



25 W Professional Grade FM Transmitter



Transmitter Specifications

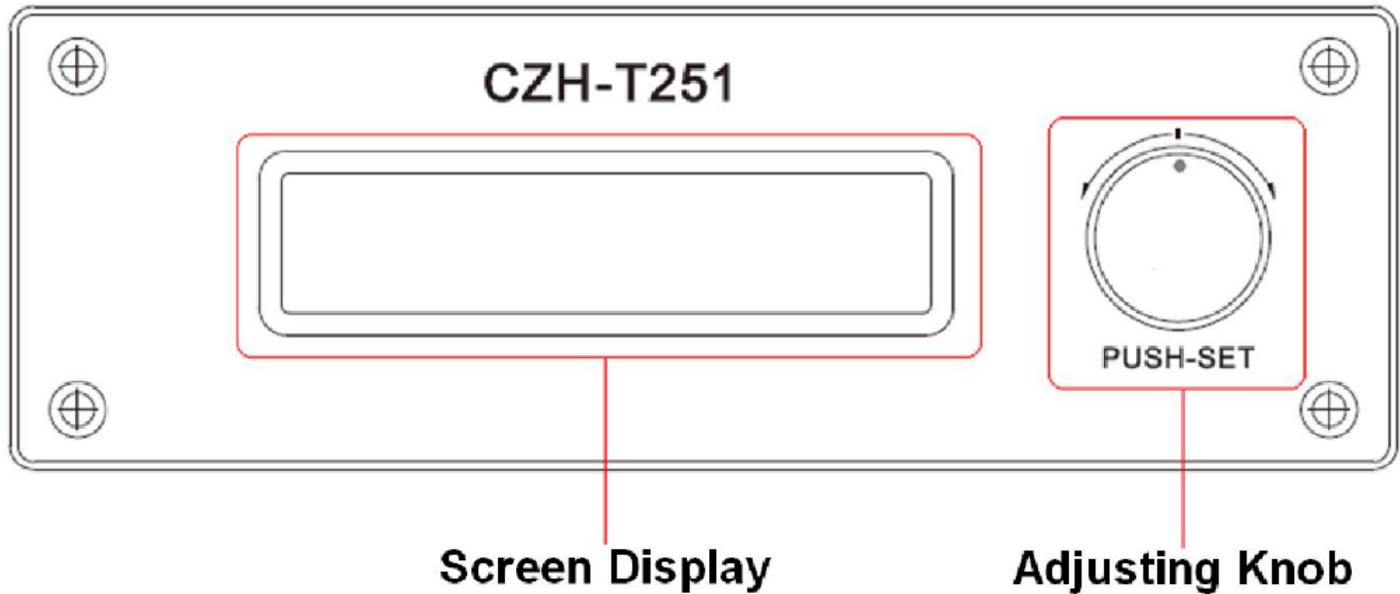
FAILSAFE CONTENTS:

1. Transmitter
2. N-Type Cable
3. Dipole Antenna
4. 12V AC Adapter
5. 3-Prong Wall Plug

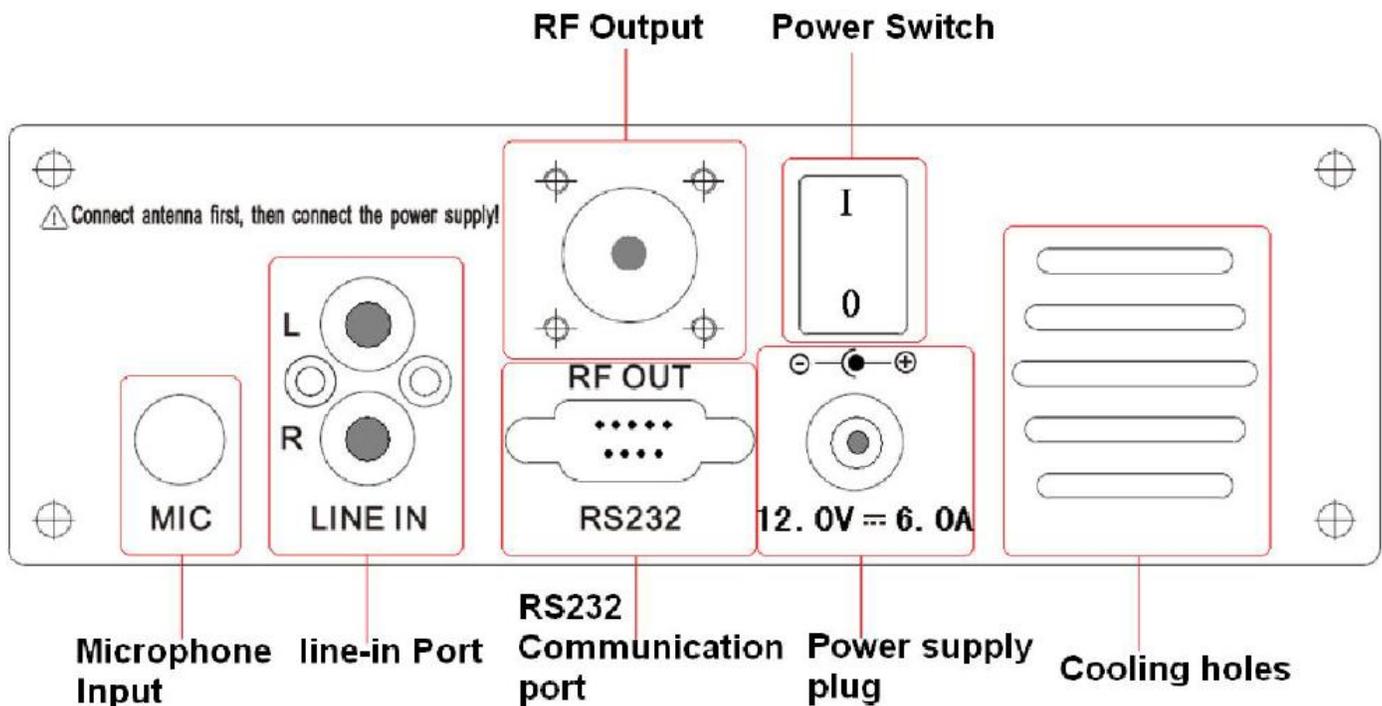
Power Output:	25 W
FM Transmitter Frequencies:	76-108 Mhz
Tuning Step:	100 KHz / 0.1 Mhz
Power Supply:	9-12V DC (The current load of power supply ≤ 1A)
Stability of Frequency:	±10 ppm (-10°C~+50°C)
Frequency Response:	50 Hz – 15000 Hz
Signal to Noise Ratio:	≥70 dB
Stereo Separation:	≥35 dB
Distortion:	< 0.2%
Operation Current:	< 5A
Antenna Design:	Dipole Antenna
Antenna Connector:	N-type
Output Impedance:	50 Ω
Audio Input Connector:	Rear RCA
MIC Input Connector:	¼" Mic Jack
Input Level:	<15dbV
Size of Transmitter Unit:	L:210mm, W:174mm, H:59mm (8.2" x 6.8" x 2.3")
Weight of Transmitter Unit:	~1500 grams (3.5lbs)
Transmission Signal:	FM Stereo

CAUTION: Connect antenna first, then connect the power supply!

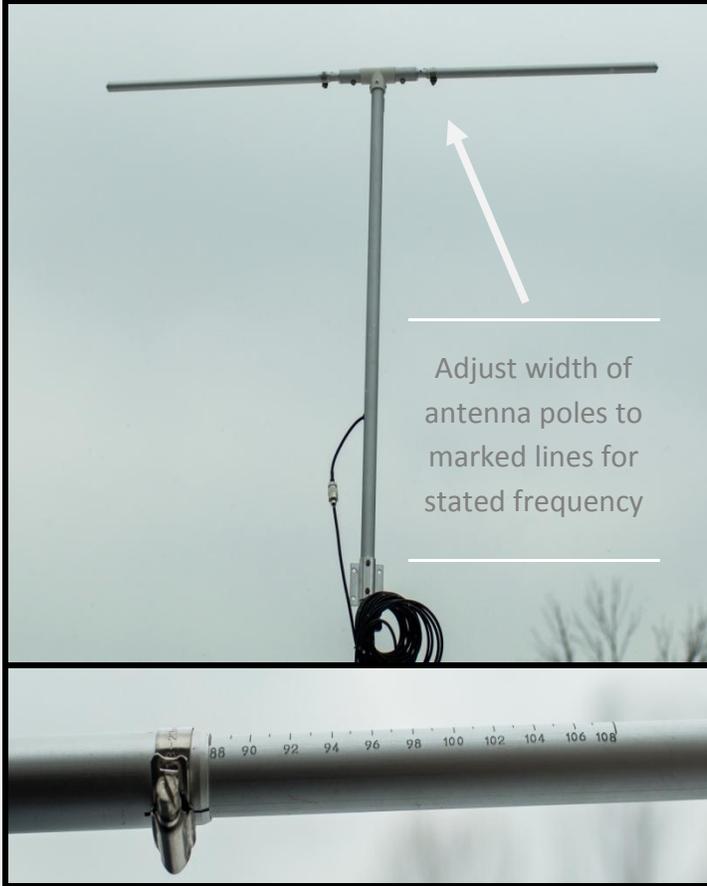
FRONT PANEL



REAR PANEL



ANTENNA ADJUSTMENT



MENU OPTIONS

1 Menu Frequency Set	2 Menu Audio Volume
3 Menu Mic Volume	4 Menu RF Power Set
5 Menu Stereo or Mono	6 Menu Temp Set
7 Menu SWR Set	8 Menu Mute
9 Menu Exit	FM88.0MHz ▶◀61 M60 PO:25.1W SWR:1.0 41°C

Take account of active menu before turning adjustment knob.

Troubleshooting Assistance:
1-260-255-6622
failsafeco@gmail.com

TRANSMITTER OPERATING INSTRUCTIONS

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

ADJUSTMENT
KNOB



PUSH-SET

(1) Frequency Set:

1. Push knob to Frequency Set
2. Turn knob to adjust frequency (76-108MHz).
3. Push knob to confirm selection.

(2) Audio Volume:

1. Push knob to Audio Volume menu.
2. Turn knob to adjust audio volume (0-100).
3. Push knob to confirm selection.

(3) Mic Volume:

1. Push knob to Mic Volume menu.
2. Turn knob to adjust mic. volume (0-100).
3. Push knob to confirm selection.

(4) RF Power Set:

1. Push knob to RF Power Set menu.
2. Turn knob to adjust RF power (0-25W).
3. Push knob to confirm selection.

(5) Stereo or Mono:

1. Push knob to Stereo or Mono menu.
2. Turn knob to select stereo or mono.
3. Push knob to confirm selection.

(6) Temp Set:

1. Push knob to Temp Set menu.
2. Turn knob to select shutoff temp. (30-80°C).
3. Push knob to confirm.

(7) SWR Set:

1. Push knob to SWR Set menu.
2. Turn knob to select SWR protection (1.0-5.0).
3. Push knob to confirm selection.

(8) Mute:

1. Push knob to Mute menu.
2. Turn knob to enable or disable mute.
3. Push knob to confirm selection.

A brief introduction to the rules of the FCC and your FM Transmitter

It is the policy of FS Electronics, that knowing and observing the lawful use of all transmitters is a first responsibility of our end users. We do not endorse any unlawful use of any of our transmitters, and we try to give you as much common sense help about normal and lawful use as we can. Further, it is the policy of FS Electronics to cooperate with all applicable federal regulations in the design and marketing of our electronic devices. Finally, we urge all of our overseas customers to observe the regulations of their own national telecommunications authorities. In all instances, compliance with FCC rules in the operation of what the FCC terms an "intentional radiator" is always the responsibility of the user of such an "intentional radiator".

FS Electronics only offers this information to make the user aware of the full impact a transmitter can have. In no way should this brief discussion be construed as a definition of the FCC rules, it is the users obligation to obtain a copy of the rules and operate legally according to them. ***FS Electronics makes no representation as to the following discussion being legally correct - it is simply offered as an introduction to the responsibilities that a user must realize.*** To order your copy of the FCC rules part 15, call the US Government, Superintendent of Documents, at 202-512-1800, or fax at 202-512-2250. To order the correct document, ask for "CFR Title 17: Parts 1 to 199." The cost is \$24.00. Master Card and Visa are accepted.

The present edition of Part 15 of the FCC rules provides detailed guidance on ALL aspects of using a low-power transmitter. The main points to consider are; to remain within the field strength limitations, that you may not cause any interference whatsoever to licensed broadcast services, and that you must be willing to put up with any interference that you may experience. Remember, the FCC doesn't need to be bothered by policing a privilege given to unlicensed operators. If the rules are flagrantly violated, they might just revoke the privilege altogether!

If you become further fascinated with the service rendered by low-power broadcasting, other FCC regulations explain how to apply for a license or other authorization which may permit you to upgrade your equipment to accomplish any objective which the FCC sees to be in the public interest and not interfering with other authorized uses of the radio spectrum.

Lawful use suggestions:

- Follow instructions.
- Use the stock antenna supplied within the case.
- Do not modify your transmitter in any way.
- Check your intended operating frequency very carefully, to ensure you will not cause interference to reception of licensed broadcasting. (<http://www.radio-locator.com>)
- If you receive ANY complaint about your transmissions interfering with broadcast reception, stop or change your operation IMMEDIATELY.
- If you are contacted by the FCC regarding use of this device, cooperate fully and promptly.
- Do your own homework and research to understand and comply with present and future FCC rulings concerning devices of this kind. Do not rely only upon this short discussion.
- Do not use made-up "station call signs" to identify your transmissions. Only the FCC has the authority to issue such call signs. Use some other way to identify your transmitting activity, such as "This is Stereo 90.5, Seabreeze School Student Music Radio," and so forth.
- Identify the location and purpose of your transmissions from time to time. This is common courtesy toward other persons who may hear your signal. The FCC is toughest about clandestine transmission which cost time and money to track down.
- Do not assume that the mere fact that you purchased this transmitter gives you any specific right to use it for any purpose beyond generating a low-level RF signal which is barely detectable beyond the perimeter of your personal dwelling space.

Finally, the FCC Rules call for the posting of printed notices on devices intended for non-licensed operation under Part 15 Rules. You will find such notices written up for the front or back of the instruction manual for nearly any computer or video accessory that you have seen in recent months. Consult the Part 15 Rules for the exact wording of such notices. Following is a text for such a notice which responds to FCC rule making intentions:

NOTICE:

The individual users of this device assume responsibility for lawful uses conforming to FCC Part 15 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.**

Final comment:

A well-informed person will see today's FCC Rules to be evolving and progressively less restrictive. Even though today's technology is far more complex than what was possible at the time of the Communications Act of 1934, the FCC rules are becoming more relaxed, giving radio experimenters more and more opportunities to explore many frequency bands, using many communications modes, with no need for a formal license of any kind. A thorough study of Part 15 of the FCC Rules, which is completely beyond the purpose of this brief discussion, will show you many legal uses of radio transmitting devices which do not require licensing, either amateur or commercial. To provide more personal and club radio learning opportunities, and to cut down on administrative costs, today's FCC permits far more non-licensed activity than at any time in previous history. On the other hand, today's FCC enforcement actions get bigger fines and real prison terms for scofflaws! From CB radio to easy entry-level Amateur Radio with long-term licensing, to numerous unlicensed Part 15 operations, the FCC is beginning to look out for the interest and good plans and intentions of private citizens and school-community groups as never before in radio communications history.