

K S S E R I E S

uhf

WIRELESS SYSTEM

*THE GUITARIST* UHF

*THE PRESENTER* UHF

*THE VOCAL ARTIST* UHF

*THE HEADSET* UHF

agent:

## FOREWORD

Thanks for purchasing this product, please read this instruction carefully so that can understand how to operate the product of the style you bought correctly. Please store this instruction in a safe place after reading as a reference in the future.

This professional KS-series wireless microphone system used an efficient American, low consumption discharging technique with a super sensitive UHF high broadband frequency receiver and controlled with 10ppm crystal, matched with an independent developed mobile frequency compression, expander circuit, image frequency limiting circuit, a multiple checked silent and noisy circuit, diversity receiving circuit, switch impact noise defeat circuit, resist reverberation circuit and changed output controlled slowly...etc, And designed by a computer EDA system and finished on its item named pattern line .Every system is available to an excellent electric function by Q.C. strictly.

## INTRODUCTION

Your new KS-wireless Series system is designed to give you the best of both sound reinforcement worlds: the freedom of a wireless system, and the excellent quality. This manual covers each of the KS Series system: The Vocal Artist-UHF, The Presenter-UHF, The headset-UHF, and The Guitarist-UHF.

## SYSTEM FEATURES

All KS Series systems offer a variety of exceptional features, including:

- 1. Multiple System Use:** Up to several KS systems can be used in the same performance space. Each system must be set at a different frequency. (Frequency marked on the back of the receiver)
- 2. Simultaneous Output Use:** Unbalanced 1/4" phone plug and balanced XLR output connectors may be used simultaneously to different external devices.
- 3. Range:** KS Series transmitters will work at a distance of up to 50 meters (about 150 ft.) from the receiver.
- 4. Noise Squelch:** Squelch circuit analyzes signal strength and quality, So that can reduces the likelihood of noise burst due to environmental RF (radio frequency) noise.
- 5. Low Battery Warning Light:** A red light on the body-pack and hand -held transmitters warns the user that there is less than one hour of battery life left.

## SYSTEM TYPE

**The Vocal Artist-UHF** is a hand-held system designed for singers who desire the high quality of KARSECT microphones and the freedom of wireless performance.

**The Presenter-UHF** is a body-pack system designed for public speakers who prefer an inconspicuous , hands-free lavalier microphone.

**The Headset-UHF** is a body-pack system designed for users in physically active applications, who desire the freedom of hand-free microphone.

**The Guitarist-UHF** is a body-pack system designed for use with electric guitars, basses, and other electric instruments.

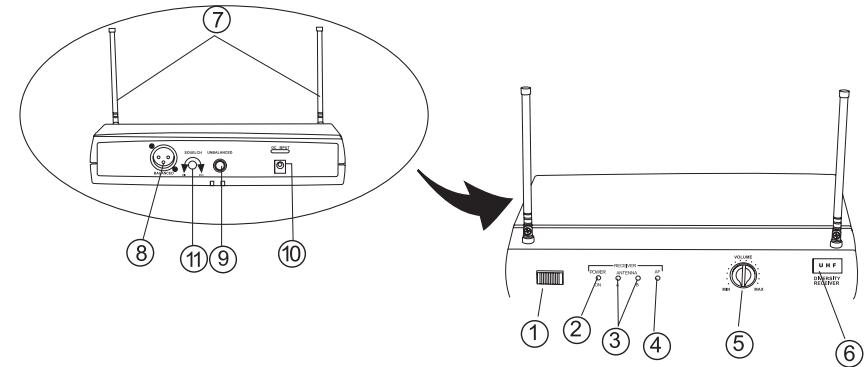


FIGURE1

## DIVERSITY RECEIVER FEATURES (FIGURE 1)

- 1. Power Switch :** Turns receiver power on/off.
- 2. Power On Indicator :** This red light glows when the receiver is plugged into an electrical outlet and switch is pushed, it indicates that the receiver is on.
- 3. Diversity Signal Indicators :** The yellow light of diversity A/B glows when RF(radio frequency)signals are received from the transmitter . When A light is glowing, the channel A is being used, when B light is glowing, the channel B is being used.
- 4. Audio level indicator :** "AF" Audio level indicator of receiver glows according to the volume of the transmitter. when talking or singing into the microphone .
- 5. Volume Control:** Rotate this knob to increase or decrease the volume of the receiver output.
- 6. Model :** model of receiver.
- 7. Antenna socket :** using supplied telescopic antenna or other antenna system.
- 8. XLR Audio Output Connector (Balanced Low Z) :** Plug an XLR audio cable from this connector to the input to your mixer.
- 9. 1/4" Phone Jack Audio Output Connector (Unbalanced High Z) :** An unbalanced audio cable with a 1/4" phone plug (such as a standard guitar cable)can be used between this connector and your amplifier input.
- 10. Power Input Connector :** Connect the ac adapter to this jack and then plug into an ac electrical outlet. ( please use supplied AC adapter)
- 11. Squelch control:** Squelch adjustment including two potentiometers of channel A/B. Adjust squelch control setting to emphasize either signal quality or system rang. This control is factory pre-set, and normally does not need further adjustment. Refer to Receiver squelch Adjustment section for more information.

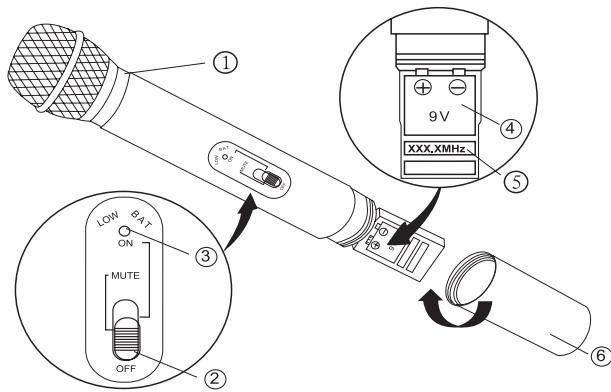


FIGURE 2

### MICROPHONE-TRANSMITTER FEATURES (FIGURE 2)

1. **Grille** : Protects the microphone cartridge and helps reduce breath sounds and wind noise. The grilles for the various microphone heads differ in appearance.
2. **Power and Audio Mute Switch** : put the switch to ON position, the indicator shines for a moment. Put the switch to "MUTE", Allows muting of the microphone audio, avoiding the "thump" noise that can occur when turning of the microphone audio. It is recessed to prevent it from being accidentally turned off.
3. **Low Battery Indicator** : A red light glows when there is one hour or less of useful operating time, allowing battery to be changed before power is depleted.
4. **9V Battery (shown installed)** : Provides power to the microphone- transmitter. (Recommends using alkli battery).
5. **Frequency Mark** :carrier frequency of transm itter.
6. **Battery Cover** : Unscrews for access to the 9v battery and gain control.

### ATTACHING THE BODY-PACK TRANSMITTER TO BELT OR GUITAR STRAP

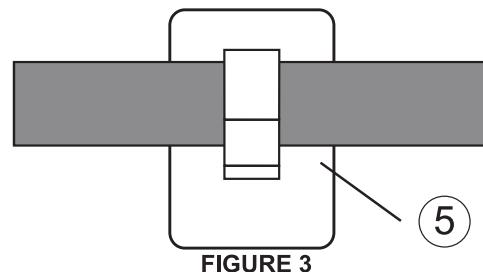


FIGURE 3

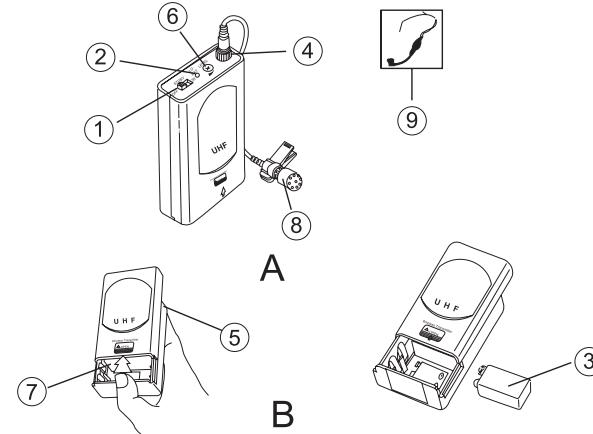


FIGURE 4

### BODY-PACK TRANSMITTER FEATURES (FIGURE 4)

1. **Power and Audio Mute Switch** : Put the switch to ON position, the indicator shines for a moment. Put the switch to "MUTE", Allows muting of the microphone audio, avoiding the "thump" noise that can occur when turning of the microphone audio. It is recessed to prevent it from being accidentally turned off.
2. **Low Battery Indicator** : A red light glows when there is one hour or less of useful operating time, allowing battery to be changed before power is depleted.
3. **9V Battery (shown installed)** : Provides power to the microphone- transmitter. (Recommend using alkli attery).
4. **Input Connector** : Miniature connector allows connection to a variety of lavalier and headset microphone cables and instrument adapter cable.
5. **Belt Clip** : Secures the transmitter to a belt, waistband or guitar strap.(FIGURE4)
6. **Audio Gain Control** : Provides audio level adjustment to accommodate various input signal strengths (e.g., speaking into a microphone or playing an instrument). The factory setting is at mid-point. Use a small screwdriver to make adjustments. Rotate the transmitter gain control clockwise with the screwdriver to increase the voice gain. Rotate the transmitter gain control counterclockwise to decrease the voice gain.
7. **Battery Compartment** : Pushing up the cover of transmitter puts one 9v battery into battery compartment.
8. **Lavalier Microphone** :
9. **Headset Microphone** :

## OPERATING THE VOCAL ARTIST-UHF SYSTEM

1. Refer to Figure 5, Connect the supplied ac power adapter into the DC INPUT connector in back of the receiver. Push the power switch on the face of the receiver , the red POWER light on the receiver will glow.
2. Connect the receiver's XLR AUDIO OUTPUT connector to the mixer input using an XLR to XLR audio cable or connect 1/4" Audio output connector of receiver to the amplifier input by a 1/4" to 1/4" phone plug cable.
3. Insert supplied plug of antenna .And fully rotate clockwise, position the antennas at a 45 angle from vertical.
4. Slide the transmitter's POWER/OFF switch to the POWER position, the indicator shines for a moment at that time, the receiver's DIVERSITY A/B lights will glow.
5. Talk or sing into the microphone. "AF" auto signal indicative light of receiver is glowing according to the volume of transmitter.
6. Adjust receiving volume knob, and the volume adjustment of mixer or amplifier to get a suitable volume.
7. When the performance is over, turn off the sound system and slide the transmitter's POWER/OFF switch to the OFF position to conserve battery power.

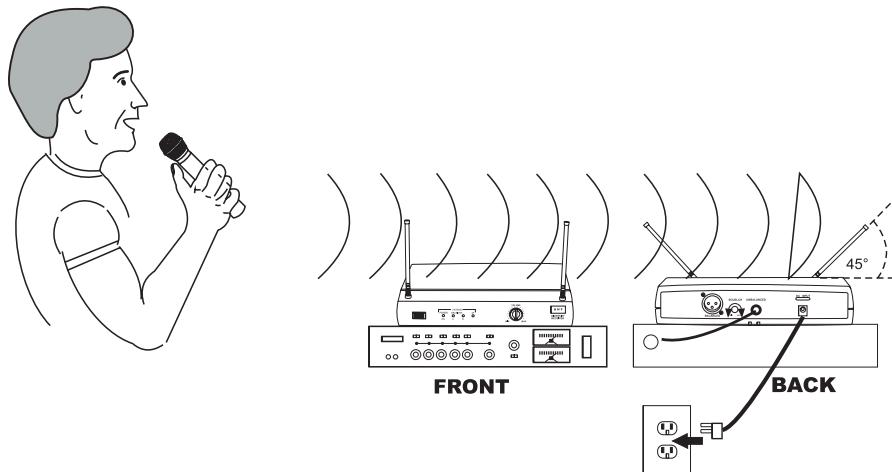


FIGURE 5

## OPERATING THE PRESENTER-UHF SYSTEM

1. Refer to Figure 6 , Connect the supplied ac power adapter into the DC INPUT connector on the back of the receiver. Plug the adapter into a wall socket or other AC power source . Push the power switch on the face of the receiver , the red POWER light will glow.
2. Connect the receiver's XLR AUDIO OUTPUT connector to the mixer input using an XLR to XLR audio cable or connect 1/4" Audio output connector of receiver to the amplifier input by a 1/4" to 1/4" phone plug cable.
3. Insert supplied plug of antenna . And fully rotate clockwise, position the antennas at a 45 angle from vertical.
4. Press the lavalier microphone into the mounting clip and attach it to your garment. Do not cover the microphone with your clothing , and keep it approximately 8 to 20 inches below your chin. (See Figure 8) Insert the other side into audio socket and fully rotate.
5. Slide the recessed transmitter POWER/OFF switch to the POWER position, the indicator shines for a moment at that time, the receiver's DIVERSITY A/B lights will glow.
6. Adjust receiving volume knob, and the volume adjustment of mixer or amplifier to a suitable volume. Transmitter gain may need to be adjusted. (Refer to the Transmitter Audio gain Adjustment section.)
7. When the performance is over, turn off the sound system and slide the transmitter's POWER/OFF switch to the OFF position to conserve battery power.

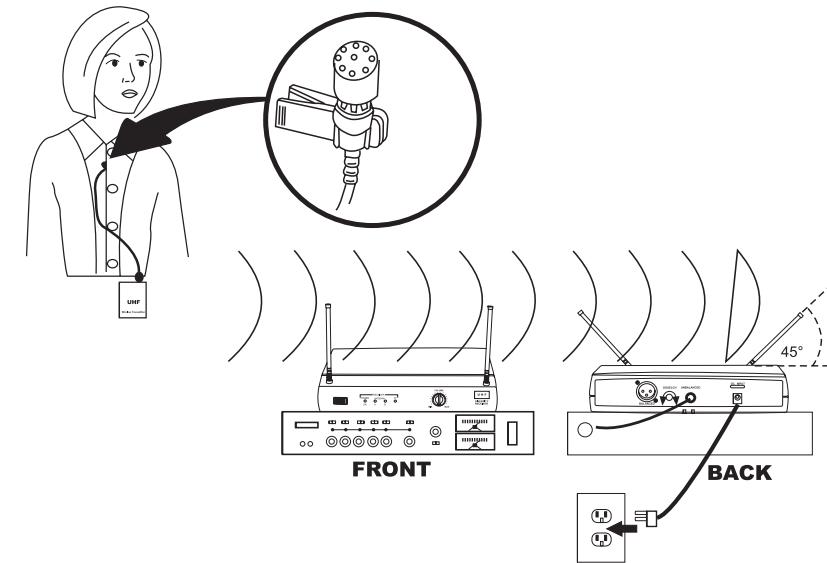
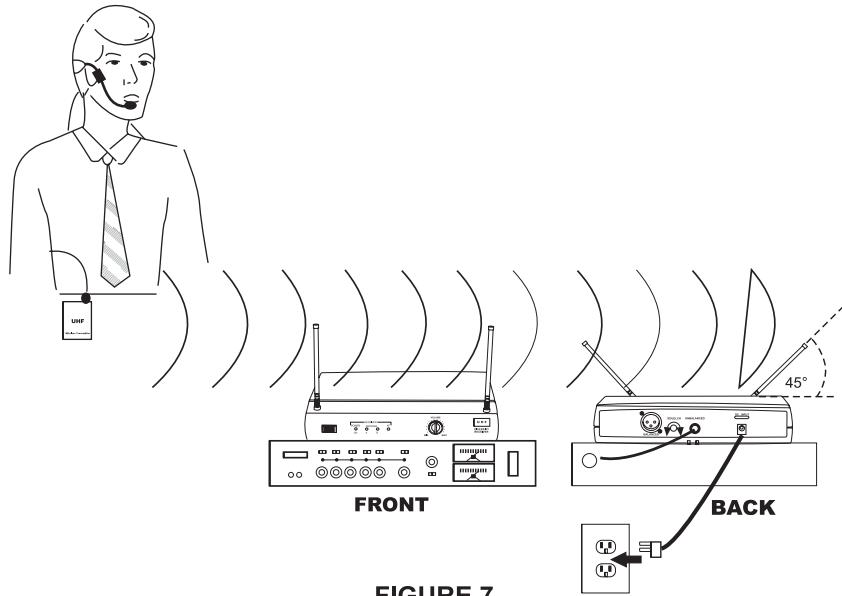


FIGURE 6

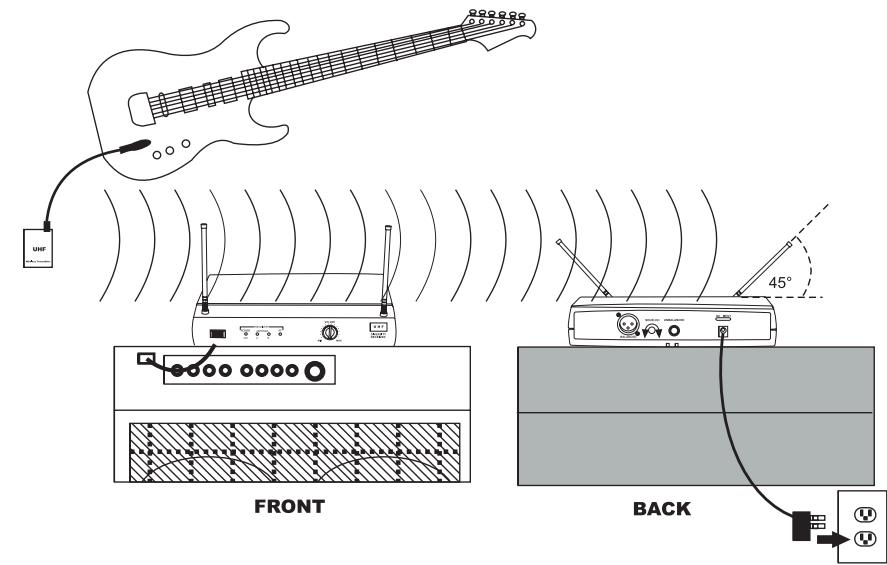
## OPERATING THE HEADSET-UHF SYSTEM

1. Refer to Figure 7, Connect the supplied ac power adapter to the DC INPUT connector on the back of the receiver. Plug the adapter into a wall socket or other ac power source . Push the power switch on the face of the receiver, the red POWER light on the receiver will glow.
2. Connect the receiver's XLR AUDIO OUTPUT connector to the mixer input using an XLR to XLR audio cable or connect 1/4" Audio output connector of receiver to the amplifier input by a 1/4" to 1/4" phone plug cable.
3. Insert supplied plug of antenna i. And fully rotate clockwise, position the antennas at a 45 angle from vertical.
4. If using the headset for the first time, refer to the tag attached to the headset for assembly instructions, the other side insert into the Audio Soket and fully rotate.
5. Slide the recessed transmitter POWER/OFF switch to the POWER position the indicator shines for a moment at that time, the receiver's DIVERSITY A/B lights will glow.
6. Adjust receiving volume knob, and the volume adjustment of mixer or amplifier to a suitable volume. Transmitter gain may need to be adjusted. Refer to the Transmitter Audio gain Adjustment section.
7. When the performance is over, turn off the sound system and slide the transmitter's POWER/OFF switch to the OFF position to conserve battery power.



## OPERATING THE GUITARIST-UHF SYSTEM

1. Refer to Figure 8, Connect the supplied ac power adapter into the DC INPUT connector in back of the receiver. Plug the adapter into a wall socket or other ac power source. Push the power switch on the face of the receiver, the red POWER light on the receiver will glow.
2. Insert supplied plug of antenna. And fully rotate clockwise, position the antennas at a 45 angle from vertical.
3. Connect the receiver's 1/4" PHONE JACK AUDIO OUTPUT connector to amplifier input, using a standard guitar cable.
4. Connect your guitar or bass to the transmitter input jack with a instrument Adaptor and fully rotate.
5. Adjust the volume control on your guitar to desired level. To match wireless output to that of wired system, see Receiver Volume Adjust for the Guitarist.
6. Slide the recessed transmitter POWER/OFF switch to the POWER position the indicator shines for a moment at that time, the receiver's DIVERSITY A/B lights will glow.
7. When the performance is over, turn off the sound system and slide the transmitter's POWER/OFF switch to the OFF position to conserve battery power.



## RECEIVER VOLUME ADJUSTMENT FOR THE GUITARIST-

### UHF

1. Plug instrument directly into guitar/bass amp. Set volume and tone controls on both the instrument and amplifier for a clean signal with desired tonal quality and volume. DO NOT change these setting for the rest of volume adjustment.
2. Unplug instrument from the amplifier input and plug into the transmitter. Plug the receiver into amplifier input.
3. Adjust receiver volume control until sound quality matches that achieved in step 1.

## TRANSMITTER AUDIO GAIN ADJUSTMENT

The audio gain control on transmitter has been factory-at the mid-range position for best performance in most applications. This may be necessary for soft singers or talkers, or guitar or basses with low outputs.

- To Increase Gain: Rotate the transmitter gain control clockwise with the screwdriver to increase audio gain.
- To Reduce Gain: Rotate the transmitter gain control counterclockwise with the screwdriver to reduce audio gain.

To return audio gain to the factory setting, rotate the transmitter audio gain control to the mid position.

## TIPS FOR ACHIEVING MAXIMUM PERFORMANCE

- Make sure you can always see a receiver antenna from the transmitter position.
- Keep the distance from transmitter to receiver antenna as short as possible.
- Point receiver antennas away from each other at a 45 angle from vertical.
- Avoid placing the receiver antennas near metal surfaces and obstruction.
- Monitor battery fuel gauge and replace battery as soon as red light is on.
- If stacking or rack mounting receivers In a multiple-system use situation, do not allow antennas to touch or cross.
- Perform a walk-through before performance or presentation .If dead spots are found , adjust location of receiver .If dead spots remain ,mark spots and avoid.

## TROUBLESHOOTING

PROBLEM	INDICATOR STATUS	SOLUTION
No sound.	Red transmitter indicator is not flash	Slide transmitter POWER ON/OFF switch to ON position. Make sure battery is inserted properly ,observing battery ("+/-"). If battery is inserted properly, replace with fresh battery
No sound.	Red transmitter indicator is flash	Slide transmitter MUTE/ON switch to ON position
No sound.	Red receiver POWER light off.	Make sure ac adapter is securely plugged into electrical outlet and into dc input connector. Make sure ac electrical outlet works and supplies proper voltage.
No sound.	Receiver DIVERSITY A/B lights glowing.	Turn up receiver volume control. Confirm that the output connections from the receiver to the external equipment are secure
No sound.	Receiver DIVERSITY A/B lights off. Transmitter and receiver POWER lights glowing	Confirn transmitter's and receiver's frequencies match. Move transmitter transmitter closer to receiver
Sound level differs from level of a cabled instrument.	Receiver DIVERSITY A/B lights glowing.	Adjust transmitter gain level to compessary. Adjust receiver volume as necessary.
Sound level differs with different guitars.	Receiver DIVERSITY A/B lights glowing.	Readjust transmitter gain level to compensate for differences in guitar outputs
Distortion level increases gradually	Receiver DIVERSITY A/B lights and transmitter LOW BATTERY light glowing	Replace transmitter battery
Bursts of noise or other audibleradio signals present.	DIVERSITY A/B lights on .	Identify potential sources of interference (other RF-sources) and turn off, remove or use a wireless system operating on a different frequency.
Momentary loss of sound as transmitter is moved around performing area.	Receiver DIVERSITY A/B lights off when sound is lost	Reposition receiver and perform walk-through test again. If audim dropouts persist, mark "dead" spots and avoid them during performance

## SYSTEM SPECIFICATIONS

**RF Carrier Frequency Range:** Approximately 720 to 865 MHZ (Available frequencies depend on applicable regulations in country where system is used).

**Operating Range:** 50m(approximately 150ft)under typical conditions.

**Audio Frequency Response:** 50 to 15,000Hz,±3dB.

**THD:** <1%.

**Dynamic Range:**>100dB.

## Operating Temperature Range

-29° to 74°C (-20° to 165°F)NOTE:Battery characteristics may limit this range.

## RECEIVER SPECIFICATION

Power Requirements	120V or 230V AC adaptor with 2.1 mm female plug
Power Requirements	12-18V DC nominal, 300mA
Signal/Noise Ratio	MORE THAN 85dB
Border Upon Channel Rejection	MORE THAN 70dB
Image & Spurious Rejection	MORE THAN 70dB
Audio Output Level	0 - ± 300mV
Receiving Sensitivity	-105dBm
Dimensions	(206MM X 149MM X 44MM)

## HAND-HELD TRANSMITTER SPECIFICATIONS

Power Requirements	9V alkaling battery
Nominal Current Drain	LESS THAN 40mA
Modulation Type	FM
RF Output	MORE THAN 13dBm
Max Deviation	± 30KHz
Spurious Emission	MORE THAN 55dB
Dimensions	235MM X 50MM X 50MM

## BODY-PACK TRANSMITTER SPECIFICATIONS

Power Requirements	9V alkaling battery
Nominal Current Drain	LESS THAN 40mA
Modulation Type	FM
RF Output	MORE THAN 13dBm
Max Deviation	± 30KHz
Spurious Emission	MORE THAN 55dB
Dimensions	105MM X 65MM X 25MM

## OPTIONAL ACCESSORIES

1/4" to 1/4" Cable (The Guitarst -UHF only).....(G - 05)  
 1/4" to Miniature Connector.....(WA302)  
 1.8 Meter (6 ft.) Receiver-Mixer Cable.....(WA401)

## FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

## RF warning statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.