



User Manual

Smart Line Interactive UPS
(Pure sine wave)

600VA – 1500VA

Safety Instructions

01. This unit is intended for indoor use only.
02. Keep the indoor temperature between 32°F and 104°F (0°C and 40°C).
03. Do not operate this unit in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
04. Connect the UPS power cord directly to a wall outlet. Do not use a surge protector or an extension cord.
05. Do not connect another UPS, surge suppressor or extension cord to the output of UPS. This might damage the UPS and may affect the surge suppressor and UPS warranties.
06. Do not dispose of the batteries in a fire. Do not open the UPS or batteries. Do not short or bridge the battery terminals with any object.
07. To reduce risk of injury, only use qualified batteries from qualified distributors or manufacturers. Any unqualified batteries may cause damage and injury. Do NOT use old or overdue batteries. Please check the battery type and date code before installation to avoid damage and injury.
08. It's very important for system safety and efficient operation to use appropriate external battery cable. To reduce risk of injury, external battery cables should be UL certified and rated for 75° C or higher. And do not use copper cables less than 10AWG. Below is the external battery cable reference according to system requirements.

Table 1 Minimum Recommended Battery Cable Size

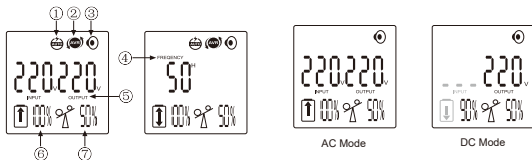
Model	Typical Amp.	Cable Size (one-way within 1m)
600VA	40 A	AWG 10
1KVA/1.5KVA	59 A	AWG 8

09. Do not disassemble the unit. Contact with the qualified service center when service or repair is required.
10. Provide ventilation to outdoors from the battery compartment. The battery enclosure should be designed to prevent accumulation and concentration of hydrogen gas at the top of the compartment.

- Use insulated tools to reduce the chance of short-circuit when installing or working with the inverter, the batteries, or other equipments attached to this unit.
- For battery installation and maintenance, read the battery manufacturer's installation and maintenance instructions prior to operating.

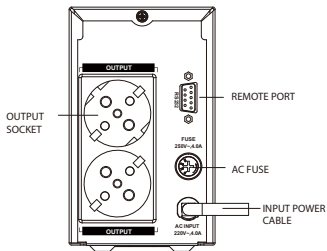
Description of Appearance

Display Panel:

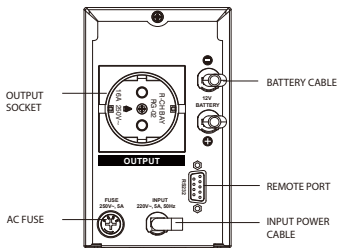


NO	Indication	
1	Auto turn-on	UPS will turn on automatically when utility power restore.
2	AVR mode	When the input voltage fluctuates, the AVR (Auto Voltage Regulator) will adjust the input voltage to the UPS output.
3	Alarm mode	The audible alarm is enabled. In the DC mode, quickly press the button will enter silent mode, and press it again will reset the alarm mode.
4	Display of frequency	In the AC mode, a short touch at the button will display frequency for 4 seconds.
5	Display of input & output voltage	When UPS is turned on, LCD will show input and output voltage.
6	Battery capacity	Estimated battery capacity, the accuracy is influenced by UPS work mode and load ratio.
7	Load Level	The load ratio percentage of full load.

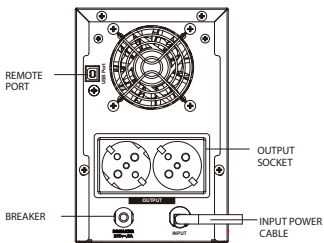
Rear Panel:



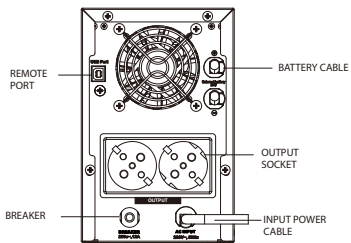
MR-UF600P



MR-UF600P-H



MR-UF1000P / MR-UF1500P



MR-UF1000P-H / MR-UF1500P-H

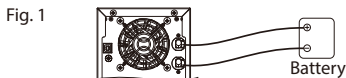
Connect External Battery (For Long Run Type Only)

Step 1 - Install a DC Breaker in a positive battery line. The rating of the DC Breaker must be according to the inverter's battery current (see Table 1). Keep the DC breaker off.

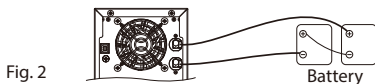
Step 2 - Connect battery cables to the terminals of battery.

Note: For the user operation safety, we strongly recommend that you should use tapes to isolate the battery terminals before you start to operate the unit.

1) Single battery connection(Refer to Fig. 1): When using a single battery, its voltage must be equal to the Nominal DC Voltage of the unit.



2) Multiple batteries in series connection (Refer to Fig. 2): All batteries must be equal in voltage and amp hour capacity. The sum of their voltages must be equal to the nominal DC Voltage of the unit.



3) Multiple batteries in parallel connection (Refer to Fig. 3): Each battery's voltage must be equal to the Nominal DC Voltage of the unit.



Step 3 - Make sure to connect the polarity of battery side and the unit correctly. Positive pole (Red) of battery to the positive terminal (+) of the unit. Negative pole (Black) of battery to the negative terminal (-) of the unit.

Step 4 - Put the covers back to the external battery terminals.

Step 5 - Take the DC breaker on.

Operation Modes

1. Auto Charging

- Connected to the AC and the UPS will be charged automatically, and the UPS socket is no output voltage. When battery is not fully charged. battery capacity indicator with circle increasing percentage pattern, it shows battery is charging.
- When battery is full of charge, battery capacity indicator shows 100% percentage pattern.

2. AC Mode

- When the UPS is connected to AC and after pressing the "POWER" button for 3 seconds, then the UPS is working in the AC Mode.
- It should be showed the AC input voltage and the UPS output voltage accordingly.
- The percentage of the battery capacity is consistent with the indication of the UPS charging situation.
- When more loads are connected, it shows that the percentage of the load level will be increased correspondingly. When it is overloaded to 100%, indicator continued flickers with long beeps. We should remove the unnecessary load until stopping alarm.
- The UPS will be turned off and no output by pressing the " POWER" button for 3 seconds. But the UPS is still undercharging, if you want to turn off the UPS completely, please disconnect UPS to AC. For the MR-UF1000P-H and MR-UF1500P-H models, when the machine is working in AC mode, quickly press the power button twice to adjust the battery charging current.

3. DC Mode

- No AC input, the UPS will turn on by pressing the "POWER" button for 3 seconds, now the UPS is in DC Mode.
- The buzzer will beep every 30 seconds. The UPS will be silenced by pressing the power switch shortly. When press the switch again, the beep recover.
- When battery's capacity decreased, it shows that the percentage of battery capacity level will be increased correspondingly. When the battery is not enough, indicator continued flickers with beeps every second. We should save the documents then turn off the UPS, or connect the UPS to AC .
- The UPS will be turned off by pressing the "POWER" button for 3 seconds.

Troubleshooting

Possible Cause	Solution
The utility power is normal, but the UPS always at Battery Mode.	
UPS input breaker/fuse disconnection.	Reset the breaker or replace a fuse.
The UPS cannot power on after pressing the power switch.	
The power button is pressed to briefly.	Press the power button for more than 3 seconds.
The UPS is not connected to the battery, or turn on the UPS with low battery voltage.	Connect battery to UPS. If the battery voltage is too low, please charge the UPS for several hours and restart.
UPS fault.	Please contact the distributor for maintenance service.
Connected loads lose power.	
UPS overload has occurred.	Remove all needless loads connected to the outlets. One at a time reconnect one load to the UPS.
The UPS battery is completely discharged.	Connect the UPS to utility power and allow the battery to recharge for 8 hours.
UPS does not provide expected backup time.	
The battery is not fully charged.	Keep UPS connecting to utility power persistently for more than 8 hours to recharge the batteries again.
Excessive loads connect to UPS.	Check the loads and remove the non-critical loads.
Excessive loads connect to UPS.	Replace the batteries under safety instructions, And read the battery manufacturer's installation and maintenance instructions before operating.

Specifications

Model	MR-UF600P	MR-UF1000P	MR-UF1500P
Rated Capacity	600VA 360W	1000VA 800W	1500VA 1200W
DISPLAY			
Indicator Panel	LCD display		
AC MODE			
Input Voltage	145VAC – 275VAC		
Input Frequency	45Hz – 65Hz		
Output Voltage	200VAC – 240VAC		
INVERTER MODE			
Output Voltage	220V±5%		
Output Frequency	50±0.5Hz		
Power Factor	0.6	0.8	
Output WaveForm	Pure Sine Wave		
Transfer Time	Typical 2 – 6ms,10ms max		
Overload Capability	110% shut down within 60 secs		
Overcurrent Protection	System shuts down automatically within 20ms		
BATTERY			
Battery Type	Sealed maintenance-free lead-acid batteries		
Nominal Battery Voltage	DC12V	DC24V	
Battery Capacity	12V / 7Ah*1	12V / 7Ah*2	12V / 9Ah*2
Charging Period	6-8 hours recover to 90% capacity		
PHYSICAL			
Net Weight(kg)	4.8	9	12.1
Dimension(mm)	305*85*141	384 * 122* 192	
ENVIRONMENT			
Environment	Temperature 0°C-40°C, Humidity 20%-90%		
Noise Level	≤40dB(1m)		
Altitude	≤1000 m(Altitude exceeds 1000m, full power cannot reach)		
MANAGEMENT			
Communication Interface	RS232 / USB		

Model	MR-UF600P-H	MR-UF1000P-H	MR-UF1500P-H
Rated Capacity	600VA 360W	1000VA 800W	1500VA 1200W
DISPLAY			
Indicator Panel	LCD display		
AC MODE			
Input Voltage	145VAC – 275VAC		
Input Frequency	45Hz – 65Hz		
Output Voltage	200VAC – 240VAC		
INVERTER MODE			
Output Voltage	220V±5%		
Output Frequency	50±0.5Hz		
Power Factor	0.6	0.8	
Output Wave Form	Pure Sine Wave		
Transfer Time	Typical 2 – 6ms,10ms max		
Overload Capability	110% shut down within 60 secs		
Overcurrent Protection	System shuts down automatically within 20ms		
BATTERY			
Battery Type	Sealed maintenance-free lead-acid batteries		
Nominal Battery Voltage	DC12V	DC24V	
Battery Capacity	External battery		
Charging Current	5A	10A	
PHYSICAL			
Net Weight(kg)	3.8	6	8.1
Dimension(mm)	305*85*141	345 * 122* 192	
ENVIRONMENT			
Environment	Temperature 0°C-40°C, Humidity 20%-90%		
Noise Level	≤40dB(1m)		
Altitude	≤1000 m(Altitude exceeds 1000m, full power cannot reach)		
MANAGEMENT			
Communication Interface	RS232 / USB		

WARRANTY TERMS

1. The warranty period of the Product

This warranty commences on the date the Product was first purchased by the customer. If the Date of purchase cannot be provided, the manufacture date as recorded.

2. Statutory Guarantees

This warranty is given independently of any statutory rights that may apply in the country of purchase and does not affect or limit such statutory rights in any manner whatsoever.

3. Exclusions from this Limited Warranty Service

Marsriva does not warrant the uninterrupted or error-free operation of this Product.

The warranty only covers technical hardware issues during the Warranty Period and in normal use conditions but not to customer induced damages or circumstances such as but not limited to:

- The Product has been tampered with, repaired and/or modified by non-authorized personnel.
- The serial number of the Product, components, or accessories has been altered, canceled, or removed.
- Damage (accidental or otherwise) to the Product that does not impact the Product's operation and functions, such as without limitation to rust, change in color, texture or finish, wear and tear, and gradual deterioration;
- Damage to the Product caused by war, terrorism, fire, accident, natural disaster, intentional or accidental misuse, abuse, neglect or improper maintenance, and use under abnormal conditions.
- Damage to the Product caused by improper installation, or improper connection.
- Damage to the Product resulting from use outside of the operation, storage parameters, or environment detailed in the User's Manual.
- Fraud, theft, unexplained disappearance, or damages/detrimental circumstances caused by a willful act of the customer.

4. Privacy

It is necessary for MARSRIVA to collect, transfer, and process personal data in order to facilitate the requested service; and for this purpose, Your data may be transferred to and processed in any country where MARSRIVA or its affiliated companies maintains offices, However, MARSRIVA will use and protect Your personal data at any time and in any country subject to the MARSRIVA Privacy Policy.

5. Warranty and Support

This Warranty applies in the country of purchase.

In this Warranty:

- Service procedures may vary by country.
- Some services and/or accessories may not be available in all countries.
- Certain countries may require additional documentation, such as proof of purchase or proof of proper importation.
- Contact us for more details at support@marsriva.com

Computer Monitoring Software



UPS Monitor Software
Download QR Code

MARSRIVA reserves the right to interpret the provisions in this MARSRIVA Warranty Information. The information in this warranty card may change without prior notice.

Thank you for purchasing Marsriva product

This card entitles you to enjoy 1 year warranty on the product, including power adapter (if available) and battery.

WARRANTY CARD

Product :

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Model :

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Purchase Date (DD / MM / YY) :

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Customer Name :

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Telephone Number :

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E-mail Address :

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Dealer's Name and Address :

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Serial Number* :



This Warranty applies only if the Product was newly manufactured on the Date of Purchase and not sold as used, refurbished, or manufacturing seconds. Please keep the proof of purchase and this warranty card for future service requests.

IMPORTANT!

Please store this card in a secured location for future reference.

Marsriva reserves the right to request this card before accepting repair requests. This does not affect or limit your mandatory statutory rights.

MARSRIVA Technology Co., Ltd.

Website: www.marsriva.com

E-mail: support@marsriva.com

Made in China

CE

FC

RoHS



Specifications are subject to change without notice, all product drawings are for reference only.

说明书尺寸：105 x 145mm
单色 双面 印刷 157g双铜
骑马订 (14P)