

SYMMONS® Metering Faucet

S-71, S-72, S-73, S-74 Series

INSTALLATION, OPERATION AND 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 sealing surface of the cartridge.
- Integral supply check included (S-73 and S-74 series only).

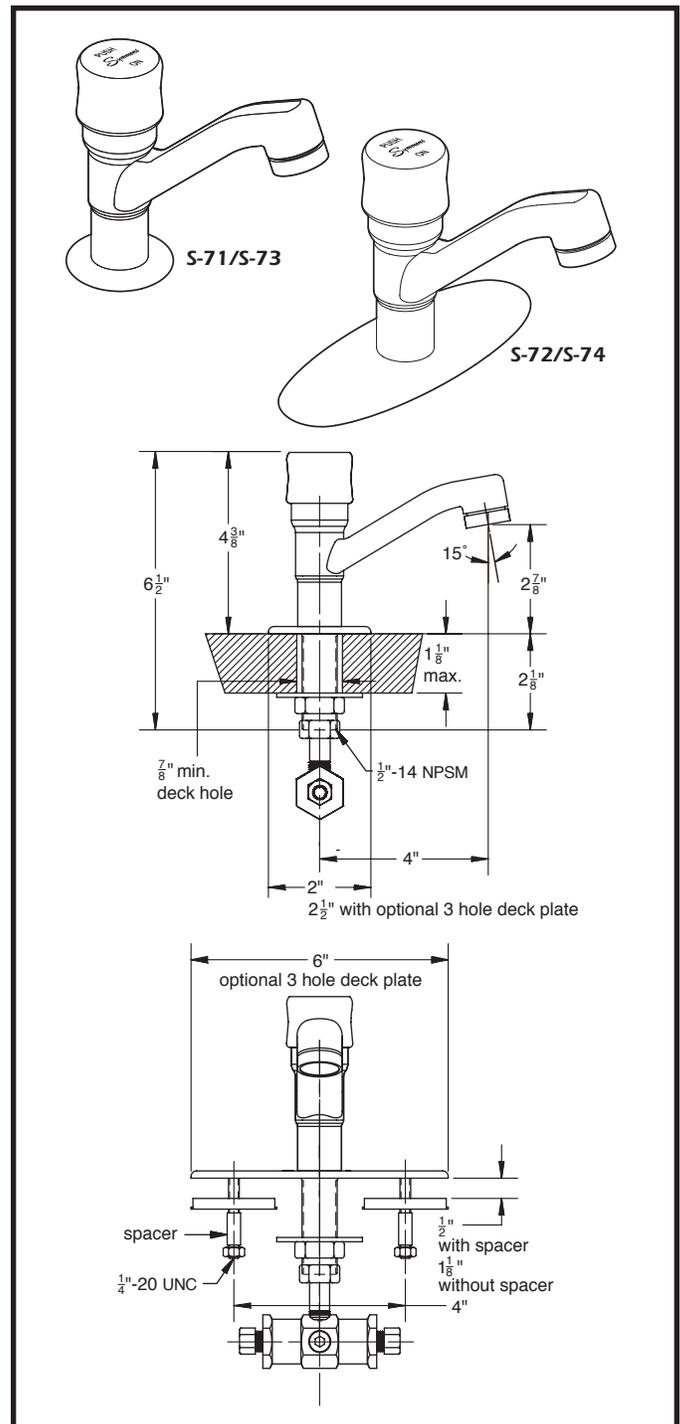
INSTALLATION:

(Supply stop valves must have a 3/8" O.D. compression outlet.)

1. Apply a bead of sealant to the underside of the faucet escutcheon.
2. **(S-72 and S-74 series):** Install U-channel spacers (KN-23), spacers (KN-26) and nuts (L-36) loosely on mounting bolts. Position deck plate (SPF-28) and mounting gasket (SPF-27) under base through sink with **flat** in center hole towards the back of sink basin. Secure by tightening nuts from underside. Insert faucet supply through deck plate aligning flat on faucet body above threaded shank with flat in deck plate center hole. Secure faucet to deck plate by placing the washer (K-60), locknut (SPF-38) and hex nut (SPF-26) on the supply shank. **Hand tighten only!** Adjust position of faucet to achieve optimum spray into basin. Tighten faucet securely to basin or deck plate.
(S-71 and S-73 series): Insert faucet with flange (SPF-5) through hole in basin. Secure faucet to basin by placing the washer (K-60), locknut (SPF-38) and hex nut (SPF-26) on the supply shank. **Hand tighten only!** Adjust position of faucet to achieve optimum spray into basin. Tighten faucet securely to basin.
3. Connect 4-10C mixing valve to bottom of supply shank using supply nut provided **(S-73 and S-74 series only)**. Make connection to water supplies using the appropriate connectors.
4. Install grid drain (if applicable) by removing flange and tube from drain body and inserting tail piece into trap. Apply bead of sealant to underside of flange and insert flange and tube through drain opening. Place bottom gasket mounting washer and mounting nut onto flange and tube assembly. Screw drain body on tube until tight.
5. To flush faucet, remove spray outlet, using vandal proof wrench (LL-60K) provided with faucet. Open cold supply and depress handle holding down for ten seconds **(S-71 and S-72 series only)**. Open hot supply and repeat above procedure **(S-73 and S-74 series only)**. Allow faucet to shut off and replace spray outlet.

Temperature adjustment (S-73 and S-74 series only)

Make sure the faucet has been properly installed and thoroughly flushed. Set the mixing valve (4-10C) to the desired maximum temperature by inserting a 1/4" hex socket key into the mating hex socket in center of valve and turning



counter clockwise for hotter, clockwise for colder. 110°F recommended unless otherwise specified.

Adjustment of cycle time

After faucet has been operated through a number of cycles and supply water temperature is at designed level, adjustment of this feature can be made as follows.

Loosen set screw (LL-27) in cap (SPF-104), remove cap. To increase time, remove one or more of the washers (LL-28) on stem. To reduce time, add washers. When desired time cycle is achieved replace cap and tighten set screw.

S-71 and S-73 Series

K-60	Washer
L-42	Coupling nut
LL-1	Control spindle
LL-1A	Control cartridge
LL-1B	Control cartridge for quick-closing
LL-2A	Cycle spindle assembly
LL-3N	Upper housing
LL-4	Piston washer screw
LL-8	Cycle spindle guide
LL-11	Piston cylinder
LL-12	Piston
LL-16	Shut-off seat
LL-24	Control rod
LL-27	Handle set screw
LL-28	Cycle time washers
LL-31	Retaining ring
LL-32	Piston spring
LL-35	Thrust washer
LL-37	Shut-off washer
LL-44	Spindle guide large o-ring
LL-45	Shut-off seat o-ring
LL-46	Control spindle small o-ring
LL-47	Control spindle large o-ring
LL-48	Upper housing o-rings (three)
LL-49	Piston o-ring
LL-75	Spindle guide huva cup
LL-76	Huva cup retainer
LL-101	In-line screen
LN-100	Aerator (vandal resistant 0.5 gpm)
LN-101	Aerator (vandal resistant)
LT-4A	Piston assembly
MV-10	Rubber washer
MV-107	Checks
SPF-5	Flange
SPF-26	Hex nut
SPF-38	Lock washer
SPF-103	Bushing
SPF-104	Cap
SPF-104C	Cap (cold)
SPF-104H	Cap (hot)
SPF-107	Spout assembly
4-10C	Mechanical mixing valve

Tools required for disassembly

Order MF-KIT-W, consisting of:

LL-27W 3/32" hex socket key to remove handle set screw

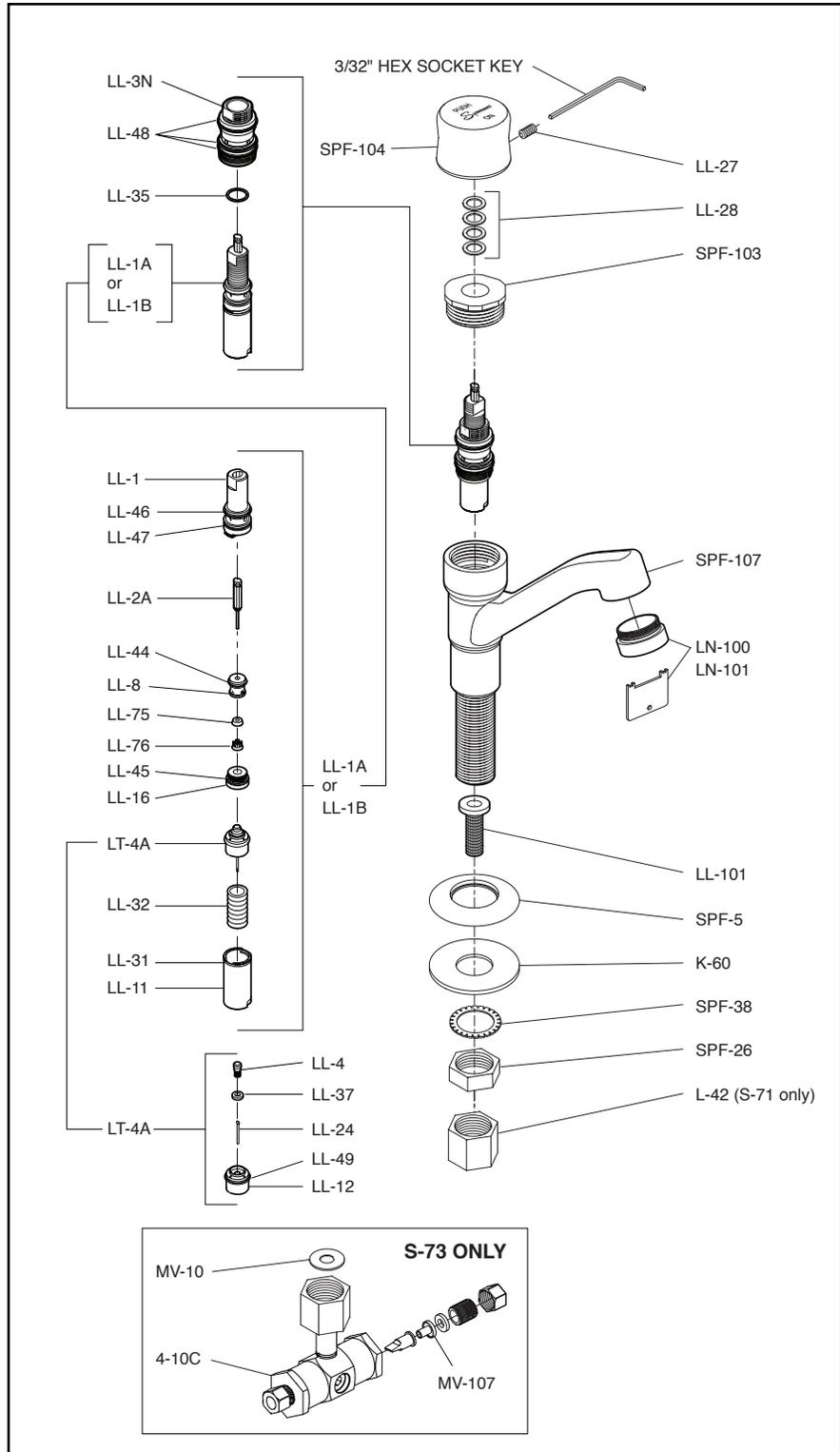
LL-60K Spray outlet wrench to remove spray outlet (included with faucet)

Other standard tools required:

Adjustable or 1" and 1/4" open end wrench, pliers, 5/32" hex socket key

Repair Kit LL consists of:

LL-4, LL-8, LL-13, LL-24, LL-31, LL-33, LL-35, LL-37, LL-42, LL-43, LL-44, LL-45, LL-46, LL-47, LL-48, LL-49, LL-73, LL-75, LL-76.



S-72 and S-74 Series

K-60	Washer
L-42	Coupling nut
LL-1	Control spindle
LL-1A	Control cartridge
LL-1B	Control cartridge for quick-closing
LL-2A	Cycle spindle assembly
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LL-47	Control spindle large o-ring
LL-48	Upper housing o-rings (three)
LL-49	Piston o-ring
LL-75	Spindle guide huva cup
LL-76	Huva cup retainer
LL-101	In-line screen
LN-100	Aerator (vandal resistant 0.5 gpm)
LN-101	Aerator (vandal resistant)
LT-4A	Piston assembly
MV-10	Rubber washer
MV-107	Checks
SPF-26	Hex nut
SPF-27	Deck plate gasket
SPF-28	Deck plate
SPF-38	Lock washer
SPF-103	Bushing
SPF-104	Cap
SPF-107	Spout assembly
SPF-KIT	Mounting Kit
4-10C	Mechanical mixing valve

Tools required for disassembly

Order MF-KIT-W, consisting of:

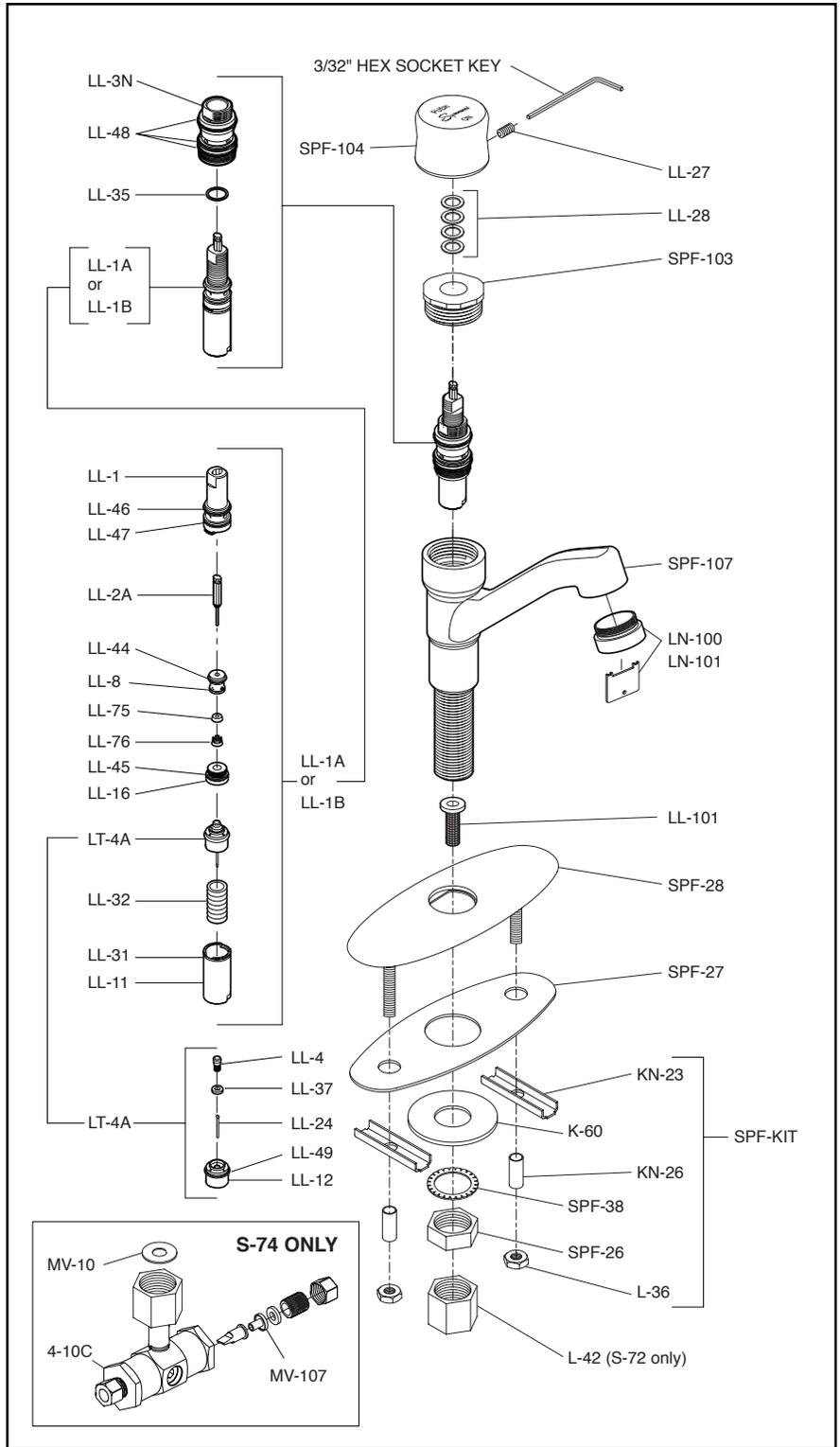
LL-27W	3/32" hex socket key to remove handle set screw
LL-60K	Spray outlet wrench to remove spray outlet (included with faucet)

Other standard tools required:

Adjustable or 1" and 1/4" open end wrench, pliers, 5/32" hex socket key, 7/16" open end wrench

Repair Kit LL consists of:

LL-4, LL-8, LL-13, LL-24, LL-31, LL-33, LL-35, LL-37, LL-42, LL-43, LL-44, LL-45, LL-46, LL-47, LL-48, LL-49, LL-73, LL-75, LL-76.



SERVICE

- General maintenance may require the repair or replacement of the cartridge unit.
- Shut off water supply to the faucet.
- Remove cap (SPF-104) by loosening allen screw with 3/32" hex socket key.
- Remove cycle time washers (LL-28).
- Using an adjustable wrench, loosen bushing (SPF-103). Remove cartridge assembly from faucet body.
- Slide the upper housing (LL-3N) off control cartridge (LL-1A).
- Control cartridge (LL-1A) can be either replaced or repaired at this point. Disassemble cartridge by opening retaining ring (LL-31) and sliding down piston cylinder (LL-11).
- Ordinary service may only require the rebuilding of the cartridge using the replacement o-rings and washers from KIT-LL.
- Reassemble, reversing the above procedures.

TROUBLE SHOOTING CHART

Problem	Cause	Solution (Follow service instructions)
Faucet runs too long or too short	Timing	Remove handle - then add washers (LL-28) to stem to shorten time or remove washers to lengthen time.
Faucet drips	Seat washer worn or foreign matter (chips, dirt, solder, etc.) is between washer and seat surface.	Disassemble cartridge and remove piston (LT-4A). Unscrew LL-4 and clean seat washer (LL-37). Check S.S. pin (LL-24) for burr then reassemble.
Faucet runs constantly	Seat washer not closing on seat surface or seat washer and/or seat surface worn.	Remove piston (LT-4A) and spring (LL-32). Check for burr on pin (LL-24) and check spring. Both LT-4A and LL-32 may have to be replaced. Excessive wear may require cartridge replacement LL-1A.
Not enough flow from faucet	In-line screen clogged	Disassemble supply to faucet. Remove in-line screen (LL-101) in inlet to faucet. Rinse screen with water or de-liming agent. Reassemble faucet supply.
Water leaks from under handle	Stem washers worn	Remove cartridge and replace washers using KIT-LL.
Faucet leaks under counter	4-10C connections not seated properly	Check connections on 4-10C.
Faucet bleeding between hot and cold, not holding consistent temperature (S-73 or S-74)	Integral checks in mechanical mixing valve (4-10C) not operating properly	Clean or replace checks (MV-107)
Handle is loose	Set screw has loosened	Tighten set screw

Commercial Limited Warranty

Symmons warrants to the original purchaser that any Symmons product (excluding batteries) when used in industrial, commercial or business use will be free of defects in material and workmanship during normal use for a period of 5 years from the date of purchase. At our option, we will either have you send the defective part or product prepaid to us for inspection, or we may elect to send you the replacement part or product without investigation. A replacement for any defective part or product, either new or refurbished (at our option), will be supplied FREE OF CHARGE for installation by the purchaser. Defect or damage caused by the use of replacement parts other than Symmons Genuine Replacement Parts will void this warranty. This warranty excludes product damage due to installation error, product abuse, or product misuse whether performed by a contractor, service company or yourself. Damage to the chrome and/or other decorative finishes on Symmons products may be a result of improper handling or abusive treatment. Finishes should only be cleaned with a soft, damp cloth or sponge. Use of polish, abrasive cleaners, solvents, or acid cleaners will damage the finish and void this warranty.

There are no other express warranties on this product and ALL WARRANTIES OF MERCHANTABILITY AND OTHER IMPLIED WARRANTIES ARE LIMITED IN ACCORDANCE WITH APPLICABLE LAW. SYMMONS INDUSTRIES, INC., EXPRESSLY DISCLAIMS CONTINGENT LIABILITY AND CONSEQUENTIAL DAMAGE OF EVERY KIND. Since some states do not allow limitations on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages the above limitation or exclusion may not be applicable. This warranty gives specific legal rights. Other rights may vary from state to state. To obtain warranty service, write to Symmons Industries, Inc., 31 Brooks Drive, Braintree, MA 02184-3804 or call our Customer Service Department at 1-800-SYMMONS. If writing to us, please include proof of purchase, the model number of the product with a brief description of the problem, your name, address and phone number.

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