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CLOCKAUDIO Communicator System Surface Mounted Kit User Guide

Communicator System
Surface Mounted Kit | Flush Mounted Kit
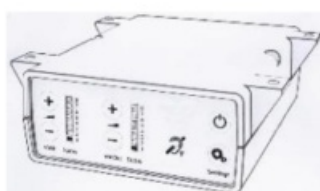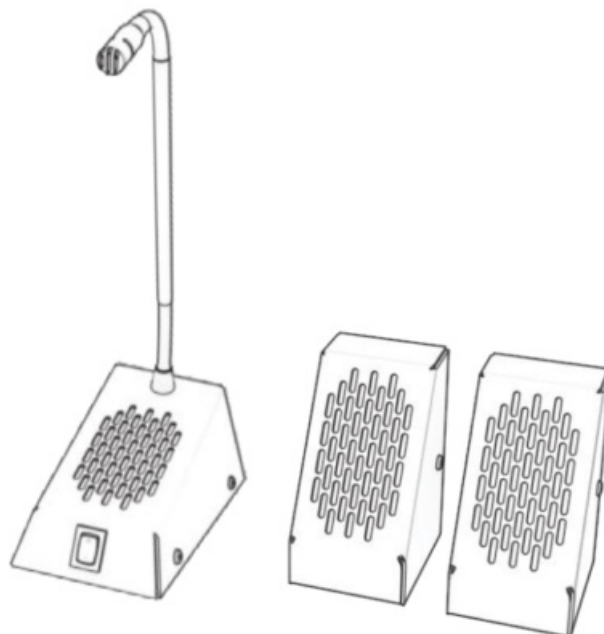
Installation & User Guide
Dec 21

Clockaudio has a policy of continuous product development, and therefore small specification changes may not be reflected in this manual. Images, labels, packaging, accessories, and product colours are subject to change without notice.

Contents

Product Overview

Communicator systems provide assistance for clear communication where normal speech is impaired by the use of glass, a security screen, or other similar barriers.
There is a hearing loop facility included, providing additional assistance for hearing device wearers.

Components

General Components

1. Installation and User Manual

2. Amplifier

3. Hearing Loop Sticker

4. IEC Lead

5. Power Supply

6. Hearing Loop Aerial

7. Mounting Bracket
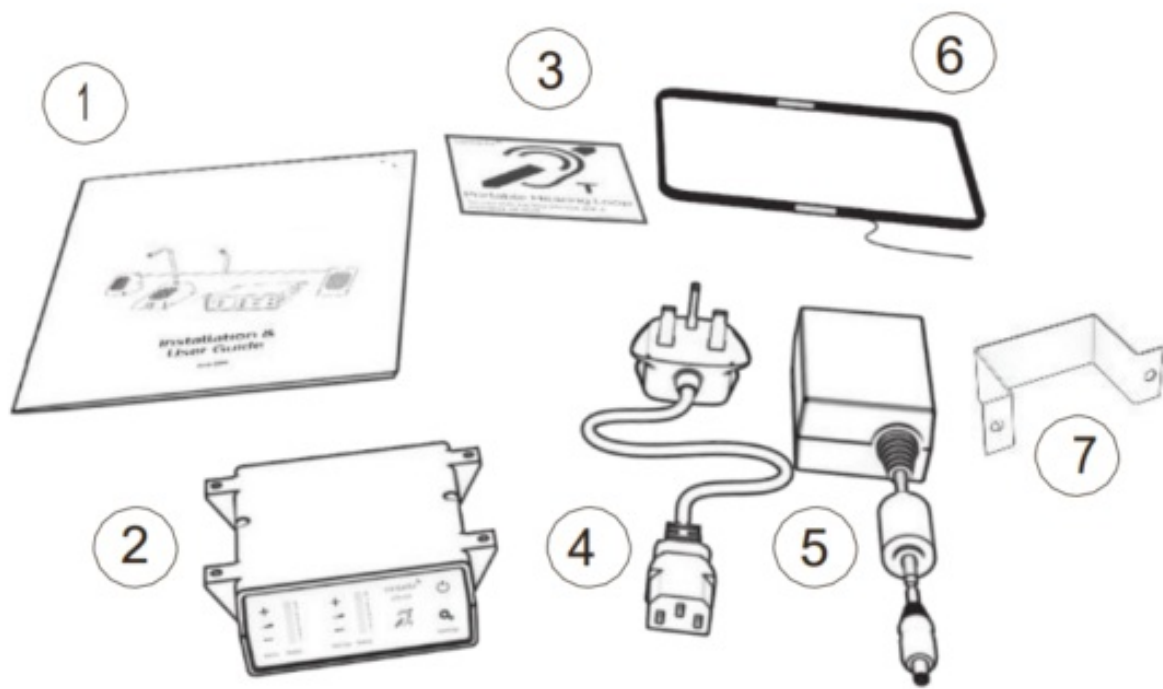
Speaker & Microphone Components

There will also be one of the following speaker and microphone kits:
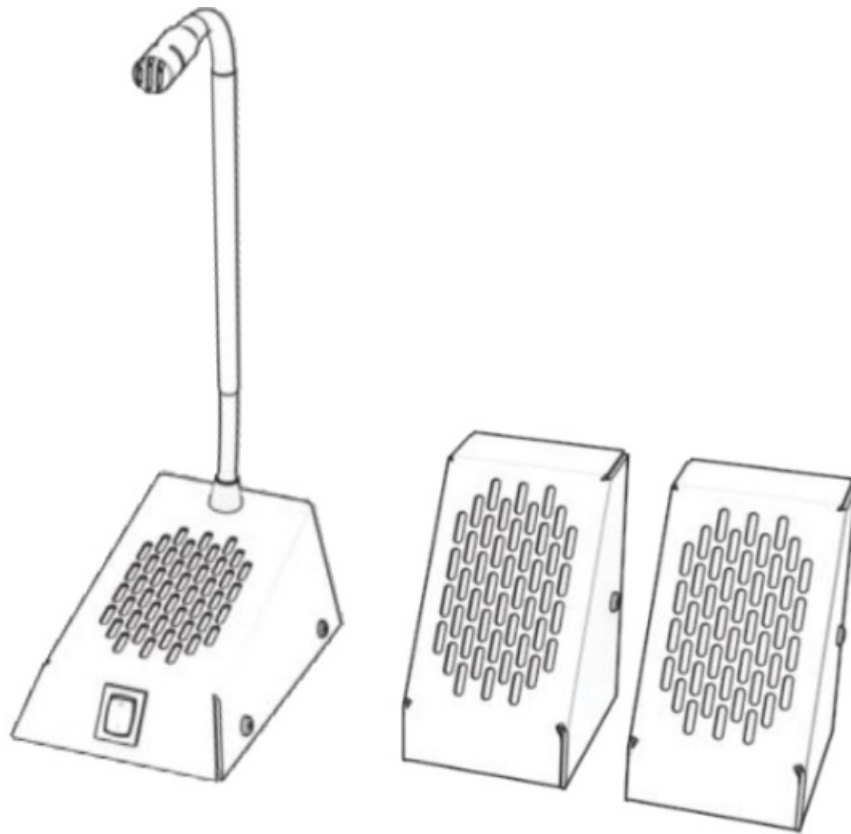
- Surface Mounted Kit (see page 5)
- Flush Mounted Kit (see page 5)

Speaker and Microphone Kits
Surface Mounted Kit
(For installation see page 6)

1. Staff Microphone
2. Surface Mounted Speaker and Microphone

Flush Mounted Kit
(For installation see page 6)

1. Staff Microphone

2. Flush Speakers and Microphone
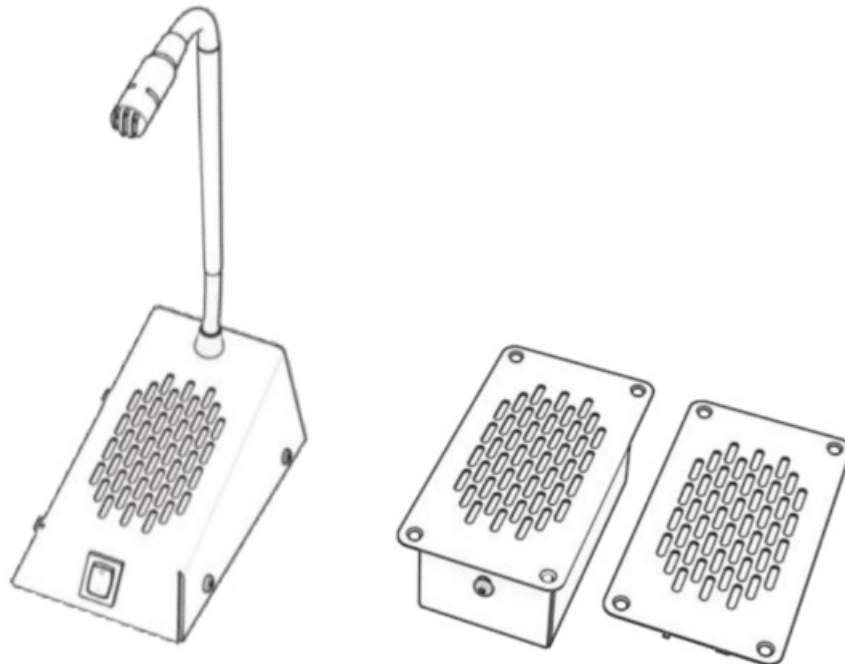
Installation Instructions

We recommend that installation is carried out by a qualified engineer, adhering to relevant standards.
Check the contents of the box to familiarise yourself with the components.
The staff microphone and amplifier should be installed on the staff side of the counter. The customer speaker and

microphone kits should be installed on the customer side of the counter.
Follow all relevant instructions in the following order:

1. Speaker & Microphone Kit Installation.

    a. Staff Side Installation (see page 6).

    b. Customer Side Installation (see page 7).

2. Hearing Loop Installation (see page 10).

3. Amplifier Setup (see page 11).

4. Using the System (see page 12).

Recommended Tools
A basic toolkit recommended to install the system will include:

• Screwdrivers (Flat or Blade 2.5mm and Phillips Head PH2) • Battery or Mains Drill • Drillbits: 2mm, 3mm, 5mm and 7mm • Allen Key Set • Cable Tacking Gun (10mm) • Wire Cutters/Strippers	• Pliers • Tape Measure • Pencil or Marker Pen • Torch • Cable Ties • Electrical Insulation Tape • Trunking

There may be a need for a router when installing the Flush Mounted Kit

Speaker & Microphone Kit Installation

Staff Side Installation
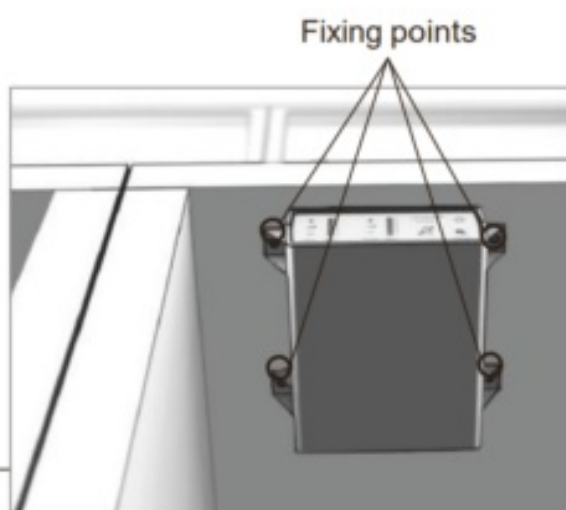
1. Place the staff microphone on the staff side of the countertop, ensuring that it does not cause an obstruction and is as close to staff as possible.

2. Place the amplifier under the staff counter, ensuring that it will not obstruct staff when they are sitting.

3. Mark the four fixing points for the amplifier under the counter.

4. Drill and fix the amplifier in place using the supplied screws.

5. Use the cable management hole in the counter to run the staff microphone cable back to the amplifier. If there

is not already a cable management hole, drill one in a suitable location near the rear of the counter.

6. Install the amplifier's power supply close to a power socket outlet using the supplied mounting bracket and fixing screws.
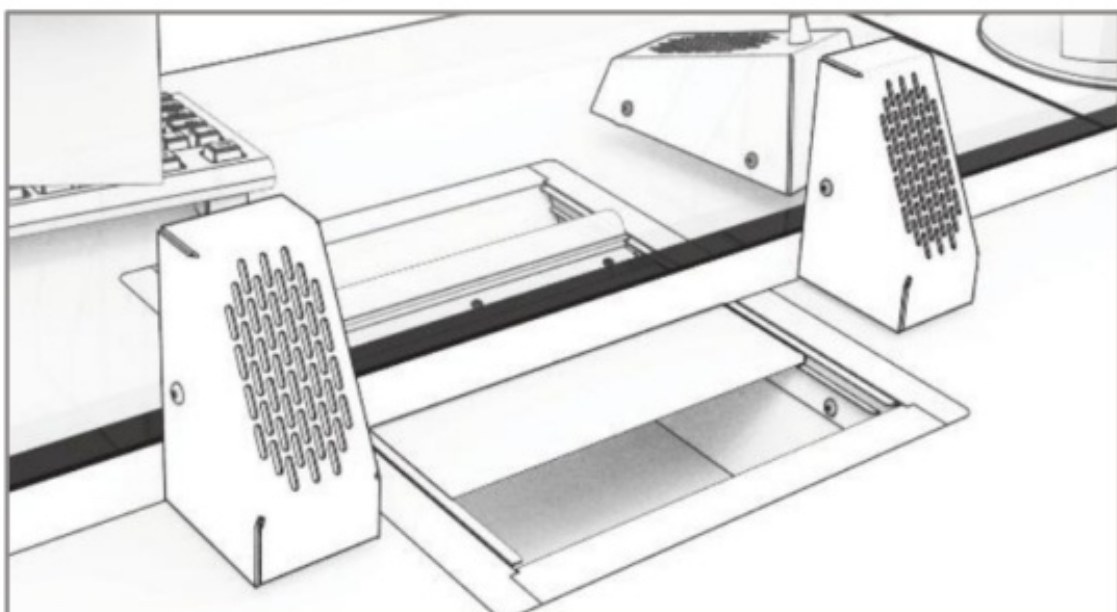
Customer Side Installation

Surface Mounted Kit

1. Place the speaker and microphone pods on the customer side of the countertop.
2. Disassemble the speaker and microphone pods by undoing the screws and removing the housing.
3. Place the mounting brackets adjacent to either side of the pass-through tray, at least 2-3mm away from the screen.
4. Mark the four fixing points and two cable holes to be drilled.
5. Ensure there will be access to retrieve the cables and drill the holes.
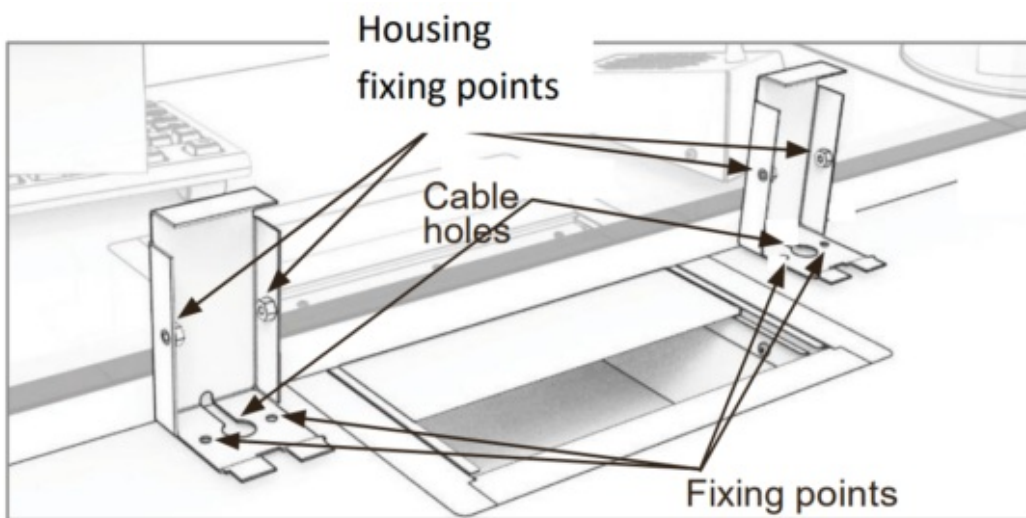
6. Fix the speaker and microphone pods to the counter, and feed the wires through the cable management holes.
7. Refit the housing with previously removed screws.
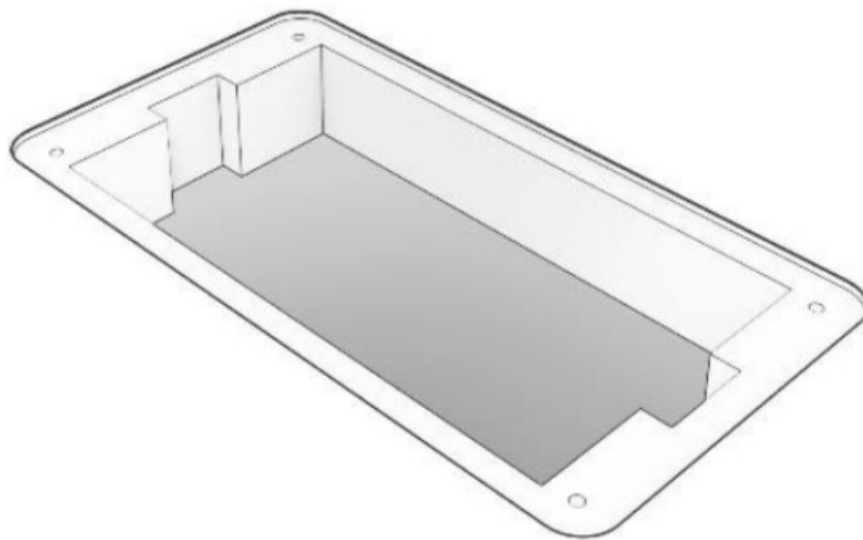8. Route all cabling neatly to the amplifier located on the staff side.

Flush Mounted Kit

1. Check that there is at least 50mm of free space below the customer side of the countertop for the speaker and microphone pods.
2. Ensure there is access to the wiring under the counter once installed.
3. Mark the cut-out dimensions in the diagram below onto the countertop twice, adjacent to either side of the pass-through tray. The recommended distance between each cut-out marking is 500mm.
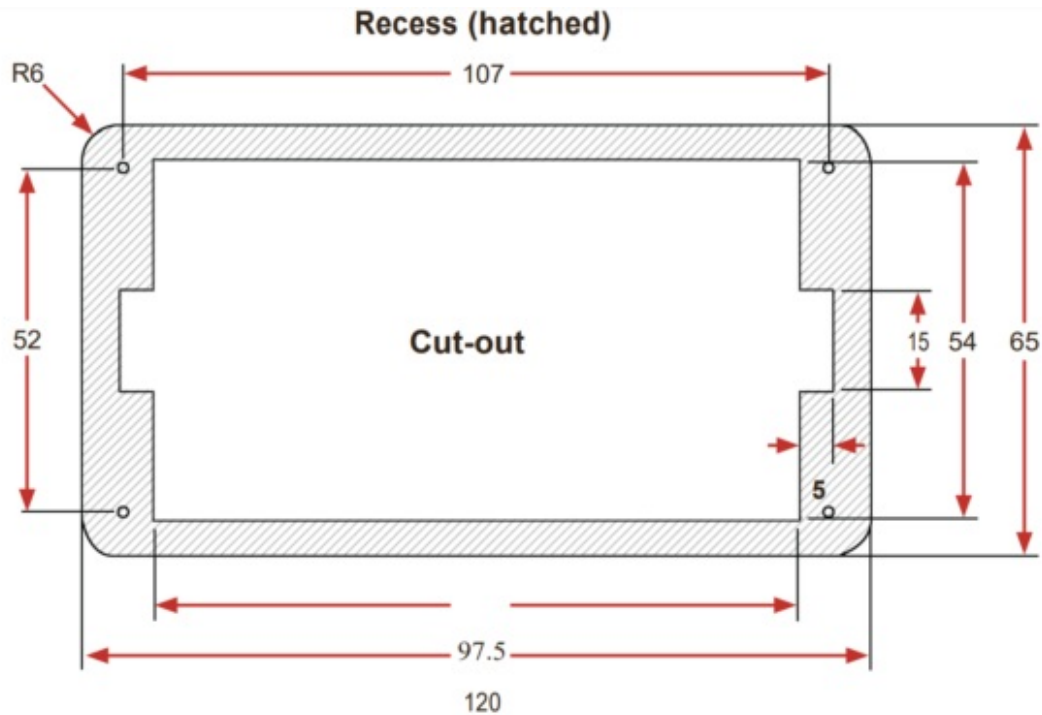


4. Use a router to cut out two areas for the flush-mounted speaker and microphone pods, routed to a depth of 1.5mm.

container cut-out

5. Mark the four fixing points per cut out and drill the holes.
6. Run the cables from the pods through the countertop.
7. Secure both pods to the counter using the screws provided.
8. Route all the cabling neatly to the amplifier located on the staff side.

Fixing points

Fixing points
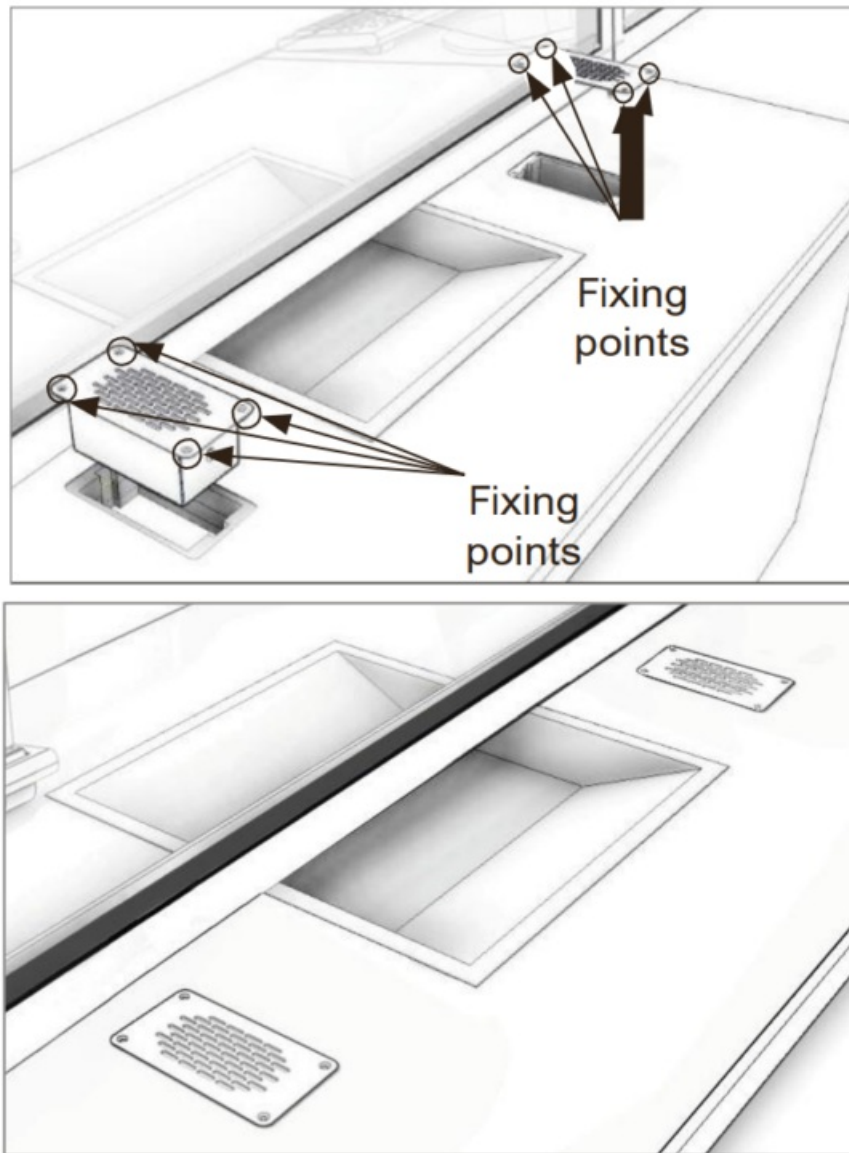
Hearing Loop Installation

The aerial should be fixed under the desk-top or counter centrally on the customer side, one half mounted horizontally under the counter and the other half mounted vertically, facing the customer (as in the first scenario below).
Position the aerial under the counter using either the provided P-clips or another fixing method of your choice. See the diagram below for recommended positioning.
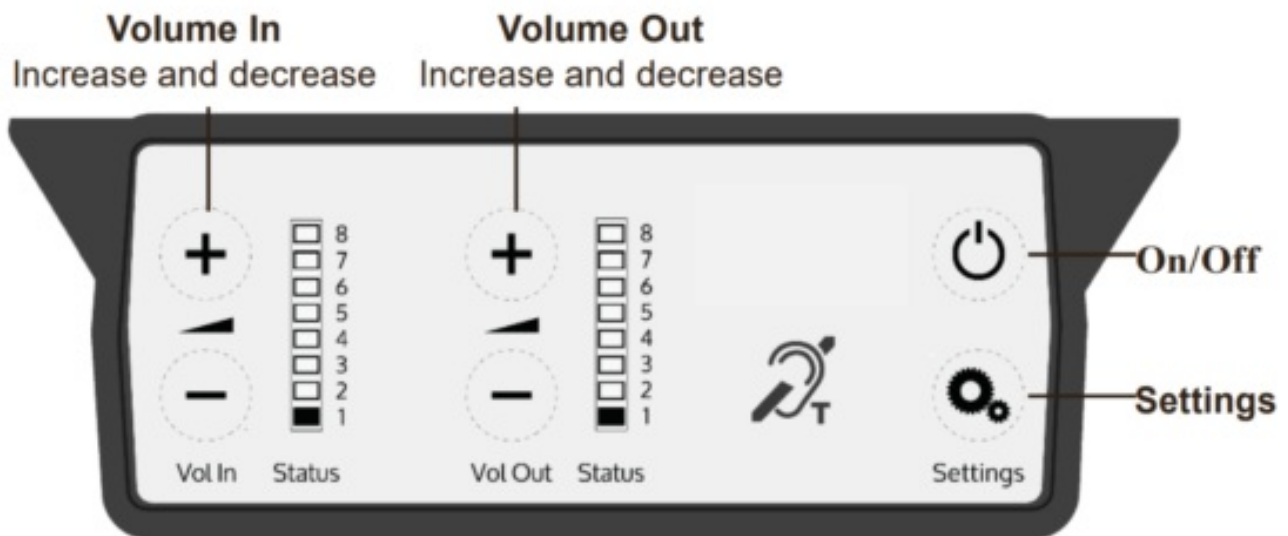

Ensure all hearing loop signage is displayed clearly.

Amplifier Setup

Our amplifier provides full open duplex communication and is compatible with all of our speech transfer systems. It features individual displays for the staff or customer adjustments and individual fault lights for easy fault diagnosis.

Overview of Front Panel Buttons

Engineers Mode

Before entering engineer's mode, cycle the power. To do this either:

- Switch the power off at the wall socket and back on again or,
- Remove the power connector and re-insert it

To enter engineer's mode, simultaneously press and release the following buttons within 20 seconds of cycling the power:

- Settings button
- Volume In increase button
- Volume Out increase button

The on/off and settings buttons in engineers mode operate as follows:

Move to the next setup area   Save and exit engineers' mode

Please note:

- Save and exit engineers mode after making any adjustments.
- The amplifier will automatically exit the engineer's mode without saving if no buttons are pressed for 2 minutes.

Setup Areas

Whilst in engineers mode, there are 3 editable setup areas. You will always enter setup area 1 first. The green Volume In LED bar will flash to indicate which setup area you are in.
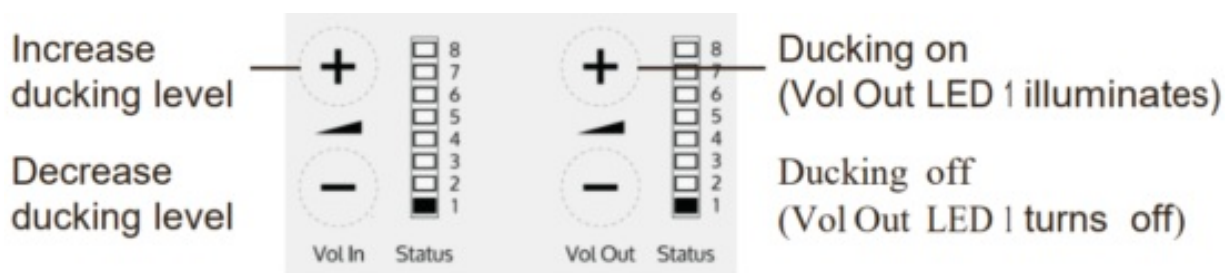
Setup Area 1:
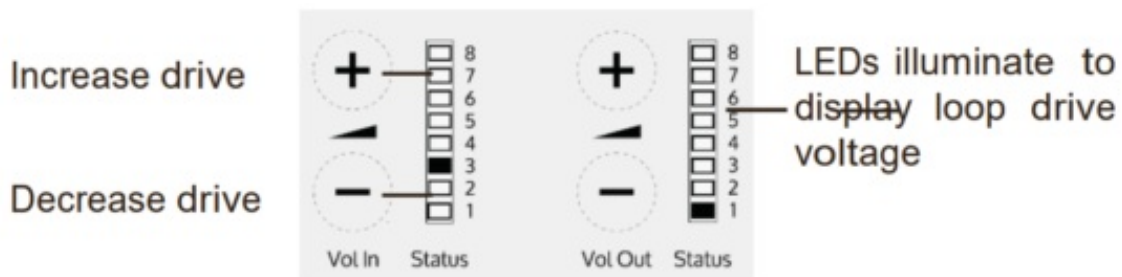
Maximum Volume Adjustment (LED 1 flashes)
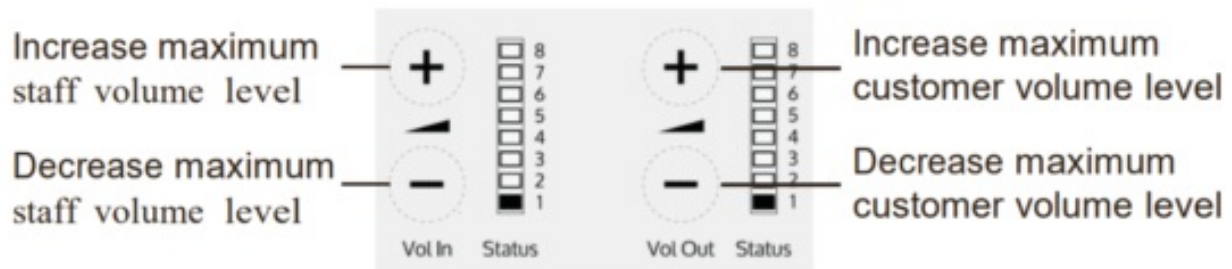
Setup Area 2:
Ducking Adjustment (LED 2 flashes)

Setup Area 3:
**Hearing Loop Drive Adjustment (LED 3 flashes)**

The drive level should be adjusted so the red LED 8 is illuminated only when there are peaks in the speech volume. If the amplifier does not have a loop attached, you can turn off the red loop fault LED 8 by adjusting the drive down to off.

Please note:

- If the amplifier detects an error in its settings memory it will restore itself to factory default settings.

CA 100 Connections

Trim the cables if necessary (apart from the power supply) to the required length to connect to the back of the amplifier. Bare approximately 6mm of the cable ends to connect to the 2 pin plugs (see diagram below).
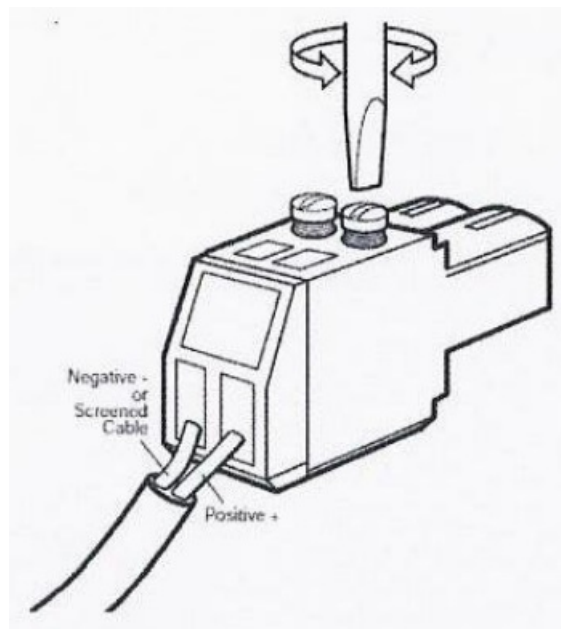
Rear Amplifier Connections
Connect all green plugs to the back of the amplifier, following the correct locations printed above the sockets (see below diagram).
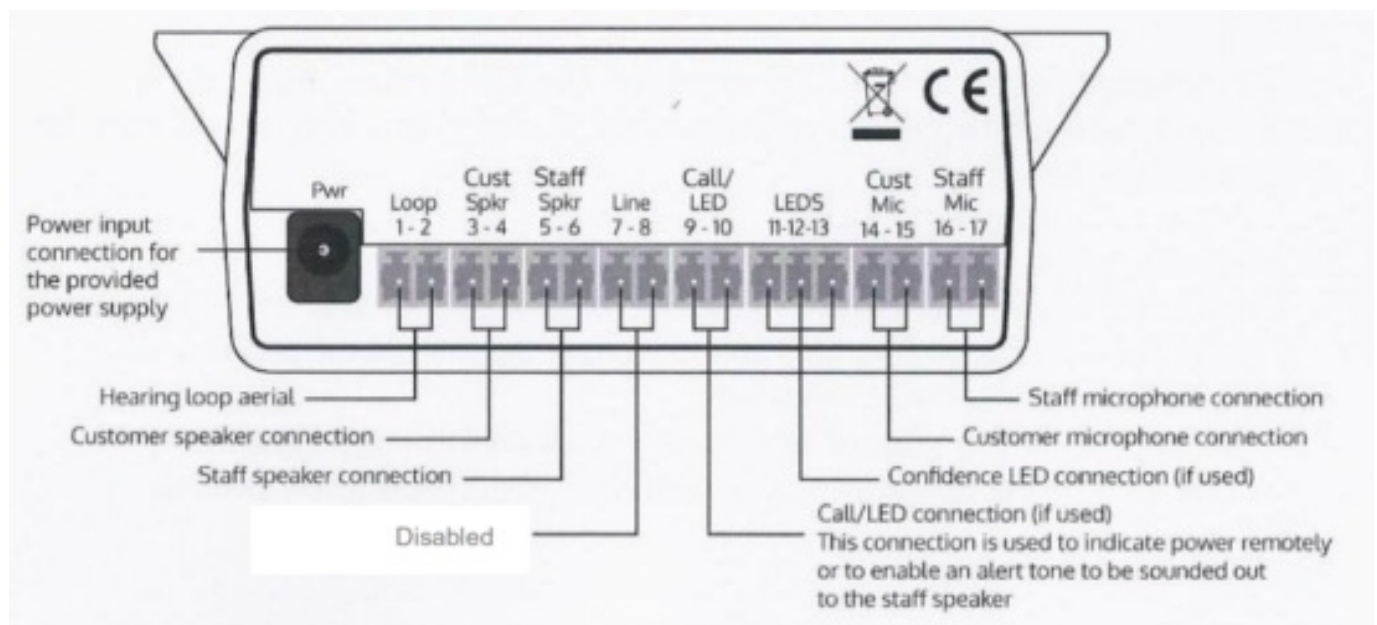
Using the System

When powered and in normal operational mode the amplifier will display Volume In LED 1 as steady green. When the amplifier is switched off using the On/Off button, audio is muted and LEDs are not illuminated; press any button to turn the amplifier on again.

To adjust the staff volume level:

- Press and hold the Volume In (+) or (-) buttons to increase or decrease the level. The corresponding LED bar will show the volume setting To adjust the customer volume level:
- Press and hold the Volume Out (+) or (-) buttons to increase or decrease the level. The corresponding LED bar will show the volume setting.

For best possible performance:

1. Ensure the customer and staff volumes are turned completely down.
2. Adjust staff volume (Volume In) to a comfortable level.
3. Increase customer volume (Volume Out) until feedback is heard.
4. Decrease customer volume (Volume Out) until feedback is just eliminated.

Once you have followed the above steps:

1. The staff microphone is best positioned no more than 300mm away from the staff member.
2. Check the amplifier is fully functional by ensuring the red 'fault' light is NOT displaying.

Staff microphone
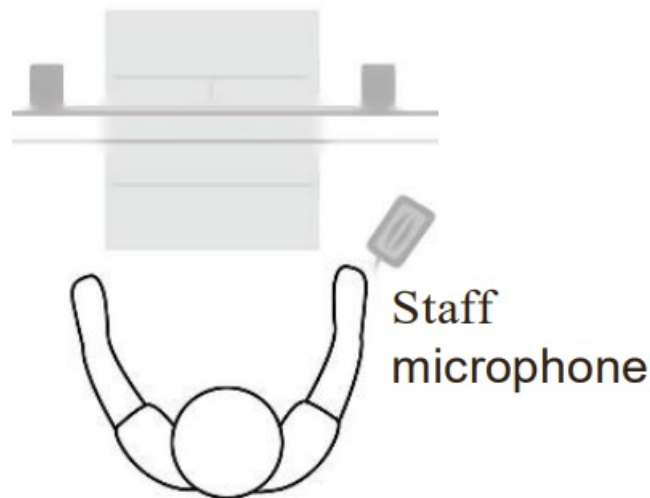
If there is insufficient volume even after you have adjusted the volume controls, enter engineers mode and raise max volume settings. Exit engineers mode and repeat initial setup.
The system is now ready to use.

Fault Diagnosis LEDs
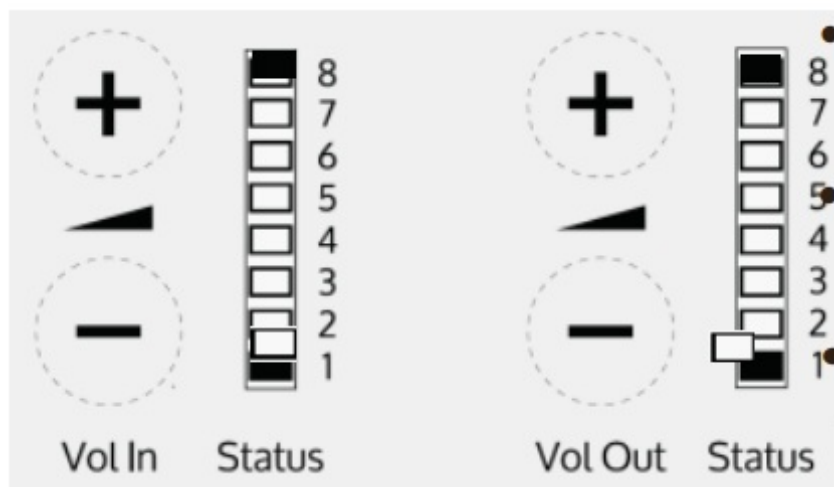
Volume In LED 8 will stay red if there is a fault with the staff microphone. Volume Out LED 8 will stay red if there is a fault with the customer's microphone. Volume In LED 8 will flash red if there is a fault with the loop (i.e. a broken aerial).

Factory Defaults

To return the amplifier the factory default settings:

1. Unplug the power supply and then reconnect it.
2. Press the On/Off button and Volume In (-) button together, then release.
3. The Volume In LED bar will have all LEDs illuminated, while the Volume Out LED bar will display the firmware revision number in a fixed pattern of LEDs. This indicates that default settings have been restored.

Troubleshooting

Symptom	Possible Fault	Action
There is no power detected through the amplifier (and there is power at t he socket).	1) Power jack not plugged in or faulty. 2) Plug fuse has blown. 3) Faulty power supply unit. 4) Faulty amplifier.	1) Check power jack is firmly plugged in. 2) Replace fuse. If it blows again, replaces the power supply unit. 3) Replace the power supply unit. 4) Replace the amplifier.
The red LED is ill uminated on the f ront panel.	**1) Constant red LED:** Staff or customer microphone fault. **2) Red LED comes on after speech:** Induction loop fault.	1) Ensure the microphone is wired correctly and firmly plugged in. Try an alternative micr ophone to ensure the port is working. 2) Ensure the induction loop connector is w ired correctly and firmly plugged in.
I can't hear audio through the induc tion loop.	1) Induction loop or microphone is disconnected. 2) Loop tester has a fault.	1) Check instructions for correct connections and, if possible, check the heari ng device with a known working hearing loop. 2) Ensure the loop tester has a new set of batteries.

I can hear interference through speakers (buzzing/whistling/hissing).	1) Unscreened or poorly earthed third-party equipment is being used in close proximity. 2) Internal volume gain set to high. 3) Incorrect power supply being used.	1) Switch off any third-party equipment to identify the source of interference. 2) Access the amplifier engineers mode to adjust the internal settings. 3) Ensure that our grounded power supply unit is connected.
Amplifier goes into feedback.	1) Internal volume gain set too high. 2) Microphone positioned too close to a speaker.	1) Access the amplifier engineers mode to adjust the internal settings. 2) Move the microphone to a location further from the speaker.
Unit does not go into power-saving mode.	1) Ambient noise in area is too high.	1) Switch off any air con systems, desktop fans, and or computers to reduce ambient noise.

Documents / Resources

CLOCKAUDIO Communicator System Installation & User Guide	**CLOCKAUDIO Communicator System Surface Mounted Kit** [pdf] User Guide Communicator System Surface Mounted Kit