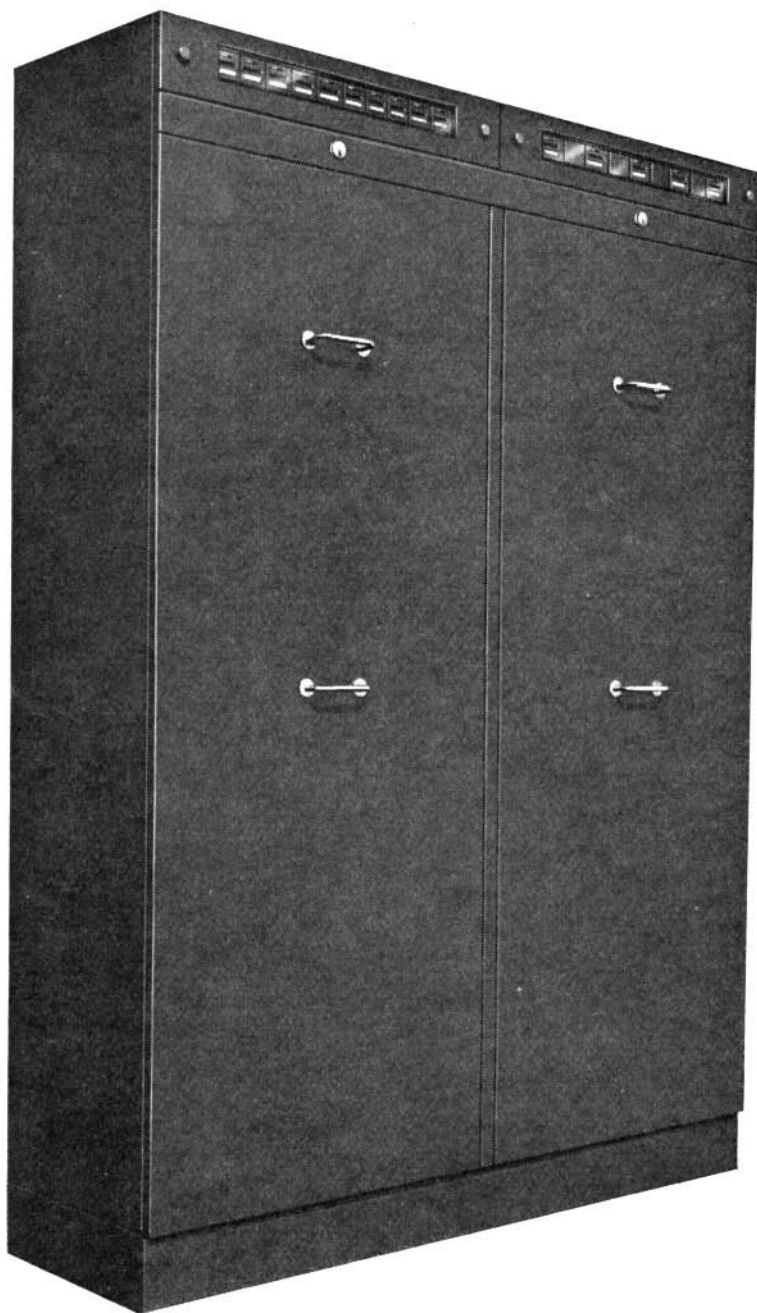


Private Automatic Branch Exchange 6 (PABX 6)



DESCRIPTIVE
DL D 402
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PRIVATE AUTOMATIC
BRANCH EXCHANGES



The PABX 6 is a modern, automatic telephone system designed to meet the communication needs of small or medium sized businesses and organisations where the extension users are expected to deal with incoming calls directly. The system, which can have up to five exchange lines and twenty extensions, does not require a manual switchboard or an operator. Incoming exchange calls are answered at 'designated' extensions, and can if necessary be transferred to any other extension. There is full internal dialling between extensions.



Two lines to other PABXs or PMBXs can be connected to the system. The automatic equipment and a mains power unit are entirely contained in a grey steel cabinet, which can stand in any convenient position.

Modern telephones, from the full range of colours, are used throughout the installation.

EXTENSION FACILITIES

Extensions call each other simply by dialling the number. The equipment is automatically released when either of the handsets is replaced.

Extensions make outgoing exchange calls by first pressing a button on the telephone to obtain connexion to an exchange line.

Extensions make outgoing calls over inter-connecting circuits to other PABXs or PMBXs joined to the system, by first dialling a single-figure code to get a circuit.

Incoming exchange calls ring a bell or bells sited within hearing of selected telephones known as 'designated' extensions. The number of such extensions is normally limited to eight, but may be increased to twelve if the night service, explained in General Facilities, is restricted. Any of these 'designated' extensions can answer an exchange call simply by lifting the handset. An external extension can be designated, but a special bell on a separate circuit must also be provided. Non-designated extensions cannot answer exchange calls.

On installations where it is necessary for one person to answer the bulk of incoming calls, an attendant's telephone, which combines the facilities of two designated extensions on one instrument, can be provided. This arrangement makes it possible for practically all incoming calls to be answered by one person, including a second call that arrives before the first has been cleared.

A 'designated' extension can transfer an incoming exchange call to another extension by pressing a button on the telephone, dialling the required number, and, if the extension agrees to take the call, replacing the handset. If the extension cannot take the call, or asks that it should be given to another extension, the 'designated' extension returns to the original call by again pressing the button on the telephone. If a transfer is ineffective for any reason, the incoming call automatically re-rings the 'designated' extension.

In the same way, any extension engaged on an

incoming or outgoing exchange or inter-PBX call can, while holding the original call, make an enquiry of another extension, or use an inter-PBX line to make an enquiry. The extension can then return to the call or transfer it to the other extension, or connect it over the inter-PBX line (unless it is a private circuit).

An incoming call can be offered to an engaged extension, if necessary. By dialling an additional digit 1 the 'designated' extension can interrupt the call in progress on the required extension, which is warned of the intrusion by a ticking tone. If the extension is unable to accept the call, the designated extension can, by pressing a button, return to the caller and inform him that the required extension is not available. If the extension agrees to accept the new call, the handset on the designated extension is replaced and the incoming call is then held by the automatic equipment. When the call on the required extension has finished and the handset has been replaced, the bell rings and when the extension answers it is automatically connected to the waiting caller. During the waiting period the caller does not receive any tone signal, and the extension has no indication that the call is still waiting. When more than one call is held for the same extension, chance determines which will be first passed to the extension when it becomes free.

All incoming calls on inter-PBX lines are dialled direct to the required extension.

Any extension can be permanently barred from either making or receiving exchange line calls, or both.

Extensions can also be connected so that they can be barred from making trunk calls.

GENERAL FACILITIES

Inter-PBX lines can be arranged as extensions over which exchange calls can be connected, or as private circuits over which connexion of exchange calls is prohibited. Subject to technical limitations, outgoing calls

into a distant PABX can be dialled direct to the extension required.

The automatic equipment cannot be held unnecessarily without being used. If, when making a call, an extension user fails to dial within 12-15 seconds of receiving dialling tone, the connecting equipment is released. Anyone calling that extension, before its handset has been replaced, receives the unobtainable tone.

Night service on 'designated' extensions requires no special arrangement. On non-designated extensions it can be provided by means of a night-service button fitted on a selected 'designated' extension telephone. By operating this button extensions having limited facilities during the day can be given full facilities at night, and those with full facilities may be limited at night. Similarly, extensions which are barred exchange calls during the day can make them at night, while other extensions may be restricted. It can also be arranged that additional or different calling bells can be rung for incoming calls during night service. The number of extensions which can be given night service depends on the facilities required.

A mains unit provides power for operating the whole of the installation.

In the event of mains failure all existing calls are disconnected and each exchange line is connected automatically to a predetermined extension, which then has all the facilities of a direct exchange line. Other extensions cannot be used during the failure. When the supply is restored, exchange-line calls in progress at the time are not interrupted, and the exchange lines are switched back to the PABX as the calls are completed.

In STD areas, cyclometer-type total meters can be provided on exchange lines, and trip meters on extensions, to record STD units actually debited. As the meters are usually required at a central point, they are mounted above the doors, at the top of the equipment cabinet.

PABX CAPACITY

	Basic	Maximum
Exchange lines (see note 1)	2	5
Extensions (see note 2)	10	20
Inter-PBX lines (see notes 1 and 3)	—	2
Connecting circuits	2	4

Notes (1) The combined total of exchange and inter-PBX lines must not exceed the exchange-line capacity of the unit.

(2) When one or two inter-PBX lines are required to one destination, the extension capacity is reduced by one; when two lines are required to different destinations the extension capacity is reduced by two.

(3) PBX means either a PABX or a PMBX.

The capacity of the unit cannot be increased beyond the limits shown. Greater capacity can be obtained only by replacing the unit with a different type of PABX.

GENERAL INFORMATION

Numbering arrangements and dialling codes :

Level 1—Used for offering calls to an engaged extension

Level 2—Extensions

Level 3—Extensions

Level 4—Not used

Level 5—Not used

Level 6—Not used

Level 7—Lines to another PBX

Level 8—Lines to another PBX

Level 9—Not used

Level 0—Not used

All extensions, 'designated' or otherwise, have two-digit numbers in the range 20–39.

Alarms

A red lamp is provided on the special attendant's telephone to indicate when a fuse blows in the automatic equipment. When the lamp shines the

Post Office exchange supervisor should be informed. Where the attendant's telephone is not required the lamp can be fitted to any telephone. A duplicate fuse alarm lamp can be fitted at a second instrument if required.

Tones

Dialling, ringing, engaged, ticking and number unobtainable tones are provided from a ringing and tone relay set in the equipment.

Accommodation

The steel cabinet, which contains the equipment and the power unit, can be installed in any convenient position, preferably near the focal point of the bulk of the extensions. It stands on the floor and is fixed to a wall, and occupies a space 3' 9½" wide, 1' 2" deep, and 5' 4" high. The cabinet weighs between 400 and 660 lb, depending on the amount of equipment installed. To give easy access for maintenance purposes, a clear space of at least 3 feet should always be available in front of the cabinet. The equipment draws its power from AC mains, supplied from a 3-pin, 5-amp socket outlet provided by the customer.



Attendant's telephone which enables one person to answer the bulk of incoming calls.

Rental and connexion charges are quoted in the preface sheet

THE TELEPHONE MANAGER
WILL GLADLY SUPPLY
ANY FURTHER INFORMATION