

# Bosch 14.4V Battery Official User Manual

## 1. Product Overview

### 1.1 Technical Specifications

Item	Details
Nominal Voltage	14.4V
Battery Chemistry	Nickel-Cadmium (Ni-CD) / Nickel-Metal Hydride (Ni-MH) / Lithium-Ion (Li-ion)
Nominal Capacity	1300mAh, 1500mAh, 2000mAh, 2500mAh, 3000mAh, 4000mAh (varies by model)
Compatible Battery Models	BAT038, BAT040, BAT041, BAT140, BAT159, BAT614, GBA 14.4V 4.0Ah (1600Z00033)
Physical Dimensions	Standard Type: 10787112mm; Slim Type (e.g., BAT614): 96.574.562.4mm
Weight	Approximately 469g-560g (depending on capacity)
Cycle Life	≥300 charge-discharge cycles (up to 500 cycles with premium cells)
Power Rating	57.60 Whr (for 4000mAh Li-ion models)

### 1.2 Core Features

- **Electronic Cell Protection (ECP)** : Built-in protection circuit prevents deep discharge, overcharging, and overheating. Automatically cuts off power when battery is fully discharged to avoid damage .

- **Anytime Charging Capability** : Li-ion models support charging at any time without full discharge; interrupting charging will not affect battery life .
- **CoolPack Technology** (for select models) : Extends battery life by up to 100% compared to non-CoolPack batteries through optimized heat dissipation .
- **Universal Compatibility** : Uniform voltage and shape design allows interchanging with all Bosch 14.4V power tools (e.g., GSR 14.4 VE-EC, GSB 14.4 V-EC, GWS 14.4V Professional) .

## 2. Operation Guide

### 2.1 Battery Installation & Removal

- **Installation** : Align the battery with the tool's battery slot and slide it in firmly until a "click" is heard, ensuring full engagement without looseness.
- **Removal** : Press the unlock button on the side of the battery while pulling it forward smoothly. Do not pull or pry forcefully to avoid damaging the locking mechanism.

### 2.2 Charging Instructions

#### 2.2.1 Pre-Charging Preparation

- Use only original Bosch chargers or specified compatible models. Never use non-original chargers to prevent fire or battery swelling due to voltage/current mismatch .
- Allow the battery to cool to room temperature (0-45°C / 32-113°F) if it is hot after use before charging .
- Inspect contacts on both the charger and battery for dirt, oil, or corrosion. Clean with a dry cloth if necessary.

#### 2.2.2 Charging Steps

1. Plug the charger into a properly grounded power outlet matching the voltage requirement.
2. Insert the battery into the charger slot, ensuring full contact between contacts. Charging starts when the indicator light illuminates (refer to charger manual for indicator meanings).
3. Standard charging time: Approximately 1.2 hours (1C charging rate). Remove the battery promptly when the full-charge indicator light turns on.

4. After charging, unplug the charger first, then remove the battery to avoid idle power consumption.

## 2.2.3 Charging Parameters

- Charge Cut-off Voltage:  $19.2V \pm 0.3V$  (Ni-CD/Ni-MH);  $21V \pm 0.25V$  (Li-ion) .
- Charge Cut-off Current: 0.01C-0.02C (constant voltage mode) .
- Charging Temperature Range: 0-45°C (32-113°F) .

## 3. Safety Warnings

**DANGER** : Failure to follow these instructions may result in electric shock, fire, or serious personal injury .

- Do not charge in damp or wet environments. Protect the charger and battery from rain or snow to avoid electric shock .
- Do not disassemble, short-circuit, or incinerate the battery. Damaged batteries may leak caustic fluid, emit toxic fumes, or explode .
- Keep the battery away from children. Store in a dry location where temperatures do not exceed 49°C (120°F) .
- In case of battery leakage: Avoid contact with skin and eyes. Rinse skin with soap and water immediately if exposed. Flush eyes with water for at least 10 minutes and seek medical attention if contact occurs .
- Do not use the battery if the case is cracked or damaged. Stop use immediately if smoke or unusual odors are detected .

## 4. Maintenance & Storage

### 4.1 Daily Maintenance

- Clean battery contacts regularly with a dry cloth to ensure good conductivity.
- Avoid dropping or impacting the battery to prevent internal cell damage.
- For Ni-CD/Ni-MH batteries: Perform a full charge-discharge cycle every 3 months to maintain capacity.
- For Li-ion batteries: Store with 40-60% charge if not in use for an extended period.

## 4.2 Long-Term Storage

- Store in a cool, dry place (temperature: 10-25°C / 50-77°F; humidity: ≤60%).
- Avoid direct sunlight, heat sources, and corrosive environments .
- Charge the battery to 40-60% capacity every 6 months during storage to prevent deep discharge.

## 5. Compatible Tools & Replacement

### 5.1 Compatible Power Tools (Partial List)

- Drills/Drivers: GSR 14.4V-LI, GSR 14.4 VE-2, GSB 14.4 VE-2, GDR 14.4V .
- Grinders: GWS 14.4V Professional, GHO 14.4V .
- Strapping Tools: Orgapack OR-T 120, Signode BXT2, Strapex STB 68 .

### 5.2 Replacement Information

- Replace the battery when capacity drops below 70% of the original or if charging time becomes excessively short.
- Use only genuine Bosch replacement batteries or certified compatible models (e.g., BAT614 replacement with 4000mAh capacity) .
- Recycle spent batteries according to local regulations (comply with Directive 91/157/EEC) .

## 6. Warranty & Contact Information

- Warranty Period: 1 year from the date of purchase (covers manufacturing defects only) .
- Manufacturer: Robert Bosch Power Tools GmbH, Max-Lang-Straße 40-46, 70771 Leinfelden-Echterdingen, Germany .
- Contact: E-mail: [kontakt@bosch.de](mailto:kontakt@bosch.de); Phone: +49 (0)711 400 40990; Website: [www.bosch-pt.com](http://www.bosch-pt.com) .

**Note** : For complete technical details and full compatible models, refer to the official product data sheet at [bosch-pt.com](http://bosch-pt.com) .

(注：文档部分内容可能由 AI 生成)