## **USER MANUAL**





**ENGLISH** 

# Silent Disco Headphones

VI

Product code: D1821

### Silent Disco Headphones

### **Preface**

Thank you for purchasing this DAP product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Installation and operation of the device
- Intended and non-intended use of the device
- Maintenance procedures
- **Troubleshooting**
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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## Silent Disco Headphones

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#### Introduction 1.

#### 1.1. **Before Using the Product**



**Important** 

Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- **DAP Silent Disco Headphones**
- USB-A to DC cable  $(3.0 \times 1.1 \text{ mm})$ , 1.5 m
- User manual



Fig. 01

#### 1.2. Intended Use

This device is intended for use as circumaural headphones. It is suitable only for indoor use.

Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

#### **Text Conventions** 1.3.

Throughout the user manual the following text conventions are used:

**Buttons:** All buttons are in bold lettering, for example "Press the **UP/DOWN** buttons"

References to chapters and parts of the device are in bold lettering, for example: References:

"Refer to 2. Safety", "press the power switch (03)"

0-255: Defines a range of values

Notes: **Note:** (in bold lettering) is followed by useful information or tips



### 1.4. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs.

Always follow the instructions provided in this user manual.



DANGER Indicates an imminently hazardous situation which, if not avoided, will result in

death or serious injury.

**WARNING** Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.

in death of serious injury

CAUTION Indicates a potentially hazardous situation, which, if not avoided, may result in

minor or moderate injury.

Attention Indicates important information for the correct operation and use of the

product.

**Important** Read and observe the instructions in this document.

High sound pressure

This device is not a toy

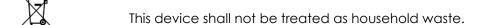
Provides important information about the disposal of this product.

### 1.5. Symbols on the Information Label

This product is provided with an information label. The information label is located on the inside of the headband.

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The information label contains the following symbols:





### Safety



**Important** 

Read and follow the instructions in this user manual before installing, operating or servicing this product.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

#### 2.1. **Warnings and Safety Instructions**



**Attention** This device is not a toy

This device may be used by children under the supervision of an adult.



**DANGER** Risk of explosion caused by incorrect handling

This device contains a built-in rechargeable lithium-ion polymer battery. The battery is not replaceable. The battery may explode or cause burns if it is crushed, disassembled or exposed to fire or high temperatures.

- Do not open the device and do not attempt to remove the built-in battery.
- Do not disassemble the battery.
- Do not crush or puncture the battery.
- Do not short-circuit the battery.
- Do not expose the battery to water or other liquids.
- Keep the battery away from fire, heat, and direct sunlight.



CAUTION Hearing damage risk

Exposure to high sound levels for a prolonged period may result in hearing damage or loss.

Do not listen at high volume levels for long periods.



**Attention** General safety

- Do not shake the device. Avoid brute force when using the device.
- If the device is exposed to extreme temperature variations (e.g. after transportation), do not switch it on immediately. Let the device reach room temperature before switching it on, otherwise it may be damaged by the formed condensation.
- If the device fails to work correctly, discontinue the use immediately.



### Silent Disco Headphones



#### **Attention**

This device shall be used only for the purposes it is designed for.

This device is designed to be used as circumaural headphones. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

This device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.



### **Attention**

Do not expose the device to conditions that exceed the rated IP class conditions.

This device is IP20 rated. IP (Ingress Protection) 20 class provides protection against solid objects greater than 12 mm, such as fingers, and no protection against harmful ingress of water.

#### 2.2. Requirements for the User

This product may be used by ordinary persons. Maintenance and installation may be carried by ordinary persons. Service shall be carried out only by instructed or skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the service of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the service of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.



### 3. Description of the Device

The DAP Silent Disco Headphones are headphones intended for use in a silent disco setup in combination with the DAP Silent Disco Transmitter (D1820). With 3 selectable channels, the headphones can be used in multiple applications, like a multi-DJ setup, multiple simultaneous lectures, (tour) guide applications, etc. The headphones' shells have RGB LEDs that show the selected channel by color. The ear cups can be folded before stowing. The device is equipped with a rechargeable li-ion polymer battery, which is not replaceable.

### 3.1. Front View



- 01) 2 x ear cups
- 02) Volume control
- 03) Channel LED indicators
- 04) Battery LED indicator
- 05) DC input connector
- 06) Power switch (OFF/ON)
- 07) Channel selector

Fig. 02

## 3.2. Product Specifications

| Model:                | Silent Disco Headphones |
|-----------------------|-------------------------|
| Electrical:           |                         |
| Input voltage:        | 5 V DC                  |
| Radio specifications: |                         |
|                       | UHF/RF                  |
| System: Modulation:   | FM                      |
|                       |                         |

| kadio specifications: |             |  |
|-----------------------|-------------|--|
| System:               | UHF/RF      |  |
| Modulation:           | FM          |  |
| Frequency range:      | 863–865 MHz |  |
| Frequency response:   | 30–20000 Hz |  |
| Channels:             | 3           |  |
|                       |             |  |

| Audio specifications:  |         |
|------------------------|---------|
| Mode:                  | Stereo  |
| THD level:             | <1%     |
| Signal-to-noise ratio: | > 75 dB |

| Battery:          |  |  |
|-------------------|--|--|
| Type:             | Lithium-ion polymer battery                          |  |
| Capacity:         | 500 mA·h   |  |
| Voltage:          | 3,7 V  |  |
| Watt-hour rating: | 1,85 W·h   |  |
| Runtime:          | 8 h (at full output)                                 |  |
| Charge time:      | 2,5 h  |  |
| Battery lifetime: | 400 discharge cycles (battery runtime drops at 70 %) |  |

| Physical:   |  |  |
|-------------|--|--|
| Dimensions: | 150 x 70 x 200 mm (L x W x H) (not folded) |  |
| Weight:     | 0,22 kg                                    |  |

| Connections:       |                    |  |
|--------------------|--------------------|--|
| Power connections: | DC input connector |  |

| Construction: |             |  |
|---------------|-------------|--|
| Color:        | Black, gray |  |
| IP rating:    | IP20        |  |

| Thermal:                     |          |
|------------------------------|----------|
| Charging temperature range:  | 10–45 °C |
| Operating temperature range: | 0–40 °C  |
| Storage temperature range:   | 5–20 °C  |

DAP

### 3.3. Compatibility



### Attention Product compatibility

The Silent Disco Headphones are designed to be operated only with the Silent Disco Transmitter. The Silent Disco Transmitter is not supplied with the Silent Disco Headphones.

You need to purchase the Silent Disco Transmitter separately. Contact your Highlite International dealer for more information.

Product code: D1820 (Silent Disco Transmitter)

### 3.4. Optional Accessories

You can additionally purchase the following accessories:

- product code: D1822 (Keypad for LED Control) a keypad to control the color of the LEDs on the Silent Disco Headphones;
- product code: D1823 (Charger for Silent Disco Headphones (16 pcs D1821)) a USB adapter for charging of up to 16 devices;
- product code: 50040 (USB Adaptor / Charger 1000 mA) a USB adapter for 1 device.

Contact your Highlite International dealer for more information.

### 3.5. Dimensions

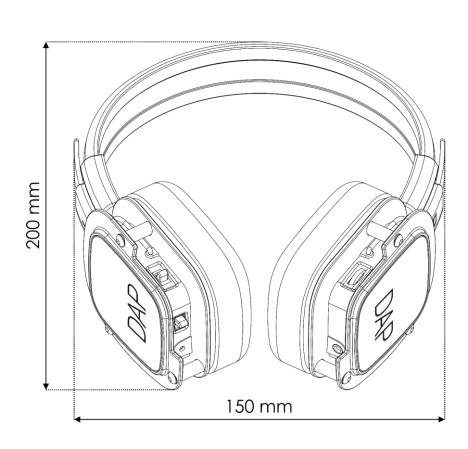




Fig. 03

DAF

### **Setup and Operation**

#### 4.1. Charging the Battery



### **DANGER**

Risk of explosion caused by incorrect handling

This device contains a built-in rechargeable lithium-ion polymer battery. The battery is not replaceable. The battery may explode or cause burns if it is crushed, disassembled or exposed to fire or high temperatures.

- Do not open the device and do not attempt to remove the built-in battery.
- Do not crush or puncture the battery.



### Attention

Do not wear the headphones during charging

This device is delivered with a USB cable, that is used to charge the battery.

To charge the battery follow the steps bellow:

- 01) Connect the USB-A connector of the USB cable to a USB power adapter or to a power sourcing equipment (a computer, or a similar device).
- 02) Connect the DC connector of the USB cable to the DC input connector (05) of the device.
- 03) Connect the USB power adapter to the socket-outlet or switch on the power sourcing equipment.

During charging the battery LED indicator (04) lights up in red. When charging is completed, the battery **LED indicator (04)** lights up in green.

You can also charge the battery with the Charger for Silent Disco Headphones (product code: D1823). The charger is not supplied with the device. You can purchase it additionally. Contact your Highlite International dealer for more information.

With the Charger for Silent Disco Headphones you can charge up to 16 Silent Disco Headphones at the same time.

### Notes:

- Charge the battery before using the device for the first time.
- Do not deep discharge the battery as this will shorten the battery's lifetime. Recharge the battery as early as possible. Do not let the device switched on until the battery is depleted.
- Make sure that the battery is fully charged before storing the device.
- Charge the device at an ambient temperature between 0 °C and 35 °C.

Refer to 3.2. Product Specifications on page 8 for the charge time of the battery.





#### 4.2. Setup Example

This is a typical setup example with a number of Silent Disco Headphones, a Silent Disco Transmitter, a Keypad for LED Control, and a DJ mixer.

Make sure that there is a clear line of sight between the transmitter and each person wearing the headphones.



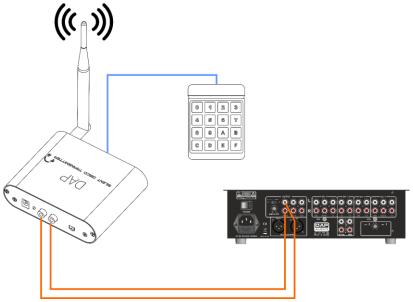


Fig. 04

#### 4.3. Switching On/Off

The device has a power switch (06):

- Set the power switch (06) in ON position to switch on the device. The channel LED indicators (03) light up in the specific color selected for the channel. See 4.4. Channel Selection on page 11 for more information.
- Set the **power switch (06)** in OFF position to switch off the device.

#### 4.4. **Channel Selection**

The device can operate on 3 channels. You can select a channel with the **channel selector (07)**.

When the respective channel is selected, the channel LED indicators (03) light up as follows:

- Channel 1 blue
- Channel 2 red
- Channel 3 green

You can change the color for each channel or switch off the LEDs with the Keypad for LED Control (product code: D1822). The keypad is not supplied with the device. You can purchase it additionally. Contact your Highlite International dealer for more information.

### 4.5. Operation



### CAUTION Hearing damage risk

Exposure to high sound levels for a prolonged period may lead to hearing damage or loss.

Do not listen at high volume levels for long periods.

To use the device:

- 01) Make sure that the device is fully charged before use. See **4.1. Charging the Battery** on page 10 for more information.
- 02) Switch on the device. See 4.3. Switching On/Off on page 11 for more information.
- 03) Select one of the 3 channels. See **4.4. Channel Selection** on page 11 for more information.
- 04) Adjust the volume with the volume control (02).
- 05) Switch off the device when the device is not in use.

### Note:

If there is no audio received by the headphones from the transmitter, the headphones will mute after a short period.

### 4.6. Folding the Ear Cups

The Silent Disco Headphones have foldable ear cups. You can fold the device before stowing.

Push the two ear cups (01) inwards to fold them, as shown in Fig. 05.

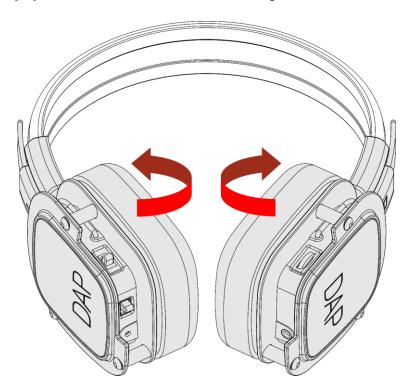


Fig. 05

#### **Troubleshooting** 5.

This troubleshooting guide contains solutions to problems which can be carried out by an ordinary person. The device does not contain user-serviceable parts. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage. Refer servicing to instructed or skilled persons. Contact your Highlite International dealer in case the solution is not described in the table.

| Problem                                   | Probable cause(s)   | Solution   |
|---|---|--|
| The device<br>does not<br>function at all | The battery is depleted   | Recharge the battery. See <b>4.1. Charging the</b> Battery on page 10  |
| The least of                              | The USB cable is not correctly connected  | <ul> <li>Make sure that you use the USB to DC cable supplied with the device</li> <li>Make sure that the USB to DC cable is firmly connected</li> </ul>  |
| The battery does not                      | The power sourcing equipment is not switched on                                   | <ul> <li>Switch on the power sourcing equipment<br/>(computer, or similar)</li> </ul>  |
| charge                                    | The USB port on the power sourcing equipment is damaged                           | Try using another power sourcing equipment   |
|   | The USB power adapter is not correctly connected                                  | <ul> <li>Make sure that the USB power adapter is<br/>connected to the power supply</li> </ul>  |
|   | No power to the device  | Make sure that the device is switched on and the battery is charged  |
|   | The transmitter is switched off or not functioning correctly                      | Make sure that the transmitter is switched on  |
| No sound                                  | Channel selection   | <ul> <li>Make sure that the transmitter is transmitting an audio signal on the channel selected on the device</li> <li>Make sure that the device and the transmitter are on the same channel</li> </ul>                              |
|   | The volume is too low   | Turn up the volume   |
|   | The connected device is not playing audio   | Make sure that the connected device is switched on and operates correctly  |
| Poor sound<br>quality                     | The distance between the device and the transmitter is too big                    | <ul> <li>Shorten the distance between the transmitter and the device. See the user manual of the transmitter for more information</li> <li>Make sure that there are no obstructions between the device and the headphones</li> </ul> |
|   | The connected device is not functioning correctly or the audio is of poor quality | Try another audio source   |

#### Maintenance 6.

#### 6.1. **Preventive Maintenance**

### 6.1.1. Basic Cleaning Instructions

Clean the device with a soft, lint-free cloth.



### **Attention**

- Do not immerse the device in liquid.
- Do not use alcohol or solvents.



#### 6.2. **Corrective Maintenance**

The device does not contain user-serviceable parts. Do not open the device and do not modify the device.

Refer repairs and servicing to instructed or skilled persons. Contact your Highlite International dealer for more information.

#### Transportation and Storage **7**.

#### 7.1. **Instructions for Transportation**

This device contains a rechargeable (secondary) lithium-ion polymer battery. Lithium-ion polymer batteries contained in equipment fall under the category of dangerous goods for transportation.

Make sure that you are in compliance with all applicable transportation regulations when you transport this device. See 3.2. Product Specifications on page 8 for the specifications of the battery.

Use the original packaging to transport the device or other suitable packaging that complies with the regulations for transportation of secondary lithium-ion batteries.

#### 7.2. Storage

This device contains a rechargeable (secondary) lithium-ion polymer battery. The battery is not replaceable. The battery may explode or cause burns if it is crushed, disassembled or exposed to fire or high temperatures.

- Store the device in a dry, cool place, at temperatures between 5 °C and 20 °C. Lithium-ion polymer batteries self-discharge during storage. Temperatures above 20 °C speed up the self-discharging
- Do not store the device with depleted battery. Make sure that the battery is fully charged before storing the device. See 4.1. Charging the Battery on page 10.
- Clean the device before storing. Follow the cleaning instructions in chapter 6.1.1. Basic Cleaning **Instructions** on page 13.
- Store the device in the original packaging, if possible.

You can fold the device before stowing. See 4.6. Folding the Ear Cups on page 12 for more information.

#### 8. Disposal

This device contains a lithium-ion polymer battery. Do not dispose of with the household waste.

### Correct disposal of this product



Waste Electrical and Electronic Equipment

This symbol on the product, its packaging or documents indicates that the product shall not be treated as household waste. Dispose of this product by handing it to the respective collection point for recycling of electrical and electronic equipment. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. For more detailed information about recycling of this product contact the local authorities or the authorized dealer.

## **Approval**



Hereby, Highlite International declares that the device Silent Disco Headphones, product code D1821, is in compliance with Directive 2014/53/EU (RED – Radio Equipment Directive). The full text of the EU declaration of conformity is available at the respective product page on the website of Highlite International (www.highlite.com).





