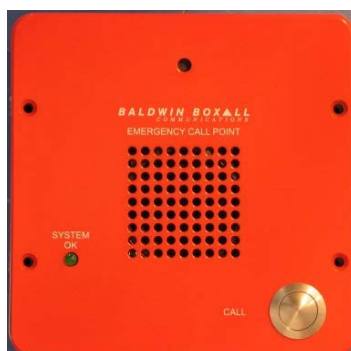


## Product Manual

### Product Description

VIGIL AssureCare is a sophisticated emergency call-point system, which has been developed in accordance with BS5839 part 9 and BS5588. The system is a fully monitored and battery-backed communication network, and has capabilities to function as a Disabled Refuge System, Emergency Help Point System or a simple Call Point System.

The system has two main components: the Main Control Panel and the Call Point Remote Units. 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 two versions of Call Point Remote Units available (red or in stainless steel), which are wall-mounted in areas of risk, such as stairwells, corridors and 'gathering' areas.



In an emergency situation, personnel can press the Call button on a Call Point Remote Unit to call and speak with a Fire Officer or Building Manager. The Fire Officer or Building Manager uses a press to talk telephone handset at their dedicated Control Panel(s) to control the half-duplex communication with Call Points on an 'all-call' or individual basis to relay instructions or to provide reassurance.

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

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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 - BVCP 16, 32, 48, 64, 80, 96, 112, 128

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

### Call Point Remote Units – BVRRCALR (red), BVRRCALS (stainless steel)

Indicators	System healthy (OK)
Control	Call button
Power supply	12 – 40V Dc
Current consumption	30mA @ 35V typical
Dimensions (W x H x D)	133mm x 134mm x 64mm Bezel dimensions: 154mm x 154mm. 10mm radius Bezel cut out dimensions: 136mm x 136mm. 10mm radius
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.*

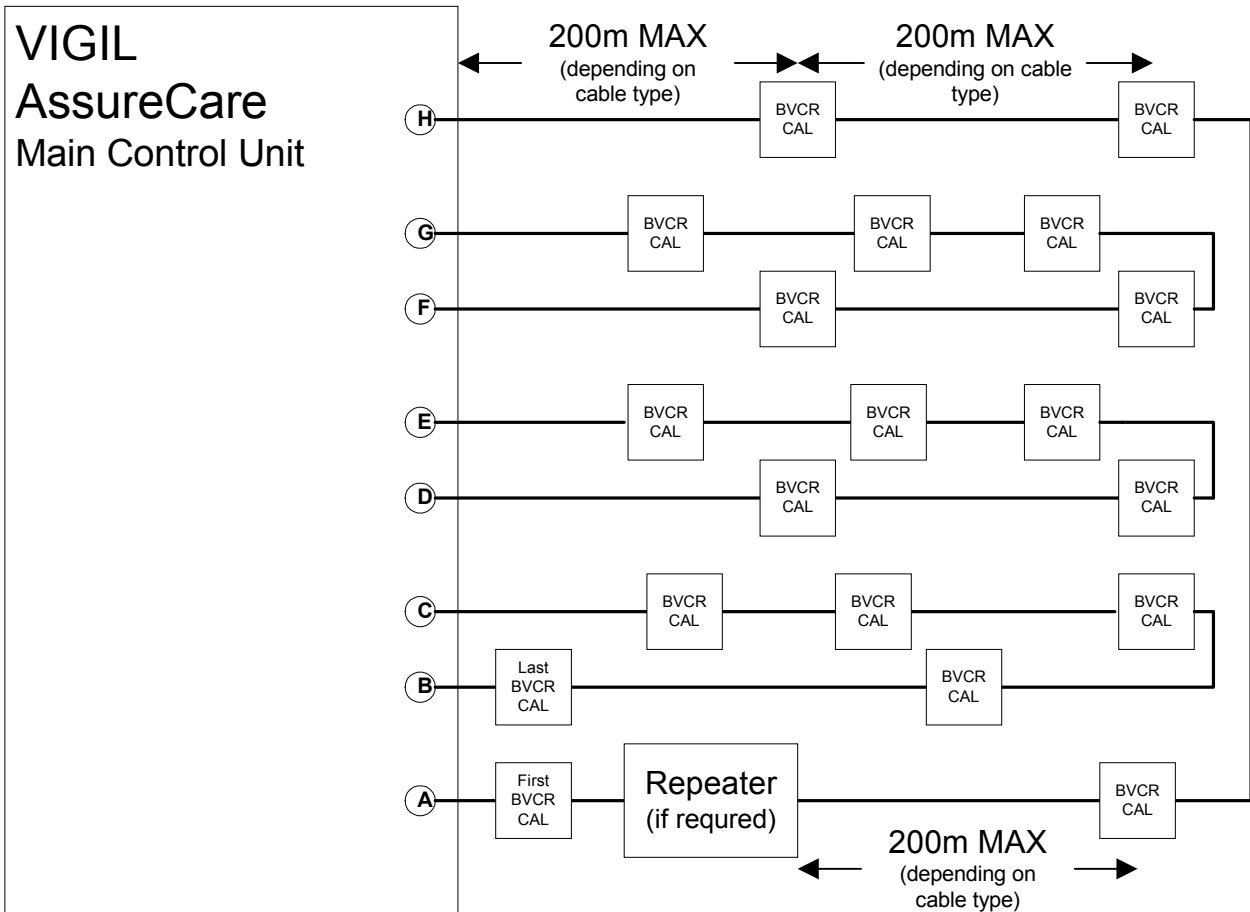
VIGIL AssureCare utilises a 4-wire plus screen ring circuit to allow continued operation in the event of a cable break. There are typically 20-25 Call Point Remote Units on each circuit (section) of the ring. The maximum length of cable between adjacent Call Point Remote Units, and between the Control Panel and the first and last Call Point Remote Units, 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.

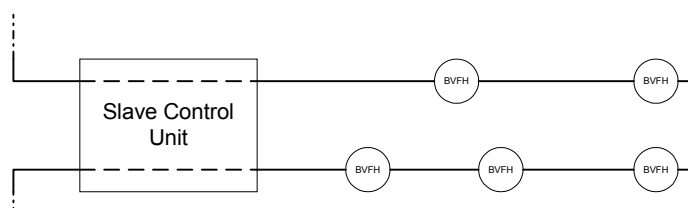
Where a greater cable length is required a repeater unit can be installed to extend the cabling a further 200m.

For systems with larger numbers of Call Point Remote Units, multiple circuits (ring sections) 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. Call Point Remote Units 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 Call Point Remote Units it controls. A master has a button for every Call Point Remote Unit on the system.

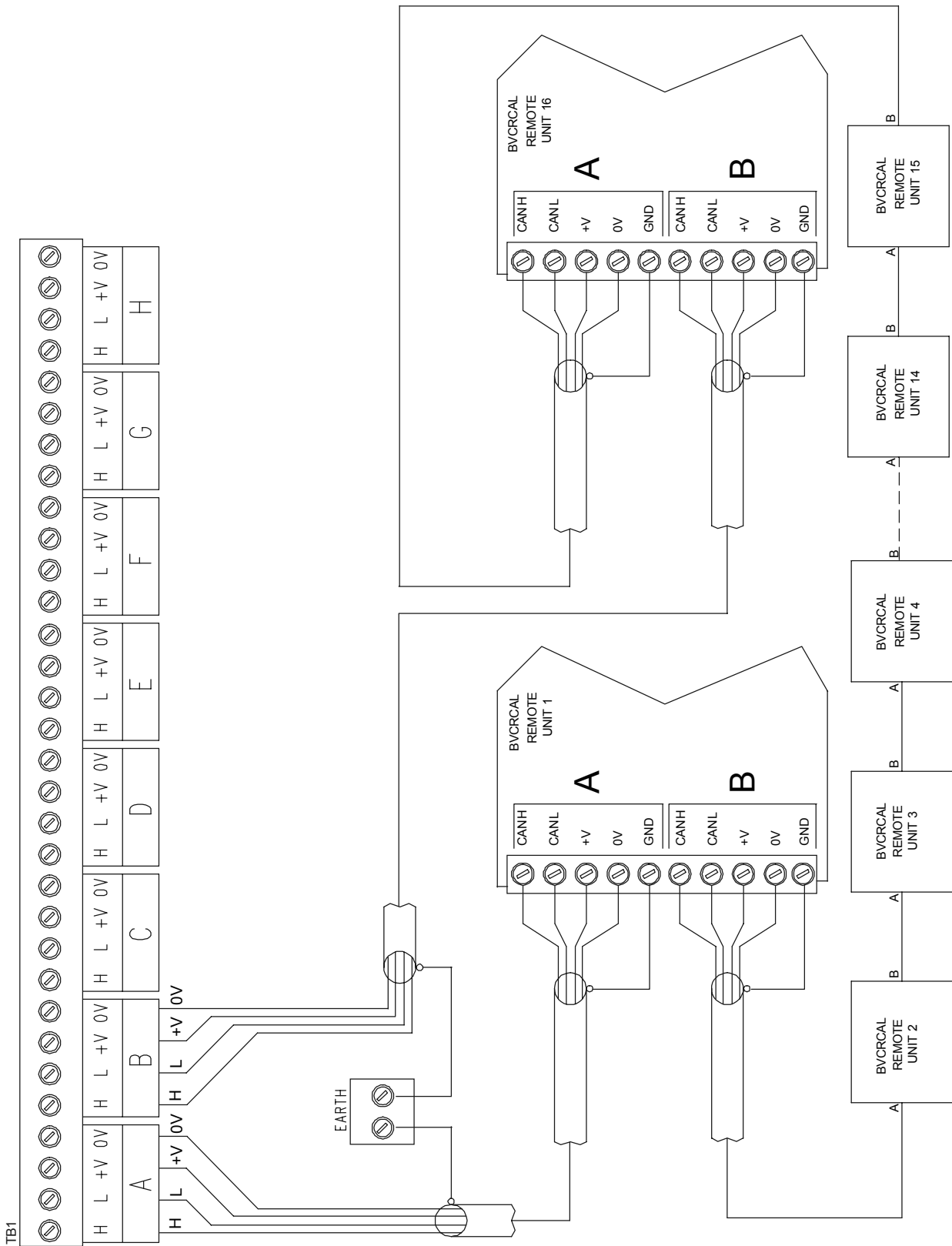


## Cabling Design and Installation Recommendations (cont.)

### Configuration Example 1: 16 Call Point Remote Units

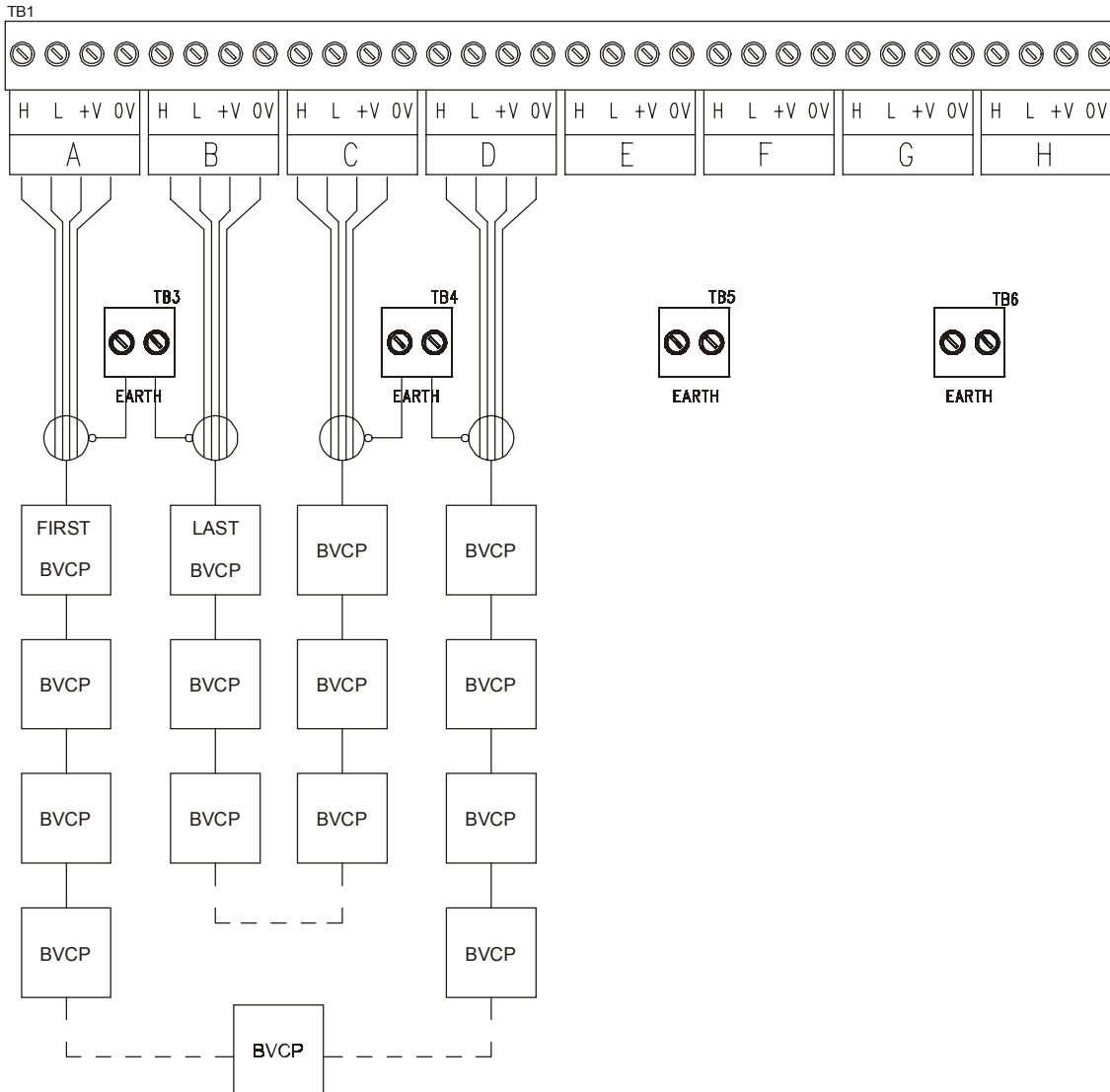
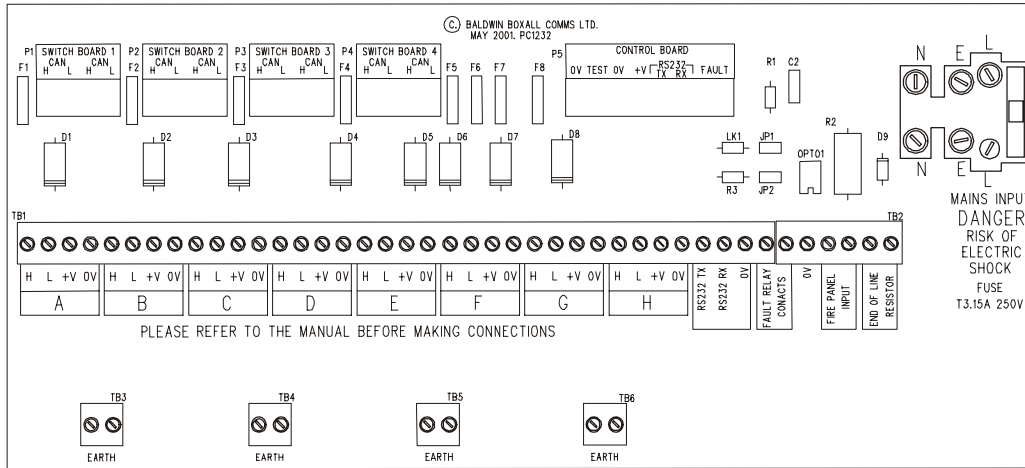
This diagram shows an example configuration of 16 Call Point Remote Units (typically 20-25) connected to a Control Panel using one ring circuit.

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



# Cabling Design and Installation Recommendations (cont.)

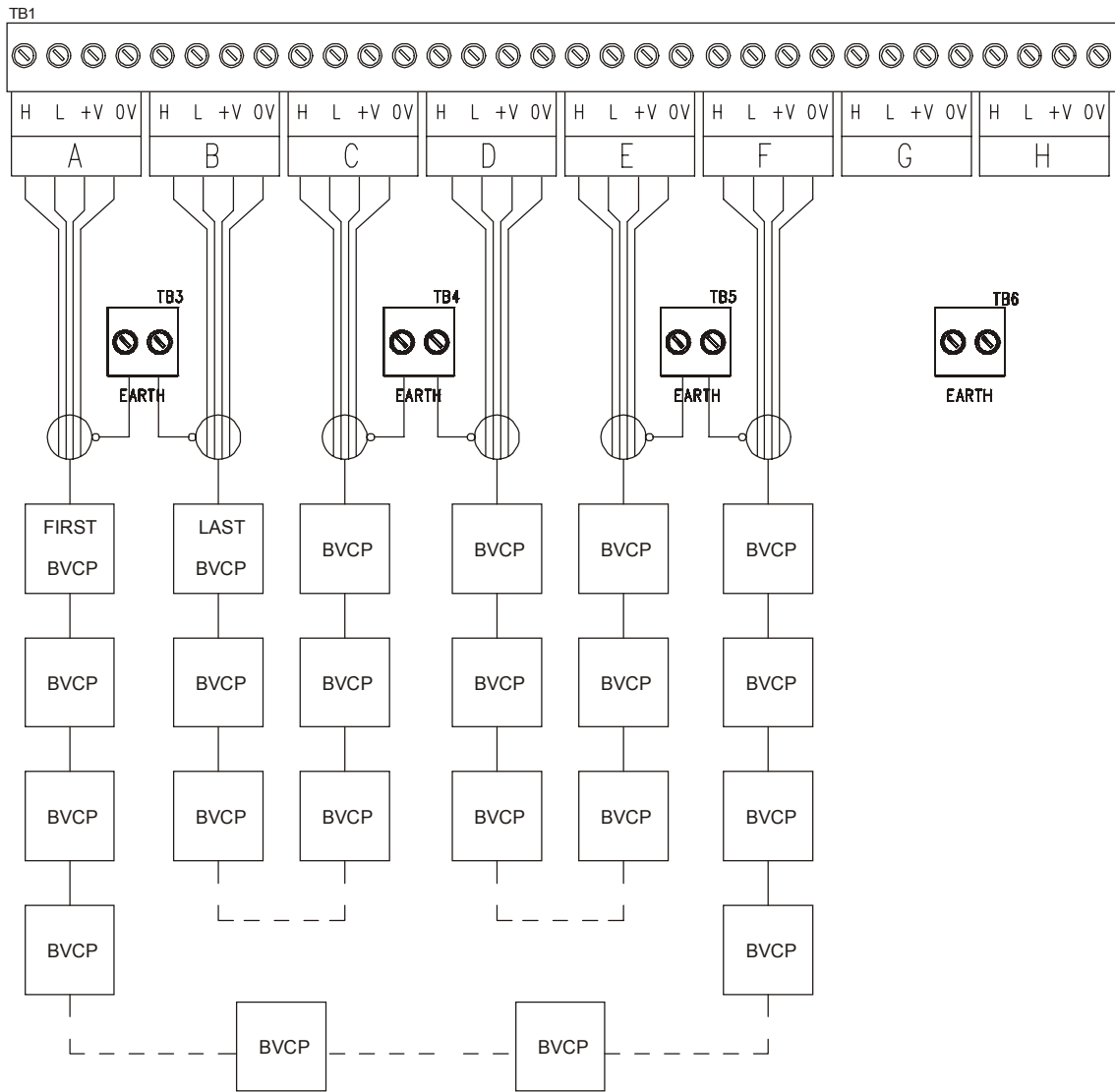
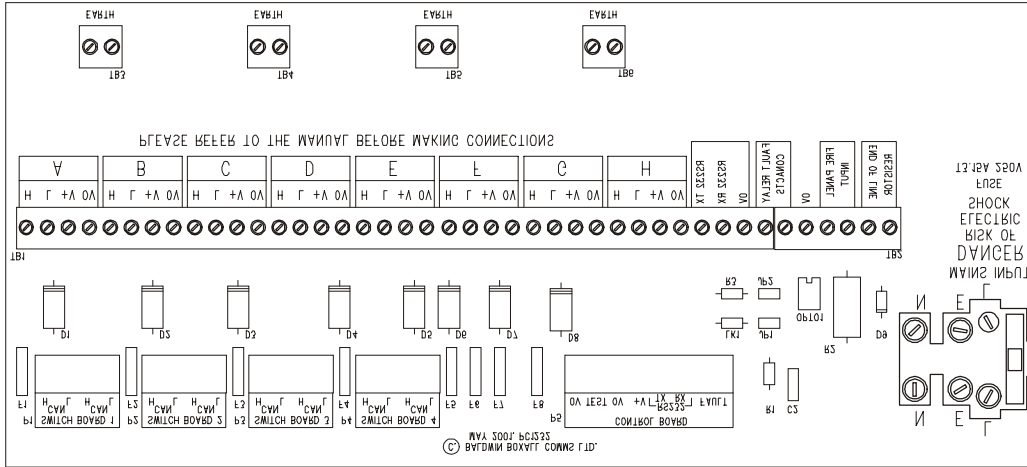
## Configuration Example 2:



# Cabling Design and Installation Recommendations (cont.)

## Configuration Example 3:

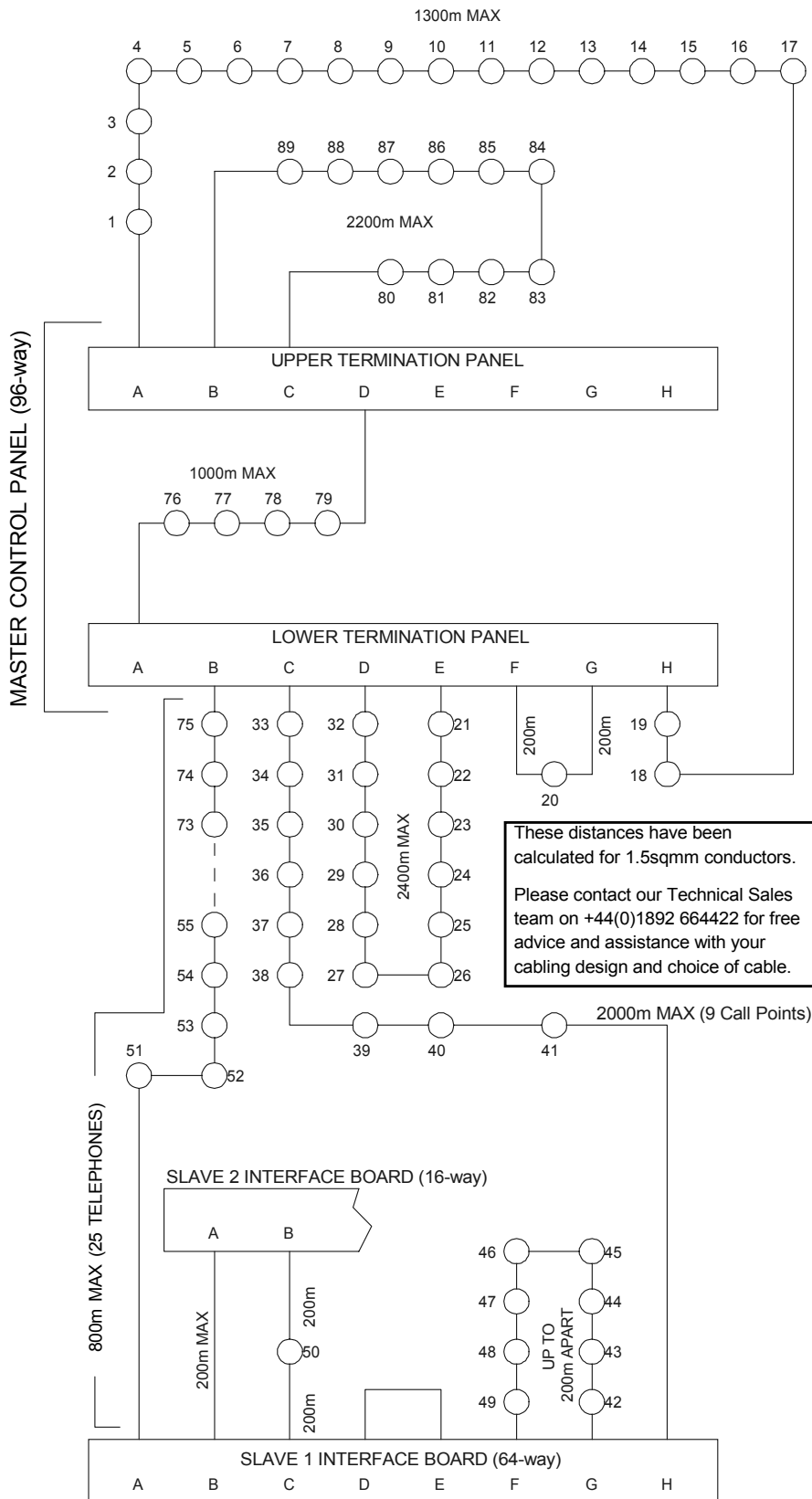
### Typical Connection Diagram Up To 48 Units





# 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 Call Point Remote Units on a ring consisting of 10 wiring circuits.

The Call Point Remote Units 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).

These distances have been calculated for 1.5sqmm conductors. Please contact our Technical Sales team on +44(0)1892 664422 for free advice and assistance with your cabling design and choice of cable.

## 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 Call Point Remote Units 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 Call Point Remote Unit 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 Call Point Remote Units that are sequentially connected on a circuit.

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

Call Point Remote Unit	Button	Call Point Remote Unit	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 5 (on the previous page). The 89 Call Point Remote Units might be related to the Master Control Panel buttons as follows: -

Button Panel 1		Button Panel 2		Button Panel 3		Button Panel 4	
Call Point Remote Unit	Button	Call Point Remote Unit	Button	Call Point Remote Unit	Button	Call Point Remote Unit	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 Call Point Remote Units can be modified (for example, where the positions of buttons on the panel are to more closely mimic the real physical positions of the Call Point Remote Units). This requires re-configuring of the Control Panel button boards (as described in part 3 of 'Commission The System').

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

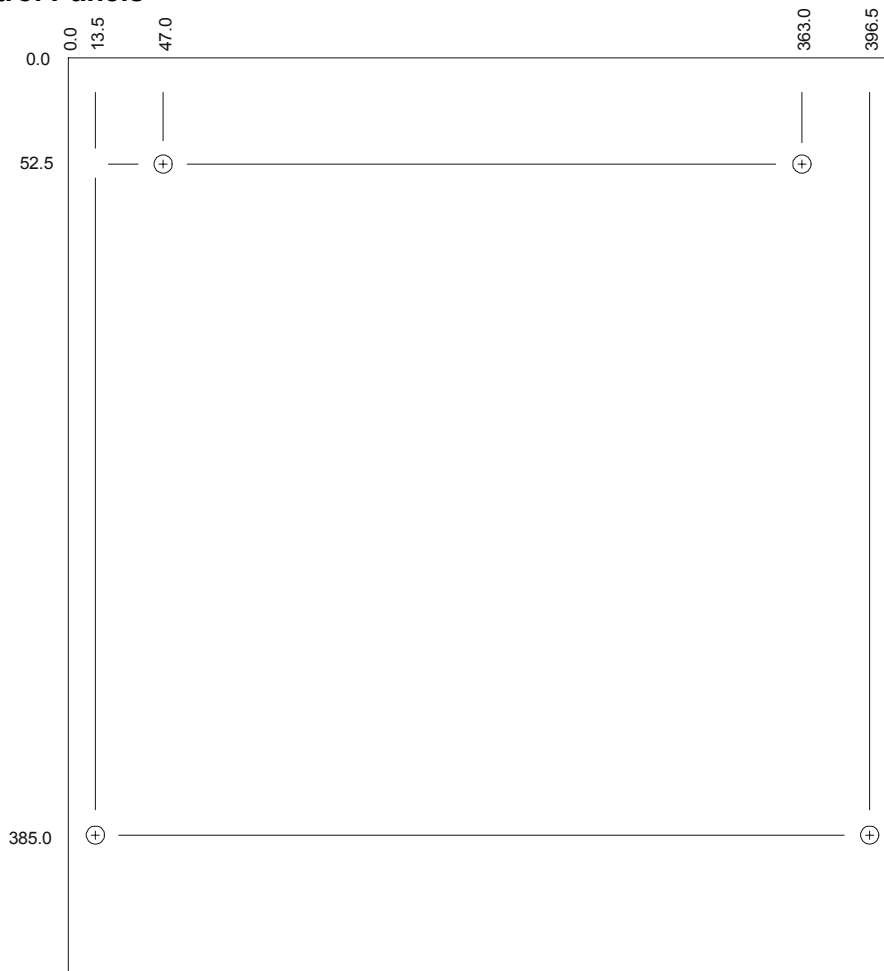
## For the Equipment Installer

***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**



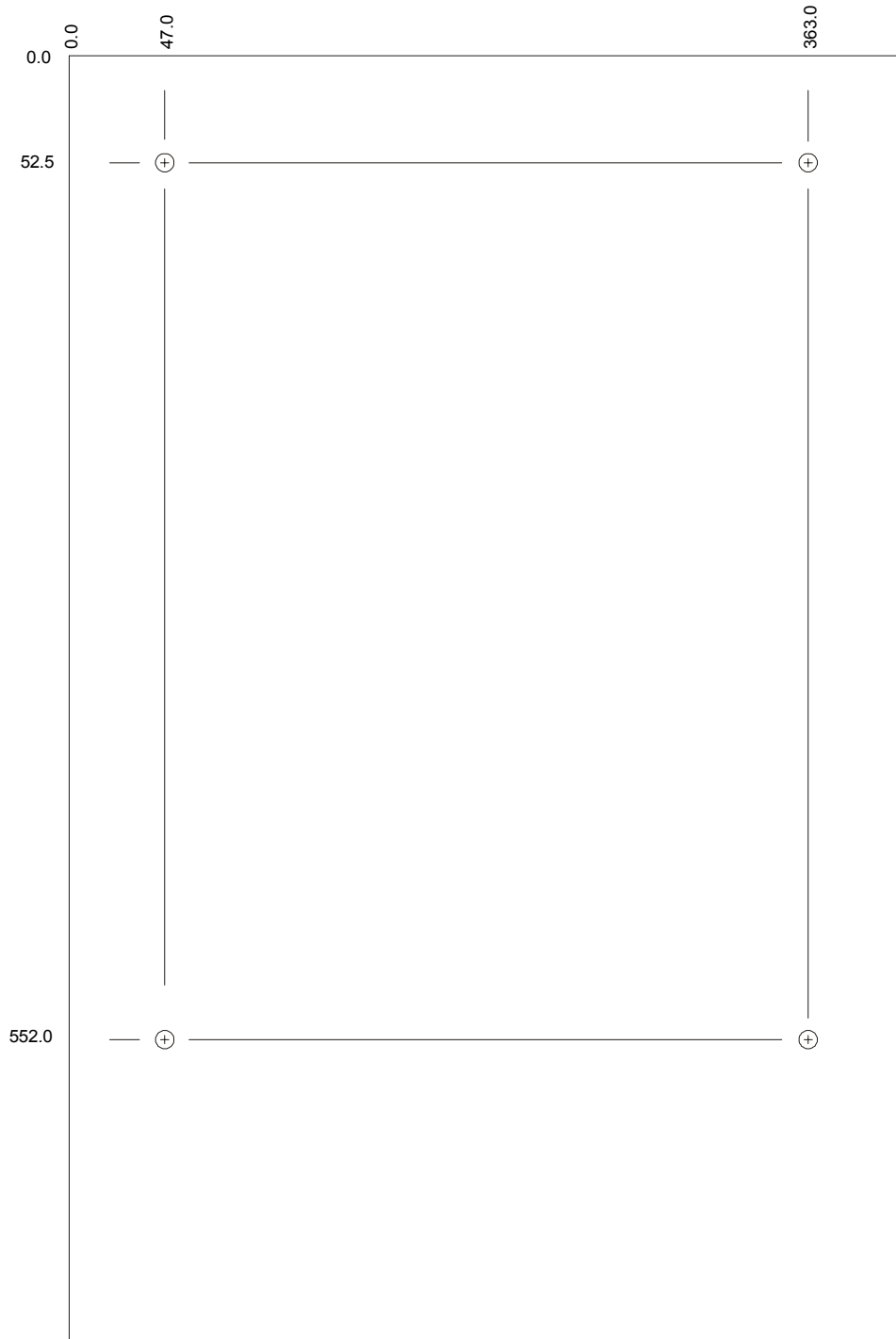
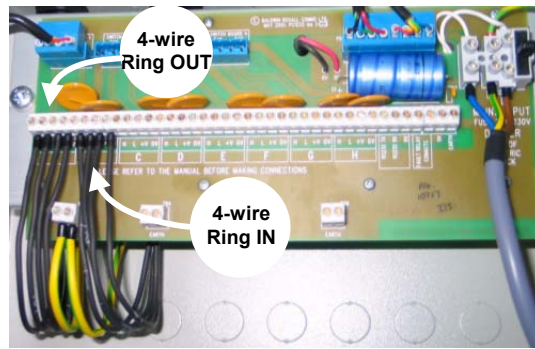
**Diagram Showing Hole Centres For Mounting 64 Way Control Unit  
(128 Way Control Unit shown on next page)**

1. Open the glazed door and remove the M6 screw(s) from the right-hand side of the Control Panel.
2. 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.
3. Fit the AssureCare 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.*
4. 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 Call  
Point Remote Units.

**Note: All data cables must be routed only  
through the left-hand cut-outs of the cabinet.**



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

## Check the cabling

Before connecting the Control Panel or Remote Unit electronics to the cabling, check all cabling for correct phasing absence of shorts, etc.

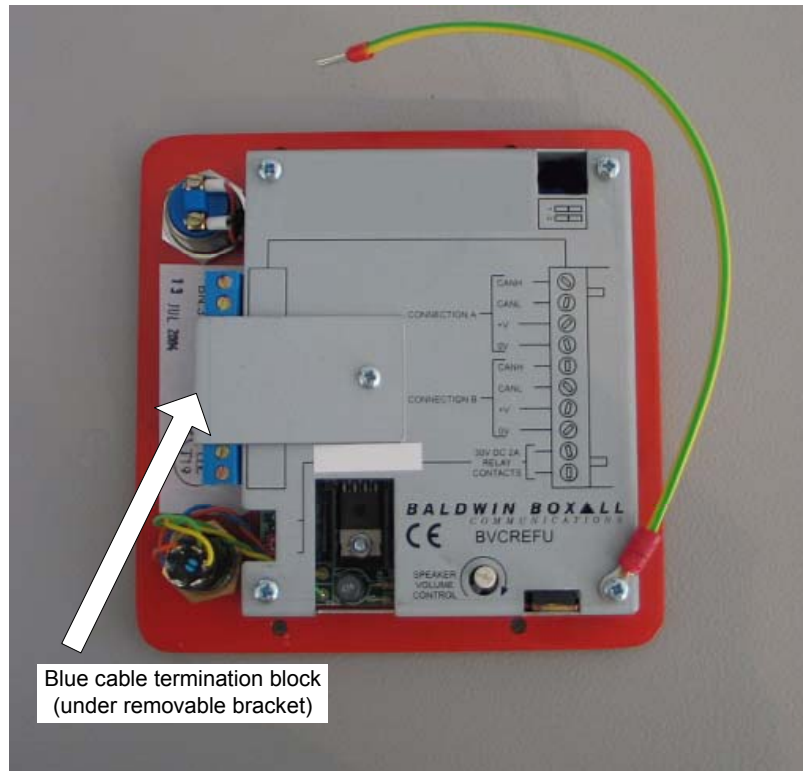
**It is most important that power is not applied across the data pair or reversed, as this will cause damage to the equipment.**

## Installing Call Point Remote Units

1. If not already fitted, mount the supplied back box at each Remote Unit location. Generally at a height of 1.3m to 1.4m from the floor, but at 900mm to 1.2m in refuges.
2. At the rear of the Remote Unit remove the screw to release the bracket retaining the blue termination block.
3. Terminate all cables at the termination block according to the system designer's specifications and the diagram on the Remote Unit rear panel.

**It is very important that each conductor is correctly identified before being terminated. Incorrect connections can damage this equipment.**

4. Refit the retaining bracket over the blue termination block and replace the screw.
5. Connect the green and yellow safety earth lead to the earth terminal in the back box.
6. Fit the Remote Unit to the back box using four screws provided.



**Rear view of Remote Unit showing the blue cable termination block**

## For the System Commissioner

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

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

**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**

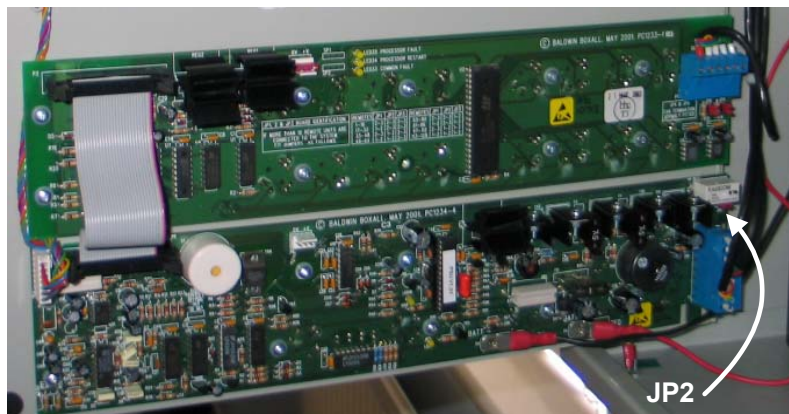
Before connecting the Control Panel or Remote Unit electronics to the cabling, check all cabling for correct phasing, absence of shorts, and absence of open circuits.

**It is most important that power is not applied across the data pair or reversed, as this will cause damage to the equipment.**

### **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).



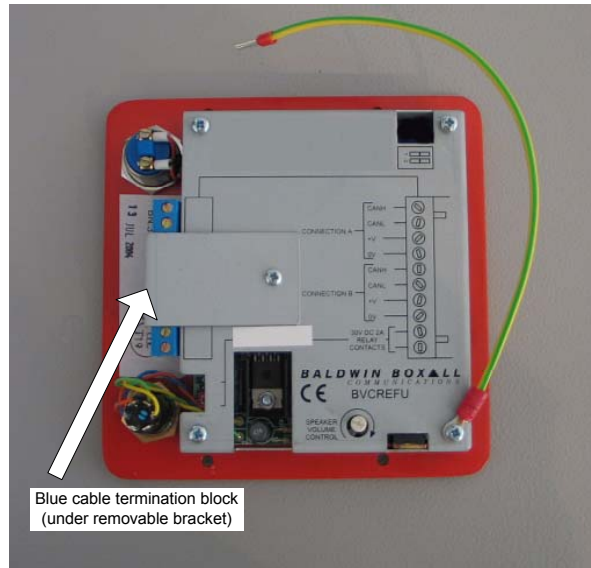
**Commission the System (cont.)**

**2) Install the Call Point Remote Unit electronics sub-assemblies**

1. At the rear of the Remote Unit remove the screw to release the bracket retaining the blue termination block.
2. Terminate all cables at the termination block according to the system designer's specifications and the diagram on the Remote Unit rear panel.

**It is very important that each conductor is correctly identified before being terminated. Incorrect connections can damage this equipment.**

3. Refit the retaining bracket over the blue termination block and replace the screw.
4. Connect the green and yellow safety earth lead to the earth terminal in the back box.
5. Fit the Remote Unit to the back box using four screws provided.



Blue cable termination block (under removable bracket)

**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 Call Point Remote Units 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 Call Point Remote Units 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 Call Point Remote Units. 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 Call Point Remote Unit 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 Call Point Remote Unit.
8. If the total number of illuminated indicator's is the same as the number of Call Point Remote Units on the ring then there are no wiring faults (except possibly between the last Call Point Remote Unit and the master panel). If fewer indicators light than the number of Call Point Remote Units on the ring, repeat the process.
9. If the point at which the green indicators stop is the same, go to the last 'green' Call Point Remote Unit or walk the ring from the 'A' connection looking at each Call Point Remote Unit **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 Call Point Remote Unit 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 Call Point Remote Units 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 Call Point Remote Unit 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 Call Point Remote Unit in turn. The first Call Point Remote Unit on the ring after the 'A' connection is number 1, the next number 2 etc.
15. As each Call Point Remote Unit 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 Call Point Remote Unit in turn, check that its indicator is pulsing before making a call to the control panel to confirm correct operation and the Call Point Remote Unit's number.
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 Call Point Remote Units register on the Control Panel.
21. Remove the mains power, connect the batteries and then reconnect the mains power. Go to each Call Point Remote Unit in turn, check that it's indicator is pulsing before making a call to the control panel to confirm correct operation and the Call Point Remote Unit's number.

## 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) has Call Point Remote Unit ring circuits wired directly to it, 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 Call Point Remote Unit in turn, check that its indicator is pulsing before making a call to the control panel to confirm correct operation and the Call Point Remote Unit's number.

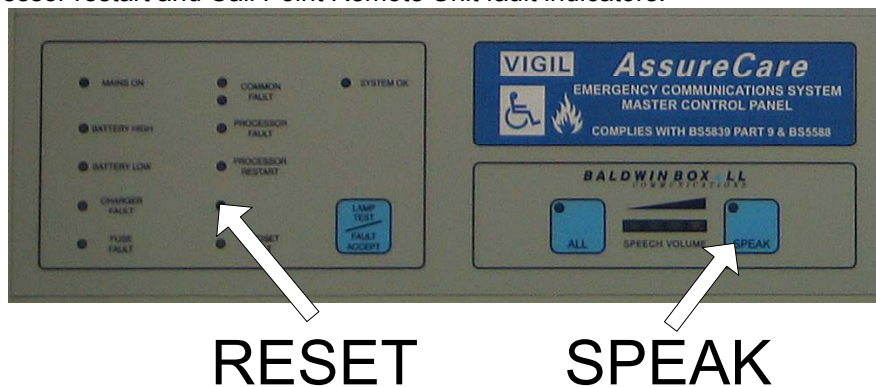
### Master Control Panel System (65 to 128 way)

Systems with greater than 64 Call Point Remote Units 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) Call Point Remote Unit 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 Call Point Remote Unit fault indicators.



**RESET**

**SPEAK**

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

When it is released power is restored to the Call Point Remote Units 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.

**NB Following a Call the system will need to be cleared down. With the handset on the hook press "ALL" & "SPEAK NOW"**

### System Configuration

This takes place following a power up or system reset. It is an automatic process that sets how the panel(s) and Call Point Remote Units 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 Call Point Remote Unit on the system. Slave panel(s) only need buttons for the Call Point Remote Units that they operate. The panels can be fitted with up to 8 'button boards'. Each of these boards has 16 buttons and serves 16 Call Point Remote Units, making a maximum of 128 per Control Panel. Each of the 'button boards' needs to be set up for the range of Call Point Remote Units 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 'Call Point Remote Unit 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 Call Point Remote Unit. Set the top 'button board' to base address 1, the next one down base address 16, 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 Call Point Remote Units 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)

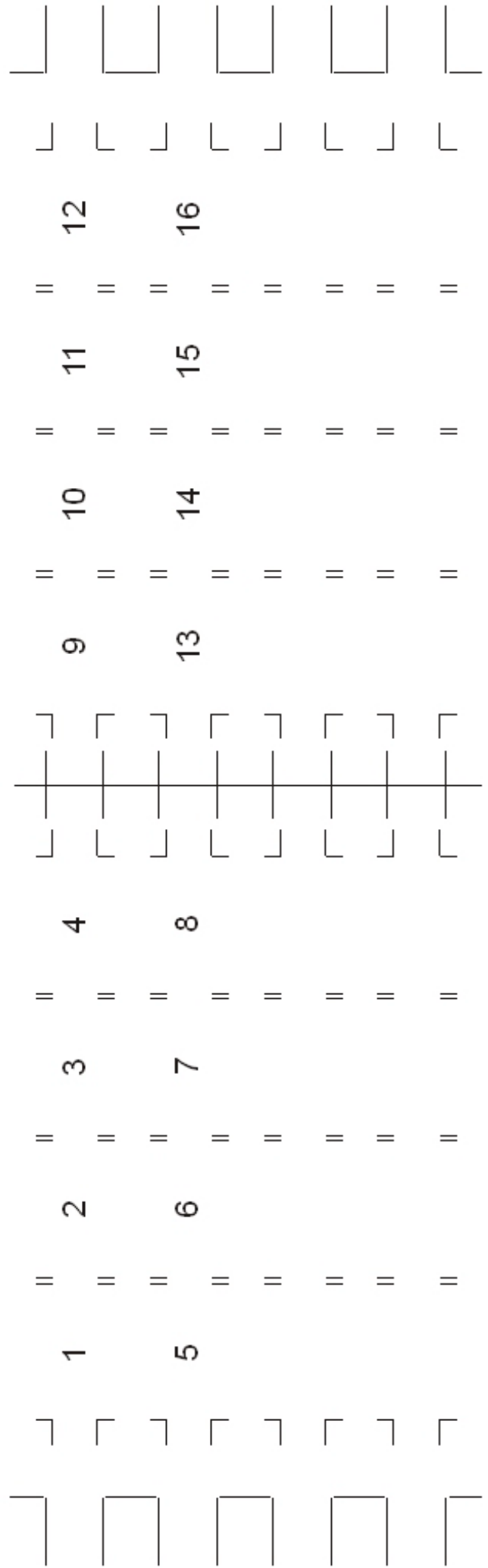
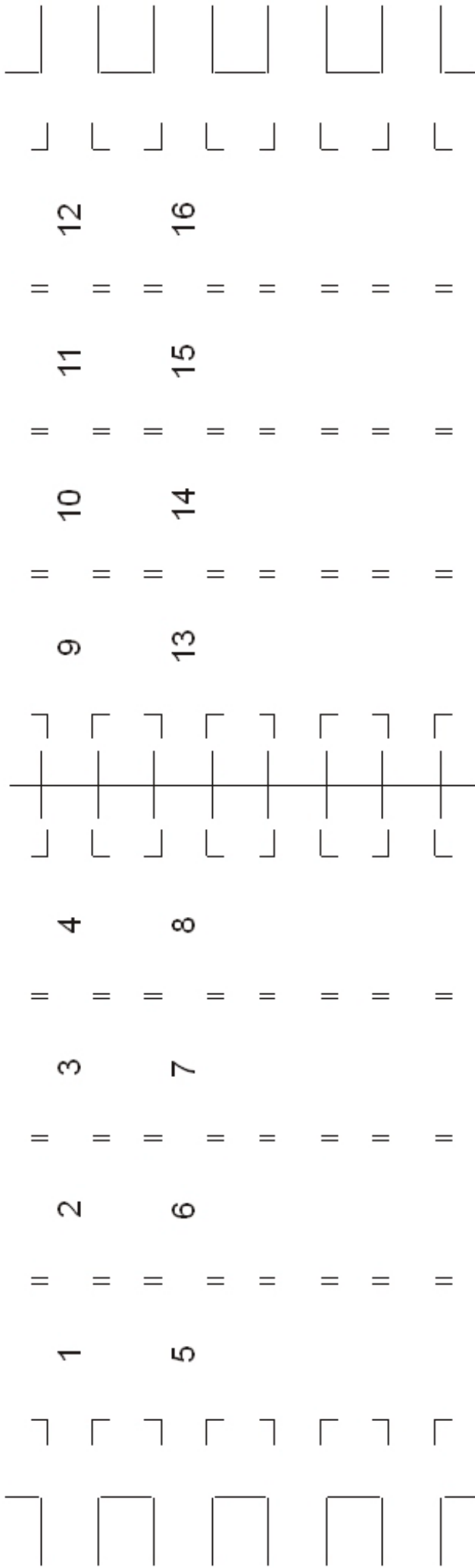
### How to Use the Zone Insert Labels

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)

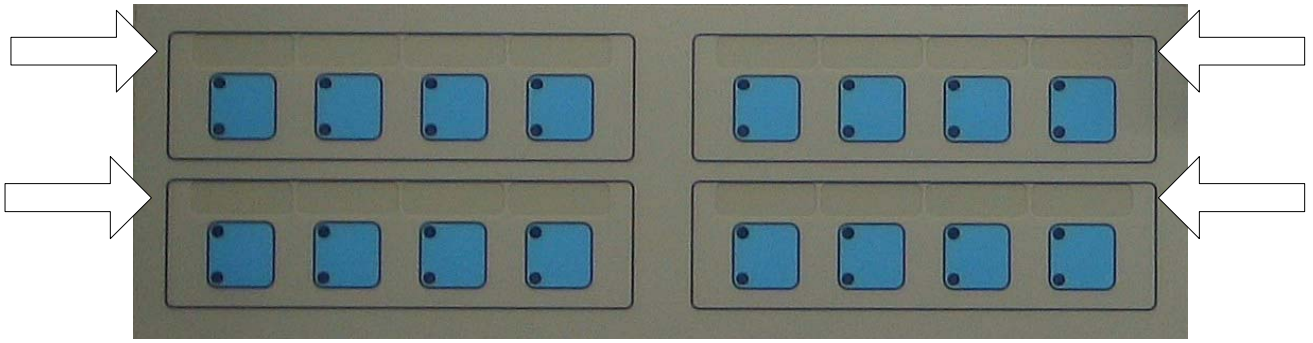
The template should be cut into strips for insertion behind the Control Panel button overlay, as shown in the picture at the end of this section.

BDM300 Series Microphones. Click in relevant box to add text, then click on next box, when finished, cut to side, remove mic side panel and slide under overlay, refit side.



### 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 Call Point Remote Unit and confirm it can make 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 these indicators 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.

### Call Point Remote Unit Fault Identification

If the yellow indicator by a Call Point Remote Unit 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 Call Point Remote Units 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 Call Point Remote Unit 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 Call Point Remote Unit 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 Call Point Remote Unit has a fault.
- 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 Call Point Remote Unit.

### Description of Call Point Remote Unit Controls and Indicators

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

**Call Point Remote Unit indicator:** The 'System OK' indicator on each of the Call Point Remote 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 Call Point Remote Unit to turn their indicators on,  $\frac{1}{4}$  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 Call Point Remote Units 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 Call Point Remote Unit 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 Call Point Remote Unit 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 AssureCare system can be expanded to increase the number of Call Point Remote Units, add Slave Control Panels for larger or more complex systems, and add repeaters where distances between Call Points 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 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
Call Point Remote Unit Fault LED	Will flash yellow to indicate a fault with a remote Call Point Unit.
Call Point Remote Unit LED	Will flash when being called by a remote Call Point Remote Unit. It is ON continuously when occupied
'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 to all the Call Point Remote Units
Speak	Press to make an announcement to the selected Call Point Remote Unit. When released you will listen to the selected Call Point Remote Unit.

**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.

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# Operator's Manual

## Product Description

VIGIL AssureCare is a sophisticated emergency call-point system, which has been developed in accordance with BS5839 part 9 and BS5588. The system is a fully monitored and battery-backed communication network, and has capabilities to function as a Disabled Refuge System, Emergency Help Point System or a simple Call Point System.

The system has two main components: the Main Control Panel and the Call Point Remote Units. 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 two versions of Call Point Remote Units available (red or in stainless steel), which are wall-mounted in areas of risk, such as refuge areas, stairwells, corridors and 'gathering' areas.



In an emergency situation, personnel can press the Call button on a Call Point Remote Unit to call and speak with a Fire Officer or Building Manager. The Fire Officer or Building Manager uses a press to talk telephone handset at their dedicated Control Panel(s) to control the half-duplex communication with Call Points on an 'all-call' or individual basis to relay instructions or to provide reassurance.

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

## 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).

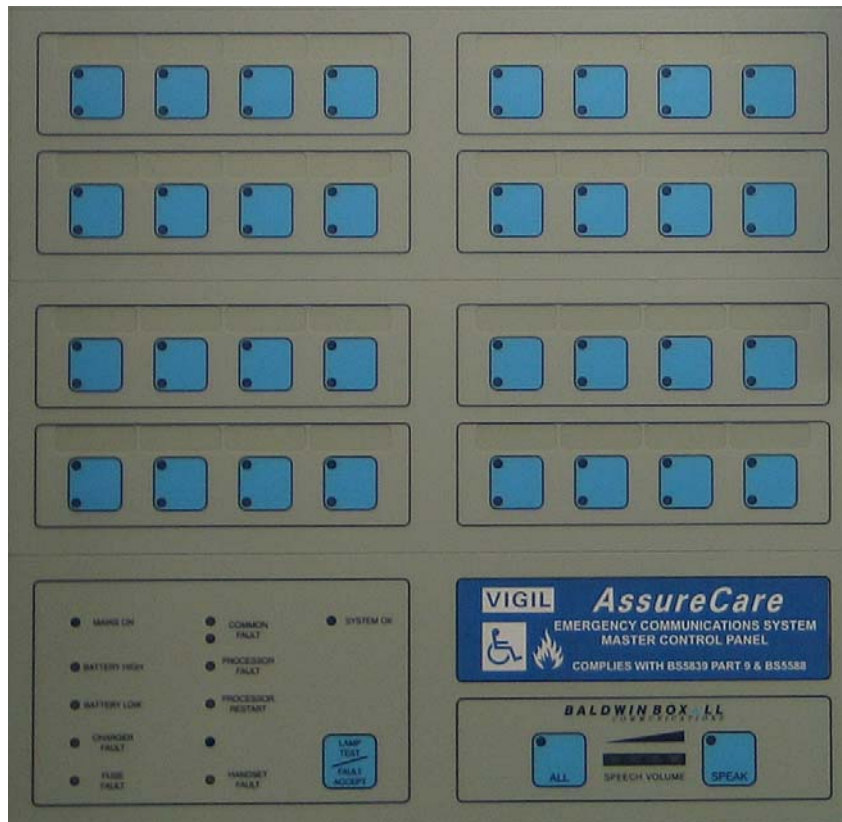
### ENVIRONMENTAL PRECAUTIONS

Always ensure adequate ventilation is provided for the equipment and do not obstruct ventilation holes. The temperature and humidity ranges shown in the Product Manual 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 the instructions below apply to both panels. It is recommended that only one panel be used at a time to prevent confusion.*

When a call has been made from a remote unit its status is 'occupied', and the Control Panel green indicator for that unit is illuminated.

**To listen to an occupied remote unit:** Lift the handset and press the button for the remote unit. The green led will flash. This will put the remote unit into listening mode; you will be able to monitor any sounds from that unit.

**To speak to an occupied remote unit:** First enter listening mode, then press and hold the button on handset base or 'SPEAK' on the control panel.

Avoid distortion of your speech by keeping the 'SPEECH LEVEL' LEDs below the maximum (red) indication.

You will be unable to hear audio from the remote unit until the button is released, then you will return to listen mode.

**To speak to all remote units:** Lift handset, press and hold 'ALL' on control panel. The selection of all remote units will be cancelled when 'ALL' is released.

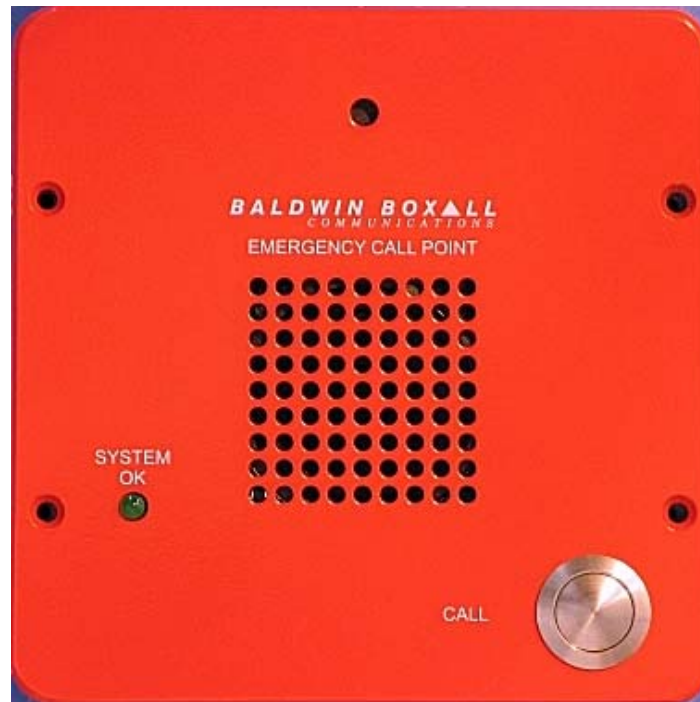
**Incoming call:** When a remote unit is calling the associated green indicator will flash and, if the handset is on the hook, it will ring. Lift the handset and press the button to answer the call.

**Lamp Test:** Press 'LAMP TEST', all the LED's will illuminate and the buzzer will sound.

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

**Reset After Call:** With the handset on the hook press "ALL" & "SPEAK NOW"

## Operating Instructions for Remote Refuge Units



**To initiate a call to a Control Panel**, press the **CALL** button. The Remote Unit will 'ring' and so will the handset(s) at the Control Panel(s). When the person at the control panel answers, wait for them to finish speaking before trying to speak back – they cannot hear you while they are speaking.

The '**SYSTEM OK**' LED flashes to confirm the system is healthy. The flash rate increases when the unit is being listened to by the control unit.

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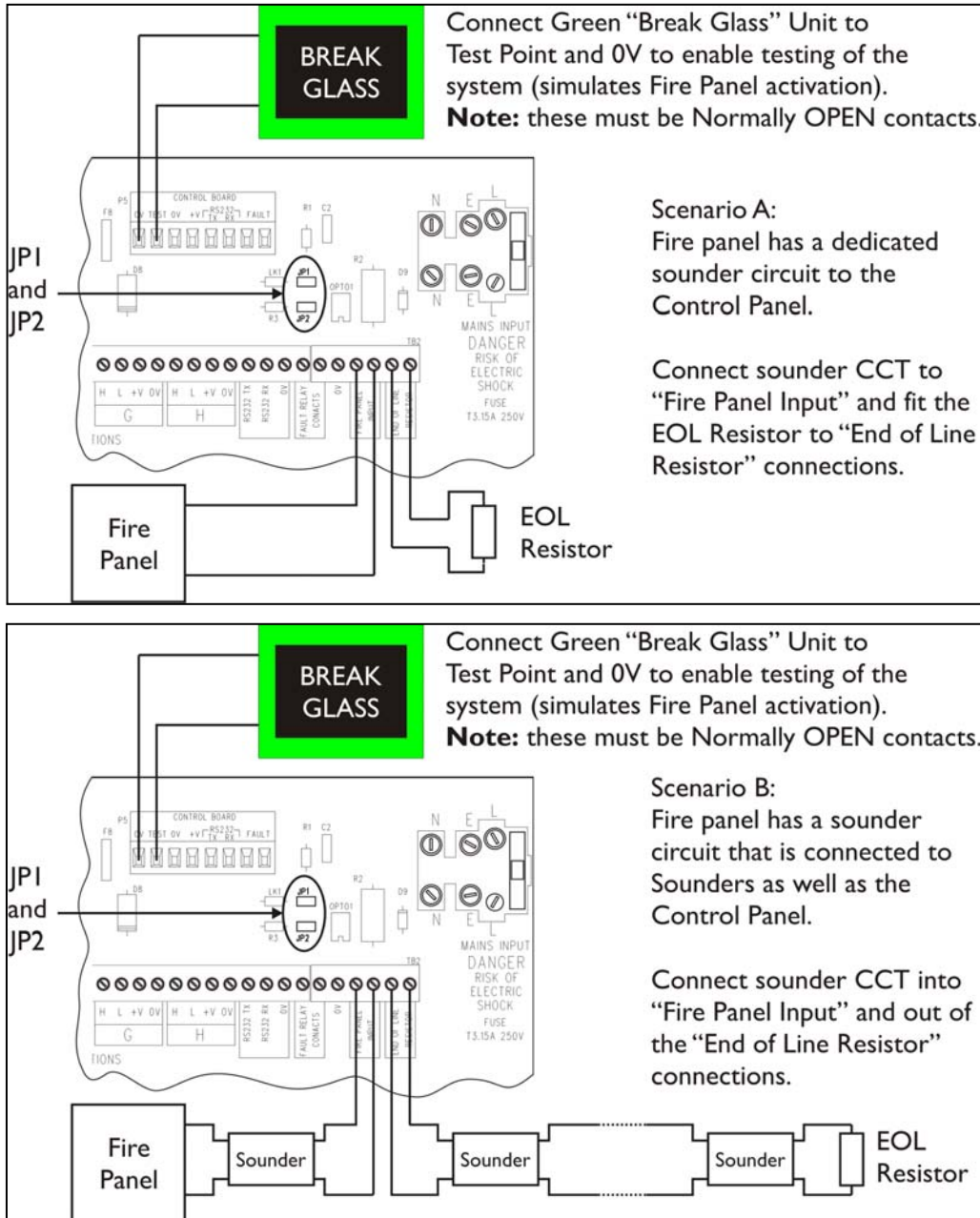
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# ADDENDUM

## CommuniCare Advance & AssureCare Fire Panel Interface

The CommuniCare Advance and AssureCare Control Panels require an Input from a Fire Panel before allowing conversations between the Remote Units and the Panel.

The Connections should be made as follows:



To ensure correct operation both JP1 and JP2 must be fitted.

If the fire panel connections (or the Test connections to the Break Glass Unit) are not in place the System will Commission correctly but the Control Panel will not allow communication with Remote Units.

**Note:** to allow the Control Panel to communicate with Remote Units *without* the Fire Panel connection, link the "Test" and "0V" connections instead of fitting the Break Glass unit.