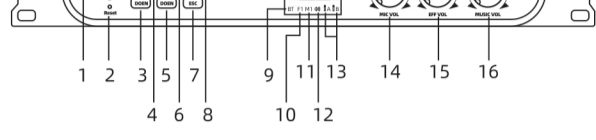


DSP Effector microphone integrated machine

Please read all instructions before use for best performance of this product. Save these instructions for future reference.

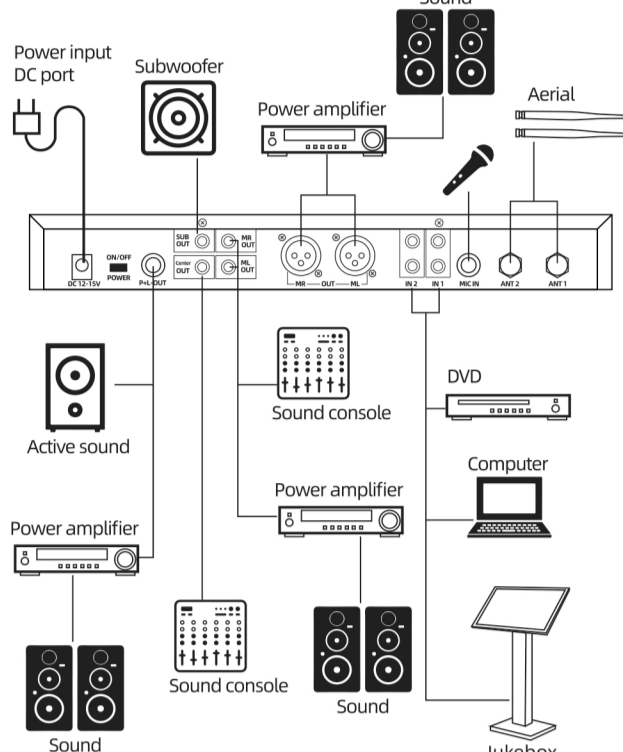
Function introduction



1. Computer debugging interface
2. Restore factory settings
3. Next page
4. Previous page
5. Next line
6. Previous line
7. Exit/Save
8. Input selection (AUX1/AUX2/BT)
9. Input channel display icon (AUX1,AUX2,BT)
10. Frequency shift mode display icon (mode 1-3)
11. Mode display icon (scene mode 1-16)
12. Microphone sound display icon
13. A/B microphone connection indicator icon
14. Function knob, adjust the total volume of the microphone in normal state, and adjust the function option parameters when entering the menu
15. Function knob, adjust the total volume of the microphone normally, and adjust the function option parameters when entering the menu
16. Function knob, adjust the total volume of the microphone in normal state, and adjust the function option parameters when entering the menu

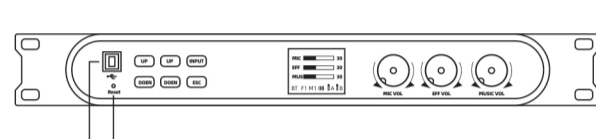
1

Audio equipment connection diagram



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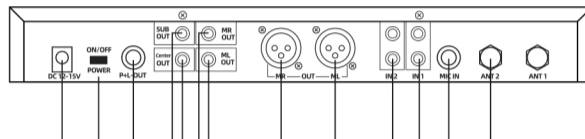
Device attachment



Computer debugging interface

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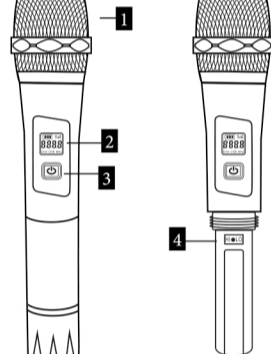
Function introduction



1. Power input DC port
2. Power switch
3. Audio mixed output
4. Center output
5. Subwoofer output
6. Front L output
7. Front R output
8. Front R output
9. Front L output
10. Aux2 input
11. Aux1 input
12. Microphone input
13. Microphone B antenna
14. Microphone A antenna

2

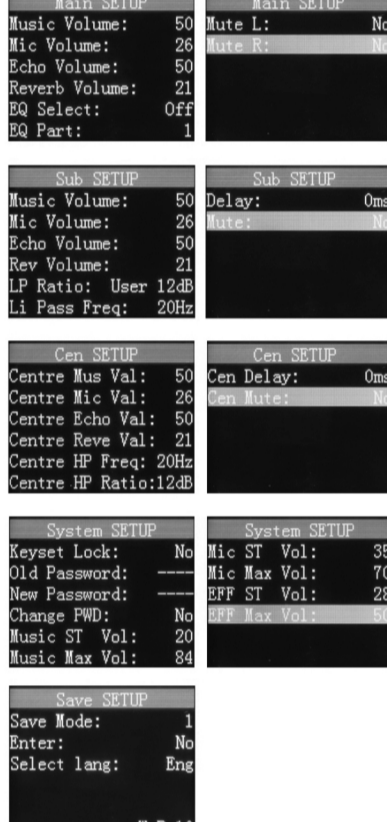
MICROPHONE PARTS & CONTROLS



1. **Microphone Head:** Includes microphone cover and cartridge.
2. **LED Display Screen:** Shows channel, connection range, and frequency.
3. **Microphone Power Button:** Pressing this button will turn on the microphone. When the microphone is on, holding down the button for 2 to 3 seconds will shut the power off.
4. **Frequency Adjustment Button:** This button, marked "HI LO", is accessible by unscrewing the microphone base/battery cover. Pressing the button changes the channel/frequency.

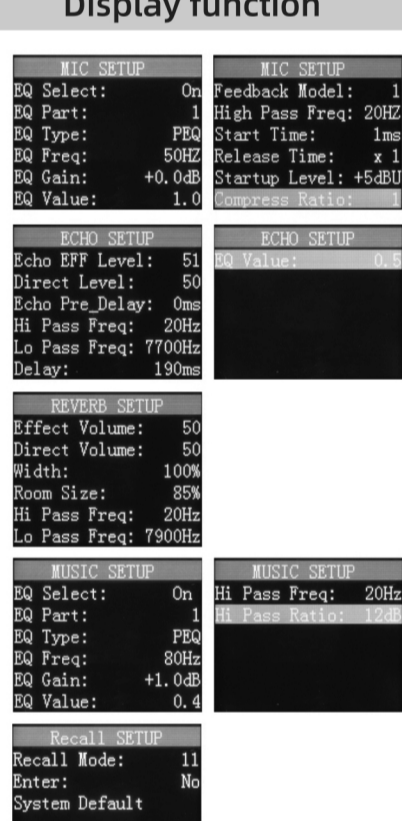
3

Display function



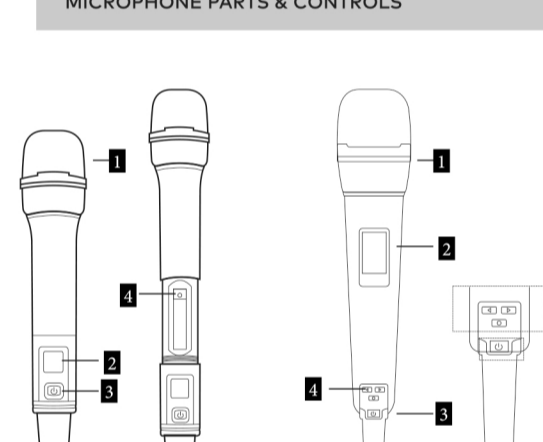
12

Display function



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MICROPHONE PARTS & CONTROLS



1. **Microphone Head:** Includes microphone cover and cartridge.
2. **LED Display Screen:** Shows channel, battery level, connection range, and frequency.
3. **Microphone Power Button:** Pressing this button will turn on the microphone. When the microphone is on, holding down the button for 2 to 3 seconds will shut the power off.
4. **Frequency Adjustment Button:** This button, marked "HI LO", is accessible by unscrewing the microphone base/battery cover. Pressing the button changes the channel/frequency.

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MICROPHONE PARTS & CONTROLS

Microphone Transmitter LED Display



1. **Battery Level Display:** This icon displays the remaining battery power. When the battery level is low, the icon will flash, indicating that it needs replacing.
2. **Channel Display:** This alphanumeric display shows the current channel.
3. **Frequency Display in MHz:** This numeric display shows the current frequency.

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Receiver parameters

Full output level	V _{IS}	0dB gain	0.88	V _{MS}
Sampling rate	F _S	8	192	kHz
Signal-to-noise ratio (A-weighted)	SNR	1kHz	95	100
Dynamic range (A-weighted)	DR	1kHz, -60dB	95	100
Total harmonic distortion	THD+N	-1dB	-85	-80
Programmable gain step	DA_PGA	128steps, -20dB/-33.5dB	0.75	0.8
Channel isolation		1kHz, -20dB/-100dB	69	100
Frequency response	Passband	0.02	0.419/95	20
	Passband Ripple		0.2	0.8
Power supply noise suppression ratio	P _{SSR}	1kHz, 100mVpp	-42	53
		20Hz-20kHz, 100mVpp	37.5	45

over operating free-air temperature range (unless otherwise noted)

	VALUE	UNIT
Supply Voltage	AVDD, CPVDD, DVDD	-0.3 to 3.9
Digital Input Voltage		-0.3 to 3.9
Analog Input Voltage		-0.3 to 3.9
Operating Temperature Range		-25 to 85
Storage Temperature Range		-65 to 150

Logic Family: 3.3V LVCMOS compatible			
V _{IS}	Input logic level	0.7+DV _{DD}	V
V _{IS}	Input logic level	0.3+DV _{DD}	V
I _{IS}	Input logic current	V _{IS} = V _{DD}	10
I _{IS}	Input logic current	V _{IS} = 0V	-10
V _{OH}	Output logic level	I _{OH} = -4mA	0.8+DV _{DD}
V _{OL}	Output logic level	I _{OL} = 4mA	0.22+DV _{DD}

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Receiver parameters

Built-in working parameters of DSP	Symbol	Test condition	Minimum value	Typical value	Maximum value	Unit
Core operating voltage	VCCM	Normal work	1.08	1.20	1.32	V
Port working voltage	VCC0	Normal work	2.97	3.3	3.63	V
Main vibration mode VDD33 working current	ICDD	Port VDD33 supply current (DIGITAL I/O mode)	144	160	176	mA
Low frequency operating mode VDD33 operating current	ICDD	Port VDD33 supply current (90% low frequency operation, 0dBFS)	1	2	2.5	mA
Operating current of standby mode VDD33	ICDD	Port VDD33 supply current (STOP mode)	/	650	/	uA
Pull-up resistor	RPU		30	/	90	kΩ
Crystal oscillator feedback resistor (internal)	RFB		/	1	/	MΩ
High level input voltage	V _{IH}		1.6	3.3	4.5	V
Low level input voltage	V _{IL}	V _{IN} -V _{DD}	/	0	1.4	V
High level input current	I _{IH}	V _{IN} =V _{DD}	/	0	1.4	uA
Low level input current	I _{IL}	V _{IN} =0V	/	0	1.4	uA
High level output current	I _{OH}	V _{OH} =4.5V@90dBmA	/	14	/	mA
Low level output current	I _{OL}	V _{OH} =0.4V@90dBmA	/	8	/	mA

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OPERATING INSTRUCTIONS

1. Turn on the receiver using the Receiver Power Button. The LED display will show the channel and frequency of the receiver.
2. Turn the microphone volume knobs all the way down, and then press the Microphone Power Buttons to turn on each microphone. (2 x AA batteries each are required to turn on the microphones.) The LED displays will show the channel, RF and AF levels, battery status, and transmission range of each microphone.
3. To adjust the frequency, use the Frequency Adjustment Button. To access this button, unscrew the microphone base/battery cover by twisting the lower half of the handle counterclockwise until it is completely removed. Press the button marked "HI LO" to change the channel/frequency. The receiver will automatically match the frequency of transmitter*. Screw the piece back on after you have selected the channel. Channels are selectable between 1 and 50. *Microphone A and Microphone B will not interfere with each other, but if you are using multiple sets of microphones simultaneously, you should set all the microphones to different frequencies.
4. To turn off either the microphone or the receiver, press the corresponding Power Button for 2 to 3 seconds.
5. **Pairing Method**
Turn on the receiver and turn off mic first. Make sure both mic and receiver within 20' distance. Hold down the channel-adjust button of mic first, and then press power button of mic. When screen shows " ", release both buttons and wait for seconds. If " " disappears, it means pairing is successful.

Note: When work with 2 sets or more simultaneously, please make sure mics are set with different channels.

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TECHNICAL SPECIFICATIONS

Handheld Transmitter

- Carrier Frequency: 470-990 MHz
- Modulation Mode: FM
- RF Power Output: ≤10 mW
- Oscillation Mode: PLL (Digital Frequency Synthesizer)
- Frequency Stability: <30 ppm
- Dynamic Range: 2100 dB(A)
- Frequency Response: 50 Hz - 15 kHz
- Maximum Input Pressure: 130 dB SPL
- Microphone Pickup: Moving Coil
- Power Supply: 2 x 1.5 V Batteries(Optional built-in battery)

Receiver

- Operating Voltage: DC 12 V
- Operating Current: ≤ 500mA

over operating free-air temperature range (unless otherwise noted)

	VALUE	UNIT
Supply Voltage	AVDD, CPVDD, DVDD	-0.3 to 3.9
Digital Input Voltage		-0.3 to 3.9
Analog Input Voltage		-0.3 to 3.9
Operating Temperature Range		-25 to 85
Storage Temperature Range		-65 to 150

Logic Family: 3.3V LVCMOS compatible			
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V _{OH}	Output logic level	I _{OH} = -4mA	0.8+DV _{DD}
V _{OL}	Output logic level	I _{OL} = 4mA	0.22+DV _{DD}

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TECHNICAL SPECIFICATIONS

Receiver choose the built-in battery

- Operating Voltage: DC 15 V
- Operating Current: ≤ 500mA
- Working time of battery: about 8 hours, charging time of battery: about 8 hours.
- When charging, the charging lamp is long and bright, and the charging indicator lamp is turned off. Host display power icon, low voltage icon flashing state.

over operating free-air temperature range (unless otherwise noted)

	VALUE	UNIT
Supply Voltage	AVDD, CPVDD, DVDD	-0.3 to 3.9
Digital Input Voltage		-0.3 to 3.9
Analog Input Voltage		-0.3 to 3.9
Operating Temperature Range		-25 to 85
Storage Temperature Range		-65 to 150

Logic Family: 3.3V LVCMOS compatible			
V _{IS}	Input logic level	0.7+DV _{DD}	V
V _{IS}	Input logic level	0.3+DV _{DD}	V
I _{IS}	Input logic current	V _{IS} = V _{DD}	10
I _{IS}	Input logic current	V _{IS} = 0V	-10
V _{OH}	Output logic level	I _{OH} = -4mA	0.8+DV _{DD}
V _{OL}	Output logic level	I _{OL} = 4mA	0.22+DV _{DD}

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