

## MP02 series

- ●Commercial water purifier (MP02-1E MP02-2E MP02-3E MP02-4E)
- ■Water softener with water purification function (MP02-5E MP02-6E)

### Instruction and installation manual

Thank you very much for purchasing Cleansui MP02 series. Read these instructions carefully before use. An installation instruction and warranty are included with this product, and they must be retained for future reference.

- •Please read all pages use this product in proper way.
- •After reading, retain this book at the place where is ready to access, please.

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# 1. Safety Precautions

Failure to follow the safety precautions can lead to a serious accident. They contain extremely important information related to safety and all instructions must be observed without fail.

 The degrees of potential danger and damage that can be caused from any improper use or ignoring the contents of the safety precautions are explained below.



The articles with this mark indicates possible serious injury or fatal accident.



Indicates "prohibited" actions.



Indicates failure to observe these instructions can cause minor injury to the user or damage to surrounding property.



Indicates "mandatory instructions".

#### **A** Warning

Don't touch the water purifier (softener) when leakage is evident.

#### It causes a short circuit and you may get an electric shock.

#### **Attention**

Please use tap water that meets the local standards for drinking water.

It cannot be used to purify hot-spring water, well water or any other water that contains large amounts of impurities. Uses of the water filter in this way may be detrimental to your health.

- Please consume filtered (softened) water as soon as possible.
- Hollow fibre membrane units MP01-1E and MP02-4E are recommended for use in ice machines and cold drink vending machines.
- Replace the cartridge regularly.

Recommended purifier cartridge replacement period is 12 months and in the case of the softener cartridge, it is 6 months. Continuous usage of the cartridge which is exhibiting reduced water volume output, due to clogging, may cause damage and leakages, which may result in property damage. Water purifying performance may not be adequate with the cartridge that has passed the recommended replacement period.

- When you start using a new cartridge, please let the water flow until there are no more bubbles in the water (About 3 minutes for MP02-1E, 4E, about 5 minutes for MP02-2E, 3E). Also confirm that there is no leakage at the same time.
- To remove the retained water, please let the water flow for about 2 minutes in the cases of MP02-2E and 3E, about 30 seconds in the cases of MP02-1E, 4E, 5E, 6E before using everyday.
- When the red water flows from tap after cutting the water supply, you should not put this water through the water purifier (softener).

If you let the red water flow through the water purifier (softener), the performance will be considerably impacted.

- This system must be used with the dedicated cartridge.
- This system must not be installed at any location where it might become frozen.

This system is not assumed to be used in cold districts.

#### **Attention**

- $\bigcirc$  Do not use this device to filter hot water above 35°C.
- ODo not use filtered water in fish tanks, etc.

When the filtration performance declines through usage, residual chlorine may remain in filtered water. This may be fatal to fish.

- On not apply strong force or shock to the water purifier (softener) and connection.
- Keep the heated appliances (frying pan etc.) away from the water purifier (softener), pipes and hoses.

It causes damage or leakage, and that may result in property damage.

- If you have not used the purifier (softener) for more than half a month, please replacethe cartridge.
- Do not touch the "pure water" outlet with your hand or cloth.
- If the wateroutlet becomes soiled by splash back etc. Run filtered (softened) water for 15 seconds.
- For the maintenance of the wateroutlet, clean with a sterilized soft toothbrush etc.

If you do not keep the wateroutlet clean all the times, bacteria may

On not use detergent and organic solvents (thinners gasoline etc.) for cleaning.

Please use wet towel etc. for cleaning.

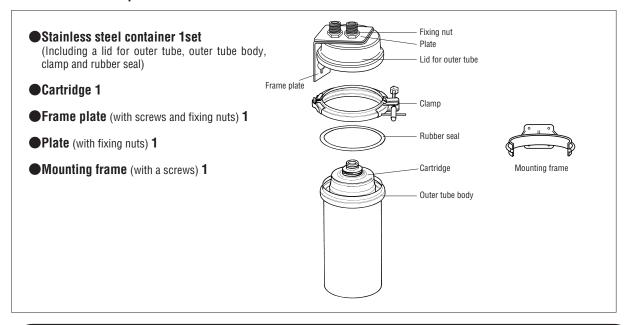
- If seasonings that contain salt, sticks to the stainless steel parts, wipe with a clean damp cloth to remove salt.
- Please confirm there is no leakage around connections and water purifier (softener) once a month.
- It is not recommended that customers attempt disassembly or repairs themselves. Contact your supplier.
- It is recommended that the area around the unit be waterproof to avoid damage should leakage occur.
- $\bigcirc$  The ambient temperature must be less than 60°C.

The heat may warp and break the water purifier (softener), and that may cause leakage.

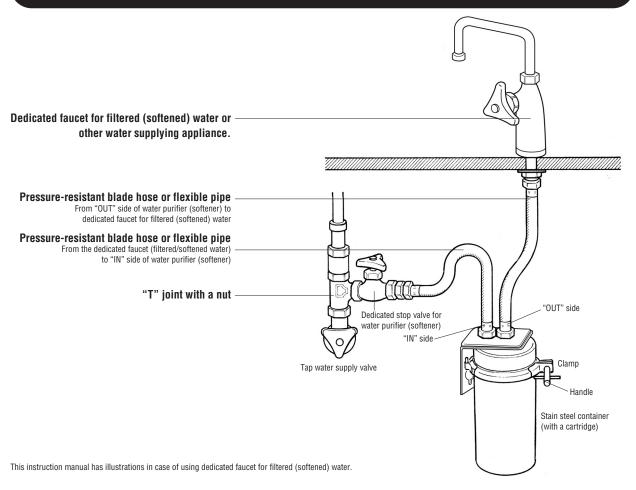
If the working water pressure is more than 0.35MPa, please adjust it to 0.2MPa with a reducing valve. (Reducing valve is not included.)

## MP02 series included parts list

Please confirm all parts indicated below are included first.



# 2. Names of Parts



## 3. The Features of MP02

For turbidity removing (Can be used with MP02-2E, 3E, 5E, 6E)

For anti-scale (For tea dispenser, coffee machine, rice washer etc.)

For ice machine, cold drink

For removing water hardness (Water softener with purification function)

#### ●MP02-1E

(Hollow fibre membrane)

The less than 0.1 micrometre pores on the sidewall of hollow fibre membrane can remove bacteria, red rust and lead particle etc.

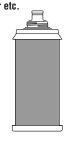


MP02-1E 60,000L

#### ●MP02E-2/3E

(granular and fibrous activated carbon + non-woven fabric)

Granular and fibrous activated carbon filtrate tap water. This system can supply large amount of filtered water with minerals. This system can be connected with existing faucet, coffee machine and rice washer etc.

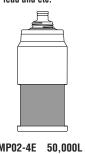


MP02-2E 100,000L 150,000L MP02-3E

#### ■MP02-4E

(Activated carbon + Hollow fibre membrane + Non-woven fabric)

This system has the triple filtration system consists of fibrous activated carbon, hollow fibre membrane (polyethylene) and non-woven fabric. It removes unpleasant odours, chlorine, mold (2-MIB), bacteria and metal particles such as rust, lead and etc.



MP02-4E 50,000L

#### ■MP02-5E/6E

(Caution-exchange resin + Activated carbon + Nonwoven fabric)

It removes the hardness components in tap water (calcium, magnesium). It also removes free residual chlorine and unpleasant odours etc.



MP02-5E 5.000L MP02-6E 3,000L

- \*\*Please use models with hollow fibre membrane to remove bacteria. (MP02-1E, MP02-4E)
- ※MP02-2E, MP02-3E, MP02-5E, MP02-6E can not remove bacteria.
- \*Please use MP02-5E, MP02-6E to remove water hardness.

#### Specifications

Model No.		MP02-1E	MP02-2E	MP02-3E	MP02-4E	MP02-5E	MP02-6E
Cartridge Model Number		UMM0050E	UMC2100E	UMC2150E	UMC2050E	USC-5E	USC-6E
Motorial	Stainless steel container	Stainless					
Material	Cartridge	ABS resins					
Cartridge components		Hollow fibre membrane (Polyethylene)	Granular and fibrous activated carbon, Non-woven fabric  Hollow fibre membrane (Polyethylene), Fibrous activated carbon, Non-woven fabric		Caution-exchange resin, Activated carbon, Non-woven fabric	Caution-exchange resin, Activated carbon, Non-woven fabric	
Initial water flow rate		10L/minutes	10L/minutes	10L/minutes	8L/minutes	5L/minutes	5L/minutes
Minimum working water pressure		0.07MPa					
The appropriate working water pressure range		0.07~0.35MPa					
Filtration performance	Free residual chlorine		100,000L	150,000L	50,000L	5,000L	3,000L
Based on JIS S 3201. 80% removed	Turbidity	60,000L			50,000L		
Minimum work (Original hardnes	king water pressure s 50mg/L)					5,000L	3,000L
Weight of the main body (When filled with water)		1.5kg (3.3kg)	1.5kg (3.3kg)	1.6kg (3.3kg)	1.7kg (3.0kg)	4.3kg (5.4kg)	3.5kg (5.0kg)
Cartridge size		Maximum diameter 91mm×153mm	Maximum diameter 85mm×247mm	Maximum diameter 85mm×247mm	Maximum diameter 91mm×252mm	Maximum diameter 92mm×450mm	Maximum diameter 92mm×330mm
Dimensions of stainless steel container		Maximum diameter 160mm×Height 300mm			Maximum diameter160mm× Height 495mm	Maximum diameter160mm× Height 380mm	

# 4. Cartridge Replacement Period

## **Attention**

- The cartridge of a water purifier (softener) is a consumable. Replace it periodically as recommended in the table below. If you don't replace it...
  - ●The accumulated stain inside the cartridge will decrease the purifying performance substantially and result in it being unsanitary.
  - Clogging of the cartridge and degradation of the cartridge body causes leakage.
- It is recommended that a plumber facilitate the cartridge replacement.

	Approximate	replacement period of the cartridge
Model No.	MP02-1E	12 months (In case of 160 litres/day use)
	MP02-2E	12 months (In case of 270 litres/day use)
	MP02-3E	12 months (In case of 410 litres/day use)
	MP02-4E	12 months (In case of 135 litres/day use)
	MP02-5E	6 months (In case of 27 litres/day use)
	MP02-6E	6 months (In case of 16 litres/day use)

The replacement period differs in accordance with the amount of water volume, water quality, pressure and hardness etc.



Please change the cartridge as soon as one of the following situations arise:

- Water volume decreased steeply (clogging).
- •You experience an unpleasant taste or odour (filtration performance becomes lower).



• Please contact the store where you bought Cleansui, or installation contractor, and request maintenance.

**%** Refer to P.8

• The cartridge is a consumable, and therefore a replacement cost will be incurred. This is for your expense.

# 5. Cartridge Replacement Method

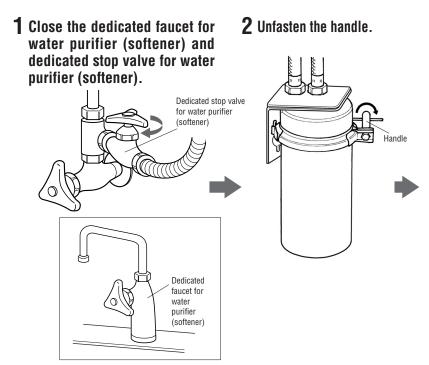
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Please follow this cartridge replacement method. Failure to follow this method may cause leakage and destruction.





When the cartridge is replaced, place a cloth on the floor as there will be leakage from the water inside the cartridge.



#### **6** Set the outer tube body.

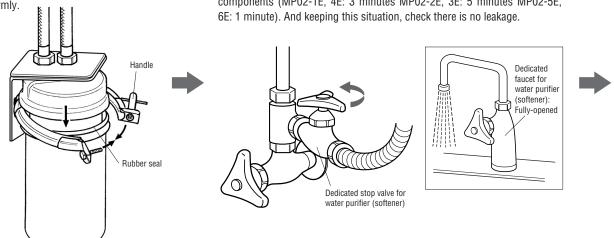
①Set the rubber seal to the outer tube body, and insert it into the lid for outer tube.

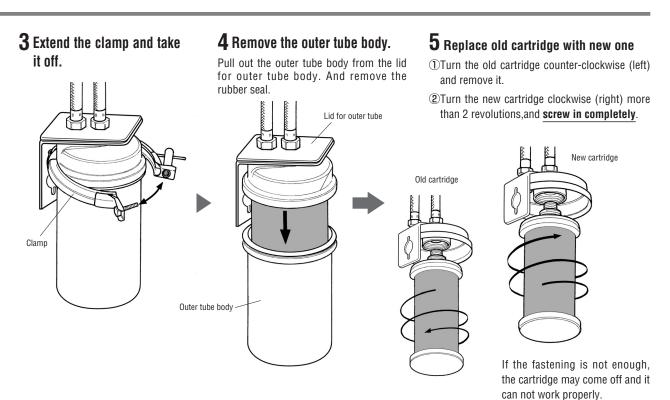
②Set the clamp, and fasten the handle firmly.

## 7 Allow the filtered water to flow, and check there is no leakage.

#### Dedicated faucet for water purifier (softener): Fully-opened

Fully-open the dedicated faucet for water purifier (softener) gradually. And drain water in order to remove the inside air and wash the filtration components (MP02-1E, 4E: 3 minutes MP02-2E, 3E: 5 minutes MP02-5E, 6E: 1 minute). And keeping this situation, check there is no leakage.



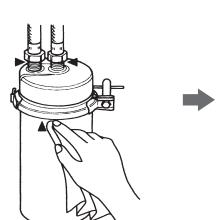


# **9** Adjust the "filtered water flow amount".

Please keep the dedicated faucet for water purifier (softener) opened, and adjust the "filtered water flow amount" with the dedicated stop valve for water purifier (softener).

# 8 Check there is no leakage around the clamp.

If there is a leakage, check the setting of the rubber seal and fasten the handle firmly.



Appropriate water flow rate				
MP02-1E	About 200 ml/sec			
MP02-2E	About 200 ml/sec			
MP02-3E	About 200 ml/sec			
MP02-4E	About 200 ml/2 sec			
MP02-5E	About 200 ml/2 sec			
MP02-6E	About 200 ml/2 sec			

# 6. Troubleshooting

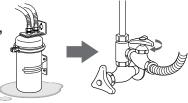
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#### Please check the items indicated in below chart.

Problem	Potential causes	Solution
●The filtered (softened) water does not	Dedicated stop valve for water purifier (softener) is closed.	Please fully-open the dedicated stop valve for water purifier (softener). *Refer to p.7
come out of the faucet.	"OUT" and "IN" connections are reverse.	Re-connect properly. *Refer to p.11
Despite new cartridge, water volume is slow.	Dedicated stop valve for water purifier (softener) is not fully-opened.	Please fully-open the dedicated stop valve for water purifier (softener). *Refer to p.7
●The water flow rate is coming down gradually.	Cartridge is clogged.	Please replace the cartridge.
●The filtered (softened) water does not come out.	Dedicated stop valve for water purifier (softener) is closed.	Please fully-open the dedicated stop valve for water purifier (softener). *Refer to p.7



#### If there is a leak,



close the dedicated stop valve for water purifier (softener) first.

Problem	Potential causes
●There is a leakage from connection.	Connection is incorrectly done.
●There is a leakage from water purifier (softener).	The main body of the water purifier (softener) may be damaged.



Please contact the store where you bought Cleansui, or installation contractor, and request maintenance.

## 7. After-sale Service

#### ■Before asking for a service (maintenance or repair)

- Refer to section "6. Troubleshooting" and verify the details of the situation.
- Having verified the situation, please contact the store or contractor.
- When you make an inquiry, please inform them of the following points.
  - ①Product······Commercial water purifier/Water softener with water purification function
  - ②Model No.···MP02-1E~6E
  - ③Problems··· Let us know in detail.

Cleansui MP02

#### Warranty

Cleansui comes with a warranty. Full details including dealer's name, the date of purchase etc. must be completed accurately and duly returned. The validity of the warranty is 2 year from the date of purchase, subject to term & conditions listed on the warranty.

#### Replacement of cartridge (sold separately)

- Please contact the store or contractor when you need to replace the cartridge or other parts.
- 2. If you need to buy the cartridge, please quote specific model number:

Model No. (for MP02-1E) UMM0050E

Model No. (for MP02-2E) UMC2100E

Model No. (for MP02-3E) UMC2150E

Model No. (for MP02-4E) UMC2050E

Model No. (for MP02-5E) USC-5E

Model No. (for MP02-6E) USC-6E

## 8. Installation Precautions

Please read this instruction manual carefully. Should you fail to do so and as a result cause damage to the unit, we will not take responsibility.

## **Attention**

- Installation is to be done by a plumber only. Customers are not to attempt installation themselves.
- Read P2 "1. Safety precautions".

#### Water pressure inspection

Measure the water pressure before installation.

If the working water pressure is more than 0.35MPa (3.5kgf/cm<sup>2</sup>), please adjust it to 0.2MPa (0.2kgf/cm<sup>2</sup>) with reducing valve (Reducing valve is not included). The appropriate static water pressure range is from 0.07 to 0.75MPa (from 0.7 to 7.5kgf/cm<sup>2</sup>), and the appropriate working water pressure range is from 0.07 to 0.35MPa (from 0.7 to 3.5kgf/cm<sup>2</sup>).

Confirm all parts are included certainly before installation.

#### The parts which are prepared by installation contractor.

- Pressure-resistant blade hose or flexible pipe ··· 2
- Stop valve ······1
- Dedicated faucet for water purifier (softener) ···1
- •"T" joint with a nut ······1
- At plumbing, connection, and installment of dedicated faucet for water purifier (softener) etc., please prepare the dedicated stop valve for water purifier (softener), water distribution stopcock and pipes etc. by installation contractor.

\*The pressure-resistant blade hose should be meet the appropriate quality.

## Check points after installation

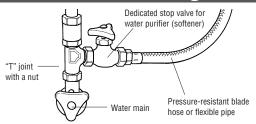
installation date / /	
①Water pressure is less than 0.35 MPa. ····	
②Installed only with included parts. ·····	

- 4Adjustment of filtered water volume. .....
- Transfer
- ①After installation, if you don't use the system for a long time, close the stop valve with referring to instruction book.
- ②Please explain followings to your customer with instruction book.
  - · Please explain how to use the purifier (softener) and safety precautions
  - · Please recommend the regular maintenance by technical expert to your
  - •The warranty is attached with this product. Please hand this instruction book and warranty to the customer certainly.

#### Installation data

- Diametre of pipe connecting point: G 1/2
- Appropriate water pressure range: 0.07~0.35 MPa
- Pressure durability:
  - 1.75 MPa (17.8 kg/cm<sup>2</sup>)  $\times$  1 minute
- Free residual chlorine: More than 0.1 mg/L of tap water

## 8-1. Plumbing



\*\*Dedicated stop valve for water purifier (softener) is a necessity for after-maintenance (adjustment of filtered water flow amount, and cartridge exchange etc.).

\*\*Dedicated faucet for water filtered (softener) should be used only for purified (softened) water in plumbing. Connect "T" joint with a nut and water main, and dedicated stop valve for water purifier (softener).

#### ∧ Attention

For maintenance, the length of pressure-resistant blade hose or flexible pipe is should not be too long (less than 1 metre). If the length of pressure-resistant blade hose is too long, loop it at a moderate pace. Then, pay attention not to break the pressureresistant blade hose especially.

## 8-2. Installation Example of the Water Purifier (Softener)

Considering the connecting ranges and maintainability , select appropriate installment style from 3 choices (A $\sim$ C).

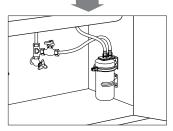
For strength protection of outer tube body, the fixing nuts, plate and frame plate should be set while you use this system.

Please handle the cartridge carefully.

#### A Vertical installation

Install the tube outer body upright on the flat place with the mounting frame.

# A



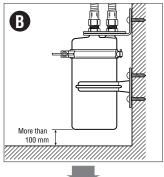
Set the water purifier (softener) to the mounting frame. The purifier (softener) should be touching the floor as the appropriate position.

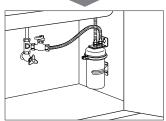


#### **B** Wall-mounted

Prop up the lid for outer tube with the frame plate, and the outer tube with the mounting frame.

Keep the space more than 100 mm from the floor for cartridge replacement.





Like as the above illustration, fasten the "OUT" side nipple, plate, and frame plate with the fixing nuts, and set the outer tube body to the mounting frame.

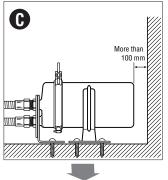


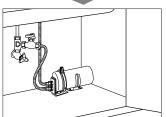
#### C Horizontal installation

Install horizontal with the frame plate and mounting frame. It is appropriate for small space.

MP02-5E and MP02-6E cannot be used in horizontal position.

Reep the space more than 100 mm from the side wall or back wall for cartridge replacement.

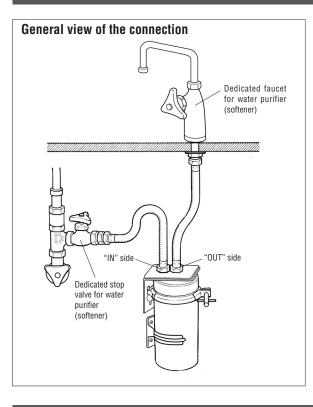


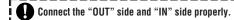


Install the mounting frame with screws and fixing nuts firmly, and set the outer tube body to the mounting frame.



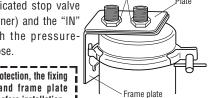
## 8-3. Connection





①Connect the dedicated faucet for purifier (softener) or other faucet and the "OUT" side nipple with the pressure-resistant blade hose.

②Connect the dedicated stop valve for purifier (softener) and the "IN" side nipple with the pressureresistant blade hose.



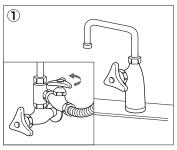
For strength protection, the fixing nuts, plate and frame plate should be set before installation.

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If you attach dome nut, tighten the screw with 2 wrenches firmly. Before that, set a rubber seal certainly.

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- The lengths of piping between the purifier (softener) and faucets should be less than 1m. And install the pipes in the range not to be polluted.
- •Use one faucet per one water purifier (softener) as a principle.
- •When this system is connected with the faucet except dedicated one, we recommend the combination with something like automatic drainage function.

# 8-4. Water Flowing Test and Leakage Check







If there is a leakage from the water purifier (softener), close the stop valve, and contact with the store where you bought Cleansui, or installation contractor.

- ①Fully-open the dedicated faucet for water purifier (softener), and then open the dedicated stop valve for water purifier (softener) gradually.
- ②keep this situation, and drain filtered water until the bubbles disappear from water.(MP02-1E, 4E: About 3 minutes Mp02-5E, 6E: About 1 minute)
- ③After drainage, close the dedicated faucet for water purifier (softener), and check there is no leakage around the filtering system and piping.
- The initial drainage time is an estimated one until the bubbles disappear.

## 8-5. Adjustment of Filtered Water Volume

- ①Open dedicated faucet for water purifier (softener) fully.
- ②Adjust the water volume with dedicated stop valve for water purifier (softener) .

MP02-1E···Adjust the water flow volume to about 200 ml/sec

MP02-2E···Adjust the water flow volume to about 200 ml/sec

MP02-3E···Adjust the water flow volume to about 200 ml/sec

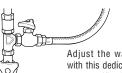
MP02-4E···Adjust the water flow volume to about 200 ml/2 sec

MP02-5E···Adjust the water flow volume to about 200 ml/2 sec

MP02-6E···Adjust the water flow volume to about 200 ml/2 sec

3After the adjustment of water volume, close the faucet for water purifier (softener).





Adjust the water flow volume with this dedicated stop valve for water purifier (softener).

**9** t

To use water purifier (softener) properly, the adjustment of water volume and enough drainage time are important. Please observe the indications.

\*\*This installation instruction manual has illustrations in case of using dedicated faucet for filtered (softened) water.