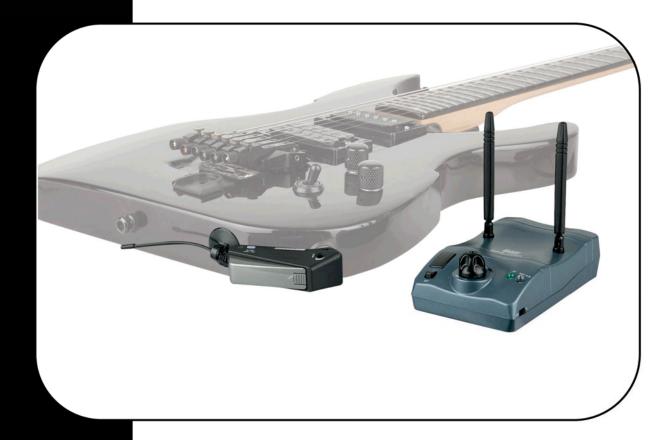


# WPS Guitar 863-865MHz

**ORDERCODE D1456** 



Highlite International B.V.

Vestastraat 2 6468 EX Kerkrade The Netherlands

SHOWELECTRONICS FOR PROFESSIONALS

#### Congratulations!

You have bought a great, innovative product from DAP Audio.

The DAP Audio WPS Guitar brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

You can rely on DAP Audio, for more excellent audio products.

We design and manufacture professional audio equipment for the entertainment industry. New products are being launched regularly. We work hard to keep you, our customer, satisfied. For more information: <a href="mailto:iwant@dap-audio.info">iwant@dap-audio.info</a>

You can get some of the best quality, best priced products on the market from DAP Audio. So next time, turn to DAP Audio for more great audio equipment. Always get the best -- with DAP Audio!

Thank you!



# DAP Audio

# DAP Audio WPS Guitar™ Product Guide

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#### **CAUTION!**



Keep this system away from rain and moisture!

# FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

## **Unpacking Instructions**

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- 1x DAP WPS Guitar transmitter
- 1x DAP WPS Guitar receiver
- 1x AC-adapter DC12V/500mA
- User manual

## **Safety Instructions**

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual



CAUTION! Be careful with your operations.

With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!



Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

#### **IMPORTANT:**

The manufacturer will not accept liability for any resulting damages caused by the nonobservance of this manual or any unauthorized modification to the system.

- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used.

- Only handle the AC-adaptor by the plug. Never pull out the adaptor by tugging the cord.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the power adaptor matches the voltage and current stated on the rear panel.
- Make sure that the power adapter housing and cord is not damaged.
- Please turn off the power of all equipment before making connections to other devices.
- If system is dropped or struck, disconnect the power adaptor immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.

## **Operating Determinations**

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.





Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

#### Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

#### Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

## **Description**

The DAP WPS Guitar is a wireless guitar set with 16 switchable channels in a bandwidth of 863 – 865 MHz. This means that it can be used in many different countries. It has a very compact "jack style" transmitter. The jack plug on the transmitter can be set into a desired angle to fit many kind of guitar outputs, so there is no need to wear a belt-pack anymore. It only needs one AAA battery to work for 8 hours and can be used within a distance of 30 meters. It's easy to use and has a 16-step switch to select your desired channel, a switch to turn on/off or mute and a gain setting. The diversity receiver is also very compact and designed to fit in a pedal board between your pedal effects. The set is complete with 3 different colored end-caps, a power adapter, jack cable and a transport case.

**Note:** This set has 16 switchable channels, it is possible to use a maximum of 4 sets together on one stage due to the bandwidth of each channel. You have to take care while setting up the channels for each set in such a way, that each set should be separated by at least 4 channels of another set. For more info, see **13) Channel selector** on page 5.

#### Overview

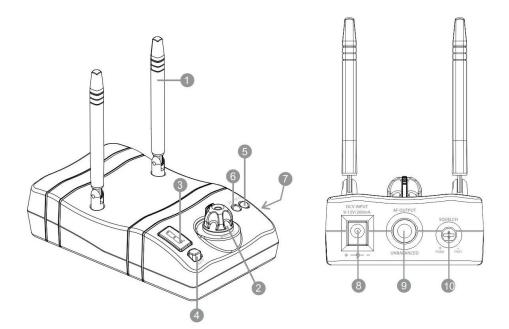


Fig. 1

#### 1) Antenna

#### 2) Volume control

Allows you to adjust the volume level of the output (9).

#### 3) LED display

#### 4) Channel selector

Push and hold the button for 3 seconds. Now the point in the display will start blinking. Tapping the button allows you to set the receiving channel. As the button is released for at least 3 seconds, the channel will be stored.

#### 5) Antenna A/B LED

The antenna A/B LED lights when the unit receives RF-signals from the transmitter.

#### 6) AF LED

Indicates the level of the incoming audio signal. The intensity of the LED indicates the audio level.

#### 7) Power Switch

Allows you to turn the receiver on or off.

#### 8) DC input connector

Use the supplied AC adapter only.

#### 9) Output

Unbalanced 6,3mm jack.

#### 10) Squelch trimmer

Adjust squelch control setting to emphasize either signal quality or system range. This control is factory preset and normally needs no adjustment. For more info see the section on **adjusting the squelch threshold** on page 7.

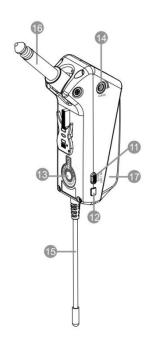


Fig. 2

#### 11) Power On/ Mute/ Off switch

Pushing the button toggles between <u>on mode</u> and <u>mute mode</u>. In <u>on mode</u> the **power on (12)** LED lights up. In <u>mute mode</u>, the power led flashes. Muting prevents the plop noise that sometimes occurs when turning the transmitter off. Pushing and holding the button will turn the transmitter off, the **power on (12)** LED will dim.

#### 12) Power on LED

Indicates the status of the transmitter. Lights up continuously when in <u>on mode</u>, blinks when in <u>mute mode</u> and dims when switched off. The LED light up red to indicate a weak battery.

#### 13) Channel selector

Allows you to select one of the sixteen channels for the transmitter. Be aware that when you several WPS guitar systems at the same stage, that the channels should be separated by at least 4 channels. When using 4 WPS guitar systems, you could use following settings:

WPS	Channel								
1	0	1	1	1	2	1	3	1	4
2	4	2	5	2	6	2	7	2	8
3	8	3	9	3	10	3	11	3	12
4	12	4	13	4	14	4	15	4	16

#### 14) Input gain trimmer

Use a small screwdriver (included) to adjust the input level.

- 15) Antenna
- 16) 6,3 mm Jack plug
- 17) Battery lid

#### Installation

Remove all packing materials from the WPS Guitar. Check that all foam and plastic padding is removed. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing. Damages caused by non-observance are not subject to warranty.

# **Set Up and Operation**

Before plugging the unit in, always make sure that the power supply matches the product specification voltage.

- 1. Refer to Figure 3. Connect your guitar receiver's **jack output connector (9)** to your first effect pedal's input (or directly to your amplifiers input when not using effect pedals) using a standard guitar cable.
- 2. Connect the supplied power AC adapter into the **DC input Connector (8)** at the back of the receiver. Plug the adapter in a wall socket or other AC power source. Slide the **power (7)** switch (at the right side of the receiver) in the on position. The **LED display (3)** will light up, showing the actual channel number.

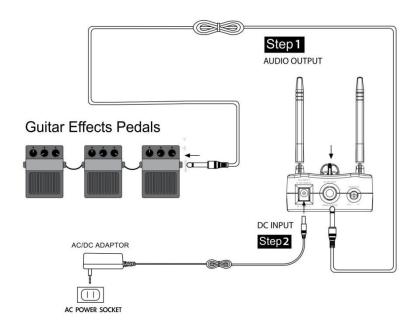


Fig. 3

3. Plug the transmitter into your instrument.



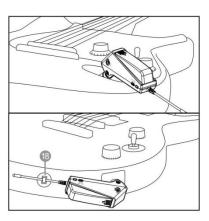


Fig. 4

- 4. Push down the transmitter towards the instrument. The step positioning mechanism will hold the transmitter firmly into place. Use the **suction holder (18)** to hold the antenna if you mount the transmitter at the side of the guitar body.
- 5. Make sure both the receiver and the transmitter are set to the same channel.
- 6. Set the **input gain (14)** trimmer on the transmitter halfway.
- 7. Switch the receiver and the sound system on.
- 8. Turn up the volume control on your instrument completely. And play a few notes.
- 9. If your instruments sounds distorted (when playing on a clean amp), lower the **input gain (14)** trimmer. If the output level is too low, turn up the **input gain (14)** trimmer using the supplied screwdriver.

### Inserting/replacing batteries

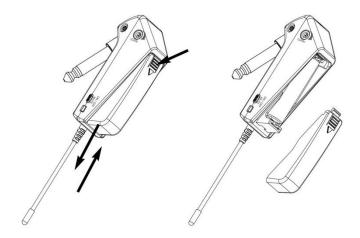


Fig. 5

- 1. Press the **battery cover (17)** at the spot indicated by the arrow and slide it out.
- 2. Insert or place a new battery, please observe correct polarity when inserting the battery.
- 3. Push the on/mute/off (11) switch to turn the transmitter on. If the battery is in good condition, the power on (12) LED will light green constantly. If the condition of the battery detoriates, the LED will light red. If the power on (12) LED turns red, the remaining battery life left is approximately 30 minutes.
- 4. Slide and push back the battery cover (17).

#### Receiver volume adjustment for the WPS Guitar

- 1. Plug your instrument directly in the guitar/ bass amp. Set volume and tone controls on both the instrument and amplifier for a clean signal with the desired tone and volume. Do not change these setting for the rest of the volume adjustment.
- 2. Unplug instrument from the amplifier input and plug into the transmitter. Plug the receiver into the amplifier input.
- 3. Adjust the receiver volume control until the sound quality matches that achieved in the first step.

#### Transmitter audio gain adjustment

The audio gain control has been factory set at the mid-range position for optimum performance in most applications. Adjustment may be necessary for low output guitars.

- To increase the gain, rotate the transmitter gain control clockwise with a screwdriver.
- To reduce gain, rotate the input gain (14) control counterclockwise with a screwdriver.

To set the audio gain back to the factory setting, set the input gain (14) trimmer halfway.

#### Adjusting the squelch threshold

Interference due to other transmission links can be eliminated as follows:

- 1. Switch off the transmitter. The receiver should no longer receive a signal.
- 2. If the receiver still receives a signal, use the **squelch (10)** trimmer to increase the squelch threshold so that the signal will no longer be received. If the signal cannot be eliminated in this way, set the transmitter and the receiver to a different channel.
- 3. Switch on the transmitter again and check if the receiver receives the transmitter signal.

**Note:** If the squelch threshold is adjusted to high, the transmission range will be reduced. Therefore always adjust the **squelch (10)** trimmer to the lowest possible setting.

#### Tips for achieving maximum performance

- Make sure you can always see a receiver antenna from the transmitter position.
- Keep the distance from transmitter to receiver antenna as short as possible.
- Point the receiver antennas away from each other at 45 degrees angle from vertical position.
- Avoid placing the receiver antennas near metal surfaces and obstructions.
- Replace battery as soon as the **power on (12)** LED of the transmitter lights red.
- Perform a walk-through before performance or presentation. If dead spots are found, adjust the location of the receiver. If dead spots remain, mark the dead spots and avoid them.

## **Approval**

The DAP D1456 is a Class II wireless device.

Frequency: 863 – 865MHz. For use in:

Austria, Belgium, Czech Republic, Denmark, France, Germany, Hungary, Italy, Luxemburg, Netherlands, Poland, Portugal, Romania, Slovakia, Sweden, Switzerland, Turkey, United Kingdom.

#### **Exclusion of liability**

The frequency tables in this publication are made according to national laws and regulations. The frequencies are checked on a regular basis. We don't take any responsibility for eventual discrepancies between our listed frequencies and the frequencies actually approved in a given country. We strongly suggest you to inform in your own country or region for any changes or adaptations regarding the allowed frequencies.

Be aware that in some countries, you are only allowed to partly use the frequency range of the device. Therefore, we strongly advise you to consult your authority as listed below:

#### Telecoms & Postal Regulatory Authorities in Europe

Austria Rundfunk und Telekom Regulierungs-GmbH

Belgium Belgian Institute of postal services and telecommunications (BIPT) www.bipt.be

Czech Republic Czech Telecommunication Office

Denmark National Telecom Agency

Finnland Finnish Communications Regulatory Authority (FICORA)

France Autorité de Régulation des Télécommunications (ART)

Germany Die Bundesnetzagenturie B

Greece National Telecommunications Commission (EET)

**Hungary Communication Authority (HIF)** 

Iceland Post and Telecom Administration (PTA)

Ireland Commission for Communications Regulation (ComReg)

Italy Italian Communications Authority (AGC) Latvia Telecommunication State Inspection Liechtenstein Office for Communications (AK)

Lithuania Radio Administration

Luxembourg Institut Luxembourgeois des Télécommunications (ILT)

Netherlands Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA)

Agentschap Telecom

Ministry of Economic Affairs

Norway Norwegian Post and Telecommunications Authority (NPT)

Poland Urzad Regulacji Telekomunikacji (URT)

Portugal Autoridad Nacional De Comunicações (ICP-Anacom) Slovenia Agencija za telekomunikacije, radiodifuzijo in pošto www.rtr.at www.bipt.be www.ctu.cz

www.ficora.fi

www.art-telecom.fr

www.bundesnetzagentur.de

www.eett.gr www.hif.hu www.pta.is www.comreg.ie www.agcom.it www.vei.lv www.ak.li www.rrt.lt

www.etat.lu/ILT www.opta.nl

www.agentschap-telecom.nl

www.ez.nl www.npt.no www.urt.gov.pl www.anacom.pt www.atrp.si



# **DECLARATION OF CONFORMITY**

#### **Supplier Details**

Name

**Highlite International BV** 

Address

Vestastraat 2 6468EX Kerkrade The Netherlands

#### **Product Details**

**Product Name** 

WPS Guitar 863-865Mhz Wireless guitar system 16 freq

Ordercode

D1456

**Trade Name** 

**DAP AUDIO** 

#### **Applicable Standards Details**

R&TTE Directive: 1999/5/EC

Radio Spectrum Matter: EN 300 422-2 V1.2.2:2008-3

Emmission/Immunity: EN 301 489-1 V1.8.1:2008-04

EN 301 489-9 V1.4.1:2007-11

Safety Directive : 2001/95/EC EN 60065:2002+A1:2006

#### **Supplementary Information**

The conformity to above standards is verified by ETC.

#### Declaration

I hereby declare under our sole responsibility that the product mentioned above to which this declaration relates complies with the above mentioned s t a n d a r d s a n d D i r e c t i v e s

Name

**Issued Date** 

S. ildiz

March 03, 2009

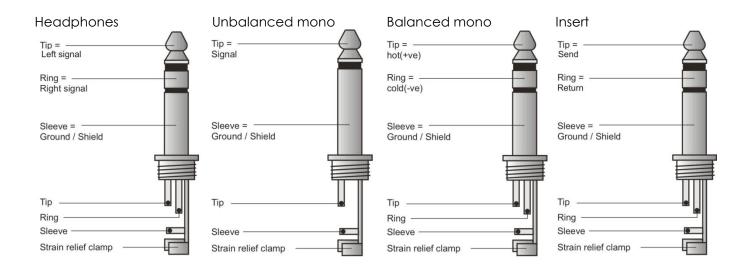
Highlite International BV. Vestastraat 2, 6468 EX Kerkrade, The Netherlands

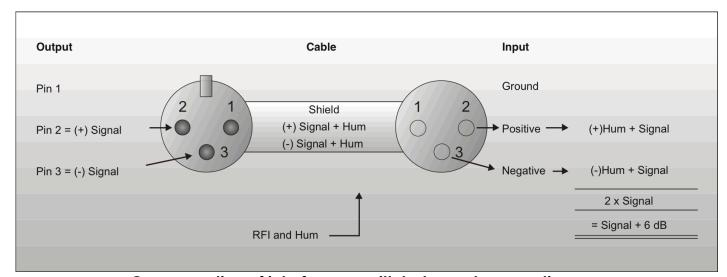
Signature of representative

#### **Connection Cables**

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability.

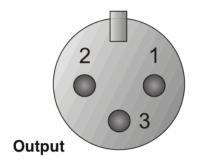
Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.





Compensation of interference with balanced connections

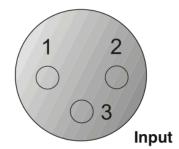
#### **Balanced use with XLR connectors**



1 = Ground / Shield

2 = hot (+ve)

3 = cold (-ve)



For unbalanced use PIN 1 and PIN 3 have to be bridged

#### Maintenance

The DAP Audio WPS Guitar requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

# **Troubleshooting**

DAP Audio WPS Guitar

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

- 1. If the device does not operate properly, unplug the device.
- **2.** Check power from the wall, all cables, connections, etc.
- 3. If all of the above appears to be O.K., plug the unit in again.
- **4.** If nothing happens after 30 seconds, unplug the device.
- **5.** Return the device to your DAP Audio dealer.

# **Product Specification**

Model: DAP Audio WPS Guitar

Receiver:

Frequency Preparation: PLL Synthesized Control

Carrier Frequency Range: 502~960 MHz

S/N Ratio: > 105dB T.H.D.: <0.6%@1KHz

Display: LED

Display Contents: Antenna A/B, RF/AF Status

Controls: Power On/Off, Channel Selecting, Audio Level

Audio Output Level: -12dB AF Output Impedance:  $600\Omega$  Squelch: Pilot Tone, Noise and Mute Operation Voltage: 9-15 VDC, 200mA

Output Connector: 1 Unbalanced Ø6.3mm phone jack Dimension(m/m): 125mm (W)\* 32mm (H)\* 75mm (D)

Transmitter:

Frequency Preparation: PLL Synthesized Control

Carrier Frequency Range: 502~960 MHz

RF Output: Maximum 10mW

Stability: ±10KHz

Frequency Deviation: ±48KHz

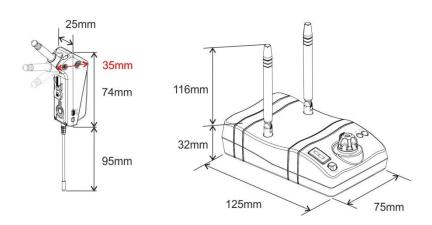
LCD Display: Power On/Off, Low battery, Mute

Controls: Power On/Off, AF Level, Channel Selecting, Mute

Spurious Emissions: <-50 dBC

Audio Frequency Response: 40~18,000 Hz

Battery: LR03, AAA 1.5V\*1



Design and product specifications are subject to change without prior notice.



Website: <u>www.Dap-audio.info</u> Email: service@highlite.nl

