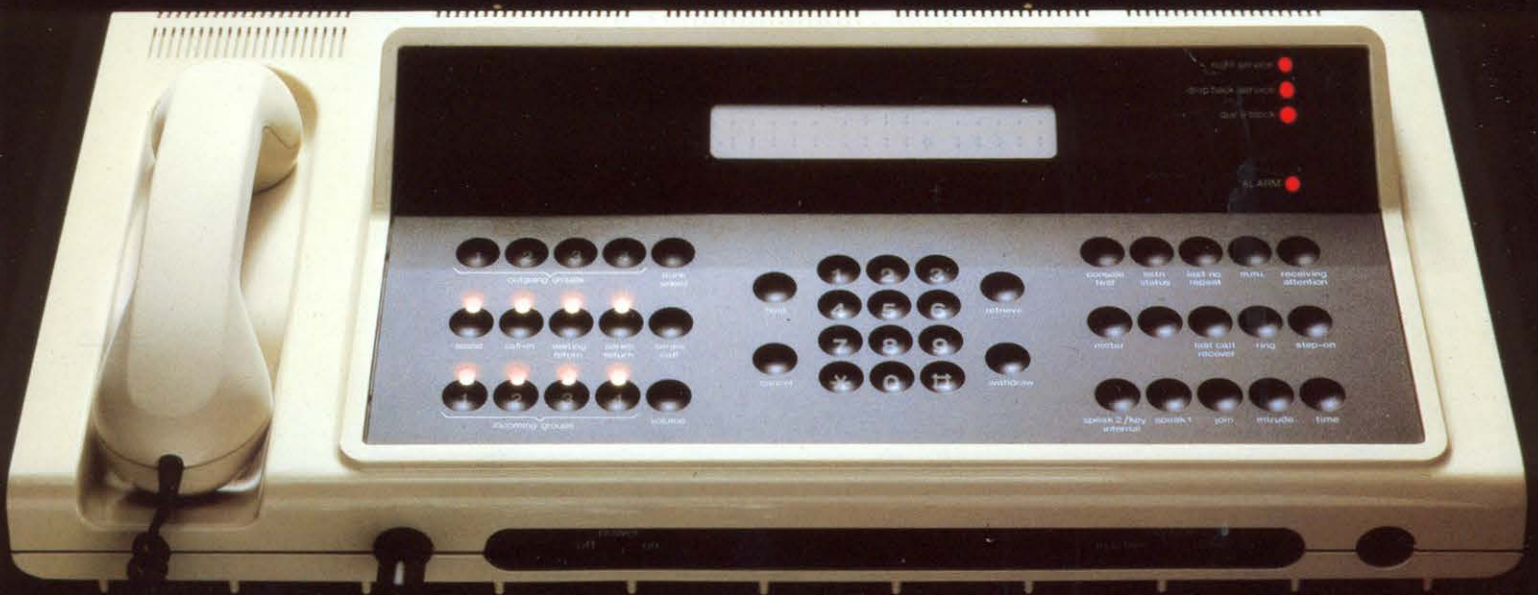
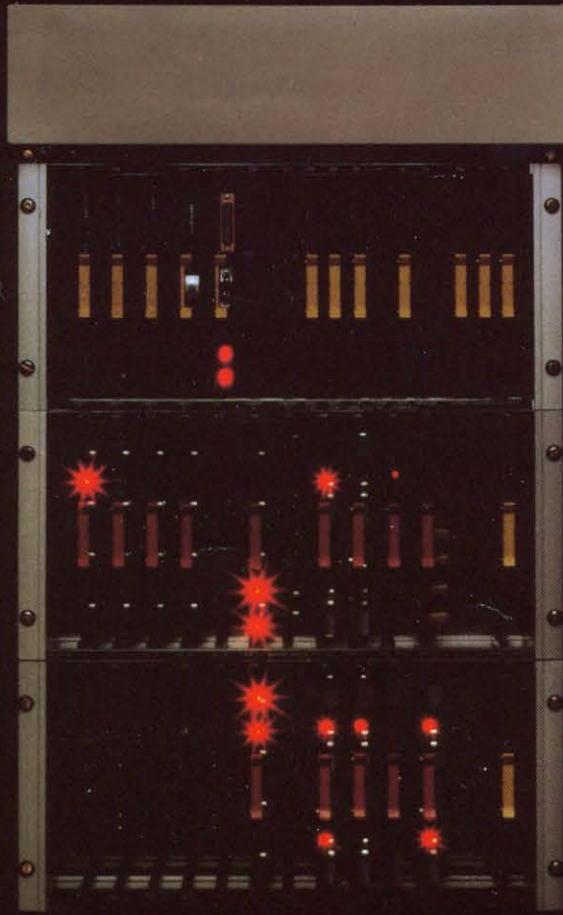


Monarch call-connect system 120B



Monarch is one of British Telecom's range of business call-connect systems. Its digital design incorporates the latest in microprocessor technology and it offers facilities previously found only in far larger systems. Its operation is entirely electronic, making it quiet and extremely compact. No special accommodation is required, and it can fit unobtrusively into most reception areas.



Powerful facilities

The real power of the Monarch lies in the power and intelligence of its central processing unit. Together, these provide extension users with many facilities that transform the telephone into a flexible business tool.

Call diversion

A major source of frustration for incoming callers is to get engaged tone or no reply. It is equally frustrating for an extension user to be continually interrupted by the 'phone during an important meeting. Monarch can avoid both these problems. The extension user can instruct the system to divert incoming calls to another extension. The diversion can be applied to all calls, or calls that arrive whilst the extension is engaged, or just calls that are unanswered. Both internal and external calls are diverted, and a special ringing signal announces the diverted call at the receiving extension.

Abbreviated dialling

Monarch will store up to 20 outside numbers in its microprocessor memory, and call them in response to a short code dialled by the extension user. It can also be instructed to recall the last number that was dialled, saving tedious re-dialling of engaged numbers.

Call back

Everyone seems to have an elusive colleague who is either on the 'phone, or

will be 'back in a moment'. Monarch can catch him. On receiving the 'call back' code the system monitors the person's extension. When he next completes a call it automatically connects him to the extension user who gave the code.

Enquiry calls

Monarch extension users can 'hold' a caller whilst they make an enquiry call to a third party. The enquiry call can be to another extension or an external number, and the extension user can alternate between the two parties or return to the held call.

Call transfer

Monarch makes transferring calls to other extensions simple, and foolproof. If the transfer fails the call is not cut off, but is automatically reconnected to the operator. The call may be incoming or outgoing, on an exchange line, inter-PBX or another Monarch extension.

Extension group hunting

Monarch extensions in one area such as a sales department can be organised into groups. Then incoming calls for that area will 'hunt' amongst the extensions in the group until they find one that is free.

Conference calls

With the optional 'conference' facility, up to four parties can speak and listen to each other simultaneously. One of the parties to the conference can be a caller

on a public exchange line.

Call barring

Monarch provides an unobtrusive way of keeping expensive unofficial calls to the minimum. The system can be instructed to prevent individual extensions from making certain types of call. These could be IDD or STD calls, or external calls of all types. Extensions can also be prevented from receiving certain types of incoming call, and barrings can be altered as the need arises.

Emergency switching

If a power failure or major system failure occurs Monarch will switch certain exchange lines to predetermined extensions, allowing limited incoming and outgoing traffic to continue.

Virtually all Monarch's facilities can be implemented by dialling a short code from an extension or the operator's console. The facilities and codes are explained in specially designed instruction booklets and can be mastered in moments. There is no need for lengthy training of extension users.

A unique console

The Monarch operator's console is unlike any other. There are no plugs, switches or buttons; just a sleek black keyboard with touch sensitive depressions. Connections can be made and calls held and retrieved, all at the touch of a fingertip. A miniature VDU shows at a glance the status of the call being handled and prompts the operator through every procedure, so that training is reduced to the minimum. These are some of the facilities that the console makes available.

Selective answering

Calls waiting to be answered are placed in four different queues depending on their type, allowing the operator to choose the priority with which they are answered. A queue with a waiting call is indicated by a flashing red lamp. If more than one call is waiting or a call has been waiting for 30 seconds the lamp flashes more quickly. Within each queue the system presents calls in the order in which they arrived.

Waiting return

Callers hate to be left in limbo waiting for an extension to reply. With Monarch, this can't happen. If there is no reply after 30 seconds the calls is automatically returned to the operator, who can take a

message or reassure the caller that he hasn't been forgotten. Because this happens automatically the operator is relieved of the time-consuming task of monitoring extended calls to ensure that they have been answered.

Hold and retrieve

A call requiring particular attention from the operator can delay many routine calls at a busy time. Monarch enables the awkward call to be held whilst the other calls are cleared. Up to nine calls can be held simultaneously, and they are retrieved in the order in which they were stored.

Intrusion

In an emergency the operator can break into a conversation to contact an extension user. As a security measure, a ticking tone is heard by all parties during 'intrusion'. If required, nominated extensions can be prevented from being intruded upon.

Diversion override

The operator has the ability to override any diversion that an extension user has set up from his 'phone. The console can also be used to set up and cancel diversions for individual extensions.

Extension status

The operator can see at a glance the status of any extension; whether it is free, engaged or unobtainable and whether any diversions are in effect.

System management

If the appropriate security code is entered the console becomes a terminal connected to Monarch's central processing unit. Some parts of the data stored in the system can then be altered as required: extension numbers can be changed, the composition of extension groups altered and the facilities applied to extensions changed. No expensive additional equipment is needed to make these changes, and most changes can be made immediately without waiting for a visit from an engineer.

Time and date display

The Monarch system contains an electronic clock which can be used to display time and date on the console.

Alarm indication

Monarch's microprocessors run continual checks on the operation of the system. If a minor or major fault is detected it is signalled on the console, together with a diagnostic message to aid the engineer.

Convenience and versatility

Monarch's facilities for telephone users are its most immediately obvious attraction; but it incorporates a number of other significant advantages.

Space saving

The use of microprocessors and other electronic components enables Monarch to offer quite remarkable savings in space. Its power supply and control equipment fit into a single cabinet the size of a small cupboard. And no special accommodation is required. Monarch is quiet in operation, and the simple lines of the cabinet enable it to fit unobtrusively into most reception areas.

Flexibility

Monarch has been designed on a modular basis, so that it can be provided with exactly the number of external lines and extensions that are required. Extra lines or extensions can easily and quickly be added at a later date by inserting extra slide-in boards, giving growth potential up to the maximum capacity of 32 exchange lines and 120 extensions.

Minimal maintenance

Monarch sets new standards for service and reliability. Because the system is all electronic there are no moving parts to go wrong, and no routine maintenance is required. In the unlikely event that a fault does develop Monarch's self-checking routines will detect it before you do and

signal it on the console. The diagnostic codes it produces enable the engineer to trace the problem without lengthy checking. Related components are grouped together on slide-in boards, and faulty boards can be replaced in seconds.

Cost control

Monarch's call-barring facility can play a major role in keeping illicit use of the telephone to the minimum. However, Monarch also has the ability to provide details of every external call made: the extension making the call, the number that was called and the duration. This information can be printed as it is recorded using a teleprinter. Alternatively with the addition of call logging equipment including British Telecom's own Pennant Call Management System, the information can be stored and processed so as to produce detailed management reports. These can give summaries of telephone usage by departments and individual extensions, highlighting over-expenditure or under-utilisation.

Two console working

In organisations where the workload is too great for a single operator an additional console can be provided. External line appearances are duplicated on the two consoles so that calls can be answered from either, and normal single console working can be used at less busy times.

Sub-tandem capability

Monarch's normal switching capability can be used for sub-tandem switching of calls on private circuits and inter-PBX extensions.

Technical summary

Exchange lines or private circuits	32 (maximum)
Extensions	120 (maximum)
Switching	Time switching with 256 ports
Control	Stored program microprocessor controlled
Extension telephones	Standard rotary dial, SC or MF press-button telephones
Power supply	240V 50Hz
Power consumption	about 750W (fully loaded)
Equipment cabinet	1705mm High
Weight about 165kgs (fully equipped)	560mm Wide 600mm Deep
Console	145mm High
Weight 7.5kgs	555mm Wide 280mm Deep

FEATURES

System

Automatic power fail restart
Automatic extension to extension calls
Attachments interface
(Dictation/Paging) - optional

Call information logging interface - optional
Centralised extension metering

Designated extension answering
Distinctive ringing
(external, internal, diverted calls)
Direct extension answering - exchange line calls
Direct inward dialling on inter-PBX lines

Earth calling exchange line signalling
Extension group hunting
(cyclic or sequential)
Emergency switching - dropback

Four party conference

Group pick-up

Immediate ring on internal calls
Incoming call barring - per extension
Intrusion barring

Loop-disconnect extension line signalling

MF4 extension line signalling
Mixed MF4/Loop-disconnect on same extension line
Man-machine interface

Night service
Non-dialled connection
Non-volatile memory with battery back-up

Operator call-in
Outgoing call barring - per extension

Pause free dialling

Reset of extension facilities
Remote alarm unit - optional

System short codes

Tone demonstration

Operator

Alarm indication
Automatic supervision

Call queueing
Call splitting, shuttle and join
Console test

Delayed answer supervision
Diversion override

Extension status

Faults details display

Hold/retrieve
(up to eight calls)

Intrusion

Last call recover
Line identification
Last number repeat

Manual switching to Dropback
Man-machine interface access

Operator controlled call metering

Selective answering
Series call

Trunk selection
Time and date display

Volume control
(incoming speech and tone caller)

Extension User

Automatic access to exchange lines
Automatic access to inter-PBX lines
Automatic single digit access to console

Call back
(when 'busy' or 'no reply' received)
Call transfer
Call storage and retrieval

Distinctive ring tone
(diverted calls)
Diversion of all calls
Diversion when busy
Diversion on no reply
Diversion to operator
Distinctive dial tones

Enquiry calls

Hold

Repeat last number

Shuttle

Wait on busy

Whilst we do our utmost to supply customers with the equipment they want, we reserve the right to provide equipment which does not accord exactly with the descriptions and illustrations appearing in this leaflet.

