

# FreeSpeak II 1.9 GHz Beltpack

FreeSpeak II Wireless Solutions

Linking  
People  
Together



FSII-BP19

## 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
- "Listen Again" message replay
- Simple 2-channel partyline operation to 5-channel intercom on the same beltpack
- Over-the-air beltpack registration

### Connectivity

- 1.9 GHz radio frequency
- Typical range 300ft (90m), outdoor range 800ft (240m)
- Robust radio link works in high multipath or reflective environments
- FSII 1.9 GHz beltpacks with firmware version 5.3.32.0 upwards support Bluetooth® headsets

### 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-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 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-BP19 users can roam seamlessly between FSII-TCVR-19 or FSII-TCVR-IP-19 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-BP19 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 operated on a single system (see Capacity Chart for details).

## Durability

The FSII-BP19 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 a 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 II Base II 5Up	5	2 (E1) 10 (via E1 Splitters)	5 (E1)
FreeSpeak II Base II	25	2 (E1) 10 (via E1 Splitters)	5 (E1)
FreeSpeak Edge Base	16	6 (IP) 2 (E1) 10 (via E1 Splitters)	5 (E1) 10 (IP)
Arcadia Central Station	40	16 (IP) 2 (E1) 10 (via E1 Splitters)	5 (E1) 10 (IP)
Eclipse HX (via E-IPA Cards)	192 Delta 200 Median/Omega	192 Delta (IP) or 30 (via E1 Splitters) 256 Median (IP) or 40 (via E1 Splitters) 320 Omega (IP) or 50 (via E1 Splitters)	5 (E1) 10 (IP)

\*Note: Each E-IPA Card can support up to 64 BPs and 64 TCVRs (IP) or 50 BPs and 10 TCVRs (E1)

## 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

Bluetooth 4.3 Headset Profile

**Codec:** MSBC using HFP (Hands Free Profile)

### 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-1920 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

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

~300-500ft (90-150m)

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

~800-1500ft (240-450m)

### 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

3.9 x 5.1 x 1.8in (HxWxD)

(99 x 129.5 x 45.7mm)

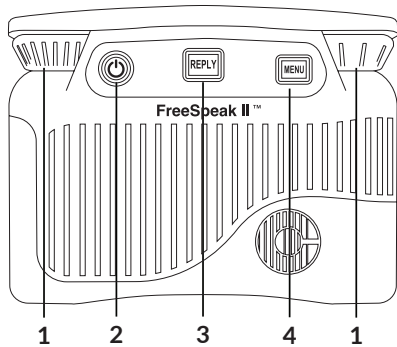
### Weight

9.0oz (0.4kg) including batteries

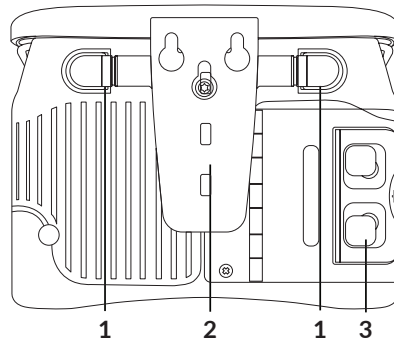
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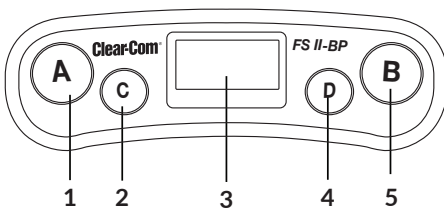
Front



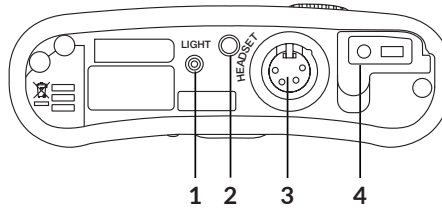
Back



Top



Bottom



## 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

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, Mexico & Canada:

FSII-BP19-X4-US  
FSII-BP19-X5-US  
FSII-BP19-X7-US

Approved for use in EU:

FSII-BP19-X4-EU  
FSII-BP19-X5-EU  
FSII-BP19-X7-EU

Approved for use in Brazil:

FSII-BP19-X4-B  
FSII-BP19-X5-B  
FSII-BP-19-X7-B

Approved for use in Latin America & Argentina:

FSII-BP19-X4-LA  
FSII-BP19-X5-LA  
FSII-BP-19-X7-LA

Approved for Japan

FSII-BP19-X4-J  
FSII-BP19-X5-J  
FSII-BP19-X7-J

