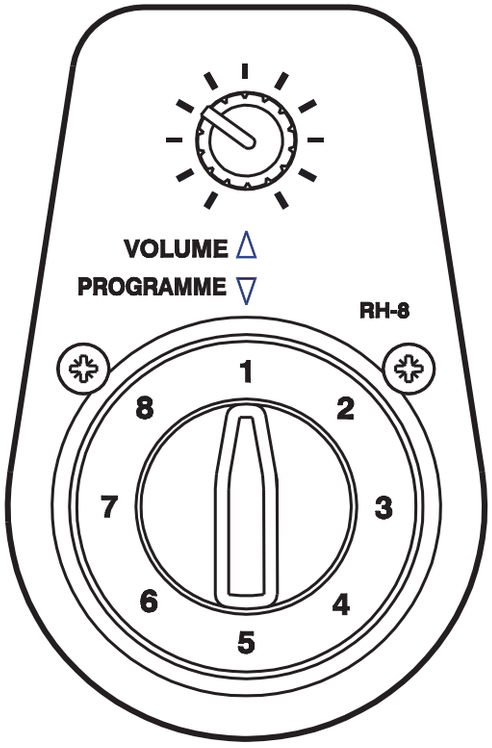
RH-8 Headphone Station



Installation Guide

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Safety Information

The Cloud RH-8 contains no active electronics and thus requires no AC or DC voltage supply. Safety precautions are therefore minimal.

Introduction

The RH-8, part of the Cloud Headphone Distribution System, is a remote headphone station that connects to an output of either a CAM-16 Audio Distribution Matrix or a CAS-16 Audio Distribution Sub-Station, using standard CAT-5 cable. In addition to a stereo headphone socket for connection of a pair of personal headphones, it has controls allowing a user to select the music source (from those connected to the CAM-16), and to adjust the headphone volume.

The RH-8 housing is a small, robust plastic moulding, designed primarily to be mounted on the tubular steel framework of exercise machines in fitness centres. However, alternative fixings are available to permit it to be attached to any flat surface (providing that rear cable access at the mounting position is available).

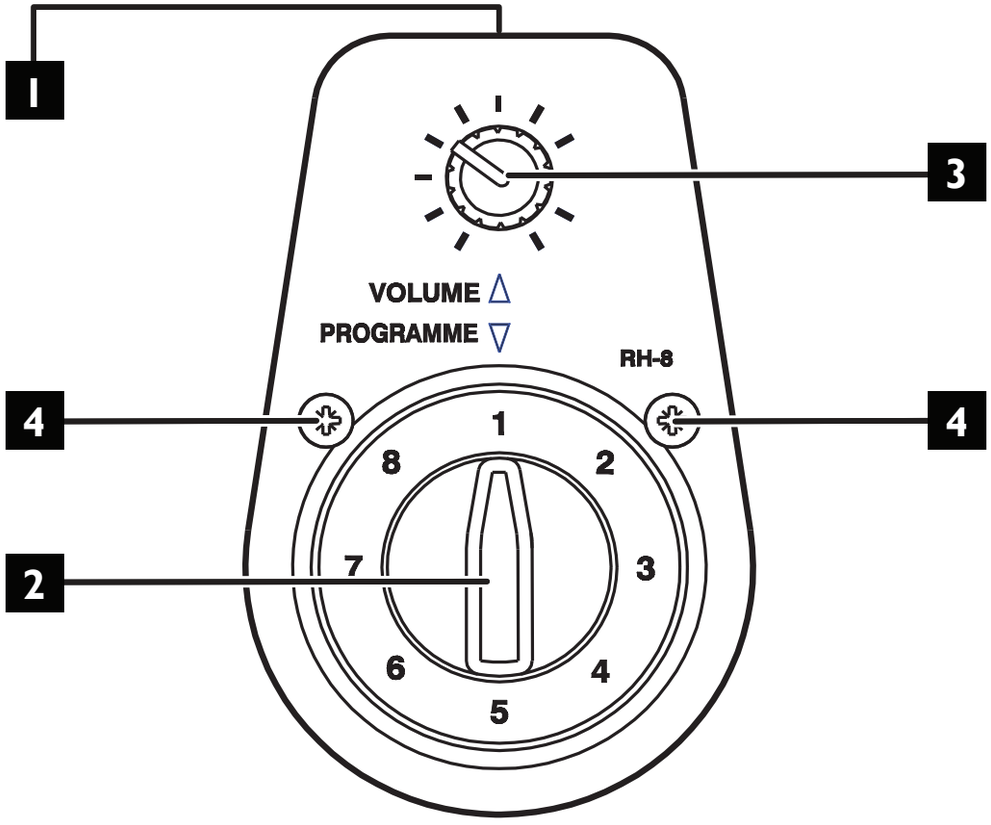
What's in the Box

Please check the box for damage before opening. If there is damage, please contact your Cloud agent and the shippers.

The box should contain the following items:

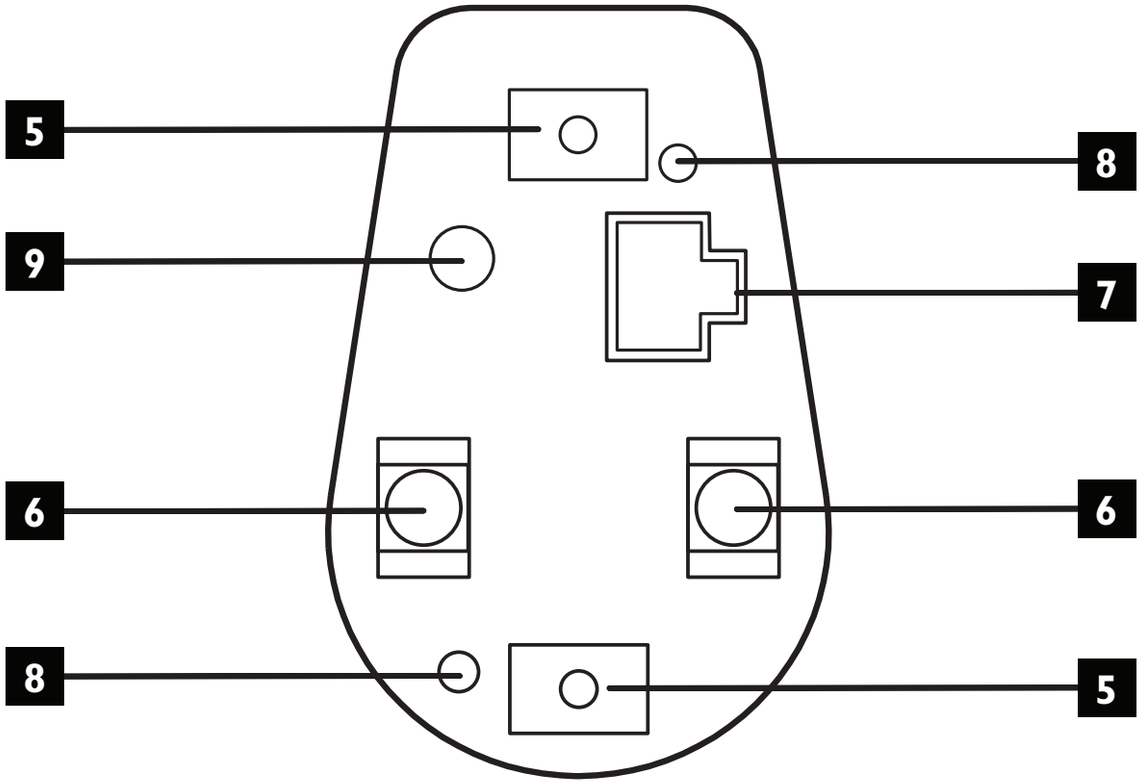
- RH-8 Headphone Station
- 2 x nylon cable ties
- 2 x nylon "snap-on" cable tie brackets, with rivets
- 3 m CAT-5 patch cable, fitted with RJ45 connectors
- This manual

Top view



1. Headphone socket (at front)
2. Music source selection switch
3. Headphone volume control
4. Top cover securing screws

Base view



5. Cable tie bracket locations for horizontal mounting
6. Cable tie bracket locations for vertical mounting
7. RJ45 socket
8. Mounting holes for flat surface fixing
9. Cable hole for hard-wiring

Installation

IMPORTANT: The CAT-5 connection to the RH-8 can be made in two ways, either by plugging an RJ45 connector into the socket on the base, or by hard-wiring a CAT-5 cable to an internal connector block. Before mounting the RH-8 in its chosen location, you should determine the connection method to be used.

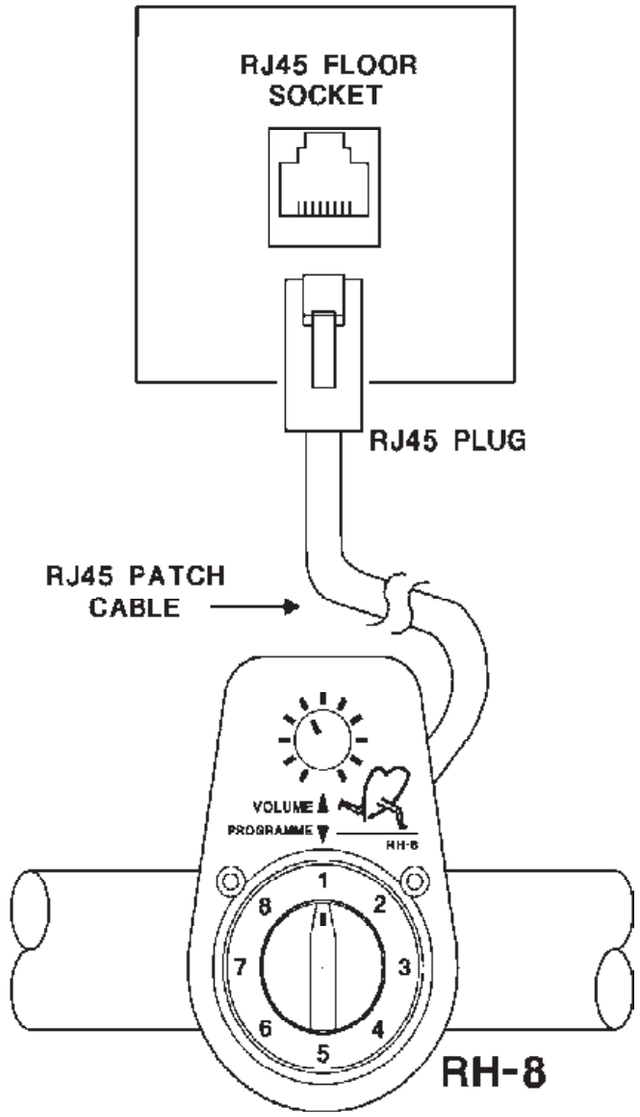
Using the RJ45 socket has the advantage that the unit can be easily disconnected if, for example, it is necessary to move the exercise machine on which it is mounted. On the other hand, it may be felt that the more robust connection afforded by inaccessible internal wiring is more appropriate for the installation. If the RH-8 is to be hard-wired, it is best to make the CAT-5 connections before mounting it.

Connections

The only electrical connection required is a single CAT-5 cable. As outlined above, connection can either be by an RJ45 plug in the base of the RH-8, or by hardwiring internally. Note that the total cable run from the CAM-16 or CAS-16 to an RH-8 should not exceed 100 m.

RJ45 connection

If the RH-8 is to be installed on an exercise machine or similar, we recommend that a standard data connection point (RJ45 socket) is installed adjacent to the RH-8 location, and that this is wired back to the CAM-16/CAS-16 using CAT-5 installation cable. The 3 m cable supplied with the RH-8 can then be used to patch between this socket and the RH-8.

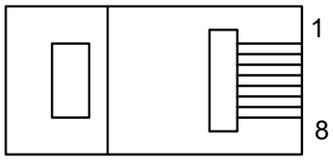


Ensure that the data point is installed in a safe location. A flush-mounting floor socket with a hinged lid or a recessed floorbox is the ideal solution, as this minimises the likelihood of damage to the cable or connector.

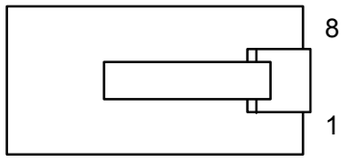
If the RH-8 is to be mounted on a flat surface, there will probably be no necessity for the intermediate data point, and the installed CAT-5 cable can be run directly to the RH-8's location.

See "Mounting the RH-8 on a flat surface" on page 14.

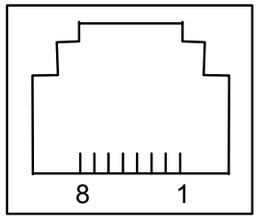
If the installed CAT-5 cable is to be wired directly to the RH-8 without an intermediate data point, terminate the cable with an RJ45 plug as shown below.



RJ-45 PLUG (PIN SIDE)



RJ-45 PLUG (LATCH SIDE)



RJ-45 SOCKET

PIN	CAT-5 CORE
1	White + Orange
2	Orange
3	White + Green
4	Blue
5	White + Blue
6	Green
7	White + Brown
8	Brown

Hard-wired connection

Remove the top cover of the RH-8 by undoing the two screws **4**. Pass the CAT-5 cable through the hole in the base **9**. Connect it to the two 4-way screw-terminal connectors CON1 (labelled 1 to 4) and CON2 (labelled 5 to 8) as follows:

CONN	PIN	CAT-5 CORE
CON1	1	Brown
	2	White + Brown
	3	Green
	4	White + Blue
CON2	5	Blue
	6	White + Green
	7	Orange
	8	White + Orange

If the RH-8 is to be mounted on a flat surface, proceed with the Mechanical

installation instructions below (see "Mounting the RH-8 on a flat surface" on page 14). Otherwise, secure the top cover with the original screws.

Mechanical

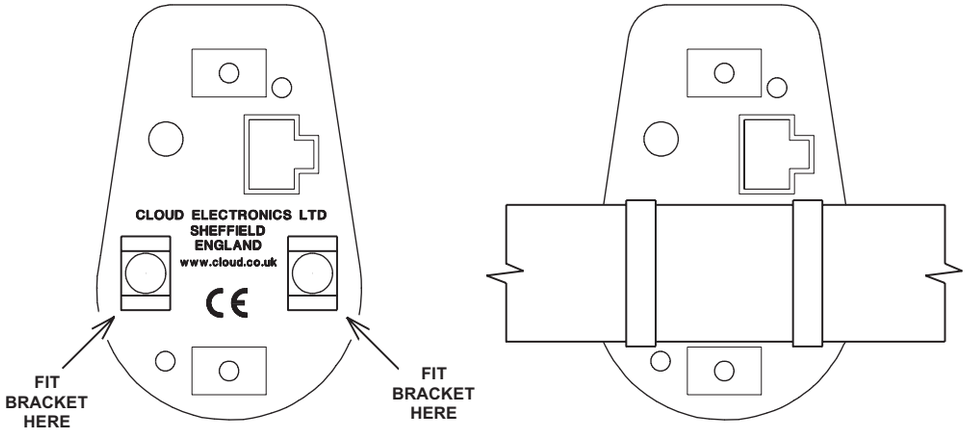
Two methods of mounting the RH-8 are available: to the tubular framework of a structure such as an exercise machine, or to a flat surface.

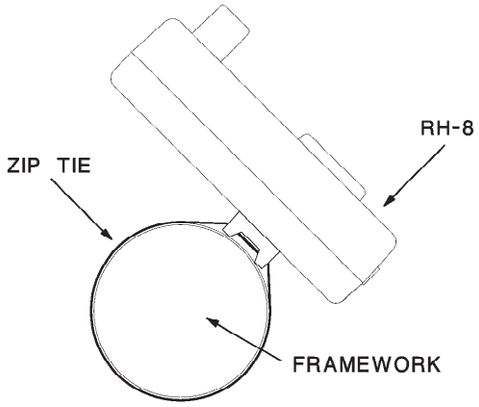
Mounting the RH-8 on a tubular frame

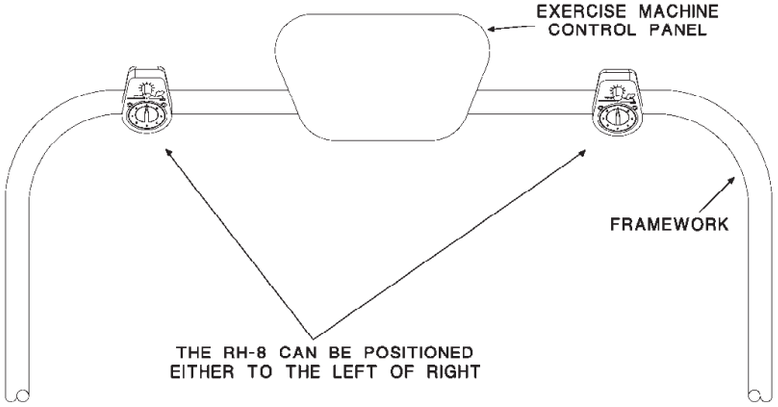
On the base of the RH-8 note the four recesses **5** and **6** in the plastic moulding. The two on the "long" axis of the base are used if the RH-8 is to be mounted on a vertical tube; the two on the "short" axis are used to mount it on a horizontal tube.

Decide the mounting position; it should be readily accessible to the user, but not in his or her way. If connection is to be via the RJ45 socket on the base, ensure that its access is not fouled by the frame. Locate the two nylon cable tie brackets (supplied) in the appropriate pair of recesses, and press the snap rivet through the hole until it locates.

If the framework to which the RH-8 is being attached is smooth (or brand new!), it may be advisable to protect the frame with some suitable adhesive tape (self-amalgamating electrical recommended). Thread a cable tie (supplied) through each of the brackets as shown in the diagram below. Tighten the cable ties and use cutters to remove the excess length.







Mounting the RH-8 on a flat surface

Use the two holes **8** to fix the RH-8 to a flat surface, using wood screws or other fixings as appropriate to the surface material. Remove the top cover of the RH-8 by undoing the two screws **4** to access the fixing holes.

If connection is to be made via the RJ45 socket in the base, it will be necessary to cut a suitable hole (ideally rectangular) in the surface, aligned with the socket. The RJ45 plug can then be inserted through the surface to mate with the socket.

Secure the top cover with the original screws after mounting the unit.

Operation

The RH-8 has a 3.5 mm 3-pole jack socket at the front of the moulding **1**. The RH-8 is suitable for headphones having an impedance of 32 ohms. We recommend the Cloud CP32 headphones for use with the headphone distribution system.

The music source can be selected from those available with the source selection switch **2** and the headphone volume adjusted with the level control **3**.

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