



JPL Scout 3100 DECT PTT Amplifier

User Manual



SCOUT
BY JPL

For Critical Communications

Thank you for purchasing the **JPL Scout 3100**

You will either have a unit with a back-up battery or one without a back-up battery. Please check the serial number of your unit to identify which version you have.

If you have one of the units with no battery and you need to change the battery during a call, you will lose the call to the headset only while the battery is being swapped. The call is held live in the base unit until the charged battery is fitted to the hand-held trigger, once fitted the call will then be heard through the headset again.

Model 1.0	Serial Numbers: CZ...00001 – CZ...00154 a. No internal backup battery
Model 1.1	Serial Numbers: CZ...00155 – CZ...00304 a. Initial internal backup battery allowing <i>30 seconds of hot swap time</i>
Model 1.2	Serial Numbers: FZ...00001 – FZ... a. <i>Backup battery life increased to 3-4 mins of hot swap time</i> Allows users more time to swap the battery b. Revised LED indication for battery indicators on the base station *check LED indicator page c. Revised LED indication on the handheld *check LED indicator page d. Revised default Tx Mic Sensitivity Clearer audio out of the box e. Reduced battery audio beeps when on low battery and changing batteries f. Reduced clicking / squelch from backup battery

If you need any further information or technical detail, we will be happy to help.

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.

JPL Scout 3100

Summary	5
What's Included	6
Accessories	6
Technical Specifications	7
Base Station - Overview	9
Handheld Trigger - Power On / Off	10
Mode Options	11
Battery Status	12
Volume Rx (Speaker) to Tx (Microphone)	14
Base Station LED Indication	15
DIP Switch Settings - Models 1.0 & 1.1	16
DIP Switch Settings - Models 1.2 & 1.3	17
Pairing Information	18
Remote Handheld LED Information	19
Headset Audio Beep Tones Information	19

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.

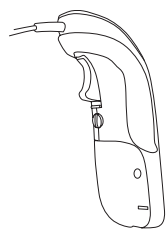
Superior Audio Quality: Delivers clear, reliable voice transmission with advanced DECT technology optimised specifically for voice communication.

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

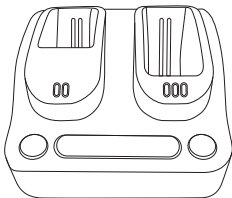
Flexible Interface Support: Analogue and USB interfaces ensure broad compatibility with both analogue and VoIP communication systems, as well as training simulators.

JPL Scout 3100 - What's Included

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



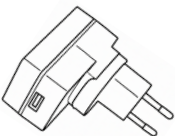
DECT Handheld Trigger



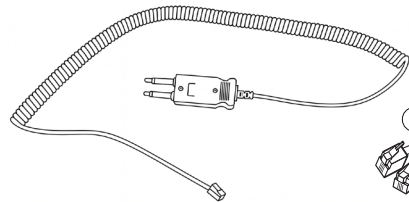
DECT Base Station



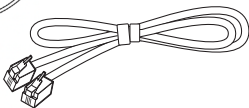
Spare Battery



USB-C Power Adapter
with multi-country
attachments



RJ12 to P7 Cable



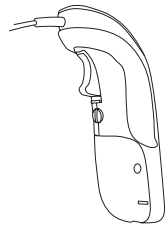
RJ12 to RJ12
Supervisor Cable



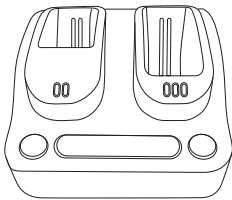
2 x USB-C to USB-C/A
Power Cables

JPL Scout 3100 Accessories

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



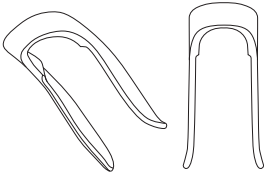
DECT Handheld Trigger
SKU: 575-406-3101



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:

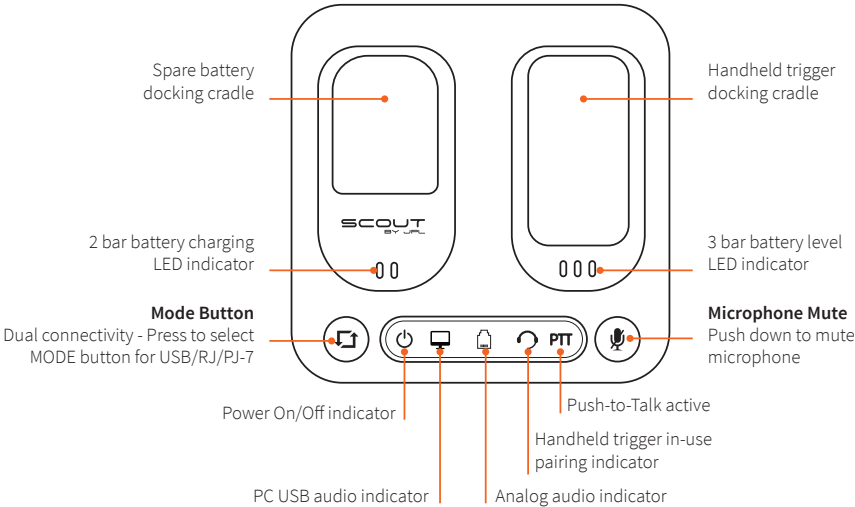
- Battery capacity: 400 mAh
- Talk time: up to 8 hours wideband / 10 hours with narrowband audio
- Extra battery with charging chamber
- Charge time: Quick charge for 2~3 hours

Receiving Frequency Response:

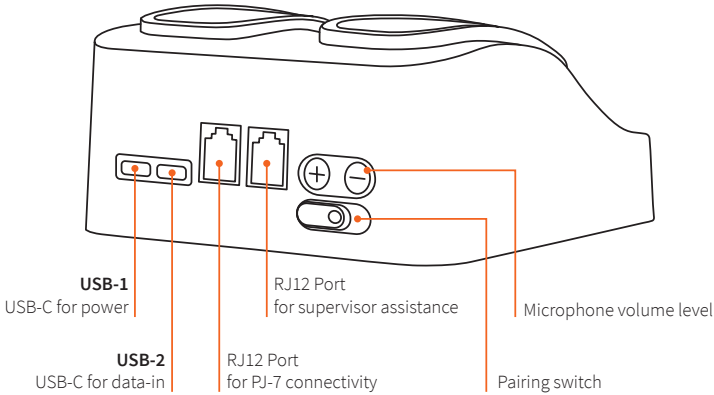
- User selectable option for wideband and narrowband audio
- Wideband 50 ~ 7000 Hz for G.722 Codec audio
 - Sampling frequency: 16 KHz
 - Bit rate 64 kb/s
- Narrowband 300 ~ 3,400 Hz for G.711 Codec audio
 - Sampling frequency: 8 KHz
 - 8 bits per sample
 - Bit rate 64 kb/s
 - Algorithm delay: 0.125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

Base Station - Overview

SCOUT
BY JPL



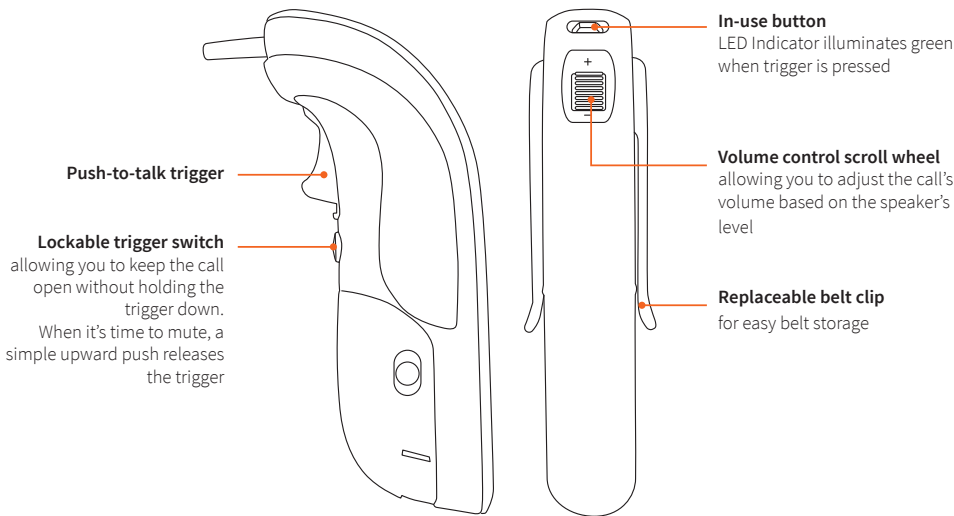
Base Station - Power On/Off



Base Station - Power On/Off

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

Handheld Trigger - Power On/Off

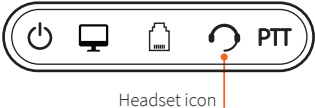


Handheld Trigger - Power On/Off

Model	Power On
1.0, 1.1	Press and hold the in-use LED button for 1-2 seconds and release, initially a flashing red LED once, then a green flashing pairing LED.
1.2	a. Press and hold the in-use LED button for 1-2 seconds and release, initially a flashing red LED once, then a green flashing pairing LED. b. Remove the battery and re-insert powers the unit on

Model	Power Off
1.0	Press and hold the in-use LED button for 8 seconds and the in-use LED will turn off
1.1, 1.2	a. Press and hold the in-use LED button for 5 seconds then release. b. Press again for 9 seconds and the in-use LED flash green twice and beep twice in your ear, then power off

Note: Out of the box, the Base Station & Remote Handheld will automatically pair for use once powered on, if not please refer to the “Pairing Instructions”. Successful pairing is indicated when the headset icon on the base station is lit solid green.



Mode Options

The Scout 3100 has multiple configurations to choose from:

a. USB Mode through USB-C port

1. Option 1

- Trigger PTT (Secure Talk) - The microphone only transmits when the trigger is pressed

2. Option 2

- Trigger Gamepad1 HID Command with microphone open
*refer to DIP Switch settings

3. Option 3

- Trigger Joystick1 HID Command with microphone open
*refer to DIP Switch settings

4. Option 4

- Custom firmware request

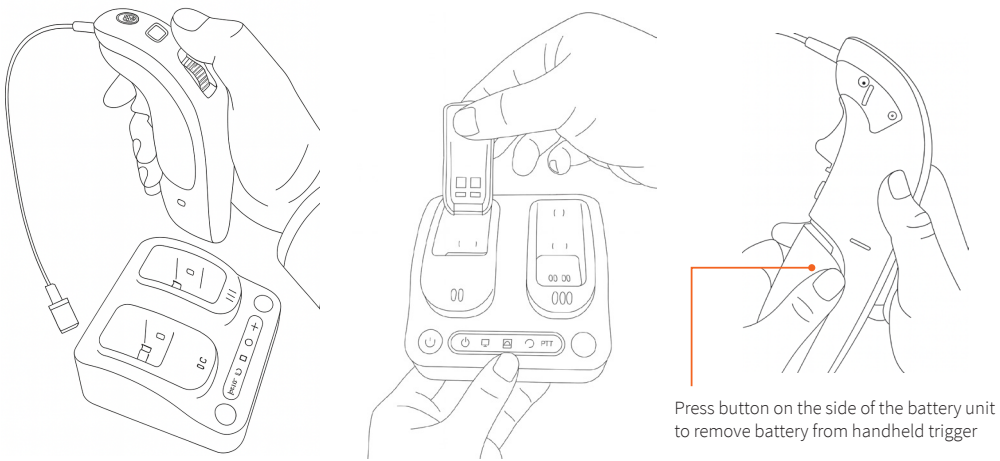
b. Analog Mode through RJ12 port

1. Option 1

- PTT Secure Talk with included PJ-7 cord

2. Option 2

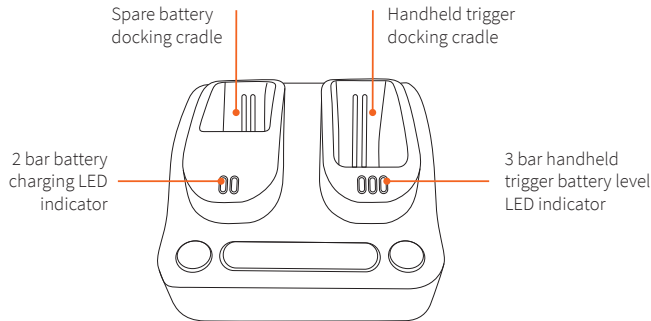
- PTT Secure Talk with custom cable



Base Status - Backup 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 single beep every 20 seconds to prompt you to change the main battery.
- e. Battery LED levels are indicated on the “LED indicator Page”.

Model	Backup Battery
1.0	When switching the main battery, the handheld unit will power off while the main battery is switched
1.1	When switching the main battery, the handheld unit maintains an audio connection for up to 30 seconds.
1.2	When switching the main battery, the handheld unit maintains an audio connection for 3-4 minutes



Model	Spare Battery LED Indicator
1.0, 1.1	1. Spare battery docking cradle empty = Green LED 2. Spare battery docking cradle with battery charging = Red LED 3. Spare battery docking cradle with battery fully charged = Green LED

Model 1.2 Spare Battery - Charge Status

LEDs "OFF"
Spare battery cradle empty.
LEDs are "OFF"

LEDs "ON"
Spare battery is charging.
LEDs are "Red"

LEDs "OFF"
Spare battery fully charged.
LEDs are "OFF"

Model 1.2 Handheld Trigger - Battery Charge Level LED Indication

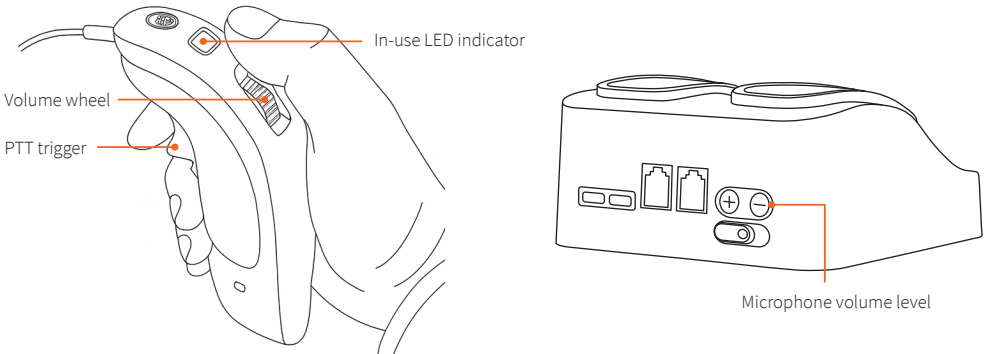
"Red" = Low battery.
"Red" LED flashing = Low battery charging.

"Red" & "Orange" = Medium charged.
"Red" LED is on, and "Orange" LED flashing = Battery charging.

"Red", "Orange" & "Green" = 80%+ charged.
"Red", "Orange" with "Green" LED flashing = Battery charging.

Your handheld is charging when you see the battery LED indicator flashing.

For all handheld trigger battery LED indications, the LED flashes twice when the handheld trigger is inserted into the docking cradle to confirm it is charging.



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.

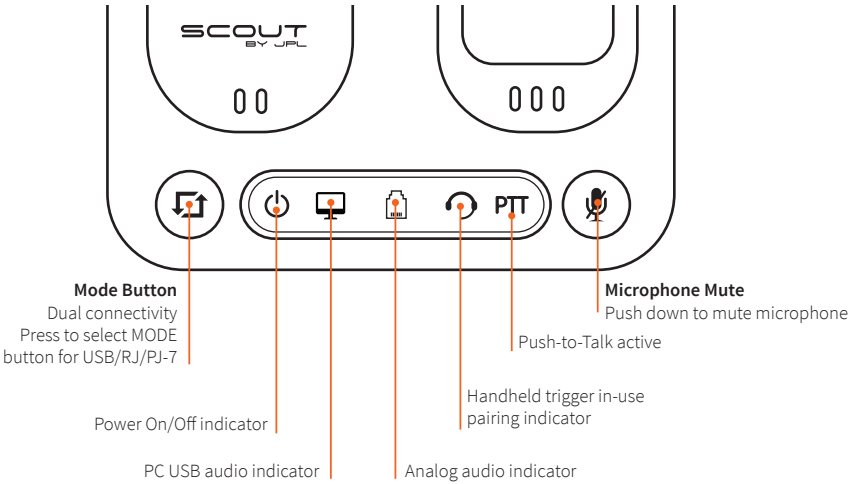
PTT Trigger Beep ON / OFF

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.

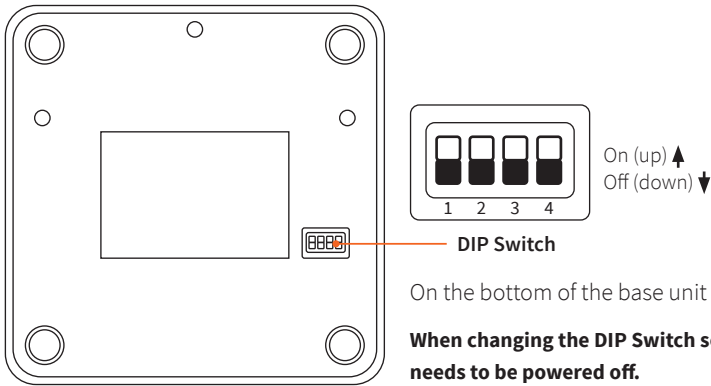


LED indication

	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	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.



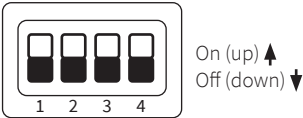
On the bottom of the base unit there are 4 pole DIP switches.

When changing the DIP Switch settings, the Scout 3100 always needs to be powered off.

Models 1.0 & 1.1

DIP Switch Number	ON (up) ↑	OFF (down) ↓
1	Microphone Open / Close for Secure Talk	Gamepad1 Push-to-Key - Microphone always Open Commonly used with CSS Mindshare, Frequentis & Quintron systems *if configured to Joystick1 as below, to switch back to Gamepad1 please power cycle the base station
1	Microphone Open / Close for Secure Talk	Joystick1 Push-to-Key - Microphone always Open Commonly used with Motorola, Intertalk & TRBOnet systems *after DIP Switch 1 is set to OFF, to set Joystick1 instead of Gamepad1 , hold down the MODE button while powering the base station ON. Successful Joystick1 configuration is indicated by the headset LED 🔁 rapidly flashing
2	Low Rx Volume	High Rx Volume increases the maximum volume by 12db
3	Mode button is disabled and audio path is locked to Digital (USB) *if configured with audio locked to Analog (RJ) as below, in order to switch and lock audio to Digital (USB) please power cycle the base station	Mode button enabled
3	Mode button is disabled and audio path is locked to Analog (RJ) *after DIP Switch 3 is set to OFF, to lock audio to Analog (RJ), hold down the MUTE button while powering the base station ON	Mode button enabled
4	Wideband Audio for improved audio quality	Narrowband Audio for longer battery life

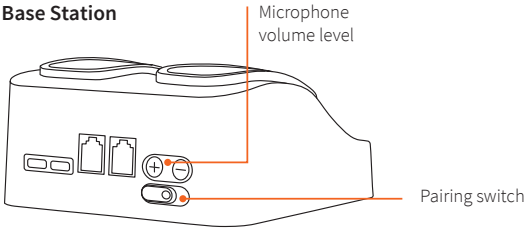
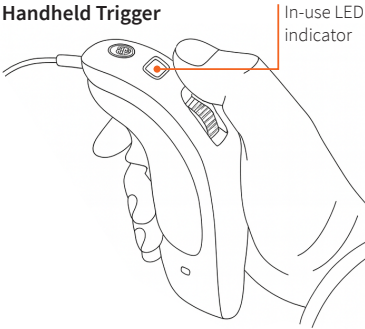
When changing the DIP Switch settings, the Scout 3100 always needs to be powered off.



Models 1.2 & 1.3

DIP Switch Number	ON (up) ↑	OFF (down) ↓
1	Microphone Open / Close for Secure Talk	Gamepad1 Push-to-Key - Microphone always Open Commonly used with CSS Mindshare, Frequentis & Quintron systems *if configured to Joystick1 as below, to switch back to Gamepad1 please remove the power from the JPL Scout 3100, then flip DIP Switch 1 back to ON, then OFF again and power JPL Scout 3100 on without pressing the MODE button
1	Microphone Open / Close for Secure Talk	Joystick1 Push-to-Key - Microphone always Open Commonly used with Motorola, Intertalk & TRBOnet systems *after DIP Switch 1 is set to OFF, to set Joystick1 instead of Gamepad1, hold down the MODE button while powering the base station ON. Successful Joystick1 configuration is indicated by the headset LED  rapidly flashing
2	Low Rx Volume	High Rx Volume increases the maximum volume by 12db
3	Mode button enabled	Mode button is disabled and audio path is locked to Digital (USB) *if configured with audio locked to Analog (RJ) as below, in order to switch and lock audio to Digital (USB) please remove the power from the JPL Scout 3100, then flip DIP Switch 3 back to ON, then OFF again and power JPL Scout 3100 on without pressing the MUTE button
3	Mode button enabled	Mode button is disabled and audio path is locked to Analog (RJ) *after DIP Switch 3 is set to OFF, to lock audio to Analog (RJ), hold down the MUTE button while powering the base station ON
4	Wideband Audio for improved audio quality	Narrowband Audio for longer battery life

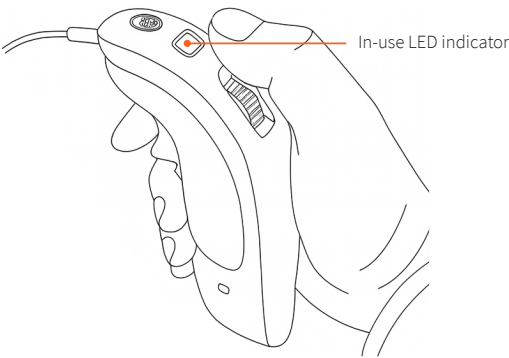
Pairing Instructions



Key Points:

- a. Release buttons immediately when LED behaviour is as described
- b. Keep units (base station and handheld trigger) within 0.5m of each other

Instruction	Model 1.0	Model 1.1	Model 1.2, 1.3
1	Remove base station power	Remove base station power	Remove base station power
2	On the handheld press and hold the in-use LED button for 5 seconds, release, then press again for 9 seconds and the in-use LED flash green twice and beep twice in your ear, then turn off	Remove the handheld battery and wait 70 seconds	On the handheld press and hold the in-use LED button for 5 seconds, release, then press again for 9 seconds and the in-use LED flash green twice and beep twice in your ear, then turn off
3	Reset base station pairing memory by pressing and holding "Mic+" while powering up the base station. When the headset icon on the base station rapidly flashes, release "Mic+", typically 5-6 second hold required	Reset base station pairing memory by pressing and holding "Mic+" while powering up the base station. When the headset icon on the base station rapidly flashes, release "Mic+", typically 5-6 second hold required	Reset base station pairing memory by pressing and holding "Mic+" while powering up the base station. When the headset icon on the base station rapidly flashes, release "Mic+", typically 5-6 second hold required
4	Put the base station in pairing mode by holding the "Pairing Button" until the headset icon on the base station steadily flashes, then release the pairing button	Put the base station in pairing mode by holding the "Pairing Button" until the headset icon on the base station steadily flashes, then release the pairing button	Put the base station in pairing mode by holding the "Pairing Button" until the headset icon on the base station steadily flashes, then release the pairing button
5	-	Insert the battery into the handheld unit, ensuring the in-use LED does not illuminate	-
6	Power on the handheld by pressing and holding the in-use LED for 7-8 seconds, once the handheld trigger rapidly flashes, release immediately	Power on the handheld by pressing and holding the in-use LED for 7-8 seconds, once the handheld trigger rapidly flashes, release immediately	Power on the handheld by pressing and holding the in-use LED for 7-8 seconds, once the handheld trigger rapidly flashes, release immediately
7	Wait 5-10 seconds and the headset pairing LED on the base station will stop flashing and the main battery LED indicators will light up.	Wait 5-10 seconds and the headset pairing LED on the base station will stop flashing and the main battery LED indicators will light up.	Wait 5-10 seconds and the headset pairing LED on the base station will stop flashing and the main battery LED indicators will light up.
8	Once this occurs, wait 2-3 seconds and then short press the handheld LED button and the headset LED icon will light solid green.	Once this occurs, wait 2-3 seconds and then short press the handheld LED button and the headset LED icon will light solid green.	Once this occurs, wait 2-3 seconds and then short press the handheld LED button and the headset LED icon will light solid green.
9	If this fails, repeat the process once more, then contact JPL support for further review	If this fails, repeat the process once more, then contact JPL support for further review	If this fails, repeat the process once more, then contact JPL support for further review



Models 1.0, 1.1 Remote Handheld Trigger’s In-Use LED

Colour	Condition	Description
Green	Flashes every second	Pairing Mode
Green	Flashes every two seconds	Powered on, not in pairing mode, shows for 30seconds
Green	Solid	Audio connection
Green	Flashes every three seconds	Paired, but audio is disconnected
Green	Flashes every two seconds	Paired and PTT is pressed
Red	Flashes every second	Low battery warning

Model 1.2 Remote Handheld Trigger’s In-Use LED

Colour	Condition	Description
Green	Flashes every second	Pairing Mode
Green	Flashes every two seconds	Powered on, not in pairing mode, shows for 30seconds
Green	Solid	Audio connection
Green	Flashes every three seconds	Paired, but audio is disconnected
Red	Solid	Paired and PTT is pressed
Red	Flashes every second	Low battery warning

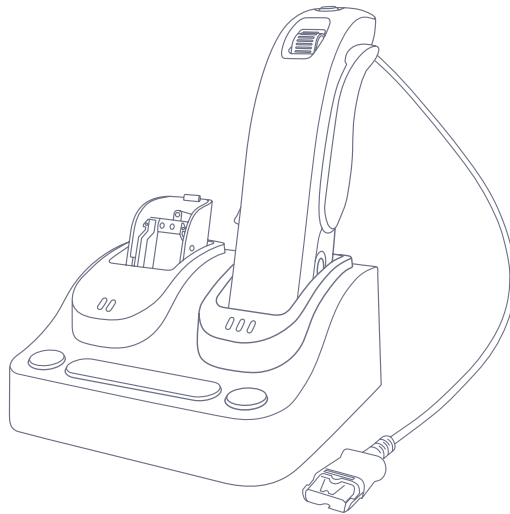
Models 1.0, 1.1, 1.2 Audio Beep Tones (Headset)

Audio Beep Tones (Headset)	Beep Tone	Comment
PTT Trigger Pressed	Single	Off as default
PTT Trigger Release	Double	Off as default
Start pairing mode	Single	
Sidetone set to ON	Single	
Sidetone set to OFF	Double	
Master Base Station Mute	Single	
Change Rx Volume	Single	Off as default
Low battery	Double	Low battery warning every 20 seconds for low battery
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

UK Office: JPL Telecom Limited, Unit 1, Church Close Business Park, Todber, Sturminster Newton, Dorset, DT10 1JH, UK

EMEA Office: JPL Telecom B.V. Naritaweg 148, 1043 CA, Amsterdam, NETHERLANDS

USA Office: JPL Telecom LLC, 445 W Merritt Ave, Merritt Island, FL 32953, USA

Registered in England No. 5250754

www.jpltele.com

