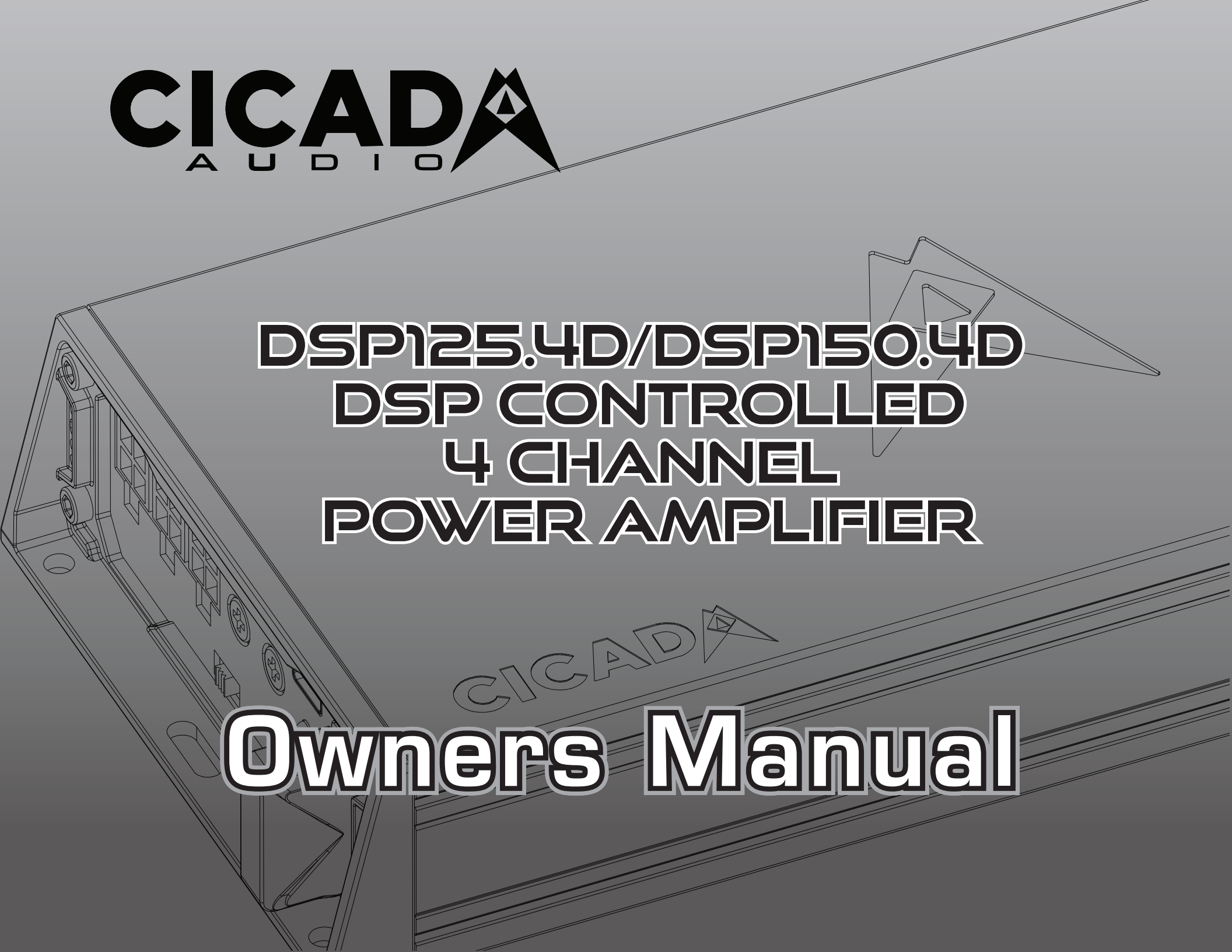
CICADA AUDIO

DSP125.4D/DSP150.4D
DSP CONTROLLED
4 CHANNEL
POWER AMPLIFIER



Owners Manual

ABOUT CICADA AUDIO

Congratulations, you have just purchased the finest Motorcycle Audio products on the market today. Cicada Audio products represent the latest advances in acoustic technology in sound reproduction for your Motorcycle applications. Cicada Audio products are designed, developed, and engineered using the latest innovative materials and components to provide the finest sound reproduction possible. Every Cicada Audio product has been Klippel verified and tested to ensure the best sounding and most reliable product on the market, if installed properly, Cicada Audio products will provide many years of the ultimate listening experience.

Please note that prolonged exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. Using Cicada Audio products can exceed that level so please exercise restraint in its operation in order to preserve your ability to enjoy its high fidelity sound for many years to come.

Cicada Audio recommends our products be professionally installed by an authorized Cicada Audio dealer to achieve the test possible system recommendation and installation. This will ensure a true Cicada Audio listening experience and sound you would expect from Cicada Audio products. In doing this you will extend your warranty from one year to two years.

DSP125.4D - DSP AMPLIFER / PROCESSOR

What comes in the package

(1) Mounting Dual - Lock Velcro

(4) #6 - 1 inch Stainless steel sheet metal screws

(2) RCA Input Harness(es)

(2) Speaker Output Harness(es)

SPECIFICATIONS

POWER OUTPUT STEREO / 4 CHANNEL

- 4 X 70 WRMS into 4 ohms @ 12.5 Vdc
- 4 X 92 WRMS into 4 ohms @ 14.4 Vdc
- 4 X 115 WRMS into 2 ohms @ 12.5 Vdc
- 4 X 152WRMS into 2 ohms @ 14.4 Vdc

BRIDGED MONO - 2 CHANNEL

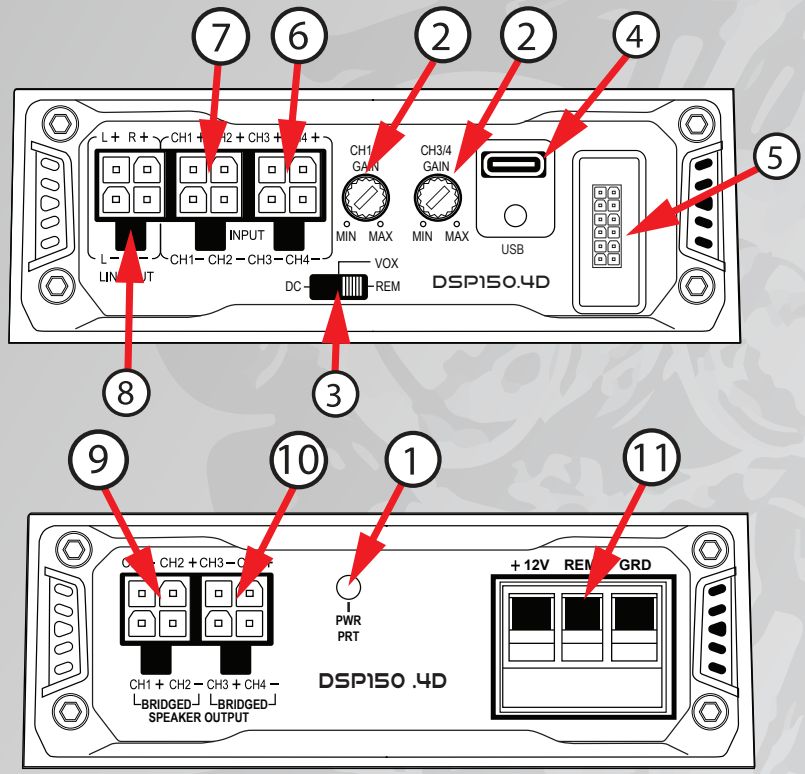
- 2 X 218 WRMS into 4 ohms @ 12.5 Vdc
- 2 X 300 WRMS into 4 ohms @ 14.4 Vdc
- Frequency Response - 20-20,000 +/- 3dB THD < 0.5%
- Operating Voltage: 8V – 16V
- Current Draw (Music): 40 A
- Current Draw (Max): 80 A
- Recommended Fuse (Music): 40 A
- Total Efficiency: 79%
- Damping Factor: 200
- SNR: 91dB
- DSP Crossover HPF/LPF: 0 TO 20kHz
- DSP PEQ - 8 BANDS
- THD + N (10% Rated Power): 0.1%

Product Dimensions (Inches / Millimeters):
8.875 x 4.0 x 1.375 in / 225.4 x 101.6 x 34.9 mm

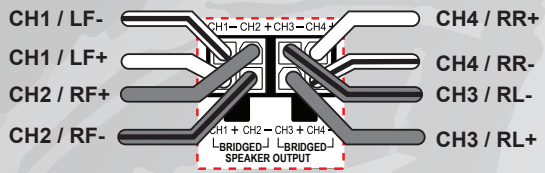
NOTE: there is a FULL "Plug & Play harness kit available from your local Cicada Audio retailer or from our website

WWW.CICADAAUDIO.COM

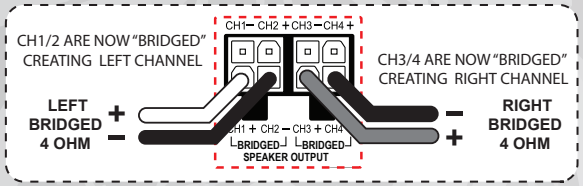
FEATURES/FUNCTIONS



4 CHANNEL WIRING SPEAKER OUTPUT



BRIDGING 4 CHANNEL AMPLIFIER - 2 CHANNEL



1. PWR/PRT LED - This light indicate when the amplifier is powered up normally and when there is a protection fault. The Protect LED is illuminated when there is a problem with your amplifier. Please contact your authorize Cicada Audio dealer or call Cicada Audio's technical support.

2. GAIN (Input Gain Adjustment) - This control matches the preamp INPUT stage of the Cicada Audio amplifier to your source unit. This is NOT a volume control. The range is between approximently 200mV and 10V. It can ALSO handle speaker inputs of less than 25 watts RMS (typical OEM headunits are LESS than 25 W RMS,...but NOT all)

3. TURN-ON OPTIONS - The Cicada Audio amplifiers can be switched on and off using one of three methods, determined by the position of the amplifier's "Turn-On Mode" switch. Please read the "Set-Up " portion of this guide and determine which is best suited for your specific system. NOTE: DC and VOX turn-on settings ONLY work with speaker level input.

4. USB C - Input for connecting a PC to DSP125.4D amplifier for FUTURE firmware updates

5. BlueTooth© Dongle - (Plug in) This makes it so the DSP125.4D can be programmed by phone or tablet for all DSP tuning.

6. Front RCA Input Terminal (CH1 /2) - The RCA jacks allow for a normal Left and Right channel signal input. Simply connect to the source unit using RCA type audio cables, keeping them away from power wiring wherever possible to reduce risk of noise. NOTE: This input can be used for "speaker level" input by using the optional Speaker Hanress HDFIM/HDRIM (with load resistors), or by simply cutting and attaching OEM head unit speaker outputs to these wires. Or cut up an old RCA cable and connect your HD radio speaker wires that way (Better solution)

7. Rear RCA Input Terminal (CH3 /4) - The RCA jacks allow for a normal Left and Right channel signal input. Simply connect to the source unit using RCA type audio cables, keeping them away from power wiring wherever possible to reduce risk of noise. NOTE: This input can be used for "speaker level" input by using the optional Speaker Hanress HDFIM/HDRIM (with load resistors), or by simply cutting and attaching OEM head unit speaker outputs to these wires.

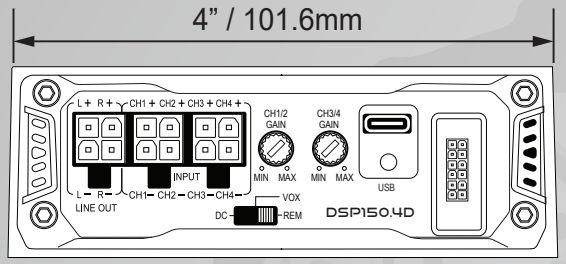
8. RCA Output Terminal - The RCA jacks allow for a pre amp level CH5/6 output to create a 6 channel system. Which could be subwoofers or midbass or full range drivers

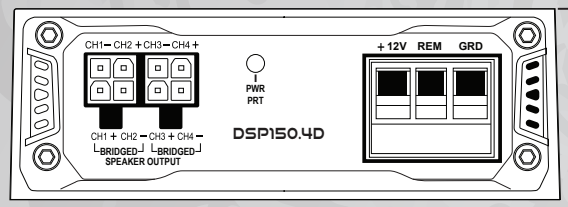
9. Front Speaker Output Terminal - Connect your Front speakers to these wires. Stereo connections are connected as labeled. Bridged connections use the LEFT + and RIGHT - as the two connections. The 2 and 4 channel amplifiers will perform into 2 Ohm stereo loads or 4 Ohm bridged loads. DO NOT run 2 Ohm bridged loads on AND CIcada Audio amplifers. They will work, but will over heat very quickly.

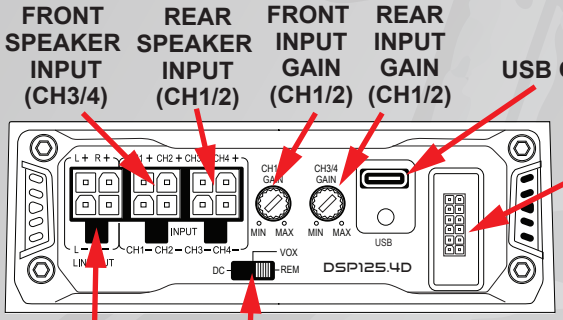
10. Rear Speaker Output Terminal - Connect your Rear speakers to these wires. Stereo connections are connected as labeled. Bridged connections use the LEFT + and RIGHT - as the two connections. The 2 and 4 channel amplifiers will perform into 2 Ohm stereo loads or 4 Ohm bridged loads. DO NOT run 2 Ohm bridged loads on AND CIcada Audio amplifers. They will work, but will over heat very quickly.

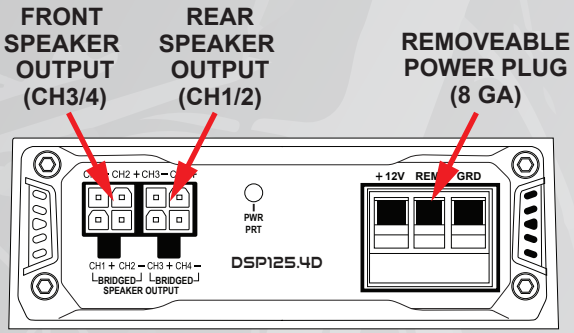
11. Power Input Connections - These connections are for input power(12V), chassis ground (GRD), and remote(REM) turn-on. Use a minimum of 8 gauge wiring for power and ground connections. The terminals will handle up to 8 gauge wiring with no problem what so ever. Be sure any wiring that passes through metal has a grommet!

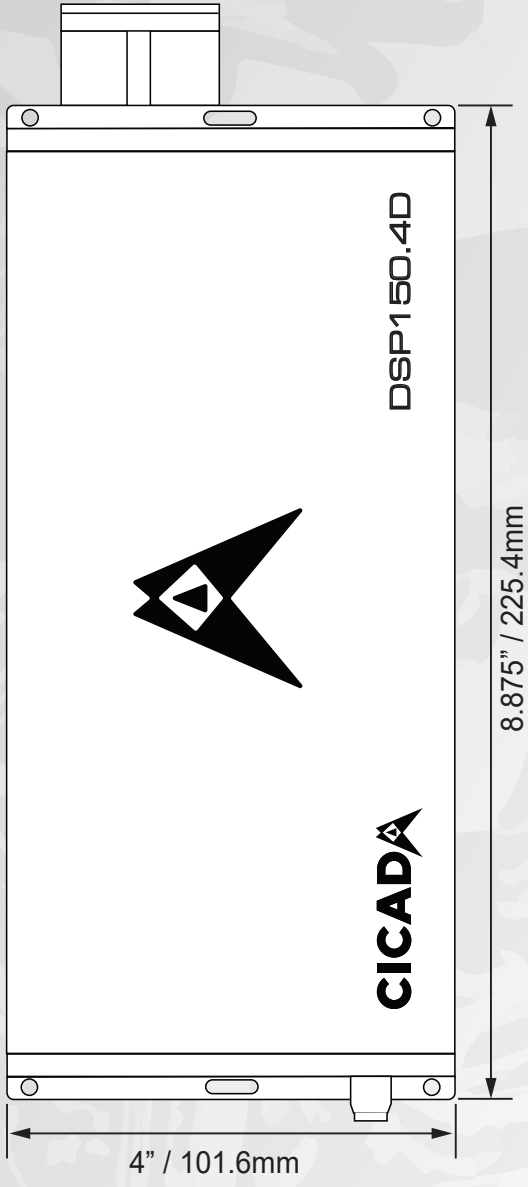
DIMENSIONAL DRAWINGS FOR FITMENT











Your Bluetooth device (Phone, Tablet, etc.) must support the A2DP Bluetooth profile (commonly known as stereo audio profile) to work with the CA-AMP app. Many of the latest mobile Phones and Tablets with built-in Bluetooth functionality will support this profile. For accurate information about your product, please refer to your Bluetooth device's user manual for details on the Bluetooth profiles it supports and on how to set the device's Bluetooth pairing/searching/setup mode

Make sure to download the App for your phone or tablet

CICADA AMP CA AMP EDGE-W In-app purchases

GET IT ON Google Play

Download on App Store

ABOUT PAIRING

Pairing is the term used when wirelessly connecting two Bluetooth© devices for the first time. This allows the devices to "see" each other and creates a unique lasting connection between the specific devices.

PAIRING & LINKING YOUR BLUETOOTH© DEVICE WITH THE CA AMP APP

1) Make sure your Bluetooth© device (Phone or Tablet) is fully charged. Turn it on.

2) Enable Bluetooth functionality on your Bluetooth© device. Typically, Bluetooth© controls are found on the device's tools or settings menu (see your user manual). Make your device "discoverable".

3) Power up the DSP125.4D Make sure that the outputs to the amplifier(s) are disconnected (you can disconnect speakers). At least for the intial setup.

4) Choose "add a new Bluetooth© device" or "setup Bluetooth© device" on your Phone or Tablet. It will start to search. If the pairing attempt fails or times out (after 3 minutes), Power off the DSP125.4D, wait 30 seconds and then power it on again and start pairing procedure (see steps 2 - 4).

6) After your device and the CA AMP app have discovered each other, a "Pairing Successful" or similar message should appear on your device and the blue light on the DSP125.4D will stop blinking and turn solid blue.

7) Pairing remains intact when the DSP125.4D and/or the Bluetooth device is powered off or is taken out of link range (30 feet). To re-establish an active connection when your Bluetooth device returns within range,simple turn off and turn on the DSP125.4D.

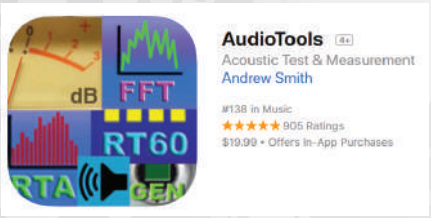
8) The next time the DSP125.4D is powered on it will automatically try to re-establish a link with the most recently linked Bluetooth device. If your device does not support auto-linking OR was not the last linked to the DSP125.4D, you must re-link manually by selecting DSP125.4D from the Bluetooth device's menu on your Bluetooth© device.

9) MAKE SURE ALL NOTIFICATIONS AND SOUNDS ARE TURNED OFF on you Phone or Tablet!!! Otherwise during setup if someone texts or calls you..it will scare you how loud it is!!! So TURN it ALL off.

NOTE: BlueTooth functionallity is limited to the SetUp DSP application - CA AMP. NOT for playing audio!! You'll need some kind of source unit (like the stock HD HeadUnit)!

REMEMBER: From this point on you are in the "CA-AMP" software (APP). Soon you will need an RTA to REALLY setup your system. Especially the EQUALIZER part of your setup. There are many available and relativily cheaply.

Our favorite is Audio Tools software (see below) Make sure to buy the APP (Typically $5.00) as you MUST slow down the RTA for "time Averaging". We recommend 3s to 6s Decay. You dont absolutely need an RTA, BUT It makes life much easier and setup much faster. Your call. (Not my motorcycle..... so I don't a have "dog in this hunt"! Hey I call 'em the way I see 'em!!)



First thing to do BEFORE anything is to decide on what system you are building? Good news is you are using a 4 channel amplifier with a DSP built in and 2 additional "non powered" (pre amp level) channel outputs.

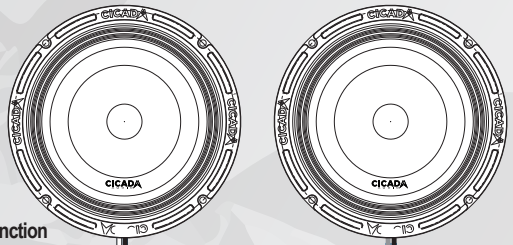
So you can ONLY do so much! But still quite a bit!. You have to plan you work and work your plan!!! Trust me it makes it way easier if you have and "end goal" in mind. As mentioned it is a 4 channel amplifier with 6 channels you can deal with - at least digitally.

SO LETS DECIDE ON WHAT EXACTLY YOU ARE BUILDING - HERE ARE SOME SYSTEM IDEAS TO LOOK AT. THIS IS PRETTY MUCH EVERYTHING YOU CAN DO WITH THE DSP125.4D

SYSTEM 1

IN FAIRING

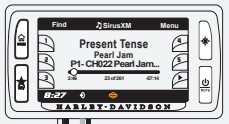
CH65.2 - 2 ohm - 6.5" CoAx Horns



STOCK HD RADIO

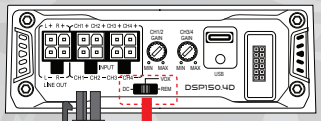
Stock HD radio and wiring used!

No need to cut anything



Part# HDFIM **OPTIONAL:**
FRONT INPUT WITH HD MOLEX
WITH 47 OHM RESISTOR

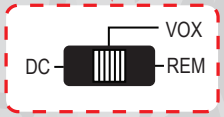
NOTE: This system has NO FADE capability! To do that (fade) you need to connect the rear speaker out of your stock HD radio. This typically means you to need to "flash" your bike to get the rear channels to function



INPUT SIDE DSP150.4D AMPLIFIER

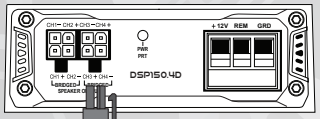
Part# HDFOM **OPTIONAL:**
FRONT SPEAKER OUTPUT
WITH HD MOLEX

Stock HD speaker wiring Just plug in to our harness (HDPro4 Harness Kit - Optional)

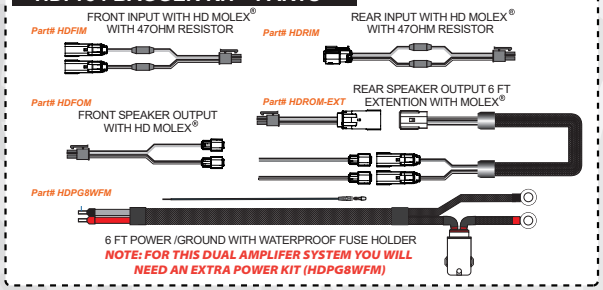


WITH NO SWITCHED 12V REMOTE OUT USE "VOX" AS THE TURN ON SELECTION

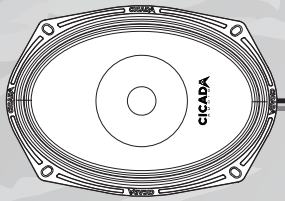
OUTPUT SIDE DSP125.4D AMPLIFIER



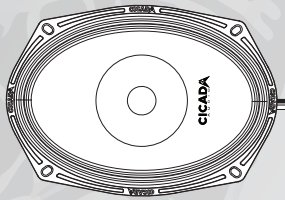
HDPro4 BAGGER KIT - PARTS



IN BAGS

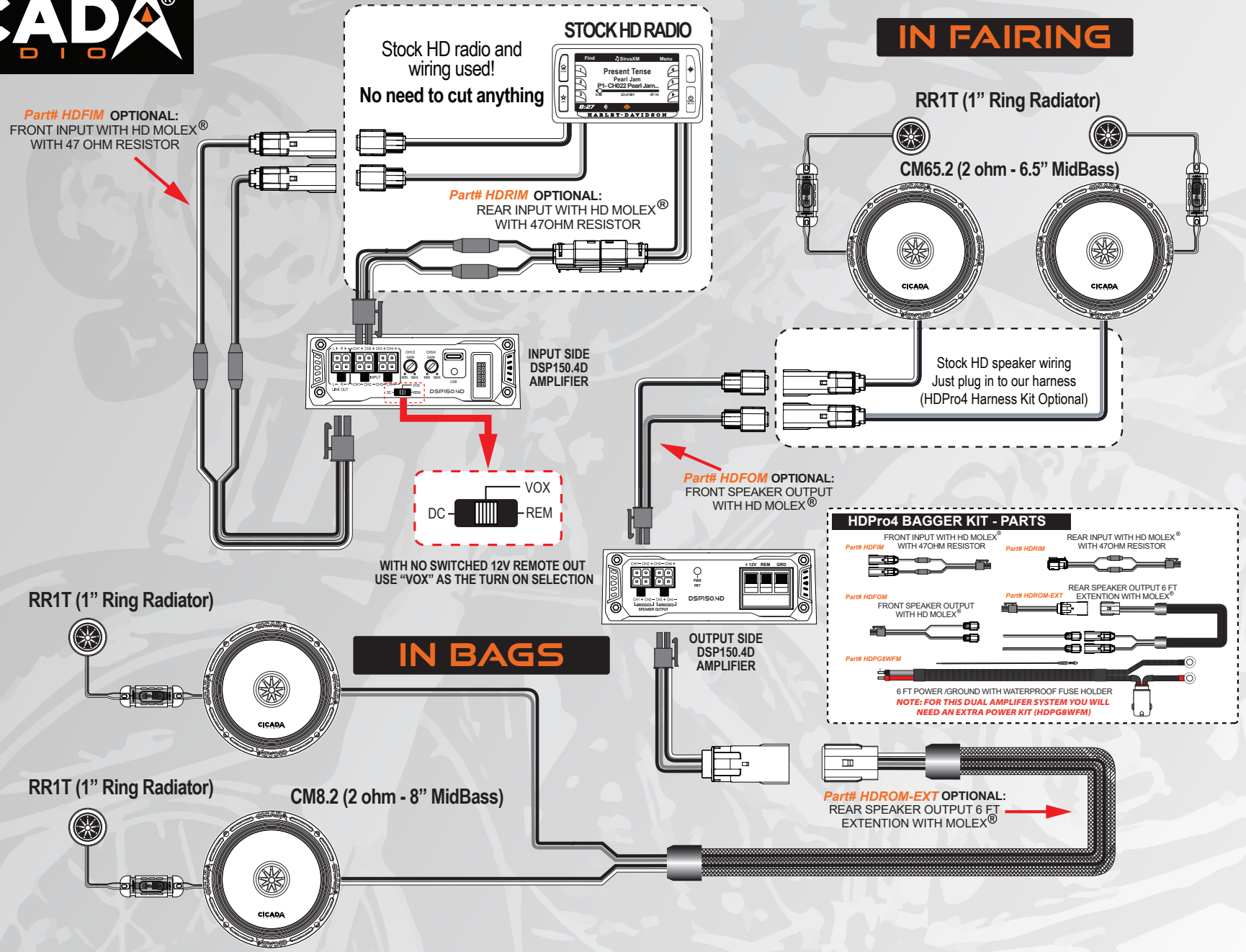


CH69.2 - 2 ohm - 6" x 9" CoAx Horns

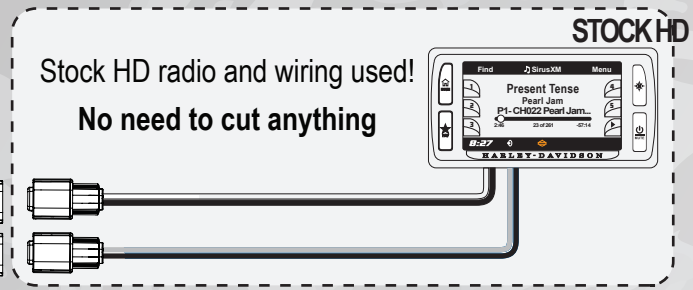


Part# HDROM-EXT **OPTIONAL:**
REAR SPEAKER OUTPUT 6 FT
EXTENTION WITH MOLEX

SYSTEM 2

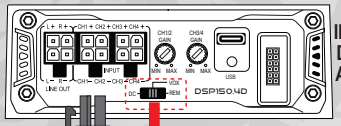


SYSTEM 3

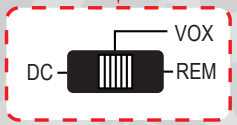


PART# HDFIM **OPTIONAL:**
FRONT INPUT WITH HD MOLEX®
WITH 47 OHM RESISTOR

NOTE: This system CANNOT FADE ..PERIOD!! You're bridging a 4 channel amplifieriand making it a BIG 2 channel



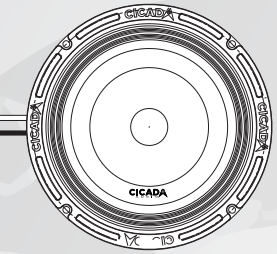
INPUT SIDE
DSP150.4D
AMPLIFIER



WITH NO SWITCHED 12V REMOTE OUT USE "VOX" AS THE TURN ON SELECTION

IN FAIRING

CH65.2 (2 ohm - 6.5" CoAx Horns)



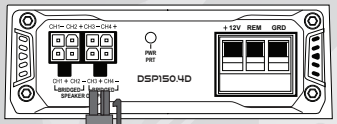
PART# HDFOM **OPTIONAL:**
FRONT SPEAKER OUTPUT
WITH HD MOLEX®

NOTE: Modify the HDROM Harness and use one of the stock Speaker output harnesses that came with the DSP150.4D to "BRIDGE" the DSP150.4D

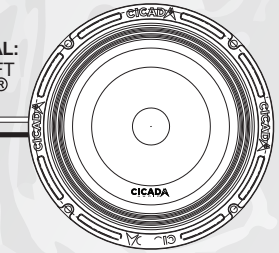
Bottom wires on the MOLEX are the ONLY wires that give you a BRIDGED output

(YOU'VE BEEN TOLD THIS TWICE NOW...SO GET IT TOGETHER!! BOTTOM WIRES = BRIDGED)

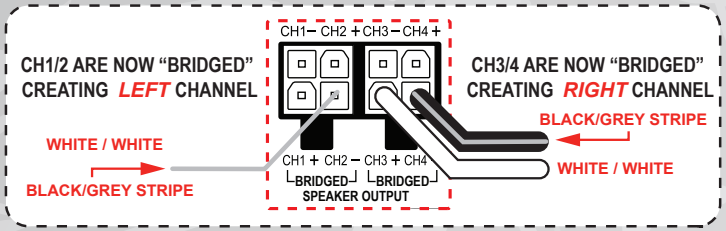
OUTPUT SIDE DSP150.4D
AMPLIFIER



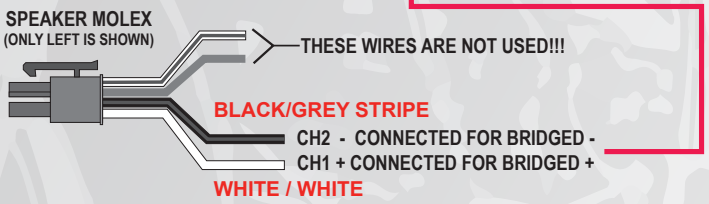
PART# HDROM **OPTIONAL:**
REAR SPEAKER OUTPUT 6 FT
EXTENTION WITH MOLEX®



BRIDGING 4 CHANNEL AMPLIFIER



FRONT / REAR SPEAKER OUTPUT MOLEX ARE THE SAME COLOR CODE AND WIRING SETUP

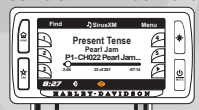


SYSTEM 4

SYSTEM
(2) DSP150.4D Amplifiers BRIDGED INTO 8 Speaker

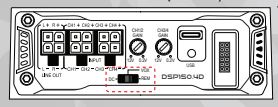
A BIG 4 CHANNEL SYSTEM WITH FADE

HD STOCK RADIO
USING SPEAKER OUTPUTS



Part# HDFIMY **OPTIONAL :**
FRONT INPUT WITH HD MOLEX®
WITH 47 OHM RESISTOR Y ADAPTOR

INPUT SIDE DSP150.4D
AMPLIFIER #1 (FRONT)



1.375" / 34.9mm

Part# HDRIMY
OPTIONAL :
REAR INPUT WITH HD MOLEX®
WITH 47 OHM RESISTOR
Y ADAPTOR

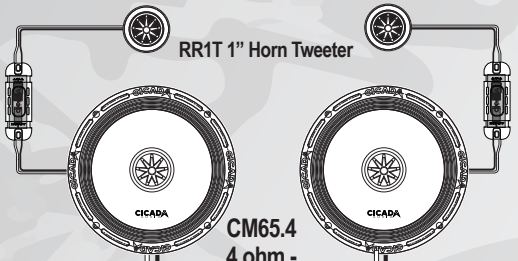
STANDARD:
FRONT /REAR SPEAKER
OUTPUT MOLEX®
FROM DSP150.4D

INPUT SIDE DSP150.4D
AMPLIFIER #2 (REAR)

OUTPUT SIDE DSP150.4D
AMPLIFIER #1 (FRONT)

OUTPUT SIDE DSP150.4D
AMPLIFIER #2 (REAR)

IN FAIRING



CM65.4
4 ohm -
6.5" MidBass

WIRES NOT USED

WIRES NOT USED

4 WIRES USED /
4 WIRES NOT USED

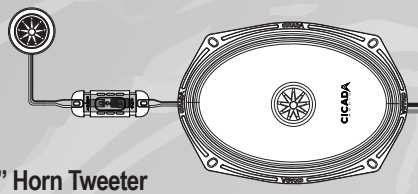
STANDARD:
FRONT /REAR SPEAKER
OUTPUT MOLEX®
FROM DSP150.4D

NOTE: Modify the HDROM Harness and use one of the stock Speaker output harnesses that came with the DSP150.4D to "BRIDGE" the DSP150.4D as shown to the right. Bottom wires on the MOLEX® are the ONLY wires that give you a BRIDGED output

(YOU'VE BEEN TOLD THIS TWICE NOW...SO GET IT TOGETHER!!)

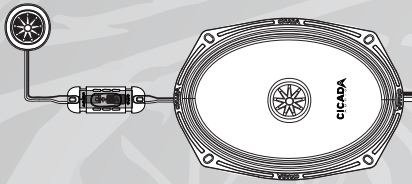
NOTE: Some year bikes it is NOT simple to mount 2 - DSP150.4D in the fairing. You may have to go to "Plan B" and mount in the bags

IN BAGS

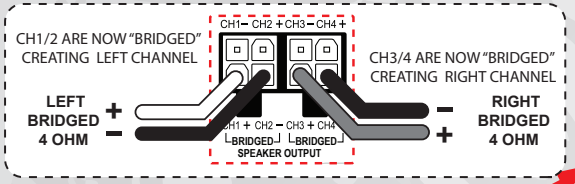


RR1 T 1" Horn Tweeter

CM69.4 4 ohm - 6X9" MidBass

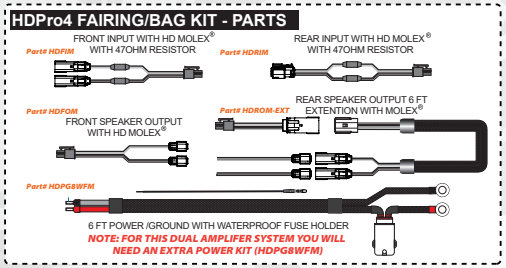


BRIDGING 4 CHANNEL AMPLIFIER



Part# HDPG8WFM **OPTIONAL:**
REAR SPEAKER OUTPUT FROM AMP
6 FT EXTENTION WITH MOLEX®

HDPro4 FAIRING/BAG KIT - PARTS



SPECIAL NOTE: All "PreSetup" is done with the amplifier(s) OFF!! (or speakers disconnected)

HOME PAGE:
This is just the beginning, and tell you that you amplifer is a 4 channel amplifer with a 6 channel processor BUILT IN! Too cool!!!!

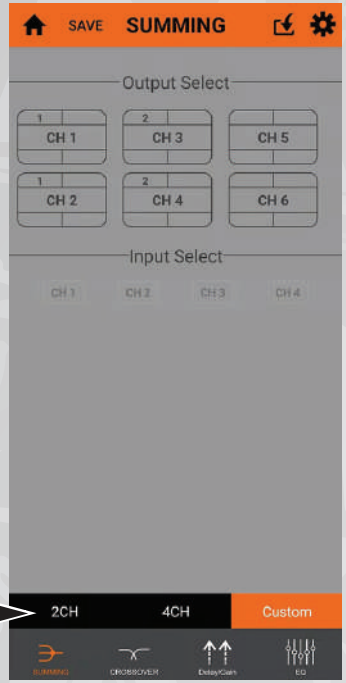
NOTE: Software version!!!

Hitting the " " link takes you back to the "Start" page where you "TAP" the screen to go back to the SUMMING page. From there you can go to all setup pages.

SUMMING PAGE:

Depending on your head unit (Stock HD or aftermarket) determines what you select here. If your bike is NOT flashed and all your stock bike started out with was just fairing speakers and your adding bags, then you'll want to choose 2CH

As that is the INPUT selection, you will still get ALL channel out (front/rear/sub, or CH1/2/3/4/5/6) This is an automatic function. IF you have a flashed bike or afer market HU then select 4 CH. Again ALL Automatic "summing". IF you are doing something unusual, then select "Custom" and go for it!



DELAY/GAIN PAGE PRE GAIN SETUP?? What? YES!

With ALL amplifier(s) OFF (or speakers disconnected) DO all PreSets. First..set GAINs on the DSP150.4D "GUI" (Graphical User Interface). I tend to be safe about this and set ALL channels at -6dB down as well as Master Gain. This still gives you 12dB of GAIN adjustment at the end. Easy way to do that is click the LINKED boxes at the bottom of each channel.

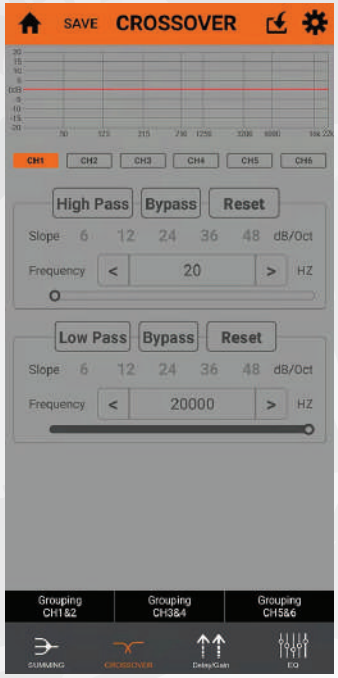
Now just slide one of the channels gain setting down to -6dB. Too easy!
All Channel gains are adjusted in one SWOOP.
Do the same to the MASTER Volume -6dB.
Thats the slider near the bottom of the page.
You have a MASTER Mute button too!

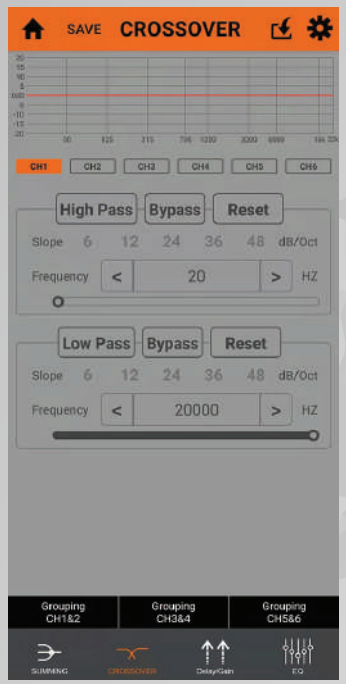
Once that is done...lets move on to the CROSSOVER PAGE-VERY IMPORTANT!!!! Here you need to "PreSet" Crossover settings. This is SUPER important if you dont want to blow up your expensive speakers!

ALL Speakers on a HD motorcycle audio system MUST be highpassed - **PERIOD!!!! 99% of the time these are high output "Pro Style" speakers with high Fs (free air resonance) Make sure to HP (High Pass) at 80Hz or higher on any 6.5 Inch "Full Range" drivers.**

DOING ANYTHING ELSE will cost you time and money, and Heartburn!!

YOU'VE BEEN WARNED!!!!!

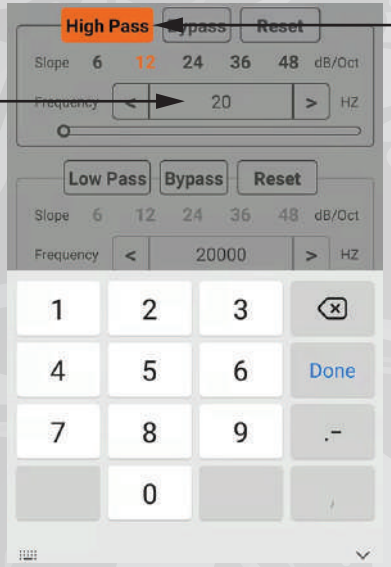




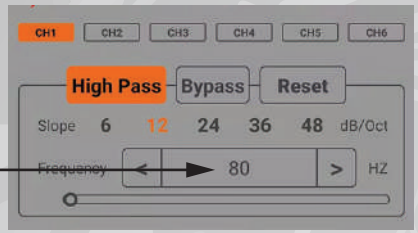
CROSSOVER PAGE

This is where you will HP you speakers (or Low Pass - LP for subs) SIMPLY "TAP" the HIGH PASS box, it will turn ORANGE if it is "Activated". Once activated select crossover slope. 6/12/24/36 or 48dB slopes are available to you. I recommend a 12 dB slope. You can pick any slope you like. Then "TAP" the frequency box (the one that shows 20 in the middle).

Once you tap that - the keyboard window opens up - SEE BELOW

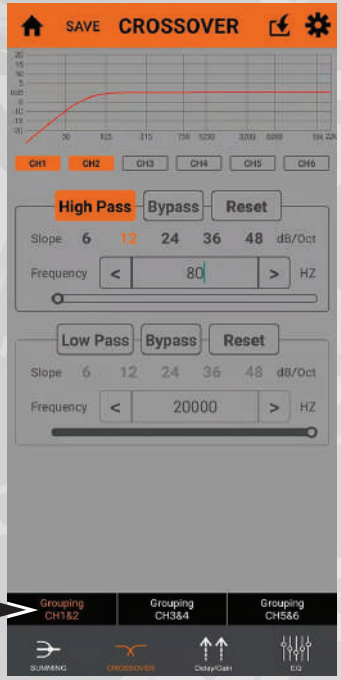


Once you have highlighted the 20(as shown to the right) go below and type in whatever frequency you desire, A good frequency to start with is 80Hz. Remember that these settings can all change anytime you want them too! So it isn't forever. Just your intial "PreSet Up". Once you've type in whatever frequency - hit Done and it will show up in the Frequency "box" and you'll see it in the frequency response curve at the top of the page too.



NOTE: Looking to the left you will also notice that ONLY CH1"box" is activated (Orange)

NOW IF you want both Left/Right to be crossoverd over at the same frequency go to the bottom of the Crossover Page



GROUPING

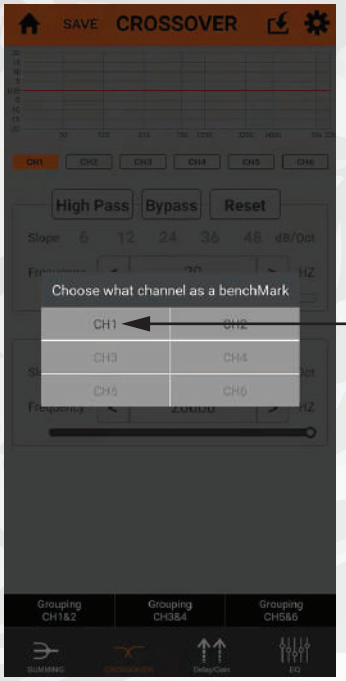
Grouping is a wonderful thing!(did I hear "orgy" in the background???... Oh...not that type of grouping...Damn!!)

Anyway....this is a cool function to speed up things and to keep it all together.

Typically you would want to make both the front fairing speakers crossover at the same frequency...logically. So the easy way is to "group" CH1/CH2 - meaning Left Front and Right front.

Simply "TAP" the Grouping CH1 & 2. A new window opens. The window below, "TAP" CH1. The window will blink out and CH1 and CH2 are now "grouped" so whatever crossover you've selected is for both CH1 and CH2

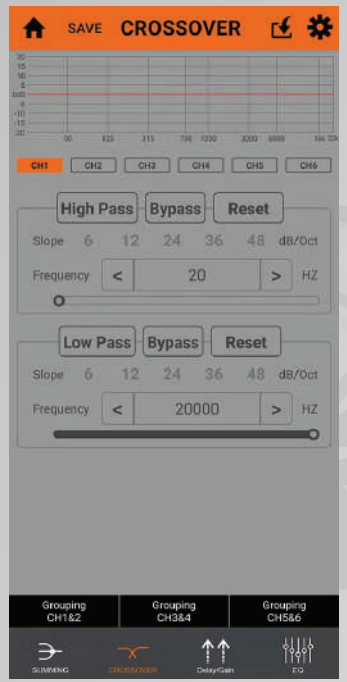
Too EASY!



HIGH PASS/LOW PASS/BAND PASS?

Highpass is ALWAYS used for Mids/Midbass and tweeters. Lowpass is ALWAYS used for woofers/subwoofers. Bandpass? Ahh.. that can be used for a lot of things. For example you could use it in a 3 way system (like a car) with Tweeters up in the "A" pillars, Midbass in the doors and Subwoofer in the trunk. A VERY common 5 channels system. But on a bike? You could use the bandpass feature for a "woofer" (NOT a subwoofer!) Subwoofer (a REAL one!) on a bike is ..well...DUMB in my opinion. Too much road noise, bike is to loud, very small enclsoures and the desire to have HIGH SPL. ALL contribute a really BAD deal!!!

BUT ..,bandpass a serious woofer (higher Fs than a sub!) And now ya got something!!!



BANDPASS?

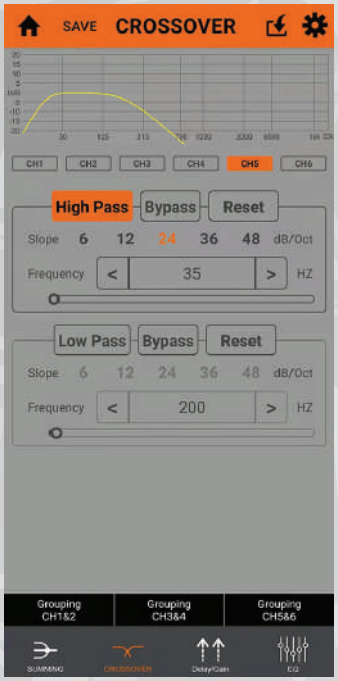
High Pass is ALWAYS used for Mids/Midbass and tweeters. Low Pass is ALWAYS used for woofers/subwoofers. Band Pass? Ahh.. that can be used for a lot of things. On a bike with a Processor that has 6 outputs (Gee? Like a DSP150.4D??) ...High Pass the 4 channels that drive all the High Pass drivers (probably CoAx honrs or High output Midbass drivers with horn tweeters. And then BandPass CH5/6 to a monoblock or BIG stereo amplifier to some knarly Pro style Midbass drivers that go low. Thats not normal by the way. So hunt those baby's down. Need something with a High Fs (like 45-50Hz) and realitively high sensitivity. (over 95dB 1W/1M)

BAND PASS - HOW TO CREATE?

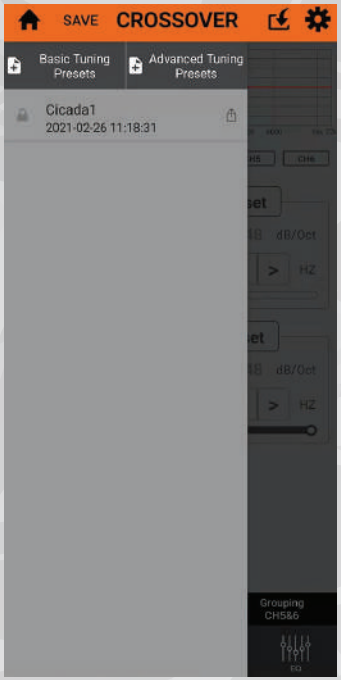
So ....how to create? Simple! Highpass plus a Lowpass equals a BAND PASS. Look at the settings on the CROSSOVER page to the right. I've selected High Pass on the top filter and selected 35Hz (basically I made a subsonic filter here). Then on the bottom filter I selected Low Pass. It is not highlight-ed..but it is activated...as you can see that I have selected 200Hz as the Low Pass. Look above at the curve and you can see the filter.

COOL huh!!

If you are using this for a "Woofer" on your bike then I would also recommend that you "GROUP" CH5/6. That way the settings are on both channels.



SPECIAL NOTE: TO REMOVE A CROSSOVER SETTING SIMPLY TAP & HOLD RESET FOR 2 SECONDS

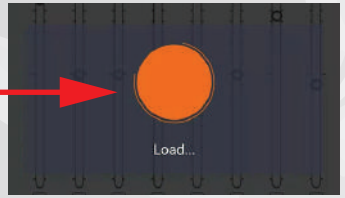


HOW TO SAVE ANY SETTING?

This is SUPER important. ALWAYS save settings!!! Once you select SAVE on ANY page it will bring you to the "Save" text box as shown to the left. This is where you name the file so you know which one it is,

Once named. It goes back to whatever page you were on. IF you want to set this as your setting, then go to the TOP of any page and TAP this symbol This will "Load" it to the processor can sometimes take up to 60 seconds, ...so be patient.

YOU KNOW THE SETTINGS ARE BEING "LOADED" WHEN YOU SEE THIS ORANGE MOON

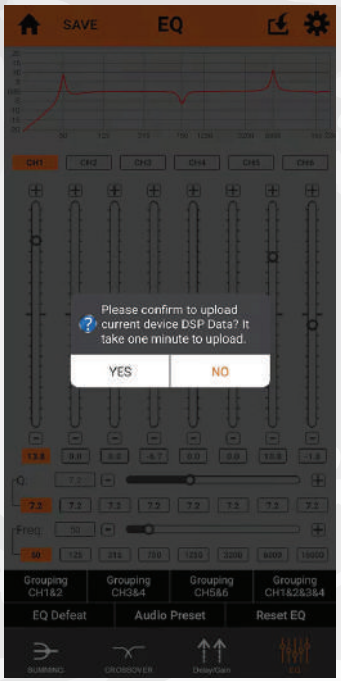


BEFORE you see the bright orange loading dot. You'll get this page to the right that asks do you REALLY want to load this DSP settings file (DUH!!) Hit YES (of course!) and the ORANGE dot comes up to mesmorize you.

You've falling asleep...you'll write me a check for a million dollars...whoops ..you woke up!)

Moving on....

Remember that ANY setting can be deleted... and at worst case you can go into settings, then at bottom of page and TAP "Reset DSP Tuning".And your DSP150.4D will start off all clean and fresh, NO EQ, Crossover or Gain/ Delay settings.



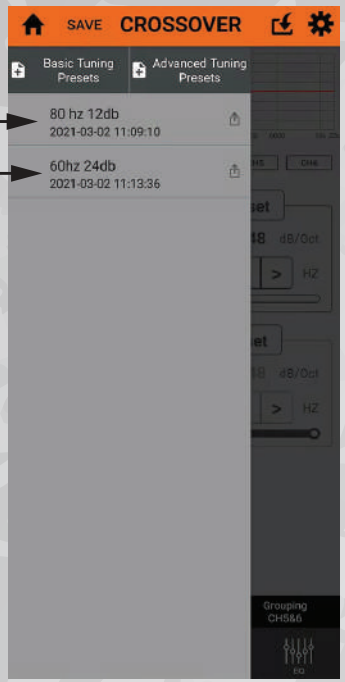
MORE COOLNESS!!

Another cool thing is you can instantly hear the difference in any and ALL of you memory settings you've saved!!! You can hear the difference between EQ settings, different gain settings, different time alignement settings.

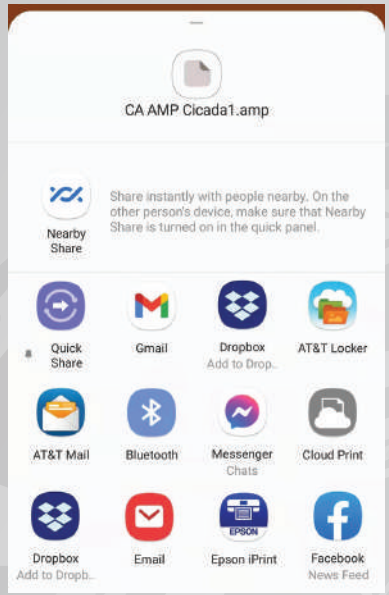
All kinds of things.

So lets say you have one setting with a 80Hz 12dB slope High Pass filter on the front speakers?

Another setting has the crossover at 60Hz but at 24dB. Now you can hear what that difference sounds like. Just tap the one you want to listen to and it automaticaly switches to that memory setting



YOU CAN SHARE PRESETS!



This is actually an advance settings thing- BUT while I am talking about what you can do with Pre Sets...you can SHARE them with your friends! Enemies, whomever.

Click the far right of one of the memory settings that shows the box with the up arrow. When you touch that ....the box on the left opens up (on Android at least)

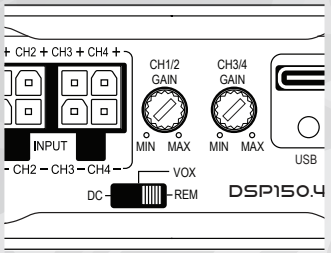
From here you can pick how you want to send your file! Text, Email, whatever!!!

If you are copying a frinds system and he has it all "dialed " up...you cans simply ask for his file and he sends it to you and BAMM! You're set up!!

With the DSP part pretty much finalized (at least for Pre Setting) WE now need to go to the amplifiers and do a "Pre"set gain adjustment on them. Again...the amplifier(s)is NOT powerered up and we haven"t "Scoped" anything, metered...zip...zilich. But this works great and I have done it for over 10 years of doing DSP tuning. So lets just go with it, for now. Good news is you can readjust EVERYTHING once you get the system up and running

REMEMBER this is "Pre" Setup!

On ALL high pass channels - Pre Set GAINs to about the 10 O'Clock position. Remember that there is NO quarter gain. or half gain, or three quarter gain. No such thing. This "Pre" set is just that. A PRE set. Its just to get you on your way. ALL settings can me "massaged" and changed at any time



On ALL Low Pass channels - Pre Set GAINs to about the 12 to 1:00 O'Clock position. Typically bass needs more GAIN and more energy to keep up with the mids and highs. This "Pre" set is just that. A Pre set. Its just to get you on your way. ALL settings can me "massaged" and changed at any time

Now that gains are ALL preset, inside the DSP and on the amplifier(s) it is time to RECONNECT the amplifier(s). AND you've saved you settings for gains and crossovers -

1. Power everything DOWN - connect the amplifier now

2. Power everything up

Adjust your HU's volume to a comfortable level. You should have plenty of gain already. AGAIN this is NOT your final gains settings , or crossover or EQ (you havent even touched EQ yet ...RIGHT???)

EQUALIZER SCREEN (EQ):

This is where ALL the “magic” happens. There are 8 bands of Parametric Equalizer adjustments. Which means that YOU can select whatever frequency you need to fix, or bands of frequencies and easily solve the peaks or dips in your system setup. QUICKLY!

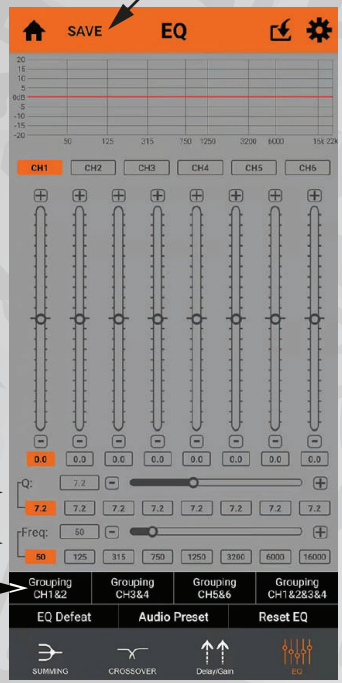
Q ADJUST:

Q (or width) of the frequency being adjusted. Q’s of below 1 are very wide, Q of 10 is very narrow

FREQUENCY:

Each of the 8 Bands can be changed to ANY frequency you need it to be.
Click inside the grey box to the right of Freg: It will activate that frequency of that channel.
Type the frequency desired

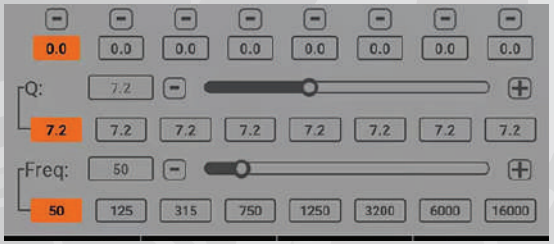
NOTE: if you want this be the same for CH1/2 (for example) then go below and click Grouping CH1&2 (or whatever CH you want to work with) That same window you saw before will “pop” open...then click whatrever channel you want to Group with. It will close and those channels are now groupled



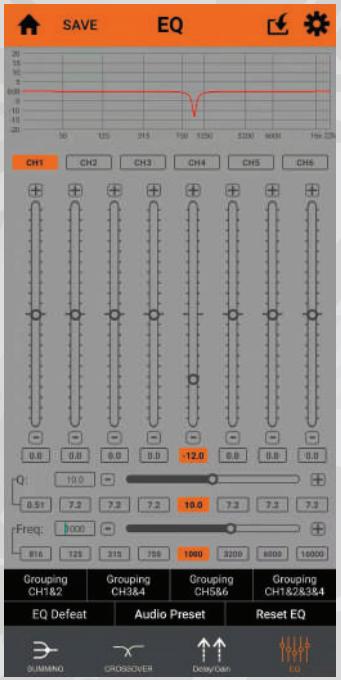
(Good time to SAVE and call it TEST1)

NOTE: All “Q’s” are set at 7.2 by default. You can move the slider to change “Q” also!

NOTE: Frequency can be “typed” You can move the slider to change frequency!



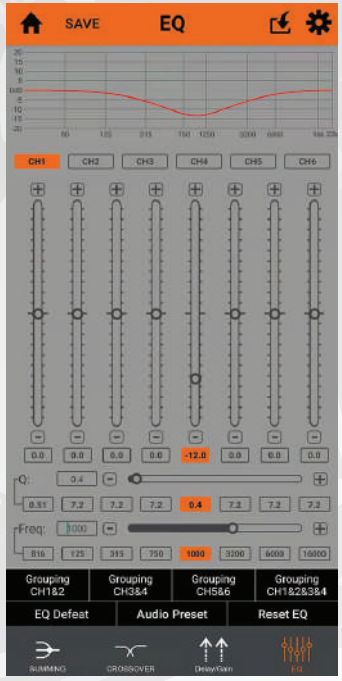
DOUBLE NOTE: IF you have’t touched anything in a few seconds you may have to tap the slider you are adjusting to activate it again

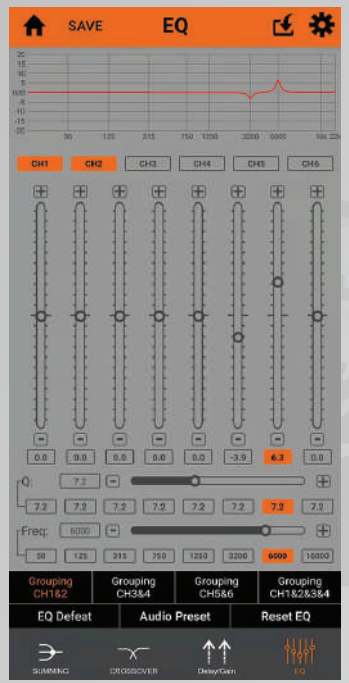


Q? what do I do with that? Lets play with this amazing EQ. There is so much you can do with very few controls and be able to EQ any speaker system very quickly. The beauty of “parametric”. You have total control of your sound.

EXAMPLE: To the left we have an EQ setting of 1,000HZ -12dB with a Q of 10. Notice how narrow this is. Very typical of what a 1/3 Octave EQ would do. Big issue with this is that it tends to be TOO narrow and not audible when you make that adjustment. All I am doing now is showing you how easy it is to adjust and what to touch and slide to make your life easier, and these adjustments meaningful. Even though Parametric is seemingly more complicated, in reality it is MUCH easier and quicker to EQ a system. But you REALLY need an RTA to do this!! NO BS!! Your phone can be a GREAT RTA. Download the app I told you about on page 5

Now look to the right at the SAME EQ setting as the above one same frequency, same amount of cut, everything. BUT “Q” is different. We went from a Q of 10 to a Q of 0.4. Notice the difference in the curve! You can hear that for sure!!! Thats why Parametric is so powerful. Once you know the frequency you need to adjust (because your using an RTA to SEE where you need to be adjusting) then it really is a matter of playing with the Q and how much boost or cut you do. BUT Q makes the BIG difference.
Typically on a Bike you will adjust the front speakers almost identically. That’s why you’ll want to GROUP channels together to make it easier





8 BANDS OF WHAT? PARA WHAT?

On our EQ you have 8 bands of PARAMETRIC EQUALIZER. ANY frequency and 8 bands of ANY Q and 8 bands of EQ of +20 /-20dB. In other words you have a LOT of EQ capability! Be careful what you do and know the limits of your drivers and amplifier(s).

HOW TO ACTIVATE ANY EQ BAND?

Simply "Tap" the band in the center. It will then ACTIVATE that band and you know it is beca-sue the grey boxes of that band turn orange. Now you can adjust that band and make it anything you want, any frequency, any Q, etc. You'll notice that the band I picked (7...yeah Lucky 7) I've EQ'd +6.3dB at 6,000Hz with a Q of 6.3. Notice how narrow the "peak" is. You will hear this adjustment, one reason is it is in a band of frequencies that human ears are very senstitive to (2,000- 8,000Hz)

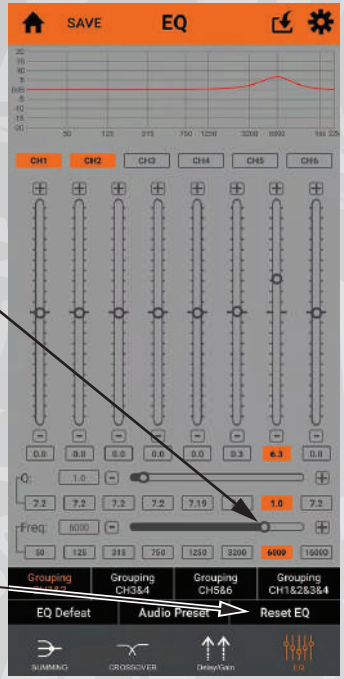
Now...notice to the right the SAME EQ setting, same frequency same amount of boost...BUT...different Q. Now we have a Q of 1. Notice the difference in the curve. You can DEFINITLEY hear this difference.

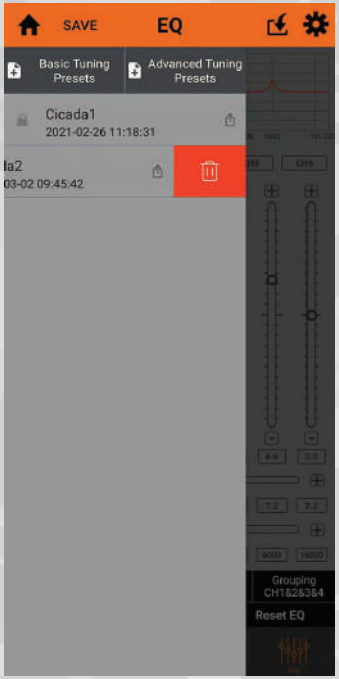
For FUN....just move the frequency slider to the left or right

HUGE difference ! WOW! This is why I perfer parametric to 1/3 octave EQ's. Its easier to HEAR the changes you make. Easier to adjust.

Now if you think you screwed up (haven't we all!) just "Tap" and HOLD the Reset EQ tab and ALL EQ settings will be eliminated.

Clean slate!!!





HOW TO DELETE A SETTING?

You can have up to 9 saved settings. But at somepoint your going to want to delete some. Here is how, its very simple. Go to the top of any page and "Tap" the SAVE link. That will bring you to ALL your saved settings. Press and hold the setting you want deleted and slide your finger to the left. You'll see the trash can in a red box. Tap that trash can...and its GONE!

REMEMBER THAT ONCE A SETTING IS DELETED IT IS GONE!!!!

Make sure to SAVE often. You can always delete it later.

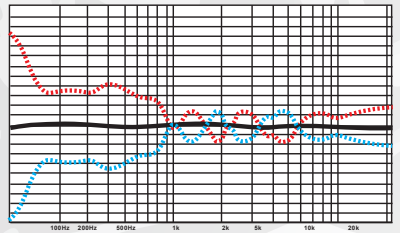
Lets go back to EQ settings

Now you've been playing around and you should have some sense of the system coming together audio wise. Is the level correct? Meaning do you have the ability to go to FULL power? Or does it sound like there is still more to get out of your system?
Does it sound weird??

What IF you own a HD 2014-2020 and HAVEN"T "Flashed" you bike. IF you dont know what that is you sould read up on it on our website. In a "NutShell" is has a "built-in" custom EQ setting in the stock OEM HD radio.

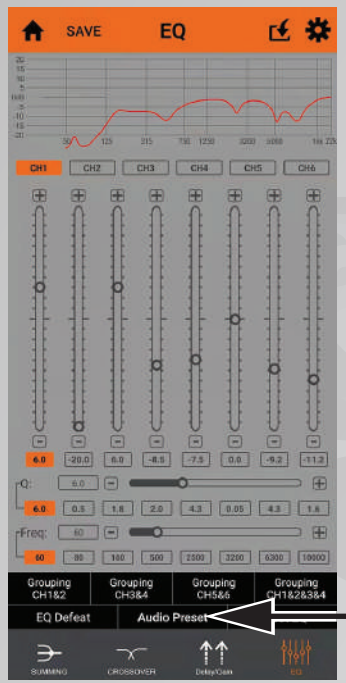
The STOCK HD EQ setting curve is shown to the right (in RED). The "Desired" curve is shown below that in GREEN. You can see that the stock curve is WAY off the desired curve. Have NO fear as Cicada is on it! We've designed into OUR software are own custom curves to flatten the HD curve!

TYPICAL EQ COMING OUT OF STOCK HD RADIOS



Factory Harley-Davidson® Boom!™ EQ Curve
CICADA AUDIO DE-EQ of Boom!™ EQ Curve
Flattened EQ with DSP AMP Software Preset

HD SPECIFIC EQUALIZER PRESETS

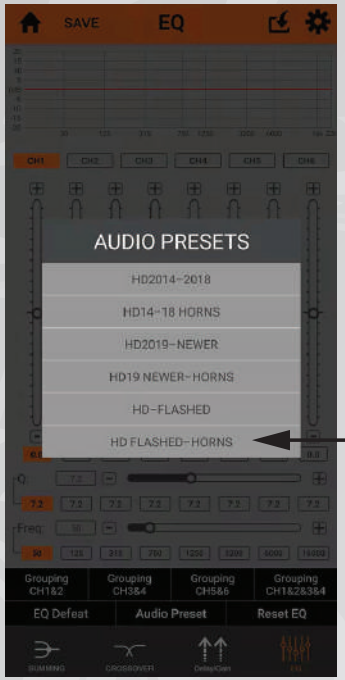


Since we know that HD put in their own strange custom EQ we have designed 6 Specific EQ, GAIN and CROSSOVER settings for YOUR system - with OUR product.
Select one of these “Audio Presets” and life just got a WHOLE lot easier!!

To the left I have chosen the PreSet “HD19 NEWER - HORNS” This is HD 2019 and newer bike with a 4 channels amplifier and front 6/5” speakers CoAx horns(or MidBass with Horns) and rear bag 6 X 9” CoAx Horn (or midbass driver and horn)
Notice what looks like a strange EQ. This is done to conpensate for HD’s CRAZY EQ!

This is ONE (1) of six “varations on a theme for EQing a HD ausio system using Cicada Audio products, These ”PreSets are there to start you on your way. And NOT the “end all - be all” of curves!!! You will still need to do some adjustements. WE RECOMMEND that you do adjustments as everyone wants their bike to sound a certain way. There is NO correct EQ or “Perfect” EQ. Make sure to save your settings!!!

Try any of the other PreSets as you may like them even better.



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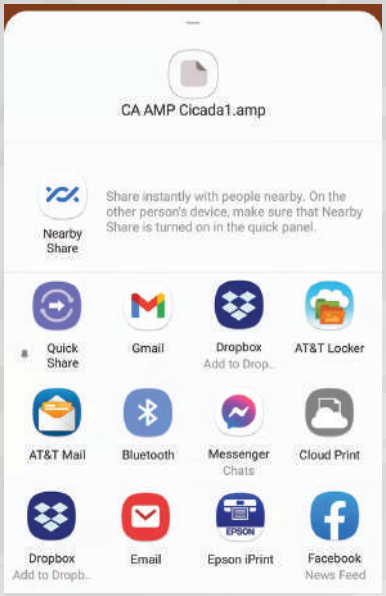

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ALMOST FINAL THOUGHTS

There is a lot to take in on setting up any DSP processor. The PreSetting of GAINS - both on the DSP and amplifier(s) is CRUCIAL. As well as PreSetting CROSSOVERS for ALL speakers in the DSP willmake or break you system.

Also make sure ALL speakers are in PHASE.
I forgot to mention that on the GAIN/DELAY page you can put each channel in and out of phase 180

REMEMBER : WHEN IN DOUBT - USE THIS LAST PRESET AS THE BEGINNING OF YOUR TUNE!!! THEN MODIFY FROM THERE. THIS WILL SAVE YOU TONS OF TIME

AND FLASH YOUR BIKE!!!!
(not a recommendation...a MUST!!!)

TO DELAY ...OR NOT!

Typically on motorcycles you won't be using DELAY(Time Alignment)

At least that is kind of the pervailing thinking with many HD audio guys.

But others think it is REALLY important. It s not the typical car audio time alignment. We arent dealing with left and right being different path lenghts - becasue we are offset in our primary seating positions - like a drivers seat. On a bike you are pretty much center. But ....time alignment FRONT to REAR is important.

And it can make a HUGE improvement in the overall sound quality on your bikes audio system.

SO...OO HOW MUCH AND HOW?

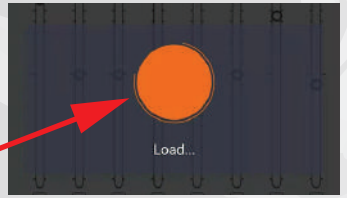
Good question! Lets look to the right and see teh DELAY/GAIN page. You have your 6 channels lined up. Lets assume some things. You're using the DSP125.4D and ONLY using the 4 powered channels. Front channels (CH1/2) are driving the CH65.2 CoAx horn drivers. Rear Channels (CH3/4) are drivng the CH69.2 Drivers. Those are what we are going to concentrate on. The front (CH1/2) is going to be are reference points. It isnt going to "move" time wise /Delay wise) So we select Rear (CH3/4) as those are the channels we will move TIME WISE (DELAY) Measure it from your seat, your ear to the speaker in the bag. Put that dimension in (*should be about 34 inches) But it needs be what is REAL,

ONE LAST TIME FOR SAVING?

This is the last time you'll select SAVE! Whoop whoop! Again...you can do that from ANY page and once "Tapped" it will bring you to the "Save" text box as shown to the left. This is where you name the file so you know which one it is - like FINAL BIKE SETUP or something.

Once named. It goes back to whatever page you were on. IF you want to set this as your setting, then go to the TOP of any page and TAP this symbol. This will "Load" it to the processor can sometimes take up to 60 seconds,
.....so be patient.

YOU KNOW THE SETTINGS ARE BEING "LOADED" WHEN YOU SEE THIS ORANGE MOON

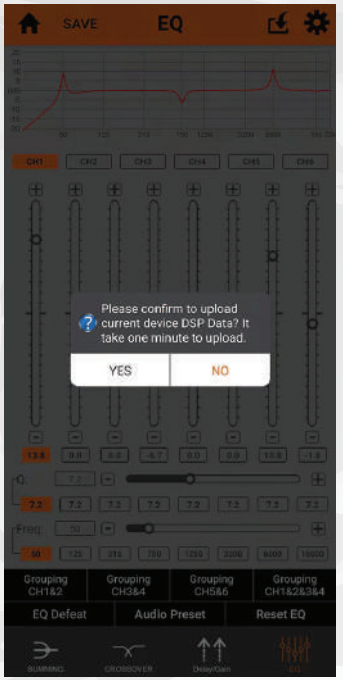


BEFORE you see the bright orange loading "moon". You'll get this page to the right that asks do you REALLY want to load this DSP settings file (DUH!!) Hit YES (of course!) and the ORANGE dot comes up to mesmorize you.

You've falling asleep...you'll write me a check for a million dollars...whoops ..you woke up!)

Hey I had to try!! Moving on....

Remember that ANY setting can be deleted... and at worst case you can go into settings, then at bottom of page and TAP "Reset DSP Tuning".And your DSP125.4D will start off all clean and fresh, NO EQ, Crossover or Gain/ Delay settings.



FINAL SETTINGS AND YOUR DONE!!

At this point you are pretty much done, My recommendation is that you live with the intial setup for a week and THEN make adjustments.

Also do not spend to much time “tweaking” the system. Once you have gains set CORRECTLY and have Checked “Phase” acoustically (with a Phase Meter - which is built into the AudioTools APP) Spend LESS than 45 minutes EQing your system.

Then take a break as your ears and brain will be charcoal!!

Rest your ears over night and listen again in the morning.

45 minutes is plenty of time to get a system intially “dialed in”.

You need to “live” with it for a bit BEFORE randomly changing settings.

Remember to play the music YOU listen to and not some “Artsy Fartsy “Audiophile recordings that you NEVER listen to!

Also make sure whatever recordings you listen to are as ”HiRes” as possible and NOT 128mps MP3’s!!!!

IF YOU HAVE ANY ISSUES DO NOT HESTITATE TO CALL US!

1-480-887-8699

OR EMAIL US @ cs@cicadaaudio.com

website: www.cicadaaudio.com

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THIS WARRANTY IS NON-TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER OF THE PRODUCT IN THE ORIGINAL INSTALLATION.

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