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› D Debra ER-280 Wireless In-Ear Monitor System User Manual

D Debra ER-280

D Debra ER-280 Wireless In-Ear Monitor System

USER MANUAL

1. Introduction

The D Debra ER-280 is a professional UHF wireless in-ear monitor system designed to provide clear, detailed audio monitoring for performers, musicians, and audio engineers in various settings such as stages, bands, recording studios, and live performances. This system ensures stable signal transmission and high-quality sound reproduction, allowing for freedom of movement without compromising audio fidelity.

2. Package Contents

Upon unboxing your D Debra ER-280 system, please verify that all the following components are included:

- UHF Wireless IEM Transmitter
- Bodypack Receiver (Quantity: 2 for this model)
- In-ear Earbuds
- Power Adapter
- Antenna
- Audio Cable
- Metal Rack Mount
- User Manual



Figure 2.1: Complete D Debra ER-280 System Package Contents

3. Product Overview

3.1 Transmitter Unit

The transmitter unit serves as the central hub for your audio signals. It features input jacks for audio sources, a channel display, frequency modulation controls, and a power switch.

RECEIVER MULTIPLEXING

Multiple people can synchronously monitor the scene, connect multiple receivers, there is no number limit



Figure 3.1: Transmitter Unit Front and Rear Panels

3.2 Bodypack Receiver Unit

The bodypack receiver is a compact, portable unit that receives the audio signal from the transmitter. It includes a channel display, selection button, RF indicator, and a battery compartment.

UHF TRANSMISSION

UHF signal transmission stronger penetration,
continuous frequency, no dead point



Figure 3.2: Bodypack Receiver Unit with Battery Compartment

3.3 Key Technologies

The ER-280 system incorporates advanced technologies for optimal performance:

- **Intelligent Chip:** Features unique EW-IEM technology to enhance anti-interference performance and ensure stable signal transmission.
- **UHF Transmission:** Utilizes UHF signals for stronger penetration, continuous frequency, and no dead spots, ensuring reliable audio delivery.

INTELLIGENT CHIP

The unique EW-IEM technology enhances the anti-interference performance and guarantees the stability of signal transmission



Figure 3.3: Intelligent Chip Technology

16 FREQUENCY BANDS

Preset 16 frequency band adjustment, multiple sets of use will not cross frequency.



Figure 3.4: UHF Transmission Overview

4. Setup

4.1 Transmitter Setup

1. Connect the provided power adapter to the DC IN (12V-18V) port on the rear of the transmitter and plug it into a power outlet.
2. Connect your audio source (e.g., mixer, sound console) to the AF IN (R) and AF IN (L) XLR inputs on the rear of the transmitter using appropriate audio cables.
3. Attach the antenna to the ANTENNA interface on the rear of the transmitter. Ensure it is securely fastened and positioned vertically for optimal signal transmission.

4.2 Receiver Setup

1. Open the battery compartment on the bodypack receiver. Insert two AA 1.5V batteries, ensuring correct polarity. Close the compartment securely.
2. Plug your in-ear earbuds into the 3.5mm earphone jack on the bodypack receiver.

5. Operating Instructions

5.1 Power On/Off

To power on the transmitter, press the power switch on the front panel. To power on the bodypack receiver, press and hold the power button on the receiver unit.

5.2 Channel Selection and Pairing

The ER-280 system operates on 16 selectable channels to avoid interference. To ensure proper operation, the transmitter and receiver(s) must be set to the same channel.

1. On the transmitter, use the 'SELECT' button to cycle through the available channels until your desired channel number is displayed.
2. On the bodypack receiver, press the 'channel select' button inside the battery compartment (visible when opened) to match the channel displayed on the transmitter.
3. Once both units are on the same channel, the RF indicator on the receiver should illuminate, indicating a successful connection.



Figure 5.1: Channel Selection on Bodypack Receiver

5.3 Volume Adjustment

Adjust the monitoring volume using the 'VOLUME' knob on the front of the transmitter unit. Individual receiver volume can be adjusted via the connected earphones if they have inline controls.

5.4 Multiple Receiver Operation

The ER-280 system supports an unlimited number of receivers with a single transmitter. Simply set each additional bodypack receiver to the same frequency as the transmitter to enable synchronous monitoring for multiple users.

SYSTEM PARAMETER:
Modulation mode: broadband FM
Channels: 16
Channel frequency: 300KHz
Frequency stability: $\pm 0.005\%$
Dynamic bound: 100dB
Max excursion: $\pm 45\text{KHz}$
Frequency response: 60Hz-18KHz($3\pm\text{dB}$)
S/N: >105dB
T.H.D: $\leq 0.5\%$
Operation distance: 50m
working environment temperature: $-10^{\circ}\text{C} - +50^{\circ}\text{C}$

RECEIVING MACHINE INDEX:
Sensitivire: 12dBuV(80dB S/N)
Sensitivite adjustable rang: 12-32dBuV
Erratic control: $\geq 75\text{dB}$
Max output frequency: +10 dBV

TRANSMITTER INDEX:
Antenna receive: BNC/50 Ω
Erratic control: -60dB
Power supply: DC12V/700mA





Figure 5.2: Receiver Multiplexing

5.5 Official Product Video

Your browser does not support the video tag.

Video 5.1: An official product video demonstrating the D Debra ER-280 Wireless In Ear Monitoring System, showcasing its features and components.

6. Maintenance

To ensure the longevity and optimal performance of your D Debra ER-280 system, follow these maintenance guidelines:

- Keep the units clean by wiping them with a soft, dry cloth. Avoid using abrasive cleaners or solvents.
- Store the system in a dry, cool place away from direct sunlight and extreme temperatures.
- Remove batteries from the bodypack receivers if they will not be used for an extended period to prevent leakage.
- Handle the antennas and cables with care to prevent damage.

7. Troubleshooting

If you encounter issues with your D Debra ER-280 system, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound from receiver	Receiver not powered on; low batteries; incorrect channel; earphones not connected; transmitter not powered on or no audio input.	Ensure receiver and transmitter are powered on. Check and replace batteries. Verify transmitter and receiver are on the same channel. Ensure earphones are fully plugged in. Check audio input to the transmitter.
Static or interference	Nearby electronic devices; channel interference; excessive distance; physical obstructions.	Change to a different channel. Move away from other wireless devices. Reduce distance between transmitter and receiver. Avoid thick walls, glass, and metal blocks.
Short operating range	Obstructions; antenna position; environmental factors.	Ensure line of sight between transmitter and receiver. Position transmitter antenna vertically. Avoid using in areas with significant radio frequency interference.
Receiver not pairing	Channels do not match; receiver out of range.	Double-check that the transmitter and receiver are set to the exact same channel. Bring the receiver closer to the transmitter.

8. Technical Specifications

Detailed specifications for the D Debra ER-280 Wireless In-Ear Monitor System:

Feature	Specification
Model Name	ER-280
Brand	D Debra
Connectivity Technology	Wireless (UHF)
Wireless Communication Technology	Infrared
Frequency Range	501Mhz-599 Mhz (FCC Compliant)
Channels	16
Audio Latency	Less than 4.5ms (normal)

Feature	Specification
Signal-to-Noise Ratio (SNR)	Up to 107 dB
Frequency Response	20Hz-20KHz
Dynamic Range	107 dB
Operating Distance	160ft - 180ft (open space)
Headphones Jack	3.5 mm Jack
Impedance	32 Ohm
Material	Plastic, Metal
Item Weight	2.92 pounds
UPC	787996935478

PRESENTATION



Figure 8.1: Product Dimensions

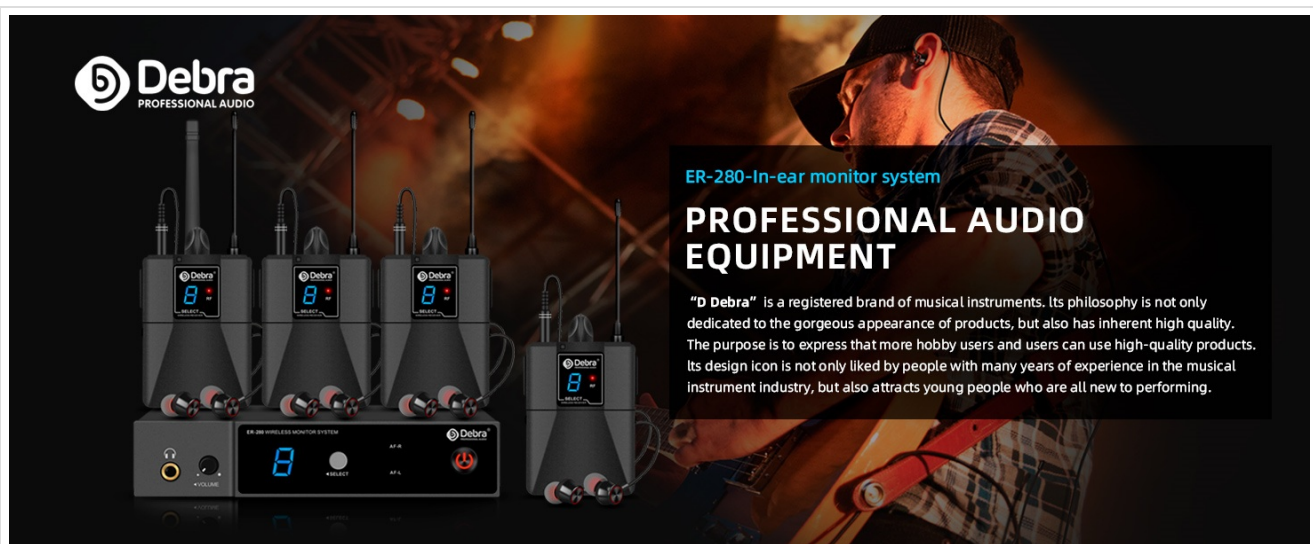


Figure 8.2: Compatible Devices and Applicable Occasions

9. Warranty and Support

D Debra Pro audio products come with a 12-month manufacturer assurance. For troubleshooting assistance, replacement of discontinuous or defective parts, or any other support inquiries, please contact D Debra customer service. Refer to the product packaging or official D Debra website for specific contact details.