GLENSOUND ELECTRONICS LTD

GSGC24A   *Portable ISDN Unit* *HANDBOOK CONTENTS*

DATE 13/03/03   *WP06-285*   *ISSUE No. 1*

APPROVALS

C E

This product conforms to the requirements of EMC DIRECTIVE 89/336/EEC

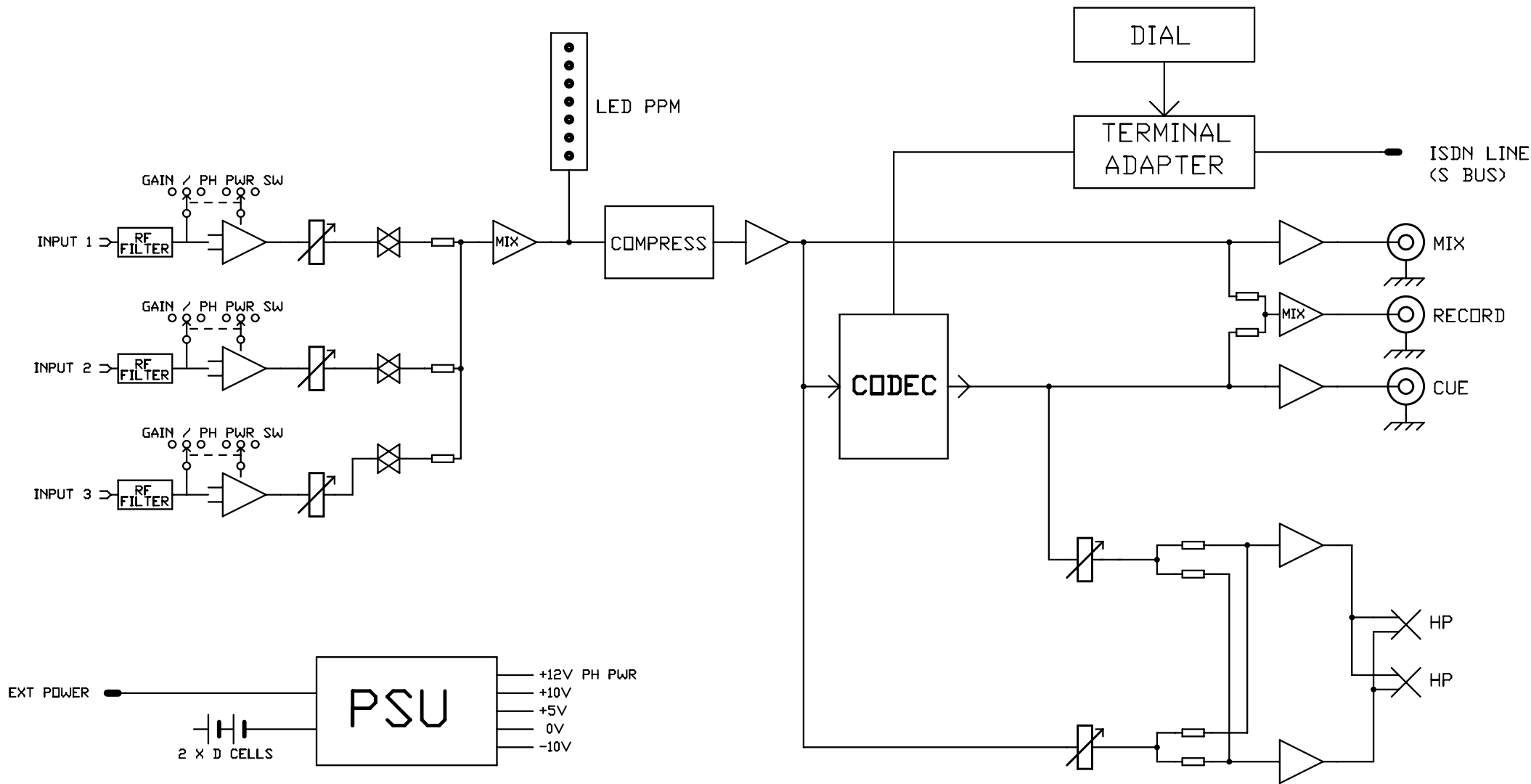|	
Emissions Standards	EN 50081-1
Immunity Standards	EN 50082-1

BABT APPROVAL

This device incorporates a Teltrend 'MIDAS' ISDN Basic Rate Module which has been approved by the British Approval Board for Telecommunication (BABT) for connection to the Integrated Services Digital Network (ISDN). The following administrative approval number has been given to this product:

AA604381

INTERIM CTR APPROVAL

The Teltrend 'MIDAS' Basic Rate Module has interim CTR approval so the Glensound GSGC9 modules are approved for use in any country in the EEC

DIAL

TERMINAL ADAPTER

ISDN LINE (S BUS)

LED PPM

GAIN / PH PWR SW

INPUT 1

RF FILTER

MIX

COMPRESS

INPUT 2

RF FILTER

GAIN / PH PWR SW

INPUT 3

RF FILTER

GAIN / PH PWR SW

CODEC

MIX

RECORD

MIX

CUE

HP

HP

EXT POWER

PSU

+12V PH PWR
+10V
+5V
0V
-10V

2 X D CELLS

GSGC24 BLOCK DIAGRAM

ISSUE	DATE	DRAWING NUMBER
1	13/03/03	A4-14808
		ORIGINALLY DRAWN USING AUTOTRAX

GSGC24A OPERATING INSTRUCTIONS

POWER

This equipment can be powered from an external DC supply or from batteries. Battery requirement is for 2 D cells, these must be alkaline such as 'DURACELL DB2'. Tests have shown that at 20^0C DURACELL DB2 batteries will last for over 5 hours.

There is a 3 position switch on the rear panel (located between the battery compartment & EXT PSU connector), the centre position is off, if the switch is moved in the direction of the battery compartment then power will be from batteries & if the switch is moved in the direction of the EXT PSU connector power will be taken from the external DC supply (providing it is plugged in).

If switched to batteries and the external supply is plugged in and present, the equipment will operate from the external supply, if it fails, then the batteries will take over automatically without losing the line.

To turn the box on move the switch either in the direction of the batteries or the EXT PSU. After a few seconds the pwr on LED will light on the front panel, If it flashes the batteries are low and should be replaced.

CONNECTION TO ISDN2 LINE

Supplied with the equipment is a lead with an identical RJ45 plug on both ends. One end must be plugged into the socket on the rear panel marked 'ISDN 'S' BUS' and the other end must be plugged into an ISDN2 circuit.

SELECT COUNTRY:

Next to the 'ISDN 'S' BUS' socket there is a rotary 16 position switch. This selects different versions of terminal adaptor software optimised for different countries. This switch is read by the GSGC24A during power up. If you turn this switch it is therefore essential to reset the GSGC24A either by turning it off and then back on or by pressing the reset button next to the rotary switch.

Switch position		Switch position	
0	EUROPE ETSI standard	6	ISRAEL
1	EUROPE ETSI standard	7	HOLLAND
2	USA AT&T	8	JAPAN NTT
3	USA National ISDN 1	9	AUSTRALIA
4	USA Northern Telecom	A	FRANCE
5	EIRE	B	NEW ZEALAND

Please note that as time passes most countries are moving towards the ETSI standard.

CODECS

Inside the GSGC24A there is one Codec. This codec can operate on either G722 or G711 (POTS) algorithms.

TO ANSWER AN INCOMING CALL

This equipment can be set to automatically answer incoming calls or to wait for you to press the green (dial/ answer) button.

If it is configured to be manually answered, an incoming call will cause the red ISDN light to flash and a ringing will be heard in the headphones. To answer the call momentarily press the green answer button. The red ISDN light should immediately go steady and after a few seconds the green codec light should light. It should now be possible to hear & talk to the studio.

DIALING

While listening on the headphones dial the number, with each key press a confirmation will be heard, when you have entered the complete number that you wish to dial press (for at least 1 second) the green button. You will then hear in your headphones confirmation of the number being dialled, the type of call being tried (ie broadcast (G722) or telephone (G711)), then 'connected' confirmation of the studio answering and finally 'framed' confirmation of a codec lock being established. The red ISDN light will light when the call has been answered and the line is open and the green codec light will light when a codec lock (frame) has been established. If an incorrect number has been dialled then an error message will be heard.

ENDING A CALL

Press the red hang-up button for at least 2 seconds. 'Cleared' will be heard in the headset and the red ISDN light & green codec light will go out.

MEMORY REDIAL

Up to 99 pre-stored numbers can be stored in non volatile memory (for information on how, see the software setup pages of this information book). To dial one of these stored numbers first select the codec to dial (PROG or TB) then press the '#' key followed by the 2 digit number of the stored location for the number that you wish to dial and then press the green dial button.

HEADPHONE CONNECTION

There is one headphone amplifier that has two sources which are connected in parallel to two jack sockets (A or B gauge). The two sources are CUE (The return of the PROG (CUE) codec) and MIX which is the output of the 3 channel mixer. Each of these sources has a level control.

The headphone amplifier is designed for driving medium to high impedance headphones (200 to 2000 Ohms).

REAR PANEL CONNECTORS

There are 3 rear panel 'phono' sockets.

All these outputs are 'unbalanced' and they are:

RECORD: This is a mix of the output of the mixer & the return audio from the PROG (CUE) Codec.

MIX: This is the output of the mixer.

CUE: This is the return audio from the PROG (CUE) Codec.

EXT PSU Socket: This is a 2.5mm DC socket that Mates with RS 486-634, 6 to 9 volts DC are required (Sleeve is –ve).

SOFTWARE SETUP

Many parameters of the GSGC24A can be set up by the operator.

TO ENTER SETUP MODE

Press the set up button for several seconds. (This is the grey button (Top Left))

SETUP TREE

On entering setup a menu of commands is available. A recording informs you of the function of each button which are as follows:-

MAIN MENU

Press   **CLEAR**   **to Leave Setup**
           ZERO   **for Current settings**
           ONE   **to change User settings**
           TWO   **to change ISDN settings**
           THREE   **to change Memories**
           QUERY (?)   **to Repeat**

0)   **CURRENT SETTINGS**   A full list of the current settings

1)   **USER SETTINGS**

Press CLEAR for Main Menu

      Zero   **for Current User Settings**

      One   **to Change Answer Mode**. Each Press toggles
            between:-
            1) Auto Answer
            1) Manual Answer

      Two   **to Change Progress Reporting.** Each Press toggles
            between:-
            2) Full Call Progress
            2) Query call Progress

      Three   **to Change Ident.**
            Enter two digit Ident Number or press # to cancel.

      Four   **to Change Announcement Volume**

      Five   **to change Dial Guard Time.** Each Press toggles
            between:-
            5) Dial Guard Time is Long
            5) Dial Guard Time is Short

   Press Query (?) to Repeat or CLEAR to return to Main Menu

2)   **ISDN SETTINGS**

Press CLEAR for Main Menu

Zero   For Current ISDN Settings

One   To Change Incoming Call Types

1) Incoming Calls Barred
1) Incoming Telephone Calls Only
1) Incoming Broadcast Calls Only
1) Incoming Broadcast and Telephone Calls

Two   To Change Outgoing Call Types

2) Outgoing Calls Barred
2) Outgoing Telephone Calls Only
2) Outgoing Broadcast Calls Only
2) Outgoing Broadcast and Telephones Calls

Three   To Change Broadcast MSN
Enter Broadcast MSN if any, terminated with * or Press # to Cancel.

Four   To Change Telephone MSN
Enter Telephone MSN if any, terminated with * or Press # to Cancel.

Five   To Change B Channel Map
5) Calls on B2 Only
5) Calls on B1 or B2
5) Calls on B1 Only

Six   To Change SPID
6) Enter SPID Terminated with * or Press # to Cancel

Press Query (?) to repeat

Press CLEAR to return to Main Menu

3)   MEMORIES

It is possible to store up to 99 frequently used numbers. These numbers are non volatile and are remembered even when the GSGC24A is switched off.
Each number must be 17 digits or less.

Enter the two digit number number of the required store. If you press '#' the operation will be cancelled and you will return to the Main Menu.

Enter New Number (up to 17 digits) terminated with '*' or press '#' to Cancel.

CONN NO TYPE FUNCTION   **WIRED TO**   **TYPE**

1 to 3   X3S   Audio Inputs
                     Pin 1   = Ground
                     Pin 2   = In Phase
                     Pin 3   = Mate

4 & 5   6.35mm Jack Sockets A or B Gauge
                     Tip   = Mix/ Cue
                     Ring   = Mix/ Cue
                     Sleeve   = Ground

6 to 8   Phono Sockets   Audio Outputs
                     Centre   = In Phase
                     Sleeve   = Chassis

  9   2.5mm DC Plug   Ext Power In
                     Centre   = DC Positive
                     Sleeve   = DC Negative