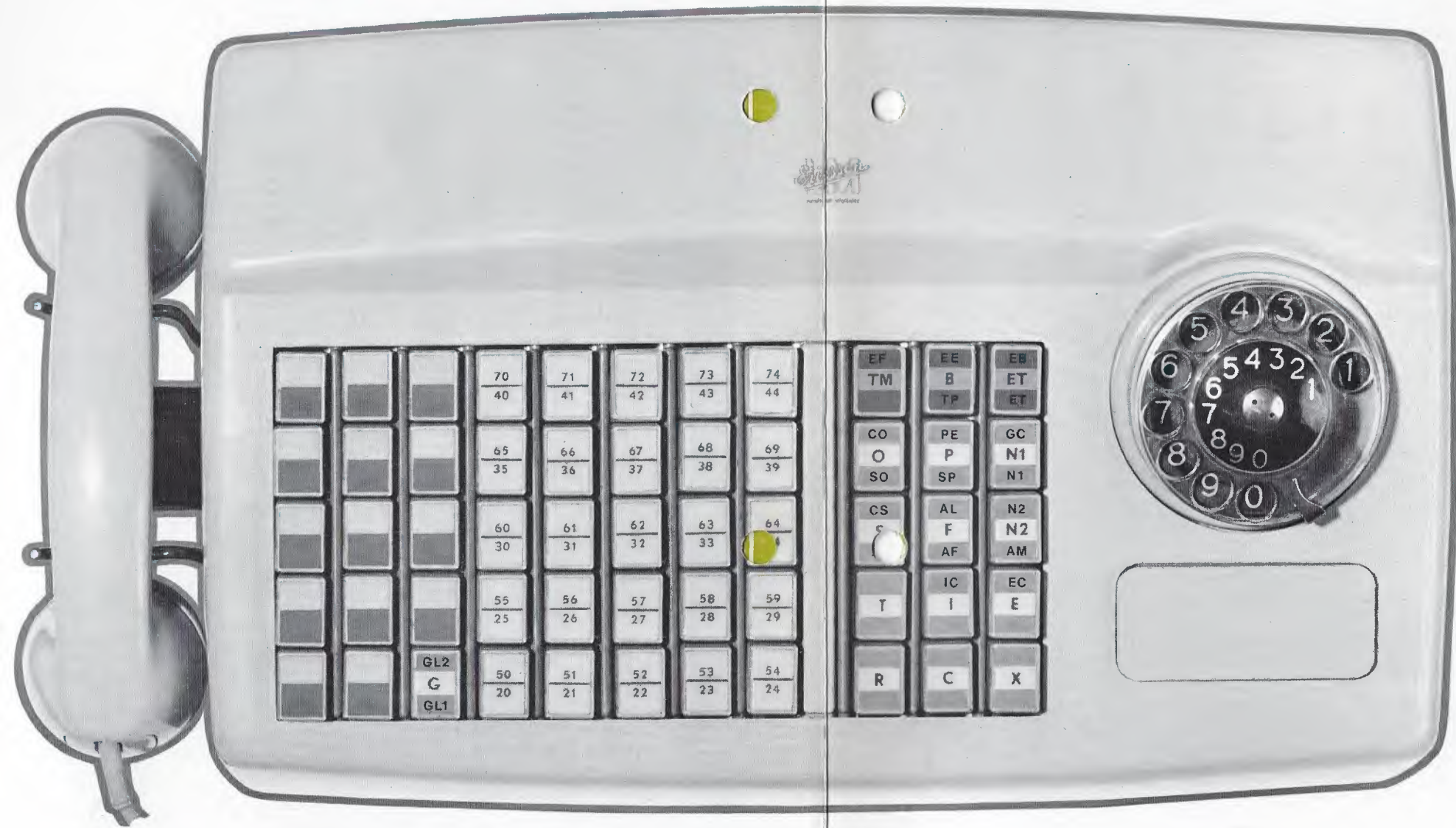


# How to use P.A.B.X. Type AKD741



# P.A.B.X. — Type AKD 741



Exchange  
line keys

Extension keys

Common  
control keys

Dial

# Exchange Line Keys & Lamps

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## Top White

Glow indicates call on exchange line.  
Flickers to show a call on trunk monitor.

## Lower Red

Flickers when operator has control of exchange line.  
Glow until call extended to an extension is answered.  
Glow on all busy exchange lines when key T depressed.  
Glow during the progress of a serial call.

# Extension Keys & Lamps

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## Keys

Press to call an extension.

## Lamp (GREEN)

Glow on busy extensions when exchange line answered or selected and when key T is pressed.

## Key G

### LAMP GL1

When an exchange line key is pressed, lamp GL1 glows and calls can be connected to extensions numbered in the **LOWER** half of extension keys.

### LAMP GL2

When key G is pressed, lamp GL2 glows, and calls can be connected to extensions numbered in the **UPPER** half of extension keys.

# Common Control Keys & Lamps

## Key TM (GREEN)

Key for Trunk Monitoring.  
**LAMP EF**  
Called extension is free.

## Key B (YELLOW)

Operate for continuous ring of bell.  
**LAMP EE**  
Called extension is engaged.  
**LAMP TP**  
Steady dim glow indicates receiver off hook.

## Key ET (RED)

Key—press when technician desires to test extension.  
**LAMP EB**  
Glow = extension barred.  
Flicker = call already queued.  
**LAMP ET**  
Key operated for extension test.

## Key O

Operator's key to call or answer an extension.  
**LAMP CO**  
Extension calling operator.  
**LAMP SO**  
Operator speaking to extension or call to extension parked.

## Key P

Paging key. (Special instructions will be issued if facility fitted.)

## Key N1

Night switching key for calls to be switched to preselected extensions.  
**LAMP GC**  
Glow on incoming calls.  
**LAMP N1**  
Glow when key N1 operated.

## Key S

Press to mark a call requiring connection to a number of extensions.  
**LAMP CS**  
Glow when key S is depressed.  
Glow when serial call returned to switchboard.  
**LAMP AB**  
Alarm—Battery Charger failure—Notify Service Difficulties and Faults.

## Key F

**LAMP AL**  
Alarm—faulty extension line—notify Service Difficulties and Faults.  
**LAMP AF**  
Urgent Alarm—Notify Service Difficulties and Faults.

## Key N2

Night switching key for calls to be answered from any extension.  
**LAMP N2**  
Glow when key N2 operated.  
**LAMP AM**  
Non-urgent fault: Notify Service Difficulties and Faults.

## Key T

Test key to check which exchange and extension lines are busy.

## Key I

Press to divide circuit and speak exclusively to internal connection or for interception.  
**LAMP IC**  
Glow when key I operated and when an enquiry call is made to switchboard.

## Key E

Press to divide circuit and speak exclusively to external connection.  
**LAMP EC**  
Glow when key E operated and when the operator cancels an ineffective extension.  
Glow when an extension returns a call to an operator and hangs up.

## Key R

Restore key.  
1. to cancel a serial call  
2. to monitor an I or E connection.  
3. followed by C, to clear the operator's line.

## Key C

Cancellation key to cancel an incorrectly called number.  
To cancel night switching.  
When pressed with key X, to clear an exchange line.  
When pressed with key R, to clear operator's line connection.

## Key X

Extending key to connect exchange and extension lines.  
Also used to park a call and, in conjunction with C, to clear a call.

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# Introduction

## 1 The Switchboard (see overleaf)

This consists of four sections:

- The exchange line keys. These are on the left-hand side and are used by the operator to answer and originate exchange line calls.
- The extension keys. These are centrally located and show the extension numbers. Each key represents two extensions, one on upper and one on lower portion.
- The common control keys. These are located to the right of the extension keys. Each key has a separate function. The three top keys (green, yellow, red) show the condition of the called extension.
- The dial. Used by the operator to call on exchange lines (or tie lines connected as exchange lines). Also used to call extensions from the operator's line.

### **NOTE: Exchange line key G**

This controls connections to extensions numbered either in the LOWER half or UPPER half of the extension keys.

- a** When normal, after an exchange line call is answered, lamp GL1 glows and calls may be connected to extensions numbered in LOWER half of extension keys.
- b** When G is pressed after an exchange line call is answered, lamp GL2 glows and calls may be connected to extensions numbered in UPPER half of extension keys.

## 2 Operating the keys

Always press the keys firmly and do not release until appropriate lamps show. Some keys lock in the down position. To release, press the key again and it will restore to normal.

## 3 Glossary

The following terms used in these instructions may be known to operators by other names:

- |            |   |
|------------|---|
| FLICKERING | – glowing on and off  |
| INTRUSION  | – trunk offer; interception   |
| ANNOUNCING | – pre-advising  |
| CAMPING    | – camp on busy; queuing a call so that it will be automatically connected through when a busy extension is free |
| PARKING    | – holding a line  |



# Introduction

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## 4 To start

When the switchboard is staffed, PRESS KEY C to discontinue any night switching. PRESS KEY B (bell) if continuous ringing of the bell is required to indicate incoming calls.

## 5 To clear or cancel

If an exchange call has been answered, and the wrong extension keys then pressed, the connection can be cleared by PRESSING KEY C. Connection to the required extension can then be recommended.

Exchange line calls can be cleared by PRESSING X while HOLDING C DEPRESSED. To clear the operator's line, PRESS R, then C while HOLDING R DEPRESSED.

# Incoming Exchange Line Calls

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An incoming call is signalled by:

- A white lamp glowing in the upper section of an exchange line key.
- Lamp GC (general call), in the common equipment key N1, glowing.
- A single stroke or continuous ringing of the bell.

# Incoming Exchange Line Calls

## 6 An incoming exchange line call to a FREE EXTENSION

- Answer by PRESSING the EXCHANGE LINE KEY. The white lamp in the key will go out; lamp GC will extinguish if no other call is waiting; the red lamp in the lower section of the exchange key will flicker; lamp GL1 in the lower half of key G will glow; the lamps on all busy extensions will glow.
- Speak to the caller and ascertain the extension number required.
- If required extension number is in LOWER HALF of extension key: PRESS EXTENSION KEY. Lamp EF (extension free) will glow. PRESS KEY X (or answer another call). Lamps EF, GL1 and all busy extension lamps will go out. Red lamp in exchange line key will change from flicker to glow until extension answers.
- If required extension number is in UPPER HALF of extension key: PRESS KEY G, then extension key. Lamp GL2 will glow in the upper half of key G. PRESS KEY X (or answer another call).

## 7 To ANNOUNCE an incoming exchange line call to a free extension

- Answer the call and PRESS the required EXTENSION KEY in the usual way. Lamp EF will glow.
- PRESS KEY I. Lamp IC will glow. When extension answers, lamp EF will go out.
- Announce call – only the extension will hear. (If further information is required from caller before connection to extension, PRESS KEY E (lamp EC will glow) and operator will speak exclusively to caller. Switch from one to another – I to E – as desired.
- If call accepted, PRESS KEY X. (If required to supervise, PRESS KEY R, a warning tone will be heard; introduce if necessary, then PRESS X to leave the circuit.)

# Incoming Exchange Line Calls

## 8 When an extension DOES NOT ANSWER

If the called extension does not answer within 30 to 45 seconds, the call reverts to the switchboard and is signalled by the white and red lamps both glowing in the exchange line key.

- Answer by PRESSING the EXCHANGE LINE KEY. Lamp EF will glow to show that an attempt has already been made to extend. Lamp GL 1 and all busy extensions will also glow.

IF THE CALLER WILL WAIT:

- PRESS KEY X (or accept another call).

IF THE CALLER WANTS ANOTHER EXTENSION:

- PRESS KEY C (to cancel the call to first extension). Lamp EC will glow. Call alternative extension.

IF THE CALLER DOES NOT WISH TO WAIT:

- Cancel call by PRESSING and HOLDING KEY C and while HOLDING C, PRESS KEY X.

## 9 An incoming exchange line call for a BUSY EXTENSION

- Answer the call in usual way.
- The busy extension lamp will glow.
- Confirm by PRESSING the EXTENSION KEY (after pressing G if necessary). Lamp EE (extension engaged) will glow.
- Advise the caller.

IF THE CALLER WILL WAIT:

- PRESS KEY X. The red exchange line lamp will glow. The call is now camped and will be automatically connected, when extension is free. If the extension does not answer in 30 to 45 seconds, the call is returned to the switchboard vide Para. 8.

IF THE CALLER WILL NOT WAIT:

- PRESS and HOLD KEY C
- While HOLDING KEY C, PRESS KEY X.

# Incoming Exchange Line Calls

IF THE CALLER WANTS ANOTHER EXTENSION:

- PRESS KEY C
- Call the alternative extension. If the call is important, it is possible to INTRUDE on a busy extension's conversation.
- PRESS KEY I after OPERATING the EXTENSION KEY. IC will glow and a warning tone will be heard by both parties. If the extension user elects to take the important call, ask him to terminate his conversation and HANG UP.
- PRESS KEY X and call will be camped and extended as soon as extension hangs up. (If the extension user wants his original call held, he must dial 9 before hanging up. This will return it to the switchboard where it is signalled as a new call and can be held.)

## 10 Camping

When the EXTENSION KEY is PRESSED and lamp EB flickers and EE glows, this indicates that a call is already camped waiting on the busy extension (as per instruction 9, where the caller will wait). Only one exchange line call at a time can be camped on an extension. A further call can be parked at the switchboard by PRESSING C to cancel the extension attempt, and then PRESSING X. Further attempts to connect the call should be made at frequent intervals. There may be an important call for an engaged extension **which already has a call camped and waiting**. If the extension hangs up he will get the camped call first. To give the important call priority in this case, it is necessary to take the camped call back to the operator, and replace with the important call. The sequence for the operator is:

- Go across the **camped line** by PRESSING the APPROPRIATE EXCHANGE LINE KEY.
- PRESS KEY C (to cancel the waiting condition). The call is now parked with the operator on the exchange line key.
- PRESS the EXCHANGE LINE KEY of the important call.
- CALL the required extension.
- PRESS KEY I and advise extension of the important call.
- If he accepts, PRESS KEY X. When the extension hangs up, the important call will be extended to him.
- CAMP the parked call again.

# Incoming Exchange Line Calls

## 11 To connect an incoming exchange line call to a series of extensions in turn (SERIAL CALLS)

- PRESS KEY S before calling the first extension. Lamp CS will glow.
- CALL extension in usual way. The red exchange line lamp will remain glowing during the call. When the extension user hangs up after completing the first call, the white lamp in the exchange line key will also glow.
- PRESS the EXCHANGE LINE KEY. Lamp CS will glow (to remind operator it is a serial call).
- CALL next extension required. Before extending to the last required extension, PRESS KEY R to cancel the serial function.

## 12 An exchange line call TRANSFERRED TO THE OPERATOR by an extension

An extension may hold an exchange line call, and call the operator by dialling 9.

- The white and red exchange line lamps and GC will glow.
- On Answer, lamps GL1 and IC will glow, and the red lamp flicker.
- Speak to the extension (exclusively).
- If required to take over the call, PRESS KEY C. Lamp IC will go out, EC will glow. Extend call in the usual way.
- To return the call to the extension, PRESS X.

# Parking

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## 13 Parking a call

- To hold a call at the switchboard (park), cancel any previous ineffective attempts by key C and then PRESS KEY X.
- The red exchange line lamp will GLOW.
- If the call is held for about 30 seconds, the operator will be recalled by the white exchange line lamp glowing as well.

## The Operator's Line (Key O)

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### 14 To call an extension

- PRESS KEY O. Lamp SO will glow.
- DIAL the required extension.
- CLEAR by PRESSING R, then C while R IS DEPRESSED.  
The equipment will "time out" if any delay in dialling. An extension can only be parked by the operator first answering on exchange line. After extending or cancelling the exchange line, the operator is connected to the extension.

### 15 To answer a call from an extension

- The call will cause lamps GC and CO (call operator) to glow and the bell to ring.
- PRESS KEY O to answer. Lamp SO glows, CO goes out. (If call is from a barred extension, EB will glow).
  - CLEAR by PRESSING R, then C while R IS DEPRESSED.

# Outgoing Calls Connected by Operator

## 16 From open (non-barred) extensions

Calls from open extensions do not require the attention of the operator. These extensions simply dial O, and on receipt of dial tone, dial the wanted number.

## 17 From semi-barred extensions

A semi-barred extension can receive incoming exchange line calls in the usual way but can only make outside calls through the operator.

For outgoing calls:

- The extension calls the operator.
- Answer in the usual way (Instruction 15).
- The extension makes his request, quotes his extension number, and then hangs up.

### **IF AN EXCHANGE LINE IS REQUIRED:**

- PRESS T, to check on busy lines.  
Lamp GL1 and all busy extensions will glow.
- PRESS KEY of FREE LINE.  
Red lamp will flicker.  
Listen for Dial Tone.  
CALL the EXTENSION.  
On Answer, PRESS KEY X.

### **IF AN EXCHANGE NUMBER IS REQUIRED:**

- PRESS KEY T, to check busy lines.  
Lamp GL1 and all busy extensions will glow.
- PRESS KEY of FREE LINE.  
Red lamp will flicker.  
Listen for Dial Tone.  
DIAL the WANTED NUMBER.  
Call the EXTENSION.  
On answer, PRESS KEY X.

# Fully Barred Extensions (cannot be connected to exchange lines)

## 18 Operator calls to a fully barred extension

- PRESS KEY O. Lamp SO will glow.
- DIAL the REQUIRED EXTENSION (EB will glow).
- CLEAR by PRESSING R, then C while R IS DEPRESSED.

## 19 Operator called by a fully barred extension

The call will cause lamps GC and CO (call operator) to glow and the bell to ring.

- PRESS KEY O to answer. Lamp SO glows. CO goes out. (If call is from a barred extension, EB will glow).
- CLEAR by PRESSING R, then C while R IS DEPRESSED.

# Trunk Monitoring

## 20 How to trunk monitor

If booking a trunk call with the Post Office operator and you are requested to wait while the distant party is obtained:

- PRESS KEY TM (trunk monitoring). This permits other calls to be attended, but supervisory access across the trunk booking line is maintained. The white and red exchange line lamps will FLICKER. When you answer another call, the call on Trunk Monitor will show glowing red and flickering white lamps. When the Post Office operator is ready, return to the monitored call by PRESSING the APPROPRIATE EXCHANGE LINE KEY. The white lamp will go out, and the red lamp will flicker. If a call is parked on trunk monitor for more than 60 seconds, you get a recall as the flickering white light changes to a steady glow.



# Night Switching

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There are two kinds of night switching generally available, and also an automatic night switching or transfer arrangement which operates at other times the switchboard is not attended.

## 21 N1 night switching

- PRESS N1. Lamp N1 will glow. Incoming calls will be routed to pre-determined extension telephones.

## 22 N2 night switching

- PRESS N2. Lamp N2 will glow. Incoming calls will be routed to common bells and any extension may answer, by dialling the digit for outgoing calls.

## 23 Automatic transfer

If no other calls are being handled and an incoming call is not answered within 30 seconds, N1 or N2 will glow and, if still unanswered, the switchboard will be automatically night-switched.

- Restore by PRESSING C.

# Miscellaneous

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## 24 Alarms

- Lamp AF – Alarm – Urgent – Report to Service Difficulties and Faults.
- Lamp AM – Alarm – Non-urgent – Report to Service Difficulties and Faults.
- Lamp TP – Dim Glowing Lamp – Indicates circuit held by one party only for a given time (Handset not replaced).

## 25 Extension test

After reporting a faulty extension, a technician may ring and ask to be extended to extension for testing purposes.

- CALL EXTENSION, PRESS KEY X, then PRESS KEY ET. Technician will advise when to RELEASE RED KEY.

# Instructions for Extension Users

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## 26 For successful calls

- Ascertain the wanted number before lifting handset.
- On hearing dial tone, commence dialling immediately.
- Dial carefully and do not pause during dialling.

## 27 How to make an internal call

- Lift handset.
- On receipt of dial tone, dial the wanted extension number.

# Instructions for Extension Users

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## 28 How to make an outgoing exchange line call

Lift handset.

On receipt of dial tone, dial 0, wait for a second dial tone, then dial the wanted number.

## 29 Break between calls

After completing a call, replace the handset for at least three seconds before making another call.

## 30 Transferring an incoming or outgoing exchange line call

- (1) To an extension: Advise caller of your intention, dial "1", on receipt of dial tone, dial required extension number, explain the circumstances, then hang up. The call will be transferred automatically. If the called extension is engaged, dial "1" to recover the call.
- (2) To the operator: Dial "9", explain the circumstances to the operator, then hang up.

## 31 Enquiry calls

You may obtain information from another extension or an outside number during the progress of an incoming exchange line call. Dial 1, obtain dial tone, then dial the wanted extension, or dial "0" followed by the wanted exchange number.

To return to the original call from an extension, dial "1". To return to the original call from an outside exchange number, replace the handset for the call to automatically return.

## 32 Calls to the operator

Lift handset, obtain dial tone, then dial "9".

# Instructions for Extension Users

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## 33 Trunk offering

The operator can interrupt a call to advise that an urgent call is waiting. A warning tone will be heard. To accept the call, conclude the conversation as quickly as practicable, replace the handset and wait for the telephone to ring.

## 34 Night service

Night switching may:

- a Connect all incoming exchange line calls to one extension.
- OR b Connect individual exchange lines to individual extensions.
- OR c Operate an alarm system when an incoming call is received. The call may be answered from any extension by dialling "O".

## Assistance

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### 5 Post Office assistance

The Post Office has skilled staff who will be pleased to assist you in matters relating to the operation of your switchboard.

Telephone or write to the Service Advisory Section, Telecommunications Division, G.P.O., or your local District Telephone Manager.

### A final thought

Much of the modern business is handled by telephone and the first voice to be heard by callers is that of the switchboard operator. Therefore, much depends on the operator as to the opinion callers gain of the firm or organization.

In practice, telephone manners and techniques reflect not only the operator's personality . . . but also the firm's standard of courtesy, efficiency and service.

REMEMBER . . . satisfied clients are good business.