MEDICAL 1000 TE
TOUCH-FREE ELECTRONIC WALL-MOUNTED FAUCET

SPECIFICATIONS

Touch-free wall-mounted electronic faucet. Mixer for water temperature adjustment for hot and cold water. Body integrated spout. Powered by 9V transformer. Latching solenoid valve is located inside the product. Auto shutoff after 90 seconds. Adjustable settings by remote control: security time, delay in, delay out, on-off and reset to factory settings.

OPERATION

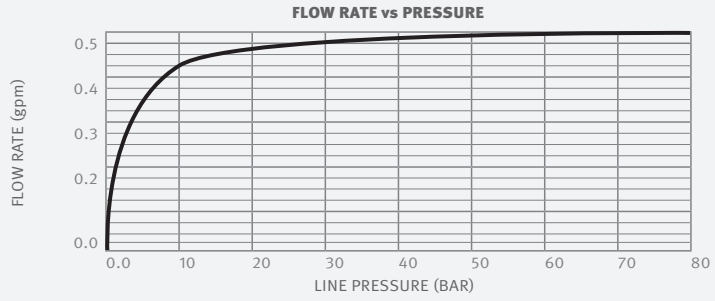
Touch-free electronic faucet. The faucet is automatically activated when users place their hands in the sensor range and stops when users move away from the sensor range.

APPLICATION

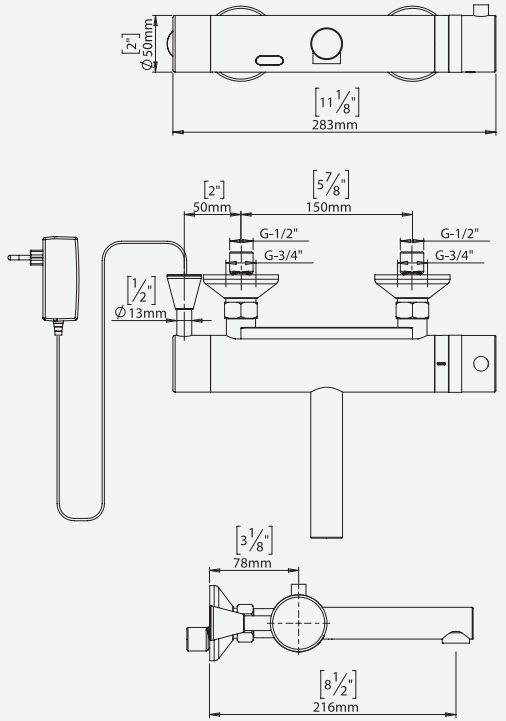
Touch-free faucet. Enables patients and medical personnel to wash hands without touching the faucet. Prevents cross contamination. Helps washrooms to stay cleaner. Ideal for hospitals, laboratories, dental clinics and commercial kitchens.

PRODUCT AT A GLANCE

Installation	Exposed wall-mounted
Power Supply	9V transformer
Operating water pressure	0.5-5.0 BAR (7-72.5 PSI), for water pressure greater than 5.0 bar use a pressure reducing valve.
Water supply	Hot and cold water
Water flow	6 LPM / 1.58 GPM - SSR PCA stream
Water Saving Options	4 LPM / 1 GPM ; 3 LPM / 0.8 GPM 1.89 LPM / 0.5 GPM ; 1.3 LPM 0.35 GPM - PCA spray
Water temperature	70°C Maximum
Security Time	90 seconds. Adjustable by remote control



This graph applies to 0.5 GPM option only.



ORDERING INFORMATION

MODEL	CODE	POWER	ADDITIONAL FEATURES
MEDICAL 1000 TE	314600	9V transformer	Exposed installation Body integrated spout Mixer for water temperature adjustment

OPTIONS

OPTION	CODE
Remote control	07100005

STERN ENGINEERING LTD.

ADVANTAGES

- MEDICAL
- LEED RATING
- OPTIONAL HYGIENE FLUSH
- SOAP AND WATER
- GERM FREE
- ADJUSTABLE SETTINGS
- EASY TO INSTALL
- ADA DESIGNED

APPROVALS

WRAS APPROVED PRODUCT

COMPLIES TO ASME A112.18.1/ CSA B125.1

777 Passaic Avenue
Clifton NJ, 07012
USA: sternusa@sternfaucets.com
International: info@sternfaucets.com
Toll Free: 1-800-4364410

www.sternfaucets.com

STERN ENGINEERING LTD.

APOLLO MEDICAL

APOLLO MEDICAL F

MEDICAL 1000 T

ELECTRONIC WALL MOUNTED FAUCET

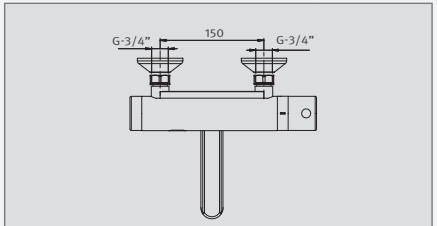
INSTALLATION AND MAINTENANCE GUIDE

INDEX

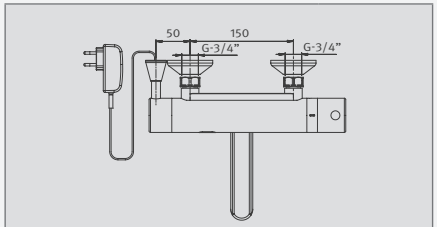
1	TECHNICAL DATA
2-4	PACK CONTENTS
5	PRE-INSTALLATION INFO
6-7	INSTALLATION
8	ADJUSTING THE WATER TEMPERATURE
9-11	SETTINGS ADJUSTMENT WITH REMOTE CONTROL
12-13	BATTERY REPLACEMENT
14	MAINTENANCE
15	SPARE PARTS LIST
16	LIMITED WARRANTY
17	TROUBLESHOOTING

The information in this document reflects products at the date of printing. Stern Engineering Ltd reserves the right, subject to all applicable laws, at any time, at its sole discretion, and without notice, to discontinue or change the features, designs, materials and other specifications of its products, and to either permanently or temporarily withdraw any of the forgoing from the market. All information in this document is provided "as is" without warranty of any kind, either expressed or implied, including but not limited to any implied warranties of merchantability, fitness for a particular purpose, or non-infringement. Stern Engineering Ltd assumes no responsibility for errors or omissions in the information presented in this document. In no event shall Stern Engineering Ltd be liable for any special, incidental, indirect or consequential damages of any kind, or any damages whatsoever arising out of or in connection with the use or performance of this information. The tradenames, trademarks, logos and service marks presented in this document, including their design, are the property of Stern Engineering Ltd or other third parties and you are not permitted to use them without the prior written consent of Stern Engineering Ltd or such third party as may own them.

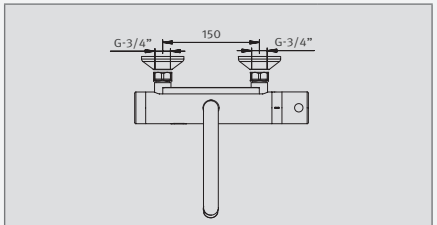
TECHNICAL DATA



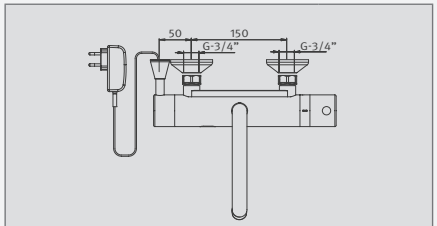
APOLLO MEDICAL B 314500



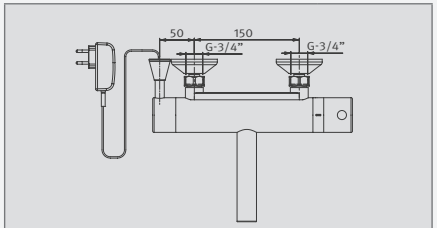
APOLLO MEDICAL E 314510



APOLLO MEDICAL FB 314530



APOLLO MEDICAL FE 314540

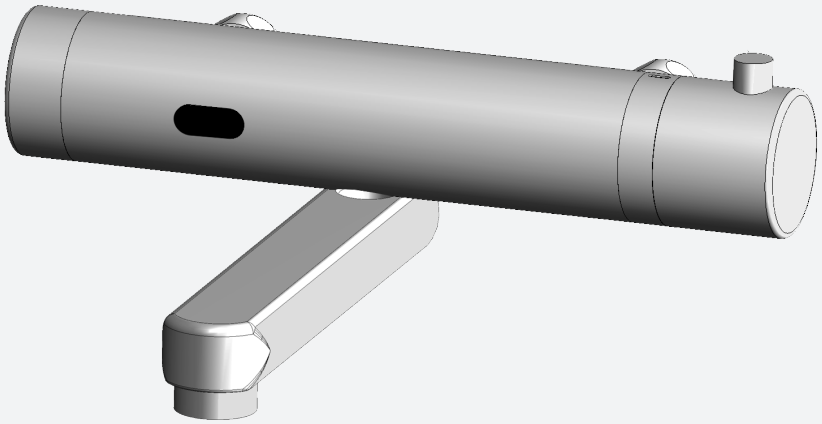


MEDICAL 1000 TE 314600

Power supply	Internally mounted 9V battery or external 9V switching transformer
Minimum operating water pressure:	0.5 bar
Maximum operating water pressure:	8.0 bar
Max. Hot water supply:	65° C
Sensor range	45 cm - Adjustable
Security time	90 seconds. Adjustable with remote control.
24 hs. hygiene flush	Disabled. Can be enabled on site.

PACK CONTENTS APOLLO MEDICAL B / E

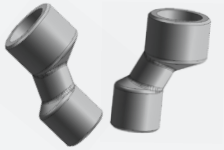
Familiarize yourself with the part names and confirm that the parts are included.



1 x Faucet body and spout

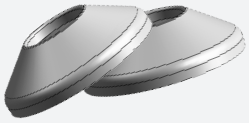
1 x 2 mm Allen key

1 x 2.5 mm Allen key



2 x Eccentric unions

1 x 4 mm Allen key



2 x Fixation accessories (rosettes)

2 x Filters and seals

PACK CONTENTS APOLLO MEDICAL FB / FE

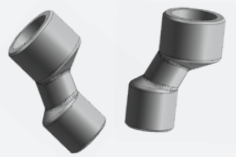
Familiarize yourself with the part names and confirm that the parts are included.

1 x Spout

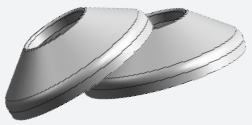
1 x Faucet body

1 x 2 mm Allen key

1 x 2.5 mm Allen key



2 x Eccentric unions



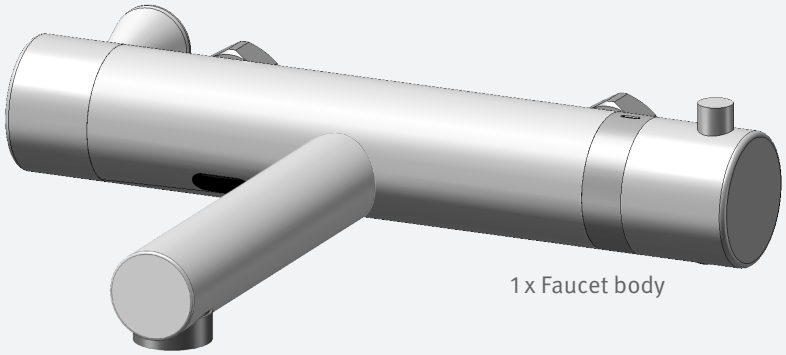
2 x Fixation accessories (rosettes)

2 x Filters and seals

PACK CONTENTS

MEDICAL 1000TE

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

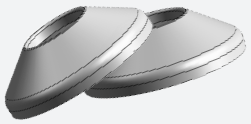


1 x Faucet body

1 x Spout

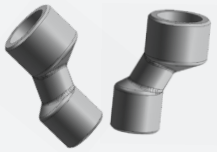
1 x 2 mm Allen key

1 x 2.5 mm Allen key



2 x Fixation accessories (rosettes)

2 x Filters and seals



2 x Eccentric unions

PRE-INSTALLATION INFO

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 electronic faucet until you obtain the missing parts.

Warnings

Do not install 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 any 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.

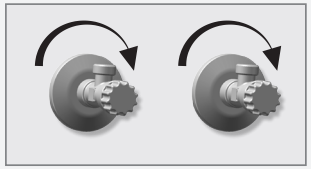
Shut off water supply.

Important

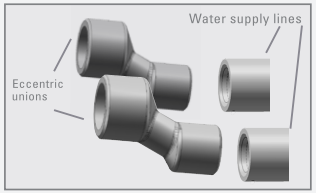
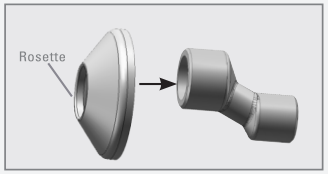
All plumbing is to be installed in accordance with applicable codes and regulations.

FAUCET INSTALLATION

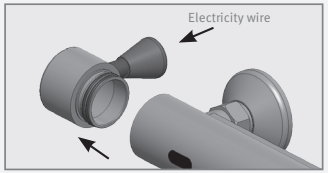
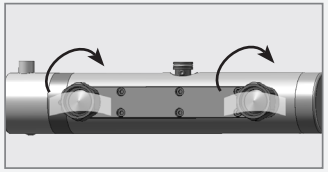
STEP 1 – INSTALLING THE FAUCET

1	Shut off the water supply.	

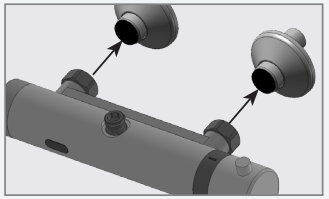
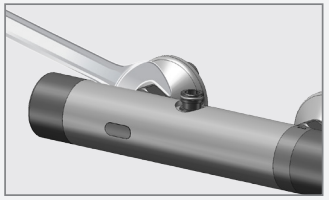
NOTE: The standard distance between the water supply pipes centers is 150 mm. Two eccentric unions are provided to allow variations from 130mm to 170mm.

2	Mount the eccentric unions on the water supply pipes using the teflon thread sealing tape.	
3	Apply the covering rosettes on the eccentric unions, and set the eccentric unions so that they correspond with the faucet inlets.	

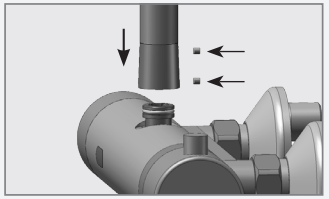
IMPORTANT: To make sure it will be installed in the right location, the filter is joined to the faucet nuts with a clear adhesive tape.

4	**For Apollo Medical F** Attach the cover to the side of the body of the faucet and connect internal wiring. Pass the power supply wire through the premade hole in the wall, leaving no excess on faucet side. Mount faucet and tighted cover to conceal wire hole.	
5	Remove the clear adhesive tape holding the filters in place.	

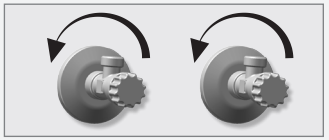
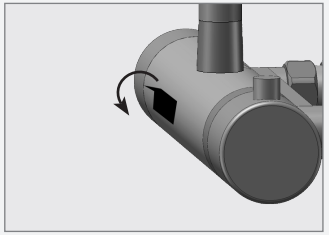
FAUCET INSTALLATION

6	Proceed to mounting the faucet on the eccentric unions.	
7	Tighten the nuts carefully with a 30mm wrench.	

IF YOUR MODEL IS APOLLO MEDICAL B/E THE FAUCET SPOUT IS ALREADY ASSEMBLED.

8	**For Apollo Medical F models and Medical 1000T models:** Mount the spout to its location in the faucet body, and tighten the Allen screw/s using the Allen key provided in the packaging.	

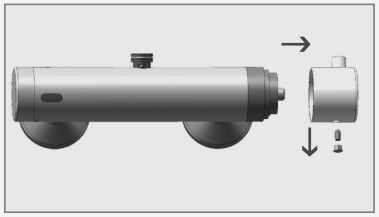
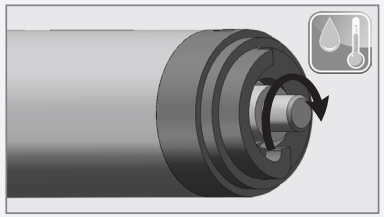
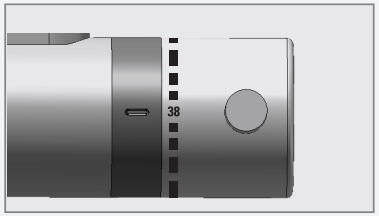
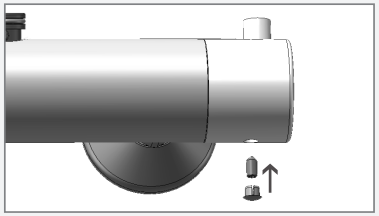
STEP 2 – CONNECTING THE WATER SUPPLY AND OPERATING THE FAUCET

1	Turn on the central water supply and the shut-off valves and check for leaks.	
2	Remove the protective sticker. IF THE RANGE IS UNSATISFACTORY, REFER TO THE SECTION TITLED “SETTING ADJUSTMENT”.	

ADJUSTING THE WATER TEMPERATURE

The faucet has been factory calibrated to 38°C under ideal installation conditions.

Due to variations in site conditions, the mixed water temperature may need adjustments to match the site conditions and make sure that it is safe.

1	Unscrew the regulation knob screw and remove the regulation knob.	
2	Proceed to achive a 38°C settings by turning the spindle and measuring the water temperature with a thermometer. NOTE: Make sure always to use a thermometer with proven accuracy.	
3	Assemble the regulation knob to the 38°C position. The anti scalding knob must correspond to the 38°C stop in the stop ring, without moving the spindle.	
4	Screw the regulation knob screw and tighten it.	

THE FAUCET IS NOW CALIBRATED ACCORDING TO THE SITE SPECIFIC CONDITIONS.

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: 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 blue light in 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.	
	DELAY IN TIME: If required, the delay in time can also be modified as follows: Press the IN button. Wait until a quick flashing of the blue light in 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 flushing start time after the user moves away from the product. A delay out time close to o 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 blue light in 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 product 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.

SETTINGS ADJUSTMENT

	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.
	SECURITY TIME: The Security time, prevents continuous flushing 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.
	24 HOUR HYGIENE FLUSH: This model includes a 24 hours hygiene flush which is disabled. To activate the hygiene flush, press the clock button. Wait until a quick flashing of the blue light in the sensor eye is perceived. Then press + to activate the hygiene flush. To disable it again, press – to deactivate it.
	COMFORT FLUSH: If your model includes a COMFORT FLUSH setting, it can be activated by pressing the flush button. When the button is pressed, one blink of the blue light in the sensor eye is perceived. The pre-programmed flush cycle will take place then. The Comfort flush cannot be interrupted or deactivated by pressing any button until it is over.

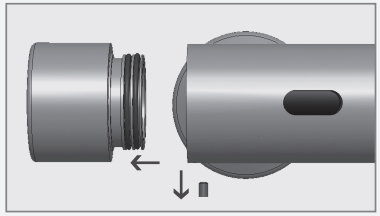
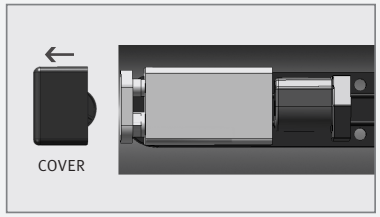
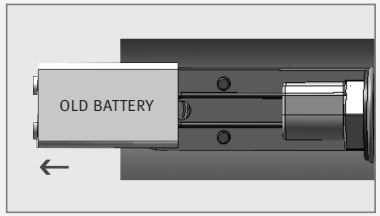
BATTERY REPLACEMENT

LOW BATTERY INDICATOR

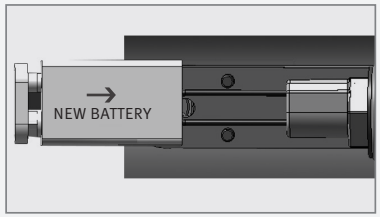
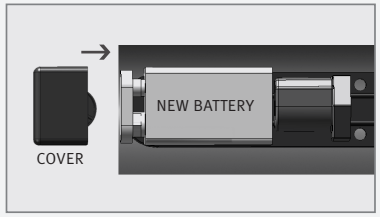
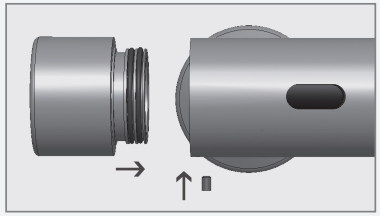
The product has an advanced battery level management system consisting of 2 steps. In the first step, the battery still has enough power to open and close the solenoid valve and allows the solenoid valve to open.

In the second step the battery might not have enough power to open and close the solenoid valve. In this case, the battery level management system does not allow the solenoid valve to open. Instead of providing an opening and closing pulse, the systems provides two closing pulses.

BATTERY REPLACEMENT INSTRUCTIONS

1	Unscrew the M4X6 Allen screw on the faucet left hand side and pull out the cap.	
2	Remove the battery cover protection and disconnect the connector between the battery and the electronic unit.	
3	Take out the old battery.	

BATTERY REPLACEMENT

4	Replace the used battery with a new 9V battery (a Lithium battery is recommended), and connect the connector between the battery and the electronic unit.	
5	Put the battery protection cover back on.	
6	Place the cap back into place and tighten the Allen screw. Note: Make sure the o-rings are still in thier groove.	

- Do not allow moisture or water into the system while the battery is being replaced.
- The interior of the faucet must be fully dry before reassembling the parts. If it is not fully dry, carefully dry it.

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

The system is provided with two stainless steel filters preventing foreign particles to enter the lines. It is recommended to clean the filters every six (6) months. If the water flow has decreased, this may be because the filters are clogged. The filters can be cleaned as follows:

1. Shut-off the water shut off valve.
2. Disassemble the faucet and remove the filters located between the faucet nuts and the eccentric unions
3. Wash the filters under running water.
4. Reassemble the parts.
5. 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 shower. For surface cleaning of shower use ONLY soap and water, then wipe dry with clean cloth or towel. When cleaning bathroom tile, the showers should be protected from any splattering of harsh cleansers

SPARE PARTS LIST

Seals & Screws Kit Apollo Medical B/E	07210075
Seals & Screws Kit Apollo Medical FB/FE	07210144
Seals & Screws Kit Medical 1000TE	07210159
10-Pack Sensor Kit Apollo Medical B/FB	07220277
10-Pack Sensor Kit Apollo Medical E/FE	07220304
10-Pack Sensor Kit Medical 1000TE	07220305
Spout Apollo Medical B/E	07015035
Spout Apollo Medical FB/FE	07015006
Spout Kit Medical 1000TE	07271024
Cover kit battery version	07270070
Cover Kit transformer version	07270079
10-Pack Stern Interoperable solenoid valve	07230049
Thermostatic Cartridge Kit	07240021
Thermostatic Handle	07110018
Adapter for Handle	07055067
Nut for Thermostat	07055070
Inlet Nipple Kit	07246033
12-Pack 9V transformer	06540002

LIMITED WARRANTY

Y. Stern Engineering Ltd. warrants that its electronic products 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 product.

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, 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 or soap tank.
- Use of the soap outside of viscosity specifications.
- Alteration of the original soap/foam dispenser components (including pipes).

TROUBLESHOOTING

PROBLEM	INDICATOR	CAUSE	SOLUTION
No water coming out of the faucet:	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 once when user's hands are within the sensor's range.	1. Range is too short.	Increase the range
		2. Range is too long.	Decrease the range
		3. Battery is completely used up	The battery must be replaced.
		4. Unit is in "Security Mode"*	
		5. Sensor is picking up reflections from the washbasin or another object.	Eliminate cause of reflection.
	3. Red light in the sensor flashes once when user's hands are within the sensor's range.	1. Debris or scale in 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.
		2. The central orifice in the diaphragm is plugged or the diaphragm is torn	Clean the orifice or replace diaphragm.
		3. The water supply pressure is higher than 8 bar.	Reduce the supply water pressure.
		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 backcheck prevents from dropping, even after water supply pressure drops under 8 bars.	Shut off water supply and unscrew one of the flexible pipes in order to reduce the pressure that blocks the product.
Water flow from spout does not stop:	1. Sensor flashes once when user's hands are within the sensor's range.	1. Debris or scale in diaphragm	Clean the orifice or replace diaphragm.
		2. Connectors between the electronic unit and the power supply are disconnected or not connected properly	Connect the connectors properly.
	2. Red light in the sensor does not flash once when user's hands are within the sensor's range.	1. Sensor is dirty or covered.**	Clean or eliminate case of interference.
		2. Sensor is picking up reflections from the washbasin or another object.	Decrease the range or eliminate cause of reflection.
Water flow diminished		Filter or aerator is clogged	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.
** In this case, the water flow will stop anyway after 90 seconds because of the security time.

STERN ENGINEERING LTD.

777 Passaic Avenue, Clifton NJ,07012, USA
Tel: +1-973 773 8011 | Fax: +1-973-779-8768
Toll Free: 1-800-4364410
info@sternfaucets.com | tech@sternfaucets.com

8.17 015314500-E