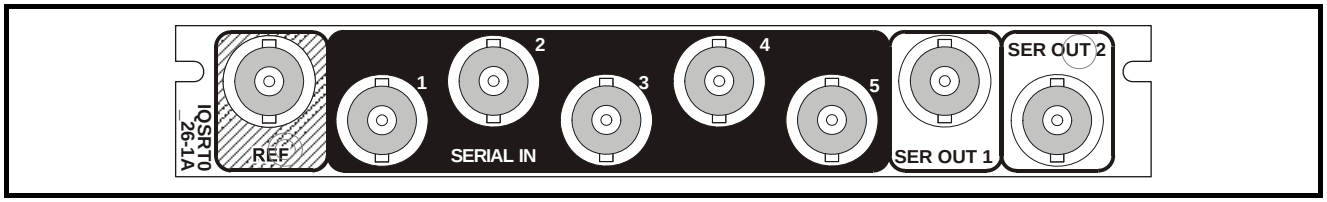
IQSRT00 HD/SD-SDI 5x2 Router

The IQSRT00 is a five input router/switcher for HD-SDI 1.5 Gbit/s, SD-SDI/DVB-ASI 270 Mbit/s and wide-band signals. This module provides a mixed HD/SD solution and includes both a bonus input and a bonus output when compared with the common 4X1 specification. Dual outputs and using just one slot in a 3RU enclosure mean that very powerful routing solutions can be built in a very compact space. Ideal as a comprehensive local HD/SD router, a range of RPAN control panels are available for easy construction of comprehensive control environments.

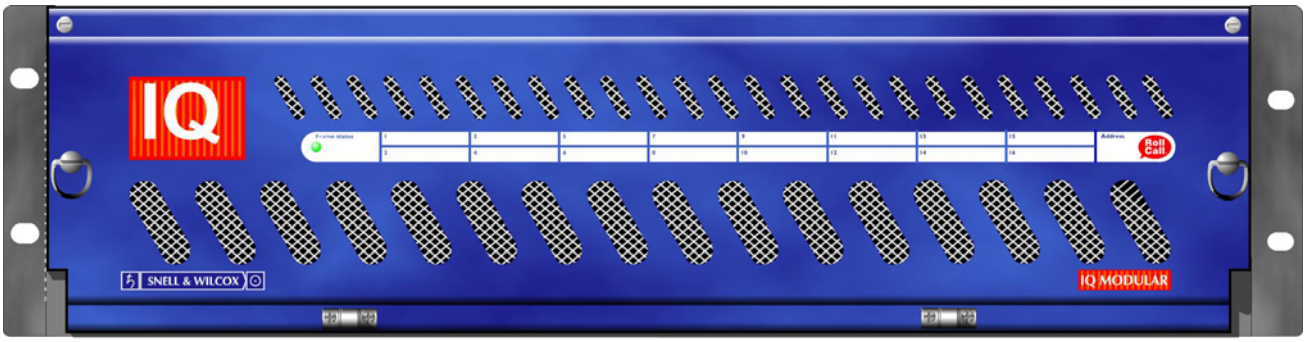
REAR PANEL VIEW



Versions of the module cards available are:

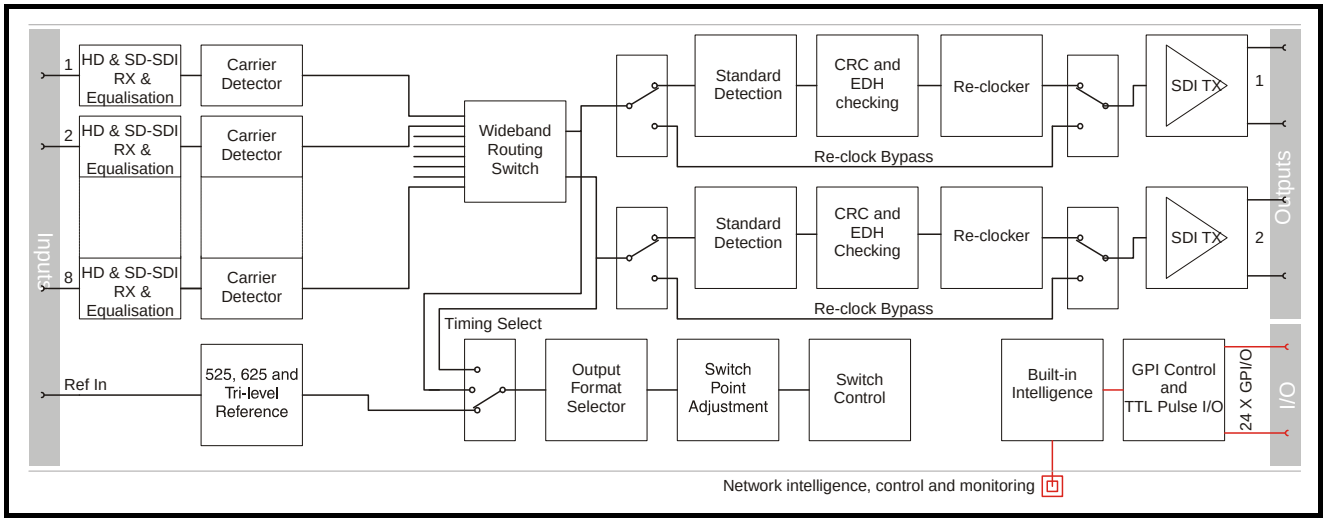
IQSRT0026-1A HD/SD-SDI 5x2 Router. 2 HD/SD-SDI outputs, Single width module

Note that this module can only be fitted into the 'A' Style Enclosure shown below.



(Enclosure order codes IQH3A-E-0, IQH3A-E-P, IQH3A-0-0, IQH3A-0-P)

Block Diagram



Features

- HD/SD-SDI router with SMPTE RP168 switching when timed to an external reference
- Standards supported:
- HD-SDI to SMPTE292M
- SD-SDI to SMPTE259M-C
  - DVB-ASI
  - Choice of SD bi-level or HD tri-level reference switching
  - Can be used to select between inputs of different standards
  - Handles HD-SDI or SD-SDI/ASI sources with re-clocking
- Handles other wide-band signals without re-clocking
- Comprehensive button per cross-point, or multi-destination control from RPAN router control panel
- Optional RS-422 control with separate IQSPI00 module

Reference capabilities.
When a HD output standard is selected all reference types can be detected and used (within the limits defined by the compatibility matrix), i.e. bi-level and tri-level syncs.

Technical Profile

Input and Outputs

Signal Inputs

Inputs .....5 x Serial Digital Input(s)

Electrical .....1.5Gbit/s HD-SDI, SMPTE 292M
270 Mbit/s SDI, SMPTE 259M-C/DVB-ASI

Input Cable Length.....Up to 140m Belden 1694A @ 1.5 Gbit/s
Up to 350m Belden 1694A @ 270 Mbit/s

Analog Reference .....1 x Analog Reference to SMPTE240/ 274M and RS170A

Connector / Format .....BNC/ 75ohm panel jack on standard S&W connector panel

Return Loss.....> –15dB

Signal Outputs

Outputs.....2 x Serial Digital Outputs

Electrical .....1.5Gbit/s HD-SDI, SMPTE 292M
270 Mbit/s SDI, SMPTE 259M-C/DVB-ASI

Connector / Format .....BNC/ 75ohm panel jack on standard S&W connector panel

Return Loss.....> –15dB

Indicators and Controls

Indicators

Power.....OK

CPU.....OK

Status.....OK (Green)
Warning (Yellow)
Error (Red)

RollCall Features

Router Control.....Switching control of input to output channels

Router Configuration.....Displays current router channel allocation

Channel Renaming

User Memories.....16 x Save / Recall / Rename

Logging .....Input Status (1-5)
CRC/EDH Error
Input Standard
Ref Status
Output 1/2 standard

RollTrack Controls.....On/Off, Index, Source, Address, Command, Status, Sending.

RollTrack Outputs .....Input present - 1 to 5
Output 1 Tallies
Output 2 Tallies
Reference OK
Input Loss - 1 to 5
Unused

Specifications

Inputs

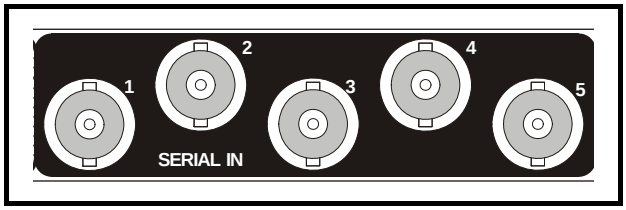
Reference Source .....External – HD Tri-Level / SD Bi-level / Output Video syncs

Power Consumption

Module Power Consumption
8.6 W

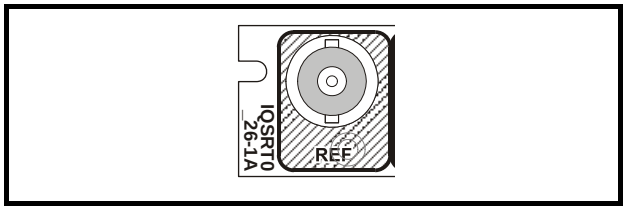
INPUT CONNECTIONS

SERIAL DIGITAL VIDEO INPUTS



The five serial digital inputs to the unit are made via these BNC connectors that terminate in 75 Ohms.

Reference Input



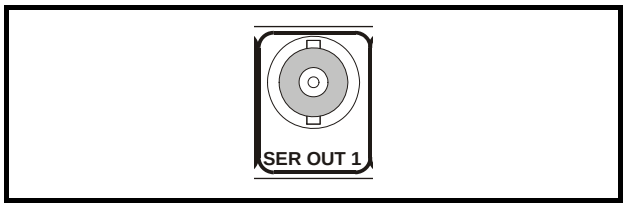
The external reference sync input to the unit is made via this BNC connector which is terminated in 75 Ohms.

Note that this input is internally terminated by 75 Ohms by way of a header pin. This can be removed to give no internal termination.

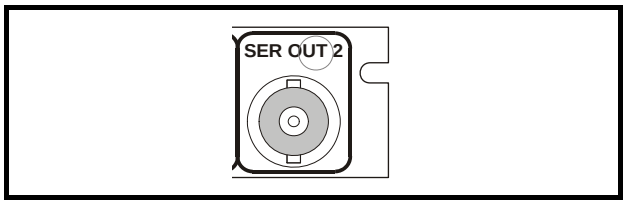
It should be noted that proper operation to the full specification can only be achieved with a correctly terminated, noise-free, stable, black sync reference input.

OUTPUT CONNECTIONS

Serial Output 1



This is the Serial Digital output for channel 1 of the unit via a BNC connector for 75 Ohms.



Serial Output 2

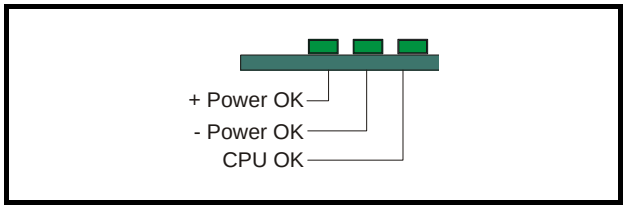
This is the Serial Digital output for channel 2 of the unit via a BNC connector for 75 Ohms.

CARD EDGE INDICATORS

LED INDICATORS

+Power and -Power

When illuminated these LED's indicate that the positive and negative supplies are present.

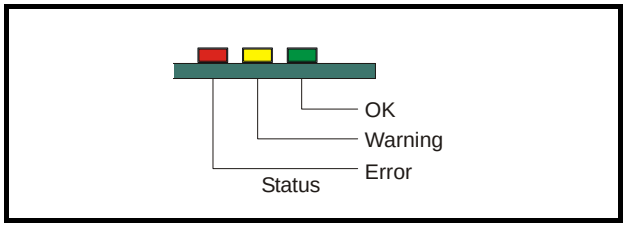


CPU OK

This led will flash to indicate that the CPU is running.

Error (Red)

When illuminated indicates that CRC/EDH errors are being detected in one or both of the output SDI streams.



Warning (Yellow)

When illuminated indicates that one of the output signals is not being reclocked i.e. in wideband mode.

OK (Green)

When illuminated indicates that the deserializers are locked on both SDI output streams.

RollCall PC Control Panel Screens for the IQSRT00

Crosspoint Select

This function allows the input/output routing to be set up by checking the boxes for the source and destination channels.

Enable Take (Applies to Primary Channels Only)

When selected, this enables the user to make changes to the routing matrix on the template without actually configuring the crosspoint until the Take button(s) is pressed.

Take Both Immediate

If selected in conjunction with Enable Take, when Take Both is clicked the outputs are switched synchronously. Note that if Enable Take is not selected, this option has no effect.

Take Both (When Enable Take is checked)

This will configure the crosspoint to make all changes made to the routing matrix on both outputs.

If the Take Both Immediate option is also selected, the outputs are switched synchronously. If the Take Both Immediate option is not selected, the outputs are switched consecutively.

Take 1 (When Enable Take is checked)

This will configure the crosspoint to make all changes made to the routing matrix on Output 1 only.

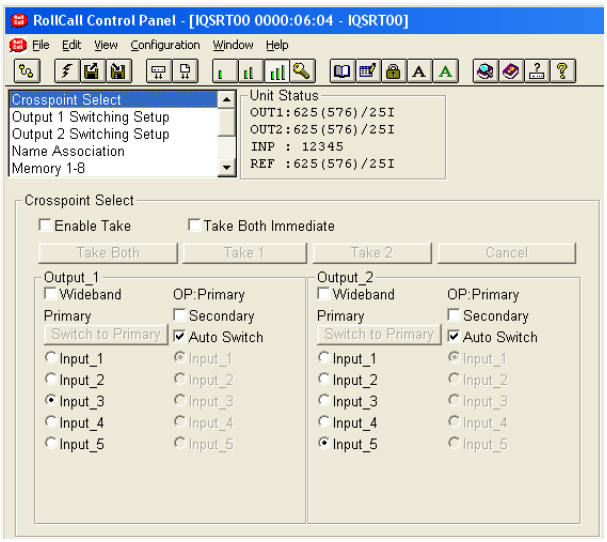
Take 2 (When Enable Take is checked)

This will configure the crosspoint to make all changes made to the routing matrix on Output 2 only.

Cancel

This will cancel any changes made to the routing matrix on the template since the last 'Take'.

Note that Inputs can be renamed in the 'Name Association' screen.



Output_1 and Output_2

This allows the primary and secondary sources to be selected for Output 1 and Output 2.

Wideband

When checked this turns off the reclocking feature of a particular output to enable wideband signals to be passed through the router.

OP:Primary or OP Secondary

This will show either **Primary** or **Secondary** depending on the status of the selected inputs.

Primary

This selects which input is to be routed to that particular output.

Secondary

This selects which input will be routed in the event of the primary input failing.

Auto Switch

Should the primary input return, the router will automatically re-route it when this item is checked. *Note that this function is only available when Secondary switching is checked.*

Switch to Primary

If the primary input fails and **Auto Switch** is unchecked the output will stay on secondary until **Switch to Primary** is selected.

Output 1 and 2 Switching Setup

This allows the switching parameters to be setup.

Note that for this and other screens the following applies to the scroll bars:

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  will return the setting to the calibrated value for that item.

Enable Synchronous Switching

This configures the router to do all routing changes for that output using switching depending on user settings. When disabled, all other options on the page will be grayed out. If the source and the input have no relationship, the switching will occur asynchronously.

Note: Synchronous refers to the concept that the source of the SDI input will be switched in a fixed, locked relationship to the switch source.

Synchronous Source

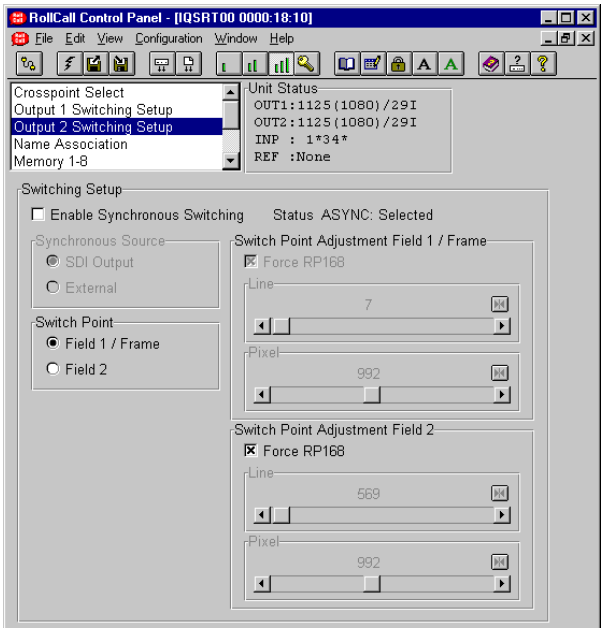
This allows either Output SDI stream or the External Analog reference to be chosen as a reference source for switching. There must be a fixed, locked relationship between the source and the SDI input.

SDI Output

When checked the SDI output will provide the timing for switching between the inputs.

External

When checked the external reference input will provide the timing for switching between the inputs.



Switch Point

This allows switching in Field 1 or field 2 of output 2 SDI stream to be chosen. For progressive standards, the field 2 option is grayed out.

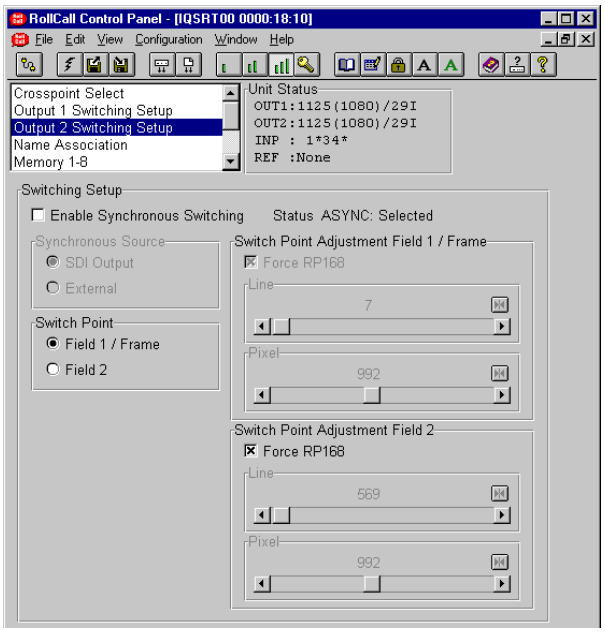
Field 1 / Frame

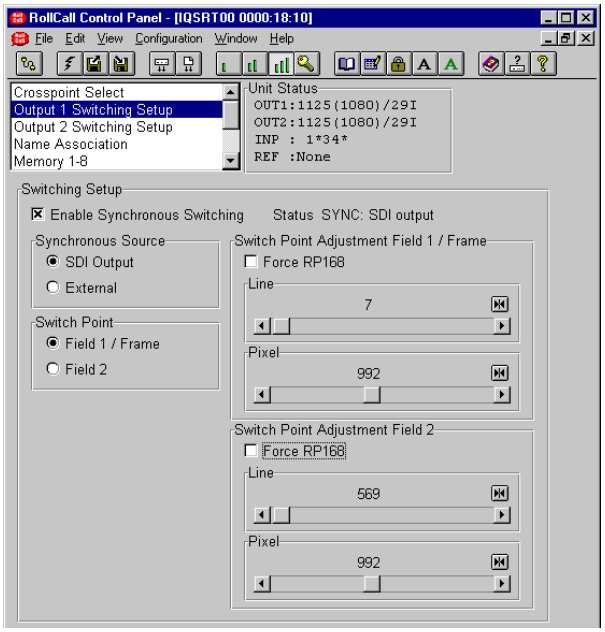
When checked the switching point will be during Field 1.

Field 2

When checked the switching point will be during Field 2.

Output 1 and 2 Switching Setup (continued)





Switch Point Adjustment Field 1 / Frame
Switch Point Adjustment Field 2

If **Force RP168** is checked, the switching will be done to SMPTE RP168.
If unchecked, the switch point is user adjustable in line and pixel increments throughout the whole frame.
Note that for progressive standards, the Field 2 settings will be grayed out.

Line

A particular line may be chosen for the switching point.

Pixel

A particular number of pixels during the selected line may be chosen for the switching point.

Force (SMPTE) RP168

When selected the switching point will conform to (SMPTE) RP168.

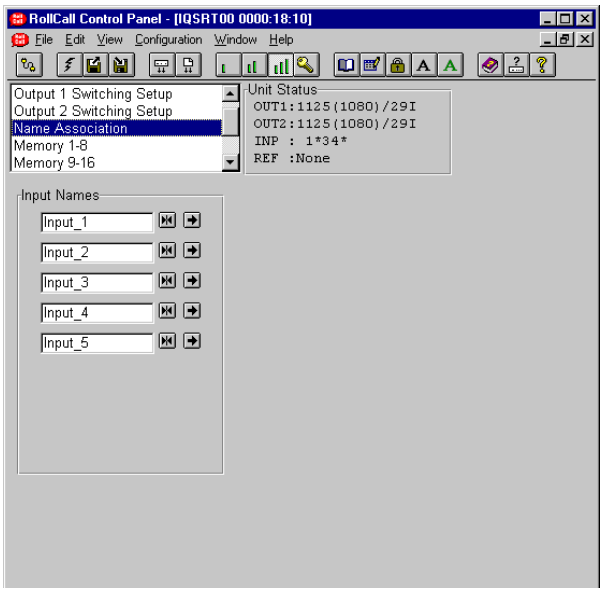
Status

This shows the status of the switching mode selected. It may show:

EXT	Uses external reference
SDI	Uses SDI signal
ASYNC-No REF	When Synchronous switching is selected and External reference is selected but the External Reference signal is unsuitable or missing
ASYNC-Selected	When synchronous switching is disabled
ASYNC–Unknown	When the reference standard is unknown

Note: Switching between SDI inputs will cause, in most cases, “Line Length Errors” in the SDI output.

Name Association

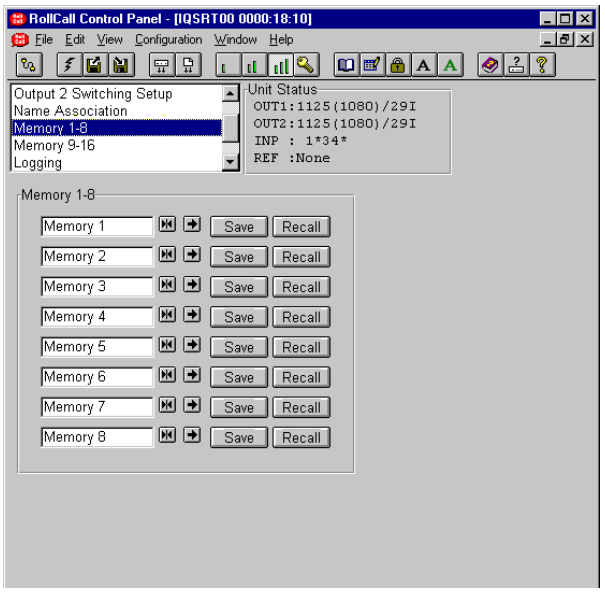


This allows the naming of the inputs. Changes made here will be reflected on the **Crosspoint Select** screen.

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

Selecting Preset will return the text to the default name.

Memory 1-8, 9-16



This function allows a number of particular setups of the IQSRT00 to be saved and recalled. There are 16 memory locations available. (Memory 1-8 and Memory 9-16)

Memory 1 to 8 (9-16)

The name of the memory location may 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.

Save

Selecting this item will save the current setup in the memory location.

Recall

Selecting this item will recall the setup in the memory location.

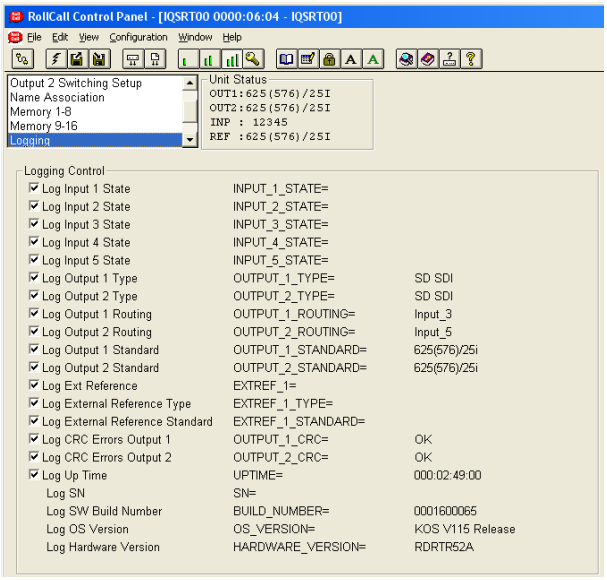
Logging

Information about various parameters can be made available to a logging device that is attached to the RollCall™ network by checking the appropriate box. Any of the items may be selected from the **Logging Control** list in the first column.

The Logging Field is shown in the second column and the Value (status) is shown in the third column.

Any of the items may be selected from the list.

For details please see the next page.



Logging Details

Log Description	Log Field Name	Possible Values	
Log Input 1 State to Log Input 5	INPUT_1_STATE= to INPUT_5_STATE=	OK FAIL:LOST	
Log Output 1 Type Log Output 2 Type	OUTPUT_1_TYPE= OUTPUT_2_TYPE=	OP1 OK OP1 NONE OP1 HD SDI OP1 SD SDI OP1 UNKNOWN	OP2 OK OP2 NONE OP2 HD SDI OP2 SD SDI OP2 UNKNOWN
Log Output 1 Routing Log Output 2 Routing	OUTPUT_1_ROUTING= OUTPUT_2_ROUTING=	Input_1 Input_2 Input_3 Input_4 Input_5 *If the output name has been modified, the edited name is used.*	
Log Output 1 Standard Log Output 2 Standard	OUTPUT_1_STANDARD= OUTPUT_2_STANDARD=	OP1 1125(1035)/30i OP1 1125(1035)/29i OP1 1125(1080)/30i OP1 1125(1080)/29i OP1 1125(1080)/25i OP1 1125(1080)/24sF OP1 1125(1080)/23sF OP1 1125(1080)/30p OP1 1125(1080)/29p OP1 1125(1080)/25p OP1 1125(1080)/24p OP1 1125(1080)/23p OP1 750(720)/60p OP1 750(720)/59p OP1 750(720)/50p OP1 750(720)/30p OP1 750(720)/29p OP1 750(720)/25p OP1 750(720)/24p OP1 750(720)/23p OP1 625(576)/25i OP1 525(480)/29i	OP2 1125(1035)/30i OP2 1125(1035)/29i OP2 1125(1080)/30i OP2 1125(1080)/29i OP2 1125(1080)/25i OP2 1125(1080)/24sF OP2 1125(1080)/23sF OP2 1125(1080)/30p OP2 1125(1080)/29p OP2 1125(1080)/25p OP2 1125(1080)/24p OP2 1125(1080)/23p OP2 750(720)/60p OP2 750(720)/59p OP2 750(720)/50p OP2 750(720)/30p OP2 750(720)/29p OP2 750(720)/25p OP2 750(720)/24p OP2 750(720)/23p OP2 625(576)/25i OP2 525(480)/29i
Log Ext Reference	EXTREF_1=	OK WARN:LOST	
Log External Reference Type	EXTREF_1_TYPE=	Ref OK Ref NONE Ref HD SDI Ref SD SDI Ref UNKNOWN	
Log External Reference Standard	EXTREF_1_STANDARD=	Ref 1125(1080)/30i Ref 1125(1080)/29i Ref 1125(1080)/25i Ref 1125(1080)/24sF Ref 1125(1080)/23sF Ref 1125(1080)/30p Ref 1125(1080)/29p	Ref 750(720)/60p Ref 750(720)/59p Ref 750(720)/50p Ref 750(720)/30p Ref 750(720)/29p Ref 750(720)/25p Ref 625(576)/25i Ref 525(480)/29i

Log Description	Log Field Name	Possible Values
Log CRC Errors Output 1 Log CRC Errors Output 2	OUTPUT_1_CRC= OUTPUT_2_CRC=	OK WARN: CRC ERROR
Log Up Time	UPTIME=	<Unit Uptime>
Log SN	SN=	<Unit Serial Number>
Log SW Build Number	BUILD_NUMBER=	<Software Build Number>
Log OS Version	OS_VERSION=	<Operating System Version>
Log Hardware Version	HARDWARE_VERSION=	<Hardware Version>

RollTrack

This function allows information to be sent, via the RollCall™ network, to other compatible units connected on the same network.

Disable All

When selected this will disable all the RollTracks being generated from this unit.

Index

This item allows up to 32 destinations to be selected.

Source

This allows the source of information that triggers the transmission of data to be selected. Options are as listed on the next page.

The destination for the information is set by the network code address as follows:

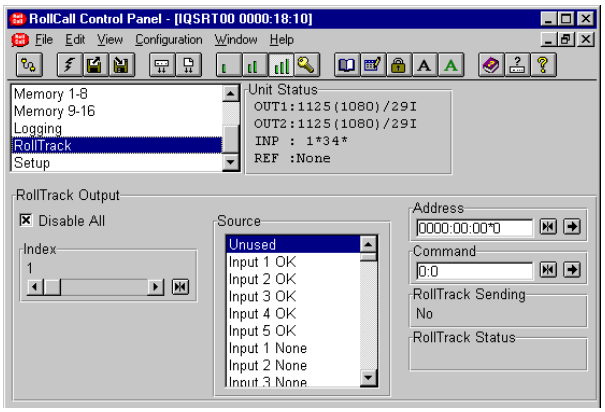
Address

This item allows the address of the selected destination unit to be set.

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

Selecting  (Preset) returns the address to the default destination.

For more detailed information, see the RollTrack section (Appendix) at the end of this manual.



Command

The full **RollTrack** command has two sets of numbers.

For example: 84:156

The first set (84) is the **RollTrack** command number

The second set (156) is the value sent with the **RollTrack** command number.

RollTrack Sending

This item shows when the unit is actively sending the RollTrack command.

This may show:

String	A string value is always being sent.
Number	A number value is always being sent.
No	The message is not being sent.
Yes	The message is being sent.
Internal Type Error	Inconsistent behavior; please contact your local Snell & Wilcox agent.

RollTrack Status

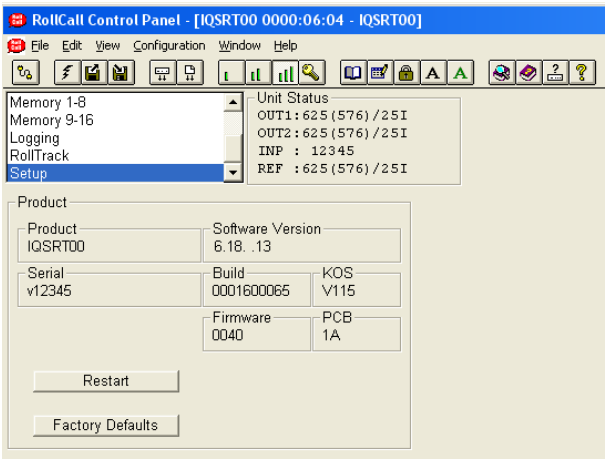
This item will show the status of the RollTrack system.

For details of the RollCall command values for specific units please contact your local Snell & Wilcox agent.

RollTrack Source Items

Unused
Input 1 OK
to
Input 5 OK
Input 1 None
to
Input 5 None
Input 1->Output 1
to
Input 5->Output 1
OP1 Not Input 1
to
OP1 Not Input 5
OP1, 2 OK
OP1, 2 None
OP1, 2 HD
OP1, 2 SD
OP1, 2 Unknown
OP1, 2 ASI
OP1, 2 1125(1035)/30i
OP1, 2 1125(1035)/29i
OP1, 2 1125(1080)/30i
OP1, 2 1125(1080)/29i
OP1, 2 1125(1080)/25i
OP1, 2 1125(1080)/30p
OP1, 2 1125(1080)/29p
OP1, 2 1125(1080)/25p
OP1, 2 1125(1080)/24p
OP1, 2 1125(1080)/23p
OP1, 2 750(720)/60p
OP1, 2 750(720)/59p
OP1, 2 525(480)/29i
OP1, 2 625(576)/25i
OP1, 2 1125(1080)/24sF
OP1, 2 1125(1080)/23sF
OP1, 2 750(720)/50p
OP1, 2 750(720)/30p
OP1, 2 750(720)/29p
OP1, 2 750(720)/25p
OP1, 2 750(720)/24p
OP1, 2 750(720)/23p
Input 1->Output 2
to
Input 5->Output 2
OP2 Not Input 1
to
OP2 Not Input 5
Ref OK
Ref None
Ref HD
Ref SD
Ref Unknown
Ref 1125(1080)/30i
Ref 1125(1080)/29i
Ref 1125(1080)/25i
Ref 1125(1080)/30p
Ref 1125(1080)/29p
Ref 750(720)/60p
Ref 750(720)/59p
Ref 525(480)/29i
Ref 625(576)/25i
Ref 1125(1080)/24sF
Ref 1125(1080)/23sF
Ref 750(720)/50p
Ref 750(720)/30p
Ref 750(720)/29p

Setup



This screen provides information about the unit.

Product

This shows the name of the unit.

Serial

This will show the serial number of the unit.

Software Version

This shows the software release version number.

Build

This will indicate the factory build number. This number defines all parameters of the unit (software versions, build level etc.) for identification purposes.

Firmware

This shows the version of the firmware system.

KOS

This shows the version of the operating system.

PCB

This shows the PCB revision number.

This will reboot the unit simulating a power-down power-up cycle restoring power-up settings.

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

Setup (continued)

The Information Window

This will show the status of the unit on four lines of text.

Line 1

This displays the output standard for router output 1. It may show:

OUT1: Output standard
OUT1: None Loss of input signal

Line 2

This displays the output standard for router output 2. It may show:

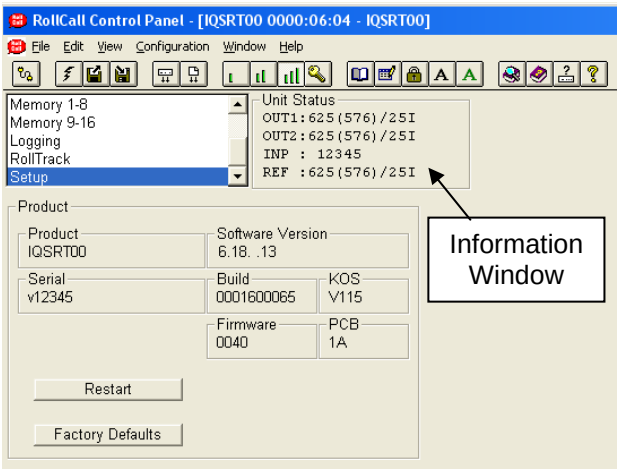
OUT2: Output standard
OUT2: None Loss of input signal

Line 3

This shows which inputs 1-5 have signals applied. Note that this only shows which inputs have detected a carrier signal present, not whether the signal is a suitable SDI format. It may show:

INP: 1-5 Inputs that have a detected carrier signal present

INP: ** Inputs that do not have a detected carrier signal present



Line 4

This will show standard of the connected analog reference signal.

APPENDIX 1: Reference Switching Standard Compatibility with SDI Standard

Output Standard ⇩ \ Reference Standard ⇨	1125 (1080) 30i	1125 (1035) 30i	1125 (1080) 30sF	750 (720) 60P	1125 (1080) 29i	1125 (1035) 29i	1125 (1080) 29sF	750 (720) 59P	Standard def. 525 lines	1125 (1080) 25i	1125 (1080) 25sF	Standard def. 625 lines	750 (720) 50P	1125 (1080) 24sF	1125 (1080) 23sF	1125 (1080) 30P	1125 (1080) 29P	1125 (1080) 25P	1125 (1080) 24P	1125 (1080) 23P
1125(1080)/30i	Yes	Yes	Yes	Yes?												Yes?				
1125(1035)/30i	Yes	Yes	Yes	Yes?												Yes?				
1125(1080)/30sF	Yes	Yes	Yes	Yes?												Yes?				
750(720)/60p	Yes	Yes	Yes	Yes												Yes				
1125(1080)/29i					Yes	Yes	Yes	Yes?	Yes								Yes?			
1125(1035)/29i					Yes	Yes	Yes	Yes?	Yes								Yes?			
1125(1080)/29sF					Yes	Yes	Yes	Yes?	Yes								Yes?			
750(720)/59p					Yes	Yes	Yes	Yes	Yes								Yes			
std_def 525 lines									Yes											
1125(1080)/25i										Yes	Yes	Yes	Yes?					Yes?		
1125(1080)/25sF										Yes	Yes	Yes	Yes?					Yes?		
std_def 625 lines												Yes								
750(720)/50p										Yes	Yes	Yes	Yes					Yes		
1125(1080)/24sF														Yes					Yes?	
1125(1080)/23sF															Yes					Yes?
1125 (1080)/30P	Yes	Yes	Yes													Yes				
1125 (1080)/29P					Yes	Yes	Yes		Yes								Yes			
1125 (1080)/25P										Yes	Yes	Yes						Yes		
1125 (1080)/24P														Yes					Yes	
1125 (1080)/23P															Yes					Yes

Explanation of Terms

Yes ..... The output standard will be compatible with the reference standard

Yes? ..... There is no field information on the reference, so the output field type is ambiguous.

1125 (1035) 30i

When the reference standard is shown grayed out this indicates an undetectable analog reference standard.

Supported SDI and Reference Standards

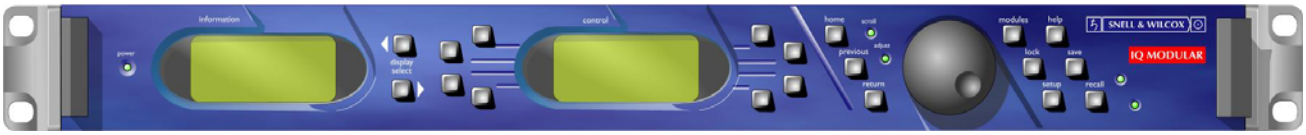
Supported SDI Standards		Supported Reference Standards (For RP168).	
HD	**SD**	**SD Bi-level Analogue Sync**	**HD tri-level Analogue Sync**
1080 23p	525 29i	525 29i	1080 29p
1080 24p	625 25i	625 25i	1080 30p
1080 25p			1080 25I
1080 29p			1080 29i
1080 30p			1080 30I
1080 25i			1035 29i
1080 29i			1035 30I
1080 30i			720 23p
1035 29i			720 24p
1035 30i			720 25p
720 23p			720 29p
720 24p			720 30p
720 25p			720 50p
720 29p			720 59p
720 30p			720 60p
720 50p			
720 59p			1080 23sF/24sF
720 60p			

Note that sF formats other than 1080 23sF/24sF *will be detected and treated as interlaced.*

See Appendix 1 for compatibility between external reference and SDI streams.

Operation from an Active Control Panel

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

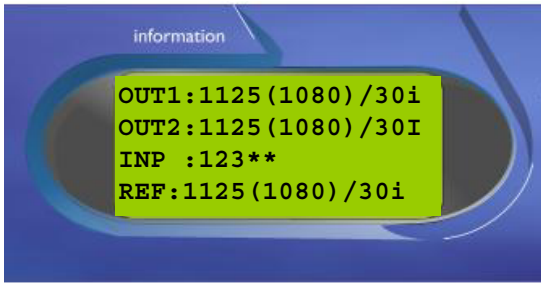


All operational parameters and selections are made using a system of menus displayed in two LCD windows. Operational details for the remote control panel can be found in the Modular System Operator's Manual.

Information Window

The Information window has four lines of text indicating the current state of the unit.

For details of the abbreviations used please see page 15.

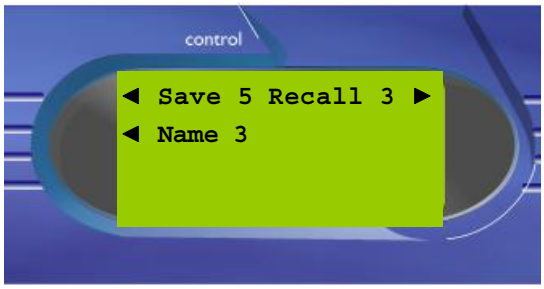


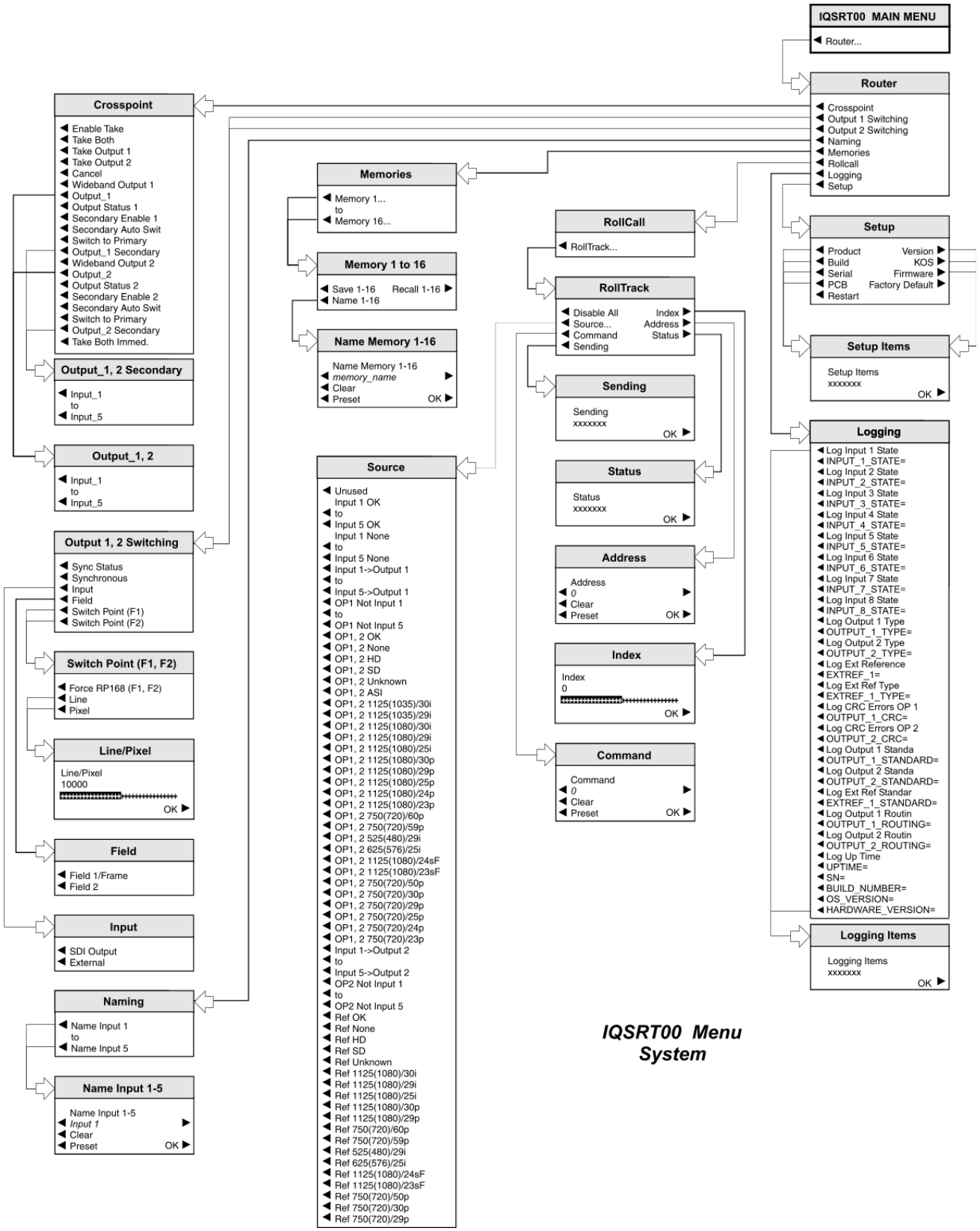
Control Window

The Control window displays all Selection Menus and sub-menus.

The selection is made by pressing the button adjacent to the required item.

The menu structure is detailed in the following pages.





IQSRT00 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 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.

(See IQSRT00 Menu System drawing on previous page)

The system may be considered structured as a set of menus and sub-menus that are displayed in the LCD window.

A new menu is selected by pressing the appropriate dedicated function button.

If necessary a sub-menu may then be selected by pressing the push button adjacent to the arrowhead in the text line of the menu name.

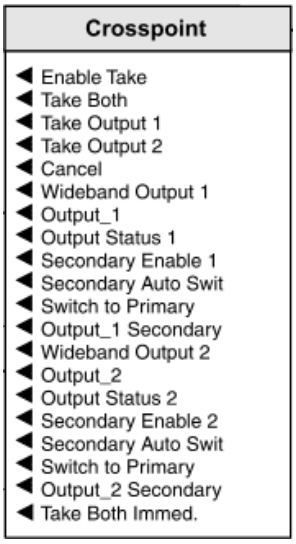
This sub-menu will then be displayed in the window and will have the option of selecting another sub-menu in the same manner, or allow the adjustment of a particular parameter. Parameters enabled will appear as highlighted reverse text (white text on a black background)

Main Menu

IQSRT10 MAIN MENU
◀ Router...

Crosspoint

This menu allows the input/output routing to be set up by checking the boxes for the source and destination channels.



Enable Take (Applies to Primary Channels Only)

When selected, this enables the user to make changes to the routing matrix on the template without actually configuring the crosspoint until the Take function(s) is selected.

Take Both Immed.

If selected in conjunction with Enable Take, when Take Both is chosen the outputs are switched synchronously. Note that if Enable Take is not selected, this option has no effect.

Take Both (When Enable Take is enabled)

This will configure the crosspoint to make all changes made to the routing matrix on both outputs.

If the Take Both Immediate option is also selected, the outputs are switched synchronously. If the Take Both Immediate option is not selected, the outputs are switched consecutively.

Take Output 1 (When Enable Take is enabled)

This will configure the crosspoint to make all changes made to the routing matrix on Output 1 only.

Take Output 2 (When Enable Take is enabled)

This will configure the crosspoint to make all changes made to the routing matrix on Output 2 only.

Cancel

This will cancel any changes made to the routing matrix on the template since the last 'Take'.

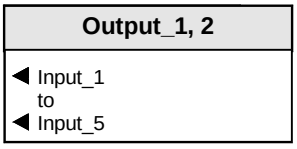
Note that Inputs can be renamed in the 'Name Association' screen.

Wideband Output 1 and 2

When selected this turns off the reclocking feature of a particular output to enable wideband signals to be passed through the router.

Output 1 and 2

This allows the primary and secondary sources to be selected for Output 1 and Output 2.



Inputs 1 to 5 may be selected.

Output Status 1 and 2

This will display the status of the output.

Secondary Enable 1 and 2

This allows a secondary input to be automatically selected if the selected primary input is lost.

Secondary Auto Swit(ch)

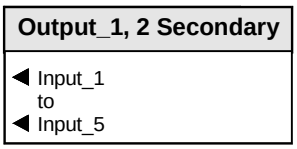
Should the primary input return, the router will automatically re-route it when this item is selected. *Note that this function is only available when Secondary Enable is selected.*

Switch to Primary

If the primary input fails and **Auto Switch** is not selected the output will stay on secondary until **Switch to Primary** is selected.

Output 1 and 2 Secondary

This selects which input will be routed in the event of the primary input failing.

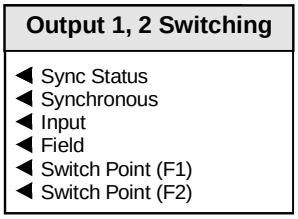


Inputs 1 to 5 may be selected.

*Note that this control is only available when **Secondary Enable** is selected.*

Output 1 and 2 Switching

This allows the switching parameters to be setup for output 1 and 2.



Sync Status

This shows the status of the synchronous switching. It may show:

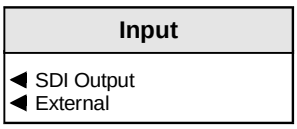
EXT	Uses external reference
SDI	Uses SDI signal
ASYNC-No REF	When synchronous switching is selected and external reference is selected but the External Reference signal is unsuitable or missing
ASYNC-Selected	When synchronous switching is disabled
ASYNC–Unknown	When the reference standard is unknown

Synchronous

This configures the router to do all routing changes for that output using synchronous switching depending on user settings. When disabled, all other options will be not be available.

Input

This allows the timing source for synchronous switching to be selected.



SDI Output

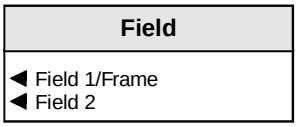
When checked the SDI output will provide the timing for synchronous switching between the inputs.

External

When checked the external reference input will provide the timing for synchronous switching between the inputs.

Field

This allows synchronous switching in Field 1 or field 2 of output 2 SDI stream to be chosen.



Note that for progressive standards, the field 2 option is not available.

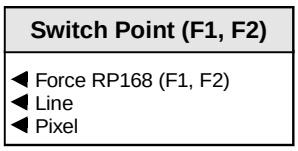
Field 1 / Frame

When selected the switching point will be during Field 1.

Field 2

When selected the switching point will be during Field 2.

Switch Point (F1, F2)



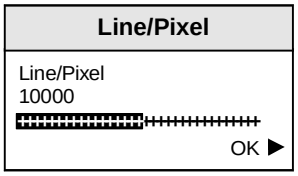
If **Force RP168** is selected, the synchronous switching will be done to SMPTE RP168.
If not selected, the switch point is user adjustable in line and pixel increments throughout the whole frame.
Note that for progressive standards, the Field 2 settings will be grayed out.

Force RP168 (F1, F2)

When selected the switching point will conform to (SMPTE) RP168.

Line

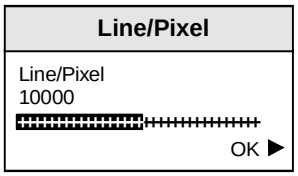
A particular line may be chosen for the switching point.



The adjustment range is from 1 to 2000 lines in steps of 1 line.

Pixel

A particular number of pixels during the selected line may be chosen for the switching point.

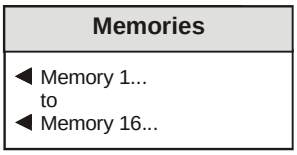


The adjustment range is from 1 to 5000 pixels in steps of 1 pixel.

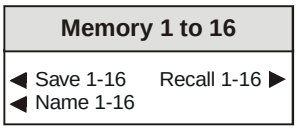
Memories

This function allows a number of particular setups of the IQSRT00 to be saved and recalled. There are 16 memory locations available.

This item allows any of the 16 memory locations to be selected.



Memory 1 to 16



When a memory location has been selected this item allows it to be saved, recalled or renamed.

Save 1-16

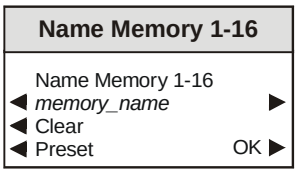
When selected the current settings will be saved at this location.

Recall 1-16

When selected the settings will be recalled from this location and applied to the unit.

Name 1-16

The selected memory location may be renamed with this function.



The ◄ **Clear** function blanks the selected character.

The ◄ **Preset** function loads the default text, for example, **Memory 1.**

O.K. ► saves the memory name text and returns to the main menu.

RollCall

RollCall
◀ RollTrack...

RollTrack

This function allows information to be sent, via the RollCall™ network, to other compatible units connected on the same network.

RollTrack	
◀ Disable All	Index ▶
◀ Source...	Address ▶
◀ Command	Status ▶
◀ Sending	

For more detailed information, see the RollTrack section (Appendix) at the end of this manual.

Disable All

When selected this will disable all the RollTracks being generated from this unit.

Index

There are 32 (1 to 32) RollTrack destinations available.

Index
Index 0 OK ▶

This item is used to select which RollTrack Index is set up using the RollTrack Source, RollTrack Address and RollTrack Command functions.

Source

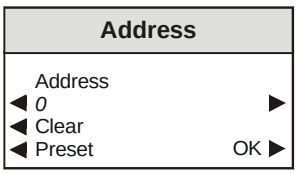
This selects the source of information that triggers the transmission of the RollTrack data.

Source
◀ Unused
Input 1 OK
◀ to
◀ Input 5 OK
Input 1 None
◀ to
◀ Input 5 None
◀ Input 1->Output 1
◀ to
◀ Input 5->Output 1
◀ OP1 Not Input 1
◀ to
◀ OP1 Not Input 5
◀ OP1, 2 OK
◀ OP1, 2 None
◀ OP1, 2 HD
◀ OP1, 2 SD
◀ OP1, 2 Unknown
◀ OP1, 2 ASI
◀ OP1, 2 1125(1035)/30i
◀ OP1, 2 1125(1035)/29i
◀ OP1, 2 1125(1080)/30i
◀ OP1, 2 1125(1080)/29i
◀ OP1, 2 1125(1080)/25i
◀ OP1, 2 1125(1080)/30p
◀ OP1, 2 1125(1080)/29p
◀ OP1, 2 1125(1080)/25p
◀ OP1, 2 1125(1080)/24p
◀ OP1, 2 1125(1080)/23p
◀ OP1, 2 750(720)/60p
◀ OP1, 2 750(720)/59p
◀ OP1, 2 525(480)/29i
◀ OP1, 2 625(576)/25i
◀ OP1, 2 1125(1080)/24sF
◀ OP1, 2 1125(1080)/23sF
◀ OP1, 2 750(720)/50p
◀ OP1, 2 750(720)/30p
◀ OP1, 2 750(720)/29p
◀ OP1, 2 750(720)/25p
◀ OP1, 2 750(720)/24p
◀ OP1, 2 750(720)/23p
◀ Input 1->Output 2
◀ to
◀ Input 5->Output 2
◀ OP2 Not Input 1
◀ to
◀ OP2 Not Input 5
◀ Ref OK
◀ Ref None
◀ Ref HD
◀ Ref SD
◀ Ref Unknown
◀ Ref 1125(1080)/30i
◀ Ref 1125(1080)/29i
◀ Ref 1125(1080)/25i
◀ Ref 1125(1080)/30p
◀ Ref 1125(1080)/29p
◀ Ref 750(720)/60p
◀ Ref 750(720)/59p
◀ Ref 525(480)/29i
◀ Ref 625(576)/25i
◀ Ref 1125(1080)/24sF
◀ Ref 1125(1080)/23sF
◀ Ref 750(720)/50p
◀ Ref 750(720)/30p
◀ Ref 750(720)/29p

The destination for the information is set by the network code address as follows:

Address

This item allows the network address of the selected destination unit to be set.



To edit the text the buttons adjacent to the upper text line in the menu are used to select the character position in the text and the spinwheel used to select the character.

(The right ► and left ◄ buttons select the cursor position and the spinwheel selects the character; the clear button sets the text line to all zero's and the OK button accepts the network address)

The full **RollTrack** address has four sets of numbers

For example: 0000:10:01*99

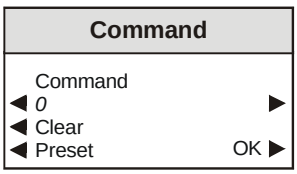
The first set (0000) is the network segment code number

The second set (10) is the number identifying the (enclosure/mainframe) unit.

The third set (01) is the slot number in the unit

The fourth set (99) is a user settable number that is a unique identification number for the destination unit in a multi-unit system. This ensures that only the correct unit will respond to the command. If left at 00 an incorrectly fitted unit may respond inappropriately.

Command



The full **RollTrack** command has two sets of numbers

For example: 84:156

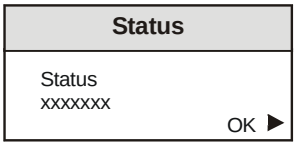
The first set (84) is the **RollTrack** command number.

The second set (156) is the value sent with the **RollTrack** command number

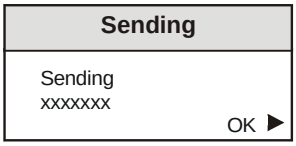
For details of the RollCall command values for specific units please contact your local Snell & Wilcox agent.

Status

This item will show the status of the RollTrack system.



Sending



This item shows when the unit is actively sending the RollTrack command.

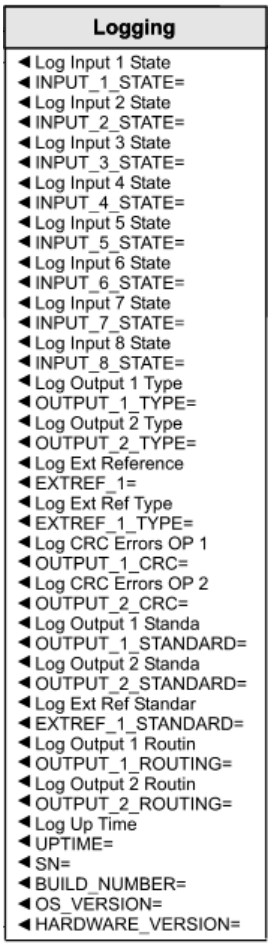
This may show:

String A string value is always being sent.
Number A number value is always being sent.
No The message is not being sent.
Yes The message is being sent.
Internal Type Error
Inconsistent behavior; please contact your local Snell & Wilcox agent.

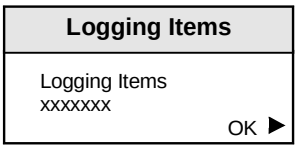
Logging

Information about various parameters can be made available to a logging device that is attached to the RollCall™ network by selecting the item in the list.

Any of the items may be selected from the list. Selecting a Log item e.g. **Log Input 1 Status**, in the list (text highlighted) will make that item available for logging.



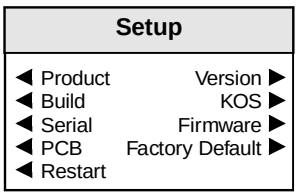
The logging information will be displayed when the associated item is selected.



For more details of the logging items please see page 11.

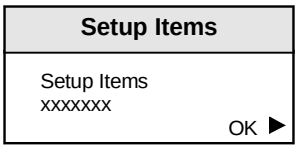
Setup

This allows information about various items to be displayed.



Setup Items

This displays information about the selected item.



Product

This shows the name of the unit.

Version

This shows the software release identification.

Build

This will indicate the factory build number. This number defines all parameters of the unit (software versions, build level etc.) for identification purposes.

KOS

This shows the version of the operating system.

Serial

This will show the serial number of the unit.

Firmware

This shows the version of the firmware system

PCB

This shows the PCB revision number.

Factory Default

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

Manual Revision Record

Date	Version No.	Issue No.	Change	Comments
170305	1	1		First Issue released
220305	1	2	RollTrack data corrected	New issue released
210807	1	3	For software version 6.18. 13	New issue.
050309	1	4	Changes to Switching Setup section.	New Issue.