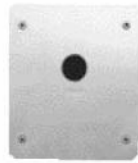


## 2120 URINAL

### intelligent™ Electronic Urinal Control, Flush Mount



#### Product Description

- In-wall flush mount.
- Electronic module detects the presence of the user and enters its 'stand-by' mode. The urinal flushes when the user leaves the detection area.
- Computer based micro controller w/specially designed infra red sensors to detect within a required distance.
- All non-corrosive materials.
- Auto-courtesy flush every 24 hrs.

#### Features

- All Stainless Steel / Waterproof
- Vandal Proof / Tamper cycle
- Remote control re-programmable Flush Time / Flush delay  
Detect Range / Detect Frequency / Detect delay

#### Certification

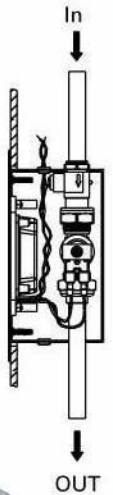
IAPMO cUPC  
ADA / ANSI Compliant

#### Model Choice :

- 2120
- 2120R e/w 04-065
- 2120T e/w 04-066
- 2120P e/w push button

#### Options

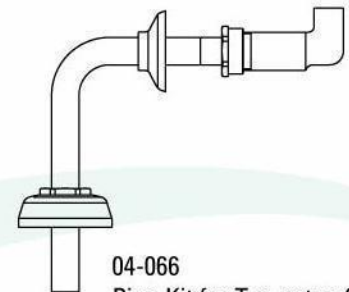
- 04-186  
Transformer 120/24Vac
- 04-065  
3/4" - 3/4" x 20" SS flexible  
non-kink hose for rear entry
- 04-066  
Pipe Kit for Top entry, CP
- 01-180  
Angled Housing



01-180  
Angled Housing



04-065  
3/4" - 3/4" x 20" SS flexible  
non-kink hose for rear entry

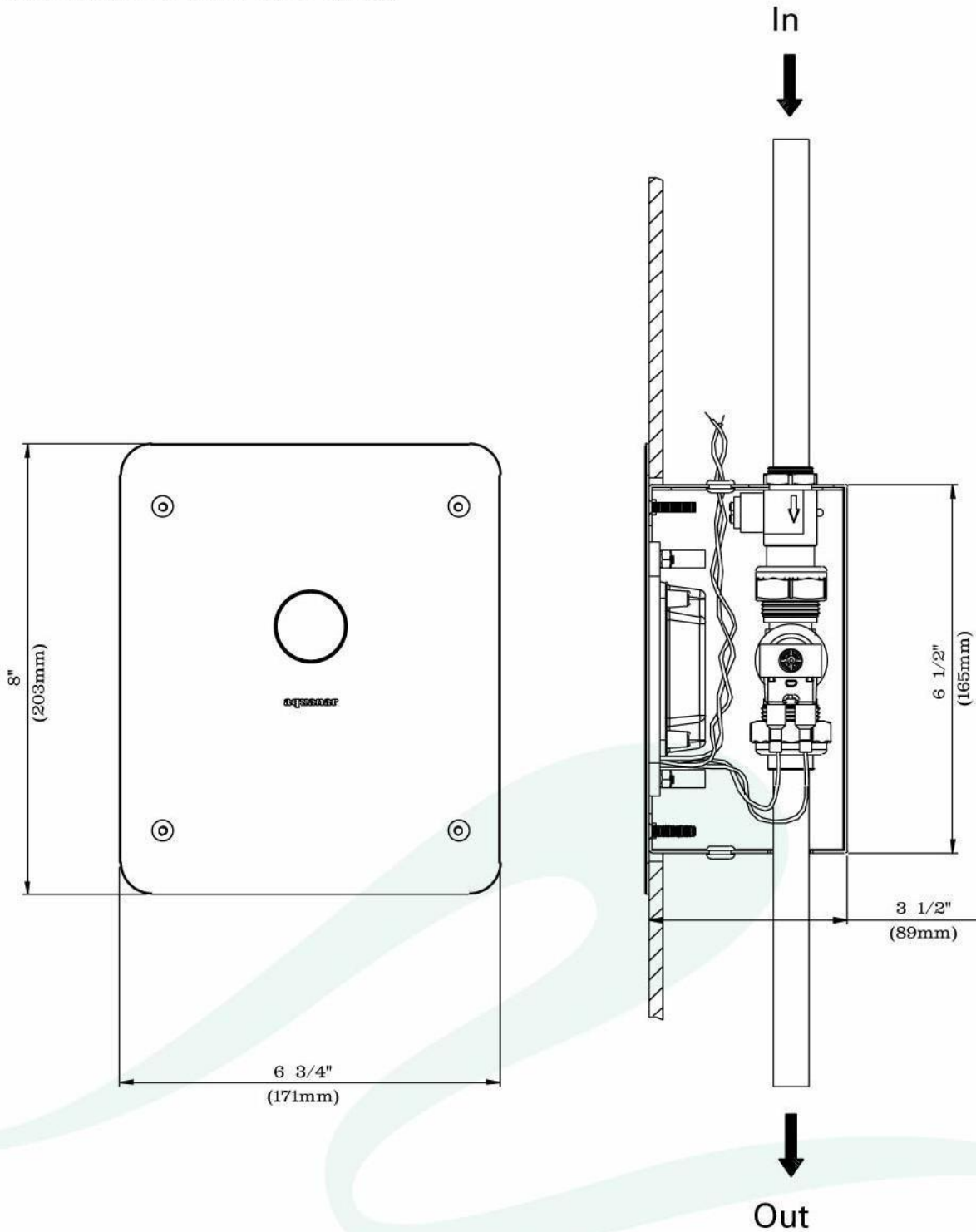


04-066  
Pipe Kit for Top entry, CP

## 2120 URINAL

*intelligent™* Electronic Urinal Control, Flush Mount

### TECHNICAL SPECIFICATIONS



# 2120 Urinal

## *intelligent™* Electronic Urinal Control, Flush 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 12 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 (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	1 to 15 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. Example....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.

## 2120 URINAL

### *intelligent™* Electronic Urinal Control, Flush 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**

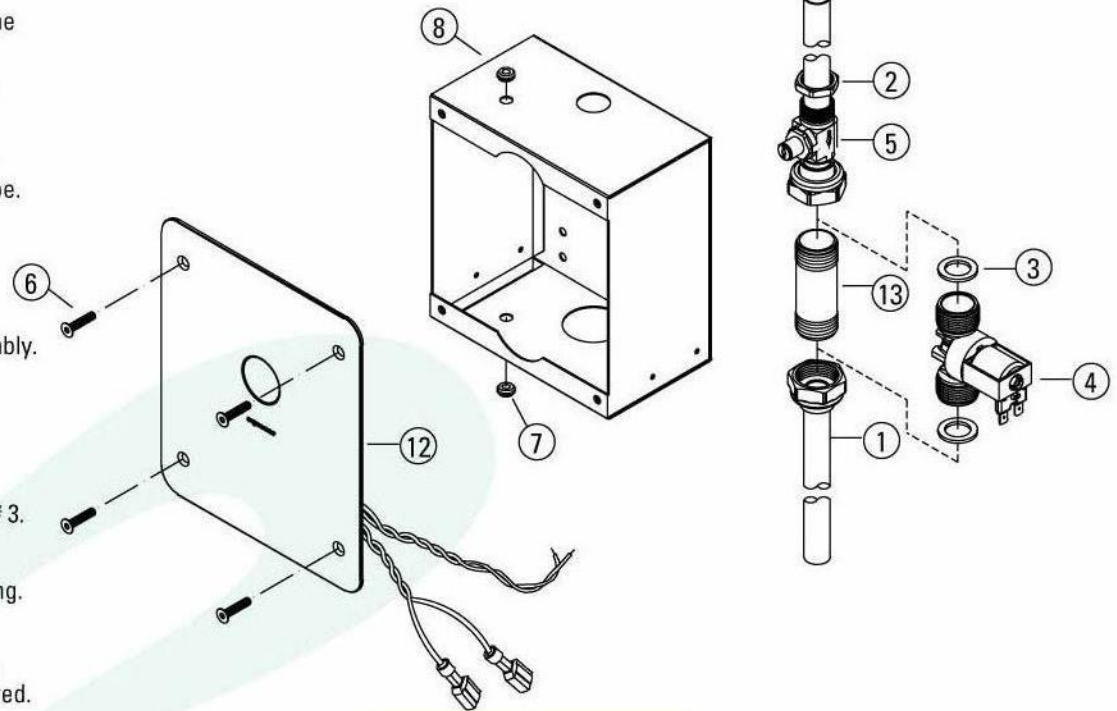
This *intelligent™* feature eliminates possible problems of oppositely ( face to face) mounted systems.

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.*

## 2120 URINAL - *intelligent™* Electronic Urinal Control, Flush Mount INSTALLATION STEPS

- 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 top.
- 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 larger hole in the housing on lower side towards the urinal.
- 7 - Connect the water supply to the upper side ball valve pipe assembly.
- 8 - Connect the copper outlet pipe assembly # 1 to the urinal. Ensure that the piping is tension free to allow proper solenoid valve installation and maintenance.
- 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 wiring rubber grommet # 7 in the appropriate hole in housing.
- 13 - Install 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 - 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 Driver, 1/8"
- Adjustable Wrench
- Soldering Tools

## 2120 URINAL - *intelligent*<sup>™</sup> Electronic Urinal Control, Flush 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 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

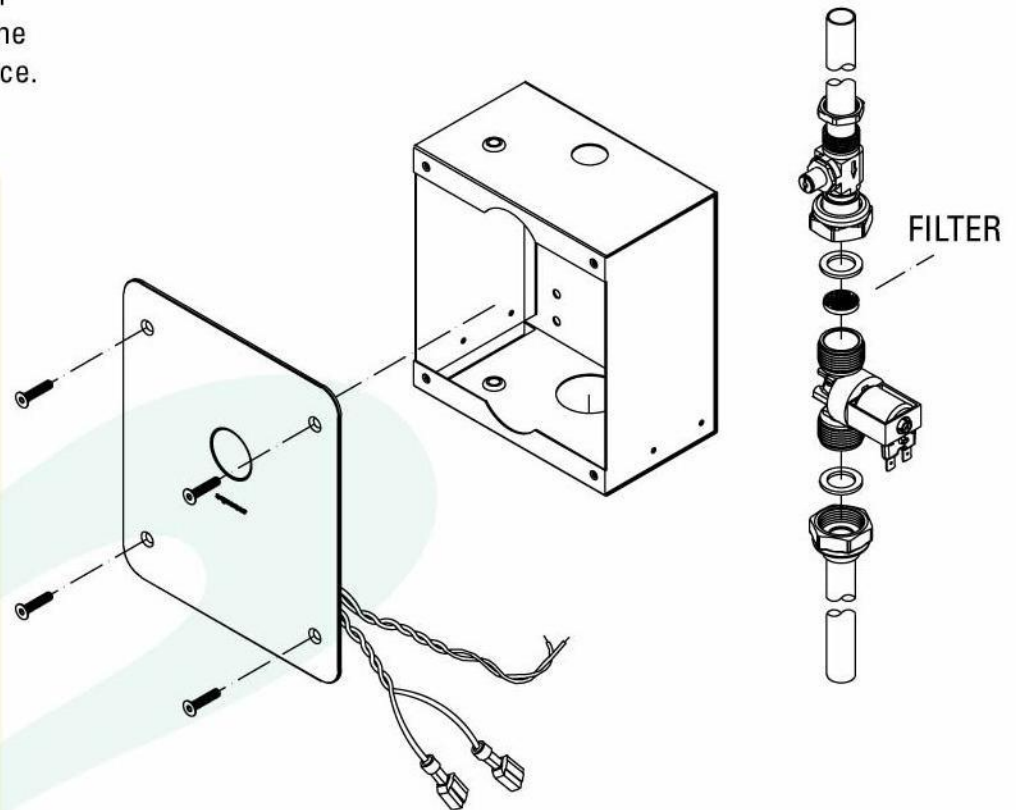
- With flat screwdriver, close water source at ball valve.
- Remove the solenoid valve and check if filter is clear of debris.
- Remove filter, clean and rinse with warm water. Dry and reassemble.

### 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.

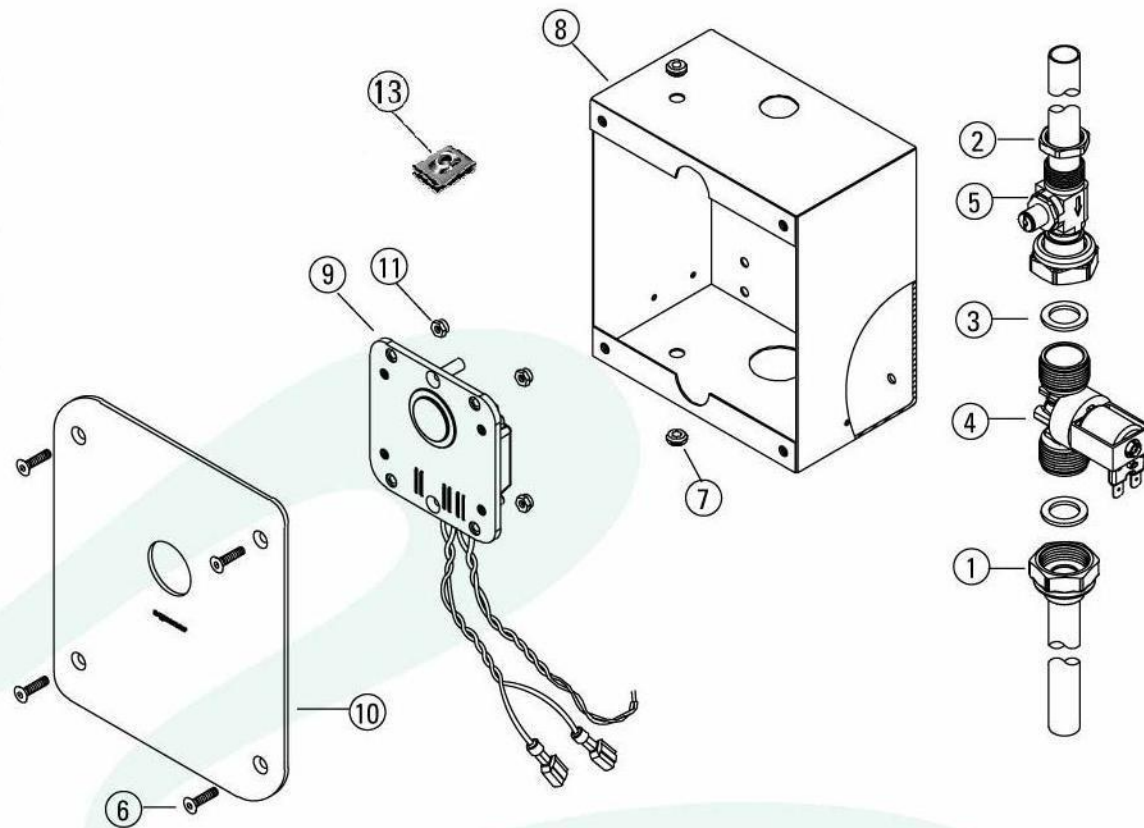
### Re-assembling

To re-install, reverse the above steps.



## 2120 URINAL - *intelligent™* Electronic Urinal Control, Flush Mount 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-2120-2
10*	Face plate, s.s.	02-002
11*	Nylon locknut, # 6-32	08-005
12*	Consists of #9, 10 & 11.	AQN-2120-1
13	Nut, U-type spring nut	08-053



## 2120 URINAL

### *intelligent™* Electronic Urinal Control, Flush Mount SPECIFICATION SAMPLE

The electronic module consists of the emitter, receiver and microprocessor circuit in one compact sealed unit. It should be factory programmed and reprogrammable on site, **without dismantling the unit**, utilizing a remote control. For ease of distance adjustments, a temporary presence indicator light shall be included ( 5 minutes adjustment cycle ). The electronic module shall be flame retardant, waterproof and contain no accessible adjustment device to hinder waterproofing. Included is a template nipple for the magnetic valve during ' roughing-in', a water flow control and shut-off service valve and a 24VAC magnetic solenoid valve.

- Unit construction to be entirely of corrosion-proof materials; wall enclosure of 20 gauge, 304 stainless steel, vandal resistant front plate of 14 gauge, 304 stainless steel.
- The urinal control shall be configured to allow flushing only after the user has left the detection area, and if unused, to have the feature to flush once automatically in a 24 hour period to ensure odor control and cleanliness.
- Water conservation maximized by allowing minimum use of water, as low as 1 litre / flush, including proper function as low as 10 psi working pressure.
- Detect frequency 'address' feature eliminates problems of oppositely mounted ( face to face ) systems by re-programming a different detection frequency with a remote control.
- A class II-120V/24V transformer of the proper rating can be supplied as an extra. The remote control reprogrammer is offered as an option.
- ADA Compliant