CHIAYO

UDR-500/UDR-1000/UDR-2000
UH-1000/UB-1000

Wireless Microphone System

Operating Manual

DIN EN ISO 9001
Certificate NO:09 100 89126
通過 ISO 9001品質認證

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LCD Display Multi-channel UHF Wireless Microphone System.

INTRODUCTION

Congratulation and thank you for the purchase of one of these state-of-the-art PLL Synthesized 1000 channels frequency agile UHF professional wireless systems.

System Overview :

Models	UDR-500	UDR-1000	UDR-2000
Frequency Band	UHF		
No. Of Channel	1000		2*1000
Receiving Mode	Ture Diversity		
No. of Receiver	1		2
AC Adapter	12-15V / 800A		12-15 / 1500 mA
Size	1/2 19"	19"	
Casing	Plastic	Metal	
Receiver LCD Color	Green	White in Blue LCD	
Handheld Transmitter	UH-1000		
Beltpack Transmitter	UB-1000		
Battery used in Transmitter	AA type * 2 pieces		

As this is a shared operating manual, please read it thoroughly to familiarize with the function of each part before use.

Parts and functions

Front and Rear Panel Switches & Controls

UDR-500 RECEIVER
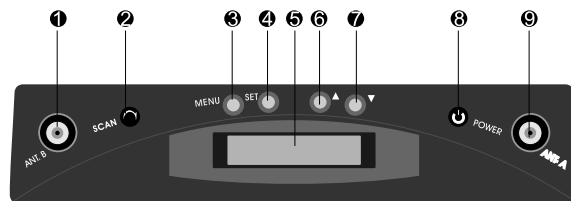
Fig.1

Fig.2

1. Antenna B socket
2. Scan
3. Menu
4. Set
5. LCD Display
6. Up
7. Down
8. Power On Switch
9. Antenna A socket
10. Slot for rear mount Antenna B
11. Mic / Line level Switch
12. Unbalanced out.
13. Balanced out
14. DC IN jack
15. Slot for rear mount Antenna A

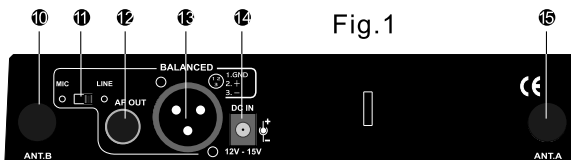4、If the Volume Control of the receiver is set too high, it may over-drive the input of the mixer, causing distortion. Conversely, if the receiver output is set too low, the overall signal to noise ratio of the system may be reduced. Adjust the output level of the receiver such that highest sound pressure level going into the microphone causes no input overload in the mixer, and yet permits the mixer level controls to operate in their normal range (not too high or too low). This provides the optimum signal to noise for the entire system.

5、Before inserting the batteries, please make sure that they are inserted according to the correct polarity.

6、For PLL frequencies agile version, before operation please make sure that the corresponding receiver MUST have the same frequency group and channel number as the transmitter.

7、Before making any channel change, please switch off the power supply. The synthesized program works in such a way that a change of channel will only take place after a power off and on action. Otherwise, the previously selected frequency will stay unchanged.

8、After making a channel change, please make sure that the corresponding change is made on the matching receiver also. To be exact, changes MUST be made at both the transmitter and receiver.

9、Use only brand new Alkaline batteries. Do not use " general purpose " batteries. When batteries are weak, replace the batteries altogether at the same time. Do not mix and use new and old batteries together.

10、Position the receiver such that it has the least possible obstructions between it and the transmitter. Line of sight is best!

11、The transmitter and the receiver should be as close as possible but not less than 1m.

12、A receiver cannot receive signals from two or more transmitters simultaneously.

13、Turn the transmitter off when it is not in use. Remove the batteries if it is not to be used for a period of time.

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RACK MOUNTING

UDR-500 is a 1/2 19" casing and specially designed 19" rack mount adapters (optional) is available for rackr installation purposes. Installation instructions are as follow.
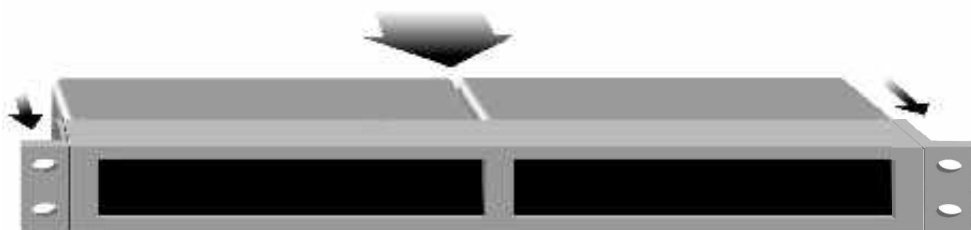
REMARKS

RF Interference

If you encounter receiving interference (from other than an operating TV station), often it can be overcome by adjusting the receiver's squelch control, as described on below. Please note that wireless frequencies are shared with other radio services. According to FCC requlations, wireless microphone operations are unprotected from interference from other licensed operations in the band. If any interference is received by any Government or non-Government operation, the wireless microphone must cease operation. The above statement is valid in the U.S.A.

Receiver Squelch setting

The squelch control setting is per LCD display on the front panel of the receiver is preset at the factory, but can be adjusted if you must use the system in a high RF interference area. If there is audio output from the receiver when your transmitter is OFF, adjust the squelch control so the system will receive the signal from your transmitter but squelch or eliminate the unwanted background RF noise. This adjustment can cause a reduction in usable range of the wireless transmitter, so set the control to the lowest position which reliably mutes the unwanted RF signal.

TIPS TO OBTAIN THE BEST RESULTS
FOR A WIRELESS MICROPHONE SYSTEM

1、If external antenna is used, low loss RF shielded cable should be used and the length of the cable should not exceed 3m.
2、Do not place the receive antenna within 1 m of another receiver or antenna.
3、The receiver antenna should be kept away from any metal surface.

UDR-1000 RECEIVER

Fig.3

Fig.4
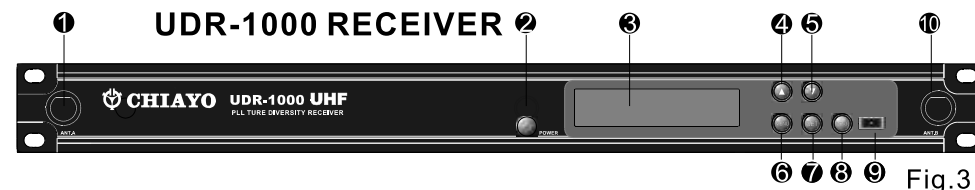
1.	Slot for front mount antenna	10. Slot for front mount antenna
2.	Power switch	11. Antenna B socket
3.	LCD Display	12. Mic / Line level Switch
4.	UP button	13. Unbalanced Out
5.	DOWN button	14. Balanced Out
6.	MENU	15. DC IN jack (for certain market only).
7.	SET	16. AC IN jack (for certain market only)
8.	SCAN	17. Antenna A socket
9.	USB port	

UDR-2000 RECEIVER

Fig.5

Fig.6
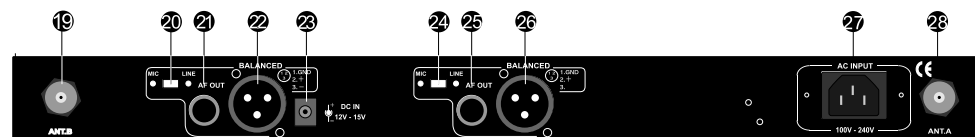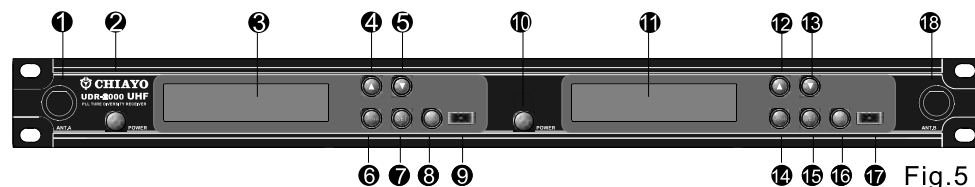
|		
1.	Slot for front mount Antenna	15. SET
2.	Power switch	16. SCAN
3.	LCD Display	17. USB port
4.	UP button	18. Slot for front mount Antenna
5.	DOWN button	19. Antenna B socket
6.	MENU	20. Mic / Line level Switch
7.	SET	21. Unbalanced Out
8.	SCAN	22. Balanced Out
9.	USB port	23. DC IN jack
10.	Power switch	24. Mic / Line level Switch
11.	LCD Display	25. Unbalanced Out
12.	UP button	26. Balanced Out
13.	DOWN button	27. AC IN jack (for certain market only)
14.	MENU	28. Antenna A socket

To view and roll the various display pages

Press Power ON of receiver for 2 seconds and release, the following page will appear.

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UDR-1000

Remark : Transmitter is at OFF status.

After 5 seconds one of the following pages will automatically appear, depending which one was last selected as main page.
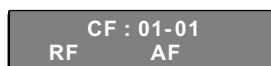
| 801.100MHz RF AF | USER NAME RF AF | CF : 01-01 RF AF |

Press MENU will roll to next page

801.100MHz
RF   AF

If MENU is not pressed again, this page will stay as main page.

Press MENU will roll to next page

SQUELCH LEVEL
-95 dBm   (2)

If MENU is not pressed again, it will automatically return to one of the 3 main pages.

Press MENU will roll to next page

USER MODE
PRESET MODE ←

If MENU is not pressed again, it will automatically return to one of the 3 main pages.

Press MENU will roll to next page

CHIAYO
UDR-1000

If MENU is not pressed again, it will automatically return to one of the 3 main pages.

Press MENU will roll to next page

USER NAME
RF   AF

If MENU is not pressed again, this page will stay as main page.

Press MENU will roll to next page

CF : 01-01
RF   AF

If MENU is not pressed again, this page will stay as main page.

Receiver Installation

For best operation, the receiver should be placed at least 1m above the ground and 1m away from a wall or metal surfaces to minimize reflections. The transmitter should also be at least 1m away from a wall or metal surface to minimize reflections. The transmitter should also be at least 1m away from the receiver as shown.
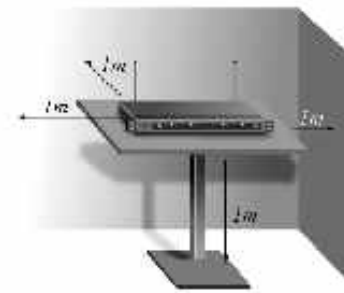
Keep antennas away from noise source such as motors, automobiles, neon light, synthesizer, computer as well as large metal objects.

Audio output connection

There are two audio outputs on the back of the Diversity receiver. Mic-level balanced and Line-level unbalanced. Use shielded audio cable for the connection between the receiver and the mixer. If the mixer / amp is a 1/4" phone jack, connect a cable from the 1/4" unbalanced audio output from the receiver to the mixer / amp. If the mixer has an XLR input, connect a cable from the balanced XLR audio output from the receiver to the mixer input. Audio output connection as shown below.

⚙CHIAYO
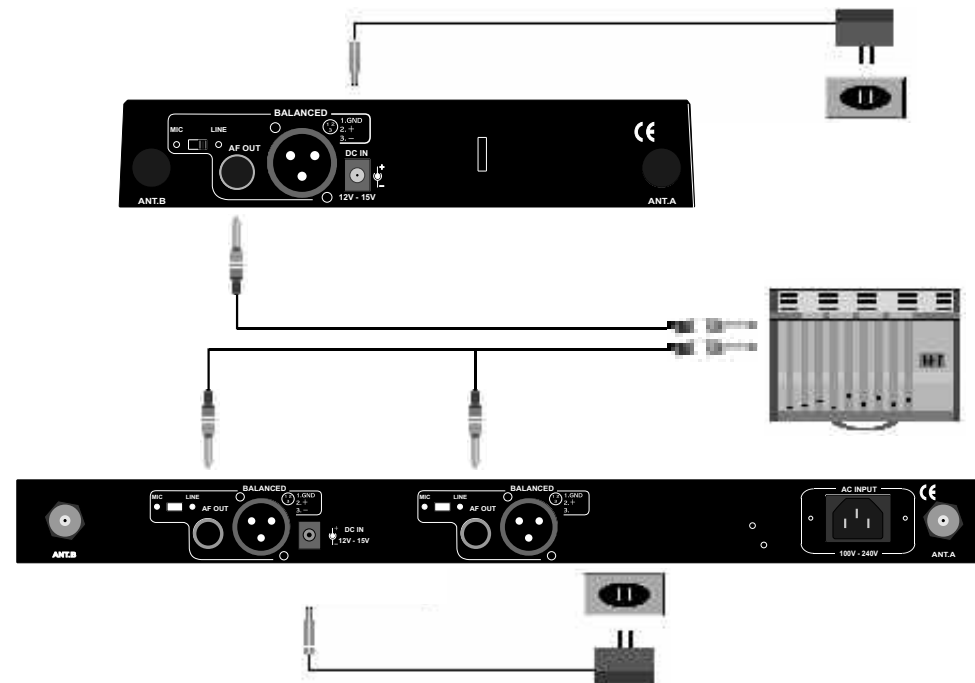
Installation of Lavalier / Headset Microphones or Instrument Inputs.

Depending on customer requirements, Lavalier / Headset microphone or instrument inputs could be connected to the beltpack transmitter via the audio input connector. User is free to choose the various input sources but is advised to take note that connector used must be compatible to each other. The pin configurations for mini XLR connector is as follow.

Mini-XLR

PHANTOM POWER

GND   MT IN   ANTENNA

MUTE   ON   OFF

GT IN

UH-1000

BATTERY WEAK /
AUDIO MUTE INDICATOR

AUDIO MUTE SWITCH
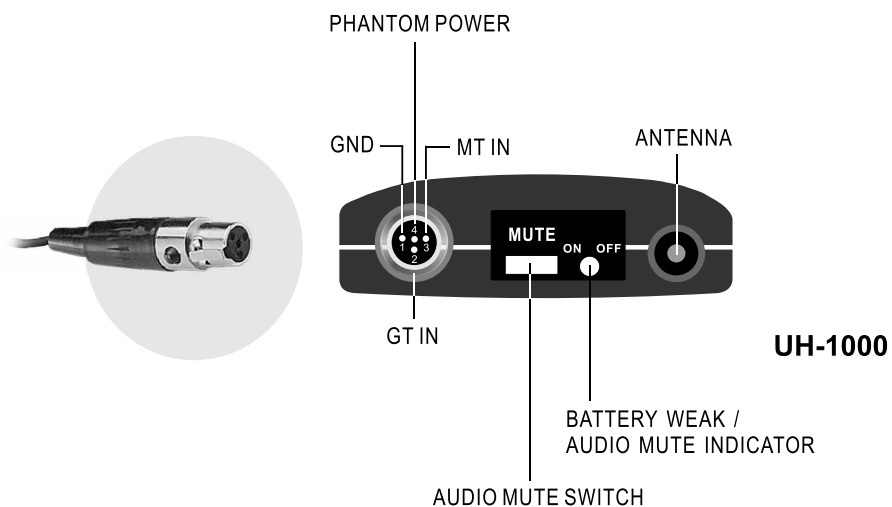
Operating Instructions

Making changes to the various displays.

Press **MENU** until
this page appears.

```
        CHIAYO
        UDR-1000
```

Remark : Brand name and Model number are factory preset. It is NOT user-changeable.

To change User Name

Press **MENU** until
this page appears.

```
    A←USER NAME→B
    RF ---------- AF-----------
```
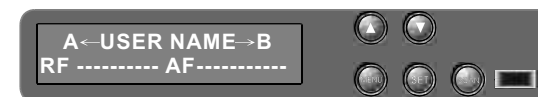
Remark : Transmitter is ON, then A or B, RF & AF level indicator will light up.
Press **SET** button for 2 seconds to enter the **SET** mode and the cursor will flash.
Press **SET** again each time will move the cursor one position. Use the ▲ or ▼ button to select the character or digit. Press **SET** again will make the change and move the cursor one position forward. After finishing all the changes, press **SET** button for about 3 seconds to save the changes.

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To change Frequency

Press **MENU** until
this page appears.

```
A←801.100MHz→B
RF-----------AF------------
```
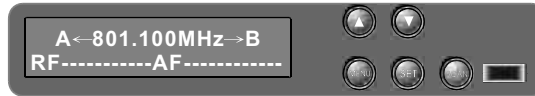
Press **SET** button for 2 seconds to enter the **SET** mode and the following display will appear and the cursor will flash.

```
CF : 01 - 01
800.000 MHz
```

Press **SET** again each time will move the cursor one position. The first two top digits on the left is the Group and the second top two digits to the right is the Channel. There are all together 25 Groups and 40 Channels (25*40=1000) preset frequencies to be chosen. Use the ▲ or ▼ button to select the digit. Press **SET** again will make the change and move the cursor one position forward. Once either the Group or the Channel has been altered, the frequency will be changed automatically. After finishing all the changes, press **SET** button for about 3 seconds will save the changes.

To change Squelch level

Press **MENU** until
this page appears.

```
SQUELCH LEVEL
-95 dBm     ( 2 )
```

Press **SET** button for 2 seconds to enter the **SET** mode and the cursor will flash on only one spot. Use the ▲ or ▼ button to select one of the 8 preset levels. After making the change, press **SET** button for about 3 seconds will save the changes.

To go to User Mode

Press **MENU** until
this page appears.

```
USER MODE
PRESET MODE  ←
```

Press **SET** button for 2 seconds to enter the **SET** mode. Use the ▲ or ▼ button to select either **USER** or **PRESET** mode. ←   indicates selected. After making the change, press **SET** button for about 3 seconds will save the change.

```
USER EDIT : 01
800.000 MHz
```

After entered user mode

Press **SET** button for 2 seconds to enter the **SET** mode and the cursor will flash. Use the ▲ or ▼ button to select the digit desired. The two digits at the top right corner is Channel. There are 40 possible channels to be entered by user. After selected the channel, make the corresponding change to the frequency. After making all the changes, press **SET** button for about 3 seconds will save the change in Group 25.

CHANGING OF CAPSULE (UH-1000)

These microphone have a module design. To change or replace a capsule, Open the grill to pull out and plug in the capsule as shown in the following figure.

Sensitivity Level Setting

Both the handheld and beltpack microphone have a sensitivity setting per the SET, UP, DOWN buttons as described earlier. For close mouth singing please selectt the sensitivity level to L (LOW) . For normal speech, please select level N.(Normal). For tripod-mount application, please select the level H (high).

■ Normal Sensitivity   ■ High Sensitivity

Installation of Belt-Clip

This specially designed detachable belt-clip allows the user to wear the transmitter with antenna pointing upward or downward as illustrated. To wear the transmitter with the antenna pointing upward, install the belt-clip as in the left picture. To wear the transmitter with the antenna pointing downward, please install the belt-clip as in the right picture.

Charging points

Charging points
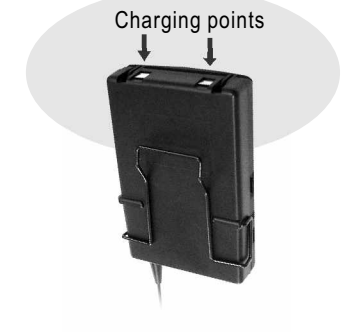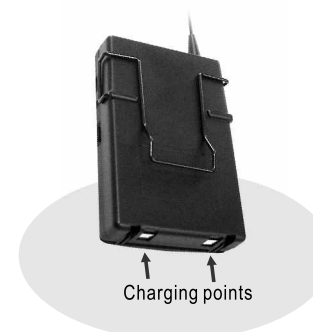
BATTERY SELECTION DISPLAY

Press ▲ or ▼ button to go to the display.

```
▲
▼      ┌─────────────────┐
       │  ▋ NiMH : X     │
       │  ▋ AKLn : ←     │
       └─────────────────┘
```

Press **SET** for about 2 seconds to enter the **SET** mode. Press the ▲or ▼ button to select either rechargeable NiMH (Nickel Metal Hydrid) or AKLn (Alkaline or Normal) battery. **X** is not select, ← is for select. After making the selection, press **SET** button for about 3 seconds to save the change.
As Alkaline (or Normal) and Rechargeable (NiMH) batteries have different voltages and behave differently. It is imperative that the correct battery selection should be made to correspond with the actual batteries inserted to ensure the correct battery status display information.

Battery Symbols and Status

▋ Battery Full   ▯ Battery 30%

▮ Battery 60%   ⌇▯⌇ Battery empty
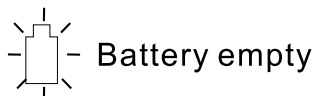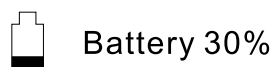
HOW TO SWITCH OFF THE TRANSMITTER

Put the Audio switch to Mute position.
Press the power on / off switch for about 3 seconds till the LCD display disappear to turn off the main power.
Remark : If user only turn off the Audio mute switch at the top but forget to turn off the power on / off switch. The microprocessor is programmed such that auto-shut-off function will be activated after 30 minutes (factory-programmable) when no audio input signal is detected. This is a foolproof feature to save battery life.

To adjusting the Volume of the system

The ▲ and ▼ buttons at the front panels serve as the Volume Controls of the receiver. It can be pressed at any moment. Whenever it is pressed, the following display will appear :

```
┌──────────────────────┐   ⊙ ⊙
│ A←CH : 01 - 01→B      │
│ Vol ( 6 ) | | | | | | | │   ⊙ ⊙ ⊙  ▬
└──────────────────────┘
```
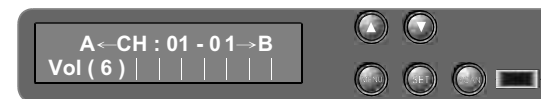
The first line of the display remains the same as whatever status when the button is pressed. Only the second line of the display will show the word VOL and the digit in the bracket is the current status of the volume level. The bar is just the graphical representation of the level. Pressing the ▲ button will increase the digit as well as the bar. Pressing the ▼ button will decrease the digit as well as the bar.

SCAN function

The **SCAN** button has two functions :

1. Auto Scan

When **SCAN** button is pressed, receiver will start the auto scanning function. It will compare 200 of the preset frequencies with the environment and select 40 of them and save it in Group 1 of the 25 groups. The whole **SCAN** process will take about 3 minutes to complete. These frequencies are interference free frequencies but they do not mean they are inter-modulation free amongst themselves. That means they do not mean they are interference free amongst themselves.

During the **SCAN** process, press the **SCAN** button again will interrupt the function and return to the original setting.

2. Downloading of Information

When the receiver and transmitter are connected by a cable via the **USB** ports. Pressing the **SCAN** button will activate the **DOWNLOAD** function. Frequency, User Name, User / Preset Mode and Edit information will be downloaded from receiver to transmitter.

The functions of USB port

Every receiver and transmitter has a mini **USB** (Universal Serial Bus) port. This **USB** port has two functions:

1.Function as a charging port.

When a designated cable with both ends equipped with mini **USB** jacks is connected between the receiver and the transmitters UH-1000 or UM-1000, the receiver will provide the current to charge the transmitter batteries, provided the receiver is switched on and the batteries used are rechargeable type. The LCD panel of the receiver has a designated charging icon, which will be flashing during the charging process. Over the transmitter side, the battery icon will display the battery status.

2.Downloading of information

When the receiver and transmitter are connected via a cable at the **USB** port. Pressing the **SCAN** button will activate the **DOWNLOAD** function. Information such as Frequency, User Name, User / Preset Mode and Edit information will be downloaded from the receiver to transmitter.

Channel / Frequency Display

Press ▲ or ▼ button to go to the display.
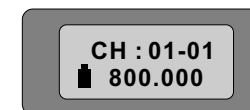
```
CH : 01-01
   800.000
```

Press **SET** for about 2 seconds to enter the **SET** mode and the cursor will start flashing.. Press **SET** each time to move the cursor one step to the desired position to change the frequency. The first two digits on the left are GROUP (GP) and the two digits on the right are CHANNEL (CH). There are altogether 25 preset Groups and 40 preset Channels available for selection. Press the ▲ or ▼ button to select the number. As the GP or CH number is changed, the preset frequency will appear in the second line accordingly. After making the changes, press **SET** button for about 3 seconds will save the changes.

SENSITIVITY DISPLAY

Press ▲ or ▼ button to go to the display.

```
SENS SET
LEVEL (N)
```
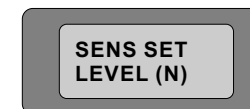
Press **SET** for about 3 seconds to enter the **SET** mode and the (N) will flash to accept changes. Press the ▲ or ▼ button to select the Normal (N) or High (H) level. Press **SET** for about 3 seconds to save the change.
For close-mouth singing or speech application, please select N sensitivity. For tripod-mounted speech application, please select H sensitivity.

USER / PRESET DISPLAY

Press ▲ or ▼ button to go to the display.

```
U-MODE
P-MODE
```
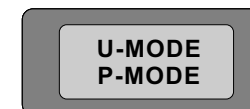
Press **SET** for about 3 seconds to enter the **SET** mode. Press the ▲ or ▼ button to select the **USER** or the **PRESET** model. **X** is not select, ← is for select. Press **SET** for about 3 seconds to save the change.
When **PRESET** is selected, factory preset data is selected. When **USER** is selected, user could change the frequency as follow :
Programming of **USER** frequencies.
At the **USER / PRESET Display**, press **SET** for about 2 seconds to enter the **SET** mode , then press the ▲ or ▼ button till Edit channel display appear :

```
Edit  01
   800.000
```
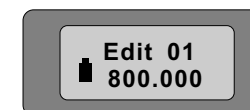
Press **SET** each time to move the cursor one position to the desired position and press the ▲ or ▼ button to change the digit. Press **SET** for about 3 seconds to save the change. User is allowed to programe 40 frequencies within the micro range of 25 MHz and this is save in Group 25.
This function is meant for user with extra radio knowledge and it is not advisable for normal user to use this function.
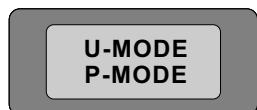
LCD Displays

Press UP or DOWN button to view the next page

Remark:Sensitivity Level is
user-selectable.

▲
▼

```
SENS SET
LEVEL (N)
```
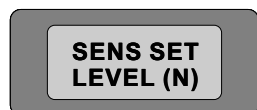
Press UP or DOWN button to view the next page
Remark : To choose between
U mode and
P mode.

▲
▼

```
U-MODE
P-MODE
```

Press UP or DOWN button to view the next page
Remark : Selection between
rechargeable NiMH
and Alkaline batteries.

▲
▼

```
NiMH : X
AKLn : ←
```

Operating Instructions
Making changes to the various displays
Name Display
Press ▲ or ▼ button to go to
the display

▲
▼

```
CHIAYO
UH-1000
```

This display panel is for Brand and Model number. It is not possible for user to change the setting.

Press ▲ or ▼ button to go to
the display

▲
▼

```
USER
NAME
```

display.
Press **SET** for about 2 seconds to enter the **SET** mode and the cursor will start flashing. Press **SET** separately will move the cursor to the desired position where change is needed. Press the ▲ or ▼ button to select the character or number and press **SET** to make the change and move the cursor one step forward. After finishing all the changes, press **SET** for about 3 seconds will save the changes.
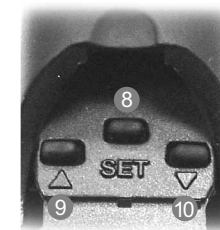
HAND-HELD MICROPHONE(UH-1000)
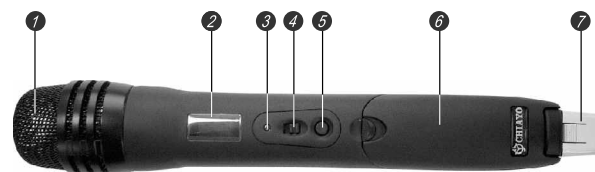
UH-1000
1. Capsule with metal grill
2. LCD display
3. Battery weak / audio mute indicator
4. Audio Mute switch
5. Power ON / OFF switch
6. Battery compartment
7. Color cap

There are three control buttons under the battery compartment cover, just on top of the battery:

8.SET
9.UP ▲
10.DOWN ▼

BATTERIES

UH-1000 microphone requires 2 pieces of " AA " size batteries to operate. Please insert the batteries according to the correct polarity as indicated.
To open the battery compartment, press and slide down to release the latch of the cover.


UH-1000

CAUTION

Many batteries are known to have leakage problem of conductive and corrosive liquid. Please observe the rule to remove the batteries if they are not to be used for a period of a few days.

Due to various unstandardized sizes (diameters) of " AA " batteries, this battery compartment is designed to accommodate the most commom Alkaline batteries only.

⊕CHIAYO

BELT-PACK TRANSMITTER (UB-1000)
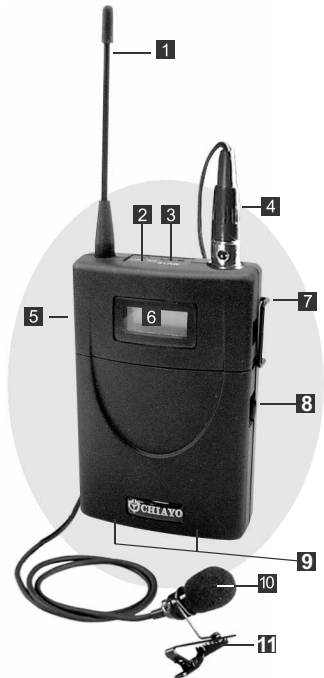
1. Antenna
2. Battery weak / audio mute indicator
3. Audio mute switch
4. Mini-XLR connector
5. Power ON / OFF switch
6. LCD display
7. Mini USB port
8. Cover release button
9. Charging contacts
10. Lavalier microphone
11. Mic clip

12. SET
13. UP
14. DOWN

INSTALLATION OF BATTERIES

UB-1000 uses 2 pieces of "AA" size batteries (Alkaline battery is recommended). To install or remove the batteries, press the release buttons at the edges of the transmitter to open or close the cover as illustrated (Fig.1). When installing the batteries with the cover open toward you, the cover might block your hand. It is thus recommended that while inserting or removing the batteries please hold the transmitter in such a way that the cover open away from you. (Fig.2)
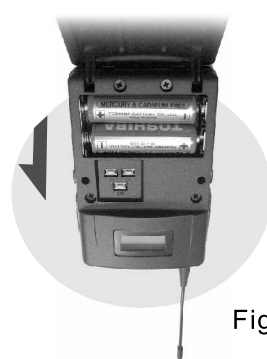
Fig.1   Fig.2

LCD Display Multi-channel UHF/VHF Wireless Microphone System.
Operating Instructions
Transmitter UH-1000 / UB-1000

LCD Displays

Both handheld (UH-1000) and beltpack (UB-1000) have the same display pages and operating procedures.
Viewing of the various pages in the LCD display
First press power **ON** switch for about 2 seconds and release the button, the following page will appear:

CHIAYO
UH-1000

Remark : Brand name and model number is factory fixed and not user-changeable.

Press UP or DOWN button to view the next page

Remark : User or Owner name is user-changeable.

USER NAME
C F : 0 1 - 0 1
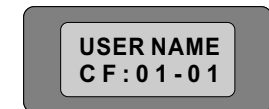
Press UP or DOWN button to view the next page
Remark : GP (Group) & CH (Channel) is user -selectable.

CF : 01-01
740.000