

# FMTRON 0.5W Transmitter Manual

This product uses a new generation of Japanese ROHM's chip FM stereo radio emission (BH1415F) Seiko-produced. This machine looks beautiful, with gold-plated aluminum chassis fully closed, compact structure, shielding is good, solid firm, due to BH1415F integrates PLL frequency PLL, audio pre-emphasis, limiter and low pass filter circuit, the transmission frequency stability, quality class, a high degree of stereo separation performance than the other forums using ROHM's predecessor (BA1404) produced a more superior transmitter. Very suitable for the various tertiary institutions, living quarters, towns and villages and the need to launch high-power high-fidelity audio signals to suit the occasion. The machine operation simple and easy wiring. Firing frequency of the front panel display using LCD screen, step to 100Khz, through the bottom of the "+" and "-" two touch switches to regulate the frequency of upward and downward, fast and intuitive. "Audio" as the standard 3.5mm stereo input jack, you can easily connect to most home stereo audio playback device. Back on the "DC12V" for 6.5mm power input socket, through the external 12V/2A (optional larger current margin of) power adapter input (jack inside the cathode), power adapter, switching power supply recommended , such as notebook computers and LCD monitors and other external switching power adapter, connector terminal with a magnetic ring filter is best, so can greatly reduce the power of the transmitter interference, conditional use 12V power supply to the battery of the transmitter .

## **Machine parameters**

Operating Voltage: DC 10V ~ 14V, recommend the use of 12V;

Operating current: <2A;

Transmission frequency: 87 ~ 108MHz

Transmit Power:> 0.5W

Modulation Mode: FM

Frequency Offset: + /-75KHz

Output Impedance: 50 Europe

Harmonic radiation: <-55dbc

Pre-emphasis delay: 50us;;

Separation: 40dB;

Input Level:-13dBV;

Applicable to the microphone: Electret condenser microphone

Machine Size: 128mm (L) × 93mm (W) × 55mm (H).

### **Operation instructions**

1. Operation steps: installing an antenna---->>>

to connect the power ---->>>to connect audio

source---->>> to connect the microphone

2. Press the power button to boot into normal working condition.

### **AS the step of the bottom:**

In the back of the transmitter, the antenna interface (ANT) as a BNC interface, therefore, the antenna interface should also be as BNC. External power adapter output voltage DC10 ~ 14V should be within the range of maximum output current should be in 2A above. As shown, the power adapter DC plug connected to the transmitter back "DC12V" on top of the power socket (Note the polarity is correct, he is outside the negative)

As shown above, for connecting external sound source audio lines connected to "AUDIO" interface. Should use more cable shielding performance audio cable, 3.5mm plug.

### **Connect the microphone**

Connected to the "MIC" jack. And audio cable, like a good selection of shielding wires, plugs for 3.5mm. (Note: The microphone for the microphone type is Electret condenser microphone.

### **Boot**

After all the preparation work was ready, the power adapter open, the transmitter is in standby mode the screen displays "OFF":

Click on the front panel , The transmitter will enter the normal working state, and then, through the "+" or "-" It's two buttons to adjust

the working frequency of the machine required frequency.

## **Special features of the setting and adjustment**

### **1.Power Adjustment**

The machine output power sub-two tranches:

Power profile (H):> 500mW; low-power profile (L): <100mW

First of all, turn off the power adapter (or disconnect DC12V), finished in the transmitter power lines disconnected state, press and Hold , And then connect the power adapter (that is, DC12V connected to the transmitter), 3 seconds after release the button, this time into the power to adjust the state, LCD display shows "L" or "H": Click "+", set to high power (H), according to "-", set for low-power (L), select the desired power profile, and then , Power is set, it will go to set the frequency range of the state.

### **2.Frequency range setting**

The completion of power set, will enter a frequency range to set the state. Power setting is completed, press the , LCD screen display a group of frequency data, frequency data is the work of this group of high-end frequency band. For example, to set the operating frequency range from 90MHz ~ 100MHz, then at this time through the "+" "-" button, adjust the frequency data is 100.00MHz, band, high-end is set up, press , Will enter the low-end frequency setting, LCD display data for low-frequency band, through the "+" "-" button, adjust the data for 90.00MHz, and then At this time, is set up (note that band-band high-end low-end can not be compared even higher), this machine by default, within 87 ~ 108MHz to ensure that all performance indicators, generally in the 83 ~ 115MHz can also be used normally, if the super - they range, you need to modify the parameters of the internal components.

### **3. Attention**

(1)Before booting, be sure to had connect

the antenna. It is strictly prohibited empty boot.

(2) Audio cable must use shielded cable.

(3) The power adapter output DC voltage is selected as clean, so as not to interfere with the transmitter.

(4) Avoid extreme hot or humid environment.

## **4. General troubleshooting.**

A. The frequency can not be adjusted.

Reason: to set the frequency range may be errors, high-frequency than low-end high frequency.

Solution: re-setting the relevant parameters (see instructions)

B. To open the boot method, press the power button, the flash look, LCD displays "OFF"

Reasons: low-voltage, over-power adapter with a lower load capacity.

Solution: replace the power adapter (12V/1A)

C. Sound distortion serious

Cause: The input audio amplitude is too large.

Workaround: down the volume of the sound source.

D. Launch proximity

Reason: There may be power set to low power file (L)

Solution: re-setting power parameters.