



# RL 680.1

## USER MANUAL

RECOIL  
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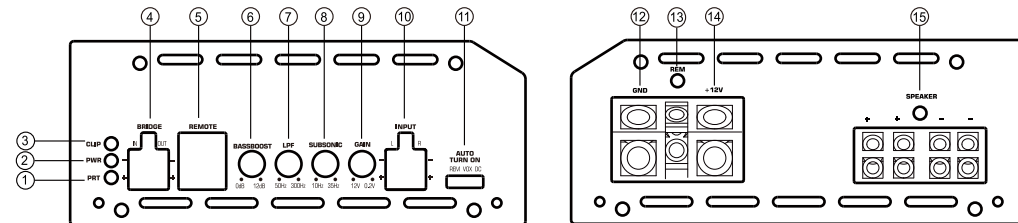
## RL 680.1

### INTRODUCTION

Thank you for purchasing Recoil amplifier RL680.1 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 questions and require additional assistance, please contact support@recoilaudio.com.

- Designed with advanced power MOSFETs from International Rectifier
- High/Low Input modes
- Overload, thermal, voltage, speaker short, and DC-offset protection circuitry
- Switched turn on options (VOX/DC/REM)

### SIDE PLATE



#### 1. Protection LED Indicator

When LED lights up in RED color, Amplifier might be in protection mode or malfunction. Please shut down the amplifier immediately.

#### 2. Power LED Indicator

This LED will light up in BLUE color when amplifier is turned on.

#### 3. CLIP LED Indicator

When this LED lights up, it indicates clipping is present. At this point, please adjust the amplifiers gain level until the CLIP LED is gone

#### 4. Bridge in/out

Bridge in : This jack receives signal from the master amplifier when the amplifier is bridged as a slave amplifier. All the functions will be adjusted by the master amplifier

Bridge out : This output send out bridge signal to another same class D amplifier in bridging configuration

#### 5. Remote Control

This port is for the remote level control. It allows the user to control bass level from your driver's seat.

#### 6. Bass Boost

Increases the bass level by 12dB.

#### 7. Low Pass Filter

Adjust the knob to set up tuning frequency, this control blocks the frequencies above the tuning frequency.

#### 8. Subsonic

This control allows you to remove the unwanted sub-sonic frequencies below the tuning frequency.

#### 9. Gain

This gain control is preset to match the output of source units.

#### 10. Audio Input

The jacks allow for a normal Left and Right channel signal input. Simply connect to the source unit using audio cables, keeping them away from power wiring wherever possible to reduce risk of noise.

#### 11. Turn On Selector

REM: Connect to REM to turn on amplifier.

DC: High level signal input to turn on amplifier, (DC offset)

VOX: Audio frequency input to turn on amplifier.

#### 12. Ground Input

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).

#### 13. Remote Input

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.

#### 14. Battery+ (12V) Input

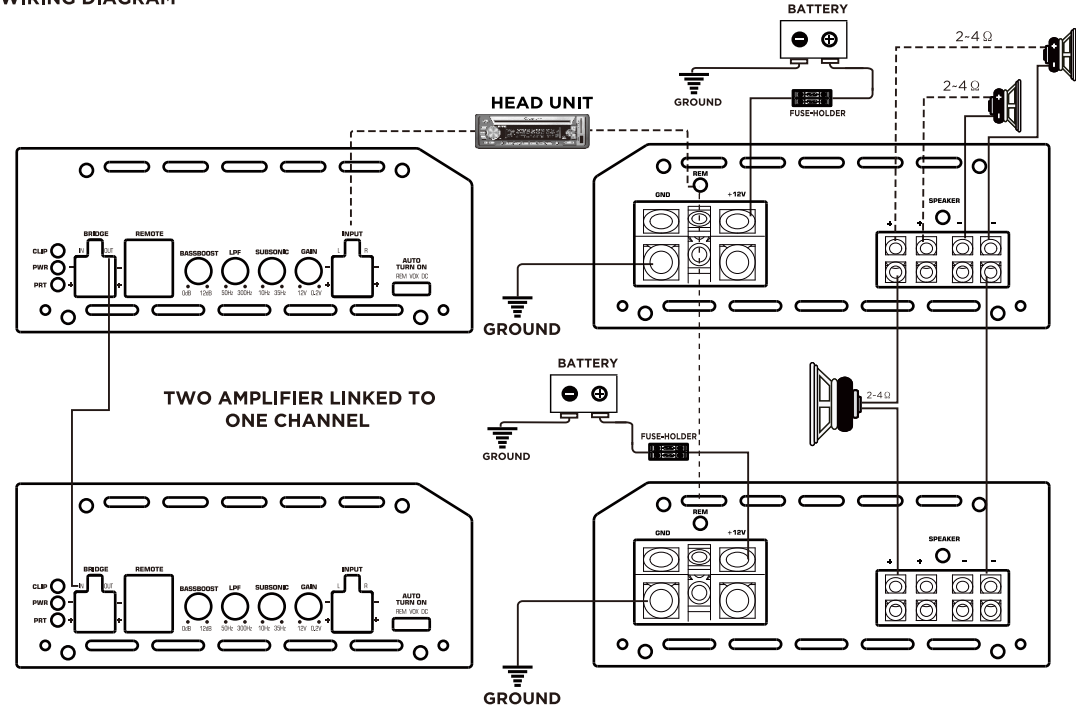
Before mounting amplifiers, disconnect the negative cable from the battery to protect any accidental damage to your amplifiers and audio system. Connect the power cables to power terminal 12V. Connect one end of fuse holder to the power cable going into the amplifiers and the other end of fuse holder to positive battery. This fuse location will protect the system and the vehicle against the possibility of a short circuit in the power cable. Be sure to use fuses and fuse holder adequate for the application.

#### 15. Speaker Outputs

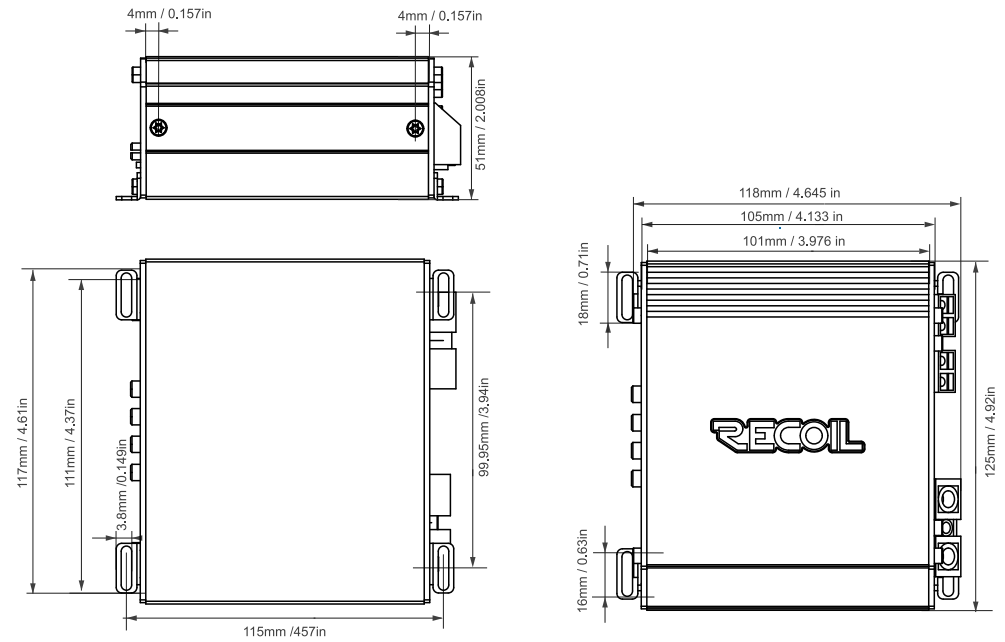
Connect speaker wire from amplifier's terminal block to Speaker. Speakers' impedance should be checked carefully.



WIRING DIAGRAM



DIMENSIONS



SPECIFICATIONS

RMS @4 OHM(THD<1%DISTORTION)	260W
RMS @2 OHM(THD<1%DISTORTION)	500W
RMS @1 OHM(THD<1%DISTORTION)	680W
MAX POWER	800W
Frequency Response	10Hz-300Hz
Signal To Noise Ratio	90dB
THD	≤ 0.5%
Input Sensitivity Level	12V-0.2V
Best Efficiency	>80%
Minimum Load	10hm
Current Draw	53A
Short Circuit Test (max. power)	PASS
Overload Protection System	YES
Overheat Protection Temperature	75°C
Dimension(LxWxH)	4.13X4.92X2.01 in 105X125X51 mm