

 **SERIES**
Stage-100
WIRELESS AUDIO SYSTEM

**UHF 100-Frequency 2-Way Synchronising
True Diversity Receiver**



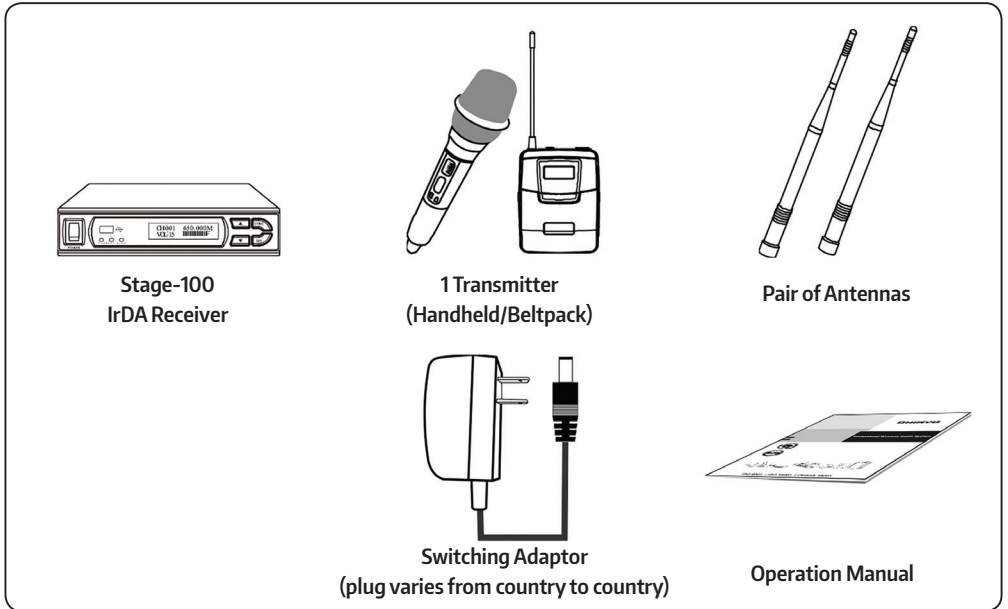
OPERATION MANUAL V1.0

PARALLEL AUDIO [®]

Thank you for purchasing this wireless microphone system.

Please take a few moments to read this operating manual to gain a thorough understanding of the function and operation of both transmitter and receiver.

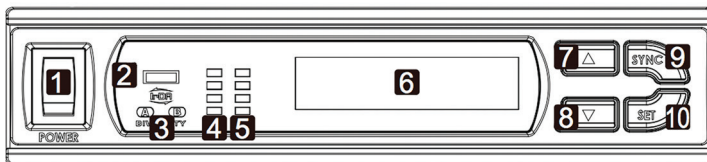
In the Box



Note: The above specifications are subject to change without prior notice.

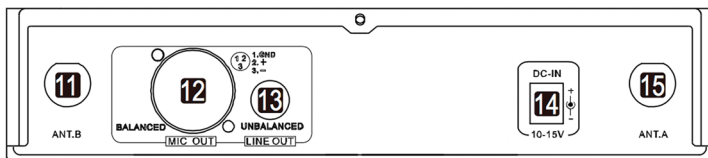
Parts and Functions

FRONT PANEL



- | | |
|------------------------------|--------------------------------|
| 1. Power switch | 6. LCD display |
| 2. IR sensor area | 7. UP button |
| 3. Diversity indicator | 8. DOWN button |
| 4. Radio frequency indicator | 9. IrDA synchronisation button |
| 5. Audio frequency indicator | 10. SET button |

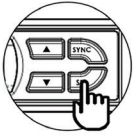
REAR PANEL



11. Antenna B socket (TNC)
12. Balanced audio output
13. Unbalanced audio output
14. DC in
15. Antenna A socket (TNC)

Channel Setting

For an interference-free operation, a cleaner channel might be necessary if the current one receives too much interference. To select a new channel:



CHANNEL:001
FREQ:650.000MHz



CHANNEL:010
FREQ:652.250MHz

1. Press and release **SET** button until the CHANNEL | FREQUENCY page appears.
2. Press ▲(UP) or ▼(DOWN) button to change the channel number. The corresponding frequency will change accordingly. 5 seconds after selecting a channel, it will be automatically saved.

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.



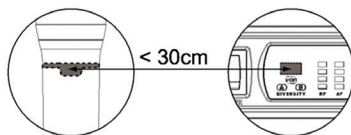
AUTO SCAN UP
AUTO SCAN DOWN



AUTO SCANNING
CHANNEL : 002

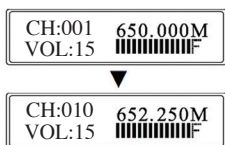
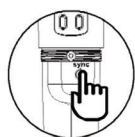
1. Press and release **SET** button until the AUTO SCAN page appears.
2. Press ▲(UP) or ▼(DOWN) button to find a clear, interference-free channel. 5 seconds after selecting a channel, it will be automatically saved.

Channel Synchronising of the Receiver and Transmitter



Align infrared areas of the receiver and transmitter within 10~30cm.

Sync Channel from Transmitter → Receiver

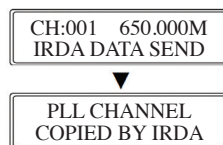


STEP 1: Press the synchronising button of the transmitter.

STEP 2: The transmitter's LED will glow to denote transmitting the frequency to the receiver and synchronising the channels.

STEP 3: The channel/frequency of the receiver will change and then the synchronisation is complete.

Sync Channel from Receiver → Transmitter



STEP 1: Press the SYNC button of the receiver.

STEP 2: The receiver's LCD will display IRDA DATA SEND to denote synchronising signal being sent.

STEP 3: The channel/frequency of the transmitter will change. Synchronisation is complete when the LCD displays PLL CHANNEL COPIED BY IRDA.

STEP 4: Please try again if LCD displays IRDA SEND FAIL..

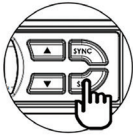
If it doesn't work check that you have the IR sensor panels aligned, that they are facing each other, devices are within 30cm of each other, and try again.

Volume Adjusting



1. The setting can be made right on the homepage.
2. Press ▲(UP) or ▼(DOWN) button to choose volume level. 5 seconds after selecting a channel, it will be automatically saved.

Adjusting Squelch Level



SQUELCH SETUP
LEVEL:01



SQUELCH SETUP
LEVEL:03

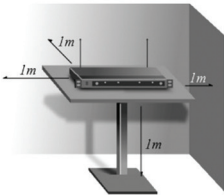
When interference is encountered try reducing the sensitivity of the receiver, thus making it less susceptible to interference.

1. Press and release **SET** button until the SQUELCH SETUP page appears.
2. Press **▲**(UP) or **▼**(DOWN) button to choose a new level between 1 and 10. 5 seconds after selecting a level, it will be automatically saved.

Since increasing the squelch level will also reduce the reception distance, it's recommended to choose the lowest level that can eliminate the interference.

If this still does not solve the problem it means this frequency is not suitable. Adjust the squelch back to its preset level and use the scan function to locate a clear, interference-free channel.

Receiver Installation



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

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.

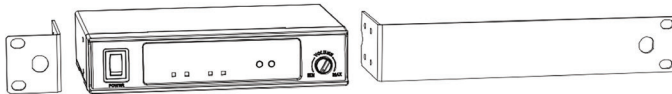


Fig 1. Rack mount one receiver

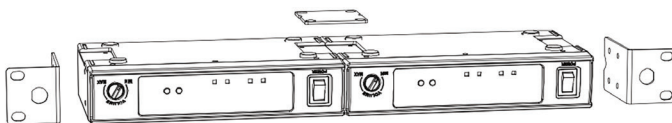


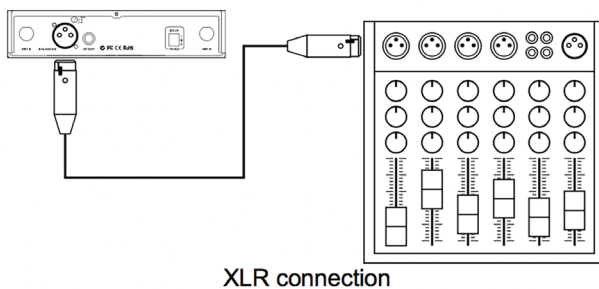
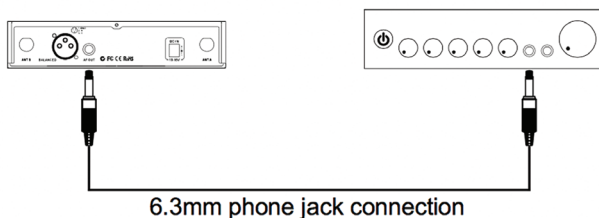
Fig 2. Rack mount two receivers

Audio Output Connection

There are two audio outputs on the back of the receiver, Mic-level balanced and Line-level unbalanced.

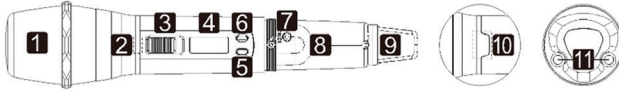
Use shielded audio cable for the connection between the receiver and the amplifier/mixer. If the amplifier/mixer has a 1/4" (6.3mm) phone jack, connect a cable from the 1/4" (6.3mm) unbalanced audio output from the receiver to the amplifier/mixer.

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.



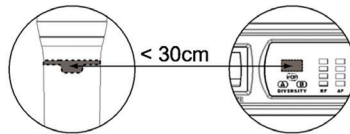
UHF HANDHELD MICROPHONE (HH9000)

Parts and Functions



- | | |
|----------------------|------------------------------|
| 1. Cartridge | 7. IrDA synchronising button |
| 2. Battery power LED | 8. Battery compartment |
| 3. Power switch | 9. Colour cap |
| 4. LCD | 10. IrDA sensor area |
| 5. Menu button | 11. Charging port |
| 6. Setting button | |

Channel Synchronising of the Receiver and Transmitter



Align infrared areas of the receiver and transmitter within 10~30cm.

Sync Channel from Transmitter → Receiver

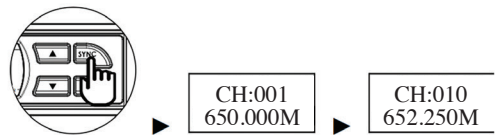


STEP 1: Press the synchronising button of the transmitter.

STEP 2: IRDA PLL CALL will appear on the microphone's LCD to denote synchronising the receiver's channel.

STEP 3: If the receiver's channel is synchronised, PLL SEND OK will appear. Please try again if the LCD shows IRDA FAIL.

Sync Channel from Receiver → Transmitter



STEP 1: Press the SYNC button of the receiver.

STEP 2: The receiver's LCD will display IRDA DATA SEND to denote synchronising signal being sent.

STEP 3: The channel/frequency of the transmitter will change. Synchronisation is complete when the LCD displays PLL CHANNEL COPIED BY IRDA.

STEP 4: Please try again if LCD displays IRDA SEND FAIL..

If it doesn't work check that you have the IR sensor panels aligned, that they are facing each other, devices are within 30cm of each other, and try again.

Battery Installation and Indicator

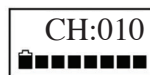
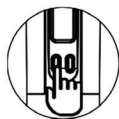
This microphone requires 2 x AA batteries to operate.

To install, remove the battery cover and slide the batteries according to the correct polarity into the battery compartment and 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 if it is not to be used for a prolong period of about 4 weeks or more.

When the microphone is switched ON a blue LED (2) will blink once to indicate the batteries installed are in good condition. **If the LED remains illuminated, it means the batteries are weak and replacement is required.**

Channel Setting



1. Use MENU button (5) to go to the CHANNEL | BATTERY STATUS page.
2. The upper-right channel number will flash to allow changes to be made.
3. Press SET button to change the channel number. 5 seconds after selecting a channel, it will be automatically saved.

Battery Type Setting



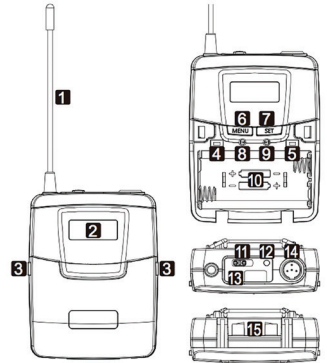
1. Use MENU button (5) to go to the BATTERY TYPE page.
2. Press SET button (6) for 3 seconds, then the cursor ← will flash to allow changes to be made.
3. Press SET button to select either NiMH (rechargeable battery) or AKLN (alkaline battery). 5 seconds after selecting a battery type, it will be automatically saved.

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.

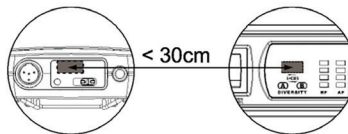
UHF BELTPACK TRANSMITTER (BP9000)

Parts and Functions

- | | |
|-------------------------------------|------------------------------------|
| 1. Antenna | 9. Low-impedance gain control (MT) |
| 2. LCD | 10. Battery compartment |
| 3. Cover release button | 11. Audio mute switch |
| 4. Power switch | 12. Battery power LED |
| 5. IrDA synchronising button | 13. IrDA sensor area |
| 6. Menu button | 14. Mini XLR connector |
| 7. Setting button | 15. Charging contacts |
| 8. High-impedance gain control (GT) | |



Channel Synchronising of the Receiver and Transmitter



Align infrared areas of the receiver and transmitter within 10~30cm.

Sync Channel from Transmitter → Receiver

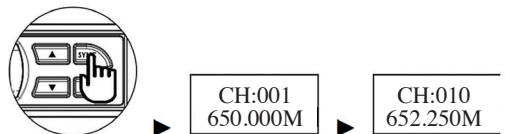


STEP 1: Press the synchronising button of the transmitter.

STEP 2: IRDA PLL CALL will appear on the transmitter's LCD to denote synchronising the receiver's channel.

STEP 3: If the receiver's channel is synchronised, PLL SEND OK will appear. Please try again if the LCD shows IRDA FAIL.

Sync Channel from Receiver → Transmitter



STEP 1: Press the SYNC button of the receiver.

STEP 2: The receiver's LCD will display IRDA DATA SEND to denote synchronising signal being sent.

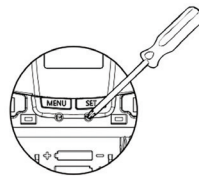
STEP 3: The channel/frequency of the transmitter will change. Synchronisation is complete when the LCD displays PLL CHANNEL COPIED BY IRDA.

STEP 4: Please try again if LCD displays IRDA SEND FAIL..

If it doesn't work check that you have the IR sensor panels aligned, that they are facing each other, devices are within 30cm of each other, and try again.

Gain Setting (GT/MT)

Gain control enables the user to set different output levels. GT (8) is for the use of instrument with high impedance, such as guitar while MT (9) is for the use of low impedance such as lapel or headset microphones.



Battery Installation and Indicator

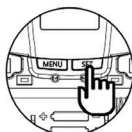
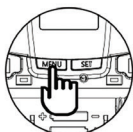
This transmitter requires 2 x AA batteries to operate.

To install, remove the battery cover and slide the batteries according to the correct polarity into the battery compartment (10) and 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 if it is not to be used for a prolong period of about 4 weeks or more.

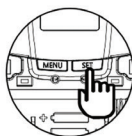
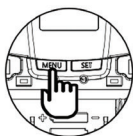
When the transmitter is switched ON a red LED (12) will blink once to indicate the batteries installed are in good condition. **If the LED remains illuminated, it means the batteries are weak and replacement is required.**

Channel Setting



1. Use MENU button (6) to go to the CHANNEL | BATTERY STATUS page.
2. The upper-right channel number will flash to allow changes to be made.
3. Press SET button to change the channel number. 5 seconds after selecting a channel, it will be automatically saved.

Battery Type Setting



1. Use MENU button (6) to go to the BATTERY TYPE page.
2. Press SET button (7) for 3 seconds, then the cursor ← will flash to allow changes to be made.
3. Press SET button to select either NiMH (rechargeable battery) or AKLN (alkaline battery). 5 seconds after selecting a battery type, it will be automatically saved.

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.

PARALLEL AUDIO WARRANTY INFORMATION – 5 Year Warranty Term

Consumer Guarantees

When you purchase a NAS distributed product, you have the peace of mind in knowing that your product is covered by the NAS warranty. The NAS warranty is provided by:

In Australia: National Audio Systems Pty Ltd, ABN 50 085 679 894 [‘NAS’], 127 Merrindale Drive, Croydon, Victoria 3136.

In New Zealand: NAS Solutions Limited, NZBN 9429046800992 [‘NAS’], 7F Douglas Alexander Parade, Rosedale, Auckland 0632.

The Australian Consumer Law protects consumers by giving them certain guaranteed rights when they buy goods and services. Rights guaranteed under the Australian Consumer Law include;

- The goods are of acceptable quality;
- The goods match their description or any sample or demonstration model;
- The goods are fit for any represented purpose or purpose which the consumer has made known;
- Repairs and spare parts are reasonably available (unless notice has been provided that repairs or spare parts would not be available); and
- The services are carried out with reasonable care and skill and are completed within a reasonable time

These rights are called ‘Consumer Guarantees’ and apply automatically whenever goods or services are supplied to a consumer. These Consumer Guarantees cannot be refused, changed or limited.

Consumer Guarantees have no set time limit and depending on the price and quality of goods a Consumer may be entitled to a remedy after any manufacturers’ or NAS’s extended warranty has expired.

The Specific Warranty Table Information outlines the warranty period, warranty type and any specific exclusions for your NAS product. NAS considers the warranty period specified in the Specific Warranty Table to be a reasonable warranty period having regard to the price, design, manufacture and expected use of the product.

General Warranty (‘Warranty’)

NAS products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure or if the goods fail to be of acceptable quality. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

Subject to the terms and conditions set out below, and unless otherwise specified in the Specific Warranty Information for your NAS product, NAS agrees to repair or replace, at NAS’s cost, the NAS product purchased by you in Australia or New Zealand from NAS or a NAS authorised reseller when the product does not perform substantially in accordance with the specifications during the warranty period specified in the Specific Warranty Table for your NAS product. NAS makes no other express warranties in respect of your NAS product. To make a claim under this Warranty, valid proof of purchase must be presented when the warranty claim is made, along with any other required information. The Warranty offered by NAS is not transferable.

The Warranty will only apply if your NAS product has been installed and used in accordance with NAS’s recommendations as noted in the operating instructions.

Warranty Exclusions

The Warranty does not cover damage caused by;

- Misuse or abuse of the product by You;
- Incorrect operation or not following the operation instructions (as noted in the operating instructions);
- Improper installation;
- Incorrect or improper maintenance or failure to maintain the product;
- Failure to clean or improper cleaning of the product;
- Incorrect voltage or non-authorised electrical connections;
- Adverse external conditions such as incorrect or fluctuations in electrical voltage, thunderstorm activity, acts of God, acts of terrorism, damage caused by vermin, or any other circumstance beyond NAS’s control;
- Exposure to excessive heat, moisture or dampness;
- Exposure to abnormally corrosive conditions;
- Alterations or modifications to the product made by You or a third party; or
- Damage as a result of accident, liquid, grit, impact or lack of proper care as indicated in the operating instructions;
- Damage resulting from the use of cleaning solvents such as acetone

The Warranty does not apply if any serial number or appliance plate on the product has been tampered with, removed or defaced.

The Warranty does not apply if the product has been repossessed under any financial agreement.

The Warranty excludes accessories and consumable goods which have ceased working through normal wear and tear such as, but not limited to, batteries, lamps and other parts classifiable as a consumable part.

The Warranty does not cover the loss of any data howsoever caused. You shall be responsible for backing up and protecting data against loss, damage or destruction.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. Replacement of the product or a part does not extend or restart the Warranty Term.

The product will be at the owner’s risk whilst in transit to and from all NAS authorised service centres, unless transported by NAS or its authorised representatives.

NAS and its authorised service centres may seek reimbursement of any costs incurred by them when the product is found to be in good working order.

The cost of claiming under this warranty, including return of any product to NAS is to be borne by the consumer.

The Warranty excludes removal or reinstallation costs.

*** All Parallel Audio products come with a 5 year warranty term, excluding Parallel Audio batteries and CD players (see below).**

Parallel Audio Limited Battery and CD Player Warranty: Batteries and CD players fitted to all Parallel Audio portable PA products carry a 3 months warranty.

For further information and warranty claims, refer to our **Support** page at www.nas.solutions.