

Leto

User manual





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January 2013

Serial number of this product:

Dear customer,

Thank you for buying the Apex Leto. The Apex Leto is part of the Apex SL-series: sound level limiters and controllers for pubs, discos, theatres,...

The Apex Leto large remote display is intended to increase the public's and performer's awareness of sound levels.

Product highlights

- Fully remote controlled from the Hera
- 100mm high digits
- 19-inch rack-mount device

Foreword

Leto must be connected to the Apex Hera and will constantly display the instantaneous (LAslow or LCslow) or equivalent continuous (LAeq or LCeq) sound level over a selectable period of time. Leto is controlled via the Hera front panel.

Housed in standard 19-inch enclosure, installing Leto in a rack or into furniture is fairly easy.

Inspection and unpacking

This appliance has been carefully packed in the factory and the packaging was designed to withstand rough handling. Should the unit appear to have been damaged in transit, do not discard any of the packing material and notify the carrier immediately as they will be responsible.

Save all the packing materials for future use if you ever need to ship the unit again.

Please check the list below against the contents of the packaging. If any items are missing or damaged, contact the Apex dealer or distributor where you purchased the unit.

Content:

- Leto unit
- a mains to 12Vdc adapter
- a short data cable with 6P6C modular connectors
- this manual

Operating environment

This appliance is designed to operate in most normal climates, at a temperature between 0°C and 50°C (32 - 122 °F), with relative humidity between 10% and 60%.

Power requirements

This product is intended to operate at a low DC voltage of 12V. The external mains adapter provided with this product works from an AC supply between 100V and 240V, at a frequency of 50 or 60Hz. No AC voltage selector is provided as the adapter automatically adjusts to the incoming AC voltage. Carefully check that the adapter can accommodate the mains voltage and frequency available BEFORE you connect it to the mains.

Installation

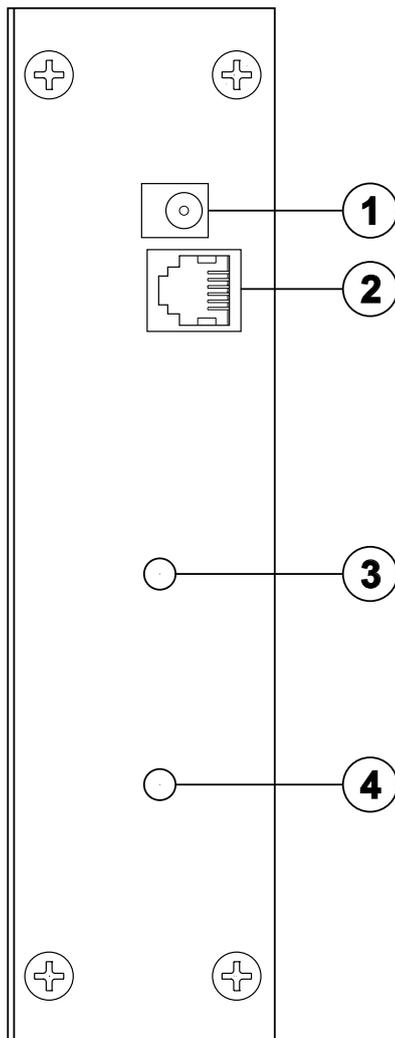
If the unit is brought into a warm room from a cold environment, internal condensation may occur. Ensure that the unit has been allowed to reach ambient temperature before switching it on.

If the unit is installed in a flight-case or in an equipment rack, fix the unit with all four screws through the front panel holes.

Side panel description

- ① **DC power inlet**
connect to the power adapter delivered with the Leto. The adapter must supply 12Vdc, positive at centre pin.
- ② **6P6C socket**
connect to the Apex Hera. Make sure you use the correct type of cable or an extender kit. See next chapter for more information.
- ③ **Connection LED)**
Indicates that the Leto is connected to the Hera.
- ④ **Power LED**

Side panel



Connecting to the Apex Hera

Communication between the Apex Hera and the Apex Leto is done with an I²C bus. This bus is highly sensible to electro-magnetic perturbation. We recommend you to carefully read the following instructions to avoid any troubles.

Leto can be connected to Hera using the provided data cable. **The length cable is limited to just a few meters.** If longer distances between Leto and Hera are required, then the optional Leto Extender kit can be purchased.

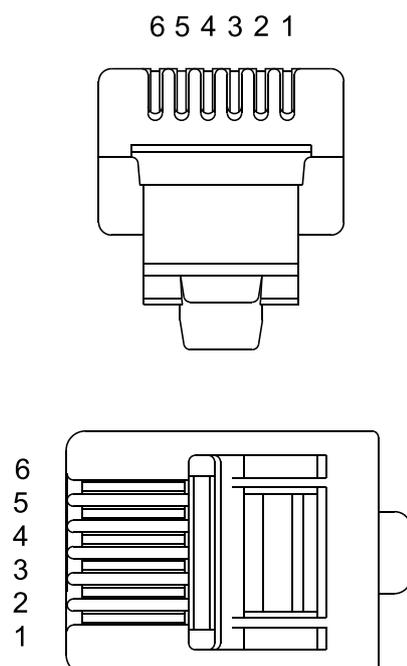
To warrant a good function of the Leto as well as the Hera, only use high quality low capacitance data transmission cables. **We would like to advise you to not use standard telephonic extenders.**

Connectors on both Hera and Leto are six-position six-contact (6P6C) modular jack connectors. The pin-out is identical on both devices

Connector pin-out:

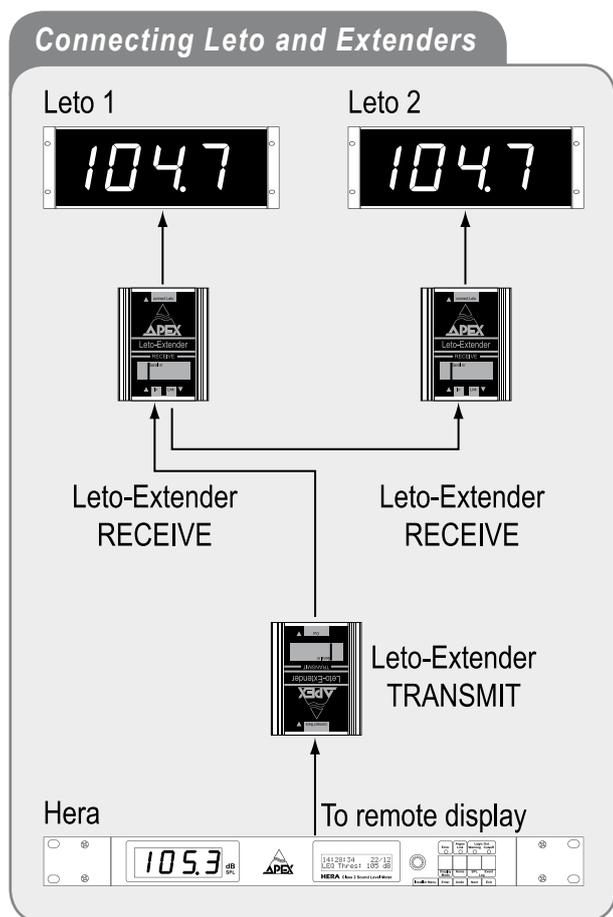
Pin	Signal
1	+ 12 Vdc
2	+ 12 Vdc
3	SDA (Data)
4	SCL (Clock)
5	GND
6	GND

6P6C connection



Using the Extender kit enables cable lengths up to 200m to be used. The kit consists of one transmitter and one receiver unit and standard RJ-45 FTP network cable should be used to connect the two together (cable not supplied). Be aware that this signal does not conform in any way to Ethernet standards !

A maximum of two Leto displays may be slaved to the Hera by daisy-chaining two receiver units together.



Meaning of the messages on the display

- HErA** Leto is not connected to the Hera, or the Hera is not powered on.
- Err** Leto is connected to the Hera but the communication failed. This can be caused by improper cable or connection.

Limited warranty

Apex N.V. ("Apex") garandeert u, de oorspronkelijke aankoper, of elke partij die het toestel bij u aankoopt, dat zijn producten vrij zijn van gebreken in materiaal en vakmanschap onder normaal gebruik over een periode van (2) twee jaar vanaf de aankoopdatum. De aankoopdatum is de datum die vermeld staat op het eerste factuur of elk ander bewijs van aankoop geleverd door een erkende Apex verdeler.

Apex N.V. ("Apex") warrants you, the original purchaser, or any party that purchases the device from you, that its products are free from defects in material and workmanship under normal use for a period of two (2) years from the date of original purchase. The date of purchase is the date which appears on the first invoice or any other proof of purchase provided by an Apex approved dealer.

Subject to the conditions and limitations set forth below, Apex will, at its discretion, either repair or replace any part of its products that prove to be defective, provided that the product is returned with proof of purchase, shipping prepaid, to an authorised Apex approved service facility.

Warranty cover of any repairs will only extend to the end of the original warranty period.

We will be happy to provide you with a list of authorised dealers to whom you can return the defective unit or who will give you a returns note to enable you to send the unit to the factory.

Service turn-around time will be as fast as reasonably possible. If you are not satisfied with the repair, contact Apex.

Exclusions and limitations

This limited warranty covers only repair or replacement for defective products manufactured by Apex. Apex is not liable for, and does not cover under warranty, any loss of data or any costs associated with determining the source of system problems or removing, servicing or installing Apex products. This warranty excludes 3rd party software, connected equipment or stored data. Apex does not warrant that the operation of the product will be uninterrupted or error-free. In the event of a claim, Apex's sole obligation shall be replacement of the hardware.

This limited warranty does not cover:

- (1) any damage to this product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions or other external causes;
- (2) any damage caused by operating the product outside the permitted or intended uses described by Apex;
- (3) any damage caused by any unauthorized disassembly, repair, or modification;
- (4) consumable parts, such as batteries;
- (5) any cosmetic damage.

Apex is not liable for consequential damages.

This limited warranty also does not apply to any product on which the original identification information (including serial number) has been altered, obliterated or removed or any product that has not been handled or packaged correctly.

Warranty services will be furnished only if the product is accompanied by a copy of the original retail dealer's invoice.

Warranty claims other than those indicated above are expressly excluded

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