

clarion®

Owner's & Installation manual
Mode d'emploi et manuel d'installation
Manual de instrucciones y de instalación

XC1410

XC AMPLIFIER
AMPLIFICATEUR XC
AMPLIFICADOR XC

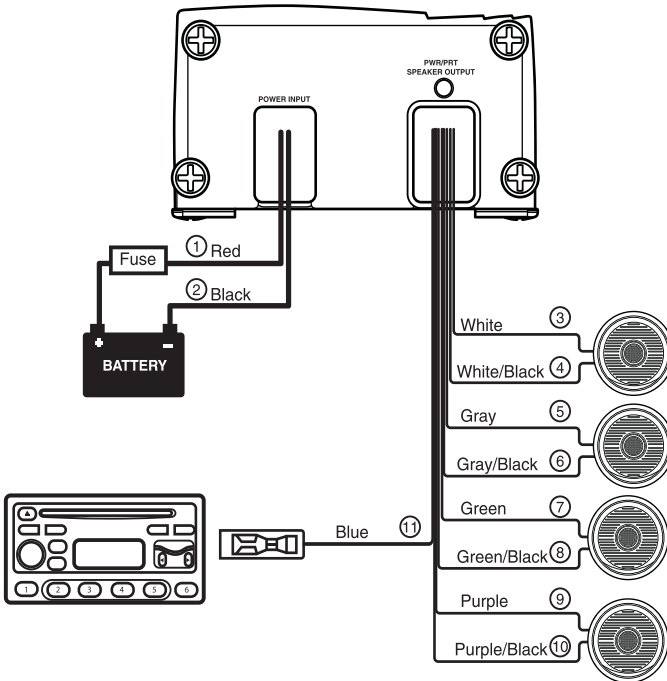
ABOUT THE MANUAL AND WARRANTY

This manual describes the basic requirements to install the Clarion XC1410 amplifier. The installation of this amplifier can be quite complex to install. If you do not possess the necessary knowledge and tools to perform this installation please contact your local Clarion Audio dealer. Keep all instructions and sales receipt for future reference and warranty information.

TABLE OF CONTENTS

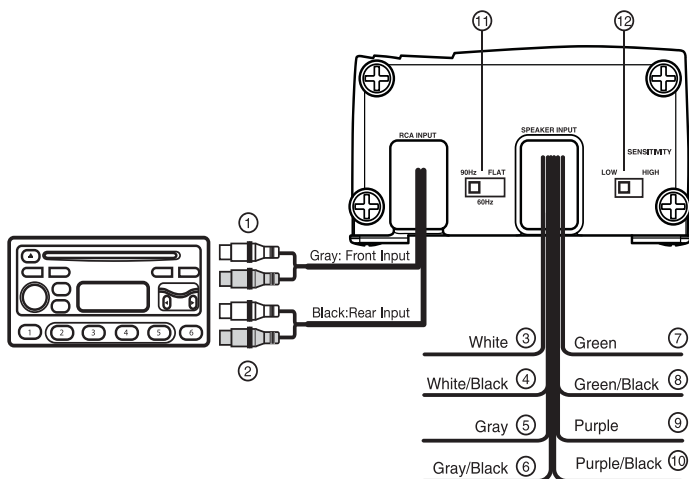
Connection for Power and Speakers	2
Input Connections and Audio Controls	3
Installation	4
Mounting Precautions	4
Wiring Precautions	4
Wiring and Applications	5
Setting the Sensitivity	6
Setting the Crossover	6
Final System Check	6
Troubleshooting	7
Product Specifications	7

CONNECTION FOR POWER AND SPEAKERS



- ① **Red Wire:** to +12V Battery terminal.
Be sure to properly fuse within 18" of the battery.
- ② **Black Wire:** to chassis ground.
Properly mount to clean bare metal of the vehicle. Please keep wire length as short as possible.
- ③ **White:** to Front Left Speaker (+)
- ④ **White/Black:** to Front Left Speaker (-)
- ⑤ **Gray:** to Front Right Speaker (+)
- ⑥ **Gray/Black:** to Front Right Speaker (-)
- ⑦ **Green:** to Rear Left Speaker (+)
- ⑧ **Green/Black:** to Rear Left Speaker (-)
- ⑨ **Purple:** to Rear Right Speaker (+)
- ⑩ **Purple/Black:** to Rear Right Speaker (-)
- ⑪ **Blue:**
Option 1: Connect to Aftermarket Source Unit, Remote Turn On Wire +12V (Blue)
Option 2: If Remote Turn-On Wire is not present, please connect to (Switched Accessory +12V)

INPUT CONNECTIONS AND AUDIO CONTROLS



LOW LEVEL RCA INPUTS ONLY

NOTE: Each RCA input corresponds to each output.

- ① Front RCA Input (Gray) : Connects to Source Units with RCA outputs.
- ② Rear RCA Input (Black) : Connects to Source Units with RCA outputs.

HIGH LEVEL SPEAKER INPUTS ONLY

- ③ **White** wire - to Source Unit Front Left (+)
- ④ **White/Black** wire - to Source Unit Front Left (-)
- ⑤ **Gray** wire - to Source Unit Front Right (+)
- ⑥ **Gray/Black** wire - to Source Unit Front Right (-)
- ⑦ **Green** wire - to Source Unit Rear Left (+)
- ⑧ **Green/Black** wire - to Source Unit Rear Left (-)
- ⑨ **Purple** wire - to Source Unit Rear Right (+)
- ⑩ **Purple/Black** wire - to Source Unit Rear Right (-)
- ⑪ Selectable High Pass Crossover(60Hz, 90Hz, Flat)
- ⑫ Selectable Input Sensitivity Control

INSTALLATION

This section suggests Mounting and Wiring Precautions for installing the Clarion XC1410. If you do not possess the necessary tools and installation experience, do not attempt to install these amplifiers. Instead, contact your local Clarion Audio dealer to perform the installation.

MOUNTING PRECAUTIONS

Prior to mounting the amplifier, make sure it is safe to mount the amplifier in desired location. Failure to do so can result in serious damage to the vehicle.

Additional precautions and suggestions:

1. For the most efficient cooling, mount the amplifier so cool air runs along the length of the heat sink, rather than across them. To increase air movement and circulation, a cooling fan can be installed.
2. Mount the amplifier on a rigid surface; avoid mounting to subwoofer enclosures or areas prone to vibration.
3. Prior to drilling and mounting, make sure the proposed mounting holes will not cut into the fuel tank, fuel lines, brake lines, electrical wiring, or the body of vehicle or boat.

WIRING PRECAUTIONS

Read all of the wiring precautions prior to making any connections. If you are unsure and/or don't have the necessary installation hardware, contact your local Clarion audio dealer to perform the installation.

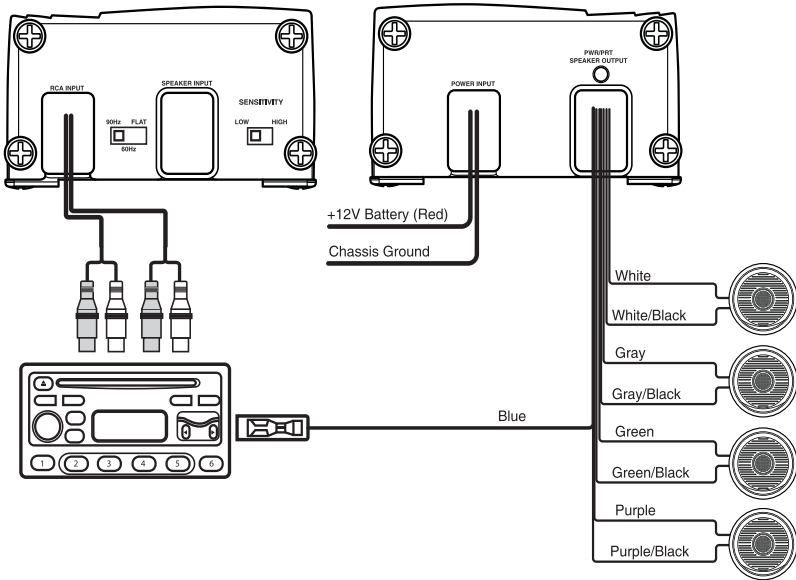
1. Before you begin the installation, make sure the vehicle is not running and is in the OFF position.
2. Disconnect the negative (-) lead of the battery (or batteries) before making any power connections.
3. When making connections, be sure that each connection is clean and secure. Insulate final connections with electrical tape or heat shrink tubing. Failure to do so may damage your equipment.
4. A good ground is critical for the performance of the amplifier. A ground wire should be run directly from the battery to the amplifier (marine application). Use black insulated 10-gauge or larger wire for the amplifier's ground (-) power lead.
5. Add a fuse holder and fuse at the positive (+) terminal of the battery. The fuse rating should equal the total current consumption at full output of the amplifier(s). Use red insulated 10-gauge or larger wire for the amplifier's positive (+) power lead. Do not install the fuse until the complete installation has been performed.
6. When replacing the amplifier's fuse, always use one having the same amperage rating. Substituting a higher rated fuse or a slow-blow type can result in serious damage to the amplifier.
7. When creating passage holes for power cables, RCA's cables, and speaker wires, use grommets to eliminate any sharp edges created during drilling. This will protect the wire from being damaged and prevent a short circuit.
8. Extra cable can cause signal loss and act as an "antenna" for noise. Use only high-quality RCA cables that are no longer than necessary.
9. In multiple amplifier systems, it is recommended to use a relay on the remote turn-on lead of the radio.

WIRING AND APPLICATIONS

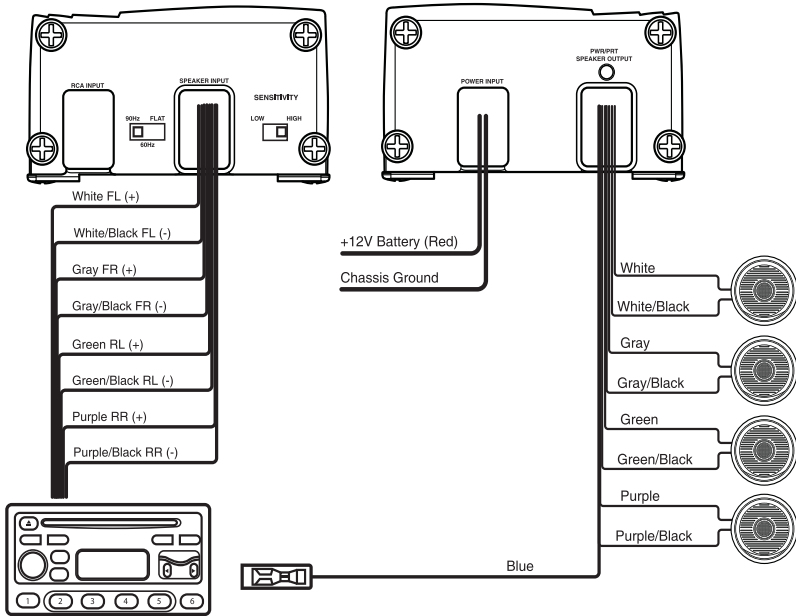
The Clarion XC1410 4-channel audio amplifier can be used in a variety of system applications. Here are a few examples to help plan your own installation.

Option 1

4-Channel Full Range Stereo System using aftermarket headunit with (low level) RCA's



In this application, the XC1410 is used as a 4-channel amplifier to drive four full range speakers in stereo. This configuration is for headunits with RCA outputs.

Option 2**4-Channel Full Range stereo system using head unit with (high level) speaker input**

In this application, the XC1410 is used as a 4-channel amplifier to drive four full range speakers in stereo. This configuration is for headunits with High Level Speaker Outputs. Please note: this configuration is also for Factory OEM headunits.

SETTING THE SENSITIVITY

The Clarion XC1410 features a selectable Input Sensitivity Control (High, Low).

SETTING THE CROSSOVER

The Clarion XC1410 features a selectable crossover (60Hz, 90Hz, Flat).

Using the Crossover Mode Switch, select the desired mode:

- 60Hz High Pass Crossover
- 90Hz High Pass Crossover
- Flat = Crossover OFF for FULL RANGE

FINAL SYSTEM CHECK

1. Power on the source unit. Slowly increase the Volume Control and listen to the audio.
2. Check "Source" Balance (Left and Right) and Fader (Front and Rear) to ensure proper installation.
3. Increase the volume and verify that the amplifier reproduces audio (at full frequencies) without distortion. If you hear distortion, check the connections and verify that the Input Sensitivity Control is set properly.

TROUBLESHOOTING

Problem

No Audio. Amplifier not powering on. (LED turned off)

Solution

1. Remote turn-on voltage. Check remote connections at amplifier and source unit.
2. Blown amplifier fuse. Replace with new fuse (same rating).
3. Power wires not connected. Check power and ground wiring at amplifier and at battery.
4. Speaker leads shorted. Check speaker continuity to ground, it should not show common ground.
5. Speakers not connected or are blown. Check speaker connections at amplifier, measure coil impedance.

Problem

Distorted audio.

Solution

Input Sensitivity is not set properly, or damaged speaker cones. Review Setting Sensitivity; inspect each speaker. (i.e. check connection, speaker impedance, etc.)

Problem

Audio lacks punch.

Solution

Speakers wired incorrectly, which causes cancellation of bass frequencies. Check polarity of wires from amplifier to each speaker as defined by the system design.

Problem

Amplifier fuse keeps blowing.

Solution

Incorrect wiring or short circuit. Review installation and check all wiring connections.

PRODUCT SPECIFICATIONS

Frequency Response	20Hz ~ 20kHz
Selectable Crossover Frequency	60Hz (HP), 90Hz (HP), Flat (Off)
Max. Power Output	300W
RMS Power Output	@4 Ω 50W x 4 @0.1% THD
RMS Power Output	@2 Ω 75W x 4 @0.1% THD
Fuse	30A
Dimensions	180mm (W) x 35mm (H) x 70mm (D) 7-1/8" (W) x 1-3/8" (H) x 2-3/4" (D)

Power Output: 50W x 4RMS [4 Ω @ \leq 14.4 0.1% THD+N

Signal to Noise Ratio: 80dB (Reference: 1W into 4 Ω)



Clarion Corporation of America

All Rights Reserved. Copyright © 2012 Clarion Corporation of America
Printed in China / Imprime au Chiné / Impreso en China