom: A special-ordered or programmed information message sound. If no custom sound has been loaded, then the Custom option contains the click sound.
- Direction: "Traveling North" or whichever direction is selected for the Direction Message option will play.
- Custom + Direction: The custom sound will play followed by "Traveling North" or whichever direction is selected for the Direction Message option.
- No Sound: No sound is played.

The available options are: Tick (no Pulse), Custom (with Pulse), Direction (with Pulse), Custom + Direction (with Pulse), No Sound (with Pulse), Custom (no Pulse), Direction (no Pulse), Custom + Direction (no Pulse)

Factory Default: Tick (no Pulse)

14.4.6 Push Confirm Message

This function selects the sound played directly following a standard button push.

The available options are: Click, Wait, Custom, Custom 2

Factory Default: Wait

14.5 Other Settings

14.5.1 Button Push Force

This function adjusts the necessary force required on the button to place a call.

The available options are: Light, Medium, Firm

Factory Default: Medium

14.5.2 Cancel on Walk

This function gives the choice to immediately cancel or complete the information message when the intersection changes to the Walk interval while playing the information message.

NOTE: It must be carefully examined before changing this option to "No" since it can falsely shorten the Walk interval.

The available options are: No, Yes

Factory Default: Yes

14.5.3 Extended Push Time

This function adjusts the amount of time the button on the PBS has to be pressed and held before enabling the Extended Push functions.

The available options are selected in seconds from 0 to 6 in ½ second increments.

Factory Default: 1 second

14.5.4 Second Language

This function allows for a Second Language to be played for the information message, walk message and countdown. This language is a custom programmed option. For example, if the second language has been programmed in Spanish and enabled, the pedestrian can access the language options by pressing and holding the push button. The primary language would be stated first then the secondary language. "English", pause, "Español", pause, "English", etc. The pedestrian releases the button after they hear their language of choice. The information message is immediately played in the selected language. The walk message and countdown will also be played in the selected language. Following this, all messages will revert to the default primary language.

NOTE: No second language sounds are included from the factory. These must be added by recording sounds and uploading them or ordering a custom option. If this option is enabled when no second language sound are programmed, the unit may not operate as expected. See section [\(11\)](#) for information on uploading audio files.

The available options are: No, Yes

Factory Default: No

14.5.5 Ping Pong

This function will play the walk/clearance sound first, on one PBS, then across the street, back and forth until the interval ends similar to a beaconing type of operation.

The feature can be enabled independently for walk sounds and clearance sounds. The ping pong feature can be configured to only activate upon an extended push if the “On for Extended Push” option is enabled.

Each unit must be configured to play first or play second. When there are two units per phase, then one unit should be set to play first and the other should be set to play second. If there are more than two units, then the settings should alternate for each unit in series, for example if there are three units (with one in a mid-crossing island) than the two units on the street corners should be set to play first while the island unit should be set to play second.

Note: There is no communication between units for synchronization of sounds. This feature relies on sound message length for synchronization. All units on each phase must have the same walk and clearance sounds configured to ensure proper ping pong timing.

Factory Default: Off

14.5.6 External Speaker Option

This option is only available on special ordered units with part number suffix –ES and must be specified at time of ordering. When enabled, all walk and clearance sounds emanate from an external speaker and all other sounds emanate from the internal speaker.

Factory Default: Disabled

14.5.7 Double Walk

This setting enables a unit to automatically generate a ped call and enable sound for two Walk and Clearance intervals. A second ped call is generated after the end of the first Walk interval enabling a second Walk interval to occur. This is typically used for crossings which have an island without a pushbutton present in order to prevent the possibility of a stranded pedestrian.

The available options are: No, Yes

Factory Default: No

14.5.8 Limit Push Recall

This option is only for use when Walk Sound Trigger is set to Extended Push and Sound/Vibrate Re-Trigger is set to New Walk. This option limits the ped call re-trigger to only occur when an extended push occurs during the Walk interval. If only a standard push occurs, no ped call will occur at the end of Walk.

An automatic call placed by the PBS at the end of Walk should only happen following an Extended Push during Walk. During Walk, only an Extended Push should latch the Pilot LED. During Walk, only an external button call for Extended Push duration should latch the Pilot LED. An Extended Push which starts during Don't Walk and finishes during Walk should have the same result as an Extended Push completely within Walk.

The available options are: No, Yes

Factory Default: No

15. Regulatory Notice

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

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

16. iNav Mounting Hole Diagram

