



M38 Carts

User Manual

For Models with Electronic Lift



Increasing the Capacity to Care™

www.rubbermaidhealthcare.com

Warnings



IMPORTANT – Indicates a situation that does not present any hazard but is very important in maintaining a well functioning workstation.



ATTENTION – Consult manual 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.

- The supplied power 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.
- Where the integrity of the external PROTECTIVE EARTH GROUND CONDUCTOR arrangement is in doubt, the equipment shall be operated from its internal electrical power source (battery).
- Power cord, USB extension, and workstation are for INDOOR use only. **DO NOT OPERATE OUTDOORS.**
- Keep power cord away from water. **DO NOT PLUG CORD INTO OUTLET IF WET.**
- **DO NOT OPERATE PRODUCT IF WET.** If the WORKSTATION becomes wet, unplug it immediately, wipe off any excess liquid, and allow it to dry before using again.
- Inspect power cord before integration. **DO NOT USE POWER CORD IF DAMAGED.**
- Fully insert power cord plug into outlet. **DO NOT** unplug by pulling on cord. **DO NOT** remove, bend or modify any metal prongs or pins of power cord.
- **DO NOT** use excessive force to make mechanical or electrical connections.
- **DO NOT** obstruct the cooling vents.
- **DO NOT** use an electrical extension cord with your workstation.
- **DO NOT** use a flammable cleaner on the station as it can result in fire or explosion.
- **DO NOT** overload the cart. Weight of technology components and monitor not to exceed 30 pounds (13.6 kg). Weight of monitor not to exceed 15 lbs. (6.8 kg).
- **DO NOT** operate the cart on an incline exceeding 10 degrees.
- **DO NOT** use the cart to power equipment that is not part of the configured cart system.
- **DO NOT** connect equipment that is not mounted on the cart into the power system outlets. The power system is designed for power cart mounted equipment only.
- Equipment not suitable for use in the presence of a FLAMMABLE ANESTHETIC FIXTURE WITH AIR, or WITH METERED OXYGEN OR NITROUS OXIDE.



Do not adjust lift mechanism until cart has been outfitted with technology. Failure to do so may cause the shuttle and work surface to rise rapidly when actuator is released potentially causing personal injury or damage to the cart.



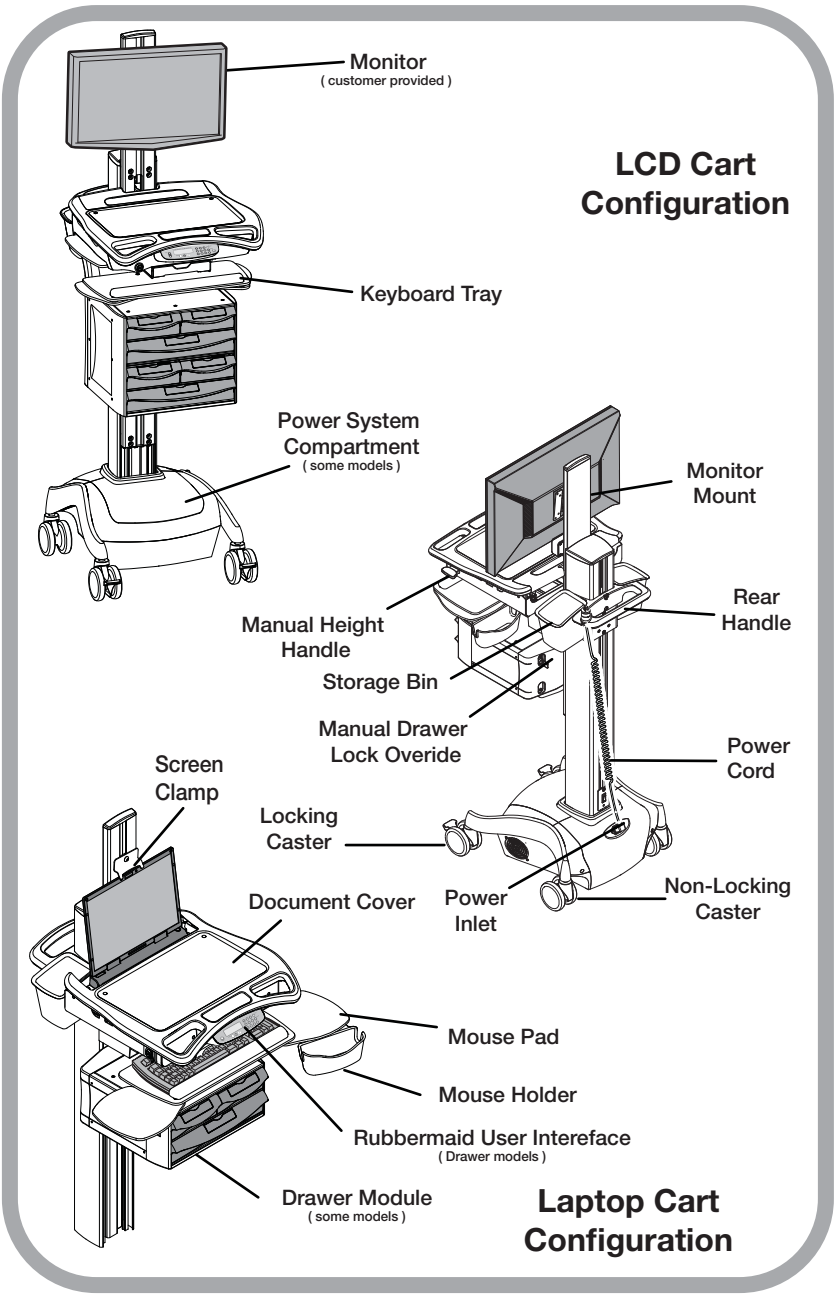
To avoid potential electrical shock, **DO NOT** simultaneously touch any cart system components and the patient or any apparatus not connected to the cart system. Electric current may try to flow through you between the M38 system and the other point of contact as it seeks the easiest path to ground.

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Introduction

OVERALL VIEW



Introduction

SPECIFICATIONS

Base Size	17" x 19" (43.2 cm x 48.3 cm)
Weight	Configurations starting at 100 lb. (45.4 kg)
Height Adjustment	Up to 16" (40.6 cm)
Cart Height	49.3" to 65" (125.2 cm to 165.3 cm)
Keyboard Height	4.8" (12.2 cm) of vertical travel.
Work Surface	18" w x 15" d (52.7 cm w x 25.4 cm)
Casters	4" (10.2 cm) 2 Locking
Keyboard Platform	Accommodates 1.75" H x 18" W x 8" D (4.5 cm x 45.7 cm x 20.3 cm) USB keyboard
CPU Cavity	21.5" x 11.1" x 2.9" (54.6 cm x 28.3 cm x 7.5 cm)
LCD Monitor Mount	15 lbs (6.8 kg) max. 24" Monitor Max.
Power Cord	2.5 ft (.75 m) hospital grade spiral cord– extends to 8 ft (2.4 m), recharges on board technology, 120/240 VAC, 6.3 A, 50/60 Hz.
Power Strip	<ul style="list-style-type: none">• NEMA X3 Multiple Socket Outlet
UPS input	120 Vac, 5.1A (fused) North America 230 Vac, 2.5 A (fused) International Models
UPS output	12 Vdc @ 12.5A or 120 Vac @1.25A
Sealed Lead Acid (SLA) Battery	35 or 55 Ahr/12 V AGM (fused Battery Output) 12 Ahr (non-powered cart)
Lithium Battery	U1-12Vdc @ 512Wh (fused Battery Output)

STATEMENT OF USE

The M38 Mobile Computer Cart is designed and manufactured by Rubbermaid Healthcare. 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.

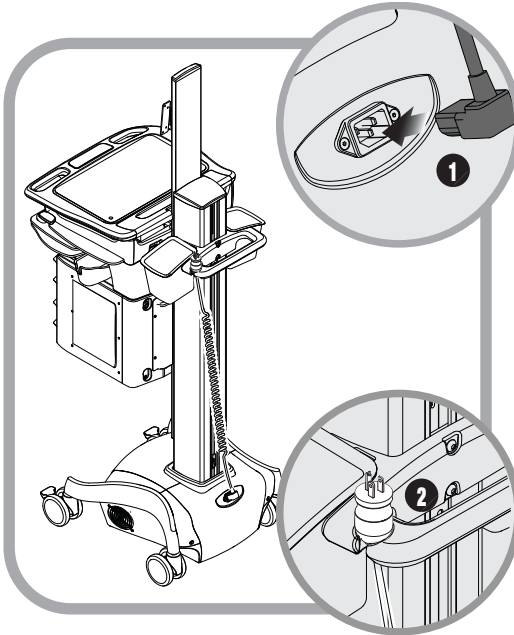
- The M38 Mobile Computer Cart is a mobile computing workstation cart designed for safe use in general patient areas for the purpose of clinical data entry and retrieval, and medication delivery.
- The M38 Mobile Computer cart is not intended for home use.
- The M38 Mobile Computer cart operates from both AC and DC (rechargeable battery) power sources.
- The M38 Mobile Computer cart has no potential electromagnetic or other interference risks when operated according to guidelines covered in this instruction manual.

Get Started

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Get Started

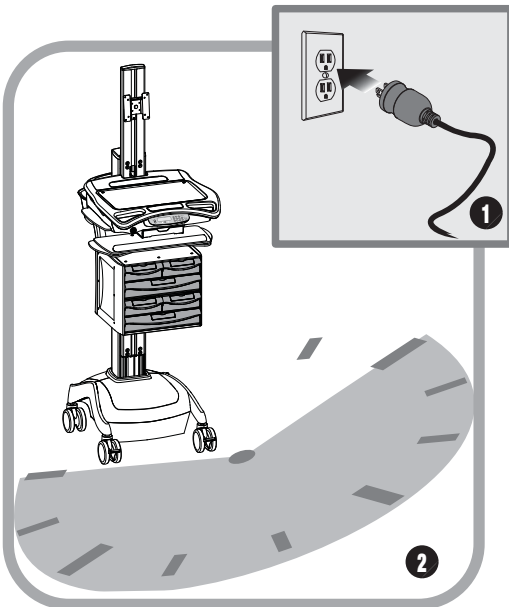
PLUG IN THE POWER CORD



Install the power cord.

1. Plug the power cord into the Cart.
2. Place the plug in the cord holder.

CHARGE THE BATTERY



When a cart is new, or has been removed from service for more than 30 days, the battery will need to be conditioned.

To condition the battery:

1. Plug in the power cord.
2. Leave the cart plugged in for approximately 8 hours.

Note: The initial touch screen charge indicator reading may be incorrect. Charge the cart for 8 hours to ensure that battery is at full charge, and that charge indicator is set to the correct level of charge.

Setup

SETUP PROCEDURE

1. De-energize the M38 cart. (See Power On/Power Off the M38 Cart.
 2. Remove the storage bins.
 3. Remove the work surface.
 4. Install the keyboard and mouse.
 5. Install any technology devices.
 - Monitor, CPU or laptop, USB hub . . .
 6. Test and Troubleshoot the installation
 - Make sure all connections are correct
 - Power the M38 cart.
 - Start the technology devices and troubleshoot as necessary
 - Configure the technology devices to power on when the cart is powered on.
 7. Replace the work surface and storage bins.
 8. Adjust lift mechanism preload on carts equipped with the manual surface lift.
 9. Configure the control system.
- The M38 cart is ready for use.



To fully shut down a DC powered cart for setup, service, or cleaning you must:

1. Unplug the power cord.
2. Press and hold POWER button (approx. 3-5 sec.) to power down the cart and internally disconnect the battery from the electrical system.

If the power cord is plugged in after the POWER button is pressed, the battery will reconnect and the cart will power up automatically.

To power up the cart after shut down, you must plug in the power cord to reconnect the battery to the cart electrical system.



To fully shut down a non-powered cart:

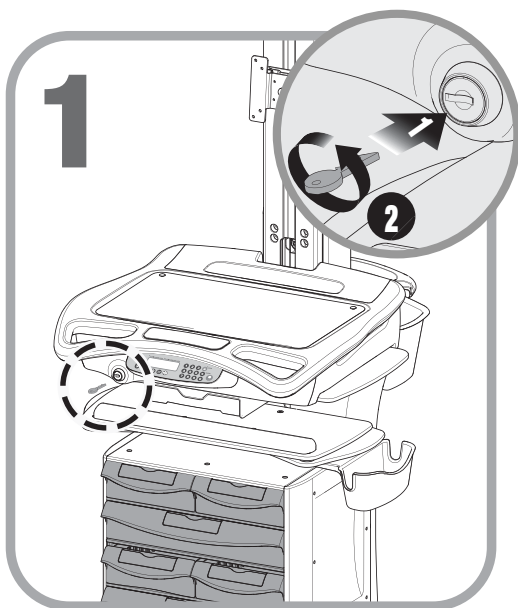
1. Unplug the power cord.
2. Position the battery cut-off switch to the OFF position.



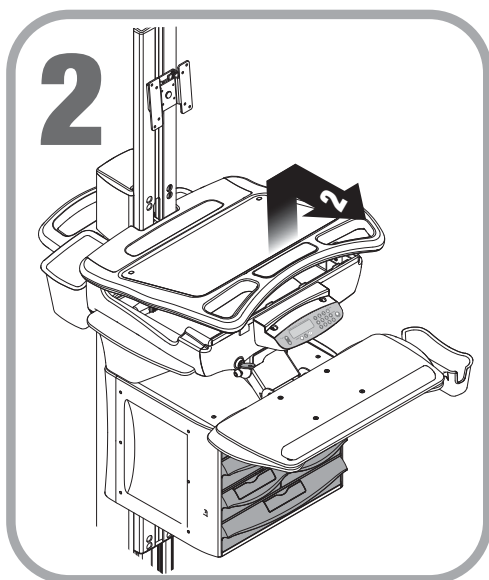
Observe local safety procedure (e.g., lock out/tag out) to ensure that cart remains de-energized during maintenance and cleaning cycles.

Setup

REMOVE THE WORK SURFACE



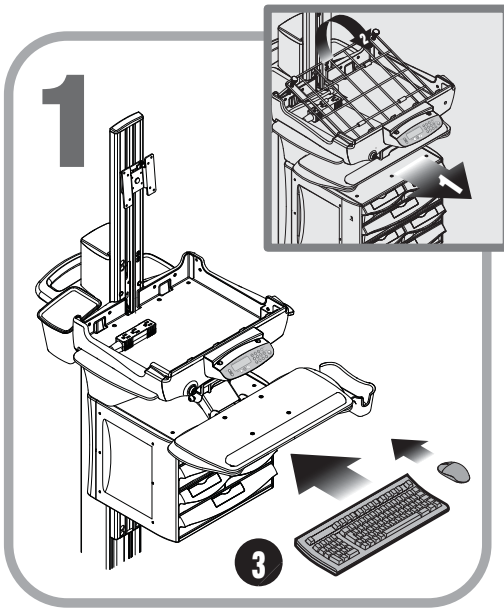
1. Insert the security key in the lock as shown.
2. Turn counter clockwise to unlock the work surface.



1. Grasp a front handle, and grasp the opposite side of the of the work surface.
2. Lift the front of the work surface then pull the work surface toward you.

Setup

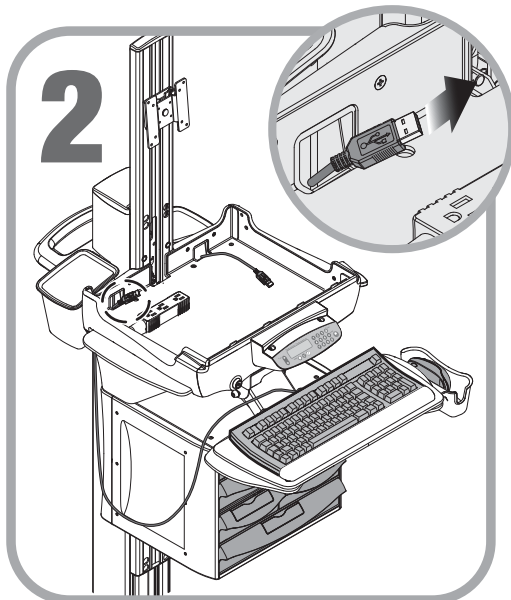
INSTALL KEYBOARD AND MOUSE



1. Grasp the front edge of the keyboard tray and pull it toward you to extend the keyboard tray.

NOTE: For units equipped with the premium keyboard mount, see the "Premium Keyboard Mount" section of this manual for more information.

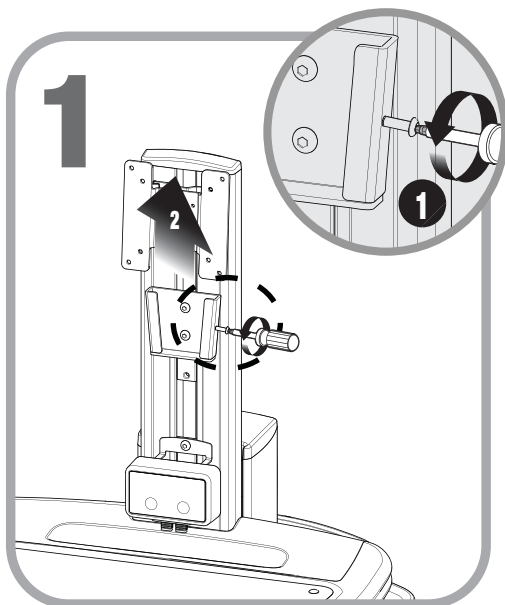
2. Place the keyboard and mouse on the keyboard tray.



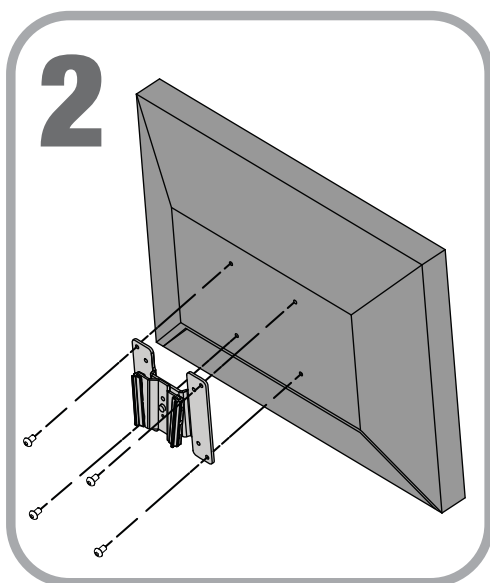
Route the keyboard and mouse cables through the rear of the technology tray as shown.

Setup

INSTALL THE MONITOR



1. Turn the locking screw counter clockwise to loosen the locking screw as shown.
2. Remove the monitor mount.



Use the mounting screws provided with the monitor to attach the monitor mount to the monitor.

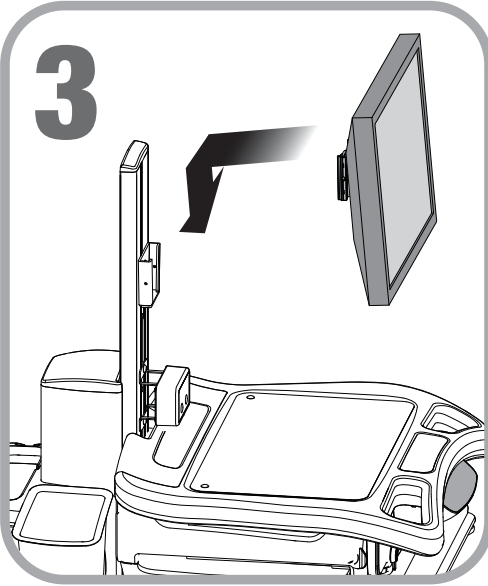
Note: The mounting holes may need to be enlarged to accommodate the monitor mounting screws.

Note: If mounting screws are not provided, refer to the monitor documentation for the correct mounting screw size.

Note: It may be easier to connect the monitor cables while the monitor is off the M38.

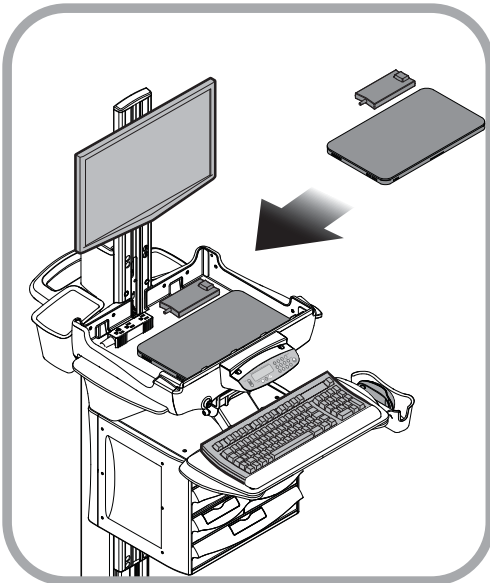
Setup

INSTALL THE MONITOR



1. Insert the Monitor/Mount assembly onto the column mount.
2. Install the monitor cables, and route the cables to the technology tray.

INSTALL A THIN CLIENT OR CLOSED LAPTOP COMPUTER



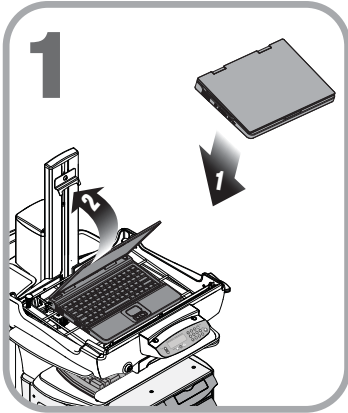
1. Place the laptop/thin client and power supply in the technology tray.
2. Connect the cables.

Note: To operate the task light or monitor the power supply, connect the cart USB cable to the computer or a powered USB port or hub.

Note: A small form-factor computer may be mounted to the rear column. Contact your Rubbermaid Healthcare for more information.

Setup

INSTALL A LAPTOP COMPUTER

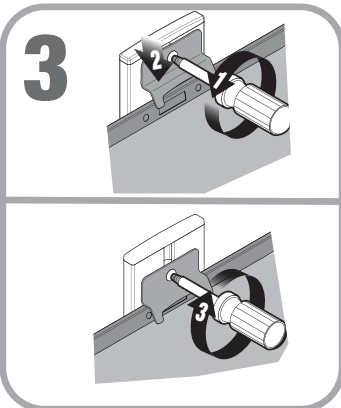
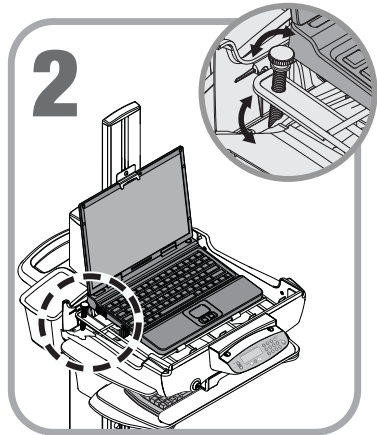


1. Place the laptop on the wireform platform.

Note: Use self-adhesive hook and loop material to anchor the laptop to the platform

2. Open the laptop and rest the lid against the column.

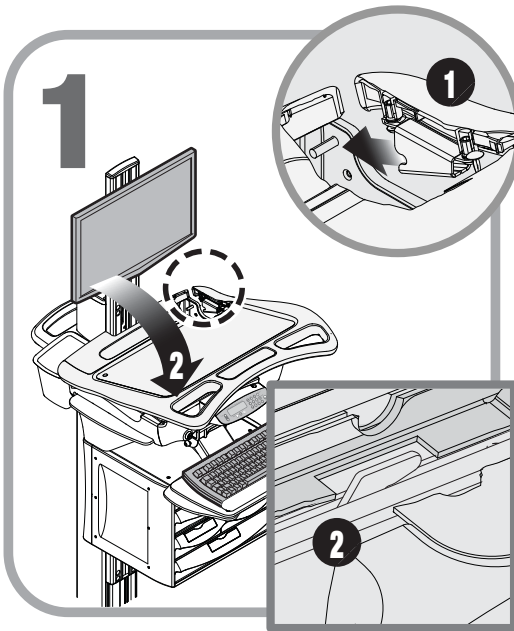
Use the thumb screws to raise the rear of the laptop platform so the bottom of the screen will be visible when the work surface is installed.



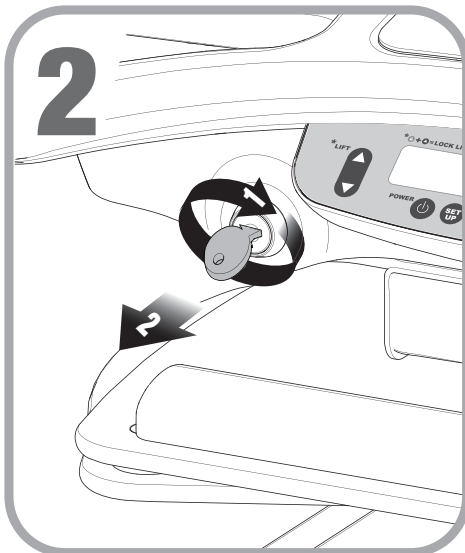
1. Loosen the monitor clamp screw.
2. Lower the monitor clamp until it contacts the top of the monitor as shown.
3. Tighten the monitor clamp screw.

Setup

INSTALL THE WORK SURFACE



1. Align the work surface rear latches with the technology tray latch pins.
2. Lower the front of the work surface and engage the latches at the front of the technology tray.



1. Turn the security key clockwise to lock the front latch.
2. Remove the security key.

Setup

CONFIGURE THE CONTROL SYSTEM

The electronic drawer control system offers a number of configurable features which aid cart and fleet management. The cart interface configuration software application, manual and drivers are available for download at – www.rubbermaidhealthcare.com/welcome

Control system features available for configuration are listed below:

Keyless Entry System PIN Number Management– The drawer control system stores up to 128 PIN numbers. PIN numbers control the locking mechanism for the RX and XP and side mounted drawer modules.

Keyless Entry System Auditing– The drawer control system keeps a rolling log of PIN transactions listed by PIN number. Log data can be exported for off-line review.

Asset ID/Tagging– The **Cart Name** and **Serial** are provided for asset management. **Serial** is entered into the controller at manufacture and may only be viewed with the configuration software. **Cart Name** is displayed on the LCD, and is configurable with the with the software application.

Timers– The configuration software sets timers for the following:

- Drawer Lock-Down Time 1 - 255 seconds
- Keyboard Light Time-out 1 - 255 seconds
- LCD Backlight Time-out 1 - 99 seconds

Power Alert/Power Management Applications

The optional battery/power supply monitoring software application may be installed on the (customer supplied) installed computer. This software monitors battery usage and provides an indication of the current physical condition of the battery. The monitoring software also logs data log to either the installed computer or user's network depending on the configuration. The Power Alert/Power Management Applications are available for download at– www.rubbermaidhealthcare.com/welcome

Operation

QUICK START PROCEDURE

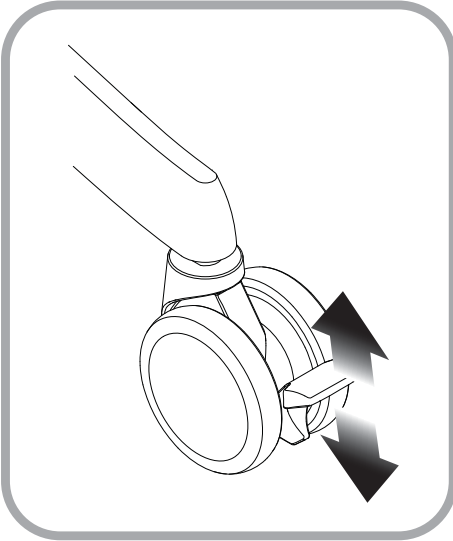
Good practice for starting the M38 cart is as follows:

1. Turn on the cart (see "Power On the M38 Cart" p20-21)
2. Note the condition of the battery (the cart may need to be plugged in. p23)
3. Move the cart to the desired location.
 - Unplug the cart from the wall outlet.
 - Place the plug in the cord holder.
 - Unlock the casters.
 - Move the cart.
4. Lock the casters.
5. Adjust the work surface height. (p-24).
6. Enter Your PIN to unlock the drawers (see p26).
7. Set work light as needed. (see "Keyboard Light" p25)
8. When you finish your work cycle return the cart and plug it in to charge.

Note: Plug the cart into an electrical outlet when it will be left unattended for any length of time.

Operation

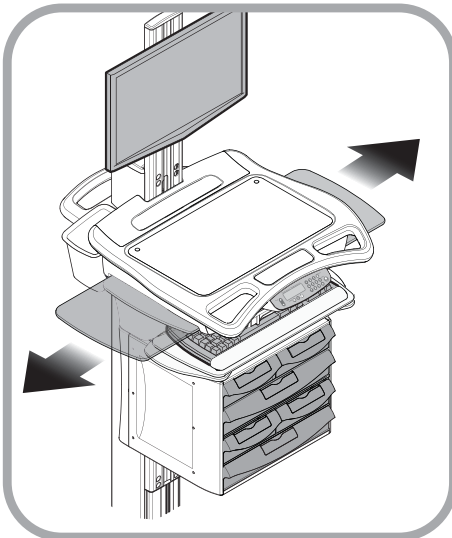
THE CASTERS



To operate the casters:

- Lower the tab with your toe to lock a caster.
- Lift the tab with your toe to unlock a caster.

THE BIDIRECTIONAL WORK SURFACE



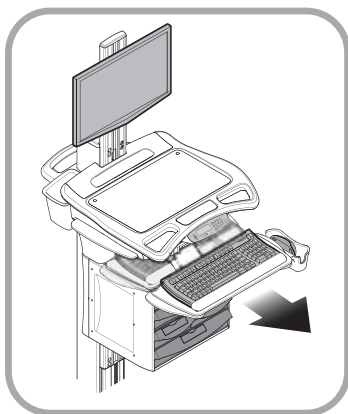
- To Extend the bidirectional work surface, pull the end of the bidirectional work surface in the desired direction.

Note: You may have to push the opposite end of the work surface into the Tech box in order to get a hand hold.

- To Retract the bidirectional work surface, push the exposed end of the bidirectional work surface until it is flush with the side of the tech box.

Operation

PREMIUM KEYBOARD MOUNT



To extend the keyboard tray, pull the key board tray toward you until it stops.

To retract the keyboard tray, push in on the keyboard tray until it stops.

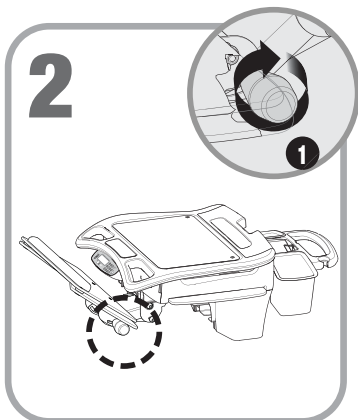
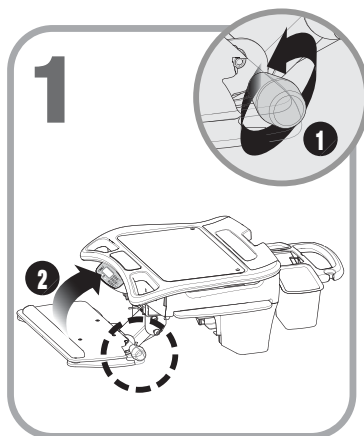
To extend the mouse pads, grasp the edge of the mouse pad and twist it to the open position.

To push the front edge of the mouse pad to twist it to the closed position.

Raise, Lower, and Tilt the Keyboard Tray

The premium keyboard keyboard tray mount may be adjusted to position the keyboard for maximum comfort while sitting or standing. Adjust the the position of the keyboard as follows:

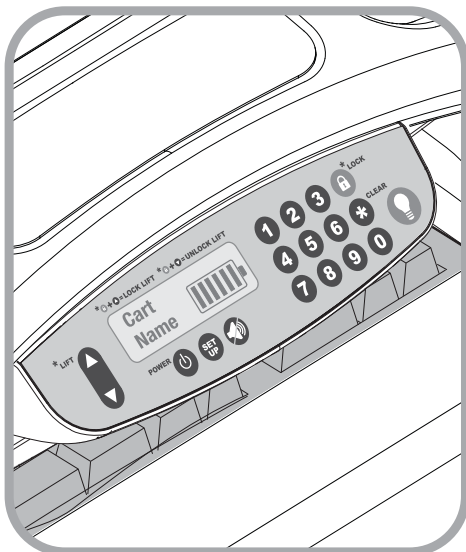
1. Turn the keyboard mount locking knob (1) counter clockwise to free the keyboard mount.
2. Grasp the keyboard tray (2) and position the keyboard as desired.



3. Turn the keyboard mount locking knob (1) clockwise to lock the keyboard mount in position.

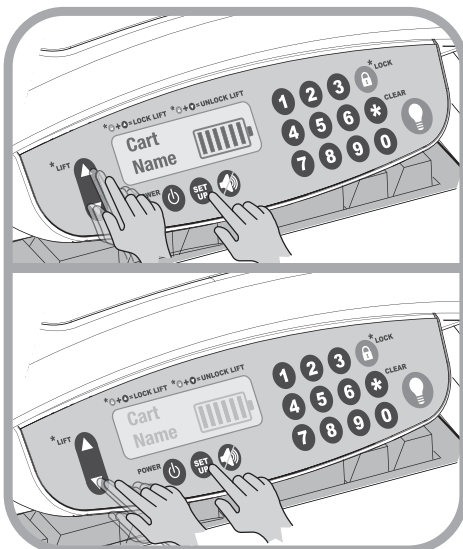
Operation

RUBBERMAID USER INTERFACE (RUI)



M38 RX and XP Carts are configured with an electronically controlled locking medication drawer module. The module is controlled by the Rubbermaid User Interface (RUI). The RUI controls the keyboard light, drawer control system, power supply, E-Lift, and PIN entry and drawer lock.

ADJUST THE CONTRAST OF THE LCD



The LCD level of contrast is adjusted as follows:

To increase the contrast:

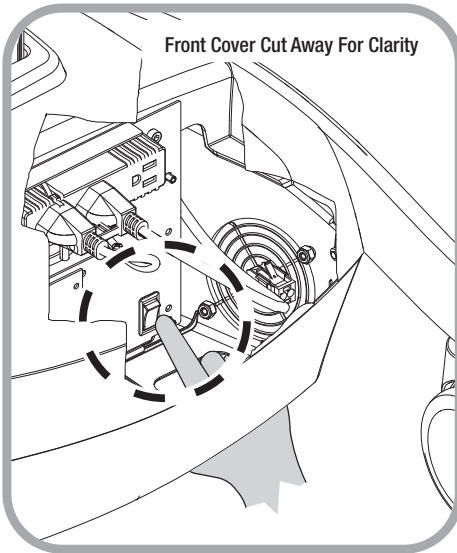
1. Press and hold down the **SETUP** key.
2. Repeatedly press the **Up Arrow** key (the up arrow) until the display shows the desired level of contrast.

To decrease the contrast:

1. Press and hold down the **SETUP** key.
2. Repeatedly press the **Down Arrow** key (the down arrow) until the display shows the desired level of contrast.

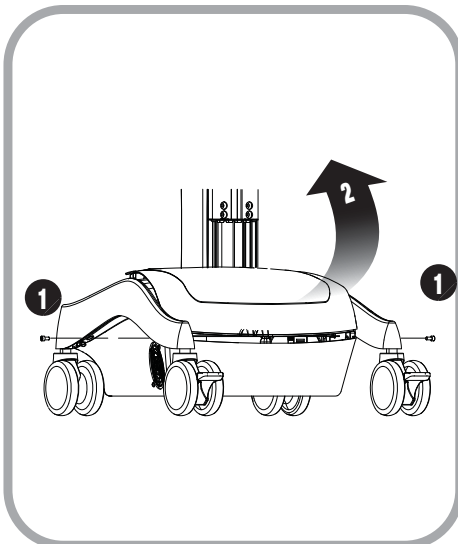
Operation

BATTERY CUTOFF SWITCH (NON-POWERED CONTROL SYSTEM)



Non-powered carts configured with electronic expansions are fitted with the battery powered non-powered control system. The control system design includes a battery cutout switch to de-energize the control system for maintenance, storage, and shipping. New M38 carts are shipped in the de-energized state, with the cutout switch off. The cutout switch must be switched on as shown in order to power-on the cart. There are two methods to access the cutout switch.

- The easiest method is to reach under the cart and switch on cutoff switch through the opening at the bottom of the cart as shown.



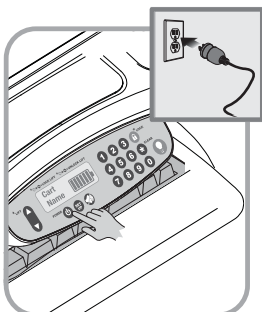
For those who are unsure of where the switch is located:

1. Remove the 2 front cover screws (1) from base of the cart.
2. Lift and remove the front cover from the base as shown.
3. Switch on the cutoff switch from above. The cutoff switch is located as shown above.
4. Replace the front cover (2) and screws (1).


The cart is ready to power on.

Operation

POWER ON/POWER OFF AC POWERED CARTS

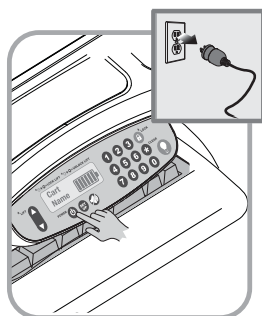


To Power On the M38 cart:


1. Plug in the power cord.
2. Press and hold the power button  for 3-5 sec.

Note: The RUI displays the battery condition and the keypad will function.

Note: Plug the cart into an electrical outlet when it will be left unattended for any length of time.



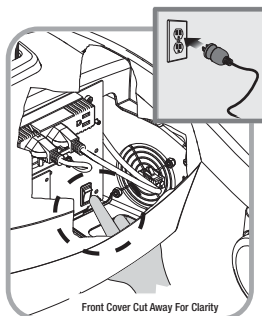
To Power Off the M38 cart:

1. Unplug in the power cord, and place it in the cord holder.
2. Press and hold the power button  for 3-5 sec.


The RUI goes dark or blank and the keypad will not function. Cart power to all devices plugged into the cart power system is turned off.

The cart is electrically de-energized

POWER ON/POWER OFF NON-POWERED CARTS



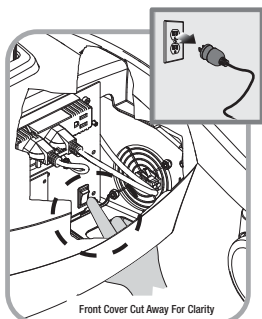
To Power On the Non-Powered M38 cart:

Note: The Power button  is not used by the non-powered control system. The battery cutoff switch serves as the power switch.

1. Turn on the Battery cutoff switch as shown.
2. Plug in the power cord.

The RUI will display the battery condition and the keypad will function.

Note: Plug the cart into an electrical outlet when it will be left unattended for any length of time.



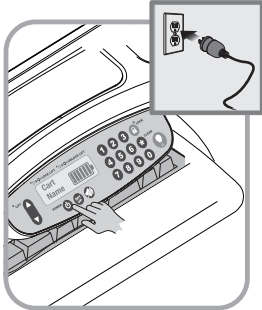
To Power Off the M38 cart:

1. Unplug in the power cord.
2. Turn off the battery cutoff switch.

The RUI goes dark or blank and the keypad will not function. Cart power to all devices plugged into the cart power system is turned off.

Operation

POWER ON/POWER OFF DC POWERED CARTS

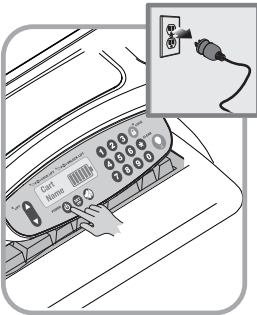


To Power On the M38 cart:


1. Plug in the power cord.
2. Wait -5 sec. the power supply will turn on automatically.

The RUI will display the battery condition and the keypad will function.

Note: Plug the cart into an electrical outlet when it will be left unattended for any length of time.



To Power Off the M38 cart:

1. Unplug in the power cord.
2. Press and hold the power button  for 3-5 sec.

The RUI goes dark or blank and the keypad will not function. Cart power to all devices plugged into the cart power system is turned off.

Note: The M38 cart should only be powered off for the following conditions:

- The audible alarm cannot be muted.
- When the cart will not be used for an extended period (the cart is placed in storage.)
- For maintenance.
- If the cart is moved to a different facility.



To fully shutdown a **DC** powered cart for service or cleaning you must:

1. Unplug the power cord.
2. Press the power button to power down the cart and internally disconnect the battery.

If the power cord is plugged in after the shutdown button is pressed, the battery will reconnect and the cart will power up automatically.



To power up the cart after shutdown, you must plug in the power cord to reconnect the battery to the cart electrical system.



To fully shut down a non-powered cart:

1. Unplug the power cord.
2. Position the battery cut-off switch to the off position.

Operation

BATTERY CHARGE INDICATOR

M38 cart power expansions are equipped with a battery gauge that displays the level of battery charge. Powered carts without powered drawer expansions are equipped with LED battery gauges. The RUI for powered carts equipped with powered drawer expansions has an LCD battery gauge.

The RUI also indicates power system status:

- | | | |
|---------------|---------------------------|---|
| • Normal | greater than 50% to 100%, | The cart may be unplugged and used on battery power. |
| • Charge Mode | less than 50% to 20% | The cart should be plugged in to charge, but may be used on battery power alone. The audible alarm will sound but may be muted. |
| • Recovery | less than 20% | The cart must be plugged in. The cart may shutdown for deep discharge recovery cycle and should remain plugged in for 6-8 hours. Powered components will not be available during this period. The audible alarm will continue to sound. When battery level drops below 10% the alarm cannot be muted unless the cart is plugged in. |

Caution: Never allow battery charge level to drop below 20%. Failure to keep the battery charge greater than 20% may damage the battery and render it unable to recharge.

Powered Drawer Expansion LCD User Interface

The LCD displays a graphic battery gauge. The interior of the battery graphic displays 6 bars to indicate charge level.

Charging - The indicator bars scroll to indicate charging.

Recovery - The xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

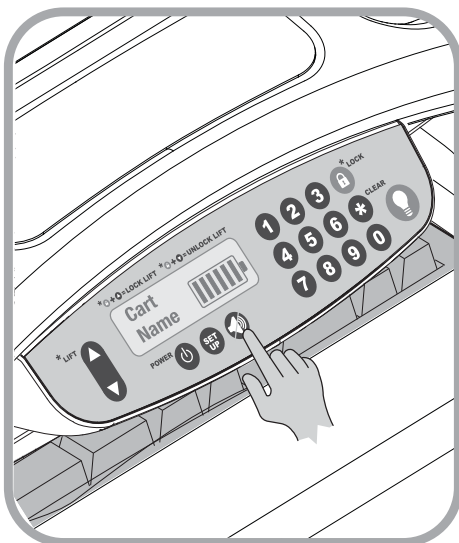


The condition of the battery gage bars and audible alarm for corresponding levels of battery charge are listed in the table below


Approximate Battery Charge Level	1	2	3	4	5	6	Low Battery Alarm
>83%-100%	On	On	On	On	On	On	Off
>65%-83%	On	On	On	On	On	Off	Off
>49%-65%	On	On	On	On	Off	Off	Off
>33%-49%	On	On	On	Off	Off	Off	On
>16%-33%	On	On	Off	Off	Off	Off	On
>0%-16%	On	Off	Off	Off	Off	Off	On

Operation

THE MUTE BUTTON



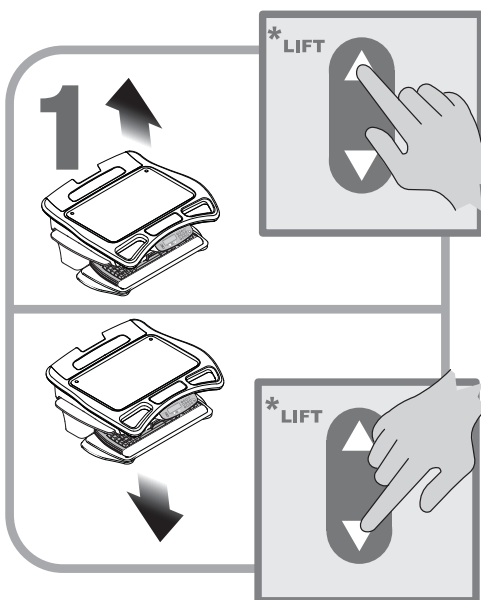
The Mute Button  is used to silence the power system audible alarm.

To mute the audible alarm, press and hold down the mute button  until the alarm is silenced.

Note: When the battery is at 10% (1/8) charge or less, the audible alarm will sound after again a minute when the mute button is used until the power system is turned off or the cart is plugged in to charge the battery. Failure to plug-in or turn off the power system will damage the battery.

Note: Do not allow the battery charge to drop below 20%, the battery may lose the ability to recharge.

RAISE AND LOWER THE WORK SURFACE



Note: Make certain the work surface, drawer module or keyboard tray will not hit obstructions above or below cart.

Raise and Lower the work surface as follows:

To raise the work surface:

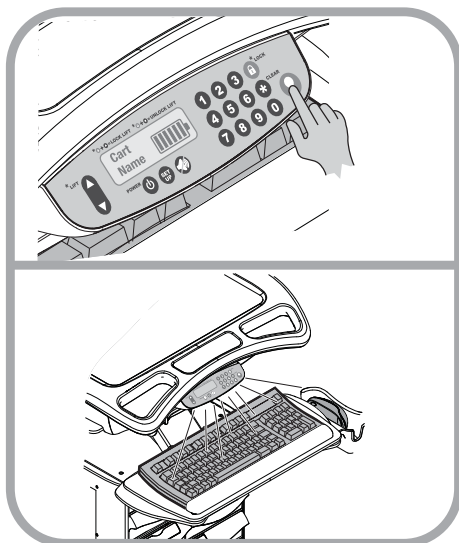
1. Press and hold down the up arrow button as shown.
2. Release the up arrow button when the work surface moves to the desired location.

To Lower the work surface:

1. Press and hold down the down arrow key as shown.
2. Release the down arrow button when the work surface moves to the desired location.

Operation


THE KEYBOARD LIGHT



A keyboard light is included to enhance cart usability in darkened patient areas. The keyboard light that is operated by using the Light button located on the membrane keypad at the front of the cart.

The keyboard light is designed to illuminate the keyboard in the extended position. When the keyboard tray is retracted, the keyboard light will illuminate the floor in front of the cart.

To use the keyboard light:


- Press the Light button  to turn on the keyboard light.
- Press the Light button again to turn off the keyboard light.

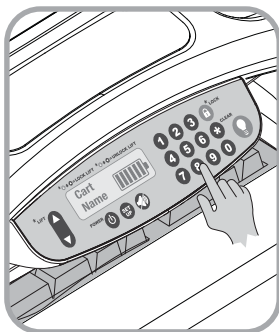
Note: The keyboard light will turn off automatically when the keyboard light timer counts down to zero.

Operation

THE DRAWER MODULES

Drawer Locks

The drawers are accessible when a valid personal identification number (PIN) is entered into the controller. A user may lock the drawers by either pressing the **Lock**  button or by waiting until the drawer lock timer counts down. The electronic drawer lock will not function when the battery is dead, conditioning, or if the cart is electrically de-energized. When there is no power to the drawer module, open the drawers by using the manual lock override that is located at the rear of the drawer module.

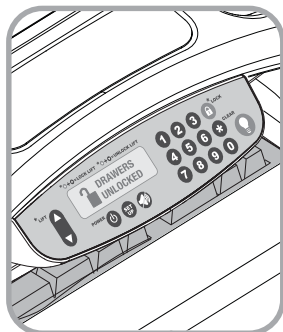
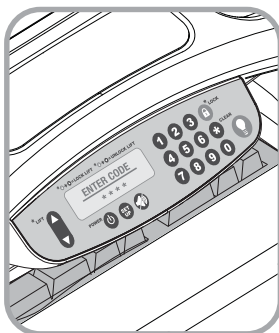


Enter A PIN

Press the number keys (1-0) to enter the 4 digit PIN code.

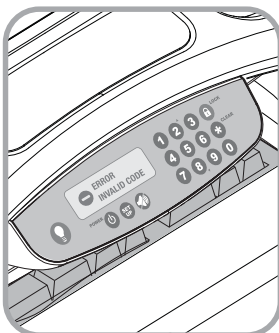
Note: The factory default PIN is **8034**.

As you enter digits a ***** symbol is displayed to indicate that a digit has been entered into the controller.



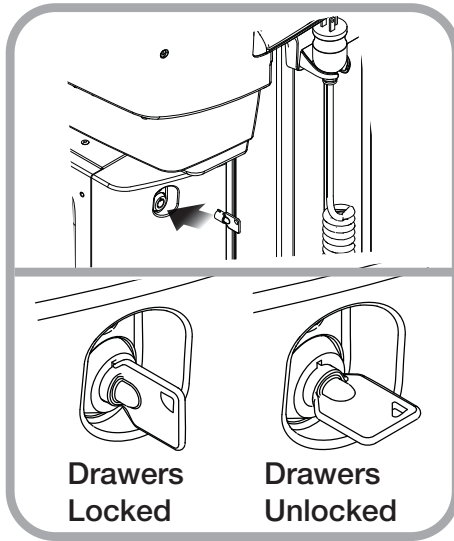
If the 4 digits entered are a valid PIN, the drawer module will unlock, and the **Drawers Unlocked** message will be displayed.

If the digits are not a valid PIN, the **Error Invalid Code** message is displayed for a short time; then the display changes to the battery monitor.



Operation

THE DRAWER MODULES (CONTINUED)



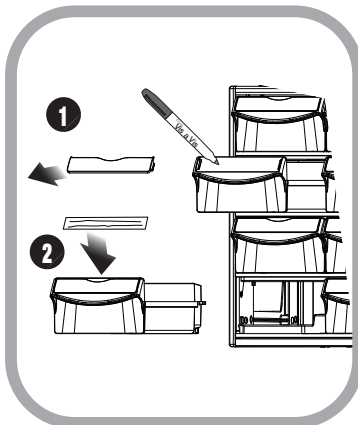
Manual Drawer Lock

Use the manual drawer lock override as follows:

1. Insert the lock override key into the lock located on the rear of the drawer module. The Drawers are locked, the key may be removed from the lock.
2. Turn the key clockwise to open the drawers. The key cannot be removed while the drawers are unlocked.
3. Turn the key counter clockwise to lock the drawers and remove the key.

Drawer Labeling

Drawers are equipped with a dual labeling system that is located on the drawer pull. There are Wet-erase labels located beneath the clear label guard (white for locking drawers, gray for non-locking). Also, the label guard forms a pocket which accepts a 4 1/8" (10.5 cm) X 7/8" (2.2 cm) paper or card label.

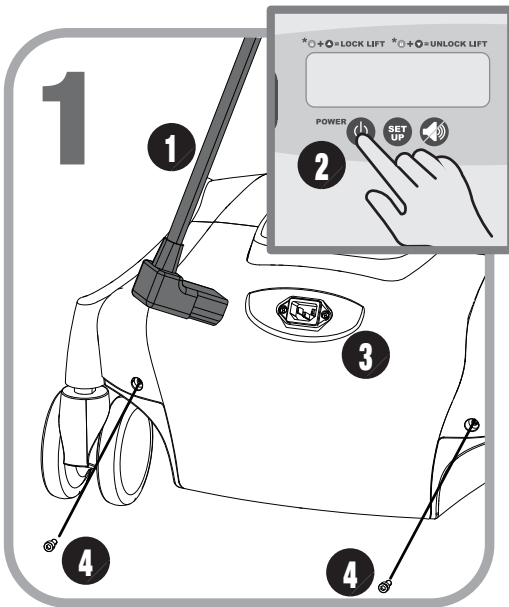


Label the drawers in the following manner:

1. Wet-erase labels:
 - a. Remove the clear plastic label guard.
 - b. Use a wet-erase marker (Expo Vis-A-Vis or equivalent) to label the drawer.
 - c. Replace the label guard.
2. Paper labels
 - a. Cut out and print a sufficient number of 4 1/8" X 7/8" labels.
 - b. Insert the label between the label guard and the dry-erase surface.

Maintenance

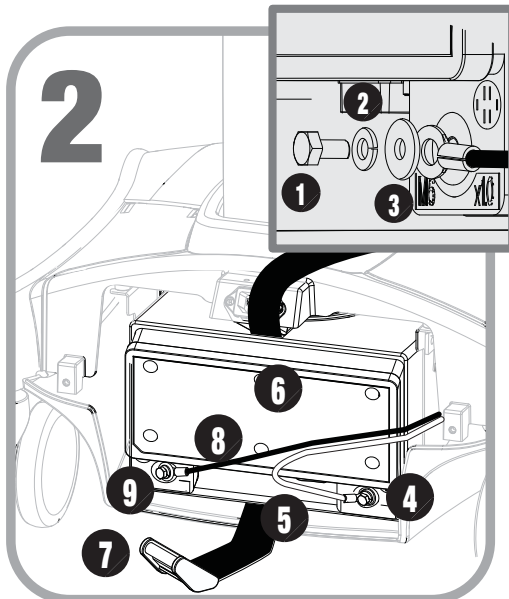
REMOVE AND REPLACE THE BATTERY



Shut down the M38 cart and remove the rear cover.

1. Unplug the M38 cart from the wall outlet.
2. Press and hold down (approximately 2 seconds) the power button to turn off the M38 cart.
2. Remove the power cord (1) from the rear of the M38 cart.
3. Use a 4mm hex key wrench to remove 2 screws (4) and Battery Cover (3) from the rear of the M38 cart.

Reverse the steps of this procedure to replace the rear cover and power cord.



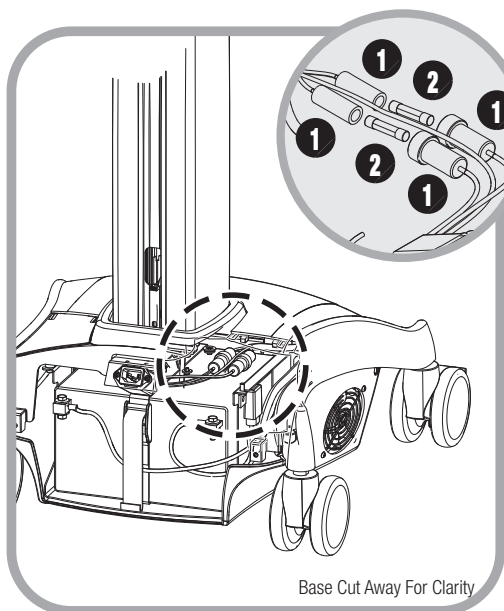
Remove the battery

1. Unbuckle the web belt (7).
2. Remove bolt (1), lock washer (2), washer (3), and **Red** cable (5) from positive battery terminal (4).
3. Remove bolt (1), lock washer (2), washer (3), and **Black** cable (8) from negative battery terminal (9).
4. Remove battery (6) from the M38 cart.

Reverse steps of this procedure to install the battery.

Maintenance

REMOVE AND REPLACE THE INPUT POWER FUSES



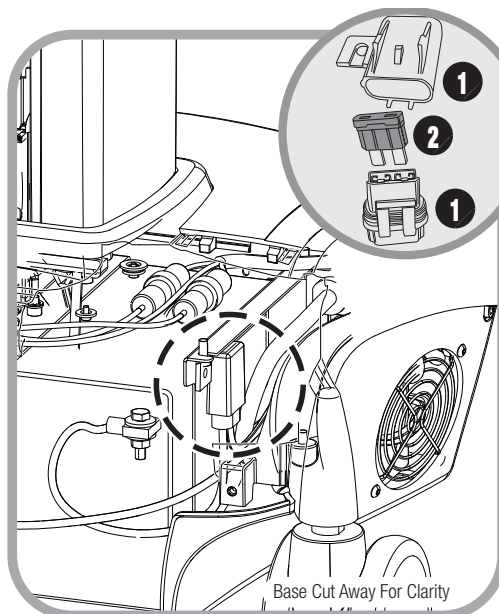
Shut down the M38 cart, remove the rear cover, remove the battery, remove and replace the fuses.

1. Shut down the M38 cart and remove the rear cover as directed on page 28 of this manual.
2. Remove the battery as directed on page 28 of this manual.
3. Twist open fuse holders (1) and remove fuses (2). Discard blown fuses.

Replace fuses with CooperBusman AGC-6 or equivalent.

Reverse the order of this procedure to reassemble the cart

REMOVE AND REPLACE THE BATTERY POWER FUSE



Power down the M38 cart, remove the rear cover, remove the battery, remove and replace the fuses.

1. Power down the M38 cart and remove the rear cover as directed on page 28 of this manual.
2. Remove the lower half of battery fuse holder (1) as shown.
3. Remove fuse (2). Discard blown fuse.

Replace fuse with Littelfuse ATOF #0287030 or equivalent.

Reverse the order of this procedure to reassemble the cart.

Troubleshooting

Cart Will Not Power Up:

- Plug power cord into a working hospital grade outlet
- Check to ensure power cord is plugged securely into back of cart
- Check to see if the Power System Interfaces (PSI) is charging when plugged in.
- If the charge level is critically low (last one or two LED's on) let cart charge until full
- If the cart does not start, check that cables to the PSI are securely plugged in.

Cart Will Not Charge:

- Check to ensure external spiral cord is plugged into base of cart.
- Ensure outlet 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 PSI indicates the station is charging when plugged in.
- If the charge level is critically low (last one or two LED's on) let the cart charge until full
- 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 go off after plugging in cart for several minutes, power down 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 to see if any debris is caught in them

Keyboard Tray Will Not Raise or Lower:

- Check for cable obstructions.
- Adjust the keyboard arm tray arm knob counter-clockwise to loose
- Adjust the keyboard arm tray arm knob clockwise to tighten

Troubleshooting

Keyboard Light Does Not Work for Non-Powered Version:

- Make sure USB cable is plugged into Laptop

Keyboard Light Does Not Work for Powered Carts:

- Verify powered USB Hub is plugged into power supply (green light indicator)
- Check to ensure USB cable is plugged into Hub

Mouse Does Not Work Properly (Powered Cart Only):

- Verify powered USB Hub is plugged into power supply (green light indicator)
- Make sure mouse is plugged into the USB hub
- If problem persists, plug device into another cart to see if it functions properly

Keyboard Does Not Work Properly:

- Ensure USB Hub is powered and plugged into power supply (green light indicator)
- Make sure keyboard is plugged into the USB hub
- If problem persists, plug device into another cart to see if it functions properly

Computer Does Not Work Properly:

- Check that computer has power
- Check the battery charge. If less than 20%, recharge the battery
- If problem persists, plug device into another cart to see if it functions properly

Cleaning



CAUTION: Because of the close proximity of electrical power and equipment, flammable cleaners should never be used on the cart!

- Verify that your cart is powered down and unplugged from the wall outlet before cleaning.
- Allow your cart to dry completely before plugging the power cord into a wall outlet.
- When cleaning the cart, wipe cleaners off of surface with a damp cloth and thoroughly dry.
- Never cover the cart or its components in liquid or allow liquids to flow into the cart.
- Never use steel wool or other abrasive material as these could damage the surface finish
- Before using any cleaner on the cart, first test on a small area to ensure that the surface is not harmed. These guidelines cannot guarantee infection control. The hospital's Infection Control administrator should be consulted for cleaning procedures and processes.

RECOMMENDATIONS:

- Clean plastic components with diluted, non-abrasive solutions. Suggested cleaners are water, soap, diluted bleach and alcohol solutions.
- Remove pen and dry erase marker stains with a soft cloth and 91% isopropyl alcohol.
- Remove iodine stains with a soft cloth and any cleaners suggested above.

DO NOT use the following chemicals to clean your cart: Acetone, Mineral Spirits, Abrasive Cleansers, Paint Thinner or any other harsh or toxic chemicals.

CLEANING OF HIGH TOUCH POINT ITEMS

1. Work Surface is fully removable to facilitate cleaning (see Step 1 of Start up instructions)
2. Document Protector is removable for cleaning by pulling up on back corners. To replace press nylon fastener into hole in work surface. Document protector is a replaceable item
3. Back Handle is fully removable (see Step 9 of Start up instructions)
4. Rear Bins can be removed by grabbing outside edge of bin and lifting up
5. Keyboard Tray and Mouse Pads - Tray and mouse pads are composed of melamine resin and are easy to wipe down.

Service

SERVICE REQUEST

Contact your IT department, or file a service request at our website:
www.rubbermaidhealthcare.com

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.

- Rubbermaid Healthcare will provide a service manual upon request.

Warranty

LIMITED WARRANTY FOR M38 COMPUTER CART

Rubbermaid Healthcare is pleased to offer a three-year warranty on durable components and a three-year warranty on electronic components.

If during the warranty period this Rubbermaid Healthcare product proves defective in materials or workmanship under normal use by the original purchaser, please contact Rubbermaid Healthcare technical support (please be ready to furnish complete information, including product serial number, description of the issue, and full contact information). Rubbermaid Healthcare will determine, at its sole discretion, how to best address your warranty issue, which may include sending you a replacement part covered under warranty or for sale. Rubbermaid Healthcare 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, or improper operation/misuse. RUBBERMAID HEALTHCARE 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.

SERVICE DETAILS

Consumable components are not covered under warranty and include:

- Locks and Keys
- Document Cover

Other standard components will be replaced under the applicable warranty following a filed service request.

*The above terms for replacement parts applies to facilities located in the United States. All other customers should contact the appropriate reseller for the terms of part replacement.

All terms are subject to change without notice.

Transport/Storage/Disposal

TRANSPORT/STORAGE

- The shipping weight of the M38 cart is approximately 160 lbs (72 kg). Use proper lifting techniques to prevent injury.
- 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); Humidity 20% RH to 95% RH non-condensing.

CART/BATTERY DISPOSAL

Battery Disposal/Recycling

Dispose/Recycle Lithium and SLA batteries according to local guidelines and regulations for disposal/recycling of batteries.

Cart Disposal

Dispose of this cart according to local guidelines and regulations for disposal of electronic equipment. For more information contact Rubbermaid Customer Service: 1-800-859-8292.

Standards Compliance

Tested to comply with:

- NRTL certified to:
 - o UL 60601-1:2003
 - o CAN/CSA-C22.2 No.601.1-M90
 - o IEC 60601-1/A2:1995
 - o EN 60602-1/A2:1995Standard for Safety Medical Electrical Equipment, Part 1: General Requirements for Safety - Collateral Standard: Safety Requirements for Medical Electrical Systems
- FCC PART 15, Subpart B, Class A – Unintentional Radiators

This product is classified as:

- o Class 1/ Internally powered device with no applied parts.
- o This equipment is designed for continuous operation.
- o Class A, Group 1 ISM Equipment
- o This device is classified IPX0 for water ingress
- o Input 120 Vac, 60 Hz, 5.1 Amp North America
- o Input 230 Vac, 50 Hz, 2.5 A International Models



Authorized Representative

Emergo Europe
Molenstraat 15
2513 BH, The Hague
The Netherlands

REVISION HISTORY

Revision	Date	Description of Changes
A	12/2013	Draft



1-888-859-8294
www.RubbermaidHealthcare.com

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