

Delta-Q 912-3600

Delta-Q QuiQ 912-3600 On-Board 36V Battery Charger User Manual

Model: 912-3600

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation, installation, and maintenance of your Delta-Q QuiQ 912-3600 On-Board 36V Battery Charger. The QuiQ charger is an advanced, high-frequency charging unit designed for on-board vehicle installation. Its sealed, passively cooled design ensures durability in challenging environments, including temperature extremes, moisture, and high vibration. It supports both 120V and 230V input, making it suitable for worldwide use, and comes pre-programmed with multiple charge profiles for various lead-acid battery types.

This charger is commonly utilized in applications such as golf cars, electric vehicles, floor scrubbers, and battery-powered sweepers.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in electric shock, fire, serious injury, or death.

- Always disconnect the charger from the AC power supply before making or breaking connections to the battery.
- Ensure the charger is installed in a well-ventilated area, even though it is passively cooled.
- Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged.
- This charger is designed for lead-acid (Wet/AGM/GEL) batteries only. **It is not recommended for Lithium batteries.** Attempting to charge incompatible battery types may cause damage to the battery or charger, and poses a fire risk.
- Avoid touching uninsulated battery terminals or wires.
- Keep sparks, flames, and smoking materials away from batteries. Batteries can produce explosive gases.
- Wear eye protection and protective clothing when working with batteries.
- Ensure the AC input voltage matches the charger's specifications (120 VAC / 230 VAC at 45-65 Hz).

3. SETUP AND INSTALLATION

The Delta-Q QuiQ charger is designed for on-board installation. Proper mounting and connection are crucial for optimal performance and safety.

1. **Mounting:** Securely mount the charger to the vehicle using appropriate hardware. Ensure the mounting location allows for adequate airflow around the heat sinks, even though the unit is passively cooled. The charger dimensions are approximately 11" x 9.7" x 4.3".
2. **AC Input Connection:** Connect the 8-inch AC inlet plug to a compatible power source. The charger operates at both 120 VAC and 230 VAC (45-65 Hz).
3. **DC Output Connection:** Connect the 6-foot DC 12AWG/4C output cable to your 36V battery bank. Ensure correct polarity: red to positive (+), black to negative (-). The green wire is for interlock use only and should not be connected to battery negative.



Figure 3.1: Top view of the Delta-Q QuiQ 912-3600 charger, showing the yellow casing, black heat sinks, and attached AC and DC cables. The DC cable includes red, black, white, and green wires with ring terminals.



Figure 3.2: Angled view of the Delta-Q QuiQ 912-3600 charger, highlighting the robust black heat sinks and the yellow top casing.

The AC and DC cables are visible.



Figure 3.3: Close-up view of the DC output cables for the Delta-Q QuiQ 912-3600 charger. The red, black, white, and green wires are visible, with a label indicating "DO NOT CONNECT GREEN WIRE TO BATTERY NEGATIVE FOR INTERLOCK USE ONLY."

Battery Type Programming: The charger comes pre-programmed with up to 10 user-selectable charge algorithms for various lead-acid battery models. If your specific battery model is not among the default profiles, contact your supplier at the time of purchase to have the charger programmed accordingly. Supported battery types include:

- Trojan XHS
- Deka 8G31
- US Battery US125
- US Battery 8V-GC
- US Battery 305HC

- US Battery L16HC
- Fullriver DC-180-8
- Fullriver 12 volts
- Fullriver DC335/400-6
- Fullriver DC224/250-6

4. OPERATING INSTRUCTIONS

Once the charger is correctly installed and connected to the battery bank, follow these steps for operation:

1. **Verify Connections:** Double-check that all AC and DC connections are secure and correctly polarized.
2. **Connect AC Power:** Plug the AC input cable into a suitable electrical outlet. The charger will initiate its charging sequence.
3. **Monitor Charging:** The charger will typically have indicator lights to show the charging status (e.g., charging, charged, fault). Refer to the specific indicator light patterns on your unit for detailed status information.
4. **Charging Completion:** Once the battery is fully charged, the charger will automatically switch to a maintenance or float charge mode, or cease charging, depending on the selected charge profile.
5. **Disconnecting:** To disconnect, first unplug the AC power cord from the wall outlet, then disconnect the DC output cables from the battery.

5. MAINTENANCE

The Delta-Q QuiQ charger is designed for minimal maintenance due to its sealed construction. However, periodic checks are recommended to ensure longevity and optimal performance:

- **Cleaning:** Keep the exterior of the charger clean and free from dust, dirt, and debris. Use a dry cloth for cleaning. Do not use solvents or abrasive cleaners.
- **Cable Inspection:** Regularly inspect the AC and DC cables for any signs of wear, cuts, or damage. Ensure connections remain tight and free of corrosion. Replace damaged cables immediately.
- **Ventilation:** Ensure that the area around the charger's heat sinks remains unobstructed to allow for proper passive cooling.

6. TROUBLESHOOTING

If you encounter issues with your Delta-Q QuiQ charger, consider the following common troubleshooting steps:

- **Charger Not Turning On:**
 - Check the AC power connection and ensure the outlet is live.
 - Verify that the DC cables are correctly connected to the battery with proper polarity.
- **Battery Not Charging:**
 - Confirm that the battery voltage is within the charger's operating range for a 36V system.
 - Ensure the battery type programmed into the charger matches the battery being charged.
 - Inspect battery terminals for corrosion or loose connections.
- **Unusual Noises or Odors:**
 - Immediately disconnect the charger from both AC power and the battery.

- Contact customer support for assistance. Do not attempt to open or repair the unit.

For persistent issues, refer to the Delta-Q website or contact their technical support.

7. SPECIFICATIONS

Feature	Specification
Model	QuiQ 912-3600
Output Voltage	36 Volts (DC)
Output Current	21 Amps
Input Voltage	120 VAC / 230 VAC at 45-65 Hz
Compatible Battery Types	Lead-acid (Wet/AGM/GEL)
Dimensions (L x W x H)	11" x 9.7" x 4.3" (27.94 cm x 24.64 cm x 10.92 cm)
Item Weight	Approximately 12.38 lbs (5.62 kg)
AC Inlet Plug	8 Inch
DC Output Cable	6 Foot, 12AWG/4C
Cooling	Passive (Fanless)
Certifications	CE, FCC

8. WARRANTY AND SUPPORT

The Delta-Q QuiQ 912-3600 Battery Charger comes with a **One Year Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or further assistance, please contact your authorized Delta-Q dealer or visit the official Delta-Q website for contact information.

Please retain your proof of purchase for warranty validation.