

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



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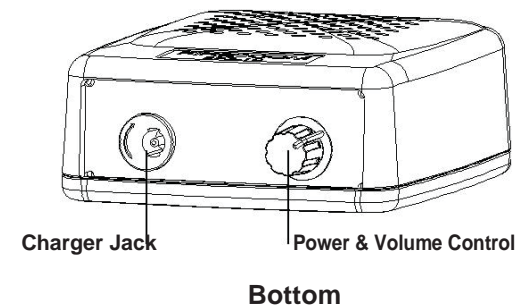
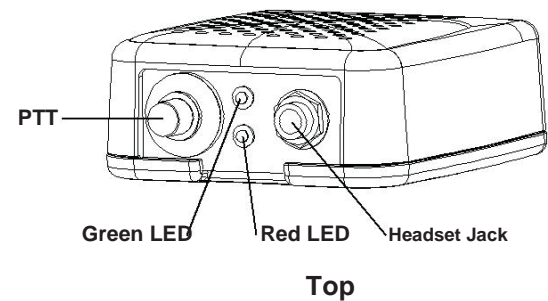
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INTRODUCTION

The BP3-10 is a highly reliable wireless communication module for first responder apparatus operator applications. The BP3-10 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 encoded, interference free communications. When operated as part of a wireless system, up to 60 headsets can be used interference free, in close vicinity to each other.

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



PROPER FIT

Firecom 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 BP3-10 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 BP3-10 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 is controlled using the volume control on the belt pack.

WARRANTY

Firecom Standard Limited Warranty

Firecom, a division of Sonetics Corporation, ("Firecom") warrants to the original purchaser of its products that products will be free from defects in materials and workmanship under normal and proper use for the period of **two years** from date of purchase.

Firecom will repair or replace, at its option, any products showing factory defects during this warranty period, subject to the following provisions and obligations:

1. This warranty applies only to a new product sold through authorized channels of distribution.
2. All work under warranty must be performed by Firecom.
3. All returned products must be shipped to our address, freight prepaid and Firecom will return products to customer via ground freight. Any expedite fees or additional freight charges will be charged to customer.
4. Any attempt to repair, service, or alter the product in any way voids this warranty.
5. This warranty does not apply in the event of accident, abuse, misuse, liquid contact, improper installation, unauthorized repair, tampering, modification, fire, earthquake, or damage from other external sources – including damage caused by user-replaceable parts.
6. This warranty does not apply: (a) to consumable parts such as batteries, ear seals, intercom bags, cables, external power supplies, parts listed as accessories to a system, or other parts designed to diminish in function over time unless a failure is due to a defect in materials or workmanship; (b) to cosmetic damage or to defects caused by normal wear and tear or aging of the product; (c) to damage caused by use with non-Firecom products; (d) to damage caused by operating the product outside the permitted or intended uses or environments described by Firecom; (e) to damage caused by service performed by anyone who is not a representative of Firecom or an Firecom Authorized Service Provider; (f) to a product or part that has been modified without the written permission of Firecom; (g) if any Firecom serial number has been removed or defaced.
7. This warranty does not extend to any other equipment, apparatus, vehicle, aircraft, or watercraft to which this product may be attached or connected.

THE FOREGOING IS YOUR SOLE REMEDY FOR FAILURE IN SERVICE OR DEFECTS. SONETICS CORPORATION SHALL NOT BE LIABLE UNDER THIS OR ANY IMPLIED WARRANTY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, NOR FOR ANY INSTALLATION OR REMOVAL COSTS OR OTHER SERVICE FEES. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS OF USE, WHICH ARE HEREBY EXCLUDED. TO THE EXTENT THAT THIS EXCLUSION IS NOT LEGALLY ENFORCEABLE, THE DURATION OF SUCH IMPLIED WARRANTIES SHALL BE LIMITED TO **TWO YEARS** FROM DATE OF PURCHASE. NO SUIT FOR BREACH OF EXPRESS OR IMPLIED WARRANTY MAY BE BROUGHT AFTER **TWO YEARS** FROM DATE OF PURCHASE.

Subject to the terms and limitations of this Firecom Standard Limited Warranty, this warranty covers any new covered product found to be defective within the applicable warranty period. Firecom reserves the right to examine the alleged defective covered product to determine whether this Firecom Standard Limited Warranty is applicable, and final determination of warranty coverage lies solely with Firecom. If Firecom determines that warranty coverage applies, Firecom reserves the right to either repair or replace a covered product or any part thereof, as determined by Firecom in its sole discretion. If the product has been subjected to conditions which exclude coverage under the warranty, customer will be so advised. Customer may then authorize paid repair service or other disposition of the product. Notwithstanding any other provision of this warranty, if you sell or otherwise transfer ownership of your covered product, this Firecom Standard Limited Warranty shall automatically terminate.

SPECIFICATIONS

FCC/IC RF Exposure Warning

- This product complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This product may not be collocated or operated in conjunction with any other antenna or transmitter.
- This product has been tested and meets the FCC RF exposure guidelines. Max. SAR is 0.003 W/ kg.

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

Power

- 3.7V rechargeable lithium polymer battery
- >24 hours battery life when operating @25°C
- Over voltage, under voltage, over current and over temperature protection.
- AC Charge source: supplied 12V, 500mA wall charger
- DC Charge source: 5V to 16V, 1.5A minimum
- Charge time: 2 hours

Environmental

- IP-65 rated, when worn
- Operating temperature -40°F (-40°C) to +158°F (+70°C)
- Storage temperature -40°F (-40°C) to +185°F (+85°C)
- Charging temperature 32°F (0°C) to +104°F (+40°C)

MIL Spec

- Humidity per MIL-STD 810F and 810G
- Temperature Shock per MIL-STD 810F and 810G
- Chemical Exposure per MIL-STD 810F and 810G

SAE

- Salt Spray per J1455, Sec. 4.3
- Vibration per J1455, Sec. 4.9
- Conducted Immunity per J1113-11
- Electrostatic Discharge per J1113-41
- Radiated Emissions per J1113-41
- Radiated Immunity per J1113-21

ISO

Conducted Transients per 7637-2

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: Firecom 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. However, 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 timed out and 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:

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

LED INDICATORS CHART

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

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 330-0016-00 is to be wired to the vehicle's fuse box using a 1.5A ATO fuse.

Only use a 1.5A fuse (supplied) with the charging cable assembly.

SPECIFICATIONS

Speaker Output

Amplifier Frequency Response300Hz -3.4 KHz, +/- 3dB
 Impedance Range150-600 ohm
 Weight0.51lb (0.23Kg)
 Color. Black

Headset Jack

3-conductor PJ-051 style compatible with Firecom's 3-conductor lightweight head-sets and David Clark's 3400 Series headsets

Microphone Input

Frequency ResponseMicrophone dependent
 Max. Amb. Noise LevelHeadset dependent
 MIC Sensitivity Range20-80mv, at 1KHz, 94dBSPL
 DC Bias9V through 1K resistor
 Frequency Range300Hz – 3.4KHz
 Noise CancelingMicrophone dependent
 10S / N ratioMicrophone dependent
 Output Impedance50-2.2K Ohm

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

RF:

- Range: 700' open field
- Digital encoding for secured communications.
- Interference free communications for up to 60 headsets operating in close proximity.

FCC/IC Compliance

This device complies with FCC Part 15 Rules and IC RSS-213 Rules.

Operation of this is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received, including interference that may cause undesired operation.

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 the belt pack to reset even when it is linked to a base station. Resetting a connected belt pack will result in losing the link for about 10-12 seconds.
3. Resetting the BP3-10 belt pack will cause the belt pack 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.

CARE AND MAINTENANCE

Never remove the charging cable from the belt pack by pulling on the cord. The belt pack should be unplugged at the jack location 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.

PACKAGE CONTENTS

BP3-10 Belt Pack

- Charger cable with 2.1mm plug: P/ N 420-0048-00
- Power adapter /charger, 110VAC to 12VDC, 500mA: P/ N 321-0007-00
- Fuse holder: P/ N 330-0016-00
- Belt Pack Pouch: P/ N 540-0057-00

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

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

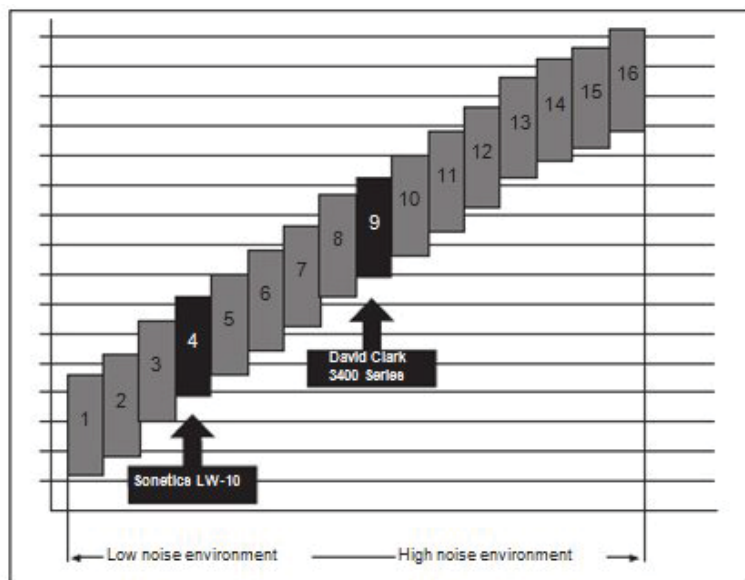
CONTACT: Firecom
7340 SW Durham Road
Portland, OR 97224 USA
1-800-527-0555

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. Monitor the green and red LEDs on the top panel of the belt pack. After about 5-7 seconds, the alternating flashing pattern ends, the green LED will flash rapidly for two seconds and then the green and red LEDs resume normal operation (as stated in the section titled "LED Indicators") to indicate that the belt pack is paired and linked to the base station. The respective LINK LED on the base station will illuminate steadily after flashing rapidly for two seconds to indicate that 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.

PROGRAMMABLE SQUELCH

1. With the belt pack power off, press and hold the PTT.
2. Turn power on to the belt pack, release the PTT switch within 3 seconds after the red LED turns off; the red LED will flash 4 consecutive times to indicate microphone adjustment mode is active.
3. Wait until the belt pack connects to its host base station.
4. Press the PTT switch momentarily then release; the number of times the red LED flashes indicates the level of microphone volume and sensitivity settings combination. The higher the number of flashes, the lower the microphone volume and the higher the mic sensitivity. There are 16 settings available depending on the average ambient noise levels (factory settings shown in graph above).
5. To test the selected setting without exiting microphone adjustment mode, turn power off (for a few seconds) to the belt pack, and then turn it back on.
6. Test the microphone for the desired volume and sensitivity combination. If you are not satisfied, repeat steps 4-6.
7. To save the setting and exit adjustment mode, turn belt pack power off and wait until the belt pack disconnects from the base station.
8. Turn belt pack power on without holding the PTT switch. The belt pack will enter normal operating mode and connect to the base station.
9. If you hear squeal in headset speakers, adjust mic to higher squelch level.



CHARGING

Ensure that the belt pack is fully charged prior to operating for the first time. The BP3-10 belt pack has a 2.1mm panel mounted charger jack located on the bottom panel. A charger cable assembly with a 2.1mm 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.



2. **Firecom 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.**

Firecom recommends charging the wireless belt pack on the vehicle by connecting the charger cable and fuse assembly to the vehicle's uninterruptible 12V supply (Battery, see Fuse Assembly Installation Notice). The use of unregulated 12V AC / DC wall adapters is not recommended. If an adapter must be used, Firecom provides a 12V 0.5A regulated wall adapter.