

GSGC7 OPERATING INSTRUCTIONS

GENERAL

This unit has a standard keypad and 4 additional buttons. It also has a 2 line by 16 character LCD display. The display is used to prompt the user and to show various actions.

KEYPAD

Each of the 0 to 9 keys has 3 or 2 letters of the alphabet printed next to them. In some uses of these keys it is possible to use them to enter a particular letter. This is done with a single press to produce the number, 2 quick presses to produce the first letter of the group, 3 quick presses to produce the 2nd letter of the group or 4 quick presses to produce the third. A further press reverts to the number.

If you make an error while entering a number or a letter the 'CLEAR' key can be used to erase the last digit.

MAKING CALLS DIRECTLY

It is only necessary to enter the required number, which will be displayed, and when complete press the 'DIAL' key. If the call is successful the red 'ISDN LINE' LED will illuminate and if you have called a number with a matching codec, after a few seconds the 'CODEC OK' LED will illuminate. If, for any reason the call is not successful, the display will show the reason for failure. A list of possible responses is shown later.

MAKING SWITCH56 CALLS (Only available with our G722 or MPEG/G722 Codecs)

Normally directly dialled numbers will be dialled as ISDN64 calls. If the system returns a non compatible message to the equipment, the number will be immediately redialed as a switch56 call. If however you wish to force the equipment to make a switch56 call it is only necessary to hold the 'DIAL' button for a few moments when the display will change to SWITCH56. Then release the 'DIAL' button while this message is displayed. If you continue to hold the 'DIAL' button you will notice that the display alternates between ISDN64 and SWITCH56

TO CLEAR THE CALL

To clear the call it is necessary to press and hold the 'CLEAR' button for about 2 seconds.

TO REDIAL THE LAST NUMBER

To redial the last number used it is only necessary to press the 'DIAL' button.

TO DIAL A NUMBER THAT HAS PREVIOUSLY BEEN STORED

Press the 'MEMORY' button.

You may directly enter the memory number (1-30) or use the '<' and '>' buttons to scroll through the memories. The display will show the name in the memory if it has been stored or else the number itself.

When the correct memory has been found, press the 'DIAL' button to make the call.

TO ANSWER AN INCOMING CALL

It is possible (see engineering set-ups) to set this equipment to automatically answer an incoming call. If this has been done no action is required by the operator.

If set for manual answer simply press the 'DIAL' button to answer the call.

CALLING NUMBER IDENTIFICATION (CLI)

If your ISDN circuit has CLI enabled on it, the display will indicate the calling party. This is done normally by displaying the incoming calling number, however this number is automatically compared with names in the memory and if a match is found, and a name has been given to that number, then the name will be displayed instead of the number.

If a name or number is displayed, pressing the 'DIAL' button will call that number. This makes it very easy to call back. It is possible to clear this number by pressing the 'CLEAR' key.

TO STORE NUMBERS IN MEMORY

It is possible to store up to 30 frequently used numbers in the non volatile memory. Each number can have associated with it an alphanumeric description or name. Each number can also have stored with it note of whether it should dial as an ISDN64 call or as a SWITCH56. Each number can also have stored with it the codec encode mode required along with the sample rate required.

Press 'MEMORY' and use the < and > keys to locate the store you wish to use. It is also possible to directly enter the number (1-30) of the memory you wish to use. Now press 'MENU'. After informing you to press the 'Grey' (MENU) key to proceed, the display will show you the stored name (if any). At this stage it is possible to edit or add the name which may contain up to 16 characters. After editing press the 'Grey' key.

The display will now show the stored number, which may contain up to 20 figures followed by a # sign if subaddressing is used and a further 4 alphanumeric keys. Edit this number and press the 'Grey' key to proceed.

The display will now show if the number is required as ISDN64 or as SWITCH56. This again can be edited before pressing the 'Grey' key to proceed.

The display will now show the codec encode mode. This has four options which can be scrolled using the '< >' keys. The options are Follow Decode, G722, MPEG, APTX

After pressing the 'Grey' key the display will show the encode sample rate. This has five options which can also be scrolled. The options are Follow Decode, 16, 24, 32, 48 KHz

The above procedure can be repeated for the other 29 stores.

TO MODIFY SET-UP DURING A CALL

These facilities are codec dependent. Not all options are meaningful with all codecs. If an unavailable selection is made, the equipment will try to revert to an available mode.

When a call has been successfully connected and the RED LED is on, it is possible to force the codec parameters. It is possible to change the encode algorithm, the sample rate and the data rate. This is simply done by pressing the 'Grey' key 1,2 or 3 times. If pressed once the encode algorithm can be changed. If pressed twice the sample rate can be changed and if pressed three times the data rate can be changed. In each case you are only given a few seconds to make a change before the option is aborted. The '<' and '>' keys are used to scroll through the options. The option in view when the system 'times out' is the selected option. Available options are:-

ENCODE ALGORITHM Follow Decoder, G722, MPEG or APTX

SAMPLE RATE Follow Decoder, 16, 24, 32 or 48 KHz

DATA RATE Automatic, 56 or 64 KBits/Sec

ENGINEERING SET UPS

The GSGC7 can be used to programme the set ups in the GSGC6 1U subrack.

In general the 'Grey' (MENU) key is used to proceed to the next stage.

First press the 'Grey' key. At this stage anybody can set the viewing angle of the display. When a suitable viewing angle has been set enter it by pressing the 'Grey' key. This viewing angle is not yet stored for future use but will remain fixed until the equipment is switched off.

After setting the viewing angle you will be asked for a password before any engineering set ups can be altered. After entering the correct password you will be led through the available set ups. These are as follows:-

AUTO ANSWER2-9 Specifies number of rings to answer by.

0 = Manual Answer

OUTGOING B CHANNELCan be B1, B2 or either

INCOMING B CHANNELCan be B1, B2 or either

MULTIPLE SUB NO. This should be all digits including the area code

SUB ADDRESSUp to 4 alphanumeric characters

NEW EXT SWITCH NUMBERThis is the ISDN number that will be automatically dialled when the DC loop is closed

on the rear panel of the GSGC6

ENCODE MODEForces the Encoder mode

SAMPLE RATEForces the Encoder sample rate

DATA RATEMake call at 56/64 KBits/Sec data rate

DTMF DURATIONSpecified in hundredths of a second duration of each DTMF digit.

DTMF DC-LOOPSpecifies DTMF code sent when DC loop made on rear panel of GSGC6

DTMF DETECTSets the DTMF code required to close the relay loop on the rear panel of the GSGC6 and to

operate the GSGC7 sounder and lamps

if enabled

DTMF KEY PADEnables the GSGC7 key pad to send the DTMF code corresponding to the key pressed.

DTMF LAMPMakes the ISDN lamp flash on valid DTMF

DTMF SOUNDERMakes the sounder operate on valid DTMF

ISDN SOUNDERMakes the sounder operate with incoming call

After the above parameters have been set they must be stored in the NVR (Non Volatile Ram). This is achieved by pressing the 'Green' key when asked. If the 'Red' key is pressed the above set-ups are aborted. This action of pressing the 'Green' key also stores the view angle that was entered before the password.

The set up is independent for each port on the GSGC6. If 2 codecs are fitted to the GSGC6 it is essential to repeat the set up using the second port.

It is possible to reset the microprocessor in the GSGC7. A reset switch has been fitted adjacent to the 15pin D connector. This can be accessed by sliding off the plastic cover marked 'OPEN' on the rear of the unit.

SYSTEM ERROR RESPONSES

Unsuccessful calls will normally give one of the following responses in the display. In addition the error number is also displayed.

DISPLAY MESSAGE	REASON FOR FAILURE	ERROR NUMBERS
USER BUSY	User Engaged	17
NETWORK BUSY	Network Engaged	42
NO ANSWER	Called Number does not answer	18,19
INVALID NUMBER	Number not recognised	28
OUT OF ORDER	Network or Destination out of order	27,38,41
INCOMPATIBLE	Called Number not suitable for DATA	88
PROTOCOL ERROR	Protocol Error	111
CLEARED	Any other cause	ALL OTHERS

LIST OF ERROR NUMBERS PRESENTED BY THE TERMINAL ADAPTER

0S Bus not responding 47Resources unavailable
1Unallocated number 49Quality of service unavailable
2No Route to specified network 50Requested facility not subscribed
3No route to destination 57Bearer capability not authorised
4Channel unacceptable (BT only) 58Bearer capability not available
6Channel unacceptable 63Service or option not available
7Call awarded and being delivered 65Bearer capability not implemented
in an established channel 66Channel type not implemented
16Normal call clearing 69Requested facility not implemented
17User busy 70Only restricted digital information
18No user responding bearer capability is available
19No answer from user 79Service or option not implemented 21Call rejected 88Incompatible
destination
22Number changed 111Protocol error, unspecified
26Non-selected user clearing
27Destination out of order
28Invalid number format
29Facility rejected
30Response to Status Inquiry
31Normal, unspecified
34No circuit/channel available
38Network out of order
41Temporary failure
42Switching equipment congestion
43Access information discarded
44Requested circuit/channel not
available

