



RH-8

Installation Guide v6.0

Cloud Electronics Limited

140 Staniforth Road, Sheffield, S9 3HF England

Tel +44 (0) 114 244 7051

Fax +44 (0) 114 242 5462

E-mail info@cloud.co.uk

Web site <http://www.cloud.co.uk>

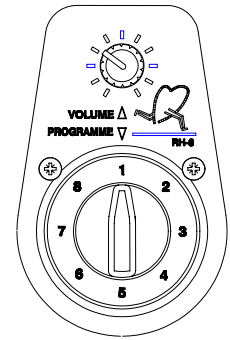
RH-8 Installation Guide

Contents

Section	Page
1 Introduction	2
2 Mechanical Installation	2
3 Electrical Installation	3
Wiring an RH-8 to a Pump/Sub Station 16-R	3
Hard Wiring an RH-8 to a Pump/Sub Station 16-R	4
4 Controlling a Pump Station 16-R Line Level Output with an RH-8.....	4
5 Connecting Headphones to an RH-8	4
6 Wiring an RH-8 to a Pump Station 16	4
7 Hard Wiring an RH-8 to a Pump Station 16	5

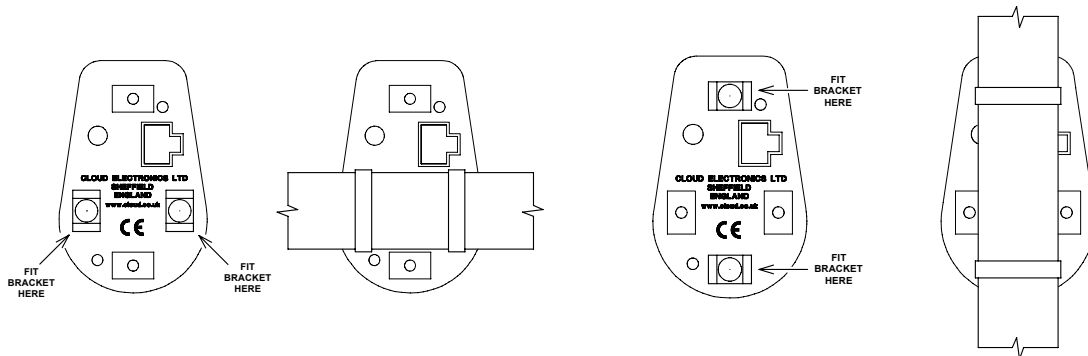
1 Introduction

The Cloud RH-8 is a remote control module designed to be used in conjunction with the Cloud headphone distribution processors. The RH-8 remote control panel has facilities that allow a user to select the music level and music source while monitoring the signal through stereo headphones.

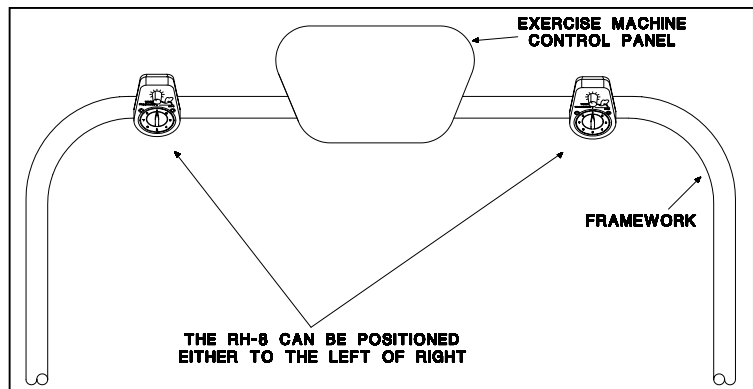
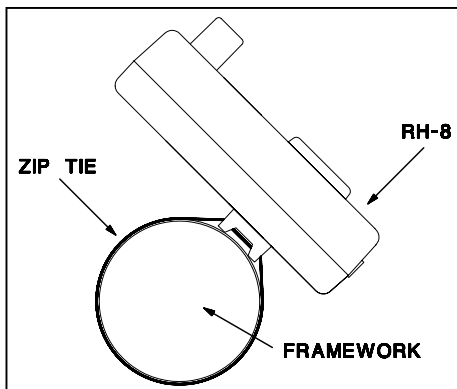


2 Mechanical installation

An RH-8 can be strapped to framework of exercise machinery by fixing the supplied nylon support brackets to the back of the RH-8 and then use the provided nylon ties to wrap around the frame. See the illustrations below:



The nylon brackets are held in place by removable 'snap rivets'. Locate the bracket in the recess on the base of the RH-8, place the rivet through the mounting hole and press the plunger until resistance is felt. Loop the nylon ties through the slots in the brackets and fasten the RH-8 to the framework. If the surface of the framework is smooth, it may be beneficial to wrap the frame with self-amalgamating electrical tape prior to fitting the nylon ties. When mounted to framework the RH-8 should be positioned at 45° (see left hand diagram below), ideally the RH-8 should also be positioned to one side of the user instead of directly in front (See right hand diagram below)



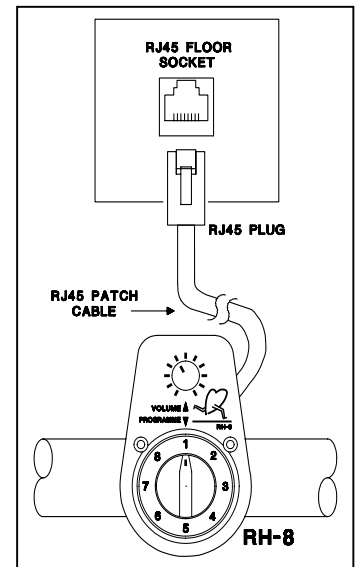
Two mounting holes are provided in the base of the RH-8 to provide the means to fix it onto a flat surface. Remove the two screws that secure the front panel to the rear and lift off the front cover. Locate the two fixing holes positioned above the data socket and to the right of the headphone socket. Two self-tapping screws are provided for fixing purposes. If you propose to use the data socket, it will be necessary to cut a rectangular hole in the mounting surface to clear the data plug. Alternatively, the RH-8 can be hard wired by feeding the cable through the 7mm hole in the rear of the RH-8. When refitting the front cover, care must be taken to ensure that the screws are not over tightened otherwise the plastic moulding may be damaged.

3 Electrical Installation

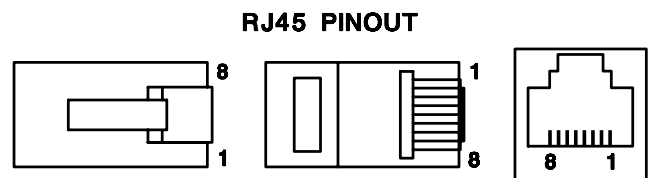
Each RH-8 is fitted with an RJ45 data socket and supplied with a 3m patch cord. We suggest that a separate RJ45 floor socket is located adjacent to every RH-8 control panel location and that the supplied patch lead is used to link the RH-8 to the floor socket; this approach simplifies maintenance. Each individual floor socket should be wired 'pin to pin' directly to the equipment rack using unscreened 'Category 5' cable (4 pair CAT 5). The total cable length from an RH-8 to the rack should not exceed 100m (328ft).

Wiring Information: RH-8 (RJ45) to a Pump/Sub Station 16-R		
RH-8 (RJ45)	Pump/Sub Station 16-R	CAT 5*
Pin 1	Pin 1	White/Orange
Pin 2	Pin 2	Orange/White
Pin 3	Pin 3	White/Green
Pin 4	Pin 4	Blue/White
Pin 5	Pin 5	White/Blue
Pin 6	Pin 6	Green/White
Pin 7	Pin 7	White/Brown
Pin 8	Pin 8	Brown/White

*The CAT 5 colour is described as the dominant colour first with the tracer second.



The RJ45 plug is a compact 8-pole connector primarily designed for CAT5 cable. The pin out for the RJ45 plug and socket is shown to the right:



Special tools are available making termination both easy and quick. Instructions for termination of an RJ45 plug are as follows:

- 1) Strip approximately 1" of outer sheath from the cable.
- 2) Remove extraneous material such as plastic wrap or foil screen from the 8 exposed cores but do not strip their sheaths.
- 3) Cut the 8 exposed cores down so that when the cable is inserted into the RJ-45 the outer core can be held by the plugs cable retention system.
- 4) Insert the 8 cores into the RJ-45 plug fully making sure that they are all correctly arranged. (Information for the correct arrangement of cores for the RH-8 can be found on page 3&4)
- 5) Place the plug/cable assembly into the assembly tool and operate the mechanism.
- 6) You should now have a firmly connected plug/cable assembly that is ready for installation.

Note: The above instructions are for guidance only; always follow the instructions supplied with the assembly tool.

When mounted directly on to a wall or perhaps the bulkhead of an exercise machine the RJ45 socket of the RH-8 may not be accessible. In this scenario it may be preferable to hard wire a cable directly to the RH-8 using its internal screw terminals. When using the screw terminals the use of a separate RJ45 floor socket adjacent to the RH-8 is still suggested.

Please note: The Pump Station 16 and Sub Station 8 have been discontinued as of March 2002 and November 2001 respectively, information regarding wiring an RH-8 to either of these units can be found on pages 4 & 5.

Hard Wiring an RH-8 to a Pump/Sub Station 16-R



Wiring Information: RH-8 (Screw Terminal) to a Sub Station 16/RJ45 Floor Socket		
RH-8 (Screw Terminal)	Sub Station 16 (RJ45) or RJ45 Floor Socket	CAT 5*
Pin 1	Pin 8	Brown/White
Pin 2	Pin 7	White/Brown
Pin 3	Pin 6	Green/White
Pin 4	Pin 5	White/Blue
Pin 5	Pin 4	Blue/White
Pin 6	Pin 3	White/Green
Pin 7	Pin 2	Orange/White
Pin 8	Pin 1	White/Orange

*The CAT 5 colour is described as the dominant colour first with the tracer second.

4 Controlling a Pump Station Line Level Output with an RH-8

Channel 16 on a Pump Station is fitted with a mono balanced line level output that can be used to feed a signal to a general PA system, perhaps for background music purposes. When this facility is used, an RH-8 wired to channel 16 should be used to control the music signal level and the music source selection. When an RH-8 is used for this purpose, it is not necessary to have any headphones connected.

5 Connecting Headphones to an RH-8

The Cloud RH-8 is fitted with a 3.5mm stereo jack socket for the connection of a pair of stereo headphones. For satisfactory performance we recommend the use of headphones with a 32Ω impedance. The whole system is optimised for use with Cloud CP-32 headphones.

6 Wiring an RH-8 to a Pump Station 16 or Sub Station 8



Wiring Information: RH-8 (RJ45) to a Pump Station 16 or Sub Station 8		
RH-8 (RJ45)	Pump Station 16 / Sub Station 8 (Screw Terminal)	CAT 5*
Pin 1	Pin 8	White/Orange
Pin 2	Pin 7	Orange/White
Pin 3	Pin 6	White/Green
Pin 4	Pin 5	Blue/White
Pin 5	Pin 4	White/Blue
Pin 6	Pin 3	Green/White
Pin 7	Pin 2	White/Brown
Pin 8	Pin 1	Brown/White

*The CAT 5 colour is described as the dominant colour first with the tracer second.

7 Hard Wiring an RH-8 to a Pump Station 16 or Sub Station 8



Wiring Information: RH-8 (Screw Terminal) to a Pump Station 16		
RH-8 (Screw Terminal)	Pump Station 16 (Screw Terminal)	CAT 5*
Pin 1	Pin 1	Brown/White
Pin 2	Pin 2	White/Brown
Pin 3	Pin 3	Green/White
Pin 4	Pin 4	White/Blue
Pin 5	Pin 5	Blue/White
Pin 6	Pin 6	White/Green
Pin 7	Pin 7	Orange/White
Pin 8	Pin 8	White/Orange

*The CAT 5 colour is described as the dominant colour first with the tracer second.

Should you need any further help please do not hesitate to contact our technical staff
(Contact details are on the front cover)