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› **TOPDON TORNADO4000 4-Amp Fully-Automatic Car Battery Charger, 6V/12V Battery Charging Units & Maintainer with 10-Steps Charging and 8 Charging Modes, Suitable for More Types of Batteries**

TOPDON TORNADO4000

TOPDON TORNADO4000 User Manual

Model: TORNADO4000

1. INTRODUCTION AND OVERVIEW

The TOPDON TORNADO4000 is a 4-Amp fully-automatic smart battery charger and maintainer designed for 6V and 12V lead-acid and lithium-ion batteries. It features a sophisticated 10-step charging process and 8 distinct charging modes to ensure optimal battery health and longevity. This manual provides detailed instructions for safe and effective use of your TORNADO4000.



Figure 1: TOPDON TORNADO4000 Battery Charger with included accessories.

2. SAFETY INFORMATION

Always prioritize safety when operating electrical equipment. Read and understand all safety warnings before use.

- Ensure proper ventilation during charging to prevent gas accumulation.
- Avoid open flames or sparks near the battery.
- Wear appropriate personal protective equipment, including eye protection.
- Do not attempt to charge frozen or damaged batteries.
- The TORNADO4000 incorporates multiple safety features including protection against reverse polarity, sparks, overcharging, overcurrent, open circuits, short circuits, and overheating.

INTELLIGENT TEMPERATURE PROTECTION

ADAPT TO EXTREME CLIMATE CHANGE

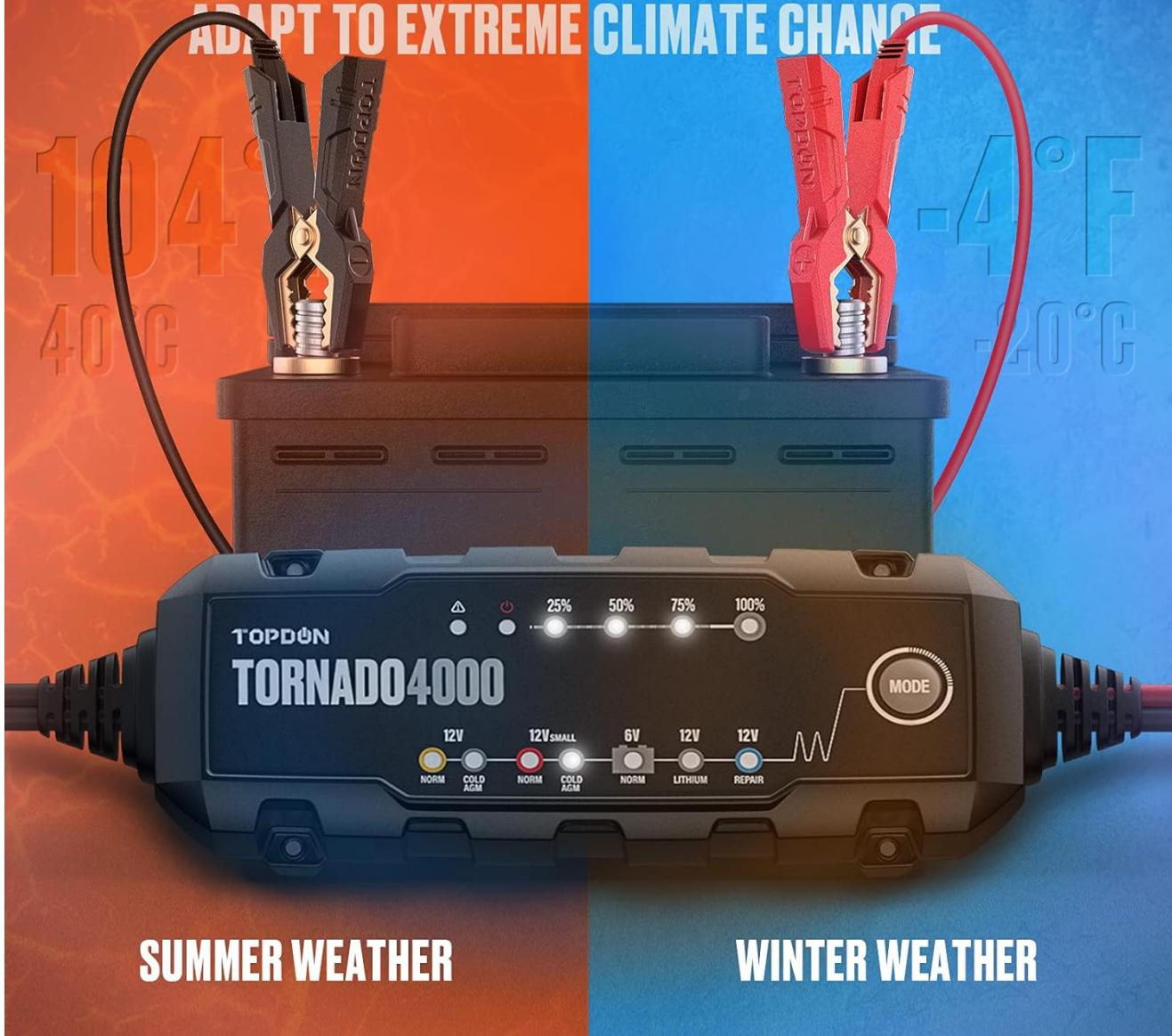


Figure 2: Intelligent Temperature Protection ensures safe operation in various climates.

3. PRODUCT FEATURES

The TOPDON TORNADO4000 is engineered with advanced features for comprehensive battery care:

- **10-Step Charging Process:** This advanced charging algorithm optimizes battery performance and extends lifespan. The steps include:
 1. Battery Analysis & Diagnosis
 2. Battery Desulphation
 3. Soft Start
 4. Battery Initialization
 5. Battery Bulk Charge
 6. Absorption Mode
 7. Battery Recondition

8. Battery Optimization
9. Battery Float Charge
10. Battery Restart Charge

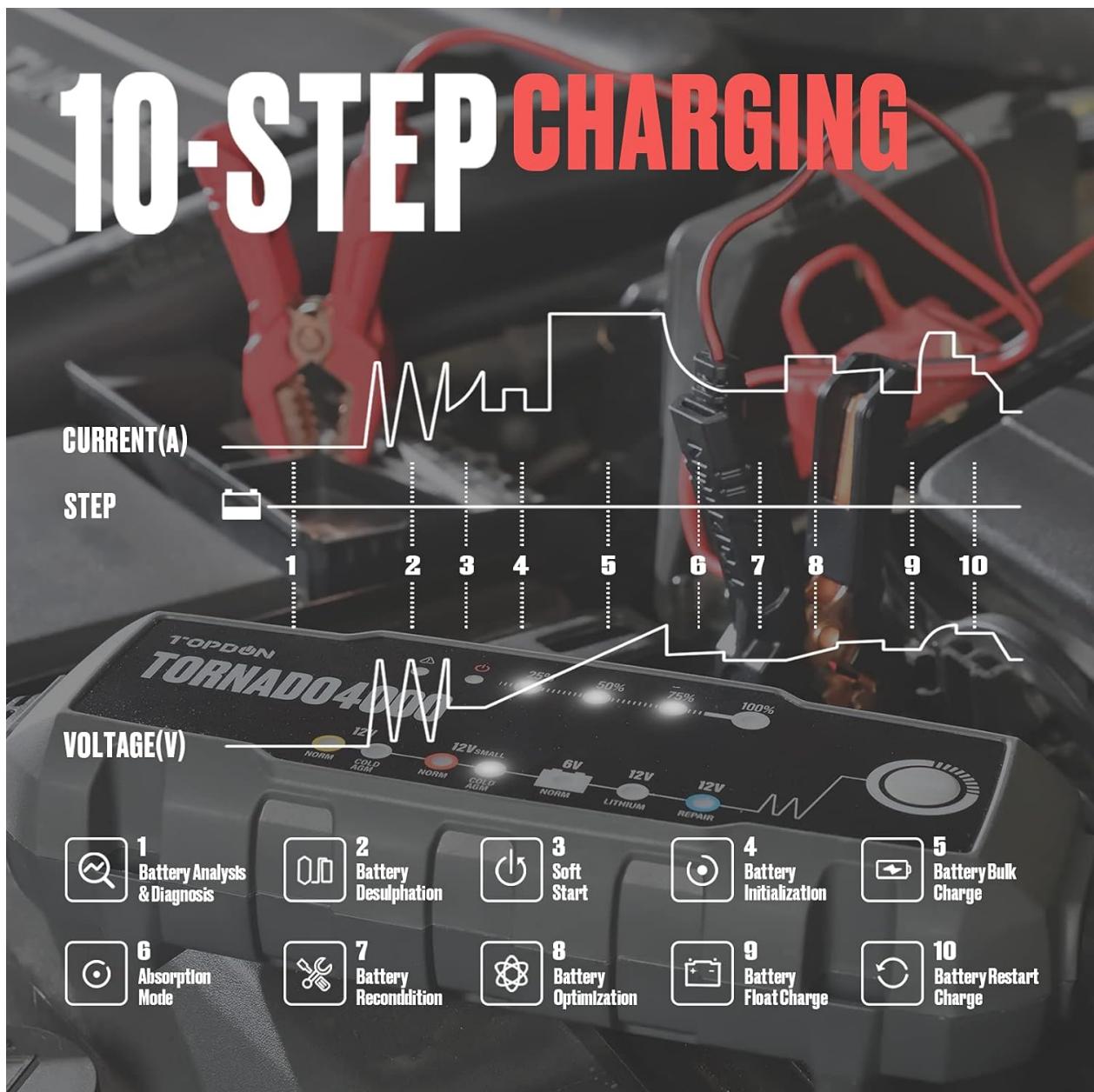


Figure 3: Detailed 10-Step Charging Process for optimal battery health.

- **Intelligent Temperature Protection:** Adapts charging based on ambient temperature, preventing under-charging in cold and over-charging in hot conditions.
- **TORNADO CONNECT Interchangeable Connector:** Provides flexibility with both alligator clamps for quick connections and eyelet terminal connectors for permanent battery attachment.

TORNADO CONNECT

INTERCHANGEABLE CONNECTOR

Charge Fully Drained batteries UP to **150Ah** INCLUDING Wet, Gel, AGM, or any common automotive, deep-cycle, marine, and more.
All-new repair mode: manually turn on repair mode to detect and charge dead batteries.

2X FASTER
RAPID

MAINTAIN ALL BATTERY SIZES

Cars, Truck, RVs, Equipment and more



Figure 4: Interchangeable connectors for versatile use.

- **Wide Battery Compatibility:** Supports 6V and 12V lead-acid batteries (Wet, Gel, MF, EFB, AGM) and 12V Li-Ion batteries.
- **Advanced Protections:** Includes safeguards against reverse polarity, sparks, overcharging, overcurrent, short circuits, and overheating.
- **Memory Function:** Returns to the last selected charging mode upon restart.
- **Diagnostics:** Intuitive visual diagnostics for detecting low voltage or damaged batteries.
- **Optimization:** Stabilizes internal battery chemistry for increased performance and longevity.
- **Recovery:** Applies a high-voltage pulse charge when low voltage or lost capacity is detected.

6V & 12V

AUTO MARINE RV POWER SPOART LAWN&GARDEN

LEAD-ACID BATTERIES



LITHIUM



SAFE

Protects against reverse polarity, sparks, overcharging, overcurrent, open-circuits, short-circuits and overheating



RUGGED

Dirt, water, UV, impact and crush resistant



MEMORY

Returns to last selected mode when restarted



DIAGNOSTICS

Intuitive visual diagnostic tool for detecting reverse polarity, low voltage or damaged batteries



OPTIMIZATION

Stabilizes internal battery chemistry for increased performance and longevity



RECOVERY

Applies a high-voltage pulse charge when low voltage or lost capacity is detected

Figure 5: Overview of supported battery types and safety features.

4. SETUP

Before connecting the charger, ensure the area is well-ventilated and free from flammable materials.

- 1. Choose Connector:** Select either the alligator clamps for temporary connection or the eyelet terminal connector for a more permanent setup.
- 2. Connect to Battery:** Attach the red (+) clamp/eyelet to the positive battery terminal and the black (-) clamp/eyelet to the negative battery terminal. Ensure a secure connection.
- 3. Connect to Power:** Plug the TORNADO4000 into a suitable AC power outlet (120 Volts). The charger will power on and begin its diagnostic process.

WHAT'S IN THE BOX?



Figure 6: What's in the box: TORNADO4000 unit, user manual, alligator clamps, and eyelet terminal connector.

5. OPERATING INSTRUCTIONS

The TORNADO4000 automatically detects the battery type and condition, but you can manually select modes.

- 1. Mode Selection:** Press the 'MODE' button to cycle through the available charging modes (e.g., 12V Normal, 12V Small, 6V Normal, 12V Lithium, 12V Repair). A long press on the 'MODE' button typically confirms the selection or initiates a specific function like the 12V Repair mode.
- 2. Charge Status Indicators:** The charger features LED indicators to show the charging progress (25%, 50%, 75%, 100%). A blue power light indicates the device is on.
- 3. Automatic Operation:** Once a mode is selected, the charger will automatically proceed through its 10-step charging process, adapting to the battery's needs. It will switch to maintenance mode once fully charged.

6. MAINTENANCE

Proper maintenance ensures the longevity and performance of your TORNADO4000.

- **Cleaning:** Disconnect the charger from power and the battery before cleaning. Use a soft, dry cloth to wipe the casing. Do not use abrasive cleaners or solvents.
- **Storage:** Store the charger in a cool, dry place when not in use. Keep cables neatly coiled to prevent damage.
- **Cable Inspection:** Periodically inspect the charging cables and connectors for any signs of wear, cuts, or damage. Replace if necessary.

7. TROUBLESHOOTING

If you encounter issues with your TORNADO4000, refer to the following common solutions:

Problem	Possible Cause	Solution
Charger does not power on.	No AC power, faulty outlet, or damaged unit.	Check power outlet, ensure charger is securely plugged in. If issue persists, contact support.
Charging indicator lights not progressing.	Poor battery connection, incorrect mode selected, or severely discharged/damaged battery.	Verify connections to battery terminals. Ensure correct mode for battery type. For deeply discharged batteries, allow more time or consider the 12V Repair mode. Note that severely damaged batteries may not be recoverable.
Charger gets warm during operation.	Normal operation during charging.	This is normal. The intelligent temperature protection manages heat. Ensure adequate ventilation around the charger.
Repair mode does not fully restore battery.	Battery may be beyond repair or has significant internal damage.	The repair mode attempts to recondition batteries, but it cannot fix all types of battery damage. If the battery does not hold a charge after repair mode, it may need replacement.

8. SPECIFICATIONS

Specification	Value
Brand	TOPDON

Specification	Value
Model	TORNADO4000
Output Voltage	6V / 12V
Input Voltage	120 Volts
Current Rating	4 Amps
Item Weight	2.81 pounds
Package Dimensions	11.38 x 5.67 x 5.28 inches
ASIN	B097DNDMJS
UPC	645569087651

9. WARRANTY AND SUPPORT

TOPDON is committed to providing high-quality products and excellent customer service. For detailed warranty information, please refer to the official user guide or contact TOPDON support.

- Official User Guide:** For a comprehensive guide, you can download the PDF version [here](#).
- Customer Support:** TOPDON is known for responsive customer service. If you encounter any issues or have questions, please visit the official TOPDON Store on Amazon for support options: [TOPDON Store](#).

Related Documents - TORNADO4000

<p>Guida all'uso del Kit diagnostico per Motore Auto</p> <p>Scopri come utilizzare un kit diagnostico per il motore, i diversi tipi di strumenti per diagnosi auto, e consigli pratici. Include informazioni sul caricabatterie TOPDON TB6000Pro.</p>	
<p>TOPDON ArtiDiag VV Professional Diagnostic Tool User Manual</p> <p>Comprehensive user manual for the TOPDON ArtiDiag VV professional automotive diagnostic tool, covering setup, operation, features, troubleshooting, and warranty information.</p> <p>For Services and Support</p> <p>800-792-0229 1300-300-0000 (NORTH AMERICA) 34-03-0000 (EUROPE)</p> <p>✉ EMAIL ✉ WEBSITE www.topdon.com</p> <p>✉ FACEBOOK @TOPDONOFFICIAL ✉ X @TOPDONOFFICIAL</p> <p>CE CE RCM RCM</p>	

 <p>ArtiDiag600 S PRODUCT PROFILE</p>	<p>TOPDON ArtiDiag600 S: Advanced Automotive Diagnostic Scanner Product Profile</p> <p>Explore the features and specifications of the TOPDON ArtiDiag600 S, a professional diagnostic scanner offering comprehensive system analysis, 8 maintenance functions, AutoVIN technology, and free lifetime updates for over 90 vehicle brands.</p>
 <p>JS2000™ PRODUCT PROFILE</p>	<p>TOPDON JS2000 Jump Starter and Power Bank Product Profile</p> <p>Detailed product profile for the TOPDON JS2000, a 2000 Peak Amp jump starter and power bank. Features include support for 8L gas and 6L diesel engines, fast charging, multiple safety protections, and a 300-lumen flashlight. Includes specifications, charge/discharge data, and contact information.</p>
 <p>For Services and Support:</p> <ul style="list-style-type: none"> TEL: +86 766-2805040 (China) TEL: +1-843-252-0000 (Outside China) EMAIL: SUPPORT@TOPDON.COM WEBSITE: TOPDON.COM FACEBOOK: TOPDON.OFFICIAL X: TOPDON.OFFICIAL <p>CE, FCC, RoHS, IP65, 100-240V, 50/60Hz</p>	<p>TOPDON ArtiDiag HD Quick Start Guide</p> <p>Get started with the TOPDON ArtiDiag HD, a professional heavy-duty vehicle diagnostic tool. This quick start guide covers basic setup, connection, and operation for efficient use.</p>
 <p>Phoenix Lite 3 说明书 (英文) 说明书 (中文)</p> <p>1. 本机的额定功率为 1000W，额定电压为 12V，额定频率为 50Hz。额定功率为 1000W，额定电压为 12V，额定频率为 50Hz。</p> <p>2. 本机的额定功率为 1000W，额定电压为 12V，额定频率为 50Hz。</p> <p>3. 本机的额定功率为 1000W，额定电压为 12V，额定频率为 50Hz。</p>	<p>TOPDON Phoenix Lite 3: User Manual for Smart Automotive Diagnostics</p> <p>A comprehensive user manual for the TOPDON Phoenix Lite 3, a smart automotive diagnostic system. Covers features, preparation, operation, services, and troubleshooting for automotive professionals.</p>