JPL Scout 3100
DECT PTT Amplifier

User Manual

SCOUT
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For Critical Communications

JPL Scout 3100

Thank you for choosing 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 adapter with non approved equipment can void this products warranty.

Environmental Notice
This adapter 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 adapter 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 adapter 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 vacinity 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 adapter - small parts may be a choking hazard.

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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.

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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 11 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

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Compatible Headsets:

• Compatible with all JPL QD type headsets - 4 pin

• 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)
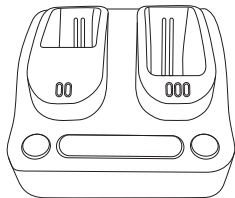
USB Enumeration:

• The PTT button features enumerates that depend on the customer's demands

    - Microphone open/close (secure talk)

    - Gamepad 1, open mic

    - Joystick 1, open mic
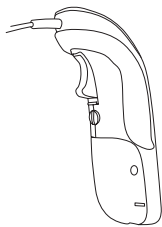
USB Enumeration (Push-to-Key):

• Mode 1 : Analog

    - For PJ-7, Lemo or other analog connectors

• Mode 2: Digital

    - For USB Secure PTT or USB Push-to-Key

What's included

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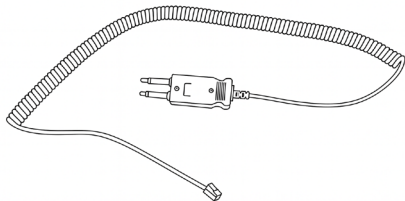
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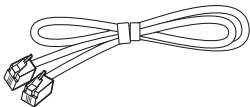BY JPL

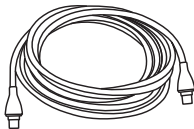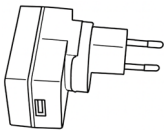DECT Base Unit

DECT Handheld Trigger

Spare Battery

RJ12 to PJ7 Cable

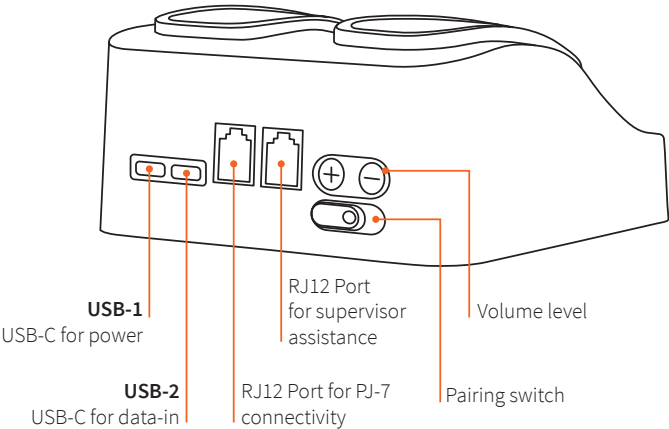RJ12 to RJ12
Supervisor Cable

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

USB-C Power Adapter
with multi-country attachments

Connection

USB-1
USB-C for power

RJ12 Port
for supervisor
assistance

Volume level

USB-2
USB-C for data-in

RJ12 Port for PJ-7
connectivity

Pairing switch

Back of unit port functions:

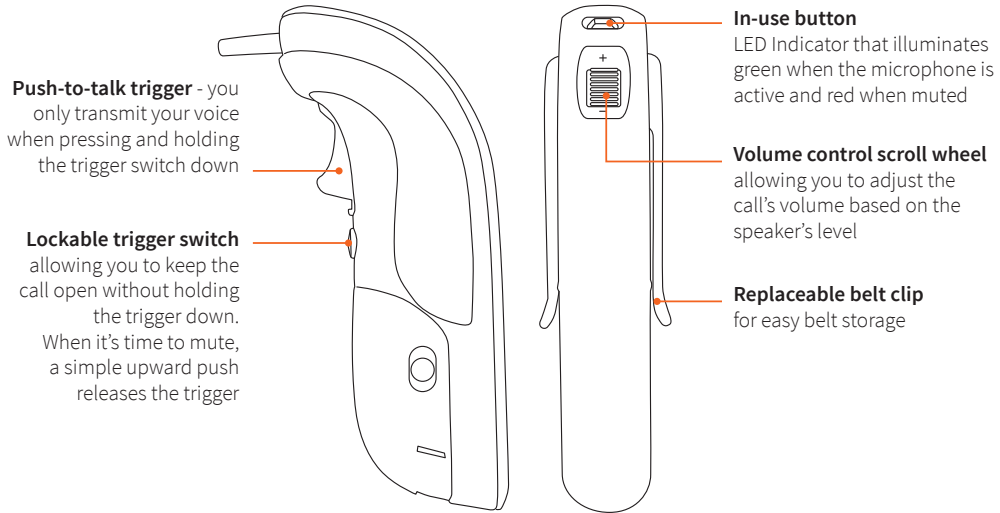|	
USB-C 1	USB-C power can be connected to this port
USB-C 2	USB-C data and power can be connected to this port
RJ12 ports	Both RJ12 ports can be used for PJ-7 analogue connection of supervisor cord connection
Volume level	Microphone volume can be controlled with 15 steps
Pairing switch	The pairing switch can be used for pairing the base unit with the handheld trigger

You can power the JPL Scout 3100 by plugging one end of the USB-C to USB-C power cord into the **'USB-1'** port and the other end into the USB-C power adapter.

You can also power the JPL Scout 3100 by connecting one end of the USB-C to USB-C power cord into the **'USB-1'** port and the other end into your PC's USB-C port.

When it is connected, the base station will wake up and start operation.

There are two RJ12 ports. One can be used for the RJ12-to-PJ7 cord connection and the other can be used for the RJ12-to-RJ12 supervisor cord.
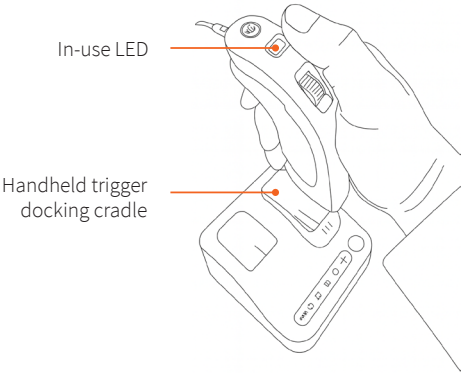
Remote handheld trigger overview

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In-use button
LED Indicator that illuminates green when the microphone is active and red when muted

Push-to-talk trigger - you only transmit your voice when pressing and holding the trigger switch down

Volume control scroll wheel allowing you to adjust the call's volume based on the speaker's level

Lockable trigger switch allowing you to keep the call open without holding the trigger down. When it's time to mute, a simple upward push releases the trigger

Replaceable belt clip for easy belt storage
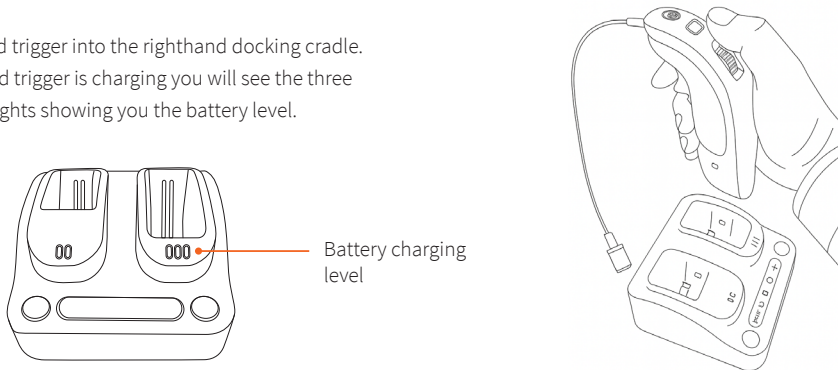
Powering up the handheld trigger

There are two ways to power up the remote handheld trigger.

1) Press the **in-use** LED button and the in-use light will turn on.

2) When the remote is powered off, you can power it up by placing it in the docking cradle.

In-use LED

Handheld trigger docking cradle

Charging the handheld trigger

Place the handheld trigger into the righthand docking cradle. When the handheld trigger is charging you will see the three battery level LED lights showing you the battery level.
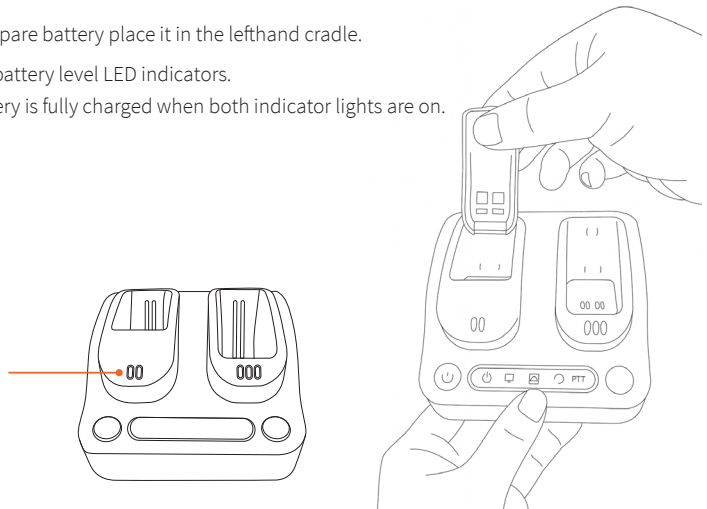
Battery charging level

Charging spare battery

To charge the spare battery place it in the lefthand cradle.

There are two battery level LED indicators.
The spare battery is fully charged when both indicator lights are on.
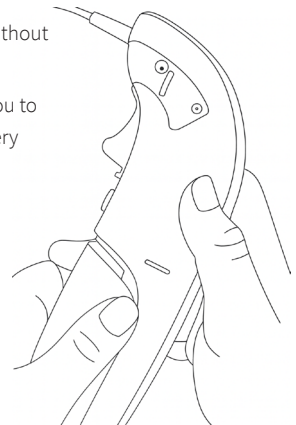
Spare battery
charging level

Changing batteries

To remove the battery from the handheld trigger, press the button located on the battery unit and slide the battery unit down.

The battery on the handheld trigger switch can be changed without any power disconnection.

There is a backup battery inside the handheld which allows you to keep the call live for one minute during handheld trigger battery exchange.
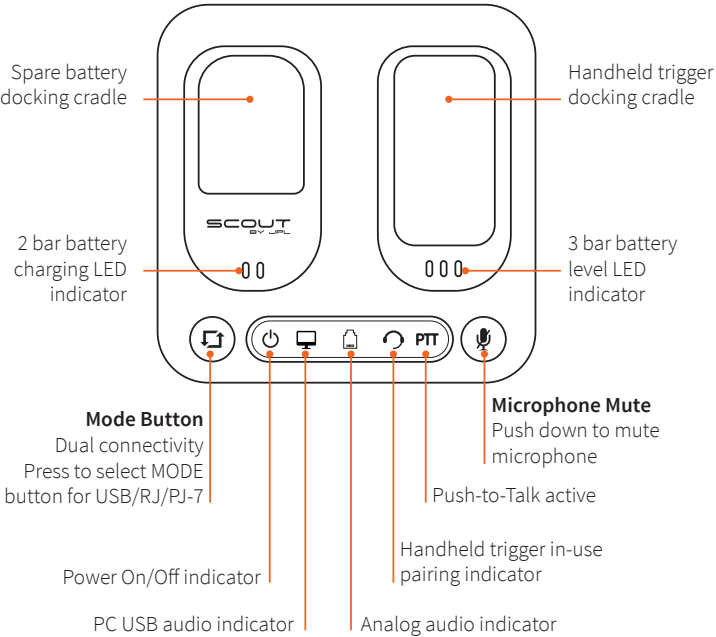
Handheld remote trigger settings

Item	Function	Description
Pairing	Handheld remote pairing	Press and hold the **in-use** button for 4 secs then release button - In-use LED blinks every second when in pairing mode - In-use LED flashes once per 3 secs if succeeded (sync mode) - In-use LED flashes 2 times per 3 secs if failed (no sync mode)
Power on	Power on handheld remote	Handheld remote makes an audio link when ready for use - In-use LED turns on steadily when the audio is connected - In-use LED flashes 2 times per 3 seconds when not ready
Power off	Power off handheld remote	Press and hold the **in-use** button for 8 secs then release button - The in-use LED turns on for 0.5 a second and then turns off when the button is pressed for more than 8 seconds

PTT	Activate the PTT button	Press the **PTT button** to send PTT signal to the console system
		or turn on the microphone sound on the USB interface when
		the audio is connected
		- In-use LED on the Remote will blink every 2 seconds whenever
		  the PTT button is pressed
		- The PTT LED on the Base Station will turn on whenever the
		  PTT button is pressed

Volume	Handheld remote volume	Adjust Rx volume by using volume wheel. There are 5 steps for volume
Audio	Connection on/off	Toggle the audio connection by using the **in-use** button - To disconnect the link, press and hold the the In-Use button for 4 seconds then release it
Other	Single beep every 20 seconds	Battery is low
	In-Use LED blinks once per 2 secs	Your Handheld remote is not paired to the Base Station. The in-use LED indicates an unpaired state for 30 seconds only
In-Use LED (Green) Summary	Pairing status	The in-use LED blinks every second
	Unpaired status (No base paired)	The in-use LED blinks every 2 seconds
	When PTT button is pressed with the audio	The in-use LED blinks every 2 seconds
	Audio connection status	The in-use LED turns on
	Sync locked status	The in-use LED flashes once per 3 seconds
	No sync locked status	The in-use LED flashes 2 times per 3 seconds

Additional settings

Function	Description	Remark
PTT button beep on/off	When the remote is not connected to the base, press the **PTT button** for 4 seconds	Single beep : Beep tone on Double beep : Beep tone off
Reset handheld	Press and hold the **in-use button** during power on for 5 seconds	

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Spare battery docking cradle

Handheld trigger docking cradle

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2 bar battery charging LED indicator

3 bar battery level LED indicator

Mode Button
Dual connectivity
Press to select MODE
button for USB/RJ/PJ-7

Microphone Mute
Push down to mute microphone

Push-to-Talk active

Power On/Off indicator

Handheld trigger in-use pairing indicator

PC USB audio indicator

Analog audio indicator

LED indication

Power On/Off LED	When the power is on, the LED will be lit
PC USB audio	When this mode is selected, the LED will be lit
Analog 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 (Red)	When the PTT button is pressed on the handheld, the LED will be lit
PTT LED (Red)	Remote handheld low battery - Blinks every second

Battery level LED indication

Full	Green / Yellow / Red LED will be turned on
Mid	Yellow / Red / LED will be turned on
Low	Red LED will be turned on
Warning	Red LED will flash on and off to show very low battery level

Base unit operating instructions

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Operating instructions

1. Connect the USB-C cable to the USB-C in port at the back of the base unit

2. Press the **in-use** LED button on the handheld remote trigger to connect to the base unit

3. When the **in-use** LED is on, the DECT adapter is ready to use

4. Press the PTT button to activate the PTT function

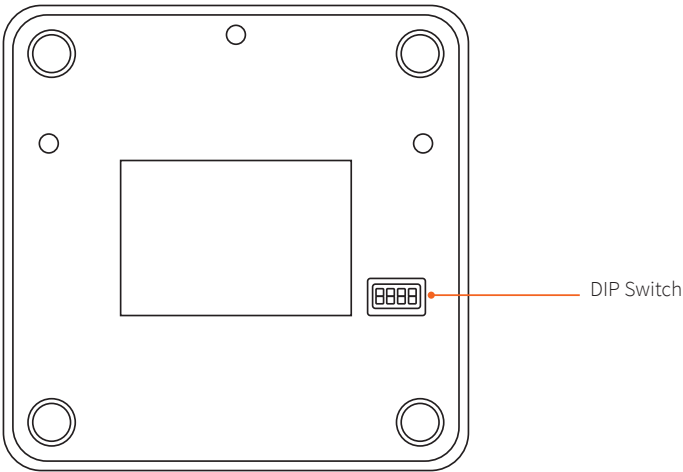5. Adjust the speaker and microphone volume for comfortable audio level

Base unit pairing to handheld remote

Press and hold the **pairing button** on the back of the base unit

- In-Use LED blinks every 0.5 sec when in pairing mode

Functions

Mode Button	When the **mode button** is pressed, the mode is changed from analog to USB and vice versa
Microphone Mute	When the **microphone mute button** is pressed, the microphone is muted. Press again to unmute

Additional settings

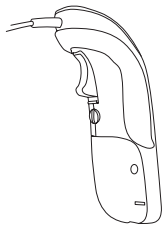| Function	Description	Remark
Side tone on/off	When the remote is connected to the base, press the **mute button** for 4 seconds	Single beep : Side tone enabled Double beep : Side tone disabled
Reset base	Press and hold the **mic volume up key** during power on for 5 seconds	

DIP switch settings

DIP Switch

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

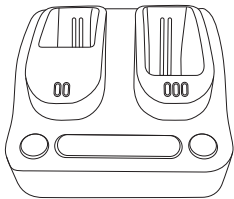| DIP Switch	Default (On)	Off
1	Mic. PTT Active	Gamepad 1 / Open mic
2	Low Rx Volume	High Rx Volume
3	Mode button disabled	Mode button enabled
4	Wideband Audio	Narrowband Audio

For a DIP switch change to take effect, please power the base unit on and off.

JPL Scout 3100 Accessories

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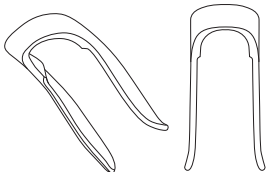Please go to www.jpltele.com for more information

Scout 3100 DECT Handheld
SKU: 575-406-3101

Scout 3100 DECT Base Unit
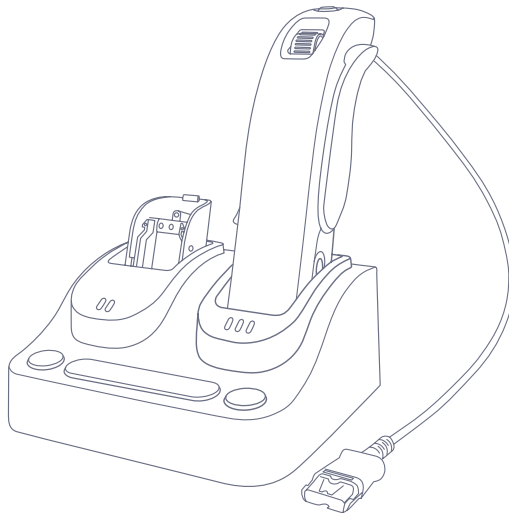SKU: 575-406-3102

Scout 3100 Spare Battery
SKU: 575-406-3103

JPL Scout Belt Clip
SKU: 575-406-101

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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

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