PDA103i

WALL MOUNTED HEARING LOOP

INSTALLATION INSTRUCTIONS

This equipment must be installed by a suitably skilled and technically competent person.
Please read these instructions carefully before installation

SAFETY GUIDELINES

DO NOT dismantle or attempt to modify the amplifier, there are no user-serviceable fuses or parts inside the amplifier.
For repair, contact your supplier.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Ensure the white IP65 seal is fitted into the base recess.
6. Do not install near any heat sources such as radiators, stoves, or other apparatus (including amplifiers) that produce heat.
7. Protect the power cord from being walked on or pinched, particularly at plugs and the point where they exit from the apparatus.
8. Only use attachments/accessories specified by the manufacturer.
9. Unplug this apparatus during lightning storms or when unused for long periods of time.

IMPORTANT NOTES

These instructions are general and cannot be considered to cover every aspect of hearing loop system design and installation.
We recommend you read PD IEC TR 63079 Hearing Loop systems (AFILS) and BS EN 60118-4 - Induction loop systems for hearing aid purposes.
Other national standards for design, installation and commissioning should be referenced where relevant.
This product has been manufactured in conformance with the requirements of all applicable UK and EU directives.

Equipment Guarantee

This equipment is not guaranteed unless the system is installed and commissioned in accordance with regional or national standards by an approved and competent person or organisation.

PRODUCT SAFETY NOTE

For safety reasons, the amplifier may shut down to protect it from overheating if too much current passes through its sensitive protection circuitry. This may occur, for example, when the Peak indicator remains permanently lit if it becomes too hot through abnormal operation, e.g., when testing the field strength.

SYSTEM SET-UP AND TESTING

Undo the four screws holding the lid and decide on the best cable entry point for your installation, usually adjacent to the warranty sticker. The enclosure may be mounted horizontally or vertically and the cable entry should ideally be towards the bottom edge, we recommend the enclosure is mounted immediately adjacent to the outstation or intercom.

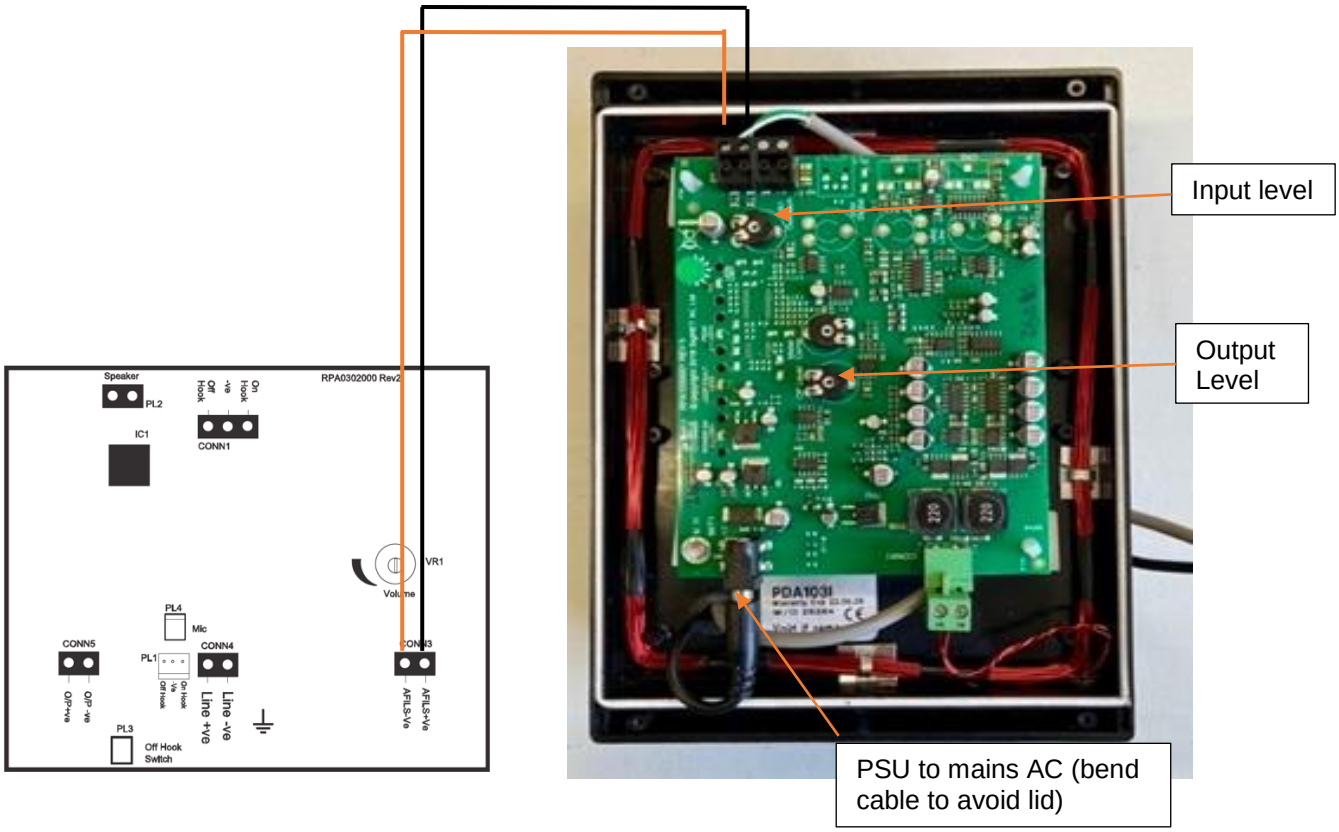
1. Drill a pilot hole and then a 10mm hole in the rear of back-box to suit the preferred cable entry point. (Refer to page 5 for details)
2. Pass power supply connector through the grommet then through the drilled hole, then fit the grommet into place. After which the line level cable can be passed through the grommet as well. If necessary, seal the grommet access hole with Silicone. (Refer to page 5 for details)
3. Screw the box to the wall using four appropriate screws e.g. 3.5 x 30mm, (and red wall plugs if required)
4. Connect the line level up as diagram 2 below (connection shown to an EVC302 outstation) using the supplied audio cable
5. Connect the plug-top power supply (supplied) to an AC mains socket and then to the amplifier's DC power in socket. Ensure the amplifier's green Power On indicator lights up.
   Note: The DC plug does not insert fully into the socket -DO NOT use excessive force.
6. With the line audio input source active, turn the line level control clockwise until the red Limit indicator flashes occasionally
7. Turn the level control clockwise until the red Peak indicator just lights during periods of high signal level, i.e. when the red limit indicator just lights.
   Warning: If the system is set up so that the Peak indicator is permanently lit, the audio sound quality will be distorted and the amplifier may shut down to protect it from overheating.
8. Using a hearing loop test receiver, listen to the loop signal in all areas where coverage is required (we recommend you use a Fosmeter Pro for this purpose, see Additional Testing below). If the signal level is not acceptable, adjust the Level control in small increments until it is.
9. When system has been set-up and tested, fit the lid and stick the "Tear" sticker to the front of the box.

Additional testing

Hearing loop systems require careful testing and calibration prior to operation. BS EN 60118-4 recommends that the achievable magnetic field strength of a hearing loop system over a 'covered area' should be 400 mA RMS per metre. The most efficient way of ensuring this requirement is met is to test and set-up the system using an FPROK1 hearing loop test kit. The kit includes an FPROSG signal generator, which is connected directly to the A+ & A- of the outreach input during testing, then disconnected after testing. The kit also includes a handheld Fosmeter Pro 400 mA/m magnetic field strength meter and a loop listener (for measuring background noise, frequency response and metal compensation).
The recommended performance of loop amplifiers in EVC systems is specified in BS 5839-9, the relevant measurements are shown below in Diagram 3

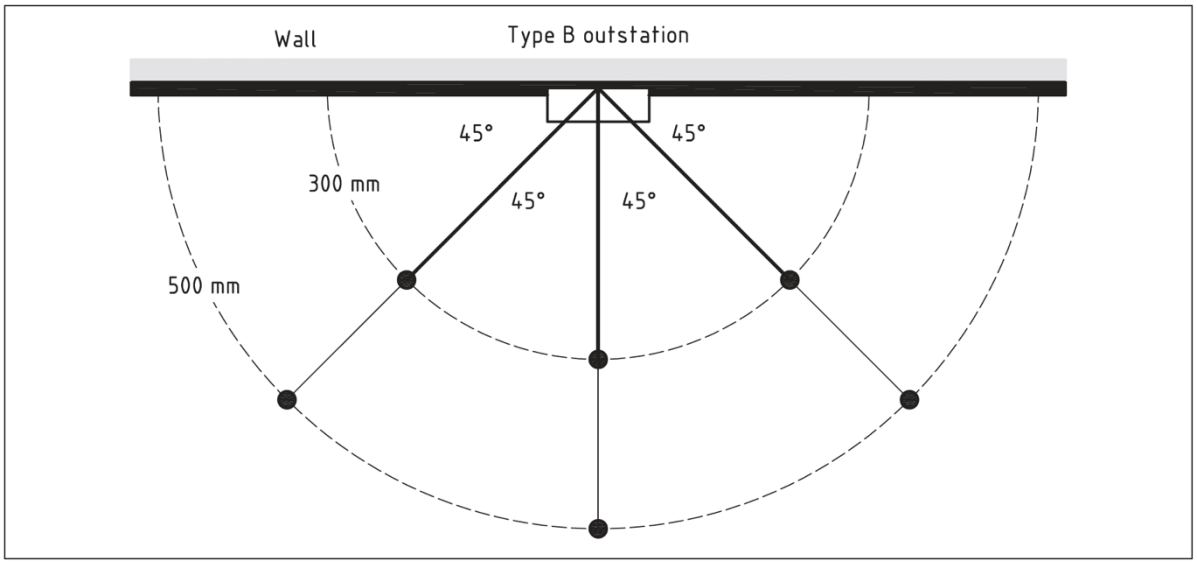
Diagram 1: Locating a Disabled refuge outstation next to a PDA103i

Diagram 2 Connecting a PDA103i to the EVC302



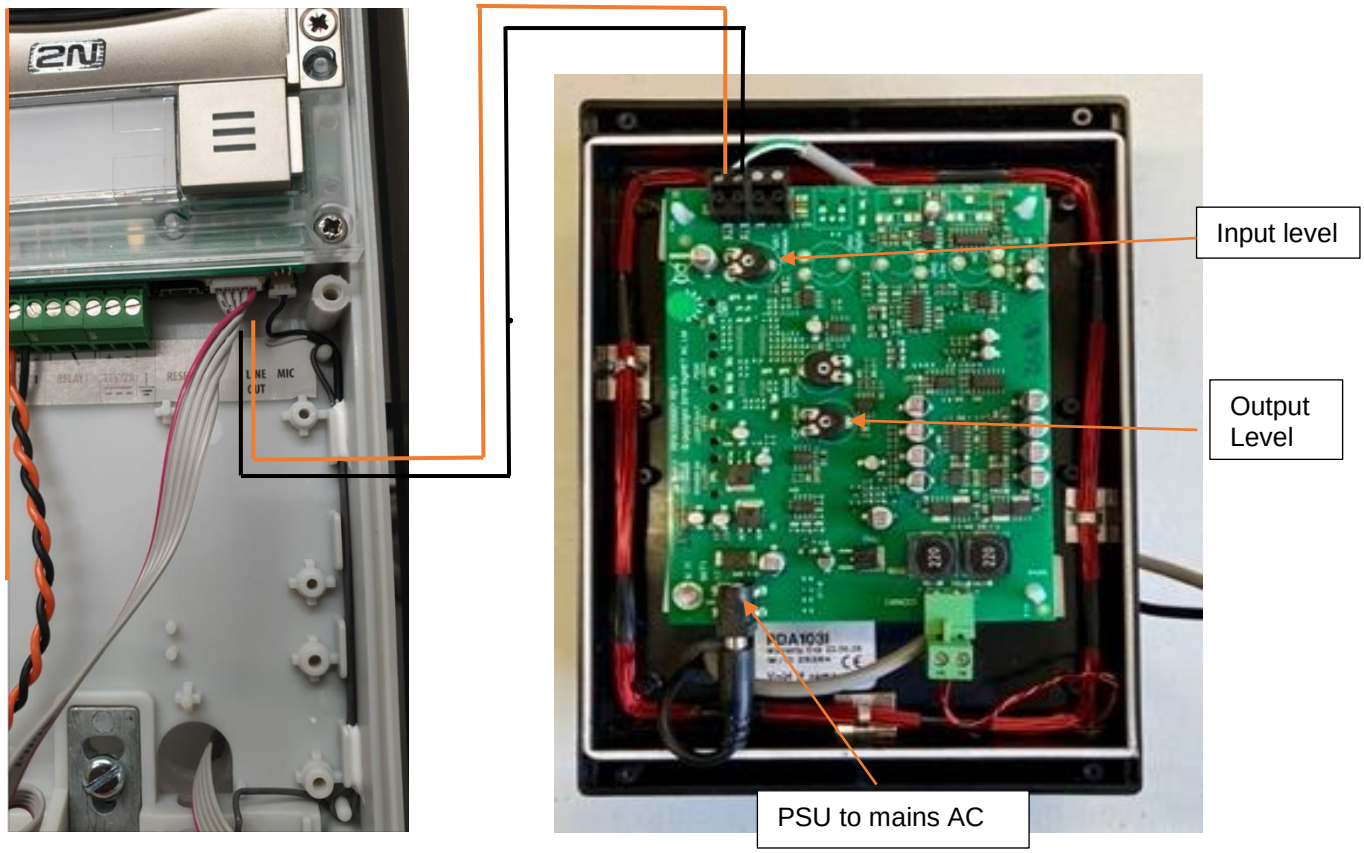
In the event of no plug socket being available, the Mains PSU can be replaced with a 14 to 20V DC 0.9A mains power supply.

Diagram 3 Measuring Field strength on Disabled refuge outstations



Note: Where an audio frequency induction loop system is provided at an outstation, it should be installed and maintained according to the recommendations of BS 7594.
The performance of the audio frequency induction loop system should meet the requirements of BS EN 60118-4 at the six locations shown in Diagram 2, namely 400 mA/m

Diagram 4 Connecting the line out of an Intercom to a PDA103i



Cable Entry

a) Drill a small pilot hole and then 10 mm hole in the back and de-burr the edges.

b) Push the power supply plug through the grommet

c) Push the grommet into the hole using a flat blade screwdriver if necessary. Take care not to damage the grommet. Insert the power plug in the socket on the PCB.

d) Push the audio cable through the grommet as well, pass it under the PCB and terminate as shown in Diagram 2