

Digicharger S 4 User Manual

The ENOOK S4 is a universal smart charger compatible with almost all cylindrical rechargeable batteries, thus eliminating the need to own several chargers. The S4 automatically detects Li-ion, Ni-MH and Ni-Cd batteries, and through manual selection is also capable of charging LiFePO4 batteries. Intelligent charging circuitry selects the optimal charging mode (CC, CV and dV/dt) for a given battery and each of the S4's four microcomputer-controlled charging slots then monitors and charges the battery independently. Furthermore, an integrated digital LCD screen clearly displays charging progress, voltage, current and time while an intelligent automatic power-off function terminates current when charging is complete.

The ENOOKS4: The world's most advanced fully-automatic digital charger. It's as simple as insert, detect and charge.

Features

- · Capable of charging 4 batteries simultaneously
- · Each of the four battery slots monitors and charges independently
- Compatible with and identifies Li-ion (26650, 22650, 18650, 17670, 18490, 17500, 18350, 16340(RCR123), 14500, 10440), Ni-MH and Ni-Cd (AA, AAA, AAAA, C) rechargeable batteries
- · Optimized charging design for IMR batteries
- Integrated LCD panel clearly displays charging parameters and progress
- Two conveniently located side buttons allow easy selection of specific battery types and charging parameters
- · Intelligent circuitry detects the battery type and status before entering automatic charge mode (CC, CV, dV/dt)
- Automatically detects battery power status and selects the appropriate voltage and charge mode (with the exception of LiFePO4 batteries which require manual selection)
- Compatible with LiFePO4 batteries
- · Compatible with small capacity batteries
- Automatically stops charging when complete
- Features over-charge prevention to protect batteries
- · Features temperature monitoring to prevent overheating
- Made from durable ABS (fire retardant / flame resistant)
- · Features reverse polarity protection
- · Designed for optimal heat dissipation
- · Certified by RoHS, CE, FCC

Charging LiFePO4 batteries

To charge LiFePO4 batteries, simply press and hold the side "VIEW" button for more than 2 seconds right after the battery test completes and "LiFePO4" will appear on the LCD display to indicate the activation of LiFePO4 charging mode. To exit LiFePO4 charging mode, simply press and hold the side "VIEW" for more than 2 seconds once again, or remove and reinstall

Charging Small Capacity Batteries

When charging batteries with a capacity lower than 750mAH (e.g. AAA, 10440 and 16340 batteries), a low charging current is recommended to help extend battery life. To select a low charging current, while in regular charging mode, simply press the side "MENU" button to select a desired battery slot and then press and hold the side "VIEW" button for more than 1 second until "LOW" is displayed on the LCD display indicating activation of low current charging mode. To exit, simply press and hold the side "VIEW" button for more than 1 second once again or remove and reinstall the battery.

Nocturnal Charging Mode

When charging a battery overnight, nocturnal charging mode is recommended. Simply press and hold the side "MENU" button for more than 1 second in any state until the LCD backlight turns off thus activating nocturnal charging mode. This feature ensures a peaceful night's sleep without being disturbed by the S4's LCD backlight and blinking LEDs. To exit nocturnal mode and turn the backlight on again, press and hold the side "MENU" button for more than 1 second again.

Battery Activation

For every installed battery, the S4 will activate the battery by charging it for 6 seconds at a low current. If zero voltage is detected, "Err" will be displayed on the LCD screen. If activation fails the first time, please remove and reinstall the battery once again and activate for the

Note: The S4 is not recommended for use with over-discharged (zero volt) UNPROTECTED Li-ion batteries. Li-ion batteries without a protection circuit can potentially cause a fire or

Specifications

AC 100-240V 50/60Hz 0.35A(MAX), DC 12V 2A

4.2V ±1% / 3.7V ±1% / 1.48V ±1% Output voltage:

Output current: 1000mA x 4

Compatible with

Li-ion / IMR / LiFePO4: 26650, 22650, 18650, 17670, 18490, 17500, 18350, 16340(RCR123),

14500, 10440 Ni-MH / Ni-Cd: AA, AAA, AAAA, C Dimensions: 146mm×101mm×39mm

Weight: 243g (without batteries and power cord)

Overtime Prevention

The S4 is equipped with an advanced 'overtime' safety function. The S4 will individually monitor the elapsed charging time for each battery slot and if a particular slot exceeds 20 hours, the S4 will automatically power off the slot and display full charging bars to indicate completion of the charging process. This feature reduces the risk caused by batteries of lesser quality.

Operating instructions

1. Plug one end of the power cord or car charging adapter into the S4 charger. Plug the other end of the cord into an applicable outlet. The LCD display and all battery indicator bars will illuminate as the charger runs a quick self-test. When testing is complete, the name of the product will appear on the screen, the bars will dim and the charger will enter into stand-by mode. If no batteries are detected within 1 minute, the charger will automatically enter Eco Mode (the LCD backlight will turn off). When a battery is installed while in Eco Mode, simply press any button to activate the LCD display.

2. The S4 features four charging slots, each of which charges and monitors a battery independently. Rechargeable batteries of differing chemistries and voltages may be charged simultaneously using either 1, 2, 3 or all 4 of the charging slots. When inserting a battery, ensure the positive and negative ends correspond with the positive (+) and negative (-) symbols on the charger. Incorrect installation will result in failure to initiate the charging process.

Note: The S4 is capable of charging 3.7v Li-ion rechargeable cells, 1.2v, Ni-MH/Ni-Cd rechargeable batteries and 3.2v LiFePO4 batteries. See above for description of battery

- 3. When a battery is first inserted the S4 will run a short test causing the baltery indicators bars to illuminate in sequence from the bottom to the top. When the test is complete, the S4 will enter into charging mode. If any unusual circumstances have been detected, e.g. a backward battery installation, the battery indicator bars will blink rapidly and "Err" will be presented on the screen to urge an immediate removal of the battery.
- 4. While in charging mode, the battery indicator bars will blink rhythmically to indicate the on-going charging process. The battery's power status and charging progress is indicated by the number of bars that illuminate steadily. The LCD display will also display battery voltage, followed by charging current and elapsed charging time in sequence. Pressing the side "VIEW" button will cycle through these charging parameters. To view the charging progress of a different charging slot press the side "MENU" button to select a desired slot. When charging is complete, all five battery indicator bars will illuminate steadily and "Chg.Finish" will appear on the LCD display.

Note: When the S4 is charging three or four batteries, charging current will be set to1000mA.

Precautions

- 1. The S4 is compatible with batteries of varying sizes, therefore when charging certain batteries (such as 26650 and AAA), manual adjustment of the battery's position within the slot is recommended, as to ensure solid contact is made between both sides of the battery and the charging slot's metal contact points.
- 2. The S4 is restricted to charging Li-ion, IMR, LiFePO4, Ni-MH/Ni-Cd rechargeable batteries only. Never use the S4 with other types of batteries as this could result in battery explosion, cracking or leaking, causing property damage and/or personal injury.
- 3. The S4 should only be used indoors or inside a motor vehidle and under no circumstances should it be exposed to water, high humidity and low or high ambient temperatures.
- 4. Do not disassemble or modify the charger.
- 5. Children under the age of 18 should be supervised by an adult when using the S4.
- 6. Tha S4's safe operating temperature is between 0°C--40°C.
- 7. Do not use or store the charger near open flames, direct sunlight, heating devices or other

- 7. Do not use or store the charger near open flames, direct sunlight, heating devices or other high-temperature environments.
 8. Never attempt to charge primary cells such as AlKaline, Zinc-Carbon, Lithium, CR123A, CR2, or any other unsupported chemistry due to risk of explosion and fire.
 9. Do not charge or diamaged IMR battery as doing so may lead to charger short-circuit or even explosion.
 10. Never charge or discharge any battery having evidence of leakage, expansion/swelling, danaged outer wrapper or case, color-change or distortion.
 11. Use the original adapter and cord for power supply. To reduce the risk of damage to the power cord always pull by connector rather than the cord. Do not operate the charger if it appears damaged in any way.
 12. Do not expose the device to direct sunlight, heating devices, open flames; avoid extreme high or extreme low ambient temperatures and sudden temperature changes.
 13. Please operate the charger in a well-ventilated area. Do not operate or store it in damp area. Keep all the inflammable volatile substances away from operating area.
 14. Avoid mechanical vibration or shock as these may cause damage to the device.
 15. Do not short-circuit slots or other parts of the device. Do not allow metal wires or other conductive material into the charger.

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 16.Do not touch hot surfaces, the rechargeable battweies or the device may become hot at full loat or high power charging/discharging.
- 17. Do not overcharge or over discharge batteries. Recharge drained batteries as soon as possible.
- 18.Remove all batteries and unplug the charging unit from the power source when not in use.
- 19. Opening, disassembling, modifying, tampering with the unit may invalidate its guarantee, check warranty
- 20.Do not misuse in any way! Use for intended purpose and function only.