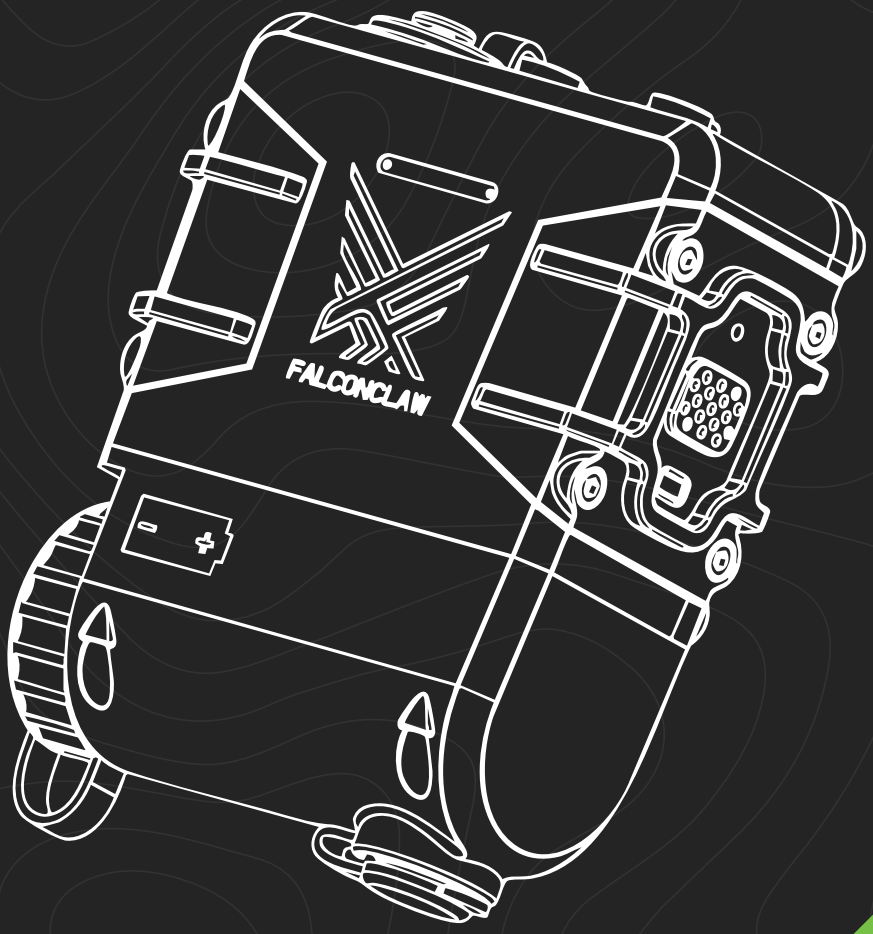
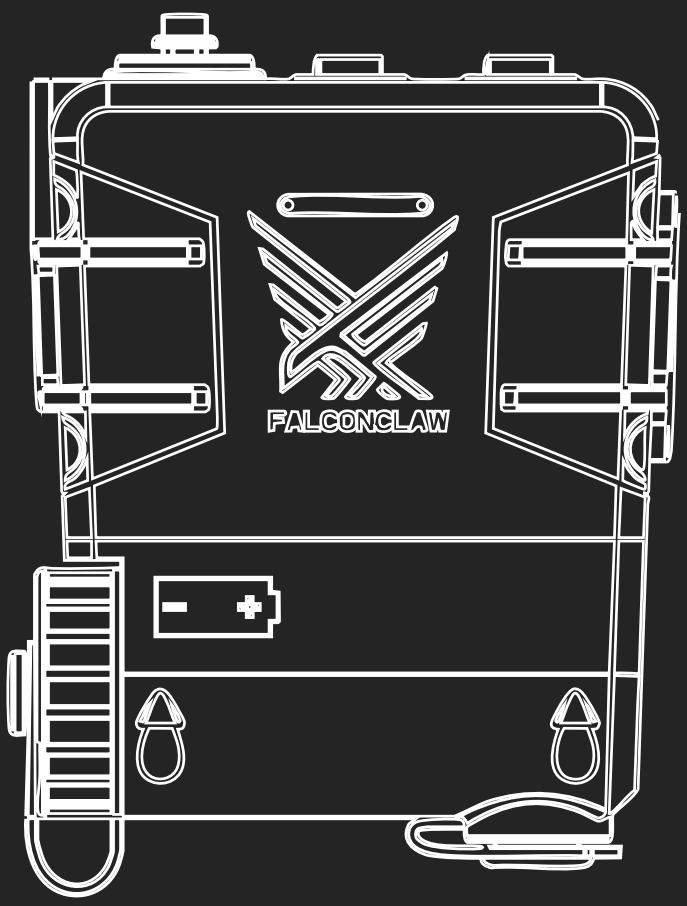
FALCONCLAW PTT MANUAL



COVER & INTRODUCTION

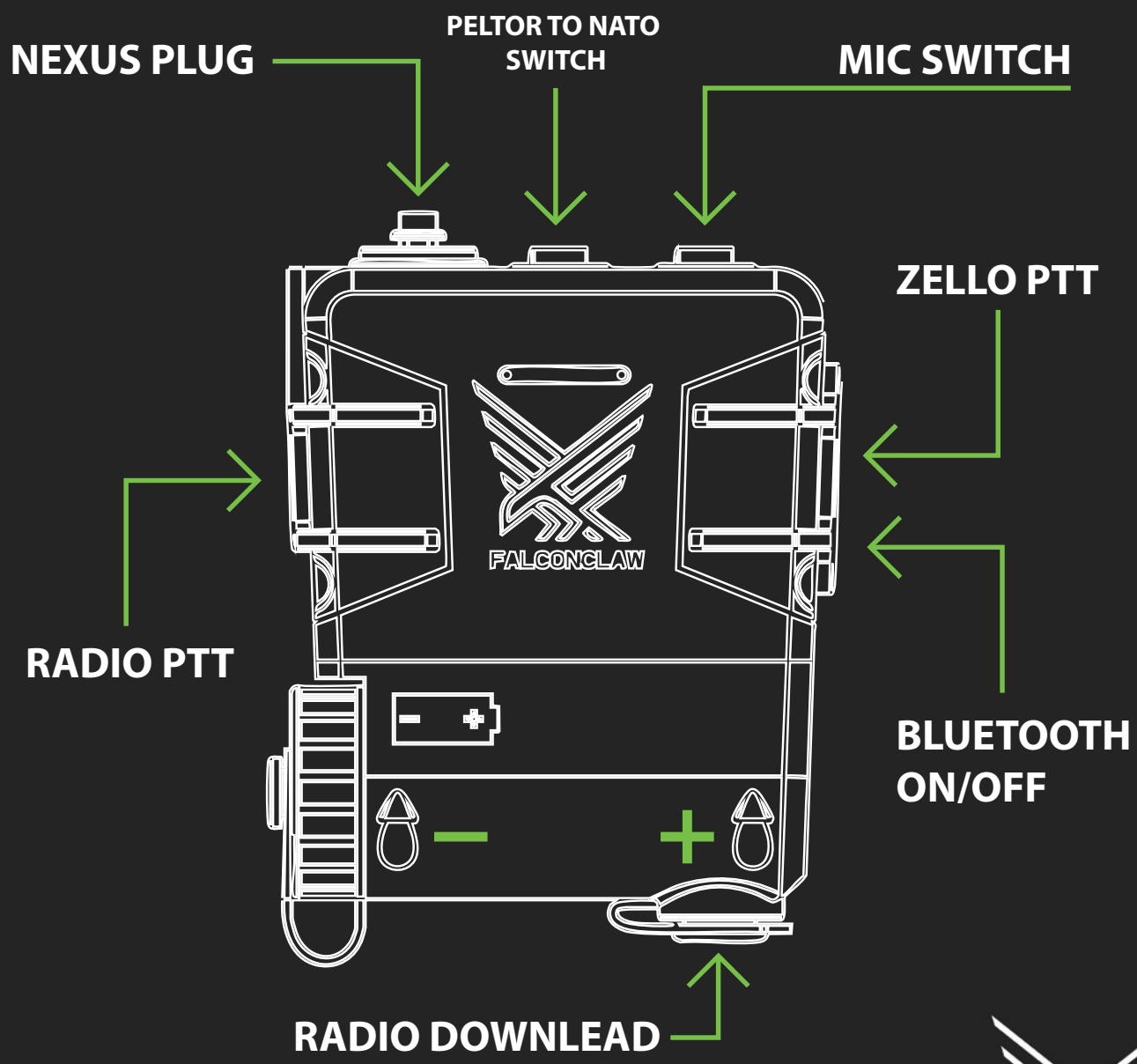
FC-PTT MULTIFUNCTIONAL PUSH-TO-TALK

FC PTT is a versatile multifunctional PTT with advanced features.
For best user experience, read the manual before use.



- **Uses Lithium CR123A batteries only.**
- **Radio PTT works without a battery, but Bluetooth/Zello features require one.**

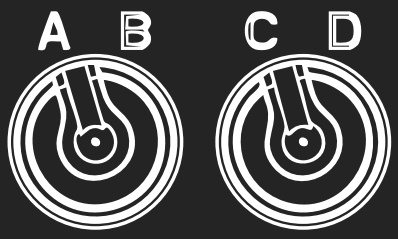
PTT LAYOUT


NEXUS PLUG
PELTOR TO NATO SWITCH
MIC SWITCH
ZELLO PTT
RADIO PTT
BLUETOOTH ON/OFF
RADIO DOWNLEAD
FALCONCLAW

SWITCHES

How to switch between NATO and Peltor wiring for head set:
On top of the PTT you will find the switch designated with A-B

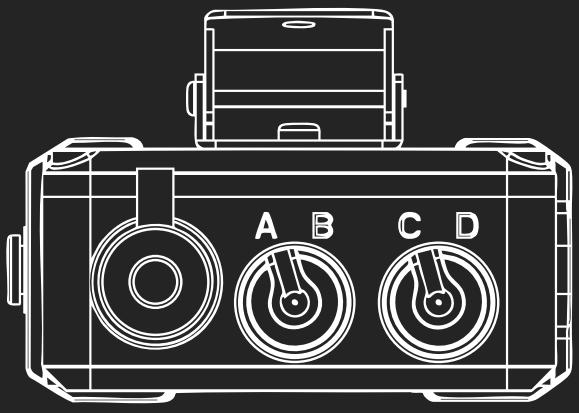
WIRING SWITCH (A–B)
A = Peltor wiring
B = NATO wiring



Note: Falconclaw nexus to aux adapter uses nato wiring

How to switch between headset and onboard microphone:
On top of the PTT you will find the switch designated with C-D

MICROPHONE SWITCH (C–D)
C = Onboard microphone
D = Headset microphone

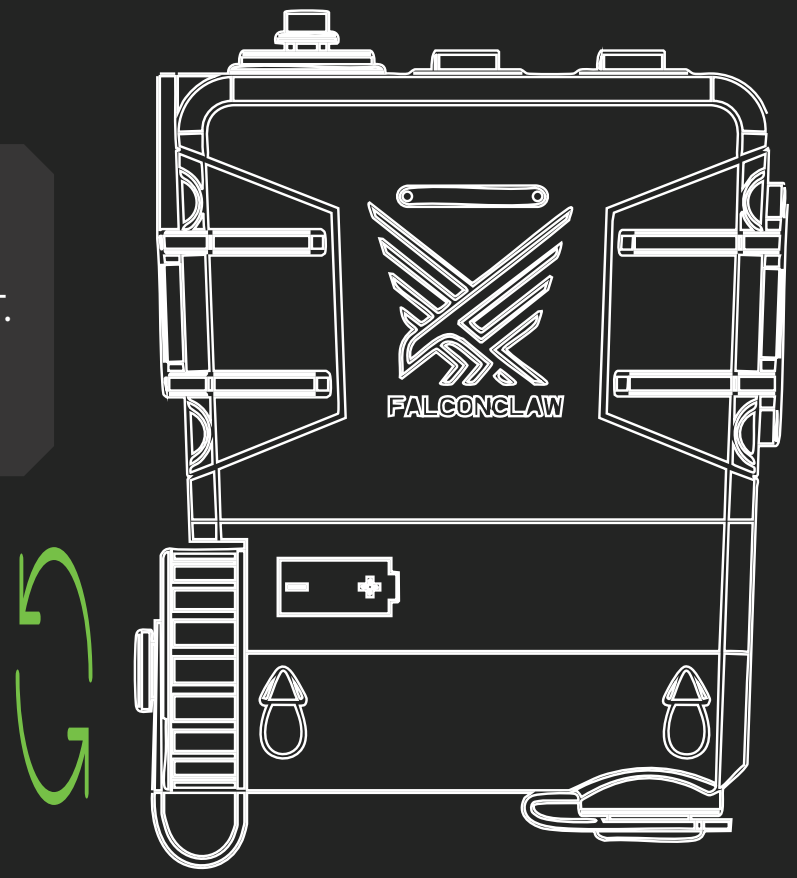


BATTERY

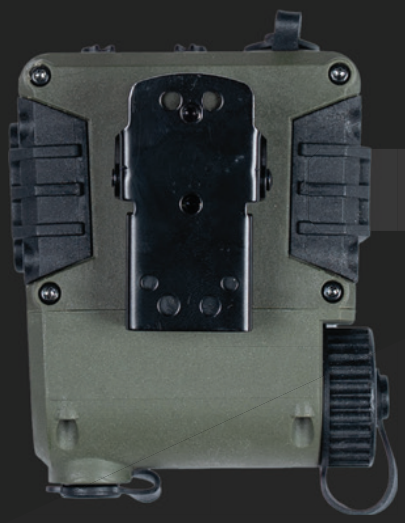
THE PTT USES ONE CR123A BATTERY, WHICH IS INSERTED FROM THE SIDE OF THE UNIT. RADIO PTT FEATURES OPERATE EVEN WITHOUT A BATTERY INSTALLED.

BATTERY INSERTION

- Uses one CR123A battery.
- Insert from the side of the PTT.
- Ensure correct polarity.
- Screw tight before use.



MOUNTING OPTIONS



BELT CLIP

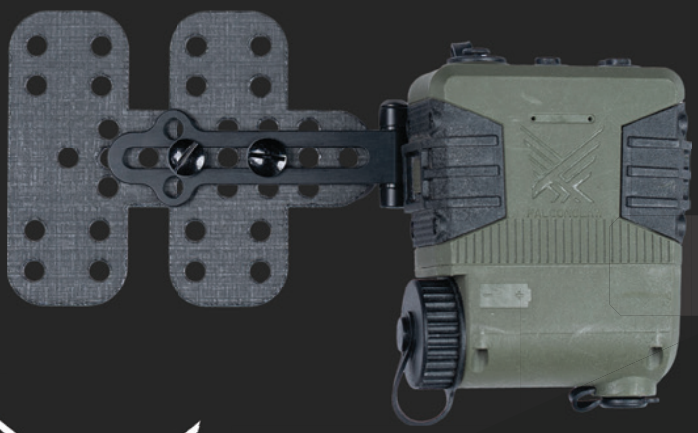
Pre-attached. Good for range or quick setups.

INCLUDED

MOLLE CLIP

Bolts onto MOLLE. 3 rows. Solid once it's on.

INCLUDED



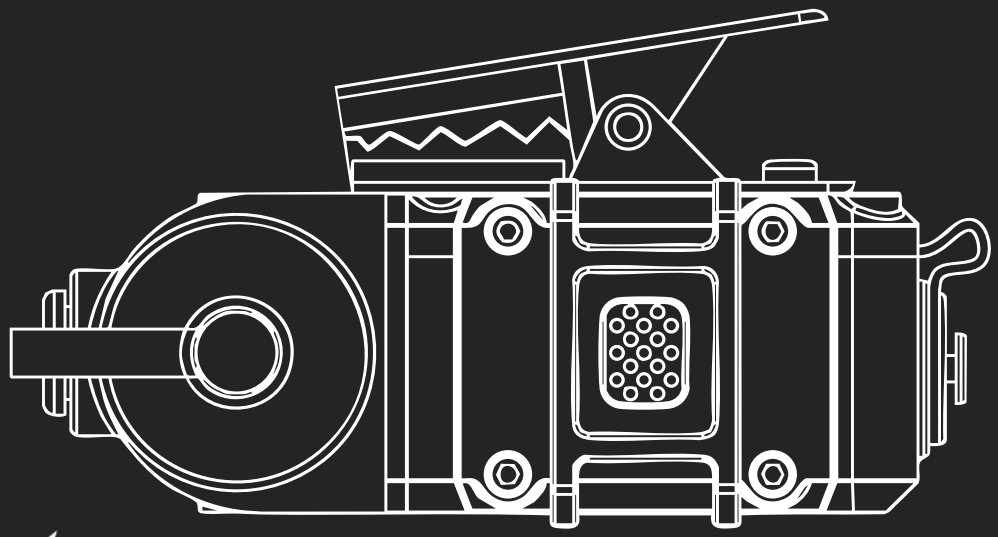
PTT WING

Puts the PTT where your thumb naturally falls.
Clears mags and rifle.

NOT INCLUDED (SOLD SEPARATELY)

CONTROLS

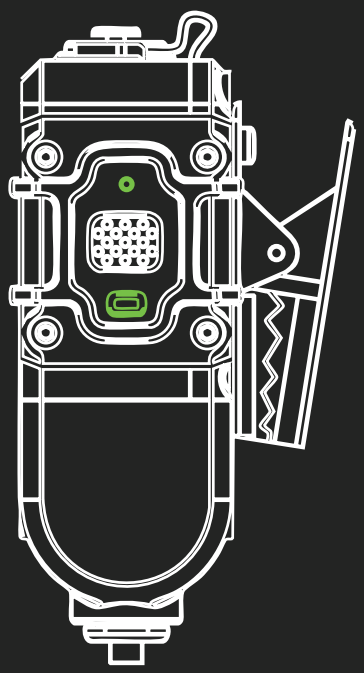
1. Hold the radio PTT button to transmit on your radio.
2. Hold the Bluetooth button for 5 seconds to power on Bluetooth and enable Zello features.
3. Hold the Zello PTT button to transmit on Zello from your phone.
4. Press the Bluetooth button once (while powered on) to pause or resume the last playing media.
5. Press the Bluetooth button twice (while powered on) to call the last dialed contact.



PHONE CONNECTION

How to connect your phone to PTT:

- Before you start: Make sure that battery is inserted into the PTT
- Hold the Bluetooth button for 10 seconds until the red and blue lights flash and the headset announces "pairing."



Note: If multiple members of your squad use FC-PTT, it is best to pair devices one at a time, with other PTTs powered off or out of range.

ZELLO SETUP IOS

How to bind the PTT button in Zello:

- In your phone's Bluetooth settings, pair BOTH connections of the PTT: "FALCONCLAW" (audio) and "BLU-PTT" (the PTT button). Make sure "BLU-PTT" shows as connected before opening Zello.

1. In Zello, tap your account on the opening screen
2. Tap Settings
3. Tap Push-to-talk buttons
4. HOLD DOWN the Bluetooth PTT button on your FC-PTT
5. While still holding it, tap "Bind button"
6. Release the PTT button
7. Zello now shows a button named "Blu-ptt"
8. Tap the bound "BLU-PTT" button to open its settings, and choose which contacts and channels you want to use the button for

Important: the bound button must be named "Blu-ptt".
If Zello shows "Headset button" instead, the binding is incorrect - remove it (swipe left > Forget device) and repeat steps 4-6.

To disconnect your FC-PTT from zello:

1. Swipe to the left on “blue button”
2. Press “Forget device”

Note: If multiple members of your squad use FC-PTT, it's easier to do this if all the other PTT’s are out of range or turned off.

ZELLO SETUP ANDROID

How to bind the PTT button in Zello:

- In your phone's Bluetooth settings, pair the "FALCONCLAW" (audio) connection of the PTT.

1. In Zello, tap your account on the opening screen
2. Tap Settings
3. Tap Push-to-talk buttons
4. HOLD DOWN the Bluetooth PTT button on your FC-PTT
5. While still holding it, tap the bind button (+ sign)
6. Release the PTT button
7. Zello now shows a button named "FALCONCLAW"
8. Tap the bound "FALCONCLAW" button to open its settings, and choose which contacts and channels you want to use the button for

NOTE: The exact behavior can vary by Android version. If the button does not bind on your device, check the ZELLO SETUP (iOS) section of this manual and try that procedure on some Android models the "BLU-PTT" connection must be paired as well.

To disconnect your FC-PTT from Zello:

1. Swipe left on "FALCONCLAW"
2. Press "Forget device"

TROUBLESHOOTING

Device does not power on	▪ Ensure a fresh Lithium CR123A battery is installed. ▪ Confirm the battery is inserted with the correct polarity. ▪ Remember: radio PTT works without a battery, but Bluetooth/Zello functions require one.
Headset not working	▪ Check the A–B wiring switch on top of the unit: A = PELTOR wiring, B = NATO wiring. ▪ Verify your headset wiring standard matches the switch setting. ▪ Ensure microphone selection is correct.
Microphone not transmitting	▪ Check the C–D microphone switch: C = Onboard mic, D = Headset mic. ▪ If using a headset, confirm the microphone is plugged in securely. ▪ If using onboard mic, ensure no obstructions are covering it.
Bluetooth not connecting	▪ Hold the Bluetooth button for 10 sec until red/blue flashing is visible and "pairing" is heard. ▪ Delete/forget previous pairings from your phone and reconnect. ▪ Ensure no other FC-PTTs are powered on nearby during pairing.

TROUBLESHOOTING

Zello PTT not working	▪ Ensure a fresh Lithium CR123A battery is installed. ▪ Confirm Bluetooth connection between phone and FC-PTT is active. ▪ Confirm the battery is inserted with the correct polarity. ▪ Remember: radio PTT works without a battery, but Bluetooth/Zello functions require one.
Audio issues (distorted/no sound)	▪ Check the A–B wiring switch on top of the unit: A = PELTOR wiring, B = NATO wiring. ▪ Verify your headset wiring standard matches the switch setting. ▪ Ensure microphone selection is correct. ▪ Ensure your radio volume is turned up.
Media/call control not responding	▪ Check the C–D microphone switch: C = Onboard mic, D = Headset mic. ▪ If using a headset, confirm the microphone is plugged in securely. ▪ If using onboard mic, ensure no obstructions are covering it.

AVAILABLE DOWNLEADS

Falconclaw Push-To-Talk (PTT) cables are modular interface cables designed to connect Falconclaw PTT units to a wide range of professional, military, and commercial radios. Each cable is purpose-built for a specific radio connector standard to ensure correct audio routing, impedance matching, and reliable PTT actuation.

All Falconclaw PTT cables:

1. Transmit microphone audio from the headset to the radio
2. Route incoming radio audio to the headset speakers
3. Enable push-to-talk activation via the Falconclaw PTT unit
4. Are designed for field use with reinforced strain relief and secure connectors

Important: PTT cables are not interchangeable between radio brands unless the connector standard is identical. Using the wrong cable may result in no audio, distorted audio, or failure to transmit.

HOW FALCONCLAW PTT CABLES WORK

The PTT cable acts as a passive electrical interface between three systems:

1. Headset (microphone + speakers)
2. Falconclaw PTT unit (switching and routing)
3. Radio (transmit/receive circuitry)

When the PTT button is pressed:

- The cable completes the transmit circuit on the radio
- Microphone audio is sent to the radio's mic input
- The radio switches from receive to transmit mode

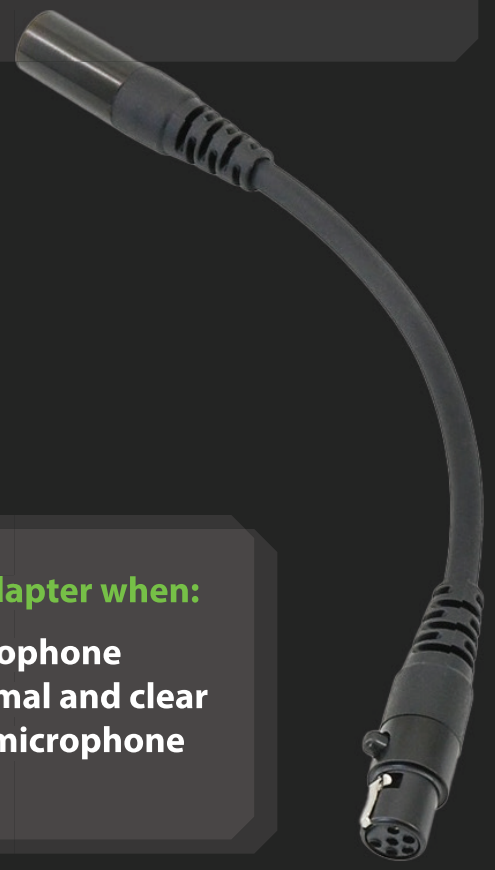
When the button is released:

- The radio returns to receive mode
- Incoming audio is routed to the headset

PTT CABLE – AMPLIFICATION ADAPTER

The amplification adapter is used to boost the signal from dynamic microphones. It is installed between the down lead and the PTT.

This allows one PTT version to work with both electret microphones and dynamic microphones, instead of needing separate amplified and non-amplified PTT units. The adapter helps ensure clear and reliable microphone audio.



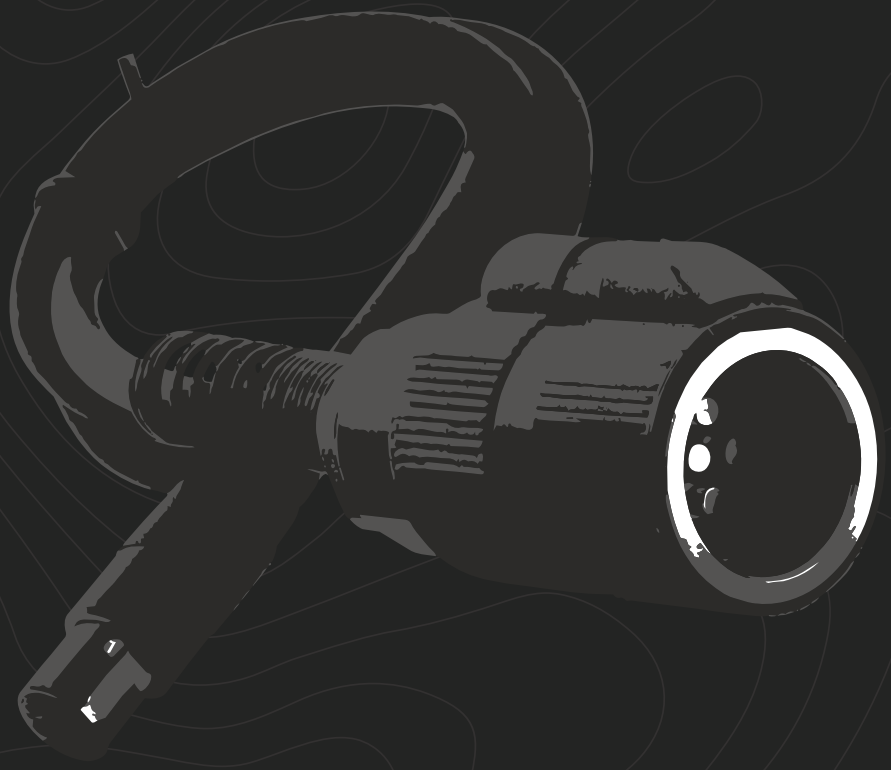
Use the amplification adapter when:

- **You are using a dynamic microphone**
- **The microphone audio level is too low**
- **The connected radio or system expects an electret microphone signal level**

Do not use the amplification adapter when:

- **You are using an electret microphone**
- **The audio level is already normal and clear**
- **The system already provides microphone amplification inside radio**

FALCONCLAW PTT CABLES



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PTT CABLE – KENWOOD TYPE

This cable supports radios using the Kenwood 2-pin connector standard, most common downlead, usually found on commercial and tactical handheld radios.

Compatible radio models (most common)

- Baofeng UV-5R, UV-82, UV-5RA, UV-17, BF-F8HP, BF-888S, GT-3
- Kenwood TK-3400, TK-2400, TK-3300
- Retevis RT21, RT22, RT5R
- Wouxun KG-UV8H, KG-935G

Typical use cases

Civil security
Airsoft / simulation
Entry-level tactical communications

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PTT CABLE – ICOM 2-PIN

Designed for ICOM radios using the 2-pin S-series connector, which differs electrically from Kenwood despite visual similarity.

Compatible radio models

- ICOM IC-F3, IC-F4, IC-F10, IC-F20, IC-H2, IC-H6, IC-J12, IC-M5, IC-U12, IC-U16
- Cobra and Ritron series

NOTES

- Not interchangeable with Kenwood 2-pin cables
- Used extensively in industrial, maritime, and security sectors

PTT CABLE – MOTOROLA 2-PIN

For Motorola radios using the Motorola 2-pin accessory interface.

Compatible radio models

- **Motorola CP040, GP300, GP280, CP080, CP88, CP100, CP125, CP145, CP150, XNT446, XTN500, XTN600, XTNI, XTNID, XT400, XT420, XT460, P110, SP50, HANDIEPRO, HANDIECOM**

Typical use cases

Professional security
Event operations
Industrial communications

PTT CABLE – 6-PIN NATO

4 745092 750643 >

This cable uses the NATO standard U-329/U 6-pin connector, commonly found on military radios

Compatible radio models

- AN/PRC-148 MBITR
- AN/PRC-152 & AN/PRC-152A
- TCA PRC-148
- TRI PRC-148
- HARRIS RF-310

Key characteristics

- Military-standard connector
- Secure locking interface
- Designed for harsh environments and gloved use

PTT CABLE – 9-PIN FISCHER

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High-end cable designed for Fischer 9-pin audio connectors, commonly used on modern military and special operations radios.

Compatible radio models

- L3 HARRIS SPR
  - RF-7800S
  - RF-7850S

NOTES

- Precision connector with high reliability
- Requires correct alignment before insertion
- The PTT is only single com capable and will actuate PTT_1 on radio

PTT CABLE – MOTOROLA GP SERIES

Dedicated cable for Motorola GP-series radios using the side multi-pin accessory interface.

Compatible radio models

- **Motorola GP340, GP320, GP360, GP380, GP328, GP640, GP680, HT750, HT1250, HT1550, MTX950, PRO5150**

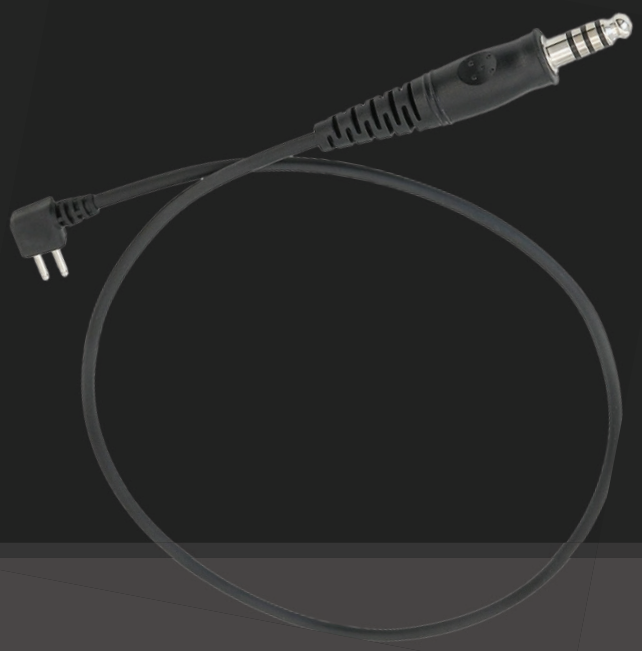
Typical use cases

Law enforcement
Security contractors

PTT CABLE – PELTOR (2-PIN)

The adapter converts the 2-pin Peltor connector to a NEXUS (TP-120 / NATO wired) interface. This works together with the selectable onboard microphone in the Falconclaw PTT, allowing proper operation even when the headset does not include a microphone.

The 2-pin Peltor to NEXUS adapter allows Peltor ear protection headsets without a down lead to be connected to a Falconclaw PTT.



Compatible Headsets

- **ComTac III, IV, V, VI, VIII (ear protection versions without down lead)**
- **SportTac**
- **And other Peltor headsets that utilize 2-pin connector**

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PTT CABLE – SEPURA STP SERIES (4-PIN)

Dedicated cable for Sepura radios using the side 4-PIN accessory interface.

Compatible radio models

- **Sepura STP8000, Sepura STP9000 Sepura STP series**

Typical use cases

Law enforcement
Security contractors

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PTT CABLE – DOWN LEAD EXTENSION

The down lead extension cable adds an extra 50 cm to the standard 50 cm PTT down lead, increasing the total cable length when additional reach is needed.

The extension cable connects inline between the PTT and the existing down lead, allowing the radio to be positioned farther from the PTT when required.

Use the extension cable when:

- **The standard 50 cm down lead is too short**
- **The radio is carried on the back side of the carrier**
- **Additional cable length is needed for routing between the PTT and the radio**

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PTT CABLE – NEXUS TO AUX 3.5 ADAPTER

This adapter converts a Nexus (TP-120 / U-174) PTT connection to a 3.5 mm AUX interface.

Use cases

Connecting PTT to:

- Connecting PTT to Civilian Headsets to stay Covert
- Connecting PTT to speaker (Zello + Radio comms) for the whole team (TOC)
- Audio recorders (Save comms audio + Zello audio) for AAR & S2 Intel Officer

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PTT CABLE – ICOM 14-PIN

This cable connects radios using ICOM's 14-pin multi-pin side accessory connector, found on ICOM's professional digital (IDAS) handheld radios.

Compatible radio models

- ICOM IC-F3400D, IC-F4400D
- ICOM IC-F52D, IC-F62D
- ICOM IC-F3360D, IC-F4360D
- ICOM IC-F3261D / F3263D, IC-F4261D / F4263D

Typical use cases

Professional security
Public safety & security
Digital (IDAS) radio fleets

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PTT CABLE – MOTOROLA APX

This cable connects radios using the Motorola GCAI 12-pin side accessory connector, found on Motorola's professional P25 APX portable radios.

Compatible radio models

- Motorola APX 6000 (incl. XE)
- Motorola APX 7000 (incl. XE)
- Motorola APX 8000 (incl. XE)
- Motorola SRX 2200

Typical use cases

Law enforcement
Government / public safety
Professional tactical communications

Manufacturer:
Falconclaw OÜ
www.falconclaw.eu
Harju maakond, Rae vald, Uuesalu küla, Saarma tee 18, 75331

EU Compliance Statement
Falconclaw OÜ hereby declares that the radio equipment type FC-PTT complies with the essential requirements and other relevant provisions of Directive 2014/53/EU (Radio Equipment Directive).

The full text of the EU Declaration of Conformity is available on request by email at info@falconclaw.eu.

Radio Frequency & Power:
Bluetooth 2.4 GHz (2400 – 2483.5 MHz)
Maximum RF output power: < 10 dBm EIRP

Use of this equipment is permitted in all EU Member States.

Safety and Environmental Information
Use only Falconclaw-approved power sources and accessories.
Do not modify, open, or replace the antenna.
Operate within ambient temperatures of –20 °C to +50 °C.'
Engineered for use in demanding field conditions, including dusty and debris-filled environments.
Avoid immersion in liquids unless specified in future product documentation.
Dispose of this equipment according to local electronic-waste regulations (WEEE).

Actual product may vary from artwork.