

BUILDING AUTOMATION SYSTEM

The Network Interface Unit (NIU) provides a convenient means of connection for terminals and modems to the Local Area Network. It is utilised to create a structured communications architecture by creating back-bones within Sub LANs to plant universal network controllers.

It provides the facility of 4 serial communications ports using RS 232 and RS 485.



FEATURES

- Multiple serial communication ports RS 232 and RS 485 for interface with various elements of the BAS System
- Wall or panel mounting
- LEDs give indication of correct operation of the NIU
- Cable runs of up to 3km possible on the RS 485 LANs without the need for repeaters
- Uses CMOS technology
- NECV53A 16-bit microprocessor
- Opto-isolation as standard on RS 485 LAN
- 115/230Vac voltage selection
- RS 232 Bridges are media independent
- UPS option via battery kit



SPECIFICATION

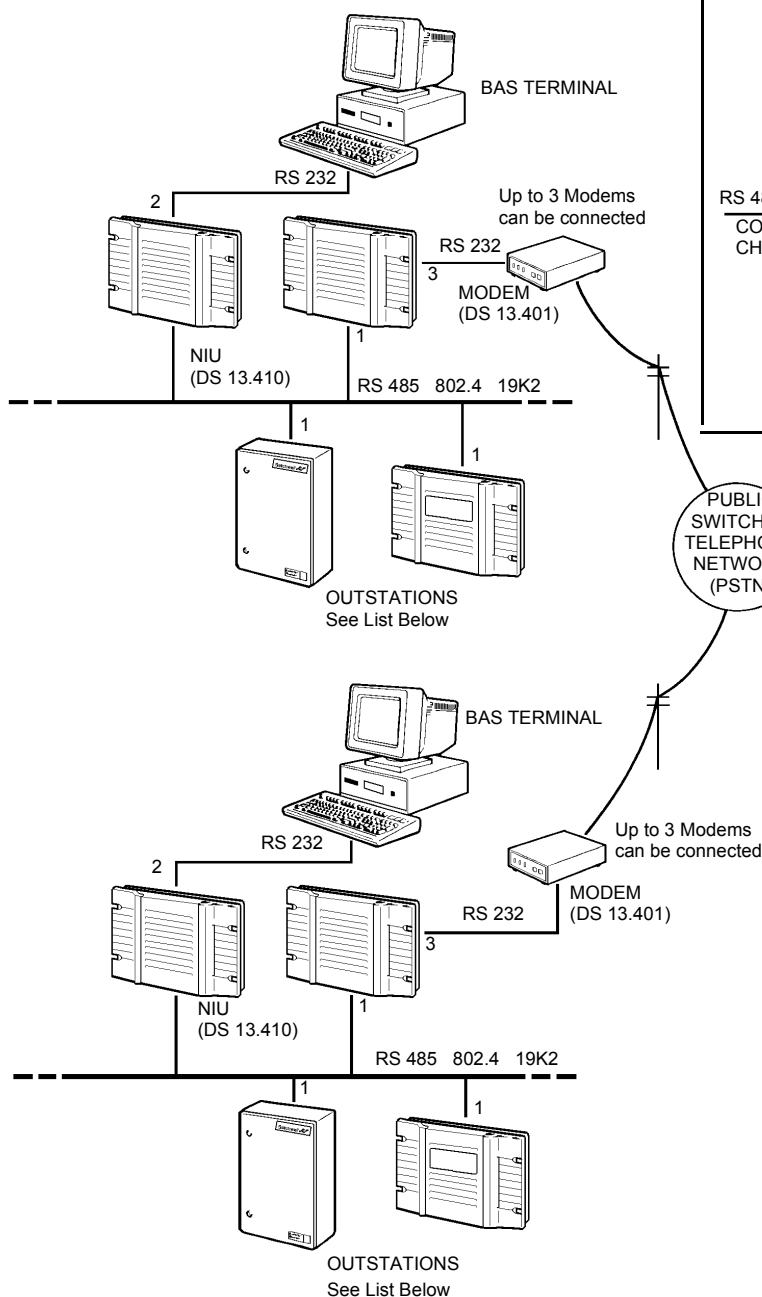
Type:	579-1-509
Power Supply:	230Vac (+10 -10%), switch selectable 115Vac (+10% -10%), 50Hz (-10%) to 60Hz (+10%)
Consumption:	24VA
Fuse:	400mA 20mm anti-surge fuse.
Number and type of Communication Ports:	3 - RS 232 1 - RS 485
Maximum Cable Length:	RS 232 - 15m RS 485 - 3km
RS 232 Communication Speed:	Programmable to 19.2k Baud
RS 485 Communication Speed:	Programmable to 19.2k Baud
Communications Protection:	RS 485 - TranZorb [®] protected and opto-isolation.
Diagnostic Port:	RS 232 9-way D-Type connector 1200 Baud
Microprocessor:	NEC V53A 16 bit running at 20MHz.
RAM:	512k bytes
EPROM:	1M byte
EEPROM:	1M byte allowing permanent storage of site telephone numbers and general configuration data.
Ambient Temperature Limits:	Operating: 0 to 50°C Storage: -10 to 55°C
Relative Humidity Limits: (non-condensing)	Operating: 10 to 90% rh Storage: 5% to 95% rh

CONSTRUCTION

Case:	Metal chassis with plastic side panels.
Protection Rating:	IP 40 by use of trunking kit.
Mounting:	Wall or panel mounting.
Indication:	2 Visible LEDs to indicate the status of the NIU, plus 8 Off LEDs internally.
Terminals:	Hardwired to pluggable screw terminal blocks. Accepts 0.5 to 1.3mm ² conductor.
Cable Entry:	Chassis knockouts in top, back, bottom and sides.
Power Failure Reserve:	Battery option (continuously trickle charged) maintaining full communication facilities during battery operation. Alternatively an external UPS supplying 12Vdc ±20%.
Optional Accessories:	Battery: NiMH battery: 579-1-241 - Typically five hours operation Battery times quoted are for a fully charged battery.
Trunking kit:	579-1-479 is intended for use with knockouts in chassis bottom.

CONNECTION DIAGRAMS

TYPICAL MULTI-TERMINAL SYSTEM USING AUTODIAL/ AUTOANSWER MODEMS WITH THE NIU



OUTSTATIONS
 UNC 196 - (DS 13.310)- UNC 496 - (DS 13.320)
 UNC 296 - (DS 13.321)- UNC 596 - (DS 13.321)
 UNC 132 - (DS 13.310)- UNC 532 - (DS 13.310)

COMMUNICATIONS PORTS

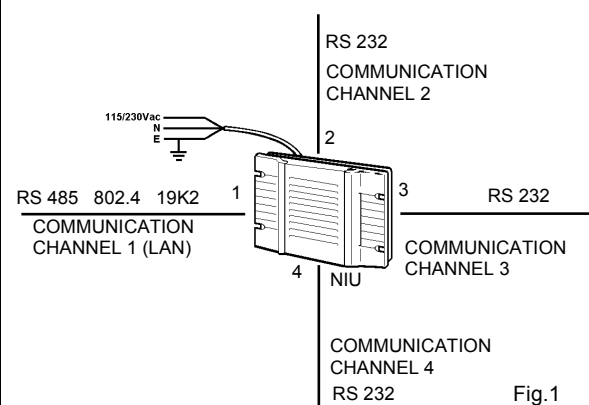


Fig.1

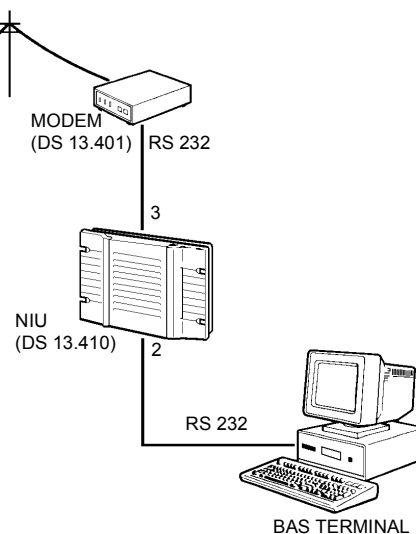


Fig.2

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

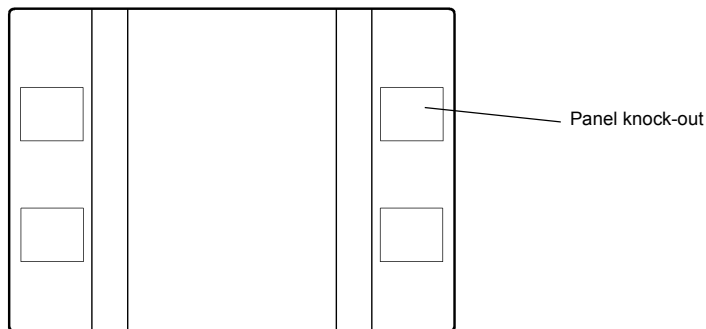
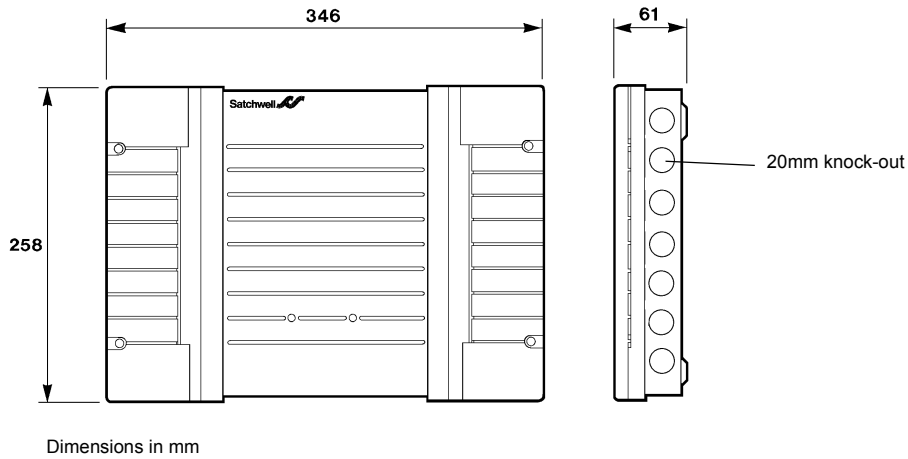
This equipment should be commissioned as part of a BAS System.

WIRING PRECAUTIONS

NOTE: Ensure NIU has a verified good Earth.

A full wiring specification is available from Satchwell Control Systems Ltd or your local Satchwell agent on request.

DIMENSION DRAWINGS



Satchwell

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WARNINGS -

THE NIU IS A MAINS VOLTAGE DEVICE. LOCAL WIRING REGULATIONS AND USUAL SAFETY PRECAUTIONS MUST BE OBSERVED. NOTE EARTHING REQUIREMENTS.

THIS PRODUCT CONTAINS A NICKEL METAL HYDRIDE BATTERY WHICH IS COMPLETELY SAFE WHILST IN NORMAL USE. THE BATTERY MUST BE DISPOSED OF IN AN AUTHORISED LANDFILL SITE. THE SAME APPLIES TO ANY BATTERIES SUPPLIED AS OPTIONAL EXTRAS.

Cautions

- Do not apply any voltages until a qualified technician has checked the system and the commissioning procedures have been completed.
- The NIU should be installed, commissioned and serviced by a competent Satchwell engineer or an approved Satchwell agent.
- Observe maximum ambient temperature.
- 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 check of the management system is recommended. Please contact your local Satchwell service office of details.