

**Network 16**  
**Reference Manual**  
(Version 1)

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## STATUTORY NOTICES

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.

NS/1404/123/K/601140

### BABT APPROVAL

1. BABT approval is dependent on only Case compatible approved modems being installed in the Network 16 system in accordance with the relevant instructions.  
  
The Network 16 is not suitable for any other type of modem card.  
  
The APPROVAL WILL BE INVALIDATED if any other card is used.
2. When correctly installed and maintained, the Network 16 will present no hazard to the user.
3. The approval of the Network 16 is invalidated if the apparatus is subject to any modifications in any material way not authorised by BABT.
4. All apparatus connected to the Network 16 and thereby connected directly or indirectly to the UK public switched telephone network (PSTN) must be approved apparatus as defined in Section 22 of the British Telecommunications Act, 1984.
5. The line termination connectors have a cover which must be in place at all times the Network 16 is in operation.

### CZECH REPUBLIC SAFETY STATEMENT

Prístroj musí byť umiestnen v blízkosti sít'ové zásuvky. K odpojení prístroje od sítě slouží vidlice sít'ového přívodu.

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# Preface

This manual provides reference information and installation instructions for the Network 16 Data Communications Management System. It includes details of the optional second power supply.

Information on the optional Controller Module is given in a separate manual. Information on the modem cards that can be used in Network 16 is given in each modem's reference manual.



Case Communications Ltd declare that this product conforms with the protection requirements of Council Directive 89/336/EEC on the approximation of the laws of the member states relating to electromagnetic protection.

This equipment has been tested using shielded cables supplied by Case Communications Ltd. These cables, or equivalents, must be used to ensure compliance with this declaration.

Case Communications Ltd declare that this product conforms with the requirements of the European Communities Council directive of 73/23/EEC on the harmonisation of the laws of Member States to electrical equipment designed for use within certain voltage limits.

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All PCB assemblies contain Electrostatic Sensitive Devices (ESDs) which may be permanently damaged if incorrectly handled. This equipment must be handled in accordance with BS5783 code of practice for the handling of electrostatic sensitive devices.

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The Network 16 card frame can accommodate up to 16 compatible cards. These cards can be analogue modems or ISDN Terminal Adaptors. Throughout this manual they are referred to generically as modems.

If the optional redundant power supply and Controller Module are incorporated, Network 16 becomes a resilient and sophisticated data communications management system with monitoring and control of the system carried out either locally or remotely.

### **The Basic Unit**

The basic unit has a 19-slot card frame and is complete with a plug-in power supply. It occupies 4U (7 inches) of a standard 19-inch equipment rack. All the modem cards are 'front loaded'. Terminations for each modem are via a standard 25-way D-type socket for the DTE cable, and via an 8-way terminal block for the line connections. A removable rear cover protects the line connections.

Any of the modem cards may be removed for maintenance purposes without powering down the card frame.

If a modem is removed or fails, a line 'busy-out' signal is automatically raised. This is particularly useful for systems with dial lines operating in a 'hunting group', as the busy-out circuitry will cause any incoming calls to be passed to the next operational member of the group.

### **The Optional Controller Module**

The optional Controller Module changes Network 16 from a modem card frame into a powerful data communications management system.

Information relating to the control and management of the modems is displayed on an asynchronous terminal connected to the rear of the Controller Module, from which the operator can:

- Monitor the online status of all sixteen modems.
- Reconfigure any modem.
- Test any modem.

- Connect to any modem for detailed monitoring.
- Continuously monitor for pre-selected alarms from each modem.

The Controller Module is fully described in its own reference manual.

## **The Power Supply System**

Network 16 may be powered by either an AC or DC power supply unit (PSU).

The modems and Controller Module are individually fused and regulated to prevent an individual card failure causing an overall power failure. This also allows modem cards to be added or removed without affecting any other cards operating in the Network 16 unit.

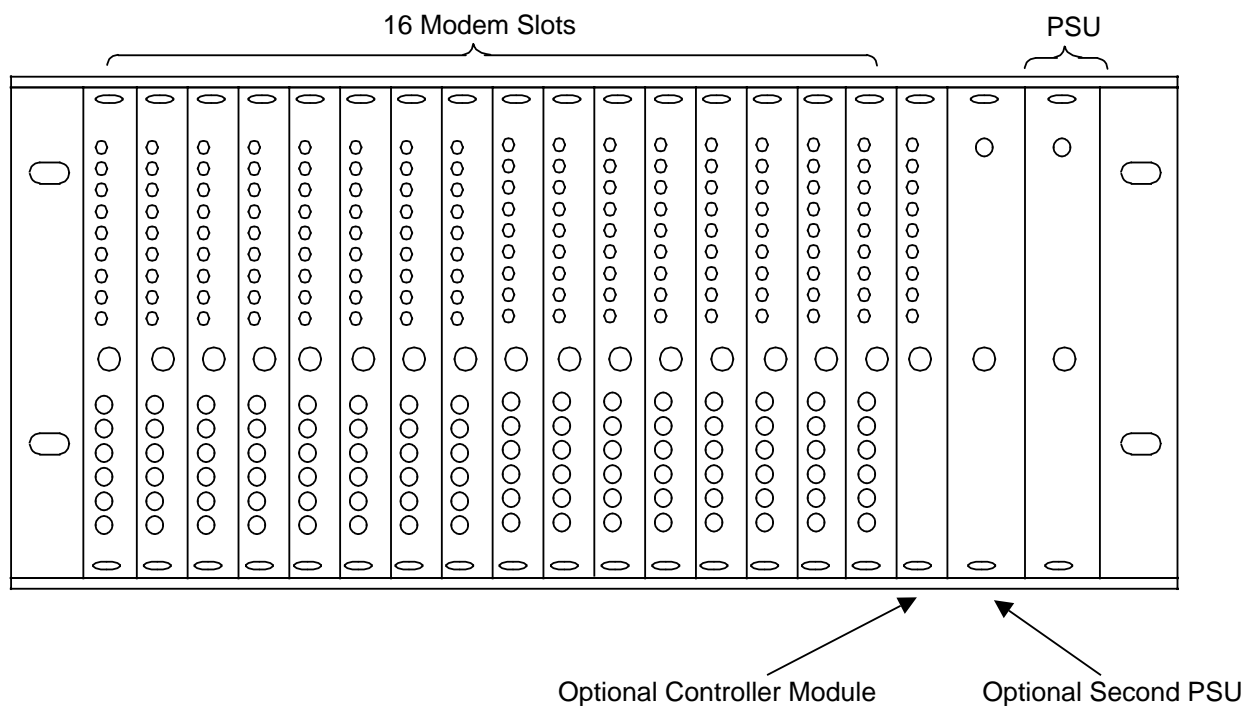
A second PSU (either AC or DC) may optionally be installed. Both PSUs will normally share the load, and their status is indicated on the front panel. In the event of one failing, the other is protected from knock-on effect and will assume the total load of a fully equipped system. Each PSU has its own mains power lead for maximum security.

It is recommended that if more than eight modem cards are installed, both PSUs should be fitted to improve reliability and spread heat dissipation. This is particularly important when using QSM 288 modem cards.

Network 16 comprises a 19-inch rack-mounting frame 4U (7 inches) high. It has front flanges for securing in an equipment rack with four screws, but may alternatively be used as a standalone unit.

## 2.1 Front View

Figure 2-1 shows the front view of Network 16.



**Figure 2-1 Network 16 Front View**

Starting from the left, there are sixteen slots for modems. Then there is one slot for the optional Controller Module. Next is a slot for the optional second power supply unit. The last slot on the right houses the power supply unit which is supplied with the basic unit. Vacant slots should be fitted with blanking plates at all times.

The modems and Controller Module have indicators and buttons which are fully explained in their respective manuals.

The power supply units each have a single alarm LED (described in Section 4.3).

## 2.2 Rear View

Figure 2-2 shows the rear view of Network 16 without the rear strengthening bars and with the cover removed. Note that the lower strengthening bar may be used for cable strain relief by attaching the DTE cables, with tie wraps, to the appropriate holes.

Line Termination Blocks

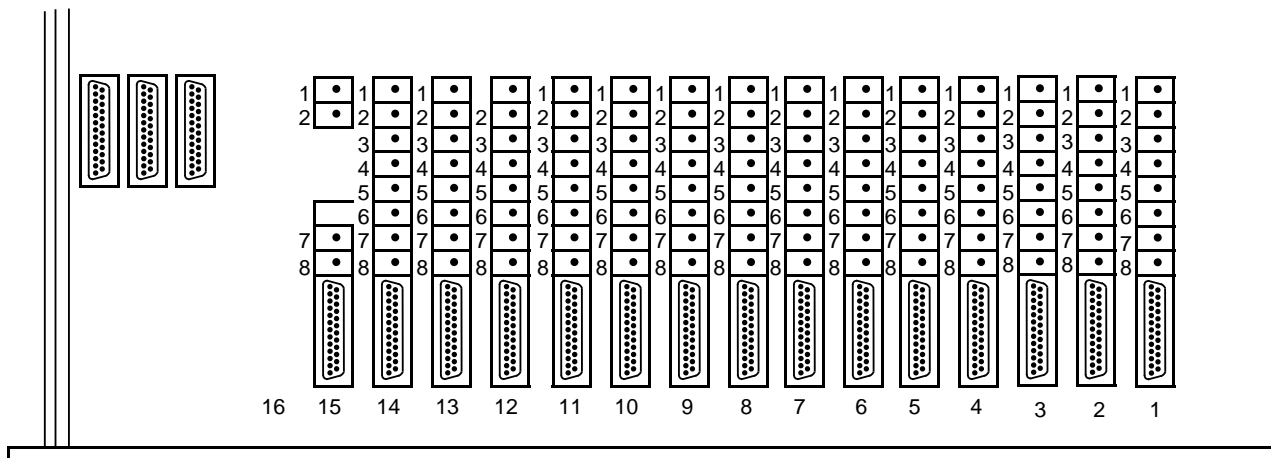


Figure 2-2 Network 16 Rear View