


# M38 RX Mobile Medication Cart

## SUPPLEMENTAL OPERATING MANUAL

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

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




Please review both manuals prior to operating the cart.

Revised March 25, 2013



## SUMMARY OF WARNINGS

-  The power system is designed for power cart mounted equipment only. Do not connect equipment that is not mounted on the cart into the power system outlets. Do not connect cart mounted equipment directly into a power source that is not mounted to the cart.
-  Where the integrity of the external PROTECTIVE EARTH CONDUCTOR arrangement is in doubt, the equipment shall be operated from its internal electrical power source (battery).
-  The supplied spiral cord is rated for medical use. Connecting the cord to an outlet that is not medical grade (indicated with a green dot) will not ensure grounding protection.
-  Spiral cord, power system and cart are for INDOOR use only. **DO NOT OPERATE OUTDOORS.**
-  Keep spiral cord away from water. **DO NOT PLUG CORD INTO OUTLET IF WET.**
-  **DO NOT OPERATE POWER SYSTEM IF WET.** If your cart becomes wet, unplug it immediately, wipe off any excess liquid, and allow it to dry before using again.
-  Breaking the seal on the battery to add water will damage the battery and could cause injury.
-  EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANESTHETIC FIXTURE WITH AIR, or WITH METERED OXYGEN OR NITROUS OXIDE.
-  Inspect spiral cord before each use. **DO NOT USE CORD IF DAMAGED.**
-  Fully insert spiral cord plug into outlet. **DO NOT** unplug by pulling on cord. **DO NOT** remove, bend or modify any metal prongs or pins of spiral cart cord.
-  **DO NOT** use excessive force to make connections.
-  **DO NOT ALLOW CORD TO OVERHEAT**
-  **DO NOT** drive, drag or place objects over spiral cord. Do not stand or walk on spiral cord.
-  Only authorized personnel, experienced in servicing electrical equipment should open the power system.
-  Do not use an electrical extension cord with your cart.
-  Do not use a flammable cleaner on the station as it can result in fire or explosion.
-  **Do not adjust lift mechanism until** cart has been outfitted with technology. Failure to do so may cause shuttle and work surface to rise rapidly when actuator is released potentially causing personal injury or damage to the cart.

Symbol	Signal Word	Level of Hazard
	IMPORTANT	Indicates a situation that does not present any hazard but is very important in maintaining a well functioning cart.
	ATTENTION	Consult accompanying document to avoid a potentially hazardous situation which may result in minor or moderate injury.
	ELECTRICAL	Indicates an impending electrical hazard which, if not avoided, may result in personal injury, fire and/or death.



**LEAD BATTERY  
MUST BE  
RECYCLED**

### CART DISPOSAL

Dispose of this cart according to local guidelines and regulations for waste. Contact **Rubbermaid** Customer Service for more information: 1-888-859-8294

### Transport/Storage

Care should be taken to transport and store this system within a temperature range of 32° F to 90° F (0° C to 32° C); Pressure 500 hPa to 1060 hPa; Humidity 20% RH to 95% RH non-condensing

## INTRODUCTION

Rubbermaid M38 RX Mobile Medication carts combine a compact, lightweight design, superior ergonomics and a comprehensive set of nursing features making them ideal for point of care applications. This manual serves as a supplement to the M38 Mobile Computer Cart Operating Manual and covers the following three configurations:

1. AC Powered M38 RX cart 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. DC Powered M38 RX cart has the capability to operate a DC powered LCD monitor with a small form factor CPU stored under the work surface.
3. 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

DC Powered Cart with DC LCD Monitor



Non-Powered Cart with Laptop

## Key Features on M38 RX Sku's

1. Keypad with LCD Display
  - a. See Pg 4 for full instruction
2. Configurable drawers
3. Security Shelf for Medication Drawers
4. Small Drawer
5. Medium Drawer
6. Large Drawer
7. Double Deep Medium Drawer
8. Double Deep Large Drawer
9. Cart Power Button (AC Powered Cart)
10. Cart Power Switch (Laptop Cart)
11. Locking Caster

### Components Not Shown:





- Drawer Label Cover
- Control Boards
- Software
- Battery



## START-UP

Start-up instructions are detailed below. Identify the cart configuration you have at the top of the table then follow to the applicable these guidelines::

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 instructions listed under your cart configuration.

<p><b>Tools Required</b></p> <ul style="list-style-type: none"> <li>• 4mm or 5/32" Security Hex tool (included)</li> <li>• 11/16" Socket and Ratchet</li> <li>• Ball End Metric Allen Key Set</li> <li>• Wire ties or Velcro for Cable Management</li> </ul>	
<p><b>Assembly Notices &amp; Warnings</b></p> <p> <b>FASTENERS:</b> Do not over tighten screws. In addition to damaging the screw, components may be damaged.</p> <p><b>NOTICE - "RIGHT" and "LEFT"</b> are your right and left when facing the front of the cart.</p>	
<p><b>FOLLOW START-UP INSTRUCTION STEPS 1-7 IN THE M38 MOBILE COMPUTER CART MANUAL BEFORE CONTINUING</b></p>	
<p>Non-Powered Cart</p>	<p>AC Powered RX Medication Carts</p>
	
<p><b>8. Turning on Cart</b>  <b>Non-Powered/Laptop Carts Only</b> To operate the laptop cart drawer control system, the battery cutout switch must be switched on.            On non-powered carts manufactured after October, 2009, the battery cutout switch is located in the battery enclosure as shown.</p>	<p><b>8. Turning on Cart</b>            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.</p> 



The battery cutout switch can be accessed by either removing the base cover or through the openings at the bottom of the cart as shown below.



On units manufactured before October, 2009, the battery cutoff switch is located on the rear, at the base of the column, and can be turned on by pressing the switch to the upward position.



**9. Charging Unit**

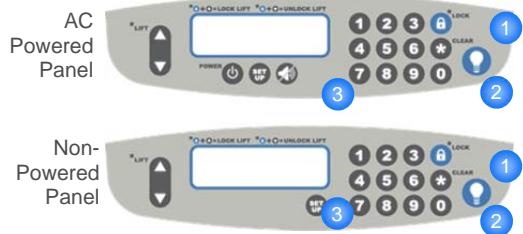
a) Plug the cord into a medical grade outlet. The battery is fully charged when the battery indicator is full and battery charge level has stopped scrolling.

 **The battery must be fully charged prior to the cart being deployed for the first time.**

**10. TEST CART FUNCTIONS**

If you have not already done so, turn cart power on as described in step 8.

1. Check light by depressing button. Light should toggle ON/OFF with each press and time out after 60 seconds.
2. Check keyless entry by entering 8034 and opening drawers. Press lock or wait 120 seconds to see if locking system is functioning correctly



## GENERAL OVERVIEW

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

**Height Adjustment:** Automated Height Adjustment up or down.

**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:** Removable for emptying or cleaning. To remove, grab outside edge of bin and lift up.

**Keyboard Tray:** Tray can be pulled out 8". Left and right mouse pads rotate out with mouse storage on the right.

**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

**Height Adjustment:** Adjust height of cart by pressing and holding the up or down button.

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

**Lift Lock:** Release the lift lock by pressing the Lock button and the Down arrow.

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

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

**Mute Button:** Press to mute alarm. If battery reaches 10% remaining battery charge, mute will not work. Cart must be plugged in to re-charge the battery.

**Battery Level Indicator:** Battery indicator will sound at 20% remaining life. Immediately plug in cart when indicator alarm sounds.

**Lock Button:** Locks medication drawers.

**Clear Button:** Clears entry if mistake is made when entering PIN.

**Keyboard Light:** Automatically turns off after a preset time (default 120 seconds)



## Reference Software 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. Default time is set at 120 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 into a locked cart, the newly inserted drawer(s) will be locked. A security shelf between drawers deters unauthorized access when one or more drawers have been removed from the top row. The keyless entry feature will only function 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 on pg 2). The hard lock is a rotary latch and has two positions. The key is included in the 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**



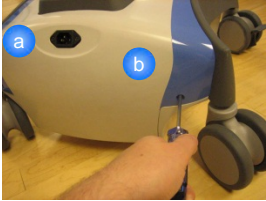


## BATTERY REMOVAL AND REPLACEMENT

-  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	
<b>Tools Required</b> Ball End Metric Allen Key Set Phillips Screwdriver or 10 mm Wrench (for disconnecting battery)	
<b>1. Power Down System</b> <ol style="list-style-type: none"><li>a) Turn off any components plugged into cart (example – PC, Monitor)</li><li>b) Turn off Power System by Holding On/Off switch for 2 seconds.</li></ol>	
<b>2. Long-term Storage (greater than 2 months)</b>  <b>WARNING:</b> 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 to the battery.  If you wish to store the battery separate from the cart, Store battery in a cool dry location.	
<b>3. Unplug Power Cord from Wall Outlet</b>	
<b>4. Remove Battery Access Panel and Battery Retainer Strap</b> <ol style="list-style-type: none"><li>a) Unplug power cord from battery access panel</li><li>b) Using 4mm hex key to remove two fasteners on lower rear panel of battery access panel and place aside.</li><li>c) Remove Battery Retainer Strap by depressing the tab on the clasp and unthreading strap from buckle.</li></ol>	

## BATTERY REMOVAL

### 5. Disconnect Battery Cables from Battery

- Remove black boot from terminal
  - 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.
- Remove red boot from terminal.
  - Use wrench or screwdriver to remove bolt from battery terminal.
  - Place disconnected cables off to side.
  - Grasp handles on battery and slowly pull out.




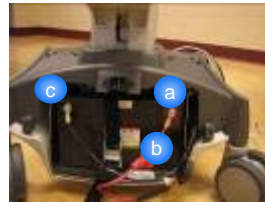
### 6. Place Battery Back in Cart

- 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 the cart.



### 7. Connect Battery Leads to Battery

-  **WARNING:** Always connect the Red (+) terminal first. To avoid risk of shock, 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.
- Fasten Red Connector to Red (+) Terminal using terminal bolt. A harmless spark may occur when connector touches terminal. Quickly tap terminal connector to terminal to diminish effect.
  - Cover terminal bolt with protective red boot.
  - Fasten Black Connector to Black (-) Terminal using terminal bolt.
  - Cover terminal bolt with protective black boot. Tuck excess battery cable into battery cavity. Avoid pinching battery cable.
  - Place Battery Access Panel back on cart and tighten fasteners with Allen Key.
  - Reconnect power cord to Battery Access Panel.



### 8. Check Battery Level and Charge

- Plug cart into wall. LCD Interface will indicate Battery Charge Level or battery indicator will be scrolling the charge level bars.
- The battery is fully charged 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 cable connections.

### **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.

### **Cart Is Hard To Push:**

- Check that the caster locks are in the unlocked (up) position.
- Examine casters for debris.

### **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 computer into another cart to check functionality.

### **Keyless Entry System Does Not Work**

- Check the battery charge. If less than 50%, charge the battery by plugging in the power cord into a working medical grade outlet.
- Verify the code that you are entering is the proper access code.
- If problems persist, file a service request with RMS Customer Service at [www.RubbermaidMedical.com/Support](http://www.RubbermaidMedical.com/Support).

## WARRANTY & SERVICE OVERVIEW

### Service Level Commitment

Rubbermaid Healthcare 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 Healthcare (RHC) 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 RHC product proves defective in materials or workmanship under normal use by the original purchaser, please contact RHC technical support at [www.rubbermaidmedical.com/service](http://www.rubbermaidmedical.com/service) (please be sure to complete all information, including product serial number, description of the issue and full contact information). RHC 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. RHC 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. RHC 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 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 RHC 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.rubbermaidhealthcare.com/suppport](http://www.rubbermaidhealthcare.com/suppport)

### Statement of Use:

Rubbermaid healthcare 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

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