CHIAYO

DWR-2420
DWR-2410

2.4GHz Digital True Diversity / Diversity Wireless Microphone

Operation manual

ISO 9001

ISO 14001

OHSAS 18001

GREEN PRODUCT

CHIAYO

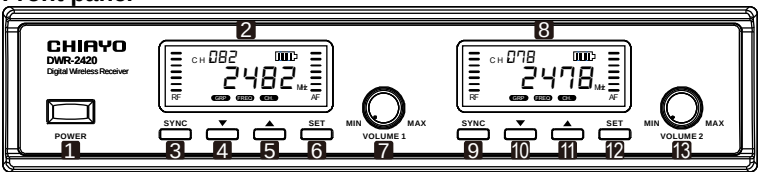
Thank you for choosing CHIAYO digital wireless microphone system!

Our products are designed to last and for user friendly operation. Each system consists of:
1. a receiver
2. one or two handheld/belt-pack transmitter
3. a pair of antennas
4. a switching adaptor
5. an operation manual

For more details, please take a few moments to read this operating manual for thorough understanding of the function and operation of both transmitter and receiver.

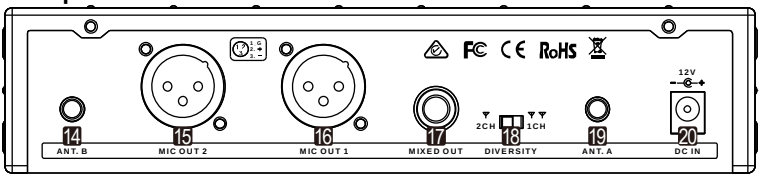
Parts and functions of DWR-2420 dual-channel receiver

Front panel



1. Power button
2. LCD display (channel 1)
3. Synchronization button (channel 1)
4. MENU/DOWN button (channel 1)
5. MENU/UP button (channel 1)
6. SET button (channel 1)
7. Volume control (channel 1)
8. LCD display (channel 2)
9. Synchronization button (channel 2)
10. MENU/DOWN button (channel 2)
11. MENU/UP button (channel 2)
12. SET button (channel 2)
13. Volume control (channel 2)

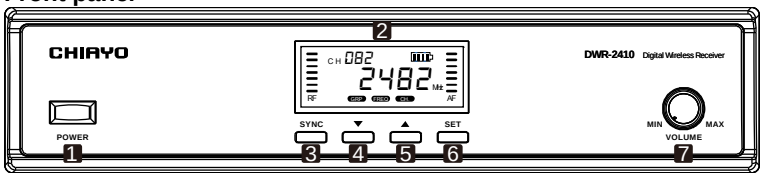
Rear panel



14. Antenna B socket (SMA type)
15. Balanced audio output (channel 2)
16. Balanced audio output (channel 1)
17. Unbalanced audio output (mixed)
18. Receiving mode switch
    2CH (left): To use 2 transmitters in DIVERSITY mode.
    1CH (right): To use 1 transmitter in TRUE DIVERSITY mode.
19. Antenna A socket (SMA type)
20. DC in

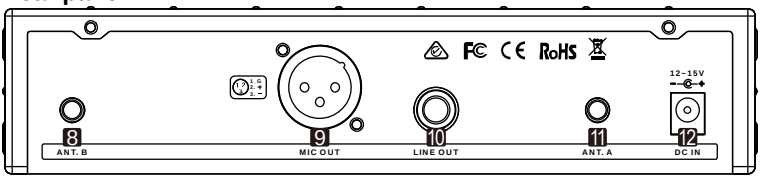
Parts and functions of DWR-2410 single-channel receiver

Front panel



1. Power button
2. LCD display
3. Synchronization button
4. MENU/DOWN button
5. MENU/UP button
6. SET button
7. Volume control

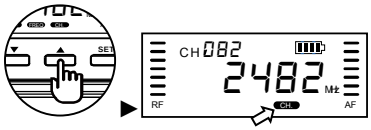
Rear panel



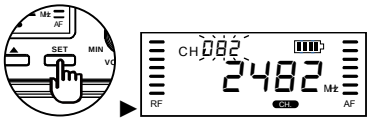
8. Antenna B socket (SMA type)
9. Balanced audio output
10. Unbalanced audio output
11. Antenna A socket (SMA type)
12. DC in

Changing CHANNEL / FREQUENCY

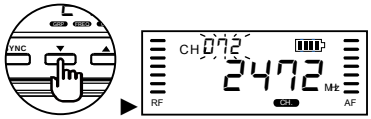
1. Press-release ▲(UP) or ▼(DOWN) button until the below channel icon CH. appears.



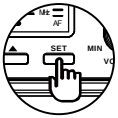
2. Press and hold **SET** button until the channel number flashes to denote readiness for setting.



3. Press-release ▲(UP) or ▼(DOWN) button to select a new channel.



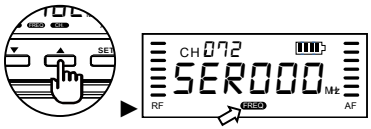
4. After a channel is chosen, press **SET** button to store the setting.



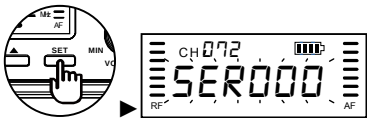
CHANNEL scanning

For an interference- free operation, a cleaner channel might be necessary if the current one receives too much interference. Before scanning, the transmitter must be switched off.

1. Press-release ▲(UP) or ▼(DOWN) button until the LCD displays *SER000* and below frequency icon FREQ appears.

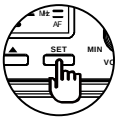


2. Press and hold **SET** button until *SER000* flashes to denote readiness for setting.



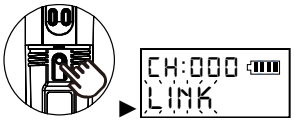
3. Press-release ▲(UP) or ▼(DOWN) button to find and locate a clear, interference- free channel.

4. After a channel is chosen, press **SET** button to store the setting.

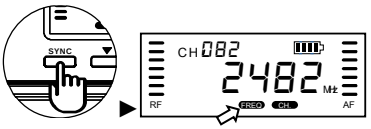


CHANNEL SYNCHRONIZING of the receiver and transmitter

1. Press and hold the transmitter's synchronizing button until **LINK** flashes on the LCD.

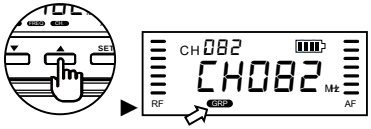


2. Press and hold the receiver's **SYNC** button until the frequency icon FREQ appears. After successful channel synchronizing, this icon will disappear automatically.

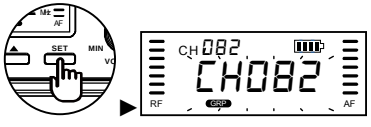


CHANNEL GROUP setting

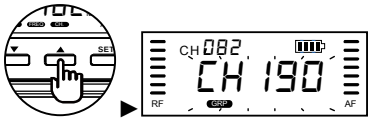
1. Press-release ▲(UP) or ▼(DOWN) button until the below group icon GRP appears.



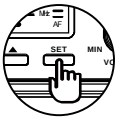
2. Press and hold **SET** button until the group number and the icon GRP flash to denote readiness for setting.



3. Press-release ▲(UP) or ▼(DOWN) button to choose a channel group.
   - Group **CH082** includes 82 selectable frequencies from CH1 to CH82.
   - Group **CH190** includes 190 selectable frequencies from CH1 to CH190.

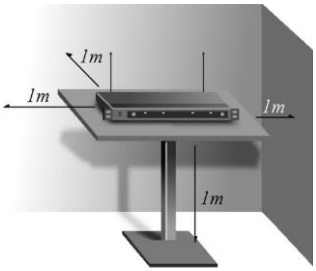


4. After a group is chosen, press **SET** button to store the setting.



Receiver installation

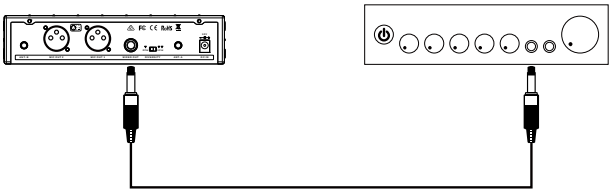
1. For best operation, the receiver should be at least 1m above the ground and 1m away from a wall or metal surface to minimize reflections.
2. The transmitter should also be at least 1m away from a wall or metal surface to minimize reflections. The transmitter should also be at least 1m away from the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



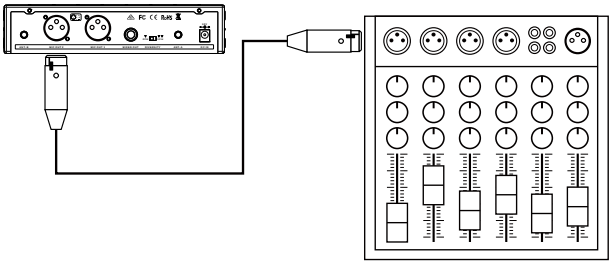
Audio output connection

There are two audio outputs on the back of the receiver, Mic-level balanced and Line-level unbalanced. Use audio cable for the connection between the receiver and the amplifier/mixer.

- **Unbalanced audio connection**: If the amplifier/mixer has a 6.3mm φ phone jack, connect a cable from the 6.3mm unbalanced audio output from the receiver to the amplifier/mixer.
- **Balanced audio connection**: If the amplifier/mixer has an XLR input, connect a cable from the balanced XLR audio output from the receiver to the amplifier/mixer input.



Unbalanced audio connection (6.3φ phone plug)



Balanced audio connection (XLR plug)

Rack mounting

The receiver can be cabinet-mounted by either one or two units. If only one receiver is to be mounted, an optional kit is available and it's installed as shown in Fig 1. If two receivers are to be mounted, they can be assembled by another kit and installed as shown in Fig 2.

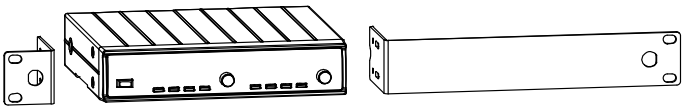


Fig 1. Rack mount of one receiver

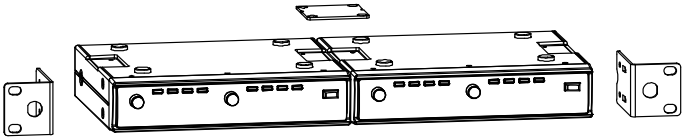
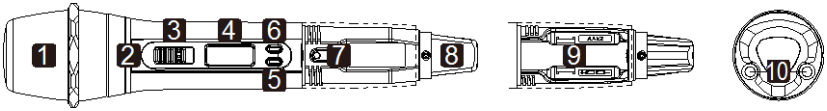


Fig 2. Rack mount of two receivers

Parts and functions of handheld microphone *DH-2400*



1. Cartridge
2. Battery power LED
3. 3-step power switch (**ON-MUTE-OFF**)
4. LCD
5. Menu button
6. Setting button
7. Channel synchronizing button
8. Color cap
9. Battery compartment
10. Charging contacts

3-STEP power switch

Power status	ON	ON	MUTE	MUTE	OFF
Lock status	unlocked	locked	unlocked	locked	can't be locked

To prevent other user from turning off the power, you may slide this switch to the right to lock the microphone on stand-by or mute status. Slide to the left to unlock.

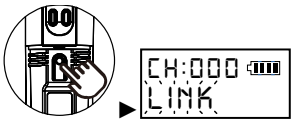
Battery installation & indicator

This microphone requires 2 x AA batteries to operate.
To install, remove the battery cover and slide the batteries into the battery compartment & replace the battery cover.
Note: Batteries contain a corrosive acid that may leak and damage the microphone when stored for a long period. Batteries should be removed from the microphone before storing without use for more than 4 weeks.

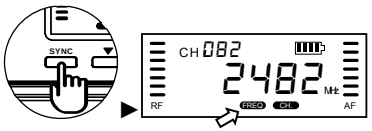
When the microphone is switched ON, a blue LED② will blink once to denote the batteries installed are in good condition. **If the LED remains illuminated, it means the batteries are weak and require replacement.**

Channel synchronizing of the receiver and microphone

1. Unscrew the microphone's lower housing and then press and hold the synchronizing button until **LINK** flashes on the LCD.

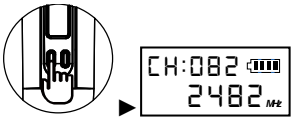


2. Press and press and hold the receiver's **SYNC** button until the frequency icon FREQ appears. After successful channel synchronizing, this icon will disappear automatically.

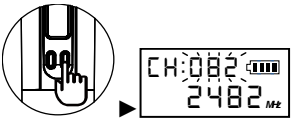


Changing CHANNEL / FREQUENCY

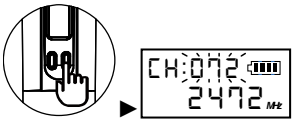
1. Press-release **MENU** button until the CHANNEL-FREQUENCY page appears.



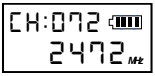
2. Press and hold **SET** button until the channel number flashes to denote readiness for setting.



3. Press-release **SET** (UP) or **MENU** (DOWN) button to select a new channel.

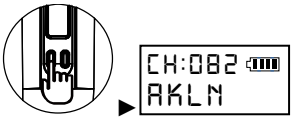


4. After a channel is chosen, wait about 3 seconds to store the setting.

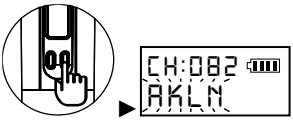


Battery type setting

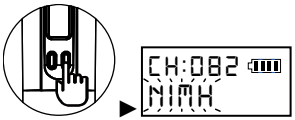
1. Press-release **MENU** button until the CHANNEL-BATTERY TYPE page appears.



2. Press and hold **SET** button until NiMH or AKLN flashes to denote readiness for setting.



3. Press-release **SET** or **MENU** button to select either NiMH (rechargeable battery) or AKLN (alkaline battery).

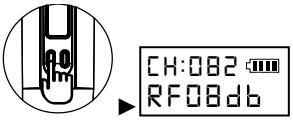


4. After a battery type is chosen, wait about 3 seconds to store the setting.

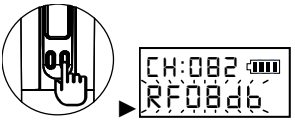
Important: NiMH battery must be selected when rechargeable battery is being used. Never select AKLN (alkaline) when microphone is intended for charging as alkaline battery isn't rechargeable. Wrong battery selection will result in battery sensing electronics to display wrong and misleading status information.

RF power setting

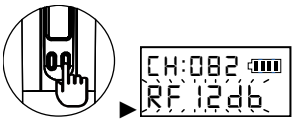
1. Press-release **MENU** button until the CHANNEL-RF POWER page appears.



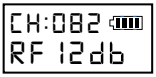
2. Press and hold **SET** button until the RF power figure flashes to denote readiness for setting.



3. Press-release **SET** (UP) or **MENU** (DOWN) button to choose an output level from 0db to 20db



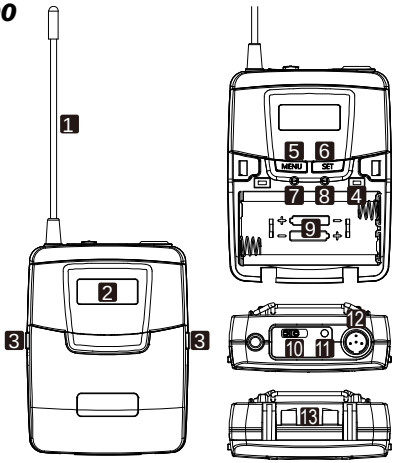
4. After an output level is chosen, wait about 3 seconds to store the setting.



Important: Lower output power will reduce the RF transmission distance and higher output power will extend the possible RF transmission distance. However, higher output power places slightly more load on the battery and will reduce operating duration faster than lower output power.

Parts and functions of belt-pack transmitter *DB-2400*

1. Antenna
2. LCD
3. Cover release button
4. Channel synchronizing button
5. Menu button
6. Setting button
7. High-impedance gain control (GT)
8. Low-impedance gain control (MT)
9. Battery compartment
10. Power switch
11. Battery power LED
12. Audio input connector
13. Charging contacts



Battery installation & indicator

This belt-pack requires 2 x AA batteries to operate.

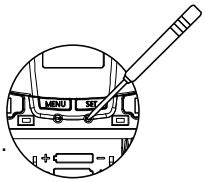
To install, open the battery cover using the cover release buttons and insert the batteries into the battery compartment.

Note: Batteries contain a corrosive acid that may leak and damage the belt-pack when stored for a long period. Batteries should be removed from the belt-pack before storing without use for more than 4 weeks.

When the transmitter is switched ON, the battery power LED⑪ will blink once to denote the batteries installed are in good condition. **If the LED remains illuminated the batteries have expired and require replacement.**

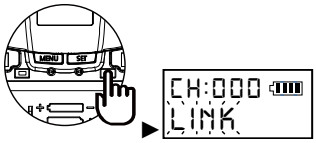
GAIN setting (GT｜MT)

Gain control enables the user to set different output levels.
GT⑦ is for the use of instrument with high impedance, such as guitar.
MT⑧ is for the use of low impedance such as lapel or headset microphones.

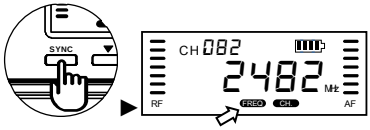


Channel synchronizing of the receiver and transmitter

1. Open the cover and then press and hold the synchronizing button until **LINK** flashes on the LCD.

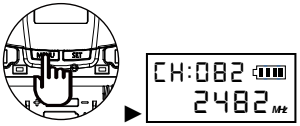


2. Press and hold the receiver's **SYNC** button until the frequency icon FREQ appears. After successful channel synchronizing, this icon will disappear automatically.

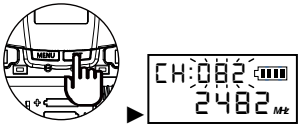


Changing CHANNEL / FREQUENCY

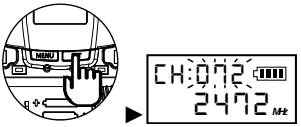
1. Press-release **MENU** button until the CHANNEL-FREQUENCY page appears.



2. Press and hold **SET** button until the channel number flashes to denote readiness for setting.



3. Press-release **SET** (UP) or **MENU** (DOWN) button to select a new channel.



4. After a channel is chosen, wait about 3 seconds to store the setting.

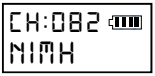
Battery type setting

1. Press-release **MENU** button until the CHANNEL-BATTERY TYPE page appears.

2. Press and hold **SET** button until NIMH or AKLN flashes to denote readiness for setting.

3. Press-release **SET** or **MENU** button to select either NiMH (rechargeable battery) or AKLN (alkaline battery).

4. After a battery type is chosen, wait about 3 seconds to store the setting.



Important: NiMH battery must be selected when rechargeable battery is being used. Never select AKLN (alkaline) when transmitter is intended for charging as alkaline battery isn't rechargeable. Wrong battery selection will result in battery sensing electronics to display wrong and misleading status information.

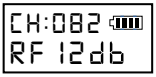
RF power setting

1. Press-release **MENU** button until the CHANNEL-RF POWER page appears.

2. Press and hold **SET** button until the RF power figure flashes to denote readiness for setting.

3. Press-release **SET** (UP) or **MENU** (DOWN) button to choose an output level from 0db to 20db

4. After an output level is chosen, wait about 3 seconds to store the setting.



Important: Lower output power will reduce the RF transmission distance and higher output power will extend the possible RF transmission distance. However, higher output power places slightly more load on the battery and will reduce operating duration faster than lower output power.

CHIAYO

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