

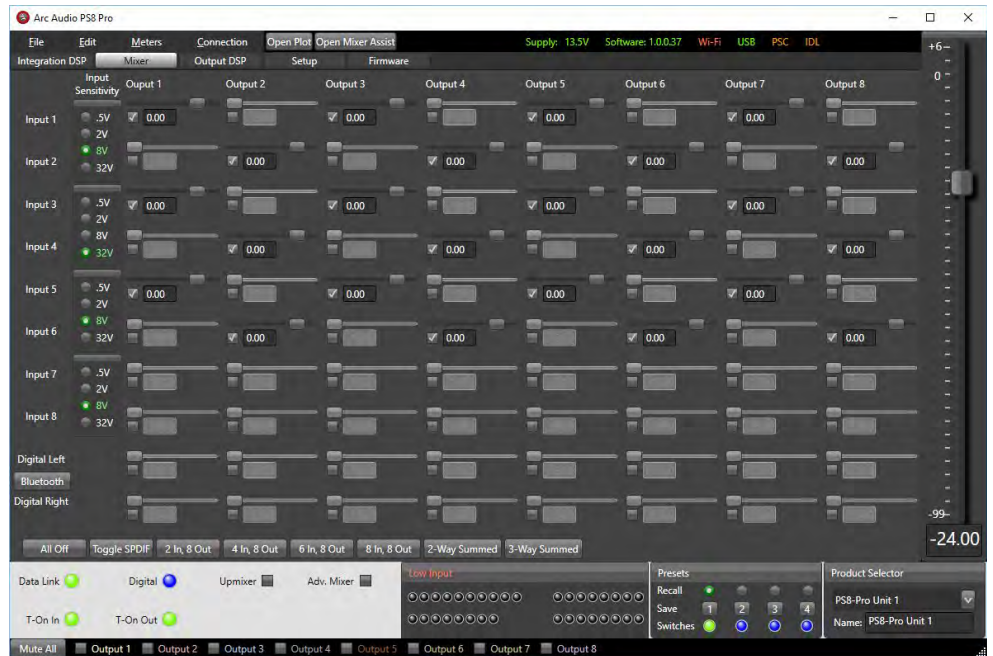
## Introduction

This software manual overview has been created to help you through the process of understanding the function of each of the buttons and options are within each page of the Pro-Series DSP software utility.

This software interface manual will cover the basic operations of each button and what it does when selected or pressed. Please note that this manual is not intended to teach you how to tune a processor. Due to the thousands of potential vehicle, equipment and application variations, a tuning manual would be next to impossible to complete.

The Pro-Series DSP software utility is currently available for download on any of the web pages associated with compatible ARC Audio products at [WWW.ARCAUDIO.COM](http://WWW.ARCAUDIO.COM).

The following products are Pro-Series DSP Software compatible-



**Compatible**  
**PRO-SERIES DSP**  
**Products**

**PS8-PRO**  
**PS8-50**  
**IPS8.8**

**Compatible**  
**PRO-SERIES**  
**NON-DSP**  
**Products**

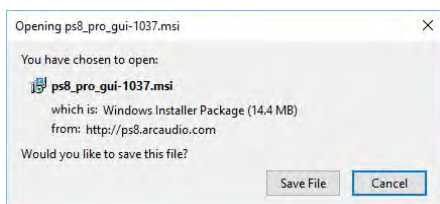
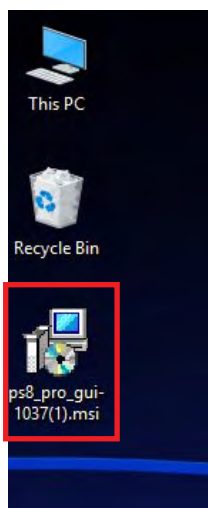
**ARC 1000.2**  
**ARC 1000.4**  
**ARC 1000.6**

## Software Installation

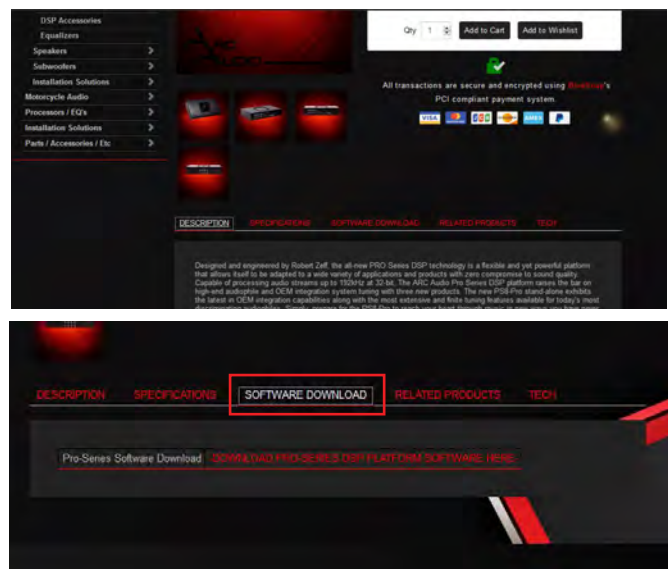
To download and install the Pro-Series software utility please visit any of the product pages for a compatible product (listed above) at [www.arcaudio.com](http://www.arcaudio.com).

Once you have selected your compatible product (Figure 1.1) locate and click on the "Software Download" tab (Figure 1.2). Once this tab is selected you will see the download option for the software. Click on "-DOWNLOAD PRO-SERIES DSP PLATFORM SOFTWARE HERE" to begin the download.

Once you click on the download link, you will be prompted to save the file to your PC. Click on the "Save" button (Figure 1.3) and save the installation file to your desktop for easy access. (Figure 1.4)



F1.3

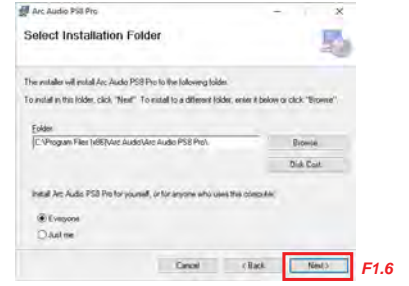
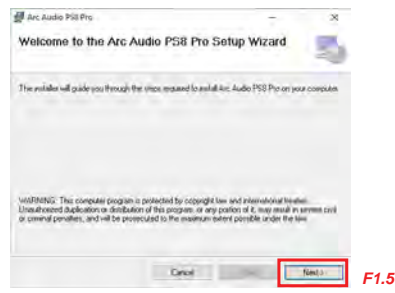


F1.1

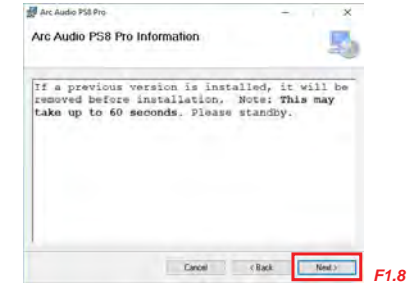
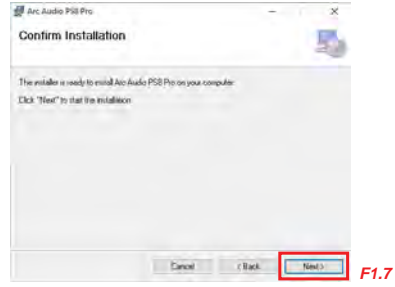
F1.2

F1.4

Once the download is complete, double-click on the saved file on your desktop to begin the installation process. You will see a window with the Pro-Series Software Setup Wizard. Once this window pops up click on the “Next” to begin the installation process. (Figure 1.5)

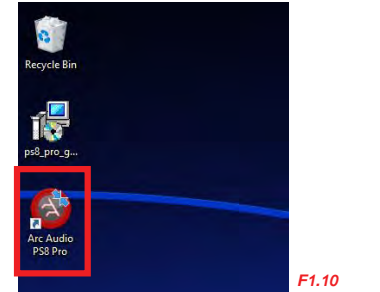
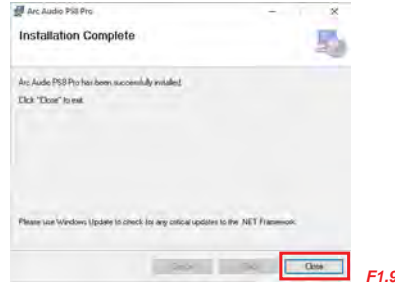


The next window will ask you to select the installation location on your PC where you want to have the software installed. You may choose to use the default location already listed in location assignment window. You will also want to decide if you want the software to be available to all users on your computer or just for your user login only. Once the options you desire are selected, click the “Next” button. (Figure 1.6)



The next setup wizard window will ask you to confirm the installation. If you wish to continue the installation process select “Next” (See Figure 1.7) otherwise, click “X” in the top right hand side of your PC, turn off your computer and take it to a local dealer to complete the installation and tuning process for you.

If you have a previous version of the software installed on your PC this notification advises you that depending on your computer you may experience a delay in the installation process that could take up to 90 seconds. (See Figure 1.8) Please note that depending on your computer’s security, anti-virus or firewall settings, you may be prompted to authorize the completion of the installation.

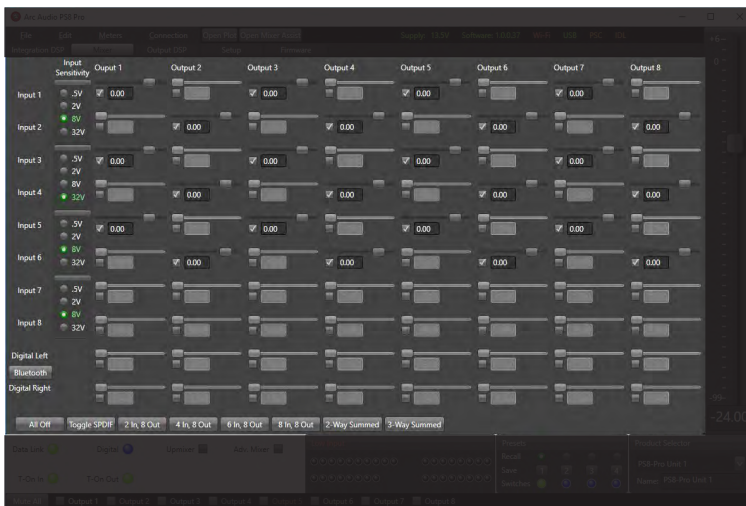


Finally! Your installation is now completed! please click on the “Close” button (Figure 1.9). An Arc Audio PS8-Pro Icon should now be located on your desktop. (Figure 1.10)

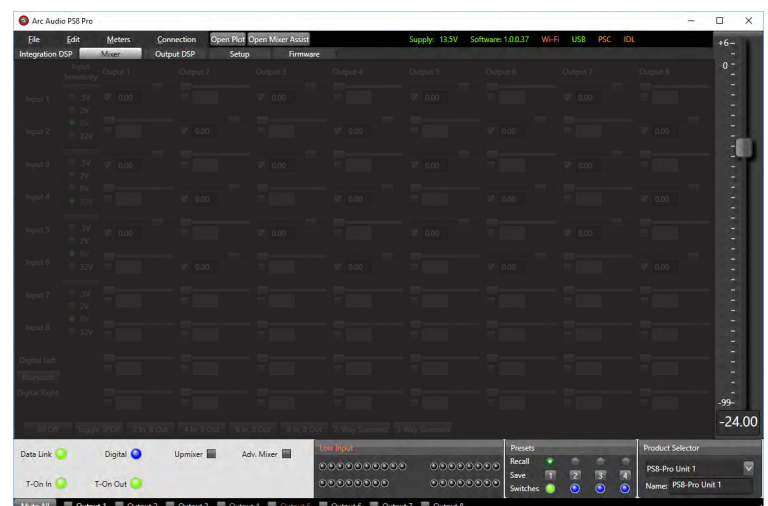
# SOFTWARE OVERVIEW

The Pro-Series user interface is broken into two main areas. These areas include full-time active feature area as well as selectable feature active area. The full-time features will be displayed on your software regardless of which tab or menu is displayed in the context specific feature area. These features are used frequently and having them displayed at all times dramatically improves the speed and efficiency of the tuning process.

SELECTABLE FEATURE AREA



FULLTIME ACTIVE FEATURE AREA



- 1
- 2
- 3
- 4
- 5
- 6
- 7

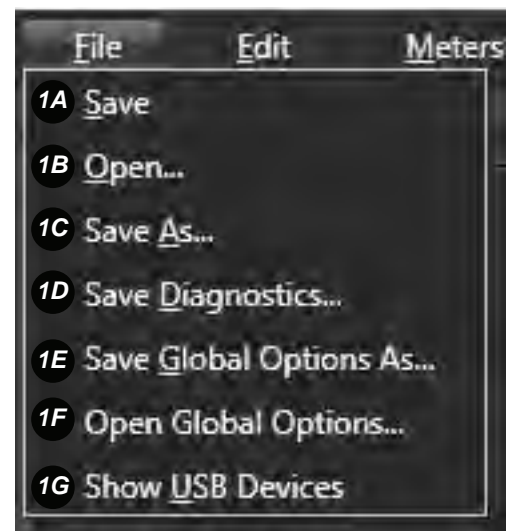
# FULLTIME ACTIVE FEATURE AREA



## 1 FILE

The File tab provides access to options used to store or retrieve preset-specific configuration files, as well as save diagnostics and Global Options files as required.

- 1A** "Save" – Saves the active single preset file to your PC. This will save the file under the last used file name.
- 1B** "Open..." – Opens stored preset files saved on your windows PC.
- 1C** "Save As..." Opens a context window that allows you to store the preset configuration file for the currently selected preset using a unique name.
- 1D** "Save Diagnostics..." – Allows users to store a .CSV format file with basic diagnostic information to your Windows PC
- 1E** "Save Global Options As..." – This function allows for saving and updating the global setting file. This may be required for technical support purposes.
- 1F** "Open Global Options..." – This function allows for opening and updating the global setting file during possible tech support situations when specifically defined files are issued for testing or specific situations
- 1G** "Show USB Devices" – This option opens a pop up windows to display the system and communication USB information and verify recognition and identification of your Pro-Series DSP compatible product.





## 2 EDIT

The “Edit” drop down menu items allow you to back up in steps of adjustment or redo and adjustment that you have undone.

**2A** “Undo”- Pressing the Undo button or CTRL & Z buttons at the same time will allow you to go back one step in the adjustment process you just made. Currently your Pro-Series DSP product will retain the last 50 adjustments.

**2B** “Redo” – Pressing the Redo button or CTRL & Y will step forward one adjustment and is commonly used when you have pressed Undo more times than intended.

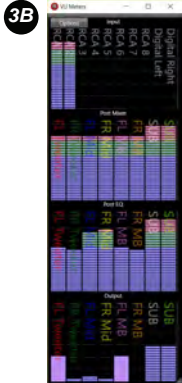
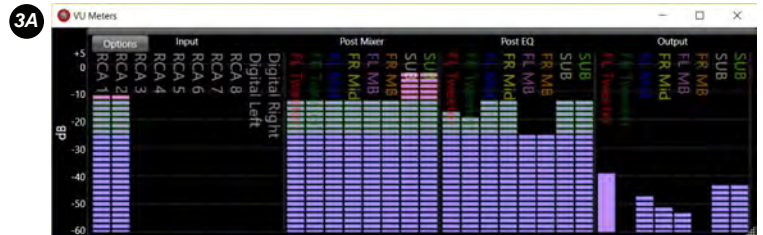
**2C** “Shrink” – Minimizes the GUI to the smallest compatible resolution.



## 3 METERS

The meters drop down menu offers users a plethora of options for using the Pro-Series DSP signal level and monitoring system.

**3A** “Horizontal Meters”- Displays the four-stage, eight-channel levels meters in a left to right configuration. Commonly used when placing the meters above or below the main adjustment window.



**3B** “Vertical Meters”- Displays the meters in a top-to-bottom configuration. Commonly used when placing the meters to the left or right of the main adjustment window.

**3C** “Simple Meters”- Simple meters is similar to the Horizontal Meters but with lower resolution and reduced use graphic resources. This is ideal for computers with slower processors or limited memory.

“Top Most”- Forces the level meters to stay on top of all other windows. Ideal for use when switching between multiple applications.



## 4 CONNECTION

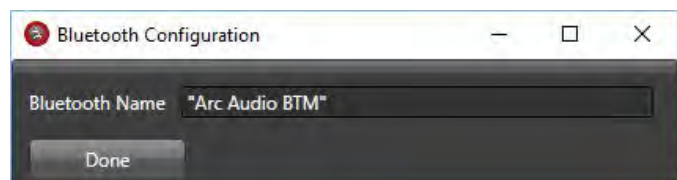
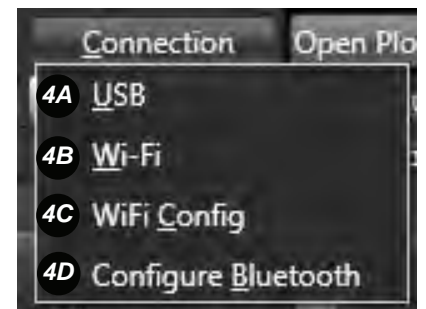
The connection tab provides access to several connection options to your Pro-Series processor. These connection options include USB / Wi-Fi control options and the setup panel from your Bluetooth connection module (sold separately)

**4A** “USB” – When selected the software will connect via the hardwired USB connection.

**4B** “Wi-Fi” – When selected, users can connect to their Pro-Series processor via the AXP Wi-Fi card (sold separately)

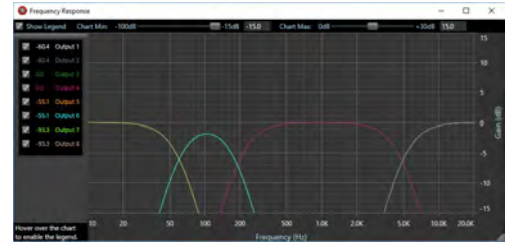
**4C** “Wi-Fi Config” – This tab gives users access to the Wi-Fi Configuration panel to configure the connection between your computer and the AXP Wi-Fi accessory module installed on your Pro-Series DSP.

**4D** “Bluetooth Configuration” – This tab allows you to configure your Bluetooth module address (requires BTM and BTM, sold separately)



## 5 Open Plot

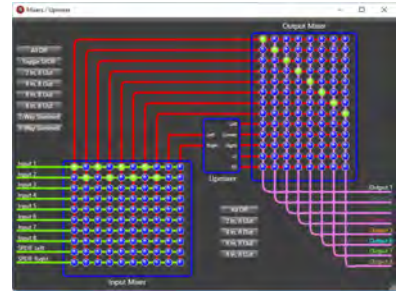
“Open Plot” opens the Pro-Series DSP’s graphical signal-response plotting tool. This tool allows you to see a variety of useful signal related charts including crossover points and their rate of slope, the effects of equalization changes by individual channel and more.



## 6 Open Mixer Assistant

Each of the Pro-Series has an easy-to-use Mixer assistant to assist in the configuration of the Input/output signal mixer. The assistant allows to route signal inputs to desired signal outputs using a visual representation of the signal path. This makes integration and mixing of the analog and digital inputs easy while expediting the use of the upmixer. Channels may be combined with more than one selection to create a summed signal for one or more outputs of your processor. The mixer assistant allows you to sum signals together for use with dedicated OEM integration applications.

However, you will still need to adjust the levels on each input on their respective mixer panel.



## 7 Connection and Status Display



The Software includes real-time resource displays to show important items like system voltage, software version number and connection verification for Wi-Fi, USB, PSC controller or a Maestro AR module. When these items are connected and communicating, the icon will illuminate green. and when disconnected they will illuminate in red.

## 8 Master volume control

The Master volume adjusts the final output level of all channels. The master volume is not global and the level information will save differently between presets and their associated files.



## 9 Coms Indicators

The Comms indicator panel provides users with additional connection verification and access to some of the advanced Pro-Series DSP features.

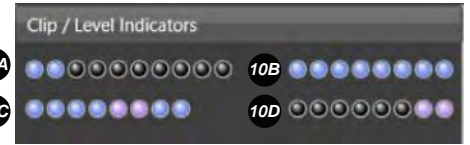
- 9A “Data Link” – When flashing, this indicator shows verified communication between the Software and the DSP.
- 9B “Digital” – When flashing, this indicator shows verified connection and receiving of signal into one of the DSP’s digital inputs.
- 9C “Upmixer” – When selected, you are provided access to the processor’s built-in signal upmixer
- 9D “Adv. Mixer”- When selected this activates and reveals a new tab for access to the Pro-Series DSP’s advanced output signal output mixer allowing for manual control of the secondary signal mixer panel.
- 9E “T-On In”- When illuminated this indicator shows verified connection and +12V signal coming into your DSP- equipped products “Rem In” terminal.
- 9F “T-On Out”- When illuminated this indicator shows that your product’s “Rem Out” terminal is actively providing a +12V signal on the turn-on output terminal.



## 10 Signal Level Indicators

The Pro-Series software utility includes a real time signal indicator level tool that is active at all times on the main user DSP Software screen. The signal indicators represent each channel of signal at different points of the signal path within the DSP. Each light represents the signal level at various stages of the processor using a range of colors for each channel. Blue (Low) indicates normal operation, Green (Optimum) for high-volume listening and Red (Over) indicates possible signal clipping, and requires attention.

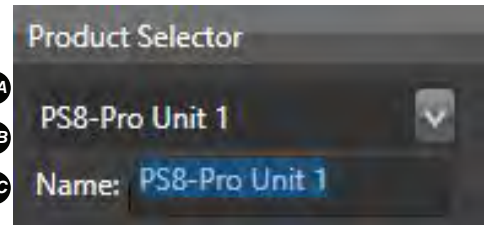
- 10A Input Signal - Ch 1-8 Analog & CH 9-10 Digital. This indicator group shows the strength of the signal coming into each channel of the processor. If the signal is too low the “Clip/Level Indicators” wording will be replaced with “Signal Low” and it is recommended to change your gain structure by adding a line-driver or source unit with more output voltage.



- 10B Post Mixer - Ch 1-8 Post Mixer signal, before crossover stage. This indicator group is used to verify the results of signal summing and channel assignment at the first stage of the DSP.
- 10C Post EQ - Ch 1-8 Post Equalizer. Identifies signal clipping as a result of improper equalization settings or too much boost on this channel. If an indicator is showing red on a given channel, there may be a band of EQ with too much boost vs the gain structure of signal prior to the EQ.
- 10D Main Output - This group of indicators shows you the level and quality of the signal post processor for output channels 1-8

## 11 Presets-

Each of the Pro-Series DSP equipped processors includes four user-definable presets. These presets can save unique settings such as Equalization, Crossovers points, Signal Delay, Input Type, Output Level, etc. Presets can be individually saved to each processor profile as well as be copied to all of the additional presets not being used. Copying presets is ideal for creating a starting point for a different tune.



- 11A “Recall” - Each user defined preset can be recalled (or loaded from the processor memory) by clicking on the corresponding “Recall” button for the desired profile.
- 11B “Save” - After completing the setup and tuning of your processor, click “Save” to store those settings in a corresponding preset. This feature can be used to copy the settings from the active preset that you are on (Preset 1 for example) to an alternative preset (Like preset 4). NOTE: The Pro-Series DSP saves all settings in real-time. So, as you make the changes, it is saving your configuration in real-time to the preset you currently have selected.
- 11C “Switches” - These indicators indicates if the hard-wired preset selection switches are actively selected in a different position other than the preset that they may be using via the software utility.

## 12 Product Selector

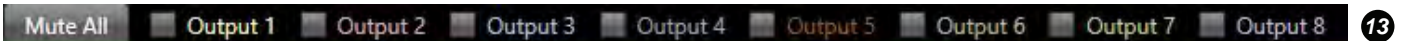
The product selector tool allows you to individually name the processor that you are connected to and allow for connection of multiple processors at the same time for systems that need more than 8-channels of processing. Please note that you must name each unit while connected to only that unit. Then, after it is named you may connect to multiple units and be able to easily identify the unique product name of each processor.



## 13 Channel Muting

Channel muting allows users to individually mute each individual channel, or all channels in real time during the tuning process.

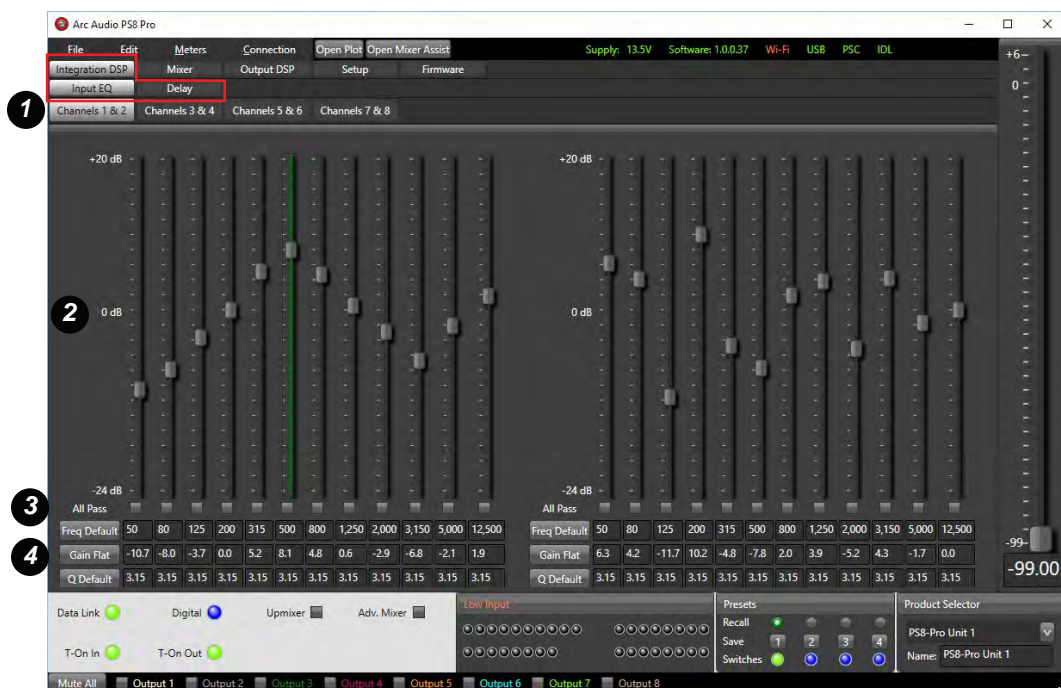
- “Mute All” – Mutes all channels (When selected this button changes to “Unmute All” and when pressed will unmute all channels).
- Output 1 – 8 Each of these check boxes will allow you to individually much or unmute each of the individual channels on your processor.





# SELECTABLE FEATURE AREA (INTEGRATION DSP)

The Pro-Series DSP Integration DSP technology is designed to provide the tools and resources required to properly and seamlessly integrate a premium aftermarket audio system into your factory source unit. These features include input equalization, signal delay and phase controls for each input so you can correct the signal prior to tuning.

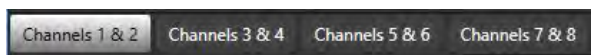


## INTEGRATION DSP FEATURES

These features should be used to correct the electrical signal response from your factory source unit or amplifier, not the acoustic response of the signal and how it works with your speakers in your individual application. To properly use these features, you will need to use an RTA that is capable of measuring the frequency response of the signal while connected to the RCA outputs of the processor without any output crossovers, equalization, signal delay or phase settings applied. If you are trying to do this using a microphone in your car, you are not doing this correctly.

### Input EQ

#### 1 Input EQ Channel selection



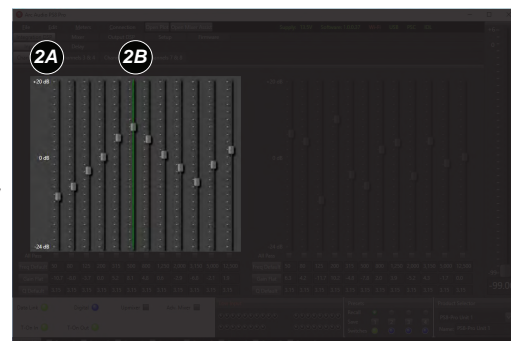
These tabs allow users to select between four different pairs of analog signal input channels to modify the signal with a 12-band parametric equalizer.

#### 2 Input EQ Adjustment

Each equalizer band is a fully variable parametric EQ band and can be used in its default state or can be customized for the application you are using by changing the center frequency, bandwidth and gain. You can also apply an all-pass filter at a specific frequency by clicking the All-Pass tab on the channel of your choice.

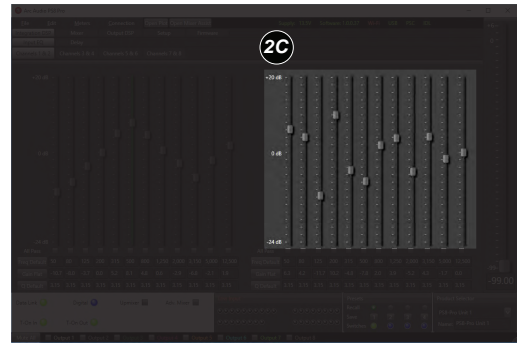
**2A** EQ Group 1 For this example with Channel 1 & 2 selected in the sub tabs this grouping will give you frequency band level adjustment for the signal coming in on channel 1.

**2B** EQ Sliders When a level slider control is selected it will be identified by a green highlight to the left the selected band. Each band selected is adjustable by either moving the slider with your mouse or the up and down arrow keys.



**2B** EQ Grouping 2

For this example with Channel 1 & 2 selected in the sub tabs this grouping will give you frequency band level adjustment for the signal coming in on analog input 2.



**3** All Pass Filters



Each EQ band of the Pro-Series DSP platform Input EQ offers selectable All Pass filter functionality. These are used as phase correcting filters, +/- 180 degrees, at specific bands of signal coming from your OEM source unit. Once selected on an individual band slider they are adjustable only by variable frequency. You will note that once the band is selected the selected band will become muted. Please note the band selected phase correction on this feature is not instant and can take a few seconds to propagate. If a narrow filter is required we recommend placing another All Pass filter close to the frequency center of the first one as the "Q" of this feature is about 3.15.

**4** Input EQ Adjustment Panel

Each band of the input EQ per channel is adjustable by the user to specifically meet the correction needs of the individual system.

<b>4A</b> Freq Default	50	80	125	200	315	500	800	1,250	2,000	3,150	5,000	12,500	<b>4D</b>
<b>4B</b> Gain Flat	0.0	-8.0	-3.7	0.0	5.2	12.7	4.8	0.6	-2.9	-6.8	-2.1	1.9	<b>4E</b>
<b>4C</b> Q Default	4.31	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	3.15	<b>4F</b>

**4A** Freq Default      Pressing this button will reset all the frequency settings of this EQ group back back to default settings

**4B** Gain Flat      Pressing this button will reset all bands of this channel of EQ band gain levels to 0dB.

**4C** Q Default      Pressing this button will reset all bands of this channel of EQ back to a default Q-Factor (bandwidth setting) of 3.15

**4D** Frequency selection      Each box will display the center frequency of each band of equas required to flatten the input signal.

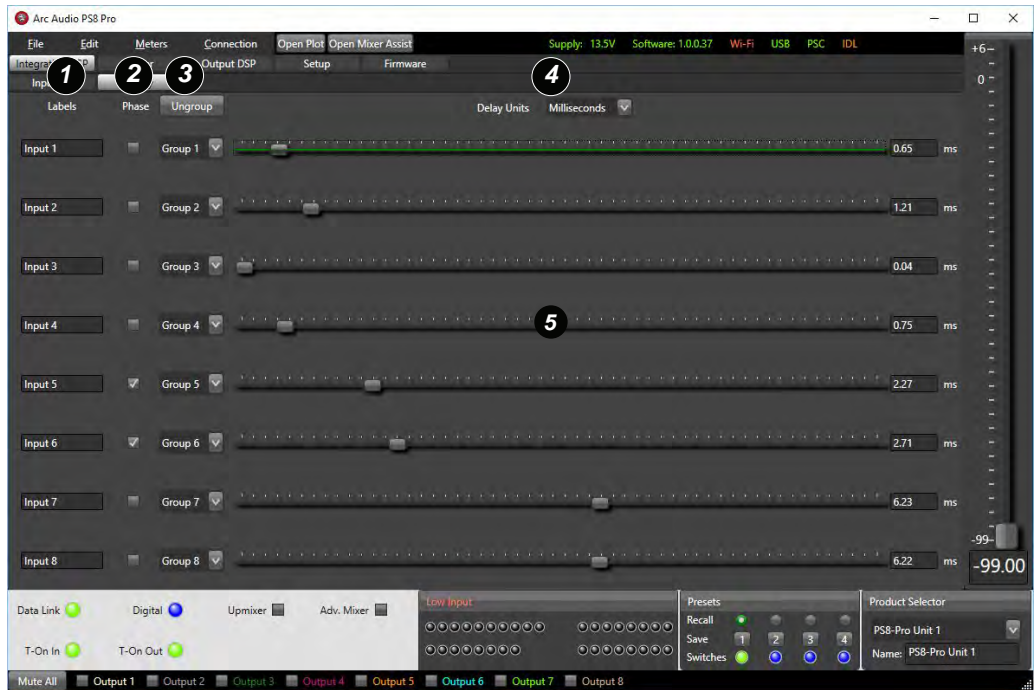
**4E** Gain Level Display      Each box will display the gain level of each frequency band for this individual channel. Users may also manually enter a new gain level here to adjust the slider without having to manually operate the sliders.

**4F** Q Factor Display      Each box will display the selected band of frequencies "Q". Users can adjust this value by selecting and manually entering a value of their own. A higher "Q" value will affect a narrow range of frequencies.



# Input Signal Delay

The Pro-Series input signal delay panel offers users the ability to correct channel delay from the factory source unit found in OEM integration applications. Each channel of delay is adjustable up to 11.05ms per channel in .01ms increments. You have the option of display delay in inches, feet, millimeters, centimeters, milliseconds or samples.



## 1 Labels

Users may define each of the eighth input channel names input by clicking on any of these boxes and typing the desired name in the character box and pressing enter or tab. Users may also redefine these input channel names in the “setup” tab panel as well.

## 2 Phase

Clicking the Phase box associated with each input will invert the signal by 180 degree’s. With a check box selected the signal is 180 degrees out of phase from the original state . If the check box is unchecked, the signal will remain in its native state as provided from the source.

## 3 Channel Grouping

Users may adjust each of the processors input channel delay individually by channel or in customized groups. By default, each channel is labeled Groups 1 through 8 however clicking on the group drop down arrow on each channel line allows users to change these group assignments and operate them and their adjustments in tandem.



### 3A Ungroup

Pressing this button allows users to reset all the grouping assignments back to the default values. When ungrouping your previous settings made in grouped channels will remain as is now available for individual adjustment.

### 3B Group Box

Selecting a group from the drop-down menu provides users with the option to adjust multiple channels at once. When channels are in the same group, adjustments made to one channel affect all channels.



## 4 Delay Units

The value of the adjustment in the input delay panel can be selected by the user. By default signal delay is set to milliseconds (ms) but users can select from milliseconds, centimeters, feet, inches and samples.

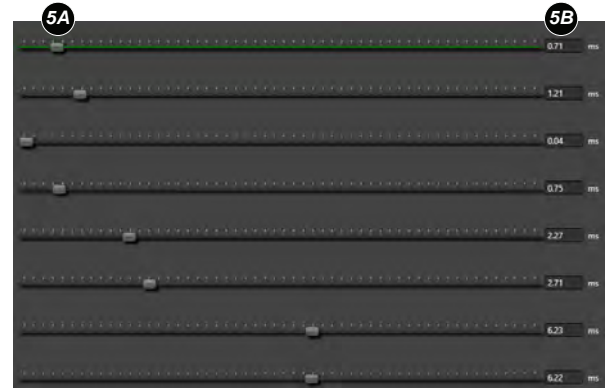


## 5 Input Delay Sliders

Each of the input channels has a dedicated slider adjustment that allows users to adjust each of the channels input signal delay up to 11.05ms per channel in .01ms increments.

**5A** Delay Slider control - Each channel of delay is controlled by a single slider contro. To make an adjustment click on the desired corresponding channel slider and the channel will be highlighted by a green backlight. Users may adjust the amount of input delay by using the left and right arrow keys to decrease or increase the amount of. The up and down arrows allow you to change which channel channel is being adjusted.

**5B** Slider Channel Value- The active value of input delay for each channel is displayed in each value display box. Users may also set the setting by manually typing the desired value up to 11.05ms and pressing enter or tab.



## INTEGRATION INPUT SIGNAL MIXER

The Pro-Series input signal mixer is one of the most extensive signal routing tools available in the 12V DSP market. The Mixer allows users to route the signal input from any of the DSP's 8-Channels of analog signal and/or digital signal input and route it to any of the processor outputs individually from any number of inputs.

This panel is used for all OEM integration and aftermarket applications



## 6 Integration Mixer Input Labels

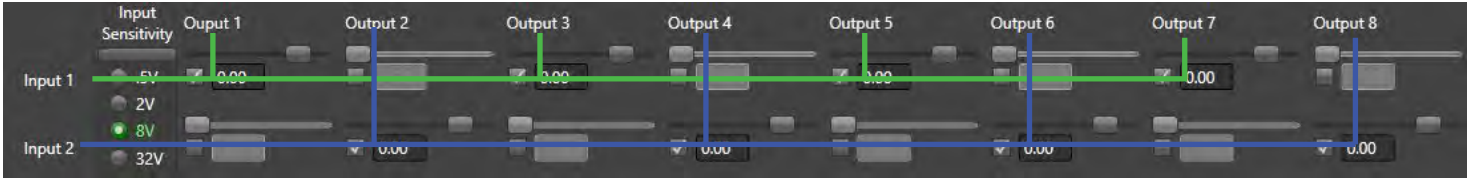
Integration Mixer Input Labels help users identify the location and assignment of each input signal coming into the processor. These labels are customizable in the Setup tab so users can name them specifically to the individual application for easy recognition.

## 7 Input Sensitivity

Every source will have a different maximum signal level. To change the input sensitivity (gain) of the processor based on your available input signal, carefully select the correct input sensitivity level that is relevant to your source units maximum unclipped full output signal. The available input voltage ranges are from 0.5V – 32V. Monitor the Level Meters as you adjust the inputs sensitivity, especially when summing signals together.



## 8 Mixer Input/Output Assignment Intersections



These intersection points are the key tool that users can use to direct where each channel of input signal can be routed with respect to each of the processors outputs. The example in the image above is for 2-Channels of stereo input and 8-Channels of Stereo output. In this case, Channel 1 input is routed to Channels 1,3,5 and 7 and the Channel 2 input is routed to out Channels 2,4,6 and 8.

To select an intersecting point between your inputs or outputs simply double click on the desired check box, then select the slider and move with the mouse or arrow keys, or manually type in the signal level value you desire for that intersection point. In most cases you will have a signal level of 0.00dB in an active connection point. However, in cases like signal summing for OEM integration or sum mono signals on a single output channel you will want to use negative value numbers. Always remember that if your summing multiple channels together, decrease each input to prevent clipping of the input stage of the DSP. The Level meters can assist with this process.

## 9 Input Mixer Output Labels



These Integration Mixer Output Labels run horizontally across the top of the mixer page. These labels identify each mixer signal output and act as reference points for the user to direct the signal to the next section of the DSP signal chain. These labels can be updated in the Setup tab for customized reference to the individual application.

## 10 Digital Signal Source Selection Switch

When using either the High-Res Optical digital input or the Pro-Series optional High-Res BTD&BTM Bluetooth Module, you will need to make sure you route the signal and select the appropriate type of digital signal source for your system. To use any of the digital signal sources on the Pro-Series platform DSP's you must assign input channels 9&10 to the desired output channels to pass signal through to the outputs. Clicking on the selection button allows you to toggle between Bluetooth and SPDIF signal sources.



## 11 Mixer Factor Suggested Mixer Preset Buttons

These buttons offer users a variety of predefined mixer settings for different applications and system configurations. These pre-defined options may not offer solutions for every application but this will get most users and their systems started in the right direction before exploring the plethora of custom configurations and settings available in this panel.

*This space was intentionally left blank. Wondering why?  
Yeah neither were we.*



# CROSSEVERS

All Pro-Series DSP equipped products have an extensive suite of crossovers options on all channels for both high-pass and low-pass filters. This flexible platform allows users to create any type of crossover on each channel to suit the needs of every system and achieve pure acoustical perfection.



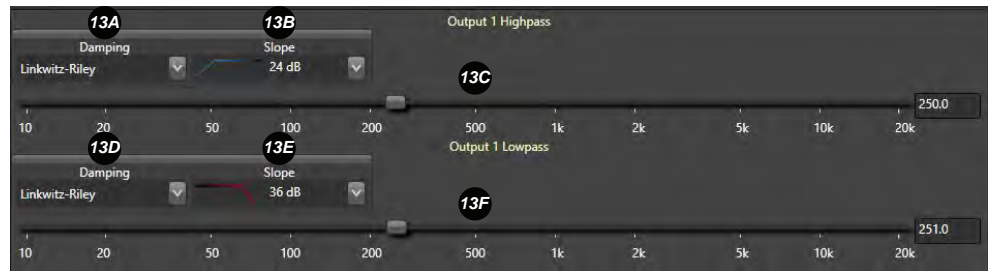
## 12 Crossover Channel Display

The crossover utility channels are displayed in channel pairs (CH1&2, CH3&4, CH5&6 and CH7&8). Users may toggle between the different output groups as needed with all settings saved in real time.

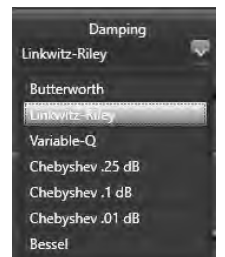


## 13 Odd Channel Number Crossover Channel Filter Adjustment Group

Each channel group selected within the crossover displays in pairs of channels however the individual channels may have fully customized and unique crossover settings that more maximum system flexibility. Each channel includes High-Pass and Low-Pass selectable filters each with definable Damping, Slope and frequency for each portion of the crossover.



**13A High-Pass Damping** Users may hover over the “Damping” type display box drop down button to display and select from the available crossover damping types available at their disposal on the selected channels High-Pass crossover. Options include Butterworth, Linkwitz-Riley, Butterworth, Variable “Q”, Besel and several ChebyChev damping types.



**13B High-Pass Slope** Users may select from a wide range of crossover attenuation slopes based on the type of damping characteristics that has been selected.



<u>Butterworth</u>	<u>Linkwitz-Riley</u>	<u>Variable-Q</u>	<u>ChebyChev (.01dB - .25dB)</u>	<u>Bessel</u>
6dB, 12dB, 18dB	12dB, 24dB,	12dB	12dB, 18dB	12dB, 24dB,
24dB, 30dB, 36dB	36dB, 48dB		24dB, 30dB, 36dB	36dB, 48dB
42dB, 48dB			42dB, 48dB	



**13C** High Pass Frequency

Each crossover filter has adjustable crossover points ranging from 5Hz to 20kHz in 0.1Hz increments. Users may adjust this value by clicking on the slider and drag it to the desired frequency or manually enter the desired frequency in the slider display box to the right of the slider and press enter or tab when done.

**13D** Low-Pass Damping

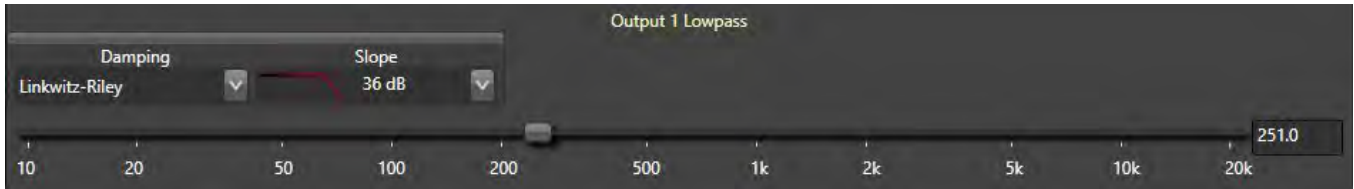
Users may hover over the “Damping” type display box drop down button to display and select from the available crossover damping types available at their disposal on the selected channels High-Pass crossover. Options include Butterworth, Linkwitz-Riley, Butterworth, Variable “Q”, Besel and several ChebyChev damping types.



**13E** High-Pass Slope

Users may select from a wide range of crossover attenuation slopes based on the type of damping characteristics that has been selected.

<u>Butterworth</u>	<u>Linkwitz-Riley</u>	<u>Variable-Q</u>	<u>ChebyChev (.01dB - .25dB)</u>	<u>Bessel</u>
6dB, 12dB, 18dB	12dB, 24dB,	12dB	12dB, 18dB	12dB, 24dB,
24dB, 30dB, 36dB	36dB, 48dB		24dB, 30dB, 36dB	36dB, 48dB
42dB, 48dB			42dB, 48dB	

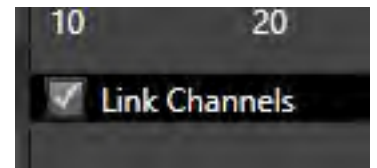


**13F** Low-Pass Frequency

Each crossover filter has adjustable crossover points ranging from 5Hz to 20kHz in 0.1Hz increments. Users may adjust this value by clicking on the slider and drag it to the desired frequency or manually enter the desired frequency in the slider display box to the right of the slider and press enter or tab when done.

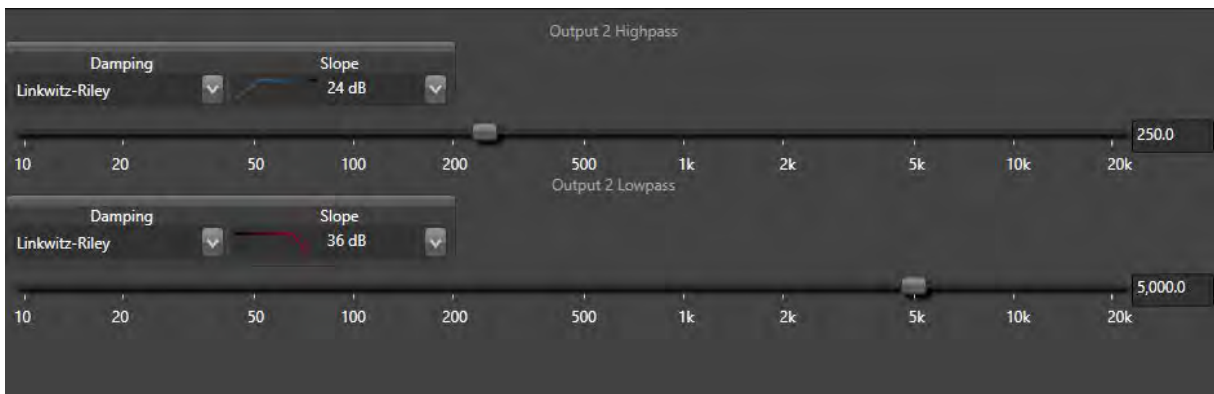
**14** Channel Linking

Users may link the displayed channels together to improve ease and speed of setting the crossovers on the displayed channels when it is desired to have both displayed channel perform in the same frequency range.



**15** Even Channel Number Crossover Channel Filter Adjustment Group

This area is located directly below the Odd number channel groups on the crossover page. All of the features and options available in the above group are also available here. The settings do NOT have to match between channels unless desired.



# OUTPUT SIGNAL DELAY

The Pro-Series platform DSP includes up to 30ms of fine resolution signal delay (up to .01ms steps) on each output channel. This unprecedented level of control and resources offer users an extremely wide level of flexibility to help correct the arrival times of the sound from each speaker in most any application.



21  
22  
23

## 16 Labels

Each of the channel outputs available on each Pro-Series DSP equipped product is capable of having the name assignment customized by the users. Users may define this channel name input by clicking on any of these boxes and typing the desired name in the character box and pressing enter or tab. Users may also redefine these output channel names in the “setup” tab panel as well.

## 17 Phase

Each of the channels available through your Pro-Series DSP equipped product can invert the output signals channel signal polarity by 180 degrees. With a check box selected the signal is 180 degrees out of phase from the original state that the signal is coming into the processor on that individual channel. If the check box is unchecked the signal will remain in its native state as provided from the source.

## 18 Channel Grouping

Users may adjust each of the processors output signal delay features individually or in customized groups. By default, each channel is labeled Groups 1-6 however clicking on the group drop down arrow on each channel line allows users to change these group assignments and operate them and their adjustments in tandem.

**18A** Ungroup- Pressing this button allows users to reset all the grouping assignments back to the default values. When ungrouping your previous settings made in grouped channels will remain as is now available for individual adjustment.

**18B** Group selection box – Pressing on the drop-down arrow will give users the option to select from any of the 8 group assignment options to group channel adjustment together with another similar assigned channel.

## 19 Delay Units

The value of the adjustment in the output delay panel can be selected by the user. By default signal delay is set to milliseconds (ms) but users can select from milliseconds, centimeters, feet, inches and samples.





## 20 Output Delay Sliders

Each of the output channels has a dedicated slider adjustment that allows users to adjust each of the channels input signal delay up to 30ms per channel in .01ms increments.

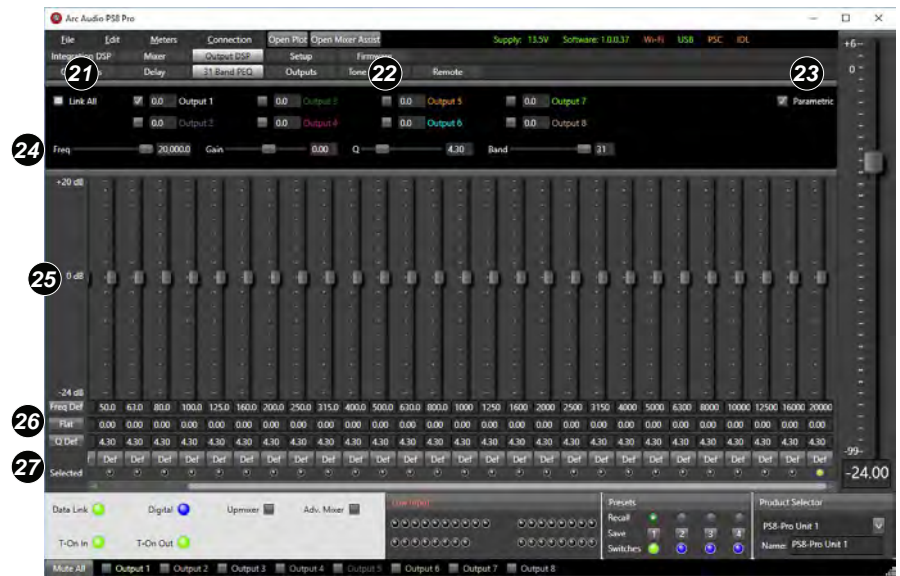
**20A** Delay Slider Each channel of delay is controlled by a single slider control knob. To make an adjustment, click on the desired channel slider and the channel will be highlighted by a green backlight on the slider guide. Users may adjust the amount of delay using the arrow keys to decrease or increase the level of delay or use the up and down keys to change between the channels. You can slide the control using the mouse or manually enter the delay value in the Delay Value text box to the right of the slider.



**20B** Delay Value The active value of input delay of each channel is displayed in each value display box. Users may also set the setting by manually typing the desired value up to 30ms and press enter or tab.

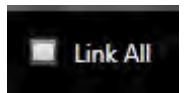
## OUTPUT EQUALIZATION OPTIONS

Dialing in the details is what makes one system different from another in terms of its performance and accuracy. The EQ on all of the Pro-Series processors pushes the envelope of today's available EQ technology with an unprecedented 248 bands of equalization with adjustment resolution in 0.1dB steps for the ultimate in adjustment resolution. Want more? The Pro-Series DSP platform gives users the option of 248 bands of fully customizable parametric equalization.



### 21 Link All

The "Link All" feature allows users to link or unlink all 8 channels of output together for a global tuning solution across all 8-channels. When this box is unchecked all channel will become unselected, requiring a channel to be selected to continue tuning.



### 22 EQ Channel Selection

Each of the output channels of your Pro-Series DSP equipped product is capable of being selected individually or in any combination needed to assist in your tuning process. A channel is selected if the check box next to the channel name identifier has a check mark in it and if unchecked the channel is not selected. On a side note channel names should be customized by the user to represent the assignment of the channel in the individual system by changing the output channel label name in the setup panel.



## 23 Parametric EQ Activation Button



By selecting this check box, users activate the expanded parametric equalizer on the Pro-Series DSP platform. You may switch to parametric mode at anytime from Third Octave mode however if you want to change from parametric mode to Third Octave all bands and channels of EQ will restore to default settings.

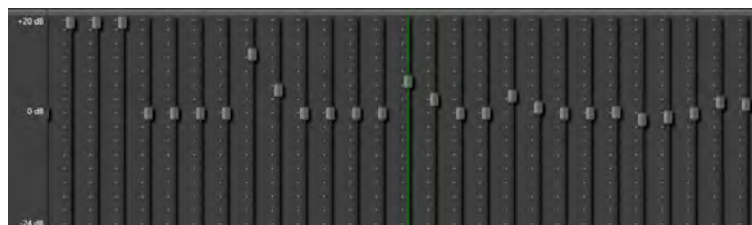
## 24 Parametric EQ Band Options



EQ Band options display additional details for the active band of EQ that you are currently on while in parametric mode. This displayed line of information and controls are only visible when in parametric mode and is not displayed while using the third octave equalizer.

## 25 EQ Adjustment Sliders Display

Each channel of equalization has the ability to be displayed individually and adjusted as necessary to complete the desired tuning for the individual audio system application. If all channels of EQ are selected this area will display the lowest number value channel (Channel 1) however, adjustments can be made to all eight channels even when only seeing one channel of information.



Adjustments can be made by manually moving the desired band of EQ slider with your computer's pointer or mouse. Users may also click on one starting band which will be identified by a green band highlights and green indicator at the bottom of the band and then continue with adjustments using the arrow keys. The Up and Down keys to increase or decrease band gain and the Left and Right keys change adjustment bands.

## 26 Output EQ Adjustment Panel

Each band of the output EQ is also adjustable by the user by manually typing a value into these displayed categories. Users may also reset entire feature lines across all bands by clicking these reset to default buttons described below.

Freq Def	50.0	63.0	80.0	100.0	125.0	160.0
Flat	20.00	20.00	20.00	0.00	0.00	0.00
Q Def	4.30	4.30	4.30	4.30	4.30	4.30

**26A** Freq Def Pressing this button will reset all bands of this channel of EQ's frequencies for this channel on the processor back to default settings

**26B** Flat Pressing this button will reset all bands of this channel of EQ band gain levels back to zero.

**26C** Q Def Pressing this button will reset all bands of this channel of EQ back to a default Q-factor of 4.30

## 27 Default (Reset) buttons / Selected indicators

**27A** Default Buttons Users may reset the complete individual band settings of each band one by one on each channel by pressing and selecting the "DEF" button located at the bottom of each band of equalization.

**27B** Channel Indicators Users can identify what band they have selected by looking for the illuminated green indicator located at the bottom of each EQ band and their corresponding adjustment display windows.



# OUTPUT TRIM & ASSIGNMENTS / FADERS

The Pro-Series DSP Outputs panel is a joint setup, configuration and level control panel for the outputs of an ARC Audio DSP equipped product. As the Pro-Series DSP platform is open architecture and configurable to most any application, users must define the operation type of each output so the processor knows how you are using them. Assigning them as Front Left, Front Right, Center, Sub, etc allows you full fader control on the PSC controller and/or the fader controls in the user software.



## 28 Output Channel Labels

Each of the channel outputs available on each Pro-Series DSP equipped product is capable of having the name assignment customized by the users. Users may define this channel name input by clicking on any of these boxes and typing the desired name in the character box and pressing enter or tab. Users may also redefine these output channel names in the “setup” tab panel as well.

## 29 Channel Assignments

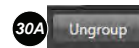
When doing the initial setup on any Pro-Series processor equipped product users need to identify the operation of each channel relative to its function location in the vehicle. Doing so will allow the fader and balance controls in the software and in the PSC controller to function correctly based on your unique system setup. Channel assignment options include Front Left, Front Right, Rear Left, Rear Right, Center and Sub. To select one of these options, click on the drop down arrow next to the assignment text box on the channel you want to change and click on one of the options from the drop down menu.



## 30 Grouping

Users may adjust each of the processors output trim features individually or in customized groups. By default, each channel is labeled Groups 1-8 however clicking on the group drop down arrow on each channel line allows users to change these group assignments and operate them and their adjustments in tandem.

**30A** Ungroup- Pressing this button allows users to reset all the grouping assignments back to the default values. When ungrouping your previous settings made in grouped channels will remain.



**30B** Group selection box – Pressing on the drop-down arrow will give users the option to select from any of the eight group assignment options to group channel adjustments together with another similarly assigned channel.





## 31 Output Level Trim Adjustment Sliders

Each of the output channel has a level based trim control capable of +6dB of gain and up to -40dB of cut per channel. This refined output level controls allows users to do things like level-match based on speaker efficiency, or shift the center image of a sound stage without altering the delay between same-channel speakers.



**31A** Output Trim Slider control Each channel is controlled by a single slider control knob. To make an adjustment, click on the desired corresponding channel control and the channel will be highlighted by a green backlight on the slider guide. Users may adjust the output level control by using the arrow keys (Left+right to increase or decrease the level or up+down to change between the channels) or may manually adjust the amplitude by dragging the slider to the desired value.

**31B** Slider Channel Value The adjustment of output signal trim/boost on each channel is displayed in each value display box. Users may also set the setting by manually typing the desired value up to +6.0 to -40.0 and pressing enter or tab.

## 32 Faders control

After defining the operation of each output channel, users can control the available faders from the software in this panel. Operation of these controls may be done by either clicking and dragging each slider with your mouse pointer or by clicking the desired slider (which will be identifiable by the green backlit slider bar) or using the arrow keys (up & down controls the individual slider and left & right changes between sliders).



**32A** Balance Control When properly defined, this control will change the balance and focus of the sound in your system from the left side to the right side and vice versa.

**32B** Fader Control When properly defined, this control allows the users to fade between the front and the rear speakers of the sound system.

**32C** Center When an output channel is defined and labeled as "center" this control will adjust the level of output on the associated channels as defined by the user.

**32D** Bass When properly , this control will adjust the level of output on the related channels as defined by the user.

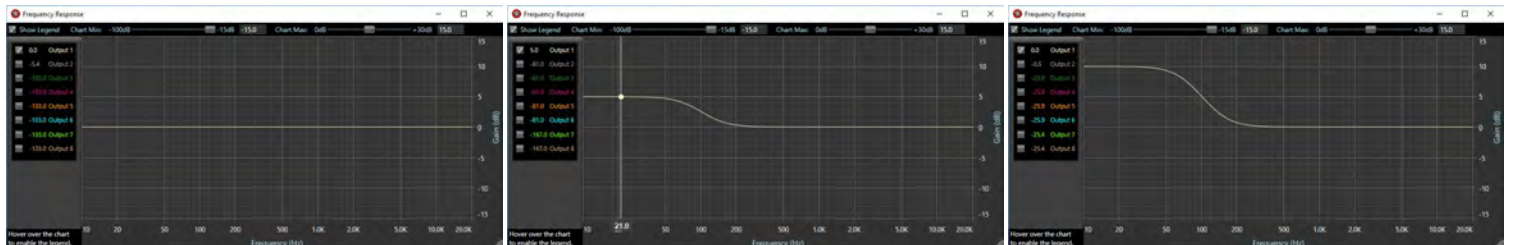
# TONE CONTROLS (MAESTRO INTERFACE)

Tone controls are a customizable and useful resource for systems using the IDATALINK/MAESTRO AR interface module. MAESTRO applications are limited to a specific list of compatible vehicle applications. This utility allows you to program your Pro-Series DSP to customize your OEM systems stereo tone controls (Low, Mid, High). You have the ability, when using the Maestro AR module to customize how each of these controls works and optimize the resulting effect for the individual audio system.



## 32 Low Frequency Shelving

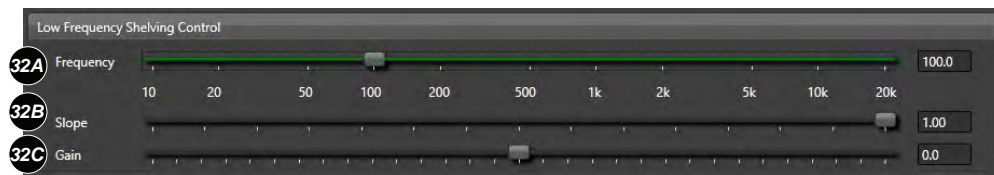
This adjustment and its features allow users to create an adjustable rise of gain in the low frequency range of the audio system. Users can define the slope of the effect being introduced to the signal as well as the frequency and level of adjustment. In the images below you will see the effects of the Low Frequency Shelving on and off as seen through the sources frequency response electronically. You can also view this in your processors "Plot" feature.



Low Shelf +0dB

Low Shelf +5dB

Low Shelf +10dB



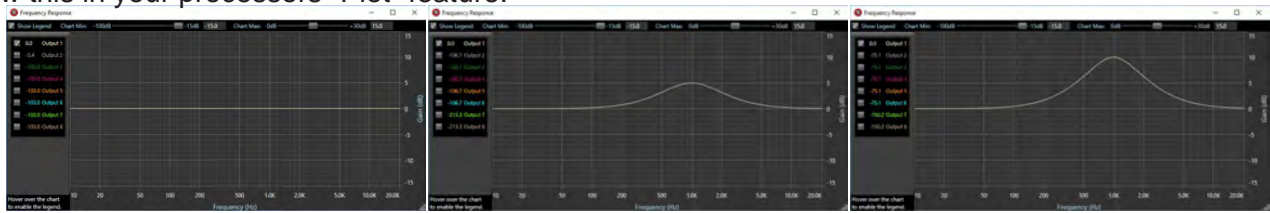
**32A** Frequency The frequency adjustment control of this feature allows users to define the frequency center point of this control on the factory radio interface when using the Maestro AR Interface.

**32B** Slope This feature describes the rate which the audio level increases/decreases per octave as the frequency increases/decreases

**32C** Gain Gain in this application refers to the loudness or increase of signal over a reference point (no gain applied) in the use of this feature. Adding gain will increase the level of output you hear at the affected range. Decreasing gain will reduce the amount you hear in this range.

### 33 Midrange Tone Control

Midrange Tone Control is a boost/cut based feature that allows users to increase or decrease the level of signal and sound they hear in the midrange frequency bands of their system as defined by the frequency, Q, and gain level of this individual feature. In the images below you will see the effects of the Midrange Tone Control, on and off as seen through the sources frequency response electronically. You can also view this in your processors "Plot" feature.



Mid Shelf +0dB

Mid Shelf +5dB

Mid Shelf +10dB



#### 33A Frequency

The frequency adjustment control of this feature allows users to define the frequency center point of this control on the factory radio interface when using the Maestro AR Interface.

#### 33B Q Factor

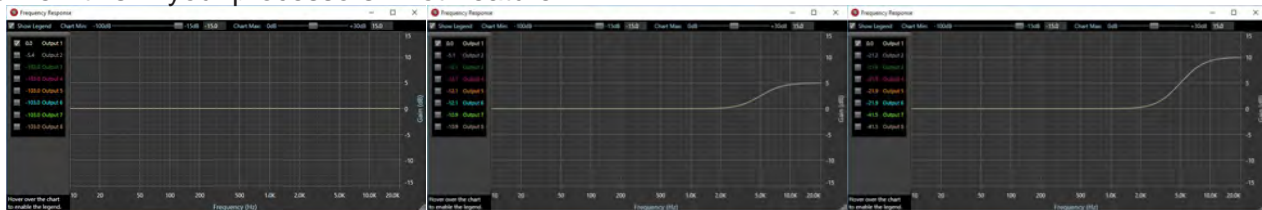
The Q-factor of a filter is the frequency of the crossover point divided by the width of the filtering effect. The higher the Q, the more narrow or sharper a filter's focus becomes.

#### 33C Gain

Gain in this application refers to the loudness or increase of signal over a reference point (no gain applied) in the use of this feature. Adding gain will increase the level of output you hear at the affected range. Decreasing gain will reduce the amount you hear.

### 34 High Frequency Shelving Control

This adjustment and its features allow users to create an adjustable rise in output in the high frequency range of the audio system. Users can define the slope of the effect being introduced to the signal as well as the frequency and level of adjustment. In the images below you will see the effects of the High Frequency Shelving on and off as seen through the source's frequency response electronically. You can also view this in your processors "Plot" feature.



High Shelf +0dB

High Shelf +5dB

High Shelf +10dB



#### 34A Frequency

The frequency adjustment control of this feature allows users to define the frequency center point of this control on the factory radio interface when using the Maestro AR Interface.

#### 34B Slope

This feature describes the rate which the audio level increases/decreases per octave as the frequency increases/decreases

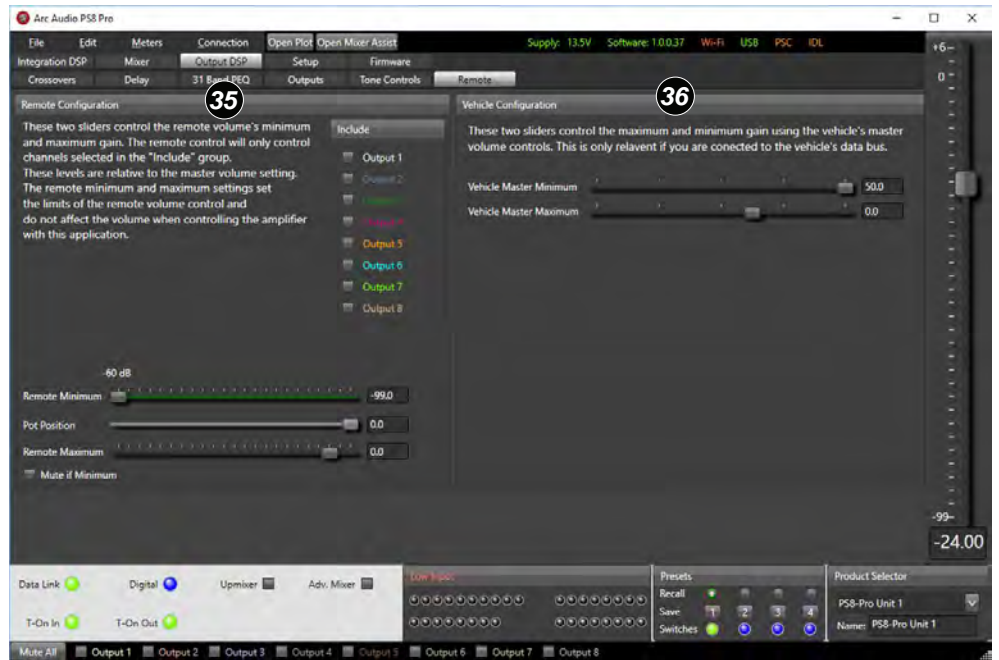
#### 34C Gain

Gain in this application refers to the loudness or increase of signal over a reference point (no gain applied) in the use of this feature. Adding gain will increase the level of output you hear at the effected range. Decreasing gain will reduce the amount you hear.



# REMOTE CONFIGURATION

*The remote configuration panel is exclusively for systems using the LR1 Remote Level Control as an optional accessory with any of the Pro-Series DSP equipped products. This programmable level control can be programmed to operate in a wide range of different operations from a master volume level control, a channel level control (such as for sub level) or even a bass boost.*



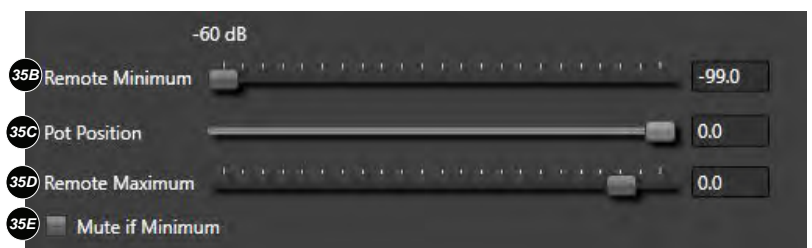
## 35 Remote Configuration

The remote configuration panel is where you can define how the optional LR1 remote level control works. The controller can actually be defined for use in a wide variety of different applications for single function use options (level control, single channel, remote level control, bass boost, volume control, etc)

**35A** Include- "Include" is the location where users may define the channels of output that they want the LR1 to effect the signal. If you Select all channels it will affect all channels of output like you would find on a master volume control. If you want a sub level control and have the sub hooked up to only Channel 8 then you will only want to check on the channel 8 check box.



**35B** Remote Minimum- This adjustment allow you to set how much you want to allow the remote to attenuate the signal on the assigned channel.



**35C** Pot Position – This shows users the current position of their LR1 controller when connected to their processor. User s may also control the level during setup when the LR1 is connected by dragging the slider to the desired position.

**35D** Remote Maximum- This adjustment allows users to set the parameter of the maximum level of signal that can be passed with the LR1 at maximum on the selected channels

**35E** Mute if Minimum – With this feature selected with a check in the check box the system will mute itself when the LR1 is at its lowers position.

### 36

## Vehicle Configuration

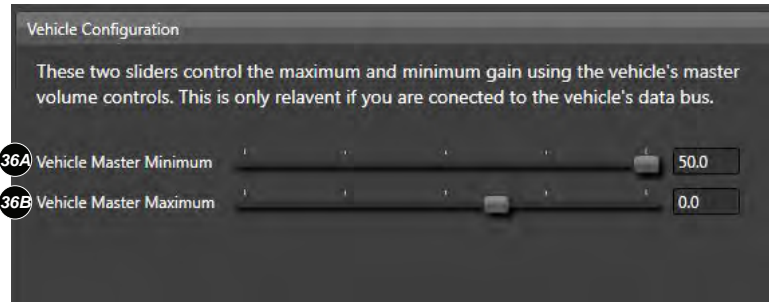
Vehicle configuration is part of the setup utility when using the Maestro AR module for OEM interface applications. This feature allows you to do additional defining of the vehicles OEM volume control limitations

### 36A

Vehicle Master Minimum- Users may define the minimum levels of DSP volume in reference to the minimum OEM volume control position on the vehicles factory source unit.

### 36B

Vehicle Master Maximum- Users may define the maximum level of DSP volume in reference to the maximum OEM volume control position on the vehicle's factory source unit.



## SETUP TAB OPTIONS

The Pro-Series software "Setup" tab is the central setup and operation area where users can define a wide range of customizable features for all products equipped with the Pro-Series DSP. Users can specify operation here on everything from the defined timing of the way each component turns on or off to customizable naming of all inputs and outputs and so much more.



### 37

## OPTIONS

The options panel is for customizing the hardware features of your Pro-Series DSP equipped product. Each function in this panel allows users to change a wide variety of options that can affect how the product will physically work in your installation with other products and the vehicle itself.

### 37A

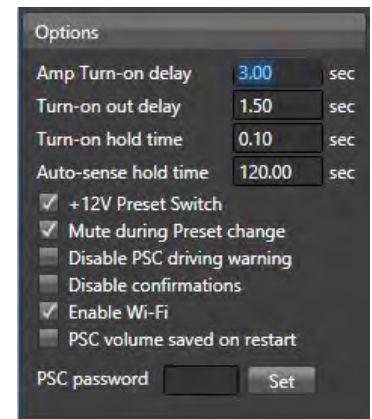
Amp Turn-on delay- When using one of the Pro-Series DSP compatible amplifiers this feature allows you to define the time of delay it takes to turn on the built-in amplifier itself.

### 37B

Turn-on out delay- This feature allows users to set and define the time of delay needed before the processor sends signal through the processors Rem-out terminal to turn on and activate external amplifiers.

### 37C

Turn-on hold time- This feature allows users to set and define the amount of time the processor will stay turned on with its internal mute function engaged once it turns off its Rem-Out lead. This function set correctly can eliminate turn-off pop issues in some problematic systems.



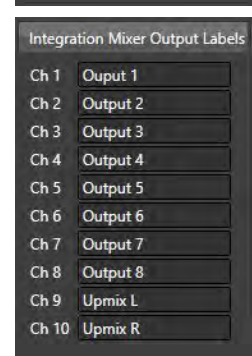
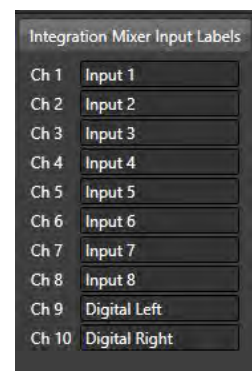
- 37D Auto-sense hold time- This feature allows users to set and define the amount of time the processor will stay on after it loses detection of the OEM signal when using the Auto-sense turn on function.
- 37E +12V Preset Switch- By default, all Pro-Series DSP processors have the option to select back and forth between their saved presets with the use of hard-wired switches that latch to ground. When selected this can be changed to accept +12V triggers to these wired terminals on the processor.
- 37F Mute during Preset change- When selected, this option will mute the system when changing between presets.
- 37G Disable PSC driving warning- When selected this option will disable and remove the user warning agreement when entering the different settings in the PSC controller after power up.
- 37H Disable confirmations- This feature will disable all notifications and pop ups throughout the software. (NOTE: Disabling these pop-up notifications could result in accidental actions such as overwriting presets, resetting functions to default etc. if accidentally pressing a function key.)
- 37I Enable Wi-Fi- This feature must be checked in order to activate the Pro-Series DSP's Wi-Fi utility when using the optional AXP Wi-Fi accessory card.
- 37J PSC Volume saved on restart- By default, any Pro-Series DSP equipped product will turn back on and the last known volume setting the system was at when it was turned off. However, user can define the system (with the check box checked) so that when the system is powered down and turned back on it will reload to a lower volume setting that was saved with the software into a setting.
- 37K PSC Password- Users can define a unique password that will require a password be entered when entering the DSP function portion of the PSC controller. (NOTE: Entering all zeros will disable the password requirement if previously set.)

### 38 Integration Mixer Input Labels

Users can update and customize the signal input labels (also known as Integration Mixer Input Labels) of their Pro-Series DSP on this panel here. These labels are identifiable on the “Mixer” panel of their user software on the left side of the Mixer display. To update and change the label names enter the desired channel name and press enter or tab.

### 39 Integration Mixer Output Labels

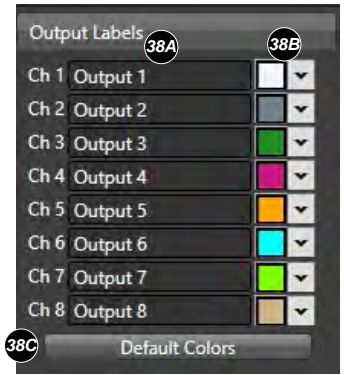
Users can update and customize the Integration Mixer Output Labels using this panel here. These assigned name locations can be found across the top section above all of the mixer intersection points in the “Mixer” panel. Please note that these are NOT the processors main signal outputs. These new channel names can also be identified in the advanced mixer panel as the advanced mixer inputs.





## 40 Output Labels-

Users can update and customize each of their Pro-Series DSP equipped products signal outputs by changing the name of the output channels to their own unique needs. These labels are represented throughout the signal path in the DSP as well as on the PSC controller in the Panel, EQ, Crossovers and output Trim panels.



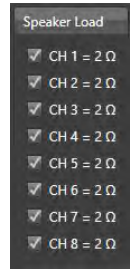
**40A** Output Label Name Box- Names of the output channels can be changed and updated here. Each name can be customized as needed for easy recognition and future reference of the system setup (Example FL Tweeter, FR Tweeter etc.).

**40B** Output Label Color Selection- Users can also change the color of the text being used on each channel to better suit their personal needs.

**40C** Default Color Reset Button- Users can restore each of the channels to their default colors by clicking on the default color button

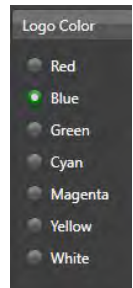
## 41 Speaker Load

When using one of the Pro-Series DSP equipped amplifiers users may change the optimum impedance loading parameter here. These digital software based switches are very similar to those found on the side of the XDi and X2 amplifiers. This screen typically only is visible when connected with the proper feature corresponding product.



## 42 Logo Color

Users can change the operating color of the logos on their Pro-Series DSP equipped product from a range of 7 different colors improving the overall integration capabilities of the product to the OEM factory illumination colors in the vehicle.



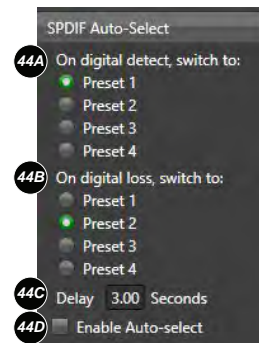
## 43 Upmixer Surround Setting

*(This Space Intentionally Left Blank)*



## 44 SPDIF Auto-Select

When using an Optical SPDIF input into your Pro-Series DSP equipped ARC Audio product users may manually select the optical input to operate when selecting a preset that has been pre-defined or they may use the SPDIF's auto-select option. Auto detect allow users to automatically change to a predefined preset that is set up to operate with the specific settings for the SPDIF input. Users must set up two different presets to use this feature (One programmed for use with optical and one without)



**44A** On digital detect- Select the user defined setting that is pre-programmed with the settings that allow the DSP's SPDIF input to work and play audibly when selected.

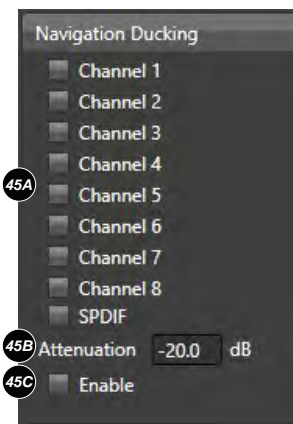
**44B** On digital loss- Select the user defined setting that is setup to operate with normal analog inputs so that when the digital signal loses connection it automatically switches back to the previously defined analog source input preset.

**44C** Delay- Users will need to define the length of time the processor stays in its current preset before switching to the alternate preset for SPDIF auto-select. (For example, default is set to 3 seconds so if analog input is active on Preset 1 when it sees a digital signal for 3 seconds it will change to Preset 2 which would be already saved for operation with the processors digital input. Then when the processor loses digital signal for 3 seconds then it switches back over to Preset 1 with the analog inputs now active.

**44D** Enable Auto-Select- To activate this automatic process users must select the "Enable auto-select" check box.

## 45 Navigation Ducking

Navigation ducking is a unique feature to the Pro-Series DSP that allows users to run multiple sources into a single preset at one time. For example, if the user is using an Aftermarket digital media player for the main source and the OEM system for navigation commands, Bluetooth communications etc they can set the system up to where it operates like most any OEM system. Users can define the system so that if the processor detects a signal on the secondary input (user defined) the main input signal will mute itself down to a predefined level so that they can hear the signal from the secondary source (like taking a phone call or hearing a navigation prompt). (NOTE: Users must remember to define the mixer properly to accept both inputs into the single configured output for this to work on a single preset)



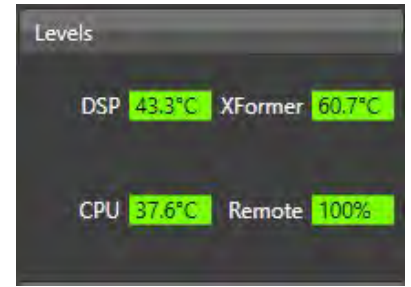
**45A** Channel Selection- Users need to define the channel that if signal is detected from the secondary source that it knows when to mute or attenuate the level of signal from the primary source. This can also include signal from the SPDIF input.

**45B** Attenuation- Users can define exactly how much they want to attenuate or even mute the level of the primary source when the secondary source signal is detected.

**45C** Enable- use this check box to define when to activate this operation and when to leave it disabled. When checked this feature is active.

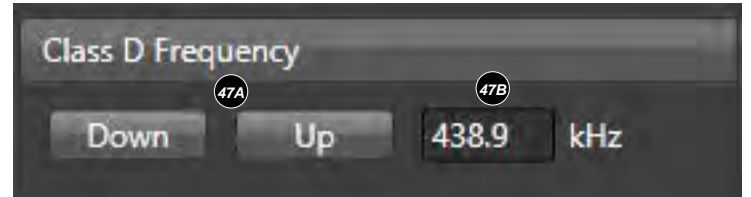
## 46 Levels

The “Levels” panel will display real-time information of the temperature and communications between some components internally on your Pro-Series processor.



## 47 Class-D Switching Frequency

When using the PS8-50, Pro-Series DSP equipped ARC Series amps, or the analog version of the ARC Series amplifiers users can manually switch the switching frequency of the Class-D amplifier to minimize or eliminate possible RF interference issues on some vehicles.



**47A** Frequency control up and down- Use these tabs to change the frequency up or down till it moves the switching frequency outside of the affected radio frequencies.

**47B** Switching frequency display- This display shows you the active real-time switching frequency of your compatible Class-D amplifier.

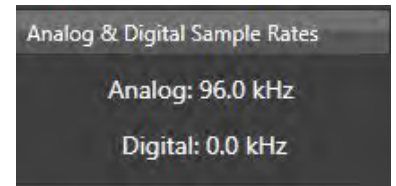
## 48 Model Selector

This feature gives some options to changing between software modes on “some” products. (NOTE: ARC audio is not responsible for any damage to products caused by switching to incompatible modes and features on your Pro-Series DSP equipped product.)



## 49 Sample Rate Display

The Sample Rates display shows users the active processing rate of the processor internally. This does not denote the sample rate of the signal coming into the processor.





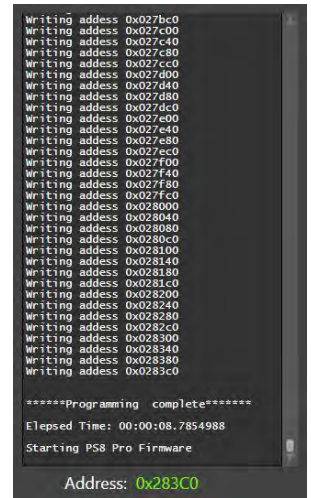
# FIRMWARE UPDATE TAB

*All Pro-Series DSP equipped processors are equipped with a self-checking and easy to use update utility. This update utility will allow you to easily see if your software and processor firmware are update to the latest and greatest as well as verify that both the software and processor firmware are compliant with each other. If connected to the internet the system can event notify you through color coded update feature buttons whether or not you need to update individual components of the operating system.*



## 50 Firmware Update Process Window

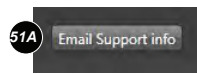
When updating and of your Pro-Series processors firmware options you will have verification of this process and the completion of this process in this window. When updating, this window will display scrolling code numerically for each line and show completion with a verification prompt at the end of the process by displaying “Programming Complete”.



## 51 Email Support

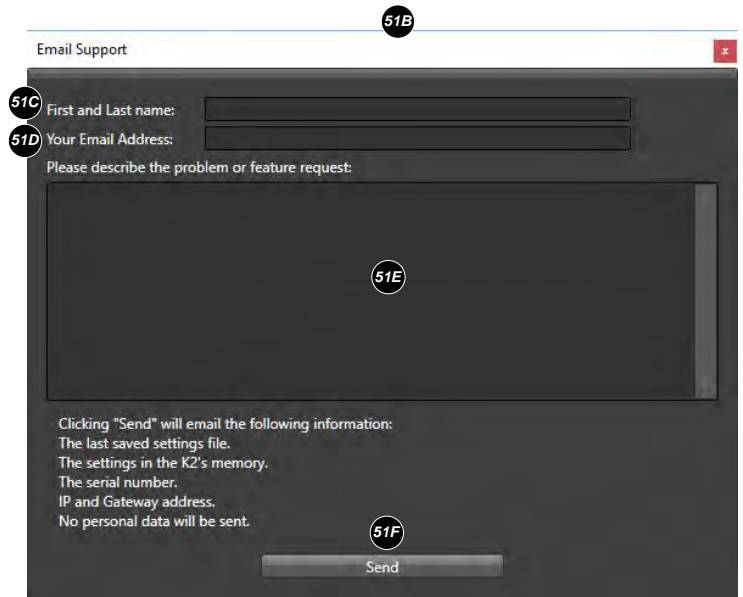
In the event that you need to reach out for some assistance with your pro-series processor this feature will offer you a simple data-based solution that will give your supporting technician man details of your pro-series processor and how it is operating. (Please note this is NOT access to a live on-line technical support session and email inquiries not completed in full with complete information and/or a call to a technician at ARC Audio USA may not receive support follow up.)

51A Email Support- Use this button to access the email support info function



51B Support Details- After clicking on the “Email Support Info” button you will be prompted by a “Email Support” pop up window. This pop-up window will ask you for a variety of information.

51C First and Last Name- Please enter and include your first and last name (required fields)



**51D** Email Address- A return email address is required for processing of this information as this and your name is how the information is assigned to your individual case. (Note that we will never sell or distribute your email contact or information to any third party)

**51E** Problem Description- In as fine detail as possible this is the place to describe the issue that you are having. Please include as many details as possible down to what you were doing when this happened as if we cannot reproduce the issue it will be very difficult to for us to help resolve the problem you may be experiencing.

**51F** Send button- When completed, press the “Send” button and your report will be sent to an ARC Audio technician. We highly recommend following up your report with a call to ARC Audio to further discuss the issue you are experiencing with this information.

When sending information to ARC Audio this information can include-

- 1) Last saved setting file active on the processor
- 2) Active settings in the processor memory
- 3) Processor serial number
- 4) You Systems IP and Gateway
- 5) Processor log file

(Note: No personal data or information is collected during this process)

## **52** Unit Information Display

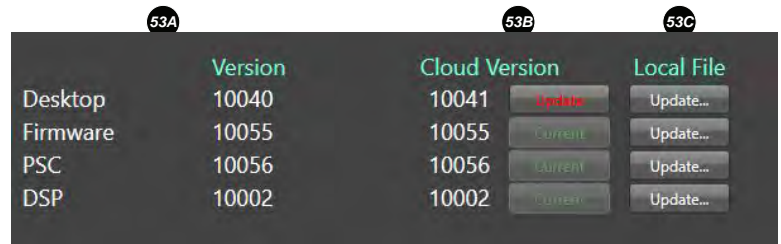


This area within the Pro-Series software utility will display the model of product you are connected to in addition to the unit’s electronic serial number. This serial number helps us track the unit’s production details as well as who the unit was sold to (ARC Authorized Dealer) for internal tracking.

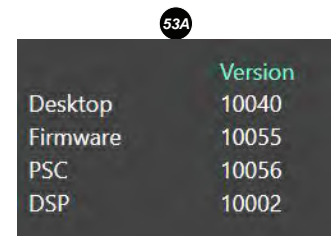
## **53** Operating System Data and Update Center

The Pro-Series Data and update center uses a active console approach to inform users if their processors multiple levels off firmware and the user software are up to date and compatible with each other. If the user is online and connected to the internet this panel will display color coordinated updated notifications on the cloud-based

update buttons to inform the user that an updated on any one of the components needs to be updated. As well, in the event that the software and firmware is out of date and compatibility to each other a pop-up notification may appear informing the users that a critical update is needed before proceeding.

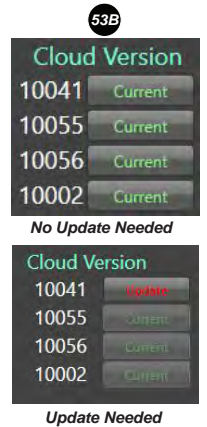


**53A** Current Version- This area within the Data and Update Center will show users their current and active versions of their Pro-Series processor equipped products Software, Micro Controller firmware, PSC Firmware and DSP Firmware. This information is also used in the update process.

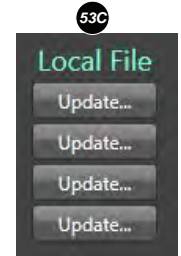


**53B** Cloud Version- This section will display the current version on the ARC Audio online cloud. In the event that your active version and the cloud version is not the same and you are actively online and connected to the internet each displayed section of firmware and software for your Pro-Series processor equipped product will indicate if you need to update this section of your processors firmware etc.

In everything is up to date all of the buttons for each section will be displayed in green font with the word "Current" on the button. If an update is needed for any one of the sections within the processor the button for the section in question will now be displayed in red and be relabeled with "Update".



**53C** Local File- In the event that an update is needed this section allows users to use their local computers file storage system to update the processors firmware components. Typically, this is not an open use feature but, in the event, that you have an advanced technical support call and the technician emails you a file to try for R+D purposes this is how it would be loaded. (NOTE: These buttons are not active and will not change color or description in the event that an update is needed. They will always be displayed as "update".)



**54 Software status and Update-**



The buttons in this location and information displayed on this line advise users of their current Pro-Series software version and the resources needed to update it via the ARC Audio online cloud or from a local file on your PC. In the event that an update is needed the green labeled "Current" button will change state to a red labeled button that now displays "Update"

**55 Microprocessor Firmware Status and Update-**



The buttons in this location and information displayed on this line advise users of their current microprocessor firmware version and the resources needed to update it via the ARC Audio online cloud or from a local file on your PC. In the event that an update is needed the green labeled "Current" button will change state to a red labeled button that now displays "Update"

**56 PSC Firmware Status and Update-**



The buttons in this location and information displayed on this line advise users of their current firmware version for their PSC controller and the resources needed to update it via the ARC Audio online cloud or from a local file on your PC. In the event that an update is needed the green labeled "Current" button will change state to a red labeled button that now displays "Update"

**57 DSP Firmware Status and Update-**

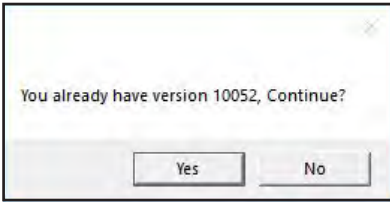


The buttons in this location and information displayed on this line advise users of their current firmware version for their Pro-Series DSP's main DSP and the resources needed to update it via the ARC Audio online cloud or from a local file on your PC. In the event that an update is needed the green labeled "Current" button will change state to a red labeled button that now displays "Update"



## 58 Additional pop up windows

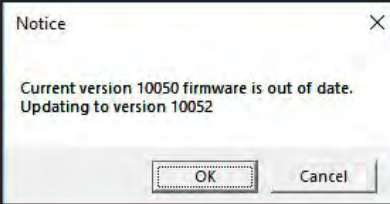
58A



### Existing firmware version notice-

This pop up window notifies users during the firmware update process that your current firmware version on your Pro-Series DSP equipped product is already up to date and does not need to be updated.

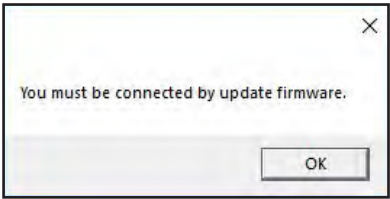
58B



### Firmware out of date-

This pop up notice can pop up as soon as your PC connects with your Pro-Series processor equipped product. In the event you see this you will need to update the firmware to prevent possible adverse and unwanted results while tuning and operating your DSP. In some cases the software may force you to complete the update in order to proceed to prevent critical version conflicts.

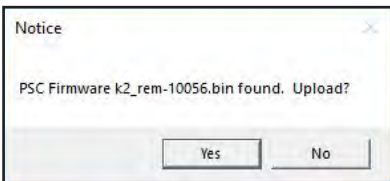
58C



### Must be Connected-

Users will see this notice if you are trying to update your firmware and you are not connected to an active and Pro-Series processor equipped product that is powered on via the main power terminal connection block. (Please note that the processor will NOT work on USB power only.)

58D



### PSC Firmware Update-

Users will see this pop-up during the update process for the PSC controller if there is a new update available.

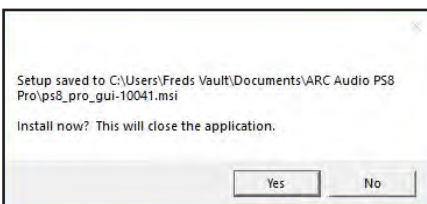
58E



### PSC Firmware Completed-

When updating the PSC controller's firmware (Stored on the main Pro-Series DSP equipped product, not the PSC itself) users will see this notification when it is complete. Upon completion press OK and the processor and the PSC will restart itself to update the firmware and controls.

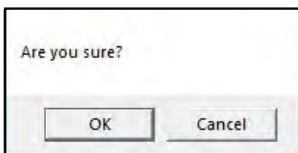
58F



### Software Update Complete-

Upon completion of the download of the software update you will be prompted with this notification. Press "Yes" to continue with the update. When starting the update, the current active software will close and the update/install process will proceed.

58G



### Are you Sure-

This popup will appear in multiple locations throughout the software when you click on some functions that can potentially overwrite or reset settings, adjustments or presets. This is simply a secondary step to prevent accidents while tuning. If these pop-ups are annoying you can disable all of them in the setup panel and checking on the "Disable Confirmations" check box and they will no longer appear.

58H



### Software Update Lists-

Upon completion of the download and update process of the software users are notified of what changes were made in the newest software update.