

SRI

SIGNAL RESTORATION & INTEGRATION

6 CHANNEL SIGNAL SUMMING MODULE

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20 MINUTE PINK NOISE TRACK

**MP3 PINK NOISE** **DOWNLOAD****WAV PINK NOISE** **DOWNLOAD****WMA PINK NOISE** **DOWNLOAD**

Introduction

Welcome to the Arc Audio family of performance signal processors. A blend of Arc Audio's lengthy experience in performance car audio design combined with our highly skilled engineering staff. You are now the proud owner of the **SRI**. A unique combination of the highest quality components and precision engineering. Whether you are a competitor or simply enjoy faithfully reproduced music, you will definitely appreciate how these products make your system sound. Before you begin read this manual cover to cover (does anyone ever really do that?). Careful design and layout of your system and following the instructions and suggestion in this manual will greatly simplify installation of this product. If at any point you begin to feel overwhelmed, return to your local Arc Audio dealer and let the trained professionals install or tune it for you.

The **SRI** is a 6 channel Signal Restoration and Integration module capable of Summing the 6 inputs to 2 outputs. Also included is Robert Zeff's Patented Bridged Mode Detection Auto turn on and Level matching indicators with an included setup CD. The **SRI** is further equipped with an Auxiliary input including remote AUX volume control (remote is included) for use with any MP3 Player, DVD Player or Game Console.

Warning

We build all ARC Audio products to play at high volumes for extended periods of time. Your ears however are not designed for high volume listening. This product can easily generate volumes that can permanently damage your hearing. We urge you to limit your exposure to very high volume sound. You may also find your state has laws governing the volume of an audio system in a car. Please be aware of all local and state laws in you area.

A properly tuned and operated audio system will deliver years of enjoyment when used properly.

Running the Cables

Carefully run the power and signal cables through the passenger compartment of the vehicle. Always use a rubber grommet to prevent the power wire from shorting and to reduce the risk of fire.

Warning

Please check the suitability of the installation location before you begin. Do not cut any of the car's structure. Pay close attention to what is behind the panels or carpet. Often the manufacturer will hide wires, computers or other electronic devices in the exact areas you wish to install in.

If you do not have experience with automotive electrical and mechanical systems contact a professional installer. Paying a qualified installer is almost always cheaper then paying a dealership to repair your car.

Location, Location, Location....

The SRI should be securely mounted to a solid surface. Please select a dry location in the passenger compartment or trunk only. Do not mount the unit to any area that may have excessive vibration (like the subwoofer box).

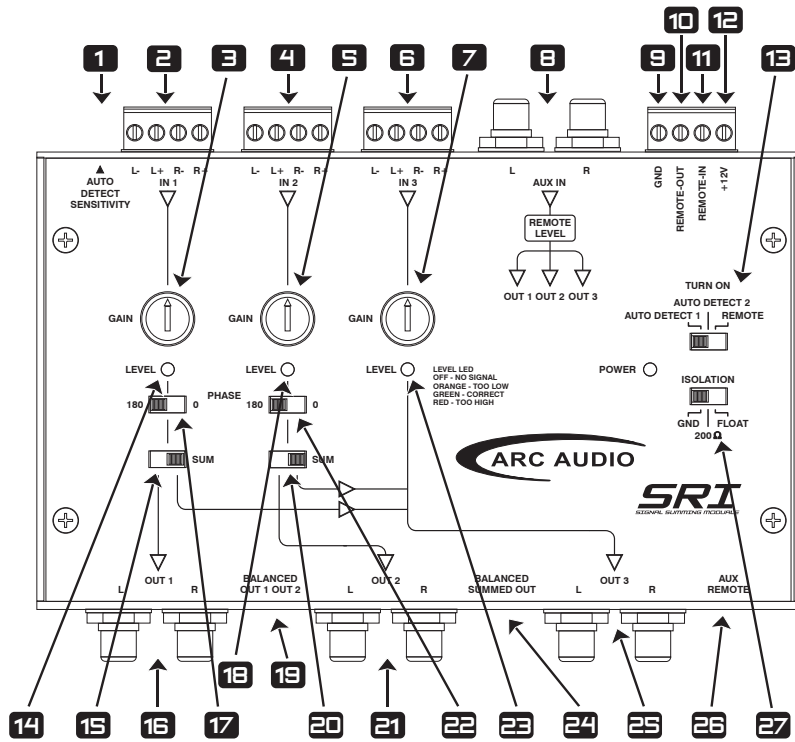
The Ground!!!

Warning: Read this Carefully

The ground wire should be connected directly to the chassis of your vehicle. Find a clear location close and remove all the paint and sound deadener. Use a screw to secure it to the chassis. A nut, bolt and lock washer would be better still. Never use seat belt bolts for grounding.

To reduce the risk of noise, run all signal cables away from any vehicle or power supply wiring.

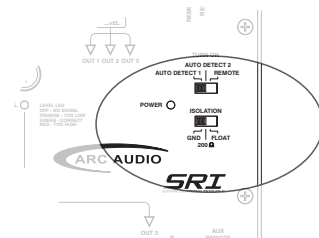
CONNECTIONS AND CONTROLS



- | | | |
|----------------------------------|---|---|
| 1 Auto Detect Sensitivity | 10 Remote Output (to control amplifiers) | 19 Balanced Output 1 & 2 Input 2 |
| 2 Input 1 | 11 Remote In | 20 Summing Switch |
| 3 Input 1 Gain | 12 +12V (connect to constant power) | 21 Output 2 |
| 4 Input 2 | 13 Auto Detect | 22 Output 2 Phase Switch |
| 5 Input 2 Gain | 14 Input 1 Level Light | 23 Input 3 Level Light |
| 6 Input 3 (Auto Detect) | 15 Input 1 Summing Switch | 24 Balanced Output 3 |
| 7 Input 3 Gain | 16 Output 1 | 25 Output 3 |
| 8 AUX Input | 17 Output 1 Phase Switch | 26 AUX Input Level Remote |
| 9 Ground | 18 Input 2 Level Light | 27 Ground Isolation |

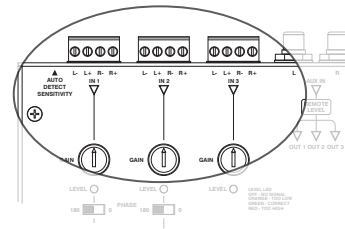
GROUND ISOLATION

If the system has noise with the engine on or off try changing the Ground ISOLATION switch. One of the 3 positions should fix the problem. If the unit still exhibits noise check and test all the system grounds



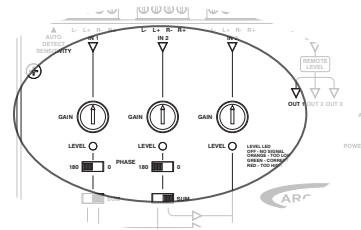
INPUT

The **SRI** has 6 Balanced, High Impedance Inputs that virtually eliminate the problems of noise when using a stock head unit. The **SRI** uses 3 removable connectors that will accept up to 18 awg wire. Follow the wiring instructions on the top plate of the unit. Find factory wiring color codes to insure all the + and - are wired correctly. If the signal is wired wrong at this point it will be almost impossible correct by tuning.



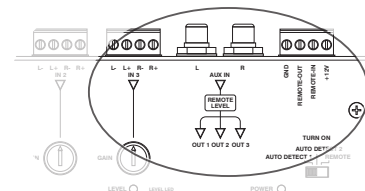
GAINS

The **SRI** is provided with a CD to aid in level matching the gains. Simply insert the disc and play the test track. Turn the volume up until one of the **LEVEL** lights begins to flash orange. This should be considered the new max volume for the system. At this point at least some of the lights should be Green (**Level TOO LOW**) or Orange (**CORRECT**). If none of the lights are on begin turning up the level controls until one of them is flashing orange. Now adjust the remaining 2 **LEVEL** controls until they also flash orange. The levels are now matched.



AUX INPUT

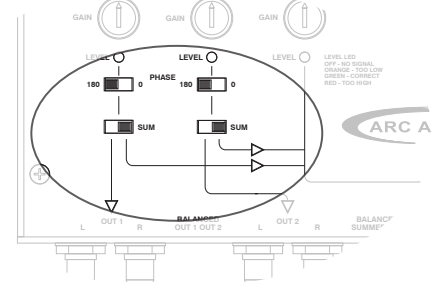
For added convenience and flexibility a stereo Auxiliary or **AUX** input has been provided. The **SRI** is capable of receiving input from all brands of MP3 Player, DVD Player or Game Console. Included with your purchase is a **REMOTE VOLUME** control with input selector for the **AUX IN**. Simply hitting the button will select over to the **AUX IN** giving you full control of its volume. Pushing the selector again will switch back to the primary input. The volume control does not effect the primary input and only works on the **AUX IN**.



SUMMING

The **SRI** has the capability to **SUM** or combine its inputs into a single set of outputs. This is useful when you have several outputs from the stock system that are not full range. The **SRI** can combine the tweeter, mid range and subwoofer signals back into a full range output.

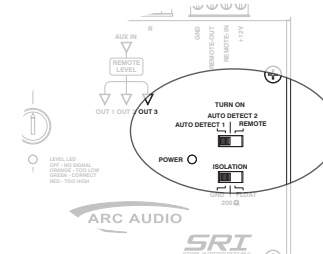
In a few cases the factory speaker are wired backwards (OUT OF PHASE) or they are Phase Shifted. If the system sounds like the levels are very low or if you have "holes" where some sounds do not come through, try moving the **PHASE** switch to **180**. Listen carefully and try to determine which sounds better.



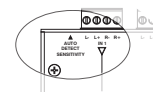
AUTO DETECT

Most stock systems will not have a traditional remote turn on lead. You can connect the Remote of the **SRI** to the Accessory wire behind the stereo or in the fuse panel. This will turn on the system anytime the key is on. Also included are 2 **AUTO DETECT** turn on modes. **AUTO DETECT 1** uses Robert Zeff's Patented Bridged Mode Detection. This mode can detect the BTL (CHIP) used in many head units and stock amplifiers. When turned on, Bridged Mode Detection will sense this chip and turn on the **SRI**. This mode will work even with the volume all the way down. **AUTO DETECT 1** is the preferred mode and will work in most cases.

NOTE: AUTO DETECT is sensed off INPUT 3 Left Channel only. If input 3 is not connected the AUTO DETECT function will not work.



In the event that that **AUTO DETECT 1** does not work **AUTO DETECT 2** is a traditional auto detection circuit with an **AUTO DETECT SENSITIVITY** control.



USING THE DISC

1: After the *SRI* is completely installed, turn on the radio and insure it is turning on normally by powering the remote lead or using one of the AUTO DETECT settings.

2: Download 1 of the 3 available Pink Noise tracks (Any 0dB Pink Noise track will work) and play the test track. At this point any amplifiers should have the gains all the way down or the power should be disconnected.

3: Begin turning up the volume on the radio until one of the level lights begins to flash orange. If none of the lights are flashing orange at full volume on the radio begin turning up the levels on the *SRI* until one of them does.

4: Now adjust the remaining level controls until all the level lights are flashing orange.

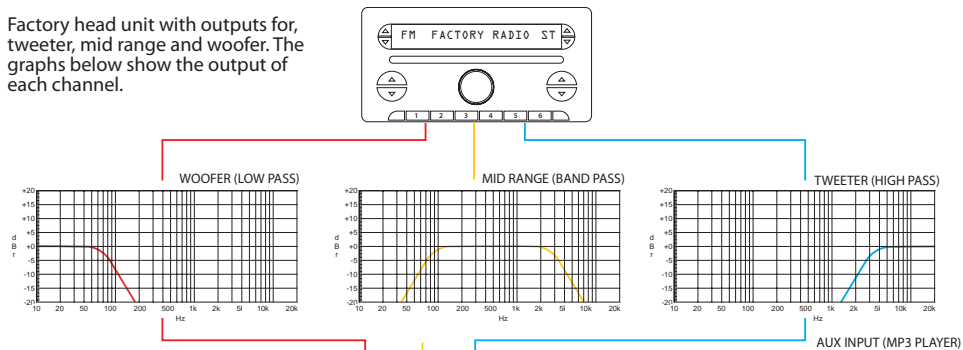
That's it. The levels are now set and matched and your system is ready to enjoy. Eject the setup disc and set the gains on your amplifiers as normal.

SRI

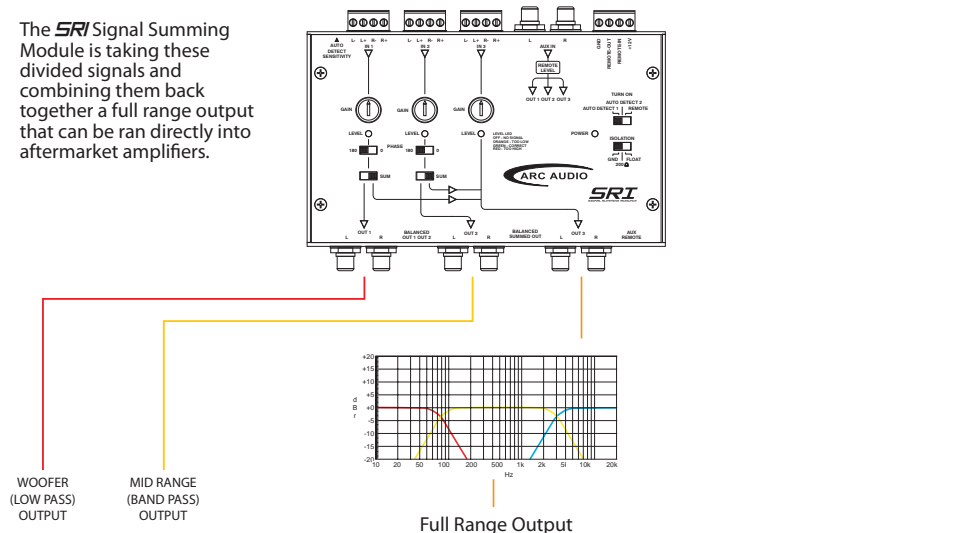
SIGNAL SUMMING MODULE EXPLAINED

In many cases the factory equipped radio includes navigation, ONSTAR® or other features that can not be replaced or are not easily bypassed. In some cases the factory radio simply can not be removed. In these cases it is necessary to maintain the stock headunit making it more difficult to modify the entertainment system. Many systems today have multiple speaker outputs that are optimized to the speakers they will be driving by the use of crossovers that limit the frequencies they can play. The *SRI* can take these outputs and by using "SUMMING CIRCUITS", put them back together and deliver a full range signal to your after market amplifiers.

Factory head unit with outputs for, tweeter, mid range and woofer. The graphs below show the output of each channel.

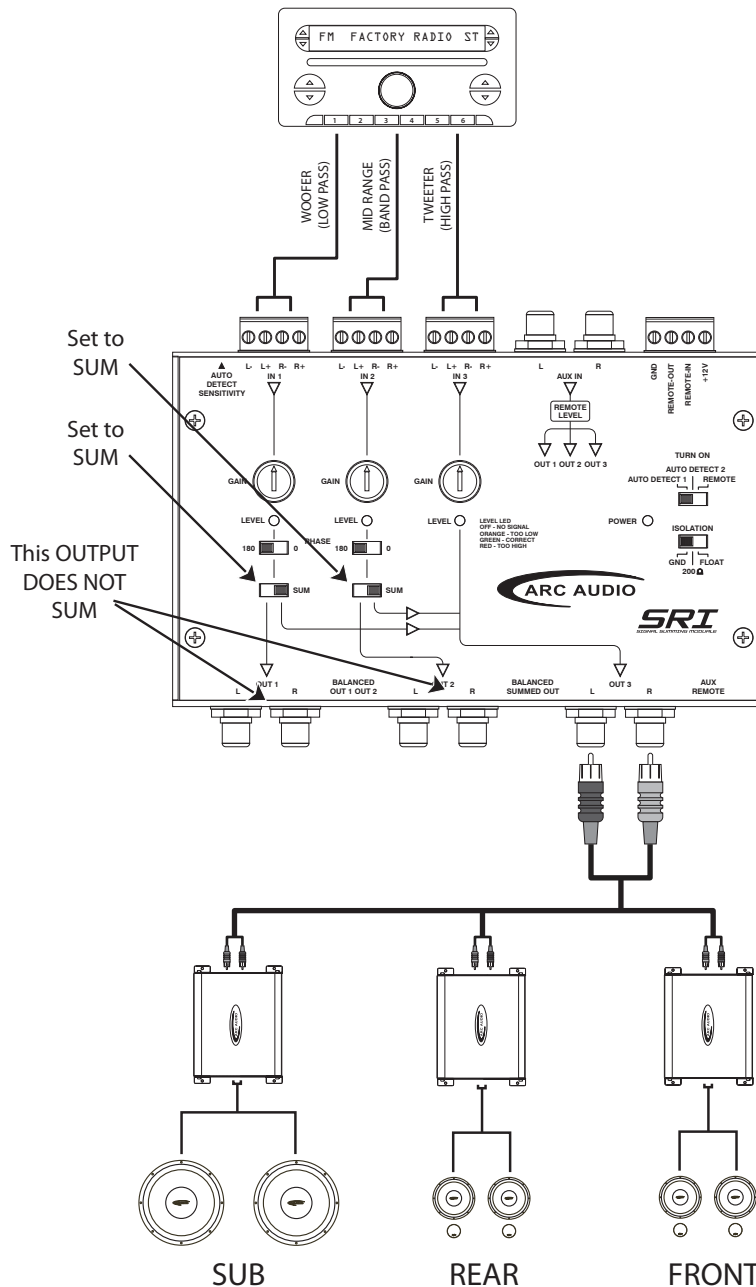


The *SRI* Signal Summing Module is taking these divided signals and combining them back together a full range output that can be ran directly into aftermarket amplifiers.



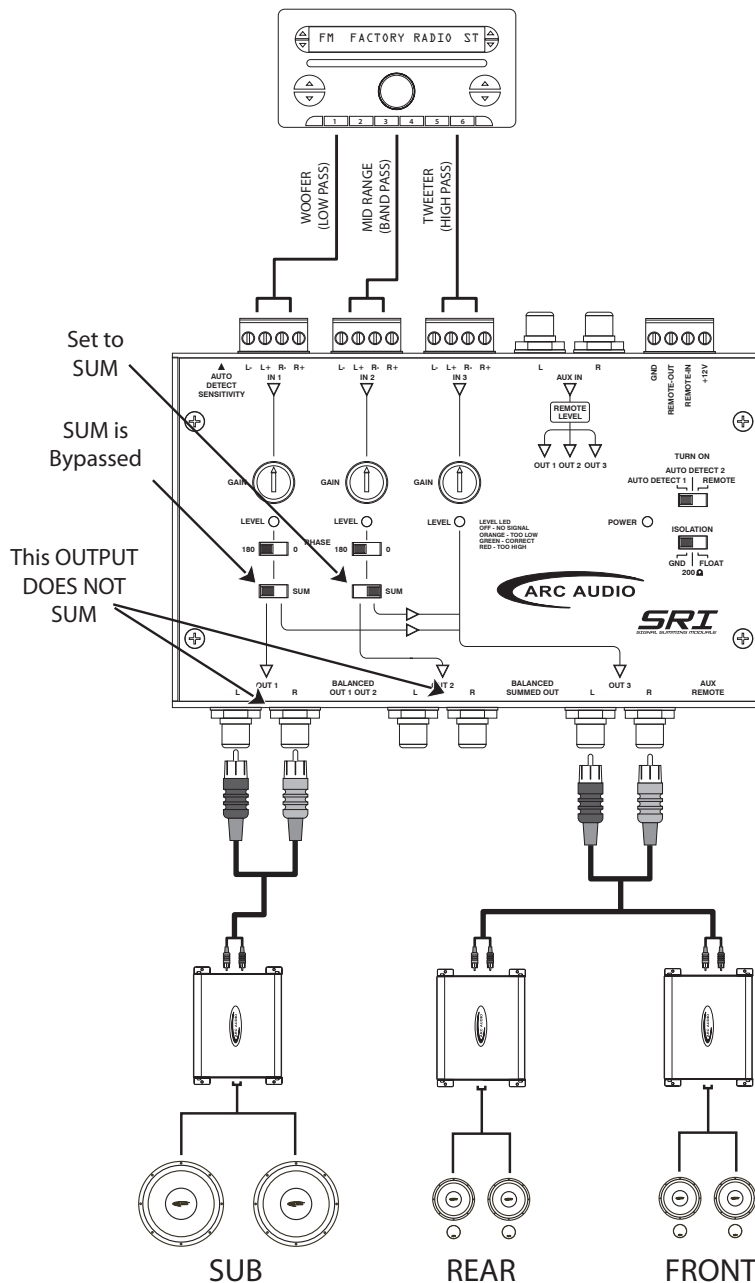
Typical 3-Way OEM System SUMMED to FULL RANGE

In this example the factory system has no full range outputs. An example of this would be a system with active tweeters, midbass and subwoofer. These output need to be summed together to achieve a fullrange output. Both summing switches are set to SUM. Once the levels are set, try the 0/180 switches. This will correct any channels that are out of phase. The non-summing outputs (OUT1 and OUT2) are not used in this application.



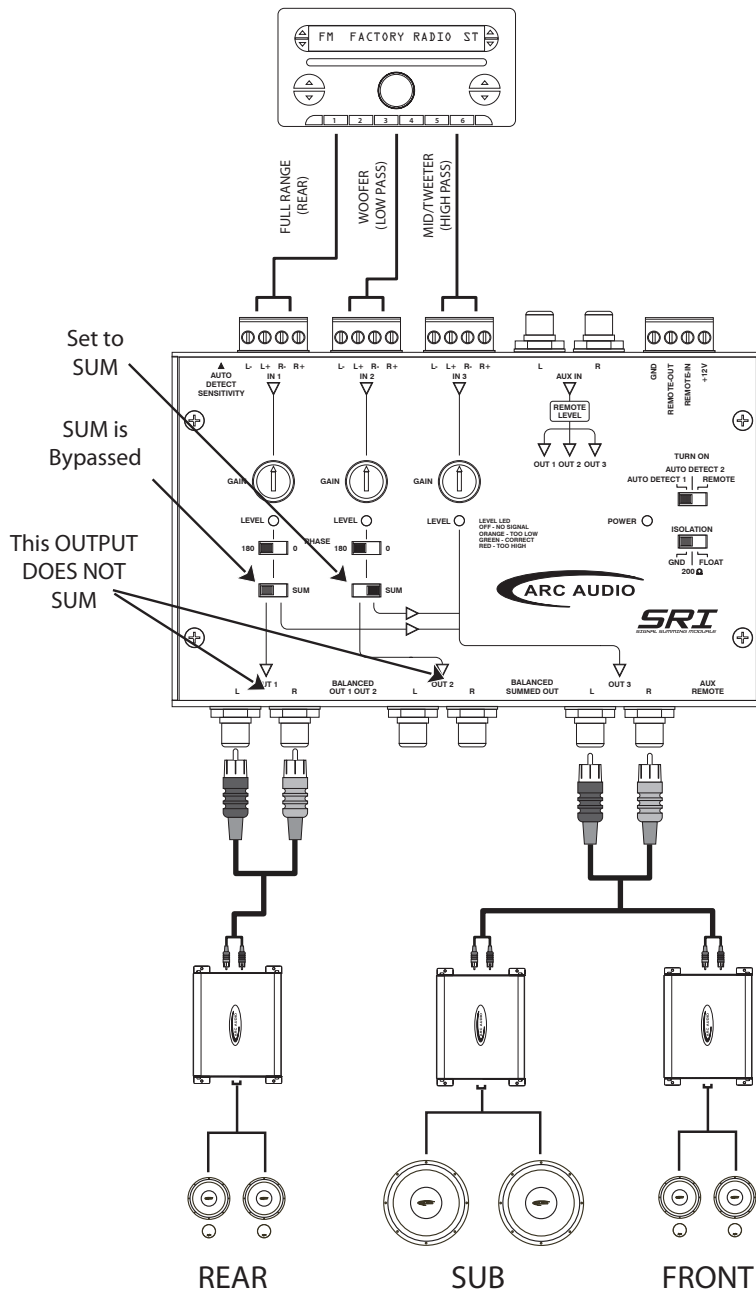
3-WAY FACTORY SYSTEM With NON-SUMMING SUBWOOFER

In this example the factory system has no full range outputs. An example of this would be a system with active tweeters, midbass and subwoofer. These output need to be summed together to achieve a fullrange output however due to advanced features such Bluetooth, hands free or door chimes, there is a need to run the subwoofer separately from the other outputs (do you really want your phone calls playing through the subs?). Input 2 summing switch is set to SUM. Input 1 is not summed. Once the levels are set, try the 0/180 switches. This will correct any channels that are out of phase. Non-summing output OUT2 is not used in this application. OUT1 passes through and is ran directly to the sub amplifier.



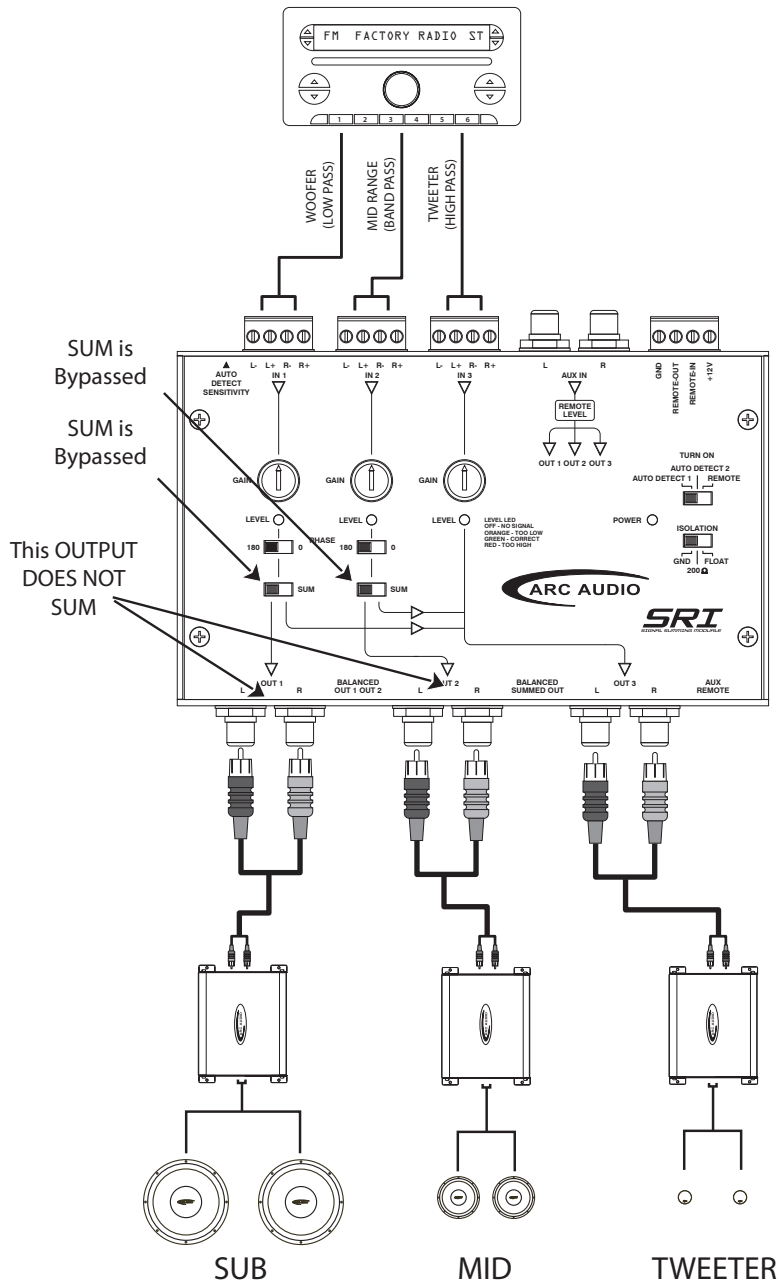
2-WAY FACTORY SYSTEM With FULLRANGE REAR FILL

In this example the factory system has actively driven front outputs with a full range rear output. An example of this would be a system with active tweeters, midbass in the front and full range rear speakers. While you could just use the rear to run the system some advanced features such as Bluetooth, hands free or door chimes run through the front speakers only. These outputs need to be summed together to achieve a fullrange output in the front. Input 2 summing switch is set to SUM. Input 1 is not summed. Once the levels are set, try the 0/180 switches. This will correct any channels that are out of phase. Non-summing output OUT2 is not used in this application. OUT1 passes through and is ran directly to the rear channel amplifier.



3-WAY FACTORY SYSTEM NON-SUMMING

In this example the factory system has no full range outputs. An example of this would be a system with active tweeters, midbass and subwoofer however because the new system closely resembles the OEM equipment the stock crossovers are usable and there is no need to sum the outputs. Both summing switches are set to bypass the summing. Once the levels are set, try the 0/180 switches. This will correct any channels that are out of phase. The non-summing outputs (OUT1 and OUT2) are used in this application to drive subwoofers and midbass drivers.



SPECIFICATIONS

| | |
|---------------------------|------------------------|
| Input Voltage Range | 1.8VRms - 19VRms |
| Output Voltage | 7VRms |
| Gain Range | +/- 20dB |
| Frequency Response | 10Hz- 33KHz |
| Total Harmonic Distortion | .006% |
| Input Impedance | 38K ohms |
| Current Draw | 200mA |
| Recommended Fuse | 1 Amp |
| Dimensions | 8" W x 5 1/4" D x 1" H |
| Remote Output Current | 25mA |

WARRANTY

For warranty and repair service outside of the USA, please send your product directly to your countries authorized Arc Audio distributor for your service needs. As a customer you do have the option to send your product directly back to the factory in the USA but you will be responsible for "ALL" shipping costs, taxes, and duties to and from the USA. Return shipping charges and fee's must be paid by Credit Card with a signed credit card authorization form prior to the return shipment. This includes shipping cost, customs fee's, duties, local and government import/export tax's, broker's fee's and any other misc. fee's that could be added by your local government or other international agencies. International warranty shipments will not be accepted without a proper return authorization number and/or sales receipt documentation.

ARC AUDIO warrants all new products against defects in material and workmanship for a period of ONE (1) YEAR from the original date of purchase from an AUTHORIZED ARC AUDIO RETAILER.

This warranty is not transferable and applies only to the original retail purchaser of the product from an authorized ARC AUDIO retailer. Upon inspection by ARC AUDIO should services be necessary under this warranty for any reason due to manufacture defects ARC AUDIO will, at its sole discretion, repair or replace the defective product with new or similar conditioned product at no charge.

THIS WARRANTY DOES NOT COVER INSTALLATION OR DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE, IMPROPER WIRING, OPERATION OUTSIDE OF UNIT OUTSIDE OF MANUFACTURES SPECIFICATIONS, OR AGAINST INSTRUCTIONS IN OWNERS MANUAL. IN ADDITION ANY PRODUCT THAT HAS BEN OPENED, TEMPERED WITH OR MODIFIED, OR IF ANY SERIAL NUMBERS HAVE BEEN REMOVED OR ALTERED WILL NOT BE COVERED BY ANY PART OF THE MANUFACTURES WARRANTY.

All warranty returns should be sent to ARC AUDIO freight prepaid and must be accompanied by proof of purchase (a copy of the original sales receipt). Direct returns from consumers or non-authorized retailers will be refused unless specifically authorized by ARC AUDIO with a valid return authorization number.

All warranty returns must be packed in original packaging and be accompanied by a copy of the original printed sales receipt. Product damaged in shipment due to improper packaging will not be covered under this warranty and the customer or retailer will be charged full cost to repair the specific piece of product back to a like new or similar condition.

In no event will ARC AUDIO be liable for incidental, consequential, or other damages resulting from the use of this product, this includes but is not limited to, damage of hearing, property or person, damage based upon inconvenience or on loss of use of the product, and to the extent permitted by law, damages for personal injury. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. This warranty applies to products sold and used in the United States of America. In all other countries please contact your distributor.

The following are examples of what is not covered under Arc Audio's warranty policy-

- Any Product that is missing or has altered/damaged Serial numbers
- Any Product that has been damaged as a result of physical abuse
- Any Product that has been modified or altered from its original form or design and/or repair has been attempted by unauthorized repair facilities.
- Any product that has been previously owned by another use and was sold private party. (Arc Audio's warranty policy is not transferable to third party or second hand users)
- Product that has not been installed as per manufacture recommendations including wiring and installation related damage to product.
- Cosmetic damage due to installation, shipping and handling, and normal wear and tear.
- Arc Audio will not be responsible for any product that has any kind of custom finish or customized cosmetic additions that differs from the original form as manufacture from Arc Audio.
- Products damaged by "Acts of God" (Flood, Fire, Infestations, etc.)

For Warranty and Non-Warranty Repairs, Send to-

ARC Audio
4719 Greenleaf Ct. #4
Modesto, CA 95356

