USER MANUAL

NIDO ONE V2

nidopro.com

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IMPORTANT

These key points are not intended to replace the reading of the manual, but to highlight certain aspects that are essential for the correct operation of the NIDO ONE V2 in order to avoid voiding the warranty.

1. The nutrient solution tank must always be placed higher than the position of the NIDO ONE V2. For further details, see the installation section(p.10)

2. Place NIDO ONE V2 away from splashing water, do not get it wet, do not pour fertilisers, acids and alkalis directly on the unit.

3. Never leave the pH probe dry, when you don't use NIDO ONE V2, place the pH probe in the storage cap and carry out regular maintenance and cleaning (p.18).

4. **USE ONLY PHOSPHORIC ACID (H3PO4)** WITH A CONCENTRATION OF LESS THAN 20%. **USE ONLY PHOSPHORIC ACID (H3PO4)** AS pH RESTORER, THE USE OF ANY OTHER TYPE OF ACID WILL DAMAGE THE NIDO V2 AND VOID THE WARRANTY.

5. DO NOT USE ORGANIC FERTILISERS, ONLY use liquid mineral fertilisers, DO NOT use fertilisers that are too dense.

6. Periodic (once a month) maintenance of the pH probe is recommended. Remove the pH probe and check the cleanliness of the glass bulb, use pH probe cleaning fluid and a toothbrush to keep the glass bulb of the probe clean, it is recommended to rehydrate the probe for at least 24/48 hours every 2 months and at the end of each cycle by soaking it in KCl storage fluid.

7. Regularly (at least once at the end of each growing cycle) clean the NIDO ONE V2 with a damp cloth to avoid dirt and fertiliser residues and run the device cleaning cycle via the NidoPro app (p.16).

8. The maximum distance between the Wi-Fi devices (Access Point and NIDO Connector) should not exceed 5 metres in an open environment, avoid walls or partitions between NIDO ONE V2 and the Wi-Fi devices (Access Point and NIDO Connector). If the connection is lost, move the Wi-Fi devices closer to the NIDO ONE V2.

9. **USE ONLY POTASSIUM HYDROXIDE (KOH)** WITH A CONCENTRATION OF LESS THAN 5%. **USE ONLY POTASSIUM HYDROXIDE (KOH)** AS A pH+ CORRECTOR. THE USE OF ANY OTHER ALKALINE SUBSTANCE WILL IRREPARABLY DAMAGE THE NIDO ONE V2 AND VOID THE WARRANTY.

10. To avoid damage, NIDO ONE V2 cannot be operated without water circulation. Do not switch on the NIDO ONE V2 if it is not connected to the water tank or if there is no water inside, the internal turbine pump cannot start without water.

WE RECOMMEND THAT YOU READ THE ENTIRE MANUAL CAREFULLY.

WHAT'S INSIDE

1. NIDO ONE V2
2. Cartridges
3. Entrance passport
4. Exit wall outlet
5. Water level sensor tip
6. Bulkhead fitting tip
7. Pipe retainer clip
8. Water tube (2m 9x13mm)
9. Valves

10. pH sensor
11. EC sensor
12. T/H cable
13. Power supply
14. SMART PLUG
15. Access Point
16. Access Point connection cable
17. Access Point power supply
18. Ties
19. Toothbrush
20. Water level probe
21. Buffer pH 7.00
22. Buffer pH 4.01

NIDO ONE V2 DESCRIPTION

NIDO ONE V2 is suitable for watering and climate control in closed-loop, open-loop and drip irrigation systems.

It is compatible with plant life and organic elements.

NIDO ONE V2 must not be used for purposes other than those intended and mentioned above. Any use of NIDO ONE V2 other than that for which it is designed may result in hazardous conditions.

DESCRIPTION OF THE SYMBOLS

The following symbols are used in this manual to highlight particularly important information.

CAUTION
(Symbol "!" red triangle)
This symbol indicates safety precautions for the operator and any exposed persons.

WARNING
(Symbol "!" yellow circle)
This symbol indicates the possibility of danger to the product.

NOTE
(Symbol "info" blue circle)
This symbol indicates useful information for the user.

DANGER
(Symbol "corrosion" red triangle)
This symbol indicates the presence of corrosive substances.

NIDO ONE V2 is not intended for use by children under fourteen years of age.

Don't expose NIDO ONE V2 to direct sunlight.

Before using NIDO ONE V2, please read this manual carefully and follow all the recommendations.

It is important to keep this manual for future reference. Do not leave NIDO ONE V2 unattended in the presence of children to prevent them from coming into contact with fertilisers or acids.

Unplug NIDO ONE V2 when not in use. Keep NIDO ONE V2 away from water jets.Clean NIDO ONE V2 with a damp cloth only.

Damaged components may affect the accuracy of NIDO ONE V2. In case of malfunction, do not use NIDO ONE V2, contact customer service WhatsApp (messages only): +39 327 684 4189.

Repairs to NIDO ONE V2 should only be carried out by authorised service centres.

Improper tampering, repair or maintenance of NIDO ONE V2 may cause serious risk and injury to the user.

Children should not play with NIDO ONE V2.
NIDO ONE V2 is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are provided with supervision or instruction in the use of the device by a person responsible for their safety.

Cleaning and maintenance must not be carried out by unsupervised children.

NIDO S.r.l. reserves the right to make changes to the product for constructive or commercial reasons, at any time, without any obligation to update this manual. These changes will be made in order to improve the product and its features.

RECOMMENDATIONS
Keep these instructions in mind.
The use of plastic gloves and safety goggles is recommended when using phosphoric acid (H3PO4), potassium hydroxide (KOH) and fertiliser.
Do not scratch, cut or pull the power and probe cables of NIDO ONE V2.
If you notice any abnormality (burning smell, etc.), unplug the power supply and contact Customer Service assistenza@nidopro.com - WhatsApp (solo mensajes) +393276844189.
If NIDO ONE V2 continues to operate in an abnormal state, there is a danger of fire and breakage.
If the power cord or power supply is damaged, it must be replaced by the manufacturer or a qualified technician.
Do not expose NIDO ONE V2 to weather or direct sources of heat. NIDO ONE V2 may freeze and go into protection if exposed to temperatures above 40 degrees.

ALWAYS UNPLUG FROM POWER
Before performing maintenance or modifications, unplug NIDO ONE V2 from the power outlet to avoid electric shocks.

KEEP AWAY FROM LIQUIDS
Do not wet components, sensors, and cables to prevent short circuits.

HANDLE CABLES WITH CARE
Do not bend or pull cables to avoid damage.

PLACE NIDO ONE V2 IN A SAFE LOCATION
Keep NIDO ONE V2 away from heat, humidity, and direct light.

SAFE CLEANING
Before cleaning, unplug NIDO ONE V2 from the power outlet; use only a damp cloth, and avoid sprays and solvents.

Thank you for purchasing the NIDO ONE V2. We recommend that you read this manual carefully.

PRESENTATION

NIDO ONE V2 constantly measures the main parameters of your hydroponic cultivation (pH, EC, temperature, humidity, VPD, water temperature, water level) and manages the greenhouse equipment (air extractors, humidifiers, dehumidifiers, air heaters, irrigation and lights) via Wi-Fi controlled NIDO plugs.

Values are communicated via the NidoPro app (available for IOS and Android devices).
The NidoPro app allows you to configure your own growing formula to automate all fertiliser, pH, EC and climate management processes.

If you want to use automatic growing, NIDO ONE V2 comes with pre-configured recipes to make it easy to start growing.

NIDO MEASURE

- The pH of the water: this value indicates the ratio of acidity or alkalinity of the water; an optimal pH allows the plant to absorb the full range of necessary minerals.
- EC (mS/TDS): measurement of the concentration of inorganic salts in the water for fertiliser management.
- Temperature (°C/°F) and humidity: ambient temperature and humidity.
- Water temperature: the temperature of the water in the nutrient solution is crucial for a healthy root system.

The unit of measurement is selectable from the app settings.

NIDO CONTROL

- Precision Acid Doser (pH-/pH+) to counteract the increase or decrease of pH in the nutrient solution.
- Precision fertiliser dosing unit to correctly balance the supply of nutrients to the plant.
- Tank water level.
- Greenhouse device control (lights, humidifier, dehumidifier, irrigation, air heater, and air extractor) for managing greenhouse devices through NIDO plug and NIDO gate.

Modifications made by the user without the express written consent of NIDO S.r.l. will void the warranty and release NIDO S.r.l. from any liability for damage caused by a defective product. The same applies to the use of non-original spare parts and the use of inappropriate fertilisers, pH- and pH+.

Do not pour water, fertilisers, pH- (phosphoric acid H3PO4), pH+ (potassium hydroxide KOH) on NIDO ONE V2.

Use only phosphoric acid (H3PO4) with a concentration of less than 20%. Use only phosphoric acid (H3PO4) as a pH- corrector, the use of any other acid or substance will cause irreparable damage to the unit and void the warranty.

Use only potassium hydroxide (KOH) with a concentration of less than 5%. Use only potassium hydroxide (KOH) as a pH+ corrector. The use of any other alkaline substance will cause irreparable damage to the unit and will void the warranty.

Periodic maintenance of the pH probe and replacement every 18 months is essential (p.19).

Do not start the NIDO ONE V2 when it is disconnected from the water tank, the internal pump cannot be started without load.

PRECAUTIONS FOR USE
Use NIDO ONE V2 for hydroponic and aeroponic systems only. For installation in open systems or drip irrigation, follow the instructions on page p.13.
NIDO ONE V2 is not a toy. Avoid shocks and falls as it may be damaged.

Keep NIDO ONE V2 out of the reach of children during operation and calibration as hazardous chemicals may be used.

Always keep NIDO ONE V2, fertilisers, acid and alkaline substances, calibration and cleaning fluids out of the reach of children.
Do not disassemble the NIDO ONE V2 as this will void the warranty.
Do not spill any liquids on the NIDO ONE V2.

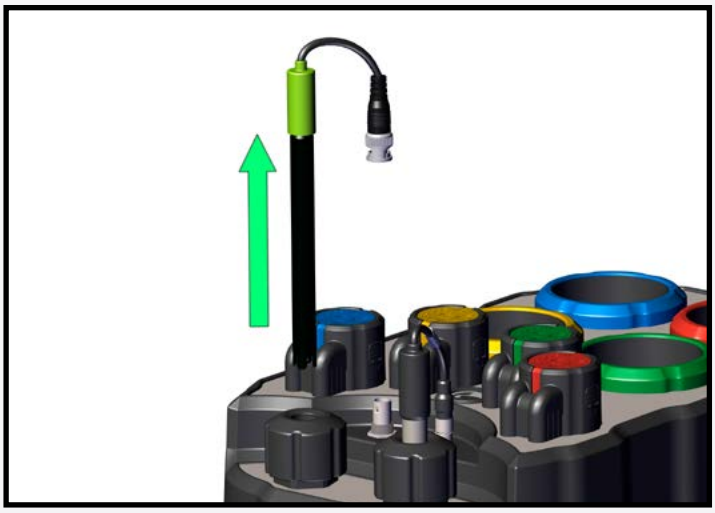
Never install NIDO ONE V2 in direct contact with rain and weather. Install NIDO ONE V2 away from heat (max 40°C) and sunlight.
Store NIDO ONE V2 away from frost.

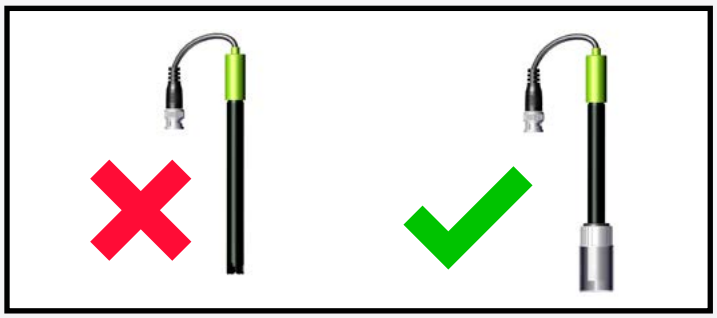
At the end of each use, remove the fertiliser and residual acid from the cans and carry out the cleaning and maintenance procedure for NIDO ONE V2 p.16.

Use only phosphoric acid (H3PO4) with a concentration of less than 20%.
Use only phosphoric acid (H3PO4) as a pH corrector.
The use of any other type of acid or substance will irreparably damage NIDO ONE V2 and void the warranty.

Use only potassium hydroxide (KOH) with a concentration of less than 5%.
Use only potassium hydroxide (KOH) as a pH+ corrector.

The use of any other alkaline substance will irreparably damage NIDO ONE V2 and will void the warranty.





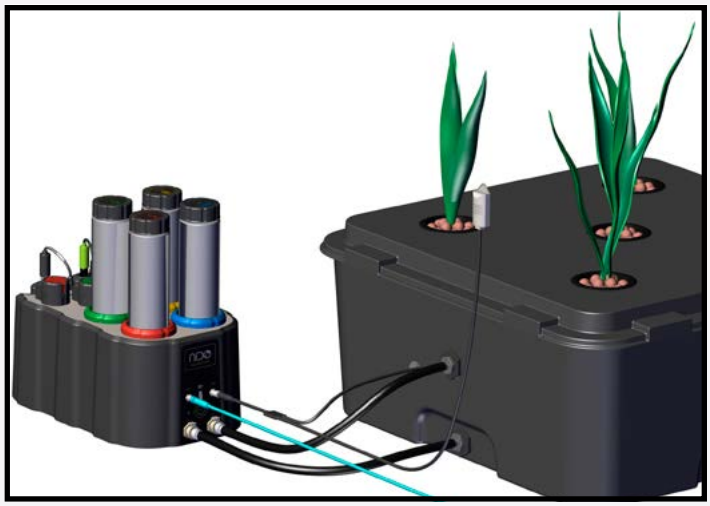
NEVER leave the pH probe out of the water without the storage cap as it may be irreparably damaged.

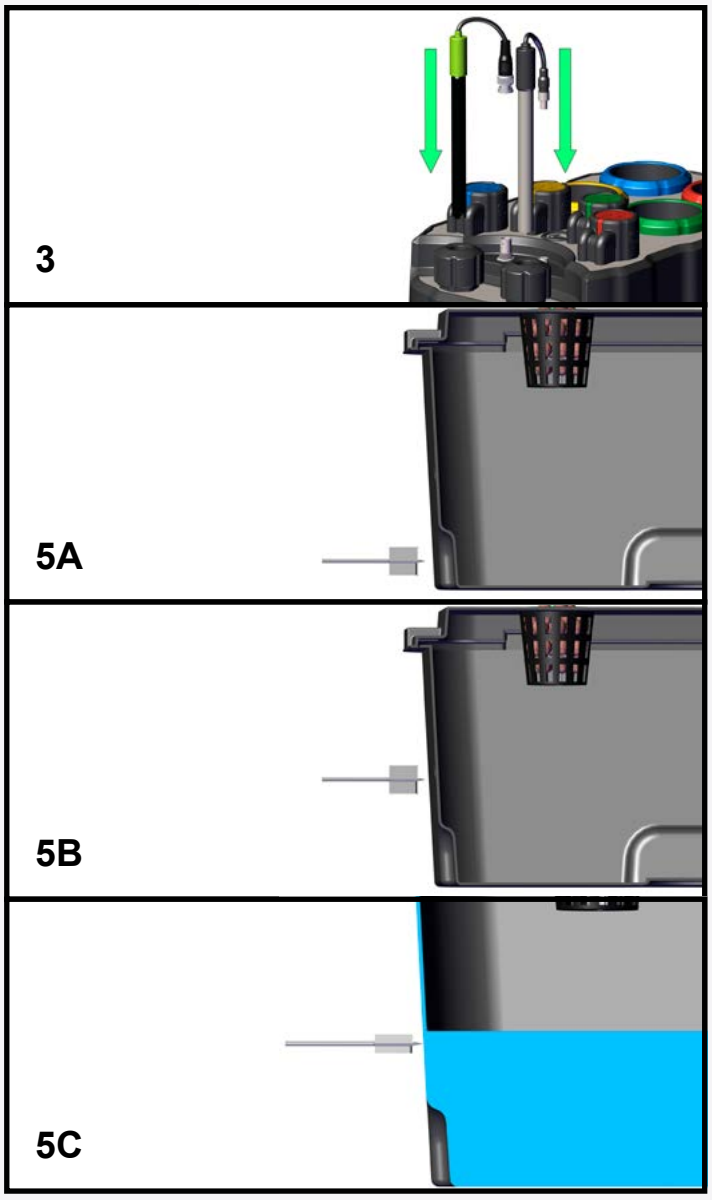
pH probe
NIDO ONE V2 is supplied with a pre-calibrated pH probe and a storage cap.

The pH probe is immersed in potassium chloride (KCl) which guarantees its protection.

The storage cap must be used when NIDO ONE V2 is not in use. When the pH probe is not in use in NIDO ONE V2, it should be placed in the storage cap filled with potassium chloride (KCl), pH4 buffer or, as a last resort, tap water.

Regularly follow the maintenance of the pH probe (p.18).





1. Connect the access point supplied in the kit to an Ethernet output port on the router/switch and switch it on. For further details, see the access point section (p.29).

2. Remove the storage cap from the pH probe.

3. Insert the pH and EC probes into the press-probes until they are flush. Screw in the press-probes with light force and connect the appropriate connectors.

4. Insert the fertiliser and pH cans into their slots, observing the colour of the can and slot labels (green-yellow-red-blue).

5. Drill the holes for the feed-through and level probe as shown below:
5A. Drill the IN hole near the bottom of the tank using the provided bit (30mm bulkhead fitting bit) to ensure water is drawn from the bottom of the reservoir.
5B. Drill the out hole at a point above the maximum water level. (30mm bulkhead fitting bit)
5C. Drill the hole for the level probe (14mm Water level sensor tip, devices with a serial number starting with 23... use an 11mm bit) with the centre of the hole where you want the ALERT water level to be.

point and all medium and high voltage electrical outlets including the NIDO plug must be installed at least 1 metre above the ground to avoid direct contact with water or fertiliser.
All low and medium voltage electrical sockets must be installed away from water splashes.

The temperature/humidity sensor is not protected against splashing water, so be careful not to get it directly wet.
Place it at least 1 metre above the ground.

The nutrient solution tank must always be placed higher than the position of the NIDO ONE V2.
The NIDO ONE V2 power supply, access

Do not place NIDO ONE V2 and electrical outlets in a box, any water spillage will cause danger of electric shock and submersion and breakage of NIDO ONE V2.

6. Fit the low and high seals: the seal must remain on the outside and the corresponding nuts must be tightened by turning them counterclockwise.

7. Insert the level probe by holding the gasket towards the outside of the tank and tightening the lock nut clockwise.

8. Use the hose supplied in the kit (8) to connect the tank OUT connector (4) to the valve connector (9) and the IN connector (3) to the valve connector (9) and secure with the hose clips (7).

9. Connect the tub supply tubes to the NIDO ONE V2 as follows: low tank hole tube connected to the IN input of NIDO ONE V2, and high tank hole tube connected to the OUT output of NIDO ONE V2.

10. Connect the water level and temperature/ humidity probe cable.

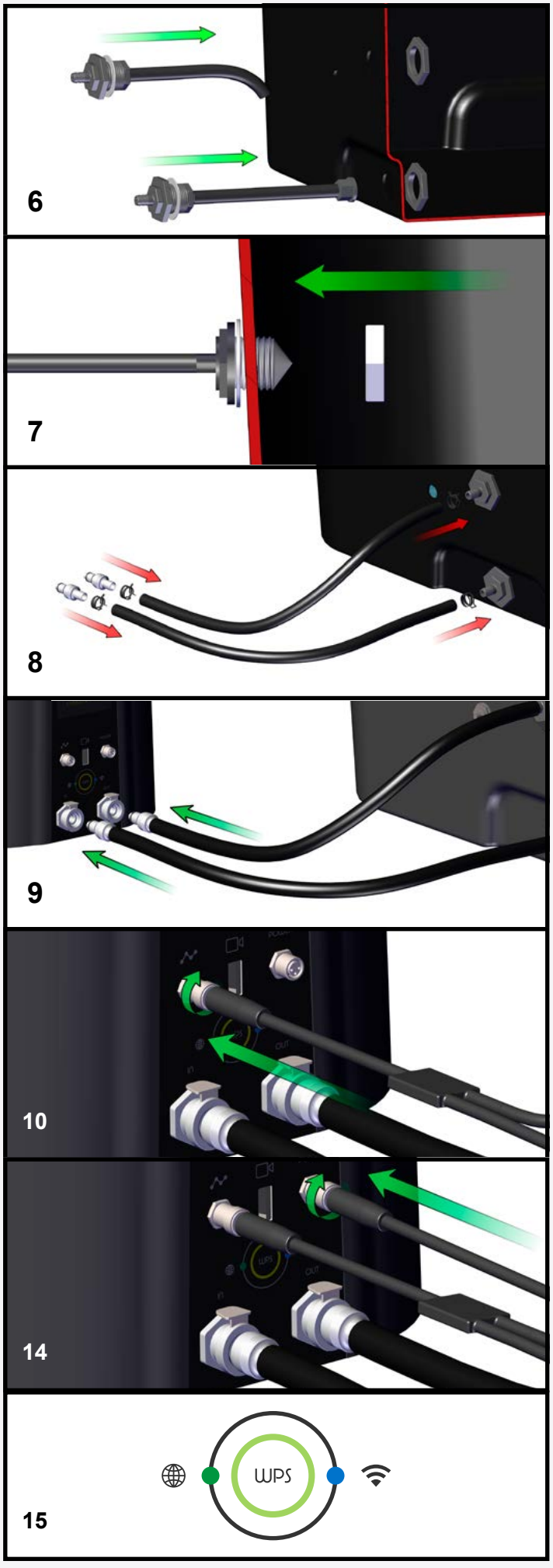
11. Fill the hydroponic system tank with water.

12. Fill the fertilizer cartridges, pH-, and/or pH+ with acid.

13. Connect the pre-configured NIDO connector to the lamp.

14. Connect the power cable and then the socket.

15. Before pairing the NIDO ONE V2 with the NidoPro app, make sure the NIDO ONE V2 is connected to the access point and online (green light on and blue light on the NIDO ONE V2 panel).



INSTALL THE NIDOPRO APP

1. Free download of the NidoPro app from the App Store or Google Play.

Scarica su App Store

DISPONIBILE SU Google Play

2. If you do not have the login details, create a new account and configure NIDO ONE V2 by following the tutorial in the NidoPro app.

3. You can change your crop details at any time from the ‘Settings’ menu.

4. It is possible to use NIDO LAB for advanced cultivation management, available only for PC/tablet and accessible via the web at lab.nidopro.com using the login details of the NidoPro app.
NIDO LAB is a subscription-based platform.

HOME
Informs you of the status of the NIDO, the most important values and the checks that certify the correct functioning of the device and the status of the plants.

NOTIFICATIONS
You will find all the important notifications provided by the system in chronological order.

CAMERA
You can view the cultivation by connecting the NIDO camera (not included in NIDO ONE V2).

SETTINGS
You can configure NIDO ONE V2 settings, grow parameters and access technical support.

OTHER TYPES OF INSTALLATION

Use a submersible pump for aquariums with built-in filter (flow rate min. 450 l/h and max. 1200 l/h).

When the use of tank bulkhead fittings is not allowed, for example, if drilling the water container is not possible or in case of installations in submerged tanks, it is necessary to install NIDO ONE V2 with a submersible pump.

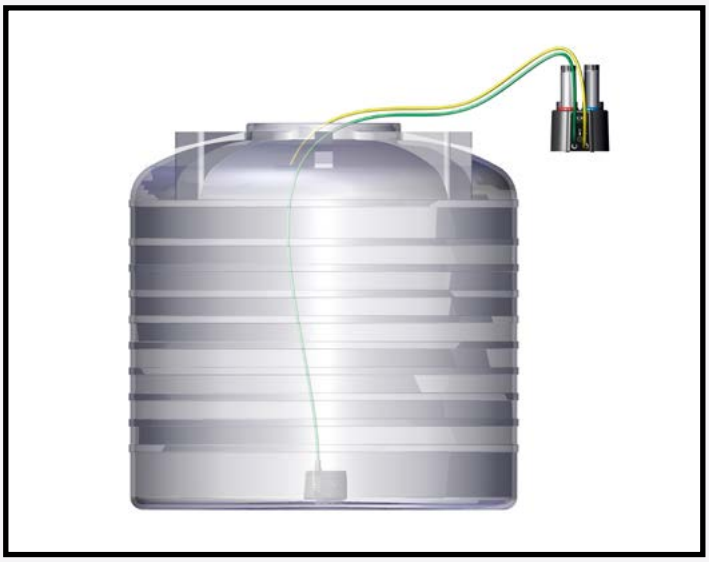
1. Connect the submersible pump to the IN pipe of the NIDO ONE V2.

2. Connect the OUT pipe of the NIDO ONE V2 to the tank.

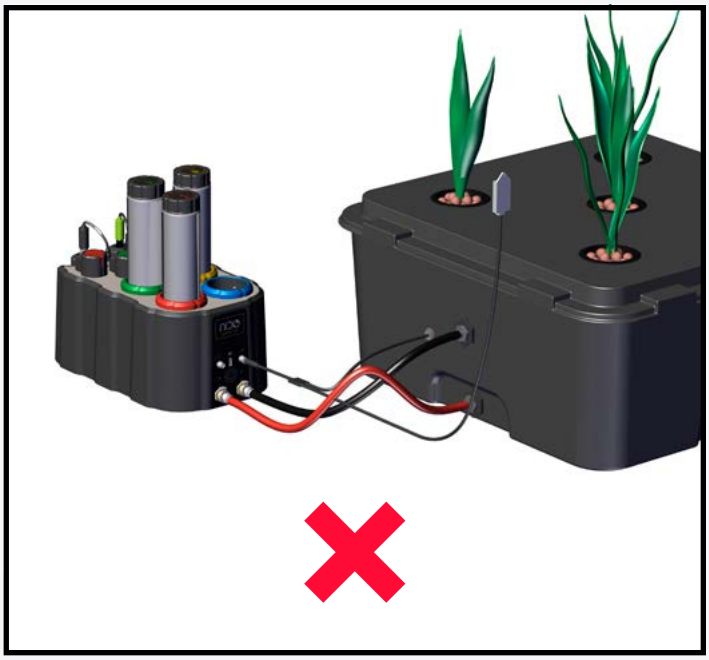
3. Connect the submersible pump to the NIDO connector.

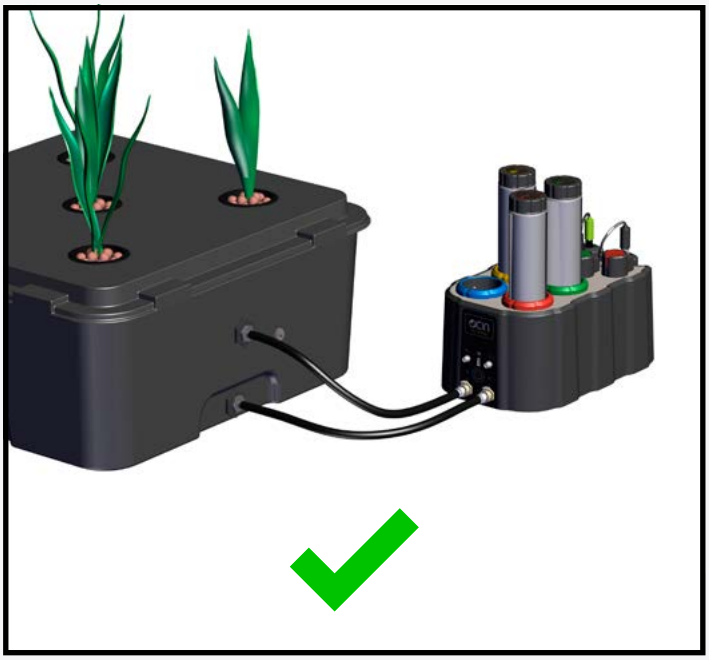
4. Configure the NIDO plug as a “flow pump” via the NidoPro app.
(Settings > Devices).

INSTALLATION IN SUBMERGED TANKS



INSTALLATION WITH SUBMERSIBLE PUMP





Ensure that the connection pipes are placed as low as possible to avoid air pockets in the circuit.

NIDO ONE V2 will turn the internal pump on and check the nutrient solution every 15 minutes on a new system.

NIDO ONE V2 may take 4 to 9 hours to bring the water to the desired values.

Once the water has reached the target set in the NidoPro app, NIDO ONE V2 will keep the values constant, performing 96 checks per day to ensure pH and EC stability.

If NIDO ONE V2 has problems with water flow at first use, loosen the pH probe to remove any air bubbles from the hydraulic circuit and retighten it after a few seconds; if the problem persists, repeat the operation and check the hoses and hydraulic connections.

The fertiliser and pH indicators may light up on initial start-up; these indicators are not connected to electronic sensors but are based on proprietary algorithms that have a good detection tolerance but not a reliable and absolute accuracy.

Switching on these indicators does not cause any problem in the operation of NIDO ONE V2.

	MONTHS																
TASK	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
pH probe calibration (every 30-50 days)		■		■		■		■		■		■		■		■	
pH probe cleaning (every 30-50 days)		■		■		■		■		■		■		■		■	
EC probe cleaning (every 90-110 days)				■				■				■				■	
Internal cleaning cycle (every 120-140 days)					■					■					■		
Water filter cleaning (every 150-170 days)						■						■					
External Cleaning (every 180-220 days)							■							■			
Replacing pH probe (every 450-540 days)																	■
Replacing EC probe (every 450-540 days)																	■

RECOMMENDED PRODUCTS FOR NIDO ONE V2 MAINTENANCE

Cleaning fluid for pH probes

Calibration fluid pH4 for pH probes

KCl storage liquid for pH probes

Calibration fluid pH7 for pH probes

WHAT TO DO AT THE END OF EACH GROWING CYCLE

Perform the pH probe cleaning cycle (p.18).

1. Turn off NIDO ONE V2. Empty and thoroughly clean the tank fill it halfway with fresh tap water free of impurities.

2. Remove the fertiliser and pH cans and thoroughly clean the can stoppers.

3. Unscrew the top and bottom caps of the cans and clean off any remaining fertiliser.

4. Screw the caps on the cans, paying attention to the top and bottom direction of the label on the can, do not turn the caps upside down.

5. Fill the 4 cartridges halfway with osmotic water.

6. Open the NidoPro app, click on Settings > Device Cleaning.

7. Wait for the process to finish.

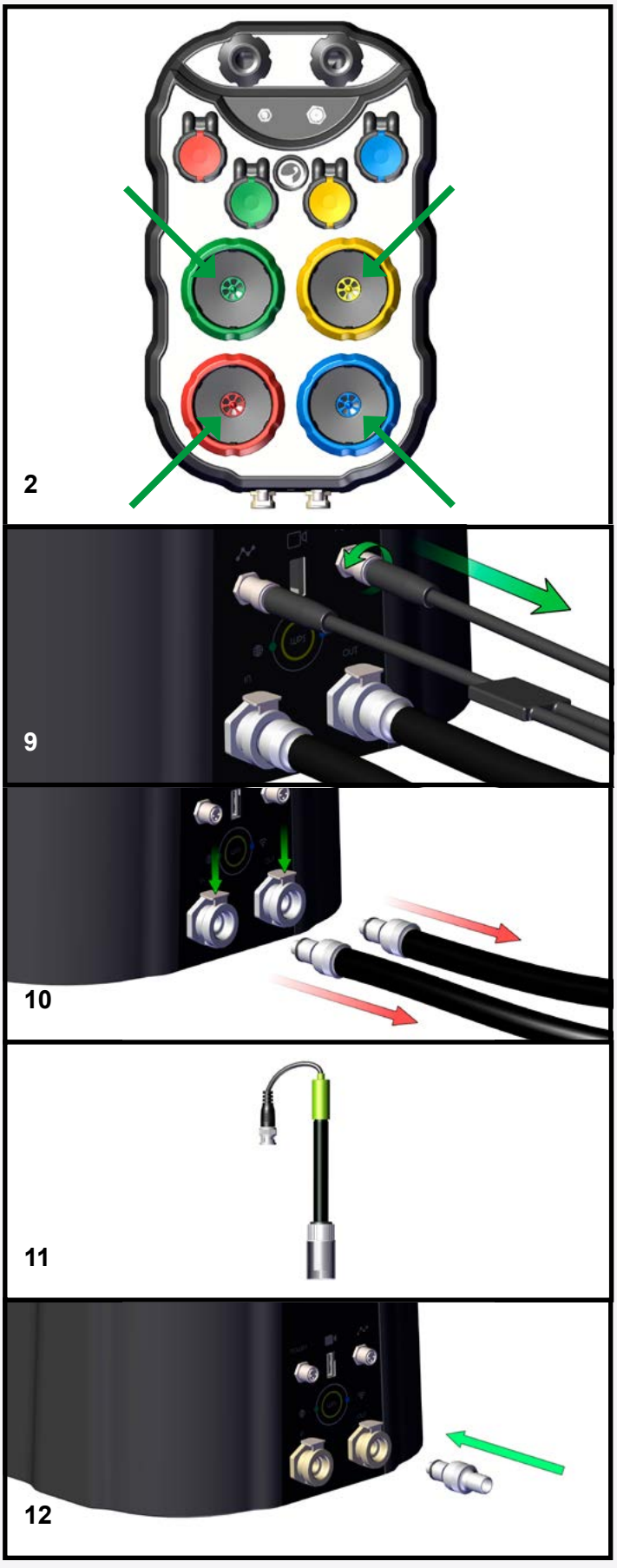
8. Remove and empty the cartridges.

9. Disconnect the electrical connections.

10. Disconnect the water IN and OUT hoses.

11. Remove the pH probe and place it in the storage cap with KCl storage liquid until next use.

12. Drain the water inside the NIDO ONE V2 by turning it upside down in a sink or by using the valve provided on the OUT port for 1 minute and then on the IN port.



PHOSPHORIC ACID AND POTASSIUM HYDROXIDE

pH- (PHOSPHORIC ACID H3PO4)
USE ONLY PHOSPHORIC ACID (H3PO4) WITH A CONCENTRATION OF LESS THAN 20%.
USE ONLY PHOSPHORIC ACID (H3PO4) AS A pH REVERSE.
THE USE OF ANY OTHER TYPE OF ACID WILL IRREPARABLY DAMAGE THE NIDO ONE V2 AND VOID THE WARRANTY.

It is possible to introduce phosphoric acid (H3PO4) plus water if high concentrations are available.

Always take extreme care when handling acids, goggles and gloves are recommended. NEVER allow the pH probe to dry out as this will cause permanent damage.
DO NOT attempt to stretch the probe cable.
DO NOT wet the BNC connector.

Phosphoric acid (H3PO4) with a concentration of 20-30% can be diluted in the following proportions: 50% tap water 50% phosphoric acid.

Phosphoric acid (H3PO4) with a concentration of 30-55% can be diluted in the following proportions: 80% tap water 20% phosphoric acid.
Do not use phosphoric acid with a concentration greater than 55%.

pH+ (POTASSIUM HYDROXIDE KOH)
USE ONLY POTASSIUM HYDROXIDE (KOH) AT A CONCENTRATION OF LESS THAN 5%.
USE ONLY POTASSIUM HYDROXIDE (KOH) AS A pH+ CORRECTOR. THE USE OF ANY OTHER ALKALINE SUBSTANCE WILL IRREPARABLY DAMAGE THE NIDO ONE V2 AND VOID THE WARRANTY.

Use pH+ (KOH potassium hydroxide) in the red slot C in NIDO ONE V2.
It is possible to introduce potassium hydroxide (KOH) plus water if high concentrations are available.

Be very careful when using phosphoric acid (H3PO4) and potassium hydroxide (KOH). Wear safety goggles and gloves. Keep out of the reach of children.

For potassium hydroxide (KOH) with a concentration of 6-20%, potassium hydroxide can be diluted in the following proportions 70% tap water 30% potassium hydroxide.

For potassium hydroxide (KOH) with a concentration of 20-30%, potassium hydroxide can be diluted in the following proportions 80% tap water 20% potassium hydroxide.
Do not use potassium hydroxide with a concentration greater than 30%.

CLEANING AND CALIBRATION OF THE PH PROBE

Never store, rinse or immerse the pH probe in osmotic/distilled water. Osmotic water will alter the solution chemistry of the probe, causing it to break down.

It is recommended that pH calibration is carried out prior to first use to ensure that pH readings are accurate.

Clean and calibrate the pH probe at least every 30-50 days and at the end of each cultivation cycle. The pH probe is the most sensitive part of the NIDO ONE V2, and proper maintenance is essential for stable readings over time. Deposits of salts and contaminants on the bulb junction can cause erroneous readings and blockage of the pH probe, therefore routine maintenance is necessary.

1. Disconnect the IN and OUT hoses.

2. Remove the pH probe by loosening the press-probe

3. Soak the pH probe in pH probe cleaning fluid for 1-2 hours until the glass bulb is covered.

4. Clean the pH probe with the supplied brush, avoiding touching the glass bulb with your fingers.

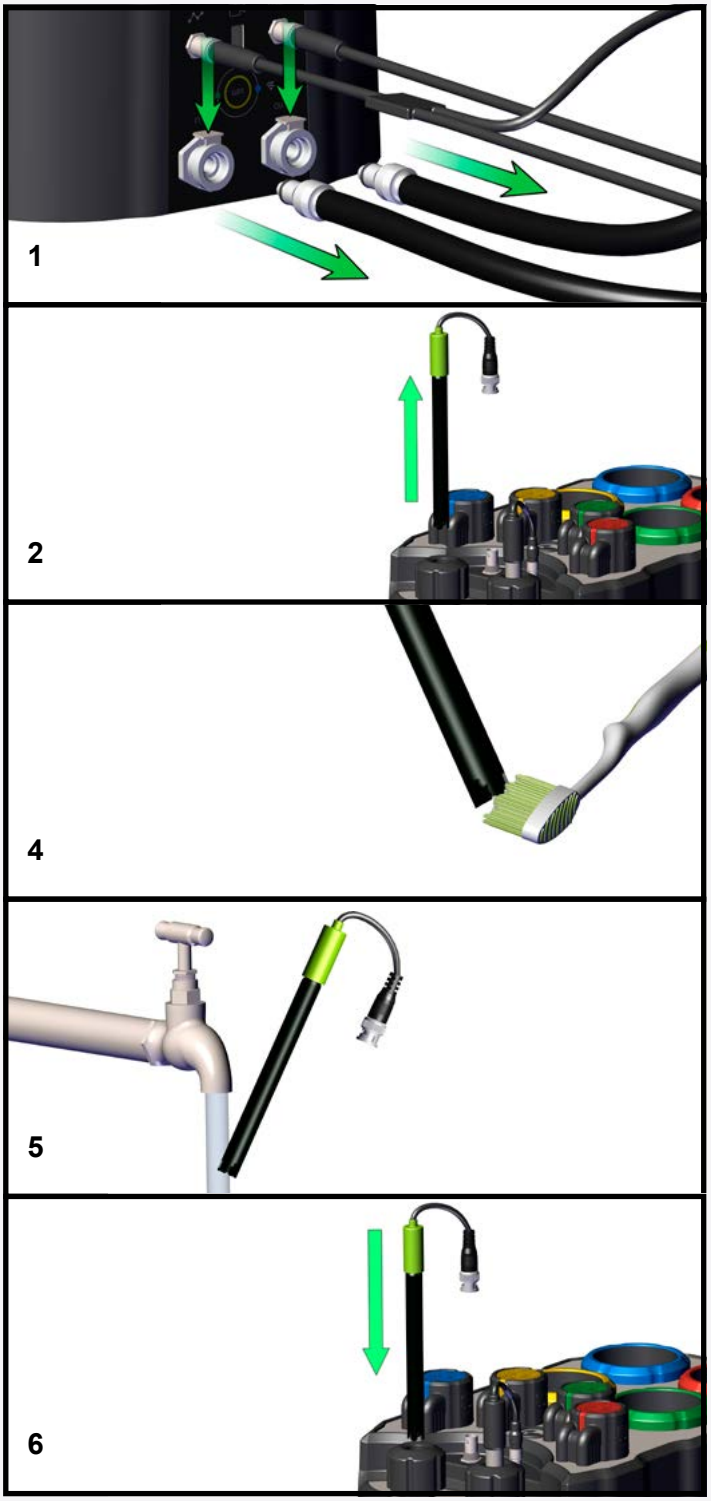
5. Wash the pH probe under running water and dry the outside with a clean cloth.

6. Insert the pH probe as far as it will go and tighten the press-probe.

7. Calibrate the pH probe in the Settings > pH > Calibrate in menu, following the instructions in the NidoPro app.

8. If the calibration fails, immerse the probe in KCl for 24/48 hours.

9. Repeat the pH probe calibration, if the instrument does not allow calibration, replace the probe.



PH PROBE REPLACEMENT

Replace the pH probe every 12-15 months.
You can buy the original NIDO pH probe here:

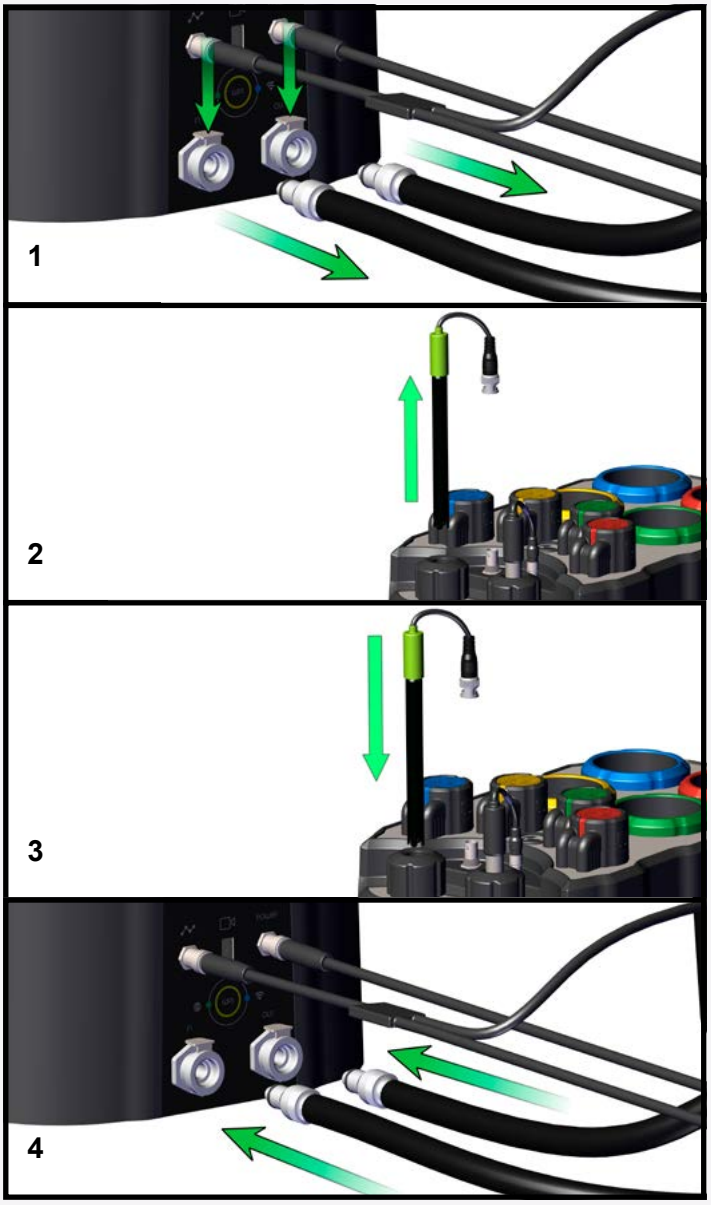
1. Disconnect the water inlet and outlet pipes.

2. Remove the old pH probe by loosening the press-probe.

3. Insert the new pH probe as far as it will go and tighten the press-probe.

4. Connect the IN and OUT hoses.

5. Open the NidoPro app and from the settings menu > pH > Change to, and follow the tutorial.



EC PROBE CLEANING

It is recommended to replace the EC probe every 12-15 months. You can buy the original NIDO EC probe *here:*

Check the condition of the EC probe regularly (every 90-110 days) to ensure correct operation if the probe is dirty or inaccurate.

1. Disconnect the the IN and OUT hoses.

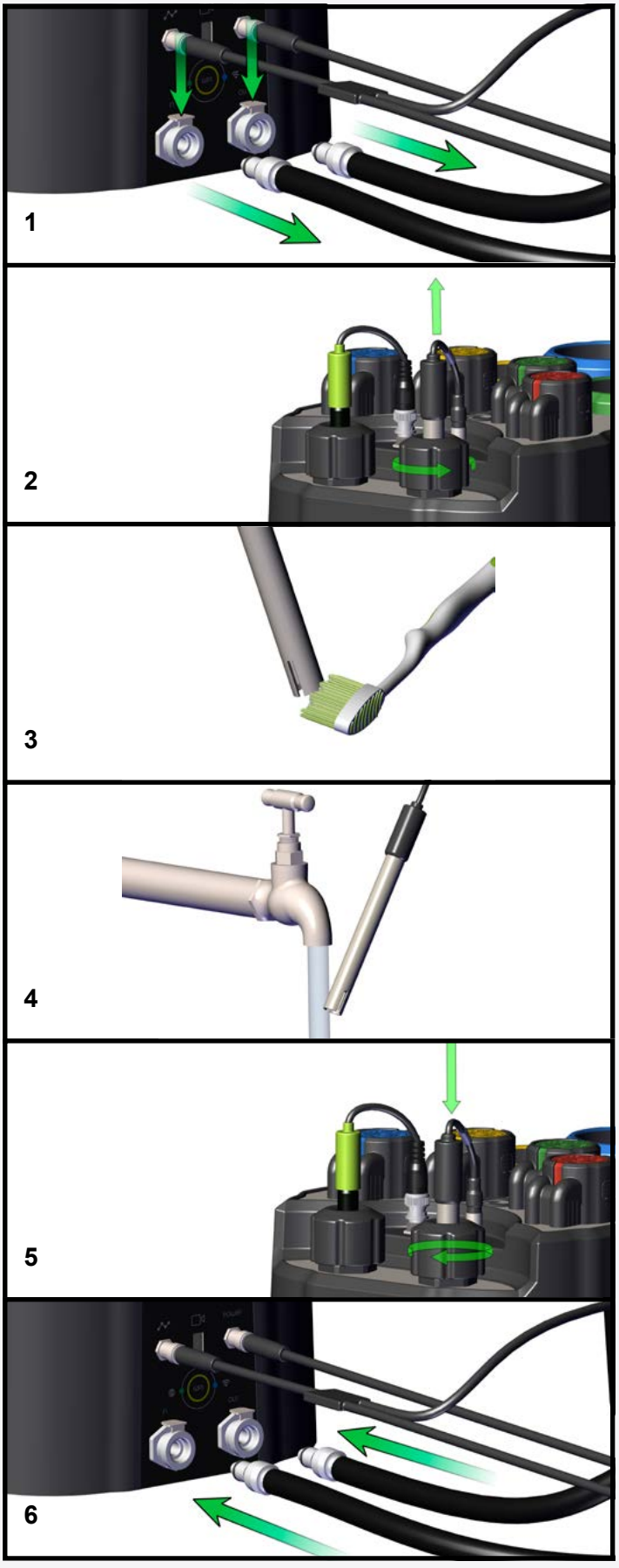
2. Pull out the EC probe by unscrewing the press-probe.

3. Clean the EC probe with the supplied brush.

4. Wash the EC probe under running water and dry the outside with a clean cloth.

5. Insert the EC probe as far as it will go and press-probe.

6. Connect the IN and OUT.



EC PROBE REPLACEMENT

Replace the EC probe every 12-15 months.
You can buy the original NIDO EC probe here:

1. Disconnect the IN and OUT tube.

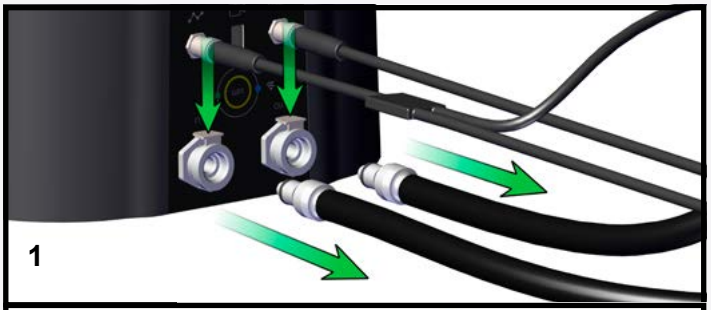
2. Remove the old EC probe by loosening the press-probe.

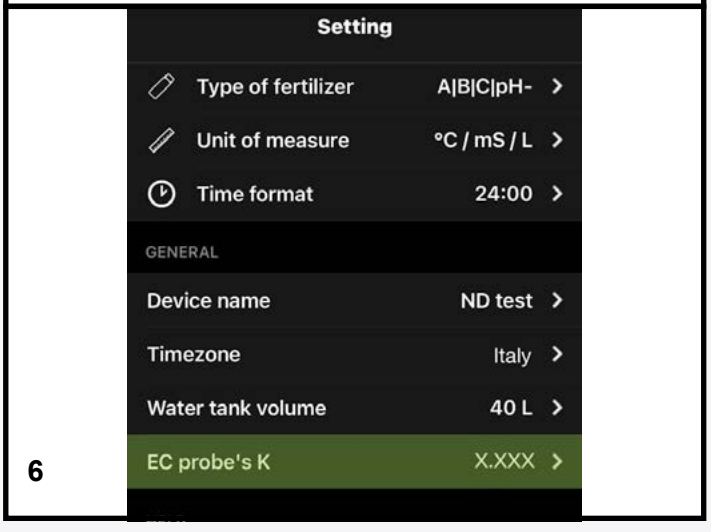
3. Insert the new EC probe as far as it will go and tighten the press-probe.

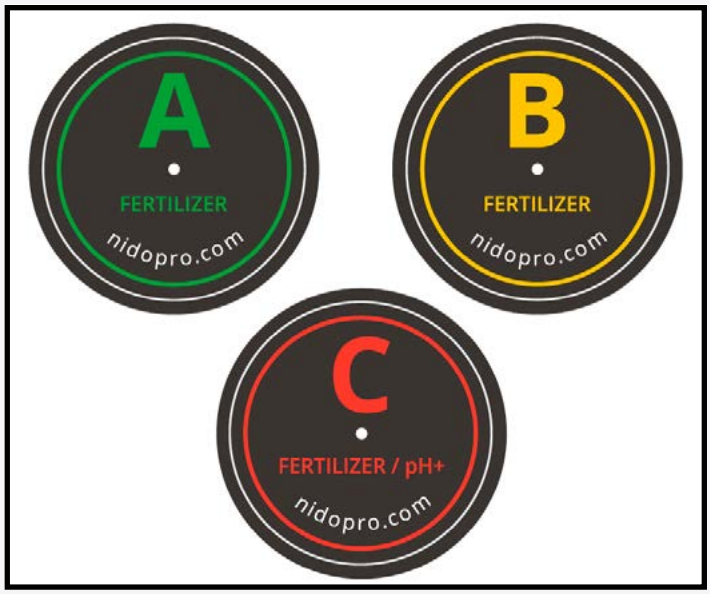
4. Connect the IN and OUT.

5. Read the calibration value of the probe indicated on the electrical cable (C=x.xxx).

6. Enter the calibration value shown on the probe label into the NidoPro app in the menu “Settings > EC Probe K”.
The replacement procedure is complete.







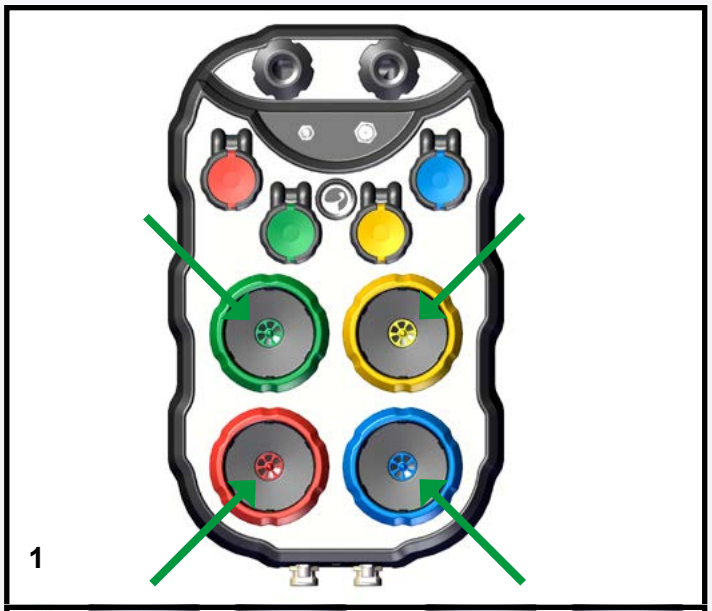
NIDO ONE V2 is compatible with liquid fertilisers, use ONLY fertilisers of mineral origin.

Do not use organic fertilisers.

Do not use solid fertilisers, do not use any other type of substance that is too dense that it could clog the pipes or filters of NIDO ONE V2.

In order to avoid blocking the hydraulic circuits, it is recommended to carry out a cleaning cycle at the end of each growing cycle from the Settings menu > Device cleaning.

If you need to change fertiliser during the growing cycle, make sure to remove and rinse the NIDO ONE V2 cartridges, avoiding leaving any residue of previously used fertiliser. Before replacing the fertiliser, make sure to remove any residue from inside the NIDO ONE V2. To avoid chemical reactions that could clog the device, remove the fertiliser cartridge then use the manual dispensing function from the Home > Control > Fertiliser menu to dispense at least 20 ml of the fertiliser you need to replace.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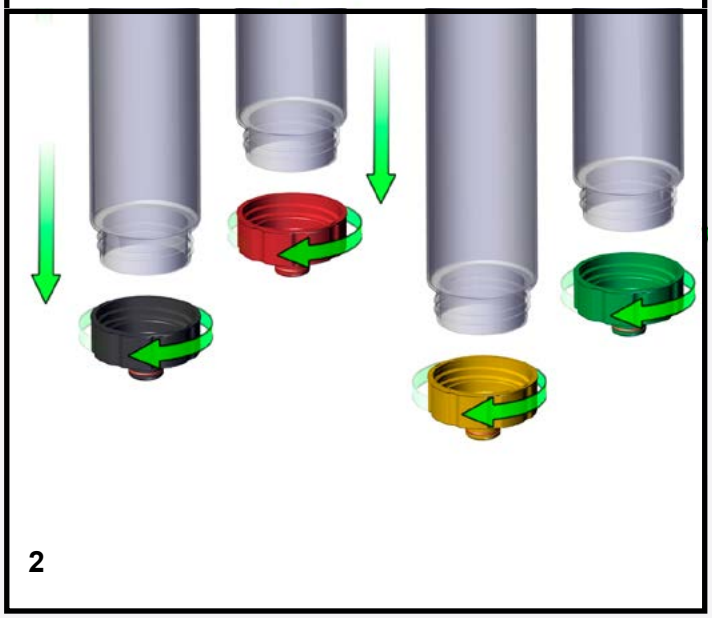

2

CARTRIDGE MAINTENANCE

1. Periodically check the entry of the fertiliser and pH cartridges and remove any salt deposits to ensure a clean entry.

2. Remove any residue from the bottom of the cartridge by unscrewing the bottom cap.

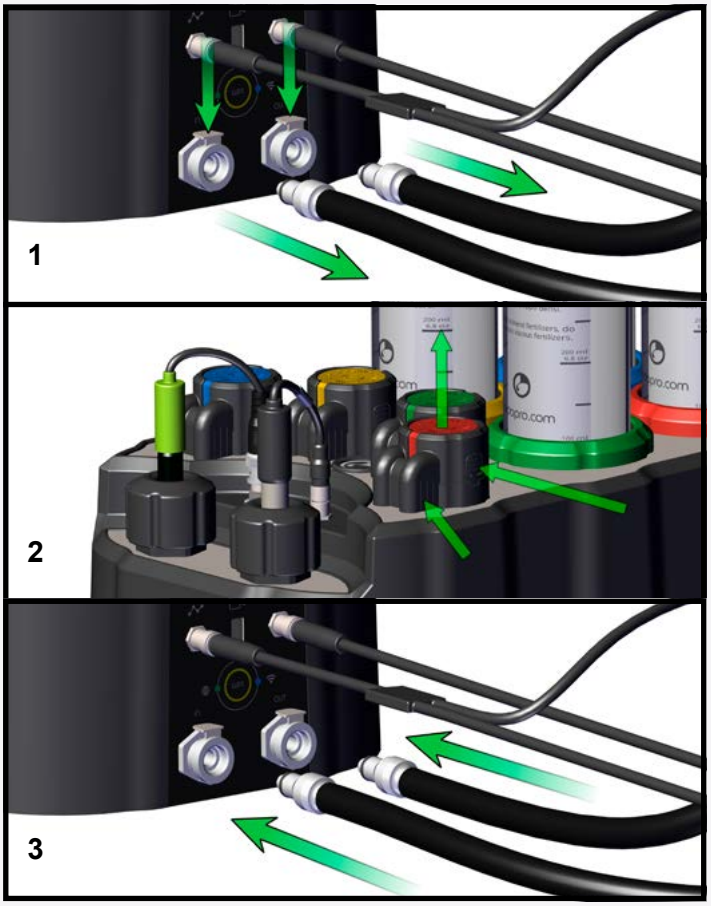
DOSING PUMPS

The dosing pumps accurately dispense fertilisers and pH correctors. They have a unique and innovative design that allows high standards of precision and quick maintenance.

The dosing pumps are designed exclusively for pumping liquids, do not dismantle or modify the pump except as described in this manual.

Never operate the dosing pumps in vain (without fertilisers or pH correctors and active formula on the NidoPro app calendar), otherwise the life of the pump will be irreparably compromised.

Never leave hazardous liquids in the pump and tubes of NIDO ONE V2 during storage. To remove hazardous liquids (fertiliser, pH corrector) from the NIDO ONE V2, perform the cleaning of the product at the end of each growing cycle in the Settings > Device cleaning menu.



Remove any residual fertiliser or pH corrector from the NIDO ONE V2 before switching from one solution to another by manually dispensing at least 20 ml from the Home > Control > Fertiliser menu.

The dosing pump may deteriorate under certain conditions of use, it is essential to carry out the preventive maintenance listed in the NidoPro app to ensure the best operating efficiency of the NIDO ONE V2.

Always run the cleaning cycle from the "Settings > Device Cleaning" menu BEFORE performing any maintenance, this will ensure that all hazardous chemicals are removed from the pump, preventing accidental damage and injury.

REPLACING THE DOSING PUMP

1. Disconnect the NIDO ONE V2 from the water reservoir and remove the cartridges or the connection kit connected to the pump to be replaced.

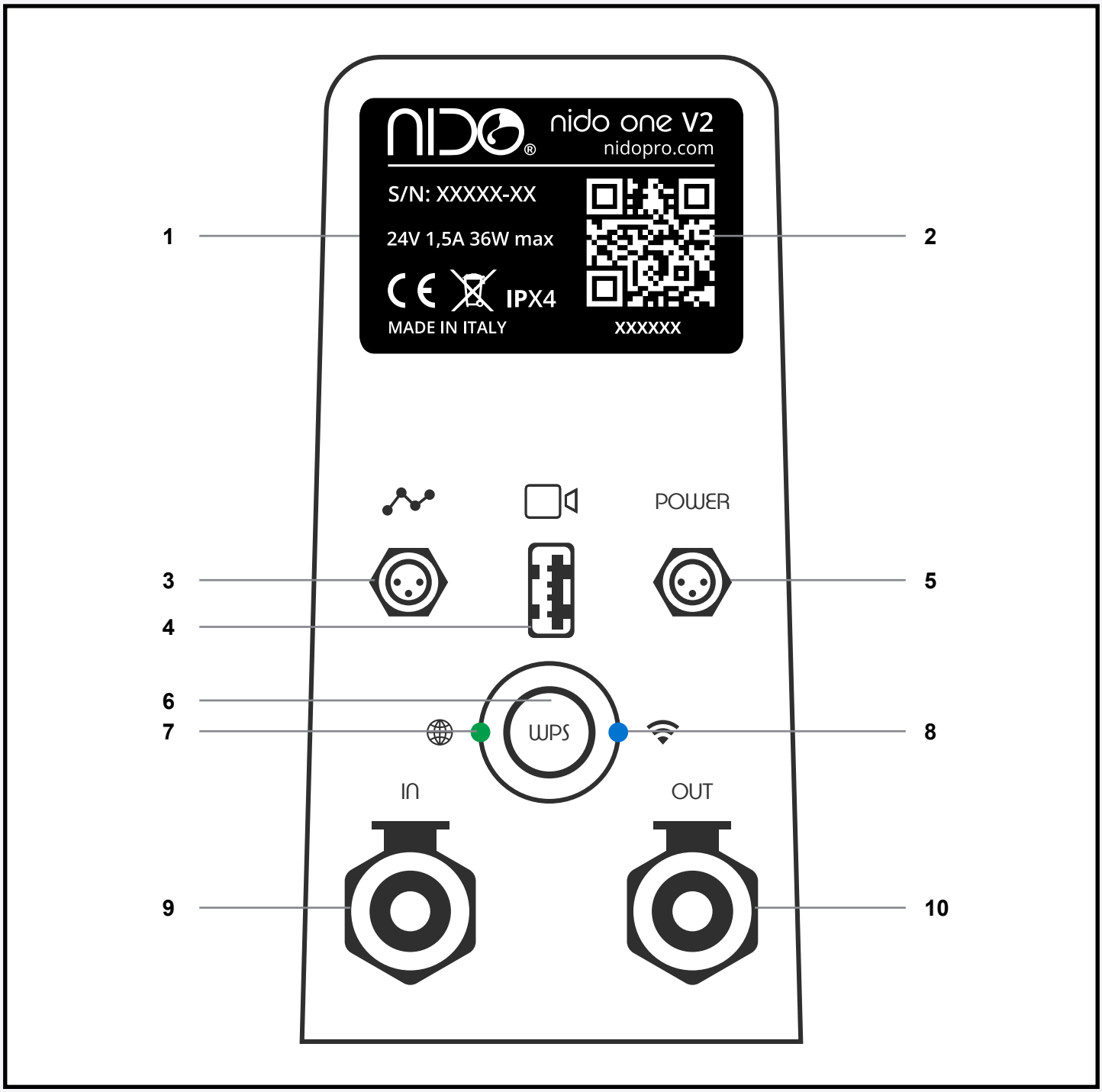
2. Remove the dosing pump by pressing the side buttons and pulling upwards, grasping the pump head in the knurled parts.

3. Reconnect the NIDO ONE V2 to the water reservoir and insert the cartridge or the connecion kit.

For a detailed guide on how to remove the dosing pump heads, you can watch the following video on YouTube.

THE NIDO ONE V2 PANEL

1. Product label
2. Scanning QR CODE
3. Sensor connector
4. USB port for NIDO gate and NIDO camera
5. Power socket
6. WPS button
7. Wi-Fi connection status light
8. Internet connection status light
9. Water input
10. Water output

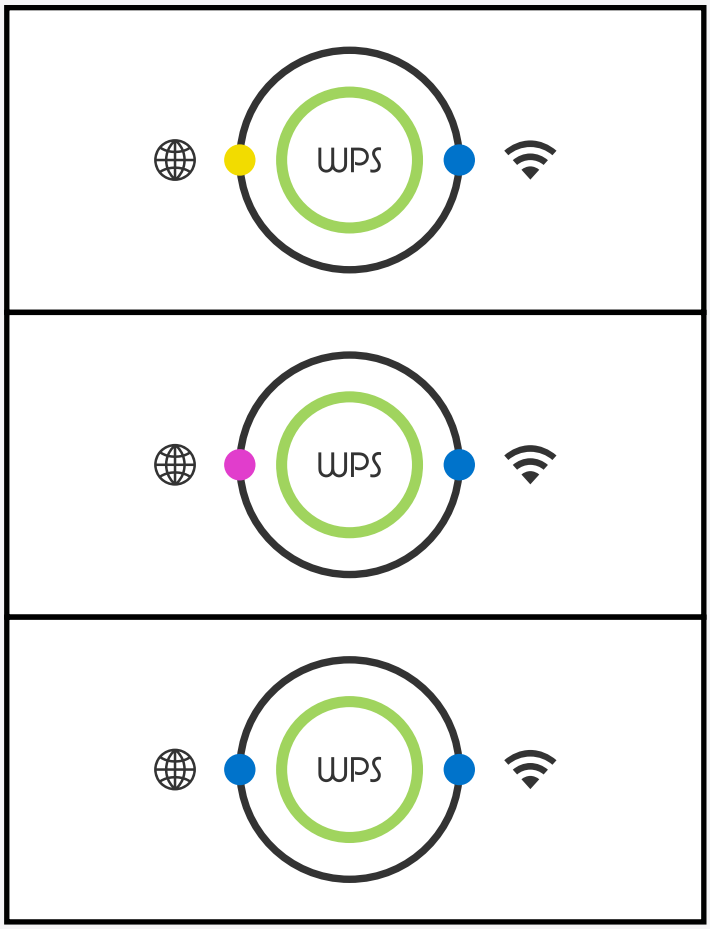


WPS BUTTON

ASSOCIATION NIDO PLUG
(Left LED yellow, right LED solid blue)
Press for 1-3 seconds until the Wi-Fi connection status light turns yellow.

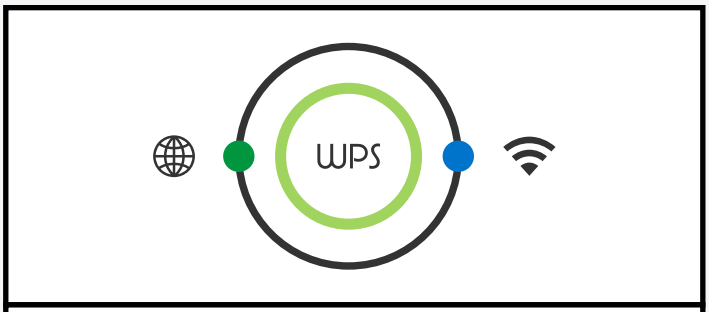
SMARTPHONE PAIRING
(Left LED magenta, right LED solid blue)
Press 4-8 seconds until the Wi-Fi connection status light turns magenta.
To pair the smartphone, NIDO ONE V2 must be connected to the internet.

NEW ACCESS POINT PAIRING
(Left LED blue, right LED solid blue)
Press for 9-12 seconds until the Wi-Fi connection status light turns blue.
It is NOT recommended to use this feature to pair NIDO ONE V2 with incompatible access points. Once the pairing is completed, NIDO ONE V2 must be restarted.
For a detailed guide, you can watch the following video on YouTube.

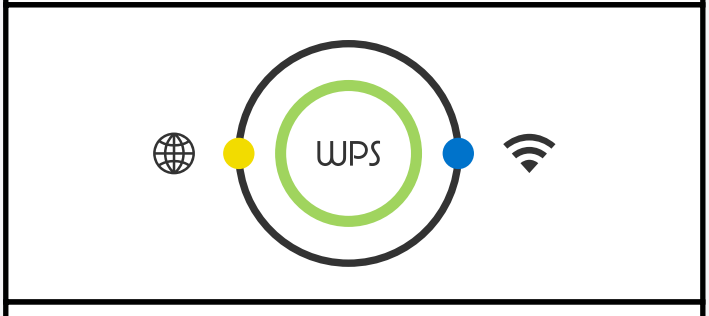


INTERNET CONNECTION STATUS

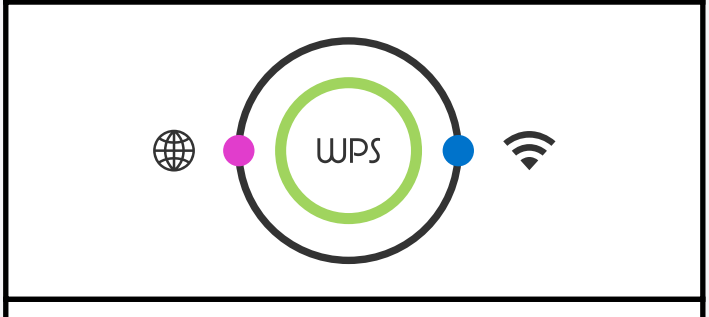
Excellent Wi-Fi signal
(Left LED green, right LED solid blue)



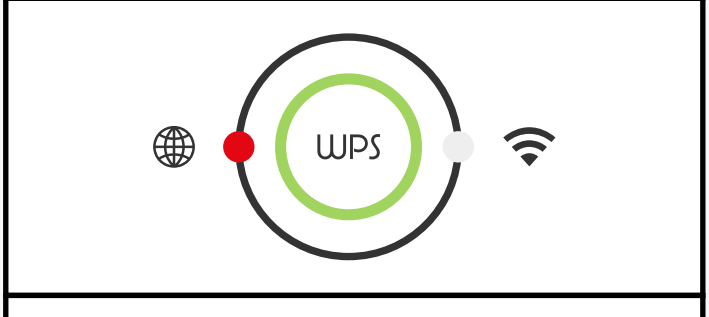
Average Wi-Fi signal
(Left LED yellow, right LED solid blue)



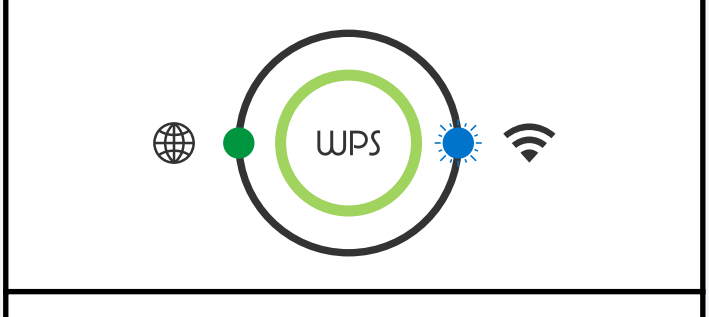
Poor Wi-Fi signal
(Left LED magenta, right LED solid blue)



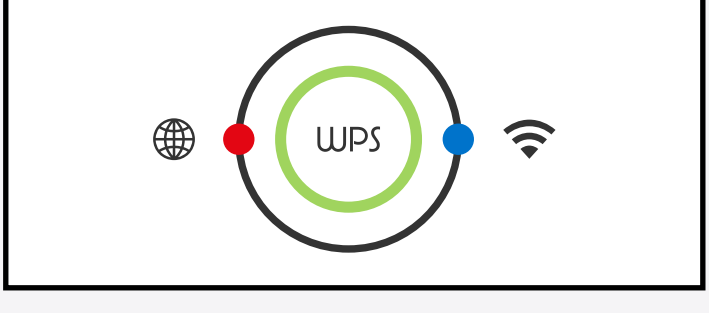
No Wi-Fi signal
(Left LED red, right LED off)



Connected to Wi-Fi but no internet
(Left LED green, right LED blinking blue)



Internet connection with network cable
(Left LED red, right LED solid blue)



GENERAL DESCRIPTION

NIDO plugs are Wi-Fi sockets designed to control greenhouse equipment (air extractors, humidifiers, dehumidifiers, air heaters, irrigation and lights) with a maximum power rating of up to 2 kilowatts.

NIDO plugs work ONLY in combination with NIDO ONE V2, they cannot work independently and are controlled via the NidoPro app, updated to the latest version available.

All hardware connections must be carried out by qualified personnel who are aware of the risks of the installation, taking into account the minimum safety standards and in a de-energised state.

The user assumes all responsibility and risk associated with the installation, configuration and use of the products to achieve the intended results.

DO NOT connect the NIDO plug to loads that may be damaged by frequent switching on/off.

Place the NIDO plug at a maximum distance of 5 meters in a straight line. If the NIDO plug frequently disconnects and reconnects, reduce the distance between NIDO ONE V2 and the NIDO plug to 1-2 meters.

Configure the NIDO plug so that the connected device is not switched on and off more often than the manufacturer of the device recommends.

Avoid walls or partitions between the NIDO ONE V2 and the NIDO plug.

DO NOT get the NIDO plug wet.

DO NOT clean the NIDO plug with liquids or solvents.

DO NOT disassemble, open or attempt to repair the NIDO plug. Opening a sealed component will void the warranty.

Place all sockets at least 1 metre above the ground to avoid contact with water.

The provided NIDO plug is preconfigured as a “light,” but its type can be changed.

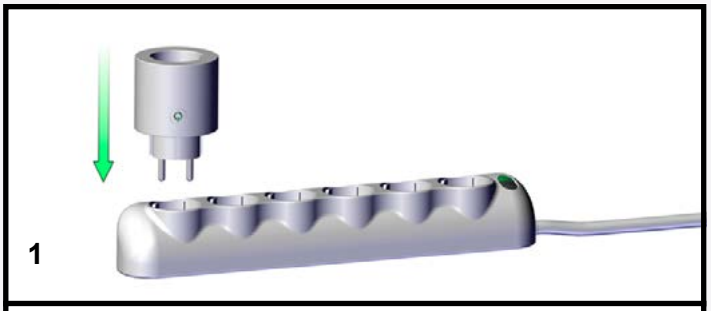
The detection of the NIDO plug may take up to 1-2 minutes.
If after 2 minutes the notification does not appear in the NidoPro app, disconnect and reconnect the NIDO plug and repeat the procedure from the beginning.

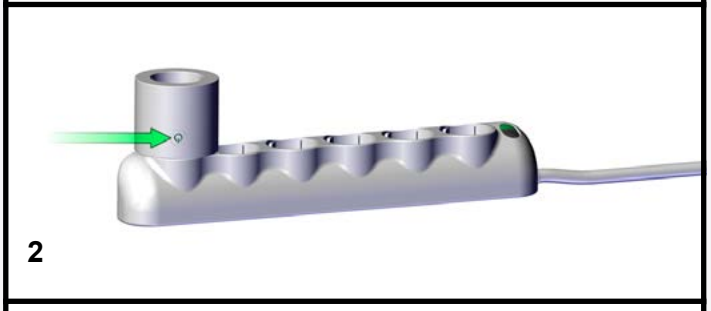
1. Connect the NIDO plug to the mains socket.

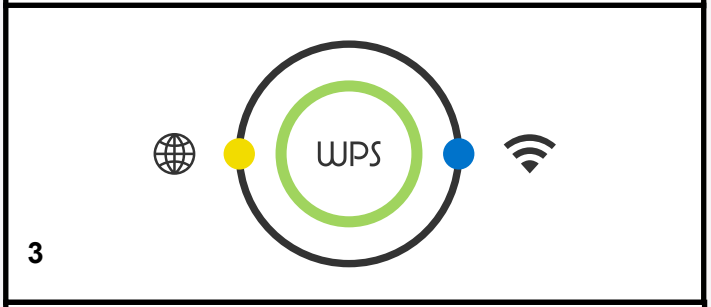
2. Press the button on the NIDO plug for 5 seconds, wait until the light on the NIDO plug starts blinking.

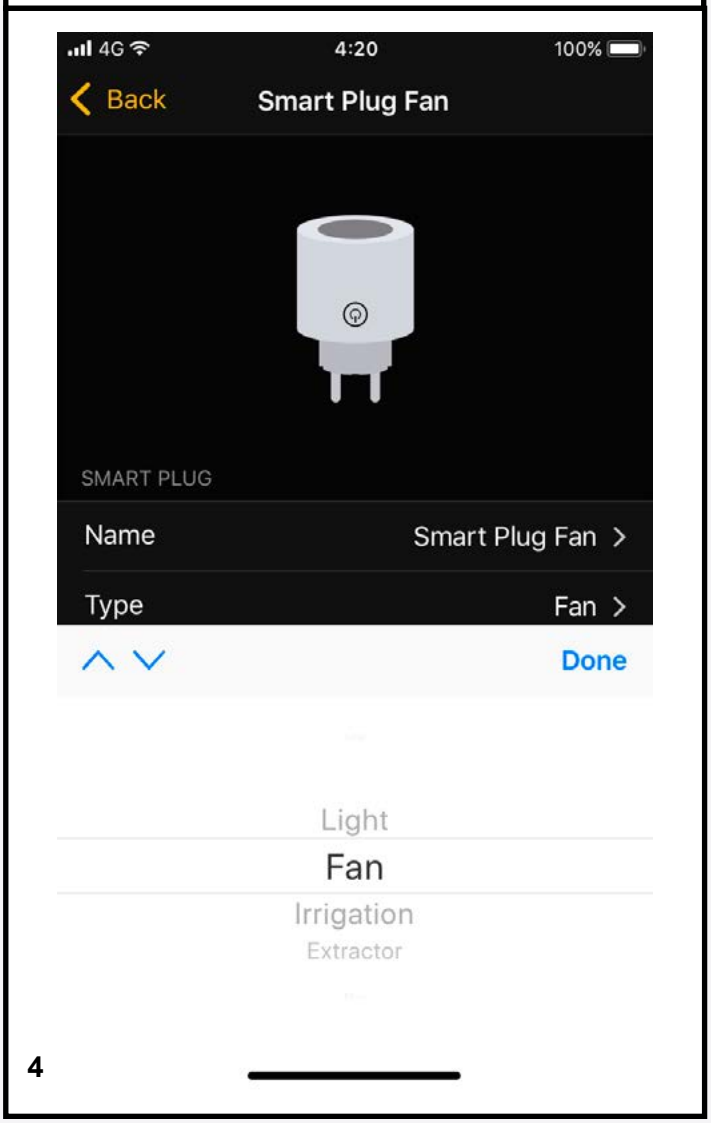
3. Press the WPS button on the NIDO ONE V2 for 1-3 seconds until the Wi-Fi connection status light turns yellow.

4. Open the NidoPro app and configure the type of device connected to the NIDO plug (air extractors, humidifiers, dehumidifiers, air heaters, irrigation and lights).









ACCESS POINT

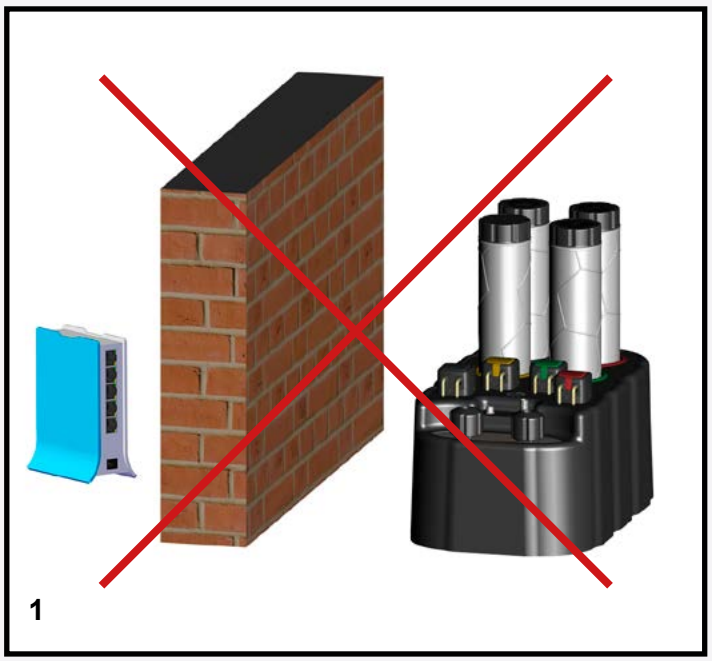
Place the access point in a protected location, away from splashing water.

If the Ethernet cable is not long enough to connect the router to the access point, we recommend using an extender, such as the TP-Link TL-WA850RE.

The included access point allows you to easily connect the NIDO ONE V2 to the Internet, it can be placed up to 5 metres away as the crow flies.

1. Place the access point close to the NIDO ONE V2. Avoid walls or partitions between the NIDO ONE V2 and the access point.

2. Connect the Ethernet cable to the “internet” port of the access point and then to the modem/router.



1

CONNECTION OF NETWORK CABLE

If you are experiencing interference due to the presence of several Wi-Fi networks or other signals that affect the proper functioning of Wi-Fi, you can avoid using the supplied access point and connect the NIDO ONE V2 directly to the RJ45 network cable. Here is how to proceed.

1. Remove the steel cover of the device by unscrewing the six fixing screws.

2. Remove the black cap located on the steel plate and use the resulting opening to pass the RJ45 network cable through.

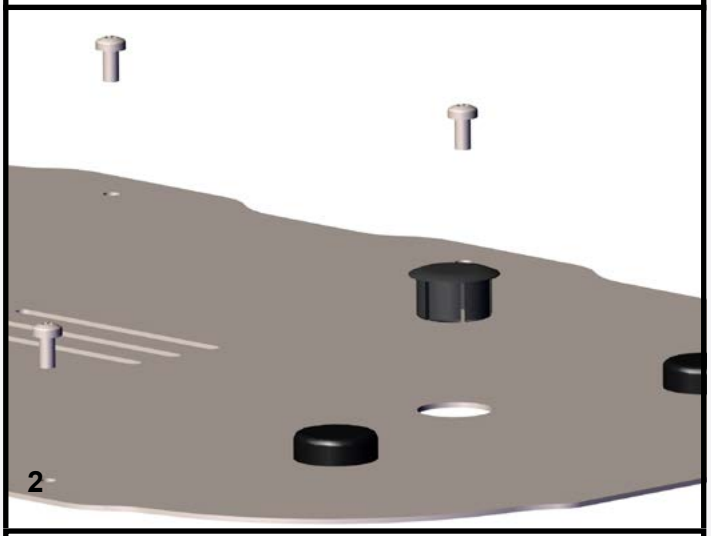
3. Inside the device, you will find a blue electronic board equipped with one or two RJ452 network ports.

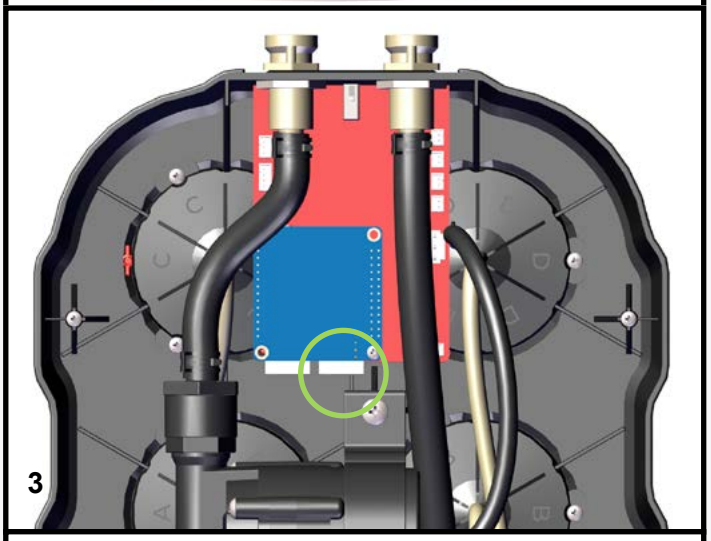
4. Connect the network cable to the available port on the blue circuit board. For the NIDO ONE V2 model, you must connect the cable to the RJ45 socket located on the right.

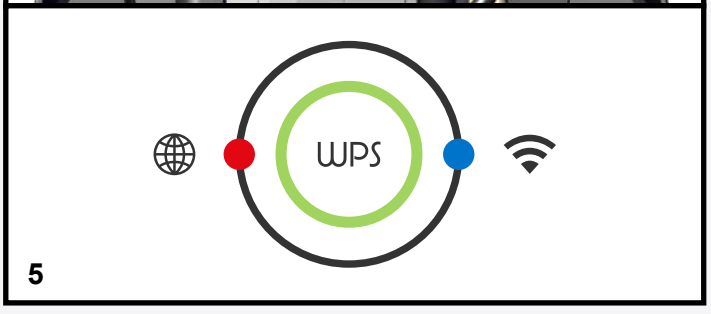
5. Close the device cover and tighten the fastening screws.

After restarting the device, the lights on the side panel should remain lit as follows: red light on the left and blue light on the right.

If the blue light is flashing, it indicates no internet connection. In this case, it is necessary to check the router for firewall blockages.







To configure the NIDO ONE V2 with a SIM card, you need to purchase the D-LINK DWR-932 4G modem separately.
Pairing procedure with NIDO ONE V2:
Before you start, make sure to turn off the NIDO ACCESSPOINT. Then place the NIDO ONE V2 and the DWR-932 no more than 1 meter apart.

1. Turn on the NIDO ONE V2.

2. Wait approximately one minute for the NIDO ONE V2 to start up.

3. Turn on the DWR-932.

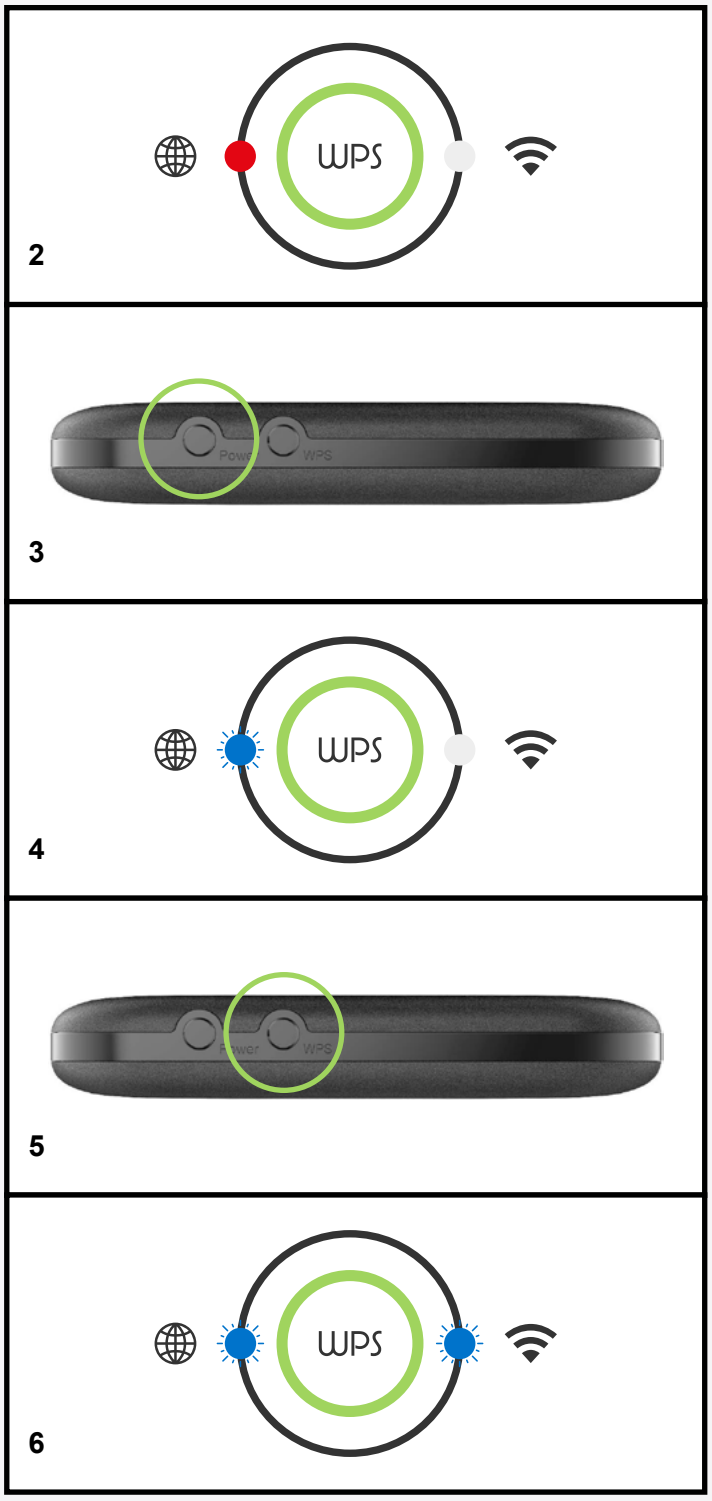
4. Press the WPS button on the NIDO ONE V2 for 12-15 seconds, or until the blue light on the left side starts flashing.

5. Press the “WPS” button on the DWR-932.

6. Wait approximately 30 seconds for the pairing to complete. This is indicated by both blue lights on the side panel of the NIDO ONE V2 flashing intermittently.

7. If the procedure is unsuccessful, turn both the NIDO ONE V2 and DWR-932 off and on again, and repeat the procedure.

Follow these steps carefully to ensure proper configuration of your NIDO ONE V2 with the SIM card.



TROUBLESHOOTING

PROBLEM	SOLUTION
I cannot control the NIDO plug.	The maximum distance between NIDO ONE V2 and NIDO plug should not exceed 5 metres as the crow flies. If this distance is exceeded or there are dividing walls between NIDO ONE V2 and NIDO plug, disconnections may occur. If the problem persists, move the NIDO plug closer than 1 metre from NIDO ONE V2. For more information on configuring the NIDO plug see “Pairing NIDO plug” on page p.28: **1.** Press and hold the button on the NIDO plug for at least 10 seconds. **2.** Unplug the NIDO plug from the electrical outlet. **3.** Follow the procedure of “Pairing NIDO plug” on page p.28.
NIDO ONE V2 does not draw water from the tank.	NIDO ONE V2 should always receive “falling” water as it is not able to suck water from the tank independently. If, after a few minutes, NIDO ONE V2 has problems with the intake and delivery of recirculating water (see warning light), it is advisable to: **1.** Loosen one of the 2 press- probe to eliminate any air pockets inside and tighten it as soon as water starts to flow out. **2.** Check that the OUT pipe of the tank (IN of the NIDO ONE V2) does not exceed the height of the tank (p.14). **3.** Check that the IN and OUT pipes of the NIDO ONE V2 are correctly connected, the IN pipe should always be the lowest pipe in the hot tub.
NIDO ONE V2 does not turn on.	Check that the mains socket is plugged in, check that the LED indicator on the mains unit is lit, check that the mains plug is connected correctly.
I have set a calendar value for pH and EC, but NIDO ONE V2 does not compensate the water.	Initially, NIDO ONE V2 may take from 2 to a maximum of 12 hours to bring the water to ideal levels, depending on the size of the pool to be regulated and the type of fertiliser used.
I have set a calendar value for pH and EC, but the measured value is slightly higher or lower than the calendar value.	For water compensation, NIDO ONE V2 works within certain tolerances, ±0.05 EC and ±0.05 pH. For example: If I set an EC value of 1.5mS, NIDO ONE V2 will compensate for water in the range of 1.45 to 1.55mS. If I set the pH to 5.5, NIDO ONE V2 will compensate for water in the range of 5.45 to 5.55.

PROBLEM	SOLUTION
Internet connection problems.	*The access point must be placed close to the NIDO ONE V2, refer to the "Access Point" page* p.29. Check the status of the indicator lights on the NIDO ONE V2 panel by referring to the page p.26. If there is no Wi-Fi signal (red light on), move the access point closer to the unit. This guide will help you identify the problem: **1.** Wait at least 2 minutes after starting. Turn on the NIDO ONE V2 and wait at least 2 minutes before doing anything, there is a good chance that the NIDO ONE V2 will be able to connect to the Wi-Fi network by itself. **2.** Reboot the NIDO ONE V2 and its access point. Disconnect and reconnect the power to the access point and NIDO ONE V2, wait at least 2 minutes to check the connection status. **3.** Check for wireless interference. Other devices operating on the 2.4GHz frequency may interfere with the communication between the NIDO ONE V2 and its access point. Try turning off all devices that may cause interference, and restart NIDO ONE V2 and the access point. Here are some devices that may cause interference: • Cordless phones • Microwave ovens • Bluetooth devices • Wireless video equipment Once you have identified the source of the interference, try moving the interfering equipment, even a few metres can make a difference.
The NIDO ONE V2 pump does not switch off and does not respond to commands.	Try switching off the NIDO ONE V2 for at least 30 seconds and then switching it on again, if the problem persists contact customer support WhatsApp (messages only): +39 327 684 4189
Symbol '/' instead of the reading number.	The symbol '/' in place of the reading number indicates that the instrument value is out of scale or that the sensor is missing. Check the sensor connection, if the problem persists, contact service.
NIDO ONE V2 is leaking water from the bottom.	Water leakage in most cases comes from the NIDO ONE V2 probe fittings, make sure you have tightened the fittings correctly. It is not recommended to use pliers or wrenches to tighten the glands to avoid damaging the seals. If the leak is not coming from the pressure glands, remove the lower cover of the NIDO ONE V2, locate the leak and contact customer support at WhatsApp (messages only): +39 3276844189

PROBLEM	SOLUTION
The dosing pump starts but does not inject fertiliser.	*The use of latex gloves and goggles is recommended for this type of maintenance.* Check the condition of the hose inside the dosing pump.The hose can be removed in a few simple steps, check that there are no tears or obstructions inside the hose. In the event of a break, you can purchase a replacement hose directly from your authorised dealer or from www.nidopro.com. Check that there are no obstructions inside the fertiliser cartridge or in the canister coupling base. How do I remove solidified mineral deposits in the cartridge coupling cups? To remove any inorganic residue in the NIDO ONE V2 insert cups and internal hydraulic circuit, the use of 20% phosphoric acid is recommended as part of a maintenance programme. The injection of acid will reduce blockages caused by both low solubility salts such as calcium carbonate and chemical residues contained in fertilisers. • Connect the NIDO ONE V2 to the tank and make sure there is tap water available to drain the unit, then connect the power supply. • Empty and clean the 4 cartridges and pour 20-25ml of phosphoric acid 20% directly into the cartridges A | B | C | pH-. • Insert the 4 cartridges into the corresponding slots and wait at least 2 HOURS. • Perform the cleaning cycle from the settings menu > device cleaning. • Fill the 4 cartridges with distilled water or tap water and repeat the cleaning cycle from the settings menu > device cleaning.
I cannot pair the NIDO ONE V2 with the NidoPro app.	Make sure that NIDO ONE V2 is switched on and that the panel lights have this status. Left indicator light: green. Right indicator light: blue. If the left light is red, move the access point a few metres away from the NIDO ONE V2, making sure there are no walls or obstacles between the NIDO ONE V2 and the access point. If the left light is green and the right light is flashing blue, NIDO ONE V2 is connected to its access point, but no Internet is available: • Make sure the RJ45 cable is connected to port 1 of the access point. • Make sure you have a working Internet connection, wait at least 10 minutes for DHCP association. • Make sure that there are no firewalls blocking the HTTP port.

PROBLEM	SOLUTION
The end of fertiliser/pH light has come on, but there is liquid in the cartridges.	The end of fertiliser and pH indicators may light up even if the cartridges have just been filled. The indicators are not connected to electrical sensors but are based on proprietary algorithms that have a good detection tolerance but not a reliable and absolute accuracy. Switching on these indicators does not cause any problems in the operation of NIDO ONE V2.
I have filled the cartridges with fertiliser/pH, but NIDO ONE V2 reports that they are empty.	It may take up to 24 hours to detect the presence of fertiliser and pH in the cartridges, to clear the message, switch NIDO ONE V2 off and on again.
Troubleshooting the NIDO ONE V2 Internal Pump.	If the internal turbine pump of the NIDO ONE V2 does not start automatically every 15 minutes, or if it does not respond to the manual command “flow pump”, it may be blocked. This blockage may be due to an accumulation of organic substances or mineral salts, which can occur if the device was not cleaned at the end of the previous cultivation period. To solve the problem, we recommend that you follow the steps below, wearing protective goggles and gloves: • Disconnect the IN and OUT connections from the canister. • Remove the pH and EC probes. • Remove residual water by turning the device upside down in a sink. • Fill the device with high concentration phosphoric acid (10 to 25 %) through the opening of the pH or EC probe. • Leave the acid to act for 24 hours. After carrying out these steps, reconnect the device correctly to the water tank and restart it. If the problem persists, we recommend contacting the NIDO service centre.
The water temperature detected by the device is very high.	The EC probe measures the electrical conductivity of the water, but it also has the ability to detect temperature. A water temperature value that is too high compared to reality is a clear sign that the EC probe is damaged. This malfunction compromises its ability to provide accurate measurements. Disconnect the damaged probe and install a new one to restore measurement accuracy.

For other unspecified issues, please contact NIDO Customer Support **WhatsApp (messages only): +39 327 684 4189**

TECHNICAL FEATURES OF NIDO ONE V2

DIMENSIONS:
375x230x200 mm (without bottles)
375x230x335 mm (with bottles)

WEIGHT:
3,6 Kg

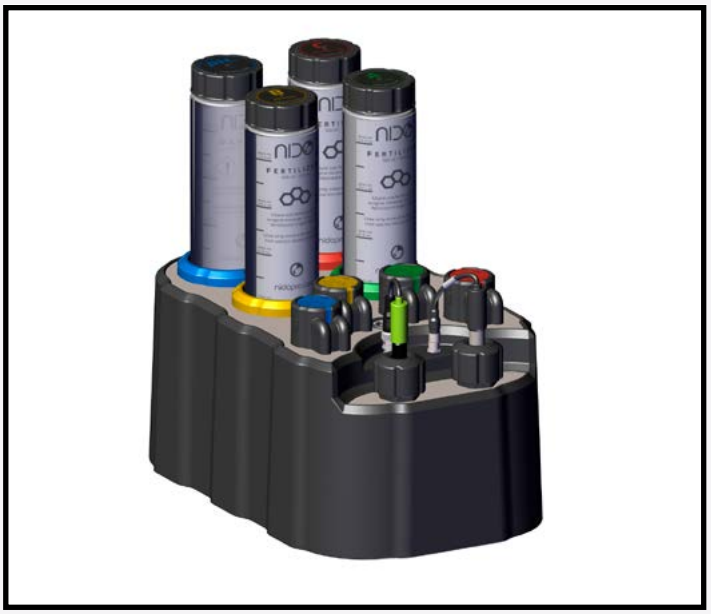
PROTECTION:
IP44

CONNECTION:
IEEE 802.11n

SUPPLY:
100-220 V AC

LANGUAGES:
English, italian, spanish

NOISE LEVEL:
Flow pump noise 53 dB
Dosing pump noise 63 dB



CERTIFICATIONS:

pH	Range Accuracy / Resolution	pH 4 - pH 10 ±0,05 / 0,01
EC/TDS	Range Accuracy / Resolution	0 - 5,0 mS ±0,05 mS / 0,01 mS
WATER TEMPERATURE	Range Accuracy / Resolution	5 - 40 °C ±0,5 °C / 0,1 °C
AMBIENT TEMPERATURE	Range Accuracy / Resolution	0 - 50 °C ±0,2 °C / 0,1 °C
AMBIENT HUMIDITY	Range Accuracy / Resolution	10 - 100% ±3% / 1%
WATER LEVEL	Sensor type	Optical

TECHNICAL FEATURES NIDO PLUG

DIMENSIONS:
56x86x56 mm

PROTECTION:
IP30

SUPPLY:
220-240 V CA

CONSUMPTION:
1 W

FREQUENCY:
50-60 Hz

POWER:
max 10 A, 2 kW loads

CONNECTION:
IEEE 802.11n

SOCKET/PLUG:
EU (Schuko)

CONDITIONS OF USE:
0 ÷ +50°C; < 80% U.R. n.c.

STORAGE CONDITIONS:
0 ÷ +50°C; < 80% U.R. n.c.

CERTIFICATIONS:

GUARANTEES

NIDO guarantees 24 months from the date of purchase of the product, 6 months on consumables (pH probe, EC probe and dosing pumps). It is important to keep the receipt or invoice in order to claim the warranty. NIDO guarantees the product against manufacturing defects, provided the product is used in accordance with the instruction manual.
If a valid proof of purchase is presented and we determine that the product is defective, NIDO may, at its option, repair the product with new or reconditioned parts or replace the product with a new or reconditioned product. Any part replaced by NIDO shall become its property.
If a part or product is discontinued, NIDO may, at its option, replace it with a functionally equivalent replacement part or product as an accommodation in full satisfaction of the warranty.

WHAT DOES THE WARRANTY NOT INCLUDE?

The warranty does not cover the replacement of items subject to wear and tear:

- Cosmetic damage such as stains, scratches or dents.
- Damage caused by accidents, misuse, neglect or handling of the product not in accordance with the instruction manual, or failure to maintain and care for the product as recommended in the manual.
- Damage caused by the use of parts or accessories not manufactured or recommended by NIDO.
- Damage caused by transport or shipping of the product.
- Product repaired or modified by unauthorised personnel.
- Products with incomplete or missing serial numbers.
- Damage to or wear of the pH or EC probe.
- Damage or wear to the dosing pump tubing.
- NIDO is not liable for incidental or other consequential damage to the product.
- Damage resulting from power fluctuations or interruptions not attributable to NIDO.
- Damage caused by the installation or use of unauthorized software or modifications to the product's original firmware.
- Damage caused by improper cleaning or use of non-recommended chemicals.
- Damage caused by use in unsuitable environments.
- Costs associated with the removal or reinstallation of the product.
- Loss of data or information stored in the product.
- Shipping or transportation costs for returning the product for repair or replacement.

NIDO does not guarantee against material deterioration due to handling, in particular the replacement of pH probes, nor against damage due to drying out of the probes, nor against wear and tear and the natural ageing process of the product, nor against damage caused by accidents or improper use.
NIDO does not guarantee in the event of failure to observe the precautions for use.
NIDO LAB is a registered trademark of NIDO.

NIDO ONE V2 is a measurement and control device for hydroponic cultivation and is in no way responsible for the outcome of the cultivation.

HOW TO RECYCLE THIS PRODUCT

This symbol indicates that this product must be disposed of separately from household waste in accordance with current regulations. When the product reaches the end of its life cycle, it must be disposed of at official collection points. Separating and recycling the product helps to conserve raw material reserves and ensures that health and environmental guidelines are met during recycling.

DECLARATION OF CONFORMITY

The undersigned **NIDO S.r.l.** - Technologies for Agriculture
Legal, administrative and commercial headquarters:
Via del Giglio 27 – 47841 Cattolica, Rimini
C. F. / P. Iva 04549710400

Declares under its own responsibility that the product
new mod.: NIDO ONE V2
to which this declaration refers, is in conformity with the following provisions:
DIRECTIVE 2014/53/EU
It has been manufactured in accordance with the following harmonised standards:
Safety EN60950-1: 2006/ A11:2009/ A1:2010/ A12:2011/ A2:2013
Electromagnetic Compatibilitya:
DRAFT EN 301489-1 V2.2.0
DRAFT EN 301 489-17 V3.2.0
RADIO EN 300 328 V2.1.1
Electromagnetic field EN62311:2008 / 1999/519/EC
The person authorised to draw up the technical documentation is:
Andrea Carloni - Via del Giglio 27 - 47841 Cattolica, Rimini

Andrea Carloni

Cattolica 10/01/2023

CE

LIMITED WRITTEN GUARANTEE
NIDO ONE V2 comes with a 2-year, 6-month limited written warranty on consumables (pH probe, EC probe and dosing pumps).

ASSISTANCE
If you need assistance or technical advice, we are here to help.
assistenza@nidopro.com

SOCIAL
facebook.com/nidogrowpro
instagram.com/nidopro
twitter.com/Nidogrowpro
pinterest.com/nidopro

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