WILDTRAK

WILDTRAK POWER SYSTEMS

BATTERY BOX
TITAN MAX DC TO DC
USER MANUAL



IMPORTANT SAFETY INSTRUCTIONS

- Suitable for charging 12V rechargeable batteries only.
  Maximum battery size: 410 (L) × 202 (W) × 254 (H) mm
- Do not attempt to charge non-rechargeable batteries.
- Always keep the battery box lid securely closed while charging a battery or powering connected devices.
- Do not allow metal objects to enter the battery box or any of its ports, as this may cause short circuits or damage.
- Only insert compatible electrical plugs into the ports. Do not force or insert foreign objects into any connectors.
- Before use, ensure the battery box is properly closed and all screws are securely tightened.
- Do not use this battery box to jump-start a vehicle when using a lithium battery, as this may cause damage or safety hazards.



CA7552



CA7553

OVERVIEW

INPUT/OUTPUT POWER MAX 50A

LED LIGHT

12V POWER SOCKET OUTPUT
Can be connected to the car electrical equipment portable refrigerator/camping lights

USB PORTS
Type-C PD100W (5V3A, 9V3A, 12V3A, 15V3A, 20V5A)
Type-C PD30W (5V3A,9V3A,12V2.5A)
QC3.0x2



FRONT

Material
ABS

Temperature Range
-20°C to +80°C

DCDC ALTERNATOR INPUT

SOLAR INPUT (UNREGULATED)



SIDE



SIDE

GETTING STARTED

Step 1: Ensure the battery is placed securely on the non-slip silicone pads inside the battery box. These pads help prevent movement and protect the battery during transport and operation.



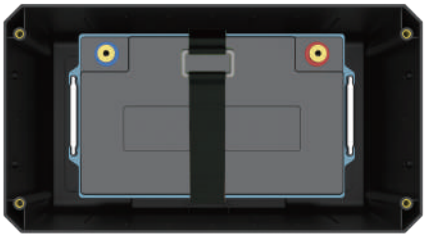
Step 2: The battery box is equipped with two detachable side straps. These straps are designed to support loads of up to 80kg, allowing for safe lifting and transport.



Step 3: Carefully lower the battery into the battery box base. Position it as centrally as possible on the non-slip pads.



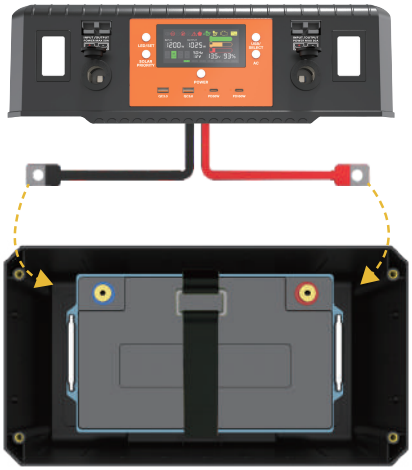
Step 4: Secure the battery in place by fastening the Velcro strap firmly over the top of the battery.



Step 5: Connect the battery cables to the battery terminals:

- Red cable to the positive (+) terminal
- Black cable to the negative (–) terminal

Ensure all connections are secure. Tighten firmly, but do not overtighten, as this may damage the battery terminals.



Step 6: Carefully tuck the cables inside the battery box to prevent pinching or damage.

Lower the lid onto the box, ensuring it is correctly aligned and properly seated before closing.



Step 7: Install the four supplied screws to fasten the lid to the base of the battery box. Tighten the screws using the provided Allen key, ensuring they are secure. Do not overtighten.



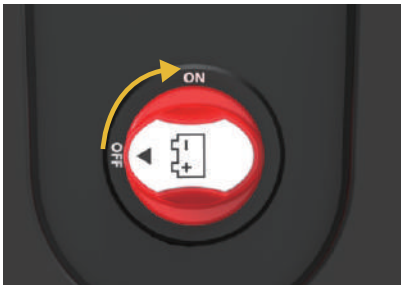
Step 8: Insert the four rubber plugs into the lid, ensuring each plug is fully seated and properly sealed.

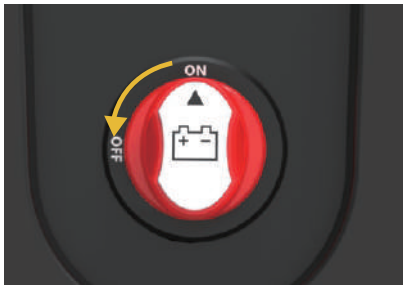


SWITCHES

The Master Switch controls the main power of the battery box.

When turned OFF, it disconnects all connected devices, preventing any power draw from the battery. This provides a quick and convenient way to isolate the system and protect the battery from unwanted discharge.







OPERATING INSTRUCTIONS



1. **Operation**
   Press and hold the POWER button for 3 seconds to turn the display screen ON or OFF.
   Note: When the screen is turned OFF, all load outputs (AC inverter, USB, and LED lights) will also be turned OFF.

2. **Setting Operation:**
   2.1 Press the LED button to turn the LED light ON or OFF. The indicator will illuminate when active.
   2.2 Press the USB button,The USB and DC indicator will light up means USB and DC outputs/inputs turn ON/OFF
   2.3 Press the AC button to turn the AC output ON or OFF. The AC indicator will illuminate when active.

3. Press and hold the **SOLAR PRIORITY** button for 3 seconds to enable or disable this function.
   - When enabled, the Solar Priority indicator will illuminate, and solar charging will be prioritized.
   - To disable, press and hold the button again for 3 seconds. The indicator will turn off.

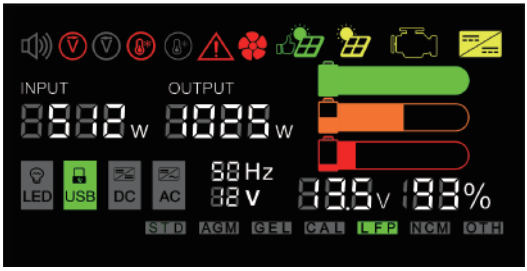
4. Press and hold the **LED/SET** button for 3 seconds to enter or exit SettingsMode.

5. **Operations:**
   5.1 Press the SELECT button to cycle through available settings:
   - Battery type
   - Solar priority
   - Buzzer alarm ON/OFF

   5.2 Press the SELECT button again to confirm the current selection and automatically move to the next setting option.

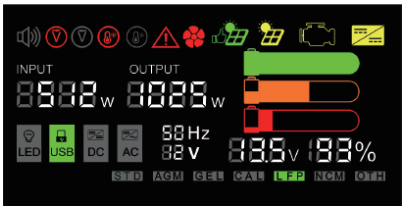
LED SCREEN

ALARM DISPLAY



No.	Protection Type	INPUT Charging	AC Inverter	Over Temp	Under Temp	Over Voltage	Under Voltage	Alarm	LED	USB	DC
1	Battery Over-Voltage Alarm					Fast Flash					
2	Battery Under-Voltage Alarm						Fast Flash				
3	DC Charger Charging Over-Voltage Protection	Fast Flash				Fast Flash					
4	DC Charger Over-Temperature Protection During Charging	Fast Flash		Fast Flash							
5	Anderson Charging Over-Voltage	Fast Flash				Fast Flash					
6	175A Charging Over-Current Alarm	Fast Flash						Fast Flash			
7	Anderson Discharging Overload & Short-Circuit Protection							Fast Flash			Fast Flash
8	Cigar Lighter Discharge Overload & Short Circuit Protection							Fast Flash			Fast Flash
9	175A Discharging Over-Current Alarm							Fast Flash			
10	Fan Overload & Short-Circuit Protection							Fast Flash			
11	LED Overload & Short-Circuit Protection							Fast Flash	Fast Flash		
12	USB Overload &Short-Circuit Protection							Fast Flash		Fast Flash	
13	Inverter Under-Voltage Protection		Fast Flash				Fast Flash				
14	Inverter Over-Voltage Protection		Fast Flash			Fast Flash					
15	Inverter Temperature Protection		Fast Flash	Fast Flash							
16	Inverter Overload & Short-Circuit		Fast Flash					Fast Flash			

ALARM DISPLAY



No.	Protection Type	FAN	Battery Type	Buzzer	Trigger Condition	Protection Release	Description
1	Battery Over-Voltage Alarm		Fast Flash		>16V	Voltage returns to normal	Actual control at 32V;33V/34V over-voltage protection is reasonable considering measurement error
2	Battery Under-Voltage Alarm		Fast Flash		<9V	Voltage returns to normal	Actual control at 92°C considering measurement errorr
3	DC Charger Charging Over-Voltage Protection			Beep	>33V	After unplugging the charger, the charger voltage returned to normal.	
4	DC Charger Over-Temperature Protection During Charging				>100°C	Unplug the charger; the DC charger returns to normal temperature.	
5	Anderson Charging Over-Voltage			Beep	>16V	After unplugging the Anderson charger, the Anderson charger voltage returned to normal.	
6	175A Charging Over-Current Alarm			Beep	>200A	After unplugging the 175A charger, the charging current returned to normal.	
7	Anderson Discharging Overload & Short-Circuit Protection			Beep	>55A	Press any key, the protection display time will expire.	
8	Cigar Lighter Discharge Overload & Short Circuit Protection			Beep	>11.5A	Press any key, the protection display time will expire.	
9	175A Discharging Over-Current Alarm			Beep	>200A	After disconnecting the 175A discharge load, the discharge current returned to normal at 175A.	
10	Fan Overload & Short-Circuit Protection	Fast Flash			>1.8A	Press any key, the protection display time will expire.	Actual control at 1.3A; 1.8A rating is reasonable considering inrush current
11	LED Overload & Short-Circuit Protection				>2.5A	Press any key, the protection display time will expire.	The actual overcurrent protection is controlled at 2.1A, while the nominal overcurrent and short-circuit protection is reasonable.
12	USB Overload &Short-Circuit Protection				>25A	Press any key, the protection display time will expire.	The actual overcurrent protection is 22A, while the nominal overcurrent and short-circuit protection is 25A, which is reasonable.
13	Inverter Under-Voltage Protection			Beep		Press any key, the protection display time will expire.	The alarm will stop after 50 seconds. For specific voltage values, please consult the inverter manufacturer.
14	Inverter Over-Voltage Protection			Beep		Press any key, the protection display time will expire.	The alarm will stop after 50 seconds. For specific voltage values, please consult the inverter manufacturer.
15	Inverter Temperature Protection					Press any key, the protection display time will expire.	The alarm will stop after 50 seconds. For the exact temperature, please consult the inverter manufacturer.
16	Inverter Overload & Short-Circuit			Beep		Press any key, the protection display time will expire.	The alarm stopped after 50 seconds.

CONNECTIONS

OUTPUTS

2 x 12V POWER SOCKET OUTPUTS

• Maximum 10A output per socket



2 x 12V Power Socket Outputs

2 x TYPE-C 2 x QC3.0

- Type-C PD100W (5V3A,9V3A,12V3A,15V3A,20V5A)
- Type-C PD30W (5V3A,9V3A,12V2.5A)
- QC3.0x2 (5V2.5A,9V2A,12V1.5A)



2 x Type-C / 2 x QC3.0

Benefits of Quick Charge
When used with compatible devices, Quick Charge technology delivers increased power, allowing devices to charge significantly faster than standard charging methods. As one of the most widely adopted fast-charging technologies, Quick Charge is supported by many modern smartphones and portable devices. For example, a Quick Charge 3.0–compatible device can charge up to 80% in approximately 35 minutes under optimal conditions.

Each generation of Quick Charge is backward compatible, ensuring it will function with devices that support earlier versions of the technology. This provides greater flexibility and helps future-proof your charging system.

ANDERSON STYLE PLUGS



Anderson Style Plugs

- Supports both input and output connections
- Features 2 × Anderson plug ports, grouped in a single bank
- Maximum current rating: 50A per bank

Warnings

1. Do not connect multiple chargers simultaneously as inputs.
2. Do not use an external charger while the built-in DC-DC charger is operating.
3. Do not exceed the 50A current rating, as this will trigger the internal safety breaker. The breaker will automatically reset after a short period.

NOTE: THE TOTAL CURRENT ACROSS BOTH ANDERSON PLUGS IN A SINGLE BANK MUST NOT EXCEED 50A COMBINED.

BUILT IN INVERTER



SPECIFICATIONS

	1000W	1500W
Input voltage	DC12.5V	
Input voltage range	DC11-15V	
Output voltage	AC220V±10%; AC110V±10%	
Output frequency	50HZ±1HZ; 60HZ±1HZ	
Rated power	1000W	1500W
Maximum power	1100W	1650W
Peak power	2000W	3000W
Output wave form	pure sine wave	
Standby Type	≦1.5mA	
Conversion efficiency	≧88%	
Protection function		
Low voltage protection	DC9.5V±10.5V	
Low voltage recovery	DC11.5V±10.5V	
High voltage protection	DC16V±0.5V	
High voltage recovery	DC15.5V±10.5V	
Overload protection	≥ 1200W ≤ 1500W, turn off within 5 seconds	≥ 1800W ≤ 2200W, turn off within 5 seconds
Overload protection	≥ 1500W ≤ 2000W, turn off within 200mS	≥ 2200W ≤ 3000W, turn off within 200mS
Environmental condition		
Over Temperature Protection	105°C±5°°C	
Heat dissipation method	Cooling fan starts at a temperature of 50 °C± 5 °C	
Operation temperature	-10°C-45°C	
Working humidity	10%-90%RH	
Storage temperature	-20°C-85°C	
Storage humidity	5%-95%RH	
Rated aging time (12.5V)	1000W/4H(cold+hot machine)	
PCB maximum termperature	≦120°C	

BUILT IN DC DC CHARGER

CONNECTING TO ALTERNATOR INPUT

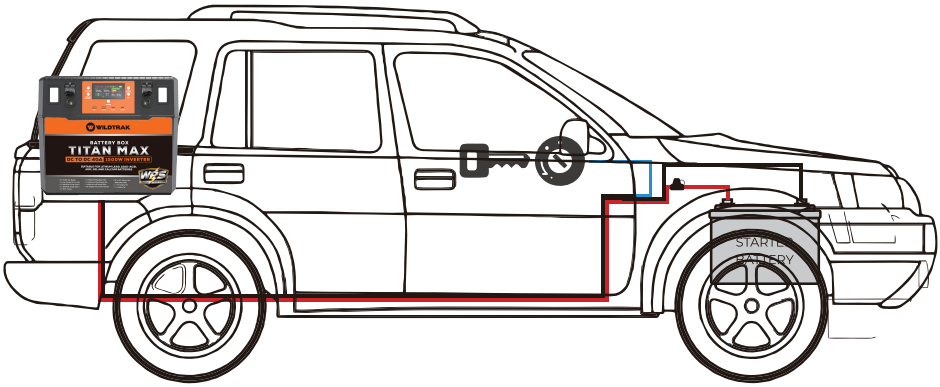
This unit features a built-in DC-DC (CDC) charger, allowing charging directly from a vehicle's alternator.

The recommended method of connection is via the Plug & Play Wiring Kit (sold separately), which provides a simple and convenient installation.

The battery box is equipped with a triple Anderson-style connector, designed to interface with the Plug & Play Wiring Kit. This setup enables a quick-connect and quick-release solution for vehicle charging.

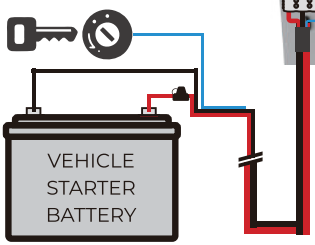
The triple connector and cable assembly provide:
- Alternator input power to the DC-DC charger
- An ignition signal for vehicles equipped with smart or temperature-compensating alternators

For further information on installing a dual battery wiring kit or connecting the ignition wire, please contact customer service.



WIRING KIT
SOLD SEPARATELY





CONNECTING TO A SOLAR PANEL

The built-in DC-DC charger includes an MPPT solar regulator, allowing efficient charging from solar panels. To connect a solar panel, simply plug it into the Anderson-style connectors on the battery box.

Important Notes:

- This system is designed for use with unregulated solar panels.
- The solar panel open-circuit voltage (Voc) must not exceed 32V.
  - This value is typically found on the label located on the rear of the solar panel.
- If your solar panel has a built-in regulator, you must bypass the regulator output when connecting to the DC-DC charger.
- Alternatively, regulated solar panels can be connected via any of the 4 input/output Anderson-style connectors.



UNREGULATED SOLAR PANEL 32V MAX

INPUTS

ALTERNATOR

1 x TRIPLE ANDERSON STYLE PLUG

- 9-32V DC Starter Battery Input (+/-)
- Ignition source connection

MPPT SOLAR

1 x (50A) ANDERSON STYLE PLUG

- Minimum Solar Input Voltage: 9V DC
- Maximum Solar Input Voltage: 32V DC
- Maximum Solar Input Current: 40A

Unregulated Solar Input - utilises in built CDC MPPT regulator
Not suitable for regulated solar input, connect to a standard in/out connector when using an external or panel-mounted solar controller/regulator.

Operating Parameters					
	25A DCDC Model			40A DCDC Model	
Max Charging Current	25Amps			40Amps	
Vehicle Input Voltage	11.5-32V				
Solar Input Voltage	9-32V				
Recommended Fuse Size	30A			50A	
Standby Type	<10mA				
Suitable Battery Types	Standard Lead Acid,Gel,AGM,Calcium&LiFEPO4				
Charge Control					
Charge Type	3 Stage				
Charging Profile	STD	GEL	AGM	Calicum	LifePo4
Maximum Voltage	14.4V	14.1V	14.1V	15.3V	14.4V
Float Voltage	13.6V	13.6V	13.6V	13.6V	

WARNING
- Do not exceed the Maximum Voltage of 32V DC
- Do not exceed the Maximum Input Current of 40A

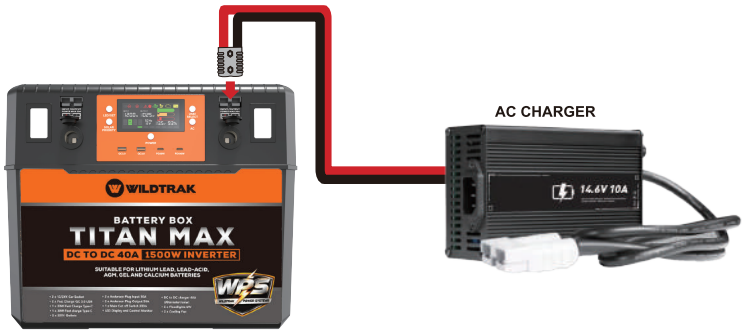


CONNECTING TO EXTERNAL CHARGERS

The battery box can be charged using multiple external power sources:

- AC Charger: Connect an AC charger to any of the input/output Anderson-style connectors.
- Vehicle Alternator: Connect via the optional DC-DC (CDC) charger when installed in a vehicle.
- Solar Panel: Connect an unregulated solar panel to the built-in DC-DC charger.

Warning
Do not connect multiple charging sources at the same time, as this may cause damage to the system or reduce charging efficiency.



12 MONTH LIMITED WARRANTY

WARRANTY PERIOD:

12 month warranty from date of purchase.

THIS LIMITED WARRANTY COVERS:

- Any defect in the manufacture or design of the items which results in their failure to perform as advertised.
- If item damage is found to have been caused by a design or manufacturing defect, we will replace or repair the item at our discretion.

Our products include guarantees that cannot be excluded under the Australian Consumer Law. Consumers are entitled to the following:

- Replacement or refund for item failure
- Compensation for reasonably foreseeable loss or damage
- Item replacement or repair if it fails to be of acceptable quality even if it does not amount to a major failure

These benefits provided to you as a consumer are in addition to other rights available under the law.

THIS LIMITED WARRANTY DOES NOT COVER:

- Damage from improper use or tampering
- Cost of removal and reinstallation of the product
- Wrong installation or modifications made while installing
- Travel and/or other expenses due to consumer's secluded location
- Transport charges and any damage during transportation. It is the consumer's responsiblity to deliver and pick up their product, this includes all costs that comes with the postage of the repair or replacement of their product. If consumer decides to freight their product, it is advised to insure it against loss or damage.
- Damages caused by insects, animals, mould, bad weather, accidents and fair wear and tear
- Any loss directly or indirectly resulting to product failing to operate

WILDTRAK

Email claim along with proof of purchase to sales@wildtrak.com.au

FREQUENTLY ASKED QUESTIONS (FAQ)

Q: If storing my Power Station for long periods, what should I do to maintain battery health?

A: Lithium batteries can be stored at any state of charge due to their low self-discharge rate. However, for long-term storage, it is recommended to charge the battery to at least 70% before turning off the Master Switch and storing the unit.

Note: The battery will not enter storage mode if:

- Loads are connected
- The unit is being charged

Q: Is my Power Station waterproof?

A: The Power Station is designed to be resistant to dust and moisture, but it is not waterproof. Do not expose it to rain, harsh weather, or submerge it in water.

Q: Can I jump-start a vehicle using the Power Station?

A: Jump-starting is not recommended, as it may damage the unit or create safety risks.

Disclaimer: The information in this document is subject to change without prior notice.

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