

APOLLO FREE  
ELECTRONIC WALL MOUNTED FAUCET

# installation & maintenance guide

**APOLLO FREE**



STERN ENGINEERING LTD

# I n d e x

- 1** TECHNICAL DATA
- 2** PACK CONTENTS
- 3** PRE-INSTALLATION INFORMATION
- 4** FAUCET INSTALLATION
- 5-6** RANGE ADJUSTMENT
  - Adjusting the sensor range
  - Adjusting the sensor range with a remote control - optional
- 6** BATTERY REPLACEMENT INSTRUCTIONS
- 7** MAINTENANCE
  - Filter cleaning instructions
  - Care and cleaning of chrome and special finishes
- 7** SPARE PARTS
- 8** TROUBLE SHOOTING
- 9** WARRANTY

# T e c h n i c a l   d a t a



**APOLLO FREE**  
Electronic faucet for cold  
or premixed water

**Power supply:**

9V battery or 9V transformer

**Recommended water pressure:**

0.5-8.0 bar (7-116 PSI)

With water pressure of more than 8 bars,  
use a pressure reducing valve for reduction.

**Preset sensor range:**

220 mm Adjustable

**Minimum sensor range:**

80 mm

**Maximum sensor range:**

300 mm

# P a c k c o n t e n t s

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

## 1. Apollo Free

1. 1x Electronic faucet body and regulating valve (including the infrared sensor and the solenoid valve)

2. 1x Wall flange

3. 1x Spout

4. 2x Allen keys



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# Pre - installation information

## **Check contents**

Separate all parts from the 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 your Apollo Free 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 infrared sensor.

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

## **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**

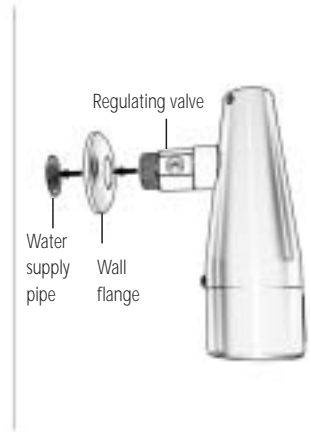
All plumbing is to be installed in accordance with applicable codes and regulations.

# F a u c e t i n s t a l l a t i o n

## Installation

1. Shut off water supply. Mount the faucet body to the wall by connecting the regulating valve to the water supply pipe in the wall.

Place the wall flange between the regulating valve inlet and the finished wall.



2. Tighten the unit by turning only the regulating valve.

3. Turn on the water supply and check for leaks.

4. Adjust the flow capacity by turning the regulating valve.

5. If range is unsatisfactory, refer to the section titled "Range adjustment"



# Range adjustment

The sensor range is the range an object can be away from the sensor in order to activate the faucet. The sensor is factory preset. If necessary, it can be adjusted as follows:

## Adjusting the sensor range:

1. Disconnect the battery from the sensor.
2. Make a short circuit between the (+) and the (-) of the sensor. You can use a screw driver or another conductor material to make this short circuit. Alternatively, after disconnecting the power supply, activate the sensor three or four times.

Do not make a short circuit on the power supply or on the sensor when the power supply is connected to the sensor.

3. Reconnect the power supply to the sensor.
4. To enter into the adjusting mode, put your hand in front of the sensor at a distance of 2" (5cm) to 4" (10cm) within 5 seconds after the reconnection of the power supply. Note: If you will not put your hand in front of the sensor after connecting the power supply, the sensor will not enter into adjusting mode and the previous setting will return.
5. When the sensor enters into adjusting mode and your hand is in front of the sensor, a slow flashing of the red light at the front of the sensor will occur.
6. Keep your hand at the front of the sensor until the slow flashing changes into quick flashing. At this point, move your hand to the required distance from the sensor and wait until the red light will stop flashing.
7. When the red light has turned off, your sensor has been adjusted to the required distance.
8. Check the distance you have set and if it is not satisfactory, repeat steps 1-6.



## Adjusting the sensor with a remote control - optional:

In order to adjust the sensor with a remote control you hold the remote control straight in front of the sensor at a distance of about 4" (10cm). 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 adjustment by pressing the (+) or (-) buttons, every push will increase or decrease one level.

# Range adjustment / Battery replacement instructions

## Adjusting the sensor with a remote control - optional (continue):

**Range:** Press + to increase the detection range and – to decrease the detection range of the sensor.

The remote control can also be used to adjust:

**Flow Time (Security time):** Press + to increase the security time and – to decrease it.

**Delay In:** Changes the time the water will start flowing when the user's hands are within the sensor range. Press + to increase it and – to decrease.

**Delay Out:** Changes the time of water flow after the user's hands are removed.

Press + to increase it and – to decrease.

**On/Off:** Press this function button and the faucet will remain off for 1 minute.

To cancel this function press the on/off button again.

**Reset:** Press this function button and the factory settings will return.



## Battery replacement instructions

When the battery weakens, the red indicator light will blink at a constant rate when the user's hands are within the sensor range. The battery must be replaced within two weeks.

### To replace the battery :

1. Turn off the regulating valve.
2. Release the screw of the electronic cap and carefully pull it out.
3. Replace the used battery with a new 9V battery (Lithium battery is recommended).
4. Before reassembling the electronic cap, make sure that the external O-ring is not damaged. Replace it if necessary.

5. Connect the connector of the solenoid valve to the connector of the electronic unit.

6. Reassemble the electronic cap.

**Attention:** The interior of the faucet body and the electronic cap must be fully dry before reassembling the electronic cap.

7. Tighten the screw.





## Filter cleaning instructions

This faucet is provided with a stainless steel filter 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. Turn off the regulating valve.
2. Disassemble the faucet body from the regulating valve.
3. Remove the filter and wash it under running water.
4. Reassemble the filter.
5. Reassemble the faucet body.
6. Turn on the regulating valve and adjust the flow capacity.
7. 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 faucet 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.

## Spare parts list

- |                         |                  |
|-------------------------|------------------|
| 1. Sensor kit           | Cat.No. 07220026 |
| 2. Solenoid valve kit   | Cat.No. 07230003 |
| 3. Seals and screws kit | Cat.No. 07210031 |
| 4. Diaphragm            | Cat.No. 04500001 |
| 5. Spout                | Cat.No. 07015006 |

Optional accessories:

- |                   |                  |
|-------------------|------------------|
| 6. Remote control | Cat.No. 07100001 |
|-------------------|------------------|

# Troubleshooting

Problem	Indicator	Cause	Solution
No water comes out of the tap:	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. Range is too short. 2. Range is too long. 3. Battery is completely used up. 4. Unit is in "Security Mode" *. 5. Sensor is picking up reflections from mirror or other object.	Increase the range. Decrease the range. The battery must be replaced.
Water flow from spout does not stop:	3. Red light in the sensor flashes when user's hands are within the sensor's range.	1. Connectors between the electronic unit and solenoid are disconnected. 2. Debris or scale in solenoid.	Connect the electronic unit connectors to the solenoid. Unscrew solenoid, pull out the plunger and the spring from the solenoid and clean them. Use scale remover material if needed. When replacing the plunger, please make sure that the spring is in vertical position.
		3. The central orifice in the diaphragm is plugged or the diaphragm is torn.	Clean the orifice or replace diaphragm.
		4. The water supply pressure is higher than 8 bar.	Reduce the water supply pressure.
Water flow diminished.	1. Sensor flashes when user's hands are within the sensor's range.	Debris or scale in diaphragm or the diaphragm is torn.	Clean the orifice or replace diaphragm.
	2. Red light in the sensor does not flash when user's hands are within the sensor's range.	1. Sensor is dirty or covered**. 2. Sensor is picking up reflections from mirror or another object. Filter or aerator is clogged.	Clean or eliminate cause of interference. Decrease the range or eliminate cause of reflection. Remove, clean and reinstall.

# W a r r a n t y

## L I M I T E D      W A R R A N T Y

This product is covered by a limited warranty of two years from date of purchase.

During this period, STERN undertakes, at its option, to repair or replace any faults caused by defective materials or manufacturer defaults that may arise (see Stern Warranty).

The guarantee does not cover faults or damage caused by incorrect installation and/or maintenance, wear and tear, battery, or water composition. This includes, but is not limited to 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.

\* "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.

\*\* Water flow will stop after 90 seconds because of the security time.



15 gan rave Blvd.

81222 gan rave

Yavne, israel

tel: 972-8-9326000

fax: 972-8-9326001

e - m a i l :

[export@sternfaucets.com](mailto:export@sternfaucets.com)

[www.sternfaucets.com](http://www.sternfaucets.com)



THE STANDARDS INSTITUTION OF ISRAEL