

# REFERENCE MANUAL



X905 20-BIT DIGITAL UHF WIRELESS SYSTEM  
Made in U.S.A.



Serial No: \_\_\_\_\_

## INTRODUCTION

Congratulations on your purchase of the Xwire X905 Digital Wireless System. The Xwire X905 is a state-of-the-art digital audio transmission system and is engineered to deliver outstanding audio and RF performance in combination with high-grade amplification, mixing and recording systems. Xwire proudly presents this advanced new standard in audio transmission to musical and audio professionals as proof of Xwire's non-compromising pursuit of the ultimate in RF and audio performance. Your digital wireless system is designed for superb audio quality and wireless performance as well as continued reliability.

To familiarize you with your new digital wireless system, we suggest that you read through this entire operation manual.

### FEATURES

- 20-bit A/D - D/A Conversion - For studio quality sound.
- No Comander ICs - For the transient response and 'feel' of a wired connection.
- Frequency Clear™ UHF Digital - System transmits a proprietary digital signal on a 900 MHz UHF carrier for freedom from interference, including HDTV.
- Quadiversity™ Receiver - Two internal receivers, four internal antennas, all micro-processor controlled for freedom from dropouts.
- Operating Range of 100 - 150 feet under adverse conditions, 300 feet line of sight.
- Backlit LCD Display - Shows important performance parameters including audio level, operating channel, and battery life in the transmitter.
- Limited Five Year Transferrable Warranty - For quality assurance. Made in U.S.A.

### UNPACKING

As you unpack the X905, please check to be sure that along with the XR905 receiver, the following items are included:

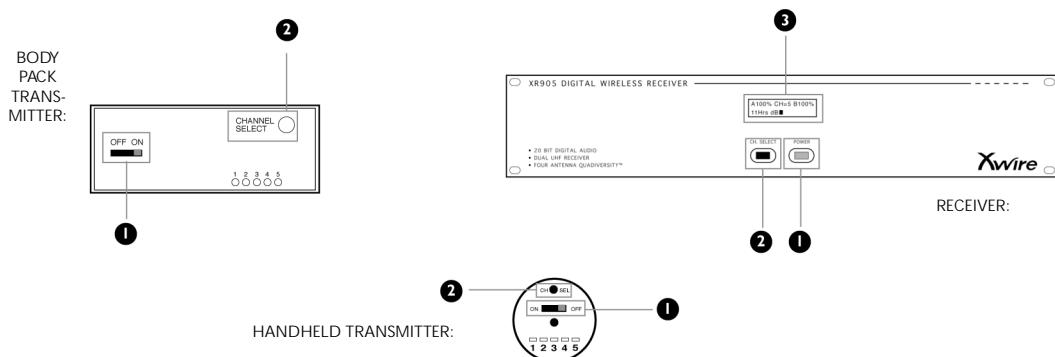
- XT905Bodypack or XH905 Handheld digital transmitter.
- set of four alkaline AA batteries.
- a 12V AC or DC power supply.
- microphone or audio cable (depending on model purchased).

### INFORMATION

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

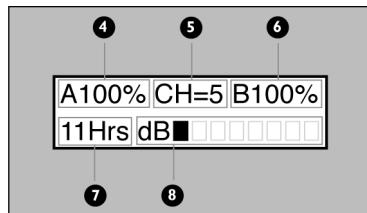
## IDENTIFYING PARTS AND CONTROLS



**(1) Power Switch (POWER)**

- Press once to turn the power to the receiver on, and once more to turn the power off.
- Each time the power is turned on, the receiver will display "Xwire Digital Wireless Systems" and go through a four second calibration procedure.

**(3) Receiver Display**



**(2) Channel Select Button (CH. SELECT)**

- Press this button to select one of five operating channels.
- When this button is pressed, the receiver will be set to receive data on the next adjacent channel. Example: 1-2-3-4-5... (cycle then repeats)

**(4) Percentage of Data Indicator**

- Indicates the percentage of data currently being received by internal receiver "A".

**(5) Channel Selection Indicator**

- Indicates the current operating channel selected to receive data sent by the transmitter. Transmitter must be set to the same operating channel for the system to operate correctly.

**(6) Percentage of Data Indicator**

- Indicates the percentage of data currently being received by internal receiver "B".

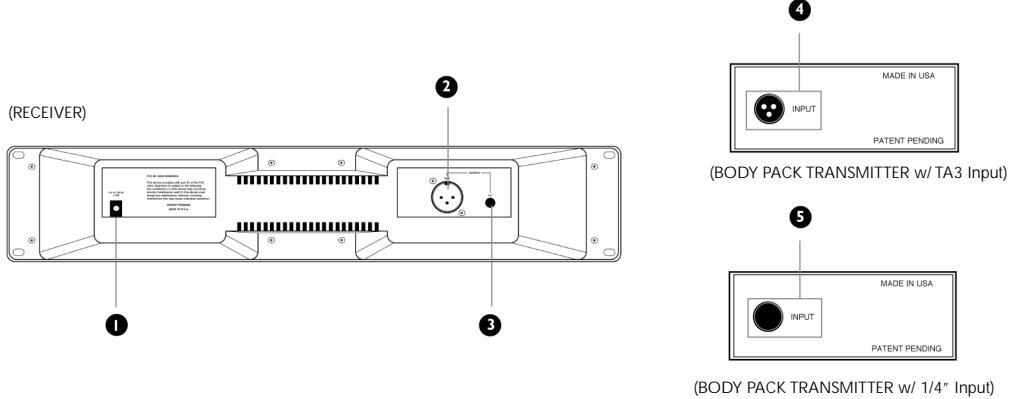
**(7) Transmitter Battery Performance Indicator**

- Indicates the number of hours that the transmitter will operate with the currently installed batteries (in one hour increments, eleven hours typical).

**(8) Audio Level Indicator**

- Indicates audio level across a seven segment display.

# CONNECTIONS



- (1) Power Supply Connector
- Connect to the power supply.
  - Power requirements are 12volt A/C or D/C.

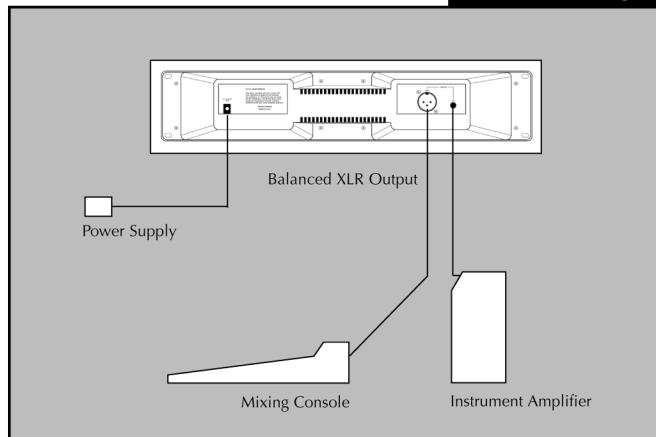
- (2) Balanced XLR Output Connector
- If the source is a microphone or instrument, connect to balanced microphone input of mixer. If the source is line-level, connect to balanced line-in of mixer. Audio signal that originated at the transmitter will be output.

- (3) Unbalanced 1/4" Output Connector
- Connect to the input of an instrument amplifier. Audio signal that originated at the transmitter will be output.

- (4) TA3 Input Connector
- Connects to the output of lavalier, headset or instrument clip-on microphone.

- (5) Unbalanced 1/4" Input Connector
- Connects to the output of guitar or bass instrument.

## Connection Examples



# OPERATING INSTRUCTIONS

## Power Up Procedure

To power up the transmitter, slide the power switch to the on position, one of the channel select LEDS will light to indicate power is on. To power on the receiver, first provide power to the unit using the wall adapter included with the system, then push the power button on the front panel, the LCD display should light up indicating power is on.

## Channel Selection

There are 5 different frequency channels which you can choose to transmit and receive data, they are labeled 1-5 on both transmitter and receiver. In order to operate on any one of these channels, you must have both the transmitter and receiver on the same channel number. To select a channel on the receiver, power up the receiver, the current channel selected will be shown on the LCD display (ch=1-5). To change the channel, depress and release the channel selection button located on the front panel. The channel number will advance one, indicating a new channel has been selected. After selecting a channel on the receiver, the transmitter frequency channel must then be matched to the receiver's. To select a transmitter channel, power up the transmitter, the current channel selected will be displayed by lighting the LED next to corresponding channel number(1-5). To advance the channel, push the channel select button above the LEDS. When both transmitter and receiver have the same channel number selected, the receiver should then receive data. To verify RF signal reception, the receiver LCD will display a percentage of correct data received on both A and B receivers. For proper operation, the percentage of correct data should read between 95% and 100% on the display.

## Using Your Wireless

- 1) Place the receiver on or near the desired amplification system, FOR BEST RESULTS, PLACE RECEIVER HIGH ABOVE ANY OBSTRUCTIONS, as the system works best when transmitter and receiver antennas are in line of sight.
- 2) Using the proper output connector on the receiver, the XLR for low impedance, or the 1/4" jack for high impedance, connect the output of the receiver to the input of your amplification system. Power up the unit and select the desired frequency for receiving data.
- 3) Connect the output of your instrument into the input connector on the transmitter.
- 4) Power up the transmitter and select the proper frequency channel for data transmission. TRANSMITTER AND RECEIVER MUST BE ON THE SAME CHANNEL TO OPERATE CORRECTLY. Attach transmitter to your instrument strap, for best operation keep antenna away from your body and unobstructed.

(NOTE) Communication between transmitter and receiver can be checked by viewing the LCD display on the receiver. The LCD will display the percentage of correct data received, frequency channel number, transmitter battery life, and audio signal strength. The data received should be 95-100%, once data is being received, input an audio signal into the transmitter using your instrument, the audio meter on the receiver should display audio signal strength. Once you have verified the unit is receiving data, and audio level is being displayed, the unit is ready for operation.

## Multi-system Operation

Up to five systems can operate simultaneously. In situations where it is necessary to have more than one person wireless, each transmitter and receiver combination must be set to the same channel. Set the first system to transmit and receive on channel "one", the second system to transmit and receive on channel "two"... and so on.

## Battery Replacement

The transmitter uses 4 AA alkaline batteries. DO NOT MIX OLD AND NEW BATTERIES. This will cause unpredictable battery life performance and display readings. To remove and install batteries, hold down on the battery release button, and slide the cover open. This will expose the battery compartment. For quick removal of batteries, it is okay to 'slap' transmitter to palm of hand. A sticker showing the proper battery placement is on the bottom of the battery compartment. After installing the batteries, slide the cover over the batteries until the release button locks (you should here a click when it locks). After the batteries have been installed power the unit on, one of the channel LEDs should light to indicate power is on. Alkaline batteries should last about 11 hours, NiCad rechargeable batteries will only last about 6 hours. Standard batteries may only last 3 to 6 hours. THE BATTERY HOUR DISPLAY WILL ONLY BE ACCURATE FOR ALKALINE BATTERIES. The battery life is calculated inside the transmitter and sent to the receiver and then displayed on the LCD in 1 hour increments. Upon power up the battery info will take 1-5 minutes to stabilize, the battery gauge is accurate within + or - 20 min. Within the one hour mark, LO BATT will be displayed informing you that the batteries currently installed in the transmitter are nearly depleted. You may use batteries until they are completely drained without affecting the performance of the unit in any way.

## ADDITIONAL INFORMATION

### **Warranty Information**

Xwire will repair or replace any defective system within the first two years free of charge. After the initial term, we will continue to repair or replace defective systems for an additional period of three years, for a flat fee of \$35.00. (You are NOT required to pay this fee in advance, it is due only if repairs become necessary). Xwire will cover 2nd-day return shipping costs in the continental United States. This warranty is transferrable, but does not cover abused systems. Please retain a copy of your dated sales receipt for proof of warranty status should repairs become necessary.

### **Refer All Servicing to Xwire**

We believe that the X905 is one of the most reliable wireless systems that can be made using current technology, and should provide years of trouble-free use. However, should problems occur, DO NOT attempt to service the unit yourself. Service on this product should only be performed by Xwire. THERE ARE NO USER SERVICEABLE PARTS INSIDE.

### **Obtaining Repair Service**

Before contacting Xwire, check over all your connections, and make sure you've read the manual. Your Xwire dealer may be able to offer further assistance. If the problem persists, call Xwire at 1-916-92XWIRE and request the customer service department. Talk the problem over with one of our technicians; if necessary, you will be given a return authorization (RA) number and instructions on how to return the unit. All units must be shipped prepaid and COD shipments will not be accepted.

For prompt service, indicate the RA number on the shipping label. Tape a note to the top of the unit describing the problem, include your name and phone number where Xwire can contact you if necessary, as well as instructions where you want the system returned. Xwire will pay for 2nd-day shipping back to you on any repair covered under the terms of this warranty.

Service address for customers in the USA:

Xwire Corporation  
4630 Beloit Drive, Suite 10  
Sacramento, CA 95838  
916-929-9473, FAX 916-924-8065