

FMTRON FU-30A FM Amplifier USER MANUAL

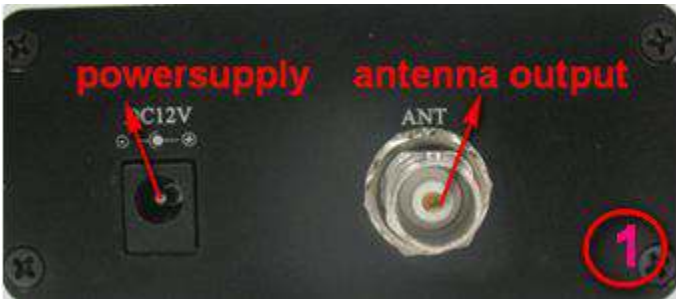


Index

Product Introduction.....	3
Buttons and Interfaces	3
Accessories	4
Functions and Advantages	5
First installation	6
Antenna frequency setting	6
Antenna Installation	7
Main device installation	7
Daily Use	8
Attention	9
Product Parameter	10
Malfunction reminder	11
4 reasons will cause red light on:	12
Special reminder:	12

Product Introduction

Buttons and Interfaces



Picture1 Exciter(Back)



Picture2 Exciter(Front)



Picture 3 FU30a (Front)



Picture 4 FU30a (Back)

Accessories

Adjustable 1/4 wave GP antenna V2.0 Fu30a FM Amplifier

0.5w FM Transmitter (Exciter) Power Supply (not only same as the picture)



Antenna Cable Exciter to Amplifier cable (BNC TO SMA)

Functions and Advantages

I Advanced stationary wave protection function. When the antenna is wrongly connected or the SWR (Standing Wave Ratio) exceeding 1.5, the device will turn to protecting mode automatically.

I Strong power output. The minimum power output is 28W, it could reach 45W under extreme conditions.

I Widely applied to exciter of 0.2W-0.5W.

First installation

Antenna frequency setting

Choice Frequency:

89.5MHz-94.5Mhz (A+B1)

95.5-100.5Mhz (A+B2)

100.5Mhz-105.5Mhz (A+B3)

Antenna Installation



Installation steps (See picture1 and picture2)

Place the antenna in an open and high area (see picture 3)







Main device installation



Interface Picture 1 Connect the antenna and power amplifier

Daily Use

Turn-on:

1. Check the connection of all the lines, especially the antenna connection.



2. Check the working frequency, make sure it's within the frequency range of antenna.(See "Antenna installation" for reference)



3. Make sure the switch of the amplifier is turned off, power on the exciter.
4. Adjust the transmitting frequency of the actuator to a proper value(must be within the setting range of antenna frequency, see “Antenna Installation” for reference)
5. Turn on the power of the amplifier.

Picture 2 Connect the power amplifier to exciter with feeder line.

Picture 3 Connect the amplifier and exciter respectively to power supply

Turn-off order:



1. Turn off the power of amplifier.



2. Turn off the switch of the exciter.



Attention

1. Before turn on the power of FU30a, make sure the antenna is correctly connected. The resistance of which should comply with that of antenna, which is 50Ω. With the needed frequency, the SWR (Standing Wave Ratio) should not be over 1.5(see “Antenna Installation”), or there will be a serious consumption to the power amplifying module.
2. For the safety of device, please do not use other FM Transmitter (Exciter). If you have to, please make sure that the Exciter power output(or **FU30a input**) must equal or **less than 0.5w**, or the FU30a amplifying module will immediately be consumed.
3. The turn on order must be: First switch on the exciter, then turn on the power amplifier. Or it will trigger the alarm light, worse to burn the FU30a.
4. The turn off order must be: First turn off the power of the amplifier, then switch off the exciter.
5. The working temperature should not be over 40°C, or it will automatically stop running because of high temperature.

Product Parameter

Accessory Specification Value

Antenna

Center frequency 92MHz/98MHz/103MHz

Frequency range

89.5MHz-94.5Mhz **(A+B1)**

95.5-100.5Mhz **(A+B2)**

100.5Mhz-105.5Mhz **(A+B3)**

FU30a

Amplifier

Rated voltage 12V DC

Currency 7A

Frequency 87~108MHz

Power output 28W~30W

Output resistance 50Ω

Input RF power 200mW~500mW

Input resistance 50Ω

stray radiation > -55db

Environment

temperature

-5~40°C

0.5w FM

Transmitter(Exciter)

Rated

Voltage/Currency

12V 1.25A

Output power 200mW~500mW

Output resistance 50Ω

Frequency 87~108MHz

Malfunction reminder

Blue light on means working well

Red light on means malfunction, please switch off the power of amplifier immediately.

4 reasons will cause red light on:

Special reminder:

1. Antenna should be placed in a high and open area.
2. All the line should be correctly connected.
3. Special attention should be paid to the turn on and turn off order. No reversing.
4. Operate strictly following the instruction, or the device could be destroyed seriously.

1. Antenna being wrongly connected. Or the interface connection needs double check.

2. The working frequency is out of the setting frequency range, which causes the SWR (Standing Wave Ratio) exceeds 1.5.

3. Connected with other exciter, the power output is over 0.5W.

4. The environment temperature is over 35℃

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