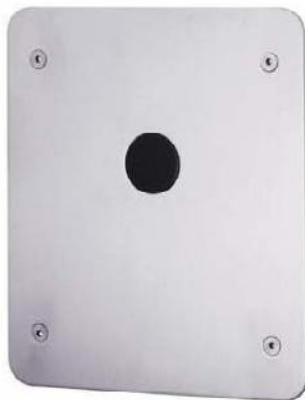


## 1821 Faucet

### *intelligent™* Electronic Faucet / Scrub Sink Type Applications



Option  
01-173 with 9" spout  
01-174 with 7" spout



#### Product Description

- 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
- Vandal Proof / Tamper cycle
- Remote control re-programmable Cold Start / Non-interrupt / Detect Range / Detect Frequency

#### Certification

cUPC  
ADA / ANSI Compliant

#### Model Choice :

01-173 with 9" spout  
01-174 with 7" spout

#### Options

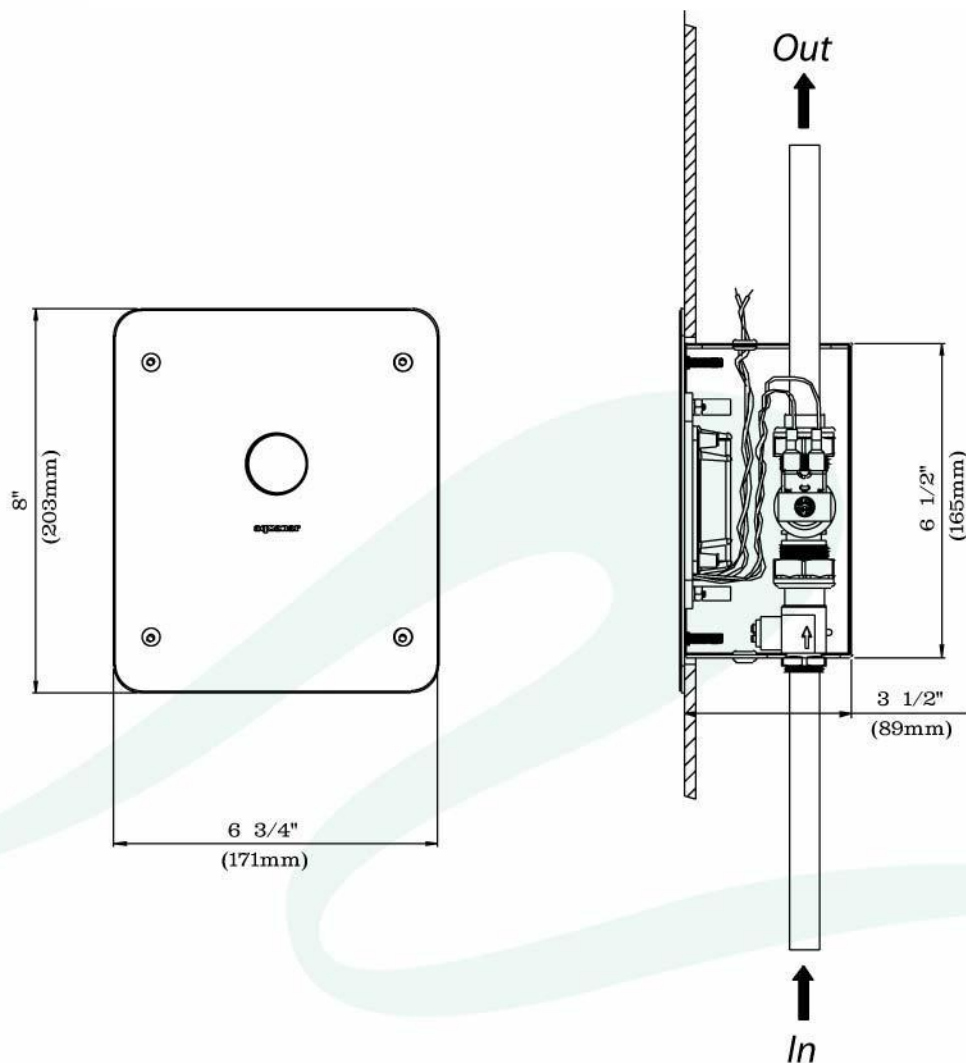
04 - 186 Transformer 120/24Vac  
04 - 158L laminar nozzle, 1.5 gpm  
04 - 104 Nozzle, .5 gpm

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

## 1821 Faucet

*intelligent™* Electronic Faucet / Scrub Sink Type Applications

### TECHNICAL SPECIFICATIONS



## 1821 Faucet

### *intelligent™* Electronic Faucet / Scrub Sink Type Applications

#### 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.

**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 (6" to 24" )
*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

## 1821 Faucet

### *intelligent™* Electronic Faucet / Scrub Sink Type Applications

#### 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>1 to 15 level (6" to 24")</b>
<b>E ) Address (Detect Frequency)</b>	<b>Frequency 1 to 4</b>
<b>F ) Tamper cycle</b>	<b>1 minute, auto-stop, pre-set</b>

#### **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 6 to 24". 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**

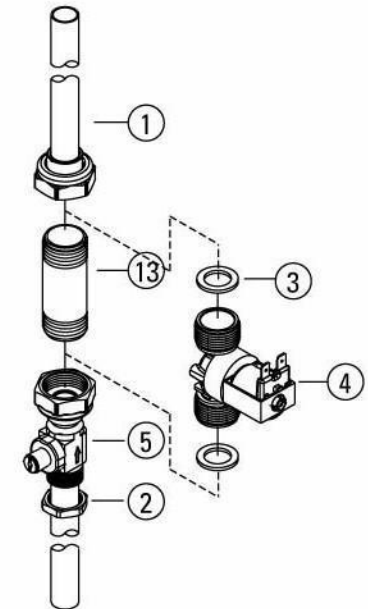
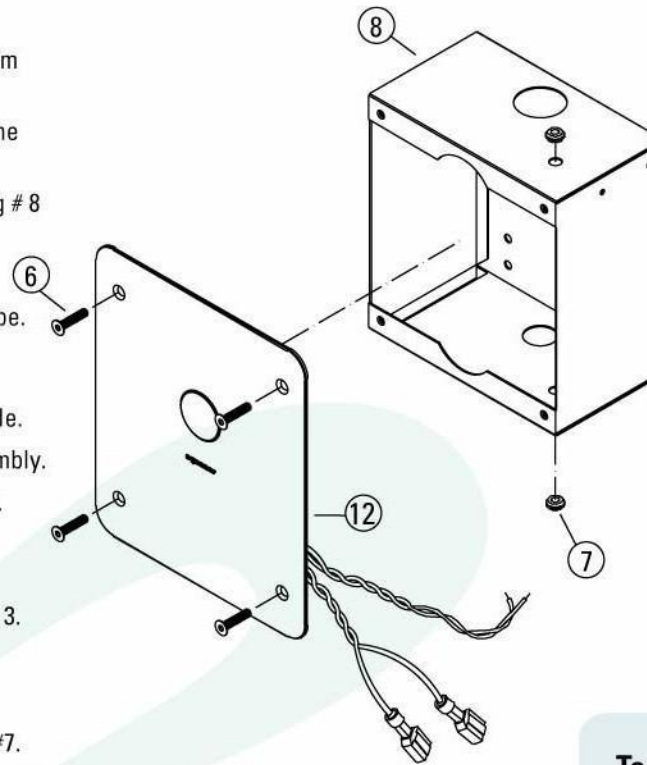
To prevent tampering, the faucet will run for a maximum time of 1 minute. The tamper cycle is not adjustable. The unit will shut off and the control will return to its regular operation only when the object is removed.

## 1821 Faucet - *intelligent*<sup>™</sup> Electronic Faucet / Scrub Sink Type Applications

### INSTALLATION STEPS

#### Function:

- 1 - Install the Stainless housing #8 in the wall cavity approx. 48" from the floor and recessed 1/8" from the finished surface.
- 2 - Position the housing #8 with the smaller hole to accommodate the water inlet side, normally from the bottom.
- 3 - Insert the water inlet, ball valve pipe assembly # 5 in the housing # 8 small hole, ball valve side inside the housing.
- 4 - Insert the 1/2" NPS thin brass nut #2 and tighten to the housing.
- 5 - Inside the housing, screw in the valve jig #13 to the ball valve pipe. **Do not** use any gaskets or sealants to the temporary jig.
- 6 - Screw the outlet pipe assembly #1 to the valve jig #13. It passes through the larger hole in the housing on the upper side.
- 7 - Connect the water supply to the lower side ball valve pipe assembly.
- 8 - Connect the copper outlet pipe assembly #1 to the shower head. **Ensure** that the piping is tension free to service valve.
- 9 - With 'roughing' installed, purge pipes. ( with valve jig in place )
- 10 - Close ball valve and replace jig with solenoid valve & gaskets # 3.
- 11 - Open water supply ball valve #5 and checks for leaks.
- 12 - Install the grommet #7 in the appropriate hole in the housing.
- 13 - Install the 24Vac wiring (wire spec sheet) thru rubber grommet #7.
- 14 - Connect the two wires ( insulated terminals ) from the electronic module to the tabs on the solenoid valve # 4. No polarity is required.
- 15 - Connect the 24 V wires to the electronic module ( wire twists ).
- 16 - Using the Flat Head screws #6, fix faceplate # 12 to the housing #8.
- 17 - Apply the current to the 24Vac transformer powering circuit module.
- 18 - It takes approx. 5 to 10 seconds to energize the electronic circuit.
- 19 - Test for proper function. A red light in the lens area will to indicate power and function. ( Make sure water supply ball valve is open )



#### Tools Required:

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

## 1821 Faucet - intelligent™ Electronic Faucet / Scrub Sink Type Applications MAINTENANCE

Aquanar products are designed 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 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

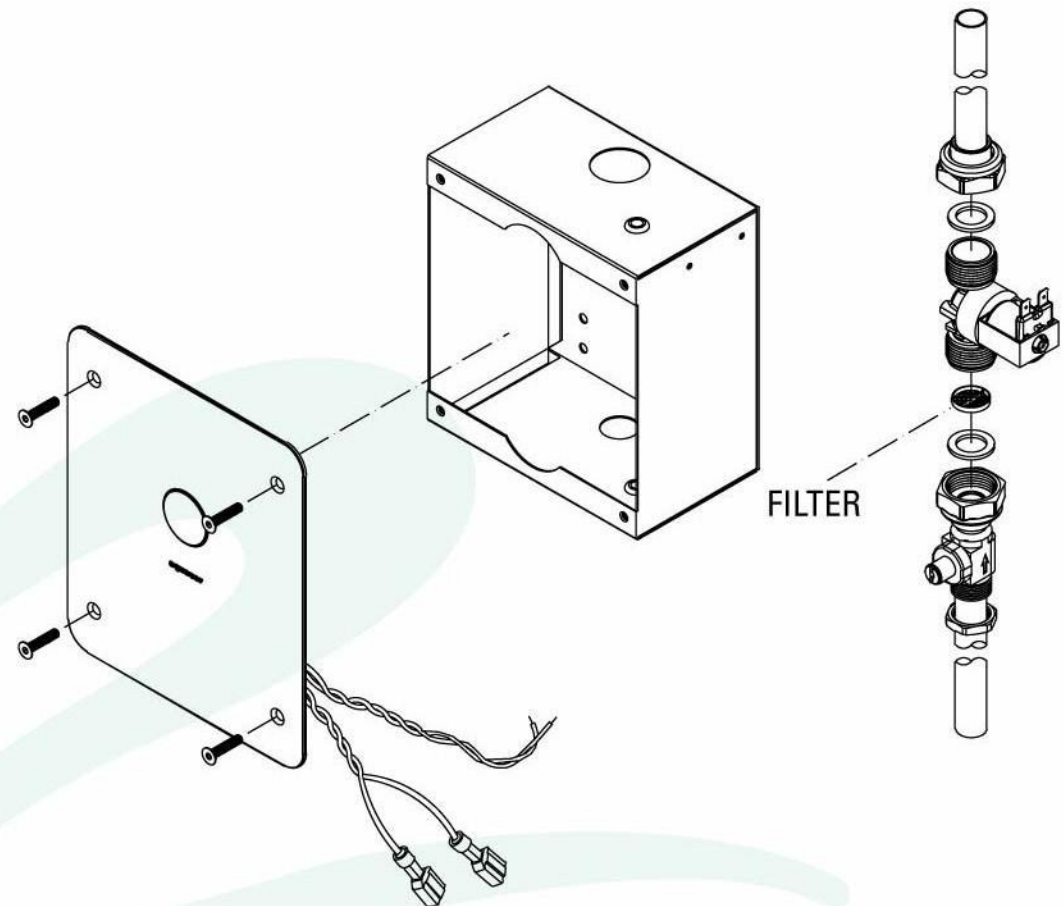
- With flat screwdriver, close water source at ball valve.
- Remove the solenoid valve and check if filter is clear of debris.
- Remove filter, clean and rinse with warm water. Dry and reassemble.

### Product Care

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

### Re-assembling

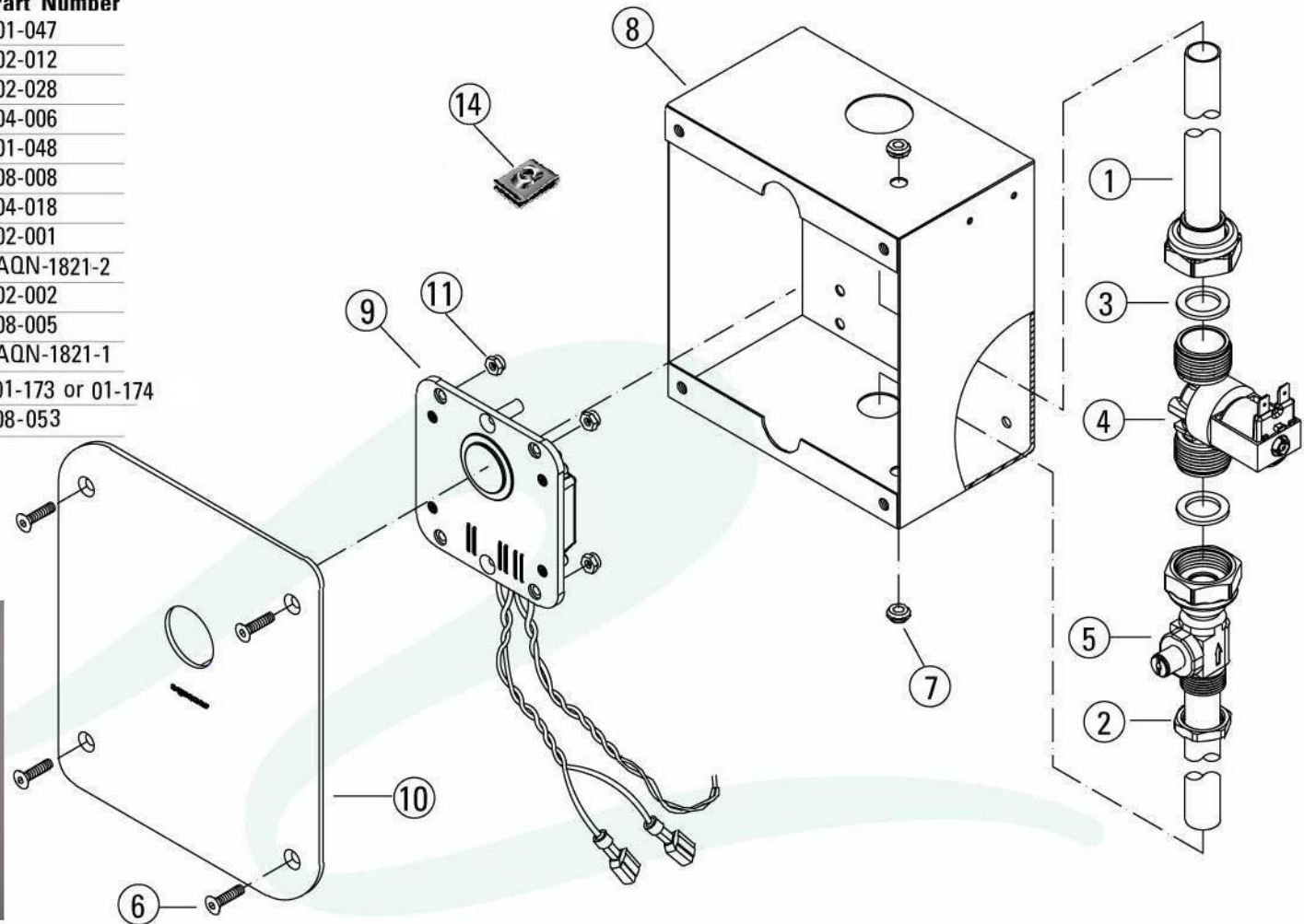
To re-install, reverse the above steps.



# 1821 Faucet - intelligent™ Electronic Faucet / Scrub Sink Type Applications

## PARTS LIST

#	Description	Part Number
1	Outlet pipe assy	01-047
2	Hex nut, Brass 1/2" NPS	02-012
3	Red gaskets	02-028
4	Magnetic valve 24Vac	04-006
5	Ball pipe assy.	01-048
6	FHHSMS #10-32x.75" s.s.	08-008
7	Rubber grommet	04-018
8	Enclosure s.s.	02-001
9*	Electronic Module	AQN-1821-2
10*	Face plate s.s.	02-002
11*	Nylon locknut # 6-32	08-005
12*	Consists of parts 9, 10 & 11	AQN-1821-1
13	9" or 7" Spout CP	01-173 or 01-174
14	Nut, U-type spring nut	08-053



**01-173 : 9" spout & kits**  
**01-174 : 7" spout & kits**

