

OWNER'S GUIDE

EVOLUTION 4

MODEL 280-5000, REV 0





Congratulations!

You have purchased the most advanced electric shopping cart available today. The Mart Cart Evolution 4 features the latest in technology and design providing unmatched performance. Please read this manual before operation to familiarize yourself with the cart.

Technical support, replacement parts, and additional information can be found by visiting our website at **www.martcart.com**, or calling our toll-free number, **(800) 548-3373**.

To ensure swift service, please have the model, serial number and revision number of your Mart Cart available when calling, which can be found on the back of the seat and under the front cover on the motor box.

MART CART SERVICE

Mon-Fri, 8:00 am - 5:00 am CST

(800) 548-3373

EVOLUTION 4

LIMITED WARRANTY

2-4-2

A. PARTS

Parts are warranted for two (2) years from date of shipment. All parts are warranted by the manufacturer to be free from defects in material and workmanship. This warranty does not include wear and tear caused by abuse, negligence, freight damage, damage caused by improper use or care, damage caused by scrapes, cuts or dents, or by outside sources such as fire, flood, etc. Wear items such as seats, keys, and charger cords are not covered. Resetting a circuit breaker is not covered. Replacement parts ordered and replaced outside the initial cart warranty period carry a one (1) year warranty or to the remainder of the cart warranty (which ever is longer) to be free from defects in material and workmanship.

B. BATTERY

Batteries are warranted for four (4) years from date of shipment. Before submitting a warranty claim on a battery, the battery must be charged to a full charge (*refer to this owner's guide for proper charging instructions*) and should be load tested. If the battery does not fully charge or if the load test falls below 220CCA (*Cold Cranking Amps*), the battery will be replaced under warranty. Replacement batteries carry a warranty period of 6 months or the remainder of the cart warranty period, whichever is longer.

C. LABOR AND TRAVEL

Labor and travel charges are warranted for two (2) years from date of shipment. The manufacturer will cover labor and travel charges incurred as a result of defects in the materials and workmanship of the cart, when work is done by an approved service technician. Labor and travel charges for servicing wear items such as seats, armrests, keys, and charger cords are not covered. Labor and travel charges for resetting circuit breakers are not covered. Labor is defined as the time spent physically servicing the cart at the facility where the cart is normally operated. Travel is defined as the trip charge, zone charge, mileage, or drive time required by service personnel. Travel charges may not include meals, fuel, or lodging. Warranty periods and procedures are optional and may differ between customers. Please call our service department with your cart's serial number to verify your specific options.

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In the US, all warranty claims should be called in, toll-free, to: **(800) 548-3373**

International warranty claims should be called in to: **+1(479) 636-5776** Ask for Service

You may also email: **techservice@assembledproducts.com**

Please provide serial number, for warranty verification, when requesting service.

IMPORTANT SAFETY INSTRUCTIONS

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PLEASE READ BEFORE OPERATING

**Specifications in this guide are subject to change without notice.*

NOTICE

It is the responsibility of the owner of this cart to maintain the cart in a safe and reliable condition at all times.

WARNING

- » Never attempt to charge the batteries in this cart without using an electrical outlet that is protected by a GFCI.
- » Replace charging cord if plug is damaged or if the cord is worn or frayed.
- » Cart is designed for indoor use only.
- » Operate cart on level surface only.
- » Always disconnect power before servicing.
- » Cart can roll. Enter and exit cart with care.
- » See Operating Instructions posted on the cart.
- » See Warnings posted on the cart.
- » Keep this Guide for your reference.

WARNING

SEE DAILY MAINTENANCE CHECK LIST POSTED ON THE CART.

General items can include, but are not limited to:

- » **Horn** – check for proper functionality and audible level. Horn should activate when pressed, and should sound when driving in reverse.
- » **Grips** – Grips should not be easily twisted or removed.
- » **Cleanliness** – clean the cart daily, keeping it free from accumulation of grease, dirt, and other potentially combustible materials.
- » **Motor and Brake** – Drive the cart in forward and then in reverse to ensure the motor is able to move the cart. To check brake function, with throttle in neutral, sit on cart and place each foot on the floor on each side of the cart and try to push the cart. The brake should prevent the motor wheel from turning. If the cart fails this test, remove from service. Note that if pushed hard enough the wheel may skid and the cart may slide.
- » **Battery** – Check for visible damage to either the case or posts such as swelling, venting, cracking, melted case or terminals. If this condition is found, remove from service and replace the battery.
- » **ONE OCCUPANT ONLY!**
- » **DO NOT EXCEED LOAD LIMITS:** Rider - 550 lbs; Basket - 150lbs.
- » **Replace parts using only factory-specified, original equipment** from the manufacturer for your specific model. Failure to do so may void warranty, affect operation of the cart, and result in injury.

FIRST STEPS

EVOLUTION4
MODEL 280-5000, REV 0

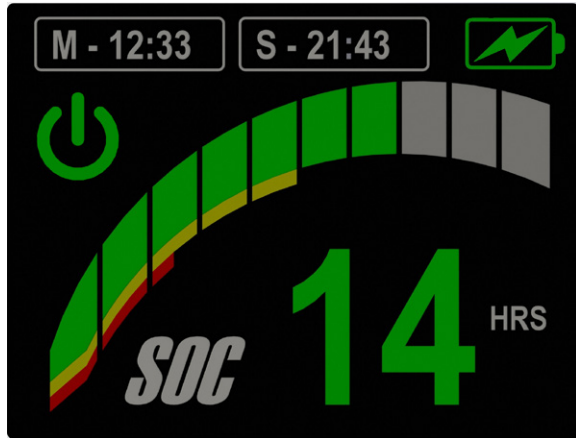
- » Upon receipt, inspect all shipping containers/packaging for signs of damage immediately and note any with the carrier. File a freight claim with the carrier if damage has occurred.
- » Next, unbox your new Mart Cart E4 and remove all packaging.
- » Move the Mart Cart to a location with a 115V, GFCI protected outlet and charge the cart for 24 hours, or until the 24 hour charge icon clears. The next screen you see will be the home screen.

CONTROL HEAD



OPERATION

To operate cart, make sure rider is seated and seat switch is engaged. Rotate throttle controls forward or backwards depending on direction of travel. Speed is controlled by rotating throttle. Cart will stop within 18 inches when throttle is let go.



LCD SCREEN

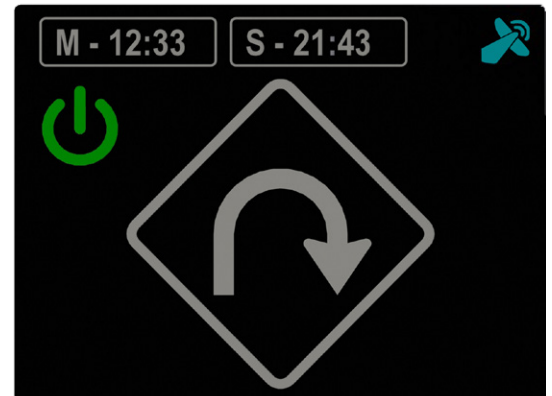
Mart Cart's proprietary display uses international symbols and easy to understand graphics, providing important information at a glance for you and your customers.

Once the Mart Cart is unplugged and the operator is seated, the LCD screen will display the state of charge using the abbreviation SOC with a numerical percentage. When the throttle is engaged the percentage SOC will change to Hours of Operation noted by a number and HRS behind it. This easy to read and intuitive notation provides you and your customer with a clear understanding of how long the cart can be operated.

OPTION: GUARDIAN PERIMETER SYSTEM (GPS)

If your Evolution 4 is equipped with our anti-theft cart-containment system, the *Guardian Perimeter System* has been programmed to only operate within a specific area in and around your store. This system features two boundaries. The cart will operate normally passing through the first boundary, but the LCD screen will display a white turn around symbol.

While in this first boundary the horn will sound and cycle through a five second on, one second off routine until returned to the normal operating zone. If the operator continues driving and passes through the second boundary the turnaround icon color will change to red, the horn will sound continuously, and the cart will operate only for five seconds before stopping again. To return to normal operating zone the operator will have to release throttle after each five second cycle repeating sequence until cart is in normal operating zone. Cart may be driven backwards or forwards to return.



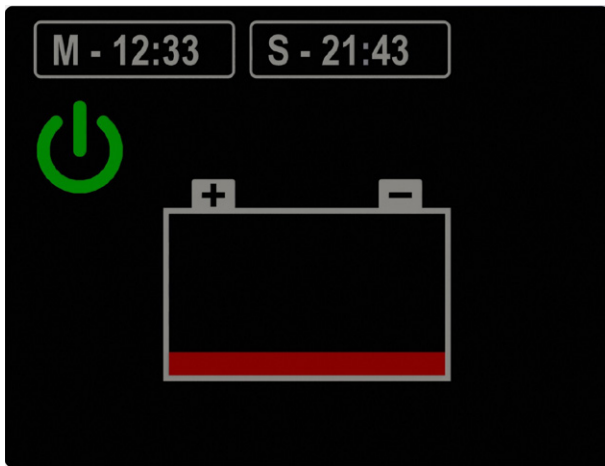
OPTION: CLEARPATH AVOIDANCE SYSTEM

The *ClearPath Avoidance System* is designed as a natural behavior avoidance system to reduce opportunities where riders hit objects in the store. If your E4 cart is equipped with this option the cart will automatically reduce speed when trailing someone in front or as it nears objects. Once clear of object or person in front the cart will resume normal speed. Cart will stop before hitting solid object should rider persist in maintaining course.

DEPLETED BATTERY

The *Power Management System* will prompt the LCD screen to display the battery icon when the cart battery is too low to operate. When this happens, charge the battery.

NOTE: The cart should be charged every night, **all night**, and at every opportunity.



⚠ WARNING

Voltage Per Unit	12v
Capacity	39.0Ah @ 20hr-rate to 1.75v per cell @ 25°C (77°F)
Maximum Discharge Current	400A (5 Sec)
Float Charging Voltage	13.5 to 13.8 VDC/unit Average at 25°C (77°F)
Maximum Charging Current Limit	11.7A
Terminal	B5-L Terminal to accept M6 nut and bolt
Case Size	U1

ASSOCIATE OVERRIDE

The Evolution 4 has reserve power should the battery be run down while in the store. To operate the cart while returning to the charging station continuously hold down the Horn Button while engaging the throttle. The horn will sound for approximately one second before going silent. Keep horn and throttle engaged to operate.

⚠ WARNING

Failure to follow instructions may result in death or serious injury.

BATTERY REMOVAL AND INSTALLATION STEPS

1. Make certain the AC charging cord is unplugged from the wall outlet.
2. Remove the Front Cover of the cart.
3. Remove the knob that secures the Battery Hold Down Plate. Remove the Battery Hold Down Plate.
4. Pull the Battery out of the enclosure to expose the positive lead. Disconnect the positive lead from the Battery (Red).
5. Pull the Battery out of the enclosure to expose the negative lead on the battery. Disconnect negative lead.
6. Do NOT short battery terminals together.
7. Re-Installation should be done in reverse order. Start at step 6 and work back to step 1. Take care to place the positive lead protective boot back onto the positive terminal of the battery before completing installation.

ⓘ NOTICE

Batteries used in the Evolution 4 are specific to this model to provide the optimum life cycle and preserve the integrity of the proprietary Power Management System. It is recommended that only this battery be installed into this cart.

It is important that battery specifications are observed. This cart is equipped with a high current charger that could damage batteries that do not meet the specification indicated below. Use only batteries specified for the Evolution 4. Contact Mart Cart Service for replacement batteries.

! NOTICE

ERROR MESSAGES

Your Evolution 4 Mart Cart has been designed to provide your customers with a comfortable shopping experience. Should the cart experience technical issues, the proprietary diagnostics system will provide easy to understand error codes on the LCD screen. Listed below, you will find error codes and basic troubles shooting information. Call Mart Cart Service should you need assistance. When calling, provide the error code number and short error code description, along with the model, serial number and revision number found on the seat back.

ERROR CODE KEY

CODE	ERROR MESSAGE DISPLAYED	RESPONSIBILITY	ACTION
5	Charging Cord	Rider	User to unplug cart from wall outlet. Cart will not move until unplugged. Condition will clear when unplugged.
13	Seat Switch	Rider	Cart will not move unless rider is properly seated. User must sit on seat. If already seated, then they should reposition themselves on seat to activate switch. If cart will not move, then first check by seating another rider. Very light riders will sometimes not trigger seat switch. Call service if cart does not move after trying with several riders. Condition clears by sitting properly on seat.
2	AC Intermittent	Store	This notice is given to store personnel that power is not getting to the battery to properly charge. Store personnel should first check to see that charge cord is fully seated inside cord bucket on cart. Next check the plug connection at the wall outlet. Cord plug will be lighted if power is flowing. If cord end is not lighted then check to see that it is firmly seated in outlet and plug into another outlet to check. If plug does not stay seated in an outlet call your store maintenance. Condition is cleared for cart to use by moving throttle.
1	Batt V Out of Range	Service	Call Mart Cart Service.
3	Brake Open – Short	Service	
6	Failed CRC Check	Service	
7	Replace Battery	Service	
8	Drive Error	Service	
9	Controller Error	Service	
10	No Com from HB	Service	
11	Drive Temp	Service	
12	Motor Over Temp	Service	
14	Brake Over – Current	Service	
15	Controller Over - Current	Service	
18	No Com from MCC	Service	
19	Motor Overload	Service	

LIST OF WARNING LABELS & DECALS

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Use the part number to order replacement labels / decals.

PART #:033-0030

Battery Charger; Battery Information; Notice

Decal, applied to back of seat
(1 color - black)

BATTERY CHARGER

Input: 100-240VAC - 50/60Hz 3 Amps (MAX)
Output: DC 12 Volts / 10 Amps

BATTERY INFORMATION

Capacity: 38 Ah @ 20 Hr / Nominal 2.0A
Battery Reorder Model: 280-0208
Size - Height: 7.100" x Width: 7.750" x Depth: 5.125"

NOTICE

THIS CART MUST BE USED INDOORS ONLY!
FOR USE ON LEVEL SURFACES ONLY!

THE CIRCUIT BREAKER IS LOCATED UNDER
THE FRONT COVER.

033-0030 REV 00



WARNING

DISCONNECT CHARGING CORD BEFORE OPERATION

TO PREVENT PERSONAL INJURY FROM ELECTRICAL
SHOCK - **DO NOT USE CHARGING CORD IF:**

- 1) THE ELECTRICAL OUTLET IS NOT PROTECTED BY A GROUND FAULT
CIRCUIT INTERRUPTER (GFCI).
- 2) THE ELECTRICAL CORD OR PLUG IS DAMAGED OR WORN. REPLACE
BEFORE USING WITH ONLY 3 WIRE CORD AND PLUG OF SAME TYPE.

Para PREVENIR una HERIDA PERSONAL DE un GOLPE
ELECTRICO - **no UTILIZE LA CUERDA DE CARGAR SI:**

- 1) LA SALIDA ELECTRICA no ESTA PROTEGIDA POR UN INTERRUPTOR de
CIRCUITO por de DEFECTO de TIERRA (GFCI).
- 2) LA CUERDA O el TAPON ELECTRICOS estan DAÑADOS O GASTADOS.
REEMPLACE ANTES de UTILIZAR UNICAMENTE CON CUERDA DE 3
ALAMBRES Y TAPON DEL MISMO TIPO.

033-0031 REV 00

PART #:033-0031

WARNING; DISCONNECT CHARGING CORD BEFORE OPERATION

Decal, applied to inside face of the
charging cable bucket
(2 colors - orange and black)

PART #:033-0035

WARNING! DISCONNECT CHARGING CORD BEFORE OPERATION

Decal, applied to charging cable
(2 colors - yellow and black)



WARNING!

Disconnect Charging
Cord Before Operation

033-0035 REV 00
033-0035 REV 00



WARNING!

Disconnect Charging
Cord Before Operation

LIST OF WARNING LABELS & DECALS (Continued...)

PART #: 280-0238

IN-STORE USE ONLY; NO CHILDREN IN BASKET (Side A)

IN-STORE USE ONLY; FOR OUR VALUED CUSTOMERS BECAUSE WE CARE (Side B)

Basket hanging, front of basket. English / Spanish

(2 colors - red and black)

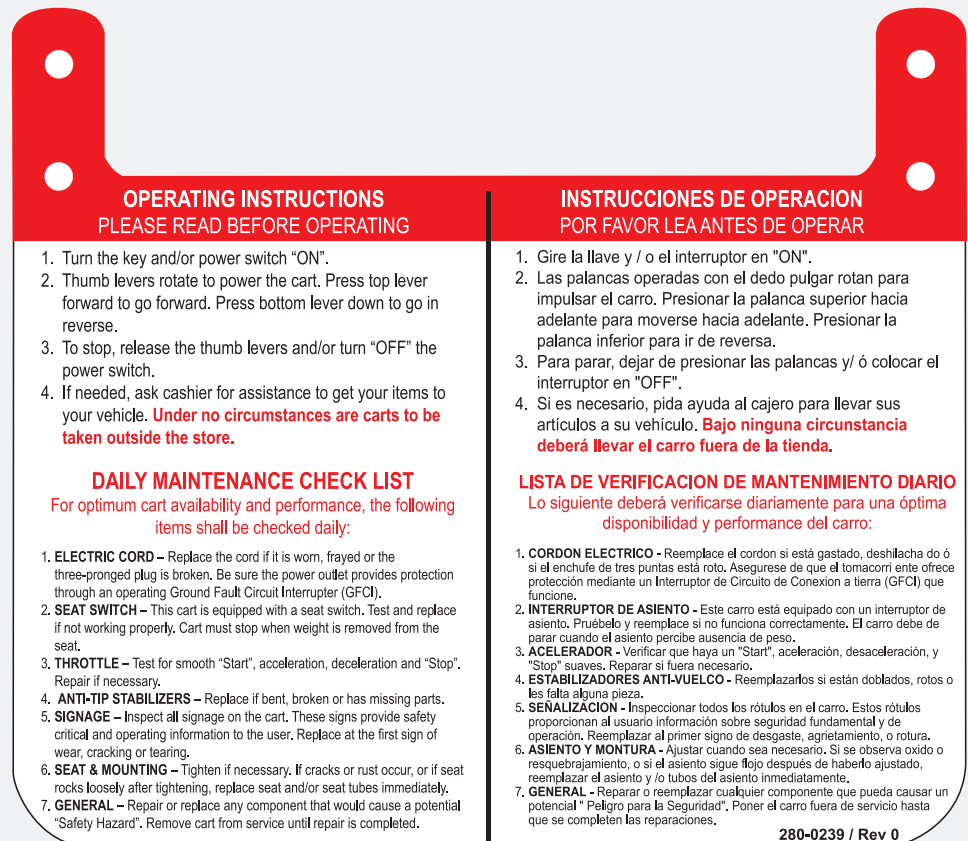


PART #: 280-0239

OPERATING INSTRUCTIONS; DAILY MAINTENANCE CHECKLIST

Basket hanging, seat-facing.
English / Spanish

(2 colors - red and black)



LIST OF WARNING LABELS & DECALS (Continued...)

PART #: 280-0240

WARNING; **CART CONTAINMENT SYSTEM** (if equipped) **CLEAR PATH OBSTACLE DETECTION SYSTEM** (if equipped) **LOAD LIMITS**

Basket hanging, front of basket. English / Spanish
(2 colors - red and black)

WARNING PLEASE READ TO AVOID PERSONAL INJURY. USE AT YOUR OWN RISK!
(Para español, ver al reverso) INTENDED FOR USE INDOORS ON LEVEL SURFACE ONLY! DO NOT REMOVE FROM STORE!

1. Read operating instructions or ask for assistance before using.
2. Use extra caution getting "ON" and "OFF" of the cart.
3. Cart is on wheels and may roll.
4. You must be seated to operate the cart.
5. Keep feet and legs inboard while operating.
6. Do not stand on cart.
7. Do not lean "ON" or "OVER" the side of the cart.
8. NO CHILDREN IN BASKET.

280-0240 / Rev 0

CART CONTAINMENT SYSTEM (if equipped)

If you see the symbol on the LCD screen, this cart is equipped with a Cart Containment System that prevents the cart from leaving the area.

If you see this symbol on the LCD screen, and hear beeping, turn around and proceed back toward the store. If you continue away from the store the cart will stop. If this occurs you must backup in order to turn around.

CLEAR PATH OBSTACLE DETECTION SYSTEM (if equipped)

If you see the symbol on the LCD screen, this cart is equipped with an Obstacle Detection System. The cart may stop or slow down if it detects a possible forward collision. If the cart stops, allow throttles to return to neutral before attempting to drive the cart. WARNING: Clear Path Obstacle Detection System is not a substitute for attentive operation and sound judgment. Maintain a safe distance and steering control at all times. Never depend on the Obstacle Detection System to prevent a potential collision.

LOAD LIMITS
 Maximum Persons (1) Rider: 550 lbs.
 Basket: 150 lbs.

ADVERTENCIA

POR FAVOR LEA PARA EVITAR LESIONES PERSONALES. ÚSELO BAJO SU PROPIA RESPONSABILIDAD! DESTINADO A USARSE EN EL INTERIOR SOBRE UNA SUPERFICIE LLANA SOLAMENTE! NO USARLO FUERA DE LA TIENDA!

1. Antes de usarlo lea las instrucciones de operación o pida ayuda.
2. Tenga mucho cuidado al "SUBIR" y "BAJAR" del carro.
3. El carro tiene ruedas y puede rodar.
4. Para operar el carro usted debe de estar sentado.
5. Mantenga pies y piernas dentro del carro durante su funcionamiento.
6. No pararse sobre el carro.
7. No recostarse "ENCIMA" o AL LADO del carro.
8. NO PONER NIÑOS EN LA CANASTA.

280-0240 / Rev 0

SISTEMA DE CONTENCIÓN DEL CARRO (si está equipado)

Si usted ve el símbolo en la pantalla LCD, Este carro está equipado con un Sistema de Contención del Carro que impide que el carro deje el área.

Si usted ve este símbolo en la pantalla LCD, y escucha un pitido, dé la vuelta y regrese a la tienda. Si usted continúa alejándose de la tienda el carro se detendrá. Si esto ocurre usted tendrá que retroceder para dar la vuelta.

SISTEMA DE DETECCIÓN DE OBSTÁCULOS "CLEAR PATH" (si está equipado)

Si usted ve el símbolo en la pantalla LCD, este carro está equipado con un Sistema de Detección de Obstáculos. El carro puede parar o disminuir su velocidad si detecta una posible colisión mas adelante. Si el carro para, deje que el acelerador vuelva a la posición neutral antes de tratar de operar el carro. ADVERTENCIA: El Sistema de Detección de Obstáculos Clear Path no substituye la operación atenta ni el sentido común. Mantenga una prudente distancia y control del manejo en todo momento. Nunca dependa del Sistema de Detección de Obstáculos para evitar una potencial colisión.

LIMITES DE CARGA
 Maximo De Personas (1)
 Usuario: 550 lbs. Canasta: 150 lbs.

NOTICE

To view or download the battery's *Material Safety Data Sheet*, scan the QR Code, right, or enter the web address, below, into your browser.

<https://martcart.com/wp-content/uploads/2020/01/power-sonic-battery-sds-2016.pdf>





www.martcart.com



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