

## BUILDING AUTOMATION SYSTEM OPERATOR'S TERMINAL

The Operator's Terminal of the BAS 2800+ System consists of a personal computer system unit, a colour Visual Display Unit (VDU), keyboard and mouse.

The terminal permits the user to interrogate and collate information from the remote plant and provides the facility for annunciation of plant alarms and logging of plant information.

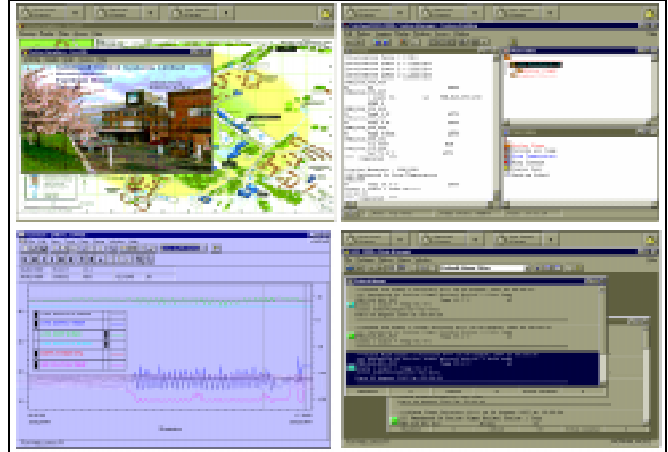
Plant alarms can be used to trigger plant operations or other applications such as multi-media. This allows, for instance, a pre-recorded message to be played to the operator on alarm.

The software is multi-tasking to provide concurrent processing of different programs while the communications architecture permits multiple terminals to be used on the same system.

The terminals may be tailored as multi-purpose for complete system operation or dedicated to particular functions, facilities and locations. This allows on-line multi-user applications to be speedily carried out while providing total system flexibility.

The BAS 2800+ software is supplied complete with Active graphics (DS 13.003), Dataview/Dynaview (DS 13.002), SNP and ASIC Mk3 terminal software (DS 13.580 and DS 13.581).

By using a PIU or PCD it is possible to interface the BAS 2800 to third party equipment (See DS 13.5\*\* to 13.7\*\* for details of supported equipment).



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A PIU (Protocol Interface Unit) is a hardware based interface that allows third party equipment to communicate with the BAS 2800+ system. The third party equipment is seen by the BAS as an outstation and the third party parameters are mapped to BAS points.

A PCD (Personal Computer Driver) is a software based application at a single BAS terminal allowing the BAS to communicate with third party products such as CCTV.

## FEATURES

- Easy to use, operates on a standard menu system and tool bar screen
- User interface configurable for different users based on their password
- Multi-tasking intelligent system
- Communications are based on the Open System Interconnect (OSI) 7 layer model following the recommendations of the International Standards Organisation
- May be operated by using a mouse and/or keyboard
- Uses an IBM® or compatible Computer
- Multi-layered plant index for easy identification of plant
- Flexible for small, medium or large sites, either hardwired or remote
- Provides Distributed Direct Digital Control
- Secure multi password access with enforced change option
- Energy Management Programs
- Graphical set-up for Time and calendar schedules
- Holiday Schedules
- Optimum start/stop of heating, cooling and ventilation plant with linear or logarithmic (BRESTART based) algorithm
- Maximum Demand
- Load Cycling
- Runs under Windows 3.11, Windows 95 or Windows NT4.0
- Automatic Power Up of plant
- Full alarm management with current alarm system status banner
- Alarm actions can initiate other applications such as multi media
- Individual or group alarm acknowledgement
- Global alarm acknowledgement
- Short and extended text for alarms and events
- Point Display, Alarm and Manual reviews
- Real Time System Logs with line or tabular display
- Calculation Points
- Rotation Points
- Programmable points for user-defined control strategies
- Degree Day Calculations
- Help text
- Multi-user/Multi-terminal
- Autodial/Autoanswer Modem Support
- SNP and ASIC Mk3 terminal software included as standard
- Logging (Dataview/Dynaview - see DS 13.002)
- Animated Event Driven Active Graphics (see DS 13.003)
- Transaction logging
- Outstation to terminal data alignment
- Manual routine function
- Millennium Compliant to BSi PD2000-1
- OPTIONS
- PIUs to 3rd party systems such as fire, security, lighting, controllers etc.
- Closed Circuit Television (CCTV) interface
- FLEXIMA data interface
- Voice Response System (VRS) software
- Satchwell Energy Management (SEM) software



**Software**  
 DS 13.002 - Logging  
 DS 13.003 - Graphics  
 DS 13.004 - Voice Response System  
 DS 13.005 - Flexima  
**Outstations**  
 DS 13.301 - URC  
 DS 13.302 - Unifac Interface Unit  
 DS 13.310 - UNC 532  
 DS 13.320 - UNC 496  
 DS 13.321 - UNC 596

**SPECIFICATION**

**Type:** **SYSTEM SOFTWARE** - Specification no. 878-1-811 (BAS 2800+ system software and manual)  
 878-1-872 FLEXIMA (software and manual)  
 878-1-873 CCTV (software and manual)

**Terminal:** TERMINAL - The terminal chosen will depend upon the potential size of the site or sites to be managed. All terminals provide the same facilities and vary only in memory size, storage capacity and operating speed.

**Recommended System:** Refer to Satchwell for details.

**Ambient Temperature Limits:** Refer to Computer Manufacturer for details.

**Relative Humidity Limits:** Refer to Computer Manufacturer for details.  
 (non-condensing)

**OPTIONS**

**Mouse:** A dedicated bus mouse port should be used for mouse connection.

**Printer:** Parallel or serial interface for connection to the local PC as supported by your version of Windows. A second parallel printer may be used with the appropriate interface board.

**ASSOCIATED EQUIPMENT**

**Network Interface Unit:** NIU to allow convenient connection to local area networks and remote modems (see DS 13.410).

**Autodial/Autoanswer Modems:** See DS 13.401.

**Outstations:** See DS 13.320, DS 13.321 and DS 13.310.

**Historical and Dynamic Logging (Dataview/Dynaview):** Software for use on a standard terminal or a dedicated logging unit (see DS 13.002).

**Animated Active Graphics:** Software for use on a standard Terminal or a dedicated Graphics Unit (see DS 13.003).

**Protocol Interface Units (PIU):** PIUs are available to integrate the BAS 2800+ with 3rd party equipment such as fire, security and lighting systems. Contact Satchwell for details on current PIUs available. (See DS 13.5\*\* to 13.6\*\*)

**Personal Computer Driver (PCD):** PCDs are available to integrate the BAS 2800+ with 3rd party equipment such as Planned Preventive Maintenance (PPM), monitoring and targeting, CCTV systems etc., contact Satchwell for details on current PCDs available. (See DS 13.7\*\*).

**CONNECTION DIAGRAMS**

**BASIC TERMINAL WITH A SINGLE OUTSTATION AND PIU OPTION**

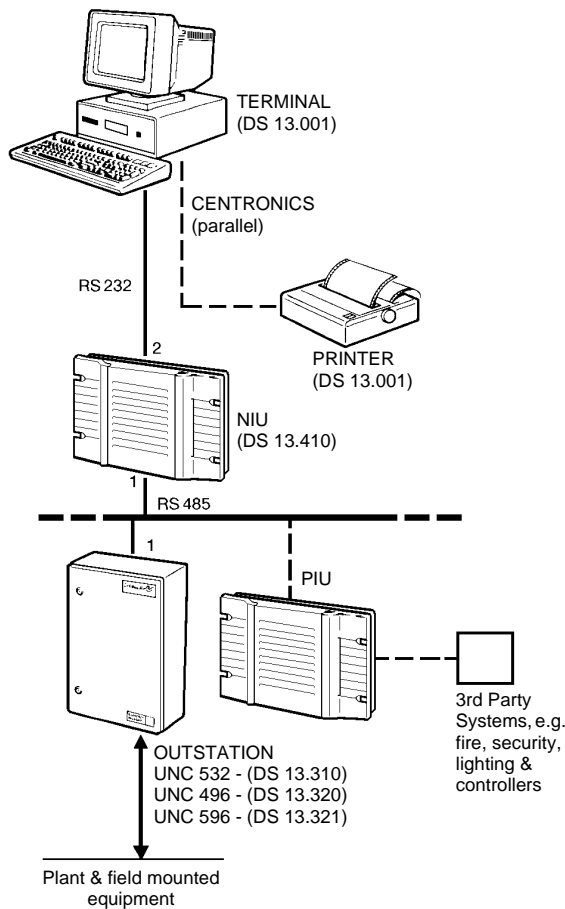


Fig.1

**BASIC TERMINALS WITH MULTIPLE OUTSTATIONS, PIU AND PCD OPTIONS**

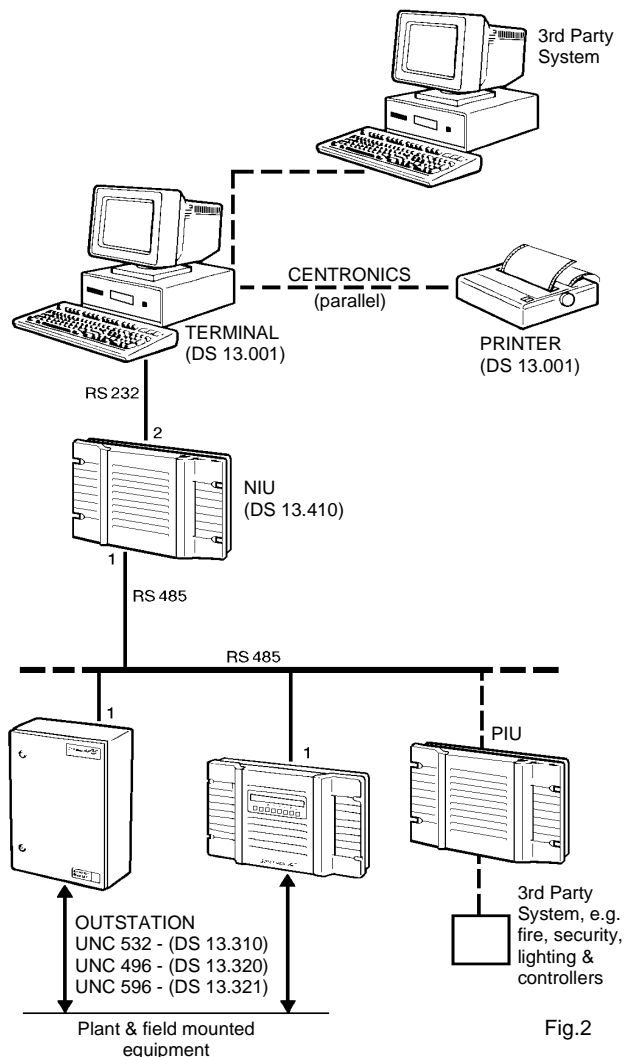
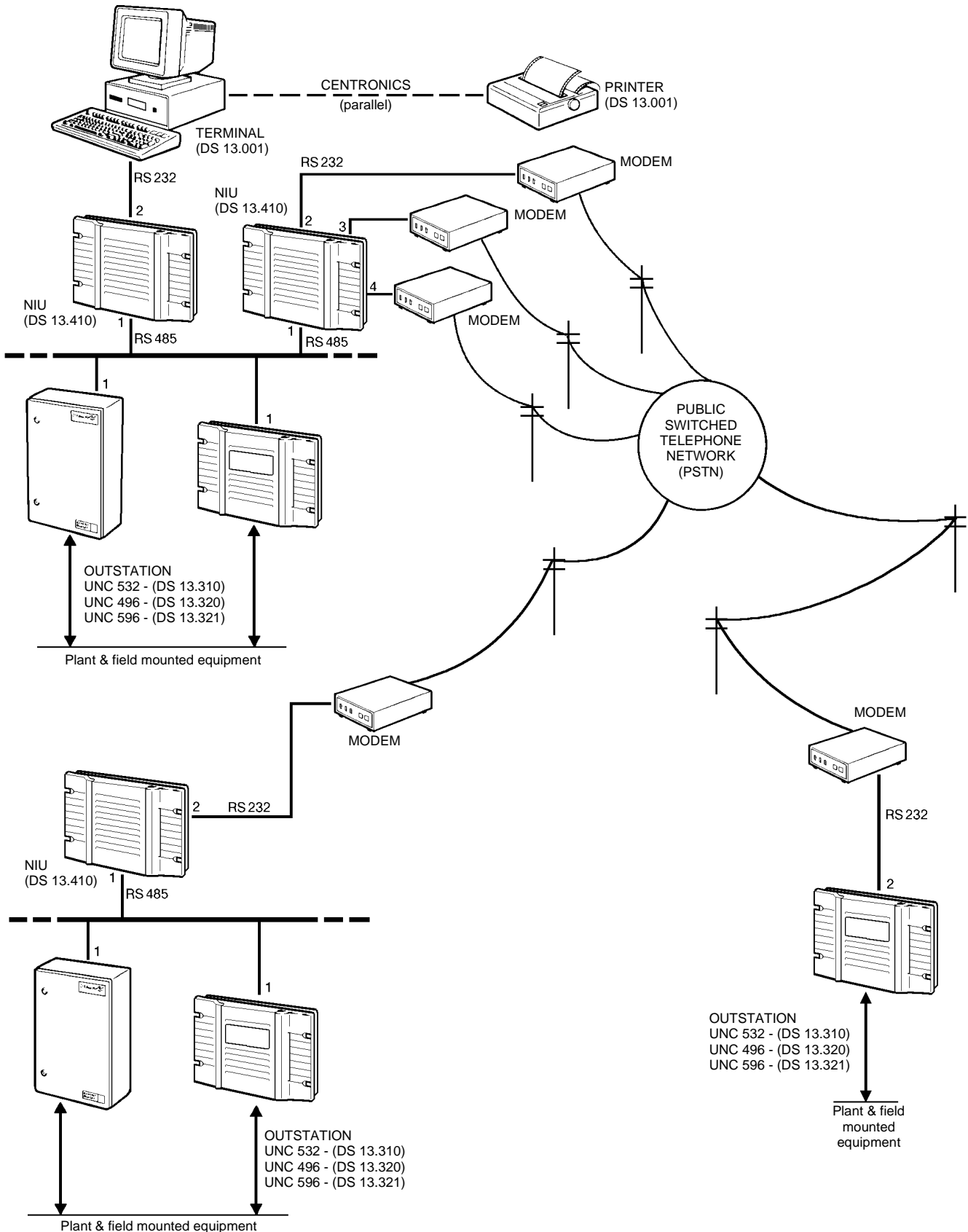


Fig.2

**CONNECTION DIAGRAMS (continued)**

**TERMINAL WITH MULTIPLE OUTSTATIONS AND AUTODIAL/AUTOANSWER COMMUNICATIONS TO REMOTE SITE(S)**



**INSTALLATION**

Installation should be carried out by a competent Satchwell engineer or an approved Satchwell agent. If equipment is to be housed in an enclosure ensure that the heat generated can be dissipated without raising the ambient temperature of the space above the maximum limits allowed.

**COMMISSIONING**

This equipment should be commissioned as part of a BAS 2800+ System.

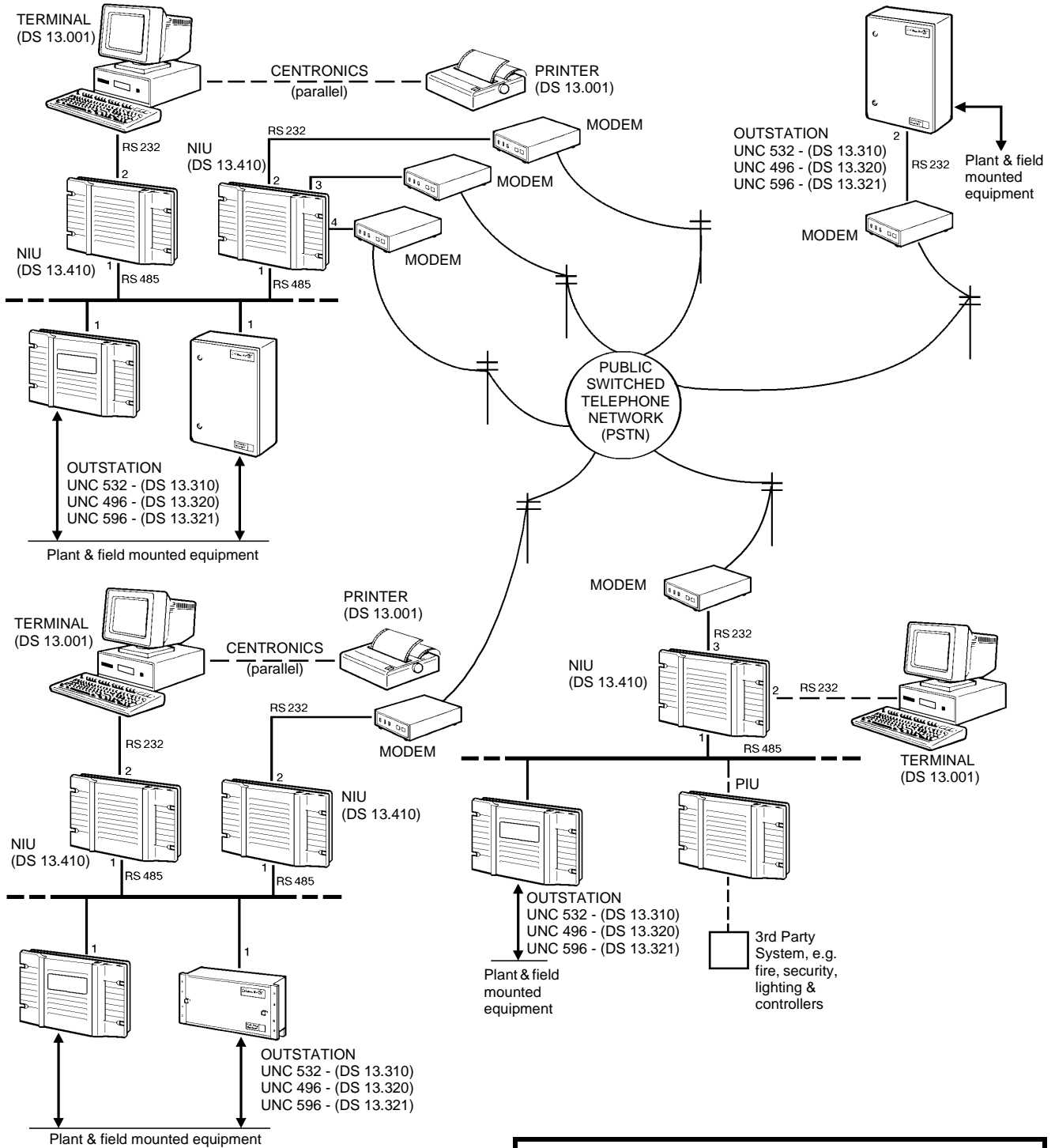
**WIRING PRECAUTIONS**

Notes:

1. The Terminal must have a verified good Earth.
2. It is recommended that the Terminals be connected to fused spurs.

CONNECTION DIAGRAMS (continued)

TYPICAL MULTI-TERMINAL SYSTEM USING AUTODIAL/AUTOANSWER MODEMS



**WARNING -**  
 THE BAS TERMINAL AND OUTSTATION ARE MAINS OPERATED DEVICES. LOCAL WIRING REGULATIONS AND USUAL SAFETY PRECAUTIONS MUST BE OBSERVED. NOTE EARTHING REQUIREMENTS - SEE PAGE 3.

**Cautions**

- The BAS 2800+ Operators Terminal should be installed, commissioned and serviced by a competent Satchwell engineer or an approved Satchwell agent.
- If the use of the BAS Terminal falls within the scope of your Country's Health and Safety Regulations for VDU equipment please ensure that an appropriate assessment is carried out.
- Interference with those parts under sealed covers renders the guarantee void.
- Design and performance of Satchwell equipment are subject to continual improvement and therefore liable to alteration without notice.
- Information is given for guidance only and Satchwell do not accept responsibility for the selection or installation of its products unless information has been given by the Company in writing relating to a specific application.
- A periodic system check of the management system is recommended. Please contact your local Satchwell service office for details.



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