

# FreeSpeak II 2.4 GHz Beltpack

FreeSpeak II Wireless Solutions

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FreeSpeak II 2.4 GHz Beltpack

## Key Features and Benefits

- Functions with FSII base, FreeSpeak Edge base, Arcadia Central Station, E-IPA-HX cards, and FSII splitter hardware
- 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
- "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® 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-BP24 is a rugged, water-resistant beltpack that operates in the ISM license-free 2.4 GHz frequency range. Featuring the "Clear-Com Sound", the FSII-BP24 has high audio bandwidth for superior intelligibility and listening comfort.

## Operation

The FSII-BP24 can connect to the FreeSpeak II base station, FreeSpeak Edge base station, Arcadia Central Station or to Eclipse® HX card frame matrices using the E-IPA-HX interface card. FSII-BP24 users can roam, seamlessly between FSII-TCVR-24 antennas over wide areas. The "Listen Again" feature allows users to replay earlier commands, eliminating the need to repeat communication or disturb productions.

## Increase System Size

The FSII-BP24 can be mixed with FSII-BP19 beltpacks on the same system, increasing the quantity of beltpack users in a single radio space. 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.

## Durability

The FSII-BP24 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 an 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

### Radio

**Frequency Spectrum:** 2.400-2.483MHz for EU and US roaming auto roaming technology

**Modulation:** GFSK, TDMA frame 10ms full and long slot

**Output power:** (EU) 18-22dBm, (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

### 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).

**Headset Limiter:** Selectable from beltpack menu

**Max Distance (Beltpack To Transceiver, Indoor):**

~300-500ft (90-150m)

**Max Distance (Beltpack To Transceiver, Outdoor):**

~800-1500ft (240-450m)

### 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

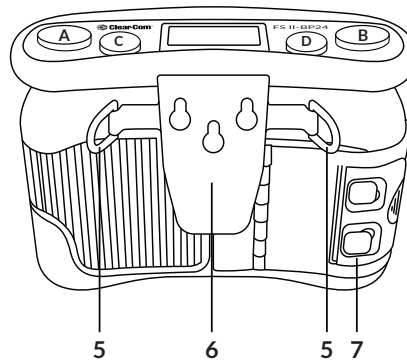
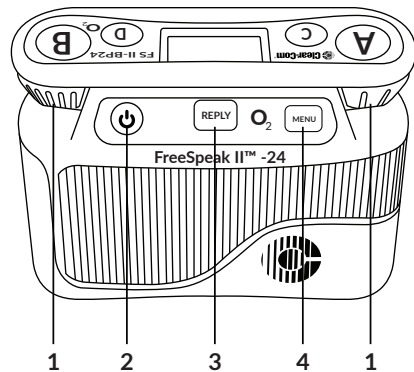
Tapered design at largest points

3.9 x 5.1 x 1.8in (HxWxD)

(99 x 129.5 x 45.7mm)

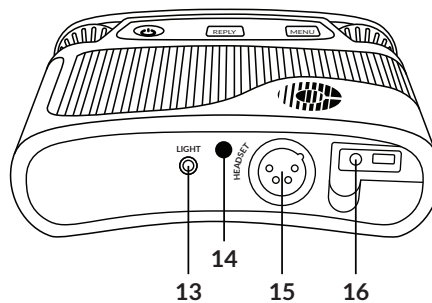
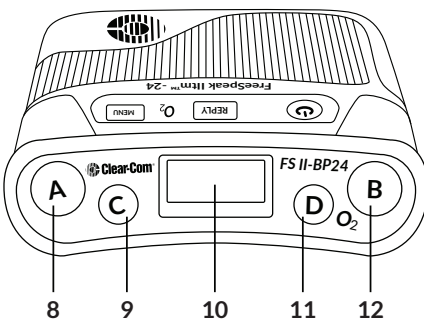
### Weight

9.0oz (0.25kg) including batteries



## 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-BP24-X4:** Beltpack with XLR-4M headset connector, approved for use in USA, Canada and world wide sales except EU

**FSII-BP24-X5:** Beltpack with XLR-5F headset connector, approved for use in USA, Canada and world wide sales except EU

**FSII-BP24-X7:** Beltpack with XLR-7M headset connector, approved for use in USA, Canada and world wide sales except EU

**FSII-BP24-X4-EU:** Beltpack with XLR-4M headset connector, approved for use in the EU only

**FSII-BP24-X5-EU:** Beltpack with XLR-5F headset connector, approved for use in the EU only

**FSII-BP24-X7-EU:** Beltpack with XLR-7M headset connector, approved for use in the EU only



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