



**BATTERY STORE
BATTERY STORE PRO**

USER MANUAL

Safety storage cabinets for the
storage of Lithium-ion batteries



10 JAHRE GARANTIE*

* Bei jährlicher Beauftragung
des **Premium-Tarifs** verlängert
sich die Garantie für Ihren ION-
LINE Sicherheitsschrank auf bis
zu 10 Jahre.

10 YEARS WARRANTY*

* Upon conclusion of an asecos
service and maintenance
agreement (**PREMIUM
tariff**), you will get a warranty
extension for up to 10 years for
your ION-LINE safety storage
cabinet.

Weitere Informationen zu unseren Garantieleistungen finden Sie unter
www.asecos.com/service-leistungen

For detailed information about our warranties please visit
www.asecos.com/service-conditions



BATTERY STORE
IO90.195.120.K1.WDC



BATTERY STORE PRO
IO90.195.120.K2.WDC



IO90.195.060.K1.WDC



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IHRE PERSÖNLICHE DOKUMENTATION ZUM asecos-SICHERHEITSSCHRANK

Sehr geehrte Kundin, sehr geehrter Kunde,

mit dem Kauf Ihres asecos-Sicherheitsschranks haben Sie eine entscheidende Investition für die Sicherheit in Ihrem Haus getätigt. Vor Ihnen steht ein innovatives Produkt aus hochwertigen Materialien, das höchste Qualität garantiert.

Sicherheitsschränke aus dem Hause asecos verfügen über eine lückenlose Zulassungs-Dokumentation. Wir archivieren Ihre Zulassungsdokumente jedes einzelnen Schrankes für Sie, bis Sie diese im Bedarfsfall (z. B. einer Betriebsbegehung o. ä.) mit diesem Formular von uns anfordern.

Dazu einfach dieses Formular heraustrennen/kopieren und mit Ihrer Adresse und der Seriennummer des Schrankes versehen per Fax zurück an uns.

Mit freundlichen Grüßen

asecos GmbH

YOUR PERSONAL DOCUMENTATION TO THE asecos SAFETY CABINET

Dear Customer,

you have made a decisive investment in safety for your company by purchasing this asecos safety storage cabinet. You now own an innovative product made of top-quality materials guaranteeing the highest quality standards.

asecos safety storage cabinets have complete authorisation documents. We archive the authorisation documents for every individual cabinet, keeping them ready for you should you ever need them (e.g. for a works inspection or similar). Simply request them using this form.

Tear off or copy that page and return to us by fax with your address and serial number of the cabinet on it.

Yours sincerely

asecos GmbH

Firma • company	
Abteilung • department	
Name • name	
Straße • street	
PLZ • postal code	
Ort • city	
Schrank • cabinet Seriennummer(n) • serial number(s)	

GENERAL NOTES

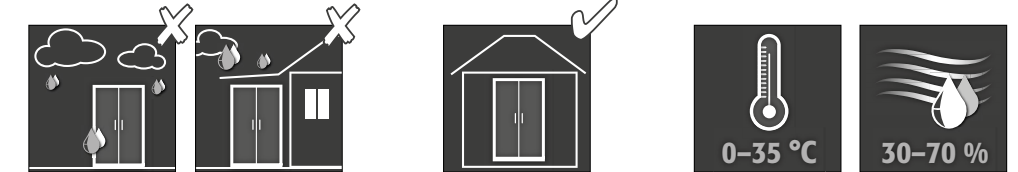
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1.1. GENERAL SAFETY NOTES

- When handling lithium-ion batteries, observe the applicable regulations and the information in these operating instructions.
- Work on the electrical system is to be carried out only with the power turned off and only by qualified electricians – refer here to the respective regulations for the prevention of accidents, the VDE regulations and the regulations of the local electricity supply company.
- General damage to electronic components is to be repaired without delay by an asecos employee.
- Use only intact and undamaged mains cables for the battery charger
- Electrical protection in accordance with local standards must be provided by the customer (cabinets do not have their own RCD circuit breaker or circuit breaker)
- The on-site installation conditions must be observed.
- The instructions of the supervisory engineering department must be followed.
- Observe accident prevention regulations and workplace ordinance.
- Ensure that the necessary safety checks are **only carried out by authorised staff** using **original spare parts**.
- Only use the cabinet after having been properly instructed; access is to be forbidden to unauthorised persons.
- The pivoting area of the doors is to be kept free at all times; doors are to be kept closed.
- By assigning trained/authorised technical personnel you can prevent the malfunctions, damage and corrosion damage that result from inappropriate transport.
- Observe the upper limits for stored quantities, loading etc.
- The following substances may not be stored in the cabinets with a fire suppression system: acids, alkalis, magnesium, other metals (in powder form)

Installation and environmental conditions**1.2. GUARANTEE**

The guarantee for this product is agreed between you (the customer) and your dealer (the seller). As the manufacturer, asecos guarantees the products listed in the operating instructions for a period of 24 months from the date of delivery.

All model safety equipments are subject to a compulsory annual inspection by specialised staff authorised by the manufacturer. Otherwise the customer's guarantee claim against the manufacturer expires.

1.3. CABINET DETAILS

Cabinet data	⇒ logbook (included with the cabinet)
Technical drawing	⇒ page 19
Technical data	⇒ page 19

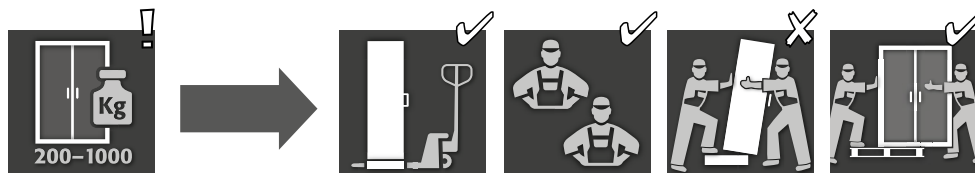
Models	Lithium ion batteries		Extraction air unit	Fire supression unit	Alarm system
	Storing	Charging			
BATTERY STORE					
IO90.195.060.K1.WDC	✓				
IO90.195.120.K1.WDC	✓				
BATTERY STORE PRO					
IO90.195.120.K2.WDC	✓			✓	✓

BATTERY STORE & BATTERY STORE PRO

These models are for the passive storage (storage only) of lithium-ion batteries.

With passive storage, new or used lithium-ion batteries are stored for a certain period of time.

2. TRANSPORT



ATTENTION:

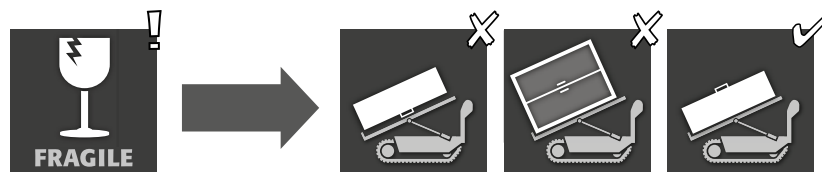
Transport the cabinet in an upright position on a pallet truck, tied and secured against slipping, until the final place of installation is reached. The transport locks in the door joints may only be removed directly at the place of installation! Inappropriate transport can lead to concealed damage to the fire protection insulation! We can only guarantee the necessary quality if the cabinet is transported to the place of its use by our specially trained staff.



ATTENTION:

The doors must be locked prior to transport! The extraction unit is inside the cabinet and is only mounted after the in-plant transport to the place of use.

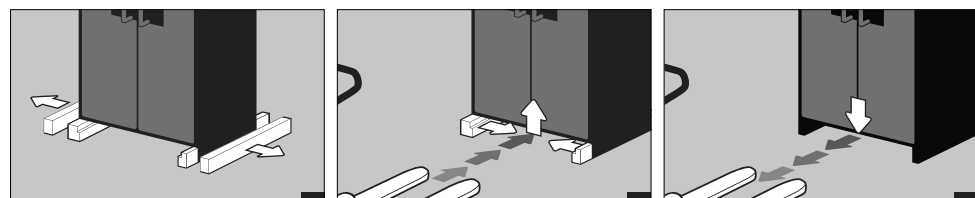
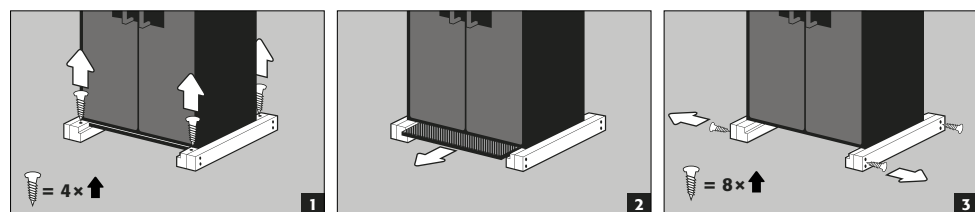
2.1. TILTING THE CABINET



ATTENTION:

Tilting the cabinet may only be done without jolts!

2.2. DISMANTLING OF THE TRANSPORT PACKAGING



ATTENTION

Cabinet width 600 mm

The clearance drive-in width of the base is 520 mm

You must observe this when selecting a pallet truck! Appliances with a carrying width larger than the drive-in width may not be used

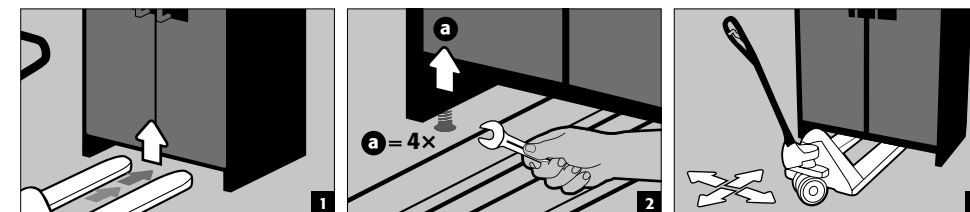
2.3. IN-PLANT TRANSPORT

- is also possible without transport locks (inserted as standard in the door joints)



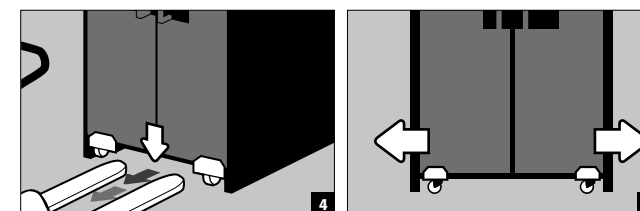
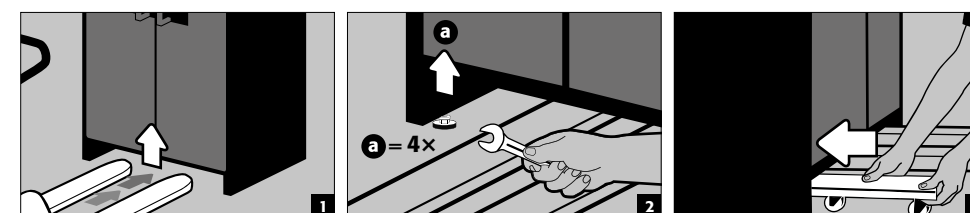
ATTENTION:

The doors must be locked prior to transport! The extraction unit must be removed from the top of the cabinet



2.4. Q-MOVER

- Order no. HFI.23526, available from your authorised dealer

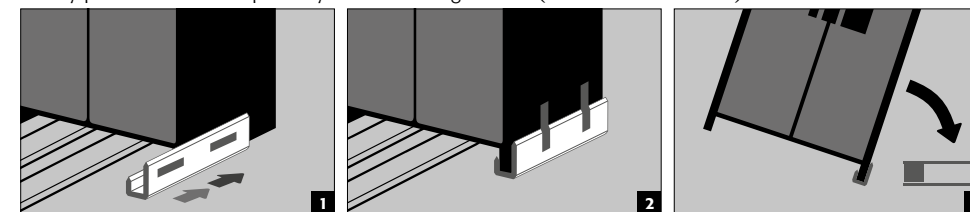


ATTENTION:

Damage to the cabinet must be reported in writing without delay!

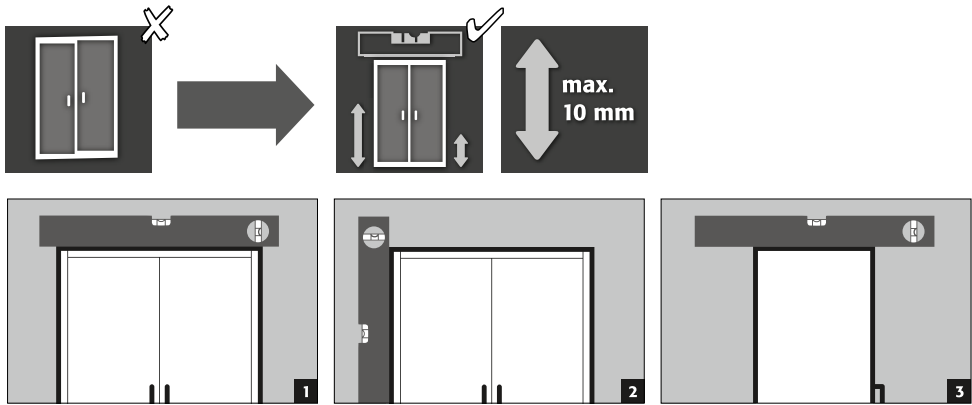
2.5. TITLING ONTO THE SIDE WALL

- is only possible with the optionally available tilting bracket (order no. HFV.27665)

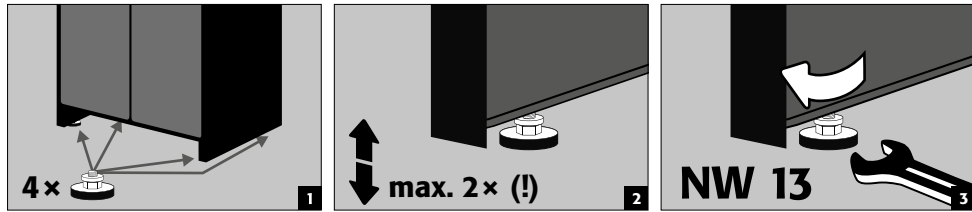


3. INSTALLATION

3.1. ALIGNMENT OF THE CABINETS



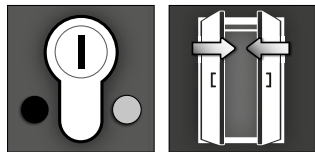
ATTENTION:
Door elements must not scrape against the fire prevention seals in the fold of the door when opening and closing! Doors with an automatic closing mechanism must close automatically from every position and the lock must be able to lock!



3.2. COMMISSIONING

- Before the first commissioning, the user must carry out an examination of the safety storage cabinet for possible damage, such as defective or loose sealing elements, correct alignment and perfect functioning of the door elements (hinges, locking system and, if applicable, door closer).
- Use the cabinet and accessories only if they are in an orderly condition.

4. CLOSING



The doors are permanently self-closing.
The cabinets feature a cylinder lock with closing status indicator.
They can be integrated into a master key system.



ATTENTION:
The owner/user must ensure that all doors are kept closed whenever the contents of the cabinet are not being accessed. In general, it must be noted that the cabinets do not possess an emergency unlocking facility. This means that persons trapped inside the cabinet cannot free themselves!

5. INTERIOR FITTINGS

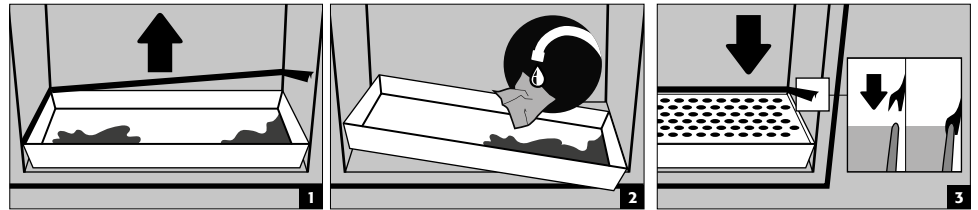
5.1. BOTTOM COLLECTING SUMP



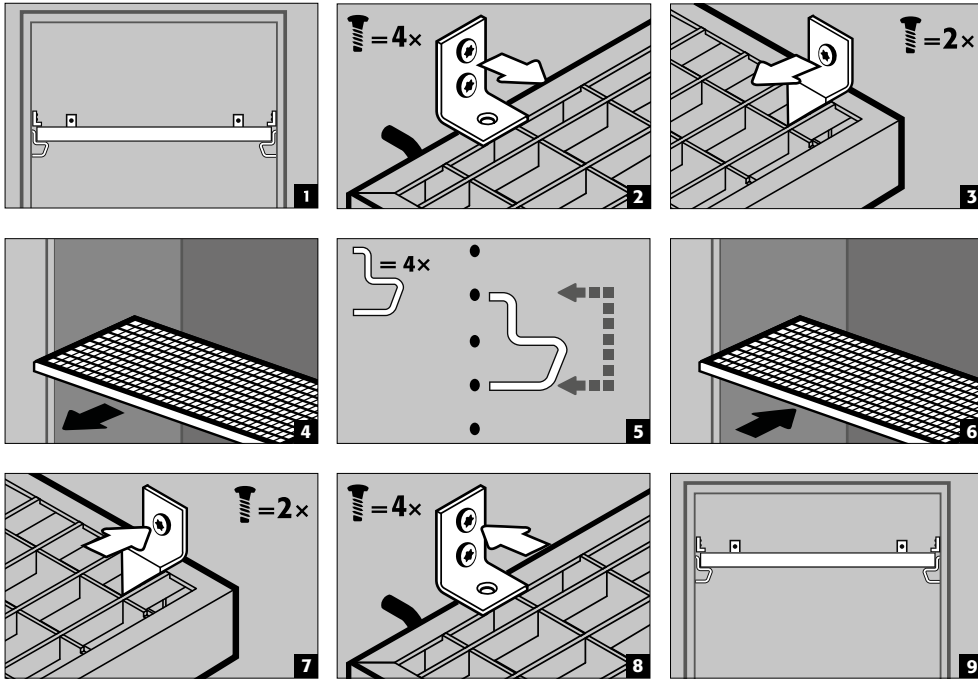
According to EN 14470-1: A bottom collecting sump must be installed below the lowest storage level. The bottom collecting sump must be able to hold a minimum volume of 10 % of all the containers stored in the cabinet **1** or at least 110 % of the volume of the largest single container **2** whichever of these volumes is larger.

Leaks:

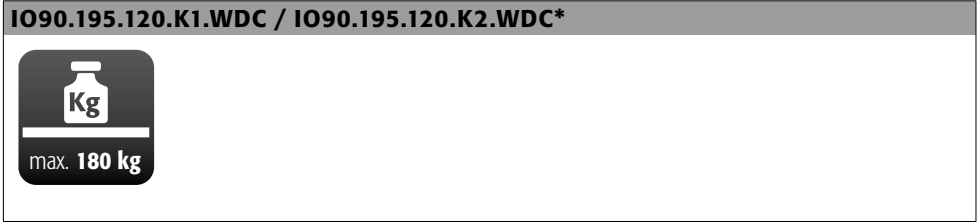
- Liquid in the sump is to be collected using suitable means.
- The choice of means is your own responsibility.



5.2. GRID SHELVES (HEIGHT ADJUSTABLE)

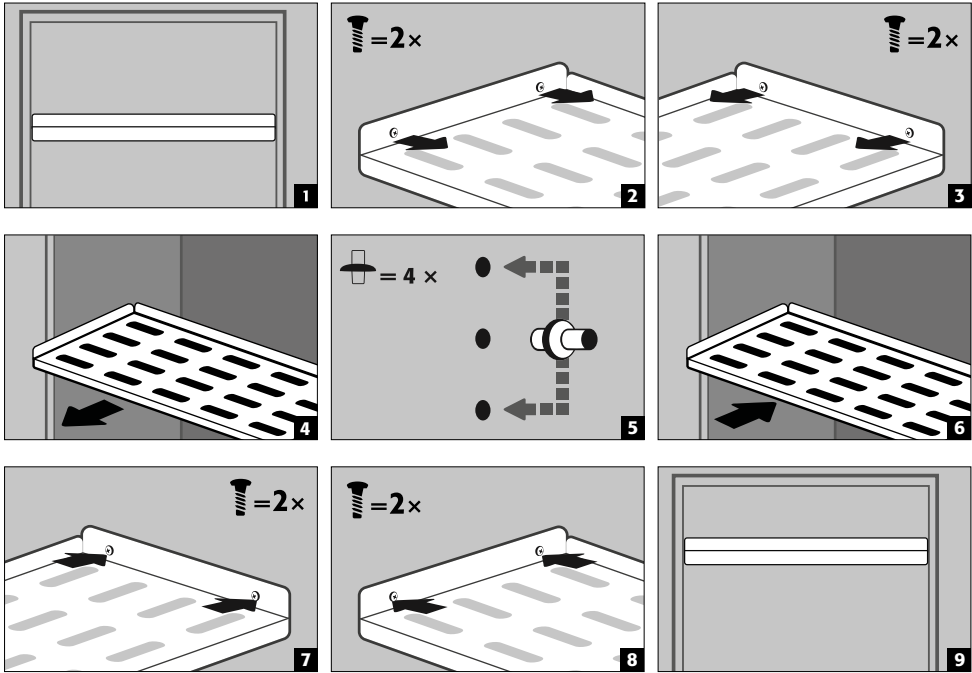


Load capacities






***ATTENTION:**
Model IO90.195.120.K2.WDC: The positions of the fire suppression device, smoke detector and thermal sensor must not be changed when changing the height of the grid shelves.

5.3. SHELVES (HEIGHT ADJUSTABLE)



Load capacities

IO90.195.060.K1.WDC	O90.195.120.K1.WDC / IO90.195.120.K2.WDC*	
 max. 25 kg	 max. 75 kg	 max. 50 kg
	Only with Special interior equipment: Order No. 38516 Order No. 38517 Order No. 38518 Order No. 38519	



***ATTENTION:**
Model IO90.195.120.K2.WDC: The positions of the fire suppression device, smoke detector and thermal sensor must not be changed when changing the height of the grid shelves.

6. STORAGE



ATTENTION:
Never store obviously damaged lithium-ion batteries inside buildings. Dispose of them without delay in disposal containers that are provided outside the building and approved for transport.

6.1. NOTES ON STORAGE AND CHARGING

Storage

It is recommended to store new and used lithium-ion batteries separately (each on a different storage level) in the safety storage cabinet.

Occupation of the storage levels

Grid shelves may be covered only up to 60% by battery chargers and batteries in order to ensure trouble-free operation of the fire suppression system and sufficient air circulation



ATTENTION:
It is not permitted to occupy the complete area of the grid shelves

IO90.195.120.K2.WDC:
The following substances may not be stored in the cabinets with a fire suppression system: **acids, alkalis, magnesium, other metals (in powder form).**



ATTENTION:
In the area in front of the fire suppression unit there is a distance of at least 150 mm to be observed.



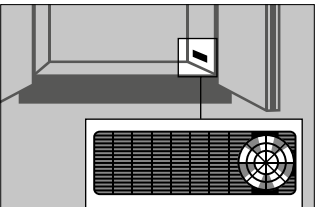
7. VENTILATION

CAUTION

The fire protection valves near the supply and extraction air connections are safety and maintenance-relevant components.

In order to check the correct function or to replace a defective element, please note that when connecting to an exhaust air system, flexible connection hoses or sliding pieces are used to ensure easy removal and reassembly of the exhaust air connection.

Ventilation wheel for technical ventilation



The ventilation wheel serves as an indicator for correct ventilation.
If the wheel turns, the necessary 10-fold air recirculation rate is exceeded.

8. BATTERY FIRE - FIRE - DISPOSAL

CAUTION

Following a battery fire and the triggering of the fire suppression system, the safety storage cabinet must be subjected to a thorough inspection so that both fire protection and CE conformity are retained. For this purpose the cabinet must be handed over to asecos GmbH's main factory in Gründau, where the specialist department – depending on the extent of the damage – will appraise the economic viability and technical possibilities of a repair. The customer then receives a quotation either for a repair or for an exchange, which can be forwarded to the responsible insurance company.

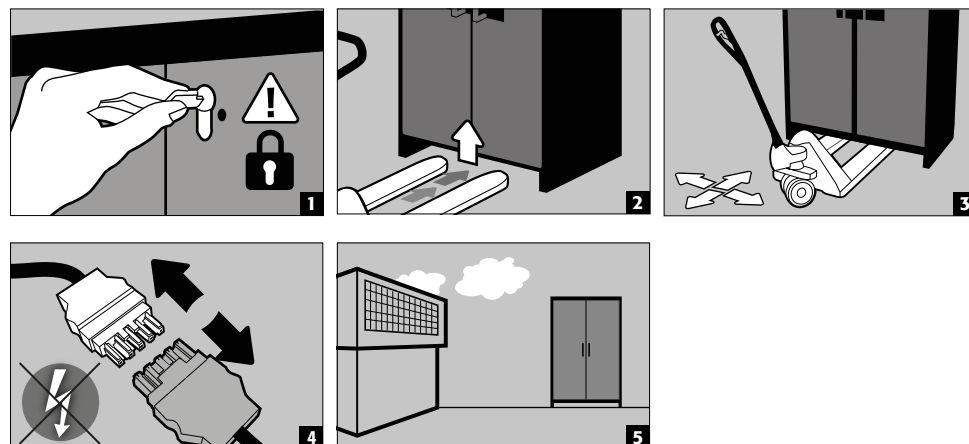
8.1. FIRE INSIDE THE CABINET (BATTERY FIRE)



- For fast transport the cabinets are equipped with a transport base.
- The cabinets are automatically disconnected from the mains supply in the case of transport.



ATTENTION:
Prior to transport the doors must be locked and the extraction unit removed from the cabinet!
Transport may only be carried out by technical personnel!



8.2. OPENING THE CABINET AFTER THE FIRE



*ATTENTION:

Only open the cabinet after it has cooled down. This is 6 times the fire duration!
Only authorised personnel (e.g. fire brigade) may open the cabinet!

Depending upon the duration of the fire an ignitable vapour/air mixture may have formed; therefore remove all sources of ignition within a 10 metre radius of the cabinet before opening it use only spark-free tools open the cabinets with extreme caution

8.3. DISPOSAL



The models can be disposed of once they have been dismantled and the materials sorted. They are free from materials that have to be disposed of as special waste.

9. SAFETY CHECKS

9.1. ALL MODELS

As safety equipment (according to §4 Paragraph 3 Workplace Ordinance, §10 German Ordinance on Industrial Health and Safety and German Statutory Accident Insurance [DGUV] rule no. 108-007) the cabinets have to be checked for safety at least once per year. The next checking date can be taken from the check sticker on the outside of the door. This annual check can be carried out with the necessary care, and for securing your warranty claims in the case of fire, only by an authorised asecos employee (refer also to our service brochure regarding this).

9.2. I090.195.120.K2.WDC

A necessary service is automatically indicated by the cabinet by a flashing green LED. Within the context of the annual check, the fire suppression system, smoke detector and sensors will be checked in addition to the checking of all safety-related parts.



ATTENTION

In accordance with DIN 14676 the proper function of the smoke detector must be checked at least once per year.

In addition, we recommend the regular visual inspection of the battery chargers, batteries and connecting cables.

9.3. CONTACT

In case of damage please contact your dealer in order to have the cabinet repaired using original spare parts. The cabinets can be cleaned with a mild household cleaner and a soft cloth.



CONTACT

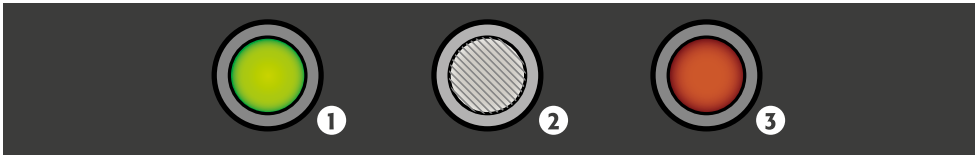
In the case of defects or complaints about our products (within and also after the warranty period), and for requesting safety checks or taking out a service contract, please contact our service hotline on:

Tel: +44 1785 22 70-90

info@asecos.co.uk

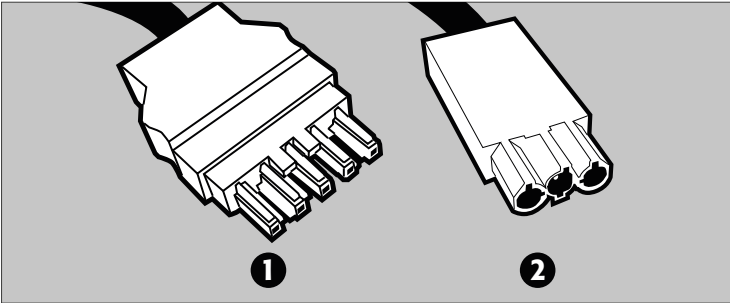
10. IO90.195.120.K2.WDC

10.1. CONNECTION TO THE POWER SUPPLY

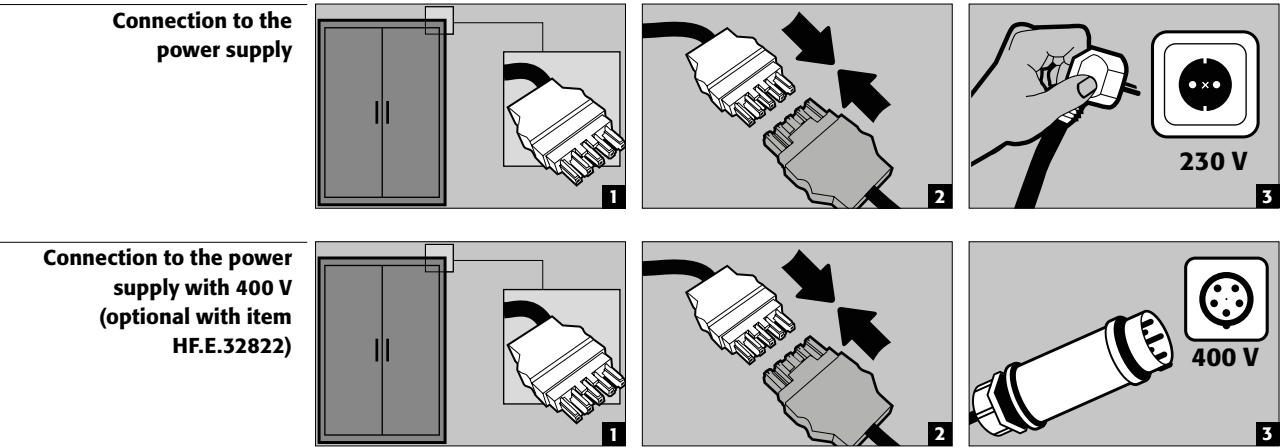


1 LED: Operating (green) 2 RESET BUTTON 3 LED: Error (red)

Connections on the headpiece:

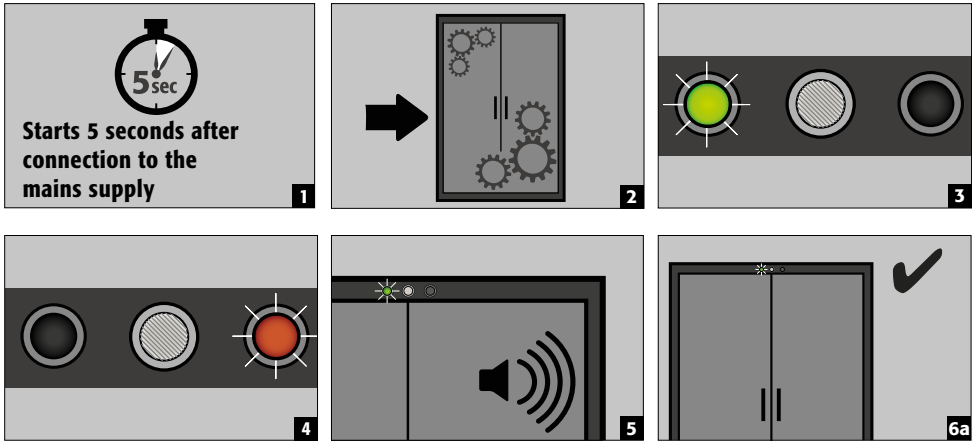


1 Mains plug connector
2 Potential-free switch contact

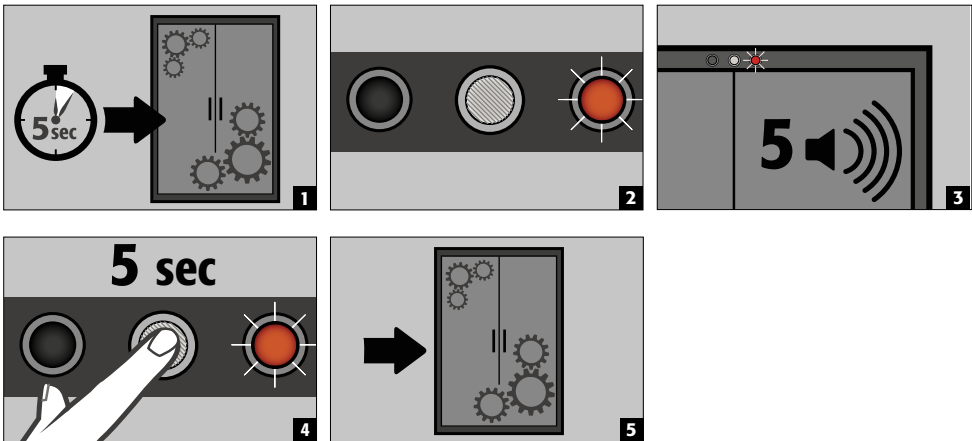


CAUTION:
Subsequent retrofitting is possible using the plug connection, so that no intervention in the electrical components is required.

10.2. SELF TEST



10.3. ERROR DURING SELF-TEST



ATTENTION:
After pressing the reset button, the self-test begins again. If the error persists, please contact the asecos Service Dept.

10.4. ERROR AND ALARM OVERVIEW

EVENT	LED GREEN	LED RED	ACOUSTIC ALARM	ACTIONS
Error during self-test	off	on	5 signal tones	1.) Restart with RESET button If error persists: 2.) Contact Service
Service interval reached	flashing	off	off	Contact Service
Power failure	Flashes every 20 seconds	off	3 short signal tones every 60 seconds	Check power supply
Warning message: Temperature in the cabinet >50 °C	off	on	long tone interval (every 2 seconds for 250 ms)	see 10.7
Alarm stage 1: Smoke detector detects smoke in the cabinet	off	on	medium tone interval (every 0.5 seconds for 250 ms)	see 10.8
Alarm stage 2: Smoke detector detects smoke in the cabinet, Temperature in the cabinet >70 °C	off	flashing	short tone interval (every 0.25 seconds for 125 ms)	see 10.9

10.5. POTENTIAL-FREE ALARM CONTACT

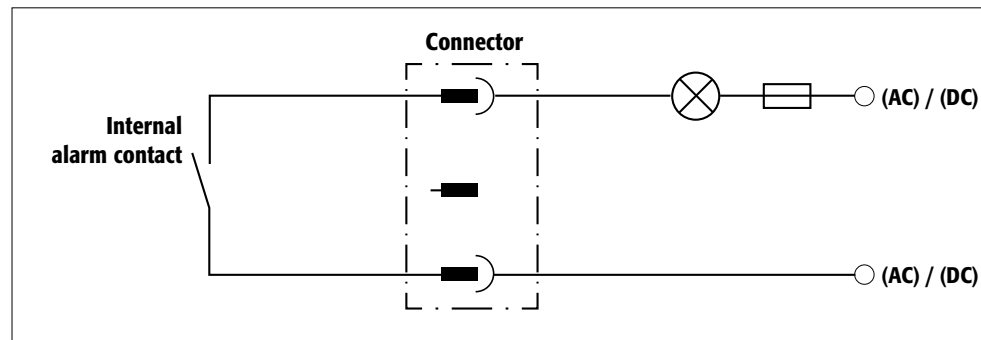


NOTE:

The potential-free alarm contact is for connecting a signal to a control room/control centre. A direct connection to a fire alarm system is not recommended or may only be done in consultation with those responsible for the system.

In general, however, the connection of the signal to a manned control room/control centre is always recommended!

The connection of the potential-free switch contact must always be done by the customer (not a service item).



Connection instructions

- Use only the supplied mating part (colour-coded black) to the plug for the connection
- The connection must be done by a qualified electrician
- The contact is designed for a max. DC voltage of 30 V or a max. AC voltage of 230 V
- The maximum current load is 10 A
- The switch contact is normally closed!
- The switch contact opens as soon as mains voltage is present and no error is pending (device is „ready to operate“)

10.6. WARNING/FIRE SUPPRESSION SYSTEM

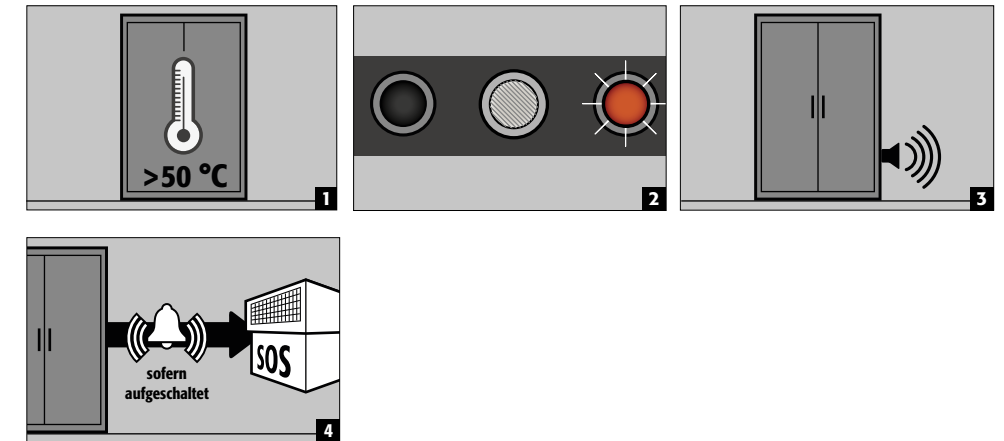
- The warning/fire suppression system offers the option of connection to a constantly manned building management system or fire alarm centre.
- Make use of this option so that trained rescue personnel can be quickly alerted and be on-site in a very short time and, following an initial assessment of the situation, immediately initiate further measures (for example, transporting the cabinet out of the building).
- The extinguishing agent, based on calcium carbonates, is harmless in the necessary extinguishing agent concentration and has no harmful effects on the human organism
- In case of triggering, the aerosol is ejected at a high temperature and temperatures of over 300 °C are briefly generated in front of and on the housing of the fire suppression cartridge (according to the manufacturer's data, a minimum distance to combustible materials need not be maintained; however, a distance of at least 150 mm to the fire suppression cartridge should generally be maintained)
- After triggering of the fire suppression cartridge, ventilate the room and the cabinet well, observing the instructions in point 8.



ATTENTION:

The complete warning/fire suppression system is active only with mains operation.
The integrated smoke detector is part of the entire fire suppression system (direct power supply)

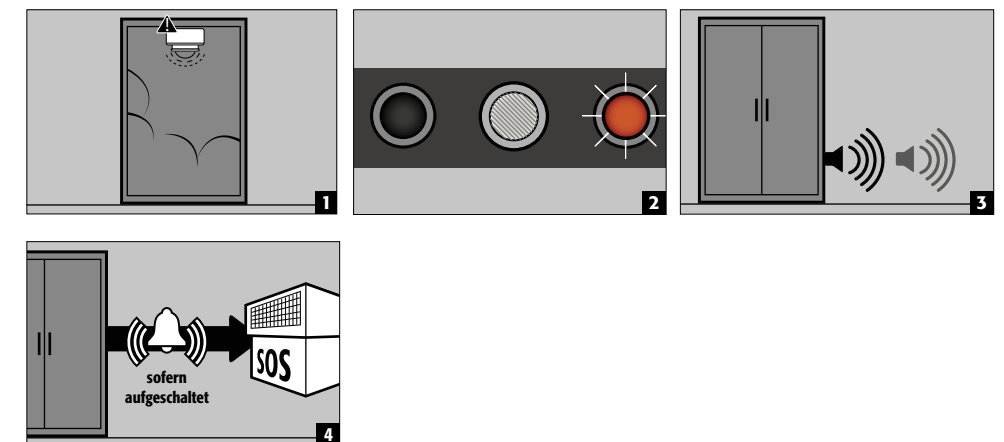
10.7. WARNING MESSAGE



Actions

- immediate visual inspection of the system **by the company's own qualified personnel**
- initiation of necessary actions
- if the interior temperature falls below 50 °C, the system returns to normal operation and the visual and acoustic signals are switched off.

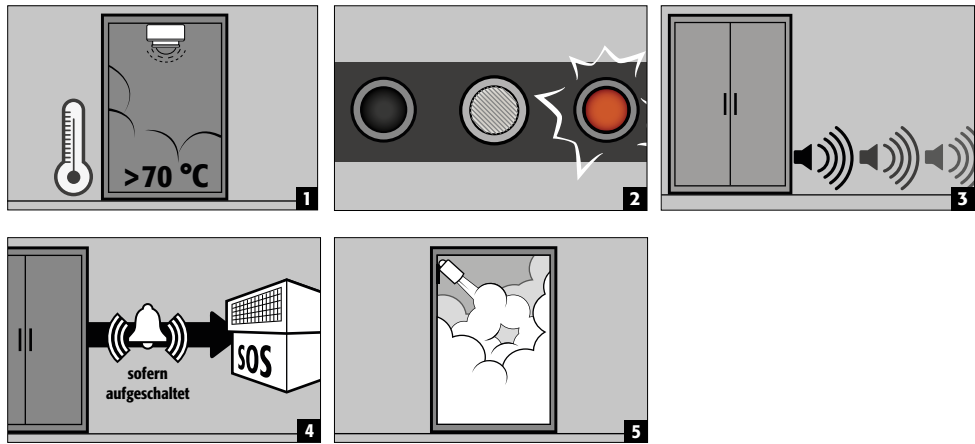
10.8. ALARM STAGE 1



Actions

- immediate visual inspection of the system **by technical personnel (e.g. fire brigade)**
- subsequently, initiation of necessary actions
- if the smoke detector does not detect any further smoke development in the cabinet, the system can be reset to normal operation by briefly disconnecting the mains voltage

10.9. ALARM STAGE 2



Actions

- immediate visual inspection of the system **by technical personnel (e.g. fire brigade)**
- subsequently, initiation of necessary actions
- **See 8.1** for the transport of the cabinets out of the building



ATTENTION:

Afterwards the complete system can only be assessed and if possible reset to normal operation by authorised asecos service technicians. At least the fire suppression unit and the smoke detector need to be replaced for this.

10.10. FALSE ALARM OF THE SMOKE DETECTOR

- By interrupting the power supply for a few seconds, the smoke detector is reset and the system returns to normal operation

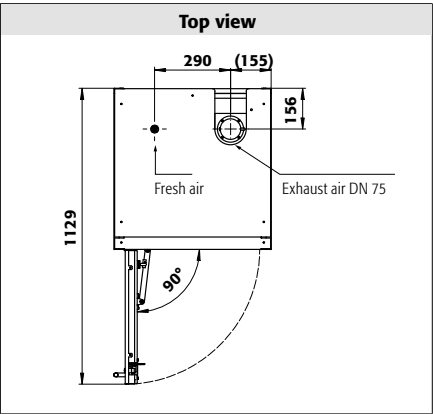
11. TECHNICAL DATA

		IO90.195.060.K1.WDC	IO90.195.120.K1.WDC	IO90.195.120.K2.WDC
Type	minutes	90	90	90
Dimensions B x T x H exterior	mm	599 x 615 x 1953	1193 x 615 x 1953	1193 x 615 x 1953
Dimensions B x T x H interior	mm	450 x 522 x 1647	1050 x 522 x 1647	1050 x 522 x 1647
Weight of empty cabinet	kg	265	424	424
Distributed load	kg/m²	894	531	531
Exhaust Air	DN	75	75	75
Entry width of transport base	mm	526	1120	1120
Entry height of transport base	mm	90	90	90
Max. load of shelves	kg	25	75 (50)* / (180)*	75 (50)* / (180)*
Power consumption of the control electronics				
Power consumption in operation	W	-	-	1,5
Nominal voltage	V	-	-	230
Frequency	Hz	-	-	50/60

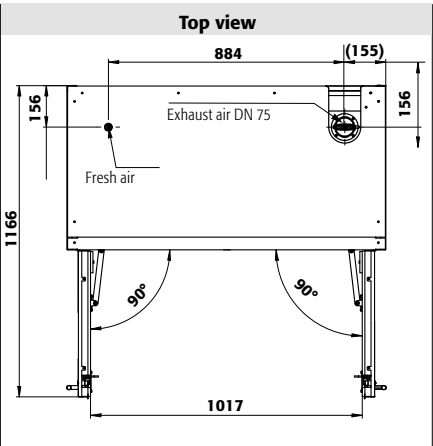
* Information applies to special interior equipment, see chapter 5.2

12. TECHNICAL DRAWING

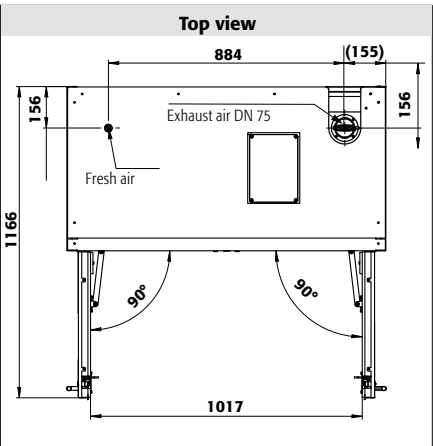
IO90.195.060.K1.WDC



IO90.195.120.K1.WDC



IO90.195.120.K2.WDC



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