

# Portable

## Model Military

User Manual

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## **Portable**

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# Product Purpose

Portable power stations are battery-powered generators that keep your equipment powered and ready anywhere needed. The Portable power station comes in a Military-Standard case, thus allowing soldiers to safely carry it on the field and in the line of duty.

From outdoor camping to back up for home use, get convenient power comfortably without worries of noise, fumes, and the hassle of a traditional gas generator. Portable power stations keep everything from camping devices to cooking equipment powered and running. They charge by AC and are conveniently portable on the go, making them the optimal portable power stations for outdoor use. The equipment compares to power stations, and in this case for electrical equipment.



## 1. Safety Information

### 1.1 Safety Instructions

- Due to having electrical equipment inside the Portable equipment, anyone who is not a company electrician or not authorized by the company should not open the Portable, otherwise, an electric shock could occur, and the warranty would be lost.
- This equipment is an energy storage system, please make sure an energy storage battery is installed to ensure safe operation.
- Please consult with your dealer before utilizing it as part of a device that could endanger personal safety, such as a medical instrument, elevators, or other similar items, and careful consideration and design should be given to its application, setup, management, and maintenance.

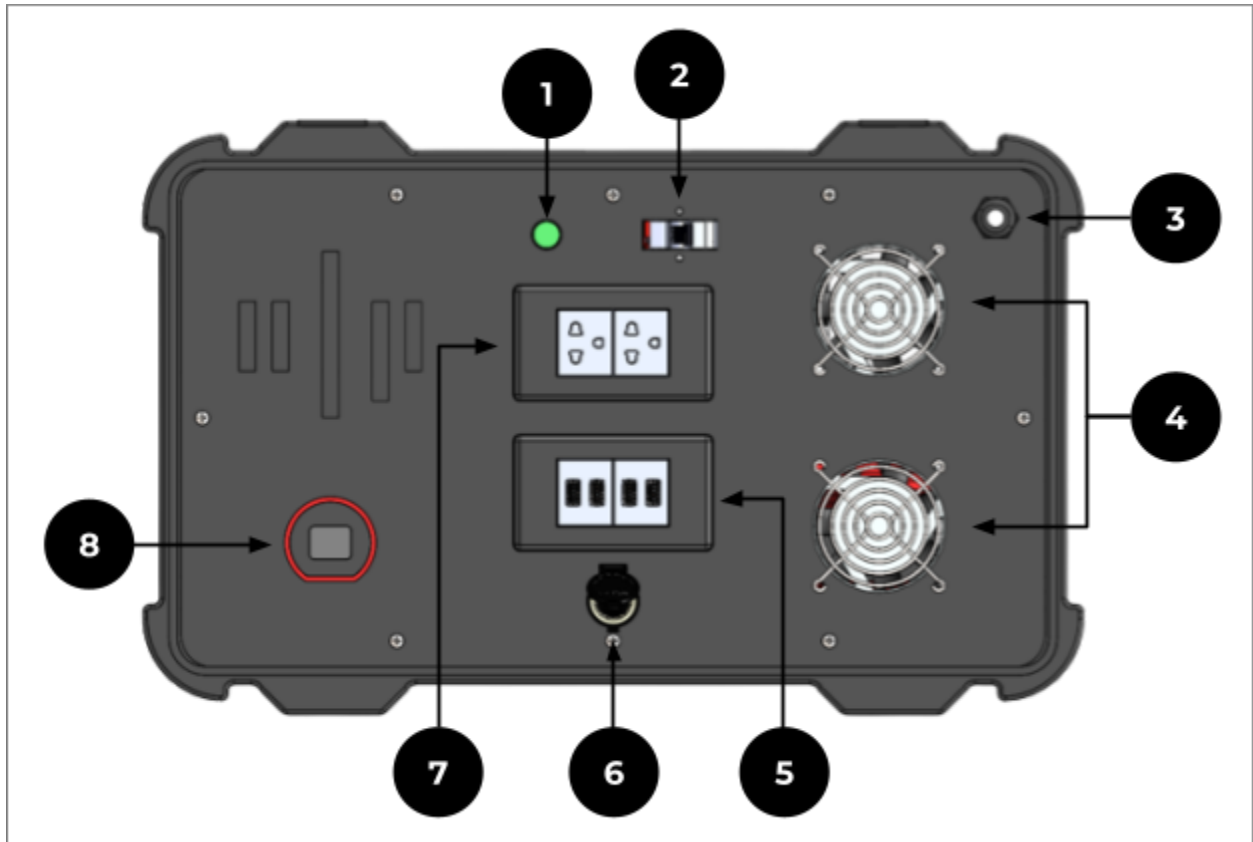
### 1.2 Safety Precautions

- Please do not exceed the rated load capacity in use.
- Do not open the Portable housing, otherwise risk of electric shock or other hazards may be caused. For troubleshooting inside the device, please send it to the specified service center.
- Internal short circuits may lead to electric shock or fire. Therefore, to avoid such risks, please keep product away from the liquid while using.
- If the device is working abnormally, please turn off the power immediately and contact your dealer.
  - Please do not store or use this product in following environments:
    - Places without air convection;
    - Places where there are flammable gasses, corrosive substances, or a large amount of dust;
    - Places of abnormally high or low temperature (40°C above or below 0°C) and high humidity (90% or more);
    - Places in direct sunlight or near heating appliances;
    - Places with intense vibration;
- In case of a fire, please use a dry powder fire extinguisher. Use of liquid fire extinguishers may pose a risk of electric shock.

Symbols	Descriptions
 <p><b>Warning</b></p>	<ul style="list-style-type: none"> <li>• The equipment must be grounded, and as the DC power supply is connected, be sure to ground the system reliably, and take care not to reverse the positive wire and negative wire.</li> <li>• The Portable has a high voltage inside. Therefore, to ensure personal safety, please consult the technical staff of this company for any questions.</li> <li>• Keep away from fire, no heating.</li> <li>• No short circuit or reversed connecting.</li> <li>• No disassembling.</li> <li>• No hitting or impacting.</li> </ul>
 <p><b>Caution</b></p>	<ul style="list-style-type: none"> <li>• Improper operation may cause enormous loss. Please be sure to operate the device according to instructions.</li> <li>• To ensure device safety and personal safety, it must be installed by professionals.</li> <li>• No overcharging/over discharging.</li> <li>• Charging with recommended charger.</li> <li>• No mixed usage of batteries of different manufactures, type or age.</li> <li>• Do not use cells with heating, distortion or leakage.</li> </ul>

## 2. Product Overview

### 2.1 Device Overview

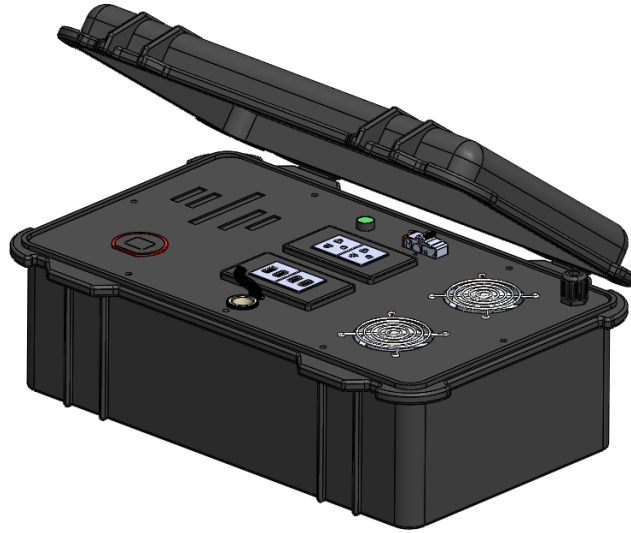


<b>1</b>	Pilot Lamp
<b>2</b>	Circuit Breaker
<b>3</b>	Charging Plug
<b>4</b>	Axial Fan
<b>5</b>	USB - A Outlets
<b>6</b>	Replacement Lighter
<b>7</b>	Power Outlets
<b>8</b>	LCD Display

## 2.2 Technical Specifications

Technical Specification		Unit	Value	
General Information	Dimension (WxLxH)		mm	351 x 559 x 229
	Weight		kg	~20
	Degree of Protection			IP67, MIL-STD
	Case Material			Polypropylene
	Operating Temperature	Charge Temperature	°C	0 to 15 (Max charge 0.5C) 15 to 45 (Max charge 1C)
		Discharge Temperature	°C	-20 to 15 (Max discharge 0.5C) 15 to 55 (Max discharge 1C)
Storage Temperature		°C	0 to 45	
Battery Information	Battery cell type			Lithium Iron Phosphate (LFP)
	Capacity		kWh	1.2
	Cycle Life		Cycle	≥ 4000 (at 25°C with 1C recording the discharge capacity keep 80%)
	Internal Resistance		mOhm	<0.5
	Self-Discharge		%	< 2% at 25°C
Charging Input	Connect with grid system		Vac	220
Discharging Output	Power		kW	2
	Rated AC Voltage		Vac	220-240
	Rated Frequency		Hz	50
	Interface	USB-A	Port	4
		Plug 3 pin	Port	2
Replacement Lighter		Port	1	

## 2.3 User Guide

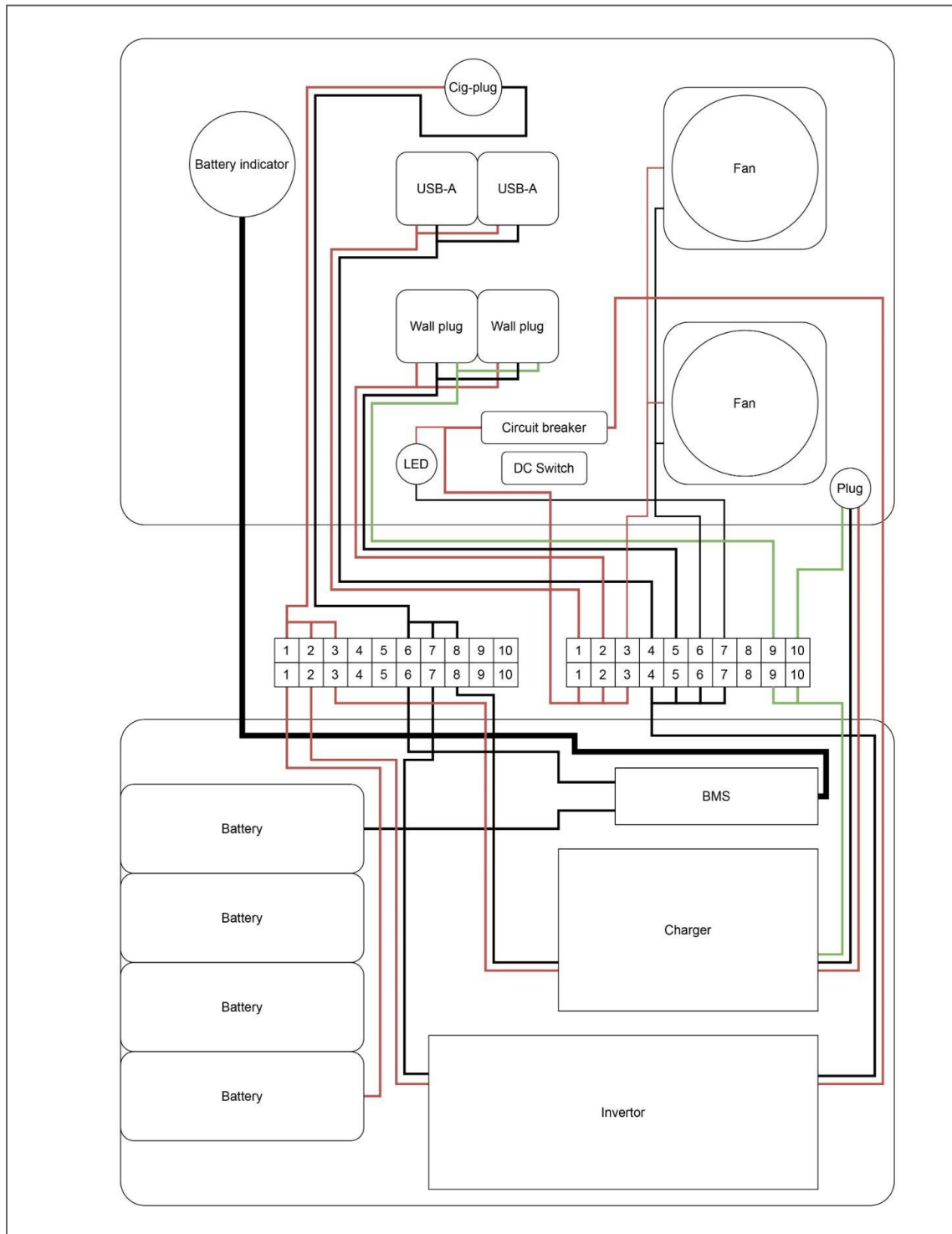


- The Portable is connected to the Load/Supply via electrical wire.
- You can charge in 220-240 Vac 50Hz
- The Portable can support DC and AC load

### Getting Started with Portable

1. You can click the LCD display button that will show the percentage of battery remaining. It needs to be charged if the battery remaining percentage is below 20. The display can show the whole battery voltage as well.
2. Slide right for the circuit breaker to operate. The Pilot Lamp will appear green.
3. Slide left for the circuit breaker when you want to turn it off.
4. If you use overrated specifications the portable turns off automatically.

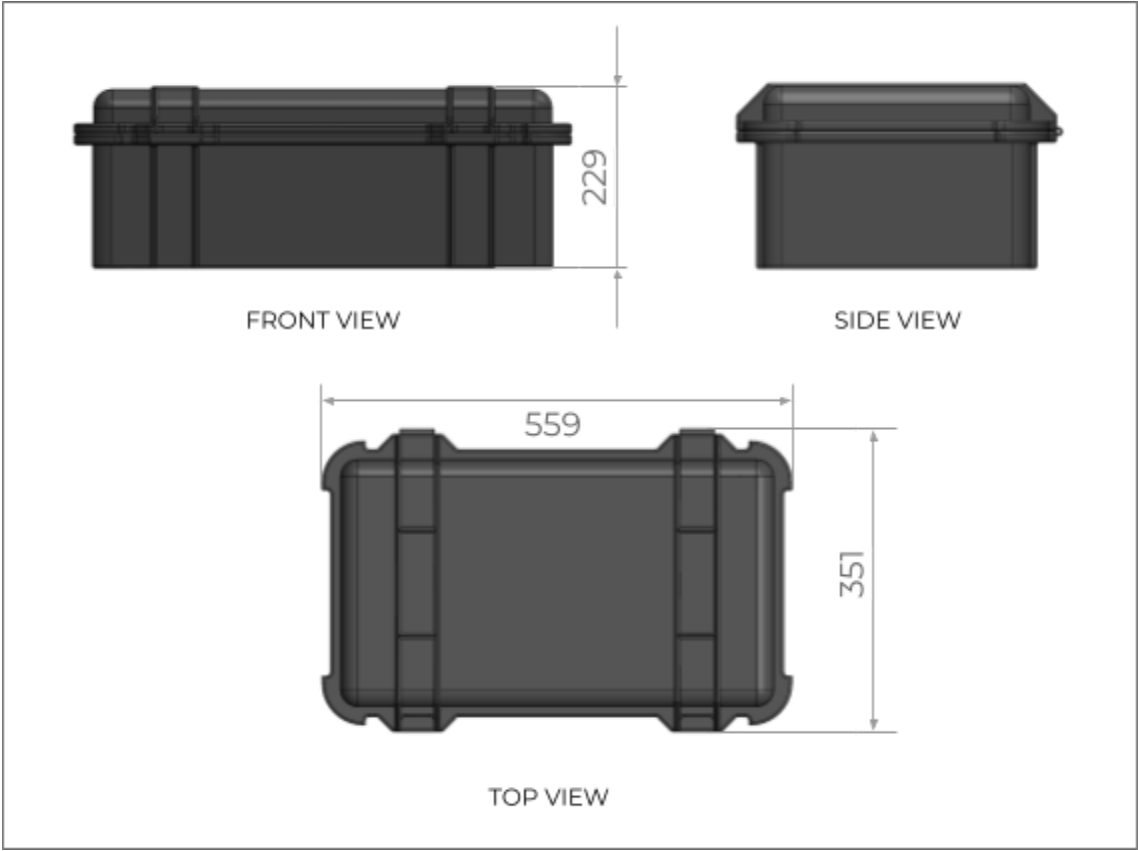
## 2.4 Wiring Diagram



Wiring diagram of Portable MIL



2.5 Mechanical Specifications



Portable MIL with side, front and top views (All unit in mm)

### 3. Equipment list

No.	Description	Quantity
1	Axial Fan	2
2	Battery Cell	4
3	Battery Management System (BMS) module	1
4	Case	1
5	Charger	1
6	Replacement Lighter	1
7	Circuit Breaker	1
8	Din Rail	1
9	Electric Wire	1
10	Inverter	1
11	Pilot Lamp	1
12	Plug	1
13	Plug Socket	1
14	Power Outlets	2
15	LCD Display	1
16	Terminal Block	2
17	USB-A Outlets	4
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## 4. Usage Restrictions

- Do not remove, open, or shred secondary cells or batteries.
- Do not bring the cell or battery near heat or fire, avoid storing in direct sunlight.
- Do not short-circuit the shell or battery. Do not carelessly store neglected cells or batteries where they may short-circuit each other or short circuit with other metals.
- Do not remove the cell or battery from the package prior utilization.
- Do not expose the cell or battery to mechanical shock.
- In the event that the cells are leaking, do not allow the liquid to come in contact with your skin or eyes. If exposed, wash exposed parts with plenty of water and consult a doctor.
- Do not use any chargers other than those supplied for use with the equipment specified.
- Note that the plus (+) and minus (-) signs on the battery cell and on the equipment must ensure that it works properly.
- Do not use any cell or battery that are not designed for use with equipment.
- Do not combine cells with different manufacturers, capacities, sizes or designs in the apparatus.
- Keep the cell or battery out of the reach of children.
- Seek medical attention as soon as the cell or battery is swallowed.
- Only purchase cells or batteries suitable for the equipment.
- Store cells and batteries in a clean, dry place.
- Clean the cells, connector or battery connector with a clean, dry cloth when the connector is dirty.
- It is necessary to charge the cell or secondary battery before use. Use the correct charger and refer to the manufacturer's manual or equipment manual for proper charging methods.
- Do not keep the battery charged when not in use.
- After being stored for a long period of time, it may be necessary to bring a cell or battery to charge and discharge multiple times for maximum performance.
- Secondary cells or batteries provide optimum performance when operating at normal room temperature.
- Keep the original product documentation for future reference.
- Operate only the cells or batteries for which they are intended to be used.
- Always remove the battery from the equipment as much as possible when it is not in use.
- Dispose properly.

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## **6. Support and Contact Information**

If you have technical problems concerning mu Space products, please contact us:

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Email: [support@muspacecorp.com](mailto:support@muspacecorp.com)