



## clarion XC1410 XC Amplifier Installation Guide

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Owner's & Installation Manual

XC1410

XC AMPLIFIER

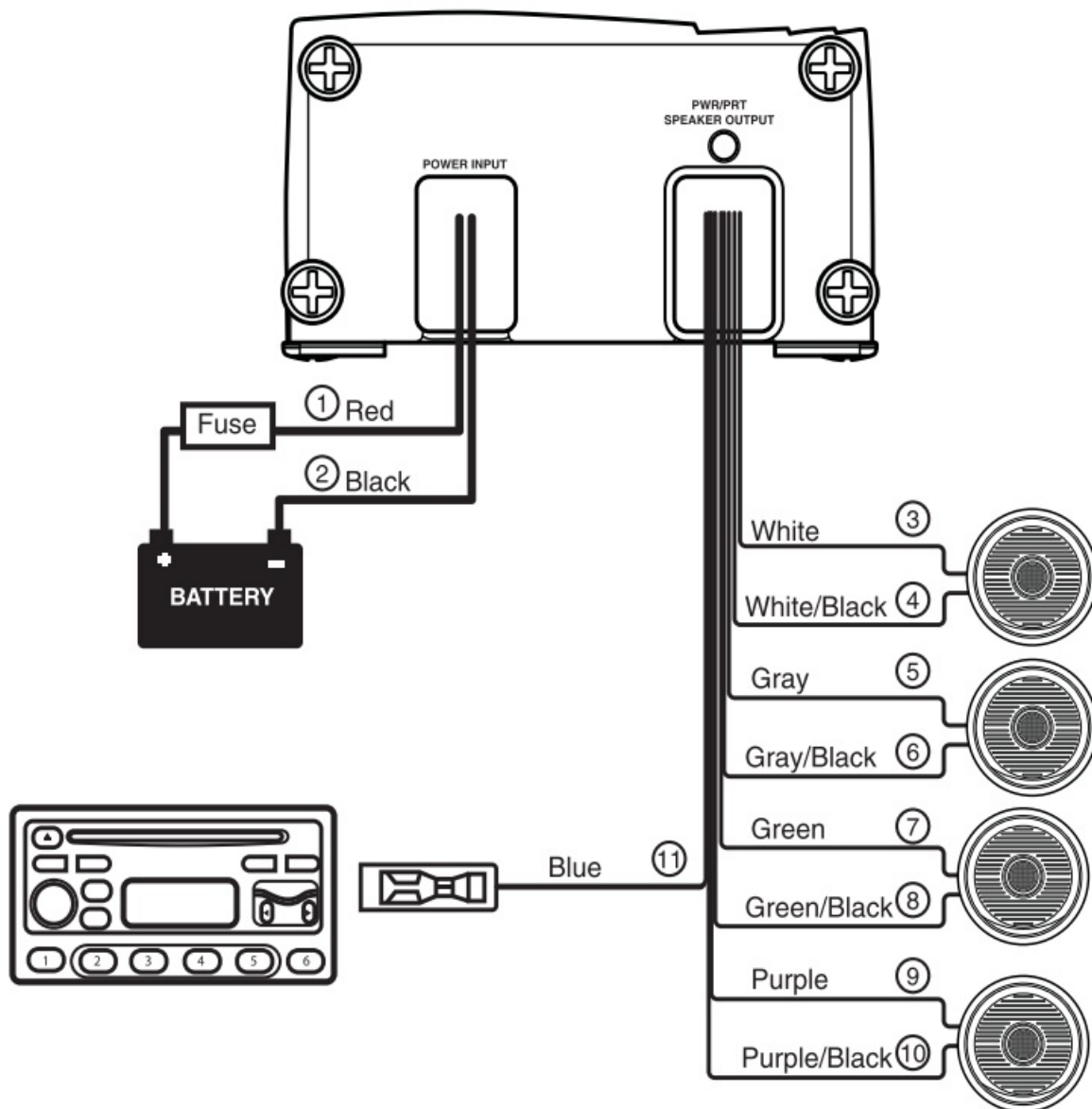
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### ABOUT THE MANUAL AND WARRANTY

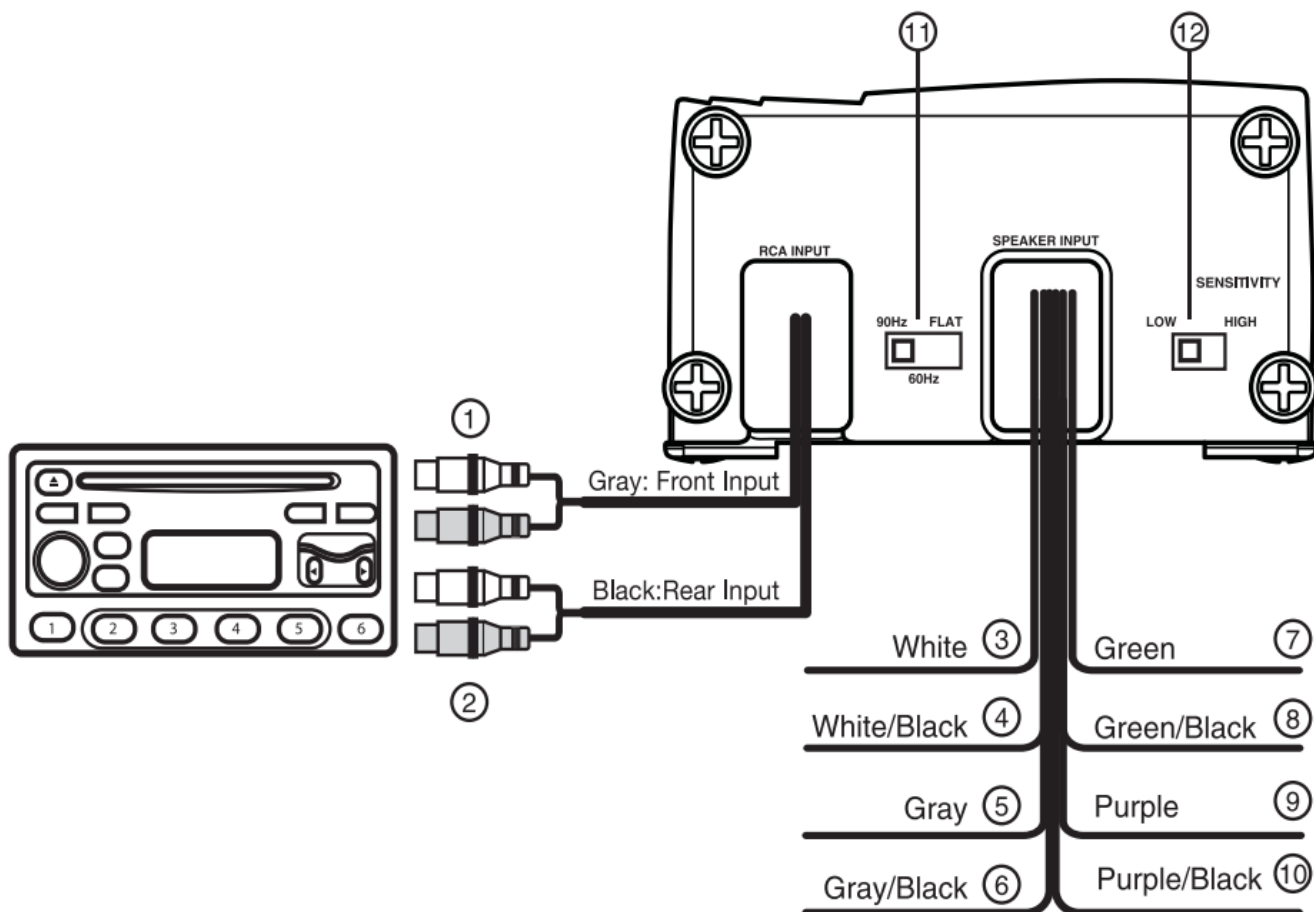
This manual describes the basic requirements to install the Clarion XC1410 amplifier. The installation of this amplifier can be quite complex to install. If you do not possess the necessary knowledge and tools to perform this installation please contact your local Clarion Audio dealer. Keep all instructions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

### CONNECTION FOR POWER AND SPEAKERS



1. **CD 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 the bare metal of the vehicle. Please keep the 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 (SwitchedAccessory + 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 the 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 the 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.

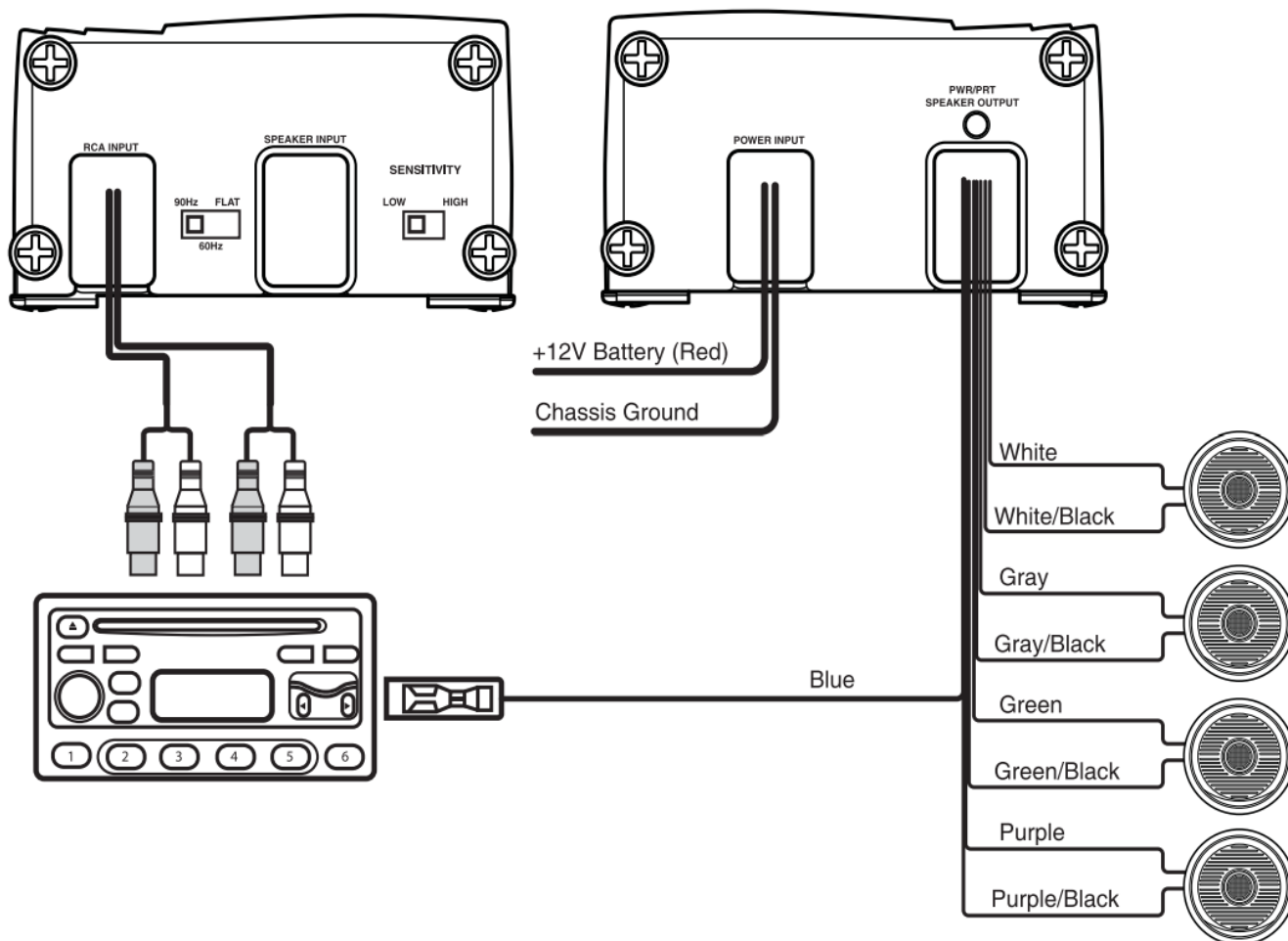
1. Before you begin the installation, make sure the vehicle is not running and is in the OFF position.
2. Disconnect the negative(-) lead of the battery (or batteries) before making any power connections.
3. When making connections, be sure that each connection is clean and secure. Insulate final connections with electrical tape or heat shrink tubing. Failure to do so may damage your equipment.
4. 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 the 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 APPL/CATIONS**

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**

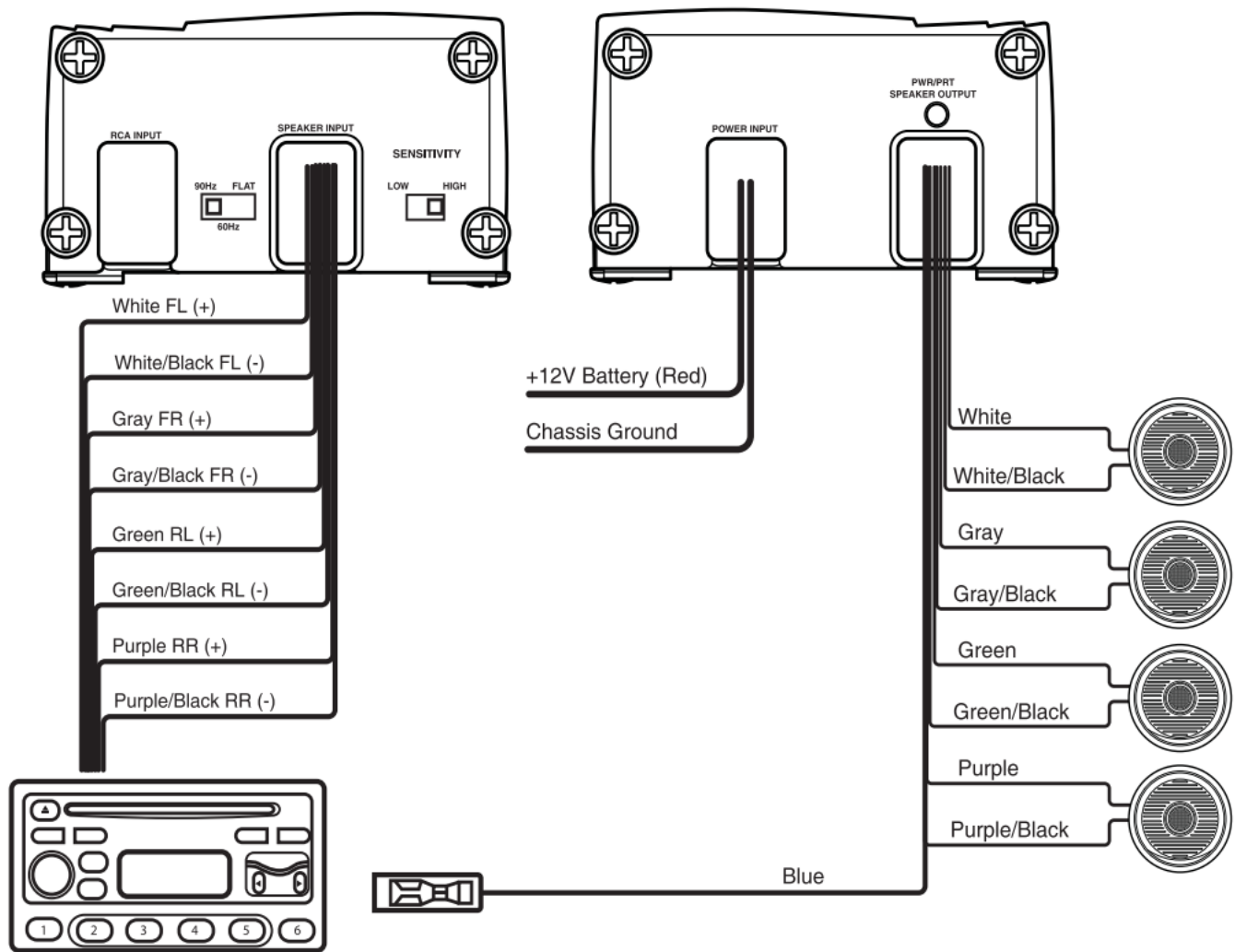
4-Channel Full Range Stereo System using aftermarket head unit with (low level) RCA's



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

### Option 2

4-Channel Full Range stereo system using the 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 head units with High-Level Speaker Outputs. Please note: this configuration is also for Factory OEM head units.

#### **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 the "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.

#### **TROUBLESHOOT/NG**

##### **Problem**

No Audio. The amplifier not powering on. (LED turned off)

##### **Solution**

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

#### Problem

Distorted audio.

#### Solution

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

#### Problem

The audio lacks punch.

#### Solution

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

#### Problem

The amplifier fuse keeps blowing.

#### Solution

Incorrect wiring or short circuit. Review the 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	@40 50Wx 4 @0.1% THD
RMS Power Output	@20 75Wx 4 @0.1% THD 30A
Fuse	180mm (W) x 35mm (H) x 70mm (D)
Dimensions	7-1/8" (W) x 1-3/8" (H) x 2-3/4" (D)


Power Output: 50W x 4RMS [40 @ <14.4 0.1% THD+N Signal to Noise Ratio: 80dB (Reference: 1W into 40)



### Clarion Corporation of America

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## Documents / Resources

	<a href="#">clarion XC1410 XC Amplifier</a> [pdf] Installation Guide XC1410 XC Amplifier, XC1410, XC Amplifier, Amplifier
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