

EO-909X

# GRAPHIC EQUALIZER 9V LINE DRIVER



# **OWNER'S MANUAL**











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#### I. INTRODUCTION

Thank you for choosing Audiopipe.

You have made a fine choice of a quality product.

Our EQ-909X equalizer is a truly innovative product with

- superb specifications for audio quality
- lots of features for versatile applications

Therefore please make the best of this top notch device!

Our equalizer stands out from the average not just because of its exclusive physical appearance, but because of outstanding technique with handy features for a wide range of 12 Volt applications.

Please be sure to read all operating instructions and understand all safety precautions before installing and operating your new EQ-909X equalizer.

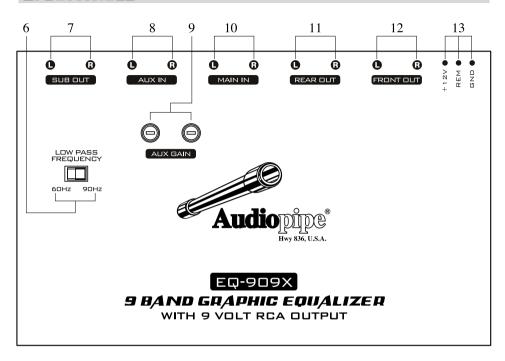
Although our equalizer is easy to install on your own, we recommend you use an Audiopipe authorized dealer for optimum performance of your new unit.

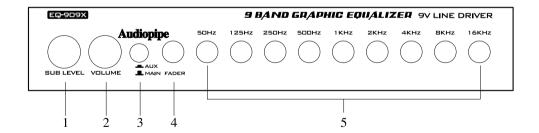
### 2. FeATURES

The EQ-909X is a 9-band stereo equalizer/crossover specifically created for the mobile environment. The EQ-909X provides powerful features in a compact size:

- Nine equalization bands (50Hz, 125Hz, 250Hz, 500Hz, 1KHz, 2KHz, 4kHz 8kHz and 16 kHz), each frequency adjustable from -12 to +12dB (-15 to +15dB for subwoofer frequencies)
- Subwoofer output uses a built-in 18dB per octave electronic crossover fixed at 60Hz or 90Hz.
- Three stereo RCA outputs to drive front, rear, and subwoofer audio amplifiers
- An auxiliary stereo RCA input for use with portable devices, such as an MP3 player or DVD player
- Separate controls for master volume, subwoofer volume (sub level), front/rear fader, and selection of main or auxiliary inputs
- Extended frequency response from 20 Hz to 30 kHz with exceptional 100 dB signal to-noise performance
- Gold-plated RCA connectors to ensure the best audio signal output
- ISO mounting holes and removable trim ring for custom installation

#### 3. CONTROLS





- 1. Subwoofer Volume Control
- 2. Master Volume Control
- 3. Main/ Auxiliary Switch
- 4. Fader Control
- 5. Equalizer Gain Controls
- 6. Low-Pass Frequency Switch
- 7. Sub Output

- 8. Auxiliary Input
- 9. Auxiliary Gain Control
- 10. Main Input
- 11. Rear Output
- 12. Front Output
- 13. Power Plug

## 4. PRECAUTIONS

- Do not operate this product in ways other than those described in this manual.
- Do not disassemble or modify this unit.
- Do not pour liquid or poke foreign objects into the unit. Water and humidity may damage internal circuitry.
- If the unit becomes wet, turn off all power and ask your authorized Audiopipe dealer to clean or service the unit.

Failure to observe these precautions may damage your car, the monitor, or the video source, and may void the warranty.

## 5. INSTALLATION

Installation of mobile audio and video components requires experience with a variety of mechanical and electrical procedures. Although this manual provides general installation and operation instructions, it does not show the exact installation methods for your particular vehicle.

If you do not have the required knowledge and experience to successfully complete the installation, consult an authorized Audiopipe dealer about professional installation options.

### 6. OPERATIONS

#### **Setting System Volume**

- 1. Turn the master volume and subwoofer level controls to their minimum settings.
- 2. Turn the source unit on and increase the volume until you hear distortion.
- 3. Reduce the volume to just below the distortion point (approximately 80% of full volume).

This is the maximum usable musical signal for the source unit. Turning the volume beyond this point increases noise and distortion without increasing the musical signal.

#### Note

Once you set the source unit volume, do not change it. Always use the volume control on the EQ-909X as the master (main) volume control. The EQ-909X has better electronics, a higher sound to noise ratio, and is more linear than the volume settings on any source unit available.

#### Adjusting the controls

The EQ-909X provides a graphic adjustment band for each of seven frequency ranges: sub, low, mid, mid-high and high frequency. You can adjust the center of each frequency band to fine tune the acoustical response to your vehicle's interior.

- 1. Set all frequencies to the center position. The small dot on the control knob should be set at 12 o'clock.
- 2. Play your favorite music track and adjust the individual controls to suit your taste. Avoid extreme settings, which can distort musical peaks.
- 3. Increase or decrease the equalizer gain controls to suit your taste.
- 4. If your system includes a subwoofer, slowly increase the subwoofer level until you hear a solid bass.
- 5. If your system includes rear speakers, adjust the fader control to add rear sound. Set it so most of the music comes from the front and only fills the rear.

## **Setting the Low-Pass Frequency**

Set the low pass frequency switch on the top of the EQ-909X to either 60Hz or 90Hz depending on the subwoofer and subwoofer amplifier requirements.

## Connecting an MP3 player or video unit

- 1. Plug the MP3 player or video unit into the auxiliary RCA input on the back of the EQ-909X unit.
- 2. Make sure the auxiliary button on the front of the unit is out, ready to receive input from the main RCA input (not the auxiliary RCA input).
- 3. Turn the EQ-909X master volume to a normal listening level.
- 4. Press the play button on the auxiliary source.
- 5. Push in the AUX button to change to the auxiliary source.
- 6. Using a small flathead screwdriver, adjust the AUX gain controls located on the top of the unit so that the volume of the auxiliary source matches the volume of the main source.

#### Care and maintenance

Cleaning the cabinet

Use a soft, dry cloth to gently wipe dust and dirt from the unit.

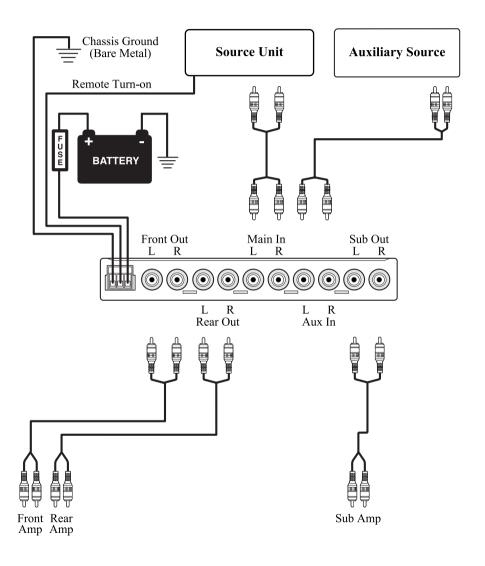
Do not use benzene, thinner, car cleaner, or other cleaners. These substances may damage the unit or cause the paint to peel.

Servicing the equalizer/crossover unit

In the event that trouble arises, never open the case or disassemble the unit. The internal parts are not serviceable by the user. Opening any components will void the warranty.

# 7. WIRING DIAGRAM

## **EQ-909X Wiring Diagram**



#### 8. TROUBLESHOOTING

## The unit does not work; no lights

The power wires may not be connected. Check the power and ground wiring, then retest.

#### Sound is distorted

- The source unit volume may be set too high. Reduce the source unit volume.
- Equalizer gain controls are set too high. Turn the equalizer controls to the center position and listen for distortion again. If the problem still occurs, see your authorized Audiopipe dealer.
- Speakers may be damaged. Consult your authorized Audiopipe dealer.

## No sound coming from the unit

- The wrong input is selected. Press the AUX switch to turn the main inputs on.
- No remote-on. Using a voltmeter, check for +12V from the remote-on source.

# 9. SPECIFICATIONS

Graphic Center Frequencies	50Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz, 8kHz, 16kHz
Boost/Cut	12dB
S/N Ratio	100dB
Frequency Response	10Hz-50kHz +/-1dB
Maximum Output Voltage	9V
THD	0.005%
Input Sensitivity	50mV - 3V
Head Room	20dB
Input Impedance	20kOhms
Output Impedance	2kOhms
Stereo Separation	82dB/1kHz
Operating Voltage	11V-15V negative ground

## IO. WARNING

Investigate the layout of your automobile thoroughly before drilling or cutting nay holes. Take care when you work near the gas tanks, gas lines, hydraulic lines, and electrical wiring. Attach the system securely to the automobile to prevent damage, particularly in the event of an accident. Do not mount the system so that the wire connections are unprotected or are subject to pinching or damage from nearby objects.

The +12VDC power wire must be fused at the battery positive terminal connection. Before making or breaking power connections at the system power terminals, disconnect the +12V wire at the battery end. Confirm your radio/ head unit and/ or other equipment is turned off while connecting the input jacks and speaker terminals. If you need to replace the power fuse, replace it only with a fuse identical to that supplied with the system. Using a fuse of different type or rating may result in damage to this system which is not covered by the warranty.

# Disclaimer

Specifications are subject to change without notice. For the most updated specifications call Audiopipe, your local authorized Audiopipe dealer, or check the Audiopipe website:

www.audiopipe.com