

1820 Faucet

intelligent™ Electronic Faucet / Scrub Sink Type Applications



Product Description

- Solid brass 9" spout chrome polish
- Flush Mount.
- Electronic module detects the presence of the user.
- Computer based micro controller w/specially designed infra red sensors to detect within a required distance.
- Auto shut-off 1 minute
- All non-corrosive materials

Features

- All Stainless Steel / Waterproof
- Soft-flow, laminar nozzle, 1.5 gpm
- Vandal Proof / Tamper cycle
- Remote control re-programmable Cold Start / Non-interrupt / Detect Range / Detect Frequency

Certification

cUPC
ADA / ANSI Compliant

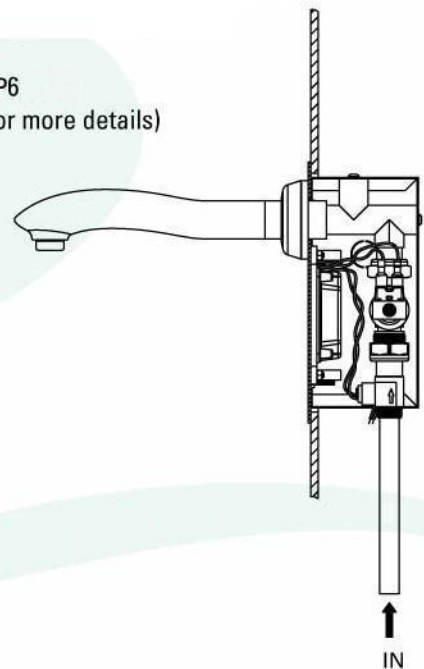
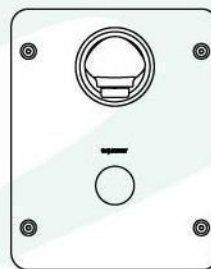
Model Choice :

1820
1820 - 7 with 7" spout

Options

04 -186 Transformer 120/24Vac
04 -104 Nozzle, .5 gpm

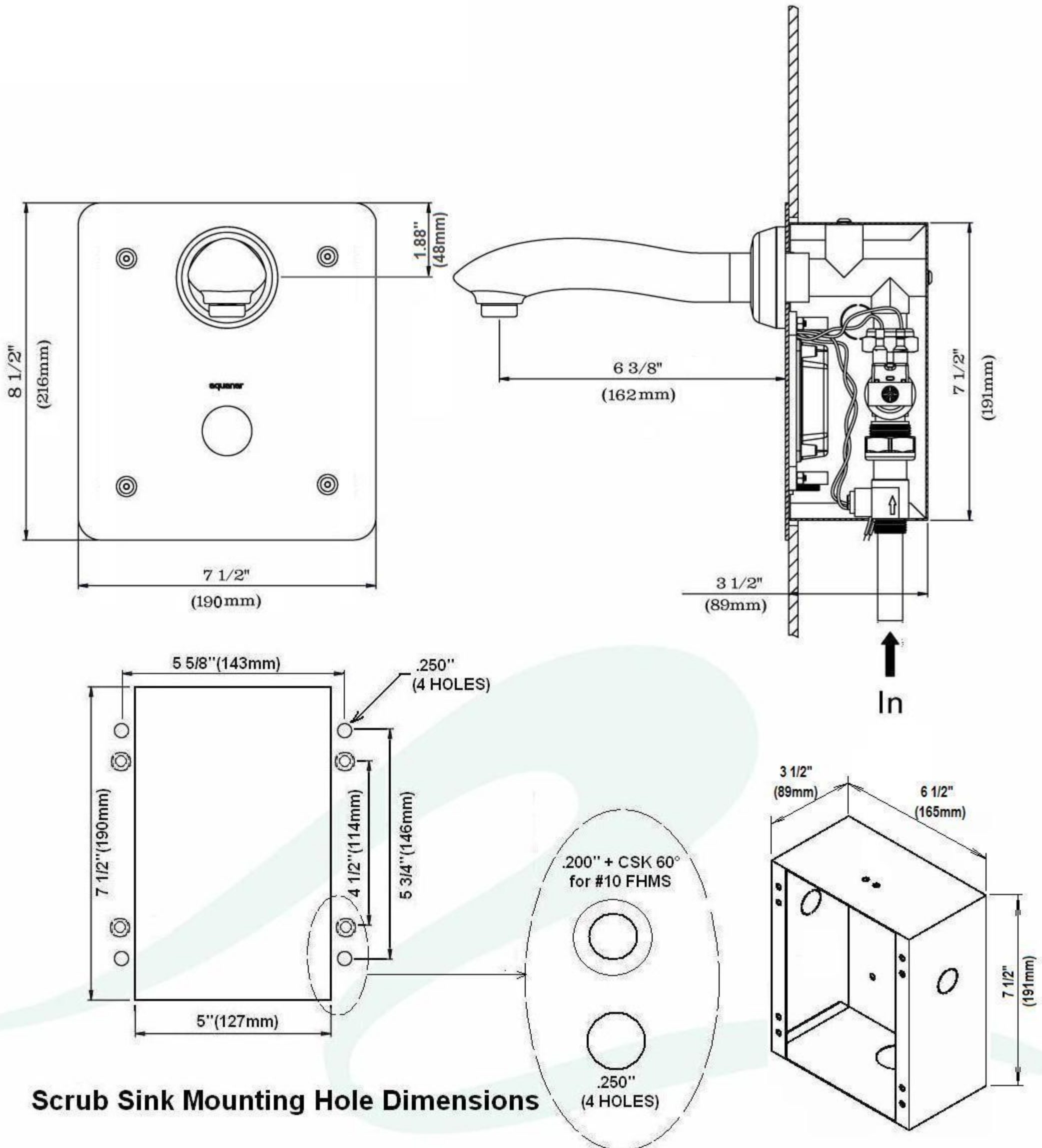
Mixer : MP1, MP4, MP6
(See mixer sections for more details)



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TECHNICAL SPECIFICATIONS



Scrub Sink Mounting Hole Dimensions

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PRODUCT DESCRIPTION

Function:

The electronic module detects the presence of the user hands. 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 faceplate is 14 ga. stainless steel to withstand abuse and maintain a good appearance. The wall housing is constructed of 304 stainless steel for lifetime durability. The electronic module enclosure is made of high impact plastic and is sealed. There are no electro-mechanical devices (for adjustments) to hinder sealing or which may require troublesome disassembly. The spout is constructed of solid brass and equipped with a soft-flow (non splash, laminar 1.5 gpm) nozzle e/w regulator.

Adjustments:

Adjustments are pre-set by the factory for normal-usage; reprogramming the control unit to suit special conditions is possible with 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): | 1 to 15 (16" to 6") |
| *Address (Detect Frequency) | Frequency 1 to 4 |
| Tamper cycle: | 1 minute auto-stop |
| (*re-programmable) | |

Technical Specifications:

| | |
|---------------------------|-----------------|
| Electrical requirements: | 24 Vac 5 V.A. |
| Electro-mechanical valve: | 24 Vac 50/60 Hz |
| Operating water pressure: | 15 to 150 psi |
| Water flow rate: | Adjustable |
| Water connection: | 1/2" copper |

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FUNCTION INFORMATION

| | |
|---|-------------------------------------|
| A) Non-Interrupt Cycle (Run Time) | 1 to 15 seconds |
| B) Detect Delay (Detect Time) | 0 to 14 seconds |
| C) Cold start (Warm-Up) | 2 to 30 seconds |
| D) Sensitivity (Detect Range) | 1 to 15 level (16" to 6") |
| E) Address (Detect Frequency) | Frequency 1 to 4 |
| F) Tamper cycle | 1 minute, auto-stop, pre-set |

A) Non-Interrupt Cycle (Run Time)

The user may momentarily be out of detection range, therefore a 4 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 between 16 to 6". Factory-programmed detection range is set at sensitivity level 6 .

- 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 lens. 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.*

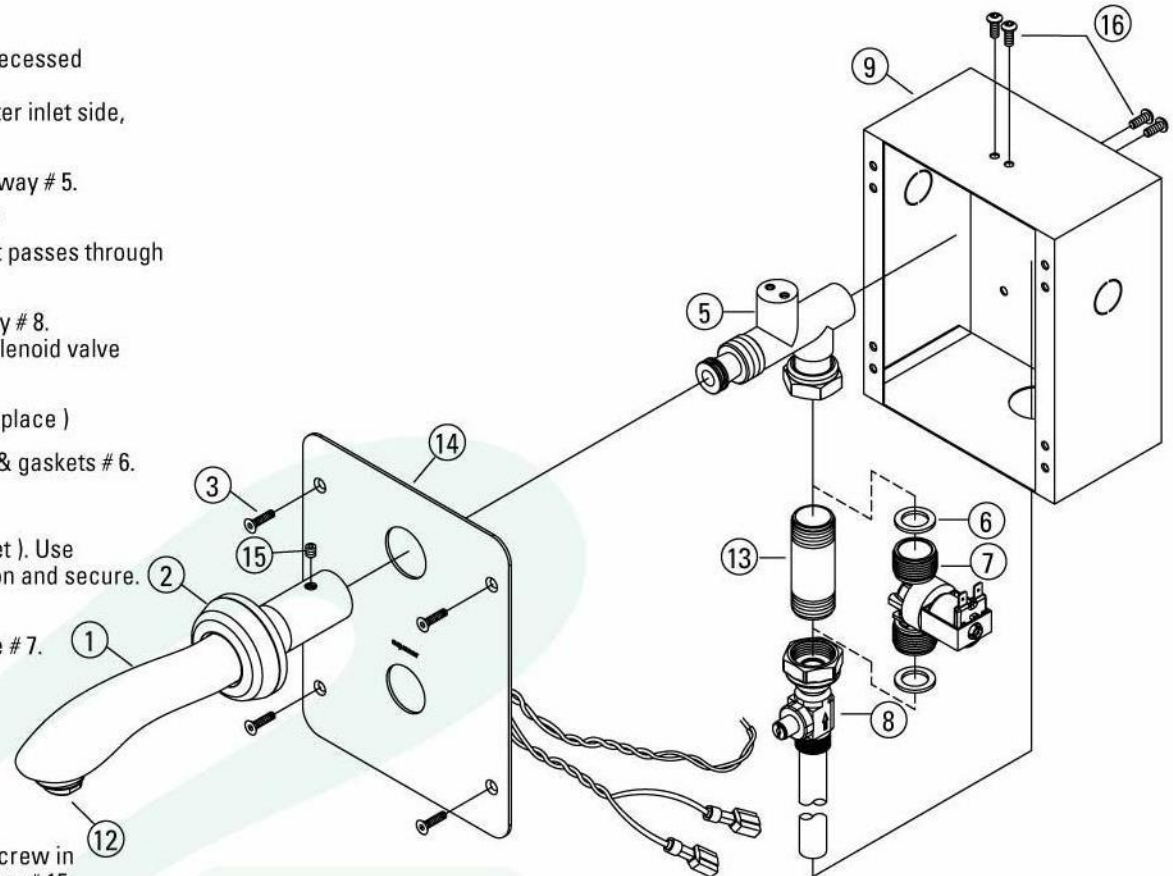
F) Tamper cycle

To prevent tampering, the faucet will run 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 - Install the Stainless housing # 9 in the wall/sink cavity, recessed 1/8" from the finished surface, and ensure it is level.
Note : Position the housing # 9 to accommodate the water inlet side, normally from the bottom.
- 2 - Inside the housing, screw in the jig # 13 to the 90° waterway # 5. Do not use any gaskets or sealants to the temporary jig.
- 3 - Screw the inlet pipe assembly # 8 to the valve jig # 13. It passes through the larger hole in the housing on the lower side.
- 4 - Connect the water supply to the ball valve pipe assembly # 8. Unsure that the piping is tension free to allow proper solenoid valve installation and its future maintenance.
- 5 - With 'roughing' installed, purge pipes. (with valve jig in place)
- 6 - Close ball valve and replace jig with solenoid valve # 7 & gaskets # 6.
- 7 - Open water supply ball valve # 8 and checks for leaks.
- 8 - Install the incoming 24Vac wiring (see wire spec sheet). Use 'knock-out' plug conveniently located for your application and secure.
- 9 - Connect the two wires (insulated terminals) from the electronic module # 14 to the tabs on the solenoid valve # 7. No polarity is required.
- 10 - Connect the 24 V wires to the electronic module (wire twists).
- 11 - Using the Flat Head screws # 3, fix faceplate # 14 to the housing # 9.
- 12 - Install Chrome polish 9" spout # 1 and slip flange # 2. Screw in spout (self-sealing oring seal), align and tighten set screw # 15.
- 13 - Apply the current to the 24Vac transformer powering circuit module.
- 15 - It takes approx. 5 to 10 seconds to energize the electronic circuit.
- 16 - Test for proper function. A red light in the lens area will indicate power and function. (Make sure water supply ball valve is open)



Tools Required:

- Hex Driver, 1/8"
- Adjustable Wrench
- Soldering Tools

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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 warranty.

Maintenance

- Remove power from breaker source.
- Remove chrome spout and flange
- Remove faceplate & electronic module.
- Disconnect electrical tabs on the solenoid valve and the two power wires. (Wire twists)
- Check carefully that corrosion did not form on connections.
- If corrosion or wire damage is present, repair accordingly.

Cleaning the Solenoid valve / filter

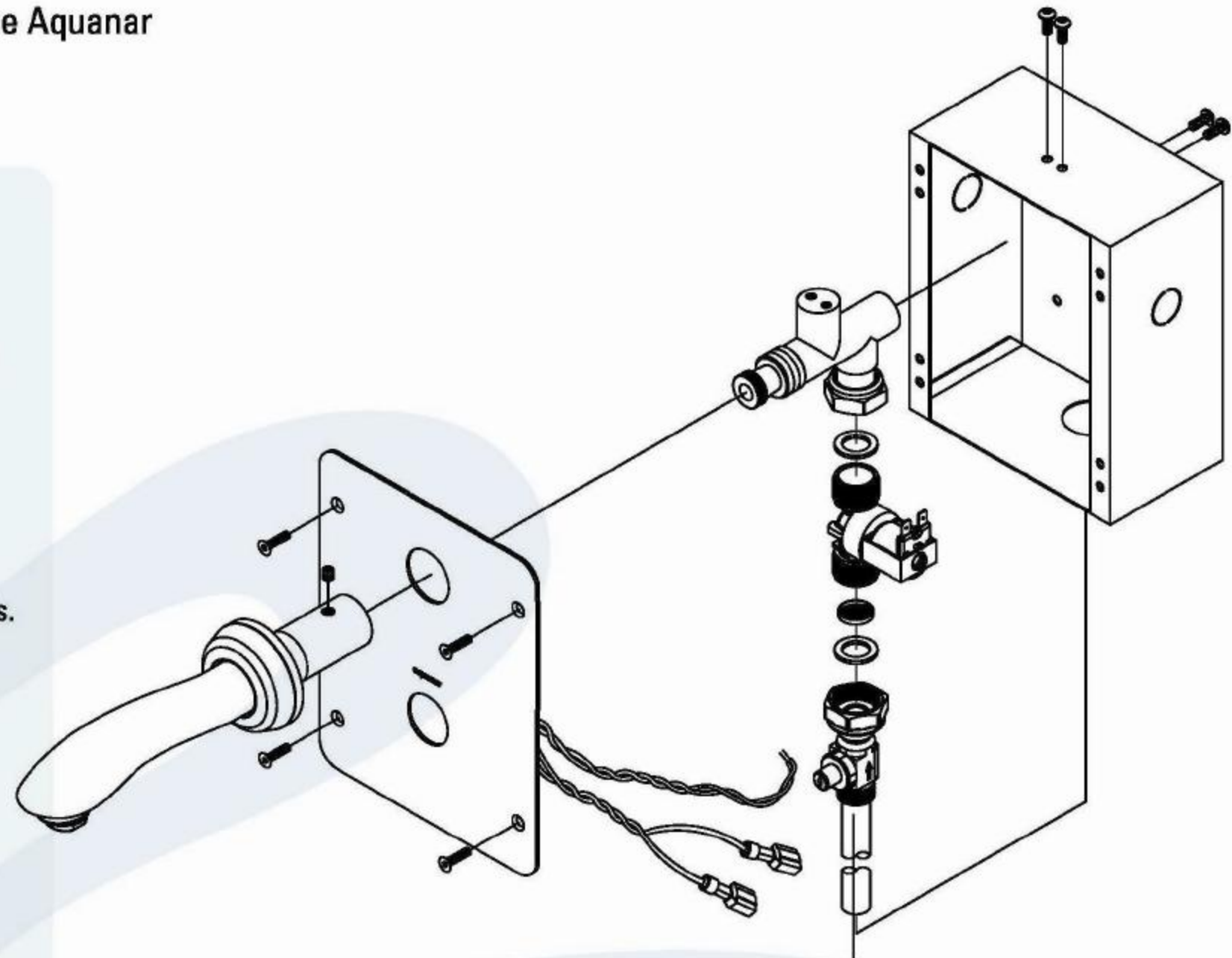
- With flat screwdriver, close water source at ball valve.
- Remove the solenoid valve and check if filter is clear of debris.
- Remove filter, clean and rinse with warm water.
- Dry and reassemble.

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, stainless steel faceplate and lens with a damp soft cloth. Dry with a soft towel.

Re-assembling

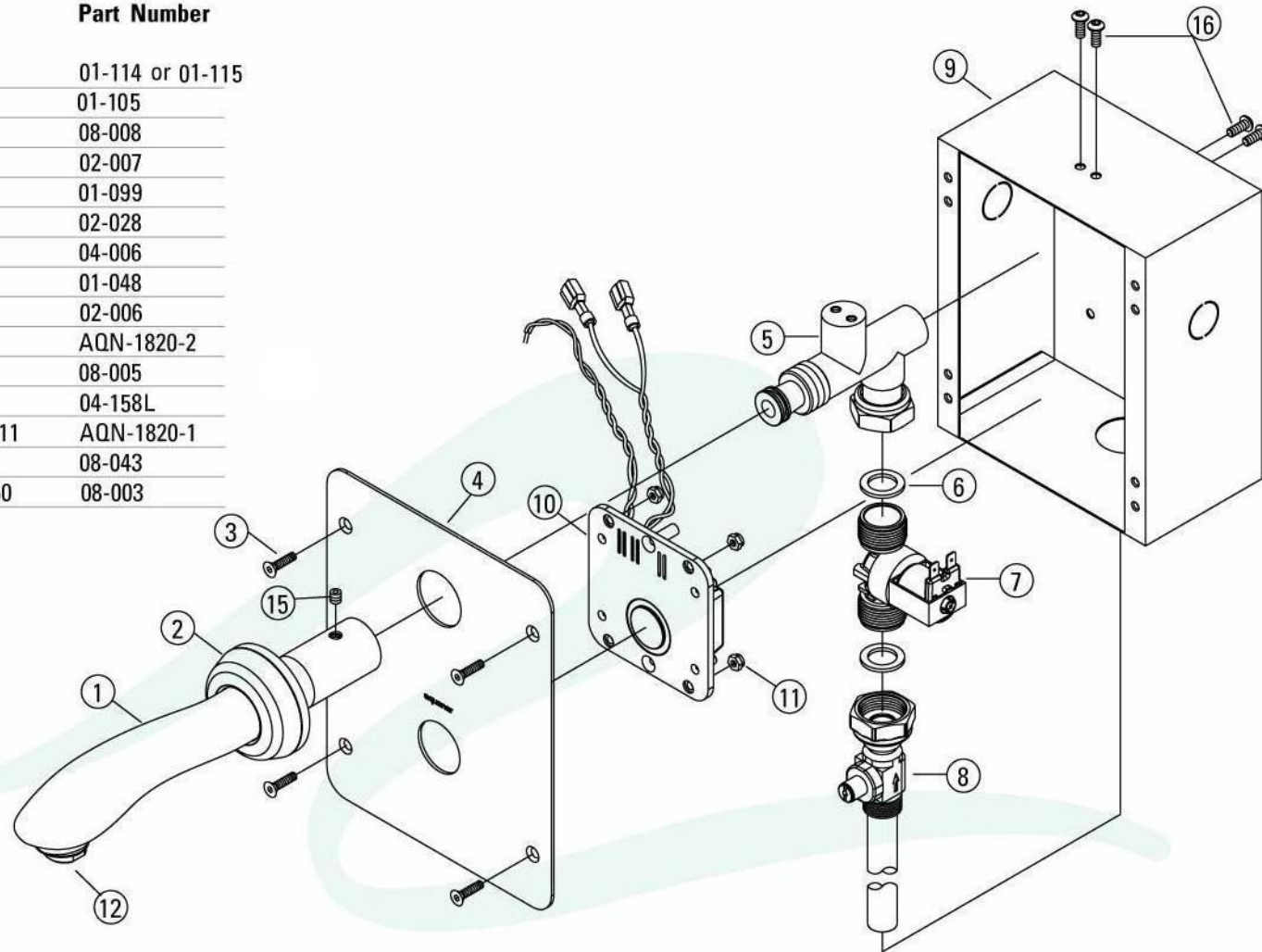
To re-install, reverse the above steps.



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PARTS LIST

| # | Description | Part Number |
|-----|------------------------------|------------------|
| 1 | 7" or 9" Spout CP | 01-114 or 01-115 |
| 2 | Spout flange | 01-105 |
| 3 | FHHSMS #10-32x.75" s.s. | 08-008 |
| 4* | Faceplate, faucet s.s. | 02-007 |
| 5 | Waterway, 90° assy. | 01-099 |
| 6 | Red gaskets | 02-028 |
| 7 | Magnetic valve 24Vac | 04-006 |
| 8 | Ball pipe assy | 01-048 |
| 9 | Enclosure, faucet s.s. | 02-006 |
| 10* | Electronic Module. | AQN-1820-2 |
| 11* | Nylon locknut, # 6 -32 | 08-005 |
| 12 | Nozzle, laminar 2.2gpm | 04-158L |
| 14* | Consists of parts 4, 10 & 11 | AQN-1820-1 |
| 15 | Set screw s.s 1/4"-28x.31 | 08-043 |
| 16 | Screw s.s BHH #10-32x.50 | 08-003 |



1820 Faucet

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Recommendations

On AC models, ensure the power source is the proper 24Vac from a Class II transformer. A higher voltage connection will cause erratic function or possibly destroy the circuit.

Before final installation, it is very important to purge and clean the piping waterways. Spout nozzles and solenoid valves can malfunction from debris and soldering paste contaminates.

On the wiring side, never cut off any insulated terminals that may create short circuits. Doing this may also void warranty.

Never connect power source from a line used to power other electrical fixtures.

Tips : from experience

It is recommended to install power source to a separate circuit breaker. Easy access to this breaker facilitates maintenance personnel. Make sure that this breaker is not accessible by unwanted persons.

Do not connect to a wall switch. Unwanted actuation by individuals is not recommended.

Ensure that all electrical connections are clean, tight and secure. Safer to use low voltage power requires tight connections. Proper installation will give you years of trouble free operation.