

# TVM

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VHF WIRELESS MICROPHONE SYSTEM

# TVM

## PROFESSIONAL VHF WIRELESS MICROPHONE SYSTEM



### OPERATING INSTRUCTION

## Policies on environment:

Limited has become quite aware that there is only one earth and that we should improve ourselves in protecting environment to decrease the side effect on the environment. To create some pleasant surrounding is our purpose.

## You have our promise that:

1. We will operate in line with the regulations and policies on environment protection.
2. Each department will carry out the environment policies in system management. Our company will ensure proper HR and finance and organize the attesting of what goals we will achieve and levels.
3. We will train the staff in environment protecting and make clear each person's duty to avoid any negative effect on the environment.
4. Integrate the environment protection with operating procedures and decision-making. We will try to save resources and reduce power consumption. We are trying to minimize the source consumption and pollution and trying to be the best in AV line.

The lifespan of this unit is more than 8 years. Please remember to send this unit and the accessories to qualified dust station.

We have the following suggestions:

1. Please keep the carton and packing material for future use.
2. If you are not using the carton and packing material any more, please get them back to the qualified dust station. On one hand, this will prevent the pollution; on the other hand, you may also benefit economically from this.

Material that can be recycled:

Hardware  
Paper carton  
Plastics  
Warranty card  
Quality tab  
Plastics bag

Material that can not be recycled:

Batteries  
Electronics parts  
PCB board  
Foam  
Cables

**We should answer the call for world environment:**  
**2000 The Environment Millennium - Time to Act ! We should work together to get rid of white pollution to reduce the negative effect on environment to create a better living place.**

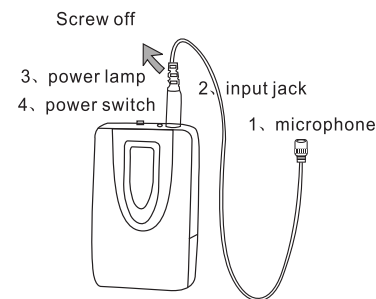


Cartoon A: The earth is sick



Cartoon B: SOS

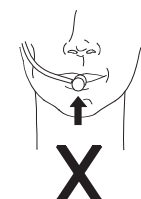
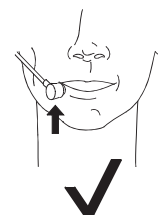
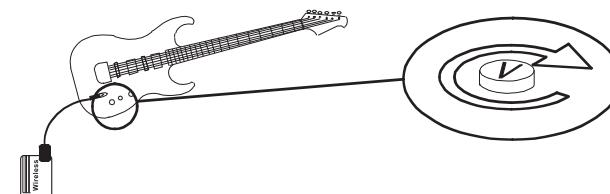
## Body-pack transmitter (accessories)



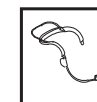
### Body-pack transmitter

Transmitter power: 30mV  
modulation type: FM, F3F  
max deviation: +25KHz  
spurious emission: more than 40dB (with carrier)  
battery voltage: 1X9V battery  
continuum using: 6 hours  
noise control: perfectness circuit for eliminating noises

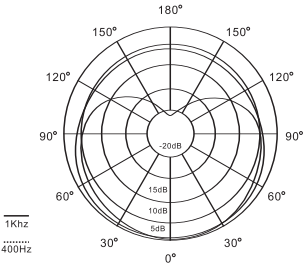
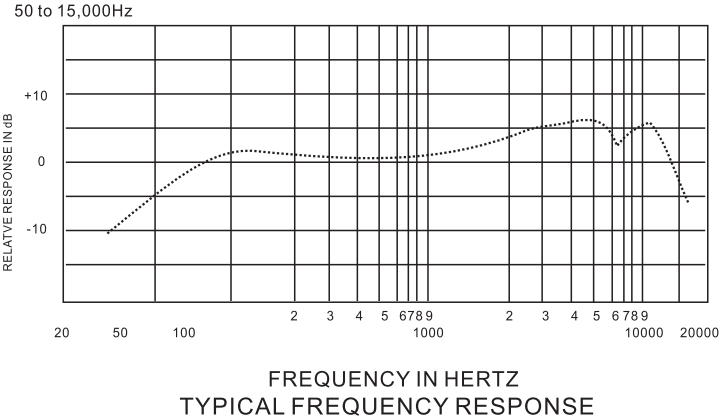
## Instrument adapter cable for guitar



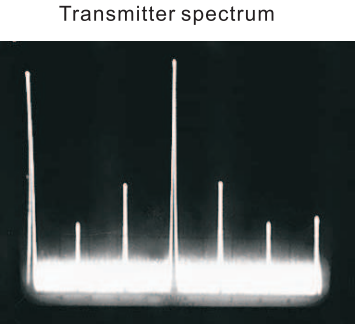
Headset gird means



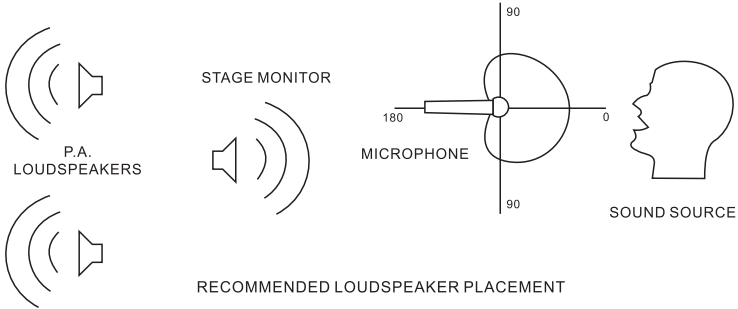
1. headset
2. instrument adapter cable for guitar
3. lavalier microphone



Typical polar patterns



Polar pattern



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### Matters needing attention

1. avoid putting the main machine in blind angle when it is used this is for keeping signal receiving in good condition
2. don't throw fall ,toss cast the handling microphone when it is used in case damage it seriously
3. please keep the machine from direct sunshine or rains ,and put it in a place as possible from the magnetic field
4. don't open it yourself.

### Tips for achieving optimum performance

Maintain a line of sight between the transmitter and receiver antennas if possible avoid placing transmitter and receiver where meal or other dense materials maybe present .  
 Avoid placing the receiver near CD/VCD/LD/DVD or other RF equipment  
 Avoid placing the receiver in the bottom of an equipment rack unless the antennas are remotely located .  
 Mount 1/4 wave antennas with the antenna tips pointed away from each other at a 45 angle ,and away from large metal objects .  
 If multiple wireless system are used ,maintain a distance of at least 3 meters (10ft ) between the transmitter and the closet receiving antenna .

Important a fresh 9v alkaline battery should provide 18to 20 hours of operation however an 8.4v nickel-cadmium(nicad)battery will only provide 3hours of operation carbon zinc chloride batteries will not provide sufficient power and are not recommended.

### Repair with simple fault

1. Turn on the receiver ,but the indicator is not lighted .make sure if the power cable is well ,fixed is the socket in good condition ? is the fuse blown ? is the fuse blown?
2. When you speak ,the audio light twinkles ,but no sound output . make sure if the volume keep in lowest place ,or the audio cable is not fixed well
3. The effective signal receiving distance becomes close and signal receiving is not well . Perhaps you have not put out the antennas .perhaps you should change a new battery . Perhaps there is a strong magnetic field in your surroundings .
4. Timbre becomes bad. perhaps the voltage of the battery is not enough .you need change .perhaps there are the same frequency signals in your surroundings .Don't use two machines. With the same frequency at the same time in a place (separate them at least 200M)

### Specification

#### 1.comprehensive performance

Carrier frequency	VHF174. 2-215. 8MHz
Frequency stabilization :	less than $\pm 30$ ppm
Dynamic range:	more than 90dB
Total harmonic distortion:	less than 0.5%
Frequency response:	40hz-18khz $\pm 3$ dB
Audio output level separate type:	0- $\pm 400$ mV mix type 0- $\pm 200$ mV

#### 2.Fixed receiver

Power supply	AC12V/350mW
Consume power	5watt
Signal /noise power	more than 80dB
Signal /noise ratio	more than 80dB
Image &spurious rejection	more than 80dB
Receiving sensitivity	less than 5dBuV (SINAD=20dB)

#### 3.handing microphone

Transmitter power	7.3mW
Modulation type	VHF
Max deviation	$\pm 20$ KHz
Spurious emission	more than 40dB (with carrier)
Battery voltage	1.5V battery
Continuum using	6 hours

System composition	
1、 receiver.....	X1
2、 wireless mic.....	X1
3、 audio cable.....	X1
4、 battery 9V.....	X1
5、 user guide.....	X1

### Operation of the microphone

- 1.screw the battery box open anticlockwise ,then put in a 9V battery attention :the polarity should be right .
- 2.turn on the microphone .if the light does not twinkle or is always lighted ,you should check the battery if the voltage is enough or the battery is well arranged

### Operation of the receiver

- 1.pullout antenna a & b ,make them be perpendicular with the machine
  - 2.connection one end to the local ac power socket and the other end to an AC12V/350mW power supplying socket ,be sure the voltages should be AC 12V /350mW
  - 3.connection of the audio output
  - 4.mix output :one end of the audio cable "out mix"socket ,and other end audio amplifier or mixer's "mic in"or"aux in"socket.
- Separate output:one end of the audio cable into"out,A" socket,and other end audio amplifier or mixer's mic in or aux in socket.operation of channel B is the same
- 5.Put on the power switch ,the power indication light is lighted .When the microphone is working the signal light of the receiver is lighted the receiver output voice volume of the receiver can be controlled by adjusting the volume knob

### Attention when you install of the receiver

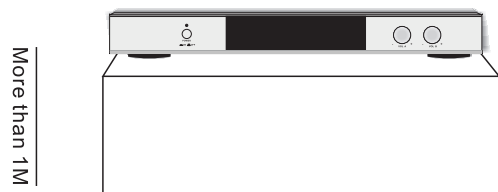
It should be more than 1m high from the floor

It should be more than 1m beyond the wall

Antennas should be put out fully,otherwise it'll influence receiving signals

Antennas put out uprightness

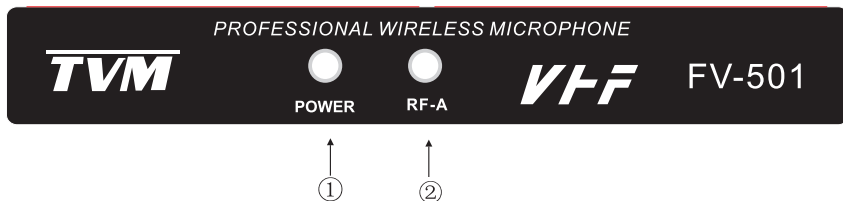
More than 1M



### Main function

- using VHF 174-216MHz band to avert interfering frequency
- using multilevel high frequency and mid frequency narrowband filter ,so as to dispel any possible signals
- The wireless microphone use hidden antenna look good and useful
- There is a volt indicating circuit in the microphone it can tell you if it is necessary to change the battery
- A specially designed circuit switch is on the phone .It is for clearing up waves of miscellaneous signals .
- With audio compressing-expanding technology,the machine can lower noises and increase the dynamic range.It can also lower reecho.
- The receiver use multilevel high frequency enlarger so it has high sensitivity
- It has channel separate outputting and mix outputting and it can be connected with sound-adjusting stage and the Karaoke enlarger.
- Special tone keyer locked identity functions to avoid interference signal from outside open the mute system
- There are multiple noise detect circuit function to avoid interference signal from outside open the mute system
- There are multiple noise detect circuit ,multi-circuit so it has strong anti-jamming specially
- Choose excellent chipset and high quality component so that its timbre will be very good
- Longest distance in open :80 ideal distance in open :30M
- Frequency response tailored for vocals ,with brightened midrange and bass roll-off
- Uniform cardioid pick up pattern isolates the main sound source and minimizes background noise
- Effective ,built-in spherical wind and pop filter
- It is suitable for small and large stages /ballrooms auditoria classrooms and families.

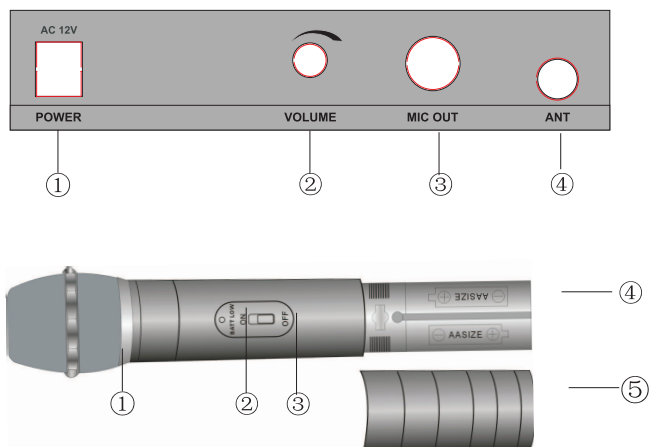
## FV-501



- 1.Power( LED): Indicates whether the machine is ON or OFF.
- 2.Transmitter signal (LED): Indicates the microphone signal

### Rear panel

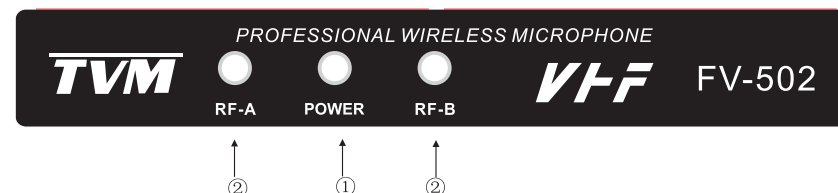
1. DC POWER : main jack for DC adapter
- 2.VOLUME controls : Adjusts the microphone volume
3. MIC OUT : This output is to connect to amplifier /mixer .
4. ANTENNA: Provide the RF signal



- 1.Sound Head
- 2.Power indicates light:Put the switch to the ON position, it the indicator flickers.
- 3.Power switch:to turn on or off the power of transmitter. This switch is set in flute to avoid cutting the power by sudden condition.
- 4.Battery House:to insert into 2X1.5V battery.
- 5.Battery Cover:to insert battery after uncover.

## FV-502

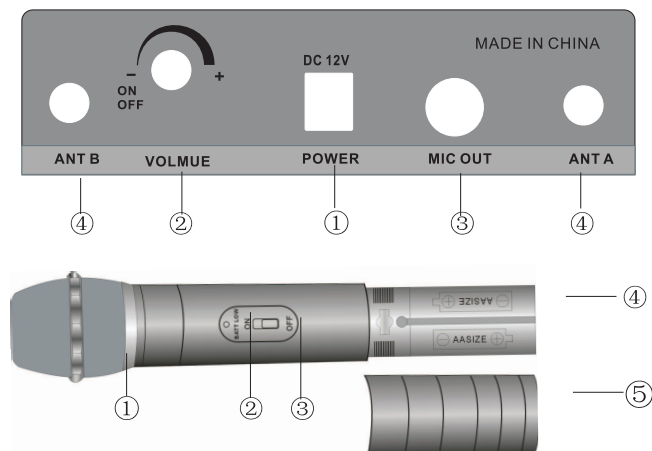
### Front panel



- 1.Power( LED): Indicates whether the machine is ON or OFF.
- 2.Transmitter signal (LED): Indicates the microphone signal

### Rear panel

1. DC POWER : main jack for DC adapter
- 2.VOLUME Controls : Adjusts the microphone volume
3. MIC OUT : This output is to connect to amplifier /mixer .
4. ANTENNA: Provide the RF signal



- 1.Sound Head
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