# 18650 Smart Multi-Function Battery Charger – Universal Charger for Li-ion, Ni-MH/Ni-Cd & 9V Batteries

The **18650 Smart Multi-Function Battery Charger** is a versatile, high-performance charging solution designed to support a wide range of rechargeable battery types in one compact device. Engineered for efficiency, safety, and convenience, this universal charger is ideal for electronics enthusiasts, professionals, and everyday users who rely on multiple battery formats for their devices.

With support for 3.7V Li-ion batteries, 1.2V Ni-MH/Ni-Cd batteries, and 9V rechargeable batteries, this charger eliminates the need for multiple charging units and delivers a reliable all-in-one power management solution.

### **Universal Multi-Battery Charging Support**

This smart charger is designed to handle a broad range of battery sizes and chemistries, making it perfect for mixed-battery environments. It supports:

• **3.7V Li-ion batteries**: 26650, 21700, 18650, 16340, 14500

• 1.2V Ni-MH / Ni-Cd batteries: AA, AAA

9V rechargeable batteries

The charger can intelligently detect the inserted battery type and apply the correct charging parameters automatically. This feature ensures optimal charging performance while protecting battery health and extending overall lifespan.

For a technical overview of lithium-ion battery technology, you can refer to this resource: <a href="https://en.wikipedia.org/wiki/Lithium-ion">https://en.wikipedia.org/wiki/Lithium-ion</a> battery

## Type-C Input with Fast Charging Capability

Equipped with a **USB Type-C input**, the charger supports fast and stable power delivery with input ranges of **5V/2A to 4A**, ensuring efficient charging even when multiple batteries are installed. USB-C offers improved reliability, reversible connectivity, and compatibility with modern power adapters and power banks.

Please note that **Power Delivery (PD) is not supported**, ensuring stable standard charging without voltage negotiation conflicts.

To learn more about USB-C charging standards, visit: https://www.usb.org/usb-type-c

## **Dual USB Output – Power Bank Functionality**

In addition to battery charging, this device functions as a **portable power bank**. When loaded with charged batteries, it can output power through **two USB ports (5V/1A each)**, allowing you to charge smartphones, wireless devices, or other USB-powered electronics.

This feature makes the charger especially useful for **emergency power backup**, outdoor activities, travel, and situations where access to wall power is limited.

#### **Smart IC Control & Advanced Protection**

The charger integrates a **smart IC control system** that continuously monitors charging status and battery condition. Key safety and performance features include:

- Automatic battery type detection
- Intelligent charging current regulation
- Auto stop when batteries are fully charged
- Overcharge protection
- Short-circuit protection
- Reverse polarity protection
- Overcurrent protection

These safeguards ensure safe, worry-free operation and prevent damage to both batteries and connected devices.

For general battery charging safety guidelines, you can refer to: https://www.batterysafety.org/

## **Compact, Portable & Travel-Ready Design**

Despite its multi-function capabilities, the charger maintains a **compact and lightweight design**, measuring just **5.51** × **1.38** × **5.20** inches and weighing approximately **175g**. Its portable form factor makes it easy to carry in a backpack, toolbox, or emergency kit.

Whether used at home, in the office, during travel, or for outdoor adventures like camping, this charger offers dependable performance without taking up unnecessary space.

## **Multi-Safety Charging System**

Beyond smart IC protection, the charger includes a **multi-layer safety system** designed for continuous and unattended use. Features such as **auto-shutoff** and **anti-backflow protection** ensure that power flows safely and correctly, even during prolonged operation.

This makes the charger suitable for both casual users and professionals who require reliable battery maintenance solutions.

#### **Ideal Applications**

The 18650 Smart Multi-Function Battery Charger is ideal for:

- Users with multiple battery types (Li-ion, Ni-MH, Ni-Cd, 9V)
- Emergency power backup scenarios
- Electronics hobbyists and technicians
- Home and office battery management
- Outdoor activities, camping, and travel
- Flashlights, tools, toys, and portable electronics

## Why Choose This Smart Battery Charger?

- Supports multiple battery chemistries and sizes
- USB-C fast input for modern charging setups
- Dual USB output with power bank functionality
- Intelligent charging with advanced safety protection
- Compact, portable, and travel-friendly design

The **18650 Smart Multi-Function Battery Charger** combines flexibility, safety, and convenience in a single device, making it an essential tool for anyone who depends on rechargeable batteries for daily or professional use.