



EM-193B

ORDERCODE D145161B

ORDERCODE D145182B



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 EM-193B 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: iwant@dap-audio.info

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 EM-193B™ Product Guide

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Warning



**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.

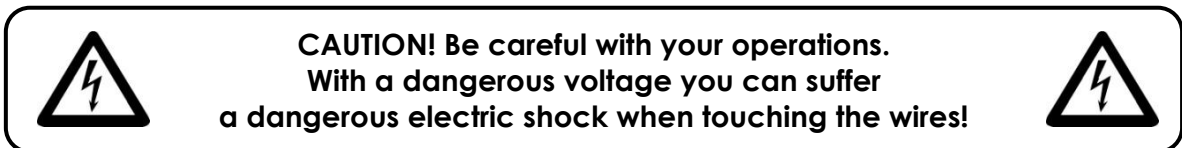
Your shipment includes:

- 1 DAP EM-193B
- 1 Screwdriver
- 8 color- coded protection caps
- 1 stand mount
- 1 storage case
- This 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



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 non observance of this manual or any unauthorized modification to the system.

- Never remove warning or informative labels from the unit.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Only use device indoor, avoid contact with water or other liquids.

- Avoid flames and do not put close to flammable liquids or gases.
- Make sure you don't use the wrong kind of cables or defective cables.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- 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 service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.

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.

Return Procedure

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 offersales@highlite.nl and request an RMA prior to shipping the device. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack the device, 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 device 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 of the device

Features

The EM-193B is a professional wireless microphone from Dap Audio. There are two frequency ranges available:

D145161B, frequency range 614 – 638 Mhz

D145182B, frequency range 822 – 846 Mhz

- 193 Selectable frequencies.
- Dynamic, moving coil.
- Lock-on function.
- Powered by AA batteries.
- True diversity, minimum dropouts.

Overview



Fig. 1

Installation

Remove all packing materials from the EM-193B. Check that all foam and plastic padding is removed.

Always disconnect from electric mains power supply before cleaning or servicing.

Damages caused by non-observance are not subject to warranty.



Fig. 2

A suitable (optional) receiver is the DAP ER-1193 (D145073(B) or D145082(B)).

You can change the color cap at the end of the microphone, whenever you feel like it.



Fig. 3

Set Up and Operation

Before turning the EM-193B on, always make sure that the frequency matches your country.

Placing the batteries



- 1) Unscrew the grill of the microphone counter clockwise and take the plastic cover off from the back.
- 2) Once you have removed the grill. You see a small lip, which you have to push.
- 3) Pull out the battery holder. Put 2 batteries (2x Battery UM3, AA1.5V) in the holder. Pay attention to the polarity of the batteries and put them in correctly.
- 4) Set the switch on the back to ON. Now the LED will light green. If the LED lights up red, you have to change the batteries.

Changing the settings



Use your thumb to unlock the lever and gently remove the color cap from the microphone.



Changing the frequency of the transmitter

- 1) Press and hold the **set(1)** button for 3 seconds. The display shows FREQUE. After a second, the display shows the actual frequency while the MHz symbol blinks.
- 2) Use the **up(3)** and **down(2)** buttons to select the desired frequency.
- 3) Press the **set(1)** button again to store the setting. The display will briefly show STORE. Now the setting is stored in memory.

Changing the sensitivity of the microphone

- 1) Press and hold the **set(1)** button for 3 seconds. The display shows FREQUE. After a second, the display shows the actual frequency while the MHz symbol blinks.
- 2) Tap the **set(1)** button until the display shows SENSIT.
- 2) Use the **up(3)** and **down(2)** buttons to select the sensitivity.
- 3) Press the **set(1)** button again to store the setting. The display will briefly show STORE. Now the setting is stored in memory.

Locking the EM-193B

The EM-193B has a locking function. When activated, the locking function blocks all keys so you can't accidentally switch the EB-16 off or change the frequency while performing.

- 1) Press and hold the **set(1)** button for 3 seconds. The display shows FREQUE.
- 2) Tap the **set(1)** button until the display shows LOC OFF.
- 3) Press the **up(3)** button to turn the lock function on.
- 4) Press the **set(1)** button again. The display will briefly show STORE. Now the setting is stored in memory.

Unlocking the EM-193B

- 1) Press and hold the **set(1)** button for 3 seconds. The display shows FREQUE.
- 2) Tap the **set(1)** button again until the display shows LOC ON.
- 3) Press the **down(2)** button to turn the lock function on.
- 4) Press the **set(1)** button again. The display will briefly show STORE. Now the setting is stored in memory.

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 low battery LED lights.
- If stacking or rack mounting receivers in a multiple system setup. Do not allow antennas to cross.
- 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 D145161B and the D145182B are Class II wireless devices.

D145161B: 614-638 MHz for use in: Austria, Belgium, Denmark, France, Italy, Luxemburg, Netherlands, Poland, Sweden, Switzerland, Turkey.

D145182B: 822-846 MHz for use in: Germany.

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. If your country is not listed above it is still possible that there are exceptions. Therefore, we strongly advice you to consult your local authority as listed below:

Telecoms & Postal Regulatory Authorities in Europe

Austria: Rundfunk und Telekom Regulierungs-GmbH	www.rtr.at
Belgium: Belgian Institute of postal services and telecommunications (BIPT)	www.bipt.be
Czech Republic: Czech Telecommunication Office	www.ctu.cz
Denmark: National Telecom Agency	www.tst.dk
Finnland: Finnish Communications Regulatory Authority (FICORA)	www.ficora.fi
France: Autorité de Régulation des Télécommunications (ART)	www.art-telecom.fr
Germany: Die Bundesnetzagentur	www.bundesnetzagentur.de
Greece: National Telecommunications Commission (EET)	www.eett.gr
Hungary: Communication Authority (HIF)	www.hif.hu
Iceland: Post and Telecom Administration (PTA)	www.pta.is
Ireland: Commission for Communications Regulation (ComReg)	www.comreg.ie
Italy: Italian Communications Authority (AGC)	www.agcom.it
Latvia: Telecommunication State Inspection	www.vei.lv
Liechtenstein: Office for Communications (AK)	www.ak.li
Lithuania: Radio Administration	www.rrt.lt
Luxembourg: Institut Luxembourgeois des Télécommunications (ILT)	www.etat.lu/ILT
Netherlands: Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA) Agentschap Telecom Ministry of Economic Affairs	www.opta.nl www.agentschap-telecom.nl www.ez.nl
Norway: Norwegian Post and Telecommunications Authority (NPT)	www.npt.no
Poland: Urząd Regulacji Telekomunikacji (URT)	www.urt.gov.pl
Portugal: Autoridade Nacional De Comunicações (ICP-Anacom)	www.anacom.pt
Slovenia: Agencija za telekomunikacije, radiodifuzijo in pošto	www.atrp.si



DECLARATION OF CONFORMITY

Supplier Details

Name

Highlite International BV

Address

Vestastraat 2
6468EX Kerkrade
The Netherlands

Product Details

Product Name

EM-193B Wireless PLL 614-638MHz Black

Ordercode

D145161B

Trade Name

DAP AUDIO

Applicable Standards Details

R&TTE Directives : 1999/5/EC

Applied Specifications / Standards

Safety	EN 60065: 2002+A1: 2006 +A11: 2008 EN 50371: 2002
EMC	EN 301 489-1 V 1.8.1 EN 301 489-9 V 1.4.1
RF Spectrum	EN 300 422-2V 1.2.2

The product shall be marked with the CE conformity marking and our Notified Body number as shown on the right.

CE1856!

Supplementary Information

The conformity to above standards is verified by TÜV Rheinland (Notified Body).

Declaration

I hereby declare under our sole responsibility that the product mentioned above to which this declaration relates complies with the above mentioned standards and Directives

Name

Issued Date

H. De la Haye / Director

Dec. 17, 2010

Signature of representative

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



DECLARATION OF CONFORMITY

Supplier Details

Name

Highlite International BV

Address

Vestastraat 2
6468EX Kerkrade
The Netherlands

Product Details

Product Name

EM-193B Wireless PLL 822-846MHz Black

Ordercode

D145182B

Trade Name

DAP AUDIO

Applicable Standards Details

R&TTE Directives : 1999/5/EC

Applied Specifications / Standards

Safety	EN 60065: 2002+A1: 2006 +A11: 2008 EN 50371: 2002
EMC	EN 301 489-1 V 1.8.1 EN 301 489-9 V 1.4.1
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The Netherlands

Maintenance

The DAP Audio EM-193B 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 EM-193B

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, set the switch on the EM-193B in OFF position.
2. Check the batteries, etc.
3. If all of the above appears to be O.K., Set the switch in ON position.
4. If you are unable to determine the cause of the problem, do not open the EM-193B, as this may damage the unit and the warranty will become void.
5. Return the EM-193B to your DAP Audio dealer.

Product Specification

Type:	Dynamic, moving coil
Polar pattern:	Cardioid
Frequency Response:	50-16.000 Hz
Max. SPL:	138 dB (1% THD)
Power supply:	2x Battery UM3, AA1.5V (not included)
Carrier Frequency Range:	502-960 MHz
RF Output:	10 mW
Stability:	±0.005%
Frequency Deviation:	±48 kHz
LCD Display:	Frequency, battery fuel gauge
Controls:	Power On/Off, mode setting, AF Level Control, Frequency Up/Down, Lock-on mode
Spurious Rejection:	<-60 dBC
Dimensions:	Ø 50 mm x L 260 mm
Net. Weight:	0,262 kg

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



Website: www.Dap-audio.info

Email: service@highlite.nl



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