



# RRS-2000 RCC-2000

eXtra Long Range (XLR) Wireless Microphone System

Operation manual



ISO 14001



OHSAS 18001



GREEN PRODUCT



Thank you and congratulation for purchasing CHIAYO's professional XLR (eXtra Long Range) cellular concept multi-diversity reception wireless microphone system. Please read this manual thoroughly to familiarize with the function of each part before use.

## Basic Concept

This system consists of two main parts:

1. Remote Control Center RCC-2000
2. Remote Receiver Station RRS-2000

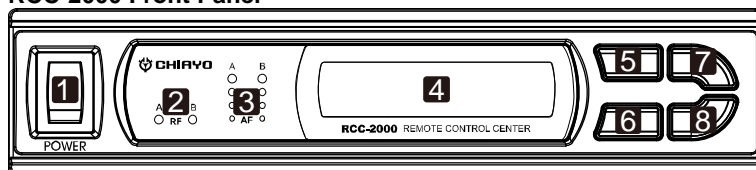
The Remote Control Center RCC-2000 is the nerve center of the whole system. It is capable of controlling up to 4 units of Remote Receiver Station RRS-2000, delivering power supply and receiving / monitoring signal of the individual Remote Receiver via Cat 5e cable.

Each Remote Receiver Station RRS-2000 has an antenna divider plus power distribution and is capable of holding 2 diversity receiver modules RR-2000M (CH A and CH B). An optional outdoor waterproof mounting kit PRR-2000 is available for outdoor installation.

## Various Installation Scenarios:

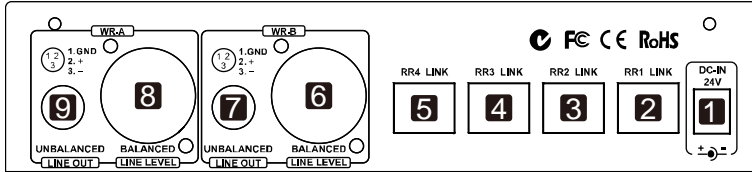
### Parts and functions of RCC-2000

#### RCC-2000 Front Panel



1. Power switch.
2. CH A CH B RF signal indicator of the 2 remote receivers.
3. CH A CH B AF signal indicator of the 2 remote receivers.
4. LCD display
5. UP button
6. DOWN button
7. MENU button
8. SET button

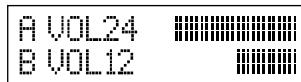
## RCC-2000 Rear Panel



1. DC-input
2. Remote Receiver Station RRS ① connector (RJ-45 jack for CAT.5e)
3. Remote Receiver Station RRS ② connector (RJ-45 jack for CAT.5e)
4. Remote Receiver Station RRS ③ connector (RJ-45 jack for CAT.5e)
5. Remote Receiver Station RRS ④ connector (RJ-45 jack for CAT.5e)
6. Channel B balanced audio output (XLR)
7. Channel B unbalanced audio output (Ø6.3mm)
8. Channel A balanced audio output (XLR)
9. Channel A unbalanced audio output (Ø6.3mm)

## Various settings on the remote control center RCC-2000

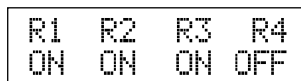
### Adjusting the volume



Press MENU button to go to [A VOL24 B VOL12], then hold SET to enter setting. Choose A or B by SET button, and UP/DOWN buttons to adjust the volume. The setting will be automatically saved after five seconds.

**Warning:** In order for this function to work correctly, the volume of the remote receiver module side should be manually fixed at an appropriate level beforehand!

### Changing ON/OFF status of the remote stations



Press MENU button to go to [R1 ON R2 ON R3 ON R4 OFF], then hold SET to enter setting. Choose A or B by SET button, and UP/DOWN buttons to switch ON/OFF status of individual Remote Station R1,R2,R3 and R4. The setting will be automatically saved after five seconds and shown at the individual.

**Warning:** This function is only possible when the remote receiver module is switched ON beforehand!

## Changing the frequency

```
A: 001 700.000MHZ
B: 100 725.000MHZ
```

Press MENU button to go to A: 001 700.000MHZ  
B: 100 725.000MHZ, then hold SET to enter setting. Choose A or B by SET button, and UP/DOWN buttons to change the frequency. The setting will be automatically saved after five seconds and will be sent to and shown at all the connected RR-2000M's 2-digit 7-segment LED display. CH A will be 01 and CH B will be 00 (for 100)

```
A1|||||34  A2|||||56
A3....|||  A4....|||
```

The display value indicates the RF signal strength.

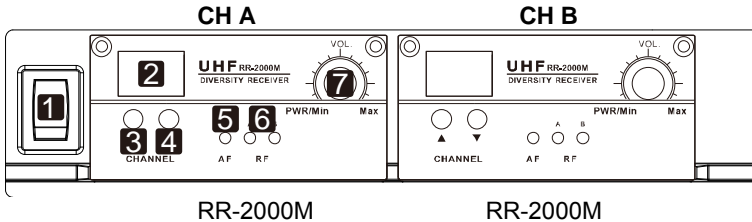
```
A CH: 001 1 2 3 x4
B CH: 100 1 ▶ 2 3 x4
```

Pointer "▶" indicates which RRS-2000's module the audio comes from. The item marked with "x" is power off on either the module itself or RCC-2000.

## Parts and functions of Remote Receiver Station RRS-2000 and RR-2000M

Each Remote Receiver Station RRS-2000 can hold up to 2 pieces of RR-2000M receiver modules!

### RRS-2000 Front Panel



1. 7-segment LED display
2. Channel UP button
3. Channel DOWN button (RCC has priority and overrides this button for CH #)
4. AF signal indicator
5. RF signal indicator
6. Module power/volume control

### Channel Name setting on the remote receiver RR-2000M

Each Remote Station RRS-2000 can hold up to 2 units of RR-2000M receiver modules. A channel (CH A) is assigned on the left and B channel (CH B) assigned on the right of this rack. If this unit is connected to the Remote Station's **RS1** of the RCC-2000, module A must be set to A1 and module B to B1. If another RRS-2000 is connected to the **RS2 RJ-45** connector, its module A must be set to A2 and module B set to B2. And so on.

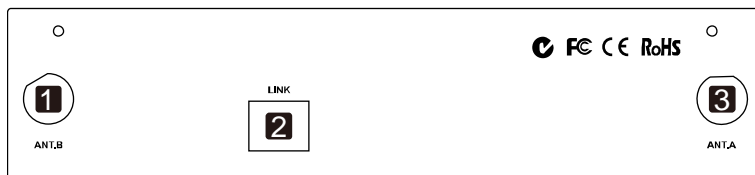
To do the setting, first hold both UP and DOWN buttons till the LED flashes. Then press UP button to select A or B and DOWN button to select 1/2/3/4.

Precisely, the two receivers of 1st Station should be named as A1 and B1, for 2nd station A2 and B2, for 3rd Station A3 and B3, for 4th Station A4 and B4. This should be done so in accordance with the preset programming in the Remote Control Center RCC-2000.

(RCC has priority and overrides this button for CH #)

After name setting, the LED will return back to the allocated channel number programmed at the RCC-2000.

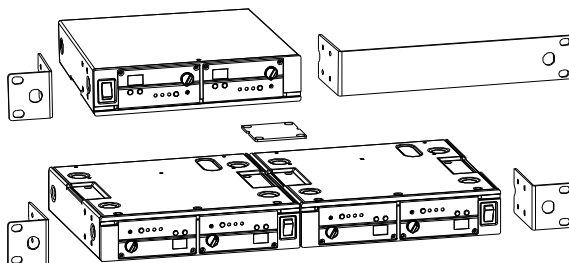
## RRS-2000 Rear Panel



1. Antenna B (TNC)
2. RJ-45 jack CAT.5e cable.
3. Antenna A (TNC)

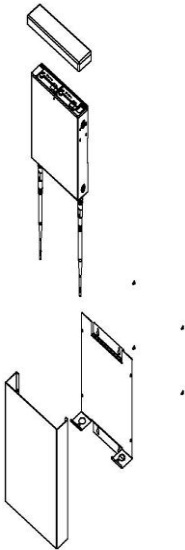
## Rack Mounting for RCC-2000

RCC-2000 has a half-19"-casing design. It can be cabinet-mounted with either one or two units. Individual kits for mounting one or two units are available and please refer to following assembly illustration.



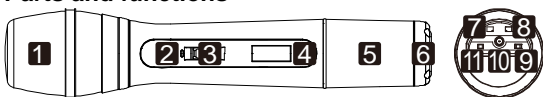
## Outdoor weatherproof mounting of Remote Receiver Station RRS-2000

Remote Station can be mounted outdoor in a weatherproof casing PRR-2000 as follow:



## UHF handheld microphones ( SQ-SQ-6100/SQ-7100 )

### Parts and functions



Microphone parts and functions	SQ-6100	SQ-7100
Cartridge	1	1
Battery weak/power LED	2	2
Power switch	3	7
LCD	4	4
Battery compartment	5	5
Bottom cap	6	6
Locking button	7	-
Audio mute switch	-	3
Setting button	8	8
Up button	9	9
Down button	11	11
Charging port	10	10

### Battery installation

Insert or replace the batteries according to the correct polarity after opening the compartment. Many batteries are known to have leakage problem of conductive and corrosive liquid. So please remove the batteries if they are not to be used for a long period.

### Other settings

#### 1. Channel setting

Use UP or DOWN button to go to the CHANNEL/ FREQUENCY page.



The cursor will flash to allow changes to be made. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a desired channel is selected, it will be automatically saved and stored in the memory.

#### 2. Making changes to Battery selection

Use UP or DOWN button to go to the Battery selection page.



Press UP or DOWN button to move the cursor to either NIMH (rechargeable battery) or AKLN (Alkaline battery) position.

When the desired battery has been selected, it will be automatically saved and stored in the memory.

**Remark:** NiMH battery must be selected when rechargeable battery is being used. Never select AKLN (Alkaline) when microphone is intended for charging as Alkaline battery can't be charged. Wrong selection of battery will result in battery sensing electronics to display wrong and misleading status information.

### 3. Making changes to Sensitivity Level



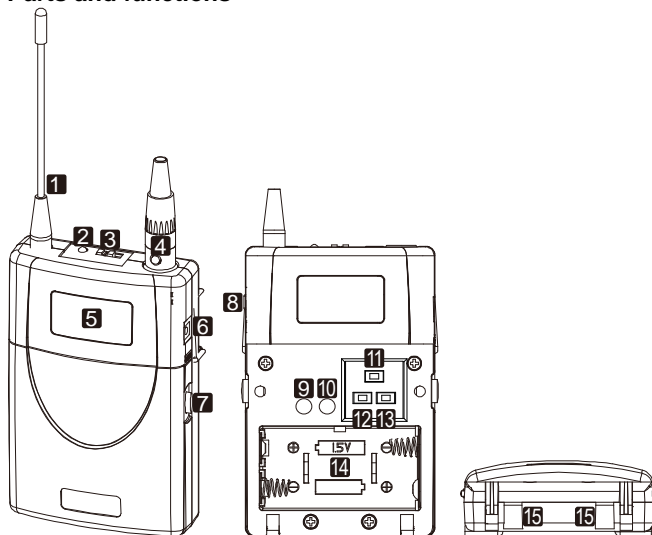
Use UP or DOWN button to go to the SENS SET page. Press UP or DOWN button to increase or decrease the Sensitivity Level of the microphone. The MAX level is 4 and the MIN level is 1. When a desired sensitivity level has been selected for your application, it will be automatically saved and stored in the Memory.

**Remark:** When selecting Sensitivity level, please bear in mind that Level 1 is for close proximity singing purposes whereas Level 4 is for use of microphone on tripod mount for speech purposes. When Level 4 setting is used for close proximity singing, high SPL input will result in undesirable distortion in the output.

After performing setting changes, you could turn the protective cover 180° in either direction to block the buttons from being accidentally adjusted.

## UHF belt-pack transmitters (SM-7100)

### Parts and functions



Transmitter parts and functions	SM-7100
Antenna	1
Battery weak/audio mute indicator	2
Audio mute switch	3
(Lavalier microphone) Mini XLR connector	4
LCD	5
Charging port	6
Cover release button	7
Power switch	8
Gain control (GT, high impedance)	9
Gain control (MT, low impedance)	10
Setting button	11
Up button	12
Down button	13
Battery compartment	14
Charging contacts	15

## Battery installation

Insert or replace the batteries according to the correct polarity after opening the compartment. Many batteries are known to have leakage problem of conductive and corrosive liquid. So please remove the batteries if they are not to be used for a long period.

## Other settings

### 1. Channel setting



Use UP or DOWN button to go to the CHANNEL/ FREQUENCY page.

The cursor will flash to allow changes to be made. Pressing UP or DOWN button will increase or decrease the channel number. The corresponding frequency will change accordingly. When a desired channel is selected, it will be automatically saved and stored in the memory.

### 2. Making changes to Battery selection



Use UP or DOWN button to go to the Battery selection page.

Press UP or DOWN button to move the cursor to either NiMH (rechargeable battery) or AKLN (Alkaline battery) position.

When the desired battery has been selected, it will be automatically saved and stored in the memory.

**Remark:** NiMH battery must be selected when rechargeable battery is being used. Never select AKLN (Alkaline) when microphone is intended for charging as Alkaline battery can't be charged. Wrong selection of battery will result in battery sensing electronics to display wrong and misleading status information.



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CIE-Group Ltd, 3 Widdowson Close, Blenheim Industrial Estate, Nottingham NG6 8WB, England  
T: +44(0)115 9770075 F: +44(0)115 9770081 E: [info@cie-group.com](mailto:info@cie-group.com) W: [www.cie-group.com](http://www.cie-group.com)