

Waves/PRS Guitar Interface

User Manual



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Read First!



Warning – Safety First!

Please read and follow the instructions of the Registration Form entitling you to technical support and service-under-warranty.

Important Safety Considerations

1. Read all operating instructions.
2. In case of damage due to spilled liquids or physical damage from knocks or dropping, repairs should be performed by qualified service personnel only.
3. Do not allow children to use the WPGI without adult supervision.
4. Operating temperature 10 ~ 50°C.

Package Content

Your new Waves Guitar Bundle package contains:

1. The Waves/PRS Guitar Interface
2. 2 x 9V Batteries
3. CD Wallet
4. Registration Card
5. This User Guide

1. Introduction

The Waves PRS Guitar Interface (WPGI) delivers your direct guitar signal to a DAW (Digital Audio Workstation) or other recording device. It guarantees that the recorded signal captures every nuance of the original guitar tone, making it perfect for further processing or re-amping.

The WPGI performs three main functions:

- Impedance Matching
- Signal Balancing
- Pre-amplification

For best results, we recommend plugging into a line level console input, or better yet, a line level input on an A to D (Analog to Digital) converter.

Power

*Use only UL Listed Class 2 power adapter.
Input: 100-240V, 50-60Hz; Output: 12 - 18 VDC, 0.5A max.

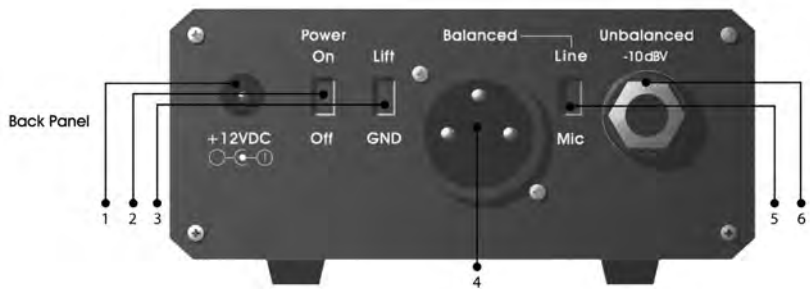
*Use only 9V Carbon Zinc non-rechargeable batteries.



2. Quickstart Guide

1. Connect your ¼" jack guitar cable to the Guitar Input on the front panel of the WPGI.
2. Connect one of the outputs on the back panel of the WPGI to the corresponding input of your DAW.
3. Choose mic or line level according to your needs. (Use Line level for most DAWs; use Mic level to connect to a pre-amp.)
4. Turn the WPGI on and adjust your input level, starting with the gain knob at approximately center (12 o'clock).
5. Start playing!

3. Controls



Front Panel

1. **Guitar In** is a ¼" jack guitar input.
2. **Gain** controls input level adjustment.
3. **Level** indicates the input level (Signal, Nominal, Over).
4. **Low Batt** indicates low battery power.
5. **On** indicates whether the WPGI is on or off.

Rear Panel

1. **+12VDC** is a DC jack connector.
2. **Power** is used to turn the WPGI on and off.
3. **Lift/GND** eliminates ground loops. ("Lift" disconnects XLR ground DIN.)
4. **Balanced** is a balanced XLR output.
5. **Line/Mic** toggles the XLR output between Line level (+4dBu) and Mic level (-40 dB pad).
6. **Unbalanced -10dBV** is an unbalanced signal output jack.

Input Adjustment

Different guitar pickups output different levels. The front panel Trim knob is used to scale your guitar's input level so that the optimal level is fed into the recording device for the best possible Signal-to-Noise ratio without clipping.

Single coil pickups usually need a bit of a gain boost while humbucker and active pickups might require a slight pad to prevent them from clipping.

The 3 LEDs on the front panel are there to help with this adjustment:

1. The green LED labeled "Sig" indicates the presence of signal.
2. The orange LED labeled "Nom" indicates nominal levels.
 - If it only illuminates during loud sections, boost the Trim slightly.
 - If it generally stays lit, even on long sustained notes, cut the Trim slightly.
3. The red LED labeled "Over" indicates that the signal is overloading and causing clipping. If this happens often, cut the Trim.

Connecting the WPGI

The WPGI is designed to connect to one or more audio inputs. It offers multiple options for connecting to audio equipment:

1. **Balanced Line Output:** XLR jack for direct connection to Balanced +4dBu Line inputs. It offers the best Signal-to-Noise ratio and delivers the highest quality results.
2. **Unbalanced Line Output:** -10dBV 1/4" Jack compatible with most unbalanced -10dBV line inputs as well as guitar amplifiers.
3. **Balanced Mic Level Output:** For connecting to other pre-amps (such as a recording console's mic input.)

Applications

The WPGI has 3 main applications:

1. **Impedance matching:** Electric guitars output a high impedance signal. Since most audio input loads are incompatible with a direct guitar signal, the WPGI transforms the signal, making it suitable for most audio input stages.
2. **Converting an Unbalanced Signal to a Balanced Signal:** Guitars output an unbalanced signal which is more prone to picking up noise and fidelity loss. This problem which is compounded by longer cables, resulting in additional signal degradation. The WGPI converts the unbalanced signal to a balanced one.
3. **Pre-amplification:** The WGPI's on-board amplification was engineered especially for recording clear, undistorted guitar signal. It does not replace the sound of a dedicated guitar tube pre-amp; it provides a transparent neutral signal path, ideal for further processing and re-amplifying.

4. Technical Specifications

INPUT TRS:

Input impedance : >1Mohm unbalanced

Max input level: 1.1 VRMS

OUTPUT BALANCED XLR:

**All measurements were preformed with volume at a nominal setting.*

Output impedance: 50 ohm

S/N: >105 @ line level, >70 @ mic level (S measured at 1%, 1 Khz, A Weighted)

Response: 20-20Khz , -3dB @ 11Khz, -5dB @ 20Khz

THD+N: <0.005 (< -90dB) @ -10dB below max sensitivity level

Sensitivity: 1.1Vrms @ line level, 2.5 Vrms @ mic Level

Gain: 11dB @ line level, -28dB @ mic level. ± 1.5 dB

Volume range: +5dB, -10dB refer to nominal setting

Output short circuit protection

GND lift switch

OUTPUT UNBALANCED ¼' (TRS):

****All measurements were performed with volume at a nominal setting.***

Output impedance: 100 ohms

S/N: >105 @ line level, (S measured at 1%, 1 KHz, A Weighted)

Response: 20-20KHz, -3dB @11KHz, -5dB @ 20KHz

THD+N: <0.005 (< -90dB) @ -10dB below max sensitivity level

Sensitivity: 1.1Vrms @ line level, 2.5 Vrms @ mic Level

Gain: 5dB @ line level, ±1dB

Volume range: +5dB, -10dB refer to nominal setting

Power supply:

Power on/off switch

Dual 9V battery

12-18V DC, Nominal 60mA±10%

Low Batt indicator: Blink @ 7V±0.5V

Power saving switch:

Automatic shut down when input ¼" jack is not connected

Level indicator:

Green LED – On @ 15mV rms input signal

Yellow LED – On @ 100mVrms input signal

Red LED – On @ 1.1Vrms input signal

Dimensions:

Length: 11.5 cm, Width: 9.5 cm, Height: 4.3 cm, Weight: 356 gr

5. Warranty

One Year limited Warranty

Waves Audio Ltd. ("Waves") warrants that the Product conforms substantially to the specifications contained in the Product documentation for a period of one (1) year from the date of original purchase from Waves or its authorized resellers. In the case of a valid warranty claim, your sole and exclusive remedy and Waves' entire liability under any theory of liability will be, at its option, to repair or replace the Product without charge or, if this is not possible, to refund the purchase price to you. For warranty service, please call one of Waves offices listed above, to obtain a Return Authorization (RA) number. After you obtain the RA number, ship the defective Product, transportation and insurance charges prepaid, to the Waves location listed above. Write the RA number in large letters on the outside of the shipping box. Enclose your name, address, telephone number, copy of original sales invoice and a detailed description of the problem. Waves will not accept responsibility for loss or damage in transit.

The Warranty is void if the Product serial numbers have been removed from the Product or if the Product has been damaged by misuse, modification or unauthorized repair, as determined at Waves' discretion.

The Product is designed and manufactured for use in professional and studio audio systems and is not intended for other usage.

This limited warranty, with all terms, conditions and disclaimers set forth herein, shall extend to the original purchaser and anyone who purchases the Product within the specified warranty period. This limited warranty gives the Buyer certain rights. You may have additional rights provided by applicable laws.

Waves does not authorize any third party, including any dealer or sales representative, to assume any liability or make any additional warranties or representation regarding this Product information on behalf of Waves.

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6. Technical Support

Before calling Waves for technical support, please check www.wavesupport.net for all the latest product information.

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