



# CartManager<sup>®</sup> Ultra

## User Manual V2.1



Pushout  
Prevention



Cart  
Retention



Cart  
Management



Business  
Intelligence

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## Overview

The CartManager® Ultra cart pusher from Gatekeeper Systems® is an easy to use battery powered drive unit that greatly increases the efficiency and safety of the cart collection process. The first cart is collected and its rear wheels are placed in the cart cradles on the front. Additional carts are added until a line of carts are formed in front of CartManager Ultra. The operator can use either the manual Throttle Knobs or a handheld remote control to move the line of carts back to the store.

This document is intended for store supervision/management overseeing personnel using the CartManager Ultra; it is their responsibility to verify the operator completely understands this User Guide.



**Do not operate or use this product until after reading this User Manual in its entirety. Contact Gatekeeper Systems immediately before operating if there is any uncertainty about the clarity of its contents and or safety guidelines. Failure to do so may result in personal injury, property damage, or death.**

The CartManager Ultra User Guide is designed to provide store personnel with general information regarding use of CartManager Ultra cart pusher. This manual is to be made available to all employees who may use the CartManager Ultra.

A training quiz is available for use in training. This and other Cartmanager Documents are available at:



[www.gatekeepersystems.com/cmultradocs](http://www.gatekeepersystems.com/cmultradocs)

If at any time further assistance with training, troubleshooting or maintenance of the CartManager Ultra is needed, refer to the last page in this guide for information on contacting your nearest Gatekeeper Systems' regional Customer Support center.

## Safety Precautions

1. The CartManager Ultra is designed to move carts. Any other use of the CartManager Ultra, unless authorized in writing by Gatekeeper Systems, is prohibited and improper usage and operation of the CartManager Ultra may void the warranty and/or result in personal injury or death.
2. Only one operator should operate the Cartmanager Ultra either by using the wireless Remote or using the Manual Throttle knobs. While using the throttle knob the Remote must be kept in the remote holder on the Cartmanager Ultra.
3. Remote acts as a wireless key and must not be left on the unit unattended. Operators must take it with them when they walk away from the CartManager Ultra.
4. The maximum capacity for moving a line of carts using the CartManager Ultra appears on a yellow label affixed on the hood. Please refer to the safety label on your specific unit for its maximum capacity limit. NEVER exceed the unit's maximum capacity for pushing carts.
5. Ensure only properly maintained carts in good working condition are pushed using the unit. Broken or poorly maintained carts should never be pushed using CartManager Ultra. Do not push more carts than the individual operator can safely control.
6. Operators must be at least 16 years old to operate CartManager Ultra. Do not operate the CartManager Ultra outside of the minimum operator requirements set down by company policy or applicable laws and regulations set forth by the city, county, state or other governing body.
7. Do not operate the CartManager Ultra unless you have reviewed and understood this User Guide and any other training materials provided by your employer.

8. Only trained and authorized personnel are permitted to service the CartManager Ultra.
9. A strap holding the string of carts together must always be used.
10. Do not use CartManager Ultra under the influence of drugs or any medications.
11. Do not use when distracted or using other devices such as a cell phone.
12. Do not operate or transport CartManager Ultra with hood up.
13. Do not use on street with high speed traffic.
14. Do not walk directly in front of the CartManager Ultra or carts being pushed.
15. Do not use on steep gradients.
16. Do not ride on or carry passengers on the CartManager Ultra or carts pushed by the unit.
17. The CartManager Ultra is designed for light exposure to water and not appropriate for rain or snow unless rain/snow tires are used. Do not store where rain and/or snow may accumulate on the CartManager Ultra. Do not use in extreme weather, deep puddles or areas where submergence is possible.
18. Do not pressure wash.
19. Do not push the CartManager Ultra when it is operating.
20. Do not leave the CartManager Ultra unattended while it is turned ON. The CartManager Ultra is equipped with a brake that automatically engages when the machine is stopped. To avoid an accident, do not leave the machine parked or unattended on slopes. When the CartManager Ultra is to be left unattended or in storage, turn the power switch OFF.
21. Operate the CartManager Ultra at a safe speed and go only as fast as safety considerations allow. Take into consideration the location of store entrances, sidewalks, pedestrian and vehicle traffic, driveways, grade and parking lot layout.
22. Always operate at a slow speed when near store guests or employees. Operating conditions, such as wet or slippery pavement or slopes can affect the stopping distance of the CartManager Ultra.
23. Do not drive over curbs and avoid rough surface conditions such as potholes, mud or grass.
24. Always be aware of your surroundings before you operate the CartManager Ultra in forward or reverse.

## Charging

1. Hydrogen gas is formed when charging the batteries. Use a location with adequate ventilation when charging CartManager Ultra batteries. Never smoke near batteries. Do not charge batteries in an area with open flame or electrical equipment that could cause an electrical arc.
2. AGM batteries have no free liquid and do not require maintenance.
3. Do not lay metal objects (wrenches, screwdrivers, etc.) on any of the batteries to prevent electrical short circuits.
4. Do not use extension cords. Use the cord supplied with the machine. Find a location for recharging that is close to an electrical outlet receptacle.
5. The built in battery charger supplied with CartManager Ultra shall be grounded while in use to protect the operator from electric shock. Make sure the charger is connected to an outlet having the same configuration as the three prong grounded plug. No adapters (three to two pronged plugs that are not properly grounded) should be used with this charger.
6. The Battery Charger may get hot after use in charging. Do not touch or come into contact with this surface.

Follow the CartManager Ultra Quick Start Guide for instructions for first time setup.

This and other Cartmanager Documents are available at:



[www.gatekeepersystems.com/cmultradocs](http://www.gatekeepersystems.com/cmultradocs)



**Disregarding any of these instructions or warnings may cause severe damage to the CartManager Ultra or other objects, injury or even death to the operator or others.**



**Gatekeeper Systems Inc. assumes no liability for any consequences arising from use of the CartManager Ultra in any manner other than full compliance with the instructions set forth in this user guide, or in disregard of any of the warnings contained herein.**





# CartManager Ultra Features and Controls



## Power Switch

Flip this switch to turn CartManager Ultra ON and OFF.

## Horn Switch

Press to sound the horn.

## Digital Throttle Display / Battery Level Indicator

Displays percentage of charge left in the batteries. Batteries should be recharged when the remaining charge Indicator falls below 40%. The unit can also be plugged in between runs to keep the batteries charged.

This device will also display diagnostic codes for troubleshooting.

## Hood

The hood covers and protects the batteries and other components in the battery compartment. When opening and closing, use the hood handle on either side of the hood. Do not grip the hood by the front edge which may pinch fingers.

## Cart Cradle

Two cart cradles are mounted on the front of the cart and spaced so that the rear wheels of a cart fit into each cradle.

## Eye Bolt

The strap that secures the carts when moving is mounted on the Eye Bolt.

## Strobe Light

Flashes as long as the power switch is turned ON.

## Remote Control

Acts as a wireless key switch to enable driving and must be present to drive the Cartmanager.

- Sends signals to Cartmanager to drive as well as sounds the horn
- Displays diagnostic codes for troubleshooting
- Displays total run time

## Throttle Knob and Handle

By grasping both the handles with your hands and placing your thumbs onto the throttle knobs, slowly rotate the throttle knobs in a forward direction to move the CartManager Ultra forwards, by rotating the throttle knobs in a backwards direction it will move the CartManager Ultra in a backwards motion.

The farther you rotate the throttle knobs, the faster the unit will move. Release the throttle knob and the CartManager Ultra will stop.

## Battery Charger

Charges main batteries and monitors the battery charging process.

Features and Controls continued on page 6.



### Emergency Stop Button

The Emergency Stop Button is a safety feature that stops CartManager Ultra immediately when the button is pushed. To resume operation turn the power switch OFF. Wait five seconds and then turn the power switch back ON.

### Light Pole

Holds the strobe light. Swings up for operation and down for getting under low overhangs or doors.

**Remote Control Holder** Convenient storage for the remote control unit when it is not being used.

### Brake Rod/Ball Knob

Engages/disengages the manual brake. When the lever is pulled out, the brake is disengaged. When the brake lever is pushed in, the brake is disengaged while the unit is being driven using the drive motor and engaged when the unit is stopped. The brake release lever must be pushed in to use CartManager Ultra with the throttle knobs or the remote control unit.

### Charger Cord/Socket

Attached power cord – this cord is permanently attached to CartManager Ultra. To charge, unwrap the cord and plug in to a standard grounded electrical outlet. When charging is completed, make sure the cord is securely wrapped around the cable bracket on the back of the CartManager Ultra.

### Drive Wheels

Foam filled, heavy tread wheels connected to the drive motor.

### Swivel Wheel

Allows the unit to swivel and turn completely around in its own length. This wheel is not connected to the drive motor.

## Pre-Operations Checklist

Run through the tasks listed below each day before using CartManager Ultra.

If you discover any abnormal or potentially unsafe conditions during this inspection, DO NOT use the CartManager Ultra. Turn the unit OFF, make sure the Emergency Stop button is pushed in and notify the supervisor.

1. Check the Battery Charger on the back of the CartManager Ultra. If you see triangular Fault / Error Indicator light on DO NOT USE. Unplug power cord from the electrical receptacle and notify the supervisor. *See image to the right.*
2. The CartManager Ultra has a permanently attached power cord, unplug the Power Cord from the outlet (if plugged in). Wrap the cord securely around the cable bracket on the back of the CartManager Ultra.
3. Take a walk around the unit and look for any loose or broken parts or other indications that there may be mechanical or electrical problems. If any such conditions are found, leave the CartManager Ultra OFF and notify the supervisor.
4. Make sure that the Brake Release Knob is pushed all the way in.
5. Check that the Light Pole is securely snapped into full upright position.
6. Flip the Power Switch to ON. The Strobe light should flash. The Battery Level Indicator will have one bar scrolling.



7. Press and release the remote control Green button and look for the red power indicator on the Remote to light up when the button is depressed. The Battery Level Indicator would now display the main battery's charge level and driving is now enabled. One to ten vertical bars may be displayed, each representing 10% of the battery capacity (see photo right). If the CartManager Ultra does not respond and the red power indicator on the remote control fails to light, see *Remote Control Issues* under *Troubleshooting*.

8. Check the Battery Level Indicator. If the level is less than 2 bars, turn the CartManager Ultra OFF, plug the Power Cord into a standard electrical outlet and recharge for at least four hours. If the CartManager Ultra will not power up or move, turn the unit OFF and notify your supervisor.



## Keyless Operation for CartManager Ultra

A key is not required for the CartManager Ultra—the Remote acts as a key. Any time the Remote moves out of the remote range the CartManager Ultra will stop working, until it is brought back in range and can communicate with the Cartmanager Ultra.



**A lost remote is similar to a lost key since the CartManager Ultra cannot be operated without it. If CartManager Ultra must be pushed, pull the Brake Rod / Ball Knob and push the CartManager to the desired location.**



**If one LED bar is scrolling on the battery level indicator, press Green button on the remote to operate CartManager Ultra.**

## Using CartManager Ultra – Manual Mode (Driving with the throttle knobs)



**Use manual mode when moving the CartManager Ultra with no carts attached. DO NOT use manual mode if you have more than one cart attached unless you have two persons: one to operate the CartManager Ultra and a second to steer the carts from the front of the cart line. NEVER attempt to steer a line of carts using just the throttle knobs.**

Once the Pre-Checklist has been performed:

1. Stand behind the CartManager Ultra and verify the Brake Rod / Ball Knob is all the way in. It must be pushed all the way in to use the throttle knobs or the Remote control to drive the CartManager Ultra.
2. Flip the Power Switch to ON position The Strobe Light will begin to flash.
3. Press the Green button on the Remote.
4. Press the Horn button to alert people in the area that you are going to be moving.
5. By grasping both the handles with your hands and placing your thumbs onto the throttle knobs, slowly rotate the throttle knobs in a forward direction to move the CartManager Ultra forwards, by rotating the throttle knobs in a backwards direction it will move the CartManager Ultra in a backwards motion. The farther you rotate the throttle knobs, the faster the unit will move. Release the throttle knob and the CartManager Ultra will stop. Top speed is matched to a fast walk.

NOTE: To conserve the battery, if unit is inactive for a minute, CartManager Ultra will go to sleep mode, press the Green button on remote to enable driving.

## Using CartManager Ultra – Remote Operation Mode (Using Remote Control)



**Never walk directly in front of a line of moving carts or stand in front of the CartManager Ultra cart pusher when the unit is moving!**



**Press the Red OFF button at any time to disconnect the remote's command to the CartManager Ultra unit. This will bring the CartManager Ultra unit to a rolling stop.**

In remote operations mode, a handheld Remote control unit is used to control the CartManager Ultra, instead of the Throttle Knobs. The operator steers the line of carts from the side of the front cart.

Once the Pre-Checklist has been performed:

1. Place the rear wheels of a cart into the Cart Cradles, as shown right.
2. Switch the Power Switch ON and the Battery Level Indicator will display one bar scrolling across the Display.
3. With the Remote control in hand, move to the side of the front of the cart, facing forward.
4. Pressing and release the Green button. The red power indicator on the Remote will light while the button is pressed.
5. Press and release the Horn button once or twice to alert persons that you are in the area. If the horn does not sound, refer to *Troubleshooting*.
6. With one hand on the front corner of the cart, press and hold the turtle (slow) button. The CartManager Ultra will begin to move slowly forward.
7. While holding the Slow Button down, push or pull the front of the cart and the cart and CartManager Ultra will turn in that direction.
8. Release the Slow Button and CartManager Ultra will stop.
9. Now press and hold the Rabbit (fast) button. CartManager Ultra will move forward, but much faster.



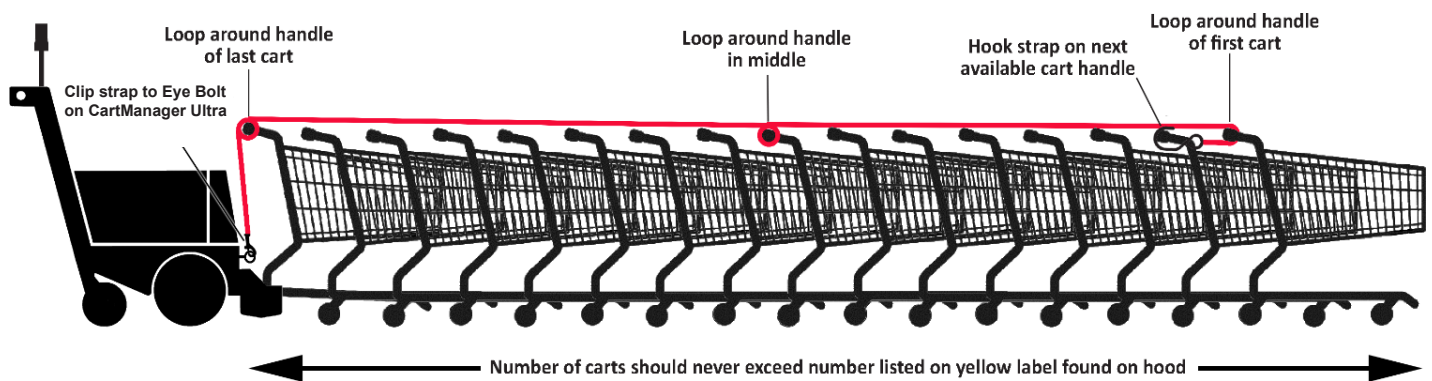
**NOTE:** To conserve the Remote battery, if unit is inactive for more than a minute, CartManager will go to sleep mode, press Green button on remote to enable driving.



## Retrieving Carts

How to load carts and secure them for transport using the CartManager Ultra.

1. Use manual mode to drive the CartManager Ultra to the area where you are going to start retrieving carts.
2. Leave the CartManager Ultra ON when loading carts, but press the Red button on the remote during the loading process to prevent the Remote from accidentally moving the CartManager Ultra while loading carts.
3. Attach the small, spring loaded latch on the Cart Restraint Strap to the Eye Bolt on the lower front section of the CartManager Ultra, as shown in the figure at right.
4. Set the rear wheels of one cart into the cart cradles. It may be helpful to put a small empty box in the cart to hold the cart strap when it's not in use to prevent the strap from falling on the ground and getting tangled in the drive wheels.
5. Add eight or nine more carts onto the front of the first cart. Make sure the carts are nested snugly with a minimum of play between them.
6. Bring the Cart Restraint Strap up and wrap it once around the handle of the cart sitting in the cart cradles.
7. Carry the Strap up over the top of the row of carts and pass it under the handle of the lead cart.
8. Carry the Strap back over the top of the carts and pass it under the handle of the cart in the cart cradles. Keep tension on the Strap so that the carts are pulled closely together.
9. Continue this looping process until you can hook the Strap securely around one of the cart handles without any slack. Additional carts require fewer loops. When moving a full line of carts, one loop under the handle of the lead cart is usually sufficient.



10. When complete, the Strap should be attached as shown above.
11. Move to the side of the lead cart. Press the Green button on the Remote control.
12. Place one hand on the corner of the lead cart and press the Turtle button. The line of carts will move slowly forward.



**ALWAYS use the Cart Restraint Strap if you are pushing more than one cart.**



## DO's and Don'ts

### DO

- Read the Safety and Warning Labels on the CartManager Ultra, especially the yellow label on top of the hood listing the maximum number of carts the unit is capable of pushing.
- After unplugging the Power Cord from the wall outlet, securely wrap it around the Cable Bracket on the back of the unit.
- The CartManager Ultra should easily navigate the speed bumps and ramps normally found in a parking lot, but it is recommended to plan your route so that speed bumps are avoided if possible, especially if the CartManager Ultra is being used to drive a line of carts. If the Cart Cradles consistently scrape or bottom out, notify your supervisor to have the Cart Cradles adjusted.
- Drive the CartManager Ultra only on a solid surface such as asphalt or concrete. Do not operate on grass or mud.
- The CartManager Ultra will work in moderate rain or snow, but should be stored in a protected area between retrieval runs. Note that run time on a single battery charge may be decreased in extremely cold/hot weather.
- If the driving surface is icy, wet or slippery, reduce speed when moving and leave extra distance for stopping.
- When driving a line of carts downhill, leave extra room to stop and stop slowly to avoid placing excessive strain on the Cart Restraint Strap.
- When approaching an area where cars or people are present, sound the horn to let them know you are coming.
- If cars or people are in your line of travel, stop until they have passed. If you must proceed, politely ask them to move aside until you have gone by.
- When steering from the lead cart in narrow areas, allow sufficient room to avoid becoming stuck between the cart line and a wall.
- Prior to leaving CartManager Ultra unattended, ALWAYS press the red Emergency Stop Button on the CartManager and make sure the Brake Release lever is pushed in.
- Check that your path is clear before you move the CartManager Ultra, both in front and behind. ALWAYS pay attention to where you are going.
- Unless specifically directed by your store policy, do not use the CartManager Ultra to drive carts directly into a cart holding area. Stop the CartManager Ultra, off load the carts and move them in by hand.
- When driving carts directly into a cart storage area with a low opening, swing the Light Pole into the down position before moving through the opening.

### DON'T

- Never walk directly in front of a line of moving carts. Always steer from the side of the lead cart.
- Moving more than one cart in manual mode requires two people: One person to operate the CartManager Ultra and a second to steer the carts from the front of the cart line. NEVER attempt to steer a line of carts using just the throttle knobs.
- Never operate the CartManager Ultra in a negligent, unsafe or inappropriate manner, in other than full compliance with applicable laws, regulations, and the guideline set out in this guide.
- DO NOT operate the CartManager Ultra if you are taking any medication known to cause impairment of vision, reflexes or judgment, are overly fatigued, or have any other circumstances that would prevent safe use of the unit.

## Care and Maintenance of the CartManager Ultra



**Never perform maintenance or troubleshooting procedures for which you have not been trained. Always wear appropriate safety gear when performing maintenance procedures.**

## Charging the CartManager Ultra Batteries

Plug the CartManager Ultra in at the end of each workday and allow it to charge overnight (eight hours). It is also recommended to charge the CartManager Ultra between runs. Intermittent charging will not harm the batteries.

1. Drive the CartManager Ultra to a clean, dry, well ventilated area, close to a standard grounded (three prong) electrical outlet. This charging area should be sheltered from the weather and out of the way of customer traffic.
2. Turn the CartManager Ultra OFF.
3. Unwrap the Power Cord from the back of the unit and plug directly into the electrical outlet. DO NOT use adapters that bypass the grounding prong or allow the cord to be plugged in to a two-prong outlet. DO NOT use an extension cord.
4. When charging is complete, or the CartManager Ultra is needed for cart retrieval, unplug the cord from the wall outlet. Wrap the cord securely on the cable bracket on the back of the CartManager Ultra.

## CartManager Ultra Maintenance

### Daily/Weekly Maintenance

- Perform the checks shown on the CartManager Ultra Pre-Operations Checklist on top of the hood of the CartManager Ultra before the first run of the day.
- The outside of the CartManager Ultra can be washed just like a car. Use a mild solution of detergent and a soft rag. Rinse with clear water. It is important to wash or at least thoroughly rinse the CartManager Ultra on a weekly basis during seasons where de-icing chemicals, salt or solvents are being used in the cart collection area. DO NOT use a pressure washer.

## Troubleshooting

**MANY ISSUES CAN BE CORRECTED SIMPLY BY TURNING THE CARTMANAGER ULTRA OFF, WAIT 30 SECONDS, THEN TURN BACK ON. ALWAYS POWER CYCLE THE CARTMANAGER ULTRA TO SEE IF THE PROBLEM IS CORRECTED BEFORE CONTINUING TROUBLESHOOTING.**

DO NOT perform any troubleshooting or maintenance procedures unless you have been properly trained and given permission by a supervisor.

If unable to resolve any difficulties after completing the troubleshooting tasks, please refer to the last page in this guide for information on contacting your nearest Gatekeeper Systems regional Customer Support center.

## Remote Control Issues

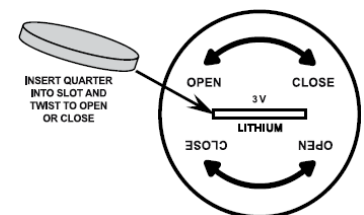
### Test the Remote Control Batteries

1. Press the Red button.
2. Wait five seconds and press the Green button.
3. If the red power indicator does not come on when the buttons are pressed, replace the batteries.

## Changing the Remote Control Batteries

The remote control uses CR-123A batteries which are available where most batteries are sold.

1. Turn the remote control unit over so that the buttons are facing down.
2. Insert a coin into the slot on the battery cover and turn 90 degrees counterclockwise to remove the cover.



3. Gently remove the old batteries. Make sure to properly discard in accordance with company policy, applicable laws and regulations set forth by the city, county, state or other governing body.
4. Insert new CR-123A batteries, making sure that both the "+" ends are facing upwards towards the top of the Remote control.
5. Set the battery cover over the battery compartment. Use a coin to turn the cover 90 degrees clockwise until the cover is fully locked.



The Remote control unit red power indicator illuminates when buttons are pressed, but the Remote does not communicate with the CartManager Ultra.

If you are using a new remote for the first time, or using a remote other than the one linked to a different CartManager Ultra, the Remote must be linked to the CartManager Ultra. Follow the steps to Link the remote to the CartManager Ultra.

## Linking the Remote to the CartManager

1. Turn on the CartManager Ultra unit by flip the power switch to the ON position.
2. Press and release the Red button on the Remote control.
3. Press and release the Green button on the Remote control.
4. On the CartManager Ultra unit, press the Remote Control Association switch in the upper right corner of the battery charger well (Shown at right).
5. The (RED power Indicator) LED on the Remote control should flash 3 times. The Remote should now be synced with the CartManager Ultra.
6. If the Remote won't sync with the CartManager Ultra, verify the Remote batteries are good (see *Test the Remote Control Batteries* above) and verify the CartManager Ultra is charged (see *Testing the CartManager Ultra Battery*) on the next page.



## Horn Doesn't Work

1. Turn OFF CartManager Ultra and wait five seconds. Turn back ON.

## CartManager Ultra Does Not Turn On

Nothing happens (no lights, no horn, no movement) when the Power Switch is turned ON.

1. Make sure the CartManager Ultra is charged for eight hours.
2. Unplug the Power Cord and turn the CartManager Ultra ON (CartManager Ultra will not turn ON or move when plugged in).
3. Press the Green button on the remote control.
4. Turn the Throttle Knobs and the CartManager Ultra should move.

## Testing the CartManager Battery

1. Make sure the CartManager Ultra is OFF.
2. Verify the Brake Release Knob is pushed all the way in.
3. Wait five seconds and turn the CartManager Ultra back ON.
4. Turn the Throttle Knobs and the Cartmanager Ultra should move.
5. If the CartManager Ultra doesn't move, check the Battery Level Indicator. If there is one bar scrolling across the display, press the Green button on the Remote. The display should show the charge level. If there are any colored bars displayed with spaces between, turn the CartManager OFF and notify supervision.

## Battery Runs Down Quickly

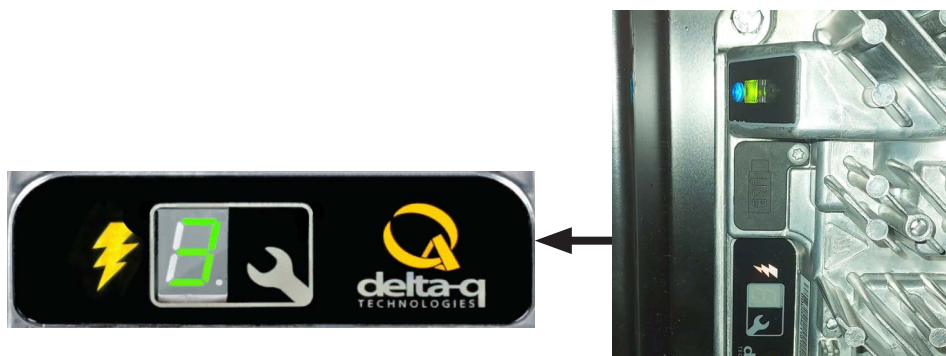
CartManager Ultra should operate for 8 - 10 hours on a full charge as indicated by the Battery Charger Indicator on charger turning solid green. Run time may be decreased if the CartManager Ultra is being used on inclines such as hills or ramps, if heavy items are in carts being collected, extreme hot or cold weather, or if the batteries are faulty.

## Advanced Troubleshooting

CartManager Ultra can self-diagnose some issues and provide error codes to assist in identifying a problem. Most codes pertain to issues that only trained and authorized service technicians can repair, however, there are several that a user may be able to correct. There are Charging Error Codes related to charging and those that appear on the Remote.

### Charger Error Codes

If an error occurs during charging, the Fault/Error light will be illuminated and a four digit code will be displayed between the lightning bolt and wrench icon on the charger.



*Fault/Error Display on the back of the Charger displaying "3."*

The error code will be displayed by scrolling or briefly displaying each of the four digits, starting with "E" or "F" followed by a zero "0" then twice more, displaying the remainder of the error code. By reading this code and matching it to the table below, the problem can be identified and potentially solved.

Code	Description	Possible Solution
E 0 0 1 E 0 2 1	Battery High Voltage	Contact Gatekeeper
E 0 0 2 E 0 2 2	Battery Low Voltage	Attempt to charge for 8 hours.
E 0 0 4 E 0 0 7 E 0 0 8	Battery Related Error	Contact Gatekeeper

Code	Description	Possible Solution
E 0 0 3 E 0 0 5 E 0 0 8	Heat Related/Various	Possible charger overheat. Turn unit OFF, then move CartManager Ultra to cool area away from direct sun-light and heat sources. Allow to cool for at least ten minutes, then charge for 8 hours. Turn back ON.
E 0 0 6 E 0 2 3 E 0 2 5	AC Voltage Error	Probable bad power outlet. Move to another outlet and charge.
E 0 2 4	Charger Failed to Initialize	The charger has failed to turn on properly. Pull Power Cord plug, wait 30 seconds, then plug power back in.
All "F" Codes	Charger Failure	Contact Gatekeeper

## Error Codes

By pressing the Display Button on the Remote, the LCD display on the top will show "iEr" followed by a number, then "EER," followed by another number. Note the numbers (if any) displayed following the "iEr" or "EER" and use the table below to match the error code to determine a possible solution that will correct the issue.



Code	Description	Possible Solution
EEr 1,2 EEr 1,3	Under or Over Voltage	Contact Gatekeeper
EEr 1,4	Temperature Out of Range	Move from area of extreme hot or cold. Turn power OFF and allow temperature to normalize, then Turn Power ON.
EEr 2,3 EEr 2,4	Motor Power Connection Failure	Contact Gatekeeper
EEr 2,5	Brake/Motor Fault	Contact Gatekeeper
EEr 3,1	Brake failure or E-Stop Active	Push Emergency Stop Button, then turn OFF and back ON. Push in Brake Release Knob and pull out. Turn power OFF and ON.
EEr 3,2	E-Stop Active	Release Emergency Stop Switch, then turn OFF and back ON.
EEr 4,1	Voltage Supply Error	Contact Gatekeeper
EEr 4,3 EEr 4,4 EEr 8,3 EEr 8,4	Controller Fault	Turn OFF and back ON. If problem not resolved, contact Gatekeeper
iEr 1	Applied Throttle Before Power Switch	Turn OFF, then Turn Back ON
iEr 2	Throttle Error	Contact Gatekeeper
iEr 3	Internal Relay Error	Contact Gatekeeper
iEr 5	Remote Communication Error	Contact Gatekeeper
iEr 6	Battery Related Error	Contact Gatekeeper
iEr 7	Early Turtle Button Release	Turn OFF, then Turn Back ON
iEr 8	Early Rabbit Button Release	Turn OFF, then Turn Back ON

NOTE: Follow the possible solution listed above, and then turn the unit's power switch OFF and then back ON to resume operation. If the resolution doesn't work, contact service provider.



## Adjusting the Cart Cradles

1. If the Cart Cradles are frequently scraping the ground when going over speed bumps, up ramps, over door sills, etc. they may need to be raised. Any changes in carts with different rear wheel spacing may require a change to the spacing of the cradles. A 9/16 inch wrench or socket and driver are required.
2. Park the CartManager Ultra in a dry, flat area.
3. Turn the unit OFF and make sure that the manual brake lever is pushed all the way in.
4. Loosen the four bolts holding the Cart Cradles in place (one cradle is shown at right).



5. Remove the Cradles. You will see two sets of threaded bolt holes in the front of the CartManager Ultra.



6. Match the holes in the back or in the flanges of the Cart Cradles with a set of holes on the CartManager Ultra. A different set of holes can be used for each side, they don't both have to be the same.
7. Replace the bolts, two for each Cart Cradle and tighten securely.



## Specifications

### Safety Features

- Emergency Stop Button at manual throttle.
- LED beacon Strobe light.
- Automatic parking brake.
- Warning Horn in manual and remote modes.
- Automatic low-battery warning.
- Automatic overload shutdown.
- Programmed acceleration, deceleration and maximum speed for operation control.
- All electronics are mounted away from batteries in a separate compartment.

### Certifications

- UL & CE approved.
- CE and UL approved 110V charger.
- CE approved 230V charger.
- FCC approved remote control.

### Electrical

- Batteries - 24 volts D.C.; two maintenance free AGM, 12 volts batteries, with a 104 AHr capacity.
- Battery Charger - Marine-grade, 27.1 Amp charger with automatic peak charge shut OFF, and trickle charge mode. Watertight enclosure with shock and vibration resistant electronics. Short circuit and reverse polarity protection.
- Charger Input: 100-240V, 50/60Hz. Charger Output: 24V DC, 27.1 Amp
- Motor Controller - Fully programmable controller with output to BDI and diagnostic display. Allows for quick and effect fault identification.




### Operations

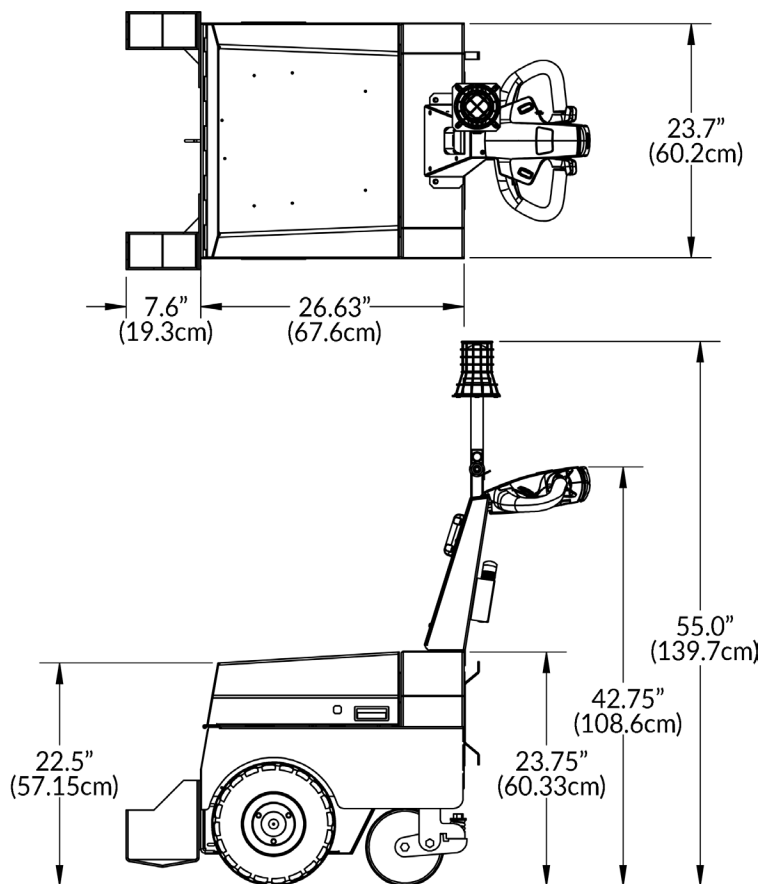
- Forward speed: 0 - 3.0 mph (4.8 Km/h).
- Reverse speed: 0 - 1.5 mph (2.4 Km/h).
- Remote control and receiver with 200 feet (61 meters) range.
- Automatic, self-programming Remote control and receiver with 16 million security codes.
- Self diagnostics motor controller with output to externally visible, BDI battery indicator/ diagnostic meter for easy troubleshooting.

### Technical Specifications

- Weight: 435 pounds (197 kilograms).
- Foam filled tire 12 inches (304.8 millimeters) in diameter.
- Ergonomically correct hand grip throttle control.
- 6' (2 meters) Power Cord.
- Integral motor drive and axle assembly.
- Pressure sealed transaxle and differential to prevent water or debris intrusion.
- Drive controller and all electronics are fully shielded from environmental hazards and unexpected impacts.
- Integrated, adjustable, automatic electro-magnetic braking.
- Charger is isolated from the batteries, electronics, and motor controller.

## User Serviceable Parts

Item & Part Number	Where Available
 <p><b>CartManager Ultra Remote Control</b></p> <p><b>P/N K-9410</b></p>	<b>GateKeeper Systems</b>
 <p><b>Cart Restraint Strap</b></p> <p><b>P/N A500150-03</b></p>	<b>GateKeeper Systems</b>
 <p><b>CR123A Batteries</b></p>	<b>Most small battery retailers</b>



*CartManager Ultra dimensions*

## Limited Warranty and Disclaimers\*

**IMPORTANT:** Read this entire Limited Warranty before using the CartManager Ultra product. The CartManager Ultra product (or other Gatekeeper Systems, Inc. product collectively referred to herein as the "Product") manufactured by Gatekeeper Systems, Inc ("Manufacturer"), is believed to be reliable if the directions for its use, maintenance and operating procedures are followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this Product. Risk of failure, including personal injury, dismemberment, injury to property or even death, may result from misuse, abuse, neglect, negligent use, accidental or intentional damage, ordinary wear and tear, violation or omission of standard operating procedures, improper maintenance, failure to perform routine and preventive maintenance, alterations, additions and/or modifications to the Product, use by any individual not a fully trained and fully authorized operator, and improper training of the operator, all of which are beyond the control of Manufacturer. All such risks are fully assumed by the purchaser/customer of the Product ("Customer").

Manufacturer offers a limited warranty (the "Limited Warranty") to each customer who is the original purchaser of this Product that, effective for a period one year ("Limited Warranty Period") from the date of delivery of the Product to the Customer, that the Product is free from defects in material or workmanship in normal use and service. Should any Product prove not to conform to the foregoing Limited Warranty, the remedies of Customer for any breach of the foregoing Limited Warranty shall be limited to the repair or replacement of the Product. **IN NO EVENT SHALL MANUFACTURER'S OBLIGATIONS PURSUANT TO THIS LIMITED WARRANTY EXCEED THE PURCHASE PRICE PAID TO THE MANUFACTURER BY THE CUSTOMER FOR THE PARTICULAR PRODUCT INVOLVED, TO THE EXCLUSION OF ALL OTHER REMEDIES OR LIMITATIONS, INCIDENTAL OR CONSEQUENTIAL DAMAGES.** The Limited Warranty, which is Customer's **EXCLUSIVE REMEDY**, shall be **FURTHER LIMITED** as follows:

1. If the defect in material or workmanship is disclosed to the Manufacturer by the Customer within the first ninety (90) days following delivery of the Product to the Customer, the Limited Warranty shall be the full cost of the labor and parts to repair or replace the defective Product or component parts thereof.
2. If the defect in material or workmanship is disclosed to the Manufacturer by the Customer prior to the expiration of the Limited Warranty Period but more than ninety (90) days following delivery of the Product, the Limited Warranty shall be the Manufacturer's cost of the replacement parts (excluding repair labor) required to repair the defective Product or component part.

Any warranty repair or replacement of Products or defective component parts shall occur at the Manufacturer's (or authorized service provider's) place of business. In order to obtain warranty service, the Customer must return the defective Product to the Manufacturer within the Warranty Period, together with proof of purchase by Customer establishing date of delivery, with freight charges and applicable costs of repair, if any, prepaid, which Product the Manufacturer shall have determined to its satisfaction, after examination, to have been defective. The Manufacturer shall ship, prepaid; any repaired or replaced Product covered by the Limited Warranty, to the Customer's facility located within the continental United States.

The Limited Warranty is invalid if the factory-applied number has been altered or removed from the Product. The Limited Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, neglect, negligent use, accidental or intentional damage, ordinary wear and tear, violation or omission of standard operating procedures improper maintenance, failure to perform routine and preventative maintenance, alterations, additions and/or modifications to the Product, use by any individual not a fully trained and fully authorized operator, and improper training of the operator, or repair or attempted repair by anyone other than Manufacturer or its authorized agents, nor to any Product which is leased or used as rental equipment. The occurrence of any of the foregoing voids the Limited Warranty. This Limited Warranty does not cover Customer instruction or training.

**THIS LIMITED WARRANTY PROGRAM IS EXCLUSIVE AND IS GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESSED OR IMPLIED OR INFERABLE FROM THE COURSE OF DEALING OR USAGE OF TRADE, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING FROM PERFORMANCE, COURSE OF DEALING OR USAGE OF TRADE, AND ALL OTHER OBLIGATIONS, LIABILITIES, RIGHTS, CLAIMS OR REMEDIES, INCLUDING ANY RIGHT IN CONTRACT, TORT, STRICT LIABILITY OR ANY RIGHT ARISING FROM MANUFACTURER'S NEGLIGENCE, ACTUAL OR IMPUTED FOR CLARIFICATION ONLY (AND NOT IN ANY WAY TO EXPAND THE FOREGOING EXCLUSIVE REMEDIES):**

1. Under no circumstances will manufacturer be liable for lost profits or any other incidental, on sequential, special or indirect damages resulting from the purchase or use of this product, including, without limitation, economic loss, cost of capital, claims of customers for failure of supply or loss of use or damage to persons or to other property, notwithstanding the fact that the manufacturer has been advised of the possibility of such damages.
2. The total liability of the manufacturer to customer shall not exceed the total purchase price paid by the distributor or manufacturer for the particular product involved.
3. No agreement varying or extending the foregoing warranties, remedies or limitations will be binding upon the manufacturer unless in writing and signed by a duly authorized corporate officer of the manufacturer.

If any term or condition of this Limited Warranty program is in violation of applicable local, state, or federal law, this having jurisdiction in the matter, shall rewrite and reform the Limited Warranty to the minimum extent required so as to be permitted under applicable law.

\*USA Only. Warranty coverage may vary depending on country/region.



## Contact Gatekeeper Systems

For more information about CartManager Ultra training and troubleshooting, or to order replacement parts or report an issue, contact the Gatekeeper Systems, Inc. regional Customer Support office nearest to your location, or visit our website [www.gatekeepersystems.com](http://www.gatekeepersystems.com).

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**For immediate assistance:**

Please contact Customer Experience at (888) 808.9433 *(within the U.S.)*  
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