

# KAPTION AUDIO

## Multi Channel Amplifier Owner's Manual

570-AZR170X2

570-AZR400X4

570-AZR700X5



## **Introduction:**

Congratulations on your new purchase of Kaption Audio amplifier. These amplifiers are engineered to reproduce music that is so detailed, you will hear music in a whole new truly superior product.

We always recommend you have these amplifiers installed by an authorized Kaption Audio dealer.

Kaption audio amplifiers come with a ONE-YEAR PARTS AND LABOUR LIMITED WARRANTY.

## **Features:**

- 570-AZR170X2 - 2 CH Class AB, 2Ω stable
- 570-AZR400X4 - 4 CH Class AB, 2Ω stable
- 570-AZR700X5 - 4 CH Class AB + Sub-Woofer, 2Ω stable
- High level-In with adapter
- Wired bass remote control (570-AZR700X5 model only)
- Compact design
- Functions with most factory source units.

### **CAUTION**

**EXTENDED EXPOSURE TO SOUND PRESSURE LEVELS OVER 100dB MAY RESULT IN TEMPORARY OR PERMANENT HEARING LOSS. EXERCISE CAUTION TO PREVENT DAMAGE TO HEARING.**

**KAPTION AUDIO ACCEPTS NO LIABILITY FOR ANY DAMAGED OR PERMANENT HEARING LOSS.**

## WARNING

INVESTIGATE THE LAYOUT OF YOUR AUTOMOBILE THOROUGHLY BEFORE DRILLING OR CUTTING ANY HOLES. **USE EXTREME CARE WHEN YOU WORK NEAR THE GAS TANKS, GAS OR HYDRAULIC LINES, AND ELECTRICAL WIRING. ALWAYS MAKE SURE THE AMPLIFIER IS SECURELY MOUNTED. MOUNTING THE AMPLIFIER SECURELY TO THE AUTOMOBILE WILL PREVENT DAMAGE TO THE CAR OR INJURY TO A PERSON, PARTICULARLY IN THE EVENT OF AN ACCIDENT.**

## **PRE- INSTALLATION**

Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your source unit or other equipment is turned off while connecting the input jacks and speaker terminals.

Use only proper car audio insulated 4ga. (or larger) power cable. The +12Volt power cable must be connected with a in-line fuse within 8in from the positive battery terminal.

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.

Use only car audio RCA cables, otherwise you may get sound distortion. Keep these cables as short as possible. To avoid distortion from your car electronics, avoid installing the RCA cable close to any existing cables and other electric devices.

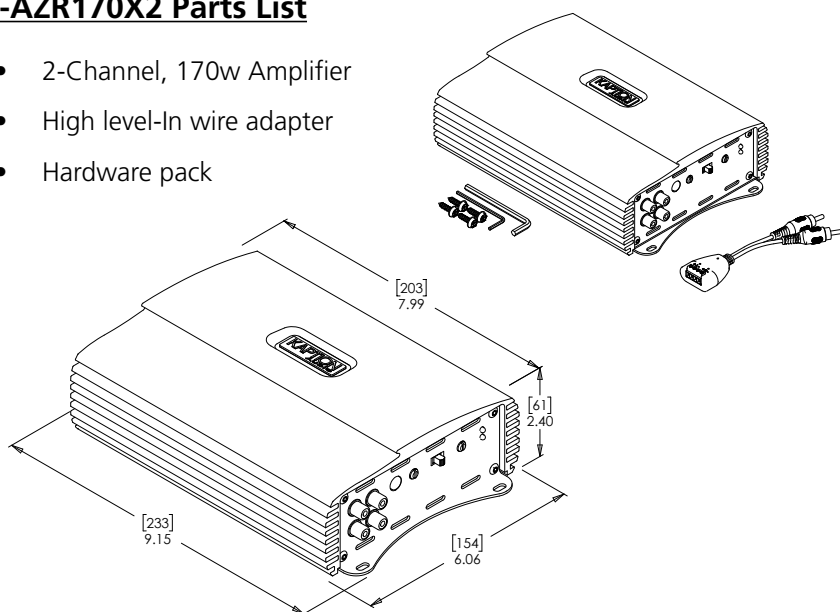
Take care when pulling wires through the vehicle to avoid any damage to the cable or it's insulation. Special care must be taken when installing the cable through metal openings as any crack or split in the cable insulation may cause an electrical short. Don't install cables too tight

The amplifier must be mounted securely at a solid, dry and low vibration surface in the trunk or passenger area. Fix the amplifier in an open air area to insure proper heat dissipation. Fix the amplifier in a place where the amplifier can access easily to set input controllers.

The ground cable should be connected directly with the chassis of your vehicle which should be metal to metal ground point connection.

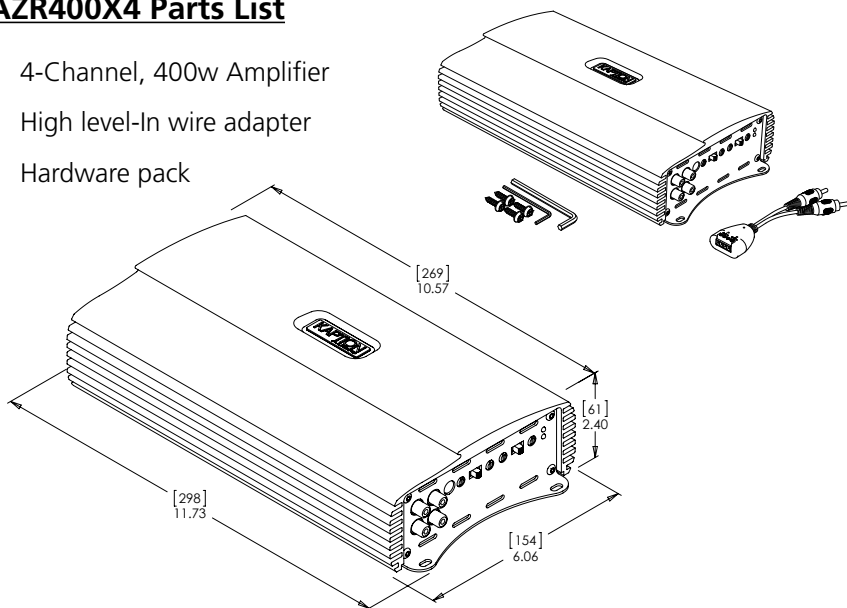
## 570-AZR170X2 Parts List

- 2-Channel, 170w Amplifier
- High level-In wire adapter
- Hardware pack



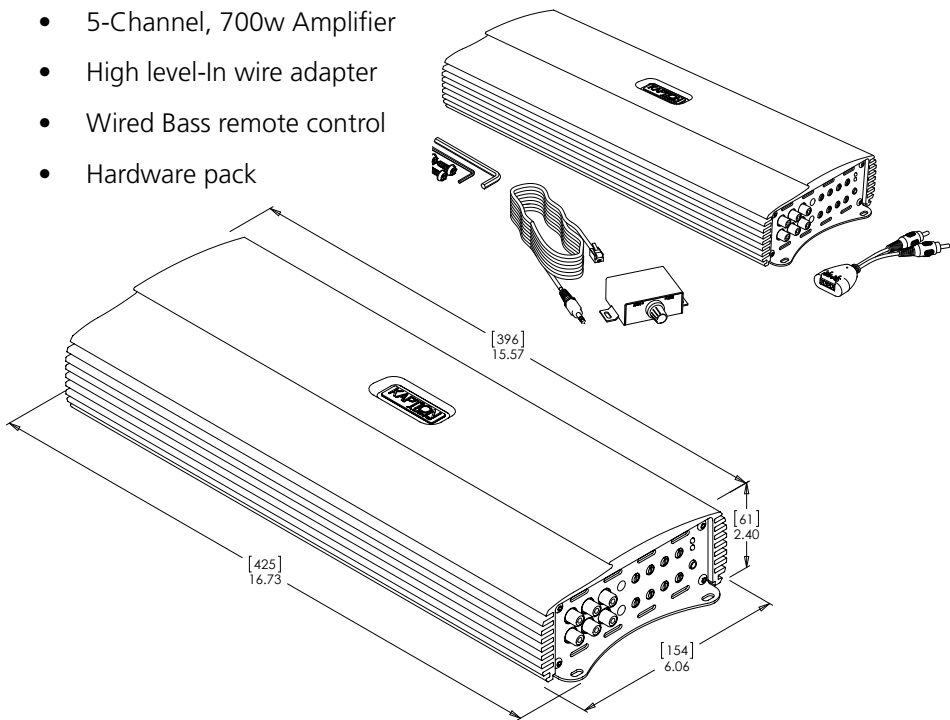
## 570-AZR400X4 Parts List

- 4-Channel, 400w Amplifier
- High level-In wire adapter
- Hardware pack



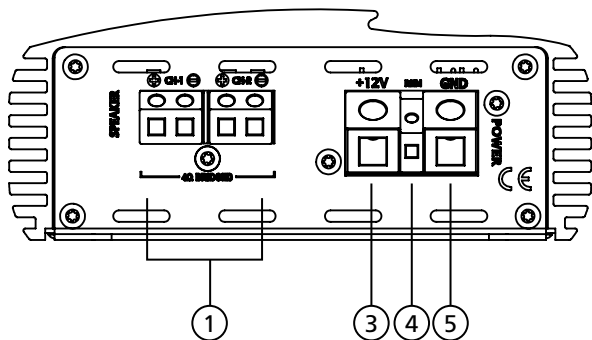
**570-AZR700X5 Parts List**

- 5-Channel, 700w Amplifier
- High level-In wire adapter
- Wired Bass remote control
- Hardware pack

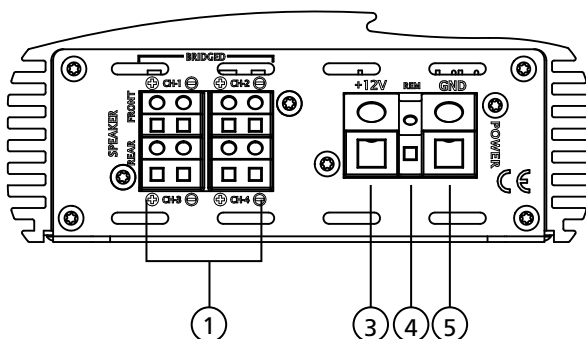


**Controls and wiring locations**

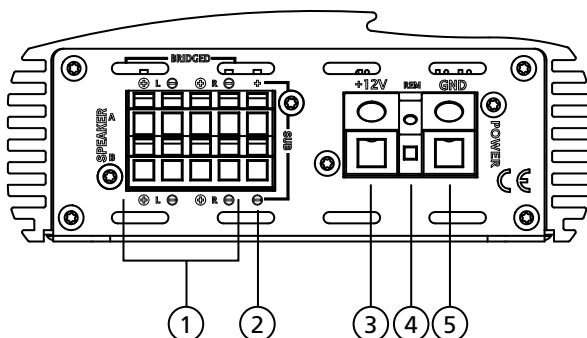
570-AZR170X2



570-AZR400X4



570-AZR700X5



### 1. **Speaker Terminals**

2-Channel or 4-Channel Terminals (depending on model purchased) outputs to co-axial speakers. See wiring diagrams.

### 2. **Sub-Woofer Terminal** (570-AZR700X5 only)

Terminal output for sub-woofer channel. See wiring diagrams.

### 3. **+12 Volt** Power connection.

The amplifier must be connected to the positive terminal on the vehicle's battery. A fuse must be connected in-line between the amplifier and the battery. See Wire diagrams for further details.

**NOTE: WE DO NOT RECOMMEND THE USE OF CCA (COPPER CLAD ALUMINIUM) WIRE IN CAR AUDIO INSTALLATIONS. ALUMINUM IS CONSIDERABLY LESS CONDUCTIVE THAN PURE COPPER AND CAN OVER HEAT.**

### 4. **REM** (Remote Turn On)

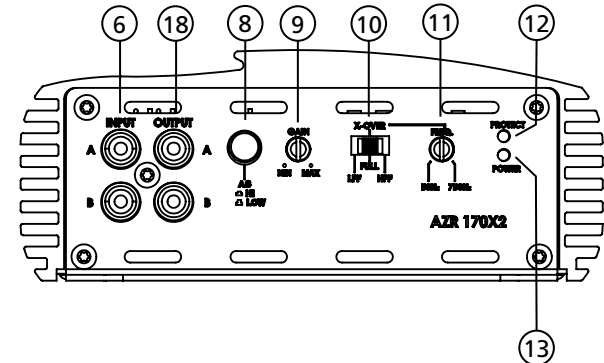
To turn the amplifier on/off, controlled by the source unit. This terminal must be connected to the source unit's "remote" or "electric antenna" wire or connection. (See Wire diagram section)

5. **GND**

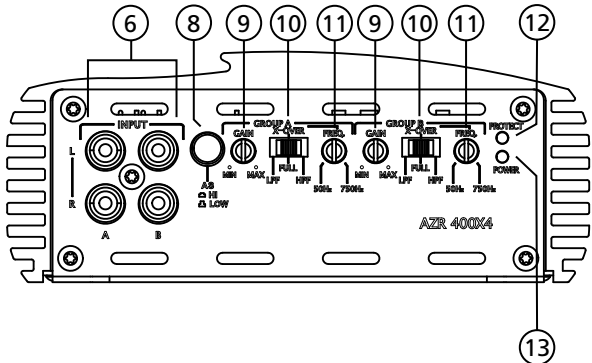
The ground wire from this connection must be directly attached to bare metal on the vehicle’s frame. The connection point on the frame must be stripped of all paint to make a proper electrical connection. The distance to the ground should be as short as possible and no more than 18”.

**DO NOT** CONNECT THE AMPLIFIER TO  
THE VEHICLE’S BATTERY GROUND TERMINAL.

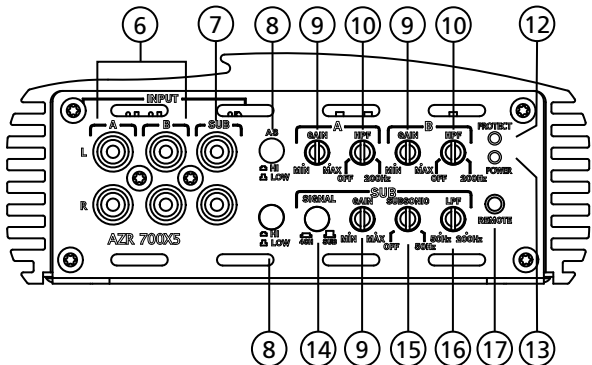
570-AZR170X2



570-AZR400X4



570-AZR700X5



## 6. **RCA Input** Jacks

**RCA Input** jacks are for use with source units having RCA or low level output. Source units with an output signal level of minimum 200mV may be used. (See installation wiring diagram)

## 7. **Sub-Woofer RCA Input** Jacks (570-AZR700X5 only)

Sub-Woofer jack are for use with the source unit with an RCA or low level output. High level-in Adapter may be used with Sub-Woofer Input

## 8. **Auto Sensing (AS)** selector switch

When the AS level switch button is sticking up for "LOW"; the amplifier is set for low level input. The amplifier REM connection is required to Remote Turn-on from the source unit

When the AS level switch button is pushed in for "HI"; the amplifier is set for high level input. Use the High Level In Adapter for the RCA terminals. The Amplifier has a DC OFFSET turn on function for High level input, auto sensing Channel A only. The REM connection to the source unit is not required for high Level input.

## 9. **GAIN** Control

Use the **GAIN** Control to fine-tune the input sensitivity of the amplifier to the source unit's output level. The operating range is from MIN to MAX. This is NOT a volume control!

## 10. **Crossover Filter** (570-AZR170X & 570-AZR400X4 only)

These controls allow control over the frequencies played for the rear channels. There is an option for Low Pass Filter, Full Range or High Pass Filter.

## 11. **Frequency Control** (570-AZR170X & 570-AZR400X4 only)

Used with the Crossover filter switch; the crossover frequency can be tuned from 50Hz to 750Hz by the frequency dial in either LPF or HPF mode.

## 12. **Power** Indicator

The LED indicates the amplifier is functioning properly when the LED is lit.

## 13. **Protection** Indicator

The LED will light up red and will flash if there is a fault detected by the amplifier. Disconnect the amplifier. Check and fix the connections to resolve the fault condition.



#### 14. **4-Channel / Sub-Woofer Input** selector switch (570-AZR700X5 only)

The button selects the signal source for Sub-woofer channel .

- When the button is in the up position; the Sub-woofer input signal is acquired from the Sub-woofer RCA input jacks.
- When the button is in the down position, the sub-woofer bass frequency is acquired from 4x full frequency channel's bass signal

#### 15. **Subsonic** Filter (570-AZR700X5 only)

The **Subsonic** is adjustable to filter out undesirable low frequencies from 10Hz to 50Hz.

#### 16. **LPF** (Low Pass Filter) Sub-woofer Control (570-AZR700X5 only)

The **LPF** controls the low pass crossover to select the desired frequency. The frequency can be adjusted from 40Hz to 220Hz.

#### 17. **Wired Bass Remote Jack** (570-AZR700X5 only)

Provides a wired remote control to the drivers seated location.

The **Bass Remote** controls the amplifier's volume adjustment.

#### 18. **RCA Pre-Amp Pass Through** (570-AZR170X2 only)

Provides line level output from RCA input (item 6)

### **Wire Connections**

**BEFORE CONNECTED ANY PARTS OF THE SPEAKERS, ENSURE THE SPEAKERS ARE NOT ENERGIZED AND THAT ANY INPUT SOURCE IS SWITCHED OFF.**

1. **Input** - (Item 6 & 7) Be sure to lay the signal wire away from all power cables and vehicle computers. Use high quality twisted pair interconnect cables to decrease the possibility of radiated noise entering the system.

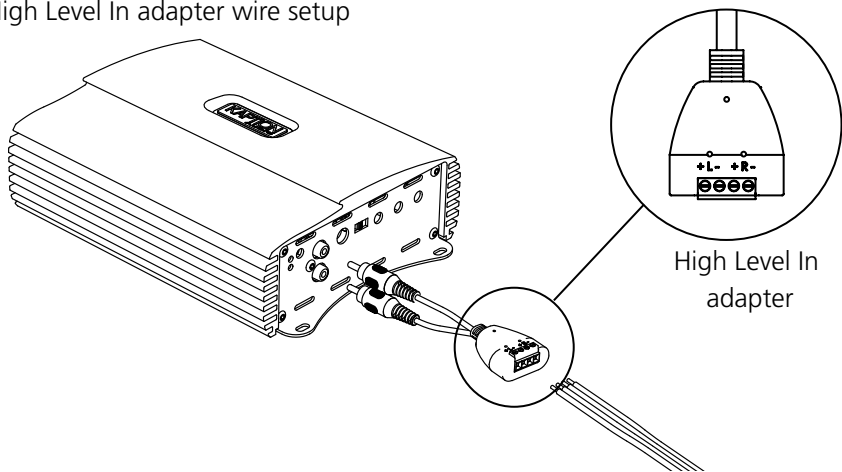
The amplifiers can use either a **low** level line-in or **high** level (Speaker Level connection) signal from the source unit.

If the source unit is not equipped with RCA outputs, The amplifier can be connect to the source unit to the high level (speaker connection) by following the high level setup below.

- **LOW LEVEL:** Using RCA Connections (Low level input): If the source unit has RCA outputs, simply attach a signal cable from the source unit to the amplifier's RCA input. Set the AS selector switch on the (item 8) to the "LOW" position.

- **HIGH LEVEL:** The amplifier features current sensing technology with the A channel input. The REM (Item 4) wire connection is not required with the AS selector (Item 8) set in the high position.

High Level In adapter wire setup



Use the high level output from the source unit and the HIGH LEVEL-IN ADAPTER supplied with the amplifier. Splice the source unit speaker wires to HIGH LEVEL-IN Adapter's terminal block on the adapter. Be sure to connect the car audio's system (+) wiring to the terminal block (+) and the (-) car audio system to the (-) terminal block for each the LEFT (L) and RIGHT (R). Plug the HIGH LEVEL-IN wire adapter into the amplifier. Set the AS selector switch (item 8) to the "HI" position.

2. **Power Terminals** - Please take proper measures during installation to protect the power wires as best you can. For example, when running the power cable from the vehicle's battery through the firewall, use a firewall bushing for protection. Run the power wire through the interior of the vehicle, under the carpet, and to the amplifier. If this is something that you do not feel comfortable doing, please ask a professional to help you. Be sure to lay the power wire away from all signal cables.
- **+12V** (Item 3): This is the main power input for the amplifier and must be connected directly to the positive terminal of the car battery for the amplifier to operate properly. It is important that a main fuse is installed a maximum of 8" from the battery.

Model	570-AZR170X2	570-AZR400X4	570-AZR700X5
Cable Size	4ga AWG	4ga AWG	4 - 2ga AWG
External Fuse	40 amps	60 amps	80 amps

- **REM** (Item 4): This connection turns the amplifier on and off. REM connection is used based upon the amplifier input source (high level or low level) and if the source unit has current sensing technology.

Low level input: Use the REM connection if the amplifier is connected to the low level inputs (RCA). Connect the REM to the source unit's remote-turn-on output. If the source unit does not have a remote-turn-on circuit the amplifier can be connected to +12V using a switch powered from the ignition switched circuit.

High level input: Determine if the vehicle's source unit has current sensing technology. If the source unit does have current sensing technology then REM is not required to turn on the amplifier.

If the vehicle's source unit does not have current sensing technology while using the high level source input then connect the REM the same method as the low level input.

- **GND** (Item 5): This is the ground connection for the amplifier and must be connected directly to the metal chassis of the vehicle for the amplifier to operate properly. A properly grounded amplifier can be run harder and longer than a poorly grounded amplifier. The ground on the amplifier should be as short as possible and be connected directly to the vehicle's metal chassis. Do not connect to factory bolts of ANY kind. When attaching the ground to the chassis, sand all the paint away from the contact point. A grounding block like the Street Wires GT4 should be used whenever possible as this piece of equipment has 5 times the surface area of a normal screw.

The gauge of the power and ground wire is often an overlooked aspect of amplifier installation. The more power the amplifier receives, the more power it will produce. Power cables have a natural resistance, and will lose voltage by the time the power makes its way to the amplifier. The large gauge diameter wire will hold more voltage over longer runs. Also, by having a larger diameter ground wire, the amplifier can run more efficiently. It recommends using a minimum of 4 gauge power and ground cables to get the best performance.

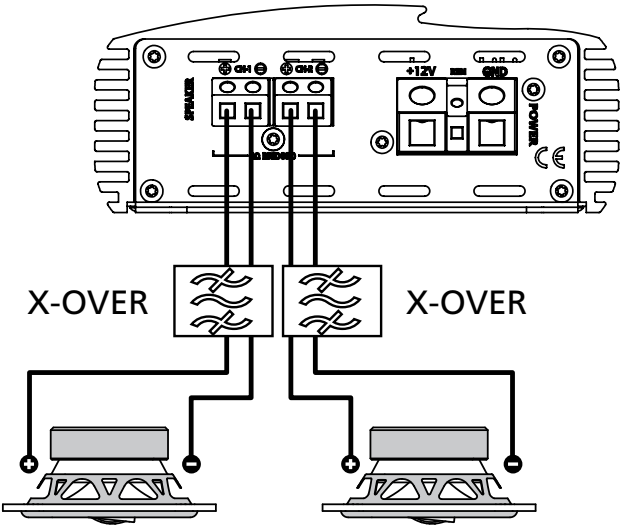
Double check all the previous connection installation steps, in particular the speaker and power wiring. Securely mount the amplifier. If everything is in order, reconnect the vehicle's negative battery connection and begin following the Feature Setup and Adjustments steps.

**Speaker wiring connections**

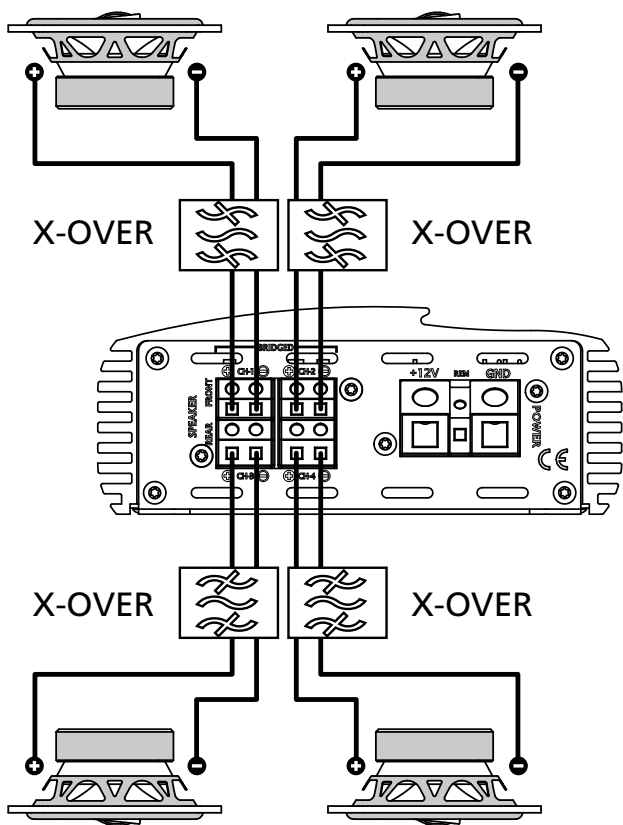
**570-AZR170X2**

**2 Channel Amp**

**2 Speaker setup**



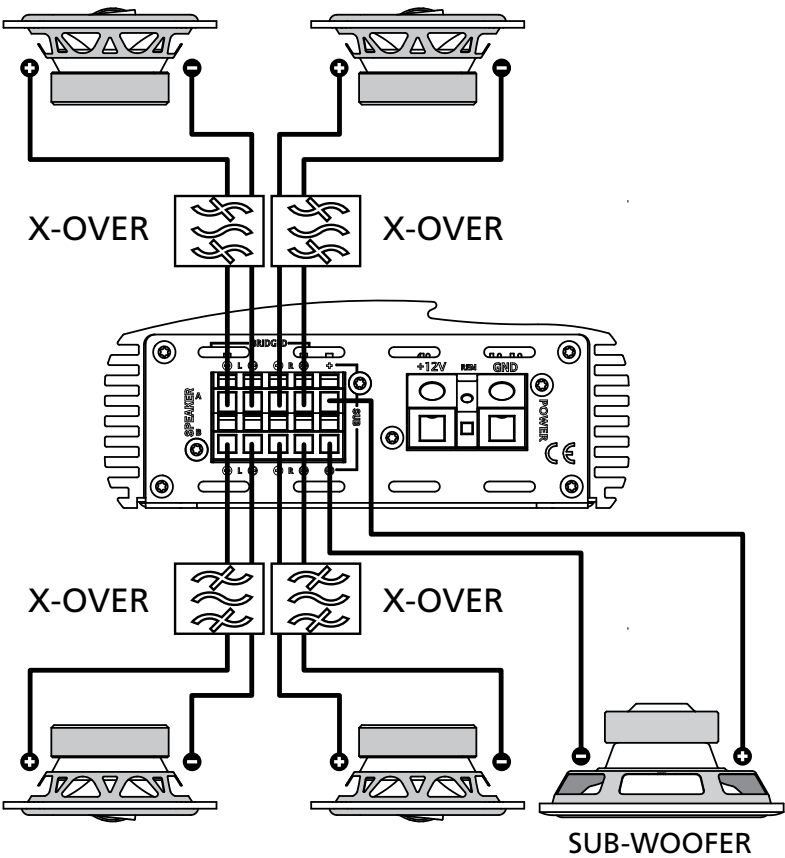
570-AZR400X4  
4 Channel Amp  
4 Speaker setup



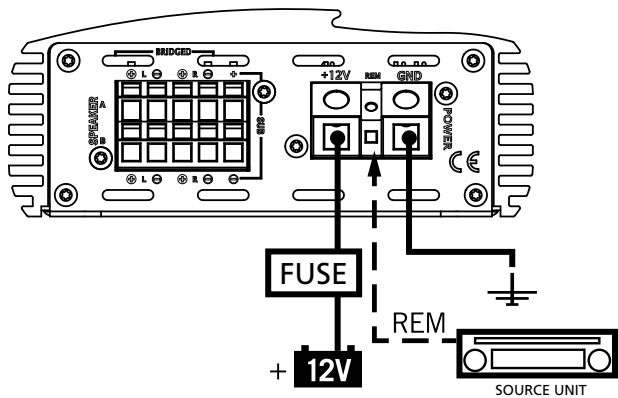
570-AZR700X5

5 channel Amp

4 Speaker + Sub-Woofer setup



570-AZR170X2 / 570-AZR400X4 / 570-AZR700X5  
Power and ground setup



## **Troubleshooting Guide**

<b>Problem</b>	<b>Causes and solutions</b>
Power indicator is not lit	A. Check +12 volt wire fuse blown and replace if needed
	B. Check remote turn on +12V and GND connections ensure the ground is secured to clean metal on the vehicle chassis.
	C. Source unit not functioning properly
Power indicator is lit / There is no sound	A. Inputs are not properly connected or loose. Check and ensure connections are tight. Both the RCA inputs and the source unit output.
	B. Incorrect amplifier Gain control setting – Check to see if the level is at minimum
Protection light is on	There could be a possible short in the speaker connections. Check for proper connection and ensure there is no bare or uninsulated wire exposed.
	Use a volt /ohm meter to check for possible shorts in the speaker wiring.
	Check the impedance of speakers . If they are too low this may cause the amplifier protection light to come on.
	Battery is under voltage, check and charge battery if necessary.
Sound is distorted	A. Amplifier gain control is set too high
	B. Amplifier bass control knob is set too high
	C. Gain control is set too high on source unit



## Specifications

Model		570-AZR170X2	570-AZR400X4	570-AZR700X5
Description		170W Multi Channel Amp	400W Multi Channel Amp	700W Multi Channel Amp
Continuous Power @ 14.4V, ≤ 1% THD+N	4Ω Stereo	85W X2 RMS	70W X4 RMS	85W X4 RMS + 275W Sub-Woofer
	4Ω Bridged	260W X1 RMS	190W X2 RMS	250W X2 RMS
	2Ω Stereo	130W X2 RMS	95W X4 RMS	125W X4 RMS + 400W Sub-Woofer
<b>Features</b>				
Input Level	Low Level	0.2 ~ 5V		
	High Level	0.4 ~ 10V		
Frequency Response		20Hz ~ 20KHz	20Hz ~ 20KHz	10Hz ~ 35KHz
Channel Separation		> 50dB		
High Pass Filter (Multi-CH)		50Hz ~ 750Hz	50Hz ~ 750Hz	10Hz ~ 50Hz
Low Pass Filter (Sub CH)		N/A	N/A	50Hz ~ 220Hz
Subsonic Filter (Sub CH)		N/A	N/A	10Hz ~ 50Hz
S/N Ratio, Rated Power		> 95dB		
THD+N at 4Ω load Rated Power		<0.5%	<0.5%	<0.8%
Operating Voltage		9 ~ 16 V		
Low Voltage protection		Yes, protect < 8V		
Overheat Protection		> 80 °C		
Wired Bass Remote		N/A	N/A	Yes, Sub CH
High level-in Adapter		Yes	Yes	Yes
Pass Through Pre-Amp Output		Yes	No	No
External Fuse		40A	60A	80A
<b>Dimensions</b>				
Length		233mm	269mm	396mm
Width		154mm		
Height		61mm		
Weight		2.02kg	2.64kg	4.06kg

Specifications subject to change without notice

## **Limited Warranty Information:**

Kaption Audio amplifiers have a one-year limited warranty. This warranty covers the original purchaser of a Kaption Audio speaker, purchased from an authorized Kaption Audio dealer.

In order to receive service, proof of purchase is required stating the customers name, dealer name, product purchased and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced with a product deemed to be equivalent at Kaption Audio's discretion.

### **What is not covered**

1. Any product not purchased from an authorized Kaption Audio dealer.
2. Any expense related to the removal, re-installation or shipment of any Kaption Audio products.
3. Any Kaption Audio product that has been defaced or altered.
4. Subsequent damage to other components.
5. Damage caused by accident, abuse, improper operation, water and theft.
6. Burnt voice coils due to amplifier clipping or distortion.
7. Repeated returns with the same damaged may be considered abuse.

### **How to obtain service**

To obtain service on a Kaption Audio product, Please return product along with original receipt to an authorized Kaption Audio dealer or call 1-866-KAPTION (527-8466)

# KAPTION

## AUDIO

☐ 570-AZR170X2☐ 570-AZR400X4☐ 570-AZR700X5

### Warranty registration card



Name: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

Province / State: \_\_\_\_\_

Country: \_\_\_\_\_

Postal / Zip code: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

**Authorized**

Kaption Audio dealer: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

### Limited Warranty Information:

KAPTION AUDIO PRODUCTS COME WITH A ONE-YEAR PARTS AND LABOUR LIMITED WARRANTY.

This warranty covers the original purchaser of a Kaption Audio product, purchased from an authorized Kaption Audio dealer. In order to receive service, proof of purchase is required stating the customers name, dealer name, product purchased and date of purchase. Products found to be defective during the warranty period will be repaired or replaced with a product deemed to be equivalent at Kaption Audio's discretion.

**Kaption Audio**

95 Cousins Drive  
Aurora, Ontario  
Canada, L4G 1B5

[www.KaptionAudio.com](http://www.KaptionAudio.com)  
866-Kaption (527-8466)