



# DS18 ZXL.2 Full-Range 4-Channel Class D Amplifier Owner's Manual

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**DS18 ZXL.2 Full-Range 4-Channel Class D Amplifier**



## Product Information

The product is a series of car audio amplifiers called ZXI by DS18. The series includes 8 models: ZXI.2, ZXI.2XL, ZXI.4, ZXI.4XL, ZXI.1, ZXI.1XL, ZXI.1xxl, ZXI.5, and ZXI.6. The amplifiers are Class-D and are available in 2, 4, and 6 channels. The amplifiers have various RMS power outputs at 4 ohms, 2 ohms, and 1 ohm, as well as peak power outputs at 4 ohms and 2 ohms. Other features include minimum impedance, frequency response, THD %, input sensitivity, signal/noise ratio, subsonic frequency, crossover high pass, crossover low pass, phase, bass boost, operation voltage, fuse rating, power input size, remote knob dimensions LxDxH (inches).

## Product Usage Instructions

1. Ensure that the amplifier is compatible with your car's audio system.
2. Install the amplifier in a safe and secure location in your car.
3. Connect the amplifier to the car's battery using the appropriate power input size and fuse rating.
4. Connect the amplifier to the car's audio system using the appropriate inputs and outputs.
5. Adjust the amplifier settings such as minimum impedance, frequency response, THD %, input sensitivity, signal/noise ratio, subsonic frequency, crossover high pass, crossover low pass, phase, bass boost according to your preference.
6. Turn on the amplifier and adjust the volume to your desired level.
7. Monitor the LED lights on the amplifier to ensure it is working properly. The LED lights indicate working status: power, protection, and clipping.
8. Enjoy your music at the desired volume and quality.

## WHERE ARE YOU HEADED?

Thank you for choosing DS18/ZXI Series amps! Your choice of DS18/ZXI Series amps indicates a desire for high quality music reproduction in the automobile. To take full advantage of the DS18/ZXI Series amps gear you have just purchased, please read and follow the instructions in this manual. As with all of our products, professional installation by an authorized DS18/ ZXI Series amps dealer is highly recommended! Otherwise, the performance of your new gear may not be satisfactory.

In addition to the installation services and expertise offered by an authorized DS18/ ZXI Series amps dealer, the warranty of this product may be extended when installed by an authorized DS18/ZXI Series amps dealer. Be sure to ask your authorized DS18/ ZXI Series amps dealer about whether your product may qualify for an extended warranty. You're Headed in the Right Direction with DS18/ZXI Series amps!

## INTRODUCTION

The DS18/ ZXI Series amplifiers offer high quality audio reproduction for the audiophile and the everyday listener alike. All models feature fully variable crossovers with 12 dB per octave slopes, allowing you the ability to tailor the sound to best fit the speakers and your listening preferences.

Platinum-finish connections Ensures solid electrical connections that resist corrosion Fully Variable Crossovers promote installation ease and save the cost of outboard crossovers. Additionally, they may be used in conjunction with outboard passive or active crossovers, depending on the complexity required by the system. The 12 dB per octave slope offers steep roll-off above or below the selected frequency.

Protection Circuitry Against Overload. Short Circuit, Thermal. Low Voltage, High Voltage, and Reverse Polarity. These Protection features are designed to protect the amplifier from misuse, as well as from common causes of amplifier failure.

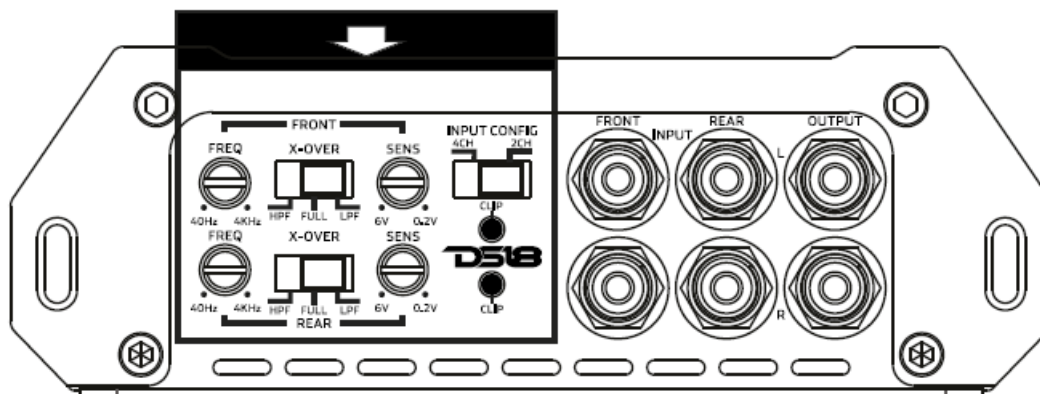
## INSTALLATION

Professional installation by an authorized DS18/ZXI Series amps dealer is highly recommended! Otherwise, the performance of your new gear may not be satisfactory. In the event that you decide to do your own installation, please read and follow this manual very carefully. Failure to do so may compromise the integrity of this product, your automobile, and possibly void the product warranty. Amplifiers are generally mounted in the hatch/trunk area of a car or SUV, and under or behind the seat of most pick up trucks. Select a location that will provide adequate ventilation for the amplifier. Avoid mounting the amplifier with the fins facing down. The fins should be facing up, either vertically or horizontally. Secure the amplifier with the screws provided.

## INPUT

Before securing the amplifier, inspect the mounting location carefully to ensure that you do not drill into or damage any electrical, hydraulic, fluid, or fuel lines.

### Input Section

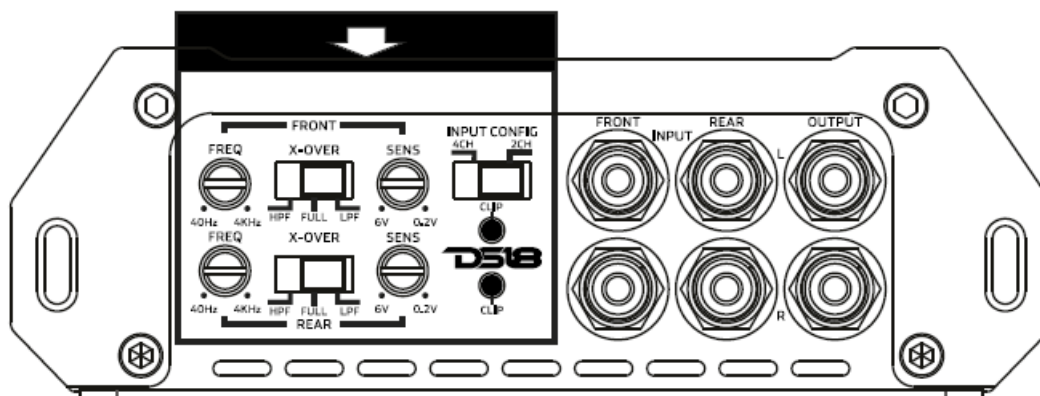


Because of the wide range of head unit output configurations all DS18/ZXI Series amps have an adjustable input sensitivity of "Gain". The gain is not a volume or a power limiting control like a throttle. It makes the amp more sensitive to input from the stereo. with the gain up the amp will reach full output at a lower volume setting on the deck. At higher gain settings the amp also becomes more sensitive to noise from the car's electrical system. Try

to run the gain at the lowest setting possible for your system.

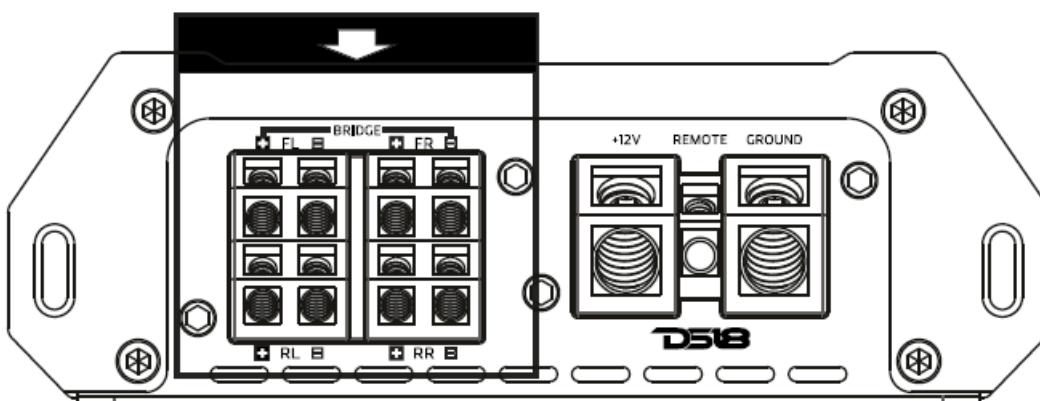
There is no correct gain setting. Because speakers require different power demands to reach the same output, the gains most often need to be used to compensate for these differences. If you tried to set all the gains at half way you would probably find the system didn't sound very good. Using good judgment and listening carefully to each speaker is still the best way to tune a system.

## CROSSOVER CONTROLS



A crossover is a device that removes unwanted frequencies from a speaker or amplifier. A tweeter can easily be destroyed by bass notes if they are not filtered out. Likewise a subwoofer will not sound natural if it is playing midrange notes. A crossover removes these sounds from the speaker. As you might guess, careful adjustment is needed to ensure that all the speakers are playing the right sounds and that you are left with no "holes" or low spots in the frequency response.

## SPEAKER OUTPUTS



This amplifier is a multi channel amplifier design. Meaning it has more than one channel of speaker outputs. It is equipped with a large block style terminal for speaker connection. Make this connection carefully and neatly. Strip your wire back and twist the exposed leads and insert them into the block terminal while being careful that there are no loose or frayed strands of wire and tighten the Allen's head screw down on the terminal till the wire is tightly secured in place.

If the wires ever come in contact with each other the amplifier will go into protection. Know your total Ohm load before you make any connections.

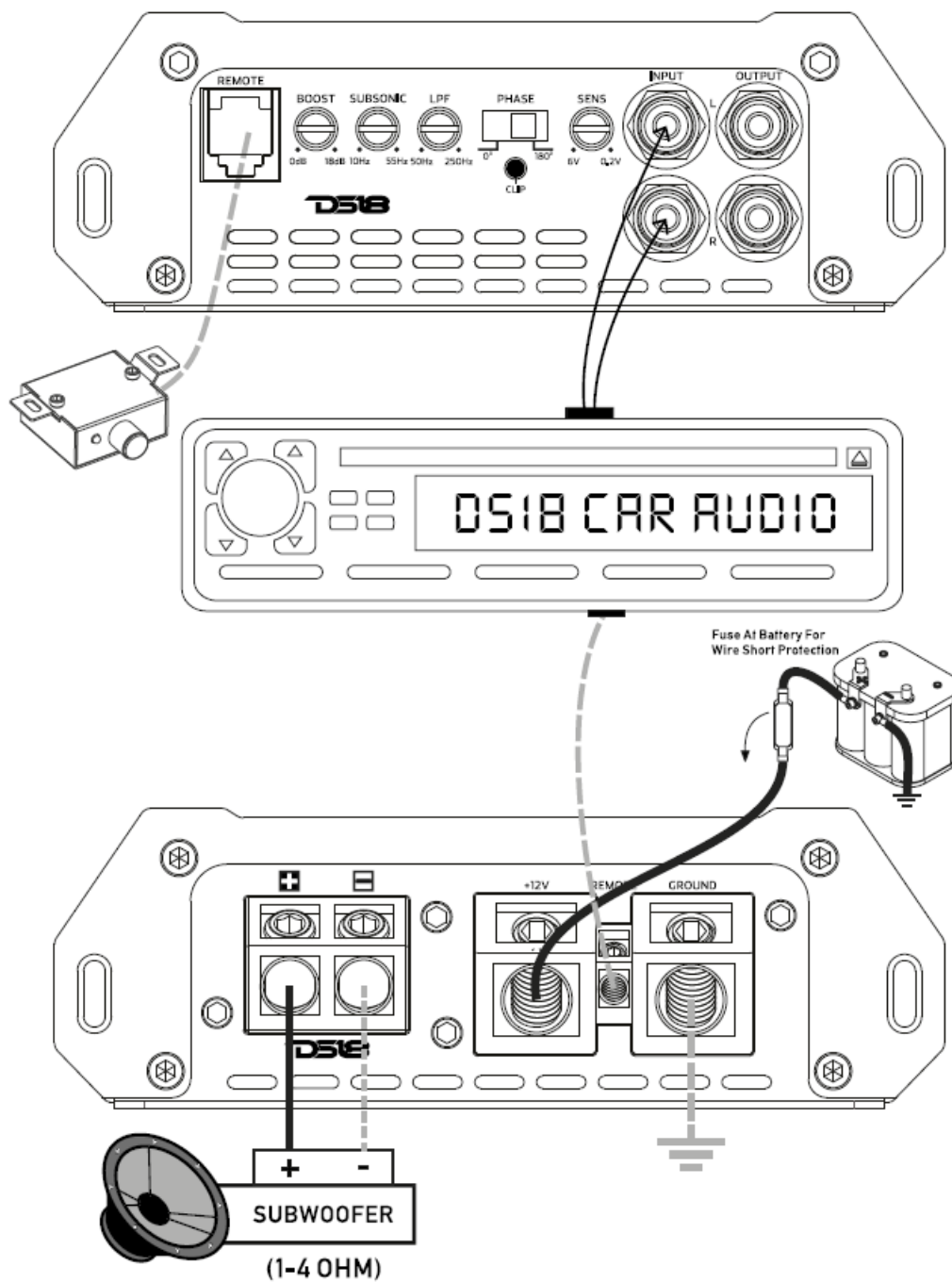
## INSTALLATION INSTRUCTIONS

1. Before you start, disconnect the negative cable from the car battery. Tape up the end so it is isolated from the

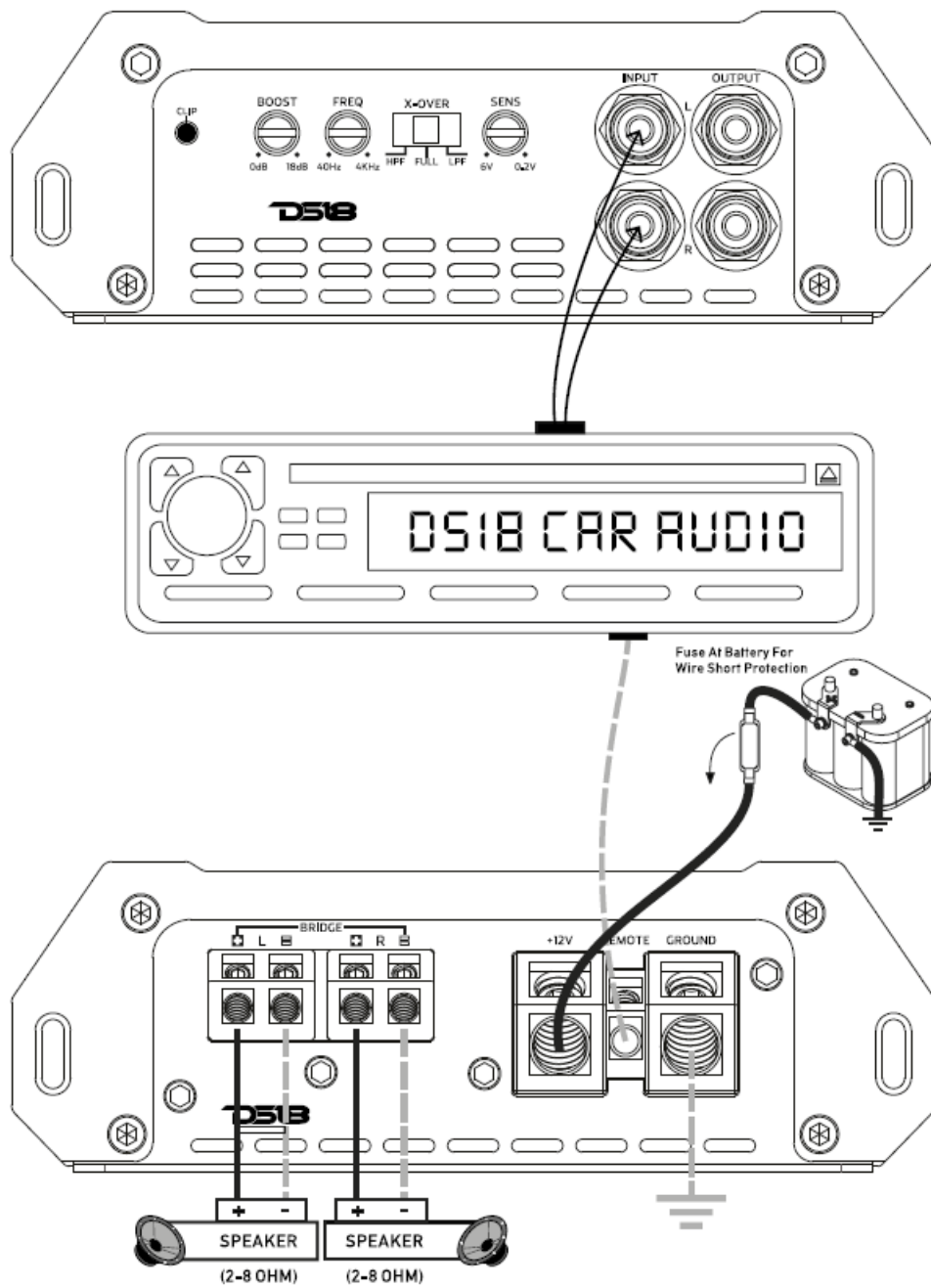
battery.

2. Run an appropriate gauge wire from the battery to the amplifier. Plan this part of the installation carefully. this cable will carry very high current. If it should short to the body and it is not properly fused it could catch fire.
3. Connect the power wire to the battery using a fuse capable of the total current load of all amplifiers connected. Don't install the fuse yet. Wait until the end. locate the fuse as close as possible to the battery. If the fuse is further that 18 inches (wire length) from the battery you should reevaluate the wire and fuse placement.
4. Find the closest clear metal area to the amp for a ground. sand, grind or scrape all paint and undercoating from the body and screw the ground securely in place. It is advisable to test the ground with an ohmmeter between the ground cable and the negative battery cable to insure a good low-resistance connection. Some alloys used in modern cars do not offer the best ground. If you believe this is the case consult with the vehicle manufacturer.
5. Run the speaker wire to the speakers. It is advised that you leave some extra wire at this point. You can "clean it up" later.
6. If you haven't already done so. mount the amp now.
7. Connect the power and ground to the amplifier. Only after this should you install the fuse at the battery.
8. Connect the remote wire from the head unit to the amplifier. Now is a good time to turn on the amp for the first time. Make sure it turns on properly and does not go into protection.
9. Connect the speaker wires to the amp and speakers (make sure the amp is off first). Make sure the polarity(+add-)is correct.
10. Connect the RCA's to the amp.
11. Double-check the amplifier controls at this time. Make sure everything is set correctly for your system.
12. Now you're ready to play it for the first time. It is best to leave the gain all the way down at first. Start with the head unit volume low and work your way up.
13. Now you can tune the amp. Take your time and make only one adjustment at a time. It may take some time to get the system fully adjusted. During this time the amp is drawing current from the battery. You should check the battery voltage from time to time and recharge it if it gets low. that's it. You're done. Now have fun.

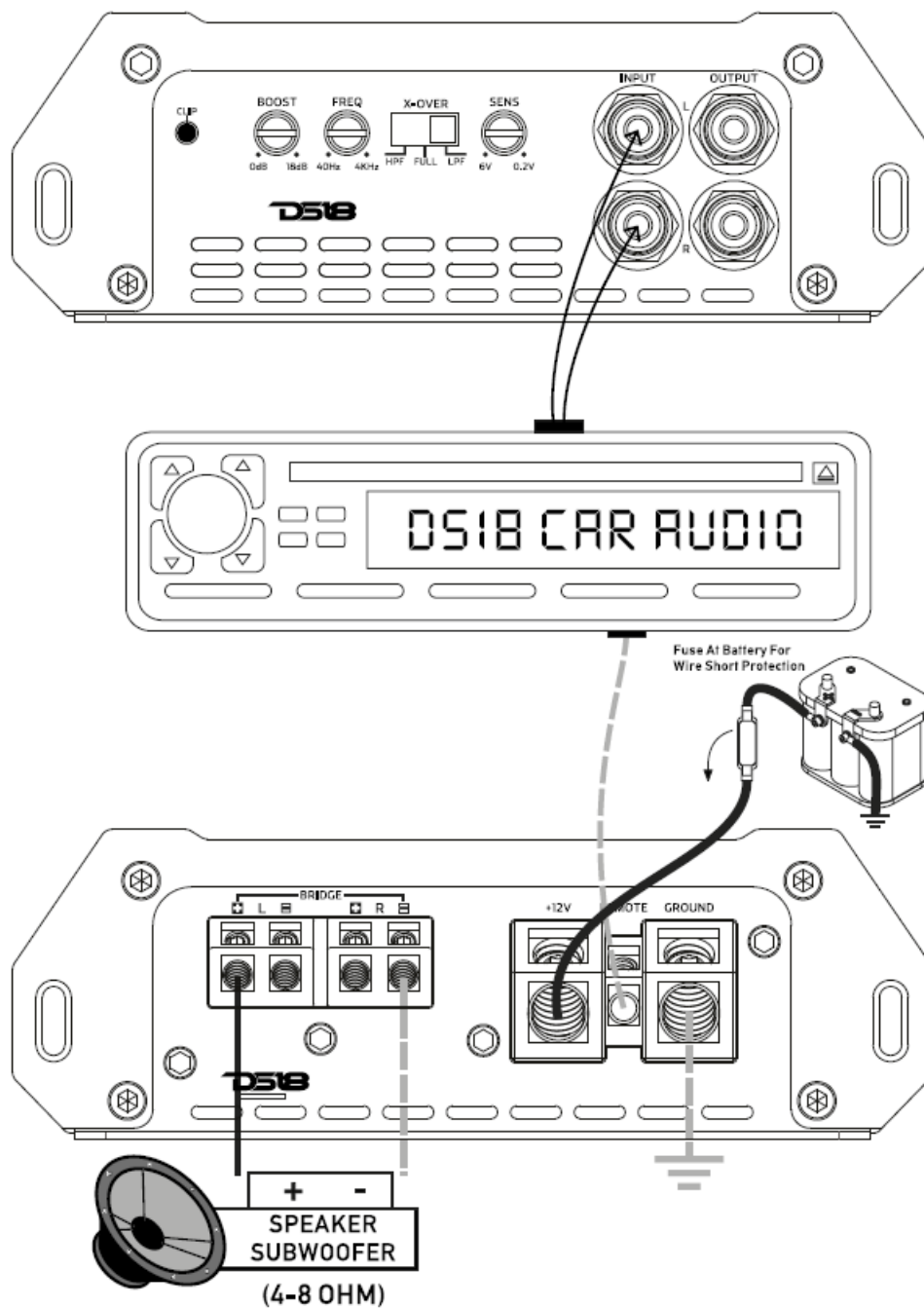
## **INSTALLATION (ALL MONOBLOCK MODELS)**



## INSTALLATION (ALL TWO CHANNELS MODELS)

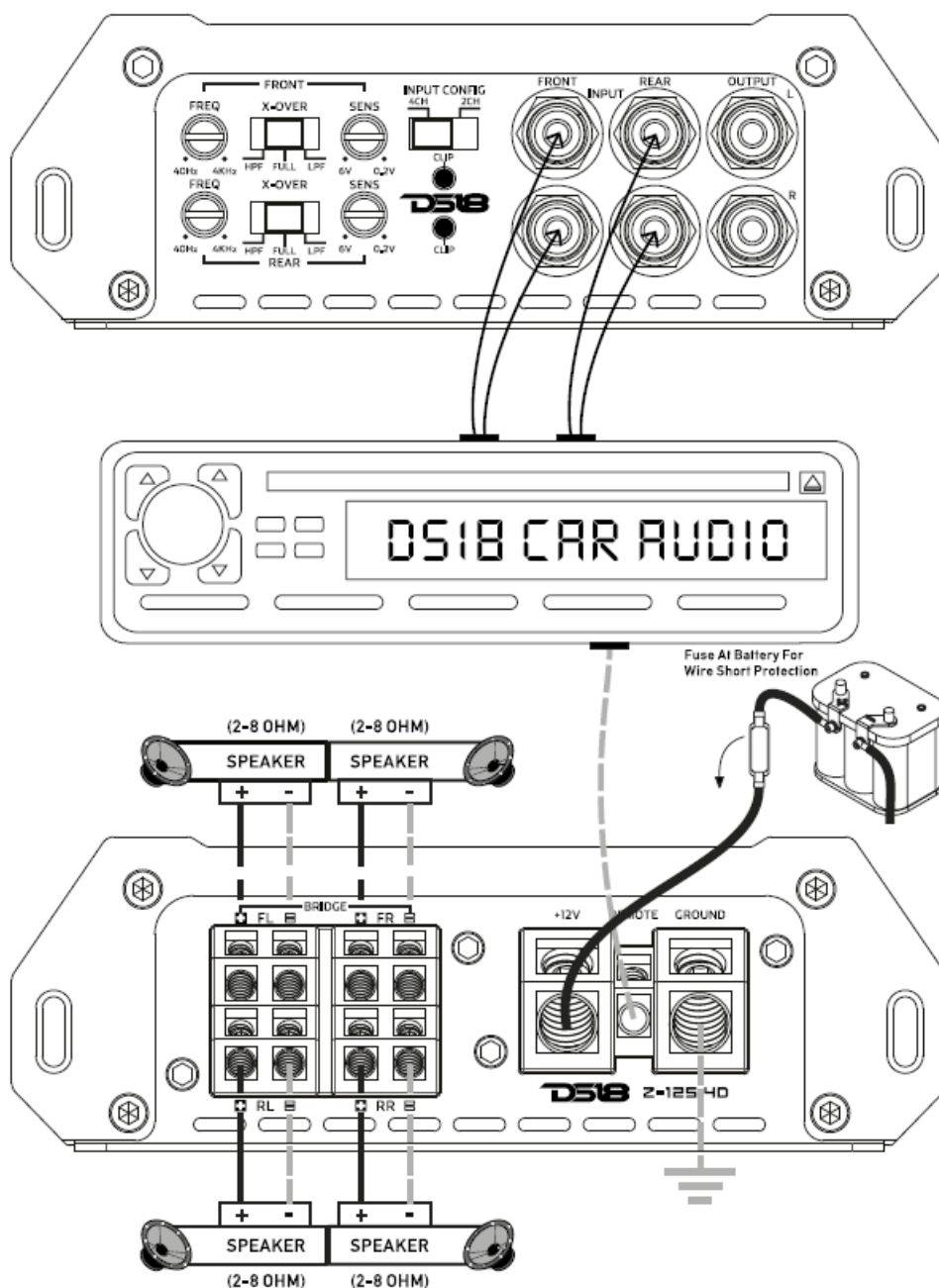


## BRIDGE INSTALLATION (ALL TWO CHANNELS MODELS)

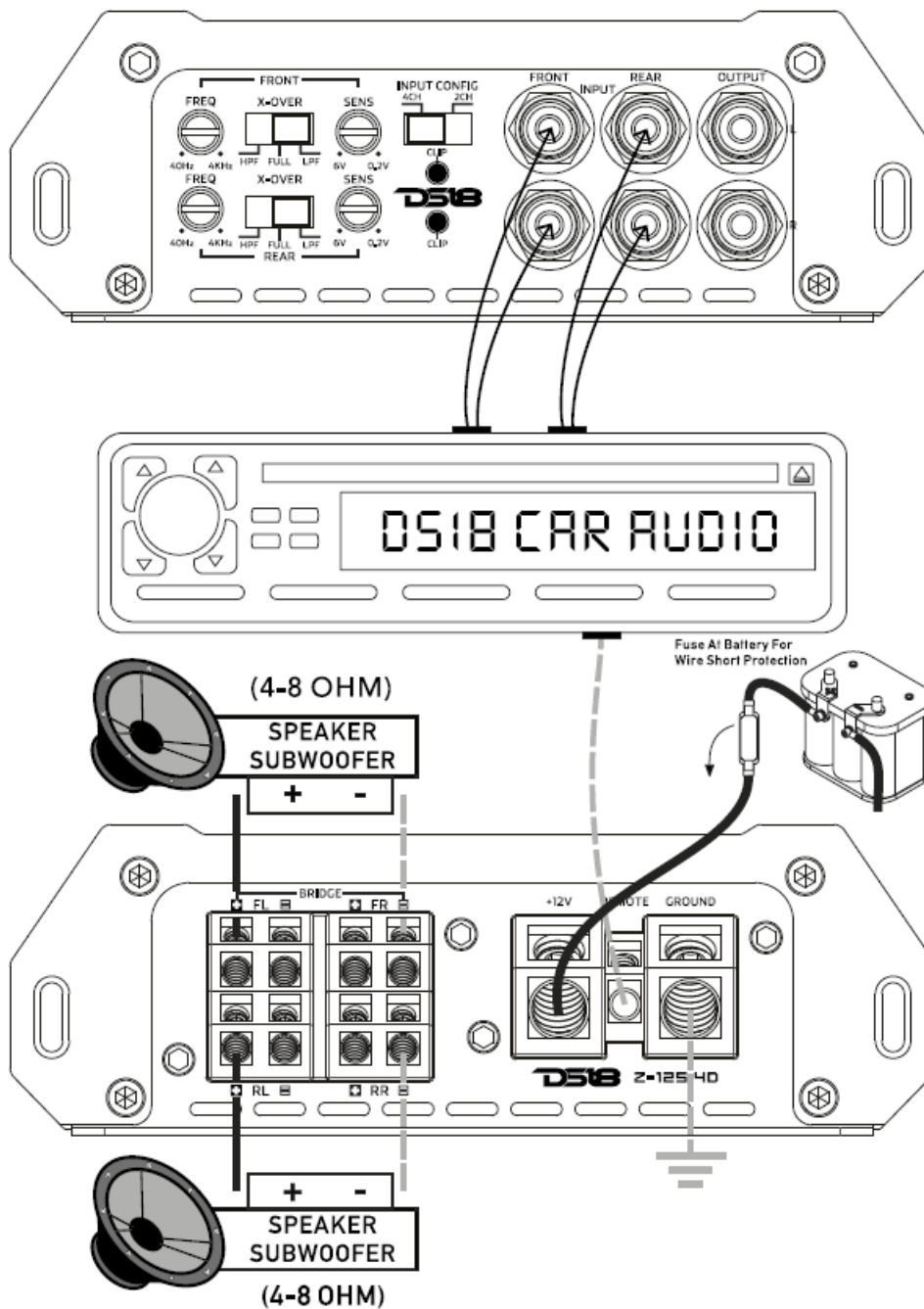


**NORMAL INSTALLATION(ALL FOUR CHANNELS MODELS)**

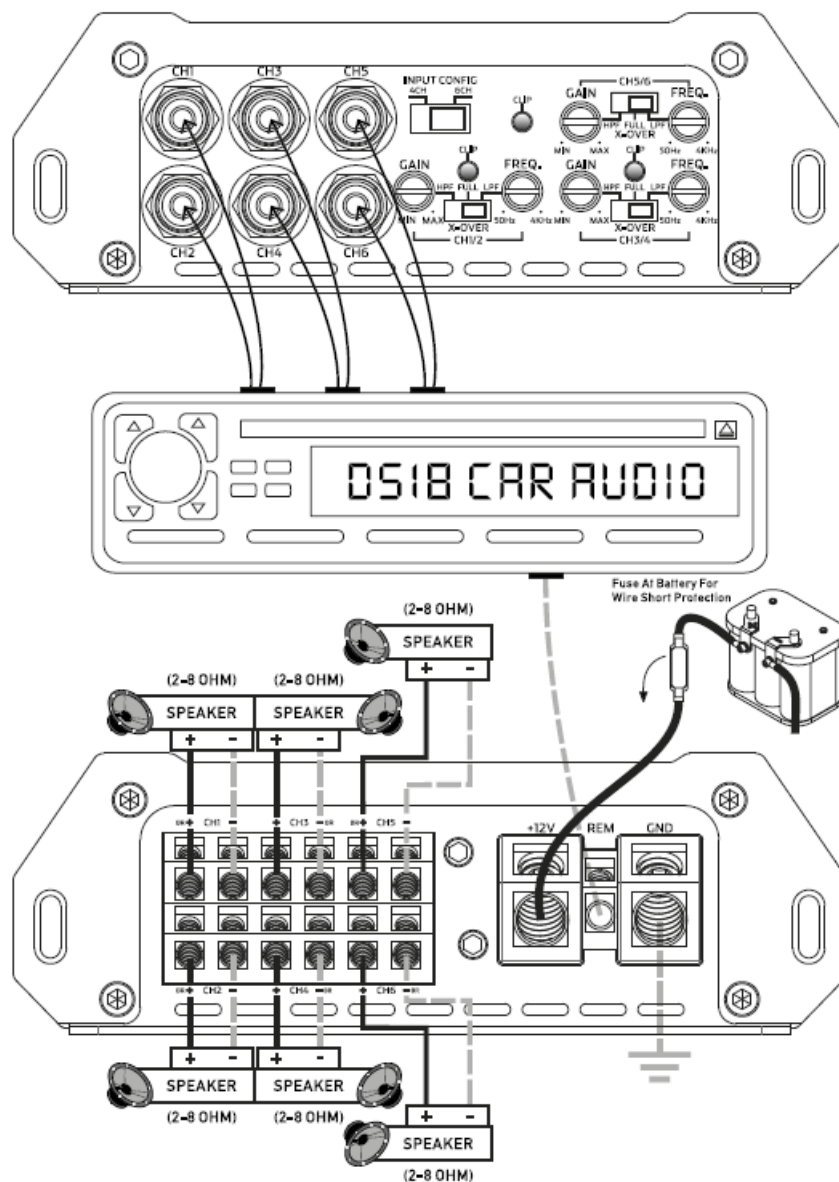




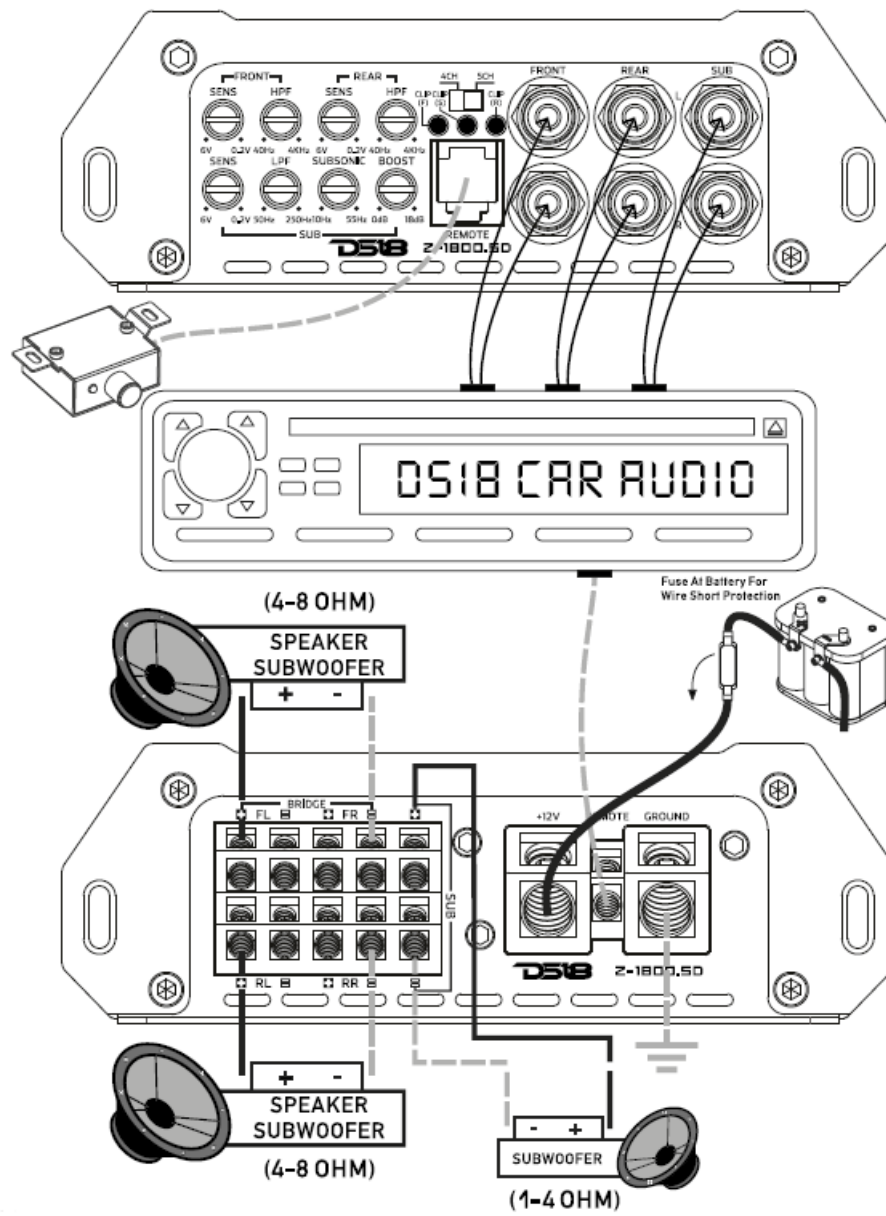
## BRIDGE INSTALLATION (ALL FOUR CHANNELS MODELS)



**NORMAL INSTALLATION (ALL FIVE CHANNELS MODELS)**



**NORMAL INSTALLATION(ALL SIX CHANNEL MODELS)**



## SPECIFICATIONS

MODEL	ZXI.2	ZXI.2XL	ZXI.4	ZXI.4XL	ZXI.1	ZXI.1XL	ZXI.1XXL	ZXI.5	ZXI.6
CLASS	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D
CHANNELS	2	2	4	4	1	1	1	5	6
RMS POWER @ 4 OHM	100W x 2CH	200W x2CH	125W x4CH	250W x4CH	450W x1CH	900W x1CH	1500W x 1CH	125W x 4CH+420W	200W x 6CH
RMS POWER @ 2 OHM	185W x 2CH	330W x2CH	185W x4CH	400W x4CH	700W x1CH	1500W x1CH	2400W x 1CH	170W x 4CH+705W	320W x 6CH
RMS POWER @ 1 OHM	N/A	N/A	N/A	N/A	1000W x1CH	2200W x 1CH	3000W x 1CH	SUB: 1000W x1CH	N/A
RMS POWER @ 4 OHM BRIDGE	370W x 1CH	600W x1CH	370W x2CH	800W x2CH	N/A	N/A	N/A	F&R CHS:340Wx2CH	640W x 3CH
PEAK POWER @ 4 OHM	150W x 2CH	300W x2CH	200W x4CH	350W x4CH	680W x1CH	1400W x1CH	1900W x 1CH	200W x 4CH+680W	300W x 6CH
PEAK POWER @ 2 OHM	250W x 2CH	450W x2CH	300W x4CH	500W x4CH	1000W x1CH	2200W x1CH	2800W x 1CH	300W x 4CH+1000W	440W x 6CH
PEAK POWER @ 1 OHM	N/A	N/A	N/A	N/A	1500W x1CH	3000W x1CH	4000W x 1CH	SUB: 1500W x1CH	N/A
PEAK POWER @ 4 OHM BRIDGE	500W x 1CH	800W x1CH	600W x2CH	1000W x2CH	N/A	N/A	N/A	F&R CHS:600Wx2CH	820W x 3CH
MINIMUM IMPEDANCE	2 OHM	2 OHM	2 OHM	2 OHM	1 OHM	1 OHM	1 OHM	F&R CHS:2 OHM/SUB:1 OHM	2 OHM
FREQUENCY RESPONSE	20-20KHZ	20-20KHZ	20-20KHZ	20-20KHZ	20-500HZ	20-500HZ	20-500HZ	20-20KHZ	20-20KHZ
THD %	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	<0.3%
INPUT SENSITIVITY	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V
SIGNAL/NOISE RATIO	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB
SUBSONIC FREQUENCY	N/A	N/A	N/A	N/A	10-55HZ	10-55HZ	10-55HZ	10-55HZ	N/A
CROSSOVER HIGH PASS	40-4KHZ	40-4KHZ	40-4KHZ	40-4KHZ	N/A	N/A	N/A	40-4KHZ	50HZ-5KHZ
CROSSOVER LOW PASS	40-4KHZ	40-4KHZ	40-4KHZ	40-4KHZ	50-250HZ	50-250HZ	50-250HZ	50-250HZ	50HZ-5KHZ
PHASE	N/A	N/A	N/A	N/A	0-180 DEGREES	0-180 DEGREES	0-180 DEGREES	0-180 DEGREES	N/A
BASS BOOST	0-18dB	0-18dB	0-18dB	0-18dB	0-18dB	0-18dB	0-18dB	0-18dB	N/A
OPERATION VOLTAGE	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V	8.5-16.8V
FUSE RATING	35A	40A x2	40A x2	200A	120A	220A	300A	200A	160A
POWER INPUT SIZE	4GA	4GA	4GA	4GA	4GA	0GA	0GA	4GA	4GA
REMOTE KNOB	N/A	N/A	N/A	N/A	YES	YES	YES	YES	N/A
DIMENSIONS LxDxH (INCHES)	7.1 x 5.7 x 1.9	9.1 x 5.7 x 1.9	9.5 x 5.7 x 1.9	12.2 x 5.7 x 1.9	9.1 x 5.7 x 1.9	13.8 x 5.7 x 1.9	15.4 x 5.7 x 1.9	14.2 x 5.7 x 1.9	12.2 x 5.66 x 1.9

## WARRANTY

Should your amplifier require service: Please consult with the dealer from which it was purchased, or contact DS18 CAR AUDIO Local Dealer. Do not attempt to return your amplifier directly to us without first calling for a Return Authorization Number. Units received without any accompanying Return Authorization Number will be processed slower. Additionally, you must include a copy of your purchase receipt from an authorized dealer for consideration of in-warranty service (The warranty is not transferable and will not apply to products purchased from unauthorized dealers).

This warranty does not cover the cost for removal and reinstallation of any kind. Additionally, shipping to DS18 is covered by the purchaser. This warranty is void and inapplicable if DS18 deems that the product was abused or misused; including but not limited to products that have been improperly powered, causing thermal coil failure and/or mechanical failure, damage caused by accident, mishandling, improper installation, negligence, normal wear and tear, excessive water or heat damage, and freight damage. (The warranty is not transferable and will not apply to products purchased from unauthorized dealers.) DS18 is not responsible for any damages to a consumer's vehicle or person from a product failure. The warranty is void if DS18 deems the product was installed or used improperly. DS18 shall not be responsible for any incidental or consequential damages.

## General Features

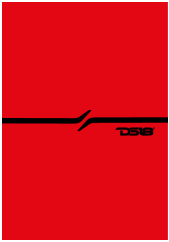
- Compact Size FOR Easy Installation
- Surface Mount Component Technology
- Audio Precision Quality Control Verification
- Stable/Reliable Four Layers Traces PCB layout Design
- **Led Lights Indicate Working Status:** Power/Protection/Clipping
- Tiffany RCA Jack and Directed Insert Terminals

## We Like It Loud



[DS18.com](https://www.ds18.com)

## Documents / Resources

	<p><a href="#">DS18 ZXI.2 Full-Range 4-Channel Class D Amplifier</a> [pdf] Owner's Manual ZXI.2, ZXI.2XL, ZXI.4, ZXI.4XL, ZXI.1, ZXI.1XL, ZXI.1xxl, ZXI.5, ZXI.6, ZXI.2 Full-Range 4-Channel Class D Amplifier, ZXI.2, Full-Range 4-Channel Class D Amplifier, Class D Amplifier, D Amplifier, Amplifier, 4-Channel Class D Amplifier</p>
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## References

-  [Official DS18 Pro Audio Store - Speakers, Subwoofers, Amps & More!](#)