



Instruction Manual

UHF PLL

DA-801R/DA-802R DA-800H/DA-800B



With **REMOSET** $\widetilde{\mathbf{U}}$ Ultrasonic Synchronizing Technology

One year product warranty

Product Model	Equipment serial number
Customer name	Contact number
Address	
Purchase date	
Selling store stamp	Be sure to put store stamp and fill in purchase date for the warranty to be effective!

Warranty description

- 1. Be sure to put the warranty label indicating purchase date on the bottom of equipment to ensure your interest in maintenance and service.
- 2. Product warranty, starting on the purchase date indicated on "warranty label", will last for one year; if the equipment does not have "warranty label", the warranty period is 15 months from the manufacturing date. If a microphone is broken but not sent back with the equipment, the warranty period is 15 months from the manufacturing date of the microphone.
- 3. Within the warranty period, if the equipment is broken under normal use as instructed in manual, please contact the original selling store for repair.
- 4. When the product is returned for repair, to facilitate proper determination of cause of malfunction and of whether repair fee is needed, please ship back the equipment and microphone together.
- 5. Within the warranty period, our company provides repair service at no cost except for the following conditions that parts and repair may be charged:
 - a.Damages due to natural disaster or irresistible outside forces.
 - b.Damages due to drop, water, moisture, corrosion, foreign objects, missing components.
 - c.The warranty does not cover consumable parts. (such as microphone capsule, ball grille etc.)
 - d.Those without "warranty label" on equipment or with "warranty label" being damaged and failing to identify warranty period.
- 6. Please keep the warranty properly. No replacement will be made if the warranty is missing.

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1. Notes for system operations

- Before connecting the power, check that the power requirement shown on the unit is the same as the power output on the adaptor supplied.
- Do not leave the unit at where the humidity and temperature are high.
- Dry your hands before operating the system.
- Keep the unit away from fire and heat source.
- Turn the volume to minimum at both the mixer and amplifier before setting up the system.
- Caution: The suitable environment for this product is with a temperature between -10°C (14°F) and +50°C (122°F).

2. Features

- 6 groups are provided as default. Every group contains up to 22 default channels.
- There are in total 1,440 channels to choose from.
- 36MHz bandwidth.
- The patented **REMOSET** will ultrasonic pairing for synchronized setting of all parameters
- · Channel scan
- · Adjustable receiving sensitivity
- · Digital volume control
- Automatic microphone power off

3. Specifications

3-1 UHF PLL single/dual-channel diversity receiver

Model	DA-801R	DA-802R
Frequency Oscillation Mode	Phase-locke	d loop (PLL)
Carrier Frequency Range	470~96	50 MHz
Remoset Frequency	Ultra	sonic
Diversity	Antenna	diversity
Bandwidth	36N	1Hz
Signal/Noise Ratio	>105	dB(A)
Total Harmonic Distortion (Thd)	<0.6%	@1KHz
Receiving Sensitivity	-95dBm,	S/N>80dB
Image Rejection Ratio	>80	dB
Frequency Response	50Hz~16	KHz±2dB
Antenna Type	1/2λ BNC c	detachable
Antenna Booster Power	DC12~15	V/100mA
Function Display By	LC	D
Contents Of Display	Group, channel, frequency, bat muting level, AF indication, RF output level attenuation, volun	indication, channel scanning,
Control Functions	Power, group, channel, frequer volume, output attenuation (XI	
Audio Frequency Output Level	Ø6.3 Phone J	ack:+4dBu
(MAX)	XLR Jack:+10dBu(Line), -10dBu(MIC)	
Audio Frequency Output Impedance	600Ω	
Muting	Noise muting and	tone code locking
Output Port	1 x balanced XLR jack 1 x unbalanced φ6.3 jack	2 x balanced XLR jack 2 x unbalanced φ6.3 jack
Power Supply	DC12~15V/300mA	12~15V DC/500mA
Dimension (mm)	212.3mm(W) x 38.3	mm(H) x 144mm(L)

3-2 UHF PLL hand-held transmitter

Model	DA-800H
Frequency Oscillation Mode	Phase-locked loop (PLL)
Carrier Wave Frequency Range	470~960 MHz
Remoset Frequency	Ultrasonic
RF Power Output	10mW/50mW (as per local regulations)
RF Stability	<±10KHz@Fc
Modulation Frequency Shift	±48KHz
Harmonic Radiation	<-50dBc
Functions	Mute, auto off, sensitivity adjustment, low power indication
Display By	LCD+LED
Controls	Power, mute, group, channel, frequency, sensitivity adjustment, auto off, button lock, RF power
Battery	AA alkali battery or MiNH rechargeable battery x 2
Charging	Yes
Dimension	51mm(W) x 269mm(H) x 26mm(L)

3-3 UHF PLL body-pack transmitter

Model	DA-800B
Frequency Oscillation Mode	Phase-locked loop (PLL)
Carrier Wave Frequency Range	470~960MHz
Remoset Frequency	Ultrasonic
RF Power Output	10mW/50mW (as per local regulations)
RF Stability	<±10KHz@Fc
Modulation Frequency Shift	±48KHz
Harmonic Radiation	<-50dBc
Functions	Mute, auto off, input level attenuation, sensitivity, adjustment, low power indication
Display By	LCD+LED
Input Port	4P Mini XLR
Controls	Power, mute, group, channel, frequency, sensitivity adjustment, input level attenuation, auto off
Battery	AA alkali battery or MiNH rechargeable battery x 2
Charging	Yes
Dimension	62mm(W) x 97mm(H) x 20mm(L)

3-4 Optional condenser microphone

Lavaliere microphone

Model	DA-501L
Connector	4P Mini XLR
Frequency Response	100~15,000 Hz
Polar Pattern	Cardioid
Sensitivity (at 1000Hz)	-60 ± 3dB
Impedance	2.2Κ Ω
Max. SPL for 1% THD	130dB
Dimension (mm)	Ø10.1mm(W) x 26.4mm(H)
Net Weight	21.5g

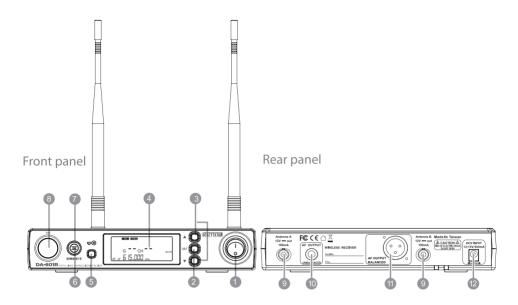
Headset microphone

Model	DA-235F
Connector	4P Mini XLR
Frequency Response	50~18,000 Hz
Polar Pattern	Omni-directional
Sensitivity (at 1000Hz)	-53 ± 3dB
Impedance	1.8kΩ
Max. SPL for 1% THD	130dB
Dimension (mm)	155mm(W) x 134mm(H) x 157mm(D)
Net Weight	17g (cable excluded)

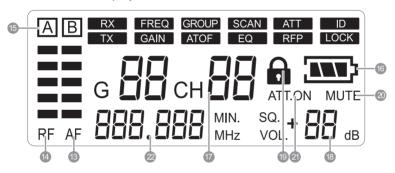
Model	DA-214F	DA-214B
Connector	4P Mini XLR	
Frequency Response	60~15,	000 Hz
Polar Pattern	Omni-di	rectional
Sensitivity (at 1000Hz)	-60±3 dB	
Impedance	1.8kΩ	
Max. SPL for 1% THD	130	OdB
Dimension(mm)	125mm(W) x 134mm(H) x 157mm(D)	
Net Weight	32.	9g

4. Description of parts

- 4-1 UHF PLL single-channel diversity receiver // DA-801R
- 1 Power: means "ON" and O means "OFF".
- SET: this is for function settings. Push and hold for 2 seconds to enter the setting mode. Push "SET" repeatedly to search for the function you wish to set.
- 4 LCD display
- ⑤ Lock ← :push and hold "Lock" for 2 seconds to lock the buttons in order to prevent pushing any button by accident.
- Remoset u: this allows user to synchronize the transmitter after modifying a parameter. Push " REMOSET " "to synchronize the settings to the transmitter.
- Remoset indicator: this shows the current pairing status. It flashes rapidly when data is being transmitted and the flashing stops when the synchronization is completed. However, the flashing slows down if synchronization fails after a period of time of pairing attempt.
- Ultrasonic transmission unit: it transmits digital pairing data at ultrasonic frequency. When setting, direct the ultrasonic receiving element of the microphone to the ultrasonic transmitting unit of the receivers. The effective range is 30° on both sides with the optimized distance greater than or equal to 5~20CM.
- 9 Female BNC antenna port: the 500 BNC antenna is connected here. It also provides a booster power of 12~15 DC/100mA for an external antenna booster.
- 0 6.3mm phone jack: unbalanced audio output jack.
- 3P XLR male: balanced audio output jack.
- DC power socket: for 12~15V DC/300mA power supply.



DA-801R LCD Display



In the non-setting mode, the LCD looks like:

RF : RF signal strength

(5) A B : Antenna A/B

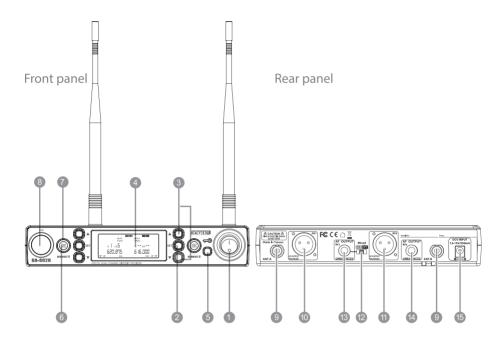
(6) :Transmitter battery level

® GR / CHR : Group/channel

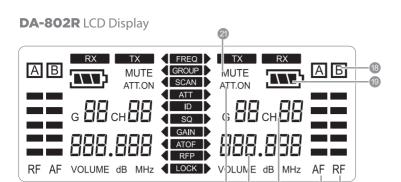
Button lockMUTE : Receiver mute

② ATT.ON : Output attenuation

4-2 UHF PLL dual-channel diversity receiver // DA-802R



- 1 ~ 8: See page 5.
- \odot Female BNC antenna port: the 50Ω BNC antenna is connected here. It also provides a booster power of 12~15 DC/100mA for an external antenna booster.
- Male XLR (RX1): RX1 balanced audio output jack.
- 1 Male XLR (RX2): RX2 balanced audio output jack.
- Mixing: it allows the unbalanced audio signals from RX1 and RX2 to be mixed to RX1.
- 6.3mm phone jack (RX1): RX1 unbalanced audio output jack.
- 6.3mm phone jack (RX2): RX2 unbalanced audio output jack.
- 6 DC power socket: for 12~15V DC / 500mA power supply.



In the non-setting mode, the LCD looks like this:

6 AF : Audio signal strength

RF : RF signal strength

(B) A B : Antenna A/B

: Transmitter battery level

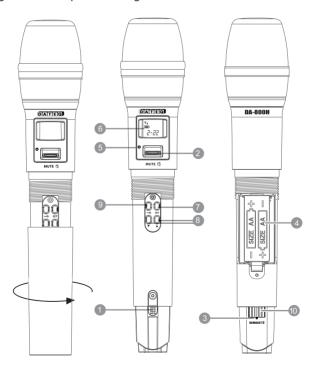
② MUTE : Receiver mute

ATT.ON : Output attenuation

② 888.888 _{MHz} : Frequency

4-3 UHF PLL hand-held transmitter // DA-800H

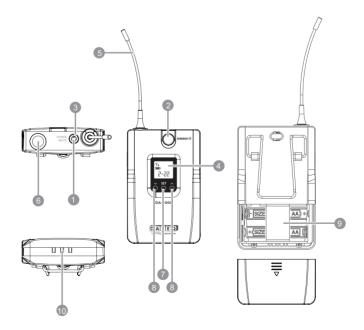
- Power: push to turn the transmitter on. When the transmitter is on, push and hold for 2 seconds to turn it off.
- Mute: while the transmitter is on, switch Mute up to talk and down to mute. If the transmitter is off, switch the Mute up to turn the unit on. The transmitter turns itself off automatically after 1, 10 or 30 minutes of muting depending on setting.
- Ultrasonic receiving unit: it receives pairing signals from the ultrasonic transmission unit at the receiver end.
- 4 Battery holder: it holds AM3, AA 1.5V battery or rechargeable battery x 2.
- 6 LED indicator: it shows the transmitter's status, including battery level, mute and pairing indication.
- 6 LCD display: it shows the parameter settings in the transmitter.
- SET: it allows parameter settings, including frequency, group, channel, sensitivity, transmission power, auto off countdown and machine code.
- ⑤ → : push and hold the "LOCK" button for 2 seconds to lock the buttons. Push and hold again for 2 seconds to unlock.
- ① Charging contact: if rechargeable batteries are used, this microphone can be recharged with an optional charger.



4-4 UHF PLL body-pack transmitter // **DA-800B**

- Mute/Power: push once to turn the unit on. While the unit is on, push once to mute and push again to talk. Push and hold for 2 seconds to turn off.
- Ultrasonic receiving unit: it receives the pairing signals from the ultrasonic transmission unit at the receiver end.
- 3 LED indicator: it shows the transmitter's status, including battery level, mute and pairing indication.
- 4 LCD display: it shows the parameter settings in the transmitter.
- 6 Antenna: the antenna of transmitter.
- 6 Microphone input port: 4P mini XLR jack.
- SET: it allows parameter settings, including frequency, group, channel, sensitivity, input signal attenuation, auto off countdown, lock on and machine code.
- Battery holder: it holds AM3, AA 1.5V battery or rechargeable battery x 2.
- Charging contact: if rechargeable batteries are used, this transmitter can be recharged with an optional charger.

Note: a user can also choose Auto power off with DA-800B.



4-5 Accessories

AC/DC adaptor

Switching Power Supply (100V~240V, 50~60Hz)

AC IN: AC100~240V/50~60Hz DC OUT: DC12V/0.5A Option

② AF output cable (with Φ6.3 plug at both ends)





4-6 Optional Condenser Microphone

Lavaliere Microphone // DA-501L

- Clip
- 2 4P Mini XLR
- Windscreen



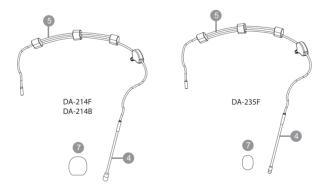




Headset Microphone // DA-214F/DA-214B/DA-235F

- Gooseneck
- 6 Adjustable headband
- 6 4 Pin Mini XLR
- Windscreen





5. Connecting

5-1 How to connect the receiver

1. Connect the audio output of receiver to mixer or amplifier

1.1 DA-801R:

The XLR output jack or 6.3mm unbalance output jack can be selected to connect the AF output to a mixer or amplifier.

1 2 DA-802R :

- (1) The XLR output jack or 6.3mm unbalance output jack can be selected individually to connect the AF output to a mixer or amplifier for volume control.
- (2) Switch the "Mixed" on the back to ON. This allows to mix the RX1 and RX2 signals to RX1's 6.3mm non-balance output jack and then to a mixer or amplifier for volume control.

2.Connect the power

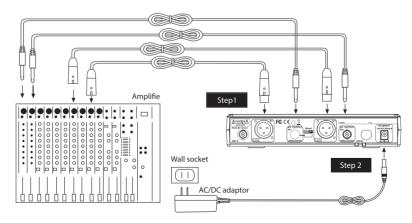
2.1. Connect the AC/DC adapter:

Check that the DC current and voltage ratings of the adapter match the label on the unit. Connect the DC terminal to the "DC input" port on the unit, and the AC end to an AC socket.

2.2. Set the parameters:

Turn the power on and set the parameters of receiver according to the setting instructions.

Caution! Secure the power cable on the fastening hook of anti-pulling clip in order to prevent the power cable from falling.

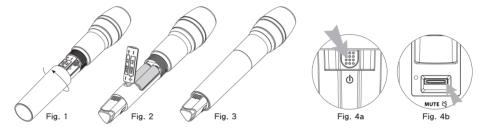


5-2 Transmitter installation // DA-800H/DA-800B

DA-800H

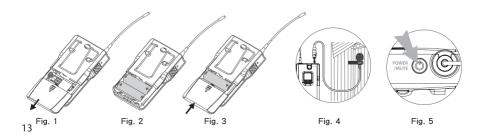
The Mute button on the hand-held unit also triggers the power-on. That's why the unit is on as soon as the batteries are replaced. Therefore, if you do not wish to turn on after changing the batteries, keep the Mute switch on mute.

- 1. Unscrew the outer tube of the transmitter (Figure 1).
- 2. Place 2 AA batteries in the battery holder while make sure they are in the correct polarities (Figure 2).
- 3. Screw the outer tube on (Figure 3).
- 4. To turn the unit on:
 - a. Push the power button to turn on (Figure 4a), or
 - b. Push the Mute switch up also to turn the unit on (Figure 4b).
- 5. Set the transmitter parameters according to the instructions.



DA-800B

- 1. Slide the battery holder cover downwards (Figure 1).
- 2. Place 2 AA batteries in the battery holder while make sure they are in the correct polarities (Figure 2).
- 3. Slide the battery holder cover upwards to close (Figure 3)
- 4. According to the type of microphone, insert the 4-pin mini XLR jack in MIC IN to complete the installation (Figure 4).
- 5. Push the Power button to turn the unit on (Figure 5).
- 6. Set the transmitter parameters according to the instructions.



6-1 How to use // **DA-801R**

Parameter setting -

Push and hold the "SET" button to enter the setting mode. Push the ▲/▼ button to choose to set RX (receiver) or TX (transmitter).



When RX receiver is selected:

© FREQ: frequency setting

In 1MHz	Select frequency with ▲/▼
In 0.025MHz	Select frequency with ▲/▼



Select the number of frequency first in MHz and then in 0.025MHz.

O Group/channel

G: group	Select default group 1~6
CH: channel	Select default channel, 1~22 max



Select the group when "G" is flashing; select the channel when "CH" is flashing.

O Channel scan

SC oFF	This means the function is deactivated.
SC on	This means the function is activated. (scan to make sure this channel is occupied or not) The program will avoid it automatically to prevent interference.

Note: this function works only in the preset mode.



This function is deactivated.

Audio output attenuation (XLR)

At oFF	No attenuation at audio output
At on	20dB attenuation at audio ouput



This function is deactivated.

O SQ Receiving sensitivity

-5~+10dB;	-5 is the maximum sensitivity.	
select SO with	+10 is the minimum sensitivity.	
▲/▼	The default setting is 0.	

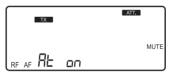


The default setting is 0.

When TX transmitter is selected:

ATT microphone audio input attenuation

At oFF	No attenuation at audio input
At on	20dB attenuation at audio input (depending on whether the transmitter is provided with the corresponding function).



The function is activated with 20dB of audio input attenuation.

Microphone input sensitivity

Normal	GAIN: +15dB
sensitivity	GAIN: +12dB
	GAIN: +9dB
	GAIN: +6dB
	GAIN: +3dB
	GAIN: 0dB
	GAIN: -3dB
	GAIN: -6dB
	GAIN:-9dB
	GAIN: -12dB
	GAIN: -15dB



It shows the microphone input sensitivity is now at 0dB (default setting).

©ATOF: Automatic microphone off countdown under mute status

OFF	This function is deactivated
1	1 minute countdown to turn off
10	10 minute countdown to turn off
30	30 minute countdown to turn off

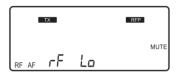


This function is deactivated.

©RFP: RF microphone power

The transmitter comes with 2 stages of RF power output (as per local regulations).

rF Lo	10mW
rF Hi	50mW

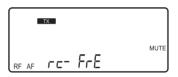


This shows that the RF output is LOW (10mW)

© RC (Remoset Configuration)

rC-FrE	Only frequency and group setting will be synchronized
rC-ALL	All data setting will be synchronized

The default setting is rC-FrE.

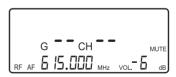


Only frequency and group setting will be synchronized.

Volume adjustment -

In non-setting mode, adjust the volume from 0 to -31dB using the \triangle/∇ button.

- The minimum volume is -31 dB.
- The maximum volume is 0 dB.
- The default setting is -10 dB.

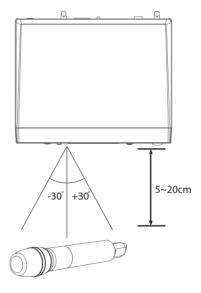


Minimum volume at -31db; maximum volume at 0dB

Pairing **REMOSET** $\tilde{\boldsymbol{v}}$

Once the parameters are set, push the " **REMOSET** $\widetilde{\mathbf{U}}$ " button and the digital pairing data will be sent to the transmitter via ultrasonic transmitter for parameter synchronization. The indicator will flash rapidly while the data are being transmitted. When the synchronization is completed, the receiver will receive the corresponding data and the indicator will stop flashing. If the signal is not received for a certain period of time, the indicator will flash slowly to inform pairing failure (the slowly flashing indicator can be reset by pushing any button).

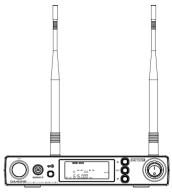
Note: The best pairing distance is greater than or equal to $5\sim20$ cm, $\pm30^{\circ}$.



6-2 How to use // **DA-802R**

Parameter setting

Push and hold the "SET" button to enter the setting mode. Push the ▲/▼ button to choose to set RX (receiver) or TX (transmitter).



When RX receiver is selected

© FREQ: frequency setting

In 1MHz	Select frequency with ▲/▼
In 0.025MHz	Select frequency with ▲/▼



Select the number of frequency first in MHz and then in 0.025MHz.

O Group / channel

G: group	Select default group 1~6
CH: channel	Select default channel, 1~22 max



Select the group when "G" is flashing; select the channel when "CH" is flashing.

O Channel scan

SC oFF	This means the function is deactivated.
SC on	This means the function is activated (scan to make sure this channel is occupied or not. The program will avoid it automatically to prevent interference.

Note: this function works only in the preset mode.

MUTE ATT.ON	SCAN	MUTE	RX	
g / сн 5				
620.875 RF AF MHz		5c	oFF	AF RF

This function is deactivated.

Audio output attenuation (XLR)

At oFF	No attenuation at audio input
At on	20dB attenuation at audio input (depending on whether the transmitter is provided with the corresponding function).



The function is activated with 20dB of audio input attenuation.

O SQ Receiving sensitivity

-5~+10dB; select SQ with ▲/▼	-5 is the maximum sensitivity.
	+10 is the minimum sensitivity.
	The default setting is 0.



It shows the SQ is 0dB (default setting).

When TX transmitter is selected:

ATT microphone audio input attenuation

At oFF	No attenuation at audio input
At on	20dB attenuation at audio input



This function is deactivated.

Microphone input sensitivity

Normal	GAIN: +15dB
sensitivity	GAIN: +12dB
	GAIN: +9dB
	GAIN : +6dB
	GAIN: +3dB
	GAIN: 0dB
	GAIN: -3dB
	GAIN:-6dB
	GAIN: -9dB
	GAIN: -12dB
	GAIN: -15dB



It shows the microphone input sensitivity is now at 0dB (default setting).

O ATOF: Automatic microphone off countdown under mute status

OFF	This function is deactivated
1	1 minute countdown to turn off
10	10 minute countdown to turn off
30	30 minute countdown to turn off



This function is deactivated.

O RFP: RF microphone power

The transmitter comes with 2 stages of RF power output (as per local regulations).

rF Lo	10mW
rF Hi	50mW



This shows that the RF output is LOW (10mW).

RC (Remoset Configuration)

rC-FrE	Only frequency and group setting will be synchronized
rC-ALL	All data setting will be synchronized

The default setting is rC-FrE.



Only frequency and group setting will be synchronized.

Volume adjustment -

In non-setting mode, adjust the volume from 0 to -31dB using the \triangle/∇ button.

- The minimum volume is -31 dB.
- The maximum volume is 0 dB.
- The default setting is -10 dB.



Minimum volume at -31db; maximum volume at 0dB

Pairing REMOSET T

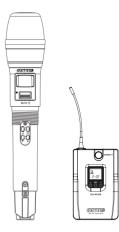
See page 17.

Others -

The transmitter's battery level is also shown on the LCD display. If the battery level is \leq 2V, the frame around the battery level will flash and the backlight turns into red as a warning (for DA-801R and DA-802R).

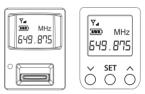
6-3 How to use // **DA-800H/DA-800B**

Parameter setting -



© FREQ: frequency setting

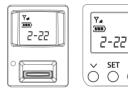
In 1MHz	Select frequency with ▲/▼
In 0.025MHz	Select frequency with ▲/▼



Select the number of frequency first in MHz and then in 0.025MHz.

\bigcirc Group / channel

G: group	Select default group 1~6
CH: channel	Select default channel, 1~22
	maxSelect default channel,
	1~22 max



Select the number for group and then the number for channel.

O ATT microphone audio input attenuation

Att oFF	No attenuation at audio input
Att on	20dB attenuation at audio input

Only for DA-800B



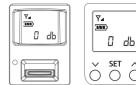
It shows the audio input attenuation at 20dB.

Microphone input sensitivity

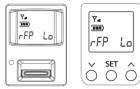
Normal	GAIN: +15dB
sensitivity	GAIN: +12dB
	GAIN: +9dB
	GAIN : +6dB
	GAIN: +3dB
	GAIN: 0dB
	GAIN: -3dB
	GAIN: -6dB
	GAIN: -9dB
	GAIN: -12dB
	GAIN: -15dB

© RFP: RF microphone power

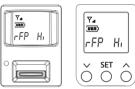
rFP Lo	10mW
rFP Hi	50mW



It shows the sensitivity is now at GAIN 0dB (default setting).



The RF output is LOW.



The RF output is Hi.

O AUTO-OFF: Automatic microphone off countdown under mute status

OFF	This function is deactivated
1	1 minute countdown to turn off
10	10 minute countdown to turn off
30	30 minute countdown to turn off





O Key Lock

Loc on	Lock ON
Loc oFF	Lock OFF









7. Notes for the product

- (1) For the best signal receiving quality, always keep the receiver within 3m of the transmitter.
- (2) The receiver and transmitter shall be away from other metal objects, preferably 50cm or farther.
- (3) Do not point the microphone directly to a speaker, or there will be feedbacks. It is recommended to hold the transmitter (microphone) at the middle section for the best pickup.
- (4) In case that the transmitter will not be in use for an extended period of time, the batteries shall be removed from the battery holder to prevent damage to the transmitter due to leak of battery electrolyte solution.
- (5) For the best power performance, it is recommended to change both batteries or use the products of the same manufacturer when they are to be changed.

