



# FASTQC-LS

FAST QUALITY CONTROL



USER MANUAL

## SAFETY REGULATIONS

In order to avoid risks for the user's and other people's safety, as well as annulling the warranty, it is advisable to read the suggestions in this section for correct use of the product.

- Do not expose the unit to rain or use it in locations with a high humidity level.
- Ensure that no liquids or solid objects accidentally enter the unit; should this occur, stop using the unit and contact OUTLINE or specialist staff.
- When connecting the unit, ALWAYS check ground connection as required by technical and safety norms.

- If the original connector cable is worn or damaged, it must be replaced with another of the same type (in perfect condition).
- Carry out connections in an orderly manner, only allowing access to experienced specialist staff.
- The unit must only be opened and/or repaired by specialist staff.
- For any requirements of a technical nature, contact OUTLINE or authorized staff.
- The unit is dedicated to moving heavy or bulk objects. For this reason, it must be used under the supervision of experienced personnel.

## DISPOSAL OF WASTE MATERIALS



Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2012/19/EU and subsequent amendments. This means that the product must NOT be disposed of with other household-type

waste. It is the users' responsibility to dispose of their waste electrical and electronic equipment by handing it over to an approved reprocessor. For more information about where you can send your equipment for recycling, please contact your local distributor. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

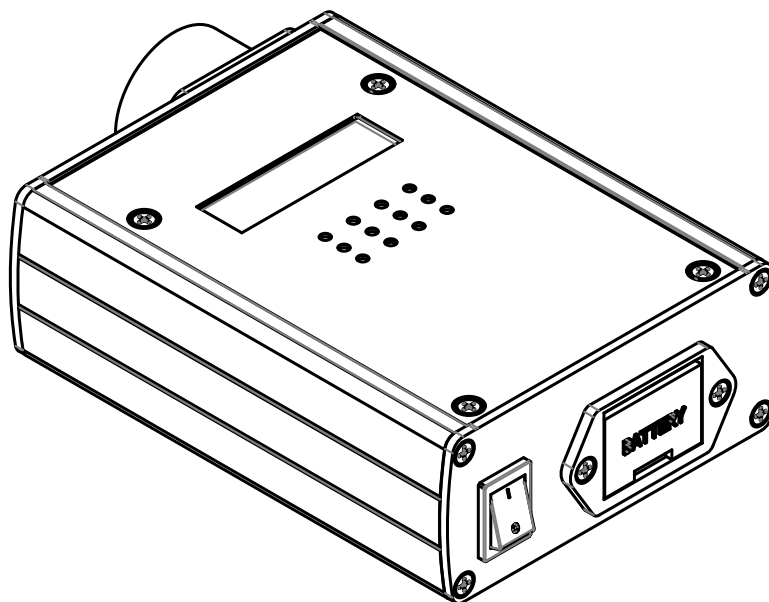
## CONFORMITY AND WARRANTY



All the Outline electro-acoustic and electronic devices are in conformity with the provisions of EC/EU directives (as stated in our CE declaration of conformity).

The CE declaration of conformity is attached to the product warranty certificate and is shipped with the product.

## SYSTEM DESCRIPTION



The target of this device is to identify macroscopic damages (like disconnected wires, blown coils, etc...) for each way of the Outline speakers quickly and without the need of an external mains power.

In order to perform the measure you have to

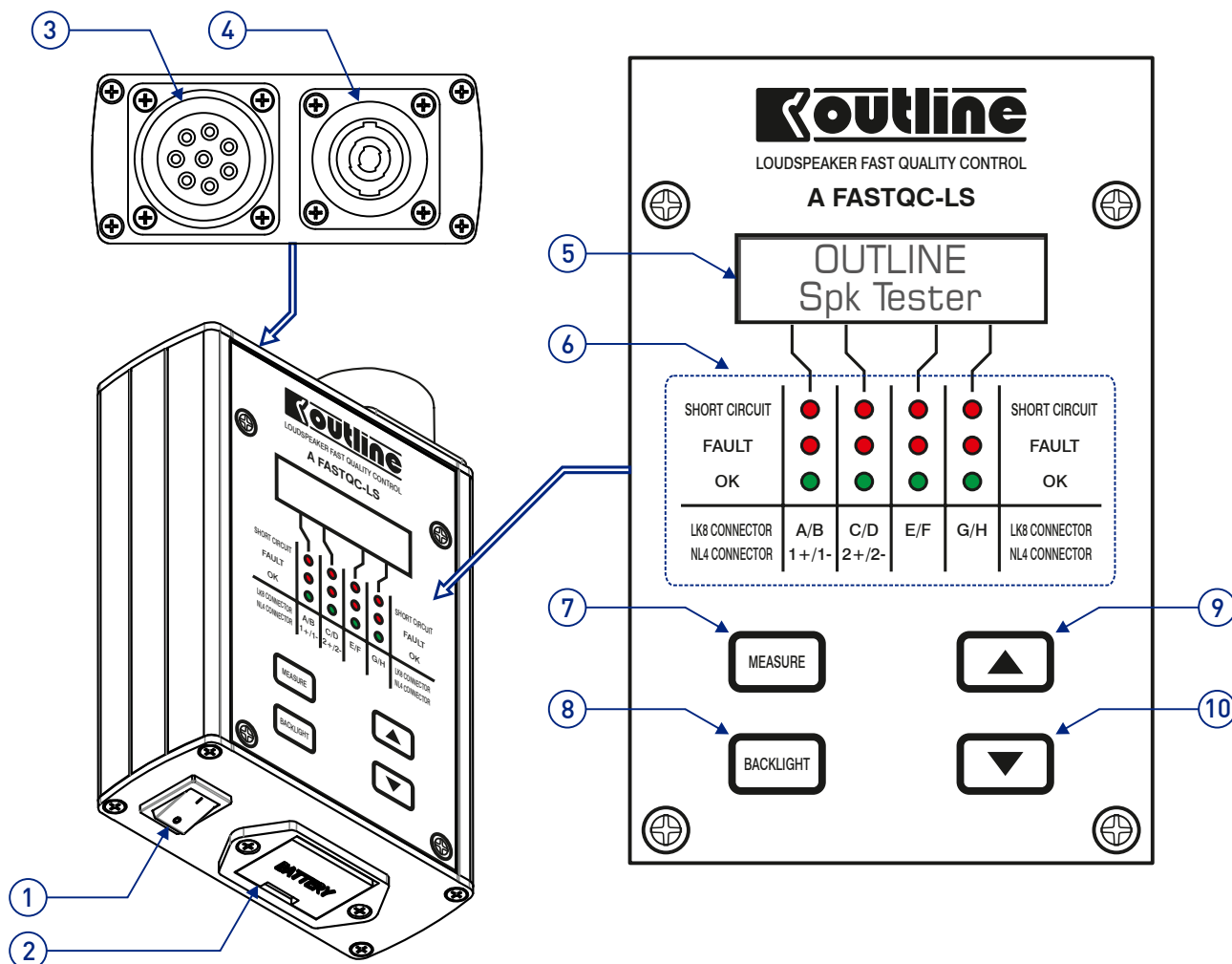
connect a single speaker to one connector on the device via a short link cable, select the measurement preset and push the "MEASURE" button. The result is shown on the display and via the coloured LEDs for each active way.

## UNPACKING

After unpacking the device, check very carefully for any damage. If any damage is found, please notify your dealer.

It is advisable to keep the packaging for use in the event of the unit being transported in the future.

## FRONT PANEL



- 1) **POWER EXCLUSION**: connects and disconnects the battery. To turn on the device push one of the four buttons; about thirty seconds after the last activity the device automatically switches off (no power consumption). In order to reactivate it press one of the four buttons;
- 2) **9V BATTERY HOUSING**: standard single 9V battery housing;
- 3 & 4) **CONNECTORS**: two connectors are available (one NL4 and one LK18) to connect the loudspeaker to test;
- 5) **DISPLAY**: shows the name of the selected preset, the name of each way and, during the test phases, more information about the detected issues;
- 6) **REPORT**: test results for each way are also shown via coloured LEDs.;
- 7) **"MEASURE" BUTTON**: run the measurement;
- 8) **"BACKLIGHT" BUTTON**: enables and disables the display backlight. Ten seconds after the last use, the backlight turns off automatically; to reactivate it press one of the buttons.
- 9 & 10) **SCROLL BUTTONS**: used to scroll the list of the measurement presets.

## DEVICE USE

- 1. Power up:** after checking the presence of the battery and its good condition switch the power exclusion button(1) in the active position.

Push any button to activate the device.  
(7/8/9/10).

During the start-up the display shows the firmware version.

Afterwards the temperature measured by the internal sensor and the estimated battery charging level are shown. In this configuration it is possible to change the intensity of the backlight via the two arrow buttons. (9 and 10)

- 2. Measurement preset selection:** push the "MEASURE" button(7) to open the list. Scroll it with the arrow buttons (9 and 10) in order to select the preset corresponding to the enclosure to test. The display will show the name of the speaker in the first row and the name of each way in the second one, as is reported in the label attached to each Outline speaker.

- 3. Measuring:** push the "MEASURE" button(7). You will hear a "click" and you will see the results of the test. For each way the resistance

is measured and compared to the limits saved in the measurement preset. If the detected value is within the limits, the green LED of the corresponding way will light up, otherwise one of the two red LEDs will come up and the loudspeaker will have to be tested more thoroughly. In addition the display will alternate the name of the way with the result of the test.

The display will show:

*Ok* Value within the limits

*OpC* Open Circuit

*LoR* Low Resistance

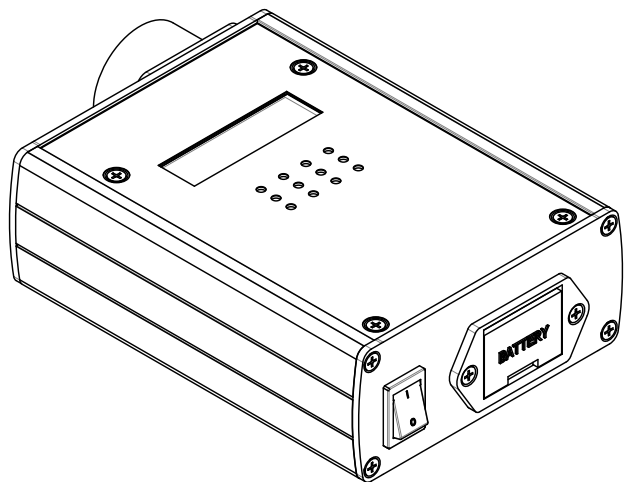
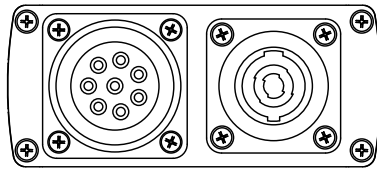
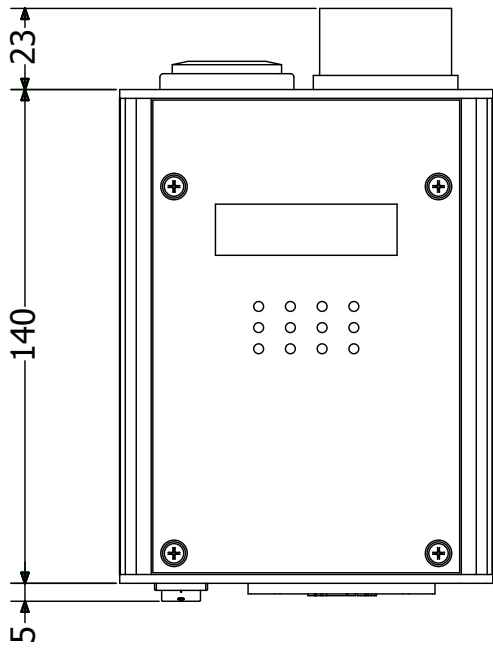
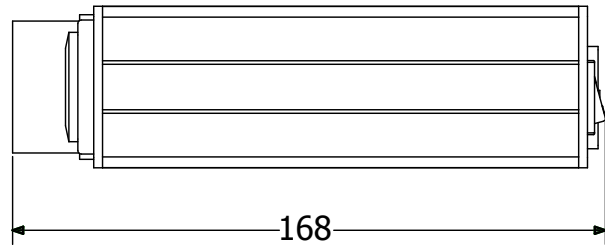
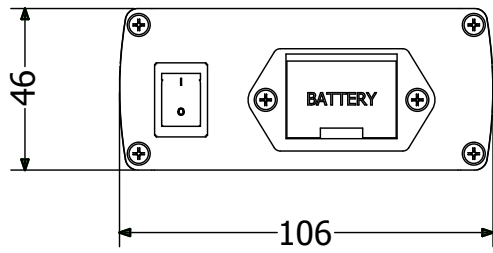
*HiR* High Resistance

- 4. Execution of a subsequent test:** push again the "MEASURE" button(7).
- 5. Selection of a different preset:** push the arrow buttons (9 and 10) in order to scroll the list and repeat step 3.

**NOTE:** via the "No One" preset you can measure the resistance of each way and the display will show the numerical values.



## OVERALL DIMENSIONS



NOTES



Outline carries out on-going research for product improvement. New materials, manufacturing methods and design upgrades are introduced to existing products without prior notice as a routine result of this philosophy. For this reason, any current Outline product may differ in some aspect from its description, but will always equal or exceed the original design specifications unless otherwise stated.

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