



Creamatocrit Plus™



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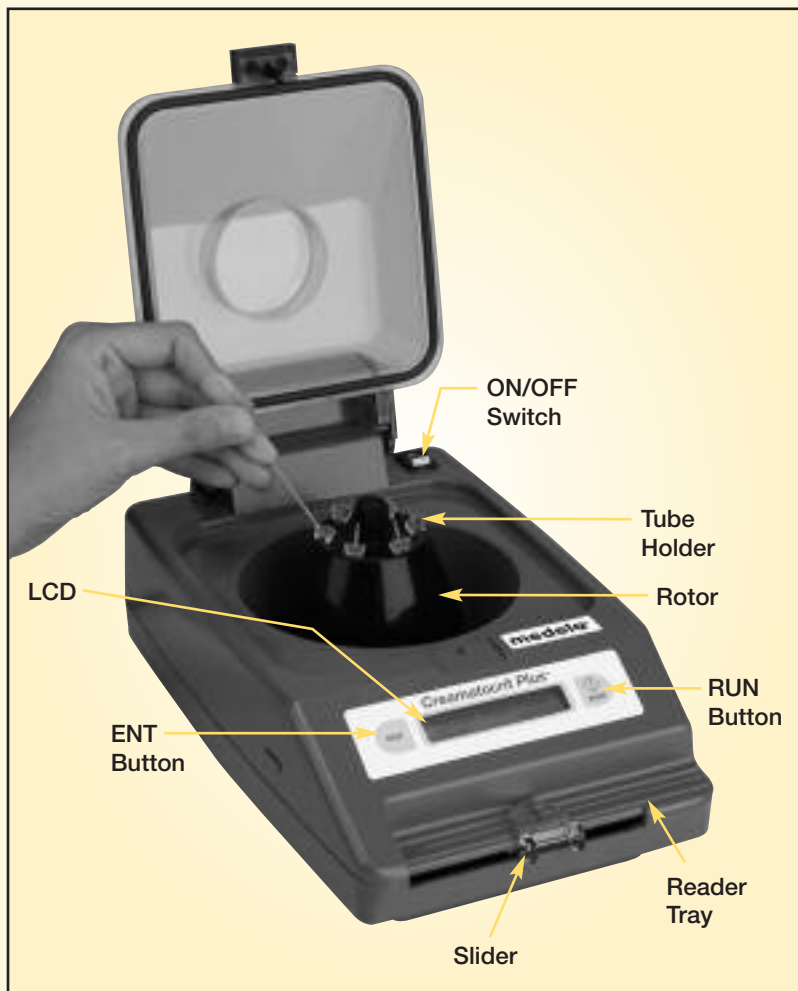
— Instructions for use



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Creamatocrit Plus™



IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed, including the following:

READ ALL INSTRUCTIONS

DANGER: To reduce the risk of electrocution:

1. Do not place or store product where it can fall or be pulled into a tub or sink.
2. Do not place in or drop into water or other liquid.
3. Do not reach for a product if it has fallen into water. Unplug immediately.

WARNING: To reduce the risk of burns, electrocution, fire or injury to persons:

1. Use the product only for its intended use as described in this manual.
2. Never operate this product if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water.
3. Keep the cord away from heated surfaces.
4. Plug the power supply into Creamatocrit Plus product first and then into wall socket.
5. Only use the power supply that comes with the Creamatocrit Plus.
6. Make sure the voltage of the power supply is compatible with the power source.

SAVE THESE INSTRUCTIONS

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SECTION 1

DESCRIPTION AND INTENDED USE

The Creatamocrit Plus™ is a small, lightweight centrifuge that provides a rapid and accurate creatamocrit determination, estimated calories and other parameters of breast milk. The rotor will accommodate up to six Creatamocrit Plus tubes. The device will achieve separation in only three minutes.

The Creatamocrit Plus system includes a built-in automatic tube reader and a LCD that displays messages to guide the operator throughout the testing procedure and then displays the test results.

An optional rechargeable battery is available to permit operation in locations where alternating current is not available.

SECTION 2

INSTALLATION

2.1 UNPACKING

The Creatamocrit Plus shipping box contains:

- Centrifuge
- Package of ten disposable tube holders
- Laminated quick reference procedure guide/tube placement guide
- One vial of Creatamocrit Plus tubes
- Power supply
- Instruction manual
- One tray of tube sealant
- Control strip



Read the instruction manual thoroughly before operating this system.

2.2 POWER SUPPLY

Use ONLY the power supply packaged with the Creamatocrit Plus. Verify that the ON/OFF switch located on the top of the centrifuge is in the OFF "⊖" position. Always plug the power supply into the rear of the device first and then plug the three-prong end into an electrical outlet. Press the ON/OFF switch to the ON "⊕" position. The lid will automatically open and the LCD will display the main menu. (Refer to Section 8 for battery instructions.)

CAUTION: Breastmilk is a bodily fluid and should be handled appropriately.

SECTION 3 OPERATING INSTRUCTIONS

3.1 START UP

Press the ON/OFF switch to the ON position. The lid will automatically open and the LCD will display the main menu.



3.2 ROTOR LOADING AND BALANCING

FOR SMOOTH OPERATION AND EXTENDED LIFE OF THE CENTRIFUGE, THE ROTOR MUST ALWAYS BE BALANCED BEFORE THE SPIN CYCLE IS INITIATED.

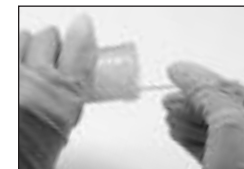
Install 2, 4 or 6 tube holders in the rotor. There should always be an even number of tube holders in the rotor and they should be opposite each other to balance the rotor.

When an even number of Creamatocrit Plus tubes (2, 4 or 6) are centrifuged, balancing is accomplished by placing the tubes on opposite sides of the rotor from one another so that the weight is distributed equally. If an odd number of tubes (1, 3 or 5) are centrifuged, use an empty tube to balance the rotor.



3.3 TUBE PREPARATION

A. Mix the milk sample well by gently shaking for 5 seconds.



B. Fill a Creamatocrit Plus tube $\frac{1}{2}$ to $\frac{3}{4}$ full. Let the milk flow down the tube until it is near the dry end. Then place your finger over the wet end of the tube to stop the flow. (Stop the milk before it gets to the area where the sealant will go – that area should remain dry.)



C. Insert the dry end vertically into the sealant, pushing it to the bottom of the tray. Twist the tube when removing it from the sealant to prevent the sealing plug from being extracted. Repeat.



D. Gently tap the sealed end of the tube on a flat surface to help ensure proper sealant contact in the tube.



E. Wipe off the prepared tube.

F. Place the tube carefully in the centrifuge tube holder with the sealant end down. The tube positions are numbered on the rotor and can be used to record the position of each sample.



3.4 TUBE CENTRIFUGATION

With the tube holders and tubes in place, lock the lid by firmly pressing down on the lid tab. Start the spin cycle by pressing the RUN button. The centrifuge will not operate unless the lid is closed and properly locked.



During the period of time when the motor is accelerating, a test number is displayed on the LCD. This number is a count of the completed spin cycles. Within seconds the centrifuge will reach the proper operating speed and the rpm will be displayed on the LCD during the cycle. The LCD will display a countdown of time for the remainder of the spin cycle, and the device will stop automatically after 180 seconds.



An audible tone will indicate that the spin cycle is complete, the automatic lid lock will disengage and the lid will open.

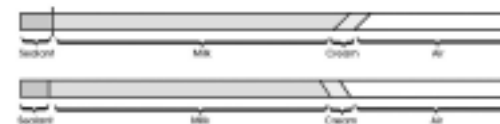
3.5 READING A TUBE

A. Move the slider to the far left side of the reader tray.

ONLY ONE TUBE AT A TIME SHOULD BE REMOVED FROM THE ROTOR FOR READING. THE REMAINING TUBES SHOULD BE READ IMMEDIATELY FOLLOWING THE READING OF THE FIRST TUBE. ONCE A TUBE HAS BEEN REMOVED FROM THE ROTOR, IT SHOULD BE READ WITHIN ONE MINUTE.



B. Remove a tube from the rotor and place it in the groove in the reader tray. Make sure the sealant end of the tube is to the far left, against the end of the groove. Rotate the tube in the groove so that the full slanted interfaces of the MILK / CREAM and CREAM / AIR can easily be seen. The interfaces can slant either direction as shown below - whichever provides the best vantage point. Once the tube has been properly positioned, **make sure you do not move the tube** during the reading process.



C. Press the ENT button.



Move the slider along the tube to the interface of the tube sealant and milk. Look through the transparent slider and position the vertical black line on the interface.



D. Press the ENT button.



Move the slider to the MILK / CREAM interface. Look through the transparent slider and position the vertical black line on the middle of the slanted interface.



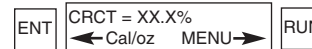
E. Press the ENT button.



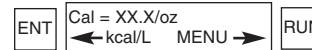
Move the slider to the CREAM / AIR interface. Look through the transparent slider and position the vertical black line on the middle of the slanted interface. If there is a clear layer of yellow liquid on top of the cream, include it as part of the cream layer.



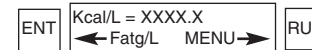
F. Press the ENT button. The LCD will display the creatocrit result.



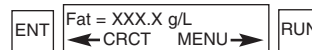
G. Press ENT to display calories per ounce. Press RUN to return to the main menu.



H. Press ENT to display kilocalories per liter. Press RUN to return to the main menu.



I. Press ENT to display fat in grams per liter. Press RUN to return to the main menu.



J. Press ENT to display CRCT. Press RUN to return to the main menu.

3.6 CREAMATOCRIT DETERMINATION REMINDERS

TO ENSURE CORRECT RESULTS:

- Use only Creatamatocrit Plus tubes.

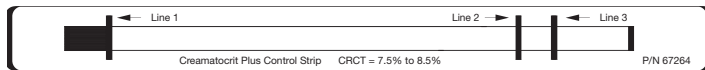
- Spin sample one time (3 minutes) ONLY.
- Read the tube immediately after removing it from the rotor.
- Place the vertical black line of the slider in the middle of the MILK / CREAM and CREAM / AIR full slanted interfaces.
- Occasionally you may see a “tail” or line of cream running down the inside of the tube. It will not affect the result. Simply ignore it when marking the interfaces on the tube.
- Do not smooth the holes out of the sealant in the tray with your finger. This can result in sealant blowouts.
- Tubes spun in a Creatatocrit Plus should be read on the Creatatocrit Plus.
- Inspect and replace dirty or cracked disposable plastic tube holders monthly or more frequently if necessary.

SECTION 4

QUALITY CONTROL AND ASSURANCE

4.1 USE OF THE CONTROL STRIP

The Creatatocrit Plus Control Strip is used to verify the tube reader accuracy.



Testing Procedure:

1. Move the slider to the far left side of the reader tray.
2. Place the control strip on the reader tray under the slider as far to the left as possible.
3. Starting from the main menu, press the ENT button.
4. Move the slider so the black line is over line 1 on the control strip.

5. Press the ENT button.
6. Move the slider so the black line is over line 2.
7. Press the ENT button.
8. Move the slider so the black line is over line 3.
9. Press the ENT button.
10. The CRCT value on the LCD should be between 7.5% and 8.5%. If the readings do not fall within the range, repeat the test or call Medela Customer Service at 1-800-435-8316 for technical service.

4.2 CALIBRATION

No calibration is required because microprocessor technology is used to monitor the speed and spin cycle of the Creatatocrit Plus. A maximum packing time test is not applicable. If an abnormal operating condition is encountered, a programmed error message will automatically appear in the display. However, spin time and RPM tests can be performed, if desired.

4.3 SPIN TIME/RPM TESTS

A. SPIN TIME

Spin time is factory set at 180 +/- 3 seconds. A count down of the time remaining is displayed on the LCD. Spin time may be verified by using a stopwatch. The motor takes less than 10 seconds to accelerate to proper rpm. Once achieved, the spin time will be displayed on the LCD. Start timing the spin when WAIT 180 SEC is displayed on the LCD. Stop timing the spin when the motor shuts off.

B. RPM

The Creamatocrit Plus is designed to operate between 5,670 and 6,930 rpm. An internal microprocessor continuously monitors the rpm during operation. If the rpm should drop below the specified range, the motor will shut off, and the message LOW RPM will display on the LCD. To clear the LOW RPM message, press the ENT or RUN button to return to the main menu. Press the RUN button to restart the spin cycle. If the LOW RPM message is displayed again, refer to Section 6. The rpm reading on the LCD should be within 2% of a tachometer reading.

SECTION 5 MAINTENANCE

5.1 CLEANING

As with all electrical devices, make sure the centrifuge is unplugged before cleaning. Always wear protective clothing when using any cleaning materials.

NEVER USE BLEACH, ABRASIVES OR CORROSIVE SOLVENTS.

DO NOT SPRAY OR ALLOW ANY LIQUID TO GET INSIDE THE CENTRIFUGE. LIQUID WILL HARM THE ELECTRONICS. SUBSEQUENT PROBLEMS WILL NOT BE COVERED UNDER WARRANTY.

BEFORE USING ANY CLEANING OR DECONTAMINATION METHODS EXCEPT THOSE RECOMMENDED BY THE MANUFACTURER, USERS SHOULD CHECK WITH THE MANUFACTURER THAT THE PROPOSED METHOD WILL NOT DAMAGE THE EQUIPMENT.

Use a disinfectant towelette or a cloth slightly dampened with any non-corrosive disinfectant solution to clean the lid and other parts of the centrifuge housing.

Dry all surfaces with a soft tissue or cloth after cleaning.

The rotor should be removed and cleaned regularly. Remove the rotor from the motor shaft by first unscrewing the rotor knob. Gently lift the rotor vertically off of the motor shaft. Make sure the rotor is thoroughly dry before reinstalling. Liquid left on the rotor will cause damage to the device. Re-install the rotor making certain that the rotor knob is tight.

5.2 TUBE HOLDERS

Cleaning the tube holders is not recommended. Should a tube break or a sealant blowout occur, simply discard the affected tube and tube holder in accordance with proper laboratory procedures and replace with a new tube holder. Inspect and replace dirty or damaged tube holders monthly or more frequently as needed. Replacement tube holders are available (See Section 7).



5.3 SERVICE

To obtain service, call Medela Customer Service Customer Service at 800-435-8316.

All instruments or accessories must be cleaned prior to shipment to the manufacturer for service.

When transporting the Creamatocrit Plus, removal of the rotor or placement of packing material around the rotor will help prevent damage to the motor shaft in the event the unit is dropped.

SECTION 6 TROUBLESHOOTING

SYMPTOM	PROBLEM	SOLUTION
No display	Power supply not firmly plugged into electrical outlet or in back of device.	Check both plugs.
	Power supply not functioning.	Replace power supply.
	ON/OFF switch not ON.	Turn ON/OFF switch ON.
	Faulty electrical outlet.	Try a different electrical outlet.
Rotor will not spin	Lid not locked.	Press firmly down on the lid tab.
Unit Noisy	Rotor knob is not tight.	Tighten rotor knob.
	Rotor not balanced.	Balance the rotor.
Lid will not open	Device is in the spin cycle.	Allow spin cycle to end (Section 3.4). Turn ON/OFF switch off, wait 5 seconds and turn it back on.
	Lid lock is engaged.	Use the key tool on the underside of the unit. Insert the "L" shaped end of the tool into the "L" shaped key opening on the left side of the unit. Push gently until the lid opens.
LOW RPM message	Low rpm.	Insure that the rotor moves freely. Check rotor balance.
RUN ABORTED message	Power failure.	Restore power.
	Power supply disconnected.	Reconnect plug.
ENTRY ERROR message	Slider is moved out of sequence or is moved in the wrong direction.	Move the slider to the far left and start the reading process over. (Section 3.5).
ERROR HIGH CRCT	The CRCT reading was higher than 50.9%.	Exceeds the range of the Creamatocrit Plus.
LCD flashing	Low battery charge (less than 20% capacity).	Recharge or replace battery.
	Power supply not firmly plugged into electrical outlet or in back of device.	Check both plugs. Try a different electrical outlet.
Battery will not charge	Power supply not properly connected.	Section 8 - Power Supply.
	Battery not properly connected.	Section 8 - Optional Rechargeable Battery.
	Faulty battery.	Replace battery.
Battery does not hold adequate charge	Battery discharge/recharge cycles exceeded.	Replace Battery.

For additional questions and orders call 800-435-8316

SECTION 7

ACCESSORIES AND SUPPLIES

ACCESSORIES

67265	Rechargeable Battery
67266	Carrying Case
9207046	Power Supply
9287010	Power Cord

SUPPLIES

67261	Disposable Tube Holders
67262	HemataSEAL® Tube Sealant
67263	Creamatocrit Plus Tubes
1907752	Manual
1907751	Quick Reference Guide
1907753	Tube Sealing Guide
67264	Replacement Control Strip

SECTION 8

OPTIONAL BATTERY INSTRUCTIONS

8.1 INSTALLATION

For complete portability, the Creamatocrit Plus will operate on a rechargeable battery, which can be ordered as an option. The battery will need to be installed in the device as described below and fully charged before normal operation.

1. Make certain the lid is closed and locked and the centrifuge is unplugged from the electrical outlet. Lock the lid by firmly pressing down on the lid tab.

2. Place the device upside down on a smooth, flat surface and on a cloth or other protective material to prevent scratching the lid.

3. Locate the battery cover. Using a small head Phillips screwdriver, remove the screws holding the battery cover in place. Retain the screws. Remove the battery cover.



4. Connect the battery plug into the connector located inside the battery cavity. Put the connector inside the hole of the housing with the connector release tab facing up. Position the battery inside the compartment. Lay the cable along side the battery to avoid crimping.



5. Replace the battery cover and secure with the screws provided.



6. Plug in the Creamatocrit Plus and fully charge the battery.

8.2 CHARGING THE BATTERY

The battery is always charging whenever the Creamatocrit Plus is plugged into an electrical outlet. Since the battery cannot be overcharged, the device may remain plugged in continuously without harm. Charge the battery overnight (or an equivalent

period of time). The percentage of remaining battery capacity may be determined at any time by performing the following procedure.

8.3 BATTERY OPERATION

1. Unplug the device from the electrical outlet.
2. Press the ON/OFF switch to the ON position. The LCD will display the main menu.

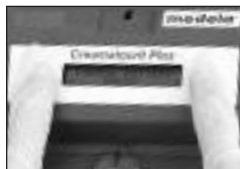


3. Press the RUN and ENT buttons simultaneously and hold them down until the battery capacity is displayed.



The main menu LCD will flash as an indication that the battery needs to be recharged. Once there is no longer sufficient capacity to operate the instrument, it will fail to complete a cycle and the message CHARGE BATTERY will be displayed.

4. If the device is plugged into an electrical outlet with the ON/OFF switch in the ON position and the RUN and ENT buttons are pressed simultaneously, the LCD will display either CHARGING when in the process of charging or TRICKLE CHARGING if fully charged.



REGARDLESS OF WHAT THE LCD MAY DISPLAY AT ANY GIVEN TIME DURING THE CHARGING CYCLE, IT IS IMPORTANT TO ALWAYS ALLOW THE BATTERY TO CHARGE OVERNIGHT OR AN EQUIVALENT PERIOD OF TIME TO ENSURE A FULL CHARGE. TO EXTEND THE LIFE OF THE CHARGED BATTERY, TURN THE CENTRIFUGE OFF BETWEEN TESTS.



SECTION 9 WARRANTY

SEPARATION TECHNOLOGY, INC. (STI) warrants each new Creatatocrit Plus™ (The Product) against defects in materials or workmanship for a period of one year from the date of purchase and agrees to repair or replace any defective Product without charge. This warranty does not cover damage resulting from accident, misuse, lack of reasonable care, improper cleaning, improper maintenance or improper packaging for return shipment to STI. This warranty shall be void if the Product is repaired by anyone other than STI or an authorized service agent. This warranty does not extend to anyone other than the original purchaser nor to accessories manufactured by other vendors.

Excluded from this one year product warranty is the optional rechargeable battery. This item is warranted by STI against defects in material or workmanship for a period of 90 days from date of purchase.

