

### INTRODUCTION

Congratulations on your purchase of the **UX1200R** UHF True Diversity receiver, part of the **UX1200/UX600** Professional Modular Wireless System. The **UX1200R** works with the **UX600M** handheld mic transmitter or the **UX600B** belt-pack transmitter. The headworn mic UX-HM3 (black) or UX-HM3T (tan), Lavalier mic UX-LP1, or instrument cable UXGT are available input options for the **UX600B** belt-pack.

The **UX1200R** receiver features UHF **true diversity** reception. Two completely independent RF receivers each with its own antenna on the same frequency are compared. Automatic logic circuitry continuously selects the superior signal, providing the best sound quality and reducing 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 UX1200/UX600 system has 1441 user selectable frequencies, or you can select by 6 groups of 23 channels for ease of use with multiple systems. Up to 16 systems can be used simultaneously.

### 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 the receiver (Carvin **UX1200R**), a transmitter (Carvin **UX600M** handheld mic, or the Carvin **UX600B** with a compatible mic **UX-HM3** / **UX-LP1** or **UXGT** cable plugged into an instrument), an XLR or 1/4" cable, and a sound system or instrument amplifier to hear the signal through.

**1. TRANSMITTER CONNECTIONS** Insert 2 fresh AA alkaline batteries into the transmitter. For the **UX600B** belt-pack, connect the headset mic, lavalier mic, or cable and instrument to the belt-pack.

#### 2. RECEIVER CONNECTIONS (UX1200R)

Attach the 2 included antennas to the connectors on the rear of the unit. Connect the included AC adapter to the UX1200R, then plug it into the proper AC power. Using an XLR cable or shielded 1/4" cable, connect one of the UX1200R outputs to your sound system or instrument amplifier.

**3. RECEIVER POWER ON** Turn down the VOLUME of the **UX1200R** and the system it is connected to. On the front right of the UX1200R, press the POWER button.

**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 UX1200R or UX600M/UX600B:

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** Use the mic or play the instrument as intended. Set the VOLUME on the front of the UX1200R to a low level (about 9 o'clock). Gradually raise the output levels on the sound system or amp to a comfortable volume. If distortion occurs and the UX1200R front panel "AF" audio level meter is showing Orange or Red LEDs then lower the transmitter levels: UX600M(dB setting), UX600B (**SENSIT** and **ATT** settings). If distortion is still heard, try lowering the preamp level on your sound system or amp. You can also lower the UX1200R output by -20dB with the "**At ON**" output attenuation setting.

### 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 and 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 \_\_\_\_\_



### UX1200/UX600 SYSTEM SPECIFICATIONS

#### GENERAL SPECIFICATIONS

**Group / Channel selections:** 6 Groups of 23 channels  
**Total Frequency settings:** 1441 (0.025 Mhz increment)  
**RF Frequency Band:** 506MHz - 542 MHz  
**RF Bandwidth:** 36 MHz  
**Simultaneous operation:** up to 16 units, depending on RF conditions

#### 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

#### UX1200R RECEIVER

**Reception format:** True Diversity, PLL Synthesized  
**Stability:** +/- 0.005%  
**Image Rejection:** >60 dB  
**RF Sensitivity:** <-107dBμ for 12 dB S/N AD  
**Audio Output:** Single channel, XLR and 1/4"  
**Output Impedance:** 600 ohms  
**Signal-to-noise:** >105 dB  
**THD:** <0.6% @ 1kHz  
**Power Requirement:** 12VDC, 500mA (AC adapter included)  
**Dimensions:** 8.36"W x 1.51"H x 5.66"D  
**Net Weight:** 2.4 lbs (with antennas)  
 2.3 oz (AC adapter)

#### 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-LP1** LAVALIER MIC FOR UX600B
- UX-HM3** (black) HEADSET MIC FOR UX600B
- UX-HM3T** (tan) HEADSET 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.

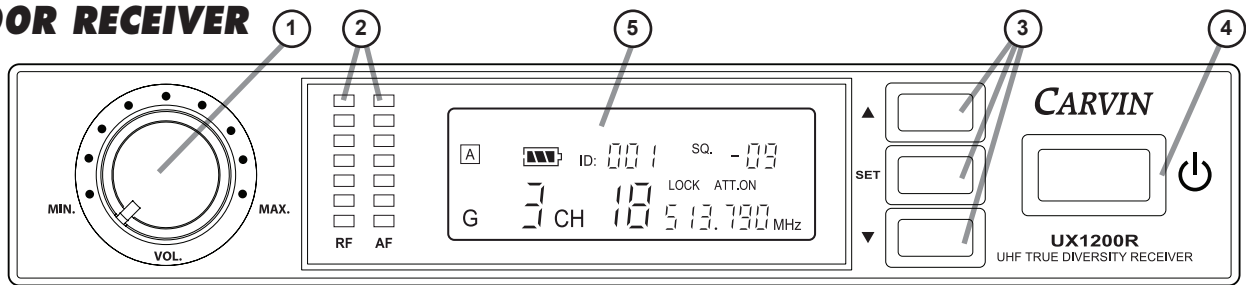
### WARRANTY

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



16262 WEST BERNARDO DR. SAN DIEGO, CA 92127  
 800-854-2235 CARVINAUDIO.COM

# UX1200R RECEIVER



**1. VOLUME (VOL.)** Sets the output level for the XLR and 1/4" output jacks. The output level for the XLR is also affected by the "At" (-20dB attenuator) setting. For use with a typical electric guitar and amp, set VOL. to about "4 o'clock", on the **UX600B** set sensitivity (SEnSiT) to "-9dB" and set attenuator (ATT) to "ON".

**2. RF AND AF LEVEL - LED METERS** Indicate the strength of the Radio Frequency (wireless) and Audio Frequency (audio) signal levels.

If the RF meter is low or off, the transmitter's carrier signal is not being picked up by the receiver. Be sure the transmitter and receiver frequencies match. If the RF level is still low or fades in and out you may need to change frequency, or set the transmitter's RF Power to "HI". Also check antenna connections.

The AF meter registers level of the voice or instrument. If it does not register with a voice at the mic or instrument playing, there is a problem with the audio signal being received by the transmitter. Check that the UX600B transmitter's microphone wire or instrument cable is properly connected. On the UX600M mic try increasing the level (dB) setting, or with the UX600B beltpack increase the level (SEnSiT) setting or set the UX600B attenuator (ATT) function to OFF.

If the AF meter lights the top two orange and red LEDs the audio signal to the transmitter is too high and may be distorted. On the UX600M mic reduce the level (dB) setting. On the UX600B beltpack lower the level (SEnSiT) setting, in addition you may set the attenuator (ATT) to ON for more headroom.

**3. DOWN, UP AND SET BUTTONS** Press and hold the SET button to access the different settings, and change settings with the UP/DOWN.

**4. POWER BUTTON** Press once to turn ON. Hold for 2 seconds to turn OFF.

## 5. DISPLAY - BACKLIT LCD

**A. GROUP** and **B. CHANNEL** Displays the Group and Channel setting if one is selected.

**C. FREQUENCY** Displays the receiving Frequency, set by the Group-Channel or Frequency setting.

If you select a Group and Channel setting, the related Frequency will be automatically selected.

**D. "A" or "B" Reception indicator** Due to the nature of True Diversity reception, the logic circuits continually select between the A or B antennas for the best signal reception.

**E. BATTERY LEVEL** Displays the battery level of the remote transmitter.

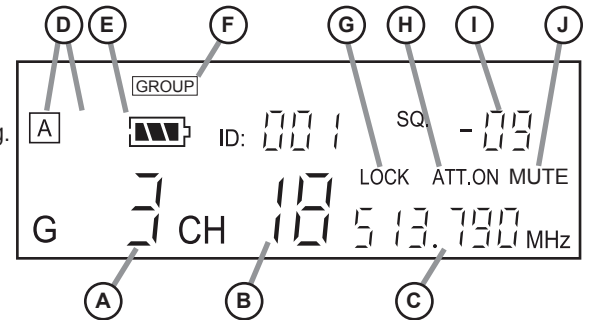
**F. GROUP MODE ICON** Indicates when the Group-Channel feature is being used to select the frequency. The "FREQ" icon indicates a manual frequency selection.

**G. LOCK ON** Screen lockout is engaged. No settings can be changed until the lock is turned off.

**H. ATTENUATOR ON** Shows the -20dB attenuator for the XLR output signal is engaged.

**I. SQUELCH SETTING** Displays the SQUELCH level setting.

**J. MUTE INDICATION** Displays when the transmitter MUTE function is used, or when output is automatically muted due to lack of RF signal or Squelch gating.



## CHANGING SETTINGS:

Press and hold the SET button until "SETUP" is displayed. An icon for the chosen setting will be flashing on the top row of the screen and the setting to be edited will display. To select a different setting to edit, press the SET button again. Adjust the setting with the UP/DOWN buttons. Press the SET button again to save and exit.

**GROUP, CHANNEL:** (example: G 3 CH 18; group 3, channel 18)

Set the UX1200R receiver first and then set the transmitter to the same settings. This automatically sets the FREQUENCY.

**\*NOTE:** The GROUP-CHANNEL method is recommended especially when using multiple systems (instead of using the manual Frequency setting).

Set each transmitter-receiver pair to a different Channel, but use the same Group setting for all. If too many Channels have outside interference, change all units to a different Group. The GROUP-CHANNEL assignments are pre-calculated and designed to avoid crosstalk or other types of interference between wireless channels within the same group, even frequencies which are far apart can cause unwanted effects due to harmonics or additions and subtractions in carrier signal waves.

- If the Group-Channel settings on transmitter and receiver are matched but there is no sound; Check the levels on your sound system or amp and check all connections. On the UX1200R check the RF and AF signal meters for response, antenna connections and SQUELCH setting. On the UX600M or UX600B check batteries and UX600B input connection. **FREQUENCY:** (example: 530.950 MHz) The first 3 digits change in 1 MHz steps, the second 3 digits change in 0.025 MHz steps.

If you select a **GROUP and CHANNEL** setting, the **FREQUENCY** is automatically set and should not be changed. If you need to choose a specific frequency you can change it here.

**SCAN:** (SC OFF, SC ON) The SCAN feature detects the next available open RF channel. If RF activity is sensed on or close to a channel, that channel will be skipped.

To use the SCAN feature, first check that the UX1200R receiver's SCAN setting is ON.

Turn OFF the transmitter for THIS receiver, but turn ON any OTHER transmitters you will be using in this area. NOTE: Set all UX600/UX1200 units to the same Group.

Access the Channel setting, and press the UP or DOWN button. The display will read "SCAN\_" for a few seconds. When the next open Channel is displayed, press the SET button to store it. Match the UX600M or UX600B transmitter to this Group and Channel after the UX1200R receiver has been set. If "NoFREE" appears on screen, select a different group.

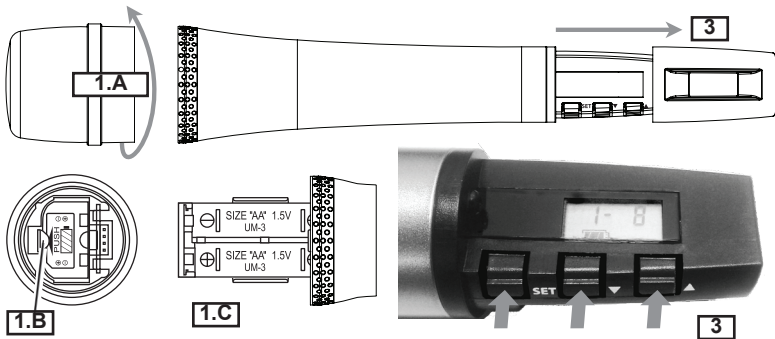
**SQUELCH:** (example: -9) range of -5 to +10. The SQUELCH setting is used to reduce interference by rejecting background RF signals that fall below the SQUELCH level. Increasing the SQUELCH setting will increase the level of RF signal required to pass an audio signal through the receiver.

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's RF POWER setting to "rF Hi".

**ATTENUATION:** (At OFF, At ON): Decreases the output level at the XLR output by -20dB. If your mixer preamp is being overdriven with VOL. turned low, use the "At ON" setting.

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

## UX600M HANDHELD MICROPHONE



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

While holding the lower part of the transmitter body, unscrew the windscreen capsule (1.A) on top of the mic. Press the release clip (1.B) to eject the battery dock (1.C) and remove it from the body. 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 the windscreen capsule to the 4 pins in the mic body 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 UX1200R 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 UX1200R - 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.

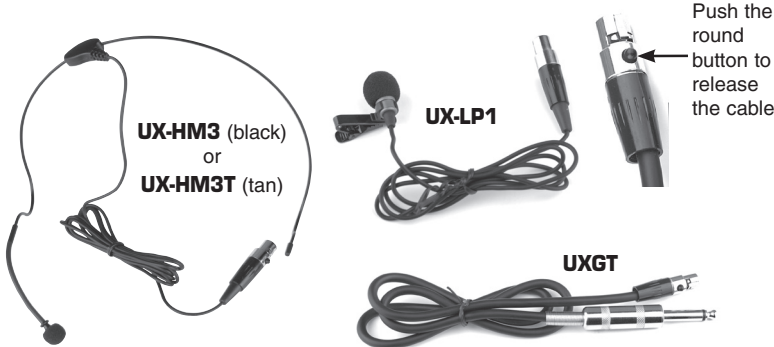
Sets the level of the internal mic pre to the transmitter. You may want to increase this setting for soft speaking, or set it lower to prevent overloading the mic from powerful vocals.

**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 system is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels.

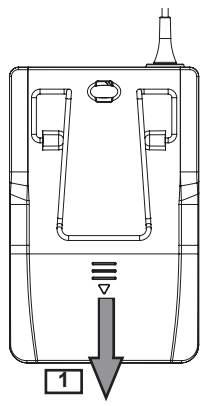
**SCREEN LOCK:** (Loc OFF, Loc ON): Set to “Loc ON” to prevent accidental changes or tampering. If set to **Loc ON**, only the Lock screen setting will be accessible.



## 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.

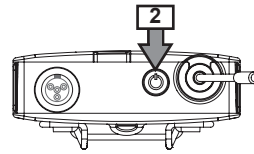
“RF OFF” will appear on the display for 1 second.

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 to show the setting can be changed.

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 UX1200R 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 UX1200R - 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. The recommended setting for electric guitar is “-9dB”, with the attenuator (ATT) set to ON (see next paragraph).

**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 UX-HM3 or UX-LP1 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 system is causing interference with another system, if used very close to the receiver, or if you are hearing unexplainable distortion at high audio levels.

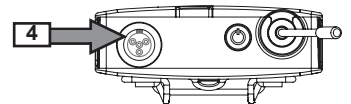
**SCREEN LOCK:** (Loc OFF, Loc ON):

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 mini XLR input jack on the UX600B transmitter:



**UX-HM3 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.

**UX-LP1 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 or amplifier before turning the transmitter power ON.



## **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. All transmitter/receiver pairs should be on the same GROUP, but different CHANNELS.
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 antennas 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.

### **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](http://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](http://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.