ND CleanMove 3

Installation guide, operating instructions and safety information

Table of contents

1. Revision overview

Revision	Date	Comments/changes
Rev. 1	16-02-2026	Document created

2. EU declaration of conformity

In accordance with the Low Voltage Directive 2014/35/EU

Document number: See bottom of page

Manufacturer: NATDIS Aps
Langkær 72
6100 Haderslev

hereby declares that the UVC equipment/part of system for own installation:

Description: UVC system for surface and air disinfection – own fitting

Product type/ name ND CleanMove 3

Product description: Mobile UVC unit for surface and air disinfection – own fitting

Product type: SUT XXXXXXXXE

Year of manufacture: 20XX

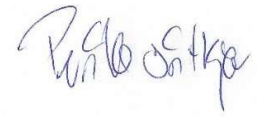
Is in conformity with the following directives and corresponding standards:

Directives	Standards
2014/30/EU EMC directive	• EN IEC 61000-6-2:2019 Electromagnetic compatibility – Generic standards • EN IEC 61000-3-2:2019 Electromagnetic compatibility – Limits for harmonic current emissions • EN 6100-3-3:2013 +A1:2019+A2:2021 Electromagnetic compatibility • EN IEC 6100-6-4:2019 Electromagnetic compatibility – Emission standard for industrial environments
2014/35/EU Low voltage directive	• EN 61347-1-2015 + A1:2021 Lamp control gear – General and safety requirements • EN 61347-2-3-2011 + AC:2011 + A1:2017 Lamp control gear – Part 2-3 • EN50525-3-11 • EN50525-2-51 • EN 60204-1 Electrical equipment • IEC60497 • IEC 60529
2006/25/EC *"artificial optical radiation"*	• EN 14255-1 • ISO 15858:2016 • EN 15858
2015/863/EU	
2011/65/EU Hazardous substances in electrical equipment	• 2015/863/EU RoHS3
EC 1907/2006 – REACH regulation	
2008/98/EF *EU Waste Framework Directive*	
2002/96/EF *WEEE-directive*	

The relevant technical documentation is available in accordance with the annex.

This declaration is issued solely under the responsibility of the manufacturer or its authorised representative. It attests compliance with the stated directives but does not constitute a guarantee of properties.

Haderslev 02/2026



NATDIS Aps, Langkær 72, 6100 Haderslev

Pernille Snitkjær, Adm. Direktør

3. Introduction

This manual provides essential information about the system's functionality, operation, service and maintenance, including all required safety instructions.

It must remain accessible at all times for all authorised personnel.

4. Safety instructions

The unit may only be used in accordance with the operating instructions and safety precautions provided.

- The unit must only be operated in restricted-access areas and by trained personnel.
- No persons or animals may be present in the room while the UVC cycle is active.
- If any modifications are made to the unit, the user manual must be updated. In addition, a new assessment of risks and hazards must be carried out, relating to the intended use of the unit and any misuse that can reasonably be foreseen.
- If mechanical, electrical, or structural modifications/additions are made, the warranty becomes void.
- If changes to an existing device are significant, it must be ensured that all legal requirements and regulations continue to be fulfilled.

5. Hazard labels and safety signs

The following warning labels may be used on or around the equipment.

They are shown below and have the following meanings:

	**Warning!** **Danger of non-coherent radiation** In this case UVC light. **Attention:** Protect eyes and skin from UVC radiation.
	**Danger – Electrical Hazard** **Attention:** Access for authorised personnel only.
	**Equipment supplied by NATDIS may only be cleaned when the system is switched off and secured**. All work on the UVC system requires that the unit is safely secured before work begins. Cleaning must only be carried out when the system is stopped and has cooled down. **Gloves required.**
	**Warning – Hot surface** Risk of contact with hot machinery or equipment. The system must always be stopped and allowed to cool down before cleaning or making any modifications.
	**Attention:** Protect hands from heat, sharp edges, and glass splinters by wearing gloves. Must comply with EN 388:2019-4121X.

6. Safety in and around the UV equipment

6.1 UVC- physical properties

UVC is short-wavelength radiation that rapidly loses energy with increasing distance from the source.

The type of UVC source used here loses energy relative to distance (meters). UVC is effectively blocked by transparent materials such as ordinary glass, plexiglass, and plastic. Opaque materials completely block UVC-radiation.

Risk conditions assessed under correct use of the system:

ND CleanMove 3 has been assessed as safe during normal and correct operation.

Risk conditions assessed under incorrect use of the system:

- Presence of people in the room during UVC illumination
- Access to the room while the UVC light is active

Permitted dose:

The table below, taken from “A Non-binding Guide to the Artificial Optical Radiation Directive 2006/25/EC”, specifies the recommended maximum daily dose for non-coherent radiation.

Duration of exposure per 8-hour day	Effective irradiance -W/m²
8 hours	0,001
4 hours	0,002
2 hours	0,004
1 hours	0,008
30 min	0,017
15 min	0,033
10 min.	0,05
5 min	0,1
1 min	0,5
30 sec	1,0
10 sec	3,0
1 sec	30,0
0,5 sec	60,0
0,1 sec	300,0

The maximum permitted exposure time in the room is calculated based on the irradiance delivered by the equipment in W/m² or J/m², in relation to the table above.

Example:

- A system is designed to deliver a dose of 2 W/m² at a distance of 1 meter.
- This corresponds to an allowed exposure time of 15 seconds at 1 meter, based on a maximum permitted dose of 30 J/m².

According to the Danish Working Environment Authority Executive Order of 26 May 2010, Annex 2, the permitted daily dose for repeated exposure is 30 J/m². Consequently, the risk associated with repeated exposure (as opposed to a single event) will arise after 15 seconds of presence in the room, in accordance with Annex 2.

6.2 General information about UVC-related risks

When wearing fully covering work clothing and safety goggles, the risk of permanent injury from short-term UVC exposure is limited primarily to effects on the skin and minimal risk of eye damage.

Warning labels indicating UVC use should be placed near the UVC system. The system must only be switched on when the room has been secured — meaning it has been inspected and confirmed to be empty.

Individuals near or around the UVC system should therefore not be at risk of unexpected exposure without being aware of it (hidden hazards). A visual line-of-sight assessment of the UV equipment must be made in each specific situation.

- In the event of lamp breakage, mercury may be released. The room must be empty and ventilated for 15 minutes before cleanup begins. See section 14.4.
- Use gloves and safety goggles. Collect all fragments and debris in a sealed container and dispose of them as hazardous waste (recycling facility).

6.3 Injuries caused by UVC

Possible injuries resulting from exceeding the permitted exposure times in UVC light in accordance with applicable guidance; see section 6.1 above.

6.3.1 One-time damage

In case of minor exceedance, factor 4–6

Possible effects:

- Eyes: mild irritation lasting 24–48 hours (similar to “welder’s flash”).
- Skin: Slight redness.

In case of moderate exceedance, factor 6–10

Possible effects:

- Eyes: severe irritation lasting 24–48 hours (severe “welder’s flash,” with temporary vision loss).
- Skin: pronounced redness comparable to mild to moderate sunburn.

In case of significant exceedance, factor >10

Possible effects:

- Eyes: permanent damage, reduced vision.
- Skin: severe burns (second-degree).

6.3.2 Repeated exceedance of the daily dose:

Possible effects:

- Eyes: permanent damage, reduced vision.
- Skin: severe burns; second-degree burns.

In this assessment, it has been considered that the area in question is a production environment where full protective clothing is used during work operations.

6.4 Environment

6.4.1 Personnel

The UVC lamps are installed in a professional work environment where instructions are part of daily work, and where non-authorised personnel do not have access to activate the UVC light.

The control box used to start the UVC system is equipped with a switch that can be secured with a padlock, thereby preventing unintended or unauthorised use.

6.5 Safety

The following safety systems may be installed in connection with the UVC system:

6.5.1 Active safety

- Timer.
- Visual or acoustic alarms (if supplied).

6.5.2 Passive safety

- Signs warning of the use of “Ultraviolet Light” (in this case UVC light).
  - Placed around the equipment.
- Thorough instruction of personnel operating the system, including the use of protective measures such as fully covering clothing for both skin and eyes.

7. Emergency situations

In case of an emergency such as an accident, malfunction, or other incident, the system must always be disconnected from the power supply.

7.1 Fire

UVC systems consist of electrical equipment, and therefore fire-extinguishing agents that conduct electricity must not be used.
In case of a fire in or around the system, it is recommended to use a carbon dioxide (CO_2) extinguisher or alternatively a powder extinguisher (ABC type).

8. Transport and storage

8.1 Transport

The unit is transported in separate components. The components are packed in protective materials during transport. The unit must be assembled upon arrival. Transport materials/packaging must be disposed of in accordance with applicable regulations.

The unit must be handled with care, both as individual components and as a complete system.

8.2 Storage

The equipment should not be left outdoors or stored in damp or cold environments, whether as separate components or as a complete unit.

If the equipment comes into contact with moisture — especially moisture or liquids containing salt or acids — this should be removed from the unit as quickly as possible to prevent corrosion.

9. Information about the equipment

9.1 Purpose

The UV equipment is intended to treat all light-accessible surfaces and air within the selected area during the chosen operating period.

Warning: The lamps become hot during operation and must not be touched by:

- People.
- Objects being disinfected.

9.2 Definition of UVC-dose

The UVC system is designed to deliver a UVC treatment of (as agreed) J/m² on all light-accessible surfaces/air after a complete cycle of the specified duration.

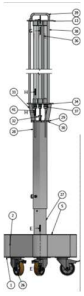
The effectiveness of UVC is calculated based on the surfaces that the light can reach directly. Surfaces not directly exposed to UVC light, such as shadowed areas, cannot be considered treated.

High treatment efficiency depends on surfaces not being contaminated with particles and not being shadowed by other objects.

9.3. Function of the UVC system

The UVC system consists of the complete stand, the control box, and the associated cable reel.

(THE STAND MUST NOT BE USED WITH ANY CABLE CONNECTION OTHER THAN THE ONE SUPPLIED).

- The UV system is controlled by the on/off switch on the control box.
- When the safety switch is activated from 0 to 1:
  - A visual/acoustic alarm activates for 60 seconds before the UVC turns on.
  - After 60 seconds, the UVC lamps turn on and the alarm on the stand activates (visual and acoustic).
- When the emergency stop on the unit is activated, the UVC and alarm are immediately turned off.
  - If the emergency stop is reset before the timer expires, the UVC/alarm cycle resumes.
- The UVC lamps remain on for the selected duration.
  - The timer is in the control box.
  - The treatment time is set directly on the timer.

- The UVC-lamps turn off when:
  - The on/off switch is turned off.
  - The emergency stop is activated.
  - The set time expires.
- Restarting the lamps:
  - All safety conditions for activation must be fulfilled.
    - See safety instructions.
  - The timer restarts from the beginning.

If any malfunction is observed: switch off the main power (shut down the system) and consult the service manual.

9.4. Positioning the unit in the room

Distance from object to CleanMove 3	UVC dose in 10 minutes
2 meters	500 J/m^2
5 meters	80 J/m^2

10. Installation, setup and operation

Installation of the UV system must be carried out according to the specifications or as otherwise agreed.

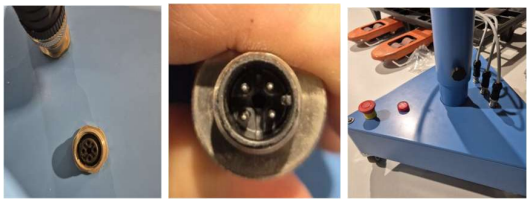
Note that the UVC lamps' emission of UVC light may have a degrading effect on surrounding materials, particularly plastics.

- Before assembly begins, all components must be unpacked from their transport protection.
- Ensure that no parts have been damaged and dispose of packaging/protective materials in accordance with current regulations for plastic, cardboard, and other packaging materials.

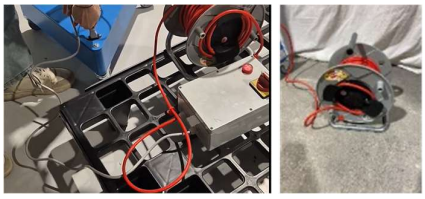
10.1 Assembly of the unit

1. Adjust the telescopic tube on the base to the desired height by loosening and tightening the screw. Secure the tube to the base by aligning the screw with one of the corresponding holes and tightening it.

2. Place the UV head on the base and fasten it using the screw on the top.
3. Connect the three UV cables to the connectors on the base.



4. Connect the control box cable to the base and pull the cable reel from the control box out to a power outlet (outside the room).



5. Ensure that no people are present in the room with the UVC unit.

If any people, living organisms, or explosive substances are present in the room, the system MUST NOT be switched on until these have been removed.

10.2 Connection and operation

Before connecting the system, ensure that everything is correctly assembled, that no components are loose, that all glass and lamps are intact, that the emergency stop is not activated, and that the rotary switch on the control box is set to 0.

• If the unit needs to be moved, all wheels must remain unlocked during transport.

The wheels must be locked during the UVC cycle.

1. Plug the cable reel into a power outlet (placed outside the room or close to the exit).
2. Turn the safety switch on the control box from 0 to 1 to start the system.
   The red indicator on the control box will activate a visual and acoustic alarm for 60 seconds.
3. Leave the room immediately!
4. After 60 seconds, the lamps will turn on. If supplied with a timer, the UVC cycle will end automatically after the preset duration.
5. During the cycle, the red indicator on the base will sound and flash (acoustic and visual alarm). After the cycle is completed, the lamps switch off automatically and the alarm stops.

No persons may be within reach of the UVC light during or after activation. Ensure that there is glass, walls, or doors between the UVC light and any person or animals.

10.3 Operator responsibilities

The unit has a single operating mode, described above.
Before operation, the UVC timer can be set to the desired cycle length (see section 17.2).

- The operator must be trained in the use of the unit and in all safety instructions.
- During operation, the operator's role is to ensure that the room/area is free of living beings and explosive substances.
- When the UVC system is active, the operator must ensure that no one enters the room.
- It is strictly prohibited to remain inside the room during the UVC cycle.

Process overview:

1. The operator verifies that the room is empty of people and explosive substances.
2. The alarm activates acoustically, and the lamps turn on.
   - If anyone is present in the room, they must leave immediately.
3. The alarm stops, and the lamps switch off.
4. The room may now be accessed again until the next cycle.

10.4 Switching off the UV unit

The UV system remains active for the programmed duration (if supplied with a timer) and switches off automatically when the cycle ends.

If you wish to turn off the UV unit before the cycle expires, disconnect the plug or switch off the power.

- Note! Personnel without appropriate protective equipment must not be present during the UVC cycle.

If any malfunction is observed:
Turn off the main power (shut down the system) and consult the service manual.

10.5 Areas of application

The unit can be used for disinfection of air and surfaces.

- Suitable for use in:
  - Offices
  - Meeting rooms and common areas
  - Canteens
  - Production areas
  - Transfer rooms / sluices

The unit must NEVER be used for:

- Animals / humans
- Explosive liquids / gases / powders

10.6 Environment and Surroundings for the Equipment

Surface
The equipment must be placed on a flat surface with no inclination (as specified).

Stability / Mounting
The equipment may only be used in locations where the floor surface is even.

Temperature and Humidity
The UVC lamp typically has an optimal operating temperature between 10–40°C and a maximum humidity of 60%. If the temperature or humidity lies outside this range, the operating time must be adjusted to ensure sufficient disinfection.
(Note: This may affect lamp lifetime.)

Environment

If the equipment encounters salty or acidic moisture/liquid, this should be removed from the unit as quickly as possible to prevent corrosion.

10.7 Requirements prior to use

Before the unit is put into use, it must be ensured that the equipment is correctly assembled. Furthermore, the operator must be properly trained in using the unit:

- The equipment must not be used until it is fully assembled and installed according to the specifications.
- The equipment may only be operated by personnel who have been properly instructed in its use.
- If the unit is switched on, no one may be present in the room.
- Repairs, service and maintenance may only be performed by qualified personnel with appropriate training.
- If structural modifications are made to the equipment, all certifications and declarations become void.

10.8 Requirements for instruction of personnel:

The unit may only be used by trained and instructed personnel.
It is the owner's responsibility to ensure that only instructed personnel operate the unit.
The instruction must include at least the following:

Purpose of the unit:	• Disinfection of surfaces • Only items approved for UVC disinfection may be treated
Function of the unit:	• How UVC works • Risks associated with UVC • Preparation of items to be treated
Basic operation of the unit:	• Startup • Operation • Shutdown • Basic cleaning • General inspection before use
Safety features of the unit:	• No one may remain in the room while the UVC is active • Personnel must leave the room immediately if they see the UVC turning on or hear the alarm
Service and maintenance plans:	• Required service intervals • Cleaning and maintenance procedures

11. Guidance for risk assessment when using UVC

It is the responsibility of the system owner to carry out the necessary risk assessment and ensure that the equipment is used and maintained in accordance with applicable legislation and safety regulations.

The risk assessment should cover the entire UVC installation, from the UVC control box to the UVC lamps, including all potential hazard situations that may arise.

11.1. Description of UVC and critical exposure time

UVC is short-wavelength radiation that loses energy rapidly with increasing distance from the source. The type of UVC source used here loses energy relative to distance (meters). UVC is effectively blocked by transparent materials such as ordinary glass, plexiglass, and plastic. Opaque materials fully block UVC radiation.

Risk conditions that should be assessed:

- Presence of people in the room during UVC illumination
- Access to the room while the UVC light is active

Critical exposure time in accordance with current guidance (A Non-binding Guide to the Artificial Optical Radiation Directive 2006/25/EC, which specifies recommended maximum daily doses for non-coherent radiation) depends on how the UVC equipment is installed.

11.2. Safety in and around the UV equipment

UVC systems should be constructed and verified in accordance with:

EN 14255-1: Measurement and assessment of personal exposures to incoherent optical radiation – Part 1: Ultraviolet radiation emitted by artificial sources in the workplace.

Dose:

The UV dose must be determined by measurements at and around the actual installation.

11.3. General considerations regarding UVC risks

When wearing fully covering protective clothing for both skin and eyes, there is no exposure effect from UVC light.

Warning signs indicating UVC use must be placed in connection with the installation of the UVC system.

Any direct or reflected exposure risk must be assessed individually for each installation.

12. Cleaning and inspection

For all types of cleaning, it is essential that the unit is switched off and cooled down. The unit must never be turned on during cleaning.

12.1 Purpose

Systematic cleaning is an essential part of maintaining the equipment and contributes to its optimal performance.

Regular cleaning also ensures continuous inspection of the equipment's condition.

The following section contains procedures describing how routine cleaning should be carried out for equipment supplied by NATDIS.

12.2 Precautions

Picture:	Description:
	**WARNING!** **Danger – Ultraviolet light** In this case UVC light **Attention:** Protect eyes and skin from UVC light
	**Equipment supplied by NATDIS may only be cleaned when the system is switched off and in a secured state.** All work on the UVC system requires that the unit is safely secured before work begins. Cleaning must only be carried out when the system is stopped and has cooled down. **Gloves are mandatory**.

	**Attention – Hot surfaces** After a completed cycle, the lamps are hot! The system must always be stopped and allowed to cool down before cleaning or making any modifications.
	**Attention:** Protect hands from heat, sharp edges and glass splinters by wearing gloves. Gloves must comply with **EN 388:2019-4121X.**
CLEANING AGENTS	Always comply with local legal requirements when selecting cleaning agents. Follow all warnings and safety instructions on the individual containers and in the safety data sheets. Abrasive cleaning agents must not be used.

12.3. Dry cleaning

Dry cleaning includes thorough vacuuming of the components. A vacuum cleaner equipped with a suitable filter for product and material residues must be used.

Never dry-wipe dust or use compressed air, as this spreads particles instead of removing them.

12.3.1 Cleaning frequency

	Daily	Monthly	Yearly
In general	Visual inspection of glass and lamps. If possible, check through a viewing window that the unit operates normally.	Inspect for damage. If damage is present: replace the glass.	Verification of UVC output, depending on operating hours and general usage.
Quartz glass	Inspect for dirt and dust. If deposits are found: vacuum and wipe.	Inspect for damage. If damage is present: replace the glass.	Inspect for damage. If damage is present: replace the glass.
Teflon	Inspect for dirt and dust. If deposits are found: vacuum and wipe.		Inspect for damage. If damage is present: replace the glass.
UVC lamps	Inspect for dirt and dust. If deposits are found: vacuum and wipe.	Inspect for damage. If damage is present: replace the lamps.	

Flanges	Inspect for dirt and dust. If deposits are found: vacuum and wipe.	Inspect for damage from UVC light. If damaged: replace flanges.	
Labels/signs		Check that all labels are intact and clearly legible.	

The cleaning frequency depends on production conditions. Therefore, actual cleaning intervals may vary.

It is recommended to minimise the overall particle load around the UVC system, as this can lead to deposits on the lamps and quartz glass, reducing UVC performance and shortening lamp lifetime.

Vacuuming may be supplemented by wiping using a soft cloth and a suitable cleaning agent.

Local legal requirements must always be followed.

Abrasive cleaning agents must not be used.

12.3.2 Cleaning agents

Always comply with applicable legal requirements when selecting cleaning agents.

Follow all warnings and safety instructions on the containers and on the safety data sheets.

Suitable cleaning agents:

Material	Suitable cleaning agent	Important instructions
Teflon (glass coating)	Isopropanol or other non-abrasive cleaner for metal or glass. Avoid products that leave a residue or film.	Use a soft cloth.
Stainless steel / coated aluminium	Isopropanol or other non-abrasive cleaner for metal or glass. Avoid residue-forming products.	Use a soft cloth.
Glass	Isopropanol. Avoid products that leave a residue or film.	Use a soft cloth.

12.4. Cleaning procedure

The cleaning instructions ensure effective daily operation

a) Gloves must be worn.
b) Cleaning must be performed at least once per month, or more frequently if required for proper lamp and system function.
c) The UVC unit must be cooled down and ready for cleaning.
   - Step 1: Vacuum the glass, flanges and connectors.
   - Step 2: Wipe the UVC lamp with a dry, anti-static cloth.

12.5. Inspection/control

During cleaning — and on a daily basis — the UVC equipment must be inspected for breakage and faults.

Check the following:

- Lamps are intact with no cracks or breaks.
- Glass components are intact with no cracks or breaks.
- Cables are correctly placed and securely connected.
- There must be no damage, scratches or similar defects in steel, aluminium or plastic components.

If any of the above faults are detected, the unit must not be switched on.

The defect must be corrected before the unit may be operated again.

13. Troubleshooting

In case of insufficient disinfection, please check the following:

Error message/signal	Possible cause	Problem resolution
Lamp does not turn on	End of service life	Replace the lamp. Note that lamp efficiency is guaranteed for 10,000 hours (in continuous operation), and the lamp will continue to emit light beyond this period (see section 14.5). Efficiency decreases significantly afterwards, and the lamp should be replaced.

Lamp does not turn on	Incorrect installation	Check that the emergency stop is not activated, that the plug is correctly connected at the base and in the wall outlet, that the main switch is on, and that the outlet has power. Check that the lamp's 4-pin connector is correctly inserted into the ceramic socket.
Lamp does not turn on	Lamp failure	Inspect the lamp through a viewing window to determine whether all lamps are lit. If one or more lamps are not lit, replace the lamp and restart the unit. Contact the supplier for assistance if needed.
Dirty lamp	Contaminated quartz tube	Clean the lamp (avoid abrasive agents or tools; finish with an alcohol-based cleaner to remove any grease).

13.1 Error log – For use

Error message	Fault	Possible cause – procedure for fault detection	Solution	Performed by (skilled, unskilled, certified)

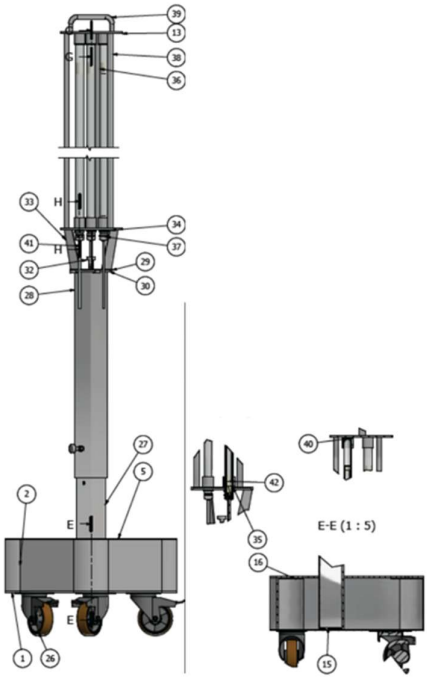
14. Service and maintenance

For all service and maintenance, the service technician responsible must be contacted.
During any type of service, the unit must be switched off and allowed to cool down.
The unit must never be switched on during service or maintenance.

When replacing lamps, broken glass, or similar, gloves must be worn:

- Gloves must comply with EN 388:2019-4121X.
- All service and maintenance must be carried out in accordance with safety regulations and without risk.
- The system must be switched off and cooled down before service begins.
- Access to replace lamps or quartz glass is obtained by loosening the lamps from their brackets/clips.

14.1 Service overview



14.2 Replacement of the lamp:

1. Switch off the unit and allow the unit to cool for at least 30 minutes.
2. Wear clean protective gloves.
3. Remove the top section of the unit and rotate it 180 degrees so the cable glands face you. The handle will point toward the floor.

4. Hold the quartz glass firmly while wearing clean gloves.
5. Loosen the cable gland. Note: The quartz glass is now loose. Take care to prevent it from falling.
6. Carefully pull back on the cable until the lamp is free.

7. Gently detach the connector from the lamp. Hold the lamp while doing this.

8. Carefully pull the lamp out of the quartz glass.
9. Insert the new lamp into the quartz glass.
10. Attach the connector to the new lamp and re-tighten the cable gland.
11. Reinstall the top section of the unit.

14.3 Replacement of quartz glass:

1. Switch off the unit and allow it to cool for at least 30 minutes.
2. Wear clean protective gloves.
3. Remove the lamp as described in section 14.2.
4. Once removed, place the lamp safely aside until it is reinstalled.
5. Hold the quartz glass firmly while wearing clean gloves.
6. Carefully remove the quartz glass (this is possible once the cable gland has been loosened).
7. When the quartz glass has been removed and properly disposed of, a new quartz glass can be installed.
8. Install the new quartz glass in the same way it was removed.
9. Ensure that it sits correctly in the bottom holder.
10. Insert the lamp into the quartz glass.
11. Attach the connector to the lamp and re-tighten the cable gland.
12. Reinstall the top section of the unit.

14.4 Replacement of broken mercury lamp:

People and animals must never be present in the room during an active UVC cycle.

Always switch off the unit and allow the lamps to cool if the system has malfunctioned shortly after a completed cycle or during operation.

According to the customer's environmental policy, but at minimum:

1. If a lamp breaks during placement, operation, cleaning, service, or similar, the room must be ventilated.
2. Evacuate people and animals from the room.
3. Wait at least 15 minutes after ventilation begins before starting the cleanup.
4. Wear personal protective equipment such as gloves and safety goggles.

5. Collect broken pieces and debris using two pieces of cardboard. Wear gloves. Place the material in a sealed container and dispose of it as hazardous waste.
6. If the lamp remains inside the quartz glass on the unit, remove the quartz glass as described in section 14.3.
7. Move the quartz glass with the lamp to a safe area.
8. Place the lamp in a sealed container and dispose of it as hazardous waste.
9. Dispose of the quartz glass according to regulations if it is also broken (if not, it may be cleaned and reused).
10. Collect remaining pieces and debris with two pieces of cardboard. Tape may be used to pick up small fragments.
11. Clean the area with a vacuum cleaner and a cloth or towel to remove remaining particles.
12. Collect all waste in a sealed container and dispose of it as hazardous waste (recycling facility).
13. Insert a new lamp into the quartz glass (use a new quartz glass if the original quartz glass is broken).
14. Attach the connector to the new lamp and re-tighten the cable gland.
15. Reinstall the top section of the unit.

14.5 Lamp replacement schedule

Why replace the UV lamp?

- UV lamps contain gases that wear out with use. If not replaced according to recommendations, the UVC output will be lower than expected.
- UVC radiation lies outside the visible spectrum and cannot be evaluated visually. Only specialised measuring instruments can verify UVC output.
- Our UVC lamps have a well-defined lifespan curve and should be replaced according to the recommendations below:

Replacement intervals	
• Systems running 24/7 in normal temperature range	• Replace after 14 months of operation
• Systems running 24/7 at temperatures >40°C or <10°C	• Replace after 12 months of operation
• Systems with frequent on/off cycles	• Max. 3000 on/off cycles
• Systems with other types of use	• Max. 2 years from time of delivery

In the present installation, we recommend replacing the UV lamps every 2 years.

Note about blue light:

The blue light emitted from a UVC lamp is a byproduct and has no relation to the UVC effect.

The only way to verify UVC output is by using specialised measurement equipment.

Contact us if you want a control measurement.

15. Disposal of components

Before disposal/disassembly begins, the unit must be disconnected from the power supply.

It is recommended that the operator wears gloves and safety goggles.

15.1 Equipment overview

ND CleanMove 3 consists of the following components:

- UVC lamps
- Quartz glass
- Cable
- Safety switch
- Warning lamps
- Other electronics
- Power supply
- Aluminium
- Stainless steel
- Plastic

15.2 Consumable parts must be disposed of according to applicable legislation

- UVC lamps contain mercury and must be disposed of in accordance with the applicable regulations for mercury-containing lamps.

15.2.1 Disposal at Decommissioning

- Before dismantling the equipment, a decommissioning plan must be prepared.
- The plan must include a risk assessment for the work as well as for the disposal of the equipment.
- The plan and risk assessment must comply with the regulations in force at the time of decommissioning.

15.2.2 Scrapping

- The system must be dismantled and sorted into categories as required by current environmental regulations.
- The system is subject to Directive 2008/98/EC and Directive 2002/96/EC on waste.
- When the system has reached end-of-life, all components must be sorted and delivered to a certified recycling facility.
- The system must not be disposed of with unsorted household waste. Use local collection points for electrical and electronic components and ensure that all relevant regulations are followed.

The system consists of the following components and must be sorted accordingly:

- Aluminum
- Plastic (hard and soft)
- Rubber
- Electrical components
- Electronics
- Copper
- Other metals

If parts of the system are sold for purposes other than disposal, it is the owner's responsibility to ensure that the recipient is informed of the disposal regulations.

16. Responsibility and warranty

For warranty claims, we are responsible only in accordance with national law. As standard, the following warranty applies to lamps:
8,000 operating hours under continuous use, or **3,000 on/off cycles**, or **max. 2 years from the delivery date**.

Avoid frequent short on/off cycles of the UV equipment. This significantly reduces lamp lifetime and is not covered by the warranty.
Breakage and glass damage are not covered by the warranty.
Our general terms and conditions of sale and delivery apply at all times.

Damage resulting from improper operation or failure to follow the instructions is not covered by the warranty.

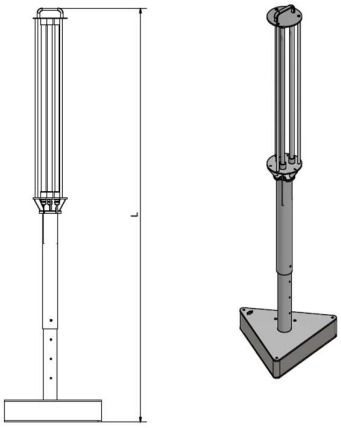
Warranty is void in case of:

- Operation with non-original spare parts
- Insufficient or incorrect installation
- Installation of unsuitable accessories
- Incorrect operation
- Removal, manipulation, or disabling of safety equipment
- Improper service or maintenance
- Wear and lack of maintenance
- Vibrations caused by the installation site
- Impacts on the environment or installation that we were not able to foresee at the time of dimensioning

17. Annexes

17.1 Spare parts

Product number	Product name	Amount
I431009084615S	UVC lamp 846_90 HOX	3
N1340920022500	Film-coated quartz glass	3
E415000901800I	50-90 ballast	1
E415000902800I	2*50-90 ballast	1
G1KABELRULCLM3	Cable reel for CleanMove 3	1
VCF01	Safety switch	1
XB5AS8445	Harmony emergency stop button	1
G1230000DKSTIK	Power cable	1
RE17RMMW	Timer	2
CB1-613R	Alarm	2



17.2 Adjustment of timer

Adjustment of the UVC system timer:

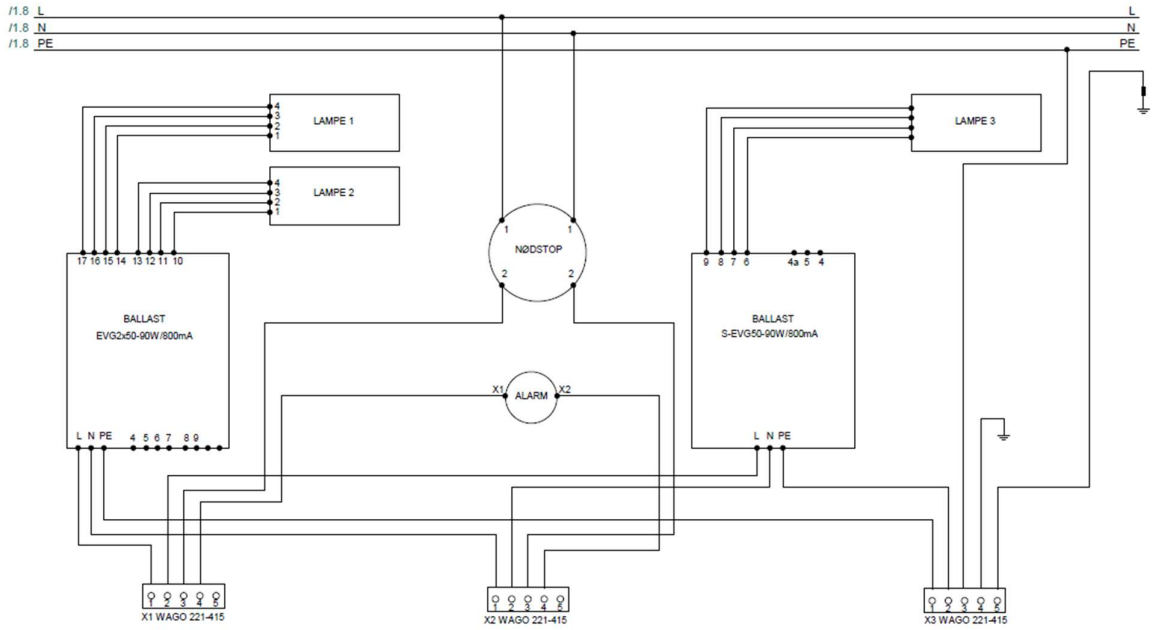
		
Adjustment of cycle time	Adjust the first digit of the time-interval setting. The setting is now 1–10 minutes.	Then select whether the interval should be 1 minute or 10 minutes. 1’ corresponds to 1 minute, and ‘10’ corresponds to 10 minutes.

17.3 Mandatory declarations

Ce-marking

17.4 Electrical diagram

17.4.1 – Base of stand:



17.4.2 – Control box: