AXR8000

Quick Start Guide

Digital Repeater

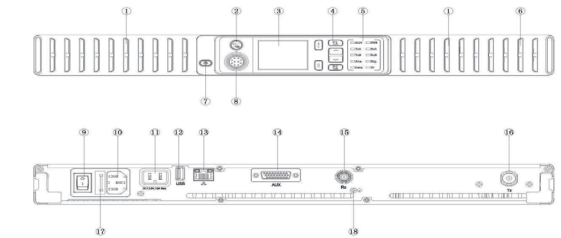
LEGAL INFORMATION

Axiom Distribution Solutions reserves the right to make modification on typographical errors or update specifications in this guide without prior notice.

The figures in this manual are for reference only. For the product structure and specifications of the battery and charger, please refer to the actual product. The accessories provided with the product may vary with product models and functions.

1. GET TO KNOW YOUR REPEATER

1.1 Components



	NOTE: Before using the repeater, read all the instructions contained in the manual and, with special care, those relative to safety.

1.2 COMPONENTDESCRIPTION

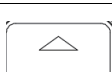
No.	Name	No.	Name
1	Cooling Fan	10	AC Power Socket
2	Channel/Volume Button	11	DC Power Socket
3	LCD Display	12	USB Port
4	Multi-functional Button	13	LAN Port
5	LED Indicator	14	AUX Port
6	Speaker	15	Rx Port（BNC type）
7	Turn on Button	16	Tx Port（N type）
8	Accessory Port	17	Power Fuse（F15AL250V）
9	AC Power Switch	18	Grounding Screw

1.3 LCD Status Symbols

Icon Name	Icon	Status Description
Power Supply Mode		The current power supply mode is AC power supply.
		The current power supply mode is DC power supply.

Icon Name	Icon	Status Description
Alarm		The repeater is at alarm status.
Mute		The repeater is working at mute mode.
Speaker		The speaker is on.
Accessory		Accessory is connected with the repeater.
Repeater Working Mode		Master repeater in IP connection
		Slave repeater in IP connection
		Single station
IP Network Connection		IP network connection abnormal
		No IP connection
		IP network connection normal
Transmit Power		The transmit power of current channel is high-power mode.
		The transmit power of current channel is low-power mode.
Disable		The repeater has been disabled.

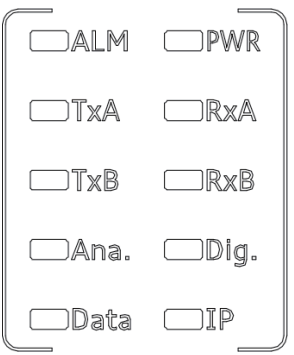
1.4 Multi-functionalButtons

Button	Description	Button	Description
	Back Button		UpButton
	Menu/Confirm Button		DownButton
	Programmable 1Button		Programmable 2Button

Button	Description	Button	Description
	Channel/Volume Button		

Remark: the P1 and P2 buttons can be configured through CPS(Custom Programming Software).

1.5 LED Indicators



1.6 LED INDICATORS DESCRIPTION

Indicator	Indicator Name	Status	Description
ALM	Alarm Indicator	Red	Repeater works abnormally,the alarm information can be checked through menu.
PWR	Power Indicator	Red	Power on normally.
TxA	Timeslot 1 Transmitting Indicator	Red	Transmitting at analog or digital timeslot 1.
RxA	Timeslot 1 Receiving Indicator	Green	Receiving at analog or digital timeslot 1.
TxB	Timeslot 2 Transmitting Indicator	Red	Transmitting at digital timeslot 2 .
RxB	Timeslot 2 Receiving Indicator	Green	Receiving at digital timeslot 2.
Ana.	Analog Working Mode Indicator	Green	Repeater is working at analog mode.
Dig.	Digital Working Mode Indicator	Green	Repeater is working at digital mode.
Data	Data Transfer Indicator	Green	Repeater is transferring data currently.

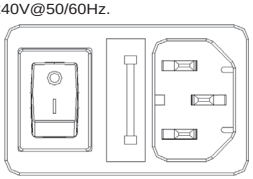
Indicator	Indicator Name	Status	Description
IP	IP Connection Indicator	Green	The link of IP connection between repeaters is normal.
		Orange	The link of IP connection between repeaters is abnormal.
		Off	no IP connection.

2. Power Supply Mode

The repeater supports three types of power supply mode, AC power supply, DC power supply and hybrid power supply. When adopting AC power supply and connecting the battery together, the repeater can use AC power supply normally and charge the battery automatically.

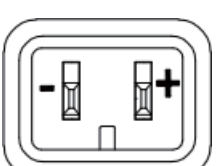
2.1 AC Power Supply

AC power socket is shown as the following figure. AC power range is AC100-240V@50/60Hz.



2.2 DC Power Supply

DC power socket is shown as the following figure. The repeater supports DC power supply and DC power range is 13.6V±15%.



2.3 Hybrid Power Supply

AC power supply socket connects with AC power, at the same time DC power socket connects with the battery. Notice, connecting DC power is not allowed working at hybrid power supply mode. When AC power supply is normal, AC power shall charge the battery. When AC power supply is faulty, the battery shall supply the repeater.

3. BASIC OPERATIONS

3.1 Power on/off Repeater

AC Power Supply：

When the repeater is off, press the AC Power Switch “ ” on the rear panel to power on, the light of AC power indicator is on. Then press the Button “ ” on the front panel to turn on the repeater, Power Indicator ”PWR” is on. After the repeater working normally, operation screen shall be displayed on the LCD.

When the repeater is on, press the Button “ ” to turn off the repeater directly, and press AC Power Switch “ ” to power off.

DC Power Supply：

When the repeater is off, press the turn on Button “ ” on the front panel to turn on the repeater, Power Indicator ”PWR” is on. After the repeater working normally, operation screen shall be displayed on the LCD.

When the repeater is on, press the turn on Button “ ” to turn off the repeater directly.

3.2 Voice and Data Transfer

When transferring, the Data Transfer Indicator“Data” is on. If the transferred data is analog, the Analog Working Mode Indicator”Ana.” is on simultaneously. If the transferred data is digital, the Digital Working Mode Indicator”Dig.” is on simultaneously. The working parameters of each channel,such as TX/RX frequency and CDCSS/CTCS Scan beassigned by distributor

An analog channel can be programmed with one group of CDCSS/CTCSS encoding and decoding list. When receiving CDCSS/CTCSS on the channel, the repeater will transfer voice and data according to programmed CDCSS/CTCSS encoding and decoding list.

3.3 Channel Switch

Press Channel/Volume Button and enter channel switch mode, then switch channel through press Up/Down Button.

3.4 Power Switch

The transmit power of the repeater can be setted as high-power mode and low-power mode through CPS(Custom Programming Software). To switch power through the programmable button P1 is as default. When the icon of“ H ”is displayed on the LCD screen, the repeater is working at high-power mode. When the icon of“ L ”is displayed on the LCD screen, the repeater is working at low-power mode.

Alarm

When the abnormal case occurs with the repeater, the Alarm Indicator”ALM” shall be light on. At the moment, the end customer shall contact with the local distributor.

MAINTECHNICALSPECIFICATIONS

Frequency Bands	400-470MHz
Transmitted Power	1~50W
Dimensions(W*H*D)	436*44.5*366.4mm
Weight	8.5Kg
AC Power Supply	AC100-240V@50/60Hz
DC Power Supply	DC13.6V±15%
Operating Temperature	-30℃~+60℃
Storage Temperature	-40℃ ~+85℃

FCCSTATEMENT

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, and always adhere to the following procedures:

- Antenna gain must not exceed 8.5dBi.
- The antenna must be installed complying with the requirements of manufacturer or supplier, and it must be at least 350cm away from human body.
- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an occupational/controlled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 350cm between the radiator& your body.

Axiom Distribution Solutions

Address:1320 Arroyo Grande California United States 93420 Tel: 909-346-2232

Website: www.Axiom Distribution Solutions .com