Post Office Telecommunications

DLZ 908

International Datel Services

Post Office Data Transmission Facilities

All Data Transmission Facilities offered by the Post Office within the United Kingdom are grouped under the general title of 'Datel (a contraction of Data and Telecommunication) services' and comprise circuits, and where necessary Modulator/Demodulator (MODEM) units to enable data to be transmitted within a particular speed range. Thus, for the inland service circuits may be provided either on a call basis using the public telephone or telex network or by leasing, where circuits having appropriate transmission characteristics are provided for customers' exclusive use.

In the international service, the term DATEL has been adopted to refer only to data transmission using the public telephone or telex systems. Countries served by Datel Services are shown below for each of the speed ranges, although, because of technical limitations in some telephone networks it cannot be assumed that a Datel service is available to all points in the countries listed. These services will be extended to other countries when arrangements are made with the Administrations in the countries concerned. The use of the Post Office Modem is obligatory for all International Datel calls over the switched telephone network.

In addition to International Datel, data transmissions may be arranged with other countries over leased telegraph or telephone circuits, provided for customers' exclusive use. Such circuits may be rented to most locations in Europe and to many points outside Europe, whether or not International Datel Service is available with the country concerned.

International Datel 100 Service

This service is designed to allow serial transmission of digital data at speeds of 50 binary digits (bits) per second using the public telex network. As the International Telex network consists of circuits designed for serial transmission at 50 bits per second, Modems are not required.

Countries Served

The International Datel 100 service is currently available to Belgium, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Portugal, Sweden, Switzerland and Yugoslavia. Negotiations are proceeding to extend the service to other European countries.

Making a Call

International Datel 100 Calls are set up and cleared in accordance with normal telex practice with exchange of answer-back codes. When either party wishes to introduce data transmission equipment into the connexion he transmits the signal ''SSSS''. (Four signals No. 19 of International Telegraph Alphabet No. 2.)

Charges

Normal telex call rates apply.

Terminal Equipment

Terminal Equipment can include the following :

(i) A Teleprinter fitted with a tape punching attachment which forms an integral part of the Telex installation. The teleprinter can be used for preparation and/or data reception in 5-unit form on punched paper tape, and may also, of course, be used in the normal way for sending messages manually from the keyboard.
(ii) Automatic Transmitter.
(iii) An error control detection unit.
(iv) A switching device which allows connexion of customers' data processing equipment for which permission has been granted by the Post Office, to the international Telex network.

Codes

For the majority of countries in Europe, the only restriction in the codes used for International Datel 100 is that not more than 7 elements of start polarity may be transmitted consecutively.
For some countries Datel 100 transmission is restricted to the use of 5-unit code with start-stop signals according to the structure of International Telegraph Alphabet No. 2.

Customers may however, decide how combinations of characters should be used for various components of the data information. Where this restriction exists and customers wish to use data equipment capable of responding to codes other than 5-unit code with start-stop signals, the difficulty may be overcome by using regrouping converters at the sending and receiving terminals.

The customer will be expected to provide this equipment.

International Datel 200 Service

This service provides full duplex (simultaneous bothway) serial transmission of digital data at speeds up to 200 bits per second using the public telephone network.

Making a Call

Calls to Europe may be set up either by using International Subscriber Dialling (ISD) facilities or via the appropriate International telephone operator. On calls to countries outside Europe, callers on reaching the required International Exchange must ask for the International Datel operator. When telephone contact has been established with the called number the user switches over to the data mode and commences transmission.

Note. In order to minimise possible sources of error arising on calls connected via the switchboard, for example timing 'pips', callers should advise the operator that they are making a Datel call and request the "Uninterrupted Facility". Additionally, the international operator should be advised if calls are to be made to Unattended Stations.

Countries Served

The International Datel 200 service is currently available to Balearic Is, Belgium, Finland, France, Germany, Netherlands, Norway, Spain, Sweden, Switzerland, and USA (RCA-WUI). Service to the United States is operated in conjunction with the international telegraph carrier companies, ITT, RGA(C), and WUI.
There are some restrictions on places available within individual countries. Enquiries on availability should be directed to the Customer Services Division (address overleaf). Negotiations are proceeding to extend the service still further.

Charges

Charges for International Datel 200 calls to European countries are the same as for corresponding telephone calls, either the ISD charge or the charge for a call connected by the operator (minimum 3 minutes) according to the country required. Charges to places outside Europe will generally be higher than the corresponding telephone rate. There are no "cheap period" rates for International Datel 200 Calls.

Modems

The Post Office Datel Modem No. 2 has been designed in accordance with internationally agreed standards for the serial transmission of digital data over the international telephone network.

Customers' Terminal Equipment

The Data terminal input/output, coding and error control equipment must be obtained by the customer from data processing equipment manufacturers and must be of a type for which Post Office permission has been granted

International Datel 600 Service

This service provides half duplex (one direction at a time) serial transmission of digital data within the speed range of 600 to 1200 bits per second, using the public telephone network. The telephone network is, of course, designed for speech transmission, but modern telephone plant is also capable of carrying out data transmission at the rate of 600 bits per second, and on many connexions the higher speed of 1200 bits per second should be obtainable.

Making a Call

See Datel 200 service.

Countries Served

The International Datel 600 service is currently available to the United States (RCA(C), WUI and ITT), Australia, Bahrain, Canada, Dubai, Honkong, and Singapore, as well as to Belgium, Denmark, Finland, France, Germany, Netherlands, Norway, Spain, Sweden, and Switzerland. There are some restrictions on places available within individual countries. Enquiries on availability should be directed to the Customer Services Division (address overleaf). Negotiations are proceeding to extend the service to a number of other countries.

Charges

Charging arrangements are the same as for the International Datel 200 service.

Customers' Terminal Equipment

The same conditions apply as for the International Datel 200 service.

Modems

The Post Office Datel Modem No. 1 used for Datel 600 service has been specially designed for the serial transmission of digital data over Post Office circuits, and will convert data signals from customers terminal equipment into a form suitable for transmission over telephone circuits. This Modem conforms with the internationally agreed standards for serial transmission at 600/1200 bits per second and can be provided with an optional 75 bits per second return channel for passing control signals between receiver and transmitter.

International Leased Circuits for Data Transmission

International leased circuits are provided for customers' exclusive use between their premises and are available for continuous use. Arrangements for providing the various types of international leased circuits vary from location to location, and customers considering renting such circuits are advised to consult the External Telecommunications Executive (the address is given below) at the earliest opportunity.

The Modems to be connected to international leased circuits may be rented from the Post Office or provided by the user – in which case, the Modem must be of a type for which permission has been granted by the Post Office for use on International point-to-point circuits. The permission of the foreign Telecommunication Administration(s) concerned is also required and will be sought by the Post Office on behalf of the customer.

Telephone Type Circuits

International leased telephone circuits can be used exclusively for data transmission or for alternate speech/data and speech/facsimile. Such a circuit will provide data transmission equivalent to International Datel 200 or 600. International leased speech/data circuits are provided in accordance with the recommendations of the International Telephone and Telegraph Consultative Committee (CCITT). Under these recommendations, it is normally possible to provide either an ordinary speech/data circuit, or a special quality circuit, which depending on the modulation method used, could provide higher transmission speeds than the present Datel Services.

Telegraph-type Circuits

Leased international telegraph circuits can be used for data or teleprinter transmission and will provide data transmission equivalent to International Datel 100.

High-Speed Data Transmission Circuits

In carrier telephone systems, telephone circuits can be grouped together to give a bandwidth of 48 kHz, and may be used for high-speed data transmission at data speeds up to approximately 40 Kbit/s. These circuits are suitable for simultaneous transmission and reception. In general 48 kHz circuits cannot be made available at short notice.

Charges

Charges for international leased circuits vary according to the type of circuit and the distance between the locations concerned.

Details of charging and further information about these services can be obtained from :
Customer Services Division
External Telecommunications Executive
Alder House
Aldersgate Street
LONDON , EC1A 1AL

Telephone : 01 -432 5407
Telex : 21601

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 in this leaflet.

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