



CALL ANNOUNCER CQA-5 Automated Attendant



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THE CQA-5 CALL Q ANNOUNCER

CONTENTS	Page
Applications	1
Connection	1
Operation	1
Reliability	1
Standard features	2
Options	2
Installation	3
Installation block diagram	4
Programming your CQA-5	4
Monitor Speaker	4
Storing the PIN number	5
Channel grouping	5
Remove channel from group function	6
Programming the hook flash time	6
Programming the digits to be dialled (default extension)	6
Method of Recall	7
Type of dialling (DTMF/DEC)	7
Programming the answer delay	7
Voice Announcements:	
Recording the announcement	8
'Night Service' answer only announcement	8
Automated Attendant:	
Direct Inward Station Access (DISA)	9
Timing Start DISA	9
Abbreviated DISA	10
Pre-coded DISA digits	10
Pilot cyclic dialling	11
Transfer Mode:	
Unsupervised transfer	12
Supervised transfer	12
Notes on tone detection	13
Caller hang up detection	14
Call Counter	14
EPROM version number	14
Channel reset	14
System data reset	14
System announcement reset	15
Continuous play mode	15
Call Progress monitor	15
E & M Signalling	16
Error Codes	18
Programming codes summary	19
Specifications	22
Configuring your CQA-5	23
Appendix 1 - Supervised Transfer tone detection	24
Appendix 2 - Jumper Switch Settings	25
Appendix 3 - Method of Call Transfer	27
Appendix 4 - Decadic Dial Pulse Detection for DISA	28
Appendix 5 - Configuration Data Sheet(s)	29

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CALL Q ANNOUNCER/AUTOMATED ATTENDANT - MODEL CQA-5

The CQA-5 Call Q Announcer is a powerful five channel personalised announcement system capable of answering up to five calls simultaneously, day in, day out. Designed to handle high telephone traffic, improve services, competitiveness and reduce operating costs, the CQA-5 is one of the most cost effective and versatile announcers available.

APPLICATIONS

DIAL-UP INFORMATION SERVICES AND AUTOMATIC CALL DISTRIBUTION ANNOUNCEMENTS

The CQA-5 provides multi-line automatic telephone answering facilities for telephone exchanges and PABX systems. There can be a different announcement on each channel, or channels may be grouped so that an identical announcement is heard by a number of callers. Applications include dial up recorded information services and Automatic Call Distribution (ACD) announcements on PABX systems.

OPERATOR OVERFLOW AND CALL QUEUING

Also designed to reduce the congestion at the operator's console(s) on small to medium sized PABX and Key systems, the CQA-5 is an efficient and cost effective solution for operator overload or for providing automated attendant facilities.

When used to handle operator overflow, the CQA-5 is connected to PABX analogue extension ports to which incoming calls are directed when the operator's station is busy. The unit accepts the incoming call, announces that all operators are busy and that the call is to be placed in a queue (or similar wording). It then performs a hook flash and either camps the call on busy until the operator is free or transfers the call to a hunt group.

AUTOMATED ATTENDANT AND INTERACTIVE VOICE RESPONSE

When used as an Automated Attendant, the CQA-5 is connected to PABX analogue extension ports that receive incoming calls. Callers are then invited to directly dial the person or department they wish to reach.

CONNECTION

The CQA-5 attaches to up to five analogue two wire ring in/loop out PSTN lines or PABX extensions, even on a digital PABX. Alternatively, six wire operation with E & M signalling can be provided for connection at 'Trunk line' level where announcement start, stop, and continuous play is controlled by the Central Office or PABX software.

OPERATION

The CQA-5 is fully user programmable from any telephone, or from the inbuilt keypad. All programming procedures are voice prompted and verbally confirmed, making the unit extremely user friendly.

The CQA-5 has standard announcements and voice prompts permanently stored in EPROM, and personalised announcements, which are user recordable.

Each personalised announcement may be recorded from any PSTN telephone, from any PABX extension, or from the tape input. Each recording can be up to 60 seconds and can be played or changed as often as required without loss of quality or component wear. This is made possible through the use of linear EEPROM chip technology. During power failure or switch off, announcements are NOT lost.

RELIABILITY

The unit is completely 'solid state' and has no moving parts ensuring excellent reliability. Parts and labour are covered by a two year warranty.

STANDARD FEATURES

- Default standard announcements permanently stored in EPROM.
- Up to five personalised announcements (up to 60 seconds each) stored in linear EEPROM which will automatically override the standard announcements when recorded by the user.
- Channels may be grouped so that an identical announcement is heard on each line in that group.
- Channels may be grouped so that identical user programming is automatically duplicated or copied to each channel in that group.
- Local keypad programming and Remote DTMF programming from any telephone. During programming, you are assisted by the CQA-5 with voice prompts and confirmation messages.
- Announcements can be recorded from any telephone, or the tape input.
- PIN access. The user can choose to protect system programming operations by way of a programmable PIN number.
- Night Service announcements for after hours.
- Direct Inward Station Access (DISA). Often referred to as 'Automated Attendant', this allows the caller to directly dial the extension number of the person or department they wish to reach. (If no digits are dialled by the caller, they will be transferred to the pre-programmed number). DISA can be put into operation during the standard or personalised announcement AND when the system is set for the 'After Hours Announcement'. Hence, if the caller knows that someone is working back late or on weekends, then that person can be contacted.
- Abbreviated DISA. The CQA-5 can store up to nine DISA numbers in memory. Therefore, the caller need dial only one digit to be connected to the required extension. eg. *"For reception please dial 1, or for sales please dial 2, or for service please dial 3 etc..."*.
- PIN protected DISA. This requires the caller to enter a valid PIN number before they can be connected to the required extension.
- Sequential Park Slot dial for certain PABX types.
- Programmable Hook Flash time in increments of 1 millisecond (0 → 5000 ms).
- Programmable digits to be dialled (default extension) after the system performs the Hook Flash (up to twelve digits).
- Programmable answer delay (0 → 60 seconds).
- Call counter.
- Indefinite Non-volatile data and voice announcement storage.
- Two wire ring in/loop out or six wire E & M line interfaces.
- 12 → 48 Volt working.

OPTIONS

- Battery Standby (not required to retain memory or announcements but keeps system operating during power failures).
- Up to five minutes record/playback for dial up Information Services or 'On Hold' messages.
- 19" standard rack mount version (future option).

INSTALLATION

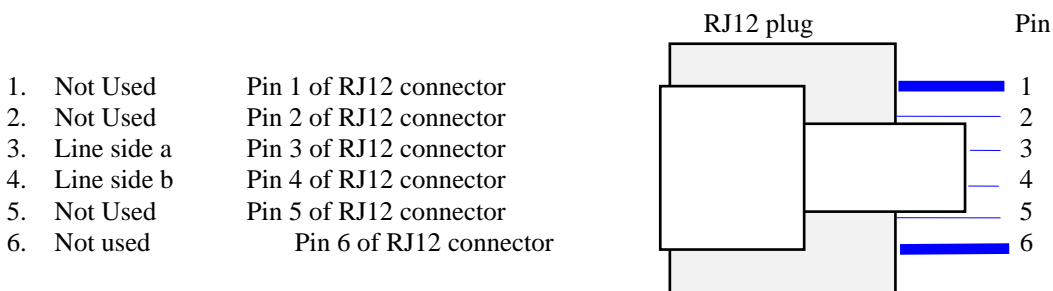
Firstly, some important consideration must given to the application of the CQA-5 and then to the facilities offered by the PABX or Key system.

Some decisions are to be made as to whether the CQA-5 is to be connected to two wire ring trip PSTN lines/PABX analogue extensions or to six wire E & M connections.

E & M connection is covered later in this manual. Six wire E & M connection is normally used for Automatic Call Distribution Announcement applications on PABXs. This is a special and quite different mode of operation to that of normal two wire ring trip operation. Refer to the section headed 'E & M Signalling'.

For standard two wire connection, the following applies:

Connection of the two physical wires for Ring In/Loop Out is:



If the CQA-5 is to be used as an Automated Attendant, the installation is usually simpler.

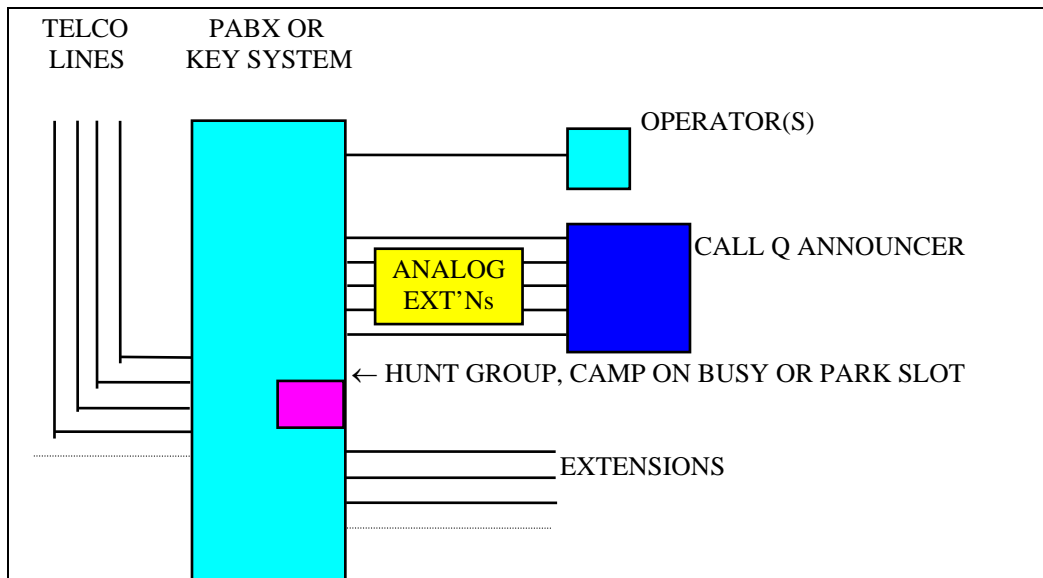
If the CQA-5 is used to handle operator overflow, there are certain facilities that the PABX must offer for the whole process of holding and queuing calls to run smoothly. Facilities such as 'diversion on busy', 'parallel ringing' with the main console, 'hunt groups', 'camp on busy', and 'park slots' all make it possible for the CQA-5 to do its job. Remember that calls are held in queues by the PABX, not by the CQA-5. It is therefore imperative that the installer has some knowledge on how to program the PABX.

The CQA-5 is either wall or desk/shelf mountable. More typically, the system is mounted on the wall next to the main PABX housing. The system is hung via two key holes at the base of the unit (spaced 250 mm apart). The 19 " rack mount version is also available.

Plug the AC/DC 12 V power adaptor into a mains power outlet and connect it to the 'Power' socket at the rear of the unit. (12 → 48 V working is standard). The red 'Power' LED will come on.

Connect the RJ12 modular plugs of the line cords to the 'Line' sockets at the rear of the unit and the other ends to designated PABX analogue extension ports. The other ends of the line cords may be equipped with a 605 plug (Australia), an RJ12 plug (general export) or unterminated wires (New Zealand). Note that Tip and Ring are found on the centre two wires which can be connected directly to a KRONE block or fitted with a BT plug (using pins 2 and 5).

INSTALLATION BLOCK DIAGRAM FOR TWO WIRE OPERATION



PROGRAMMING YOUR CQA-5

Complete the configuration form at the back of this book to speed up the programming process and to ensure that a permanent record of the configuration is kept for future reference. Always remember to keep this record up to date.

MONITOR SPEAKER VOLUME

The CQA-5 has an inbuilt monitor speaker. The speaker provides for voice prompts and responses, audible call monitoring and announcement reviews, making the system easy and straight forward to use when programming from the inbuilt keypad.

To Adjust the Monitor Speaker Volume:

1. Press * 48 n #, where n = 1-9, 1 being very soft and 9 being the loudest setting

To Turn Off the Monitor Speaker:

1. Press * 1 00 #. This mutes the audible call monitoring.

TO ENTER PROGRAMMING MODE

The CQA-5 can be programmed from the inbuilt Keypad or from any DTMF dialling telephone. Please note that in all cases (with the exception of PIN, software version and monitor speaker volume), a channel (line) must be selected before programming parameter(s).

To enter Programming Mode from any telephone

1. Dial an extension number connected to the CQA-5.
2. When the announcement is heard, either:
 - I. Enter # then your four digit PIN. Listen for "*Please enter command*", or
 - II. If no PIN has been programmed (ie. ex-factory), then:
3. Select the required line (channel) number by pressing * 1 0y #, where 0y is the line (channel) number (range 01-05).
4. You can now program or update your CQA-5 configuration as per instructions to follow.

Please do not pause longer than two minutes between key presses otherwise you will be disconnected. The changes made up to this point will however remain.

Contd

5. When you have entered all your commands, you can leave the programming mode by pressing # # before hanging up. This causes the CQA-5 to release the line ready for operation.

To enter Programming Mode from the Keypad:

1. Select the required line (channel) number by pressing * 1 0y #, where 0y is the line (channel) number (range 01 → 05).
2. You can now program or update your CQA-5 configuration as per instructions to follow.

Please do not pause longer than 120 seconds between key presses otherwise the CQA-5 may time out. The changes made up to this point will however remain.

3. When you have entered all your commands, you can leave the programming mode by pressing # #. The CQA-5 is ready for operation.

Please note that all programmed data and the announcements are permanently stored in Non-volatile RAM (EEPROM) and linear EEPROM. Announcements and data will therefore NOT be lost in the event of power failure. Data retention is indefinite.

STORING THE PIN NUMBER

When the CQA-5 leaves the factory, a PIN is not required for programming. For security reasons, a PIN number can be stored with the CQA-5 which will prevent unauthorised telephone access. The PIN (even if stored) is never required when programming the CQA-5 from the Keypad.

To store the PIN in the CQA-5

1. Enter Programming Mode as described above.
2. Press * # 9999 1234 1234 #, where 1234 would be the PIN.
3. Enter other program changes or press # #. Listen for "Thank you".
4. To change the PIN at a later date, repeat step 1, and press * # 1234 5678 5678 #, where 1243 is the old PIN and 5678 is the new PIN.

NOTE: If the PIN is set to 9999, a PIN is not required and should not be entered for access to programming.

CHANNEL GROUPING

If it is known that the same announcement and the same user programmed data and options are required on a number of lines, then these channels can be grouped prior to or after recording and programming. This saves the user from having to record the same announcement on each line (channel) in the announcement group. It also saves the user from having to input the same data such as hook flash time, automated attendant facilities, answer delay etc. to each line (channel) in the group.

Channel grouping can be regarded as a Copy Function, where changes made to any channel in a group are automatically reflected to all other channels in the same group.

Additional channels can be added to a group at a later date simply by using the procedure below, and similarly, channels can be removed or deleted from a group using the 'Remove Channel From Group Function' (see below).

To group channels

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 32 x 01 02 03... #, where x is the group number and 01 02 03 etc. are the channel numbers (range 01-05) to be in group x.

Notes:

- I. The group number will be in the range 1 → 5. This number will be lower than 5 if several channels are assigned to any one group.
 - II. If a channel already belongs to another group, an error message will be given.
 - III. An announcement recorded on any given channel number is automatically duplicated or copied to all other channel(s) linked to that group.
 - IV. User programmed data for any given channel number is automatically duplicated or copied to all other channel(s) linked to that group.
 - V. Channels added to an existing group will automatically have the group data copied to it but not the announcement. The announcement will need re-recording.
3. To check channels assigned to a group, press * 32 x #, where x is the announcement group number. The CQA-5 repeats the channel numbers in the group.
 4. Enter other program changes or press # #. Listen for "Thank you".

REMOVE CHANNEL FROM GROUP FUNCTION

This feature allows the user to remove channel(s) from a group. The channel(s) are then free and available for re-use. Channel announcement(s) and user programmed data is retained for editing.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 39 x 01 02... #, where x is the group number and 01 02 etc. are the channels (01-05) to be removed from group x.
3. Enter other program changes or press # #. Listen for "Thank you".

TO PROGRAM THE HOOK FLASH TIME

When the CQA-5 transfers a call, it does a hook flash before dialling. The length of hook flash (timed loop break) required to successfully transfer a call will depend on the type of PABX. If the default does not work, refer to the PABX specifications and set the hook flash time accordingly as follows:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 41 nnnn #, where nnnn is the hook flash time in ms (0 - 5000 ms).
 - If no hook flash is required, press * 41 0 #.
 - To check the hook flash time, press * 41 #. Listen for "The hook flash time is nnn milliseconds"
3. Enter other program changes or press # #. Listen for "Thank you".

TO PROGRAM THE DIGITS TO BE DIALLED (DEFAULT EXTENSION)

After the unit performs a hook flash, it dials an extension number where the caller is camped or put on hold until the operator is free to take the call.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 21 nn... #, where nn... is the default extension (1-16 digit capacity).

Notes:

- I. To program a *, enter * *.
 - To program a #, enter # #.
 - To program a dialling pause, enter * #.
 - To program another hook flash in the number, enter * 2.
 - To program a two second line release, enter * 1.
 - II. To check the digits to be dialled, press * 21 #. Listen for "The number is nnn...".
 - III. You can cancel (de-activate) the number by pressing # 21 #. This is used in cases where the CQA-5 is not required to dial any number.
 - IV. To change the digits to be dialled, simply overwrite the existing number.
3. Enter other program changes or press # #. Listen for "Thank you".

TO PROGRAM THE METHOD OF RECALL/CALL RETRIEVE

After the CQA-5 has performed a hook flash and dialled an extension, it may be necessary (in the case of Supervised Transfer) for the CQA-5 to retrieve the caller in order to provide further announcements such as "...*sorry, the extension is busy...*" etc.. Normally a hook flash is used for 'Recall', however some telephone systems require an alternate method for Recall.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 47 nn... #, where nn... is something as follows:
 - I. * 2 for hook flash (Default).
 - II. 2 for DTMF 2 (Used on the Ericsson MD110).
 - III. * 2 * * 4 3 for hook flash followed by DTMF * 43 (Used on Mitel SX-2000).
 - IV. * 2 1 for hook flash followed by DTMF 1 (Used for Telstra Business Links).
 - To check the method of Recall, press * 47 #. Listen for "*The number is...*"
3. Enter other program changes or press # #. Listen for "*Thank you*".

TYPE OF DIALLING (DTMF/DEC)

There are two types of dialling modes commonly used throughout the world. Either DTMF ('Touch Tone') or DECADIC (Pulse). Most telephone systems accept DTMF dialling, however some older systems may only detect Pulse dialling. The mode of dialling can be set as follows:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 61 0 # for DTMF (Tone) dialling (DEFAULT) OR, Press * 61 1 # for DECADIC (Pulse) dialling.
 - To check type of dialling, press * 61 #.
3. Enter other program changes or press # #. Listen for "*Thank you*".

TO PROGRAM THE ANSWER DELAY

This facility allows you to set the length of time before the CQA-5 answers an incoming call. This function is useful if your PABX is unable to divert calls from a busy extension ('diversion on busy'). In these cases, the PABX is programmed so that incoming calls appear at both the normal answering point(s) and the CQA-5 extension. The CQA-5 will only answer after the set delay thereby answering calls that were not answered in time by an operator.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 31 nn #, where nn is the answer delay in seconds (0-60 seconds).
 - To check the answer delay, press * 31 #. Listen for "*Answer delay is nn seconds*".
3. Enter other program changes or press # #. Listen for "*Thank you*".

VOICE ANNOUNCEMENTS

The CQA-5 has either standard announcements permanently stored in EPROM, or up to five personalised announcements that the user can record. The personalised announcements are stored in linear EEPROM. In case of power failure, the personalised announcements will be retained indefinitely, without degradation of quality.

There can be a different announcement on each channel, or channels may be grouped (see 'Channel grouping' on page 5) so that an identical announcement is heard on a number of lines.

Note:

Never group channels, record the announcement, un-group and then regroup again. This sequence will erase the announcement.

RECORDING THE ANNOUNCEMENT(S)

Automatic Selection of the Audio Input Source

The audio input source is automatically selected. This will be the telephone when calling into the CQA-5, or the tape input when you use the keypad to commence recording. The tape input may also be used with the Microphone Adaptor (supplied separately).

To Record The Personalised Announcement

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 7 and listen for "*Record announcement*". Dictate your announcement clearly into the telephone, or press play on the tape player depending on the input source. If you exceed 60 seconds, the CQA-5 will replay what has been recorded. If you want to re-record your announcement, repeat step 2.
3. When recording is complete immediately press #. Your announcement will be replayed to you.
4. To review your announcement, you may press # 7.
5. Enter other program changes or press # #.

If a personalised announcement is not required, the standard announcement will say "*Thank you for calling, we appreciate your time is valuable. Reception will answer your call as soon as possible, please hold the line*".

‘NIGHT SERVICE’ ANSWER ONLY ANNOUNCEMENT

This facility allows you to record an after hours message, which can be activated at the end of every trade day, weekends and public holidays. This feature also allows you to use the CQA-5 as an announcement only system. When activated, this facility automatically overrides the CQA-5's normal day mode operation, however Direct Station Inward Access (DISA) and Abbreviated DISA (see pages 9 & 10) can still function when after hours staff need to be contacted or when callers choose to leave a message with Voice Mail or on an answering machine.

For single 60 second announcement per channel, press * 52 0 #. This will disable the ‘night service’ facility altogether, and not allow a ‘night service’ announcement to be recorded.

For the 30 second day/30 second night announcement per channel, press * 52 1 #. This will enable you to record the ‘night service’ announcement.

To record the ‘Night Service’ announcement

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 8 and listen for "*Record announcement*". Dictate your announcement clearly into the telephone, or press play on the tape player depending on the input source. If you exceed 32 seconds, the CQA-5 will replay what has been recorded. If you want to re-record your announcement, repeat step 2.
3. When recording is complete immediately press #. Your announcement will be replayed to you.
4. To review your announcement press # 8.
5. Enter other program changes or press # #.

To activate ‘Night Service’ Answer Only

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 51 1 #. Listen for "*On, thank you*".

To de-activate ‘Night Service’ Answer Only and revert to normal day mode operation

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 51 0 #. Listen for "*Off, thank you*".

Note:

To check whether the CQA-5 is in day or night mode, press * 51 #.

AUTOMATED ATTENDANT

The CQA-5, when used as an automated attendant, frees your operator from having to answer every call and is less expensive than Direct In-Dial (DID) type PABX services.

Customers are guided to the correct person to handle their enquiry, or if they are familiar with your company, they can dial straight through to the extension they require. If they are unsure who to talk to, the system will guide them to reception.

You can choose Direct Inward Station Access (DISA), Timing Start DISA, or Abbreviated (DISA).

◆ DIRECT INWARD STATION ACCESS (DISA)

Your callers are greeted with your announcement and are invited to directly dial the extension they wish to reach. The CQA-5 then automatically directs the call to the required destination. The DISA facility (as opposed to the Abbreviated DISA facility) allows the caller to dial ANY extension. The extension number dialled, whatever it may be, is detected and 'echoed' by the CQA-5 thereby putting the caller through to that extension. The caller must have a touch tone (DTMF) telephone or one which can be switched over to tone signalling. If the caller does not dial any digits, the call can then be switched to the default extension (see below).

To Program the Number of Digits Required for DISA

This may be programmed so that when the CQA-5 receives the last digit dialled by the caller, it can immediately initiate the transfer to the required extension.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 55 n #, where n is the number of DISA digits (2-9, or 15 - see below).
 - To check the number of digits required for DISA, press * 55 #.

◆ TIMING START DISA

If the number of DISA digits is set to fifteen, the CQA-5 assumes a 'Timing Start' mode. The caller can dial any number of digits and after any pause in dialling of longer than three seconds, the CQA-5 performs a hook flash and dials the digits received. The 'Timing Start' mode is used where extension numbers are not necessarily always the same number of digits.

Note:

If only a single digit (1-9) is dialled by the caller, the CQA-5 assumes Abbreviated DISA mode - see next page.

Default Extension

If the caller does not dial any extension during the announcement, the CQA-5 can automatically Hook Flash and dial a default number in memory. This transfers the caller, normally to an operator or reception. If reception is busy, the caller is camped or put on hold until the operator is free to take the call.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 21 nn... #, where nn... is the default extension (1-16 digit capacity).

Note:

- To program a *, press **.
- To program a #, press ##.
- To program a pause, press *#.
- To program a hook flash, press *2.
- To check the default extension, press * 21 #.

◆ ABBREVIATED DISA

Your callers can be invited to dial only one digit (1-9) to be connected through to the extension or department they wish to reach. For example "...For Reception please dial 1, for Sales please dial 2, for Service please dial 3...". The Abbreviated DISA facility allows you to store up to nine memory dial numbers in the CQA-5. The required memory number is automatically dialled when the caller dials the corresponding abbreviated dialling code thereby executing the transfer to the required extension number. The caller must have a touch tone (DTMF) telephone or one which can be switched over to tone signalling. If the caller does not dial a digit, the call will then automatically be transferred to the first memory.

To Enable Abbreviated DISA

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 55 1 #. Listen for "*One, thank you*".

To Store a Number in the Abbreviated Dialling Memory

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 2x nn... #, where x is the abbreviated dialling code (1-9) and nn... are the digits to be stored in memory (max. twelve digits).

Note:

- To change a stored number, simply overwrite the existing number.
- To check a memory, press * 2x #, where x is the memory location (1-9).
- If no digit is received from the caller, the call will be automatically transferred to the first memory number.

To Erase a Number From the Abbreviated Dialling Memory

1. Enter Programming Mode (if not already in Programming Mode).
2. Press # 2x #, where x is the abbreviated dialling code (1-9). Listen for "*The number is de-activated*".

Note:

- To change a stored number, simply overwrite the existing number as above.

◆ PRE-CODED DISA DIGITS

Many apartment blocks have extension numbers which correspond to the room numbers, but in order to call the room you are required to dial the same one or two extra digits in front of the room number.

For example, to reach room 45 you must dial extension 145, to reach room 22 you must dial extension 122. etc.

The CQA-5 is able to automatically insert one or two digits before the room number dialled by the caller. This has the advantage that you are able to ask callers to simply dial the required actual room number, without the need to dial other digit(s) first. This is referred to as 'Pre-coded Digits'. ie. instead of saying something like "...please dial 1 followed by the room number of the guest you wish to contact..." you may now simply say "please dial the room number of the guest you wish to contact..." and the CQA-5 then automatically dials 1 (for example) followed by the room number.

To Program the Pre-coded DISA digits

1. Enter Programming Mode (if not already in Programming Mode).
 2. Press * 29 n... #, where n... is the pre-coded digit(s) to be automatically dialled before the room number.
- To check the pre-coded digits, press * 29 #.

Note:

- This option is compatible with 'Cyclic Dialling', however in this case you must limit the number of park slot memories to seven.

PILOT CYCLIC DIALLING

Note: This option is NOT COMPATIBLE with Timing Start or Abbreviated DISA.

TO PROGRAM PARK SLOTS TO BE DIALLED

In order to pilot calls to different extensions or hold calls in park slots, the CQA-5 is able to sequentially dial different extensions or park slots (eg. 61,62,63, ...69 as found in the Philips SBX series). When the CQA-5 has dialled the last number entered, the next incoming call will cause the system to start from the beginning. This mode of operation may also be used so that several operators can receive an even share of calls, much like 'Automatic or Uniform Call Distribution'.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 55 n #, where n = 0 or 2 - 9 ie. not 1 or 15.
3. To enter the first park slot press * 21 nn... #, where nn... are the digits to be dialled.
To enter the second park slot press * 22 nn... #, where nn... are the digits to be dialled.
To enter the third park slot press * 23 nn... #, where nn... are the digits to be dialled.
To enter the fourth park slot press * 24 nn... #, where nn... are the digits to be dialled.
To enter the fifth park slot press * 25 nn... #, where nn... are the digits to be dialled.
To enter the sixth park slot press * 26 nn... #, where nn... are the digits to be dialled.
To enter the seventh park slot press * 27 nn... #, where nn... are the digits to be dialled.
To enter the eighth park slot press * 28 nn... #, where nn... are the digits to be dialled.
To enter the ninth park slot press * 29 nn... #, where nn... are the digits to be dialled.
- To check the digits in a memory, press * 2x #, where x is the memory (park slot) location 1-9.
4. Enter other program changes or press # #. Listen for "Thank you".

To Erase Park Slots to be Dialled

1. Enter Programming Mode (if not already in Programming Mode).
2. Press # 2x #, where x is the memory location 1-9. Listen for "The number is de-activated".

Notes:

- To change a stored number, simply overwrite the existing number as above.
- If the CQA-5 is NOT required to dial all nine park slots, erase the number after the last number to be dialled. eg. If the system is required to dial only four numbers, then enter # 25 #. The CQA-5 will then only dial say 61,62,63,64, 61,62,63,64...

TRANSFER MODE

The CQA-5 normally transfers a call by doing a hook flash, dialling the extension number and then hanging up. This method is referred to as an Unsupervised transfer.

The alternate mode of transfer is by doing a hook flash, dialling the extension number and 'listening' for the call at the extension to be either engaged, unanswered or answered. This method is referred to as a Supervised Transfer.

A Supervised transfer has the advantage of informing the caller should the called extension be either engaged or not answering. It has the disadvantage that the CQA-5 port in question is tied up for the duration of the supervision but this will be minimal if the extension is answered or busy.

The mode of transfer that you choose will depend on your application. Generally, for DISA and Abbreviated DISA applications, the Supervised transfer is preferred. Program as follows.

Unsupervised DISA Transfer

This is the standard and most simple mode of operation.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 64 0 #. Listen for "*Zero (Off), Thank you*".

Supervised DISA Transfer

If the Supervised Transfer mode best suits your application, you can choose one of the following three options:

Supervised transfer for busy

In this mode, the CQA-5 looks for a busy condition at the dialled extension. If the extension is busy, the caller hears "*Sorry, the extension is busy, please try again shortly*".

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 64 1 #. Listen for "*One (On), thank you*".

OR

Supervised transfer for no answer

In this mode, the CQA-5 looks for no answer at the dialled extension. If there is no answer within 30 seconds, the caller hears "*Sorry, the extension is not answering, please try again shortly*".

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 64 2 #. Listen for "*Two (On), thank you*".

OR

Supervised transfer for busy or no answer

In this mode, the CQA-5 looks for either a busy condition or no answer at the dialled extension. If the extension is busy or there is no answer within 30 seconds, the caller hears the appropriate message "*Sorry, the extension is busy, please try again shortly*" or "*Sorry, the extension is not answering, please try again shortly*".

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 64 3 #. Listen for "*Three (On), Thank you*".

Having chosen one of the three Supervised Transfer options, you now have the choice of one of the following two options:

No transfer option to default extension after busy or no answer announcement

With this option, the CQA-5 simply hangs up after the busy or no answer announcement. The caller would hang up and call back later.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 65 0 #. Listen for "*Off, Thank you*".

OR

Transfer option to default extension after busy or no answer announcement

With this option, if the extension dialled was busy or did not answer, the caller hears "*Please try again shortly, or you may dial 1 for reception*". The caller then has the choice of contacting reception or hanging up.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 65 1 #. Listen for "*On, Thank you*".

SUPERVISED TRANSFER OPTION TO DEFAULT EXTENSION

With this option, if operator(s) are busy or not answering, the caller hears another announcement "*I'm sorry, our operators are still busy, please hold on, we will attend to you shortly*". After this announcement, the CQA-5 will transfer the call back to the operator (default extension) in a cyclic manner until the call is answered within the preset time, or release the line after eight attempts or if busy tone is detected from the exchange (ie. caller has hung up).

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 66 1 #. Listen for "*On, Thank you*".
 - To turn off this option, press * 66 0 #. Listen for "*Off, thank you*".

RINGING TIMER

This defines how long the CQA-5 will ring an extension before it is decided that there is no answer.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 68 nn #, where nn is the number of seconds (default 30 seconds).

Notes On Tone Detection

Normally, the CQA-5, after dialling an extension, automatically detects if that extension is engaged (busy) or ringing. It does this on the theory that busy tone is normally on then off for nominally equal periods. Ringing tone is often a shorter tone followed by a longer pause or two short tones followed by a longer pause.

This base theory may however not always hold true because different PABX manufacturers are at liberty to chose their own call progress tone patterns. If this is the case, the CQA-5 is able to 'learn' the particular ringing and busy tones of the PABX/Key System that it is connected to. See Appendix 1.

CALLER HANG UP DETECTION

If your callers hang up while they are receiving your announcement, the CQA-5 is able to detect the disconnect tone after the announcement and therefore not perform the call transfer. This means that your operator/s are less likely to be disturbed by abandoned incoming calls.

The CQA-5 does this by 'learning' the local disconnect or line lockout tone. On initial power up, the CQA-5 will automatically set the parameters for the disconnect tone when it detects a repeated tone of approximately equal on/off periods. Should the disconnect tone change, the CQA-5 updates these parameters.

It is therefore advisable that on installation, you call the CQA-5 via an exchange line, wait for the announcement to start and then hang up.

(Please note that if the caller hangs up AFTER the announcement, the disconnect tone can no longer be detected. In some cases, the telephone exchange may fail to provide a disconnect tone when the caller hangs up. In these cases, caller hang up will go undetected and the CQA-5 will transfer the abandoned call).

CALL COUNTER

Each call processed by the CQA-5 increments one of five Call Counters which can be checked at any time.

1. Enter Programming Mode (if not already in Programming Mode).
2. To read the call counter, press * 91 1 #.
3. If required, to reset the call counter, press * 91 0 #.
4. Enter other program changes or press # #. Listen for "Thank you".

TO READ EPROM VERSION NUMBER

The Software version reveals the vintage and features available with your CQA-5.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 48 #. Listen for "Model CQA-5 50nn".
3. Enter other program changes or press # #. Listen for "Thank you".

RESET FUNCTIONS

The following reset functions can be used to return the channels and system to a known state.

Channel Reset

The channel user programmed channel data can be reset to the factory default condition.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 67 7096 0n #, where 0n is the channel number (01-05).
3. Enter other program changes or press # #. Listen for "Thank you".

System Data Reset

All data in memory can be reset to the factory default condition, including erasure of the PIN number. Care must be taken not to unintentionally carry out this procedure.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 67 7096 00 #.
3. Enter other program changes or press # #. Listen for "Thank you".

Complete System Reset

All announcements and data can be erased as follows. Care must be taken not to unintentionally carry out this procedure.

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 67 7096 30 #.
3. Enter other program changes or press # #. Listen for "Thank you".

CONTINUOUS PLAY MODE FOR PERSONALISED AUTOMATIC CALL DISTRIBUTION ANNOUNCEMENTS & 'ON-HOLD' MESSAGES

The CQA-5 can be configured to continuously play the announcement(s). This mode can be used on certain PABXs for Automatic Call Distribution (ACD) announcements. A DTMF digit and a one second pause is automatically inserted before each repeat play.

The permanent loop/continuous play port(s) of the CQA-5 are connected to analogue extension(s) designated as a Tone Source.

The CQA-5 sends the DTMF digit "D", pauses for 1 second, plays the announcement and continues this cycle indefinitely.

For example, the Alcatel 4300/ 4400 PABX uses the DTMF "D" to detect the start of the announcement so that callers to be placed in a queue will always hear the announcement from the start.

For 'bargue in' announcements, the DTMF trigger digit "D" may be turned off by pressing * 54 0 #. To turn it back on again, you may press * 54 1 #.

Programming

Firstly, each announcement is to be recorded, either from the telephone or tape input. Each channel is then programmed for continuous play mode.

From the Keypad of the CQA-5

1. Press * 1 0y #, where y is the channel number to be programmed.
2. Press * 53 1 # to put the channel into continuous play mode (on).
 - Press * 53 0 # to turn off continuous play mode.
 - Press * 53 # to check continuous play mode status.
3. Enter other program changes or press # #. Listen for "Thank you".

Note:

If an announcement is to be re-recorded or updated, the channel will need to have the continuous play mode turned off, then on again after the announcement has been recorded to resume continuous play mode with the new announcement.

CALL PROGRESS MONITOR

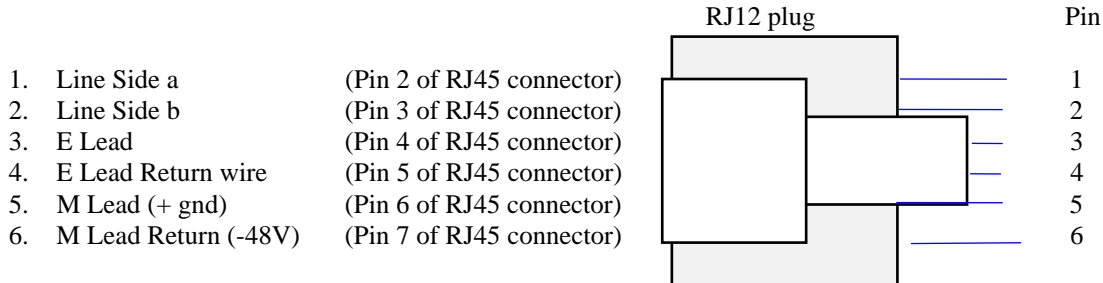
Having selected a channel, the MONITOR will display numbers or 'activity' codes as the CQA-5 processes calls on the channel selected. These numbers indicate call progress and may be used for diagnostic purposes.

- 0. = Silence
- 1. = Busy tone
- 2. = Dial tone or continuous tone
- 3. = Number Unobtainable tone
- 4. = Speech
- 7. = Ringing tone.

E & M SIGNALLING

For Automatic Call Distribution Announcements, a six wire E & M and speech connection can be made. All CQA-5 programmable features, other than Channel Grouping and Recording Announcements via the tape/mic input, do not apply when E & M signalling is used.

The six physical wires for E & M are:



The CQA-5 is 'strapped' (see Appendix 2 - 'Jumper Switch Settings') to automatically respond to a voltage applied across the E lead input pair of wires. This provides the triggering for the announcement to start and stop.

The CQA-5 M lead provides confirmation to the PABX E lead that the announcement is currently playing or has ended.

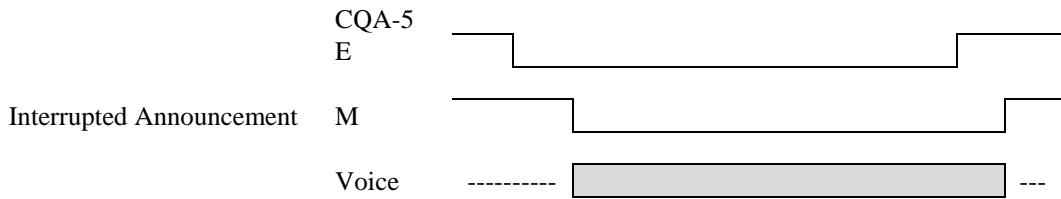
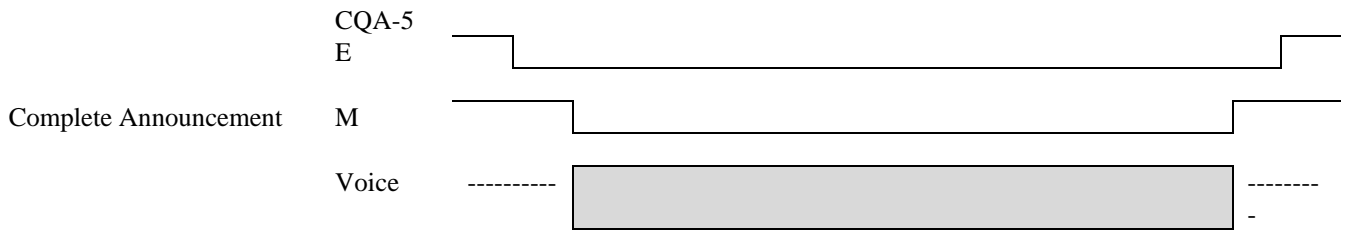
When the CQA-5 E lead is switched by the PABX M lead, the CQA-5 will begin playing the announcement. When the E lead switch is removed, the announcement ceases.

If the CQA-5 E lead is switched or pulsed for less than 250 ms, the announcement is played in full.

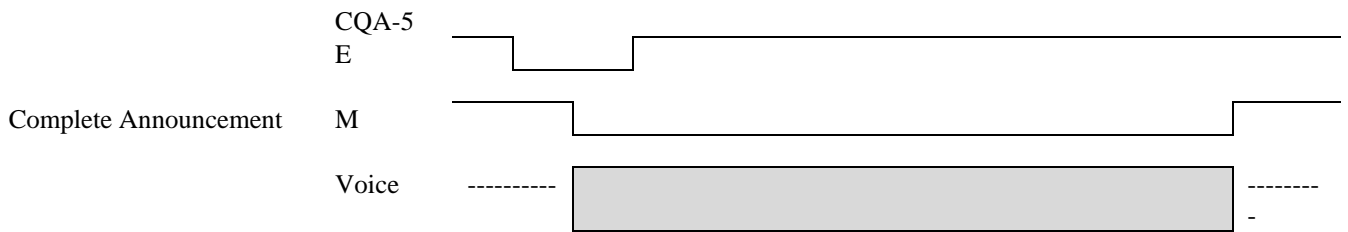
When the PABX M lead switches the CQA-5 E signal wire, the PABX E lead is correspondingly switched by the CQA-5 M signal wire to acknowledge the receipt of the E switch and will stay that way until the announcement has ended or when the E signal is removed. The PABX must be strapped for a -48 VDC RESISTIVE, OR CURRENT LIMITED FEED, on the PABX E lead (ie. the CQA-5 M lead).

E & M SIGNALING

Continuous E Signal



Pulsed E Signal



CQA-5 ERROR CODES

During programming, the CQA-5 reports error codes if a mistake is made.

CODE MEANING

11	Invalid command
12	No DISA allowed
13	No hash (#) received
14	Insufficient digits entered
15	Invalid code entered
16	No line (channel) specified
17	Day/night mode not enabled, therefore unable to record night announcement
18	Invalid PIN number
19	Line number out of range
20	Invalid group number
21	Line already assigned to a group
22	Unable to play as the play bus is locked
23	Unable to get announcement to play
24	Unable to get the recording bus
25	Night service not enabled
26	The current command has been abandoned
27	Invalid write to EEPROM
28	No night announcement has been recorded
29	Line not assigned to this group
30	Unable to get the required line to play
31	No decadic detection module fitted
116	Some digits were expected
117	Key press expected but not received
118	Number entered is out of range
119	Keypad operation is turned off
120	Too many digits entered
121	Not a valid number memory
212	Error entering new PIN
213	Error entering new number
214	No PRVA recorded, so unable to turn on
215	No ID recorded, so unable to turn on
216	No ID number, so unable to turn on

PROGRAMMING CODES SUMMARY

Enter Programming Mode (see page 4) then:

* # 9999 1234 1234 #	Program PIN
* # 1234 5678 5678 #	Change PIN
# pppp	Password access to system programming
* 1 0y #	Select channel number to be programmed
* 48 n #	Adjust monitor speaker volume
* 1 00 #	Mute audible call monitor
* 32 x 01 02 03 ...#	Channel grouping and add channels to group
* 32 x #	Check channel numbers in group
* 39 x 01 02 ...#	Remove channel(s) from group
* 41 nnnn #	Program hook flash time in ms
* 41 #	Check the hook flash time
* 21 nn...#	Program digits to be dialed (default extension)
* 21 #	Check digits to be dialed (default extension)
* 47 nn...#	Program method of Recall
* 47 #	Check method of Recall
* 49 nn...#	Program method of Call Transfer
* 49 #	Check method of Call Transfer
* 61 0 #	DTMF dialling
* 61 1 #	Decadic dialling
* 61 #	Check dialling mode
* 31 nn #	Program answer delay
* 31 #	Check answer delay
* 7 ... #	Record announcement
# 7	Review announcement
* 8 ... #	Record Night Service announcement
# 8	Review Night Service announcement
* 64 0 #	Unsupervised DISA transfer
* 64 1 #	Supervised DISA transfer for busy
* 64 2 #	Supervised DISA transfer for no answer
* 64 3 #	Supervised DISA transfer for busy or no answer
* 64 #	Check DISA transfer mode
* 65 0 #	No transfer option after busy or no answer announcement
* 65 1 #	Transfer option after busy or no answer announcement
* 65 #	Check transfer option
* 66 0 #	Unsupervised transfer to default extension
* 66 1 #	Supervised transfer to default extension
* 66 #	Check transfer mode to default extension
* 68 nn #	Set ringing timer

* 52 0 # 60 sec day announcement format
 * 52 1 # 30 sec day/30 sec night announcement format
 * 52 # Check announcement format
 * 51 1 # Activate 'Night Service' answer only mode
 * 51 0 # De-activate 'Night Service' answer only mode (Activate Day announcement)
 * 51 # Check announcement mode

* 53 0 # Continuous play mode off
 * 53 1 # Continuous play mode on
 * 53 # Check continuous play mode status

* 54 0 # DTMF trigger digit "D" Off
 * 54 1 # DTMF trigger digit "D" On (Default)

* 55 n... # Number of digits required for DISA
 * 55 # Check number of digits required for DISA
 * 29 n... # Program pre-coded DISA digits
 nn... (Ext. No.) Direct inward station access

* 55 1 # Abbreviated DISA
 * 21 nn...# Default & first DISA memory number
 * 22 nn...# Second DISA memory number
 * 23 nn...# Third DISA memory number
 * 24 nn...# Fourth DISA memory number
 * 25 nn...# Fifth DISA memory number
 * 26 nn...# Sixth DISA memory number
 * 27 nn...# Seventh DISA memory number
 * 28 nn...# Eighth DISA memory number
 * 29 nn...# Ninth DISA memory number
 * 57 n # Number of DISA memories (default = 9) without PIN

* 56 0 # M lead closed on busy
 * 56 1 # M lead open on busy

* 42 nn...# Learn busy tone
 * 43 nn...# Learn ring tone
 * 44 nn...# Learn second busy tone

* 33 0 # Line reversal on idle detect NO
 * 33 1 # Line reversal on idle detect YES
 * 34 0 # Line reversal on answer detect NO
 * 34 1 # Line reversal on answer detect YES

* 35 0 # Decadic dial pulse detect off (option)
 * 35 1 # Decadic dial pulse detect on (option)

* 36 0 # Beep tone at end of announcement off
 * 36 1 # Beep tone at end of announcement on

* 37 nnnn # Program delay after announcement (10 → 6000 ms, default = 3000 ms)

* 91 1 # Read call counter
 * 91 0 # Reset call counter
 * 93 # DECADIC Digits received counter
 * 94 # DTMF Digits received counter

* 48 # EPROM version number

* 67 7096 00 # System Data Reset
* 67 7096 30 # Complete System Reset

* 67 7096 0n # Channel Data Reset

End programming

Refer also to page 23.

SPECIFICATIONS

Control logic:	6809 microprocessor, 32K bytes EPROM, 8K static RAM, 1K bit EEPROM
Line Interface:	600 Ohm or Complex impedance 2 wire, or 6 wire E & M
Return Loss:	>17 dB, 300 - 3400 Hz
Isolation:	>3.5 kV
User programming:	DTMF or via 12 button keypad
Indicators:	Power on LED, Line In use LED x 5, Seven segment display
Dialling:	DTMF 100 ms on/off, DEC 34/66 m/s ratio 10 pps
Digit capacity:	Up to twelve/channel
Hook flash:	0 - 5000 ms
Answer delay:	0 → 60 secs
Recorded voice announcements	
Recording method:	32K bit/sec ADPCM
Storage medium:	64K EPROM and linear EEPROM
Announcement length:	Five announcements up to 32 secs x 2
Tape Input:	Nominal ≤ 2V p-p. (600 mV RMS), standard 'line out'.
Features:	DISA, abbreviated DISA, PIN access DISA, Night service answer only, permanent data and announcement storage in EEPROM.
Options:	Custom EPROM announcement, battery standby, extended announcement.
Power requirement:	12 Vdc 1A power adaptor (12 → 50 V working nominal).
Power consumption:	3 W
Dimensions:	Desk Top: W 350mm x D 240mm x H 60mm
Rack mount:	Standard 19", one unit high, 250 mm deep
Packed weight:	3 kg

ACMA SUPPLIER'S CODE:	N468
AUSTEL PERMIT NUMBER:	A91/05/0440
NEW ZEALAND TELEPERMIT:	PTC 212/95/006



MADE IN AUSTRALIA

design2000

Est. 1968

DESIGN TWO THOUSAND PTY LTD

9 - 11 ROSE STREET
UPPER FERNTREE GULLY
MELBOURNE 3156

AUSTRALIA

→



CONFIGURING YOUR CQA-5

Enter Programming Mode

1. Dial the CQA-5 from any extension, or use the inbuilt keypad.
2. When you hear the announcement, press # nnnn where nnnn is your PIN number (only necessary if PIN is programmed). Listen for "*Please enter command*".
3. Configure your system using the configuration data information, last page.
4. When you have fully configured the CQA-5, press # # to save program changes and leave the programming mode.

Other Functions (Enter Programming Mode to Operate)

Activate 'Night Service'	* 51 1 #
Deactivate 'Night Service'	* 51 0 #
Number of Calls Received	* 91 1 #
Reset Call Counter	* 91 0 #
Single 60 sec Announcement	* 52 0 #
30 sec day/30 sec night announcement	* 52 1 #

APPENDIX 1 - SUPERVISED TRANSFER TONE DETECTION

The CQA-5 has one of two tone detection modes that can be used for Supervised Transfer - Automatic mode and Learn mode. The Learn mode is preferred.

Tone detection is used to determine if a dialled extension is busy (engaged) or ringing.

AUTOMATIC MODE

The CQA-5 works on the base theory that Busy tone is normally on then off for nominally equal periods. Ringing tone is often a tone followed by a longer pause or two short tones followed by a longer pause.

LEARN MODE

The base theory of tone detection may not always hold true because different PABX manufacturers are at liberty to choose their own call progress tone patterns.

In this case, the CQA-5 is placed into a Learn mode where it is programmed to dial an busy extension then an unanswered extension. The CQA-5 'remembers' the ringing tone and busy tone and uses these parameters to detect if an extension is busy or ringing.

The Learn mode is more elegant than the Automatic mode because the CQA-5 has the tone cadences stored in EEPROM and will therefore be quicker in detecting busy, ringing and answer signals. Please note that the learnt tones will be common to all five channels.

PROGRAMMING

Using the inbuilt Keypad of the CQA-5

Learn Busy Tone

1. Enter Programming Mode.
2. Press * 42 nn... #, where nn... is a busy extension. Listen for busy tone then watch for '1.' or '3.' on the monitor, then "*Activated*".
3. The CQA-5 'learns' and 'remembers' the busy tone.

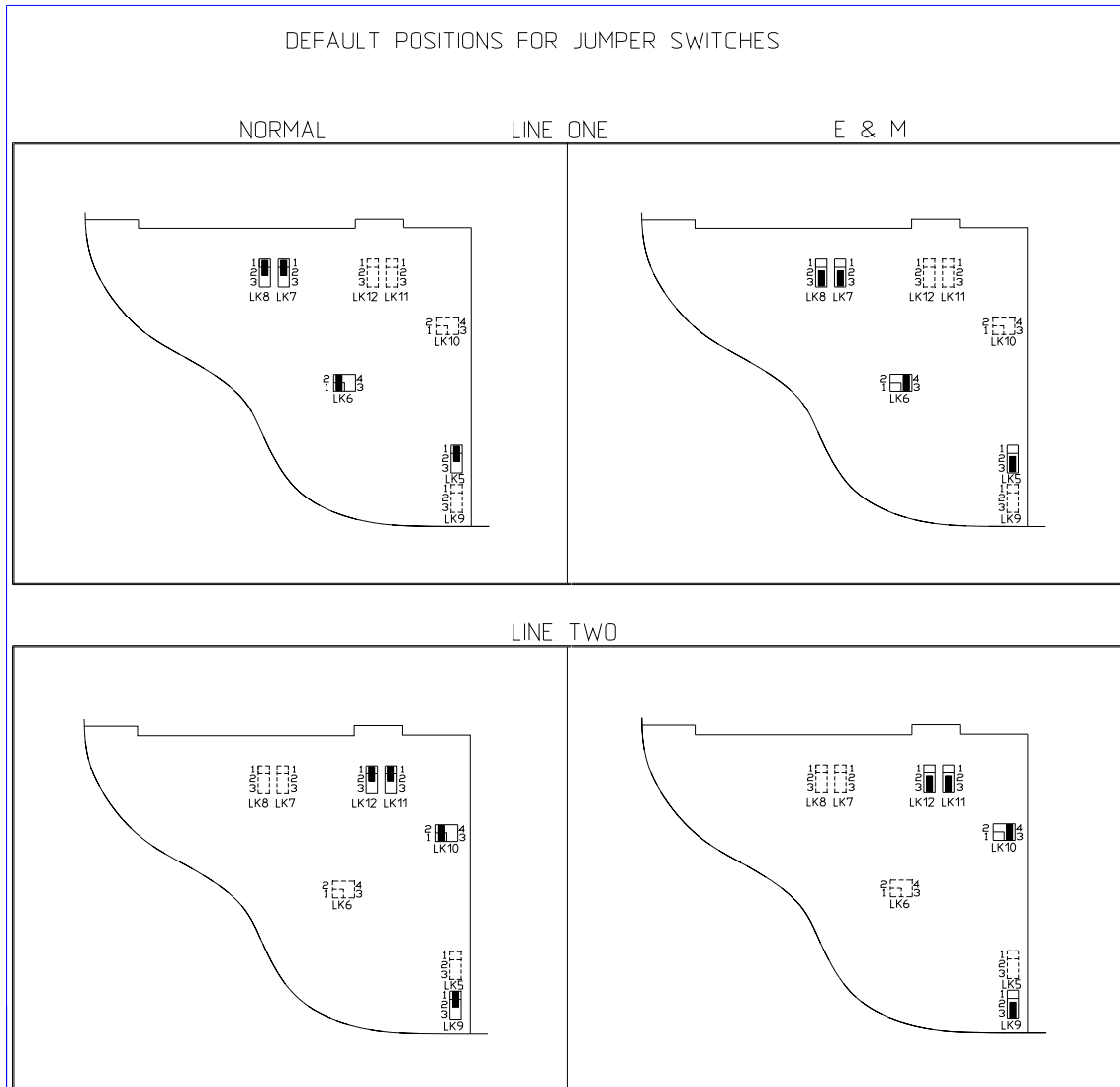
Learn Ringing Tone

1. Enter Programming Mode.
2. Press * 43 nn... #, where nn... is an unanswered extension. Listen for ringing tone then watch for '7.' on the monitor, then "*Activated*".
3. The CQA-5 'learns' and 'remembers' the ringing tone.

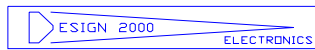
Learn Error/Number Unobtainable Tone

1. Enter Programming Mode.
2. Press * 44 nn... #, where nn... is an invalid or busy extension number. Listen for the tone then watch for '3.' or '1.' on the monitor, then "*Activated*".
3. The CQA-5 'learns' and 'remembers' this tone.

APPENDIX 2 - JUMPER SWITCH SETTINGS



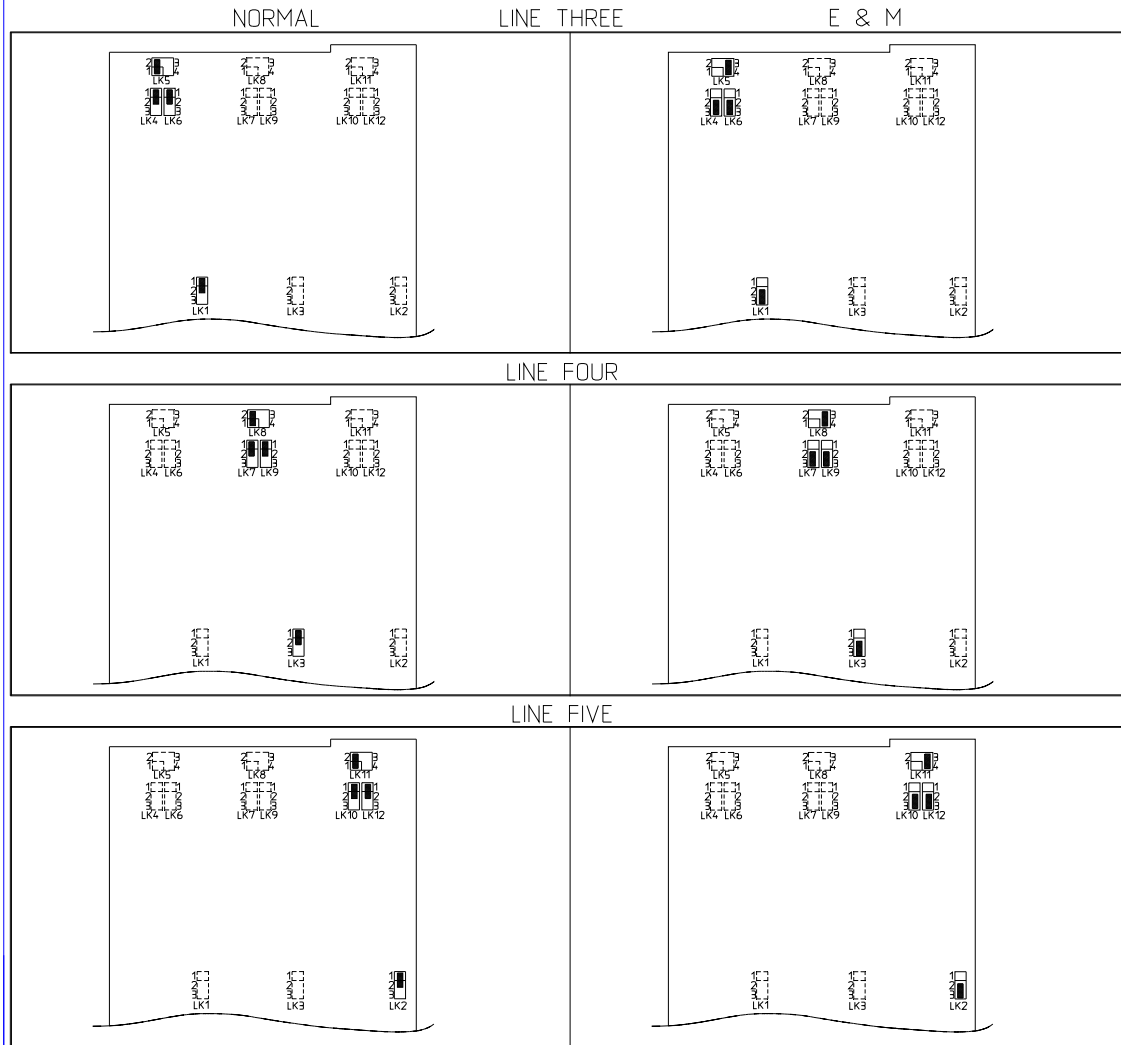
1	ERC	2	270794				
ECN 533	ERC	3	030495				
REVISION	DRN	ISS	DATE	REVISION	DRN	ISS	DATE



DESIGN TWO THOUSAND PTY. LTD. PHONE 758 5933,3042
 9-11 ROSE ST., UPPER FERNTREE GULLY, MELBOURNE, VICTORIA, AUSTRALIA
 FAX. 758 5560

DRN ERC	CHK	APP'D	CQA5 MAIN BOARD LINES 1 & 2 DEFAULT JUMPER SWITCH SETTINGS	
DESIGN BY DAB	DATE 250794	PCB ISSUE : 3 USED ON : CQ-4545	CQ-4550	SHEET-NO 4F OF D/L

DEFAULT POSITIONS FOR JUMPER SWITCHES



1	ERC	2	120994				
ECN 533	ERC	3	030495				
REVISION	DRN	ISS	DATE	REVISION	DRN	ISS	DATE

DESIGN 2000 ELECTRONICS DESIGN TWO THOUSAND PTY. LTD. PHONE 758 5933,3042 FAX. 758 5560 9-11 ROSE ST., UPPER FERNTREE GULLY, MELBOURNE, VICTORIA, AUSTRALIA

DRN ERC	CHK	APP'D	CQAS EXPANDER BOARD LINES 3, 4 & 5 DEFAULT JUMPER SWITCH SETTINGS
DESIGN BY DAB	DATE 250794	PCB ISSUE : 4 USED ON : CQ-4545	CQ-4547 SHEET-NO 4E OF D/L

APPENDIX 3 - TO PROGRAM THE METHOD OF CALL TRANSFER

After the CQA-5 has performed a hook flash and dialled an extension or external number, the CQA-5 normally hangs up either before or when the called number answers in order to complete the transfer.

In some cases however (Telstra CENTEL or BUSINESS LINKS Call Transfer) it is necessary for the CQA-5 to wait for answer, then perform a hook flash and dial 4, before hanging up, in order to complete the transfer.

This method of Call Transfer is further complicated if the CQA-5 is connected to an extension rather than directly to the exchange line. In some way, the CQA-5 needs to dial a code in order for the PABX or Key system to perform a hook flash to the exchange line. This code, if available on the particular phone system, needs to be programmed into the CQA-5 as part of the number to be dialled and also as part of the 'Method of Call Transfer'.

To Program the Method of Call Transfer

1. Enter Programming Mode (if not already in Programming Mode).
2. Press # 49 #, if the CQA-5 needs to simply 'hang up' (default).
 - Press * 49 nn... #, where nn... is something as follows:
 - I. * 2 4 for hook flash followed by 4.
 - II. * 2 18 4 for system (Commander HX Key System) hook flash followed by 4.
 - To check the method of Call Transfer, press * 49 #. Listen for "*The number is...*"
3. Enter other program changes or press # #. Listen for "*Thank you*".

Notes:

- I. It is recommended to apply for the 'Line Reversal on Answer' category for more reliable answer detect.
- II. The method of Call Transfer (if other than the default) only comes into effect if the number to be dialled is seven digits or more.
- III. When answering a transferred call, the receiving party is asked to "*Please hold the line*" while the call is being set up.

PROGRAMMING EXAMPLE

TELSTRA AUSTRALIA 'BUSINESS LINKS' CALL TRANSFER

* 1 nn #	Select Channel
* 47 *2 1 #	Method of Call Retrieve
* 49 *2 4 #	Method of Call Transfer
* 64 3 #	Supervised DISA Transfer
* 66 1 #	Supervised Transfer to Default Number
* 42 nnnn nnnn... #	Learn busy tone, where nnnn nnnn = busy number
* 43 nnnn nnnn... #	Learn ring tone, where nnnn nnnn = unanswered number
* 44 nnnn nnnn... #	Learn busy tone, where nnnn nnnn = busy number

APPENDIX 4 - DECADIC DIAL PULSE DETECTION FOR DISA

The CQA-5 is able to detect Decadic dial pulses and DTMF for Direct Inward Station Access (DISA). This feature allows callers using rotary dial or push button decadic telephones, and DTMF telephones to direct dial the extension they wish to reach.

To Turn Decadic Dial Pulse Detection On:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 35 1 #. Listen for "On".

To Turn Decadic Dial Pulse Detection Off:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 35 0 #. Listen for "Off".

Many callers are familiar with hearing prompts like "...please dial the required extension number after the tone - 'beep'". This is their cue to begin dialling.

To Turn the Beep Tone at the end of Announcement On:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 36 1 #. Listen for "On".

To Turn the Beep Tone at the end of Announcement Off:

1. Enter Programming Mode (if not already in Programming Mode).
2. Press * 36 0 #. Listen for "Off".

Note:

Decadic dial pluses will not be detected over speech during the announcement. They will however be detected in the silence period after the announcement. You must therefore ask callers to dial the required extension after the announcement, eg.:

"Thank you for calling 'Name', after the tone, please dial the number of the extension you wish to contact. If you don't know the number, please wait for the operator".

CONFIGURATION DATA SHEET FOR CQA-5

Date Installed _____

Installation Company _____

Telephone _____

Extension(s) CQA-5 is Connected _____

PIN Number _____ (None if not programmed)

Number of Ports _____

Monitor Speaker Volume _____

Channel Grouping _____

Hook Flash time in ms _____

Digits to be dialled (Default Extension) _____

Method of Recall _____

DTMF Dialling Y/N

Decadic Dialling Y/N

Answer Delay _____

Announcement Recorded Y/N

Night Service Announcement Recorded Y/N

Unsupervised DISA transfer Y/N

Supervised DISA transfer for busy Y/N

Supervised DISA transfer for no answer Y/N

Supervised DISA transfer for busy or no answer Y/N

No transfer option after busy or no answer announcement Y/N

Transfer option after busy or no answer announcement Y/N

Unsupervised transfer to default extension Y/N

Supervised transfer to default extension Y/N

Ringings Timer in seconds _____

Announcement Format _____

Continuous Play Mode Y/N

DTMF trigger digit "D" ON/OFF

Number of DISA digits _____

CALL Q ANNOUNCER MODEL CQA-5

MICROPHONE ADAPTOR

Overview

This feature allows the customer to record announcements on to the CQA-5 using a microphone (via the 'TAPE' input), rather than by telephone or tape player.

It is intended for applications where recording announcements by ringing in using a telephone (or from a tape source) is either not practical or desired eg. when all ports are 'strapped' for E & M signalling.

Description

A high quality 600 Ohm Microphone is supplied with a 1/4" jack and 1/4" socket to RCA adaptor. This plugs into the 'TAPE' input at the rear of the CQA-5.

Operation

To set the sensitivity of the 'TAPE' input for microphone operation:

1. Press * 30 1 #. (This is a one time adjustment and does not need to be programmed for subsequent recordings).

To record announcement(s):

1. Connect the Microphone as described above.
2. Using the CQA-5 keypad, select the required channel/port number (* 1 nn #, where nn = 01 - 05).
3. Press * 7 and listen for "Record Announcement" in the monitor speaker of the CQA-5.
4. Dictate your announcement clearly into the microphone, keeping a constant distance from the microphone (1-2 inches).
5. Press # and your announcement is replayed. If you wish to re-record it, repeat steps 3, 4 and 5.

Notes:

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CALL Q ANNOUNCER MODEL CQA-5

RECORDING FROM THE TAPE INPUT

Overview

This feature allows the customer to record announcements on to the CQA-5 from a tape source rather than by telephone.

It is intended for applications where recording announcements by ringing in using a telephone is either not desired or practical eg. when all ports are programmed for continuous play, or 'strapped' for E & M signalling.

It also allows the customer to have announcements professionally recorded, and then down-load them on to the CQA-5 from the tape.

Tape Player Connection

A tape player with a line output of 600 mV RMS (2 V p-p) is preferred, however a normal tape player with an 'earphone' output may also be used. The output of the tape player plugs into the RCA 'TAPE' input at the rear of the CQA-5.

Operation

To set the sensitivity of the 'TAPE' input for tape operation:

1. Press * 30 2 #. (This is a one time adjustment and does not need to be programmed for subsequent recordings).

To record announcement(s):

1. Cue the tape so that it is ready to play the announcement from the start.
2. Connect tape player to the CQA-5 as described above.
3. Using the CQA-5 keypad, select the required channel number (* 1 nn #, where nn = 01 - 05).
4. Press * 7 and listen for "Record Announcement" in the monitor speaker of the CQA-5.
5. Immediately press the play button on the tape player and listen to the recording via the monitor speaker of the CQA-5. The sound should be reasonably clear. If not, adjust the volume on the tape player to suit.
6. Press # at the end of the announcement to stop recording and your announcement is automatically replayed. If you are not quite happy with the result, re-record the announcement on to the CQA-5 by repeating the above steps.

Notes:

- When you have found a good volume level on the tape player for recording announcements on to the CQA-5, mark the spot on the volume control of the tape player for future recordings.
- If you are using a tape player with a standard line output, it is not necessary to make any volume adjustments.

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CQA-5 CALL Q ANNOUNCER

FIVE MINUTE RECORD/PLAYBACK

INTRODUCTION

The CQA-5 Five Minute Record/Playback System accepts and answers calls coming in on direct exchange lines or PABX extensions. The system is ideally suited to information type services and product information lines where it can be bombarded with calls day in, day out. There are no tapes or moving parts to wear out.

Updating messages is quick and easy, and can be performed from any DTMF telephone or via the tape input.

The announcement can be played to up to 5 callers simultaneously.

DESCRIPTION

The CQA-5 plays your callers announcements of up to five minutes. Announcements are easily recorded by phone and are digitally stored in 'DAST' Chips which don't suffer with the wear and tear of conventional tapes and cartridges.

Callers hear the announcement in a 'barge -in' fashion. That is, the announcement is played continuously and callers will not necessarily hear the announcement from the start but will hear it in its entirety at least once.

TO RECORD AN ANNOUNCEMENT

1. Dial any port of the CQA-5.
2. Wait for the system to answer with the announcement.
3. Press * 7 and listen for "*Record announcement*". Immediately commence dictating your announcement clearly into the mouthpiece of your telephone. If you exceed 5 minutes, the CQA-5 will replay what has been recorded. If you want to re-record your announcement, repeat step 3.
4. To stop recording, press #. Your announcement will be replayed to you.
5. To review your announcement press # 7.
6. Press # # then hang up.

In summary: Dial CQA-5, wait for answer, press * 7...record...#.

NOTE:

- You will possibly want to record your announcement from a tape source (see '*RECORDING FROM THE TAPE INPUT*').

IMPORTANT NOTE:

- Do NOT group channels for five minute record/playback operation. This function is automatically handled by the system software.

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