NVX XLOC66X

NVX XLOC66X 6-Channel Line Output Converter

Instruction Manual

1. Introduction

The NVX XLOC66X is a high-voltage active line output converter designed to seamlessly integrate aftermarket amplifiers with factory car audio systems. Modern factory head units often lack RCA outputs, which are essential for connecting aftermarket amplifiers. This device converts high-level speaker signals from your factory stereo into low-level RCA signals, allowing for a clean and reliable connection to your amplifier. It features 6 input channels and 6 output channels, impedance matching, and a remote level control for enhanced audio system flexibility.

Please read this manual thoroughly before installation and operation to ensure proper use and optimal performance of your NVX XLOC66X.

2. Key Features

- **6-Channel Speaker Level Inputs:** Accepts high-level signals from up to six speaker channels.
- **6-Channel RCA Outputs:** Provides low-level RCA outputs for front, rear, and subwoofer amplifier connections.
- **High Voltage Handling:** Capable of handling up to 40V (400 watts RMS) speaker level inputs.
- **High Output Voltage:** Delivers up to 9.5 Volts of output for strong signal to amplifiers.
- **Auto Turn-on:** Features automatic turn-on via DC offset detection or audio signal detection, eliminating the need for a dedicated remote wire from the head unit.
- **Load Selection Switch:** Adjustable impedance (20, 60, or 20K ohms) to prevent factory stereo shutdown issues.
- **Wired Remote Bass Level Control:** Included for convenient adjustment of subwoofer output level.

- **LED Clip Indicator:** Provides visual feedback for optimal gain setting and to prevent signal clipping.

3. Setup and Installation

3.1 Safety Precautions

- Always disconnect the vehicle's negative battery terminal before starting any electrical installation.
- Ensure all wiring is properly insulated and secured to prevent shorts and damage.
- Consult a professional car audio installer if you are unsure about any part of the installation process.

3.2 Mounting the XLOC66X

Choose a secure, dry location for mounting the XLOC66X, away from excessive heat or moisture. Ensure adequate ventilation around the unit. Use the provided mounting screws to secure the device.

Figure 1: NVX XLOC66X Line Output Converter, showing the top panel with controls and wiring terminals.

Figure 2: Dimensions of the NVX XLOC66X unit, highlighting its compact size and various input/output sections.

3.3 Wiring Connections

The XLOC66X features a terminal block for power, ground, remote, and speaker level inputs, and RCA jacks for low-level outputs.

- **12V (Power):** Connect to a constant 12V power source from the vehicle's battery. Use an appropriate gauge wire and an inline fuse (not included) near the battery.
- **GND (Ground):** Connect to a solid chassis ground point in the vehicle. Ensure a clean, paint-free metal-to-metal connection.
- **REM IN (Remote Input):** Connect to the remote turn-on output of your head unit if available. This is optional if using DC offset or audio detection for turn-on.
- **REM OUT (Remote Output):** Provides a 12V remote turn-on signal for your aftermarket amplifier(s).
- **CH1+ to CH6+ (Speaker Level Inputs):** Connect these terminals to the corresponding positive and negative speaker wires from your factory head unit or factory amplifier. Ensure correct polarity.
- **RCA Outputs (Front, Rear, Sub):** Connect these to the RCA inputs of your aftermarket amplifier(s) using high-quality RCA cables.
- **Remote Bass Knob Input:** Connect the wired remote bass level control to the dedicated port on the XLOC66X.

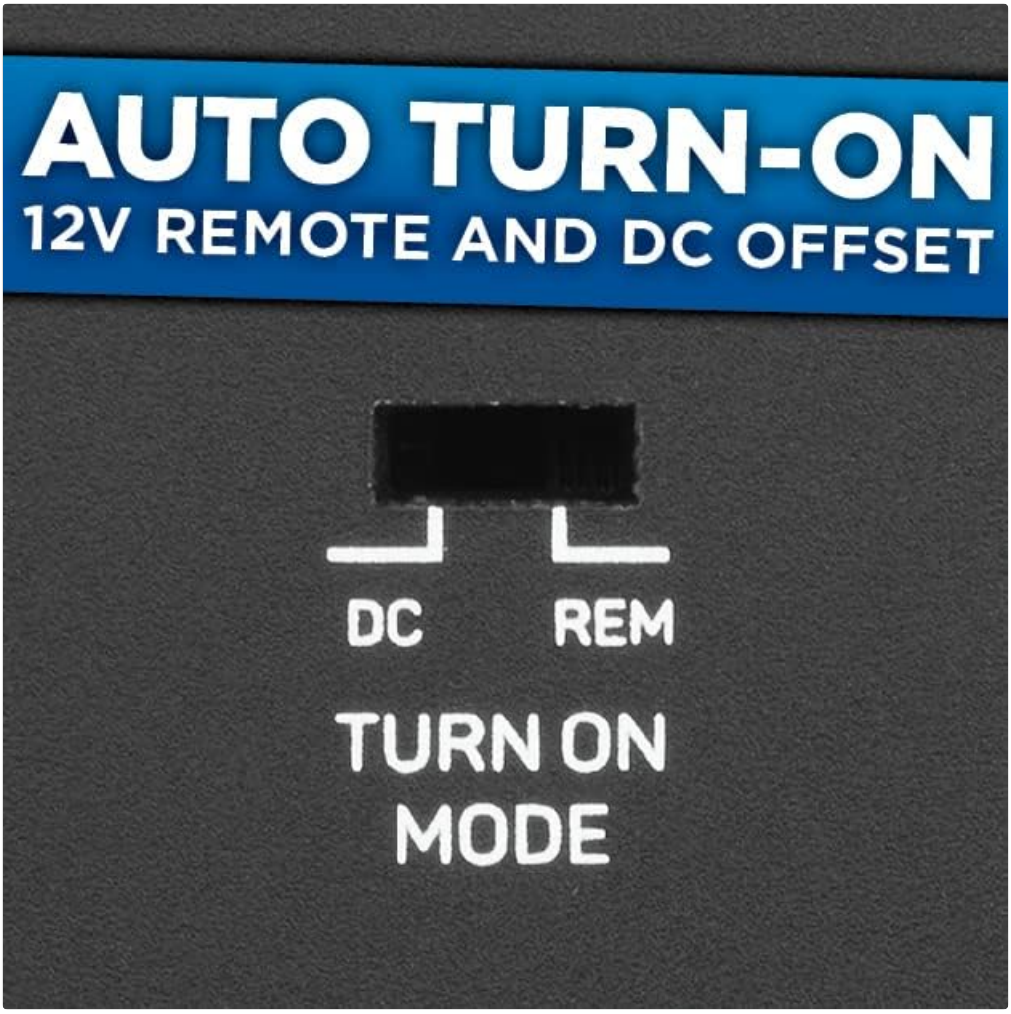

Figure 3: Side view of the NVX XLOC66X, showing the RCA output jacks and the remote bass knob input port.

Figure 4: The wired remote bass level control and its connecting cable, included with the XLOC66X.

3.4 Initial Settings and Adjustments

Before powering on, configure the switches on the XLOC66X:

- **Turn-on Mode Switch:** Select between **DC** (DC offset detection), **AUD** (audio signal detection), or **REM** (remote wire input). Choose the mode that best suits your vehicle's factory system.
- **Load Select Switch (CH1-CH4 & CH5-CH6):** Adjust the impedance presented to the factory stereo. Options are **20Ω**, **60Ω**, or **20KΩ**. Start with 20KΩ if unsure, and adjust if the factory stereo exhibits shutdown issues.
- **Input Mode Switch:** Select **4CH** for 4-channel input or **6CH** for 6-channel input, depending on your factory system's output.
- **Ground Isolation Switch:** Options are **GND** (common ground), **ISO** (isolated ground), or **200Ω** (200 ohm isolated ground). Use this to address ground loop noise or alternator hum. Start with GND and switch to ISO or 200Ω if noise is present.
- **LPF (Low Pass Filter) Switch:** Set to **ON** if you want the subwoofer output to have a low-pass filter applied, or **OFF** if your amplifier handles the LPF.
- **Boost Knob:** This controls the bass boost for the subwoofer output. Start at **0dB** and adjust as needed.
- **Gain Knobs (Front, Rear, Sub):** These adjust the output level of the XLOC66X. Start at minimum (MIN) and adjust carefully during the operating phase.

Figure 5: Close-up of the Auto Turn-on Mode switch (DC, AUD, REM) on the NVX XLOC66X.

Figure 6: Detail of the Bass Boost knob and Low Pass Filter (LPF) switch on the NVX XLOC66X.

4. Operating Instructions

4.1 Setting Gains

Proper gain setting is crucial for optimal sound quality and to prevent distortion. The XLOC66X features LED clip indicators for each output channel (Front, Rear, Sub).

1. Turn the gain knobs on the XLOC66X to their minimum (MIN) position.
2. Turn the gain knobs on your aftermarket amplifier(s) to their minimum setting.
3. Play a test tone (e.g., a 0dB sine wave at 1kHz for full-range, or 50Hz for subwoofer) at about 75% of your head unit's maximum volume.
4. Slowly increase the gain knob on the XLOC66X for one channel (e.g., Front) until the corresponding LED clip indicator just begins to flicker. Then, back off slightly until the LED is off. Repeat for Rear and Sub channels.
5. Once the XLOC66X gains are set, proceed to set the gains on your aftermarket amplifier(s) according to their respective manuals, ensuring no clipping occurs at the amplifier stage.

4.2 Using the Remote Bass Control

The included wired remote bass level control allows you to conveniently adjust the output level of the subwoofer channel from your listening position. Connect it to the 'REMOTE' port on the XLOC66X. Rotate the knob to increase or decrease the subwoofer output.

4.3 Bass Boost and Low Pass Filter

The LPF switch and Boost knob affect the subwoofer output. If your subwoofer amplifier has its own low-pass filter, it is generally recommended to set the XLOC66X LPF to OFF. Use the Boost knob to add a subtle bass enhancement if desired, but avoid excessive boosting which can lead to distortion.

5. Maintenance

The NVX XLOC66X requires minimal maintenance. Keep the unit clean and free from dust and debris. Periodically check all wiring connections to ensure they are secure and free from corrosion. Avoid exposing the unit to extreme temperatures or moisture.

6. Troubleshooting

Problem	Possible Cause	Solution
No Power / Unit Not Turning On	Blown fuse Incorrect power/ground wiring Incorrect Turn-on Mode setting No remote signal (if REM mode selected)	Check and replace fuse. Verify 12V and GND connections. Ensure Turn-on Mode (DC, AUD, REM) is correctly set for your system. If using REM mode, check remote wire connection from head unit.
No Audio Output	Incorrect speaker input wiring Incorrect RCA output connections Gain settings too low Amplifier issues	Verify all speaker level input wires are correctly connected and have signal. Check RCA cables from XLOC66X to amplifier. Increase gain settings on XLOC66X and amplifier. Ensure amplifier is powered on and functioning correctly.
Distorted Audio / Clipping	Gain settings too high Input signal too strong Amplifier clipping	Reduce gain settings on XLOC66X until clip indicator LED is off. Reduce gain settings on amplifier. Ensure head unit volume is not excessively high.
Engine Noise / Alternator Hum	Ground loop interference Poor ground connection	Adjust the Ground Isolation switch (try ISO or 200Ω). Ensure the XLOC66X and amplifier have solid, clean ground connections. Check for proper routing of power and signal cables, keeping them separate.
Factory Stereo Shuts Down	Incorrect Load Select setting	Adjust the Load Select switch (CH1-CH4 & CH5-CH6) to a different impedance (e.g., 20KΩ).

7. Specifications

Feature	Specification
Brand	NVX
Model	XLOC66X
Number of Channels	6 Input / 6 Output
Maximum Speaker Level Input Voltage	40 Volts (400 watts RMS)
Maximum RCA Output Voltage	9.5 Volts
Turn-on Modes	DC Offset, Audio Detection, Remote Input
Load Selection	20Ω, 60Ω, 20KΩ

Feature	Specification
Ground Isolation	GND, ISO, 200Ω
Bass Boost	0-12dB
Low Pass Filter	Selectable On/Off
Interface Type	RCA
Item Dimensions (L x W)	5.75"L x 4.25"W
Item Weight	0.55 Kilograms
Compatible Devices	Factory Car Stereos with 6-channel speaker level outputs

8. Official Product Video

Your browser does not support the video tag.

Video 1: An overview of the NVX XLOC66X 6-channel line output converter, demonstrating its features and functionality.

9. Warranty and Support

For warranty information and technical support, please refer to the official NVX website or contact NVX customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.

You can visit the NVX Store for more information:NVX Official Store