



# AquaSense® Z6903 Series

Sensor-Operated,  
On-Approach Faucets

Installation, Operation,  
Maintenance and Parts Manual

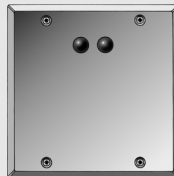
Patented and Patents Pending



**Z6903-75**



**Z6903-76**



**Z6903-77**



**Sensor-Operated,  
On-Approach Faucets**  
**Z6903-75**  
**Z6903-76**  
**Z6903-77**

## LIMITED WARRANTY

All goods sold hereunder are warranted to be free from defects in material and factory workmanship for a period of three years from the date of purchase. Decorative finishes warranted for one year. We will replace at no cost goods that prove defective provided we are notified in writing of such defect and the goods are returned to us prepaid at Sanford, NC, with evidence that they have been properly maintained and used in accordance with instructions. We shall not be responsible for any labor charges or any loss, injury or damages whatsoever, including incidental or consequential damages. The sole and exclusive remedy shall be limited to the replacement of the defective goods. Before installation and use, the purchaser shall determine the suitability of the product for his intended use and the purchaser assumes all risk and liability whatever in connection therewith. Where permitted by law, the implied warranty of merchantability is expressly excluded. If the products sold hereunder are "consumer products," the implied warranty of merchantability is limited to a period of three years and shall be limited solely to the replacement of the defective goods. All weights stated in our catalogs and lists are approximate and are not guaranteed.

## REQUIRED EQUIPMENT and SUPPLIES

- Wall plate/sensor/electronic assembly (included).
- 5-11/16" x 4-11/16" double-gang wall box for sensor (by others).
- 12VDC transformer (included)
- 120 volts/60 Hertz single phase duplex outlet within six feet of electronics (by others).
- Two wire nuts (included).
- Small flat blade screwdriver for range adjustment (by others).
- Medium Phillips screwdriver for mounting wall plate (by others).
- Teflon tape and faucet installation tools (by others).

### IMPORTANT:

- ALL PLUMBING IS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
- FLUSH ALL WATER LINES PRIOR TO INSTALLATION.
- SENSOR UNITS SHOULD NOT BE LOCATED ACROSS FROM EACH OTHER OR IN CLOSE PROXIMITY TO HIGHLY REFLECTIVE SURFACES.

## INSTALLATION INSTRUCTIONS

### 1. Install Faucet

Install faucet spout to deck or backsplash, depending on job requirements.

### 2. Install Solenoid Valve

Connect preassembled in-line filter/solenoid valve combination to tempered water supply and faucet. Install valve with water flow direction as indicated by arrow on solenoid valve body.

### 3. Install 12VDC Transformer

Mount 12VDC transformer in appropriate location. Run output wires into sensor junction box. **Do not plug in transformer at this time.**

### 4. Install Sensor

Connect 12VDC transformer outlet wires to sensor electronics. Observe polarity as marked on wires.

Connect low voltage solenoid wires to sensor electronics. Non-polarized electronic output wires are interchangeable.

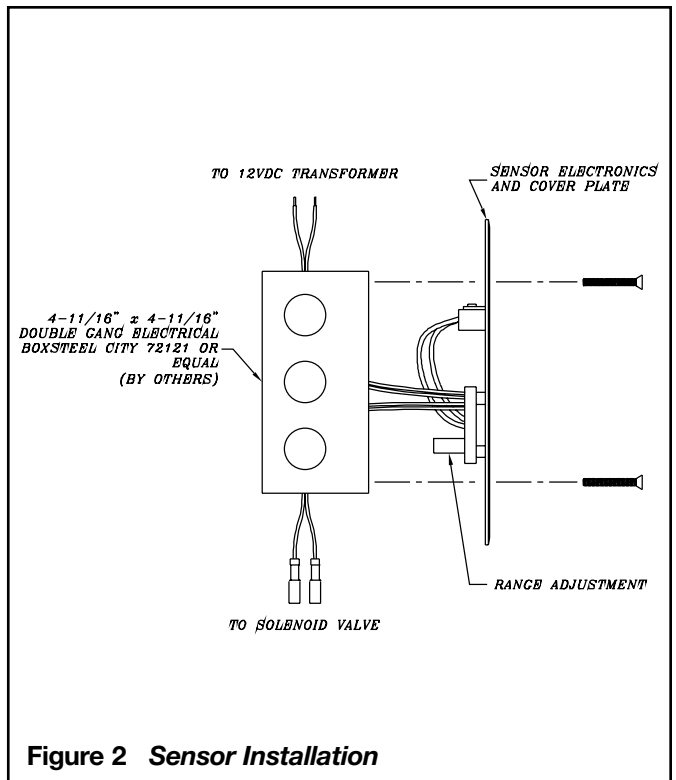
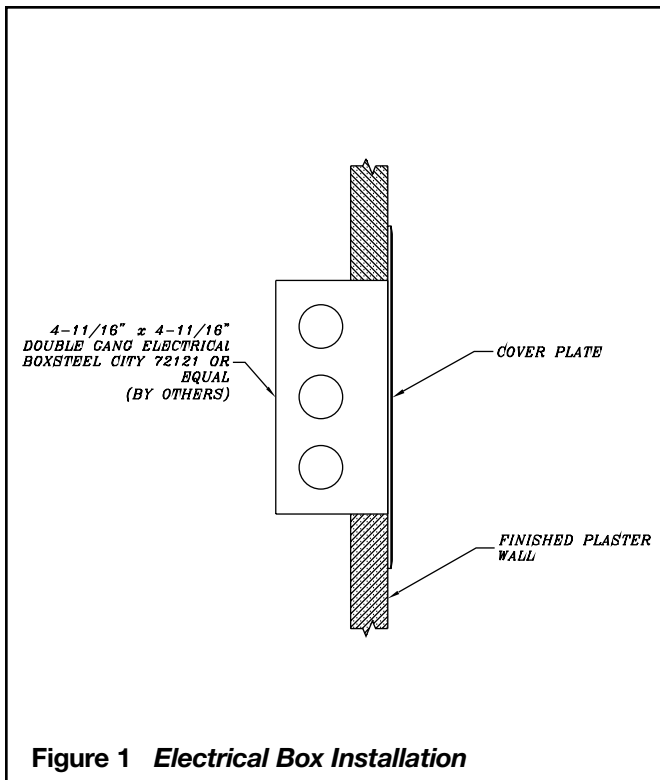
Mount wall plate to sensor wall box with screws provided. See Figure 2.

Plug in transformer.

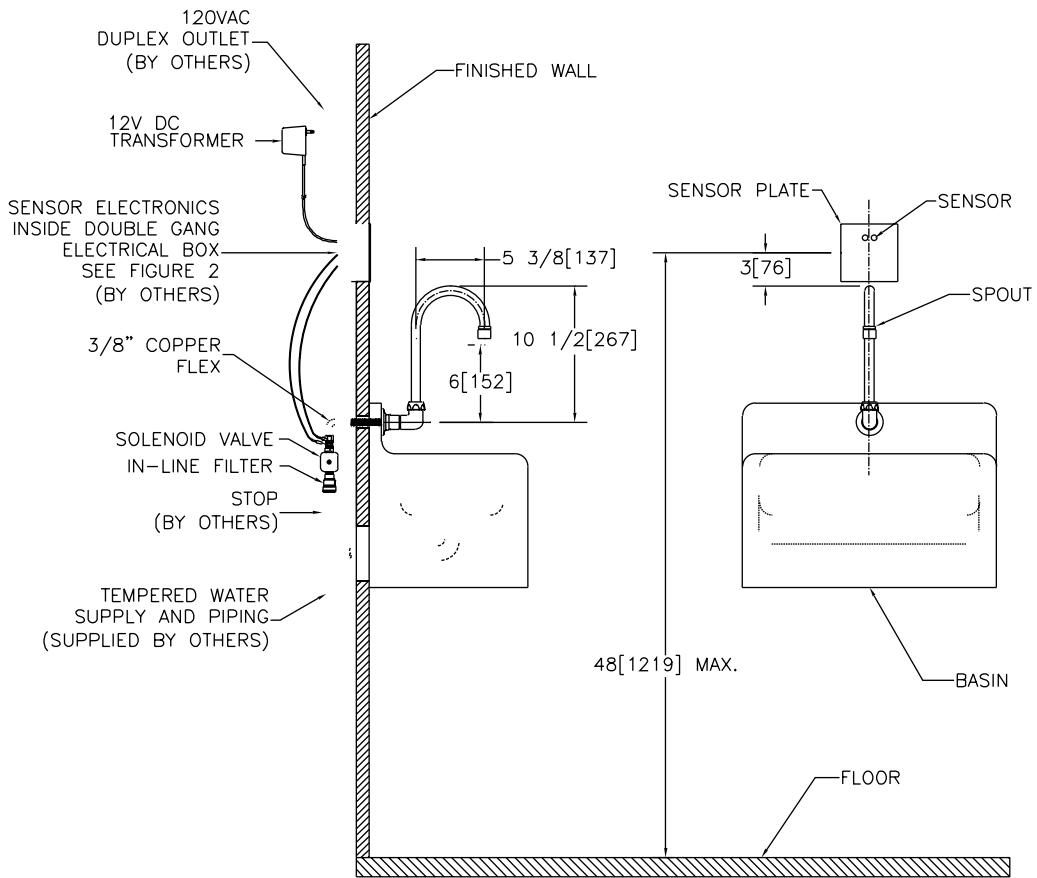
### Range Adjustment

Adjust range (36" maximum) by turning adjustment screw found on the back side of the sensor electronics and cover plate shown in Figure 2.

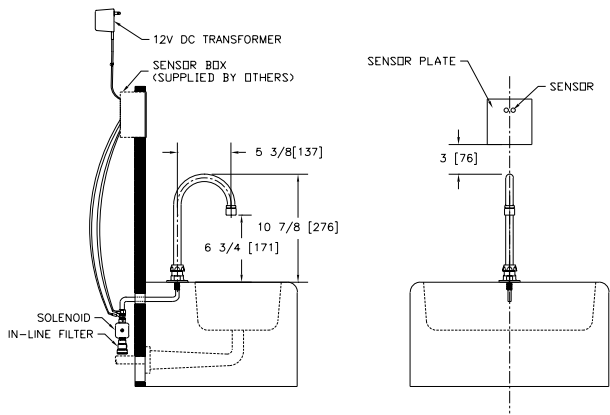
**GENTLY** turn clockwise to increase range; counterclockwise to decrease range.



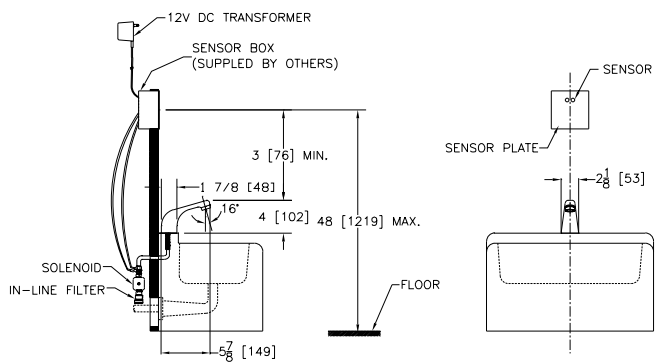
**Typical Installation  
Z-6903-75 Model  
Zurn AquaSense® Sensor-Operated, On-Approach  
Splash Mounted Gooseneck Faucet**



**Typical Installation  
Z-6903-76 Model  
Zurn AquaSense® Sensor-Operated, On-Approach  
Deck Mounted Gooseneck Faucet**



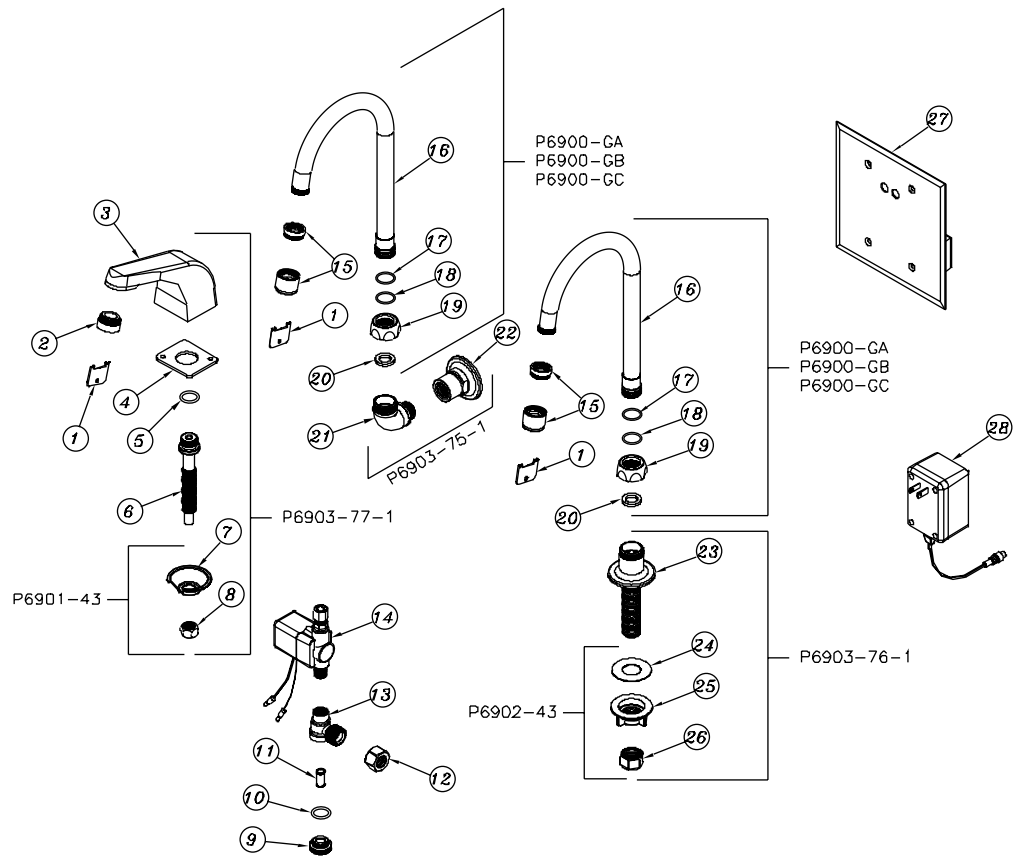
**Typical Installation  
Z-6903-77 Model  
Zurn AquaSense® Sensor-Operated, On-Approach  
Deck Mounted Lavatory Faucet**



# Z6903 Series Repair Kits

## Parts Identification

1. Vandal-Resistant Aerator Wrench
2. Aerator
3. Cast Spout
4. Base Plate Gasket
5. O-Ring
6. Shank
7. Mounting Washer
8. Shank Nut
9. Filter Cap
10. O-Ring
11. Filter Screen
12. Nut
13. Filter Body
14. Solenoid
15. Gooseneck Aerator
16. Gooseneck Spout
17. Washer
18. Rigid Washer
19. Spout Nut
20. Gasket
21. Elbow
22. Wall Mount
23. Deck Mount Shank
24. Gasket
25. Mounting Nut
26. Shank Nut
27. Sensor and Electronics with Cover Plate
28. Power Converter



Description	Product No.
Vandal-Resistant Aerator Wrench	P6900-21
Aerator	1.5 GPM P6900-20E 2.2 GPM P6900-20B 2.2 GPM Lam. P6900-20C
Gooseneck Aerator	2.2 GPM P6900-20B-GN 2.2 GPM Lam. P6900-20C-GN
Cast Spout Assembly	P6903-77-1
Filter Assembly	P6900-120

Description	Product No.
Solenoid Valve	P6900-100
3-1/2" Gooseneck Spout	P6900-GA
5-3/8" Gooseneck Spout	P6900-GB
8" Gooseneck Spout	P6900-GC
Wall Mounted Base Assembly	P6903-75-1
Deck Mounted Base Assembly	P6903-76-1
Sensor and Electronics with Cover Plate	P6903-6080-WP
Power Converter	P6900-PCF12

## SPECIFICATIONS

Sensor Range:	36" Maximum (adjustable)
Voltage:	12 VDC
Operating Water Pressure:	20-80 psi
Operating Temperature:	35°F to 104°F (2°C to 40°C)
Wall Plate:	Chrome-Plated Steel

## CARE AND CLEANING INSTRUCTIONS

DO NOT use abrasive or chemical cleaners to clean faucets as they may dull the luster and attack the chrome or special decorative finishes. Use only mild soap and water, then wipe dry with a clean cloth or towel. While cleaning the bathroom tile and floor, the faucet should be protected from splattering of cleaner. Acids and cleaning fluids can discolor and/or remove plating.

## OPERATION

- 1.) Invisible light rays are continually emitted from the faucet sensor.
- 2.) When the user comes into range of the sensor's detection zone (36-inch maximum), the beam is reflected back to the sensor's receiver and converted to a low voltage electrical signal activating a solenoid valve and water flow.
- 3.) After the user moves away from the sensor, the absence of reflected light stops the low voltage electrical signal, closing the valve and stopping the water flow. The circuit then automatically resets for the next user.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	TO DIAGNOSE	REMEDY
FAUCET WILL NOT TURN ON	AC adaptor is not plugged in.	Check connections.	Plug in the AC adaptor.
	In-line strainer is plugged.	Open the cleanout connector and check for debris.	Clean the filter.
	No electricity from outlet.	Check power outlet or breaker switch.	Turn on power or reset breaker switch.
	Sensor distance too short.	Move hand all the way to sensor.	Adjust sensor distance out. See instructions.
	AC adapter is faulty.	Check voltage output with meter.	Replace the adaptor.
	DC wires improperly connected to solenoid.	Check connections and polarity.	Reconnect all DC wires. See instructions.
	Solenoid is faulty.	Move hand in front of faucet to see if solenoid is clicking.	If not clicking, replace solenoid.
	Solenoid is plugged.	Same as above.	If clicking, open solenoid and clean it.
Sensor/electronics is faulty.	Activate faucet to test voltage output of DC wires.	If output voltage is lower than 12V, replace sensor/electronic.	
FAUCET WILL NOT SHUT OFF, OR DRIPS	Solenoid valve is dirty.	Open the solenoid valve and check for debris.	Clean the solenoid diaphragm and internal disc.
	Sensor distance too long.	Stand in front of sensor and move backward to test the distance range of the sensor.	Decrease range by turning range adjustment counterclockwise.

**ZURN PLUMBING PRODUCTS GROUP** COMMERCIAL BRASS OPERATION, 5900 ELWIN BUCHANAN DRIVE, SANFORD, NC, U.S.A. 27330  
PHONE: 1-800-997-3876 FAX: 919/775-3541 WEBSITE: www.zurn.com

**ZURN INDUSTRIES LIMITED** 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V 1L2 PHONE: 905/405-8272 FAX: 905/405-1292