

# Installation Manual

**VIGIL FIRECARE**

## Product Description



VIGIL FireCare is a sophisticated emergency fire telephone system, which has been developed in accordance with BS5588 part 11 and BS5839 part 9. The system is a fully monitored and battery-backed communication network, which enables fire officers/building management to report the status of any emergency within a building quickly and efficiently to the main central control room. This ensures that the occupants are evacuated with ease and less panic. The whole system is simple to operate, install, and works independently of any other emergency fire system within a building.

The system has two main components: the Main Control Panel and the Remote Fire Telephones. The Main Control Panel is available in eight options: 16, 32, 48, 64, 80, 96, 112 or 128 way. The panel is normally wall mounted within a permanently manned main Control Room. There are four versions of telephone handset units available, (lockable, non-lockable, with or without an alerting beacon), which are wall-mounted in areas of risk, such as stairwells, corridors and 'gathering' areas.

Slave Control Panels can be added to the system for control of local zones of telephones (e.g. in a stairwell), and repeater units are available to extend the cabling distance between the remote fire telephones.

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## CE Declaration



This equipment is designed and manufactured to conform to the following EC standards:

EMC EN 55103-1, Environment E1, EN 55103-2 E5

Safety EN 60065

Failure to install or use the equipment in the manner described in the product literature will invalidate the conformity.

A 'Declaration of Conformity' statement to the above standards and a list of auxiliary equipment used for compliance verification is available on request.

## Safety and Precautions

### ELECTRICAL SAFETY

Always replace blown fuses with the correct type and rating. Ensure the power supply cabling is adequately rated. Ensure the equipment is effectively earthed (grounded). Do not short-circuit battery connections.

### ENVIRONMENTAL PRECAUTIONS

Always ensure adequate ventilation is provided for the equipment and do not obstruct ventilation holes. The temperature and humidity ranges shown in the specifications for this product must not be exceeded. This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or that may allow water or other liquids to come into contact with the unit or its external connections. In the close proximity of some radio frequency transmitters, the signal to noise ratio of this product may be reduced. If this occurs, re-locate the equipment or the signal cables. Dispose of batteries according to local regulations.

### ESD PRECAUTIONS

This product contains static-sensitive devices. Observe ESD precautions when working on the equipment with the cover removed.

## Specifications

### Control Unit

Remote signalling of fault	Volts-free contact, closing/opening set on installation
Indicators	In-use, call, fault, power, charger and speech volume
Power supply	230V AC
Power consumption (VA)	10VA + 1VA per remote connected
Dimensions (W x H x D)	410mm x 455mm x 200mm (16 – 64 Way) 410mm x 777mm x 200mm (80 – 128 Way) Bezel dimensions: 461mm x 506mm x 25mm Bezel cut out dimensions: 420mm x 465mm
Weight, including batteries	26kg (64 way unit), 37kg (128 way unit)
Temperature Range (storage and operating)	-10 to + 30°C
Humidity Range	95% Non Condensing

### Remote Fire Telephone

Indicators	System healthy
Power supply	12 – 40V Dc
Current consumption	30mA @ 35V typical
Dimensions (W x H x D)	130mm x 350mm x 100mm – excludes beacon Bezel dimensions: 170mm x 390mm x 20mm Bezel cut out dimensions: 138mm x 356mm
Weight	4kg
Temperature Range (storage and operating)	-10 to + 40°C
Humidity Range	95% Non Condensing

# For the System Designer

## System Cabling Types & Distances And Installation Recommendations

*This section assists the system designer to define the system layout, interconnections between equipment, and the type and conductor size of the cabling.*

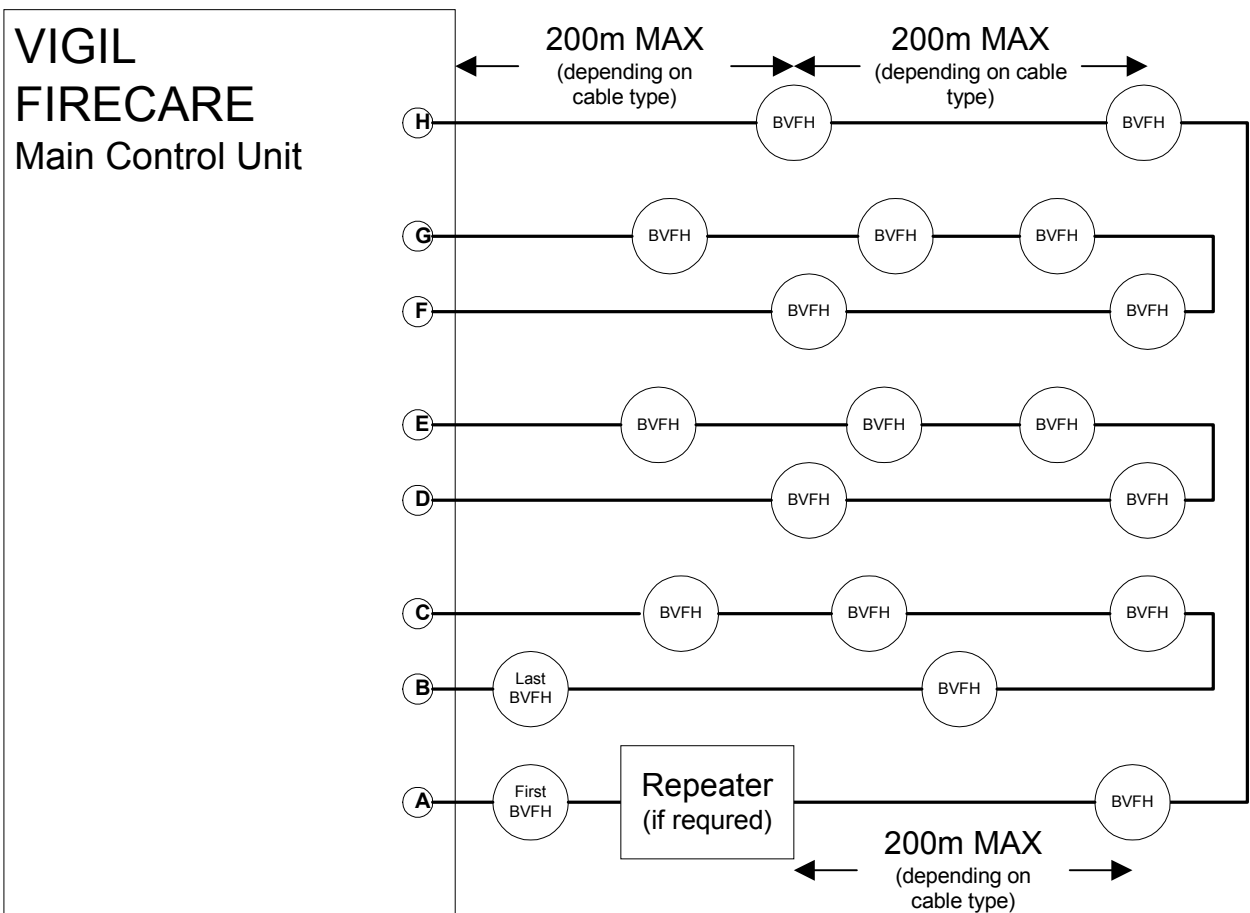
VIGIL FireCare utilises a 4-wire plus screen ring circuit to allow continued operation in the event of a cable break. There are typically 20-25 handsets on each ring. The maximum length of cable between each handset, and between the Control Panel and the first and last handsets, must be as follows:

- MICC (lightweight) 4-core. Distance between units not to exceed 100m.
- MICC (heavyweight) 4-core. Distance between units not to exceed 150m.
- FP200 1.5mm 4-core. Distance between units not to exceed 200m.
- FP Plus 1.5mm 4-core. Distance between units not to exceed 200m.

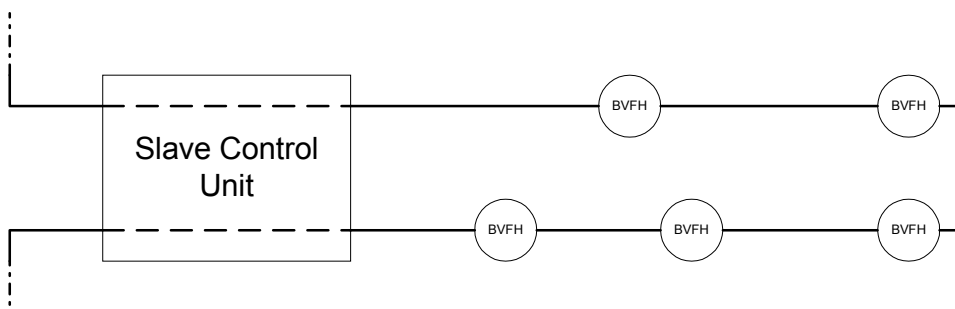
Where a greater cable length is required a repeater unit can be installed to extend the cabling a further 200m.

For systems with larger numbers of handsets, multiple circuits are used. The terminations of each circuit are made at the Main Control Panel to form a single electrical ring circuit.

Please contact our Technical Sales team on +44(0)1892 664422 for free advice and assistance with your cabling design and choice of cable. Cables are sized according to the number of telephones and the distance between them.



Slave Control Panels can also be inserted into the ring. Handsets connected to the Slave Control Panel will then also form part of the electrical ring. Note: While a slave can replicate a master, it only has buttons for the Remote Fire Telephones it controls. A master has a button for every Remote Fire Telephone on the system.

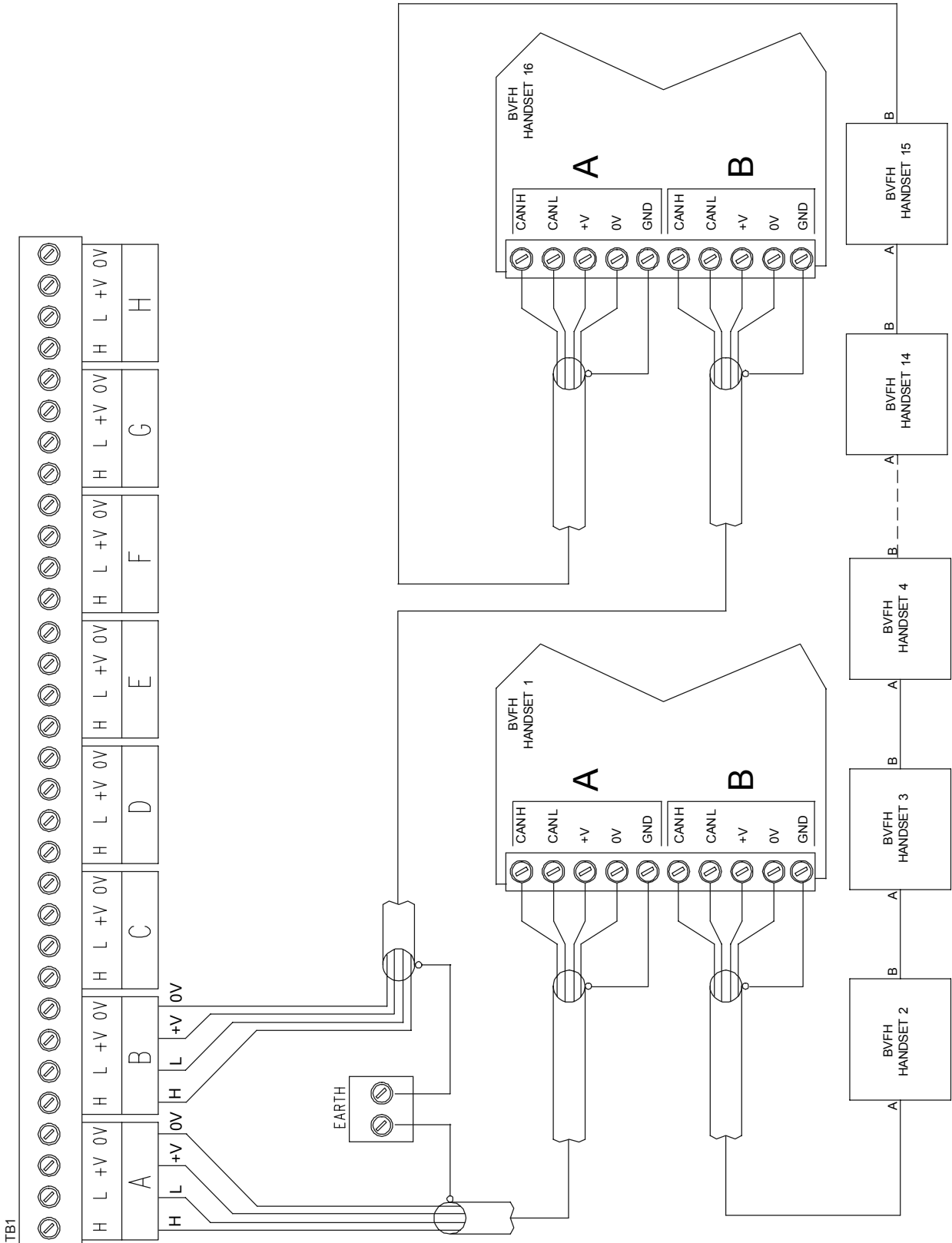


## Cabling Design and Installation Recommendations (cont.)

### Configuration Example 1: Up to 16 Remote Fire Telephone Units

This diagram shows an example configuration of 16 Remote Fire Telephone units connected to a Control Panel using one ring circuit.

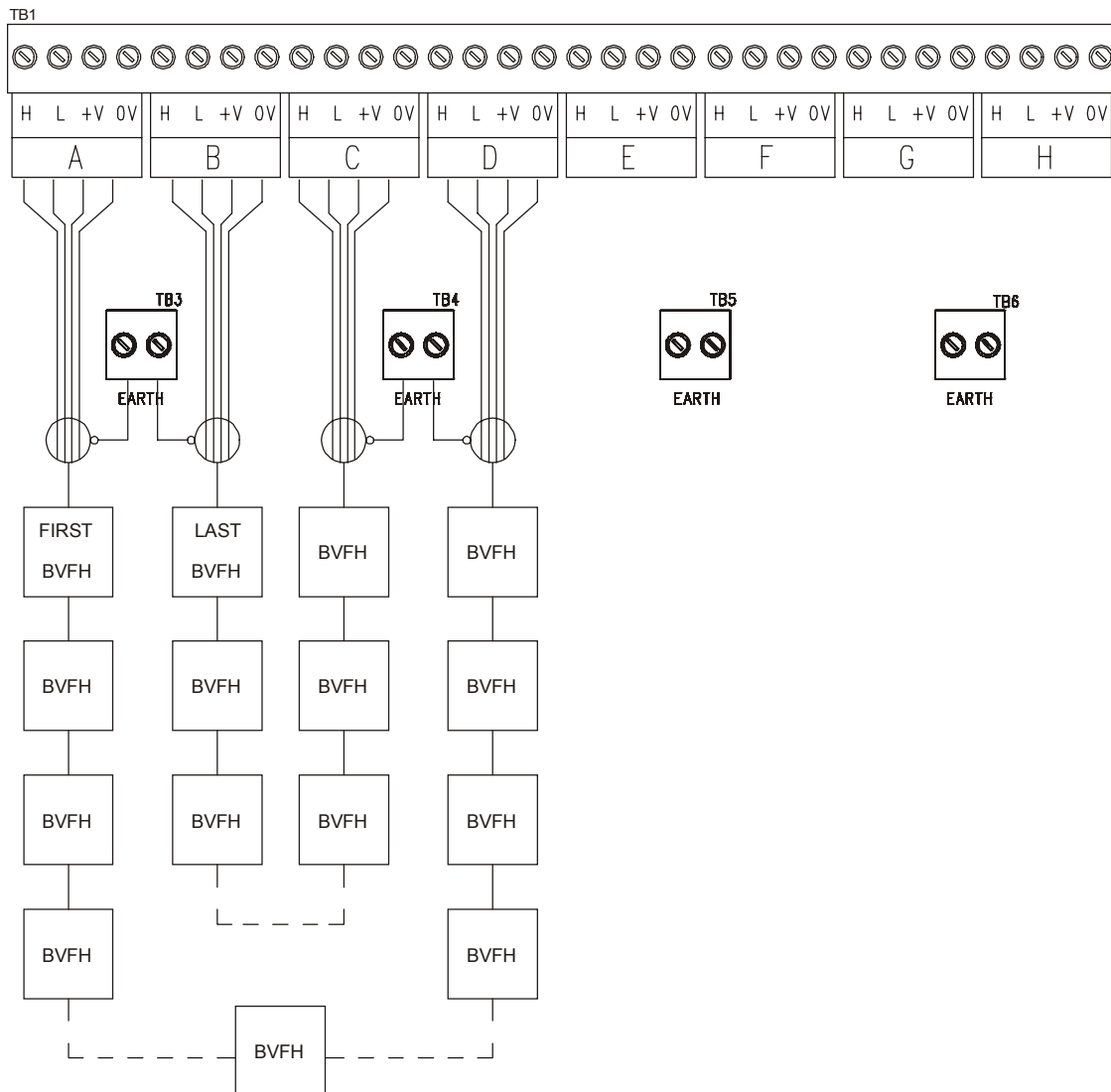
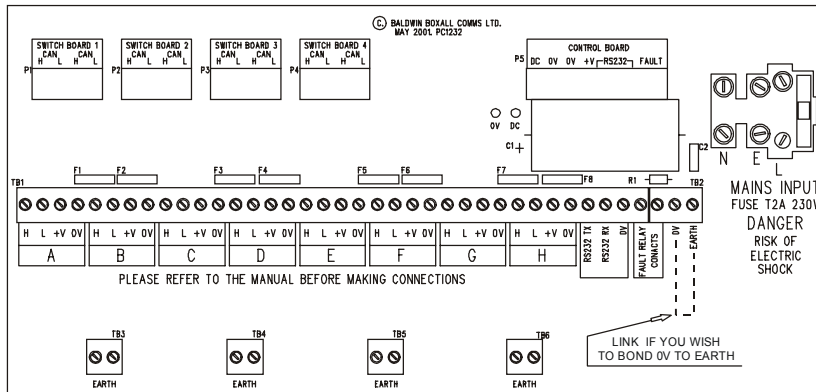
The terminal blocks labelled 'TB1' are located in the top of the Control Panel enclosure, and the terminations for Remote Fire Telephone units 1 and 16 are also shown in detail.



# Cabling Design and Installation Recommendations (cont.)

## Configuration Example 2:

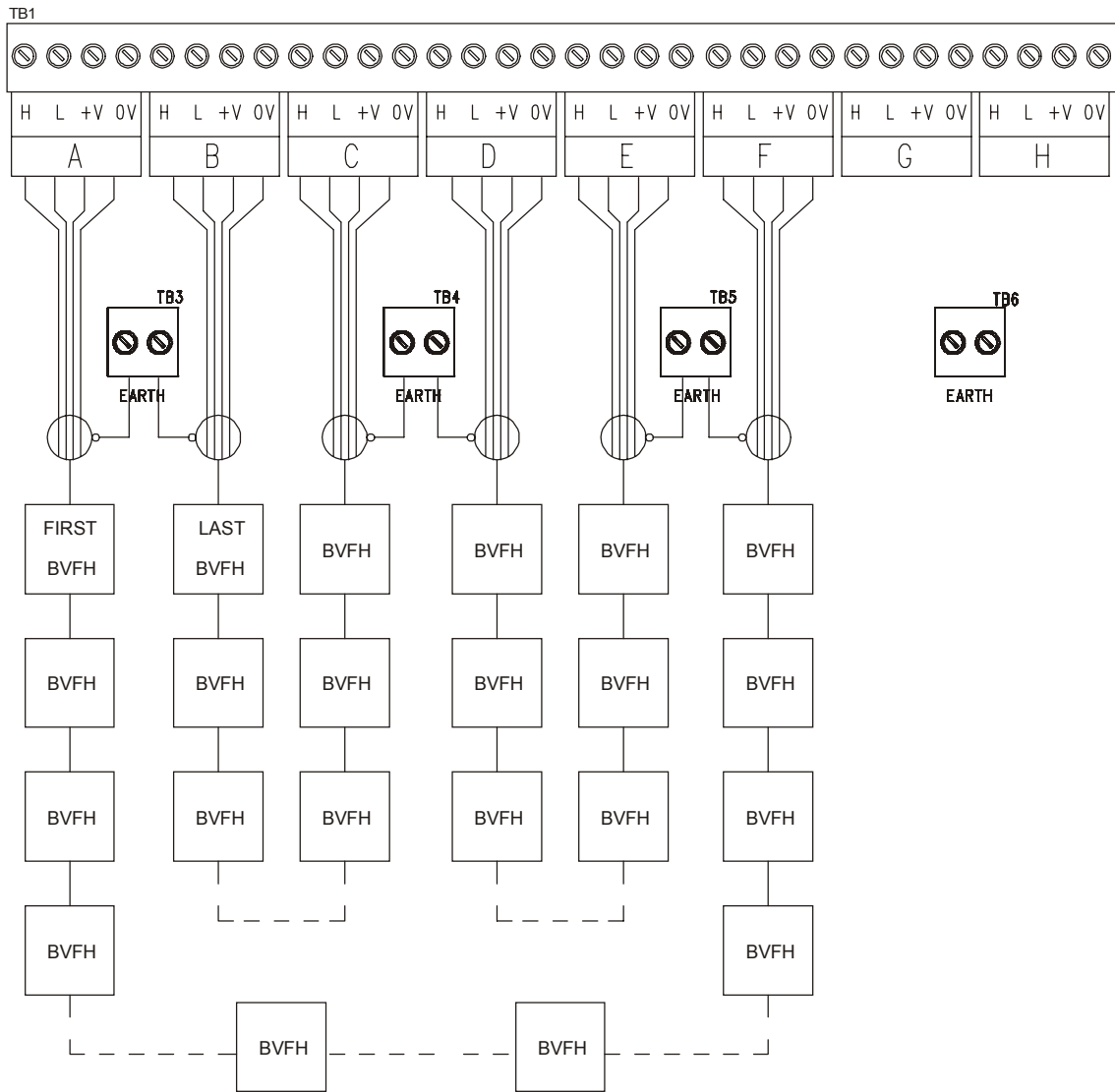
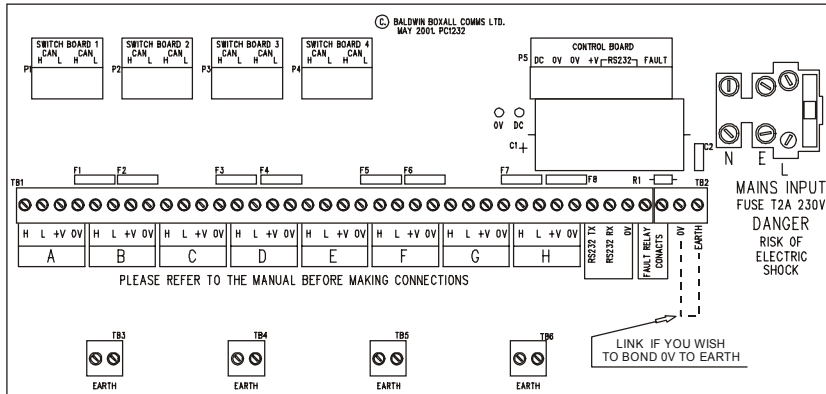
### Typical Connection Diagram Up To 32 Units



# Cabling Design and Installation Recommendations (cont.)

## Configuration Example 3:

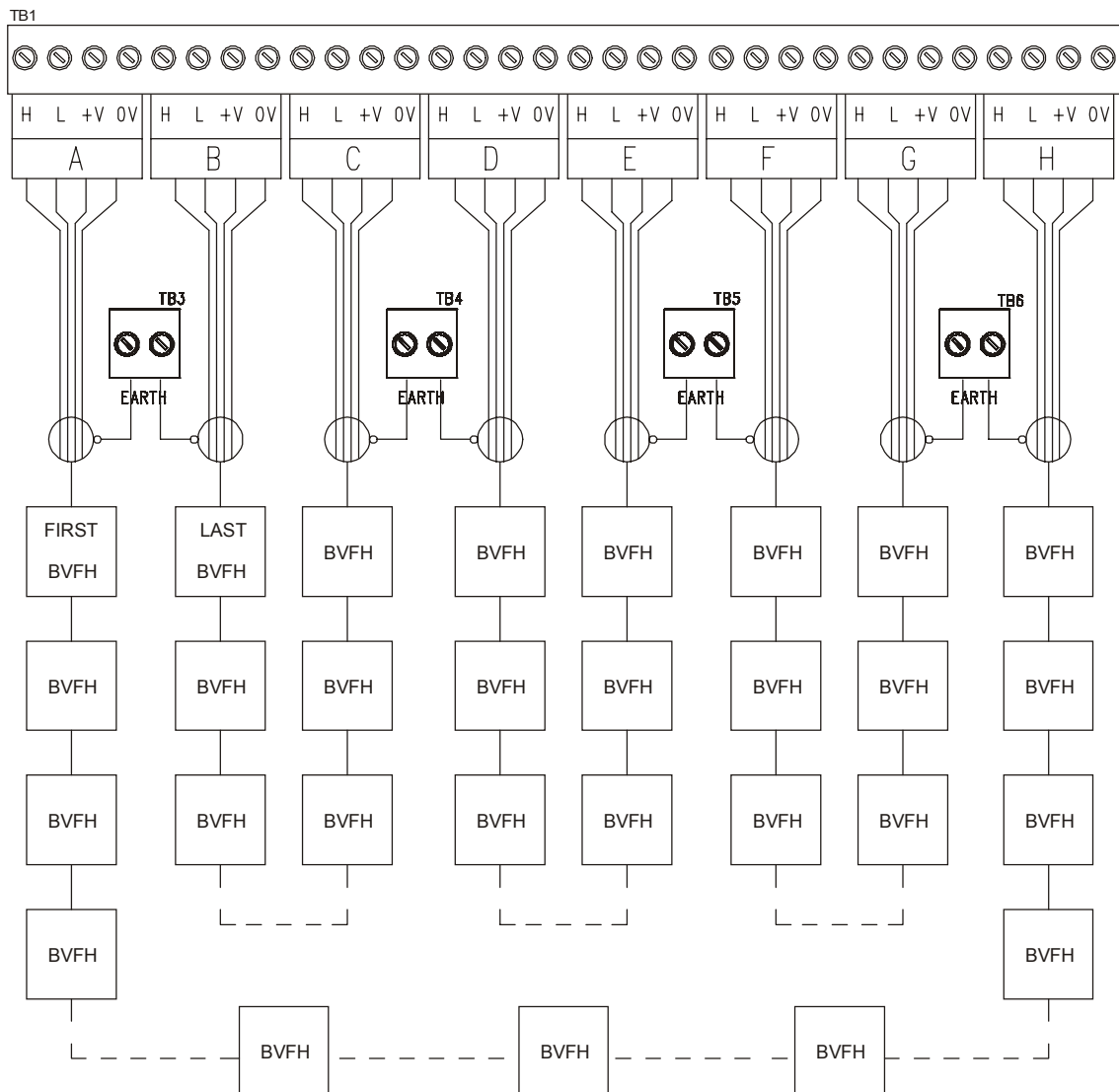
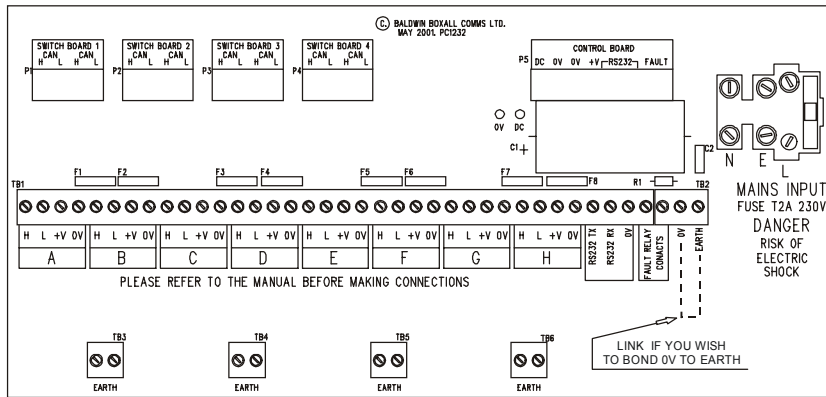
### Typical Connection Diagram Up To 48 Units



# Cabling Design and Installation Recommendations (cont.)

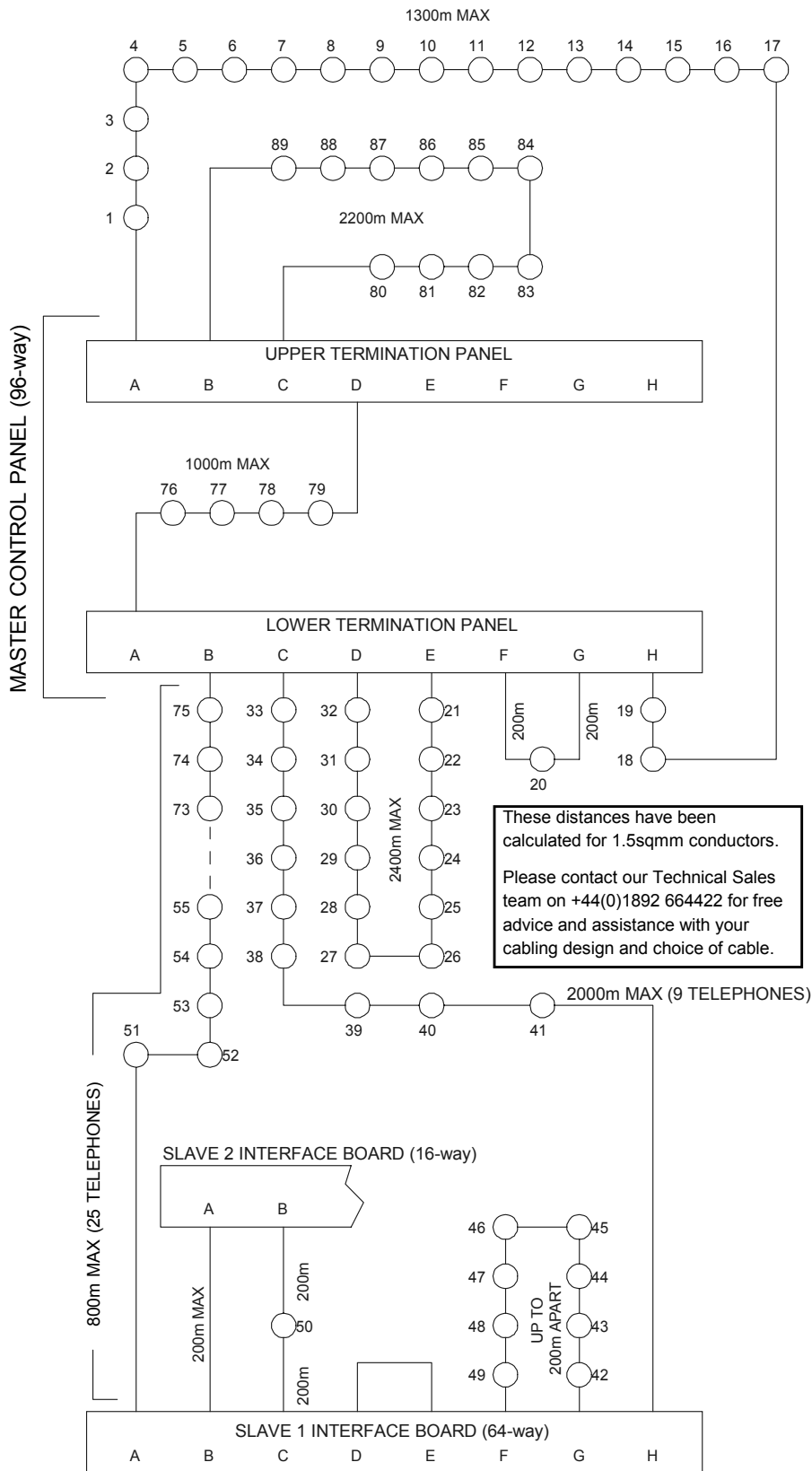
## Configuration Example 4:

### Typical Connection Diagram Up To 64 Units



# Cabling Design and Installation Recommendations (cont.)

## Configuration Example 5:



This diagram shows the configuration of a complex system. The configuration uses a Master Control Panel, two Slave Control panels (16Way and 64Way), and serves 89 Remote Fire Telephones on a ring consisting of 10 wiring circuits.

The remote Fire Telephones are allocated Control Panel button numbers according to their position on the ring, starting from the A terminals of the upper termination panel at the Master Control Panel (see **Button Allocation**, next page).

## Cabling Design and Installation Recommendations (cont.)

### Recommended Cable Type

The ring circuit must be cabled in a 4-core with screen fire rated cable. FP200, or equivalent, is recommended. MICC can be used, but identification of the individual conductors for correct phasing of conductor pairs (which is essential to prevent damage to the equipment) can be difficult with this type of cable.

The conductor cross-sectional area must be chosen depending on the length of cable runs and the number of remote fire telephones on each circuit.

Please contact our Technical Sales team on +44(0)1892 664422 for free advice and assistance with your cabling design and choice of cable.

### Button Allocation

The first Remote Fire Telephone on the loop counting from the 'A' connection of the upper termination panel at the Master Control Panel is button number 1, the next on the loop is number 2, etc. Each button panel can serve up to sixteen Remote Telephones that are sequentially connected on a circuit.

As a simple example, please refer to Configuration Example 1 (page 4). The sixteen Remote Fire Telephones in this system are related to the Control Panel buttons as follows: -

Handset	Button	Handset	Button
1	1	9	9
2	2	10	10
3	3	11	11
4	4	12	12
5	5	13	13
6	6	14	14
7	7	15	15
8	8	16	16

For a more complex example, please refer to Configuration Example 2 (above). The 89 Remote Fire Telephones might be related to the Master Control Panel buttons as follows: -

Button Panel 1		Button Panel 2		Button Panel 3		Button Panel 4	
Handset	Button	Handset	Button	Handset	Button	Handset	Button
1	1	17	1	33	1	49	1
2	2	18	2	34	2	50	2
3	3	19	3	35	3	51	3
4	4	20	4	36	4	52	4
5	5	21	5	37	5	53	5
6	6	22	6	38	6	54	6
7	7	23	7	39	7	55	7
8	8	24	8	40	8	56	8
9	9	25	9	41	9	57	9
10	10	26	10	42	10	58	10
11	11	27	11	43	11	59	11
12	12	28	12	44	12	60	12
13	13	29	13	45	13	61	13
14	14	30	14	46	14	62	14
15	15	31	15	47	15	63	15
16	16	32	16	48	16	64	16

Etc.

This sequence of allocations between buttons and remote telephone can be modified (for example, where the positions of buttons on the panel are to more closely mimic the real physical positions of the remote telephones). This requires re-configuring of the Control Panel button boards (as described in part 3 of 'Commission The System').

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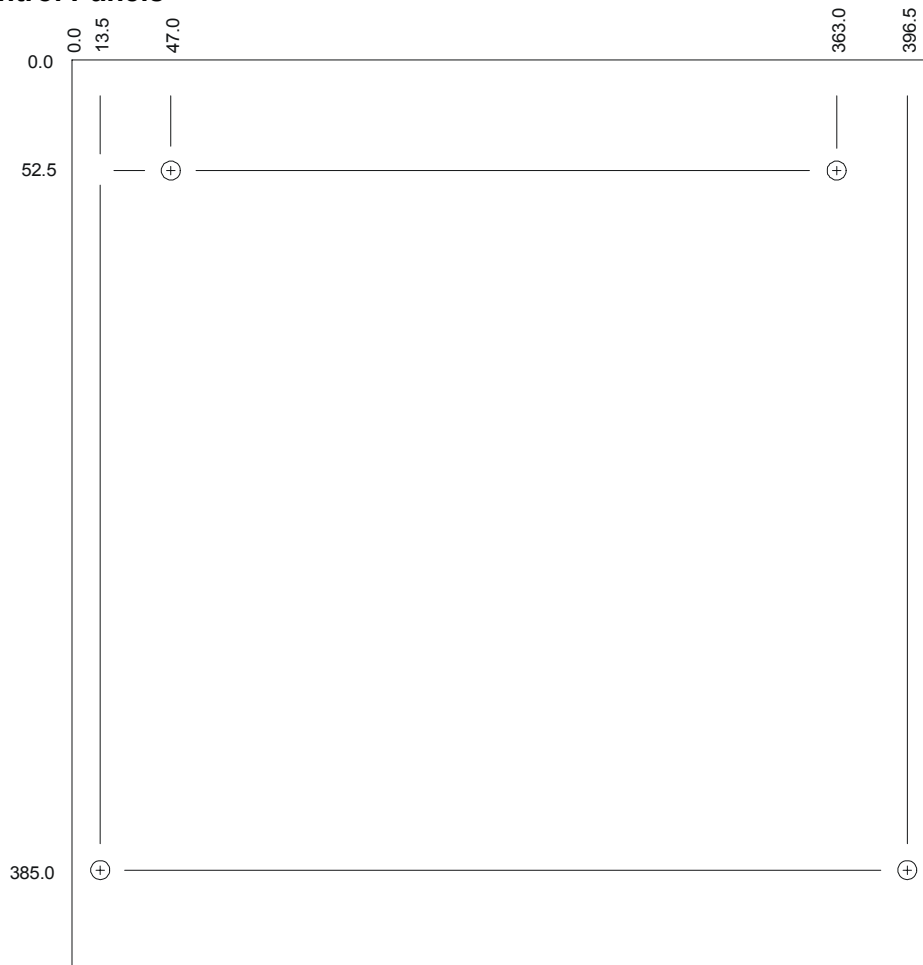
## For the Equipment Installer

***This section assists the system installer to install the equipment, and terminate and test the cabling. It is assumed that all the cable runs have already been installed according to the system designer's specification.***

### **To install this product you will need;**

- Tools for fixing the control panel on, or flush with, a vertical surface
- A small flat-bladed screwdriver
- A large Philips screwdriver for removing/replacing internal screws
- A pair of wire cutters/strippers appropriate for the type of cable used
- Ferules and ferruling tool for dressing the ends of cables (if stranded conductors are used)
- Digital Multimeter for voltage and continuity tests

### **Installing Control Panels**

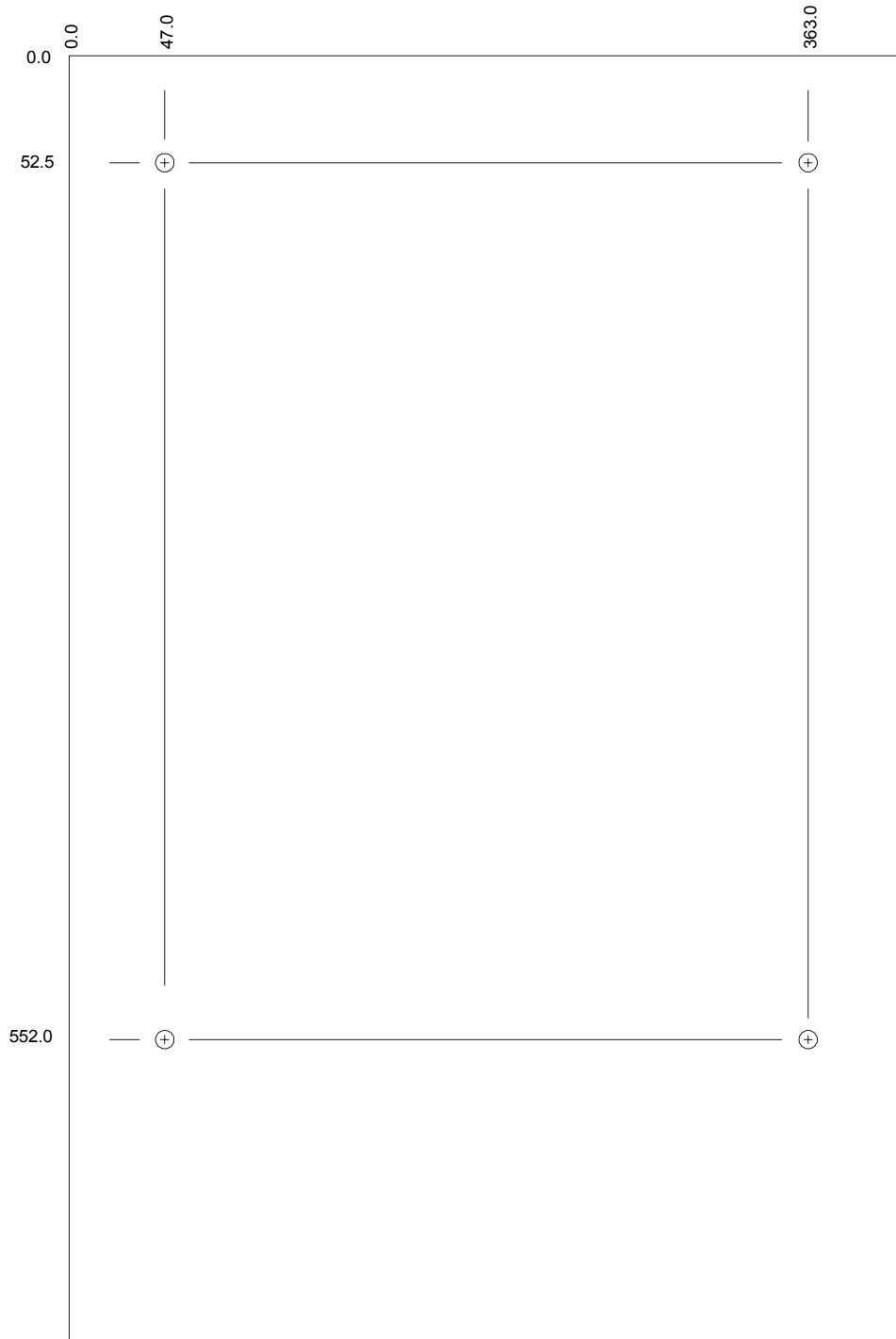
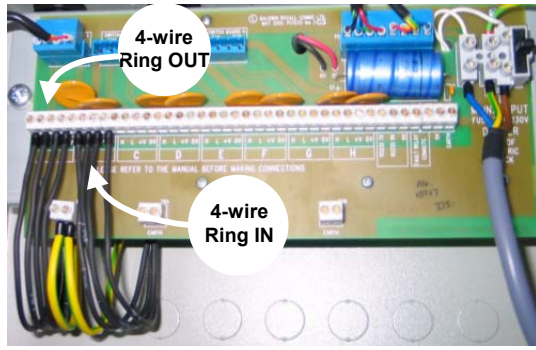


**Diagram Showing Hole Centres For Mounting 64 Way Control Unit  
(128 Way Control Unit shown on next page)**

4. Open the glazed door and remove the M6 screw(s) from the right-hand side of the Control Panel.
5. To allow access to the two top locating holes in the rear of the unit, remove the two M6 locating screws from the upper Termination Panel and drop it down.
6. Fit the FireCare Control Unit to the wall using suitable fixings.  
*Note: The weight of a 64 Way unit with batteries fitted is 26Kg, and a 128 Way unit weighs 37kg.*
7. Ensure all connectors are terminated correctly at the Termination Panel according to the system designer's specifications, and then relocate the upper Termination Panel using the M6 screws. **It is very important that each conductor is correctly identified before being terminated. Incorrect connections can damage this equipment.**

**View of cable terminations to  
Control Unit Termination  
Panel.**

Note: In this example, the ring  
consists of one circuit of remote  
fire telephones.



**Diagram Showing Hole Centres For Mounting 128 Zone Control Unit**



# For the System Commissioner

***This section assists the system commissioner to check the installation, configure the system, and confirm it is functioning correctly.***

**To commission this product you will need;**

- A small flat-bladed screwdriver
- A large Philips screwdriver for removing/replacing internal screws
- Digital Multimeter for voltage and continuity tests

## Check the cabling

Before connecting the Control Panel or Remote Fire Telephone electronics to the cabling, perform the following cabling checks. **It is very important that each conductor is correctly terminated. Incorrect connections can damage this equipment.**

- 1) Ensure that the electronics sub-assembly is not connected at any of the remote fire telephone units.
- 2) On each remote fire telephone unit termination panel there are four jumpers. These should be fitted vertically to link the CANH, CANL, +V and 0V from cable A to cable B.
- 3) Once the jumpers are fitted, and electronics sub-assemblies disconnected, at **all** the remote handsets, you can check the loop cabling from the control panel, by measuring the continuity of each conductor around the loop. You should also check that there are no shorts between conductors or between a conductor and Earth. (The jumpers can also be fitted horizontally to short out some conductors within a cable. This can help you identify cable conductors in case of doubt.)
- 4) **DO NOT CONNECT THE CABLING TO THE CONTROL PANEL(S) UNTIL THE CHECKS IN 3, ABOVE, PASS**

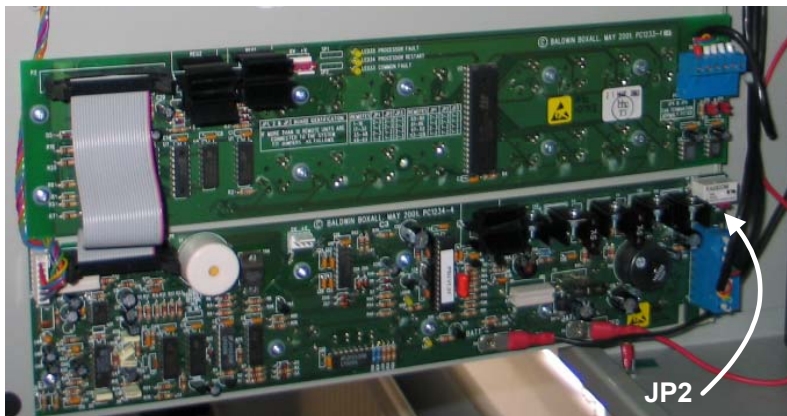
Note: It is still possible for wiring faults to exist even when the check above passes. For example, where conductors from different cables have been swapped (you need to ensure that all the connections to A and all the connections to B come from a single cable circuit), or there may be 'double swaps' where conductors are swapped and then swapped back again later in the circuit.

- 5) When all the tests have passed you **MUST** remove all the jumpers (they can be fitted over 1 pin only), you should then make the connections to the control panel, making sure that they are terminated to the correct points. **It is most important that power is not applied across the data pair or reversed, as this will cause damage to the equipment.**
- 6) You should then fit the remote handset sub-assemblies and carry out the commissioning.

## Commission the System

### 1) Pre-configure the Control Unit(s)

Select the appropriate signaling for the fault relay using JP2, which is located at the top right corner of the power supply board (bottom board). The fault relay can be set for contact closure on fault (NO), or contact opening on fault (NC).



## Commission the System (cont.)

### 2) Install the Remote Fire Telephone electronics sub-assemblies



Connect the electronics sub-assembly to the blue connector block, as shown in the picture on the left.

Ensure the telephone handset cable is connected to the pin header on the circuit board.

Carefully rotate the electronics sub-assembly so that the front face panel is towards you and then locate the bottom tongue in the slot in the rear of the enclosure.

Fix the sub-assembly in place using the two screws at the top of the front panel, as shown in the picture on the right, making sure the cord is held securely in place.



### 3) Configure and Test the System

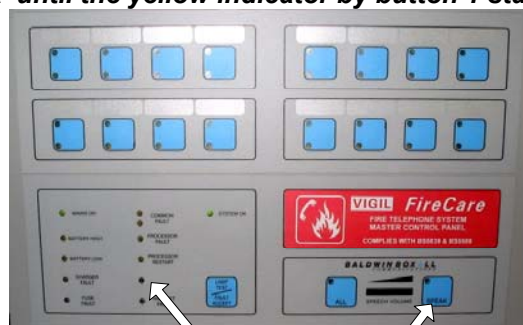
#### Single Master Control Panel System (less than 65-way)

Commissioning must be carried out on a new system or if a remote has been added or replaced.

- 1) We recommend testing **each** ring circuit of Remote Fire Telephones individually, so initially leave all cables disconnected at the Control Panel.
- 2) At the Control Panel connect the first ring circuit, but only connect one end of the ring to connection 'A' ensuring that the unconnected cables are not shorting. (If the B or other connections are made the panel will automatically route data and power to avoid any cable faults, making it much harder to find them).
- 3) If the ring circuit has greater than sixteen Fire Telephones connected to it, then it will also be necessary to connect together the 'B' and 'C' terminals. This will allow the connection of up to thirty-two Fire Telephones. See following table.

Terminals B		Terminals C
CAN H	Connect to -	CAN H
CAN L	Connect to -	CAN L

- 4) Connect mains power to the Control Panel, but do not connect the batteries.
- 5) At the Control Panel, push the 'Speak' button (on the handset or panel) **at the same time** press and release the 'Reset' button (located between the processor restart and handset fault indicators). **Continue to push 'Speak' until the yellow indicator by button 1 starts to flash**, then release it.



Reset

Speak

## Commission the System (cont.)

- 6) Then press and release the **Fault Accept** button to silence the fault buzzer.
- 7) This sequence will cause the master panel to send a special code around the ring. The green indicators should light as power and data reach each Fire Telephone.
- 8) If the total number of illuminated indicator's is the same as the number of Fire Telephones on the ring then there are no wiring faults (except possibly between the last Fire Telephone and the master panel). If fewer indicators light than the number of Fire Telephones on the ring, repeat the process.
- 9) If the point at which the green indicators stop is the same, go to the last 'green' Fire Telephone or walk the ring from the 'A' connection looking at each Fire Telephone **System ok** indicator – see table below.
- 10) **Tip:** *If the indicators light erratically initiate the commissioning code again (Speak and Reset buttons) except press and hold the Reset button for ten seconds before releasing it. **Continue to push 'Speak' until the yellow indicator by button 1 starts to flash**, then release it.*
- 11) Walking around the ring from the 'A' connection:

<b>System ok</b> Indicator is on constantly	Code has been received.
<b>System ok</b> Indicator is flashing	Refer to the 'Description of Remote Handset Controls and Indicators' section
<b>System ok</b> Indicator is not lit	There is no power.

- 12) When the total number of illuminated indicators is the same as the number of Fire Telephones on the ring. Remove the mains power and connect the other end of the ring circuit to the 'B' connector (or to the 'D' connector if B and C have been linked out), then reconnect the mains power.
- 13) At the Control Panel, push the 'Speak' button (on the handset or panel) **at the same time** press and release the 'Reset' button (located between the processor restart and handset fault indicators). **Continue to push 'Speak' until the yellow indicator by button 1 starts to flash**, then release it. Press and release the **Fault Accept** button to silence the fault buzzer.
- 14) During commissioning a special code is sent round the ring, this code assigns a number to each handset in turn. The first handset on the ring after the 'A' connection is number 1, the next number 2 etc.
- 15) As each Fire Telephone acknowledges this code, the green indicator for the unit at the Control Panel will illuminate. So as the message travels around the ring the green indicator lights will show the progression. If there is a problem, the point at which the lights stop will indicate where the fault lies (see **System ok** table, above).
- 16) Once the code has made its way round the ring the flashing indicator by button 1 will go out. When this happens take the handset off the hook and then replace it. This will cause the green indicators to go out once the initialisation process is complete.
- 17) For a single ring system, remove the mains power, connect the batteries and then reconnect the mains power. Go to each Fire Telephone in turn, check that it's indicator is pulsing before making a call to the control panel to confirm correct operation and the Fire Telephones number. If the remote handset has a beacon, ensure that it operates when the Fire Telephone is called from the Control Panel.
- 18) For a multiple ring system, remove the mains power and disconnect the first ring circuit from the 'A' and 'B' terminals, connect one end of the next ring to the 'A' terminals. Carry out both sections of the Commissioning again, with cables at 'A' terminals only, and then at 'A' and 'B'.
- 19) When all the individual cable rings have been checked, remove the mains power and connect the ring circuits in their final configuration (refer to page 3 – Cabling Design).
- 20) Initiate the commissioning code again (Speak and Reset buttons) and check that all the Fire Telephones register on the Control Panel.
- 21) Remove the mains power, connect the batteries and then reconnect the mains power. Go to each Fire Telephone in turn, check that it's indicator is pulsing before making a call to the control panel to confirm correct operation and the Fire Telephones number. If the Fire Telephone has a beacon, ensure that it operates when the remote handset is called.

## Commission the System (cont.)

### Master and Slave(s) Control Panel System

Commissioning must be carried out on a new system or if a remote has been added or replaced.

- 1) If the Slave Control Panel(s) have Fire Telephone ring circuits wired directly to them, then these circuits should be individually tested as described in the previous section.
- 2) With all ring circuits individually and collectively tested at their associated Master and Slave(s) connect the ring circuits in their final configuration (refer to page 3 – **Cabling Design and Installation Recommendations**).
- 3) Check/set the configuration of the system (page 17 - **Configure the Control Panel Button Boards**).
- 4) Connect the batteries to the Master and Slave panels, then connect the mains supply at the Slave Control Panel(s). Then press and release the Reset button on the Slave Panel(s), the panel(s) should show no faults.
- 5) Connect the mains power at the master panel, and initiate the commissioning code again (Speak and Reset buttons). This time once all the green indicators are lit the flashing indicator by button one should go out. Lift the handset, then replace it, this will cause the green indicators to go out once the initialisation process is complete. The system will then behave as though it had been reset. (See **System Reset**).
- 6) If the green indicators stop at the location of a slave panel, check the wiring at that panel and reset it, then return to the master and initiate the commissioning code again.
- 7) Go to each Fire Telephone in turn, check that its indicator is pulsing before making a call to the control panel to confirm correct operation and the handset's number. If the Fire Telephone has a beacon, ensure that it operates when the remote handset is called.

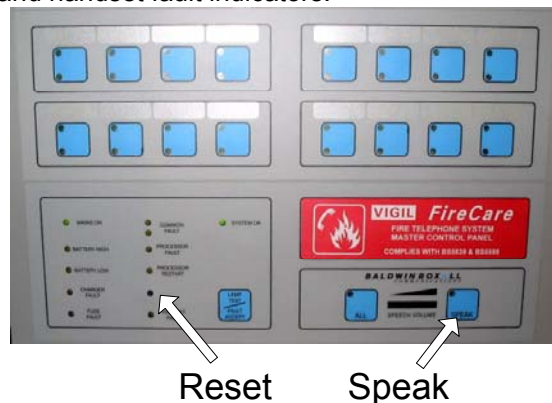
### Master Control Panel System (65 to 128 way)

Systems with greater than 64 Fire Telephones will be fitted with two termination cards, these are described as the 'upper' and 'lower' termination cards (page 3 – **Cabling Design and Installation Recommendations**)

The first (number one) Fire Telephone is connected to the 'A' terminals of the 'upper' termination card.

### System Reset

During Commissioning or following total loss of power the system will need to be reset. The Reset button is between the processor restart and handset fault indicators.



Reset Speak

When it is pressed power is removed from all the Fire Telephones, however if there are other panels on the system they will continue to provide power to the Fire Telephones.

When it is released power is restored to the Fire Telephones and the panel will indicate that it is busy by flashing the central yellow indicators. After about 10 seconds a system configuration will take place following which the system will be ready for use.

### System Configuration

This takes place following a power up or system reset. It is an automatic process that sets how the panel(s) and Fire Telephones communicate with each other. The process takes about two seconds and while it is being done the panel indicates that it is busy by flashing the central yellow indicators. The system is also configured following the detection or removal of certain types of fault.

## Commission the System (cont.)

### 4) Configure the Control Panel Button Boards (if not already factory-configured)

The master panel has one button for each remote handset on the system. Slave panel(s) only need buttons for the handsets that they operate. The panels can be fitted with up to 8 'button boards'. Each of these boards has 16 buttons and serves 16 remote telephones, making a maximum of 128 per Control Panel. Each of the 'button boards' needs to be set up for the range of handsets that it will operate. This is done by a combination of jumpers on the board and by programming. The jumpers set the range to the nearest 16 then an offset and range are programmed. The jumpers (JP1, JP2 & JP3) set the base address as below.

Base Address	JP1	JP2	JP3
1	2-3	2-3	2-3
17	1-2	2-3	2-3
33	2-3	1-2	2-3
49	1-2	1-2	2-3
65	2-3	2-3	1-2
81	1-2	2-3	1-2
97	2-3	1-2	1-2
113	1-2	1-2	1-2

Each panel **must** define one of the 'button boards' as a master. This is normally the board with the lowest base address. The master is defined at the same time as the offset and range as follows.

To enter the panel set-up mode, press and hold the **All** button then press and release reset (located between the 'Processor Restart' and 'Handset Fault' indicators on the front panel). When the indicators on the button boards start to flash release the **All** button. If the beeper sounds press and release the **Fault Accept** button.

A green indicator on the button board shows the offset and a yellow indicator the range. The master button board flashes its indicators twice as fast as the others. The offset is 0 to 15 and the range 1 to 16. To change the settings – the first button push sets the offset, the next sets the range and the next toggles between master and normal. The sequence then repeats. Once all of the boards have been set as required reset the panel by pressing and releasing the reset switch.

#### *Example A: 1 x Master Panel*

This must have a button for each remote handset. Set the top 'button board' to base address 1, the next one down base address 17, etc. Set the offset of each board to 0 (green indicator flashing by top left button), the range to 16 (yellow indicator flashing by bottom right button) and the top board as master (flashing faster than the others).

#### *Example B: 2 x Slave Panel with two 'button boards' operating remote handsets 8 to 18 and 41 to 54*

Set the top board to base address 1 and the lower board to base address 33. Set the offset of the top board to 7 (green indicator by the right most button of the first row flashing) and the range of the top board to 11 (yellow indicator flashing by the third button from the left on the second row) and set the top board to be master (flashing faster than the other board). Set the offset of the lower board to 8 (left most second row), the range to 14 (three from the right on the second row) and not master (flashing slowly)

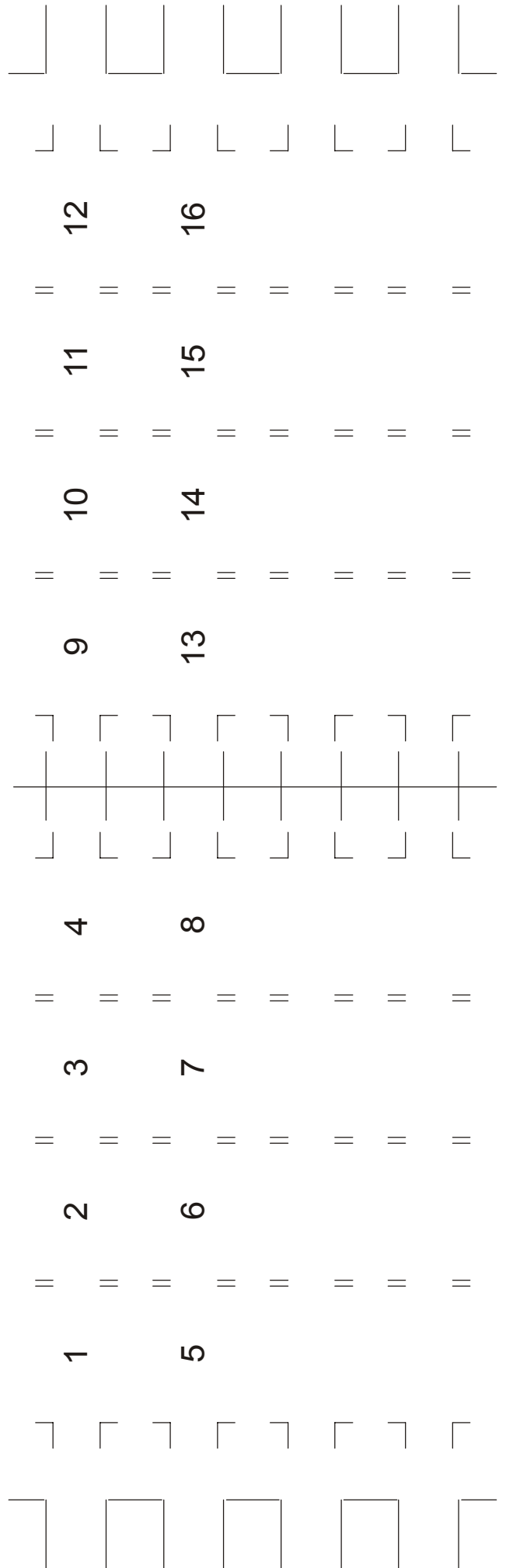
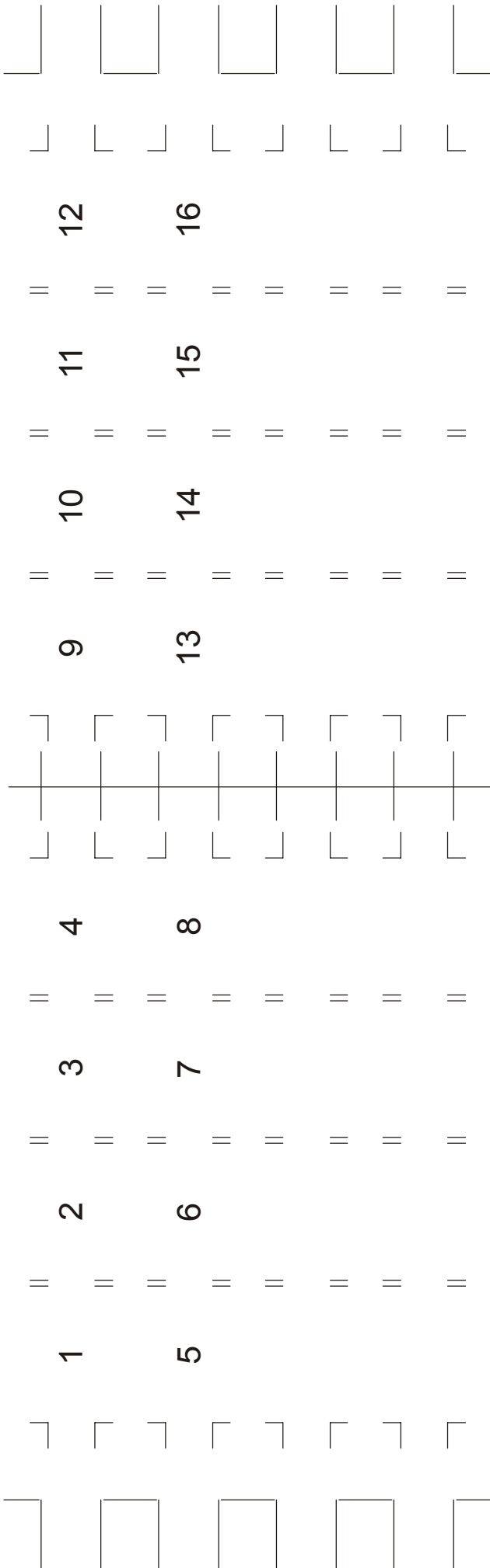
### How to Use the Zone Insert Labels

A template is provided on the next page for labelling the Control Panel buttons. The template gives a choice of pre-printed numbers or blank spaces for installation-specific labelling.

The Zone Insert Template is also available to download as a Word<sup>®</sup> file from [www.baldwinboxall.co.uk](http://www.baldwinboxall.co.uk)

The template should be cut into strips for insertion behind the Control Panel button overlay, as shown in the picture at the end of this section.

BDM308/316 INSERT TEMPLATE



### How to Use the Zone Insert Labels (cont.)

Slide the strips cut from the Zone Insert template under the membrane at the positions shown in the picture. They can be inserted from either side.



Note: Zone Insert Template is also available to download as a Word® file from [www.baldwinboxall.co.uk](http://www.baldwinboxall.co.uk)

## For the System Maintainer

*This section assists the system maintainer to perform preventive maintenance, identify faults, and expand the system.*

### Preventive Maintenance

At least once a week, perform a functional test at each Remote Fire Telephone and confirm it can make and receive calls with the Master and Slave Control Panels.

At least once a month, check the 'Battery High', 'Battery Low', and 'Charger' indicators on the Master and Slave Control Panels. If any of them are illuminated, replace the batteries. If the indicators are still illuminated, contact your supplier for advice and service. Note: A fault will sound the beeper, unless silenced.

### Remote Handset Fault Identification

If the yellow indicator by a handset button is flashing (except for busy indication, see System Reset, above) then there is a fault with that unit or the cabling to it. If the fault is cabling it is normal for two adjacent handsets to indicate a fault, as they are each connected to one end of the same cable. You can identify the type of fault as follows

- 1) Ensure that the Master and Slave Panel's handsets are on-hook.
- 2) Press and hold the **Speak** button. If the fault indicator goes out then the handset has a data fault. This is almost certain to be a cable fault.
- 3) Press and hold the **All** button. If the fault indicator goes out then the handset has a Power fault. This is also likely to be a cable problem.
- 4) Press and hold both the **Speak** and **All** buttons. If the fault indicator goes out then the handset has a handset fault. It is most likely that the curly cable leading to the handset has been damaged.
- 5) If the fault indicator has not gone out in any of the above it may be a combination of faults. See if the flashing changes when you press the buttons. If it does then the described fault is one of those at the handset.

### Description of Remote Handset Controls and Indicators

**Volume:** Set as required (normally about half way)

**Handset indicator:** The 'System OK' indicator on each of the remote handset units shows the status of the unit.

During normal operation two 'monitoring messages' are sent around the loop. One originating from connection 'A' causes the handset units to turn their indicators on, ¼ second later the second message is sent originating from connection 'B', this message causes the units to turn their indicators off. This means that on a system with no cable faults the indicator on each of the remote handsets will flash once every 1.5 seconds. However if the cable is damaged, units up to the break (starting from connection 'A') will have their indicators on and those after the break will have their indicators off, since they will either only receive on or off messages.

If a handset has not received any data since power was applied it will flash its indicator fast (about once a second with equal on and off times)

If a handset has received data since power was applied but has not received any data for 5 seconds or longer (this should never happen in a working system) then it will flash its indicator slowly (about once every 14 seconds with equal on and off times)

During commissioning the indicator shows the progression of the initialisation process as described in the commissioning section.

### Expanding the System

The FireCare system can be expanded to increase the number of Remote Fire Telephones, add Slave Control Panels for larger or more complex systems, and add repeaters where inter-telephone distances are greater than 200m.

Please contact our Technical Sales team on +44(0)1892 664422 for free advice and assistance.

## Control Panel Indicators and Controls

'System OK' LED	Illuminates when no faults are detected.
'Common Fault' LED	Will flash and a beeper will sound when a Fault is detected until "Fault Accept" is pressed. After a fault is accepted the beeper is silenced and the LED remains illuminated until the fault is cleared.
'Processor Fault' LED	Will illuminate when a critical Processor fault has occurred.
'Processor Restart' LED	Will illuminate when the reset switch needs to be pressed.
'Handset Fault' LED	Will illuminate when a fault is detected with the Handset <u>or</u> if it has remained off the hook for more than 45 Minutes
'Mains On' LED	Mains Healthy.
'Battery High' LED	Will illuminate when Batteries are overcharged.
'Battery Low' LED	Will illuminate when the Battery voltage is low.
'Charger fault' LED	Will illuminate if the batteries are unable to hold their charge <u>or</u> if they are not fully charged after 24 Hours charging. Reset must be pressed to clear a charger fault.
'Fuse Fault' LED	Will illuminate when any internal DC fuse fails.
Speech Volume LED's	Will indicate speech level
Remote Handset Fault LED	Will flash yellow to indicate a fault with a remote handset.
Remote Handset LED	Will flash when calling or being called by a remote handset. ON continuously during a conversation
'Reset'	Recessed switch that enables the Processors to be reset
'Fault Accept'	Press to accept a fault once detected.
'Lamp Test'	Press to check front panel indicators and buzzer operation.
All	Press to make an announcement from all the handsets
Speak	Press to make an announcement from all selected handsets when released you will listen to the selected handsets even if they are on the hook

**Manufacturer**

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In the interest of continual product development, Baldwin Boxall Communications Ltd. reserves the right to make changes to product specification without notice or liability.

Information contained in this document is believed to be accurate, however no representation or warranty is given and Baldwin Boxall Communications Ltd. assumes no liability with respect to the accuracy of such information. Use of Baldwin Boxall Communications Ltd. products as critical components in life support systems is not authorised except with express written approval from Baldwin Boxall Communications Ltd.

**Product Description**

VIGIL FireCare is a sophisticated emergency fire telephone system, which has been developed in accordance with BS5588 part 11 and BS5839 part 9. The system is a fully monitored and battery-backed communication network, which enables fire officers/building management to report the status of any emergency within a building quickly and efficiently to the main central control room. This ensures that the occupants are evacuated with ease and less panic. The whole system is simple to operate, install, and works independently of any other emergency fire system within a building.

The system has two main components: the Main Control Panel and the Remote Fire Telephones. The Main Control Panel is available in eight options: 16, 32, 48, 64, 80, 96, 112 or 128 way. The panel is normally wall mounted within a permanently manned main Control Room. There are four versions of telephone handset units available, (lockable, non-lockable, with or without an alerting beacon), designed for wall mounting in areas of risk such as stairwells, corridors and 'gathering' areas.

Slave Control Panels can be added to the system for control of local zones of telephones (e.g. in a stairwell), and repeater units are available to extend the cabling distance between the remote fire telephones.

**Safety and Precautions****ELECTRICAL SAFETY**

Always replace blown fuses with the correct type and rating. Ensure power supply cabling is adequately rated. Ensure equipment is effectively earthed (grounded).

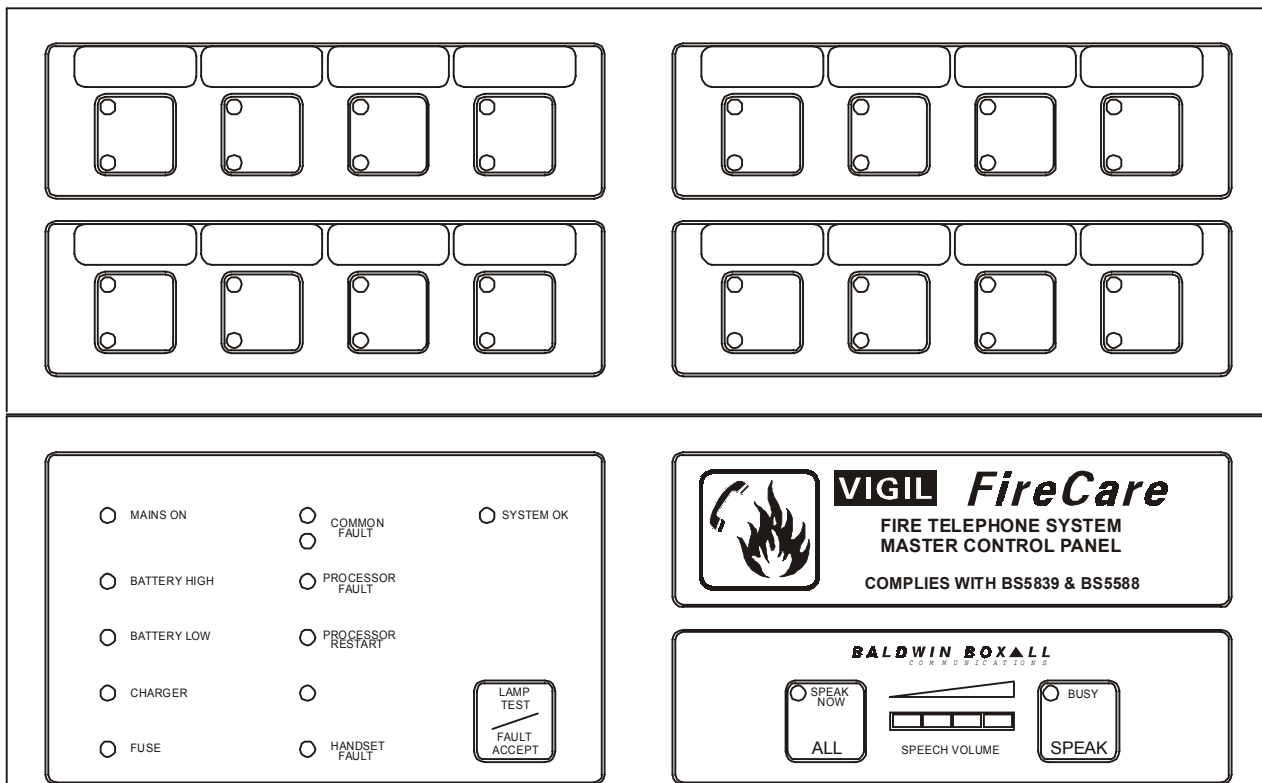
**ENVIRONMENTAL PRECAUTIONS**

Always ensure adequate ventilation is provided for the equipment and do not obstruct ventilation holes. The temperature and humidity ranges shown in the specifications for this product must not be exceeded. This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or that may allow water or other liquids to come into contact with the unit or its external connections. In the close proximity of some radio frequency transmitters, the signal to noise ratio of this product may be reduced. If this occurs, re-location of the equipment or the signal cables is recommended.

**ESD PRECAUTIONS**

This product contains static-sensitive devices. Observe ESD precautions when working on the equipment with the cover removed.

## Operating Instructions for Master and Slave Control Panels



If there is more than one control panel on the system, it is recommended that only one panel be used at a time to prevent confusion.

**To call a remote handset:** Lift the handset and press the button for the remote handset you wish to call. The green indicator will flash and a ringing tone will be heard. When the call is answered the indicator will light continuously.

**To make an announcement to selected remote handset(s):** First, select the remote handset(s) that you wish to speak to by calling it / them (see above). Then press and hold the button on the handset base, or 'SPEAK' on the control panel, while making the announcement. When the button is released you will be able to listen to the sounds in the area of the handset(s).

**To make an announcement to all the remote handsets:** Lift the handset, press and hold 'ALL' on the control panel while making the announcement. All remote handsets will be cancelled when 'ALL' is released.

**Incoming call:** When a remote handset calls the control panel, the associated green indicator will flash. If the Control Panel handset is on the hook, it will ring. Lift the handset to answer the call. The indicator will light continuously showing the remote handset is in use.

**To end a call:** Release any buttons and replace the handset in its cradle.

**Lamp Test:** Press 'LAMP TEST'. All the indicators should illuminate and the buzzer should sound. Report any indicator or buzzer failure to your maintenance staff.

**Fault Accept:** Press to mute the buzzer when a fault has been detected. Report any faults to your maintenance staff.

## Operating Instructions for Remote Fire Telephones



**To make a call:** Open the door and lift the handset. A ringing tone will be heard in the earpiece until the control operator answers the call and normal conversation can take place. At the end of the conversation, replace the handset.

**Incoming call:** When the control panel calls a remote handset, a ringing tone will be heard. If a strobe is fitted, it will flash. Open the door and lift the handset to answer the call. Replace the handset to end the call.

**Call termination:** If the control operator ends the call by hanging up or clearing the call, a continuous tone will be heard in the handset earpiece.

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