

FreeSpeak II 2.4 GHz Beltpack

FreeSpeak II Wireless Solutions

Linking
People
Together



FSII-BP24

Key Features and Benefits

Beltpack

- Functions with FreeSpeak BASE-II, FreeSpeak Edge Base, Arcadia Central Station and Eclipse HX via E-IPA cards
- 1.9, 2.4 and 5.0 GHz beltpacks operate on a single system
- Supports up to 200 beltpacks on a single system (see Capacity Chart for details)
- Encoder Volume Swap between A&C and B&D
- Volume Swap allows for independent level control on channels A, B, C, and D listens.
- “Listen Again” message replay
- Simple 2-channel partyline operation to 5-channel intercom on the same beltpack
- Over-the-air beltpack registration

Connectivity

- 2.4 GHz radio frequency
- Typical range 300ft (90m), outdoor range 800ft (240m)
- Robust radio link works in high multipath or reflective environments

Mechanical

- IP53 rating for wet and dusty conditions
- 18+ hour battery life or USB port for continuous operation

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 the Eclipse® HX matrices using the E-IPA-HX interface card. FSII-BP24 users can roam seamlessly between FSII-TCVR-24 transceivers 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-BP24 can be used interchangeably with any other FreeSpeak II or FreeSpeak Edge beltpack on the same system. Depending on what system you connect to, you can increase the quantities of beltpack users that operate on a single system (see Capacity Chart for details).

Durability

The FSII-BP24 is IP53 rated for wet weather or dusty conditions making it ideal for outdoor productions. For better grip and protection, the beltpack has a rubberized over-mold to protect it 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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Capacity Chart

	Max Number of Supported Beltpacks	Max Number of Supported TCVRs	Max Number of BPs per TCVR
FreeSpeak Edge Base	16	6 (IP)	10 (IP)
Arcadia Central Station	40	16 (IP)	10 (IP)
Eclipse HX (via E-IPA Cards)	192 Delta 200 Median/Omega	192 Delta (IP) 256 Median (IP) 320 Omega (IP)	10 (IP)

*Note: Each E-IPA Card can support up to 64 BPs and 64 TCVRs (IP)

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 cellular 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)

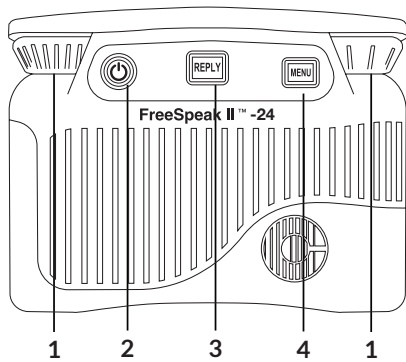
Weight

9.0oz (0.25kg) including batteries

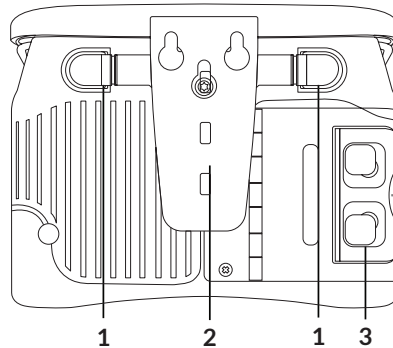
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Front



Back



Legend

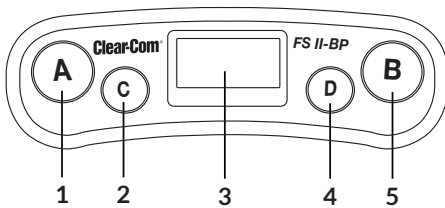
Front

1. Volume control
2. Power button
3. Reply button
4. Menu button

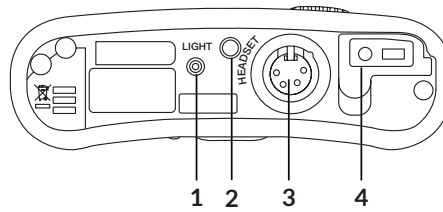
Back

1. Shoulder strap hook
2. Belt clip
3. Battery door

Top



Bottom



Top

1. Channel A
2. Channel C
3. LCD
4. Channel D
5. Channel B

Bottom

1. Flashlight
2. Flashlight switch
3. Headset connector
4. USB and Audio Jack connectors

Order Codes

Approved for use in USA & Canada:

FSII-BP24-X4-US
FSII-BP24-X5-US
FSII-BP24-X7-US

Approved for use in EU:

FSII-BP24-X4-EU
FSII-BP24-X5-EU
FSII-BP24-X7-EU



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WARNING: Cancer and Reproductive Harm - www.P65Warnings.CA.Gov