SYMMONS® Ultra-Sense™

Lavatory Faucet S-6080-AC, S-6080-ACM
AC Powered, Sensor-Activated
Installation, Operation & Service Instructions

Important:

- Water lines must be thoroughly flushed before and after installing the faucet to prevent foreign matter, i.e. copper chips, sand, stones, etc. from clogging and possibly damaging the faucet.
- Check strainers must be installed on every faucet to prevent water cross-connection and to prevent foreign matter from effecting operation of the faucet.
- All 120 VAC power sources required for faucet installation are to be provided by a licensed electrician in accordance with state and local codes.
- A Symmons power supply must be used with the S-6080-AC and S-6080-ACM model faucets otherwise warranty will be voided.

Technical Data

- Recognition range: 5.5" (140mm) from sensor
- After flow period: 1 second
- Maximum water flow period: 10 seconds
- Maximum hot water supply temperature: 180˚F (82˚C)
- Electrical installation: 120 VAC to 6 Volt DC power supply
- Working pressure: 14.5psi - 145psi (100kPa - 1000kPa)
- Normal water flow: .25GAL/cycle

Faucet Models

- S-6080-AC - Single faucet powered with a 120 volt AC to 6 volt DC wall plug power supply.
- S-6080-ACM - Multiple faucet configuration powered by a single 120 volt AC to 6 volt DC power supply (S-6240). Up to eight (8) S-6080-ACM faucets can be powered by one power supply.
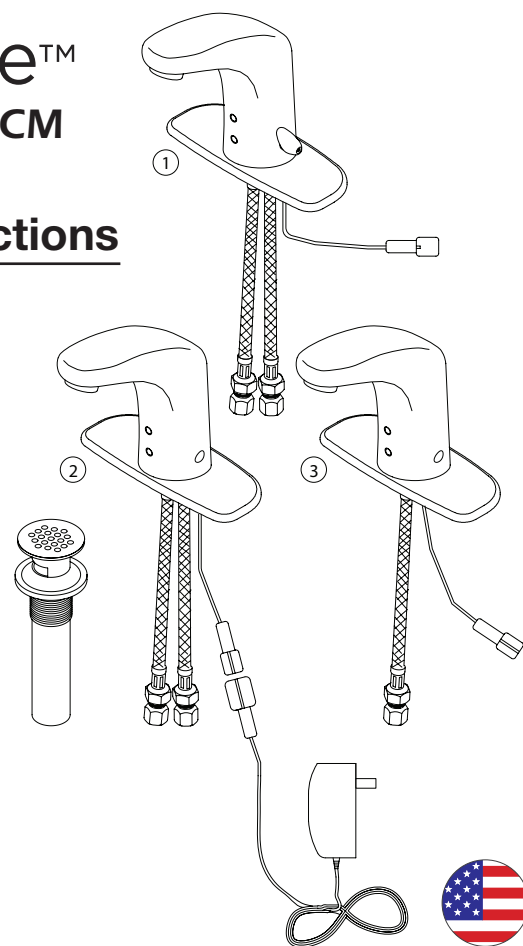
Faucet Installation Options:
The S-6080-AC/ACM series faucets can be installed in one of three faucet supply configurations.

- Hot and cold supply with lever handle temperature adjustment. (factory standard)
- Hot and cold supply with preset tempered water. (field modified)
- Single supply for pre-mixed water. (field modified)

Option 1 Installation

- For 4" center deckplate installation, place faucet and supply(s) through deck plate (SF-138).
- Affix deck plate with studs facing down to faucet using two screws (SF-143) provided in mounting kit (SF-142).
- NOTE: For S-6080-LST (18" long copper supply tube) thread supply tubes into faucet housing. Tubes thread into base with LEFT hand thread. Be sure brass tube bushing with o-ring is fully installed in base and tight.
- Mount the faucet on the wash basin using anchor bar (KN-23), spacer (KN-26), and nut (L-36) on 4" centers. Ensure the gasket (SF-140) is correctly positioned between the faucet and wash basin. For single hole mount installation, attach studs found in single mount kit (SF-158) to base of housing. Place faucet supply(s) through wash basin and secure using wiring fixing plate and nuts from single mount kit.

- Attach supply hose(s) (SF-148) to check strainer assembly (SF-186).
- Purge angle stops before connecting check strainer assembly (SF-186).

NOTE: For S-6080-LST (18" long copper supply tubes) attach check strainer assembly (SF-181) directly to supply stops. Cut tubing to proper length and attach tubing to check strainer assembly using nut (IL-8) and ferrule (IL-9).

Option 2 Installation
Modifying the faucet for hot and cold supply with tempered water

- Remove handle screw (SF-155), handle (SF-154) and handle limit stop (SF-156).
- Reinstall handle (SF-154) and adjust the temperature as required.
- Remove handle (SF-154) and push plug (SF-153) in place of the handle.
- Continue with Option 1 installation instructions.

Option 3 Installation
Modifying the faucet for single supply pre-mixed water

- Detach parts (SF-155), (SF-154) and (SF-156).
- Unscrew the flexible hot water supply hose (SF-148).   Note: left hand thread.
- Screw on the plug (SF-159) in place of the supply hose.
- Reinstall the temperature adjustment handle (SF-154) and turn counterclockwise (cold position) as far as it goes. Remove handle and push plug (SF-153) in place of the handle.
- Push the plug (SF-153) in place of the temperature adjustment handle.
- Continue with Option 1 installation instructions.

S-6080-AC - Single Faucet Electrical Installation

An electrical outlet for the plug-in power supply must be provided by a licensed electrician per the state and local electrical code.

- Install faucet per selected configuration option.
- A 120 volt AC outlet is required preferably under sink and dedicated to the plug-in wall mount power supply.
- Align the raised rib of the power supply cord receptacle with the faucets plug rib. Push together evenly until ribs meet (See figure 3).
- Run cable under sink to outlet securing it in accordance with state and local electrical codes. Avoid cable contact with water pipes. Plug power supply into outlet. Faucet may activate on initial power-up.

S-6080-ACM - Multiple Faucet Electrical Installation

The 120 VAC to 6 Volt DC power supply for multiple faucet installations must be mounted in a termination box and terminated in accordance with state and local electrical codes. A licensed electrician must provide a 120 volt AC power source to the termination box.

- Install faucet per selected faucet configuration option.
- The installer may choose to purchase an electrical termination box from an electrical distributor or use the Symmons termination box (part no. SF-194 purchased and supplied seperately).
- Mount the termination box to the wall, under the sink, or in an adjacent closet.
- Plug the extension cable receptacle end into the faucet cable plug (see figure 3) by aligning the raised rib of the cable with the raised rib of the faucet plug. Push together evenly until ribs meet.
- Run cable under sink to termination box securing it in accordance with state and local electrical codes. Avoid cable contact with hot water pipes.
- Repeat this for each faucet.
- Cut wires to length and terminate in box. Refer to the installation instructions supplied with Symmons S-6240 power supply.

Limiting the water temperature

S-6080 with temperature adjustment handle

- Remove handle screw (SF-155) and handle (SF-154).
- To limit the maximum water temperature, turn the handle limit stop (SF-156) clockwise.
- To increase the maximum water temperature, turn the handle limit stop (SF-156) counter clockwise.
- Reinstall handle reversing steps above.

S-6080 with preset water temperature

- Remove plug (SF-153).
- To limit the maximum water temperature, insert handle (SF-154) in faucet and turn it counter clockwise.
- To increase temperature turn handle (SF-154) clockwise.
- Remove handle (SF-154) and reinstall plug (SF-153)

Operation

The Ultra Sense lavatory faucet is turned on and off by a sensor-controlled solenoid valve. Placing your hands within the recognition range of the sensor opens the solenoid valve and water starts to flow. When you withdraw your hands, the faucet turns itself off automatically following a preset after flow period. Faucets have a temperature adjustment handle and are equipped with an adjustable handle limit stop. The faucet is taken out of operation, e.g. for cleaning the lavatory, by covering sensor with plastic cleaning cover accessory included with the faucet.

Recognition range and after flow

Recognition range is the distance at which the sensor reacts by turning on the faucet. After flow is the period that water continues to flow after the user's hands are removed from the recognition range. Both recognition range and after flow are factory preset for optimal performance.

Cleaning

Cleaning of the external faucet surfaces should be carried out using a neutral, liquid cleaner. Scrubbing or corrosive agents must not be used and neither should the faucet be cleaned with a high pressure washer. Keeping the sensor clean assures faultless operation.
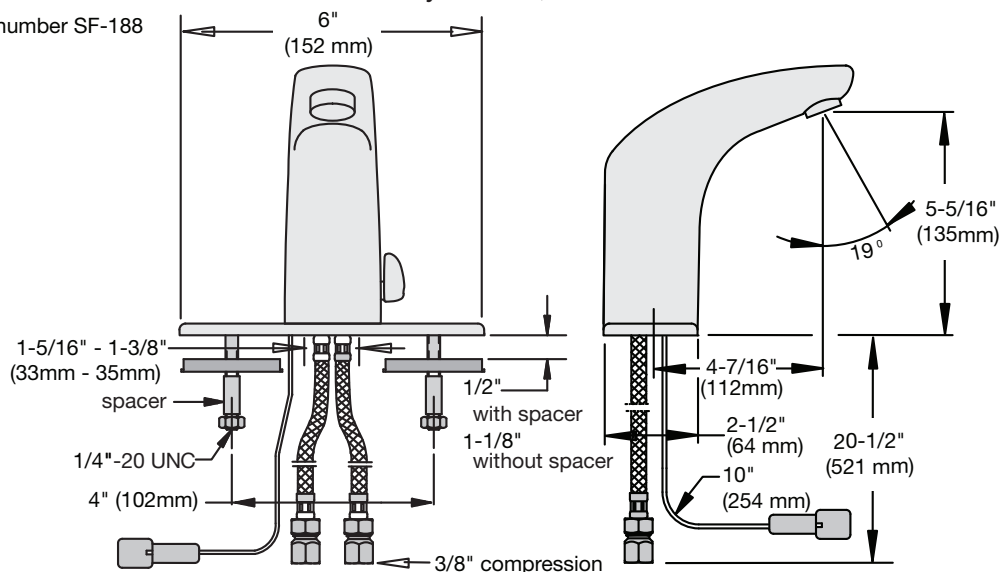
Risk of freezing

When installing the faucet in a place where the temperature may fall below freezing, the entire system must be drained of water to prevent bursting in freezing weather.

- Shut of water supply.
- Disconnect all flexible hoses.
- Drain all parts and hoses of water.

Dimensions Ultra-Sense Lavatory Faucet, *S-6080-AC / S-6080-ACM*

Part number SF-188

6" (152 mm)

1-5/16" - 1-3/8" (33mm - 35mm)

spacer

1/4"-20 UNC

4" (102mm)

1/2" with spacer
1-1/8" without spacer

3/8" compression

5-5/16" (135mm)

19°

4-7/16" (112mm)

2-1/2" (64 mm)

20-1/2" (521 mm)

10" (254 mm)

Note: Dimensions subject to change without notice.

SERVICE INSTRUCTIONS

Removing housing
1. Close the water inlet(s).
2. Disconnect faucet power by unplugging the faucet's connector from the receptacle cable.
3. Remove handle screw (SF-155), handle (SF-154), housing screw (SF-152).
4. Lift housing gently to avoid stressing wires.
5. Lay on side and disconnect the sensor connector.

Cleaning or changing the mixer
1. Close the water inlet(s).
2. Disconnect faucet power by unplugging the faucet's connector from the receptacle cable.
3. Remove Housing screw (SF-152).
4. Remove Handle screw (SF-155), handle (SF-154), handle limit stop (SF-156), housing and mixer (SF-162). Lift housing gently to avoid stressing wires.
5. Clean mixer body and inspect o-ring. If damaged, install new mixer reversing steps above.

Changing pilot valve
1. Close the water inlet(s).
2. Disconnect faucet power by unplugging the faucet's connector from the receptacle cable.
3. Remove Housing screw (SF-152).
4. Remove Handle screw (SF-155), handle (SF-154), handle limit stop (SF-156), housing and solenoid valve (SF-150). Lift housing gently to avoid stressing wires.
5. Clear water path holes in body.
6. Install new solenoid valve reversing steps above. Ensure o-rings are in place on the pilot valve before tightening valve in place.

Cleaning or changing the valve membrane
1. Close the water inlet(s).
2. Disconnect faucet power by unplugging the faucet's connector from the receptacle cable.
3. Remove Housing screw (SF-152).
4. Remove Handle screw (SF-155), handle (SF-154), handle limit stop (SF-156) and housing. Lift housing gently to avoid stressing wires. Remove the four screws to the membrane cover plate. Remove the rubber membrane (SF-151) and separate the white plastic disc from the membrane. Clear the hole in the membrane cover plate. Using a toothbrush clean the eight (8) holes in the membrane and the small pin hole in the plastic disc (use caution not to enlarge holes). Reassemble the disc to the rubber membrane ensuring the disc seats properly around the plastic stem of the disc. Clean the body and water path holes in the body.
5. If necessary replace with a new one reversing the steps above.

Changing the sensor (See figure 2)
1. Close the water inlet(s).
2. Disconnect faucet power by unplugging the faucet's connector from the receptacle cable.
3. Remove Housing screw (SF-152).
4. Remove Handle screw (SF-155), handle (SF-154), handle limit stop (SF-156) and housing. Lift housing gently to avoid stressing wires.
5. Remove sensor holder clip and sensor (SF-195) as shown and install new sensor reversing steps above. The sensor eye nearest the black band goes in the top hole closest to aerator.

TROUBLESHOOTING CHART

Problem	Test	Cause	Solution
Water flow will not stop.	Does the faucet pilot valve click when you place hands in sensing zone? If yes	Valve membrane may be clogged.	Follow "Cleaning or Changing Valve Membrane" section.
	If valve does not click	Power failure or bad pilot valve	Make sure power supply is plugged in and outlet has power. Check faucet plug and receptacle connection is secure. If pilot valve is good replace sensor.
	If pilot valve click is very low or inconsistent	Pilot valve is bad	Follow "Changing Pilot Valve" section.
Faucet will not turn on.	Are inlet stops open? Is supply pressure high enough? Are check/strainers or aerator clogged?		Open stops Adjust pressure Clean check/strainer and aerator
	Does the faucet pilot valve click when you place hands in sensing zone. If yes	Blockage in water path	Remove pilot valve and clean water paths.
	If valve does not click	Power failure or bad pilot valve	Make sure power supply is plugged in and outlet has power. Check faucet plug and receptacle connection is secure. If pilot valve is good replace sensor.
	Check with spare pilot valve and if still does not click	Bad sensor	Follow "Changing Sensor" section
Faucet cycles but continues to drip.	Check with spare pilot valve.	Bad pilot valve	Follow "Changing Pilot Valve" section
		Debris on membrane or worn seat	Remove debris around membrane. If worn seat replace body casting.
Temperature can't be adjusted.	Does temperature handle move freely?	Debris or bad o-ring.	Follow "Cleaning or Changing Mixer" section.

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the smart choice™