Data and Installation

S4 ASD Interface

(S4-34440-ASD)

Honeywell GENT

The S4 ASD interface unit (Part No: S4-34440-ASD) is designed to connect to a FAAST unit, Fire Alarm Aspiration Sensing Technology® .
The ASD Interface unit monitors the FAAST unit for fire and fault events and signals the Vigilon panel to take cause and effect actions.
The ASD Interface unit incorporates an EN54-4 compliant mains derived power supply that is battery backed to provide a standby supply. The auxiliary power output from the unit is used drive the FAAST unit.

LOSS PREVENTION CERTIFICATION BOARD LPCB
042bp/03

The ASD Interface Unit is supplied bundled with FAAST:

☐ FL0111E-HS-VIG-INT (S4-34440-ASD + FL0111E-HS + EOL PCB)
☐ FL0112E-HS-VIG-INT (S4-34440-ASD + FL0112E-HS + EOL PCB)
☐ FL0122E-HS-VIG-INT (S4-34440-ASD + FL0122E-HS + EOL PCB)
☐ 8100-VIG-INT (S4-34440-ASD + 8100E + EOL PCB)
☐ 7100XE-VIG-INT (S4-34440-ASD + 7100XE + Spares Pack)
☐ 9400XE-VIG-INT (S4-34440-ASD + 9400XE + Spares pack)

Technical Data

Standards - designed to meet	EN54:part 4:1997 + A1:2002 EN54:part 17:2005 EN54:part 18:2005
Overall dimensions	478mm x 322mm x 145mm
Assembled weight (approx.)	5.25Kg (excluding batteries and optional modules fitted)
Enclosure	Steel
Colour	Door: RAL 7024 Graphite Grey and Toucan C-Mix 2000 white 67W50 Backbox: RAL 7024 Graphite Grey
Storage temperature	-20ºC to +70ºC
Ambient operating temperature	-5ºC to +40°C
Relative Humidity (Non condensing)	up to 95% Temperature +5ºC to +40°C
Ingress Protection	IP31(estimated)
Mains voltage Rated current	230V -15% +10% 50Hz/60Hz 0.7A
Zone Nominal voltage Quiescent current	 16V or 22.5V (default) ±15% 20mA per zone (default) Zone short circuit current limited to < 30mA. Refer to the commissioning information for details on how to configure the ASD interface for: - Single Port (1 Channel) or - Dual Port (2 Channels) application.
Auxiliary Output	**Sector outputs:** 0.5A max. each at 24V ± 3V, electronically current limited to approximately 1A at 25ºC **Auxiliary power output:** 0 to 0.5A with 12V ±0.5V or 24V ±0.5V 0.5A to 0.65A max. with 12V ±2V or 24V ±2V **Max. total output current:** 1.5A
Batteries	PG-12V14F2 FR, 2 x 12V 14Ahr (4.2Kg each)
Compatibility	Vigilon : MCC ≥ V4.53 : LPC ≥ V4.49 Commissioning tool ≥ V1.31
Operating Voltage	35V - 48V
EN54-17 : 2005 (section 4.8) data:	Vmax 48V, Ic max 0.8A Vnom 40V, Is max 1.25A Vmin 24V, IL max 50µA Vso max 16V, ZC max 0.2Ω Vso min 8V
EN54-18 : 2005 data	Vmax 42V Vmin 24V
EN54-4 : 1997data	Imaxa 1.5A / Imaxb 2.5A / Ri max 1.3R Imin 80µA UVLo 18.5Vdc ±5% Vbatt min (with no mains) 22.5Vdc ±5%
Emission	BS EN 61000-6-3: 2007 + A1:2001 EMC for residential, commercial & light Industry.
Immunity	BS EN 50130-4: 2001 for alarm systems
LVD	*EN 62368-1: 2014 Safety Requirements*
Terminals	Terminals for spur circuit off main loop

The ASD Interface unit has room to accommodate optional modules onto its DIN rails.

Installation

It is recommended that a FAAST unit and an ASD interface unit are both installed with due consideration to the requirements for BS5839-1. Also refer to the general guidance in FIA Code of Practice for Installation of Aspirating detector.

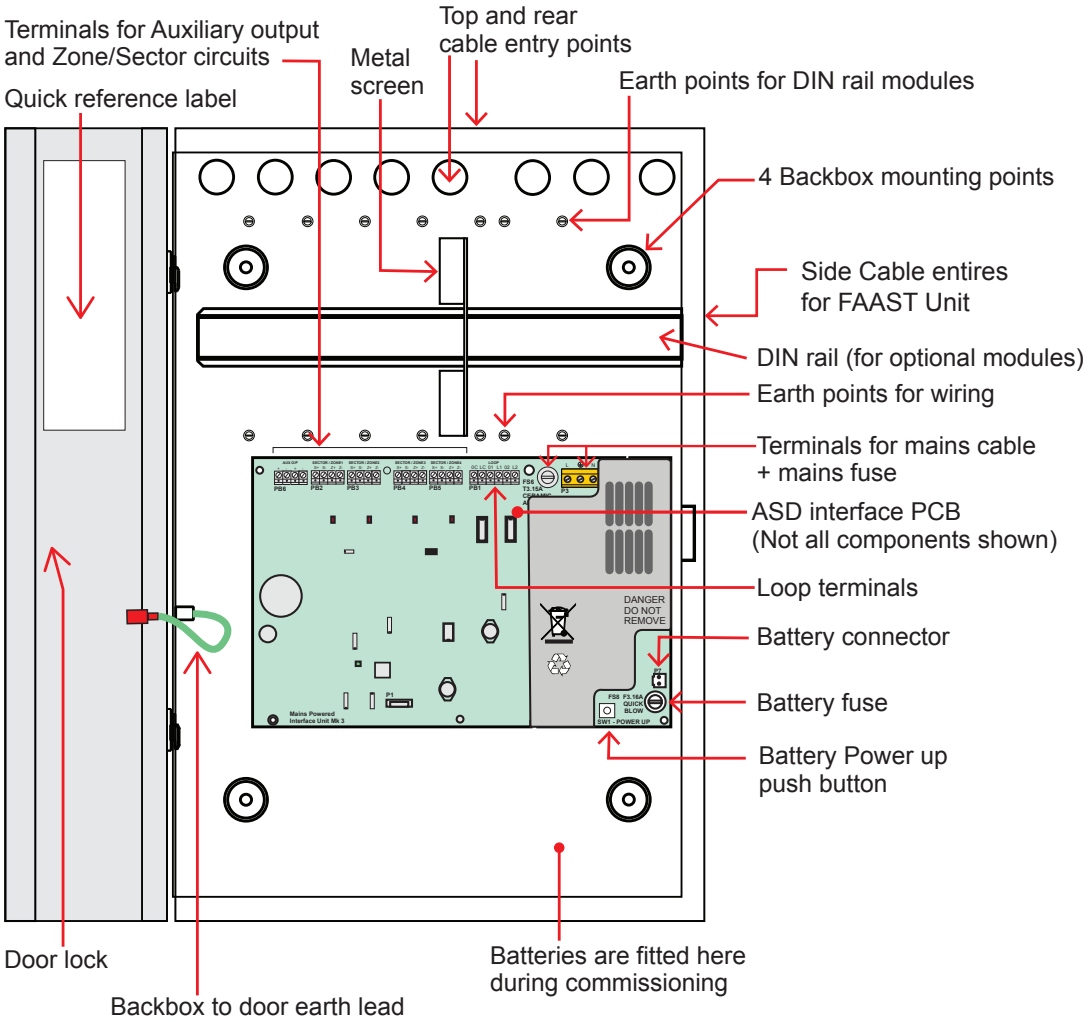
The batteries 12V 14Ahr are supplied in a separate packages.

	Parts	Qty
	Fuse 3.15A AS Ceramic (20mm x 5mm)	*1*
	Fuse 3.15A QB Glass (20mm x 5mm)	*1*
	Battery Link	*1*
	Battery Lead	*1*
	Resistor 5.6K 0.6W	*4*
	Resistor 470R 0.6W	*8*
	Resistor 10K 0.5W	*4*

	Parts	Qty
	Capacitor 22uF	*4*
	Keys fitted to the enclosure.	*1 pair*
	12V 14Ahr Battery	*2*

FAAST LT EOL Terminal PCB

FAAST LT EOL Terminal PCB shown (similar PCB for FAAST 8100E)
FAAST XT and XS make use of end of lines in spares pack

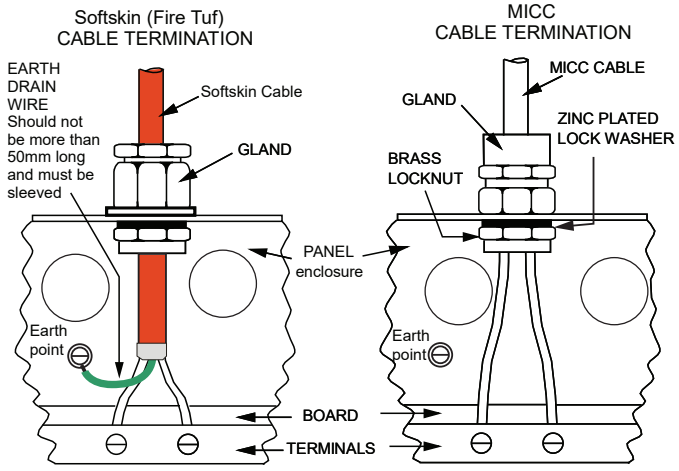


Relay module

Optional relay module (Part number 19104-52) if used should be mounted on the DIN rail.

Cable termination

Cable glands used must meet UL94V-1 or better flammability rating.



Installation recommendations

It is recommended that the installer follow the general requirements of *BS 5839 : Part 1 : 2017, which is the code of practice relating to fire detection and alarm systems for buildings*. The installer must follow the relevant parts of *BS7671 : 2008 Requirements for Electrical installations, IEE wiring regulations 17th edition* if installation is in the United Kingdom.
Where applicable the requirements of any national guidelines of the countries in which the product will be installed.

Mounting

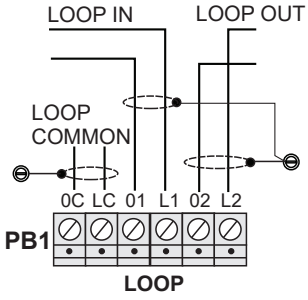
Use the mounting points provided on the unit to mount it to a wall using suitable fixings to support a fully assembled unit.

Knock out/in the required cable entry points from the unit.

Terminate each cable at the entry point leaving 400mm tail wire length and mark each core to identify its final connecting point.

Loop wiring

An ASD Interface unit is connected to a Vigilon device loop as shown below using recommended fire cable.

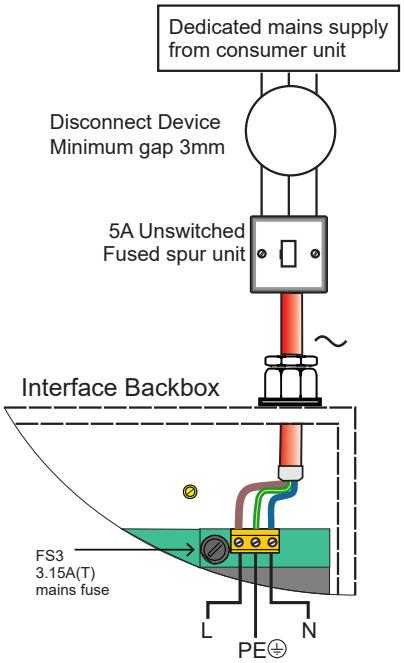


Mains supply

The mains supply cable must be a standard fire resisting type and should meet PH30 classification, such as any of the standard and enhanced loop cable. Requires a minimum conductor cross sectional area of 0.75mm².

Ensure that the mains supply cable enters the enclosure through a dedicated cable entry, located adjacent to the mains terminal block and that is also segregated from FAAST unit and loop wiring.

These fire alarm system products are not designed to be powered from IT Power systems.



Ensure the mains supply remains isolated until system commissioning stage when the unit is powered up.

All mains powered equipment must be earthed. Mains supply to any fire alarm control and indicating equipment must be via an unswitched 5A fused spur unit. A disconnect device must be provided to disconnect both poles and must have a minimum gap of 3mm. The disconnect device should be available as part of the building installation and must be easily accessible after installation is complete.

Wiring test

DO NOT undertake high voltage insulation tests WITH THE CABLES CONNECTED to the Interface unit and external equipment. Such a test may damage the electronics circuitry in external equipment and in the Interface unit.

Cables for wiring a FAAST unit

The ASD Interface unit is connected to a FAAST Unit using approved fire cable:

- A 2-core fire cable should be used to make the Auxiliary O/P power supply connection, see the Vigilon Installation manual for list of approved 2-core fire cable used for loop wiring.
- A 4-core fire cable may be used for channel connections between ASD Interface unit and a FAAST unit.

Location

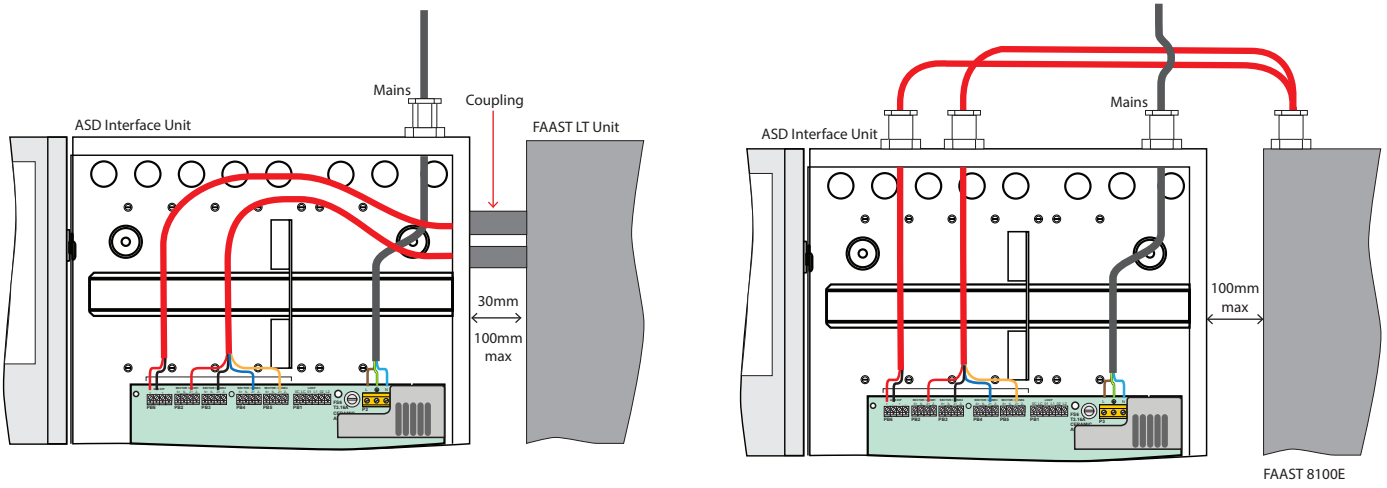
To meet the requirement of BS5839-1 the ASD interface Unit must be installed adjacent to the FAAST unit.

Adjacent installation

Remote installation require special consideration, so adjacent installation is the recommended option.

Where the ASD Interface Unit and FAAST Unit are not adjacently installed then the power supply connections must be duplicated and short circuit protection must be provided so that a short circuit on one connection does not prevent power from being supplied by the other connection.

Cable routing to FAAST Units



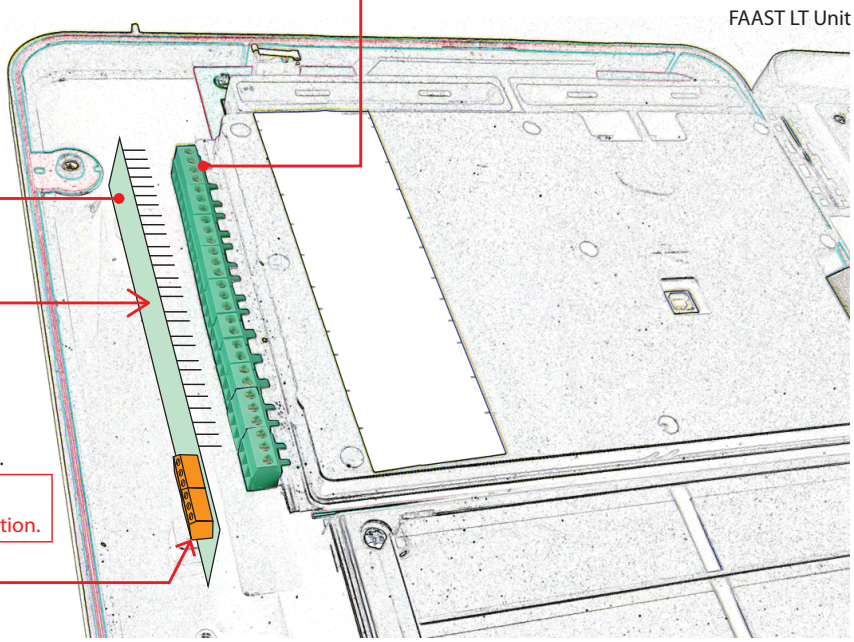
FAAST LT (FL0111E-HS or F0L112E-HS) Single Port (1-Channel) unit installation

How to install FAAST LT Single/Dual Port EOL Terminal PCB

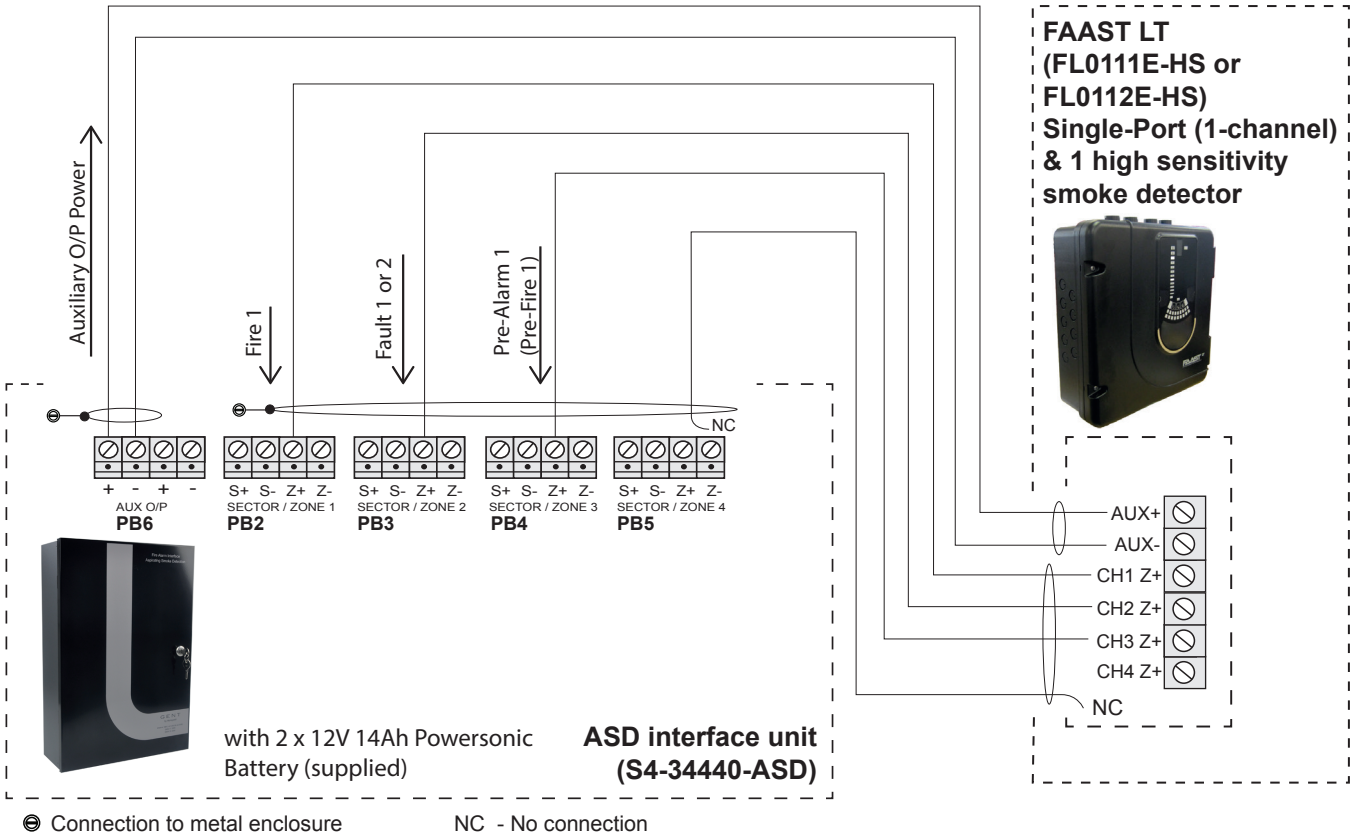
③ Connect the external wiring to the orange terminal block on *FAAST LT EOL Terminal PCB*, see wiring diagram.

② Fit terminal blocks supplied with the FAAST Unit to the FAAST PCB, as illustrated. Open all the terminal screws to help with the installation of *FAAST LT EOL Terminal PCB.*

① Open the outer cover



Wiring a FAAST LT Single Port (1-Channel) FL0111E-HS or FL0112E-HS to a ASD Interface Unit (S4-34440-ASD



FAAST LT (FL0122E-HS) Dual Port (2-Channel) unit installation

How to install FAAST LT Single/Dual Port EOL Terminal PCB

① Open the outer cover

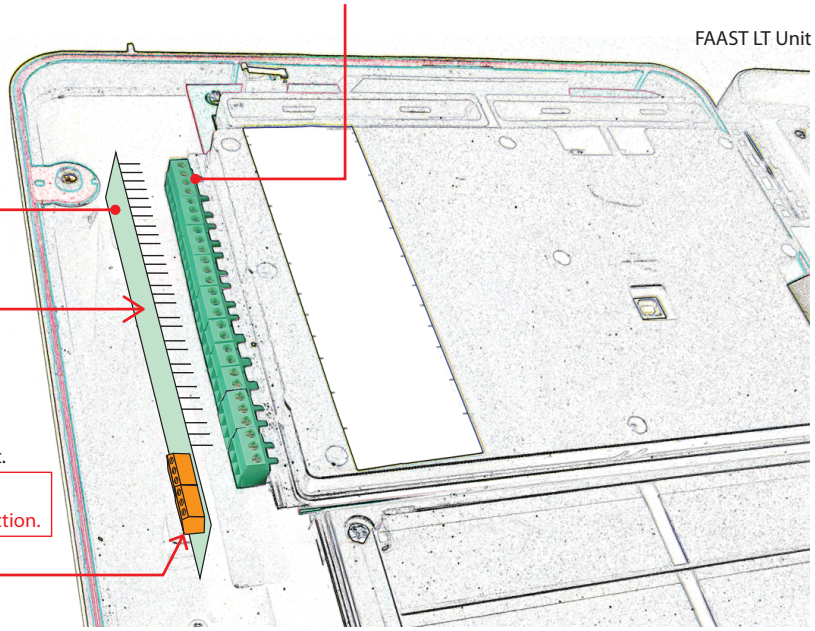
② Fit terminal blocks supplied with the FAAST Unit to the FAAST PCB, as illustrated. Open all the terminal screws to help with the installation of *FAAST LT EOL Terminal PCB*.

③ Connect the external wiring to the orange terminal block on *FAAST LT EOL Terminal PCB*, see wiring diagram.

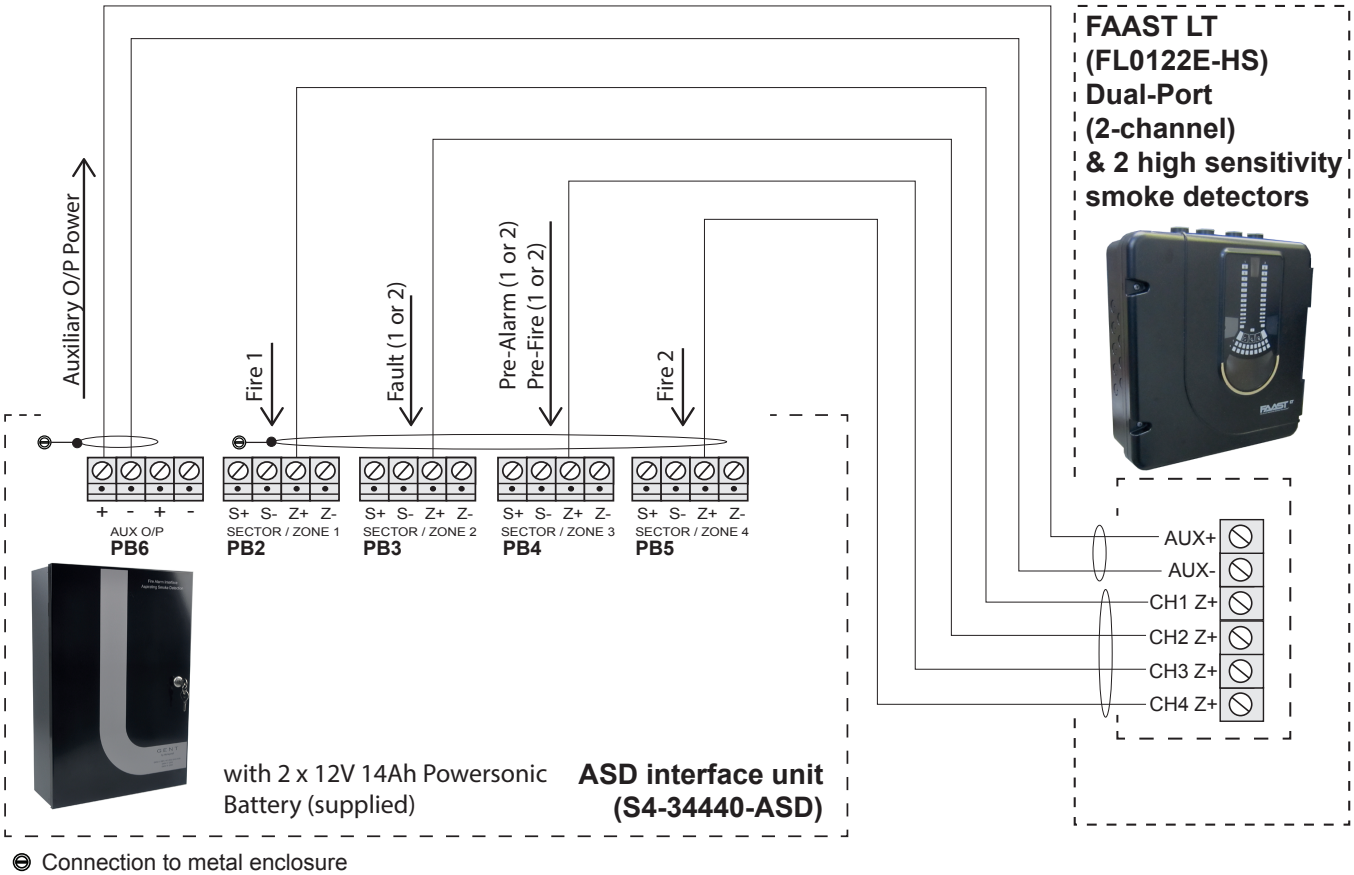
④ Hold the *FAAST LT EOL Terminal PCB* with pins facing to the right and align the pins with terminals on the FAAST unit, as illustrated.

⑤ Slide the *FAAST LT EOL Terminal PCB* pins into the terminal blocks on the FAAST unit.

Secure all the terminal block screws at the FAAST unit to make each pin connection.

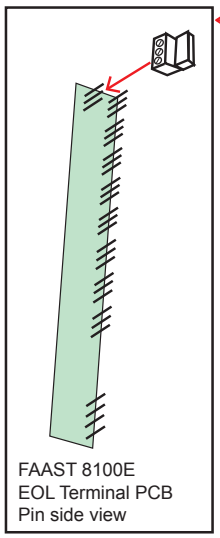


Wiring a FAAST LT Dual Port (2-Channel) FL0122E-HS unit to a ASD Interface Unit (S4-34440-ASD



FAAST (8100E) True aspirating unit Installation

How to install FAAST 8100E EOL Terminal PCB



2 NOTE: The 3-way terminal block TB11 is fitted to the FAAST 8100E EOL Terminal PCB.

1 Open the cover

3 Open the 3 terminal screws on a 3-way terminal block supplied with the FAAST Unit. Slide the 3-way terminal block in the orientation shown on to the 3-Pins of the FAAST 8100E EOL Terminal PCB, see illustration.

Secure the 3 terminal screws to make each pin connection.

FAAST 8100E

4 Ensure the terminal blocks TB1 to TB10 are fitted in the FAAST unit and all the terminal screws are opened out to assist with the intallation of FAAST 8100E EOL Terminal PCB.

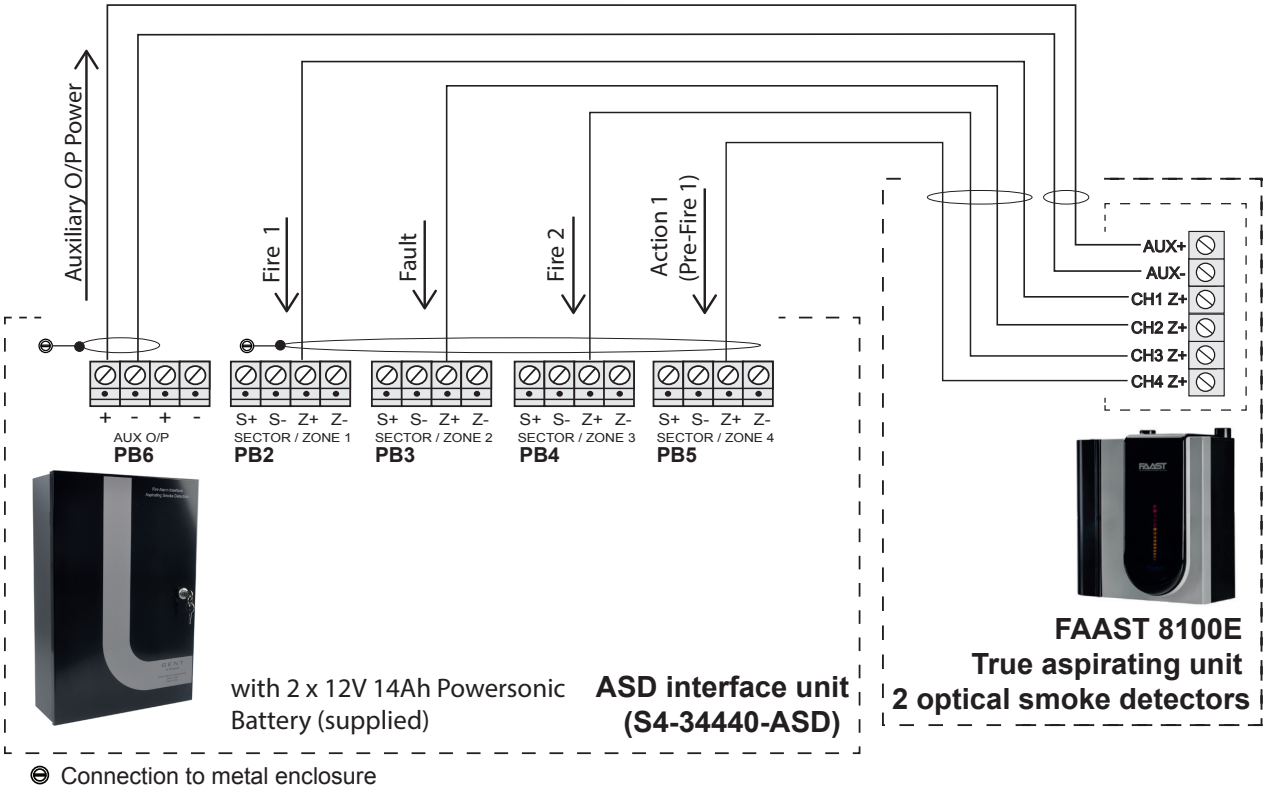
FAAST 8100E
EOL Terminal PCB

5 Hold the FAAST 8100E EOL Terminal PCB with pins facing in downwards in the orientation shown. Align pins with terminals TB1 to TB10 on the FAAST unit, as illustrated.

6 Slide the EOL Terminal board pins into the terminals on the FAAST unit. Ensure the terminal block TB11 plugs into the socket on the FAAST unit.

Secure all the terminal screws TB1 to TB10 to make each pin connection at the FAAST unit.

Wiring a FAAST 8100E True aspirating unit to an ASD Interface Unit (S4-34440-ASD)

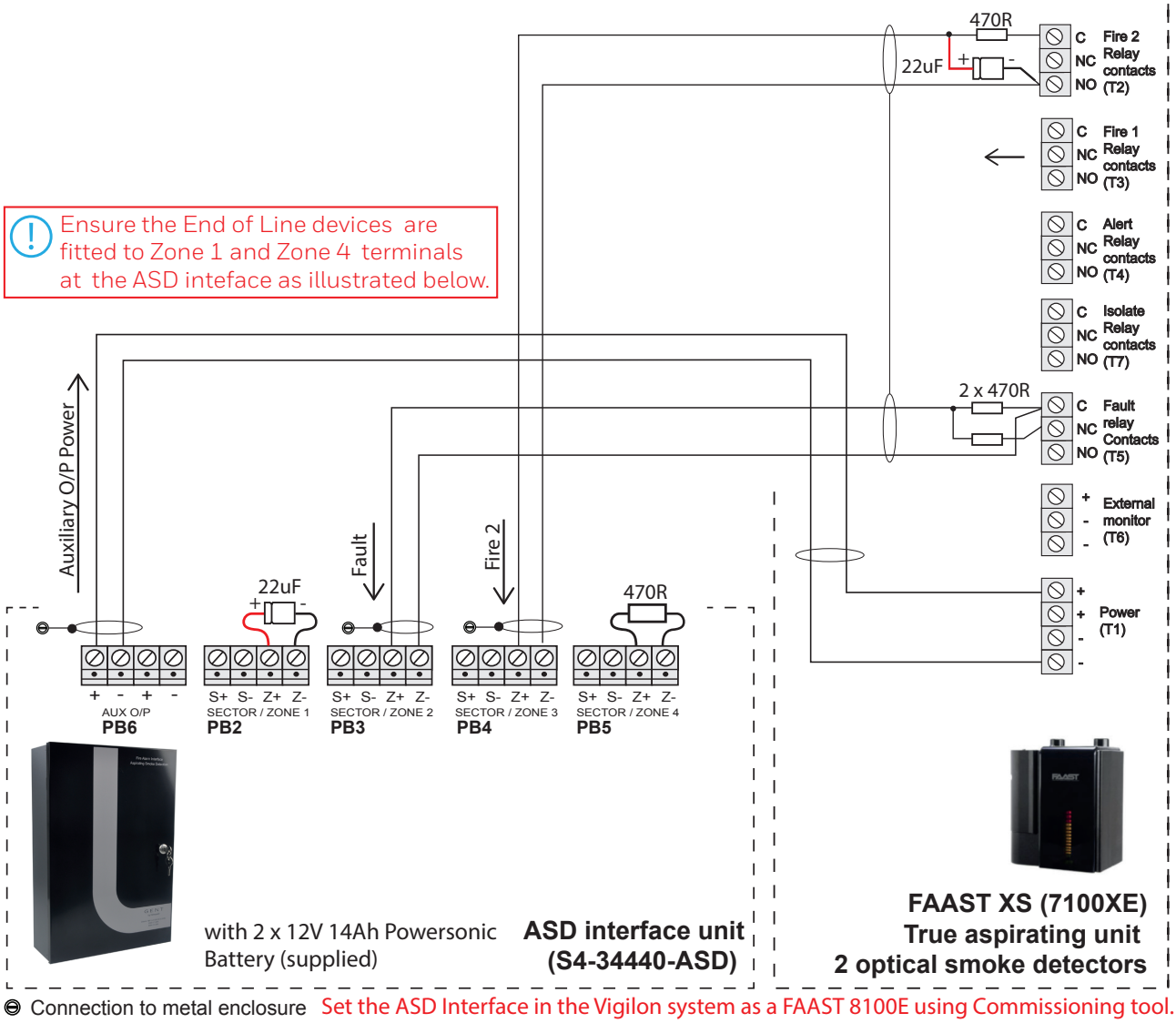


FAAST XS (7100XE) Dual Port (2-Channel) unit installation

Wiring a FAAST XS Dual Port (2-Channel) 7100XE unit to a ASD Interface Unit (S4-34440-ASD)

If a lower default thereshold (% OBS / FT) is required then wire to Fire output **Fire 1 Relay contacts (T3)** instead of **Fire 2 Relay contacts (T2)**.

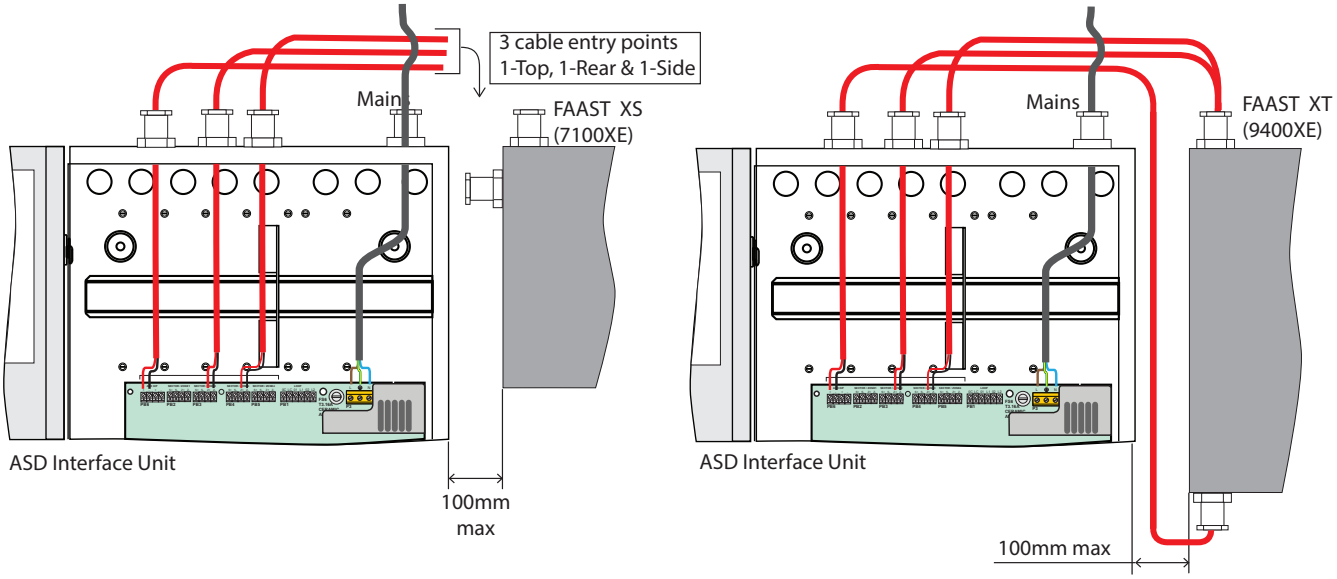
Ensure the End of Line devices are fitted to Zone 1 and Zone 4 terminals at the ASD inteface as illustrated below.



Connection to metal enclosure

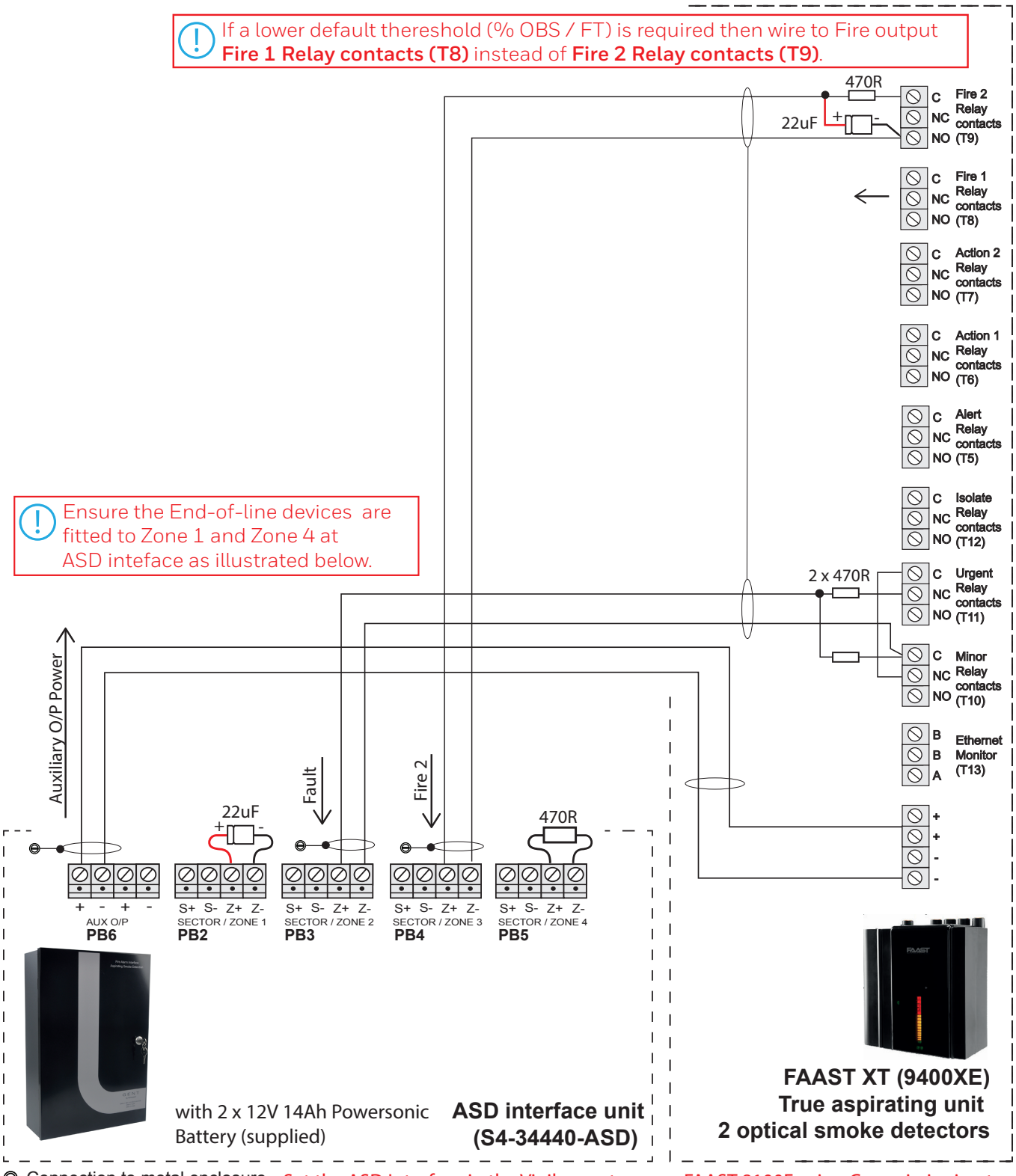
Set the ASD Interface in the Vigilon system as a FAAST 8100E using Commissioning tool.

Cable routing from ASD interface to FAAST XT or XS unit



FAAST XT (9400XE) Dual Port (2-Channel) unit installation

Wiring a FAAST XT Dual Port (2-Channel) 9400XE unit to a ASD Interface Unit (S4-34440-ASD)



Commissioning

The ASD Interface unit and the FAAST unit are both configured to operate in a Vigilon system, using Vigilon Commissioning tool ≥ V1.31 and FAAST Commissioning using PipeIQ tool.

Symbols on product

	Electric shock hazard.
	Protective Earth connection terminal.
	The WEEE symbol. It indicates the product is to be recycled and not thrown away.
	The CE compliance logo. This product is in conformity with the relevant European Union harmonisation legislation.
RoHS	The RoHS compliance logo. The RoHS directive restricts the use of certain hazardous substances commonly used in electronic and electronic equipment.
UK CA	*The UKCA (UK Conformity Assessed) marking is a new UK product marking that is used for goods being placed on the market in Great Britain (England, Wales and Scotland).*

Notes

WEEE Directive:
At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre.
Do not dispose of with your normal household waste.
Do not burn.

At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre and in accordance with national or local legislation.

UK CA 0832

CE 2831

Gent by Honeywell (Novar Systems Limited)
Manufactured by: Honeywell Life Safety Systems-Romania
Street: Str. Salcamilor 2 bis- Lugoj

15

DoP
118-CPR-2015

Product No.
S4-34440-ASD

EN54-4: 1997 +A12002, A2:2006, EN54-17:2005, EN54-18:2005

S4-34440-ASD (EN54-4-17 & 18)

Intended for use in fire detection and fire alarm systems in and around buildings

Refer to DOP 118-CPR-2015 for level or class of performance declared, for details see sebsite www.gent.co.uk

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Commissioning Information

S4 ASD Interface unit

(S4-34440-ASD)

The Commissioning process requires checks to be made to ensure that compatible Cards with correct firmware are installed in Vigilon panel.

It is also important to ensure correct version of the Commissioning tool is being used to configure each ASD Interface Unit on Vigilon loop circuits.

Ensure the FAAST Units are fully commissioned using the FAAST Commissioning procedure.

Once the ASD Interface is powered up ensure the indications given by LD1 located on the Interface board are correct.

Ensure typical fire and fault events at a FAAST unit are locally indicated as well as at the Vigilon panel.

Compatibility

Control Panel	Compatible card and firmware
Vigilon	*Main Controller Card ≥ V4.53*
	Loop Processor Card ≥ V4.49
	Vigilon Commissioning tool ≥ V1.31

Factory settings

The S4 ASD interface unit is factory set to 'ASD 1 Port I/F' to connect to a *FAAST LT FL0112E-HS unit. Reconfigure the setting as required depending on the FAAST unit using the* Vigilon Commissioning tool ≥V1.31.

The Auxiliary output of the ASD Interface is used to power the FAAST unit.

Standby Battery capability

The ASD Interface unit makes use of Powersonic PS-12140 12V 14Ah batteries. It is strongly recommended that batteries are replaced after 4 years of use.

All batteries must be disposed of as per recommendation made by the battery manufacturer and local regulations.

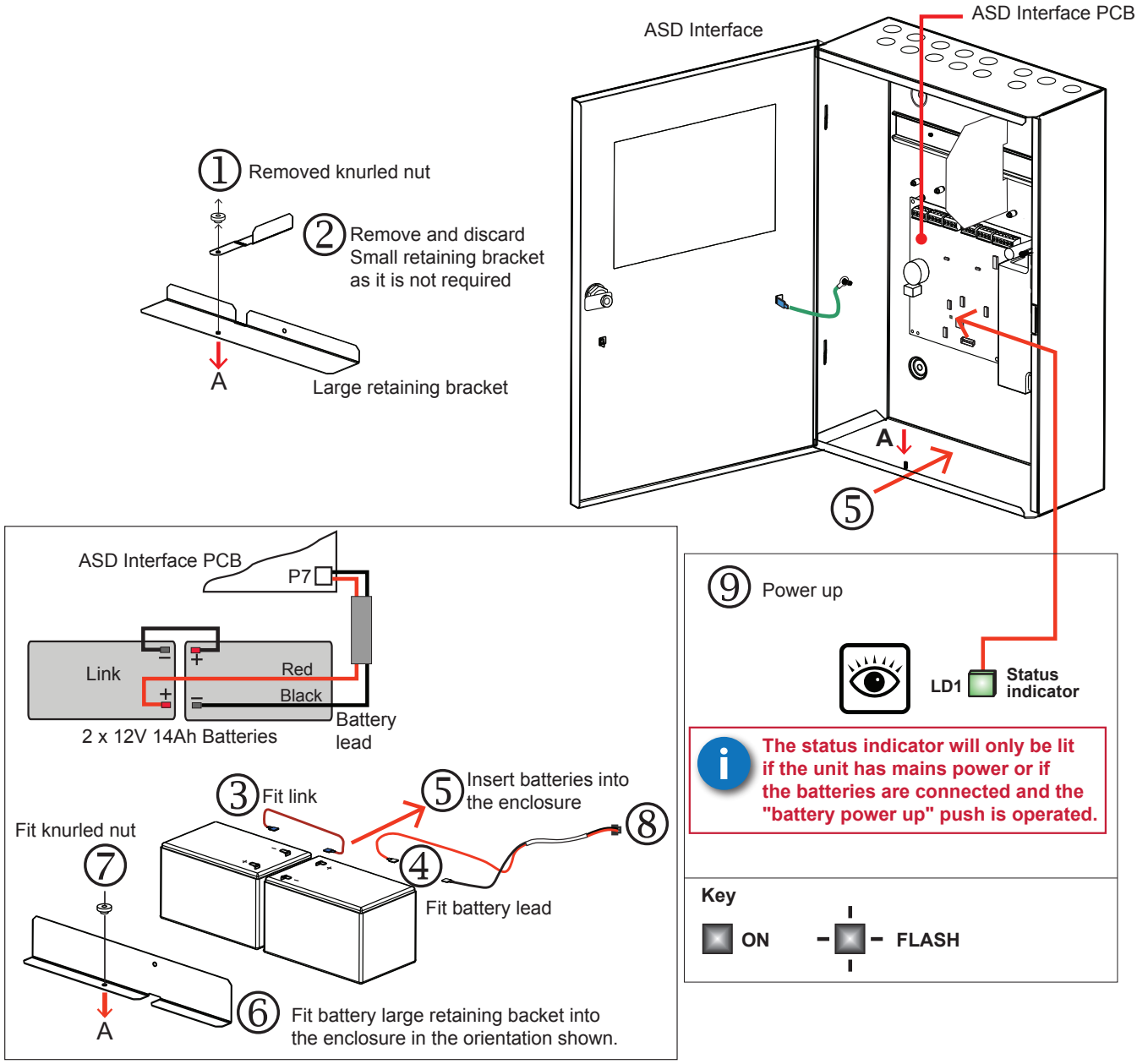
An ASD Interface Unit (S4-34440-ASD) with 12V 14Ahr batteries provides 24-hour standby power to a *FAAST Unit*. The ASD Interface unit is capable of delivering standby of up to 48-hour to a *FAAST LT FL0111E-HS.*

Optional module

The ASD Interface unit has provision for installation of optional modules, like relays, on to the DIN rail within the enclosure. If the modules are powered from an ASD Interface power supply then it will affect the battery standby capability of the unit.

How to install batteries and Power up

The following illustration shows how to fit and connect the two 12V 14Ah batteries inside an ASD Interface unit (S4-34440-ASD).
The numbers ①②③④.. shows the order in which to carry out the installation.



Status Indicator LD1

Indicator LD1	*colour*	*meaning...*
FLASH	*Green*	*OK - Interface replies to a loop communication sequence.*
Long FLASH with loop communications	*Amber*	*There is a short circuit, open circuit or confirmation timeout on an interface zone / sector channel.*
Short FLASH	*Amber*	*The interface loses synchronisation with the loop communications sequence.*
ON continuously	*Amber*	*System error is detected (e.g. a configuration memory checksum / validity check error or a Flash / RAM error).*

Commissioning the ASD interface Units using Vigilon Commissioning tool ≥V1.31

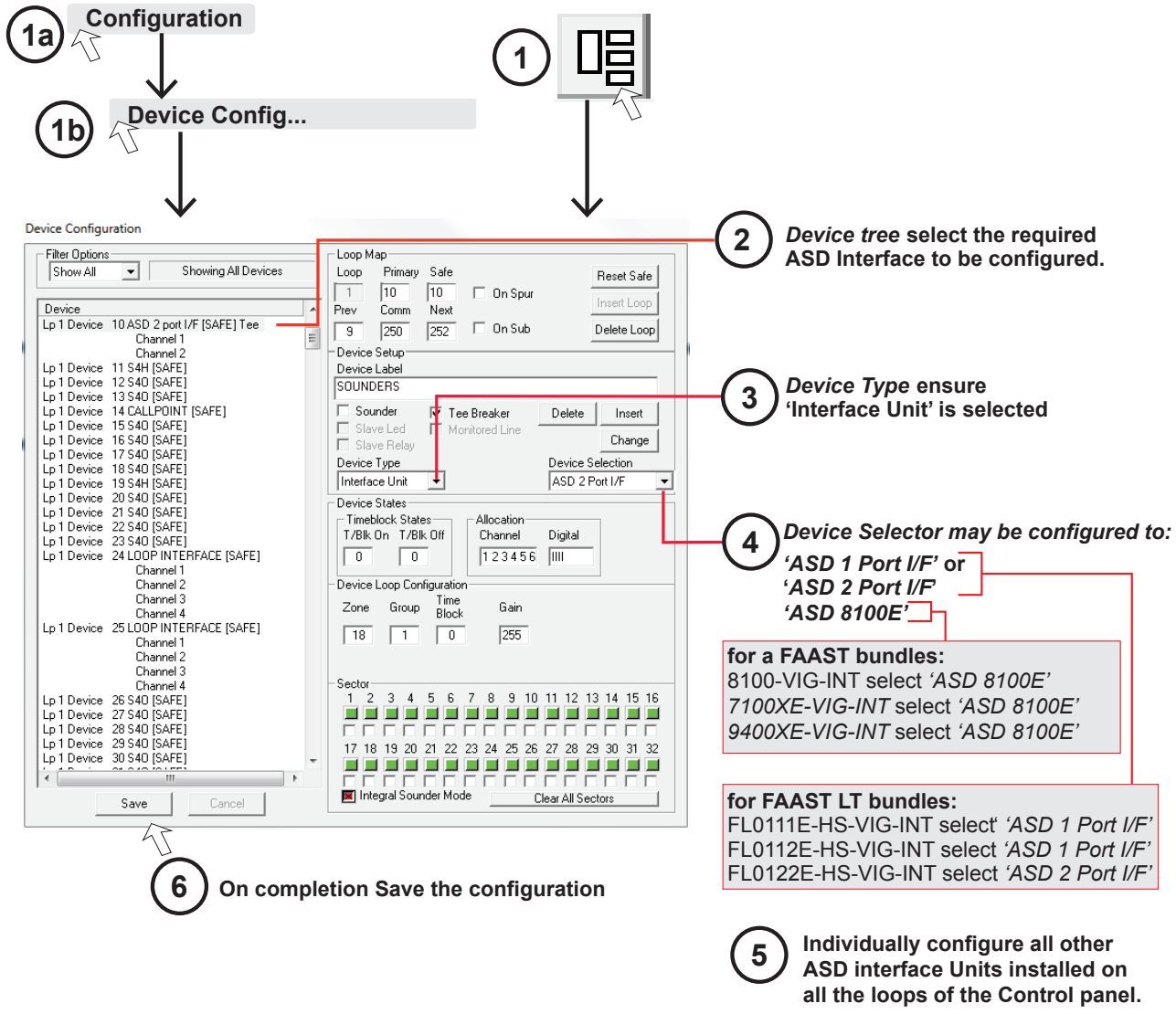
Use the Vigilon Commissioning tool ≥V1.31 to configure each ASD interface unit, ensure correct FAAST unit has been selected for correct operation.

Device configuration

Each ASD Interface unit must be configured for either Dual port (2-Channels) or Single port (1-Channel), latter is a default setting.

To configure each ASD interface unit (S4-34440-ASD) step through numbers ①②③④... and make the required selection.

Menu selection



Labels

It is important to label the fire channels of an ASD Interface unit of a Dual Port (2-channel) FAAST Unit. Labelling the fire channels allows fire events of each channel to be displayed at a Vigilon panel.

Command Build

Configure each ASD Interface FAAST Pre-Alarm (Pre-Fire) channels to trigger Command Builds to action a desired operation in a Vigilon fire alarm system.

Typical Command build action can be to switch ON Master Alarms and Sector Alarms to site requirements. Each Command build triggered by ASD Pre-Alarm (Pre-Fire) channels must be given a label for display at the Vigilon panel. This label is displayed momentarily when Pre-Alarm (Pre-Fire) is detected.

Commissioning a FAAST 8100E Unit using PipeIQ

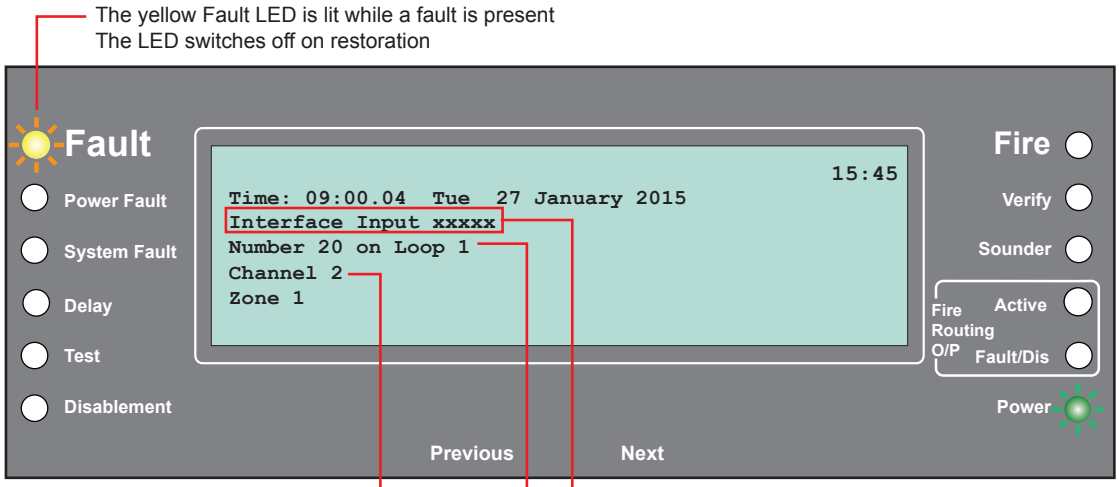
When commissioning a FAAST 8100E unit use Pipe IQ tool and ensure the Fire and Fault relays of the FAAST 8100E are set to non-latching.

Tests

- Check to ensure the typical fire and fault events at a FAAST unit are indicated at the FAAST unit as well as at the Vigilon panel
- Test the system Cause and Effect to site requirement.

Typical FAAST fault indications given at a Vigilon panel

Faults detected at a FAAST unit are displayed at a Vigilon panel and are reference to ASD Interface input channels.



FAAST	Channel 1	Channel 2	Channel 3	Channel 4
FL0111E-HS	Fire1	Flt1/2	PreAl1	-
FL0112E-HS	*Fire1*	*Flt1/2*	*PreAl1*	-
FL0122E-HS	*Fire1*	*Flt1/2*	*PreAl1/2*	*Fire2*
8100E	*Fire1*	*Flt*	*Fire 2*	*Action1*
9400XE 7100XE		*Flt*	*Fire 2*	

Key:
Flt - Fault
PreAl - Pre-Alarm (Pre-Fire)
Action - Pre-Alarm (Pre-Fire)
S/C - Short circuit
O/C - Open circuit

ASD Interface unit device and loop numbers

'Interface Input Fault'

This is a Fault at a FAAST unit which can occur with local failures like:

- ☐ Low Flow fault
- ☐ Configuration Fault
- ☐ Sensor fault
- ☐ Aspirator fault
- ☐ Filter fault and
- ☐ High Flow fault.

Look at the Fault indictions at the FAAST unit and also refer to the instructions supplied with the FAAST unit for details and solution.

'Interface Input S/C'
'Interface Input O/C'

Check the channel wiring between the ASD Interface unit and FAAST unit. Ensure FAAST EOL Terminal PCB is securely fitted in the FAAST unit and the all terminal screws are secure.

Note: A S/C and O/C wiring faults are also applicable for FIRE and PRE-ALARM (PRE-FIRE) channels.

When a fault on an interface input is rectified the display shows:
'Interface Input Restored'

At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre and in accordance with national or local legislation.

WEEE Directive:
At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre.
Do not dispose of with your normal household waste.
Do not burn.

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