



RECOIL[®]

DI600.1/DI1200.1/DI650.2/DI1200.2
DI550.4/DI800.4/DI1200.4

CAR AUDIO AMPLIFIER

User Manual

INTRODUCTION

Thank you for purchasing a Recoil amplifier for your car audio system. You have chosen

Recoil because you deserve the best!

Please thoroughly read through this manual before getting started. If you have any

CAUTION

GENERAL PRECAUTIONS

- This unit is designed for negative ground 12V DC operation only.
- Total system impedance must not be less than 2 ohms, in a bridged OR stereo-configuration.
- Do not cover the amplifier with carpet or wires.
- For safety reasons, keep the volume of your car audio system moderate while driving your vehicle so that you can still hear normal traffic sounds and emergency vehicles

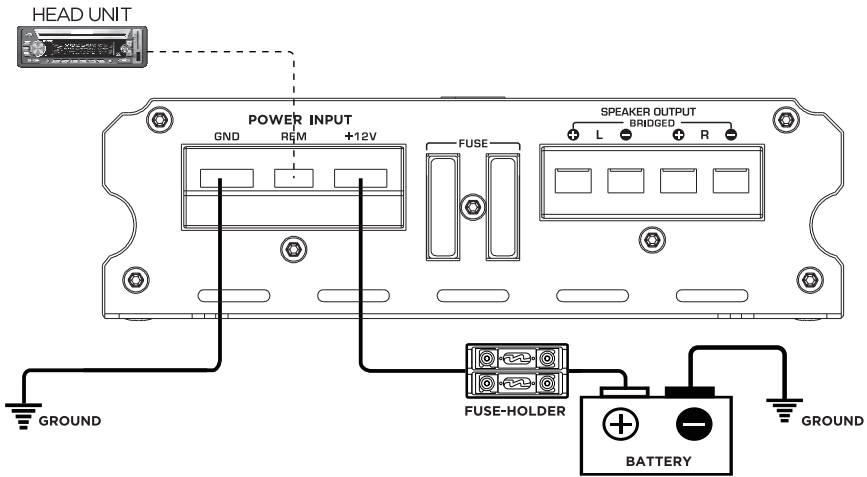
MOUNTING PRECAUTIONS

Choose a location that provides adequate ventilation around the amplifier. For easy system set-up, mount the amplifier so the side panel controls will be accessible after installation. In addition, observe the following precautions:

1. Using a felt pen mark, mark the mounting hole locations.
2. Mounting the amplifier on carpet will significantly reduce air flow, resulting in reduced thermal run times.
3. Mount the amplifier on a solid surface. Avoid mounting to subwoofer enclosures or areas prone to vibration.
4. Prior to mounting the amplifier, make sure not to cut or drill into the fuel tank, fuel lines, brake lines (under chassis) or electrical wiring.
5. Prior to mounting the amplifier, make sure not to cut or drill into the fuel tank.

WIRING PRECAUTIONS

1. Before installation, make sure the source unit power switch is in the OFF position.
2. Disconnect the negative (-) lead of the battery before making any power connections.
3. When making connections, be sure that each one is clean and secure.
4. A secure clean ground connection is critical to the performance of your amplifier.- Connect the ground directly to the car chassis to minimize resistance and avoid any noise problems.
5. Add an external fuse on the amplifier's positive (+) power lead and connect it as close as possible to the vehicle's (+) battery terminal. 18 inches is the usual dimension.



BATT (12V POWER)

Before mounting amplifiers, disconnect the negative cable from the battery to protect

any accidental damage to your amplifiers and audio system. Connect the power cables to power terminal 12V. Connect one end of fuse holder to the power cable going into the amplifiers and the other end of fuse holder to positive battery. This fuse location will protect the system and the vehicle against the possibility of a

GND (GROUND)

Locate a secure grounding connection as close to amplifier as possible.

Make sure the location is clean and provides a direct electrical connection to the frame of the vehicle. The ground needs to have as low of a resistance as possible. Connect one end of a short piece of the same size cable as the power cable to the grounding point or to one of your batteries or battery bank. Run the other end of 4 ga cable to the mounting location of the amplifiers for connection to the amplifiers ground terminals and connect the ground cable to the GND (ground terminal).

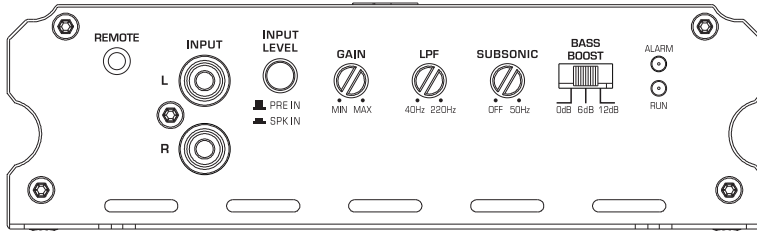
REM (REMOTE)

Run a remote turn on cable from the switched 12V source . This may be a toggle switch, a relay, your source unit's remote trigger cables, or power antenna trigger cable. Connect the remote turn on cable to the REM (remote) terminal.

SPEAKER TERMINAL BLOCK

Connect speaker wire from amplifier's terminal block to subwoofers. Subwoofers' impedance should be checked carefully.

FRONT PLATE DI600.1 & DI1200.1



RCA INPUTS

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.

GAIN

The input gain control is preset to match the output of most source units. It can be adjusted to match output levels from a variety of source units.

SUBSONIC

This control allows you to remove the unwanted sub-sonic frequencies below the tuning frequency of a ported enclosure. This helps to protect the woofer from over excursion. Adjustable from OFF - 50Hz.

BASS BOOST

This control adds 0 to +12dB of boost at 45Hz. Be cautious when adding boost to some subwoofer systems as they may not be able to handle the additional low frequency boost. In the 0dB position, no bass boost is added.

LPF

Use this adjustment to select the crossover point. Remember that you must select the Low Pass position (LPF) of the crossover adjustment switch first. The range of

REMOTE

This port is for the remote level control. The control is intended to allow the user to control the level of the amplifier from your driver's seat.

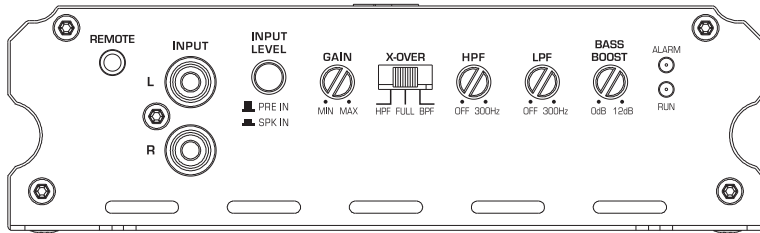
INPUT LEVEL

Switching between high level and low level signals

ALARM & RUN

These lights indicate when the amplifier is powered up normally and when there is a protection fault. The ALARM LED lights up when there is a problem with your amplifier.

FRONT PLATE DI650.2 & DI1200.2



RCA INPUTS

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.

GAIN

The input gain control is preset to match the output of most source units. It can be adjusted to match output levels from a variety of source units.

HPF

Use this adjustment to select the crossover point. Remember that you must select the High Pass position (HPF) of the crossover adjustment switch first. The range of adjustment is limited between OFF - 300 Hz.

X-OVER

This switch allows you to select the crossover. Use HPF (high pass filter) for midrange or high frequency speakers. Use LPF (low pass filter) for subwoofers. In the FULL position, neither crossover adjustment knob has an affect and all speakers will receive the full frequency range.

LPF

Use this adjustment to select the crossover point. Remember that you must select the Low Pass position (LPF) of the crossover adjustment switch first. The range of adjustment is limited between OFF - 300 Hz.

BASS BOOST

This control adds 0 to +12dB of boost at 45Hz. Be cautious when adding boost to some subwoofer systems as they may not be able to handle the additional low frequency boost. In the 0dB position, no bass boost is added.

REMOTE

This port is for the remote level control. The control is intended to allow the user to control the level of the amplifier from your driver's seat.

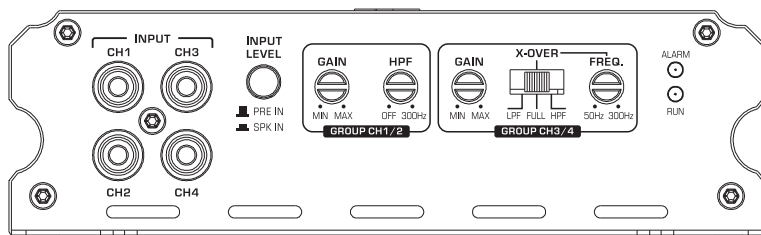
INPUT LEVEL

Switching between high level and low level signals

ALARM & RUN

These lights indicate when the amplifier is powered up normally and when there is a protection fault. The ALARM LED lights up when there is a problem with your amplifier.

FRONT PLATE DI550.4 & DI800.4 & DI1200.4



RCA INPUTS

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.

GAIN

The input gain control is preset to match the output of most source units. It can be adjusted to match output levels from a variety of source units.

HPF

Use this adjustment to select the crossover point. Remember that you must select the High Pass position (HPF) of the crossover adjustment switch first. The range of adjustment is limited between OFF - 300 Hz.

X-OVER

This switch allows you to select the crossover. Use HPF (high pass filter) for midrange or high frequency speakers. Use LPF (low pass filter) for subwoofers. In the FULL position, neither crossover adjustment knob has an affect and all speakers will receive the full frequency range.

FREQ.

When switched to HPF, all low frequencies will be blocked;
When switched to LPF, all high frequencies will be blocked;

INPUT LEVEL

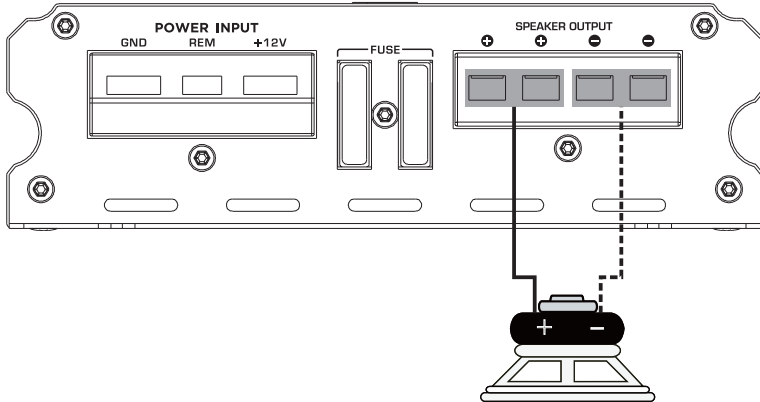
Switching between high level and low level signals

ALARM & RUN

These lights indicate when the amplifier is powered up normally and when there is a protection fault. The ALARM LED lights up when there is a problem with your amplifier.

SPEAKER CONNECTION DIAGRAM

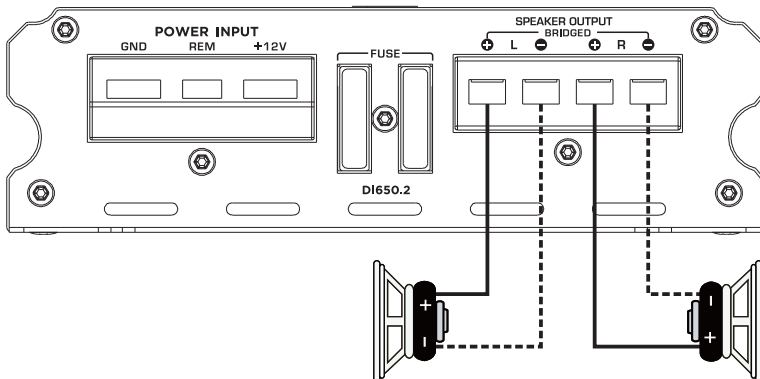
DI600.1 & DI1200.1



! Caution !!

DI650. 1 & DI1200. 1 minimum working impedance is 2 Ohm

DI650.2 & DI1200.2

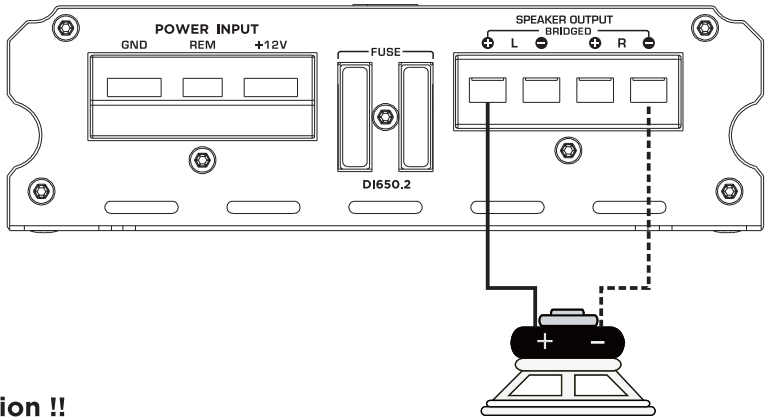


! Caution !!

DI650. 2 & DI1200. 2 minimum working impedance is 2 Ohm

SPEAKER CONNECTION DIAGRAM

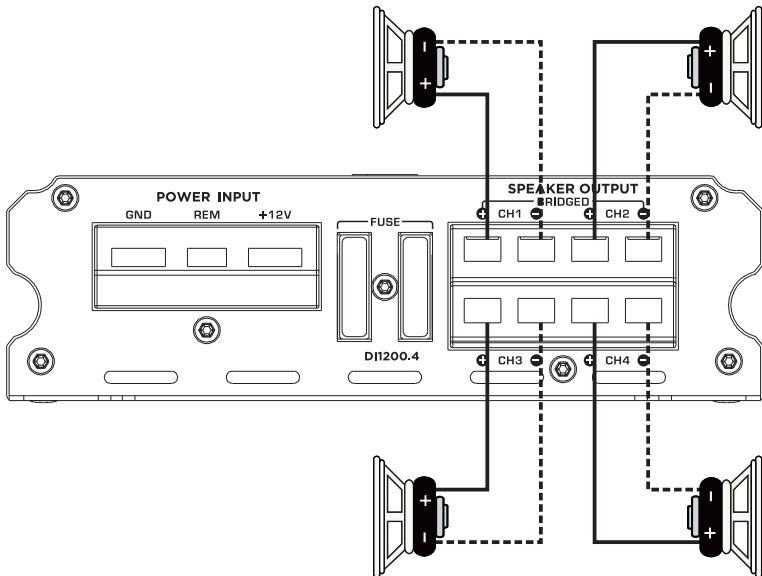
DI650.2 & DI1200.2



! Caution !!

DI650.2 & DI1200.2 minimum bridged working impedance is 4 Ohm

DI550.4 & DI800.4 & DI1200.4

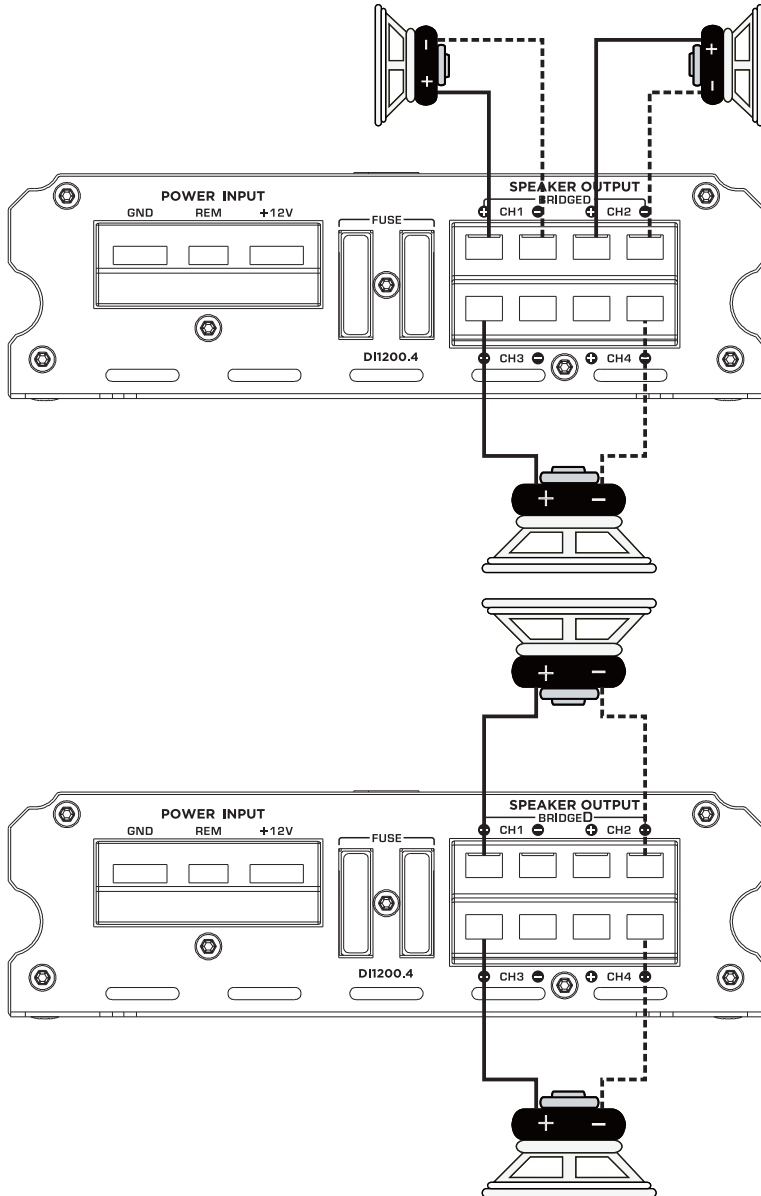


! Caution !!

DI550.4 & DI800.4 & DI1200.4 minimum working impedance is 4 Ohm

SPEAKER CONNECTION DIAGRAM

DI550.4 & DI800.4 & DI1200.4



! Caution !!

DI550.4 & DI800.4 & DI1200.4 minimum working impedance is 4 Ohm

SPECIFICATONS

Model	DI600.1	DI1200.1	DI650.2	DI1200.2
RMS power@ 4 ohm(14.4V)	1×380W	1×660W	2×200W	2×400W
RMS power@ 2 ohm(14.4V)	1×600W	1×1000W	2×340W	2×600W
power(Bridged)@ 4 ohm (14.4V)	NA	NA	1×680W	1×1200W
Frequency Response	10Hz-220Hz	10Hz-220Hz	10Hz-30KHz	10Hz-30KHz
X-over Type	HPF/FULL/LPF	HPF/FULL/LPF	HPF/FULL/LPF	HPF/FULL/LPF
LPF	OFF-300HZ	OFF-300HZ	OFF-300HZ	OFF-300HZ
Subsonic/HPF	OFF-300Hz	OFF-300Hz	OFF-300Hz	OFF-300Hz
Bass Boost Frequency	40Hz	40Hz	40Hz	40Hz
Bass Boost Level	0dB-12dB	0dB-12dB	0dB-12dB	0dB-12dB
S/ N Ratio	>85dB	>85dB	>85dB	>85dB
Minimum Load	2Ohm	2Ohm	2Ohm	2Ohm
Voltage Range	9V-16V	9V-16V	9V-16V	9V-16V
Optional Bass Remote	YES	YES	YES	YES
Dimensions(mm)	6.38x6.10x1.81 in 162x155x46mm	7.32x6.10x1.81 in 186x155x46mm	6.38x6.10x1.81 in 162x155x46mm	7.32x6.10x1.81 in 186x155x46mm

Model	DI550.4	DI800.4	DI1200.4
RMS power 4 ohm(14.4V)	4×80W	4×130W	4×200W
RMS power 2 ohm(14.4V)	4×130W	4×210W	4×300W
power(Bridged)@ 4 ohm (14.4V)	2×260W	2×360W	2×600W
Frequency Response	10Hz-30KHz	10Hz-30KHz	20Hz-20KHz
X-over Type	HPF/FULL/LPF	HPF/FULL/LPF	HPF/FULL/LPF
LPF	CH3/4:50Hz-300HZ	CH3/4:50Hz-300HZ	CH3/4:50Hz-300HZ
Subsonic/HPF	CH1/2:OFF-300HZ CH3/4:50Hz-300HZ	CH1/2:OFF-300HZ CH3/4:50Hz-300HZ	CH1/2:OFF-300HZ CH3/4:50Hz-300HZ
S/N Ratio	>85dB	>85dB	>85dB
Minimum Load	2Ohm	2Ohm	2Ohm
Voltage Range	9V-16V	9V-16V	9V-16V
Optional Bass Remote	NA	NA	NA
Dimensions	6.38x6.10x1.81 in 162x155x46mm	6.38x6.10x1.81 in 162x155x46mm	7.32x6.10x1.81 in 186x155x46mm

TROUBLE-SHOOTING

- DI series amplifiers have protection features to prevent any damages from misuse or faulty conditions.
- If DI series amplifiers sense excessive heat, short circuited speakers DC, or voltage the protection indicator will light, and the system will be turned off.
- In order to check the problem, you should turn all levels down and all power off and carefully check the installation for wiring mistakes or short.
- If DI series amplifiers shuts down due to excessive heat, They will be working later when it is cooled down before removing your amplifier, refer to the list below and follow the suggested procedures.

NO SOUND (NO OUTPUT)

- Please check all connections, cables routing, short& voltage.
- Please check the fuses, If they are blown,
- please replace with new one
- Please check whether speakers work well, you can test speakers by connecting to another amplifier.

DISTORTION NOISE

- Readjust input level and check the speaker quality at another amplifier. Replace poor quality speakers with good quality ones.
- Check amplifiers and headunits ground contact. all grounds should be common.
- Check RCA Jack, then replace with new one or reroute RCA cable
- Engine noise is caused by poor grounding of amplifiers, headunit, other components, battery or alternator, so please check all grounding connection.

POOR BASS RESPONSE

- Please check speaker cables and reverse polarity.

User Manual



WWW.RECOILAUDIO.COM

COPYWRITE© 2023 RECOIL ALL RIGHTS RESERVED. RECOIL, AVS INDUSTRIAL CO. LTD AND DOMESTIC INVESTMENT GROUP, LLC ASSUME NO RESPONSIBILITY OR LIABILITY FOR FINES OR DAMAGES INCURRED AS A RESULT OF IMPROPER USE OF THIS PRODUCT.