



eSMART DUAL CHARGER

2 bay desktop smart battery simultaneous charger

Version 1.2

Modified : 15/04/2019

The eSMART DUAL CHARGER is a portable and rugged smart battery charger specially designed for location sound recordists. The unit is powered via a 24Vdc/3.34A universal AC/DC adapter and features a 96x64 pixels OLED color screen.

This charger is compatible with our eSMART Li-98Wh and Li-49Wh li-ion batteries. Similar batteries from third party vendors are also compatible with this unit.

- Maximum charging current per bay : 2.0A
- 96x64 pixels full color OLED screen
- Fanless design
- All anodized aluminum CNC machined and extruded enclosure with laser engraving
- 24V/3.4A dc input on Switchcraft 712 barrel connector
- 110/240V AC/DC PSU supplied
- Charger dimensions : 170 x 109 x 36mm
- AC/DC adapter dimensions : 140 x 60 x 35mm
- Total weight (charger + AC/DC PSU) : 0.8Kg

Warning

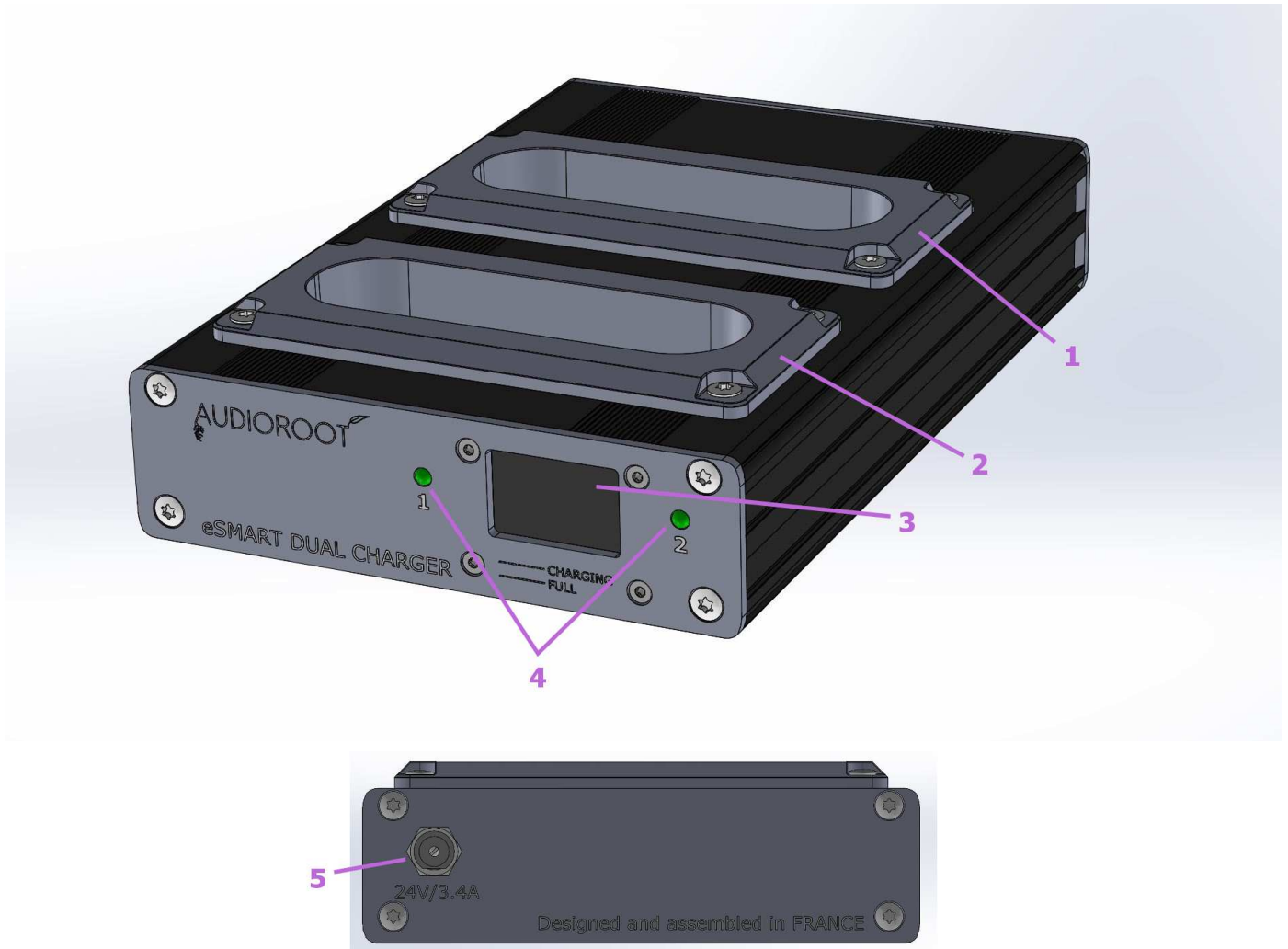
Do not try to repair this product or replace any of its elements if this user manual does not give specific instructions on how to do so. This equipment was built with surface mount components and needs special tooling for repair. The removal of the electronic PCB needs special technical skills.

UNPACKING AND INSPECTION

The eSMART QUAD CHARGERS are carefully checked for good condition before being shipped from the factory. Despite the protective carton and rugged design, shipping may damage the unit. Check for possible carton damage when unpacking the unit.

Please save the carton for return shipment if necessary. AUDIOROOT does not warrant against damage caused by returning products in other cartons than the original ones or improperly packing the products. If shipping damage is evident, notify the transportation company immediately. Only the consignee can file a claim with the carrier for shipping damage. AUDIOROOT will fully co-operate in such an event. Be sure to save the carton for the shipper to inspect.

UNIT CONNECTIONS AND CONTROLS:

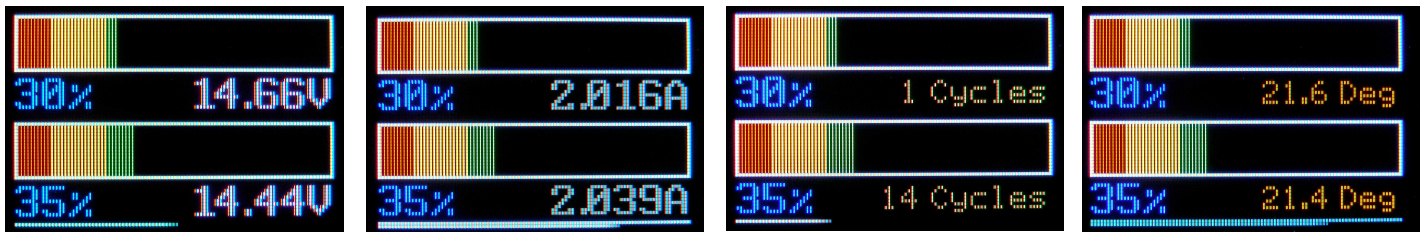


1. Battery charging bay #1
2. Battery charging bay #2
3. OLED display
 - This display shows all the needed information regarding the SoC (state of charge) of each batteries. See the "OLED DISPLAY" section of this manual for more information.
4. Front panel status LEDs. Each battery bay has a LED which shows the charging status :
 - **green flashing** : the battery is charging
 - **green solid** : the battery is fully charged
 - **led off** : no battery present in the charging bay
5. 24V Switchcraft 712 DC input jack

OLED DISPLAY :

The 96x64 pixels OLED display located on the charger's front panel shows valuable information about each battery connected to the charger as shown below. Battery voltage, charging current, cycle count and battery temperature are displayed sequentially every 3 seconds.

The OLED display will show SoC information for a battery only if it is inserted in a charging bay or if it is actually charging. If no battery is present inside a charging bay, the corresponding SoC portion of the display will stay blank. If all batteries are fully charged or if all of the charging bays are empty the OLED display will stay off.



During battery charging, a color changing line will be drawn every 2-3 seconds at the bottom of the display. This animation is purely esthetic and has no technical function.

BOX CONTENTS :

1. 1 x eSMART DUAL CHARGER
2. 1 x AC cord (EU, US, UK or AU depending of your region)
3. 1 x 100/240V 24Vdc/3.34A universal AC/DC adapter
4. 1 x user manual

SAFETY PRECAUTIONS :

- Do not expose the charger to liquids. The aluminum enclosure is not water resistant.
- Do not open the charger – no parts are user accessible/replaceable.
- Do not cover aluminum extruded housing. Do not obstruct the airflow around the unit.
- Place the charger in a cool spot, away from direct sunlight or any external heat sources.

CHARGER OPERATION :

To operate the battery charger proceed as follows :

- Place the charger on a flat level surface away from sources of heat and moisture.
- Plug the supplied AC/DC's adapter DC jack to the eSMART DUAL charger's rear connector.
- Plug the supplied AC cord to the IEC C13 socket located on the AC/DC adapter.
- Plug the other end of the AC cord to a compatible wall socket.
- Insert one or two batteries in the charging bays, ensuring that the 5-way connector is fully seated.
- The status LEDs and OLED display will provide status information and the charger will automatically begin charging.
- Once the batteries are full, the charging will automatically stop and the OLED display will shut off.

CHARGING TIMES :

The following values are givent for a full charge from 0% to 100% state of charge.

- eSMART Li-49Wh : 2.5 hours (@1500mA charging current)
- eSMART Li-98Wh : 3.5 hours (@2000mA charging current)

SUPPORT :

Please contact us directly via email at audioroot@audioroot.fr for more support.

FCC COMPLIANCE:

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.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

Notes: 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.

CE DECLARATION OF CONFORMITY:

We, S.A.S.U SULACO, declare under our sole responsibility that the product :

Product name : eSMART DUAL CHARGER
Description : 2 bay lithium-ion smart battery charger
Model number : DUAL C
Brand name : AUDIOROOT
Manufacturer : SASU SULACO

is in conformity with the following standards or other normative documents :

Electromagnetic Compatibility:

EN 55032: 2015/AC: 2016; EN 55035: 2017; EN61000-3-2: 2014; EN61000-3-3:2013

Following the provisions of EU-Directives:

EMC Electromagnetic Compatibility (2014/30/UE)

Place of issue : Sélestat, FRANCE

Date of issue : 15 April 2019



Antoine MALNATI
President