

***2.4GHz DSS DIGITAL CORDLESS HEADSET***

***MODEL : DA579***

***USA VERSION***

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## ***Circuit Explanation***

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#### **Base Circuit Description**

*The signal which inputted in TEL-LINE(J701) is coupled at RL700 and RL701, this signal is passed through Configuration switch, SW303, T300 and transformed Analog into Digital at U1.*

*Data which is transformed into Digital signal is mixed with PN code at U1 (by spread spectrum) and transmitted to RF part.*

*Spreading signal which inputted to RF part is mixed with Carrier supplied to VCO (U903) and create TX frequency of using channel and then is transmitted to ANTENNA through U801 by TX control of U802.*

*The signal received to antenna is transmitted to U901 by RX/TX control time.*

*The signal inputted at U901 is mixed Carrier of VCO(U903) and got to direct conversion and create Base band signal. And then, create I and Q signal by demodulation (QPSK : Quadrature Phase Shift Keying method is phase- shifted by 90°).*

*I and Q signal (Two signal phase is 90°) is transmitted to U1 and remixed with PN code and enenerated Digital signal.*

*Digital signal is transformed into Analog at U1.*

*This audio signal is passed through U42, T302, Configuration switch, RL700, RL701 and transmitted to TEL-LINE(J701).*

#### **Hand Circuit Description**

*The signal which is inputted to MIC is transformed Analog into Digital at U701.*

*DATA which is transformed into Digital signal is mixed with PN code at U701 (by spread spectrum) and transmitted to RF part.*

*Spreading signal which inputted to RF part is mixed with Carrier supplied to VCO(U903)and create TX frequency of using channel and then is transmitted to ANTENNA through Q900, Q901*

*The signal received to antenna is transmitted to U901 by RX/TX control time.*

*The signal inputted at U901 is mixed Carrier of VCO(U903) and got to direct conversion and create base band signal.*

*And then, create I and Q signal by demodulation (QPSK : Quadrature Phase Shift Keying method is phase- shifted by 90°)*

*I and Q signal (Two signal phase is 90°) is transmitted to U701 and remixed with PN code and generated Digital signal.*

*Digital signal is transformed into Analog at U701.*

*This audio signal is passed through receiver and transmitted.*

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#### **RF Circuit Description**

**LO Generation :** The LO signal is generated by a programmable PLL frequency synthesizer in the U901(RF109) and the an external 2.4GHz VCO(U903). The RF109 synthesizer requires differential input signals from the external VCO to generate the LO Frequency.

Therefore a BALUN(U905) transformer is used to generate differential signals from single-ended VCO output.

**Receive Path :** The signal is received at the antenna and pass the T/R switch(U802) and an RF bandpass filter. The output of the bandpass filter is ac-coupled to the Low Noise Amplifier (LNA) of the U901.

The U901 downconverts the RF signal into In-phase( I) and Quadrature signal(Q) baseband signals. The differential I and Q baseband signals are dc-coupled to the ASIC(U1 or U303) RXIP, RXIN, RXQP and RXQN inputs.

#### **Transmit Path**

**Base unit :** The baseband digital data input signal is shaped by external filter (R919,C925, L901, C924, R918) and inputted to the TXD1 Port of the U901 (RF109).

The inputted baseband digital data is mixed with Carrier supplied to VCO (U903) and transmitted to the U801 (RF110) with a phase difference of 180 degree between the two branch.

The inputted a differential signals to the U801 (RF110) are amplified by the U801 (RF110) And the differential output signals of the U801 (RF110) output port are converted to a single- Ended signal at the RF matching network.

**Handset :** The baseband digital data input signal is shaped by external filter (R919,C925, L901, C924, R918) and inputted to the TXD1 Port of the U901 (RF109).

The inputted baseband digital data is mixed with Carrier supplied to VCO (U903) and transmitted to the Q901. The inputted a single-Ended signals is amplified by the Q900, Q901

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# ***User's Manual***

Totally Wireless!!

DA579



***DA579 USER GUIDE***



## IMPORTANT SAFETY INSTRUCTIONS

When using your Headset equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read and understand all instructions.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use this product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement or near a swimming pool.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
5. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.
6. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified service contractor when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
7. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - A. When the power supply cord or plug is damaged or frayed.
  - B. If liquid has been spilled into the product.
  - C. If the product has been exposed to rain or water.

If the product does not operate normally by following the operating instructions, Adjust only those controls that are covered by the operating instructions. Improper

- D. Adjustments of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- E. If the product has been dropped or the cabinet has been damaged.
- F. If the product exhibits a distinctive change in performance.



## FCC NOTICE

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED OPERATION.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer of an experienced radio/TV technician for help.

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

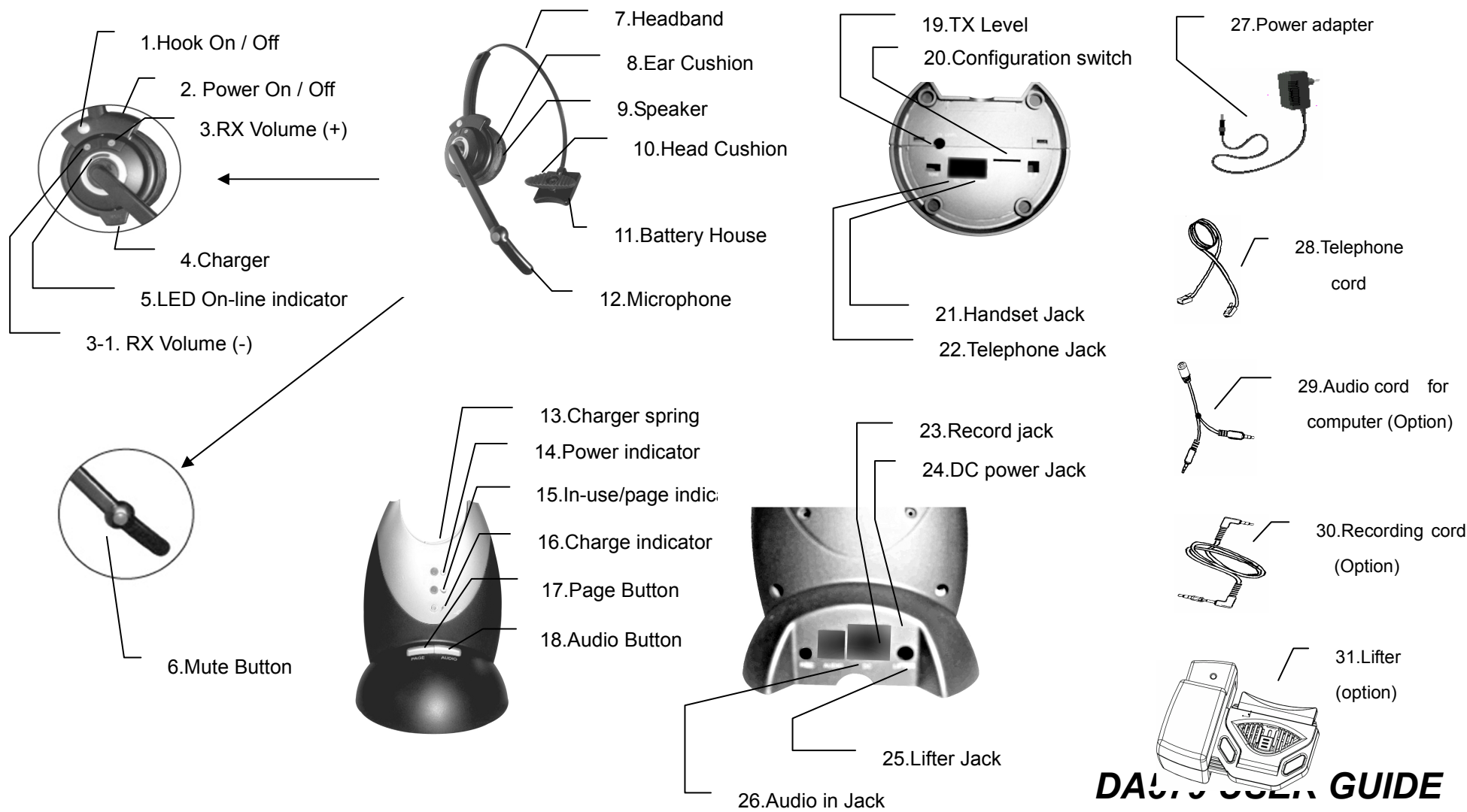


## INSTALLATION PRECAUTIONS

1. Never install Headset wiring during a lightning storm.
2. Never install headset jacks in wet locations unless the jack is specifically designed for wet locations.
3. Use caution when installing or modifying headset lines.



**LOCATION OF CONTROL AND FEATURES**



## **1. DA579**

Totally Wireless, extremely easy to use and very stylish, the DA579 will become an essential accessory. Connecting to your office phone systems, the DA579 offers all the benefits of a mobile phone enabling office workers to walk to the photocopier, retrieve important files or even make a coffee while still speaking on the phone.

Please read this manual carefully that you can quickly learn the functions provided.

## **2.Feature & Overview**

### **1. Hook button**

Answer & Making Call, remote handset lifter action

### **2. Headset Power switch**

To use the DA579 have to power on. If you are not using for long time, please turn off to protecting battery loose.

When power off status, you can use your telephone system without DA579.

### **3. 3-1 Listening volume control (+,-)**

Adjust the volume of received sound

### **4.Charger contact**

### **5.LED On-line indicator**

When you are on the line LED blink. Your colleague be noticed your line is busy.

### **6.Mute Button**

Mute Button is located on the Mike Boom. Press the button easily to cut off the microphone temporarily with beep sound.

Just depress the button to resume communication with your caller.

### **7.headband**

Super elastic and light stainless steel headband

### **8.Ear Cushion**

**9.Speaker****10.Head Cushion****11.Battery house**

Located Li-ion rechargeable battery(DC3.7V 550mAh)

**12 Microphone****13.Charger spring****14.Power indicator**

Base unit power indicator

**15.In-use / page indicator**

When your line is busy base on-line indicator is light on.

**16.Charge indicator**

When headset unit on the cradle of base unit charging will be start and light on.


**17.Page button**

If user is not in their seat or remote from telephone and base unit with headset, please push the page button on base by near person, headset led indicator blink and make tone sound to notice incoming call.

**18.Audio button**

 Normal position – Using the telephone connection

If you are not in on line, you can hear sound of computer sound or voice chatting with this button.

 To hear Computer sound, Base unit and computer have to connect. Connector is option.

**19.TX Level**

Set the sending volume level controller

**20.Configuration switch**

Tel-lint matching adjustment switch between DA579 and telephone

**21. Handset Jack (Handset)**

Your Telephone handset connect to this jack

**22.Telephone Jack (TEL)**

Please, connect a telephone cord supplied(28) between the handset jack of your telephone and base unit.

**23.Record Jack**

The plug of recorder can be connected (Option)

**24. DC Power jack**

For power adapter

**25.Lifter Jack**

For automatic lifter connection

**26.Audio in Jack(External computer or Audio device jack)**

Connect a computer cord (option) between computer or audio device and base unit.

**27.Power Adapter****28.Telephone cord****29.Audio cord for computer(option)****30.Recording cord(option)****31.Lifter****Out Of Range Detection**

If you use the Headset too far away from the Base-set during a call, the Headset will alert you with

Audible warning beeps. Once you hear these warning beeps, move closer to the Base-set to be within normal operating range.

NOTE: If you do not move within the normal operating range in several seconds after the first Out-of-Range warning beeps, the Headset and the Base-set will return to the standby mode.

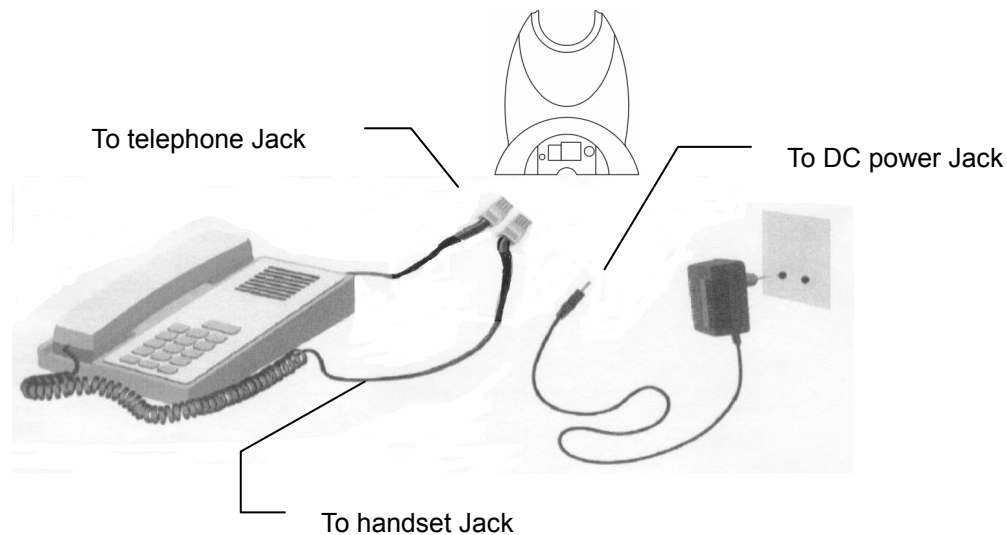
**Low Battery Condition (BATT LED)**

If the Headset BATT LED indicator starts flashing, return the Headset to its cradle on the Base-set to charge.

### **3.Installation**

Connecting to your telephone, base unit

1. Unplug your telephone's handset cord from the telephone base and plug it into the handset jack of base unit (18)
2. Connect a telephone cord to the telephone's handset jack.
3. Connect a power adapter (25) to base unit adapter jack (22) and then connect to a power socket
4. Headset Power on
5. For battery charging, place the headset on the base unit.
6. when power on headset and base unit, they try to sink automatically. Meantime, you can find In-use indicator on base will flash for several second. If In-use indicator flash continuously, please repeat step 1~5.



## **4.Optimize adjustment before using**

### **First battery charging**

The battery requires a minimum of 60 minute of charging before use. The battery charge indicator (16) on the base unit will light on during charging. Low battery will beep every 10 seconds.

### **Checking for compatibility**

1) Removing the headset from the base unit, Head power switch (2) On and then push the hook button (1).

2) The In-use indicator on base unit (15) and LED indicator on headset (5) will light on

\*If the In-use indicator on base unit and LED indicator on headset do not light on, please check the wiring connection and ensure power adapter is connected.

### **Checking for Optimal Sound**

#### **1.Adjustment of Configuration**

Please perform as follows;

- a. Put on your headset
- b. Lift the telephone handset and attention to a dial tone from headset
- c. If there is no dial tone or makes noise, move to configuration switch (20),until dial tone is clear.

#### **2.Adjustment of listening / transmission volume**

Firstly, place headset listening volume to the center (factory setting is center) and TX Level (19) to the center

##### **1) Listening volume adjustment**

- a. Make a call and ask the counter person to assist you.
- b. Adjust the volume level by push the button (3.3-1) + or - on the headset.

## 2) Transmission volume adjustment

- a. Make a call and ask the counter person to assist you.
- b. Adjust the TX level (19) bottom of the base by moving the + or –
- c. When the counter person you are speaking with finds the volume of your voice pertinent, left the TX volume switch

## 3. Recording during the call

Connect Recording Cord (30) optionally supplied between Record Jack (23) and your computer or exterior recorder.

You may need this record for your job references or to report the record to the other party or your boss.

## 4. Mute

If you press Mute button (6) during telephone calling, you are still able to hear your caller, but your voice will not be transmitted to the caller

## **5.Operation**

### **Receiving calls**

To answer a telephone call:

1. Lift the telephone's hand set when incoming call
2. Remove headset from the base unit, power on headset and push the hook on.
3. To end the call, place the headset on the base unit and replace the telephone's handset

### **Making calls**

1. Remove the headset from the base unit. Push the hook button (1), online indicator will light on.
2. lift the telephone's handset and listen for a dial tone in your headset
3. Dial the desired number your telephone. To end the call, replace your telephone's handset.

### **\*Receiving / Making calls using Remote handset lifter**

You can make absolute organized wireless system. Remote handset lifter let you answer and makes call while away from your desk.

Please contact your vendor.



## **6.Troubleshooting**

### **Callers can not hear me and I can not hear my callers**

1. Check the installation. All cords are properly connected.
2. Check the battery is fully charged
3. Check Configuration switch location (20)

### **Callers has difficulties hearing me**

1. Check the Mute button
2. Check the boom position. Microphone is placed as close as possible to your mouth
3. Adjust the TX level (19)
4. Out of range (UP to 300ft, depending on environment) of the base unit and headset)
5. Check configuration switch location (20)

### **My voice echoes or I sound like I am in a tunnel**

1. Move to TX volume switch (15) to a lower volume

## Back mi Limited Warranty

- **What is covered:** All parts defective in material and workmanship
- **For how long:** ONE year from the purchase date
- **What we will do:** Pay shipping or transportation charges on sending the unit back to you.
- **What we will not do:** Pay shipping or transportation charges on receiving the unit from you.
- **What you must to do:** Return product personally with proof of purchase to an authorized Back mi dealer, or Return product personally with proof of purchase directly to Back mi with following procedures:
  1. Contact Back mi for specific return and shipping instructions
  2. Properly pack the product in the original carton for shipping. If you need a new carton, contact Back mi for a new carton available at nominal charge.
  3. Label and ship, freight prepaid, to the address provided by Back mi, and place any necessary return authorization number prominently on the outside of the carton.(Cartons not bearing a return authorization number, where required, will be refused.)

**Other Conditions:**

This warranty is fully transferable provided that the current owner furnished the original proof of purchase from an authorized Back mi dealer. THE PROVISION OF THIS WARRANTY ARE IN LIEU OF ANY OTHER WRITTEN WARRANTY, WHETHER EXPRESSED OR IMPLIED, WRITTEN OR ORAL, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BACK MI'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASING PRICE PAID BY YOU FOR THE PRODUCT. IN NO EVENT SHALL BACK MI BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES. This warranty does not cover a defect that has resulted from improper or unreasonable use of maintenance, accident, improper packing, or unauthorized tampering, alteration or modification as determined solely by us. This warranty is void if the label bearing the serial number has been removed or defaced.

**Other Legal Rights:**

This warranty gives you specific legal rights, and you may also have other rights, which vary from country to country or state to state. Some places do not allow limitations on implied warranties or the exclusion or the limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

**7.Safety information**

1. For replacing the battery, please using approved batteries only. No other parts can be replaced by the user
2. When cleaning, use dried cotton fabric and a little washing-up liquid or water if required.