

# High Power Amplifier **Instruction Manual**

AMP2002 AMP1604 AMP1500M AMP3000D AMP4000D AMP5000D PRO1624



Enjoy it.

Qualima

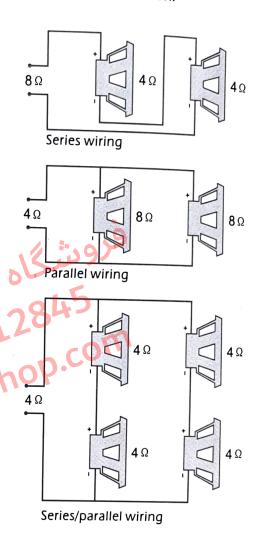
#### System Planning

System Planning Proper system planning is the best way to maximize your amplifier's performance. By planning your installation carefully, you can avoid situations where the performance and reliability of your system is compromised. Our authorized dealer has been trained to maximize your system's sound quality when installing the amplifier, and is a valuable resource in helping you with your system's design and installation.

### **System Requirements**

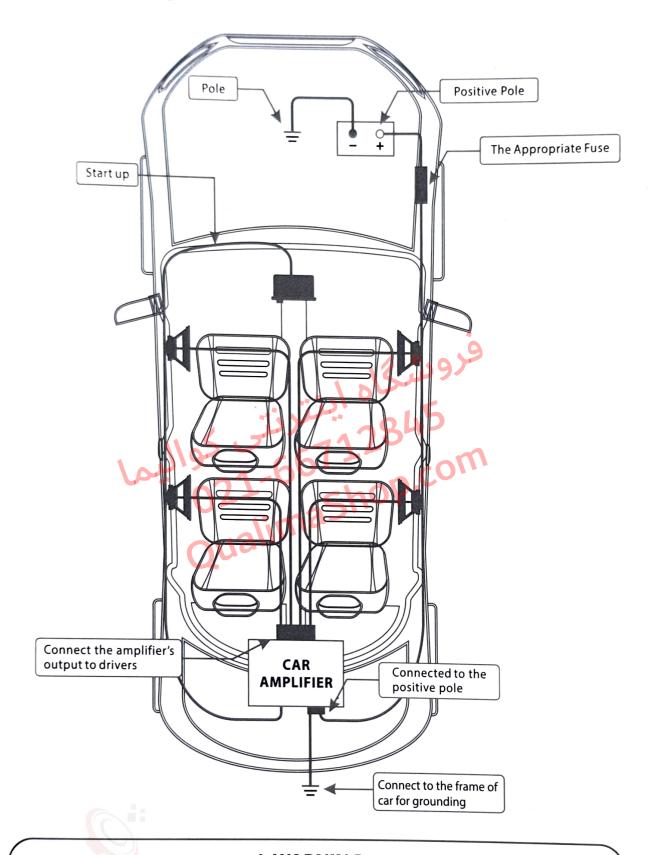
Each channel of your amplifier can easily handle  $4\Omega$  speaker loads when used in Stereo Mode. When a channel-pair is bridged, the recommended minimum load impedance is 3  $\Omega$  for subwoofer use, and  $4\Omega$  for full-range operation. Although operation with lower impedances is not likely 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  $4\Omega$  impedance. Connecting two such speakers in parallel will result in a  $2\Omega$  nominal impedance, which is not recommended for use with bridged channels of your amplifier.





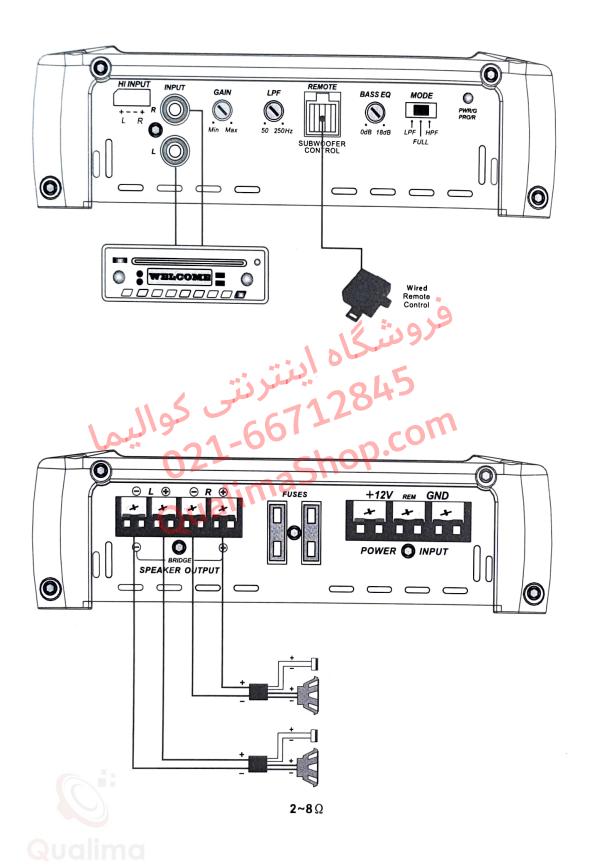
# **Connection Diagram**



#### **⚠ WARNING**

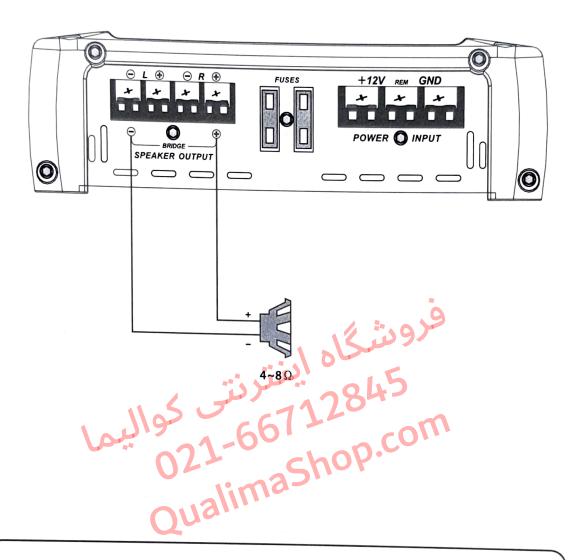
Before beginning, DO NOT connect the car battery's negative poles to the positive poles. The short-circuitry might cause damage to your amplifier and other electrical parts in the car فروشگاه کوالیما

### System 1: 2-Channel Mode



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# **System 2: Bridge Connection Subwoofer**

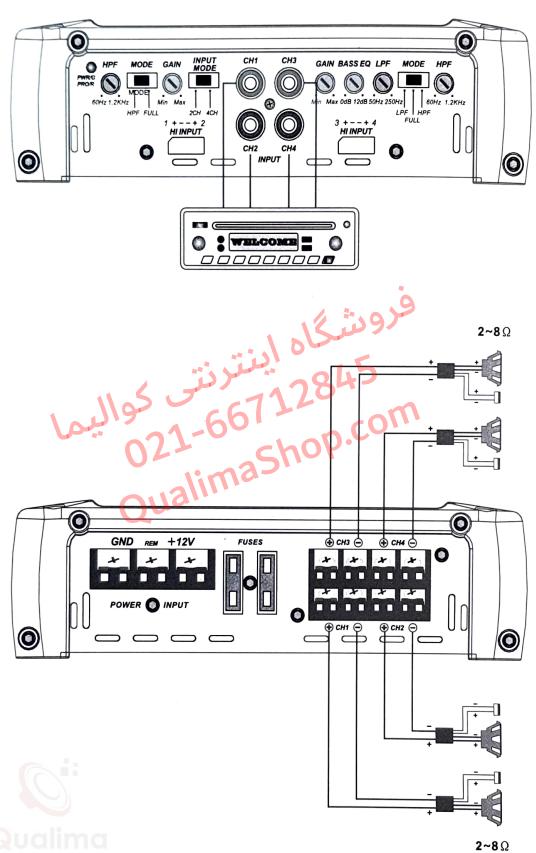


#### **Specifications**

#### **AMP2002**

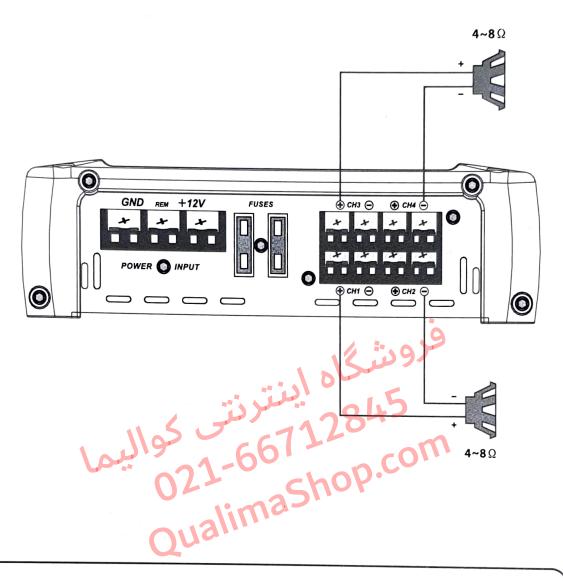
RMS Output Power  $2\Omega$  (Watts) 280W×2 CH RMS Output Power  $4\Omega$  (Watts) 180W×2 CH Bridged Output Power  $4\Omega$  (Watts) 600W×1 CH THD <=0.05% Frequency Response(±2dB) 10Hz ~ 30KHz Signal to Noise Ratio =>96dB Sensitivity 200mV ~ 8V Recommended Fuse Type 25A x 2 **Dimensions**  $11 \times 7.4 \times 2.2$  in

# System 1: 4-Channel Mode



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# **System 2: Bridge Connection Subwoofer**



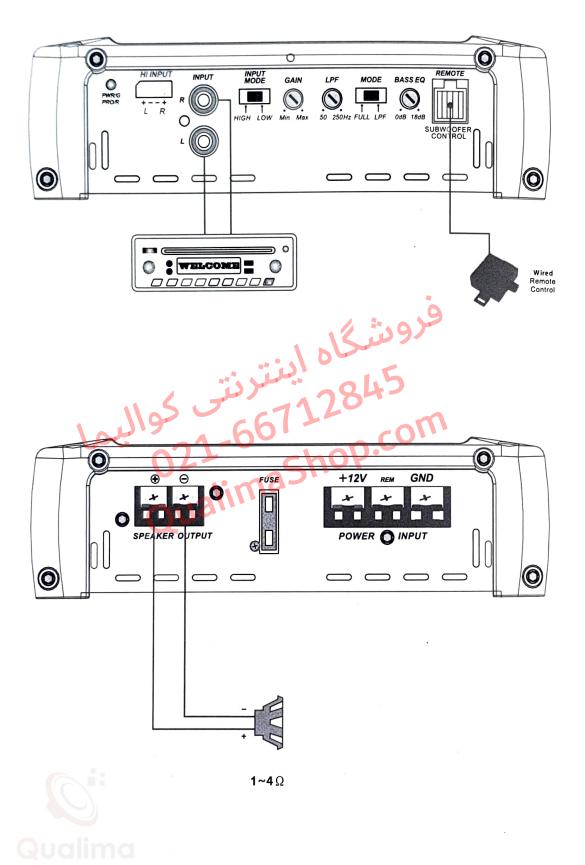
Sp	ecificatio	ns
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RMS Output Power $2\Omega$ (Watts)	150W×4 CH	200W×4 CH
RMS Output Power $4\Omega$ (Watts)	100W×4 CH	150W×4 CH
THD	<=0.05%	<=0.05%
Frequency Response(±2dB)	10Hz ~ 30KHz	10Hz ~ 30KHz
Signal to Noise Ratio	=>96dB	=>96dB
Sensitivity	200mV ~ 8V	200mV ~ 8V
Recommended Fuse Type	25A x 2	35A x 2
Dimensions	$11 \times 7.4 \times 2.2$ in	$13.4 \times 7.4 \times 2.2$ in

AMP1604

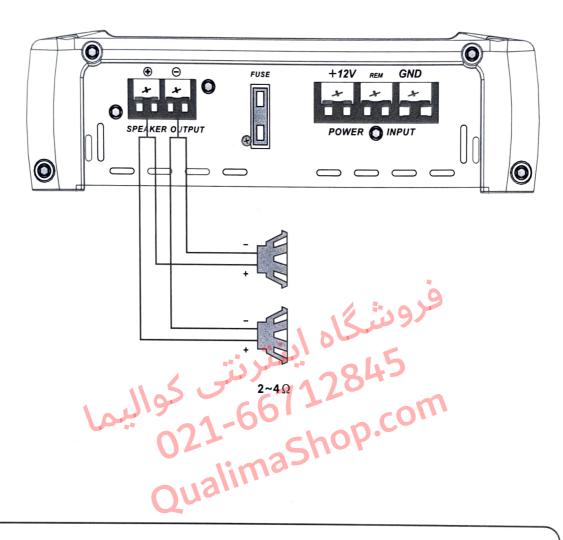
PRO1624

# **System 1: Connection Subwoofer**



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### **System 2: Connection Subwoofer**



#### **Specifications**

#### **AMP1500M**

RMS Output Power  $2\Omega$  (Watts)

RMS Output Power  $4\Omega$  (Watts)

THD

Frequency Response(±2dB)

Signal to Noise Ratio

Sensitivity

Recommended Fuse Type

Dimensions

800W×1 CH

400W×1 CH

<=0.05%

10Hz ~ 30KHz

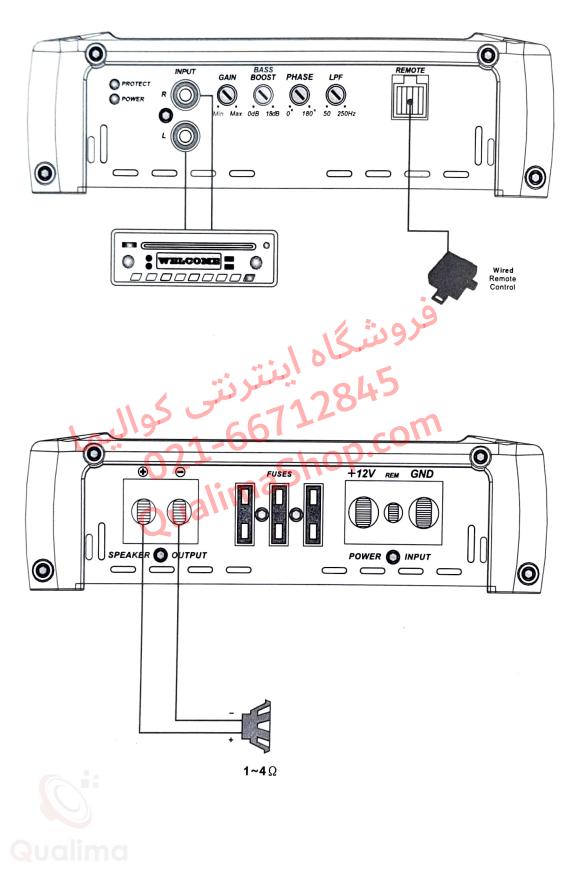
=>96dB

200mV ~ 8V

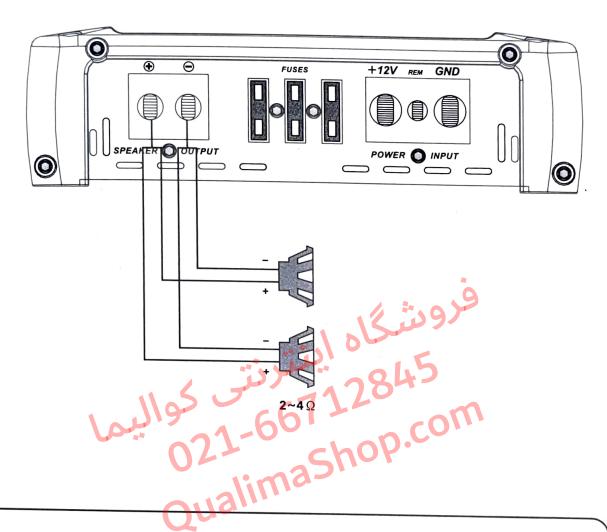
30A x 1

 $8.7 \times 7.4 \times 2.2$  in

# **System 1: Connection Subwoofer**



### **System 2: Connection Subwoofer**



#### **Specifications**

**Dimensions** 

RMS Output Power  $1\Omega$  (Watts) RMS Output Power  $2\Omega$  (Watts) RMS Output Power  $4\Omega$  (Watts) THD Frequency Response ( $\pm 2dB$ ) Signal to noise ratio Sensitivity Recommended Fuse Type

2250W×1 CH 1600W×1 CH 800W×1 CH <=0.05% 10Hz-250Hz =>96dB 200mV-8V 40A x 3

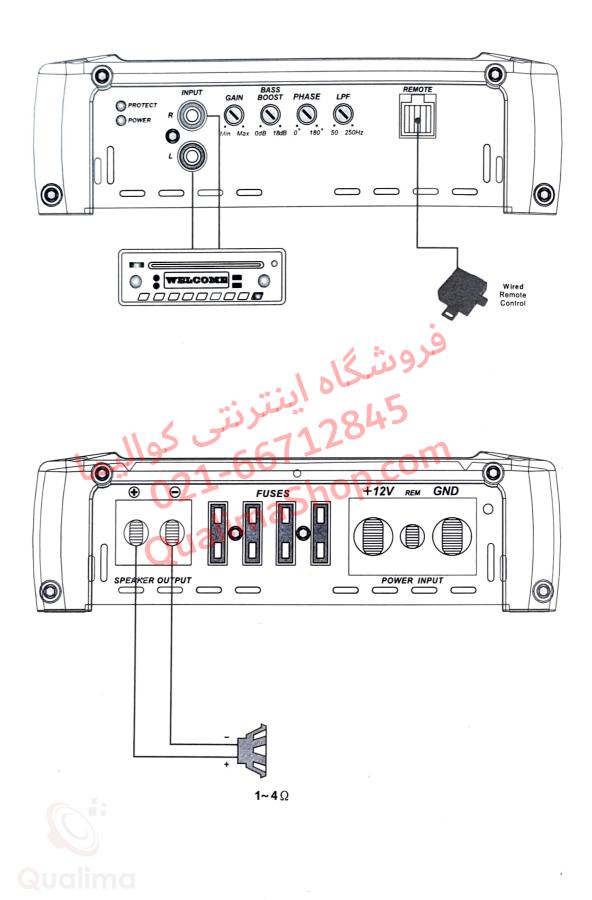
11 x 7.4 x 2.2 in

**AMP3000D** 

2800W×1 CH 2000W×1 CH 1000W×1 CH <=0.05% 10Hz-250Hz =>96dB 200mV-8V 50Ax3 12.5 x 7.4 x 2.2 in

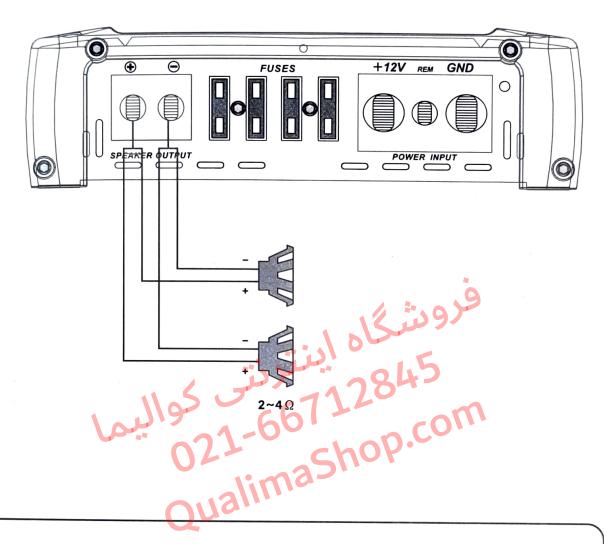
AMP4000D

# **System 1: Connection Subwoofer**



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# **System 2: Connection Subwoofer**



#### **Specifications**

### **AMP5000D**

RMS Output Power  $1\Omega$  (Watts) RMS Output Power  $2\Omega$  (Watts)

RMS Output Power  $4\Omega$  (Watts)

THD

Frequency Response (±2dB)

Signal to noise ratio

Sensitivity

Recommended Fuse Type

**Dimensions** 

3800W×1 CH

2500W×1 CH

1750W×1 CH

<=0.05%

10Hz-250Hz

=>96dB

200mV-8V

40A x 4

13.7 x 7.4 x 2.2 in

# Troubleshooting

Problem	Possible Cause	Solution
No Output	Low or no remote turn-on input	Check remote turn-on voltage output on amplifier and correct as needed
	Fuse down	Check power wire integrity and reverse polarity; repair as needed and replace fuse
	Power wires not connected	Check power wire connections and repair/replace as needed
	Audio input not connected or no output from source	Check input connections and signal integrity; repair/replace as needed
	Speaker wires not connected	Check speaker wires and repair/ replace as needed
Audio cycles on and off	Speakers are blown	Check system with known working speaker and repair/replace speakers as needed
	Thermal protection engages when amplifier heat sink 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/replace as needed
Distorted output	Amplifier level sensitivity set too high, exceeding maximum output capability of amplifier	Reset gain. Refer to the turning section of the manual for detailed instructions
	Impedance load to amplifier too low	Check speaker impedance load. If below 20 stereo or 411 mono, rewire speakers to achieve a higher impedance
	Shorted speaker wires	Check speaker wire connections and repair/replace as needed
	Speaker incorrectly connected to amplifier properly	Check speaker wiring and repair/replace as needed. Refer to the installation section of this manual for detailed instructions
	Speakers are blown	Check system with known working speaker and repair/replace as needed
		فروشگاه کوالیما

فروشگاه کوالیما تهران فردوسی جنوبی مجتمع تجاری 26 طبقه *دوا* پلاک 214

# Simple Troubleshooting

problem	Possible Cause	Solution
Poor Bass Response	Speaker polarity may be reversed or wired incorrectly, causing cancellation at low frequencies.	Check speaker polarity and repair as needed.
	Crossover set incorrectly	Reset crossover. For detailed instructions, refer to the multi-cross crossover configuration section of this manual
Battery Fuse Blowing	Impedance load to amplifier is too low	Check speaker impedance load. If below 20 stereo or 40 mono, rewire speakers to achieve a higher impedance
	Short in power wire or incorrect power connection or wire	Check power and ground connections and repair as needed
	Fuse used is smaller than recommended	Replace with proper fuse size
	بیننرنتی کوالیما 671-6671 021-88	Check speaker impedance load. If below 20 stereo or 40 mono, rewire speakers to achieve a higher impedance and replace with recommended fuse size
Amplifier Fuse Blowing	Too much current being drawn	Check speaker impedance load. If below 2 0 stereo or 40 mono, rewire speakers to achieve a higher impedance and replace with recommended fuse size
		Check power and ground connections. Repair as needed
	Fuse used is smaller than recommended	Replace with proper fuse size





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▲ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

