



Technical Service Bulletin

Number: TSB-012

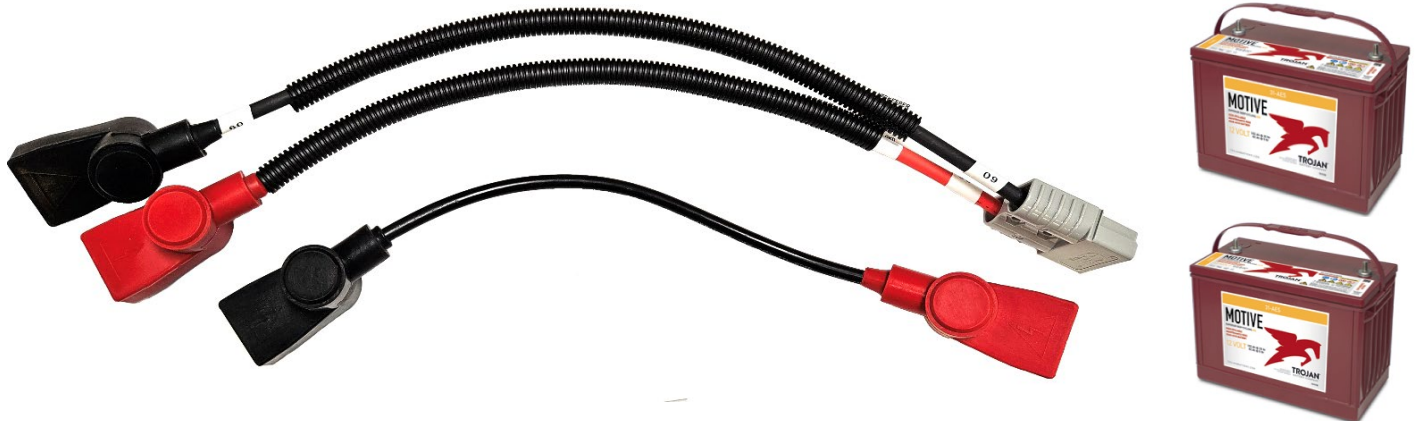
Date: June, 2025

Affected Parts: CartManager® SX & Ultra

CartManager® SX & Ultra Battery Change

Gatekeeper Systems is no longer supplying the NexSys battery for CartManager® SX and Ultra models. Beginning in 2025, the Trojan battery, Gatekeeper Systems P/N E500155-09, is replacing this battery. Given that the battery stud sizes are different, the jumper and harness cables need to be replaced.

When replacing batteries in the SX and Ultra models, Kit P/N 860-00012 is required, which includes two E500155-09 batteries and the two cables (jumper and harness), as shown below (not to scale).



Battery Replacement Kit, P/N 860-00012

Removing the Batteries and Cables



WARNING!

Failure to properly install battery terminals may result in a short and possible fire, which may cause damage, personal injury or death. Prior to working on batteries, remove all metal jewelry that might come into contact with the batteries or cables. Carefully follow instructions below.

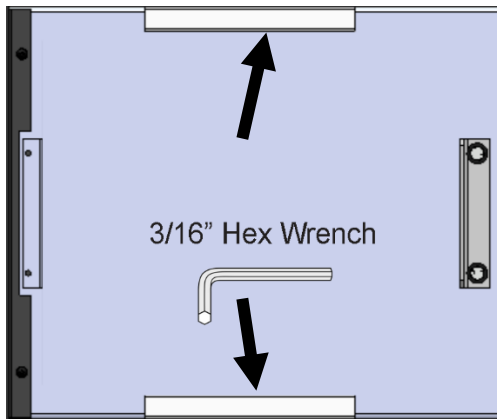
1. Disconnect charger, if plugged in.
2. Turn CartManager® OFF.
3. Disconnect harness by pulling out gray connector with handle.
4. Uninstall the other half of the gray connector by removing two screws holding it.
5. Remove cables from positive and negative studs of both batteries. Discard jumper and harness.



WARNING!

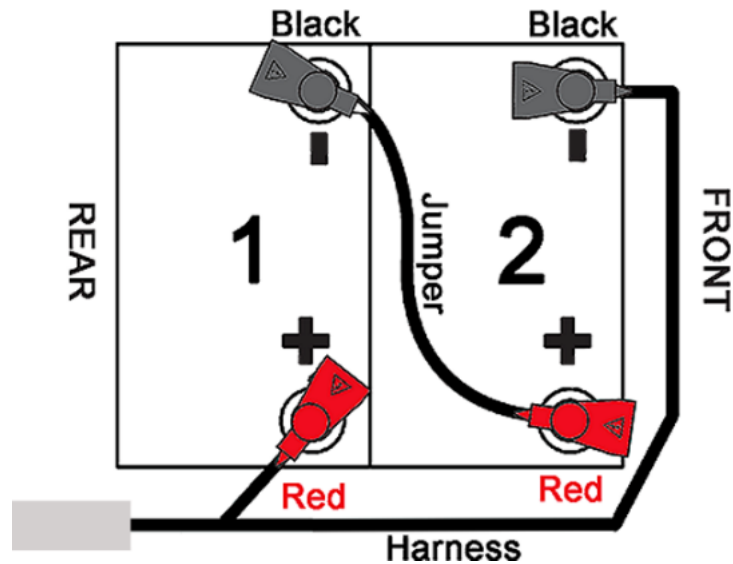
When removing battery cables, be careful not to short them out with a battery stud, other cable or metal. An electrical short may result in a fire, damage to the CartManager® and possible injury or death.

6. Using gloves and safety goggles, remove old batteries from CartManager®. Discard/recycle in compliance with all applicable regulations and laws.



7. Once the batteries are removed, locate the spacers on the sides of the battery box. Using a 3/16" hex wrench, remove the two screws on each of the spacers and remove spacers and discard.

Installing the new Batteries and Cables



Battery, jumper and harness layout for the Trojan batteries



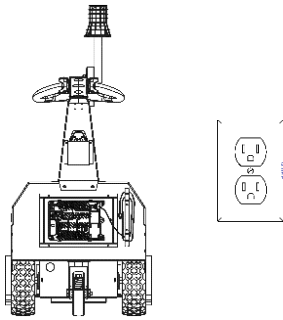
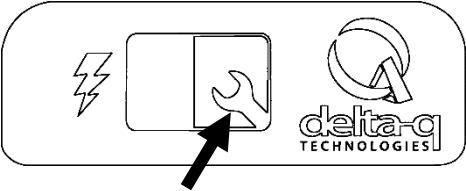
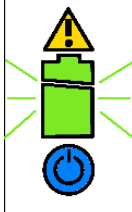


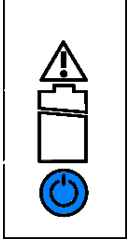

NOTE

Always replace both batteries at the same. Do not mix old and new batteries or different battery types.

1. Install new Trojan batteries with the stud side facing towards the front of the CartManager® and secure using strap.
2. Mount jumper cable end with the red cover to the positive stud on battery 2 first, followed by the negative (black cover) battery post of battery 1.
3. Connect the harness end with the red cover to the positive stud of battery 1, followed by the negative post (black cover) of battery 2.
4. Connect harness to chassis wire harness.
5. Place plastic covers on end of cables over terminals/studs.
6. Verify that batteries are positioned correctly (refer to illustration); all cables are connected to the correct battery stud; ring terminals are tight and the plastic covers do not leave any bare metal exposed.

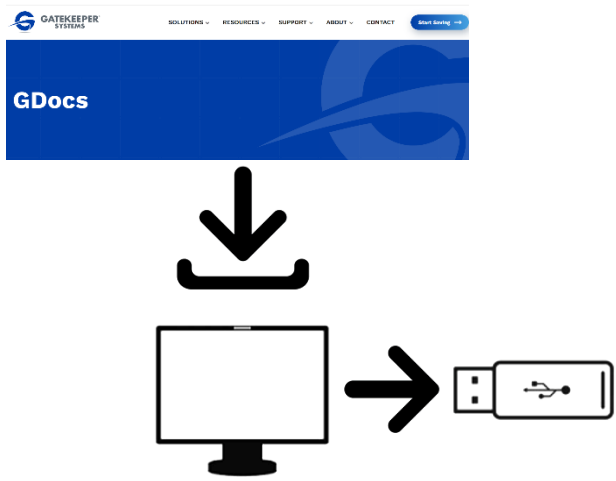
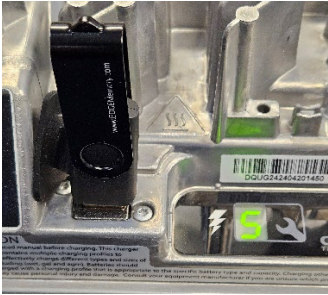
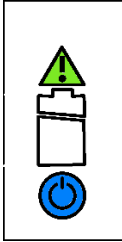
Changing the Charge Profile on SX and Ultra Models

When changing battery type, the Charge Profile must be changed on the CartManager®. Failure to change the battery Charge Profile may result in poor battery performance, shorter battery life and will void the warranty.

<ol style="list-style-type: none"> 1. Move CartManager® near power outlet. 2. Disconnect AC power from charger and wait 30 seconds. 	
<ol style="list-style-type: none"> 3. Disconnect the AC power cord from the charger and plug outlet end into power outlet. 4. Press and hold the Select Charge Profile Button (Wrench) while connecting the power cable to the charger. 	 <p>Select Charge Profile Button (Wrench)</p>
<ol style="list-style-type: none"> 5. Continue to press and hold the button until the amber Error Indicator is on and the Battery Charging Indicator flashes in green, then release the button. 	
<ol style="list-style-type: none"> 6. Press and release the Select Charge Profile Button again and a “P” will appear. The next three digits displayed will display the profile number. <p>NOTE: the selection process will time-out in 15 seconds of inactivity.</p>	<p>Profiles begin with a “P” followed by three digits and “R-H-XX” (representing Amp-hours). Note the three digits displayed after the “P”</p> 
<ol style="list-style-type: none"> 7. Press and release the Select Charge Profile Button again to continue advancing through the Charge Profiles until “3-I-5” appears. If “3-I-5” doesn’t appear as a selection, skip to the “Programming the Charger” section. 	 <p>Profile 3-I-5 is shown, one digit at a time, followed the letter “P”</p>
<ol style="list-style-type: none"> 8. Once the desired code is displayed, hold the Select Charge Profile button for 10 seconds to confirm selection. Release button when the Charging Indicator lights turn off (the blue AC Power Indicator will remain illuminated). 	
<ol style="list-style-type: none"> 9. To verify selection, press the Select Charge Profile Button to verify “3-I-5” is displayed, indicating the selected profile. 	
<ol style="list-style-type: none"> 10. Plug charger in to fully charge the new batteries. 	

Programming the Charger

If the desired Charge Profile isn't programmed into the charger, it can be added. Follow the instructions below to add the Charge Profile.

<p>1. The Charge Profile software is available on GDOCs as "CartManager® SX & Ultra Battery Change." Download the software in a *.zip file extension on a PC or tablet, unzip, then transfer the "CHARGER" folder to the root drive of a blank memory stick.</p> <p>NOTE: The USB stick must have 128 mb free space and formatted with a FAT32 file system. It is recommended that only the files contained in the .zip file are stored on the USB stick.</p>	 <p>The diagram illustrates the process of downloading software. At the top, a screenshot of the 'GATEKEEPER SYSTEMS' website shows a 'GDocs' download button. A large downward arrow points from the website to a computer monitor icon. From the computer, a rightward arrow points to a USB stick icon, indicating the transfer of files.</p>
<p>2. Plug in the CartManager® Charger. Open the black cover labeled "USB" on the back of the cover and insert the memory stick with the Charge Profile software.</p>	 <p>A photograph of the CartManager charger. The black USB cover is open, and a USB stick is inserted into the slot. The charger is mounted on a metal base with various components and wiring visible.</p>
<p>3. The triangle will flash green, then remain solid. Once it turns solid, remove the memory stick and replace the black USB cover.</p> <p>4. Also During this process the single digit charger display will display</p> <p>5. U-5-B until it is complete.</p>	 <p>The diagram shows three vertically stacked icons representing the charger's status. The top icon is a green triangle with a white exclamation mark inside. The middle icon is a battery level symbol with a green bar. The bottom icon is a blue power button symbol.</p>
<p>4. Repeat Steps 1-10 in "Changing the Charge Profile on SX and Ultra Models" to update the charger Charge Profile.</p> <p>1. To verify selection, press the Select Charge Profile Button to verify "3-1-5" is displayed, indicating the selected profile.</p> <p>2. Plug charger in to fully charge the new batteries.</p>	