

Line impedance calibration with 1Khz audible tone

Starting from firmware release 1.40, an improvement is introduced in performing the loudspeaker line calibration. A less than 1 second 1Khz tone is played by the system to perform any line calibration. Since this tone is played at a non negligible volume, it is recommended to first advise the persons inside building in order to avoid unwanted alarmism.

The calibration procedure is the very same as described inside the product manual.

With the new firmware release, the system double checks that the impedance of the loudspeaker line (i.e. the load) is compatible with its internal power amplifiers and associated circuitry and will eventually advise the user if this is out of range.

The device will validate a load that is within the range indicated here below:

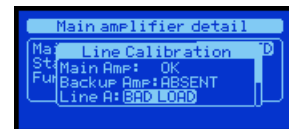
Minimum line Z: 33.3 ohm

Maximum line Z: 850 ohm.

In case only the line A is activated (line B non active), the impedance indicated above, refers only to the load wired to connector J-10.

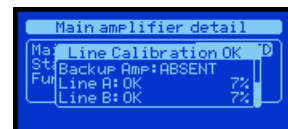
In case both lines A and B are activated, the impedance indicated above refers to the parallel of the loads wired to connectors J-10 and J11.

In case the load exceeds the specified values (too low impedance), the calibration will be unsuccessful, a "BAD LOAD" warning will appear on the display and the system will remain in the "No Line Calibration" condition.



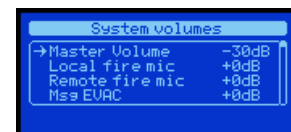
When the load is within the range, a successful calibration will be performed.

The system will tag as OK the loudspeaker lines and will indicate on the right the percentage of the load applied.



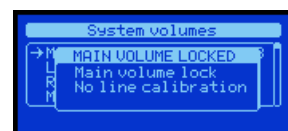
In the No Line Calibration condition the master volume is locked at -30dB and will remain so until a valid and successful calibration is performed.

In the No Line Calibration condition, it is still possible to play audio files, operate the microphones and all the other acoustic features of the device for test purposes only, but at a lower and predefined volume.



After a successful line calibration, the master volume is set by default at -3dB and the user can change it in the dedicated menu, as described inside the manual.

On the other hand, if the user tries to change the volume in the No Line Calibration condition, the system will display a pop-up indicating the master volume is locked.



Finally, any unsuccessful line calibration will lock back the master volume to -30dB.



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