

A white wireless signal icon consisting of three concentric arcs and a vertical line with a small circle at the top, centered above the word 'Wireless'.

# Wireless



# Cygnus Wireless Alarm System

## BENEFITS AND FUNCTIONALITY

- Long range radio meshing signal
  - each alarm is a booster unit
- Waterproof external call points
- First aid alert facility (optional)
- Intruder alert (optional)
- SMS text notifications
- Interface with other fire systems
- Exceptionally easy to install
  - no wires
- Up to 480 units in one system
- 85–110dB sounders – suitable for office and site environments
- Downloadable history log of all events
- Fully compliant for all areas of construction sites
- Very durable – built for the construction industry

## WHERE DID THE NAME 'CYGNUS' COME FROM?

The Cygnus wireless alarm and evacuation system has been named after the constellation Cygnus called Cygnus A which was discovered in 1951 and is one of the strongest radio sources in the sky.

This galaxy was found to be 500 million light years away and was a fantastic discovery. It showed that the process that causes the radio waves to be given off must be colossally powerful, otherwise we wouldn't have been able to detect them from so far away. In fact the radiation from Cygnus A is about a million times as powerful as that discovered from the milky way by Karl Jansky in 1933. Galaxies which are strong sources of radio waves are called radio galaxies and many have been found since the discovery of Cygnus A.

The Cygnus constellation form a swan shape. Cygnus is Latin for swan.



## Cygnus Wireless Alarm System

### CATEGORY 1

Cygnus is an elite emergency alarm system which is battery powered and connects on a category 1 radio frequency which conforms to EN 300 220 Category 1.

The use of high performance category 1 radios ensures maximum range, even when other strong local signals are present.

### THE RADIO TECHNOLOGY

Communication between alarms is based on a mesh protocol which enables access from both point-to-point and multipoint. The addressing system minimises the probability of clashes within the zone ensuring maximum performance. For this reason, correct unit addressing is important and needs to be implemented prior to the installation.



### ZONING AND UNIT ADDRESSING

The alarms can operate in a maximum of 15 zones with up to 32 devices per zone. The Cygnus system is capable of controlling all zones from a control panel operating on the same frequency, but distinguished by different zone addresses. In the case of a real alarm, the message is communicated to every device within the site.

- Where there are multiple sites within range of each other, the system operates on unique site addresses in order to keep each system separate and free from interference. This also enables the use of multiple systems on one site.
- Each unit in the system provides the panel with information at regular intervals, i.e. confirmation that each device is still present, and the battery status of each device; this message is known as its heart beat.
- If the system includes a panel, it monitors these messages (Silent Test); if the heartbeat is not heard for several intervals the control panel logs a fault status for the missing unit.

### THE CONTROL PANEL

The Cygnus control panel combines simple installation and user control with optimum performance. It constantly relays data back to the user from devices around the site. Whilst being mains powered, the panel has the ability to run up to one month without power due to a 6v battery backup.

An LCD display screen with LED backlight and alarm buzzer notifies the user of activations and all other events, such as low battery warning and signal faults. These events can be viewed if necessary in the history folder, held on the panel.

### CYGNUS CAPABILITIES AND RANGE TEST

Cygnus has been specifically designed for use in dense concrete and steel structured buildings, and areas where there are many other radio frequencies in use. Particular attention has been given therefore to achieving an extremely long range connection. Distances in excess of 1.5km have been recorded in an open air environment. Whilst this range is not guaranteed on site due to limiting obstacles, Cygnus covers impressive distances and huge areas due to a networking meshing system which allows devices to communicate through one another and not directly to the panel.

### INSTALLATION

Construction firms and M&E contractors looking to ensure workforce safety will appreciate the simplicity of the Cygnus wireless system which can be easily installed and can be delivered pre-configured to the customer's request, with clearly marked labels on each device if required.





# PROTECTION

The Cygnus Wireless Alarm System, manufactured in the UK by Bull Products, is a major innovation in wireless emergency fire, first aid and intruder alarms for construction sites. Designed to be the ultimate in performance and reliability, the Cygnus system has raised the bar in the industry and is the most successful and adaptable temporary fire alarm system for use in the construction industry.

The Cygnus system is able to link 480 individual units in 15 different zones. Individual units may vary from fire alarm call points, first aid alert points, smoke detectors, heat detectors, combined fire call point/first aid alert alarm and interface units.

## CYG1

Cygnus Control Panel (480 addresses)

The control panel is an optional element of any Cygnus system, used to capture data from up to 480 devices situated around a site. This data includes active alarms and faults and all events are recorded into a file which can be viewed or downloaded. The control panel is mains powered but has its own internal rechargeable battery power source, which fully charged, will last 4 weeks. The panel has other features including an evacuate site function which can be used in case of emergency and is also used to switch intruder sensors on or off.



## CYG6

Cygnus Base Panel (32 addresses)

The base panel has been developed as a small site system panel. It is an optional element into the Cygnus system, and is used to capture data from a maximum of 32 devices situated around a site. This panel can be used in conjunction with other Cygnus control panels but due to its limited software has a greatly reduced networking capability than the main Cygnus control panel. The base panel is mains powered but has its own internal rechargeable battery power source, which when fully charged, will last seven days. The panel has other features including an evacuate site function which can be used in case of emergency. The base panel has limited software and functionality compared with the CYG1 Cygnus control panel but is the perfect solution for smaller construction sites.



## CYG2

### Cygnus Fire Call Point Alarm

The Cygnus fire call point alarm operates using a single battery pack and can be used externally. This radio alarm device has also been designed as a standalone alarm unit. These devices are IP65 rated and are normally situated around a site in prominent places, on main escape routes, stairwells and on or near fire points, where they are visible in case of an emergency. This alarm has a 110 decibel sounder and a beacon for visual alerts. The call point is resettable and can be programmed with a sounder delay.

## CYG2PIR

### Cygnus Fire Call Point Alarm c/w PIR Intruder Sensor



## CYG2/85DB

### Cygnus Fire Call Point Alarm (85 Decibel)

The Cygnus 85 decibel call point alarm operates using a single battery pack and is IP65 rated, thus suitable for external use. This device has been designed as a standalone alarm unit as well as a radio alarm. These devices are built with a less audible sounder for quieter areas such as operational facilities where a 110 decibel level is inappropriate. The call point is pushed to raise an alarm which will activate alarms around the entire site. This device does not include a flashing beacon.

## CYG2/85DBPIR

### Cygnus Fire Call Point Alarm 85dB (No Beacon) c/w PIR Intruder Sensor



## CYG2F

### Cygnus Fire Call Point and First Aid Alarm

The impressive Cygnus fire call point and first aid alarm combination is IP65 rated and boasts the first aid alert functionality for first aid emergencies. This operates differently to a fire alarm so as to distinguish the type of alarm being raised. When a first aid alert is raised, each first aid device will beep intermittently every 8 seconds.

## CYG2FPIR

### Cygnus Fire Call Point and First Aid Alert Alarm c/w PIR Intruder Sensor

## CYG5

### Cygnus First Aid Alert Call Point

The Cygnus first aid alert point has been designed to operate differently from all other types of alerts and alarms. Once triggered, the first aid alert will beep intermittently every 8 seconds at 85 decibels. The control panel notifies the user the exact location within a zone where the alarm has been triggered. This helps to quickly identify and narrow down the search area. These devices are used where sites require designated first aid points and alarms. It also maintains an IP65 ingress rating.

## CYG5PIR

### Cygnus First Aid Call Point Alarm c/w PIR Intruder Sensor



## CYG3L

### Cygnus Heat Detector

Cygnus heat detectors are an integral part of the system, providing essential detection in and out of working hours on all types of construction projects. These thoroughly tested and high quality detectors work in the radio mesh, like any other device, and will help transmit and receive all other radio messages from other alarms to help site wide radio performance. Using a matched pair of thermistors to sense heat, one thermistor is exposed to the ambient temperature, the other is sealed. In normal conditions, the two thermistors register similar temperatures but on the development of a fire the temperature recorded by the exposed thermistor will increase rapidly, resulting in an imbalance of the thermistors and causing the detector to activate the alarm. Detectors come with an 85 decibel sounder and lithium battery pack.

## CYG3LPIR

### Cygnus Heat Detector c/w PIR Intruder Sensor



## CYGIUO

### Cygnus Input/Output Interface

The Cygnus input/output unit has been designed for interfacing with other fire systems, turnstile gate entry systems and door release systems. In the case of an alarm activation, the interface will trigger the door release and will deactivate the turnstile so a quick evacuation can be made to the assembly point. Where a site has a biometric security system the interface can provide the trigger to print out a fire register from the security log. For more information call our technical team.



## CYG4L

### Cygnus Smoke Detector

Cygnus smoke detectors have optical smoke sensors. The smoke detectors are an integral part of the system, providing essential detection in and out of working hours, in particular, site accommodation units. Optical smoke detectors work using the light scatter principle. The detector activates the alarm when a preset threshold of smoke penetrates into the sensing chamber. Detectors come with an 85 decibel sounder and lithium battery pack.

## CYG4LPIR

### Cygnus Smoke Detector c/w PIR Intruder Sensor

## CYGDI

### Cygnus Detector Interface

The Cygnus Detector Interface has been purpose built for use with the ALMWS01 smoke, ALMWS02 heat and ALMWS04 CO detectors. These detectors are radio-linked and are designed to work in groups of up to ten detectors per interface. The interface module can be assigned to a zone and has an individual unit number like all other Cygnus devices, meaning many interfaces could be addressed into a single system.



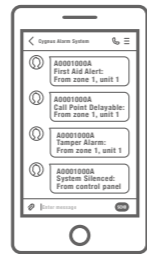
## AUTODI03

### GSM Auto Dialler

The GSM Auto Dialler provides a simple yet effective solution to all of your fire, first aid and intruder notifications.

Once triggered the GSM text communicator automatically sends a text message to one of 9 designated, pre-programmed telephone numbers, providing a fast and reliable warning.

This product is compatible with the GSM Auto Dialler Programming App. This Auto Dialler connects through an RS232 serial port to the Cygnus Control Panel. The Dialler is powered through this interface, which enables a quick and easy installation using the lead provided.

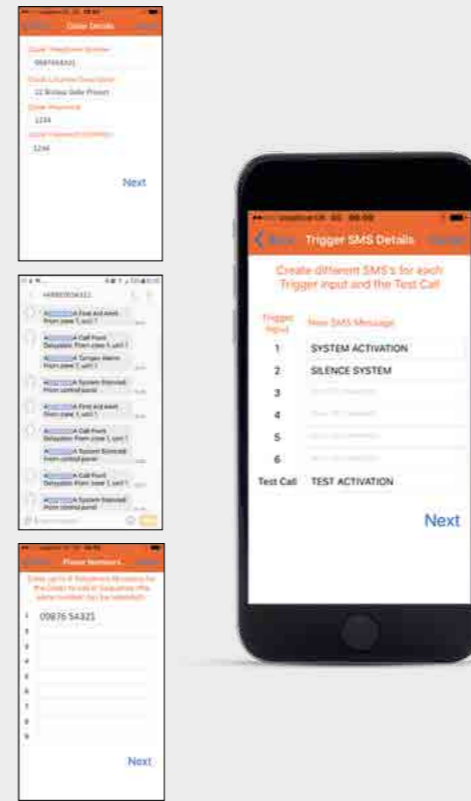


### Programming App for GSM Auto Dialler

This app enables you to programme and initiate certain actions with compatible GSM Auto Dialler quickly and easily from your Android phone. GSM Auto Diallers are used extensively within the Security and Environmental Monitoring Industry to notify you remotely via or SMS if a fire, first aid alarm or if an intrusion event has occurred.

Actions that can be accomplished by using this app include:

- Turn your Dialler on and off remotely
- Activate one of the Dialler's outputs
- Program up to 9 different telephone numbers the Dialler should call if one of its inputs is triggered
- Select all or just some of the 9 telephone numbers to be called according to which input has been triggered i.e. fire/first aid/intruder
- Create different SMS messages that are sent out on each trigger
- Select whether regular test calls are made by the Dialler



## PIR

### PIR Intruder Sensor (Patent GB2530120)

The patented PIR intruder functionality is available on all Cygnus alarms. This additional feature helps utilise fire, first aid alarms and detectors for intruder activations. Alerts can also be sent to a user or third party monitoring station through a GSM Auto Dialler or other monitoring equipment. The sensors are activated by using the menu settings on the control panel.



# EXCLUSION ZONE

The ExclusionZone Alarm system showcases the innovative features of the Cygnus range. This adaptive system is designed specifically for construction sites to give warning of danger and unsafe areas. Applications include areas where plant is being operated, crane and lifting operations, and dangerous 'out-of-bounds' locations.

The ExclusionZone devices have a flashing beacon and sounders are available in 85 and 110dB which are audible above ambient construction site noise.

The ExclusionZone Alarm System interfaces directly to the Cygnus System, and can be monitored and /or activated via the Control Panel.

### Where would this system be used?

When an area becomes too dangerous for workers or pedestrians to pass, the ExclusionZone alarm system units are positioned around that area which may also be cordoned off. The alarms can be mounted to the highly-visible ExclusionZone backboard which can be easily fixed to hoarding, barriers or fencing around the exclusion area.

The concept of the ExclusionZone alarm system is to prevent exclusion zones from being ignored or even becoming a 'short cut'. When the system is activated the sounder beacon will pulse continuously until the area is no longer considered dangerous.

This system can incorporate wireless beam detectors which trigger an alert when the beam is broken by an intruder. However, options also include a 'double-knock' feature which prevents one-off and sudden movements from birds and animals.

## CYG8LCP

ExclusionZone Alarm, Sounder Beacon and Call Point

CYG8LCP shown with backboard, code: CYG8BB.



## CYG8L

ExclusionZone Alarm Sounder Beacon Only

# ACCESSORIES

## First Responder Stations

Cygnus alarms are often mounted on the First Responder Stations, allowing ease of use and mobility as a construction site develops.



FIRST  RESPONDER.  
FIRE SAFETY STATION

### TRLY05/012

#### Fire First Responder Station

The Fire First Responder Station is the first responder's central point for fire safety equipment and alarm. The fire alarm creates a site evacuation and can also be connected to the cabinet to alert responsible persons when the door has been opened thus preventing extinguishers and other equipment from misuse, damage and harsh weather elements.

#### Features and Benefits

- Fire alarm for complete site evacuation
- Extinguisher cabinet protects equipment from misuse, damage and weather elements
- Fire alarm can be connected to cabinet to alert if tampered with
- Minimises the risk of extinguishers being used without notifying the site
- Fire plan can be displayed to aid escape and show routes to assembly area
- First aid alert beeps intermittently every 8 seconds, easily distinguished from the fire alarm
- Corporate branding available

FIRST  RESPONDER.  
FIRST AID STATION

### TRLY05/02

#### First Aid First Responder Station

The range of First Aid Responder Stations are designed to suit all requirements. Bull Products designed this concept of the customisable first aid responder station to help overcome the challenges of maintaining adequate first aid equipment on-site. This station will enable you to have all first aid equipment at your finger tips, providing secure storage of vital supplies whilst a first aider can be alerted at the touch of a button. Like the fire point station the alarm can be connected to the cabinet to alert a first aider when the cabinet door has been opened.

#### Features and Benefits

- Clearly defined first aid centre
- First aid alert alarm (nurse call) connects to the Cygnus Wireless Alarm System and notifies first aiders immediately of an accident
- Sealed cabinet can be wired to Cygnus alarm to notify site when accessed or tampered with
- Any activation of first aid alert will be logged on the Cygnus alarm panel
- Downloadable history log of first aid alerts on Cygnus alarm panel, useful for monitoring site accidents
- Easy accessible eye wash station, for fast response
- First aid signage, highlighting emergency procedures and names of the first aiders on site
- 20 Person HSE First Aid Kit
- Space in cabinet for automated external defibrillator or other equipment
- Corporate branding available







## CG01

Cygnus Protective Cages

Bull Products have designed and developed a protective cage specifically for CYG2 Cygnus alarm units. This cage helps to prevent vandalism, accidental damage, misuse and even theft. It is very important to protect these devices as worker's safety is dependant on them. These alarm cages are designed for the harsh environments of construction sites and still provide full access for users to trigger the call point.

## CPC06

Cygnus Alarm Call Point Cover



## CYGFAS

Cygnus Fire Action Notice

Cygnus fire action notice is predominately designed for CYG2F devices. Other types of fire action notices are also available upon request.

## TAB02

Tablet Computer  
c/w Windows, Cygnus Software and Lead

Cygnus software is suitable for Windows compatible computers only. This tablet is a compact computer with Cygnus software preloaded, ready to use. The tablet comes with a USB to Mini USB adapter and Cygnus addressable connecting cable which makes reconfiguring, parameter changes and site zoning a smooth and simple process.



## CYGSC1

Cygnus Addressable Connecting Cable

For use with TAB02 this cable is used to connect Cygnus units to the tablet to enable addressing of devices.



## BATP01

Cygnus Alarm Alkaline Battery Pack

Suitable for all Cygnus units except CYG3L and CYG4L.

## BATP03

Cygnus Alarm Lithium Battery Pack

Suitable for all Cygnus units.



# CYGNUS TECHNICAL SPECIFICATIONS



PRODUCT	CYG1	CYG6	CYG2	CYG2/85DB
DESCRIPTION	Control Panel	Base Panel	Fire Call Point	Fire Call Point 85db
SIZE H x W x D mm	320 x 285 x 135	320 x 285 x 110	265 x 170 x 90	265 x 170 x 90
AERIAL HEIGHT	230mm	230mm	230mm	230mm
WEIGHT KG LBS	4.68kgs 10.30lbs	2.95kg 6.50lbs	1.72kgs 3.80lbs	1.64kgs 3.60lbs
IP RATED	-	-	IP65	IP65
FREQUENCY	868MHz/434MHz	868MHz/434MHz	868MHz/434MHz	868MHz/434MHz
CATEGORY 1	YES	YES	YES	YES
FLASHING BEACON	-	-	YES	-
NOISE LEVEL DB	65 (dB)	65 (dB)	110 (dB)	85 (dB)
POWER	Mains with Battery Backup	Mains With Battery Back Up	Battery Power Pack	Battery Power Pack
ALKALINE POWER PACK 0.84KGS	-	-	YES As Standard	YES As Standard
LITHIUM POWER PACK AVAILABLE UPON REQUEST	-	-	YES	YES
6V 12AH RECHARGEABLE BATTERY (LEAD ACID)	Yes	-	-	-
6V 2.8AH RECHARGEABLE BATTERY (LEAD ACID)	-	YES	-	-
AVAILABLE WITH PIR SENSOR	-	-	YES	YES
AERIAL TYPE	Exterior Mounted	Exterior Mounted	Exterior Mounted	Exterior Mounted
WARRANTY	12 Months	12 months	12 Months	12 Months

# CYGNUS TECHNICAL SPECIFICATIONS



PRODUCT	CYG2F	CYG3L	CYG4L	CYG5	CYG10U	CYG8LCP	CYG8L
DESCRIPTION	Fire & First Aid Call Point	Heat Detector	Smoke Detector	First Aid Call Point	Cygnus Input/ Output Unit	ExclusionZone Alarm, Sounder Beacon & Call Point	ExclusionZone Alarm, Sounder Beacon Only
SIZE H x W x D mm	265 x 170 x 90	265 x 170 x 90	265 x 170 x 90	265 x 170 x 90	265 x 170 x 90	265 x 170 x 90	265 x 170 x 90
AERIAL HEIGHT	230mm	-	-	230mm	230mm	230mm	230mm
WEIGHT KG LBS	1.72kgs 3.80lbs	1.72kgs 3.80lbs	1.72kgs 3.80lbs	1.64kgs 3.60lbs	1.72kgs 3.80lbs	1.72kg 3.80lbs	1.72kg 3.80lbs
IP RATED	IP65	-	-	IP65	IP65	IP65	IP65
FREQUENCY	868MHz/434MHz	868MHz/434MHz	868MHz/434MHz	868MHz/434MHz	868MHz/434MHz	868MHz	868MHz
CATEGORY 1	YES	YES	YES	YES	YES	YES	YES
FLASHING BEACON	YES	-	-	-	-	YES	YES
NOISE LEVEL DB	110 (dB)	85 (dB)	85 (dB)	85 (dB)	-	110 (dB)	110 (dB)
POWER	Battery Power Pack	Battery Power Pack	Battery Power Pack	Battery Power Pack	Battery Power Pack	Battery Power Pack	Battery Power Pack
ALKALINE POWER PACK 0.84KGS	YES As Standard	-	-	YES As Standard	YES As Standard	-	-
LITHIUM POWER PACK AVAILABLE UPON REQUEST	YES	YES As Standard	YES As Standard	YES	YES	YES As Standard	YES As Standard
6V 12AH RECHARGEABLE BATTERY (LEAD ACID)	-	-	-	-	-	-	-
6V 2.8AH RECHARGEABLE BATTERY (LEAD ACID)	-	-	-	-	-	-	-
AVAILABLE WITH PIR SENSOR	YES	YES	YES	YES	-	YES	YES
AERIAL TYPE	Exterior Mounted	Internal Mounted	Internal Mounted	Exterior Mounted	Exterior Mounted	External	External
WARRANTY	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months	12 Months

# CYGNUS HF SYSTEM

- Fully compliant fire alarm products to EN 54
- Maybe installed as part of an installation to BS 5839-1:2013
- Fully compliant with JCOP Edition 9:2015, 13.8 in Temporary Accommodation Units
- Design and commissioning of systems by our own qualified engineers

## CYHF/FP | CYHF/FP4

Cygnus HF Control Panel – 2 Zone | 4 Zone

The CYHF Control Panel is fully certified to EN 54 parts 2 and 4. This is a conventional panel but can be linked into the Cygnus fire alarm system using the Cygnus IOU device. This allows the Cygnus system on site to communicate to the wireless alarm system fitted within a Temporary Accommodation Unit (TAU). The control panel communicates to the rest of the CYHF wireless devices via the translator module that is connected to the loop.

The control panel is easily installed and is very user friendly. This wireless control panel comes in 2 zone and 4 zone variations, and is surface mountable. They have alert inputs, on-board fire and fault relays and a combined keypad/key switch entry.



## CYHF/WTM

Wireless Translator Module (Loop Powered)

The CYHF/WTM translator module is a key component in the CYHF detection and alarm system. It is connected into a wired loop off the CYHF control panel and is capable of linking up to 32 wireless detector and alarm devices. The translator allows integration into a wired system if required but also can be used to form a completely wireless system. The translator unit is fully compliant with EN 54:17, EN 54:18 and EN 54:25.

## CYHF/EM

Wireless Expander Module (Requires Power Supply)

The CYHF/EM Expander Module is an input output device which is compatible with all CYHF Wireless translators. The unit increases the radio strength and communication beyond a single translator by relaying the radio messages to further expanders devices or directly to the wireless detectors, call points or sounder/beacons.

Using the Expander functionality it is possible to build large, fully wireless systems. All expanders are fully tested and approved to EN 54:18 and EN 54:25.







## CYHF/HD

### Wireless Heat Detector c/w Base and Batteries

The CYHF/HD wireless heat detector is compatible with the CYHF wireless translator and expander modules. This wireless detector is an intelligent device and can be configured to different settings such as; fixed temperature, rate of rise or high temperature.

The CYHF heat detector complies fully to EN 54:5 and EN 54:25 and has a 5-year battery life. This detector comes with a standard radio base but can be supplied with a sounder or sounder/beacon base depending on the requirement.

## CYHF/MSDB

### Wireless Multi Sensor Detector c/w Base and Batteries

The CYHF/MSDB wireless multi criteria detector is a combined smoke and heat sensor alarm unit which is intelligent and compatible with all CYHF translator and expander modules. The intelligent chamber and double dust trap provides protection from airborne contamination and dust. This device has a 5-year battery life.

The CYHF combined smoke and heat detector complies fully to EN 54:5, EN 54:7 and EN 54:25. This device comes with a standard radio base but can be supplied with a sounder or sounder/beacon base depending on the requirement.



## CYHF/SD

### Wireless Optical Smoke Detector c/w Base and Batteries

The CYHF/SD wireless optical smoke detector is an intelligent device which links into the CYHF wireless system via the translator or expander modules. The range of wireless detectors are fully approved to EN 54. This device is capable of being configured on site and has the ability to analyse different types of smoke particles to prevent unwanted alarms.

This optical smoke detector complies fully to EN 54:7 and EN 54:25 and has a 5-year battery life. This device comes with a standard radio base but can be supplied with a sounder or sounder/beacon base depending on the requirement.



## CYHF/S

### Wireless Detector Sounder Base

The CYHF/S wireless sounder base unit has a fully compliant sounder in accordance with EN 54:3. This device is designed for ceiling or wall mount depending on the need of a wireless detector or simply just a sounder cover if a detector is not required.

Each unit has 32 recognised sounder tones in accordance with EN 54:3 and in addition, also has 3 levels of volume adjustment to suit many different applications, all of which can be easily configured.

This device is fully compliant to EN 54:3 and EN 54:25.



## CYHF/S/B

### Wireless Detector Sounder/Beacon Base

The CYHF/S/B sounder and beacon base unit is a wireless device which provides a fully compliant sounder warning in accordance with EN 54:3 and a visual indicator with a flashing LED beacon. This device is designed for ceiling or wall mount depending on the need of a wireless detector or simply just a sounder cover if a detector is not required.

Each unit has 32 recognised sounder tones in accordance with EN 54:3 and in addition, has 3 levels of volume adjustment to suit many different applications, all of which can be easily configured.

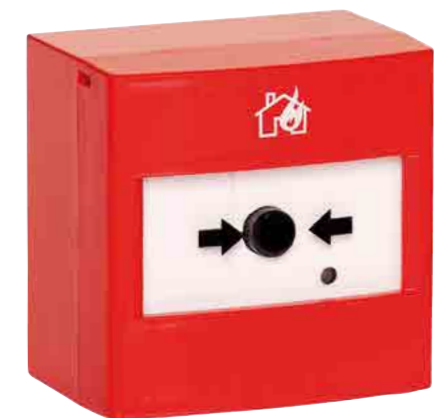
This device is fully compliant to EN 54:3 and EN 54:25.

## CYHF/CP

### Wireless Manual Call Point c/w Base and Batteries

The CYHF/CP Manual Call Point (MCP) is a fully compliant intelligent device which is compatible with the CYHF range of Expander and Translator Modules. This manual call point is resettable and has a visual warning indicator when activated. A reset key is supplied with the MCP for deactivating the alarm and for opening the base. The call point has a 5 year battery life and can be supplied with a transparent cover for protection against accidental operation. This device can be easily configured on site and is easily mounted.

The MCP complies fully to EN 54:11 and EN 54:25. This device can also be supplied as an external IP67 call point.



## Customer Testimonials

“We were looking to adopt a wireless fire alarm system within the group and as Bull Products were very responsive to our needs and were happy to develop a system with us, we have been pleased to specify the new Cygnus system. We particularly like the system’s addressability and Bull Products integrated a first aid alert into the call point which satisfied our needs.”

Mike Whitfield

Contracts Manager at BAM Fire Protection Services



“If anything is not right, the system sets off the siren immediately. Whichever alarm has been triggered can be instantly seen on the control panel and a text alert is sent out at the same time. It’s very versatile as we can move and re-use it as first aid call points or fire alarms during ground-up construction work. We would certainly recommend it for any development site.”

Colin Jordan

Construction Manager at Canary Wharf Contractors



“We have had much experience of using the Cygnus system on multiple projects across London and would have no hesitation in recommending it. It is absolutely perfect, is very solid and robust and does the job extremely well.”

Darren O'Brien

Security and Fire Systems Manager for Woodlands Site Services



## Customer Testimonials

“We found Cygnus to be a very good system, providing not just alarms but first aid points as well. If an operator, say on level seven, hits the first aid button then we know exactly where to send help. Also, if for instance a crane driver is unwell, then that person too can hit an emergency button to raise the alarm. It is a very sound investment and financially much better than hiring.”

Claire McCormack

Health and Safety Manager at Skanska



“We chose the Cygnus system as it has an excellent specification, is very competitive and we are very happy with the service provided by Bull Products. If any issues ever arise, somebody from the company comes straight to site. We would definitely recommend this system for any construction project.”

Dan Hampson

Site Manager at Kier



“Good fire alarm system, very easy to install. The call point with first aid alarm feature and double knock system were good selling features. After sales service has been good, all additional items requested have been dealt with in an efficient manner.”

Jason Clarke

Managing Director at Steve Halsall Electrical Ltd







## BOND STREET STATION

Cygnus conquers the Underground

*"The system is very compatible and efficient"*  
Simon Formby - Electrical Supervisor Bond Street Station

One of London's busiest tube stations recently installed our Cygnus Wireless Alarm System across five underground floors and platforms, which included 39 Fire Call Point Alarms, 12 Heat Detectors and a Control Panel.

Our Cygnus Wireless Alarm System replaced a previously installed system that couldn't deliver what the contractors required for the project – a high-connectivity alarm system with a powerful radio frequency strong enough to work underground. The previous system took two minutes to send an alert to the panel from alarms situated underground at platform level. Once installed in place of the old system, our system received an alert instantaneously when an alarm was raised.

Bond Street Station is currently undergoing a massive £300 million redevelopment to make journeys quicker and easier for the hundreds of thousands of people who travel through it each year. And with over 250 people working on the project, health and safety is paramount.

## TOTTENHAM STADIUM

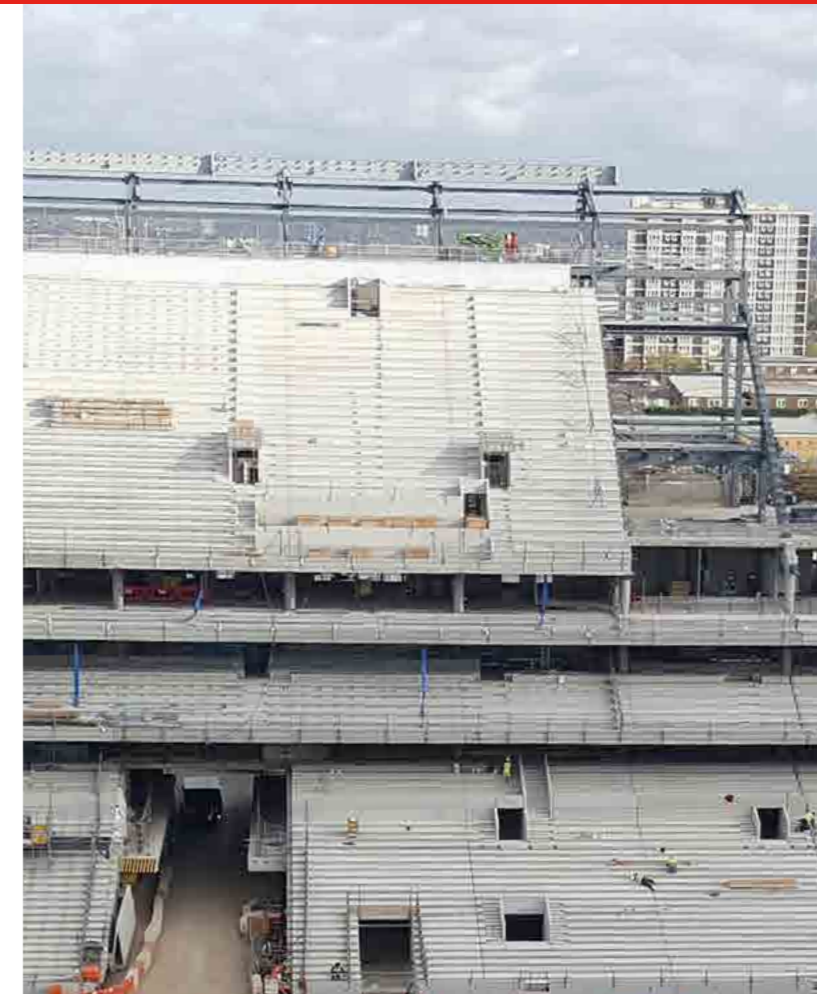
Protecting Tottenham stadium

More than 200 of our alarm devices were installed during work on the new 61,000-seater Tottenham Hotspur Stadium.

The Cygnus Alarm System has been designed for specific use on construction sites where changing site conditions and environments demand a far higher performance from the radio than those found in standard wireless fire systems.

During work on any construction site, it is important to ensure preventative measures are in place to protect site workers and members of the public from any potential hazards.

The devices installed on the new stadium project include the Fire Call Point and First Aid Alarm, which will ensure workers are protected no matter what the emergency. The units will be in place up until project completion at the end of 2018.





## SHELL HEADQUARTERS

First major European win with Shell

*"We were confident it would be ideal during renovation of our headquarters in the Netherlands."*

Raymond Huizing Project Manager - Shell

We are proud to have recently secured our first major European contract with British-Dutch multinational oil and gas company Shell during the renovation of its oldest building in the Netherlands.

The grade II listed building, which is over 100 years old, started showing serious signs of decay. In order to restore the building to its original state, major restoration work was required. During the works our alarm systems were vital in order to protect the site.

More than 100 alarm units have been installed on site, including our Cygnus Control Panel, Cygnus Repeater Panel, Cygnus Heat Detectors, and our First Responder Stations with the Fire Call Point and First Aid Alarms, which will ensure that the building is protected 24-7.



## LEIDEN UNIVERSITY

Strengthening our presence in Europe with university win

*"After we saw the Cygnus alarm system at the Shell offices in the Netherlands, we had no doubt that it would be ideal to protect the building which will house the new Student Centre during the renovation."*

Jeroen van der Lelie, Project Manager at the Leiden University

We have recently secured another major European contract with the Leiden University in Holland, protecting one of the buildings at the university which is home to almost 35,000 staff and students.

Project managers of the university project were impressed, after visiting Shell offices in Holland where our Cygnus Wireless Alarm System was installed earlier this year.

The upper two floors of the building are currently in use by other tenants, therefore the building has to remain safe at all times during the renovation. In addition, a tram line runs through the ground floor making the alarm system critical to protect the site during the refurbishment and ensure that the tram network is not disrupted in the event of a fire.

Sixteen alarm units have been installed on site including the Cygnus Heat Detector and Responder Stations which offer a complete first aid centre for when an emergency can't be reported immediately and helps to maintain adequate first aid equipment on site ensuring health and safety is not compromised.



## FIRE PROTECTION ASSOCIATION JOINT CODE OF PRACTICE

The Fire Protection Association/ Construction Confederation have produced, with the support of the Association of British Insurers, the Chief Fire Officers Association, and the London Fire Brigade, the Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation.

This lays out best practice fire safety recommendations with the specific challenges and demands of the construction industry in mind, and includes the following provisions:

- 4.5 Fire alarm system – any means utilised for giving warning of fire on a site. The most basic system may be no more than a hand-held siren or manually operated gong. Certain sites by their size and nature may require “break glass” call-points which, when broken, electronically operate bells, klaxons or sirens.
- 4.6 Fire detection system – a system comprising components for automatically detecting a fire, initiating an alarm and initiating other action as appropriate.
- 6.1.1 Responsible person – the responsible person must take such general fire precautions as will ensure, so far as is reasonably practicable, the safety of his employees and, in relation to persons who are not his employees, take such general fire precautions as may be reasonably required in the circumstances.

This will include that:

- (c) weekly testing of the fire alarm (and any domestic style smoke detectors) is carried out and that other smoke and heat detectors on site are tested as determined by a risk assessment;
- 13.8 Temporary buildings or temporary accommodation located:
  - (a) inside the building under construction/refurbishment;
  - (b) inside another permanent building; or
  - (c) within 10m of such building(s)

must be fitted with fire detection systems complying with a recognised Category of installation as set out in BS 5839-1: *Fire detection and alarm systems for buildings: Code of practice for system design, installation, commissioning and maintenance* (ref 23). In the case of high fire risk sites, the fire detection system must be linked to the fire alarm system in the building on which work is being undertaken and to an alarm receiving centre, unless there is a 24-hour site security presence on site. Components of automatic fire detection and alarm systems should be marked as complying with EN 54 (ref 37).

## CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

Regulation 32 Fire detection and fire-fighting.

- (1) Where necessary in the interests of the health or safety of a person on a construction site, suitable and sufficient fire-fighting equipment and fire detection and alarm systems must be provided and located in suitable places.
- (3) Fire-fighting equipment or fire detection and alarm systems must be examined and tested at suitable intervals and properly maintained.

## EUROPEAN STANDARDS COVERING THE USE OF RADIO TECHNOLOGY IN EMERGENCY EQUIPMENT (ETSI 300-220-1)

European guidelines on the use of radio technology in emergency equipment specifies the use of life critical Class 1 receivers in ‘human life inherent systems’ – i.e. those in which any failure may result in physical risk to a person.

The Cygnus system uses Class 1 radios throughout, ensuring maximum signal reliability for your critical construction site evacuation system.

## HSE FIRE SAFETY GUIDELINES FOR CONSTRUCTION SITES (HSG168; 223)

Health and Safety Executive guidelines for compliance with legislation on fire safety in construction sites<sup>1</sup> state that:

“It is expected on the majority of sites that an inter-connecting (could be wired-in or wireless) system of call points and sounders will be required to provide an effective fire warning system.”

Cygnus is a robust wireless fire warning system, integrating both call points and sounders, that ensures that when one call point – or heat/smoke detector – is triggered, a site-wide alert is initiated at a volume that’s practical for alerting a busy construction site.

## UKTFA 16 STEPS

The Structural Timber Association’s 16 Steps to Timber Frame Construction document.

“Step 7 - Fire Detection & Warning

If a construction fire occurs the primary aim is not to save the building but to make sure everyone on site reaches safety as soon as possible. Therefore, the purpose of the detection and warning system is to allow the safe evacuation of the building/site.”

“An appropriately designed, installed and maintained automatic fire detection alarm system can reasonably ensure that site operatives will be aware of a fire before it can become large enough to compromise their escape route.

As a general rule, handbells, whistles and similar fire alarm devices are probably not going to be loud enough or heard easily by all site operatives on multi-storey construction projects. Electrically operated fire warning devices must always be used in timber frame projects unless it can be clearly demonstrated that other systems are effective.

These devices should be linked to detection devices strategically placed around the structure to provide the earliest possible detection of fire.”

## UNDERSTANDING CE MARKING AND THE CONSTRUCTION PRODUCTS REGULATION

By definition a construction product is any product or ‘kit’ which is produced and placed on the market for incorporation in a permanent manner in construction works.

The Cygnus system is a temporary fire alarm system and is not required to comply with the Construction Products Regulation 2011. However, due to the devastating nature of fire on construction sites, the system has been rigorously tested.

The product does not fall under the Construction Products Regulation 2011 when used as outlined below:

- The system’s intended use is a fire and first aid alert system incorporating fire call points, first aid call points, smoke and heat detection and a control panel for temporary fire cover during construction works.
- The system is intended to be installed either in a building under construction, in site cabins or on mobile fire points and is taken out/deinstalled at the end of the construction project.

The radio modules are Class 1 with Category 1 receivers as required for human life inherent systems in accordance with the R&TTE directive (1999/5/EC) and the system has been tested to the following standards;

- EN 60950-1: 2006 + A2: 2013  
*Electrical Safety*
- EN 301 489-3 v1.6.1 (2013-08)  
*Electromagnetic Compatibility*
- EN 50130-4: 2011  
*Electromagnetic Compatibility*
- EN 300 220-2 v2.4.1 (2012-05)  
*Radio Performance*

## RADIO PERFORMANCE

The Cygnus radio module has been designed for specific use on construction sites where changing site conditions and environments demand a far higher performance from the radio than that found in standard industry wireless linked fire systems. The radio operates on a mesh protocol which ensures signal integrity is maintained in a changing environment. The system has been successfully installed in conditions ranging from steel site cabin complexes to concrete basements up to 12m below ground and even rail projects 40m underground. The range of the radios on open ground has been measured at 1.5km and signals have been received at over 2.5km from units placed in high rise buildings.

## FIRE INDUSTRY STANDARDS

The Cygnus system has been designed for use on construction sites and can be used as part of a fire alarm system installed to BS5839-1 2013 in Temporary Site Accommodation (Section 13.8) as required by JCOP (The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation – 2012). The system is also intended to meet the JCOP requirement for High Rise Construction Sites (Section 22.8) and Large Timber Frame Structures (Section 23.15).



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The logo features the word "Cygnus" in a white, italicized serif font, centered between two sets of three vertical bars of varying heights. A registered trademark symbol (®) is located at the top right of the second set of bars.

**Cygnus**®