# 6000 System Sounder VAD Installation and Commissioning Instructions

## Overview

The Protec 6000 System Sounder VAD is an approved audible and Visual Alarm Device (VAD) to EN54-23 which provides both an audible and a visual output in the event of a fire condition. The coverage volume of the VAD can be adjusted in the programming of the control panel permitting reduced device operating current, allowing a greater number of devices on the loop.

## Technical Specification

| | | | | | | |
|---|---|---|---|---|---|---|
| Loop protocol | 6000/6000PLUS | | | | | |
| Loop isolator fitted | Yes, on board (Refer to DEL2110 for details) | | | | | |
| Loop operating Voltage range | 18 to 28 V dc peak loop | | | | | |
| Number of loop addresses used | 1 | | | | | |
| Loop quiescent current (24 V average) | 0.70 mA | | | | | |
| Loop alarm current (24 V average) | W–2.4–7 | | W–2.4–5 | | W–2.4–3 | |
| | Current | Power | Current | Power | Current | Power |
| | 12.5 mA | 0.30 W | 8 mA | 0.19 W | 7.5 mA | 0.18 W |
| Coverage ratings (at 0.5 Hz flash rate frequency) | Coverage rating | | Volume | | Pulse width | |
| | W–2.4–7 | | 117,6 $m^3$ | | 100 ms | |
| | W–2.4–5 | | 60 $m^3$ | | 44 ms | |
| | W–2.4–3 | | 21.6 $m^3$ | | 37 ms | |
| Sounder frequencies | Continuous 880 Hz, Warble 665 Hz to 880 Hz, Bell 800 Hz | | | | | |
| Sound pressure level SPL | Refer to polar diagrams below. | | | | | |
| EN54-3 approved **minimum** sound output at 1m (Horizontal & Vertical) | 76 dB(A) | | | | | |
| Sounder synchronisation | Sounder synchronisation is achieved by panel control | | | | | |
| Cable type and characteristics | Refer to panel 'Installation and Commissioning Manual' | | | | | |
| Operating/storage temperature range | -10 to 50 °C (no condensation or icing) | | | | | |
| Humidity | 0% to 95% relative Humidity (no condensation or icing) | | | | | |
| Environmental Rating | Type B (IP33C) | | | | | |
| Dimensions (mm) | 114 (width) x 132 (height) x 92 (depth) (Lens reference height 27.5mm) | | | | | |
| Indications | LED indicator pulsed in alarm condition, On-board indicating LED | | | | | |
| Material | Casing made from red or white polycarbonate to UL94-V2 flammability rating | | | | | |
| Weight | 315 g | | | | | |
| **Compatible Bases** | | | | | | |
| Marking 101-5455 | 6000 system sounder VAD base/6000 talking sounder VAD base (red or white) | | | | | |

## Installation

1. Ensure tests are carried out on the cabling using a 500 V dc insulation tester (Megger®). The readings between each cable core, and each core and earth (screen) should be greater than 10 MΩ. **Ensure that all cabling is completely discharged before connecting to the 6000 System Sounder VAD**.
2. Remove the sounder module from the base taking care to disconnect the sounder connector. Store in the product carton whilst fixing the VAD assembly base to the wall, taking care not to over tighten any screws
3. Run cabling into the base and connect the incoming series 6000 loop to the terminals marked + and –. The outgoing series 6000 loop must be connected to the remaining + and – terminals. All screen wiring must be securely connected to the terminals marked SCR. Ensure bare screen leads are sleeved and that screws are not over tightened.
4. Replace the sounder module ensuring the sounder connector is firmly latched into position and no wires foul the assembly. When attaching the product to its base ensure the 'o'-ring seal is in position to correctly seal the product.
5. For weather proofing, ensure the device is fixed to a flat surface and all cable entry points and screw fixing points are sealed at installation. Care must be taken to ensure that drain holes are not sealed during this process, see Installation base details.
6. If anti-tamper is required ensure locking screw provided is placed into locking slot on installation base.

## Commissioning

1. Each 6000 System Sounder VAD has a unique serial number which will be used as part of the commissioning of the fire alarm system. It is necessary to remove one of the 'peelable' bar code labels present on the product and place it in the commissioning booklet supplied with each Protec addressable control panel. The bar code sticker should be placed at the relevant loop and address position intended for the 6000 System Sounder VAD. It is important that serial numbers are not mixed otherwise the addressing of the 6000 System Sounder VAD will be incorrect when commissioned.
2. Commission the device onto the system as detailed in the installation and commissioning manual for the fire alarm panel being used.

## Maintenance

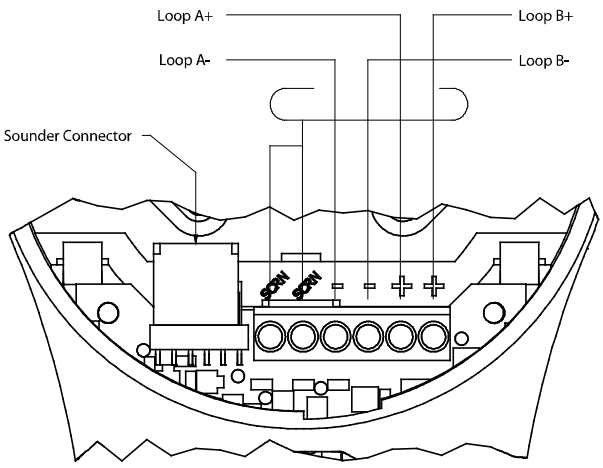
1. No regular device maintenance is required. Please refer to panel manual for system testing requirements.


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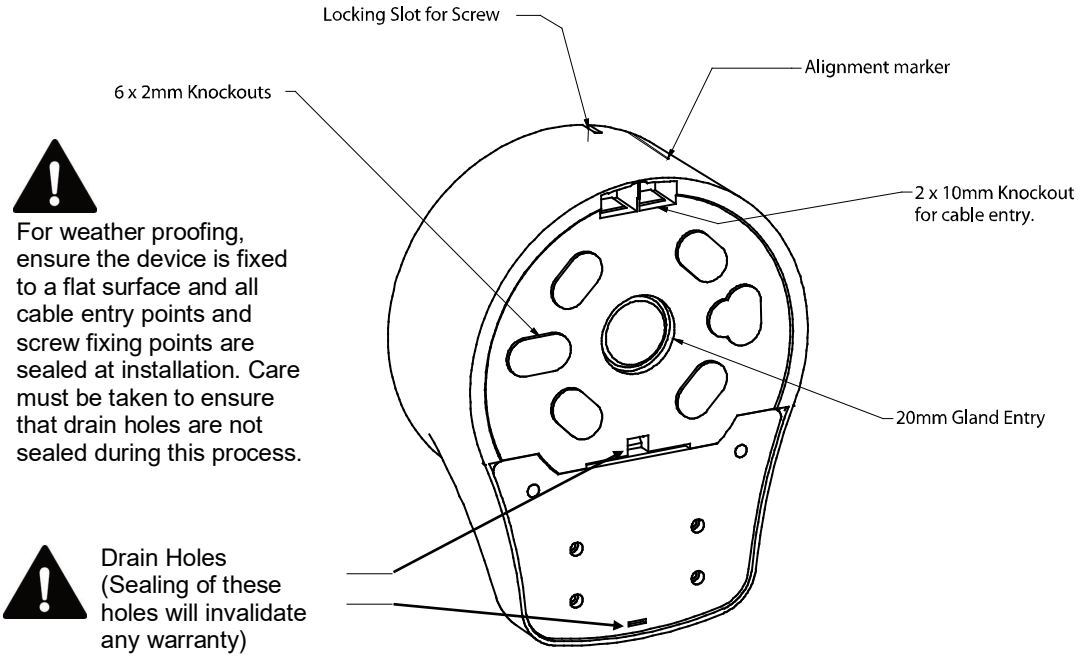
## 6000 System Sounder VAD Certification Details

| CE 0905 | UKCA 0359 | |
|---|---|---|
| 15 | 23 | |
| Protec Fire Detection PLC, Protec House, Churchill Way, Nelson, Lancashire, BB9 6RT, United Kingdom | | |
| PFD-CPR-0101 6000/SSR/VAD<br>PFD-CPR-0102 6000/SSW/VAD | PFD-UKCA-0101 6000/SSR/VAD<br>PFD-UKCA-0102 6000/SSW/VAD | |
| EN54 – 17: 2005<br>Short Circuit Isolator<br>6000/SSR/VAD<br>6000/SSW/VAD<br>Refer to Protec DEL2110 for Technical Data | EN54 – 3: 2001<br>Sounder Devices<br>6000/SSR/VAD<br>6000/SSW/VAD<br>Technical Data included in this datasheet | EN54 – 23: 2010<br>VAD Devices<br>6000/SSR/VAD<br>6000/SSW/VAD<br>Technical Data included in this datasheet |

## 6000 System Sounder VAD wiring details



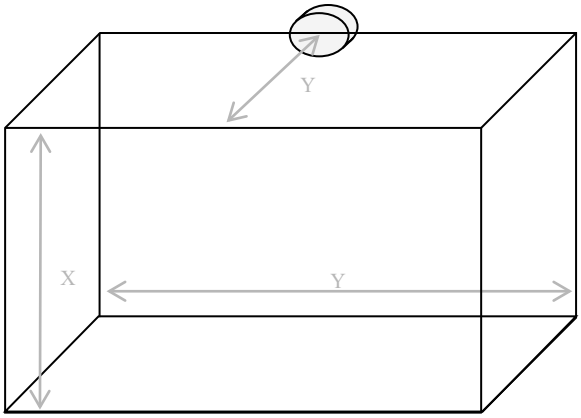

## Installation Base Details



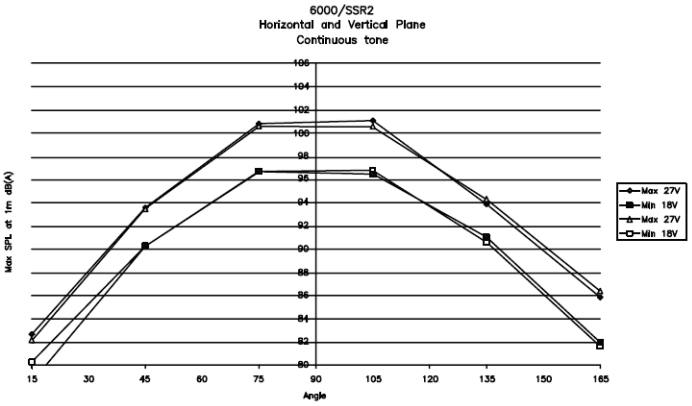

For weather proofing, ensure the device is fixed to a flat surface and all cable entry points and screw fixing points are sealed at installation. Care must be taken to ensure that drain holes are not sealed during this process.

Drain Holes (Sealing of these holes will invalidate any warranty)

## Coverage Volume Details
## Wall VAD W – X – Y (Distances in metres)




## Sounder Polar Outputs and Profiles





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