The Volt Range
Product Manual

Work Hard. Camp Easy.

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Designed & Tested in Australia, Manufactured in China
Built for Aussie conditions
Powered by Max Voltage Store

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Contents

1. About This Manual

This manual covers the full Volt Range sold by Max Voltage Store:

- The Volt Dropper
- The Volt Double Adapter
- The Volt Replenisher
- The Volt Mini
- The Volt Rapid.

Each product has its own chapter with operating instructions, specifications, troubleshooting, and safety information.

Manual Conventions

The following signal words are used in this manual:

WARNING

• Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or fire.

CAUTION

• Indicates a potentially hazardous situation which, if not avoided, may result in minor injury or equipment damage.

NOTICE

• Indicates important information to prevent product damage or poor performance.

2. Safety & Important Information (Applies to All Volt Products)

General Safety

- Read and understand all instructions before use. Keep this manual for future reference.
- Use products only as described. Misuse may defeat built-in protections.
- Do not operate in explosive atmospheres (fuel vapours, dust, etc.).

Lithium-Ion Battery Safety

- Use only lithium-ion tool batteries compatible with your selected variant.
- Do not use damaged, swollen, leaking, or overheating batteries.
- Prevent short circuits: keep terminals away from metal objects (tools, keys, jewellery).
- Do not expose batteries to high heat, open flame, or leave in hot vehicles.
- Remove batteries when not in use and for storage/transport.

Electrical Safety

- Always confirm voltage and polarity requirements of connected equipment before powering it.
- Do not exceed the product's rated output current or power. Overloading may trigger protection or cause overheating.
- Do not cover ventilation openings. Allow airflow around the product during use.
- Keep products dry. Do not allow liquids to enter ports or housings.

Environmental & Operating Conditions

- Operate in a dry, ventilated area away from direct rain or spray.
- Avoid prolonged direct sunlight on the product while under high load.
- Stop use and allow cooling if the product becomes unusually hot.

Compatibility Notice

Volt products are sold in brand-compatible variants. A product that physically looks similar may be wired for a different battery platform. Always confirm your platform before ordering and before use.

3. Quick Start Guide (All Products)

Before First Use

- Inspect the product and ports for damage. Do not use if cracked, loose, or melted.
- Inspect your battery pack. Do not use if damaged or swollen.
- Ensure connectors are clean and free of dust/debris.

Basic Operating Flow

1. Insert the battery until it clicks/locks securely.
2. Connect your device/cable/output to the appropriate port.
3. Verify the device starts correctly. If it does not, disconnect and check troubleshooting.
4. When finished, unplug devices/cables and remove the battery.

4. The Volt Dropper

Overview

A rugged 12V DC converter that transforms 18–21V tool battery power into a stable, adjustable 12V output for common 12V gear (fridges, lights, fans, air pumps).

Compatible Battery Platforms (Variant Dependent)

Select the variant that matches your battery platform. Variants are not cross-compatible.

- Makita
- Milwaukee
- DeWalt
- Ozito / Einhell
- Bosch (GBA)
- Bosch (PBA)
- Ryobi
- AEG
- HiKOKI / Hitachi
- Stanley / Craftsman
- Black & Decker / Porter Cable

What's In The Box

- 1 × Volt Dropper (variant as ordered)

Product Identification

Common features (varies by model):

- LED display showing output voltage
- Voltage adjustment control
- On/Off isolator switch
- Output lead and connector (Anderson, 12V cigarette socket or Both)

Technical Specifications

Specification	Details
Input Voltage	DC (15–20V lithium-ion tool batteries)
Output Voltage	Adjustable 5–13V DC (default 13V)(For best runtimes on 12V appliances keep this at the maximum output voltage ~13V)
Max Output Current	10A (total load) ⚠️DO NOT EXCEED 10A THIS or it may result in overheating and cause the outer plastic shell to melt.
Efficiency	≥ 95% (typical)
Output Display	Digital LED readout (real-time output voltage)
Operating Environment	-10°C to 45°C, dry environments only
Protection	Overload, over-current, low-voltage cutoff, short circuit, no-load auto-off

Intended Use

- Running 12V DC appliances such as portable fridges, LED lighting, fans and small air pumps etc.
- Portable power where a vehicle or fixed battery system is not available

Not Intended For

- 240V AC appliances (kettles, coffee machines, heaters, power tools)
- Devices that require more than 10A continuous draw
- Wet environments or submersion
- NOT intended for charging

Safe Operating Limits

- Keep output set to ~12.5-13V for most 12V accessories; only adjust when you know the device's required voltage
- Total connected load **must not exceed 10A**
- If the unit becomes hot to touch, reduce load and allow cooling

How To Use

5. Insert a compatible 18–20V lithium-ion tool battery until it locks in place.
6. Connect your 12V appliance to the output connector (Anderson or 12V cigarette socket).
7. Adjust the voltage output knob to maximum. Confirm the output voltage on the LED display. It should be around ~12.5-13V..
8. If required, adjust output voltage using the control. Increase/decrease slowly and confirm on the display.
9. Power your device. Monitor for abnormal heat, smell, or flickering display.
10. When finished, turn off the isolation switch, unplug your device, then remove the battery.

Best Practices (fridges)

- For fridges: pre-cool before leaving home, use ECO mode where available, keep the fridge at least half-full, and minimise lid openings.
- Keep a spare charged battery on hand for longer trips.
- Keep connectors clean and fully seated to reduce voltage drop.

Safety & Warnings

- Use only 12V DC appliances. Do not connect 240V AC devices.
- Do not exceed 10A total draw. High-draw devices may cause shutdown or overheating.
- Do not use in rain or allow water into connectors.
- Remove the battery after use. Do not leave batteries attached for long-term storage.

Protection Features

- Low-voltage cutoff to help protect tool batteries (cutoff set around 15V input)
- Over-current and overload shutdown
- Short-circuit protection
- No-load auto-off when nothing is connected

If a protection mode triggers: disconnect the load, remove the battery, wait 30 seconds, then reconnect.

Troubleshooting

Problem	Likely Cause	What to Do

No power / display off	Battery not seated, battery flat, wrong variant	Re-seat battery, try a charged battery, confirm battery platform matches the variant.
Turns off during use	Battery depleted, load >10A, protection triggered	Ensure Voltage output knob is turned fully clockwise. Reduce load, cool down, swap/recharge battery, confirm device current draw.
Appliance won't start	Not a 12V device, poor connection, incorrect voltage	Confirm device is 12V DC, reseat connector, set output back to 12V and try again.
Display flickers / voltage drops	Loose plug, overload, low battery	Reseat plugs, try smaller load, use a freshly charged battery.

Frequently Asked Questions

Q: What does it do?

A: It converts tool battery power into an adjustable 12V DC output for common 12V gear.

Q: How long will it run a fridge?

A: Runtime depends on fridge size, temperature, and battery capacity. Smaller fridges and pre-cooling significantly improve runtime.

Q: Is it safe for electronics?

A: Yes, when used within limits. Built-in protections help prevent damage from overload and short circuits.

5. The Volt Double Adapter

Overview

A dual-battery parallel adapter designed to run two matching 18V batteries together to extend runtime when used with the Volt Dropper.

Compatible Battery Platforms (Variant Dependent)

Select the variant that matches your battery platform. Variants are not cross-compatible.

- Milwaukee
- Makita
- DeWalt
- Ozito / Einhell
- HiKOKI / Hitachi
- Stanley / Craftsman
- Bosch (GBA)
- Bosch (PBA)
- Black & Decker / Porter Cable
- Worx (4-Pin)

What's In The Box

- 1 × Volt Double Adapter (variant as ordered)

How It Works (Parallel Operation)

The Double Adapter connects two batteries in parallel. This keeps voltage the same but increases available capacity (Ah) and shares the load, which can reduce strain on each battery compared to running a single pack.

Recommended Battery Pairing

- Use two batteries of the SAME brand platform and SAME voltage (18V).
- For best results use the SAME capacity (e.g., two 5.0Ah packs).
- Match charge level as closely as practical before connecting (recommended within ~0.2–0.3V).
- Avoid pairing a new battery with a very old battery; internal resistance differences can cause uneven discharge.

Technical Specifications

Specification	Details
Battery Type	18V lithium-ion tool batteries (variant dependent)
Connection	Parallel dual-battery connection
Primary Application	Use with Volt Dropper to extend runtime
Housing	Rugged ABS plastic with reinforced locking slots
Not Included	Batteries, Volt Dropper, devices

Intended Use

- Extending runtime for the Volt Dropper by using two matching batteries
- Sharing current draw across two packs for cooler operation (depending on load and conditions)
- ⚠️**Not suitable for charging**

Not Intended For

- Mixing different battery brands/platforms
- ⚠️**Charging batteries (this adapter does not charge)**
- Powering tools directly (not designed for tool operation)

Safe Operating Limits

- Only use lithium-ion batteries in good condition
- If either battery becomes unusually hot, stop use and allow both packs to cool
- Remove batteries after use to prevent accidental discharge

How To Use

11. Confirm you have the correct Double Adapter variant for your battery platform.
12. Insert Battery 1 until it locks firmly.
13. Insert Battery 2 until it locks firmly.
14. Connect the Double Adapter to the Volt Dropper as per Volt Dropper instructions.
15. Power your 12V device via the Volt Dropper.
16. When finished, disconnect from the Volt Dropper and remove both batteries.

Safety & Warnings

- Do not mix brands/platforms. Cross-compatibility is not supported and may cause damage.
- Do not connect batteries with very different charge levels.
- Do not use damaged batteries or batteries that overheat.

Protection Features

- Parallel load-sharing when batteries are well matched (system-level benefit)
- Correct fitment and locking to reduce vibration disconnects

If a protection mode triggers: disconnect the load, remove the battery, wait 30 seconds, then reconnect.

Troubleshooting

Problem	Likely Cause	What to Do
Short runtime	Batteries mismatched or one battery weak	Use matched batteries; test each battery individually; replace weak pack.
One battery hot	Imbalance or high load	Stop use; allow cooling; ensure batteries are same capacity/age; reduce load.
Intermittent power	Battery not locked or dirty contacts	Remove and reinstall batteries; clean contacts; confirm firm lock.

6. The Volt Replenisher

Overview

A compact in-vehicle charger that tops up compatible 18V tool batteries from a 12V or 24V cigarette/accessory socket—no inverter required.

Compatible Battery Platforms (Variant Dependent)

Select the variant that matches your battery platform. Variants are not cross-compatible.

- Makita
- Milwaukee
- DeWalt
- Ozito / Einhell
- Bosch (GBA)
- Bosch (PBA)
- Black & Decker / Porter Cable
- HiKOKI / Hitachi
- Stanley / Craftsman
- Worx (5-Pin)

What's In The Box

- 1 × Volt Replenisher (variant as ordered)

Technical Specifications

Specification	Details
Input	12V or 24V vehicle accessory socket
Output	18–21V DC, 2A (typical)
Indicators	LED charging status indicators
Protection	Overheat, overcharge, short-circuit protection (charger-side)

Intended Use

- Charging/topping up tool batteries while driving or when 12/24V accessory power is available
- Use in cars, 4WDs, trucks, caravans and boats with a suitable socket

Not Intended For

- Charging non-18V platforms (12V, 14.4V, 36V, 40V, etc.)
- Use with loose/unsafe vehicle wiring
- Use in wet conditions or with liquid exposure
- ⚠️**Not compatible** with the Volt Double adapter

Safe Operating Limits

- Designed for safe, steady charging (2A). This is not a rapid charger.
- Ensure the vehicle socket is in good condition and rated for accessory use (check vehicle manual).
- Do not leave charging unattended for long periods; disconnect when charge is complete.

How To Use

17. Start the vehicle or ensure the accessory socket is powered (varies by vehicle).
18. Plug the Volt Replenisher into the 12V/24V accessory socket firmly.
19. Insert the compatible battery until it locks.
20. Confirm the charge indicator LED shows charging.
21. When charging is complete, remove the battery first, then unplug the charger.

Best Practices

- For best results, charge while driving (alternator supply is typically stable).
- If the charger or battery becomes hot, remove the battery and allow cooling.
- Keep the charger in the glovebox or touring kit as a backup charging method.

Safety & Warnings

- Do not use if the vehicle socket is loose, overheats, or cuts out.
- Do not cover the charger during use—allow ventilation.
- Only use the correct variant for your battery platform.

Protection Features

- Over-temperature protection to reduce overheating risk
- Short-circuit protection
- Overcharge protection (charger-side behaviour)

If a protection mode triggers: disconnect the load, remove the battery, wait 30 seconds, then reconnect.

Troubleshooting

Problem	Likely Cause	What to Do
No lights / not charging	Socket not powered, fuse blown, poor connection	Check vehicle accessory power, reseat plug, try another socket, check vehicle fuse.
Charging stops early	Overheat protection or unstable power	Allow to cool, ensure stable socket power, avoid charging in direct sun.
Battery won't seat	Incorrect variant/platform	Confirm battery platform and select correct charger variant.

7. The Volt Mini

Overview

A compact USB power adapter that uses your 18V tool battery to charge phones and small USB devices when mains power isn't available.

Compatible Battery Platforms (Variant Dependent)

Select the variant that matches your battery platform. Variants are not cross-compatible.

- Makita
- Milwaukee
- DeWalt
- Ozito / Einhell

What's In The Box

- 1 × Volt Mini USB power adapter (variant as ordered)

Technical Specifications

Specification	Details
Input	18–20V tool battery (variant dependent)

Outputs	1 × USB-A, 1 × USB-C
Max Output Power	Up to 18W total
Battery Charging	Not supported (adapter draws from battery only)
Material	ABS + PC housing
Mounting	Belt clip / portable

Intended Use

- Charging phones, headlamps, GPS units, small cameras, speakers, and other USB devices
- Portable backup power for camping, touring, worksites, and emergency kits

Not Intended For

- Running 12V fridges or high-current 12V devices
- Charging tool batteries
- Use with damaged cables or wet connectors

Safe Operating Limits

- Max output is up to 18W and depends on your device and cable
- USB-C port may not support USB-C to USB-C charging on some devices—use USB-A to USB-C cable where required

How To Use

22. Insert a compatible tool battery until locked.
23. Connect your device using USB-A or USB-C.
24. If your device does not charge on USB-C, try a USB-A cable instead (some devices require USB-A to USB-C).
25. When finished, unplug cables and remove the battery.

Safety & Warnings

- Keep ports dry. Do not expose to rain or splash.
- Do not store with battery attached.
- Use quality cables; damaged cables can overheat.

Protection Features

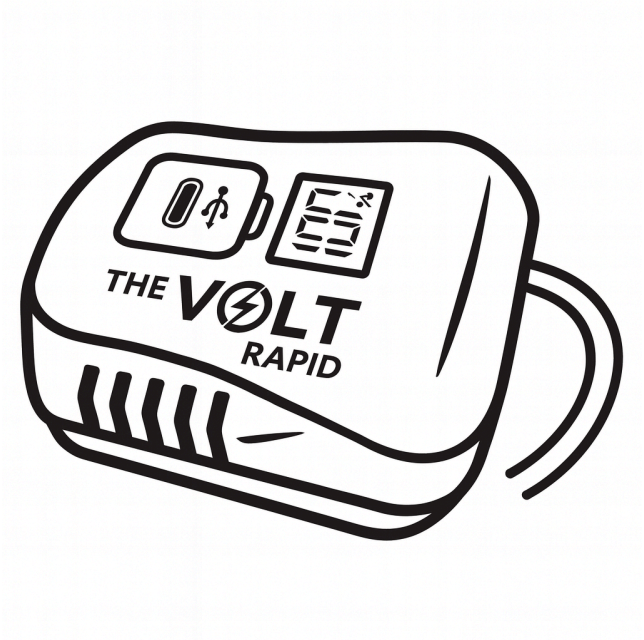
- Auto shut-off when idle
- Low-voltage behaviour to protect the battery from over-discharge

If a protection mode triggers: disconnect the load, remove the battery, wait 30 seconds, then reconnect.

Troubleshooting

Problem	Likely Cause	What to Do
Device not charging	Cable type incompatible or poor cable	Try a different cable; for USB-C devices use USB-A to USB-C if USB-C to USB-C does not work.
Stops charging	Battery low or protection triggered	Swap to a charged battery; disconnect and reconnect after 30 seconds.
Loose fit	Battery not locked	Remove and reinstall battery until it clicks firmly.

8. The Volt Rapid (Coming Soon)



Overview

A high-power USB-C PD adapter providing up to 100W for laptops and other demanding devices. Some variants support charging compatible tool batteries as well as powering devices.

Compatible Battery Platforms (Variant Dependent)

Select the variant that matches your battery platform. Variants are not cross-compatible.

- Milwaukee
- Makita
- DeWalt
- Ozito / Einhell
- Bosch (GBA)
- Bosch (PBA)
- HiKOKI / Hitachi
- Stanley / Craftsman
- Black & Decker / Porter Cable

What's In The Box

- 1 × Volt Rapid (variant as ordered)

Technical Specifications

Specification	Details

USB-C Output	DC 5–20V, PD 3.0, up to 100W max
USB-A Output	5–12V, QC 3.0, up to 24W max
Indicator	Battery level + fast-charge indicator (green lightning = fast charge)
Auto Shut-Off	Yes, when idle (model dependent)
Protection	Over-discharge and low-voltage protection (not applicable to some 14.4V batteries)

Intended Use

- Powering/charging laptops, tablets, phones, drones, cameras, Starlink Mini (and similar PD devices) via USB-C PD
- Charging and powering USB devices off-grid using your tool batteries
- Charging compatible tool batteries where supported by the model/variant

Not Intended For

- Using with wet cables/ports or in rain
- Running devices above the rated output
- Assuming all variants support every battery model—confirm your battery platform and fitment

Safe Operating Limits

- 100W is the maximum capability—actual power depends on device, cable, and battery condition
- If battery charging is supported, behaviour may vary by variant and conditions; follow the indicators and stop use if overheating occurs

How To Use

1. Insert a compatible battery until locked.
2. Connect your device to USB-C (preferred for high power) or USB-A.
3. Check indicator lights: green lightning indicates fast charging (when supported by your device).
4. If your model supports charging tool batteries, follow the battery-charge indicator behaviour; if it does not start, disconnect external loads and try again.
5. When finished, unplug cables and remove the battery.

Best Practices

- Use high-quality USB-C PD cables rated for 100W for best performance.

- For laptops/Starlink-type devices, keep the adapter ventilated and out of direct sun.
- On first use, fully charge and discharge a battery once for more accurate indicator behaviour (adapter-only guidance).

Safety & Warnings

- Do not cover vents/openings during use.
- Do not leave connected to a battery in storage.
- If the adapter or battery becomes unusually hot, unplug and allow to cool.
- Confirm correct variant before use; return shipping for incorrect selection may be at customer cost (store policy dependent).

Protection Features

- Over-discharge protection
- Low-voltage protection
- Auto shut-off when idle

If a protection mode triggers: disconnect the load, remove the battery, wait 30 seconds, then reconnect.

Troubleshooting

Problem	Likely Cause	What to Do
Slow charging	Cable not rated, device limit, battery low	Use a 100W-rated USB-C cable; try USB-C PD; swap to a charged battery. Ensure your power source can supply 100W.
No output	Battery not seated/flat, protection triggered	Reseat battery; try charged battery; disconnect loads and retry after 30 seconds.
Battery won't charge (if supported)	Model limitation or conflicting load	Disconnect external devices and retry; confirm your variant supports battery charging.

9. Care, Storage & Transport (All Products)

Cleaning

- Remove the battery before cleaning.
- Wipe the exterior with a dry or slightly damp cloth. Do not use solvents.
- Keep ports and connectors free of dust/sand. Compressed air can help (use gently).

Storage

- Store indoors, dry, and out of direct sunlight.
- Remove batteries from products for storage.
- Store batteries according to the battery manufacturer's guidance (typically partial charge, cool environment).

Transport

- Remove batteries for transport and protect terminals from shorting (use battery covers where supplied).
- Do not transport damaged or swollen batteries.
- Avoid leaving batteries and devices in hot vehicles.

10. Warranty, Support & Legal Notices

Support

Email: support@maxvoltagestore.com
Website: www.maxvoltagestore.com

Warranty

🛠️ 2-Year Warranty – Built to Last, Backed by Us

Every product in The Volt Range is covered by a 2-year warranty from the date of purchase. We stand by our products and will replace any unit that fails due to defects in materials or workmanship during normal use.

✅ What's Covered:

Faulty internal components

Malfunctioning voltage regulation

Display or output failures not caused by misuse

🚫 What's Not Covered:

Damage from misuse, water ingress, or modification

Wear and tear from abnormal conditions (e.g. corrosion, impact)

Issues caused by unsupported batteries or overloading

📦 Warranty Process:

Contact us at support@maxvoltagestore.com with your order number and issue description.

If approved, you'll be asked to ship the faulty unit back to us (at our expense).

Once the tracking number is received, we'll send you a replacement unit (we will also cover the shipping cost for the replacement).

If repairable, we may opt to repair and return the original unit.

If you have questions or need help with your Volt Dropper, don't hesitate to reach out — we're here to help.

Trademarks & Brand Compatibility

Max Voltage Store products are not affiliated with, endorsed by, or sponsored by Makita, DeWalt, Milwaukee, Bosch, Einhell, Ozito, HiKOKI, Stanley, Black & Decker, Porter Cable, Ryobi, AEG, Worx or any other battery brand. All trademarks are the property of their respective owners.

Disclaimer

Use at your own risk. Always confirm device voltage/current requirements before connection. Max Voltage Store is not responsible for damage caused by misuse, overloading, liquid ingress, modification, or use with incompatible batteries/devices.

Compliance

Products are designed for recreational and light commercial use. Users must comply with local laws and safety requirements. Dispose of batteries and electronic products through appropriate recycling facilities.