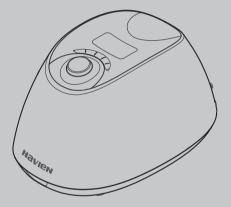
COMFORT MATE

Installation Instructions



MODEL EQH-20WUS, EQH-40WUS

- · Please read the user manual carefully in order to use the product as intended.
- Store this manual in a place where it can easily be found.
- There may be a change in appearance or dimensions of the product without prior notice for improvement of product quality.
- Purchased product may not be exactly as shown in figures in the manual.

Navien User Manual



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Contents

Precautions for Safety

Please read the safety precautions and follow the instructions carefully as they are for prevention of potential accidents and hazardous conditions.



Please use outlets with a ground terminal and proper voltage.

Unstable voltage conditions may lead to fire, and there is a danger of malfunction or electric shock when not using a ground terminal.





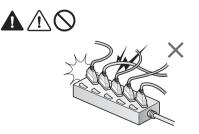
If the power cord or the power plug is damaged, receive replacement through manufacturers, its service agencies, or a qualified technician.





When using a multi-outlet, do not use multiple devices at the same time.

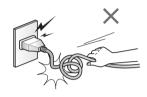
There is a risk of fire or electric shock.



Do not excessively bend, stretch, or tie the power line.

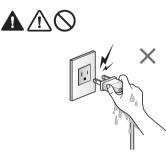
There is a risk of electric shock or fire.





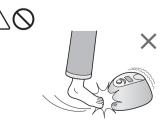
Please do not insert or touch the power plug with wet hands.

There is a danger of electric shock or injury.



Do not kick or exert a force on the boiler.

There is a risk of an accident and/or malfunction of the product.



Properly secure all water connections between boiler and mattress and be careful not to snap or damage the hoses.

There is a risk of product malfunction.



Do not use the product in a moist area or outside where direct sunlight, snow, and rain can directly affect the product.

There is a danger of electric shock or fire due to heating and electric short.



Place the boiler on flat ground.

The boiler may not turn on when the horizontal leveling sensor sensor, located in lower part of the boiler, is activated due to placement on an uneven surface.



Keep children away from operating and set the child-lock mode when not using the product.

There is a danger of electric shock or fire, and nd it may lead to product malfunction.



Do not operate the product near other electric heating appliances, such as gas stoves or heaters.

It may lead to fire or deformation of the product.



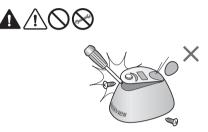


Do not open the water compartment when the boiler is operating, and be aware that water vapor can be emitted from the compartment opening. There is a danger of electric shock or fire.



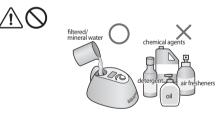
Do NOT dismantle, repair, or alter the product on your own.

When there is a need for repair, contact qualified service agency as there may be a danger of malfunction, electric shock, or fire.



Please use clean water (filtered water, mineral water) and do not add any other liquids. Do NOT use ground or distilled water.

It may cause production malfunction.



Do not crumble or fold the mattress when the boiler is operating.

It may lead to product malfunction.





Do not clean the boiler with unapproved detergents or chemicals, such as benzene, thinner, and alcohol.

It may lead to discoloration, and/or deformation.





When the room temperature is too low (lower than 40°F/5°C), keep the power cord plugged in to automatically prevent freezing.



Do not place heavy or sharp things (tack, nail, knife, needle) on top of the mattress in order to prevent accidental damage.

It may lead to product deformation or fire.



When water is leaking from the mattress, unplug the power plug, and contact a service agency.

Do not reassemble or alter the mattress . It may lead to product malfunction.





Do not operate the product without water.

It may lead to product malfunction.





Keep children, the disabled, and people who can be prone to accidental injury away from operating the product. There is a danger of burn.





Do not operate the product with wet hands, or insert foreign substances inside the product.

There is a danger of malfunction, electric shock, or fire.



When using the product, lay the provided cover over the the mattress, or use a pad or a blanket if there is no cover.

There is a risk of mild burns.





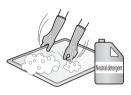
When an error code or operational issue occurs while using the product, immediately disconnect the power cord from the outlet and contact a service center.

There is a danger of fire or electric shock due to heating and electric short.



Mattress should be hand washed only and a mild detergent should be used. Remove the cover and lightly clean, then air dry.



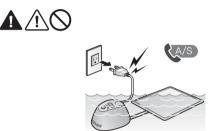


Do not use the product with latex as it may lead to deformation of the product.



If the product is water-damaged, turn off the power and contact a service center.

If the product is operated after experiencing water damage, there is a danger of electric shock or fire.



If the product is idle for a long time, invert and drain the heating tank to remove water, use the water removal kit, which comes included when purchasing the product, to remove water in from the hoses inside the mattress, and store the product.



Product Summary

Thank you for choosing Comfort Mate, bed warming mattress product manufactured by Navien.

This user manual provides detailed information on appropriate use of the product and precautions. If you read the instructions carefully before use, you can enjoy a safe and comfortable experience with the Comfort Mate for a long time.

Comfort Mate is produced by nationally representing boiler company KD Navien, which has focused on technolo gies to satisfy our customers' lives.

Comfort Mate uses Motor Circulation Method to circulate heated water from boiler to mattress, providing heat for pleasant and healthy sleeping conditions.

What is good about Comfort Mate!

- 1. Application of nationally representing boiler company KD Navien's temperature controlling technology, called '4TC System'
 - MTC : Safe use of the product with medium-to-hot water controlling technology.
 - RTC: Accurate temperature control desired by the user by controlling temperature of circulating water to correspond set temperature to mattress temperature.
 - ETC: Optimized heating performance with uniform temperature over the entire mattress.
 - DTC: Possible to adjust temperature for right and left side using automatic separate heating system.

2. Comfortable and Convenient Smart Eazy (Easy + Cozy) Solution

- Eazy Sleep: Best sleep mode for pleasant sleeping.
- Eazy Connector: One-touch valve type connector.
- Eazy Talk: Voice guidance to different modes and setting information.
- Eazy Remote:Controlling with remote controller.
- Eazy Keeping: Convenience of storage by folding the product slim like a blanket.

3. Safety and More Safety to Smart Care Solution

- The water hose is made with eco-friendly material and the anti-slip treated bottom surface of the cover is made with silicone materials to ensure no hazrdous substances are discharged.
- Relaxing sterilization mode which sterilizes by heating water inside boiler and mattress.
- Application of the connector guard to cover the hosepipe connection between boiler and mattress to prevent burns.
- Child-lock function to prevent accidents involving children.
- Application of other multiple safety devices.

(Horizontal leveling sensor, overheating prevention system, freezing prevention, automatic stop timer, and water level sensor.)

4. Technical Support

- If troubleshooting does not help the issue, please call your distributor or Navien Technical Support 1-877-689-1541 if you need further assistance.
- 5. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

6. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Product Features

1. Individual Heating for Right and Left Side

This function allows for different individual temperature preferences, enabling both separate and simultaneous controlling of both temperature zones (in celsius) in unit of celsius.

- * The Individual heating is only available in dual zone mattress products.
- ※ It is recommended that Individual heating be performed at a temperature higher than the lowest temperature threshold for sleeping.

2. Reservation Mode

OFF Reservation: The product automatically turns off after a certain time between 3 hours to 12 hours, selected by the user.

3. Sleep Mode

This mode automatically adjusts temperature on a time basis to allow the user to sleep comfortably in a pleasant temperature. Once the initial temperature and sleeping duration are set, the automatic operation mode is enabled.

Example : If the sleeping duration is 8 hours, temperature increases by 1.8°F (1°C) from the initial temperature for the first hour, decreases by 5.4°F (3°C) in the next 3 and a half hours, and increase by 1.8°F (1°C) in the remaining 3 and a half hours.

4. Sterilization Mode

This mode sterilizes existing bacterium and microorganisms in water, by rapid heating of the water inside the boiler and mattress.

5. Child Lock Mode

This lock mode prevents children from operating the product for safety.

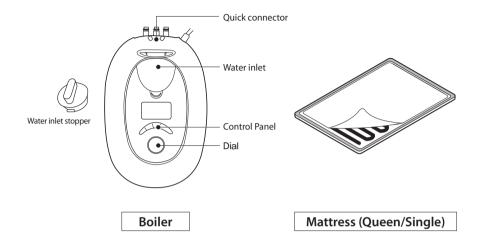
6. Voice Guidance

Provides voice guidance for user functions and temperature information when setting the temperature.

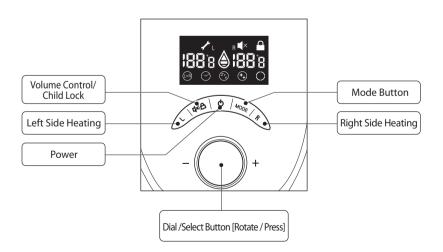
7. Safety Devices

- Horizontal Leveling Sensor: checks the balance and will shut down the boiler if it is not level
- Overheating Prevention System: allows for safe operation by limiting the water temperature
- Freezing Prevention: protects the unit from freezing when the ambient temperature falls below 41°F (5°C)
- Automatic Stop Timer: prevents excessive operation by shutting down the unit after 15 hours of continuous operation while saving energy
- Water Level Sensor: emits an alarm when the water level is low
- Self-Check System: the boiler pump will perform a self-check every 6 hours to ensure normal operation
- Water Overflow Filter: prevents water spillage when the product is accidentially tilted





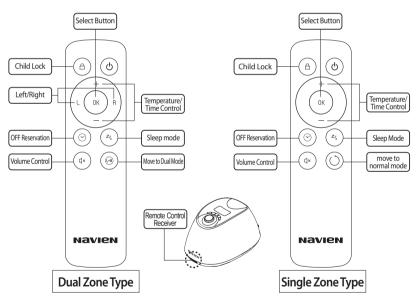
Boiler Control Panel



* The control panel uses a touch pad and can be controlled with just a light tap.

Status Window

Remote Controller



- * When using remote controller, please point at the remote control receiver in the front part of the boiler.
- * Single zone type does not support individual heating mode.
- * Please remove the battery discharge protection film before use.
- * The battery specification is CR2032.

Initial installation.

1. Select the location of usage.

Unfold mattress and place it on a desired location (Bed, floor)

% Keep boiler more than 1 ft (30 cm) away from the mattress and place in a secure location.

2. Connect the hosepipe to the mattress.

Straighten hosepipe in the mattress to prevent restriction of water flow. Attach the connector from the hosepipe, which is attached to the mattress, to water outlet/inlet on back side of the boiler, with the connector button facing upward.

Push the connections together until you hear a 'click'.

3. Press the power button on the boiler.

Connect power cord of the boiler to an outlet before pressing the power button.

4. Inject water

- (1) Total amount of water injection inside the product is 1,000 ml for Queen-type products (800 ml for single-type)
- ② Follow the procedure for injecting the water into the system, open stopper.
- ③ Follow guidance to water injection order, and continue to check on the water level lamp as you slowly inject the water into the inlet.
- ④ When the product indicates that enough water has been injected, stop injecting water and hold for a moment.
- (5) When you are asked to inject water again, repeat process (3) and (4) twice.
- (6) When completion of water injection is announced again, stop injecting water, screw close clockwise until there is a click sound, and cover the water inlet.
- If water level touches safety net inside water inlet, water may overflow: Be careful to keep water level low enough to prevent it from touching the safety net.
- If you inject too much water after announcement of completion of water injection, water could leak through the small air holes on the stopper.
- It is recommended that water be filled higher than medium water level for continuous and safe heating.
- Please only use purified or mineral water.
- Do NOT use ground water, sea water, or saline solution.

5. Start operating by setting desired temperature.

Refer to 'How To Use the Product' for setting the temperature.

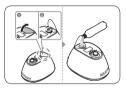
* When re-supplementing water during operation

Follow the procedures for injecting the water and slowly perform water injecting processes as stated in part 4. There can be water remaining inside the mattress when re-supplementing water during operation, so, be careful of water overflow.





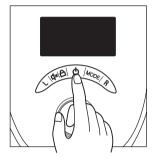






This product can be controlled using devices shown in top right side.

Turning On and Off

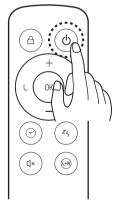


Controlling at Boiler

You can turn the product on and off by pressing [\bigcirc] button. The default temperature for dual heating mode is at 95°F (35°C)

Controlling with Remote Controller

You can turn the product on and off by pressing [\bigcirc] button. The default temperature for dual heating mode is at 95°F (35°C)















Controlling at Boiler

Dual heating mode is activated by pressing $[\bigcirc]$ button.

It is possible to set temperature at between 77°F (25°C) to 99°F (37°C) by pressing dial, and when there is a 'UP' sign in status window, you can press the dial to activate high temperature setting mode and enable temperature setting from 100°F (38°C) to 109°F (43°C)

% When setting a temperature higher than 99°F (37°C), the optimized temperature for sleeping, the high temperature entry mode is applied for safety.

1) Dual Heating Mode

Set temperatures for left side(L) and right side(R) on the display screen will flash, and set temperatures in left side and right side can be changed simultaneously by rotating the dial.

2) Left Side Heating

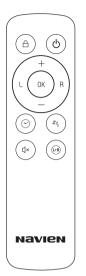
Press left-side(L) button, and when vocal guide says 'left side heating,' rotate the dial to set heating temperature as desired and press dial to complete setting.

3) Right Side Heating

Press right-side(L) button, and when vocal guide says'right side heating,' rotate the dial to set heating temperature as desired and press dial to complete setting.

4) Left or Right Exclusive Mode

When left-side(L) or right-side (R) button is pressed for 2 seconds, heating of the selected side is stopped after vocal announcement. Pressing left-side(L) button for 2 seconds stops heating on the left side and activates right exclusive mode.



Controlling with Remote Controller

It is possible to set temperature at between 77°F (25°C) to 98.6°F(37°C) pressing the dial, and when there is a 'UP' sign in status window, you can press OK button to activate high temperature setting mode.

1) Dual Heating Mode

Dual heating mode is activated by pressing the power button, and temperatures in left side and right side can be changed simultaneously by pressing +/- button.

2) Left Side Heating

Press left-side(L) button, and when vocal guide says 'left side heating,' press +/- button to set heating temperature as desired and press OK button to complete setting.

3) Right Side Heating

Press left-side(L) button, and when vocal guide says 'right side heating,' press +/- button to set heating temperature as desired and press OK button to complete setting.

When left-side(L) or right-side (R) button is pressed for 2 seconds, heating of the selected side is stopped after vocal announcement. Pressing left-side(L) button for 2 seconds stops heating on the left side and activates right exclusive mode.

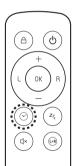
4) Left/Right ONLY mode

When left-side(L) or right-side(R) button is pressed for 2 seconds, heating of the selected side is stopped after vocal announcement. Pressing left-side(L) button for 2 seconds stops heating on the left side and activates right-side ONLY mode.



1. OFF Reservation





Controlling at Boiler

It is possible to set turn-off time by pressing [MODE] button in dual heating mode.

Time can be set between 3 hours to 12 hours by rotating the dial.

- ※ Default operating cycle is 8 hours.
- % You can adjust the set temperature after the OFF Reservation time has been set.
- ** After the OFF Reservation time is set, press the [MODE] button to reset back to the default setting.

Controlling with Remote Controller

 $[\bigcirc]$ It is possible to set turn-off time after pressing $[\bigcirc]$ button. Time can be set between 3 hours to 12 hours by pressing +/button.

- ※ You can adjust the set temperature after the OFF Reservation time has been set.
- ※ After the OFF Reservation time is set, press the [DUAL MODE] button on the Remote to reset back to the default setting.





Controlling at Boiler

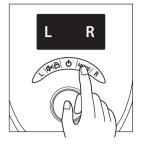
- 1. Activate child lock function by pressing [↓×|合]button for 2 seconds.
- 2. Once the child lock function is set, [] icon button appears on the status window and controlling is disabled.
- 3. Press the [↓×|合] button for 2 seconds to deactivate the child lock function.



Controlling with Remote Controller

- 1. Press [(A)] button to activate the child lock function
- 2. Press $[(\Delta)]$ button again to deactivate the child lock function.







Controlling at Boiler

Continue to touch [MODE] button until 🙆 ramp is turned on to activate Sleep Mode

1. When setting dual heating

- When both L and R appears on the status window, press the dial, set initial sleeping temperature and press the dial again. (Temperature can be set between 86°F (30°C) to 99°F (37°C)
- ② Rotate the dial to choose sleeping duration and press the dial.

2. When setting individual heating for right and left side

- ① When both L and R appears on the status window, rotate the dial toward left to choose left side heating and press dial to confirm once L sign is indicated.
- ② When temperature to the left side flickers, rotate the dial to set sleeping duration and press the dial. (initial sleeping temperature can be set between 86°F (30°C) to 99°F (37°C) and setting OFF

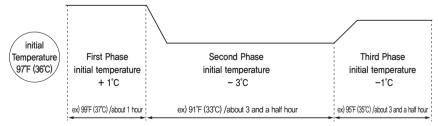
activates general mode instead of Sleep Mode)

- ③ When temperature to the left side flickers, rotate the dial to set sleeping duration and press the dial. (Sleeping duration can be set between 5 hours to 10 hours, and setting OFF activates general mode instead of Sleep Mode)
- ④ Once settings for left side is complete, it automatically moves to settings for right side.
- (5) Set the same initial sleeping temperature and sleeping duration for both sides.

When Sleep Mode is used, you cannot use the Remote Controller to adjust the set temperature and the boiler will operate in DUAL MODE. Once the Sleep Mode is deactivated, the unit will reset back to the previous set temperature.

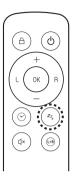
※ Example of Temperature Change in Sleep Mode

ex) Initial temperature at 97°F (36°C) and sleeping duration of 8 hours



<Graph showing temperature change in Sleep Mode>

Sleeping temperature for Navien Mate can be set up to 99°F (37°C), the optimum sleeping temperature. While the initial temperature can be set at 99°F (37°C), in that case the temperature remains at 99°F (37°C) in the first phase(for the first hour.)



Controlling with Remote Controller

1. When setting dual heating

- ① Press (王) button to choose Sleep Mode and press OK button to set dual heating.
- 2 Press +/- button to set initial sleeping temperature and press OK button. (initial sleeping temperature can be set between 86°F (30°C) to 99°F (37°C)

and setting OFF turns the product off.)

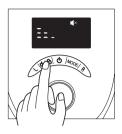
- ③ Press +/- button to choose sleeping duration and press OK button. (Sleeping duration can be set between 5 hours to 10 hours, and setting OFF activates general mode instead of Sleep Mode)
- ④ Once settings for left side is complete, it automatically moves to settings for right side.
- (5) Set the same initial sleeping temperature and sleeping duration for both sides.

2. When setting individual heating

Set the left heating first and then right heating.

- Press (*) button to choose sleeping mode and select the left side with button then press OK.
- ② Press +/- button to set initial sleeping temperature and press OK button. (Initial sleeping temperature can be set between 86°F (30°C) to 99°F (37°C) and setting OFF turns the product off.)
- ③ Set the desired sleeping duration and press OK button. (Sleeping duration can be set between 5 hours to 10 hours, and setting OFF activates general mode instead of sleeping mode.)
- ④ Once settings for left side is complete, it automatically moves to settings for right side.
- (5) Set the same initial sleeping temperature and sleeping duration for both sides.





Controlling Voice Volume

Touch [$\mathfrak{q} \times | \mathfrak{A}$] button for volume control.

There are 3 volume levels and press the dial at desired volume level to complete setting. When mute is set, ramp is turned on and voice guidance is turned off.



Controlling with Remote Controller

Press [(4×)] **button for volume control.** There are 3 volume levels and press the dial at desired volume level to complete setting.

Setting Sterilization Mode





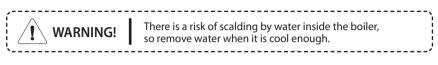
Sterilization Mode can only be controlled at boiler.

Once the sterilization mode is activated, water inside the product is rapidly heated to a high temperature in order to sterilize inside hot-water mattress. It is recommended to be performed monthly and please do not use the hot-water mattress when the sterilization mode is active.

- Please do not consecutively activate sterilization mode. (Consecutive activation can lead to overheating errors)
- ① Press [MODE] button for 3 seconds to initiate sterilization mode
- ② When 'no' message appears on status window, rotate the dial toward right until 'yes' message flickers, and press dial to complete setting. ramp is turned on and the sterilization mode function initiates.
- ④ Sterilization lasts for 25 minutes and the remaining time is shown on status window with left side showing minutes, and right side showing seconds.
- (5) Once the mode is complete, the product automatically turns off.

If the product is idle for a long time, store boiler and mattress separately.

Store the boiler this way.



- 1. To remove the hosepipe from the boiler, press the blue button while separating the hosepipe from the connector. Some residual water may leak when disconnecting the hosepipe.
- 3. After removing water from inside of the boiler, lean the boiler forward and press protruded part of the connector to remove any remaining water.



2. Open the cover and water inlet plug from the boiler, hold the cover tightly, then invert the boiler to remove the residual inside.





4. Dry the boiler in a suitable location, put it into storage pack, and store in an airy location away from direct sunlight.

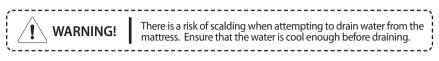


For cleaning of surface of the boiler, use a soft rag with warm water, and clean the surface.

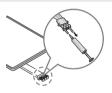


Follow these procedures to maintain the product.

Clean the mattress this way.



- 1. Prepare a water bottle (about half gallon/ 1.5liter) to pour into the water tank.
- 2. Plug the Water Removal Kit, which comes along when purchasing the product, into two entries on hosepipe in the mattress, and plug a pump to one of two connectors to extrude water.
- * For Queen type, connect the Water Removal Kit to two of three connectors in both sides of the connector



Store the mattress this way.

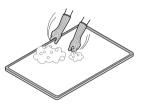
1. Fold the mat with 3 divisions as shown below.



2. Fold the mat further as shown below.



Mattress should be hand washed only and a mild detergent should be used. Remove the cover and lightly clean, then air dry.



3. Use the included storage accessories to properly store the product.



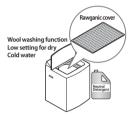
Follow these procedures to maintain the product.

Clean the cover this way.

Remove the cover from the mattress, use wool washing function with 'low' setting for dry and 'cold water' setting for the washing machine water temperature.

Wash with a neutral detergent.
 * Petrain from high tomporature loundry.

* Refrain from high temperature laundry or dry when using a drum washing machine.



Wash the cover and dry.



** Provided rawganic cover can be separated from the mattress and be used as a bed pad anytime without special need for storage.

When an error code continuously appears on the status window, contact a the distributor or Navien Technical Support(1-877-689-1541) for further assistance.

Error Number	Error Description	Possible Solution
E016	Overheating of water tank	Contact the distributor or Navien Technical Support
E017	Abnormal heating error	Contact the distributor or Navien Technical Support
E205	Tank temperature sensor error	Contact the distributor or Navien Technical Support
E218L	Water temperature (left side) sensor error	Contact the distributor or Navien Technical Support
E218R	Water temperature (right side) sensor error	Contact the distributor or Navien Technical Support
E228	Water leakage error	 Turn off the boiler Check the location of water leakage in the boiler and the mattress and stop operating the product. Contact the distributor or Navien Technical Support
E302	Water level error	 This is an error caused by insufficient amount of water. Follow the instruction provided in P15 to supplement water.
E311	Water level sensor error	Contact the distributor or Navien Technical Support

Detailed Specifications and Dimensions

Classification	Single-type	Queen-type
Model Name	EQH-20WUS	EQH-40WUS
Power Consumption Rating	AC 120V, 60Hz, 310W	
Size of Water Tank	0.12 gal (0.45 L)	
Size of Boiler	D11.8 x W7.4 x H7.1 in (D300 x W188 x H180 mm)	
Weight	6.4 lb (2.9 kg)	
Size of Mattress	39.4 x 78.7 in (1,000 mm x 2,000 mm)	59.0 x 78.7 in (1,500 x 2,000 mm)
Method	Motor Circulation Method (BLDC motor applied)	
Certificates	ETL (United States)	
Made In	South Korea	

Product Warranty

Model Name

Limited Product Warranty

The terms stated in the warranty ensures product quality.

- Warranty coverage starts from the date of purchase. (If the date of purchase cannot be identified, it starts from 6 months after the date of manufacture.)
- Product warranty registration is required for service.
 Register the Model Name, Serial Number, and Place and Date of Purchase at the following website:
 www.comfort-mate.com

Warranty Exclusions

- Improper installation and/or to install in strict compliance with the Installation Manual procedures.
- Product purchased through a supplier or distributor not authorized by Navien.
- Modification or alteration of the Product in any manner, including but not limited to, removal of any component or part, addition of any non-approved components, relocating or moving the Product from its original installation site, or any accidental or intentional damage to the Product.
- Installation for non-recommended uses.
- Any damage caused by local adverse conditions including but not limited to hard water deposits, lime or mineral build-up, operating in corrosive atmospheric elements.
- Damage or problems caused by issues such as electrical surges, flooding, fire, abnormal external temperature, and any other cause of damage not directly caused by a manufacturing defect.
- Installer's failure to fully comply with the Product Service procedures previously provided to the end user
 as is available from Navien. Such policies include but are not limited to the Installer's failure to first contact Navien Technical
 Support while in front of the product for purposes of troubleshooting the identified problem or issue.
- Any damage, malfunction or failure caused by abuse, negligence, alteration, accident, fire, flood, freezing, wind, lightning and other acts of God.
- Removal or alteration of the Product information and safety ratings.



