

HOCHIKI YBO-BSB2 BASE SOUNDER BEACON INSTALLATION INSTRUCTIONS



Products Covered: YBO-BSB2/RL and YBO-BSB2/WL installed with ALN-E, ALN-EN, ACC-E, ACC-EN, ATJ-E, ATJ-EN, ALG-EN ACA-E, ACB-E Sensors, CHQ-AB Range of Beacons, CHQ-ARI Remote Indicator and YBN-R/3 Standard Base, YBO-R/SCI and YBN-R/3(SCI) Short-Circuit Isolator Base (from batch code 6044 only).

Introduction

The Loop-Powered Base Sounder Beacon (YBO-BSB2) is designed to complement the standard common mounting base (YBN-R/3) and the isolator base (YBO-R/SCI and YBN-R/3(SCI)) in locations where Loop-Powered Sounders and Beacons are required. The YBO-BSB2 has connections for both of these types of base as well as for the standard range of Hochiki Analogue Addressable Sensors and Beacons. The YBO-BSB2 is designed to give audible and visual alerts in locations such as Hotel Bedrooms, Offices and Corridors. Note that the YBO-BSB2 is for indoor use only (Type A) and is rated at IP21.

Common Configurations

The YBO-BSB2 can be used in conjunction with an ESP Sensor, Beacon or Remote Indicator (see Fig.1) or with the addition of a Cap (see Fig. 2).

Address Setting

The default address of the YBO-BSB2 is 254, and therefore if the YBO-BSB2 is to be used as a base sounder (sensor on top) then the address will not need to be changed, as the control panel will automatically address the sounder as described below. However, if the sounder is to be used as a wall sounder then the YBO-BSB2 will need to be manually addressed from 1 to 127 as described below. **Note: Control Panel compatibility needs to be checked to verify if automatic addressing above 127 is supported.**

Automatic Addressing (Control Panel)

The control panel automatically assigns the address to the base sounder at initialisation, the address is calculated by taking the address of the sensor that is fitted to the base sounder and adding 127, this is then stored within the base sounder. For example, if a sensor is set at address 10 then the base sounder would be automatically set at address 137. Addresses above 127 may not be visible to the user depending upon the implementation by the Control Panel.

Manual Addressing (Hand Held Programmer)

The base sounder address can be set using the Hand Held programmer (TCH-BXXX – see our web site for latest model) from 1 to 254. See the TCH-BXXX instructions for further details of address setting. If the YBO-BSB2 is to be used as a wall sounder then the address should be set from 1 to 127 before being installed. If the YBO-BSB2 is to be used as a base sounder (sensor on top) then the address should be set from 128 to 254.

Precautions

- Ensure that the base sounder is installed in accordance with Local Standards or Regulations.
- Check that both sensor and mounting base are compatible with the YBO-BSB2.
- Only install in suitable environments, the following in particular should be avoided: -
 - Excessive ambient temperature.
 - Where excessive condensation or moisture is present.
 - Hazardous areas.
- A high voltage tester must not be used with this base sounder.
- Ensure that the base sounder is securely fixed to the mounting base.
- For proper wiring supervision ensure that the cables are wired as shown in the diagram below.

Tones and Volumes

Table 1 below shows the full range of sound outputs available from the YBO-BSB and the amount of current drawn when operated. When the YBO-BSB2 is selected to be a base sounder (sensor on top) the default sound output will be 85dB(A). The YBO-BSB2 is also capable of utilising a number of different EN54-3 Approved tones. A total of 51 tones are available, these are listed in Table 2 and in document AP092 available from our web site. **The tone of the sounder**

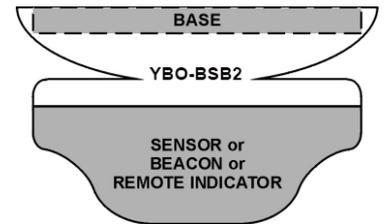


Fig. 1

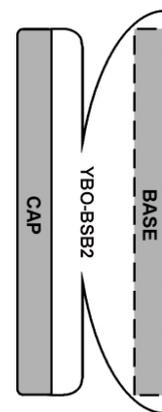


Fig. 2

and the volume level is selected and controlled by the control panel, therefore check with the control panel manufacturer for options and default values available.

| Nominal Sound Output dB(A)*1 *2 | Current Drawn mA*3 |
|---------------------------------|--------------------|
| 50 | 0.8 |
| 55 | 0.8 |
| 60 | 0.8 |
| 70 | 0.8 |
| 78 | 1.5 |
| 80 | 2.0 |
| 85 | 3.0 |
| 88 | 4.5 |
| 90 | 6.5 |
| 93 | 8.0 |
| 94 | 10 |
| 95 | 11 |
| 98 | 16 |

*1 @ 1m distance

*3 An additional 7mA will be drawn when beacon is activated

Locking Mechanism

The base sounder can be locked onto the relevant mounting base by removing a plastic lug on the underside of the sounder (see Fig. 3).

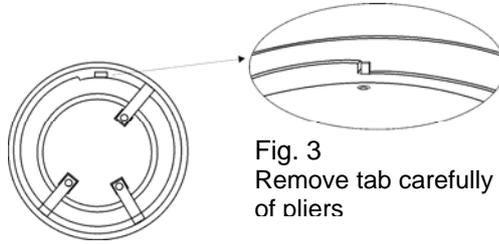


Fig. 3
Remove tab carefully using a pair of pliers

The sounder can then only be removed by using a special Removal Tool (TSC-SRT), which is available from Hochiki Europe (UK) Ltd.

*2 Refer to AP092 (available from our website) for complete EN54- A-weighted sound levels

Installation

The base sounder is designed to be mounted on the Standard Mounting Base (YBN-R/3) or the Short-Circuit Isolator Mounting Base (YBO-R/SCI, from batch code 6044 only) in the same method as a Sensor. The terminals on the mounting base hold the YBO-BSB2 and in turn the terminals on the YBO-BSB2 hold the sensor, beacon or cap if being used as a wall sounder (see below). For correct wiring of the appropriate mounting base, please refer to the diagram below.

Using the YBO-BSB2 as a Wall Sounder Beacon

A twist-fit cap (SI/CAP2) is available to cover the electrical connections if an analogue sensor, beacon or indicator is not being fitted (see Fig. 2). Align the rib on the edge of the cap with the rib on the edge of the base sounder beacon. This will ensure the three moulded tabs on the inside of the cap will engage with the matching metal bayonet slots on the top of the base sounder beacon.

Wiring

Please refer to Fig. 4 for wiring the Standard Mounting Base (YBN-R/3) and the Short-Circuit Isolator Mounting Base (YBO-R/SCI):

A: Loop (+)

B: Loop (-)

C: Cable Screen (where used)

Operating Voltage:

17 ~ 41 Vd.c.

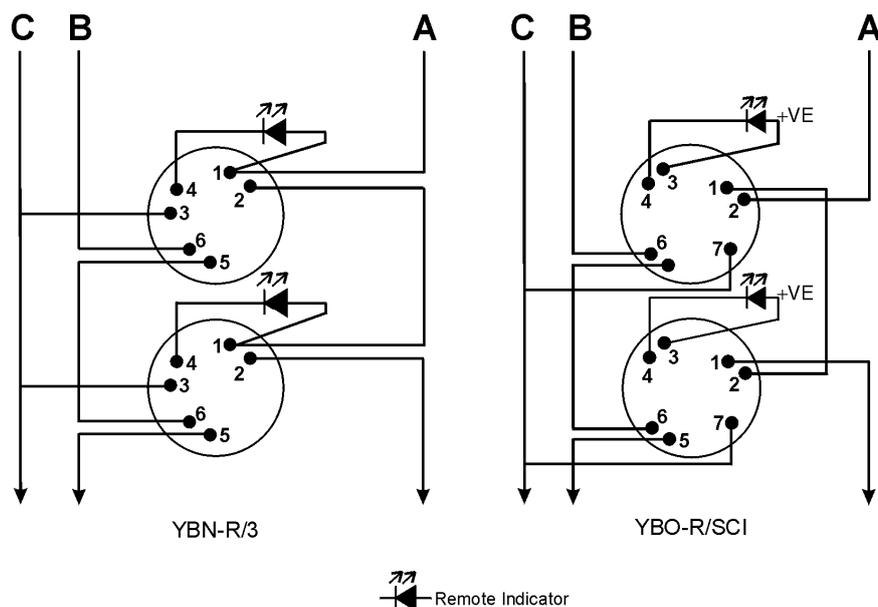


Fig. 4

Note: For YBN-R/3(SCI) refer to instructions provided with base for wiring details.

Table 2

| Tone Number | Tone Description | Graphic Representation | Tone Number | Tone Description | Graphic Representation |
|-------------|---|------------------------|-------------|--|------------------------|
| 0 | Sounder Off | | 19 | 800 Hz : 250 ms 970 Hz : 250 ms | |
| 1 | 925 Hz : 250 ms 628 Hz : 250 ms | | 20 | 2850 Hz Continuous | |
| 2 | 925 Hz Continuous | | 21 | 2400 Hz : 250 ms 2850 Hz : 250 ms | |
| 3 | 628 Hz Continuous | | 22 | 800 Hz : 500 ms 970 Hz : 500 ms | |
| 4 | (French) 554 Hz : 100 ms 440 Hz : 400 ms | | 23 | 2850 Hz : 500 ms Off : 500 ms | |
| 5 | (Swedish) 660 Hz : 150 ms Off : 150 ms | | 24 | 925 Hz : 250 ms Off : 1000 ms | |
| 6 | 925 Hz : 150 ms Off : 600 ms | | 25 | 970 Hz Continuous | |
| 7 | 670 Hz : 250 ms 845 Hz : 370 ms | | 26 | 660 Hz : 1800 ms Off : 1800 ms | |
| 8 | Whoop 500 Hz - 1200 Hz 3000 ms Off : 500 ms | | 27 | 660 Hz : 6500 ms Off : 13000 ms | |
| 9 | 1200 Hz : 500 ms 500 Hz : 500 ms | | 28 | 660 Hz Continuous | |
| 10 | 970 Hz : 500 ms Off : 500 ms | | 29 | 554 Hz : 500 ms 440 Hz : 500 ms | |
| 11 | Sweep 800 Hz - 970 Hz over 140 ms (7 Hz) | | 30 | 660 Hz : 500 ms Off : 500 ms | |
| 12 | Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz) | | 31 | 2850 Hz : 150 ms Off : 100 ms | |
| 13 | Sweep 800 Hz - 970 Hz over 20 ms (50 Hz) | | 32 | Sweep 2400 Hz – 2850 Hz over 20 ms (50 Hz) | |
| 14 | Sweep 2400 Hz – 2850 Hz over 140 ms (7 Hz) | | 33 | Sweep 800 Hz – 970 Hz over 500 ms (2 Hz) | |
| 15 | Sweep 2400 Hz – 2850 Hz over 1000 ms (1 Hz) | | 34 | 988 Hz : 250 ms 645 Hz : 250 ms | |
| 16 | Sweep 300 Hz – 1200 Hz over 1000 ms (1 Hz) | | 35 | 510 Hz : 250 ms 610 Hz : 250 ms | |
| 17 | ISO8201 : 970 Hz : 500 ms | | 36 | Sweep 800 Hz – 970 Hz over 110 ms (9 Hz) | |
| 18 | ISO8201 : 2850 Hz : 500 ms | | 37 | Sweep 800 Hz – 970 Hz over 330 ms (3 Hz) | |

| Tone Number | Tone Description | Graphic Representation | Tone Number | Tone Description | Graphic Representation |
|-------------|--|------------------------|-------------|--|------------------------|
| 38 | 845 Hz Continuous | | 46 | 440 Hz : 600 ms Off : 600 ms | |
| 39 | 970 Hz : 1000 ms Off : 1000 ms | | 47 | Whoop 500 Hz – 1200 Hz : 3750 ms Off : 250 ms | |
| 40 | 800 Hz : 150 ms 970 Hz : 150 ms | | 48 | ISO8201 925 Hz, 628 Hz : 250 ms Off 500 ms | |
| 41 | Sweep 2400 Hz – 2850 Hz over 110 ms (9 Hz) | | 49 | ISO8201 : Sweep 300 Hz – 1200 Hz : 500 ms Off : 500 ms | |
| 42 | Sweep 2400 Hz – 2850 Hz over 330 ms (3 Hz) | | 50 | ISO8201 : Sweep 1200 Hz – 300 Hz : 500 ms Off : 500 ms | |
| 43 | 2850 Hz : 1000 ms Off : 1000 ms | | 51 | Whoop 500-1200 3.5s/0.5s | |
| 44 | 2400 Hz : 150 ms 2850 Hz : 150 ms | | | | |
| 45 | (German) Whoop 1200 Hz – 500 Hz : 1000ms Off : 10 ms | | | | |

For light output volume coverage details see application note **AP133**

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|---|----------------------|-------------------|----|---|
|  Protocol specified in TI/006 | YBO-BSB2/WL | 0832-CPR-F0564/15 | 15 | EN54-3 Alarm Devices – Sounder EN54-23 Alarm Devices – VAD |
| | YBO-BSB2(WHT)/WL | | | |
| | YBO-BSB2(WHT)/WL-HFP | | | |
| | YBO-BSB2/RL | 0832-CPR-F0565/15 | | |
| | YBO-BSB2(WHT)/RL | | | |
| | YBO-BSB2(WHT)/RL-HFP | | | |



Hochiki Europe (UK) Ltd
 Grosvenor Road, Gillingham Business Park,
 Gillingham, Kent, ME8 0SA,
 United Kingdom
 Telephone: +44(0)1634 260133
 Facsimile: +44(0)1634 260132
 Email: sales@hochikieurope.com
 Web: www.hochikieurope.com

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