

Keymaster (2+10)

February 1974

Descriptive
Leaflet

DLA 122

All telephones can be used to make and receive calls over two exchange lines.

This system also provides push button intercommunication and conference facilities between all ten telephones.

This is an economical arrangement for a small business, professional office, or a large house.



Capacity

The system normally works with either one or two exchange lines, but it can also be used with either one or two extensions from a Private Branch Exchange (PBX). A combination of exchange line and PBX extension can be accommodated.

Up to ten stations with full facilities or eleven stations with reduced facilities can be provided (see optional facilities).

Standard facilities

Any station telephone can be connected directly to a free exchange line or to another station telephone by press-button.

Any station user can answer an exchange call, and hold it while making an enquiry call to another station. The exchange line caller cannot hear the enquiry call. The signalling lamp on each station telephone flashes regularly while an exchange call is held.

After the enquiry the first station can return to the exchange call, or the second station can take over the call.

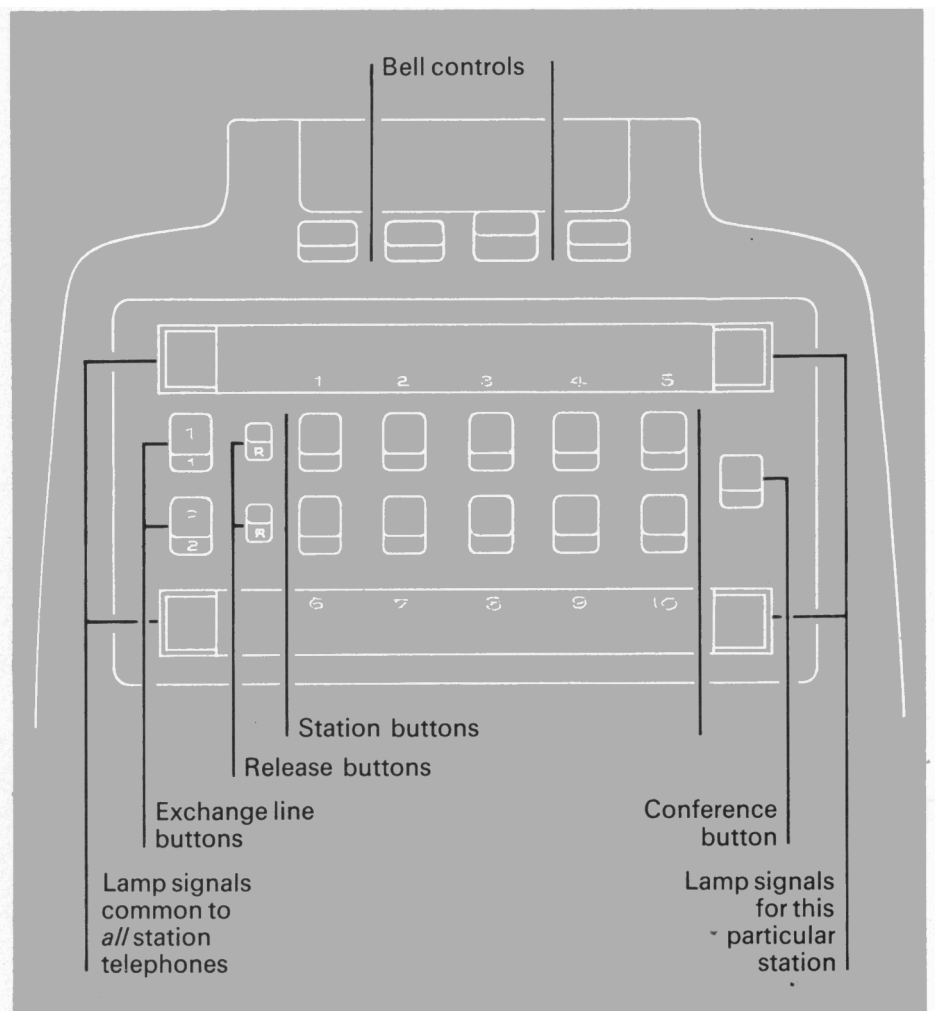
Any station user can hold an exchange call on one line while making or receiving a call on the other exchange line. There is no overhearing between calls.

Two separate exchange calls from different stations, and internal calls between stations can be in progress at the same time, without overhearing.

Up to five independent internal calls are possible at the same time between different pairs of stations.

Any number of the stations can have a conference on an internal call, but it is not possible to include an exchange line caller in the conference.

The lamp signalling is supplied from a power unit connected to the mains. In the event of a mains failure, the exchange lines can still be used, but internal communication is not possible.



Optional facilities

An eleventh station can be added to the system. Each station user calls the eleventh by using the station button of his own number.

There are practical limitations to the distances between stations, and if service is required to outlying buildings, up to four extension telephones with limited facilities can be provided. Tablephones with two press-buttons are used on these extensions.

If extensions are provided, one station (usually the main) is equipped with a control unit. Two sizes are available (see General Information). A second station can be similarly equipped, if required.

The extensions can make outgoing exchange calls direct, but depend on assistance from the station with the control unit for incoming exchange calls.

The extensions can be called direct from all stations, but depend on the station with the control unit for calls to other stations.

Any one station, including that with a control unit, can be arranged so that it can intrude on and 'monitor' an exchange call.

It can be arranged that a station engaged on an exchange call can be called by other stations. This is not possible on systems with eleven stations.

Any station other than the main, or any extension can be connected in such a way that it can never use an exchange line.

Alternatively, its use of an exchange line can be controlled by a switch at the main station.

PBX extensions or private circuits can be connected to the system, with certain limitations, in place of stations or extensions, if required.

On night service any number of the extensions can be given incoming exchange line facilities when the main station is not staffed, by means of a switch on the control unit.

How it operates

Raising the handset and pressing down exchange line button 1 or 2 connects a station telephone to one exchange line or the other. The lamp on the left, appropriate to the line being used, glows steadily on **all** station telephones while an exchange line is in use.

Additionally, the lamp on the right, appropriate to the line being used, glows steadily **only** on the station telephone using the line.

Incoming exchange calls flash the appropriate lamp on the left on **all** station telephones, in step with the ringing.

It is usually convenient to arrange that calls are answered by one particular station called the 'main station' but any other station can answer. As soon as a call is answered the flashing light becomes a steady glow on **all** station telephones.

Up to five station telephones can have bells. The bell in any telephone, other than the main station, can be cut off by pressing down one of the bell control buttons, and restored by pressing the other.

To call another station, the handset is raised and the appropriate station button is fully depressed to sound a buzzer in the required telephone. When the button is released it returns half-way to a 'speak' position, to connect the telephone to an internal call circuit.

If the required station is speaking to another station, the conversation will be heard. If it is engaged on an exchange call, the caller's own telephone buzzer sounds while the station button is fully depressed.

For conferences, any number of the stations are called in turn and asked to hold on to join in the call. The conference button is then pressed down, followed by all the station buttons of those participating in the call.

Any exchange line or station button, or the conference button, if pressed down during a call, will restore fully when the handset is replaced.

The exchange line buttons can be restored to normal before the handset is replaced by pressing the release buttons, when a call is transferred to another station.

General information

Station and extension telephones can be provided in two-tone grey, ivory, and black.

Subject to the limitation on the number of bells which can ring at the same time, each station telephone houses a bell for exchange calls, and a buzzer for internal calls. The bell in an extension telephone signals both exchange and internal calls. Extension bells, and extension buzzers can also be provided.

The station telephones have grey terminal blocks approximately 160mm by 140mm by 45mm (6 $\frac{1}{4}$ " by 5 $\frac{1}{2}$ " by 1 $\frac{3}{4}$ "), linked together with grey plastic-covered cable 11mm ($\frac{7}{16}$ ") in diameter.

The smaller control unit, used when there is only one extension, measures approximately 140mm by 90mm by 75mm (5 $\frac{1}{2}$ " by 3 $\frac{1}{2}$ " by 3").

The larger control unit (shown in the photograph overleaf), for two to four extensions, is approximately 170mm by 140mm by 75mm (6 $\frac{3}{4}$ " by 5 $\frac{1}{2}$ " by 3").

The system is mains-powered from a 3-pin socket outlet of at least 5-amp rating, provided by the customer.

The basic installation requires a power unit weighing 18.1 kg (40 lb) and a relay unit weighing 5.4 kg (12 lb). In addition, each extension requires a relay unit which weighs 7.3 kg (16 lb). All of these units are wall-mounted, near a specified station telephone. The dimensions quoted in this leaflet are approximate.

Special note

The order in which the stations are connected to the system needs careful consideration.

When the EXCH button on station 1 is pressed the exchange line is cut off from stations 2 to 10. When the button is pressed on station 2 the line is cut off from 3 to 10, and so on. It follows therefore that the most important staff should have the earlier stations and the most junior staff the last. It is not wise however to place the main station, which answers the majority of calls, too low in the order as this may cause difficulty in fulfilling that task.

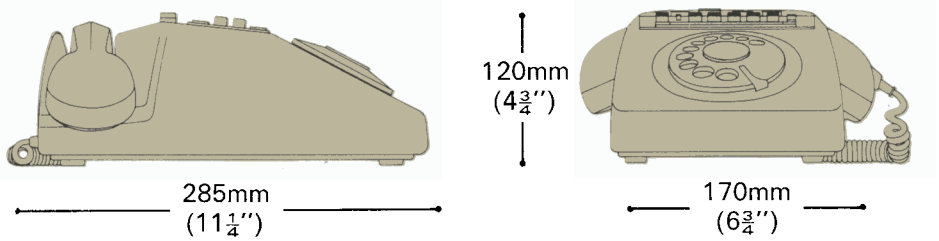
The order in which the stations are connected has direct bearing on the engineers' task of wiring the installation. It is essential that the requirements are fully discussed with our Sales Representative. He will prepare a schedule showing the desired sequence of stations and liaise with the engineers to ensure that the requirements can be met.

Control unit

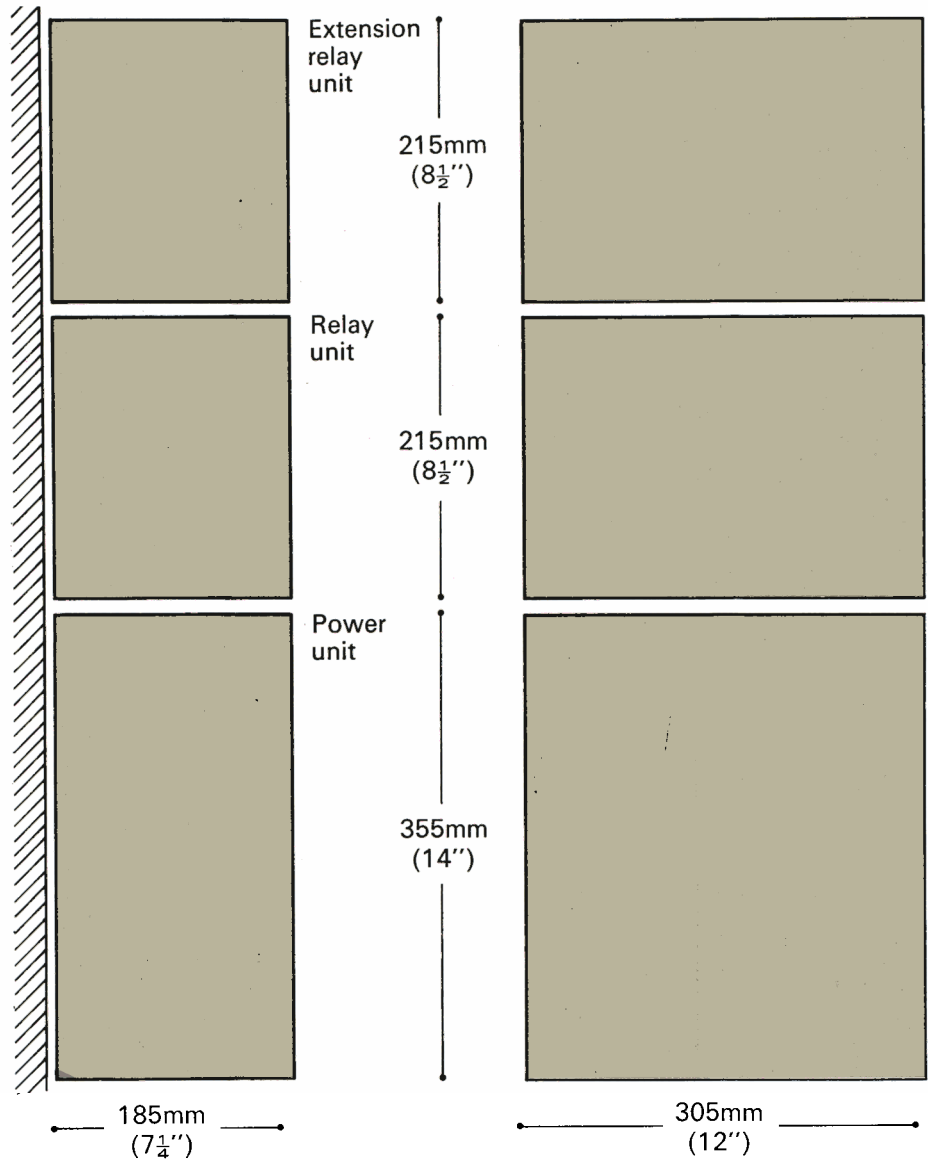


Dimensions

Station telephone



Power and relay units



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.

Your Telephone Sales Office will gladly supply any further information
The address and telephone number are shown in the preface of your telephone directory.