## **Specifications**

## **SL 90.4**

4-Channel Class AB Amplifier Power (RMS)@4 Ohm: 90Wx4CH Power (RMS)@2 Ohm: 170Wx4CH Power (MAX)@4 Ohm: 150Wx4CH Power (MAX)@2 Ohm: 275Wx4CH Frequency Response :10Hz-20KHz

THD: <0.1%

S/N RATIO: >90dB Input level : 0.2V-6V

LPF Crossover Control :40Hz-300Hz HPF Crossover Control :50Hz-1KHz

Bass Boost :0-12dB Protection System: YES

Operating voltage: 10.4V-14.4V Dimensions: 326\*210\*52MM

#### Note:

- 1. Leave a maximum of 30 centimeters of ventilation space and optimize ventilation.
- 2. Do not cover with paper, fabric, plastic, etc.
- 3. Do not place flammable products on equipment.
- 4. It is recommended to conduct extensive ventilation in tropical and high heat index areas



**INSTRUCTION MANUAL** 

SL 90.4

**CLASS AB 4-CHANNEL CAR AMPLIFIER** 

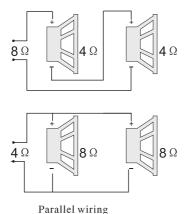
### System planning

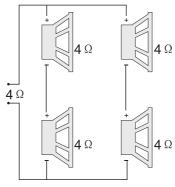
Proper system planning is the best way to maximize your amplifier performance. By planning you installation carefully you can avoid situations where the performance of the reliability of you system is compromised. Your authorized dealer has been trained to maximize your system's sonic potential. Your dealer is a valuable resource in helping you with your system design and installation.

#### Speaker requirements

Each channel of you amplifier can easily drive  $4\Omega$  speaker loads when used in the stereo mode. When a channel-pair is bridged, the recommended minimum load impedance is  $3\Omega$  for subwoofer use, and  $4\Omega$  for full range operation. Although operation with lower impedance is not likely to cause immediate damage to the internal circuitry, the unit will most likely overheat, causing the thermal protection circuitry to shut down the amplifier. When the classis cools down, normal operation will resume. Continuing to operate the amplifier under these conditions is not recommended and reduce its life expectancy.

Most speakers designed for car audio Operation are  $4\Omega$  impedance. Connecting two such speakers in parallel will result in a  $2\Omega$  impedance load as seen by the amplifier. Some subwoofer models feature a dual  $4\Omega$  voice coil design. Connecting these voice coils in parallel will result in a  $2\Omega$  nominal impedance, which is not recommended for use with bridged channels of your amplifier.





Series/parallel wiring

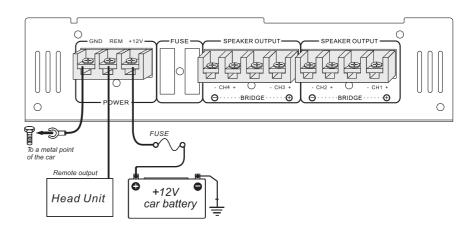
### Trouble shooting II

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Symptom distorted output	possible cause speakers are blown	actions to take check system with known working speakers and repair or replaceas needed
Poor bass response	speakers wired wrong polarity causing cancellation at low frequencies	check speaker polarity and repair as needed
	crossover set incorrectly	reset crossover referring to the multi-cross crossover configuration sections of this manual for detailed instructions
battery fuse blowing	impedance load to amplifier too low	check impedance load if below $2\Omega$ stereo or $4\Omega$ mono rewire speakers to achieve a higher impendence
	short in power wire or incorrect power connections	check power and ground connections and repair as needed
	fuse used is smaller than recommended	replace with proper fuse size
	too much current being drawn if below $2\Omega$ stereo or $4\Omega$ mono rewire speakers to achieve a higher impedance	check speaker impedance load,
	short in power wire or incorrect	check power and ground connections as repair as needed
amplifier fuse blowing	too much current being drawn	check speaker impedance load, if below $2\Omega$ stereo or $4\Omega$ mono rewire speakers to achieve a higher impedance and replace with recommended fuse size
		check power and ground connections and repair as needed
	fuse used is smaller than recommended	replace with proper fuse size

#### Trouble shooting I

Symptom no output	possible cause low or no remote turn-on input	action to take check remote turn-on voltage output at amplifier and correct as needed
	fuse blown	check power wire integrity and reversed polarity, repair as needed and replace fuse
	power wires not connected	check power wire and ground connections and repair or replace as needed
	audio input not connected or no out put from source	check input connections and signal integrity, repair or replace as needed
	speaker wires not connected	check speaker wires and repair or replace as needed
audio cycles on and off	speakers are brown	check system with known working speaker and repair or replace speakers as needed
	thermal protections engages when amplifier heat sink temperature exceeds 90°C	make sure there is proper tventilation for amplifier and improve ventilation as needed
	loose or poor audio input	check input connections and repair or replace as needed
distorted output	amplifier level sensitivities set too high; exceeding maximum output capability of amplifier	reset gain referring to the turning section of manual for detailed instructions
	impedance load to amplifier too low	check speaker impedance load if below $2\Omega$ stereo or $4\Omega$ mono rewire speakers to achieve a higher impedance
	shorted speaker wires	check speaker wire connection and repair or replace as needed
	speaker not connected to amplifier properly	check speaker wiring and repair of replace as needed refer to the installation section of this manual for detailed instructions

#### Power connection leads



#### Notes on the power supply

 $\label{thm:connected} \textbf{Connect the +} 12V\ power\ input\ lead\ only\ after\ all\ other\ leads\ have\ been\ connected.$ 

Be sure to connect the ground wire of unit securely to a mental part of he car.

A lose connection may cause a malfunction of the amplifier.

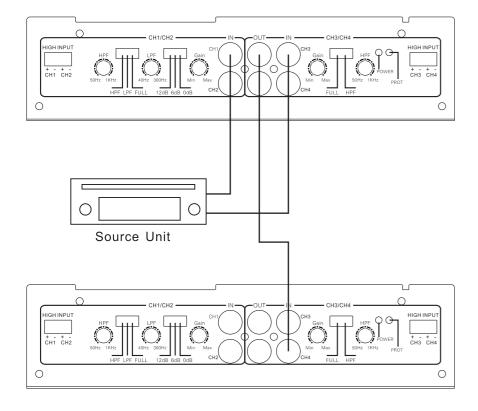
REMOTE: the unit is turned on by applying +12 volts to this terminal this terminal does not draw heavy current like the two power terminal so a thinner connecting wire is acceptable. Standard 18 GAUGE is fine and the standard colour is yellow. If the radio is equipped with a power antenna control wire, it can drive this terminal. If the power antenna wire is already in use, you can sill splice into it. With this method, the will turn on automatically with the radio. Use the power supply lead with a fuse attached whose value is the same as original fuse.

Place the fuse in the power supply lead as close as possible to the car battery.

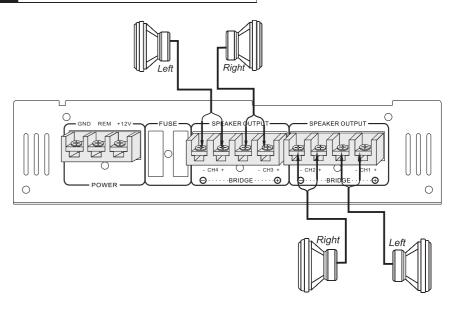
During a full power operation, maximum current will run through the system. Therefore, make sure that the leads to be connected to +12V and GND terminals of the unit respectively must be larger than 10-guage (AWG.10).

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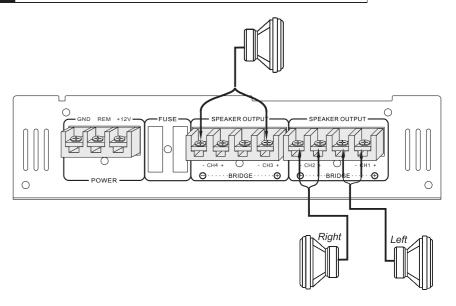
## Front pannel connection



# System1 2channel mode



# System2 bridged connection subwoofer



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