

Important

1. Maintenance can only be operated by authorized professionals.
2. Get lightening protection measures ready in thunderstorm weather.
3. Do not touch the antenna when the transmitter is powered on.
4. Do not power on the transmitter if the antenna is not well connected.
5. Do not use the transmitter under the explosive environment, such as gas/refueling station, etc.
6. Do not use the transmitter in the extreme dusty, damp or high temperature environment.
7. Be sure to comply with the rules released by the local radio administrations.

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Features

CZH-T501 is the product which possesses of multiple functions, reliable and steady performance, convenient for operations and good sound quality. Main features are as follows,

1. Mono/Stereo mode Optional.
2. Power adjustable from 0 to 50 Watts.
3. Single Knob operation, simple and convenient to use.
4. Automatic volume control. Volume detected & adjusted according to input level to get the best modulation.
5. LCD displays operating frequency, temperature, power and SWR.
6. SWR & Temperature protection. Goes automatic into protection state when antenna is not well connected/matched or excessive operating temperature.
7. Interface available for external encoder (SCA or RDS encoder).

Configuration List

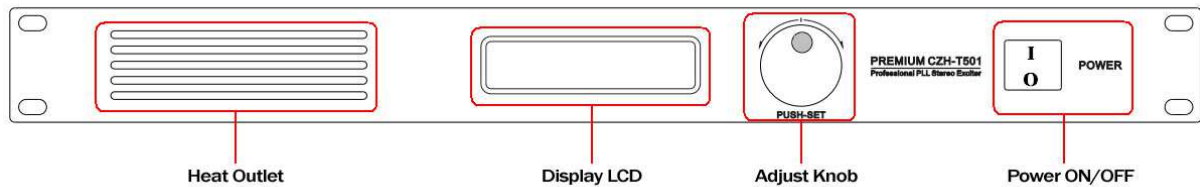
No.	Product Name	Specification	Qty	To be connected
1	FM Transmitter	CZH-T501	1	/
2	GP antenna	1/4 or 1/2 wavelength	1	RF OUT
3	AC power cable	3- pin 100-240V	1	AC INPUT

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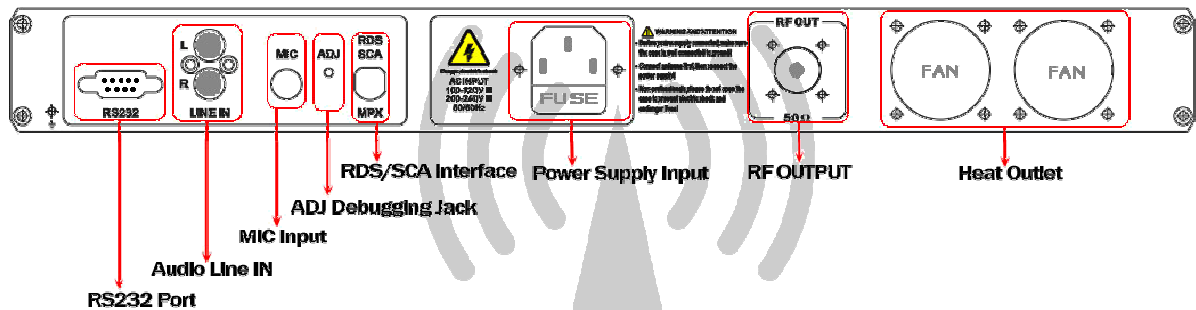
4	Audio line	3.5mm to RCA	1	LINE IN
5	User Manual (PDF)	Download available	1	/

Diagrams of front and back panel

1. Diagram of front panel

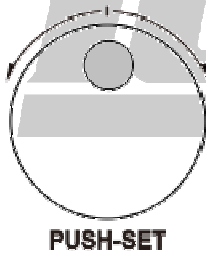


2. Diagram of back panel.



Knob/Button Definition

1. Adjust Knob



Operation	Definition	Function comments
Rotate	To adjust/switch	To adjust/switch in the configuration/main menu.
Short Press	To confirm	To enter into or exit the configuration setting menu.
Long Press	To confirm	To enter into configuration menu.

2. Power ON/OFF

Check and confirm the antenna is well connected. Then switch the power button to 'I' to power on the transmitter, and 'O' means to power it off.



The transmitter goes into working status after it is powered on. Main interface has two pages; the first page is as,



The second page is as,



Which each of the characters means,



Working frequency



Temperature



Output power



Reverse power



SWR value



Stereo mode



Audio Volume 60 (0~13), 'Auto' means control automatically



Microphone Volume (0~79)



Real-time volume

Operating Instructions

At operating status, press briefly the adjusting knob, enter into the first menu option as *frequency set*, you can switch to other menu options by turning the adjusting knob left or right. All configuration menu options are as follows (see the next page),

1. Set Frequency

- (1) Press adjust knob to enter into 'FREQUENCY SET'.
- (2) The frequency can be adjusted by turning knob left/right from 87MHz to 108MHz, and the step is 0.1MHz.
- (3) Press adjust knob to confirm when you determined to operate at a certain frequency.



1	MENU FREQUENCY SET	FREQ 98.30MHz
2	MENU LINE VOLUME	LINE VOLUME 06
3	MENU RF POWER SET	POWER SET DET 30.0W SET: 30.0W
4	MENU STEREO OR MONO	ST<OR>MO STEREO
5	MENU TEMP SET	TEMP SET 65°C
6	MENU SWR SET	SWR SET 2.5
7	MENU MIC VOLUME	MIC VOLUME 66
8	MENU EXIT	FM 98.3MHz TEMP: 43°C P: 29.7W R: 0.3W S: 1.2

2. Set Audio Volume

- (1) Press adjust knob and turn left/right to enter into 'LINE VOLUME'.
- (2) The audio volume can be adjusted by turning the knob left/right from 0~79.
- (3) Short press the knob to confirm when you determined to operate a certain volume.

LINE VOLUME
06

3. Set RF Power

- (1) Press adjust knob and turn left/right to enter into 'RF POWER SET'.
- (2) The RF power can be set by turning the knob left/right from 0~50 Watts, the step is 0.1W.
- (3) Press the knob to confirm when you determined to operate at a certain power.

POWER SET
DET 30.0W SET: 30.0W

4. Stereo/Mono Set

- (1) Press adjust knob and turn left/right to enter into 'ST <OR> MO'.
- (2) The audio can be set by turning the knob left/right.
- (3) Press the knob to confirm.

ST<OR>MO
STEREO

5. Temperature protection Set

- (1) Press adjust knob and turn left/right to enter into 'TMPE SET'.
- (2) Turn the knob left/right to set the temperature, the range is 50~70°C.
- (3) Press the knob to confirm.

TEMP SET
65°C

6. SWR protection Set

- (1) Press adjust knob and turn left/right to enter into 'SWR SET'.
- (2) Turn the knob left/right to set SWR value from 2.0-3.5.
- (3) Press the knob to confirm.

SWR SET
2.5

7. Set Microphone volume

- (1) Press adjust knob and turn left/right to enter into 'MIC VOLUME'.
- (2) The microphone volume can be adjusted by turning the knob left/right from 0~79.
- (3) Press the knob to confirm when you determined to operate at a certain volume.

MIC VOLUME
66

8. Back to Main interface

While setting the transmitter in the menu, if you want to go back to working status, turn the knob to 'EXIT' and press it, the transmitter will be back to working status.

8 MENU
EXIT

Technical Specifications

No.	Item	Technical specifications
1	Operating voltage	AC110V/AC220 50/60HZ (Select manually)
2	Operating current	< 1A
3	Frequency range	87~108MHz
4	Frequency stability	±10PPM
5	Frequency step	100KHz
6	Environment temperature	-10°C~45°C
7	Output Impedance	50Ω

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8	Output RF power	0~50W
9	Harmonic & Clutter radiation	$\leq -60\text{dB}$
10	Audio Distortion	0.2%
11	Frequency response	50Hz~15000Hz
12	Stereo Separation	$\geq 35\text{ dB}$
13	Input level	$\leq 15\text{ dBV}$
14	Frequency deviation	$\pm 75\text{KHZ}$
15	SNR	$\geq 70\text{ dB}$
16	Dimensions	210 mm (L) *48 mm (W) *45 mm (H)
17	Weight	About 2800g

General Troubleshooting

No.	Fault	Failure Source
1	Can not power on.	1) The socket is not electrify galvanized. 2) The adapter is not well connected. 3) The adapter does not meet the requirements.
2	SWR Alert	1) The antenna is not well connected. 2) The antenna is not matched. 3) Too many reflection objections near the antenna.
3	Temperature Alert	1) The cooling fan does not work. 2) The temperature rises resulted from unmatched antenna. 3) A blockage at in/outlet.
4	High SWR	1) The antenna is not well connected. 2) The antenna is not matched. 3) Too many reflection objections near the antenna.
5	Short transmission range	1) Too much loss on the coaxial cable. 2) Operating in extreme surroundings. 3) Operating at low power. 4) The antenna is set not higher enough. 5) The antenna is not matched. 6) The receiver is not sensitive.
6	No power out	1) The transmitter is set at low power 2) The transmitter is on standby.
7	Audio silent	1) The transmitter is set mute. 2) Audio in is not normal.

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8	Microphone silent	1) Microphone is not normal. 2) Microphone is set mute. 3) Microphone is not electret condenser.
9	Poor sound quality	1) Poor quality of microphone. 2) Poor quality of audio source. 3) The antenna is not set correctly. 4) Audio line in or volume is not set rightly.

About Us

We are a professional company focus on RF technology research and development, specialized in professional fm transmitter! Our fm transmitters are ideal equipments to build your own broadcast station, especially used in campus, factories, farms etc. Please be assured, we provide you after-all services and technical supports! Any questions can be sent to: fmtron@gmail.com

