

PANEL™

The **PANEL**, a simple yet understated name for this extremely flexible medical supply unit, embodies our experience and innovative approach to bedhead services attained over many years.

The **PANEL**'s sleek yet tender lines clearly delineate the patients' personal space in a way that ensures the medical components remain unobtrusive. By creating an uncluttered look to the bedhead area the patient experience will be less stressful and will allow an ease of nursing care in a simplistic manner.

Design schemes for healthcare environments are becoming better known as patient bedrooms, where more of a hotel feel is the focus, centred around the patient experience. The laminate or veneer finish to the product fascia ensures the designer is allowed a diverse array of creative design appearances that can even be varied from room to room.

Whether it be used for general bedrooms in acute in-patient accommodation, higher dependency or elderly care/hospice settings the enclosure provides varying quantities of mains power, nurse call, data, patient monitoring, lighting control and medical gases in a multi-functional linear enclosure.

Further integration of our clean-lined LG2: 2008 compliant **WAVE** reading/observation and general room lighting solution ensures that the **PANEL** is the single source of bedhead services in each room.



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Design

With a shallow depth of less than 70mm the sleek yet slim appearance ensures that valuable floor area is not compromised by unnecessary protrusion and that a degree of finesse is applied to an otherwise clinical environment.

Meeting the cleaning and environmental requirements of HFN 30 has been paramount in the design of this product so that the minimum of surfaces are exposed which can either collect dust or harbour bacteria. All surfaces can be easily wipe cleaned whilst panels can be simply removed and replaced with the use of a bespoke panel remover to facilitate bacterial cleaning. Within tight fitting butt joints the ability for bacteria growth or entrapment is substantially reduced and provides a smooth protrusion free finish.

The **PANEL** can be adapted in its overall height to be installed abutting the suspended ceiling which allows the simple access of supply services from high level, thus eliminating the need for enclosing services within the walls. This concept substantially speeds up the general wall construction whilst reducing the cost of basic installation and encourages a plug-and-play concept to installation. With a resultant effect of site install times and programmes being considerably reduced there are significant cost benefits with this type of bedhead solution.

Alternatively, if architectural desire is of further significant importance then a shorter height **PANEL** which gives the effect of the **PANEL** 'floating' on the bedhead wall can be manufactured.

Integration of services

The integration of uplight luminaires, LED reading lights and LED night lighting ensures that the **PANEL** acts as the sole area of delivering patient care services within the bedroom whilst ensuring that the latest state-of-the-art energy efficient lighting sources are adopted.



Fully factory assembled

Off-site manufacture (OSM) is also of key importance in the delivery of bedhead modules in a timely and co-ordinated manner which protects the end product at installation stage. The **PANEL** has been developed with this in mind so that all bedhead services including medical equipment rail, bedhead buffers, hand gel dispensers and the like are factory installed thus reducing further site works post installation.

A full range of patient care services such as nurse call, patient monitoring, data, voice, mains power, lighting control and medical gases can be accommodated within the **PANEL**. With fully segregated and screened cabling compartments the quantity of each service can be varied to suit the specific area being serviced from basic acute in-patient accommodation through to higher dependency or recovery areas where numbers of outlets are substantially increased.

All mains power and lighting circuits are pre-wired so that a simple modular wiring connection can be made behind one of the central fascia panels. Factory fitting of certified medical gas terminal units and internal pipework also ensures a speedy connection of mechanical services.

In all cases the options are endless as the modular configuration of the **PANEL** lends itself to purpose designed bedheads for individualisation of installations.



A bespoke extruded aluminium frame anodised in AA25 ensures that the design concept for a crisp appearance is achieved. The interface with the laminate facia panels has been conceived to use linear detailing to further assist in the sleek appearance of the **PANEL**.

Facia Panels

Facia panels are manufactured from 18mm thick fire retardant mdf which can be finished in a variety of laminate veneers or real wood veneer. With a natural product such as real wood veneer then shading and grain variances will occur as would be expected from a natural product. However, given exposure to ultra-violet light and daylight the ageing effect of natural timbers remains and over time various wood types will change colour and age at varying levels which is the concept of a natural wood finish.

By using laminates, including wood effect laminates, then the appearance and uniformity can be far closer regulated although some variance will still occur.

A low-level power socket is incorporated as standard for supplying power to electric patient beds or chairs and compliments the anodised framework with a silver anodised 2mm thick cover plate.

Standards Compliance

Each **PANEL** is fully EMC certified and supplied with a Declaration of Conformity to BS EN 11197:2004 and underpins our philosophy of high quality knowledge based solutions for bedhead services.



Document Reference	Document Description
BS 196: 1961	Non-reversible plugs and socket outlet up to 250 Volts
BS 476-10: 2009	Fire tests on building materials and structures
BS 1363-1: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for rewirable and non-rewirable 13 A fused plugs
BS 1363-2: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A switched and unswitched socket-outlets
BS 1363- 3: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for adaptors
BS 1363- 4: 1995	13 A plugs, socket-outlets, adaptors and connection units. Specification for 13 A fused connection units switched and unswitched
BS 2754: 1976	Construction of electrical equipment for protection against electric shock
BS EN 60669: 1996 (replacing BS 3676-1: 1989)	Switches for fixed electrical installations
BS 5733: 1995	General requirements for electrical accessories
BS 6496: 1984	Powder organic coatings for application and stoving to aluminium alloy extrusions
BS 6701: 2010	Telecommunications equipment and telecommunications cabling
BS 6972: 1988	Specification for General requirements for luminaire supporting couplers for domestic, light industrial and commercial use
BS 7671: 2008	Requirements for electrical installations. IEE Wiring Regulations (17th Edition inc amendments)
BS 8300: 2009	Code of Practice: Design of buildings and their approaches to meet the needs of disabled people.
BS EN 737-1: 1998	Medical Gas Pipeline Systems. Terminal units for compressed medical gases and vacuum
BS EN 737-4: 1998	Medical Gas Pipeline Systems. Terminal units for anaesthetic gas scavenging systems
BS EN 12373:2001	Aluminium and aluminium alloys. Anodizing
BS EN 50081-1: 1992	EMC. Generic emission standard. Residential, commercial and light industry
BS EN 50081-2: 1994	EMC. Generic emission standard. Industrial environment
BS EN 50082-1: 1998	EMC. Generic immunity standard. Residential, commercial and light industry
BS EN 50083-2: 2006	Cable networks for television signals, sound signals and interactive services. EMC compatibility
BS EN 50085-1: 2005	Cable trunking systems and cable ducting systems for electrical installations
BS EN 50085-2: 2006	Cable trunking systems and cable ducting systems for electrical installations intended for mounting on walls and ceilings
BS EN 55015: 2006	Radio interference characteristics of fluorescent lamps and luminaires
BS EN 60439-5: 2006	Low-voltage switchgear and control gear assemblies. Particular requirements for assemblies for power distribution in public networks
BS EN 60529: 1992	Specification for degrees of protection provided by enclosures luminaires (IP code)
BS EN 60601-1: 2007	Medical electrical equipment. General requirements for safety. Collateral standard. Usability
BS EN 60601-1-2: 2007	Medical electrical equipment. General requirements for basic safety
BS EN 60669-1: 2000	Switches for household and similar fixed electrical installations



BS EN 61008- 1: 2004	Residual current operated circuit-breakers without integral overcurrent protection for household and similar used (RCCBs)
ISO 11197: 2009	Essential safety Requirements of Medical Supply Units (supersedes EN 793)
ISO 7396-1: 2007	Medical gas pipeline systems. Pipeline systems for compressed medical gases and vacuum
ISO 7396-2: 2007	Medical gas pipeline systems. Anaesthetic gas scavenging disposal systems
HBN 00-03: 2010	Clinical and clinical support spaces (in preparation; to supersede Health Building Note 40 Common activity spaces: Volume 2 - Treatment areas and Volume 3 - Staff areas)
HBN 00-09	Infection control in the environment
HBN 04-01: 2010	Adult in-patient facilities
HBN 4, Supplement 1	Isolation facilities in acute settings
HBN 22: 2005	Accident and emergency facilities for adults and children
HBN 28: 2006	Facilities for cardiac services
HBN 40: 1995	The patient environment – common activity spaces
HBN 57: 2003	Facilities for critical care
HTM 00: 2006	Policies and principles: best practice guidance for healthcare engineering.
HTM 01	Anti-static precautions
HTM 02-01	Medical gas pipeline systems
HTM 06-01	Electrical services: supply and distribution
HTM 06-02	Electrical safety guidance for low voltage systems
HTM 08-03	Bedhead Services
HTM 17	Health Building Engineering Installations
HTM 21	Facilities for maternity care
HTM 2011	Emergency Electrical Interference
HTM 2014	Abatement of electrical interference
HTM 2020	Electrical safety code for low voltage systems
HFN 30: 2003	Infection control in the built environment
CIBSE LG 2: 2008	Lighting guide - Hospitals and health care buildings
CIBSE LG 3: 2001	Lighting guide - The visual environment for Display Screen Use
CIE	European Lighting Guide
IEC 60364-7-710: 2002	Electrical installations of buildings. Requirements for special installations or medical locations (UK BS7671 Section 7-710)
NHS SPEC C49: 1997	Nurse Call Systems. Revision 3
72/23/EEC	Low Voltage Directive
89/336/EEC	EMC Directive
93/42/EEC	Medical Devices Directive

This product is designed and where applicable tested and certified in accordance with the aforementioned documents.

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