
STATIM 2000/5000

CASSETTE AUTOCLAVE™

- Operator's Manual
- Manual del Operador
- Manual do Operação



TABLE OF CONTENTS

1. Introduction.....	2
1.1 Disclaimers.....	2
1.2 How to Use this Book	3
1.3 What's in the Box	3
2. STAT/M Unit Overview.....	4
3. Installation	5
3.1 Environmental Considerations.....	5
3.2 Unit Placement	5
3.3 Connecting the Waste Bottle.....	6
3.4 Filling the STAT/M Reservoir.....	6
3.5 Priming the STAT/M Pump	6
3.6 Setting the Time and Date	7
3.7 Language Selection	7
3.8 Assigning Unit Identifier Number	7
3.9 Adjusting the Cycle Drying Time.....	8
3.10 Preparing Unit for Use	8
3.11 Shipping the Unit	8
4. Instructions for Use.....	9
4.1 STAT/M 2000 — Using the Cassette	9
4.2 STAT/M 5000 — Using the Cassette	10
4.3 STAT/M 5000 — STAT-DRI Plates	11
4.4 Preparing and Loading Instruments.....	11
4.5 Using Biological/Chemical Indicators	13
4.6 Instrument Weight Guide	13
4.7 Cycle Profiles	13
4.8 Running a Cycle.....	15
4.9 Stopping a Cycle.....	16
5. Maintenance.....	17
5.1 Cleaning the Cassette.....	17
5.2 Cleaning the Water Reservoir Filter	17
5.3 Cleaning the Reservoir.....	17
5.4 Cleaning the Exterior Surfaces	17
5.5 Changing the STAT/M 2000 Air Filter	18
5.6 Changing the Bacteria Retentive Air Filters	18
5.7 Replacing the Cassette Seal.....	19
5.8 Maintaining Fluid Levels	19
5.9 Reading Water Quality.....	19
5.10 Preventative Maintenance Schedule	20
6. The Communication Port.....	21
6.1 The RS232 Communication Port.....	21
6.2 Installing the SciCan Data Logger	22
6.3 Cycle Printout Overview	24
7. Internal Printer	25
7.1 Installing Paper on the Internal Printer.....	25
7.2 Removing Internal Printer Paper Jams	26
8. Troubleshooting.....	27
9. Spare Parts List.....	29
10. Warranty	30
11. Specifications	31
12. Appendix: Cycle Profile and Capacity	32

1. Introduction

Congratulations on your selection of the STAT/M Cassette Autoclave.®

We are confident that you have purchased the finest equipment of its type. The STAT/M® is a compact, counter-top unit that features a number of sterilizing cycles designed to meet your needs and suitability for steam sterilization.

The details of installing, operating and servicing your STAT/M are all contained within this operator's manual. To ensure years of safe, trouble-free service please read these instructions before operating this unit and keep them for future reference. Operational, maintenance and replacement instructions should be followed for the product to perform as designed. Contents of this manual are subject to change without notice to reflect changes and improvements to the STAT/M product.

The STAT/M is suitable for the sterilization of dental and medical instruments designed to withstand steam sterilization. The STAT/M is not designed to sterilize liquids, cloth loads, biomedical waste or materials not compatible with steam sterilization. The processing of such loads may result in incomplete sterilization and/or damage to the autoclave.

For more information about instrument suitability for steam sterilization, consult the manufacturers' reprocessing instructions.

1.1 Disclaimers

Use only steam-process distilled water in your STAT/M. Deionized, demineralized, or specially filtered water should not be used. Never use tap water.

Do not permit any person other than certified personnel to supply parts for, service or maintain your STAT/M. SciCan shall not be liable for incidental, special or consequential damages caused by any maintenance or services performed on the STAT/M by a third party, or for the use of equipment or parts manufactured by a third party, including lost profits, any commercial loss, economic loss, or loss arising from personal injury. Never remove the cover of the unit and never insert objects through holes or openings in the cabinetry. Doing so may damage the unit and/or pose a hazard to the operator.



All elements of this book are common to both STAT/M 2000 and STAT/M 5000 except when noted.

IMPORTANT: Follow local guidelines governing verification of the sterilization procedure.

Drying Performance

The STAT/M 2000 and 5000 have been designed to provide a complete sterilization solution for your unwrapped and wrapped instrument needs: rapid sterilization balanced with rapid drying, by using the SciCan Dri-Tec Drying Technology.



To dry instruments, the STAT/M 2000 uses a combination of forced filtered air and convection heat. The convection heat is derived from utilizing the remaining heat in the system after the sterilization phase has been completed. The heat is then captured and released into the cassette to rapidly dry a properly loaded cassette.



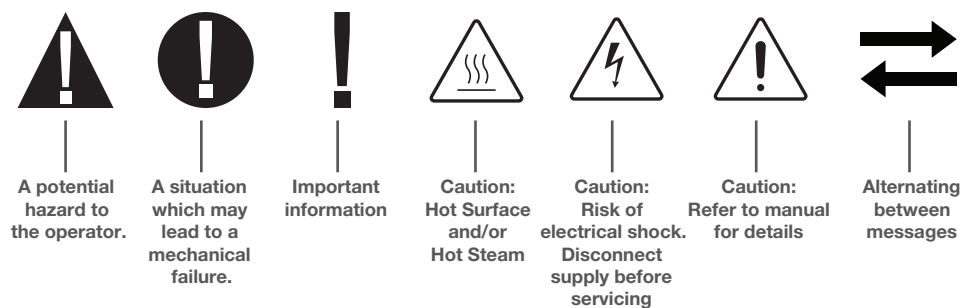
The STAT/M 5000 also uses forced filtered air and heat generated by the sterilization phase to dry the instruments. The heat generated by the sterilization phase is absorbed by the drying plates and then transferred directly to the load. This then results in an accelerated, rapid drying of a properly loaded STAT/M cassette.

Please refer to this operator's manual for instructions on the proper arrangement of instruments in the cassette and the use of STAT-DRI™ plates (STAT/M 5000). By carefully following these directions on how to properly load the cassette chamber, rapid drying of the load will be achieved.

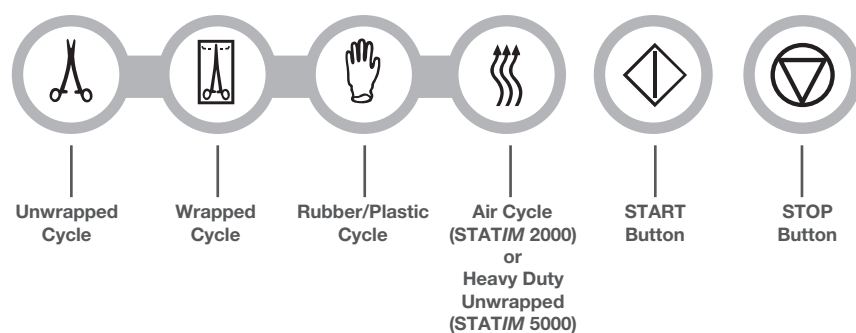
1.2 How to Use this Book

The following symbols appear in the margins of this book.

Warning icons

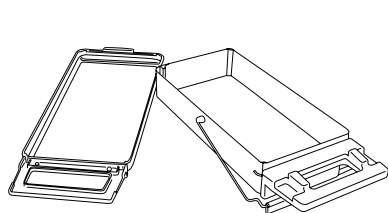


Cycle icons

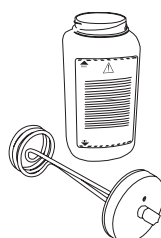


1.3 What's in the Box

When you receive your STATIM packing carton, the items listed below will be included. If any of the items are missing, contact your dealer immediately so that the situation can be corrected.



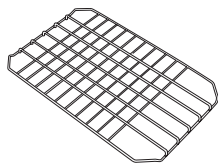
Cassette Tray and Lid



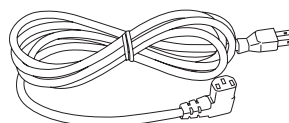
Waste Bottle and Bottle Lid Fitting



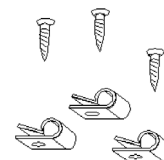
STAT-DRI PLUS Spray



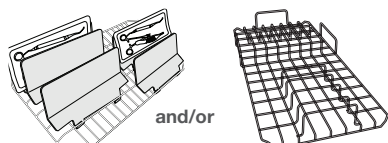
Unwrapped Instrument Rack



Power Cord



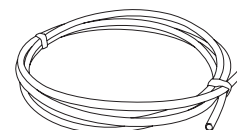
Tube Mounting Hardware



Wrapped Instrument Rack (STATIM 5000)



Operator's Manual



Exhaust Tube

2. STAT/M Unit Overview

STAT/M 2000

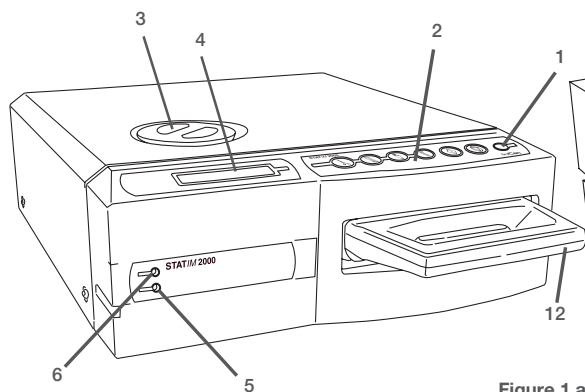


Figure 1 a

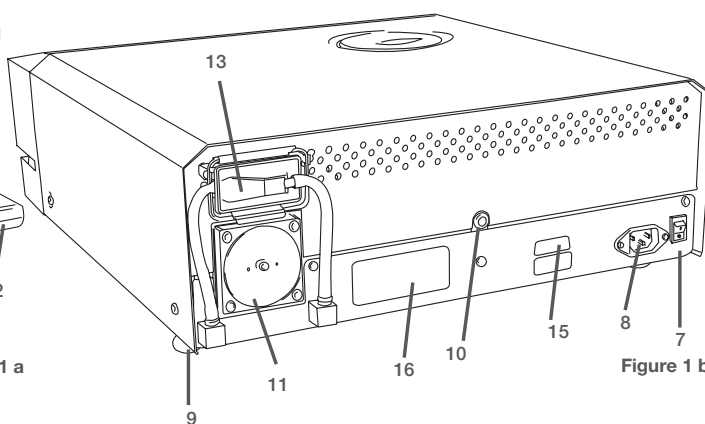


Figure 1 b

STAT/M 5000

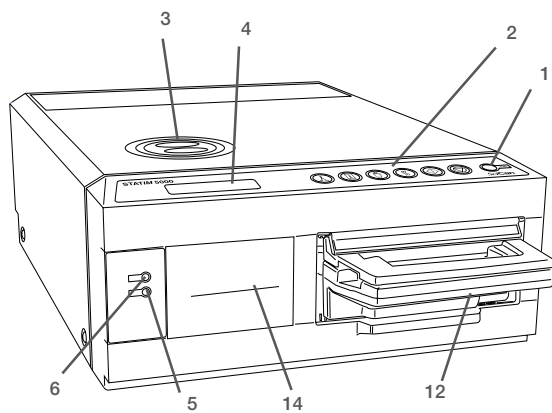


Figure 2 a

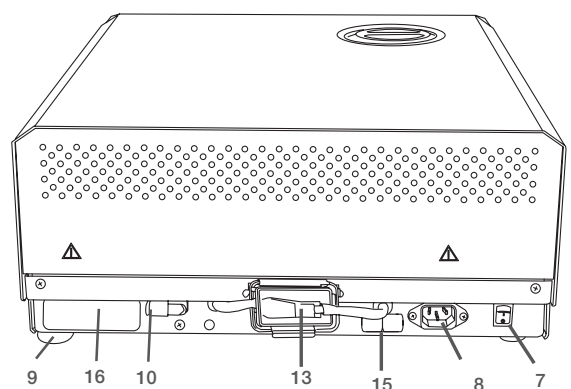


Figure 2 b

1. Level indicator
2. Keypad
3. Reservoir cap/water filter
4. LCD
5. Power indicator
6. Active indicator
7. Power switch
8. Power cable port

9. Leveler feet
10. Exhaust tube port
11. Compressor
12. Cassette
13. Biological air filter
14. Optional internal printer (STAT/M 5000)
15. RS232 port (not on all models)
16. Serial/Model/Number Label

3. Installation

3.1 Environmental Considerations

There are several factors that may affect the performance of your STAT/M. Please review these factors, and select a suitable location in which to install the unit.

Temperature and Humidity

Avoid installing your STAT/M in direct sunlight or close to a heat source (e.g. vents or radiators). The recommended operating temperatures are 15-25°C (59°F to 77°F) with humidity of 25-70%.

Spacing

The vents and openings on the STAT/M should remain uncovered and unobstructed. Leave a minimum of 50 mm/2" between the top, sides and back of the unit and any wall or partition.

Venting

The STAT/M should be operated in a clean, dust free environment.

Work Surface

The STAT/M should be placed on a flat, level, water-resistant surface. Never install and operate the unit on a sloped surface.

Electromagnetic Environment

The STAT/M has been tested and meets applicable standards for electromagnetic emissions. While the unit does not emit any radiation, it may itself be affected by other equipment which does. We recommend that the unit be kept away from potential sources of interference.

Electrical Requirements

Use properly grounded and fused power sources with the same voltage rating as indicated on the label at the back of your STAT/M. Avoid multiple outlet receptacles. If using a surge suppressor power bar, plug in one STAT/M only.

3.2 Unit Placement

When placing the unit on a counter top, ensure the following:

- The level indicator bubble (1) on the front panel should be balanced in the front right quadrant of the target (Four o'clock position). This will ensure that the unit drains properly. Adjusting the three leveler feet will help you move the bubble if necessary.
- The unit should be stable and all four feet should be securely in contact with the counter surface. This will prevent the unit from moving freely.

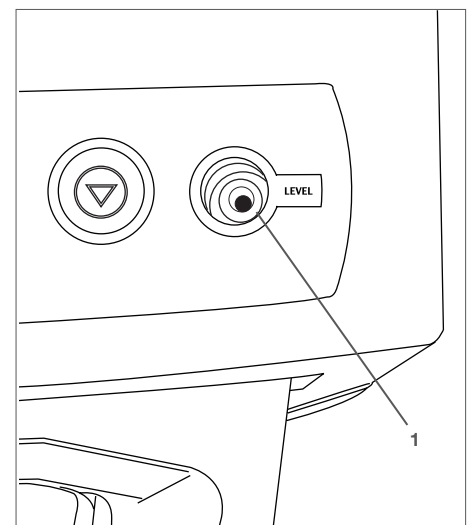


Figure 3

3.3 Connecting the Waste Bottle

The waste bottle (2) is used to collect the wastewater after it has been converted to steam and then drained from the cassette. To connect the waste bottle to the STAT/M, follow these steps (see Figure 4).



1. Insert the exhaust (3) tube into the fitting (4) on the back of the unit and connect tightly.
2. Cut the tube to length and slide the waste bottle fitting (5) into place.
3. Place the free end of the tube into the hole in the lid of the waste bottle and hand-tighten the fitting. Do not coil the exhaust tube.
4. Unscrew the lid and copper condenser coil (6) assembly from the waste bottle. The lid and coil should come out together.
5. Fill the waste bottle with water to the MIN line and replace the lid and copper condenser assembly. Empty the waste bottle often to avoid unpleasant odors and discoloration of the contents. (A low-level disinfectant, prepared according to the manufacturer's instructions, may be added to the waste bottle to remedy this situation). As a minimum, empty the waste bottle each time you refill the reservoir.



6. Place the waste bottle near the unit. Store the bottle below the unit. The tube can be routed through a hole, (8 mm/0.3" in diameter) in the counter-top and secured with the provided nylon clamps.

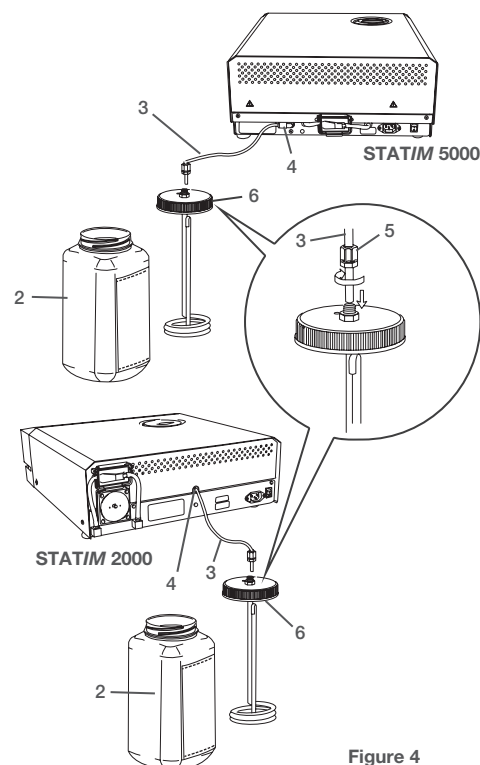


Figure 4

3.4 Filling the STAT/M Reservoir

When filling the reservoir, ensure you only **use steam processed distilled water** containing less than 5 ppm total dissolved solids (having conductivity of less than 10 $\mu\text{S/cm}$). The impurities and additives in other water sources will cause an error reading on the LCD. If you have a water conductivity meter (available from SciCan, order number 01-103139S) check each new water container before filling the reservoir. If your unit is equipped with a Rev 7 PCB or higher (software SxxxR6xx), you can read the water conductivity by referring to *Section 5.9 Reading Water Quality*.



To fill the reservoir, follow these steps (see Figure 5):

1. Remove the reservoir cap (2).
2. Pour steam-process distilled water into the reservoir until almost full (a maximum of 4L/1 U.S. gal). Use a funnel to avoid spillage.
3. Replace and secure the cap.

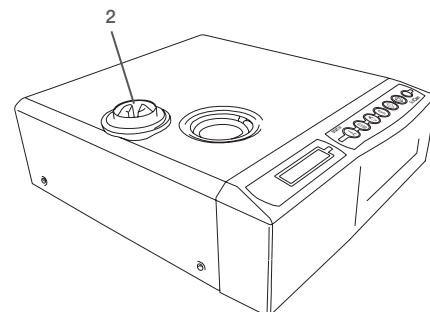


Figure 5

3.5 Priming the STAT/M Pump

To prime the STAT/M pump, follow these steps (see Figure 6):

1. Move the unit to the edge of the work surface. The front leveler feet should be approximately 12 mm/0.5" from the edge.
2. Lift the front left corner of the unit upward and remove the drain tube (3) from the clip located on the underside of the unit.
3. Pull the drain tube outward so the free end can be positioned over a water container.
4. Fill the reservoir with steam-process distilled water.
5. Remove the plug (4) from the end of the drain tube (3) and allow water to drain from the tube into a container for 30 seconds. When the water flows in a steady stream, replace the stopper.
6. Lift the front left corner of the unit upward and reinsert the tube into the clip on the underside of the unit. Push the excess length of tubing back into the space provided.

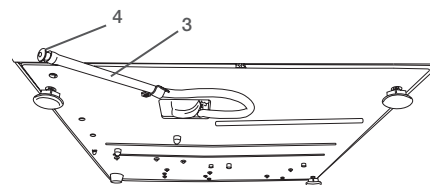


Figure 6

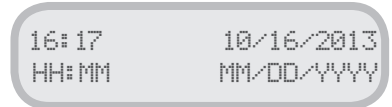
Make sure the plug in the drain tube is secured.

After installation, and before sterilizing any instruments, run two Wrapped cycles. For further instructions, see *Section 3.10 Preparing Unit for Use*.

3.6 Setting the Time and Date

To set the time and date, follow these steps and watch the blinking cursor on the LCD:

1. Power the STAT/M **OFF**.
2. Press and hold the **UNWRAPPED** cycle button.
3. While pressing the **UNWRAPPED** cycle button, power the STAT/M **ON**. The LCD display reads:
4. Use the cycle buttons to select and change the selected field's value. To increase a field's value, press the **UNWRAPPED** cycle button. Hold the button down to increase the value.
5. To decrease the value, press the **WRAPPED** cycle button.
6. To select the next field, press the **RUBBER AND PLASTICS** cycle button.
7. To save changes and return to the regular operating mode, press the **STOP** button.
8. To quit without making changes, power the STAT/M **OFF**.



Display when setting the Date / Time

3.7 Language Selection

The messages displayed on the LCD can be changed to a number of different languages. To change the current language selections, follow these steps:

1. Turn the power switch at the back of the unit **OFF**.
2. Press and hold the **WRAPPED** cycle button.
3. While depressing the **WRAPPED** cycle button, turn the power switch at the back of the unit to ON.
4. Press the **UNWRAPPED** cycle button to scroll to the next language selection.
5. Press the **WRAPPED** cycle button to scroll to the previous language.
6. When the desired language is displayed, press the **STOP** button to save the selection and return to the regular operating mode.



Display when scrolling through languages

3.8 Assigning Unit Identifier Number

1. Power the STAT/M **OFF**.
2. Press and hold the **RUBBER/PLASTIC** cycle button.
3. While pressing the **RUBBER/PLASTIC** cycle button, power the STAT/M **ON**.
4. Using the cycle buttons, select a maximum of 3 digits to be used as the unit's identifier. The **UNWRAPPED** button will increase the selected value and the **WRAPPED** cycle button will decrease it. Use the **RUBBER/PLASTIC** to move to the next digit.
5. To save changes and return to the regular operating mode, press the **STOP** button.

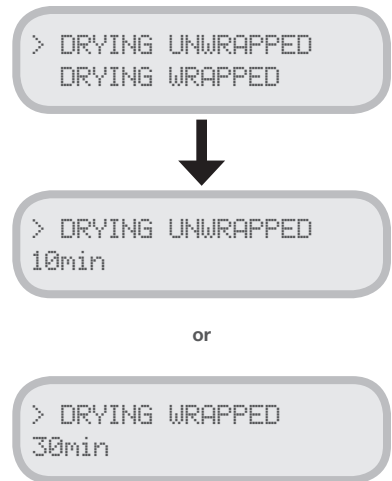


Display when assigning unit number

3.9 Adjusting the Cycle Drying Time

The STAT/M has preset drying time of 10 minutes for Unwrapped cycles and 30 minutes for Wrapped cycles. You can adjust the time between 5 to 60 minutes for Unwrapped cycles and 5 to 60 minutes for Wrapped cycles.

1. Power the STAT/M **OFF**.
2. While pressing and holding the **STOP** cycle button, power the STAT/M **ON**.
3. Using the Wrapped and Unwrapped cycle buttons scroll to DRYING UNWRAPPED or DRYING WRAPPED and press the **RUBBER/PLASTIC** button.
4. Using the Wrapped and Unwrapped cycle buttons, scroll to the desired drying time and select it by pressing the **RUBBER/PLASTIC** button. (Unwrapped Drying Time applies to Unwrapped, Heavy Duty, and Rubber/Plastic cycles).
5. To save changes and return to the regular operating mode, press the **STOP** button.



3.10 Preparing Unit for Use

Once the unit is installed and before any instruments are sterilized, run two Wrapped cycles (see *Section 4.8 Running a Cycle*). Remove the cassette once it has cooled. Clean the top (lid) and bottom (tray) sections using a soft cloth to wipe the inside surfaces and then rinse thoroughly with tap water. Once the cassette is clean and dry, coat the inside surfaces with STAT-DRI.

3.11 Shipping the Unit

Before you move the unit, you will need to drain the reservoir. To do so, follow these steps:

1. Place a water container below the unit.
2. Use the drain tube (5) to empty the contents of the reservoir into the water container.
3. Remove any remaining water from the reservoir with a non-linting, absorbant towel.
4. Screw-in the three leveler feet (6) found underneath the unit.
5. Repack the unit in the original packing materials and include all accessories originally included with the unit.
6. Specify heated and insured shipping.

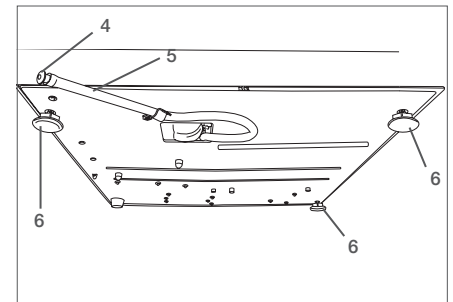


Figure 7

4. Instructions for Use

4.1 STAT/M 2000 – Using the Cassette



When removing the cassette after a cycle, exercise caution as the metal areas will be hot and the cassette may contain hot steam.

To open the cassette:

1. Hold the cassette handle with your thumbs facing inward on the cassette latch.
2. Push downward on the cassette latch.
3. Raise the cassette lid upwards and disengage the hinge.
4. Rest the lid on its outer surface.

To close the cassette:

1. Align the hinge tab on the cassette lid with the hinge slot on the rear of the bottom tray.
2. As you begin to close the lid, the hinge tab and slot will engage.

Inserting the cassette into the STAT/M 2000:

1. Place the end of the cassette into the unit.
2. Gently push inward until you hear a “click” sound.



Never push the cassette into the STAT/M with force as the interior components could be damaged.

Removing the cassette:

1. Grasp the handle with two hands and pull away from the unit.
2. Pull the cassette clear of the unit and set down on a firm surface.

Disengaging the cassette



When not in use, the cassette should be disengaged.

To disengage the cassette, grasp the handle and pull the cassette out until there is a 15 mm to 20 mm ($\frac{1}{2}$ to $\frac{3}{4}$ ”) gap between the front of the STAT/M 2000 and the cassette handle.

STAT-DRI

Treatment of the interior surfaces of the cassette with the STAT-DRI drying agent, provided with your unit, will enhance the drying process. (Replacement bottles are available from SciCan, order number 2OZPLUS, 8OZPLUS, 32OZPLUS).

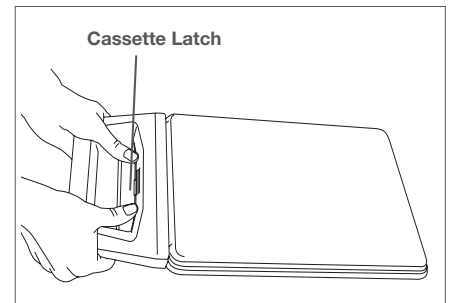


Figure 8

4.2 STAT/M 5000 — Using the Cassette



When removing the cassette after a cycle, exercise caution as the metal areas will be hot and the cassette may contain hot steam.

To open the cassette:

1. Push the carry handle (1) into the open position.
2. Put your hands on either side of the cassette handle.
3. Insert your forefingers in the slots and place your thumbs on the thumb pads.
4. Press down with your thumbs and pull up with your forefingers until the lid opens.
5. Raise the cassette lid and disengage from the tray. Rest the lid on its outer surface.

To close the cassette:

1. Align the hinge tab on the lid with the hinge slot on the tray.
2. As you begin to close the lid, the hinge tab and slot will engage.
3. Place the carry handle into the closed position.

Inserting the cassette into the STAT/M 5000:

1. Hold the cassette handle in one hand and the carry handle in the other as shown in Figure 9.
2. Place the end of the cassette into the unit and drop the carry handle into its closed position.
3. Gently push the cassette inward until you hear a click sound.



Never push the cassette into the STAT/M with force as the interior components could be damaged.

Removing the cassette:

1. Grasp the cassette handle with one hand and pull out from the unit.
2. As the cassette emerges from the unit, grasp the carry handle with your free hand and lift it upwards.
3. Pull the cassette clear from the unit and set down on a firm surface.

Disengaging the cassette



When not in use, the cassette should be disengaged.

To disengage the cassette, grasp the handle and pull the cassette out until there is a 15 mm to 20 mm ($\frac{1}{2}$ to $\frac{3}{4}$ ") gap between the front of the STAT/M 5000 and the cassette handle.

STAT-DRI

Treatment of the interior surfaces of the cassette with the STAT-DRI drying agent, provided with your unit, will enhance the drying process. (Replacement bottles are available from SciCan, order number 20ZPLUS, 80ZPLUS, 320ZPLUS).

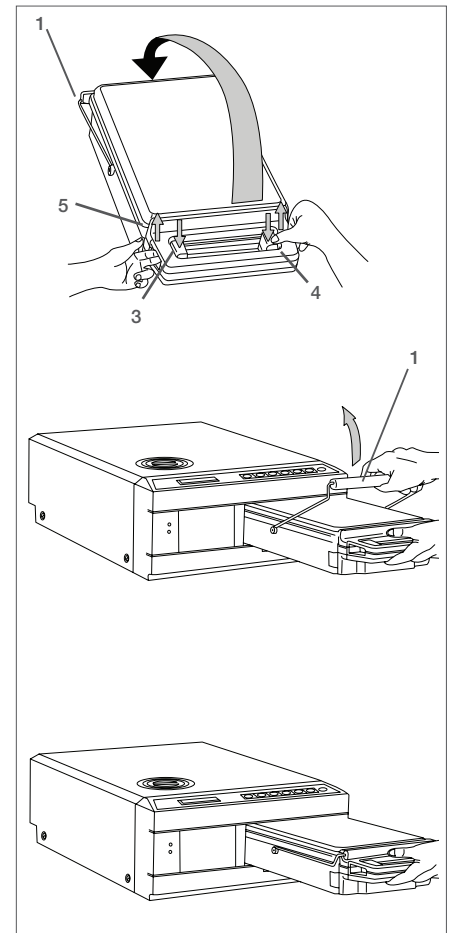


Figure 9

4.3 STAT/M 5000 – STAT-DRI Plates

The STAT/M 5000 cassette uses STAT-DRI plates to enhance the drying process for wrapped instruments. The adjustable plates are designed for the unwrapped instruments rack and eliminate the need for a separate wrapped instrument rack. Up to ten plates can be arranged along the length of the rack. Additional plates may be ordered from SciCan (SciCan part number 01-103935).

To install and adjust a STAT-DRI plate, follow these steps:

1. Hold a plate over the desired position, tilted slightly forward with the tabs down.
2. Insert the tabs between the mesh of the unwrapped instrument rack (1).
3. Each tab has an elongated slot. Slide the plate until the wire is at the end of each slot.
4. Release the plate to the resting position.
5. Prepare and load instruments for sterilization (2).

4.4 Preparing and Loading Instruments

Before loading any instruments into the STAT/M, consult the manufacturer's reprocessing instructions.

Clean Instruments

Clean and rinse all instruments before loading them into the cassette. Disinfectant residues and solid debris may inhibit sterilization and damage the instruments, the cassette, and the STAT/M. Lubricated instruments must be wiped thoroughly and any excess lubricant should be removed before loading.



Unwrapped Instruments

Arrange unwrapped instruments on the instrument rack in the tray so that they do not touch one another. This ensures that steam reaches all surfaces and will promote drying.



Instruments must not be stacked or piled in the cassettes, as this will impede the sterilization process.



Wrapped Instruments (single wrap)

Place the instruments into single layer autoclave bags according to the manufacturer's instructions. Orient the instrument rack in the cassette to ensure that wrapped instruments rest approximately 6 mm/0.25" above the cassette base. Place the wrapped instruments on the rack and arrange them to avoid overlap. Ensure that all wrapped loads are dry before handling and/or storage to maintain sterility.



The use of cloth wraps in the STAT/M is not recommended.

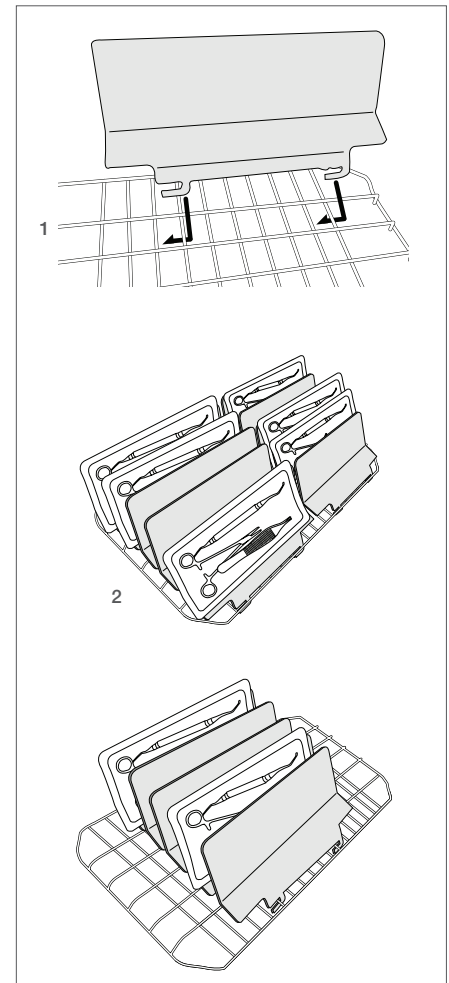


Figure 10

SciCan recommends the use of plastic/paper autoclave bags such as SPST™, Medi-Plus™ and Chex All II™. Steri-Stik™ paper/paper autoclave bags may also be used. The use of cloth wraps in the STAT/M is not recommended. Loosely pack instruments in the bags to allow steam penetration to all instrument surfaces.

The wrapped instrument rack for the STAT/M 5000 is designed to hold a maximum of 12 autoclave bags. Care must be taken to ensure that the combined weight of the loaded bags does not exceed the maximum load capacity as stated in *Appendix: Cycle Profile and Capacity*.

The Unwrapped instrument rack fitted with a maximum of 10 STAT-DRI plates will hold 10 autoclave bags.



Rubber and Plastic Instruments

The following materials can be sterilized in the STAT/M:

- Nylon
- Polycarbonate (Lexan™)
- Polypropylene, PTFE (Teflon™)
- Acetal (Delrin™)
- Polysulfone (Udel™)
- Polyetherimide (Ultem™)
- Silicone rubber
- Polyester



When loading rubber and plastic instruments in the tray, leave a space between the instruments and the cassette walls. This ensures that steam reaches all surfaces, and will promote drying.



The following materials **cannot** be sterilized in the STAT/M:

- Polyethylene
- ABS
- Styrene
- Cellulosics
- PVC
- Acrylic (Plexiglas™)
- PPO (Noryl™)
- Latex
- Neoprene



Use of these and similar materials may lead to instrument or equipment damage. If you are unsure of your instrument's material or construction, do not load into your STAT/M until you have checked with the instrument manufacturer.

All Instruments



The STAT/M is **not** intended for sterilizing textiles, liquids or biomedical waste.

Instruments will remain sterile after a successful cycle until the cassette is disengaged from the unit. Unwrapped instruments, once exposed to ambient or external conditions, cannot be maintained in a sterile state. If sterile storage is desired, wrap the instruments to be sterilized in autoclave bags, according to the instrument manufacturer's instructions, and then allow the wrapped cycle to run until the air-dry phase is complete.

Best Practice: Allow instruments (wrapped or unwrapped) to dry completely prior to handling. Instruments must not touch each other to promote drying and enable effective sterilization.



SciCan recommends the final user carefully choose the most appropriate sterilization cycle according to the recommendations of their leading infection control authorities and local regulatory guidelines/recommendations.

Routine Monitoring

Chemical process indicators suitable for steam sterilizers should be included in or on each package or load being sterilized. In addition, the weekly use of biological indicators, which allow you to ascertain whether the instruments have been exposed to sterilization conditions, is recommended. SciCan recommends using the 3M Attest™ biological monitoring system for routine monitoring. This system consists of self contained biological indicators and incubators. It is important to select the correct biological indicator for the cycle being tested.

4.5 Using Biological/Chemical Indicators

For detailed instructions on how to handle, use and dispose of both the biological and chemical indicators, please consult the product literature accompanying the indicators or contact the manufacturer directly.

To use the indicators with the STAT/M, follow these steps:

1. Place the appropriate biological indicator in the STAT/M chamber.
2. Process the load in the sterilizer according to your usual practice.
3. Ensure that the message “Cycle Complete” is displayed on the LCD after the cycle is finished.
4. Recover the biological and/or chemical indicator and process further according to the literature that accompanied the indicator.

At the first indication of a potential sterilization failure:

1. Do not process any more instruments until favourable test results have been returned.
2. Ensure the correct indicator type was chosen.
3. Ensure the cassette was not overloaded. Consult the earlier portion of this section for proper loading instructions.
4. If the results do not change, do not process any more instruments within the STAT/M and contact your SciCan dealer for further assistance.

4.6 Instrument Weight Guide

Instrument	Typical Instrument Weight
Scissors	30g/0.96 oz
Dental scalers	20 g/0.64 oz
Forceps	15 g/0.48 oz
Dental handpiece	40-60 g/1.29 to 1.92 oz
Wrapped instrument rack	260 g/8.35 oz
Unwrapped instrument rack	225 g/7.23 oz
Suction cannula	10 g/0.32 oz
Plastic mouth mirror	8 g/0.25 oz
Impression tray	15 to 45 g/0.48 to 1.45 oz
Plastic x-ray positioning ring	20 g/0.64 oz

NOTE: The above weights are to be used as reference only.

For exact weights of your instruments, consult the manufacturer’s specifications.

4.7 Cycle Profiles



The STAT/M's have multiple sterilization cycles, each designed to sterilize a specific type of instrument. The instruments will remain sterile after a successful cycle until the cassette is removed from the autoclave. At the end of each sterilization cycle, microbiologically filtered air-drying will commence.

Unwrapped instruments, once exposed to ambient or external conditions, cannot be maintained in a sterile state. If sterile storage is desired, wrap the instruments to be sterilized in autoclave bags according to the instrument manufacturer's instructions, and allow the wrapped cycle to run until the air-dry phase is complete.

It is important not to overload the chamber as this can inhibit steam access to all instrument surfaces. The types of instruments and sterilization requirements for each cycle are described over the next few pages. Consult the *Instrument Weight Guide* in the previous section for information on how to make up an appropriate load for the masses specified for individual cycles. The maximum load capacity and a graph depicting each cycle are provided in the *Appendix: Cycle Profile and Capacity*.

Unwrapped Cycle



Sterilization Temperature: 134°C (273°F)

Sterilization Hold Time: 3.5 minutes

The Unwrapped Cycle is a general purpose sterilization cycle used to sterilize loads of solid metal instruments such as pliers, burs, scalers and forceps. Dental handpieces may be sterilized in this cycle.

Wrapped Cycle



Sterilization Temperature: 134°C (273°F)

Sterilization Hold Time: 10 minutes (STAT/M 2000), 6 minutes (STAT/M 5000)

The Wrapped Cycle is used to sterilize solid and hollow metal instruments which have been sealed in paper/paper, or paper/plastic autoclave bags. Dental handpieces may be sterilized in this cycle.



If the cassette contains wrapped instruments and the wraps are not dry when the cassette is opened, the instruments must be handled in an aseptic manner for immediate use, or resterilized.

Rubber and Plastics Cycle



Sterilization Temperature: 121°C (250°F)

Sterilization Hold Time: 15 minutes

The Rubber and Plastics Cycle is used to sterilize solid unwrapped instruments constructed of metal or the materials listed in *Section 4.4 Preparing and Loading Instruments*.

Air Dry Only Cycle (STAT/M 2000 ONLY)



This is not a sterilization cycle.

At the end of a cycle, if the cassette has not been removed from the autoclave, the Air Dry Only cycle may be used to promote further drying. If the cassette has been removed from the autoclave, it may **NOT** be reinserted for the Air Dry Only cycle. If the cassette contains wrapped instruments and the wraps are not dry when the cassette is opened, the instruments must be handled in an aseptic manner for immediate use or resterilized.

Dryness is important for unwrapped instruments for corrosion prevention.
For wrapped instruments, a dry wrap is required to maintain sterility.

The Air Dry Only cycle will run for up to 60 minutes.

Heavy Duty Unwrapped Cycle (STAT/M 5000 ONLY)



Sterilization Temperature: 134°C (270°F)

Sterilization Hold Time: 6 minutes

The Heavy Duty Cycle (only available in STAT/M 5000) is used to sterilize larger loads of unwrapped metal instruments. Dental hand pieces can be sterilized in this cycle. The STAT/M 5000 Extended Cassette (order no. 01-104104) can be used to process loads up to 470 mm (18.5") long, such as rigid endoscopes, in this cycle.

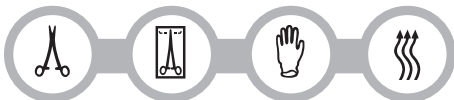
4.8 Running a Cycle

To operate each cycle, follow these steps and watch the LCD.

Turn the power switch at the back of the unit to **ON**. The LCD Display reads:

14:23 3/11/2001
SELECT A CYCLE

Press the appropriate cycle button on the keypad.



The display will read:

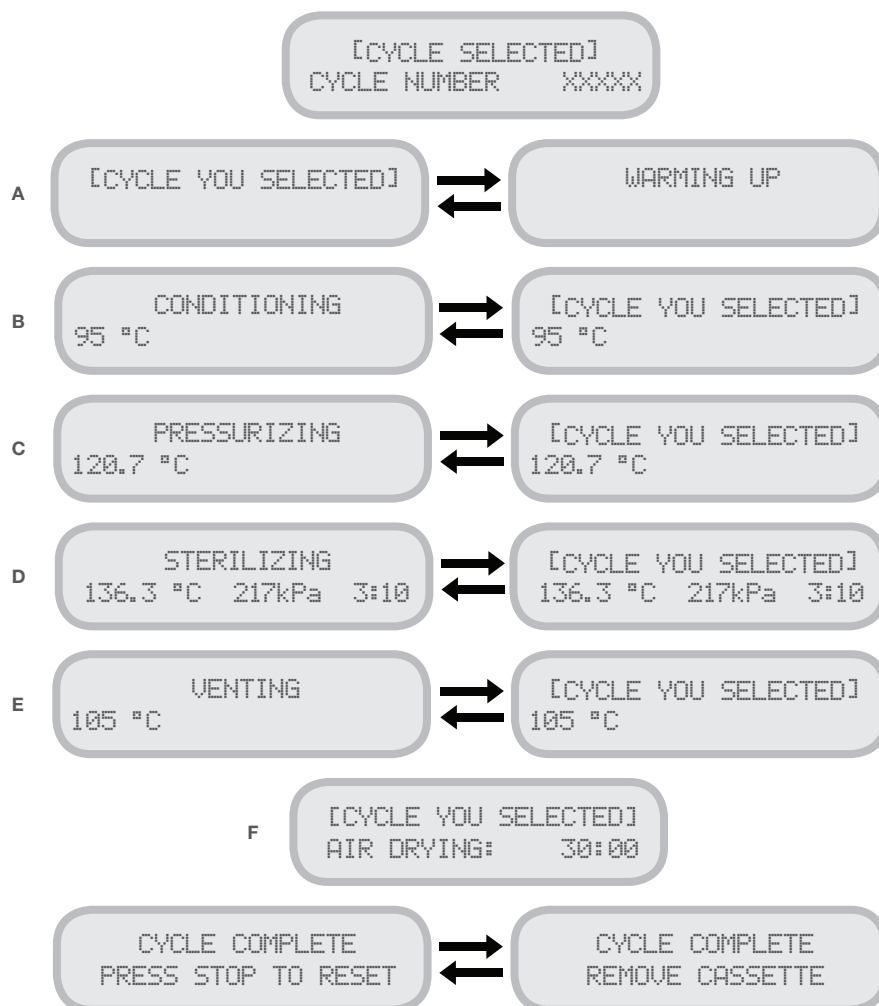


Once the start button has been pressed, the amber indicator light comes on to indicate that the cycle is in progress. During the cycle, the phases of the cycle will be displayed similar to:

!

Example only.

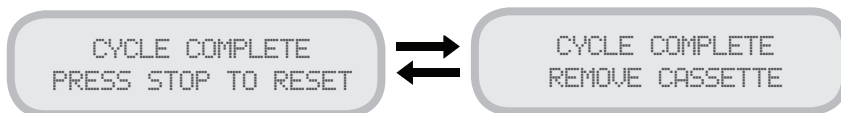
LENGEND	
A) Warming up	D) Sterilizing
B) Conditioning	E) Venting
C) Pressurizing	F) Air Drying



As the cycle progresses, the cycle stage and temperature of the chamber are displayed. During sterilization, the pressure of the chamber and the time remaining for that stage is also displayed. During the air drying phase, the time remaining is displayed. Message will vary depending on the cycle choosen.

As the cycle is running, an intermittent buzzing sound will be apparent as the pump injects water into the steam generator. A random clicking sound will also be heard as the exhaust valve opens and closes. The buzzing noise during the air drying stage is the compressor operating.

If a sterilization cycle is successful, the reminder tone sounds and the amber light flashes until the **STOP** button is pressed, or the cassette is removed from the unit and the display will appear similar to:



Be careful. The metal parts will be hot, and the cassette will contain hot steam. After the cassette is removed from the unit, it should be opened to hasten cooling of instruments.

If a message is displayed which gives a **CYCLE FAULT** code or a **NOT STERILE** message, the cassette contents are not sterile. See *Section 8 Troubleshooting* for more information.



If the cassette contains wrapped instruments and the wraps are not dry when the cassette is opened, the instruments must be handled in an aseptic manner for immediate use, or resterilized.

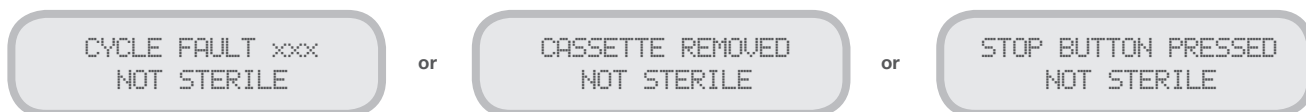
4.9 Stopping a Cycle

To stop a cycle press the **STOP** button.

If the **STOP** button is pressed, or the cassette is removed, or the unit detects a problem while operating, the cycle will stop and the amber active light will flash.

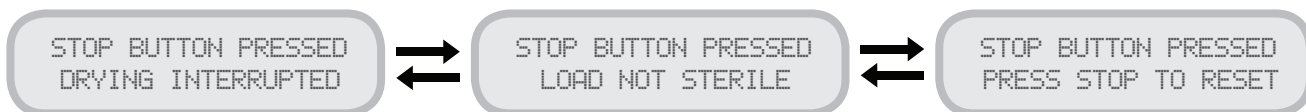
Once a cycle has been stopped, the **STOP** button must be pressed before another cycle can be started.

The display reads any of the following messages:



If the display shows the message, **CYCLE FAULT** or **NOT STERILE**, the cassette contents are not sterile! See *Section 8 Troubleshooting* for more information.

If the air drying stage of the cycle is interrupted, the display reads the following messages:



5. Maintenance

5.1 Cleaning the Cassette

Keeping the STAT/M cassette clean is good clinical practice and assists in the function of the unit. SciCan recommends that the interior surface be cleaned at least once a week.

- Use dishwashing soap or a mild detergent that does not contain chlorine.
- Scrub the inside of the cassette with a cleaning pad designed for use with Teflon™ coated surfaces.
- After scouring, rinse thoroughly with water to remove all traces of the detergent.

Cleaning the inside of your cassette is very important if you regularly sterilize lubricated instruments.

Coating the entire inside surface with STAT-DRI/STAT-DRI PLUS drying agent induces water to form an even coat on the inside surface, without beading. The water in contact with the hot cassette surfaces also evaporates much more efficiently. Spotting is minimized and instruments dry much better.

STAT-DRI/STAT-DRI PLUS should be applied every 10 cycles, or when you notice water beading on the lid, and after every cassette cleaning.

5.2 Cleaning the Water Reservoir Filter

The water reservoir filter should be cleaned at least once a week or when required. The filter can easily be removed and cleaned by placing the filter upside down under running water to wash away the particles until clean, and then placed back into the reservoir opening. If a replacement water reservoir filter is required, order part number 01-109300S.

5.3 Cleaning the Reservoir

Check the reservoir for dirt or particles. The reservoir may be cleaned by draining followed by cleaning and rinsing with steam process distilled water ONLY. Use of chemicals or cleaning agents is not recommended and could cause the unit damage.

5.4 Cleaning the Exterior Surfaces

Use a soft cloth moistened with soap and water to clean all exterior surfaces. Do not use harsh cleaning chemicals or disinfectants.

5.5 Changing the STAT/M 2000 Air Filter

The filter should be replaced every six months in order to maintain an adequate supply of clean air during the air drying cycle.

To change the filter, follow these steps (see Figure 11):

1. Turn the power switch at the back of the unit OFF.
2. Remove and retain the screw (3) securing the filter plate (2) to the back of the compressor.
3. Remove and discard the old foam air filter (1).
4. Install the new filter (1) (SciCan part no. 01-100207S).
5. Secure the filter plate (2) to the back of the compressor using the screw (3) retained during the disassembly procedure.

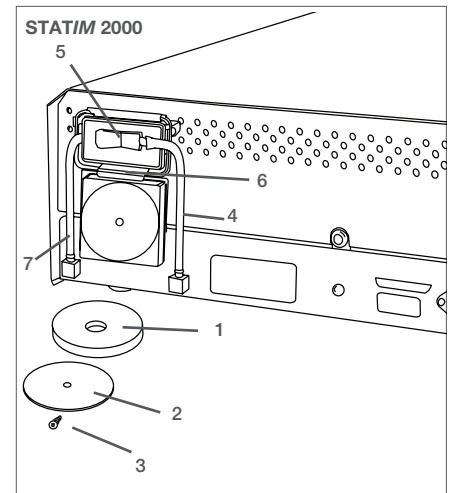


Figure 11

5.6 Changing the Bacteria Retentive Air Filters

The filters should be replaced every six months or after 500 cycles to maintain an adequate supply of clean air during the air drying cycle.

To change the bacteria retentive air filter on the STAT/M 2000 and 5000, follow these steps (see Figures 11 & 12):

1. Power the STAT/M OFF.
2. Disconnect tube A (4) from the bacteria retentive filter (5) and remove the filter from the filter bracket (6).
As you remove the filter from the bracket, note the orientation of the arrow mark on the filter.
3. When the filter is free of the bracket, carefully disconnect tube B (7) from the filter.
4. Before installing the replacement bacteria retentive filter (5) (SciCan order no. 01-102119S) check that the arrow mark on the filter matches the direction of the arrow on the bracket. Push the left hand filter fitting into tube B (7).
5. Gently press the replacement filter into the filter bracket (6).
The arrow mark of the filter should be facing out and pointing to the left.
6. Re-connect tube A (4) to the right hand filter fitting.

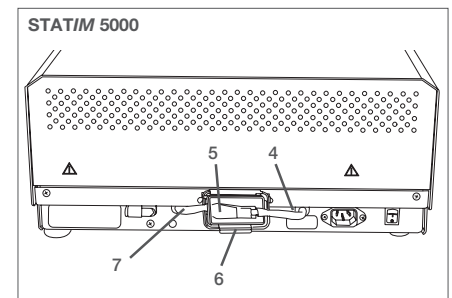


Figure 12

5.7 Replacing the Cassette Seal

To ensure optimum performance of your STAT/M cassette autoclave, change the cassette seal every 500 cycles or every six months, whichever comes first.

Replacement seals are available from SciCan (order number 01-100028S for STAT/M 2000 and 01-101649S for STAT/M 5000).

To change the cassette seal, follow these steps:

1. Place the cassette lid and the new seal on a clean work surface. Examine the position of the old seal in the cassette lid and arrange the new seal in the same orientation, next to the lid.
2. Remove the old seal and discard. Clean any residue out of the seal channel and flush out the channel with distilled water (**13 a**).
3. Lubricate the new seal with the liquid seal lubricant provided (**13 b**).
4. Insert the rounded edge of the seal under the round lip of the lid. Align the holes in the new seal with the holes in the lid (**13 c**).

NOTE: At every corner and at the holes in the lid, two square nibs should be visible. The nibs should fit flush with the lid's outer surface.

5. Ensure the seal is completely inserted. Feel around the periphery to ensure the seal is securely in place.

NOTE: During a cycle, steam may appear between the lid and the tray. If this persists, remove the cassette and check that the seal is correctly installed (**13 d**).



Be careful. The metal parts will be hot, and the cassette may contain hot steam.

5.8 Maintaining Fluid Levels

Use only steam-process distilled water containing less than 5 ppm total dissolved solids (having conductivity of less than 10 $\mu\text{S}/\text{cm}$) in the STAT/M. To fill the reservoir, remove the cap from the top of the unit and fill the reservoir. We recommend using a funnel to minimize spills. Each time you refill the reservoir, empty the waste bottle and refill with water to the MIN line. Empty the waste bottle often to avoid unpleasant odors and discoloration of the contents. A low-level chlorine-free disinfectant, prepared according to the manufacturer's instructions, may be added to the waste bottle.

5.9 Reading Water Quality

1. Power up unit while pressing the **STOP** button to access the User Setup menu.
2. Using the **UNWRAPPED** and **WRAPPED** buttons, scroll to Water Quality and select it by pressing the **RUBBER AND PLASTIC** button.

```
>Water Quality
CD= XXuS/yyy/z.zppm
```

CD = Conductivity
X X = micro S. value

yyy = engineering value
z.z = parts per million value

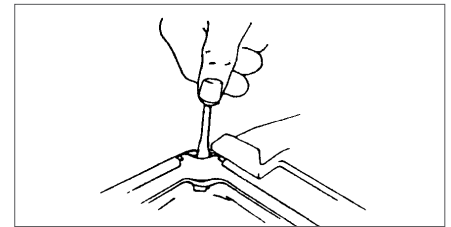


Figure 13 a

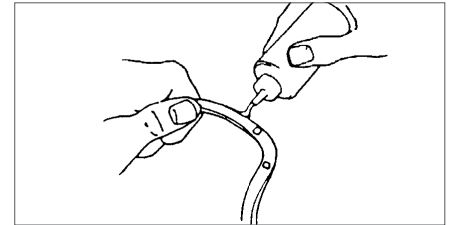


Figure 13 b

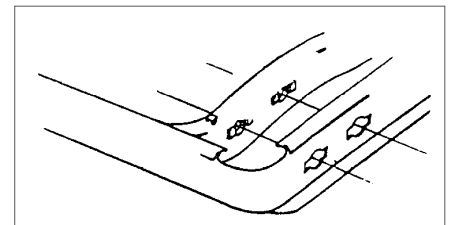


Figure 13 c

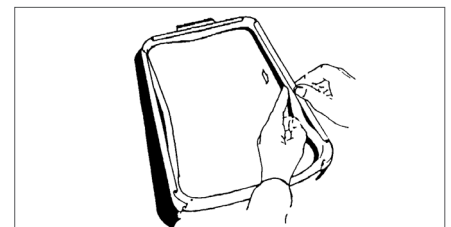


Figure 13 d

5.10 Preventative Maintenance Schedule



To ensure trouble-free performance, both the operator and the dealer must follow a preventative maintenance schedule.

NOTE: Please refer to your National, Regional, State or Safety laws for any additional reoccurring user testing that may be required.

The schedules below describe the necessary actions.

Operator		
Daily	Water Reservoir	<ul style="list-style-type: none"> Replace water as needed. Check the reservoir for dirt or particles and clean if necessary. For ophthalmic use, drain at the end of every workday, leave empty, and refill at the start of the next workday.
	Waste Bottle	<ul style="list-style-type: none"> Empty the waste bottle every time you refill the water reservoir. Fill the bottle with water, up to the MIN line marking. You may also add some chlorine-free disinfectant.
Weekly	Cassette	<ul style="list-style-type: none"> Wash the interior of the cassette with dishwashing soap or a mild detergent that does not contain chlorine. Scrub the inside with a cleaning pad designed for use with Teflon™-coated surfaces. After removing all traces of the detergent, treat interior surfaces of the cassette with the STAT-DRI Plus drying agent to enhance the drying process. Order more STAT-DRI Plus from your dealer quoting 2OZPLUS, 8OZPLUS, or 32OZPLUS.
	Biological and/or Air Filter	<ul style="list-style-type: none"> Check the filter for dirt and moisture. Replace if dirty. Call for service if wet.
	Water Filter	<ul style="list-style-type: none"> Check the water reservoir filter every week and clean if necessary. Replace only if necessary.
Every 6 Months	Cassette Seal	<ul style="list-style-type: none"> Replace every 500 cycles or six months (whichever is first), or whenever necessary.
	Biological and/or Air Filter	<ul style="list-style-type: none"> Replace every 500 cycles or six months (whichever is first).

Technician		
Once a year	Cassette	<ul style="list-style-type: none"> Check the tray, lid and seal for damage. Replace if necessary.
	Biological Filter	<ul style="list-style-type: none"> Inspect the biological filter for moisture.
	Solenoid Valve	<ul style="list-style-type: none"> Inspect the valve and clean if dirty. Replace the plunger if defective.
	Pump	<ul style="list-style-type: none"> Clean the filters, replace if dirty.
	Check Valve	<ul style="list-style-type: none"> Remove the exhaust tube from the back of the unit during the air drying phase. Check for air coming from the fitting. Remove the air compressor tube from the check valve inlet while running a cycle. Make sure no steam is leaking from the valve. Replace if there are any leaks.
	Water Reservoir	<ul style="list-style-type: none"> Check the reservoir for dirt. Clean and rinse with steam process distilled water if necessary.
	Calibration	<ul style="list-style-type: none"> Calibrate the unit.

6. The Communication Port

(Not on all models)

6.1 The RS232 Communication Port

Some models without an internal printer may be equipped with an 9-pin RS232 communication port that will allow you to connect to an external printer or to a SciCan Data Logger.



For printing, you will need to purchase a recommended printer (see list below) from your local computer or electronics store. For data storage, you can purchase SciCan’s USB Data Logger to record and store cycle information onto a mass storage device (MSD) such as a USB Flash Drive or SD memory card.

Printer Model	End of Line CR/LR	Serial Port Bitrate	Printer User Character
Epson TM-U220D (C31C515603)	CR/LF	9600	248 [0xF8]
Citizen IDP-3110-40 RF 120B	CR	9600	N/A
Star Micro SP212FD42-120	CR	9600	210 [0xd2]
Star Micro SP212FD42-1200	CR/LF	9600	210 [0xd2]
Star Micro SP512MD42-R	CR/LF	9600	210 [0xd2]

SciCan Data Logger	End of Line CR/LR	Serial Port Bitrate	Printer User Character
For Mass Storage Device*	CR/LF	9600	32 [0xd2]

** Due to a variety of software programs/viewers that can be used to view the data files stored on a mass storage device such as a USB memory stick, we recommend the above settings.*

For your STAT/M to communicate to a specific device, you must enable this function through the User Setup menu. Follow the instructions in *Section 6.2 Installing the SciCan Data Logger* below to enable communication to either an external printer or the SciCan Data Logger.

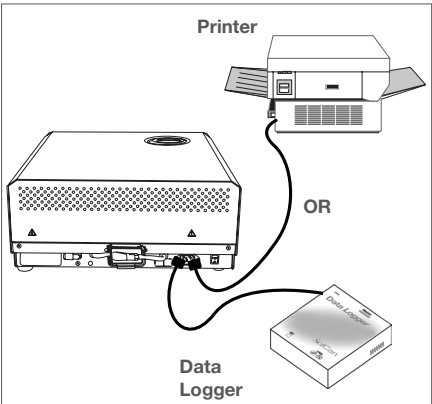


Figure 14

6.2 Installing the SciCan Data Logger

SciCan's USB Data Logger can record and store cycle information onto a mass storage device (MSD) such as a USB Flash Drive or SD memory card.



These instructions are for units with a 9-pin communication (RS232) port located at the back of the unit. Follow the steps below before connecting the Data Logger.

User Setup Menu

Please ensure Time/Date and Unit ID are set as per *Section 3.6* and *Section 3.8*. To install the SciCan Data logger, access the user setup menu by powering up the unit while pressing the **STOP** button. Follow the instructions below to complete installation steps.

```
>Time/Date Setup
Language Setup
Unit ID Setup
Water Quality
Last Printout
RS232
End Of Line CR/LF
Serial Port Btrate
Printer user ° char
Serial Number
Drying Unwrapped
Drying Wrapped
Save and Exit
Exit
```

USER SETUP MENU

STEP 1: Selecting the USB Flash/MSD Option

```
>RS232
End Of Line CR/LF
```



```
>RS232
USB/Flash MSD
```

1. Power up unit while pressing the **STOP** button to access the User Setup menu.
2. Using the **UNWRAPPED** and **WRAPPED** buttons, scroll to RS232 and select it by pressing the **RUBBER AND PLASTIC** button.
3. From the RS232 menu, use the **UNWRAPPED** and **WRAPPED** buttons to scroll down to the USB/Flash MSD option and press the **RUBBER AND PLASTIC** button to select and return to the User Setup menu.

STEP 2: Setting the Serial Port Btrate to 9600

```
>Serial Port Btrate
Printer user ° char
```



```
>Serial Port Btrate
9600
```

1. From the User Setup menu, use the **UNWRAPPED** and **WRAPPED** buttons to scroll to the Serial Port Btrate menu and select it using the **RUBBER AND PLASTIC** button.
2. From the Serial Port Btrate menu, use the **UNWRAPPED** and **WRAPPED** buttons to scroll down to 9600 and press the **RUBBER AND PLASTIC** button to select and return to the User Setup menu.

STEP 3: Setting the Printer user Character (i.e. 134°C)

```
>Printer user ° char
Serial Number
```



```
>Printer user ° char
32 [0x20]
```

1. From the User Setup menu, use the **UNWRAPPED** and **WRAPPED** buttons to scroll to the Printer user ° char menu and select it using the **RUBBER AND PLASTIC** button.
2. From the Printer user ° char menu, using the **UNWRAPPED** button to increase the displayed value by one, and the **WRAPPED** button to increase that value by ten, enter the value 32 [0x20] and press the **RUBBER AND PLASTIC** button to accept and return to the User Setup menu.

STEP 4: Save and Exit

```
>Save and Exit  
EXIT
```

A Save and Exit must be performed after the above settings are completed. If this is not done, the information will revert to its prior settings.

1. From the User Setup menu, use the **UNWRAPPED** and **WRAPPED** buttons to scroll to Save and Exit.
2. Select it by pressing the **RUBBER AND PLASTIC** button.
3. The LCD will display time and date information and a sequence of messages (see images after **STEP 5** below):

STEP 5: Connecting the SciCan Data Logger

1. Ensure that both the STAT/M unit and the SciCan Data Logger are off.
2. Connect the SciCan Data Logger to the STAT/M unit by using the serial cable.
3. Power up the SciCan Data Logger.
4. Power up the STAT/M unit.
5. The LCD will display the following sequence of messages:

```
HH:MM DD/MM/YYYY  
SELECT A CYCLE
```



```
HH:MM DD/MM/YYYY  
MSD NOT CONNECTED
```



```
HH:MM DD/MM/YYYY  
INSERT MSD/FLASH
```

6. Insert USB Flash Drive or SD memory card.
7. After a few seconds the LCD will display the following sequence of messages:

```
HH:MM DD/MM/YYYY  
SELECT A CYCLE
```

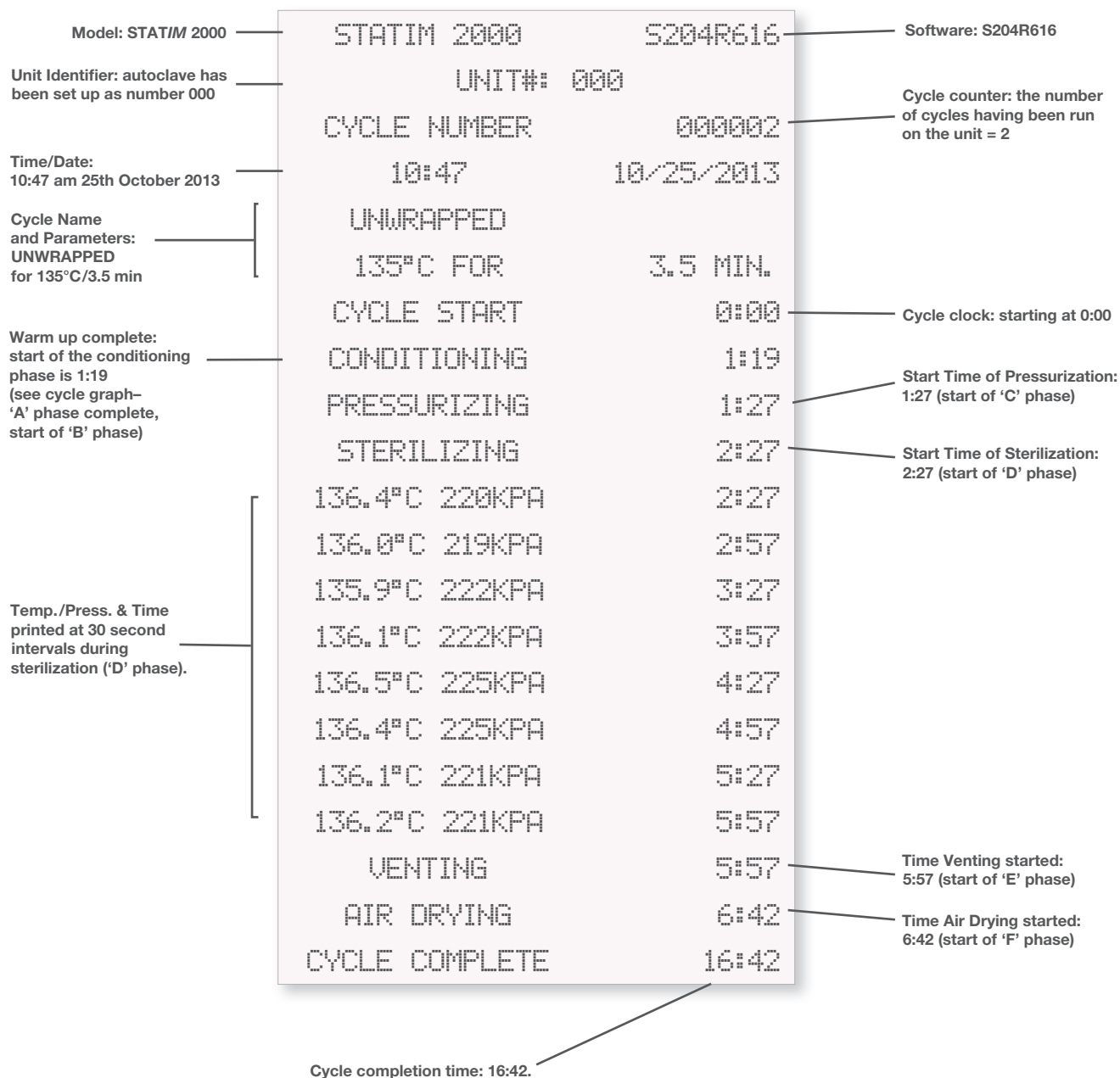


```
HH:MM DD/MM/YYYY  
MSD/FLASH DETECTED
```



```
HH:MM DD/MM/YYYY  
SAFELY REMOVE MSD
```


6.3 Cycle Printout Overview



7. Internal Printer

(Not on all models)

7.1 Installing Paper on the Internal Printer



Use only paper approved for use with the optional internal printer on the STAT/M 5000. The use of any other paper will damage the printer and will void the warranty. Thermal paper is available from your dealer (SciCan order no. 01-101657S).



Do not operate the printer without paper. If you run out of thermal paper, or if you do not wish to use the printer, turn it **OFF**.



Never pull the paper backwards through the printer. This will damage the printer mechanism.

To install the paper into the printer, follow these steps:

1. Power the STAT/M 5000 **ON**.
2. Open the printer door (1) by pushing on the top half of the door.
3. Power the printer **ON** (2).
4. Unroll some paper from the thermal paper roll (3) and trim the corners using the paper cutting template included with each box.
5. Move the paper roll arm (4) into the loading position. Place the paper roll (3) on the arm so the paper strip feeds from the top of the roll and then carefully insert it into the paper feed slot (5) until it stops.

If the paper does not feed from the top, the heat sensitive side of the paper will not be in contact with the print head and the printer will not print.

6. With one hand, continue to gently feed the paper strip into the paper feed slot. With the other hand, press the paper advance button (6) until the paper feeds by itself.

Keep the paper straight when feeding it into the printer or it may jam. Do not force the paper into the slot! If the paper will not feed into the slot, pre-cut the end of the roll again and reload the paper.

7. Continue to press the paper advance button (6) until the paper feeds through the paper exit slot on the front of the printer. Then, move the paper roll (3) and arm into the operating position and close the printer door (1). The printer is now ready to operate.

When you see a red line on one side of the paper, it is time to replace the roll.

If a paper jam occurs, and the paper cannot be removed by pressing the paper advance button (6), do not pull the paper backwards through the printer.

Never put a utensil or tool into the paper exit slot.
For full instructions on how to remove paper jams, see *Section 7.2 Removing Internal Printer Paper Jams*.

To replace the paper roll (3), follow these steps:

1. With scissors, cut the paper between the roll and the paper feed slot (5).
2. Remove the roll from the arm and discard the unused portion.
3. Press the paper advance button (6) to feed the paper that remains in the printer out of the slot at the front of the printer.
4. Install the new thermal paper roll by following the instructions described in this section.

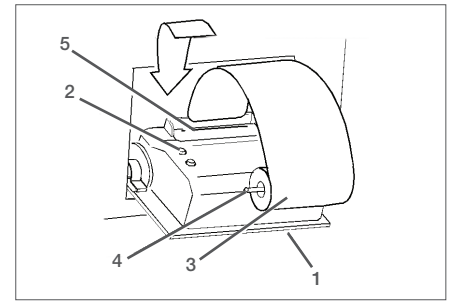


Figure 15 a

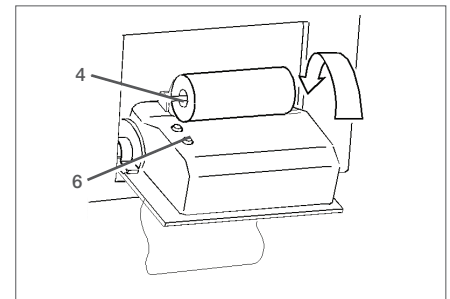


Figure 15 b

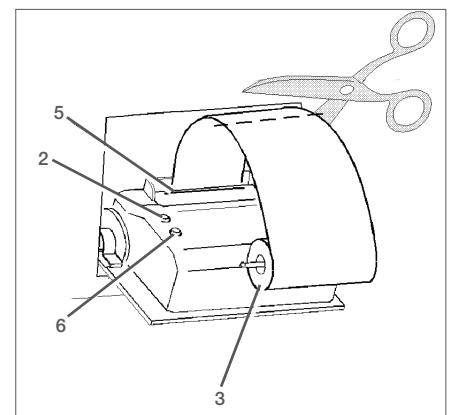


Figure 15 c

7.2 Removing Internal Printer Paper Jams

If paper jams in the printer and cannot be removed by pressing the paper advance button (6), the printer must be disassembled. Do not pull the paper backwards through the printer and never put utensils or tools into the paper exit slot.

When paper is jammed in the printer, follow these steps to remove the jam (refer to figures 15c & 16):

1. Power the STAT/M 5000 **OFF** and unplug the unit.
2. Using scissors, cut the paper between the roll and the paper feed slot (5).
3. Remove the paper roll (3) from the paper roll arm (4) and leave the arm in the loading position.
4. Using a #1 Phillips screwdriver, remove the three screws (7) from the printer cover (8) and remove the cover.
5. Note the orientation of the exposed printed wiring board (15) and the paper roll arm (4) assembled on the printer door (1).
6. Gently lift the printed wiring board upwards and away from the printer door. Exercise care while handling the board. The printer is integral to the wiring board. Do not place strain on the connections of the ribbon cable soldered to the board. Do not remove the connector of the flexible cable from the connector header on the board. The paper drive mechanism on the underside of the wiring board is now exposed.
7. Using a pair of tweezers or fine needle-nosed pliers, carefully remove the paper from the mechanism.

When the paper is removed, reassemble the printer:

1. Carefully snap the paper roll arm, in the loading position, back into the clips on the printer door (1).
2. Place the printed wiring board back into position on the printer door. Note the alignment of the mounting holes (9) in the wiring board and the mounting bosses (13) on the printer door. The black plastic printer body rests between the locating ribs (10) on the inside of the printer door.
3. Ensure that the flexible cables (11), (14) are not pinched between the printer door and the wiring board.
4. Place the printer cover on the printer door. Ensure that the flexible cables are not pinched between the cover and the door. The power button and the paper advance button must protrude through the openings in the cover and operate freely.
5. Using a #1 Phillips screwdriver, secure the printer cover to the printer door with the three screws retained during the disassembly procedure. Do not over-tighten these screws.
6. Plug your STAT/M 5000 into the wall receptacle. Turn the power switch to the **ON** position.
7. Press the printer power button to the **ON** position. Load paper into the printer following the procedures in *Section 7.1 Installing Paper on the Internal Printer*.

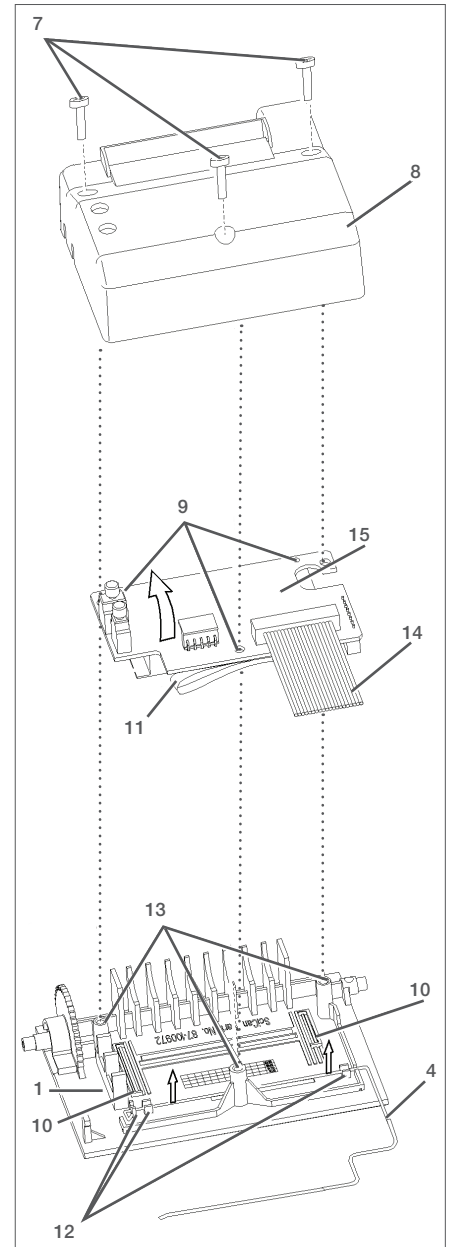






Figure 16



8. Troubleshooting

Problem	Solution
Unit does not power ON.	<p>Check that the unit is plugged into a properly grounded outlet and that the power cord is firmly seated at the rear of the machine.</p> <p>Try another circuit. Power unit OFF for 10 seconds and then power ON again.</p> <p>Check the condition of the line circuit breaker or fuse.</p>
There is water under the machine.  	<p>Check that water has not spilled when refilling the reservoir. Make sure the plug in the exhaust tube is secured. Remove and reinsert the cassette. Attempt another cycle.</p> <p>Be careful. The metal parts will be hot, and the cassette will contain hot steam.</p> <p>The cassette is leaking if water drips from the underside of the unit during operation. Check the cassette seal for misalignment or damage and replace the seal if required.</p> <p>Be careful. The metal parts will be hot, and the cassette will contain hot steam.</p> <p>Attempt another cycle. If it still leaks attempt another cycle using a different cassette if possible.</p> <p>If the leak persists, turn the unit OFF, remove and unload the cassette, unplug the unit, and call your dealer.</p>
Instruments do not dry.	<p>Best drying occurs when the cycle continues to completion. Allow the cycle to finish. Make sure the instruments are loaded correctly in the cassette. Refer to <i>Section 4.4 Preparing and Loading Instruments</i>.</p> <p>Check the unit leveling. Ensure the bubble level is set to Four o'clock position.</p> <p>Check air filters and replace if dirty.</p> <p>For the STAT/M 5000, ensure the Stat-Dri plates are being used.</p> <p>Clean the inside of the cassette and treat with Stat-Dri drying agent. Refer to <i>Section 5.1 Cleaning the Cassette</i>.</p> <p>Examine the exhaust tube (tube to the waste bottle) for kinks.</p> <p>If kinked, straighten the tube. If the tube cannot be straightened, remove it from the push-in fitting attached to the STAT/M. Depress the collar on the fitting and with the other hand pull firmly on the tube. Once the tube is free of the fitting, cut the damaged section of tubing away using a sharp instrument. Be sure that you leave enough tube to reach the unit when you re-attach the tube to the exhaust fitting. If the tube is too short to remove a section, contact your SciCan dealer for a replacement.</p> <p>For the STAT/M 2000, make sure the compressor is working. To check, remove the exhaust tube from the waste bottle. Start the Air Drying Only Cycle, and place the free end into a glass of water. If there is not a strong, steady flow of bubbles, the compressor is not functioning properly. Contact your SciCan dealer.</p>
Cycle interrupted — NOT STERILE, Cycle aborted — NOT STERILE and CYCLE FAULT messages. 	<p>Record the CYCLE FAULT number. Wait a few minutes and attempt another cycle before proceeding to the next solution. If the message persists, remove the cassette. Be careful. The metal parts will be hot and the cassette will contain hot steam. Inspect the cassette to ensure that the holes in the back of the seal are perfectly aligned, and that the flexible lip of the seal is completely free. Check the exhaust tube for kinks or obstructions. If kinked, straighten the tube.</p> <p>If the tube can not be straightened, remove it from the push-in fitting attached to the STAT/M. Depress the collar on the fitting and, with the other hand pull firmly on the tube. Once the tube is free of the fitting, cut the damaged section of tubing away using a sharp instrument. Be sure that you leave enough tube to reach the unit when you re-attach the tube to the exhaust fitting. If the tube is too short to remove a section, contact your SciCan dealer for a replacement.</p> <p>Check that the STAT/M has not inadvertently been exposed to any electrical interference. Refer to the Installation section dealing with Environmental Considerations. (<i>Section 3.1</i>)</p> <p>Try running another cycle. If the problem persists, record the cycle fault message number and contact your dealer.</p>
Drying interrupted – LOAD NOT STERILE message	<p>User may have pressed the STOP button during the drying phase. Repackage the instruments, if necessary and re-run another sterilization cycle.</p>
Excessive steam issuing from the front of the machine. 	<p>Remove and reinsert the cassette. Attempt another cycle. If the leak persists, remove and check the cassette seal for misalignment or damage. Replace the seal if required. Be careful as the metal parts will be hot and the cassette will contain hot steam.</p> <p>If the leak persists, turn the unit OFF, remove and unload the cassette and contact your SciCan dealer.</p>

Problem	Solution
Message: WATER QUALITY IS NOT ACCEPTABLE. Machine will not start.	You have used water which is not steam-process distilled or is improperly distilled. Empty the reservoir and refill with steam-process distilled water containing less than 5 ppm total dissolved solids (having conductivity of less than 10 $\mu\text{S} / \text{cm}$). If you have the water conductivity meter, check the quality of the water before refilling the reservoir. Refer to the steps described in <i>Section 3.11 Shipping the Unit</i> to empty the reservoir.
Message: REFILL RESERVOIR, Machine will not start.	The level of the water in the reservoir is low. Refill the reservoir. Refer to the steps described in <i>Section 3.4 Filling the Reservoir</i> .
Message: PRINTER FAULT displayed on LCD Printer is not printing.	Check for a paper jam. If the paper is jammed, follow the paper removal procedures outlined in <i>Section 7.2</i> . Power unit OFF for 10 seconds and then power ON again. If the message still appears, follow the disassembly procedures outlined in <i>Section 7.2 Removing Paper Jams</i> .
The printer does not work.	Make sure that the printer cable is connected securely with the connector on the back of the STAT/M and the Statprinter. Make sure that the printer is powered ON . Power unit OFF for 10 seconds and then power ON again.
The printer appears to work, but nothing is printed on the paper.	Ensure that the paper is loaded properly (refer to <i>Section 7.1 Installing Paper on the Internal Printer</i>). Check to see that the paper leaves the paper roll from the top of the roll. This means that the treated surface of the coated thermal paper will be in contact with the thermal print head.
Time and date are incorrect.	The time and date have not been set. See <i>Section 3.6 Setting the Time and Date</i> .
Message: MSD NOT CONNECTED <> INSERT MSD/FLASH	Check the serial cable connection. Check the power connection. Ensure the lower red LED is lit. Check that the Mass Storage Device is properly inserted. Repeat the instructions for Installing the SciCan Data Logger on your STAT/M.
Message: MSD/FLASH FULL <> REPLACE MSD	The MSD is full. Export the data.
Message: Missing lines of Data on MSD/FLASH	Refer to the STAT/M screen to confirm successful sterilization. Reset the Data Logger by unplugging its power, disconnecting the MSD and waiting 10 seconds. Then re-connect the power adapter and insert the MSD into the Data Logger. If the problem persists, contact the SciCan Service Center.
Message: The file or directory in the MSD is corrupted or unreadable.	Refer to the STAT/M screen to confirm successful sterilization. The MSD may have been unplugged while data was being written to it. The MSD should not be unplugged until after "SAFELY REMOVE MSD <> MSD/FLASH DETECTED" is displayed. The corrupted files or directories may be lost. Reformat the MSD on your computer.

9. Spare Parts List

Spare Parts	
01-100780S	Bumper
01-100782S	Push-in Fitting (2000)
01-101658S	Cassette Handles (5000)
01-101755S	Push-in Fitting (5000)
01-106030S	Cassette Lid Handle (2000)
01-104472	Extended Cassette Handles
01-100008A	Kit Cassette Final (2000)
01-100028S	Cassette Seal (2000)
01-100204S	Exhaust Tube (2000 & 5000)
01-100207S	Compressor Filter
01-100271A	Kit Tray Cassette w/ Mesh, Box Stat1
01-100572S	Power Cord North America (2000)
01-100584S	Power Cord German (2000)
01-100585S	Power Cord Italian (2000)
01-100586S	Power Cord U.K. (2000)
01-100612S	English Manual/Tubing/Indicators (2000)
01-100724S	Condenser Bottle w/o Condenser (2000 & 5000)
01-100730S	Power Cord Japan (2000)
01-100735S	Waste Water Bottle Fitting (2000 & 5000)
01-100799S	Power Cord Switzerland (2000)
01-100812S	Condenser Bottle (2000 & 5000)
01-100834S	Cassette Lid (2000)
01-101553S	Leveler (2000 & 5000)
01-101647S	Power Cord North America, (5000)
01-101649S	Cassette Seal (5000)
01-101652S	Air Compressor Filter (5000)
01-101657S	Thermal Paper (Box of 10 rolls)
01-106071S	Extended Cassette Lid Handle (5000)
01-101614S	Tray Complete with Box (5000)
01-106438S	Cassette Lid, Extended
01-106653	Mesh Tray (2000)
01-107767S	Extended Tray (5000)
01-101709S	Mesh Rack (5000)
01-101757S	Cassette Lid w/ Box (5000)
01-101763S	Power Cord Japan (2000 & 5000)

01-101766S	Power Cord UK (2000 & 5000)
01-101767S	Power Cord Australia (5000)
01-101768S	Power Cord Switzerland (2000 & 5000)
01-101769S	Power Cord Italy (2000 & 5000)
01-101779S	Power Cord Europe (2000 & 5000)
01-101783S	Reservoir Cap (2000 & 5000)
01-101787S	Water Reservoir Cap and Filter (2000 & 5000)
01-109300S	Water Reservoir Filter
01-102119S	Filter Biological (2000 & 5000)
01-103475S	Tray (2000)
01-103555S	Power Cord Replacement Denmark
01-103557S	Power Cord Replacement Denmark (detached)
01-103865S	Seal Lubricant (2000 & 5000)
01-104093S	Exhaust Tube 3m Long
01-104284S	Biological Filter Bracket (2000 & 5000)
01-104343S	Plug-Drain Tubing (5000)

Accessories	
01-101613S	Cassette Complete with Box (5000)
01-106325	Container Endoscope Complete
01-108262S	Basket Medical (2000)
01-102054S	Rack-Wrapped Instruments (5000)
01-103139S	Conductivity Meter (2000 & 5000)
01-103923	Condenser Additional Bottle
01-103935	STAT-DRI Plates (5000)
01-103945S	Rack-Tray Unwrapped Instrument Kit (2000)
01-104104	Extended Length Cassette (5000)
01-104499	Extended Cassette Instrument Rack (5000)
01-104785S	Instrument Holder–10 mm (5000)
01-108263S	Basket Medical (5000)
01-210000	Kit Printer (5000)
2OZPLUS	STAT-DRI Plus 2 oz. Bottle w/ sprayer
32OZPLUS	STAT-DRI Plus 32 oz. Bottle w/ sprayer
8OZPLUS	STAT-DRI Plus 8 oz. Bottle w/ cap
99-108332	Chemical Emulator 134°C, 3.5 min.

10. Warranty

Limited Warranty

For a period of one year, SciCan guarantees that the STAT/M 2000/5000, when manufactured by SciCan in new and unused condition, will not fail during normal service due to defects in material and workmanship that are not due to apparent abuse, misuse, or accident.

The one year warranty will cover the performance of all components of the unit except consumables such as the cassette seal, the compressor filter and the microbiological filter, provided that the product is being used and maintained according to the description in the user's manual.

In the event of failure due to such defects during this period of time, the exclusive remedies shall be repair or replacement, at SciCan's option and without charge, of any defected part(s) (except gasket), provided SciCan is notified in writing within thirty (30) days of the date of such a failure and further provided that the defective part(s) are returned to SciCan prepaid.

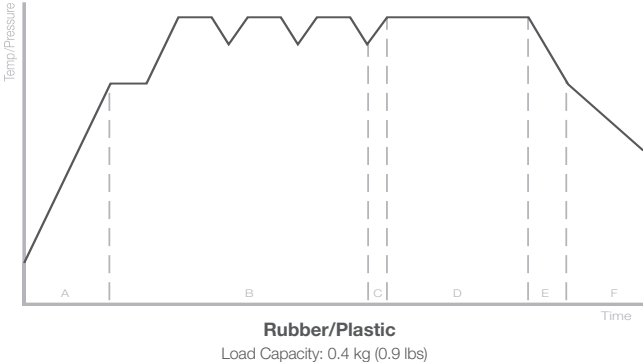
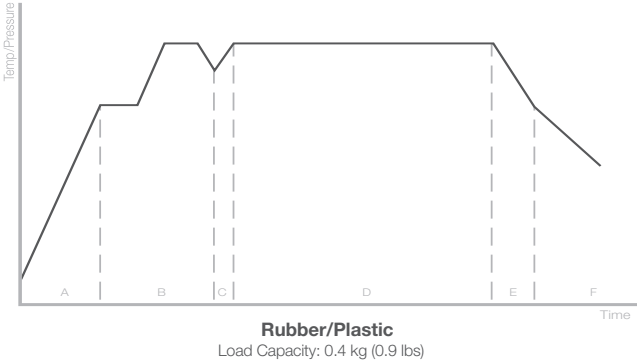
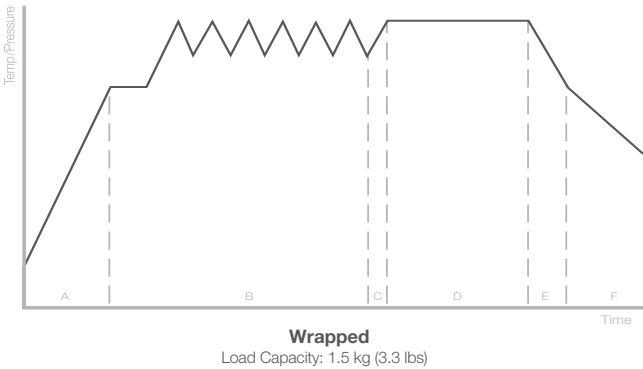
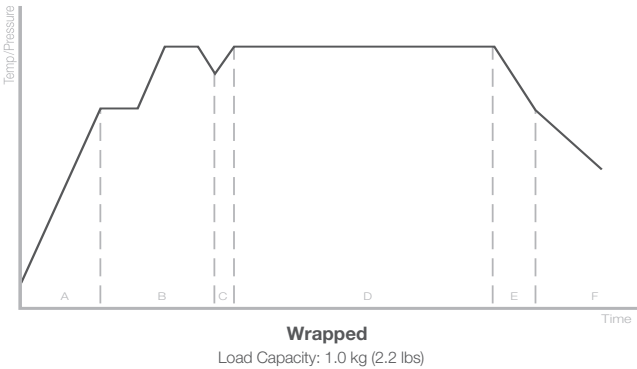
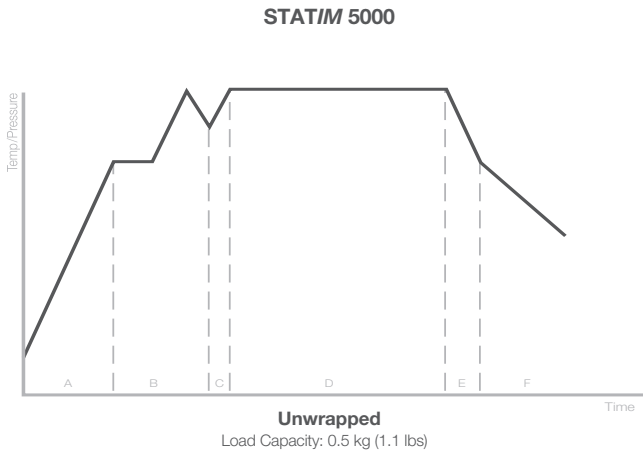
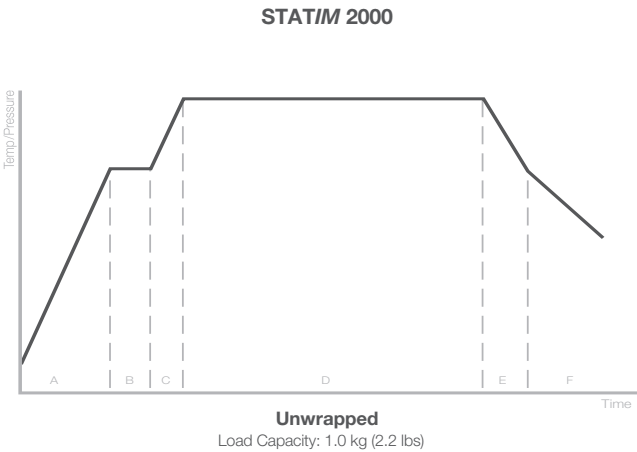
This warranty shall be considered to be validated, if the product is accompanied by the original purchase invoice from the authorized SciCan dealer, and such invoice identifies the item by serial number and clearly states the date of purchase. No other validation is acceptable. After one year, all SciCan's warranties and other duties with respect to the quality of the product shall be conclusively presumed to have been satisfied, all liability therefore shall terminate, and no action or breach of any such warranty or duty may thereafter be commenced against SciCan.

Any express warranty not provided hereon and any implied warranty or representation as to performance, and any remedy for breach of contract which, but for this provision, might arise by implication, operation of law, custom of trade or course of dealing, including any implied warranty of merchantability or of fitness for particular purpose with respect to all and any products manufactured by SciCan is excluded and disclaimed by SciCan. If you would like to learn more about SciCan products and features, visit our website at **www.scican.com**.

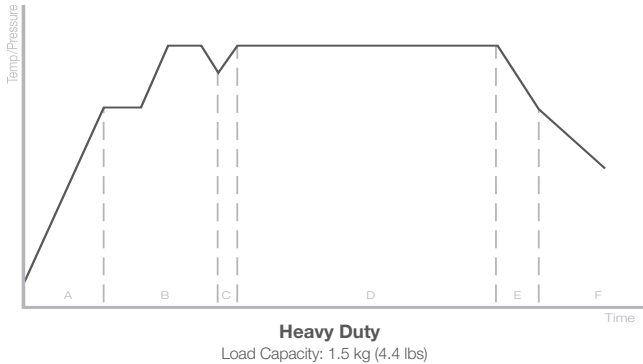
11. Specifications

SPECIFICATIONS	STAT/M 2000	STAT/M 5000
Machine Dimensions (L x W x H):	485 mm x 415 mm x 150 mm 19" x 16.3" x 5.9"	550 mm x 410 mm x 190 mm 22" x 16" x 7.5"
Cassette Size (External) (L x W x H) (includes Handles):	410 mm x 195 mm x 40 mm 16" x 7.67" x 1.6"	495 mm x 195 mm x 80 mm 19.5" x 7.67" x 3.2"
Cassette Size (Internal) (L x W x H):	280 mm x 180 mm x 35 mm 11" x 7.1" x 1.4"	380 mm x 180 mm x 75 mm 15" x 7.1" x 3"
Extended Section (L x W x H):	N/A	110 mm x 130 mm x 16 mm 4.3" x 5.1" x 0.63"
Sterilization Chamber Volume:	1.8 L (61 fl. oz.) U.S.	5.1 L (170 fl. oz.) U.S.
Reservoir Volume:	4.0 L (140 fl. oz.) U.S.	4.0 L (140 fl. oz.) U.S.
Weight (Without water):	21 kg (46 lbs)	33 kg (73 lbs)
Clearance required (Top/Sides/Back/Front):	50 mm (1.9")/50 mm (1.9")/ 50 mm (1.9")/480 mm (18.9")	50 mm (1.9")/50 mm (1.9")/ 50 mm (1.9")/570 mm (22.4")
Optional Internal Printer:	Type: N/A Print: N/A Print Speed: N/A Paper Roll Capacity: N/A	Type: Thermal Printer Print: 20 characters per line Print Speed: 1 line per second Paper Roll Capacity: approx. 80 sterilization cycles per roll
Maximum Steam Temperature:	138°C (280°F)	138°C (280°F)
Maximum Operating Pressure:	341 kPa abs (49.5 psia)	341 kPa abs (49.5 psia)
Electrical Rating* +/- 10%: <small>*see serial number label for requirements specific to your unit.</small>	100 V, 50 / 60 Hz, 11 A 110 V, 50 / 60 Hz, 11 A 220-240 V, 50 / 60 Hz, 6 A	100 V, 50 / 60 Hz, 11 A 110 V, 50 / 60 Hz, 11 A 220-240 V, 50 / 60 Hz, 6 A
Protection Class:	I	I
Protection:	Covered (indoor use only)	Covered (indoor use only)
Ambient Operating Temperatures and Humidity:	15°C to 25°C (59°F to 77°F) and 25% to 70%	15°C to 25°C (59°F to 77°F) and 25% to 70%
Altitude:	Up to 2000 meters (6600 ft)	Up to 2000 meters (6600 ft)
Installation Category:	1	1

12. Appendix: Cycle Profile and Capacity



LENGEND	
A) Warming up	D) Sterilizing
B) Conditioning	E) Venting
C) Pressurizing	F) Air Drying



For all service and repair inquiries:

In Canada: 1-800-870-7777
United States: 1-800-572-1211
International: (416) 446-4500
techservice.ca@scican.com

SciCan Inc.

701 Technology Drive
Canonsburg, PA 15317
USA
Telephone: +1 724-820-1600
Fax: +1 724-820-1479
Toll free: 1-888-632-6031

EU Representative:

SciCan GmbH

Wangener Straße 78
88299 Leutkirch
Germany
Telephone: +49 (0)7561 98343-0
Fax: +49 (0)7561 98343-699

SciCan Medtech

Alpenstrasse 16
6300 Zug Switzerland
Telephone: +41 (0) 41 727 7027
Fax: +41 (0) 41 727 702

Manufactured by:

SciCan Ltd.

1440 Don Mills Road,
Toronto ON M3B 3P9
Canada
Telephone: (416) 445-1600
Fax: (416) 445-2727
Toll free: 1-800-667-7733



STATIM Cassette Autoclave and STATIM are registered trademarks and STAT-DRI, Your Infection Control Specialist, DriTec^R and DriTec^C logos are trademarks of SciCan Ltd. All other trademarks referred to in this manual are the property of their respective owners.

© 2013 SciCan Ltd . All rights reserved.

95-113969 LA EN R1 STATIM 2000 5000 Operator Manual