



# GROM-USB2i MP3 car stereo adapter kit

## Chapter 1 - Introduction

### **1.1 Subject**

Thank you for purchasing the GROM-USB2i adapter, which has been designed to provide endless hours of listening pleasure through most vehicles' factory radio. To ensure that your GROM-USB2i interface performs correctly in your car or truck, we recommend that you read this entire manual before attempting to install the GROM interface.

### **1.2 Functionality Highlights**

The GROM-USB2i car adapter allows you to easily access your media collection in your car, including shuffling songs, skipping between tracks, and adjusting the volume—all with only your factory car stereo head unit or multifunction steering wheel controls. This adapter further allows you to listen to your favorite music directly from any mass storage USB stick or hard drive, requiring no dedicated portable player. GROM-USB2 also has additional AUX and iPod inputs, allowing you to connect any additional audio source and iPod/iPhone.

### **1.3 Main Features in USB Mode**

- Ability to manage a significant number of songs based on the memory of the USB disk/flash stick
- Folders or Playlists on the USB drive are mapped to an individual "Disc" button on car stereo's dashboard
- Number of "discs" limited to the car stereo (up to 99 on select stereos)
- Last listened song position within the playlist is remembered
- Last listened song time position is restored upon ignition cycle

### **1.4 Precautions**

#### **Proper mounting location**

Securely install the interface in a location free from heat, humidity, moving parts, or direct sunlight.

Beware of hot-air flow from your vehicle's climate control system. The interface should be secured in a suitable location, free of sharp metal edges, using double-sided tape, Velcro, or wire ties. The adapter's operating temperature range is -30°C to +70°C

(-24°F to +158°F)

### **1.5 Disclaimer**

- This product is not affiliated with any of the OEM manufacturers
- Modifying the radio may void any existing warranty
- The purchase of this product carries no warranties, either expressed or implied
- Although every care has been taken to provide a quality product, we cannot guarantee that the GROM USB adapter will function correctly if installation is not done according to the instructions included in this guide. Furthermore, we cannot guarantee the GROM USB adapter to function correctly with a USB device that is broken, damaged, or not supported
- Keep your eyes on the road while driving!
- We are not liable for the misuse of this product, including improper installation, damage to the board or radio during installation, and the illegal use of the radio

## 1.6 Completeness and connection of set

a) The GROM audio adapter set consists of the GROM-USB2 interface, one USB cable, and one vehicle-specific cable with optional accessories.



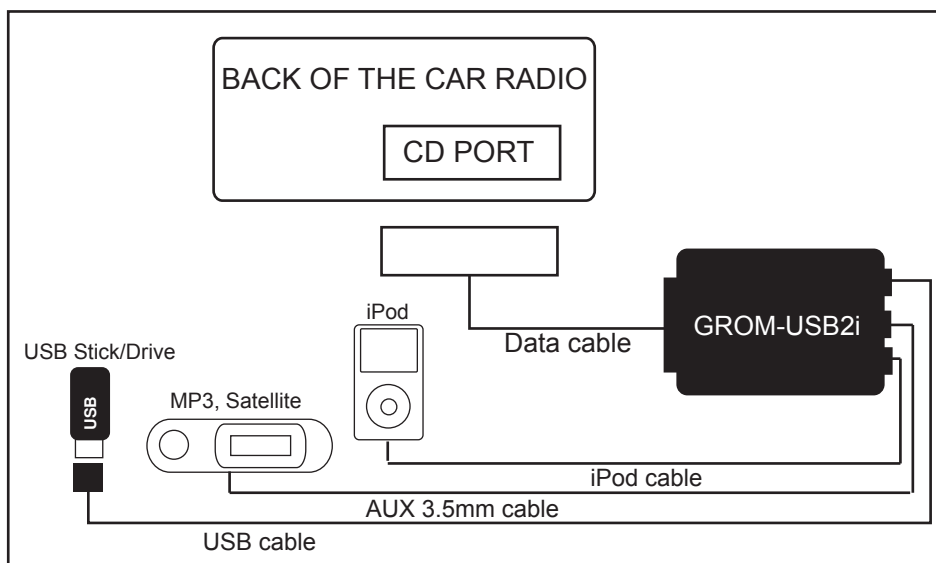
**Figure 1. Package contents**

b) The basic package does not include the optional accessories that you can purchase separately:



**Figure 2. Optional Accessories (sold separately)**

c) The basic wiring diagram of the GROM Audio adapter is detailed in Figure 3:



**Figure 3. Basic wiring diagram.**

## 1.5 Important Compatibility Notes

If your vehicle is equipped with an external factory CD changer, you must disconnect it in order to be able to install the GROM interface. You will lose the use of the external CD changer to gain the use of your USB device, iPod, or MP3 player. The built-in CD changer will remain operational. For a full version of the GROM compatibility guide, please visit [http://gromaudio.com/grom\\_application\\_guide.pdf](http://gromaudio.com/grom_application_guide.pdf) or contact GROM Audio at <http://gromaudio.com/support.html>.

## Chapter 2 – General Installation

### 2.1 Installation location:

Most installations will require removing the factory radio in order to plug in the vehicle-specific harness. For some vehicles, you will also have the option to connect the interface to the factory pre-run CD changer cable located in the trunk or glove box.

## 2.2 Tools needed:

In most cases, there are no any special tools required in order to remove the stereo. For some stereos (e.g., VW, Audio), it is better to use car stereo removal tools. Please consult your local car audio shop or your vehicle's dealership for instructions or assistance as necessary. If you are unsure how to install the interface properly, we recommend contacting your local car stereo shop for assistance. Some installation

Rev. 2.1.2 can be found at [www.gromaudio.com](http://www.gromaudio.com).

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## 2.3 Preparation and adapter installation

1. Turn off car engine and remove key from ignition
2. If your radio uses a **Security Code**, make sure that you have the code before unplugging the radio.
3. Un-mount your radio from the dash in order to gain access to the back of the radio. Some vehicles require special tools to remove the radio. Please consult your vehicle's dealership or a local car audio professional, if necessary.
4. Attach the car harness connector to the CD changer port in the back of the stereo. Be sure to make a firm connection, but do not force it. Connect the other end to the interface.

**For VW/Audi/Seat/Skoda with dashboard cable only:** There is a black single cable on the vehicle-specific harness (Figure 4) that you will need to attach to the back bolt of the car stereo or the stereo chassis (see **Error! Reference source not found.**).

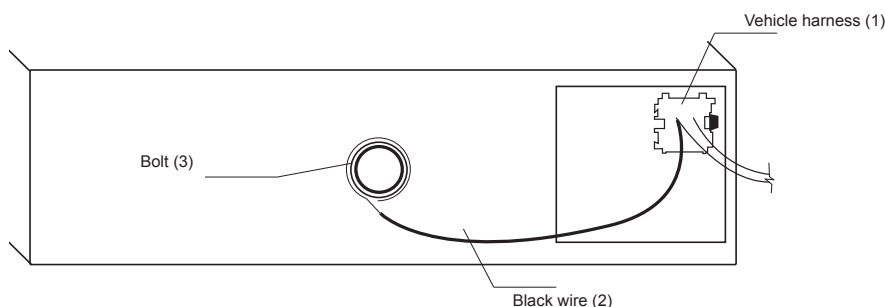


Figure 4. VW/Audi/Seat/Skoda Connection Scheme

Remove the PVC from the end of the black wire (2)

- (a) Connect the end of the black wire (2) to the metal part of the car stereo chassis. You can connect it under the bolt (3) if it is present
- (b) Make sure that solid contact is made between the striped black wire and the metal part of the car stereo body.

**Note: Failure to attach the black cable to the chassis of the stereo will result in the GROM adapter not working! All of the specified vehicles require this black cable to be attached.**

5. **For Audi vehicles only:** Some Audi head units require an additional part (AUDS cable) or harness modification to gain the access to the CD changer port. A solid 20-pin connector occupies the 8-pin CD changer port on such stereos. Please refer to the instructions at <http://gromaudio.com/docs/grom-audi-how-to.html> for more information.

6. **For BMW, Ford, Nissan, Volvo, Mazda 3,5 08-09 vehicles only:** Please refer to the installation insert for the special guidelines for BMW, Ford or Nissan installation.

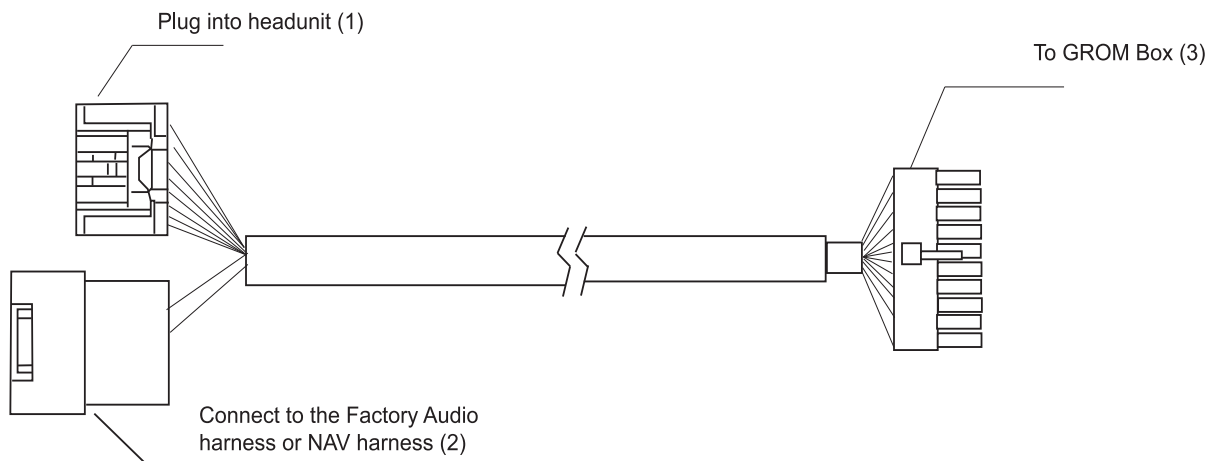
### 7. For Toyota and Honda (03 and up) vehicles only:

On some Toyota/Lexus/Scion vehicles and Honda/Acura (03 and up) vehicles, the CD changer port is occupied by a factory harness (such as NAV or audio harness). The GROM package for Toyota and for Honda/Acura (HON1) includes a Y-shaped vehicle cable. In order to connect the interface properly

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Please refer to Figure 5.

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**Note: On most Lexus, Toyota, Honda, and Acura cars, initial recognition of the device requires turning the ignition off and then on. You will need to do it only once.**



**Figure 5. Connection scheme for Toyota/Lexus/Scion and Honda/Acura (03 and up)**

8. **For Chrysler/Dodge/Jeep** with navigation or XM installed, you may need to use a CHR-Y cable in order to gain the access to the car stereo port occupied by the factory connector. Once you connect the interface to the radio, you will need to test the operation of the interface before reassembling the dash.
9. Turn your car stereo on and switch it over to CD Changer mode using the Disc/Mode/CD/AUX buttons on your car stereo (depending on the stereo type). Your display should now show Disc 1, Track 01.
10. Connect the USB cable to the USB device. Turn on your car stereo and play some music from your USB device. You should hear the sound coming from the car stereo speakers.
11. Once you confirmed the operation of the interface, continue with the installation. If you have trouble with the installation, please see our **troubleshooting section**.
12. Find a place for the GROM USB adapter. In many cars, the dash offers sufficient room for installation.  
Note: Make sure you mount the GROM USB adapter in a place with sufficient room so that, when you remount the car stereo, you do not break the adapter.
13. You may use the glove box or other spaces on the dash to direct the USB cables away from the unit.
14. Remount your car stereo, making sure it fits securely.

## Adapter mounting in the trunk (for VW and BMW only)

1. Locate trunk mounting cable in your car (usually located in the left side of the car in the back)
2. Disconnect existing CD changer, if any.
3. Attach matching cables

**Note for BMW trunk installations:** Some BMW are factory wired for the cellular phone. Except for wire location, the factory cellular phone connector looks identical to the factory 3-pin connector used for the CD changer. The CORRECT 3-pin connector for the CD-Changer has a **BROWN** wire (ground) in the #1 pin position. Please make certain you use this connector. The INCORRECT factory cellular phone connector has a **BROWN** wire in the center position – **DO NOT USE THIS CONNECTOR.**

**Congratulations!** You have installed the GROM USB adapter and may use it immediately with your USB device, MP3 player, or iPod.

### 2.4 Troubleshooting

Symptom	Cause	Remedy
Radio is not recognizing the GROM USB adapter	Some Honda, Toyota, and Lexus car stereos have to be restarted before the radio catches the signal	After connecting the adapter, turn the stereo on; turn the ignition off and then back on
Radio is not recognizing the GROM USB adapter	External CD changer is present	Make sure to disconnect the external CD changer
Radio is not recognizing the GROM USB adapter	Bad cables or cables are not connected properly between the interface box and car radio.	Check connection and cables: push in firmly.
No music is audible from the MP3 player	CD changer is not selected	Make sure CD changer, SAT mode, or AUX is selected (correct key depends on your stereo)
No power	Bad connection	Check the cable connections.
<b>For VAG only:</b> Radio is not recognizing the GROM USB adapter	Single black wire on the vehicle-specific harness (3, see <b>Error! Reference source not found.</b> ) is not attached to the stereo chassis (stereo body)	Attach the black cable to the car stereo body; make sure it is properly grounded
<b>For BMW only:</b> Radio is not recognizing the GROM USB adapter	iBus wire may have become loose. Sometimes, when using T-Tap clips, the iBus wire may not receive proper connection due to its wire size.	Make sure the iBus wire is securely attached by using a multimeter or slightly tighten the T-Tap connector so its slot is smaller.
Audio is not coming from the speakers.	The audio cable is not inserted properly.	Make sure that the audio cable is inserted properly.
Audio is coming only from one speaker	The 10-pin sound connector is not correctly aligned.	Make sure that the 10-pin sound connector on the vehicle cable is correctly aligned.

## Chapter 3 – Usage manual



### 3.1 Different MODES of GROM-USB2i

**Please read this part entirely before attempting to change the modes. You will need to perform all the steps below quickly with 1-2 seconds interval.**

Depending on your GROM firmware version, GROM-USB2i can work in two or three modes: USB, AUX or iPod.

**Step I.** When you need to switch between the MODES, first you will need to enter into the “MODE CHANGING” state on your car stereo. There are two possible scenarios:

1. The stereo is already in the CD changer mode (GROM USB is activated). **Press FM/AM -> wait 1-2 second -> press CD (DISC).**
2. The stereo is in any other mode (FM, SAT, etc...): **press CD (DISC) -> wait 1-2 second -> press FM/AM -> wait 1 second -> press CD (DISC).**

**Step II.** You will hear the voice announcing the currently playing mode (USB, AUX or iPod). To switch to the next mode, press **Next Track** button quickly ( ,  or respective button on your car stereo) while the voice prompt is announcing. The next mode will be announced right after. If you need to select another mode, simply press **Next Track** button again and so on until you select the desired mode.

**Note: If you do not hear the voice announcement, it means that you did not press quickly enough and the adapter is not in the “MODE CHANGING” state anymore. Please perform STEP I again.**

Once you hear the desired mode announcement, simply wait for 1-2 seconds and the adapter will start operating in that mode.

### **3.2 Supported USB Storage Devices**

All FAT16/32 formatted storages:

- USB sticks/hard drives
- SD/CF/MMC cards with card reader USB interface

The GROM USB supports only FAT16/32 formatted storages. NTFS is not supported!

### **3.3 Supported formats**

The GROM-USB supports the following formats:

- MP3 with bitrates up to 320Kbps
- WMA with bitrates up to 389Kbps
- AAC / iTunes with bitrates up to 389Kbps
- OGG/Vorbis with bitrates up to 389Kbps
- VBR/CBR

**Note:** No digital rights management (DRM)-protected content purchased through major online stores will play directly through the USB-MP3 adapter as such content is encrypted and signed by the media publisher. This includes but is not limited to iTunes, Rhapsody, Zune Marketplace, and MSN. You need to burn such files to a CD and rip them back with any capable software. The music purchased from Amazon and iTunes+ is compatible with GROM-USB2 without any modifications.

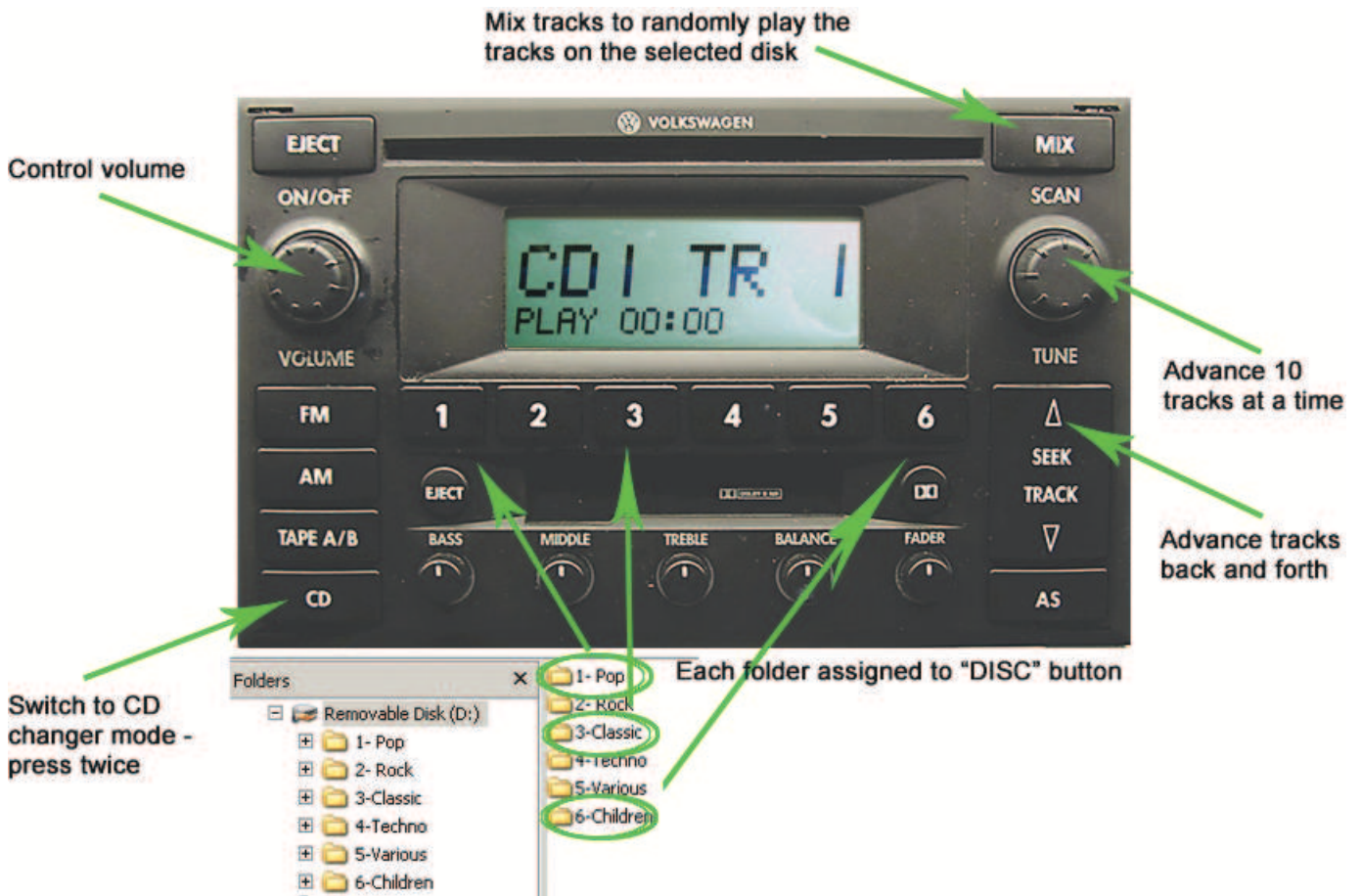
### **3.4 Operating with more than one musical device connected**

When you have more than one device connected (for example MP3 player and USB stick, or MP3 player and iPod) you will need to disconnect the device that currently is not playing from the GROM box.

### 3.4 Directories Setup

- On your USB portable data medium, create one directory (folder) for each disc your radio supports (i.e., Disc 1, Disc 2); save all of your music into these directories.
- As soon as you connect the GROM USB adapter to a USB portable data medium, the GROM will enumerate root directories, translating them into virtual discs. Their number depends on the number of discs supported by the specific car stereo.
- We recommend that you have as many directories as possible on a root level as the car stereo will not recognize subdirectories. The GROM itself will enumerate subdirectories and turn them into a flat list of tracks.
- If filenames in a certain directory begin with digits, they will be played in ascending order based on the order of those digits in the filenames. For example:  
 \1-Dance\My songs\  
   02. Track.mp3  
   01. Track.mp3 (will play first according to the number )
- If filenames begin with letters, they are played in ascending order of the file creation date/time.
- If root directory starts with the number, the directory will be assigned to a respective virtual disc.

All MP3, WMA, iTunes, and OGG tracks will be enumerated and found once you select the appropriate disc.



### 3.5 Basic Features

The GROM USB adapter has the following functionalities:

- Every directory in a root of the USB portable data medium becomes a virtual disc. Please note: directories with non-audio files (e.g., pictures, documents) located in the root will be recognized as empty virtual discs.
- All audio files within the root directory are enumerated and treated as TRACKS.
- Only 6 discs are supported on most car stereos.
- Up to 99 discs are supported on some stereos with DISC UP and DISC DOWN buttons. Note that not all stereos will have this feature.
- The following operations are supported by the GROM USB:
  - o Change virtual disc/playlist
  - o Change tracks forward and backward
  - o Change +/- 10 tracks in SCAN mode
  - o Display track # and track title where available
  - o Display current track playing time
  - o Random and Repeat functionalities
  - o Restore last positions for up to 4 USB sticks
  - o Restore last playlist positions in up to 20 virtual discs

### **3.6 Detailed Operation Instructions**

Once the GROM USB is active and playing, the following operations are available:

- **Next track:** playback will switch to the next song and the car stereo track number will represent the song number from the current playlist.
- **Previous track:** playback will switch to the previous song and the car stereo track number will represent the song number from the current playlist.
- **Fast Forward:** the GROM will start fast forwarding the current track forward. The time on the car stereo will represent the actual position within the audio track.
- **Fast Reverse:** the GROM will start rewinding the current track backward. The time on the car stereo will represent the actual position within the audio track.
- **Play/Pause:** when the stereo is switched to the CD changer mode, the GROM will automatically start playing the last track played on the current USB stick from the last played position.
- **Scan:** allows the skipping of tracks by 10 when set. The next track will jump to current track +10. The previous track will jump to current track -10. This is helpful for skipping through an entire album (usually ~10 songs)
- **Disc Change:** selecting Disc 1-6 or using Disc **^**/Disc **v** will cause the GROM to change the current root directory to the appropriate one based on the disc number.
- **Mix/Random:** plays songs in a shuffle mode through the whole playlist. The track enumeration will show the currently playing track number. When switched off, the playback will continue from the currently playing track.
- **Repeat:** when turned on, it will play the first track in the playlist after the last track is played. If switched off, the playback will continue to the next playlist once the current one has played the last song.
- **Text:** on some stereos, this button will switch over to show the disc or artist of the current track playing.

## **Chapter 4 – Support**

**For technical support, please visit <http://gromaudio.com/support.html> and fill in the web form. We will answer your question within one business day.**

## Chapter 5 – Warranty.

### 5.1 1 (ONE) YEAR LIMITED WARRANTY

This warranty covers any supplied or manufactured parts of the product that, upon inspection by GROM Audio authorized personnel, is found to have failed in normal use due to defects in the material or workmanship. This warranty does not apply to the installation expenses. Attempting to service or modify this unit, operating this unit under conditions other than the recommended will render this warranty void. Unless otherwise prescribed by law, GROM Audio shall not be liable for any personal injury, property damage and or any incidental or consequential damages of any kind (including water damage) resulting from malfunctions, defects, misuse, improper installation or alteration of this product.

All parts of this product are guaranteed for a period of 1 year as follows:

Within the first 12 months from the date of purchase, subject to the conditions above, Grom Audio will repair or replace the product at their discretion, if it is defective in the material or workmanship.

All customers should contact GROM Audio support team at <http://gromaudio.com/support.html> and obtain an **RMA** number. All defective adapters returned to Grom Audio within warranty period must be accompanied by the **original invoice (or copy)**.

All shipping handling charges are non-refundable. Warranty does not cover normal tear and wear, damages due to negligence, improper installation, and operation.

SHIP TO: GROM AUDIO  
P.O. Box 619  
Belmont CA 94002