

etoolab ETB-DW01

etoolab Battery Adapter (Model ETB-DW01) Instruction Manual

For Dewalt 20V and Milwaukee 18V Batteries

1. GENERAL DESCRIPTION

Thank you for purchasing an etoolab product. This battery adapter is manufactured to a high standard to provide power for various applications such as power wheels, toy cars, bumper cars, electric scooters, camping lights, emergency lights, inverters, radios and speakers, vacuum cleaners, power tools, water pumps, LED display, robot, monitoring devices, bug zappers, fan, light strips, and more. This converter is designed to connect the power of the tool battery pack to provide power for these applications.

Generally speaking, a 20V Max battery pack is also known as an 18V battery pack. The rated input voltage of this product is 18V. In some cases, you can connect two converters in series to achieve 36V.

2. SAFETY INFORMATION AND IMPORTANT NOTES

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY INVALIDATE THE WARRANTY. PLEASE KEEP INSTRUCTIONS SAFE FOR FUTURE USE.

- Before connecting the load, please specify the rated voltage of the load. Adapters with an output of 18V are highly likely to cause faults or damage to loads with a rated voltage less than 14V.
- Always pay attention to the current of the ammeter. The rated carrying current of this converter is 10A. Excessive current may damage this product, as well as other loads such as your power wheels.
- Please pay attention to the positive and negative poles of the wire. The red output line is the positive pole, and the black output line is the negative pole. Many loads must be strictly distinguished between positive and negative poles, otherwise they may be damaged.
- It cannot be used for charging electric tool batteries, and this converter is not suitable for any charger. If you need to charge the power tool battery, please use the original battery charger.
- Using an unsuitable battery pack of the same brand as the power supply for the converter may damage the converter if the battery pack is not suitable.
- Do not short-circuit the positive and negative output line. A short circuit will seriously damage the battery pack and may also cause a fire.

- Any unexpected start may cause damage.
- To reduce the risk of serious personal injury, please remove the battery pack and turn off the converter before making any adjustments or disassembling installation accessories or accessories.
- Do not store or carry converters with batteries to avoid metal objects touching exposed battery terminals, which can cause short circuits and fire hazards.

3. SETUP AND INSTALLATION

3.1. Package Contents

The etoolab Battery Adapter comes with the following components:

- 1 x Battery adapter
- 1 x Wire terminal connector
- 2 x Expansion screw
- 4 x Fuse (one in the adapter)
- 10 x Heat shrink butt wire connectors



Figure 1: Included components of the etoolab Battery Adapter kit.

3.2. Wiring Methods

The manual provides two main wiring methods for connecting the battery adapter to your application:

Method 1: Single Battery Pack Connection

This method uses a single battery pack to power your device. Connect the red output line (positive) and black output line (negative) from the adapter to your load. Ensure correct polarity.

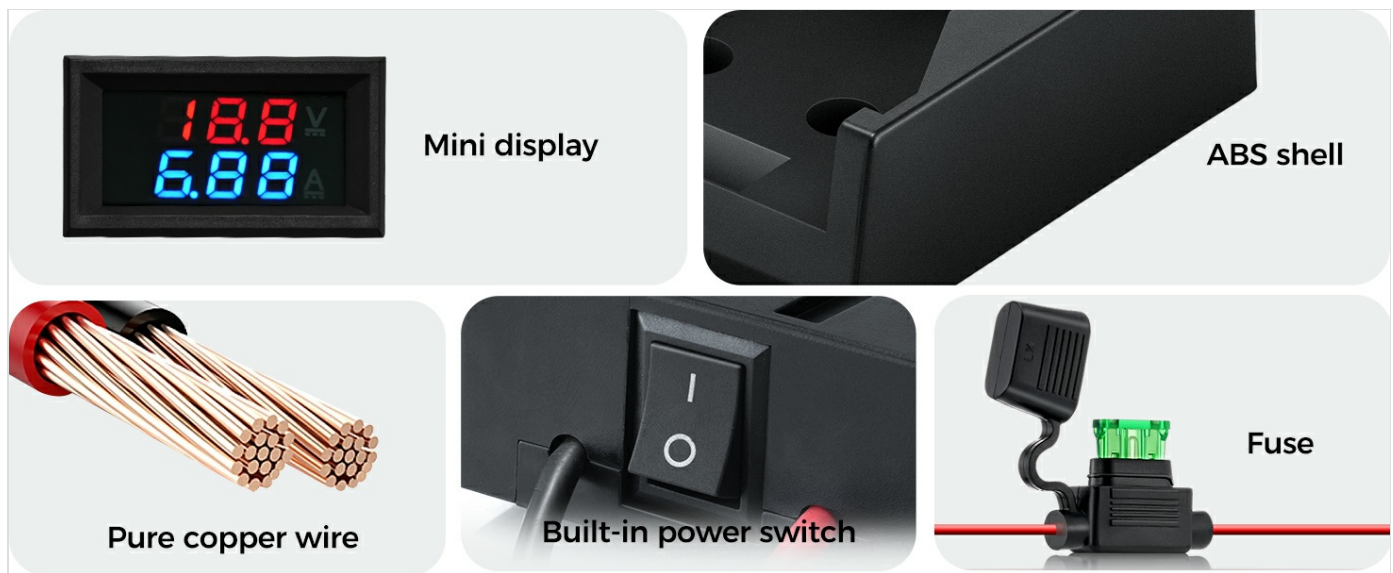


Figure 2: Single battery pack connection diagram.

Method 2: Series & Parallel Connection Methods (for increased voltage or capacity)

For applications requiring higher voltage or extended runtime, two battery packs can be connected. **Note:** Series connections should be used with caution. When using the series connection method, the voltmeter may burn out due to excessive voltage if not followed correctly.

- **Parallel connection of battery packs:** Increases capacity and extends the running time of power wheels.
- **Series connection of battery packs:** Increases the voltage and increases the running power of the power wheel.

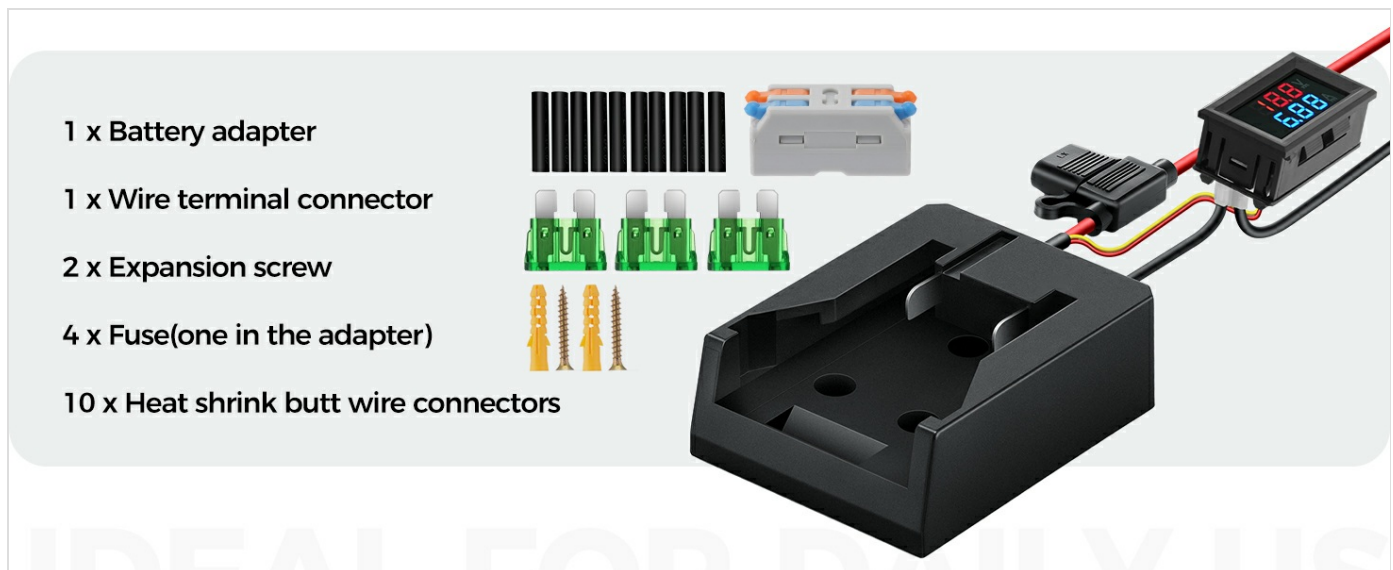


Figure 3: Series and Parallel connection methods for multiple battery packs.

3.3. Compatible Battery Brands

This converter is compatible with the following 7 mainstream battery pack brands:

1. Dewalt & Milwaukee (Simultaneously compatible)
2. Black&Decker
3. Ryobi
4. Makita
5. Rigid&AEG (Simultaneously compatible)
6. Craftsman
7. Bosch

Applicable for Dewalt & Milwaukee

20V/18V Lithium Battery



Figure 4: Compatible Dewalt and Milwaukee battery models.

4. OPERATING INSTRUCTIONS

Follow these steps for safe and effective operation of your etoolab Battery Adapter:

1. Connect the load to the battery pack converter using the provided wire terminal connector.
2. Insert the battery pack into the converter and turn on the load switch.
3. Observe the reading on the integrated voltmeter/ammeter to monitor voltage and current.
4. After use, remove the battery pack and turn off the converter.

Easy to Use



Connect the load to the battery pack converter.



Insert the battery pack and turn on the load switch.



Observe the reading of the ammeter.



After using, remove the battery pack and turn off the converter.

Figure 5: Step-by-step operating instructions.

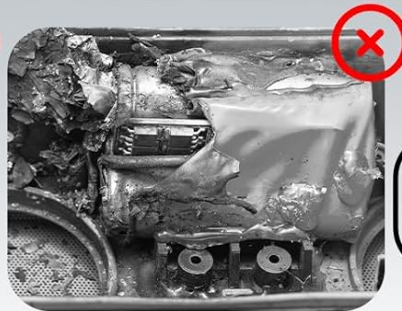
4.1. Real-time Current and Voltage Display

The adapter is equipped with a mini LED screen that displays real-time current and voltage. This allows for quick assessment of whether the battery pack is suitable for the connected device.

Real-time Current and Voltage Display



Burn out battery



Burn out toy car

Avoid incorrect connection effectively

Figure 6: Real-time display of current and voltage.

Ammeter Reading Interpretation:

- **0 < reading < 3A:** The load is likely suitable for an 18V battery pack and can be connected to an etoolab converter.
- **3 < reading < 8A:** The load may be suitable for 18V battery packs. It is recommended to connect and use the etoolab converter with caution.
- **8 < reading < 10A:** The load is barely suitable for an 18V battery pack. You can carefully connect the etoolab converter, but you need to always be careful.
- **Reading > 10A:** The load is basically not suitable for an 18V battery pack, and it is not recommended to connect and use an etoolab converter.

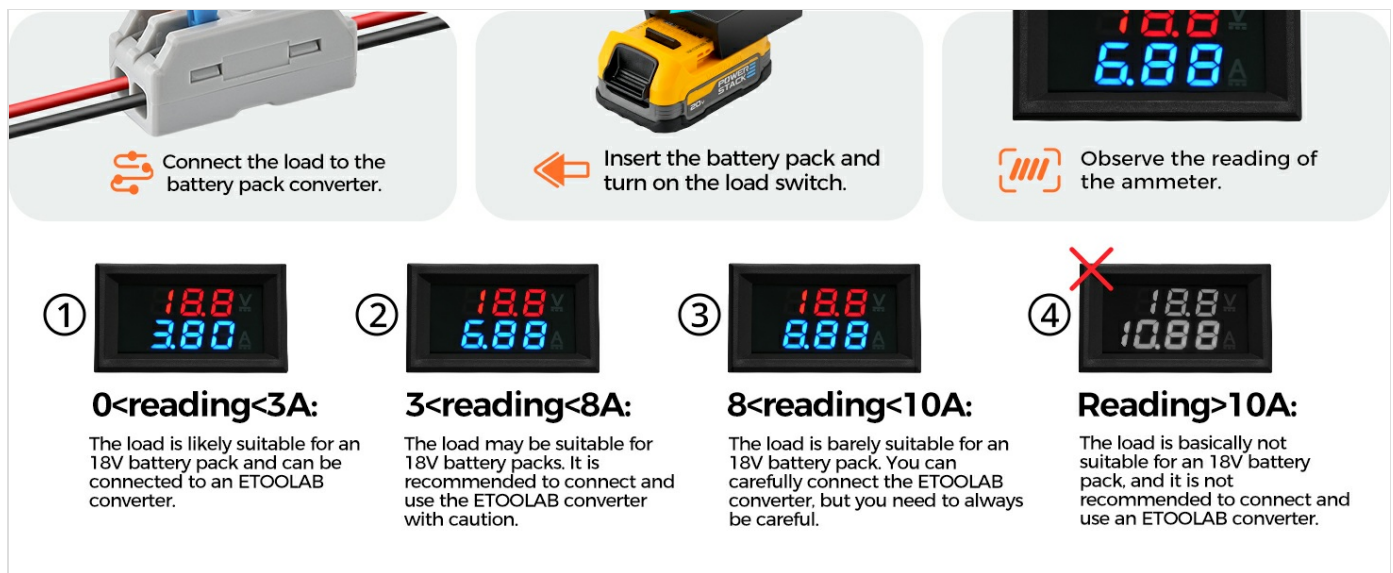


Figure 7: Ammeter reading guidelines.

4.2. Product Features

- **Durable ABS Shell:** Provides robust protection for the internal components.
- **14 AWG Wire:** Ensures efficient power transfer.
- **3 Mount Holes:** For secure installation.
- **Built-in Switch:** For easy power control.
- **Waterproof Fuse Holder with 30 Amp Fuse:** Provides overcurrent protection.



Figure 8: Key features of the etoolab Battery Adapter.

5. TECHNICAL DATA (SPECIFICATIONS)

Feature	Specification
Rated Input Voltage	18V (13.5V-20V)
Output	13.5V-20V
Rated Current	10A DC
Rated Power	200W
Cable	14 AWG (2.0 mm ²) Pure copper wire
Voltmeter Voltage Drop	0.2-0.3V

Feature	Specification
Fuse Blowing Current	30A
Switch	Built-in ship type switch

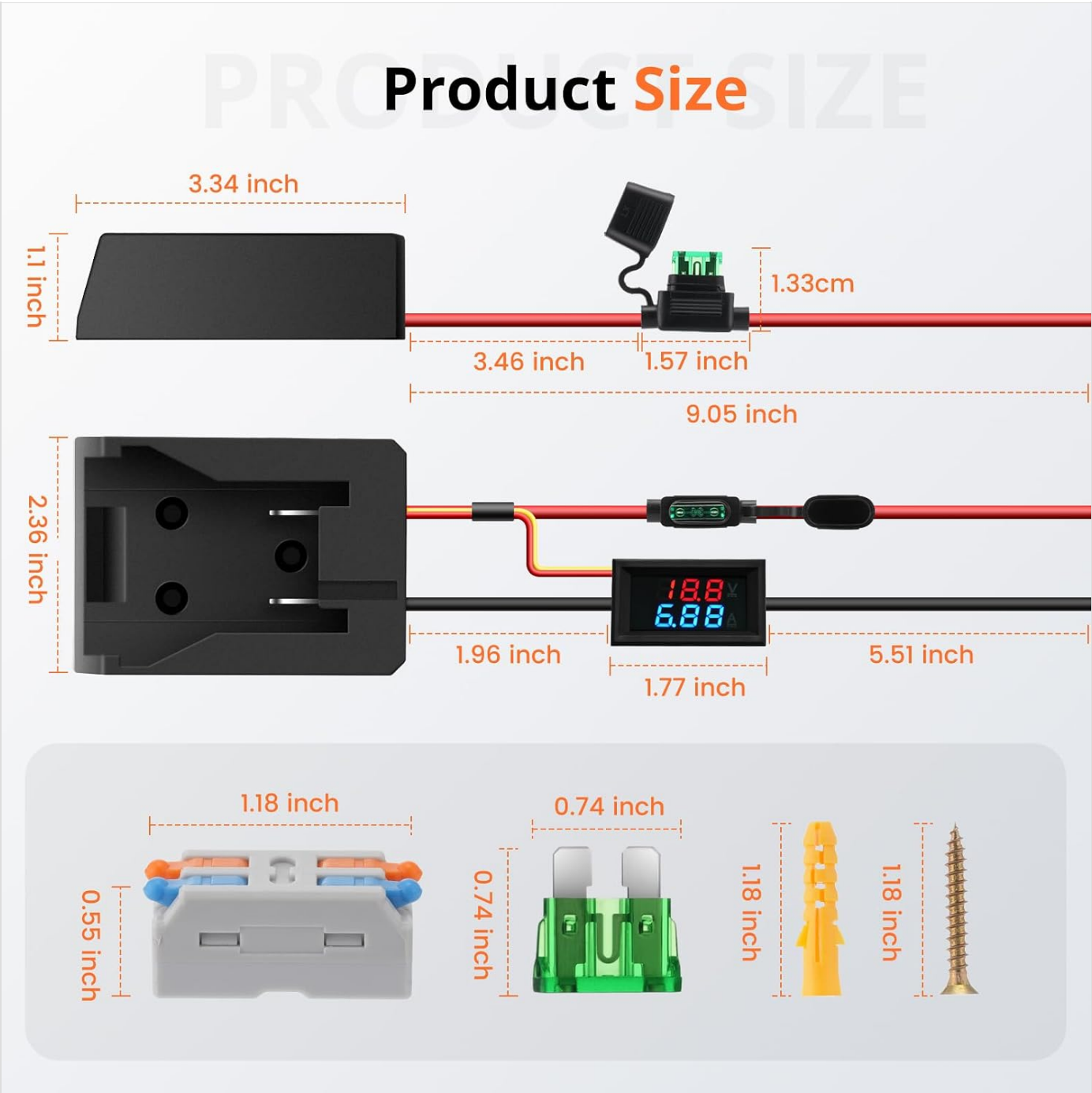


Figure 9: Product dimensions.

6. MAINTENANCE

Specific maintenance instructions are not provided in this manual. To ensure longevity and safe operation, keep the adapter clean and free from debris. Regularly inspect wires and connections for any damage or wear. Replace the fuse with a 30A fuse if it blows. Always disconnect the battery before cleaning or inspecting the adapter.

7. TROUBLESHOOTING

Specific troubleshooting steps are not provided in this manual. If the adapter is not functioning as expected, please refer to the safety information and wiring methods sections to ensure correct setup and usage. If issues persist, contact customer support.

- If your load repeatedly burns out the fuse, it indicates that the rated voltage of the load is small and not suitable for 18V voltage.
- If the ammeter reading is 0.00A, check all connections and ensure the battery is fully charged.
- If the voltmeter reading is 0.00V, ensure the battery is properly inserted and the switch is on.

8. WARRANTY AND SUPPORT

etoolab products are manufactured to a high standard and are designed for trouble-free performance. This product comes with a **6 Months Money Back Guarantee**. If you receive a defective unit due to a manufacturing fault, you will receive a full refund or a new replacement.

For any questions about the item, or any ETOOLAB product, never fails to give complete satisfaction, save time and contact us via email at support@etoolab.com. Our support hours are from 8:00 a.m. to 5:30 p.m. Eastern Standard Time.

9. PRODUCT IN USE EXAMPLES

The etoolab Battery Adapter can be used in a variety of DIY projects and applications, including:

- Powering children's ride-on toys (Power Wheels)
- DIY electronics projects
- Portable lighting for camping or outdoor activities
- Operating small vacuum cleaners or other 18V/20V compatible devices



Figure 10: Examples of product applications.

10. OFFICIAL PRODUCT VIDEOS

Power-Wheel Battery Adapter Converter

Your browser does not support the video tag.

Video 1: This video demonstrates the functionality of the etoolab battery adapter converter, showing it powering a DC motor with adjustable speed and displaying real-time voltage and current.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question