

# User's Information Manual

## WEC600/400 Series Water Treatment

### Getting Service

**If your water treatment requires service, you have several options for getting service:**

- Contact the technician or professional who installed your water treatment.
- Contact Technical Support at 1-800-519-8794 or on the website: [www.navieninc.com](https://www.navieninc.com).
- For warranty service, always contact Technical Support first.

**When you contact Technical Support, please have the following information at hand:**

- Model number
- Serial number
- Date purchased
- Installation location and type
- Error code, if any appears on the front panel display.

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800.519.8794 | [www.navieninc.com](https://www.navieninc.com)

20 Goodyear Irvine, CA 92618

# User's Information Manual

## WEC600/400 Series Water Treatment

<b>Model</b>	WEC40002AE
	WEC42002AE
	WEC60002AE
	WEC62002AE

### **WARNING**

If the information in these instructions is not followed the result may be property damage, personal injury, or death may occur.

**Installation and service must be performed by a qualified installer or service agency.**

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## Important Safety Information

 The following Safety Alert Symbols are used in this manual. They are used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible serious injury or death. This Safety Alert Symbol precedes any safety message about risk of personal injury. It may also be accompanied by one of the following signal words.

If the information in these instructions is not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

### **DANGER**

Indicates a hazardous situation that if not avoided will result in death or serious injury.

### **WARNING**

Indicates a potentially hazardous situation that if not avoided could result in death or serious injury.

### **CAUTION**

Indicates a potentially hazardous situation that if not avoided could result in minor or moderate injury.

### **NOTICE**

Indicates information considered important but not hazard-related (such as property damage).

### **DANGER**

#### **Grounding instructions**

This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local cored and ordinances.

### **WARNING**

Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have appropriate outlet installed by a qualified technician.

#### **Electricity related warnings**

- Do not use a damaged power plug or a loose outlet.
- Do not forcefully bend the power cord or apply pressure to the product with a heavy object as it may cause damage or deformation.
- Do not arbitrarily connect and disconnect the power plug.
- If the power plug comes into contact with water, dry thoroughly before use.
- Make sure to unplug the power plug while repairing or inspecting the product or replacing parts.
- When you are not using the product for a long time (vacation, travel, etc.), press and hold the Power button on the front panel for more than 5 seconds to turn off the product instead of unplugging the power cord. To turn on the product, press and hold the Power button on the front panel for more than 3 seconds.
- Use a dedicated outlet for this product, do not use a power strip.
- Do not touch the power plug with wet hands. Doing so may result in electric shock.
- Do not modify the power cord.
- If the power cord is damaged, have it replaced by a qualified servicer.
- Be sure to plug the product into a 120 V, 60 Hz outlet.

## **WARNING**

### **Installation related warnings**

- Do not install the product in a place where it can get wet or exposed to the elements.
- ONLY a qualified professional should install the product.
- Read the this manual carefully and only use the product after having a professional installer explain the product's operation.
- Do not install the product outdoors.
- Do not install the product on a slope.
- Do not install the product near an electric heater.
- Do not use or store flammable gas or substances near the product.
- A sufficient air gap is required when installing a drain line.
- Install the product in a place where it is protected from freezing.
- Clean with tap water only.
- Do not store any objects on the top of the product.

## **CAUTION**

### **Warnings for when using the product**

- If the product produces a strange sound, burning smell, or smoke, immediately unplug the power plug and request repairs.
- Do not disassemble the product by yourself.
- Replace the sediment filter according to the replacement cycle.
- Refill the citric acid solution according to the use cycle. When refilling the citric acid solution, be careful not to splash the solution on your skin, eyes, or clothes.
- Do not allow children to touch the product or play with it.
- Do not apply an excessive force or impact to the product.

### **Warnings for when the product has not been used for a long time**

- Do not unplug the power cord when the front panel is off.

### **Warnings for when moving and reinstalling the product**

- Auto flushing will be automatically performed when the power cord is reconnected after re-installation.
- Use the product after auto flushing has been completed. Use the product after auto flushing has been completed. (For typical screen displays, refer to "1.6.1 About the Front Panel" on page 13.)



## WARNING

This product can expose you to chemicals including lead, lead compounds, and carbon bisulfide which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## SAVE THESE INSTRUCTIONS

<b>DANGER</b>	Indicates a hazardous situation that if not avoided will result in severe injury or death.
<b>WARNING</b>	Indicates a hazardous situation that if not avoided could result in death or serious injury.
<b>CAUTION</b>	Indicates a potentially hazardous situation that if not avoided could result in minor or moderate injury.
<b>NOTICE</b>	Indicates information considered important but not hazard-related (such as property damage).

# 1. About the Water Treatment

## 1.1 Description of the Water Treatment

The Navien water treatment is available in 4 models: WEC40002AE, WEC42002AE, WEC60002AE, and WEC62002AE.

The characteristics are as follows:

- Continuous operation method (Tankless)
- Water treatment process: Water treatment process refers to the process in which water (direct water) supplied to the product becomes soft water. When direct water flows into a product through the main water pipe, hardness-inducing ions in the water are absorbed into the Navien Deionization (NDI) module electrode, and soft water is supplied to the household.
- Regeneration process: If hardness-inducing ions are absorbed into the electrode of the NDI module during the softening process, a process of desorption of the absorbed ions is required. This is called the regeneration process.

The regeneration process takes place in the remaining modules while one of the two NDI modules in the product proceeds with softening.

This allows the softening and regenerating processes to occur at the same time, providing a continuous supply of clean water to the household. At this time, the regenerated water is the water that is thrown into the drain line.

- CIP(Cleaning In Place) system: If scale particles accumulate inside the NDI module, the performance of the NDI module deteriorates, or when the scale particles adhere to the valve, and the valve does not open and close properly, making it impossible to supply high-quality water. CIP operation is an action to remove scale particles that may adhere to the NDI module and valve to maintain the performance of the NDI module. It injects and circulates the citric acid solution to dissolve the scale particles, and supplies raw water for the action of washing and discharging.

### NOTICE

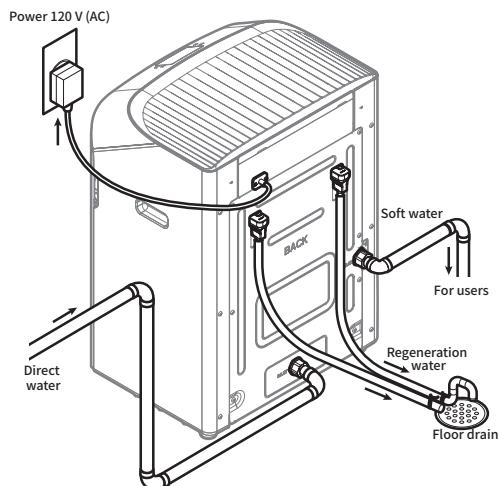
- The system and installation shall comply with applicable state and local regulations.
- Install the water treatment system in level places such as garage, basements or storage is recommended.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

- Product operation mechanism:

1. If you use water after installing the product and the flow sensor in the product recognizes water is being used, the product will start to operate.

### NOTICE

There must be an air gap between the drain holes and floor drain. Also, use an L-shaped pipe at the end of the drain holes to avoid water splashing.



2. When product operation starts, one of the two modules operates in the soft water cycle, and the other module operates in the regeneration cycle. When the soft water capacity of the module is exhausted, the module that has been regenerated by switching the module operates by a soft water cycle, and the module that has been operated with soft water operates with a regeneration cycle.
3. After CIP system operation is complete, it returns to the basic operation state of softening and regeneration again.
4. In the event that a product defect occurs, an error code may be generated and the product may be switched to safety mode. (Refer to "4. Troubleshooting" on page 22.)

## 1.2 Specifications

### **⚠ WARNING**

- Do not attempt to use this product to make safe drinking water from non-potable water sources.
- Do not use the system on microbiologically unsafe water, or water of unknown quality.
- This system is intended for removal of hardness and TDS from potable water supplies.
- Certainly install a pressure regulator in areas where the water pressure exceeds 60.9 psi.

The following tables list the specifications for the water treatment.

#### **Feed Water Requirement**

Item		WEC60002AE / WEC62002AE	WEC40002AE / WEC42002AE
Feed Water Requirement	TDS	≤ 500 ppm	≤ 300 ppm
	Temperature	40 - 100.4°F (4.4 - 38°C)	
	Pressure	36.3 - 60.9 psi	
	pH	6.5 - 8.5	
	Iron total	≤ 1.5 ppm	≤ 1.0 ppm
	Turbidity	≤ 0.5 NTU	
	Total hardness (as CaCO <sub>3</sub> )*	≤ 350 ppm	≤ 150 ppm
Sediment Filter (30029339A)	Alkalinity (as CaCO <sub>3</sub> )	≤ 200 ppm	≤ 100 ppm
	Housing**	Size	Ø5.1x22.3 inch
		Weight	4.76 lb (2.16 kg)
	Cartridge	Size	Ø2.7x20 inch
		Weight	0.97 lb (0.44 kg)
		Pore Size	10µm
		Replacement Cycle	A replacement notification or 6 month

\* Limit depends on inlet TDS (ppm)

\*\* Total shipment and replacement of the sediment filter kit in case of housing damage

### **NOTICE**

- The system is to be supplied only with cold water.
- The system conforms to NSF/ANSI 42 for the specific performance claims as verified and substantiated by test data.

## Technical Specification

Item		WEC60002AE/WEC62002AE	WEC40002AE/WEC42002AE
Details of specifications	Power consumption	0.55 kW	0.22 kW
	Power spec.	DC 300 V	DC 200 V
		4.5 A	2 A
	Power supply	AC 120V / 60Hz	
Dimensions/Weight	SIZE (WxDxH)	22.4 x 16.9 x 31.4 inch	
	Weight	132 lb (60 kg)	120 lb (54.7 kg)
Performance	TDS removal efficiency	≥ 75%*	≥ 60%**
	Recovery rate	≥ 85%	
	Installation pressure	≤ 60.9 psi	
	Water temperature	40 - 100.4°F (4.4 - 38°C)	
	Rated Service Flow	5.3 GPM	
Installation location		Indoor***	
Certifications		NSF/ANSI 42, NSF/ANSI 61 & 372, ETL, FCC	
Available Accessories		NaviLink Lite****	

\* 500 ppm (5.3 GPM)

\*\* 300 ppm (5.3 GPM)

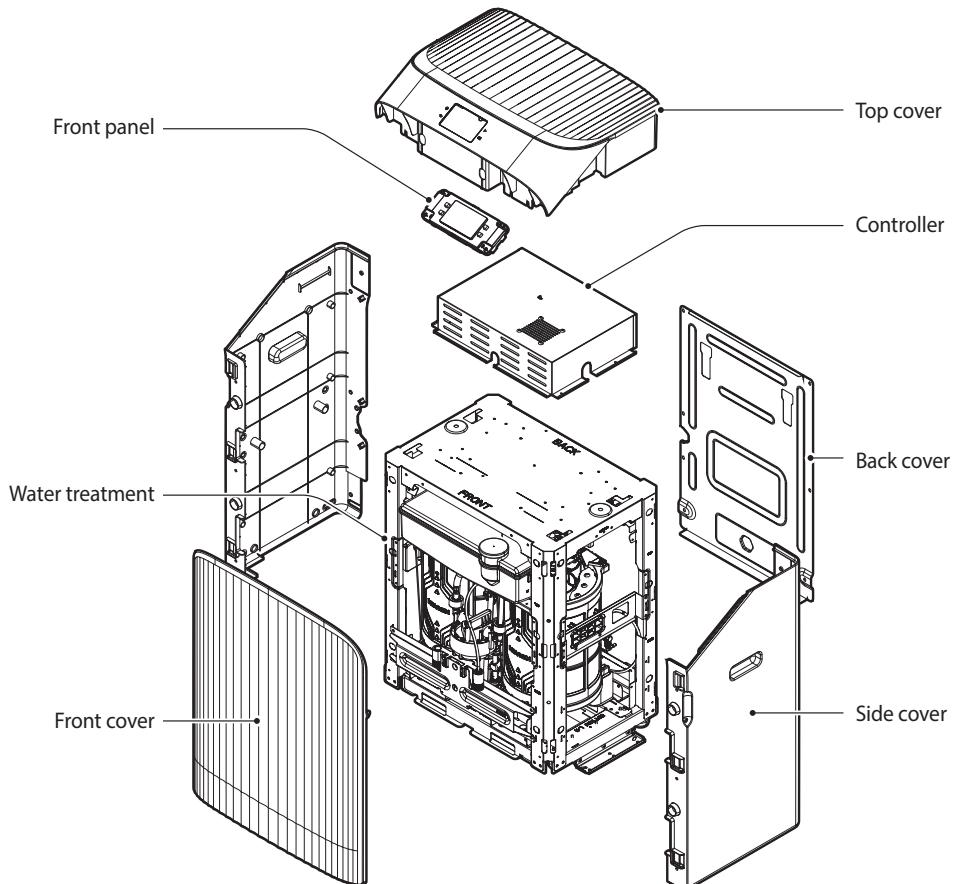
\*\*\* It does not freeze, there is no direct sunlight, and there is no water splashing.

\*\*\*\* For more information, refer to the NaviLink Lite's User Manual.

## 1.3 Components

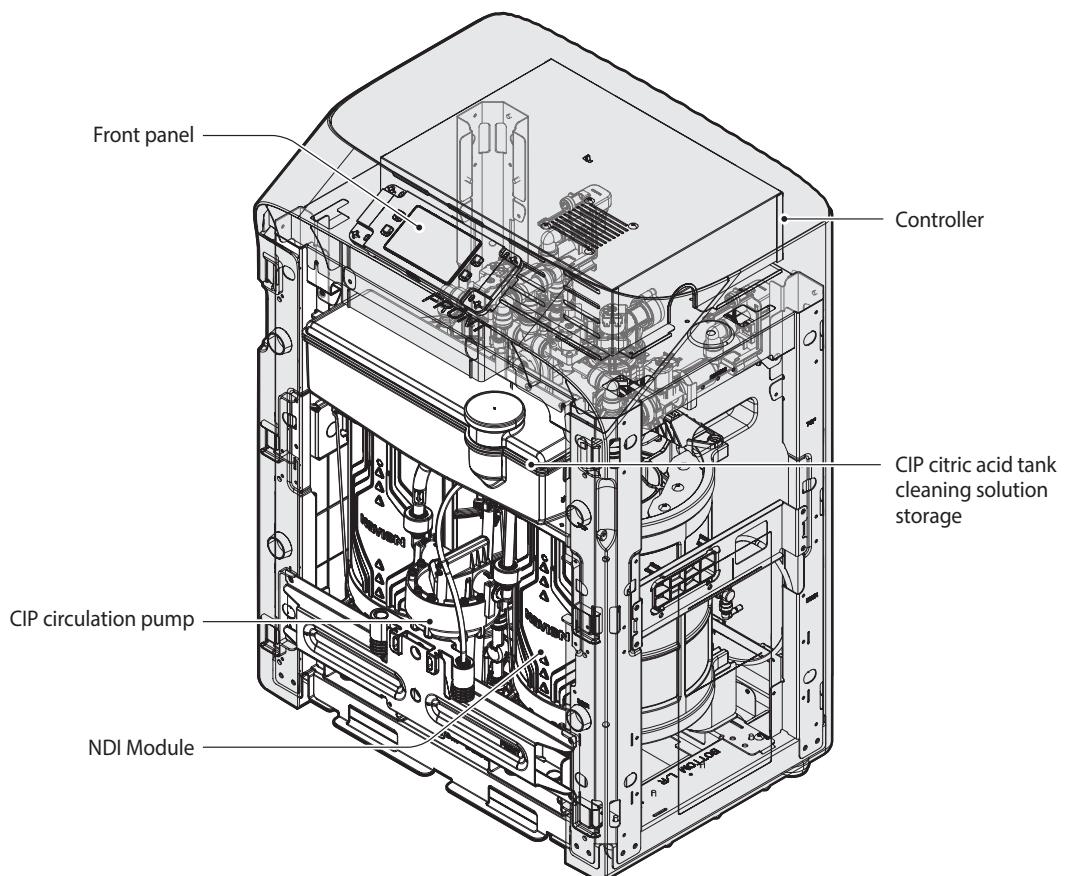
The following diagrams show the key components of the water treatment. Refer to "Appendices" in the Installation & Operation Manual for component assembly diagrams and particular parts lists.

### 1.3.1 Exterior Parts

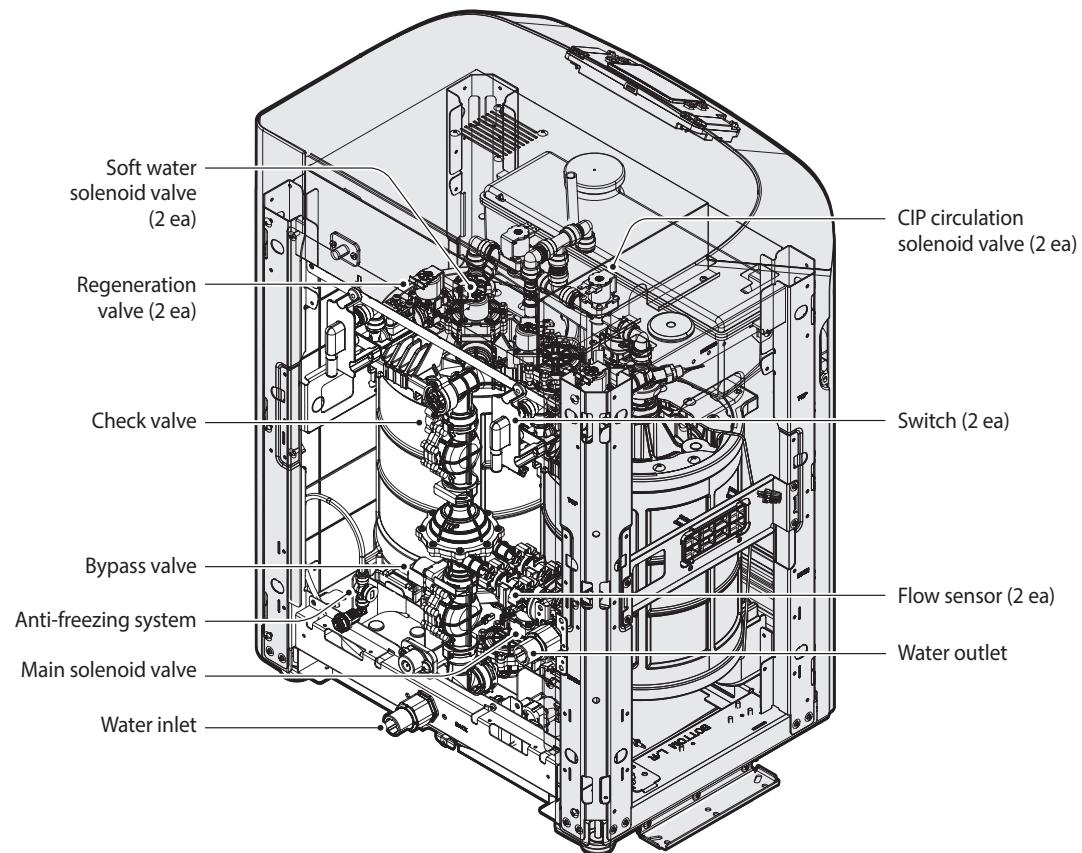


### 1.3.2 Internal Parts

#### **Front**

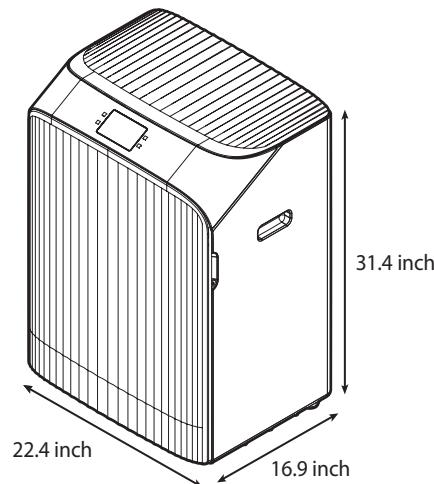


## **Back**



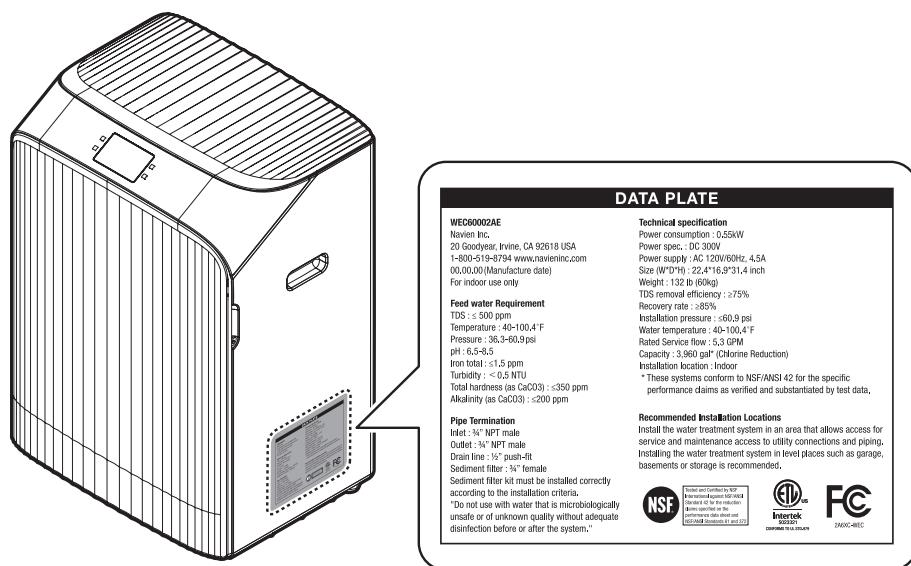
## 1.4 Dimensions

The following diagram shows the dimensions of the water treatment.



## 1.5 Certification

Certification marks must be attached to the water treatment as shown below.



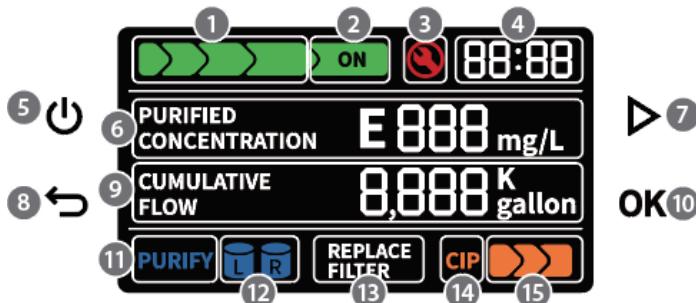
- Certification mark attachment location: bottom part of the side handle
- Certification mark attachment items: NSF/ANSI 42, NSF/ANSI 61 & 372, ETL, and FCC certification mark attachment

## 1.6 Using the Front Panel

The front panel allows you to view operation status and perform Install test mode. Remove the protective film from the front panel before using it.

### 1.6.1 About the Front Panel

The icons and digital display on the front panel provide important information required for the water treatment's operation. Using the buttons on the front panel, you can turn the water treatment on or off, and set the values required for the water treatment's operation, such as the time setting. Refer to the following table for detailed information.



	<b>Boot Progress</b> Booting icon that shows the product's power-on process		<b>ON</b> The state in which the product is ready for operation
	<b>Inspection/check</b> Inspection icon that appears when a product error occurs		<b>Time</b> Current time display
	<b>Power button</b> Turn on or off the front panel.		<b>TDS</b> Indicates the average TDS for purified water.
	<b>Next button</b> <ul style="list-style-type: none"><li>Switch between menu items or set the time.</li><li>Increases the rotation of the methods 1.2.3.9... 0.1...</li></ul>		<b>Back button</b> Returns to the previous state.
	<b>Water Usage</b> Indicates the accumulated water usage.		<b>OK button</b> <ul style="list-style-type: none"><li>Normal mode: User info</li><li>Selects a menu item.</li></ul>
	<b>Purify Operation</b> Indicates the purification operation.		<b>Purify/Drain Operation</b> <ul style="list-style-type: none"><li><b>Lighting:</b> Purification operation</li><li><b>Flashing:</b> Drain operation</li></ul>
	<b>Replace Filter</b> Indicates the sediment cartridge replacement notification.		<b>CIP</b> <ul style="list-style-type: none"><li><b>Lighting:</b> Indicates the CIP operation.</li><li><b>Flashing:</b> Indicates the CIP solution refill notification.</li></ul>
	<b>CIP Progress</b> Indicates the CIP progress step.		

## 1.6.2 Button Functions

Depending on how to press the button, you can perform several functions.

Refer to the following table for detailed information.

No	Item	Description
1	[Power] Long press	Turns off the softener. Press and hold the button for more than 3 seconds to start operation. <b>Note</b> Even if the power is off, the main valve is open, and the raw water is ready for supply.
2	[Back] Long press	Initializes the list in error history mode. Begins operation the button is pressed and held for about 3 seconds.
3	[Back]+[Next] Long press	Enters Installer setting mode. Status info, forced flushing, forced FG, forced CIP, error rest, etc.
4	[Back]+[OK] Long press	Enters Install test mode. Install test mode operation

## 2. Operating the Water Treatment

### 2.1 Using Install Test Mode

In Install test mode, you can check if each valve is properly operating.

When Install test mode is in progress, the faucet should be open.

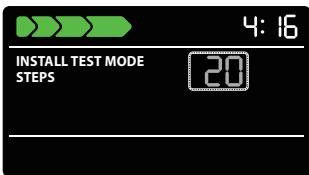
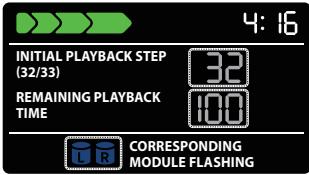
#### Entering Install Test Mode

To enter Install test mode:

- Automatically enter Install test mode when power is initially turned on.
- In normal operation mode, press and hold the Back and OK buttons simultaneously for 3 seconds.
- In error indication mode, press and hold the Back and OK buttons simultaneously for 3 seconds when there is an instrument related error.

#### About Install Test Displays

The following table explains the details of the Install test displays.

No	Item	Description	Note
1	Indicates Install test mode steps.	<ul style="list-style-type: none"><li>• Displays the process icon and clock, and displays the progress until the Install test is completed.</li><li>• Indicates Install test mode steps: State 20 - State 31</li><li>• When the Install test is completed, the ON icon is displayed.</li></ul>	
2	Indicate the initial playback of the Install test mode.	<ul style="list-style-type: none"><li>• Indicates the initial playback action in Install test mode.</li><li>• Indicates the process icon and clock.</li><li>• Indicates the initial playback step and remaining playback time.</li><li>• Indicates the initial playback step of Install test mode: State 32, 33</li></ul>	

## **Operation Steps**

After power is applied for the first time, it will automatically proceed when entering Install test mode, and will proceed step-by-step as shown in the table below.



No	Description
20	The step to check whether raw water is supplied after product installation is completed.
21	The step to check if the faucet is open
22	The step to check if the main valve and bypass valve are closed
23	The step to determine if the main valve and bypass valve are closed (not indicated if there is no abnormality in state 22)
24	The step to check if the main valve is open
25	The step to check if the bypass valve is open
26	The step to check if the soft water valve is closed
27	The step to check if the regeneration valve is closed
28	The step to check if the regeneration valve 1 is open
29	The step to check if the regeneration valve 2 is open
30	The step to check if the soft water valve 1 is open
31	The step to check if the soft water valve 2 is open
32	Left NDI Module Flushing
33	Right NDI Module Flushing
34	Left/Right NDI Module Flushing

## **2.2 Using Installer Setting Mode**

To enter Installer setting mode, press and hold the Back button and Next button simultaneously for 3 seconds.

In Installer setting mode, you can view the status information and perform a forced flushing, forced FG, forced CIP, and error rest.

## 2.3 Viewing the User Information

To view the user information:

- After the install test is complete, you can view this information in the stand-by state.
- Press the OK button in the stand-by state to view the information shown in the table below.



No	Item	Description	Note
1	Water inlet part TDS	<ul style="list-style-type: none"> <li>Indication: Purified concentration</li> <li>Water inlet part TDS value (Indication of the stand by value.)</li> </ul>	<p>The digital display shows the following information: ON, 3:51, PURIFIED CONCENTRATION 98 mg/L, CUMULATIVE FLOW 47 K gallon.</p>
2	After CIP Soft water accumulation amount	<ul style="list-style-type: none"> <li>Indication: Cumulative flow</li> <li>Soft water accumulation amount used after CIP operation</li> <li>Initialization of soft water accumulation amount used after CIP operation</li> </ul>	<p>The digital display shows the following information: ON, 3:51, PURIFIED CONCENTRATION 98 mg/L, CUMULATIVE FLOW 47 K gallon.</p>

**Note** If the OK button is pressed or there is no button input for 1 minute, the state is converted to the stand-by state.

## 2.4 Setting the Time

You can set the time (RTC and CIP operation) in Time setting mode.

To set the time, press the Next button in Normal operation, Install test, or CIP mode.

No	Item	Description	Note
1	Time Setting	<ul style="list-style-type: none"> <li>Indication: Time</li> <li>Setting the current time</li> <li>The icon on the clock display part blinks → Enter into the item with the OK button → Set a value with the Next button → Complete the setting with the OK button.</li> <li>Hours: 0 to 23 / 10 minutes: 0 to 5/ Minutes: 0 to 9</li> <li>When setting the time, if the Back button is pressed, the setting value will be canceled and you will move to the previous setting step.</li> </ul>	<p>The digital display shows the following information: ON, 3:51, PURIFIED CONCENTRATION 98 mg/L, CUMULATIVE FLOW 47 K gallon, PURIFY L.</p>

No	Item	Description	Note
2	CIP operation time setting	<ul style="list-style-type: none"> <li>Indication: CIP icon and time</li> <li>Setting CIP operation time</li> <li>Flashing of the clock mark and the CIP icon → Enter into the item with the OK button → Set a value with the NEXT button → Complete the setting with the OK button.</li> <li>Hours: 0 to 23 / 10 minutes: 0 to 5 / Minutes: 0 to 9</li> <li>When setting the time, if the Back button is pressed, the setting value will be canceled and you will move to the previous setting step.</li> </ul>	

**Note**

- If the Back button is pressed or there is no button input for 5 minutes, it will be converted to the stand-by state.
- When the OK button is pressed, the setting value is saved and will be converted to the stand-by state.

## 2.5 Initializing the Error History Lists

To initialize the error history lists, press and hold the Back button for 3 seconds in Error history mode.

## 2.6 Using Reset Mode

This mode is used to initialize the remaining tank amount after replenishing the citric acid and initializing the period of use after replacing the sediment cartridge.

To enter Reset mode, press and hold the Next and OK button for three seconds while in Normal operation, Installation check, or CIP mode.

No	Item	Description	Note
1	Use of sediment filter period initialization	<ul style="list-style-type: none"> <li>Indication: 01 lighting/ Flashing of REPLACE FILTER icon</li> <li>When an item is selected and the REPLACE FILTER icon is lit, press the OK button to initialize the sediment filter usage period.</li> </ul>	
2	Residual citric acid initialization	<ul style="list-style-type: none"> <li>Indication: 02 lighting/ Flashing of CIP icon</li> <li>If an item is selected and the OK button is pressed when the CIP icon is lit, the remaining amount of citric acid is initialized.</li> </ul>	

**Note**

- If the Back button is pressed or there is no button input for 5 minutes, it will be converted to the stand-by state.
- When the OK button is pressed, the setting value is saved and will be converted to the stand-by state.

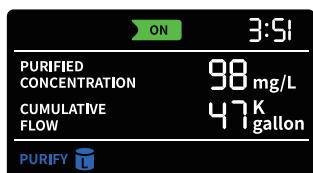
## 2.7 Stand-by Display

Under normal conditions, before using water, it is indicated as the stand-by state as shown below.



## 2.8 Display When Using the Water

It is a feature to determine the user's water usage. If the detected flow of the outlet line exceeds a certain flow for a certain period of time, it is determined that water is being used. The normal operation mode operation is Stand-by (state 40) - Regeneration #2 (state 48).



## 2.9 Using CIP Mode

Periodically perform internal cleaning operations to maintain product performance.

When the front panel is turned on and the following conditions are satisfied, CIP mode will perform.

- If the cumulative use of soft water is 14.9 tons or more (input at the set time)
- Compulsory entering into CIP upon reaching 15 tons of cumulative soft water use
- When it has been judged that product performance has deteriorated through the front and rear TDS sensors

### NOTICE

- When using water during CIP mode operation, there is no restriction on the use of water because raw water is supplied through the bypass line in the product, but the quality of the outlet water is not guaranteed.
- During CIP operation, some noise may occur due to the operation of the circulation pump.

## CIP Mode Process

Injection of citric acid solution



Cleaning the inside of the module with a circulation pump



Flushing to the drain line

## 2.10 Auto Flushing Mode

If there is no water use for 24 hours, the internal flow path of the product will be automatically cleaned.

## 2.11 Error Mode

When a product defect is detected, an error code will be displayed on the panel, and the product will be kept in a safe state.

When a defect occurs, the product will not operate for the sake of safety and raw water will supplied to the product's bypass line.

### **NOTICE**

- When a leakage occurs, cut off the supply of raw water.
- To use water, open the valve of the external bypass line before use. (We recommend installing the external bypass line.)

#### **Note**

- When an error occurs, refer to "4. Troubleshooting" on page 22 for a detailed explanation.
- When entering error mode, contact customer service.

### 3. Maintaining the Water Treatment

#### 3.1 Refilling the CIP Solution

- When the citric acid solution needs to be refilled, a solution refill notification sound will occur.
- As shown in the front panel display below, the CIP icon will blink and a notification sound will occur.
- Refer to the Installation & Operation Manual for how to fill the citric acid solution.



#### 3.2 Replacing the Sediment filter

- When it comes time to replace the sediment cartridge, a replacement notification will be displayed.
- As shown in the front panel display below, the REPLACEMENT FILTER icon will blink and a notification sound will occur.

**Note**

For further information and purchasing replacing components, please visit <https://www.navieninc.com>



#### NOTICE

Close the raw water inlet valve before replacing the sediment filter.

If the replacement period has been exceeded, the quality of the water cannot be guaranteed and the flow will decrease, so it should be replaced within the period.

To replacing the sediment cartridge:

- Close the inlet valve.
- Release the pressure in the filter by pressing the red pressure release button on top of the filter head. If the filter head does not have a pressure release button open the bypass valve and open the closest cold soft water tap (close the bypass valve and tap once the pressure is released – do not drain all the water from the plumbing).
- Remove the sump with the sump wrench.
- Remove and discard the used filter.
- Clean sediment from the sump if necessary.
- Install the new filter in the sump making sure that the top and bottom gaskets are in place.
- Apply silicone grease to the sump o-ring and make sure it is seated in the o-ring groove.
- Screw the sup on to the filter head making sure that the filter is centered in the sump. Tighten with the sump wrench.
- Open the inlet valve.
- Release the air in the filter by pressing the red pressure release button on top of the filter head until all air is displaced. If the filter head does not have a pressure release button open the bypass valve and open the closest cold soft water tap. Close the tap and bypass valve once the air is released.

#### NOTICE

After replacing the media, reset the use period for the sediment filter. Auto flushing mode will start immediately after the sediment filter usage period is reset. (To reset the sediment filter usage period, press the OK button. Refer to “2.6 Using Reset Mode” on page 18.)

## 4. Troubleshooting

### 4.1 Error Codes

When an error code appears on the front panel, refer to the following table for and possible causes and possible corrections.

Items	Error Name	Error Code	Consumer identification and solutions	Solution
Water leakage	Water leakage abnormality	001	<p>Check for leaks inside the product after removing the front cover.</p> <ul style="list-style-type: none"><li>In the case of water leakage, it is impossible to solve the problem directly by the consumer.</li></ul>	Call the Service Center.
Outage	Outage	002 - 003	<ol style="list-style-type: none"><li>In case of a water outage, check the inlet line coming into the house and check whether there is a water outage in the neighborhood.</li><li>If it is a local problem, you should wait until the problem is solved.</li><li>If there is a problem with the piping and valves coming into the house, perform piping work and replace the valves.</li></ol>	<p>Wait until the water outage problem is solved.</p> <ul style="list-style-type: none"><li>Automatic clearing of the error when detecting flow after the water outage problem is solved.</li></ul>
Issues related to the devices inside the product	Flow clogging abnormality	020	<ol style="list-style-type: none"><li>Consumers cannot directly solve any appliance-related errors.</li><li>It is necessary to check the discharge and non-discharge of the regeneration line.</li></ol>	Call the Service Center.
	The regeneration line is open	021		
		022		
	Bypass abnormality	023		
	Regeneration line clogging	024		
		025		
	Soft water line clogging	026		
Performance related issues	Abnormal mixing of regeneration water	040	<ol style="list-style-type: none"><li>Performance-related errors cannot be solved directly by consumers.</li><li>Errors when an abnormality in the water is detected compared to the initial use.</li></ol>	Call the Service Center.
	Abnormal NDI module performance	041		

Items	Error Name	Error Code	Consumer identification and solutions	Solution
CIP related issues	Abnormal CIP solution injection	050	<ol style="list-style-type: none"> <li>1. Refill the citric acid solution prepared by yourself.</li> <li>2. Call a service engineer if you do not refill the citric acid solution.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clear the error after refilling the citric acid solution prepared by yourself. <ul style="list-style-type: none"> <li>• Refer to “2.5 Initializing the Error History Lists” on page 18 for how to clear the error history.</li> </ul> </li> <li>2. Call the service center if you do not refill the citric acid solution.</li> </ol>
Abnormal sensors	Abnormal flow sensor	060	1. After removing the front cover, check whether the internal harness of the product is connected.	<ol style="list-style-type: none"> <li>1. In the case of sensor problem, call the service center.</li> <li>2. If there is a connection problem, turn off the power, and then reconnect the sensor, and then turn the power on. <ul style="list-style-type: none"> <li>• Check whether an error occurs when turning power on after connection.</li> </ul> </li> <li>3. Other problems, such as a pressure sensor error or direct water temperature sensor error, cannot be resolved directly by the consumer.</li> </ol>
		061		
	Abnormal TDS sensor	062	2. If the harness connection is bad, the TDS sensor that connects the harness after turning off the power is abnormal.	
		063		
	Abnormal pressure sensor	065	<ul style="list-style-type: none"> <li>• Check whether an error occurs when turning power on after connection.</li> </ul>	
	Abnormal direct water temperature sensor	066	3. Other problems, such as a pressure sensor error or direct water temperature sensor error, cannot be resolved directly by the consumer.	

Items	Error Name	Error Code	Consumer identification and solutions	Solution
Installation inspection	Water connection abnormality	070	<ol style="list-style-type: none"> <li>1. Customers cannot directly solve problems.</li> <li>2. Engineers can solve problems that occur during on-site installation.</li> </ol>	On-site engineers can address problems directly during installation.
	Faucet open abnormality	071		
	Abnormal close of the bypass valve	072		
	Main valve abnormality	073		
		074		
	Abnormal open of the bypass valve	075		
	Abnormal close of soft water valve	076		
	Abnormal regeneration valve	077		
		078		
		079		
		080		
	Abnormal soft water valve	081		
		082		
Electrical components related abnormalities	Valves, pumps, etc., related abnormalities	090 - 098	1. Cannot be directly solved by consumers.	Call the Service Center.
Mainboard related	RTC, panel key, and EEPROM abnormalities	100 - 102	1. Cannot be directly solved by consumers.	Call the Service Center.
CIP related	Abnormal power internal control	110 - 130	1. Cannot be directly solved by consumers.	Call the Service Center.

## 4.2 Understanding Audible Alerts

An audible notification (bing) will occur to indicate a change in operation that requires your attention.

When the front panel is on and the following conditions are satisfied, notification sound will occur:

- When the citric acid solution requires refill.
- When the sediment filter needs to be replaced.
- When an error occurs

When the front panel is off or the following conditions are satisfied, notification sound will stop:

- When the citric acid solution has been re-filled
- When the sediment filter has been replaced
- When an error is cleared

## 5. Appendixes

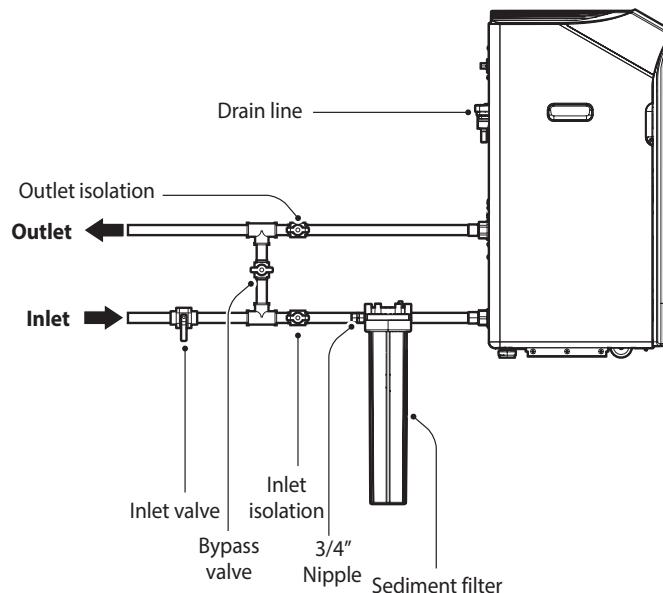
### 5.1 NaviLink Lite

NaviLink Lite allows you to check the information displayed on the product in real time via smartphones. For more information, refer to the NaviLink Lite's User Manual.

### 5.2 Diagram

#### 5.2.1 Installation

The following diagram shows the entire installation of the water treatment.



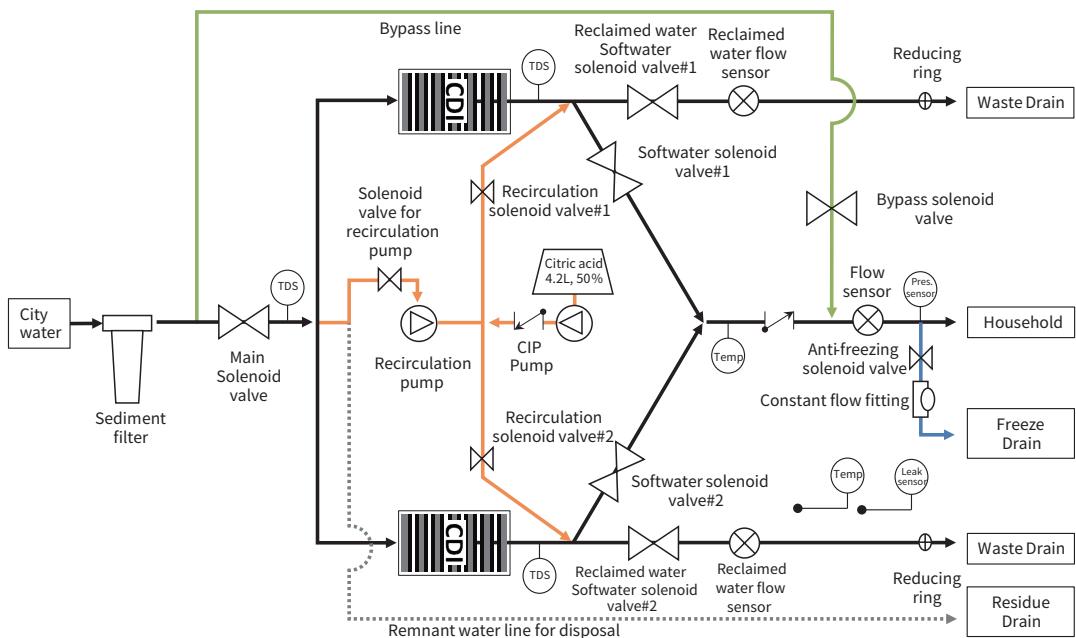
#### NOTICE

- Installation location confirmation is required.
- We recommend installing the bypassing line. (It is designed for using water when there is leakage or a product abnormality.)
- Before installation, it is necessary to check the threads and pipe sizes.
- An installer (engineer) configures the bypassing line.
- Refer to the following table for the appropriate size pipe for each connection.

Parts	Pipe Size
Inlet	3/4" NPT male
Outlet	1/2" push-fit
Drain line	1/2" push-fit
Sediment filter	3/4" NPT female

## 5.2.2 Product Inside

The following diagram shows the internal installation of the water treatment.



NO	Item	Description
1		Solenoid valve
2		Pump
3		Flow sensor

## **LIMITED WARRANTY NAVIEN, INC.**

- NDI module: Free of charge for five years
- Solenoid valves, sensors, pumps, and water pipe blocks: limited one year.
- Controller (Power): Free of charge for ?? years



Tested and Certified by NSF International against NSF/ANSI Standard 42 for the reduction claims specified on the performance data sheet and NSF/ANSI Standards 61 and 372



Intertek 5023321



CONFIRMS TO UL STD.979

2A6XC-WEC

### **FCC Information to User**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



### **CAUTION**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.