

FSN-301 30W 1U FM Transmitter User Manual



Outstanding Features:

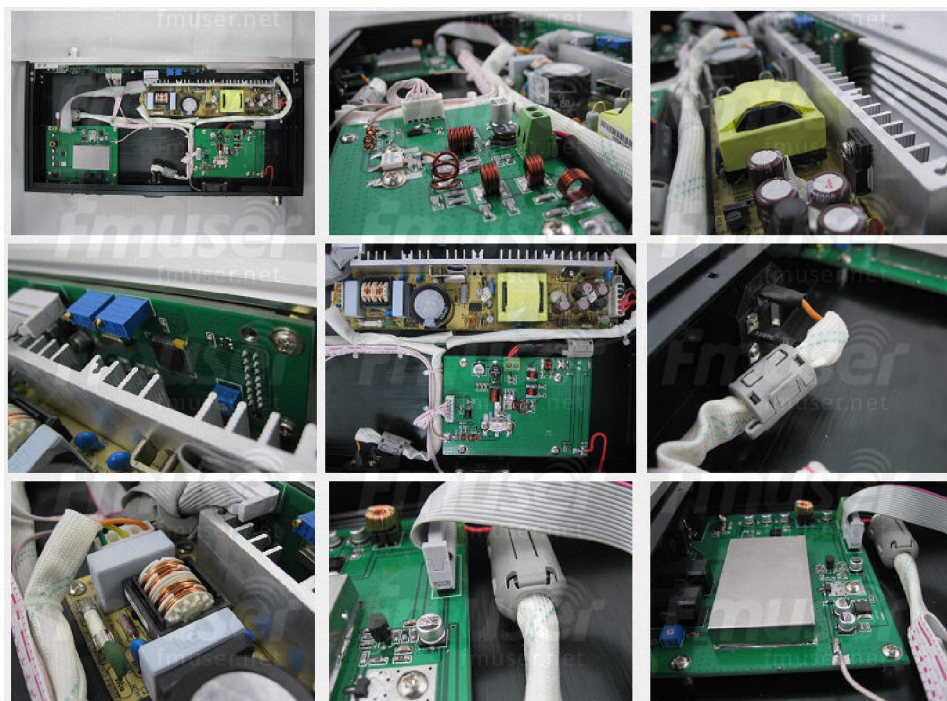
- | 0~30W power adjustable
- | Dual reverb microphone input port
- | External encoder input (for external SCA or RDS encoder)
- | VSWR protection, and can set the start value of the standing wave protection.
- | Over-temperature protection, can set the start value of over temperature protection.
- | Controllable fan forced cooling system, ensure stability and also increase the working life of the fan
- | Automatic volume control function. Input volume can be detected and adjusted automatically to ensure the best modulation.
- | 4 commonly used function keys, easy and fast to set the parameters of the machine.

Technical parameters:

- * Power supply : AC100V~240V/50Hz/60Hz
- * Working Frequency : 87~108MHz (OEM 76~92MHz)
- * Frequency stabilization method: PLL
- * Frequency step: 0.1MHz
- * Modulation way: WFM
- * Power output : 0~30W adjustable, maximum 30W
- * Output Impedance:50 Ω /Coaxial
- * Stray radiation:<-60db
- * Audio level: 15dbV
- * Frequency Response:50~15KHz
- * SNR : 70db
- * Separation : 40db
- * Temperature : 0~45



The detailed look into the PCB



Operation Attentions:

1. Make sure the antenna or the Load can be ground connected to transmitter
2. The power supply voltage must be within the allowed range.
3. Make sure the fan ventilation is good.

Operation step:

1. Power on
2. Function and Parameter setting
 - 1) Frequency setting
 - 2) Line volume setting
 - 3) Power setting
 - 4) Audio mode setting
 - 5) Temperature protection setting
 - 6) VSWR protection setting
 - 7) Microphone volume setting
 - 8) Shortcut:

There are 4 shortcut button for easier and fasting parameter setting:



FREQ : Frequency setting

LINE : Line Volume setting

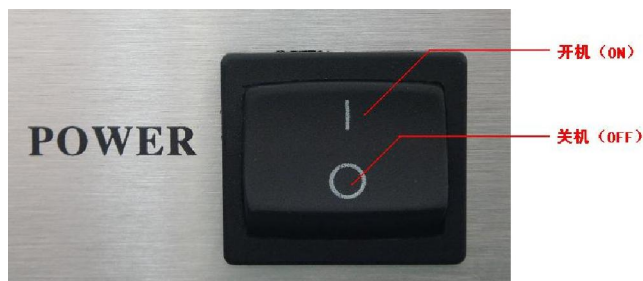
RF-PWR : Power setting

MIC : Microphone Volume setting

Operation Instruction:

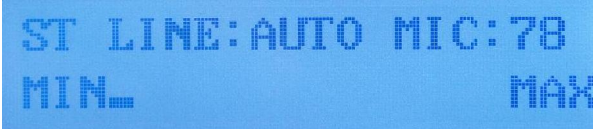
1. Attention for POWER ON/OFF:
 - I Make sure the antenna or RF load is properly connected to the transmitter
 - I Make sure the supplied voltage is within allowed range.
 - I Make sure ventilation is good.
2. POWER ON.

Press the power button to "I" to turn on the power. "O" means POWER OFF. See picture below:

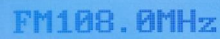
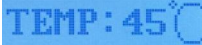





After POWER ON, the interface showing working status. There will be two pages to show the parameters:





Page1: 

Page2: 

Page1 shows:

- I Working frequency 
- I Actual internal temperature 
- I Power output 
- I Reflected Power: 
- I VSWR : 

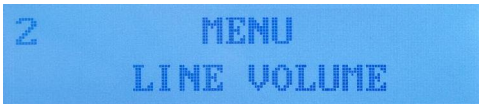
Page2 shows:

- I Audio mode :  , ST means Stereo, MO means Mono.
- I Line Volume :  , volume value is 0~12 , AUTO mean automatic volume control.
- I Microphone volume :  , volume range is 0~79.
- I Volume bar:  , it shows the strength of volume.
- I To change between page 1 and page 2, press the switch.

3. Function and parameter setting:

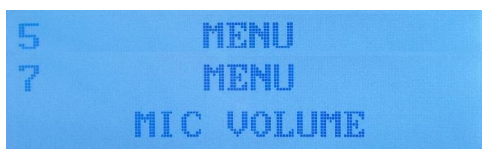
- I Press the switch, you will see the menu. Turn the rotary switch, there will be altogether 8 items rotating displaying on the screen.











I Frequency setting.

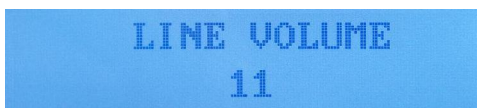
When you see the menu page, switch to the first item "FREQ". Press the switch to confirm, then the system will go to frequency setting page (power forwarding will be temporarily closed), see picture below :



Now, turn the switch to set the frequency you need, it will step on by 0.1MHz. After setting, press the switch to confirm and exit.

I Line volume setting:

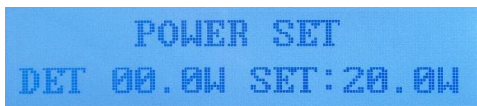
On the menu page, turn the rotary switch to select the second item "LINE VOLUME", press the switch to confirm, now you can set the volume.



Turn the switch to set the line volume, the range is from 0-79. After setting, press the switch to confirm and exit.

I Power setting

On the menu page, turn the rotary switch to select the third item "POWER SET", then press the switch to confirm, now you can set the power:



Turn the switch to set the power output, the range is from 0-30watt. After setting, press the switch to confirm and exit.

I Audio mode setting:

On the menu page, turn the rotary switch to select the fourth item "STEREO OR MONO", press the switch to confirm. Now you can change the audio mode:



Turn the switch to set the mode, there are two modes: STEREO, MONO. After setting, press the switch to confirm and exit.

I Temperature protection setting:

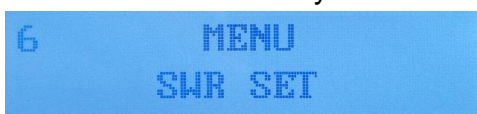
On the menu page, turn the rotary switch to select the fifth item "TMPE SET", press the switch to confirm. Now you can set the temperature protecton:



Turn the switch to set the temperature you want to protect the machine from burned, the available range is from 50-70 . After setting, press the switch to confirm and exit.

I VSWR setting:

On the menu page, turn the rotary switch to select the sixth item "SWR SET", then press the switch to confirm. Now you can set the SWR.



Turn the switch to set the SWR value, the available range is 1.5-3.5, after setting, press the switch to confirm and exit.

I Microphone volume setting:

On the menu page, turn the rotary switch to choose item7 "MIC VOLUME", then press the switch to confirm. Now you can adjust the volume:



Turn the switch to adjust the microphone volume, the available range is 0-79. After setting, press the switch to confirm and exit.

3. Shortcut buttons:

I There are 4 shortcut buttons on the controlling panel:



FREQ : Frequency set

LINE : Line volume set

RF-PWR : Power output set

MIC : Microphone volume set