

INSTALLATION GUIDE

AXIS Electrical Safety Kit A 120 V AC

AXIS Electrical Safety Kit B 230 V AC

ENGLISH


FRANÇAIS

DEUTSCH

ITALIANO

ESPAÑOL

Electrical Safety: Low Voltage Directive (LVD)

Europe –  This equipment complies with the Low Voltage Directive 2006/95/EC.

Safety

For safety information regarding the components of this kit, see *Technical Specifications*, on page 15.

Equipment Modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

Liability

Every care has been taken in the preparation of this document. Please inform your local Axis office of any inaccuracies or omissions. Axis Communications AB cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and documentation without prior notice. Axis Communications AB makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Axis Communications AB shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

RoHS

This product complies with both the European RoHS directive, 2002/95/EC, and the Chinese RoHS regulations, ACPEIP.



WEEE Directive

The European Union has enacted a Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE Directive). This directive is applicable in the European Union member states. The WEEE marking on this product (see right) or its documentation indicates that the product must not be disposed of together with household waste. To prevent possible harm to human health and/or the environment, the product must be disposed of in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the product supplier, or the local authority responsible for waste disposal in your area. Business users should



contact the product supplier for information on how to dispose of this product correctly. This product should not be mixed with other commercial waste. For more information, visit www.axis.com/techsup/.

Support

Should you require any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and firmware updates
- find answers to problems in the FAQ database. Search by product, category, phrases.
- report problems to Axis support by logging in to your private support area.

Safeguards

Please read through this Installation Guide carefully before installing the Axis product. Keep the Installation Guide for further reference.

NOTICE

- Store the Axis product in a dry and ventilated environment.
- Avoid exposing the Axis product to vibration, shocks or heavy pressure. Do not install the product on unstable brackets, unstable or vibrating surfaces or walls, since this could cause damage to the product.
- Only use applicable tools when installing the Axis product; excessive force could cause damage to the product.
- Do not use chemicals, caustic agents, or aerosol cleaners. Use a damp cloth for cleaning.
- Use only accessories that comply with technical specification of the product. These can be provided by Axis or a third party.
- Use only spare parts provided by or recommended by Axis.
- Do not attempt to repair the product by yourself, contact Axis or your Axis reseller for service matters.

Important

- This Axis product shall be used in compliance with local laws and regulations.
- The Axis product should be installed by a trained professional. Observe relevant national and local regulations for the installation.

Transportation

NOTICE

- When transporting the Axis product, use the original packaging or equivalent to prevent damage to the product.

AXIS Electrical Safety Kit A/B Installation Guide

This Installation Guide provides instructions for installing AXIS Electrical Safety Kit A 120 V AC and AXIS Electrical Safety Kit B 230 V AC in AXIS T98A-VE Surveillance Cabinet Series.

The purpose of this kit is to provide surge protection, a fuse and an alarm-door switch to detect intrusion or vandalism of the cabinet.

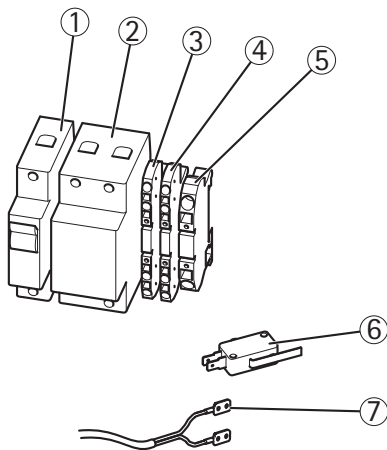
Installation steps

1. Check the package contents against the list below.
2. Hardware overview on page 6.
3. Connection diagram on page 7.
4. Install the devices on page 9.
 - Install the door switch on page 12.

1 Package contents

Item	Models/variants/notes
Circuit breaker/ Fuse	MCB fuse 4 A
Terminal block	Terminal block – ground (green/yellow) (2x) Terminal block – feed-through (blue)
Surge protector	Surge protector Class_2
Door switch	Door switch with mounting screw
Cable	Door switch cable with cable clip
Printed Materials	AXIS Electrical Safety Kit A/B Installation Guide (this document)

2 Hardware Overview

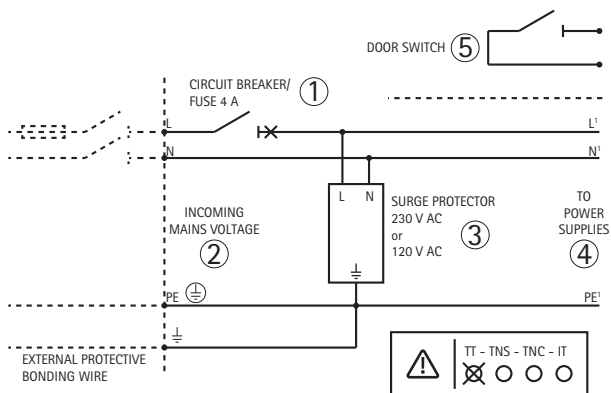


- 1 MCB fuse 4 A (Circuit breaker)
- 2 Surge protector 4 A
- 3 Terminal block – feed-through (blue)
- 4 Terminal block – ground (green/yellow)
- 5 Terminal block – ground (green/yellow)
- 6 Door switch
- 7 Door switch cable

Note

In this document PE, Protective Earth, and Ground are referred to as ground.

3 Connection Diagram



1	MCB fuse 4 A (circuit breaker)	L	Line
2	Incoming mains voltage	N	Neutral
3	Surge protector	PE	Protective earth (ground)
4	To power supplies	⊥	Ground
5	Door switch		

NOTICE

- If an external protective bonding wire is used it is recommended to have a minimum area of 6 mm^2 (AWG 10) for indoor use and a minimum area of 10 mm^2 (AWG 8) for outdoor use.
- The circuitry shall be connected to an external double pole circuit breaker in the building installation.
- The door switch shall only be used for signal voltage (SELV) and shall not be connected to the mains voltage or power supply.

- Check the surge protector after lightning strikes and replace if required. See *Replace the Surge Protector*, on page 14.
- An additional fuse may be required in regions with severe lightning strikes. To prevent unwanted triggering of the fuse, a higher rated fuse may replace the 4 A MCB fuse, following local regulations. In this case, put the 4 A MCB fuse after the surge protector.

3 Install the Devices

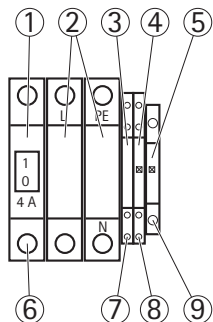
⚠ WARNING

- The electrical connections and conduit installations shall be made by a certified electrician and in compliance with local regulations.
- Risk of electric shock. The mains supply shall be disconnected during installation.

NOTICE

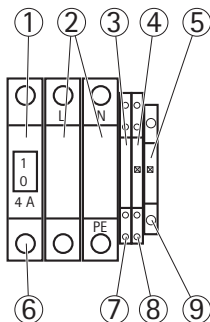
- Keep the wires short but do not stretch them. Short wires give better surge protection than long wires.
 - The ground wire should be as short as possible and have as large cross section as possible. Attach the ground wire to a suitable grounding point, for example an earth stake.
1. Snap on the fuse, surge protector and terminal blocks on the DIN rail. See *Hardware Overview*, on page 6 and the examples on page 10. Make sure that the positions correspond to the slots in the device cover.
See the User Guide provided with the surveillance cabinet for more information about the device cover.
 2. Connect the devices according to the connection diagram. See page 7. Use a cable of minimum 2.5 mm² (AWG 14) for incoming mains voltage.
 3. Secure the cables. Use 2.8 Nm (25 lb-in) torque for the screw terminals.
 4. Attach the device cover to the cabinet base according to the instructions provided with the surveillance cabinet.



Example: AXIS Electrical Safety Kit A 120 V AC



- | | | |
|---|---|--|
| 1 | | Circuit breaker |
| 2 | | Surge protector |
| 3 | | Terminal block – feed-through (blue) |
| 4 | | Terminal block – ground (green/yellow) |
| 5 | | Terminal block – ground (green/yellow) |
| 6 | L | Line connection |
| 7 | N | Neutral connection |
| 8 | ⊕ | Ground connection |
| 9 | ⊕ | External ground connection |

Example: AXIS Electrical Safety Kit B 230 V AC

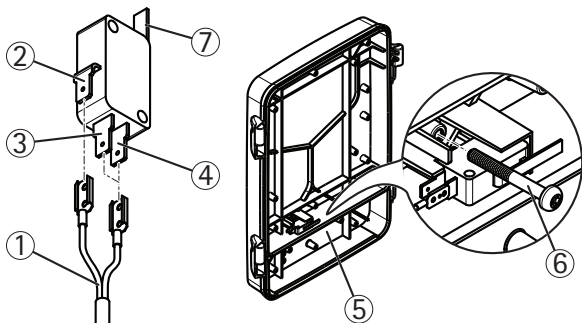


- | | | |
|---|---|--|
| 1 | | Circuit breaker |
| 2 | | Surge protector |
| 3 | | Terminal block – feed-through (blue) |
| 4 | | Terminal block – ground (green/yellow) |
| 5 | | Terminal block – ground (green/yellow) |
| 6 | L | Line connection |
| 7 | N | Neutral connection |
| 8 |  | Ground connection |
| 9 |  | External ground connection |

Install the Door Switch

The door switch included with the electrical safety kit can be connected to the I/O port on a camera or an I/O device. See the camera's Installation Guide and User Manual for information about connecting and configuring the camera's I/O port.

1. Connect either of the connectors on the door switch cable to the common terminal on the door switch.
2. Connect the other connector on the door switch cable to either of the terminals on the door switch, depending on the desired function of the switch.
3. Put the door switch in the slot on the cabinet door and secure it with the supplied screw.



Example image: AXIS T98A15-VE/T98A18-VE

1	Door switch cable	4	Screw
2	Common terminal	5	Cabinet door
3	Terminal (NO)	6	Actuator
4	Terminal (NC)		

4. If connecting to the I/O port on a camera, route the door switch cable through a cable gasket and attach the cable gasket to one of the cable holes in the cabinet door.
5. Secure the cable to the door using the supplied cable clip.
6. Connect the door switch cable to the I/O port on the camera or the I/O device.

Note

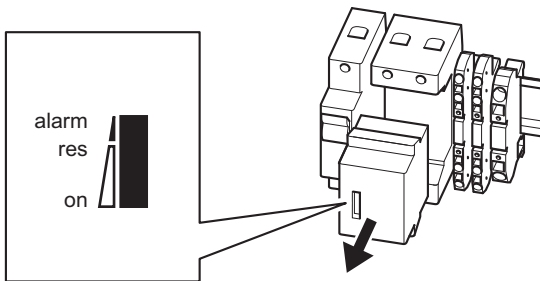
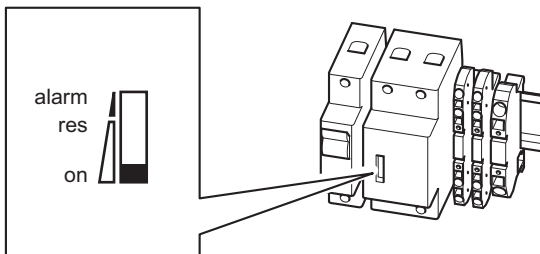
See the camera's Installation Guide and User Manual for information about connecting and configuring the camera's I/O port.

7. Close the cabinet and make sure the switch is activated when the door is closed and released when the door is opened. If necessary bend the actuator.

Replace the Surge Protector

The surge protector gets worn out by surges. The window on the surge protector shows the status of the device.

1. When the entire window is red, pull out the module and replace it.



Technical Specifications

General

Function/group	Item	Specifications
General	Environment	In a casing for indoor or outdoor use
	Pollution Degree	2
Door switch	Approvals	EN61058 UL1054
	Operating conditions	-40 °C to +85 °C (-40 °F to 185 °F) Humidity 15 – 100% RH
Terminal blocks	Approvals	UL1059 CSA C22.2 No. 158 EN 60947-1 EN 60947-7-1

AXIS Electrical Safety Kit A 120 V AC

Function/group	Item	Specifications
Circuit breaker/fuse	Rated current	4A at 30°C (86°F)
	Operating voltage	Max 277 V AC
	Rated frequency	50/60 Hz
	Rated short-circuit capacity	10 kA
	Tripping curve	K
	Approvals	IEC/EN 60947-2 UL 489 CSA 22.2 No. 5
	Operating conditions	-40 °C to +75 °C (-40 °F to 167 °F) Humidity 15 – 100% RH
Surge protective device	Class	2
	Nominal voltage	120 V AC
	Max discharge current I _{max} (8/20)	40 kA
	Approvals	IEC 61643-1 Ed2 UL 1449 Ed3
	Operating conditions	-40 °C to +80 °C (-40 °F to 176 °F) Humidity 15 – 100% RH

AXIS Electrical Safety Kit B 230 V AC

Function/group	Item	Specifications
Circuit breaker/fuse	Rated current	4A at 30°C (86°F)
	Operating voltage	Max 253 V AC
	Rated frequency	50/60 Hz
	Rated short-circuit capacity	6 kA
	Tripping curve	C
	Approvals	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077 CSA 22.2 No. 235
	Operating conditions	-40 °C to +75 °C (-40 °F to 167 °F) Humidity 15 – 100% RH
Surge protective device	Class	2
	Nominal voltage	230 V AC
	Max discharge current I _{max} (8/20)	40 kA
	Approvals	IEC 61643-1 EN 61643-11
	Operating conditions	-40 °C to +80 °C (-40 °F to 176 °F) Humidity 15 – 100% RH

Warranty

For information about Axis' product warranty and thereto related information, see www.axis.com/warranty

Installation Guide

AXIS Electrical Safety Kit A/B

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