



# 800 SERIES

## call system

**Ideal for use in:**

- Hotels
- Leisure centres
- Nursing homes
- Care homes
- Hospitals
- Shops
- Lavatories
- Guest houses
- Gymnasiums
- Fitness suites
- Solariums
- Police cells
- Prisons
- Factories
- Warehouses
- Offices
- Reception areas
- GP surgeries
- Government buildings
- Interview rooms
- Housing offices
- Restaurants
- Changing rooms
- **and much, much more**



# 800 SERIES call system

Tried, trusted and respected by users and installers alike, C-TEC's 800 Series Call System is ideal for use in all types of private, commercial, residential and public sector buildings. Incorporating two different disabled persons toilet alarm kits, a wide range of indicator panels and an extensive array of system components, it is without doubt one of the most versatile and reliable conventional call systems on the market.



- Hundreds of applications - suitable for use in hotels, leisure centres, nursing homes, shops, offices, etc.
- Hard wired for total reliability - 4 to 6 core security cable is ideal for most installations.
- Wide range of indicator panels covering 1 to 90 zones.
- Extensive range of ancillaries including ceiling pulls, wall-mounting call points, monitoring points, water resistant alert points, stainless steel call points, overdoor lights, remote sounders, relays and call latch modules.
- 12V d.c. system - simple to install, easy to operate and highly reliable.
- Most wall-mounting plastic components fit standard 25mm single or double gang back boxes. Ceiling pulls and water resistant alert points are surface mountable.
- Attractive compact design blends perfectly into any sort of decor.
- All power supplies capable of 12V sealed lead acid battery charging.
- Two levels of call - standard (constant tone) and emergency (intermittent tone).
- Optional button or magnetic key reset facilities (dependent on items purchased).
- No limit to system size - components can be mixed and matched to meet the layout and call communication requirements of virtually any building - see typical applications diagram for details.
- Optional datalogging, paging and infrared staff attack facilities.
- FREE plan marking up and technical advice service available for larger systems.
- Extremely cost-effective - all components normally available ex-stock.
- Manufactured in the UK by an ISO 9001 accredited company with over 20 years' experience of making quality life safety and call system products.
- Can be used to help building managers and service providers comply with BS8300, the Disability Discrimination Act and the Care Standards Act.



## WHAT IS AN 800 SERIES CALL SYSTEM?

In its simplest form, an 800 Series Call System: -

- Allows the general public, a member of staff or a patient to call for assistance;
- Confirms that the call has got through;
- Makes sure the caller is visited; and, if required;
- Allows extra or more urgent assistance to be summoned using an optional 'emergency' call facility.

However, the unrivalled flexibility and versatility of the 800 Series Call System means it can also be used to: -

- Inform staff that someone is being attacked via an optional infrared 'staff attack' facility.
- Monitor storage cupboards, cash offices and stock rooms for unauthorised access.
- Monitor doorbells, telephones and machinery for activation or failure.
- Send notification of calls to hand-held paging equipment.
- Provide a permanent printed record of all system and staff activity via optional datalogging equipment.

## HOW DOES AN 800 SERIES CALL SYSTEM WORK?

Depending on the type of calling devices used, the system can be set up to operate as a **standard system** – on which standard (constant tone) calls are generated – or an **emergency system** – on which standard (constant tone) and emergency (intermittent tone) calls are generated.

### On standard systems:

The user calls for assistance by activating a ceiling pull, standard call point, monitoring point, water resistant alert point or infrared ceiling receiver (as fitted). A red confidence light on the calling device illuminates to reassure the user that the call has been registered.

At the system's indicator panel(s), an indicator light illuminates and a buzzer sounds to inform staff that someone is in need of assistance. Relevant overdoor lights, remote sounders and area indicators also operate (as fitted) to provide additional audible and visual indication of the call.

A member of staff visits the calling room to assist the user and resets the calling device to return the system to normal.

### On emergency systems:

In addition to doing everything a standard system does, a more urgent / extra level of assistance can be summoned by activating an 'emergency call' via an emergency call point, water resistant alert point or infrared ceiling receiver (as fitted).

Once activated, the red confidence light on the calling device will flash to confirm the emergency call has been registered and the relevant indicator panel light and its buzzer will flash and sound a more insistent tone to attract attention. Relevant overdoor lights, remote sounders and area indicators will also pulse (as fitted) to provide additional audible and visual indication of the emergency call.

## WHICH SYSTEM SHOULD YOU CHOOSE?

The type of system required will depend upon the application and the needs of the user so always check with the approving authority/client before work commences.

In residential care homes, a standard system is normally acceptable as the main requirement is for the reset function to be carried out at the source of the call. In nursing homes, however, some authorities insist on standard and emergency call facilities so an emergency system may be required. In most other applications, such as shops, leisure centres, hotels and public sector buildings, the type of system and devices required will depend almost entirely on what the user wants to achieve. In most instances, referring to the typical applications diagram overleaf will help all interested parties come to a decision on what components should be purchased.

## PLANNING A SYSTEM

The following points should be considered when designing or planning an 800 Series Call System.

### Indicator panels

Indicator panels should be sited internally in a clean dry area which is readily accessible to staff. Various types and sizes are available covering 1 to 90 zones. Repeater panels are also available.

### Call Points

Any number of call points (of any kind), reset points and overdoor lights can be wired onto one zone.

Standard call points (including ceiling pulls and monitoring points) will work on 800 Series standard and emergency systems but emergency call points will work on emergency systems only.

Some emergency call points can generate standard and emergency calls whereas others, such as water resistant alert points and stainless steel call points, can be set up to generate standard or emergency calls (not both).

Two methods of reset are available - button or magnetic key. Reset buttons are fine for non-secure applications but reset keys are usually preferred in care establishments as they help prevent patients inadvertently cancelling their own calls.

Call points without an on-board reset facility, such as ceiling pulls, must be reset via a reset point or call point with an on-board reset facility.

A full list of standard and emergency call points and the facilities they offer can be found at the back of this leaflet.

### Ancillary calling devices

A tail call lead or hand/foot operated pneumatic pad can be connected to a call point's remote socket (if fitted) to generate a standard call. For safety reasons, a standard call will also be made if the ancillary calling device is inadvertently pulled from its socket.

### Monitoring points

Monitoring points can be used to trigger a standard call if a fire exit, drug cupboard or storeroom is opened and can be isolated via an on-board keyswitch if required. They can also be connected to any device with a normally open or normally closed switch, such as a pressure mat, allowing it to operate as a standard call point when activated.

### Call latch modules

Call latch modules operate in a similar way to monitoring points but are smaller (for discreet mounting) and do not include an onboard reset or isolating facility.

### Infrared call points, ceiling receivers and transmitters

To help protect staff against aggressive visitors, distressed patients or intruders, infrared ceiling receivers and call points can be used in conjunction with infrared transmitters to remotely trigger standard and/or emergency calls. Up to three slave ceiling receivers can be connected to one master ceiling receiver or infrared call point to provide additional coverage in large or L shaped rooms. Infrared transmitters typically provide a 10m line-of-sight transmitting range.

### Overdoor lights

Overdoor lights (if fitted) are normally installed outside rooms to increase call indication levels. If required, up to four zones can be connected to one overdoor light to provide area indication (in corridors, etc) with additional zones connectable via one or more input expanders.

### Remote sounders

Up to three switchable or remote sounders can be connected to an indicator panel's sounder output to increase call levels.

### Relay units

External strobes, sounders, beacons, etc, can be connected to any zone or group of zones via a 12V relay unit.

### Datalogging and paging

A datalogger can be used to record the date, time, type and location of every call and reset and is ideal for verifying that staff have attended to calls and for analysing response times. Two paging options are also available - tone only and alphanumeric, the latter of which must be used in conjunction with a datalogger.

### Master reset buttons

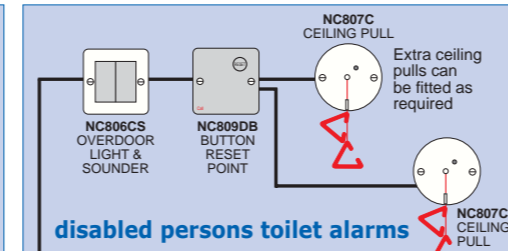
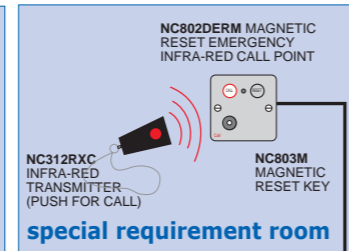
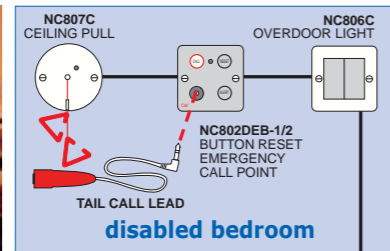
Some indicator panels have an optional master reset button. If enabled, this facility allows standard calls to be globally cancelled without the source of the call being investigated. As there is a definite requirement in most applications for the caller to be visited before the call is reset, this facility is normally only utilised in carefully managed staff-to-staff call systems. In most other instances we recommend this facility is disabled.

### Mute buttons

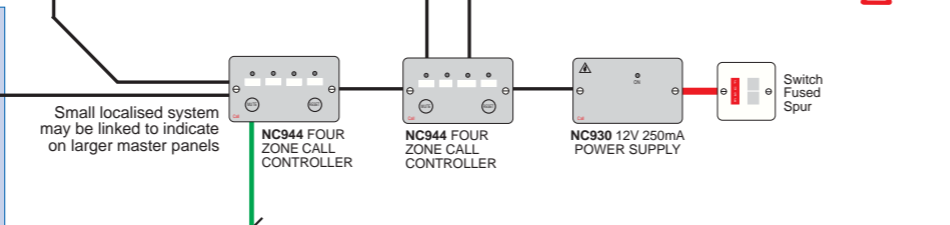
All multi-zone emergency indicator panels are supplied with an optional mute button. If enabled, this allows any standard calls on the system to be silenced but leaves relevant indicator light(s) lit. Although a new call from a different call point will re-activate the sounders, to ensure callers are visited we recommend this facility is used only in very carefully managed systems. Emergency calls cannot be muted.

# Typical Applications & Wiring Details

## 800 SERIES call system



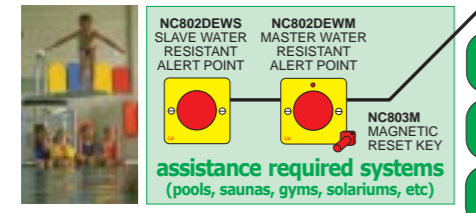
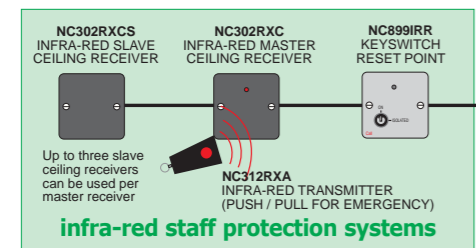
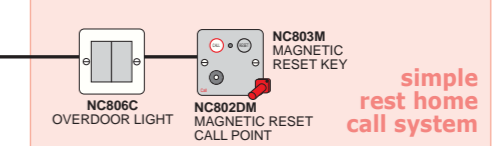
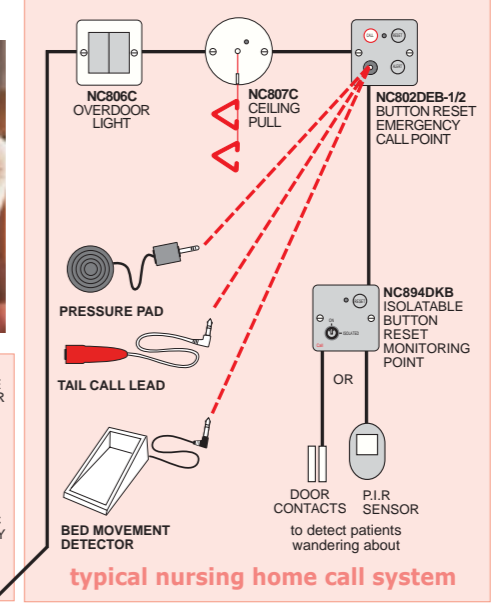
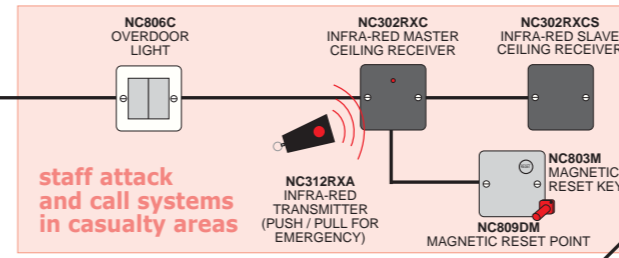
### hotel & guest house call systems



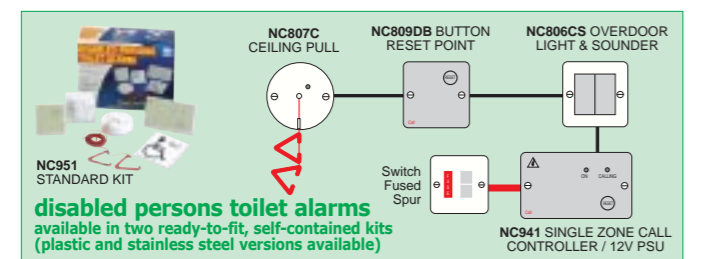
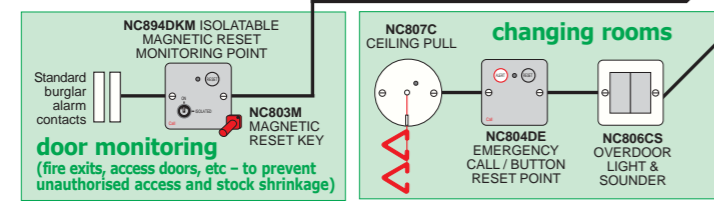
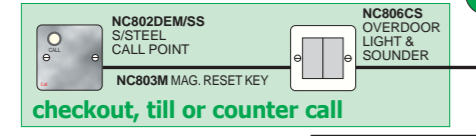
### nursing home & hospital call systems



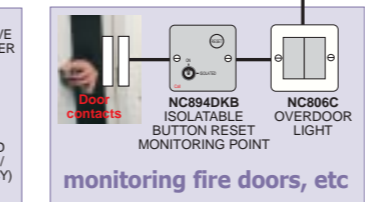
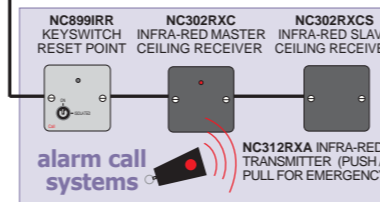
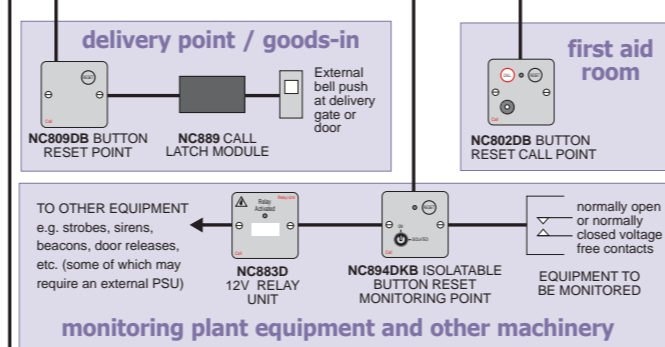
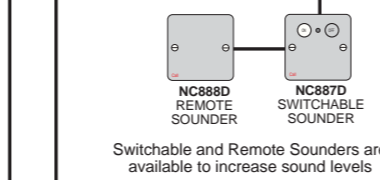
IMPORTANT: There is a definite requirement in nurse call systems for the reset function to be carried out at the room from which the call is made



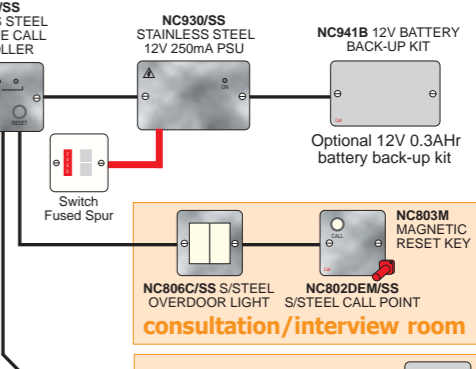
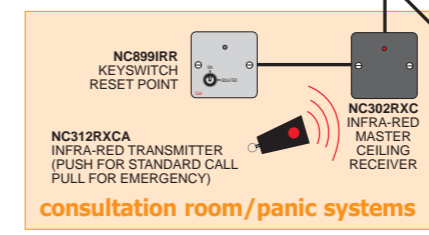
### retail, sports & leisure call systems



### warehouse & factory call systems



### general surgery & interview room call systems



### CABLE & WIRING DETAILS

- EXTRA LOW VOLTAGE (7/0.2) SECURITY CABLE**
    - Typically 4 or 6 core dependent on layout and devices used (see right).
    - Multi-core cable can be used to reduce wiring runs but more joints will result.
    - We recommend you leave about 20-25% spare cores.
    - DO NOT use solid core cable as it breaks easily.
  - STANDARD CALL POINTS** (including ceiling pulls, monitoring points and standard reset points): Run 1 signal wire per zone plus a common negative to the nearest panel
  - EMERGENCY CALL POINTS** (including infrared ceiling receivers and keyswitch reset points): Run 1 signal wire per zone plus a common negative and a common positive to the nearest panel
  - OVERDOOR LIGHTS**: Connect to the signal wire of the zone being indicated and to common negative and common positive
  - REMOTE SOUNDERS**: Usually connected directly to an indicator panel using two cores
  - INDICATOR PANELS / REPEATERS**: Wire as specified in diagram
- 220-240V MAINS FEED, e.g. 1mm T&E
- OTHER (as specified)

© C-TEC 1999-2003. Errors and omissions excepted. No responsibility can be accepted by C-TEC for any misinterpretation of the above or for the compliance of the system as a whole. We reserve the right to alter product specifications at our discretion and without prior notice.

## 800 Series Part Numbers & Product Descriptions

### DISABLED PERSONS TOILET ALARM KITS

Include everything required for a BS8300 compliant disabled persons toilet alarm (except cables & fixings)

- NC951 Standard disabled WC alarm kit  
c/w NC941 call controller, NC807C ceiling pull, NC806CS overdoor light & sounder, NC809DB button reset point & WC sticker
- NC951/SS Standard disabled WC alarm kit, s/steel  
c/w NC941/SS call controller, NC807C ceiling pull, NC806CS/SS overdoor light & sounder, NC809DB/SS button reset point & WC sticker

### SINGLE ZONE EMERGENCY INDICATOR PANELS

Indicate standard and emergency calls

- NC941 Single zone call controller  
c/w 12V 250mA PSU & reset button
- NC941/SS Single zone call controller, s/steel  
c/w 12V 250mA PSU & reset button
- NC941B 0.3Ahr battery backup kit  
for use with single zone call controller

### 4-12 ZONE EMERGENCY INDICATOR PANELS

Indicate standard and emergency calls

- NC944 Four zone call controller  
c/w mute/reset button, requires 12V PSU
- NC944/SS Four zone call controller, s/steel  
c/w mute/reset button, requires 12V PSU
- NC930 12V 250mA PSU  
powers up to 2 x four zone call controllers
- NC930/SS 12V 250mA PSU, s/steel  
powers up to 2 x four zone call controllers
- NC941B 0.3Ahr battery backup kit  
for use with 12V 250mA PSU
- NC925B1 12V 1A white boxed PSU  
powers up to 3 x four zone call controllers
- AC284 2.1Ahr backup battery  
for use with 12V 1A boxed PSU

### 10-30 ZONE EMERGENCY INDICATOR PANELS

Indicate standard and emergency calls

- NC812KE 10 Zone Emergency master panel  
c/w 12V PSU, backup battery & mute button
- NC811KE 10 Zone Emergency repeater panel
- NC822KE 20 Zone Emergency master panel  
c/w 12V PSU, backup battery & mute button
- NC821KE 20 Zone Emergency repeater panel
- NC832KE 30 Zone Emergency master panel  
c/w 12V PSU, backup battery & mute button
- NC831KE 30 Zone Emergency repeater panel
- Larger panels available to order

### 10-30 ZONE STANDARD INDICATOR PANELS

Indicate standard calls ONLY

- NC810K 10 Zone Standard master panel  
c/w 12V PSU & reset button
- NC811K 10 Zone Standard repeater panel
- NC820K 20 Zone Standard master panel  
c/w 12V PSU & reset button
- NC821K 20 Zone Standard repeater panel
- NC830K 30 Zone Standard master panel  
c/w 12V PSU & reset button
- NC831K 30 Zone Standard repeater panel
- Larger panels available to order

### OVERDOOR LIGHTS AND SOUNDERS

Can be used to increase call indication levels

- NC806C Overdoor light
- NC806CS Overdoor light & sounder
- NC806C/SS Overdoor light, s/steel
- NC806CS/SS Overdoor light & sounder, s/steel
- NC887D Switchable sounder
- NC888D Remote sounder

### STANDARD CALL POINTS

Generate standard calls only

- NC807C Ceiling pull unit  
No on-board reset, no remote socket
- NC802DB Standard call point  
Button reset, with remote socket
- NC802DM Standard call point  
Magnetic reset, with remote socket
- NC917L Standard call push with protruding button  
No on-board reset, no remote socket
- NC802DEWM Master water resistant alert point  
magnetic reset, no remote socket
- NC802DEWS Slave water resistant alert point  
Up to 10 per master
- NC802DEMSS Stainless steel call point  
Magnetic reset, no remote socket

### STANDARD MONITORING POINTS

Generate standard calls only

- NC894DKB Isolatable monitoring Point  
Button reset, no remote socket
- NC894DKM Isolatable Monitoring Point  
Magnetic reset, no remote socket

### EMERGENCY CALL POINTS

Generate standard and/or emergency calls (as shown)

- NC802DEB-1/2 Emergency call point  
Button reset, with remote socket, can generate standard & emergency calls
- NC802DEM Emergency call point  
Magnetic reset, with remote socket can generate standard & emergency calls
- NC802DEWM Master water resistant alert point  
magnetic reset, no remote socket, can generate standard or emergency calls (not both)
- NC802DEWS Slave water resistant alert point  
Max. 10 per master
- NC802DEM/SS Stainless steel call point  
Magnetic reset, no remote socket, can generate standard or emergency calls (not both)
- NC804DE Emergency call / reset point  
Button reset, no remote socket, can generate emergency calls only
- NC809DEM Emergency call / reset point  
Magnetic reset, no remote socket, can generate emergency calls only

### INFRARED CALL POINTS & CEILING RECEIVERS

Generate standard and/or emergency calls when triggered by a compatible infrared transmitter

- NC302RXC Infrared master ceiling receiver  
No on-board reset, no remote socket
- NC302RXC5 Infrared slave ceiling receiver  
Up to 3 per master.
- NC802DERB Infrared call point  
Button reset, with remote socket
- NC802DERM Infrared call point  
Magnetic reset, with remote socket

### INFRARED TRANSMITTERS

For use with infrared call points & ceiling receivers

- NC312RXA Infrared transmitter  
Push/pull for emergency call
- NC312RXC5A Infrared transmitter  
Push for standard call / pull for emergency
- NC312RXC Infrared transmitter  
Push for standard call only
- NC312BM Battery module for transmitter

### RESET POINTS

- NC809DB Button reset point
- NC809DB/SS Button reset point, s/steel
- NC809DM Magnetic reset point
- NC899IRR Keyswitch reset point

### MAGNETIC RESET KEYS

For use with all magnetic call points, monitoring points and reset points

- NC803M/10 10 x magnetic reset keys
- NC803M/50 50 x magnetic reset keys

### ANCILLARY CALLING DEVICES

Generate standard call via a call point's remote socket

- NC805C/6 1.8m (6ft) tail call lead
- NC805C/14 4.2m (14ft) tail call lead
- NC805D 1.2-3.6m (4-12ft) tail call lead
- NC805P Hand/foot pneumatic pad  
requires 1 x NC805AS
- NC805AS Remote air switch for NC805P
- NC805MD Portable movement detector

### MISCELLANEOUS 800 SERIES DEVICES

- NC899KD Area isolator  
can be used to isolate areas/zones
- NC884DE Emergency 5:1 input expander  
can be used to provide area/zonal indication
- NC885 Standard 5:1 input expander  
can be used to provide area/zonal indication
- NC886C Call latch module  
can trigger a call from a n/o or n/c switch
- NC883D 12V relay unit  
can be used to switch sirens, strobes, etc.
- NC848/10 10 x Anti-tamper screws  
can be used to secure stainless steel devices in high risk environments.

### DATALOGGING & PAGING EQUIPMENT

- DP800KPD Datalogger c/w software & printer
- DP800KD Datalogger c/w software, no printer
- DP830K 30 zone interface kit  
one required per 30 zones on DP800KPD or DP800KD datalogger
- DP874DA Transmitter for alphanumeric pagers  
Must be used in conjunction with a DP800KPD or DP800KD datalogger
- DP877A Alphanumeric display pager, group 1  
For other pager groups add B,C,D,E,F,G or H to the order code
- DP874B/4 Tone only UHF paging transmitter  
supplied with one tone-only pager
- DP875/4 Extra tone-only pager

Distributed by:



**C-TEC**  
Stephens Way, Wigan,  
WN3 6PH. United Kingdom

Tel: +44 (0)1942 322744  
Fax: +44 (0)1942 829867  
Email: sales@c-tec.co.uk  
Web: www.c-tec.co.uk



Quality System Certificate No. 176  
Assessed to ISO9001 : 1994