


# FreeSpeak II 1.9 GHz Beltpack

FreeSpeak II Wireless Solutions



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People  
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FreeSpeak II 1.9 GHz Beltpack

## Key Features and Benefits

- Typical indoor range 300ft (90m), outdoor range 800ft (240m)
- 1.9 and 2.4GHz beltpacks operate on a single system
- Up to 65 - 90 beltpacks on a single system
- Encoder Volume Swap between A&C and B&D
- "Listen Again" message replay
- Simple 2-channel partyline operation to 5-channel intercom on the same beltpack
- Over-the-air beltpack registration
- 18+ hour battery life or USB port for continuous operation
- XLR-4M headset connector
- IP53 rating for wet and dusty conditions
- Built-in flashlight

FreeSpeak II<sup>®</sup> is a high performance wireless solution operating in the 1.9 and 2.4 GHz frequency bands designed for extensive communication in large-scale operations.

## Description

The FSII-BP19 is a rugged, water-resistant beltpack that operates in the ISM license-free 1.9 GHz frequency range. Featuring the "Clear-Com Sound", the FSII-BP19 has high audio bandwidth for superior intelligibility and listening comfort.

## Operation

The FSII-BP19-X4 can connect to the FreeSpeak II base station or to Eclipse<sup>®</sup> HX card frame matrices using the E-QUE-HX interface card. FSII-BP19 users can roam seamlessly between FSII-TCVR-19 or FSII-TCVR-IP-19 antennas over wide areas. The "Listen Again" feature allows users to replay earlier commands, eliminating the need to repeat communication or disturb productions. Volume Swap allows for independent level control on channels A, B, C, and D listens.

## Increase System Size

The FSII-BP19 can be mixed with FSII-BP24 beltpacks on the same system, increasing the quantity of beltpack users in a single radio space. When using the FSII-TCVR-19 antennas, in the US, up to 25 1.9 GHz and 40 2.4 GHz beltpack users can operate on a single system, while the rest of the world can have up to 50 1.9 GHz and 40 2.4 GHz beltpack users in the same radio space. When using the FSII-TCVR-IP-19 antennas, in the US, up to 50 1.9 GHz beltpack users can operate on a single system, while EU countries can have up to 641.9 GHz beltpack users in the same radio space.

## Durability

The FSII-BP19 is IP53 rated for wet weather or dusty conditions making them ideal for outdoor productions. For better grip and protection, the beltpack has a rubberized over-mold to protect from the most rugged environments.

## Battery

Using the BAT60 Li-Ion battery, the FSII-BP19 has 18+ hours of battery life. Using an alternative set of 3 AA cells, the battery life is 6-9 hours. The beltpacks also include a USB charging port for recharging or for continuous powered transmissions.

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## Technical Specifications

### Audio

**Audio Bandwidth:** 200Hz-7.5KHz

**No. of Full-Duplex Audio Paths:** Up to 5 with individual level control (2 dedicated rotaries, 3 with menu), 2 controls and a main volume

**Mode of Operation:** Full duplex on all routes

**Level/Talk Controls:** 4 pushbuttons, a reply button and 2 rotary controls

**Enter/Answer-Back Button:** 1

### Frequency Spectrum

**USA, Canada, Mexico:** 1920-1930 MHz

**Transceiver Range Output Power:** 100mW

**EU, Russia, Ukraine, Singapore, Hong Kong, Australia, New Zealand, South Africa:** 1880-1900 MHz

**Transceiver Range Output Power:** 250mW

**Japan:** 1893-1906 MHz

**Transceiver Range Output Power:** 250mW

**Argentina:** 1910 MHz-1930 MHz

**Transceiver Range Output Power:** 250mW

**Brazil:** 1910 MHz-1930 MHz

**Transceiver Range Output Power:** 250mW

**Chile:** 1910 MHz-1930 MHz

**Transceiver Range Output Power:** 70mW

**Taiwan:** 1880-1895 MHz

**Transceiver Range Output Power:** 250mW

### Connectors

**Headset Connector:** 4-pin male, Clear-Com standard, options for 5-pin female and 7-pin male with PTT

**Headset Voltage:** Maximum of ~+8dBu as set by firmware

**Microphone Type:** Electret and Dynamic, selectable in beltpack menu

**Microphone Voltage:** Electret Mic: -45dBu (additional 2.5V DC bias voltage positive on Pin 2 and negative on Pin 1 via a 1k resistor).

**Dynamic Mic:** -55dBu

**Headset Limiter:** Selectable from beltpack menu

### Power

**Modulation:** GFSK, TDMA frame 10ms Full and Long slot

**Output:** (EU/Russia) 10dBm average, (US) 18-20dBm

**Range:** Typical indoor range 300ft (90m), outdoor range 800ft (240m)

**Battery:** Li-Ion or 3 AA alkaline cells

**Battery Charging:** Drop-in charger (AC60) or local USB

**Battery Life:** 18+ hours with Li-Ion; 9 hours with 3 x Alkaline AA cells

### Environmental

IP53 water and dust resistance

**Operating:** 32°-125°F (0°-50°C)

**Storage:** 32°-150°F (0°-70°C)

**Humidity:** Between 20% and 90%, Non-Condensing

### Dimensions

Tapered design at largest points

3.75 x 5 x 1.5in (HxWxD)

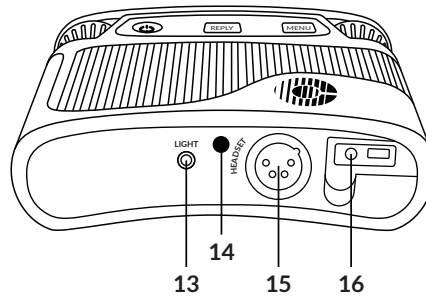
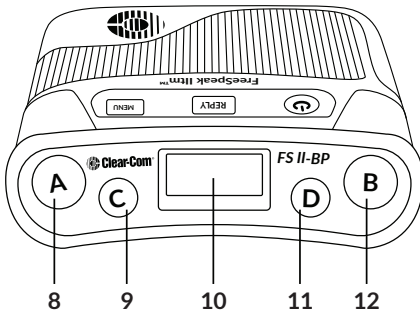
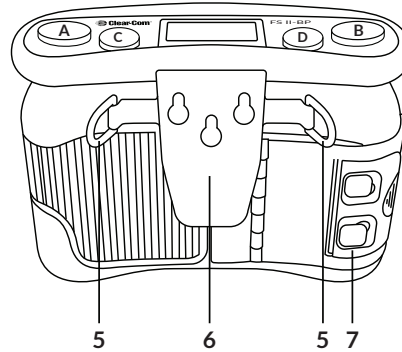
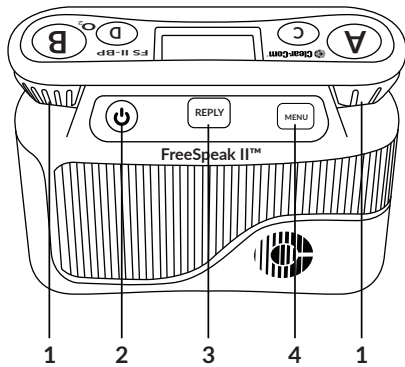
(97 x 130 x 45mm)

### Weight

9.0oz (0.4kg) including batteries

# FreeSpeak II 1.9 GHz Beltpack

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## Legend

1. Volume control
2. Power button
3. Reply button
4. Menu button
5. Shoulder strap hook
6. Belt clip
7. Battery door
8. Channel A
9. Channel C
10. LCD
11. Channel D
12. Channel B
13. Flashlight
14. Flashlight switch
15. Headset connector
16. USB and Audio Jack connectors

## Order Codes

**FSII-BP19-X4-US:** Beltpack with XLR-4M headset connector, approved for use in USA and Canada (1920-1930 MHz)

**FSII-BP19-X5-US:** Beltpack with XLR-5F headset connector, approved for use in USA and Canada

**FSII-BP19-X7-US:** Beltpack with XLR-7M headset connector, approved for use in USA and Canada

**FSII-BP19-X4-EU:** Beltpack with XLR-4M headset connector, approved for use in the EU (1880-1900 MHz)

**FSII-BP19-X5-EU:** Beltpack with XLR-5F headset connector, approved for use in the EU

**FSII-BP19-X7-EU:** Beltpack with XLR-7M headset connector, approved for use in the EU

**FSII-BP19-X4-B:** Beltpack with XLR-4M headset connector, approved for use in Brazil (1910-1920 MHz)

**FSII-BP19-X5-B:** Beltpack with XLR-5M headset connector, approved for use in Brazil

**FSII-BP19-X4-LA:** Beltpack with XLR-4M headset connector, approved for use in Argentina (1910-1930 MHz)

**FSII-BP19-X5-LA:** Beltpack with XLR-5M headset connector, approved for use in Argentina



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**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.CA.gov](http://www.P65Warnings.CA.gov)