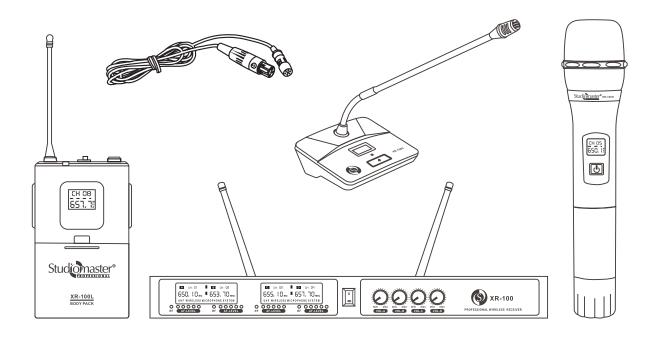


XR-100

UHF Wireless Microphone System



The Studiomaster Professional XR-100 is a high quality four channel UHF Wireless technology system engineered for the most demanding touring environments & installations. This XR-100 Wireless systems offers unprecedented flexibility & versatility. To ensure optimum performance & safety, please follow this instruction manual carefully. Please retain this manual for future reference. For any complaint, feedback or testimonials please contact our distributor / dealer.

1	Features
2	Systems Options
	Operating Instructions
	Basic Troubleshooting
5	Technical Specifications
	Safety Instructions

1. Features

Superior quality 4 channel UHF wireless Microphone System.

4 microphones can be used at the same time with one receiver.

Individual channel frequency display on receiver & Transmitter.

Individual channel volume control.

Individual channel XLR out & 1/4 Jack mix out.

2. System Options

XR-100 4H — 4 Hand

XR-100 4C — 4 Conference

XR-100 4L — 4 Lapel

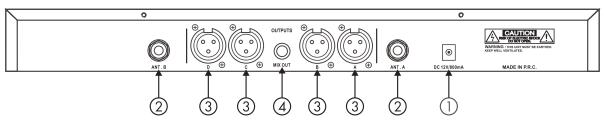
XR-100 4HL—2 Hand & 2 Lapel

XR-100 HCL-2 Hand, 1 Lapel & 1 Conference

3. Operating Instructions

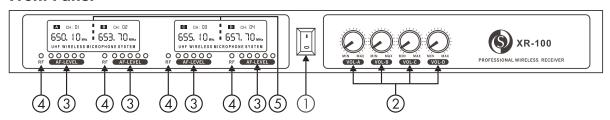
3.1 Receiver Features: Front & Rear Panel

Rear Panel



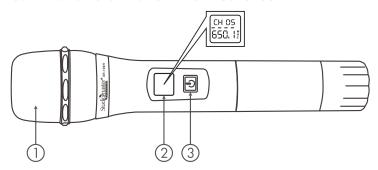
- 1. Power Jack: 12VDC Input voltage to power up the unit.
- 2. Antenna: The antenna receives signals from Transmitter, for better strength keep the antenna fully extended.
- 3. **Balanced Audio output :** 3 Pin XLR male connectors are provided to connect to the input of the Mixer/Amplifier/Powered speaker.
- 4. **Mixed output**: 1/4 (6.35) Unbalanced TRS Jack is provided to connect mixed output to the input of Mixer/Amplifier/Powered speaker.

Front Panel



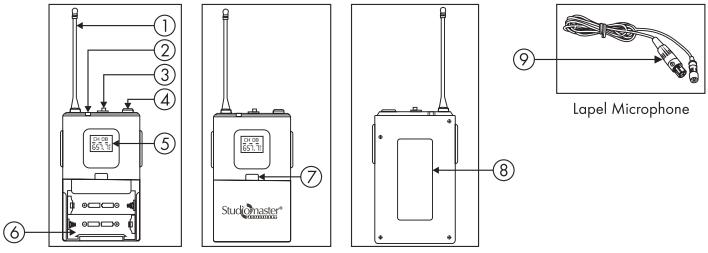
- 1. Power ON/OFF Switch: To switch ON/OFF the receiver module.
- 2. Volume Controls: To adjust the Input signal level of each channel.
- 3. Audio Indication LED: These LED lights up when there will be signal reception.
- 4. Channel Select Indication: LED is provided to indicate the Transmitter is ON.
- 5. LED Screen: It displays frequency (fixed).

3.2 Handheld Transmitter Features



- 1. Grill: It protects the capsule from damages. Also it acts as an effective wind & pop filter.
- 2. **LED Screen:** LED screen displays the channel frequency. When screen flashes replace the battery for un-interrupted performance.
- 3. Power ON/OFF Switch: This switch can be used to ON/OFF microphone as required.

3.3 Body Pack Transmitter



- 1. Antenna: Transmission Antenna.
- 2. Power ON LED: LED light when lapel body is switched on.
- 3. Power On/Off Switch: This switch can be used to ON/OFF microphone as required.
- 4. Mic Input: Input socket to connect lapel microphone.
- 5. **Display:** It display fixed frequency.
- 6. Battery Compartment: Use 2 AA Batteries for better performance.
- 7. Battery Cover: Open cover from here to access battery compartment.
- 8. Belt Clip: To hang on belt.
- 9. Microphone Head (Lapel).

3.4 Conference Transmitter

1. Mic Capsule: This high quality microphone is used to pick up the voice of the person speaking.

2. **Mic LED**: This LED displays the status of the microphone, when the LED lights up it means that the microphone is active.



4. Low Power Indication: When microphone On/Off switch is pressed the LED lights up & goes off. Also when battery goes low the led becomes brighter.

5. Microphone ON/OFF Switch: This switch is used to switch ON/OFF the conference transmitter.

6. Battery Compartment: Use 2 AA Batteries for better performance. (6

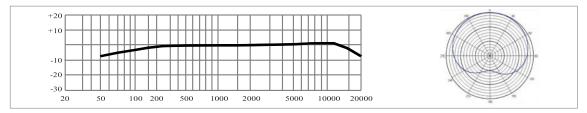
3.5 How to operate

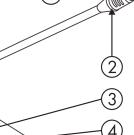
- 1. Confirm the connections between receiver & mixer as well as between mixer & amplifier are correct. Turn down the volume on the amplifier or mixer.
- 2. Turn on the receiver (The receiver will shows CH1, CH2, CH3 & CH4 Frequency and RF1, RF2, RF3 & RF4 LED will be off because transmitter is off).
- 3. Turn on the transmitter (Note: When transmitter is turned on the RF1, RF2, RF3 & RF4 LED lights up to indicate availability of Transmitter respectively.
- 4. Test the transmitters. AF1, AF2, AF3 & AF4 LED lights up to indicate signal reception.
- 5. Turn up the volume of the amplifier or mixer.

Usage Tips

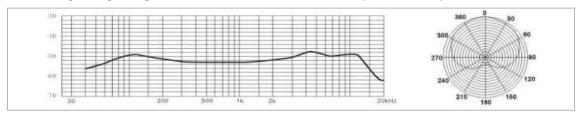
- Make sure you can always see the receiver antenna from the transmitter position.
- Keep the distance from transmitter to receiver as short as possible
- Avoid obstruction between transmitter & receiver.
- Perform a Walk Test before performance or presentation. If dead spots are found, adjust location of receiver. If dead spots remain mark spots and avoid that spot.

3.6 Frequency Response Curve & Polar Pattern (Conference & Lapel Mic)





3.7 Frequency Response Curve & Polar Pattern (Handheld)



4. Basic Troubleshooting

Problem	Solution
No Voice;	Check whether power switches of transmitter & receiver are ON.
(No signal on receiver)	Check whether the battery connections are correct & battery polarity is right in transmitter. Check whether the antenna is properly connected on receiver. Make sure that there is no obstruction between the antenna & the transmitter.
No Voice; (Signal is normal)	Check whether the level control of the receiver is set enough. Check whether the connection between receiver & mixer, mixer & amplifier or amplifier & speaker are connected. Also check mixer or amplifier volumes are ok.
No Voice; (RF signal is normal but AF signal is weak)	Check whether the transmitter battery is fully charged. Interchange the transmitter Mics.
When transmitter is ON, there is noise or interruption in the receiving signal.	Check whether the battery is charged fully. Eliminate the RF source of the disturbance nearby which causes interference. If the signal is too weak, place the receiver closer to transmitter as far as possible.

5. Technical Specifications

RECEIVER

Receiving Frequency	Fixed Frequency
Bandwidth	50MHz
Frequency Response	50Hz-16KHz
Nominal deviation/peak error	± 24KHz / ± 28KHz
Total harmonic distortion	<0.9%
Sensitivity	-98dBm
Adjacent channel selection	> 75dB
Intermediation impedance	> 70dB
Noise filter	> 75dB
Power Requirement	DC 12V

TRANSMITTER

Frequency stability	+0.005%
Frequency response	50Hz-16KHz
Frequency bandwidth	50MHz
Harmonic radiation	<-55dB
Maximum offset	± 60MHz
Sensitivity	-80 ± 3dB
Use Battery	2 x 1.5V (AA)

6. Safety Instructions

Keep the wireless receiver in a good location to ensure good signal strength.

Please keep the product away from direct sunrays & rain.

Please keep the product away from heavy magnetic or electromagnetic fields, it could affect product performance.

Please switch off when removing the batteries.

Please remove the batteries/ power supply when the product is not being used for a long time.

Do not open any of the components yourself, for repairs please contact an authorised Studiomaster Professional dealer.

Do not use systems with the same frequency at the same place, please separate them by a considerable distance.

* Design and specification are subject to change without notice.

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