



PS22002
Power Supply
USER'S MANUAL





Preface

Thank you for purchasing Hytera switching power supply. Please read this manual carefully before use. The information presented herein will help you to derive maximum performance from your product.

Instructional Icons

The following icons are available through this manual:



Caution: indicates situations that could cause damage to your product.



Note: indicates tips that can help you make better use of your product.

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Safety Information

To help you ward off bodily injury and property loss resulting from improper operation, please read the following safety information carefully before use.

1. Do not disassemble the product without authorization to avoid fire or electric shock.
2. Install and use this product in accordance with the instructions in this manual.
3. Do not connect other power devices and the battery whose voltage is above 15V to the battery connector on this product.
4. Do not block the ventilation hole of this product.
5. This product is for indoor use only. Do not expose it to rain and moisture to avoid fire and electric shock.
6. Only use the accessories specified by Hytera.
7. To remove the AC power cord from the AC outlet, pull it out by the plug instead of the power cord.
8. Do not use any power supply or power cord that is already damaged. In the case of any damaged item, contact an authorized dealer of Hytera for repair or replacement.
9. Keep the product far away from intense shock to avoid potential damage.
10. The specification of recommended lead-acid battery is 12V and 40Ah or above.
11. Be sure to use the power cord (size: 8 ~12 AWG) with an in-line fuse. Make sure that the length of single cord shall not exceed one meter, and that the polarity is always correct.

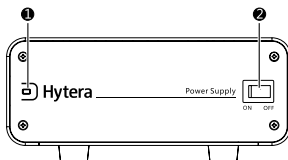
Checking Items in the Package

Please unpack carefully and check that all items listed below are received. If any item is missing or damaged, please contact your dealer.

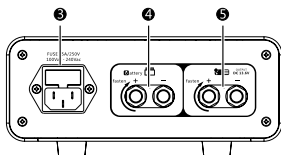
Item	Qty.
Switching Power Supply	1
Owner's Manual	1
AC Power Cord	1
Fuse	1

Product Overview

Front Panel



Rear Panel



No.	Name
1	LED Indicator
2	Power Switch
3	AC Power Port
4	Battery Connector
5	Output Connector

General Description

As an advanced switching power supply with novel appearance, it can work with two power modes: mains supply and the backup battery. When one mode fails, the other will work automatically to ensure normal performance. What it brings to user is not only simple and efficient operation from floating charge, but also strong protection against polarity reverse and overcharge. Please note that this product is designed for Hytera repeater and high-power communication devices.

Status Indication

The LED indicator will help you easily identify current power supply mode.

LED Indicator	Power Mode
Green LED glows.	Mains supply
Blue LED glows.	Battery
Red LED glows.	Battery is working but runs low.

Operation Guide

Installation Procedures

1. Connecting the repeater.
 - (1) Install this product onto a flat and stable bench.
 - (2) Connect the power cord of repeater to the Output Connector properly: RED pole for anode and BLACK pole for cathode. Always ensure the polarity is correct.
2. Connecting the AC power cord.
 - (1) Turn this product off.
 - (2) Plug one end of AC power cord into AC power port and the other end into AC outlet.
 - (3) Turn on the product and the LED glows green.

3. Connecting the battery.

Connect the battery to the Battery Connector properly: RED pole for anode and BLACK pole for cathode. Always ensure the polarity is correct.



Note:

1. Never attempt to connect the battery to the Output Connector on this product.
2. The third step can be skipped in case of no need to connect the battery.

Important Instructions

- When a fully charged battery runs out quickly, its life may expire and you should replace it with a new one.
- When the battery runs low, disconnect it from the product and charge it with a dedicated charger.
- The maximum charge current is 1A, and it takes 2~5 days to fully charge the battery using this product, subject to the specific battery capacity.

Troubleshooting

Phenomena	Analysis	Solution
The LED does not illuminate.	The mains supply fails.	Restore the mains supply.
	The power cord is not connected properly.	Connect the AC power cord properly.
	In mains supply mode, the fuse of AC power port is damaged.	Replace the fuse (5A/250V 5X20mm).
	In battery mode, the battery is not connected correctly.	Connect the backup battery correctly.
	In battery mode, the battery does not work normally.	Replace the battery.
Red LED glows.	In battery mode, the battery runs low.	Restore the mains supply or replace the battery.
	The fuse of AC power port is blown.	Replace the fuse.
	In battery mode, the battery voltage is less than 10.8V.	Replace the battery.
	In battery mode, the battery voltage is above 10.8V while its capacity is small.	Replace the battery.
	In battery mode, big current causes the battery voltage to fall below 10.8V.	Replace the battery.
	Overload or short circuit.	Diagnose the failure and settle the trouble.
	The battery is damaged or its life expires.	Replace the battery.
	The relay is locked.	1.Restore the mains supply. 2.Connect the battery again and replace the battery.
Abnormal sound is heard.	The relay is switching constantly.	Check that the output is overloaded.

Care and Cleaning

To guarantee optimal performance as well as a long service life of the product, please follow the tips below.

Product Care

- Use this product within the temperature range of $-20^{\circ}\text{C}\sim+60^{\circ}\text{C}$, while the storage temperature is within $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$.
- Keep the product away from excessive heat and dust to extend its service life.
- Protect the ventilation hole from intrusion of any foreign object to avoid potential hazard.

Product Cleaning

- Clean up the product with a clean and dry lint-free cloth or a brush in time.
- Never use conductive liquid, and chemicals such as stain removers to clean the product.



Caution: Turn off the product before cleaning.

Specifications

Power	Parameter	Description
AC Input	Input Voltage	90~264V
	Max. Input Current	5A
	Operating Frequency	47~63Hz
Battery	Battery Type	Lead acid Battery (12V)
	Battery Capacity	Not less than 40AH
DC Output	Output Voltage	13.8V \pm 2%
	Output Current	20A (max)
	Output Voltage Ripple	150mV (max)
	Over-current Protection	23.1~29.7A
	Over-voltage Protection	15.0V~18.2V
	Charged by Constant Current	1000 \pm 100mA
	Charged by Constant Voltage	0~1000 \pm 100mA

Optional Accessories

The following items are the main optional accessories for the product, and please consult your local dealer for more other accessories.



Bracket (2U) BRK12



Note:

1. This bracket is only for working with the repeater.
2. Use the accessories specified by Hytera only. If not, Hytera shall not be liable for any losses or damages arising out of use of unauthorized accessories.



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