

## 2124 URINAL

### intelligent™ Electronic Urinal Control, Modular, Wall Mount



#### Product Description

- Modular, Wall Surface Mount.
- All non-corrosive materials.
- Electronic module detects the presence of the user and sets the circuit on stand-by mode. The circuit then detects the absent of the user & flushes automatically.
- Computer based micro controller w/specially designed infra red sensors programmed to detect the presence of user in a determined distance and time to eliminate unnecessary flushing.
- Auto courtesy flush 24 hrs. after last use.

#### Features

- All Stainless Steel / Waterproof
- Vandal Proof / Waterproof
- Remote control re-programmable Flush time / Flush delay / Detect Range / Detect Delay / Detect Frequency

#### Certification

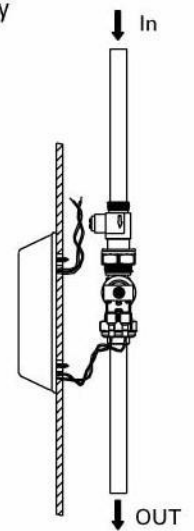
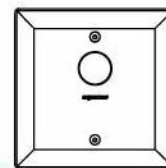
IAPMO cUPC  
ADA / ANSI compliant

#### Model Choice

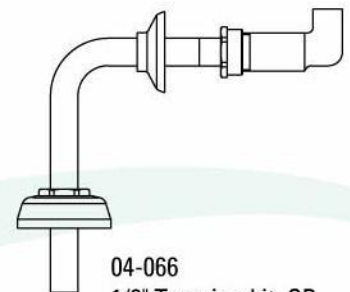
2124

#### Options

- 04-186 Transformer 120/24Vac
- 04-066 1/2" Top pipe kit, CP for Top entry
- 04-065 SS Flex hose, non-kink for Rear entry



04-065  
SS Flex hose, non-kink  
for Rear entry

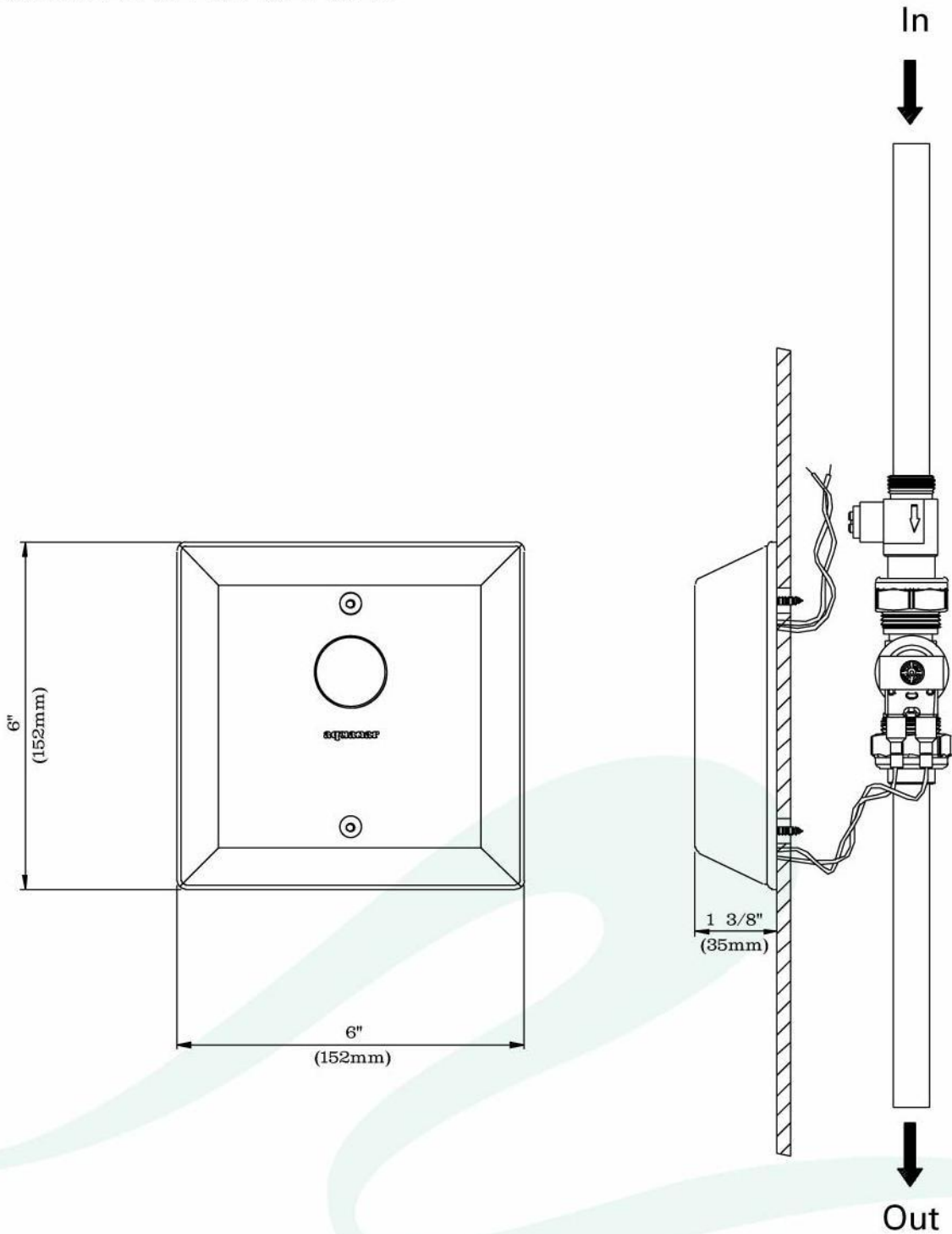


04-066  
1/2" Top pipe kit, CP  
for Top entry

## 2124 URINAL

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

### TECHNICAL SPECIFICATIONS



## 2124 URINAL

### *intelligent™* Electronic Urinal Control, Modular, Wall Mount

#### PRODUCT DESCRIPTION

**Function:**

The electronic module detects the presence of the user and sets the circuit on stand-by mode (non-flushing). The computer based micro-processor with specially designed sensors is programmed to detect the presence of a user within a pre-determined distance and time to eliminate unnecessary flushing. After usage, the circuit detects the absence of the user and flushes automatically. The duration of flushing action and operating cycles are adjustable. Also, if the flush cycle is in operation and a user presents himself, the unit will automatically stop to eliminate unwanted splashing of water.

**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 with an optional remote reprogrammer module. This user-friendly module permits easy function changes (without dismantling the unit) in the distance and time cycles, for example:

Flush Time	1 to 15 seconds
Detect Delay (Acknowledgment)	0 to 14 seconds
Flush Delay	2 seconds
Sensitivity (Detect Range)	6 to 24 inches
Address ( Detect Frequency )	1 to 4 frequencies
** Auto courtesy flush	24 hrs. after last use

**Technical Specifications:**

Electrical requirements	24 Vac 15 V.A.
Flush Cycle Duration	1 to 15 seconds
Electro-mechanical Valve	24 Vac 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 urinals 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 urinal detector is using. ( ie. a urinal frequency address is at # 1 and the one mounted on the opposite wall can be set to address # 2.) This is a design-incorporated intelligent™ 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 Urinal Control, Modular, Wall Mount FUNCTION INFORMATION

<b>A) Flush Time (Run Time)</b>	<b>1 to 15 seconds</b>
<b>B) Detect Delay (Detect Time)</b>	<b>0 to 14 seconds</b>
<b>C) Flush Delay</b>	<b>1 to 15 seconds</b>
<b>D) Sensitivity (Detect Range)</b>	<b>1 to 15 level</b>
<b>E) Address (Detect Frequency)</b>	<b>Frequency 1 to 4</b>

#### **A) Flush Time (Run Time)**

The water flush time cycle is normally set to 6 seconds.

*\*\* This flush cycle is reprogrammable from 1 to 15 seconds ( a 1/2 to 1 second longer delay is due to the "slow close" feature the water valve has to prevent water hammer effects ).*

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

The detection delay is set at 6 seconds. This is to prevent unwanted starts by passers-by in close quarters.

*\*\* The delay is reprogrammable from 0 to 14 seconds.*

#### **C) Flush Delay**

The flush delay is usually set at 2 seconds. This allows the user to step back or leave before the flush cycle operates and prevents unwanted splash on the user.

#### **D) Detection Range, Sensitivity**

The detection range is adjustable through reprogramming and detects between 6 to 24". Factory-programmed detection range is set at sensitivity level 8.

- 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.*

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

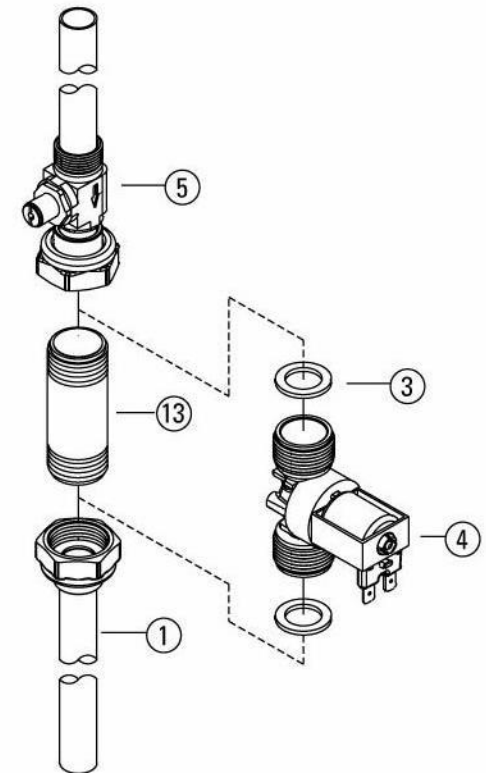
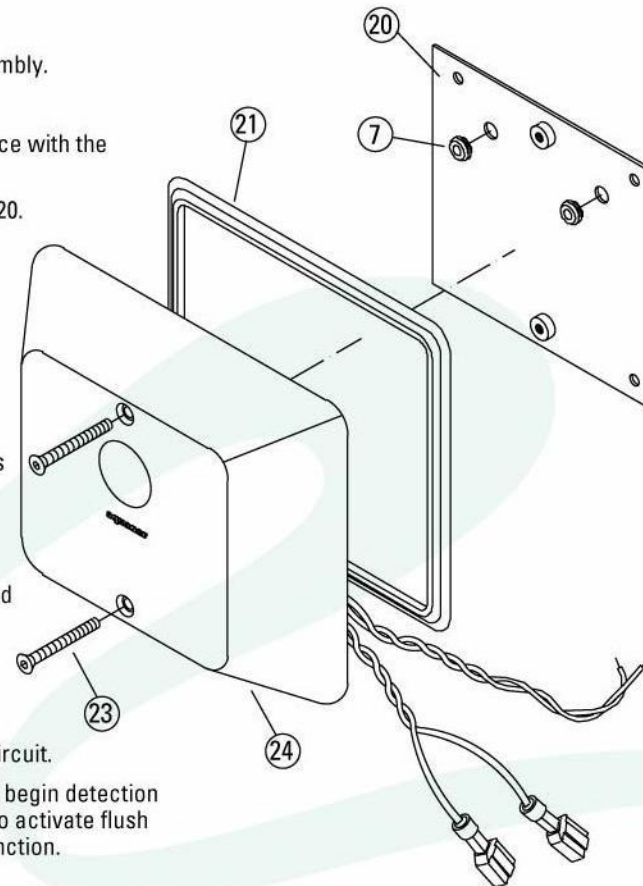
This *intelligent™* feature eliminates possible problems of oppositely ( face to face) mounted systems.

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.*

## 2124 URINAL - intelligent™ Electronic Urinal Control, Modular, Wall Mount INSTALLATION STEPS

- 1 - Connect the water supply to the ball valve pipe assembly. In a suitable location.
- 2 - Install temporary valve jig #13 without the use of red solenoid gaskets.
- 3 - Screw in the outlet pipe assembly # 1 to the valve jig #13.
- 4 - Connect the outlet pipe assembly to the urinal.
- 5 - From a water supply, connect piping to ball valve pipe assembly.
- 6 - Open water supply with ball valve and purge piping.
- 7 - After flushing the piping system, remove valve jig and replace with the solenoid valve and two red gaskets. Do not use sealant.
- 8 - Mount and level on the wall the stainless steel wall plate # 20. Mount the electronic module in the appropriate location above urinal.
- 9 - Mark and drill a hole in the wall for the wiring. A rubber grommet # 7 is supplied for passing both the 24Vac wires ( power source ) and solenoid connection.
- 10 - Connect 24Vac power wires with the wire twists supplied. No polarity required.
- 11 - Connect the solenoid wires that have the insulated terminals to the incoming solenoid wires. No polarity required.
- 12 - Mount the perimeter gasket # 21 to the electronic module faceplate .
- 13 - Place two flat head screws # 23 in the faceplate holes and attach to the wallplate. Ensure that wires are protected during final mounting.
- 14 - Apply current to 24Vac transformer feeding power to the circuit module.
- 15 - It takes approx. 5 to 10 seconds to energize the electronic circuit.
- 16 - After this period, place hand in front of the detection lens to begin detection sequence. After the assigned detection time, remove hand to activate flush cycle. A red light in the lens area will indicate power and function. ( Make sure water supply ball valve is open )



### Tools Required:

- Hex Key, 1/8"
- Adjustable Wrench

## 2124 URINAL - *intelligent*™ Electronic Urinal 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

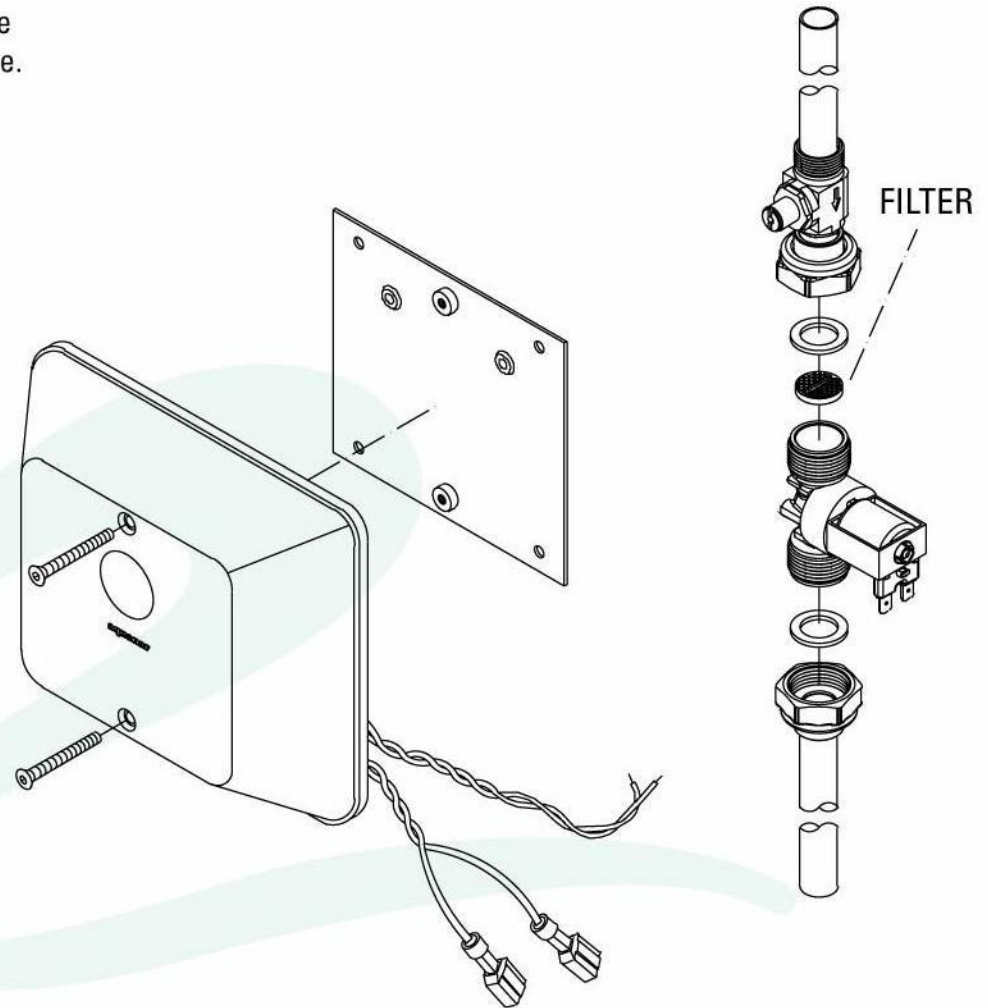
- With flat screwdriver, close water source at ball valve.
- Remove the solenoid valve and check if filter is clear of debris.
- Remove filter, clean and rinse with warm water.
- Dry and reassemble.

### 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.

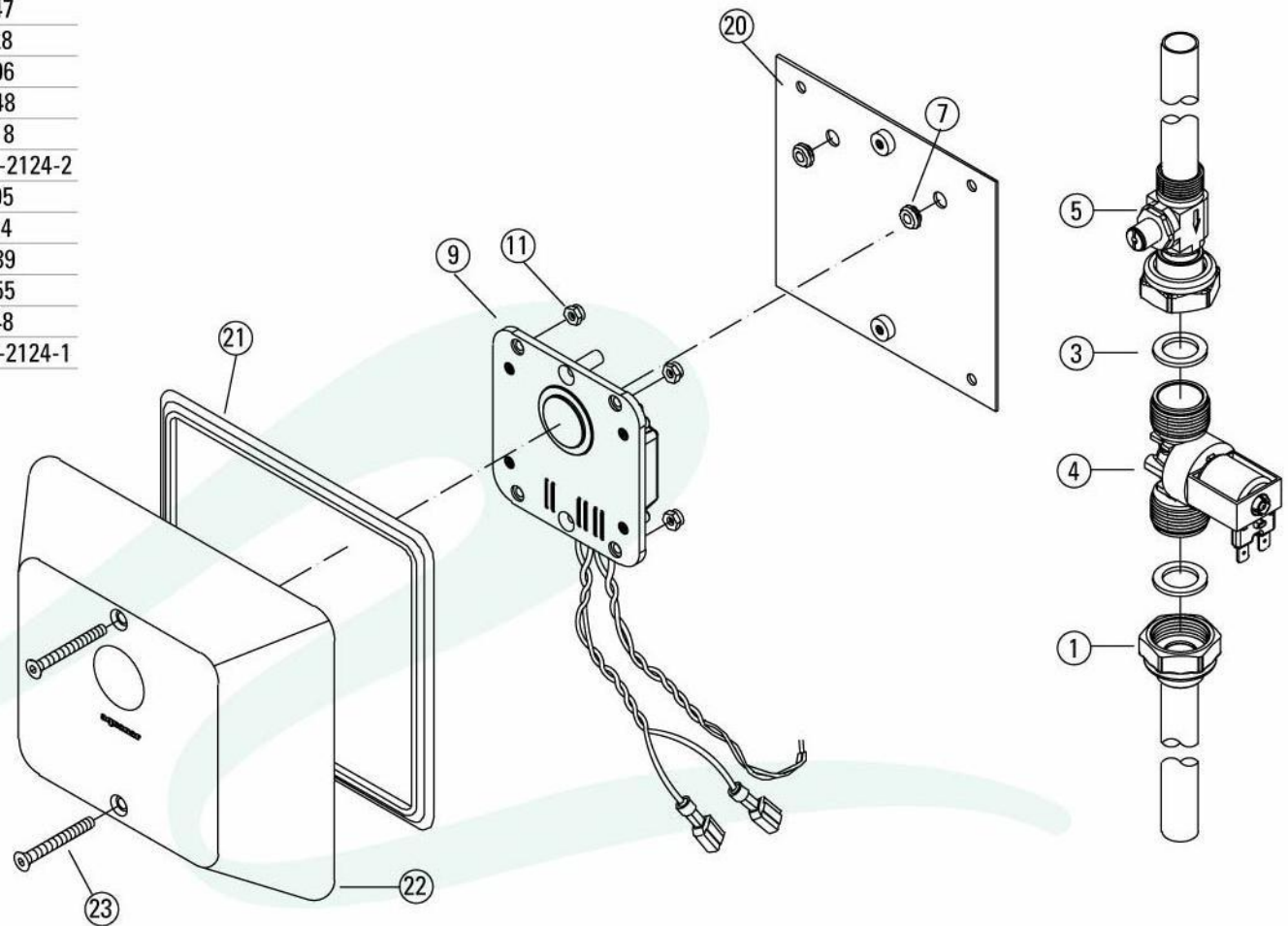
### Re-assembling

To re-install, reverse the above steps.



## 2124 URINAL - *intelligent™* Electronic Urinal Control, Modular, Wall Mount 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-2124-2
11*	Nylon locknut, #10-32	08-005
20	Wall plate s.s.	02-054
21*	Rubber grommet	02-139
22*	Wall plate, s.s.	02-055
23	Seal, perimeter, rubber	08-048
24*	Face plate, modular s.s.	AQN-2124-1



## 2100 SERIES

### *intelligent™* Electronic Urinal Control 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. 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.