

Wireless Belt Pack BP3-10E 3-Conductor Jack with Radio Transmit & Volume Control

Operation Manual



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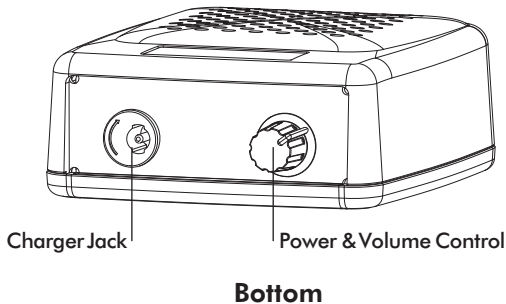
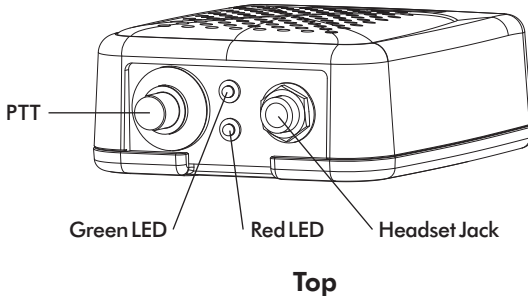
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INTRODUCTION

The BP3-10E is a highly reliable wireless communication module for first responder apparatus operator applications. The BP3-10E allows the operator to use wired 3-conductor headsets to communicate wirelessly to a base station mounted on the fire or emergency apparatus. It provides secure, digitally encrypted, interference free communications. When operated as part of a wireless system, up to 120 headsets can be used interference free, in close vicinity to each other.

- BP3-10E 3-conductor PJ-051 style jack with PTT for transmitting on the vehicle's radio; compatible with Sonetics' 3-conductor lightweight headsets and David Clarks's 3400 Series headsets.



PROPER FIT

Sonetics recommends that the belt pack be worn on the hip, using the enclosed belt-carried pouch. The user can then plug in a headset of his/her preference and convert it to a wireless communications headset.

Refer to the wired headset's user manual for proper fit and use of the headset

PTT Switch:

The BP3-10E belt pack is equipped with a red momentary PTT switch located on the top panel. When this switch is activated, the belt pack enables radio transmission through the apparatus radio via the intercom system connected to the wireless base station.

NOTE: The PTT switch on the belt pack will key the apparatus radio regardless of whether or not the microphone on the headset is enabled. If the belt pack PTT is depressed while the headset microphone is disabled, the apparatus radio will transmit a silent carrier.

Power/Volume Control:

The BP3-10E belt pack is equipped with a Power/Volume Control located on the bottom panel. Rotate the knob to turn on power to the belt pack. To turn off power to the belt pack, rotate the knob back to the original position until the click is detected.

NOTE: If a headset with a volume control is used, it is recommended that the headset volume control be set to the maximum, and that the volume level be controlled using the volume control on the belt pack.

OPERATION

The base station should be installed and powered up prior to operating the belt pack. If the belt pack has not been previously paired to the base station, refer to the "Pairing Section" for pairing instructions. The belt pack is equipped with two status indicators (LEDs); one red and one green. Plug the headset into the belt pack and turn the power on. The green LED will flash rapidly to indicate that the headset is attempting to link to the base. At this point, the corresponding link LED on the base station will also be flashing rapidly. After approximately 5 seconds the belt pack will link to the base and the green LED will turn on steadily to indicate that the belt pack is linked to the base. The headset will sound a one time double beep on connection to the base. Once the connection is established, full duplex communication between the base station and the headset through the belt pack will become possible.

OUT-OF-RANGE WARNING

The BP3-10 wireless belt packs incorporate an out-of-range audible safety feature to warn the user against exceeding the coverage range of the belt pack. The headset connected to the belt pack will sound a 1 second cautionary beep every 10 seconds when the belt pack is at the fringes of the coverage range and before the belt pack goes completely out of range and loses its link to the base. The cautionary beep will stop if the user steps back within range from the base station.



Warning: Sonetics recommends that the wireless belt pack always be operated within the coverage range to ensure consistent and reliable communications, ensuring the safety of the crew and helping them perform their duties in the safest and most effective manner.

RECONNECT FEATURE

Should the belt pack go out of range and lose its link to the base station, the belt pack is capable of automatically reestablishing its link to the base within 10-15 seconds of the belt pack's coming back into range. If the belt pack is not able to reconnect to the base station within 5 minutes of losing its link, the belt pack will be powered down automatically. The user will then have to cycle power to the belt pack in order to reestablish the link to the base station.

LED INDICATORS

The green and red LEDs on the top panel indicate charging mode and Low/Very Low battery modes, as shown in the table below:

LED INDICATORS CHART

Unit Off, Charging:	Steady ON	Flashing Slow
Green LED	Fully Charged	
Red LED		Charging

Unit On:	Steady ON	Flashing Slow	Flashing Fast	3 Beeps Every 10 Minutes	6 Beeps Every Minute
Green LED	Connected to Base		Not Connected to Base		
Red LED		Low Battery	Very Low Battery		
Audible				Low Battery	Very Low Battery

PAIRING PROCEDURE

1. Press and hold the pairing button on the front panel of the base station for approximately 5-7 seconds until the yellow LED(s) on the front panel of the base station start flashing, indicating that the base station has entered pairing mode. Once the base station is placed in pairing mode, the user has approximately 15 seconds to place the belt pack in pairing mode.
2. Press and hold the PTT button while turning on power to the belt pack. After approximately 5 seconds, the green and red LEDs will start flashing in a relatively fast alternating pattern. Release the PTT button.
3. The green and red LEDs on the top panel will alternately flash about 5-7 seconds. The green LED will then flash rapidly for 2 seconds, then both LEDs will resume normal operation (see LED Indicators Chart) indicating the belt pack is paired and linked to the base station. After flashing rapidly for 2 seconds the LINK LED on the base station will illuminate steadily indicating a link to the belt pack has been established.
4. When pairing with a multi-unit base station all headsets and belt packs previously paired with that device must be powered and connected to the base during the pairing procedure, or those devices will lose their pairing. See the wireless base station manual for details on this procedure.

CHARGING

Ensure that the belt pack is fully charged prior to operating for the first time. Both belt pack models have a 2.1mm panel mounted charger jack located on the bottom panel. A charger cable assembly with a 2.1mm x 5.5mm plug is provided with the belt pack. The unterminated end of the charger cable can be wired to nominal 12V (11-16V) from the vehicle. (see Fuse Assembly Installation Notice). Plug the terminated end of the charger cable into the belt pack charger jack (refer to the "LED Indicators" section for proper operation of status indicators during battery charging).

NOTES:

1. **Observe correct polarity when connecting the charger cable to 12V from the vehicle. Connect the white striped black wire to +12V and the solid black wire to GND. This will result in a positive center terminal of the 2.1mm charger jack as shown in the illustration.**



CHARGING

- 2. Sonetics does not recommend operating the belt pack while the belt pack is being charged. It is recommended that the belt pack be charged only when it is not being operated and with power turned off on the belt pack.**

Sonetics recommends charging the belt pack on the vehicle by connecting to the vehicle's uninterruptible 12V supply (battery). The use of unregulated 12V AC/DC wall adapters is not recommended. If an adapter must be used, Sonetics offers a 12V regulated wall adapter; P/N 114-0061-0E

RESET

In rare cases, resetting the belt pack may become necessary. Plug the charger plug into the charger jack. The system will reset. Both red and green LEDs will illuminate for approximately two seconds and then the belt pack will resume normal operation.

NOTES:

- 1. In case the battery is deeply discharged, no LED indication will be possible until the battery is partly charged to an operable voltage level.**
- 2. Plugging the charger plug into the belt pack at any time will cause it to reset even when it is linked to a base station. Resetting the belt pack will result in losing the link for about 10-12 seconds.**
- 3. Resetting the BP3-10 belt pack will cause it to resume normal operation in the stand-by mode if the power switch is in the OFF position, or in the power-on mode if the power switch is in the ON position.**

NOTICE: FUSE ASSEMBLY INSTALLATION

When power from a vehicle is used for charging your wireless product the charger cable assembly (420-0048-00) and the fuse assembly 330-0012-00 is to be wired to the vehicle's fuse box using a 500mA or greater ATO fuse.

Only use a 500mA fuse (supplied) in the fuse assembly (330-0012-00).

SPECIFICATIONS

Speaker Output

Amplifier Frequency Response300Hz-3.4 KHz, +/- 3dB
Impedance Range150-600 ohm
Weight0.216Kg

Headset Jack

3-conductor PJ-051 style compatible with Sonetics' 3-conductor lightweight headsets, David Clark's 3400 Series headsets and OTTO lightweight headsets.

Microphone Input

Frequency ResponseMicrophone dependent
Max. Amb. Noise LevelMicrophone dependent
MIC Sensitivity Range20-80mv, at 1KHz, 94dBSPL
DC Bias9V through 1K resistor
Frequency Range300Hz – 3.4KHz
Noise CancelingMicrophone dependent
S/N ratioMicrophone dependent
Output Impedance50-2.2K Ohm

RF:

- Range: 512 meters open field.
- Digital encrypting for secured communications.
- Interference free communications for up to 120 belt packs operating in close proximity under ideal site conditions.
- Immunity to interference from other communications devices operating in the entire frequency spectrum from 30 MHz – 18 GHz.

Meets Essential Requirements of:

EN 301 406 V1.5.1
EN 489-6 V1.3.1
IEC 60950-1: 2005
EN 60950-1: 2006

CARE AND MAINTENANCE

Never remove the charging cable from the belt pack by pulling on the cord. Only unplug the cable by pulling the charger plug from the jack.

Wipe the external surfaces of the belt pack with a mild soap and water mixture only.

Do not store in direct sunlight or in areas of high temperature.

SPECIFICATIONS

Power

- 3.7V rechargeable lithium polymer battery
- 8-10 hours of talk time
- Cycle life: 500 cycles minimum
- Over voltage, under voltage, over current and over temperature protection.
- Charge source: 12V nominal (11-16v), 0.25A minimum
- Charge time: 3 hours max at 12V from deeply discharged state

Environmental

- Operating temperature -10 to +70°C
- Storage temperature -25 to +85°C
- Meets standards SAE J1455 and J1113
- Chemical resistance corrosion and humidity per MIL-STD-810

Due to continuous product improvement, these specifications are subject to change without notification.

PACKAGE CONTENTS

BP3-10E Belt Pack: P/N 113-0204-0E

- User's manual: P/N 600-0152-0E
- Charger cable with 2.1mm plug: P/N 420-0048-00
- Fuse holder: P/N 330-0012-00
- Belt Pack Pouch: P/N 540-0058-00

ACCESSORIES

- Power supply, international wall adapter: P/N 114-0061-0E

Changes or modifications not expressly approved by Sonetics can void the user's authority to operate the equipment.

If a problem persists in the device, contact Sonetics for a Return Merchandise Authorization (RMA) number. Return the device for replacement or repair.

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