

**0424**

*intelligent™* Electronic Shower Control, Modular, Wall Mount



**Product Description**

- Modular Wall Surface 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 8 minutes
- 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**

IAPMO cUPC  
ADA / ANSI Compliant

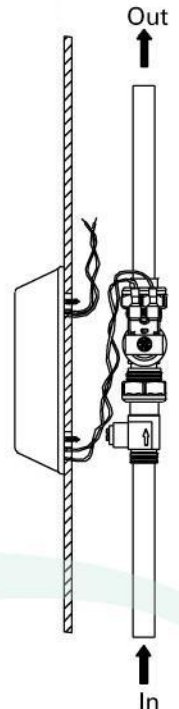
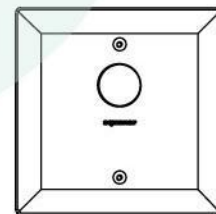
**Model Choice :**

- 0424 without shower head
- 0424 SV with shower head

**Options**

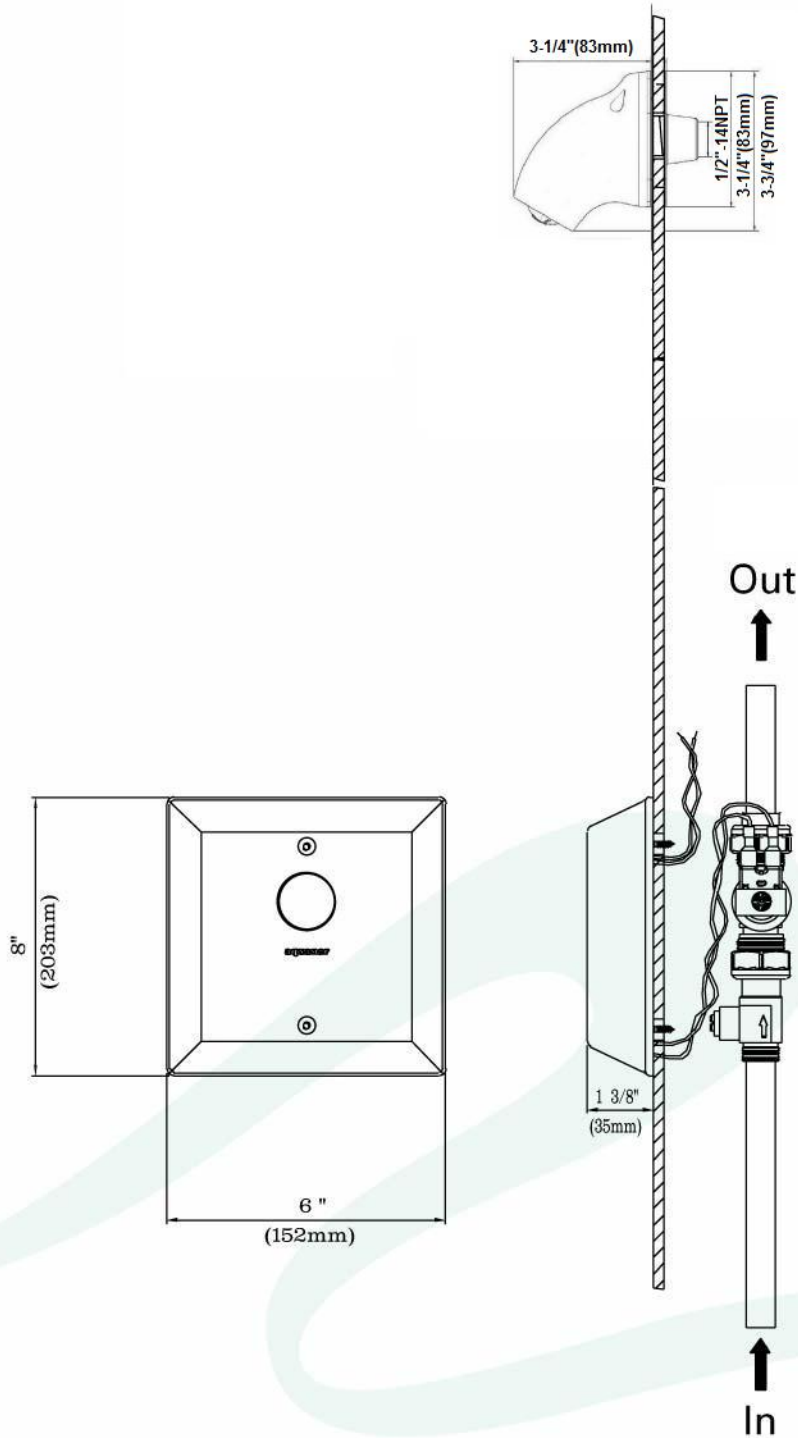
- 04-186 Transformer 120/24Vac
- QS 80. 044 Shower Head

Mixer: MP4 1/2" supply  
( see mixer sections for more details )



0424

*intelligent™* Electronic Shower Control, Modular, Wall Mount  
TECHNICAL SPECIFICATIONS



## 0424

# intelligent™ Electronic Shower Control, Modular, Wall Mount 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 faceplate is 16 ga. stainless steel to withstand abuse and maintain a good appearance. 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 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 sec.
Detection delay:	0 - 14 sec.
Cold-start:	2 - 30 sec.
Sensitivity (detect range):	level 1 to level 15 (10"-32")
Address ( Detect Frequency )	Frequency 1 to 4
Tamper cycle: (*re-programmable)	8 min. auto-stop

### Technical Specifications:

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

### Special Note- Opposed Mounting:

*When installing showers directly opposed to each other (face-to-face), the controls can trigger each other on. Simply program ( using a remote control ) the 'Address' frequency mode to a different one that the opposed shower detector is using. Example....a shower frequency address is at #1 and the one mounted on the opposite wall can be set to address #2. This is a design-incorporated feature, thereby eliminating unwanted activation.*

**Note :** Address Detect Frequency reprogrammable by remote.

Address Frequency Level 1 to 4 - Changes Detection Frequency to 4 different levels without dismantling the unit.

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## *intelligent™* Electronic Shower Control, Modular, Wall Mount FUNCTION INFORMATION

- |   |   |
|---|---|
| <b>A) Non-Interrupt Cycle (Run Time): 1 - 15 sec.</b> | <b>D) Sensitivity (Detect Range): Level 1 to level 15 (32" - 10")</b> |
| <b>B) Detect Delay (Detect Time): 0 - 14 sec.</b>     | <b>E) Address (Frequency): Frequencies 1 to 4</b>                     |
| <b>C) Cold Start (Warm-up): 2 - 30 sec.</b>           | <b>F) Tamper Cycle: 8 mins. Auto-stop pre-set</b>                     |

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

The user may momentarily be out of detection range (e.g. to pick up a bar of soap); 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 secs.*

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

The detection delay is set at 2 seconds. This is to prevent unwanted starts by passers-by in close quarters.

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

**C) Cold Start (Warm-up)**

Cold water from automatic showers! This *intelligent™* feature allows warm water to arrive at the showerhead. Activate the shower and as soon as the water flows, remove hand or stand back. The shower runs by itself for the 12 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 secs.*

**D) Sensitivity (Detect Range)**

The detection range is adjustable through re-programming and detects between 10" to 32". Factory-programmed detection range is set at level 10.

- To increase range, re-program sensitivity from level 9 to 15 (15 being the best detection for a longer range).

- To decrease range, re-program sensitivity from level 7 to 1 (1 being the least detection for a shorter range).

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

**Function Feedback**

Upon power-on or activation of the remote, when the unit detects a user or object, a light appears on the detection lens to judge if sensitivity adjustment (detect distance) is correct. This feedback light feature turns off automatically after 5 mins. of normal 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.*

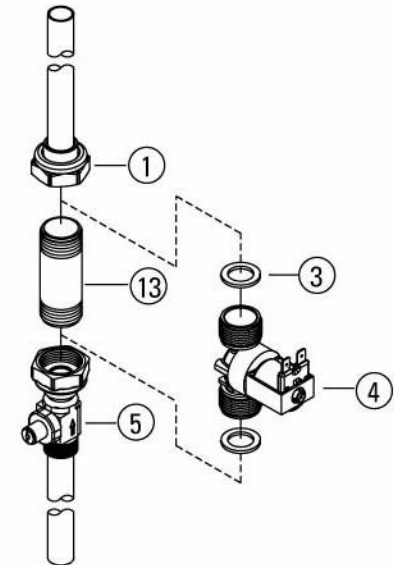
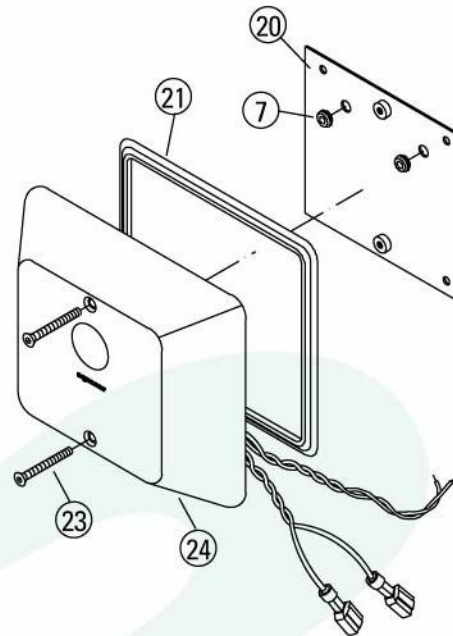
**F) Tamper Cycle**

To prevent tampering, the shower will run for a maximum time of 8 minutes. 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.

## 0424 - intelligent™ Electronic Shower Control, Modular, Wall Mount

### INSTALLATION STEPS

- 1 - Connect the water supply to the ball valve pipe assembly # 5 in a suitable location and accessible.
- 2 - Install the temporary valve jig # 13 without the use of the red gaskets or sealant, to ball pipe assy # 5.
- 3 - Screw in the outlet pipe assembly # 1 to the valve jig # 13.
- 4 - Connect the outlet pipe assembly to the shower head waterway. Ensure piping is tension free to accommodate easy installation of the solenoid valve and its future maintenance.
- 5 - Open water supply with ball valve # 5 and purge the piping.
- 6 - Close ball valve and replace jig with solenoid valve & gaskets # 3.
- 7 - Open ball valve and verify for leaks.
- 8 - Solidly mount and level the stainless steel wall plate # 24 on the wall. The detection lens should be approx. 48" from the floor.
- 9 - Mark and drill a hole in the wall for the wiring. A rubber grommet # 7 is supplied for passing both the 24Vac ( power source ) and solenoid connection wires.
- 10 - Mount to the electronic module faceplate the perimeter gasket # 21.
- 11 - Connect the solenoid wires that have the insulated terminals to the incoming solenoid wiring. No polarity required. Never cut the wiring terminals that will void warranty.
- 12 - Connect the 24 V wires to the electronic module ( wire twists ).
- 13 - Place two flat head screws # 23 in the faceplate # 24 mounting holes and attach to the wallplate # 20. Ensure that the wires are protected during mounting.
- 14 - 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

## 0424 - intelligent™ Electronic Shower Control, Modular Wall Mount 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.

### Maintenance

- Remove power from breaker source.
- Remove faceplate & electronic module.
- Disconnect solenoid valve and 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

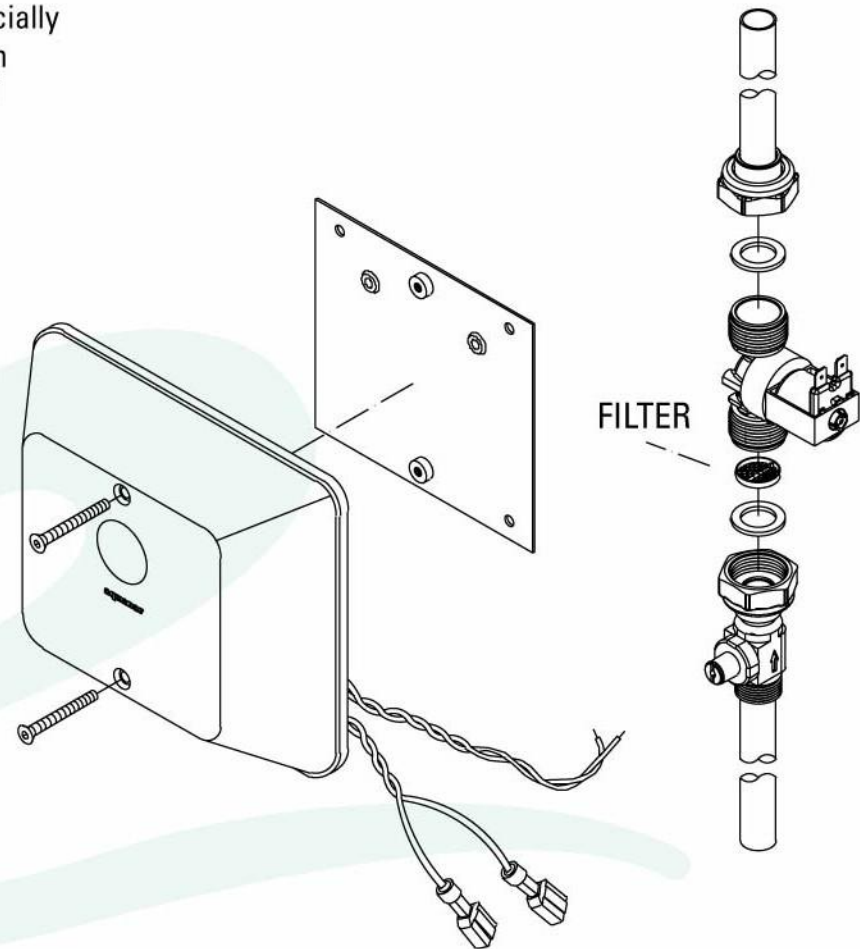
- With flat screwdriver, close water source at ball valve.
- Remove the solenoid valve and check if filter is clear of debris.
- Remove filter, clean and rinse with warm water. Dry and reassemble.

### 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

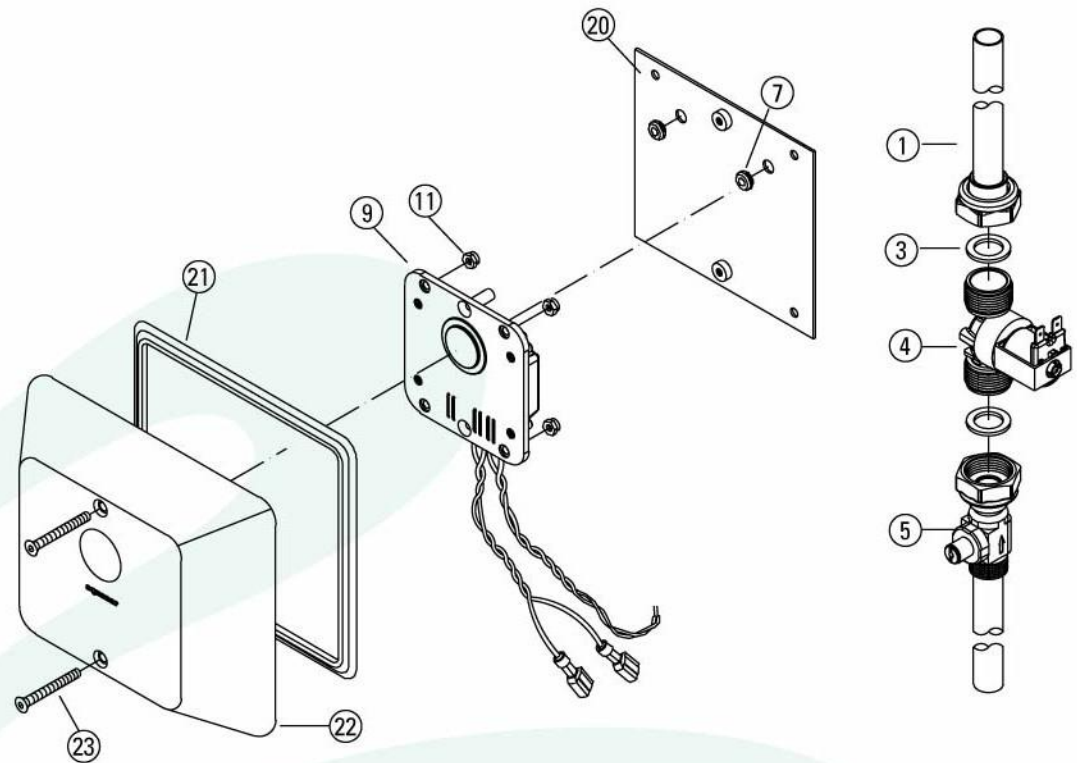
To re-install, reverse the above steps.



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### PARTS LIST

#	Description	Part Number
1	Outlet pipe assy	01-047
3	Red gaskets	02-028
4	Magnetic valve 24Vac	04-006
5	Ball pipe assy.	01-048
7	Rubber grommet	04-018
9*	Electronic Module	AQN-0420-2
11*	Nylon locknut # 10-32	08-005
20	Wall plate s.s.	02-054
21*	Seal, perimeter, rubber	02-139
22*	Face plate modular s.s.	02-055
23	FHHSMS #10-32x1.50"s.s.	08-048
24*	Onsists of # 9, 11, 21& 22	AQN-2124-1



## **0400 SERIES**

### *intelligent™* Electronic Shower Control, Modular Wall Mount **TIPS & RECOMMENDATIONS**

#### **Recommendations**

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

Before final installation, it is very important to purge and clean the piping waterways. Shower heads 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 assessable 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.