

INTRODUCTION

Congratulations on your purchase of the **UX600 SERIES** Professional Modular Wireless System. The **UX600R** receiver connects through a modular plug and is available pre-mounted in certain Carvin mixers, or may be purchased for self-installation with the UX600-KIT (consult Carvin for compatibility). The **S600** portable PA unit accepts the UX600R as a direct plug-in to its accessory port without the kit.

The **UX600R** will connect with the **UX600M** handheld mic transmitter or the **UX600B** belt-pack transmitter to complete the system. The headworn mic (UXH-S or UXH-B black), cable for instrument (UXGT) and Lavalier mic (UXL) are available options to the **UX600B** belt-pack system.

The receiver features UHF diversity reception. The antenna feeds two completely independent RF receivers on the same frequency. Automatic logic circuitry continuously compares and selects the superior signal to provide better sound quality and reduce the possibility of interference and dropouts.

Backlit LCD displays on the receiver and transmitters display channel, group, battery level and mute status, with 3-button access to frequency, channel and level settings with LOCK mode to prevent accidental changes. The transmitters also feature a quick mute feature, quieting the mic or belt-pack with a short press of the power button.

The UX600 system has 1441 user selectable frequencies, or you can select by 6 groups of 21 channels for ease of use with multiple systems.

GETTING STARTED QUICKLY

If you're like most new owners, you're probably in a hurry to use your wireless system. To start, you must have a Carvin **UX600M** or **UX600B** transmitter, and at least one Carvin **UX600R** receiver (installed in a host unit for power and audio output).

If you have purchased this wireless system separately, please start with the installation procedure for the receiver on the back page of this manual.

If the unit has been pre-installed from the factory, you can follow these brief instructions to get you going quickly;

- 1. BATTERY** Insert 2 fresh AA alkaline batteries into the transmitter.
- 2. CONNECT (UX600B only)** Connect the mic, or instrument cable to the Belt-pack.
- 3. RECEIVER POWER ON** Turn down the volume of the unit the **UX600R** system is mounted in. Make sure you are plugged in to the proper AC voltage and turn the main unit power ON. The **UX600R** receiver will power on with the main unit.
- 4. TRANSMITTER POWER ON** Press the power button on the end of the UX600M mic or, on the top of the UX600B belt-pack transmitter. The LCD display should turn on. (when ON: a quick press will MUTE on/off, HOLD to turn OFF)
- 5. CHANNEL CHECK** Check that both the transmitter and receiver display the same Group-Channel setting.

To change Group and Channel on UX600M, UX600B or UX600R:

Hold in the SET button until the display shows **SETTING** for one second, then the first digit (Group) will be blinking.

Use the UP/DOWN buttons to match the Group on the transmitter and receiver.

Press SET to have the second digit (Channel) blinking, then use the UP/DOWN buttons to match the channel. Press SET to save and exit.

If using multiple systems, each transmitter/receiver pair must be set to a different group-channel setting.

- 6. SOUND CHECK** Play the instrument or use the mic as intended. Gradually raise the levels on the mixer to a comfortable volume. If distortion occurs, first try lowering the mixer preamp. If distortion is still heard, adjust the UX600 level settings: UX600R(dB), UX600M(dB), UX600B (SENSIT or ATT). Complete directions are inside this manual.

RECEIVING INSPECTION - read before getting started

INSPECT YOUR WIRELESS SYSTEM FOR DAMAGE which may have occurred during shipping. If damage is found, please notify the shipping company and Carvin Audio immediately.

SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. This will provide the best possible protection during shipment. Carvin Audio and the shipping company are not liable for any damage caused by improper packing.

SAVE YOUR INVOICE. It will be required for warranty service if needed in the future.

SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

RECORD THE SERIAL NUMBER on the enclosed warranty card or below on this manual for your records. Keep your portion of the card and return the portion with your name and comments to us.

For your records, you may wish to record the following information.

Serial No. _____ Invoice Date _____



UX600 SYSTEM SPECIFICATIONS

GENERAL:

Group / Channel selections: 6 Groups of 21 channels
 Total Frequency settings: 1441 (0.025 Mhz increment)
 RF Bandwidth: 36 MHz
 RF Frequency Band: Labeled on each unit and packaging.
 (subject to change according to FCC regulations)

UX600R RECEIVER

Reception format Diversity- PLL Synthesized
 Stability +/- 0.005%
 Image Rejection >60 dB
 RF Sensitivity <-107dBμ for 12 dB S/N AD
 Connection 20 pin PCB edgecard, 0.156" pitch.
 Power Supply Power through connector only
 Audio Output Output through connector only
 Signal-to-noise >105 dB
 THD <0.6% @ 1kHz
 Dimensions W: 3.30"
 H: 1.22"
 D: 4.15" overall
 3.20" case only
 Net Weight 4.3 oz
 Accessories UX600-KIT
 (required for mounting in Carvin mixers, holds up to 2 receivers)

UX600M HANDHELD MIC TRANSMITTER

Polar Pattern Unidirectional
 Audio Freq. Response 50-16,000Hz
 RF Power Output 10mW or 50mW setting
 Stability ± 10kHz
 Frequency Deviation ± 48kHz
 Spurious Emissions < -50 dBc
 Battery AA 1.5V alkaline qty 2
 Current Consumption 30 mA typical
 Battery Life Approx. 25 hours
 Dimensions 10.3"L x 1.97" dia.
 Net Wt (no battery) 12.5 oz

UX600B BELT PACK TRANSMITTER

Input Connector Mini-XLR
 Audio Freq. Response 40-18,000Hz
 RF Power Output 10mW or 50mW setting
 Stability ± 10kHz
 Frequency Deviation ± 48kHz
 Spurious Emissions < -50 dBc
 Battery AA 1.5V alkaline qty 2
 Dimensions 2.45" x 3.875" x 0.94" (w/o clip or ant.)
 Net Wt (no battery) 2.5 oz

UX600B ACCESSORIES:

UXGT 1/4" INSTRUMENT CABLE FOR UX600B
UX-HM3 HEADSET MIC FOR UX600B
UXLP1 LAVALIER MIC FOR UX600B

REGULATIONS AND SERVICING

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

CAUTION! Do not attempt to open the receiver or transmitter. To do so will void the warranty, and may cause improper operation. The circuits inside the receiver and transmitter have been precisely adjusted for optimum performance and compliance with federal regulations. Refer servicing to qualified service personnel. No user-serviceable parts inside. Do not expose to rain or moisture.

WARRANTY

90 days on all electronic components. Does not cover broken parts caused by normal wear or abuse.



12340 WORLD TRADE DRIVE SAN DIEGO, CA 92128
 800-854-2235 CARVINAUDIO.COM

RECEIVER UX600R

1. DISPLAY - BACKLIT LCD

1.A. LARGE DISPLAY DIGITS

Displays the GROUP and CHANNEL number or Frequency.

Other settings will display by using the UP, DOWN and SET buttons.

1.B. RF LEVEL METER

The RF (Radio Frequency) level bars display the strength of the carrier signal received from the UX600M mic or UX600B beltback transmitter.

1.C. AF LEVEL METER

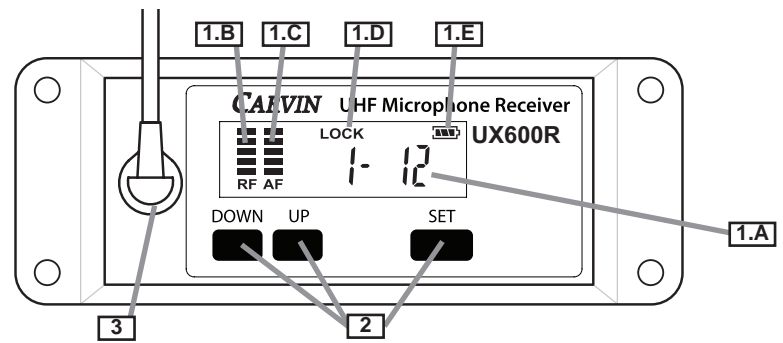
The AF (Audio Frequency) level bars display the audio signal level from the UX600M mic or UX600B beltback transmitter.

1.D. LOCK INDICATOR

Indicates the LOCK feature is being used, which prevents accidental changes to settings or unwanted tampering.

1.E. BATTERY LEVEL INDICATOR

Remotely displays the battery level of the UX600M mic or UX600B beltback.



2. DOWN, UP AND SET BUTTONS Press the DOWN button to display SQUELCH setting. Press the UP button to display the audio output LEVEL.

Press and hold the SET button to access the settings menu and change settings with the UP/DOWN buttons. See CHANGING SETTINGS below.

3. ANTENNA The antenna is flexable and non-removable. Altering the antenna will cause poor reception, and will void the warranty.

CHANGING SETTINGS:

Press and hold the SET button until "SETUP" is displayed. The setting to be edited will be blinking. Press the SET button again to select a different setting to edit. Adjust the setting with the UP/DOWN buttons. Press the SET button again to save and exit.

GROUP and CHANNEL: (example: 1- 8; group 1, channel 8)

Set these the same on the transmitter and receiver. If using more than one system, each transmitter-receiver pair must be set to a different group-channel.

FREQUENCY: (example: 530.950) and the "MHz" symbol appears on the screen. The first 3 digits change in 1 MHz steps, the second 3 digits change in 0.025 MHz steps. The display shows the specific carrier frequency of the channel in MegaHertz.

If you need to choose a specific FREQUENCY setting make an adjustment here, otherwise the **Group-Channel** setting is recommended.

***NOTE:** The GROUP-CHANNEL method is recommended when using multiple systems to avoid crosstalk or other types of interference between wireless channels, even frequencies which are far apart can cause unwanted effects due to harmonics or additions and subtractions in carrier signal waves.

The GROUP-CHANNEL frequency assignments are pre-calculated and designed to avoid these types of interferences between multiple systems, and are easier to set up.

SCAN: (SC On, SC Off) The SCAN feature can locate and set an open RF channel that is not being used in the area.

To use the SCAN feature, first check that the UX600R receiver's SCAN is setting is ON.

Turn ON all transmitters you will be using in this area.

Access the Channel setting, and press the UP or DOWN button. The display will read "SCAN__" for a few seconds. The next available open channel will be set and displayed.

Match the UX600M or UX600B transmitter to this Group and Channel.

- If the Group-Channel settings on the transmitter and receiver are matched but there is still no sound; check the levels on the host mixer, the SQUELCH setting on the UX600R receiver and the RF POWER setting on the UX600M or UX600B transmitter.

SQUELCH: (example: Sq -5) range of -5 to +10. The SQUELCH setting is used to reduce interference by rejecting background RF signals that fall below the SQUELCH level. Increasing the SQUELCH setting will increase the level of RF signal required to pass an audio signal through the receiver.

Setting the SQUELCH too high may cause intermittent sound from your transmitter. In this case lower the SQUELCH, or if you are still experiencing interference you can set the UX600M or UX600B transmitter RF POWER setting to "rF Hi".

LEVEL: (example: 0 dB) range of -18dB to +6dB, in 1 dB steps. Sets the output level of the receiver to feed the mixer channel.

You can adjust this to blend with signals coming in through the jacks of your mixer on the same channel.

SCREEN LOCK: (Loc OFF, Loc ON): Set to "Loc ON" to prevent accidental changes or tampering. If set to **Loc ON**, only the Lock screen setting will be accessible.

TIPS TO OBTAIN THE BEST WIRELESS RESULTS

1. Use fresh alkaline batteries, or fully charged rechargeables. Transmitter battery level is displayed on both receiver and transmitter.
2. If using more than one system, use the GROUP-CHANNEL assignments instead of the Frequency setting to avoid cross-talk or other interference.
3. Position the receiver so that it has the fewest possible obstruction between it and the normal location of the transmitter. Line-of-sight is best.
4. The transmitter and receiver should be as close together as conveniently possible.
5. The receiver antenna should be in the open and away from any metal structures or cement walls.
6. Turn off the transmitter when not in use. Remove the batteries if the transmitter is not used for a period of time.

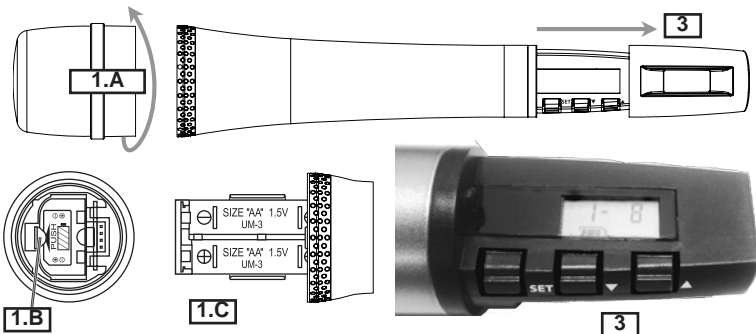
IMPORTANT RF OPERATION NOTES

Please note that wireless audio frequencies are shared with other wireless services:

According to Federal Communications Commission regulations, "Wireless microphone operations are unprotected from interference from other licensed operations within the band. If any interference is received by any Government operation, the wireless microphone must cease operation..."

If you encounter receiving interference (from other than an operating TV station), often it can be eliminated by changing to a different channel or frequency.

UX600M HAND HELD MIC



1. BATTERY INSTALLATION (1.A, 1.B, 1.C)

While holding the lower part of the transmitter body, unscrew the windscreen ball on top of the mic. Press the release clip to eject the battery dock. Install fresh AA alkaline batteries, observing correct polarity as marked inside the battery compartment. Replace the battery dock and make sure the clip snaps into the locked position so the battery dock will not slide out. Match the rectangular stub on windscreen ball to the 4 pins in the mic handle and turn clockwise until tight.

2. POWER / MUTE BUTTON

To turn the mic **ON**, press and release the button on the bottom end of the mic. The display and backlight will turn on.

The channel/frequency digits and battery status symbol will be displayed.

To **MUTE** the mic, quickly press and release the button.

“RF OFF” will appear on the display for 1 second. The backlight will flash while muted.

To **UNMUTE**, quickly press and release the button again.

“RF ON” will be displayed for 1 second.

To turn the mic **OFF**, press and hold the button for about two seconds, the screen will display “OFF”, then turn off.



3. SETTINGS BUTTONS

To access the settings buttons, slide the black plastic cover off the end of the mic.

CHANGING SETTINGS:

Press and hold the SET button until “SETUP” is displayed. The setting to be edited will be blinking. Press the SET button again to select a different setting to edit.

Adjust the setting with the UP/DOWN buttons.

Press the SET button again to save and exit.

GROUP and CHANNEL: (example: 1- 8; group 1, channel 8)

Set to both numbers match the UX600R receiver.

FREQUENCY: (example: 530.950) and the “MHZ” symbol appears in the lower right. Allows manual selection of frequency, however the GROUP-CHANNEL setting is recommended. (see UX600R - FREQUENCY)

The first 3 digits change in **1 MHz** steps, the second 3 digits change in **0.025 MHz** steps.

LEVEL: (example: 0 dB) range of **+12dB** to **-18dB**, in **3 dB** steps.

Sets the level of the internal pre to the transmitter. You may want to increase this setting for soft speaking, or set it lower to prevent overloading the mic from powerful vocals.

RF POWER: (rF Hi, rF Lo) Changes the transmitter’s RF power output.

Use the “**rF Hi**” setting if you experience dropouts which cannot be remedied by changing the channel/frequency, or if the transmitter will be used far from the receiver.

Set this to “**rF Lo**” if the sytem is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels.

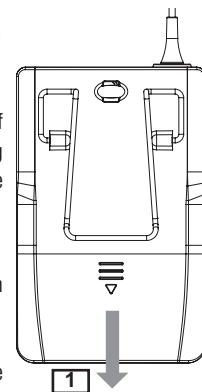
SCREEN LOCK: (Loc OFF, Loc ON): Set to “**Loc ON**” to prevent accidental changes or tampering. If set to **Loc ON**, only the Lock screen setting will be accessible.



UX600B BELT-PACK TRANSMITTER

1. BATTERY INSTALLATION

To access the battery compartment, slide the rear cover panel off toward the bottom. Insert fresh AA alkaline batteries, observing correct polarity as marked inside the battery compartment. Slide the cover back on until it locks.



2. POWER / MUTE BUTTON

To turn the belt-pack **ON**, press and release the white button on the top of the unit.

The power button LED and front display backlight will turn on. The channel/frequency digits and battery status symbol will be displayed.

To **MUTE** the output, quickly press and release the button.

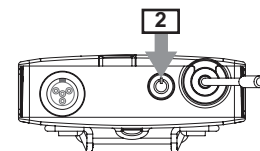
“RF OFF” will appear on the display for 1 second.

The backlight will blink while muted, and the “no speaker” symbol will show on the display.

To **UNMUTE**, quickly press and release the button again.

“RF ON” will be displayed for 1 second.

To turn the unit **OFF**, press and hold the button for about two seconds, the screen will display “OFF” for 1 second, then the UX600B will turn off.



3. SETTINGS BUTTONS

Press and hold the **SET** button until “SETUP” is displayed.

The first digit will be blinking.

Select the setting to be changed with short presses of the **SET** button.

Adjust the setting with the **UP/DOWN** buttons.

Press the **SET** button again to save and exit.

GROUP and CHANNEL: (example: 1- 8; group 1, channel 8)

Set to both numbers match the UX600R receiver.

FREQUENCY: (example: 530.950) and the “MHZ” symbol appears in the lower right. Allows manual selection of the frequency, however the GROUP-CHANNEL setting is recommended. (see UX600R - FREQUENCY)

The first 3 digits change in **1 MHz** steps, the second 3 digits change in **0.025 MHz** steps.

SENSITIVITY: “SEnSiT” will display for 1 second, then the setting value.

(example: 0 dB) Settings from **+12dB** to **-18dB**, in **3 dB** steps.

Sets the level of the internal preamp to the transmitter. You may want to increase this setting for soft speaking when used with microphones, or set it lower to prevent overloading from powerful vocals, or when connected to an instrument.

ATTENUATOR: (Att OFF, Att ON) Adds an attenuation circuit when used.

Recommended when connecting instruments with the UXGT cable, or with strong vocals through the UXHM or UXL mics. If the SENSITIVITY setting has been turned all the way down and the transmitter is still being overdriven, setting **ATT ON** will add a buffer to the internal preamp to allow more headroom.

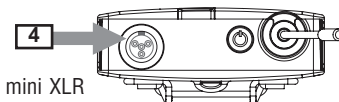
RF POWER: (rFP Hi, rFP Lo) Changes the transmitter’s RF power output.

Use the “**rFP Hi**” setting if you experience dropouts which cannot be remedied by changing the channel/frequency, or if the transmitter will be used far from the receiver.

Set this to “**rFP Lo**” if the sytem is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels.

SCREEN LOCK: (Loc OFF, Loc ON):

Set to “**Loc ON**” to prevent accidental changes or tampering. If set to **Loc ON**, only the Lock screen will display when settings are accessed. Change the setting to **Loc OFF** to allow adjustments.



4. INPUT CONNECTION:

Connect one of the following to the transmitter’s mini XLR input jack on the UX600B.

UXHM HEADSET MIC: Connect the mic cable to the mini XLR input jack. Place the mic on the vocalist’s head. Keep the mic a minimum of 2 inches from the mouth to minimize air hitting the mic.

UXL LAVALIERE MIC: Connect the lavalier mic cable to the mini XLR input jack. Clip the mic to clothing near the top center of the chest. For optimum sound, position the mic as close to the mouth with the top of the mic facing up. Test out various positions along the center of the chest to determine the ideal mic placement. This may vary from person to person as each voice projects uniquely.

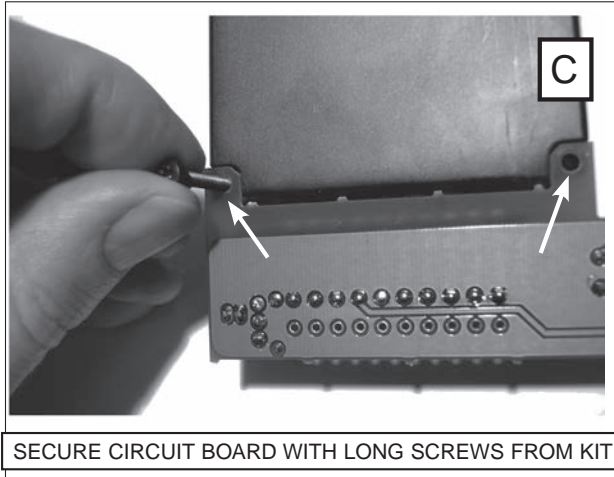
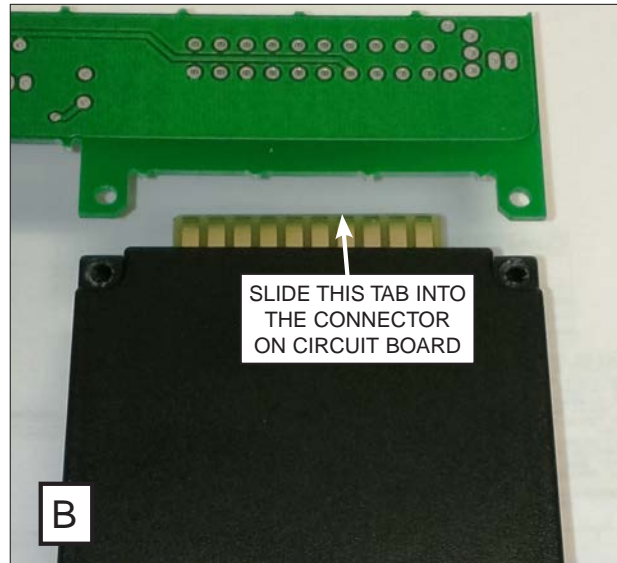
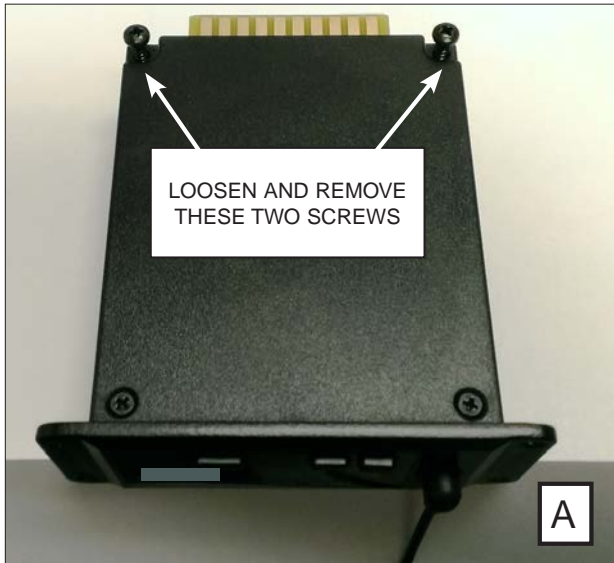
UXGT INSTRUMENT CABLE: Connect the cable to the mini XLR input jack. Plug the 1/4” connector into a guitar, bass or other instrument. Turn the volume down on the receiving mixer before turning the transmitter power ON.

UX600-KIT INSTALLATION PROCEDURE: FOLLOW STEPS (A) THROUGH (E).

Allows installation of up to 2 UX600R receivers per kit in your Carvin mixer.

Large consoles can accept 2 kits to mount 4 receivers.

(Kit not used for the S600 Stagemate)



MOUNT THE UNIT(S) AND BRACKET TO YOUR CARVIN MIXER WITH SUPPLIED SCREWS

LIMITED WARRANTY

90 days on all wireless electronic components. Does not cover cables, connectors, or broken parts caused by normal wear and tear or by dropping. Shipping costs are the responsibility of the customer. CARVIN CORP. DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin Corp. assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin Corp. any liability in connection with the sale or servicing of Carvin Audio products. CARVIN CORP. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

RETURNING AN ITEM

Before you return an item, please visit www.carvinaudio.com and review the TROUBLE SHOOTING guide to verify that you have a defective unit. Thoroughly check your connections and all settings. Sometimes it's as simple as a mismatched frequency or an improper connection.

If you wish to return an item, visit www.carvinaudio.com and follow the RETURN PROCEDURE and shipping instructions. Start by completing the RMA RETURN FORM. Describe each problem in writing and include a copy of your original invoice if under warranty.

If you do not have a copy of your original invoice, contact our accounting department at (800) 854-2235 to obtain a copy.

If your unit is out of warranty, you will be charged the current FLAT RATE for parts and labor to bring your unit up to factory specifications.