

## Onyx KX80

# Onyx KX80 80W AC/DC Charger Instruction Manual

Model: KX80 (ONXC4101)

## 1. INTRODUCTION

The Onyx KX80 is a compact and versatile 80W AC/DC multi-chemistry battery charger and discharger. Designed for hobbyists, it supports a wide range of battery types including LiPo, LiHV, Li-Ion, LiFe, NiCd, NiMH, and Pb. This manual provides essential information for the safe and efficient operation, setup, and maintenance of your KX80 charger.

## 2. SAFETY PRECAUTIONS

- Always operate the charger in a well-ventilated area, away from flammable materials.
- Never leave the charger unattended while in use.
- Ensure correct battery type and cell count settings before initiating any charge or discharge cycle. Incorrect settings can lead to battery damage, fire, or injury.
- Do not attempt to charge damaged or swollen batteries.
- Keep the charger away from moisture, dust, and direct sunlight.
- Use only the provided or approved power cables and adapters.
- This product is not a toy. Keep out of reach of children.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Onyx KX80 80W AC/DC Charger
- AC Power Cord
- DC Input Cable (Alligator Clips)
- Banana Plug to Deans Adapter

- JST-XH Balance Adapter Board



Image: The Onyx KX80 charger displayed with its complete set of included accessories, including power cables, charging leads, and a balance adapter board.

## 4. PRODUCT OVERVIEW

---

The Onyx KX80 features a user-friendly interface with a 2-line LCD screen and four control buttons for easy navigation and operation.



Image: An angled view of the Onyx KX80 charger, showcasing its compact design and front panel controls.

### Front Panel Controls and Display:



Image: A close-up of the charger's front panel, highlighting the LCD screen displaying 'LiPo BALANCE CHG' and the four control buttons: Stop, BATT/PROG, Status/Decrease, and Start/Enter.

- **LCD Screen:** Displays charging parameters, battery status, and menu options.
- **Stop Button:** Terminates the current operation or returns to the previous menu.
- **BATT/PROG Button:** Enters the battery program selection menu.
- **Status / Decrease Button (Left Arrow):** Navigates through menu options or decreases values.
- **Start / Enter Button (Right Arrow):** Confirms selections or starts operations.

## Side Panels:



Image: The side of the charger featuring the AC power input port and the DC power input port, labeled 'DC POWER'.

- **AC Power Input:** For connecting the charger to a standard wall outlet (100-240V AC).
- **DC Power Input:** For connecting the charger to a DC power source (11-18V DC), such as a car battery.



Image: The opposite side of the charger, showing the main output terminals (red and black banana plug ports) and the multi-pin balance port for LiPo/LiHV/Li-Ion/LiFe batteries.

- **Output Terminals:** Red (+) and Black (-) banana plug ports for connecting the main charging lead to the battery.
- **Balance Port:** Multi-pin port for connecting the balance lead of LiPo, LiHV, Li-Ion, or LiFe batteries (1-6 cells).

## 5. SETUP

---

### 5.1 Power Connection

1. **AC Power:** Connect the AC power cord to the charger's AC input port, then plug the other end into a standard wall outlet (100-240V AC).
2. **DC Power:** Alternatively, connect the DC input cable (with alligator clips) to the charger's DC input port. Connect the red clip to the positive (+) terminal and the black clip to the negative (-) terminal of a 11-18V DC power source (e.g., a 12V car battery).

The charger will power on, and the LCD screen will illuminate.

### 5.2 Battery Connection

1. Connect the appropriate charging lead (e.g., Banana plug to Deans adapter) to the charger's main output terminals (red to red, black to black).
2. Connect the other end of the charging lead to your battery's main power connector.
3. For LiPo, LiHV, Li-Ion, or LiFe batteries, also connect the battery's balance lead to the appropriate slot on the JST-XH balance adapter board, then connect the adapter board to the charger's balance port. Ensure the correct cell count slot is used.

## 6. OPERATING INSTRUCTIONS

---

### 6.1 Menu Navigation

Use the **BATT/PROG** button to cycle through the main battery program types. Use the **Status / Decrease** and **Start / Enter** buttons to navigate within menus and adjust values. Press **Start / Enter** to confirm a selection or start an operation. Press **Stop** to go back or end an operation.

## 6.2 Charging LiPo/LiHV/Li-Ion/LiFe Batteries

1. Connect the battery as described in Section 5.2.
2. Press **BATT/PROG** until the desired battery type (e.g., 'LiPo BATT') is displayed.
3. Press **Start / Enter** to enter the LiPo program menu.
4. Select the desired mode (e.g., 'LiPo BALANCE CHG' for balanced charging, 'LiPo CHARGE' for fast charging, 'LiPo FAST CHG' for fast charging, 'LiPo STORAGE' for storage charge). Balanced charging is recommended for optimal battery life and safety.
5. Adjust the charge current (e.g., 0.1A - 6.0A) using the **Status / Decrease** and **Start / Enter** buttons. A common guideline is to charge at 1C (e.g., for a 5000mAh battery, charge at 5.0A).
6. Adjust the cell count (e.g., '3S' for a 3-cell battery). The charger will automatically detect the cell count if connected correctly via the balance port.
7. Press and hold **Start / Enter** for 3 seconds to confirm settings and begin the charging process. The charger will perform a cell count check. Confirm by pressing **Start / Enter** again.
8. The display will show real-time charging information.
9. Once charging is complete, the charger will beep, and the display will indicate 'FULL'. Press **Stop** and disconnect the battery.

## 6.3 Charging NiCd/NiMH Batteries

1. Connect the battery's main power connector to the charger's output terminals. Balance connection is not required for NiCd/NiMH.
2. Press **BATT/PROG** until 'NiMH BATT' or 'NiCd BATT' is displayed.
3. Press **Start / Enter** to enter the program menu.
4. Select 'NiMH CHARGE' or 'NiCd CHARGE'.
5. Adjust the charge current and cell count (if applicable).
6. Press and hold **Start / Enter** for 3 seconds to begin charging.
7. Disconnect the battery when charging is complete.

## 6.4 Charging Pb (Lead-Acid) Batteries

1. Connect the battery's main power connector to the charger's output terminals.
2. Press **BATT/PROG** until 'Pb BATT' is displayed.
3. Press **Start / Enter** to enter the program menu.
4. Select 'Pb CHARGE'.
5. Adjust the charge current and voltage (e.g., 2V, 6V, 12V).
6. Press and hold **Start / Enter** for 3 seconds to begin charging.
7. Disconnect the battery when charging is complete.

## 6.5 Discharging Batteries

The KX80 offers a discharge function (2A, 10W). This is useful for cycling NiCd/NiMH batteries or preparing

LiPo/LiHV/Li-Ion/LiFe batteries for storage.

1. Connect the battery.
2. Navigate to the desired battery type program.
3. Select the 'DISCHARGE' mode.
4. Adjust the discharge current and final voltage (if applicable).
5. Press and hold **Start / Enter** for 3 seconds to begin discharging.
6. The charger will stop automatically when the set parameters are reached.

## 7. MAINTENANCE

---

- Keep the charger clean and free from dust. Use a soft, dry cloth for cleaning.
- Do not use solvents or abrasive cleaners.
- Regularly inspect all cables and connectors for damage. Replace any damaged components immediately.
- Store the charger in a cool, dry place when not in use.

## 8. TROUBLESHOOTING

---

Problem	Possible Cause	Solution
Charger does not power on.	No power supply; faulty cable; incorrect DC input polarity.	Check AC/DC power connections; ensure correct DC polarity; try a different power outlet/source.
Error message 'INPUT VOLTAGE ERROR'.	Input voltage is too low or too high.	Ensure DC input is between 11-18V. If using AC, ensure stable power supply.
Error message 'CELL COUNT ERROR'.	Incorrect cell count setting or balance lead connection issue.	Verify battery cell count matches charger setting; ensure balance lead is correctly connected to the balance port.
Error message 'CONNECTION BREAK'.	Battery not connected or connection is loose.	Check all battery connections (main and balance leads).
Charger gets hot during operation.	Normal operation; poor ventilation.	Ensure adequate airflow around the charger. If excessively hot, reduce charge current.

## 9. SPECIFICATIONS

---

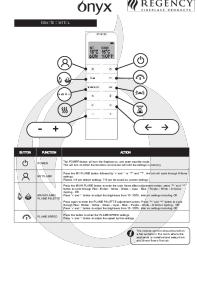
Feature	Specification
Input Voltage	AC 100-240V (50/60Hz) or DC 11-18V
Charge Power	80W

Feature	Specification
Discharge Power	10W
Charge Current Range	0.1 - 6.0A
Discharge Current Range	0.1 - 2.0A
LiPo/LiHV/Li-Ion/LiFe Cell Count	1-6S
NiCd/NiMH Cell Count	1-15 Cells
Pb Battery Voltage	2-20V
Balance Current	300mA/cell
Dimensions	8.1 x 6.7 x 3 inches
Weight	1.59 pounds

## 10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Onyx product website or contact your authorized dealer. Keep your purchase receipt as proof of purchase.

### Related Documents - KX80

	<p><a href="#">Onyx RCR GT 41Ah Battery Quick Start Guide</a></p> <p>Get your Onyx RCR GT 41Ah battery up and running quickly with this essential quick start guide. Learn how to install, connect via Bluetooth, and use the Onyx BMS App for optimal performance.</p>
	<p><a href="#">Onyx Healthcare 2024 Catalogue: Advancing Medical AI Innovation</a></p> <p>Explore the Onyx Healthcare 2024 Catalogue, featuring cutting-edge medical AI hardware, including AI-ready PCs, medical cart computers, tablets, and displays designed for enhanced patient care and operational efficiency. Discover solutions for digital operating rooms and advanced medical imaging.</p>
	<p><a href="#">Onyx Fireplace Remote Control: Functions and Operation Guide</a></p> <p>Detailed guide to operating the Onyx fireplace remote control, explaining button functions, flame settings, heating controls, and timer features for Regency fireplaces.</p>

	<p><b><a href="#">BOOX Note3 Uživatelský manuál - Návod k použití</a></b></p> <p>Kompletní uživatelský manuál pro BOOX Note3 od Onyx International. Zjistěte informace o funkcích, příslušenství, bezpečnostních pokynech a specifikacích.</p>
	<p><b><a href="#">ONYX DX15 Battery Autoscrubber Operator Manual</a></b></p> <p>Comprehensive operator manual for the ONYX DX15 Battery Autoscrubber, covering operation, maintenance, safety, troubleshooting, and technical specifications. Includes detailed instructions for safe and effective use.</p>
	<p><b><a href="#">Onyx Milazzo Furniture Installation Instructions</a></b></p> <p>Comprehensive installation guide for the Onyx Milazzo Furniture, designed for use with the Avanti 110RW fireplace. Includes safety warnings, parts lists, and step-by-step assembly instructions.</p>