

# TROX AIR PURIFIERS

TAP-L • TAP-M



Read the instructions prior to performing any task!



#### **TROX GmbH**

Heinrich-Trox-Platz 47504 Neukirchen-Vluyn, Germany

Germany

Phone: +49 (0) 2845 2020
Telefax: +49 2845 202-265
E-mail: trox-de@troxgroup.com
Internet: http://www.troxtechnik.com

A00000083746, 4, GB/en 11/2020

© 2020

# Supplemental instructions

#### About this manual

This operating manual enables the TROX air purifier TAP to be used safely and efficiently.

Read this manual carefully before commissioning/using the unit, and always keep it in the immediate vicinity of the installation site or on the unit!

Read all safety notes and instructions and follow them carefully. Non-compliance with the safety instructions and warnings can result in an electric shock, fire and/or serious injury. Keep the manual and safety instructions for future reference.

Illustrations in this operating manual are mainly for information and may differ from the actual design of the air purifier unit.

#### **TROX Technical Service**

To ensure that your request is processed as quickly as possible, please keep the following information ready:

- Product name
- TROX order number
- Delivery date
- Brief description of the fault

Online	www.troxtechnik.com
Phone	+49 2845 202-400

#### Copyright

This document, including all illustrations, is protected by copyright and pertains only to the corresponding product.

Any use without our consent may be an infringement of copyright, and the violator will be held liable for any damage.

This applies in particular to:

- Publishing content
- Copying content
- Translating content
- Microcopying content
- Saving content to electronic systems and editing it

#### Limitation of liability

The information in this manual has been compiled with reference to the applicable standards and guidelines, the state of the art, and our expertise and experience of many years.

The manufacturer does not accept any liability for damages resulting from:

- Non-compliance with this manual
- Incorrect use
- Operation or handling by untrained individuals
- Unauthorised modifications
- Technical changes
- Use of non-approved replacement parts

The actual scope of delivery may differ from the information in this manual for bespoke constructions, additional order options or as a result of recent technical changes.

The obligations agreed in the order, the general terms and conditions, the manufacturer's terms of delivery, and the legal regulations in effect at the time the contract is signed shall apply.

We reserve the right to make technical changes.

#### **Warranty claims**

The provisions of the respective delivery terms apply to warranty claims. For purchase orders placed with TROX GmbH, these are the regulations in section "VI. Warranty claims" of the Delivery and Payment Terms of TROX GmbH, see <a href="https://www.trox.de/en/">www.trox.de/en/</a>.

# Supplemental instructions



### Safety notes

Symbols are used in this manual to alert readers to areas of potential hazard. Signal words express the degree of the hazard.

Comply with all safety instructions and proceed carefully to avoid accidents, injuries and damage to property.



## **DANGER!**

Imminently hazardous situation which, if not avoided, will result in death or serious injury.



## **WARNING!**

Potentially hazardous situation which, if not avoided, may result in death or serious injury.



## CAUTION!

Potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



#### **NOTICE!**

Potentially hazardous situation which, if not avoided, may result in property damage.



## **ENVIRONMENT!**

Environmental pollution hazard.

## Tips and recommendations



Useful tips and recommendations as well as information for efficient and fault-free operation.

## Specific safety notes

The following symbols are used in safety notes to alert you to specific hazards:

Warning signs	Type of danger
	Warning – hand injuries.
4	Warning – high-voltage.
<u>^</u>	Warning – danger zone.

#### **Additional markers**

In order to highlight instructions, results, lists, references and other elements, the following markers are used in this manual:

Marker	Explanation
_	Step-by-step instructions
1., 2., 3	
⇔	Results of actions
Ŕ	References to sections in this manual and to other applicable documents
-	Lists without a defined sequence
[Switch]	Operating elements (e.g. push buttons, switches), display elements (e.g. LEDs)
'Display'	Screen elements (e.g. buttons or menus)



Sa	rety	6
1.1	Correct use	6
1.2	Qualified staff	. 7
1.3	Personal protective equipment	
1.4	3	
1.5		
1.6	Behaviour in an emergency	Ĝ
Inf	ormation about the unit	10
Tra	nsport, storage and packaging	12
3.1	Supply package	12
3.2	Transport to the installation location	12
3.3	Storage	13
3.4	Packaging	13
Ins	tallation	14
4.1	Dimensions and space required	14
4.2	Mounting	15
4.3	Mains connection	15
Op	eration	16
5.1	Control elements and status LEDs	16
5.2	Switching on	16
5.3	Operation	16
5.4	Switching the unit off	16
5.5	Operation on a timer	17
5.6	Adjustment of the volume flow rate	17
Tro	oubleshooting	18
Ма	intenance and cleaning	19
7.1	Check and change filter	19
7.2	Cleaning and disinfection	20
Te	chnical data	21
8.1	Circuit diagram	22
Dis	sposal	23
	claration of conformity	24
Со	mmissioning report/Maintenance report	
		25
Inc	lex	26

Correct use

# TROX TECHNIK

# 1 Safety



## NARNING!

- Place the unit upright so it is stable and on a surface with sufficient load capacity. Secure the unit to a wall using the supplied fixing bracket.
- Make sure that all electrical cables outside the unit are protected against damage (e.g. from animals).
- Before each use, check the unit and connection parts for possible damage. Do not use defective units or parts of units.
- Never use the unit if you discover any damage to the mains plug, mains cable or mains connection. Defective mains cables are a serious injury risk!
  - If the mains cable of this unit is damaged, a new one must be installed by the manufacturer, its customer service or a specialist company in order to avoid hazards.
- Insert the mains plug into a correctly fused mains socket. Lay the mains cable so that no one can step on the mains cable and there is no risk of tripping.
- Select extensions for the mains cable taking into account the technical data. Fully unroll the extension cable. Avoid electrical overload.
- The power connection must comply with the specifications in the Technical data chapter.
- Do not cover the unit during operation and do not place objects such as clothes on the unit.
- Make sure that the air inlet and air outlet are clear.
- Make sure that there are never any loose objects and dirt in the immediate vicinity of the air inlet and outlet.
- Never insert limbs or objects into the unit.
- After wet cleaning, allow the unit to dry. Do not operate it when wet.
- Do not operate or handle the unit with wet or damp hands.
- Do not expose the unit to a direct stream of water
- The unit is not a toy. Keep children and animals away. Use the unit only under supervision.
- Do not use the unit to suck in vapours or liquids.
- Switch off the unit and unplug the mains cable from the mains socket when you are not using the unit.
- Before maintenance, cleaning or repair work, remove the mains plug from the mains socket.
   Always unplug the mains cable by holding the plug (never by the cable).
- During installation, observe the minimum distances from walls and objects and the operating conditions.

- Do not remove any safety signs, stickers or labels from the unit. Keep all safety signs, stickers and labels in a legible condition.
- Dispose of replaced filters properly, especially after filtering out harmful substances (e.g. asbestos or paint mist).

#### 1.1 Correct use

The TROX air purifier is used to purify atmospheric air indoors. As a stationary air purifier, the unit ensures a relevant reduction in dust and aerosol concentration in the indoor air. By using a HEPA filter H13, it filters 99.95% of all aerosols out of the air and thus effectively reduces the infection risks.

The unit is used for purifying the indoor air in heavily frequented rooms, such as:

- Waiting and reception areas
- Meeting or conference rooms
- Schools
- Trade fair booths
- Dining rooms
- Shops

#### Incorrect use



#### WARNING!

#### Danger due to incorrect use!

Misuse of the unit can lead to dangerous situations.

Any use other than that specified in this manual is prohibited. In case of non-observance, any liability and the right to claim under warranty expires.

Incorrect use includes:

- Any use that is not described in the manual.
- Operation that does not comply with the technical data.
- Modifying of the unit by others, tampering with the unit.
- Operation or installation in areas with potentially explosive atmospheres.
- Operation in rooms where the indoor air contains particles that are conductive, aggressive, corrosive, combustible or hazardous to health
- Operation in rooms where the humidity is permanently high (> 90 %)
- Operation outdoors
- Use of the air purifier for forced ventilation
- Operation without air filters
- Use of non-genuine replacement parts or accessories, whose quality and function are not equivalent to those of the original parts

### 1.2 Qualified staff

#### Instructed person

The instructed person has been instructed by the system owner with regard to the tasks delegated to them and potential hazards in the event of inappropriate behaviour.

The instructed person is allowed to carry out the following activities on the unit:

- Carry out visual checks.
- Change filter.
- Clean unit casing and filter chambers.

## 1.3 Personal protective equipment

Personal protective equipment is equipment that protects the user against health or safety risks at work.

Personal protective equipment must be worn for various types of work; the protective equipment required is listed in this manual together with the description of each type of work.

## Description of personal protective equipment Disposable gloves



Disposable gloves are used to protect the hands from contamination and from contact with contaminated material.

#### **Dust mask FFP2**



Dust masks protect users from inhaling contaminated material such as aerosols and harmful dusts.

#### Safety shoes



Safety shoes protect the feet against crushing, falling parts, and from slipping on slippery ground.

## 1.4 Signs on the unit

The following symbols and information signs are found on the air purifier. They apply to the very location where they are found.



#### WARNING!

#### Danger due to illegible signage!

There is a risk of injury if hazards and operating instructions cannot be identified.

- Ensure that all of the safety, warning and operating information is clearly legible.
- Replace illegible signs or stickers immediately.

#### Dangerous electrical voltage

Das Gerät darf nur von autorisiertem WARNUNG! Bevor die Anschlussklemmen zugänglich

gemacht werden, müssen alle Netzanschlusskreise spannungsfrei sein.

L'appareil ne peut être ouvert que par le

personnel qualifié autorisé

ATTENTION! Avant d'avoir accès aux bornes de connexion, mettre hors circuit toutes les raccordements au rèseau.

WARNING! This device may only be opened by authorized specialist staff. Switch off all the voltage circuits before making any terminal block available.



This sign refers to hazardous electrical voltage. The protective cover of the electrical connections is only allowed to be opened by a qualified electrician. The mains plug must be removed before opening. The stickers are located on the outside, on the back of the unit at the mains isolator and on the inside of the cover of the electrical connections.

Residual risks

# TROX TECHNIK

#### Injuries on the fan impeller



Fig. 1

This sticker indicates the danger of the rotating fan. It is located on the fan cover.

#### Comply with the manual



Fig. 2: Comply with the manual

This sticker indicates that the operating manual must be read and understood before any work is performed on the air purifier. It is located inside the unit, behind the door and above the filters.

## 1.5 Residual risks

#### **Electric current**



#### **DANGER!**

## Danger of death due to electric current!

Danger of electric shock! Do not touch any live components! Damaged insulation or damaged parts are a life threatening hazard.

- Only skilled qualified electricians must work on the electrical systems.
- If the insulation is damaged, disconnect the power supply immediately and have the insulation repaired.
- Before you start maintenance or cleaning, pull the mains plug.
- Ensure that live parts do not come into contact with moisture. Moisture can cause a short circuit.

## **Rotating parts**



## **WARNING!**

### Risk of injury from rotating parts!

Rotating parts in the fan can cause serious injuries.

- Before you start maintenance or cleaning, pull the mains plug.
- Do not reach into the moving fan.
- The fan does not stop immediately! Check that no parts are moving once you have opened the casing cover.
- Do not open the casing cover while the fan is in operation.

#### **Stability**



### **WARNING!**

#### Risk of injury due to loss of stability!

Serious injuries can be caused if the unit falls over.

- When the unit is stationary, during transport (e.g. trolley) the unit must be transported by at least 3 persons.
- Be careful when transporting the unit.
- After setting up the unit, secure it with the supplied fixing bracket to prevent it from tipping over.



Behaviour in an emergency

#### Damaged fan parts



## **WARNING!**

## Risk of fire from damaged fan parts!

Grinding rotors or overheating bearings can cause a fire and eventually serious or even fatal injuries.

- Do not put a damaged or defective fan into oper-
- If you hear running noises, switch off the unit and have it repaired.

#### Hygiene issues



## CAUTION!

### Health risk due to hygiene issues!

If you do not adhere to the maintenance intervals or if the unit is not used for a relatively long time (several weeks), bacteria and germs may start growing in the air filter.

- Comply with the maintenance intervals for filter changes.
- Change the air filters if the unit has been stopped for a long period of time.

### Children and persons with impaired perception



## **WARNING!**

### Children and persons with impaired perception

Handling the air purifier can lead to dangerous situations for children and persons with impaired perception.

- The air purifier must not be operated by children and persons with reduced physical, sensory or mental abilities, or lack of experience or knowl-
- Children are not allowed to play with the air puri-
- Packaging materials must not be used for playing. There is a risk of suffocation.
- Maintenance and cleaning work must not be carried out by children.

## 1.6 Behaviour in an emergency

- 1. Switch the unit off
- 2. In an emergency, disconnect the unit from the mains supply. Remove the mains plug from the mains socket.
  - Do not reconnect a defective unit to the mains supply. Have the unit repaired by the manufacturer or a qualified specialist company.



# 2 Information about the unit

## Overview of the unit

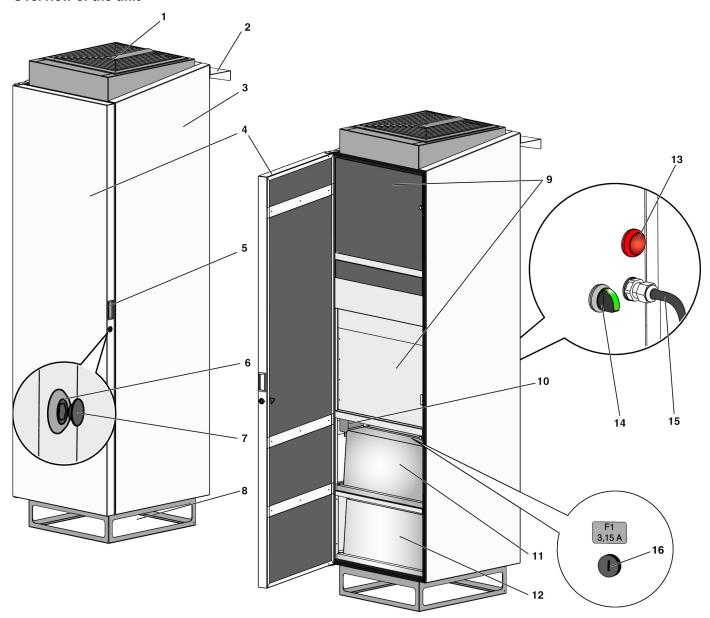


Fig. 3: TAP-L

- 1 Air discharge
- 2 Fixing bracket
- 3 Casing
- 4 Door
- 5 Flush pull handle
- 6 Door lock, operated with hexagon key size 10
- 7 Cover cap hexagon socket
- 8 Air inlet

- 9 Fan sound attenuator unit
- 10 Controller
- 11 Main filter HEPA-H13
- 12 Prefilter
- 13 Filter change alert (red)
- 14 Mains isolator with indicator light (green)
- 15 Mains connection cable
- 16 Micro fuse on electrical connection box (behind main filter)

## **Construction variants**

The air purifier is supplied in two construction variants (L and M), which differ in size (unit depth), weight, volume flow rate, sound power and filter size, % 8 'Technical data' on page 21.

## **Functional description**

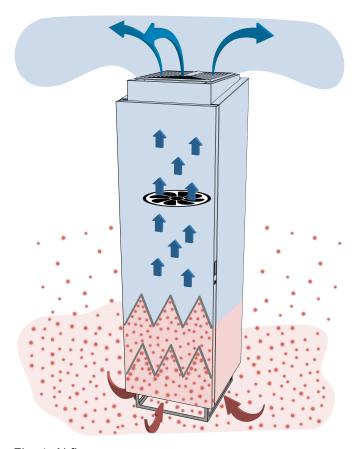


Fig. 4: Airflow

The TROX air purifier draws indoor air into the unit at the lower air intake and feeds it to the filters. The pre-filter separates coarser particles, then the HEPA filter separates the smallest suspended particles from the indoor air. A fan conveys the airflow through the unit and returns the filtered air to the room via the upper outlet. The sound attenuators placed in front and behind the fan reduce the operating noise to a pleasant minimum.

With its operation, the TROX air purifier ensures a significant reduction in particles and aerosol concentration in rooms.

The effective filtering in conjunction with a high volume flow rate (airflow rate) enables the air purifier to considerably reduce the amount of germs, viruses and bacteria (depending on the room size) and thus also cut the risk of infection.



#### 3 Transport, storage and packaging

## Supply package

Check the packages on arrival for transport damage and completeness. If necessary, carefully remove and then replace the packaging.

#### Supply package:

- TROX air purifier
- Fixing bracket
- Prefilter and HEPA H13 filter (inserted in the unit)
- Operating manual

#### **Transport damage**

If there is any visible damage, proceed as follows:

- Either do not accept the delivered items, or accept them with reservations.
- Note down the damage on the shipping documents or on the shipping company's delivery note.
- File a complaint.



File a complaint as soon as you detect any damage. Claims for damages can only be filed within the applicable complaint periods.

#### 3.2 Transport to the installation location

#### **Protective equipment:**

Safety shoes



## WARNING!

## Risk of injury due to loss of stability!

When the unit is upright, the high centre of gravity and small footprint represent a high risk of tipping over during unloading, transport and installation.

Be sure to take adequate precautions:

- If possible, transport the unit lying on the pallet to the installation site.
- When the unit is upright, use additional means to prevent it from tipping over (e.g. lashing with ratchet straps).
- Use only lifting and transport gear designed for the required load.
- When setting the unit upright, secure it against shifting and tipping over until installation is complete.

- If possible, do not remove the unit from the pallet until you reach the installation site.
- Use a pry bar and pincers to unpack the unit from the pallet.
- If the unit is transported without a pallet, the foil packaging must remain on the unit until it is installed on site to protect against damage to the paintwork.

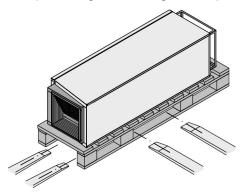


Fig. 5: Transport with pallet truck or forklift

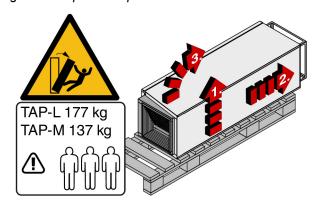


Fig. 6: Setup:

- 1. Lifting
- Move to the edge of the pallet
- Set upright carefully on the floor

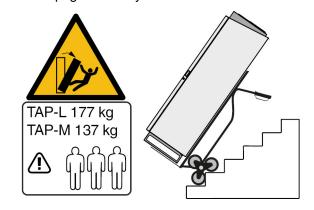


Fig. 7: Transport by trolley



Packaging

## 3.3 Storage

#### Please note:

- Do not store outdoors.
- Store away from direct sunlight.
- Protect the unit from humidity, dust and contamination.
- Storage temperature: -10 °C to 50 °C.
- Relative humidity: 95% max., no condensation.
- Store the unit only in its original packaging.
- If the unit is stored upright, its stability must be ensured.
- If a unit has to be stored for more than 3 months, regularly check the general condition of all parts and of the packaging.

## 3.4 Packaging

Packaging materials:

- Wood
- Cardboard
- Foil packaging
- Expanded polystyrene



## **ENVIRONMENT!**

## Handling packaging materials

Properly dispose of packaging material!



Dimensions and space required

## 4 Installation

# 4.1 Dimensions and space required

## **Dimensions**

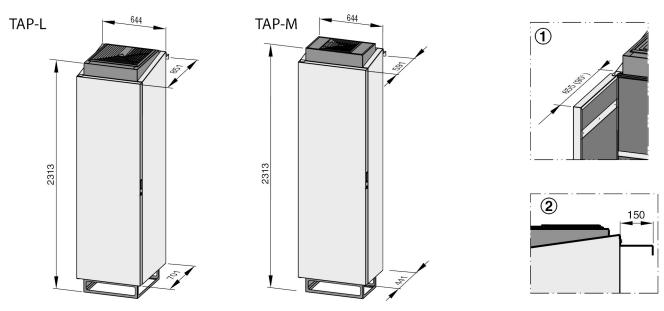


Fig. 8: Unit dimensions TAP-L and TAP-M

- ① Door opening dimension (hinge left)
- ② Fixing bracket (wall distance)

#### Space required

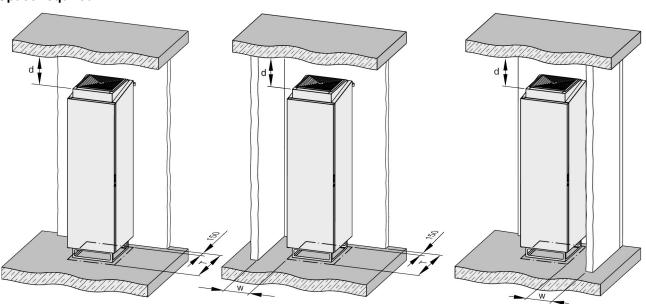


Fig. 9: Setup: against a wall or in a corner

Distance from ceiling (d) at least 100 – 200 mm

Distance from side wall (w) 1-3 m

TAP-L: 851; TAP-M: 591 mm

The distances depend on the volume flow rate set on the air purifier.

With regard to space requirements, it must be ensured that the control elements on the rear of the unit remain accessible and that the door can be opened far enough to allow a filter change (door opening angle 90°).

Mains connection

## 4.2 Mounting



# WARNING!

## Risk of injury due to loss of stability!

The high centre of gravity and small footprint represent a high risk of the unit tipping over.

Immediately after the unit has been set upright, it must be secured to a wall using the supplied fixing bracket.

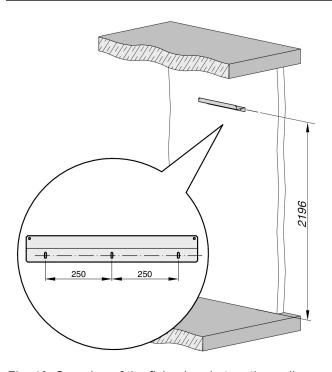


Fig. 10: Securing of the fixing bracket on the wall

Secure the bracket to the wall with suitable fixing material (screws and wallplugs) (slotted holes 7 mm).

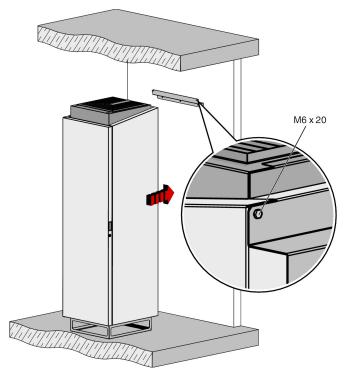


Fig. 11

Push the unit up to the bracket and secure the unit to the bracket, to prevent it from falling over, with the hexagon screws (M6x20) supplied.

## 4.3 Mains connection

To connect the unit to the mains, insert the mains plug of the unit into a mains socket.

The mains plug serves as a disconnecting device to disconnect the unit from the power supply. It is therefore necessary that the mains socket is close to the unit and easily accessible.

#### **Operation** 5

## **Control elements and status LEDs**

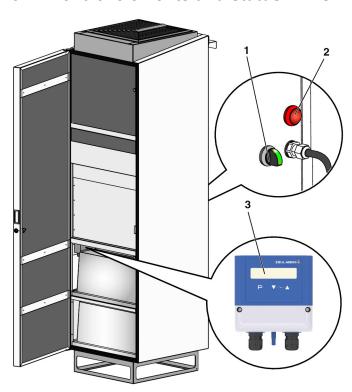


Fig. 12: Status LEDs

- Mains isolator
- 2 Filter change alert
- Controller

#### Mains isolator (green)

The mains isolator is used for switching the unit on or off Status LED:

Off - Unit is switched off or there is no

supply voltage.

Permanent - Unit is switched on, supply voltage is applied. light, green

## Filter change alert (red)

Off - Unit is working properly.

Lights up red - Filter dirty, filter must be changed.

#### Controller display

Display	Description
qv [m³/h]	Volume flow rate actual value
Setpoint 1 [m³/h]	Volume flow rate setpoint value
Range qv [m³/h]	Maximum controllable volume flow rate
Vout [V]	Actual value of the output voltage
Δ[Pa]	Actual value of the differential pressure
Time	not used
UNICON CPGxxx-AVC	Software version
It is possible to scroll through the keys	gh the display using the $lacktriangledown$ /

keys

## 5.2 Switching on

Prerequisites:

- Filters must be inserted and in proper condition.
- Door closed.
- Air inlet and air outlet must be free.
- 1. Plug in mains plug.
- 2. Switch the unit on at the mains isolator (Fig. 12/1).
  - After switching on (if mains voltage is applied to the unit), the green indicator lamp on the mains isolator lights up.

When the unit is switched on, the fan speed is slowly increased (starting time 2-3 min). The unit is hardly audible, due to the very good sound insulation properties.

## 5.3 Operation

The door must remain closed during operation, otherwise the indoor air flowing in through the door will not be filtered.

The fan can also pulsate when the door is open. As soon as the door is closed, the fan runs properly again.

# 5.4 Switching the unit off

- Use the mains isolator to switch off the unit (Fig. 12/1).
  - If necessary, pull out the mains plug, e.g. during maintenance work or longer interruptions in operation.

Adjustment of the volume flow rate

## 5.5 Operation on a timer

The unit can be operated on a timer, but the power consumption of the unit must be taken into account, \*\*Chapter 8 'Technical data' on page 21 . The settings of the unit are retained even when the supply voltage is disconnected. The daily checks on the appliance must be carried out.

## 5.6 Adjustment of the volume flow rate

The volume flow rate is programmed in the factory to the specified room size. If it is necessary to adjust the volume flow rate, this can be set on the controller in the 'Setpoint 1' menu item as described below.

In addition, the limit value for the filter change must be set to the changed volume flow rate, *'Level Max.'* menu item.

# Pulsation of the fan

The fan can pulsate when the door is open. As soon as the door is closed, the fan runs properly again.



Fig. 13: TAP controller

#### **Display**

500 m³/h - 1st line = Actual values and setpoint values

Setpoint 1 - 2nd line = Menu item

#### **Function of keys**

P - Programming key and open menu

▼ - Menu selection, reduce value

Menu selection, increase value

▼ + ▲ - Esc key combination, Escape = Exit menu

#### ⇒ Setting value flashes

- Use the [▼] or [▲] key to set the desired value [m³/h], setting range TAP-L: 400...1600 m³/h, TAP-M: 200...1200 m³/h.
- 6. Press the [P] key to accept the value.

## Setting the limit for filter change

- 7. ▶ Press the [▼] [▲] keys at the same time.
  - ⇒ 'SETTING' appears
- 8. ▶ Press the [▼] key until 'LIMITS' appears.
- 9. Press the [P] key
  - ⇒ 'Level Function' appears
- **10.** Press the [▼] key until 'Level Max.' appears.
- 11. Press the [P] key to activate setting mode.
  - ⇒ Setting value flashes
- 12. Set the value using the [▼] or [▲] key according to the table. Intermediate values can be interpolated.

Volume flow	Level max. [V]		
rate [m³/h]	TAP -L	TAP-M	
200	_	4.1	
400	4.1	5.3	
600	4.9	6.5	
800	5.8	7.7	
1000	6.7	9.0	
1200	7.6	10.0	
1400	8.4	-	
1600	9.3	_	

- 13. Press the [P] key to accept the value.
- **14.** Press the [▼] [▲] keys at the same time.
  - ⇒ 'Limits' appears
- **15.** Press the [▼] key until 'Info' appears.
- **16.** Press the **[P]** key to exit the settings menu.
  - Volume flow rate and limit value for filter change set to new values.

#### Setting the volume flow rate

- Press the [▼] [▲] keys at the same time until 'INFO' appears.
- 2. ▶ Press the [▼] key until 'SETTING' appears.
- 3. Press the [P] key
  - ⇒ Setpoint 1 appears
- **4.** ▶ Press the **[P]** key again to activate setting mode.



#### **Troubleshooting** 6



## / DANGER!

#### Danger of death due to electric current!

Danger of electric shock! Do not touch any live components!

- Only skilled qualified electricians must work on the electrical systems.
- Switch off the power supply before you carry out maintenance or cleaning.
- Ensure that live parts do not come into contact with moisture. Moisture can cause a short circuit.



# WARNING!

#### Risk of injury from rotating parts!

Rotating parts in the fan can cause serious injuries.

- Do not reach into the moving fan or tamper with it.
- Never open covers while the unit is in operation.
- Make sure that the rotor is inaccessible while in operation.
- Before opening the door, switch off the unit and pull out the mains plug, wait for the run down time.

The unit has been produced carefully and tested for perfect function. Should malfunctions nevertheless occur, the fault can be rectified if necessary with reference to the following list:

Fault description	Cause	Remedy		
Unit (fan) does not run	Unit is not switched on.	Switch the unit on at the mains isolator, $\mathsecolor{\circ}$ Chapter 5.2 'Switching on' on page 16.		
	No voltage.	<ul> <li>Check mains fuse</li> <li>Check 3.15 A micro fuse (at the electrical connection box (behind the main filter))</li> <li>Disconnect main plug and check plug and connecting cable</li> <li>Check supply voltage</li> </ul>		
Unit output too high, e.g. draught	Volume flow rate too high	Reduce volume flow rate & Chapter 5.6 'Adjustment of the volume flow rate' on page 17		
Unit output too low	Volume flow rate too low	Increase volume flow rate & Chapter 5.6 'Adjustment of the volume flow rate' on page 17		
Red indicator light on	Air filter contaminated	<ul> <li>Check air filter for contamination, renew if necessary,</li> <li>Chapter 7.1 'Check and change filter' on page 19</li> <li>Test run without filter</li> </ul>		
	Controller or fan faulty	Switch off unit and notify customer service		
Unit is loud or vibrates	Door open	Close door		
	Filter is dirty	<ul> <li>Check air filter for contamination, renew if necessary,</li> <li>Chapter 7.1 'Check and change filter' on page 19</li> <li>Test run without filter</li> </ul>		
	Fan or bearing defective	Switch off unit and notify customer service		



## If you are unable to rectify the fault yourself:

Contact the TROX customer service (see page 3) or a qualified electrician.

# Maintenance and cleaning

Check and change filter

#### Maintenance and cleaning 7

#### **Maintenance measures**

Job	Interval					
	daily	as required	4 weeks	6 months	1 year	2 years
Check air inlet and outlet for for- eign matter and contamination, clean if necessary	Х					
Cleaning the outside of the casing		X			X	
Check the inside of the casing for contamination, clean if necessary		Х			Х	
Check fixing screws					Χ	
Replace HEPA filter		Х				Х
Replace prefilter		X			X	
Test run					Χ	

## 7.1 Check and change filter

#### Personnel:

Instructed person

## **Protective equipment:**

- Disposable gloves
- Dust mask FFP2

#### Special tool:

Allen key size 10

We recommend only carrying out a filter change outside the period of use to avoid the risk of infection for other people.

- 1. ▶ Switch the unit off, ♦ Chapter 5.4 'Switching the unit off' on page 16
- 2.



## Disconnect the mains plug!

Remove the mains plug from the socket.

3. Deen the door by removing the cover cap on the lock and opening the door lock with a size 10 hexagon socket key.

### **Checking prefilter**

- 4. Pull out the prefilter (lower filter).
  - Check the filter for damage, contamination, moisture and odours.
  - Check the filter chambers for contamination and clean them with a damp cloth if necessary.
  - ⇒ Replace the prefilter if required, or according to the specified change intervals.

## Changing prefilter

- **5.** Pull the contaminated filter out of the air purifier, put it into a plastic bag and dispose of it properly, see notes on disposal & 'Disposal' on page 20.
- **6.** Do not touch or damage the filter packs when inserting the new filters. Only hold the filter by the frame to avoid damage to the filter.

## **Checking HEPA filter**

- 7. Pull out the HEPA filter (upper filter).
  - Check the filter for damage, contamination, moisture and odours.
  - Check the filter chambers for contamination and clean them with a damp cloth if neces-
  - Replace the filter if required, or according to the specified change intervals.

### **Changing HEPA filter**

- 8. Pull the contaminated filter out of the air purifier, put it into a plastic bag and dispose of it properly, see notes on disposal 🖔 'Disposal ' on page 20.
- 9. Do not touch or damage the filter packs when inserting the new filters. Only hold the filter by the frame to avoid damage to the filter.
- 10. Close the door and put the cover cap back on the door lock. Switch the unit on again, & Chapter 5.2 'Switching on' on page 16.

# Maintenance and cleaning



Cleaning and disinfection

#### **Disposal**



## **ENVIRONMENT!**

Risk of harm to the environment due to the incorrect handling of hazardous materials and substances.

Filters and cleaning materials that have been contaminated with bacterial, toxic or radioactive particles are considered hazardous waste and have to be disposed of by an authorised business in compliance with local regulations.

Disposing of filter elements with household waste is allowed only in the following cases:

- For unused filter elements
- For filter elements that have been exposed only to atmospheric outdoor air

#### Ordering replacement filters

To ensure permanent protection from suspended particles contaminated with viruses and bacteria, we recommend using only genuine TROX filters.

Original TROX filters carry a sticker on the frame with both the use before date and information on how to order replacements.



To avoid downtimes of the air purifier, we recommend you to always have the required filters in stock.

To order filters go to: www.troxtechnik.com

# 7.2 Cleaning and disinfection

#### Personnel:

Instructed person

## **Protective equipment:**

- Disposable gloves
- Dust mask FFP2

### Special tool:

Allen key size 10

The unit can be cleaned with a dry or damp cloth. Sticky dirt or contamination may be removed with a commercial, non-aggressive cleaning agent. Do not use abrasive cleaners or tools (e.g. brushes). For disinfection you may use commercially available disinfectants or disinfecting procedures.

- **1.** ► Switch the unit off,  $\mbox{\ensuremath{,}}\mbox{\ensuremath{,}}\mbox{\ensuremath{Chapter}}\mbox{\ensuremath{.}}\mbox{\ensurema$
- 2.



## Disconnect the mains plug!

Remove the mains plug from the socket.

- 3. Clean the unit from the outside.
- **4.** Open the door by removing the cover cap and opening the door lock with a size 10 hexagon socket key.
- **5.** Pull out both filters, store them for further use if necessary.



#### Cleaning the filter

Particles accumulate deep within the filter medium, meaning that it cannot be cleaned. Only the frame can be cleaned.

- **6.** Clean the unit from the inside.
- Reinsert the filters. When doing this, make sure to insert the prefilter at the bottom and the HEPA filter above it.
- 8. ► Close the door and put the cover cap back on the door lock. Switch the unit on again, *♦ Chapter* 5.2 'Switching on' on page 16.



# 8 Technical data

Item	Construction L	Construction M
Prefilter filter class ePM1≥ 80% (L x W x H)	592 x 592 x 292 mm 592 x 287 x 292	
Main filter class HEPA H13 (L x W x H)	592 x 592 x 292 mm	592 x 287 x 292 mm
Weight with/without packaging	217 kg / 177 kg	175 kg / 137 kg
Nominal voltage	230 V AC	
Nominal voltage range	200-277 V AC	
Frequency	50/60 Hz	
Nominal current	2.3 A 2.3 A	
Mains fuse	16 A	16 A
Micro fuse F1	3.15 A	
IEC protection class	I (protective earth)	
Ambient temperature	+5 °C to +45 °C	
Ambient air pressure	800 mbar to 1050 mbar	
Humidity	< 100% rh, no condensation	

## **Construction L**

Volume flow rate [m³/h]	P <sub>sys</sub> [W]	LwA dB(A)	LpA <sub>1</sub> dB(A)
400	20	32	24
600	30	40	32
800	55	45	37
1000	95	49	41
1200	150	53	45
1400	225	58	50
1600	310	61	53

Sound pressure LpA with room attenuation 8 dB  $\,$ 

## **Construction M**

Volume flow rate [m³/h]	P <sub>sys</sub> [W]	LwA dB(A)	LpA <sub>1</sub> dB(A)
400	37	38	30
500	56	42	34
600	82	45	37
700	115	48	40
800	155	51	43
1000	256	56	48
1200	386	60	52

Sound pressure LpA with room attenuation 8 dB

Circuit diagram

# 8.1 Circuit diagram

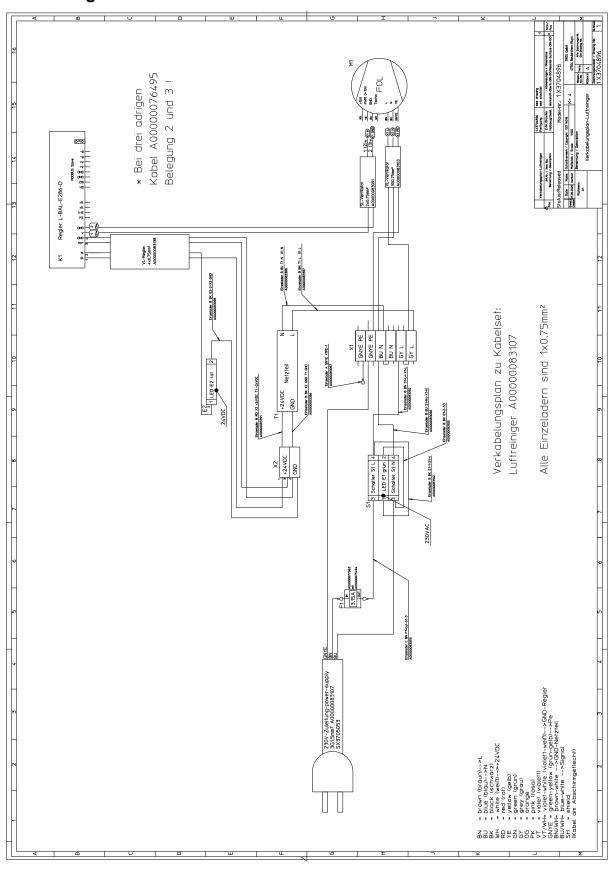


Fig. 14: Circuit diagram



# 9 Disposal

## Disposal of the filters



## ENVIRONMENT!

# Environmental damage due to improper disposal!

Risk of harm to the environment due to the incorrect handling of hazardous materials and substances.

Filters and cleaning materials that have been contaminated with bacterial, toxic or radioactive particles are considered hazardous waste and have to be disposed of by an authorised business in compliance with local regulations.

Disposing of filter elements with household waste is allowed only in the following cases:

- For unused filter elements
- For filter elements that have been exposed only to atmospheric outdoor air

## Disposal of the unit

If no return or disposal agreement is in place, any disassembled components should be recycled:

- Scrap the metals.
- Take plastic parts to be recycled.
- Dispose of other components and waste in a suitable manner, i.e. depending on their material properties.

#### **Electrical and electronic components**



## **ENVIRONMENT!**

# Environmental damage due to improper disposal!

Electrical and electronic components can contain materials and substances that are hazardous to health and the environment and which must not get into household and commercial waste.

As electrical and electronic components may also contain recyclables (e. g. precious metals), they must be provided for recycling or disposal by a specialist disposal company.



# 10 Declaration of conformity

## EC declaration of conformity

according to the EU Machinery Directive 2006/42/EC, Annex II 1. A



Manufacturer

**TROX GmbH** 

Heinrich-Trox-Platz

D - 47504 Neukirchen-Vluyn

Person established in the Community authorised to compile the technical file

Jan Heymann

**TROX GmbH** 

Heinrich-Trox-Platz

DE - 47504 Neukirchen-Vluyn

#### Description and identification of the machinery

Product / Article TROX air purifier

Type TAP

Commercial name TROX air purifier

Function The TROX air purifier is used in internal spaces to separate aerosols and viruses from the atmospheric air.

The air purifier is used for purifying the air in internal spaces that are frequented by many people and

where people cannot keep a safe distance from others.

#### It is expressly declared that the machinery fulfils all relevant provisions of the following EU Directives or Regulations:

2014/30/EU Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the

harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)

#### Reference to the harmonised standards used, as referred to in Article 7 (2):

EN 60335-1:2012/AC:2014 Household and similar electrical appliances - Safety - Part 1: General requirements

IEC 60335-1:2010 (Modified)

EN 60335-2-65:2003-07 Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning

appliances

EN 55014-1:2006-12 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar

apparatus - Part 1: Emission

EN 55014-2:1997/A2:2008 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar

apparatus - Part 2: Immunity; Product family standard

EN 61000-3-2:2014 Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment

input current <= 16 A per phase) IEC 61000-3-2:2014

EN 61000-3-3:2013 Electromagnetic compatibility (EMC) — Part 3-3: Limits — Limitation of voltage changes, voltage

fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq$  16 A per

phase and not subject to conditional connection IEC 61000-3-3:2013

Neukirchen-Vluyn, 09.10.2020

Jan Heymann

iv. Heye

Authorised Representative, CE-marked

products

Page 1/1



# Commissioning report/Maintenance report

# 11 Commissioning report/Maintenance report

Building:	Floor:	Unit:
Commissioning: □	Maintenance: □	Date: 20

$\wedge$	DANGER!
----------	---------

## Danger of death due to electric current!

Danger of electric shock! Do not touch any live components!

- Only skilled qualified electricians must work on the electrical systems.
- Switch off the power supply before you carry out maintenance or cleaning.
- Ensure that live parts do not come into contact with moisture. Moisture can cause a short circuit.
- Comply with the safety notes in the installation and operating manual.

Cleaning the air purifier:	© Chapter 7.2	Yes	No
		_	
<ul> <li>Remove dust and contamination from the unit casing.</li> <li>Remove dust and contamination from the air passages inside the unit.</li> </ul>	'Cleaning and disin- fection' on page 20		
Checking the prefilter and HEPA filter for contamination, moisture and odours	∜ Chapter 7.1 'Check and change filter' on page 19		
Changing prefilter	∜ Chapter 7.1 'Check and change filter' on page 19		
Changing HEPA filter			
Checking the function of the air purifier (fan):			
Comment:			
Next maintenance scheduled for:	See note on maintenance intervals,		
Signatura			
Signature: (Technician)			
Company:			
(Stamp)			



#### Index

Α		Maintenance measures	19
Air change rate		0	
Setting	17	Overview of the unit	10
Airflow		P	
Setting	17	Power supply	15
Assembly	15	Protective equipment	
C		Q	
Changing the filter	19	Qualified staff	. 7
Circuit diagram	22	R	
Cleaning	20	Remedial action	18
Copyright	3	Repair	
Correct use	6	S	
D		Service	. 3
Dangers and risks	7	Set	
Defects liability	3	Air change rate	17
Disposal		Airflow	17
Disposal of the unit	23	Volume flow rate	
Electrical and electronic components	23	Shutdown	16
Filter	23	Space required	
E		Starting	16
Ensuring stability	15	Supply package	12
Environmental protection		Switching the unit off	
Disposal of the unit	23	Symbols	
Electrical and electronic components	23	τ	
Filter	23	Technical Service	3
F		Troubleshooting	
Filter		U	
check	19	Unit	
Disposal	23	Assembly	15
replace	19	Ensuring stability	
Functional description	10	Space required	
Н		Switching on	16
Hotline	3	switch off	16
I		Unit description	10
Incorrect use	6	V	
Installation location	14	Volume flow rate	
L		Setting	17
Labelling	7	<b>W</b>	
Limitation of liability		Warranty claims	2
M	•	Wiring	
Mains connection	15	***************************************	~~
Maintenance	19		
maintonal loc	13		



# The art of handling air

**TROX GmbH**Heinrich-Trox-Platz
47504 Neukirchen-Vluyn, Germany

Germany
Phone: +49 (0) 2845 2020
Telefax: +49 2845 202-265
E-mail: trox-de@troxgroup.com
http://www.troxtechnik.com