

INTERCALL[®]

NURSECALL SYSTEMS



Intercall 600 and Intercall 700 Installation & Operation Guide Documentation Issue 4.3 CE

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Introduction to Intercall.

INTERCALL is one of the most advanced range of nurse call systems available today. They couple functionality with the most up to date reliable electronic technology available. Intercall have revolutionised nurse call by providing simple to install and operate systems, which are very competitively priced and out perform practically all other systems available today. Indeed the Intercall 600 system is the best selling nurse call system within the UK

Since the introduction of Intercall in 1988, we have made people aware that there can be a more flexible, more efficient, more effective way of using nurse call than ever before

This leaflet covers our two most advanced addressable call systems, the Intercall 600 and the Intercall 700. Both systems are so flexible, that from the smallest home to the largest hospital, we have a solution to your particular requirements. The systems may be completely re-configured, at any time, so now you can choose how to manage patient and staff call requirements and change them as you wish.

We recommend that you read the following pages as they describe how you can make the most of your Intercall Nurse call system.

Intercall 600 and 700 Inter-compatibility.

Intercall 600 and Intercall 700 systems share several network devices. The following table highlights the inter-compatibility between the two systems.

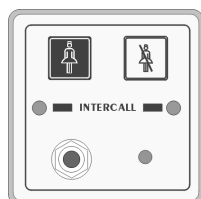
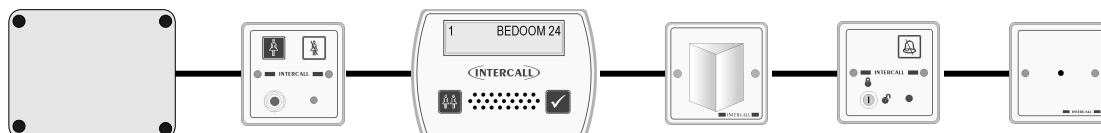
Part No	Description	600	700	Network Cable	Integral IR Receiver
L622	600 Series Non Audio Call Point	✓	✗	2 wire	✗
L722	600/700 Series Non Audio call point with Infra Red	✓	✓	2 wire	✓
L732	600/700 Series Non Audio call point with IR + Aux	✓	✓	2 wire	✓
L722DK	600/700 Door Monitoring Point	✓	✓	2 wire	✗
L617	600 Series Master Power Supply	✓	✗	2 wire	✗
L733	600/700 Series Door Monitor & Access Control Point	✓	✓	2 wire	✗
L717	700 Series Master Power Supply	✗	✓	2 wire	✗
L746	600/700 Triangular Overdoor Light	✓	✓	2 wire	✗
L746s	As above with in-built sounder	✓	✓	2 wire	✗
L737	600/700 Series Booster Power Supply	✓	✓	2 wire	✗
L752	700 Series Audio Call Point	✗	✓	4 wire	✓
L758	700 Series Audio Display Unit	✗	✓	4 wire	✗
L762	700 Series Audio Call / Display Unit	✗	✓	4 wire	✓
L628	600 Series Display Unit	✓	✗	2 wire	✗
L748	700 Series Corridor LED Display Unit	✗	✓	2 wire	✗
FJB1	Fused Junction Box	✓	✓	2 wire	✗
L747	Universal System Interface	✓	✓	2 wire	✗
L714	Remote Sounder	✓	✓	2 wire	✗
PIR1	Passive Infra Red Bed Monitor	✓	✓	2 wire	✗
SCP	Slave Call Point	✓	✓	-	✗
SRP	Slave Reset/Presence Point	✓	✓	-	✗
RB1	Relay Board	✓	✓	2 wire	✗

Due to the continued development programme on the Intercall range of products, please contact the sales office for the latest information.

A GUIDE TO INTERCALL 600

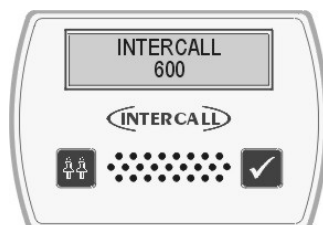
Concepts of the simple to use, addressable call system

The **INTERCALL 600** is our most popular addressable call system, coupling flexibility with ease of use, it provides a complete solution that out performs practically all other systems available today. Being an addressable system, it requires only one two core connection to network devices and operates at 12voltsDC. The room descriptions may be programmed using a PC compatible laptop computer or similar which can be programmed on or off site as required.



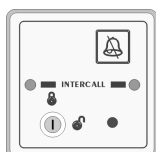
L622 Standard Call Point.

A Call Point is required for every individual call location on the system. It features five levels of call, multi-colour re-assurance LED & 'call follower' sounder. The industry standard trigger socket will accept pear leads, pressure mats, portable radio triggers and a host of other triggering devices. Options which must be specified when ordering include: Magnetic Key reset (**L622M**) Emergency call only. Non-latching call points are available for telephones etc. *see pages 28 & 44*



L628 LCD Displays.

A Display Unit is required in every location where calls are to be shown and the alarm is to sound. It features LCD display with backlight, multi-level adjustable alarm, day/night volume control, 'Priority' alarm tone for specific call locations, configuration menus and an output which can be connected to trigger external equipment. All displays are identical but can be configured on site to operate independently. *see page 32*



L722DK Door Monitoring Point.

Doors can be monitored with the L722DK Door Monitoring Point which is identical to the L622 Call Point but with a key-switch, in place of the jack socket, which isolates the door to allow access for staff etc. *see page 29*



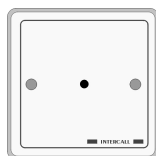
SCP Slave Call Point.

Slave call points are used to cover several beds in one room or ward where each individual bed does not require a separate identity on the call system. Units must be wired back to a standard call point to provide the reset and to generate the call identity. *see page 50*



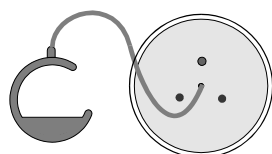
L746 Overdoor Light.

Overdoor lights are an optional item normally positioned above the door in a corridor to indicate the status of the call point(s) within the room. The **L746** can be used to monitor several call point addresses and are ideal for 'end of corridor' indication. The **L746S** Unit is fitted with an integral sounder. *see page 34*



L714 Remote Sounder with relay.

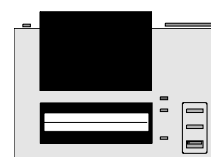
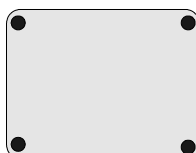
Remote Sounders are used in areas where only an audible alarm is required. The sounder is similar in operation to the L628 with limited zoning facilities. Any assistance or emergency call on the system will over-ride the standard call tone. The unit is fitted with a relay which provides N.O and N.C 'dry' contacts. *see page 38*



CS1 Ceiling Pull Switch
Connects to call point for en-suite rooms
and bathrooms/toilets *See Page 55*

L717 & L737 Power Supply

Provides power for system & holds back up battery. Laptop connects to L617 to configure system. L637 is a booster PSU required for larger systems *See Page 31*

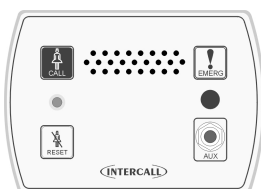
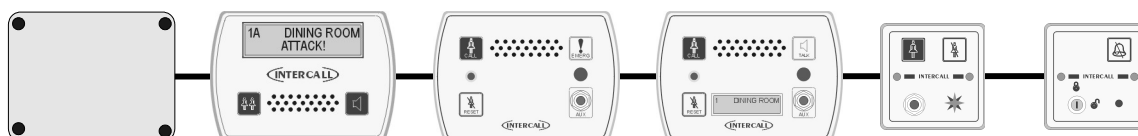


Printers and alphanumeric pagers
Printers and alphanumeric pagers may be
connected to the system with the L747
universal interface. *See Page 36*

A GUIDE TO INTERCALL 700

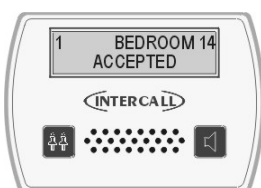
Concepts of the advanced call system with intercom

The **INTERCALL 700** is the latest innovation in the Intercall range of advanced call systems. The system boasts all the features of the Intercall 600 system together with hands free two way speech facilities between all audio units. All room call points have an integral infra red receiver which allows a call to be generated away from the call point without the need for trailing wires. Using an infra red trigger TIR4, it is possible to identify the calling resident together with their location which can be used to route the call to specific members of staff. The system is fully addressable and only requires connection to a common 12v network cable. The system is configured using a PC compatible computer or similar & may be programmed on or off site as required.



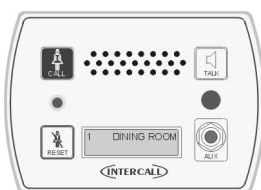
L752 Audio Call Point.

An L752 is required for every individual audio call location on the system. It features 7 levels of call, hands free two way intercom, integral infra red receiver, audio page facility, re-assurance LED & 'call waiting' sounder. The industry standard jack socket will accept a host of triggering devices. The unit may be flush or surface mounted using the Intercall **BB1** backbox. *See page 45*



L758 Audio Display Unit.

Audio display units are generally located throughout the establishment and provide description of the call type, location and identity of caller together with sounding the integral alarm. It features 2 line back-lit display, multi function audible alarm, two way intercom facility and audio page facility to all other displays and to all members of staff present within a residents bedroom. *see page 41*



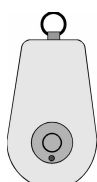
L762 Call/Display Unit

The L762 combines the features of the speech call point with a built in display. When in staff present mode the unit will display all calls on the system in full alphanumeric text, enabling staff to see & speak to other callers elsewhere on the system without having to leave their patient. *see page 46*



L722 Non Audio Call Point.

The L722 Call Point contains identical features to the audio call point described above without the intercom. Options which must be specified when ordering include: emergency call only & non-latching operation for telephone ring detectors etc. Doors can be monitored with the **L722DK Door Monitoring Point**. This is identical to the L722 Call Point, but with a key-switch in place of the jack socket to allow access for staff etc. *see page 42*

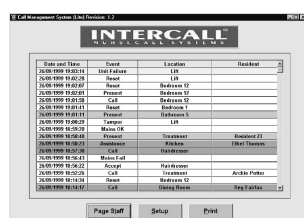


TIR4 Infra Red Trigger.

The infra red trigger is worn by residents and allows access to the call system at all times. It will trigger any Intercall 700 series call point within range and can be configured to generate different levels of call. Each trigger is assigned a unique number which may be programmed into the system to identify the calling resident by name. *see page 48*

Intercall CMS Lite Software.

With the addition of the powerful Call Management Software, the Intercall 600/700 system becomes the complete solution to resident care. Running on any PC compatible computer under Windows™ 95/98/NT4, it provides residents database, management reporting and system control functions, in addition, the PC can be connected to a pager transmitter and manage calls to staff alphanumeric pagers. *see page 47*



INTERCALL ACCESSORIES

Accessories to enhance your Intercall system

All **INTERCALL** systems can be enhanced with the use of accessories which allows the system to be used by patients with virtually any level of disability. The following list details a few of the most popular accessories with their application and part numbers. In addition to the standard range of accessories, we also manufacture bespoke accessories to suit a particular requirement, please contact your supplier for more information.



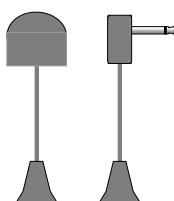
NP2 & NP4 Pear Leads.

Our attractively styled pear leads allow access to the call system when residents are away from the call point. The lead is available in 2Metre and 4 Metre lengths and the right angle jack plug means that the plug is less likely to be damaged by furniture movement. All pear leads are fitted with a clip fastener, which allows the unit to be attached to clothing or bed sheets if required.



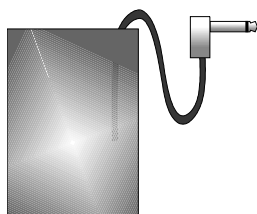
S2 Water Resistant Air Switches.

For bathroom / shower applications, the **S2** Air Switch is ideal, being totally sealed and safe as it uses air to trigger the call. The unit is supplied with 2metres of air pipe which is then plugged into the front of any Intercall call point. The unit is fitted with a clip fastener, which allows the unit to be attached to clothing or bed sheets if required. All call points generate a standard call should the pear lead be removed from the jack socket.



PS1 Plug In Pull Cord.

The PS1 converts a normal call point into a unit which may be activated by pull string. The unit plugs into the jack socket and has a 30cm cord terminated with a 'pull' which allows the call point to be activated by simply pulling gently on the 'pull'. This is ideal in toilets where a ceiling pull switch has not been fitted or where is it out of reach.



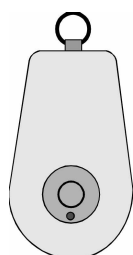
PM1 Pressure Mat.

The PM1 is a standard pressure mat which plugs into the call point jack socket and activates a standard call when pressure is applied to the mat. The unit should be placed under a mat or carpet as it is not designed to be walked on directly. The unit comes supplied with a four metre lead terminated with a right angle jack plug. The surface area of the mat measures 300 x 600 mm.



BC1 Breath Switch.

The breath switch allows even the most severely handicapped access to the call system. It operates in a similar way to the pear leads and air switches, generating a standard call, and plugs into the jack on all call points. It is supplied with detachable mouth - pieces, which may be sterilised.



TIR4 Infra Red Trigger.

The TIR4 allows a call point to be activated remotely, and has the advantage of triggering a local call anywhere in the home (Infra Red Call Points only). This enables carers to identify the location of the resident instantly. Competitors' radio signals pass through walls so while it is possible to know who requires assistance it is not possible to pinpoint their exact location from the call system. The TIR4 requires infra red call points to receive the signals, these are available on the Intercall 600 and 700 systems. Using the TIR4 with an Intercall 700 system, it is possible to identify the calling resident and call location.

Ordering Information

L617	600 Series Master Power Supply Unit.
L628	600 Series LCD Display Unit. (See Note 3)
L622	600 Series Standard Call Point.
L622M	600 Series Call Point with magnetic reset. (See Note 2)
L717	700 Series Master Power Supply Unit.
L752	700 Series Call Point with IR receiver and intercom facility. (See Note 3)
L762	700 Series Call/Display Unit as L752 with LCD unit. (See Note 3)
L758	700 Series LCD Display Unit with intercom facility. (See Note 3)
L722	600/700 Series Non Audio Call Point with integral infra red receiver.
L732	600/700 Series Non Audio Call Point with integral infra red receiver.
L722DK	600/700 Series Door Monitoring Point with isolating keyswitch
L746	600/700 Series Two Colour Group Overdoor Light
L746S	600/700 Series Two Colour Group Overdoor Light with sounder
L737	500/600/700 Series Universal Booster Power Supply
L747	600/700 Series Universal Interface. (Operates with DPU414 or RFTX)
L748	600/700 Series Corridor LED Display with 100mm characters.
L714	600/700 Series Remote Sounder and relay output board

Optional Accessories

CS1	Ceiling Pull Switch with twin LED's
LBAT	12V 1.9Ah Battery for Power Supplies (L617/L717/L737)
LIMKIT	600 / 700 Series System Configuration Kit including software.
CMSL	CMS Lite Call Management Software for Intercall 600/700 Windows 95/98/NT
SW1	Day / Night Switch - Connects to L617/L717
TIR4	Pendant Infra Red Trigger (Used with L722/L752/L762)
RFTX	Scope Paging Transmitter & 1 Pager (Also Requires L747) (See Note 1 & 2)
RAP	Additional Alphanumeric Pager for above (See Note 1)
DPU414	Thermal Printer to operate with L747
AD1	Adapter Plate (single gang plate to fit double gang box) (white)
AD3	Adapter Plate horizontal double to Pull switch (white)
LPR	Thermal Printer Paper for obsolete DPU40 Printer
LPR2	Thermal Printer Paper for DPU414 Printer
M1	Door Contact Reed Switch (NO / NC)
NP2	Styled 2 Metre Pear Push Lead
NP4	Styled 4 Metre Pear Push Lead
PM1	Pressure Mat (600 x 300mm) Plugs into call point jack socket
PS1	Plug in Pull Cord for Call Points
RB1	Relay Board
SCP	Slave Call Point (No electronics requires connection to call point)
SRP	Slave Reset/Presence Point (For use with L732 Call Point)
S2	Soft Touch Air Switch with 3m of air pipe.
PIR1	Passive Infra Red Detector (See Note 2)
FJB1	Fused Junction Board
BB1	Surface Mounting Backbox for Intercall styled units

NOTES:

- 1 – SPECIAL PROGRAMMING REQUIRED – PLEASE CONTACT THE SALES OFFICE FOR MORE INFORMATION
 2 – SPECIAL ORDER **NON STOCK ITEM** – PLEASE CONTACT THE SALES OFFICE FOR AVAILABILITY
 3 – REQUIRES INTERCALL BB1 BACKBOX FOR SURFACE MOUNTING – FLUSH MOUNTS INTO STANDARD DOUBLE GANG BACKBOX
 ©1999 Lismore Instruments Limited

Obsolete Order Codes with Replacements

<u>OBSOLETE ORDER CODE / PRODUCT</u>	<u>AVAILABLE EQUIVALENT</u>
L607 600 Series Printer Interface	L747 600/700 Series Universal Interface
L707 700 Series Printer Interface	L747 600/700 Series Universal Interface
L627 600 Series Pager Interface	L747 600/700 Series Universal Interface
L727 700 Series Pager Interface	L747 600/700 Series Universal Interface
L616 600 Series Overdoor Light	L746 600/700 Series Overdoor Light
L626 600 Series Group Overdoor Light	L746 600/700 Series Overdoor Light
L716 600/700 Series Overdoor Light	L746 600/700 Series Overdoor Light
L726 600/700 Series Group Overdoor Light	L746 600/700 Series Overdoor Light
L726S 600/700 Series Overdoor Light + Sounder	L746S 600/700 Series Overdoor Light + sounder
L618 600 Series LCD Display Unit	L628 600 Series Display Unit (<i>BB1 Backbox required when upgrading surface mounted L618 unit</i>)
PCPC1 600 Series Programming Software & Lead	LIMKIT 600 / 700 Series System Configuration Kit including software.
L722DK 600/700 Door Monitoring Point	L733 600/700 Door Monitor & Access Control Point

AN Order Codes

Some items are available to suit particular applications and call points are available with alternative software to perform specialist functions. The most common AN order codes are described below

L622 AN121	L622 Call point modified to generate emergency call from the X trigger input
L722 AN121	L722 Call point modified to generate emergency call from the X trigger input
L752 AN121	L752 Call point modified to generate emergency call from the X trigger input
AN133	600/700 Series Non Latching Module (Physically identical to the RB1)
L622 AN134	L622 Call point modified with remote reset software (Reset when accepted)

Getting In touch with Intercall

Technical Support / General Enquiries: Telephone +44 (0)1403 713121

Fax +44 (0)1403 713141

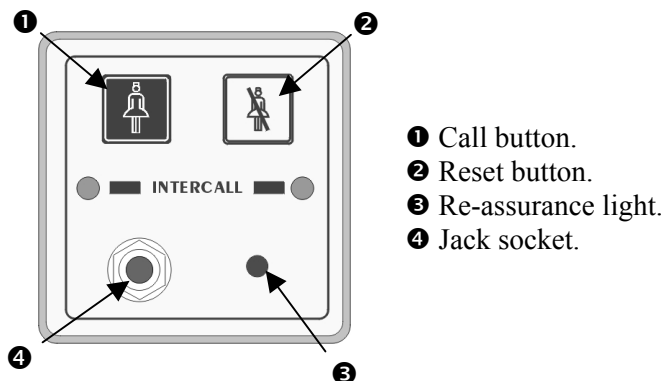
Technical Support email techsale@intercall-uk.com

General email sales@intercall-uk.com

or visit: www.intercall-uk.com

Intercall 600 User Guide.

Layout of the Intercall 622 and 722 Non Audio Call Point.



Intercall 600 Call levels and what they mean.

Call – Standard patient call

Assistance – Staff requiring assistance.

Emergency – Staff requiring urgent assistance.

Present – A member of staff is in the room.

Visit – A member of staff has accepted the call at the display and is on their way to the resident.

Making a standard call.

A standard call can be generated by any of the following:

- Pressing the **Call button** on the call point.
- Activation of the pear lead (or other device) plugged into the **Jack socket**.
- Operation of a ceiling pull switch wired to the call point.
- Un-plugging the pear lead from the **Jack socket**.

To confirm a standard call is active, the **Re-assurance light** will flash red one per second.



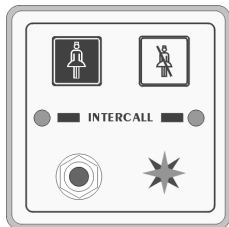
Staff Present Mode*.

When members of staff enter a room, they must press the **Reset button** on the call point. The call point is now in 'Staff Present' mode and the **Re-assurance light** will show a constant green. Other members of staff can now locate them, by pressing the 'Show Staff' button on any display unit. When they leave the room, they should press the **Reset button** again, this tells the system they are no longer in the room & the **Re-assurance light** is off.



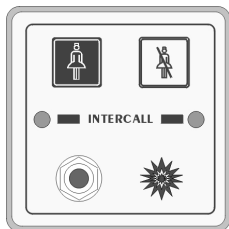
Staff Assistance Call*.

Staff assistance call can only be generated when the call point is in staff present mode and the **Re-assurance light** showing constant green. Pressing the **Call button** will generate an assistance call and the **Re-assurance light** will alternate red, then green, once a second to confirm this action. To cancel the assistance call, press the **Reset Button** once. The call point is now in staff present mode with the **Re-assurance light** showing constant green. To cancel the staff present, press the **Reset Button** again until the **Re-assurance light** is off.



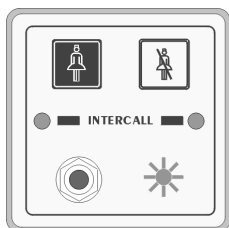
Staff Emergency/Crash Call.

Staff emergency call can be generated at any time by pressing the **Call Button** and the **Reset Button** simultaneously (or pressing the **Emergency Button**). To confirm this action the **Re-assurance light** will showing a rapid red flashing light. To cancel the emergency call, press the **Reset Button** once, the call point is now in staff present mode with the **Re-assurance light** showing constant green. To cancel the staff present mode, press the **Reset Button** again until the **Re-assurance light** is off.



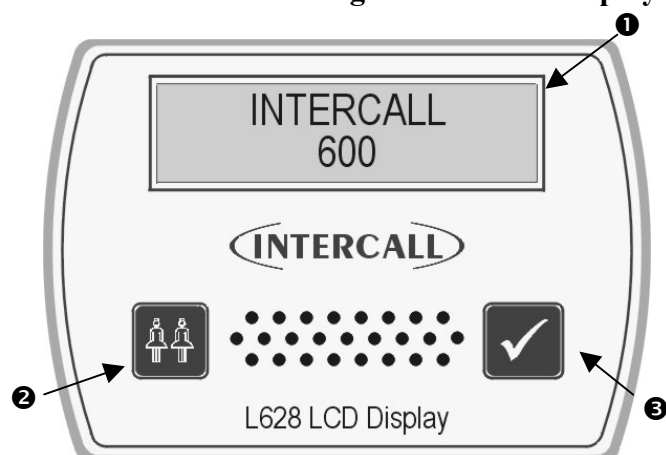
Call Accepted.

To avoid several members of staff from responding to a single call, calls may be accepted from any display unit. To accept a call, wait until the call you wish to accept is on the top line of the display and press the **Accept Button**. The call point **re-assurance light** will flash green to let the resident know that staff are on their way. The call point will return to the calling condition if the call point is not reset within a pre-set time period. Only standard calls and assistance calls can be accepted.



** Features highlighted in this way, may be disabled by the commissioning engineer.*

Using Intercall 600 Display Units.



Intercall 600 Call levels and what they mean.

Call – Standard patient call

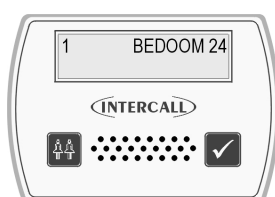
Assistance – Staff requiring assistance.

Emergency – Staff requiring urgent assistance.

Present – A member of staff is in the room.

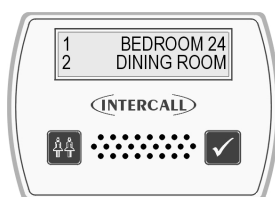
Visit – A member of staff has accepted the call at the display and is on their way to the resident.

❶ Two line LCD display. ❷ Show staff button. ❸ Accept call button.



Standard Call.

A standard call will make a short uninterrupted tone, which repeats every 2 seconds. The number shown on the left identifies the queue position, where the lowest number is the oldest call. The right hand side of the display shows the call location. In the example to the left, there is a call from “BEDROOM 24”.



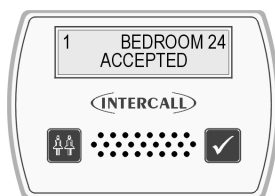
More than one Call.

When more than one call is active, the calls are scrolled on the display with their respective queue position.. On the example shown to the left, we have two active calls “BEDROOM 24” is the oldest call and is in queue position 1. The call from “DINING ROOM” is more recent and is given queue position 2.



Assistance Call*.

An assistance call will make two short tones which are repeated every two seconds. On the illustration to the left, there is a standard call from Bedroom 14 and an assistance call from the Dining Room. The ‘A’ after the call number identifies the call as an assistance call.



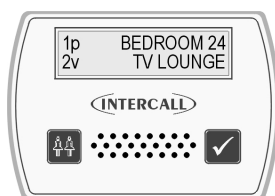
Accepting a calling resident. (Accept Call/Visit)

To prevent several members of staff from responding to the same call, calls are ‘accepted’ at the display units. To accept a call, simply wait until the call you wish to accept is shown on the top line of the display, then press the **Accept Call** button. It is only possible to accept Standard and Assistance calls shown above.



Emergency Call.

An emergency call will make a fast series short tones which are repeated continuously. On the illustration to the left, the word ‘EMERGENCY’ indicates the urgency of the call. The accept facility is not available on emergency calls and the staff must attend the room to reset. When an ‘emergency’ call is active, all other calls are held in memory but only displayed when the emergency call is reset.

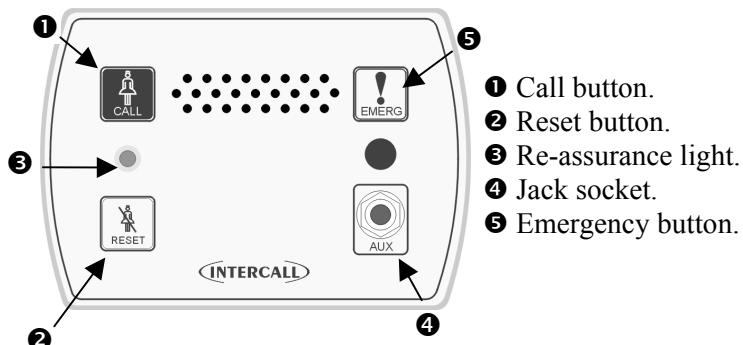


Locating other members of staff.

To locate other members of staff either in residents rooms or on their way to respond to calls, simply press and hold the **Show Staff** button on any display panel. On the illustration to the left, a member of staff is present in Bedroom 14, indicated by the small ‘P’ and a member of staff has accepted and is visiting the call from the Lounge, indicated by the small ‘V’. Numbering of ‘Visit’ and ‘Nurse Present’ events is the same as standard and assistance calls.

Intercall 700 User Guide.

Layout of the Intercall 752 Audio Call Point.



Intercall 700 Call levels and what they mean.

Call – Standard patient call

Priority – Standard patient call which has remained unanswered for a period of time.

Assistance – Staff requiring assistance.

Emergency – Staff requiring urgent assistance.

Attack – Staff under threat & require urgent assistance.

Present – A member of staff is in the room.

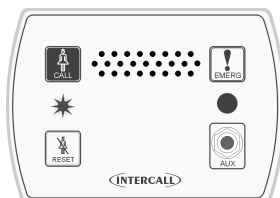
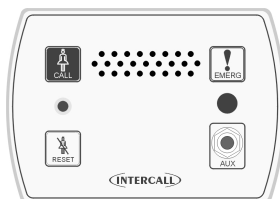
Visit – A member of staff has accepted the call at the display and is on their way to the resident. If the intercom facility has been used, this will be logged on the printer.

Making a standard call.

A standard call can be generated by any of the following:

- Pressing the **Call button** on the call point.
- Operation of the pear push lead (or other device) plugged into the **Jack socket**.
- Operation of a ceiling pull switch wired to the call point.
- Un-plugging the pear lead from the **Jack socket**.
- Operation of a radio or infra red pendant.

To confirm a standard call is active, the **Re-assurance light** will slowly flash red.

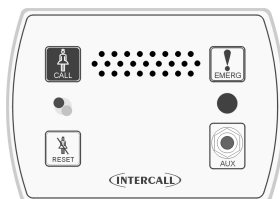
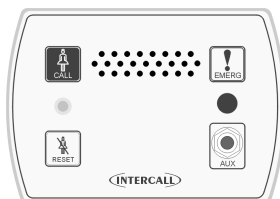


Priority Call*

A Standard call, which has remained active for a pre-set time period will automatically convert to **Priority Call** and the **Re-assurance light** will flash rapidly.

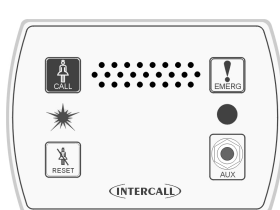
Staff Present Mode*.

When members of staff enter a room, they must press the **Reset button** on the call point. The call point is now in 'Staff Present' mode and the **Re-assurance light** will show a constant green. Other members of staff can now locate and communicate to this room. When they leave the room, they should press the **Reset button** again, this tells the system they are no longer in the room & the **Re-assurance light** is off.



Staff Assistance Call*.

Staff assistance call can only be generated when the call point is in staff present mode and the **Re-assurance light** showing constant green. Pressing the **Call button** will generate an assistance call and the **Re-assurance light** will show red, then green once a second to confirm this action. To cancel the assistance call, press the **Reset Button** once. The call point is now in staff present mode with the **Re-assurance light** showing constant green. To cancel the staff present, press the **Reset Button** again until the **Re-assurance light** is off.



Staff Emergency/Crash Call.

Staff emergency call can be generated at any time by pressing the **Call Button** and the **Reset Button** simultaneously (or pressing the **Emergency Button**). To confirm this action the **Re-assurance light** will showing a rapid red flashing light. To cancel the emergency call, press the **Reset Button** once, the call point is now in staff present mode with the **Re-assurance light** showing constant green. To cancel the staff present mode, press the **Reset Button** again until the **Re-assurance light** is off.

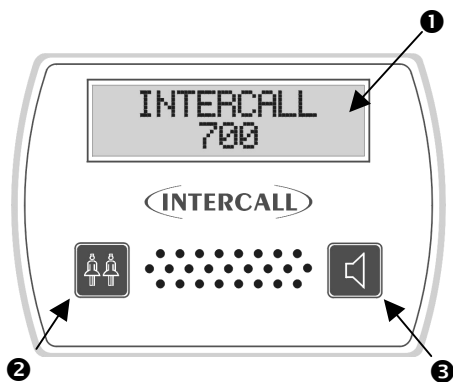
Staff Attack Calls.

Staff attack calls can only be generated from an infra red trigger remote from the call point. Attack level calls are indicated by a very rapid red flash on the **Re-assurance light** and can only be reset with a 'reset' infra red trigger, or by a **Guardian** display when used with a combined **Intercall 700 / Guardian** system.

Paging other members of staff*.

Locating and communicating with other members of staff is simplicity with the Intercall 700 system. Simply press and hold the **Reset button** and you can page to all other Displays and Call points in **Staff Present** mode.

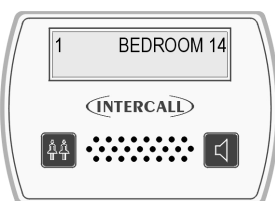
Layout of the Intercall 758 Audio Display Unit.



❶ Two line LCD display. ❷ Show staff button. ❸ Accept call / Intercom button.

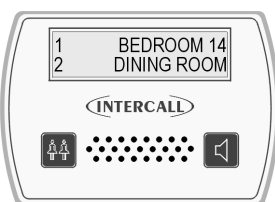
Intercall 700 Call levels and what they mean.

- Call** – Standard patient call
- Priority** – Standard patient call which has remained unanswered for a period of time.
- Assistance** – Staff requiring assistance.
- Emergency** – Staff requiring urgent assistance.
- Attack** – Staff under threat & require urgent assistance.
- Present** – A member of staff is in the room.
- Visit** – A member of staff has accepted the call at the display and is on their way to the resident.



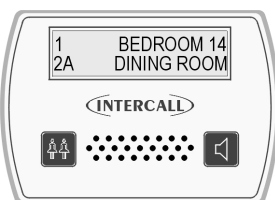
Standard Call.

A standard call will make a short uninterrupted tone, which repeats every 2 seconds. The number shown on the left identifies the queue position, where the lowest number is the oldest call. The right hand side of the display shows the call location. In the example, there is a call from “BEDROOM 24”.



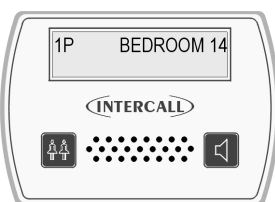
More than one Call.

When more than one call is active, the calls are scrolled on the display with their respective queue position. On the example shown to the left, we have two active calls “BEDROOM 24” is the oldest call and is in queue position 1. The call from “DINING ROOM” is more recent and is given queue position 2



Assistance Call*.

An assistance call will make two short tones which are repeated every 2 seconds. On the illustration to the left, there is a standard call from Bedroom 14 and an assistance call from the Dining Room.



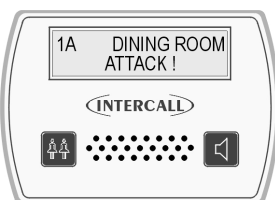
Priority Call*.

If a standard call remains un-answered, it automatically converts to a Priority Call. A Priority call is indicated with a letter ‘P’ after the call number. The intercom facility is not available on priority calls and the staff must attend the room to reset. When a priority call is active, all standard and assistance calls are held in memory but only displayed when the priority is reset.



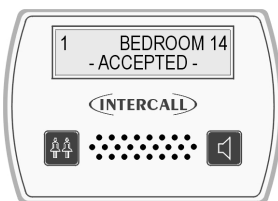
Emergency Call.

An emergency call will make a fast series short tones, which are repeated continuously. On the illustration to the left, the word ‘EMERGENCY’ indicates the urgency of the call. The intercom facility is not available on emergency calls and the staff must attend the room to reset. When an ‘attack’ or ‘emergency’ call is active, all other calls are held in memory but only displayed when the emergency call is reset.



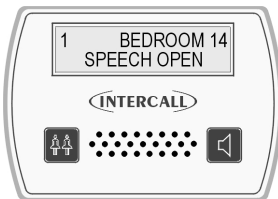
Attack Call.

An attack call will make a fast series short tones, which are repeated continuously. On the lower line of the LCD, the word ‘ATTACK’ is displayed similar to an emergency call. The intercom facility is not available on emergency calls and the call can only be reset with an infra red ‘reset’ trigger or using a Guardian display unit. When an ATTACK or EMERGENCY call is active, all other calls are held in memory but only displayed when the emergency call is reset.



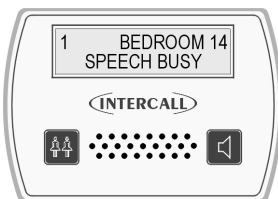
Accepting a call. (Accepting a non-speech call)

To prevent several members of staff from responding to the same call, calls are 'accepted' at the display units. To accept a call, simply wait until the call you wish to accept is shown on the top line of the display, and press the **Accept Call** button. It is only possible to accept Standard and Assistance calls shown previously. If you are accepting a non-speech call point (such as a toilet or door point) then the call will be removed from the display and the sounder silenced for a pre-set period of time.



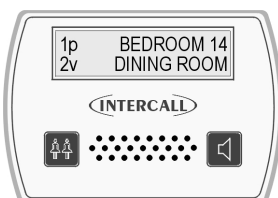
Accepting a call and speaking to a calling resident.

To accept and speak to a resident, the procedure is the same as 'accepting a call' above. Wait until the call you call you wish to speak to is shown on the top line of the display, press & release the **Accept Call** button. Once the word "speech open" appears, you will be able to hear the caller. Press and hold the **Accept Call** button when talking to the resident. Once the conversation is complete, press the **Show Staff** button once to close the intercom. *(The speech channel will close after 60 seconds automatically)*



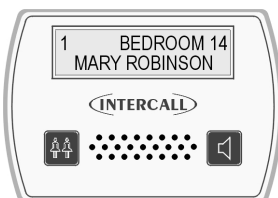
Speech Busy.

To indicate to all other users that the speech channel is in use, 'Speech Busy' appears on the lower line of all other displays on the system and this is shown to the left. On all other displays, new calls will be shown using the top line of the LCD only and calls may be accepted (as non-speech calls) but the intercom facility will not activate.



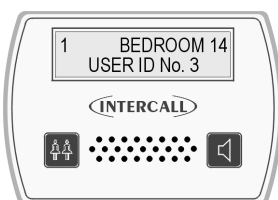
Locating other members of staff.

To locate other members of staff, press and hold the **Show Staff** button on any display panel. On the left, a member of staff is present in Bedroom 14, indicated by the small 'p' and a member of staff is dealing with the call from the Lounge, indicated by the small 'v'.



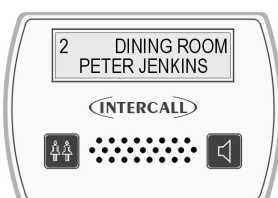
Paging all other members of staff.

To page all staff, simply press and hold the **Talk** button and speak to all other displays and call points in **staff present** mode. This is only possible when no calls are active on the system and is not possible when 'Speech Busy' is displayed on the lower line of the LCD.



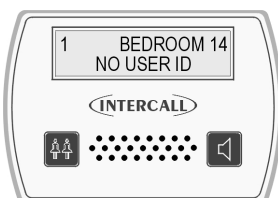
How the displays show who is calling*.

With the Intercall 700 system, it is possible to display the residents name, as well as their location when calling. We call this feature '**User ID**'. In order to register their name on the system, the resident must trigger the call point with an infra red trigger assigned to their name. All Intercall 700 Call Points are fitted with an infra red receiver which picks up these signals.



Standard Calls/Assistance Calls/Priority Calls.

The main difference when the **User ID** is enabled, is that both lines of the LCD are used for all calls. On the top line, the location is displayed as previously and on the lower line, the **User ID** is displayed. Above left, is a standard call from 'Bedroom 14' activated by the trigger allocated to 'Mary Robinson'. To the left shows the factory default 'User No' rather than the residents name.

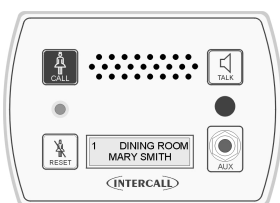


More than one call active.

When more than one call is active, the calls are scrolled on the LCD display as normal but you can only see one call at any time. Each call is shown with the corresponding **Caller ID**. On the right we have a second call activated, with call number '2' and this time from 'Peter Jenkins' in the 'Dining Room'.

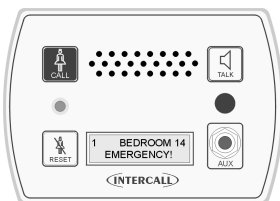
No User ID.

If a call point is not triggered from the infra red trigger, it is not possible to establish which resident activated the call point. When this occurs, the lower line of the display reports '**No User ID**' as shown on the left. **This feature can be disabled at the commissioning stage.**

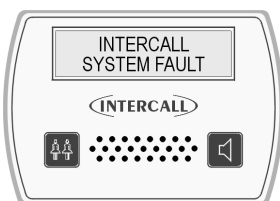


Call/Display Unit.

The L762 Call/Display Unit combines the features of the L752 Call Point and L758 LCD Display unit. Calls are generated in the same way as with the Audio Call Point discussed previously, with the exception that there is no separate emergency button. (*Emergency calls are generated by pressing both call and reset buttons simultaneously*) The LCD display is enabled when the call point is in 'Staff Present Mode' and operates in a similar way to the LCD Display Unit also described previously.

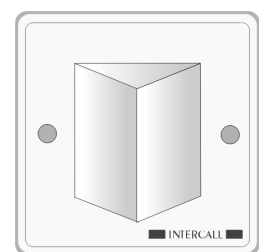


Normally, when no call is active on the system, the LCD will show the programmed default text and the factory default is 'Intercall 700'. If an Emergency or Attack call is active, the LCD display will show this call, but the sounder will not operate unless the call point is in 'Staff Present' mode.



How the displays show faults on the system.

The system is continuously monitored and should a system fault occur, the lower line of the LCD will read System Fault and this is accompanied by an audible alarm, which informs of problems without becoming intrusive.



Overdoor Lights.

Overdoor lights are an optional item generally located outside the room to relay the status of the call point within the room. The unit is fitted with twin red/green LED's which mimic the re-assurance LED on the call points.

Overdoor Light Call Patterns.

Call – Slow Flashing Red

Priority – Fast Flashing Red

Assistance – Alternating Red / Green flash

Emergency – Rapid Red Flashing.

Attack – Very Rapid Red Flashing.

Present – Continuous Green Indication.

Call Accepted / Spoken – Slow Green Flashing



Door Monitoring Points.

Identical operation and indication as standard call points. Generally used to monitor fire doors, main entrance etc for unauthorised entry or exit. Keyswitch allows door to be isolated to allow staff to use door without sounding the alarm.

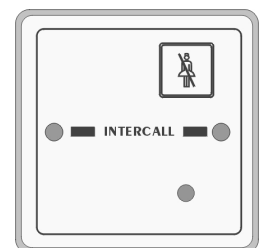


Slave Call Points.

Similar to standard call points, these units are generally used in rooms with several beds. The unit can only generate a standard call from the CALL button or jack socket. There is no facility to reset and this must be done on the standard call point within the room.

Slave Reset/Present Points.

Similar to standard call points, these units are located by the door of the room or ward to allow the staff to generate staff present indication and to reset the call away from the call point. There is no call facility on this unit. *See page 51*



Remote Infra Red Trigger.

The TIR4 Infra Red Trigger may be used to make a call away from the call point without trailing wires. All Intercall 700 call points are fitted with an infra red receiver as standard, which will receive signals from the trigger within a typical 5 x 5 metre room. *See page 48*

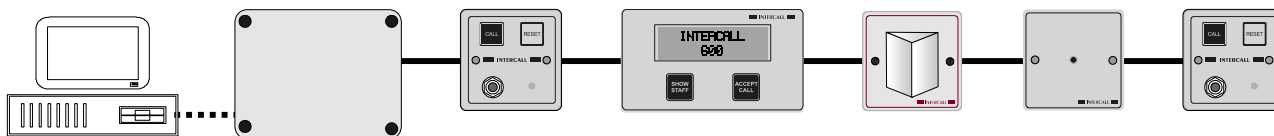
Pear Leads.

Pear leads are used to trigger the any Intercall call point. They are available in 2metre and 4metre lengths terminated with a 90 degree jack plug. There is a clip which may be used to secure the lead to bedding or residents clothing. The unit features a wipe clean, soft touch switch which is easy activated with light finger pressure.

Installation Guide.

System Concepts.

Both the Intercall 600 and Intercall 700 systems are fully addressable and network devices only require a connection to the common “Network” to operate. The Intercall 600 system uses a two core network for power and signals, while the Intercall 700 audio system uses a four core network, one pair for power and signal and the other pair for audio. All units are fitted with a positive (+) and negative (-) terminal and Intercall 700 audio devices have additional (a) and (b) terminals for the audio pair.



*‘Network Devices’ (Call Points, LCD Displays, Overdoor Lights etc) connect to the ‘Network’ which provides all power.
The system may be configured using a PC or Laptop Computer which connects to the L717 Power Supply.*

As can be seen on page 3, several Intercall 600 and Intercall 700 network devices may be used on either systems. In addition, it is not necessary to have the audio feature on an entire Intercall 700 system, for example L722 Non Audio Call Points may be used within the bedrooms while Audio Call Points and Audio Displays are used elsewhere on the system. To reduce audio interference and costs, we recommend that the network audio pair is only run to the parts of the system where the audio feature is required.

As with all systems of this nature, the integrity of the network cabling is paramount to the performance and reliability of the system. Excessive cable volt drop must be avoided and to achieve this we recommend the use of a heavier “Spine” cable between Power Suppl(ies) and to Junction Units, then lighter “Spur” cables from the Junction units, taking in the network devices. The network output from the power supply runs at 13.8V and the network devices will operate down to 9 Volts permitting a 4.8v maximum volt drop along the network cables to the furthest device.

We only recommend the use of FJB1 units which have fused outputs for the wiring of individual sections of the system. Generally, one FJB1 would be located on each floor on wing of the establishment, with the Spine Cable connecting them back to the Power Supply Units.

Understanding “Current Units”.

The amount of volt drop experienced in each length of cable depends on the size of the cable and the total amount of current drawn by the network devices attached to it. To simplify the cable run calculations, we have given each network device a ‘Current Unit’ value, which reflects the amount of current drawn by that unit. We set two limits; **1. The absolute maximum length of each spur from the FJB1 & 2. The maximum number of ‘Current Units’ per spur from the FJB1.** The spine cable is also limited to a maximum length per system.

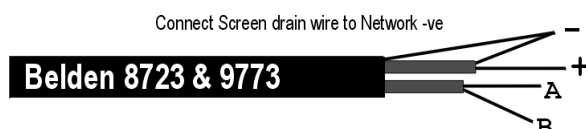
Network Cable for Intercall 600 and Intercall 700 Non speech Installations.

Use a 2 core non screened 0.75mm^2 (24/0.2) cable for the network ‘Spine’ between the power supplies and to the FJB1’s and 4 or 6 core non-screened stranded security alarm cable 0.22mm^2 (7/0.2) for the network spur outputs from the FJB1.

Network Cable for Intercall 700 speech Installations.

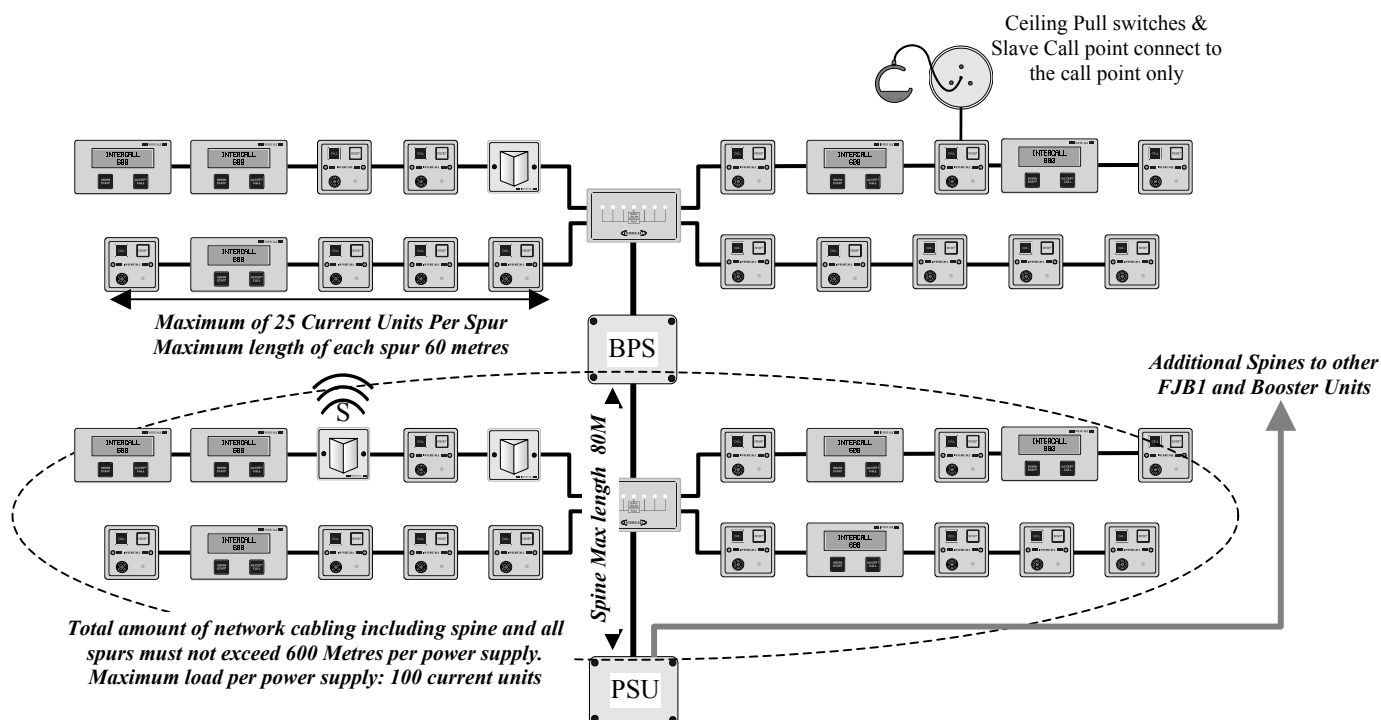
We recommend **Belden 9773-18AWG (0.80mm^2)** for the network spine and **Belden 8723-22AWG (0.32mm^2)** for the network spur outputs from the FJB1. However, smaller speech systems with less than 30 audio network devices, will operate using a 4 core 0.75mm^2 cable for the network ‘Spine’ & 6 core stranded security alarm cable 0.22mm^2 for the network spur(s). **IMPORTANT: Background audible interference (buzz) will be experienced when using non-screened cables for the network.**

Belden 9773 is a three pair & Belden 8723 is a two pair individual screened cable. Use one pair for the (+) & (-) & one pair for the (A) & (B). IMPORTANT: Connect the screen drain wire to the Network (-) terminal.



Belden cable is available from *Commtech Communications* www.commtechcomm.com Phone +44(0)1254 232638 Fax 301197 or other specialist suppliers. Use one pair for (+)&(-) and the other pair for (A)&(B) Connect drain wire to (-) The third pair in the Belden 9773 remains un-used.

Planning an Installation.



- Locate the **L717 PSU/Controller** in a central location of the building and run “**Spine**” cable(s) to FJB1 and Booster Power supply locations. We recommend one FJB1/Booster location per floor & the spine cable running between floors.
- Run a maximum of 6 cable spurs from the FJB1’s each no longer than 60 metres with a **maximum of 25 current units per spur**. See the chart on the right for a “**Current Unit**” rating for each network device.
- If the system requires more than **100 current units** – split the system with a **Booster Power Supply**.
- If the system requires more than 600 metres of network cable (including the spine and all spurs) – split the system with a **Booster Power Supply**.
- Each spine cable must be no longer than 80 metres from **Master Power Supply** to furthest **Booster Power Supply** (or FJB1)

The following table shows the number of ‘**Current Units**’ for each piece of equipment

Device	Description	No of Units
L622	Standard Call Point	1
L622M	Magnetic Call Point	1
L722DK	Door Point	1
CS1	Ceiling Pull Switch	0
SCP	Slave Call Point	0
L628	Larger LCD Display	4
L746	Overdoor Light	1
L746S	Light + Sounder	3
L714	Remote Sounder	4
L747	System Interface	4
RB1	Relay Board	2
PIR1	Passive Infra Red Unit	1
L722	Infra Red Call Point	1.5
L752	Audio Call Point	2.5
L758	Audio Displays Unit	4
L762	Audio Call/Disp Unit	2.5

- All **Booster Power Supply** inputs must be connected to the **Master Power Supply** output. *See page 30*
- Avoid running Network cables alongside mains cables., fluorescent lights, electrical switch-gear, lift machinery and motors and high voltage cables.
- Never use two cores within a cable used for other systems. Eg Fire Alarm, Telephones etc.
- **There must be NO CONNECTION between the Network + or – and mains electrical earth.**
- **IMPORTANT** The spur length limits assumes that units are located at regular intervals along the length of the cable and that a maximum of 20% of the call points are calling at any one time. This limit can be increased by reducing the length of spur or number of current units attached to the spur. *Eg 40% of the units calling at any one time, max cable run 30 metres or maximum 12 current units per spur.*

Replacing an existing System – using the existing wiring.

The **INTERCALL** system is ideally suited for the replacement of existing hard wired nursecall system, using the existing cabling but please note the following considerations.

- Study and make notes about the existing system.

The most common problems occur when the old system is removed before the wiring is understood. We need to identify two cores common to all parts of the system which are usually the supply lines. Look for legends on the printed circuit boards (**0v**, **GND**, **+12** + etc)

- Remove all parts of the old system from the wiring.

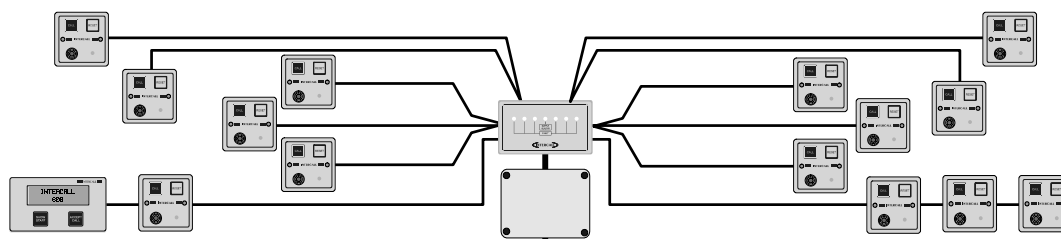
Another common problem is where parts of the old system are still connected, a remote sounder, bell or buzzer in another part of the system.

- Make sure the old power supply is switched off and disconnected from the system.

Do not attempt to keep the old system running on the same cables as you are installing the new system, you are most likely to damage both systems and delay completion.

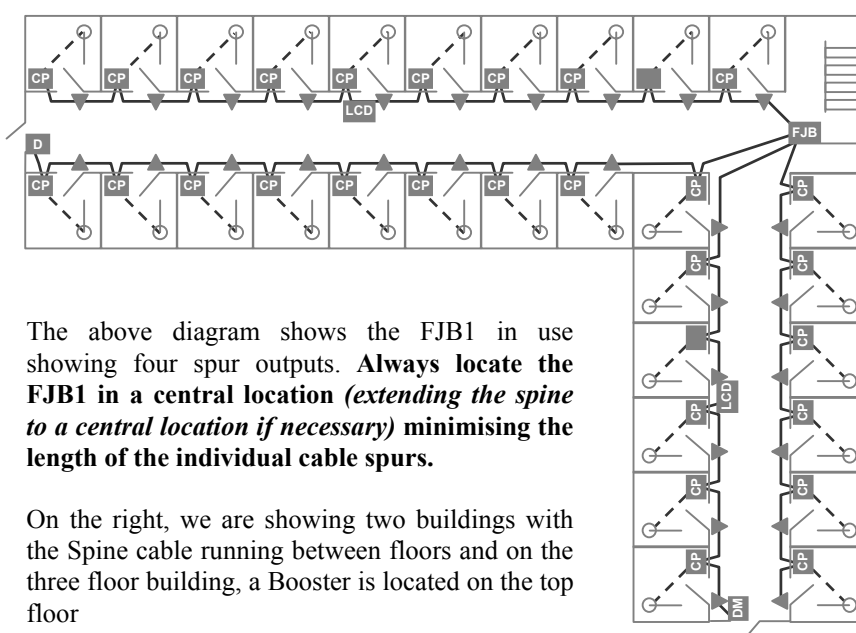
- Beware of Multi-core cables.

Multi-core cable is often used on older systems where every call point requires an individual connection back to the display panel. This cable must be 80 pair cable (160 cores) is quite common. If you are using multicore cable you should only use two cores within the multi-core length. If this cable is too small to connect the amount of current units required, then this cable should be replaced with a cable of the SPINE specification.



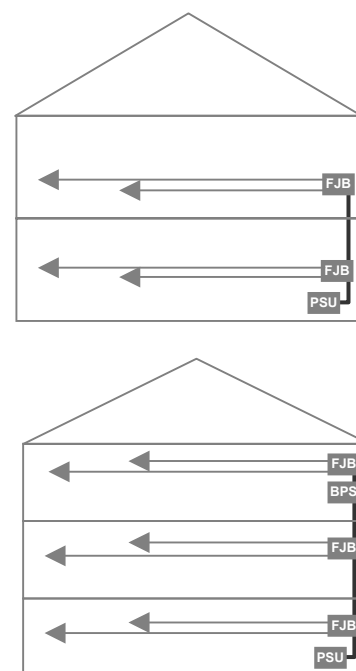
When using the existing cabling, normally there is one cable back from each call point. In this instance, we would connect several call points cables together (*to a maximum of 25 current units*) and connect them to one single output of the FJB1. Once the existing cabling is connected, additional spurs can be run from the FJB1 for new extensions as shown above.

Typical New Installation.



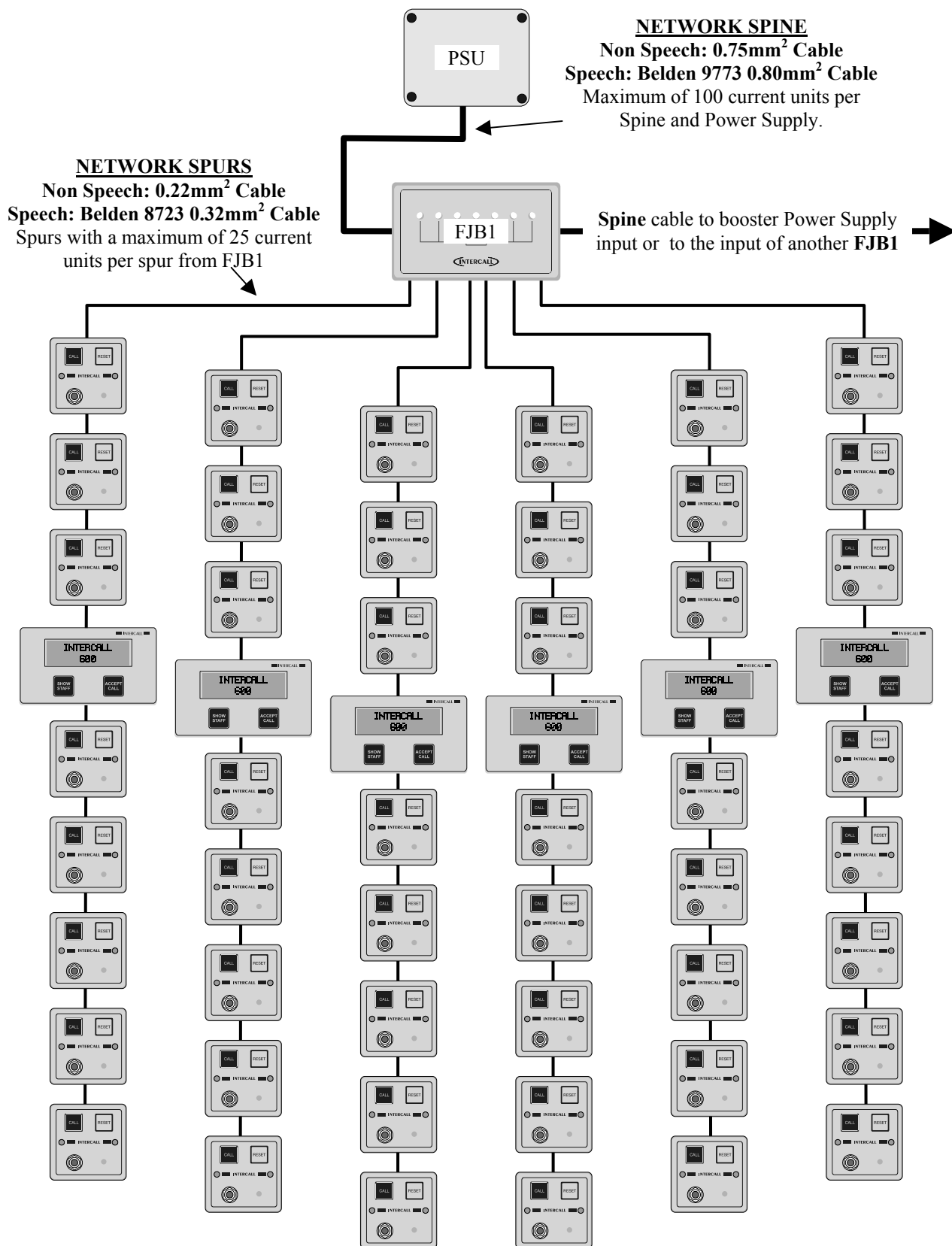
The above diagram shows the FJB1 in use showing four spur outputs. **Always locate the FJB1 in a central location (extending the spine to a central location if necessary) minimising the length of the individual cable spurs.**

On the right, we are showing two buildings with the Spine cable running between floors and on the three floor building, a Booster is located on the top floor



FJB1's in use.

This page shows the typical installation of a L617/L717 Master Power Supply and a single FJB1 Fused Junction Box. This application circuit may be repeated, where the 'PSU' is a Booster Power Supply, providing the input for all Booter Power Supplies are connected to the master output. *See page 30*



First Fix.

Please read the advice given on page 15 with regard to power supply position and required cabling techniques.

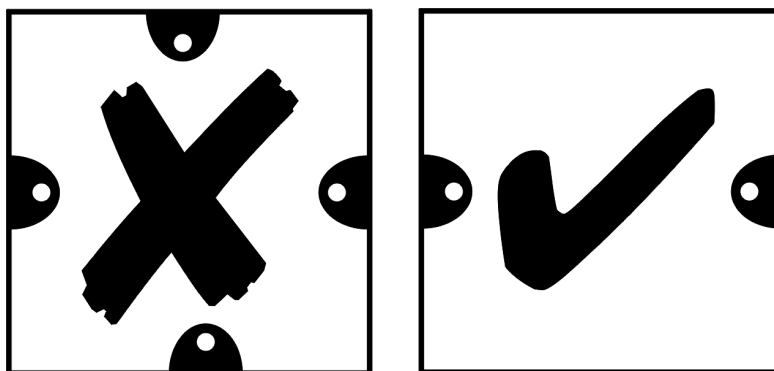
INTERCALL 600 and 700 Mains connection requirements	
L617 600 Series Master Power Supply	Non Switched Fused Spur unit with 5amp fuse fitted
L717 700 Series Master Power Supply	Non Switched Fused Spur unit with 5amp fuse fitted
L737 600/700 Series Booster Power Supply	Non Switched Fused Spur unit with 5amp fuse fitted
L748 600/700 Corridor LED Display	Non Switched Fused Spur unit with 5amp fuse fitted
RFTX Scope pager transmitter	Non Switched Fused Spur unit with 5amp fuse fitted
DPU414 Thermal Printer	Standard 13amp socket

Due to the wide variety of fixing possibilities, the Intercall system is not supplied with backboxes. We recommend the following available from your local electrical wholesaler or supplier.

SURFACE MOUNTING: CRABTREE 9048 or CONTACTUM 1052	SURFACE MOUNTING: CRABTREE 9047 or CONTACTUM 1042
FLUSH MOUNTING: 35mm Depth DOUBLE METAL BOXES	FLUSH MOUNTING: 25mm Depth SINGLE METAL BOXES*
FJB1 FUSED JUNCTION BOX	L622 / L722 NON AUDIO CALL POINTS
	L746 600/700 SERIES OVERDOOR LIGHTS
SURFACE MOUNTING: INTERCALL BB1 Backbox	L714 600/700 SERIES REMOTE SOUNDER
FLUSH MOUNTING: 35mm Depth DOUBLE METAL BOXES	RX1 RADIO RECEIVER
L628 600 SERIES DISPLAY UNIT	RB1 RELAY BOARD
L752 700 SERIES AUDIO CALL POINT	PIR1 PASSIVE INFRA RED DETECTOR
L758 700 SERIES AUDIO LCD DISPLAY UNIT	
L762 700 SERIES AUDIO CALL/DISPLAY UNIT	

VERY IMPORTANT

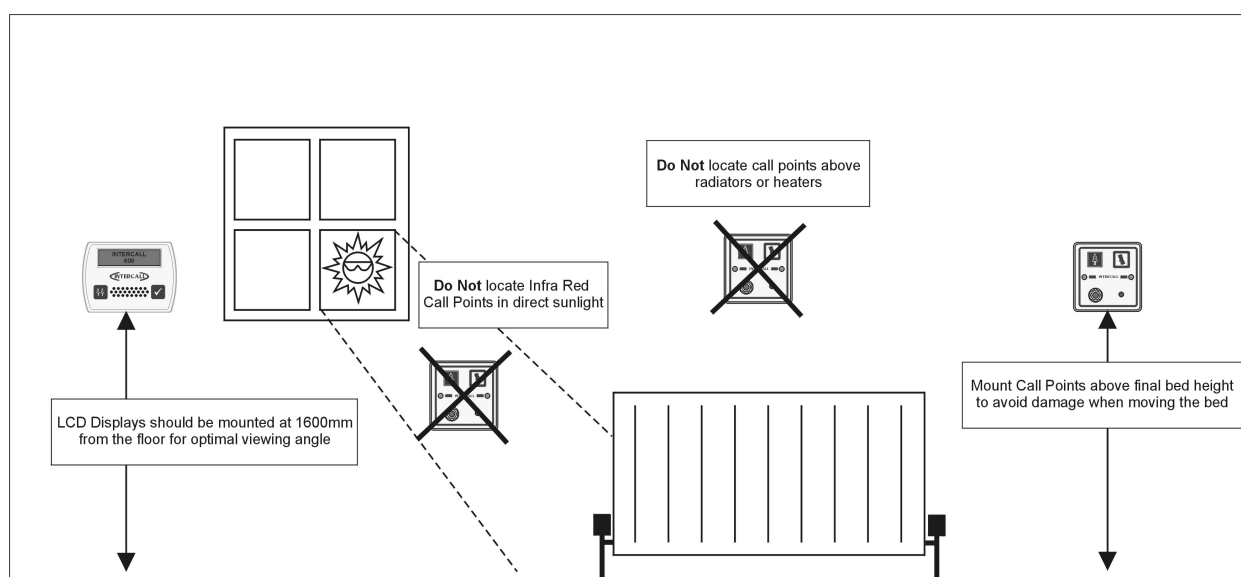
DO NOT USE METAL BACKBOXES BOXES WITH FOUR MOUNTING LUGS AS THEY RESTRICT ACCESS AND CAN DAMAGE SOME UNITS.



INTERCALL 600 and 700 Equipment which is not mounted in backboxes	
L617 600 Series Master Power Supply	Wall Mounted W240 x H180 x D100 (Allow 200mm access on all sides)
L717 700 Series Master Power Supply	Wall Mounted W240 x H180 x D100 (Allow 200mm access on all sides)
L737 600/700 Series Booster Power Supply	Wall Mounted W240 x H180 x D100 (Allow 200mm access on all sides)
TP1 Tone Pager Kit	Desk Mounted – Requires no fixed installation
RFTX Scope Transmitter Kit	Wall Mounted W190 H330 D100 (Not including aerial) (Allow 200mm Access around all sides)
CS1 Ceiling Pull Switch	Surface mounting only - Requires no backbox
DPU414 Thermal Printer	Desk Mounted – Requires no fixed installation

First Fix Recommendations.

- Always mount call points above the final bed height to avoid damage to the call points if the beds are moved.
- Locate Intercall **L722, L732, L752 & L762** Call points with integral Infra Red receiver, in a position suitable for infra red reception (Eg not behind curtains etc)
- **DO NOT** locate Infra Red Call Points in direct sunlight or directly under fluorescent lighting
- Locate LCD displays at typically 1600mm from the ground for ease of use.
- **DO NOT** locate any device directly above a radiator or other heat source as this may affect the front panel label and operation of the unit and LCD display.
- Power Supplies must be located in accessible positions for programming and maintenance access.
- Radio RFTX transmitters must not be located within 10 metres of any Intercall power supply.
- Do not locate audio call points and Audio display units 'back to back' on stud or partition walls as this will cause audio feedback as there is insufficient audio insulation between the two units to prevent this from occurring.
- When first fix is completed ensure INTERCALL parts are stored safely and the backboxes and any bare wires are protected from paint, nails and plaster!.



Second Fix.

These pages cover the connecting and basic testing of all parts of the system. It is intended as a brief overview for connecting and testing for the first time and does not go into great detail on each individual unit. Detailed information on each individual unit is covered from page 27 and the user guide from page 9.

Connecting the L617/L717 Master Power Supply.

- Connect the mains supply to the L717 Power Supply and switch on.
- The alarm will sound for about 4 seconds while the unit carries out a power on reset.
- If the supply is unstable, due to flat battery, a short on the output wiring or fluctuating mains supply, the unit will not reset and the alarm will continue to sound.
- After the reset, the following light should be visible: The Yellow '**Mains OK**' LED, the Green '**DC OK**' LED and the red '**Micro**' LED will be flashing at once a second.
- If the mains supply of off, the Yellow LED will not light & the mains failure alarm will beep every 5 seconds.
- If the Green LED is not lit check the fuse is intact and the fuse holder is tight around the fuse connections.
- Do not switch the system on by connecting the battery as the surge may blow the fuse.
- Switch off and connect one 'leg' of the installation so that we can test the operation of the units.
- Once the units are connected, test the system as per the instructions in page 22 Basic System Test.

ALWAYS CHECK THE POLARITY OF THE BATTERY AND ALL UNITS BEFORE SWITCHING ON!

All network devices are fitted with reverse polarity protection and the PSU network output fuse will blow or the power supply will shut down if any unit is connected incorrectly.

Basic System Test – Power Up.

Before the system is tested, the call point(s) address switches will need to be set. If you are testing a single call point set up we recommend setting the unit to BEDROOM 1. (Switch 1 OFF, All others ON) There is a complete list of factory text settings in this guide. If you will be using overdoor lights, set the switches on the overdoor light to the same setting as the call point.

- Connect the L617/L717 Master Power Supply and test as per the instructions as detailed above and switch the mains supply on.
- When power is applied to the call points, the re-assurance LED will flash green three times to indicate the unit has reset and is running correctly.
- When power is applied to the display units, the display will show the software version (e.g. **V2.01**) followed by the default standing text. The factory default standing text is **INTERCALL 600** or **INTERCALL 700** depending on the system.
- When power is applied to the overdoor lights they illuminate the three green flash start up pattern. Set the address switches in the same way as the Call Point addresses. (See page 34 for more information)

If you are not sure that the above power up sequence has operated correctly, please see page 69 Fault Finding Guide.

Basic System Test - Call Test. (Intercall 600/700)

Once the system has powered up correctly, the following test can be carried out:

*All items marked * are optional and may not be fitted on your system.*

- Press the **CALL** area on a call point.
- The red re-assurance LED will flash slowly on the call point.
- After a short pause, the display will sound and the LCD display will be showing **1 BEDROOM 1**.
- * The overdoor light assigned to BEDROOM 1 will show the standard call signal. (Slow Red Flash)
- Press the **RESET** area on the call point to reset.

Basic System Test - Accept Call. (Intercall 600/700)

The following tests apply to standard Intercall 600 and Non Audio Intercall 700 installations.

With the display sounding and showing the call, press the **CALL ACCEPT** button. The following will happen.

- The call point re-assurance LED will stop flashing red and flash green.
- The LCD will briefly display **-ACCEPTED-** on the lower line and the alarm will stop sounding.
- The call will be removed from the display and the LCD display will show **INTERCALL 600/700**.
- * The overdoor light will show slow flashing green.
- If you press and hold the **SHOW STAFF** button on the display after a pause you will see **1v BEDROOM 1**.
- Release the **SHOW STAFF** button
- After a delay, the call will return as per 1.
- Press the **RESET** area on the call point to reset.

The Accept Call, Nurse Present functions and the delay period can be disabled or configured for different applications and may not be enabled on your system. Please see page 54 for more information.

Basic System Test - Accept Call & Open Intercom. (Intercall 700 only)

With the display sounding and showing the call, press the **CALL ACCEPT** button. The following will happen.

- The call point re-assurance LED will stop flashing red and flash green.
- The LCD will briefly display **-ACCEPTED-** on the lower line and the alarm will stop sounding.
- The call will remain on the top line and **SPEECH OPEN** will be displayed on the lower line.
- The intercom channel will open and it is possible to listen to the call point.
- Press and hold the **ACCEPT** button on the display to speak to the call point.
- To cancel the intercom channel, press the **SHOW STAFF** button.
- The call will be removed from the display and the LCD display will show **INTERCALL 700**.
- * The overdoor light will show slow flashing green.
- If you press and hold the **SHOW STAFF** button on the display after a pause you will see **1v BEDROOM 1**.
- Release the **SHOW STAFF** button
- After a delay, the call will return as per 1.
- Press the **RESET** area on the call point to reset.

Basic System Test - Nurse Present & Location. (Intercall 600/700)

With no call active and the display showing the default text (**INTERCALL 600 or 700**), test the following:

- Press the **RESET** area on the call point and the green LED will light continuously.
- If you press and hold the **SHOW STAFF** button on the display after a pause you will see **1p BEDROOM 1**.
- * The overdoor light will show continuous green indication.
- Press the **RESET** area on the call point to reset.

Basic System Test – Staff Page. (Intercall 700 only)

With no call active and the display showing the standing text (**INTERCALL 700**) the following tests may be carried out:

- Press and hold the **ACCEPT** button on the display.
- Your speech will be amplified and output from every display on the system.
- Your speech will also be output from all call points in nurse present mode. *See page 11*
- You can also page from the call point as follows:
- Press the **RESET** area on a call point so the green LED lights continuously.
- Press and hold the **RESET/PAGE** button on the call point.
- Your speech will be amplified and output from every display on the system.
- Your speech will also be output from all call points in nurse present mode. *See page 11*
- Press the **RESET** area on the call point so the green LED is extinguished.

The above are simple system tests, for more detailed information, please refer to page 9 User Guide.

System Test Using the L747 'Network Scan' feature.

The L747 has a built in function that scans the entire Intercall 600 and/or Intercall 700 system and gives you a timed and dated printout of all programmed text in the system (Address Text and Caller ID*), list of addresses with active devices, pre-programmed pager address and the number of network devices (Call Points) on the system.

**Intercall 700 only.*

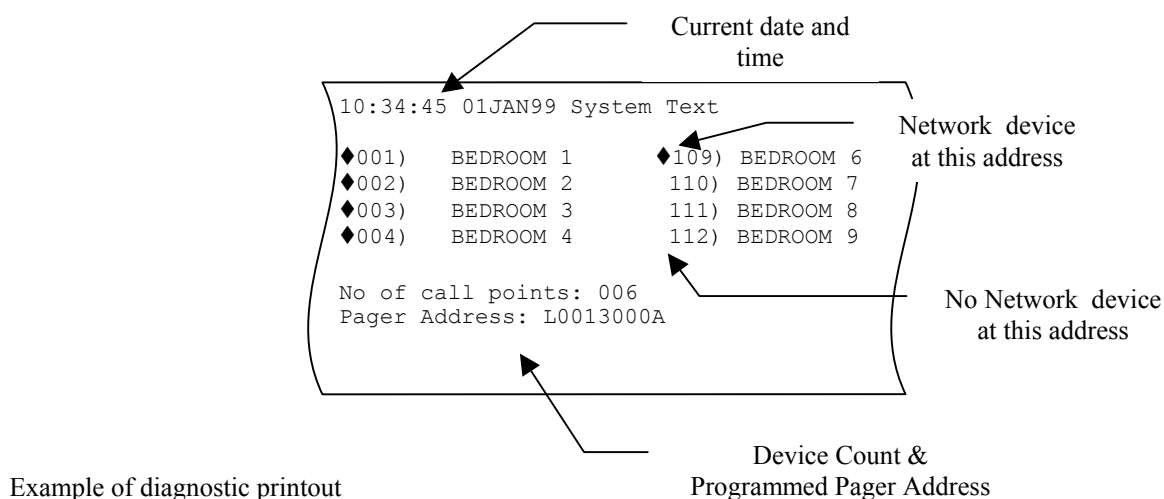
How do I get a printout?

Simple, just connect a DPU414 Thermal Printer in the normal way and set up the L747 for Printer mode. (All DIP Switches in the off position and the jumpers JP1 and JP2 on one pin only) Now, with the L747 LED flashing and the printer on-line switch SW2 to the ON position.

You can leave SW2 in the ON position if desired and switching it back to the OFF position will make the unit print the diagnostic printout again.

Ideal for:

- Finding double addresses
- Finding faulty cabling/call points
- Making sure all call points have the correct text associated with them
- Making sure all call points have text associated with them
- Checking the date and time
- Checking the programmed pager address



Installation Procedures – DPU414 connected to L747.

The L747 has now taken over from the L607 and L707 printer interface. It is plug and play and detects which system it is connected to. Please follow the instructions below:

- Unpack the Equipment and check you have the following items:
 - **DPU414 Thermal Printer**
 - **L747 Universal Interface**
 - **Mains ‘plug top style’ Power supply (PSU)**
 - **Parallel Data Lead for connection between L747 & Printer**
 - **Check battery is fitted into printer (See DPU414 Operation Manual page 25)**
 - **Roll of thermal paper**
- Locate DPU414 as required within 1.5 metres of L747 and mains socket.
- Plug power supply into printer & 13 amp socket (See DPU414 manual page 12)
- Switch power supply and printer on (See DPU414 manual page 10)
- Install paper roll into printer (See DPU414 manual page 13 & 14)
- Set ALL 8 of the L747 DIP switches to the OFF position (See Below).
- Set the JP1 and JP2 jumpers on the L747 on one pin only.
- Connect parallel data cable between L747 and Printer. (Manual page 21)
- Ensure DPU414 ‘power’ and ‘on line’ lamps are lit green. (Manual page 10)
- Connect the L747 to the NETWORK + and – cables. OBSERVE POLARITY !
- After about 5 to 10 seconds the printer will print the start up and the L747 LED will flash red once per second.
- **Check time is correct. Should you need to advance or retard the hour for BST or GMT, Press and hold the BST/GMT button until the red LED stops flashing and the printer reports the hour has been advanced or retarded. (If you go over repeat the operation until the correct hour is shown)**
- The date and time is factory programmed, this can be altered using the ‘747set.exe’ software utility, a copy of which can be downloaded from the Intercall web site.
- Secure the L747 to the wall in the backbox. (See Below).
- Secure the Parallel data cable with the jack screws. (See Below).
- Download system text in the normal way. (See Below).
- Changing the position of DIL Switch 2 will make the printer print out all text stored in the system (Addresses and User ID) and it will show a large dot to the left of all addresses that have a call point connected. – Ideal for commissioning and double address testing.
- The red LED on the front of the L747 flashes once per second when receiving good data from the network. If the printer is switched off, set off line or not connected – the red LED will stop flashing. If the printer runs out of paper – The data will be stored and printed out when the new paper roll is fitted.
- The following switches can be set on the L747 to select which calls printed etc – please check with the client.
 - SW1 OFF – Print when a fault occurs (Unit failure/tamper/mains failure) (No audible alarm)
 - SW1 ON – Don’t print when a faults occurs. (No audible alarm)
 - SW3 OFF – Intercall mode (Prints Nurse Present).
 - SW3 ON – Guardian Visit mode (Prints ‘Visit’ if reset trigger button pressed)
 - SW4 OFF – Print in condensed mode for Intercall 700 (Small Characters on one line)
 - SW4 ON – Print in normal mode for Intercall 700 (Larger characters on two lines)

Installation Procedures – Scope RS232 Serial RFTX Kit connected to L747.

The 747 is “plug and play” and detects which system it is connected to. Please follow the instructions below:

- Unpack the Equipment and check you have the following items:
 - Scope transmitter
 - L747 Universal Interface
 - Mains Lead for Scope Transmitter
 - RS232 Data Lead for connection between L747 & Scope kit (*This lead is only supplied when the Scope equipment is purchased from Intercall*). **Order Code 747SL**
 - Any additional pagers ordered
-
- Remove the lid of the Scope transmitter and secure the unit to the wall.
 - Attach the aerial to the Scope transmitter
 - Connect the power lead to the mains supply and plug this directly into the bottom of the Scope transmitter using the IEC power socket.
 - Switch the mains supply on & check the RED LED on the bottom of the Scope transmitter
 - **Connect the integral battery in the Scope transmitter.**
 - Unpack the L747 Universal Interface and secure the backbox to the wall.
 - Set the switches on the L747 as follows:
 - SW5 ON and SW8 ON (Towards the silver colour disk Battery)
 - ALL OTHER SWITCHES OFF
 - SERIAL I/O JUMPERS JP1 and JP2 FITTED OVER BOTH PINS
 - Connect the L747 to the NETWORK + and – cables. OBSERVE POLARITY !
 - After about 5 seconds the red LED on the front of the L747 will flash once a second.
 - Connect the RS232 data lead between the L747 socket and the right hand 9 pin data socket on the bottom of the Scope transmitter.
 - Check the L747 red is still flashing and secure L747 to backbox and parallel data connectors to L747 and Scope kit with lock screws.
 - Test by making call and checking GREEN LED on scope transmitter lights for approx 1 second while transmitting to the pagers.
 - The red LED on the L747 will continue to flash all the time good network data is being received and the Scope kit does not give a ‘Busy’ Signal
 - The following switches can be set on the L747 to select which calls are sent to the pager – please check with the client.

SW1 OFF – Page when a fault occurs (Unit failure/tamper/mains failure)

SW1 ON – Don’t page when a faults occurs.

SW2 OFF – Page when a call point is put into nurse present.

SW2 ON – Don’t Page when a call point is put into nurse present.

SW3 OFF – Page when a call point is Accepted.

SW3 ON – Don’t Page when a call point is accepted.

SW4 OFF – Page when a call point is reset.

SW4 ON – Don’t Page when a call point is reset.

Installation Procedures – Upgrading L607/L707 Printer Interface to L747

If the L607 or L707 Printer Interface has failed and you wish to replace this unit, it must be replaced with a L747 Universal Interface. The following text describes the upgrade procedure and pre-installation checks.

1. Check that the existing printer is a **DPU414** (*If the existing printer is a DPU411 or DPU40 then this will not work with the L747 and a new DPU414 must be purchased*)
2. Assuming the existing printer is a **DPU414** you will need to purchase the following items:
 - DPU414 Battery pack **Order Code E1779**
 - DPU414 Plug top power supply **Order Code E1780**
 - DPU414 Parallel Data Cable **Order Code W1788**
 - L747 Universal Interface
3. If the existing printer is a **DPU40 or DPU411** you will need to purchase the following items:
 - DPU414 Thermal Printer
 - L747 Universal Interface
4. Installation/Upgrade procedure:
 - Disconnect and remove existing **L607 / L707** Printer Interface.
 - Discard existing power and data leads between interface and printer
 - Fit batteries into the compartment in the DPU414 Printer. See DPU414 manual page 25
 - Plug top power supply plugs into 13Amp socket and rear of DPU414 Thermal Printer
 - Connect new white data cable to DPU414
 - Switch plug top power supply and leave connected to DPU414 for 24hours to charge battery.
 - Install L747 as per standard instructions.

To fit the battery into the DPU414:

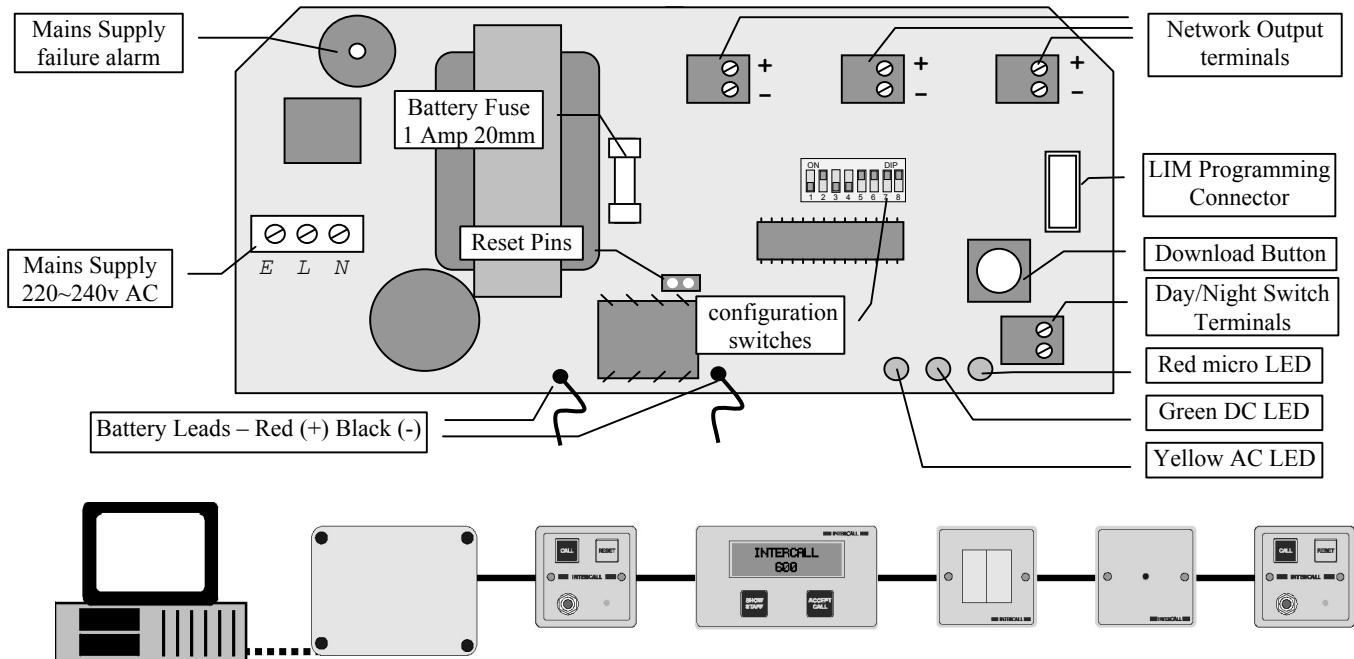
- Turn the printer over, locate the batter compartment and remove the compartment cover.
- Connect the battery pack plug to the small socket in the battery compartment.
- Insert the battery pack with the label showing.
- Replace the battery compartment cover.
- **Connect the mains charger and switch on for 24 hours to fully charge the battery.**

Intercall 600	617
Intercall 700	717

System Components.

L617 (600 Series only) & L717 (700 Series only) Intelligent Power Supply Unit.

The L617 is to be used with Intercall 600 systems and the L717 is to be used with Intercall 700 systems. The provide power and master clock signals for the network devices. The Power supply stores the text programming information & when this is customised, it will need to be downloaded to any new display, call logger or pager interface installed on the system at a later date. **When using with an Intercall 700 system, the (A) and (B) cables do not connect to this unit.**



Mains Terminals: 220/240VAC via a 3 Amp fused spur outlet. **Do not connect to a plug top!**

Battery Leads: 12v, 1.9/2.1/2.4 Ah sealed lead acid battery. **OBSERVE POLARITY!**

Output Terminals (+-): Three pairs provided for convenience, connect to network devices.

LIM Connector: Connects to LIM for system text programming. (See page49)

Configuration Switches: See page 68 for a complete list of DIL switch settings.

Day/Night Terminals: By connecting a switch between these two terminals you can switch the between the two volume levels set-up on the displays. (See Pages 32)

Download Button: Press & hold for 10 seconds, then release, to download text to LCD displays. **THE BATTERY MUST BE CONNECTED WHEN DOWNLOADING**

Reset Pins: If shorted, resets the power supply and cancels all calls active on the system.

Mains Failure Alarm: Beeps every 3 seconds when no mains supply is present.

Red Led: Flashes, indicating unit is operating correctly.

Yellow Led: Indicates mains AC is present and transformer is not damaged.

Green Led: Indicates 12volt DC supply is present and fuse is intact

Onboard Fuse: 1Amp 20mm protection for power supply & battery.

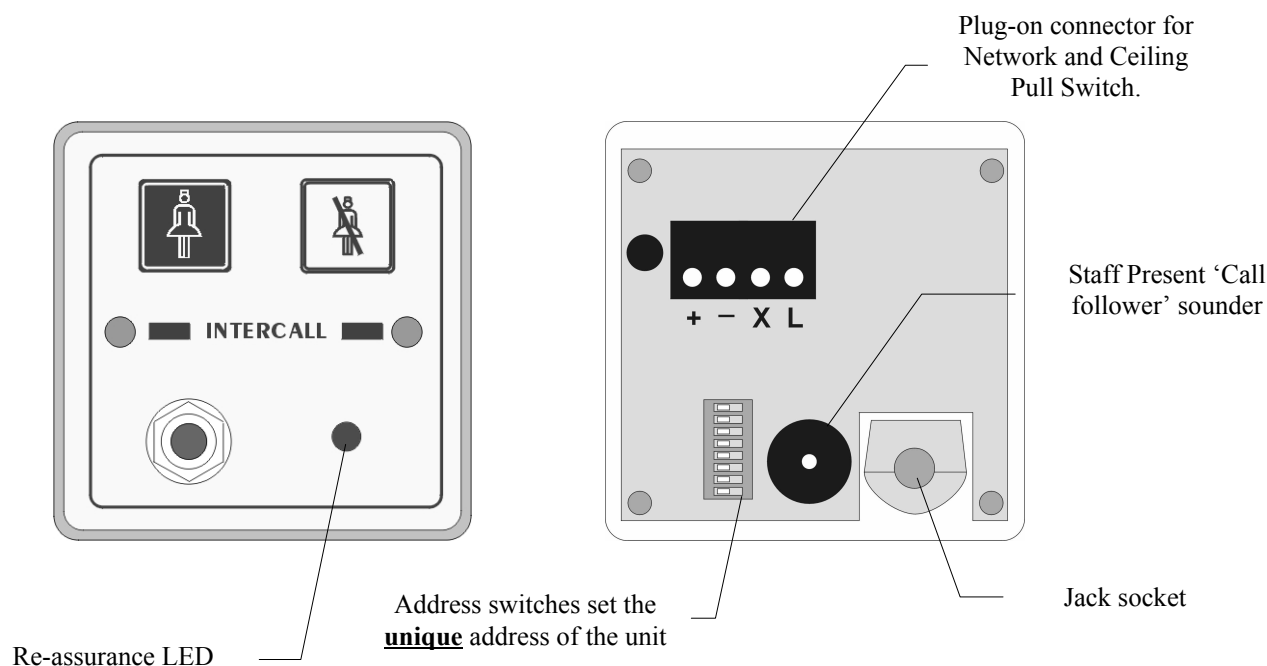
Installation: Self Contained Surface Mounted Case. (See Below)

Size & Weights: 225 x 180 x 90 mm, 1400g

Intercall 600	✓
Intercall 700	✗

L622 Standard Call Point.

The L622 is the standard call point for the Intercall 600 system. It can generate 5 independent levels of call which are indicated by the integral twin colour re-assurance LED. There is a 'call follower' sounder which sounds when the call point is in 'staff present' mode to inform staff of another call. The industry standard jack socket will accept any closing contact input from pear leads, pressure mats, radio triggers and a host of other triggering devices. The X and L terminals are used to connect to ceiling pull switches. Options which must be specified when ordering include; magnetic key reset, (**L622M**) remote reset (resets call when accepted at display) and emergency only. Please refer to page 9 for a guide on the use of the call point. For Non-Latching applications, please see the **AN133** on page 44.



Network Terminals: Connect to the Intercall 600 (2 wire) Network. [+ , -] **OBSERVE POLARITY**

X Terminal: Connect external normally open contacts between here and Network –ve to trigger the call point.

Re-assurance LED:

- Slow Red flashing – Standard Call
- Slow Red/Green flashing – Assistance Call
- Rapid Red flashing – Emergency/Crash Call
- Green flashing - Accepted Call – Staff on their way
- Constant Green – Nurse Present Mode

L Terminal: LED Output for ceiling pull switches with built in re-assurance lights.
Warning: This terminal must not be connected to any other device without prior consent from our technical support department.

Pear lead Socket: Industry standard socket that will accept any normally open switch.
This socket can accept input from pear leads, pressure mats, radio triggers etc.

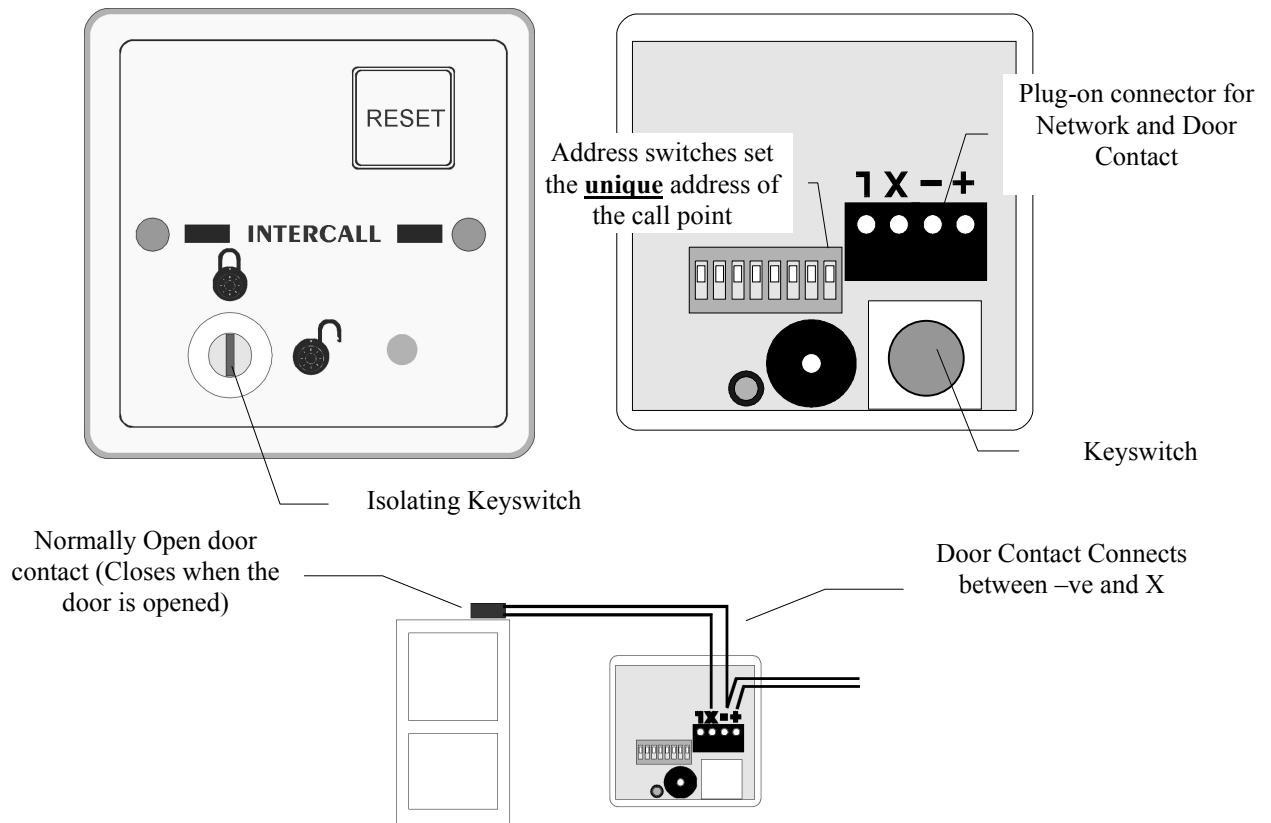
Installation: Flush or surface mount in standard 'single size' electrical backbox.

Size & Weights: 80 x 80 x 40 mm, 70g

Intercall 600	✓
Intercall 700	✓

L722DK Door Monitoring Point. *This unit will be replaced with the L733*

The L722DK is the Door Monitoring Point for the Intercall 600 and Intercall 700 systems. It is used to protect fire doors exit doors and other sensitive areas. The door is fitted with a magnetic contact, which is used to trigger the call point and activate the call system. The unit is physically identical to the standard L622 call point but there is an isolating keyswitch switch in place of the jack socket. This is used by authorised personnel to isolate the unit and prevent it from activating the alarm. The unit activates 'Emergency' call as standard and is reset with a single press of the reset button.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+ , -] **OBSERVE POLARITY**

Keyswitch: Two position keyswitch which isolates door contacts. The key may be removed in either position.

X Terminal: Connect external normally open door contacts between here and Network -ve to trigger the door monitoring point. The contacts must close when the door is opened to trigger the door point.

Re-assurance LED: Slow Red flashing – Standard Call
Rapid Red flashing – Emergency/Crash Call

Call Types: There is no nurse present facility on the Door Monitoring Point and any remote trigger will generate an emergency call.

L Terminal: Output signal to drive remote Led (If required)
The Output from this terminal is limited to 12VDC 5mA

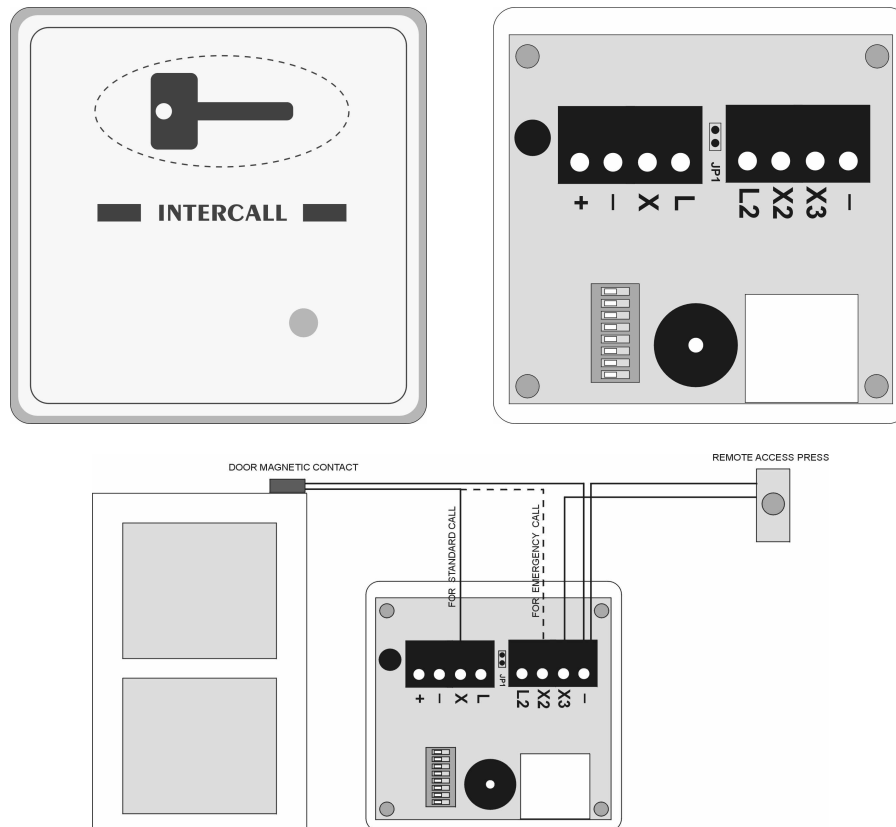
Installation: Flush or surface mount in standard 'single size' electrical backbox.

Size & Weights: 80 x 80 x 40 mm, 70g

Intercall 600	✓
Intercall 700	✓

L733 Door Monitoring & Access Control Point.

The L733 replaces the L722DK as the Door Monitoring Point for the Intercall 600 and Intercall 700 systems. It is used to protect fire doors, entrance & exit doors or other sensitive areas. The door is fitted with a magnetic contact (not supplied), which is used to trigger the call point and activate the call system. The unit is controlled with the use of a key token, which performs all functions when brought near the token detection area on the fascia. The unit features standard call and emergency call generation, integral 20 second exit timer with audible bleep and mode jumper to prevent sensitive or dangerous exit doors being permanently left open. The unit automatically re-activates once the door is closed. The unit is supplied with two magnetic tokens.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+ , -] OBSERVE POLARITY

X Terminal: Standard Call Input, if the unit goes into alarm it will generate a standard call.

X2 Terminal: Emergency Call Input, if the unit goes into alarm it will generate an emergency call.

X3 Terminal: Remote authorised access press button input, this mimics the functions of the token area in a remote location (eg external side of the door)

Exit Timer: To allow authorised personnel to use the door without generating an alarm. Before opening the door, swipe the token area once, the green LED will flash and the sounder will pulse. The door may now be opened, however, if the door remains open after the 20 seconds, the alarm will sound. If the door is opened & shut within 20 seconds, the unit will re-arm immediately.

JP1 Fitted: This allows the door to be permanently left open. Before opening the door, swipe the token area twice, the sounder stops & the LED is continuously green. The door can now be opened and left open without an alarm being generated. Once the door is shut, the unit will automatically re-arm immediately.

JP1 Removed: This prevents the door from being permanently left open & disables the double swipe feature described above. If the door is left open for more than 20 seconds, the alarm will sound.

Alarm Reset: The alarm is reset but closing the door and swiping the token area once.

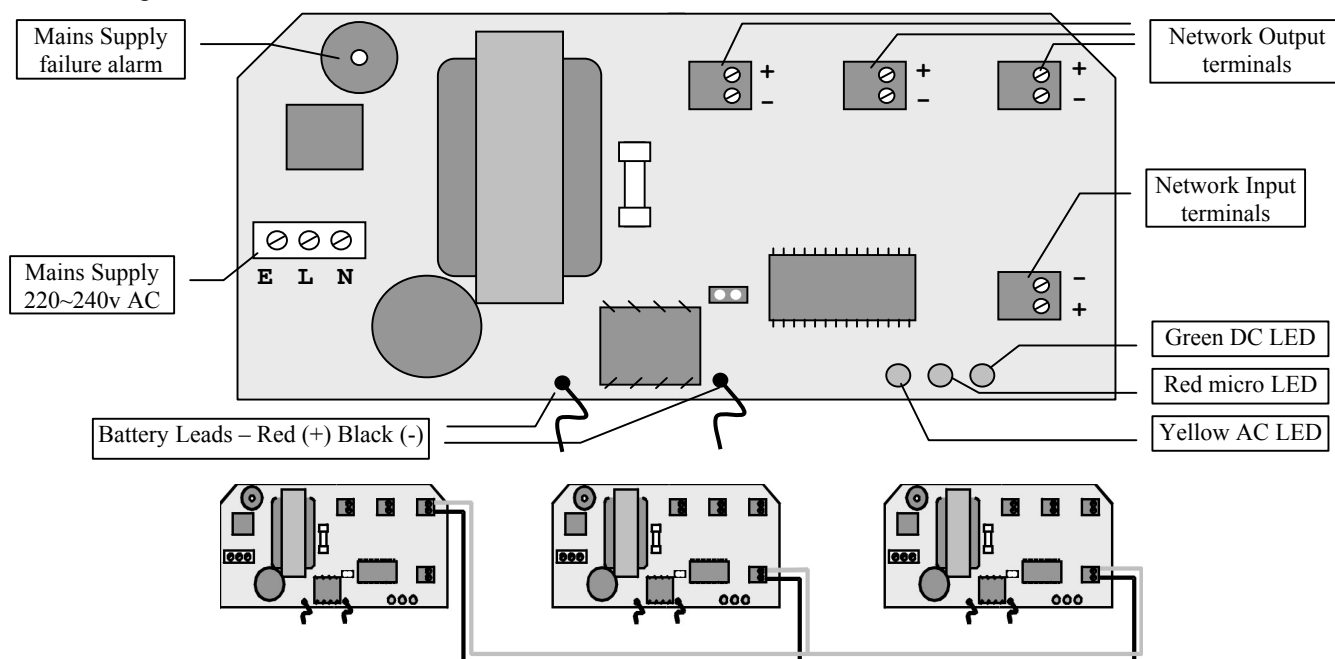
Installation: Flush or surface mount in standard 'single size' electrical back-box.

Size & Weights: 80 x 80 x 40 mm, 70g

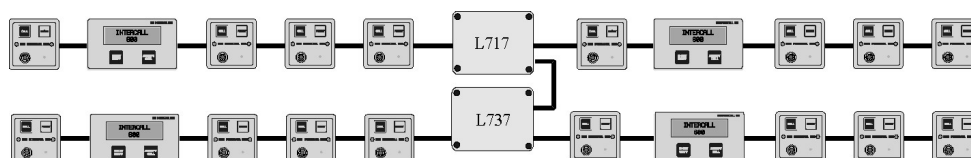
Intercall 600	✓
Intercall 700	✓

L737 Universal Booster Power Supply Unit.

The Booster Power Supply unit is designed to increase the permitted number of units and quantity of cable that can be used on any one system. Only one master supply may be connected on any one system but several booster units may be connected as required. The input of the all booster unit(s) must be connected directly to the output circuit of the master and not 'daisy chained'. (See diagrams below) You must not make any connection that will effectively 'short out' the L737 input +ve and output +ve. When installing a system that requires a booster, always load the booster(s) output with more cable than the master. You may locate the Booster Power Supply either alongside the master unit or on the next floor/wing etc.



The input to all Booster PSU's must be connected to the output of the Master PSU



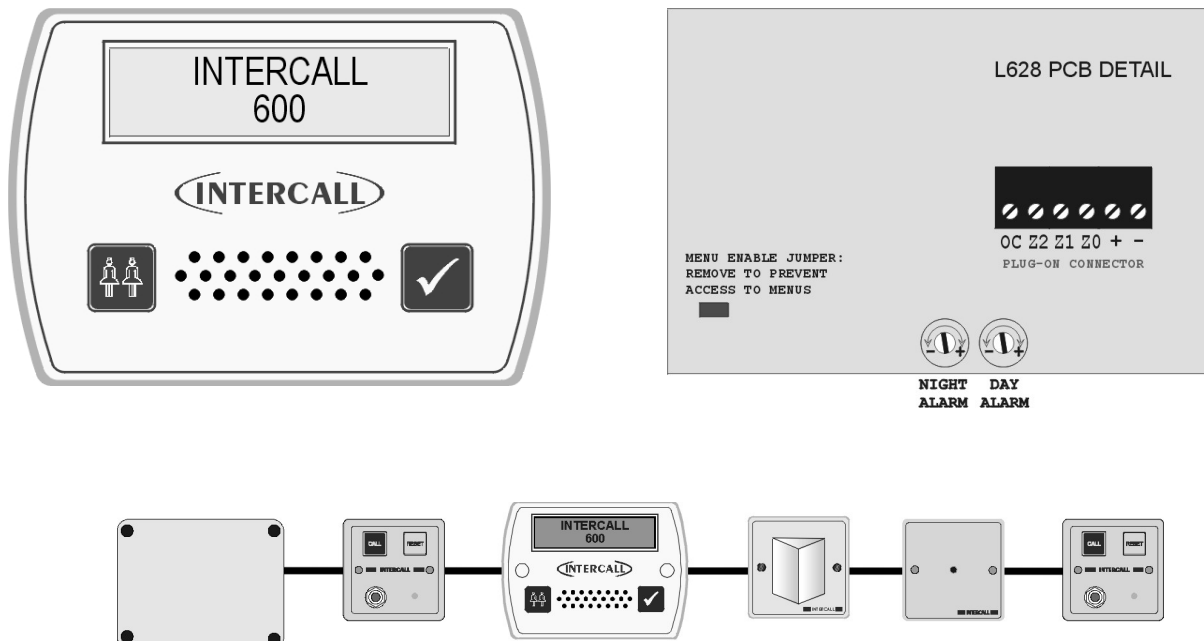
Use a Booster PSU to split the cable and system loading

- Mains Terminals:** Live , Neutral , and Earth, 220~240v AC via a 3 Amp fused spur outlet.
- Battery Terminals:** Flying leads with spade terminals for 12v, 1.9/2.1/2.4 Ah battery.
Reverse Connection of battery will destroy unit.
- Output terminals (+&-):** Three pairs provided for convenience, connect to network devices.
For Intercall 700, the A & B cables are simply joined input to output.
- Input Terminal:** Connect to output circuit of master power supply.
- Reset Pins:** If shorted, resets the booster power supply.
- Mains Failure Alarm:** Beeps continuously when no mains supply is present and at power on reset.
- Red Led:** Flashing - booster running. Off – network input failure.
- Yellow Led:** Indicates mains AC supply is present.
- Green Led:** Indicates 12volt DC supply is present and fuse is intact.
- Onboard Fuse:** 1Amp 20mm protection for power supply.
(The charger current limit is set at 1.6 Amps)
- Installation:** Self Contained Surface Mounted Case. (See Below)
- Size & Weights:** 225 x 180 x 90 mm, 1400g

Intercall 600	✓
Intercall 700	✗

L628 LCD Display Unit.

A display unit is required in every location where calls are to be shown and the alarm is to sound. The L628 features two-line LCD display with backlight and a multi-level adjustable alarm. (See page 10 for more information) It is capable of sounding a different tone for selected call points (doors, drug cupboards, telephone, etc) and only displaying specific call points (*Zoning*) if required. More information can be found from page 54. There is an open collector output, which can be connected to the RB1 Relay Board [See Page 37] or used to directly trigger external equipment. All displays are identical but can be configured on site to operate independently. There is an additional jumper, which disables the access to the display menus.



Network Terminals: Connect to the Intercall 600 (2 wire) Network. [+,-] OBSERVE POLARITY

Z0, Z1, Z2: Connect to zone switch or wire link (See 'Zone Switch Connection' Below)

OC Output Terminal: Open collector output active continuously when the alarm is sounding.
Note: Rating 12vDC 100mA. Minimum [ON] resistance = 100 Ohms.
*The OC terminal may be used to trigger an external device directly, which will accept this type of input. Alternatively you may connect this terminal to a **RB1 Relay Board** which will provide normally open & normally closed 'dry' contacts.*

Night Alarm Setting: This controls the alarm volume when in 'night' mode.

Day Alarm Setting: This controls the alarm volume when in 'day' mode.
To change between the 'day' and 'night' mode you will need to connect a switch to the DAY/NIGHT terminals on the Master Power supply. (See page 27)

Zone Switch: This text is intended as a technical reference only and details of zoning are discussed on page 57. When a display is required to only sound for specific call points, we need to connect a switch or permanent wire link to the 'Z' terminals. The following connections force the display to use the address windows that are programmed on site:

Z1 Not Connected,	&	Z2 Not Connected	= Global (Sound for all calls)
Z1 Connected to Z0	&	Z2 Not Connected	= Use Address Window C
Z2 Connected to Z0	&	Z1 Not Connected	= Use Address Window B
Z1 Connected to Z0	&	Z2 Connected to Z0	= Use Address Window A

Installation: Flush or surface mount in standard 'double size' electrical backbox. (See page 19). Connects to system two core and optional zone switch and auxiliary devices.

Size & Weights: 80 x 140 x 40 mm, 200g

Intercall 600	✗
Intercall 700	✓

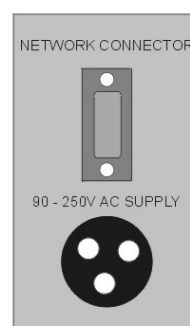
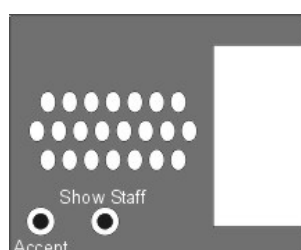
L748 Corridor LED Display Unit.

The L748 Corridor LED Display is ideal for where calls need to be easily and clearly seen by staff on the move. It may be used in several applications including hospitals, doctors surgeries and larger nursing homes. Call information is very clearly displayed on the illuminated 16 character display. There is an integral alarm unit, which can be used to alert attention and may be disabled when not required. To avoid confusion, the display can be configured to show a standing message or appear “off” when no calls are active on the system.

The unit is compatible with the **INTERCALL 700** protocol only and shows the same text as the LCD display units. The unit can either operate as the only type of display on the system or can be used in conjunction with the standard LCD units.



FRONT VIEW OF DISPLAY



END VIEW OF DISPLAY

Operation of the unit is similar to the standard LCD units, with all calls numbered in queue order. Emergency and Attack calls are “flashed” on the display to show the higher priority while normal, assistance and priority calls are stored in memory but not displayed until the higher priority calls are dealt with.

There are no user controls on the unit, however, the display menu controls are available and the unit has a unique display menu structure for configuration. These menus are configured using the two buttons in a similar manor to the standard display. For more information on the L748 Display Menus, please refer to page 57

Installation: The unit is supplied with a mounting bracket, which is secured to the wall first and the display is mounted onto the bracket, for straightforward installation and maintenance purposes.

Connections: The L748 is supplied with ‘open ended’ 3 metre mains supply lead and 3 metre data lead, both of which are terminated with suitable connectors to mate with the L748. The connections to the L748 unit are shown on the above right.

Physical Size: Width 910mm x Height 950mm x Depth 60mm

Character Size: H60mm x W40mm Red Illumination.

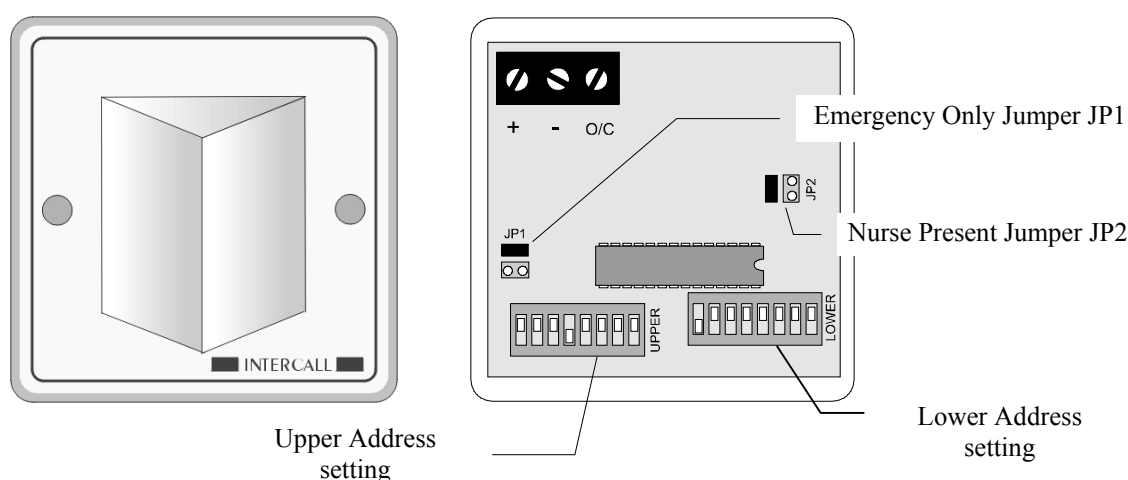
Supply Voltage: 90 – 250V AC/DC

Power: Max 15 Watts

Intercall 600	✓
Intercall 700	✓

L746 Addressable Overdoor Light.

The L746 Overdoor light is an optional item usually located above a door or end of corridor to indicate the status of the call point(s) within. It is fitted with twin ultra-bright LED's which mimic the re-assurance indicator on the call points. The unit is fully addressable and requires no separate connection to the call point(s). It is simply set to the address range of the call points it is required to indicate. There are with two banks of DIL switches, one set to the lowest call point address and another set to the highest address. As the unit can only show one type of call at a time, calls are priorities as follows: Attack+Emergency/Assistance/Call. The unit is available with an integral sounder Order code **L746S**.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+ , -] **OBSERVE POLARITY**

OC Output Terminal: Open collector output active continuously when the alarm is sounding.
Note: Rating 12vDC 100mA. Minimum [ON] resistance = 100 Ohms.
*The OC terminal may be used to trigger an external device directly, which will accept this type of input. Alternatively you may connect this terminal to a **RBI Relay Board** which will provide normally open & normally closed 'dry' contacts.*

Jumper JP1: **Emergency Only Jumper** - When fitted, the unit will *only* indicate emergency calls.

Jumper JP2: **Nurse Present Jumper** - When fitted, the unit will *not* indicate nurse present status.

Light Patterns:

Standard/Priority Call	-	Flashing Red Indication.
Attack / Emergency Call	-	Rapid Flashing Red Indication.
Staff Present	-	Continuous Green Indication.
Accepted/Spoken Call	-	Flashing Green Indication.
Assistance Call	-	Alternative Red/Green Indication.
Tamper	-	Slow Alternative Red/Green Indication.

Lower Address : Sets the lowest call point address that the light will respond to.

Upper Address : Sets the Upper call point address that the light will respond to.

*The L746 will respond to all call points between the lower & upper addresses with the highest priority level of call. Overdoor light settings may overlap so that more than light will respond to several call points. **If the unit is required to respond to a single call point address, set both lower and upper DIL switches to the same address.***

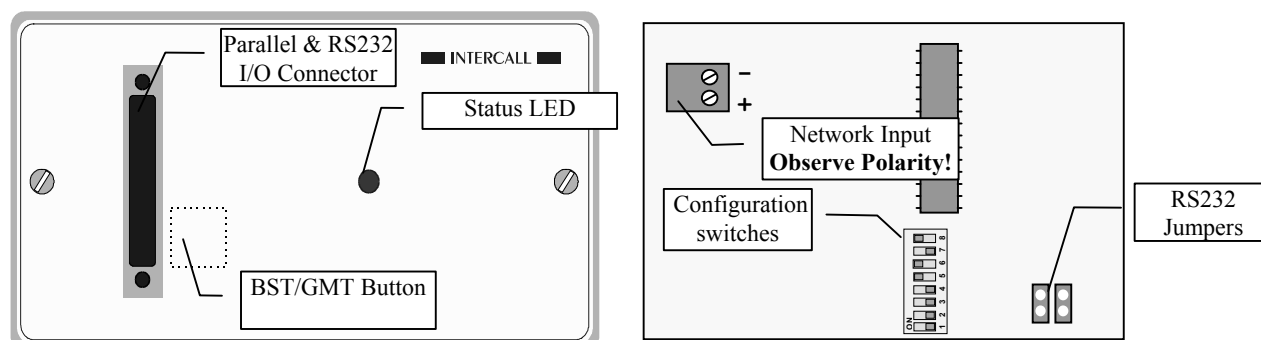
Installation: Flush or surface mount in standard 'single size' electrical backbox. (See page 19). Connects to system two core and optional ceiling pull switch and auxiliary devices.

Size & Weights: 80 x 80 x 40 mm, 70g

Intercall 600	✓
Intercall 700	✓

L747 Universal System Interface.

The L747 Universal System Interface can be used to output system activity in various formats. In ‘printer mode’ it is used with the **DPU414 Thermal Printer** to provide a printed record of all system events, with date & time. In ‘Pager mode’ it is used with the **RFTX Scope Paging Equipment** kit to provide alphanumeric paging output, details of which are on page 36. In ‘PC mode’ it is used with the **Windows Call Management Software** which is a comprehensive PC package designed to manage resident call information. In addition, the unit contains a diagnostic printout mode, which can provide a hard copy of all programmed text and active network devices, which is ideal as a complete ‘system address test’. **See Page 23 for more information.**



Pin	Description	Pin	Description	Pin	Description	Pin	Description
1	Parallel Strobe Output	6	Parallel Data 4 Output	11	Parallel Busy Input	16	Not Connected
2	Parallel Data 0 Output	7	Parallel Data 5 Output	12	Not Connected	17	RS232 RTS Output
3	Parallel Data 1 Output	8	Parallel Data 6 Output	13	RS232 CTS Input	18	Not Connected
4	Parallel Data 2 Output	9	Parallel Data 7 Output	14	RS232 TX Output	19-25	Signal Ground
5	Parallel Data 3 Output	10	Not Connected	15	RS232 RX Input		

Note: Data Cables are supplied with DPU414, RFTX Scope kit & PC Software kit.
Please refer to page 68 for cable connection details.

Switches	Pager Mode	Printer Mode	CMS LITE
SW1 Off	Print & Page for system faults and lost devices		OFF
SW1 On	Don't Print or Page for system faults and lost devices		-
SW2 Off	Page for Nurse Present	Change SW2 position to print diagnostic printout	OFF
SW2 On	Don't Page for Nurse Present		-
SW3 Off	Page for Accept Call	Intercall "Staff Present" mode	OFF
SW3 On	Don't Page for Accept Call	Guardian "Visit" mode	-
SW4 Off	Page for Call Reset	Condensed Printout (700 only)	OFF
SW4 On	Don't Page for Call Reset	Condensed Printout off	-
SW5	ON	OFF	ON
SW6	OFF	OFF	ON
SW7	OFF (See Note 1 below)	OFF	OFF
SW8	ON	OFF	ON
JP1 JUMPER	ON (Fitted)	OFF (Not Fitted)	ON (Fitted)
JP2 JUMPER	ON (Fitted)	OFF (Not Fitted)	OFF (Not Fitted)

All other combinations of switches are illegal and may cause spurious results
Note 1: SW7 Controls RS232 Baud Rate Off = 1200baud (default) On = 2400 Baud.

Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+ , -] **OBSERVE POLARITY**

I/O Connections: 25way D female with both parallel or serial connections available. Pin out as above.

JP1 & JP2 Jumpers: Both must be fitted to enable RS232 programming and RS232 data output.

Date & Time: Factory programmed & battery backed – ‘747set.exe’ utility available for on-site programming.

BST/GMT button: **Printer mode Only** – Touch button under label to advance hour for British Summer Time. In the Spring, press and hold until LED stops flashing, release button and printer will advance hour. Repeat operation for converting back to GMT in the Autumn. *If an hour is advanced or retarded by mistake, repeat operation 23 times to get correct hour setting.*

Status LED: Flashes twice a second to indicate unit operational. If the output device is not connected or is giving a ‘busy’ signal, the LED will not flash.

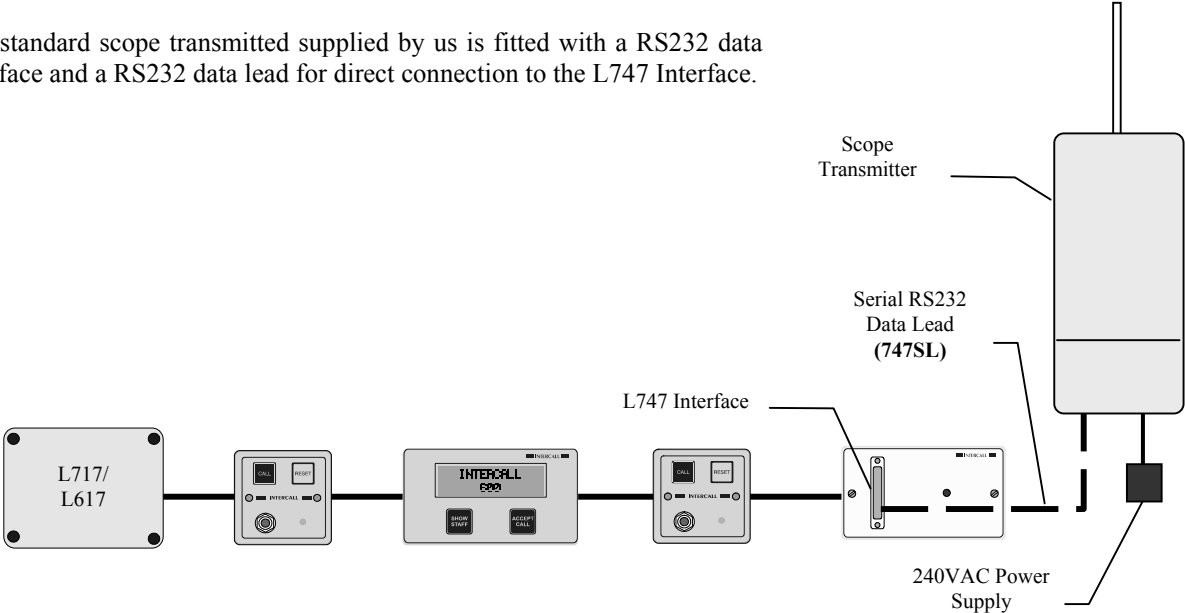
Installation: Surface mount into 35mm depth double gang backbox. (Size & Weight : 130 x 86mm 185g)

Intercall 600	✓
Intercall 700	✓

Alphanumeric Paging Kit.

The Alphanumeric Paging Kit is used in conjunction with the L747 Universal System Interface to provide alphanumeric paging for both the Intercall 600 and 700 systems. The kit comprises; Paging transmitter with integral 240V ac supply and back up battery, power lead, RS232 data connection lead, ¼ wave antenna and one 80 character alphanumeric pager. Please read and retain all relevant documentation supplied with the transmitter and pager. You attention is drawn to the licensing requirements of this type of equipment and the package should contain all application forms.

The standard scope transmitted supplied by us is fitted with a RS232 data interface and a RS232 data lead for direct connection to the L747 Interface.



How the pagers will display the calls:

Intercall 600		
<div>BEDROOM 323 CALL</div> <div>Intercall 600 Standard Call</div>	<div>BEDROOM 323 EMERGENCY</div> <div>Intercall 600 Emergency</div>	<div>BEDROOM 323 RESET</div> <div>Intercall 600 Reset Call</div>
<div>BEDROOM 323 CALL MARY .JONES</div> <div>Intercall 700 Standard Call with user ID</div>	<div>BEDROOM 323 CALL NO USER ID</div> <div>Intercall 700 call with no user ID</div>	<div>BEDROOM 323 ATTACK USER No 54</div> <div>Intercall 700 Attack call with user ID</div>

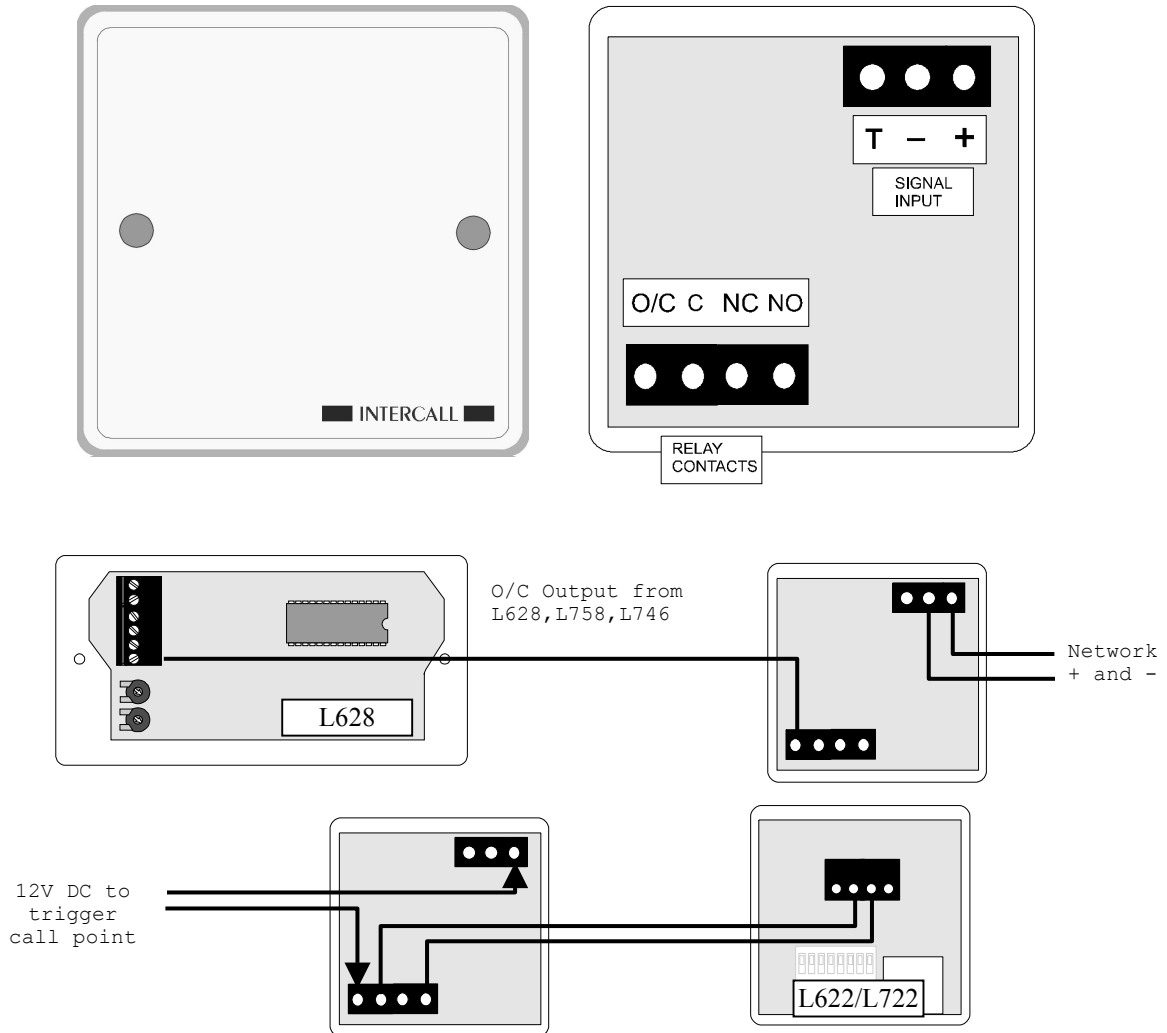
Pagers are supplied with full operating instructions and modes of operation. Additional pagers are available part number **RAP**. However it is important to record the serial number of the transmitter, as this number will need to be quoted when additional pagers are ordered for existing systems.

By using the Intercall 700 PC based call management software, it is possible to route the calls from individual callers to specific members of staff. The PC interface to the Intercall system is via the L747.

Intercall 600	✓
Intercall 700	✓

RB1 Relay Board.

The RB1 Relay board converts the O/C output from the LCD Displays (L628,L758) and L746 Overdoor Light into 'Normally Open' and 'Normally Closed' contact sets. The unit may also be configured by the factory to provide time delays for some access door applications. It may also be used to trigger a call point from an external voltage (such as door bells etc). The unit is fitted with a 'T' 12v output which may be used to drive low current devices from the network.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+,-] OBSERVE POLARITY

T Terminal: 12volt DC output which may be used to drive external equipment which requires a DC supply. **MAXIMUM OUTPUT LOAD: 12VOLTS 10mA.**

O/C Terminal: Open collector input from display or overdoor light to trigger on-board relay.

C: Relay Common contact

NO: Relay 'Normally Open' contact

NC: Relay 'Normally Closed' contact

MAXIMUM RELAY CONTACT RATING: 24 VOLTS DC 500mA.

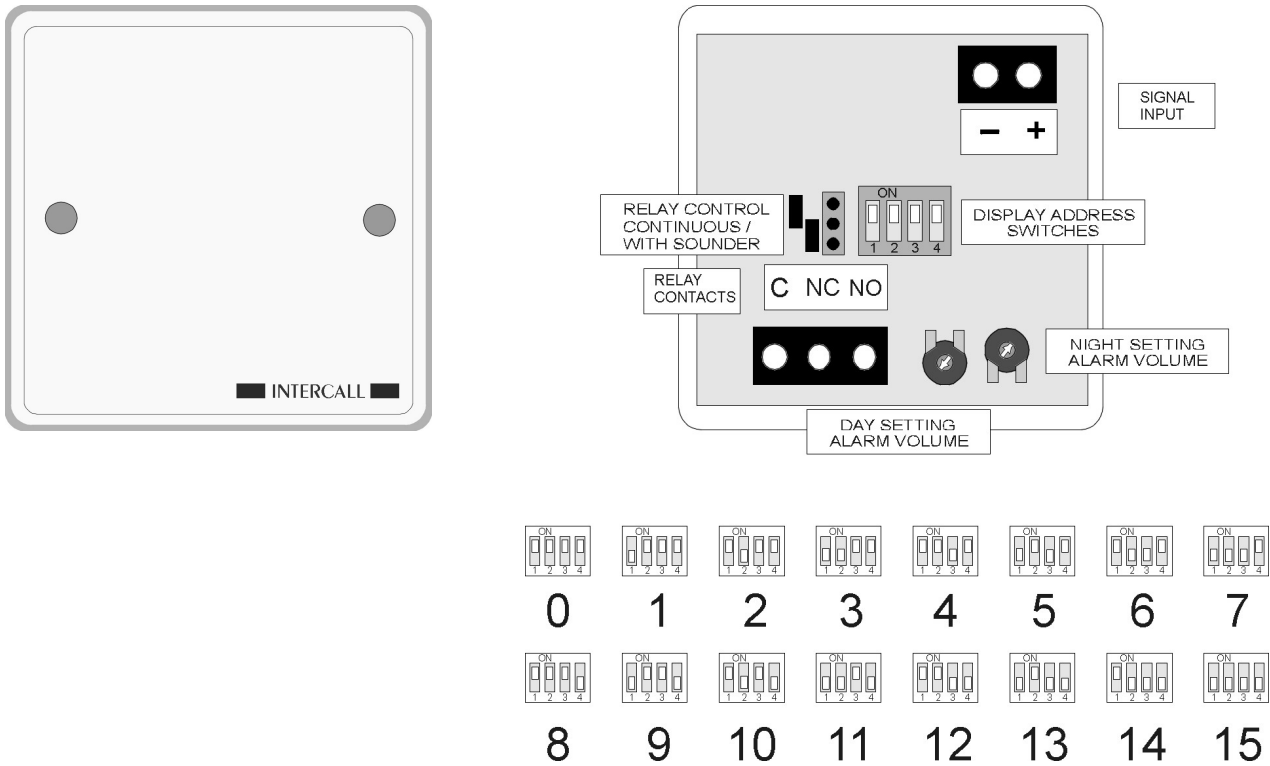
Installation: Flush or surface mount in standard 'single size' electrical backbox. (See page 19). Connects to system two core and optional ceiling pull switch and auxiliary devices.

Size & Weights: 80 x 80 x 40 mm, 70g

Intercall 600	✓
Intercall 700	✓

L714 Remote Sounder with Relay.

The Remote Sounder is designed for use in areas where an alarm signal is required to attract attention but no indication of call location is required. The sounder is similar in operation to the LCD Display Unit with a multi level adjustable alarm but has only limited zoning facilities. Any assistance or emergency call on the system will over-ride the standard call tone. There is an on-board relay with normally open and normally closed ‘dry’ contacts.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+,-] OBSERVE POLARITY

C Terminal: Common terminal for relay contacts.
NO Terminal: Normally Open contact for relay.
NC Terminal: Normally Closed contacts for relay.

Note: *Relay Contact Rating = 24vDC 600mA.*

Address Switches: These switches set the “Display Address” setting for the remote sounder. They are only used on a system that is to be zoned. *The “Display Address” settings enable an address window to be set up on one display copied to all displays and remote sounders set to the same “Display Address”. Please refer to page54 for more information on zoning.*

Control Jumper: This jumper controls the operation of the on-board relay. When in the SOUND position, the relay will operate with the sounder. When in the PAGE position, the relay will operate continuously all the time a call is active on the system.

Night Alarm Setting: This controls the alarm volume when in ‘night’ mode.

Day Alarm Setting: This controls the alarm volume when in ‘day’ mode.
To change between the ‘day’ and ‘night’ mode you will need to connect a switch to the DAY/NIGHT terminals on the Master Power supply. See page54.

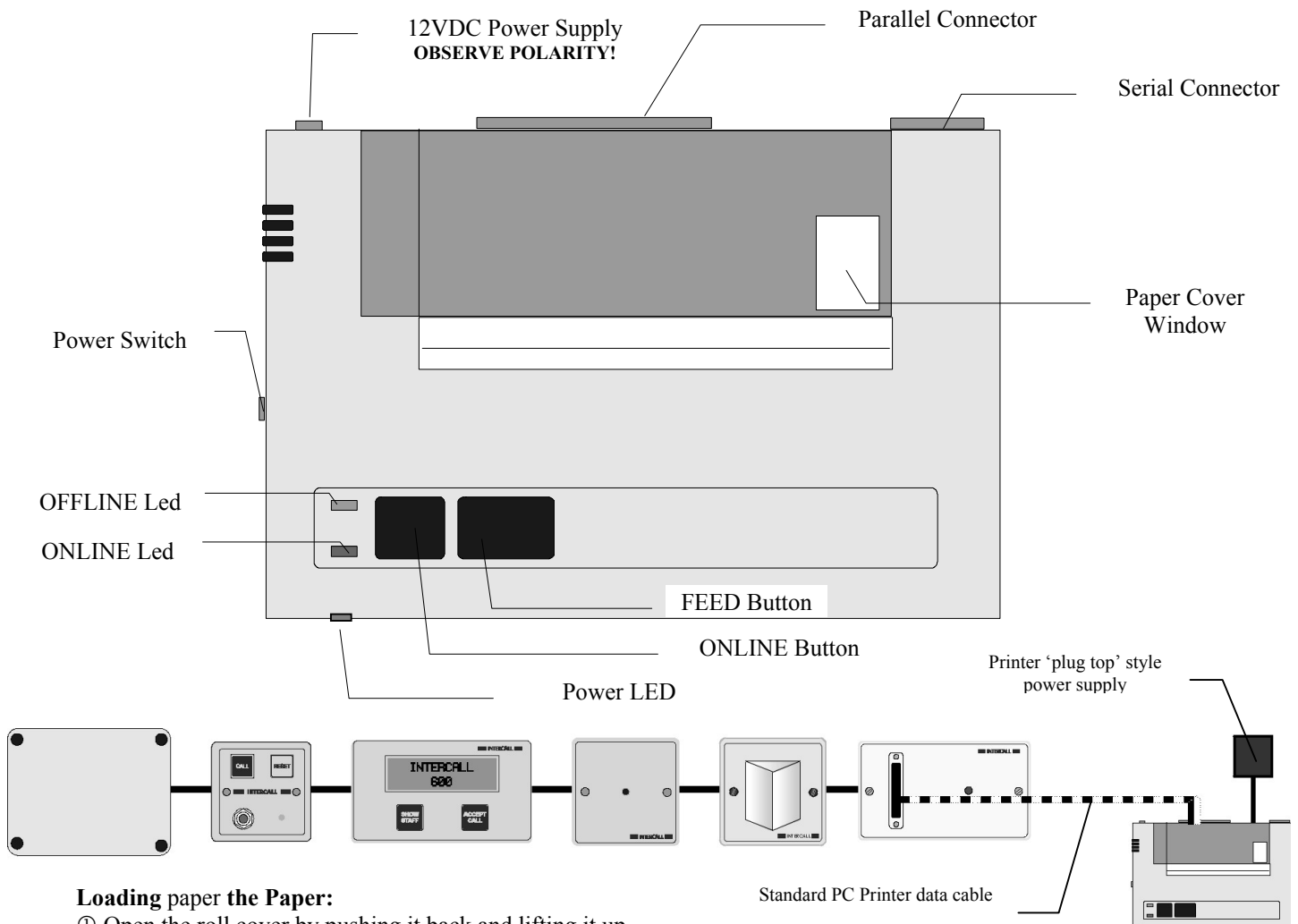
Installation: Flush or surface mount in standard ‘single size’ electrical backbox. (See Page 19). Connects to system two core and optional zone switch and auxiliary devices.

Size & Weights: 80 x 80 x 40 mm, 70g.

Intercall 600	✓
Intercall 700	✓

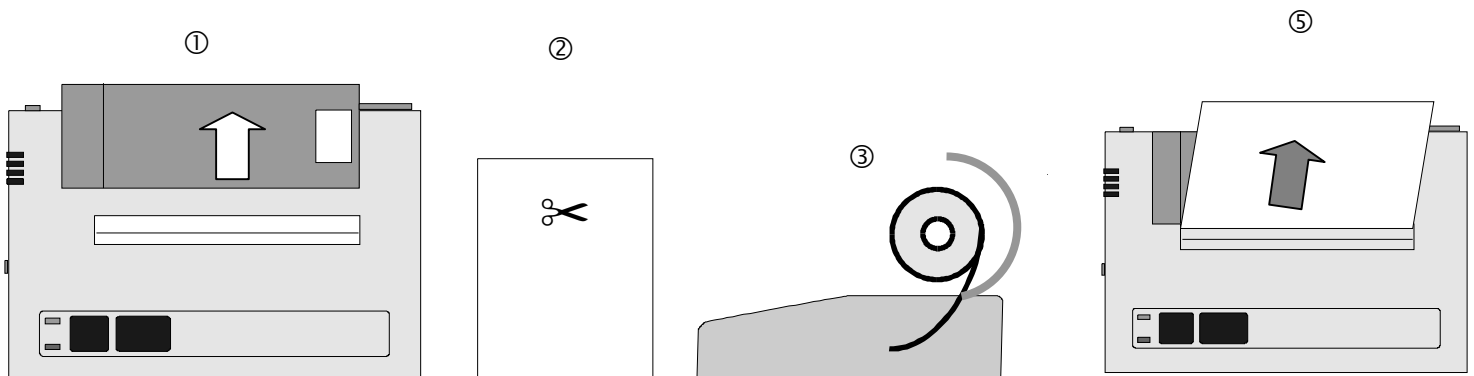
DPU414 Thermal Printer.

The DPU414 Printer is used in conjunction with the L747 to provide a permanent record of all system activity together with the date and time. The unit is supplied with parallel data lead for connection to the L747, separate mains ac power supply and integral back up battery. Please unpack the printer carefully and retain the DPU414 operation manual for future reference. *Please see page 35 for more information on the L747 Interface.*



Loading paper the Paper:

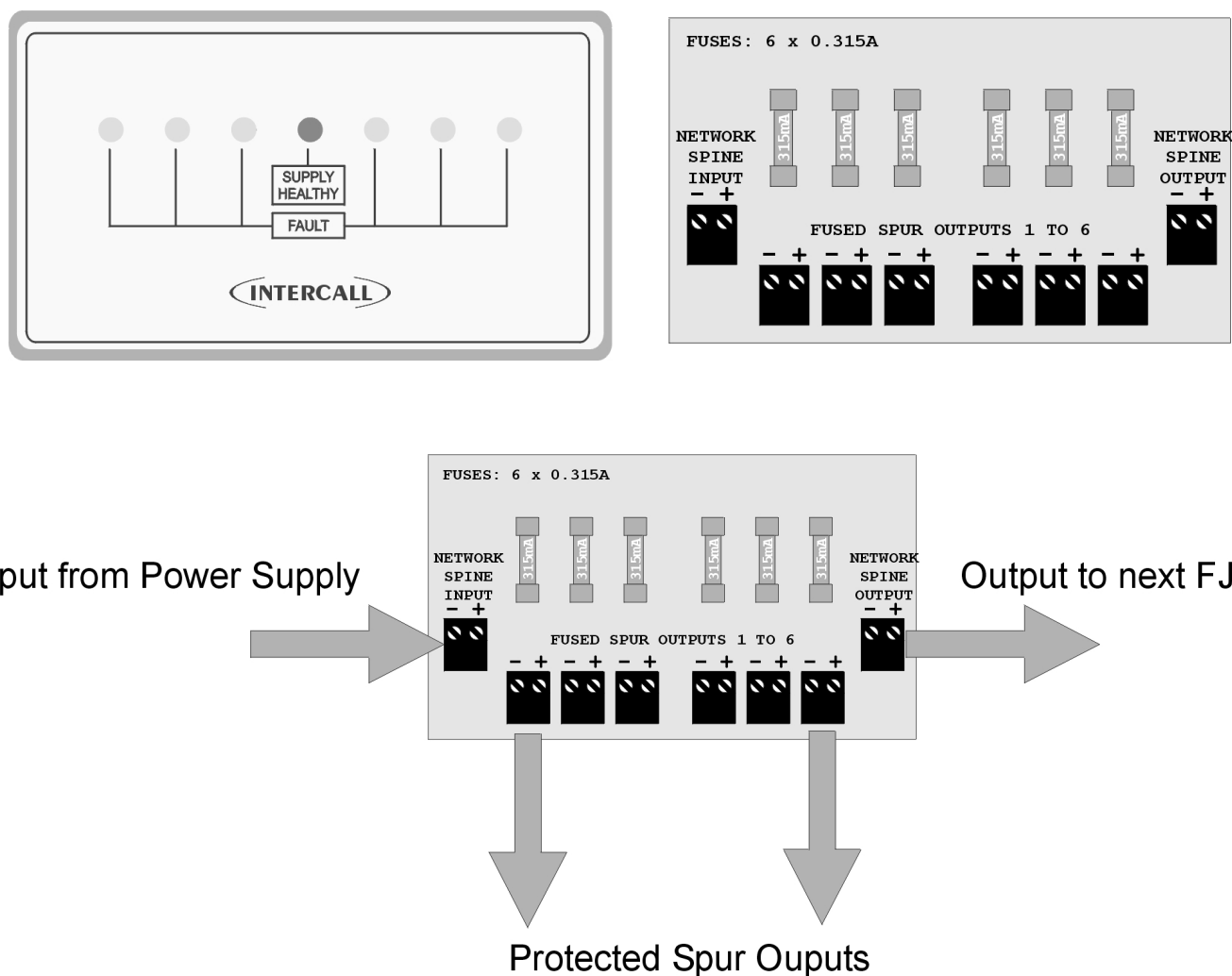
- ① Open the roll cover by pushing it back and lifting it up.
- ② Unwrap the paper roll and cut the paper end straight across.
- ③ Make sure the paper is the correct way round, with the glossy side showing.
- ④ Push the tip of the paper into the inlet at the bottom of the paper holder, until the auto-loader catches it.
- ⑤ The auto paper feeder will pull through 10cm of paper which will show from the paper outlet.
- ⑥ When the paper has loaded successfully, Press the ON LINE button so that the Green 'ON LINE' LED is lit.
- ⑦ Close the paper roll cover and pull it towards the front of the printer to lock it.



Intercall 600	✓
Intercall 700	✓

FJB1 Fused Junction Board.

The FJB1 Fused Junction Board is used for connecting several 'spurs' to the output of the power supply and provides individual protection with six separate fused outputs. There is a green 'Supply Healthy' LED and separate fault LED's to indicate which fuse has blown. If a cable short occurs on one of the outputs, the spur will be isolated without disabling the entire system. *Please note that the fuse will only blow for low resistance cable shorts and the 'fault' led will only light when there is still a loading on the output. ie The fault indicator LED will not light if there is no output connected even though the fuse may be blown.* **Please refer to page 18 for more information on the use of this unit.**



Input / Output Terminals:

Connect to the system two core +ve and -ve from the Power Supply.
There are two terminals (See above) to enable the units to be 'daisy chained'
Note: The two Input/Output terminals are not fused or monitored.

OUT 1-6:

Individually fused and monitored outputs.

Fuses:

6 off 315mA Anti-Surge 20mm Fuses.

Installation:

Flush or surface mount in standard 'double size' electrical backbox.
 (See page 19)

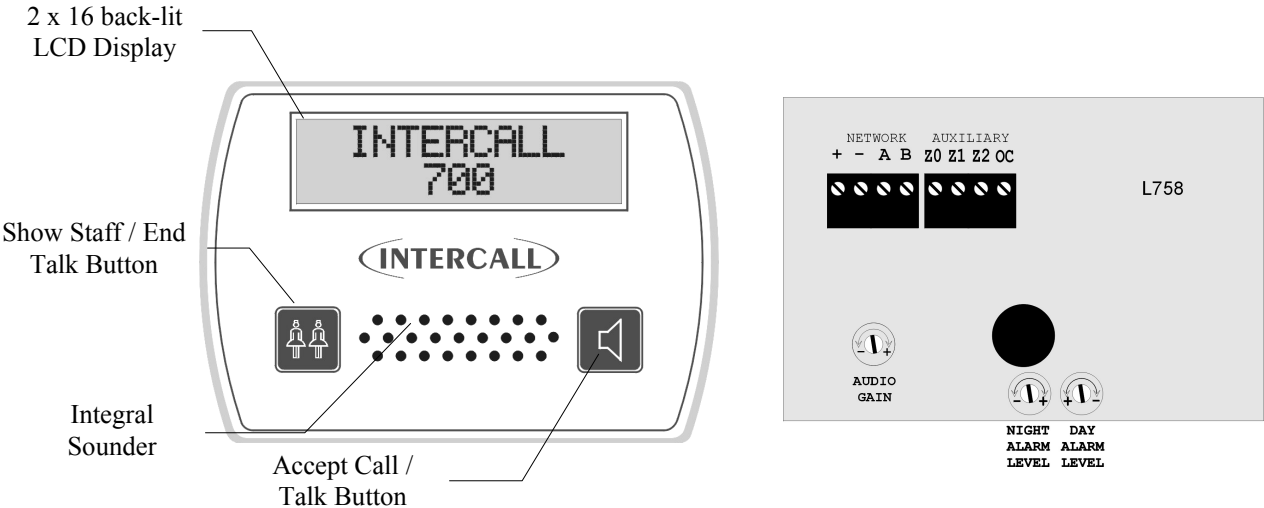
Size & Weights:

80 x 80 x 40 mm, 70g

Intercall 600	✖
Intercall 700	✓

L758 Audio Display Unit.

An Audio Display Unit is required in every location where calls are to be shown, the alarm is to sound and the intercom facility is required. It features a two line LCD display with back-light, multi-level adjustable alarm, full two-way intercom facility to Audio call points and voice page facility to other displays and call points. It is capable of sounding a different tone for selected call points (doors, drug cupboards, telephone, etc) and only displaying specific call points (Zoning) if required. More information can be found from page 54. There is an open collector output which can be connected to trigger external equipment such as pagers, lamps and sounders. All displays are identical but can be configured on site to operate independently. The unit flush mounts into a standard double gang backbox or may be surface mounted using the Intercall BB1.



- Network Terminals:

Connect to the Intercall 700 (4 wire) Network. [+ , - ,A,B] OBSERVE POLARITY
- Z0, Z1, Z2:

Connect to zone switch or wire link (See ‘Zone Switch Connection’ Below)
- OC Output Terminal:

Open collector output active continuously when the alarm is sounding.
Note: Rating 12vDC 100mA. Minimum [ON] resistance = 100 Ohms.
*The OC terminal may be used to trigger an external device directly, which will accept this type of input. Alternatively you may connect this terminal to a **RB1 Relay Board** which will provide normally open & normally closed ‘dry’ contacts.*
- Night Alarm Setting:

This controls the alarm volume when in ‘night’ mode.
- Day Alarm Setting:

This controls the alarm volume when in ‘day’ mode.
To change between the ‘day’ and ‘night’ mode you will need to connect a switch to the DAY/NIGHT terminals on the Master Power supply. (See page 27)
- Audio gain control:

Controls the speech level output from the display unit. This does not effect the volume from the speaker in the unit.
- Zone Switch:

This text is intended as a technical reference only and details of zoning are discussed on page 57. When a display is required to only sound for specific call points, we need to connect a switch or permanent wire link to the ‘Z’ terminals. The following connections force the display to use the address windows that are programmed on site:

Z1 Not Connected,	&	Z2 Not Connected	= Global (Sound for all calls)
Z1 Connected to Z0	&	Z2 Not Connected	= Use Address Window C
Z2 Connected to Z0	&	Z1 Not Connected	= Use Address Window B
Z1 Connected to Z0	&	Z2 Connected to Z0	= Use Address Window A
- Installation:

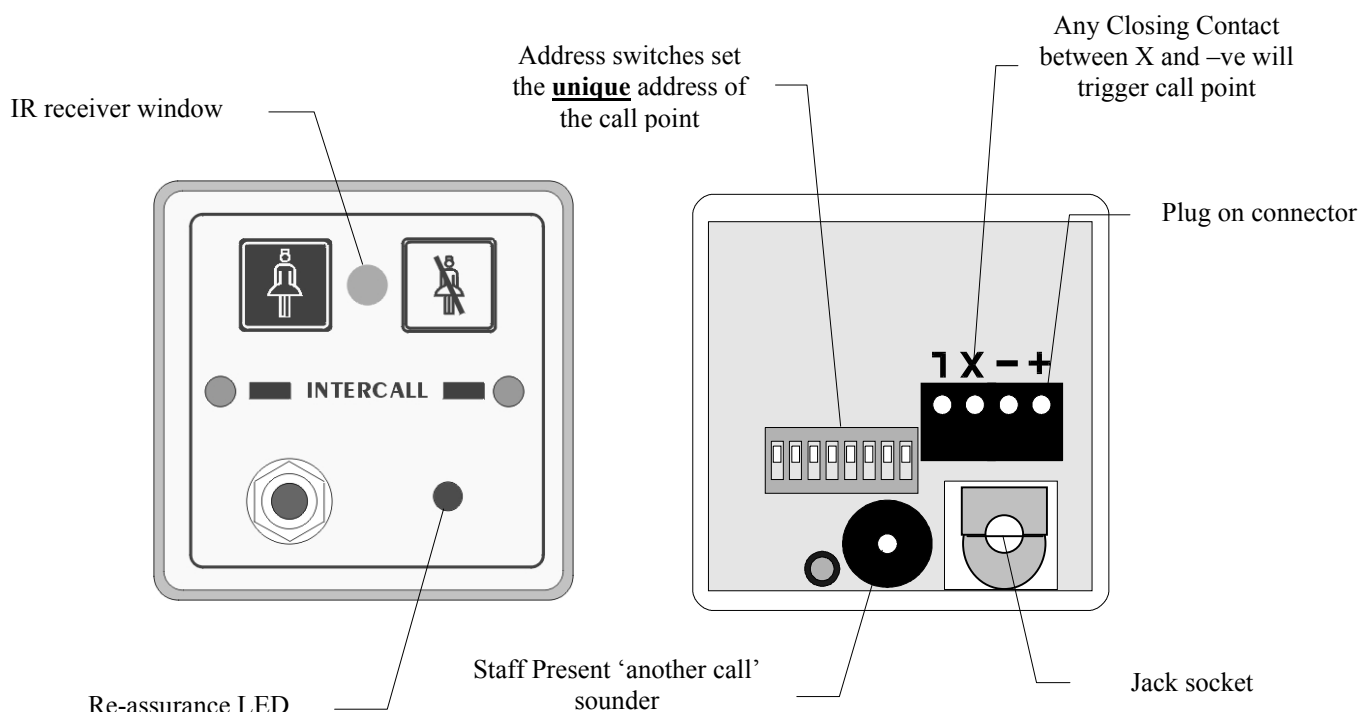
Flush or surface mount in standard ‘double size’ electrical backbox. (See page 19). Connects to system two core and optional zone switch and auxiliary devices.
- Size & Weights:

80 x 140 x 40 mm, 200g

Intercall 600	✓
Intercall 700	✓

L722 Infra Red Call Point.

The L722 Infra Red Call Point is physically identical to the L622 button reset unit but has a built in Infra red receiver which can generate standard call, emergency call or call reset from the Intercall **TIR** range of Infra Red triggers. This gives the system true portability where a call can be generated or cancelled away from the call point. Please refer to page 28 for more information on the L622 Call Point. Do not mount this unit within direct sunlight or within 3 metres of a florescent light fitting.



Network Terminals: Connect to the Intercall 600 or 700 (2 wire) Network. [+ , -] **OBSERVE POLARITY**

L Terminal: Output signal to drive ceiling pull switches with built in re-assurance lights. *Max load 12v 10mA*

X Terminal: Remote trigger input No1 - Momentary contact to network -ve to trigger emergency call.

Address Switches: Set to unique setting between 1 and 215.

Re-assurance LED:

- Slow Red flashing – Standard Call
- Faster Red flashing – Priority Call
- Slow Red/Green flashing – Assistance Call
- Rapid Red flashing – Emergency/Crash Call
- Green flashing - Accepted Call – Staff on their way
- Constant Green – Nurse Present Mode

IR Receiver: Sunlight or fluorescent lights will degrade the performance of the receiver. In ideal condition will cover an area of up to 6sq metres. *Dark coloured walls and ceilings will also degrade performance.*

Installation: Do not mount this unit within direct sunlight or within 3 metres of a florescent light.
The Output from this terminal is limited to 12VDC 10mA

Pear lead Socket: Industry standard socket that will accept any normally open switch.

Installation: Do not mount this unit within direct sunlight or within 3 metres of a florescent light fitting. Flush or surface mount in standard 'single size' electrical backbox.

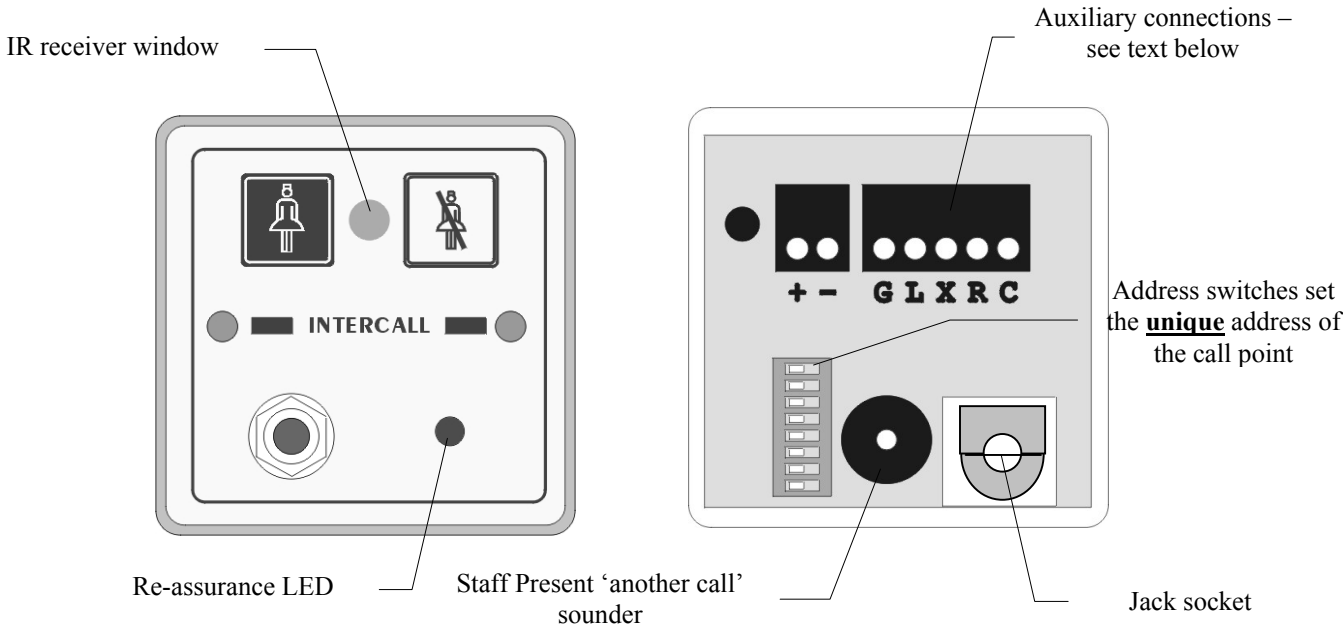
Very Important: When flush mounting in metal backbox, connect the backbox to the Network -ve terminal.

Size & Weights: 80 x 80 x 40 mm, 70g

Intercall 600	✓
Intercall 700	✓

L732 Programmable Call Point.

The L732 Programmable Call Point is physically identical to the L722 Infra Red Call Point but has additional connections and programming ability, which permits it to be used in a wider range of applications. The Infra red receiver will accept input from various devices including the **TIR** and **ST** range of portable infra red triggering devices. Do not mount this unit within direct sunlight or within 3 metres of a florescent light fitting. Please refer to page 48 for more information on the TIR range of triggering devices.



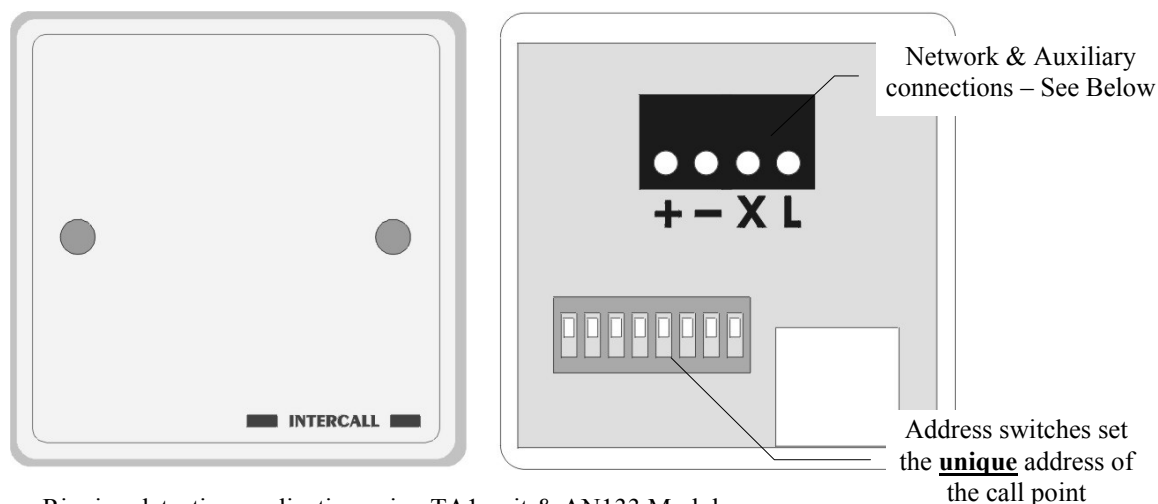
- Network Terminals:** Connect to the Intercall 600 or 700 (2 wire) Network. [+,-] OBSERVE POLARITY
- L Terminal:** Output signal to drive ceiling pull switches with built in re-assurance lights. *Max load 12v 10mA*
- X Terminal:** Remote trigger input No1 - Momentary contact to network –ve to trigger emergency call.
- C Terminal:** Remote trigger input No2 - Momentary contact to network –ve to trigger call button.
- R Terminal:** Input from **SRP** Slave Presence / Reset Unit. *See Page 51*
- G Terminal:** Output signal to Slave Presence/Reset unit green LED. *Max load 12v 10mA*
- Address Switches:** Set to unique setting between 1 and 215.
- Re-assurance LED:** Slow Red flashing – Standard Call
Faster Red flashing – Priority Call
Slow Red/Green flashing – Assistance Call
Rapid Red flashing – Emergency/Crash Call
Green flashing - Accepted Call – Staff on their way
Constant Green – Nurse Present Mode
- IR Receiver:** Sunlight or fluorescent lights will degrade the performance of the receiver. In ideal condition will cover an area of up to 6sq metres. *Dark coloured walls and ceilings will also degrade performance.*
- Installation:** Do not mount this unit within direct sunlight or within 3 metres of a florescent light.

Size & Weights: 80 x 80 x 40 mm 105g

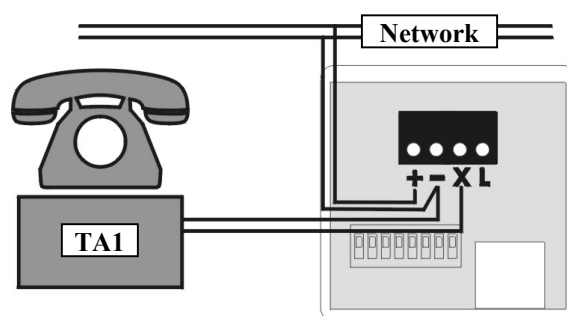
Intercall 600	✓
Intercall 700	✓

AN133 Non Latching Call Module.

The AN133 is used to interface an external device to the Intercall system. The input is non-latching so the call is automatically reset when the external device is no longer active. Typical applications include telephone ring detectors, where an incoming call is required to alert staff via the Intercall system. Another application is where two independent systems require signalling, such that an active alarm on one system is indicated on the other and visa versa.

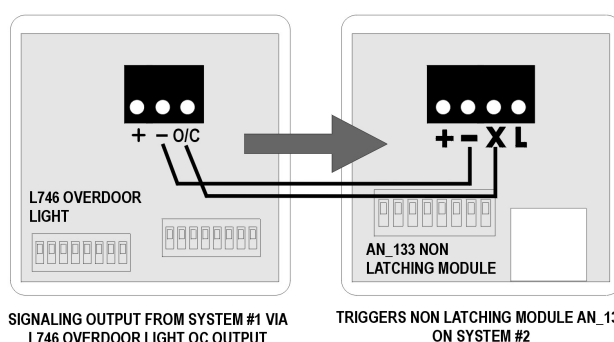


Below: Telephone Ringing detection application using TA1 unit & AN133 Module



Below: Signalling between two independent Intercall systems using the AN133 and L746.

If two way signalling is required [ie calls from either system will indicate on the other] you must ensure that the non –latching call point is not within the address range of the L746 to avoid a ‘lock-up’ condition where the call cannot be cancelled.



SIGNALING OUTPUT FROM SYSTEM #1 VIA
L746 OVERDOOR LIGHT OC OUTPUT

TRIGGERS NON LATCHING MODULE AN_133
ON SYSTEM #2

Network Terminals:

Co:

SERVE POLARITY

L Terminal:

Output signal to drive ceiling pull switches with built in re-assurance lights. *Max load 12v 10mA*

X Terminal:

Remote trigger input No1 - Momentary contact to network –ve to trigger emergency call.

Address Switches:

Set to unique setting between 1 and 215.

Installation:

Flush or surface mount in standard ‘single size’ electrical backbox.

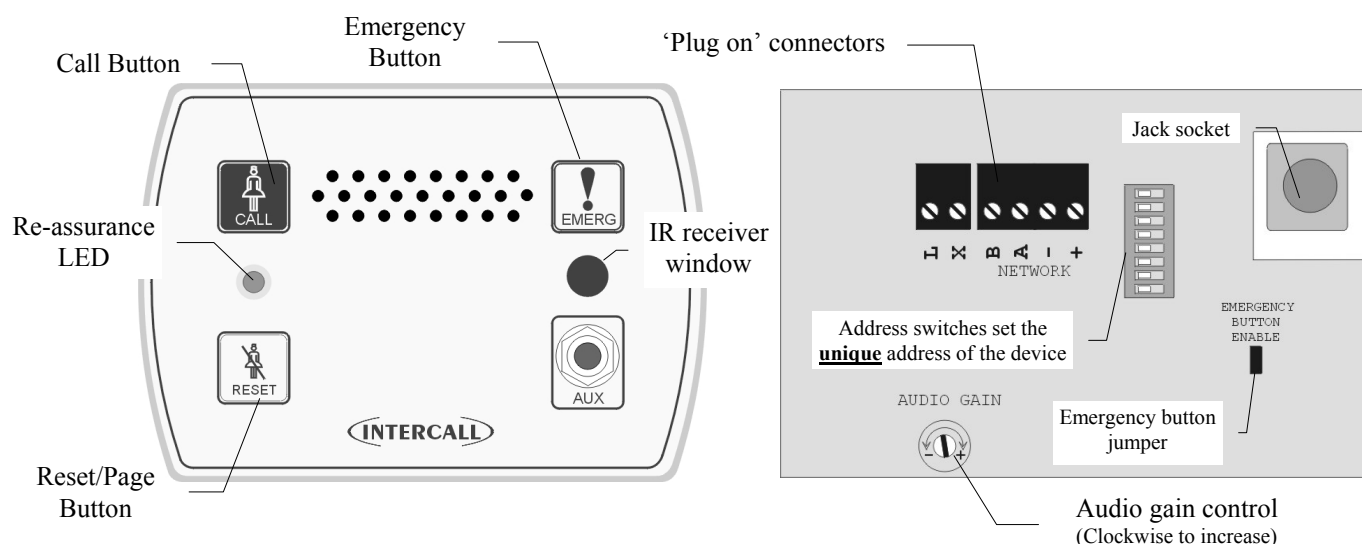
Size & Weights:

80 x 80 x 40 mm 105g

Intercall 600	✘
Intercall 700	✔

L752 Audio Call Point.

An Audio Call Point is required for every individual call location on the system where the two way intercom facility is required. It features 7 levels of call, hands free two way intercom, integral infra red receiver, programmable emergency button, audio page facility, audible call re-assurance, re-assurance LED and 'another call' sounder. The industry standard trigger socket will accept pear leads, pressure mats, portable radio triggers and a host of other triggering devices. The unit flush mounts into a standard double gang backbox or may be surface mounted using the Intercall **BB1**



Network Terminals: Connect to the Intercall 700 4 wire Network. [A,B,+, -] **OBSERVE POLARITY**

X Terminal: Remote trigger input No1 - Momentary contact to network –ve to trigger standard call.

L Terminal: Output signal to drive ceiling pull switches with built in re-assurance lights. *Max load 12v 10mA*

Emergency Jumper: Remove to disable the Emergency button on the front panel.

Address Switches: Set to unique setting between 1 and 215.

Re-assurance LED:

- Slow Red flashing – Standard Call
- Faster Red flashing – Priority Call
- Slow Red/Green flashing – Assistance Call
- Rapid Red flashing – Emergency/Crash Call
- Green flashing - Accepted Call / Intercom operating [Slow Flash]
- Constant Green – Nurse Present Mode

Audio gain control: Controls the speech level output from the call point. This does not effect the volume from the speaker in the call point.

IR Receiver: Sunlight or fluorescent lights will degrade the performance of the receiver. In ideal condition will cover an area of up to 6sq metres. *Dark coloured walls and ceilings will also degrade performance.*

Installation: Do not mount this unit within direct sunlight or within 3 metres of a florescent light.

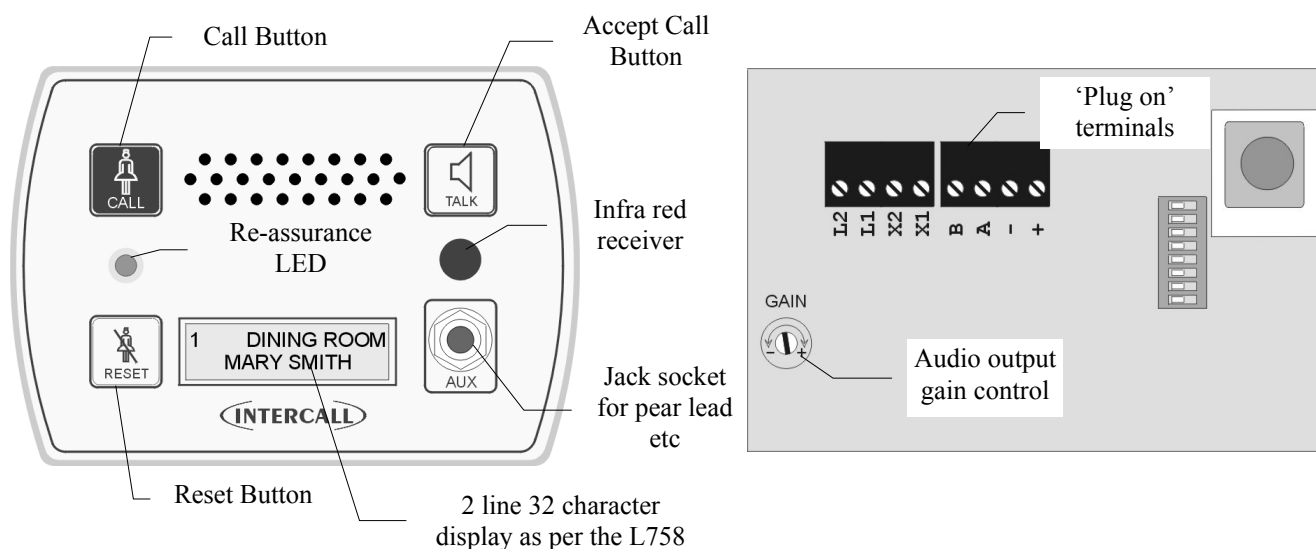
Very Important: When flush mounting in metal backbox, connect the backbox to the Network –ve terminal.

Size & Weights: 160 x 115 x 25 mm 135g

Intercall 600	✗
Intercall 700	✓

L762 Audio Call/Display Unit.

The L762 Call/Display Unit provides all the combined features of the L752 Audio call point and L758 Audio LCD display. It features 7 levels of call, hands free two way intercom, integral infra red receiver, integral LCD display, audio page facility, audible call re-assurance, re-assurance LED and 'another call' sounder. The industry standard trigger socket will accept pear leads, pressure mats, portable radio triggers and a host of other triggering devices. The unit flush mounts into a standard double gang backbox or may be surface mounted using the Intercall **BB1**



Network Terminals: Connect to the Intercall 700 4 wire Network. [A,B,+, -] **OBSERVE POLARITY**

X1 Terminal: Remote trigger input No1 - Momentary contact to network –ve to trigger standard call.

X2 Terminal: Remote trigger input No2 - Momentary contact to network –ve to trigger emergency call.

L1 Terminal: Output signal to drive ceiling pull switches with built in re-assurance lights. *Max load 12v 10mA*

L2 Terminal: Output signal for remote presence green LED units. *Max load 12v 10mA*

Address Switches: Set to unique setting between 1 and 215.

Re-assurance LED:
 Slow Red flashing – Standard Call
 Faster Red flashing – Priority Call
 Slow Red/Green flashing – Assistance Call
 Rapid Red flashing – Emergency/Crash Call
 Green flashing - Accepted Call – Staff on their way / Paging from Call Point
 Constant Green – Nurse Present Mode

Audio gain control: Controls the speech level output from the call point. This does not effect the volume from the speaker in the call point.

IR Receiver: Sunlight or fluorescent lights will degrade the performance of the receiver. In ideal condition will cover an area of up to 6sq metres. *Dark coloured walls and ceilings will also degrade performance.*

Integral LCD: 2 x 16 character LCD display which is enabled only in staff present mode.

Installation: Do not mount this unit within direct sunlight or within 3 metres of a florescent light.

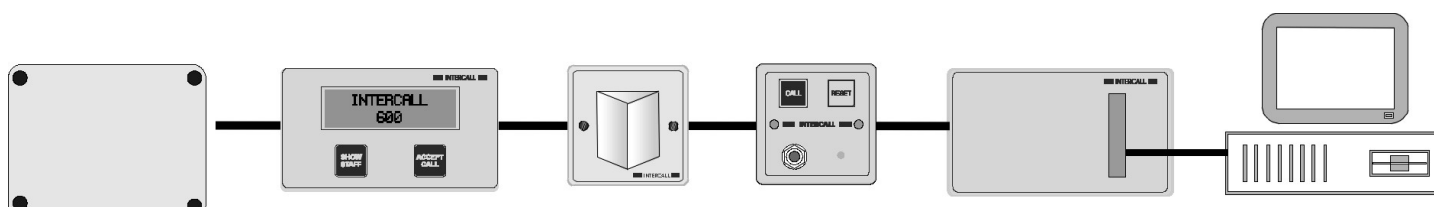
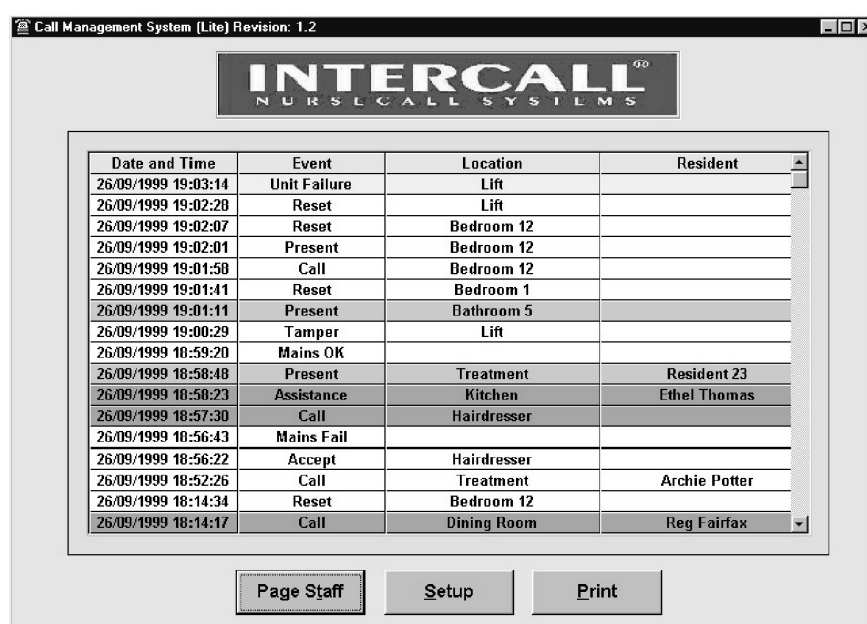
Very Important: When flush mounting in metal backbox, connect the backbox to the Network –ve terminal.

Size & Weights: 160 x 115 x 25 mm 135g

Intercall 600	✓
Intercall 700	✓

CMS Lite Call Management Software.

The Intercall Call Management Software *Lite* is a simple way to manage all data from your Intercall 600 or Intercall 700 call system. All system activity is recorded and may be printed at a later stage for use in resident care assessment reports. The main screen, keeps a track of all system activity as it occurs, with all current calls highlighted, together with the location of staff. 'Pop up' warning screens can be configured to report standard calls, emergency calls or system faults. In addition, the Intercall Call Management software can be used to connect staff alphanumeric pagers. These are invaluable for keeping staff in touch with calling residents and specific members of staff can be alerted to specific events. For instance, the matron can be alerted to emergency calls only while system faults are routed through to the maintenance man. There is a 'Page Staff' screen which enables staff to receive a message typed directly into the PC keyboard. Messages can be for all staff or sent to individual members very simply as shown on the screen below. The main screen can be configured for Intercall 600 where the date & time, call type and calling room are shown or Intercall 700 where the calling resident may also be shown. Intercall 700 mode is shown below.



The CMS Lite software requires a L747 Universal Interface to connect to the Intercall system. The software is supplied with an interface cable fitted with both 9 and 25way connectors. This cable is connected to a serial communication port on the PC.

The PC Requirements are listed below.

- PC compatible computer with Pentium P200 (or equivalent or better)
- CD Rom drive (The software is supplied on CD Rom only)
- Windows 95/98/NT4 (Windows 98/NT4 recommended)
- 32Mb Ram
- Available 9pin RS232 serial communication port (Only Com1 and Com2 supported in software)
- At least 250Mb free space on hard disk

If the CMS lite software is to be used with the alphanumeric pagers, a three way serial lead is required which connects to the PC, L747 and Scope pager transmitter.

Password Access and Installation Details.

A password is required to enter the 'Setup' screen or exit the software. Installation details and factory default passwords are contained within the **readme.txt** file supplied on the CD Rom.

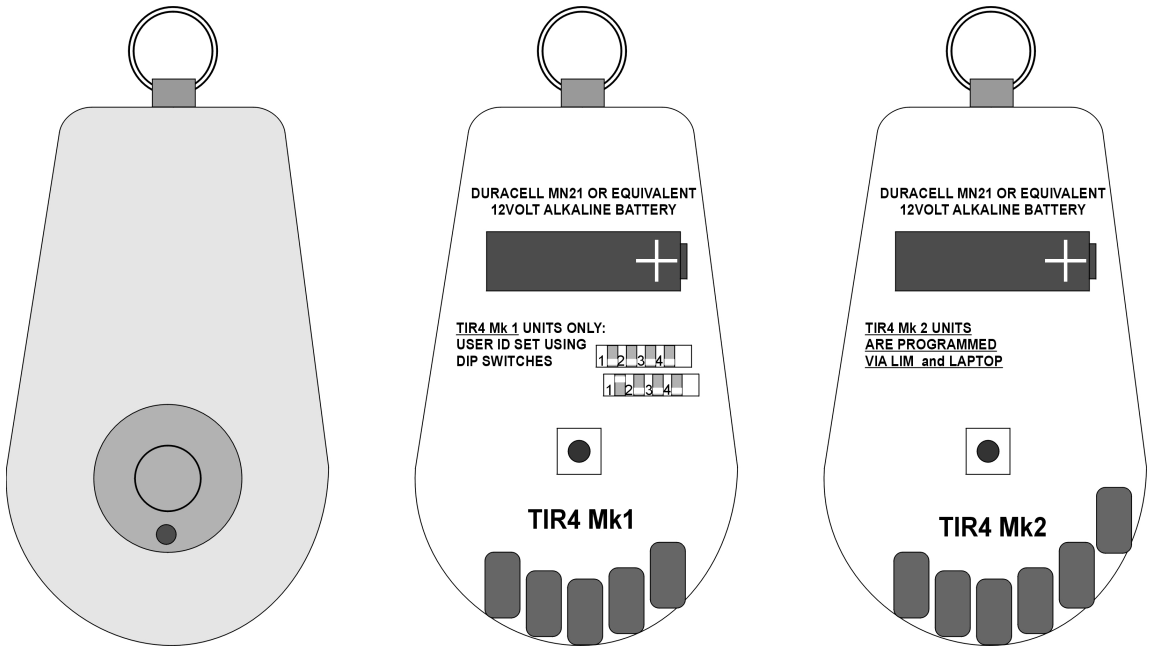
Intercall 600	✓
Intercall 700	✓

TIR4 Infra Red Pendant Trigger.

The infra red trigger is worn by residents and allows access to the call system at all times. It will trigger any Intercall 700 series call point within range and can be configured to generate different levels of call. Each trigger is assigned a unique number which may be programmed into the system to identify the calling resident by name. All Intercall 700 series call points are fitted with infra red receivers as standard and one call point will typically cover a room area of **20sq metres**. For information on the positioning of infra red call points please refer to page 20.

The battery life in the trigger depends on frequency of use and in a typical TIR4 installation expected life is between 6 and 12 months. The battery is a 12volt battery type 23A Alkaline which is available from many retail stores.

Detail of the TIR4 Mk1 and Mk2 Trigger:



Intercall 600	✓
Intercall 700	✓

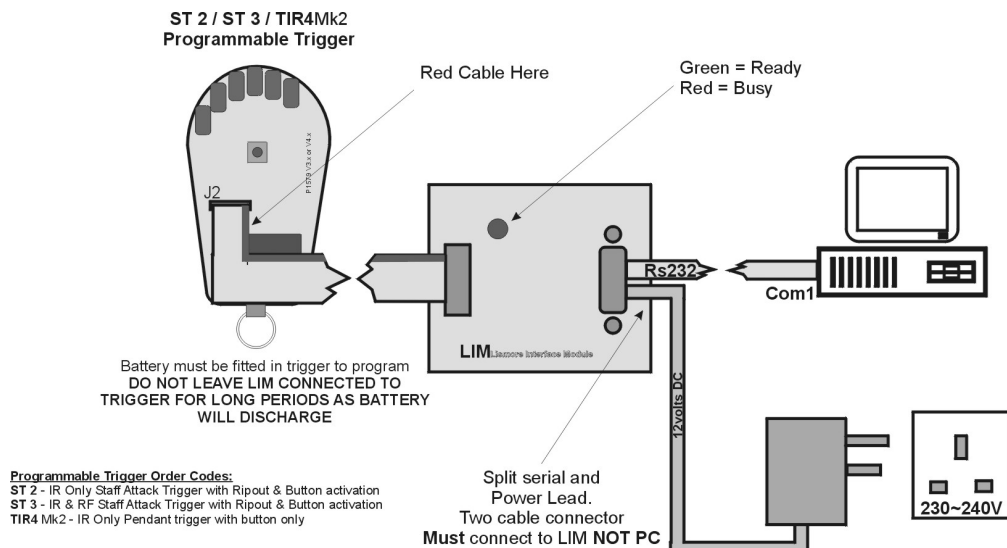
LIMKIT System Configuration Kit.

The LIMKIT contains all required components to configure the system including interface, leads and software. The Programming Module is used to program the software configurable devices such as the **TIR4 Mk2** pendant trigger and the **ST** range of triggers together with the Room Text and User ID text within the power supply units. The unit is supplied with connection leads which are required to program different devices. The module is an interface between a Personal Computers' RS232 port and the programmed device or power supply. It is supplied with the following leads:

- Combined power supply and serial lead for connection to PC RS232 port with Plug Top style power supply.
- Trigger and auxiliary device programming lead
- Power Supply connection Lead.
- System Text Programming Software disk containing text and trigger programming software.

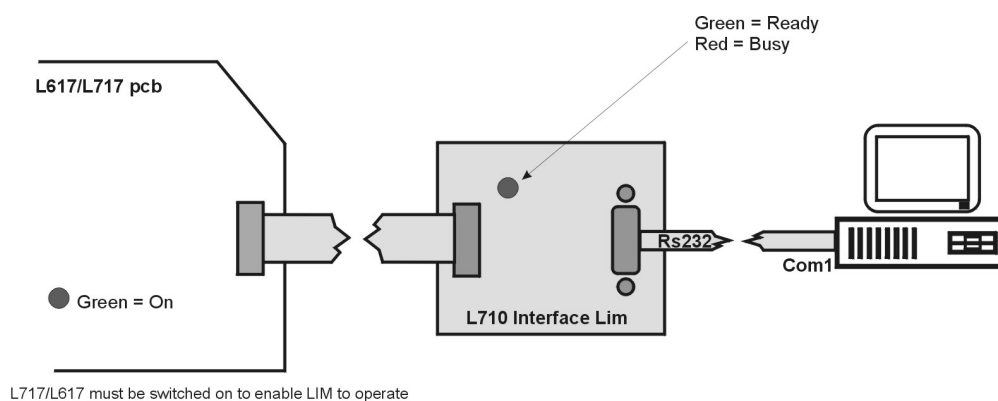
Programming the Trigger.

The TIR4 (Mk2) and ST2/ST3 range of staff attack triggers are configured using the LIM Programming Module. The following diagram shows the connection method when programming the trigger.



LIMPROG Configuration software.

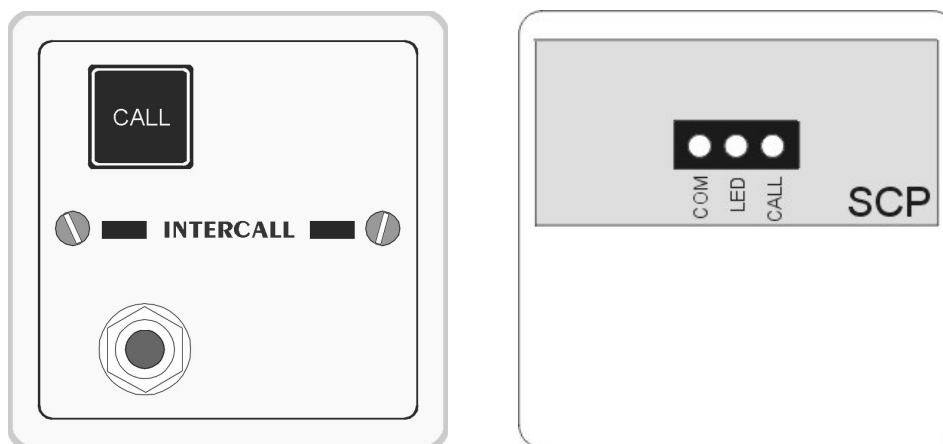
The LIMPROG Configuration Software is used in conjunction with the LIM Programming Module to program the text within the system. See page 54 for more information. The software is supplied on disk for operation with **Windows 95 and Windows 98 operating systems only**. To install the software, run the *setup.com* installation program. The software has on-screen help & instructions. All the text used by the system is stored in the power supply and can be downloaded to the system by either the software or by using the *download* button on the power supply. (See page 27) Once downloaded, the information is also stored in the displays, printer interface and alphanumeric pager interface.



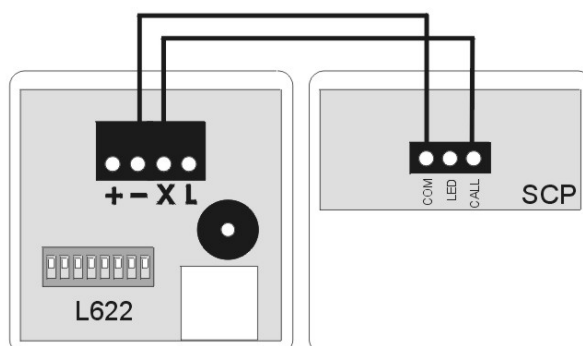
Intercall 600	✓
Intercall 700	✓

SCP Slave Call Point.

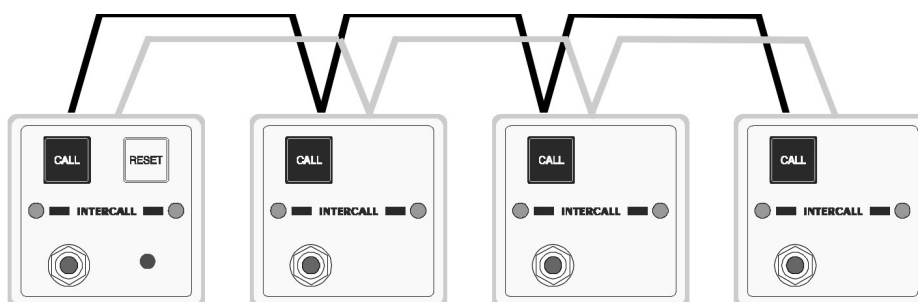
Slave call points are used to cover several beds or areas in one room or ward where each individual point does not required a separate identity on the call system. Units must be wired back to a standard call point to provide the reset and to generate the call address. Slave Call Points can only generate 'standard patient call' from either the call button or pear lead socket.



Above: Front panel and pcb detail of the SCP Slave Call Point



SCP Connects to call point 'X' and '-' terminals (L622 call point shown above)



Several Slave Call Points may be used to trigger a single call point above)

Pear lead Socket:

Industry standard socket that will accept any normally open switch.
This socket can accept input from pear leads, pressure mats, radio triggers etc.

Installation:

Flush or surface mount in standard 'single size' electrical backbox.

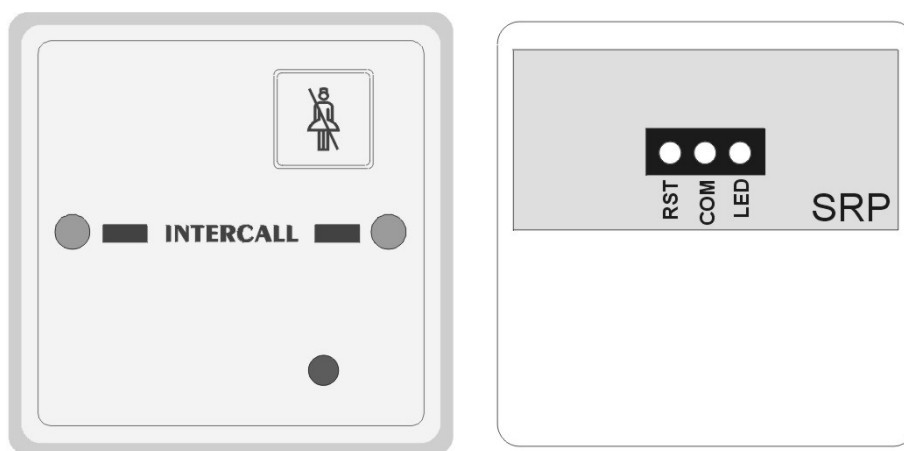
Size & Weights:

80 x 80 x 40 mm, 60g

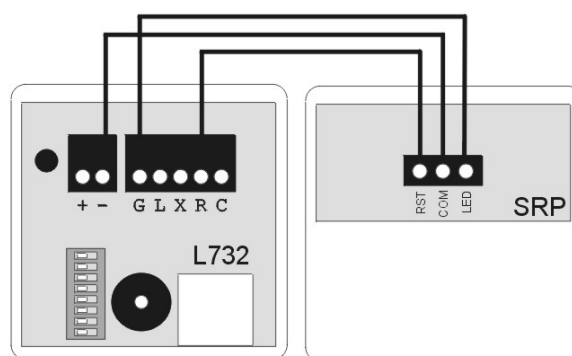
Intercall 600	✓
Intercall 700	✓

SRP Slave Reset / Present Point.

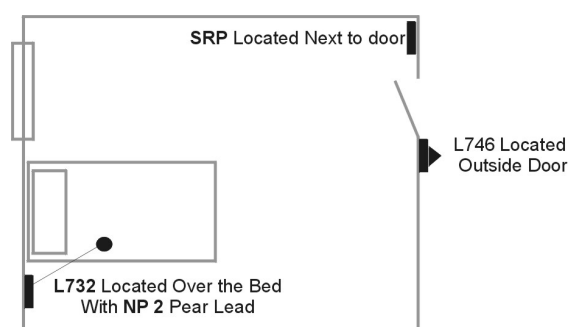
Slave Reset / Present Points are normally located by the door of a bedroom to enable staff to reset the call point and to register as staff present away from the patient call point. The unit is used in conjunction with the L732 Call Point, which has additional terminals for this purpose.



Above: Front panel and pcb detail of the SRP Slave Reset/Present Point



Above: SRP Connects to L732 Call point 'G', '-' and 'R' terminals



Above: Typical Room Layout showing L732 Call Point, SRP Remote/Preset Unit and L746 Overdoor Light.

Reset Button: Performs same functions as reset button on L732 but in remote location.

LED: Green Led operates with green re-assurance LED in L732 Call Point

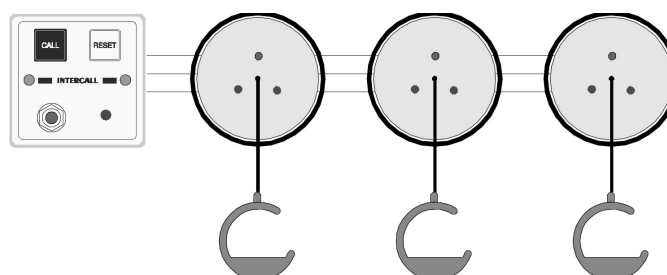
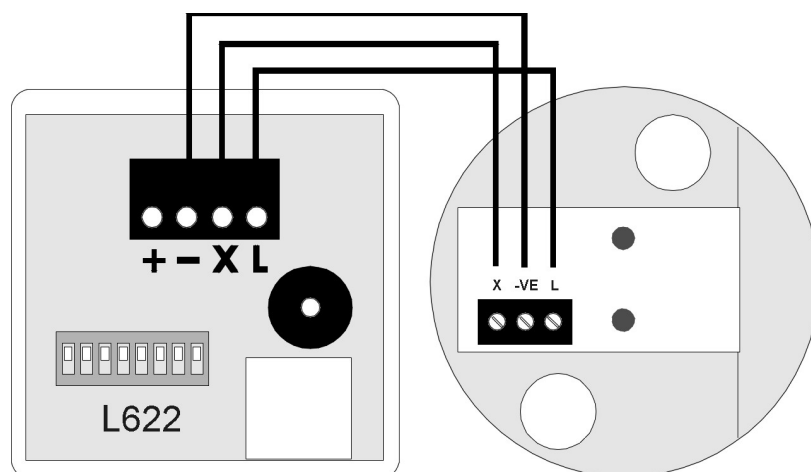
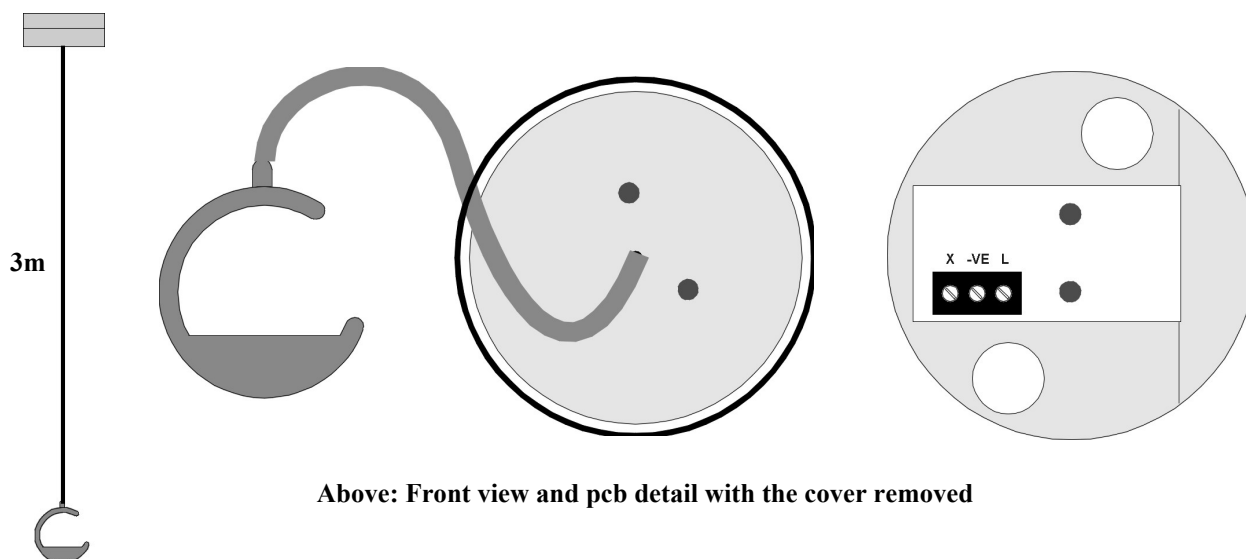
Installation: Flush or surface mount in standard 'single size' electrical backbox.

Size & Weights: 80 x 80 x 40 mm, 60g

Intercall 600	✓
Intercall 700	✓

CS1 Ceiling Pull Switch.

Ceiling Pull Switches are used in bathrooms, fitted to the ceiling over the toilet and bath to allow a call to be generated from these areas. They are fitted with 3 metre length of orange cord terminated with an easy to operate 'G' style pull and twin re-assurance indicators.



Very Important: A MAXIMUM OF 3 CS1 UNITS MAY BE CONNECTED TO ONE CALL POINT

Cord: 3 metres orange with easy to operate 'G' pull in orange.

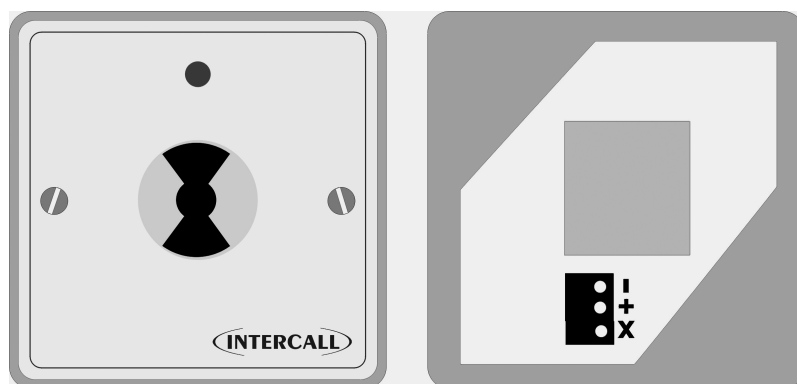
Installation: Surface mount in self contained enclosure.

Size & Weights: Diameter 80mm x depth 30mm weight 50g

Intercall 600	✓
Intercall 700	✓

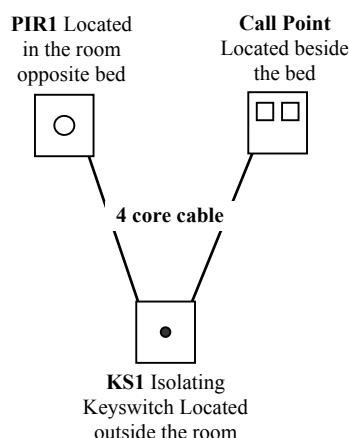
PIR1 PIR Detector used to monitor beds.

The PIR1 unit is a network compatible unit which can trigger a call point when a resident is out of bed. The unit is often used with an isolating switch located outside the room to remotely enable and disable the device. The unit can be used as a simple PIR for security and access control purposes or with the use of a mask (*shown fitted below*) to monitor a bed. The location of the unit is important and this is detailed below.

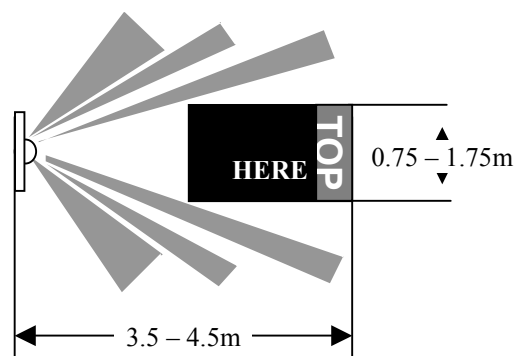


Above: Front view and pcb connection detail

MASKS ARE FREE ON REQUEST BUT MUST BE ORDERED SEPARATELY



Typical installation example for bed monitoring applications



View from above. Location of the PIR1 is very important for effective operation.

PIR1 Connects to call point 'X' and network '+' and '-'

Very Important: LOCATION OF THE PIR1 FOR BED MONITORING

- Mount the PIR 1 at a height of 2m from floor level.
 - The bed must be minimum 0.75m wide and no greater than 1.75m.
 - The pillow end of the bed must be furthest away from the PIR1.
 - The headboard must be between 3.5 and 4.5 metres from the PIR1.
- ENSURE UNITS ARE ISOLATED AT POWER UP**

Connections:

PIR1 Connects to call point 'X' and network '+' and '-'

Warm up period:

As the PIR1 will continually call for 10 minutes after power up – ensure the units are isolated at time of system power up.

Installation:

Surface mount in standard single gang backbox.

Size & Weights:

80mm x 80mm x depth 25mm weight 50g

Configuration Guide.

These pages are intended to give the reader an overview of the possibilities using Intercall 600 and Intercall 700 systems for specific configurations. Detailed information on the individual components can be found from page 27.

Below we list the parameters that can be configured with the Intercall 600 & 700

- Changing the call point text messages.
- Changing the text which is shown when no calls are active.
- Display Alarm Tone volume settings.
- Reduced Alarm Tone from displays at night time.
- Changing the time before a standard call becomes an emergency and/or disabling this function completely.
- Changing the time before a standard call becomes a priority call and/or disabling this function completely.*
- Changing the time before an accepted call returns to the calling state (Mute Timer)
- Enabling and disabling the nurse present auto-expiry timer. (Mk2 Products only)
- Disabling the 'Call Follower' sounder on the call points.
- Disabling the nurse present feature on the call points.
- Making specific call points generate a different alarm sound from the displays.
- Disabling the Accept Call function on the displays
- Enabling LCD display units to show faulty or missing network devices.*
- Enabling LCD display units to show resident name as well as call location.*
- Making the LCD displays show only specific call points (Zoning).
- Supervisors Display Showing all calls but only sounding for crash calls.

**Intercall 700 only*

Programming the text messages

The first thing we will need to do is to set the switches on the call points so we can give each unit a text identity. (This is what will be displayed when the call point is active e.g. 'BEDROOM 14') .Before we can begin we need to ask the following questions:

- Will the system be zoned ? (Operated in areas e.g. wings or floors)
- Will we need more than one call point with the same text (E.g. rooms with more than one bed).
- Will we need special text that is not in the factory default. (E.g. names or wards etc)

If the answer to all of the above is **no** then we can continue with the factory configuration described below. If the answer to any of the above is yes, please read the paragraph 'Custom configuration'.

Factory Text Configuration.

The factory text is programmed into the power supply and displays when despatched from the factory and a listing is provided within this manual. Simply set the switches on the call point to the desired setting. **NOTE: All call points must have a unique switch setting.**

Custom Text Configuration

If a system is to be zoned or where repeated or special text is required, the power supply will need to be programmed. The text can be customised by one of the following:

- i. Configuration Kit part no: LIMKIT. (Runs on any PC compatible computer)
- ii. Your Supplier or the factory – A nominal charge is made for this service

Zoning Text

If a system is to be zoned we must disregard the text and concentrate on the call point address as the text can be programmed at a later date. See page 57 for more information and examples of zoning.

Repeated text.

If a system requires more than one call point to have the same text identity (e.g. two beds in one room) we can set the call point to an address with a text identity we do not require and re-program the text.

Special text.

If a system requires special text we can either address the first call point 01, the second 02 etc and completely re-program the entire text or we can use part of the factory text and re-program only certain addresses.

Changing the text shown when no call is active.

Using the LIMPROG Programming software (Supplied in the LIMKIT), you may alter the default text. This allows your company name and a call out telephone number to be shown if you wish. You have two lines of 16 characters which may be used. The factory default is 'Intercall 600' or 'Intercall 700' depending on the system.

LCD Display Alarm Volume Levels.

Every LCD display is fitted with a 'Day' and 'Night' alarm volume setting. The volume of each LCD display may be set up independently depending on the local conditions and background noise. See page 32 for more detailed information.

Reducing the alarm volume at night.

With the addition of a 'day/night' switch connected to the Power Supply, the alarm volume from the LCD displays may be reduced at night time. When the switch is thrown, the LCD Display units automatically use their 'night' alarm settings which may be configured individually to suit the local conditions. See pages 27 and 32 for more detailed information.

System Features Configuration.

The System configuration is controlled by the master power supply (L617/L717) and is adjusted by means of a bank of DIL switches detailed on page 68. They control the following features:

- Changing the time before a standard call becomes an emergency and/or disabling this function completely.
- Changing the time before an accepted call returns to the calling state (Mute Timer)
- Disabling the 'Call Follower' sounder on the call points.
- Disabling the reset button present/reset toggle on the call points.
- Enabling and disabling the nurse present auto-expiry timer. (Selected products only)
- Enabling LCD display units to show faulty or missing network devices.*
- Enabling LCD display units to show resident name as well as call location.*
- Changing the time before a standard call becomes a priority call and/or disabling this function completely.*

** Intercall 700 systems only using L717 Power Supply*

Page 68 details all possible switch settings and the user guide from page 9 onwards, describes the features operation.

Display Features Configuration.

The Display features configuration is controlled by menu driven settings in all LCD Display units. Access to the display menus is obtained by first pressing and holding down the 'Show Staff' button. While holding down the 'Show Staff' button, press and hold the 'Accept Call' button for 10 seconds. The following features are changed from within the display menus:

- Making specific call points generate a different alarm sound from the displays. (2nd Tone)
- Disabling the Accept Call function on the displays. (Accept Button enable)
- Making the LCD displays show only specific call points (Zone A,B,C).
- Supervisors Display Showing all calls but only sounding for crash calls.

** Intercall 700 systems only using L717 Power Supply*

Displays can be configured to show only certain call points (Zoning) and/or certain call types ('Supervisor' displays where staff are to be alerted only for emergency calls) The Accept Calls feature can be disabled for corridor displays or on installations where this feature is not required. Displays can be set up to sound a different alarm tone for certain call points (Doors or drug cupboards etc) 'Master Displays' can be configured to show all activity on a zoned system but only sound for local calls. For more information on display configuration with zoning see page 57. More detailed information on the display configuration can be found in page 56 'display menus'.

We have chosen to show the zoning configuration by giving typical examples of zoning requirements that we have encountered using the Intercall system. Intercall 600 and 700 displays feature the zoning menu described in page 57 and the Intercall 700 zoning capabilities will be extended in the future.

The L748 LED display unit features additional menus which are described on page 57

Display Menu Settings (L628,L758,L762 not L748)

Access to the display menus is obtained by first pressing and holding down the 'Show Staff' button. While holding down the 'Show Staff' button, press and hold the 'Accept Call' button. After holding both buttons down for 10 seconds, you should gain access to the menus. To change the displayed option, press the 'Show Staff' button. To move to the next item, press the 'Accept Call' button. When the display is showing the last menu item (EMERGENCY CALLS), one more press of the 'Accept Call' will return the unit to normal operating mode. *Please note while in the menu mode, the unit will not respond to system activity. You will need to fit the menu enable jumper to gain access to the L628 Display Menus.*

<u>Menu</u>	<u>Settings</u>	<u>Description</u>
DISPLAY ADDRESS: 00	00 to 07*	Sets the Display Address of the unit. When display address 1 or above is selected, and the unit is not in master mode, the menu will jump to 2ND TONE LO ADD. <i>*Earlier software revision has a range of 00 to 15, do not use above 07.</i>
ZONE A LOW ADD: 001	001 to 215	Select the Lowest call point address for zone switch position A. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
ZONE A HI ADD: 215	001 to 215	Select the Highest call point address for zone switch position A. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
ZONE B LOW ADD: 001	001 to 215	Select the Lowest call point address for zone switch position B. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
ZONE B HI ADD: 215	001 to 215	Select the Highest call point address for zone switch position B. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
ZONE C LOW ADD: 001	001 to 215	Select the Lowest call point address for zone switch position C. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
ZONE C HI ADD: 215	001 to 215	Select the Highest call point address for zone switch position C. <i>This function is available only when the display is in master mode or set to Display Address 00.</i>
2ND TONE LOW ADD: OFF	OFF / 001 to 215	Select the Lowest call point address for the Second Tone alarm setting. <i>This range operates in addition to the zone windows above.</i>
2ND TONE LOW ADD: OFF	OFF / 001 to 215	Select the Highest call point address for the Second Tone alarm setting. <i>This range operates in addition to the zone windows above.</i>
ACCEPT BUTTON: ENABLED	ENABLED DISABLED	When enabled, allows the calls to be accepted at this display using the Accept button. When disabled, this function does not operate on this display only.
SHOW ALL CALLS: ENABLED	ENABLED DISABLED	When enabled, this display will show all calls on the system but will only sound the audible alarm for calls in the current zone.
SOUND FOR: ALL CALLS	ALL CALLS EMERGENCY CALLS ONLY	Select "Emergency Only" to allow Emergency and Attack calls only to generate the audible alarm from this display. All other call types will be shown but the audible alarm will not operate on this display.
EMERGENCY CALLS: ALL ZONES	OWN ZONE ONLY ALL ZONES	Select "All Zones" to allow this display to show and sound for Emergency and Attack calls in all zones on the system. "Own Zone Only" will not show or sound for Emergencies or Attack calls on other zones.

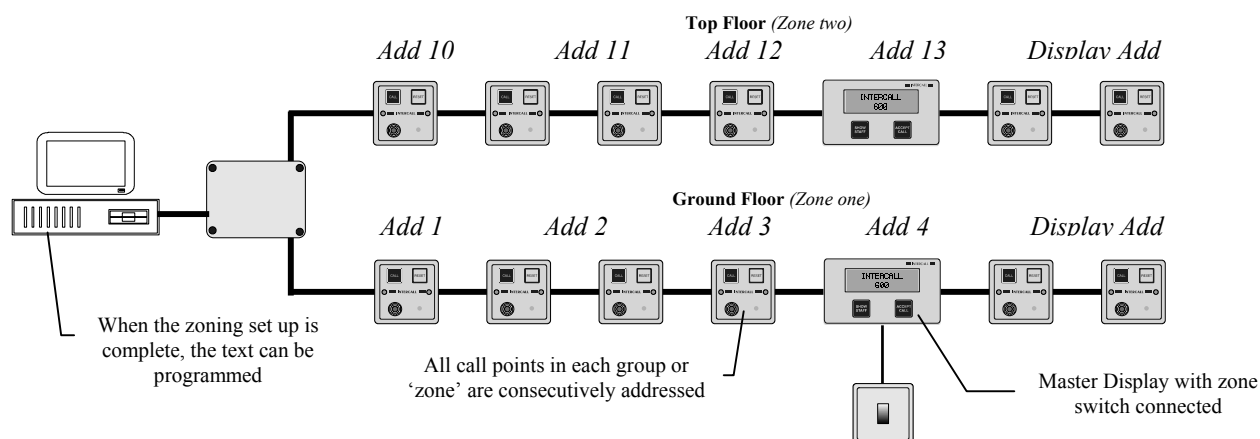
Display Menu Settings (L748 Only)

The L748 display has a unique menu structure, based on the standard display menu, but with additional functions relating specifically to this unit. Access to the display menus is obtained by using the two hidden buttons located on the front panel. Please refer to page 33 for more information. Access to the menus is obtained by; pressing and holding down the 'Show Staff' button. While holding down the 'Show Staff' button, press and hold the 'Accept Call' button. After holding both buttons down for 10 seconds, you should gain access to the menus. To change the displayed option, press the 'Show Staff' button. To move to the next item, press the 'Accept Call' button. When the display is showing the last menu item (DEFAULT TEXT), one more press of the 'Accept Call' will return the unit to normal operating mode. *Please note while in the menu mode, the unit will not respond to system activity.*

<u>Menu</u>	<u>Settings</u>	<u>Description</u>
DISPLAY ADD: 00	00 to 07	Sets the Display Address of the unit. When display address 1 or above is selected, the menu will jump to 2ND TONE LO ADD. <u>This unit cannot be configured as a master display.</u>
ZONE A LO: 001	001 to 215	Select the Lowest call point address for zone switch position A. <i>This function is available only when the display is set to Display Address 00.</i>
ZONE A HI: 215	001 to 215	Select the Highest call point address for zone switch position A. <i>This function is available only when the display is set to Display Address 00.</i>
ZONE B LO: 001	001 to 215	Select the Lowest call point address for zone switch position B. <i>This function is available only when the display is set to Display Address 00.</i>
ZONE B HI: 215	001 to 215	Select the Highest call point address for zone switch position B. <i>This function is available only when the display is set to Display Address 00.</i>
ZONE C LO: 001	001 to 215	Select the Lowest call point address for zone switch position C. <i>This function is available only when the display is set to Display Address 00.</i>
ZONE C HI: 215	001 to 215	Select the Highest call point address for zone switch position C. <i>This function is available only when the display is set to Display Address 00.</i>
2ND TONE LO: OFF	OFF / 001 to 215	Select the Lowest call point address for the Second Tone alarm setting. <i>This range operates in addition to the zone windows above.</i>
2ND TONE HI: OFF	OFF / 001 to 215	Select the Highest call point address for the Second Tone alarm setting. <i>This range operates in addition to the zone windows above.</i>
SHOW CALLS: ON	ON / OFF	When ON, this display will show all calls on the system but will only sound the audible alarm for calls in the current zone.
EMERG CALLS: ALL	ALL / OWN	Select "All" to allow this display to show and sound for Emergency and Attack calls in all zones on the system. "Own Zone Only" will not show or sound for Emergencies or Attack calls on other zones.
CALL LEVEL: ALL	ALL / ONE / TWO	Select "All" to allow this display to respond for all call levels, Select "One" to ignore Emergency and Attack Calls. Select "Two" to ignore all calls other than Emergency and Attack calls. <i>This function over-rides all other settings on this display.</i>
DEFAULT TEXT: OFF	ON / OFF	Select "ON" to show the top line of the default text in quiescent mode eg "INTERCALL". Select "OFF" to clear the display in quiescent mode. <i>A single red led will continue to flash indicating unit operational.</i>

Zoning Configuration.

The **INTERCALL** system has very comprehensive zoning facilities which can cope with most zoning requirements. The principle of zoning is to enable calls to be displayed only in the area from which they originate. This could be achieved by installing separate systems but this does not provide 'master' displays where all calls can be shown or the ability to display emergency 'crash' calls throughout the building to alert other members of staff.



With the INTERCALL system, the zoning is configured and controlled by the display units. They have terminals for the zone switch and built in menu functions which are used to configure the zone requirements. When a system is zoned, we must concentrate on the call point addresses and disregard the text that is associated to that address as this will need to be re-programmed when the system is commissioned.

Additional Equipment Required.

If a system is to be zoned, you will need to re-program the text. See page 54 *Custom Configuration* for more information. If the zoning configuration is to be changed by the staff (e.g Day/Night operation) we will need a zone switch or time switch for automatic switching.

Call Points

When a system is zoned, we effectively have call points in separate groups which are to be treated as the zones. (See the diagram above) All the call points in each group must have consecutive addresses.

Display Units

We also have displays arranged in groups these are called **display addresses**. All displays in the same group must be set to the same **display address**. The **zone switch** is connected to one display in each group, this display is the **master display** for that group.

Zone Switch

The **Zone Switch** is simply a closing contact which is connected to the chosen **master display** for each **display address** group. It may be a simple manual switch, time switch or automatic closing contact. If the contact is open circuit, then all displays in that **display address** group are 'global' and they will respond to all call points on the system. This 'global' mode is often used as one of the zone settings.

Display Address Windows

The mechanism by which the zoning is programmed at the LCD Displays, is based around three **address windows**, these are called 'Zone A', 'Zone B' and 'Zone C'. Each **address window** has a 'Lower Address' setting and a 'Higher Address' setting. When the 'Zone Switch' is operated, it selects either global (all addresses) or one of the three **address windows**. Pages 32 and 41 detail the connections to be made on the LCD Display units which select the **address window** which that group of addresses will use. Page 56 details the setting of the **address windows** 'Zone A', 'Zone B' and 'Zone C'.

Display Menu - Display Address 00.

There are 16 available display addresses from 00 to 15. When display address 00 is used, the settings for the address windows 'Zone A', 'Zone B' and 'Zone C' are set up individually on all displays. This allows displays to be controlled by a single switch, but to have different address window settings.

Display Menu - Display Address 01 to 15.

When display addresses 01 to 15 are used, the settings for the address windows 'Zone A', 'Zone B' and 'Zone C' are set up on the master display and transmitted to all other displays on the same **display address**. When using display address 01 to 15, only the master display can access the 'Zone A', 'Zone B' and 'Zone C' settings within the display menu. These display addresses must be used when **Remote Sounders** are required to be zoned.

Display Menu - Second Tone.

The **Second Tone** may be considered as an additional **address window**. Any active call point within the Second Tone Low and High address range will make the LCD Display sound (Using the solid alternative alarm tone) regardless of the zone settings. This is ideally used for exit doors or specific call points which are to be alerted throughout all zones.

Display menu - Show All Calls.

This setting allows calls from all zones to be displayed, but only calls within the selected **address window** will sound the audible alarm tone. This function can be enabled or disabled at each display within the display menu settings.

Display menu – Emergency Calls.

This setting allows emergency calls from all zones outside the selected **address window** to be displayed and generate the audible alarm tone. This function can be set to 'All Zones' or 'Own Zone Only' which will not show emergency calls outside the **address window**.

Remote Sounders

The Remote Sounder only features basic zoning facilities and we recommend using LCD displays rather than Remote Sounders where a system is to be zoned. Remote Sounders pick up the zoning information from a **master display** unit set to the same **display address**. When zoning Remote Sounders, you must use display Address 01 to 15 and set up the address window values on the master display. The **display address** is set up on the Remote Sounder using DIL switches.

Power Supplies.

Zoning does not affect the quantity or location of power supply units on the system. This must be calculated in accordance with the Wiring Limitation. (See page 15)

Overdoor Lights.

Zoning does not affect the operation of the overdoor lights. They may be set to a manual **address window** with the use of two sets of DIP switches which set the 'lower' and 'higher' address limits. See page 34 for more information.

Thermal Printer and Universal Interface (L747).

The L747 Interface and Thermal Printer will record all system activity regardless of zoning. See page 39

Alphanumeric Pagers and Universal Interface (L747).

The L747 Interface and Alphanumeric Pagers will record all system activity regardless of zoning. The L747 can be configured so that only emergency or attack calls are sent to the pagers.

PC Logging and Alphanumeric Paging.

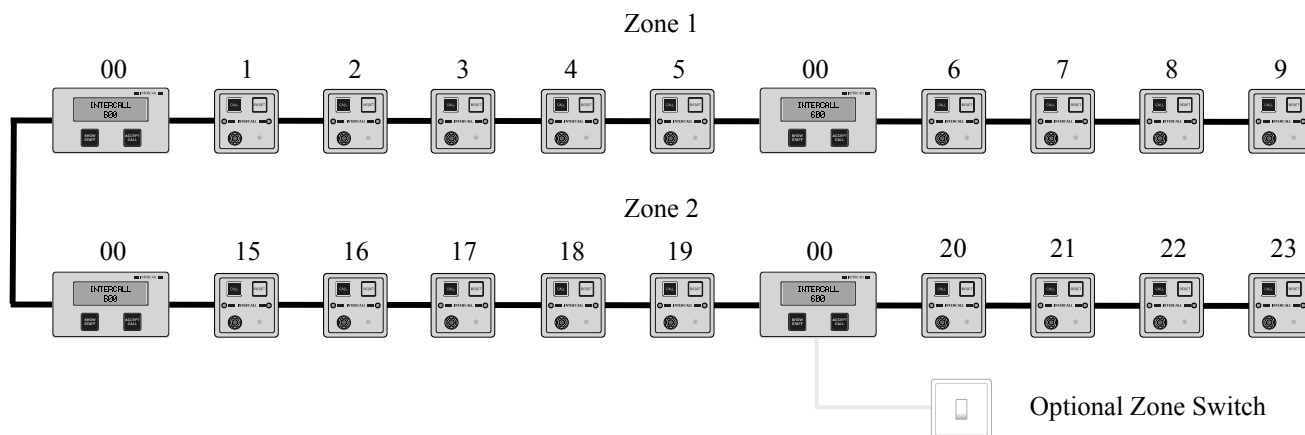
By using the Call Management Software, it is possible to zone individual alphanumeric pagers to any number of zones and using it with the Intercall 700 system, it is possible to 'route' specific call types, locations or users to specific alphanumeric pagers.

Text Programming.

Once the zone set up is complete, the call point text can be programmed into the power supply and downloaded to the system.

Zoning – Example 1.

In the example below, we have 2 zones with 9 call points and 2 display units on each zone. They are to be operated independently and the LCD Displays are only to show calls local to the zone. The 'Options' described below allow for this to be switched (say for day/night staffing levels) and to allow emergency or 'attack' calls to be shown on all zones.



Setting up the Call Points.

- Set up call points on the first zone with consecutive addresses. *The zone 1 example above starts at address 1 and continues to address 9.*
- Leaving a gap to allow for future expansion, set up call points on the second zone with consecutive addresses. *The zone 2 example above starts at address 15 and continues to address 23.*
- Continue the above procedure on all further zones, leaving gaps for future expansion between all zones. *The zone 3 example above starts at address 30 and continues to address 38.*

Setting up the LCD Display Units.

- Set up **all** displays in zone 1 as follows:
- **DISPLAY ADDRESS 00.** *We wish the displays in both zone 1 and zone 2 to be switched together, so we have used the same display address on all LCD displays. As we are using display address 0 the address window settings will need to be set up on all displays.*
- **ZONE A LOW ADD 1, ZONE A HIGH ADD 9.** *This address window 'Zone A' is set to receive only local calls from zone 1.*
- Set up **all** displays in zone 2 as follows:
- **DISPLAY ADDRESS 00.** *We wish the displays in both zone 1 and zone 2 to be switched together, so we have used the same display address on all LCD displays.*
- **ZONE A LOW ADD 15, ZONE A HIGH ADD 23.** *This address window 'Zone A' is set to receive only local calls from zone 1.*

Zone Connection.

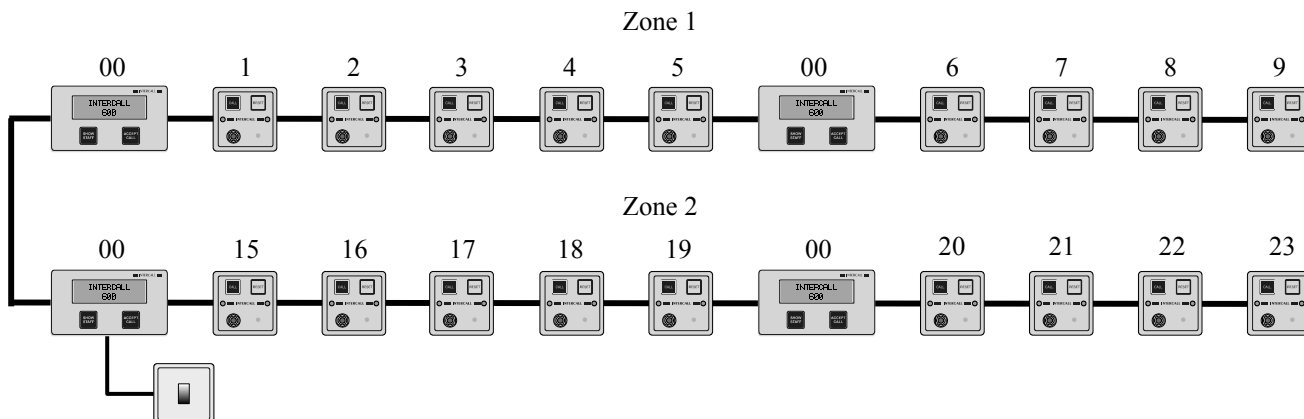
- Select one LCD Display to be the 'master' (*It can be any display in any zone and in the example above it is one of the displays on zone 2*) and connect the terminals on the rear of the unit to select **address window A**. For information on the connections for the zone switch, please refer to page 32
- Select one LCD Display to be the 'master' (*It can be any display in any zone and in the example above it is one of the displays on zone 2*) and connect the terminals on the rear of the unit to select **address window Zone A**.

Options.

- Should you wish to switch the zone (Say in the daytime, you wish to see all calls on all displays and at night time the calls are only displayed locally) Connect a switch to select either 'global' or **address Window A**
- If you set the all display menus to **EMERGENCY CALLS = ALL ZONES**, Then 'Emergency' or 'Attack' calls from either zone 1 or zone 2 will be shown on all LCD display units.

Zoning – Example 2.

In the example below, we have 2 zones with 9 call points and 2 display units on each zone. There are two modes of operation; 1. Independently (LCD Displays show calls within the zone) and 2. All calls are shown in zone 2 but all LCD displays in zone 1 are silent and do not sound. Emergency calls are to stay within the local zone.



Call Points.

- Call points are set up with consecutive addresses in each zone, with a gap between zones as per example 1.

LCD Displays.

- Set up **all** displays in zone 1 as follows:
 - **DISPLAY ADDRESS 00.** We wish the displays in both zone 1 and zone 2 to be switched together, so we have used the same **display address** on all LCD displays. As we are using **display address 0** the **address window** settings will need to be set up on all displays.
 - **ZONE A LOW ADD 1, ZONE A HIGH ADD 9.** We have set up two **address windows** on the LCD displays in zone 1. The first **address window** 'Zone A' is set to receive only local calls from zone 1.
 - **ZONE B LOW ADD 215, ZONE B HIGH ADD 215.** The second **address window** is set up away from any call point address (at address 215) so when using the 'Zone B' setting, the display will not respond to any call.
 - **EMERGENCY CALLS = OWN ZONE ONLY.** We have set Emergency calls = own zone only to prevent emergency calls crossing the **address window** settings. This will mean that in zone 1, when **address window** 'Zone B' is selected, no emergency calls will sound in zone 1.
- Set up **all** displays in zone 2 as follows:
 - **DISPLAY ADDRESS 00.** We wish the displays in both zone 1 and zone 2 to be switched together, so we have used the same **display address** on all LCD displays.
 - **ZONE A LOW ADD 15, ZONE A HIGH ADD 23.** We have set up two **address windows** on the LCD displays in zone 2. The first **address window** 'Zone A' is set to receive only local calls from zone 2.
 - **ZONE B LOW ADD 1, ZONE B HIGH ADD 23.** The second **address window** is set up to receive calls from both zone 1 call points and zone 2 call points.
 - **EMERGENCY CALLS = OWN ZONE ONLY.** We have set Emergency calls = own zone only to prevent emergency calls crossing the **address window** settings. This will mean that in zone 2, when **address window** 'Zone A' is selected, no emergency calls from zone 1 will sound in zone 2.

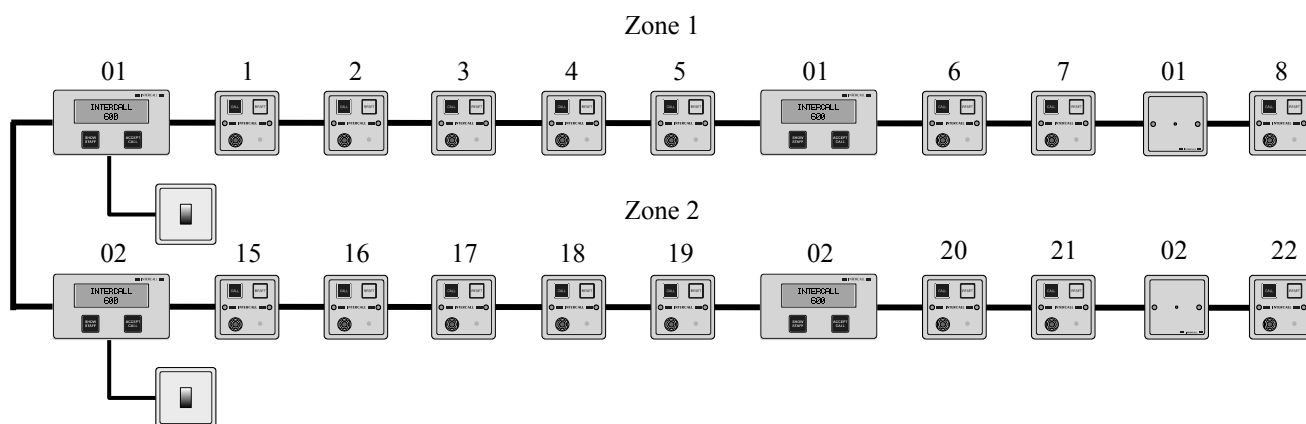
Zone Switch.

- Connect the zone switch to select either 'Address Window A' or 'Address Window B'. When the zone switch is operated, it will select the **address windows** which will be used by all the LCD display units, on both zones. For information on the connections for the zone switch, please refer to page 32

Emergency calls from both zone 1 & zone 2 can sound, if required, by setting **EMERGENCY CALLS = ALL ZONES**

Zoning – Example 3.

In the example below, we have 2 zones with 8 call points, 2 display units and one remote sounder on each zone. There is a zone switch in each zone which controls the displays in the local zone only. There are two modes of operation; **1.** LCD Displays and Remote Sounders show/sound for calls within their own zone only, and **2.** Show calls /sound for calls from zone 1 and 2 on the local displays and sounders.



Call Points.

- Call points are set up with consecutive addresses in each zone, with a gap between zones as per example 1.

LCD Displays.

- Set up the master display in zone 1 as follows:
- **DISPLAY ADDRESS 01.** We wish all displays in zone 1 to be switched together, but not affect the displays in the other zones. As we are using **display address 1** the **address window** settings can only be set on the **master display** and all other displays, and remote sounders, set to **display address 1** will pick up the settings.
- Set: **ZONE A LOW ADD 1, ZONE A HIGH ADD 8.** The first **address window** 'Zone A' is set to receive only local calls from zone 1.
- Set: **ZONE B LOW ADD 1, ZONE B HIGH ADD 22.** The second **address window** 'Zone B' is set to receive calls from both zone 1 and zone 2.
- Set: **ZONE C LOW ADD 215, ZONE C HIGH ADD 215.** The second **address window** is set up away from any call point address (at address 215) so when using the 'Zone B' setting, the displays will not respond to any call.
- Set the Remote Sounder to **display address 01.** The remote sounders will pick up the **address window** settings which are entered into the master display set to **display address 1** in zone 1.
- Set up the master display in zone 2 as follows:
- **DISPLAY ADDRESS 02.** We wish all displays in zone 2 to be switched together, but not affect the displays in zone 1.
- Set: **ZONE A LOW ADD 15, ZONE A HIGH ADD 22.** The first **address window** 'Zone A' is set to receive only local calls from zone 2. As we are using **display address 2** the **address window** settings can only be set on the master display and all other displays, and remote sounders, set to **display address 2** will pick up the settings.
- Set: **ZONE B LOW ADD 1, ZONE B HIGH ADD 22.** The second **address window** 'Zone B' is set to receive calls from both zone 1 and zone 2.
- Set the Remote Sounder to **display address 02.** The remote sounders will pick up the **address window** settings which are entered into the master display set to **display address 2** in zone 2.

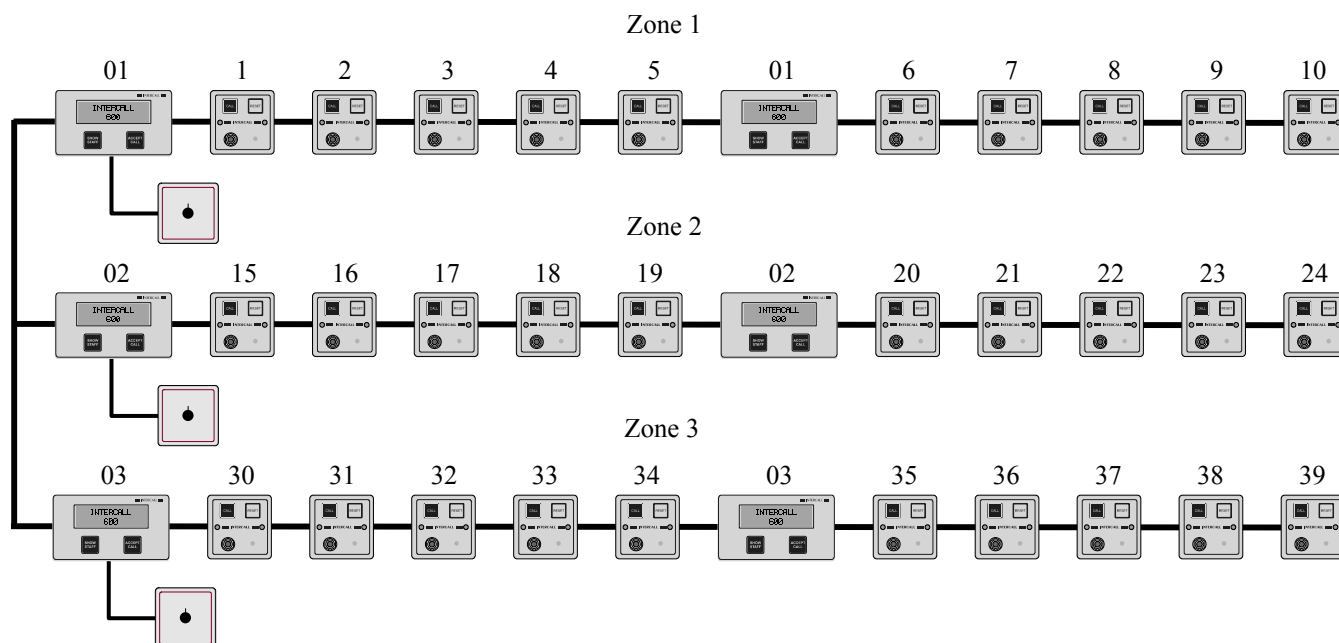
Zone Switches.

- Connect a zone switch in each zone to select either 'Address Window A' or 'Address Window B'. When the zone switch is operated, it will select the **address windows** for all displays in the local zone only. It will not affect displays in the other zone. For information on the connections for the zone switch, please refer to page 32

If you do not wish to switch the zone setting but you wish to use Remote Sounders, fit links to the master displays in zone 1 and zone 2 to permanently select 'Address window A' and enter the settings into the master displays.

Zoning – Example 4.

In the example below, we have 3 zones with 10 call points and 2 display units on each zone. There is a three position zone switch in each zone which controls the displays in the local zone only. There are three modes of operation; 1. Independently (LCD Displays show calls within the zone) 2. Show calls from all zones on the local displays. 3. Local displays to show no calls from any zone.



Call Points.

- Call points are set up with consecutive addresses in each zone, with a gap between zones as per example 1.

LCD Displays.

- Set up the master display in zone 1 as follows:
 - **DISPLAY ADDRESS 01.** We wish all displays in zone 1 to be switched together, but not affect the displays in the other zones. As we are using **display address 1** the **address window** settings can only be set on the **master display** and all other displays set to **display address 1** will pick up the settings.
 - Set: **ZONE A LOW ADD 1, ZONE A HIGH ADD 10.** The first **address window** 'Zone A' is set to receive only local calls from zone 1.
 - Set: **ZONE B LOW ADD 1, ZONE B HIGH ADD 39.** The second **address window** 'Zone B' is set to receive calls from zones 1, 2 and 3.
 - Set: **ZONE C LOW ADD 215, ZONE C HIGH ADD 215.** The third **address window** is set up away from any call point address (at address 215) so when using the 'Zone C' setting, the displays will not respond to any call.
- Set up the master display in zone 2 as follows:
 - **DISPLAY ADDRESS 02.** We wish all displays in zone 2 to be switched together, but not affect the displays in the other zones. As we are using **display address 2** the **address window** settings can only be set on the **master display** and all other displays set to **display address 2** will pick up the settings.
 - Set: **ZONE A LOW ADD 15, ZONE A HIGH ADD 24.** The first **address window** 'Zone A' is set to receive only local calls from zone 2.
 - Set: **ZONE B LOW ADD 1, ZONE B HIGH ADD 39.** The second **address window** 'Zone B' is set to receive calls from zones 1, 2 and 3.
 - Set: **ZONE C LOW ADD 215, ZONE C HIGH ADD 215.** The third **address window** is set up away from any call point address (at address 215) so when using the 'Zone C' setting, the displays will not respond to any call.

Zoning example 4 continues on the next page.....

- Set up the master display in zone 3 as follows:
- **DISPLAY ADDRESS 03.** *We wish all displays in zone 2 to be switched together, but not affect the displays in the other zones. As we are using **display address 3** the **address window** settings can only be set on the **master display** and all other displays set to **display address 3** will pick up the settings.*
- Set: **ZONE A LOW ADD 30, ZONE A HIGH ADD 39.** *The first **address window** 'Zone A' is set to receive only local calls from zone 3.*
- Set: **ZONE B LOW ADD 1, ZONE B HIGH ADD 39.** *The second **address window** 'Zone B' is set to receive calls from zones 1,2 and 3.*
- Set: **ZONE C LOW ADD 215, ZONE C HIGH ADD 215.** *The third **address window** is set up away from any call point address (at address 215) so when using the 'Zone C' setting, the displays will not respond to any call.*

Zone Switches.

- Connect a three position zone switch in each zone to select either 'Address Window A' , 'Address Window B' or 'Address window C'. *When the zone switch is operated, it will select the **address windows** for all displays in the local zone only. It will not affect displays in the other zone.* For information on the connections for the zone switch, please refer to page 32

The above example will require a three position zone switch, prices and availability are available on request. As there are 16 independent display addresses, the above could be repeated up to a maximum of 16 zones. As one of the three settings on the zone switch is 'sound for calls in all zones', we could use the 'global' setting as one of the three positions and we would have the 'Zone C' setting available for another range of call points.

As with the other examples, we could set the **EMERGENCY CALLS** to either **ALL ZONES** or **OWN ZONE ONLY**.

If a 'supervisors' display was required to show all call activity but only sound for emergencies, this is simply added anywhere on the network cabling and set to **SOUND FOR = EMERGENCY CALLS ONLY**. Obviously, it could be set to sound for all calls if required.

We hope that the examples have given an insight into some of the possibilities with the Intercall system of zoning. But if you wish to discuss your zoning requirements, please contact your supplier or the factory technical support department.

IMPORTANT
EVERY CALL
POINT MUST
BE SET TO A
UNIQUE
ADDRESS.

Factory Text Page 1 of 2.

SWITCHES	ADD	TEXT MESSAGE	SWITCHES	ADD	TEXT MESSAGE
Duuuuuuu	001	BEDROOM 1	uuDDuDDu	108	2ND FLR BED 28
uDuuuuuu	002	BEDROOM 2	DuDDuDDu	109	2ND FLR BED 29
DDuuuuuu	003	BEDROOM 3	uDDDuDDu	110	2ND FLR BED 30
uuDuuuuu	004	BEDROOM 4	DDDDuDDu	111	2ND FLR BED 31
DuDuuuuu	005	BEDROOM 5	uuuuDDDu	112	2ND FLR BED 32
uDDuuuuu	006	BEDROOM 6	DuuuDDDu	113	TOILET 1
DDDuuuuu	007	BEDROOM 7	uDuuDDDu	114	TOILET 2
uuuDuuuu	008	BEDROOM 8	DDuDDDu	115	TOILET 3
DuuDuuuu	009	BEDROOM 9	uuDuDDDu	116	TOILET 4
uDuDuuuu	010	BEDROOM 10	DuDuDDDu	117	TOILET 5
DDuDuuuu	011	BEDROOM 11	uDDuDDDu	118	TOILET 6
uuDDuuuu	012	BEDROOM 12	DDDuDDDu	119	TOILET 7
DuDDuuuu	013	BEDROOM 13	uuuDDDDu	120	TOILET 8
uDDDuuuu	014	BEDROOM 14	DuuDDDDu	121	TOILET 9
DDDDuuuu	015	BEDROOM 15	uDuDDDDu	122	TOILET 10
uuuuDuuu	016	BEDROOM 16	DDuDDDDu	123	TOILET 11
DuuuDuuu	017	BEDROOM 17	uuDDDDDu	124	TOILET 12
uDuuDuuu	018	BEDROOM 18	DuDDDDDu	125	TOILET 13
DDuuDuuu	019	BEDROOM 19	uDDDDDu	126	TOILET 14
uuDuDuuu	020	BEDROOM 20	DDDDDDDu	127	TOILET 15
DuDuDuuu	021	BEDROOM 21	uuuuuuuD	128	BATHROOM 1
uDDuDuuu	022	BEDROOM 22	DuuuuuuD	129	BATHROOM 2
DDDuDuuu	023	BEDROOM 23	uDuuuuuD	130	BATHROOM 3
uuuDDuuu	024	BEDROOM 24	DDuuuuuD	131	BATHROOM 4
DuuDDuuu	025	BEDROOM 25	uuDuuuuD	132	BATHROOM 5
uDuuDDuu	026	BEDROOM 26	DuDuuuuD	133	BATHROOM 6
DDuDDuuu	027	BEDROOM 27	uDDuuuuD	134	BATHROOM 7
uuDDDuuu	028	BEDROOM 28	DDDuuuuD	135	BATHROOM 8
DuDDDuuu	029	BEDROOM 29	uuuDuuuD	136	BATHROOM 9
uDDDDuuu	030	BEDROOM 30	DuuDuuuD	137	BATHROOM 10
DDDDDuuu	031	BEDROOM 31	uDuDuuuD	138	LOUNGE 1
uuuuuDuu	032	BEDROOM 32	DDuDuuuD	139	LOUNGE 2
DuuuuDuu	033	BEDROOM 33	uuDDuuuD	140	LOUNGE 3
uDuuuDuu	034	BEDROOM 34	DuDDuuuD	141	LOUNGE 4
DDuuuDuu	035	BEDROOM 35	uDDDuuuD	142	LOUNGE 5
uuDuuDuu	036	BEDROOM 36	DDDDuuuD	143	DINING ROOM 1
DuDuuDuu	037	BEDROOM 37	uuuuDuuD	144	DINING ROOM 2
uDDuDuuD	038	BEDROOM 38	DuuuDuuD	145	DINING ROOM 3
DDDuDuuD	039	BEDROOM 39	uDuuDuuD	146	TREATMENT RM 1
uuuDuDuuD	040	BEDROOM 40	DDuDuDuD	147	TREATMENT RM 2
DuuDuDuuD	041	BEDROOM 41	uuDuDuuD	148	TREATMENT RM 3
uDuDuDuu	042	BEDROOM 42	DuDuDuuD	149	TREATMENT RM 4
DDuDuDuu	043	BEDROOM 43	uDDDuDuD	150	TREATMENT RM 5
uuDDuDuu	044	BEDROOM 44	DDDuDuuD	151	DAY ROOM 1
DuDDuDuu	045	BEDROOM 45	uuuDDuuD	152	DAY ROOM 2
uDDDuDuuD	046	BEDROOM 46	DuuDDuuD	153	DAY ROOM 3
DDDDuDuuD	047	BEDROOM 47	uDuuDDuuD	154	DAY ROOM 4
uuuuDDuuD	048	BEDROOM 48	DDuDDuuD	155	SHOWER 1
DuuuDDuuD	049	1ST FLR BED 1	uuDDDuuD	156	SHOWER 2
uDuuDDuuD	050	1ST FLR BED 2	DuDDDuuD	157	SHOWER 3
DDuDDuuD	051	1ST FLR BED 3	uDDDDuuD	158	SHOWER 4
uuDuDDuuD	052	1ST FLR BED 4	DDDDDuuD	159	SHOWER 5
DuDuDDuuD	053	1ST FLR BED 5	uuuuuD	160	SHOWER 6
			DuuuuDuD	161	SHOWER 7

Turn call point upside down, with terminals at the bottom and read as follows:

u = Switch up (towards ON) D = Switch down (away from ON)

VERY IMPORTANT: EACH CALL POINT MUST HAVE A UNIQUE ADDRESS SETTING

Factory Text Page 2 of 2.

SWITCHES	ADD	TEXT MESSAGE	SWITCHES	ADD	TEXT MESSAGE
uDDuDDu	054	1ST FLR BED 6	uDuuuDuD	162	SHOWER 8
DDDuDDu	055	1ST FLR BED 7	DDuuuDuD	163	SHOWER 9
uuuDDDu	056	1ST FLR BED 8	uuDuDuD	164	DOOR 1
DuuDDDu	057	1ST FLR BED 9	DuDuDuD	165	DOOR 2
uDuDDDu	058	1ST FLR BED 10	uDDuDuD	166	DOOR 3
DDuDDDu	059	1ST FLR BED 11	DDDuDuD	167	DOOR 4
uuDDDDu	060	1ST FLR BED 12	uuuDuDuD	168	DOOR 5
DuDDDDu	061	1ST FLR BED 13	DuuDuDuD	169	DOOR 6
uDDDDDu	062	1ST FLR BED 14	uDuDuDuD	170	DOOR 7
DDDDDDu	063	1ST FLR BED 15	DDuDuDuD	171	DOOR 8
uuuuuuDu	064	1ST FLR BED 16	uuDDuDuD	172	DOOR 9
DuuuuuDu	065	1ST FLR BED 17	DuDDuDuD	173	DOOR 10
uDuuuuDu	066	1ST FLR BED 18	uDDDuDuD	174	DOOR 11
DDuuuuDu	067	1ST FLR BED 19	DDDDuDuD	175	DOOR 12
uuDuuuDu	068	1ST FLR BED 20	uuuuDDuD	176	DOOR 13
DuDuuuDu	069	1ST FLR BED 21	DuuuDDuD	177	DOOR 14
uDDuuuDu	070	1ST FLR BED 22	uDuuDDuD	178	DOOR 15
DDDuuuDu	071	1ST FLR BED 23	DDuuDDuD	179	FRONT DOOR
uuuDuDu	072	1ST FLR BED 24	uuDuDDuD	180	BACK DOOR
DuuDuDu	073	1ST FLR BED 25	DuDuDDuD	181	FIRE DOOR 1
uDuDuDu	074	1ST FLR BED 26	uDDuDDuD	182	FIRE DOOR 2
DDuDuDu	075	1ST FLR BED 27	DDDuDDuD	183	FIRE DOOR 3
uuDDuDu	076	1ST FLR BED 28	uuuDDDuD	184	FIRE DOOR 4
DuDDuDu	077	1ST FLR BED 29	DuuDDDuD	185	FIRE DOOR 5
uDDDuDu	078	1ST FLR BED 30	uDuDDDuD	186	FIRE DOOR 6
DDDDuDu	079	1ST FLR BED 31	DDuDDDuD	187	FIRE DOOR 7
uuuuDuDu	080	1ST FLR BED 32	uuDDDDuD	188	FIRE DOOR 8
DuuuDuDu	081	2ND FLR BED 1	DuDDDDuD	189	FIRE DOOR 9
uDuDuDu	082	2ND FLR BED 2	uDDDDDuD	190	FIRE DOOR 10
DDuDuDu	083	2ND FLR BED 3	DDDDDDuD	191	HAIRDRESSER
uuDuDuDu	084	2ND FLR BED 4	uuuuuuDD	192	FRONT GARDEN
DuDuDuDu	085	2ND FLR BED 5	DuuuuuDD	193	REAR GARDEN
uDDuDuDu	086	2ND FLR BED 6	uDuuuuDD	194	PATIO
DDDuDuDu	087	2ND FLR BED 7	DDuuuuDD	195	CONSERVATORY 1
uuuDDuDu	088	2ND FLR BED 8	uuDuuuDD	196	CONSERVATORY 2
DuuDDuDu	089	2ND FLR BED 9	DuDuuuDD	197	FREEZER 1
uDuDDuDu	090	2ND FLR BED 10	uDDuuuDD	198	FREEZER 2
DDuDDuDu	091	2ND FLR BED 11	DDDuuuDD	199	FREEZER 3
uuDDDuDu	092	2ND FLR BED 12	uuuDuuDD	200	DRUG CUPBOARD1
DuDDDuDu	093	2ND FLR BED 13	DuuDuuDD	201	DRUG CUPBOARD2
uDDDDuDu	094	2ND FLR BED 14	uDuDuuDD	202	DRUG CUPBOARD3
DDDDDuDu	095	2ND FLR BED 15	DDuDuuDD	203	LIFT 1
uuuuuDDu	096	2ND FLR BED 16	uuDDuDuDD	204	LIFT 2
DuuuuDDu	097	2ND FLR BED 17	DuDDuDuDD	205	TV ROOM 1
uDuuuDDu	098	2ND FLR BED 18	uDDDuDuDD	206	TV ROOM 2
DDuuuDDu	099	2ND FLR BED 19	DDDDuDuDD	207	CHAPEL
uuDuuDDu	100	2ND FLR BED 20	uuuuDuDD	208	HYDROTHERAPY
DuDuuDDu	101	2ND FLR BED 21	DuuuDuDD	209	SWIMMING POOL
uDDuDuDD	102	2ND FLR BED 22	uDuDuDuDD	210	BEDROOM 12A
DDDuDuDD	103	2ND FLR BED 23	DDuDuDuDD	211	
uuuDuDuDD	104	2ND FLR BED 24	uuDuDuDuDD	212	QUIET ROOM 1
DuuDuDuDD	105	2ND FLR BED 25	DuDuDuDuDD	213	QUIET ROOM 2
uDuDuDuDD	106	2ND FLR BED 26	uDDuDuDuDD	214	TELEPHONE
DDuDuDuDD	107	2ND FLR BED 27	DDDuDuDuDD	215	FIRE ALARM

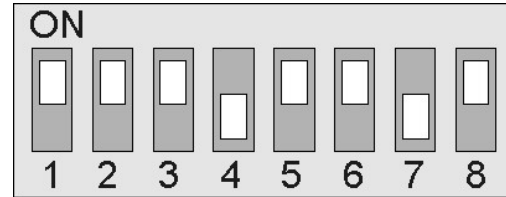
Turn call point upside down, with terminals at the bottom and read as follows:

u = Switch up (towards ON) D = Switch down (away from ON)

VERY IMPORTANT: EACH CALL POINT MUST HAVE A UNIQUE ADDRESS SETTING

L617 / L717 Configuration Switch Settings

The global system features are controlled by a bank of DIL switches fitted to the L617 and L717 Power Supplies. The switches are shown to the right and **[ON]** is upwards (towards the word ON) and **[OFF]** is down (away from the word ON). The tables below details the available settings.



600 SERIES POWER SUPPLY L617 CONFIGURATION SWITCH SETTINGS		
SW3	SW4	Time taken for an accepted call to return to the calling condition
ON	ON	30 Seconds
ON	OFF	1 Minute
OFF	ON	2 Minutes
OFF	OFF	2 Minutes and 30 Seconds * [Do not use these settings simultaneously]
SW5	SW6	Time taken for an un-answered call to convert to an emergency call
ON	ON	Never convert to an emergency call
ON	OFF	2 Minutes and 30 Seconds * [Do not use these settings simultaneously]
OFF	ON	3 Minutes and 30 Seconds
OFF	OFF	6 Minutes and 30 Seconds
SW	SWITCH ON	
SW1	Allow staff present feature	
SW2	Disable call point sounder	
SW7	Not used in Intercall 600 [617] mode	
SW8	Not used in Intercall 600 [617] mode	

* Do not use these settings simultaneously

700 SERIES POWER SUPPLY L717 CONFIGURATION SWITCH SETTINGS				
SW3	SW4	SW5	Time for Accepted calls to return to their calling state	Time for an un-answered call to become a Priority call
ON	ON	ON	1 Minute & 30 Seconds	2 Minutes & 30 Seconds
OFF	ON	ON	2 Minutes	3 Minutes & 30 Seconds
ON	OFF	ON	3 Minutes	2 Minutes & 30 Seconds
OFF	OFF	ON	4 Minutes	2 Minutes & 30 Seconds
ON	ON	OFF	1 Minute & 30 Seconds	6 Minutes & 30 Seconds
OFF	ON	OFF	2 Minutes	Never turn into a Priority call
ON	OFF	OFF	3 Minutes	3 Minutes & 30 Seconds
OFF	OFF	OFF	4 Minutes	Never turn into a Priority call
SW	SWITCH ON		SWITCH OFF	
SW1	Manual staff present feature [Reset Button Present/Reset toggle]		Disable manual staff present feature [Auto Nurse Present with ID Badge]	
SW2	Disable call point follower sounder		Enable call point follower sounder	
SW6	No lost addresses logged by displays		lost addresses logged on displays	
SW7	Show location + User ID on system		User ID disabled	
SW8	Enable Nurse Present Auto Expiry Timer [Fixed at 10 minutes]		Disable Nurse Preset Auto Expiry Timer [Manual Reset Only]	

L747 SERIAL RS232 LEAD FOR SCOPE PAGERS, CMS LITE & PROGRAMMING		
L747 25 way female Connector	Description	PC 9 way female Connector
Pin 13	CTS <<<<	Pin 4+7
Pin 14	TXD >>>>	Pin 2
Pin 15	RXD <<<<	Pin 3
Pin 17	RTS >>>>	Pin 6+8
Pin 25	Signal Ground	Pin 5
YOU WILL NEED TO USE THE SOFTWARE IF CHANGING THE PAGER ADDRESS OR L747 DATE AND TIME See Page 35		

Fault Finding Guide

Call Point Faults.

FAULT

F1. Red Led on continuously or sounder beeping continuously

F2. Will not reset
See also F9

F3. Call Point does not show or sound on display
F4. Call Point shows incorrect call type
See also F6

F5. Call Point Red Led flashes twice then goes into green flashing

F6. Call Address changes when calling but OK for Present/Visit. [L622 ONLY]

F7. Call Point sounds on display but LCD reads "1" " [Call Number but no text]

F8. Wrong address shows when Call Point calling
If L622 then see fault F6

F9. Call Point randomly "Ghost Calls"
See Also F2

CAUSE

Illegal Switch Setting

Ceiling pull switch faulty
Ceiling pull switch wiring short circuit
Latching pull switch fitted
Pear Lead faulty

Two call points set to the same address
No power to call point or network volts too low
Two Master power supplies on the wiring
Address windows not set up correctly on LCD(s)

Call point receives accept signal on the network

L output shorted to 0v.
L622 ONLY – All other call points do not use the same circuit

No text has been programmed for that address.
Call point on wrong address [see fault F3,F8]

Wrong text has been programmed for that address
DIP Switches incorrectly set on call point
Faulty DIP switch on call point
If L622 then see fault F6

Ceiling pull switch damp (condensation or leak)
Damaged wiring on "X" connection
Damaged pear lead or plug
Excessive electrical 'noise' or static on site

CURE

Set Call Point Switches
See Pages 28 (600) or Page 45 (700) and page 66

Disconnect or eliminate pull switch
Disconnect or eliminate wiring.
Must be momentary pull switch
Remove Pear Lead

All call points *must* have a unique address
Check if call point Red Led is flashing.
Only one master power supply per system.
Remove all zone links & try again or check set-up.
Refer to page 57 for zoning configuration

Usually due to short on the Network.
Damp Network Cable
Damaged Network Cable
Call Accepted at display
Display accept button stuck down
Remove L connection from call point.

If this is on all displays check programming sheet
If only on one display, download text from PSU.
If this is on all displays check programming sheet
Re-check DIP Switches
Replace or eliminate call point.

Check ceiling pull switch
Check Wiring..
Remove or replace pear lead
Check site or contact supplier for filter units.

Display Faults

FAULT

F10. Liquid Crystal Display totally blank

F11. LCD reads Vx.xx or SWxxxx continuously

F12. Display Shows calls but does not sound Call

F13. See also F3

F14. Display will not accept calls.

F15. Display will not accept text download

F16. Display text corrupted

F17. Display menu text corrupted

Display sounds single tone (not warble)

Cannot gain access to address windows within menus

CAUSE

No power to display

Excessive volt drop on Network cable

Network Cable Short

No input to Booster PSU

Master PSU not running

Display set up to sound for Emergency calls only

Display Zoning set incorrectly

DAY or NIGHT alarm level set at minimum

Feature disabled in the display menu

Wrong type of system (IE L628 running on L717PSU)

Excessive Cable Capacitance on the system

Wrong type of system (IE L628 running on L717PSU)

Battery must be fitted to the PSU when downloading

Units connected the Network with power connected

Second Tone setting active

Display not in master mode

CURE

Check connections with a meter.

Must measure minimum 9Volts at Network Cable.

Remove or eliminate part(s) of the system

See page 56

See page 32 or 41

See page 56

See page 3

See page 3

Download text from Master PSU directly

Unit will need to be returned to the factory or re-programmed using the LIM device.

Disabled in display menu See page 56

See pages 32,41 & 57

Power Supply Faults

<u>FAULT</u>	<u>CAUSE</u>	<u>CURE</u>
F18. PSU Yellow LED not illuminated	No mains power connected Transformer damaged during installation	Check Supply.
F19. PSU Green LED not illuminated	1 Amp fuse blown PCB damaged during installation	Check fuse.
F20. Master PSU Red LED not flashing	Network short	Remove or eliminate Network spurs
F21. PCB Sounder beeping continuously	Network Device connections reversed Flat or faulty battery Output Overloaded PCB damaged during installation	Max Load 100 Current Units per PSU
F22. Master PSU Beeper Sounding once per second and PSU Yellow LED Not Illuminated	Unit running from back up battery	Check mains incoming supply
F23. No output from booster	No input connected to booster No output from master Supply. Check Yellow & Green LED's	Check cable from master to booster.
F24. No Output from master power supply	Network Cable Short Network Device connections reversed PSU Output Power Transistor Damaged	Remove or eliminate Network Spurs
F25. Display text corrupted after download	Text corrupted within power supply. Battery must be connected when downloading	Connect to computer and re-program.

L747 Universal Interface Faults

FAULT

L747 Red LED not flashing

F26. Printer Showing incorrect date or time

F27. Extra Line feed space in between printout

F28. Printer/Pager reporting 'lost' devices

F29. RS232 data input/output problems

F30. L747 + DPU414 Thermal Printer problems

F31. L747 + SCOPE Serial RS232 pager mode

CAUSE

No Connection to Network

No Supply to Network

No output device connected to 25way socket on L747

Output device giving 'busy' signal

L747 DIL switches set incorrectly.

DPU414 DIL Switches set incorrectly

British Summer Time not set.

L747 needs to be re-programmed

JP1 and JP2 jumpers fitted in parallel mode.

DPU414 DIL Switches set incorrectly

Excessive Capacitance on Network

Incorrect cable connections.

L747 DIL switches set incorrectly.

JP1 and JP2 jumpers must be fitted for serial I/O.

RS232 Baud rate can be 1200bps or 2400bps only (DIL SWITCH 7)

RS232 format is only: 8 data bits, 1 stop bit, no parity.

All L747 DIL Switches must be [OFF] for this mode.

DPU414 DIL switches must be set to Parallel Data Input.

JP1 and JP2 jumpers should be removed.

The Printer must be powered up and on line.

Use standard parallel printer data lead to connect L747 to DPU414.

JP1 and JP2 jumpers must be fitted

The Scope Kit must be powered up with the red led on and the green led off.

You may use the **747set.exe** PC utility software to change the pager id

Use special Scope data lead (supplied by Intercall) to connect Scope kit to L747

Use L747 – Null Modem data lead (see page 68)

CURE

See page 35

See DPU414 manual page 17

Press BST/GMT button See page 35

Use **747set.exe** utility See page 35 and 68

See page 35

See DPU414 manual page 17

See *capacitance faults* on page 73

See page 35.

FAULT

Capacitance Faults (Data Corruption)

- F32. Emergency calls don't say "EMERGENCY!" on bottom line
- F33. Wrong type of call displayed (Assistance shows as normal call)
- F34. Call type changing (Bleep changes from assist to call with only 1 call up)
- F35. Printer printing several 'lost' then 'reset' devices
- F36. Pager (Alphanumeric) bleeping with lost devices.
- F37. Calls cannot be accepted. (Display 'Lock's up')
- F38. Q' or 'q' appears on display when call(s) accepted
- F39. Calls come and go on the LCD display

Volt Drop Faults (Low Network Volts)

- F40. LCD Beeper faint/ display keeps resetting (See Fault F11)
- F41. Call points reset spuriously.

Audio Faults

It is very important to be sure that the system is fully functional and that all digital features are working correctly before attempting to locate and rectify audio faults.

- F42. Speech dropping out after a few seconds.
- F43. One way speech to or from call point.
- F44. One way speech to or from display.
- F45. Feedback between call point & display.
- F46. Buzzing on audio channel when open

CAUSE

Network cable cores 'Doubled up' – see page 15
Damp Network cables or unit(s)
Booster unit required
Two Call Points with the same address – see page 65
Damaged Network Cable.

Excessive cable runs. – see page 15
Short down long cable run.

Capacitance on Network cabling.
Faulty unit – try substitution with another call point or display.
Two call points set to the same address.
Gain control set too high.
Call Point and display too close or 'back to back' on a stud partition.
Connection between Digital [+/-] and Audio [a/b]
Belden cable not used as recommended
Cable damage
Damp or wet Network Cable
Faulty Audio Unit
Poor Connection.