Network..*II*. Nurse call system

VERSION 3:06

Nurse Call System
Sales Information 2003

Contents:

As we have a policy of continued development and improvement of our products, Specialist Alarm Services reserve the right to change specification and detail without notice.

Q.   **What is Network *II?***
A.   The Network II system is, as the name implies, an electronic network that involves data transmission and reception. In this particular configuration it has been designed to fulfil the requirements of a very high specification Nurse Call System.

Q.   **How does it work?**
A.   Calls from patients or staff are identified by the HUB and translated into a full text signal that is then transmitted via the same two wires to the display units. The HUB can also relay the text messages into an optional alphanumeric radio pager to send messages to pocket pagers. The message, which each call point generates, can be changed by staff if required. Patients' names can be added to their room numbers, for example. Staff can use the units to generate an "assistance" call; this is easily identified by staff as it has a different pulsed tone. They can also generate a "crash" call when extremely urgent help is required.

Q.   **What text can be displayed?**
A.   Any text you want up to 20 digits. These messages can be programmed by the installation engineers and left forever, or they can be changed with a "programming unit". This facility enables staff to key in patients names so that temporary staff know *who* they are dealing with, not just their room number.

Q.   **Is it a well proven system?**
A.   Yes! We have been designing, manufacturing, installing and servicing Nurse Call systems for over 20 years and have been producing the Network Nurse Call system for several years. The **Network *II*** system has been installed to great acclaim in many establishments throughout Britain and it has proved to be a very reliable and stable system requiring little or no maintenance.

Q.   **Is it suitable for connecting to existing wiring?**
A.   Yes! This was the main reason we designed the Network nurse call system. The market for replacing old inferior systems is rising rapidly with the advent of tougher Local Authority standards. Naturally though, a system with such minimal wiring requirements also has advantages in other parts of the market. Indeed, the majority of our installations have been into new developments.

Q.   **How is it wired?**
A.   The Network II Nurse Call System is centred around the power supply, or the appropriately named HUB. Call units are linked to the HUB by two common wires carrying "data" and power simultaneously. The DISPLAY units, which indicate where the call is from, are connected across the same two wires but, to limit current drain on the data pair from the backlight, it is advisable to have one more power line to feed displays.

Q.   **What size systems can be installed?**
A.   The system is extremely flexible. One hub will support up to 254 addressable call points and 26 displays with no extra power supplies or boosters being required. This allows you to sell in complete confidence that one hub will support most schemes and have capacity for future expansions. If the system required is larger than 254 call points then hubs can be interlinked to provide whatever size scheme is required.

Q.   **How is the system programmed?**
A.   The system is fully programmable. Any address of up to twenty characters including spaces can be programmed in to any of the call points. This allows the addresses for the call points to be chosen by the client to satisfy any of their requirements. The customer can change the address at any time as often as required. This allows for easy expansion to the system.

Q.   Who uses the system?
A.   The system is used by NHS trusts, residential care homes and nursing homes through out the United Kingdom. The system has been exported to Europe, The Middle east and Australasia.

Q.   Why choose NETWORK II?
A.   The system has been designed for ease of installation and reliability. These two factors combined have made it an ideal choice for all types of projects from new builds to refurbishments to simply replacing only the call system. The range of facilities allied to its cost have made NETWORK II a market leader.

Q.   What are the NETWORK II system facilities?

Even at its most basic, the **Network *II*** Nurse Call system is still a very sophisticated system. It is however, very simple for patients and staff to use.

Patients call for staff using large, easily identifiable orange call buttons. When a call has been made, a slow tone sounds at each display and the origin of the call is shown. The *exact* location of the call is displayed, i.e. 1st FLOOR LOUNGE, DISABLED TOILET or BEDROOM 15 etc.

Staff attend the patient and usually cancel the call using the push button or staff key. If they require, staff can register their presence in a room and be located by other staff whilst they are in attendance. If they need further assistance they can simply summon help by using their key or the alarm button to indicate a "staff-to-staff" call at the display. If staff need *more urgent* assistance they can generate a "crash" call by making a staff-to-staff call and then pushing the patients call switch.

Before attending to a call, staff can "mute" or silence the call tone for a few moments until someone attends to the call and cancels it. The staff member who intends to attend the call can press the "accept" button before going to the call. These facilities serve to reduce disturbance to other patients and staff. The "accept" facility is used by staff to indicate that a call is being handled, letting other staff know that someone is on their way to deal with that call.

If another call is generated before the first call has been cleared, then the call tone comes back on. If staff are diverted after accepting the call and fail to attend and reset, then the tone comes back on after a pre-determined time.

An engineer can set the volume of the call tone at the each of the Displays. There are two settings, one for daytime use and one for use at night. Operating a "day-night" switch switches between the two different levels. Alternatively the most popular option, is a switch built in to the HUB that performs this function at a predetermined time. This is fitted as standard

There are 3 call tone frequencies available. These enable staff to differentiate zones, floors or types of call audibly. This lets them ignore calls that are from an area that is being monitored by other staff. Crash and assistance calls, however, are easily identifiable and can be responded to by all staff.

Two simultaneous call locations can be displayed at the Display unit. If more than two calls are on the system at any one time, then they can be manually scrolled. Crash and staff-to-staff calls are highlighted and given priority in the scrolling sequence.

PARTS DETAIL

### NET201   Power supply (HUB)
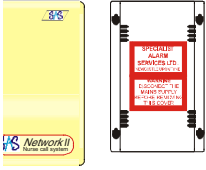
Comprising a low voltage power supply and a separately boxed control unit. The HUB is the central control of the NETWORK II system and has the ultimate capacity of 254 addressable call points and 26 LCD indicator panels. It is installed centrally in the system layout, normally in a secure location. It requires a 240 volt fused spur supply.   An input from a day night volume control switch is available to adjust the volume of the LCD indicator panels; alternatively this can be set to automatically change at a certain time of day. A voltage free set of contact outputs is provided (NET242) to trigger external devices in the event of a call, a staff-to-staff call, a crash call etc. These outputs can be used to trigger tone pagers or additional voltage sounder and other systems.

### NET202   Battery back-up power supply:

This is an option for installations that may be particularly prone to mains failures. The capacity of the back-up supply depends upon the duration of the maintained supply and the size of the system.

NET203   Liquid crystal display:
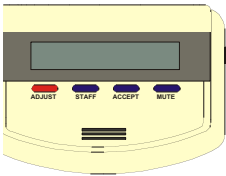
These displays use two rows of 20 digit liquid crystal modules. They are self-illuminating, needing no light source. On the contrary, they actually appear brighter in dimly lit areas. Nonetheless, they are perfectly visible even in brightly lit areas. Each display has an integral sounder and includes a mute switch to silence the call tone and an accept switch to indicate to other staff that a call is being dealt with. They also feature a staff switch that lets senior staff locate the whereabouts of staff that have registered their presence throughout the building. The unit displays two calls simultaneously and, if more calls are made, the display can be scrolled to show each call. A different call tone and a highlighted display show crash and assistance calls from members of staff. To help staff to identify calls quickly from different zones or floors, the system can be configured to allow the display to emit different tones from each area. Day and night volumes are set on the displays and different volumes are produced at the times set.

NET 205M   Patient call unit:
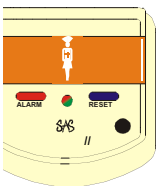
Usually located at each bed-head, they feature a large (75mm x 30mm) orange button, which is used by patients in need of assistance. They can also be located outside toilets and bathrooms, where they are wired to ceiling or wall switches inside the room and are used by staff to cancel calls or to initiate crash or assistance calls. A 1/4" jack socket accepts a remote call lead. The leads supplied with this equipment (see NET 206, below), have jack plugs and are supplied with a 2.5 metre lead. If this plug is inadvertently pulled out of the socket, a call is automatically generated. This socket also accepts the programmer to let engineers or staff change the name in the address when required.

A red reassurance LED indicates if a call has been initiated. This LED flashes in the event of a staff-to-staff call being made (see below). The light goes green when a call has been accepted to let patients know that someone is on their way

Calls are cancelled by pressing the blue reset button. There is a facility on the call point to allow staff to register their presence.

Staff can choose to log a "visit" to a room or area by simply pressing the reset button. This action is recorded on a printer and the Datastore software only.

The alarm button is used to generate the "staff to staff" call. The third call level, known as a "crash call" can then be initiated by pressing the orange button. This generates a call that indicates to other members of staff that very urgent help is required.
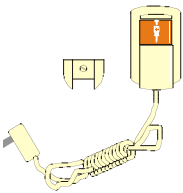
NET205   Patient call unit:

As NET205M but with staff functions being operated with the magnetic staff key NET216

NET204M   **Reset unit:**
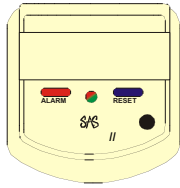
An addressable reset. Uses push button operation for reset and "staff to staff" calls. The device requires an external input, either normally open or closed contact to activate. It uses include linking ccall button from lift cars and door bell pushes etc.

NET204   **Reset unit:**

As NET204M but with staff functions being operated with the magnetic staff key NET216

NET 206   **Push to call lead:**

These push switches are fitted with a flex that is plugged into a patient call unit (Net 205). Designed to enable bed-patients to call from their beds conveniently, they are easy to operate, without being prone to false alarms or damage. Plugging into a room unit, or removing from one, puts a call onto the system thus ensuring that they cannot be pulled out inadvertently, without staff being alerted. They can be supplied with a mounting "holster" to hold the unit when it is not in use. The standard length is 2.5 metres although longer lengths are available.

NET210   **Over door light:**
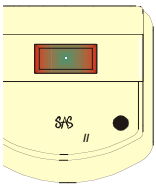
Useful as options, these lights can be fitted outside each room to indicate that a call has been made from inside. Staff often find them useful in the rapid location of calls in certain circumstances. The light pulses red to signal the type of call initiated. These units are simply wired in the same fashion as the other addressable units on the system.

NET 214   **Ceiling switch:**
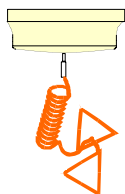
These switches are for use in bathrooms and toilets etc. They are fitted with 2.5metres of orange cord and have two triangular pulls fitted for ease of use. They incorporate a red reassurance light to indicate that a call has been made.

NET218   **Door monitor:**
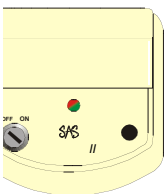
Located adjacent doors or drug cabinets, these units generate a call if the door is breached. They can be isolated using a key switch when staff need to use the door. The doors are monitored using door contacts (NET220, NET223) or any other normally closed contact A socket is provided for programming the address.

NET219   **Overdoor light with sounder:**

As RED210, but with the addition of a low volume sounder to give an audible as well as visual indication of a call. Useful additions when monitoring sensitive exit doors. Often associated with a door monitor or drug cabinet alarm, these over-door lights attract attention audibly as well as visually.

NET220 **Flush fitting door contacts:**

Concealed contacts, fitted to timber doors in association with NET218 door monitors

NET223 **Surface fitting door contacts:**

Used on metal doors or cabinets where flush fitting contacts are not suitable, in association with NET218 door monitors.

NET226 **Tone only pager transmitter:**

Ideal paging system when a tone pager is required to alert staff that the NETWORK II system has been activated. Linked to the NET201 (HUB) and triggered by the on-board relay card, this transmitter triggers the NET227 pagers in the event of a call.

NET227 **Tone only pocket pager:**

Carried by staff, these units bleep to alert staff to the fact that call has been made. Staff then consult a fixed display (NET203) letting staff know the exact origin of the call

NET228 **Alphanumeric pager transmitter:**

An alphanumeric paging transmitter used in conjunction with the NET229 pocket pagers. Supplied with RS232 interface and aerial. The unit is used to send text messages to the response staff showing the precise location where assistance is required. Can be configured using sharer systems to work with more than one system and to only activate for certain levels of calls. Can also be configured to work with the existing phone system so numeric messages can also be generated for specific pagers.
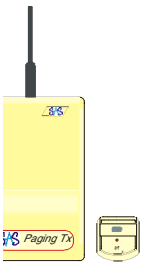
NET229 **Alphanumeric pocket pager:**

Carried by staff, these units bleep or vibrate to alert staff to the fact that a call has been made. Reading the pager's display shows the exact origin and the type of call. They are supplied with a belt clip holster and a bungee cord to reduce accidental damage.

NET235 **Printer:**

Linking anywhere along the wiring network the printer enables senior staff to monitor each and every visit, alarm and reset. The date and time of each event is stored and can be viewed from a paper roll
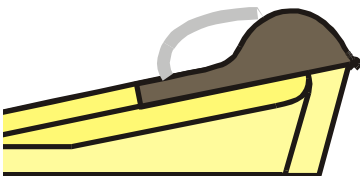
NET234 **Datastore software package**

RED 234 Datastore

The software will log all events that includes four levels of call, Attack, Crash, Alarm, Call and the system operation functions reset, presence and fault (system) calls.

- It is possible to print selected date using the PC's own printer.
- The information displayed can be filtered to only shown the information you are currently interested in i.e. all logged information for BEDROOM 6.
- An alert popup window or sound can be set to inform you of a new event
- The colours of the text, background and font can be altered to suit your requirements.
- Personal details can be entered for each **identification** in the log i.e. name and address, room details etc.

The Datastore kit includes an RS232 port, connection lead for a 9 pin coms port and the software CD.

The RS232 port requires installing adjacent the PC.

- The minimum PC requirements are:
- Pentium-class PC running Windows NT4/95*/98/2000/Me
- 16MB RAM
- SVGA Display (800x600 resolution 256 colours)
- 20MB free hard disk space**
- 1 Spare serial Communications port
- CD ROM Drive

* Windows 95 platform is not recommended but is supported, conditional on installation of latest common control updates (50comupt.exe).
** Datastore II constantly files information onto the hard drive. This is an estimation and due care should be taken not to run out of space on your hard drive.

NET 236   **Hand-held programming unit:**

It is used during commissioning to programme the adressable points i.e. NET205, NET210 and NET218 with their unique address number and the text location. The information is entered into the programmer it is then plugged in to the point using the jack socket. This transfers the programming information to the call point. This makes changes of address at a later date very easy. It is powered by a 9-volt battery.
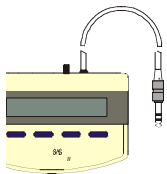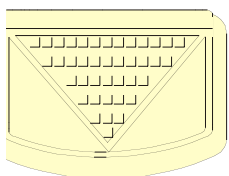

OPTIONAL EQUIPMENT

NET212   **Extension sounder, addressable type:**

This extension sounder is used to provide a mimic of the call tones throughout the development should they be required. The tones are louder than those from a NET203 display. The volumes are fixed and can only be adjusted at the factory.

NET 216   Staff key:

Economical key-fob style units that operate various staff-only facilities. Staff can carry them to cancel calls, record visits or to facilitate emergency or crash calls. Using them means that only staff can carry out these operations.

RED242   Relay output card:

An optional PCB fitted to the RED201 HUB to give relay outputs for each level of call, can be used to activate other devices e.g. voltage sounders or diallers.

NET210R   Adressable relay unit:

This unit is similar to the over door light unit. It can be activated by up to eight of the RED205 infra red sensors (or other type of addressable call point). The voltage free contacts supplied in the unit can be used to activate other systems i.e. a CCTV camera in the event of a call being placed on a certain part of a system. It should be noted that this device requires a third wire (for power) when installing these devices.

NET215   Slave call push button:
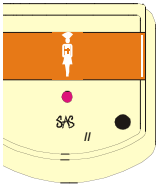
Usually located in double bedrooms or en-suite bathrooms. This unit is used as a slave call button to a NET205M patient call unit. It has a jack plug socket for a NET206 and a reassurance light.

NET 207M   Patient call unit with infra-red receiver:
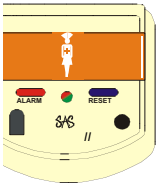
This device has the same functions as the NET205M with the addition of an infrared receiver. These room units are often fitted in establishments where the staff may feel at risk or may need to call for assistance often. They receive calls, remotely, from our infra-red transmitters (RED208) and can be used to generate all system calls, showing exactly where help is required. Patients can also call for assistance using the NET208, this initiates a patient call.

NET207   Patient call unit with infra-red receiver:

As NET207M but with staff functions being operated with the magnetic staff key NET216

RED208/1   Staff infra red call transmitter:

Carried in establishments by staff who may feel at risk or who might need to call for assistance often. They are supplied with a chain clip for attaching to clothing. Pressing the button or pulling the unit from its clip generates a call signal, which is received by any NET207 in the area. A standard call is sent if the button is pressed and an emergency call is sent if the unit is pulled from its clip. A "one year" battery is used to power the unit. This is easily replaced requiring no special tools.

NET208   **Patient infrared call transmitter:**
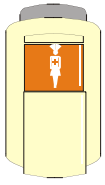
This is the infra red transmitter for patient use. They are usually utilised in lounges and other sitting areas. They are use in conjunction with a NET207

Other devices are available for the system, the items described are the most used