



OSWS

Guitar Wireless Systems
User guide

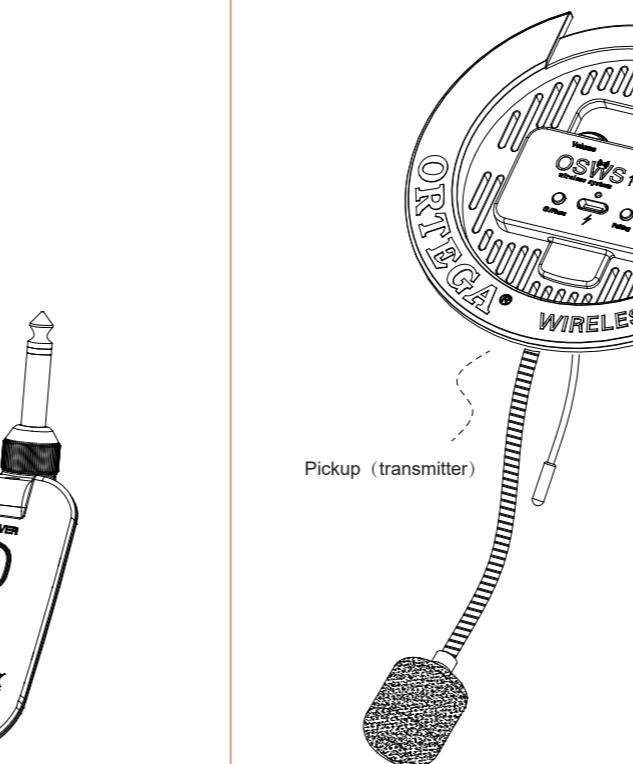
Thank you for choosing ORTEGA's Wireless Systems, model OSWS. OSWS is designed specifically to meet the needs for quick guitar pickup and high-quality audio transmission.

OSWS is a wireless pickup system that provides high-quality sound capture and transmission solutions for guitars. OSWS comes in two sizes: OSWS 86, which is suitable for guitars with a soundhole diameter of approximately 86mm—commonly found in classical guitars; and OSWS 100, which is better suited for acoustic guitars with a soundhole diameter of 100mm. OSWS system is particularly suitable for guitarists whose guitars do not have pre-installed pickups but who wish to enhance their live performance interaction and stage freedom.

In traditional guitar playing, installing a pickup often requires complex modifications, which can be time-consuming and potentially damage the guitar body, thereby affecting the guitar's natural sound and appearance. The OSWS was developed to address these issues. It features a plug-and-play installation similar to a soundhole cover, requiring no permanent modifications to the guitar. This makes it ideal for temporary performances and travel use. It also utilizes reliable wireless technology for audio transmission, simplifying the installation process while preserving the integrity and aesthetics of the guitar.

The OSWS utilizes microphone pickup technology, ensuring pristine and clear sound quality with its high-sensitivity microphone and optimized audio processing circuitry. What's more, we have effectively prevented system feedback through technical means, enabling stable audio output even in complex stage environments.

To get the most out of OSWS system, we recommend that you to read the entire user guide.

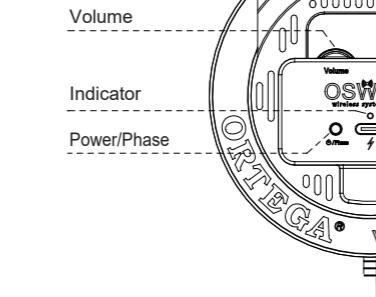


OSWS 86



OSWS 100

Features & Controls



OSWS is not only easy to install, but its control panel is also very clear and practical, making it incredibly simple to use. The details are as follows:

[VOLUME] The volume control knob allows you to adjust the loudness easily. Rotate it clockwise to increase the volume and counter-clockwise to decrease the volume until it is completely muted. If there is feedback from the speaker, it is recommended to turn up the volume as much as possible, as this will not cause any distortion.

[TONE] The tone control knob is used to adjust the system's tonality. When this knob is in the middle position, it represents the default factory tone, slightly cutting some midrange frequencies, which is ideal for fingerpicking. When rotated counter-clockwise, it can increase the depth and clarity of the sound, especially suitable for vigorous strumming. If rotated clockwise, it can make each note sound thicker and more powerful.



<http://ortegaguitars.com>

X2 DOUBLE
Co-developed with Double Acoustics

[POWER/PHASE] This button combines the power switch with the phase inversion function. Long press for 1.5 seconds to turn the system on, and a long press again to turn it off. Additionally, this button controls the phase reversal feature; a short press will execute a 180-degree phase shift in the system's sound. The phase switch allows you to adjust to the best possible phase for different performance environments, greatly reducing the likelihood of feedback from the speaker.

[PAIRING] This button is responsible for the system's wireless pairing and channel switching. Normally, the OSWS transmitter and wireless receiver will pair automatically. If automatic pairing is not successful, please follow these steps for manual pairing: turn off the receiver, turn on the transmitter, then press and hold the "PAIRING" button for two seconds until the red light flashes. Turn on the receiver, and its indicator light will flash, indicating that it is pairing with the transmitter. Press the "PAIRING" button again, and both the transmitter and receiver indicator lights will turn full green, indicating that pairing is complete. (The receiver MUST BE off and switched on after pressing pairing to red flashing, then "pair" until you find the right pairing).

[INDICATOR] This is the system's operation indicator light. When the system is turned on, the indicator will illuminate green. If the indicator turns red, it indicates that the battery is low and the system needs to be charged.

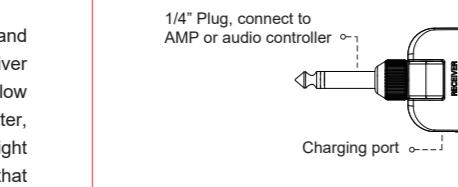
[CHARGING PORT] This is a Type-C charging port, designated exclusively for charging the system. When the battery is low, connect the charging cable to the charger to recharge. The system is compatible with most standard 5V chargers, with a charging time of approximately 2 hours.

The receiver's usage instructions

OSWS comes with an exquisite and compact wireless receiver, which is

OSWS comes with an exquisite and compact wireless receiver, which is also simple and easy to use. Please follow the instructions below to use the wireless receiver correctly.

1/4" Plug, connect to AMP or audio controller



POWER

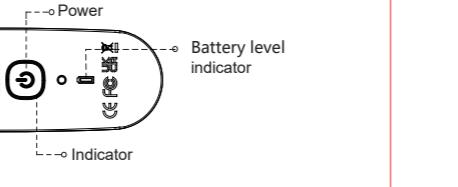


INDICATOR

POWER: Power switch for receiver, press button for ON or OFF.

INDICATOR: A multi-function indicator with different light colors. When the receiver indicator turns green, it means that the wireless connection is successfully paired. If the receiver indicator is yellow, the pairing is not successful.

BATTERY LEVEL INDICATOR



BATTERY LEVEL INDICATOR: When the battery is full, the indicator light is green. If it turns red, it means the battery is low and needs charging.

[CHARGING PORT] A Type-C charging port, designated exclusively for charging the receiver. When the battery is low, connect the charging cable to the charger to recharge.

About the batteries

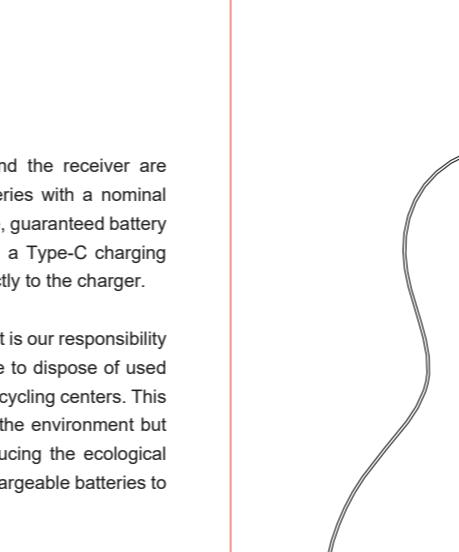
In the OSWS Wireless Systems, both the pickup and the receiver are powered by high-capacity rechargeable polymer batteries with a nominal voltage of 3.7V. These batteries feature long service life, guaranteed battery life, and stable performance. The product comes with a Type-C charging cable; when charging is needed, simply connect it directly to the charger.

In addition to providing reliable and long-lasting power, it is our responsibility to promote environmental sustainability. Please ensure to dispose of used batteries according to local regulations at designated recycling centers. This not only prevents harmful substances from damaging the environment but also supports the recycling of valuable materials, reducing the ecological footprint of our products. We encourage the use of rechargeable batteries to minimize waste and support a more sustainable planet.

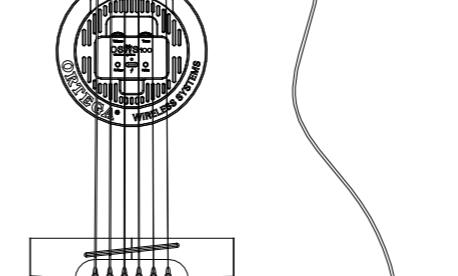
Installation

The design philosophy behind the OSWS Wireless Systems is to enable quick installation of pickup systems for guitars. It boasts three main features: extremely simple installation, no harm to the guitar body, and freedom from the constraints of wired transmission.

First, install the OSWS into the guitar's soundhole just as you would a soundhole cover.



Then, simply plug the wireless receiver into the input jack of your amplifier.







Technical Parameters

Item	Specifications
Wireless type	UHF electromagnetic wave
Frequency range	68.3MHz~69.8MHz
Channels list (4 Channels)	European Version: Channel 1 - 68.3MHz, Channel 2 - 68.6MHz, Channel 3 - 68.8MHz, Channel 4 - 69.0MHz US Version: Channel 1 - 68.8MHz, Channel 2 - 69.0MHz, Channel 3 - 69.8MHz, Channel 4 - 66.8MHz
Transmit power	Around +9dBm ~ +9.8dB
Latency	Less than 3ms
Transmission distance	30 meters in open conditions
Polarization of mic	cardioid
Frequency response	50~16KHz
Sensitivity	-47/-4dB @ (1.5V 80Ω)
Maximum SPL	110dB
Impedance	68Ω
Dynamic Range	90dB~110dB
Battery	3.7V lithium polymer battery
Antenna Type	Dipole Antenna

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.