

IQDEAP Embedded Audio Processor



Module Description

The IQDEAP is designed for the processing and redistribution of two pairs of embedded audio, with enhanced tolerance to SDI corruption and invalid or damaged audio distributions. By re-distributing the embedded audio prior to a downstream SDI router, audio glitch problems associated with switching DigiBeta streams can be reduced.

The input digital video stream is first processed to repair format and ancillary packet errors, and then passed to a de-embedder. The two de-embedded pairs and two tone generators are fed to a 'Subframe Mixer'. The Horizontal Ancillary space (HANC) is wiped clean.

The Subframe Mixer outputs two pairs. Each subframe (channel) of these pairs can be sourced from any of the input subframes, or from a mix of any combination of the inputs.

The outputs pairs from the Subframe Mixer are passed to two independently assignable embedders.

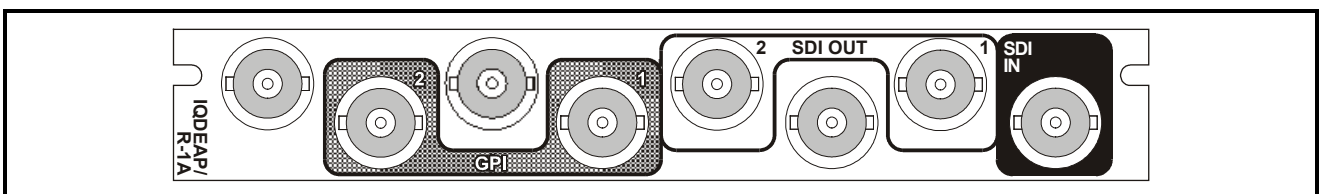
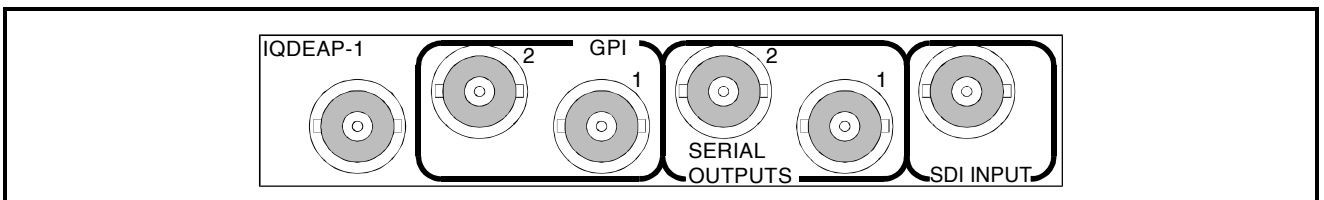
All input and output audio channels have independent adjustments for gain and mute with polarity control available on the input side. Where intuitive, pairs of controls can be linked for 'stereo' operation.

In the absence of input audio the DEAR processing chains will continue to embed streams into the output SDI. The data, including the Channel Status information, will be zeroed.

Embedding is fully compliant with SMPTE 291M and SMPTE 272M, level A.

The SDI input is equalized for 200 m of cable (PSF1/2 or equiv.) with EDH monitoring. Two SDI outputs are provided, with EDH re-insertion.

REAR PANEL VIEWS



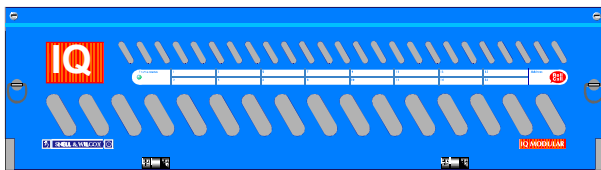
Versions of the module cards available are:

IQDEAP-1	Embedded Audio Processor with 2 x GPI	Single width module
IQDEAP-1A	Embedded Audio Processor with 2 x GPI	Single width module

Note that there are two styles of rear panels available. They are not interchangeable between the two styles of enclosures. However, the cards may be fitted into any style of enclosure.

'A' Style Enclosure

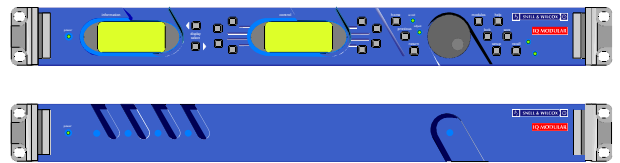
Rear panels **with** the suffix A may only be fitted into the 'A' style enclosure shown below.



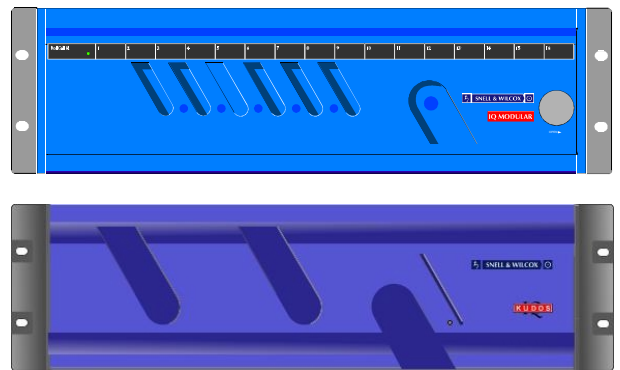
(Enclosure order codes IQH3A-E-O, IQH3A-E-P, IQH3A-N-O, IQH3A-N-P)

'O' Style Enclosures

Rear panels **without** the suffix A may only be fitted into the 'O' style enclosures shown below.

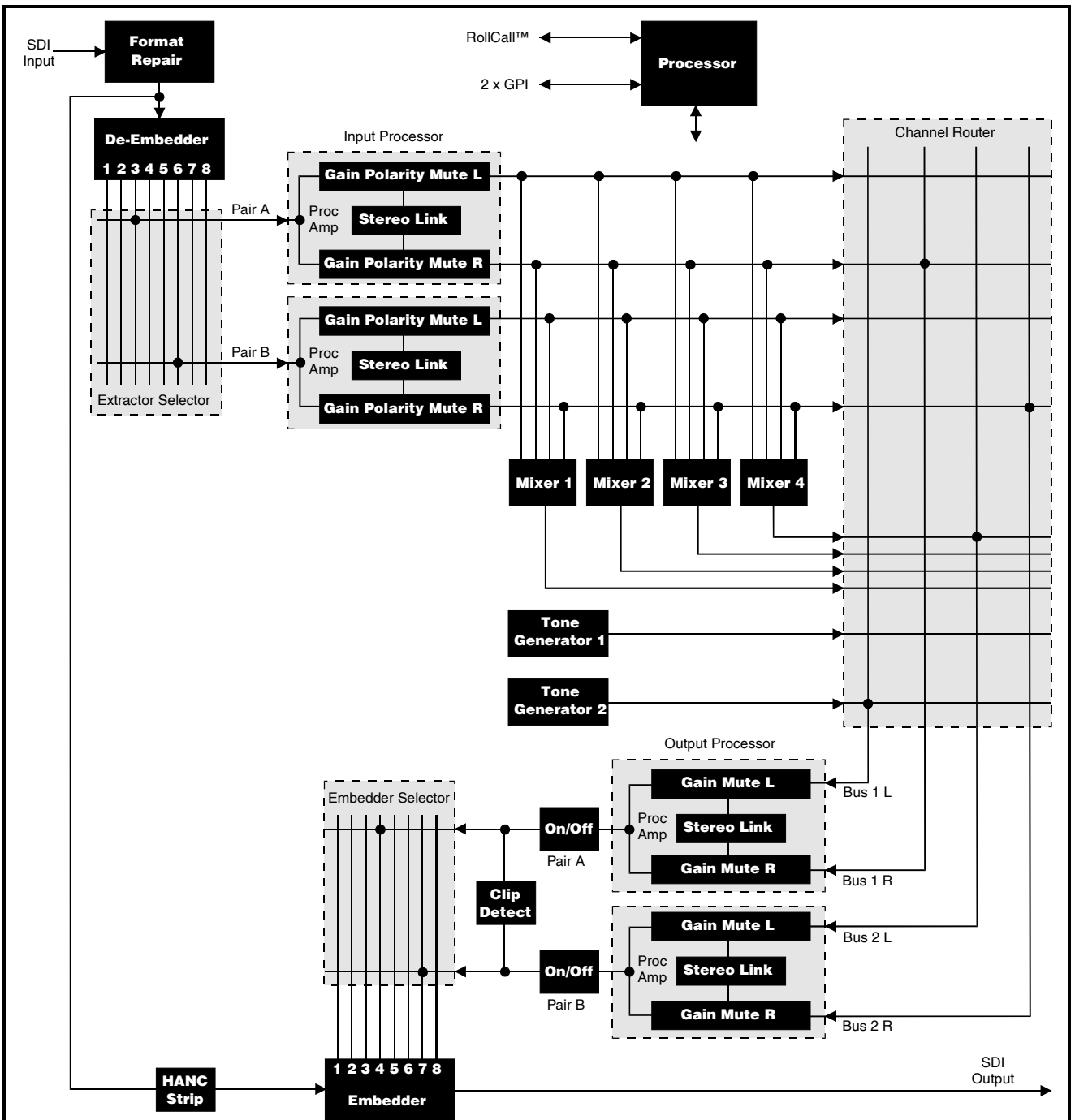


(Enclosure order codes IQH1S-RC-O, IQH1S-RC-AP, IQH1U-RC-O, IQH1U-RC-AP, Kudos Plus Products)



(Enclosure order codes IQH3N-O, IQH3N-P)

BLOCK DIAGRAM



In this example Pair 3 and Pair 6 have been extracted from the input signal and redefined as Pair A and Pair B.

These 2 pairs are then passed to the Input Processor where the left and right channels are processed and the 4 outputs fed to the Channel Router.

The Output Processor receives 4 inputs from the Channel Router, where the signals are:

- Bus 1 Left = Tone generator 2
- Bus 1 Right = Pair A Right
- Bus 2 Left = Mixer 4 output
- Bus 2 Right = Pair B Right

The 2 output pairs are then embedded into output pairs 4 and 7.

Features

- Repairs low-level damage on the SDI input signal.
- Re-distributes embedded audio to avoid SDI switching problems.
- Channel (subframe) mixing and routing.
- Audio pair re-embedding to any (1-8) destination address.
- Embeds silence on loss of source audio.
- Independent input polarity and gain adjustment (± 12 dB, 1dB steps).
- Independent output gain adjustments (± 6 dB, 1dB steps).
- Two internal tone generators.
- EDH monitoring and Insertion.
- Automatic 525 and 625 line operation.
- RollCall control.

TECHNICAL PROFILE

Features

Signal Inputs

Digital Video..... 1 x Serial Digital
 GPI 2 x BNC
 Standards SMPTE 259M-C-1997, SMPTE 272M-A-1994, SMPTE 291M-1998

Signal Outputs

Digital Video..... 2 x Serial Digital
 Standards SMPTE 259M-C-1997, SMPTE 272M-A-1994, SMPTE 291M-1998

Card Edge Controls (also available via RollCall)

EDH Reset..... Reset EDH and ANC error history LEDs

Indicators

EDH Error History 3 LEDs - Presence/Minute/Hour
 No D1 Lack of SDI D1 Input
 ANC Error Checksum Errors in Embedded Ancillary Data

Specifications

Serial Input Return Loss..... Better than 15 dB to 270 MHz
 Maximum Input Cable length
 Up to 200 m (PSF1/2 or equiv. cable)
 Serial Output Return Loss.. Better than 15 dB to 270 MHz

Functions Available via RollCall™ Only

Report Embedded Audio Data
 Report Audio Data Pairs on Input & Output SDI
 Input side Gain & polarity ... Independent Gain, Mute & Polarity control over de-embedded channels, ± 12 dB in 1dB steps
 Output side gain & polarity . Independent Gain, Mute & Polarity control over de-embedded channels, ± 6 dB in 1dB steps
 Channel routing & mixing .. Output channels routed from any input, or generated from any mix of multiple inputs
 Tone frequency & amplitude
 2 channel tone generator, 100hz to 10kHz in 100Hz steps. 0dBFS to -60dBFS in 1dB steps
 Report EDH Error History .. Report history.
 Line Standard Reporting Report 525 or 625

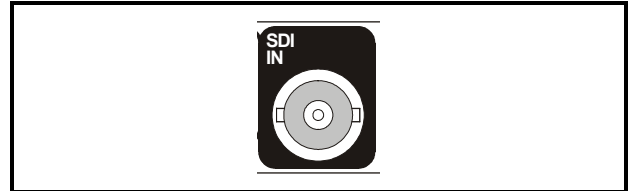
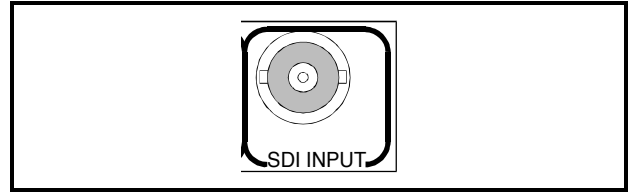
Power Consumption

Module Power Consumption
 6.7W max

INPUTS

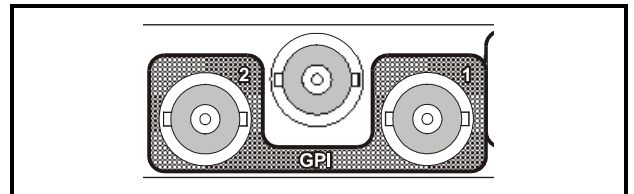
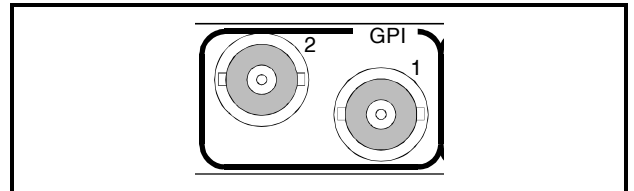
Serial Digital Video Input

The serial digital input to the unit is made via this BNC connector which terminates in 75 Ohms.



GPI INPUTS

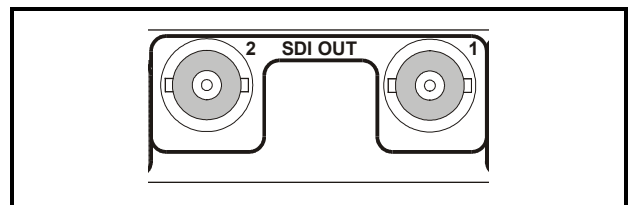
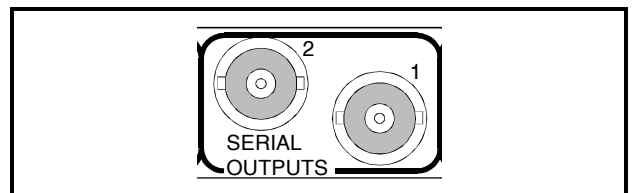
These two GPI connectors are used for accepting GPI information (from mechanical switch contacts, relay contacts etc.)



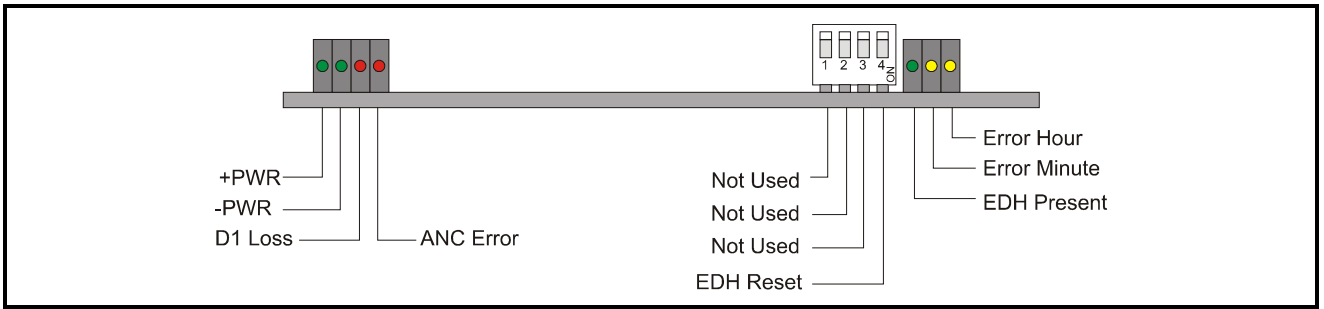
OUTPUTS

Serial Digital Video Outputs

These are the two isolated Serial Digital outputs of the unit via BNC connectors for 75 Ohms.



CARD EDGE CONTROLS



LED INDICATORS

Power

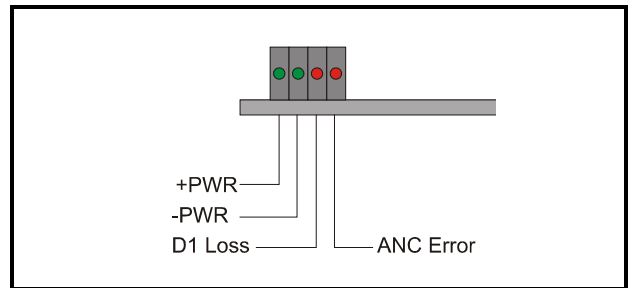
These two PWR indicators are illuminated when the positive and negative supplies are present.

D1 (Serial Video) Loss

This LED will become illuminated when there is no 4:2:2 input.

ANC ERROR

This LED will become illuminated for a short interval each time a checksum error is detected in the embedded ancillary data packets.



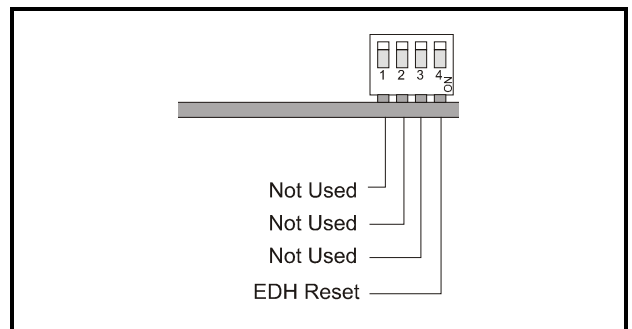
4-WAY DIP SWITCH

Setting to the DOWN (ON) position enables the function.

Note that positions 1, 2 and 3 of the switch are not used on this module.

Position 4 EDH RESET

When enabled this will clear EDH error history.



RollCall Control via a PC

For full details please see the operator's manual for the IQSPCR, RollCall™ Software Installation Guide & Operational Overview

IQSPCR is a PC application that runs under Windows 3.1x or 95. It allows full remote control of RollCall for this and other compatible units.

SOFTWARE INSTALLATION GUIDE

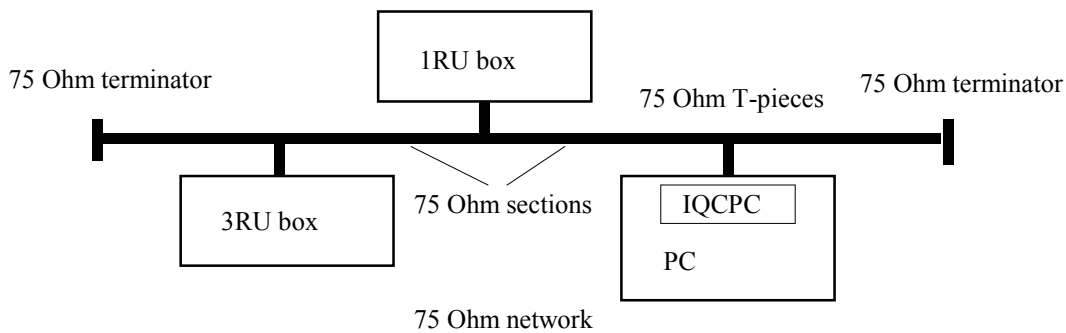
System Requirements

The minimum requirement for installing the RollCall software is:
 RollCall PC Control Software (IQSPCR).
 IQ Modular 1RU or 3RU rack with Gateway card installed.
 PC running Microsoft Windows 3.1x or Windows '95 .
 Either a RollCall PC card (IQPC) or a RS232 to RS422 9 way converter fitted to the PC.

Connecting the hardware:

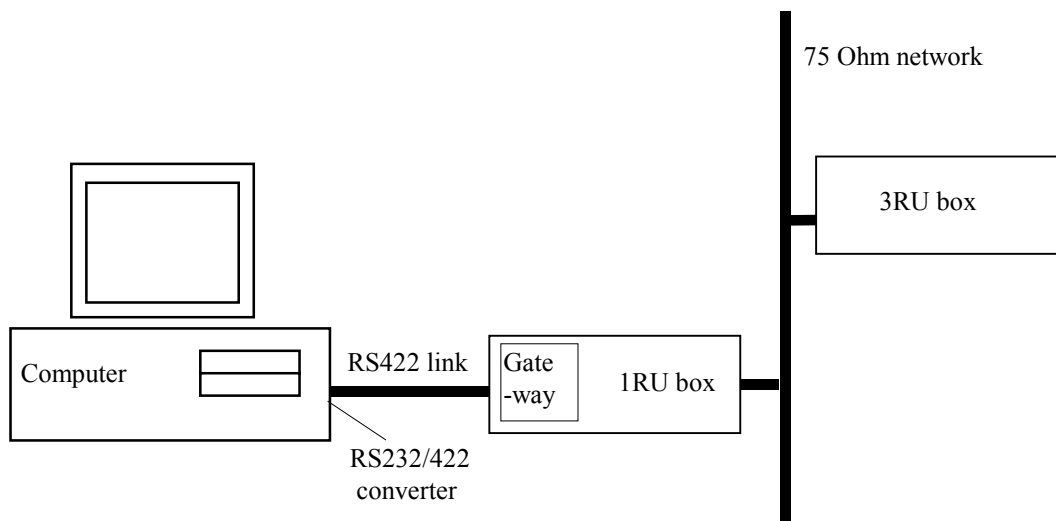
There are two choices for connecting the PC to the Modular IQ System:

1. 75 Ohm co-axial cable BNC for box-to-box connections running at 2.5 Mbs.



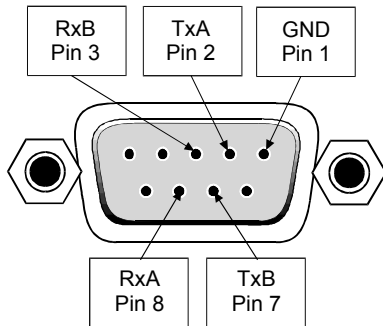
Each unit is physically joined via a T-piece connector. Each T-piece is connected by 75 Ohm co-ax cable to create a section. Each section of cable can be up to 400m. Each end of the network is terminated by a 75 Ohm terminator.

2. RS422 running at 38.4 kbs asynchronous:



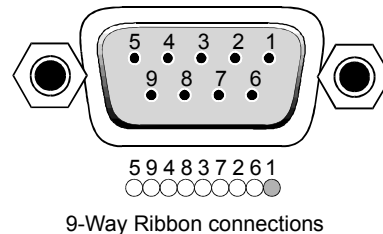
Connect the RS232/RS422 converter to COM1 or COM2 of the PC and connect this via RS422 cable to the 9 pin 'D' on the IQ modular unit. This interface is specifically designed for third party connections into the system. This allows PC's or any other serial device access to any of the units within the system. Every active 1RU or 3RU box has one of these ports.

Physical Interface - RollCall RS422



N.B. Connector is a socket, viewed from mating face. Equivalently, this is a plug, viewed from the rear, cable face.

For reference, the A signal is at 0V at line idle, and the B signal at 5V.



Standard Connections

9-way Connector	FUNCTION
1	Frame Ground
2	Transmit A (Tx-)
3	Receive B (Rx+)
4	Receive Common
5	[No connection]
6	Transmit Common
7	Transmit B (Tx+)
8	Receive A (Rx-)
9	Frame Ground

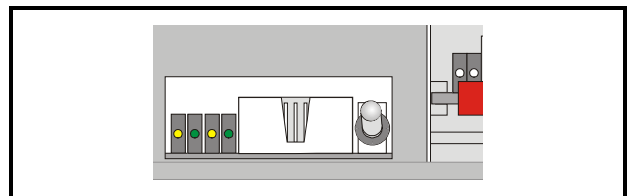
N.B. The D connector on the Gateway card could also be configured as RS485.

Selection of the interface format is by a switch on the card.

Note that RS485 interconnections should be pin to pin and only be used for Snell & Wilcox RollNet applications.

DOWN i.e. towards the PCB selects RS422

UP i.e. away from the PCB selects RS485



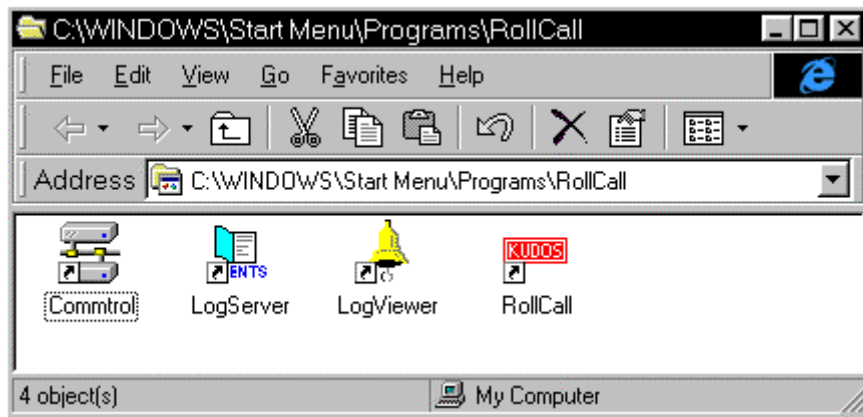
Switch set to RS485

Software Installation

Run SETUP.EXE from the installation diskette to install the suite of Rollcall programs. Product code IQSPCR contains the Rollcall Remote Control (rollcall.exe) and communications driver (commtrol.exe) programs. Product code IQSPCD contains the Rollcall Remote Control (rollcall.exe), communications driver (commtrol.exe), logserver (rollog.exe) and logviewer (rollview.exe) programs.

On startup, the setup program prompts for an installation directory. The default installation directory is C:\ROLLCALL. The set-up procedure will copy all the necessary files to this directory. Set-up will also create a Windows Group called RollCall.

Depending on the product code of the diskette, Either two icons (RollCall and Commtrol for IQSPCR) or four icons (RollCall, Commtrol, LogServer and LogViewer for IQSPCD) will appear in the group.



Overview

ROLLCALL.EXE:

This program allows control of RollCall compatible units. (IQ Modules, Supervisor, other S&W units with RollCall gateway). Each unit has a 'control template' window for control of that device. The user can configure the program for USER, ENGINEER or SUPERVISOR access levels with password protection. It can install "template" files from new units automatically or by user request.

ROLLLOG.EXE:

This is the Log Server application that collects logging information from units on the network. Keeps a running log file of every event received. Writes a current status file for configured units and allows the LogViewer program to display the information.

ROLLVIEW.EXE:

This program displays the current status file written by ROLLLOG.EXE in a tabulated form. Coloured conditions highlight warning and failure states. Can be configured for network access for remote monitoring using share information from the LogServer program.

COMMTROL.EXE:

This program is called automatically by ROLLCALL.EXE or ROLLLOG.EXE and normally runs minimized. Usually, there is no need to run this program by itself. This program provides the basic communications with the PC card, serial comms ports or TCP/IP protocols. It also has monitoring facilities for data analysis.

For more details see the operator's manual for the IQSPCR Section 3

RollCall Control Templates for the IQDEAP
 (Also refer to the block diagram on page 3)

Channel Router

This allows the four Router buses (Bus 1 L, Bus 1 R, Bus 2 L and Bus 2 R) to be assigned to various inputs.

By clicking on the intersecting location in the matrix the function shown on the left of the matrix will be assigned to the bus shown above the matrix.

Stereo Route

When this item is selected the bus will automatically assign a single selected input as a stereo pair.

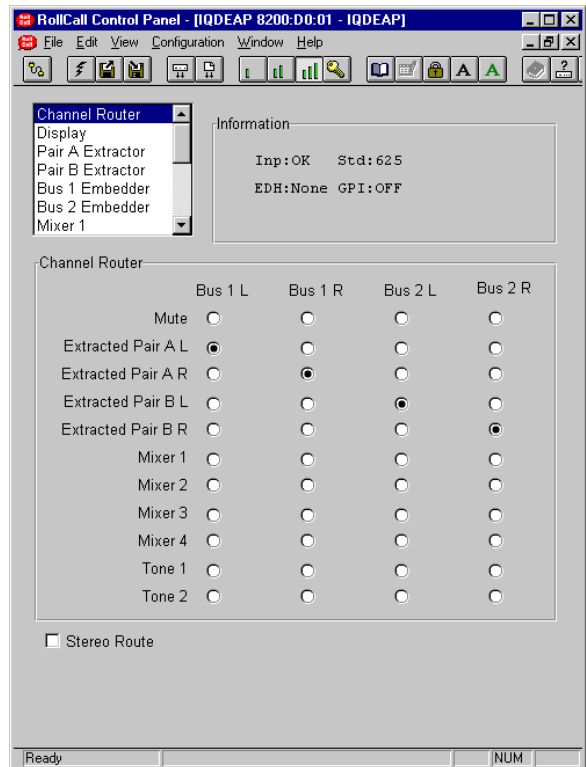
For example, if Bus 1 R (right) is assigned to Extracted Pair A R (right) and then the Stereo Route selected, Bus 1 L (left) will automatically be assigned to Extracted Pair A L (left).

This function may also be used to accomplish left/right, right/left swapping.

For example, if Bus 1 R (right) is assigned to Extracted Pair A L (left) and then the Stereo Route selected, Bus 1 L (left) will automatically be assigned to Extracted Pair A R (right).

When Preset Unit is selected the assignments are as follows:

Bus 1 L (left)	to	Extracted Pair A L (left)
Bus 1 R (right)	to	Extracted Pair A R (right)
Bus 2 L (left)	to	Extracted Pair B L (left)
Bus 2 R (right)	to	Extracted Pair B R (right)



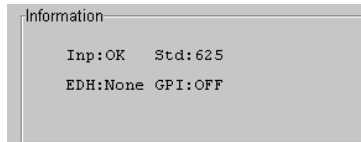
Display

This allows information about the selected item to be displayed in the Information area.

Display Information

This item allows various status functions to be selected.

Status



This will show basic details of the operational status of the unit.

Abbreviations used in the Inp: (Input Status) item are as follows:

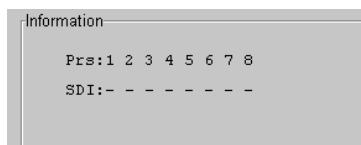
- = No valid input present
- OK = Valid input present

Abbreviations used in the Std: (Input Line Standard) item are as follows:

- *** = Standard is not recognized
- 625 = Input line standard is 625
- 525 = Input line standard is 525

Other intuitive messages may appear in the lower left area of the display, for example, GPI:OFF, indicating that the GPI function is set to OFF.

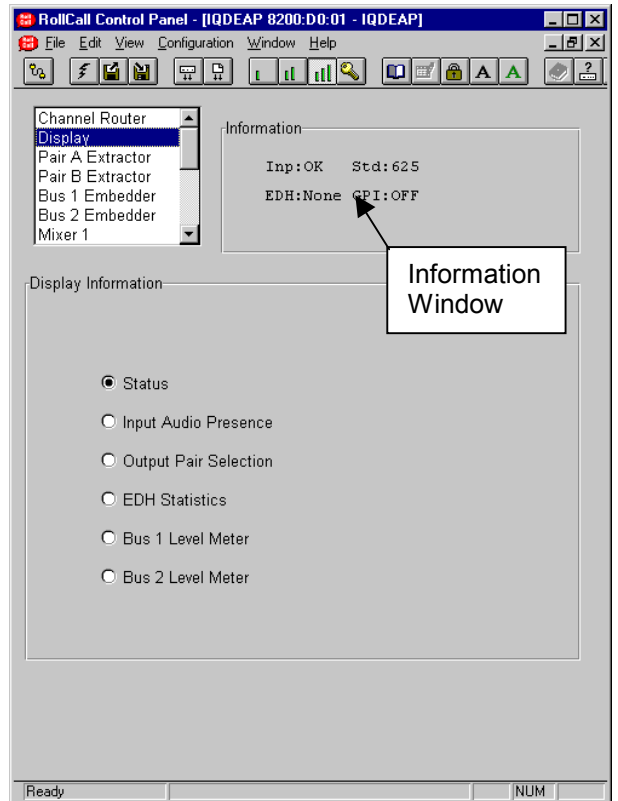
Input Audio Presence



This function shows information about the presence of the input SDI Embedded Audio pairs.

The SDI: text line uses the following abbreviations:

- P = Pair is present
- = Nothing present



Display (cont)

Output Pair Selection

```
Information
Prs:1 2 3 4 5 6 7 8
Out:1 2 - - - - -
CLP:
```

This function will present information about the selected output pairs 1 to 8.

The Out: text line for each of the pairs uses the following abbreviations:

- P = Pair is present
- = Nothing present
- 1 = Bus 1 embedded in the pair
- 2 = Bus 2 embedded in the pair

CLP:

This function indicates that the output signal has been clipped at 0dBFS.

The CLP: text line uses the following abbreviations:

- L = Left
- R = Right
- B = Both (Left and right)

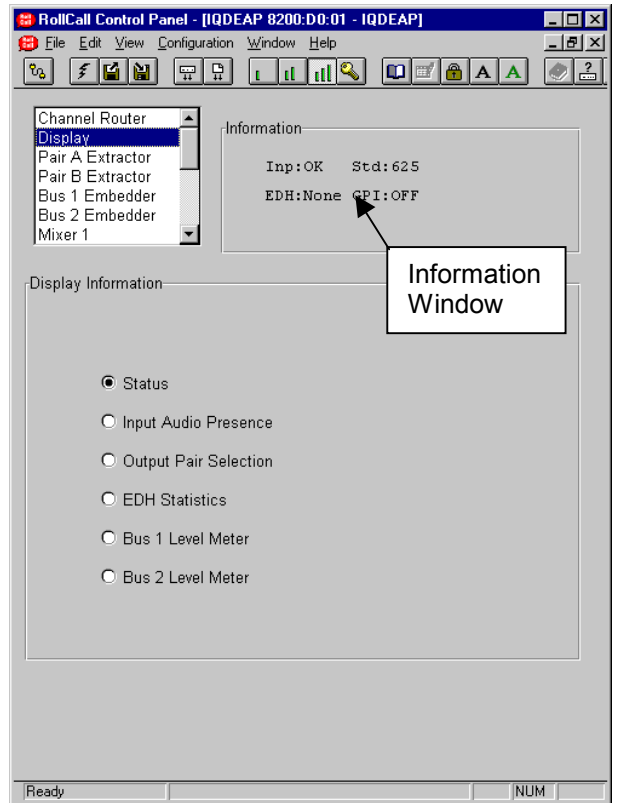
EDH Statistics

```
Information
Inp:OK Std:625
EDH:None Err:0
E-Time:00:04:11
```

This function will display the state of the input error detection handler including the presence of errors, the number of errors and the error time.

The EDH: text line uses the following abbreviations:

- None: No EDH information present.
- OK: No EDH errors.
- Err: This is the number of errors since EDH was reset.
- E-Time: This is time since EDH was reset
00:00:00 in Hours:Minutes:Seconds



Bus 1, Bus 2 Level Meter

```
Information
| | | L1
FS -24 -10 -2 0dB
| | | R1
```

This function will display the right and left signal levels for Bus 1 or Bus 2 in dBFS.

Pair A and Pair B Extractor

Each of the 8 input channels may be selected for Pair A and Pair B and adjustments/settings made to them.

Pair A and Pair B Extractor

This allows one of the 8 channels to be selected for extraction as Pair A and Pair B.

Pair A and Pair B ProcAmp

This function allows various settings and adjustments to be made to the selected channel.

Left and Right Gain

The gain of the left and right channels may be individually adjusted over the range of +12 dB to -56 dB in 1 dB steps. Preset is to 0 dB

Note that for this and other screens the following applies:

The **P** symbol represents the Preset function and will return the function to the default setting.

The **◀** and **▶** symbols at the ends of the scroll bar allow the value to be adjusted in discrete steps.

The numerical value will be shown above the scroll bars and selecting Preset **P** will return the setting to the calibrated value of 0 for items on this screen.

Invert Polarity

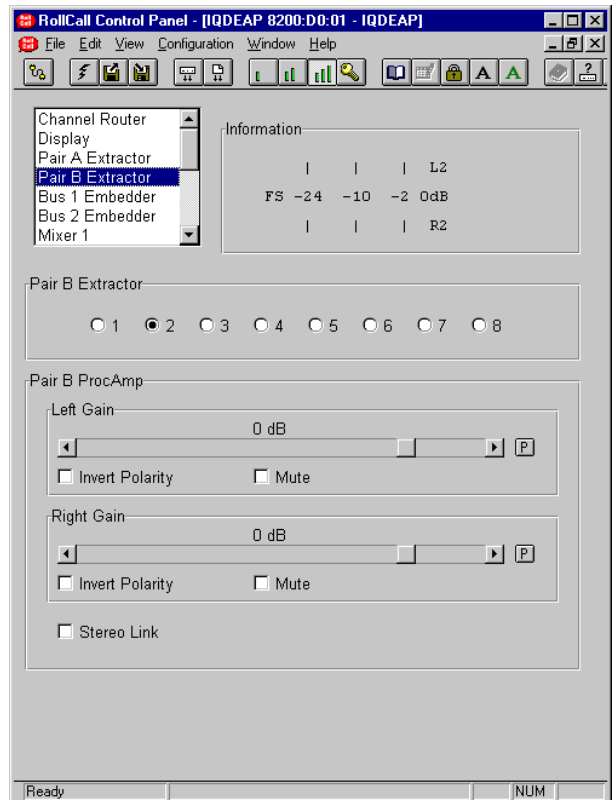
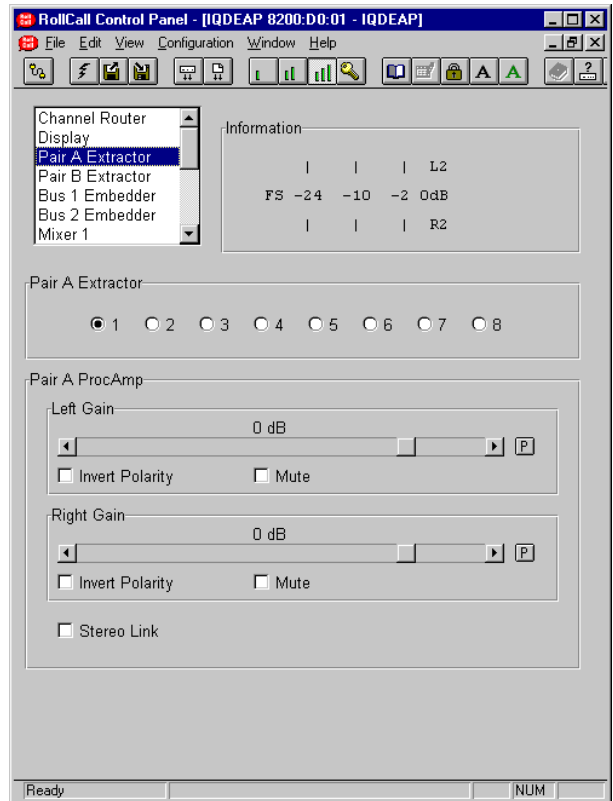
When checked this will allow the inversion of the signal. (Phase swapping of 180°).

Mute

When checked the signal will be muted.

Stereo Link

When this item is selected the Left and Right gain controls will be locked together (ganged) such that the gain of both channels will be adjusted together and by the same amount.



Bus 1 and Bus 2 Embedder

The outputs from the Channel Router (Bus 1 L, Bus 1 R, Bus 2 L and Bus 2 R) are fed to the two output processors where the gain may be adjusted and the signal muted.

The left and right channels are then combined and passed via an On/Off switch to the Embedder Selector.

This function allows ProcAmp adjustments to be made, the output embedding destination for Pairs A and B to be selected or the embedding to be turned Off.

Bus 1 and Bus 2 ProcAmp

This function allows various settings and adjustments to be made to the selected channel.

Left and Right Gain

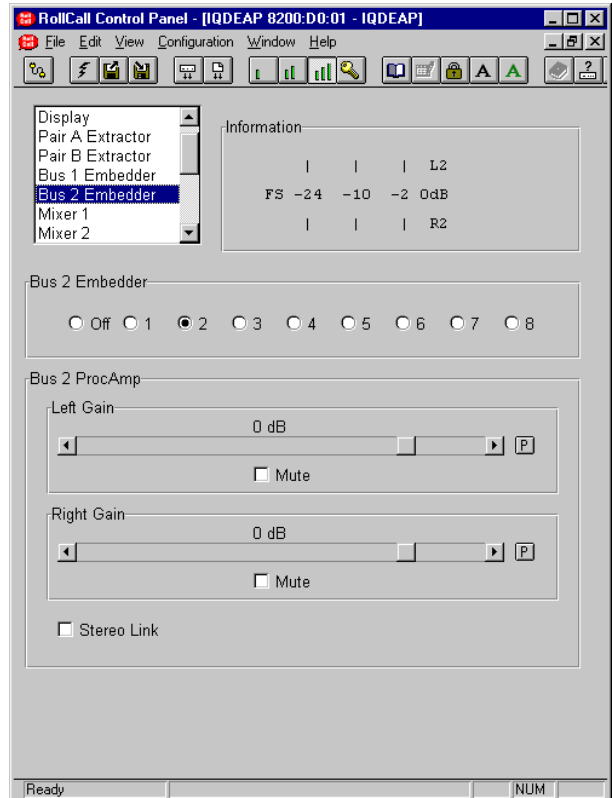
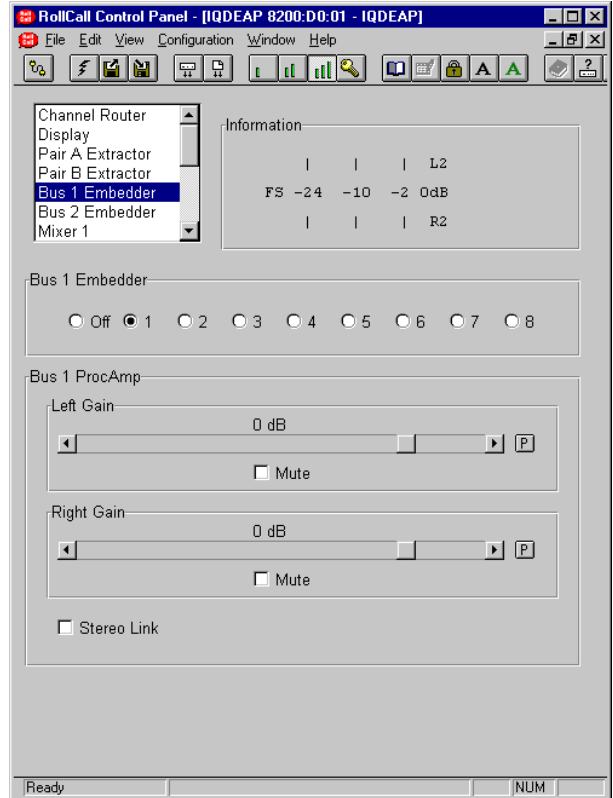
The gain of the left and right channels may be individually adjusted over the range of +6 dB to -28 dB in 1 dB steps. Preset is to 0 dB.

Mute

When checked the signal will be muted.

Stereo Link

When this item is selected the Left and Right gain controls will be locked together (ganged) such that the gain of both channels will be adjusted together and by the same amount.



Mixer 1, 2, 3 and Mixer 4

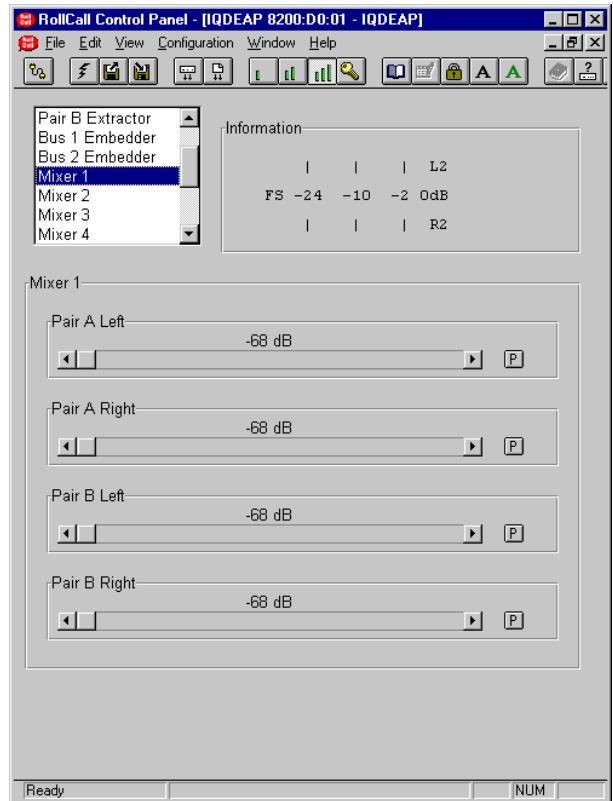
The left and right channels of Pairs A and B that have been extracted from the input signal are fed to the Channel router. These four signals are also fed to the inputs of four separate 4-input mixers.

The outputs of these mixers provide four extra input selections for the Channel Router.

This function allows the mixing levels for each of the input signals, to be adjusted.

The range of adjustment is from 0 to -68 dB in steps of 1 dB.

Preset sets the gain to -68 dB.



Tone Generator

These tone generators allow a tone to be used as signals for the Channel Router.

Tone Generator 1 and 2

The frequency and amplitude may be set for the two generators.

The amplitude may set from -68 dBFS to 0 dBFS in steps of 1 dB

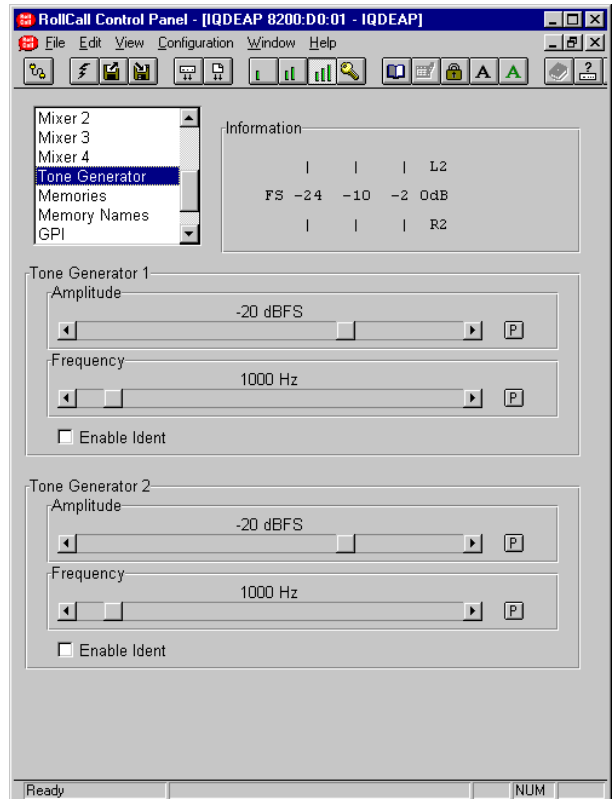
Preset value is -20 dB

The frequency may set from 100 Hz to 12700 Hz in steps of 100 Hz.

Preset value is 1000 Hz

Enable Ident

When selected this applies a half-second muting to the tone every 3 seconds.



Memories

Recall from Memories

This function allows 8 different settings of all items to be recalled from the 8 memory locations as saved in the **Save to Memories** function.

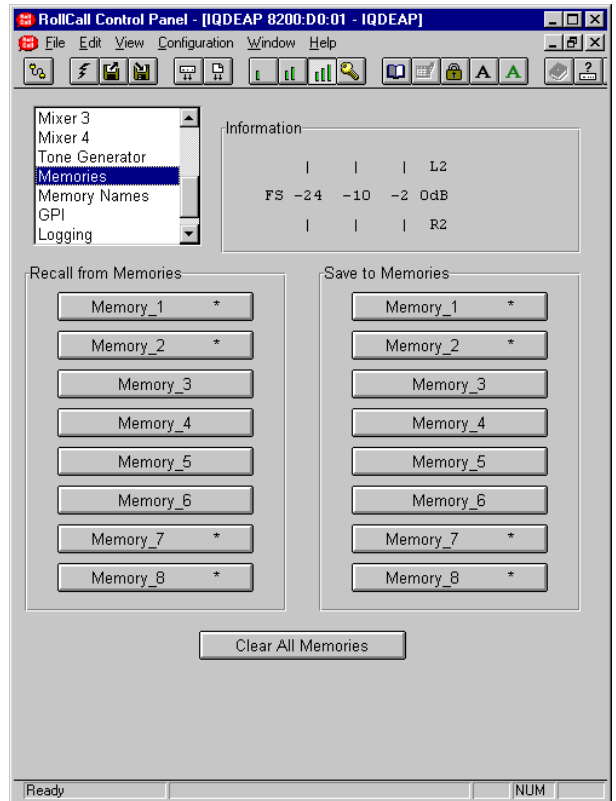
Save to Memories

This function allows the settings of all items to be saved. Up to 8 different set-ups may be saved in the 8 memory locations

*Note that if a memory location already contains saved data, an asterisk * will appear to the right of the memory location number.*

Clear All Memories


This item allows all memory locations to be cleared and returned to their default (preset) settings.




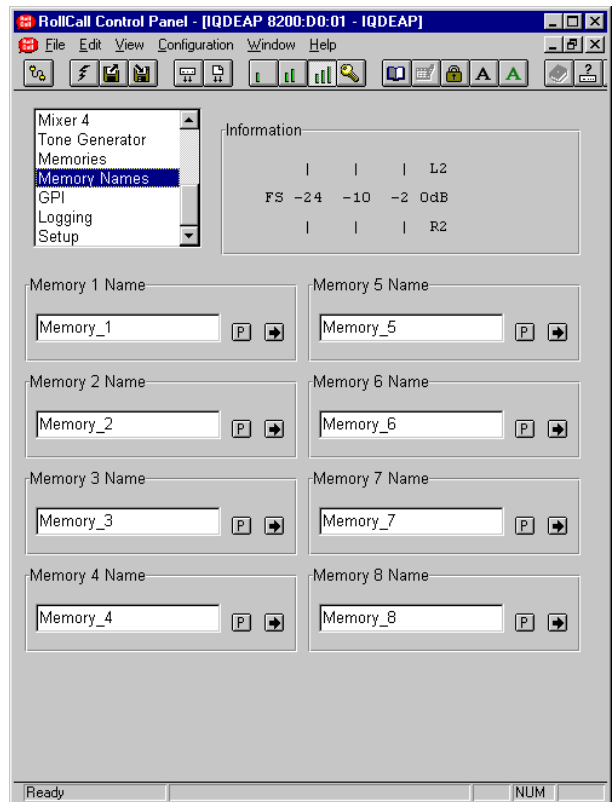
Memory Names

Memory 1 to 8 name

This function allows the name of a memory location to be changed.

To change the memory name, type the new name in the text area and then select  (return).

Selecting Preset  will return the text to the default name.



GPI

There are two independent GPI inputs on the rear of the IQDEAP.

These two inputs may be configured to recall any of the 8 memory settings or may be turned OFF.

GPI 1 and GPI 2

The scroll bar allows each of the memory locations to be selected and plus (GPI) OFF.

The function will be activated when the GPI input receives a transition from open to closed.

Notes

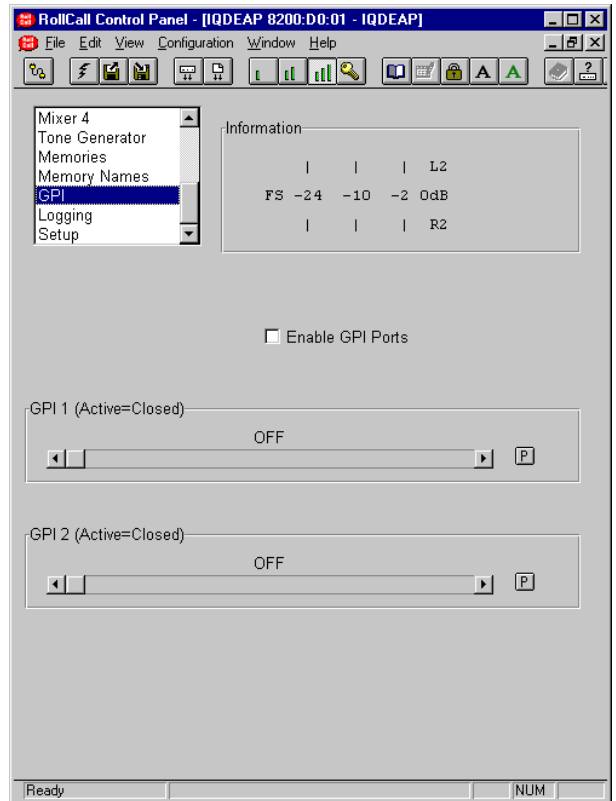
If both inputs are activated at the same time GPI 1 will have priority.

If the enable GPI Ports function is checked when the GPI is active (closed) no action will occur. The input must receive a transition from open to closed to operate.

Enable GPI Ports

When this box is checked both GPI functions will become active.

Preset for each of the GPI modes is to OFF; the unit will then have no response to the GPI inputs.

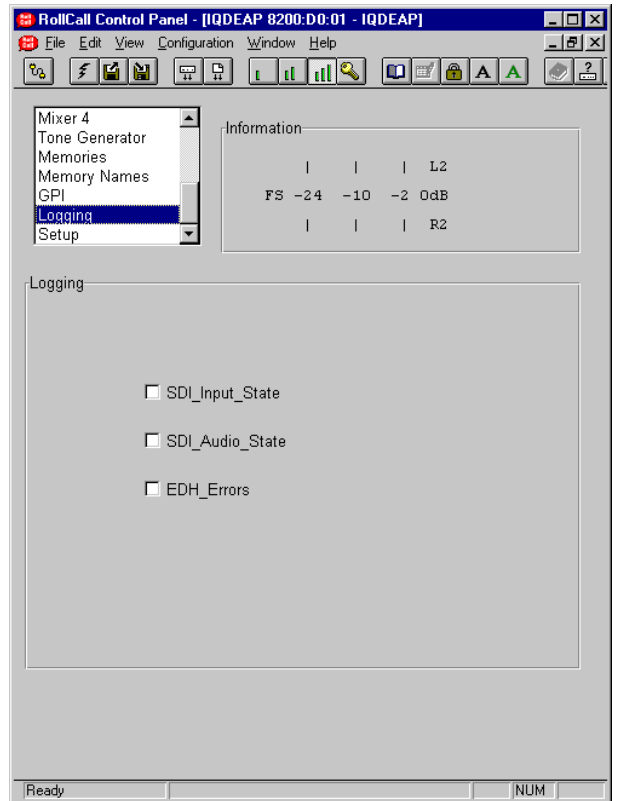


Logging

If a logging device is attached to the RollCall™ network, information about various parameters will be reported to the logging device assigned in the Remote Control Interface system.

Checking the boxes will allow that information to be made available for logging.

Preset is nothing enabled.



Setup

Slow Mix

Whenever a control is operated that involves changing the amplitude of a signal, for example Mute, Mixer level etc. the rate of change may be set with this function.

When the Slow Mix function is enabled the rate of change will be slow (approximately 1 second, although it depends on the actual setting) but when Slow Mix function is disabled the rate of change will be instant.

Preset Unit

Selecting this item sets all adjustment functions that include a preset facility, to their preset values.

Reset EDH Stats

The input 4:2:2 stream is continuously monitored for EDH errors. Enabling this function will reset all EDH statistics.

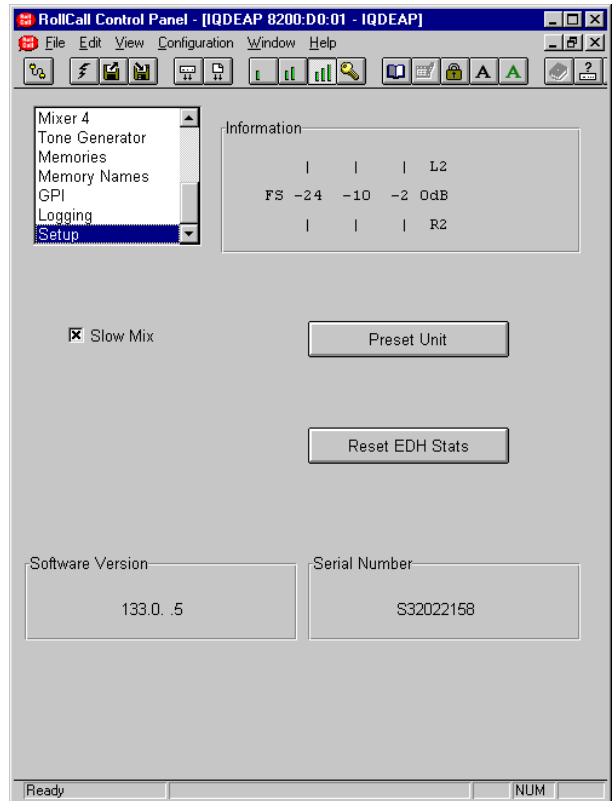
A regenerated EDH packet is inserted on the output 4:2:2 stream.

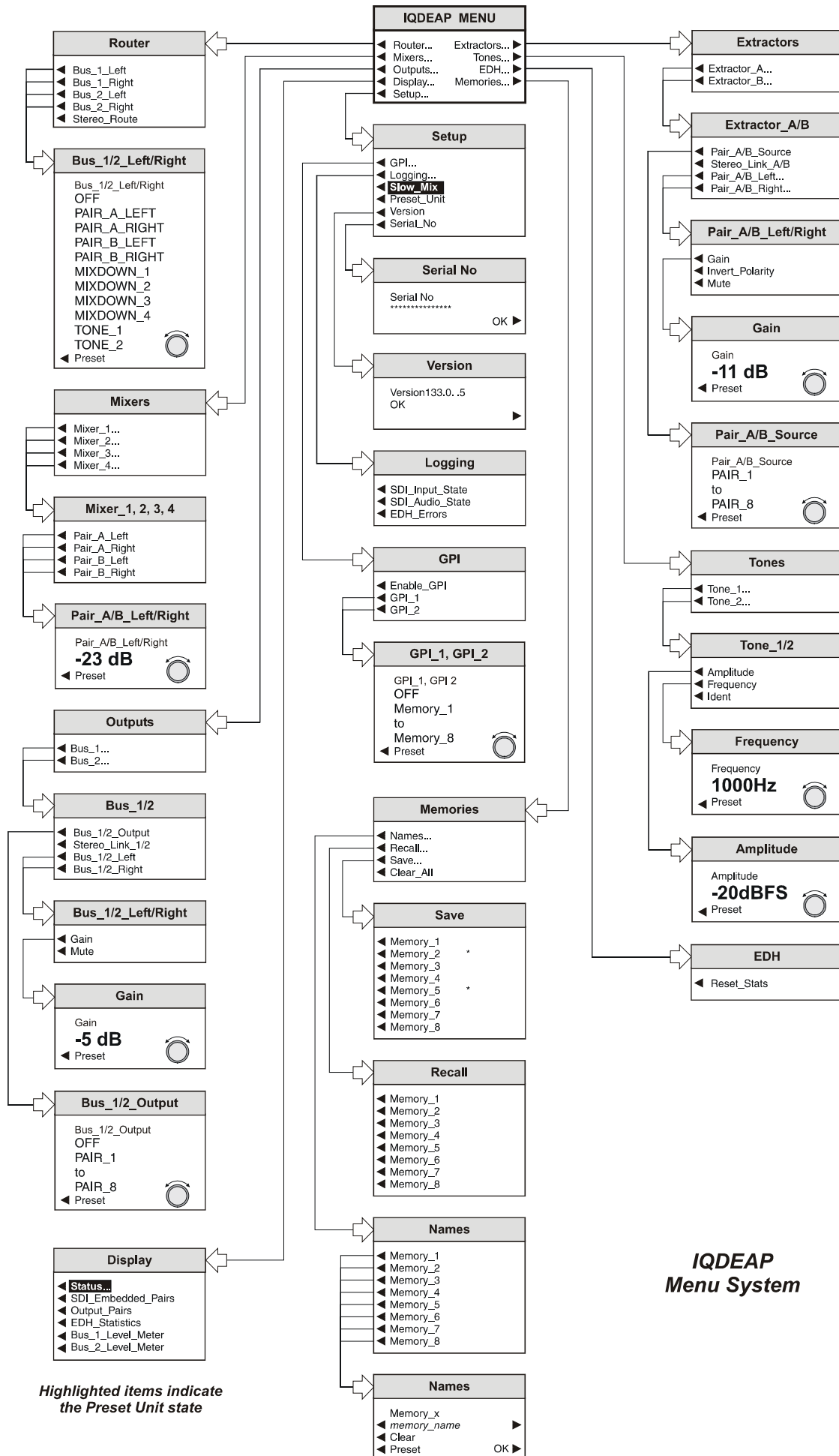
Software Version

This item will display the version number of the software fitted to the unit.

Serial Number

This item will show the serial number of the unit.





IQDEAP Menu System

OPERATION FROM AN ACTIVE CONTROL PANEL

The card may be operated with an active control panel via the RollCall™ network.

The menus available for this card are shown on page opposite and will appear in the Control display window.

Operational details for the remote control panel will be found in SECTION 1 of the Modular System Operator's Manual.

MENU DETAILS

(see IQDEAP Menu System on previous page)

MAIN MENU

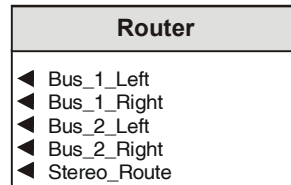
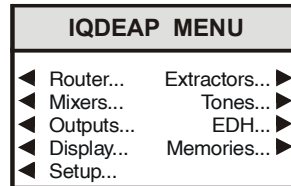
The main or top level menu allows various sub-menus to be selected by pressing the button adjacent to the required text line.

Note that where a menu item is followed by three dots (...) this indicates that a further sub-menu may be selected.

Whenever a menu item is selected the parameters of that selection will be displayed in the Information window of the front panel. Where the selection is purely a mode selection and does not enable a sub-menu, the text will become reversed (white-on-black) indicating that the mode is active. If the mode is not available for selection the text will remain normal.

Also refer to the block diagram on page 3 for more information.

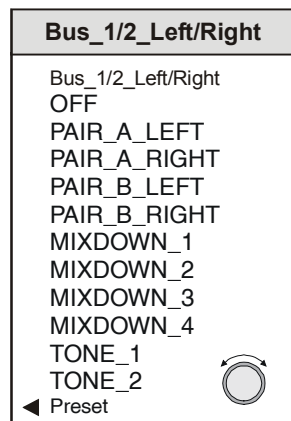
MAIN MENU



This allows the four Router buses (Bus 1 L, Bus 1 R, Bus 2 L and Bus 2 R) to be selected and assigned to various inputs.

◀ Bus_1/2_Left/Right

This allows an input to be assigned to the selected bus.



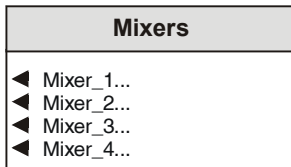
When Preset Unit is selected the assignments are as follows:

Bus 1 L (left)	to	Extracted Pair A L (left)
Bus 1 R (right)	to	Extracted Pair A R (right)
Bus 2 L (left)	to	Extracted Pair B L (left)
Bus 2 R (right)	to	Extracted Pair B R (right)

◀ **Mixers**

The left and right channels of Pairs A and B that have been extracted from the input signal are fed to the Channel router. These four signals are also fed to the inputs of four separate 4-input mixers.

The outputs of these mixers provide four extra input selections for the Channel Router.



This function allows a particular mixer to be selected.

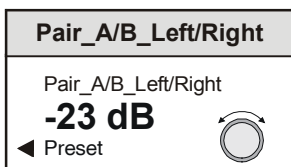
◀ **Mixer 1, 2, 3, 4.**

This item allows one of the signals, extracted from the input, to be selected.



◀ **Pair_A/B_Left/Right**

This function allows the mixing levels for the selected input signal, to be adjusted.

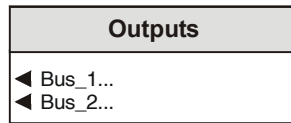


The range of adjustment is from 0 to -68 dB in steps of 1 dB.

Preset sets the gain to -68 dB.

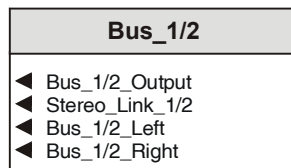
◀ **Outputs...**

This will reveal a sub-menu that will allow either of the output Buses 1 or 2 to be selected.

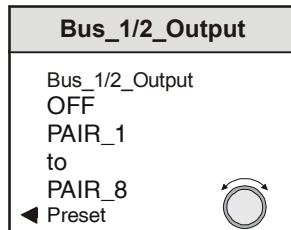


◀ **Bus_1/2**

This item allows various functions to be applied to the selected bus.

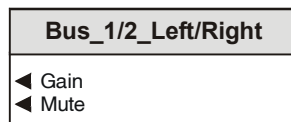


◀ **Bus_1/2_Ouput**



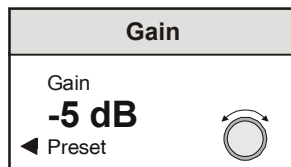
This function allows the output embedding destination for Pairs A and B to be selected or the embedding to be turned Off.

◀ **Bus_1/2_Left/Right**



This function allows ProcAmp adjustments to be made to the selected channel.

◀ **Gain**



The gain of the selected channel may be individually adjusted over the range of +6 dB to -28 dB in 1 dB steps

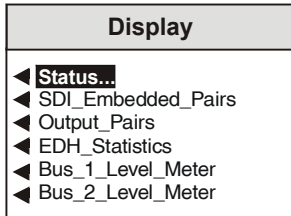
Preset is to 0 dB.

◀ **Mute**

When selected (text highlighted) the signal will be muted. Preset is to not muted.

◀ **Display...**

This menu allows information about the selected item to be displayed in the Information LCD window.



◀ **Status**

This will show basic details of the operational status of the unit.

The Inp: (Input Status) item uses the following abbreviations:

- ** = No valid input present
- OK = Valid input present

The Std: (Input Line Standard) item uses the following abbreviations:

- *** = Standard is not recognized
- 625 = Input line standard is 625
- 525 = Input line standard is 525

Other intuitive messages may appear in the lower left area of the display, for example, GPI:OFF, indicating that the GPI function is set to OFF.

◀ **SDI_Embedded_Pairs**

This function shows information about the presence of the input SDI Embedded Audio pairs.

The SDI: item for each of the pairs uses the following abbreviations:

- P = Pair is present
- * = Nothing present

◀ **Output_Pairs**

This function will present information about the selected output pairs 1 to 8.

The Out: item for each of the pairs uses the following abbreviations:

- P = Pair is present
- * = Nothing present
- 1 = Bus 1 embedded in the pair
- 2 = Bus 2 embedded in the pair

CLP:

This function indicates that the output signal has clipped at 0dBFS.

The CLP: item uses the following abbreviations:

- L = Left
- R = Right
- B = Both (Left and right)

◀ **EDH_Statistics**

This function will display the state of the input error detection handler including the presence of errors, the number of errors and the error time.

The EDH: item uses the following abbreviations:

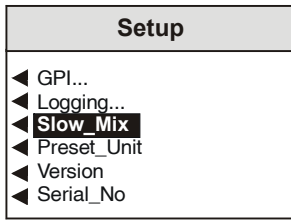
- None: No EDH information present.
- OK: No EDH errors.
- Err: This is the number of errors since EDH was reset.
- E-Time: This is time since EDH was reset
00:00:00 in Hours:Minutes:Seconds

◀ **Bus 1, Bus 2 Level Meter**

This function will display the right and left signal levels for Bus 1 or Bus 2 in dB.

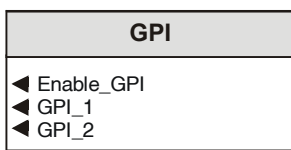
◀ Setup...

This selection reveals a sub-menu that allows various functions to be setup.



◀ GPI

This item allows the GPI inputs to be configured.



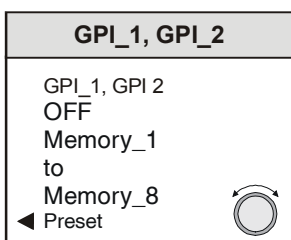
◀ Enable_GPI

When selected this will make both GPI functions active.

◀ GPI_1 and GPI_2.

There are two GPI inputs on the rear of the IQDEAP.

These two inputs may be configured to recall any of the 8 memory settings or may be turned OFF.



The spinwheel allows each of the memory locations to be selected and plus (GPI) OFF.

The function will be activated when the GPI input receives a transition from open to closed.

Notes

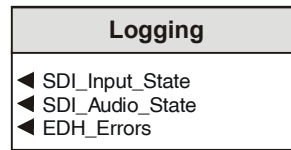
If both inputs are activated at the same time GPI 1 will have priority.

If the Enable GPI function is checked when the GPI is active (closed) no action will occur.

The input must receive a transition from open to closed to operate.

Preset for each of the GPI modes is to OFF; the unit will then have no response to the GPI inputs.

◀ Logging



If a logging device is attached to the RollCall™ network, information about various parameters will be reported to the logging device assigned in the Remote Control Interface system.

Selecting an item will allow that information to be made available for logging.

Preset Unit is nothing enabled.

◀ Slow_Mix

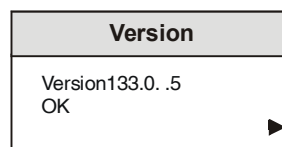
Whenever a control is operated that involves changing the amplitude of a signal, for example Mute, Mixer level etc. the rate of change may be set with this function.

When enabled, the rate of change will be slow (approximately 1 second, although it depends on the actual setting) but when disabled the rate of change will be instant.

◀ Preset_Unit

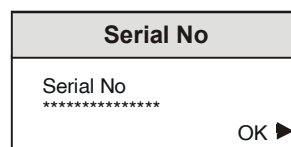
Selecting this item sets all adjustment functions that include a preset facility, to their preset values. Note that this is a momentary action and the text will not become reversed

◀ Version



Selecting this item reveals a display showing the version of the software fitted in the module. Select OK to return to the Setup Menu.

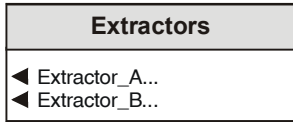
◀ Serial No.



Selecting this item reveals a display showing the serial number of the module. Select OK to return to the Setup Menu.

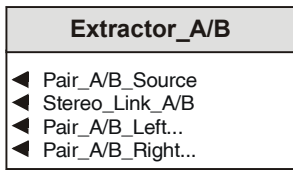
Extractors ▶

Each of the 8 input channels may be selected for Pair A and Pair B and adjustments/settings made to them.



This item allows each of the extractors to be selected.

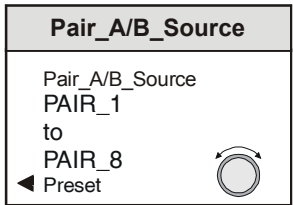
◀ Extractor_A/B



This item allows the extractor to be setup in various ways.

◀ Pair A and Pair B Source

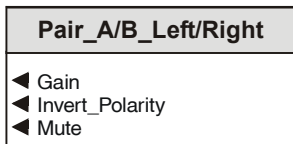
This allows one of the 8 channels to be selected for extraction as Pair A and Pair B.



◀ Stereo_Link_A_B

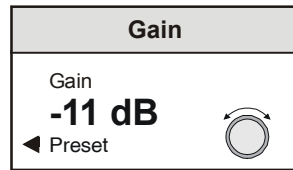
When this item is selected the Left and Right gain controls will be locked together (ganged) such that the gain of both channels will be adjusted together and by the same amount.

◀ Pair A/B_Left and Pair A/B_Right



This function allows various settings and adjustments to be made to the selected channel.

◀ Gain



The gain of the left and right channels may be individually adjusted over the range of -56 dB to +12 dB.

Preset is to 0 dB

◀ Invert Polarity

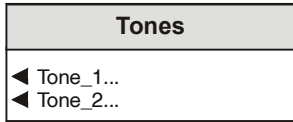
When selected this will allow the inversion of the signal. (Phase swapping of 180°).

◀ Mute

When selected the signal will be muted.

Tones ▶

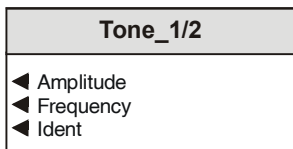
There are two tone generators in the IQDEAP. These tone generators allow a tone to be used as signals for the Channel Router.



This item allows the generators to be selected.

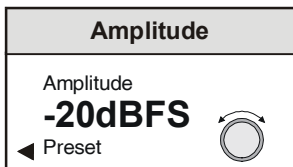
◀ **Tone_1/2**

The frequency and amplitude may be set for the two generators.



Pressing the **Return** button on the front panel will select the value that is displayed in the window.

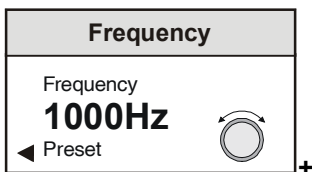
◀ **Amplitude**



The amplitude may set from -68 dBFS to 0 dBFS in steps of 1 dB

Preset value is -20 dB

◀ **Frequency**



The frequency may set from 100 Hz to 12700 Hz in steps of 100 Hz.

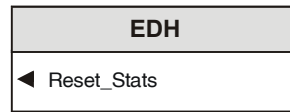
Preset value is 1000 Hz

◀ **Ident**

When enabled the right channel will be identified by the signal being muted for 0.5 second every 2.5 seconds.

EDH ▶

The input 4:2:2 stream is continuously monitored for EDH errors.

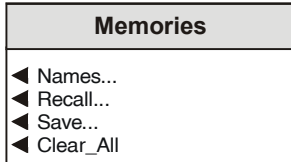


◀ **Reset_Stats**

Data will be reset and a regenerated EDH packet is inserted on the output 4:2:2 stream.

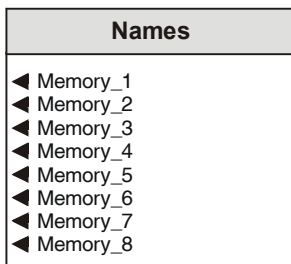
Memories... ▶

This function reveals a sub-menu that allows 8 different settings of all items to be recalled from the 8 memory locations as saved in the Save function.

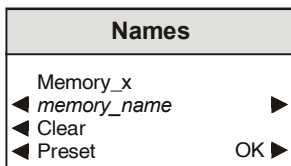


◀ Names

This allows a memory location to be selected and the name changed.



◀ Memory_1 to 8



To compile/edit the text the right ▶ and left ◀ buttons adjacent to the upper text line in the menu should be used to select the character position in the text and the spinwheel used to select the character.

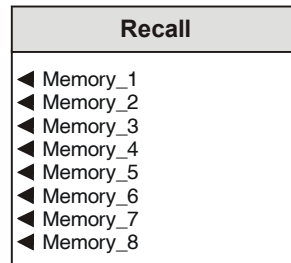
The **◀ Clear** function blanks out the selected character.

The **◀ Preset** function loads the default text, for example **Memory_1**.

O.K. ▶ saves the text and returns to the main menu.

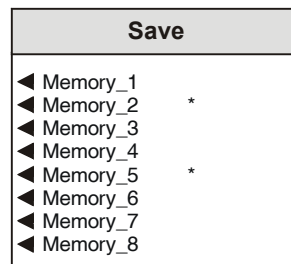
◀ Recall

This function reveals a sub-menu that allows 8 different settings of all items to be recalled from the 8 memory locations as saved in the **Save** function.



◀ Save

This function reveals a sub-menu that allows the settings of all items to be saved. Up to 8 different set-ups may be saved in the 8 memory locations



*Note that if a memory location already contains saved data, an asterisk * will appear to the right of the memory location number.*

◀ Clear_All

This selection allows all memory locations to be cleared and returned to their default (preset) settings.

Manual Revision Record

Date	Version No.	Issue No.	Change	Comments
240602	1	1		First issue released
130802	1	2	5 way panel removed, 8 way panel -1A added	New manual issued
181202	1	3	Card edge switch data added and delay figures added to spec	New manual issued
100403	1	4	Power consumption added to techspec	New manual issued
041203	1	5	To description & features text	New manual issued