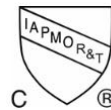


HANS™ Premium Water Treatment Module

Owner's Manual

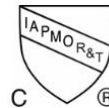
8960-04



HPW Treatment Module is certified by IAPMO R&T to NSF/ANSI 61, 372, CSA B483.1, and ASSE 1087 for material safety requirements and lead-free compliance only for all HPW Treatment Module configurations: 8972 Single Cell, 8935 2-Cell Series, 8936 3-Cell Series, 8937 2 Cell Parallel, 8938 3-Cell Parallel, and 8939 3-Cell Series Parallel.



HPW Treatment Module have been evaluated by ASSE International for Halal compliance.



HPW Treatment Module is certified by IAPMO R&T to NSF/ANSI 44, CSA B483.1, and ASSE 1087 for the following model numbers: 8938-01-100-100-100, 8937-01-100-100, and 8972-01-100.

Document Revision Table

| ECR | Revision | Date | Section(s) Revised: Description |
|------|----------|------------|---|
| 1419 | 01 | 05/01/2021 | Initial Release |
| 1484 | 02 | 03/15/2022 | General: Clerical & graphic updates Module Specifications: Updated spec. table Media Types: Added calcite and updated total weights Operation Screen: Updated description and screen shot Water Source Settings: Updated screen shot, removed lead Configuration Screen: Updated description and screen shot Filters Screen: Updated screen shot Adding Salt: Updated description and screen shot Manual Operation: Updated description and screen shot Advanced Screen: New section added Operational States: Updated table, added new states Warnings / Alerts: Updated descriptions, added alerts |
| 1520 | 03 | 11/03/2022 | Added CSA B483.1 certification and 1087 certification |
| 1540 | 04 | 01/12/2023 | Module Specifications: Updated operating pressure from 30-80psi to 30-60psi Warnings/Alerts: Updated high inlet pressure values from 80 to 60 and range updated from 30-70psi to 40-60psi |

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General Information

Please refer to the **HANS™ Premium Water** website (www.hanspremiumwater.com/support) for most current version of this manual as well as the Performance Data Sheet for this module.

HANS™ Premium Water Treatment Module

The HANS™ Premium Water Treatment Module is a durable piece of equipment, which, with proper care, will last for many years. This Owner's Manual outlines operation and troubleshooting details vital to its sustained performance.

If the module is altered at the site of operation or if the inlet water conditions change, please contact your local dealer or distributor to determine proper settings for your use.

Prior to operating or servicing the module, this manual must be read and understood. Keep this and all associated documentation available for future reference.

Safety

The various safety headings used throughout this manual's text are defined below:



NOTE: Identifies statements that provide further information and clarification.



CAUTION: Identifies conditions or practices that could result in equipment or other property damage.



WARNING: Identifies conditions or practices that could result in injury or loss of life. Failure to follow warnings could result in serious injury or death.

DO NOT REMOVE UNDER ANY CIRCUMSTANCE, CAUTION, WARNING, OR OTHER DESCRIPTIVE LABELS FROM THE MODULE.

General Information (continued)

Read this manual and the associated installation manual (P/N 8970) before installing and using the HANS Premium Water Treatment Module. Follow steps exactly to install the module correctly. Failure to do so could cause personal injury or property damage.

As with any water system, it is highly recommended that a leak detection system and water main shut-off valve be installed to prevent property damage due to a plumbing or module failure.

Do not use the HANS™ Premium Water Treatment Module to create safe, drinkable water that is from non-potable water sources. Do not use this appliance on microbiologically unsafe water or water of unknown quality without disinfecting.

For use with private wells:



WARNING: Do not use on private well water until the water has been tested by a certified drinking water laboratory to determine microbial safety in accordance with regulatory standards. Before using this device on a private well, it is the responsibility of the user to have the well tested by a certified drinking water laboratory. For continuous use of this device on a private well, it is the responsibility of the user to obtain frequent microbiological testing (recommended twice per year, minimum) of the well water entering the module by a certified drinking water laboratory to monitor continued compliance with the applicable regulatory standards. If the well source becomes microbiologically contaminated as indicated by testing, discontinue use of this device until sufficient well treatment and testing indicates that the water again meets the applicable regulatory standards. Following exposure of the device to microbiologically contaminated water and prior to its reuse, conduct the proper sanitization and servicing as directed in the service & maintenance manual (P/N 8980) available for download at www.hanspremiumwater.com/support.



WARNING: This module may not perform as claimed unless all functional components are installed in their proper sequence in accordance with the installation and maintenance instructions.

General Information (continued)



WARNING: This module is for use on water supplies that have been treated to public water system standards or otherwise are determined to be microbiologically safe as demonstrated by routine testing.

Do not use with water that is microbiologically unsafe or of unknown quality. This module is not intended for use during a boil water advisory. Stop using this module when a boil water advisory is issued. After a boil water advisory has been discontinued and prior to reuse, sanitize and service the module as directed in the service & maintenance manual (P/N 8980) available for download at www.hanspremiumwater.com/support.



GROUNDING INSTRUCTIONS: This module 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 module 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 codes and ordinances.



WARNING: Improper connection of the module-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 module is properly grounded. Do not modify the plug provided with the module; if it will not fit the outlet, have a proper outlet installed by a qualified technician.



WARNING: It is the user's responsibility to heed all alerts and warnings from the module concerning filter life from the onboard display and the mobile app, as these replaceable treatment components are critical to proper module performance.

The manufacturer also recommends that the user periodically test the output water to verify the module is performing correctly.

General Information (continued)

Check with local public works department for plumbing and sanitation codes. Follow their guides as you install the HANS™ Premium Water Treatment Module. Follow local codes if they differ with guides in this manual.



In Massachusetts, plumbing code 248-CMR 3.00 and 10.00 shall be adhered. Consult with a licensed plumber.

Avoid installing this module in direct sunlight. Excessive heat may cause distortion or other damage to non-metallic parts.

If installing the module outdoors, do not locate where it will be exposed to wet weather, direct sunlight, or extreme hot or cold temperatures. The module requires an ambient temperature range of 35 to 120 degrees Fahrenheit.

This module has a non-metallic valve system. Installing it on metal plumbing will break electrical continuity, which may interrupt grounding for your home. You must restore electrical continuity in your metal plumbing system. Please refer to the installation manual (P/N 8970) for further information.



WARNING: An Air gap should be plumbed to state and regional codes and used to connect the reject water outlet to a drain connection.

Sodium Information: Water softeners using sodium chloride for regeneration add sodium to the water. Persons who are on sodium restricted diets should consider the added sodium as part of their overall sodium intake.

General Information (continued)

California Proposition 65 Warning



WARNING: This product can expose you to chemicals including Arsenic, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Warranty/Terms of Use

Please refer to the **HANS™ Premium Water** website for Terms of Sale and Warranty Information. This information can be found at:

www.hanspremiumwater.com/support



Terms & Definitions

| TERMS | DEFINITIONS |
|--------------|---|
| Ambient temp | Air Temperature of the immediate area around the module |
| Cell | Two (2) media tanks connected by a manifold |
| Chloramine | Water additive in inlet water; may be used as a disinfectant |
| Chlorine | Water additive in inlet water; may be used as a disinfectant |
| Inlet Water | Unfiltered water from municipal or well that is plumbed into the module |
| gpg | Grains per gallon, a unit of measure of calcium carbonate |
| gpm | Gallons per minute, a unit of measure for flow |
| Hardness | The amount of dissolved Calcium and Magnesium in water, in grains per gallon. |
| Media | Water treatment raw material or resin |
| Media Tank | Fiberglass tank which holds water treatment raw material or resin |
| Output Water | Treated water coming out of the module |
| ppm | Parts per million , unit of measure for small concentrations of substances in water |
| pH | Scale of acidity from 0-14, with 7 being neutral |
| TDS | Unit of measure for total dissolved solids in water in ppm |
| Waste Water | Water carrying away contaminants to the drain |

Module Specifications

The following table is a brief summary of the module specifications. Refer to the treatment module specification sheet (P/N 10038), available for download at www.hanspremiumwater.com/support for further information.

| PARAMETER | SPECIFICATION |
|---|--|
| Module Dimensions | 28" W x 39" L x 53" H |
| Media Tank Size | 10" x 44" |
| Total Hardness, Maximum | 99 gpg |
| Total Iron, Maximum | 6 ppm |
| Hardness to Iron Ratio, Minimum | 5 gpg to 1 ppm |
| Freeboard to Media | 40% |
| Continuous Operation – 3-Cell Parallel | 34 gpm @ 15 psi pressure drop |
| Peak Operation – 3-Cell Parallel | 44 gpm @ 25 psi pressure drop |
| Continuous Operation – 3-Cell Series | 8.5 gpm @ 15 psi pressure drop |
| Peak Operation – 3-Cell Series | 12 gpm @ 25 psi pressure drop |
| Operating Pressure | 30 to 60 psi |
| Operating Temperature, Ambient | 35 to 120 degrees F |
| Electrical Requirements | 120V – 60 Hz, single phase GFCI |
| Electrical Power Consumption, Max | 40 Watts |
| Efficiency at Rated Dosage ¹ | 4,025 grains per lb. @ 8.5 lb. salt dosage |
| Drain Flow, Max ² | 8 gpm |
| Recharge Time, Average ² | 52 minutes |
| Average Recharge Water Consumption ² | 140 gallons |

¹ Efficiency rated according to NSF/ANSI Standard 44

² At efficiency rated dosage



The HANS™ Premium Water Treatment Module is designed to operate with a wide range of inlet water; however, if the inlet water parameters are outside the ranges specified in the table above, the module warranty will be voided.

Module Specifications (continued)

The following table is a summary of the parameters for modules with cells configured as softeners .

| Grains (x1000) Per Cell | Capacity Per Cell | Backwash | Brine Fill ¹ | Brine Draw | Slow Rinse | Rapid Rinse | Total Water per Regen | Total Regen Cycle Time ² | Salt Used per Regen | Grains per Pound of Salt |
|-------------------------------|----------------------|----------|----------------------------|---------------|---------------|----------------|-----------------------------|--|---------------------------|-----------------------------------|
| (of hardness) | (grains) | (mins) | (mins) | (mins) | (mins) | (mins) | (gallons) | (mins) | (lbs) | - |
| 34* | 34,000 | 8 | 6 | 7 | 23 | 7 | 140 | 55 | 8.5 | 4,025 |
| 48 | 48,000 | 10 | 11 | 10 | 23 | 7 | 195 | 64 | 14 | 3,261 |
| 56 | 56,000 | 10 | 13 | 12 | 30 | 10 | 218 | 78 | 17.5 | 3,180 |
| 68 | 68,000 | 12 | 17 | 18 | 35 | 12 | 266 | 98 | 23 | 2,949 |
| 80 | 80,000 | 15 | 32 | 33 | 40 | 15 | 341 | 138 | 42 | 1,905 |

¹ Brine fill uses soft water.

² Regen cycle time does not include brine fill, as this is an independent operation performed after the regen cycle is complete.

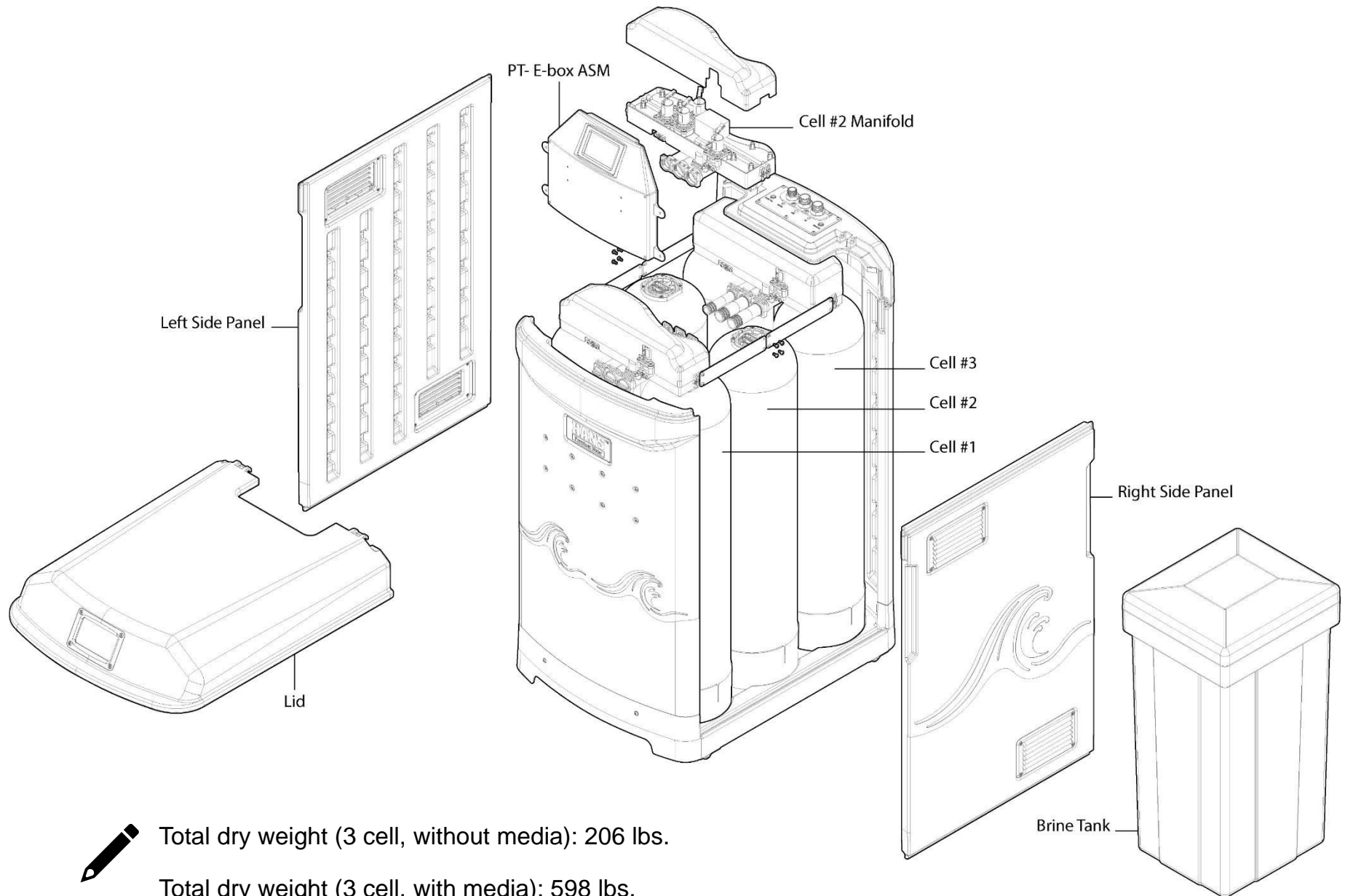
* Efficiency rated to NSF/ANSI standard 44. Meets California efficiency standards for salt dosage (4,000 gains / lb.) and water consumption during regeneration (< 5 gallons per 1,000 grains).

See Performance Data Sheet (www.hanspremiumwater.com/support) for further information.

This module contains replaceable treatment components critical for effective performance. It is the user's responsibility to heed all alerts and warning from the module concerning filter/media replacement from the on-board display and the mobile app. The manufacturer also recommends that the user periodically test the output water to verify the module is performing correctly.

Module Overview

Exploded view of the treatment module and identification of the various sub-assemblies.

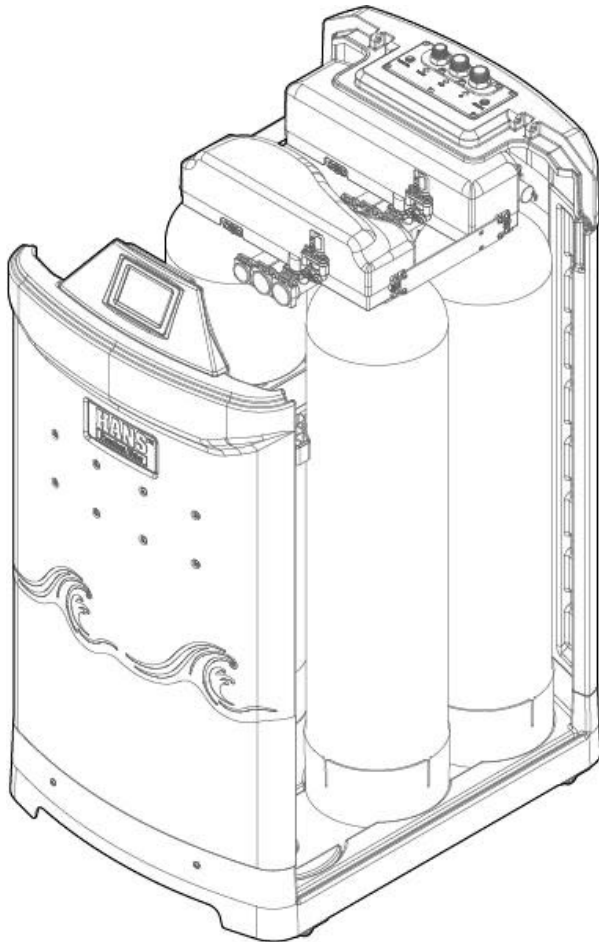


Module Configurations

The module uses pairs of media tanks connected by a flow control manifold. These mated pairs or 'cells' provide the ability to configure the module for capacity, output flow, and processing requirements based on the application.

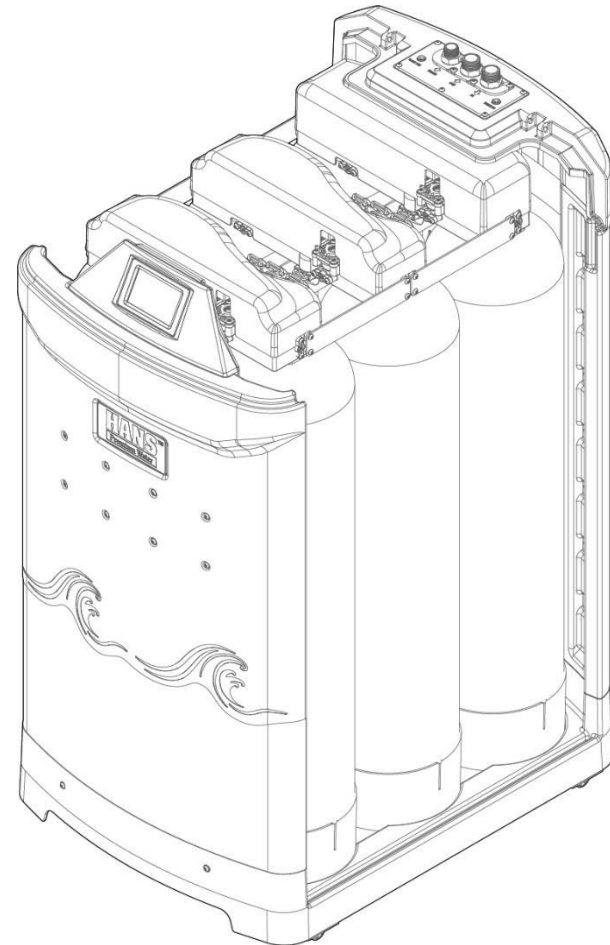
2-Cell Module

For applications that require less capacity and flow than a 3-cell module or only require two (2) processing stages.



3-Cell Module

For applications that require maximum capacity and flow or require three (3) processing stages.



Module Configurations (continued)

The module has internal plumbing which connects the cells and directs the water flow based on the application.

Parallel Configuration

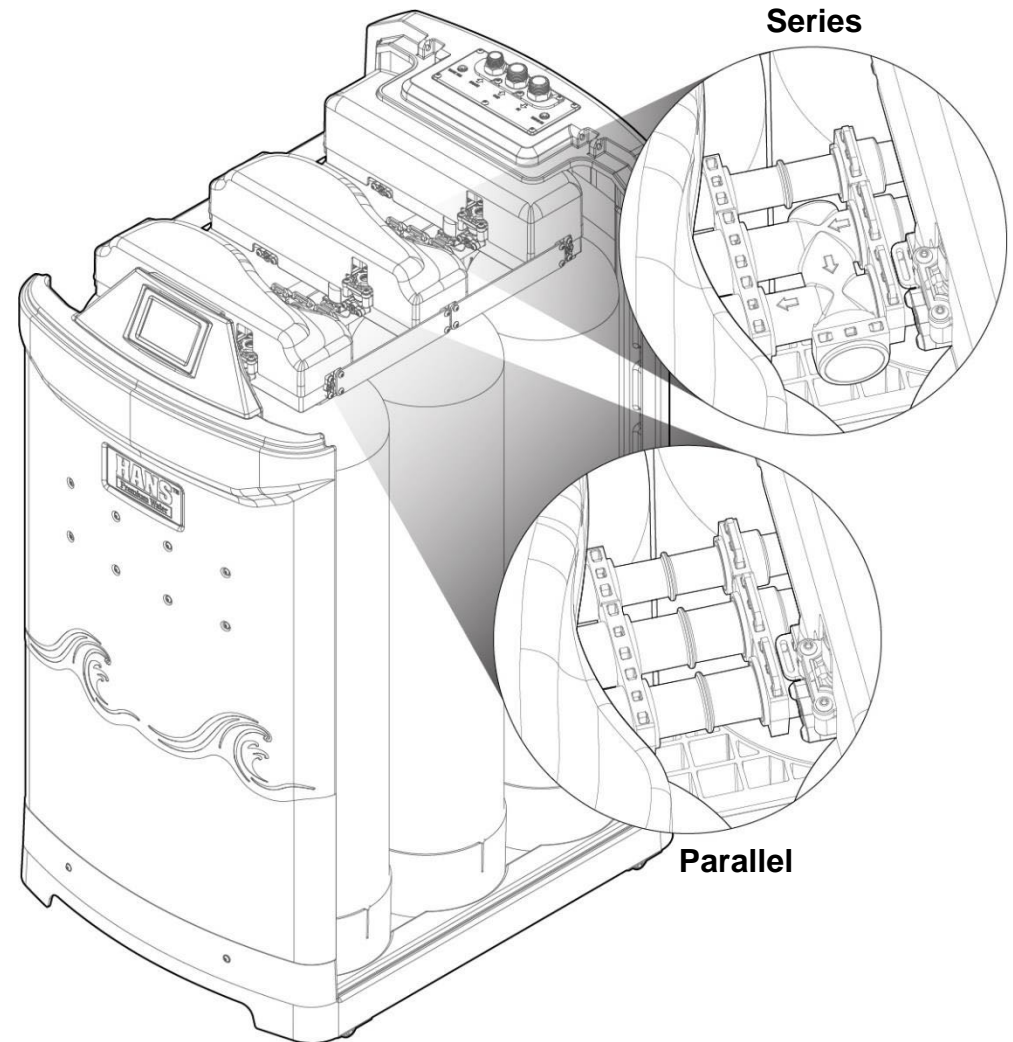
For cells in parallel, water flows through the cells simultaneously. This provides increased processing capacity through a single media type with higher output flow.

Series Configuration

For cells in series, water flows through the cells sequentially. This allows multiple processing stages, through different filter medias, within the same module.

Combination

Modules with 3 cells can combine parallel and series configurations.



Module configurations can be easily updated using a limited number of components. Refer to the HPW Treatment Module Service Manual (P/N 8980) for details.

Media Types

A variety of media types are available for processing a wide range of water sources. The following table lists the HANS Premium Water three-digit media identification code, along with a description and the total weight for each.

| Media Code | Description | Total Weight |
|------------|--------------------------------------|--------------|
| 100 | Purolite Softener Resin – 1.25 cu-ft | 65.688 lbs |
| 110 | Catalytic Carbon – 1.75 cu-ft | 56.000 lbs |
| 120 | Catalytic Carbon – 1.25 cu-ft | 40.000 lbs |
| 130 | Katalox Light – 1.25 cu-ft | 82.500 lbs |
| 140 | DI Resin – 1.75 cu-ft | 75.250 lbs |
| 150 | ZeoSand – 1.25 cu-ft | 68.750 lbs |
| 160 | ZeoSorb – 1.25 cu-ft | 68.750 lbs |
| 180 | Calcite – 1.75 cu-ft | 96.490 lbs |



The media type and module configuration (2 cell vs. 3 cell, parallel vs. series) should be determined using the characteristics of the inlet source water and the desired output water for the specific application.

Installation & Start-Up

Installation should be performed by a qualified, HANS trained, technician.



Refer to the HANS Premium Water Treatment Module Installation Manual (P/N 8970). Available for download at www.hanspremiumwater.com/support.



HANS™ Premium Water Treatment Module

Installation Manual

8970-02



HPW Treatment Module is certified by IAPMO R&T to NSF/ANSI 61 for material safety requirements only and NSF/ANSI 372 for all HPW Treatment Module configurations: 8972 Single Cell, 8935 2-Cell Series, 8936 3-Cell Series, 8937 2 Cell Parallel, 8938 3-Cell Parallel, and 8939 3-Cell Series Parallel.



HPW Treatment Module have been evaluated by ASSE International for Halal compliance.



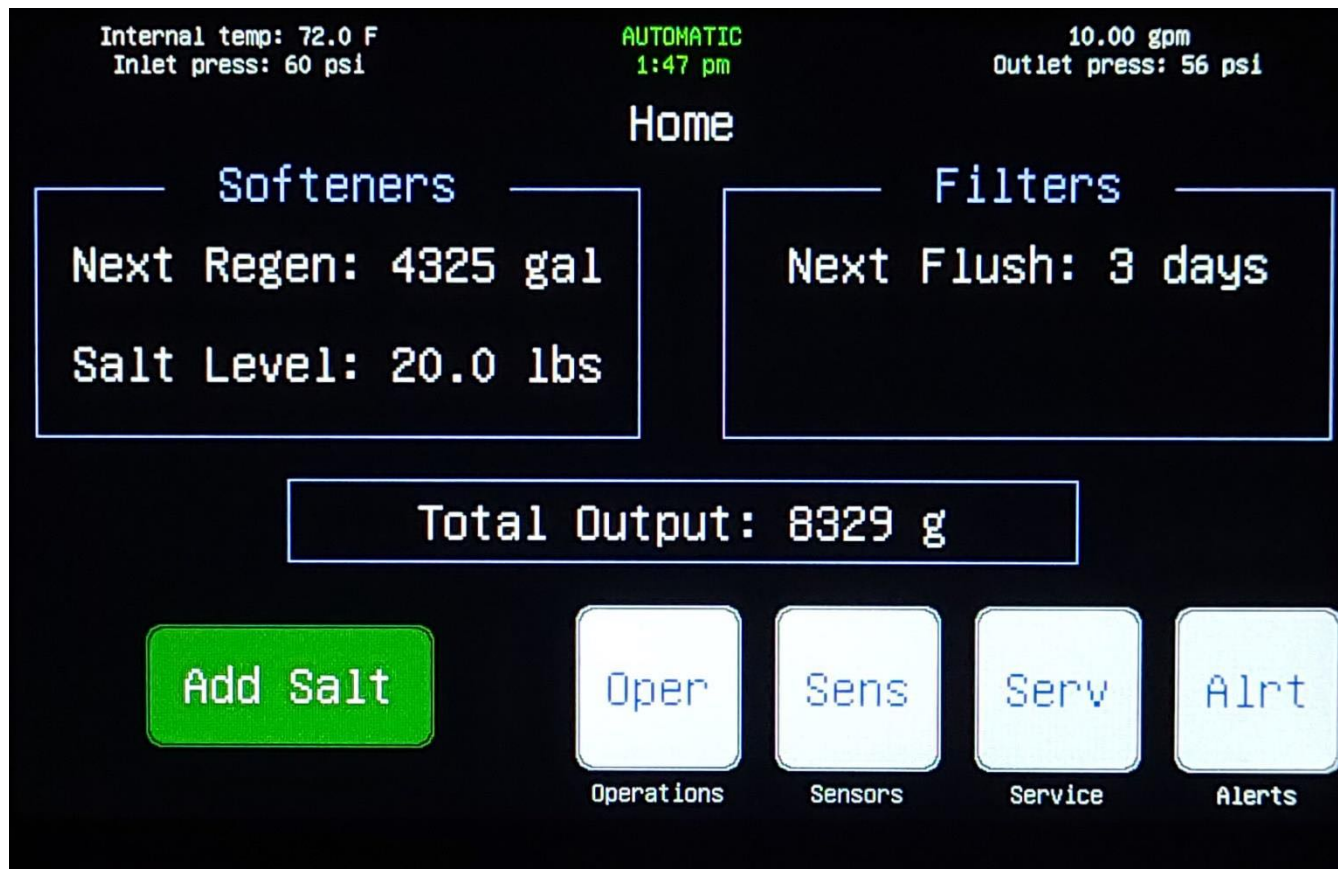
HPW Treatment Module is certified by IAPMO R&T to NSF/ANSI 44 for the following model numbers: 8938-01-100-100-100, 8937-01-100-100, and 8972-01-100.

Display Navigation – Home Screen

The home screen displays all the pertinent operational parameters for cells configured as softeners and filters, as well as the total output.



From any screen, select the home button.



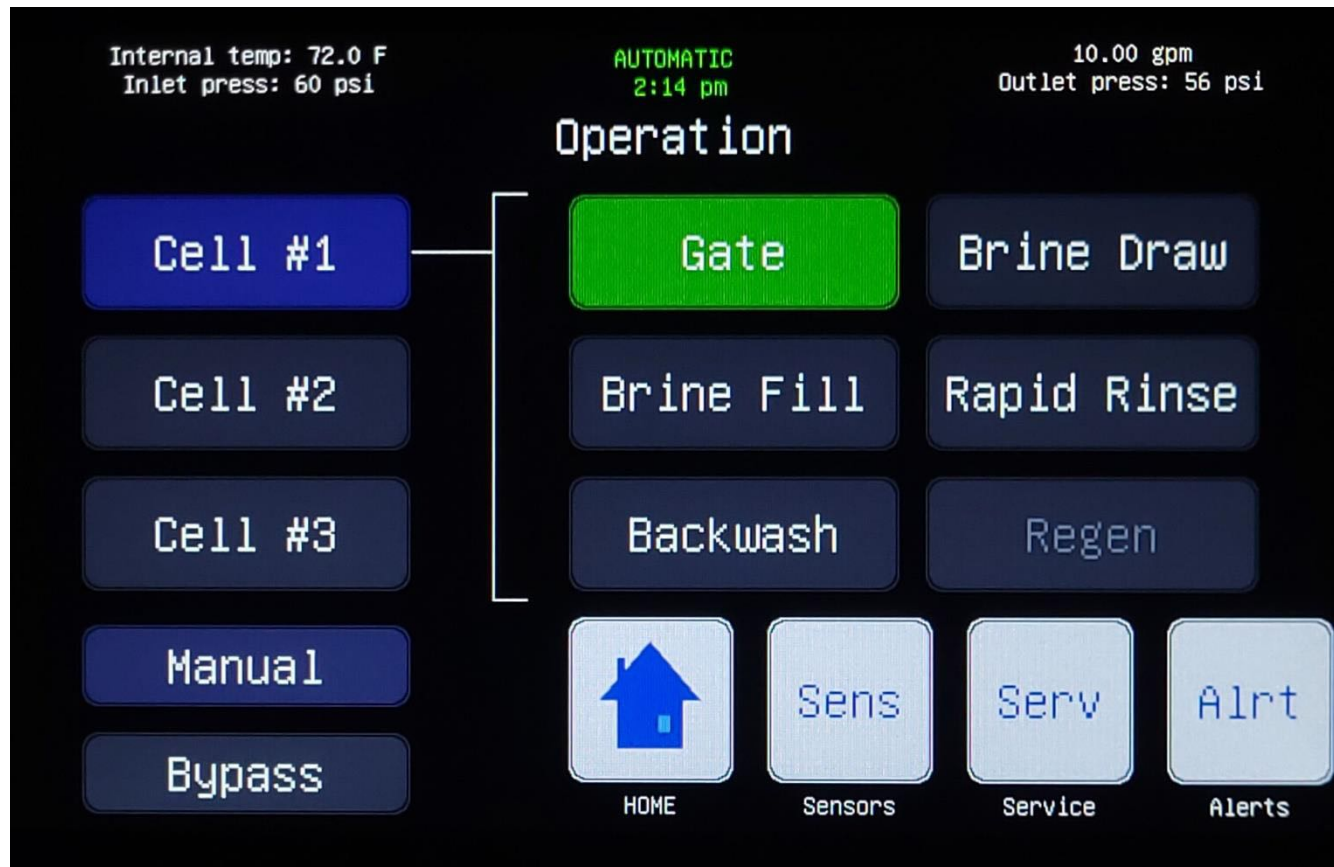
The top banner is universal across all screens and shows detailed operating data for the module along with the set time of day.

Operation Screen

The operation screen displays the current operational state for each cell. Buttons illuminated in green indicate the active state.



From the home screen, select operations.



The module can be placed into manual mode which allows the user to select the operational state or force a regeneration for individual (all) cells. The module can also be manually bypassed by pressing the bypass button.

Sensors Screen

The sensors screen provides detailed operational data for all the module sensors.



From the home screen, select sensors.



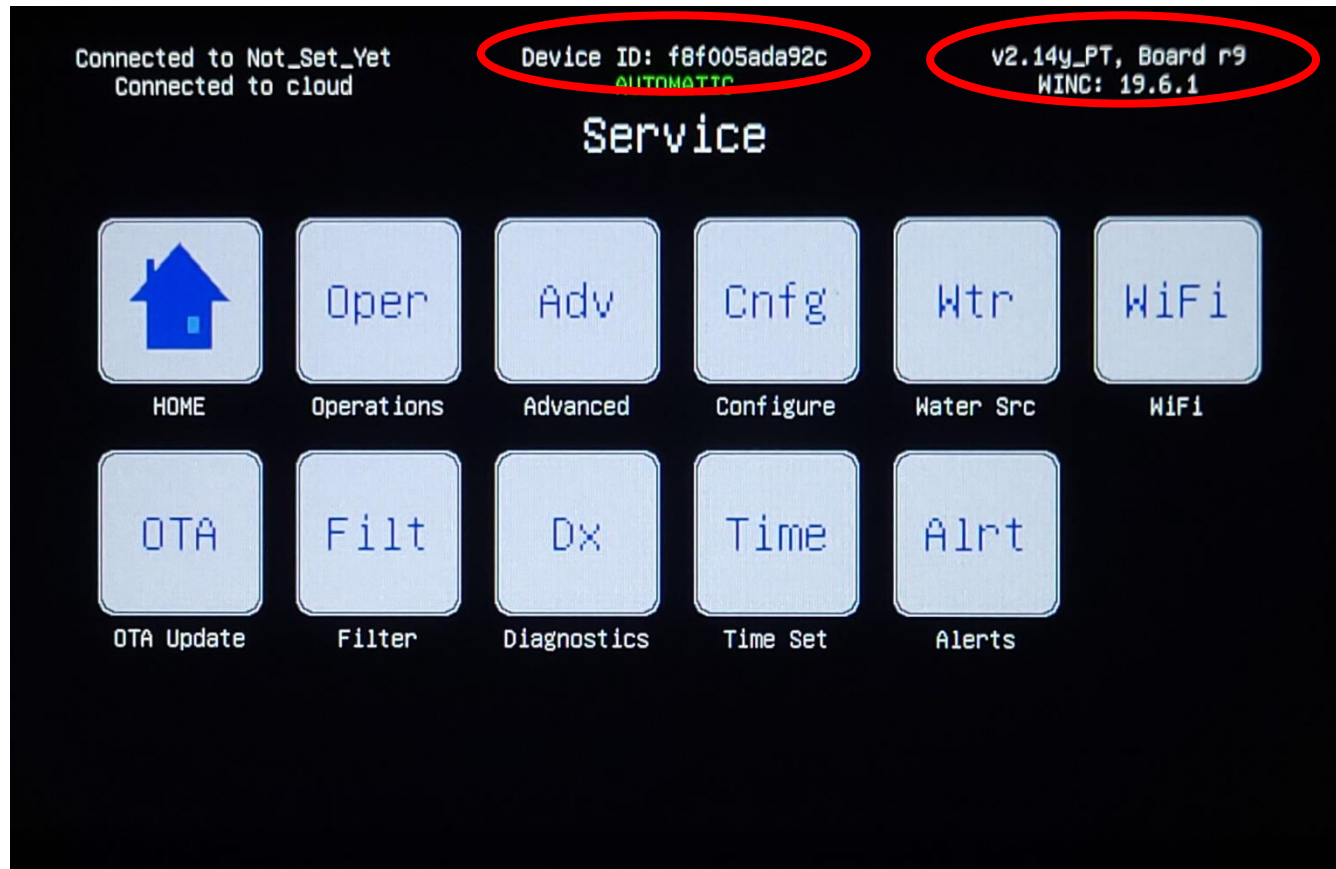
Flow rate is displayed for outlet flow only.

Service Screen

The service screen provides access to the advanced module settings.



From the home screen, select service.



The service screen is typically used only during installation and/or service. The device ID is in the center of the top banner. The current software and control board versions are listed in the upper right corner of the screen.

Time Screen

The time screen provides the ability to set, or manually adjust, the on-board clock



From the home screen, select service, then time.



The module will not automatically adjust for daylight savings time.

Water Source Settings

Enter the water source characteristics based on the **pre-installation water testing**. Filter capacities for the unit will be automatically calculated based on these user inputs.



From the home screen, select service, then water source.

- **Water Hardness (gpg):** Enter value based on inlet water test results in grains per gallon (gpg).
- **Iron (ppm):** Enter iron value, based inlet water test results in part per million (ppm).
- **Chlorine / Chloramine (ppm):** Select the button that applies to the type of treatment present and enter value based on inlet water test results in parts per million (ppm).



Hardness and iron are used to calculate capacity for softener cells, while chlorine and chloramine are used in capacity calculations for cells with carbon.

Configuration Screen

The treatment module has a variety of configurations for a wide range of customizable water treatment options. There are up to three (3) independent 'cells', which can be configured to run in parallel, series or a combination of both.



From the home screen, select service, then configuration.

Cell Configuration

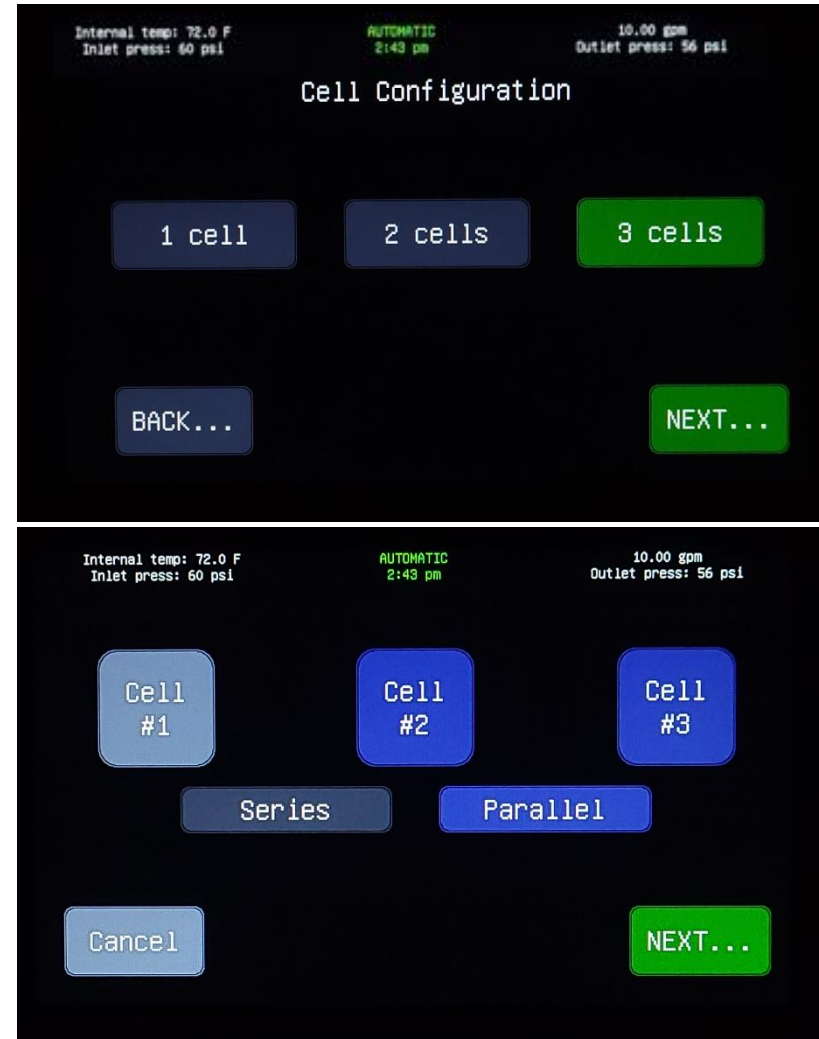
Select the button which corresponds to the number of cells present in the module, then press next.

- **1-Cell: Not Applicable** (only applies to HANS TM-C)
- **2-Cell:** Two (2) pairs of tanks
- **3-Cell:** Three (3) pairs of tanks

Flow Configuration

Push the button(s) between cells to select the flow configuration, then press next.

- **Parallel:** Cells that flow simultaneously.
- **Series:** Cells that flow sequentially.



See pages 14 and 15 for more information on module configurations.

Configuration Screen (continued)

Once the number of cells and flow configuration are set. Each cell must be configured based on the type of media used.

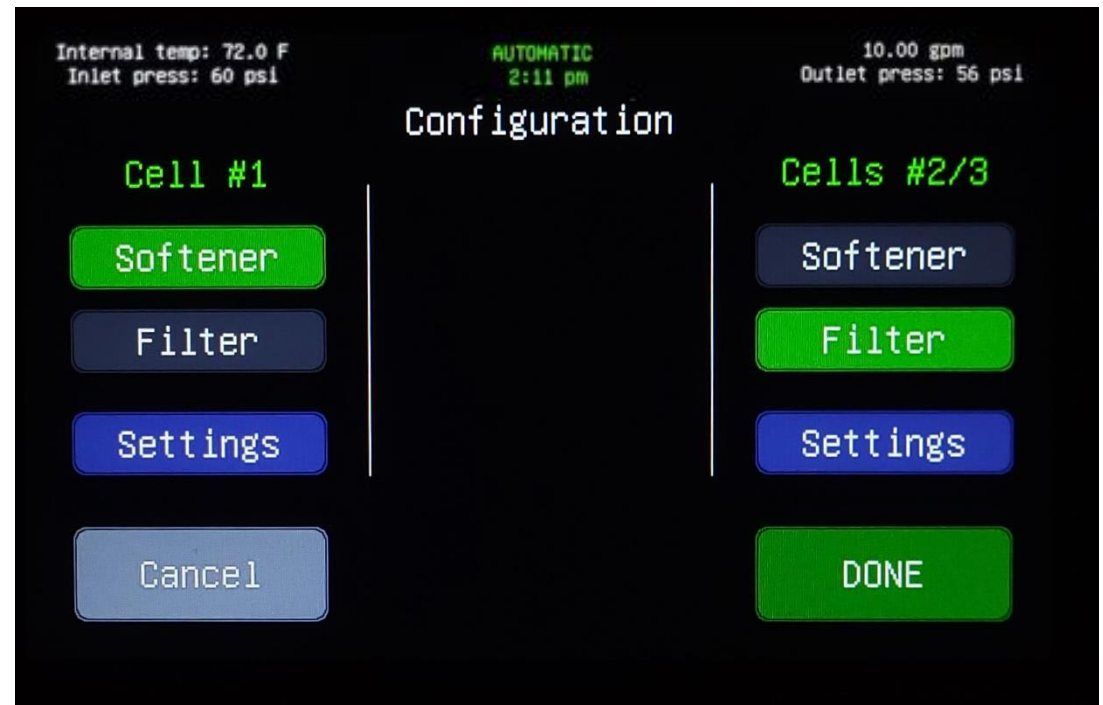


From the home screen, select service, then configuration.

Cell Configuration

When cells are configured in series, they appear in separate columns which allows the user to select a unique media type and settings for each cell. When cells are configured in parallel, they appear in the same column since the media type and settings must be the same.

- **Softener:** Resin bed designed for ion exchange using brine.
- **Filter:** Carbon, Katalox, ZeoSand, ZeoSorb or similar media types designed for use without brine.
- **Settings:** Provides access to the detailed settings for each cell based on the selected cell type (softener vs. filter).



The screen shot above is an example of a 3-cell module configured with cell 1 in series and cells 2 & 3 in parallel. For a module configured as 2-cell system, cell #1 will not be shown.

Softener Settings

Basic settings for cells configured as softeners.



From the configuration screen , choose a cell, select softener, then press settings.

- **Regeneration Time:** Time of day that regeneration is set to occur.
- **Regen Anytime:** If not selecting a specific time for regen, set to Yes. When selected, the module will regenerate as soon as the module capacity is reached, regardless of the time of day.
- **Brine Solution:** Select the type of brine solution based on user preference.
- **Reserve (gals):** The number of gallons kept in reserve before the module is fully saturated. Typically, equal to one average day's usage.

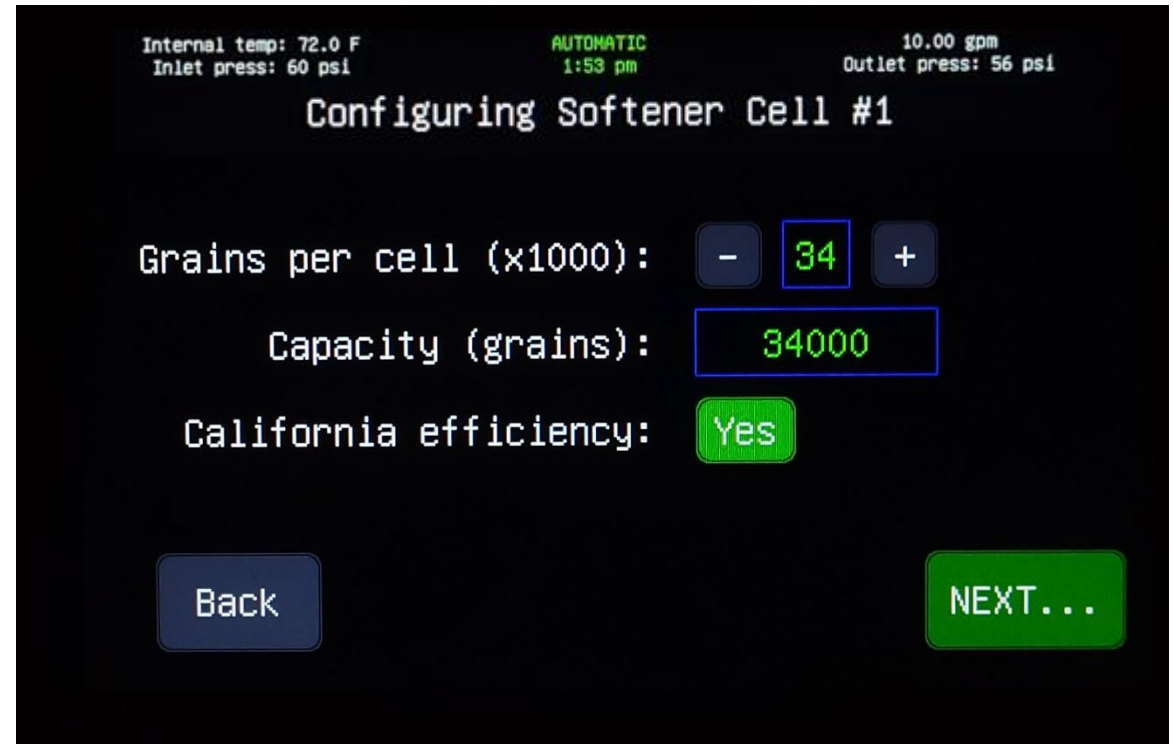


Selecting the 'cancel' button will return the user to the configuration screen.

Softener Settings (continued)

Capacity and efficiency settings for cells configured as softeners.

- **Grains per cell (x1000):** Selected value sets the capacity per cell. This determines the amount of salt required for each regeneration. The higher the grains per cell, the larger the salt dose.
- **Capacity (grains):** Calculated value based on the user selection for grains per cell.
- **California Efficiency:** Selecting Yes, automatically sets the cell capacity to 34,000 grains. This is the salt dose per regeneration required to meet the State of California efficiency rating.



Internal temp: 72.0 F
Inlet press: 60 psi

AUTOMATIC
1:53 pm

10.00 gpm
Outlet press: 56 psi

Configuring Softener Cell #1

Grains per cell (x1000):

Capacity (grains):

California efficiency:



The available range of exchange capacities and the associated salt dosage can be found in the specifications table on page 12.

Softener Settings (continued)

Regeneration cycle settings are preconfigured based on the water source characteristics (water hardness, iron, etc.) and the softener settings (grains per cell).

Regeneration Cycle Settings

| Operational State | Flow Rate |
|-------------------|---|
| Backwash | 8.0 gpm to drain |
| Brine Draw | 0.65 gpm from brine tank 1.30 gpm to drain |
| Slow Rinse | 1.30 gpm to drain |
| Rapid Rinse | 8.0 gpm to drain |
| Brine Fill | 0.65 gpm to brine tank |

The screenshot shows a digital display with the following information:

- Top status bar: Internal temp: 72.0 F, Inlet press: 60 psi, AUTOMATIC 1:54 pm, 10.00 gpm, Outlet press: 56 psi.
- Title: Configuring Softener Cell #1
- Settings list:
 - Backwash (mins): 10 (with minus and plus buttons)
 - Brine draw (mins): 30 (with minus and plus buttons)
 - Rapid rinse (mins): 5 (with minus and plus buttons)
 - Brine fill (mins): 7 (with minus and plus buttons)
- Bottom buttons: Back, Reset to Default, DONE.

Manual adjustments to the regeneration cycle settings are not recommended.



Press the 'reset to default' button to return to preconfigured cycle times.

The softener regeneration cycle order is Backwash, Brine Draw, Slow Rinse, Rapid Rinse, Brine Fill.

Total time to regenerate a cell is based on the cell capacity and ranges from 55 to 138 minutes. For more information on the preconfigured regeneration cycle times, refer to the owner's manual (P/N 8960).

Filter Settings

The filter media type and basic settings for each filter cell. The flush settings are preconfigured based on the selected media type but can be manually adjusted based on the user preferences.



From the configuration screen , choose a cell, select filter, then press settings.

- **Select Filter Media Type:** Select the media code for the appropriate filter type. A description of the media, based on the selected code, is listed below for reference.
- **Days between flushes:** Sets the flush frequency, in days, based on usage and/or customer preference.
- **Backwash duration:** Sets the duration, in minutes, of the backwash. For a non-backwashable filter the backwash duration option will not appear.

Internal temp: 72.0 F
Inlet press: 60 psi

AUTOMATIC
1:52 pm

10.00 gpm
Outlet press: 56 psi

Filter Settings - Cell #1

Select Filter Media Type: - 120 +
Carbon 2.5 cu ft

Days between flushes: - 7 +

Backwash duration (mins): - 12 +

Cancel DONE



Selecting cancel will return the user to the configuration screen.

Filters Screen

The filter capacities are automatically calculated based on the characteristics of the water source. Filter capacities only apply to carbon filters. All other media types, including softeners, will display capacity as not applicable (n/a).



From the home screen, select service, then filters.

- **Max gals:** The maximum number of gallons which can be treated before the media is exhausted, based on the water source characteristics (chlorine, chloramine).
- **Total use:** Total number of gallons treated.
- **Gals left:** Number of gallons remaining until the media is exhausted.



Filter capacity can be reset upon filter media replacement by selecting the appropriate reset button for each cell.

Adding Salt

Entering the amount (weight) of salt added to the brine tank will allow the module to calculate the salt level and automatically inform the user, via the phone app, when the salt level is low.



From the home screen, select add salt.

- **Current Level (lbs):** Displays the current amount of salt in the brine tank.
- **Adding Salt (lbs):** Allows the user to select the amount of salt being added to the brine tank. Values listed in increments of 40 lbs (standard bag size).
- **New Salt Level (lbs):** The sum of the current salt level and the amount of salt being added.
- **Reset to Zero:** Allows the user to reset the current salt level to zero.

Internal temp: 72.0 F
Inlet press: 60 psi

AUTOMATIC
1:47 pm

10.00 gpm
Outlet press: 56 psi

Add Salt

Current salt level (lbs): 0

Adding salt (lbs): - 80 +

New salt level (lbs): 80

Reset to zero Done



If salt is added without using this feature, user will need to monitor salt level manually.

Manual Operation

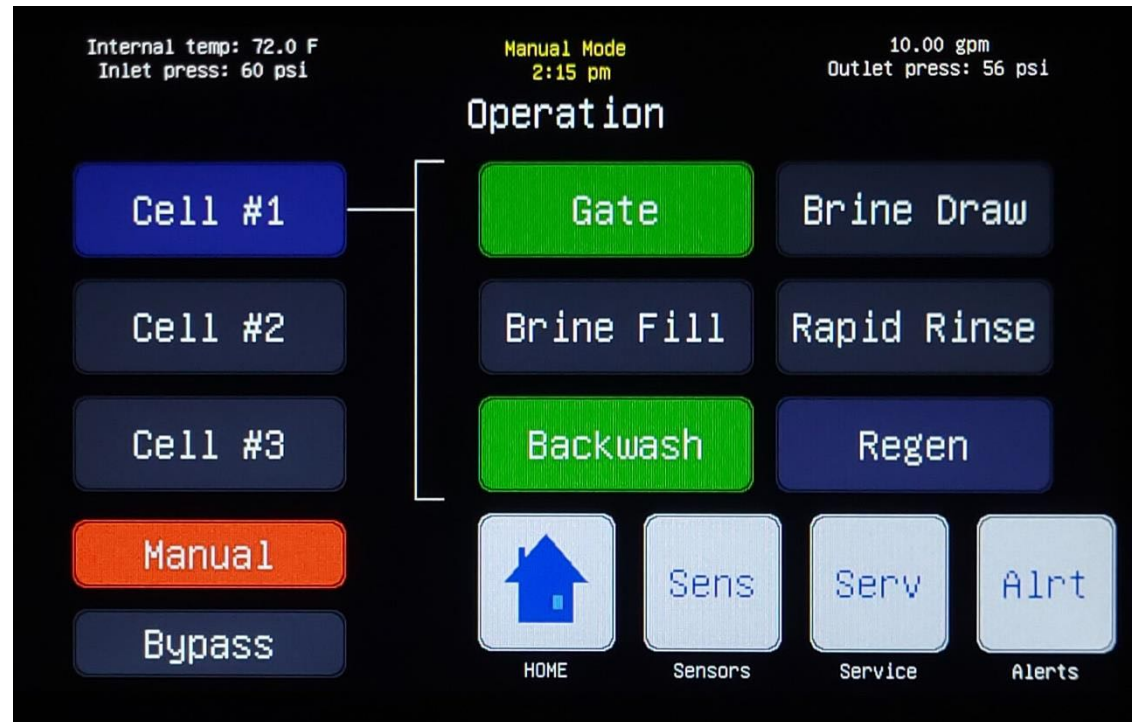
In manual operation mode, the user can select the operational state, or force a regeneration, for each cell.



From the home screen, select operations.

Manual Operation

1. Press the manual button.
2. Select the desired cell.
3. Press the button which corresponds to the function to be activated.
4. The module will perform the function based on the configured settings.
5. Once the function is complete, the module will stay in manual operation.



The manual button will be highlighted in red when the module is in manual operation mode. Press the button again to return to automatic operation mode and the button will return to gray.

Manual Operation (continued)

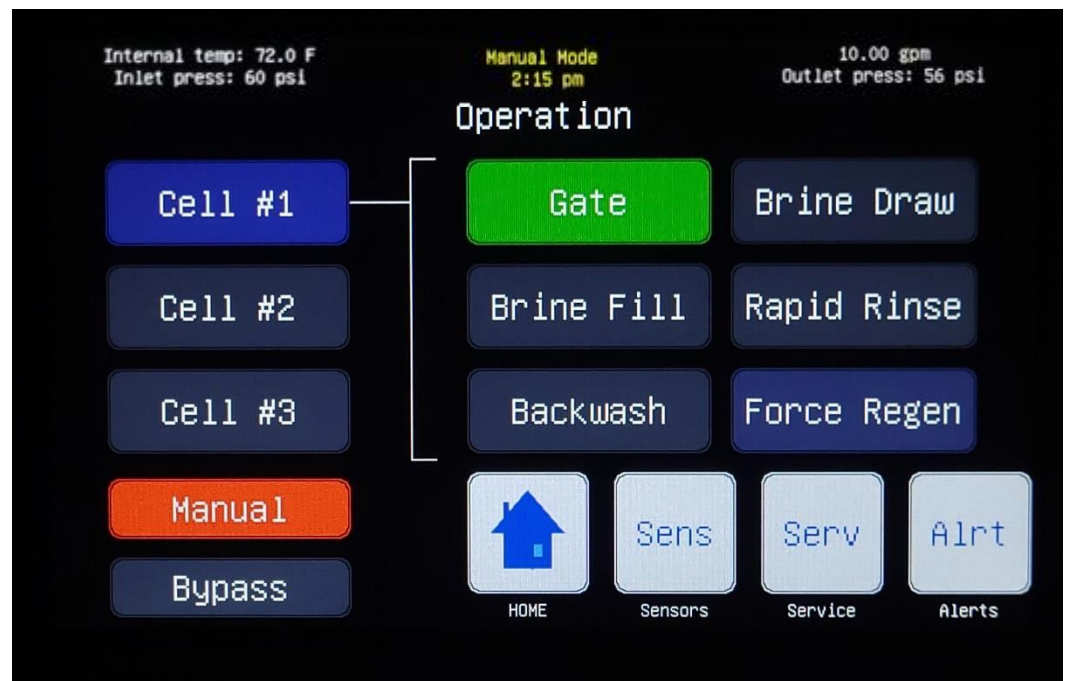
The module can be placed into manual operation mode which allows the user to manually initiate a regeneration cycle for a given cell.



From the home screen, select operation.

Manual Regeneration

1. Press the manual button.
2. Select the desired cell.
3. Press the Force Regen button.
4. The module will prompt the user if they would like to force a regen on 'this' cell or 'all' cells.
5. A second prompt will ask if the cycle to be performed is 'standard' or 'accelerated'.
6. Selecting standard will perform a regeneration cycle based on the configured regeneration settings.
7. Selecting accelerated will perform a regeneration cycle with each phase set for 30 seconds.
8. Once the regeneration is complete, the module will return to automatic operation.



The regeneration button will be highlighted in red when the module is in manual regeneration mode. Press the button again to stop the regeneration and the button will return to gray.

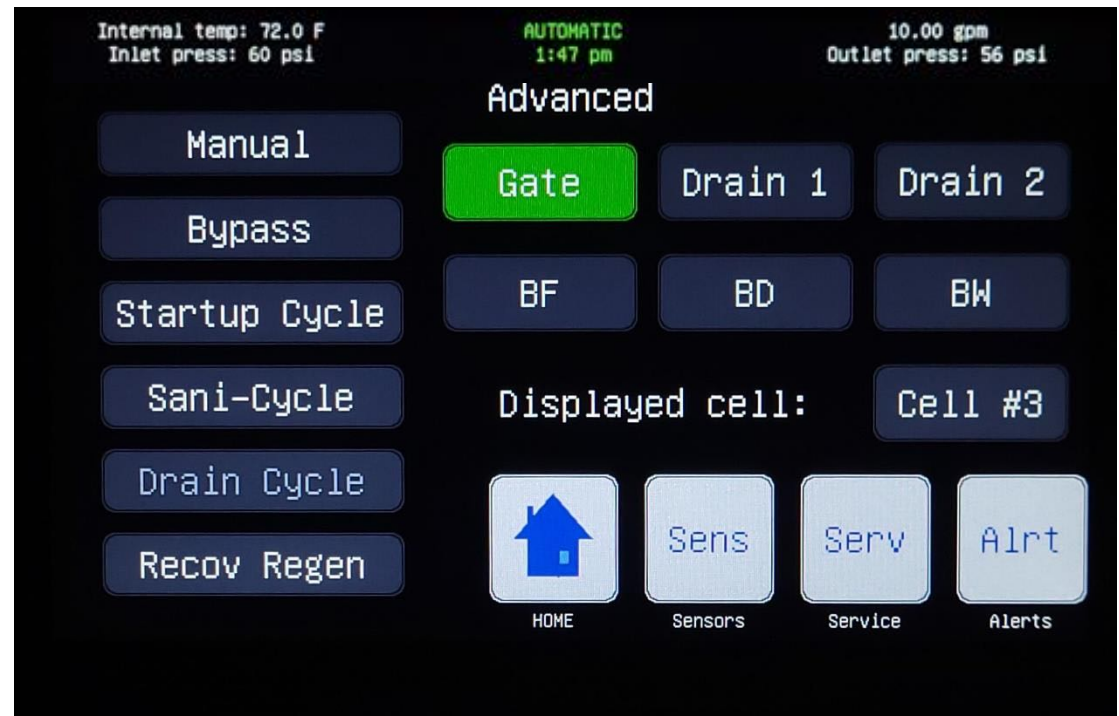
Advanced Screen

The advanced screen is typically used by HANS trained technicians only. This screen offers a range of advanced functions for installation, service and troubleshooting.



From the home screen, select service, then advanced.

- **Manual:** Puts the module in manual mode.
- **Bypass:** Opens the internal bypass valve when the system is in manual mode.
- **Startup Cycle:** Used during initial module installation.
- **Sani-Cycle:** Used when performing system sanitization.
- **Drain Cycle:** Opens all drain valves and allows the module to drain.
- **Recovery Regen:** Initiates a regen of softener cells at the highest salt dosage.



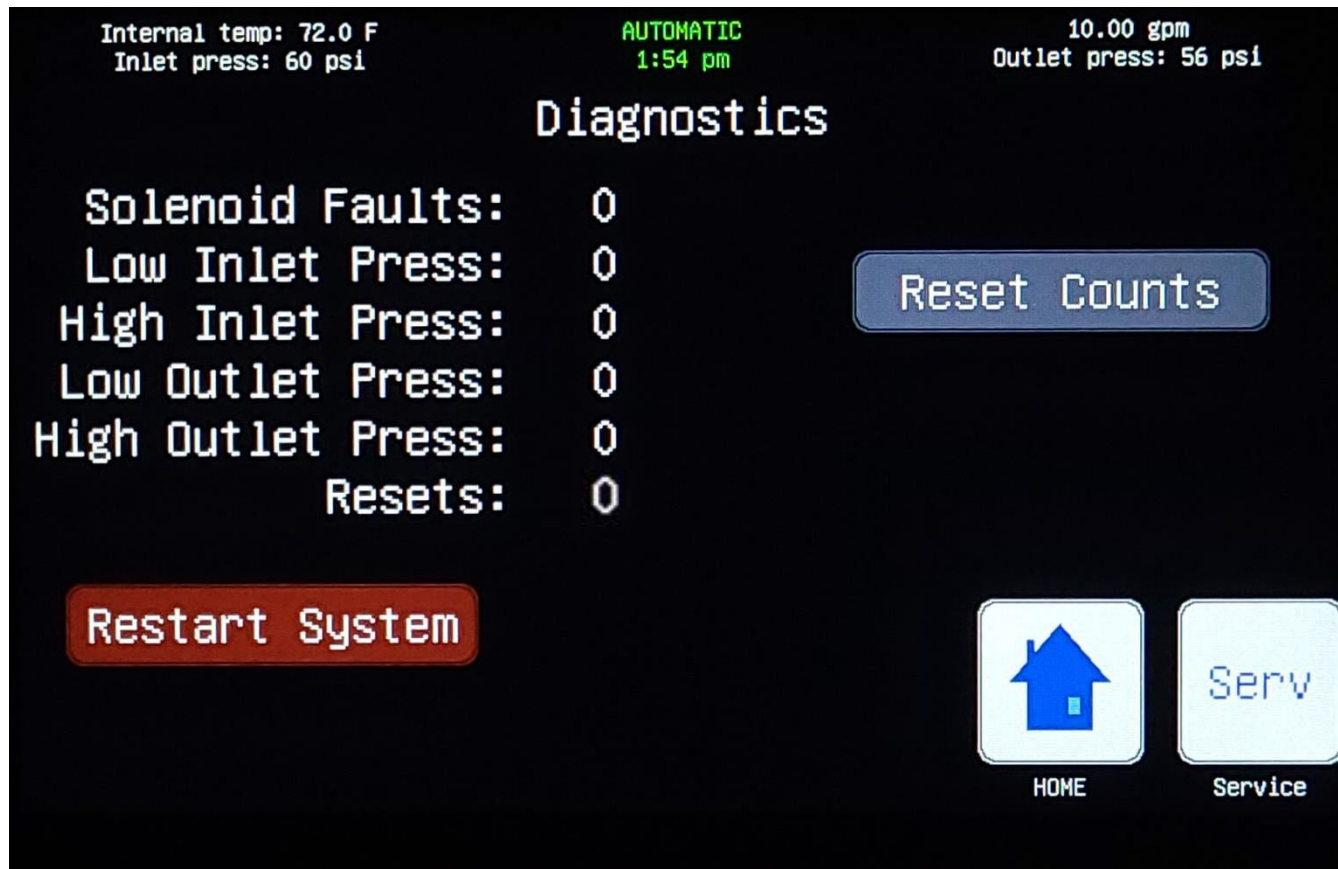
In manual mode, the valves for each cell can be individually operated using the buttons shown.

Module Diagnostics

The diagnostics screen displays cumulative counts of any faults related to the various line items.



From the home screen, select service, then diagnostics.



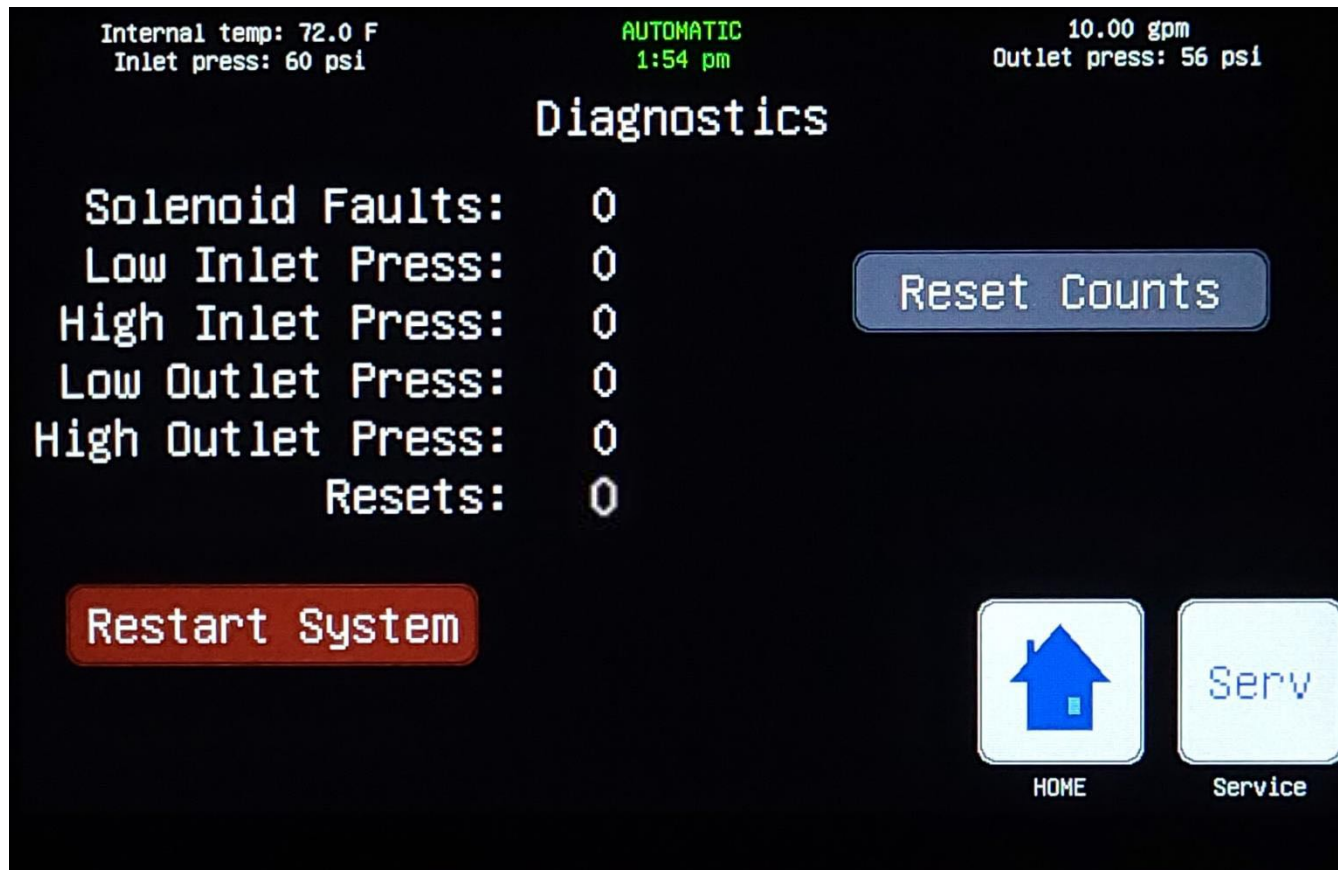
This screen is typically used for service and/or troubleshooting. The total fault counts can be reset by pressing the 'reset counts' button.

Module Restart

If required, the module can be restarted manually.



From the home screen, select service, then diagnostics, then restart system.



Pressing the 'restart system' button will produce a secondary confirmation window. The user may then select 'cancel' or 'restart'.

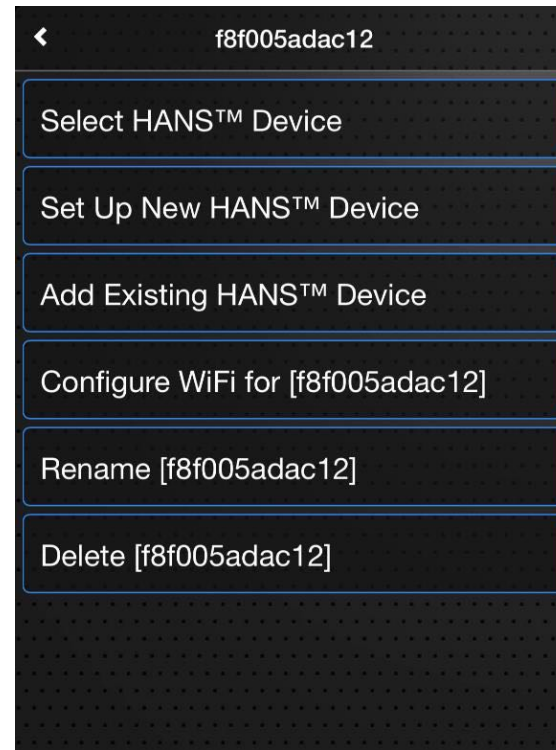
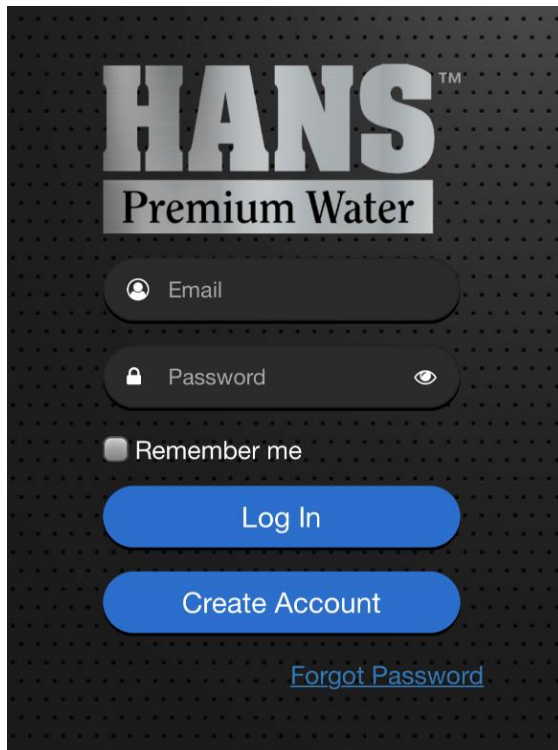
Wi-Fi Set-up

Configure the on-board Wi-Fi capability using the smart phone application.



Download the HANS Premium Water – Model 2 Application for your iOS or Android device.

1. If you're a first-time user, create an account.
2. Once logged-in, select 'Set Up New HANS Device'.
3. The app will direct the user to initialize Wi-Fi set-up on the HANS unit.



Wi-Fi Set-up (continued)

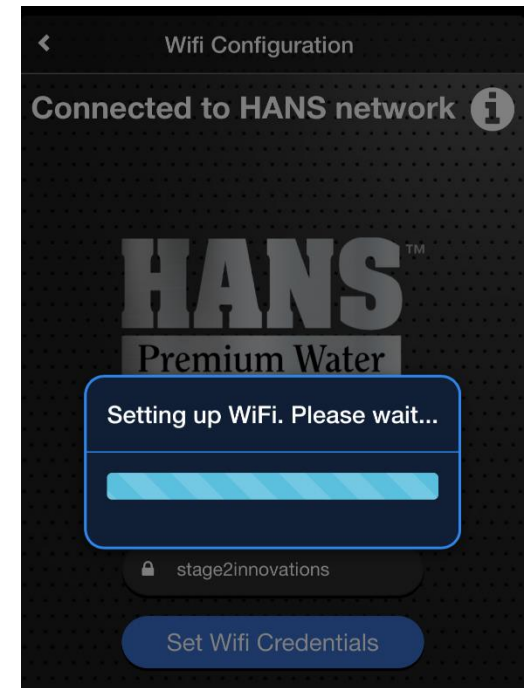
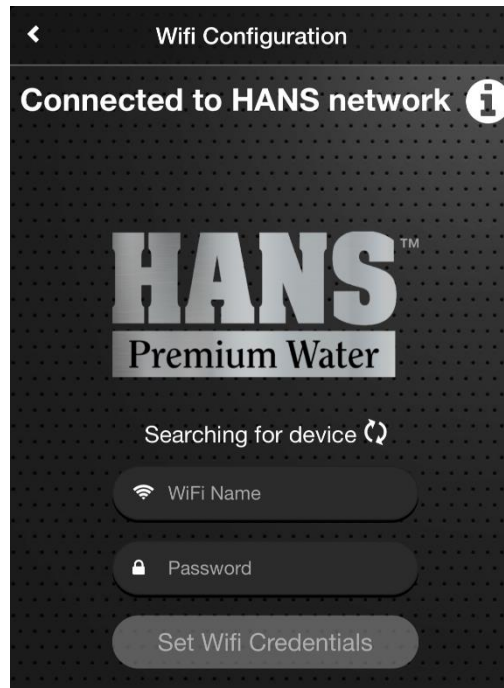
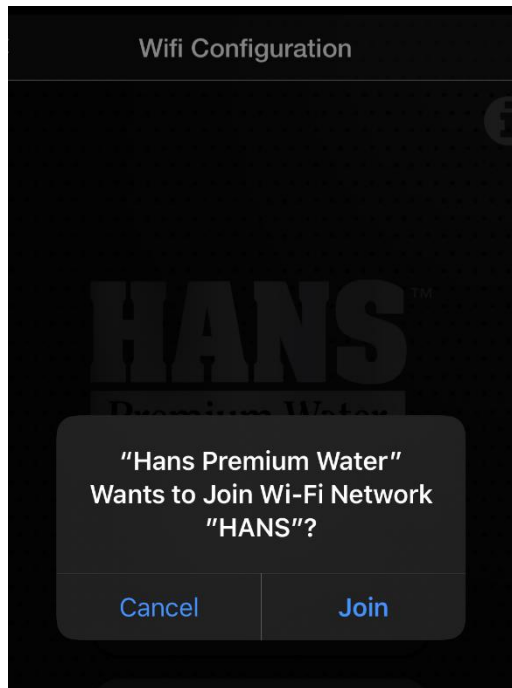


4. From the home screen of the module, select menu, then service, then 'Press to setup Wi-Fi'.
5. With the Wi-Fi Set-up initialized, the upper left corner of the screen will show 'Listening as HANS'



Wi-Fi Set-up (continued)

6. Join the 'HANS' Wi-Fi Network
7. Enter the Wi-Fi router name and password.
8. Verify connection to router and to cloud in upper left corner of the module screen.



If properly connected to the router and cloud, the upper left corner of the screen will read;

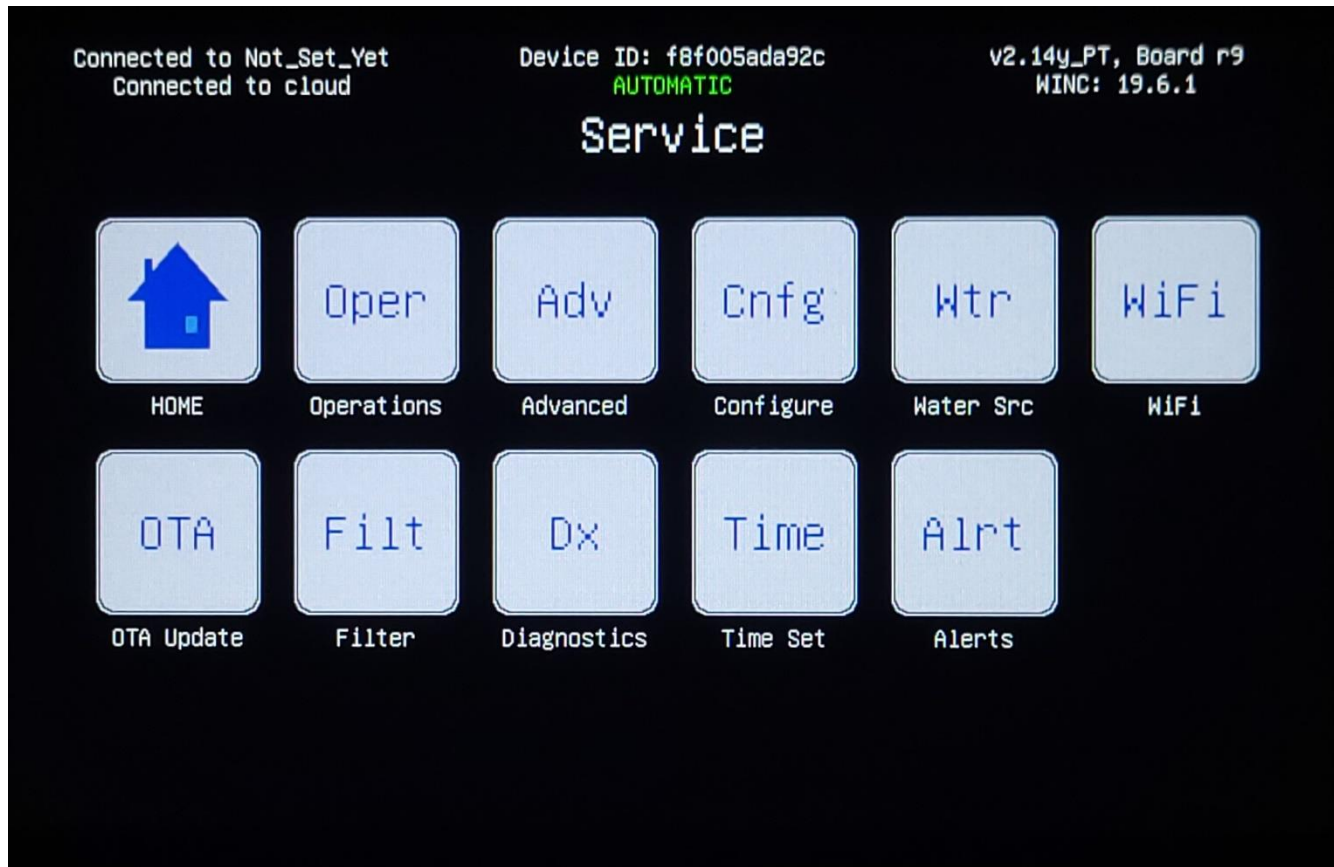
'Connected to router_name'
'Connected to cloud'

Software Updates

When connected to Wi-Fi and the cloud, the module can automatically download and install software updates with the push of a button.



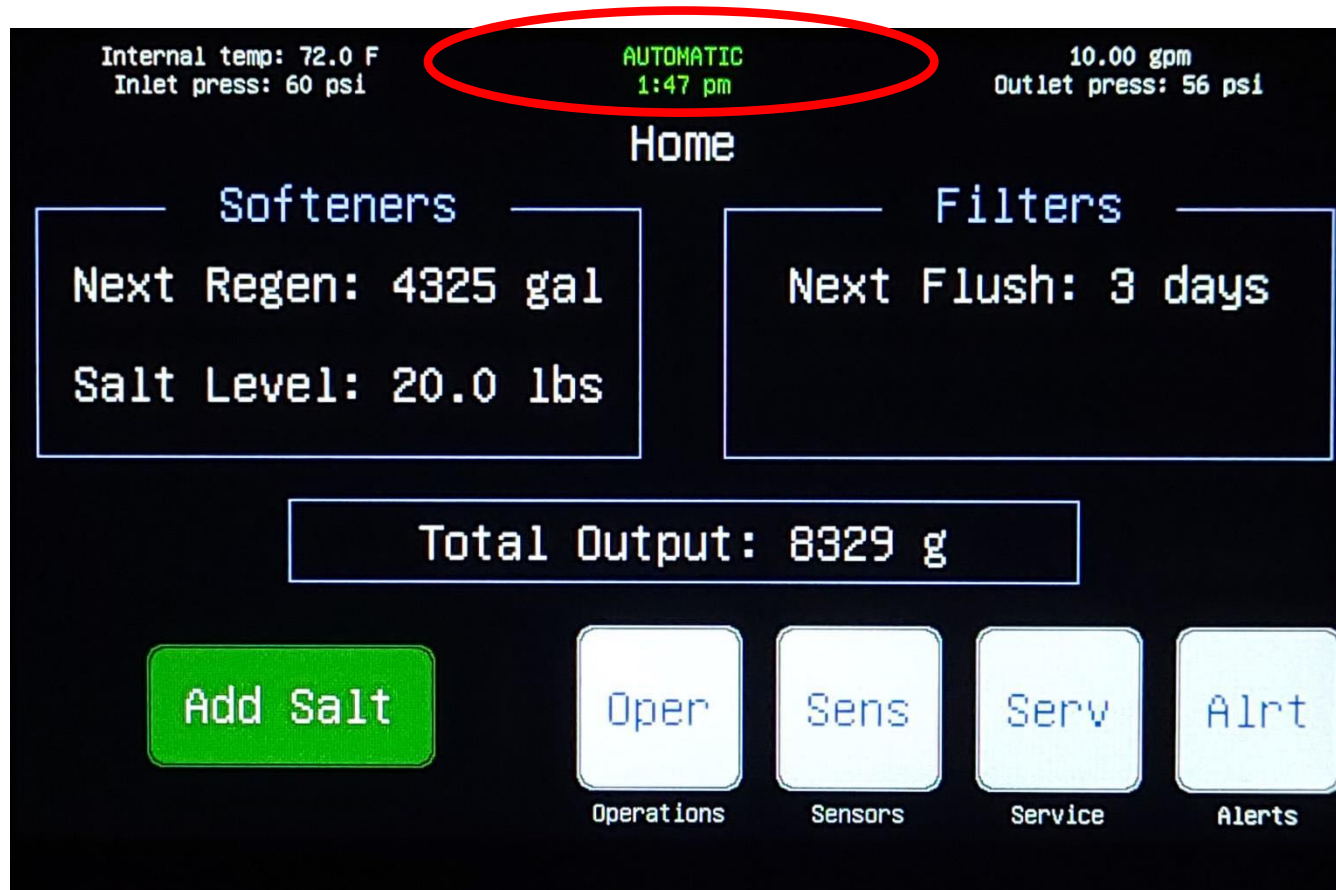
From the home screen, select service, then OTA update.



OTA is an acronym for over-the-air. Pressing the OTA button will produce a secondary confirmation window. The user may then select 'cancel' or 'upgrade'.

Operational States

The module has several operational states, or modes, based on the module settings, user selections, or module faults. The operational state is displayed at the center of the screen banner.



While performing a regeneration, the top banner will display the cell number and stage of regeneration along with a timer for when the stage will be complete.

Operational States (continued)

The following table lists all the operational states along with a brief description of each.

| Operational State | Description |
|-------------------|---|
| Air Purge | Air purge occurs after the slow rinse stage of regeneration. It is a short period (30 seconds) of backflow to drain in order to purge any air from the system prior to rapid rinse. |
| Automatic | During automatic operation, the module monitors total water processed and automatically performs any necessary process functions (regeneration, backwash, etc.) based on the configuration settings for each cell. Water flows downward through the resin bed, is cleaned, and then the clean water flows up and out through a central core and out to service. |
| Backwash | During backwash, water travels up through the resin tank flushing accumulated iron, dirt and sediments from the resin bed to the drain. |
| Bed Settle | Bed settling occurs after the backwash stage of regeneration and allows for resin reclassification prior to brine draw. |
| Brine Draw | During brining, brine travels from the brine tank into the resin tank. Brine is the cleaning agent needed to remove hard minerals from the resin beads. The hard minerals and brine are discharged to the drain. |
| Brine Fill | Water flows into the brine tank and salt is dissolved into water. |
| Manual | In manual operation mode the user can select the operational state, or force a regeneration, for each cell. |
| Pulse | A pulse flush is used to prevent 'channeling' in certain media beds, like carbon. The module will perform a series of short upflow pulses to lift and reclassify the media bed. |
| Rapid Rinse | Rapid rinse flushes brine from the resin tank and packs the resin bed. After rapid rinse, the module returns to normal water service. |
| Slow Rinse | Slow rinse occurs after the brine draw stage of regeneration. It is a slow flow of water through the resin bed to facilitate ion exchange. |

Warnings / Alerts - Alerts Screen

The alerts screen displays any active alerts or warnings.



From the home screen, select service, then alerts.



The banner for the alerts screen is unique in that it displays Wi-Fi connectivity, device ID, and electronic hardware information.

Warnings / Alerts (continued)

The following table lists the potential warnings/alerts that may appear and provides a description / potential solution. The top left corner of the universal banner on the display screen will read **'Check alerts'** when there is an active alert present. The message will remain on the banner and the alert will remain on the alerts screen until the condition no longer exists. *To view details of any active warning or alert(s), go to the Alerts ('Alrt') screen.*

| Warning / Alert | Alert Message | Description / Solution |
|------------------------------------|---|--|
| Brown-out fault | Solenoid driver fault. Perform power cycle. | A brown-out fault is caused by an interruption in the power supply to the module. Unplug the module from power, wait 30 seconds, and plug it back in to clear the fault. |
| Cell (1,2,or 3) 10% life remaining | Cell (1,2,or 3) has 10% life remaining. Replace soon. | For cells with carbon media, this alerts the user that the media is approaching its rated capacity based on the characteristics of the inlet water entered on the water source screen. |
| Cell (1,2,or 3) expired | Cell (1,2,or 3) has EXPIRED. Replace media. | For cells with carbon media, this alerts the user that the media has reached its rated capacity based on the characteristics of the inlet water entered on the water source screen. |
| Gate valve motor fault | Gate valve motor fault! Contact customer service | Restart the module to determine if it will clear the fault (see page 36). If not, contact the HANS service team or your local/dealer distributor. |



Active alert states will also be pushed to the phone app at regular intervals to inform the user of any potential issues.

Warnings / Alerts (continued)

| Warning / Alert | Alert Message | Description / Solution |
|---------------------|-------------------------------------|--|
| High inlet pressure | Water inlet pressure is too high! | <p>Check the inlet water supply (water being fed to the module) and make sure the pressure is not over 60 psi. If the inlet pressure is above 60 psi, a pressure regulating valve (PRV) will need to be installed.</p> <p>If you have a well, check for proper pressure in the well tank, make sure that the well pump pressure switch is properly suited for this application (i.e.40-60 psi).</p> |
| Low inlet pressure | Warning! Inlet pressure is too low! | <p>Check the inlet water supply (water being fed to the module) and make sure any necessary valves leading to the module are open. If a valve is closed, please open it to allow water to flow. Make sure the inlet water is not leaking.</p> <p>If you have a well, check for proper pressure in the well tank, making sure that the circuit breaker on the well pump is switched on. Ensure water is flowing through the well pump properly.</p> <p>Ensure you have a 40/60 well tank pressure switch. Set the minimum bound of the switch to 45 psi for best performance.</p> |
| Low salt warning | Warning – Salt level is low | <p>For module with configured softener cells, this alert warns the user that the salt level in the brine tank is low (< 20 lbs). Consider adding salt as soon as possible to ensure proper softening. Add salt using the 'add salt' button on the home screen.</p> |
| Low salt alert | ALERT! Salt level is ZERO! | <p>For module with configured softener cells, this alert warns the user that the salt level in the brine tank is zero. Add salt as soon as possible to ensure proper softening. Add salt using the 'add salt' button on the home screen.</p> |

Warnings / Alerts (continued)

| Warning / Alert | Alert Message | Description / Solution |
|------------------------------|---|---|
| Outlet pressure sensor fault | Possible outlet pressure sensor malfunction. | Alerts the user of a potential outlet pressure sensor fault. The module will continue to function normally, however, this is something that needs to be resolved. Contact the HANS service team or your local/dealer distributor. |
| Solenoid driver fault | Solenoid driver fault! Contact customer service. | Restart the module to determine if it will clear the fault (see page 36). If not, contact the HANS service team or your local/dealer distributor. |

Troubleshooting

1. Display screen will not turn on

- ✓ Confirm the power supply is properly connected at the rear of the module and the base of the e-box.
- ✓ If power supply is properly connected, perform a power cycle by disconnecting the unit from the power supply, wait 30 seconds, and reconnect power. If a power cycle does not fix the issue, contact the HANS service team or your local/dealer distributor.

2. Low inlet pressure

- ✓ Confirm inlet water supply has been restored.
- ✓ If pressure is present in the module and the inlet pressure sensor is reading 0 psi, replace the sensor.

3. Wi-Fi will not connect

- ✓ Ensure a strong Wi-Fi signal is present from the router. A range extender may be required in certain areas, such as basements, where the signal may not be reliable.

P/N 8960-04
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Treatment Module Owner's Manual