

FM Transmitter

Operation User Manual

FMT-80D/FMT-150D/FMT-350D/FMT-600D



WhatsApp: +86 18627319118

<https://www.108MHz.com>

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<https://www.facebook.com/bd7bq/>

Email: littleshirely@gmail.com



Before powering on the transmitter for the first time, check your AC power voltage and the antenna or dummy load is well connected.

- The manual provides important guidelines for installing. Review the information carefully for proper installation.
- Technical specification sand manual contents are subject to change without notice.

IMPORTANT

1. Maintenance can only be operated by authorized professionals.
2. Get lightening protection measures ready in thunderstorm weather.
3. Do not touch the antenna when the transmitter is powered on.
4. Do not power on the transmitter if the antenna is not well connected.
5. Do not use the transmitter under the explosive environment, such as gas/refueling station, etc.
6. Do not use the transmitter in the extreme dusty, damp or high temperature environment.
7. Be sure to comply with the rules released by local radio administrations.
8. It is necessary that the main system being provided with grounding to ensure both the operators' safety and correct operation of the equipment.

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FEATURE

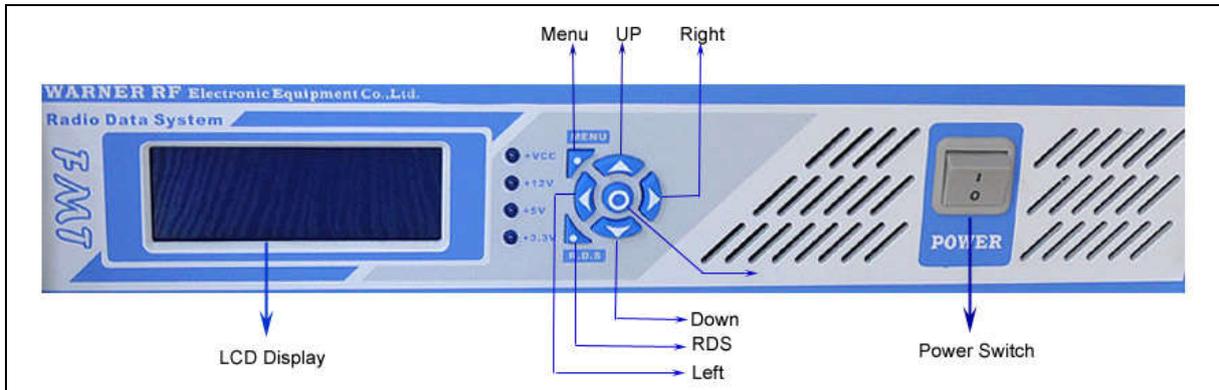
FMT RDS series product includes FMT-80D, FMT-150D, FMT-350D and FMT-600D, which its max power is 80W, 150W, 300W and 600W. Each of the product possesses of multiple functions, reliable and steady performance, fast operation and well-structured in heat dissipation. Main features are as follows,

1. Standard 2U, 19 inch design, whole aluminum chassis.
2. Power adjustable from 0-80/150/300/600 Watts.
3. LCD displays product model, version, operating frequency, temperature, forward power, reflected power, pre-emphasis and audio mode etc.
4. Automatic power control maintaining the output at any preset level.
5. Pre-emphasis optional at 0, 50us, 75us, 100us.
6. Provided with SWR protection function and temperature protection, raise alarm prompts once meet any trouble while working.
7. Wiredrawing and oxidation makes surface bright, clean and elegant.

Note: RDS is used to set station name, send radio text message. (NO AF/TA function)

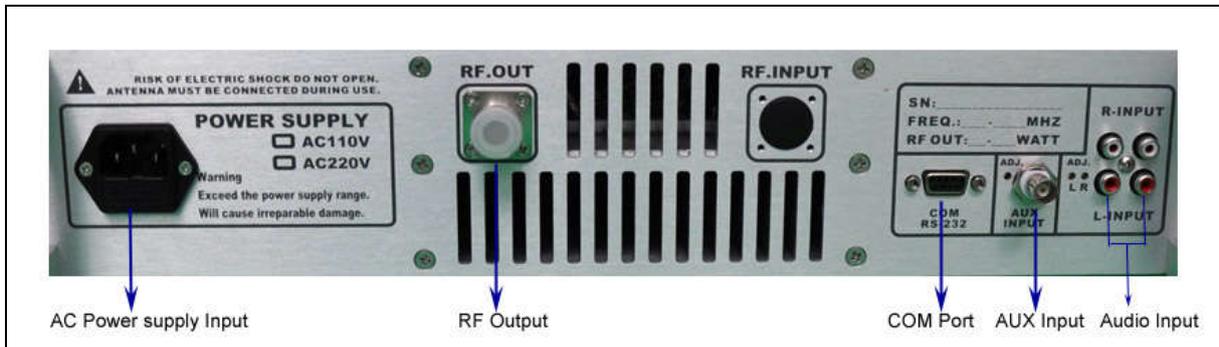
GENERAL ILLUSTRATION

1. Illustration of front panel



2. Illustration of back panel.

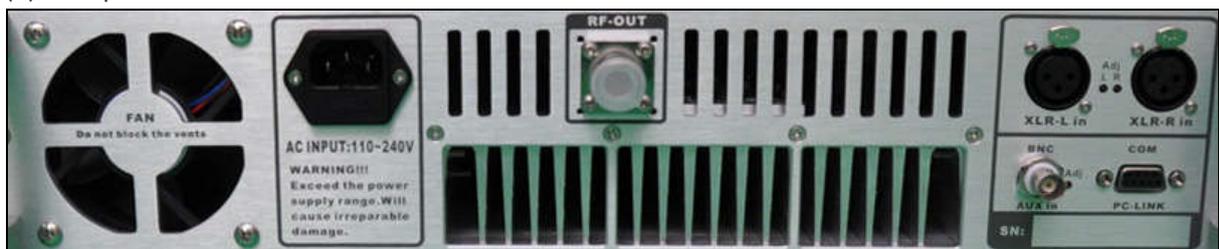
(1) Back panel of FMT-/80D/150D



(2) Back panel of FMT-300D



(3) Back panel of FMT-600D

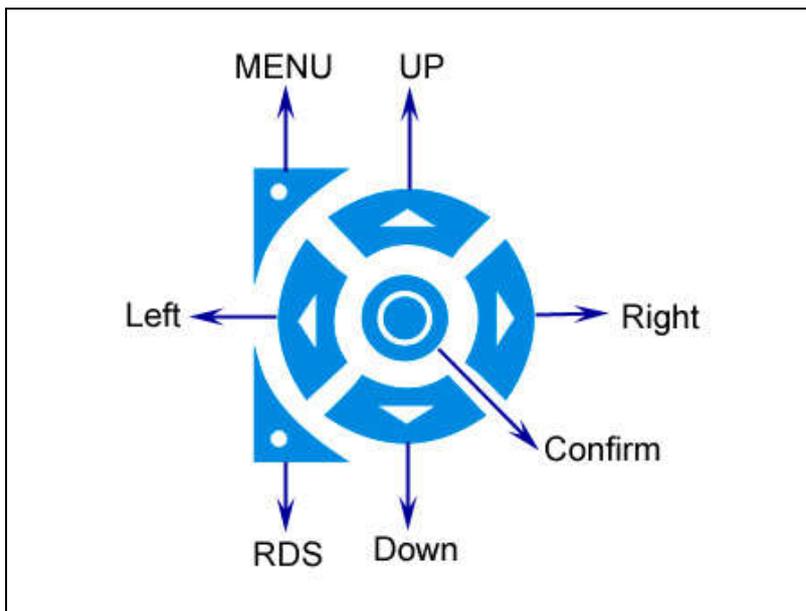


3. Diagram of Display LCD



Button DEFINITION

1. Operation buttons.



 : To enter into Menu configuration or exit.

 : To enter into RDS configuration menu.

 : Confirm, to save changes when configuration is finished.

 : To move cursor left position.



: To move cursor right position.



: To move cursor up or increase.



: To move cursor down or decrease.

2. Power Switch, to turn ON/OFF.



Switch the button to 'I' to turn on the transmitter, and 'O' to turn off the transmitter.

OPERATION INSTRUCTIONS

IMPORTANT

Be sure the antenna or dummy load is well connected before turning on the transmitter.

1. Turn ON/OFF

- (1) After the antenna or dummy load is connected, switch the power button to 'I' to turn on the transmitter.
- (2) Boot screen shows product model (Boot screen can be customized for free, please contact us before making purchase)
- (3) Then the transmitter goes into working status. (Take FMT-350D as example, the same as below.)



- (4) LCD displays the product model, product version. PLL/TX/RDS is enabled or disabled, operating temperature, frequency, forward power, reflected power, audio mode, pre-emphasis and audio input level.
- (5) Switch the power button to 'O' to turn off the transmitter. All settings will be saved when the transmitter is turned off, and will be restored when the power is turned on next time.

2. Menu-Set Frequency

- (1) Press  button to enter into 'FREQUENCY SET'.



- (2) Press  button to confirm.



- (3) The frequency can be set by   to move cursor and   buttons to increase or decrease the frequency value. Only the frequency is between 87.5MHz and 108MHz, the input frequency is valid and can save to confirm. The frequency step is 5 KHz.

- (4) Then press  button to save or  to exit.

3. MENU-RF Power Set

- (1) Press  button then press  to move cursor to 'RF Power SET', press  button to confirm.



- (2) Press  to increase the power or  to decrease the power level. The power range is 0~80/150/300/600 Watts, depends on product model. The step is 1W for FMT-150D/350D/600D and 0.1W for FMT-80D. For quick power set, press and hold the button can increase or decrease the power continuously.



- (3) Then press  to save or  to exit.

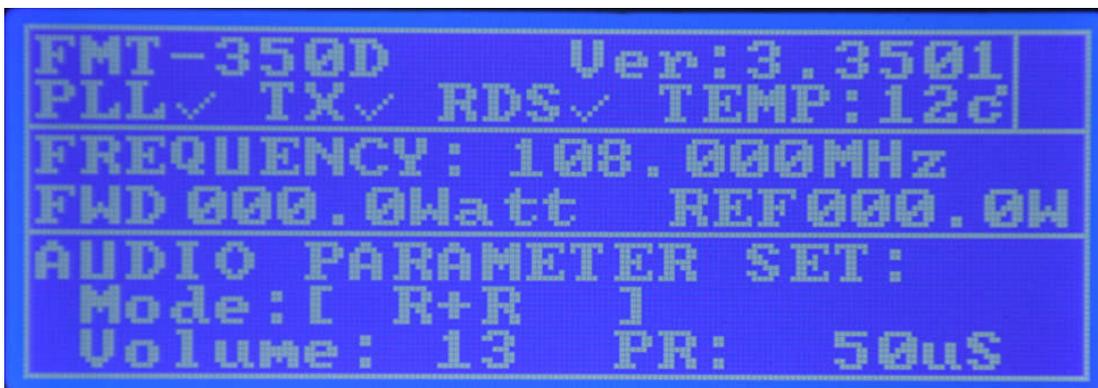
4. MENU- Audio Parameter Set

- (1) Press  button then press  to move cursor to 'Audio Parameter Set', press  button to confirm.



(2) Audio Mode has 4 options, which are 'Stereo', 'R+R', 'L+L' and 'MIX'. Each option can be set by

 or  button to select.



- (3) Then press  button to go to the next menu option 'Volume'. Volume can be set by  or  button to increase or decrease. The range is 00~15.



- (4) Then press  button to go to the next menu option 'PR' to set pre-emphasis.
 (5) 'PR' has 4 options, which are 'OFF', '50us', '75us' and '100us'. Each option can be selected by

 or  button.

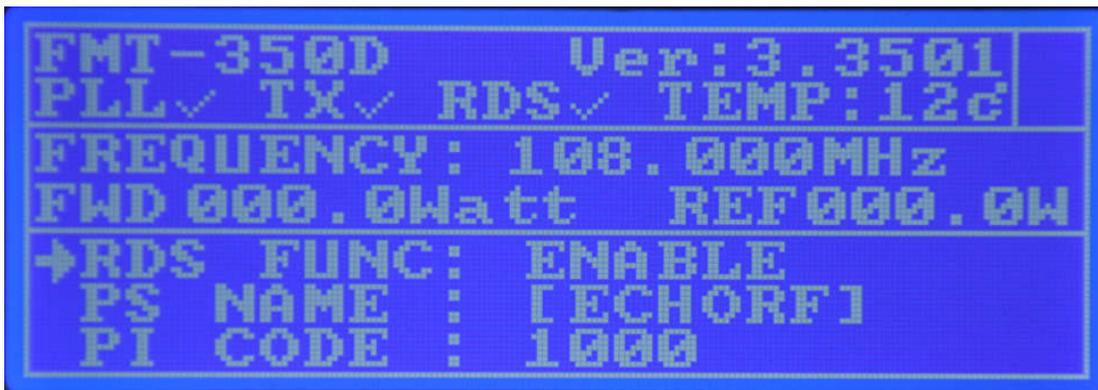




(6) Then press  button to save or  button to exit.

5. RDS – RDS FUNC

(1) Press  button to enter into 'RDS FUNC'.



(2) Press  button to confirm.

(3) RDS FUNC has two options 'enable' and 'disable', which can be switched by pressing  or .

(4) Then press  button to save.

6. RDS – PS NAME

(1) Press  button.

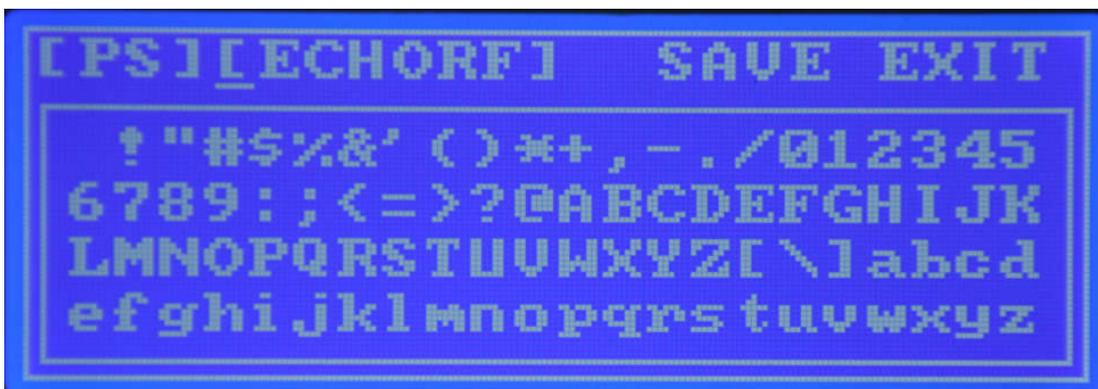
(2) Press  button to move cursor 'PS NAME', then press  button to confirm.

(3) Edit your PS name with characters provided. Character can be selected by 4 buttons

    to move cursor left/right/up/down. Then press  button to confirm and then go to edit the next character.

(4) Repeat (3) to select the character you want, till all your PS Name characters are finished.

(5) PS NAME has max 8 characters can be edited. There are 88 commonly used characters available to use as PS name, and they are listed as below image.



(6) Then move cursor to 'SAVE' and press  to save your changes, or to 'EXIT' to abandon.

7. RDS – PI Code

PI code is program identification code in order to recognize countries/regions and broadcast stations.

It should be set according to the standard in each country/region.

A wrong value code may cause the tuner to fail to recognize the RDS/RBDS correctly.

We set PI code at 1000H by default. It may not meet the users' standard. Please reset it if necessary.

(1) Press  button.

(2) Press  button to move cursor 'PI Code', then press  button to confirm.



(3) Set the value by  to increase or  to decrease, and  or  to move cursor left or right. PI code range is from 0000H to FFFFH.

(4) Press  to save.

8. RDS – M/S

M/S indicates if the broadcast program is music or speech.

(1) Press  button.

(2) Press  button to move cursor to 'M/S' option, then press  button to confirm.



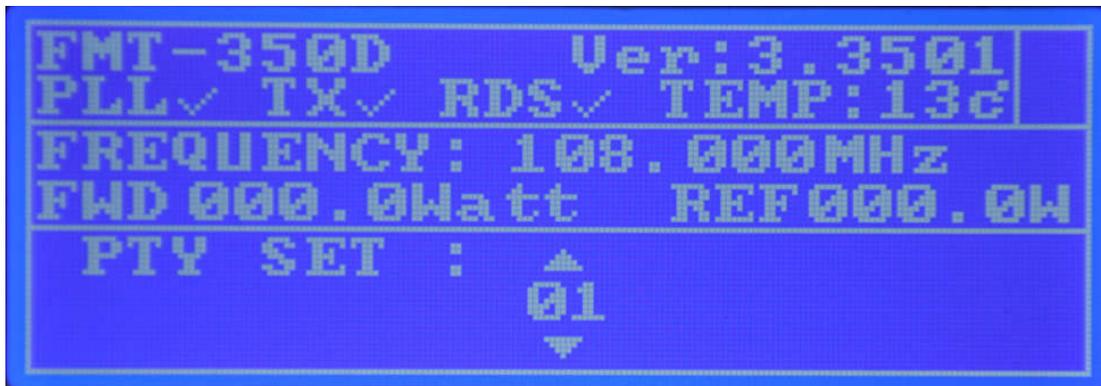
(3) Press  or  to select music or speech and press  button to confirm.

9. RDS - PTY

Program Type indicates which genre the broadcast program is. PTY code varies depending on countries/regions.

(1) Press  button.

(2) Press  button to move cursor to 'PTY' option, then press  button to confirm.



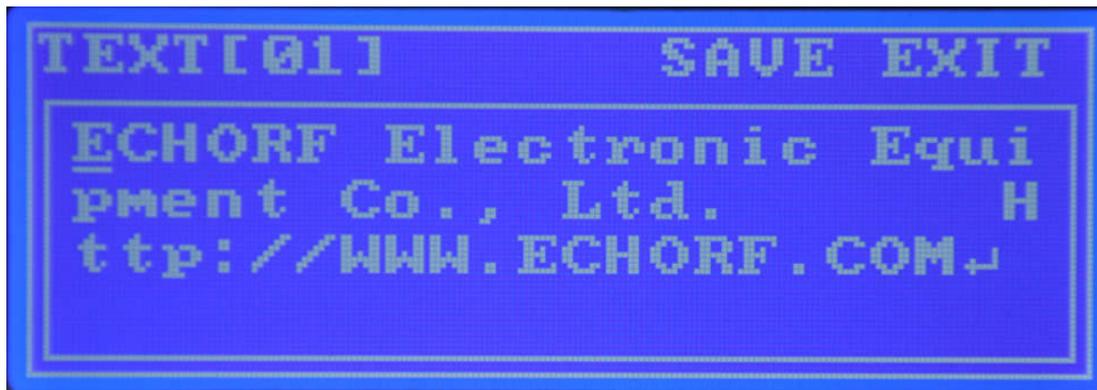
(3) Set by  button to increase or  button to decrease the value. The range is 00-31.

(4) Press  button to save.

10. RDS – TEXT

(1) Press  button.

(2) Press  button to move cursor to 'TEXT', then press  button to confirm.



(3) Edit your text with characters provided. Character can be selected by pressing 4 buttons



to move cursor left/right/up/down and press  button to confirm. Then go to edit the next character.

(4) Repeat (3) to select the character you want, till all your texts are finished.

(5) TEXT has max 64 characters that can be edited. There are 88 commonly used characters available to use. (The same as PS name)

(6) Then move cursor to 'SAVE' and press  to save your changes, or move to 'EXIT' to abandon.

TECHNICAL SPECIFICATIONS

Item	Technical specifications			
	FMT-80D	FMT-150D	FMT-350D	FMT-600D
Power Transistor	SD2931	SD2931	MRFE6V6300H	MRFE6V5600H
Output RF power	0-80W	0-150W	0-350W	0-600W
Package Weight	9Kg	9.5Kg	10.5Kg	11Kg
Audio Input	RCA			XLR
Power supply Input	110V/220V (can be switched)			AC 100-240V
Frequency range	87.5~108MHz			
Frequency stability	±10PPM (-10°C to +60°C)			
Frequency step	100KHz			
Environment temperature	-10°C~50°C			

Output Impedance	50Ω
Harmonic & Clutter radiation	≤ -65dB
Audio Distortion	0.5%
Frequency response	50Hz~15000Hz
Stereo Separation	≥40 dB
Input level	-15 ~ -30db
Frequency deviation	≤±75KHZ
SNR	≥50 dB
Modulation Mode	WFM
Tuning Design	PLL
AUX Input	BNC/Q9
RF Output	N
Dimensions	Standard 2U 19 inches (483mm * 400mm * 89mm)

ABOUT US

We are a professional company focus on RF technology research and development, specialized in professional fm transmitter! Our fm transmitters are ideal equipments to build your own broadcast station, especially used in campus, factories, farms etc. Please be assured, we provide you after-all services and technical supports! You can get in touch with us from any below contacts.

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Email: littleshirely@gmail.com