

M38 MOBILE COMPUTER CART WITH MEDICATION EXPANSION PACK

OPERATING MANUAL



This manual is supplemental to the M38 Mobile Computer Cart Operating Manual.

Please review both manuals prior to operating the cart.

Revised November 25, 2008

Filename: M38 Manual 9M38-XP-xxx V3.doc

INTRODUCTION

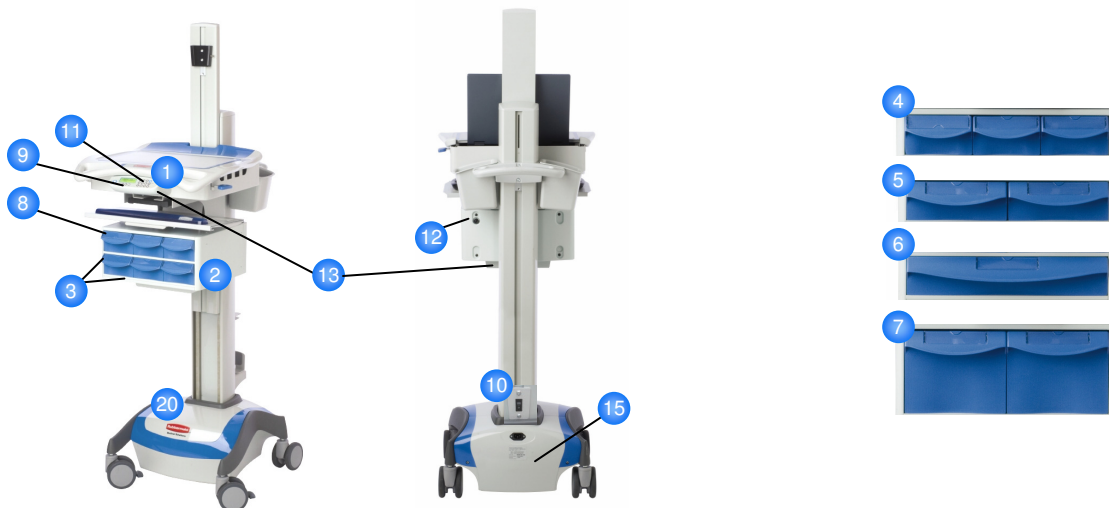
Rubbermaid M38 computer carts with the Medication Expansion Pack combines a compact, lightweight design, superior ergonomics and a comprehensive set of nursing features making them ideal for point of care applications. This manual covers the following two configurations:

1. AC Powered Computer Cart with Medication Expansion Pack has the capability to operate a LCD monitor with a small form factor CPU that can be stored under the work surface or on the rear of the column.
 - a. Mounting a CPU on the column requires wiring and brackets that must be ordered at the time of purchase.
2. Non-Powered Computer Cart with Medication Expansion pack utilizes the ability of devices that are self powered such as notebooks and tablet PC's. These carts have an on-board battery to operate the keyless entry system.



AC Powered Cart
with LCD Monitor

Non-Powered Cart
with Laptop






Additional Features on Medication Expansion Pack SKU's

- | | |
|--|--|
| 1. Keypad with LCD Display | 8. Drawer Label Cover |
| 2. Medication Expansion Pack | 9. Cart Power Switch (AC Cart Powered) |
| 3. Security Shelf for Medication Drawers | 10. Cart Power Switch (Laptop Cart) |
| 4. Small Drawer | 11. Electronic Keyless Entry System |
| 5. Medium Drawer | 12. Keyless Entry Override |
| 6. Larger Drawer | 13. Control Boards (not shown) |
| 7. Double Deep Medium Drawer | 14. Software (not shown) |
| | 15. Battery for Keyless Entry - Laptop Cart Only (not shown) |

START-UP

Start-up instructions are detailed below. Please identify which version you have at the top of the table below and adhere to the guidelines as follows:

1. Steps that span both columns apply to Non-Powered and Powered versions of the carts
2. When the table is split into multiple columns only follow the instruction under the version that you have.

| Tools Required <ul style="list-style-type: none"> • 4mm or 5/32" Security Hex tool (included) • 11/16" Socket and Ratchet • Ball End Metric Allen Key Set • Wire ties or Velcro for Cable Management | |
|--|---|
| Assembly Notices & Warnings <p> LIFT TENSION: The cart is shipped with only enough tension on the lift mechanism to operate an empty cart. As equipment is added, the lift mechanism will be easier to lower and more difficult to raise until the tension is adjusted as described in step 6. Take care when adjusting the lift mechanism until it is balanced for the load that has been added to the cart</p> <p> FASTENERS: Do not over tighten screws. In addition to damaging the screw, components can be damaged.</p> <p>NOTICE - "RIGHT" and "LEFT" are your right and left when facing the front of the cart</p> | |
| <h2 style="text-align: center;">FOLLOW START-UP INSTRUCTION STEPS 1-7 IN THE M38 MOBILE COMPUTER CART MANUAL BEFORE CONTINUING</h2> | |
| Non-Powered Cart with Expansion Pack | AC Powered Cart with Expansion Pack |
|  |  |
| 8. Turning on Unit The Laptop Cart contains a battery that powers the keyless entry system and LCD panel. In order to operate or charge the battery, the unit must be turned on. The power switch is located on the rear column near the base and can be turned on by pressing the switch to the upward position.  | 8. Turning on Unit To turn on the unit, press and hold the power button on the keypad for approximately 2 seconds. The power system will beep and the LCD will turn on and indicate the charge level of the battery. At this point, all powered devices connected to the outlet strip should power up.  |
| 9. Charging Unit a) Plug the cord into a medical grade outlet. The battery is fully charged when the battery indicator is full and battery charge level has stopped scrolling. <p> The battery must be fully charged prior to the cart being deployed for the first time</p> | |
| 10. TEST CART FUNCTIONS <ol style="list-style-type: none"> 1. If you have not already done so, turn power of cart as described in step 8. 2. Check light by depressing button. Light should toggle ON/OFF with each press and time out after 60 seconds 3. Check keyless entry by entering 8034 and opening drawers. Press lock or wait 120 seconds to see if locking system is functioning correctly  | |

GENERAL OPERATION

Document Cover: Accommodates reference materials as large as legal size paper. Cover can be removed for cleaning by pulling up on back corners side until pins release

Keyboard Tray: Tray can be pulled out 8". Left and right mouse pads rotate out.

Secure Drawers: Accessed by keyless entry system. Drawers are fully removable. Drawers automatically lock after a set time (default 120 Seconds)

Drawer Label Covers: accepts labels up to 4" w x 1" h

Reconfigurable drawers: Multiple drawer sizes can be used on the unit. Drawer sizes can be changed on the go without any modification to the cart to make multiple configurations



Multipurpose bins: can be removed for emptying or cleaning. To remove, grab outside edge of bin and lift up

Height Adjustment: Lift blue lever on side; release at desired height

Spiral Cord: Always plug cart in when not in use or if power levels reach low levels. Hang cord on rear handle when not in use



*Please contact your sales representative to order additional drawer configurations.

Keypad Overview

Keyboard Light: automatically shuts off after a preset time

Message Center: Indicates status of locking system and battery/charging status

Battery Level Indicator: Battery indicator will alarm at 20% remaining life. Immediately plug in cart and alarm will go off.

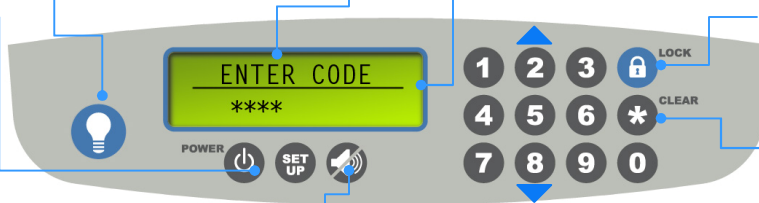
Power Button: Press and hold this button to shut off all cart power. **This should be done only if the cart will not be plugged in or used for an extended period of time**

Mute Button: Press button to mute alarm when battery reaches 20%. If battery reaches 10%, mute will not work. Cart must be plugged in

Lock Button: secures locking system

Clear Button: clears entry if mistake is made when entering PIN

LCD Contrast: Adjustable by repeatedly pressing the SETUP and UP/DOWN arrows at the same time.



Reference File: M39 Cart Interface Installation & Control Board Manual

For full operating instructions on the following features:

Updating LCD Panel with Cart Name

Keyless Entry System Auditing

Asset ID/Tagging

Battery Indication

LCD Panel on Keypad

Keyboard Light

KEYLESS ENTRY OPERATION

Keyless entry includes a numeric keypad on the top of the user interface containing the digits 0-9 for user entry into the drawers. Each time a number is pressed, a corresponding * will appear on the



LCD display verifying that a number has been pressed. Upon entry of a correct code, the unit will unlock the drawers and the message "DRAWERS UNLOCKED" will appear on the LCD display.



If an invalid code is entered, the message "ERROR INVALID CODE" will appear.



The unit will automatically relock the drawers according to a preset time ranging from 1-255 seconds. This auto lock-down time can be set using the control board software (see Control Board Software Manual)

LOCK allows the user to lock the drawers before the automatic relock occurs. CLEAR button is provided to allow the user to clear the numeric entry if he or she enters or starts to enter an incorrect code.

Keyless entry models can be programmed with up to 128 access codes.

Drawers are designed so that they can be removed from the unit. The unit will still re-lock the remaining drawers when drawers are removed. Drawers can be reinserted into a locked unit without unlocking the unit. Once the drawer is fully inserted and the medication cart is already locked and newly inserted drawers will all be locked. A security shelf between drawers deters unauthorized access when one or more drawers have been removed from the top row. The electronic keyless entry unit will only work when the unit and the battery are charged to an operating level.

MANUAL OVERRIDE LOCK

The keyless entry system is equipped with a redundant manual lock on the back of the cart. This manual lock allows unlocking of drawers if the unit is used until low voltage shutdown. The hard lock is located on the rear panel of mobile medication (see illustration). The hard lock is a rotary latch and has three positions. The key is included in extra parts kit



Position 1 is the unlocked position. This position unlocks the drawers. The key cannot be removed.



Position 2 is the normal operating position. It enables the keyless entry system to operate.

SETTING CODES – see Control Board Software Manual

Default code = 8034

BATTERY REMOVAL AND REPLACEMENT



Only use batteries specified by Rubbermaid Medical. Failure to do so will void power system warranty. Call customer service for details.





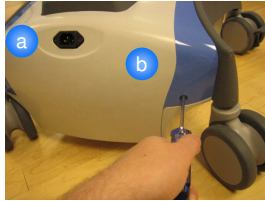

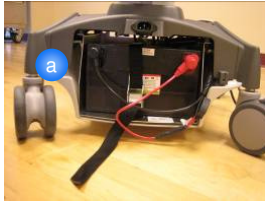



Do not replace battery in oxygen rich environments as it is possible for sparking to occur.



Always unplug the power cord from the wall outlet when removing the battery.

There are two conditions when a battery should be disconnected:

1. When the battery needs replacing
2. When the cart will be placed into long-term storage (more than 60 days without use)

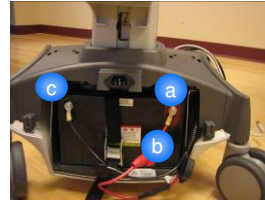
| BATTERY REMOVAL | |
|---|--|
| Tools Required Ball End Metric Allen Key Set Phillips Screwdriver or 10 mm Wrench (for disconnecting battery) | |
| 1. Power Down System <ol style="list-style-type: none"> a) Turn off any components plugged into cart (example – PC, Monitor) b) Turn off Power System by Holding On/Off switch for 2 seconds | |
| 2. Long-term Storage (greater than 2 months) <p> WARNING: If cart will not be used for more than 2 months, turn off the cart by holding the on/off button. The battery will need to be recharged every 30 days to prevent damage.</p> <p> If you wish to store the battery separate from the cart, Store battery in a cool dry location.</p> | |
| 3. Unplug Power Cord from Wall Outlet | |
| 4. Remove Battery Access Panel and Battery Retainer Strap <ol style="list-style-type: none"> a) Unplug power cord from battery access panel b) Using 4mm hex key or 5/32" remove two fasteners on lower rear panel of battery access panel and place aside c) Remove Battery Retainer Strap by depressing the tab on the clasp and unthreading strap from buckle |  |
| 5. Disconnect Battery Cables from Battery <ol style="list-style-type: none"> a) Remove black boot from terminal b) Use wrench or screwdriver to remove bolt from battery terminal.  WARNING: Do not allow any metal objects or tools to contact both a terminal and other metal parts (including the other battery terminal) at the same time. c) Remove red boot from terminal d) Use wrench or screwdriver to remove bolt from battery terminal e) Place disconnected cables off to side. f) Grasp handles on battery and slowly pull out |   <div style="text-align: center;">  <p>LEAD BATTERY MUST BE RECYCLED</p> </div> |
| 6. Place Battery Back in Cart <ol style="list-style-type: none"> a) With the bottom of the battery facing the cart, slide the battery into the cart. The terminal ends should be pointing out towards the back of cart. |  |

7. Connect Battery Leads to Battery



WARNING: Always connect the Red (+) terminal first. Do not allow any metal objects or tools to contact both a terminal and other metal parts (including the other battery terminal) at the same time.

- a) Fasten Red Connector to Red (+) Terminal using terminal bolt. A harmless spark may occur when connector touches terminal. Quickly tap connector to terminal to diminish effect.
- b) Cover terminal bolt with protective red boot
- c) Fasten Black Connector to Black (-) Terminal using terminal bolt
- d) Cover terminal bolt with protective black boot. Tuck excess battery cable into battery cavity
- e) Place Battery Access Panel back on cart and tighten fasteners with Allen Key
- f) Reconnect power cord to Battery Access Panel



8. Check Battery Level and Charge

- a) Plug unit into wall. LCD Interface will indicate Battery Charge Level or battery indicator will be scrolling the charge level bars.
- b) If battery is full, when the charge level bars are not scrolling inside the battery on the LCD.

TROUBLESHOOTING

Cart Won't Power Up:

- Plug power cord into a working medical grade outlet
- Check to ensure power cord is plugged securely into back of cart
- Check to see if the LCD Interface is charging when plugged in.
- If the charge level is critically low LCD will display battery low recharge.
- If the cart does not start, check to see if the cables to the PSI are securely plugged in.

Cart Won't Charge:

- Check to ensure external spiral cord is plugged into base of cart.
- Ensure outlet the cart is plug into is functionally operational
- Plug the power cord into a working hospital grade outlet.
- Check to make sure the power cord is plugged securely into the back of the cart.
- Check to see if the LCD display indicates the station is charging when plugged in.
- If the charge level is critically low LCD will display battery low recharge.
- If the cart still does not charge, check to see if cables to the PSI are securely plugged in.

Audible Alarm will Not Turn Off

- When the battery reaches approximately 10% of capacity remaining, the audible alarm will sound. The alarm may be muted for 1 minute. Until the cart is plugged in to charge the audible alarm will continue to sound every minute.
- If alarm fails to shut off after plugging in cart for several minutes, turn off the unit by holding on/off button for 2 seconds.
- If this persists, contact Rubbermaid Medical Solutions Service Department

Lift Mechanism Performance:

- If cart is hard to move up and down, adjust preload as needed (see step 7 in M38 Computer cart manual)

Cart Is Hard To Push:

- Check that the caster locks are in the unlocked (up) position
- Examine casters to see if any debris is caught in them

Computer Does Not Work Properly:

- Check that computer has power

- Check the battery charge. If at 0%, recharge the battery by plugging in the power cord into a working medical grade outlet
- If problem persists, plug device into another cart to see if it functions properly

Keyless Entry System Does Not Work

- Check the battery charge. If at 0%, recharge the battery by plugging in the power cord into a working medical grade outlet
- Verify the code that you are inputting into the system is the proper access code
- If this persist, contact Rubbermaid Medical Solutions Service Department

WARRANTY & SERVICE OVERVIEW

Service Level Commitment

Rubbermaid Medical Solutions is committed to providing best-in-class service. This document details our standard warranty and instructions on how to request service using our customer support system.

LIMITED WARRANTY

Rubbermaid Medical Solutions (RMS) is pleased to offer a three year warranty on durable components and a two year warranty on electronic components (commencing on the date of receipt by client). Battery performance is warranted for three months from the date of receipt of product.

If during the warranty period this RMS product proves defective in materials or workmanship under normal use by the original purchaser, please contact RMS technical support at www.rubbermaidmedical.com/service (please be sure to complete all information, including product serial number, description of the issue and full contact information). RMS will determine, in its sole discretion, how to best address your warranty issue, which may include sending you a replacement part or providing on site technical assistance. RMS reserves the right to require proof of purchase prior to honoring any warranty request. This warranty does not cover product abuse, modification, failure to adhere to product instructions, improper operation/misuse. **RMS SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

An extended warranty may be available for this product. Should you wish to purchase an extended warranty, please contact your RMS sales representative.

Service Details:

Components generally requiring on-site technical assistance may include, but are not limited to: cart electronics, lift mechanism, power system, locking mechanism and structural failures.

Components that generally do not warrant on-site technical assistance may include, but are not limited to: scanner holder, power cord, drawers, battery replacement and casters.

REPLACEMENT PARTS AND/OR TO REQUEST SERVICE

Please visit our website at: www.rubbermaidmedical.com/support

Statement of Use:

Rubbermaid Medical Solutions is dedicated to providing innovative quality products. Our goal is to increase the capacity to care by improving productivity, ergonomics and compliance, while enhancing your facility image.

RMS mobile carts are designed for safe use in general patient areas for the purpose of clinical data entry and retrieval. These carts have acceptable interference potential electromagnetic or other interference risks when operated according to guidelines covered in this instruction manual.

Tested to comply with:

- EN 60601-1:2003–
Medical Electrical Equipment, Part 1:
General Requirements for Safety –
Collateral Standard: Electromagnetic
Compatibility – Requirements and Tests
- FCC PART 15, Subpart B, Class A –
Unintentional Radiators

This product is classified as:

Class 1/ internally powered device with no applied parts.

This equipment is designed for continuous operation.

Class A, Group 1 ISM Equipment

This device is classified IPX0 for water ingress

Input 120 VAC, 60 Hz, 5.1A

Contact Us

Customer Service:

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