

# ***Acesonic***<sup>®</sup>

# **IWM-360**

## Dual Infrared Wireless Microphone System

# User Manual



### **IWM-360S** Silver

Carrier Frequency: ChA 2.86 MHz, ChB 3.22 MHz

### **IWM-360B** Black

Carrier Frequency: ChA 2.06 MHz, ChB 2.56 MHz

#### ***Note:***

To ensure this system works safely and to its fullest potential, please read this User Manual carefully before operation and keep for future reference.

# Introduction

## IWM-360 Wireless Microphone System

This is an infrared wireless microphone system offering professional performance and operating features. Infrared transmission is used to reduce room-to-room interference while sending a signal from the speaker's microphone to the dual-channel receiver. The receiver also works perfectly in tandem with an amplifier and speaker(s).

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**Note:** Please store this instruction manual in a safe place after reading for future reference.

# System Components

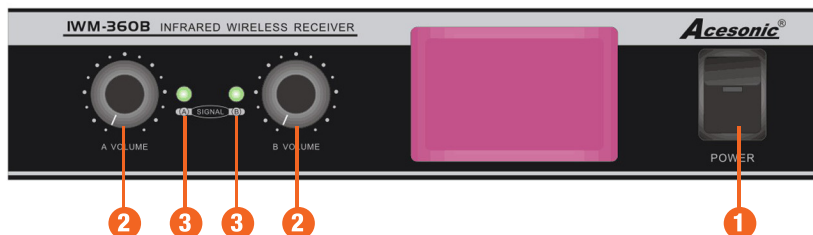
System Includes	
 <p>IWM-360 Receiver</p>	 <p>Handheld Transmitters x2</p>
 <p>Power Cord</p>	 <p>6.35mm Audio Cable</p>
 <p>Highly-Efficient IR Signal Sensor</p>	 <p>Rechargeable Microphone Docking Station</p>

## System Features

- Simultaneous 2-Channel Operation for both transmitters (Ch. A and B)
- Infrared (IR) Signal Reception LED Indicators
- Channel A, B, or A+B Mixed Audio Output 6.35mm-type connector
- Separate Channel A and B Volume controls
- Maximum 3 IR Sensor Inputs
- Multiple emitter array of high-efficiency IR emission LEDs for optimum IR transmission
- Power ON LED indicator
- Powerful Uni-Directional dynamic capsule for optimum audio, minimum handling noise and maximum feedback rejection
- Rugged steel-mesh ball screen with anti-rolling
- Anti-strike aluminum tube
- Microphone recharging base included so your mics are always ready to perform!

# Receiver

## Front Panel



### 1. Power Button

Switch On or Off

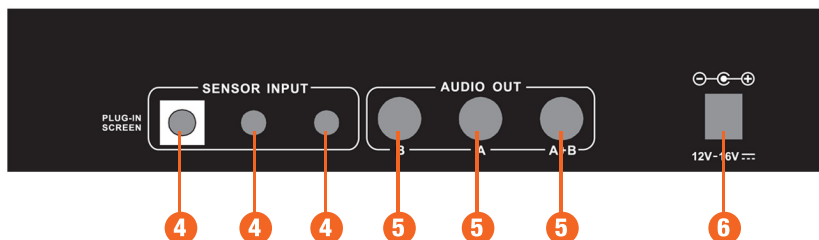
### 2. Channel A and B Volume Controls

Independent channel volume controls

### 3. Channel A and B LED Signal Indicators

IR reception LED Indicators light green when transmitters are On.

## Rear Panel



### 4. Infrared Sensor Inputs

Connect your 3.5mm IR Sensors into these inputs

**Note:** Sensor Input with the white square will disable the main IR Sensor on the front when used.

### 5. Audio Output Jack

Connect your mixer or a P.A. system using the included 6.35mm-to-6.35mm Audio Cable

### 6. DC Power Input

Connect to an AC 100-240V outlet

# Infrared (IR) Sensors

## Function

The IR Sensors act as the “antennae” for your wireless microphone system. A multiple array of wide-angle IR sensitive LEDs (behind the front panel receptors) receive the infrared signal emitted by your IR Transmitter. Connect each Sensor to the rear jacks of the Receiver (labeled Sensor Input), then turn the Receiver ON. The Sensor Power LED will light up to indicate that the IR Sensor is properly connected to the Receiver. The Channel A and B IR LED Indicators will light green when an infrared signal on the corresponding channel is detected.



## Installation

The Sensors can be mounted on any surface using any of the mounting brackets and screws (sold separately). To ensure the proper operation, observe the following installation rules:

- a** Position the IR Sensors with their front panel receptors facing the entire operational area of the Handheld Transmitters (Microphones)

**Note:** The IR Sensors will need to be positioned differently depending on room configuration or venue. During installation, power up the System and have one person walk around the desired locations with the Transmitters turned On, while another person positions the IR Sensors for the greatest range possible for maximum wireless freedom.

- b** Since the unit utilizes infrared light reflected off room surfaces, do not mount the IR Sensors near a black colored ceiling, wall, or heavy curtains as they may limit the range of signal transmission.
- c** Although the unit functions perfectly in brightly lit rooms, it works best if bright lights do not shine directly on the IR Sensors.  
**Note:** System is not designed for use in high-ambient light conditions such as outdoors in sunlight or on-stage lighting.
- d** Never cover the IR Sensors as this will disrupt normal operation. Make sure the IR Sensors are not obstructed and always have a clear Line-Of-Sight to the Transmitters. Clean with a soft cloth consistently or when it gets smudged or dirty.
- e** Position the IR Sensors away from Plasma TVs and other equipment that may produce high levels of electrical and RF interference.

# Handheld Microphone Transmitter



- 1. Power LED Indicator**  
Green light for On, Low Battery is Red
- 2. Power Switch**  
On/ Off
- 3. Battery Compartment Cover**
- 4. IR Emitter**  
Infrared Emission to Receiver

## Operation

Slide the Power Switch to the On position. The Power LED Indicator will light green, indicating that the Transmitter is On. In the case of low batteries, the indicator light will light red. Replace batteries with fresh ones as soon as this is indicated, or in the case of Ni-MH rechargeable batteries, place the microphones in the recharging station included.

**Note:** Never attempt to recharge alkaline batteries. Always remove the batteries from the microphone when not in use for a period of time.

When the Handheld Microphone is On, the Receiver's IR LED that indicate the corresponding channel should now be lit green (on well installed IR Sensors). While speaking into the microphone, adjust the corresponding Volume Control on the Receiver and also on your Mixer/ P.A. to the desired level. For optimum performance range, make sure that the IR Emitter at the base of the Transmitter is not covered by your hand and has an unobstructed Line-Of-Sight with the IR Sensor.

**Note:** Observe care in selecting Volume, Transmitter location and speaker placement, so that acoustic feedback (howling and screeching) can be avoided.

# Handheld Microphone Transmitter

## Setup

- a** Unscrew and remove the Battery Compartment cover to expose the battery holder.
- b** Insert two (2) fresh AA alkaline batteries or Ni-MH rechargeable batteries while making sure the correct position of polarities are observed as marked. Screw the cover back on when done.



## Charger Base (Included)

The adapter Charger Base can be used to recharge two (2) Handheld Microphones simultaneously. The Charger Base's LED Indicator will light red when the microphone is placed in the charging slot, and will light green when the batteries are fully charged.

# System Specifications

■ IWM-360S

■ IWM-360B

## Receiver

- Modulated Mode..... (IR) Frequency Modulated

■ Carrier Frequency..... ChA 2.86 MHz, ChB 3.22 MHz

■ Carrier Frequency..... ChA 2.06 MHz, ChB 2.56 MHz

- Audio Frequency Response..... 50Hz-15KHz  $\pm 3$ dB
- Deviation.....  $\pm 40$ Hz
- S/N Ratio.....  $> 85$ dB
- Dynamic Range..... 98dB
- T.H.D.....  $< 1\%$
- Carrier Stability.....  $\pm 0.005\%$  ( $-10^{\circ}\text{C}$ - $50^{\circ}\text{C}$ )
- Channels..... 2 Channels
- Output Voltage..... 400mv
- Working Range.....  $> 100\text{m}^2$  (15m LOS\*)
- Power Supply..... 12V DC
- Receiver Size.....  $\frac{1}{2}$  19" EIA Standard 1-Rack Unit
- Receiver Weight..... 1300g

## Transmitter (Microphones)

- Sound Cartridge..... Uni-directional Dynamic
- Carrier Frequency..... 2.86 MHz / 3.22 MHz
- Battery..... 2 x AA Size
- Working Time..... 7 Hrs (Lo Output)/ 4 Hrs (Hi Output)
- Transmitter Size..... (Head) 50 x (L) 245mm
- Transmitter Weight..... 280g
- Recharging Time..... 5 Hrs (2000mAh, Ni-Mh)

\*LOS - Line Of Sight



# ***Acesonic***<sup>®</sup> **IWM-360**

Dual Infrared Wireless Microphone System

**One (1) Year Manufacturer Warranty  
Lifetime Technical Support  
Designed in the U.S.A.**

**Technical Support:**

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