

SECURITON

Interface Module

Product Manual

Australia Rev 1.0 February 2018

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1 General

The Incite Hochiki-Securiton Interface Module (SEC-HIM-35) has been designed to enable Securiton Aspirating Smoke Detectors to be connected to a Hochiki loop and bring the alarm and fault signals back to the panel for processing.

There are three parts to a complete system.

SEC-HIM-35: This is the main module which utilises a CHQ-POM to interface the Aspirating Smoke Detector (ASD) to the loop. Every system must contain one of these.

SEC-HIM-35B: This is a secondary module which is only required on an ASD535/2. It utilises a CHQ-SIM to interface the second ASD to the loop. It contains a cable to connect to the SEC-HIM-35 unit.

SYNCRO-SECRDU and TAKTIS-SECRDU: These modules are used to display the status of the ASDs, and allow individual Disable and Reset switches for each ASD.

2 Modules

2.1 SEC-HIM-35

The Hochiki-Securiton Interface Module consists of two parts connected via a ribbon cable.

These are available only as a complete set.

The control PCB consists of a CHQ-POM, and associated electronics to allow it to interface to the Securiton ASD-531, ASD-532 and ASD535 detectors.

The termination PCB consists of fingers to fit into the terminal blocks on the Securiton detectors. Two box headers are provided to allow the ribbon from the control PCB to plug in. Header J1 is used for the ASD531 and ASD532 detector, while header J2 is used for the ASD535 detector.



2.2 SEC-HIM-35B

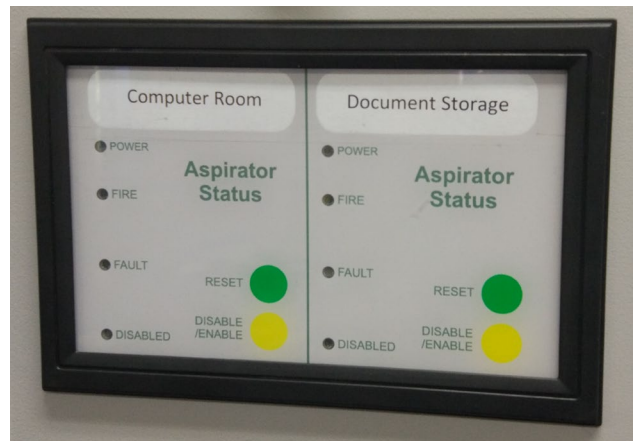
This module is only used with the Securiton ASD535 when the second aspirator is installed and plugs into the SEC-HIM-35. It can only be used in conjunction with the SEC-HIM-35. The SEC-HIM-35B utilises a CHQ-SIM.



2.3 SYNCRO-SECRDU and TAKTIS-SECRDU

These modules are used to display the status of individual Securiton ASD units. They must be configured through Cause and Effects in the Syncro or Taktis panels. They must be used in conjunction with either a Syncro or Taktis panel and are not available in a stand-alone configuration.

These modules come only as pairs. Should only one be needed, the second unit is left out of the FIP configuration.



3 Operation:

The state of the ASD outputs are detected by the main interface module (SEC-HIM-35) and transmitted back to the FIP via the CHQ-POM and the Hochiki Loop. These are then available for processing via the FIP. The ASD reset is achieved by toggling the CHQ-POM output for 5 seconds, which in turn is fed into the ASD Reset input.

On the SECRDU, the LEDs are controlled, and the Disable and Reset touch buttons are processed via Cause and Effect equations in the Syncro or Taktis FIP.

3.1 Alarm:

When the first alarm contact closes on the ASD, the resistor network on the SEC-HIM-35 sets an alarm on the CHQ-POM input 1. This is then detected by the FIP and processed as per the settings in the FIP configuration.

Similarly, when a second detector head is used in the ASD535, the second alarm contact sets an alarm on the CHQ-SIM located on the SEC-HIM-35B module.

3.2 Fault Mode:

All the inputs on the SEC-HIM-35 and SEC-HIM-35B are monitored for open circuit and short circuit faults. Should any portion of the unit be unplugged, a fault will be generated.

When the fault contact on the ASD is activated, the second input on the CHQ-POM is activated. This allows the input to signal a fault and also trigger other devices through C&E if needed.

3.3 Controls:

The control buttons on the SECRDU are capsense type. They are activated by placing a finger onto the faceplate, where the finger capacitance is detected by the PCB circuitry. A buzzer will beep whenever a finger is detected.

3.3.1 Reset:

This button has a momentary function. Activating this button will place a 5 second reset pulse on the connected ASD unit. If the alarm is still present on the ASD, it will have no effect.

3.3.2 Disable:

This button has a toggle operation. Activating this button will disable the Alarm and Fault inputs from the ASD. If required, the FIP C&E can be used to turn off the ASD when this button is activated by holding the reset signal on the ASD.

4 Configuration:

4.1 SEC-HIM-35 and SEC-HIM-35B

These are configured through the FIP. See Section 5 (FIP Configuration)

4.2 SYNCRO-SECRDU and TAKTIS-SECRDU

4.2.1 Unit addresses

This is addressed in binary, with each switch representing a number as follows

Switch	Value
SW2.1	1
SW2.2	2
SW2.3	4
SW2.4	8
SW2.5	16
SW2.6	Not used
SW2.7	Not used
SW2.8	RS485 Termination

For example: to specify address 14, switches 2, 3, and 4 would be turned on ($2+4+8 = 14$)

The RS485 termination should only be turned on if the unit is the last one on the communications bus.

4.2.2 Config Switch:

The control buttons on the SECRDU are capsense type. They are activated by placing a finger onto the faceplate, where the finger capacitance is detected by the PCB circuitry. The sensitivity can be fine-tuned by switches 1 to 4 on the configuration switch SW3. It should not be necessary to move the switches from their default setting. Settings are only read on a board reset. To perform a reset, momentarily press SW1, which is located between the DIP switches.

The switch setting are as below:

SW3.4	SW3.3	SW3.2	SW3.1	Finger Capacitance	
OFF	OFF	OFF	OFF	0.1pF	
OFF	OFF	OFF	ON	0.1pF	
OFF	OFF	ON	OFF	0.2pF	Taktis Default
OFF	OFF	ON	ON	0.3pF	
OFF	ON	OFF	OFF	0.4pF	
OFF	ON	OFF	ON	0.5pF	
OFF	ON	ON	OFF	0.6pF	Syncro Default
OFF	ON	ON	ON	0.7pF	
ON	OFF	OFF	OFF	0.8pF	
ON	OFF	OFF	ON	0.9pF	
ON	OFF	ON	OFF	1pF	
ON	OFF	ON	ON	1pF	
ON	ON	OFF	OFF	1pF	
ON	ON	OFF	ON	1pF	
ON	ON	ON	OFF	1pF	
ON	ON	ON	ON	1pF	

The Taktis is by default more sensitive to take into account the thicker faceplate material.

Increasing the finger capacitance makes the 'button' LESS sensitive.

Decreasing the finger capacitance makes the 'button' MORE sensitive.

Care must be taken not to make the button too sensitive, or false triggering may occur, similarly, if the sensitivity is reduced too far, the button will not work at all.

5 FIP Configuration

5.1 General

The SEC-HIM-35 is presented to the FIP as a CHQ-POM device, while the SEC-HIM-35B is presented to the FIP as a CHQ-SIM. Both the SYNCRO-SECRDU and the TAKTIS-SECRDU are presented to the FIP as a 16 I/O Card.

5.2 SEC-HIM-35

The SEC-HIM-35 should be configured as:

The screenshot shows the Securiton interface with a table of device configurations and a network diagram below it.

Item	Type	Location Text	Zone
00 - Sub Addr	CHQ-POM Powered Output M...	ASD535.1	1
01 - Sub Addr	Output	ASD535 Reset	1
02 - Sub Addr	Input	ASD535.1 Alarm	1
03 - Sub Addr	Input	ASD535 Fault	1

The network diagram below the table shows a hierarchy: Securiton Interface -> 01 - Hochiki AS -> Loop 1 -> 004 - CHQ-POM Powered Output Module -> 01, 02, 03 -> 008 - CHQ-SIM Input Module -> Panel I/O.

The 'Configure Output Settings' dialog box for CHQ-POM Powered Output Module at Address 004.01. The 'Device Output Properties' section includes the following options:

- Def. Ring Mode (Fire)
- Evacuate Output
- Alert Output
- Pre Alarm Output
- Tech. Alarm Output
- Fault Output
- Security Output

The 'POM Programmable Settings' section includes:

- Current Limit: 16 mA
- Output Normally ON
- Drop on Reset
- Single Shot Mode
- Reset Duration: Def. 5 Sec

The 'Location Text' is ASD535 Reset and the 'Zone' is 1.

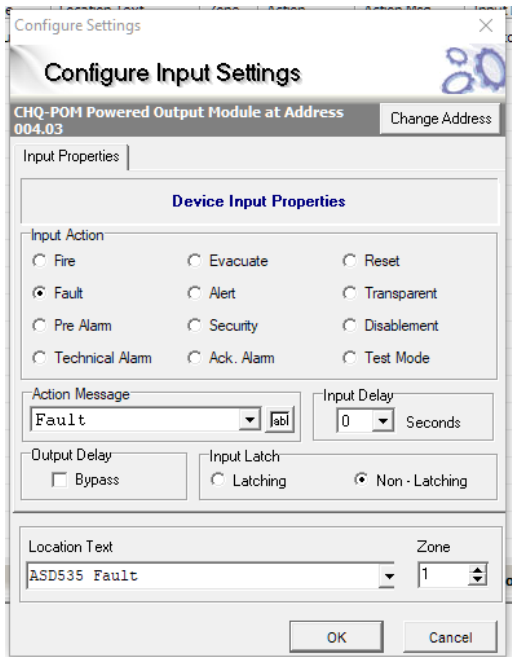
CHQ-POM Output

The 'Configure Input Settings' dialog box for CHQ-POM Powered Output Module at Address 004.02. The 'Device Input Properties' section includes the following options:

- Fire
- Evacuate
- Reset
- Fault
- Alert
- Transparent
- Pre Alarm
- Security
- Disablement
- Technical Alarm
- Ack. Alarm
- Test Mode

The 'Action Message' is Fire and the 'Input Delay' is 10 Seconds. The 'Input Latch' is set to Latching. The 'Location Text' is ASD535.1 Alarm and the 'Zone' is 1.

CHQ-POM Input 1



Note: When Input 1 is set to Latching, a 10 second delay must be placed on the input in order for it to reset with a Panel Reset. Failure to do so, will result in the point re-arming and a second reset needing to be performed.

CHQ-POM Input 2

5.3 SEC-HIM-35B

The SEC-HIM-35B should be configured as:

Item	Type	Location Text	Zone	Action	Action Msg	Input Delay	Latch
00 - Sub Addr	Input	ASD535.2 Alarm	1	Fire	Fire	10 Seconds	Yes
Fire2							
ASD535.2 Disablenent							

The hardware tree view shows the following components:

- Security Interface
 - 01 - Hochiki AS
 - Loop 1
 - 004 - CHQ-POM Powered Output Module
 - 01
 - 02
 - 03
 - 008 - CHQ-SIM Input Module (highlighted)
 - Panel I/O
 - 01 - ADM35
 - Cause & Effect

Configure Input Settings
 CHQ-SIM Input Module at Address 008.00

Device Input Properties

Input Action:

- Fire
- Evacuate
- Reset
- Fault
- Alert
- Transparent
- Pre Alarm
- Security
- Disablement
- Technical Alarm
- Ack. Alarm
- Test Mode

Action Message: Fire | jabi | Input Delay: 10 | Seconds

Output Delay: Bypass | Input Latch: Latching | Non - Latching

Location Text: ASD535.2 Alarm | Zone: 1

OK | Cancel

Note: When the Input is set to Latching, a 10 second delay must be placed on the input in order for it to reset with a Panel Reset. Failure to do so, will result in the point re-arming and a second reset needing to be performed.

5.4 SYNCRO-SECRDU

5.4.1 I/O Setup and Attributes

The SYNCRO-SECRDU appears to the Syncro panel as a 16 way I/O module.

The I/O points are shown in the table below:

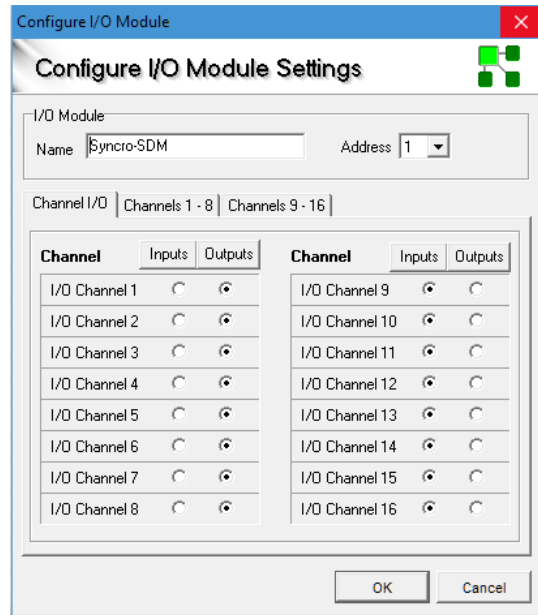
I/O Channel	Function	Syncro Input or Output	Description
1	General Disablement	Output	NOT USED
2	Access Level 2	Output	Enables SECRDU controls.
3	Fire 1	Output	Fire signal from ASD1
4	Fault 1	Output	Fault signal from ASD1
5	Fire 2	Output	Fire signal from ASD2
6	Fault 2	Output	Fault signal from ASD2
7	Not Used	Output	DO NOT USE
8	Not Used	Output	DO NOT USE
9	Disablement 1.1	Input	Activated whenever the Disablement function on ASD1 is active. Used to disable inputs via C&E.
10	Disablement 1.2	Input	May be used as required. Is activated whenever the Disablement function on ASD1 is active.
11	Reset 1.1	Input	Activated for 5 seconds whenever the Reset function on ASD1 is activated. Used to reset the ASD via C&E.
12	Reset 1.2	Input	May be used as required. Is Activated for 5 seconds whenever the Reset function on ASD1 is activated.
13	Disablement 2.1	Input	Activated whenever the Disablement function on ASD2 is active. Used to disable inputs via C&E.
14	Disablement 2.2	Input	May be used as required. Is activated whenever the Disablement function on ASD2 is active.
15	Reset 2.1	Input	Activated for 5 seconds whenever the Reset function on ASD2 is activated. Used to reset the ASD via C&E.
16	Reset 2.2	Input	May be used as required. Is Activated for 5 seconds whenever the Reset function on ASD2 is activated.

Item	Name	Type	Zone	Action	Action Msg	Input Delay	Latch	Evac	Def. Ring	Silenceable	Delay Stage 1	Delay Stage 2
01 - Channel	General Disablement	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
02 - Channel	Access Level 2	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
03 - Channel	Fire 1	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
04 - Channel	Fault 1	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
05 - Channel	Fire 2	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
06 - Channel	Fault 2	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
07 - Channel	Not Used	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
08 - Channel	Not Used	Output	None					No	No	No	0.0 Minute(s)	0.0 Minute(s)
09 - Channel	Disablement1.1	Input	None	Disablement	<None>	0 Seconds	No					
10 - Channel	Disablement1.2	Input	None	Transparent	<None>	0 Seconds	No					
11 - Channel	Reset1.1	Input	None	Transparent	<None>	0 Seconds	No					
12 - Channel	Reset1.2	Input	None	Transparent	<None>	0 Seconds	No					
13 - Channel	Disablement2.1	Input	None	Disablement	<None>	0 Seconds	No					
14 - Channel	Disablement2.2	Input	None	Transparent	<None>	0 Seconds	No					
15 - Channel	Reset2.1	Input	None	Transparent	<None>	0 Seconds	No					
16 - Channel	Reset2.2	Input	None	Transparent	<None>	0 Seconds	No					

I/O points and channel attributes should be set as shown:

All outputs should have attributes CLEARED.

Input 9, and 13 should be set to DISABLEMENT, all other inputs should be set to TRANSPARENT, NON-LATCHING.



5.4.2 Syncro Cause and Effect Programming

Note: In this example an ASD535 with dual sampling tubes are used

Function	Type	Cause	Operator	Effect	Comment
Fault 1 and 2	Action	CHQ-POM Input 2	OR	SECRDU Channels 4 and 6	The ASD 535-2 has only one fault output for both sensors.
Fire 1	Action	CHQ-POM Input 1	OR	SECRDU Channel 3	
Fire 2	Action	CHQ-SIM Input	OR	SECRDU Channel 5	
ASD535.1 Reset	Action	SECRDU Channel 11	OR	CHQ-POM Output	
ASD535.2 Reset	Action	SECRDU Channel 15	OR	CHQ-POM Output	The ASD 535-2 has only one reset input output for both sensors.
ASD535.1 Disablement	Disablement	SECRDU Channel 9	OR	CHQ-POM Input 1	
ASD535.2 Disablement	Disablement	SECRDU Channel 13	OR	CHQ-SIM Input	
ASD535.1 and 2 Disablement	Disablement	SECRDU Channel 9 and 13	AND	CHQ-POM Input 2	We have a common fault, so only disable it when both are disabled
ASD535.1 and 2 Total Disablement	Action	SECRDU Channel 10 and 14	AND	CHQ-POM Output	This used the aux disablement outputs to turn off the ASD.

5.5 TAKTIS-SECRDU

5.5.1 I/O Setup and Attributes

The TAKTIS-SECRDU appears to the Taktis panel as a 16 way I/O module. When adding the module, the wired type must be used, not the “Plug in” type.

The I/O points are shown in the table below:

I/O Channel	Function	Syncro Input or Output	Description
1	General Disablement	Output	NOT USED
2	Access Level 2	Output	Enables SECRDU controls.
3	Fire 1	Output	Fire signal from ASD1
4	Fault 1	Output	Fault signal from ASD1
5	Fire 2	Output	Fire signal from ASD2
6	Fault 2	Output	Fault signal from ASD2
7	Not Used	Output	DO NOT USE
8	Not Used	Output	DO NOT USE
9	Disablement 1.1	Input	Activated whenever the Disablement function on ASD1 is active. Used to disable inputs via C&E.
10	Disablement 1.2	Input	May be used as required. Is activated whenever the Disablement function on ASD1 is active.
11	Reset 1.1	Input	Activated for 5 seconds whenever the Reset function on ASD1 is activated. Used to reset the ASD via C&E.
12	Reset 1.2	Input	May be used as required. Is Activated for 5 seconds whenever the Reset function on ASD1 is activated.
13	Disablement 2.1	Input	Activated whenever the Disablement function on ASD2 is active. Used to disable inputs via C&E.
14	Disablement 2.2	Input	May be used as required. Is activated whenever the Disablement function on ASD2 is active.
15	Reset 2.1	Input	Activated for 5 seconds whenever the Reset function on ASD2 is activated. Used to reset the ASD via C&E.
16	Reset 2.2	Input	May be used as required. Is Activated for 5 seconds whenever the Reset function on ASD2 is activated.

I/O points should be set as follows

Item	Groups	Zone	Location Text	Action	Action Msg	Input Delay	Latch	Evac	Def. Ring	Silenceable	Delay Stage 1	Delay Stage 2
Channel 01	None	None	General Disablement					No	No	No	0 Minutes	0 Minutes
Channel 02	None	None	Access Level 2					No	No	No	0 Minutes	0 Minutes
Channel 03	None	None	Fire 1					No	No	No	0 Minutes	0 Minutes
Channel 04	None	None	Fault 1					No	No	No	0 Minutes	0 Minutes
Channel 05	None	None	Fire 2					No	No	No	0 Minutes	0 Minutes
Channel 06	None	None	Fault 2					No	No	No	0 Minutes	0 Minutes
Channel 07	None	None	Not Used					No	No	No	0 Minutes	0 Minutes
Channel 08	None	None	Not Used					No	No	No	0 Minutes	0 Minutes
Channel 09	None	None	Disablement1.1	Disablement	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 10	None	None	Disablement1.2	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 11	None	None	Reset1.1	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 12	None	None	Reset1.2	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 13	None	None	Disablement2.1	Disablement	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 14	None	None	Disablement2.2	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 15	None	None	Reset2.1	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes
Channel 16	None	None	Reset2.2	Transparent	None	0 seconds	No	No	No	No	0 Minutes	0 Minutes

Channel attributes should be set as shown:

All outputs should have attributes CLEARED.

Input 9, and 13 should be set to DISABLEMENT, all other inputs should be set to TRANSPARENT, NON-LATCHING.

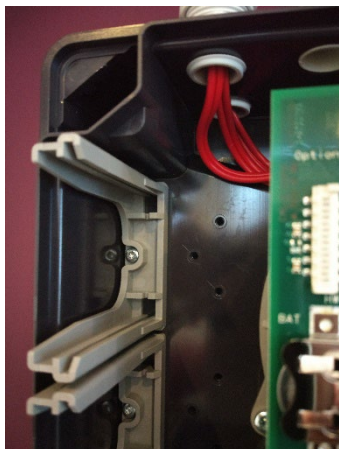
5.5.2 Taktis Cause and Effect Programming

Note: In this example an ASD535 with dual sampling tubes are used

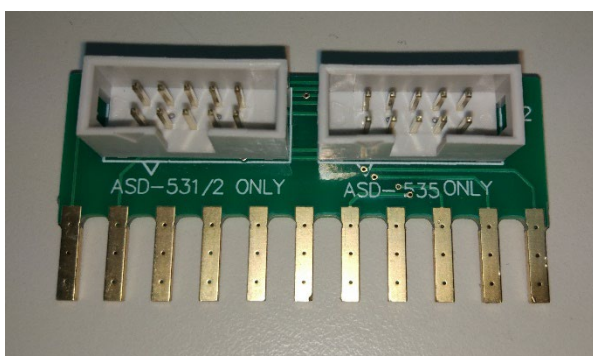
Function	Type	Cause	Operator	Effect	Comment
Fault 1 and 2	Action	CHQ-POM Input 2	OR	SECRDU Channels 4 and 6	The ASD 535-2 has only one fault output for both sensors.
Fire 1	Action	CHQ-POM Input 1	OR	SECRDU Channel 3	
Fire 2	Action	CHQ-SIM Input	OR	SECRDU Channel 5	
ASD535.1 Reset	Action	SECRDU Channel 11	OR	CHQ-POM Output	
ASD535.2 Reset	Action	SECRDU Channel 15	OR	CHQ-POM Output	The ASD 535-2 has only one reset input output for both sensors.
ASD535.1 Disablement	Disablement	SECRDU Channel 9	OR	CHQ-POM Input 1	
ASD535.2 Disablement	Disablement	SECRDU Channel 13	OR	CHQ-SIM Input	
ASD535.1 and 2 Disablement	Disablement	SECRDU Channel 9 and 13	AND	CHQ-POM Input 2	We have a common fault, so only disable it when both are disabled
ASD535.1 and 2 Total Disablement	Action	SECRDU Channel 10 and 14	AND	CHQ-POM Output	This used the aux disablement outputs to turn off the ASD.

6 Installation

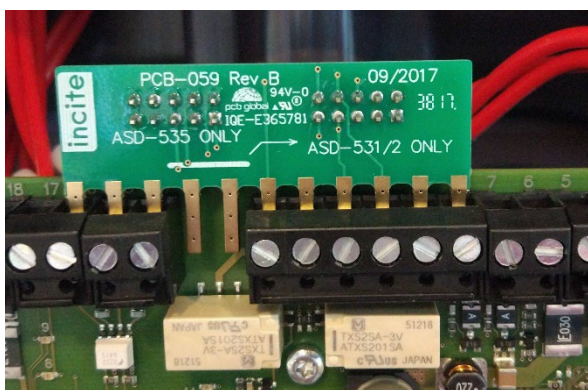
6.1 SEC-HIM-35, SEC-HIM-35B



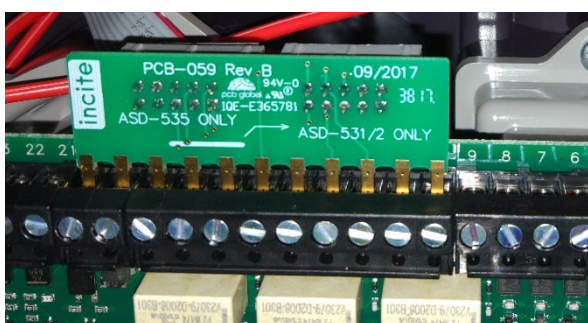
Locate and install the mounting bracket in the first slot and fasten with the Torx screw provided with the bracket.



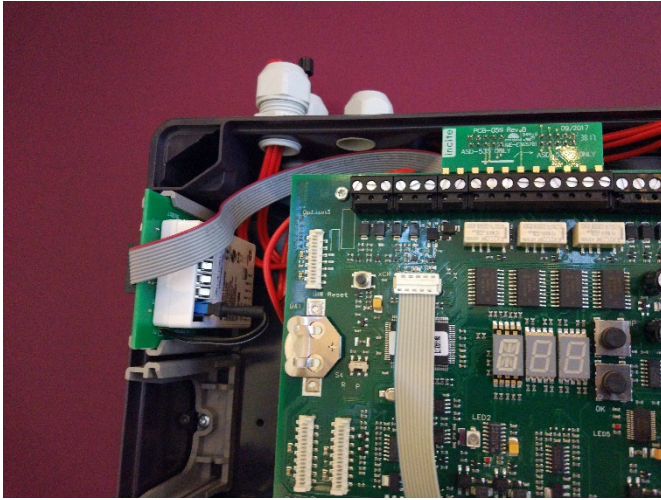
Locate the relevant plug for the type of ASD and connect the SEC-HIM-35.



On the ASD531 and ASD532, install the board in terminals 8 to 16. Note the 2 fingers not connected.



On the ASD535, install the board in terminals 10 to 20.



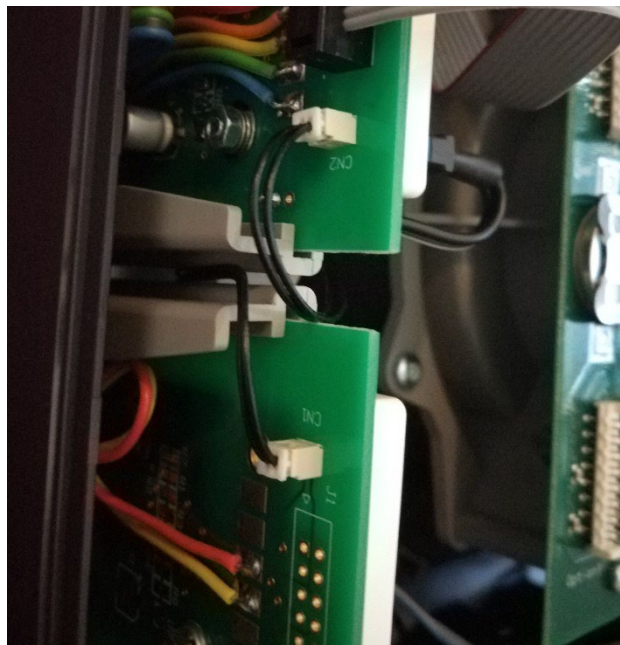
Install the loop wiring into the CHQ-POM on the SEC-HIM-35, then slide the unit into the carrier, making sure that no cables are pinched.



To install the SEC-HIM-35B, first install mounting bracket in the second slot and fasten with the Torx screw provided with the bracket.

Install the loop wiring into the CHQ-SIM on the SEC-HIM-35, then slide the unit into the carrier, making sure that no cables are pinched.

Route the interconnection cable in a position where it can't get damaged and plug it into the receptacle provided on the SEC-HIM-35.



6.2 SYNCRO-SECRDU and TAKTIS-SECRDU

The SECRDU units are supplied as complete units with integrated faceplates.

These units should not be dismantled, and will be irreparably damaged if dismantling is attempted.

6.2.1 Syncro Installation



Using the template provided, modify, print off, cut out the label and slide it into the label pocked on the side of the SECRDU module.

Place the SYNCRO-SECRDU behind the carrier plate opening. Using the M3 screws provided, attach the SECRDU to the carrier plate.

6.2.2 Taktis Installation

Using the template provided, modify, print off, cut out the label and slide it into the label pocked on the side of the SECRDU module.

Place the TAKTIS-SECRDU squarely in front of the opening in the carrier plate opening, and working from each side, carefully ease the attachment clips through the opening.

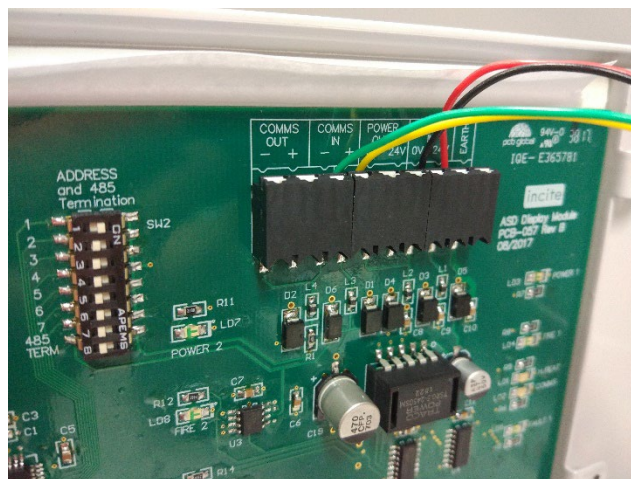
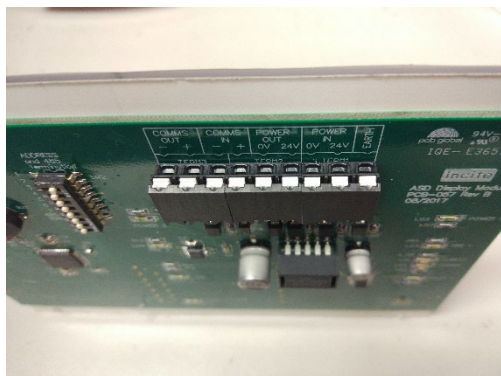


6.2.3 Cabling

Four cables are required to interface the SECRDU to the FIP: 24V, 0V, Comms+, Comms-

Do not put 24V onto the Comms terminals or permanent damage may result, and warranty will be void.

Insert the cabled into the top of its respective terminal while pushing **GENTLY** vertically downwards on the white terminal release button.



Incoming and outgoing terminals are provided. The termination switch on the last unit must be switched on, otherwise it must be switched off.

To remove the cables, **GENTLY** push in the white terminal release button for that cable.

Sydney

Block Y, Unit 1, 391 Park Road, REGENTS PARK NSW 2143
Mail: PO Box 508 GYMEA NSW 2227
Phone: 1300 INCITE (1300 462 483) | 02 9644 7144
Fax: 02 9644 7255
Email: sales@incitefire.com.au
Technical support: support@incitefire.com.au

Melbourne

Address: Unit 120, 45 Gilby Road, MT WAVERLEY VIC 3149
Phone: 03 9544 2211
Fax: 03 9544 2212
Email: salesvic@incitefire.com.au

Brisbane

Address: 25 Jeays Street, BOWEN HILLS QLD 4006
Phone: 07 3252 5366
Fax: 07 3252 4099
Email: salesqld@incitefire.com.au

Perth

Address: Unit 2, 48 Irvine Drive, MALAGA WA 6090
Phone: 08 9349 2972
Email: saleswa@incitefire.com.au