

Private Manual Branch Exchanges Panel-mounted (3+12) and (5+25)



DESCRIPTIVE
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PRIVATE MANUAL
BRANCH EXCHANGES

Panel-mounted manual cordless switchboards have been developed to meet the needs of customers who wish to have Post Office telephone equipment mounted in an operational suite, desk or console that they have provided to suit their own particular requirements. The switchboards are particularly suitable for small hotels and installations where space is limited.

The switchboard equipment is provided in three sections—operator's keyboard, apparatus box and power unit. The operator's keyboard consists of a flat metal panel, finished in grey, which contains the circuit connecting keys,

signalling lights, dial, and socket for the operator's telephone handset or lightweight headset. The keyboard is usually mounted on a sloping panel on the working surface of a console. It can also be wall-mounted, if required. The apparatus box and power unit can be mounted inside the console if space is available, or in any other convenient, nearby position. The local Telephone Manager will be glad to advise on console design and layout and should be consulted before detailed plans are made.

The extension telephones are modern and can be in any available colour.

PANEL-MOUNTED PMBX (3+12)



FACILITIES

One to three exchange lines and up to twelve extensions can be provided. All of the extensions may be internal, or up to six can be external, inter-switchboard or private circuits with the remainder internal.

The operator can be recalled from any extension by press-button on the extension telephone.

Extension telephones can be provided with dials as required so that exchange calls can be dialled direct from these extensions.

Five connecting circuits enable five separate calls to be in progress at the same time.

The operator can speak to an extension without being overheard while an exchange call is automatically held. A light reminds the operator that an exchange line is being held.

A second call received on an exchange line before an extension has been disconnected from a previous call on that line, is automatically intercepted at the switchboard and a light signal is given. The extension bell does not ring.

Signalling is by lights on all calls.

An alarm buzzer, which operates with the lights, can be switched on or off by means of a key.

A mains unit provides power for signal lights and bells.

In the event of a mains failure, exchange calls in progress remain connected; further incoming calls on the first line ring a bell to call the operator; the second and third lines can be switched through to selected extensions to make or receive calls.

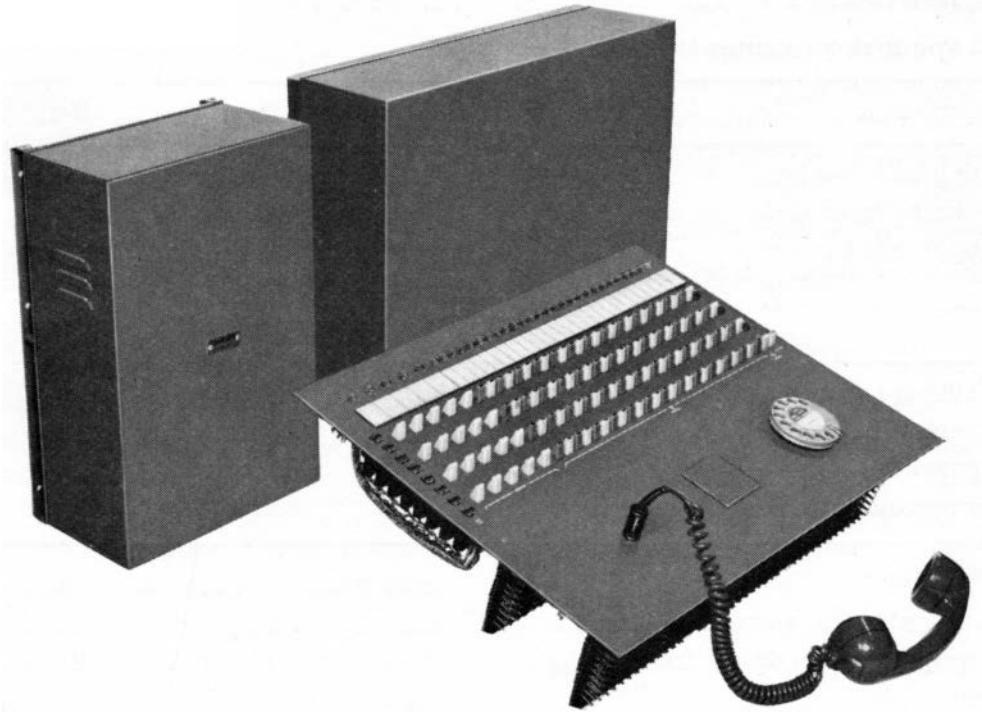
Night service is arranged by connecting exchange lines to selected extensions and then operating the night-service key.

Extension arrangements to plans 1, 1A, 2, 4, 9, 12A, 105, 105A, 107 and 107A can be provided on switchboard extensions.

In STD areas, up to three cyclometer-type private meters can be mounted on the panel of the switchboard to record STD units actually debited on each exchange line.

A lightweight headset instead of the handset can be provided for the operator.

PANEL-MOUNTED PMBX (5+25)



FACILITIES

One to five exchange lines and up to twenty five extensions can be provided. All of the extensions may be internal, or up to twelve can be external, inter-switchboard or private circuits with the remainder internal.

The operator can be recalled from any extension by press-button on the telephone.

Extension telephones can be provided with dials as required so that exchange calls can be dialled direct from these extensions.

Seven connecting circuits enable seven separate calls to be in progress at the same time. A light shows the next free connecting circuit to be used, or indicates that only the overcall facility is available.

The overcall facility enables the operator to answer an incoming exchange or extension call when all seven connecting circuits are in use. The operator can speak to an extension without being overheard while an exchange call is automatically held. A light reminds the operator that an exchange line is being held.

A second call received on an exchange line before an extension has been disconnected from a previous call on that line is automatically

intercepted at the switchboard and a light signal is given. The extension bell does not ring. Signalling is by lights on all calls.

An alarm buzzer, which operates with the lights, can be switched on or off by means of a key.

A mains unit provides power for signal lights and bells.

In the event of a mains failure exchange calls in progress remain connected; further incoming calls on the first line ring a bell to call the operator; the second, third, fourth, and fifth lines can be switched through to selected extensions to make or receive calls.

Night service is arranged by connecting the exchange lines to selected extensions and then operating the night-service key.

Extension arrangements to plans 1, 1A, 2, 4, 9, 12A, 105, 105A, 107, and 107A can be provided on switchboard extensions.

In STD areas, up to five cyclometer-type private meters can be mounted on the panel of the switchboard to record STD units actually debited on each exchange line.

A lightweight headset instead of the handset can be provided for the operator.

GENERAL INFORMATION

Dimensions, space requirements and weights

Size	Equipment	Width	Depth	Height	Weight
(3+12)	Keyboard (see note 1)	1' 4"	6"	1' 1"	15 lb
	Opening in console (see note 2)	1' 2"		11"	
	Apparatus box	1' 8"	7 $\frac{3}{4}$ "	1' 6"	47 lb
	Power unit (see note 3)	1' 0"	7 $\frac{1}{4}$ "	10 $\frac{1}{2}$ "	20 lb
1' 0"		7 $\frac{1}{4}$ "	1' 2"	40 lb	
(5+25)	Keyboard (see note 1)	2' 0 $\frac{1}{2}$ "	7"	1' 6"	30 lb
	Opening in console (see note 2)	1' 11"		1' 4"	
	Apparatus box	1' 11 $\frac{3}{4}$ "	7 $\frac{3}{4}$ "	1' 6"	60 lb
	Power unit	1' 0"	7 $\frac{1}{4}$ "	1' 6"	53 lb

Notes

- 1 The figure under 'depth' shows the extent to which the equipment stands out from the back of the panel.
- 2 The difference between panel size and opening provides a seating for the keyboard. A space of at least 12" should be allowed inside the console, immediately behind the opening, to accommodate the panel equipment and internal cabling.
- 3 The alternative larger power unit is necessary when private circuits, inter-switchboard and external extensions, and circuits with special telephone arrangements are provided.

Panel-mounted switchboards can be used on practically any exchange system. The panel of the console bearing the keyboard may be sloping or vertical, but it must be hinged so that it can swing outward to provide access for maintenance of the switchboard equipment. Matching panels are also available for use with certain private services rented from the Post Office.

Both sizes of switchboard operate from a power unit, connected to a 3-pin socket outlet of at least 2-amp rating supplied by the customer. Power consumption of the (3+12) switchboard is 40-90 watts for an installation with internal extensions only, going up to 50-180 watts for more complicated installations with external extensions. Similarly, power consumption of the

(5+25) switchboard is 50-180 watts and 80-320 watts.

A stand-by power supply, for use in the event of a mains failure, together with a mains-failure warning light on the keyboard can be provided at an additional charge.

The apparatus box and power unit can be fitted inside the console provided that ventilation is adequate. If it is not, both units can be attached to a wall in any inconspicuous, convenient position.

When private circuits, inter-switchboard and external extensions, and circuits with special telephone arrangements are provided, one or more auxiliary apparatus units are necessary. Each unit is 12" wide, 7 $\frac{1}{4}$ " deep, 6 $\frac{1}{2}$ " high and weighs 10 lb. These units are also fitted with the other equipment inside the console or on a wall. The cases of these power and auxiliary units are eggshell-finish elephant grey.

Rental and connexion charges are quoted in the preface sheet

THE TELEPHONE MANAGER
WILL GLADLY SUPPLY
ANY FURTHER INFORMATION