



*WIRELESS
MICROPHONE
SYSTEM*

**UB-81R/81DV
UB-8H/8P** **SERIES**



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SPECIFICATION	MODEL	UB-8P
Oscillation mode		PLL UHF SYNTHESIZED
Carrier frequency band		UHF 740~769 MHZ
Frequency response		50Hz~15KHz(± 3 dB)
Frequency stability		$\pm 0.005\%$
T.H.D		<0.8%
Modulation mode		FM(F3E)
RF output power		10mw
Dynamic :		> 100dB
Tone frequency :		32.768KHz
Curent drain :		< 150mA
Max.Deviation :		± 35 KHZ Deviation
Battery:		"AA"1.5V type $\times 2$ pcs (used for more than 6 hours)
Microphone Capsule		Condenser or Dynamic Capsule
4 band choice		1. Condenser
		2. Dynamic
		3. Electric instrument
		4. Ground
Dimensions :		65(W) \times 111(L) \times 31(H)
Weight :		0.105Kg(Approx.)

IMPORTANT!

Please read this manual carefully before operating this unit for the first time.

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5. TECHNICAL SPECIFICATIONS

SPECIFICATION \ MODEL	UB-81R	UB-81DV
Channel	Single-Channel	Single-Channel
Receiver type	Non-Diversity	Diversity
Receiver type	PLL UHF SYNTHESIZED	PLL UHF SYNTHESIZED
Frequency band	UHF 740~769MHz	UHF 740~769MHz
Frequency response	50Hz~50KHz(±3dB)	50Hz~50KHz(±3dB)
Frequency stability	±0.005%	±0.005%
Modulation mode	FM(F3E)	FM(F3E)
T.H.D	< 1%	< 1%
Dynamic	> 100dB	> 100dB
Audio Output	unbalanced 6.3mm phone jack 280mv±15KHz deviation	unbalanced 6.3mm phone jack 280mv±15KHz deviation
Balance output	280mV at ±15KHz deviation	280mV at ±15KHz deviation
S/N Ratio	>90dB	>90dB
RF sensitivity	-100dbm/30db sinad	-100dbm/30db sinad
Power supply	DC 12V/500mA(AC 120V /230V 50/60Hz Adaptor)	DC 12V/500mA(AC 120V /230V 50/60Hz Adaptor)
Dimensions	130(W)×44(H)×201(L)	130(W)×44(H)×201(L)
Weight	0.350Kg(Approx.)	0.365Kg(Approx.)

SPECIFICATION \ MODEL	UB-8H
Oscillation mode	PLL UHF SYNTHESIZED
Carrier frequency band	UHF 740~769 MHz
Frequency response	50Hz~15KHz(±3dB)
Frequency stability	±0.005%
T.H.D	<0.8%
Modulation mode	FM (F3E)
RF output power	10mw
Dynamic	> 100dB
Tone frequency	32.768KHz
Current drain	< 150mA
Max. Deviation	±35KHZ Deviation
Battery	"AA"1.5V typex2pcs (battery life: more than 6 hours)
Microphone Capsule	Dynamic Capsule
Dimensions	220mm
Weight	0.16Kg(Approx.)

SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that documentation for safety reasons.



Protective grounding terminal.



Alternating current /voltage.



Hazardous live terminal .

ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.



Disposing of this product should not be placed in municipal waste and should be separate collection.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

• Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

• External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

• Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.

No user serviceable parts inside.

• Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

• Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

• Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not use this apparatus near water. Install in accordance with the manufacturer's

instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.

• Power Cord and Plug

Do not defeat the safety purpose of the polarized or grounding type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

• Cleaning

When the apparatus needs a cleaning, you can blow off dust from the apparatus with a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

• Servicing

Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so .

Servicing is required when the apparatus has been damaged in any way ,such as power supply cord or plug is damaged , liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4.3 OPERATING FREQUENCY MATCHES BETWEEN THE RECEIVER AND THE TRANSMITTER

To make the operating frequency matched between the transmitter and the receiver, adjust the transmitter and receiver manually with the adjusting bar for the same frequency. Please refer to the following table for selecting frequency.

Caution: a: If several apparatus are used at the same time, the same frequency can not be used for them.

b: Ten channels can be used simultaneously at most. They are respectively CH0, CH1, CH3, CH4, CH6, CH7, CH8, CH9, CHE, CHF. The rest 6 channels are available for customer's choice.

CH0~CHF	FREQUENCY
0	See the table F6
1	See the table F6
2	See the table F6
3	See the table F6
4	See the table F6
5	See the table F6
6	See the table F6
7	See the table F6
8	See the table F6
9	See the table F6
A	See the table F6
B	See the table F6
C	See the table F6
D	See the table F6
E	See the table F6
F	See the table F6

F6: 740.000-764.000(740-769)MHz

	Group1	Group2	Group3	Group4	Group5	Group6	Group7	Group8	Group9	Group10	Group11	Group12
1	740.125	740.325	740.525	740.725	740.925	741.125	741.325	741.525	741.725	741.925	742.125	742.325
2	742.525	742.725	742.925	743.125	743.325	743.525	743.725	743.925	744.125	744.325	744.525	744.725
3	744.925	745.125	745.325	745.525	745.725	745.925	746.125	746.325	746.525	746.725	746.925	747.125
4	747.325	747.525	747.725	747.925	748.125	748.325	748.525	748.725	748.925	749.125	749.325	749.525
5	749.725	749.925	750.125	750.325	750.525	750.725	750.925	751.125	751.325	751.525	751.725	751.925
6	752.125	752.325	752.525	752.725	752.925	753.125	753.325	753.525	753.725	753.925	754.125	754.325
7	754.525	754.725	754.925	755.125	755.325	755.525	755.725	755.925	756.125	756.325	756.525	756.725
8	756.925	757.125	757.325	757.525	757.725	757.925	758.125	758.325	758.525	758.725	758.925	759.125
9	759.325	759.525	759.725	759.925	760.125	760.325	760.525	760.725	760.925	761.125	761.325	761.525
10	761.725	761.925	762.125	762.325	762.525	762.725	762.925	763.125	763.325	763.525	763.725	763.925
11	764.125	764.325	764.525	764.725	764.925	765.125	765.325	765.525	765.725	765.925	766.125	766.325
12	766.525	766.725	766.925	767.125	767.325	767.525	767.725	767.925	768.125	768.325	768.525	768.725

4. OPERATION

4.1 FOR the UB-81R/81DV, PLL UHF DIVERSITY RECEIVER

- MANUALLY SELECTING FREQUENCY

With an adjusting bar, adjust the band selector to select the right frequency which matches the frequency of transmitter.

- OUTPUT VOLUME CONTROL

It is used to control the output volume. Turn the knob clockwise and the output volume increases. Turn the knob counter- clockwise and the output volume decreases.

- SQUELCH CONTROL

The job of a squelch circuit is to reduce audible noise. It eliminates noise during pauses in the audio signal by muting the receiver every time and the audio level drops below a defined threshold. The squelch control on the receiver sets this threshold. Use the squelch control with care! If the squelch threshold is too high, the squelch will not only cut out noise but mute quiet audio signals as well because the squelch responds to the detected voltage and cannot distinguish between wanted signal and noise. Besides that, a too high squelch threshold also decreases the usable range. The squelch range is 95.0dB~65.0dB. Use an adjusting bar to adjust the squelch selector for a right squelch threshold.

4.2 FOR the UB-8H/8P SERIES TRANSMITTER

4.2.1 FREQUENCY SELECT

In practice, to effectively avoid the interference from any lighting equipment, Computers, fax machines, etc nearby, It is usually advised to switch to another frequency to get best performance.

The frequency range of this system is UHF, 740MHz ~ 769MHz, and it is divided into 16 frequency bands according to the country's EMC regulations; Each frequency band can be manually adjusted with an adjusting bar. If you want to switch a frequency, you have to turn off the unit, adjust frequency and then turn it on again.

4.2.2 BATTERY REPLACING AND CHARGING

Please be advised to use only one pair of AA 1.5V batteries for power supply.

Caution: Danger of explosion if battery is incorrectly replaced. Replace the batteries only with the same or equivalent type.

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1. INTRODUCTION

Thanks for purchasing the SHOW wireless microphone system. The UB-8H/8P/81R/81DV Series is the delicately designed UHF, PLL synthesized system, with antenna built inside the receiver for smart switching diversity control, the higher level RF signals maybe fed into the system for greater reliability and coverage, therefore, the risks of breakdown and interference are to be effectively reduced.

You can manually adjust the channel of the transmitter to match that of the receiver if you know about the operating frequency of it.

Generally, the UB-8H/8P/81R/81DV series consists of

- UB-81DV, PLL UHF Diversity Receiver
- UB-81R, PLL UHF Diversity Receiver
- UB-8H, Handheld transmitter
- UB-8P series, Body Pack transmitter

UB-81DV, PLL UHF DIVERSITY RECEIVER



UB-81R, PLL UHF DIVERSITY RECEIVER



UB-8H, HANDHELD TRANSMITTER

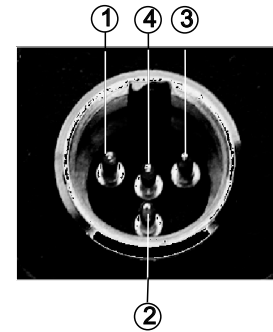


① POWER SWITCH

Set the power switch in the position ON, then the microphone is turned on and the flashes once. Set the power switch in the position OFF, then the microphone is turned off and the BATT LED lights off slowly.

② MINI 4P CONNECTOR

This connector is used to connect the unit with the clip microphones, for example, HM-38 or HM-58 condenser microphones.



Pin 1, GND

Pin 2, Phantom power supply for Condenser microphone

Pin 3, for Guitar, bass and keyboards

Pin 4, for Dynamic or condenser microphone

③ BATTERY COMPARTMENT

This unit may be powered from one pair dry or rechargeable batteries, UM3 size AA 1.5V.

④ BELT CLIP

It is the detachable belt clip for easy carry during the live applications.

⑤ ANTENNA

It is the flexible antenna. To get effective transmission, never cover the antenna with hand, clothes, etc during the operation, and always position the transmitter nearby the receiver.

⑥ GT SWITCH

It is used to adjust the input signal level of electrical guitar. When an electrical guitar is being used it is ineffective to adjust MT switch.

⑦ MT SWITCH

It is used to adjust the input signal level of microphone. When a microphone is being used it is ineffective to adjust GT switch.

⑧ BAND SELECTOR

With the adjusting bar, the band selector can be used to switch to an expected frequency before switching the frequencies, turn off the transmitter first and then turn on it.

⑨ ADJUSTING BAR

It is used to adjust BAND SELECTOR, MT SWITCH and GT SWITCH.

⑩ POWER LED

When the unit is turned on this LED flashes once. When the unit is turned off this LED lights off slowly. When the batteries are short of power, this LED flashes. When the batteries can not be used this LED lights up.



① MASSIVE FRONT GRILL

Extremely rugged spring steel mesh grill to protect the capsule underneath in tough stage or live performance.

② POWER SWITCH

Set the power switch in the position ON, then the microphone is turned on and the BATT LED flashes once. Set the power switch in the position OFF, then the microphone is turned off and the BATT LED lights off slowly.

③ POWER LED

When the unit is turned on, this LED flashes once. When the unit is turned off, this LED lights off slowly. When the batteries are short of power, this LED lights up.

④ BAND SELECTOR

With an adjusting bar, the band selector can be used to switch to an expected frequency. Before switching frequencies, turn off the microphone first and then turn on it.

⑤ ADJUSTING BAR

This adjusting bar is placed in the microphone. It is used to adjust squelch control and band selector for switching frequencies.

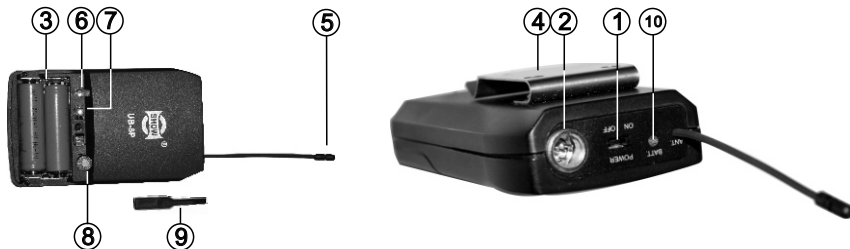
⑥ ANTENNA

The antenna is integrated into the transmitter body for transmitting signals.

⑦ BATTERY COMPARTMENT

The unit may be powered from a dry or rechargeable battery.

3.3 UB-8P SERIES, BODY PACK TRANSMITTER



UB-8P SERIES, BODY PACK TRANSMITTER



For the UB-8P series, there are several types of clip microphone are included in this product range, please make sure that the proper microphone has been selected for your typical sound reinforcement system before installation.



HM-38, Condenser microphone
 Preset impedance: 600ohm;
 Freq. response: 80-12KHz;
 Sensitivity: -68dB+/-3dB at 1KHz;
 Directional: Uni-directional;
 Weight: 52g (0.12lb)



HM-58, Condenser microphone
 Preset impedance: 700ohm;
 Freq. response: 200-8KHz;
 Sensitivity: -65dB at 1KHz;
 Directional: Uni-directional;
 Weight: 54g (0.12lb)

Last but not the least, the operating frequency of this system may be varied from 798MHz to 827MHz, please refer to your national EMC regulations to pick out the authorized frequency band (0 ~ F) for your end application.

2. FEATURES

-UB-81R/81DV, PLL UHF DIVERSITY RECEIVER

- Switching diversity control to receive the RF signal;
- LED indication for RF, AF PEAK and POWER;
- Output volume control;
- Squelch control;

-UB-8H/8P TRANSMITTER,

- Soft touch painting for comfortable use;
- Channel frequency adjusted manually

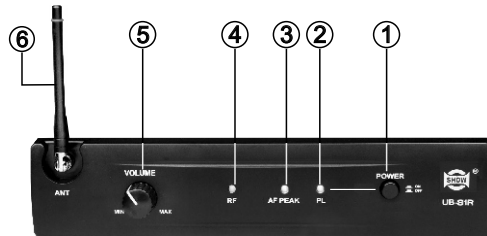
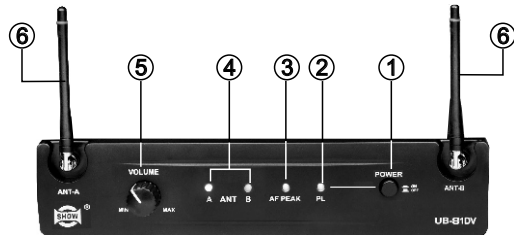
-COMMON FEATURES,

- PLL synthesized design;
- Consistent operating frequencies to comply with the EMC regulations;
- 16 channel frequency presets;
- Manufactured under ISO9000:2000, ISO/TS16949:2002 quality management system;

3. CONTROL ELEMENTS

3.1 UB-81R/81DV, PLL UHF DIVERSITY RECEIVER

THE FRONT PANEL



① POWER SWITCH

It switches on/off UB-81R/81DV main power.

② POWER LED

This LED lights up when the receiver is powered on and vice versa.

③ AF PEAK LED

This LED lights up when the signal reaches PEAK and sound is distorted.

④ RF LED

This LED lights up when antenna receives signals.

Note: UB-81DV has two antennas. LED A lights up when antenna A receives more signals than antenna B. LED B lights up when antenna B receives more signals than antenna A.

⑤ VOLUME CONTROL

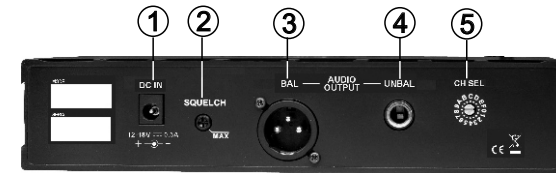
It is used to adjust the volume of receiver.

⑥ ANTENNA

The antenna receives the signals from transmitter. .

Note: 81DV has two antennas and 81R has only one antenna.

THE REAR PANEL



① DC JACK

This DC jack is used to connect DC 12~18V for the receiver.

② SQUELCH CONTROL

It is used to adjust the squelch level by using an adjusting bar which is placed in the microphone. The adjustable squelch range is 95.0~65.0dB.

③ XLR AUDIO OUTPUT

This is a professional balanced XLR output connector.

④ AUDIO OUTPUT JACK

This is a professional unbalanced output jack.

⑤ FREQUENCY BAND SELECTOR

Using a select bar, you can select the right frequency band you want.

3.2 UB-8H, HANDHELD TRANSMITTER

