

FU-X01 1W FM Transmitter

User Manual



This user manual is compatible for the following products:

- **FU-X01A**—Standard Configuration (simple functions without Mp3, Bluetooth and battery modules)
- **FU-X01B**—Intermediate Configuration (include Mp3, Bluetooth and battery modules)
- **FU-X01C**—Advanced Configuration (include Mp3, Bluetooth and battery modules, TF card and rechargeable battery)

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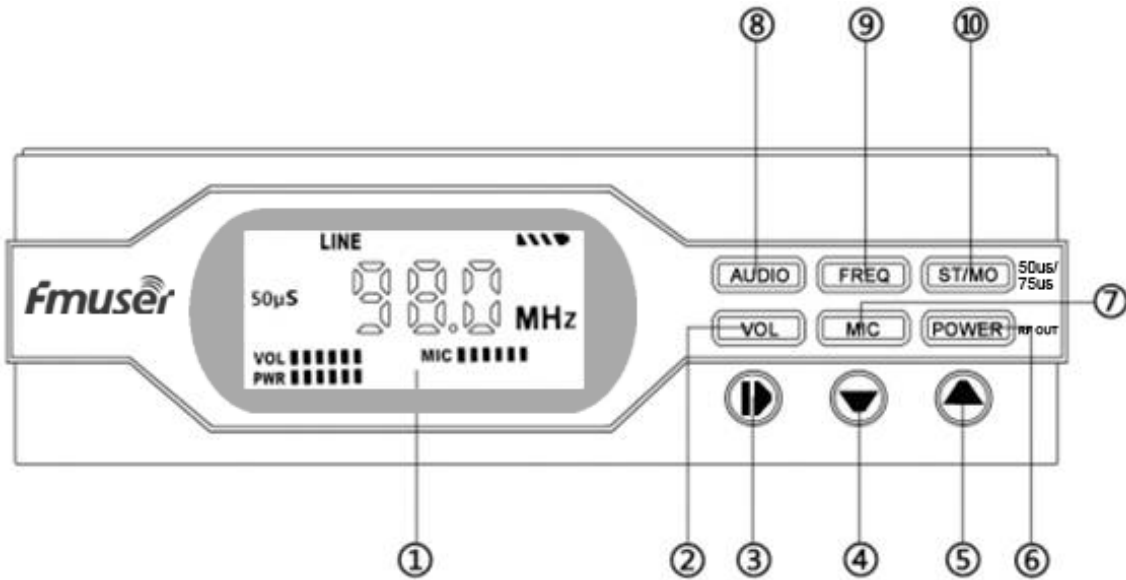
Using this transmitter please abide by the local related laws and regulations of radio management departments. Parties of using the machine will assume the resulting legal responsibilities. Our company and dealers will assume no responsibility of this.

Attentions

- Using this wireless FM transmitter must comply with the regulations of the local government. Improper use may violate the law;
- Do not use wireless FM transmitter in a flammable, explosive environment;
- Do not use the wireless FM transmitter with damaged antenna;
- Please do not expose wireless FM transmitter to long periods of direct sunlight or put it in near heating devices;
- If there are any odors or smoke, please shut off the electrical power immediately.

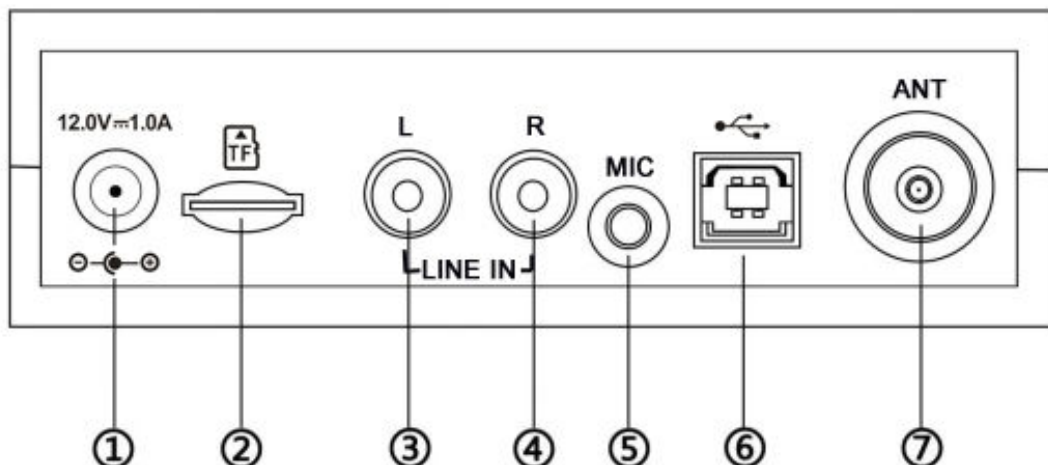
● Appearance and Illustration

1. Front Panel Illustration



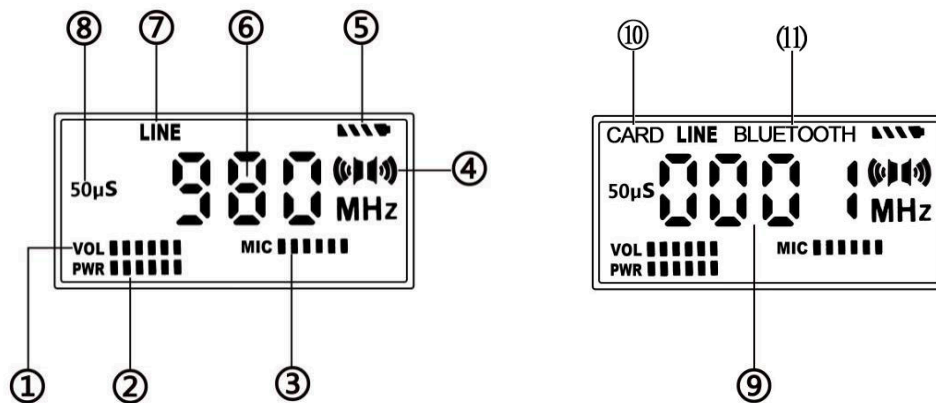
- ① LED panel
- ② Volume
- ③ Press and Hold--On/Off
Press-- Play/Pause (under TF card play mode)
- ④ Decrease, Previous
(under TF card play mode)
- ⑤ Increase, Next
(under TF card play mode)
- ⑥ RF power output
- ⑦ Volume of microphone
- ⑧ Audio Source Switching
- ⑨ Frequency Regulation
- ⑩ Press: Stereo/Mono
Press and Hold : Pre-emphasis
75us/50us

2. Rear Panel Illustration



- ① Power Supply Input(12V 1A , 2.1mm)
- ② TF Card Slot
- ③ Stereo Input (RCA-L)
- ④ Stereo Input (RCA-R)
- ⑤ MIC Input (Interface 3.5mm)
- ⑥ Data Communication Input(USB-B)
- ⑦ Antenna Input (Interface TNC-J)

3. LCD Panel




- ① LINE IN Volume
- ② RF Power Output
- ③ MIC Volume
- ④ Stereo/Mono
- ⑤ Battery Power
- ⑥ Current Frequency
- ⑦ Audio Input
- ⑧ Pre-emphasis
- ⑨ Serial Number of Playing Song(under TF card play mode)
- ⑩ Current Play Mode(TF card mode)
- ⑪ Current Play Mode(Bluetooth mode)

● Key Features

1. RF output power is adjustable from 0~1w by 10 levels.
2. Audio pre-emphasis is switchable between 50US/ 75US.
3. Mono and stereo are switchable.
4. Microphone input volume will be turned up in priority when there is voice input, while the main volume will be tuned down automatically.
5. Auto power off when there is no audio input within 5 minutes.
6. Battery Saving: When the device is powered by battery,-the LED panel will automatically reduce to the minimum brightness after 30 seconds to save energy.
7. Save Setting: Current settings of power output and broadcast frequency will be saved for next start-up.
8. Support of inputting audio from external Bluetooth device, effective communication distance is about 8 meters.
9. Support audio play through TF card, memory up to 32G.
10. Support up to 1000 MP3 format songs.

● Key Functions and Operation

1. Button

- 1) Power ON: Connect the transmitter to the power adapter, press the button and it will light up. At the same time, the screen starting showing contents as the device starts working.
- 2) Power OFF: Press and hold the button for 2 seconds during working status, the screen will be light off as the device is turned off.
- 3) Play/Pause: Under Bluetooth or TF card play mode, press the  to pause or play audio files.

2. ▼ and ▲ Buttons

Adjust Frequency, Volume, MIC volume or Power Output

To adjust frequency, volume, MIC volume or power output, press the ▼ and ▲ to decrease or increase by one level at a time. Press and hold the ▼ and ▲ to decrease or increase continually (at 1MHZ stepping.)

MP3 play mode: ▼ Next, ▲ Previous

Bluetooth play mode: ▼ Next, ▲ previous

3. VOL Button

Main volume Adjustment

Introduction : Press this button, the VOL icon on LED screen starts blinking, press

▲ or ▼ now to increase or decrease the main volume, press the VOL button again to confirm setting. The valid adjusting period is within 15 seconds from the twinkle of icon every time you press the ▲ or ▼ button.

The icon will stop blinking when switch to other settings from the VOL adjustment during the setting period.

4. MIC Button

MIC Volume Adjustment

Introduction : Press this button, the MIC icon on LED screen starts blinking, press

▲ or ▼ now to increase or decrease the microphone volume, press the MIC button again to confirm setting. The valid adjusting period is within 15 seconds from the twinkle of

icon every time you press the ▲ or ▼ button.

The icon will stop blinking when switch to other settings from the MIC adjustment during the setting period.

5. POWER Button

Power Adjustment Function

Introduction : Press this button, the POWER icon on LED screen starts blinking, press ▲ or ▼ now to increase or decrease the power output, press the POWER button again to confirm setting. The valid adjusting period is within 15 seconds from the twinkle of icon every time you press the ▲ or ▼ button.

The icon will stop blinking when switch to other settings from the POWER adjustment during the setting period.

6. AUDIO Button

Working Status Switching

The icons of CARD, LINE OR BLUETOOTH on LED screen lights up steadily during their working status respectively. When the icons of CARD twinkles, it means the play is paused, or the card is not reading correctly. Press the play button to check, if there is still no audio out, take out the TF card and insert into the device to try again. If the problem is not solved, please check if the card status or the file formats in the TF card. Please refer to TF card format instructions in this manual for more details about this checking part.

7. FREQ Button

Frequency Regulation Function

Introduction : Press this button, the FREQ icon on LED screen starts blinking, press

▲ or ▼ now to increase or decrease the frequency , press the FREQ button again to confirm setting. The valid adjusting period is within 15 seconds from the twinkle of icon every time you press the ▲ or ▼ button.

The icon will stop blinking when switch to other settings from the FREQ adjustment during the setting peiod.

8. ST/MO Button

1. Press the button to switch audio output mode between MONO and STEREO.
2. Press and hold the button to switch pre-emphasis between 50US and 75US.

● Technical Specifications

1	Voltage: 12V	12	Frequency deviation: + - 75KHZ
2	Current: <0.4	13	SNO Rate: > =60dB
3	Frequency range: 76~108MHZ	14	Pre-emphasis: 50/75US switchable
4	Frequency stepping: 100KHZ	15	Antenna Impedance: 50 Ohm
5	Working temperature: -10~45	16	Product dimension: 162*120*40MM
6	Audio frequency response: 50Hz~15000Hz	17	Package size: 253*183*70mm
7	Stereo separation : >=40dB	18	Device N.W. (without battery) : 298g

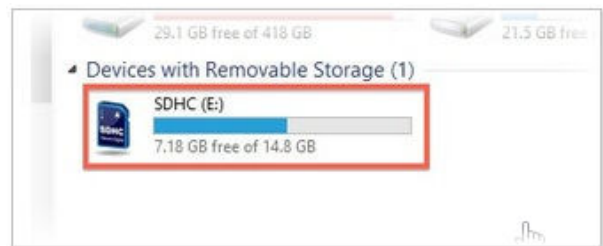
8	Audio input level : 15dBV	19	Device N.W. (with battery) :419g
9	RF Output power : 0-1W, 11 levels adjustable	20	Package G.W.(without battery) : 861g
10	Harmonic and clatter : <=-60dB	21	Package G.W.(with battery) : 987g
11	Audio distortion : <=0.2%		

● Operation Instruction for Play part

1. MP3 part :

1) **Read the TF Card:** Insert the blank TF card into card reader and connect it with computer.

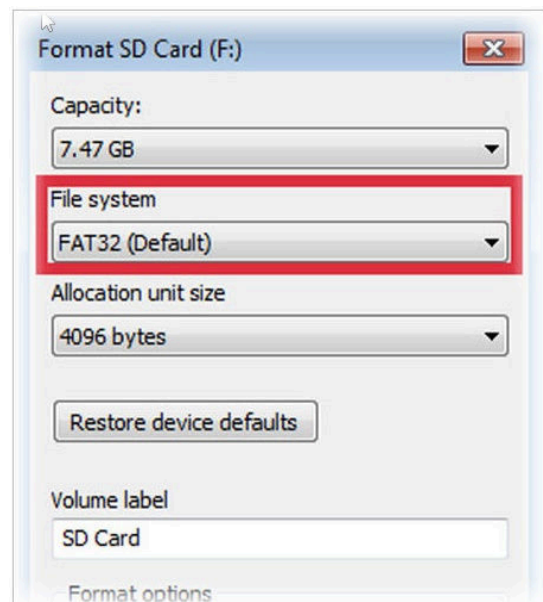
The computer shows card storage as shown in Picture 1.



Picture 1

2) **Format TF Card:** Right click on the icon of card disk, choose Format option, then choose FAT32 under the File system option, click confirm to start the formatting.

(see Picture 2 for reference)



Picture 2

3) Copy Songs to TF Card: Copy audio files from computer disk to TF card, then choose pop out the card disk and remove card reader from computer USB interface.

4) Play audio files from TF card: Turn on the transmitter, press Audio button on the transmitter and switch to CARD play mode, then the transmitter plays audio files from the card automatically by sequence in loop. (The default sequence is classified by the time of files copied into the card, you can set the playing order by arranging the time sequence of copying audio files into the card)

2. Operation of Bluetooth:

- 1) Connect the power and turn on the transmitter.
- 2) Turn on the Bluetooth on mobile phone, click scan to find the Bluetooth name of the transmitter and choose connect.
- 3) After the connection is successfully done, play the audio files from mobile phone, they'll be broadcasted out from the transmitter.
- 4) The play of audio files can also be controlled by pressing corresponding buttons on transmitter.

● Precautions of Machine:

1. Please connect the antenna to transmitter first, then turn on the power and do other operations afterwards.

2. The working voltage of the transmitter must be 12V, otherwise the transmitter could be damaged if the voltage is higher or lower than 12V.

● Precautions of card play operation:

1. Before using the card play mode, make sure the TF card included MP3 files is inserted into the card slot when the transmitter is at OFF status.
2. It is strongly recommended that the new TF card should be formatted by FAT32 format before using on the transmitter.
3. The only file format allowed on the TF card is MP3 format, otherwise the files can't be played through the transmitter. If the transmitter suddenly shut down because of the wrong audio file format, please turn off the transmitter and take out the TF card, delete the wrong files and restart the transmitter to try again.
4. Please do not take out the TF card when the power is ON, or the transmitter might be damaged. If the transmitter suddenly shut down because of the wrong operation of TF card, please press the power button to turn on the transmitter again.
5. The TF card can support up to 1000 quantity of songs, please do not exceed the number to avoid harming the transmitter.

● Precautions of Bluetooth operation:


1. Before using the Bluetooth, please keep the electric metallic substances away from the transmitter in case they affect the receiving distance of Bluetooth.

2. If the mobile phone cannot connect to the Bluetooth of transmitter, please reboot the mobile phone and connect again.

3. The Bluetooth transmission distance is very limited, please do not keep the mobile phone far from the transmitter in case the signal fails to connect. If the audio play is OFF due to the far distance between mobile phone and transmitter, keeping them close can restore the play. If the Bluetooth connection is failed, please connect again.

● Common Trouble Shooting

	Malfunction	Possible Reasons	Corresponding Solution
1	Screen shows start failed	1) No power electricity in the socket 2) TF card faulty. 3) Power source faulty.	1) Check if the power source is well connected. 2) Check if the TF card is FAT32 format and the audio files are MP3 format. 3) Replace with another 12V power source to check if the problem is solved.
2	The Machine restart repeatedly	1) Power cord not well connected 2) TF card faulty	1) Check if the power source is well connected. 2) Check if the TF card is FAT32 format and the audio files are MP3 format. 3) Check if the TF card is damaged.
3	Very short transmission distance	1) Poor transmission environment. 2) Low power for output 3) Antenna too close from ground. 4) Low sensitivity of receiver	1) Place the transmitter to a high and open place 2) Use car FM radio to receive the signals for testing. 3) Adjust to higher power for output
4	No signal received on receiver	1) Output power at 0 level 2) Wrong frequency	1) Increase the output power 2) Adjust the radio's frequency to the same as transmitter's.

5	Signal detected on receiver but no sound	1) Low volume output from transmitter 2) Line in cable not well connected on transmitter 3) Wrong audio play mode	1) Check if the line in cable is well connected with transmitter. 2) Turn up the volume of transmitter 3) Switch to corresponding audio play mode.
6	Sound quality is bad	1) Low quality microphone 2) Line-in volume too high 3) Installation of antenna is incorrect 4) Transmitter volume too high 5) Low quality Bluetooth function on mobile phone	1) Set the microphone volume at minimum when there is no microphone connected. 2) Use high quality microphone with shielded wire. 3) Keep the line-in volume at 30%-50% when input into transmitter 4) Use mobile phone with better Bluetooth quality.
7	No sound from microphone	1) Volume of microphone not turned up 2) Not an electret microphone.	1) Adjust the volume of microphone between 30% to 70% 2) Use an electret microphone
8	MP3 cannot play	1) TF card not inserted 2) TF card faulty 3) Audio files are not MP3 format 4) There are files of non MP3 format in TF card. 5) Quantity of songs in TF card exceeds 1000.	1) Insert TF card and then press  to play. 2) Check if the TF card is broken. 3) Check if the TF card is in FAT32 format and the audio files are MP3 format. 4) Delete non-MP3 files 5) Delete songs to less than 1000.
9	Bluetooth cannot connect	1) Mobile phone too far from transmitter 2) Mobile phone is not in the music play mode.	1) Connect the Bluetooth and keep the distance within 3 meters 2) Reboot mobile phone and try to connect the Bluetooth over 9 times. 3) Switch the mobile phone to stereo play mode

● About Transmission Distance

Transmission range is greatly affected by the local RF environment, antenna type, power setting, frequency setting and receiver sensitivity. If the transmission range is short, you may need to upgrade the antenna to higher gain, or install the antenna on places at higher altitude.

Generally speaking, a rubber antenna brings up a transmission distance of around 120

meters, under the premise of receiving by car fm radio. Using a normal FM radio might get about 100 meters distance. Please contact us for more and better transmission proposals.

● About sound quality

1. Please keep line-in volume under 50% and adjusted to a proper level when inputting into machine.
2. If the input audio sources (such as audio from computer) include bass enhancement mode or treble enhancement mode, please adjust the volume of transmitter to lower level, because there is an audio amplifier built-in inside the transmitter, thus the audio output is of high quality without distortions.
3. To ensure better listening experience, please adjust the output volume level of transmitter to a matching grade with that of other local radio stations.

● Interference

If you hear buzzes from the transmitter, possible reasons could be from the line-in cable or microphone, or it could be the power source, audio input device, or antenna. The last and least possible reason is on the transmitter. Please check from the following aspects to solve this problem:

- 1) Sort out all the cables on the transmitter to make sure they are not intertwined with each other. The antenna should not be blocked by any object.
- 2) If the buzzes still exist, please pull out the line-in cable and Microphone wire, leave only the antenna and power source to be connected with the transmitter, then check if the buzz still exists.
- 3) If the buzzes stop after step 2, the possible reason could be the quality of the line-in cable, or the line-in cable was intertwined with the power cord, or the audio input equipment caused the buzz. In this case, keep the wires apart from each other should solve the problem. We have met similar circumstances from our customers and we suggested the

same way to solve the problem.

4) Or you can check the audio input device, it has been testified that if the audio input equipment is connected with a power adapter, it will cause the buzz on transmitter.

5) Another possible reason for the buzz could be on the antenna, it should be 90 degrees vertical with tightened onto the transmitter.

6) If all checks were done as above and the buzzes are still there, the only reason should be on the power adapter of transmitter.

● Recommended Applications.

Applications	Cover Distance	Qty.of Listeners	Suggested transmitter
Small city	10 -15 KM		FSN-1000 1KW FM transmitter
Small village	5 -10 KM		FSN-600 600W FM Transmitter
Big community	3 x 5 KM		FSN-350 350w FM transmitter
Big Conference Room	200 x 500 Meters	1000-1500 people	FU- 25A 25W FM transmitter FU-30B 30W FM transmitter FU-50B 50W FM transmitter
Middle-sized Conference Room	50 x150 Meters	50-500 people	FU- 25A 25W FM transmitter
Small Conference Room	50 x 50 Meters	Less than 50 people	FU-15A 15W FM transmitter

Public Speech on Square	500x1000 Meters	1000-1500 people	FU- 25A 25W FM transmitter FU-30B 30W FM transmitter FU-50B 50W FM transmitter
Simultaneous Translation	50 x 150 Meters		FU- 25A 25W FM transmitter FU-30B 30W FM transmitter FU-50B 50W FM transmitter
School Classroom	10 x 20 Meters	Less than 50 people	FU-X01 1W FM transmitter FU-T300 0.2W FM transmitter
Driving School Teaching	200 x 500 Meters	100 cars	FU -25A 25W FM transmitter
Car MP3 Audio Transmission			FU-T300 0.2W FM transmitter
Home Wireless Audio System			FU-X01 1W FM transmitter
Travel Guide	50 x50 Meters		FU-T300 0.2W FM transmitter
Outdoor activities	50 x 50 Meters		FU-T300 0.2W FM transmitter

We highly recommend to use the FU-X01 series transmitters with FU-R01 FM receiver in practical applications. If you have different needs, please call this number at any time for technical service: +86 18613072427, or send email to rita@fmuser.net to get help.