JPL Scout 3100

DECT PTT Amplifier

User Manual

MODEL 1.3

For units with serial numbers:
JZ… & KZ…



SCOUT BY JPL

For Critical Communications

Thank you for purchasing the **JPL Scout 3100 Wireless DECT PTT Amplifier.**

Important Safety Instructions
This Scout 3100 is very easy to use and setup. For optimal use, we still recommend that you read this user guide carefully before using the Scout 3100 for the first time.

Unpacking
Remove your Scout 3100 from its packaging and ensure you have the correct specified accessories. Please retain the packaging for use should the adapter needs to be returned for servicing or repair.

Safety
For your own safety, this product should only be used with UKCA, CE, FCC, RCM, and RoHS approved equipment. Using this unit with non approved equipment can void this products warranty.

Environmental Notice
This unit has been made to UKCA, CE, FCC, RCM, RoHS and WEEE standards. In the interest of recycling raw materials, please do not dispose of this unit in the household waste at the end of its useful life. Disposal can take place at approved recycling or disposing locations in accordance with local regulations.

Warning
Ensure that all electrical connections (including extension leads and interconnections between pieces of equipment) are properly made and in accordance with the relevant manufacturers instructions.

- Do not continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way. Disconnect from your telephone equipment and consult your dealer.
- Do not allow electrical equipment to be exposed to rain or moisture.
- Never push anything into holes, slots or any other opening on your headset as this could result in fatal electrical shock.
- Do not open the unit's housing as doing so will void the warranty.
- Never guess or take chances with electrical equipment.
- Do not use this equipment to report a gas leak while you are in the vicinity of a gas leak.
- Telephone headsets are capable of producing high levels of sound. Prolonged exposure to high sound levels can cause damage to hearing.
- Never allow small children to play with the unit - small parts may be a choking hazard.

Contents

Product Summary 3

What's Included 4

Accessories 4

Technical Specifications 5

Base Station - Overview 7

Handheld Trigger - Power On / Off 8

Battery Status 9

Audio Rx (Speaker) to Tx (Microphone) 11

Base Station LED Indication 12

DIP Switch Settings 13

Pairing Information 14

Remote In-Use LED Information 15

Compliance 16

JPL Scout 3100

The JPL Scout 3100 Wireless DECT PTT (Push-To-Talk) delivers reliable wireless communication and seamless PTT functionality for public safety dispatch, air traffic control, radio operations, and simulation training. Designed for environments requiring secure transmissions, the advanced DECT wireless adapter ensures top-tier protection with DECT Security Step C. Supporting both analogue and USB interfaces, the DECT PTT system offers flexible configurations for one or two independent portable devices, making it the ideal solution for mission-critical communications.

Advantages

Enhanced Security: Complies with DECT Security Step C and features 256-bit AES encryption (FIPS 140-2) to ensure secure communication in sensitive environments.

Superior Audio Quality: Delivers clear, reliable voice transmission with advanced DECT technology optimised specifically for voice communication.

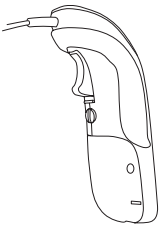
Wireless Flexibility: Operates without cables, providing up to 400 ft (120 m) of range using DECT wireless technology for increased mobility and convenience.

Flexible Interface Support: Analogue and USB interfaces ensure broad compatibility with both analogue and VoIP communication systems, as well as training simulators.

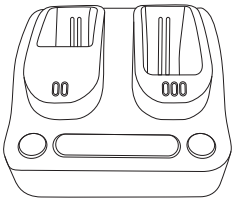
JPL Scout 3100 - What's Included

MODEL 1.3

Thank you for choosing the JPL Scout 3100 Wireless DECT PTT Amplifier.



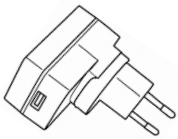
DECT Handheld Trigger



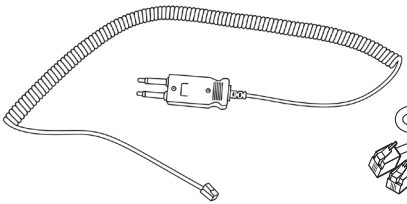
DECT Base Station



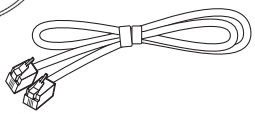
Spare Battery



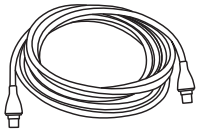
USB-C Power Adapter with multi-country attachments



RJ12 to PJ7 Cable



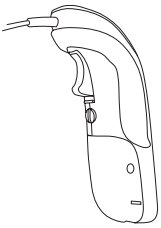
RJ12 to RJ12 Supervisor Cable



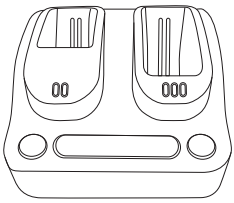
2 x USB-C to USB-C/A Power Cables

JPL Scout 3100 Accessories

The following accessories are also available.
Please go to www.jpltele.com for more information



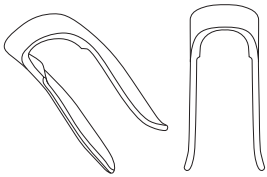
DECT Handheld Trigger
SKU: 575-406-3101



DECT Base Station
SKU: 575-406-3102



Spare Battery
SKU: 575-406-3103



Belt Clip
SKU: 575-406-101

Compatible Headsets:

- Compatible with all JPL QD type headsets - 4 pin
  - Recommended headsets: JPL-400, JPL-Connect, JPL-Icon 100
- Compatible with Poly QD type headset - 4 pin

Handheld Remote Trigger Unit Features:

- PTT buttons
- LED / On-Off button
- Detachable belt clip
- Receiving volume control

Base Unit Features:

- Two charging chambers
- Microphone transmit volume controls
- Status LEDs for power, battery charging, audio interface, and PTT
- Pairing button
- Analog (RJ12), and USB connection ports
- Operating temperature range: 40°F(+4°C) to 110°F(+49°C)

USB Enumeration:

- The PTT button enumerates different commands
  - Microphone open/close (secure talk)
  - Gamepad 1, open mic
  - Joystick 1, open mic

Analog or Digital Mode:

- Mode 1 : Analog
  - For PJ-7, Lemo or other analog connectors
- Mode 2: Digital
  - For USB Secure PTT or USB Push-to-Key

Connects to:

- Analogue RJ12 female connector to dual-prong PJ7
- USB-C connectors to PC or voice communication consoles

Wireless:

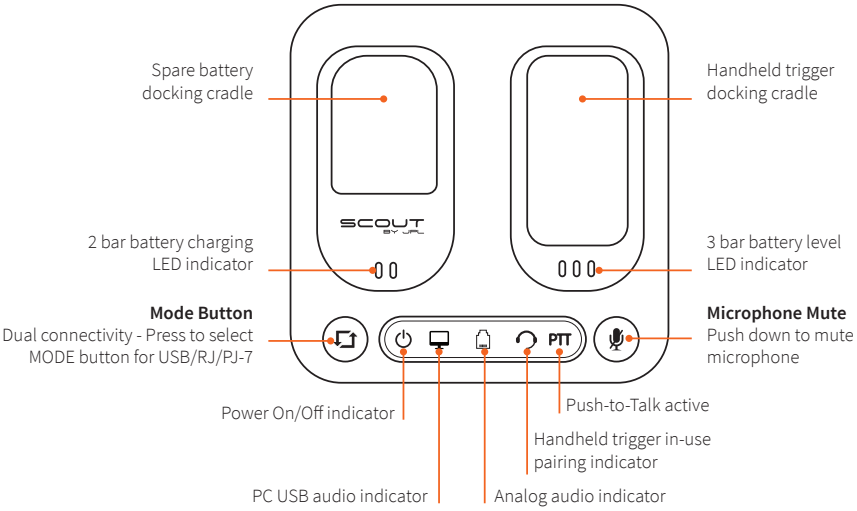
- DECT 6.0 North America: 1.92~1.93 GHz
- DECT 6.0 Europe: 1.88~1.90 GHz
- Range: (outdoors line-of-sight) 400 ft / 120 m
- Security: DECT Security step C
- Encryption: Military level FIPS 140-2 listed 256-AES encryption
- Authentication: 128-bit AES

Battery:

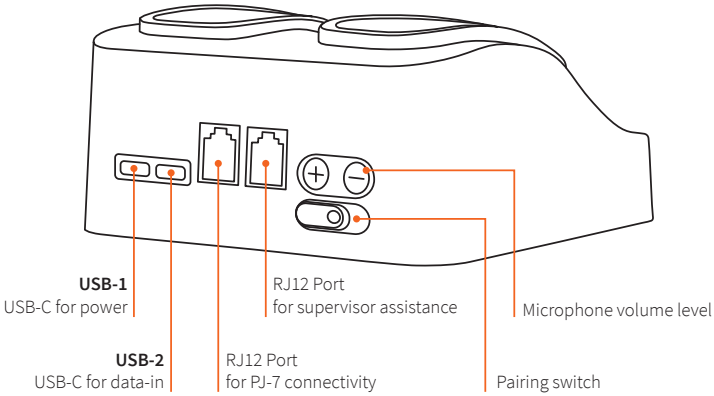
- Battery capacity: 400 mAh
- Talk time: up to 8 hours wideband / 10 hours with narrowband audio
- Extra battery with charging chamber
- Charge time: Quick charge for 2~3 hours

Receiving Frequency Response:

- User selectable option for wideband and narrowband audio
- Wideband 50 ~ 7000 Hz for G.722 Codec audio
  - Sampling frequency: 16 KHz
  - Bit rate 64 kb/s
- Narrowband 300 ~ 3,400 Hz for G.711 Codec audio
  - Sampling frequency: 8 KHz
  - 8 bits per sample
  - Bit rate 64 kb/s
  - Algorithm delay: 0.125 msec

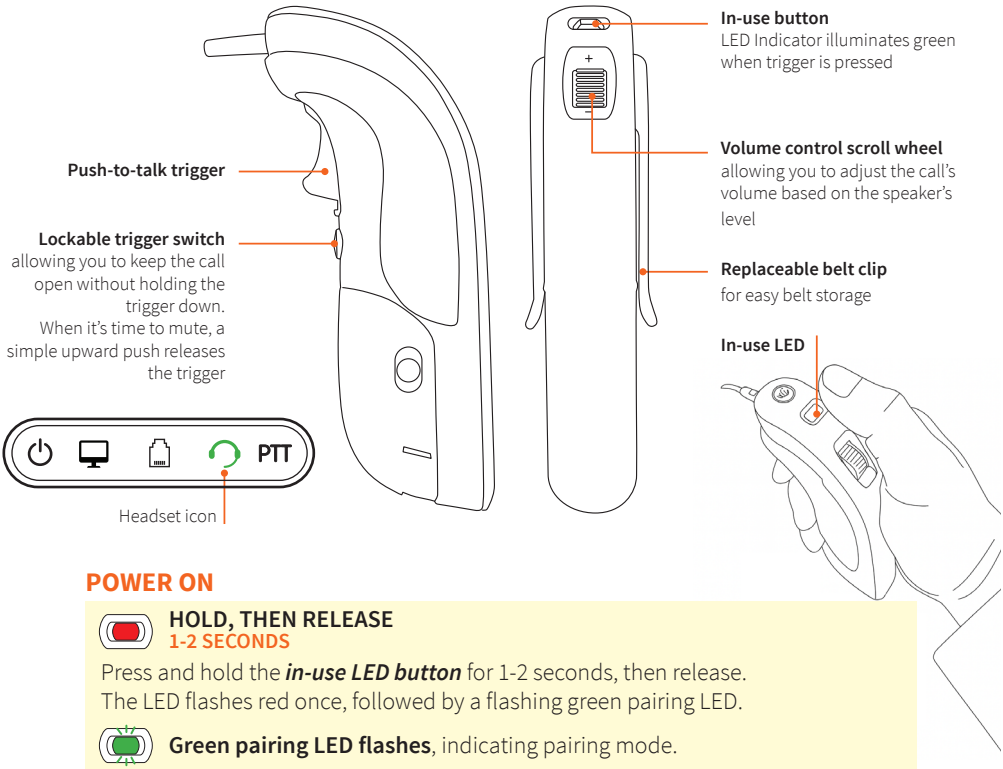


Base Station - Power On/Off



Base Station - Power On/Off

1. **Power On** - The Scout 3100 base station can be powered in the following ways using the included USB cords:
   a. **Option 1**
      i. ***USB 1*** – wall outlet power with supplied USB-C power adapter
      ii. ***USB 2*** – for data only to a PC / Laptop
   b. **Option 2**
      i. ***USB 2*** – for power and data to a PC / Laptop using only one USB cord
2. **Power Off** - To power off the base unit, simply remove the USB cords.



POWER ON

HOLD, THEN RELEASE
1-2 SECONDS

Press and hold the ***in-use LED button*** for 1-2 seconds, then release.
The LED flashes red once, followed by a flashing green pairing LED.

Green pairing LED flashes, indicating pairing mode.

ALTERNATIVE POWER ON
Remove the battery and re-insert it. The handheld powers on automatically.

Note: The base station and handheld are paired at the factory. A solid green headset icon on the base station display panel confirms successful pairing; if not, please see Pairing Information.

POWER OFF

STEP 1 - HOLD UNTIL OFF
8-10 SECONDS

Press and hold the ***in-use LED button*** until the ***in-use LED*** turns off.
The LED flashes twice when released and then starts flashing.

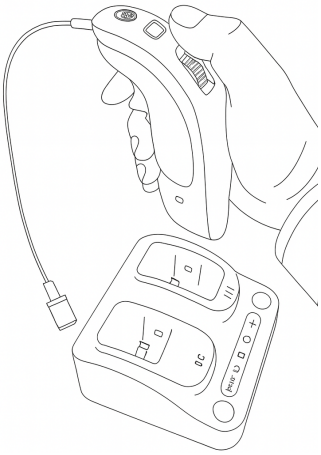
LED flashes every 2 seconds.

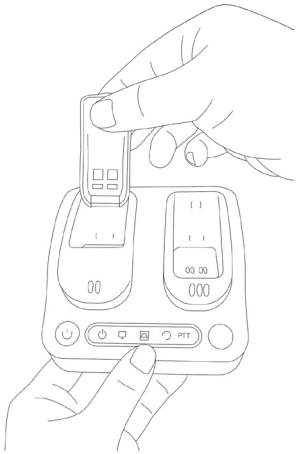
STEP 2 - HOLD FOR DOUBLE FLASH
9-11 SECONDS

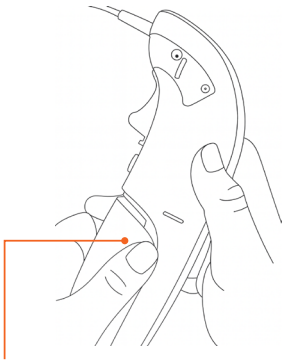
Press and hold the ***in-use LED button***. Release when the handheld's green LED flashes twice.

Green LED double-flashes.

POWER OFF CHECK
The handheld should now show no LED activity.







Press button on the side of the battery unit to remove battery from handheld trigger

Base Status - Battery

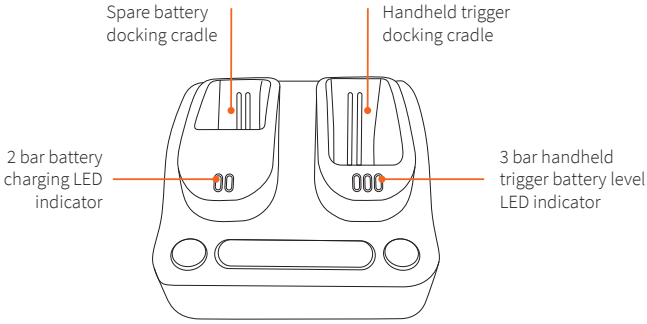
a. To charge the handheld trigger, place the unit into the right hand cradle firmly.

b. To charge the spare battery, place the battery unit into the left hand cradle firmly.

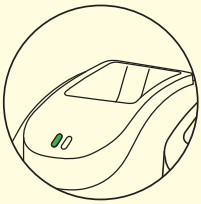
c. To change the battery, remove the battery from the handheld trigger and swap it with the charged secondary battery. The handheld trigger will automatically power up and re-pair to the base unit. If not, please refer to “Power On / Off” section.

d. When the battery is low, there will be a double beep every 20 seconds to prompt you to change the main battery.

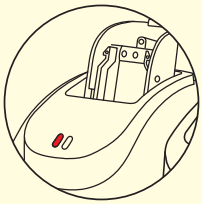
Model	Backup Battery
1.3	When switching the main battery, the handheld unit maintains an audio connection for 3-4 minutes



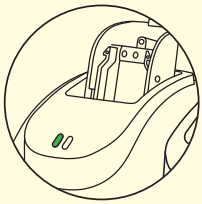
SPARE BATTERY CRADLE - *Single LED Indicator*



CRADLE EMPTY
LEDs are **Green**



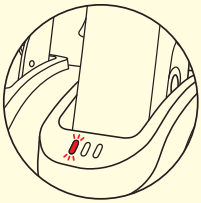
CHARGING
Battery in cradle
LEDs are **Red**



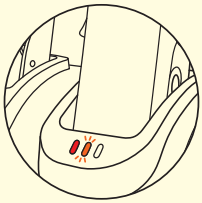
FULLY CHARGED
Battery in cradle
LEDs are **Green**

Note: The LED is **Green** when the cradle is empty OR if the battery is in the cradle and fully charged.

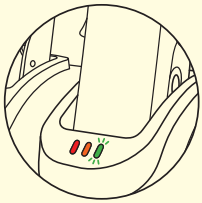
HANDHELD TRIGGER CHARGE LEVEL IN BASE UNIT- *Triple LED Indicator*



LOW
Red LED is on.
If the red LED flaches twice, the battery is charging.



MEDIUM
Red & **Orange** LEDs are on.
If the orange LED flaches twice, the battery is charging.

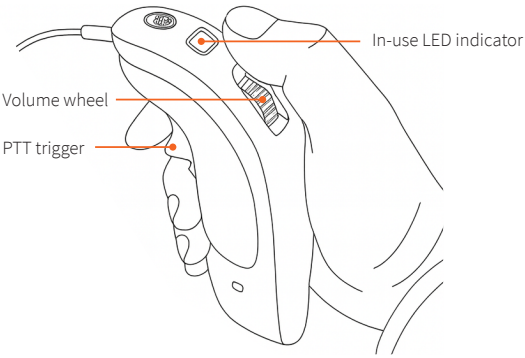


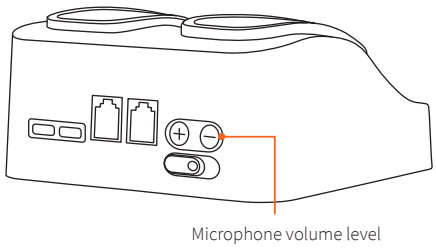
80%+ CHARGED
Red, **Orange** & **Green**
LEDs are on.

Red, **Orange** with **Green**
LED flashing = Battery charging.

Red, **Orange** & **Green**
Solid LEDs = Battery Charged.

Note: ***Charging Confirmation***. The active charge-level LED flashes while charging. When the handheld is inserted, the LEDs flash twice to confirm charging has started.





Audio Rx (Speaker) & Tx (Microphone)

1. To adjust the Rx (Receive sound) in the speaker, use the volume wheel on the handheld trigger, it has 5 volume steps.
   a. To turn OFF the audio connection to the handheld trigger, press and hold the in-use LED indicator on the handheld trigger for 4 seconds and then release.
   b. To turn ON the audio connection to the handheld trigger, press and release the in-use LED indicator on the handheld trigger once.
2. To adjust the Tx (Transmit sound) in the microphone, use the + / - buttons on the rear of the base unit, it has 15 volume steps.

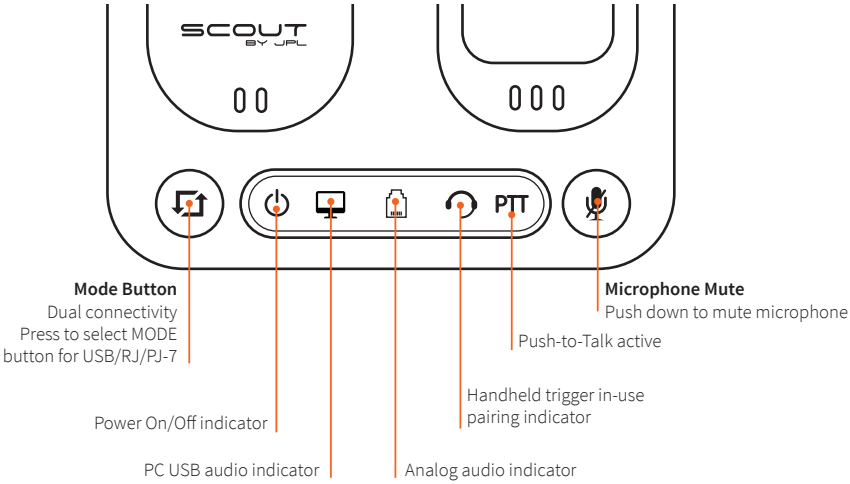
PTT Trigger Beep ON / OFF

1. When the handheld trigger is not paired to the base (base is powered down), press the PTT trigger for 4 seconds.
   a. Single beep in headset = Beep tone ON.
   b. Double beep in headset = Beep tone OFF.

Side Tone ON / OFF

1. When the handheld trigger is connected to the base station press and hold for 4 seconds the base station “Mute Button”.
   a. Single Beep in headset = Side tone enabled.
   b. Double Beep in headset = Side tone disabled.

We recommend a test call to tune this with your system when first using the product.

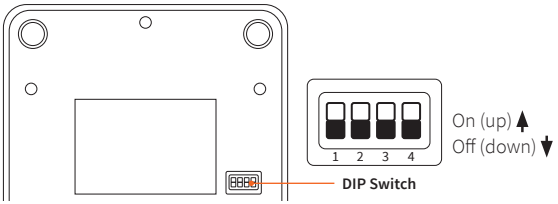


LED indication

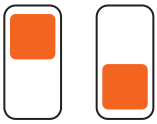
Power On/Off LED	When the power is on, the LED will be lit
PC USB audio LED	When this mode is selected, the LED will be lit
Analog audio LED	When this mode is selected, the LED will be lit
Pairing LED	When the handheld trigger is paired to the base unit, the LED will be lit
PTT LED (Green)	When the PTT button is pressed on the handheld, the LED will be lit

LED indication

Mode button	When pressed the mode changes from Analog (RJ) to Digital (USB) and vice versa. *unless locked by DIP Switches
Microphone mute	A master mute button that mutes the microphone until pressed again.



SWITCH ORIENTATION



The four-pole DIP switch is on the underside of the base. Use the numbered positions shown.

ON (UP) OFF (DOWN)

IMPORTANT NOTE: Please power off the Scout 3100 and disconnect the USB power before changing a DIP switch. Reconnect power only after all required switches have been set.
Note: After a power cycle, DIP switch 1 and 3 configurations default to Gamepad1 (DIP 1) and Digital Lock (DIP 3) behaviour.

DIP SWITCH 1 - *PTT Mode*

DIP ACTION	FUNCTION	START-UP ACTION
ON (UP)	**Secure Talk**	Microphone opens only while the PTT trigger is pressed. Plug in USB-C power.
OFF (DOWN)	**Gamepad1, Open Mic.**	Plug in USB-C power.
OFF (DOWN)	**Joystick1, Open Mic.**	Hold the mode button [ ] while connecting USB-C power. Release when the headset LED [ ] rapidly flashes confirming Joystick1 is set.

Return to Gamepad1: Set DIP switch 1 to OFF and power cycle the base station.

DIP SWITCH 2 - *Receive Volume*

DIP ACTION	FUNCTION	START-UP ACTION
ON (UP)	**Standard Rx**	Plug in USB-C power.
OFF (DOWN)	**+12dB Rx**	Plug in USB-C power.

DIP SWITCH 3 - *Audio Path*

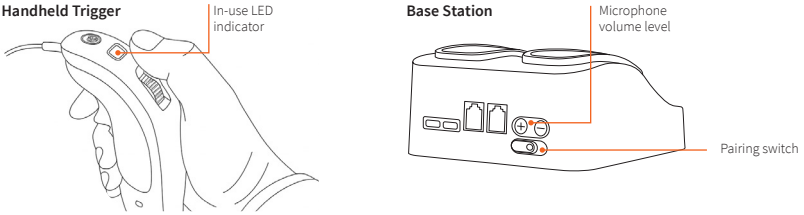
DIP ACTION	FUNCTION	START-UP ACTION
ON (UP)	**Mode button enabled**	Normal power-on.
OFF (DOWN)	**Locked to Digital (USB)**	Normal power-on after resetting the stored selection
OFF (DOWN)	**Locked to Analogue (RJ)**	Hold the MUTE button [ ] while powering on.

⚠ **NOTE:** If **Analogue Lock (RJ)** is selected, the Scout 3100 will revert to **Digital Lock (USB)** after a power cycle unless the **MUTE** button is held while reconnecting power. Alternatively, enable the **MODE** button and manually select Analogue or Digital mode after powering on.

DIP SWITCH 4 - *Audio Bandwidth*

DIP ACTION	FUNCTION	START-UP ACTION
ON (UP)	**Wideband**	Improved audio quality.
OFF (DOWN)	**Narrowband**	Longer battery life.

BEFORE YOU START: Keep the base station and handheld trigger within 0.5m of each other.
Release each button immediately when the stated LED pattern appears.



1. Disconnect base power

Remove USB power from the base station and wait 3 seconds.

2. Power off the handheld trigger

Hold the in-use LED button (approx 8-10 secs) until the LED flashes one slow flash, then release and the LED turns off.

3. Reset the base pairing memory

Hold MIC+ (approx 5-6 secs) while reconnecting base power. Release MIC+ when the base headset icon rapidly flashes.

4. Put the base into pairing mode

Hold the PAIR button. Release it when the base headset icon changes to a steady repeating flash.

5. Start handheld trigger pairing mode

This is not a normal power-on. Hold the in-use LED button for (approx 7-8 secs) and release immediately when the handheld LED rapidly flashes.

6. Wait for the base to find the handheld

The base headset icon stops flashing (approx 5-10 secs).

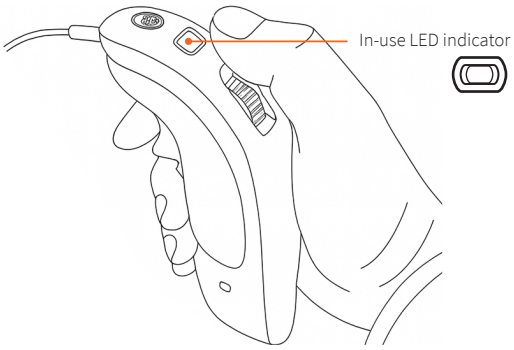
7. Open the audio connection

Wait for a further 2-3 seconds, then short-press the handheld in-use LED button once.

8. Confirm pairing

The headset icon on the base station should now be solid green and the handheld battery LED should be lit up.

IF PAIRING FAILS: Repeat the complete process once. If it still fails, contact JPL Support.



HOW TO READ THE LED

Note: Match both the LED colour and its flash interval. The same colour can indicate several different operating states.

FLASH INTERVAL

Count the seconds between flashes before identifying the status.

HANDHELD IN-USE LED

EVERY 1 SECOND
PAIRING MODE
Handheld is searching for the base station.

EVERY 2 SECONDS
POWERED ON
Not pairing. Shown for approximately 30 seconds.

SOLID GREEN
AUDIO CONNECTION
Audio connection is active.

EVERY 3 SECONDS
AUDIO DISCONNECTED
Paired, but audio is disconnected.

SOLID RED
PTT PRESSED
Push-to-talk trigger is pressed.

EVERY 1 SECOND
LOW BATTERY
Low-battery warning.

AUDIO BEEP TONES - HEADSET

PTT TRIGGER PRESSED
Single beep
Off by default.

PTT TRIGGER RELEASED
Double beep
Off by default.

START PAIRING MODE
Single beep

SIDE-TONE ON
Single beep

SIDE-TONE OFF
Double beep

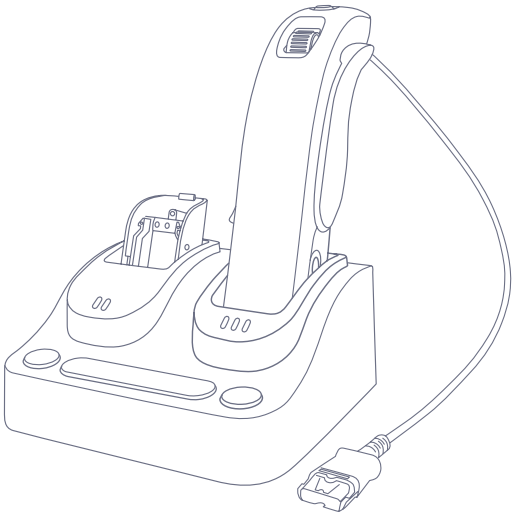
MASTER BASE MUTE
Single beep

CHANGE RX VOLUME
Single beep
Off by default.

LOW BATTERY
Double beep
Repeats every 20 seconds.

POWER OFF
Long single tone

FCC Caution: 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 undesired operation.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
Note: 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 communications. However, there is no guarantee that interference will not occur in a particular installation.



Please contact your local JPL representative for help with further information relating to the JPL Scout 3100

REGISTERED ADDRESS

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