



Snell  
Advanced  
Media

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# User Instruction Manual

## **IQASI82**

Dual ASI Transport Stream Monitor and Switch

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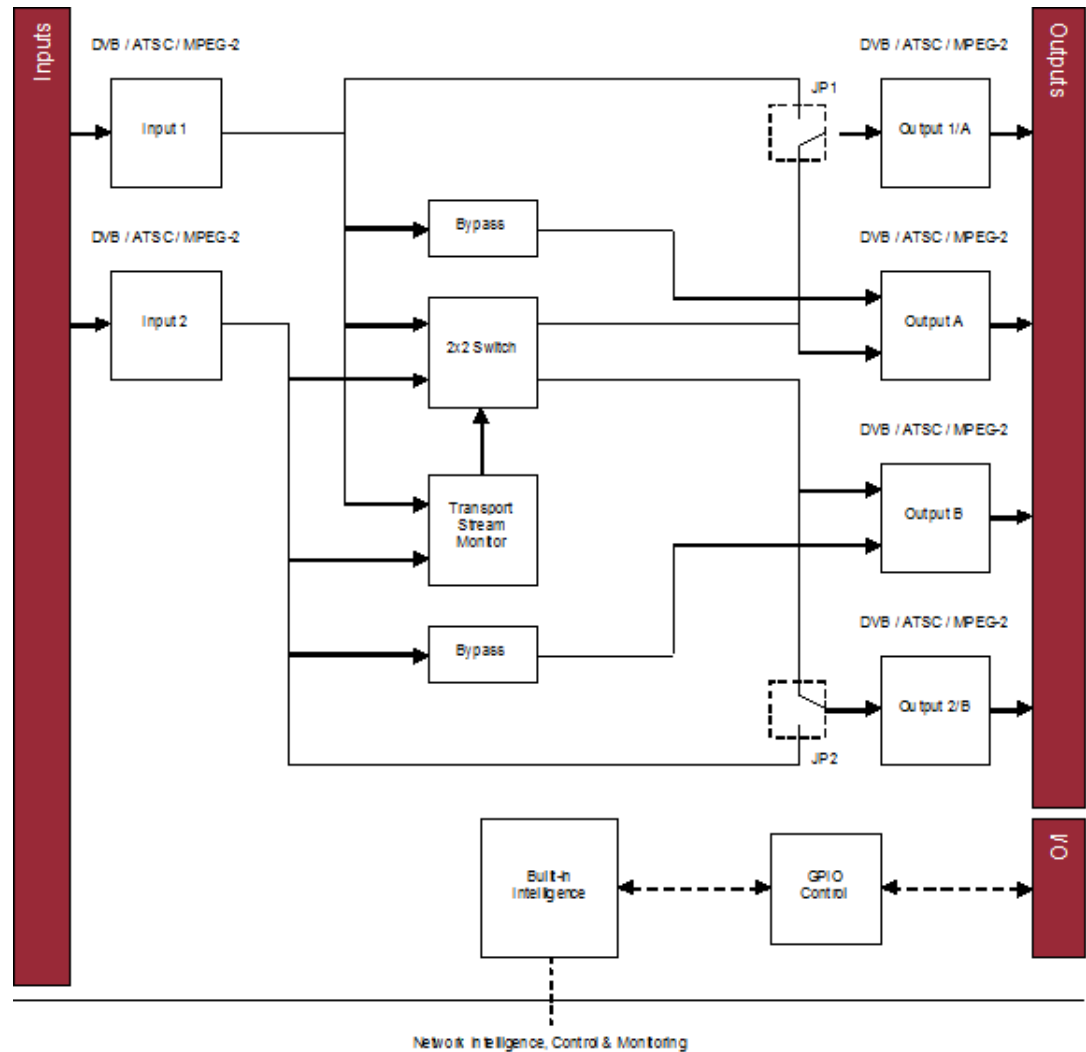
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# 1 Introduction

## 1.1 Description

The IQASI82 is a dual ASI transport stream monitor with a 2x2 near-seamless switch. The module is designed to simultaneously monitor two DVB, ATSC, or MPEG-2 transport streams and provide near-seamless changeover.

## 1.2 Block Diagram



### 1.3 Features

- DVB, ATSC, and MPEG-2 Transport Streams support
- Simultaneous monitoring of two ASI streams
- Transport stream monitoring and user-selectable alarms including:
  - Catastrophic failures such as no transport stream, loss of synchronisation, or low signal level
  - Basic TR 101290 checks such as monitoring the Program Association Table (PAT)
  - User-defined maximum and minimum data rates for each transport stream
  - Monitoring PIDs from a customer specified list up to a maximum of 64 (32 per input)
- Multiple switching methods including:
  - Near-seamless and non-seamless switching
  - Manual or automatic switching
- RollCall monitoring allows all signal paths to be managed remotely

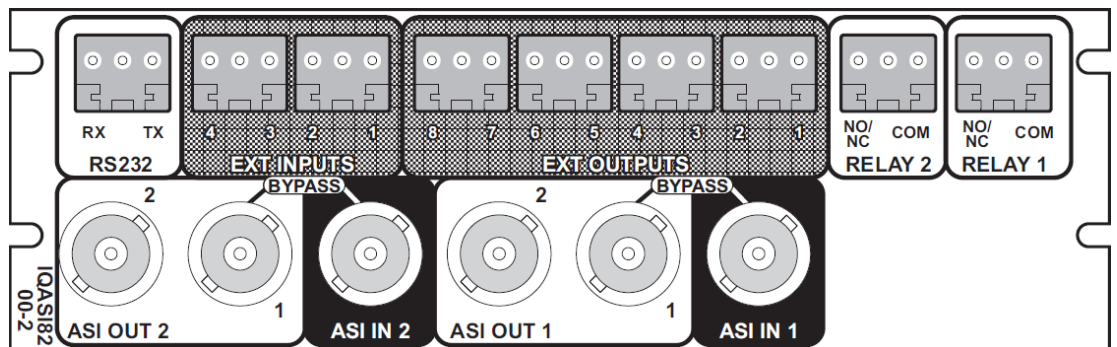
### 1.4 Order Codes

**Note:** Modules with “B” order codes (for example, IQASI8200-2B) can only be fitted into B-style enclosures. See page 7.

The following product order codes are covered by this manual:

**IQASI8200-2B** ASI transport stream monitor and switch. 2 ASI inputs, 4 ASI outputs, 12 GPIs, 1 RS232 port, 2 relay ports.

### 1.5 Rear Panel View



## 1.6 Enclosures

The module can be fitted into the enclosure types shown.

**Important:**

Although IQ modules are interchangeable between enclosures, their rear panels are enclosure specific. An IQH3B enclosure accepts modules with either “A” or “B” order codes. An IQH3A or IQH1A enclosure accepts modules with “A” order codes only. See page 6.

### 1.6.1 B-style Enclosure



**Enclosure order codes: IQH3B-S-0, IQH3B-S-P**

**Note:**

The IQH3B enclosure provides two internal analog reference inputs. These inputs are applicable to modules with “B” order codes only.

## 2 Technical Specification

<b>Inputs and Outputs</b>	
<b>Signal Inputs</b>	
Serial data	x 2 ASI (270 Mbit/s)
Standards	DVB-ASI, EN50083-9
Electrical	Transformer coupled 75 R 800 mV p-p
Connector format	BNC
Input cable length	100 M
<b>Signal Outputs</b>	
Serial data	x 4 ASI (270 Mbit/s)
Standards	DVB-ASI, EN50083-9
Electrical	Transformer coupled 75 R 800 mV p-p
Connector format	BNC
<b>Control Interface</b>	
GPI	x 4
Electrical	Opto-isolated with an internal 5 V pull-up through 470 R, active low 8 mA
Connector/format	Standard SAM screw terminal
GPO	x 8
Electrical	Darlington driver with 0 V common, max sink current 500 mA switching up to 50 V
Connector/format	Standard SAM screw terminal
<b>Indicators</b>	
Power	OK (green)
CPU	OK (green flashing)
Input Status	OK (green)
Fail	(Red)
Remote	Selected (green)
Local	Selected (red)
Output source	Selected (yellow)
<b>RollCall Features</b>	
Status	Input and Output alarm status
Primary Config	ASI switch configuration
PID List	PID management
Alarm Outputs	Enable/disable
Logging	Input Status, Input Alarms, Output Alarms, Output Status, Misc
RollTrack controls	On/Off, Index, Source, Address, Command, Status, Sending
Setup	Versions, reset defaults, restart
<b>Specifications</b>	
Electrical	ASI transport stream
Connector/format	BNC Standard SAM screw terminal
Module power consumption	6.5 PR Max (B frames)

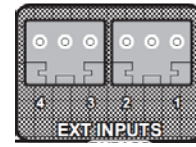


### 3 Connections

This section describes the physical input and output connections provided by the IQASI82.

#### 3.1 External Inputs

Four external inputs with screw terminal connections are provided.



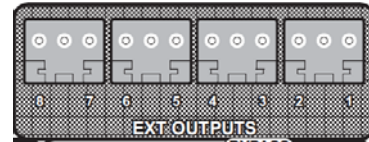
The input signals use a LOW voltage for signal TRUE. They are opto-coupled and can be shorted to ground (present on the screw terminal's centre pin). Internal pull-up resistors are fitted. There is a minimum hold time of 10 milliseconds – inputs must be asserted for at least 10 milliseconds to guarantee acceptance. Any transients shorter than 10 milliseconds are ignored:

- 1 – Control, switch A to 1
- 2 – Control, switch A to 2
- 3 – Control, switch B to 1
- 4 – Control, switch B to 2

**Note:** If both “switch to 1” and “switch to 2” control inputs are asserted for an output, the controller implements “switch to 2”.

#### 3.2 External Outputs

Eight external outputs with screw terminal connections are provided.



The output signals use a LOW voltage for signal TRUE. They are configured as open collector (sink) with the emitter referenced to ground (present on the screw terminal's centre pin). When an external pull-up is connected and the output set to true, a low voltage signal is visible, that is the output is active low. External outputs are updated synchronously every second, presenting the state for the last elapsed second.

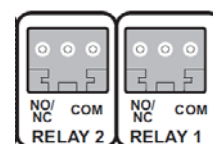
For monitoring outputs this represents a summary of errors, which occurred during that time. For switch status outputs, they represent the current status at the update time.

**Note:** Status outputs may declare a new route up to a second after the event has occurred. Furthermore, since the switch responds quickly to a control command, if successive commands are issued that cause the output to change state and then revert back to before this period, the event is not reported at the output.

- Open-loop systems are free to drive the switch quickly.
- Closed-loop systems need to wait for one second after each command is issued.

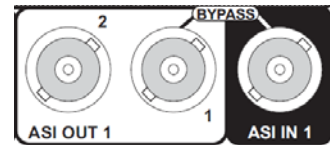
#### 3.3 Relay Outputs

Two relay outputs with screw terminal connections are provided. The centre pin is the reference ground.



### 3.4 ASI Inputs and Outputs

The ASI input Transport Streams are routed to the main ASI outputs under control of the integrated 2x2 TS switch.



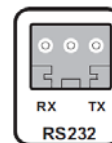
Jumpers on the main board dictate the signals presented to the auxiliary interface (OUT 1/A), provided for interfacing to additional monitoring devices. For information about jumper settings, see page 11.



Caution: The BYPASS connection is specific to this module. BYPASS is associated with the card itself and not the rear interface. This is for emergency switching in the event of a power fail. The switching is conventional non-seamless.

### 3.5 RS232

An RS232 serial interface with a screw terminal connection is provided.



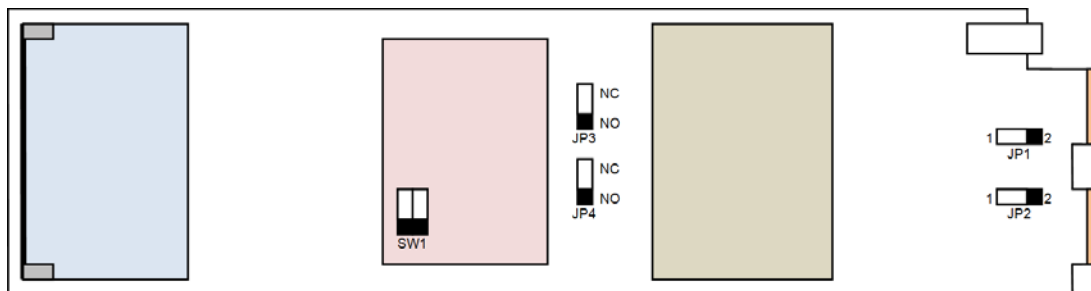
The rate is set by slider 2 on DIL switch S1 on the micro-controller sub-board. This can be 9600 or 38400, 8 data bits, 1 stop bit, no parity, and XON/FOFF flow control. This affects both the rear and front panel ports.



Warning: Do not change the setting from 38400. Any change will prevent RollCall from working.

### 3.6 Hardware Configuration

This section details the module's hardware configuration. The following diagrams show the module itself and the location of the jumpers and switches.



#### 3.6.1 Jumper Settings

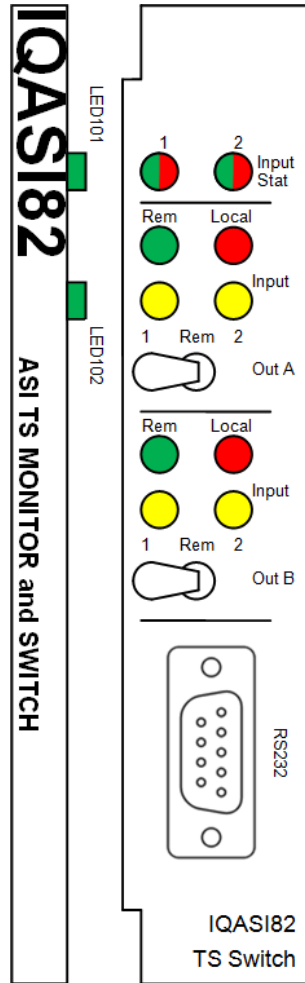
Jumper	Description
JP1	1 – Out 1/A set to Input 1
	2 – Out 1/A set to Output A
JP2	1 – Out 2/B set to Input 2
	2 – Out 2/B set to Output B
JP3	1 – Relay Output 1 is connected as NO
	2 – Relay Output 1 is connected as NC
JP4	1 – Relay Output 2 is connected as NO
	2 – Relay Output 2 is connected as NC

#### 3.6.2 Switch Settings

Switch	Description
SW1-1	Program/run mod. This should be set to run.
SW1-2	Serial Baud Rate. This should be set to 38K (38400).

## 4 Front Panel Controls

The LEDs on the front panel indicate the module's operating status. The toggle switches provide independent local control for each output.



LED	Color	State	Indication
Input Stat 1/2	Green	Illuminated	T/S status good
		Red	T/S status fail
Rem	Green	Illuminated	Remote control active
Local	Red	Illuminated	Local control active
Input 1/2	Yellow	Illuminated	Selected input
LED101	Green	Illuminated	Power good
LED102	Green	Flashing	Processor running

Switch Position	Indication
Left	Output A/B is forced to Input 1
Centre	Remote control is used
Right	Output A/B is forced to Input 2

## 5 Operation Overview

### 5.1 Methods of Operation

The module can be controlled in the following ways:

- Using the front panel switches
- Using General Purpose Inputs/Outputs (GPIO)
- Connecting directly to the card with its own serial interface
- Using RollCall
- Using the onboard controller

Each method uses a different control mode. These modes have a fixed order of precedence, as detailed in the following table.

Priority	Mode	Description
Highest	Local	Front panel switching
	Remote External	GPIO switching
	Remote Serial	Front, rear, serial port, and RollCall switching
Lowest	Auto	On-chip controller

### 5.2 Modes of Operation

The module generally operates in one control mode, leaving the other modes available for occasional use. Control modes are assigned per output: Output A can be under local control while Output B remains in Auto.

For example:

Example	Normal Operation	Maintenance Mode
1	Auto	Local
2	Remote Serial	Local
3	Remote External	Local
4	Auto	Remote Serial

#### 5.2.1 Local Mode

Local mode is forces an output manually to an input source. Typically it is used to isolate part of the system when performing on-site maintenance. The control mode LEDs operate with immediate effect – there is no one-second delay.

#### 5.2.2 Remote Ext Mode

Remote Ext mode drives the switch using the GPIO interface. The GPIO interface is at the rear of the module.

GPIO control can only be entered when local mode is off and a valid forcing signal is present at the rear interface. These forcing signals are level-based and need to be present for the duration that the switch is forced.

### 5.2.3 Remote Serial Mode

Remote Serial Mode is a shared interface between the front and rear serial ports as well as RollCall. Only one can be used at a time. This manual describes the use of the RollCall interface only.

### 5.2.4 Auto Mode

Auto mode is the default used when no other control modes are in use. It can be enabled or disabled.

**Note:** Near-seamless switching is only possible in Auto mode as the control loop is local to the card. This is not possible using external control.

### 5.2.5 Changing Control Mode

To change to a control with a higher priority than the one set, simply issue command over the appropriate interface to override it. To change to a control with a lower priority than the one set, simply cancel the mode with the higher priority.

- To cancel local mode, return the front panel switch to the centre position.
- To cancel remote ext mode, allow the switching inputs to float high or pull them up externally.
- To cancel the remote serial mode, select the Auto control on the RollCall interface.

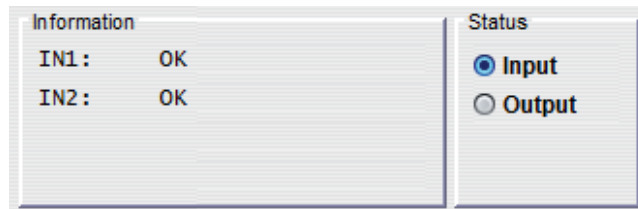
## 6 Operation Using the RollCall Control Panel

### 6.1 Information Window

The Information Window is displayed in the upper-right corner of each screen and shows basic information about the input and output status of the module.

#### 6.1.1 Input Status

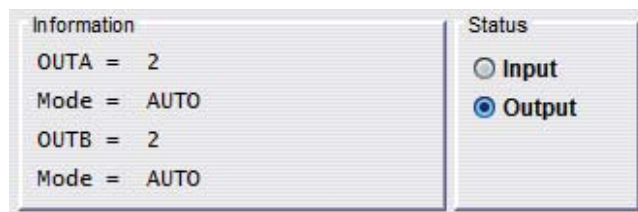
When **Input** is selected, the Information Window displays input status information for input 1 and input 2.



Information	Status	Description
IN1/IN2	OK	Input signal received OK.
	FAIL	Input signal failed.

#### 6.1.2 Output Status

When **Output** is selected, the Information Window displays output status information for output A and output B.

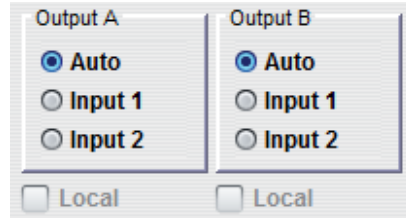


Information	Status	Description
OUTA	1	Input source 1.
OUT B	2	Input source 2.
MODE	Local	The output is forced based on the front panel switch position.
	Remote	The output is forced based on the serial interface, or via RollCall.
	External	Switching is forced externally by a parallel input.
	Auto	The module switches the output automatically.

### 6.1.3 Output Selection

The Output A and Output B areas enable you to force the respective output to the selected input. Control is only possible if the current mode is Auto or Remote. Selecting 1 or 2 automatically sets the current mode to Remote. Setting the mode to Auto enables the controller to choose which input source to use.

**Note:** Near-seamless switching is only possible when Auto is selected.

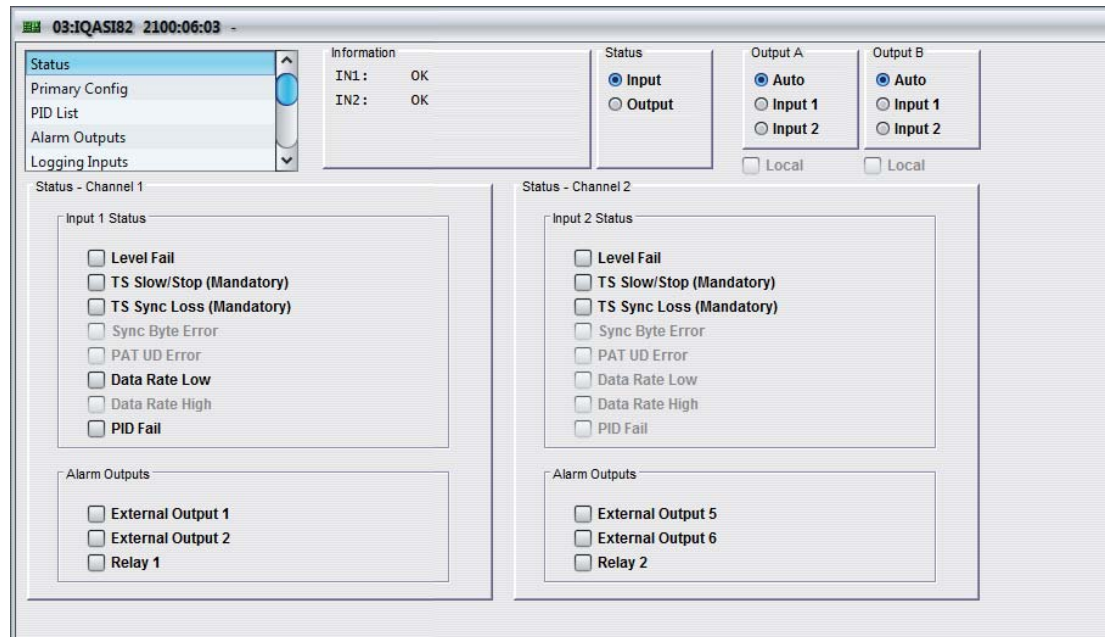


The Local check box is grayed out when either the front panel switch or the GPI is in use.



## 6.2 Status

The Status screen provides a view of the input and alarm statuses.



### 6.2.1 Status - Channel 1 and Channel 2

The Status areas indicate the status of the input sub-alarms for each channel.

A combination of check boxes and graying shows whether a fail condition is present or not.

Check Box State	Description
Grey and selected	The alarm condition is present, but the alarm is disabled.  For all of the below, see the see section 6.3 screen for information about enabling and disabling an alarm.
Grey and deselected	Alarm condition is absent but the alarm is disabled.
Enabled and selected	Alarm condition is present and is sounding.
Enabled and deselected	Alarm condition is present and is silent.

#### 6.2.1.1 Input 1 and Input 2 Status

The Input 1 and Input 2 Status controls enable you to enable or disable the non-mandatory alarms by simply selecting the check box for the respective alarm.

Any of the alarms detailed below will cause the respective Input Stat LED on the front panel to turn red. If no error condition is present, the respective Input Stat LED is green.

- **Level Fail:** The minimum sensitivity for an ASI receiver should be 200 mV p-p. This represents 12 dB attenuation from the standard output level.
- **TS Slow/Stop (Mandatory):** Raises an alarm if a correct sync byte is not received after 0.4 seconds.
- **TS Sync Loss (Mandatory):** Raises an alarm for a loss of transport stream. Five consecutive correct bytes must be achieved before the alarm is cancelled.

*Note: It is possible to have a healthy ASI transport stream which contains violations of the "2 ASI K28.5's before each sync byte" rule.*

- **Sync Byte Error:** Raises an alarm if a corrupt sync byte is received.

- **PAT UD Error:** As the first part of the PAT\_error\_2a. The check is performed at a user-defined interval. The default value is 0.5 seconds.
- **Data Rate Low:** Raises an alarm if the one-second averaged packet count falls below the user-defined level. All transport stream packets apart from null packets are counted as data.
- **Data Rate High:** Raises an alarm if the one-second averaged packet count rises above the user-defined level. All transport stream packets apart from null packets are counted as data.
- **PID Fail:** Raises an alarm if any of the user-defined PIDs are missing for a given period. The distance threshold range is 0 to 30 seconds in steps of 10 milliseconds. Up to 32 unique PIDs can be defined for each input.

### 6.2.1.2 Alarm Outputs

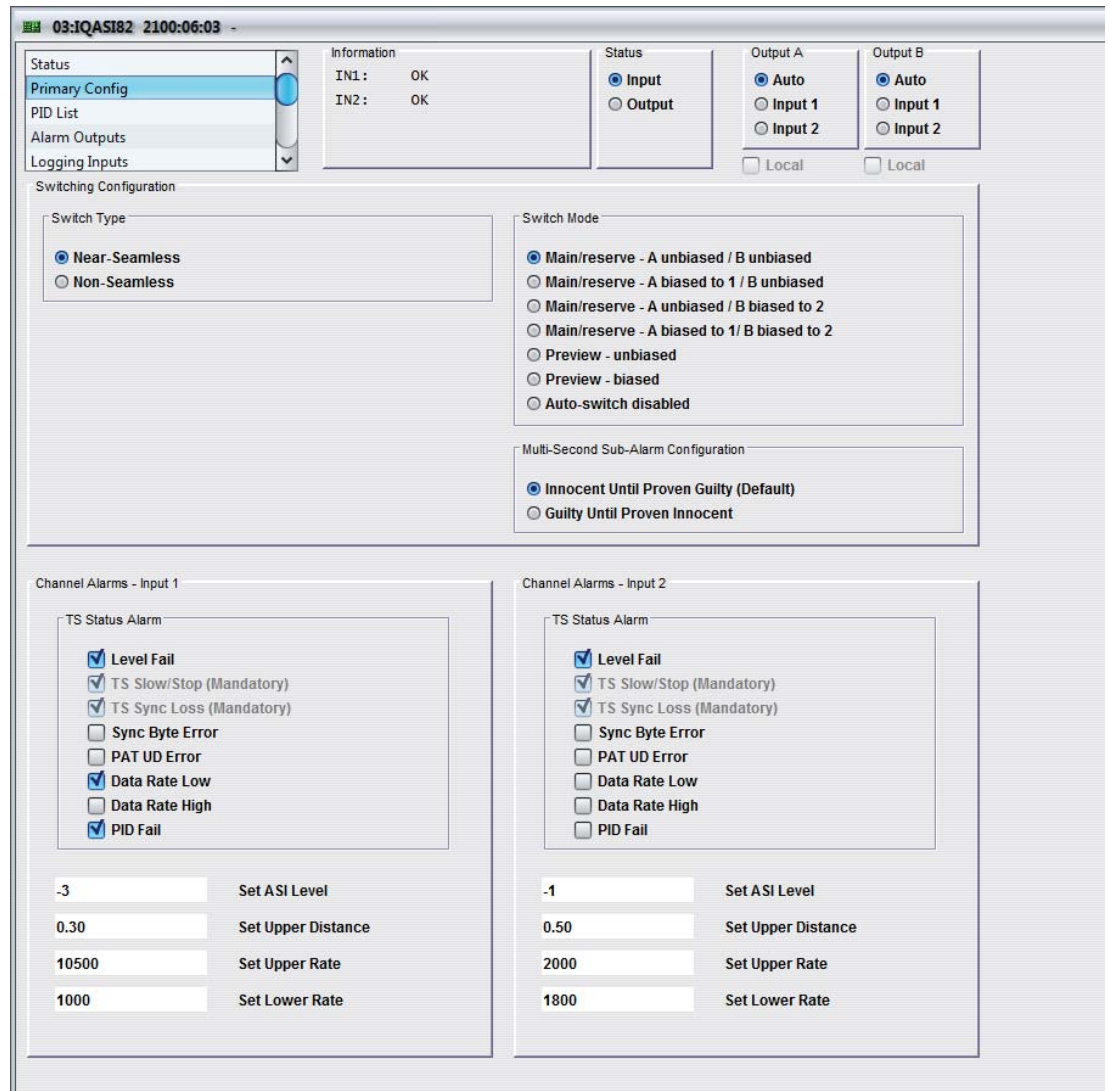
The Alarm Outputs areas indicate the status of the sub-alarm driven GPIO for their respective source. A combination of check boxes and graying shows whether a fail condition is present or not.

If the alarm output is selected, the associated GPO is forced high to indicate an error exists.

- **External Output 1 and 2:** Indicates whether the respective output is being driven due to an error condition.
- **External Output 5 and 6:** Indicates whether the respective output is being driven due to an error condition.
- **Relay 1 and 2:** Indicates whether the respective relay is being driven due to an error condition.

### 6.3 Primary Config

The Primary Config screen enables you to configure the primary parameters of the IQASI82.



#### 6.3.1 Switching Configuration

The Switching Configuration area provides various controls for setting various switching combinations.

##### 6.3.1.1 Switch Type

- **Near-Seamless:** Prevents transport stream sync losses by preserving the packet structure during automatic and manual switching.
- **Non-Seamless:** Provided for downstream systems that require a switch transition. Two corrupted bytes are guaranteed at the switching point.

**Note:**

When switching non-identical streams, service disruption can be reduced depending on the nature of the input streams and the decoder employed. In general, the more closely related the streams, the smoother the switching.

Non-seamless is useful when switching radically different streams on systems where a TS\_sync\_loss provides the quickest route to a clean reset of downstream equipment.

### 6.3.1.2 Switch Mode

- **Main/reserve:** In the event of a failure, the outputs are routed to the good input. When Main/reserve is selected, there is no A-B dependency.

The 2 x 2 switch can be configured as biased or unbiased.

When set to biased, the output switches away from the failed input if the other input is healthy, and then back again when the preferred input returns.

When set to unbiased, the number of switches made is minimized as neither input is preferred over the other.

- **Preview:** In the event of a failure, the inputs are routed so that the output used for transmission continues to receive a good signal.

Output A is the transmission output and Output B is the monitoring output. Output B is always the opposite input to Output A if Output B is set to Auto.

- **Auto-switch disabled:** Disables auto-switching.

### 6.3.1.3 Multi-Second Sub-Alarm Configuration

The Multi-Second Sub-Alarm Configuration controls enable you to set the initial condition for the PID and PAT UD Error alarms, as it is not possible to complete these tests within the first analysis period. The radio buttons set whether the condition is good or bad.

- **Innocent Until Proven Guilty (IUPG):** Initial condition = good.
- **Guilty Until Proven Innocent (GUPI):** Initial condition = bad.

**Note:**

For most systems IUPG is the best setting; however, if the system is likely to exhibit TS\_sync\_loss failures where the streams are known to recover slowly, and you want to use the module on its biased setting, selecting GUPI improves the response to this error by preventing the switch from returning to the preferred input until it has recovered.

### 6.3.2 Channel Alarms Input 1 and Input 2

Each input has its own channel alarm configuration controls. The controls for each are identical but only apply to their respective input.

- **Set ASI Level:** Sets the ASI level. If the value entered is out of range, it reverts to the previous good value. Note that the minus (-) symbol must be entered.

The Level Fail alarm, if enabled, sounds if the ASI signal falls below the threshold.

The range is from -1 to -12, in steps of -1.

- **Set Upper Distance:** Sets the maximum time allowed between packets carrying Program Association data before the PAT UD Error alarm (if enabled) is sounded.

This range is from 0.01 to 30.00, in steps of 0.01.

- **Set Upper Rate:** Sets the upper data rate threshold.

The Data Rate High alarm, if enabled, sounds if the transport stream packet count is above the threshold.

This range is from 1 to 65535, in steps of 1.

- **Set Lower Rate:** Sets the lower data rate threshold.

The Data Rate Low alarm, if enabled, sounds if the transport stream packet count falls below the threshold.

This range is from 1 to 65535, in steps of 1.

### 6.3.2.1 TS Status Alarm

The TS Status Alarms are as detailed on the Status screen. The controls enable you to enable or disable the non-mandatory alarms by simply selecting the check box for the respective alarm.

Any of the alarms detailed below will cause the respective Input Stat LED on the front panel to turn red. If no error condition is present, the respective Input Stat LED is green.

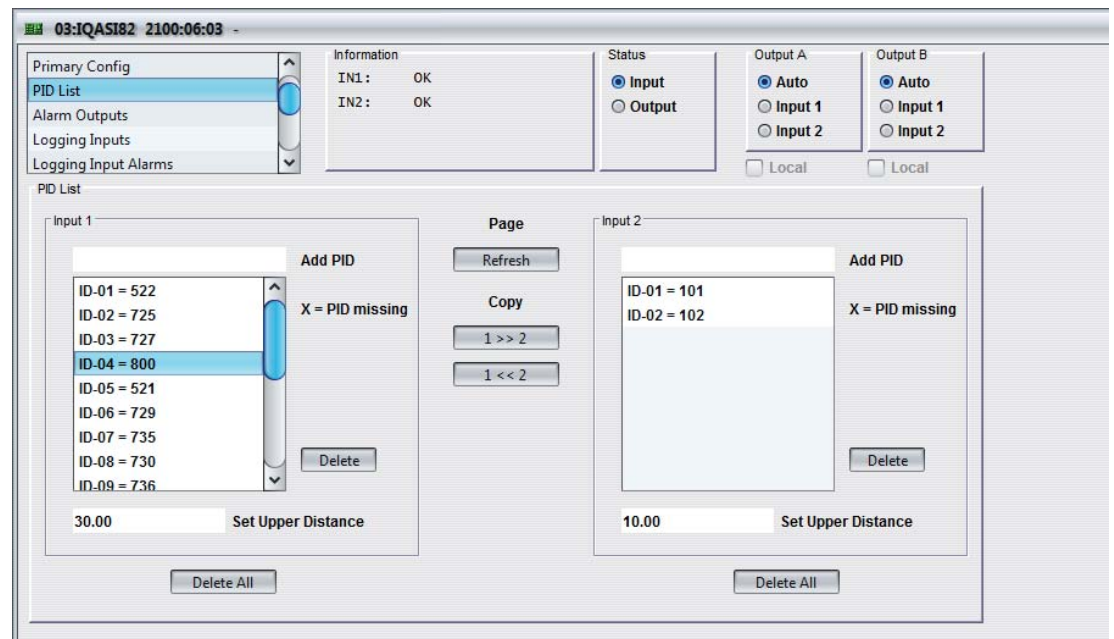
- **Level Fail:** The minimum sensitivity for an ASI receiver should be 200 mV p-p. This represents 12 dB attenuation from the standard output level.
- **TS Slow/Stop (Mandatory):** Raises an alarm if a correct sync byte is not received after 0.4 seconds.
- **TS Sync Loss (Mandatory):** Raises an alarm for a loss of transport stream. Five consecutive correct bytes must be achieved before the alarm is cancelled.

*Note: It is possible to have a healthy ASI transport stream which contains violations of the "2 ASI K28.5's before each sync byte" rule.*

- **Sync Byte Error:** Raises an alarm if a corrupt sync byte is received.
- **PAT UD Error:** As the first part of the PAT\_error\_2a. The check is performed at a user-defined interval. The default value is 0.5 seconds.
- **Data Rate Low:** Raises an alarm if the one-second averaged packet count falls below the user-defined level. All transport stream packets apart from null packets are counted as data.
- **Data Rate High:** Raises an alarm if the one-second averaged packet count rises above the user-defined level. All transport stream packets apart from null packets are counted as data.
- **PID Fail:** Raises an alarm if any of the user-defined PIDs are missing for a given period. The distance threshold range is 0 to 30 seconds in steps of 10 milliseconds. Up to 32 unique PIDs can be defined for each input.

## 6.4 PID List

The PID List screen enables you to configure PID monitoring and management.



### 6.4.1 Input 1 and Input 2

Each input has its own channel PID list configuration controls. The controls for each are identical but only apply to their respective input.

- **Add PID:** Enter the value of the PID to monitor. If the PID is in range and not already listed, it is added to the end of the list.

This range is from 1 to 8191, in steps of 1.

- **Delete:** Deletes a specific PID. To do this, select a PID and click Delete.
- **Delete All:** Deletes all PIDs for the associated input.
- **Set Upper Distance:** Sets the upper distance allowed between occurrences of a PID in the transmission stream. When enabled, the PID fail alarm sounds if the upper distance threshold is exceeded.

This range is from 0.01 to 30.00, in steps of 0.01 seconds. If the value entered is out of range, it reverts to its previous good value.

### 6.4.2 Page

To minimise network traffic, the PID lists are refreshed on demand rather than being polled periodically. The list is refreshed when adding/removing a PID, as well as when copying the list. There are occasions however where the display may not have updated because of the delays associated with committing the change to internal memories.

- **Refresh:** Refreshes the display. An indication of this is that the PID list should always be contiguous.

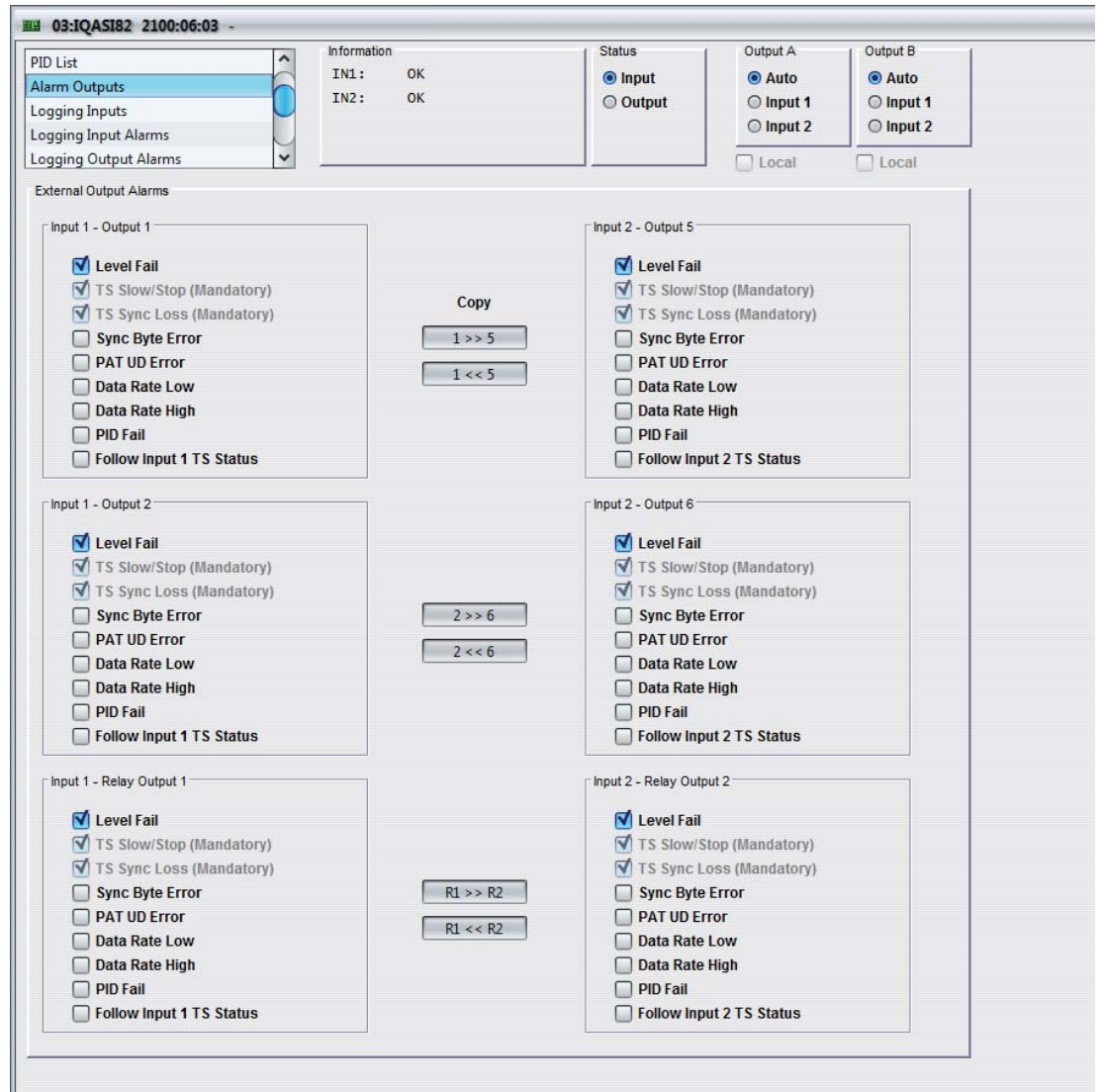
### 6.4.3 Copy

The Copy control deletes the PIDs already associated with the target list and then copies the source listing to the target.

- **1 >> 2:** Copies PIDs listed for input 1 to input 2.
- **1 << 2:** Copies PIDs listed for input 2 to input 1.

## 6.5 Alarm Outputs

The Alarm Outputs screen provides controls for managing the behavior of the GPOs and relay outputs.



### 6.5.1 Input N Output N

Each output/relay output has its own set of controls. Each set of controls is the same for the respective output.

An output will be set if any of the checked conditions are met for its respective input. You can choose which are applicable, other than those marked as being mandatory, by simply selecting the appropriate check box.

### 6.5.2 Copy

The Copy control enables you to copy the settings between pairs of outputs.

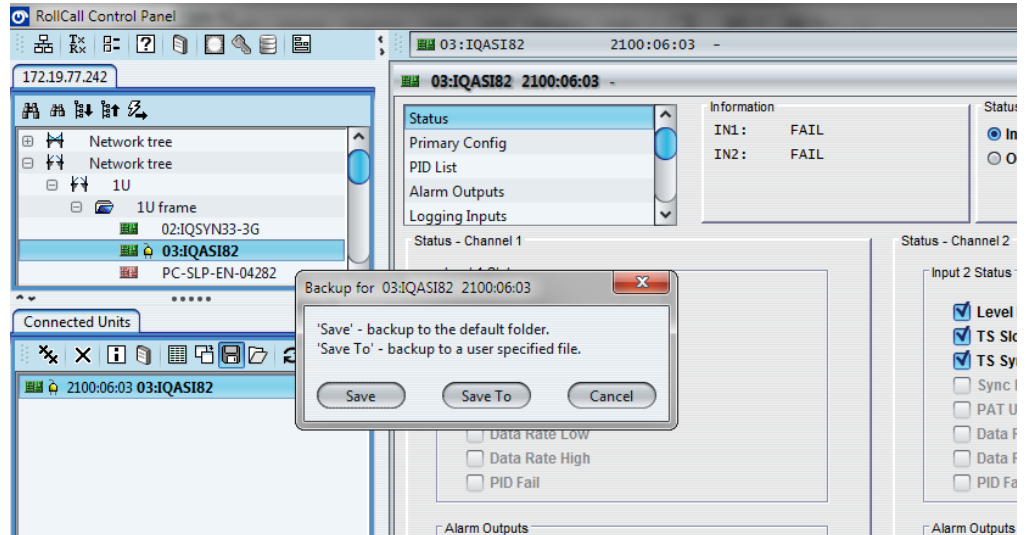
## 6.6 Savesets

Savesets enables you to save pre-determined RollControl fields settings to file. The settings can then be transferred to another card, or used as a backup.

### 6.6.1 Saving a Saveset

1. From the Connected Units toolbar, click Save 

The Backup dialog box appears.

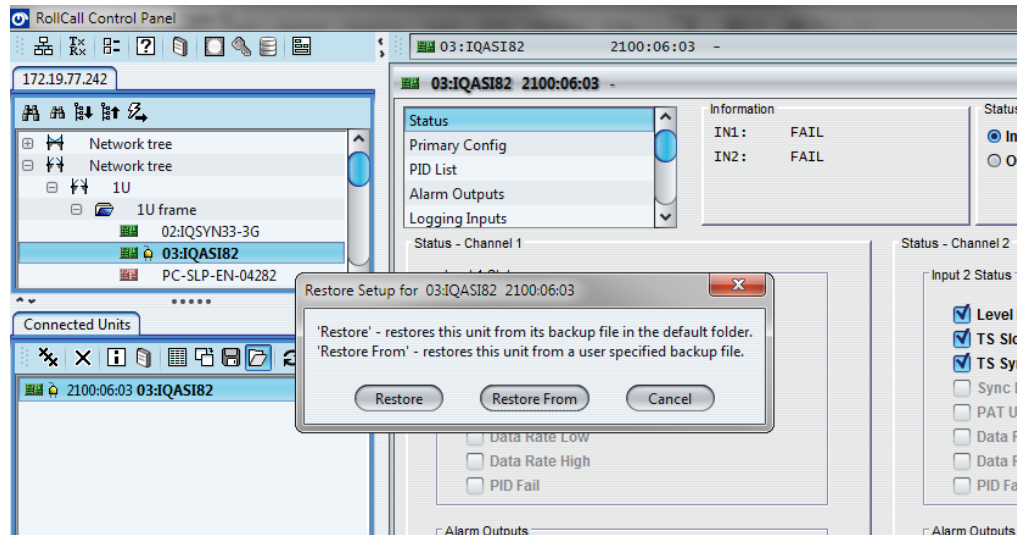


2. Either click the Save button to save the unit state to the default backup folder, or click the Save To button to save the unit state to a user specified file.

### 6.6.2 Restoring a Saveset

1. From the Connected Units toolbar, click Restore 

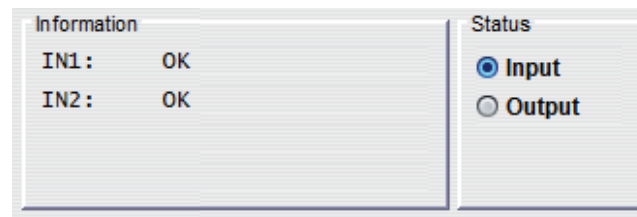
The Restore dialog box appears.



2. Either click the Restore button to restore the unit state from the default backup folder, or click the Restore From button to restore the unit state from a user specified file.



While the Saveset is being restored, you can view its status in the Information Window.

**Note:**

Restoring a Saveset for this product can take time, depending on the number of differences between the module's current settings, and those of the Saveset being recalled.

For example, if the two PID tables are fully populated (64 entries), and restoring a Saveset will change all of these, it will take approximately two minutes to save the product settings to the ASI monitor. During this time the product controls are unlocked and you can change the module's settings, but it will take whatever time is left of the restore for these changes to be registered. Therefore it is advisable to wait until the Saveset has been applied by checking the Recall state in the Information Window.

## 6.7 Logging

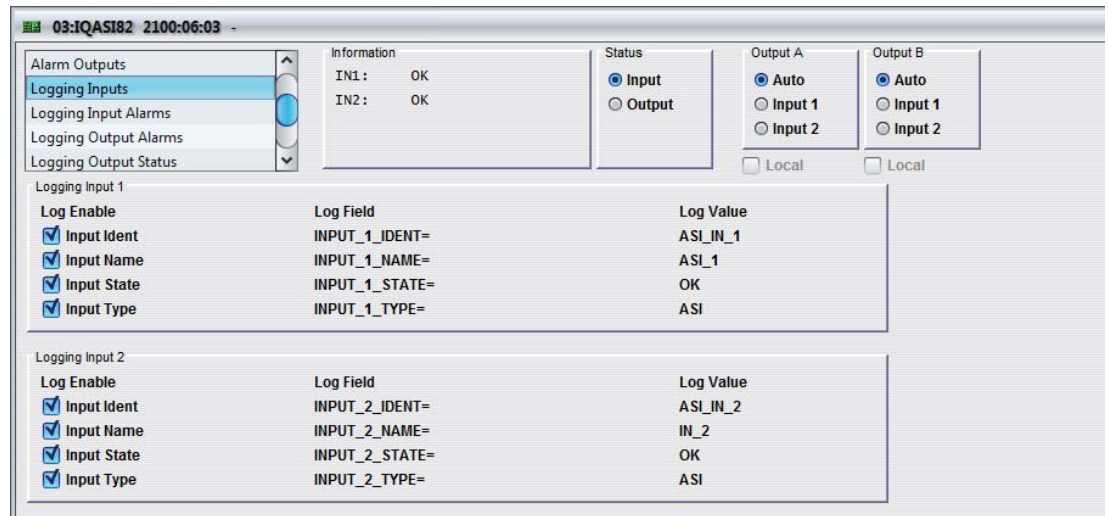
Logging makes information about various parameters available to a logging device connected to the RollCall network.

Each logging screen has three columns:

- **Log Enable:** Use the check boxes to select the parameters for which log information should be collected.
- **Log Field:** Shows the name of the logging field.
- **Log Value:** Shows the current log value.

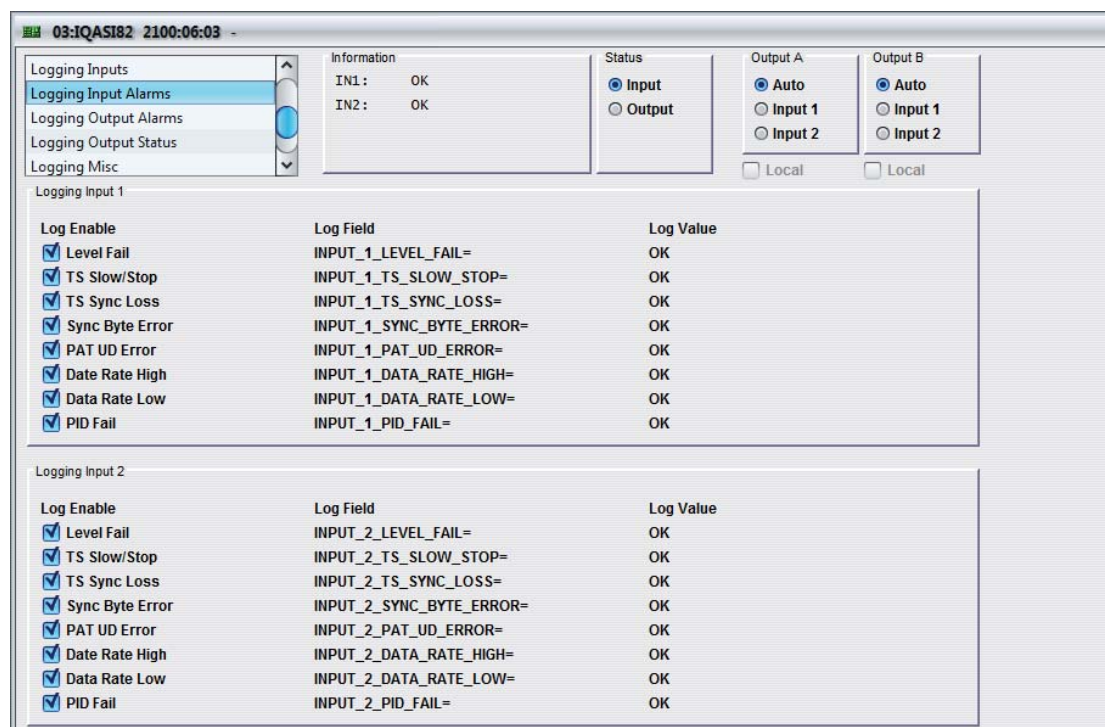
### 6.7.1 Logging Inputs

The Logging Inputs screen displays the current log information for each of the two inputs.



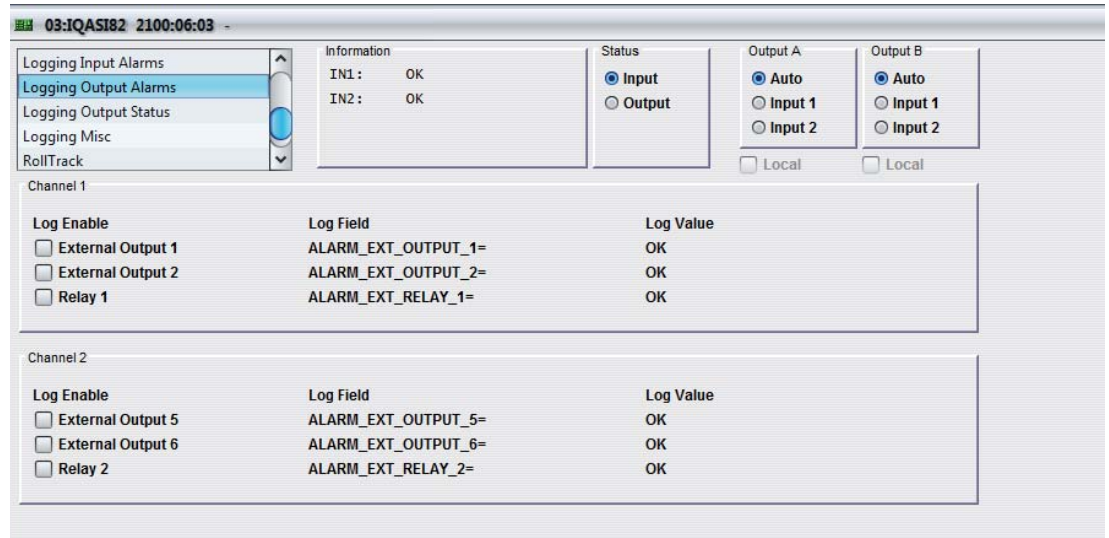
### 6.7.2 Logging Input Alarms

The Logging Input Alarms screen displays the current log information for each of the two outputs.



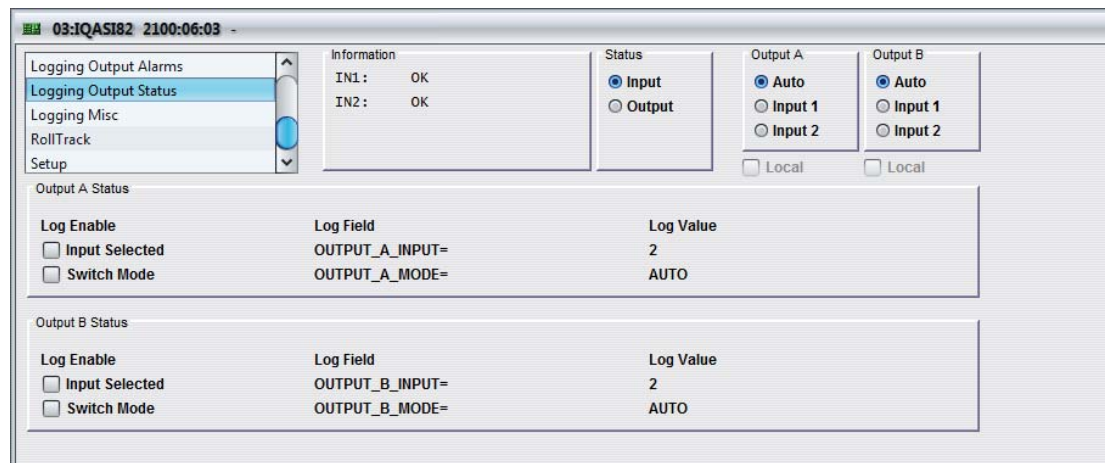
### 6.7.3 Logging Output Alarms

The Logging Output Alarms screen displays the current log information for each of the two outputs.



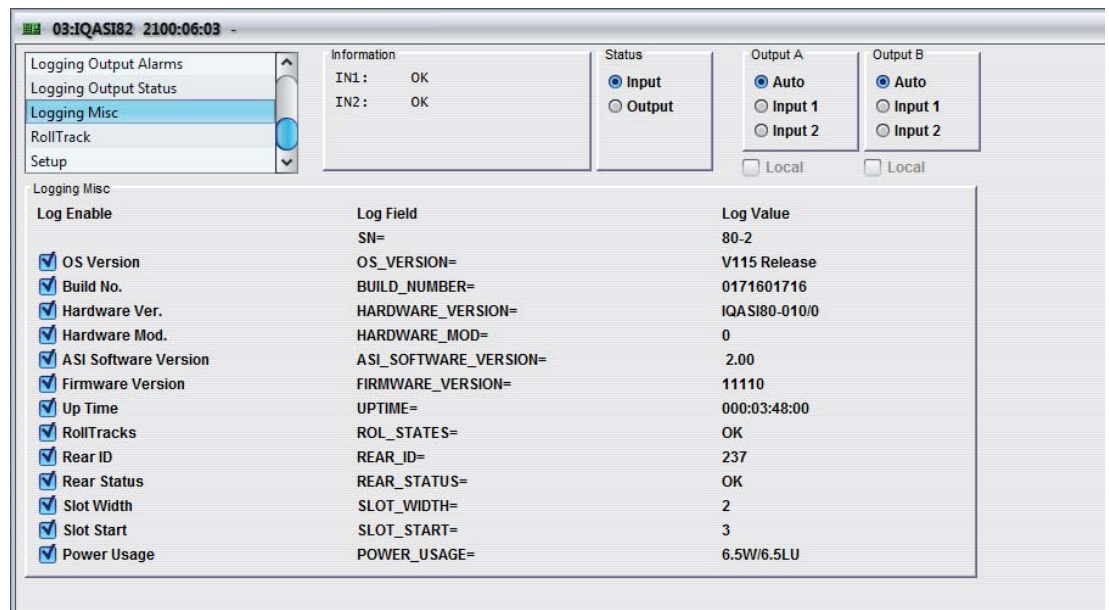
### 6.7.4 Logging Output Status

The Logging Output Status screen displays the current log information for each of the two outputs.



### 6.7.5 Logging Misc

The Logging Misc screen shows the current log information for the unit's basic parameters.



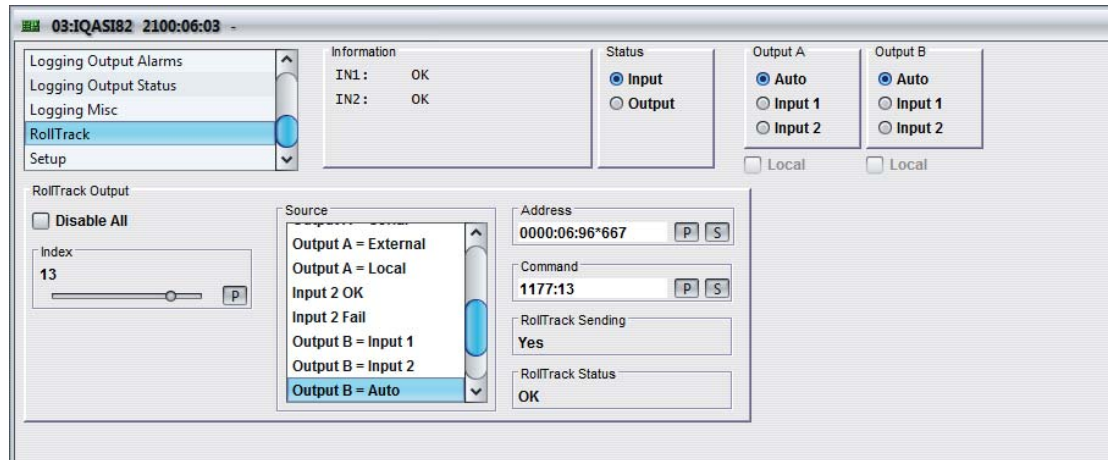
### 6.7.6 Log Field Descriptions

Log Field	Description
INPUT_N_IDENT=	The identifier of the serial data input, based on the rear ID.
INPUT_N_NAME=	The name of the serial data input, as specified in the Setup menu screen.
INPUT_N_STATE=	Displays the current input state. Valid values are: <ul style="list-style-type: none"> <li>OK – input signal good</li> <li>FAIL – input signal lost</li> </ul>
INPUT_N_TYPE=	This displays the type of input as specified by the unit's configuration.
INPUT_N_LEVEL_FAIL=	The alarms are as previously described for the Input Status.
INPUT_N_TS_SLOW_STOP=	The alarm will indicate a fail if the parameter is outside of the alarm range, but will only be acted upon if the alarm is enabled in the primary config and/or the alarm outputs.
INPUT_N_TS_SYNC_LOSS=	
INPUT_N_SYNC_BYTE_ERROR=	
INPUT_N_PAT_UD_ERROR=	
INPUT_N_DATA_RATE_HIGH=	<ul style="list-style-type: none"> <li>OK – the alarm is silent</li> <li>FAIL – the alarm is sounding</li> </ul>
INPUT_N_DATA_RATE_LOW=	
INPUT_N_PID_FAIL=	
ALARM_EXT_OUTPUT_1=	The alarms are as previously described for the Input Status.
ALARM_EXT_OUTPUT_2=	
ALARM_EXT_RELAY_1=	The alarms are an indication of the GPI output state with respect to the alarm state, and which alarms are selected for the individual GPI outputs.
ALARM_EXT_OUTPUT_5=	
ALARM_EXT_OUTPUT_6=	<ul style="list-style-type: none"> <li>OK – the alarm is silent</li> <li>FAIL – the alarm is sounding</li> </ul>
ALARM_EXT_RELAY_2=	
OUTPUT_N_INPUT=	The source selected for the output (1 or 2)
OUTPUT_N_MODE=	Reports which switching mode is in use: <ul style="list-style-type: none"> <li>LOCAL – front panel switching</li> <li>REMOTE_SERIAL – serial RollCall forced switching</li> <li>REMOTE_EXT – GPI switching</li> <li>AUTO – ASI82 decision-based switching</li> </ul>
SN=	The module's unique serial number. Note: this cannot be deselected.
OS_VERSION=	The operating system version.
BUILD_NUMBER=	The software build number.
HARDWARE_VERSION	The hardware version number.
HARDWARE_MOD=	The hardware modification level.
ASI_SOFTWARE_VERSION=	The ASI controller software version.
FIRMWARE_VERSION=	The ASI controller firmware version.
UPTIME=	Shows the time since the last restart (format ddd:hh:mm:ss).

Log Field	Description
ROL_STATES=	The status of any RollTracks that have been enabled.  Valid values are: <ul style="list-style-type: none"><li>• OK</li><li>• DISABLED</li><li>• FAIL</li></ul>
REAR_ID=	The rear panel type number.
REAR_STATUS=	The rear panel status.
SLOT_WIDTH=	The slot width.
SLOT_START=	The first slot number the rear occupies. Use in conjunction with SLOT_WIDTH to determine the slots that the unit occupies.
POWER USAGE=	The power rating for the module. Note: this is not a live power reading, but a maximum power rating.

## 6.8 RollTrack

The RollTrack screen allows information to be sent, via the RollCall™ network, to other compatible units connected on the same network.



### 6.8.1 Disable All

The Disable All check box disables all RollTrack Functions.

### 6.8.2 Index

The Index slider identifies the RollTrack action being configured. You can create up to 16 RollTrack actions.

### 6.8.3 Source

The Source list specifies the source of the information that triggers the data transmission.

<b>Unused</b>	No RollTracks sent.
<b>Input 1 OK</b>	Input 1 is good.
<b>Input 1 Fail</b>	Input 1 is bad.
<b>Output A = Input 1</b>	Output A source input 1.
<b>Output A = Input 2</b>	Output A source input 2.
<b>Output A = Auto</b>	Output A mode is Auto.
<b>Output A = Serial</b>	Output A mode is Serial.
<b>Output A = External</b>	Output A mode is External.
<b>Output A = Local</b>	Output A mode is Local.
<b>Input 2 OK</b>	Input 2 is good.
<b>Input 2 Fail</b>	Input 2 is bad.
<b>Output B = Input 1</b>	Output B source input 1.
<b>Output B = Input 2</b>	Output B source input 2.
<b>Output B = Auto</b>	Output B mode is Auto.
<b>Output B = Serial</b>	Output B mode is Serial.
<b>Output B = External</b>	Output B mode is External.
<b>Output B = Local</b>	Output B mode is Local.

### 6.8.4 Address

The full RollTrack address has four sets of numbers, for example, 0000:10:01\*99.

- The first set, 0000 in the example, is the network segment code number.
- The second set, 10 in the example, identifies the enclosure/mainframe unit.
- The third set, 01 in the example, identifies the slot number in the unit.
- The fourth set, 99 in the example, is a user-configured number that identifies the destination unit in a multi-unit system. This ensures that only the correct unit responds to commands. If left at 00, an incorrectly fitted unit may respond unexpectedly.

Rolltracks can be internally looped back using address FFFF:00:00.

### 6.8.5 Command

Each RollTrack command comprises two sets of numbers, for example, 33039:3.

- The first set, 33039 in the example, is the RollTrack command number, which identifies the command.
- The second set, 3 in the example, is the value sent with the command.

### 6.8.6 RollTrack Sending

Rolltrack Sending shows information when the unit is sending a RollTrack command.

<b>No</b>	The command is being sent.
<b>Yes</b>	The command is being sent.

### 6.8.7 RollTrack Status

RollTrack Status shows information about the status of the selected RollTrack Index.

<b>OK</b>	RollTrack message sent and received OK.
<b>Unknown</b>	RollTrack message has been sent but has not yet completed
<b>Timeout</b>	RollTrack message sent, but acknowledgement not received. This could be because the destination unit is not at the specified location.
<b>Bad</b>	RollTrack message has not been sent correctly, acknowledged at the destination unit. This could be because the destination unit is not of the type specified.
<b>Disabled</b>	RollTrack sending is disabled.

### 6.8.8 Configuring a RollTrack Action

1. Select the Index number. This identifies the RollTrack action being configured. (You can create up to 16 RollTrack actions.)
2. From the Source list, select the source that will trigger RollTrack transmission.
3. In the Address field, enter the RollTrack address and click **S**. To return the value to its default, click **P**.
4. In the Command field, enter the RollTrack command and click **S**. To return the value to its default, click **P**.

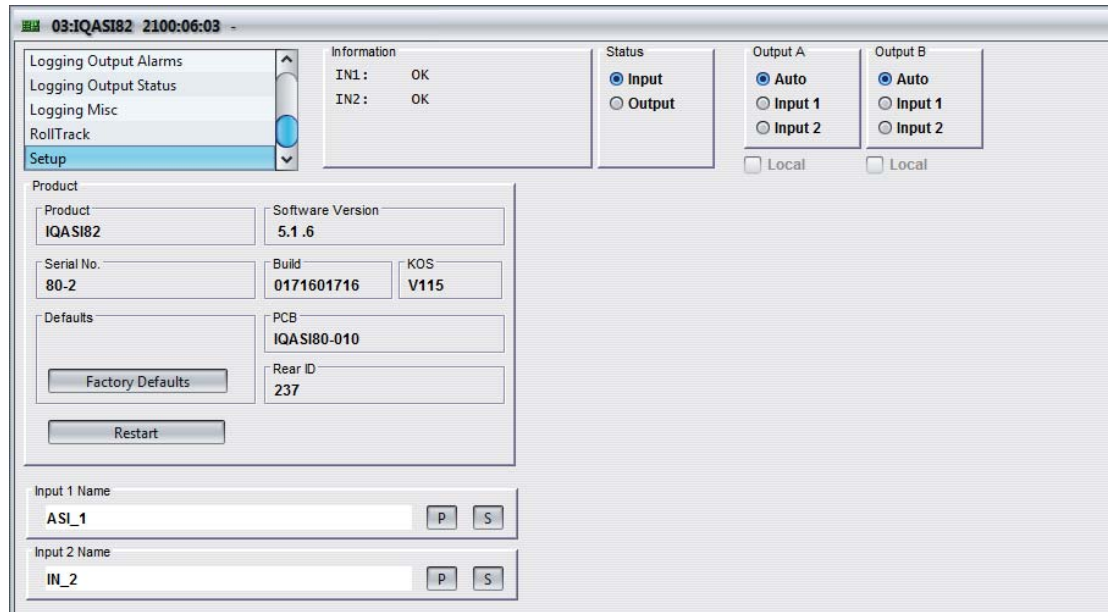
### 6.8.9 Viewing RollTrack information

See see section 6.8.6 and see section 6.8.7.



## 6.9 Setup

The Setup screen displays basic information about the unit. You can restore unit settings, restart the unit, and change the default input name.



- **Product:** The name of the module.
- **Software Version:** The currently installed software version number.
- **Serial No:** The module serial number.
- **Build:** The factory build number. This number identifies all parameters of the module.
- **KOS:** The operating system version number.
- **PCB:** The Printed Circuit Board revision number.
- **Rear ID:** The rear panel type.

### 6.9.1 Factory Defaults

The Factory Defaults button enables resets the module settings to their factory defaults.

### 6.9.2 Restart

The Restart button reboots the module, simulating a power-up/power-down cycle.

### 6.9.3 Input Name 1 & 2

These are the input names displayed in logging.

- To change the name of Input 1 or Input 2, type the name in the text field and click **S**. To return the name to its factory default, click **P**.

**Note:** This screen is only visible in supervisor mode, accessible via the RollCall Control Panel.