DHY-04RC Remote Dialling Panel User Guide

Introduction

The DHY-04RC is a remote dialling panel to be used in conjunction with the DHY-04/G/HD series of telephone hybrids via the RS232 serial port. It allows easy remote operation of the DHY-04/G/HD by a dedicated desktop panel.

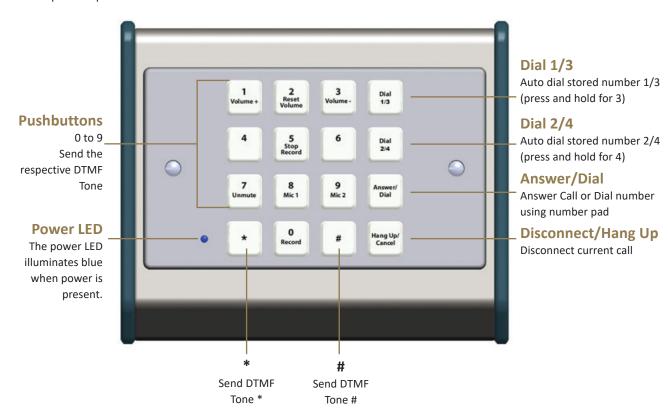
The DHY-04RC has 16 buttons. Pressing any of the 10 numerical buttons, the * key or the # key instructs the target DHY-04/G/HD unit to generate a corresponding DTMF tone on the connected call. Buttons 0, 1, 2, 3, 5, 7, 8 and 9 generate tones associated with functions on a connected piece of equipment.

The DHY-04RC is powered by a 5V DC input (PSU supplied). Upon power-up, the RGB power LED will illuminate blue to indicate power is present.

Operation of the unit is affected by settings of the connected DHY-04/G/HD product so please use the webserver embedded within each unit to configure it before use.

Front Panel Controls & Indicators

The front panel is made up of an aluminium panel containing a blue power LED and 16 key-cap buttons. The text in the key-caps can be altered by removing the caps and inserting new clear-printed text. Detailed operation of the panel is described later.



Rear Panel Connectors

RS232 Serial Port

The serial port is a 9 pin D-type plug and allows direct

connection to DHY-04 unit via a pin to pin cable.

Pin 1: No Connection
Pin 2: Receive Data
Pin 3: Transmit Data
Pin 4: No Connection
Pin 5: Ground
Pin 6: No Connection

Pin 7: CTS Pin 8: RTS

Pin 9: No Connection

DC Power Supply Connector

This is a 2.5mm plug. A universal 5V DC, max 5W, power supply is provided with each unit.

Internal: +5V External: 0V





Operation

Initiating a Call

To initiate a call, simply dial the number that you wish using the numbered buttons. Upon each press of a button, the LED under the button illuminates green to provide visual feedback that the button press has been registered with the DHY-04RC. As soon as the first digit has been pressed, the Answer/Dial button illuminates green*. Once the numbers have been entered, press the Answer/Dial button to initiate dialling on the phone line by the connected DHY-04/G/HD.

Both the Answer/Dial button and Hang Up/Cancel button flash green while the dialling takes place. When the call is connected, the Answer/Dial button goes out and the Hang Up/ Cancel button illuminates solid green

If, at any point during the typing process, you make a mistake and wish to cancel the typed number so far, press the Hang Up/Cancel button to return the unit to an idle state.

If, at any point during the dialling process, you wish to cancel the outgoing call, press the Hang Up/Cancel button (which flashes during the dialling process) to return the unit to an idle state.

Dialling a Speed Dial Number

Up to 7 speed dial numbers can be stored on the DHY-04/G/HD, using the web interface to configure them and the front panel buttons, or web interface, to actuate them.

On the DHY-04RC, pressing either of the Dial 1/3 or Dial 2/4 buttons dials one of the stored speed dial numbers.

To Dial Speed Dial	Operation	Dial Button Illumination
#1	Press Dial 1/3	Green
#2	Press Dial 2/4	Green
#3	Press and hold Dial 1/3	Red
#4	Press and hold Dial 2/4	Red

For speed dials 1 and 2, the associated Dial button flashes green during the dialling process, illuminates solid green as soon as the call is established and stays lit for the duration of the call.

For speed dials 3 and 4, the operation is the same as for 1 and 2, but the button illuminates red.

If you begin to dial a number manually and then press Dial button part way through, the speed dial function overrides the manual numbers entered up to that point.

Behaviour During a Call

Whilst a call is going on, the Hang Up/Cancel button illuminates green, indicating that should you wish to terminate the call, you can do so by pressing that button.

Whilst the call is active, the Dial 1/3, Dial 2/4 and Answer/Dial are disabled, but all the other buttons are active. Pressing any of the allowed (0-9, * or #) buttons will instruct the connected DHY-04/G/HD to generate a corresponding DTMF tone on the connected call.

Controlling Connected Equipment During a Call

Buttons 0, 1, 2, 3, 5, 7, 8 and 9 generate tones which can be used to control functions on a piece of equipment connected at the other end of the line. The buttons have the following functions:

Button	Function Control
0	Record
1	Volume+
2	Reset Volume
3	Volume-
4	No Function
5	Stop Record
6	No Function
7	Unmute
8	Mic 1
9	Mic 2

Answering an Incoming Call

When the connected DHY-04/G/HD receives an incoming call, the Answer/Dial button flashes green. To answer the call, simply press the Answer/Dial button, at which point the Answer/Dial button goes out and the Hang Up/Cancel button illuminates green.

If the DHY-04/G/HD is instructed to dial by another control method (web browser or front panel), the Answer/Dial LED flashes in the same way as though the call was initiated by the unit, giving you an indication that a call is being established.

Error State

If at any point during operation the panel receives no response (e.g. an RS232 communication problem), an invalid or an unexpected response, all the buttons flash red and the panel will reset. This is useful for diagnosing connection issues with the DHY-04 unit.

^{*} Please note if you are using the DHY-04RC board in conjunction with the DHY-04 PSTN model, the behaviour of both the Answer/Dial button and Hang Up/Cancel button is slightly different. These buttons will stop flashing once the last telephone number tone has been sent and, at this point, the Answer/Dial button extinguishes and the Hang Up/Cancel button illuminates solid green. Note that this doesn't mean that the other end has accepted the call.