

DRAFT

# STEELMAN

## User Instruction Guide

### NOTE:

please visit the app store and download the SmartEAR2 utility application.



# Hardware Set-up

1. Connect HOST product which have no wireless RF function to Docking Station using the 3.5mm audio plug.
2. Initiate SmartEAR2 application.
3. Power on Docking Station and note dB reading on table. (Reading should jump and then set to ambient sound input level.)
4. Connect all the colored Sensor Clamps to the corresponding ports.  
(NOTE: If sound wand is used during test be sure to note what channel it is associated with and that the microphone icon has been initiated.)
5. Power up Bluetooth® “wireless technology” headphones.
6. Docking Station & Headphones will pair up together automatically. (NOTE: If pairing is unsuccessful further setup may be required. See Quick Start Set-up guide for details.)
7. Once Docking Station and headphones are paired the hardware is now ready for use.

# User Interface

## Button/Tab Functions:

**Automatic Offset** - When selected it automatically offsets ambient background sound readings.

**Settings** - When selected it will take user to the settings screen for Offset, Refresh & Volume Control.

**View** - When selected it will give the user the option between Analog or Digital display.

**Channel Notepad** - When selected it will allow the user to ID a location and position for each sensor clamp making ease of reference when diagnosing a troubled area.

**Sensor Clamp** - When selected it automatically adjusts gain for the Sensor Clamp

**Microphone** - When selected it automatically adjusts gain for the Sound Wand.

**Record** - When selected app will start to record a Sound-wave file.

**Saved Files** - When selected it gives the user access to all saved sound-wave files

**Reset** - When selected it automatically resets all settings.

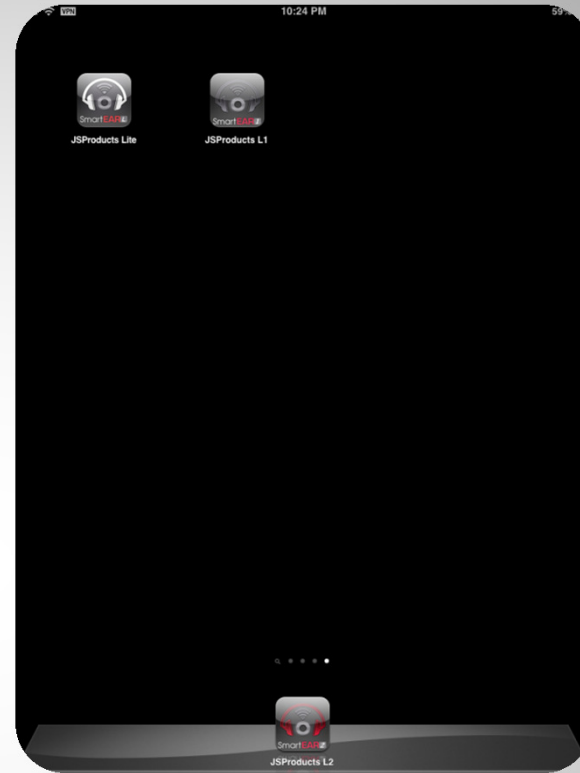
**EQ** - When selected it will take user to the 10 Band EQ settings screen.

**BACK** - When selected it will return to the previous screen.

# User Instruction Guide

## Step #1:

To initiate application press the STEELMAN SmartEAR icon from the home screen of the iPad.



Tap icon once to start the app.

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## Step #2:

Once application has finished loading it will take you to the landing screen where the user can select between using the Sound Wand or the Sensor Clamps depending on the task at hand.



Tap Sensor Clamp tab once to select Sensor Clamp.

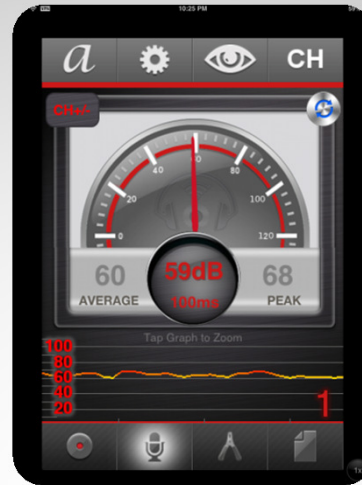


Tap Microphone tab once to select Sound Wand.

## User Instruction Guide

### Step #3a:

After user has selected which attachments are going to be used he then can decide which type of display he wishes to view.

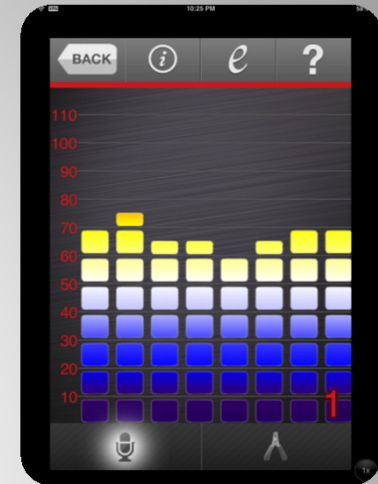


Tap View tab once for Digital display or tap a second time for Analog display.

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### Step #3b:

User can also view an exploded screen display for both Analog Wave-form or Digital Graph by double tapping the screen.



Tap lower screen once for an exploded Analog view.



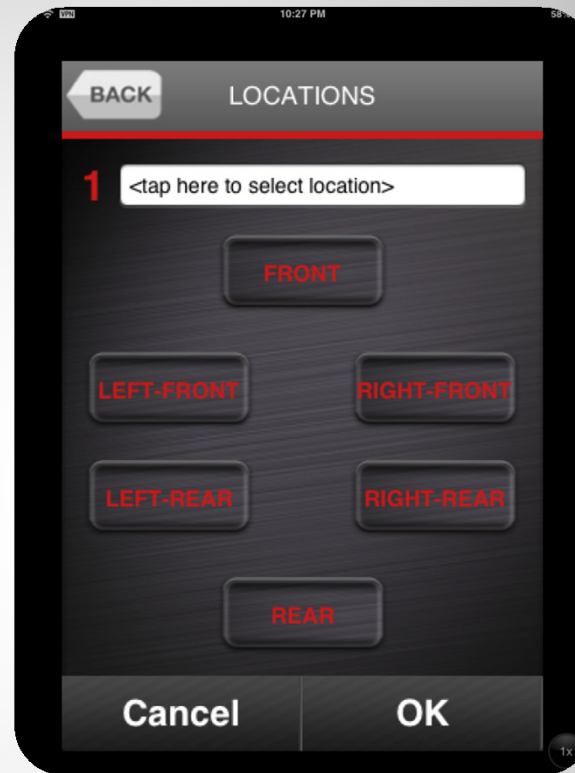
Tap lower screen once for an exploded Digital view.



## User Instruction Guide

### Step #4a:

Once user has decided on which display he wishes to view and attachments he is going to use it be the Sound Wand/Sensor Clamps or both, he then can identify the location for each Sound Wand/Sensor Clamps .



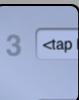
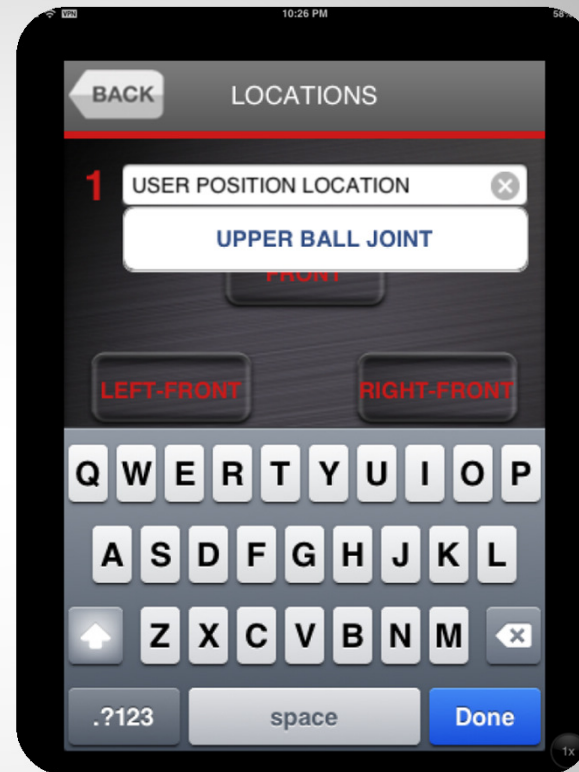
**Channel Notepad** – Tap tab once to access the locator notepad.



## User Instruction Guide

### Step #4c:

User can choice from a list of default locations or manually input a specific location.

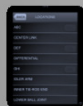
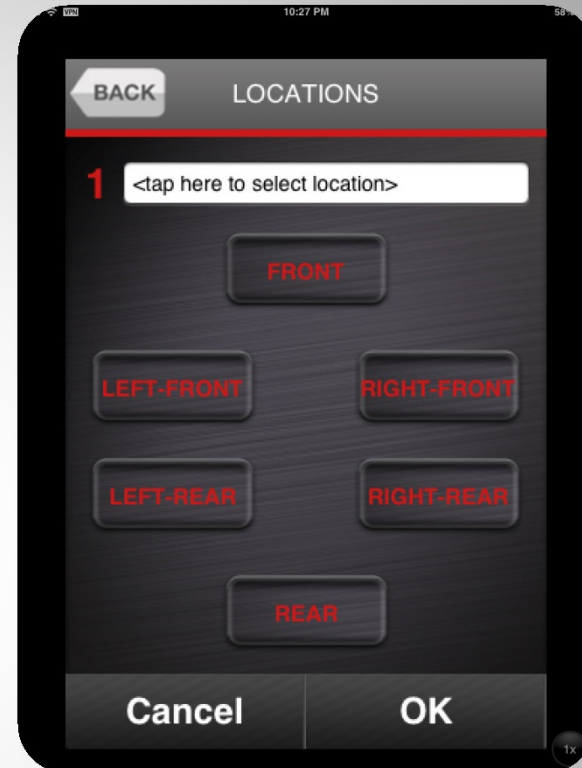


Tap the corresponding channel to access the locations list or manually input location.

## User Instruction Guide

### Step #4b:

Once in the channel location screen the user can now select a location and position for each Sensor Clamp.

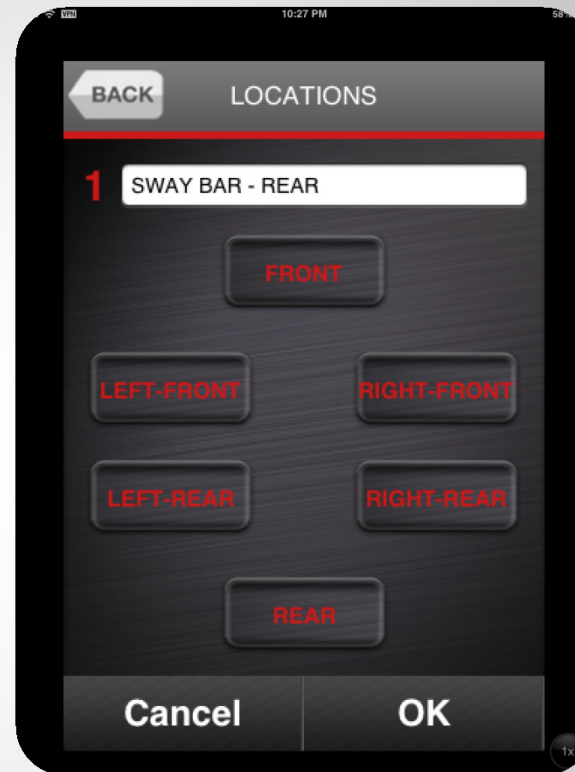


Tap the corresponding locations from the pick list for each sensor.

## User Instruction Guide

### Step #4d:

Once a location for the Sensor Clamp has been chosen the user can then pick the position it is located.



Tap the corresponding position for each sensor location.

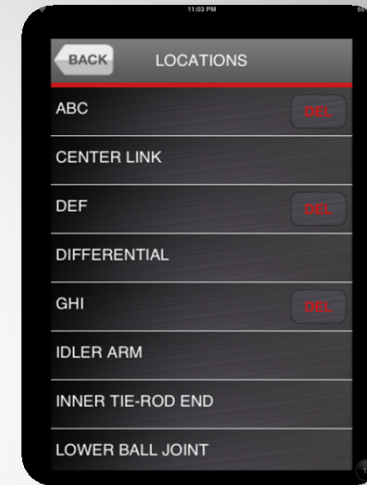
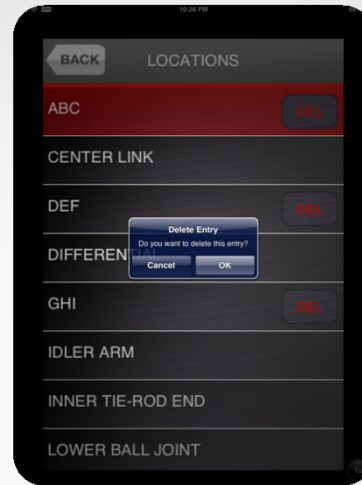
# User Instruction Guide

## Step #4:

### Notes

Manually inputted locations are saved as part of the pick list for future use and are placed in alphabetically order.

Manually inputted locations can also be deleted from the pick list if no longer needed.



Tap the DEL tab for the corresponding position that needs to be deleted from the pick list.



Tap the corresponding position tabs for each sensor location.

# User Instruction Guide

## Step#5a.

Once all Sensor Clamp locations & positions have been chosen the user can now start adjusting the volume level, manually offset ambient sound and adjust the refresh rate to his liking in the settings screens.



Tap the settings tab to access the Refresh, Off-set and Master Volume controls.

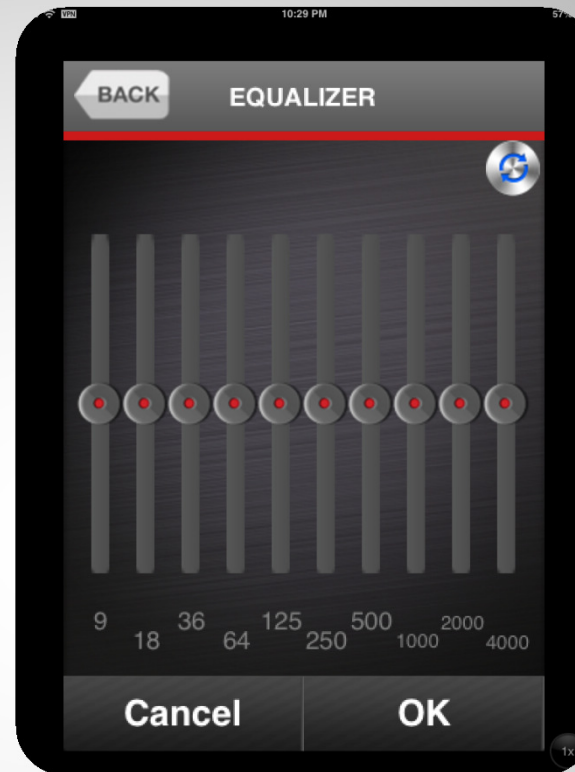


Tap the Off-set tab to adjust the ambient background sound readings.

## User Instruction Guide

### Step#5b.

From the settings screen the user can also access the built-in 10 Band EQ where he can adjust the frequency levels.



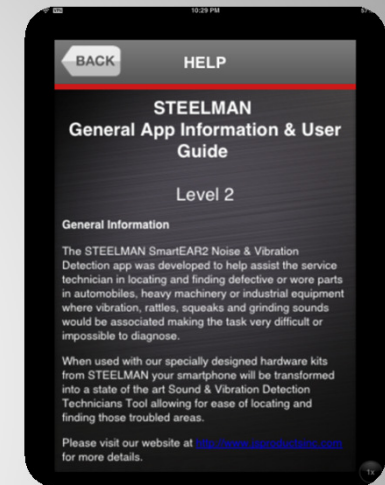
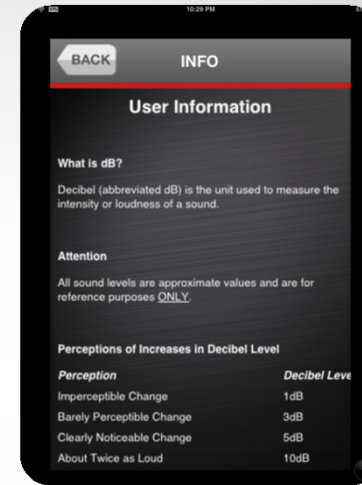
Tap the EQ tab to access the 10 Band Equalizer controls.

# User Instruction Guide

## Step#5.

### Notes

User can also access an INFORMATION and HELP screen where he can reference Sound Comparisons and instructions on how this application works and functions.



Tap the Information tab to access the User Information screen.



Tap the ? tab to access the HELP Screen.



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## Step#6.

After all settings and locations has been chosen and set the user can start analyzing and pin-pointing the troubled area in question a channel at a time. Using the selector buttons on the tablet the user can switch between each channel one at a time looking and listening for the trouble area.

### Notes:

The app has 6 tones programmed into the software for each individual channel where the docking station will recognize and determine which channel the user is on. This will also help identify what channel the user is listening too when reviewing the saved recorded files.



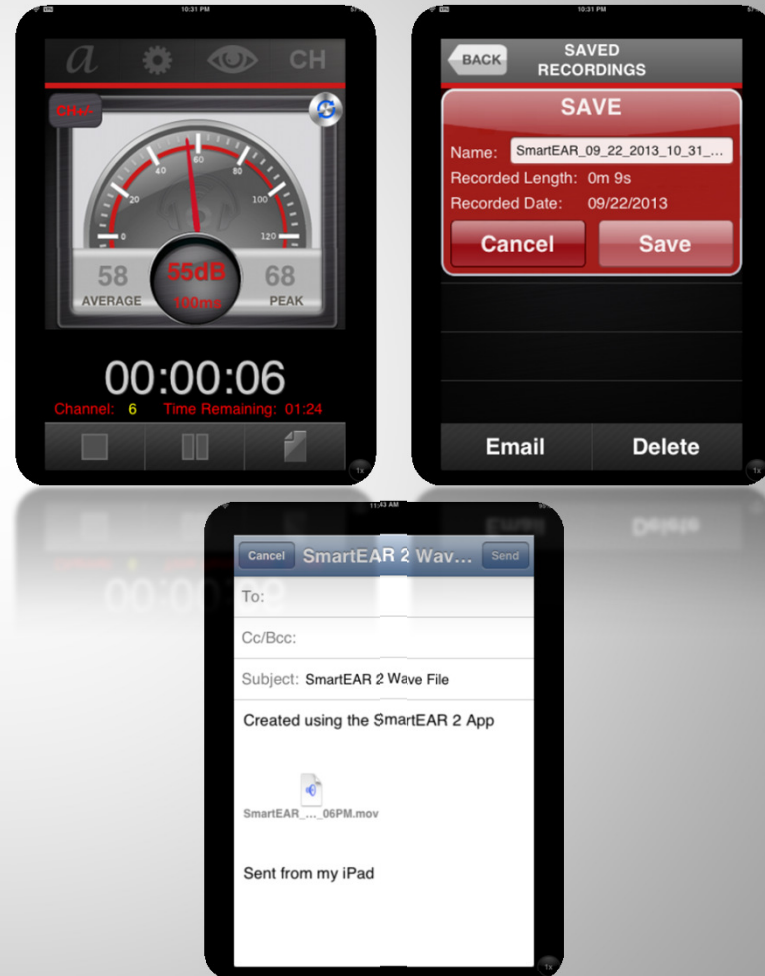
# User Instruction Guide

## Step#7.

While the user is performing his diagnostic testing he can record his results and save them for future reference and have the ability to email them to his customer or others.

### Notes:

The user can also edit the file names to reference a specific vehicle or equipment he was diagnosing.



Tap the record tab to start video recorder of road test.

## User Instruction Guide

### Step#8.

Once user has finished recording he has the ability to review his sound file that is automatically saved to the iPad.



Tap the files tab to access all saved sound files.

## ***FCC Statement***

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation