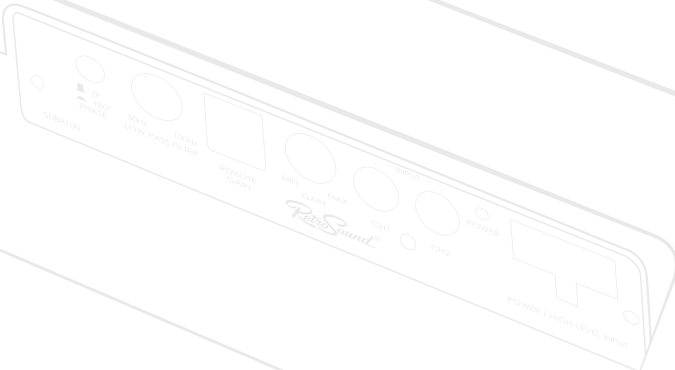


SUB 8100

8" Powered Subwoofer

USER'S MANUAL



MODERN SOUND FOR YOUR CLASSIC

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Thank you for purchasing a RetroSound® SUB8100 powered subwoofer.

General Features

- 8-inch powered subwoofer
- TrueRating™ 100-watt RMS Class D digital amplifier
- Built-in continuously variable crossover
- Remote gain control with 4'8" length cable
- RCA (low-level) and speaker wire (high-level) inputs
- Includes 10-amp inline fuse
- Rugged cast aluminum enclosure for optimum heat dissipation
- Small footprint for ease of installation: 9.25 x 2.75 x 13.75 inches

The information enclosed in this user's manual is to be used as a guide to assist you with installation and operation of your powered subwoofer. This guide does not cover every installation possibility, vehicle, or aspect of the installation process.

Retro Manufacturing, LLC, RetroSound®, or its subsidiaries assume no responsibility for any installation. Due to continuing improvements, features and specifications are subject to change without notice. This manual may be updated from time to time without notice.

Visit our website for the latest updates: help.retromanufacturing.com.

What's in the box

The items shown below are packaged with your SUB8100.

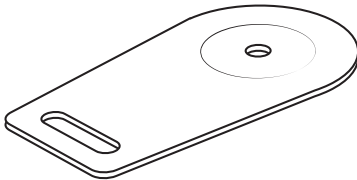
**SUB8100
Powered Subwoofer**



Remote Gain Control



Wiring Harness

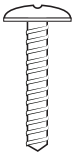
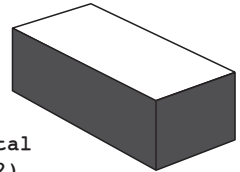


Mounting Brackets (x4)

Adhesive Tape (x2)



**Small Metal
Screw(x2)**



Metal Screw (x4)



Machine Screw (x4)



Washer (x4)



Lock Washer (x4)

PLEASE OBSERVE THESE PRECAUTIONS WHEN INSTALLING AND USING THIS UNIT:

This user's manual does not cover all possible installation scenarios. Please be sure to follow the instructions carefully while attempting installation. If you feel you cannot install this unit yourself, consult with a local car audio professional.

Retro Manufacturing, LLC is not liable for any problems resulting from improper installation of the unit.

If you have questions about installing your subwoofer, contact us at **tech@retromanufacturing.com** or visit our help site at help.retromanufacturing.com

- If the unit does not turn on, check all wiring first. Then check the fuse in your vehicle's fuse panel and the fuse at the unit's wiring harness. If either fuse has failed, eliminate the cause of the failure, and replace the fuse with one prescribed for this unit.
- Do not disassemble or modify the unit or attempt to repair it yourself. If the unit needs to be repaired, consult your dealer or Retro Manufacturing, LLC.
- This unit is not designed for a marine environment. Please do not use the unit where it will be exposed to moisture or excessive dust. Exposure to moisture will damage the unit and void your warranty.
- Use caution when routing wires to prevent them from being caught in the vehicle's chassis. Screws and moving parts such as seat rails can cause damage to the wiring if improperly routed.
- Never install the unit in a location where it interferes with your field of vision.
- Never splice into the power lead to supply other equipment with power.
- After installation and wiring, always check the normal operation of other electrical equipment.

Precautions

- Make sure that no wires interfere with driving or getting in and out of the vehicle. Insulate all exposed wires to prevent short-circuiting or electric shock.
- Keep the volume of your radio at a level that allows you to hear outside noises, such as emergency sirens and train crossing warnings. Prolonged exposure to high volume levels may also result in hearing loss.
- This unit is designed for operation with a negative ground 12-volt DC battery system. Do not operate this unit with other battery systems, especially an 18-volt or 24-volt DC or a positive ground system.

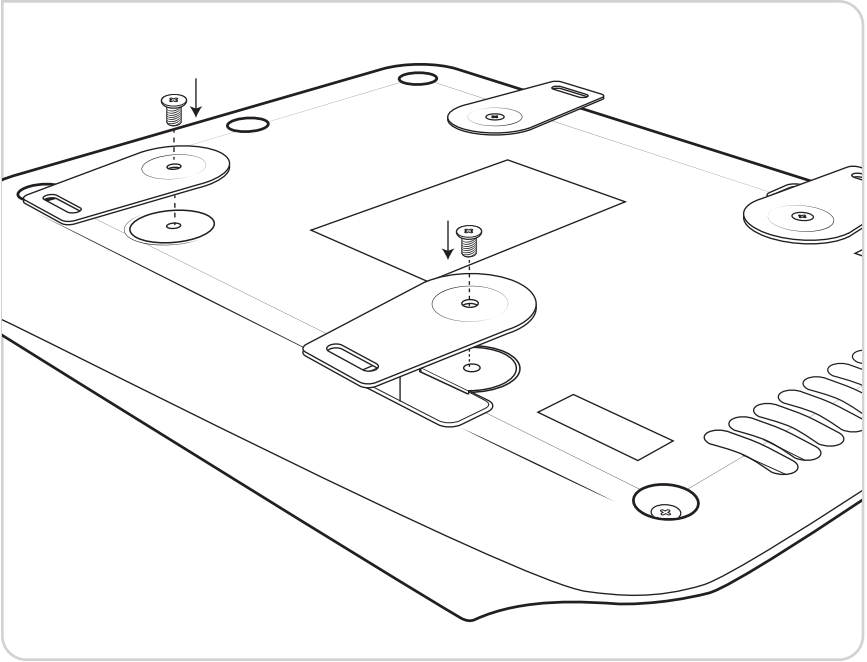


SUB8100

Installation Instructions

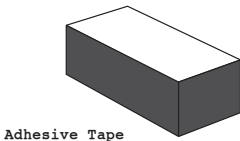
Step #1 Install the Mounting Brackets

Attach the mounting brackets to the bottom of the powered subwoofer using the machine screws from your mounting hardware.



Step #2 Mount the Powered Subwoofer

Make sure the mounting location allows adequate space for the amplifier to dissipate heat. You should also insure that the controls will be accessible after installation. Use the sheet metal screws from your mounting hardware to securely mount the powered subwoofer. When drilling the holes, make sure you don't drill into the exhaust system, fuel lines or any electrical wires.



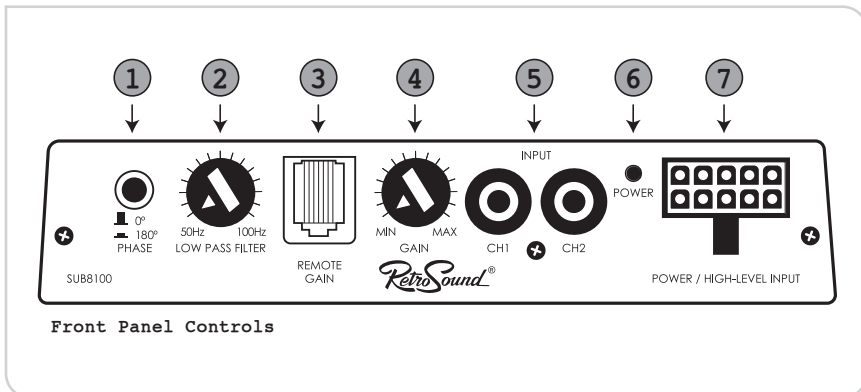
Adhesive Tape

NOTE: You may also use the supplied adhesive tape in place of the sheet metal screws if you do not wish to make holes in your vehicle

Installation Instructions

Step #3 Wiring Your Powered Subwoofer

First, locate the wiring harness. This wiring harness contains the power, ground, remote turn-on and high-level input leads. Plug the wiring harness into the power/high-level input (7).



Next, attach the main power lead (yellow wire) to a constant 12 volt power source. It is best to connect it directly to the positive lead of your battery. Then, connect the ground lead (black wire) to the chassis of your vehicle. Make sure to remove any paint or residue at the ground point to achieve good, consistent ground contact. Connect the remote turn-on wire (blue/white) to the amplifier turn-on lead at the back of the radio. This will turn the powered subwoofer on when the radio turns on, and turn the powered subwoofer off when the radio turns off.

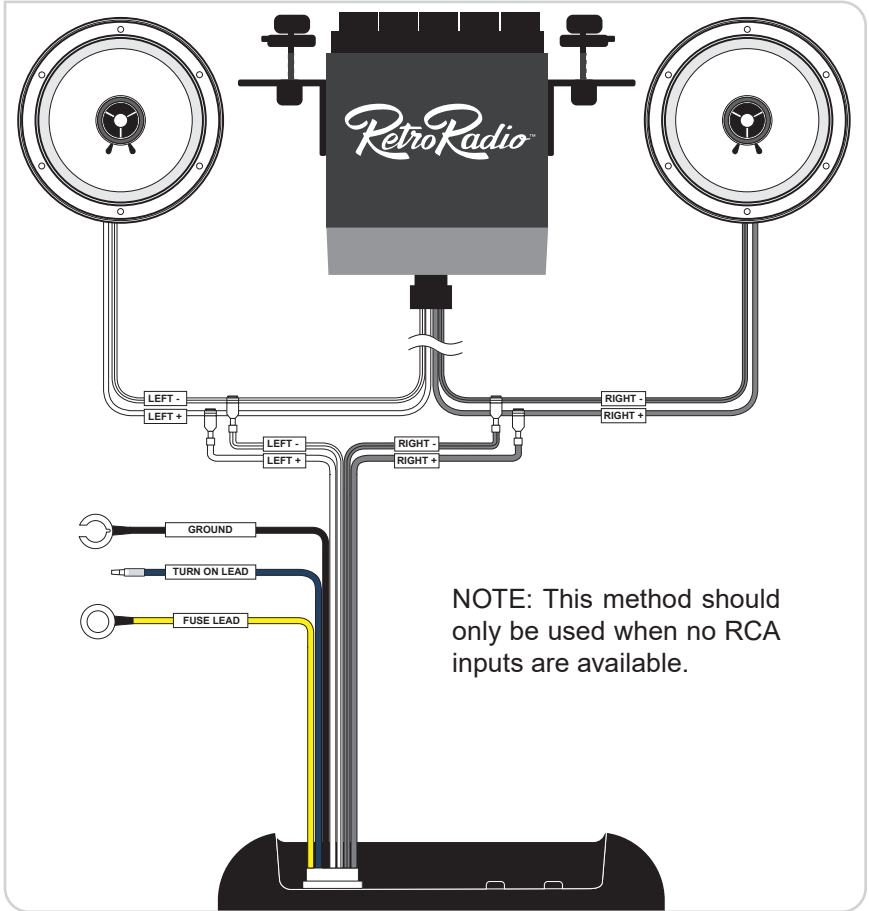
Finally, plug your radio's low-level RCA outputs (dedicated subwoofer output) into the RCA inputs (5) on the SUB8100. For radios that do not have a dedicated subwoofer output, follow the instructions on the next page to connect directly to the SUB8100's high-level inputs.

Your powered subwoofer comes with a remote gain control that allows you to remotely adjust the gain. To use this control, you must plug it into the remote gain input on the front of the powered subwoofer (3). The remote gain control can be mounted under the dash or any other convenient location. Make sure you don't mount it anywhere that could interfere with driving.

CAUTION: DO NOT PLUG OR UNPLUG THE REMOTE GAIN CONTROL WHILE THE AMPLIFIER IS POWERED ON.

Installation Instructions

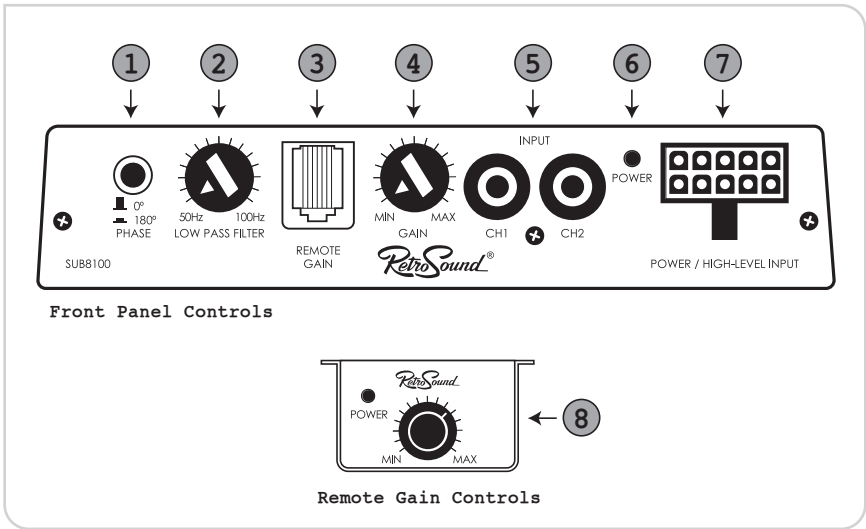
Installation Without RCA Inputs



If your radio does not have RCA outputs, you can use the high-level input leads (white/white+black stripe, and gray/gray+black stripe) to connect your speaker wires directly to the powered subwoofer. Using a wire tap (not included), connect the white and gray wires to the corresponding positive and negative front speaker channel wires.

WARNING: NEVER CONNECT BOTH THE RCA AND HIGH-LEVEL INPUT LEADS AT THE SAME TIME. DOING SO CAN DAMAGE YOUR UNIT AND WILL VOID YOUR WARRANTY.

Controls



PHASE: The Phase Control (1) toggles polarity between 0° (normal) and 180° (reverse). When set to 0°, the powered subwoofer is in-phase (when the speakers move out, the subwoofer speaker also moves out). When this is set to 180°, the powered subwoofer is out of phase (when the speakers move out, the subwoofer speaker moves in). Normally this should be left at 0°. Setting the phase to 180° can be useful in certain situations depending on the subwoofer placement and your vehicle's acoustics.

LOW PASS FILTER: The Low Pass Filter Control (2) adjusts the low frequency crossover point between 50Hz and 100Hz. The recommended crossover setting is between 60Hz and 80Hz.

REMOTE GAIN INPUT: The Remote Gain Input (3) is the input for the Remote Gain Control(8).

GAIN: The Gain Control (4) is used to match the output of your radio to the input of your powered subwoofer to eliminate distortion. To properly set the gain, first rotate it all the way counter-clockwise to MIN. Turn on your radio, set your EQ settings to flat and slowly increase the volume of your radio until you start to hear distortion. Then turn the volume down to the point where the distortion goes away. Next, increase the gain on your powered subwoofer until you begin to hear distortion. Finally, adjust the gain back down until you find the point where the distortion goes away. Your radio and powered subwoofer levels are now matched.

RCA INPUT (CH1): This is the input for the left RCA connector (5).

RCA INPUT (CH2): This is the input for the right RCA connector (5).

POWER: The Power LED (6) illuminates when the powered subwoofer is activated.

Power/High Level INPUT: This is the input for the wiring harness (7).

REMOTE GAIN CONTROL: The remote gain control (8) adjusts the gain between the minimum level and the setting you choose with the gain control on the amp itself (4). For example, if you set the gain to 50% using the gain control (4) on the front of the powered subwoofer, the remote gain control (8) when set to max, will set the gain on the powered subwoofer to 50%.

More Ways to Elevate Your Sound!



RetroSound® Speakers

RetroSound® started in the speaker business and developed its radio line to be perfectly matched with RetroSound® speakers. Together RetroSound® Radios and Speakers produce the most accurate audio available for your classic car.



RetroPod Speaker Pods

RetroPod® speaker modules are great for classics that have no factory speaker locations. They mount to any flat surface and direct sound towards the listener for a balanced mix. Paint or wrap them for a perfect match to the interior of your classic vehicle.



RetroMat® Sound Dampening

RetroMat® sound dampening makes a considerable difference in the audio quality you can achieve in your classic car. Installing proper sound dampening eliminates road noise and vibrations, enhancing the tonal quality of your favorite music.

Troubleshooting

Problem	Possible Cause	Action to Solve Problem
Powered subwoofer will not turn on	12 volt battery + wire not connected or incorrect voltage	Check all connections for proper voltage with a volt meter. Voltage range: 12-15 volts
	Remote turn-on wire not connected or incorrect voltage	Check remote turn-on wire connection
	Ground wire not connected	Check ground connection for possible shorts
	Fuse on battery + has failed	Replace failed fuse
No sound heard from unit but unit's power light illuminates	Volume or gain turned all the way down	Increase radio volume or powered subwoofer gain
	Amplifier is in protection mode	Check speaker leads for possible shorts
	Input signal not connected	Check inputs for proper connections
Fuses keep failing	Possible short in wiring	Check all wiring connections for possible shorts
	Battery connected backwards	Make sure battery is properly connected
	Incorrect fuse rating	Use a fuse with the correct 10 amp rating
Engine noise heard through speakers	Bad ground connection	Make sure the powered subwoofer is ground to clean, bare metal
	Ground loop or RF interference	Reroute RCA cables away from other wiring
	Gain is set too high	Adjust the gain control down until the noise goes away
Distorted audio output	Incorrect input signal type or input signal volume is too high	Check connections and reduce input volume
Weak bass response	Subwoofer is out of phase	Toggle phase control
		Check polarity of speaker wires on high-level input
Low audio output	Incorrect input signal type or input signal volume is too low	Check connections and increase input volume

Specifications

Power Usage

Voltage.....10.5-16 volts DC
Idling Current (ON).....0.4 amps
Idling Current (OFF).....<0.002 mA

Amplifier

Output Power @ 14.4 volts.....100 Watts RMS / 135 Watts Peak
Signal to Noise Ratio.....>100dB
Input Sensitivity.....100 mV-6V
Frequency Response.....35Hz-160Hz
Total Harmonic Distortion.....0.1%

Filters

Low Pass Filter/Slope.....50Hz-100Hz/12dB/octave
Phase Control (variable).....0°/180°

Other Specifications

Fuse.....10 amps AGC Style (x1)
Size (W x H x L).....9.25" x 2.75" x 13.75" (23.5 cm x 7 cm x 35 cm)
Weight.....11.4lbs / 5.17Kg

NOTE: All specifications are subject to change without notice.

Warranty

Your unit comes with a manufacturer's warranty covering any defects in materials and workmanship. Retro Manufacturing, LLC (collectively referred to as "the warranter"), at its option, will either (a) repair your unit with new or refurbished parts or (b) replace it with a new or refurbished unit. The warranty period starts from the original purchase date and is valid for the length of time indicated in the chart below. The decision to repair or replace will be made by the warranter.

ITEM	WARRANTY
SUB8100	One (1) Year

During the "Parts" warranty period, there will be no charge for parts. You must mail in your unit during the warranty period at your expense. This warranty only applies to products purchased directly from Retro Manufacturing or an authorized dealer. This warranty is extended only to the original purchaser of a new product that was not sold "as is." A purchase receipt or other proof of the original purchase date is required for warranty service.

To handle a warranty issue, contact us at tech@retromanufacturing.com or **888.325.1555** for a Return Authorization (RA) number. A RA number must accompany all returns and warranty issues. Any product received without a RA number will be refused.

LIMITED WARRANTY-LIMITS AND EXCLUSIONS

This warranty ONLY COVERS failures due to defects in materials and workmanship and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages that occurred during shipment, failures which are caused by products not supplied by the warranter, failures that result from accident, misuse, abuse, neglect, bug infestation, mishandling, misapplication, alteration, faulty installation, set-up adjustment, maladjustment of consumer control, improper maintenance, improper antenna, inadequate signal reception or pickup, power line surge, improper voltage supply, lightning, modification, commercial use (such as use in hotels, offices, restaurants, or other business uses) or rental use of the product, or service by anyone other than Retro Manufacturing, LLC, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER LIMITED WARRANTY. THE WARRANTER IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS UNIT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, the cost of having someone remove or re-install an installed unit if applicable, travel to and from the servicer, and loss of media, data, or other memory contents. The items listed are not exclusive but are for illustration only.) ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If a problem with this unit develops during or after the warranty period, you may contact your dealer or Retro Manufacturing, LLC.

Retro MANUFACTURING®

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