For both business and leisure wireless technology is now common place. Such are the advances made in wireless technologies in recent years that most people use wireless devices without a second thought.

Using Cooper wireless protocol the CW9000 provides a fire detection system using secure wireless connections between the field devices and the control panel.

Based on well proven components the sensors, sounders, beacons and callpoints give the CW9000 a highly reliable foundation into which the wireless technology has been integrated to provide a fully featured intelligent addressable wireless fire detection and alarm system.

The development of CW9000 has tracked the progress of the European standard EN54-25. “Fire detection and fire alarm systems. Components using radio links”, and has therefore been designed to conform fully with all aspects of this document.

Applications

- **Fast Installation Requirement**: Time limited situations.
- **Heritage**: Limited disturbance to priceless décor.
- **Temporary Systems**: Building sites, temporary structures
- **Frequent Reconfiguration**: Flexible offices, small shops.
- **Difficult Cable Routes**: Difficult or limited access.
Wireless technology offers unique advantages when compared to the installation of wired detection and alarm systems:

- Meets the requirements of EN54-25
- Range greater than 1km in free air
- European tones, fully synchronised
- Peripherals use standard AA cells
- Minimise disruption
- Capability to address 250 devices
- Low profile aesthetics
- Dual anti-tamper function (sensor/base)
- Eliminates cabling difficulties
- Preserve aesthetics

Fast and Simple Installation

Requiring only limited cabling, installation time is greatly reduced. CW9000 is ideally suited to situations where there are limited time periods for work to be undertaken, such as in educational, healthcare and retail establishments.

Reduced Disruption

The lack of cables also means that there is little damage to the fabric of the building, especially important in heritage sites or prestigious areas. Apart from precious décor, the lack of invasion into the structure reduces mess and the risk that dust and rubble will enter vital areas which is particularly important in sterile and food preparation areas and other places where cleanliness is paramount.

Flexibility

Changes to the configuration of a building and reconfiguration of the system can be accommodated both quickly and simply, minimising down time and essential for rapid refits. For temporary installations or situations such as small retail outlets where occupation can change frequently the lack of cables means that an optimum system configuration can be maintained without major system reworking.

Cost saving

There is no need to run fire resistant cable, trunking, conduit or concealed cables, saving in both materials and labour. The use of multifunction components, such as the integrated AV sounder beacon means there are fewer points to install leading to further economies in the installation process.

The unique survey and commissioning tool has been designed to allow these critical functions to be performed by a single person, again saving effort on site and reducing cost. A further consideration is the cost of the batteries used in the system, by standardising on easily available off the shelf batteries, and ultra-low power consumption to extend operational life and minimise system running costs.
Wireless Product Range

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CW9000

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CWBr9200

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Input / Output Unit
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USB Analogue Systems Panel Interface
USBINT2
CW9000 Range

Overview
Using Cooper wireless protocol the wireless control panel (CW9000) provides a fire detection system using secure wireless connections between the field devices and the control panels.

Based on well proven components the sensors, sounders, beacons and callpoints give CW9000 a highly reliable foundation into which the wireless technology has been integrated to provide a fully featured intelligent addressable fire detection and alarm system.

The development of CW9000 has tracked the progress of the European Standard EN54-25 “Fire detection and fire alarm systems. Components using radio links”, and has therefore been designed to conform fully with all aspects of this document.

Features
- Meets the requirements of EN54 Pt25
- Address capacity up to 250 wireless devices
- Range > 1km in free air
- Soft addressing
- Multi-language selection capability
- Monitor battery status under all conditions
- Large versatile touch-screen user interface

Benefits
- Simple to operate end user touch-screen interface
- Eliminates difficulties and costs associated with wired fire systems
- Minimise disruption
- Helps preserve building aesthetics
- Full system integrity with Cooper developed protocol
Wireless Control Panel - CW9000 Range

Dimensions

<table>
<thead>
<tr>
<th>Code</th>
<th>CW9000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Wireless Control Panel</td>
</tr>
<tr>
<td>Standards</td>
<td>EN54-PID</td>
</tr>
</tbody>
</table>

Power

| Operating Voltage | 230V ac +10%/-15% (nom) |
| Current Consumption | 75mA (nom) |
| Mains Fuse | 1.6A slow blow |

Batteries

| Number | 2 |
| Manufacturer | Yuasa, YSP12-4 |
| Capacity | 4Ah |
| Battery Fuse (F4) | 4A quick blow |
| Battery Current | 3.5A (max) |
| Standby Current | 1mA (1 loop) |

Wireless Capacity

| Address Capacity | 250 devices (max) |
| Wireless Outputs | 60 sounders + 20 3 channel input/outputs |

Environmental

| Operating Temperature | -10°C to +55°C |
| Humidity (Non Condensing) | 0 to 95% RH |

Physical

| Construction | Back box - mild steel (powder coated) |
| Fasica - PC/ABS |
| Colour | Graphite |
| Dimensions (H x W x D) | 375mm x 357mm x 95mm |
| Weight (incl. batteries) | 9kg |
| Weight (excl. batteries) | 4kg |
| Cable Knockouts | 11mm x 20mm |
| Flammability Rating | UL 94 V0 |
| Compatibility | Suitable for use with Cooper Wireless Fire Systems |

Technical Specification

### Standard Connection

![Standard Connection Diagram]

#### Fuses

- FH102 Sounder G1 - 1.6A fast blow
- FH101 Sounder G2 - 1.6A fast blow
- FH103 Battery - 4A quick blow
- FH105 Mains Input - 1.6A anti-surge

#### Connectors

- MAINS
- SYNC
- A B X Y E
- COM
- OUT
- RESET
- PC/MODEM

#### Cable Knockouts

- RED
- BLACK

#### Batteries

- BATTERY 1
- BATTERY 2

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW9000</td>
<td>Wireless Control Panel</td>
</tr>
</tbody>
</table>
Booster Panel

Overview

The wireless booster panel (CWB9500) allows devices outside the range of the wireless control panel (CW9000) to be addressed, monitored and controlled.

Each wireless booster panel operates its own dedicated wireless loop on a different system ID and frequency from the control panel.

The wireless loop of the booster panel, with up to 28 intelligent addressable wireless devices, is operated in synchronisation with the control panel’s wireless loop to provide a transparent link between the wireless control panel and the intelligent addressable devices.

The intelligent addressable devices on the wireless booster panel’s wireless loop are commissioned and directly accessed by the control panel.

Up to 8 booster panels can be commissioned onto the control panel wireless loop.

Features

- Meets the requirements of EN54 Pt25
- Up to 8 booster panels can be positioned on the loop
- Address capacity up to 28 wireless devices (per booster panel)
- Range > 1km in free air
- Fully addressable
- Duplex technology (2 way communication)
- Mains powered with battery back up
- Power supply designed to comply with EN54 Pt4

Benefits

- Extends control panel range
- Eliminates difficulties and costs associated with wired fire systems
- Minimise disruption
- Helps preserve building aesthetics
- Easy to install and commission
- Save time and cost
## Technical Specification

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWB9500</td>
<td>Wireless Booster Panel</td>
</tr>
</tbody>
</table>

**Standards**
- EN54-25

**Power**
- Operating Voltage: 230V ac +10%/-15% (nom)
- Current Consumption: 50mA
- Input Fuse Protection: 6A fast-blow fuse (F1)
- Monitored Supply: Yes

**Batteries**
- Number: 1
- Battery Type: 12V 3.2Ah
- Standby Current: 35mA
- Fuse Protection: 3A polyswitch (PTC2)
- Monitored: Yes

**Radio**
- Frequency Band: 868 MHz
- Wireless Devices: 28 (max)

**Environmental**
- Operating Temperature: -10°C to +55°C
- Humidity (Non Condensing): 0 to 95% RH

**Physical**
- Construction: PC/ABS
- Colour: Graphite
- Dimensions (H x W x D): 331mm x 270mm x 90mm
- Weight (incl. batteries): 3.5kg
- Weight (excl. batteries): 2.1kg
- Cable Entry: 1 for mains
- Cable Diameter: 20mm
- Compatibility: Suitable for use with Cooper Wireless Fire Systems

## Installation

- The wireless booster (CWB9500) should be fixed and wired first.
- The wireless ancillaries should then be positioned and fixed as per the drawings.
- The wireless booster should be positioned clear of metal structures, cables, metal piping, and foil backed plasterboard.
- For ease of access the front panel can be removed by removing the screws underneath the flap.
- The display section can also be removed by unscrewing the screw at the top of the cover, tilting the cover forward to disconnect the large ribbon cable, and then removing the cover by pulling it out of the brackets.
- Refitting is the reverse of removal.
- The booster should be fixed using four suitable fixings through the holes provided.
- Do not drill through the box to locate the fixings as dust and debris will contaminate the electronics.

## Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWB9500</td>
<td>Wireless Booster Panel</td>
</tr>
</tbody>
</table>
Hybrid Panels

Overview

Both the addressable hybrid panel (CWH9600) and zonal hybrid panel (CWH9601) provide a seamless interface between Cooper intelligent addressable control panels and Cooper wireless accessories. These units are ideal for expanding a wired system into areas where there are architectural or customer restrictions on cabling.

The (CWH9600) requires 1 address for itself and up to 32 addresses for the wireless accessories on the Cooper loop, and intelligently handles/monitors the wireless accessories using the new Cooper wireless protocol. The (CWH9600) operates like a spur, with the wireless ancillaries being fully visible to the control panel, and reporting a individual fault and fire states for all wireless accessories.

The (CWH9601) requires a single address on the Cooper loop and intelligently handles/monitors wireless accessories using the new Cooper wireless protocol. The (CWH9601) operates like a zone monitor unit, with the wireless accessories not being visible to the control panel, but reports a generic fault and fire state for all wireless accessories.

Features

- Meets the requirements of EN54 Pt25
- Loop powered
- Soft addressed
- Integral short circuit isolator
- Requires a single loop address for the hybrid and an addresses per wireless ancillary
- Maximum of 10 hybrids per control panel
- Supports up to 32 wireless ancillaries
- Intelligent wireless fire and fault monitoring
- Simple user interface for common commissioning functions
- USB interface for advanced engineering functions

Benefits

- Provides a cost effective solution
- Overcomes any cabling restrictions within a building
- No AC supply (loop driven)
- Long range (>1km in free air)
Wireless Hybrid Panels - CWH9600 / CWH9601

Dimensions

<table>
<thead>
<tr>
<th>H (mm)</th>
<th>W (mm)</th>
<th>D (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>262</td>
<td>155</td>
<td>68</td>
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</tbody>
</table>

Technical Specification

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Standards</th>
<th>Power</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWH9600</td>
<td>Addressable Wireless Hybrid Panel</td>
<td>EN54 Pt17, Pt18 &amp; Pt25</td>
<td>Loop</td>
<td>EN54 Pt17, Pt18 &amp; Pt25</td>
</tr>
<tr>
<td>CWH9601</td>
<td>Zonal Wireless Hybrid Panel</td>
<td></td>
<td>18V dc to 30V dc</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5mA (average)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10mA (average)</td>
<td></td>
</tr>
</tbody>
</table>

Wireless Capacity

- Wireless Loops: 1 (max) for both CWH9600 and CWH9601.
- Address capacity: 32 for both CWH9600 and CWH9601.
- Wireless Inputs: 32 (max) for both CWH9600 and CWH9601.
- Wireless Outputs: 32 (max) for both CWH9600 and CWH9601.

Connectivity

- Loop terminals

Physical

- Construction: Back box & fascia – Polycarbonate
- Colour: Red
- Dimensions (H x W x D): 262mm x 155mm x 68mm
- Weight: 0.8kg
- Cable Knockouts: 1 (rear)
- Flammability Rating: UL V-2
- Compatibility: Suitable for use with Cooper Wireless Fire Systems

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWH9600</td>
<td>Wireless Hybrid Panel (addressable)</td>
</tr>
<tr>
<td>CWH9601</td>
<td>Wireless Hybrid Panel (zonal)</td>
</tr>
</tbody>
</table>

Standard Connection

![Standard Connection Diagram]

Cable Exclusion

No cables, pipes or metalwork to be within this area behind panel.

![Cable Exclusion Diagram]

No cables, pipes or metalwork to be within this area.

Cables run outside the area shown.

![Cables Run Outside Diagram]
Survey Kit

Overview

The wireless survey kit (CW500) is an essential tool for evaluating a site's suitability for a Cooper wireless system prior to installation.

The wireless survey kit achieves this by performing a thorough scan (on all available frequencies) to detect any interference or other wireless systems close to the site.

The wireless survey kit can then be used to perform a full site survey (on all available frequencies) to check the signal quality between the control panel location and the desired location of each individual remote device.

These results provide the unit with all the information it requires to calculate the optimum frequency for the site.

This tool is also essential for establishing if the installation site requires any wireless booster panels.

Features

- 3 x Standard AA batteries
- Duplex technology (2 way communication)
- Range > 1km in free air
- Simple menu driven interface
- Site survey for checking signal quality before system installation
- Survey analysis to identify the best frequency channel
- Device commissioning
- Database containing site scan, site survey and commissioning data
- Upload/download database to/from a PC or Laptop

Benefits

- Site scan for detecting interference and other wireless systems
- Simple to operate
- Ease of commissioning system
- Identifies the ideal operational channel frequencies
**Wireless Survey Kit - CW500**

**Dimensions**

<table>
<thead>
<tr>
<th>H (mm)</th>
<th>W (mm)</th>
<th>D (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>176</td>
<td>100</td>
<td>39</td>
</tr>
</tbody>
</table>

**Technical Specification**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW500</td>
<td>Wireless Survey Kit</td>
</tr>
</tbody>
</table>

**Description**

- Batteries: 3 x AA Lithium (4.5V) 3000 mAh
- Wireless Frequency: 868 MHz
- Units per Fit: 2

**Interface**

- Visual: Graphical LCD display, Green "GO" LED, Red "NO GO" LED
- Audible: Internal buzzer
- Keyboard: 5 button keyboard
- Attachments: Camera stand attachment, Extendable pole cradle

**Batteries**

- Number: 1
- Battery Type: 12V 3.2 Ah
- Standby Current: 35mA
- Fuse Protection: 3A polyswitch (PTC2)

**Radio**

- Frequency Band: 868 MHz
- Wireless Devices: 28 (max)

**Physical**

- Construction: Housing - PC/ABS, Boot - silicon rubber
- Colour: Housing - Grey, Labelling - Blue
- Dimensions (H x W x D): 176mm x 100mm x 39mm
- Weight: 2.4kg

**Compatibility**

Suitable for use with Cooper Wireless Fire Systems

**USBINT2 Overview**

The analogue systems panel interface (USBINT2) is a universal serial bus converter that provides conversions from RS232 to USB, TTL to USB or TTL to RS232. These options provide the connectivity required between a PC and intelligent addressable control panels, wireless control panels, and wireless survey tools. This interface is included with the wireless survey kit to provide a comprehensive site survey and commissioning tool.

**Product Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW500</td>
<td>Wireless Survey Kit (includes USBINT2 interface)</td>
</tr>
</tbody>
</table>
Sensors

Overview
The wireless sensor (CWD910) and wireless sensor sounder beacon (CWDB920) are designed to comply with EN54 Pt5 & Pt7.

Both the (CWD910) and the (CWDB920) are compatible with the Cooper wireless fire system.

These units are based on multi-sensor technologies and use combinations of optical smoke detection, fixed temperature and rate of rise heat detection.

These elements can be selected to provide optimum detection of all types of fire and operating conditions.

Features
- 3 x Standard AA batteries
- Long battery life
- Anti tamper protection
- Concealed antennas
- Multi-sensor technology combining optical smoke detection and configurable heat detection (fixed, rate of rise and high temperature)
- Drift compensation
- First fix base

Additional Features CWDB920
- Highly visible LED beacon
- Alarm sounder
- 3 Volume settings
- 4 Tones

Benefits
- Single sensor solution
- Eliminates cabling difficulties
- Minimise disruption
- Helps preserve building aesthetics

**Technical Specification**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD910</td>
<td>Wireless Sensor</td>
</tr>
<tr>
<td>CWDB920</td>
<td>Wireless Sensor Sounder Beacon</td>
</tr>
</tbody>
</table>

**Standards**
- EN45 Part 25 components using wireless links
- EN54 Part 3, EN54 Part 5 & EN54 Part 7

**Description**
- Battery: 3 x AA Lithium (4.5V)
- 3000 mAh (min)
- Wireless Frequency: 868 MHz
- Tones:
  - 750 Hz steady (BS fire tone) - dB(A) min 70, med 80, high 90
  - 500 - 1200 Hz 3.5s sweep, 0.5s silence, then repeat (Dutch fire tone) - dB(A) min 70, med 80, high 90
  - 750 - 880 Hz 2Hz (250ms - 250ms) (BS fire tone) - dB(A) min 70, med 80, high 90

**Environmental**
- Operating Temperature: -10°C to +55°C
- Humidity (Non-Condensing): 0 to 95% RH

**Physical**
- Construction: PC/ABS
- Colour: White
- Dimensions (Dia x D): 114mm x 78mm
- Weight: 0.3kg
- Ingress Protection: IP21C

**Compatibility**
- Suitable for use with Cooper Wireless Fire Systems

**Battery Layout**

**Battery Installation**

1. To insert battery cover, follow steps 1 and 2.
2. To remove, insert terminal screw driver into slot.

**Sensor Switch Settings**

<table>
<thead>
<tr>
<th>Sensor Setting</th>
<th>SW1</th>
<th>SW2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opto Only</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Opto-Heat</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Heat (A1R) 66°C</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>Heat (BS) 77°C</td>
<td>OFF</td>
<td>OFF</td>
</tr>
</tbody>
</table>

**Installation**

1. First fit the mounting base in the desired position. (Set by the survey).
2. Check that the sensors switches are set to the appropriate positions to give the correct detection characteristics. (See switch settings).
3. Fit the 3 batteries into the sensor. (As per commission requirements).
4. Present the sensor to the base, aligning the pips on the sensor and base to achieve correct orientation and then twist clockwise until the sensor slots onto the base and cannot be turned any further.
5. Dust covers must be removed before the system is commissioned.

**Batteries**

While wireless control panels and boosters operate from a battery backed mains supply (which is designed to comply with the latest EN54 Parts), the true economy and reliability of the wireless fire system is highly dependent on the cost and availability of the batteries used in the various field devices.

The wireless system incorporates a number of innovative design features that enables battery life in excess of 3 years, from readily available, across the counter, standard AA cells. Battery monitoring functions ensure that early warning of any low battery conditions is signalled and can therefore be co-ordinated with normal maintenance procedures.

Battery replacement is therefore both economic and simple.

**Product Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWD910</td>
<td>Wireless Sensor</td>
</tr>
<tr>
<td>CWDB920</td>
<td>Wireless Sensor Sounder Beacon</td>
</tr>
</tbody>
</table>
Callpoint

Overview

The wireless callpoint (CWC950) is designed to comply with EN54 Pt11 and shares all the features and benefits of the Cooper intelligent addressable callpoint on which it is based.

The (CWC950) is compatible with the Cooper wireless fire system.

In addition to standard intelligent addressable callpoint features a tamper switch is provided so that a fault alarm is transmitted to the control panel if the callpoint is dismantled or removed.

Features

- 3 x Standard AA batteries
- Anti tamper protection
- Concealed antennas
- Fast fit clip on front cover
- High visibility status LED
- Glass or plastic resettable element (both provided)

Benefits

- Long battery life
- Eliminates cabling difficulties
- Minimise disruption
- Helps preserve building aesthetics
- Single tool for test and access
Wireless Callpoint - CWC950

Dimensions

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Standards</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWC950</td>
<td>Wireless Callpoint</td>
<td>EN45 P125 components using wireless links EN45 P11 callpoint</td>
<td>EN45 P11 callpoint</td>
</tr>
</tbody>
</table>

Environmental

Operating Temperature: -10°C to +55°C
Humidity (Non Condensing): 0 to 95% RH

Physical

Construction: ABS
Colour: Red
Dimensions: 87mm x 87mm x 57mm
Weight: 0.3kg
Ingress Protection: IP21C

Compatibility

Suitable for use with Cooper Wireless Fire Systems

Technical Specification

Batteries

While wireless control panels and boosters operate from a battery backed mains supply (which is designed to comply with the latest EN54-4), the true economy and reliability of the wireless fire system is highly dependent on the cost and availability of the batteries used in the various field devices.

The wireless system incorporates a number of innovative design features that enables battery life in excess of 3 years, from readily available, across the counter, standard AA cells. Battery monitoring functions ensure that early warning of any low battery conditions is signalled and can therefore be co-ordinated with normal maintenance procedures.

Battery replacement is therefore both economic and simple.

Battery Layout

Specified Battery: Energizer L91 Ultimate Lithium

Installation Diagram

Installation Instructions

1. The wireless callpoint can only be surface mounted and is provided with a back box as standard.
2. The wireless callpoint has test facility via special test key to prevent unauthorised operation.
3. Insertion of test key for test purposes and for cover removal is at bottom of callpoint to facilitate ease of access when mounted next to door architrave.
4. Test key is dual function, used to test callpoint operation by simulating activation and also to allow removal of clip on cover to gain access to element.
5. Element is held in place by clip on self locking cover which can only be removed by use of a special tool (callpoint test key).

User Interface

1. To enable quick and simple installation, callpoints use a fast fit self locking clip on front cover which is very simple to fit, but once in place, can only be removed by use of a special key (supplied).
2. Callpoint is triggered by pressing against the element.

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWC950</td>
<td>Wireless Callpoint</td>
</tr>
</tbody>
</table>
Sounder Beacon

Overview

The wireless sounder beacon (CWSB980) is designed to comply with EN54 Pt25 & Pt7.

The (CWSB980) is compatible with the Cooper wireless fire system.

The high efficiency design of this wireless sounder beacon offers excellent sound output levels, whilst also including a high powered LED beacon to provide both audible and visual alarm signals.

This unit is designed for wall mounting, and has a choice of different tones and volume levels.

Features

- 3 x Standard AA batteries
- Anti tamper protection
- Concealed antennas
- Combined sounder beacon
- 4 selectable tones controlled by the panel
- 3 adjustable volume controlled by the panel

Benefits

- Long battery life
- Eliminates cabling difficulties
- Minimise disruption
- Helps preserve building aesthetics
Wireless Sounder Beacon - CWSB980

Dimensions

<table>
<thead>
<tr>
<th>Dia (mm)</th>
<th>D (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>91</td>
</tr>
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Technical Specification

<table>
<thead>
<tr>
<th>Code</th>
<th>CWSB980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Wireless Sounder Beacon</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards</th>
<th>EN45 P125 components using wireless links</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Batteries 3 x AA Lithium (4.5 V) 3000 mAh (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless Frequency</td>
<td>868 MHz</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tones</th>
<th>970 Hz. steady (BS fire tone) - dB(A) min 70, med 90, high 100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>800 - 970 Hz. 3.5s sweep, 0.5s silence, then repeat (Dutch fire tone) - dB(A) min 70, med 90, high 100</td>
</tr>
<tr>
<td></td>
<td>660 - 880 Hz. 2 Hz (250ms -250ms) (BS fire tone) - dB(A) min 70, med 90, high 100</td>
</tr>
</tbody>
</table>

Environmental

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>-10°C to +55°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity (Non Condensing)</td>
<td>0 to 95% RH</td>
</tr>
</tbody>
</table>

Physical

<table>
<thead>
<tr>
<th>Construction</th>
<th>PC/ABS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Red</td>
</tr>
<tr>
<td>Lens Colour</td>
<td>Red</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions (Dia x D)</th>
<th>105mm x 91mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>0.3kg</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP21C</td>
</tr>
</tbody>
</table>

Compatibility

Suitable for use with Cooper Wireless Fire Systems

Batteries

While wireless control panels and boosters operate from a battery backed mains supply (which is designed to comply with the latest EN54-P125 fire alarm system and reliability of the wireless fire system is highly dependent on the cost and availability of the batteries used in the various field devices. The wireless system incorporates a number of innovative design features that enables battery life in excess of 3 years, from readily available, across the counter, standard AA cells. Battery monitoring functions ensure that early warning of any low battery conditions is signalled and can therefore be co-ordinated with normal maintenance procedures.

Battery replacement is therefore both economic and simple.

Battery Layout

Specified Battery

Energizer L91 ultimate lithium

Installation Diagram

1. First fix base is fixed to the mounting surface using 2 fixing holes.
2. Main body is then clipped into position on mounting base, body locks into position when pressed home.

System Functionality

1. Volume is set by control panel, no need to access sounder to alter setting.
2. Tone is set by control panel, no need to access sounder to alter setting.

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWSB980</td>
<td>Wireless Sounder Beacon</td>
</tr>
</tbody>
</table>
Input/Output Unit

Overview

The wireless input/output (CWIF930) is designed to comply with EN54 Pt25 & Pt18.

The (CWIF930) is compatible with the Cooper wireless fire system.

The wireless 3 channel input/output unit provides the facility to monitor 3 independent inputs for fault and fire as well as providing the facility to operate 3 volt free contacts for operating devices such as magnetic door holders, in areas where the installation of system wiring is not an option.

This unit is assigned 1 address and this address is recognised by the Cooper wireless control panel.

The wireless 3 channel input/output unit is fully monitored and controlled by the Cooper wireless control panel. It is fully programmable using the sophisticated and powerful Cooper cause and effect programming.

Both input and outputs are available from the same unit and may be operated

Features

- 3 x Standard AA batteries
- Fully addressable
- Concealed antennas
- Long range up to 1km in free pace
- Duplex technology (2 way communication)
- 3 Volt free outputs
- 3 monitored hard wired inputs

Benefits

- Long battery life
- Eliminates cabling difficulties
- Minimise disruption
- Helps preserve building aesthetics

CWIF930 - Wireless Input/Output Unit
Wireless Input/Output Unit - CWIF930

**Dimensions**

<table>
<thead>
<tr>
<th>H (mm)</th>
<th>W (mm)</th>
<th>D (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>225</td>
<td>180</td>
<td>63</td>
</tr>
</tbody>
</table>

**Technical Specification**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWIF930</td>
<td>Wireless Input/Output Unit</td>
<td>EN45 Part25 components using wireless links EN45 Part18 &amp; BS5839 Part1</td>
</tr>
</tbody>
</table>

**Batteries**

While wireless control panels and boosters operate from a battery backed mains supply (which is designed to comply with the latest EN54 Part4), the true economy and reliability of the wireless fire system is highly dependant on the cost and availability of the batteries used in the various field devices.

The wireless system incorporates a number of innovative design features that enable battery life in excess of 3 years, from readily available, across the counter, standard AA cells. Battery monitoring functions ensure that early warning of any low battery condition is signalled and can therefore be co-ordinated with normal maintenance procedures. Battery replacement is therefore both economic and simple.

**Battery Layout**

**Specified Battery**

EnergiZ L91 Ultimate Lithium

**Fixing Centres**

**Standard Connection**

**Product Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWIF930</td>
<td>Wireless Input/Output Unit</td>
</tr>
</tbody>
</table>
Wireless Product Range

Dual External Aerials

Overview
The wireless dual external aerials (CWEXA) are a pair of 868MHz high gain large collinear aerials that are a direct replacement for both of the standard aerials supplied with the wireless control panel.

The (CWEXA) are compatible with the Cooper wireless fire system.

Features
- Easy to install with no additional components or modifications required
- Totally waterproof allowing outdoor usage

Benefits
- Allows radio obstructions to be easily bypassed to provide maximum coverage
Wireless Dual External Aerials - CWEXA

Mount Fixing Centres

Technical Specification

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWEXA</td>
<td>Wireless Dual External Aerials</td>
</tr>
</tbody>
</table>

**Electrical**
- Frequency Range: 860MHz to 870MHz
- Maximum Input Power: 20dBm
- DC Voltage: 0V dc to 12V dc
- Resistance: 10K ± 5% 250mW

**Mechanical**
- Cable Length: 3 meters +/- 0.05
- RF Connector: Straight BNC
- Cable Type: RG58U
- Antennae Length: 60cm (nom)
- Antennae Tube Diameter: 25mm (typical)
- Antennae Bracket: Pole / wall type

**Environmental**
- Operating Temperature: -30°C to +50°C

**Physical**
- Ingress Protection: IP65

**Compatibility**
- Suitable for use with Cooper Wireless Fire Systems

Aerial Installation

- Optimum Distance: 6 metre separation
- Minimum Distance: 3 metre separation

Cable Installation

- Remove the rubber sheaths from both panel aerials.
- Disconnect both panel aerials by twisting the top half of connector anticlockwise as shown in the diagram.
- Connect both external aerials to the panel by threading the BNC connector through the hole at the top of the panel and then twisting the connector clockwise to lock it into place.

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWEXA</td>
<td>Wireless Dual External Aerials</td>
</tr>
</tbody>
</table>
Overview

The analogue systems panel interface (USBINT2) is a universal serial bus converter that provides conversions from RS232 to USB, TTL to USB or TTL to RS232.

These options provide the connectivity required between a PC and intelligent addressable control panels, wireless control panels, and wireless survey tools.

Features

- Intelligent addressable control panel to PC site installer connection using the RS232 to USB configuration
- Wireless control panel to PC site installer connection using the RS232 to USB configuration
- Wireless control panel to PC wireless live monitor connection using the TTL to USB/RS232 configurations
- Wireless survey tool to PC survey tool connection using the TTL to USB/RS232 configurations

Benefits

- Simple PC driver installation
- Simple DIP switch configuration
Kit Contents

- 1 x USBINT2
- 1 x Driver CDROM
- 1 x USB Cable
- 1 x RS232 Cross-Over Cable
- 1 x TTL Cable

Configuration Settings

<table>
<thead>
<tr>
<th>Switch Positions</th>
<th>Mode</th>
<th>Usage</th>
</tr>
</thead>
</table>
| OFF OFF OFF OFF  | TTL to USB | • Wireless Panel to PC Live Monitor  
|                  |      | • Wireless Survey Tool to PC Survey Tool                              |
| ON ON OFF OFF    | TTL to RS232| • Wireless Panel to PC Live Monitor (no USB available)  
|                  |      | • Wireless Survey Tool to PC Survey Tool (no USB available)           |
| OFF OFF ON ON    | RS232 TO USB| • Intelligent Addressable Panel to PC Site Installer  
|                  |      | • Wireless Panel to PC Site Installer                                |

Cable Connections

- TTL to USB - Wireless survey tool connection
- TTL to RS232 - Wireless survey tool connection (serial link)
- RS232 to USB - Wireless panel to PC (site installer)

Product Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USBINT2</td>
<td>USB Analogue Systems Panel Interface</td>
</tr>
</tbody>
</table>
**Statement**

Cooper Fire Systems design and manufacture fire products to the latest international standards. The products are approved through reputable third party test houses such as LPCB, and UL laboratories for use around the world. During the design process of the Cooper Wireless range of products, EN54 Pt25 and BS5839 Pt1 were considered.

EN54 Pt25 is a mandatory product performance standard, whereas BS5839 Pt1 is a code of practice that gives recommendations where no product standard exists.

EN54 Pt25 (clauses 5.3.2, 5.3.3 and table C.2 of EN54 Pt25) state that the low battery fault warning of the single battery is given when the capacity for 30 days of normal operation plus 30 min alarm condition remains in the battery.

BS5839 Pt1 recommends that radio linked components should be supplied from 2 independent supplies but does not state that the second battery needs to be monitored (for capacity or voltage). Therefore, the addition of a second primary battery does not give any advantage over the use of a single monitored battery as stated in EN54 Pt25.

In our opinion having 2 batteries performing the same function as a single battery, without the correct monitoring of the second battery, could be regarded as degradation in performance as the condition of the second battery is not known and therefore could be flat.