



## INSTRUCTION MANUAL

### BATUR60.4



### 4 CHANNEL POWER AMPLIFIER



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## ■ INTRODUCTION ■

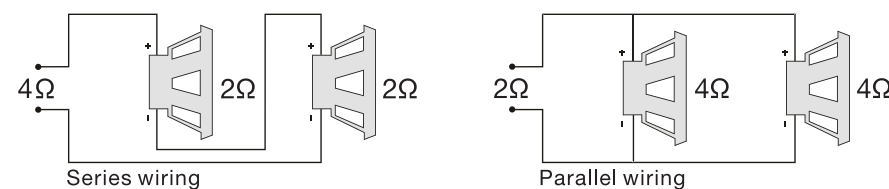
### SYSTEM PLANNING

Proper system planning is the best way to maximize your amplifier performance. By planning your installation carefully you can avoid situations where the performance of the reliability of your 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 your amplifier can easily drive  $2\Omega$  speaker loads when used in the stereo mode. When a channel-pair is bridged, the recommended minimum load impedance is  $4\Omega$  for subwoofer use, and  $2\Omega$  for full range operation. Although operation with lower impedances 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 chassis cools down, normal operation will resume. Continuing to operate the amplifier under these conditions is not recommended and will reduce its life expectancy.

Most speakers designed for car audio operation are  $2\Omega$  impedance. Connection 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.



II INTRODUCTION II

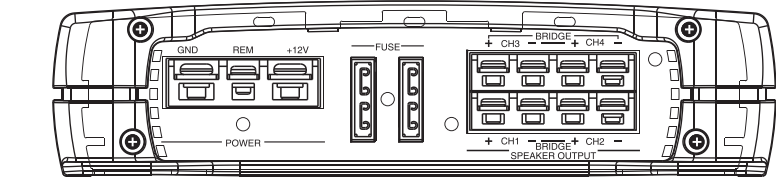
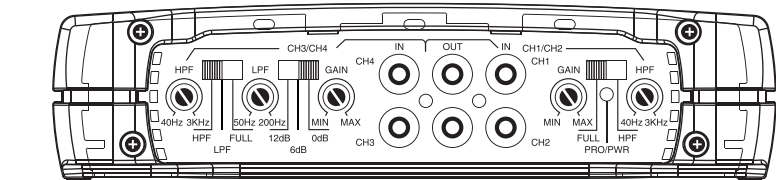
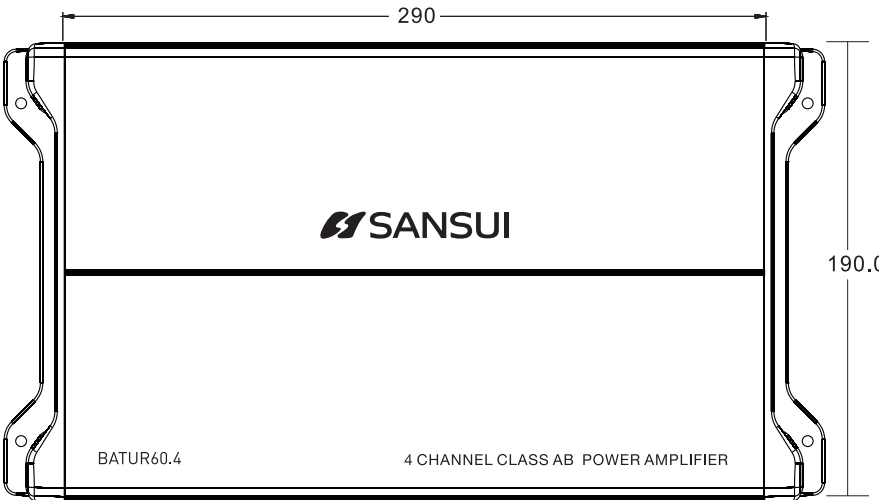
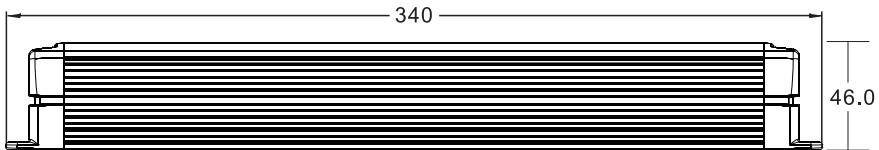
ACCESSORY LIST

1. User Manual	1 pc
2. Amplifier	1 pc
3. M4.0x20 Tapping Screw	4 pcs
4. Fuse(20A)	2 pcs

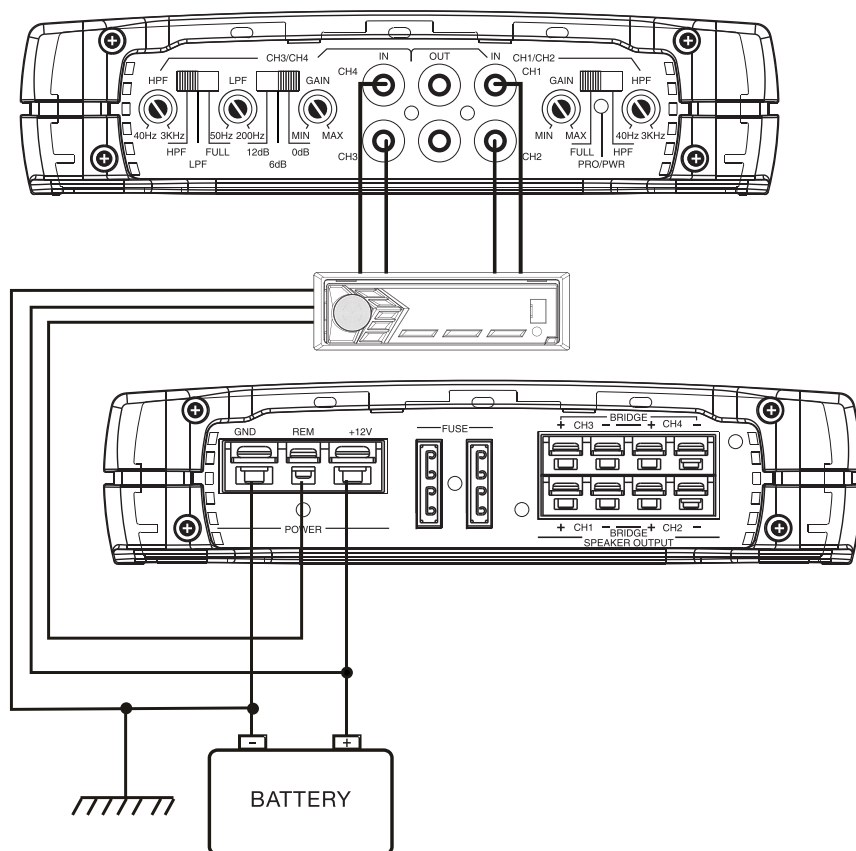
SPECIFICATIONS

RMS Power Output @ 4 Ohm	65W x 4
RMS Power Output @ 2 Ohm	100W x 4
Bridged Output @ 4 Ohm	160W x 2
T.H.D	<0.1%
Frequency Response	20Hz~22KHz
Signal To Noise Ratio	>90dB
Sensitivity	0.30V-6.0V
Fuse Size	20A x 2
Unit Dimensions(L x H x W)	340 x 190 x 46 mm
Net Weight	Approx. 1.95kg
Box Dimensions(L x H x W)	400 x 214 x 65 mm
Gross Weight	Approx. 2.35kg

II DIMENSIONS(UNIT:MM) II



## || POWER CONNECTION LEADS ||



## || POWER CONNECTION LEADS ||

### NOTES ON THE POWER SUPPLY

Connect the +12V power input lead only after all other leads have been connected. Be sure to connect the ground wire of the unit securely to a metal part of the car. A loose connection may cause a malfunction of the amplifier.

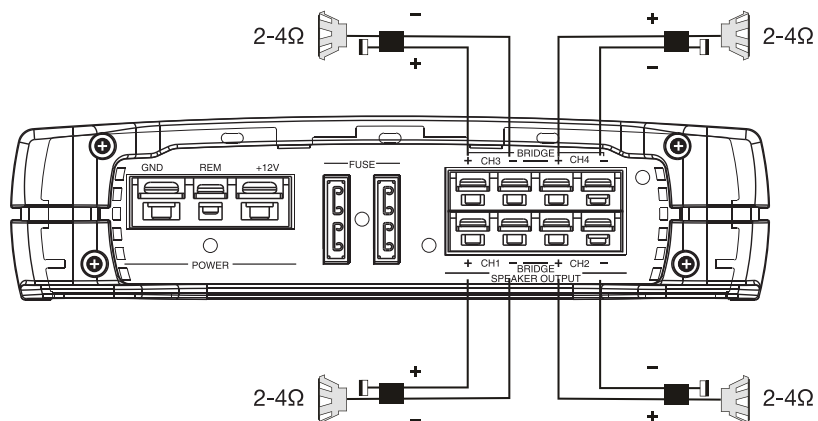
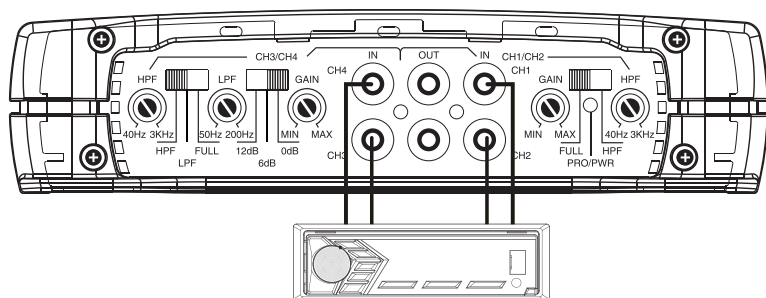
**REMOTE:** The unit is turned on by applying +12Volts to this terminal. This terminal does not draw heavy current like the two power terminals so a thinner connecting wire is acceptable. Standard 18 GAUGE is fine and the standard colour is yellow. If the radio is equipped with a power antenna control wire, it can drive this terminal. If the power antenna wire is already in use, you can still splice into it. With this method, the unit 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 the +12V and GND terminals of the unit respectively must be larger than 8-Gauge (AWG.8).



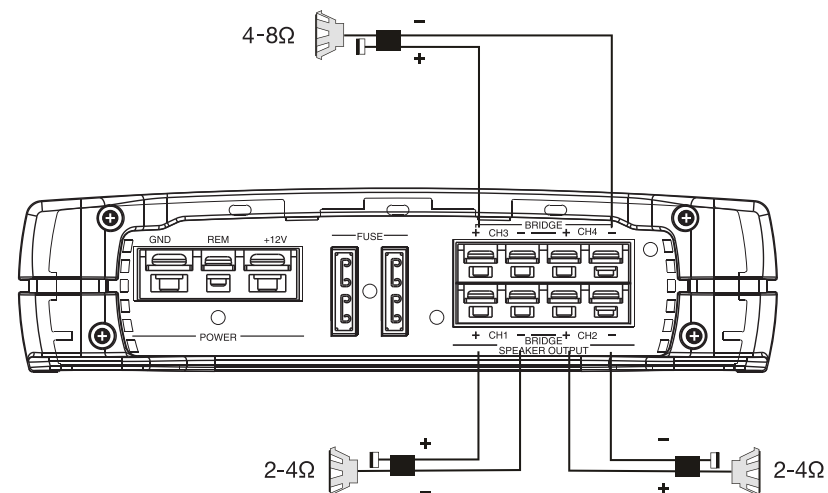
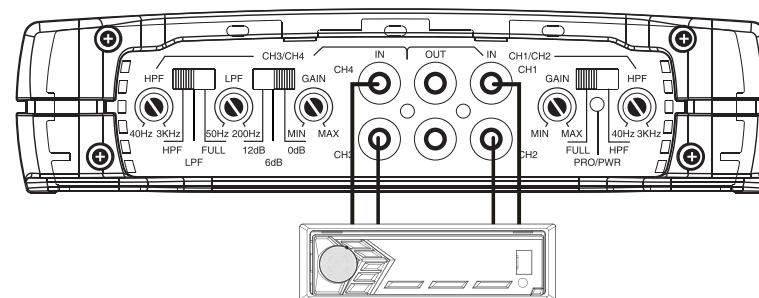
## || POWER CONNECTION LEADS ||

### SYSTEM 1:

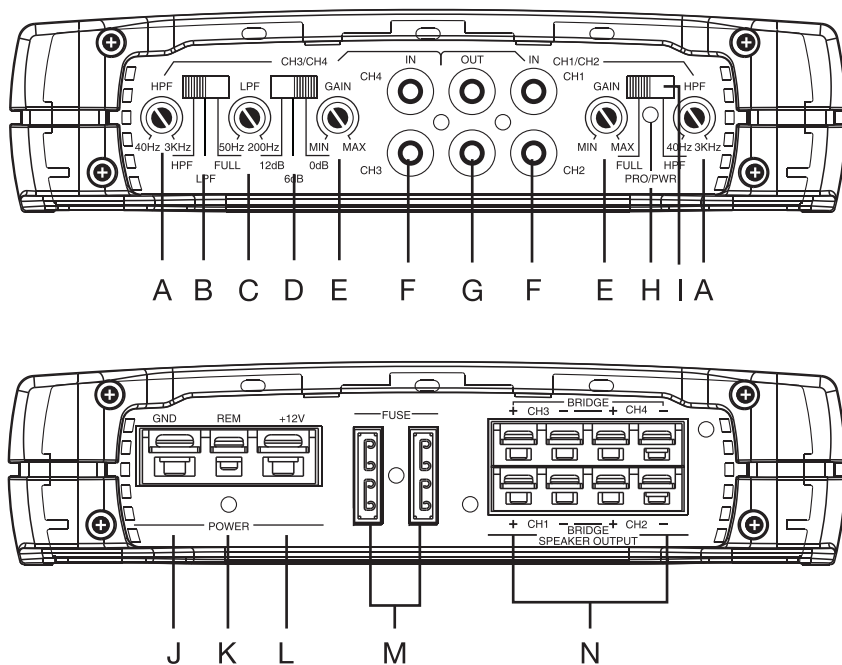


## || POWER CONNECTION LEADS ||

### SYSTEM 2:



## II POWER CONNECTION LEADS II



### A. CH3/CH4 SPEAKER HIGH PASS Crossover FREQUENCY

Controls high frequency of the amplifier between 120Hz to 3KHz.

### B. CH3/CH4 SPEAKER Crossover CONTROL

Depending on the selected switch the amplifier will operate at full or hpf or lpf mode.

### C. CH3/CH4 SPEAKER LOW PASS Crossover FREQUENCY

Controls low frequency of the amplifier between 50Hz to 250Hz.

### D. BASS BOOST

The BASS BOOST feature will increase the sound level in the bass frequencies.

## II PANEL CONTROLS AND FEATURES II

### E. SPEAKER GAIN CONTROL

The gain control will match the amplifiers sensitivity to the source signal voltage.

### F. LOW LEVEL RCA INPUT

These RCA inputjacks connect with your source unit RCA low level outputs or via optional adapter with your source unit speaker high level outputs. The use of high quality twisted pair car audio cables is recommended to reduce the possibility of audio signal degradation.

### G. LOW LEVEL RCA OUTPUT

These RCA output jacks connect with your source unit RCA low level outputs or via optional adapter with your source unit speaker high level outputs. The use of high quality twisted pair car audio cables is recommended to reduce the possibility of audio signal degradation.

### H. PROTECTION/POWER INDICATOR

The protection red LED will light up and flash if there is a fault present in the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier. The power indicator green LED will light up when the amplifier is working correctly.

### I. CH1/CH2 SPEAKER Crossover CONTROL

Depending on the selected switch the amplifier will operate at full or hpf mode.

### J. GND(-) = GROUND CONNECTION

Connect this cable directly to the metal frame of the vehicle, ensuring that the metal frame has been stopped of all paint down to the bare metal use the shortest distance possible. It is always a good idea to replace the vehicle battery groundon terminal or any other factory ground points.

## II PANEL CONTROLS AND FEATURES II

### K. REM(ON/OFF) REMOTE CONTROL

When using HI-INPUT, the amplifier can detect the DC offset from the high level input signal to automatically turn the amplifier on or off. When the amplifier turns on, the REM terminal will output +12V DC to control the other devices to turn on or off. When using low level inputs, the amplifier REM-IN should be connected to the REM-OUT of the source unit. The source unit will control the amplifier to automatically turn on or off.

### L. +12V =POWER SUPPLY

Connect this terminal through a fuse or circuit breaker to the positive terminal of the vehicle battery or the positive terminal of an isolated audio system battery.

### M. FUSE

Do not use a fuse with a different value and never replace the fuse with a wire or coin.

### N. SPEAKER CONNECTIONS

Connect your speakers and woofers to their terminals, ensuring proper polarity during connection. Never connect the speaker cables to the chassis ground.

## II TROUBLE CLEARING II

SYMPTOM	POSSIBLE CAUSE	ACTION TO TAKE
NO OUTPUT	Low or no remote turn-on input	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 output from source	Check input connections and signal integrity, repair or replace as needed check speaker wires and repair or replace as needed
AUDIO CYCLES ON AND OFF	Speakers are blown	Check system with known working speaker and repair or replace speakers as needed
	The normal protection engages when amplifier heatsink temperature exceeds 90°C	Make sure there is proper ventilation 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 sensitivity set too high; exceeding maximum output capability of amplifier	Reset gain referring to the tuning section of the manual for detailed instructions
	Impedance load to amplifier too low	Check speaker impedance load if below 2Ω stereo or 4Ω mono rewire speakers to achieve a higher impedance
	Shorted speaker wires	Check speaker wire connections and repair or replace as needed
	Speaker not connected to amplifier properly	Check speaker wiring and repair or replace as needed refer to the installation section of this manual for detailed instructions

## || TROUBLE CLEARING ||

SYMPTOM	POSSIBLE CAUSE	ACTION TO TAKE
	Internal crossover not set properly for speaker	Reset crossovers referring to configuration section of this manual
DISTORTED OUTPUT (CONT'D)	Speakers are blown	Check system with known working speakers and repair or replace as needed
POOR BASS RESPONSE	Speakers wired wrong polarity causing cancellation as low frequencies	Check speaker polarity and repair as needed
	Crossover set incorrectly	Reset crossovers referring to the multi-cross crossover configuration section of this manual for detailed instructions
BATTERY FUSE BLOWING	Impedance load to amplifier too low	Check speaker impedance load, if below 2Ω stereo or 4Ω mono rewire speakers to achieve a higher impedance
	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	Check speaker impedance load, if below 2Ω stereo or 4Ω mono rewire speakers to achieve a higher impedance
	Short in power wire or incorrect	Check power and ground connections and repair as needed
AMPLIFIER FUSE BLOWING	Too much current being drawn	Check speaker impedance load, if below 2Ω stereo or 4Ω 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