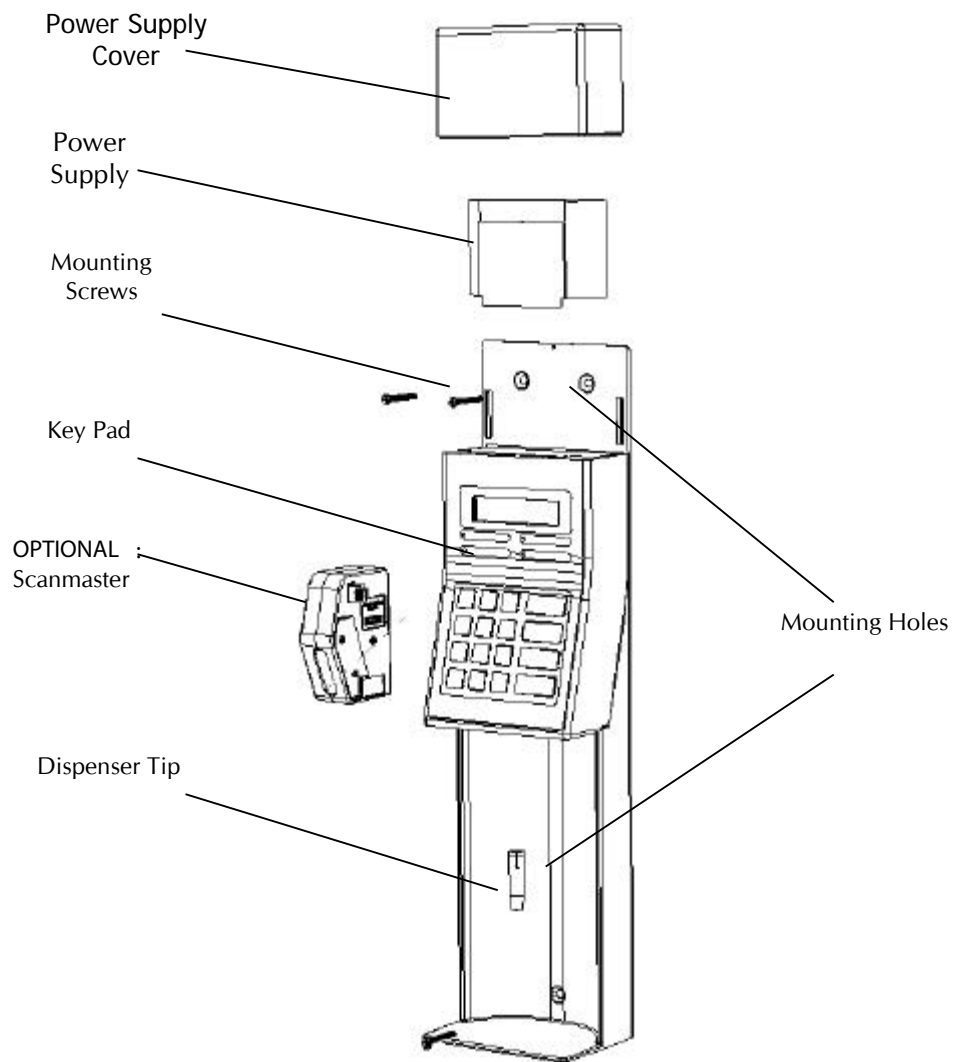


fillmaster[®] *Electronic*



FILLMASTER[®] 1000E AND SCANMASTER USER GUIDE

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The Fillmaster 1000e Electronic Dispenser and Optional Scanmaster

FILLMASTER® 1000E & SCANMASTER™

Congratulations on your purchase of the Fillmaster ® 1000e. This is the first product of its kind designed specifically for the professional pharmacist. Its elegant design, ease of use and extreme efficiency make for a product that will accompany your pharmacy operation into the 21st Century, while providing a striking professional addition to your work area.

The integrated electronics of the Fillmaster 1000e provide extreme accuracy, ensuring the highest quality reconstitutes and eliminating the time consuming extra steps required of outdated methods. The straightforward operation of the Fillmaster 1000e allows you to spend less time fussing with water-bottles, measuring devices and a cluttered work area; you spend more time interacting with your customer.

The Fillmaster 1000e professional system provides water of the absolute highest quality; a modern, efficient, accurate and aesthetically pleasing addition to your work space; and the security of knowing that you are preparing your reconstitutes with extreme accuracy. This will benefit you and your customers by saving you time and money while ensuring your valuable time is spent where it is most rewarding - with your customers.

The Scanmaster™ is an optional addition that will make your Fillmaster 1000e even more efficient. Simply scan the bar code printed on the product label, and the reconstitution volume is registered for dispensing. The Scanmaster is pre-programmed with a database including most reconstituted antibiotics and a Smartscan™ feature that enables the Scanmaster to "learn" new NDC codes. The Scanmaster also has an PC interface jack for future upgrades. Easily installed into your existing 1000e dispenser, the Scanmaster allows you to fill prescriptions accurately, efficiently and faster than ever.

We have made every attempt to provide a complete database of pharmaceutical reconstitutes, however, if you come across any reconstitutes that are not in our database, we would like to hear from you. You may use the form provided or you may contact us directly by calling 1-619-596-9900.

INSTALLATION OF THE 1000E

RECOMMENDED TOOLS

- Phillips head screwdriver
- Drill with 1/8" bit (for first time installation)
- Razor knife

MOUNTING AND INSTALLATION

The following steps assume an existing Fillmaster model is being upgraded to the new FMD 1000e. If you are installing for the first time, skip to "Installing a New Dispenser". The procedures must be performed before the power supply is installed and the unit is powered up for the first time.

REPLACING MANUAL DISPENSER WITH 1000E

1. Turn BLUE valve handle on the water storage tank, clockwise, ¼ turn. This will turn off the water supply to the dispenser.
2. Relieve water pressure to the dispenser by lifting the BLACK lever on the auxiliary faucet to the open and locked position. Relieve water pressure in the line by opening the fill valve on the dispenser.
3. Place a container beneath the dispenser to catch water
4. Disconnect water supply tubing from elbow connected to the dispenser (Fig 1.1). The black cap on top of the dispenser elbow connection has two small cutouts on the side. Place a small screwdriver or needle-nose pliers under these cutouts to lift up the black cap. Next, press IN the gray collect ring while pulling the supply tubing out

(Fig 1.1)

5. Remove the existing dispenser.



INSTALLING A NEW DISPENSER

1. Remove battery cover, sliding it vertically (Fig. 1.2)
2. Mount the FMD1000e dispenser over or in a new location, using the mounting hardware provided. Mounting holes for the screws are located at the top, going through the back of the unit, in the area that will be concealed by the power supply and covered with the unit's top cover, and at the base of the unit.
3. Reconnect water supply by firmly inserting supply tubing into the female end of the new elbow connector.
4. Push the male end of the new elbow connector firmly into the dispenser water inlet.
5. Slowly open the BLUE valve handle on the water storage tank. (Fig. 1.2)



INSTALLING THE SCANMASTER™

RECOMMENDED TOOLS

- None Needed
- The Scanmaster requires a Fillmaster 1000e dispenser for installation.

INSTALLATION AND SETUP

The unit plugs into the port located on the left side of the 1000e dispenser. Once the Scanmaster is plugged in, it is automatically recognized by the Fillmaster 1000e and ready for use.

- Be sure the Fillmaster 1000e has been installed according to the instructions in this manual.
- Hold the Scanmaster with the window facing forward.
- Align the jack on the Scanmaster with the hook-up port on the dispenser.
- Gently insert the jack into the dispenser's port. You will hear a click ensuring it is properly connected.
- Press the **START** key to use.



To remove the Scanmaster from the Fillmaster 1000e, simply slide a credit card between the backs of the two units, releasing the connection jack. Slowly pull the Scanmaster away from the 1000e. (The connection is similar to that of a telephone jack.)

SETUP FOR FIRST USE

Installing the Power supply

The Fillmaster 1000e ships with the power supply removed. It should not be installed until the Fillmaster has been connected to the Pharmapure® filtration system and mounted on the wall in accordance with the Fillmaster installation guide. In order to properly bring the Fillmaster 1000e online, the filtration system must be installed at least one day prior to operating the Fillmaster 1000e dispenser to allow the holding tank to fill with water.

Be sure to place a receptacle under the Fillmaster dispensing tip to catch any water that may be dispensed during the initial power up of the unit.

Note: If the unit begins to dispense water when the power supply is inserted, press START key immediately.

After placing the receptacle, you may install the power supply. First remove the top cover of the Fillmaster unit by sliding it up. This will expose a card edge connector. Position the power supply with the card side forward. If the power supply is in a position that would prevent the cover from being put back on, it is backwards. Push down firmly and squarely, inserting the power supply card edge into the slot. When it is in place, the Fillmaster will power on and begin its startup routine. It is a good idea to depress the **START** key on the keypad at this time to reset the machine.

Slide the cover back on, concealing the power supply, and you are ready to proceed. The usual life of the power supply is approximately one year under normal use and the Fillmaster 1000e will notify you approximately one month in advance of power failure.

START UP

Normal Startup

Press the **START** key to begin start up. No user interaction is required, but you should observe the following:

- The filtration system lamp on the control panel will flash to indicate a check of the filtration system schedule.
- The power system lamp will flash, to indicate that the power supply is functioning properly and the battery is in good condition.
- The system calibration lamp will flash to indicate that the water line pressure is adequate and various system performance checks have completed successfully.
- You will see initialization and start up messages displayed. When startup is successfully completed you will see "**Select Key> Enter Amount:_____**" displayed on the Fillmaster screen. This is the MAIN screen.
- Should the filtration system lamp remain illuminated after startup, refer to your Fillmaster Installation and Instruction Guide

IMPORTANT

- At this time, you must purge the system of air. Place a receptacle under the dispenser tip to catch any water. Press the **PROGRAM** key three times, Press **1** and the unit will purge itself and be ready for daily use. (See also PROGRAM MENUS)

Note: If the service lamp is illuminated at the end of the start up process, the lamp corresponding to the trouble area will remain illuminated as well. This indicates that the filters need replacing, the battery is near death or the water line pressure is too low. Please contact Fillmaster Systems via the Fillmaster Hotline at 1-619-596-9900, Monday through Friday, 8am until 5pm, Pacific Time. An FMS technician will be happy to assist you with your needs.

DAILY OPERATION of 1000E

Once the Fillmaster and/or Scanmaster have been enabled and start up is successfully completed, the unit is ready for day-to-day operation. Since the Fillmaster 1000e and Scanmaster have been designed for efficiency and ease of use, you should find operation fairly straightforward.

1. The display will read "**Select Key> Enter Amount ____**". Simply enter the desired amount of purified water required in milliliters. The Fillmaster 1000e will accurately dispense as low as 5 ml. If you enter an error, press **CANCEL** to clear the display and begin again.
2. When the desired amount has been entered the display will now read "**Select Key> Confirming xxx ml**", where "xxx" represents the amount entered in the previous screen. Press **DISPENSE** to accept or **CANCEL** to clear. For amounts less than 100 ml, you must press **ENTER** to move to the confirmation screen.
3. After pressing **DISPENSE** the display will change to read "**Filling?**" and a status bar will show the progress of the fill. On fills over 30 ml, exactly one half of the requested amount of purified water will be dispensed. The display will read "**Select Key> Pause for Mixing**", and the Fillmaster will pause to allow for mixing the reconstitute.
4. Press **DISPENSE** to continue fill after mixing is completed.

Note: If the second half of the fill is not dispensed within twenty seconds, the Fillmaster 1000e will emit an alarm beep and go into sleep mode. When the machine is reset, it will ask you to finish the last fill. You may change the length of time the Fillmaster waits to enter sleep mode. Please refer to the PROGRAM MENUS section of this manual for instruction.

5. When you have completed the fill, the display will read "**Fill Complete. Dispensed xxx ml**"
6. The Fillmaster will then ask if you want to "**Repeat Last Fill?**" Press **ENTER** to accept and return to "**Select Key> Confirming xxx ml**" (Step 2 above). Follow directions as before to complete fill. Press **CANCEL** to return to the main menu.

DAILY OPERATION WITH SCANMASTER

1. The display will read ""**Select Key> Enter Amount____**"". The icons at the top of the screen will display your options.
2. To use the Scanmaster press **SCAN**. Hold the bottle with the bar code facing the window on the scanner. Once the label has been read, the name of the drug, the strength, bottle size and quantity for reconstitution will be displayed. If the drug is not in the database, the display will read, "**Not Found. Add New Code?**" Refer to the SMARTSCAN section for help.
3. Press the **DISPENSE** to accept or **CANCEL** to clear.
4. After pressing **DISPENSE** the display will read "**Filling?**", and a progress bar will show the progress of the fill. On fills over 30 ml, exactly one half of the requested amount of purified water will be dispensed. The display will read "**Select Key> Pause for Mixing**", and the Fillmaster will pause to allow for mixing the reconstitute.
5. Press **DISPENSE** to continue fill after shaking has been completed.

Note: If the second half of the fill is not dispensed within twenty seconds, the Fillmaster 1000e will emit an alarm beep and go into sleep mode. When the machine is reset, it will ask you to finish the last fill. You may change the length of time the Fillmaster waits to enter sleep mode. Please refer to the PROGRAM MENUS section of this manual for instruction.

6. When you have completed the fill, the display will read "**Fill Complete Dispensed xxx ml**" for approximately two seconds.
7. The Fillmaster will then ask if you want to "**Repeat Last Fill?**" Press **ENTER** to accept and return to "**Select Key> Confirming xxx ml**" (Step 2 above). Follow directions as before to complete fill. Press **CANCEL** to return to the main menu.

That's all there is to it! As you can see, the Fillmaster has been designed with the professional pharmacist in mind. Its elegance and ease of use should provide quick and accurate operation, even in the most demanding environments.

SCANNING TIPS



Tips for successful scanning:

- The bottle should be approximately 6-9 inches from the scanner (Fig 4)

- The NDC (National Drug Code) bar code (Fig.5) should be held parallel to the window on the scanner. (Fig 4)

(Fig. 4)



- When scanning the bar code, move the bottle side to side in front of the scanner window.

It may be helpful to hold a blank piece of paper in front of the window to see where the laser is directed.

(Fig.5)



DANGER

LASER RADIATION-AVOID
DIRECT EYE EXPOSURE

 LASER DIODE

Wavelength 630-680nm Max Output
5mW CLASS IIA LASER PRODUCT

SMARTSCAN FEATURE

This feature allows your Fillmaster 1000e to "learn" new prescriptions. If you scan a drug, and it is not in the Scanmaster database you can add it yourself.

If you scan an NDC, and the Scanmaster does not recognize it:

1. The display will read, "**Not Found. Add New Code?**" To continue, press **ENTER**
2. The display will read "NAME Scroll 1=UP 2=DN". Use 1 to scroll up through the list of drug names and 2 to scroll down. If the name you want is not found, use "CUSTOM 1" or "CUSTOM 2". When the name you want appears, press **ENTER**
3. Next the display will read "STRENGTH Scroll 1=UP 2=DN". Use 1 to scroll up through the list of strengths and 2 to scroll down.
When the strength you want appears, press **ENTER**. If the name you want is not found, use "N/A".
4. Next the display will read "BOTTLE SIZE Scroll 1=UP 2=DN Use 1 to scroll up through the list of bottle sizes and 2 to scroll down.
When the size you want appears, press **ENTER**. If the name you want is not found, use "N/A".
5. Next the screen will read "Water Amt Enter Amount". Use the keypad to enter the amount of water suggested by the manufacturer on the prescription label. Press **ENTER** to continue.
6. The display will show the information you have entered, as it will be stored in the memory. Be sure to look over the information carefully to prevent any errors. If you are satisfied with the information press **ENTER**.
 - a. If you do not wish to enter this information, press **CANCEL** and you will be taken back to "**NAME Scroll 1=UP 2=DN**" to re-enter the information.
 - b. To return to the main screen, press **CANCEL** again

You may enter up to 10 prescriptions to the database. Refer to the instructions in the Program Menu section to clear the Custom Bar Code memory.

PROGRAM MENU

The program menus are accessed by pressing the **PROGRAM** key on the keypad when you are at the ""**Select Key> Enter Amount____**"" prompt. Each time you press the **PROGRAM** key, you will advance to the next set of program options. When the **PROGRAM** key is pressed once the display will read:

1. Reports
2. Software Rev

Pressing **1** will open the Reports Submenu. This displays the amount of the last fill and the total number of fills to date. Press **CANCEL** to escape. Pressing **2** will display the software revision number. You will need this information if you contact technical support. To move to the next set of menus press **PROGRAM**.

1. Support
2. Serial Number

Pressing **1** here will display our web site address and the phone number for technical support; Press **CANCEL** to escape. Pressing **2** here will display your dispenser's serial number. This information will be necessary if you contact technical support. Press **CANCEL** to escape. To move to the next set of menus press **PROGRAM**.

1. Purge
2. Power Source

Pressing **1** here will open the valve on your unit for approximately 3 seconds to purge the air from the line. Be sure to place a receptacle under the Fillmaster's dispenser tip to catch water during this process. Pressing **2** here will display the status of the power supply. To move to the next set of menus press **PROGRAM**.

1. Calibrate
2. Clear B/C Mem

Pressing **1** here will display the system's water calibration setting. The calibration is adjusted by entering a number between 1 and 9, with 5 being the default. The calibration allows 6% adjustment in both directions. After the calibration number has been entered, your Fillmaster 1000e will ask you to confirm the new setting. To accept the changes, press **ENTER**; the unit will then read "CALIBRATION VALUE CHANGED".

VERY IMPORTANT , Please be sure to check your new settings with glassware to ensure accuracy.

Repeat the process until you are satisfied with the calibration.

Pressing **2** here will allow you to clear **ALL** the drugs you have scanned into and added to the database. The unit will ask you to confirm three times before it will clear the memory. **ENTER** at each of these prompts to continue or press **CLEAR** to return to the main menu. While the memory is being erased, the display will read "PLEASE WAIT" and a status bar will appear. When it is complete, the display will read "CUSTOM BAR CODES ERASED". Press **PROGRAM** to go to the next set of menus.

PROGRAM MENUS CONTINUED

1. Speaker

2. Mix Time Out

Pressing **1** here will allow you to turn the speaker on and off. The default setting is ON. The display will tell you the current setting. To change the current setting press **ENTER**. The new setting will be displayed. The unit will then prompt you to confirm the new setting. Press **ENTER** to accept, or **CANCEL** to escape to the main menu. Pressing **2** here will allow you to change the length of time the Fillmaster waits for you to continue dispensing after it has paused for mixing. The default setting is 20 seconds. You may increase this time to a maximum of 99 seconds. Increasing this time will decrease the life of your power pak. When you enter this sub-menu, the display reads "**CHANGE TIMEOUT FROM 20 TO ()**", showing the current value. Enter the new value you want using the keypad. The display will then read "**SELECT KEY CONFIRM XX SEC**". Press **CANCEL** to escape to main menu OR to accept, press **ENTER**. Press **PROGRAM** to go to the next set of menus.

1. Default Reset

2. Speed Keys

Pressing **1** here will reset the Fillmaster to the factory defaults. This includes:

- Speaker volume ON
- Clear last fill information
- Mix timeout 20 seconds

The display will read "**Select key> Please Confirm**". To confirm, press **ENTER**. The display will read "**Factory Defaults Have Been Reset**".

Pressing **2** here will allow you to program speed keys for your most frequently filled prescriptions. The display will read "**Enter key to Program (1-3)**" choose which key you wish to program. **1**, **2** or **3**,. The display will then prompt "**Enter Water Amount ()**". Use the keypad to enter the amount you wish to program, and press **ENTER**. The display will confirm with "**Key #N is xxx ml**". Where N is **1**, **2** or **3**, and xxx is the amount you entered. To program the other key, repeat the process above. (See also SPEED KEYS)

1. Scan 1st

Pressing **1** here will allow you to program the 1000e to go directly to the scan function **upon power up only**.

The display will list the current settings. To change the settings press **ENTER** once and the new setting will be displayed. You will be asked to confirm the new setting by pressing **ENTER** or **CANCEL** to escape to the main menu.

After the unit has been powered up, the scan function can be accessed by pressing **SCAN**.

SPEED KEYS

To further increase the efficiency and ease of use of the Fillmaster, there are three "speed keys" that can be programmed. When programmed, these keys allow the user to quickly dispense the preset amount. An ideal use of these keys would be to set them to the three amounts most commonly dispensed. They can also make filling larger orders for the same prescription much less labor intensive.

Instructions for programming the speed keys can be found in the PROGRAM MENUS section of this manual.

Speed Key Use

Press the **START** key. The display will read "**Select Key> Enter Amount: ____**". Press **0**. The display will now read "**Enter Speed Key**". Enter the speed key number you wish to use (**1, 2** or **3**) then press **ENTER**. The display will confirm the amount to be dispensed. To accept, press **DISPENSE** or **CANCEL** to clear.

ERROR MESSAGES

ERROR AND DIAGNOSTIC MESSAGES

The Fillmaster 1000e continually monitors its operating conditions and may display one of several messages during operation.

WATER FLOW ERROR

This message will be displayed if the unit detects an inaccurate water flow through unit or no fluid in the feed line. Also, the service light on the front of the unit will illuminate.

Possible causes:

- **Water Flow Monitor Activated**

If you get water from the air gap faucet mounted on your sink, this is the likely cause of error. This does not necessarily indicate a problem with your dispenser. Monitoring accurate water flow is a normal function of the Fillmaster 1000e dispenser.

Solution: When this error occurs, the unit will have dispensed about 5mL of water before the error message is displayed. Simply press the Start key and continue with your prescription by entering the remaining quantity of water to be dispensed (e.g.: the original amount less 5 ml).

If this error occurs frequently, call technical support for assistance.

- **Blue tank valve handle left in the "OFF" position**

Solution: Turn valve handle to the "ON" position.

- **Low water level in the tank**

In order to determine if this is the problem, try using the air gap faucet mounted on the sink. If there is a low flow of water or no water, call our technical support for assistance.

UNFINISHED FILL

This error is displayed when the Fillmaster detects an incomplete fill. On fills over 30 ml, the Fillmaster will pause halfway through the fill process to allow you to mix the prescription before continuing. The unit is preset to wait 20 seconds for you to dispense the second half of the fill. If you do not dispense within the 20 seconds, the unit will enter sleep mode. When you press **START** again, you will see this error. Simply complete the unfinished fill by pressing **DISPENSE** and the unit is ready for normal operation.

LOW POWER SUPPLY

This message will display when the remaining power supply is less than 10%. Depending on your daily use of the Fillmaster, 10% will provide approximately one month of use. You should immediately call our technical service line - 1-619-596-9900 - to order a new power supply.

SCANNER NOT PRESENT

This message is displayed if you attempt to use the SCAN feature without a Scanmaster installed. Please contact Fillmaster Systems for an upgrade.

CARE & CLEANING OF UNIT

With proper care and cleaning, your Fillmaster 1000e will provide years of trouble free service.

In general, cleaning of the cabinet and keyboard should be done with a solution of mild soap and water. Use a damp cloth wet with this solution, and wipe down the cabinet and keyboard with the soap solution. After surface dirt and dust have been removed to your satisfaction, wipe down the cabinet and keyboard areas with clean water, again using a dampened cloth. After this rinse you may want to dry the unit with a soft dry cloth.

Do not to use an abrasive cleanser as this will scratch and otherwise damage the unit, especially the keyboard.

Do not attempt to turn or rotate the Scanmaster while it is connected to the 1000e dispenser. This may damage both your Scanmaster and Fillmaster 1000e.

Do not immerse the Fillmaster 1000e, Scanmaster or power supply in water.

POWER SUPPLY REPLACEMENT

Power Supply Replacement

Under normal conditions, the life of the Fillmaster 1000e power supply is approximately one year. Approximately one month before the power supply must be replaced, a notification will be displayed on the Fillmaster 1000e's LCD screen. This will give you the lead-time required to order a new power supply from FMS. You can do this by calling the Fillmaster hotline at 1-619-596-9900. When the power supply falls below 10% charge the system will warn you. Be sure to react quickly when the power supply replacement message is displayed.

To install the new power supply simply open the top of your Fillmaster dispenser and remove the old power supply by lifting it straight up and out. When it has been removed, you will be able to see the card slot connector. Line up the new power supply edge connector with the card slot and push it gently into place.

IMPORTANT: Before use you must purge the system of air. Be sure to place a receptacle under the dispensing tip to catch any water. Press the **PROGRAM** key three times until the purge sub-menu appears, press **1** (for Purge) and the unit will purge itself and be ready for daily use.

When this is complete, reset the system by pressing the **START** key.

WARRANTY INFORMATION

Warranty

Subject to the terms and conditions listed below, Fillmaster Systems, (FMS) warrants its Fillmaster® System P/N 19400500, Model FMF940 (Pharmapure®) Reverse Osmosis Water Purification Unit, its model FMD-1000e Fillmaster dispenser and its Scanmaster™ bar code reader to be free from defects in materials and workmanship under normal use within the operating specifications listed below. For a period of two years from the date of purchase, FMS will repair or replace any part of this Water Purification and Measurement System with the exception of the cartridge filters and the power supply. AquaScan carries a five-year warranty. R/O membranes carry a twelve-month prorated warranty as follows: Credit 1/12 of the replacement cost for each unused month provided the system is installed and maintained according to factory instructions. The unit and/or parts under warranty will be repaired or replaced and returned to the customer, F.O.B. El Cajon, California.

Conditions of Warranty

The above warranty shall not apply to any part of the Pharmapure Reverse Osmosis Unit, Fillmaster Dispenser or Scanmaster module that is damaged because of neglect, misuse, alteration, accident, misapplication, physical damage, fouling and/or scaling of membranes by minerals, bacterial attack, sediment or damage caused by fire, flood, Act of God, freezing or hot water. If the unit is altered, modified or if it is installed in a manner inconsistent with the attached instructions, the warranty is void. FMS assumes no warranty liability in connection with the Reverse Osmosis Unit or Dispenser other than as specified herein. FMS shall not be liable for consequential damages of any kind or nature due to the use of FMS products.

Fillmaster[®] Systems

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