



# AquaSense®

## Z6920-XL-GEN

Sensor-Operated Lavatory Faucets for Hydrogenerator Installations.

### Installation, Operation, Maintenance, and Parts Manual

Patented and Patents Pending



**Z6920-XL-GEN**  
Sensor-Operated  
Hydrogenerator Powered  
Lavatory Faucets  
(1.0 or 1.5 GPM Aerator  
Required)

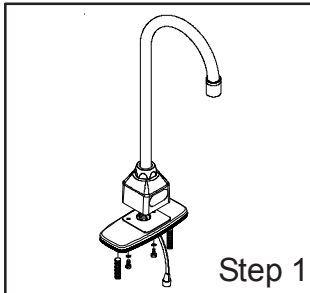


#### LIMITED WARRANTY

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 costs 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.

## IMPORTANT:

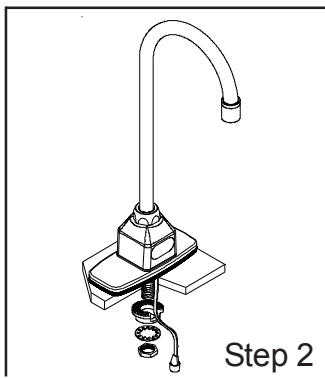
- ALL PLUMBING IS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND REGULATIONS.
- FLUSH ALL WATER LINES PRIOR TO INSTALLATION.
- SENSOR UNITS SHOULD NOT BE LOCATED ACROSS FROM EACH OTHER OR IN CLOSE PROXIMITY TO HIGHLY REFLECTIVE SURFACES.
- **DO NOT USE ANY THREAD SEALING COMPOUNDS DURING INSTALLATION OF PRODUCT, DOING SO WILL VOID WARRANTY.**



### 1. Cover Plate Installation

(For faucets with -CP4 or -CP8 suffix)

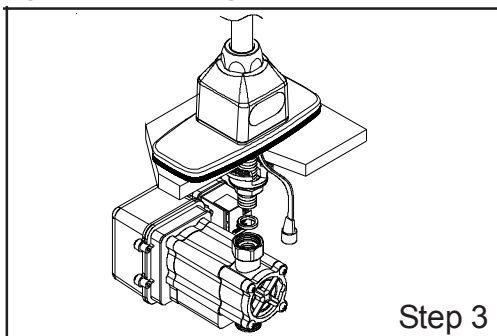
Remove adhesive backing from gasket and then pass sensor connector wire and shank through gasket. Align gasket with faucet bottom and press firmly together. Pass sensor connector and shank through cover plate and fasten to the faucet with the provided screws.



### 2. Spout Installation

If there is an existing faucet, turn off water supply and remove the old faucet. Assure supply lines are completely flushed and free of debris. Clean lavatory rim around the mounting area for the new sensor faucet.

Place the sensor connector wire and shank through cover plate gasket and hole in the lavatory. Orient black plastic mounting washer with the slot facing up. Place mounting washer and star washer over shank and secure the entire assembly to the lavatory with the mounting nut. **The sensor wires must pass through slot in plastic mounting washer. \*Do not pinch Sensor wires.**



### 3. P6900-GEN Assembly

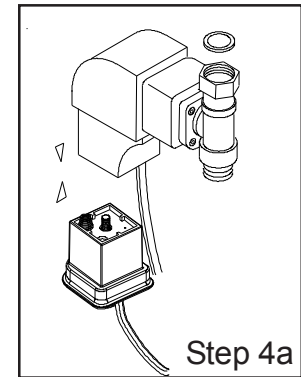
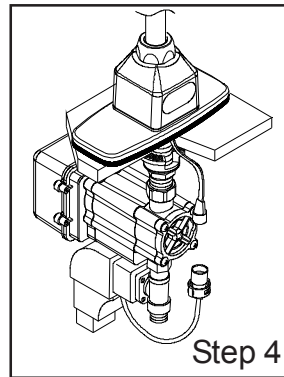
**Caution: Do not remove connector sticker until STEP 4a to make sure the contacts do not come in contact with any conductive objects.**

Install gasket and tighten hex nut of P6900-GEN to faucet shank. P6900-GEN must be installed between faucet and electronics module for proper operation. **DO NOT USE THREAD SEALANT.**

### 4. Electronics Module Installation

Attach electronics module to the P6900-GEN using the hex nut and gasket provided. Orient the electronics in a convenient location and tighten hex nut.

Attach sensor connector wire from the faucet to the mating sensor connector wire from the electronics module. Orient connectors so that the pins are properly aligned before pressing connectors together. **Do not force together, damage to pins may occur.** Secure the cable connectors with the locking ring provided.



### 4a. P6900-GEN Power Connector Installation

Loosen the battery cover screw with the supplied allen wrench. Remove the battery tray. Remove the connector sticker and install the connector making sure it is oriented correctly. Tighten the screw in the center of the connector, making sure not to over tighten.

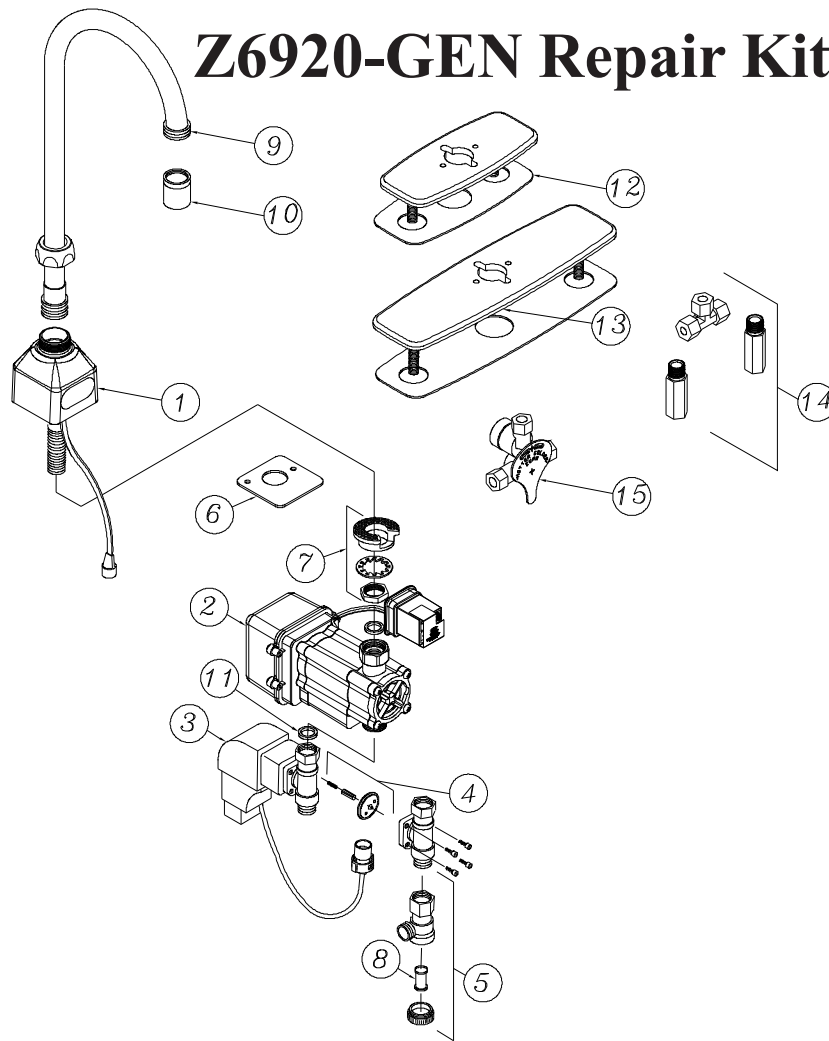
### 5. Filter or Mixing Tee or Mixing Valve Installation

The supplied inlet filter must be used with every faucet, unless a mixing tee or mixing valve is ordered. The inlet filter is attached directly to the electronics module's water inlet. Tempered water is then supplied to the filter using a standard 3/8" x 1/2" ball riser (supplied by others.)

The optional mixing tee assembly (-MT) or mixing valve (-MV) have integral filters and back checks. These take the place of the standard inlet filter when ordered. The mixing tee or mixing valve outlet attaches to the electronics module with a 3/8" x 1/2" ball riser (supplied by others). Hot and cold water is then supplied to the appropriate 3/8" compression inlets.



## Z6920-GEN Repair Kits



Description	Product No.
1) Spout Base with Sensor Assembly	P6920-XL-1
2) P6900-GEN Hydrogenerator	P6900-GEN
3) Electronics Box with Solenoid	P6920-B-L-XL
4) Solenoid Rebuild Kit (Diaphragm, plunger and plunger spring)	P6900-SRK
5) Filter Kit	P6900-120
6) Base Plate Gasket	P6920-42
7) Mounting Kit	P6920-43
8) Filter Screen	P6900-MV-7
9) 5 3/8" Gooseneck Spout with Nut	P6900-GB
10) 1.5 GMP Vandal Resistant Aerator	P6900-20A-GN
11) Shank Gasket	P6900-SG
12) 4" Cast Cover Plate w/Gasket	P6920-CP4
13) 8" Cast Cover Plate w/Gasket	P6920-CP8
14) Mixing Tee w/Filters and Back Checks	P6900-MT-XL
15) Mixing Valve w/Filter	P6900-MV-XL

ZURN INDUSTRIES, LLC. ♦ COMMERCIAL BRASS OPERATION ♦ 5900 ELWIN BUCHANAN DRIVE ♦ SANFORD NC 27330

Phone: 1-800-997-3876 ♦ Fax: 919-775-3541 ♦ World Wide Web: [www.zurn.com](http://www.zurn.com)

In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905-405-8272 Fax: 905-405-1292

## SPECIFICATION

Voltage:	6 VDC (4 "AA" Alkaline)
Sensor Range:	8" Approximate
Operating Water Pressure:	40-80 psi
Ambient Temperature:	32°F to 122°F (0°C to 50°C)
Operational Water Temperature:	35°F to 140°F (2°C to 60°C)
Aerator:	1.0 or 1.5 GPM Vandal-Resistant (Only)

## CARE AND CLEANING INSTRUCTIONS

**DO NOT** use abrasive or chemical cleaners to clean faucets as they will 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 and electronics should be protected from splattering of water, cleaner, acids and cleaning fluids that can damage the sensor faucet.

## OPERATION

- 1.) Invisible light rays are continually emitted from the faucet sensor.
- 2.) When the user's hands come into range of the sensor's detection zone (8" approx.), the beam is reflected back to the sensor's receiver and converted to a low voltage electrical signal activating a solenoid valve.
- 3.) After the user removes their hands, the absence of reflected light stops the low voltage electrical signal, closing the valve. The circuit automatically resets for the next user.
- 4.) If an object is in view continuously for thirty seconds, the faucet will automatically shut off. The faucet will remain off until the object is removed. After the object is removed, the faucet functions normally.
- 5.) To ensure the best efficiency and maximum generator performance, the faucet operating pressure should be greater than 40 psi and not exceed 80 psi. The faucet should be equipped with an aerator of 1.0 or 1.5 gpm flow and installed in a traffic area that provides 70 activation per day during a normal work week for each faucet.
- 6.) **LITHIUM BATTERY WARNING:** Fire, explosion and severe burn hazard. Do not recharge, disassemble, heat above 100 deg. C, incinerate or expose contents to water. Replace only with Zurn P6900-GEN 6 VDC part #81846001.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	TO DIAGNOSE	REMEDY
FAUCET WILL NOT FLOW WATER	Water supply not turned on.	Check supply stops.	Turn on water.
	Connector assembly from -GEN not connected.	Check connections.	Reconnect.
	Cable connection is not fully engaged.	Check cable connection.	Disconnect -GEN power connector. Disengage the sensor cable connection. Check cable connection for broken pins and reconnect cable. Check battery for voltage level and reinstall.
	Low battery.	Flashing red light in sensor eye indicates low battery.	Remove connector and replace w/ battery tray and 4 AA batteries. If red light continues flashing, faucet electronics may be faulty. If red light stops flashing P6900-GEN may be faulty.
	Solenoid valve inoperative.	Move hand in front of faucet to see if solenoid valve is clicking.	If clicking, open solenoid valve and clean it. If not clicking, replace solenoid valve.
	Sensor/electronics are inoperative.	Move hand in front of faucet to see if solenoid valve is clicking.	Remove the connector and short circuit the solenoid box power inlet terminals with allen wrench. This will reset the faucet electronics. Replace connector. Do not short output terminals of the P6900-GEN.
	Filter is plugged.	Shut off water supply. Remove clean out cap.	Clean the filter and reassemble.
FAUCET CONTINUES TO RUN FOR MORE THAN 30 SECONDS OR DRIPS	Solenoid valve is dirty.	Open the solenoid valve and check for debris. Carefully observe the way valve goes together for reassembly.	Shut off water supply. Disassemble solenoid and remove debris from diaphragm and/or plunger tip. Reassemble solenoid.



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