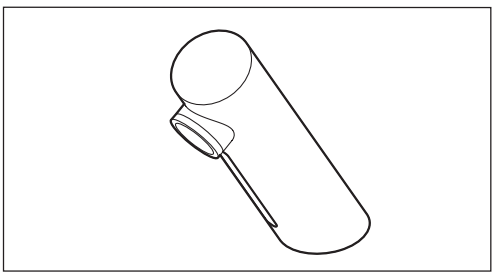
SAN-EI®

INSTALLATION INSTRUCTIONS



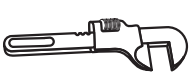
# EY502-BW (2.2GPM)
# EY502-1-BW (0.5GPM)

**Battery Powered Sensor Operated Lavatory Faucet (Non-mixing)**

## Tools

For safety and easy faucet replacement, San-Ei recommends the use of the following helpful tools:

SAFETY GLASSES



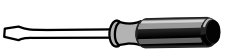
PIPE WRENCH

PLIERS

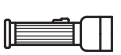
CHANNEL LOCKS

ADJUSTABLE WRENCH

BASIN WRENCH



PHILLIPS SCREWDRIVER



FLASHLIGHT

## About This Manual

### Keep Instructions for Future Reference

Thank you for purchasing San-Ei's quality faucet.
With simple care and maintenance, it will provide you with many years of reliable performance.
Please read instructions before installation.

### TIPS FOR REMOVAL OF OLD FAUCET

**CAUTION**: Always turn water OFF before removing existing faucet or disassembling the faucet.
Open the faucet handles to relieve water pressure and ensure that complete water shut-off has been accomplished.
(Complies with ASME A112.18.1)

## PARTS LIST

The structure shown is an illustration.
Please use this structure for better understanding.

### EY502-BW

**General Description**

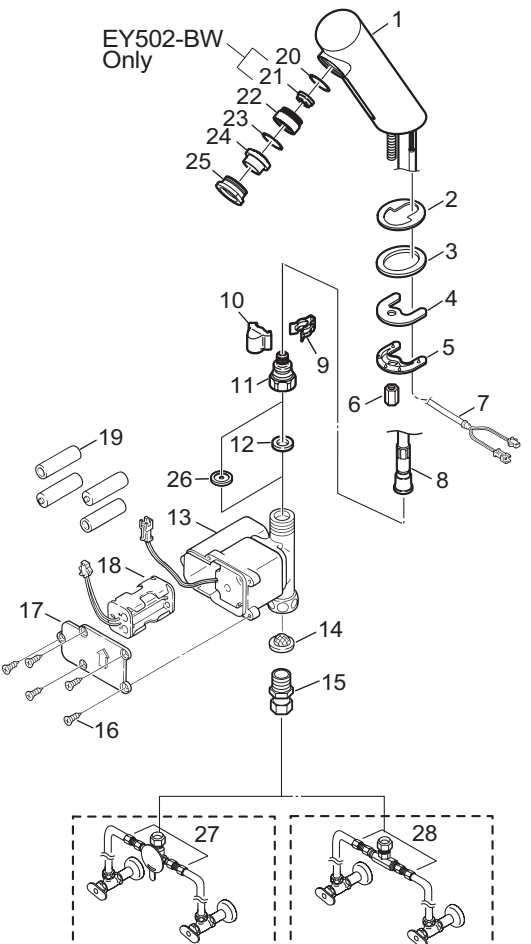
1. Sensor Body
2. Seat Packing
3. Seat Packing
4. Rubber Packing
5. Metal Washer
6. Lock Nut
7. Sensor Cable
8. Copper Pipe
9. Fastener Clip
10. Lock Cover
11. Fastener Adapter
12. Rubber Packing
13. Solenoid Valve Unit
14. Strainer
15. Adapter
16. Small Screw
17. Solenoid Valve Unit Cover
18. Battery Compartment
19. Alkaline Batteries
20. O-Ring
21. Flow Restrictor
22. Adapter
23. O-Ring
24. Aerator
25. Aerator Body

### EY502-1-BW

26. Decompression Packing

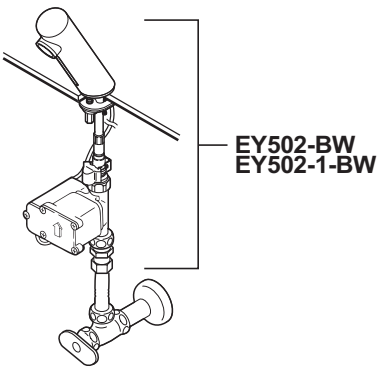
### Optional Parts

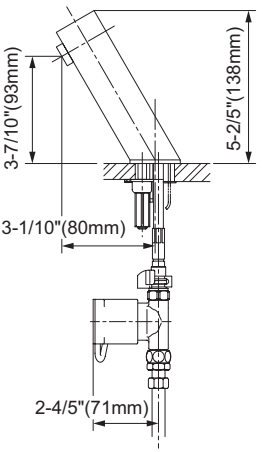
27. Mixing Valve (UXH6-BW)
28. Mixing Tee (BXH1-BW)



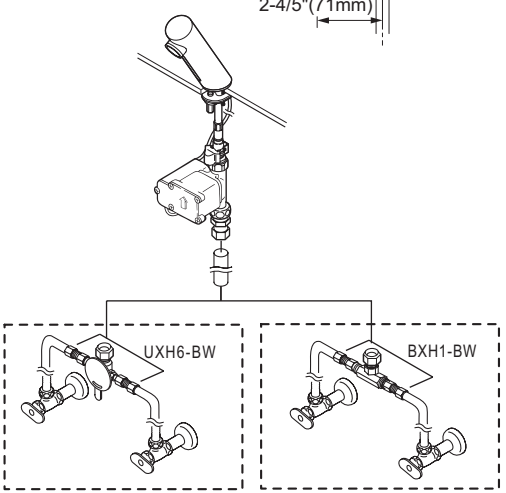
**Sensor Faucet**

**EY502-BW**
**EY502-1-BW**




**Optional Parts**
**Mixing Valve : UXH6-BW**
**Mixing Tee : BXH1-BW**




**NOTE** : Angle Stop By Others.
Supply Lines By Others.
Copper Pipe By Others.
Maximum deck thickness for installation is 1-1/5"(30mm).
Hole size for installation is between 1"(26mm) to 1-3/10"(32mm).

Figure 1

## PRIOR TO INSTALLATION

Prior to installing new faucet, install the items listed below:
(Also refer to Figure 1)

* Lavatory sink
* Drain Line
* Hot and cold water supply lines or tempered water supply line (up to the user's choice)

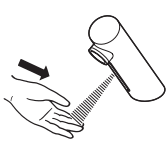
Important !

* All plumbing is to be installed in accordance with applicable codes and regulations.
* Flush all water lines prior to making connection.

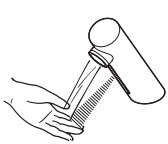
### For Hot And Cold Water Supply Applications (OPTIONAL)

When installing the sensor faucet with San-Ei UXH6-BW (mixing valve) or BXH1-BW (mixing tee), Please follow this instruction manuals.

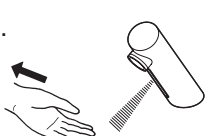
### Operation and installation for battery powered sensor faucet.

1. 

In every 0.25 second, the sensor will try to scan the object. Continuous, invisible light beams are emitted from the sensor "eyes" located on the front of lavatory faucet. The sensing area is between 2"(50mm) to 4-7/10"(120mm) from the sensor "eyes".

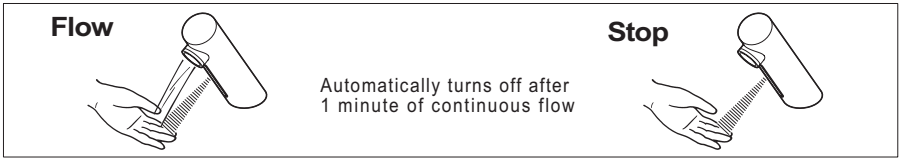
2. 

When the sensor senses the object within the sensor beam's effective range, the sensor will transfer the signal to receiver circuitry and the system will operate allowing water to come out.

3. 

When the hands exits out of range, the sensor sends signal to the solenoid for closure. The sensor then automatically resets and is ready for the next user.

## AUTOMATIC SHUT-OFF FUNCTION




This battery powered faucet is designed for ease of installation and provides a reliable, convenient, economical, and sanitary system for high-volume users, such as hospitals, transportation terminals, restaurants, schools, sports arenas, office buildings and municipalities. It can be installed by one tradesman without electrical hook-up.

## OPERATION

1. The faucet operates by emitting a continuous infrared beam from the sensor.
2. As the user enters the beam's effective range, the faucet will automatically start its operation.
   As long as the user is in the beam's range, the beam is reflected into the receiver circuitry and the system will operate.
3. When the user exits out of range, the sensor sends a signal to the solenoid for closure.
   The sensor then automatically resets and is ready for the next user.
4. Low battery indicator light will keep flashing in every 3 seconds.
   (The new batteries replacement is recommended when the indicator start flashing)

**CAUTION !** : Avoid installing the faucet where sensor faces a stainless steel wall or other reflective surface within the active range of sensors. Avoid facing another infrared sensor. It may cause faucet to activate unnecessarily.

## INSTALLATION OF SENSOR FAUCET

DO NOT INSTALL BATTERIES UNTIL THE FAUCET IS COMPLETELY INSTALLED

If the batteries are installed before the cable has been connected to the electronic module, the faucet will not properly set its range for the sink on which it has been installed.

When connecting the faucet to a hot and cold water supply, 2 (two) back checks are required.

If the faucet is being installed with a UXH6-BW (mixing valve) or BXH1-BW (mixing tee), extra back checks are not required because the mixing valve contains back checks.

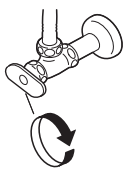
When connecting to a single line water supply or pre-tempered water supply, a back check is not required.

## INSTALL FAUCET

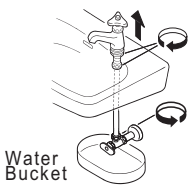
Clean the inner side of the supply pipe; remove the inside dust by flowing the water through the pipe.
Before removing the existing faucet, open the handles to relieve water pressure.

### 1. Replacing The Current Valve

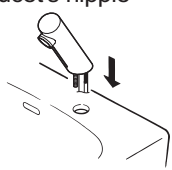
(1) Please turn the stop valve to the clockwise direction to stop the water flow



(2) Remove the current faucet along with its supply pipe




(3) Check the faucet hole on the basin whether it can fit the sensor faucet's nipple

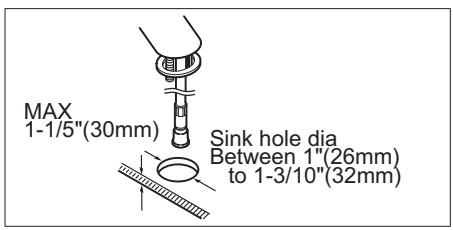


**(Caution !)** Caution for installation:

* Please do not scratch or let any dust stick on the cable or power supply unit
* Please clean up the basin
* Please install the sensor faucet to the correct position in order for the faucet to function properly

### 2. Measurement

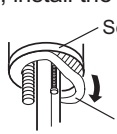
Be sure that mounting space is clean and dry.
Please make sure the diameter of the mounting hole before installation.
(Please pay attention not to bend the hose tube excessively.)

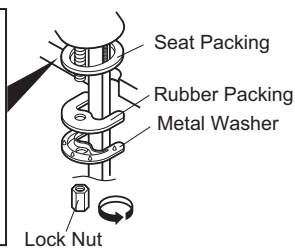



### 3. Install faucet

Install the faucet body on the sink.The front side of the spout should face you.
Then, make tightening the lock nut.(counterclockwise)
Please don't forget to put a seat packing, rubber packing, and metal washer between unit body and lock nut.

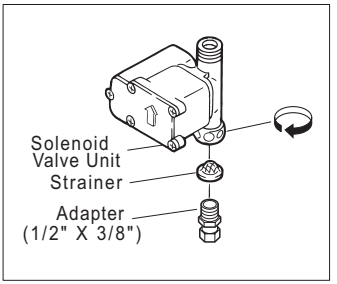
**(Caution !)** Remove an exfoliation tape attached in the back of the packing.
Then, install the faucet body to be fixed.



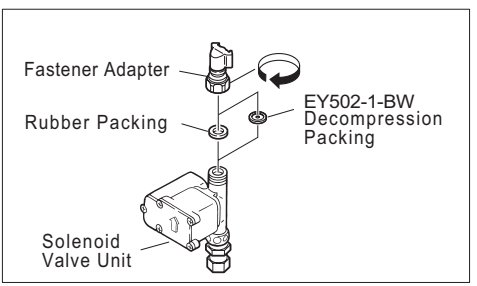
## 4. Install Adapter On Solenoid Valve Unit

Install adapter on Solenoid Valve
(strainer should be placed inside)



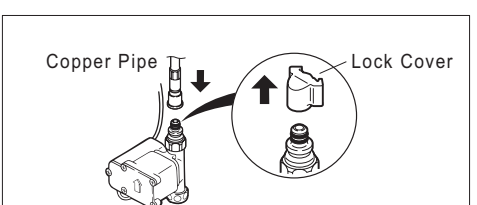

## 5. Install "quick fastener" adapter

Install Rubber Packing to the solenoid valve.



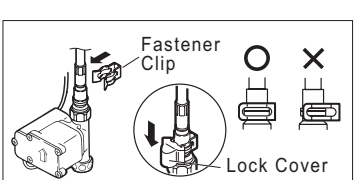

## 6. Remove lock cover

Remove the lock cover from the adapter.




## 7. Connection

Connect copper pipe from the faucet with adapter. Then, please clip them with fastener clip until there make a "click sound". After making sure the connection is done in perfect, please attach the lock cover onto a fastener clip.

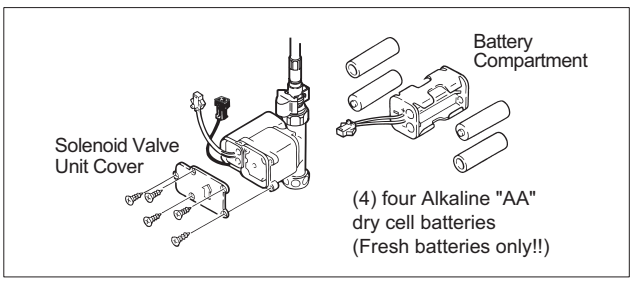


## 8. Install Battery

Unscrew Solenoid Valve Unit Cover and Remove inside Battery Compartment.
Insert four Alkaline "AA" dry cell batteries into the Battery Compartment as indicated by the "+" and "-" markings as shown on the Battery Compartment Body.
Make sure that Spout is properly centered and that no objects are in the sink.
Put back the Battery compartment to solenoid valve unit.

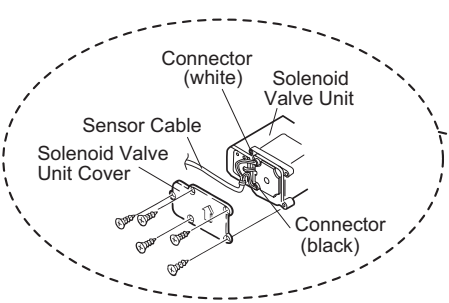
**Important Notes !**

* Insert batteries with correct polarities.
* Do not mix old batteries with new ones.

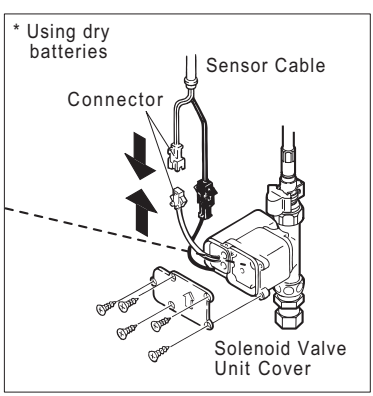



## 9. Connect Cable

Connect the two connectors inside the solenoid valve unit to the connectors of the spout.
Connect black to black first.
Then connect white to white.

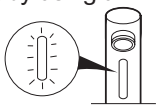


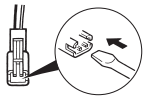

**(Caution!)** After connecting, please make sure that the connectors stay inside the operating unit



After installing the batteries and connecting the cables, if the red lamp is still on please discharge it first by using a minus driver to create short circuit and turn the red lamp off.

Flashing red light





Checkpoint: After installation, please open the Supply Stop. Then, check if there is any leakage and if the unit works.

## 10. Connect Supply Line

Flush Supply Line(s) of any debris

### For Single Line Water Supply Applications

When connecting the faucet to a single line water supply or a pre-tempered water supply, a Back Check is not required.

Install a 3/8 copper Supply Tube between Supply Stop and Adapter (compression side).

(Supply Stops and 3/8" Copper Supply Tubes furnished by installer)

### For Hot and Cold Water Supply Applications

When connecting the faucet to a hot and cold water supply, 2(two) back checks are required.

Tighten compression fitting securely.

Install a 3/8" copper supply tube between each Supply Stops and the compression Mixing Valve (UXH6-BW) or Mixing Tee (BXH1-BW).

Install a 3/8" copper supply tube between Outlet side of Mixing Valve / Tee Mixing and Adapter (Compression side).

## *BATTERY REPLACEMENT*

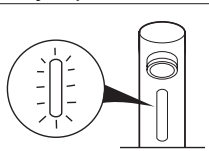
The Battery Powered, Sensor Operated

Lavatory Faucet is furnished with 4(four) AA Cell Alkaline batteries that will provide up to 2 years of operation (100 cycles daily).

When the batteries are low and needed to be replaced, the faucet will give a signal; the red light in the sensor "eyes" will start flashing in every 3 seconds.

At this point, we recommend battery replacement.

Flashing red light

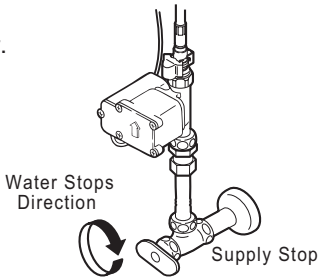


The common dry batteries are used; 4 pieces of AA size alkaline dry batteries.

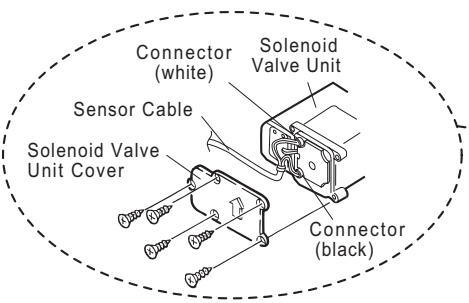
**Caution !** Please pay attention to the belows before changing batteries:

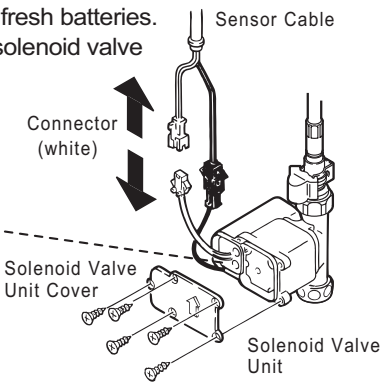
* Please pay attention to the connector; don't get it wet, dusty or scratch.
* Please clean the basin first. The misoperation might occur if the batteries are installed when the basin is still dirty.

1.Turn the Supply Stop handle to the right (clockwise) in order to shut off the water flow.

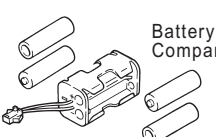



2. Remove the cover and disconnect the white connectors. Take out battery compartment replace with fresh batteries. Then put the battery compartment back to solenoid valve unit and connect the white connectors.




**(Caution!)** After connecting, please make sure that the connectors stay inside the operating unit

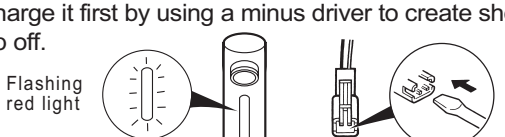



(4) four Alkaline "AA" dry cell batteries (Fresh batteries only!!)

**Important Notes !**

* Insert batteries with correct polarities.
* Do not mix old batteries with new ones.

After replacing the batteries and connecting the cables, if the red lamp is still on please discharge it first by using a minus driver to create short circuit and turn the red lamp off.




Checkpoint: After installation, please open the Supply Stop. Then, check if there is any leakage and if the unit works.

## Care and Cleaning of Chrome and Special Finishes

Do not use abrasive or chemical cleaners (including chlorine bleach) to clean faucets as they may dull the luster and attack the chrome or special decorative finishes. Use ONLY soap and water, then wipe dry with clean cloth or towel.

While cleaning the bathroom tile, the faucet should be protected from any splattering of cleaner. Acids and cleaning fluids will discolor or remove chrome plating.

## Cleaning of Strainer

Before cleaning, please pay caution to the following:

* Please be caution to the operating unit and the cords, they should not get wet or have any scratches
* Please clean the inside part of the basin.

**Step 1 - Turn Off Water Supply**

Prior to cleaning the Strainer, turn off the water supply at the Supply Stop(s). Activate the faucet to relieve any pressure in the system.

**Step 2 - Remove The Strainer**

**Step 3 - Clean Strainer**

Clean Strainer using fresh tap water only. The use of small brush may be necessary, however, use caution in order not to damage the Strainer.

**Step 4 - Reinstall Strainer**

**Step 5 - Turn On Water Supply**

Turn on the water supply at the supply stop(s). Activate the faucet to purge out any air in the system.

Check for leaks and make repairs as necessary.