

# Caution:

**RUB2.250** 

Please do not plug in or unplug RCA plugs to the amplifier inputs while the amplifier is turned on. Doing so is potentially harmful to the amplifier by allowing RF (radio frequencies) into the amplifier, causing instability during the brief period while the RCA shield is not connected, and the power is connected. Only plug in or unplug RCA plugs with the amplifier off as standard practice with all audio equipment.

**RUB2.450 RUB2.600** 

Owner's Manual and

**Installation Guide** 

**RUB4.500 RUB4.600 RUB1.400 RUB1.700 RUB5.800** 

## **CONGRATULATIONS!**

You now own a RUBICON Amplifier, the product of an uncompromising design and engineering philosophy.

To maximize the performance of your system, we recommend that you thoroughly acquaint yourself with its capabilities and features. Please retain this manual and your sales receipt for future reference.

Soundstream amplifiers are the result of American innovation and the highest quality control standards. When properly installed, they will provide you with many years of listening pleasure. Should your amplifier ever need service or replacement due to theft, please record the following information which will help protect your investment.

Serial#	
Dealer's Name	
Date of Purchase	
Installation Shop	
Installation Date	

## CAUTION!

Prolonged listening at extremely high levels may result in hearing loss. Even though your new **Soundstream RUBICON Amplifier** sounds better than anything you've heard, exercise caution to prevent hearing damage.

#### **Features**

- High & Low Level Input
- Platinum 4 AWG Power Block
- Infinitely Variable Crossovers w/ Multipliers (High/Low/Band)
- Remote Gain Control (RUB1.400 RUB1.700, RUB2.450, RUB2.600)
- 35Hz Subsonic Filter (1 ch. only)
- 50Hz Bass Boost 0.6 or 12dB

- MOSFET PWM Power Supply
- IDI™Intelligent <u>D</u>istress Indicator for Thermal, Short, & Impedance Protection
- Turn On/Off Delay
- 180 Phase Switch (1 ch. & 5 ch. only)
- Tri-Mode Capable
- 2/4/5 Channel Input
- 2 Ohm Stereo / 4 Ohm Mono Stable

## **Specifications**

Signal / Noise Ratio	105dB	
THD	0.015%	
Frequency Response	10 - 35k	
Damping Factor	>250	
Signal Voltage Range	200mV - 6V	
Power Voltage Range	11V - 16V	

## **Power and Fuse Ratings**

Model	4 Ohm	2 Ohm	Bridged	Fuse
RUB2.250	75Wx2	125 W x 2	250Wx1	30A x 1
RUB2.450	120Wx 2	225Wx2	450Wx1	25A x 2
RUB2.600	150Wx 2	300Wx2	600Wx1	30A x 2
RUB4.500	75W x 4	125W x 4	250W x 2	25A x 2
RUB4.600	100W x 4	150W x 4	300W x 2	20A x 3
RUB1.400	250W x 1	400W x 1	-	25A x 2
RUB1.700	400W x 1	700W x 1	-	30A x 3
RUB5.800	70W x 4, 200W x 1	115W x 4, 340W x 1	230W x 2	25A x 3

## **Dimensions**

Model	Length	Width	Height
RUB2.250	9.8" (250mm)	8" (205mm)	2" (52mm)
RUB2.450	17.71" (450mm)	8" (205mm)	2" (52mm)
RUB2.600	19.685" (500 mm)	8" (205mm)	2" (52mm)
RUB4.500	13.77" (350mm)	8" (205mm)	2" (52mm)
RUB4.600	15.35" (390mm)	8" (205mm)	2" (52mm)
RUB1.400	13.77" (350mm)	8" (205mm)	2" (52mm)
RUB1.700	19.685" (500 mm)	8" (205mm)	2" (52mm)
RUB5.800	19.685" (500 mm)	8" (205mm)	2" (52mm)

#### Tools/ Parts For Installation



#### **NOTE: TOOLS ARE NOT SUPPLIED**

Small Standard screwdriver, Phillips screwdriver (#2 or medium sized), Wire cutters, Wire strippers, - #6 round head screws, and 1 - #8 sheet metal screw (or nut, bolt flat washer, start washer) (see detail), 2 Ring connectors (large enough to accommodate your method of grounding). In-line fuse or circuit breaker.

#### **Built-in Crossover**

All **RUBICON Amplifiers** feature built-in electronic crossovers. The **RUBICON Amplifiers** feature continuously-variable low pass crossovers and continuously-variable high pass crossovers, with bandpass options.

## **Protection Circuitry**

The amplifier protection circuitry will disable the amplifier if the inputs are overloaded, short-circuited or extremely high temperature conditions are detected. When the protection mode is in operation, the LED indicator on the front panel will be illuminated, indicating the amplifier has gone into a self-preservation mode.

If you observe that the protection LED is lit, please check the system carefully to determine what has caused the protection circuit to engage. The amplifier can be reset by turning the remote power off and then on again. If the amplifier shuts down due to a thermal overload condition, please allow it to cool down before powering up. If the amplifier shuts down because of an input overload or short circuit, be sure to repair these conditions before attempting to power up the amplifier again.

## 2 Ohm Operation (in stereo mode)

Your **RUBICON Amplifier** was designed to operate effectively at loads down 2 Ohms. This means that you can install four 8 Ohm speakers per channel when using parallel wiring. Increasing the number of woofers per channel at low frequencies (up to 100Hz) produces an acoustic coupling effect. This acoustic coupling increases your power output by 3 dB per speaker doubling.

When operating at 2 Ohms, the amplifiers will increase their output power by approximately 50%. The current draw will also increase by about the same amount, so be sure you have enough current to run the amplifiers into a 2 Ohm load. If you lack adequate current, your music reproduction will be distorted.

Please note: The gain control of any car audio amplifier should not be mistaken for a volume control. It is a sophisticated device, designed to match the output level of your audio source unit to the input level of the amplifier. Do not adjust this input level to maximum unless your input level requires it. Ignoring these instructions will result in an input overload to the amplifier, and excessive audio distortion. It can also cause the protection circuit to engage.

#### **Electrical Wiring**

All RUBICON Amplifiers are equipped with easy top access screw terminals. These terminals are nickel-plated in order to ensure excellent electrical contact and to resist corrosion.

When making electrical connections to the amplifier, please observe the following:

- Use at least 8 gauge or heavier wire for power and ground connections.
- Wire the amplifier directly to the car battery. Make sure there is circuit protection (Such as a fuse) on the positive power lead, within 18 inches of the battery.
- For the ground connection, use the shortest possible wire to a good chassis ground point.
- Wire the Remote connection to the remote turn-on lead of your equalizer or head unit.
  In some cases this may be the power antenna lead of the head unit.

#### Remote Subwoofer Level Control

The RUBICON RUB1.400 \ RUB1.700 \ RUB2.450 & RUB2.600 are equipped with a dashboard mount remote subwoofer level control. Run the supplied dashboard remote control from the front panel of your amplifier. By turning the level knob clockwise, you will increase the output of low frequencies.

#### **Fuses**

Fuses protect both the amplifier and the electrical system of your vehicle from faulty conditions. If you must replace the fuse in your RUBICON Amplifier, use a fuse of exactly the same type and rating. A different type or rating may result in damage or cause a fire.

# Mounting the Amplifier

Mark the location for the mounting screw holes by positioning the amplifier where you wish to install it and use a scribe (or one of the mounting screws) inserted in each mounting hole to mark the mounting surface. If the mounting surface is carpeted, measure the hole centers and mark with a felt tip pen.

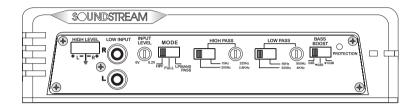
Drill pilot holes in the mounting surface for the mounting screws and insert the mounting screws into these holes. Tighten them securely.

**Note:** Before beginning your installation, be sure to take note of any wires, lines or other devices in your vehicle which may be located behind any mounting surface.

# PANEL LAYOUT

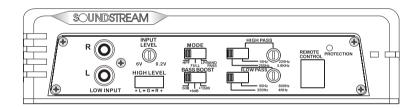
#### RUB2.250

#### LEFT VIEW



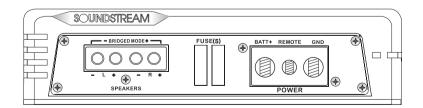
#### RUB2.450/RUB2.600

#### LEFT VIEW



RUB2.250 (use 1 fuse) RUB2.450/RUB2.600 (use 2 fuses)

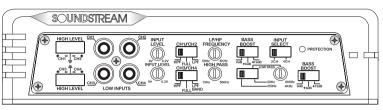
## RIGHT VIEW



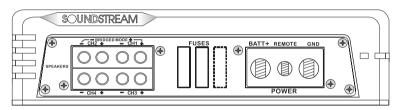
## PANEL LAYOUT

RUB4.500 (use 2 fuses) RUB4.600 (use 3 fuses)

#### LEFT VIEW



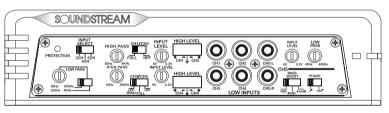
#### RIGHT VIEW



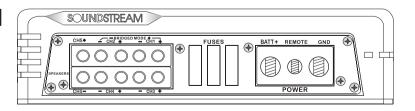
# PANEL LAYOUT

## RUB5.800

## LEFT VIEW

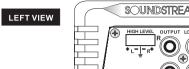


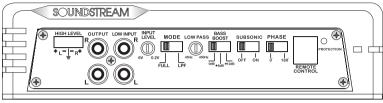
#### RIGHT VIEW



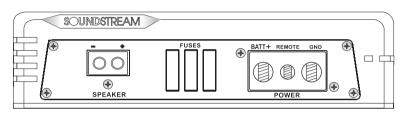
# PANEL LAYOUT

#### RUB1.400/RUB1.700





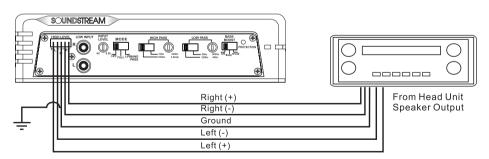




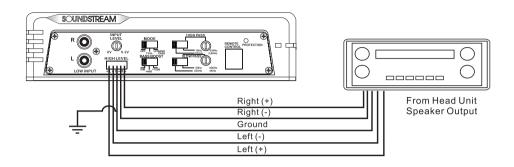
## **High Level Inputs**

WARNING: If you use High Level (Speaker) inputs, do not use the Low Level inputs at the same time.

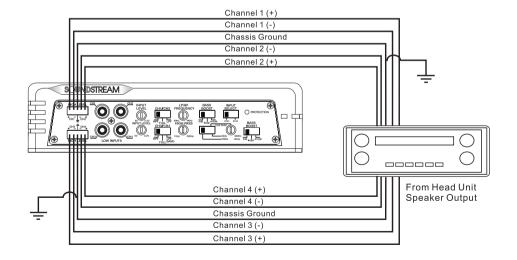
## RUB2.250



#### RUB2.450 / RUB2.600



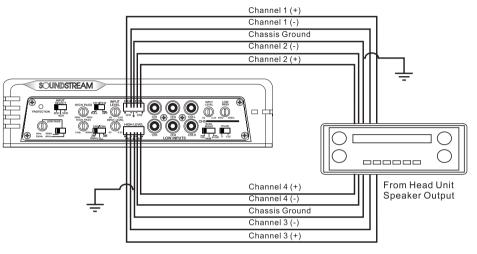
## RUB4.500 / RUB4.600



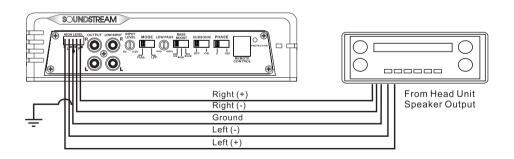
## **High Level Inputs**

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## RUB5.800

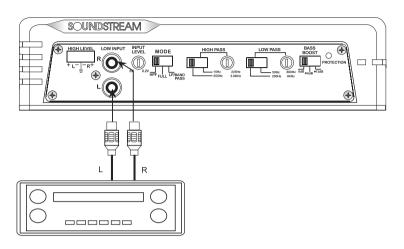


## RUB1.400 / RUB1.700

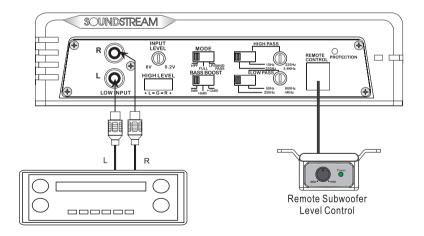


# Low Level Inputs

## RUB2.250

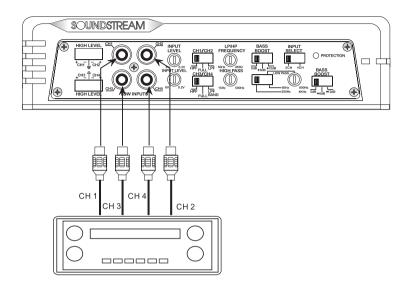


## RUB2.450 / RUB2.600

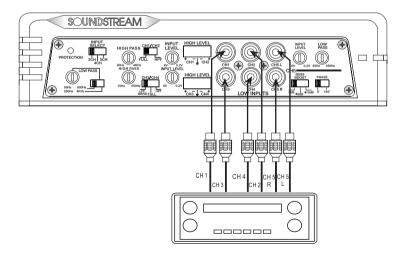


# Low Level Inputs

## RUB4.500 / RUB4.600

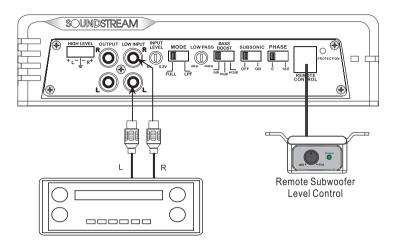


# RUB5.800



# Low Level Inputs

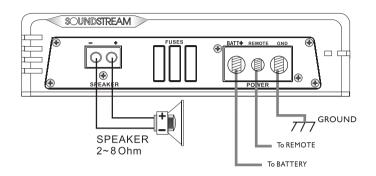
## RUB1.400 / RUB1.700



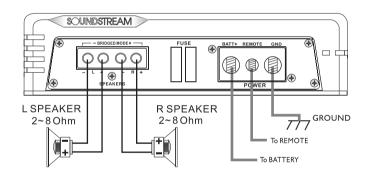
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# **Speakers Connections**

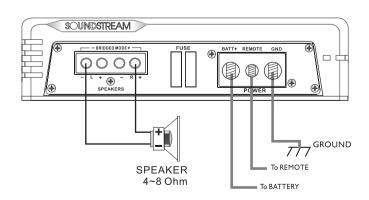
MONOBLOCK AMPLIFIERS: RUB1.400 / RUB1.700



#### 2 CHANNEL STEREO RUB2.250/RUB2.450/RUB2.600

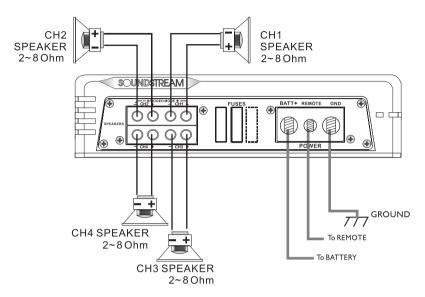


#### 2 CHANNEL BRIDGED RUB2.250/RUB2.450/RUB2.600

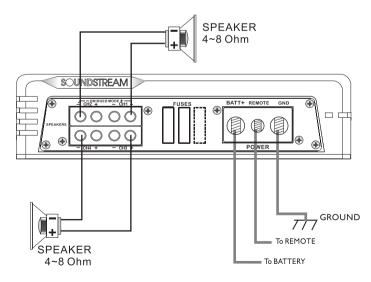


# **Speakers Connections**

#### 4 CHANNEL STEREO RUB4.500/RUB4.600



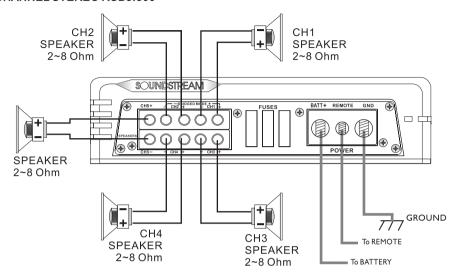
#### 4 CHANNEL BRIDGED RUB4.500/RUB4.600



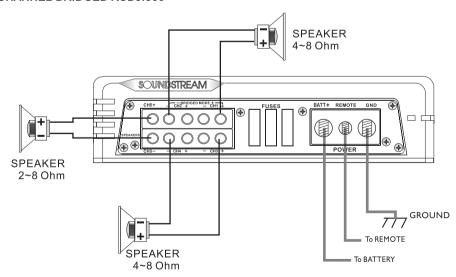
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# **Speakers Connections**

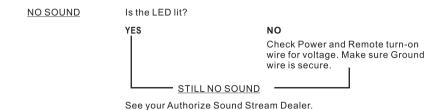
#### 5 CHANNEL STEREO RUB5.800



#### 5 CHANNEL BRIDGED RUB5.800

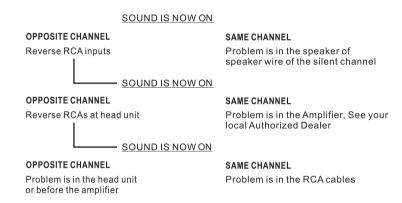


#### TROUBLE SHOOTING



#### SOUND IN ONE CHANNEL ONLY

Reverse left and right speakers by unplugging the speaker connector, turning it over and plugging it back in.



## **PROTECTION CIRCUIT**

**Short Circuit Protection engaged:** The amplifier will turn off and try to come back on immediately. The amplifier will cycle like this indefinitely, with "blips" of sound each time. If this is the case, check your speakers and wiring for low impedance and short circuits.

**Thermal Protection engaged:** The amplifier will turn off and several minutes later will come back on. In this case, ensure that there is nothing blocking the normal convective airflow of the amplifier. No obstruction should be within 2" of the amplifier on all sides.

NOTE: Low battery voltage will cause the amplifier to run warmer and possibly damage the amplifier.