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Shure BLX14/SM31

Shure BLX14/SM31 Wireless Microphone System User Manual

This manual provides detailed instructions for the setup, operation, and maintenance of your Shure BLX14/SM31 Wireless Microphone System. This system is designed to deliver professional-quality sound with simple setup, featuring an SM31FH Fitness Headset Mic and a BLX4 Single Channel Receiver.

Introduction | What's in the Box | Components | Setup | Operation | Maintenance & Support | Troubleshooting | Specifications | Warranty

1. Introduction

The Shure BLX14/SM31 Wireless Microphone System is engineered for clear, reliable audio performance, particularly suited for fitness and aerobics instructors. This system combines the robust BLX4 single-channel receiver with the comfortable and durable SM31FH fitness headset condenser microphone and BLX1 bodypack transmitter. Enjoy wireless freedom with easy setup and up to 14 hours of continuous use.

Figure 1: Shure BLX Wireless Bodypack System packaging, showing the BLX4 receiver, BLX1 bodypack, and SM31FH headset microphone.

2. What's in the Box

Your Shure BLX14/SM31 Wireless Microphone System package includes the following components:

- BLX4 single-channel receiver
- Power supply
- BLX1 wireless bodypack transmitter
- Belt clip
- SM31FH fitness headset condenser mic
- Clothing clip
- Windscreen
- 2x AA batteries
- User guide

3. Product Components Overview

BLX4 Single Channel Receiver

The BLX4 receiver is the central unit for your wireless system, featuring a user-friendly interface for channel selection and monitoring.

Figure 2: Front panel of the BLX4 receiver, showing audio, ready, group, channel, and power controls.

Figure 3: Rear panel of the BLX4 receiver, showing power input, XLR output (Mic Out), and 1/4" output (Instrument Out).

BLX1 Bodypack Transmitter

The BLX1 bodypack transmitter is compact and durable, designed to be worn comfortably. It connects to the SM31FH headset microphone.

Figure 4: Front view of the BLX1 bodypack transmitter.

SHURE
BLX1
1
group
channel
(A-Y)
(0-9)
CHARGE ONLY IN IGO CHARGER

Figure 5: BLX1 bodypack transmitter with the battery compartment open, showing AA battery slots and group/channel selection buttons.

Figure 6: Top view of the BLX1 bodypack transmitter, showing the TA4F (TGQ) connector for the microphone and the power switch.

SM31FH Fitness Headset Condenser Microphone

The SM31FH is a durable, moisture-resistant headset microphone designed for active use in fitness and aerobics environments.

Figure 7: The SM31FH fitness headset condenser microphone, featuring a comfortable and secure design.

4. Setup

4.1. Wireless Frequency Band Selection

Before setting up, ensure the selected wireless frequency band (H9 Band: 512-542 MHz for this model) is suitable for your area. Refer to the Shure website's Wireless Frequency Finder for detailed regional information.

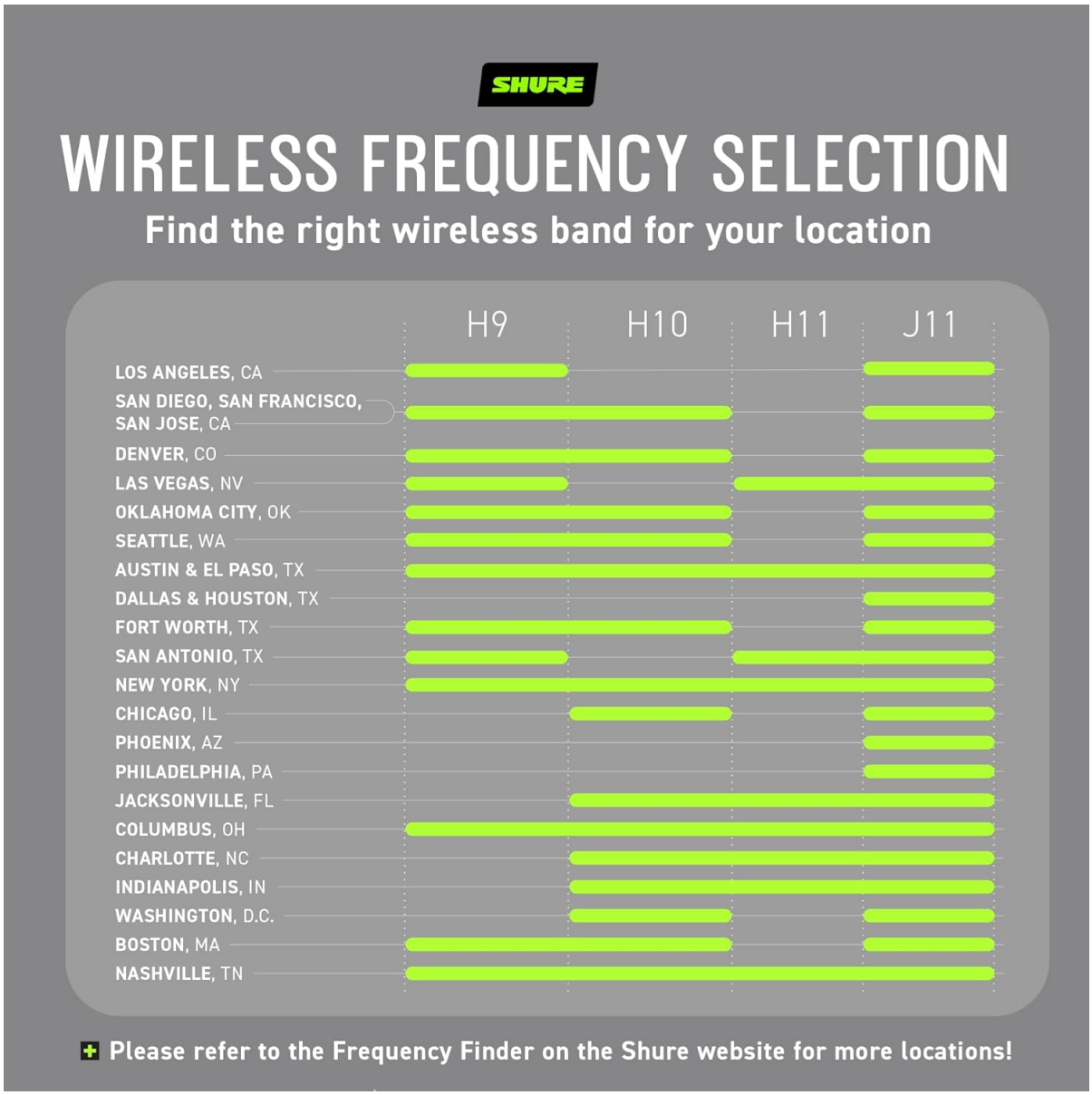

Figure 8: Wireless Frequency Selection chart. Always verify the optimal frequency band for your location to ensure clear signal transmission.

4.2. Receiver Setup

Follow these steps to set up your BLX4 receiver:

1. **Placement:** Position the receiver in a location that maintains a clear line of sight to the transmitter, minimizing obstructions.
2. **Power Connection:** Securely connect the included power supply to the receiver's power input.
3. **Audio Output:** Connect the receiver to your sound system (mixer or amplifier) using either the XLR output (Mic Out) or the 1/4" output (Instrument Out).
4. **Power On:** Turn on the receiver by pressing the power button.
5. **Group Scan:** Press the 'group' button on the receiver to perform an automatic scan for the best available group and channel. The receiver will display the selected group and channel. Ensure all transmitters are off during this scan.

Video 1: This video demonstrates how to set up the Shure BLX receiver, including power connection, audio output, and performing a group scan to find the best channel.

4.3. Transmitter Setup

Prepare your BLX1 bodypack transmitter and SM31FH headset microphone:

1. **Install Batteries:** Open the battery compartment of the BLX1 bodypack transmitter and insert two AA batteries, ensuring correct polarity.
2. **Connect Microphone:** Plug the SM31FH headset microphone into the TA4F (TGQ) connector on the BLX1 bodypack transmitter.
3. **Power On:** Turn on the transmitter.
4. **Match Group and Channel:** Set the group and channel on the transmitter to match the settings displayed on the receiver. Use the 'group' and 'channel' buttons within the battery compartment to cycle through options until they align with the receiver.

Video 2: This video guides you through setting up the Shure BLX transmitter, including battery installation and matching the group and channel with the receiver.

5. Operation

5.1. Performing a Soundcheck

After initial setup, perform a soundcheck to ensure optimal audio levels and clear transmission:

1. **Activate System:** Ensure both the receiver and transmitter are powered on. The 'ready' LED on the receiver should be illuminated.
2. **Test Audio:** Speak or sing into the SM31FH headset microphone at typical performance levels. Observe the 'audio' LED on the receiver.
3. **Adjust Gain:** If the 'audio' LED is consistently red, indicating excessive sound levels (overload), adjust the gain setting on the BLX1 bodypack transmitter. For the bodypack, rotate the gain dial to decrease the setting. For handheld transmitters (if applicable), press and hold the 'channel' button for 5 seconds until a dot appears, then adjust. Aim for the 'audio' LED to be green most of the time, with occasional red flashes during peak audio.

Video 3: This video demonstrates how to perform a soundcheck with your Shure BLX system, including monitoring audio levels on the receiver and adjusting transmitter gain.

5.2. General Operation Tips

- **Battery Life:** The BLX transmitters provide up to 14 hours of power from a single pair of AA batteries.
- **Operating Range:** The system operates up to a range of 300 feet (100m) under optimal conditions. Maintain line of sight between the transmitter and receiver for best performance.
- **System Expansion:** You can run up to 12 channels per frequency band, allowing for multiple wireless systems in one location.

Video 4: This video provides an overview of the Shure BLX Wireless Systems, highlighting key features and operational benefits.

6. Maintenance

To ensure the longevity and optimal performance of your Shure BLX14/SM31 Wireless Microphone System, follow these maintenance guidelines:

- **Cleaning:** Regularly wipe down the receiver, transmitter, and headset microphone with a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.
- **Battery Care:** Remove batteries from the transmitter if the system will not be used for an extended period to prevent leakage. Use high-quality AA batteries for best performance.
- **Storage:** Store the system in a cool, dry place away from extreme temperatures and humidity. The included carrying case is ideal for protection during transport and storage.
- **Headset Hygiene:** For the SM31FH headset, regularly clean the microphone windscreen and replace

it if it becomes worn or damaged.

7. Troubleshooting

If you encounter issues with your Shure BLX14/SM31 Wireless Microphone System, consider the following common troubleshooting steps:

- **No Audio/Intermittent Audio:**
  - Check all cable connections (power, audio output, microphone to transmitter).
  - Ensure both the receiver and transmitter are powered on and the 'ready' LED on the receiver is lit.
  - Verify that the transmitter and receiver are set to the same group and channel.
  - Replace batteries in the transmitter if they are low or depleted.
  - Ensure there is a clear line of sight between the transmitter and receiver, free from obstructions.
- **Poor Sound Quality/Interference:**
  - Perform a new group scan on the receiver to find a clearer frequency.
  - Adjust the transmitter gain to prevent audio overload (red 'audio' LED).
  - Move the receiver away from potential sources of interference (e.g., Wi-Fi routers, other wireless devices, large metal objects).
  - Ensure the SM31FH microphone is positioned correctly near the mouth.

Video 5: This video explains how to choose the best channel for your Shure BLX Wireless System to avoid interference and ensure optimal performance.

8. Specifications

Feature	Specification
Model Name	BLX14/SM31 Wireless Cardioid Fitness Headset Microphone System
Brand	Shure
Item Model Number	BLX14/SM31-H9
Wireless Frequency Band	H9 Band (512-542 MHz)
Microphone Form Factor	Headset (SM31FH)
Polar Pattern	Unidirectional (Cardioid)
Connectivity Technology	Wireless
Power Source	Corded Electric (Receiver), Battery Powered (Transmitter)
Battery Type	2 AA batteries required (included)
Battery Life	Up to 14 hours
Operating Range	Up to 300 feet (100m)
Number of Channels	1 (single channel receiver)

Feature	Specification
Max Systems per Frequency Band	Up to 12 (region and environment dependent)
Frequency Response	20 KHz
Signal-to-Noise Ratio	76 dB
Impedance	150 Ohms
Item Weight	2.8 Pounds
Product Dimensions (L x W x H)	13.5 x 12 x 4 inches
Material	Stainless Steel
Date First Available	October 6, 2015

9. Warranty & Support

The Shure BLX14/SM31 Wireless Microphone System includes a 2-YEAR WARRANTY, providing peace of mind for your investment.

For additional support, detailed product information, or to access the Shure Wireless Frequency Finder, please visit the official Shure website. You can also contact Shure customer service for technical assistance.