

FMTRON USA

CZH-10A USER MANUAL V1.0

CAUTION!

1. Opening the CZH-10A will AVOID the warranty
2. Do not operate without antenna
3. Warranty does not include the RF power transistor
4. Before operating Radio equipment please check for local rules about radio transmission, Some countries require radio transmission license and operating without license is a law violation

SPECIFICATION

Frequency Range: 87MHz -108MHz

PLL Steps: 100 KHz

Frequency stability: +/- 250Hz

RF Output Power: Adjustable 0-10 Watt \pm 15%

RF out connector: N-type connector

Impedance: 50 Ohms

Low Pass Filter on board for clean spectrum

Panel Control: 2X24 LCD + 3 buttons

Operation Voltage: DC12V 4A

Audio input RCA impedance: 10kohm

Audio Inputs Standard Line IN - Level - internal adjustable

Audio Response 150Hz to 15 KHz +/-0.6dB

Over 40dB separation - Typical 45dB

Low Audio Distortion, less than 0.5%

Pilot Tone: 19 KHz +/-3Hz

Package Contents: 1x CZH-10A Unit

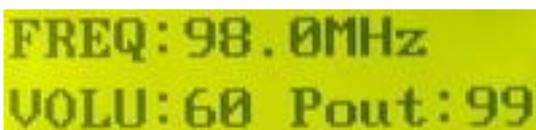
Setup and operation steps:

Insert 12V4A power and look at the LCD screen, Transmitter into standby, you should see this message:



SYSTEM STANDBY
LINK FM TX

Now push The "M" buttons Turn on the transmitter (again push The "M" buttons return to standby mode), you should see this message:



FREQ: 98.0MHz
VOLU: 60 Pout: 99

Now push The "M" buttons 3 seconds into menu (Note: If the current backlight off, will turn on the backlight, Rather than into the menu), Used UP "▲" / DOWN "▼" buttons select menu, you should see this message:

1 MENU
FREQUENCY SET

2 MENU
LINE VOLUME

3 MENU
MIC VOLUME

4 MENU
POWER SET

5 MENU
LANGUAGE

6 MENU
EXIT

Now push The “M” buttons into setting mode, Used UP “▲” / DOWN “▼” buttons setting Options (again push The “M” buttons return to menu), you should see this message:

FREQUENCY SET
98.0MHz

LINE VOLUME
60

MIC VOLUME
60

POWER SET
99

If no action within 10 seconds, will return to the main display and automatically turn off the backlight.

Theory of operation

Antenna

The antenna is one of the major elements which effect on the range of your broadcast.

You will need to pay attention to the coaxial cable which will be described later.

The Best position for a FM broadcast antenna is the highest place which from him you have line sight as far as possible without any interference from

Other buildings, mountains and other high object which may interfere your broadcast signal.

Always remember that the critical parameter is not whether you broadcast 1W or 10W, but whether you are 10 or 15 meters above ground.

The best antenna for this transmitter will be a 50 ohm antenna which was matched exactly to the frequency you will need to use, but the price of those antennas may be high.

For a low cost antenna, we recommend standard "dipole" FM antenna from any radio equipment which looks like 2 radiators in calculate length $75/\text{freq}(\text{MHz})$,

Example: At frequency of 100MHz, the length of each radiator will be 0.75m.

Coaxial cable

We recommend using RG-58 which will -t to the transmitter N-type power out connector.

If you cannot -nd it, use RG-213 but always try to -nd a good quality cable, double shielded will be preferred.

Try using the shortest cable you can, but never prefer shorter cable than higher antenna,

The mention is putting the transmitter as close as possible to the antenna and never rolls "spare" cable instead of cutting the spares.