

INSTALLATION AND MAINTENANCE GUIDE



# GREEN & GREEN 1000

ELECTRONIC LAVATORY FAUCET

# stern

STERN ENGINEERING LTD.

# INDEX

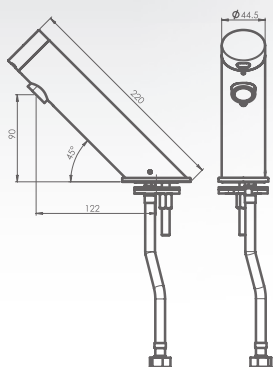
- 1 TECHNICAL DATA
- 2 PACK CONTENTS
- 3 PRE INSTALLATION INFORMATION
- 4-5 FAUCET INSTALLATION
- 6-8 SETTINGS ADJUSTMENT
- 9 BATTERY REPLACEMENT INSTRUCTIONS
- 10 MAINTENANCE
  - Filter cleaning instructions
  - Care and cleaning of chrome and special finishes
- 11 TROUBLE-SHOOTING
- 12 SPARE PARTS LIST
- 13 LIMITED WARRANTY

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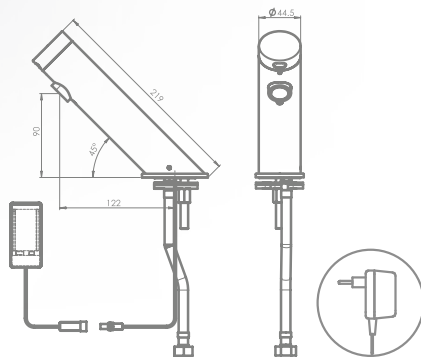
## TECHNICAL DATA

|                                      |  |
|--------------------------------------|--|
| <b>Power Supply:</b>                 | 9V battery or 9V transformer   |
| <b>Min Operating Water Pressure:</b> | 0.5 bar (7 PSI)  |
| <b>Max Operating Water Pressure:</b> | 8.0 bar (116 PSI)<br>With water pressure of more than 8 Bars,<br>use a pressure reducing valve |
| <b>Sensor Range:</b>                 | Self adjusting sensor  |
| <b>Minimum Sensor Range:</b>         | 50 mm.   |
| <b>Maximum Sensor Range:</b>         | 160 mm.  |
| <b>Security time:</b>                | 90 seconds. Can be reduced with the remote control   |

# TECHNICAL DATA

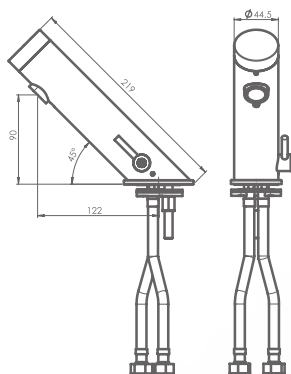


Green 225900

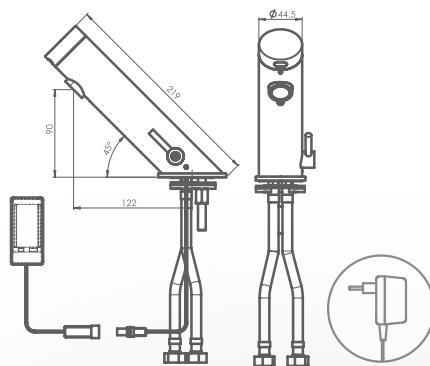


Green B 237250

Green E 237350



Green 1000 225800



Green 1000 B 237150

Green 1000 E 237050

# PACK CONTENTS

Familiarize yourself with the part names and confirm that the parts are included.

## GREEN

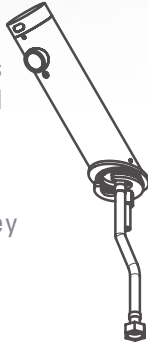
1x Tap and attachments with internal battery



1x Allen key



1x Filter



## GREEN B / E

1x Tap and attachments



1x Allen key



1x Filter



|                  |                      |
|------------------|----------------------|
|                  |                      |
| B VERSIONS       | E VERSIONS           |
| 9V Battery box   | Transformer          |
| OPTIONAL:        |                      |
|                  |                      |
| IP67 Battery Box | IP67 Transformer Box |

## GREEN 1000

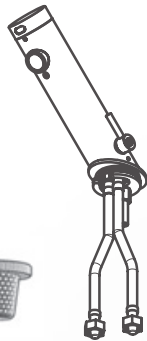
1x Tap and attachments with internal battery



1x Allen key



2 x Filters



## GREEN 1000 B / E

1x Tap and attachments



1x Allen key



2 x Filters



|                  |                      |
|------------------|----------------------|
|                  |                      |
| B VERSIONS       | E VERSIONS           |
| 9V Battery box   | Transformer          |
| OPTIONAL:        |                      |
|                  |                      |
| IP67 Battery Box | IP67 Transformer Box |

# PRE INSTALLATION INFO

## Check contents

Separate all parts from packaging and check each part with the Pack contents section. Pay attention to the different models variations.

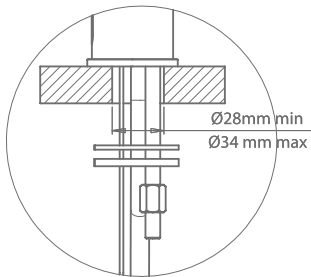
Make sure all parts are accounted for before discarding any packaging material. If any parts are missing, do not attempt to install this electronic faucet until you obtain the missing parts.

## Warnings:

**Do not** install the faucet facing a mirror or any other electronic system operated by an infra-red sensor.

To prevent reflection problems, it is recommended to keep a minimum distance of 1.50 meters between the faucet and other objects.

### Recommended hole size



## Preparation for Installation

Flush water supply lines thoroughly before installing the faucet. Do not allow dirt, Teflon tape or metal particles to enter the faucet.

Shut off water supply.

## Important:

All plumbing is to be installed in accordance with applicable codes and regulations.

# FAUCET INSTALLATION



## Step 1 – Remove all mounting hardware

Shut off water supply and remove the hexagonal nut, the disk and the gasket. Do not remove the O-ring from the base of the faucet.

## Step 2 – Installing the faucet

1. Place the faucet with O-ring into the hole in deck or lavatory. Make sure the O-ring is located between the deck or lavatory and the bottom of the faucet.
2. Slide the gasket over the flexible hose.

3. Secure the faucet to deck or lavatory with the hexagonal nut and the disk.

## Step 3 – Connecting the water supply

1. a. For Green, Green B, Green E: Connect the flexible pipe to the water supply.  
b. For Green 1000, Green 1000 B, Green 1000 E: Connect the red flexible pipe to the hot water supply and the blue pipe to the cold water supply.

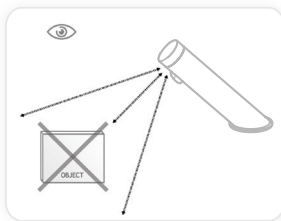
**2. Make sure that the filter/s is/are installed between the flexible pipe and the shut off valve (not supplied).**

3. Turn on the central water supply and the shut-off valve/s.
4. Check for leaks.

## Step 4 - Connecting the power source

This product includes a self adjusting sensor. The ideal sensor range for the specific location will be set automatically.

1. If your model is Green or Green 1000:



**Important:** Check that no objects are in front of the sensor besides the washbasin.

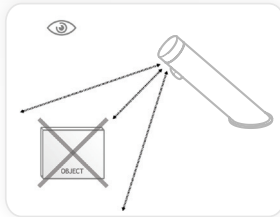


Now remove the protecting sticker that covers the sensor.

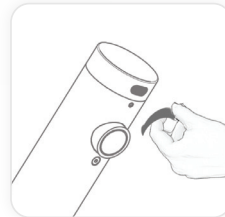
# FAUCET INSTALLATION

2. Wait about 30 seconds in order to allow the system to set the ideal sensor range. After the self adjustment has taken place the solenoid valve will be opened and closed for 1 second. As an indication, you will see a small amount of water delivered from the spout. Then the product will be ready for use.

3. If your model is Green B or Green 1000 B:



**Important:** Check that no objects are in front of the sensor besides the washbasin.



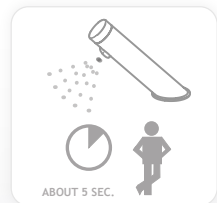
Now remove the protecting sticker that covers the sensor.

Install the battery's box at the wall underneath the sink using the two sided adhesive foam facet. The cable connection must point down. (You can use an optional extension cable in order to assemble the battery box up to 10ft. away from the sink.)

4. If your model is Green E or Green 1000 E: Plug the transformer into the electricity socket and connect the connectors.

5. Wait about 5 seconds in order to allow the system to set the ideal sensor range. After the self adjustment has taken place the solenoid valve will be opened and closed for 1 second. As an indication, you will see a small amount of water delivered from the spout. Then the product will be ready for use.

6. If the obtained range is unsatisfactory, refer to the section entitled "Range adjustment".



**Note:** This faucet includes a special aerator that allows you to adjust the water stream direction on site in order to prevent water splashing if needed. To change the angle of the water stream, simply move the adjustable tilting plate by pressing it smoothly.

## SETTINGS ADJUSTMENT



### Adjusting the settings with the remote control

If necessary, the sensor settings can be adjusted as following:

Shut off the water supply. In order to adjust the sensor with the remote control, hold the remote control straight in front of the sensor in a distance of about 6-8" (15-20cm). Choose the function you want to adjust by pressing once on one of the function buttons. After pressing once on a specific function button, a quick flashing of the red light at the front of the sensor will occur. At this stage, you can change the setting by pressing the (+) or the (-) buttons, every push will increase or decrease one level. After finishing the adjustment, turn the water supply back on.



# SETTINGS ADJUSTMENT



**DETECTION RANGE:** This faucet was supplied with a Self Adjusting Sensor. The ideal detection range for the specific location will be set automatically.

**Only if necessary,** use the remote control to adjust the sensor range as follows:

Press the RANGE button. Wait until a quick flashing of the red light of the sensor eye is perceived. Then, press + to increase the one level and – to reduce it every push will increase or decrease one level.

**Note:** Once you have changed the detection range with the remote control, this distance will be remembered by the sensor, even if the power source is disconnected. To get back to the self adjustment mode, use the ADJ button only.



**ENTRANCE TO THE SELF ADJUSTMENT MODE:** Check that no objects are in front of the sensor. Press the ADJ button. Once a quick flashing of the red light of the sensor eye is perceived, remove your hand holding the remote control and move away from the sensor area. The ideal sensor range for the specific location will be set automatically. Once the self adjustment has taken place the solenoid valve will be opened and closed for 1 second as an indication that the ideal sensor range was set and the product is ready for use.



**SECURITY TIME:** The Security time, prevents continuous running of water due to reflections or vandalism. By default, if the sensor is covered for more than 90 seconds the water flow will shut automatically. To resume regular operation any obstruction must be removed.

Press the SEC button. Wait until a quick flashing of the red light of the sensor eye is perceived. Then, press + to increase the security time and – to reduce it.

# SETTINGS ADJUSTMENT



**DELAY IN TIME:** It is recommended to change the delay in time for flush valves for urinals or toilets only.

If required, the delay in time can also be modified in faucets as follows: Press the IN button. Wait until a quick flashing of the red light of the sensor eye is perceived. Then, press + to increase the delay in time and – to reduce it.



**DELAY OUT TIME:** This button allows modifying the water flow time after the user removes his hands from the faucet. A delay out time close to 0 will save more water. An increased delay out time will make the user experience more comfortable.

If required, the delay out time can be modified as follows: Press the OUT button. Wait until a quick flashing of the red light of the sensor eye is perceived. Then, press + to increase the delay out time and – to reduce it.



**TEMPORARY OFF FUNCTION:** This function is ideal to perform any kind of activity in front of the sensor without operating the system (for example, cleaning).

The faucet will remain shut for 1 minute when this button is pressed once. To cancel this function and to return to normal operation press the On/Off button again or wait 1 minute.



**RESET BUTTON:** This function restores all the factory settings except for the sensor range. If required, press the Reset button and without releasing it, press the + button once.

**Note:** To enter the self adjusting mode, use the ADJ button. To change the sensor range, use the RANGE button.

# BATTERY REPLACEMENT

When the battery weakens, the red indicator light will blink at a constant rate. The battery must be replaced within two weeks.

## **To replace the battery in Green, Green 1000:**

- 1) Turn off the shut off valve.
- 2) To remove the faucet cover with the sensor, use the supplied Allen key.
- 3) Release the screw and remove the cover with the sensor.
- 4) Disconnect the connector coming from the electronic unit to the battery.
- 5) Replace the used battery with a new 9V battery. A Lithium battery is recommended.
- 6) Carefully place the battery inside the body and reassemble the electronic unit connector to the battery.

### **Important:**

- Since water contacting the battery terminals rapidly drains the battery, do not allow moisture or water into the system while the battery is being replaced.
- Make sure the O-ring is still in its groove and is not damaged. If needed replace it with a new one if needed or clean and lubricate it with silicon grease before reassembling the parts.

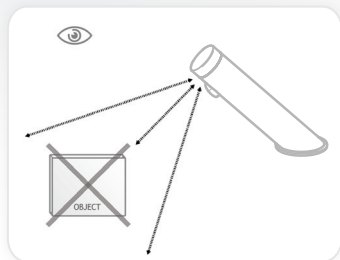
- 7) You must reassemble the faucet cover with the sensor within 30 seconds in order for the sensor self adjustment to be done properly.

## **To replace the battery in Green B, Green 1000 B:**

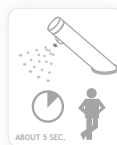
1. Carefully open the battery's box.
2. Remove the old battery.
3. Replace the used battery with a new 9V battery. A lithium battery is recommended.
4. Close the box.

# BATTERY REPLACEMENT

**Note:** If you did not change the sensor detection range with the remote control, the system will perform a new self adjustment after the reconnection of the battery.



Check that there are no objects in front of the sensor after the battery replacement was completed.



After you have replaced the battery, move away from the sensor range. Wait 5 seconds in order to allow the system to set the ideal sensor range. Then after the self adjustment has taken place the solenoid valve will be opened and closed for 1 second as an indication that the ideal sensor range was set and the product is ready for use.

**Important:** Spent batteries should not be disposed of with normal household waste. Contact your local authority for information on waste disposal and recycling.



## MAINTENANCE

### Filter cleaning instructions

This faucet is provided with one or two stainless steel filter/s preventing foreign particles to enter the lines. If the water flow has decreased, this may be because the filter is clogged. The filter can be cleaned as follows:

1. Shut-off the water shut off valve.
2. Disconnect the flexible pipe.
3. Remove the filter/s and wash it/them under running water.
4. Reassemble the parts.
5. Reconnect the flexible pipe and restore the incoming water supply.
6. Make sure that there is no water leakage.

### Care and cleaning of chrome and special finishes

**DO NOT** use steel wool or cleansing agents containing alcohol, acid, abrasives, or the like. Use of any prohibited cleaning or maintenance products or substances could damage the surface of the faucet. For surface cleaning of faucets use **ONLY** soap and water, then wipe dry with clean cloth or towel. When cleaning bathroom tile, the faucets should be protected from any splattering of harsh cleansers.

# TROUBLE SHOOTING

| PROBLEM                                     | INDICATOR   | CAUSE   | SOLUTION  |
|---|---|---|---|
| <b>No water coming out of the tap:</b>      | 1. Sensor flashes continuously when user's hands are within the sensor's range.   | Low battery.  | Replace battery.  |
|   | 2. Red light in the sensor does not flash when user's hands are within the sensor's range.  | 1. Inappropriate detection range.   | Adjust using the remote control. Alternatively you can take out the battery and place it again to perform a new sensor self adjustment ( page 9).                       |
|   |   | 2. Battery is completely used up  | The battery must be replaced.   |
|   |   | 3. Unit is in "Security Mode"*  |   |
| <b>Water flow from spout does not stop:</b> | 3. Red light in the sensor flashes when user's hands are within the sensor's range.   | 4. Sensor is picking up reflections from the washbasin or another object. | Eliminate cause of reflection.  |
|   |   | 1. Connectors between the electronic unit and solenoid are disconnected.  | Connect the electronic unit connectors to the solenoid.   |
|   | 4. The water supply pressure is under 8 bars and yet the pressure in the faucet's body is higher. This situation could be caused by a sudden increase in the water supply pressure that the back-check prevents from dropping, even after water supply pressure drops under 8 bars. | 2. Debris or scale in solenoid.   | Replace solenoid.   |
|   |   | 3. The water supply pressure is higher than 8 bar.                        | Reduce the supply water pressure.   |
| <b>Water flow diminished</b>                | 1. Sensor flashes when user's hands are within the sensor's range   | Debris or scale in solenoid.  | Replace solenoid.   |
|   | 2. Red light in the sensor does not flash when user's hands are within the sensor's range   | Sensor is picking up reflections from mirror or another object.           | Decrease the detection range using the remote control. Alternatively you can take out the battery and place it again to perform a new sensor self adjustment ( page 9). |
|   |   |   | Remove, clean, re-install   |

\* "Security Mode": If the sensor is covered for more than 90 sec. the faucet will automatically shut off water flow. To return to normal operation remove any blockage to re-establish operation.

# SPARE PARTS LIST

## GREEN, GREEN B, GREEN E:

| PART NAME                    | PART CODE |
|------------------------------|-----------|
| Interoperable Solenoid Valve | 07500065  |
| Seals and Screws Kit         | 07210082  |
| Cover Kit for Green          | 07270106  |
| Nano Sensor (Green)          | 08004003  |
| Nano Sensor (Green B, E)     | 08004006  |
| 9V Battery box               | 06520008  |
| 9V Transformer               | 06522042  |
| IP67 Battery box             | 06530020  |
| IP67 Box with Transformer    | 06530021  |

## GREEN 1000, GREEN 1000 B, GREEN 1000 E:

| PART NAME                        | PART CODE |
|----------------------------------|-----------|
| Interoperable Solenoid Valve     | 07500065  |
| Seals and Screws Kit             | 07210083  |
| Cover Kit for Green              | 07270106  |
| Nano Sensor (Green 1000)         | 08004003  |
| Nano Sensor (Green 1000B, 1000E) | 08004006  |
| Mixing Handle kit                | 07260008  |
| 9V Battery box                   | 06520008  |
| 9V Transformer                   | 06522042  |
| IP67 Battery box                 | 06530020  |
| IP67 Box with Transformer        | 06530021  |

# LIMITED WARRANTY

Y. Stern Engineering Ltd. warrants that its electronic faucets, flush valves and controls will be free of defects in material and workmanship during normal use for two years from the date the product is purchased.

If a defect is found in normal use, Y. Stern Engineering Ltd. will, at its discretion, repair, provide a replacement part or product, or make appropriate adjustments. Damage caused by accident, misuse, or abuse is not covered by this warranty. Improper care and cleaning will void the warranty. Proof of purchase (original sales receipt) must be provided to Stern Engineering Ltd. with all warranty claims.

Stern Engineering Ltd is not responsible for labor charges, installation, or other incidental or consequential costs other than those noted above. In no event shall the liability of Stern Engineering Ltd. exceed the purchase price of the faucet, valve or control.

If you believe that you have a warranty claim, contact your Stern Distributor, Dealer or Plumbing Contractor. Please be sure to provide all pertinent information regarding your claim, including a complete description of the problem, the product, model number, the date the product was purchased, from whom the product was purchased and the installation date. Also include your original invoice.

Y. STERN ENGINEERING AND/OR SELLER DISCLAIM ANY LIABILITY FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. This warranty excludes product damage due to installation error, incorrect maintenance, wear and tear, battery, water composition, product abuse, or product misuse, whether performed by a contractor, service company, or the consumer. This warranty does not cover product damage caused by the following:

- Incorrect installation, inversions of supply pipes.
- Pressures or temperatures exceeding recommended limits.
- Improper manipulation, tampering, bad or lapsed maintenance.
- Foreign bodies, dirt or scale introduced by the water supply.

# STERN

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