Post Office Telecommunications

DLZ 902

Datel 200 Service

This is a low speed data transmission service which is equally suited to both large and small organisations, particularly where bureau type activities are involved.

MODEM AND LINE UNIT WITH ASSOCIATED TELEPHONES

Description

The Datel 200 service enables data to be transmitted asynchronously at speeds up to 300 bits per second (bit/s), over the public switched telephone network (PSTN) or over private circuits. The hardware for the service is provided by a modulator/demodulator unit (modem unit) and a line switching unit. The modem unit translates information received from Data Terminal Equipment into signals that are suitable for transmission over telephone circuits; the line switching unit provides the means of associating the modem with either private circuits and/or exchange lines. The modem has been designed to meet the needs of both single and multiple installations. For "table top" situations the modem is housed in a low profile case, and a flip down cover gives easy access to controls. For multiple installations the modules of the modem can be readily installed in a Post Office Datel Network Control System (DNCS), offering economic use of floor space.

Alternatively, a miniaturised modem is available, which is incorporated into a plinth under the telephone. This may be used for applications where the full capability of the standard modem is not required.

The service is available with either 2-wire exchange lines or 2-wire private circuits; PSTN standby facilities are also available: transmission is in duplex mode.

Other features and options of the service include:-

Automatic answering in accordance with CCITT Recommendation V25.
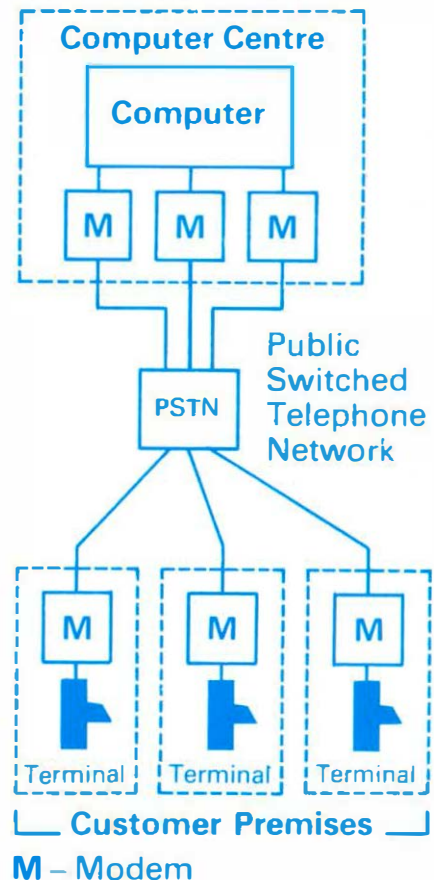
Automatic origination of calls.

Call and Answer mode working.

Speech and signalling on private circuits.

Complies with CCITT Recommendations V21 and V24.

Some existing installations may feature a previous type of modem.

Diagram of System

Computer Centre

Computer

M M M

PSTN

Public Switched Telephone Network

M M M

Terminal Terminal Terminal

Customer Premises

M – Modem

MINIATURISED MODEM

How it operates

Before data transmission can take place it is necessary to connect the modem to line; there are 3 methods of achieving this connection:-

a. by push-button on the telephone;
b. by control from the Data Terminal Equipment;
c. by a combination of the previous 2 methods.

Terminal equipment suppliers will advise on the method of connection most suitable for their equipment.

The Post Office will supply an Operating Handbook with each installation which will detail call set up and call termination procedures.

Facilities

The Datel 200 service has been designed to provide a range of facilities to meet system requirements for both private circuit and PSTN operation.

The service is particularly suited to time-sharing applications, where access to a computer is required by a large number of low speed terminals. In many cases Datel 200 is used to connect a simple keyboard and printer to a computer. For such situations the miniaturised modem has been developed, providing only those facilities which are needed for this method of working. Where several modems are required at one location such as computer centres, racks can be provided for an additional charge, to house standard modems.

Although the PSTN is normally used for this service, private circuits sometimes provide an economical alternative. In the latter instance, an exchange line may also be rented so that in the event of private circuit failure, the system remains operational. The exchange line can also be used to provide remote test access to the modem from the Post Office Datel Test Centre to assist in fault diagnostic procedures.

To help in the localisation of faults a loop test function is included in the modem. This enables the customer to loop the modem at the DTE interface in either Call mode or Answer mode.

The transmission system employed in the Datel 200 Service complies with the latest CCITT recommendations.

The miniaturised modem is compatible with the standard modem; it fits under a standard telephone and can be used over the PSTN or a private circuit. On any telephone connection using Datel 200, only one end may be a miniaturised modem. This end will normally originate the call. In many cases it is possible to power this modem from the telephone line.

Technical Information

Modulation

Frequency shift keying

Mode

Full duplex

Line

2-wire PSTN or 2-wire private circuit

Data-rate

Up to 300 bit/s

Operation

Asynchronous

Interface connector

25 way D-type connector

Power supply (standard modem)

200-250 Volts AC: 50 Hz ± 10%

Maximum temperature

30 C on all sides of unit

Dimensions and Weights

	Standard Modem	Miniaturised Modem
Width	232 mm	152 mm
Length	409 mm	248 mm
Height	60 mm	53 mm
Weight	7 kg	0.9 kg

Note: the miniaturised modem is supplied with a standard dial telephone fitted on top.

General

Maintenance charges are included in the tariff and apply nationally. Our special services sales representative will be glad to advise on specific requirements.

Datel Sales Enquiry Points: Telephone Numbers

Aberdeen
Aberdeen (0224) 24009

Bedford
Bedford (0234) 52241

Belfast
Belfast (0232) 33576

Birmingham
021-262 2757

Blackburn
Blackburn (0254) 666387

Bournemouth
Bournemouth (0202) 24990

Bradford
Bradford (0274) 20974

Brighton
Brighton (0273) 202090

Bristol
Bristol (0272) 296507

Cambridge
Cambridge (0223) 61816

Canterbury
Canterbury (0227) 60034

Cardiff
Cardiff (0222) 24749

Chester
Chester (0244) 374250

Colchester
Colchester (0206) 41331

Coventry
Coventry (0203) 22905

Dundee
Dundee (0382) 302201

Edinburgh
031-345 4480

Exeter
Exeter (0392) 75030

Glasgow
041-220 2899

Gloucester
Gloucester (0452) 25451

Guildford
Aldershot (0252) 27546

International
01-432 5407

Lancaster
Carlisle (0228) 23224

Leeds
Leeds (0532) 465893

Leicester
Leicester (0533) 534111

Lincoln
Lincoln (0522) 26657

Liverpool
051-229 3961

LONDON
Centre
01-437 8060 Ext 352

City
01-921 8754

East
01-553 7228

North
01-340 8060 Ext 7143

North Central
01-829 4405

North West
01-864 4347

South
01-760 7400

South Central
01-261 4622

South East
01-290 2494

South West
01-879 2444

West
01-579 8771

MANCHESTER
Central
061-863 6438

North
061-863 8261

South
061-863 5478

Middlesbrough
Middlesbrough (0642) 248636

Newcastle upon Tyne
Newcastle (0632) 613364

Norwich
Norwich (0603) 25230

Northampton
Northampton (0604) 39171

Nottingham
Nottingham (0602) 410384

Oxford
Oxford 0865) 812336

Peterborough
Peterborough (0733) 69664

Plymouth
Plymouth (0752) 64539
Truro   (0872) 74224

Portsmouth
Portsmouth (0705) 813411

Preston
Preston (0772) 50035

Reading
Reading (0734) 52598

Scotland West
041-242 2068

Sheffield
Sheffield (0742) 732377

Shrewsbury
Shrewsbury (0743) 3388

Southampton
Southampton (0703) 823270

Southend
Southend (0702) 47099

Stoke-on-Trent
Stoke (0782) 28296

Swansea
Swansea (0792) 52870

Taunton
Taunton (0823) 87172

Tunbridge Wells
Tunbridge Wells (0892) 24511

West Midland
021-262 2609

York
York (0904) 57220

For any further information or details of any changes in the information in this leaflet since it went to print, contact the Datel Sales Enquiry Point of your local Telephone Sales Office. The telephone number is shown above. If you have difficulty obtaining information fron the numbers listed, please call the operator and ask for Freefone 2170. Alternatively, call 01-432 1813.

Information on a wide range of our services and apparatus is contained in the Green Pages section of most Telephone Directories.

Please note
We do our best to supply our customers with the apparatus they ask for but we may have to provide apparatus which does not accord exactly with the descriptions and illustrations in this leaflet.