London 8

Programming
Manual

London 8

Programming Manual

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1.   Introduction

The London 8 is a very adaptable system, both in terms of the possible combinations of exchange lines and extensions and in the ways it can be set up to operate.

The installer of your London 8 will have programmed it according to your requirements at the time of installation. However, your needs may change from time to time, in which case you may wish to reprogram your system.

Read the relevant section(s) of this manual carefully before you use any programming codes. If you are in any doubt about how to program the system as you wish, consult your approved maintainer.

Note   Section 12 of this manual is headed "HOST/SUBSIDIARY WORKING". Your London 8 may be connected to another phone system, either as a subsidiary to a larger system or as a host to another London 8. If so, you will be fully briefed by the installer. MOST LONDON 8 USERS CAN IGNORE ANY REFERENCE TO HOST/SUBSIDIARY WORKING IN THIS MANUAL.

1.1.   London 8 Installation and Configuration Record

The system installer will have completed the Installation and Configuration Record at the back of this System Manual for your London 8.

It is important that this document is kept in a safe place and updated whenever the system configuration is altered in any way.

Certain items defining the system configuration can be set or modified only by the installer or approved maintainer of your system. These are:

❑ The number of exchange lines connected to your London 8: 0, 1, 2, 3 or 4

❑ The phone numbers of each line: as defined in the configuration record.

❑ The number of extensions: 2, 3, 4, 5, 6, 7 or 8

❑ The type of signalling (MF or loop disconnect) on each outside line. This depends on the type of signalling used on your local public exchange.

❑ The master programming phone from which most of the codes in this manual must be dialled; (see below) — normally extension 21, unless you require otherwise.

❑ Whether your London 8 is connected to another phone system, either as a subsidiary to a larger system or as a host to another London 8 (see note above).

If you have special requirements in relation to any of the above facilities then you should ask your installer to configure the system accordingly.

2.   The master extension

Most of the programming codes listed in this manual can be dialled only from the *master extension*. This will be extension **21**, although you can change it as described below. In everyday use, the master extension is no different to any normal extension; however, it has some additional capabilities which you might not wish to be used by every extension.

After dialling any of the codes listed in this manual you should hear *internal dial* tone. This tells you that the London 8 has accepted the programming instructions you have just dialled in.

To make a different extension, xx, the master extension, dial:

☞ **1966 xx**

Extension xx is now the master extension; 21 is a non-master extension.

If, after dialling any programming code, you hear *Number Unobtainable* tone (continuous high pitch), this means either:

(a) You have misdialled the code. In this case, hang up the phone, check the code and then try again.

(b) You are not dialling the programming code from the master extension.

(c) A password has been set to prevent unauthorised personnel from reprogramming the system (see below).

2.1. Password for master extension

If you wish to prevent unauthorised users from reprogramming the London 8 system, you may set a password. Dial on the master extension:

☞ **1999 PPPP**

where PPPP is any four-digit number you wish.

Then, whenever you wish to use any programming codes, you should first dial on the master extension:

☞ **1300 PPPP**

Anyone attempting to dial programming codes on the master extension without first keying in the password will hear *Number Unobtainable* tone.

When you have finished programming the system, to bring the password protection back into effect, dial:

☞ **170**

If you forget to dial 170 after you finish programming, the London 8 will wait until no programming code has been dialled for 20 minutes. It will then automatically bring password protection back into effect.

You can cancel the password facility at any time, by setting a password of 0000. Dial on the master extension:

☞ **1999 0000**

(Obviously, you will need to know the existing password in order to use the master extension to cancel it!)

Once the password has been cancelled, anyone using the master extension can program the London 8.

Note   Once you have set a programming password it is important that you remember it. If you forget your password a maintainer will have to visit you to reset the system.

3.   Configuration printouts

If you have a printer attached to the call logging port of your London 8 you can at any time examine the way the system is currently programmed. Dial on the master extension:

☞ **1951**

Information will be printed out as detailed below. It is advisable to check this printout first whenever you do any reprogramming.

The meaning of the terms used in this section will become clear to you as you read through subsequent sections.

Note that if call logging is switched on (see page 12), the London 8 will continue to log calls during the time that the configuration is being printed out. Details of any calls made or received in this period will then be printed out after the configuration information.

Outside line group selection

For programming purposes, groups of outside lines on the London 8 can be defined using a single digit, the *group selection*, abbreviated in this manual to G.

Values of G are as follows:

G	Outside lines	G	Outside lines
0	No outside lines	5	Lines 1 and 2
1	Line 1 only	6	Lines 3 and 4
2	Line 2 only	7	All outside lines
3	Line 3 only	8	Lines 1, 2 and 3
4	Line 4 only	9	Lines 2, 3 and 4

Thus, for example, where a **7** appears in the DIAL column of the configuration printout as shown below, this indicates that the extension in question can dial out on any of the outside lines connected to the London 8. A **5** in the DIAL column would indicate that the extension could dial out on lines 1 and 2 only.

For convenience, the table is repeated at intervals through this manual.

Format of configuration printout

(Entries in the table show the standard shipping configuration; i.e. the way the London 8 is set when it is delivered and first installed.)

```
Software version: L8xx_C_xxxx

Number of extensions

Number of exchange lines

Time and date      — hh:mm:ss on DDD dd mm yy

Day/night mode     — Whether the system is currently in
                     night mode
```

Extension programming configuration

Ext	Ring	Dial	Answer	Bar	Hunt	Divert	Attrib
21	7/7	7	7	0/0	0	none	M S
22	7/7	7	7	0/0	0	none	S
23	0/0	7	7	0/0	0	none	S
24	0/0	7	7	0/0	0	none	S
25	0/0	7	7	0/0	0	none	S
26	0/0	7	7	0/0	0	none	S

Ring: Outside line group for which this extension is a reception phone (i.e. it will ring for incoming calls) in day/night mode

Dial   Outside line group on which this extension may make outgoing calls

Answer   Outside line group on which this extension can remotely answer incoming calls using the code '61' (see the _User Guide_ for details of this facility)

Bar   Call barring level for this extension in day/night mode:
- 0   All outgoing calls allowed
- 1   International calls not allowed
- 2   International + long distance calls not   allowed
- 3   Emergency calls only (999 in UK) allowed

Hunt   Hunting group (1 to 4) that this extension is in —
- 0   no hunting group

Divert   Extension number to which calls for this extension are diverted (if diversion has been set)

Attribute   M   master extension
         R   Remote answering of/diversion from this extension is barred
         I   Call interruption is barred for this extension
         S   Unanswered call (40-second) ringing is ON
         D   Use of 602G code is disabled for this extension

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Outside line (trunk) programming configuration

```
--------------------------------------------------------------
: Trunk  Type    Access Recall Day     Night                  :
: ============================================================
: ●1     MF      direct none   normalnormal                  :
: 02     MF      direct none   normalnormal                  :
:                                                             :
L--------------------------------------------------------------J
```

See the sections on *Host/Subsidiary Working* and *Automatic Call Distribution* for explanations of the terms used. For example:

Type   LD (loop disconnect) or MF

Access   The host's PSTN access code, if the London 8 is operating in subsidiary working mode. 'direct' indicates that the trunk has direct access to the PSTN; "0" indicates that the trunk is connected to a host system but has no access to the PSTN.

Recall   TBR (timed break recall), or 'none'.

Day and Night   Incoming call answering modes:
DSA   (direct station access from host PBX);
SEQ   (sequential call distribution);
UCD   (uniform call distribution);
normal   (no call distribution).

4.   Day/night modes

You can program the London 8 to have a different set of functions in operation at different times of the day (for example, different reception phones, or different levels of call barring). These are referred to as *day and night modes,* although you can switch between the two at any time. The London 8 can also be programmed to switch automatically between day and night modes at the same times each day.

To set the start of day mode, dial on the master extension:

☞ **1920 hhmm**

To set the start of night mode, dial:

☞ **1921 hhmm**

Where hhmm is the time in 24-hour format.

For example: dialling 19200830 and 19211730 will set the system to switch into day mode at 8.30 a.m. and into night mode at 5.30 p.m.

To cancel the automatic switching, set a "time" of 0000 by dialling:

☞ **19200000**   (day mode)

☞ **19210000**   (night mode)

To switch between day and night mode at any time, whether automatic switching is set or not, dial on any reception phone:

☞ **600**   set day mode

☞ **601**   set night mode

This does not override the automatic switching, if set.

5.   Time and date

The London 8 has a built in clock and day/month/year calendar. Once the time and date have been set at installation, they need to be reset only: (i) on 1 March during a leap year; (ii) for British Summertime – in the UK only; and (iii) after a mains power failure, once power has been restored. It is particularly important that you remember to do this if you have a call logging printer attached to the system, or if you make use of the alarm call facility.

To set the time, dial on the master extension:

☞ **1961 hhmm**

Where hhmm is the time in 24-hour format.

For example: 196102032.03 a.m.
19611639 4.39 p.m.
196100001 2.00 (midnight)

The time will be set and the seconds counter zeroed when you have finished dialling the last digit of the code. You will hear dial tone.

The date is set by three different codes.

To set the year, dial:

☞ **1960 yy**

(where 19yy is the current year)

To set the day and month, dial:

☞ **1962 dd mm**

To set the day of the week, dial:

☞ **1963 D**

(D = 1 for Monday, up to D = 7 for Sunday)

For example:	
196089 1989	19620912 . . . . .9 December
19623004 . . . 30 April	19620101 . . . . .1 January

After dialling these codes, you should hear *Dial* tone. If you hear **Number Unobtainable** tone, this indicates that you have mis-dialled the code or that the time/date is invalid. Hang up the phone, check the code and then try again.

6. Call logging and costing

6.1. The call logging printout

If you have a printer attached to the call logging port of your London 8, you can obtain a printout giving details of all external calls made or received.

(Note: If your system has been installed without a printer, and you subsequently decide to fit one; or if you change to a different model of printer — refer to Table 1 of the Installation Manual for details of how to adjust the baud rate if necessary.)

You can switch the call logging facility off or on from the master extension at any time, by dialling:

☞ **19650**   Call logging off

☞ **19651**   Call logging on

When the London 8 is first switched on, call logging will be *on.*

As each external call (outgoing or incoming) is completed, the following information is printed out, in column form from left to right :

1. Date of call   (Day of week, day, month, year)

2. Finish time (Hours : minutes : seconds — 24-hour clock)

3. Outside line number (01 to 04)

4. For outgoing calls:
    First 18 digits of outside number dialled

5. For incoming calls on exchange lines:
    INCOMING mm:ss   or
    UNANSWERED mm:ss

where mm:ss is the time for which the call was ringing before it was answered or the caller rang off, in minutes and seconds.

6. For other incoming calls (subsidiary working systems only): DIRECT ACCESS for direct dialled call from host PBX

7. Charge account code if entered (see the London 8 User Guide); if not, '——'.

8. Length of time off hook (hours : minutes : seconds)

9. Number of meter pulses used (if meter pulse detection is installed, three digits; if not, '—')

10. Cost of call in pounds and pence (if meter pulse detection is installed). For currencies other than Sterling, refer to notes supplied with software variant.

11. If the call was not on a public exchange line, in place of items (9) and (10): HOST PBX for a call to an extension on the host from a subsidiary system

12. Number of the extension involved when the call finished (21 to 27)

11. Number of the extension that originally made or received the call (if different from above; if not, '—')

Some examples of output from the call logging port are given overleaf

```
DATE           TIME        TK NUMBER DIALLED     ACCT  DURATION MET COST      EXT OPR

Exchange line calls:

THU 07 FEB 91 10:05:17  2  027663411          10000 00:02:17 002 000.10  22  --
THU 07 FEB 91 10:22:54  1  0715382211         10001 00:14:04 004 000.20  25  --
THU 07 FEB 91 10:35:16  1  INCOMING     00:12 ----- 00:05:32 000 000.00  23  21
THU 07 FEB 91 10:42:25  1  UNANSWERED   01:53 ----- 00:00:00 000 000.00  -   --

Call to host PABX extension via outside line:

THU 07 FEB 91 10:55:06  3  423                20000 00:08:21 000 000.00  22  --

Incoming call from host PABX using direct dialling:

THU 07 FEB 91  11:08:32 3  DIRECT ACCESS      ----- 00:02:08 000 000.00  21  --
```

Notes ❑ The header line is printed twice daily, at midday and midnight, as well as after dialling 1951 (to print out the programming configuration), 1952 or 1953 (to print out the contents of memories) or 1934 (to print out meter totals).

❑ As well as the header lines, blank lines and lines of diagnostic output may be mixed with the call logging information. For call logging purposes, use only lines beginning with a day (MON to SUN).

6.2. Meter pulse detection

Up to four exchange line cards can be installed in the London 8 (see the *Installation Manual*). As an option, exchange line cards incorporating a meter pulse detection facility are available. The card will detect and count meter pulses (if they are present) on the exchange line.

Meter pulse detection enables you to determine the exact cost of outgoing exchange line calls from the London 8. The number of meter pulses detected, i.e. the number of charge units used on a call, is shown for each call as part of the call logging information (see above).

You can find out the cost of each meter unit from the PTT; in the UK, this is British Telecom. This information should be programmed into the London 8 if you wish to know the cost of your outgoing calls. If for any reason you wish to charge other people for the use of your phones (for example, in a guest house), you may program in whatever cost per unit you choose.

To program in the cost of a meter unit, dial on the master extension:

☞ **1935 pppp**

where pppp is the cost of a meter unit in one-hundredths of a penny. For currencies other than Sterling, refer to the notes supplied with the software variant.

For example:
1935 0540 sets 5.40 p per meter unit
1935 9999 sets 99.99 p per meter unit

When the London 8 is first switched on, the cost per meter unit is set to zero. If there a mains power failure, the unit cost is held by the system's internal battery back-up.

The system's memory keeps a running total of units used, and the associated cost for each extension and exchange line. Each store can be individually reset to zero.

You can obtain a printout of the total meter pulse count (0000 to 9999), and the total cost in pounds (£0000.00 to £9999.99), for each extension and exchange line.

To get a printout, dial:

☞ **1934**

To reset a meter store to zero, dial:

☞ **1936 XX**

or

☞ **1937 N**

(Extension number, XX, is 21 to 27; exchange line number, N, is 1 to 4.)

To clear all meter totals at once, dial:

☞ **1933 0000**

7.   Central dialling memories

The London 8 has 40 central dialling memories, numbered 30 to 69, shared between all the extensions. These can be dialled using short codes (see below and the *User Guide*). You may use these for storing numbers likely to be used by more than one extension. Each extension also has five personal memories, which are programmed from the extension phone.

Numbers stored in memories 50 to 69 are subject to the call barring restrictions placed on any extension attempting to dial an outside call. For example, if an international number is stored in one of these memories, any extension barred from making international calls will hear *Number Unobtainable* if they dial the short code.

Memories 30 to 49 can be used by all extensions regardless of any call barring. For example, you may have barred some extensions from making international calls, but want them to be able to dial your overseas sales office. Store the number in one of these memories, and all extensions can dial it using the short code.

The central memories are programmed from the master extension.

To store a number in central memory, dial:

☞ **603 MM outside number**

where MM is the 2-digit number of an unused memory in the range 30 to 69. The outside number may be up to 18 digits long.

Wait until the phone has finished pulsing out the number (if pulse dialling is being used; if you have an MF phone, just wait a few moments) and then put the phone down to store the number.

Any number previously stored in that memory will be overwritten.

To dial an outside number from a central memory on any extension phone: Dial **5**, wait for public dial tone, then dial the 2-digit code from the memory (30 to 69).

Overdialling

You may store the first part of a number in memory, so that after dialling the short code the user can then add the rest of the number. This is useful if you make a lot of calls to the same city or overseas country; you may store the dialling code for that place in memory and users can dial the individual number having dialled the code from memory.

> For example, if 071-263 is stored in memory number 33, to make a call to 071-263 0201, the user dials 5 ... 330201.

Remember to store any part numbers in memories 50 to 69 if you wish them to be subject to call barring.

Printing out the memory contents

If you have a printer attached to the call logging port of your London 8, you can obtain a printout of all the numbers stored in the central memories.

Dial on the master extension:

☞ **1952**

To list the numbers stored in the personal memory of an extension, XX, dial:

☞ **1955 XX**

If there is a mains power failure, all stored numbers will be retained in the system memory.

8. Individual extensions

Using the master extension, you can set certain functions individually for each extension. Many of these functions are independently programmable for day and night mode.

❑ Hunting group membership

❑ Outside call barring: which types of call the extension is permitted to make, in day and night mode

❑ Which outside lines are available to the extension for making outgoing calls

❑ Which outside lines cause the extension to ring for incoming calls, in day and night mode

❑ Which outside lines can be remotely answered (using "61") by the extension

❑ Call privacy — protection from call intrusion, remote call answering and remote call diversion

❑ Local ringing control: whether the extension is able to make itself a reception phone

8.1. Setting the range of extensions to be programmed

Before dialling any of the programming codes for setting the facilities listed above, you must indicate to the London 8 which extensions you wish to program. To do this, you must set a *range*.

To set the range of extensions to be programmed, dial:

☞ **18 XX YY**

where xx is the lowest numbered extension in the range and YY is the highest numbered.

For example:	
182527	extensions 25 to 27
182226	extensions 22 to 26
182424	extension 24 only

➤ If you wish to program only one extension, you must enter its number twice, since it is both first and last in the range.

The extension programming codes that you subsequently dial will then apply to this range of extensions only, until you set a new range. The properties of any extensions outside the current range will not be affected.

DO NOT FORGET TO SET THE EXTENSION RANGE BEFORE YOU ENTER EXTENSION PROGRAMMING CODES.

8.2 Hunting groups

Hunting groups are useful if your company is divided into departments, and any extension in a particular department is equally able to take a call. For example, there may be three extensions in Sales; a caller asking for Sales could be dealt with by any of these. So one hunting group number could be used to dial all three extensions.

You can have up to four hunting groups on the London 8; these are numbered 1 to 4, and are accessed by dialling 31 to 34.

When a hunting group has been programmed, then dialling the directory number of the group (31 to 34) will ring the first free extension in the group. The exchange will hunt cyclically for a free telephone, starting from the one used the last time the group was dialled. This ensures that calls are distributed evenly around the group. Individual extensions within the hunting group can, of course, still be dialled using their extension numbers.

Another advantage of hunting groups is the use of the "62" remote answering code (see the *User Guide* for details). If an extension phone is ringing unanswered for an internal call, another extension in the same hunting group can pick up the call by simply dialling 62. For this reason, it is often convenient to put extensions in the same room into a hunting group.

To put all the extensions in a programming range into a hunting group, dial:

☞ **1978 H**

Where H *is the hunting group number (1 to 4).*

To remove all extensions in the current programming range from any hunting group they are in, dial:

☞ **1978 0**

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8.3. Call barring

Each extension can be programmed to be allowed one of four
levels of outside call service for day/night mode. If the
extension user attempts to dial a number they are barred from
calling, they will hear *Number Unobtainable* tone.

To set call barring, dial:

☞ **1974 B**   day mode barring

☞ **1977 B**   night mode barring

Values of B:

0   Allow all calls

1   Allow no international calls (numbers beginning with 010
or 000, or international operators)

2   Allow no international or long distance calls (numbers
beginning with 0 or operator services – 100 to 109 or
15x); i.e. local calls only

3   Allow no outgoing calls except emergency (999) calls

(Dialling codes given above are for UK; they may differ in
other markets.)

> For example: To allow long distance calls on extensions 25, 26 and 27 in
> day mode and local calls only in night mode, dial:
>   18 25 27
>   1974 1
>   1977 2

The London 8 is normally installed with all extensions
permitted to make any type of call (level 0).

The call barring status of each extension is shown in the Bar
column of the configuration printout (see page 6), as a value
of B.

8.4. Ringing

Each extension may be programmed to ring for incoming calls on certain outside lines. The outside lines are defined by the *group selection value*, G. Values of G are as follows:

G	Outside lines	G	Outside lines
0	No outside lines	5	Lines 1 and 2
1	Line 1 only	6	Lines 3 and 4
2	Line 2 only	7	All outside lines
3	Line 3 only	8	Lines 1, 2 and 3
4	Line 4 only	9	Lines 2, 3 and 4

To set extensions in the current programming range to ring for incoming calls, dial:

☞ **1972 G**   day mode ringing

☞ **1973 G**   night mode ringing

> For example: 1972 7 - daytime ringing for all lines
> 1973 9 - nighttime ringing for lines 2, 3 and 4
> 1972 0 - no ringing at all during day time
>
> To set extension 26 to be an additional reception phone in night mode (for all lines), dial: 18 26 26   1973 7

The London 8 is normally installed with extensions 21 and 22 as reception phones which will ring for all lines during both day and night operation, while the other extensions do not ring in either mode.

The lines for which each extension can be made to ring are shown in the Ring column of the configuration printout, as a value of G. Note that the same lines should also be shown in the Answer column (see page 6).

8.5. Local ringing control

Extensions are able to make themselves reception phones for
any of the lines which they are permitted to answer remotely
(as listed in the Answer column of the configuration printout;
see page 6). This is referred to as *local ringing control*. To do
this, the user dials, on his or her extension phone, **602G**
(where G is the group selection value).

Reception phone facilities are described in more detail in
Section 6; briefly, they can answer incoming calls directly,
switch between day and night modes and intrude on other
calls.

You can control from the master extension which extensions
have the ability to use the 602G code, as follows:

☞ **19461**   disable use of 602G

☞ **19460**   enable use of 602G

. . . by all extensions in the current programming range.

Extensions which have been disabled from using the 602G
code will hear *Number Unobtainable* if they dial it.

Extensions with local ringing control disabled are indicated in
the configuration printout by a D in the Attrib column.

The London 8 is normally installed with all extensions
permitted to make themselves reception phones for all outside
lines.

8.6. Outgoing line restrictions

You can program which outside lines (as defined by the group selection, G, value) are available to each extension for making outgoing calls.

Whenever the user dials **9, 5** or **8N** to get an outside line, only those lines belonging to the group you have specified can be used to make the outgoing call. If none of these lines are available, the extension user will hear *Busy* tone.

To program which outside lines can be used for outgoing calls by extensions in the current programming range, dial:

☞ **1975 G**

> For example: 1975 7   can dial out on any line
> 1975 5   can dial out on lines 1 and 2 only
> 1975 6   can dial out on lines 3 and 4 only
>
> To program extensions 21 to 23 to make outgoing calls on lines 1 and 2 only and extension 24 to make outgoing calls on all lines, dial:
> 18 21 23
> 1975 5
> 18 24 24
> 1975 7

The lines on which each extension can dial out are shown in the Dial column of the configuration printout (see page 6), as a value of G.

The London 8 is normally installed with all extensions allowed to dial out on all outside lines.

8.7. Incoming call answering using "61"

Incoming calls can normally be remotely answered (picked up) from non-ringing extension phones using the code "61"' (see the *User Guide* for more detail). You can control which outside lines (defined by the group selection, G, value) can be remotely answered by each extension in the current programming range.

Dial:

☞ **1976 G**

For example:	1976 7	can remotely answer calls on any line
	1976 6	can remotely answer calls on outside lines 3 and 4 only
	1976 0	cannot remotely answer calls on any line

The lines which may be remotely answered by each extension (and hence the lines for which that extension may be made a reception phone) are shown in the ANSWER column of the configuration printout, as a value of G.

The London 8 is normally installed with all extensions able to answer calls remotely on any line using '61'.

8.8. Remote call answering protection

By setting this attribute, you can prevent internal calls to an extension from being intercepted by another extension using any of the remote answering or diversion codes (see the *User Guide* for full details of these codes):

62   . . . Remote answer within hunting group
65xx   . . Remote answer
694xx . . Remote diversion *("follow me")*
695xx . . Cancel remote diversion

This may be useful for security reasons, if calls to a particular extension are especially confidential.

To set or clear the remote call answering/diversion protection attribute for all extensions in the current programming range, dial:

☞ **19430**   Allow remote call answering/diversion

☞ **19431**   Prohibit remote call answering/diversion

Extensions which have remote answering/diversion protection set are indicated by R in the Attrib column of the configuration printout (see page 6).

The London 8 is normally installed with remote answering and diversion permitted for all extensions.

8.9. Call intrusion protection

By setting this attribute, you can protect calls in progress on an extension from intrusion by a reception phone (see the section on Reception Phones in the *User Guide* for full details). If a reception phone dials 66 in an attempt to interrupt a call on a protected extension, they will continue to hear *Busy* tone. This may be useful for security reasons, if your calls on a particular extension are especially confidential or important and therefore not to be interrupted.

To clear or set the 'intrusion protection' attribute for all extensions in the current programming range, dial:

☞ **19440**   Allow call intrusion

☞ **19441**   Prohibit call intrusion

Extensions which have call intrusion protection set are indicated by I in the Attrib column of the configuration printout.

The London 8 is normally installed with call intrusion permitted on all extensions.

9.   Reception phones

9.1.   Setting reception phones

An extension can be made to ring for incoming calls on
selected outside lines by dialling from the extension itself:

☞ **602 G**

if the extension has local ringing control enabled (see page 24).
This will make the extension a reception phone for the lines
defined by the G value, for whichever mode the London 8 is
currently in (day or night) only. Values of G are as follows:

G	Outside lines	G	Outside lines
0	No outside lines	5	Lines 1 and 2
1	Line 1 only	6	Lines 3 and 4
2	Line 2 only	7	All outside lines
3	Line 3 only	8	Lines 1, 2 and 3
4	Line 4 only	9	Lines 2, 3 and 4

For example: Dialling 6027 on extension 24 when the system is in night
mode, will result in extension 24 ringing when there is an incoming call on
any outside line, whenever the system is in night mode.

To cancel the reception phone facility, dial on the extension
concerned:

☞ **6020**

This may be useful, for example, if your receptionist is
temporarily absent or especially busy, and you wish to take
incoming calls on another extension.

This facility is available to every extension on the London 8 (unless they have been disabled by the master extension using **19460**); however, it is not described on the extension user card for security reasons. This means that you can control which extensions know how to make themselves reception phones.

Note: If an extension has been restricted from remotely answering certain lines using "61" (see page 24), the same restriction will apply when that extension is made a reception phone; so it will ring only for those lines that it is allowed to answer.

> For example: If extension 23 has been set by dialling 19761, then dialling 6027 on extension 23 will make it a reception phone for line 1 only.

If you have a printer attached to the call logging port of your London 8, you can check this by dialling **1951** to obtain a configuration printout and referring to the ANSWER column.

9.2. Call diversion

Call diversion, which is described in the *User Guide*, applies both to incoming trunk calls on reception phones and to internal calls.

Note that if extension A has been diverted to extension B, then B will get calls for both extensions; i.e. it will ring for calls on any incoming line group for which either extension is a reception phone. Dialling 6020 on extension B will not stop it ringing for incoming calls to extension A; this is done by dialling 6020 on extension A, or by cancelling the diversion.

> For example: Suppose that extension 25 on a three-line system has dialled 6027, making it a reception phone for all lines; and extension 23 has dialled 6022, making it a reception phone for line 2 only. Extension 25 diverts its calls to extension 23 by dialling 60423.
> Calls on lines 1, 2 and 3 will then ring on extension 23. If extension 23 does not wish to be a reception phone for lines 1 and 3, the user should either dial 6020 on extension 25 or cancel the diversion by dialling 69525.

9.3. Unanswered call ringing

By default, all extensions ring for incoming calls which are not answered within 40 seconds. This 40-second ringing can be turned off for an extension by dialling on that extension:

☞ **69900**

To turn 40-second ringing on again, dial on the extension:

☞ **69901**

Extensions with 40-second ringing turned on are indicated in the configuration printout by an s in the ATTRIBUTE column.

Note   There must be at least one ringing phone for every two exchange lines on the London 8. If by dialling 69900 you would take the system below this, then you will hear *Number Unobtainable* instead of the usual dial tone.

10. Distributed call answering

Incoming calls on outside lines (trunks)* can be answered in one of three different *answering modes,* which are explained below. Different incoming modes can be set for each line in day mode and night mode.

(* If trunks are not in direct dialling in mode; this applies only when the London 8 is connected to a host system.)

To set incoming answer modes, dial:

☞ **175 6 N m**   daytime mode m for line N

☞ **175 7 N m**   night-time mode m for line N

where m is the incoming mode number — 0, 1 or 2 — as follows:

Mode 0 – no call distribution

All extensions which have been set as reception phones for line N ring simultaneously when there is an incoming call on that line.

Mode 1 – sequential hunting

Incoming calls on line N will ring first on the lowest numbered free extension which has been set as a reception phone for that line.

For example: if extensions 21, 22 and 25 have been set to ring for incoming calls on all lines (G = 7), then an incoming call will ring first on extension 21. When a second call comes in (and extension 21 is busy), this call will ring on extension 22. If both extensions 21 and 22 are busy, then it will ring on extension 25.

If the call has rung for a (programmable) period on extension 21 and not been answered, then extension 22 will start ringing. If after the same period extension 22 has not been answered either, extension 25 will start to ring.

The default timeout for ringing each new phone is 15 seconds.

To reset the timeout, dial:

☞ **175 8 ss**

where ss is the.timeout period in seconds (01 to 39).

If none of the reception phones are free, then the first one to become free will get the call.

In all cases, if the call remains unanswered for 40 seconds, secondary ringing applies, i.e. all phones which have not been disabled using the code **69900** will ring.

Mode 2 – uniform call distribution

This is similar to sequential mode, except that the hunting starts from the reception phone after the one that last received a call.

In the example above, if extension 22 had received the last incoming call, then the next call would ring first on extension 25.

The configuration printout shows the incoming call answering mode in day and night mode for all trunk lines: 'normal' for mode 0; "SEQ" for mode 1; and "UCD" for mode 2.

When the London 8 is first installed, extensions 21 and 22 are reception phones for all trunks in both day and night mode, with no call distribution set (mode 0).

11. Optional extras

In the cabinet of your London 8 is a slot for the connection of a number of different types of plug-in options cards.

Please note that the availability of these options in the UK is, at time of going to press, dependent on certain approvals processes. The codes and facilities as described here may be subject to change.

See the *Installation Manual* for full details of how these cards, and associated devices, are connected. Options include:

11.1. Intruder alert alarm

If you have an alarm connected to your London 8, to set it to detect intruders, first ensure that it is in the idle state (refer to the documentation supplied with the alarm itself).

To set the alarm, dial on the master extension:

☞ **19221**

If the alarm is triggered by an intruder, all phones on the system will ring with a distinctive triple cadence.

This ringing will continue until a phone is taken off hook. If the correct code is not dialled on this phone, the rest of the phones on the system will continue to ring for the period set as the alarm call timeout*.

After the alarm has been triggered and ringing has stopped, it will not be triggered again until you have reset it by dialling 19221 on the master extension.

(* By default, 2 minutes; the *Installation Manual* gives details of how to alter this.)

To disable (inactivate) the alarm, dial:

☞ **19220**

This code will not inactivate the alarm once it has been triggered; the only way to stop the phones ringing is to pick them up individually.

If you have a call logging printer attached to your London 8, and call logging is switched on, details of alarm activity will appear in the call logging printout as in the following example:

```
WED 06 FEB 91 17:30:05  ALARM ENABLED
THU 07 FEB 91 08:30:03  ALARM DISABLED
THU 07 FEB 91 17:30:50  ALARM ENABLED
FRI 08 FEB 91 00:45:30  ALARM TRIGGERED
```

Note that this is not a true burglar alarm, since if mains power fails or is disconnected, it will not operate. However, if there is a mains power failure, programming information (i.e. whether or not the alarm is set) will be retained in the London 8's memory by battery back-up.

11.2. Music on hold

If this option is fitted and switched on, any callers who are put on hold or park will hear electronically synthesised music. For a demonstration of how this sounds, you can dial **201** on any phone.

To switch on music on hold, dial from a master extension:

☞ **19641**

To switch off, dial:

☞ **19640**

Note that if a caller is camped on to a ringing or busy extension (see the *User Guide*), they will hear *Busy* or *Ringing*

tone until the extension becomes free or is answered, whether music on hold is switched on or not.

11.3. Door latch control

With this option fitted, you can lock and unlock your door from the master extension. This may be used, for example, as a security intercom.

To lock and unlock the door, dial:

☞ **19231**   drives pin HIGH

☞ **19230**   drives pin LOW

Refer to the instructions supplied with the door latch device as to which position means locked and which means unlocked.

Note: If you have placed an extension phone near the door for use as a security intercom, you may wish to bar all external calls from this extension. Refer to page 22 for programming codes.

12. Host/subsidiary working

The outside line ports on the London 8 may each be connected either to the PSTN or to a host PBX system. This is determined at installation, and should be indicated to the London 8 as detailed below. The London 8 may also act as host to another London system, usually another London 8.

IF YOUR LONDON 8 IS NOT INSTALLED IN HOST/SUBSIDIARY WORKING MODE, YOU MAY IGNORE THIS SECTION COMPLETELY.

12.1. London 8 as subsidiary

Programming PSTN access codes

When programming, you need to indicate to the London 8 system if a line is connected to a host and, if so, what the host's PSTN access code is. The default is a direct PSTN line.

☞ **1750 N**   outside line port N is a direct PSTN line

☞ **1751 N D**   outside line port N is connected to a host, with PSTN access code digit D

☞ **1752 N D D**   outside line port N is connected to a host, with PSTN access code digits DD

☞ **1753 N**   outside line port N is connected to a host, but without access to PSTN allowed

If the host is another London system, D is 9. If the host is not a London system, the PSTN access code (D or DD) should be obtained from the documentation supplied with the host system.

When a user of the London 8 dials 9 or 5 to access an outside line, if the line is a direct PSTN line, the user hears public dial tone and then dials the required outside number. If the line is connected to a host, the host's PSTN access code (DD) is automatically dialled 1 second after seizing the host extension line; speech is not connected until this access code has been dialled. The user will then hear public dial tone and can dial as normal.

For call barring and call logging purposes, the one- or two-digit host PSTN access code is ignored.

Where some of the outside lines are connected to a host and some are directly connected to the PSTN, it is advisable to set those lines going to the host as having no access to the PSTN. This means that all PSTN calls made from the London 8 will be on direct lines rather than going through the host. This is particularly important when the host system and the London 8 are in different telephone areas.

It is not possible for users of the London 8 to transfer calls made or received on direct PSTN lines to extensions on the host. If users wish to make outside calls which can be transferred to host extensions, certain trunk lines can be set to have access to the PSTN through the host and the users can be advised to use "8N" to select a specific outside line if necessary.

Access to host PBX

The London 8 user can access the host system either by dialling 7, which selects any outside line port connected to the host; or by dialling 8N to select outside line port N. Whichever code is used, no PSTN access digits are dialled; but

any digits dialled by the user will be forwarded to the host PBX, allowing the user to dial extensions on the host.

To prevent users from undermining the London 8's call logging and call barring facilities when using the 7 or 8N codes, the host PBX's PSTN access code(s) should be barred. For example, if the host is a London Range system, then the '5' and '9' codes should be barred.

☞ **176 1 D**   bar host dialling codes beginning with digit D .

☞ **176 0 D**   allow host dialling codes beginning with digit D

The default is all host dialling codes allowed.

Host recall

When a London 8 user is on a call involving the host PBX, and the host PBX line is set for MF dialling, then the user can dial **R*** (on an MF extension) or **60** (on a loop disconnect extension) to issue a timed break recall to the host. Any further digits dialled by the user are then ignored by the London 8 but repeated to the host PABX in DTMF. This feature times out if nothing has been dialled after 10 seconds, or until the **R** button is pressed again.

The length of the timed break can be varied from 100 to 900 ms in steps of 100 ms, as follows:

☞ **1754 n**   set break time of n x 100 ms

| For example: | 17541 sets a break time of 100 ms |
| | 17545 sets a break time of 500 ms |

The default value is **100 ms**; this will be the correct value in most cases in the UK. If a higher value needs to be set, refer to the documentation supplied with the host system.

Direct station access

If the trunks connected to the host use MF signalling, direct station access (DSA) is available; this allows MF extensions on the host PBX to dial direct to extensions on the London 8 without going through a reception phone and being transferred.

If an outside line port is programmed for DSA mode, host PBX users seizing the trunk will be presented with internal dialling tone, and can then dial the London 8 extension number they require (or they can dial a hunt group, or request tone demonstration). If the outside line port is not programmed for DSA mode, incoming calls on the trunk will be answered on London 8 reception phones in the same way as incoming exchange line calls.

☞ **1791 N N^1**   set DSA mode for outside line ports N to N^1

☞ **1790 N N^1**   set non-DSA mode for outside line ports N to N^1

The default is non-DSA (reception) mode.

Because there is no way for the London 8 to detect clear-forward on a call from an exchange line, DSA calls are subject to a timeout to avoid permanent seizure of the trunk, as follows:

Extension busy   . . . . .45 seconds

Number Unobtainable   . . . . . . .20 seconds

Tone demonstration   . . . . .20 seconds

Dial tone/dialling in progress   . . . .20 seconds unless further
                                                    digits are dialled

Secondary ringing applies on unanswered calls in the normal way when DSA mode is set.

12.2. London 8 as host

Other London systems can be connected to extension ports on the London 8. When programming the system, ensure that:

❑ EXTENSIONS TO WHICH SUBSIDIARY SYSTEMS ARE CONNECTED
   HAVE 40-SECOND RINGING DISABLED BY DIALLING 69900

❑ EXTENSIONS TO WHICH SUBSIDIARY SYSTEMS ARE CONNECTED
   ARE NOT POWER-FAIL EXTENSIONS

❑ EXTENSIONS TO WHICH SUBSIDIARY SYSTEMS ARE CONNECTED
   ARE NOT RECEPTION PHONES.

Access to subsidiary

The number of the extension port to which the subsidiary is connected may be used as the access code to the subsidiary. If the subsidiary is in DSA mode (see above), extensions on the host dialling this extension number will hear internal dialling tone; they can then dial the extension number they require. If the subsidiary is in non-DSA (reception) mode, host extensions will be connected to the reception phone(s) on the subsidiary.

N.B. ONLY TELEPHONES WITH DTMF4 SIGNALLING CAN ACCESS THE SUBSIDIARY. Make sure that MF phones (with timed break recall) are fitted on all extensions requiring this facility.

If more than one extension is connected to a subsidiary, it is recommended for ease of use that these extensions are put into a *hunting group*. In this way, one access code, 31 to 34, can be used to preface all extension numbers on the subsidiary.

Even if only one extension is connected to the subsidiary, it may still be desirable to make this extension a hunting group; users dialling a code beginning with the digit '3' (rather than '2' for a normal extension number) will be reminded that they are dialling a number on the subsidiary and that they cannot use all the facilities available to them on a straightforward internal call.

If there is more than one department sharing the subsidiary, you can divide the relevant extensions into different hunting groups, and the trunks on the subsidiary into corresponding outside line groups. Making extensions in the subsidiary departments reception phones for particular outside line groups allows users on the host system to use different hunting group numbers to access different departments.

See page 19 for details of how to program hunting groups.

12.3. Compiling an internal telephone directory

Section 13 of the *London 8 User Guide* gives a brief explanation of host/subsidiary working and what facilities may be used in this situation. However, to make use of the system as simple to use as possible, the internal directory should be compiled so that the user has only to refer to it to make calls to the host or subsidiary.

For the subsidiary system

All extension numbers on the host system should be listed *preceded by the access code.* The access code is normally **7**.

It may also be useful if the following points are included in the directory:

❑ Before making enquiry calls to extensions beginning with **7**, users must press **R✱** (on a touch-tone phone) or **60** (on a pulse phone). Calls may then be transferred as normal.

❑ Calls to extensions beginning with **7** can be put on hold using the codes **R✱9** *(R✱8 to return to the call)* or **60 9** *(60 8)*

❑ It is not possible to request a ringback on an extension beginning with **7**; however, users dial **7** and get *Busy* tone before dialling the rest of the extension number, they may use **(R) 68** to request a ringback; when the system rings

back, she or he should dial the rest of the extension number.

❑ Users may not set up a conference involving an extension beginning with **7**.

Remember that if users on the subsidiary are making and receiving calls on direct PSTN lines, such calls cannot be transferred onto the host. If some outside lines are connected to the host and some are not, users should be advised to use the 8N code to select those outside lines that are when they make calls on which they intend to involve host extensions.

For the host system

If the subsidiary system is in DSA mode, extension numbers on the subsidiary system should be listed *with the access codes*.

It may also be useful if the following points are included in the directory:

❑ Only extensions with MF (touch-tone) phones can dial extensions beginning with **3**.

❑ Users may not request ringbacks on subsidiary extensions. However, if theyu dial 33 and get Busy tone before dialling the rest of the number, they may dial **R 68** to request a ringback; when the system rings back, they should dial the rest of the number.

❑ Users may not set up a conference involving numbers beginning with 3.

If the subsidiary system is in reception mode, the internal directory should list the number for the Sales Office as 33. Users simply dial 33 and ask the receptionist for the person to whom they wish to speak.

13. Summary of programming codes

1966 xx	Make extension xx the master extension
1999 PPPP	Set password PPPP
1999 0000	Cancel password
1300 PPPP	Start programming
170	End programming session (reactivate password)
602 G	Make extension a reception mode for lines in group G *(dialled on extension phone)*
1951	Print system configuration
1920 hhmm	Set start of day mode
1921 hhmm	Set start of night mode
600	Switch to day mode (dialled on reception phone)
601	Switch to night mode (dialled on reception phone)
603 MM number	Store outside number in memory MM
1952	Print contents of central dialling memories
1955 extn	Print contents of extension's dialling memories

1961 hhmm	Set time (hours 00 to 23; minutes 00 to 59)
1962 ddmm	Set date (day 01 to 31; month 01 to 12)
1963 D	Set day of week (Monday = 1 to Sunday = 7)
1960 yy	Set year (19yy)
19650	Turn call logging OFF
19651	Turn call logging ON
1935 pppp	Set cost of pp.pp pence per meter unit
1934	Print total meter pulse count
1936 xx	Reset meter total for extension xx
1937 N	Reset meter total for outside line N
1933 0000	Reset all meter totals to zero
1756 N M	Set daytime incoming answer mode m for line N
1757 N M m	Set night-time incoming answer mode m for line N
1758 ss	Set timeout of ss seconds (01 to 39) for ringing each new phone
19221	Intruder alert alarm ON
19220	Intruder alert alarm OFF
19641	Music on hold ON
19640	Music on hold OFF
19231	Door latch pin HIGH
19230	Door latch pin LOW

18 xxyy   Set extension range for programming; xx
                              = first extn, yy = last extn

*The following codes act only on extensions in the current
programming range:*

1978 H	Set hunting group (H = 1 to 4)
19740/19770	All calls allowed (day/night mode)
19741/19771	No international calls (day/night mode)
19742/19772	No long distance calls (day/night mode)
19743/19773	Emergency calls only (day/night mode)
1972 G	Extension ringing group (daytime)
1973 G	Extension ringing group (nighttime)
19460	Enable use of 602G (local ringing control)
19461	Disable use of 602G (local ringing control)
1975 G	Extension external dialling group
1976 G	Incoming call answering groups
19430	Allow remote call answering
19431	Prohibit remote call answering
19440	Allow call interruption
19441	Prohibit call interruption

For programming purposes, groups of outside lines on the
London 8 can be defined using a single digit, the group
selection, abbreviated in this manual to G. Values of G are as
follows:

G	Outside lines G		Outside lines
0	No outside lines	5	Lines 1 and 2
1	Line 1 only	6	Lines 3 and 4
2	Line 2 only	7	All outside lines
3	Line 3 only	8	Lines 1, 2 and 3
4	Line 4 only	9	Lines 2, 3 and 4

Extension dialling codes

69900	Turn 40-second ringing OFF
69901	Turn 40-second ringing ON

*The following codes are applicable only if your London 8 is
set up in host/subsidiary working mode:*

1750 N	Outside line port N is a direct PSTN line
1751 N D	Outside line port N is connected to a host, with PSTN access code digit D
1752 N DD	Outside line port N is connected to a host, with PSTN access code digits D/D
1753 N	Outside line port N as connected to a host, but without access to PSTN allowed
1761 D	Bar host PBX codes beginning with digit D
1760 D	Allow host PBX codes beginning with digit D

1754 n	Set timed break of n x 100 ms
1791 N	Set DSA mode for outside line port N
1790 N	Set non-DSA mode for outside line port N

14. Programming checklist

It may be useful to run through the following questions when
first programming the London 8.

Which outside lines do you wish to make available to   **25**
each extension for making outside calls?

Which outside lines do you wish each extension to be   **26**
able to answer remotely using '61'? (Note that these are
the lines for which the extension can make itself a
reception phone.)

Do you wish any extensions to be protected from   **26**
remote call answering or diversion?

Do you wish any extensions to be protected from   **27**
having calls in progress interrupted by reception
phones?

Do you want all extensions to ring for any incoming   **30**
calls unanswered after 40 seconds?

Having set reception phones for each incoming line   **31**
(page 21), do you wish to have distributed call
answering?
Sequential or uniform?
Do you wish this to be the same in day and night
modes?

Are there any optional "extras" on the system?   **33**

Do you wish to set a password to prevent unauthorised   **4**
personnel from reprogramming the system?

*After programming the London 8, dial **1951** to print the
programming configuration (if a printer is attached), and check
that this conforms to your requirements.*
*If the London 8 is installed as a host or subsidiary to another
telephone system, refer to Section 12.*