

# SL-A4150 MK2

Part-Nr.280153



User Manual

Thank you for your purchasing this amplifier, we guarantee superior performance level in terms of electronics, mechanical and sound quality, maintaining the characteristics stated constant through time.

Wish you happy listening.

Please read this user manual carefully before you install your amplifier and follow the connection instruction and if necessary please contact the service center for any question.

# **Installation Instructions**

Please choose a place where there is no direct impact from the weather.

Please note it is necessary to find a place with good air circulating to help for the heat dissipation of amplifier.

To ensure the excellent performance and stability of amplifier please install it correctly.

Please use the proper length power cable to reduce power consumption and provide the best sound quality.

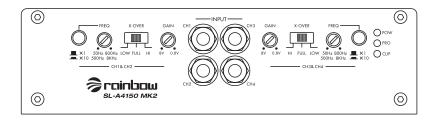
For safety, please use the power cable and speaker cable with specification suggested.

Please do not put the cable through any sharp metal or corners, and keep it away from the ignition wire or car computer control system, because it may have interference.

Please use as short power cable as possible and better use longer speaker cable.

Please read the instructions for using the wire carefully to reduce interference.

## **Features**



4CH amplifier

Remote on/off circuit

LPF adjustment

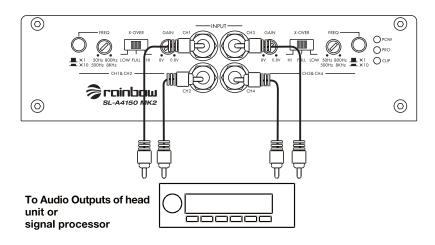
HPF adjustment

Short-circuit protection

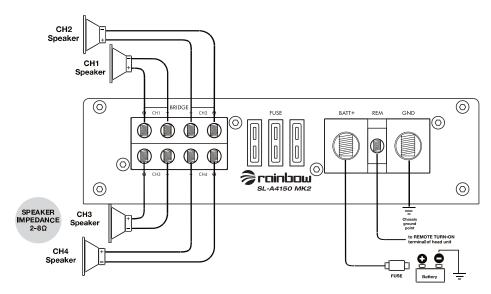
Thermal protection

Power/Protection / CLIPLED indicator

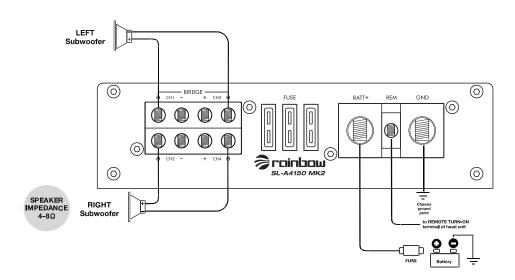
# **Stereo Mode**



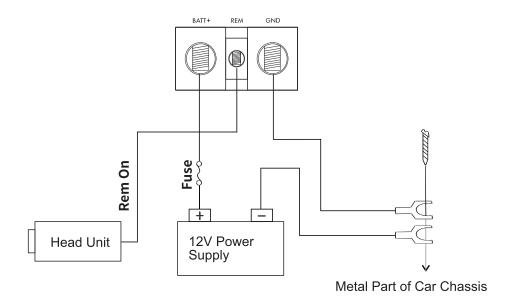
# **Power and Speaker Wiring**



# **Bridged Mode**



## **Power Connection**



#### **Power Connection Instruction**

- 1. Please connect the +12V power input cable after fuse position.
- 2. Please make sure the ground wire is well connected with metal part of car shell. Incorrect connection may cause amplifier malfunction.
- REM: The amplifier will power on by 12V power supply, the REM terminal cannot load high current so a thinner wire is suitable for connection. A 18 AWG cable is recommended and its standard color should be blue.
- 4. Put the power supply cable as close to the car battery.
- 5. When turn on the amplifier at full power the max current will flow the whole system so make sure the cable is connected with +12V and the GND terminal must use cable more than 2 AWG, 0 AWG cable recommended.

## **Connection Instruction**

# 1. Power Supply

The power terminal (+12V) must direct connect with positive of car battery to provide adequate voltage and minimum noise. Connecting the power terminal to other point (like fuse holder) will reduce the power output and may cause noise or distortion. Please use cable with 0AWG or more to connect the terminals to power supply.

### 2. Ground Connection

It is also very important to connect ground wire, please use wire with 0 AWG or more like power cable and connect it with amplifier ground terminal and metal point of car chasis which is close. This wire should be as short as possible and remove the painting or rust to allow a clean metal surface to lock the thread end of ground wire.

#### 3. Remote Cable Connection

Connect the REMOTE with head unit to turn on the amplifier. If there is no remote wire connection, you need to add a spare part or control it by car ignition wire. This remote cable cannot load high current so a 18 AWG cable is suitable.

# 4. Speaker Connection

This depends on the RMS power and speaker model/quantity, in most cases use a cable with 16 AWG or more, please note the polarity of speaker terminal and make sure they are in same polarity with amplifier terminals.

# Caution

- 1. This amplifier is designed for 12V DC power supply.
- Please connect speakers with a 2-ohm impedance to an 8-ohm load in stereo mode, and connect 4-ohm speakers to an 8-ohm load in bridged mode.
- Please avoid installing the amplifier under high temperature area or under direct sunlight, keep away from damp or dusty area.
- 4. Please power on the amplifier after it cools down if your car is parked in direct sunlight and its temperature rises a lot.
- 5. Do not place the amplifier under a carpet.
- 6. Please separate the amplifier from speaker and do not keep too close to avoid interference.
- This amplifier has a protection circuit designed to protect MOSFET or speaker, do not test it through covering the heatsink or connecting incorrect load.
- 8. Do not use it when it is low battery.
- 9. For safety, please keep the proper volume so that you can hear the normal traffic signal outside.

# **Fuse Replacement**

If the fuse burns, please check the power connection and replace the fuse, if it still burns after replacement, maybe due to the problem inside, please check with your supplier.

#### 1. Caution

Please use the fuse with specified specification, it may cause serious damage if using a fuse beyond specified specifications.

## 2. Protection Circuit

The protection circuit will go into effect under the following conditions:

- (1) The amplifier is overheating.
- (2) The speaker terminal is in short circuit.

## **SPECIFICATIONS**

Class AB Amplifier

Model: SL-A4150 MK2

RMS Power: 4 Ohm Stereo 160W×4 Channel RMS Power: 2 Ohm Stereo 250W×4 Channel RMS Power: 4 Ohm Bridge 500W×2 Channel

Input Sensitivity: 800mV - 8V
Frequency Response: 10Hz - 40kHz
High pass / Low pass (-3dB, 12dB/Oct): 50Hz - 8000Hz

Signal to Noise Ratio: >105dB (A weighted)

Total Harmonic Distortion: <0.03% Fuse Rating: 3 x 40A

Dimension (L × W × H):  $450 \times 200 \times 58 \text{mm}$ 

Net Weight: 5.5KG

# **Common Failures**

1. No sound

Please check if the speaker cable or signal input cable is well connected.

2. No sound and protection (red) LED on

Please check if the speaker cable is in short circuit or if amplifier is overheating.

3. Sound quality not good

The speaker is overload, please turn down the volume and check the position of volume control potentiometer.

4. No stereo or weak bass

Please check if speaker positive and negative are reversed.

感谢您选择彩虹 SL-A4150 MK2 功放,其在电子、结构和音质方面拥有卓越的性能,且长久保持其所述特性。

祝您聆听音乐愉快。

请您在安装功放前认真阅读说明书并遵从接线指引,任何疑问如有必要 请联系服务中心。

# 安装指导:

请选择一个没有阳光直射的地方进行安装。

请注意安装位置需要有良好的空气流通以帮助功放散热。

为确保功放的稳定和发挥优越性能, 请严格正确安装。

请使用合适长度的电源线以减少功率损耗来保证最好的音质效果。

为确保安全请使用推荐规格的电源线和喇叭线。

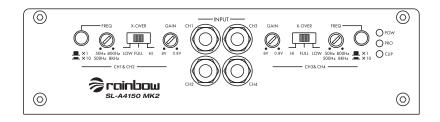
请勿将线材接触任何锋利金属或边角位置,并远离点火线或汽车电。

脑控制系统,以免造成干扰。

请尽量使用较短的电源线,最好使用稍长的喇叭线。

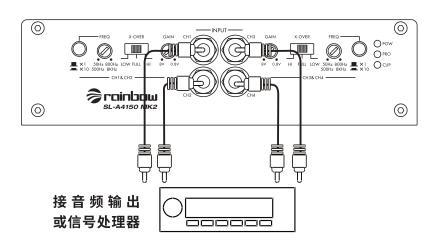
请仔细阅读使用说明,以减少信号干扰。

# 性能特点

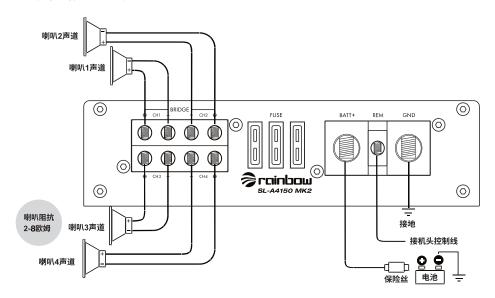


4声道功放 线控开关机线路 低通可调 高通可调 短路保护 热保护 电源/保护/削波LED指示灯

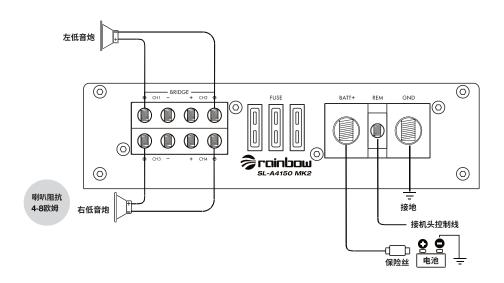
# 立体声模式



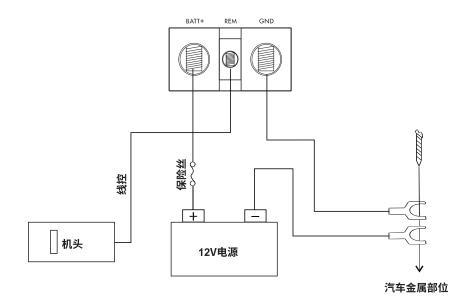
# 电源和喇叭接线



# 桥接模式



# 电源连接



# 电源接线指引

- 1.请在保险丝后端位置连接+12V电源输入线。
- 2.请确保接地线与汽车外壳金属部分连接良好。连接错误可能会导致功放故障。
- 3.REM: 功放将由12V电源供电, REM端子不能负载大电流, 因此宜用细线连接推荐使用18号线材, 其标准颜色应为蓝色。
- 4.请将电源线尽量靠近汽车电池。
- 5.当功放在全功率时,最大电流将流过整个系统,因此请确保线材连接+12V, GND端子必须用大于#2线材,推荐使用#0的线材。

# 接线指引

## 1. 电源

电源端子(+12V)必须直接与汽车电池的正极连接,以提供足够的电压和确保最小的噪音。连接电源端子到其他点(如保险丝座)会降低电源输出,可能引起噪声或失真。请使用0AWG或以上的线材连接电源端子。

#### 2. 地线

接地线连接也很重要,请使用0AWG或以上类似电源线的线材,将功放的接地端子和汽车外壳的金属点连接在一起。此线应尽可能短,并去除油漆或铁锈,以使干净的金属表面锁住接地线的螺纹端。

## 3. 开机控制线

将开机控制线与机头连接使功放开机,如果没有开机控制线则需要增加配件或者通过汽车点火线控制。这个开机控制线不能负载高电流,所以18AWG线材是适合的。

# 4. 喇叭线

这取决于喇叭的RMS功率以及型号/数量,在大多数情况下使用16AWG或以上的线材,请注意喇叭端子的极性,并确保它们与功放端子的极性相同。

# 警告

- 1. 此功放设计为12V DC电源供应。
- 2. 立体声模式请连接2欧姆到8欧姆阻抗喇叭,桥接模式请连接4欧姆到8欧姆阳抗喇叭。
- 3. 请避免将功放安装在高温或阳光直射区域,远离潮湿或多尘区域。
- 4. 如果您的车停在阳光直射区域温度上升较高,请在功放冷却后打开电源。
- 5. 不要将功放置于地毯下面。
- 6. 请将功放与喇叭分开,不要靠得太近,以免产生干扰。
- 7. 该功放有设计保护电路来保护场效应管或喇叭,不要通过覆盖散热 器或连接错误负载来测试它。
- 8. 电池电量不足时请勿使用。
- 9. 为确保安全,请保持适当的音量,以便能听到车外正常的交通信号。

# 更换保险丝

如果保险丝烧断,请检查电源连接并更换保险丝,如果更换后保险丝仍烧断,可能是功放内部问题,请与供应商确认。

# 1. 警告:

请使用指定规格的保险丝,如果使用超过指定规格的保险丝,可能会造成严重损坏。

# 2. 保护电路:

保护电路将在以下情况下生效:

- (1) 功放过热
- (2)喇叭端子短路

# 规格参数

## AB类汽车功放

**型**号

额定功率 额定功率 额定功率

输入灵敏度 频响 高通/低通 信噪比

总谐波失真 保险丝

尺寸(长x宽x高)

净重

### **SL-A4150 MK2**

4欧姆立体声 160Wx4 2欧姆立体声 250Wx4 4欧姆桥接 500Wx2

800mV - 8V 10Hz - 40KHz 50Hz - 8000Hz >105dB (A 计权)

<0.03% 3 × 40A

450 × 200 × 58mm

5.5KG

# 常见故障

1.无声

请检查喇叭线或音频输入线材是否接好

- 2.无声并保护(红色LED亮)
  - 请检查喇叭线是否短路或者功放过热
- 3.音质不好

喇叭过载,请调小音量并检查音量调节电位器的位置

4.无立体声或低音微弱

请检查喇叭正负极是否反接