

## 1870-4M2 Faucet

### intelligent™ Electronic Lav Faucet e/w Above Deck Mixer



#### Product Description

- Solid brass electronic faucet
- Above deck Temp Mixer on 4" Plate
- Designer Series, high arc spout
- Computer based micro controller w/specially designed infrared sensors to detect within a required distance
- Auto shut-off - 1 minute
- Modular design to accept optional equipment
- e/w plug-in adapter 120/24vac

#### Features

- Temp control - Above deck mixer, cold drinking water to tempered washing.
- Sealed waterproof electronics
- Vandal Proof / Tamper cycle
- Remote control re-programmable
- Smooth flow non-splash laminar nozzle

#### Certification

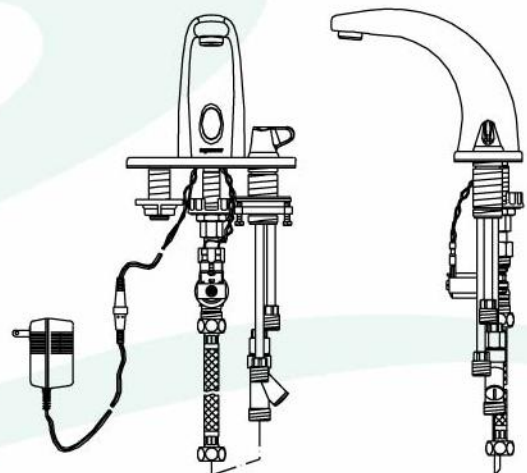
IAPMO cUPC  
ADA / ANSI Compliant

#### Model Choice :

1870-4M2	Mech. Mixer
1870-4M3	Thermostatic Mixer

#### Options

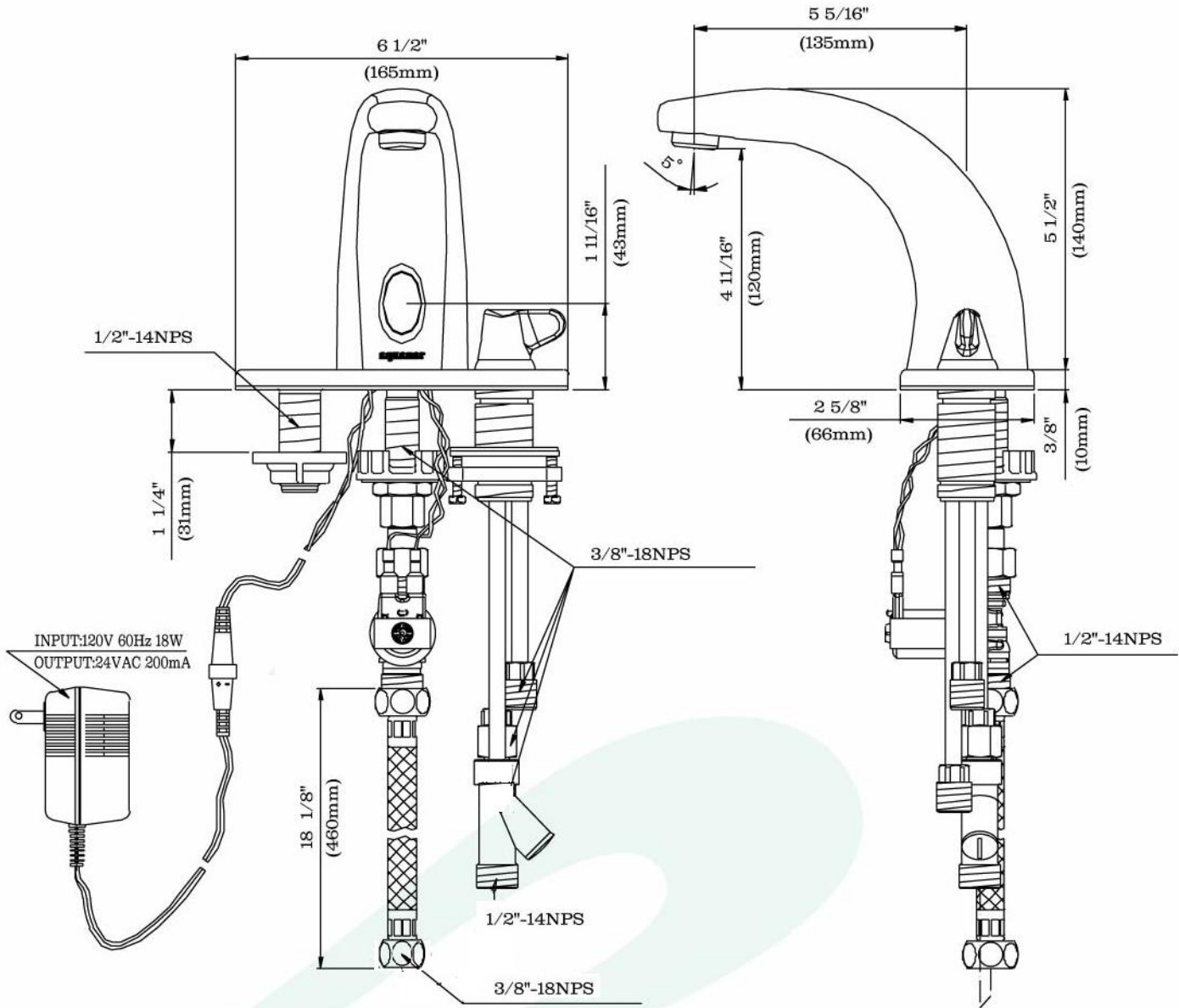
04- 159L Nozzle, vandal proof 1.5' gpm  
04- 104 Nozzle, .5 gpm  
04- 116 Nozzle, vandal proof 0.5 gpm  
note; options above could be indicated in the above model no.



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### TECHNICAL SPECIFICATIONS



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#### PRODUCT DESCRIPTION

**Function:**

The electronic module detects the presence of the user. A computer based micro-processor with specially designed infra-red sensors is programmed to detect a user within a required distance.

**Packaging:**

The entire unit is constructed of non-corrosive materials. The faucet is a solid brass body to withstand abuse and a chrome polish finish to ensure years of quality appearance. The comfort 'soft-flow' laminar nozzle highly reduces splash and is equipped with a flow regulator. The electronic module is a single compact unit with the emitter, receiver and micro-controller circuit as a one piece and sealed unit within the faucet body. There are no unnecessary separate circuits and related wiring. Simplicity at its best. There are no electro-mechanical devices (for adjustments) to hinder sealing or which may require troublesome disassembly.

**MP2** - The faucet is equipped with a 4" deck plate, including an Above Deck water Mixer with a 'comfort grip' temperature select handle. **Feature** -The mixer is specially designed to give a range of **cold drinking water**, to a comfortable washing temperature selection, All with an easy turn of the handle.

**MP3** - This faucet is equipped with an anti-scald thermostatic mixer. **Feature** -The mixer is specially designed to give a range of **cold drinking water**, to a comfortable washing temperature selection. The comfort grip handle has a 38° safety indent and limits temp to approx 48° C.

**Adjustments:**

Adjustments are pre-set by the factory for normal usage; reprogramming the control unit to suit special conditions is possible from an optional remote reprogrammer module. This user-friendly module permits easy function changes in the distance and time cycles, for example:

*Non-interrupt cycle:	1 - 15 seconds
*Detection delay:	0 - 14 seconds
*Cold-start:	2 - 30 seconds
*Sensitivity (detect range):	level 1 to level 15 ( to 7" )
*Address ( Detect Frequency )	Frequency 1 to 4
Tamper cycle:	1 minutes auto-stop
(*re-programmable)	

**Technical Specifications:**

Electrical requirements:	24 Vac 15 V.A.
Electro-mechanical valve:	24 Vac 50/60 Hz
Operating water pressure:	15 to 150 psi
M2 Mechanical Mixer Temp.	Cold to Tempered selected
M3 Thermostatic Mixer Temp.	Cold to 38° C / 48° C
Anti-scald feature / Safety indent at 38° C / back flow stops.	
Water flow rate:	1.5 gpm regulated
Water connection:	1/2" NPS



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#### FUNCTION INFORMATION

<b>A) Non-Interrupt Cycle (Run Time)</b>	<b>1 to 15 seconds</b>
<b>B) Detect Delay (Detect Time)</b>	<b>0 to 14 seconds</b>
<b>C) Cold start (Warm-Up)</b>	<b>2 to 30 seconds</b>
<b>D) Sensitivity (Detect Range)</b>	<b>level 1 to level 15 ( to 7" )</b>
<b>E) Address (Detect Frequency)</b>	<b>Frequency 1 to 4</b>
<b>F) Tamper cycle</b>	<b>1 min. Auto-stop pre-set</b>

#### **A) Non-Interrupt Cycle (Run Time)**

The user may momentarily be out of detection range, therefore a 2 second non-interrupt cycle is factory-programmed to accommodate such absences and allow continuous water flow

*\* The non-interrupt cycle is re-programmable from 1-15 seconds.*

#### **B) Detect Delay (Detect Time)**

The detection delay is set at 0 second. ( Instantaneous )

*\*The detect delay cycle is re-programmable from 0-14 seconds*

#### **C) Cold start (Warm-Up)**

This *intelligent™* feature allows warm water to arrive at the faucet. Activate the faucet and as soon as the water flows, remove hand. The faucet runs by itself for the 6 sec. period, or an allotted time if you wish to re-program for your building application.

**NOTE :** To conserve water, the cold start cycle is automatically available only once in a 30-minute period.

*\* The cold start cycle is re-programmable from 2-30 seconds.*

#### **D) Sensitivity (Detect Range)**

The detection range is adjustable through re-programming and detects up to 7". Factory-programmed detection range is set at level 7.

- To increase range, re-program sensitivity from level 9 to 15. (15 for a longer range)
- To decrease range, re-program sensitivity from level 7 to 1. (1 for a shorter range)

*\* The sensitivity cycle is re-programmable from level 1 to 15.*

#### **Function Feedback**

Upon activation, when the faucet detects a user or object, a light appears on the detection. This confirms detection

and also used in adjustments for different detections distances to accommodate various types of sinks and use.

#### **E) Address - Detect Frequency**

This *intelligent™* feature eliminates possible problems of oppositely ( face to face) mounted systems.

Such installation can trigger oppositely mounted units unnecessarily. With the remote, change of frequency, address 1 to 4, makes it impossible for one unit to be inadvertently triggered by another.

*\*The address frequency is factory programmed at 1 and is reprogrammable from 1 to 4.*

#### **F) Tamper cycle**

To prevent tampering (for example, if for some reason an object is permanently placed in the detect range to simulate a user) the faucet will run, but for a maximum time of 1 minute. The tamper cycle is not adjustable.

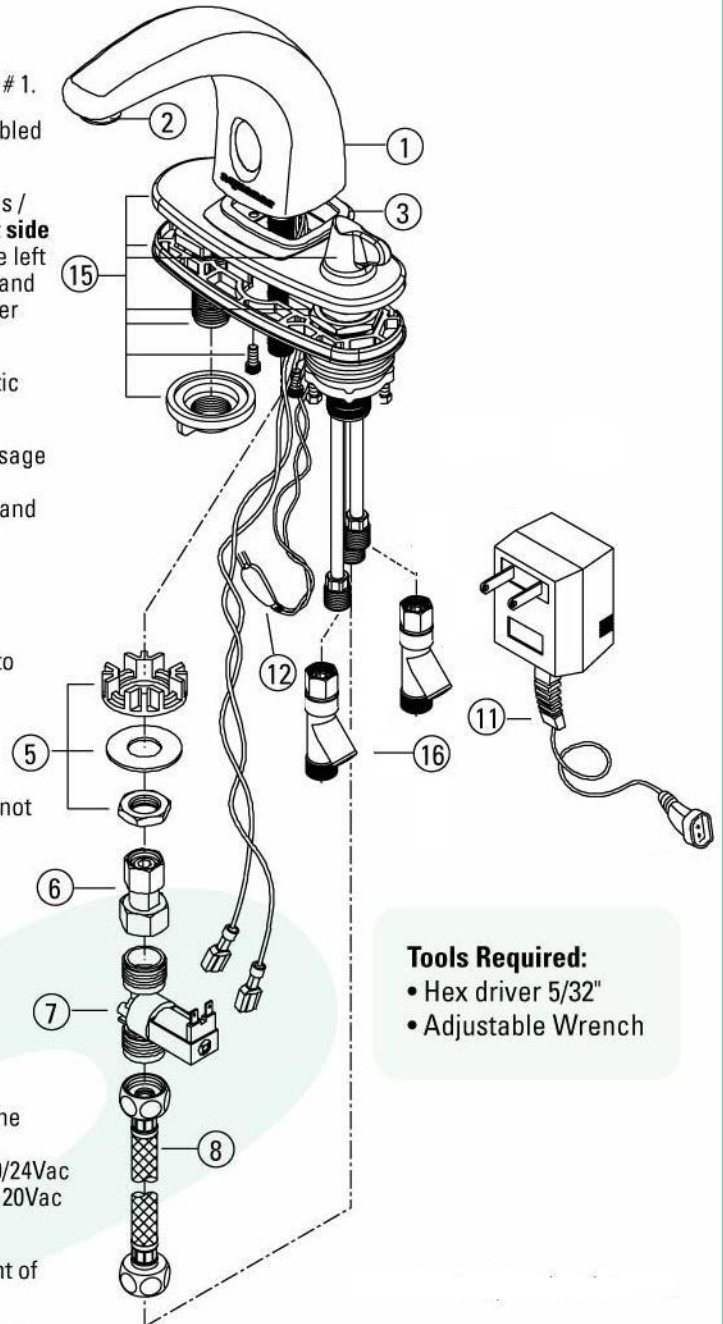
The unit will shut off and the control will return to its regular operation only when the object is removed.

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#### INSTALLATION STEPS

- 1 - Place the black rubber base gasket # 3 on the faucet body # 1.
- 2 - With the 2 Hex Socket screws supplied, attach the assembled Mixer/ deck plate # 15 to the faucet body # 1.
- 3 - Install the faucet on the sink by passing the electrical wires / body center shank and the Mixer portion through **the right side sink hole**. Screw on the one black plastic thumb nut on the left side, carefully positioning the faucet centered in the sink, and tighten. Hand tightening will suffice. ( See AQN-4MP2 Mixer Instruction sheet for linformation. )
- 4 - With faucet in position, slip onto the brass shank, the plastic wire washer, metal washer and brass nut # 5.
- 5 - Note. The plastic clearance washer is design to allow passage of the wires. Insert properly to avoid pinching wires. Position carefully the wire washer, slip up the flat washer and screw brass nut until snug. Verify again for correct wire clearance and tighten nut as required.
- 6 - Slip the rubber washer, metal washer and brass retainer thru the mixer water connections. Screw in as far as possible by hand. Use the two screws on the retainer nut to obtain proper tightness.
- 7 - Screw on the brass connector # 6 on the faucet shank.
- 8 - Screw on the solenoid valve # 7 to the connector # 6. ( observe 'arrow symbol' water direction on solenoid ) Do not apply sealant. O-ring allows low tightening pressure.
- 9 - On mixer, Connect the Y filter # 16 to Hot water source to inlet marked red. Connect the Cold water source to the inlet marked blue.
- 10 - Attach the braided ss hose # 8 to the solenoid valve.
- 11 - Attach opposite end of braided hose to the the mixed tempered outlet.
- 12 - Electrical connection
  - a- The two wires with insulated terminal tabs connect to the solenoid valve. No polarity is required.
  - b- The paired cable with the 2 pin plug connects to the 120/24Vac adapter. Insert the 'plug-in' adapter to an appropriate 120Vac electrical outlet.
- 13 - Open water source and check for leaks. Place hand in front of and check for correct function.
- 14 - Check mixer water temperature. At blue marker on deck, full cold water is for drinking purposes and the red marker is for tempered washing water.



#### Tools Required:

- Hex driver 5/32"
- Adjustable Wrench



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#### MAINTENANCE

Aquanar products are design and engineered with precision and specially chosen components. Replacement with genuine Aquanar parts are an important factor in product performance. Non genuine parts may void warrenty.

#### Cleaning the Solenoid valve / filter

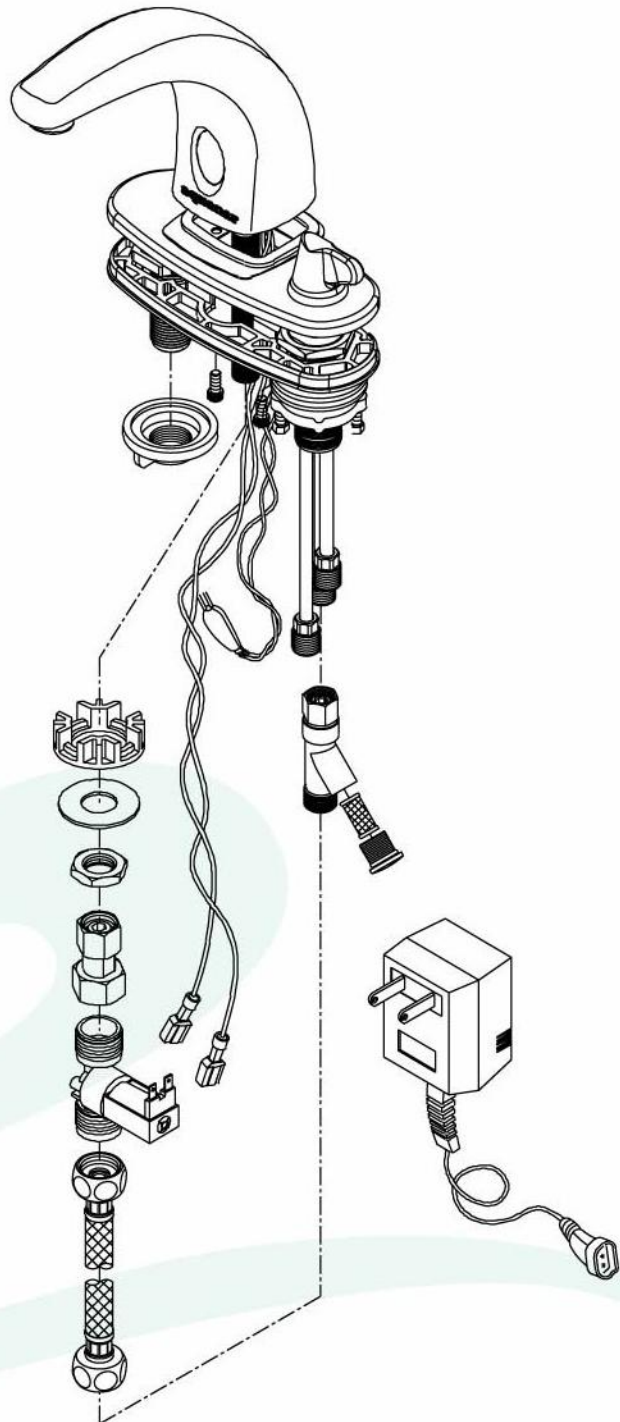
- Close water source.
- With flat screwdriver, remove the access 'screw plug' of the 'Y' filter.
- *A small pail can hold dripping water to keep floor clean.*
- Remove barrel mesh filter. Remove debris and rinse out.

#### Product Care

Aquanar products are constructed of the highest quality materials. although durable and robust, abrasives and harsh chemicals can damage surfaces. Clean chrome polish body, plate and lens with a soft damp cloth. Dry with a soft towel.

#### Re-assembling

Reinstall the filter and o-ring sealed connector, in reverse of the above steps.



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### PARTS LIST

#	Description	Part Number
1	Solid brass body C.P.	02-154
2	Laminar nozzle 1.5 gpm	04-158L
3	Base seal, rubber	02-087
5	Nut, Washer & Wire washer	01-088
6	Pipe assembly, taper base	01-019
7	Magnetic valve 24Vac	04-025
8	Flexible hose 18"1/2 x 3/8	04-068
11	Plug in adapter 120/24Vac	04-059
12	Electronic Module	AQN-1870-2
13	Wedge block	02-070
14	Mounting block with screw	01-089
15	4" plate assembly and mixer	4M2 or 4M3
16	"Y" Filter	01-081

