

Circuit explanation:

How each operations of each section based on the block diagram.

1. MICROPHONE (Block diagram No.1)
An external microphone is of unidirectional, electret condenser type.
Impedance:680 ohm
Sensitivity:-45dB(1kHz, 0dB=1V/1pa)
2. MICROPHONE AMPLIFIER(2)
The microphone amplifier uses an OP amp (IC1A) and amplifies the signal from the microphone capsule to the level necessary for the compressor circuit.
3. COMPRESSOR (3)
The compander IC is (IC2A) and has a compressor circuitry and a OP amp. The compression ratio is 1/2 (logarithmic compression)
4. PRE-EMPHASSIS(4)
Pre-emphasis is carried out to improve the system's S/N ratio. Amplifier (IC1B) is used as an OP amp. A time constant is 50 usec.
5. TONE OSC (5)
Consists of a quartz oscillator XT1 and an inverter (TR1) and oscillates a signal is for tone squelch (tone signal). The oscillation frequency is 32.768KHz, and the output signal is taken out through a buffer (TR2)
6. OSCILLATOR (6)
Starting oscillate frequency is made up of XT2,TR3,C29,C28,C30. Transmitter frequency is depend on the frequency of XT2
7. FREQUENCY MULTIPLIER (7)
TR4,TR5,TR6 make up the frequency multiplication and select circuit .The last level outputs the frequency assigned by the microphone
8. RF AMP (8)
RF signal together with TR7 and resistors and capacitors around make up to RF AMP.
9. SW CONT (9)
Setting up the power switch to ON or OFF.

1. Microphone Head

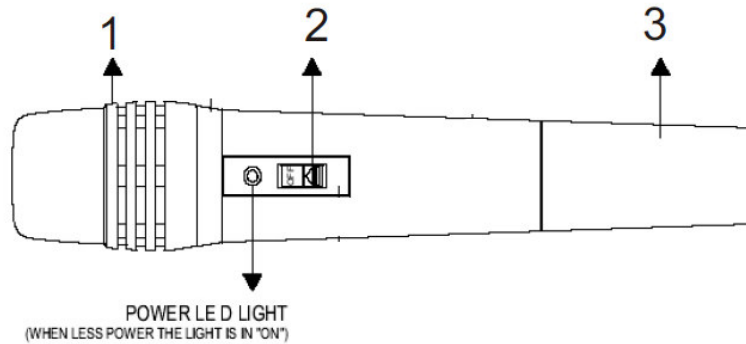
Grille for microphone capsule protection.

2. Power Switch

This 3-position selector (ON/OFF/MUTE) allows to switch ON or OFF the transmitter and to MUTE the microphone.

3. Battery

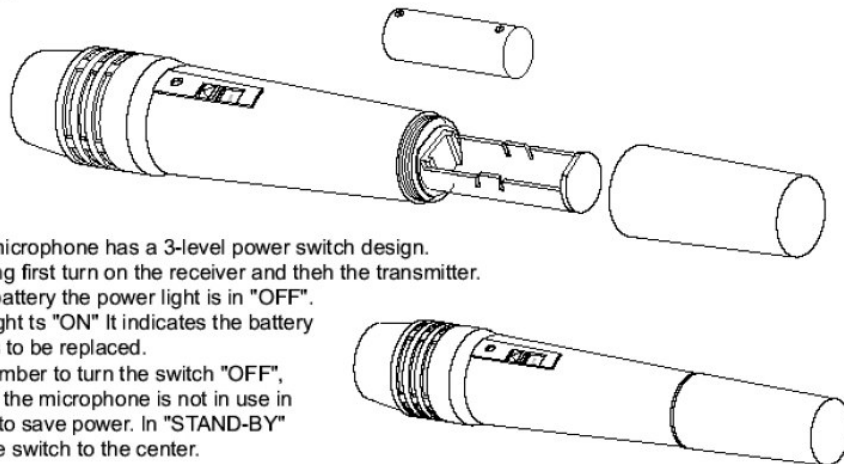
Unscrewing the cover, you can access the 1.5V battery receptacle. Here inside you can find the transmitter frequency.



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BATTERY INFORMATION:

NOTE: Make sure the power switch is in the "OFF" position when changing or installing new battery. Average life on an alkaline battery is 12 hours. Be sure to use good quality long life 1.5V alkaline battery only.



FEATURE:

1. VHF high band wireless microphone.
2. Hand-held dynamic microphone.
3. Wide dynamic range.
4. Over 12 hours of continuous operation with one LR6 (AA size 1.5) alkaline battery.
5. Battery replacement indicator.
6. Tone-key circuit to eliminate external interference.
7. Compressor circuit for extended dynamic range.

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SPECIFICATIONS:

Microphone element	Dynamic
Type of emission	FM(F3E)
Carrier frequency range	174-216 MHz
Frequency stability	±0.005% at 25°C
Maximum Deviation	66.1KHz
Tone frequency	32.768 KHz
Pre-emphasis	50 μ S
RF output power	15mW
Audio Frequency response	50 Hz~15KHz
Dynamic range	100 dB
Battery	1×LR6(AA Size)(1.5 Volts)
Current drain	30mA (Max)
Battery life (Alkali)	More than 12 hours
Dimensions	244 mm
Net weight	Approx. 210g