SOUNDSTREAM®

Tarantula Amplifier Series

Owner's Manual

CONGRATULATIONS !

You now own a SOUNDSTREAM Tarantula amplifier, the product of an uncompromising design and engineering philosophy. We suggest you take a moment to document the information below, which will be helpful in the event of theft or if service is needed. 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 your information on the following lines to refer to in the event that you may need it later.

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 Tarantula Amplifier sounds better than anything you've heard, exercise caution to prevent hearing damage .

SPECIFICATIONS

Model	TX4.440	TX4.560	TX2.350	TX2.500	TX2.1500	TX1.1300D	TX1.2000D	TX1.2600D
RMS power at 14.4V								
0.5Ohm Load	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2600W x 1
1Ohm Load	N/A	N/A	N/A	N/A	N/A	1300W x 1	2000W x 1	2000W x 1
2Ohm Load	110W x 4	140W x 4	175W x 2	250W x 2	750W x 2	900W x 1	1300W x 1	1200W x 1
4Ohm Load	70W x 4	100W x 4	110W x 2	180W x 2	550W x 2	520W x 1	750W x 1	600W x 1
Bridged 4Ohm Load	220W x 2	280W x 2	350W x 1	500W x 1	1500W x 1	N/A	N/A	N/A
Features								
Input Level	0.2~5V		0.2~5V			0.2~5V		
High level input	Yes		Yes			Yes		
Frequency Response	15Hz - 25KHz		15Hz - 25KHz			10Hz - 220Hz		
X-over Type	LPF/Full/HPF		LPF/Full/HPF			LPF/Subsonic		
LPF	Front 50Hz - 4kHz, Rear 50Hz - 800Hz or 250Hz - 4kHz		50Hz - 200Hz			40Hz - 220Hz		
Subsonic / HPF	Front 50Hz - 4kHz, Rear 15Hz - 500Hz		15Hz - 200Hz			10Hz - 50Hz		
Bass Boost Frequency	50Hz		30Hz - 90Hz			50Hz		
Bass Boost Level	0dB, 6dB, 12dB		0dB - 12dB			0dB - 6dB - 12dB		
THD	<0.05%		<0.05%			<0.5%		
Damping Factor	>200		>200			>200		
S/N Ratio	>100dB		>100dB			>85dB		
Minimum Load	2 Ohm		2 Ohm		2 Ohm	1 Ohm		0.5 Ohm
Voltage Protection	<8.4V		<8.4V		<8.4V & >16V	<8.4V & >16V		
Components & PCB	SMD Parts / Double-Sided FR-4 PCB							
Bass Remote	N/A		N/A			Yes		
DIMENSION								
Height	67mm / 2.64"							
Width	251mm / 9.88"							
Length	411.5mm / 16.2"	471.5mm / 18.56"	371.5mm /14.63"	471.5mm / 18.56"	516.0mm/20.3"	441.5mm / 17.38"	491.5mm / 19.35"	591.5mm / 23.29"

FEATURES

- DOUBLE SIDE PCB AND SMD COMPONENTS.
- FULL MOSFET DESIGN.
- LPF AND SUBSONIC CROSSOVER.
- ADJUSTABLE BASSBOOST LEVEL.
- ACTIVE X-OVER FUNCTION.
- HEAVY-DUTY ALUMINUM ALLOY HEATSINK.
- HIGH (Speaker) OR LOW (RCA) LEVEL INPUTS.
- OVERLOAD, OVERHEAT, HIGH/LOW VOLTAGE PROTECTION.
- RoHS COMPLIANT.

CONTROL FUNCTIONS

1. SPEAKERS

Connect speakers/subwoofers to these terminals. Be sure to check wire for proper polarity. Never connect the speaker cables to chassis ground.

2. +12 Volt Power

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.

Warning: Always protect this power cable by installing a fuse or circuit breaker of the appropriate size within 18 inches (45cm) of the battery terminal connection.

3.Remote Turn On

This terminal turns on the amplifier when (+)12 volt is applied to it . Connect it to the remote turn on lead of the head unit or signal source.

4.GND

Connect this cable directly to the frame of the vehicle. Make sure the metal frame has been stripped of all paint down to the bare metal. Use the shortest distance possible. It is always a good idea to replace the factory ground at this time with a larger cable equal to the new amplifier power cable or larger. **CAUTION:** Do not connect this terminal directly to the vehicle battery ground terminal or any other factory ground points.

5. RCA input jacks

These RCA input jacks are for use with source units that have RCA outputs. A source unit with a minimum level of 200mV is required for proper operation. The use of high quality twisted pair cables is recommended to decrease the possibility of radiated noise entering the system.

6. High level inputs

The high level inputs are for use with speaker level wiring. Some source units do not have RCA outputs, so use this terminal for speaker level signal input. **CAUTION:** Never use high level input when RCA inputs available.

TROUBLE SHOOTING

Symptom	*Possible Remedy*
Amplifier will not power up	*Check to make sure you have a good ground connection.* *Check that there is battery power on the (+)terminal .* *Check all fuses, replace if necessary .* *Make sure that the Protection LED is not illuminated.*
Protection LED Comes on	*Check for short circuits on speaker leads.* *Check the speaker load not beyond the minimum load.* *Remove speaker lead, and reset the amplifier. If the protection LED still Comes on, then the amplifier is faulty and needs servicing .*
No output	*Check that the RCA audio cables are plugged into the proper inputs.* *Check all speakers wiring.* *Check the headunit output and the amplifier level setting.*
Low output	*Reset the level Control.* *Check the Crossover Control settings.*
High hiss in The speakers	*Check the RCA cable is not shorted to power ground at amplifier side.* *Check the amplifier grounding.*
Distorted sound	*Check that the Input level control is set to match the signal level of the head unit. Always try to set the Input level as low as possible.* *Check that all crossover frequencies are properly set.* *Check for short circuits on the speaker leads.*
Amplifier gets Very hot	*Check that the minimum load impedance for the amplifier model is correct.* *Check that there is good air circulation around the amplifier. In some applications, It may be necessary to add an external cooling fan.*

WIRING DIAGRAM

Fig 13. TX2. 350/TX2.500/TX2.1500 wiring (2-channel mode)

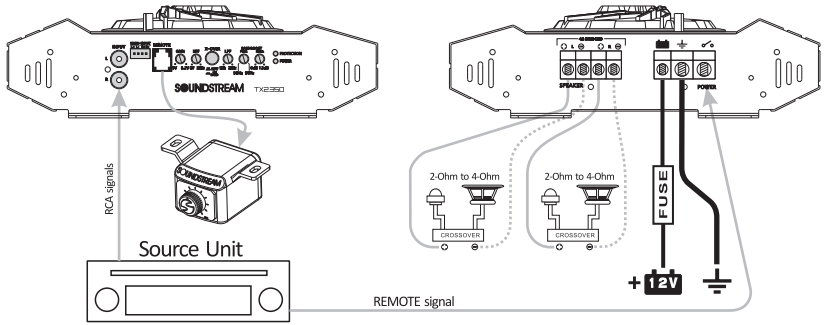
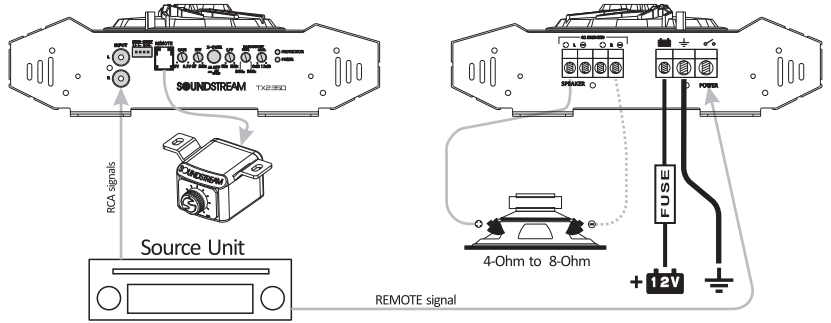


Fig 14. TX2. 350/TX2.500/TX2.1500 wiring (High level input & Bridged mode)



CONTROL FUNCTIONS

7. REMOTE

Connect the remote controller to control the subwoofer amplifier volume from the driver seat location, for ease of adjustment during playing.

8. LEVEL Control

The level control will match the amplifiers sensitivity to the source units signal voltage. The Operating range is 200mV minimum to 5V maximum. This is NOT a volume control!

9. Low Pass Filter Control (Mono)

This control is used to select the desired low pass x-over frequency. The frequency can be adjusted from 40Hz to 220Hz for all bass mono models.

10. Subsonic Filter Control (Mono)

This control can filter out unwanted low frequency from 10Hz (OFF) to 50Hz. This function will increase the power handling of your woofers.

11. Bass Boost Frequency and Level Control (2-ch)

By adjusting these two knobs, you can boost a wanted frequency to a wanted level. The center boost frequency is adjustable from 30Hz to 90Hz, the boost level is adjustable from 0dB to 12dB.

12. X-over mode and frequency Control (4-ch)

These controls allow control over the frequencies played for the front channels. There is an option for Low Pass, Full Range or High Pass. In LP or HP mode the frequency range is from 50Hz to 4kHz.

CONTROL FUNCTIONS

13. X-over mode and frequency Control (4-ch)

These controls allow control over the frequencies played for the rear channels. There is an option for Low/BandPass, Full Range or High Pass. In HP mode, the frequency range is from 15Hz to 500Hz. In LP mode, the frequency range can be switched from 50Hz to 800Hz, or 250Hz to 4kHz. In the higher range, the LPF can be set at 4kHz for a midbass while the front channels are also set at 4kHz for a tweeter resulting in a 2-way xover and eliminating the need for a passive xover. Even with a set up like this, the midbass can still be protected by the HPF which is not defeatable. It can be set anywhere in the 15Hz to 500Hz range creating a bandpass filter for the midbass by eliminating any damaging lower frequencies in the subbass region.

14. Bass Boost Level switch (4-ch/mono)

This switch can boost bass level by 0dB, 6dB or 12dB. The boost frequency is centered at 50Hz.

15. Input mode switch (4-ch)

This function is for switching the rear channels' signal path. When switched to 4CH, all 4 RCAs inputs are required. When switched to 2CH, the rear channels get their signal input from the front channels in parallel.

16. X-over mode and frequency Control (2-ch)

These controls allow control over the frequencies played for TX2.350 & TX2.500. There is an option for Low Pass, Full Range or High Pass. In LP mode the frequency range is from 50Hz to 200Hz, In HP mode the frequency range is from 15Hz to 200Hz.

17. Protection Indicator

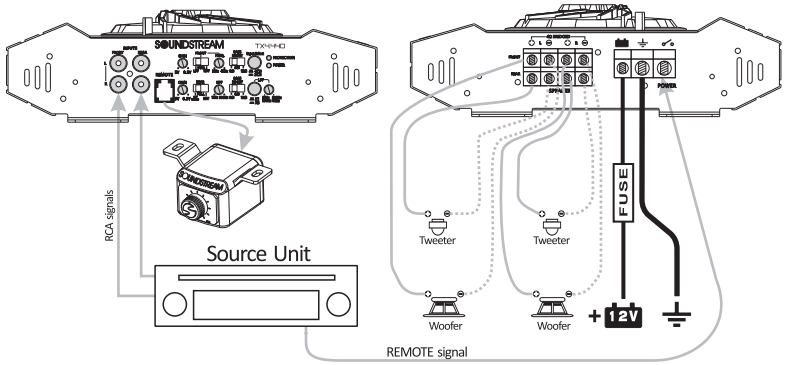
The red LED will light up or be flashing if there is a fault presented to the amplifier. Please disconnect the amplifier and resolve the fault before reconnecting the amplifier.

18. Power Indicator

This LED will light up when amplifier works properly.

WIRING DIAGRAM

Fig 12. TX4.440 / TX4.560 wiring (active x-over mode)



WIRING DIAGRAM

Fig 10. TX4.440 / TX4.560 wiring (4-channel mode)

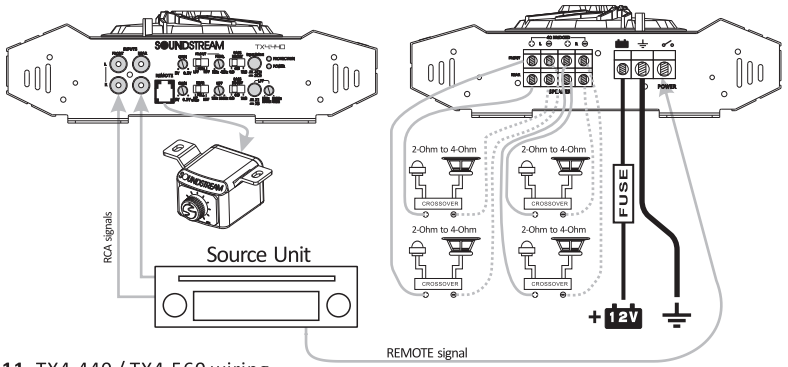
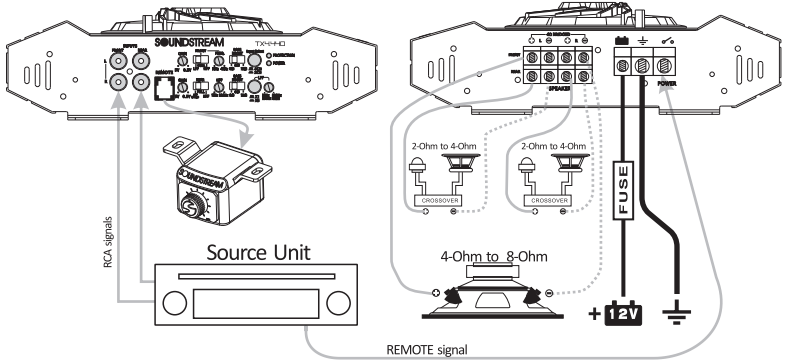


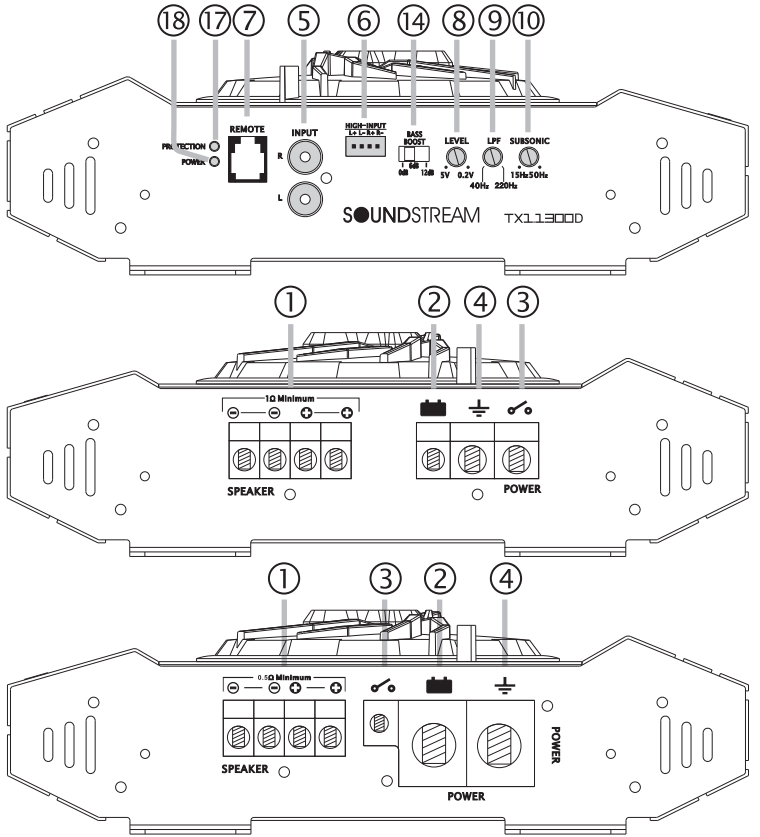
Fig 11. TX4.440 / TX4.560 wiring (3-channel mode)



PANEL LAYOUT

Fig 1. TX1.1300D/TX1.2000D/TX1.2600D Panel layout

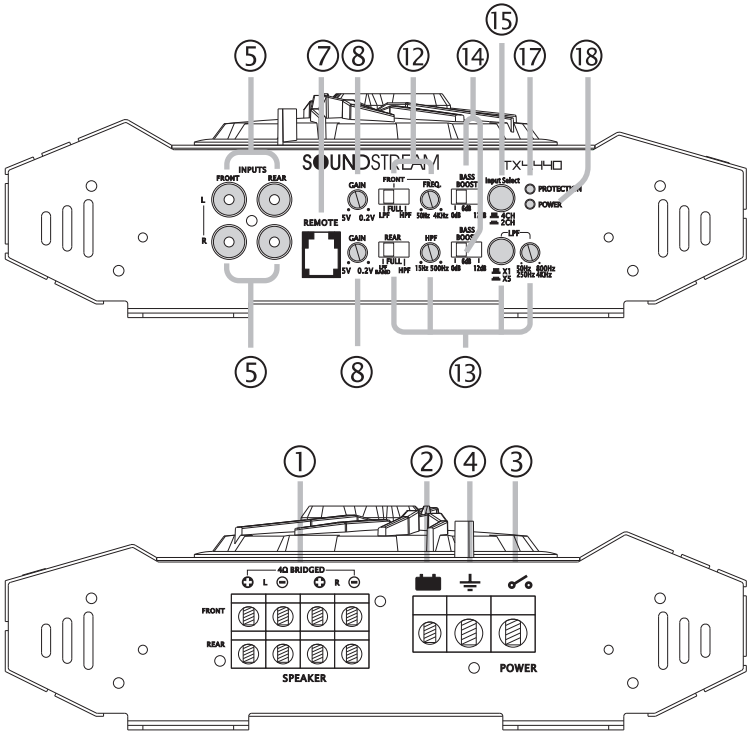
TX1.1300D
TX1.2000D



TX1.2600D

PANEL LAYOUT

Fig 2.TX4.440/TX4.560 panel layout



WIRING DIAGRAM

Fig 8. Mono amplifier wiring
(High level input mode)

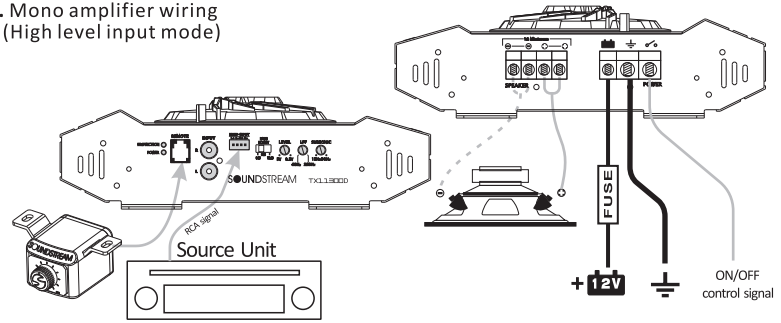
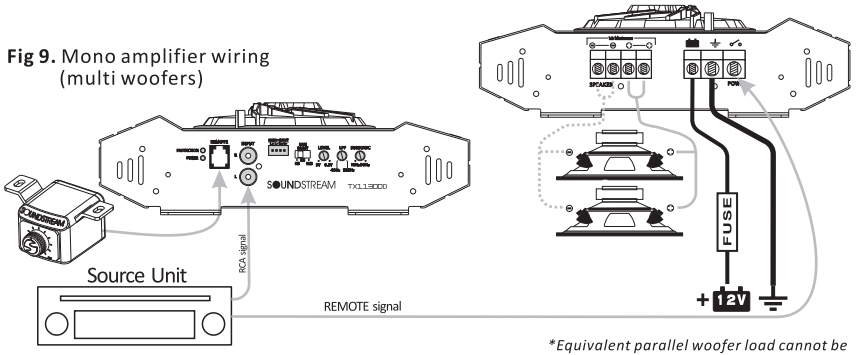


Fig 9. Mono amplifier wiring
(multi woofers)



**Equivalent parallel woofer load cannot be less than the minimum load rating. The 2 negative terminals are paralleled inside the amplifiers, as are the 2 positive terminals. These are monoblock amplifiers, not multi-channel amplifiers.*

CONNECTING THE AMPLIFIER

1. Select cable and fuse according to the following table.

MODEL	TX1.1300D	TX1.2000D	TX1.2600D	TX2.350	TX2.500	TX2.1500	TX4.440	TX4.560
CABLE	4#	2-4#	0-2#	6#	4-6#	0-2#	6#	4-6#
FUSE	120A	200A	250A	30A	60A	150A	40A	60A

2. Connect the amplifiers ground cable to a close, bare metal part of the frame or chassis. Use a nut and bolt, NOT a screw! The ground cable must be at least the same size as the +12volt cable.

3. Connect the remote terminal to remote output of the head unit using 16 gauge (or heavier) wire.

4. Connect the fuse holder within 18”(45cm) of the car battery, and run the selected cable from this fuse to the amplifier.

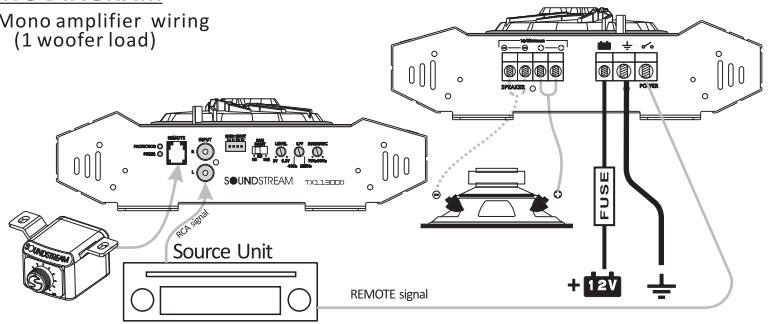
5. Connect all the inputs with high-quality cables. Connect Remote Control if necessary.

6. Insert fuse(s) into the battery fuse holder(s).

7. If using a subwoofer for 2-CH and 4-CH, bridge the channels by using the Left “+” and the Right “-“ terminals.

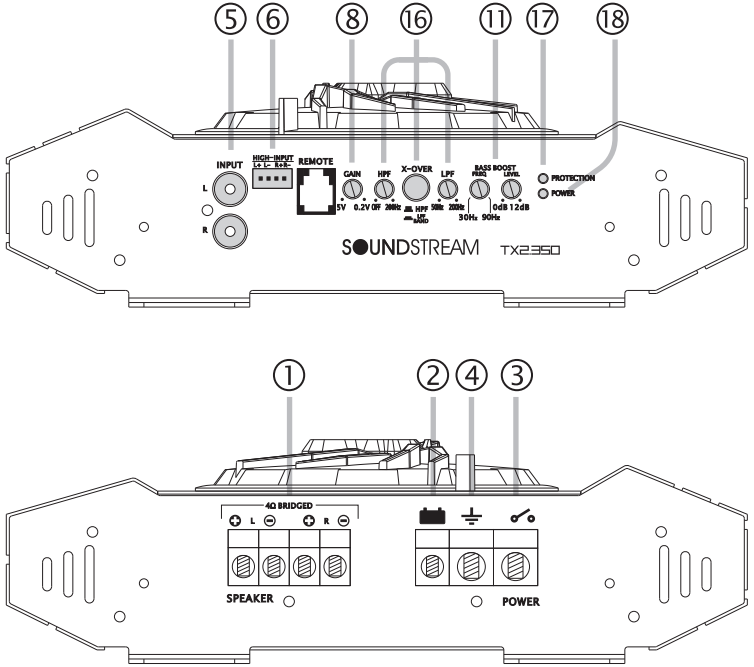
WIRING DIAGRAM

Fig 7. Mono amplifier wiring (1 woofer load)



PANEL LAYOUT

Fig 3. TX2. 350/TX2.500/TX2.1500 panel layout



INSTALLATION PRECAUTIONS

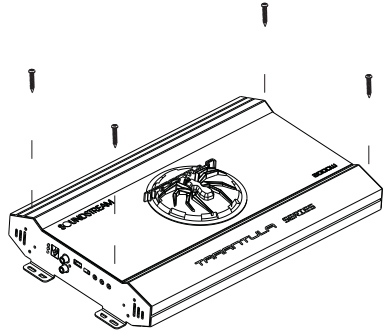
Before you install the amplifier, investigate your car's layout very carefully. Take special care when you work near the gas tank, fuel lines, hydraulic lines and electrical wiring. Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that suggested by this manual. Using a fuse of a different type or rating may result in damage to your audio system or your amplifier which is not covered by warranty .

MOUNTING AMPLIFIER

1. Plan the installation of the amplifiers and find a suitable location with sufficient air circulation.

2. Check the drawing below to mount the bottom amplifier.

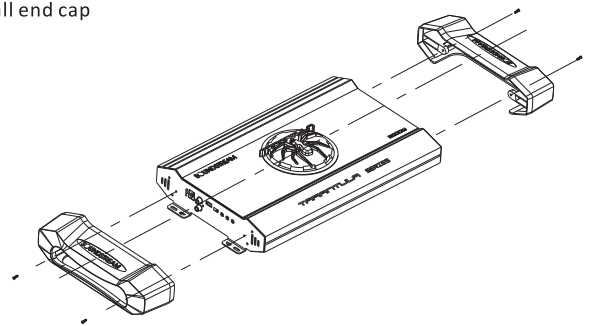
Fig 4. Mount bottom amplifier



MOUNTING AMPLIFIER

3. Insert the end caps into the heatsink sides, then fasten end caps with supplied screws.

Fig 5. Install end cap



4. The amplifier is now mounted.

Fig 6. Mounted amplifier