WILDTRAK

WPS WILDTRAK POWER SYSTEMS

VOLT PRO
LITHIUM BATTERY
USER MANUAL

12.8 V | LiFePO4 | DEEP CYCLE



Includes the VOLT PRO MAX 320 Ah model.

CA7650 CA7651 CA7652 CA7653

INSTALLATION | CHARGING | OPERATION | CARE

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IDENTIFICATION

YOUR BATTERY RANGE

All models below are 12.8 V LiFePO4 deep cycle batteries. Match the model code as well as the capacity.



CA7650
VOLT PRO
100 Ah | 1,280 Wh



CA7651
VOLT PRO
120 Ah | 1,536 Wh



CA7652
VOLT PRO
230 Ah | 2,944 Wh



CA7653
VOLT PRO MAX
320 Ah | 4,096 Wh

TECHNICAL SPECIFICATIONS

Series	VOLT PRO			VOLT PRO MAX
Model	**CA7650**	**CA7651**	**CA7652**	**CA7653**
Battery Type	LiFePO4			
Nominal Voltage(V)	12.8V			
Nominal Capacity(Ah)	100Ah	120Ah	230Ah	320Ah
Nominal Capacity(Wh)	1280Wh	1536Wh	2944Wh	4096Wh
Recommended Charge Voltage	14.6V			
Cut Off Voltage	10.0V			
Cycle Life @ 80% D.O.D	5000 cycles			
Recommended Charge & Discharge Current	≤50A	≤60A	≤115A	≤160A
	≤100A	≤120A	≤230A	≤300A
Maximum Charge & Discharge Current	100A	120A	230A	300A
	100A	120A	230A	300A
Series / Parallel No.	Max 2S4P			
Terminal Type	M8			
Case Material	ABS			
Bluetooth APP	N/A			
Dimensions (mm)	L339*W185*H218		L502*W187*H242	L345*W190*H245
Weight (Kg)	11.4	12.3	21.4	27.7
Operating Temperature (ºC)	0°C ~60°C Charge			
	-10°C ~60°C Discharge			
Certifications	UN38.3, MSDS, IEC 62619:2022			

SAFETY

WARNING A short circuit at the terminals can cause burns, fire or serious injury.

Before working on the battery

- Keep tools, jewellery and other metal objects away from exposed terminals. Use insulated tools and suitable eye protection.
- Switch off and isolate chargers and loads before changing connections. Treat terminals as live even if battery protection has shut down the output.
- Use suitable lifting help for the battery weight. Do not lift it by the terminals or cables.

During use

- Keep away from fire, heat and impact. Do not open, drill, crush or modify the case, or bypass battery protection.
- Do not reverse polarity or short the terminals. Do not increase a fuse rating to prevent it opening.
- Keep children away. Do not use damaged cables, connections or charging equipment. Keep the battery and its connections dry.

Damage, unusual heat or smoke

Stop using a battery that is swollen, leaking, damaged or unusually hot. If it is smoking, hissing or burning, move away, keep others clear and call 000 in Australia. Avoid fumes. Do not handle or move an overheating battery.

For a battery that is safe to approach, contact Wildtrak before attempting another charge. Do not open the case or attempt an internal repair.

FITTING THE BATTERY

INSTALLATION

Inspect and plan

1. Check the model, case, terminals and polarity markings. Check the weight and space required on page 12. Do not install a damaged battery.
2. Check that the load, inverter, chargers and wiring are compatible. A replacement for a lead-acid battery may require new charging settings and circuit protection.
3. Have a competent installer select the cables, DC fuse, isolator and mounting arrangement for the complete system.

Mounting and environment

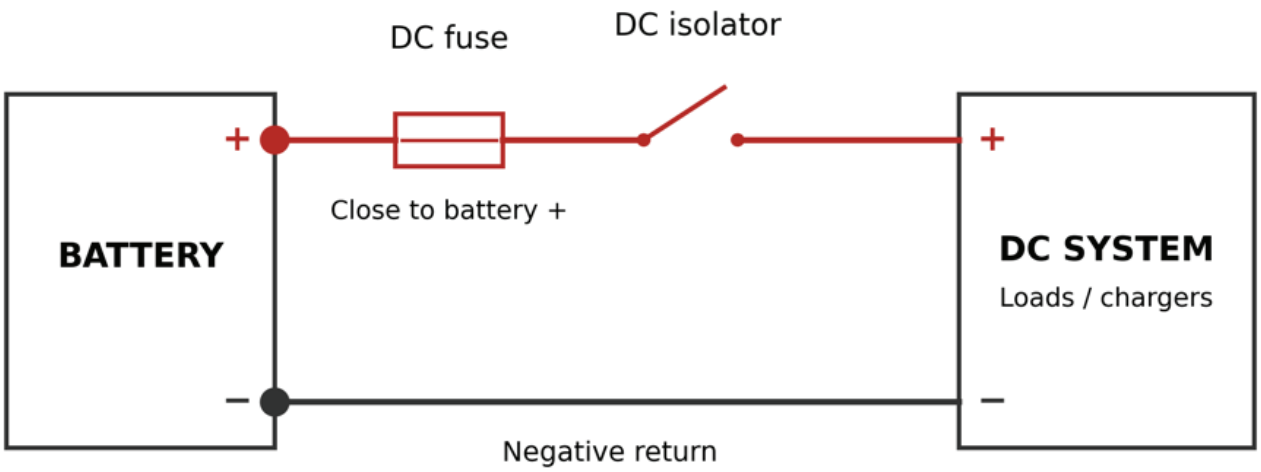
- Secure the battery on a stable support so it cannot move during travel. Protect the case from sharp edges, abrasion and vibration.
- Allow space for terminal covers, cable bends, servicing and heat dissipation. Keep away from heat sources and water exposure.
- Use an approved mounting orientation. An IP rating alone does not confirm suitability for under-bonnet use, exterior mounting or immersion.

M8 terminal connections

All listed models specify M8 terminals. Use the approved bolt length, lug arrangement and tightening torque. Support cables so they do not load the terminals, then fit insulating covers.

ELECTRICAL CONNECTIONS

The cable, connectors, fuse, isolator and battery must all suit the system voltage and expected current.



Single-battery concept only. The installer must specify all ratings, cable sizes, branch protection and any battery-monitor shunt.

- Fit suitable DC overcurrent protection close to battery positive. Select a fuse with an interrupt rating suitable for the available fault current.
- Check polarity before connection. Follow the system and charger instructions for connection order and energising.

Series and Parallel Banks

Source limit	Meaning
Maximum 2S4P	Up to 2 batteries in series and up to 4 in parallel; use an approved bank layout.
Series	Nominal voltages add; amp-hour capacity stays the same.
Parallel	Nominal voltage stays the same; amp-hour capacities add.

Use matching models, capacities and versions, prepared to the same state of charge using the approved procedure. Do not mix battery chemistries. Select a charger for the complete bank voltage.

CHARGING SOURCES

CHARGING

Use a charger or solar controller approved for your battery and LiFePO4 chemistry. Check all sources, including mains, solar and vehicle charging.

1. Inspect the battery and confirm its temperature is within the approved charging range.
2. With the charger off, verify its voltage profile, current limit and connection polarity.
3. Start charging according to the charger instructions. Watch for warnings and unusual heat, especially on the first charge.
4. Let the charger complete the approved cycle. Investigate any repeated protection shutdown.

Setting	Specification / status
Recommended charge voltage	14.6 V per 12.8 V battery
Absorption / termination / float	14.6V / 14.6V / 13.8V
Recommended / maximum current	0.5C / 1C
Charging temperature	0 °C to 60 °C

14.6 V is the supplied recommended charge voltage; it does not define a complete charger profile. A series bank requires the correct bank-voltage charger.

The combined current from simultaneous chargers must remain within the confirmed battery limit. Use a regulated solar controller; do not connect an unregulated panel directly.

Do not use equalisation, desulphation, repair or calcium modes unless Wildtrak approves them. Do not override protection.

EVERYDAY USE

OPERATION AND MONITORING

Before turning on equipment

- Check that the battery is secure, the connections are covered and the charge level is adequate.
- Compare combined load and startup demand with the confirmed continuous and peak ratings. Include every load that can run at the same time.
- For an inverter, allow for conversion losses and startup demand. A peak rating is only valid for its specified duration.

Understanding the ratings

Rating	What it means
Ah	Nominal charge capacity under the stated test conditions.
Wh	Nominal energy: voltage multiplied by amp-hour capacity.
Continuous current	Current permitted for sustained use under the specified conditions.
Peak current	Brief current limit; duration and recovery conditions are required.

Checking remaining charge

Use a correctly configured external battery monitor where fitted. Bluetooth is not available for these VOLT PRO models.

LiFePO4 voltage alone is not a precise percentage gauge. Avoid deliberately running the battery to protection shutdown. Recharge after use and investigate unexpected cut-outs.

BATTERY PROTECTION

A battery management system (BMS) may stop charging or discharging when a protection limit is reached.

If the battery stops working

1. Turn off the connected equipment and charging sources. If there is heat, damage, swelling, leakage or smoke, follow page 5 and do not attempt recovery.
2. For a battery that is safe to inspect, check the external fuse, isolator, cables, load demand and any displayed warnings.
3. Correct the cause. Where temperature is involved, allow the battery to return naturally to its approved operating range.
4. Use only the recovery procedure approved for the exact model. Stop and contact Wildtrak if recovery fails or shutdown repeats.

Lithium Activation/Recovery Procedure

The Battery Management System (BMS) protects the battery from excessive discharge using Under Voltage Protection (UVP). If the battery voltage falls below 10V, the BMS will disconnect the battery output to prevent further discharge. When this occurs, the battery may appear unresponsive and will not power connected loads until it has been recovered.
To check whether UVP is active, measure the voltage at the battery terminals using a multimeter:

- 7V–10V: The battery has entered UVP and can typically be recovered using one of the methods below.
- Below 7V: The battery is severely depleted and may require assistance from Customer Support.

Method 1: AC Charger with Lithium Activation/Recovery Mode (Recommended)

1. Disconnect all loads from the battery.
2. Follow the charger manufacturer's instructions to activate recovery mode.
3. Connect an AC charger that supports Lithium Activation or Recovery Mode directly to the battery terminals.
4. Once the battery has recovered and normal charging has commenced, exit activation mode if required by the charger.
5. Continue charging the battery using the standard LiFePO4 charging profile until fully charged.

Method 2: DC-DC Charger/MPPT with Automatic Lithium Recovery Mode

DC-DC charger/MPPT with automatic Lithium Recovery Mode are designed to recover lithium batteries that have entered Under Voltage Protection.

1. Disconnect all loads from the battery.
2. Ensure the battery is connected to a compatible Bluetooth DC-DC charger.
3. Start the vehicle to provide a stable charging source.
4. Allow the DC-DC charger/MPPT to automatically detect and recover the battery.
5. Continue charging until the battery reaches a full state of charge before reconnecting any loads.

Important:

- Do not reconnect loads until the battery has been sufficiently recovered and charged.
- If the battery cannot be recovered using the methods above, contact Customer Support for further assistance.

Do not force a reset

Do not use a jump starter, another battery, an unregulated solar panel or an improvised power supply to force the battery awake. Do not open the case, bypass the BMS or repeatedly cycle protection.

MODEL SCHEDULE

ELECTRICAL SPECIFICATIONS

Model	Capacity (Ah)	Energy (Wh)
CA7650	100	1,280
CA7651	120	1,536
CA7652	230	2,944
CA7653	320	4,096

Shared Specifications

Parameter	Supplier specification
Chemistry	Lithium iron phosphate (LiFePO4)
Nominal voltage	12.8 V
Recommended charge voltage	14.6 V per battery
Cut-off voltage	10.0 V
Cycle life claim	5,000 cycles at 80% depth of discharge
Maximum series / parallel	2S4P

PHYSICAL SPECIFICATIONS

Model	L × W × H (mm)	kg
CA7650	339 × 185 × 218	11.4
CA7651	339 × 185 × 218	12.3
CA7652	502 × 187 × 242	21.4
CA7653	345 × 190 × 245	27.7

Parameter	Specification / status
Terminal type	M8 (all models)
Case material	ABS (all models)
Ingress rating	IP65
Charge temperature	0 °C to 60 °C
Discharge temperature	−10 °C to 60 °C
Storage temperature	0 °C to 45 °C

CARE

MAINTENANCE AND STORAGE

Routine care

- With equipment safely isolated, inspect the case, mounting, terminal covers and cables. Check for loose connections, corrosion, abrasion and heat damage.
- Clean gently with a soft, dry cloth. Do not immerse, pressure-wash or use solvents. Keep identification and safety labels legible.
- Have damaged connections repaired by a competent person. Do not attempt internal servicing or add liquid to the battery.

Storage

1. Set the battery to its approved storage charge level. Turn off and isolate connected loads and chargers; standby devices can still drain a battery.
2. Store securely within the approved temperature range, away from moisture, direct heat and conductive objects. Protect the terminals.
3. Check charge at the approved interval and recharge as directed. Inspect the battery before returning it to service.

Transport and recycling

Secure the battery against movement and short circuits. Contact Wildtrak or the carrier before sending it by freight or returning a damaged unit. Follow the supplied transport instructions.

Do not put the battery in household rubbish or general recycling. Use a battery recycler that accepts this chemistry and battery size.

FAULT FINDING

TROUBLESHOOTING

Stop immediately for damage, unusual heat, swelling, leakage or smoke.
Follow the safety instructions on page 5.

Symptom	Checks and next action
No output	Check the isolator, external fuse and connections. Check any warnings. Use only the approved model recovery process.
Charger will not start	Check input supply, charger profile and battery temperature. If the charger cannot detect the battery, request the approved wake-up procedure.
Cuts out under load	Check combined demand and startup surge against confirmed limits. Check voltage drop and connection condition. Reduce the load and investigate.
Charging stops repeatedly	Check all charging sources, combined current, profile and temperature. Stop repeated resets and contact support.
Shorter runtime	Check starting charge, actual load, standby consumption, temperature and battery-monitor configuration.

Information for support
Provide the model code, serial number, proof of purchase, charger model and settings, connected loads, installation photos and any error messages. Include readings only if they can be obtained safely.

Never bypass a protection device or replace a fuse with a larger one to keep the equipment running.

PRODUCT RECORD

WARRANTY AND SUPPORT

Product support

For setup help or a possible fault, contact your place of purchase or Wildtrak. Keep the model code and purchase details available.

www.wildtrak.com.au

Battery support email: support@wildtrak.com.au

Warranty

Our batteries are covered by a warranty against defects for the warranty period and type of use specified on the individual product, packaging or product information.

The applicable warranty period begins on the original date of purchase. Dated proof of purchase is required when making a warranty claim.

Making a Warranty Claim
If you believe your battery has developed a fault, please contact our Customer Service team on support@wildtrak.com.au before returning the product.

The battery may be required to undergo inspection and testing to determine the cause of the failure and whether the claim is covered by this warranty.

If testing confirms that the battery has an eligible manufacturing or product defect within the applicable warranty period, we will provide the remedy available under this warranty.

Where a replacement battery is supplied under warranty, the replacement does not restart the original warranty period. The replacement battery remains covered for the balance of the warranty period calculated from the original product's date of purchase.

3-Year + 2-Year Pro-Rata Warranty
Where a battery is advertised with a 3-Year + 2-Year Pro-Rata Warranty, warranty support is provided for a total period of five years from the original date of purchase.

Months 1–36

During the first 36 months, an eligible defective battery is covered by our standard warranty. Where a claim is accepted, the applicable remedy may include repair, replacement or refund, subject to these warranty terms and your rights under Australian Consumer Law.

Months 37–60
During months 37 to 60, the battery is covered by our additional Pro-Rata Warranty.

If an eligible defect is confirmed during this period, a store credit will be calculated based on the original purchase price and the number of months remaining in the 60-month warranty period.

Pro-Rata Credit = Original Purchase Price ÷ 60 × Months Remaining
Pro-Rata Example

A battery was originally purchased for $720 and an eligible defect is confirmed after 44 months.
The monthly value is:
$720 ÷ 60 = $12.00 per month
At 44 months, there are 16 months remaining:
$12.00 × 16 = $192.00

The customer therefore receives a $192.00 store credit from store of purchase towards the purchase of a replacement product.

The Pro-Rata Warranty is an additional warranty benefit. The store-credit remedy applying under our Pro-Rata Warranty does not limit any separate rights or remedies you may have under Australian Consumer Law.

Warranty Exclusions
This warranty is intended to cover eligible product defects. It does not cover battery failure or damage resulting from circumstances including:

- A battery discharged below low voltage protection
- A discharged or flat battery where no product defect is present
- Normal deterioration, ageing or wear and tear
- Accidental or physical damage
- Undercharging, including sulphation caused by prolonged or insufficient charging
- Overcharging
- Use of the battery for an unsuitable or incorrect application
- Any battery stored in a discharged state for an extended period of time
- Incorrect installation, charging or maintenance
- When used in areas or fitment spaces in temperatures exceeding 45°C
- Damage caused by water ingress, flooding or other weather events
- Misuse, abuse or neglect
- Damage resulting from incorrect handling or operation
- Electrolyte spillage resulting from overfilling
- Alteration or modification of the battery
- When connecting batteries of different sizes, capacities or manufacturers
- When used as a cranking battery and attached to a starter motor
- The addition of substances or fluids other than those specifically permitted by the manufacturer
- Use in motorsport, competition or racing applications unless the product is specifically approved for that purpose

Private Use
Where a warranty period is specified as applying to Private Use, this means normal personal or domestic use and excludes commercial, business, hire, fleet, passenger transport, delivery or other income-producing applications.

Different warranty periods may apply where a battery is used commercially or in other applications. Refer to the warranty classification applicable to the individual product.

Costs or Losses not covered under this warranty
- Any loss or damage associated with the product failing to operate.
- Any testing or servicing by any third party without the express written permission from Wildtrak.
- Damage or losses arising from goods in transit where the customer has arranged their own freight.
- Any costs related to collecting or dropping off a item to Wildtrak or one of its retail partners
- Removal or reinstallation of any battery. Obtain the correct return and transport instructions before sending a battery back. Tell support if it has been damaged, become hot, leaked or shown another safety concern.

Your product record

Model code _____

Serial number _____

Purchase date _____

Retailer _____

Installation date _____

Keep your receipt and the final model-specific manual with these records.

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