

12 MONTH LIMITED WARRANTY

MFJ Enterprises, Inc. Warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original or machine reproduction of such proof-of-purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. MFJ Enterprises, Inc. agrees to repair or replace at MFJ's option without charge to the original owner any defective product under warranty, provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for \$7.00 covering postage and handling.
3. MFJ Enterprises, Inc. will supply replacement parts free of charge for any MFJ product under warranty upon request. A dated proof-of-purchase and a \$5.00 personal check, cashiers check, or money order must be provided to cover postage and handling.
4. This warranty is NOT void for owners who attempt to repair defective units. Technical consultation is available by calling (662) 323-5869.
5. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
6. Wired and tested PC board products are covered by this warranty provided only the wired and tested PC board product is returned. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be returned at the owner's expense unrepaired.
7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
8. Out-of-warranty Service: MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
9. This warranty is given in lieu of any other warranty expressed or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
11. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, Mississippi 39759, USA and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
12. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.

MFJ-633 Intelligent Battery Charger Instruction Manual

INTRODUCTION

In order to ensure the best results from the MFJ-633 Intelligent Battery Charger, please read the following instructions carefully before using the charger. The MFJ-633 Intelligent Battery Charger has a microprocessor built-in that automatically controls the charging of Nickel Cadmium (Ni-Cd) and Nickel Metal-Hydride (Ni-MH) rechargeable batteries of the following sizes: AAA, AA, C, & D. The MFJ-633 uses $-\Delta V$ detection to control the charging of Ni-Cd batteries and $+\Delta V$ detection to control the charging of Ni-MH batteries. This ensures that batteries with different brands and capacities will always be fully charged. The MFJ-633 also has discharge, deep conditioning, and self test modes of operation.

The MFJ-633 charges 9V Ni-Cd and Ni-MH rechargeable batteries using a continuous trickle charge.

Specifications:

Input	12 VDC @ 500 mA
Charge Current	PWM Constant Pulse Current – 800 mA
Boost Charge Current	½ Constant Pulse Current
Trickle Charge Current	1/10 Constant Pulse Current
Discharge Current	300 mA
Detection Method	$-\Delta V$ & $+\Delta V$

QUICK START

1. Plug the AC/DC adaptor into the wall socket. Then plug the jack into the charger.
2. Open the lid by sliding the "OPEN" button downward.
3. Insert the batteries you want to charge. For AAA, AA, C, or D sizes, insert a maximum of two batteries of the same size and type per compartment. For 9V batteries, use either / both of the 9V Slots located between Compartment 1 and Compartment 2.
(Steps 4 to 7 are for AAA, AA, C, or D size batteries)
4. If you need to discharge the batteries, press the yellow DISCHARGE button.
5. If you need to deep condition your batteries, press the yellow DISCHARGE button and hold it until the MFJ-633 beeps and the green READY LED flashes. Then release the DISCHARGE button.
6. The compartment that has batteries inserted first will be charged first. If batteries are placed in both compartments at the same time, Compartment 1 will be charged first.
7. The batteries are ready to be removed from the compartment when the green READY LED for the corresponding compartment begins to flash.
(Steps 8 & 9 are for 9V batteries)
8. The MFJ-633 can charge one or two 9V batteries at a time.
9. 9V batteries cannot be discharged or deep conditioned. Once the battery is placed into the slot, the red LED under the battery will be illuminated until the battery is removed.

Battery Size	Capacity (mAh)	Approximate Charge Time
AAA	180	17 min
	240	22 min
AA	500	47 min
	1100	103 min
C	1800	2 4/5 Hr
	2000	3 1/8 Hr
D	2000	3 1/8 Hr
	4000	6 ¼ Hr
9V	100-120	10 to 14 Hr

- For AAA, AA, C, and D size batteries, it is suggested that batteries not be left in the charger for prolonged periods to increase battery life.
- For 9V batteries, it is suggested that batteries not be left in the charger for more than 14 hours.

OPERATING INSTRUCTIONS

Self-Test Mode

The MFJ-633 Intelligent Charger can perform a self-test to check if the charger is fully functional.

1. Remove all batteries from the compartments and slots and unplug the jack from the charger.
2. Connect the AC/DC adaptor to the wall socket.
3. Push the yellow DISCHARGE button and hold it down. Then connect the jack to the charger. Release the DISCHARGE button and all LEDs will illuminate briefly. You will see the charger cycle through a series of tests.
4. At the completion for the test all LEDs will briefly illuminate and the MFJ-633 will beep indicating that the charger is ready for use. If this does not happen, the battery charger is not fully functional.

The following Modes are for AAA, AA, C & D size batteries only. To charge 9V batteries please refer to steps 8 & 9 of the QUICK START section of this manual.

Charge Mode

The charger is designed the compartment that is filled first will be charged first. While the first compartment filled is charging, the other compartment is in Wait Mode.

The charger can charge one or two batteries per compartment. If two batteries are placed in one compartment, it is recommended that the batteries be of the same size and capacity. If the batteries are different, the charger will only charge up to the smallest capacity. If one battery is empty and the other full, the batteries must be discharged first.

For new batteries, it is recommended they be deep conditioned before initial use and charging.

1. Insert one or two batteries per compartment.
2. The CHARGE LED for the compartment will illuminate, indicating the batteries in that compartment are being charged. If batteries are inserted into both compartments, the CHARGE LED for the second compartment will flash, indicating it is in Wait Mode.
3. When the charger detects that the batteries are almost fully charged, the READY LED illuminate indicating that the batteries are being Boost-Charged. When the READY LED begins to flash and the charger beeps this indicates the batteries are fully charged and can be removed from the charger.
4. If batteries are placed in the second compartment, the CHARGE LED will illuminate after the first compartment has completed charging. Steps 2 and 3 will repeat for the second compartment. While the second compartment is charging, batteries in the first compartment can be removed and another set can be inserted.
5. The charger will switch into Trickle Charge Mode after charging is finished, so that the batteries will always be at full capacity when removed from the charger.

Please note that batteries should only be removed when the charger is in Ready Mode. If for some reason, the batteries need to be removed during charging or discharging, press the yellow DISCHARGE button twice to refresh the charger.

Charging time will vary depending on the capacity and condition of the batteries. The following formula can be used to estimate the charge time in minutes:

$$\text{Charge Time} = (\text{Battery Capacity} / 800\text{mA}) / 80\% \times 60$$

Discharge Mode

This mode should be used if one of the batteries is empty and one is fully charged. It is also recommended to use this mode occasionally in order to keep the batteries at optimal performance level.

1. Insert one or two batteries per compartment.
2. Press the yellow DISCHARGE button. The DISCHARGE LED on the filled compartments will illuminate. If both compartments are filled, they will both be discharged at the same time.
3. If only one compartment is filled, the charger will automatically switch to Charge Mode after discharge is completed.
4. If both compartments are filled, the compartment that is discharged first will switch into wait mode (CHARGE LED flashes) until the other compartment is fully discharged. The charger will then automatically switch to Charge Mode.

Note: Press the DISCHARGE button to switch between Charge Mode and Discharge Mode at any time.

Deep Conditioning Mode

This mode can be used to rescue batteries damaged by memory effect, refresh batteries, or to break in new batteries. This mode automatically discharges and recharges the batteries in both compartments three times.

1. Insert one or two batteries per compartment.
2. Press and hold the yellow DISCHARGE button until the READY LEDs begin to flash and the charger beeps. Then release the button.
3. The CHARGE and DISCHARGE LEDs will illuminate as specified in Charge and Discharge Mode instructions.
4. During the first cycle, the READY LEDs will flash 3 times, stop, and then repeat until the cycle has completed.
5. During the second cycle, the READY LEDs will flash twice, stop and repeat until the cycle is complete.
6. During the third and final cycle, the READY LEDs will flash once, stop, and repeat until the deep conditioning has completed.
7. When deep conditioning of the batteries has completed, the READY LEDs flash and the CHARGE and DISCHARGE LEDs will turn off. The batteries are now ready for use and can be removed from the charger.

Note: Press the DISCHARGE button to cancel Deep Conditioning Mode and switch to Charge Mode at any time.

WARNING

- **The MFJ-633 Intelligent Battery Charger is designed for indoor use at normal room temperature. Keep the charger away from direct sunlight, moisture, or heat.**
- **Use only the AC/DC adaptor that comes with the MFJ-633.**
- **This battery charger is designed to charge only Ni-Cd and Ni-MH rechargeable batteries of size AAA, AA, C, D, and 9V. DO NOT ATTEMPT TO CHARGE ANY OTHER TYPE OF BATTERIES WITH THIS CHARGER.**
- **Do not attempt to charge leaking or corroded batteries.**
- **It is normal for the batteries and adaptor to become warm when in operation. Please ensure there is adequate space and air for the charger to operate.**