

# CHQ-WS Wall Sounder

## Technology Guide

### Introduction

The Loop Powered Wall Sounder (CHQ-WS) is an internal-use electronic sounder unit which can produce up to 100dB(A) output for a low current consumption of approximately 7mA due to its innovative design. The CHQ-WS is also fully addressable via the Hochiki ESP (Enhanced Systems Protocol) and comes complete with an IP42 rated double-entry backbox for simplified installation.

The CHQ-WS/W is an external-use variant of the CHQ-WS and includes a specially designed back box which is weatherproof and rated to IP66.

### Addressing using the TCH-B100

The CHQ-WS and CHQ-WS/W need to be manually addressed between 1 and 127 and this is achieved by using the Hochiki Hand Held programmer (TCH-B100) with Programming Lead PL3. This is connected directly to the unit's main PCB. Addressing should be carried out before installation\*.



To open the CHQ-WS unit, gently squeeze the base just behind the release clips and pull apart. To open the CHQ-WS/W remove the 'allen bolts' from the corners of the front of the unit and pull apart. Inside both models, on the back of the horn section is the main PCB. Next to the terminal block is the programming lead connector socket. Plug the square polarised plug of the PL3 Programming Lead into this socket and the jack plug end into the TCH-B100.



Press the left (grey) key to switch the programmer on, a battery check message will be displayed followed by the address of the Sensor fitted (previously un-programmed devices will read 127). Select the required address by incrementing the programmer display (left grey key, 10's, right grey key, units). Whilst the display is showing an address different to that stored in the device, 3 dots will also flash.

Once the required address is displayed press the upper (red) key to store the address in the device. Once the address is correctly stored the 3 dots will cease to flash and the display will show the set address.

\* Address can be set once the unit has been wired - providing the loop is **not** powered.

**NOTE:** Although addresses 128 to 254 can be set using the TCH-B100 Hand Held Programmer, addresses 1 to 127 ONLY can be used.



CHQ-WS

### Features

- Loop Powered
- Single Loop Address addressed via the TCH-B100 Hand Held Programmer
- 100 dB(A) output at 1 metre
- Low current consumption



CHQ-WS/W

### Features

- As above plus:
- Weatherproof housing rated to IP66

## Tone

The CHQ-WS (and CHQ-WS/W) has one tone which is the same as Tone 29 of the Fulleon Symphoni Sounder and similar to Tone 1 of the Hochiki CHQ-BS Base Sounder and Tone 30 of the Hosiden & Besson Banshee Sounder.

Sounder	Tone Number (Default Tone)	Description
CHQ-WS & CHQ-WS/W	(Default Tone)	Alternating tone 0.25 sec @ 988Hz, 0.25 sec @ 645Hz
CHQ-BS	Tone 1	Alternating tone 0.25 sec @ 925Hz, 0.25 sec @ 628Hz
SYMPHONI	Tone 29	Alternating tone 0.25 sec @ 988Hz, 0.25 sec @ 645Hz
BANSHEE	Tone 30	Alternating tone 0.25 sec @ 1000Hz, 0.25 sec @ 800Hz

**NOTE:** Individual tones should always be audibly compared before installation if mixing devices of different types.

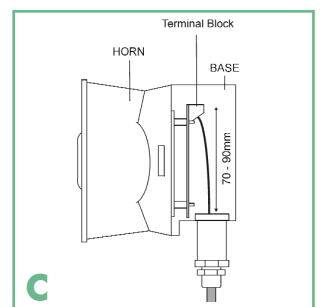
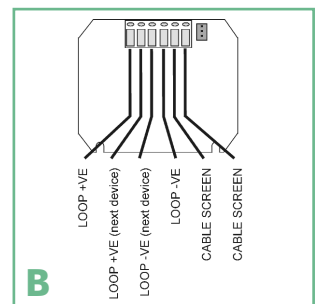
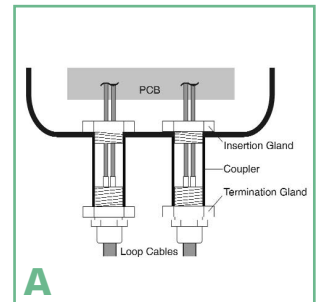
## Installation (CHQ-WS only)

One side of the base is flattened and is provided with two drill point marks. Use these marks to drill 20mm cable entry holes before fixing to the wall, by placing drill bit at the end of the marks.

The back of the base has six knockouts, any of which can be used when fixing the sounder to the wall. Break through the required knockouts and use appropriate fixings (Note - a minimum of two fixings should be used).

Suitable glands must be used to pass the cabling through the entry holes (not supplied). Use appropriate straight connectors as shown in **A** to ensure that glands do not come into contact with PCB. Once the cable gland has been fitted pass the cables through the glands, straight connectors and female connectors into the sounder and wire into the appropriate terminals on the Terminal Block.

Wire as shown on the label adjacent to the block and as detailed opposite in **B**. To ensure there will be enough room for the cabling inside the unit when closed, position the terminal block opposite the cable entry holes and ensure the cables extend at least 70mm from the female connector into the unit to reach the Terminal Block as shown in **C**.



## Loop Loading

Because of the higher current consumption, less CHQ-WS or CHQ-WS/W units can be fitted to a loop compared to the CHQ-BS Base Sounder. As a 'rule of thumb' - two and a half times less CHQ-WS or CHQ-WS/W units can be fitted compared to CHQ-BS units. For example a loop capable of supporting 100 CHQ-BS units could support 40 CHQ-WS or CHQ-WS/W units ( $100 \div 2.5 = 40$ ).

**Note:** The output (volume) of the CHQ-WS and CHQ-WS/W will remain within specification irrespective of loop voltage (17-31V).

