



**Upute za održavanje i
čišćenje naših
ventilacijskih uređaja**

**Instruction to
maintenance and cleaning
our ventilation units**

Sadržaj	Stranica:
1. Sigurnosne napomene	2
2. Općenito	3
3. Zamjena filtra i resetiranje prikaza zamjene filtra	3
4. Održavanje pasivnih ventilacijskih uređaja	6
5. Održavanje električno pogonjenih ventilacijskih uređaja	7
5.1. Održavanje uređaja s akumulacijskim kamenom	7
5.2. Održavanje uređaja s izmjenjivačem topline	9
6. Čišćenje vanjskih priključaka	10
6.1. Čišćenje vanjske rešetke	10
6.2. Čišćenje fasadnih elemenata	11
7. Kontrolni popis	12

Popis simbola



Opasnost od ozljeda



Čistiti usisavačem



Opasnost od ozljeda
uslijed struje



Čistiti komprimiranim zrakom



Zbrinjavanje



Čistiti četkom



Zamjena filtra



Isprati



Pritisnuti



Potvrda



Trajno svijetljenje



Treperenje



Obrisati

Uz dolje navedene napomene treba se pridržavati preporuka normi DIN 1946-6, DIN 18017-3 i VDI 6022 za pravilno i higijensko čišćenje svih ventilacijskih uređaja i komponenti. Za korištenje, pogon te potrebne korake čišćenja/održavanja potrebna je stručna obuka, koja se treba dogovoriti sa stručnim projektantom i/ili instalaterom odnosno voditeljem gradnje. Ako čišćenje ne može provesti korisnik odnosno ako se zaprljanja ne mogu ukloniti, treba pozvati stručno osoblje ili se obratiti korisničkoj službi tvrtke LUNOS.

1. Sigurnosne napomene



Oprez! Svaki rad na ventilacijskim uređajima smije se obavljati samo pri odspojenom mrežnom naponu!



Pozor! Ventilacijske uređaje ne smiju održavati i čistiti djeca i osobe koje zbog svojih fizičkih, osjetilnih ili mentalnih sposobnosti ili zbog neiskustva ili neznanja to nisu u stanju sigurno provesti.



Pri radovima na vanjskim fasadama ili na ljestvama i sl. moraju se poduzeti potrebne sigurnosne mjere za osoblje koje izvodi radove!

2. Općenito

Osnova za besprijekornu funkciju i priznavanje eventualnih jamstvenih i/ili garancijskih zahtjeva za naše ventilacijske uređaje i pripadajući pribor jest stručna ugradnja u skladu s uputama za montažu te korištenje i održavanje/čišćenje prema uputama proizvođača. Treba osigurati da se ugrađeni/installirani ventilacijski uređaji zajedno s uputama za montažu i svim ostalim dokumentima (npr. ventilacijski koncept, upute za održavanje itd.) predaju na početku korištenja u urednom stanju. Na internetskoj stranici tvrtke LUNOS nalaze se dodatno odgovarajući primopredajni zapisnici i dokumenti.

Budući da se ventilacijski uređaji tijekom vremena zaprljaju, potrebno ih je u redovitim razmacima provjeravati i po potrebi čistiti. Ventilacijske uređaje treba najmanje 4 puta godišnje provjeriti na vidljivja zaprljanja. Najmanje 2 puta godišnje treba provesti održavanje i čišćenje svih ventilacijskih uređaja i cjelokupnog pribora (npr. propusti u špaletama, vanjski zatvarači, unutarnje blende itd.). Filtre ventilacijskih uređaja treba najmanje 2 puta godišnje, pri vidljivim zaprljanjima i pri svijetljenju prikaza zamjene filtra, zamijeniti ili očistiti. Izmjenjivače topline treba čistiti najkasnije svake 2 godine ili pri vidljivom zaprljanju ili pojavi mirisa.

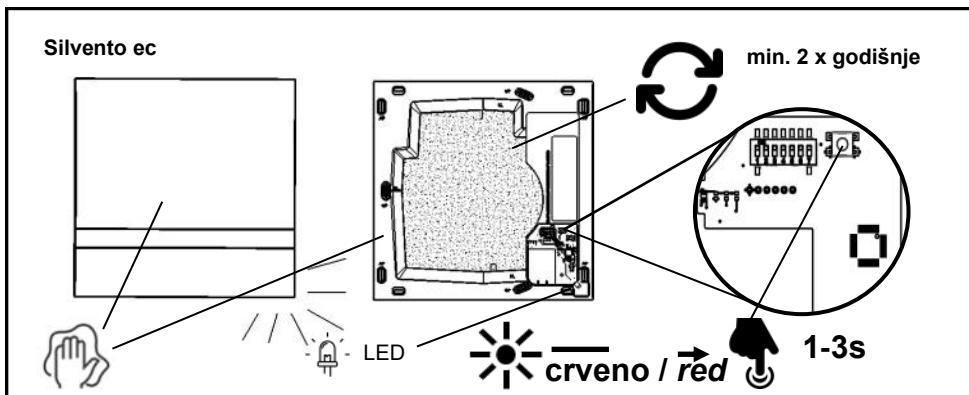
Održavanje i čišćenje treba zabilježiti u priloženom kontrolnom popisu i potvrditi potpisom. Ako te radove obavlja stručna tvrtka odnosno kućni majstor / servis za kućepazitelje, i to treba pisano potvrditi.

Pri održavanju i čišćenju treba paziti da se ne oštete površine ventilacijskih uređaja. Ne smiju se koristiti kemikalije i sredstva za čišćenje ako to tvrtka LUNOS nije izričito propisala.

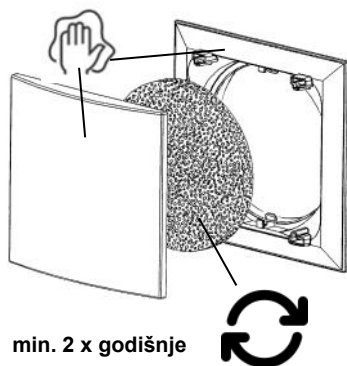
3. Zamjena filtra i resetiranje prikaza zamjene filtra

Čist filter ključan je za besprijekornu funkciju ventilacijskih uređaja.

- Izvadite filter iz ventilacijskog uređaja (npr. iz unutarnje blende i sl.). Po potrebi obratite pozornost na napomene u uputama za rukovanje i/ili montažu o vađenju filtra (npr. za otvaranje blende). Filtri od crne (plastične) pjene mogu se do 5 puta oprati u perilici posuđa ili pod tekućom vodom. Svi ostali filtri moraju se zamijeniti novim proizvodima, a zaprljani filtri zbrinuti u kućni otpad.
- Umetnite novi ili očišćeni filter! Po potrebi resetirajte prikaz zamjene filtra (točne napomene naći ćete u pojedinim uputama za montažu)!
- Ponovno postavite unutarnju blendu ili sl. i uvjerite se da ventilacijski uređaj ponovno besprijekorno funkcionira.

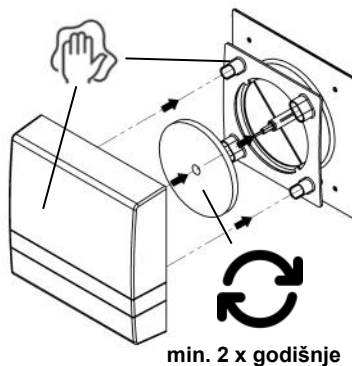


Seriya e², serija ALD, AB 30/60, RA 15-60, 9/IBE



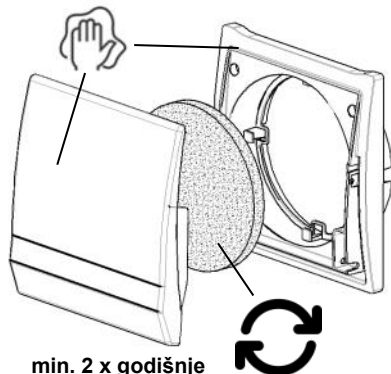
min. 2 x godišnje

Seriya e², serija ALD, AB 30/60, RA 15-60, 9/IBS



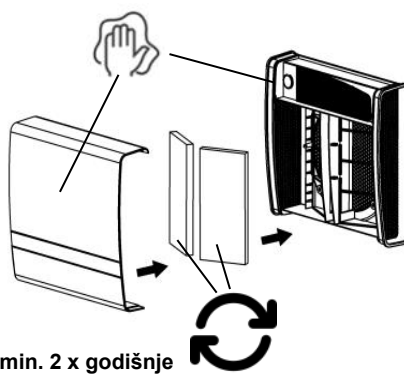
min. 2 x godišnje

Seriya e², serija ALD, AB 30/60, RA 15-60, 9/IBG, 9/IBK



min. 2 x godišnje

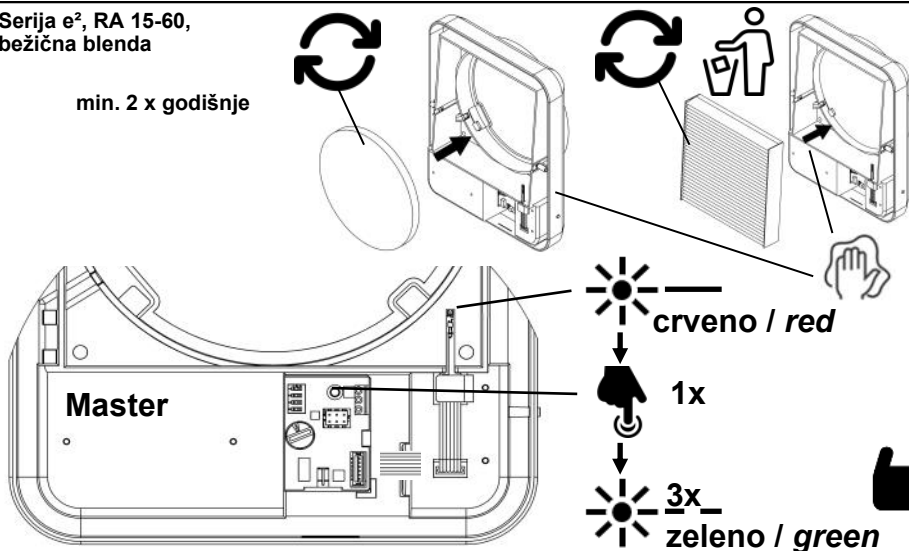
e⁹⁰

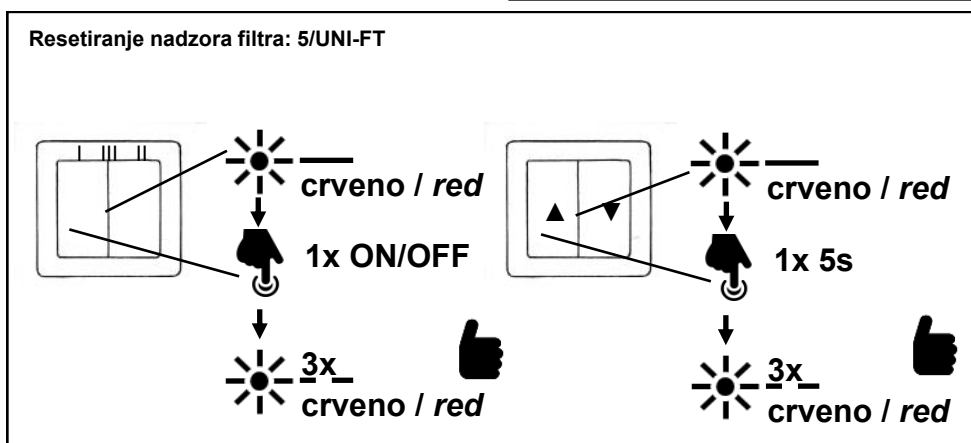
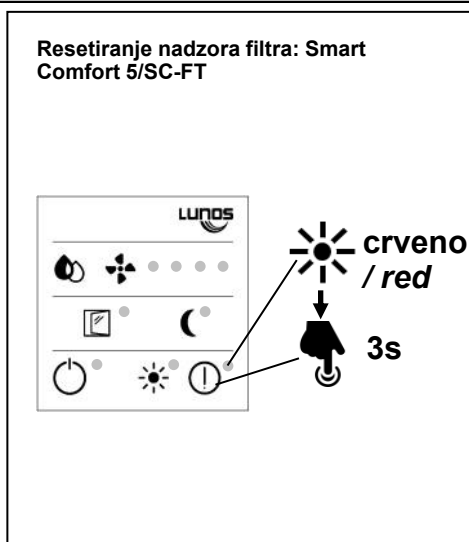
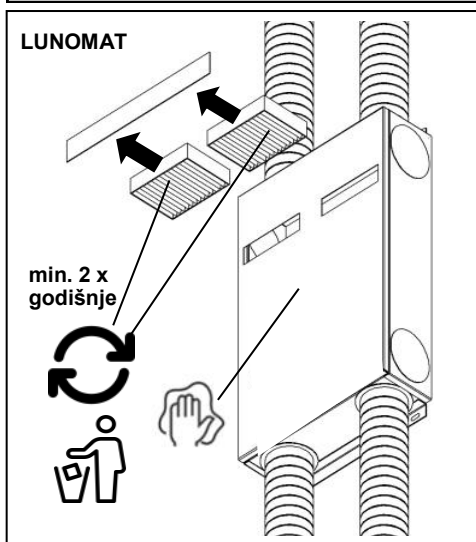
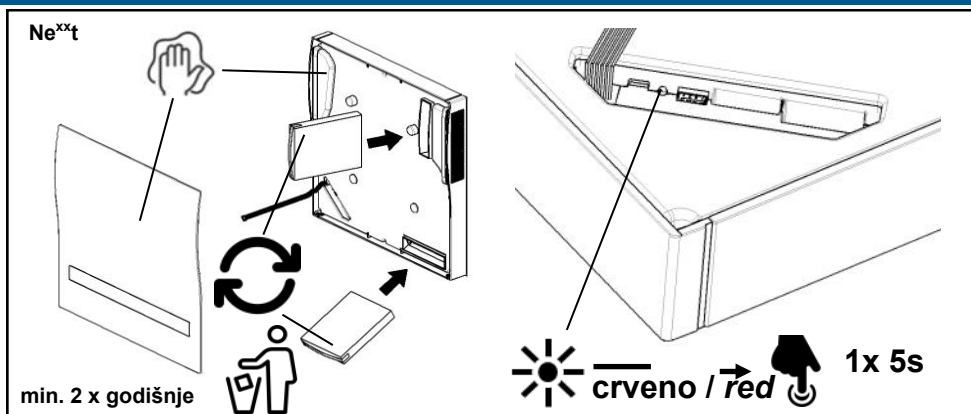


min. 2 x godišnje

Seriya e², RA 15-60,
bežična blenda

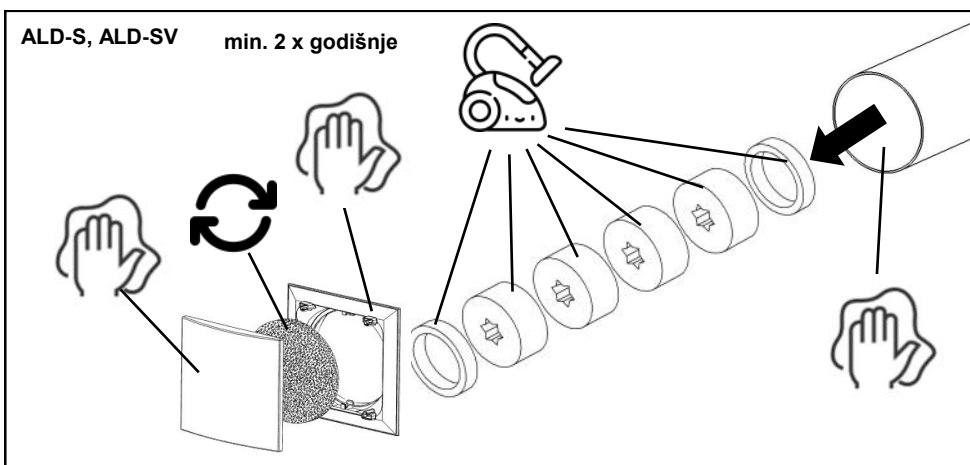
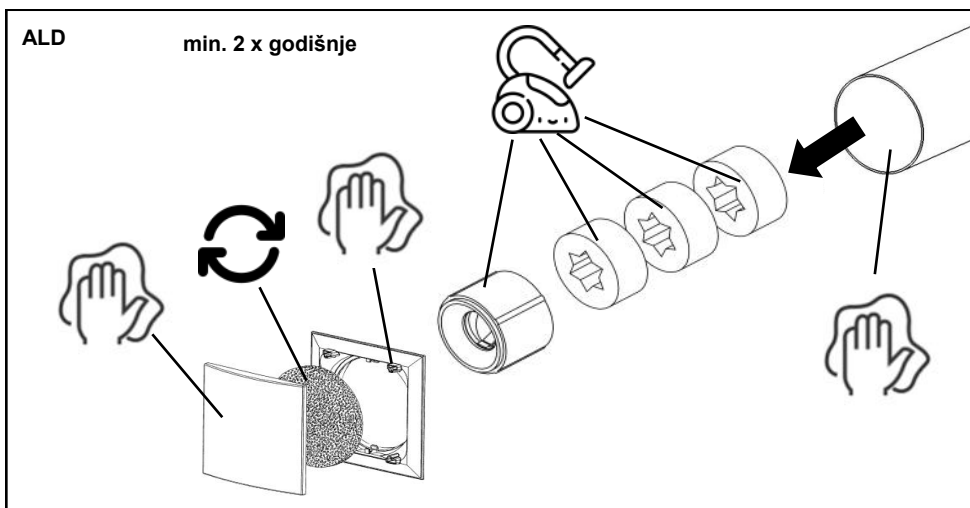
min. 2 x godišnje





4. Održavanje pasivnih ventilacijskih uređaja (serija ALD)

- Skinuti unutarnju blendu, izvaditi filter.
- Skinuti pokrovni okvir sa zida.
- Unutarnju blendu i pokrovni okvir očistiti vlažnom krpom i ostaviti da se osuše.
- Filter očistiti ili zamijeniti.
- Prigušivač zvuka izvaditi iz ventilacijske cijevi i provesti vizualnu kontrolu ima li prašine, vlage, insekata ili plijesni.
- Prigušivač zvuka očistiti usisavačem ili komprimiranim zrakom.
- Prigušivač zvuka zamijeniti u slučaju neuklonjivog zaprljanja.
- Cijev također obrisati i provjeriti brtvljenje (eventualne pukotine).
- Umetnuti prigušivač zvuka.
- Isto vrijedi za zvučne reflektore (metalni disk).
- Pokrovni okvir pričvrstiti na zid, umetnuti filter, postaviti unutarnju blendu.
- Po mogućnosti očistiti vanjsku rešetku / vanjsku kapu (vidi **6. Vanjski priključci**).

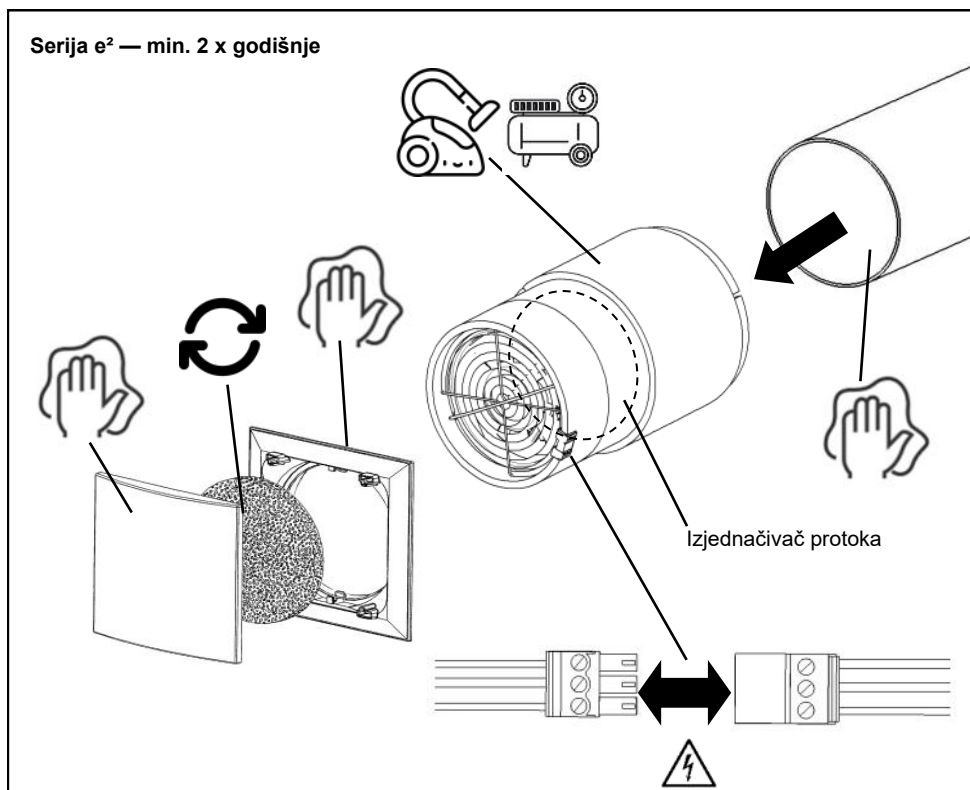


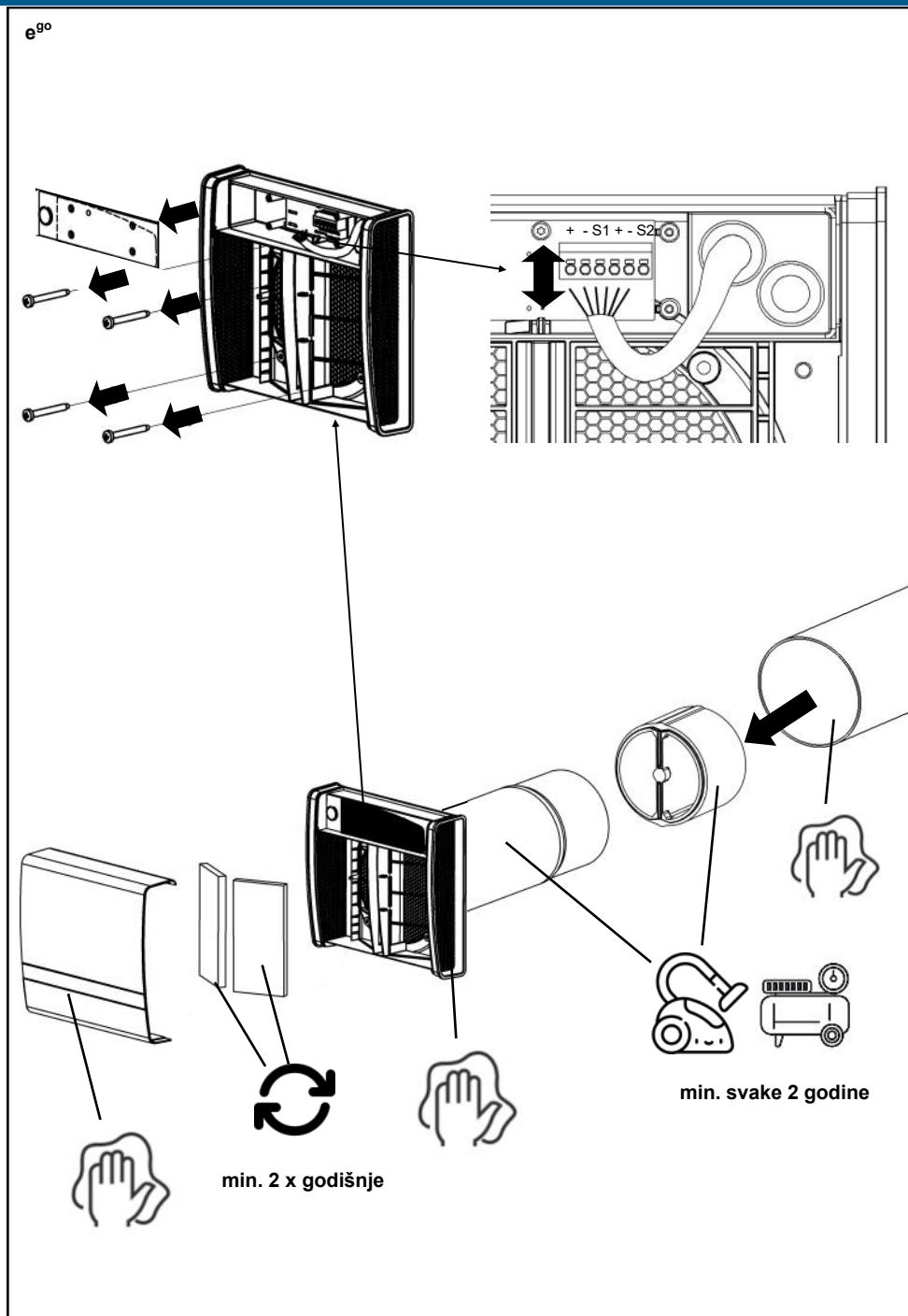
5. Održavanje električno pogonjenih ventilacijskih uređaja (Silvento ec, serija e², e⁹⁰, Ne^{xx}t, LUNOMAT)

Provjerite pomoću prekidača/tipkala i/ili upravljačke jedinice izvodi li ventilacijski uređaj sve željene ventilacijske funkcije. Ventilacijski uređaj odspojite s napona tek kada usporedite test funkcija s funkcijama navedenima u primopredajnom zapisniku!

5.1. Održavanje uređaja s akumulacijskim kamenom (serija e², e⁹⁰)

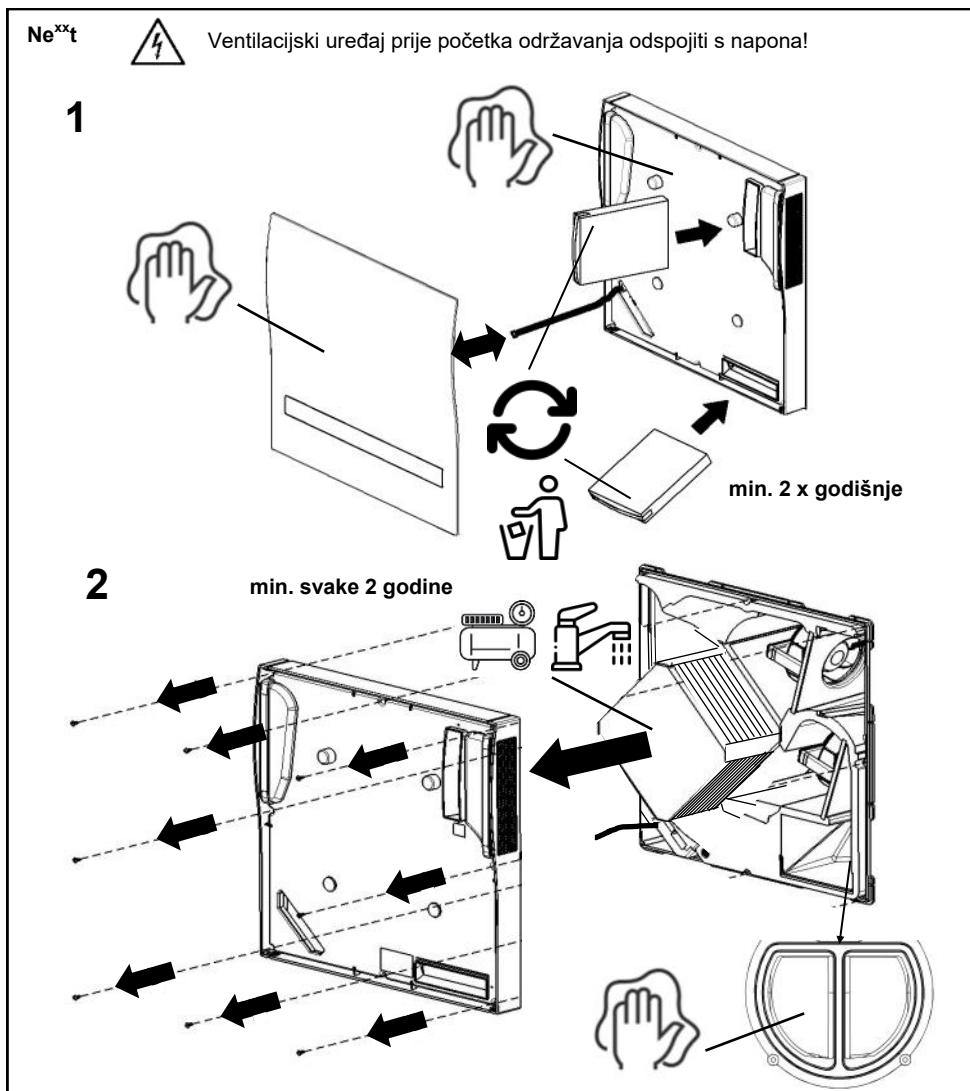
- Nakon skidanja unutarnje blende i filtra odspojite električni priključak (serija e²: izvući utikač; e⁹⁰: odviti pokrov elektropriključka, izvaditi kabel iz elektropriključka).
- Izvucite jedinicu ventilatora s akumulacijskim kamenom iz ventilacijske cijevi (kod e⁹⁰: prethodno odviti 4 zidna pričvrsna vijka) i provedite vizualnu kontrolu ima li prašine, vlage, insekata ili plijesni.
- Jedinicu ventilatora uklj. izmjenjivač topline očistite usisavačem ili komprimiranim zrakom. Kod tvrdokornih zaprljanja demontirajte izmjenjivač topline i isperite ga mlakom sapunicom. Po potrebi se izmjenjivač topline može dezinficirati 70 %-tnim etanolom.
- Isperite izjednačivač protoka ili ga po potrebi zamijenite; za taj zahtjevni posao po potrebi angažirajte stručnu tvrtku.
- Obrišite cijev iznutra, provjerite brtvljenje cijevi (npr. pukotine).
- Jedinicu ventilatora s akumulacijskim kamenom ponovno umetnite u ventilacijsku cijev i električno priključite.
- Umetnite novi ili očišćeni filter.
- Unutarnju blendu obrišite vlažnom krpom, ostavite da se osuši i ponovno postavite.
- Po mogućnosti očistite vanjsku rešetku / vanjsku kapu (vidi **6. Vanjski priključci**).

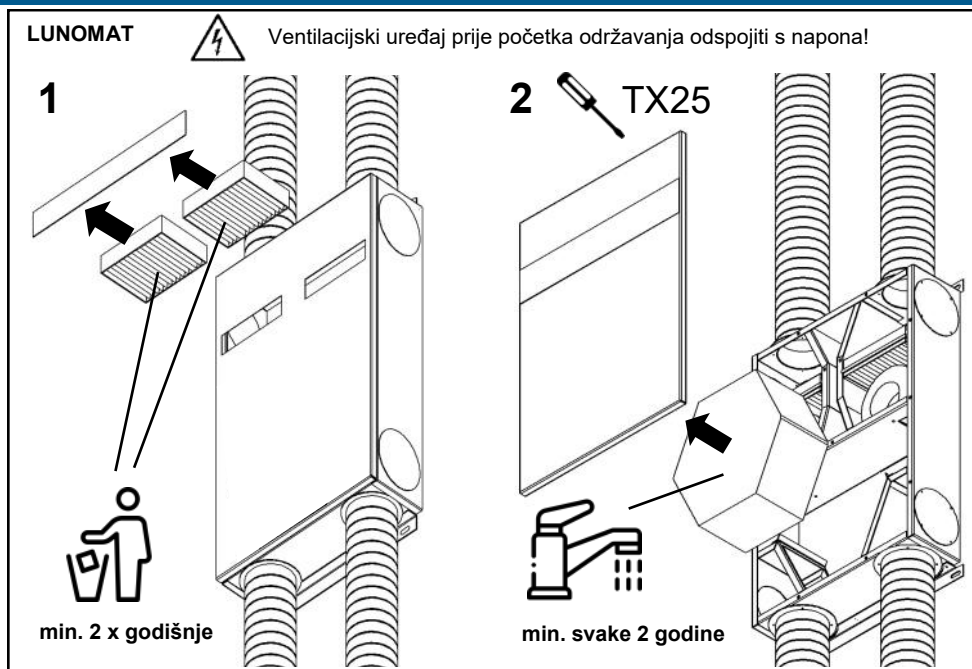




5.2. Održavanje ventilacijskih uređaja s izmjenjivačem topline (Ne^{xx}t, LUNOMAT)

- Skinuti unutarnje pokrove dok izmjenjivač topline ne postane vidljiv.
- Izvaditi izmjenjivač topline i provesti vizualnu kontrolu ima li prašine, vlage, insekata ili plijesni (kod Ne^{xx}t: provjeriti zaprljanost električnog preklopnog zatvarača).
- Izmjenjivač topline očistiti komprimiranim zrakom ili ga po potrebi isprati mlakom vodom te temeljito osušiti (mehaničko čišćenje nije dopušteno!).
- Po potrebi uređaj očistiti iznutra (vizualna kontrola).
- Umetnuti izmjenjivač topline.
- Umetnuti novi ili očišćeni filter.
- Unutarnju blendu obrisati vlažnom krpom, ostaviti da se osuši i ponovno postaviti.

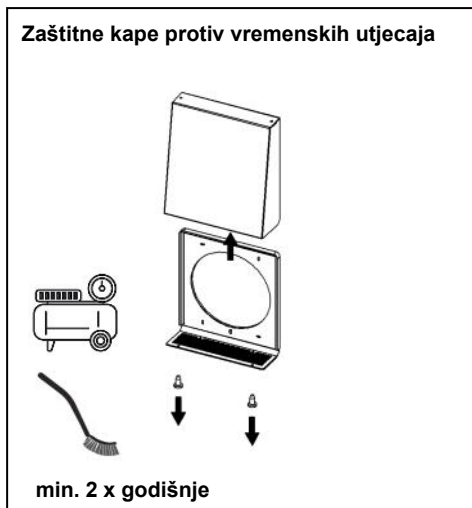
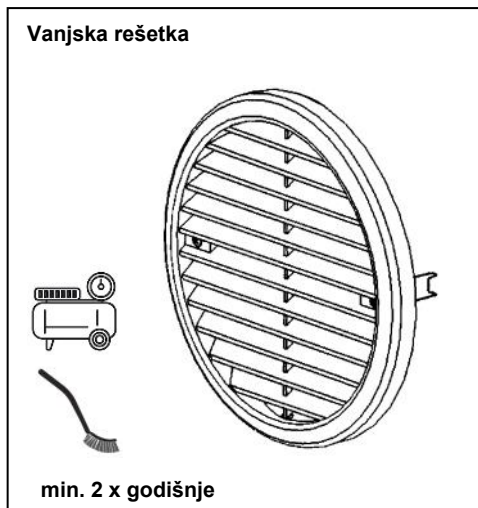




6. Čišćenje vanjskih priključaka

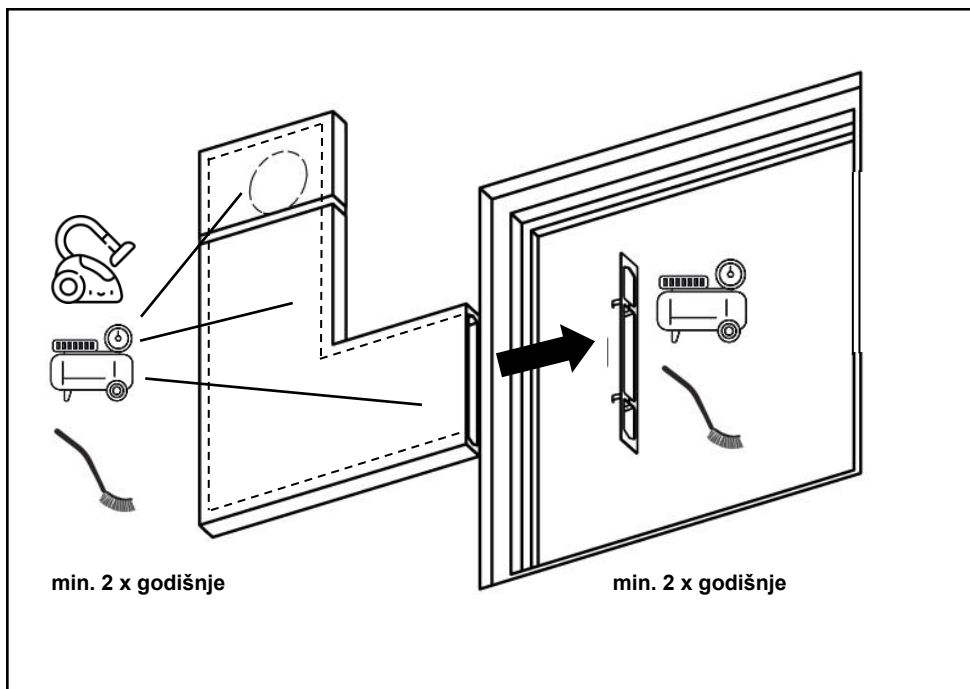
6.1. Čišćenje vanjske rešetke

- Provesti vizualnu kontrolu ima li prašine, vlage, insekata ili plijesni i je li mrežica protiv insekata neoštećena.
- Vanjsku rešetku očistiti metenjem ili komprimiranim zrakom.
- Provjeriti odvod kondenzata i po potrebi ga očistiti.



6.2. Čišćenje fasadnih elemenata (LUNOtherm)

- Provesti vizualnu kontrolu ima li prašine, vlage, insekata ili plijesni i je li mrežica protiv insekata neoštećena.
- Skinuti zaštitnu mrežicu protiv insekata, očistiti je metenjem ili komprimiranim zrakom.
- Fasadni element iznutra očistiti četkom (mekane čekinje), usisavačem ili komprimiranim zrakom.
- Pritom ni u kojem slučaju ne oštetiti površine.
- Za čišćenje ne koristiti otapala ili druge kemikalije.
- U slučaju dezinfekcije (npr. od strane stručne tvrtke) o dopuštenosti sredstava za dezinfekciju konzultirati se s tvrtkom LUNOS.
- Umetnuti mrežicu protiv insekata.



7. Kontrolni popis

Datum					
Funkcija ispravna?					
Filtar očišćen ili zamijenjen?					
Prikaz zamjene filtra resetiran?					
Unutarnja blenda očišćena?					
e ² , e ⁹⁰ : uložak s akumulacijskim kamenom očišćen?					
Ne ^{xt} , LUNOmat: izmjenjivač topline očišćen?					
Vanjska rešetka očišćena?					
LUNOtherm: fasadni element očišćen?					

Contents	Page:
1. Safety note	13
2. General	14
3. Changing the filter and resetting the filter change indicator	14
4. Maintenance of passive ventilation units	17
5. Maintenance of electrically operated ventilation units	18
5.1. Maintenance of devices with storage stone	18
5.2. Maintenance of devices with heat exchangers	20
6. Cleaning the outer fasteners	21
6.1. Cleaning the external grilles	21
6.2. Cleaning the façade elements	22
7. Check list	23

Symbol directory



Injury hazard



Clean with Hoover



Injury hazard due to electricity



Clean with compressed air



Waste disposal



Clean with brush



Filter change



Rinse out



Press



Confirmation



Permanent light



Blink



Wipe

In addition to the following instructions, the recommendations of DIN 1946-6, DIN 18017-3 and VDI 60 22 for the proper and hygienic cleaning of all ventilation units and components must be observed. Professional instruction is required for use, operation and the necessary steps for cleaning/maintenance, which must be agreed with the specialist planner and/or installer or site manager. If cleaning by the user is not possible or if soiling cannot be removed, specialised personnel must be consulted or LUNOS customer service must be contacted.

1. Safety note



Caution! Any installation work on ventilation units may only be carried out with the mains voltage disconnected!



Caution! Ventilation units must not be serviced or cleaned by children or persons who are unable to do so safely due to their physical, sensory or mental capabilities or their inexperience or lack of knowledge.



When working on external facades or on ladders or similar, the necessary safety measures must be taken for the personnel working!

2. General

The basis for perfect functioning and the granting of any warranty and/or guarantee claims for our ventilation units and their accessories is correct installation in accordance with the installation instructions and use and maintenance/cleaning in accordance with the manufacturer's instructions. It must be ensured that the assembled/installed ventilation units together with the assembly instructions and all other documents (e.g. ventilation concept, maintenance instructions, etc.) are handed over in proper condition at the start of use. Corresponding handover protocols and documents can also be found on the LUNOS website.

As ventilation units become dirty over time, they must be checked at regular intervals and cleaned if necessary. The ventilation units must be checked at least 4 times a year for visible soiling. Maintenance and cleaning of all ventilation units and all accessories (e.g. reveal outlets, external closures, internal panels, etc.) must be carried out at least twice a year. The filters of the ventilation units must be changed or cleaned at least twice a year if they are visibly soiled and the filter change indicator lights up. Heat exchangers should be cleaned at least every 2 years or when visibly dirty or odours develop.

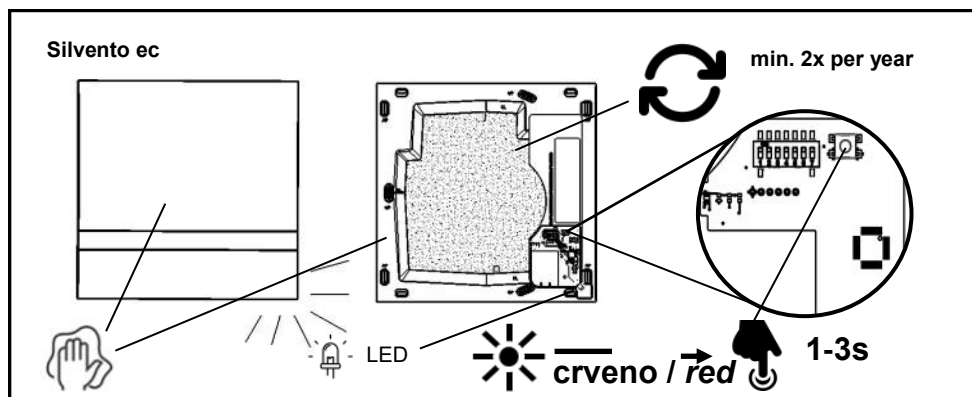
The maintenance and cleaning in the attached checklist must be noted and confirmed with a signature. If a specialised company or caretaker service carries out this work, this must also be confirmed in writing.

During maintenance and cleaning, care must be taken to ensure that the surfaces of the ventilation units are not damaged. No chemicals or cleaning agents are to be used unless expressly specified by LUNOS.

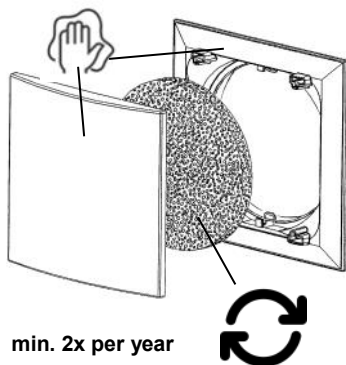
3. Changing the filter and resetting the filter change indicator

A clean filter is essential for the ventilation units to function properly.

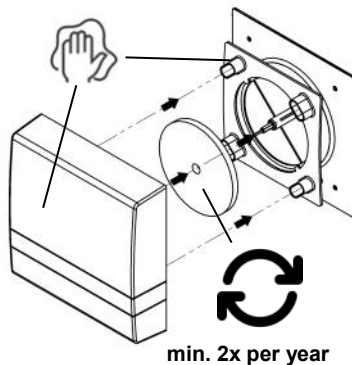
- Remove the filter from the ventilation unit (e.g. from the inner cover or similar). If necessary, follow the instructions in the operating and/or installation instructions for removing the filter (e.g. for opening the cover or similar). Filters made of black (plastic) foam can be cleaned up to 5 times in the dishwasher or under running water. All other filters must be replaced with new products and the dirty filters disposed of with household waste.
- Insert a new or cleaned filter! If necessary, reset the filter change indicator (you will find precise instructions in the relevant installation instructions)!
- Replace the inner panel or similar and make sure that the ventilation unit is working properly again.



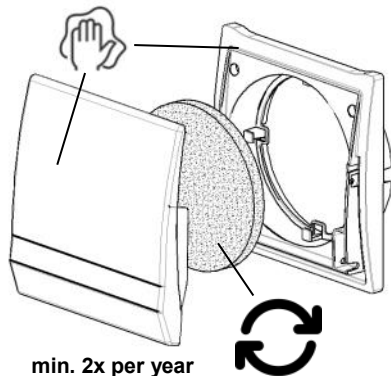
e²series, ALD series, AB 30/60, RA 15-60, 9/IBE



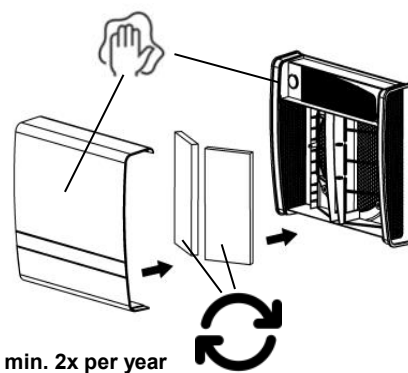
e² series, ALD series, AB 30/60, RA 15-60, 9/IBS



e² series, ALD series, AB 30/60, RA 15-60, 9/IBG, 9/IBK

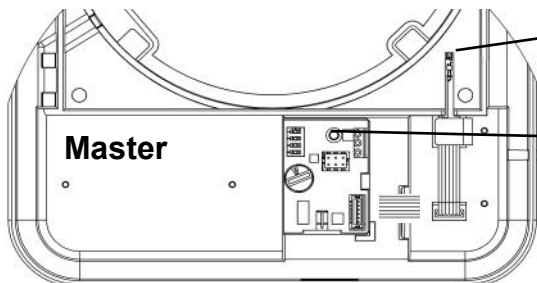
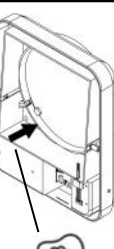


e⁹⁰



e² series, RA 15-60, Wireless screen

min. 2x per year



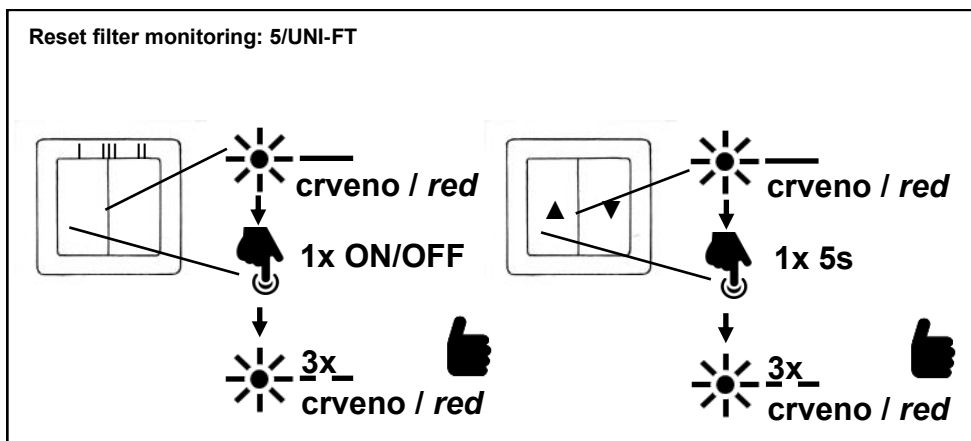
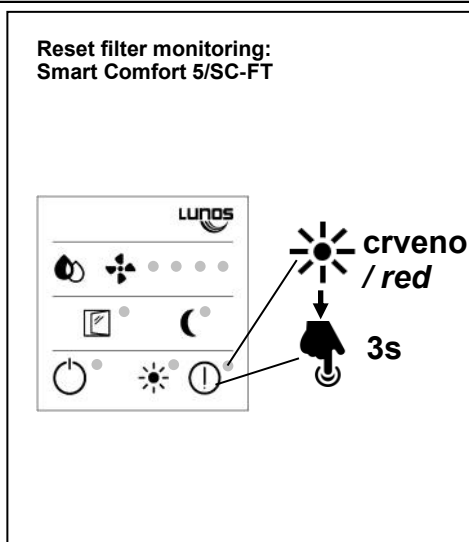
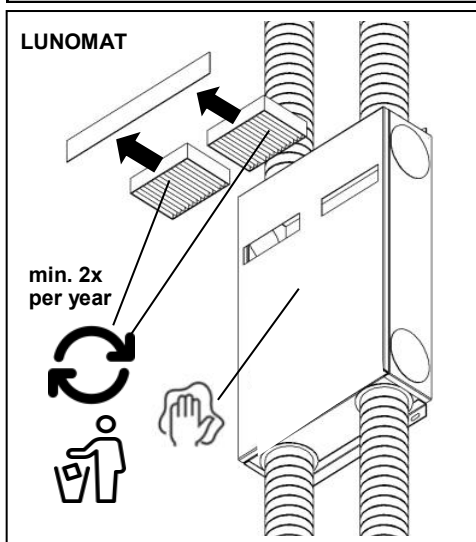
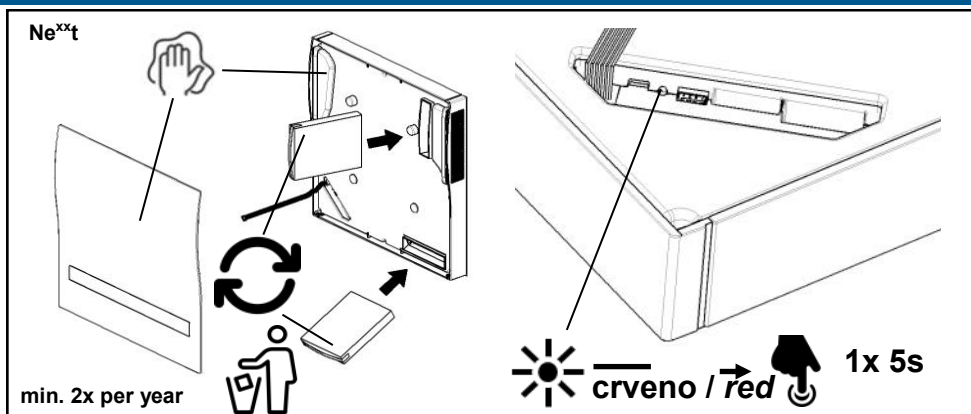
crveno / red

1x



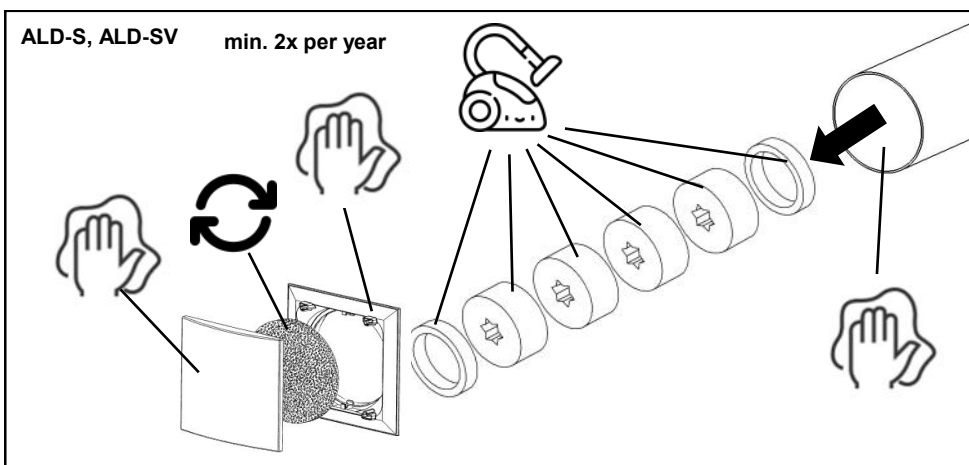
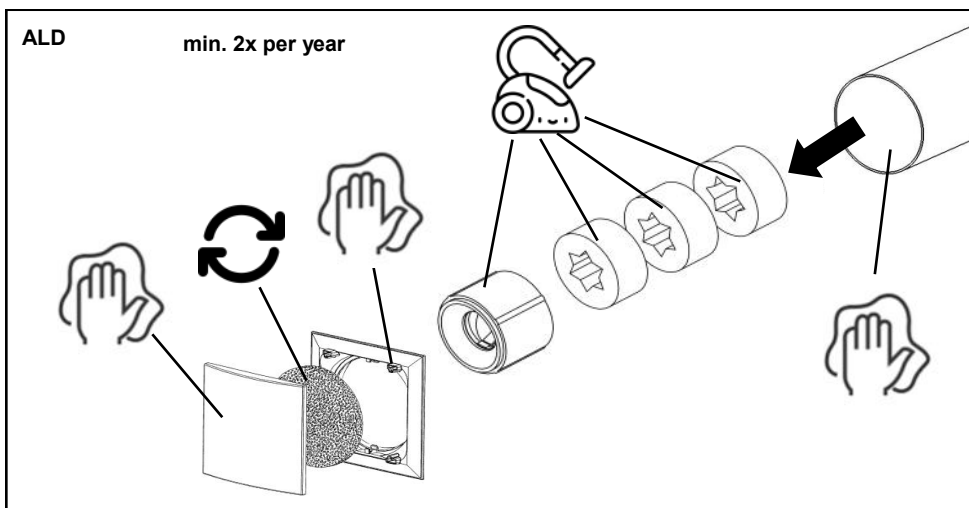
3x zeleno / green





4. Maintenance of passive ventilation units (ALD series)

- Remove the inner panel and take out the filter
- Remove the cover frame from the wall
- Clean the inner panel and cover frame with a damp cloth and allow to dry
- Clean or replace the filter
- Remove the sound attenuator from the ventilation duct and visually check for dust, moisture, insects or mould
- Clean the silencer with a Hoover or compressed air
- Replace silencer if soiling cannot be removed
- Also wipe out the pipe and check the seal (cracks if necessary)
- Insert silencer
- Do the same for sound reflectors (metal disc)
- Attach cover frame to wall, insert filter, fit inner panel
- If possible, clean the external grille / external bonnet (see 6. External closures)

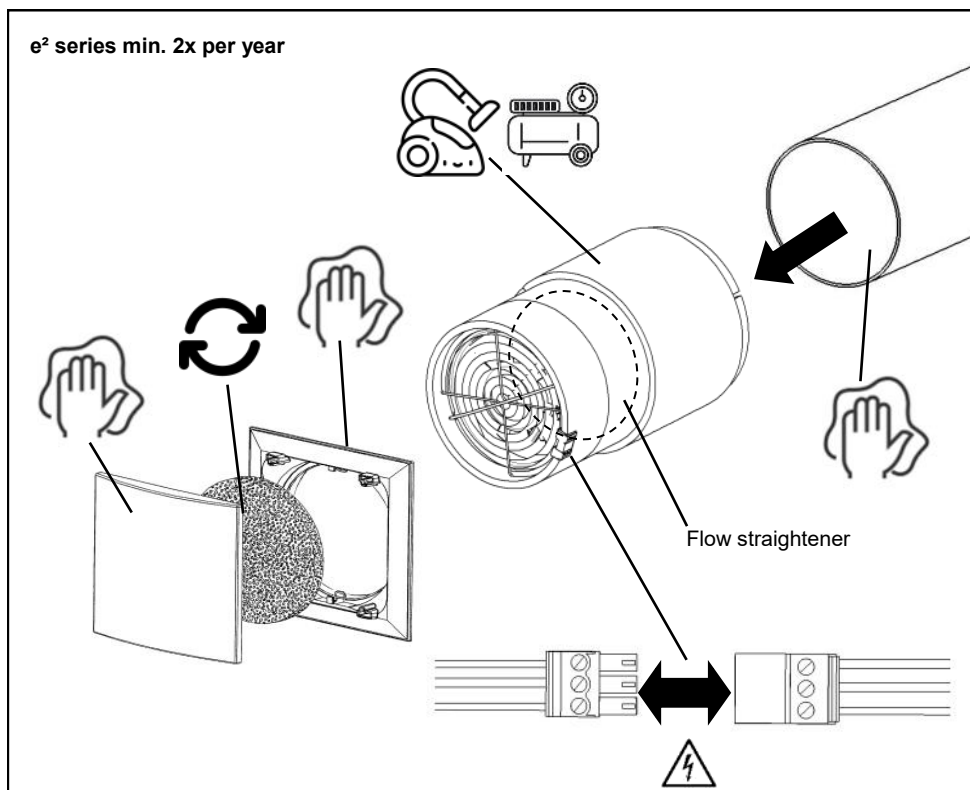


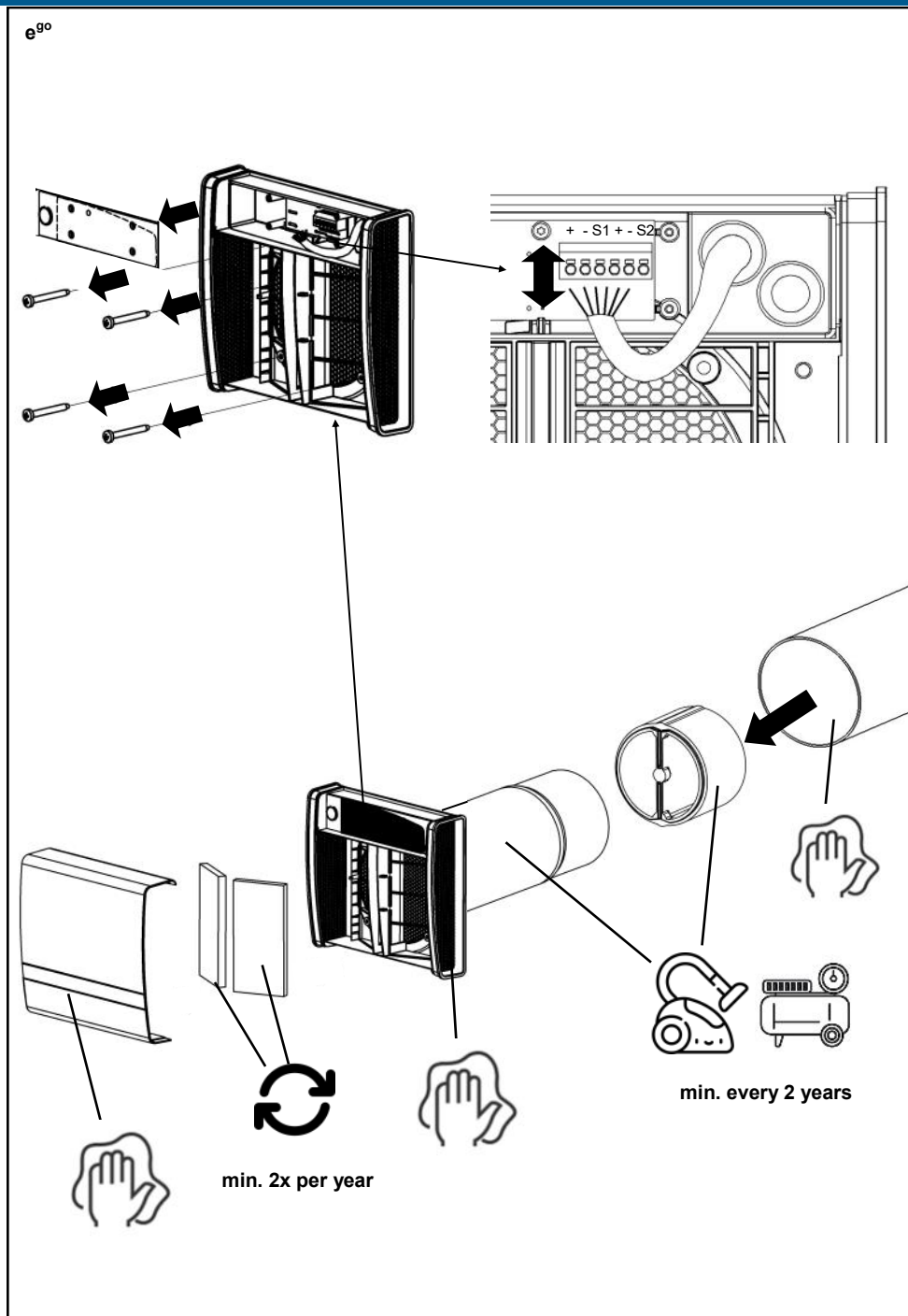
5. Maintenance of electrically operated ventilation units (Silvento ec, e² series, e⁹⁰, Ne^{xt}t, LUNOMAT)

Use the switch/button and/or control unit to check whether the ventilation unit is performing all the desired ventilation functions. Only then de-energise the ventilation unit! Compare the function test with the functions specified in the handover protocol!

5.1. Maintenance of devices with storage stone (e² series, e⁹⁰)

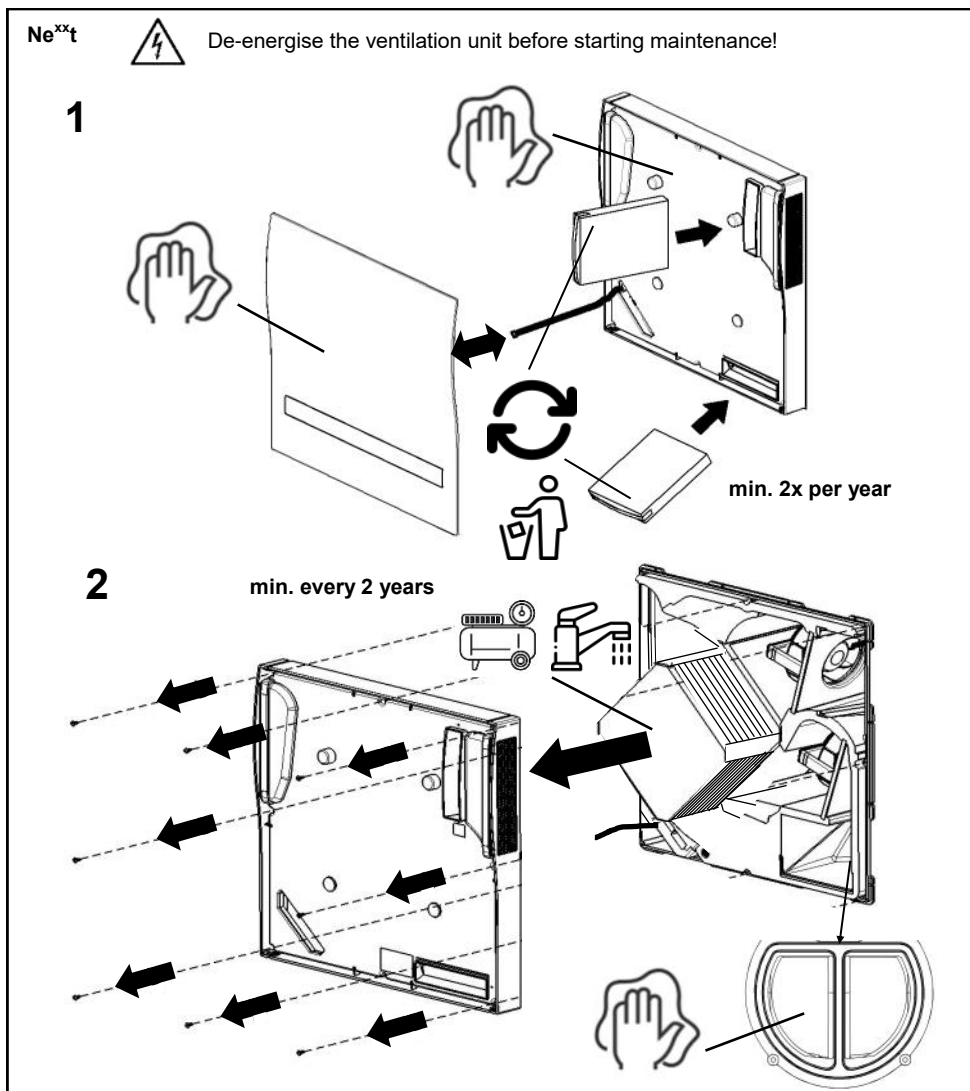
- After removing the inner panel and filter, disconnect the electrical connection (e² series: disconnect the plug; ego: unscrew the cover of the electrical connection, disconnect the cable from the electrical connection)
- Pull the fan unit with storage block out of the ventilation pipe (ego: loosen 4 wall fixing screws beforehand) and visually check for dust, moisture, insects or mould
- Clean the fan unit including heat exchanger with a Hoover or compressed air. In the case of stubborn dirt, dismantle the heat exchanger and rinse with a lukewarm soap solution. If necessary, the heat exchanger can be disinfected with 70% ethanol
- Rinse out the flow straightener or replace it if necessary; if necessary, commission a specialist company for this time-consuming work
- Wipe the inside of the pipe, check the pipe seal (e.g. cracks)
- Reinsert the fan unit with storage block into the ventilation pipe and connect electrically
- Insert new or cleaned filter
- Wipe the inner cover with a damp cloth, allow to dry and replace
- If possible, clean the external grille / external bonnet (see 6. External closures)

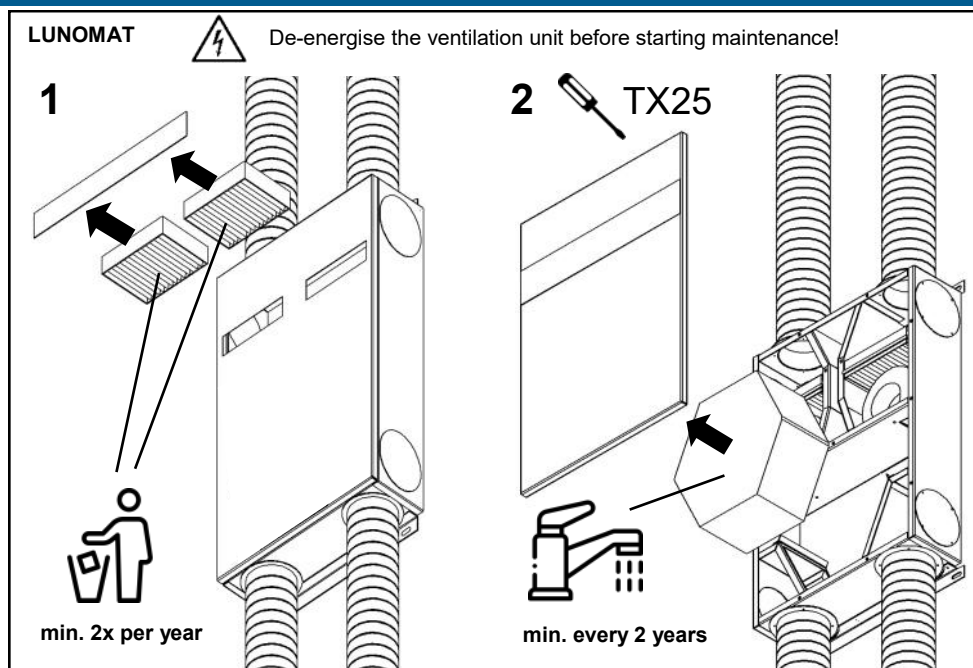




5.2. Maintenance of devices with heat exchangers (Ne^{xx}t, LUNOMAT)

- Remove the inner covers until the heat exchanger is visible
- Remove heat exchanger and visually check for dust, moisture, insects or mould (Nexxt: check electric flap lock for dirt)
- Clean the heat exchanger with compressed air or, if necessary, rinse with lukewarm water and allow to dry thoroughly (no mechanical cleaning permitted!)
- If necessary, clean the inside of the appliance (visual inspection)
- Insert heat exchanger
- Insert a new or cleaned filter
- Wipe the inner cover with a damp cloth, allow to dry and replace

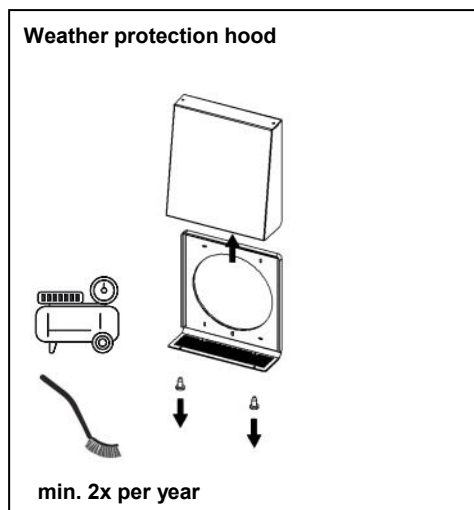
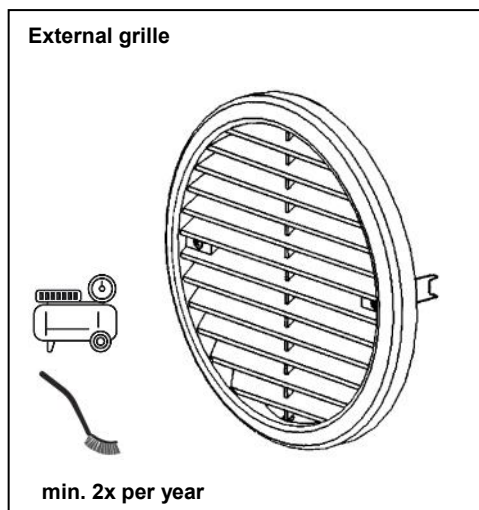




6. Cleaning the outer fasteners

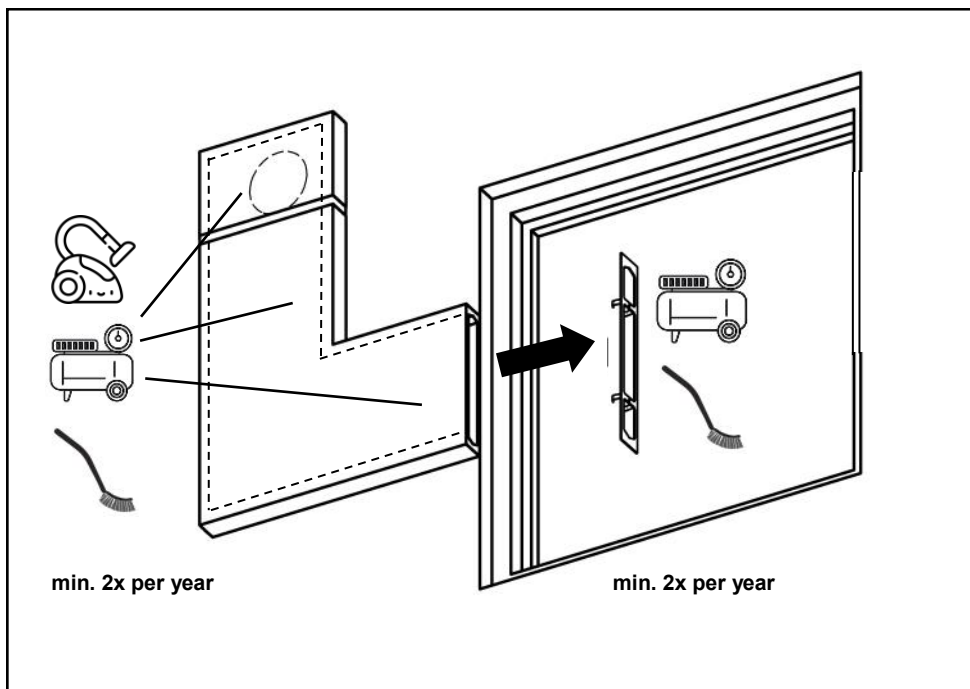
6.1. Cleaning the external grilles

- Visually check for dust, moisture, insects or mould and that the insect screen is undamaged
- Sweep off the external grille or clean with compressed air
- Check the condensation drain and clean if necessary



6.2. Cleaning the façade elements (LUNOtherm)

- Visually check for dust, moisture, insects or mould and that the insect screen is undamaged
- Remove the insect screen, sweep it off or clean it with compressed air
- Clean the inside of the façade element with a brush (soft bristles), Hoover or compressed air
- Do not damage surfaces under any circumstances
- Do not use solvents or other chemicals for cleaning
- In the event of disinfection (e.g. by a specialist company), consult LUNOS regarding the authorisation of disinfectants.
- Use insect screens



7. Check list

Date					
Function fulfilled?					
Filter cleaned or changed?					
Filter change indicator reset?					
Inner screen cleaned?					
e ² , e ^{go} : Fan insert cleaned with storage stone?					
Ne ^{xt} , LUNOMAT: Heat exchanger cleaned?					
Outer grilles cleaned?					
LUNOtherm: Façade element cleaned?					