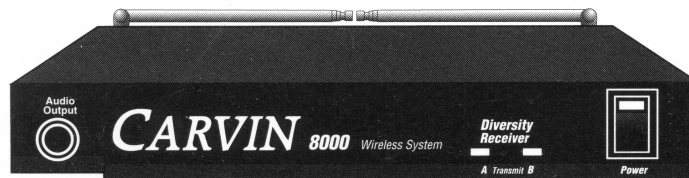


# CARVIN

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## **8000** WIRELESS SYSTEMS



## OPERATION MANUAL

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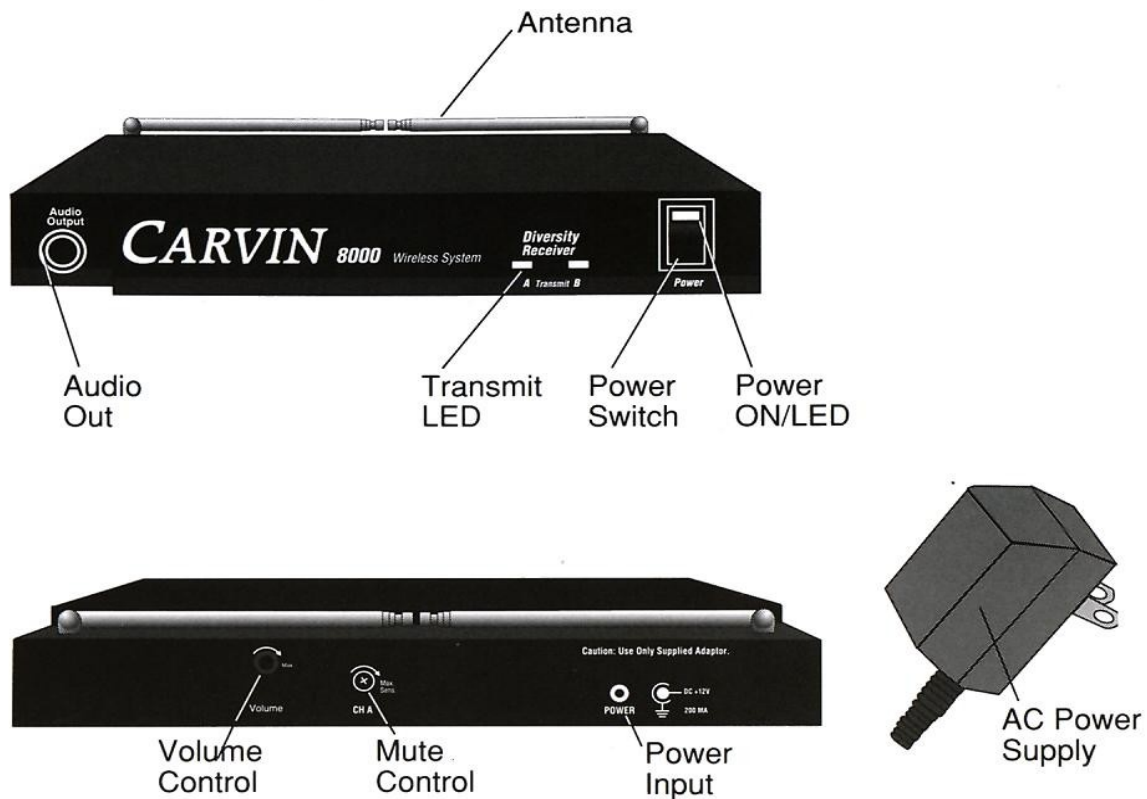
**CARVIN**  
800-854-2235

## ***CARVIN WIRELESS MICROPHONE***

Thank you for purchasing a Carvin Wireless System, and congratulations on your choice. The Carvin Wireless System is by far the best price/performance value available in wireless systems. Please read the instructions for your system completely before operating unit.

### ***Using this Manual***

This booklet gives instructions for the operation of Carvin Wireless Systems, including Handheld, Lavalier and Guitar/Instrument systems. The Carvin Wireless System is comprised of a Wireless Receiver with power supply, and a Wireless Transmitter, depending on the system purchased. This manual will cover the operation of the Receiver component first. After reading the Receiver instructions, turn to the selection of the booklet that covers the type of Transmitter used with your system.



### **CARVIN WIRELESS RECEIVERS**

The Carvin 8000 Wireless systems are single channel crystal-controlled diversity receivers. The 8000 series provides a greater degree of assurance against drop-outs with special digital processing circuitry. If the 1st antenna fails to pickup the signal, the 2nd antenna is available. The dual LED's on the 8000 indicate which receiver is picking up the signal (Transmit A or B). Special features on all include:

- Single overlay front panel with recessed Power and Transmit LED indicators and power ON/OFF switch.
- Fold-down retractable Antennas
- Audio Output adjustable with Volume Control
- Externally powered by AC/DC Power Adapter provided
- Adjustable Mute Level

The Carvin Wireless system is available in three transmitter formats: Handheld (microphone), and Bodypack (Instrument and lavalier mic). These Transmitters feature Carvin's new low current technology, which provides more than twice the battery life of previous models, without affecting output power or operating range. A complete system consists of one Carvin Wireless Receiver and one Carvin Wireless Transmitter on the same channel. Every Carvin Wireless System includes our exclusive patented companding circuitry for the maximum dynamic range and highest quality audio available.

Systems are available on eight standard frequencies in the VHF high band between 170 MHz and 216 MHz, and other frequencies for international use.

## **Operating Instructions**

### **Powering the Receiver**

Plug the AC/DC Power Supply provided into 12V Input Jack on back of Receiver. Then plug the Power Supply into an AC 120V outlet. Turn Volume Control counterclockwise to minimum. Press the Power Switch to the On position. Power on LED will now light, and Receiver is operational. Press Power Switch again to turn Receiver off.

### **Antenna(s)**

Antenna should be fully extended to obtain maximum range. Best position is straight up (at 90 degree angle) from Receiver.

### **Mute Adjustment**

In normal operation, the Mute Control should be set fully clockwise to the factory preset RF level of 1 $\mu$ V. However, in areas of high RF activity, the mute may need to be adjusted. If, with Transmitter off, the Receiver's Transmit LED flickers or stays on, the Mute Control should be turned counterclockwise until the Transmit LED extinguishes.

When the Mute is properly adjusted the Transmit LED will only light when the System Transmitter is turned on. Turning the Mute control too far counterclockwise will reduce range but yield a quieter mute function.

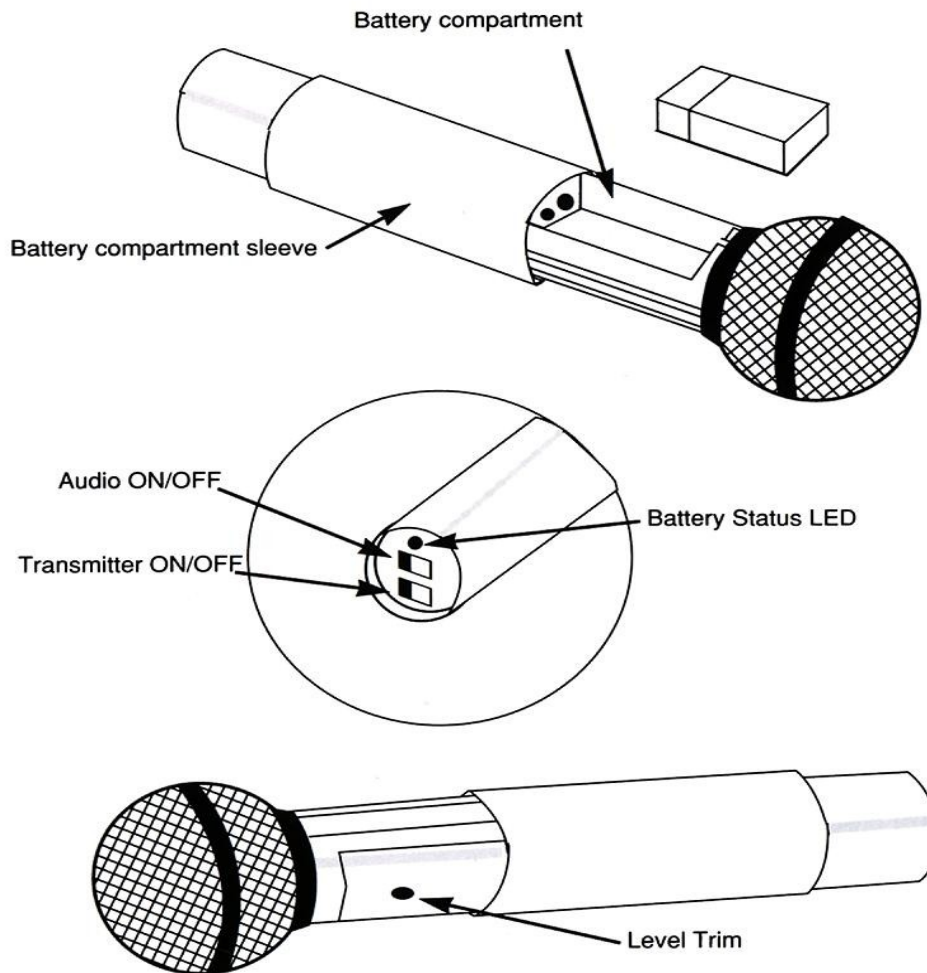
### **Connecting Audio Output**

The Wireless Output Stage is configured to accommodate both balanced and unbalanced lines. Insert an audio cord with a 1/4" mono phone plug into the Audio Out Jack on the Receiver face. Plug the other end of the cord into amplifier, effects or mixing board (LINE INPUT).

### **Transmitter Set-up**

After completing above steps, proceed to instructions for the Carvin Transmitter included with your system.





### **CARVIN 8000 SERIES HANDHELD MICROPHONES**

The Carvin 8000 handheld microphones are a compact design with these special features:

- Dynamic Element designed to deliver treble clarity with smooth deep bass
- Built-in pop filters for breath & wind noise rejection
- Compact, all metal housing with integral antenna—no dangling wires
- Input level control for optimum adjustment
- Low battery LED indicator
- Unique screw-on battery compartment for quick pop-in battery replacement.
- Uses standard 9V alkaline battery.
- Transmitter ON/OFF (mute) switch

### **Operating Instructions**

#### **Transmitter Set-Up**

Unscrew the battery compartment cover tube. Slide the tube down along the microphone, exposing the battery compartment. Insert a fresh 9V alkaline battery, observing correct polarity. A fresh alkaline battery can last up to 16-20 hours in use, but in order to ensure optimum performance, it is recommended to replace the battery after every 10 hours of use. Slide the tube back up the microphone and screw it on to the mic handle.

### ***Microphone Operation***

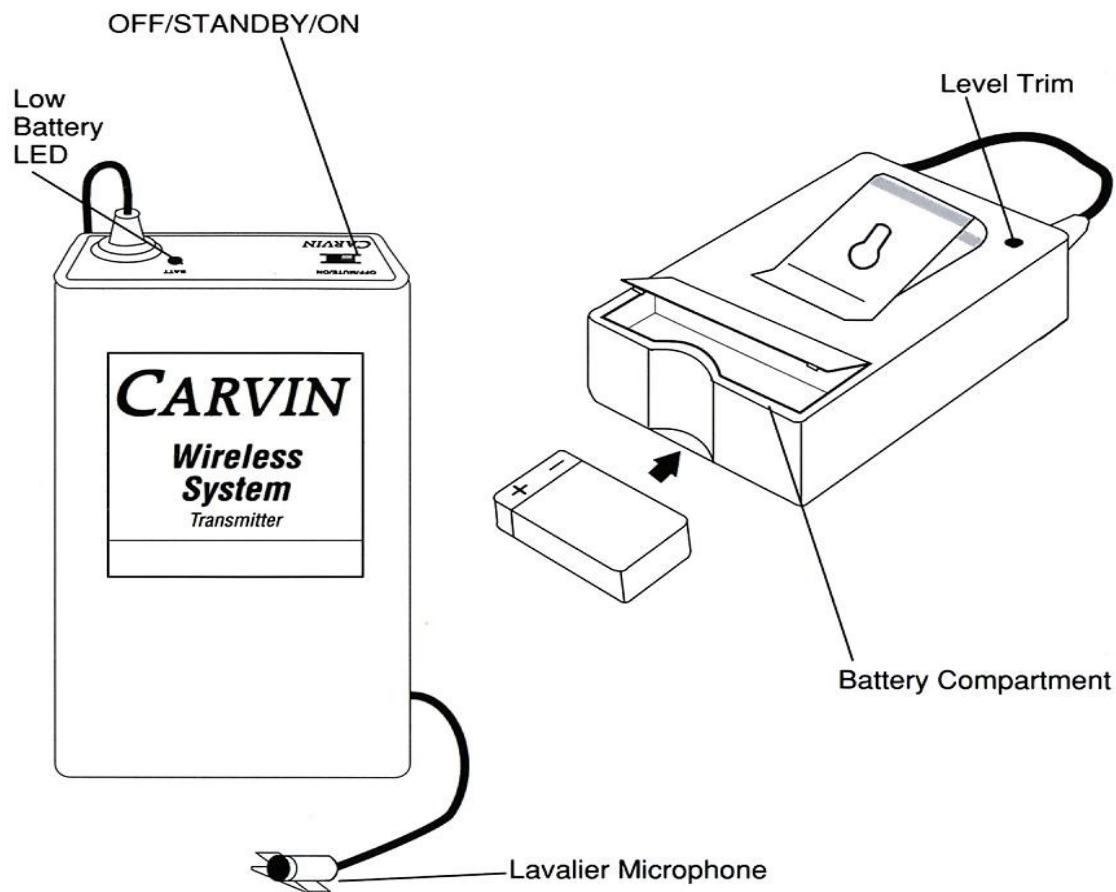
Turn the microphone transmitter switch at the base of the microphone. The battery indicator LED will give a single quick flash; this indicates usable battery strength. In the case of a dead or low battery, the indicator will either not go on at all or will stay on continuously, indicating a battery voltage below 7V. If this occurs, replace with a fresh 9V battery. To preserve battery life, turn transmitter off when not in use. Move Audio switch at the base of the microphone to the ON position. The microphone is now ready to use. The Transmit (receive) LED indicator on the Receiver should now be lit.

### ***Receiver Volume Control Adjust***

Turn the Volume control on the Receiver clockwise to near full gain. Adjust volume up or down so that no audio distortion is present when amp or mixer are set at their usual levels. At full gain, the system gain is approximately 4 dB higher than a direct microphone-to-amp connection.

### ***Level Trim Adjust***

For optimum performance, a level trim control is provided. Adjust the microphone gain by inserting a small slot-headed screwdriver through the adjustment hole, located on the backside of the battery compartment, under the compartment cover. Set for maximum possible gain without noticeable distortion of the high level peaks. Turning Trim Control clockwise increases audio level; turning counterclockwise decreases level.



### **CARVIN LAVALIER BODYPACK TRANSMITTER**

The Carvin 8000LP is a rugged compact bodypack with attached Lavalier Microphone, and includes these special features:

- Audio OFF/STANDBY/ON for ease of use
- Audio Cord acts as Antenna—no extra antenna needed
- Input Level Control for optimum adjustment
- Low Battery LED Indicator
- Hinged Battery Compartment for quick pop-in battery replacement, Uses standard 9V alkaline battery.
- Metal belt clip for strong attachment to clothing, or instrument straps.

### **Operating Instructions**

#### **Transmitter Set-Up:**

Place a fresh 9V battery into the transmitter's snap-open battery compartment, observing the correct polarity. Although a fresh alkaline battery can last up to 16-20 hours in use, in order to ensure optimum performance, it is recommended that the battery be replaced after 10 hours of use.



**Lavalier Mic /Transmitter Operation:**

Turn on the Transmitter by pushing the Transmitter OFF/STANDBY/ON switch to the STANDBY position. The battery indicator will give a single quick flash. This indicates usable battery strength. In the case of a dead or low battery, the indicator will either not go on at all or will stay on continuously, indicating a battery voltage below 7V. If this occurs, replace with a fresh 9V battery. To preserve battery strength, turn the Transmitter off when not in use. The Transmit (receive) LED indicator on the Receiver should now be lit. Clip the Transmitter to belt or place in pocket. Attach the Lavalier Microphone at chest level. Do not place too close to mouth—a distance of six inches usually works best. The Lavalier mic wire is the transmit antenna, and rolling up or shortening wire may reduce effective range. Extend wire fully during use, and keep it as straight as possible. When ready to speak into microphone, turn on microphone by pushing the OFF/STANDBY/ON Switch to the ON position.

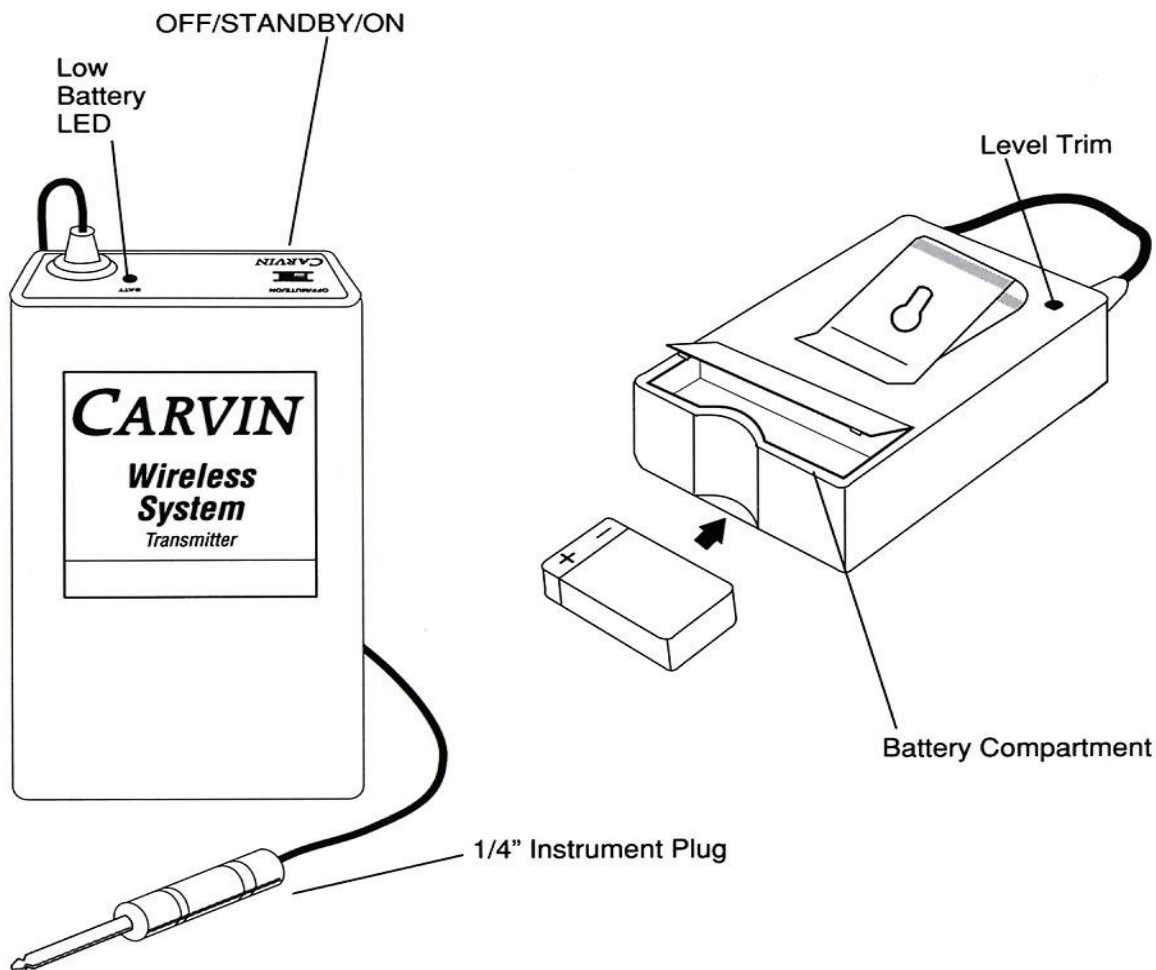
**Receiver Volume Control Adjust**

Turn the Volume control on the Receiver clockwise to near full gain. Adjust volume up or down so that no audio distortion is present when amp or mixer are set at their usual levels. At full gain, the system gain is approximately 4 dB higher than a direct microphone-to-amp connection.

**Level Trim Adjust**

For optimum performance, a level trim control is provided. Adjust the microphone gain with a small slot-headed screwdriver through the adjustment hole, located on the back of the Transmitter. Set for maximum possible gain without noticeable distortion on the high level peaks. Turning Trim Control clockwise increases audio level; turning counterclockwise decreases level.





### **CARVIN INSTRUMENT BODYPACK TRANSMITTER WITH 1/4" PHONE CONNECTOR**

The Carvin is a rugged compact bodypack with a 1/4" instrument plug that allows the connection of any instrument. Special features include:

- Transmitter OFF/STANDBY/ON switch for ease of use
- Input Level Control for optimum adjustment
- Low Battery LED Indicator
- Battery Compartment with recessed sliding door for quick pop-in battery replacement. Uses standard 9V alkaline battery.
- Separate antenna for maximum range
- Surface Mount Technology (SMT) design allows ultra-compact size, improved RF performance and enhanced reliability.
- Metal belt clip for strong attachment to clothing, or instrument straps.

### ***Operating Instructions***

#### ***Transmitter Set-Up:***

Place a fresh 9V battery into the transmitter's battery compartment (1), observing the correct polarity. Although a fresh alkaline battery can last up to 16-20 hours in use, in order to ensure optimum performance, it is recommended that the battery be replaced after 10 hours of use.

**Transmitter Operation:**

Turn on the Transmitter by pushing the Transmitter OFF/STANDBY/ON switch to the STANDBY position. The battery indicator will give a single quick flash. This indicates usable battery strength. In the case of a dead or low battery, the indicator will either not go on at all or will stay on continuously, indicating a battery voltage below 7V. If this occurs, replace with a fresh 9V battery. To preserve battery strength, turn the Transmitter off when not in use. The Transmit (receive) LED indicator on the Receiver should now be lit. Clip the Transmitter to belt or place in pocket. Extend the instrument cable fully for maximum range. Attach the instrument to the 1/4" connector.

**Receiver Volume Control Adjust**

Turn the Volume control on the Receiver clockwise to near full gain. Adjust the gain up or down so that no audio distortion is present when amp or mixer are set at their usual levels. At full gain, the system gain is approximately 4 dB higher than a direct instrument-to-amp connection.

**Level Trim Adjust**

For optimum performance, a level trim control is provided. Adjust the transmitter gain with a small slot-headed screwdriver inserted through the adjustment hole located on the back of the Transmitter. Set for maximum possible gain without noticeable distortion on the high level peaks. Turning Trim Control clockwise increases audio level; turning counterclockwise decreases level.

*Scratchy Noises: Scratchy noises can happen when any electric guitar is used with any wireless system. Therefore, all Carvin transmitters have a factory installed capacitor inside the 1/4" plug. This capacitor provides first order filtering of RF signal from the GT cord into the guitar, and eliminates virtually all scratchy noises. Should your equipment still give you scratchy noises, we suggest these steps to eliminate them: Make sure that all guitar volume and tone pots are clean and all contacts are solid. This is very important. Should the problem continue, please contact the Carvin's Helpline at 1-800-854-2235 for further assistance.*

## ***CARVIN WIRELESS MICROPHONE SPECIFICATIONS***

### ***Carvin 8000 System Performance***

**Frequency Response:** 25-20,000 Hz  $\pm$ 3 dB

**Dynamic Range:** 120 dB (max SPL to A-weighted noise level)

**Harmonic Distortion:** < 0.3%

**RF Carrier Frequencies:** Eight Channels between 170 and 216 MHz

**Modulation:** FM/ $\pm$  15 KHz

**Operating Range:** 200 feet, adverse conditions; up to 1,500 feet line-of-sight

### ***Carvin 8000 Wireless VHF Receivers***

**Controls:** Power ON/OFF, Volume Control, Mute Adjust

**Audio Output:** 600 ohm unbalanced

**Connectors:** Audio Output; 1/4" mono phone jack. DC Input; 35 mm mini jack

**Indicators:** Power "ON", and Transmit "ON" LED

**Mute:** Externally adjustable; 1 $\mu$ V preset minimum

**Image Rejection:** 60 dB image and spurious

**Power Requirements:** 12V DC @ 100 mA, tip positive, Power supply provided

### ***Carvin 8000GT Wireless Instrument Transmitter***

**Impedance:** 1M Ohms

**Connector:** 1/4" mono phone jack

**Controls:** Transmitter ON/OFF, Audio ON/OFF, Input Level Adjust

**Indicator:** Low Battery LED

**RF Power Out:** 50 mW (maximum allowed by FCC)

**Harmonic and Spurious Emissions:** Less than -40 dB

**Battery:** 9V alkaline

**Battery Life:** 16-20 hours

### ***Carvin 8000LP Wireless Lavalier Transmitter***

**Microphone:** High-performance condenser

**Controls:** Transmitter ON/OFF, Audio ON/OFF, Input Level Adjust

**Indicator:** Low Battery LED

**RF Power Out:** 50 mW (maximum allowed by FCC)

**Harmonic and Spurious Emissions:** Less than -40 dB

**Battery:** 9V alkaline

**Battery Life:** 16-20 hours



## **Trouble shooting** your Carvin Wireless System

### **1 Poor Audio**

- a) Use only a fresh high quality battery; do not use rechargeables
- b) Test all audio cables and connections
- c) Adjust gain pot on transmitter for optimum audio without distortion or noise

### **2 Poor Range**

- a) Antennas should be fully extended at forty-five degree angles
- b) Adjust mute pots on receiver for maximum range (see instructions)
- c) Use only a fresh high quality battery; do not use rechargeables

### **3 No Audio/No Reception**

- a) Check Power on transmitter and receiver
- b) Check audio/standby switch on transmitter
- c) Check AC power connections on receiver
- d) Adjust volume pot on receiver
- e) Adjust gain pot on transmitter for optimum audio without distortion or noise
- f) Adjust mute adjustment knob on receiver for maximum range (see instructions)
- g) Test all audio cables and connections

### **4 No Power**

- a) Use only a fresh high quality battery; do not use rechargeables.
- b) Check power switch on transmitter and receiver
- c) Check AC power connections on receiver



## Carvin's Limited One Year Warranty

Carvin warrants to the original purchaser that your unit is free from any defects in material or workmanship for a period of one year from the date of purchase. If any such defect is discovered within the warranty period, Carvin will repair or replace the unit free of charge, subject to verification of the defect or malfunction upon delivery.

### Important:

Please do not return the product to the store where it was purchased, unless it was purchased at the Carvin Factory Showroom in San Diego. All items for service must be return to Carvin (shipped prepaid), 12340 World Trade Dr., San Diego CA. 92128

This warranty does not apply to microphone capsules, nor to defects or physical damage from abuse, neglect, accident, or improper repair, alteration, or unreasonable use of the unit resulting in cracked or broken cases or parts, or units damaged by excessive heat, and does not apply to batteries or damage caused by leaking batteries. This warranty does not cover finish or appearance items nor items damaged during shipping en route to Carvin for repair.

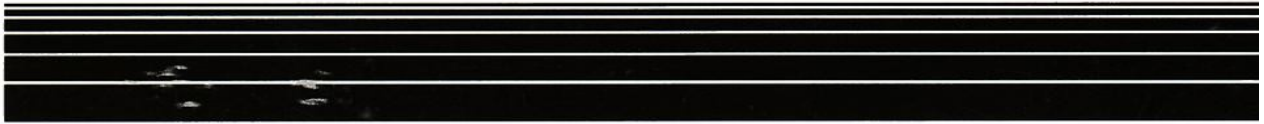
If factory service is required you must first contact our service department at 800-854-2235 to obtain a return authorization number (RA). Make sure the RA number is clearly marked on the outside of your package. If possible, please use your original packaging. You must include the Receiver, Transmitter and Power Supply. You must also include a photocopy of your proof of purchase or we cannot be responsible for repairs or replacements. Carvin will not replace nor be responsible for any units sent incomplete, without proper identification and return address or RA number clearly marked on the package.

Any applicable implied warranties including warranties of merchantability and fitness are hereby limited to one year from the date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. This warranty is in lieu of all other agreements and warranties, general or special, express or implied and no representative or person is authorized to assume for us any other liability in connection with the sale or use of this Carvin Wireless System.

Some states do not allow limitations on how long implied warranties last and do not allow exclusion of incidental or consequential damages so the above limitations and exclusions may not apply to you. This warranty gives you specific and legal rights and you may also have other rights which may vary from state to state.

## **Service for your Carvin Wireless System**

Should your Carvin Wireless System require service, you must contact the Carvin Service Department at 1-800-854-2235 for a Return Authorization (RA) Number. Make sure the RA Number is clearly marked on the outside of packages, and ship the unit prepaid to: Carvin Corp., Service Department, 12340 World Trade Drive, San Diego CA 92128. Include a brief description of the problems you are experiencing.



# HELPLINE

## 1-800-854-2235

8:30 To 4:30 Monday-Friday  
Pacific Standard Time  
USA

### ***CARVIN***

12340 World Trade Dr.  
San Diego, CA. 92128  
800-854-2235

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Record the serial number of your Wireless Mic in the space provided below:

Serial No. \_\_\_\_\_ Date Received \_\_\_\_\_