RTS

Universal Beltpack
Technical Manual
BP-6000

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RTS Intercoms .... www.rtsintercoms.com/warranty
RTS Digital
RTSTW
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Intercom Headsets

Customer Support

Technical questions should be directed to:

Customer Service Department
Bosch Security Systems, Inc.
www.rtsintercoms.com

Technical Questions

Bosch Security Systems Technical Support
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	CAUTION	
	RISK OF ELECTRIC SHOCK DO NOT OPEN	
THE LIGHTNING FLASH AND ARROWHEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF "DANGEROUS VOLTAGE" INSIDE THE PRODUCT.	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THE PRODUCT.
SEE MARKING ON BOTTOM/BACK OF PRODUCT.		

WARNING: APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

WARNING: THE MAIN POWER PLUG MUST REMAIN READILY OPERABLE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, GROUNDING OF THE CENTER PIN OF THIS PLUG MUST BE MAINTAINED.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

WARNING: TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL/RACK IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

CE

Important Safety Instructions

1.   Read these instructions.

2.   Keep these instructions.

3.   Heed all warnings.

4.   Follow all instructions.

5.   Do not use this apparatus near water.

6.   Clean only with dry cloth.

7.   Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8.   Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9.   Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10.   Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11.   Only use attachments/accessories specified by the manufacturer.

12.   Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13.   Unplug this apparatus during lightning storms or when unused for long periods of time.

14.   Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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Contents

Introduction

The BP-6000 is a portable user station compatible with Audiocom and Clear-Com party line systems. It is only available as a 2-channel version. The BP-6000 is a 2-channel beltpack equipped with a mode-sensing system configuration, meaning it determines what type of system it is installed into and configures itself according to the system.

The BP-6000 has a 4-pin male XLR headset connector with auto-sensing headset inputs. Dynamic and electret headset microphones are supported. The loop and line connection both use 6-pin Switchcraft connectors.

Multiple programming options are available. To simplify programming, voice prompts guide the user through menus.

The beltpack is available in black only.

Features

- Voice prompts for simplified configuration
- Remote Mic Kill turns off all active microphones, reducing background noise
- Programmable TALK button, (Always) On, (Always) Off, Switched, or Momentary
- Mode-sensing System Configuration
- Updated design for modern, sleek appearance
- Reduced current draw allows for more beltpacks being powered by the power supply
- Auto-sensing headset inputs, electret or dynamic
- Uses 6-pin Switchcraft connector for loop and line connections
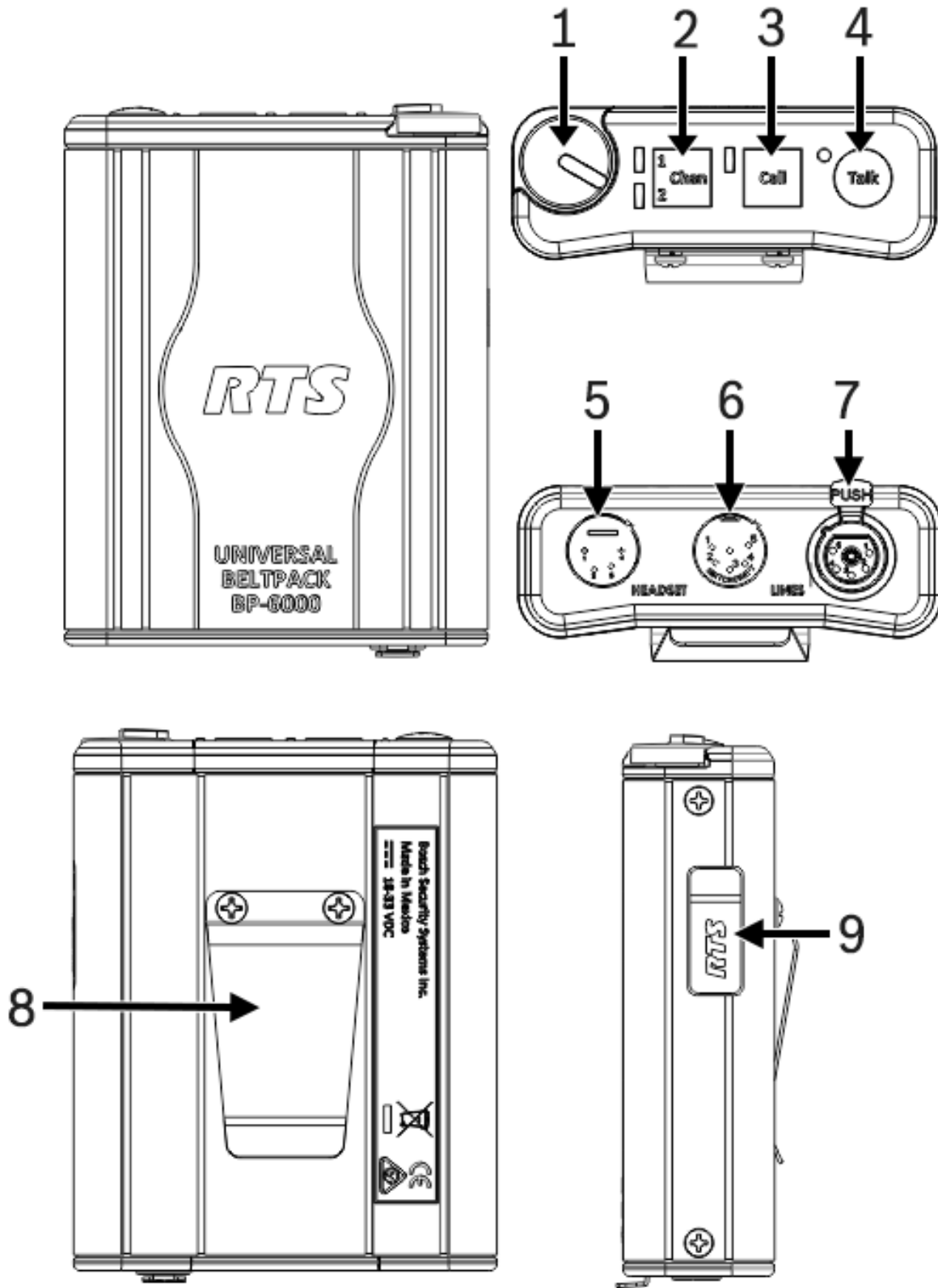
Reference View


FIGURE 1. Reference View

External Connections and Controls

NOTE: The numbers refer to the corresponding call-out numbers in Figure 1.

1. **Volume Control**: Use this control to adjust the headset/headphone listen level.
2. **CHAN Select Button and Indicator Lights**: Use the CHAN button to select the available/active intercom channel. A blue indicator light displays next to the channel displaying the active channel.
    -   When the beltpack is not in DIM mode and a call is received on the inactive channel, the inactive CH LED blinks every half of a second to indicate the call received is on the opposite channel of operation.
    -   When the beltpack is in DIM mode and a call is received on the inactive channel, the inactive CH LED lights solid.
3. **CALL Button and Indicator**: The CALL button is used to send a CALL signal to other devices on the selected intercom channel.
    -   In Dim mode, when receiving a call the CALL LED lights up solid. However, in normal mode, the CALL LED flashes every half of a second.
    -   When sending a call, in normal or Dim mode, the CALL LED lights solid.
4. **TALK Button and Indicator**: The TALK button activates the headset microphone and operates in either switched mode, momentary mode, always on, or always off. For more information, see"Talk Mode Menu" on page 21
5. **Headset Connector**: The connector accepts an RTS headset with a boom microphone.
6. **Line Connector**: The BP-6000 intercom channel is connected via a 6-pin female connector and is powered through the intercom system power supply.
7. **Loop Through Connector**: The 6-pin male loop-through connector is used to daisy-chain up to 35 (if powered on two channels) beltpacks on one power supply.
8. **Belt Clip**: The belt clip securely attaches to clothing.
9. **USB Connector**: The USB connector is used for service only.

Connector Description

XLR (6-Pin Switchcraft)
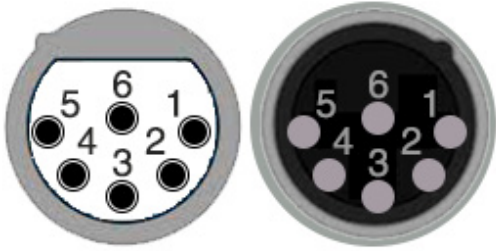
| IMPORTANT: | The BP-6000 Beltpack uses a Switchcraft 6-pin layout. This layout differs from the legacy Neutrik 6-pin layout used in previous models. The adapter cables are a available for purchase (see Figure 2). Contact customer support for more information. |

XLR-6		
Pin	**Audiocom**	**Clear-Com**
1	GND	GND
2	Not Used	Power
3	CH 1 +	Audio CH 2
4	CH 1 -	Audio CH 1
5	CH 2 +	Not Used
6	CH 2 -	Not Used

Switchcraft
Cable 6-pin F SWC to 6-pin M NTX
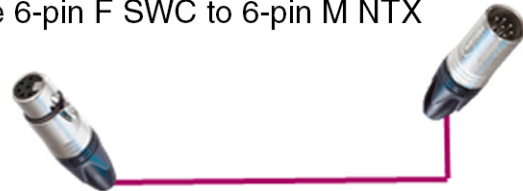
Neutrik
Cable 6-pin F SWC to 6-pin M NTX
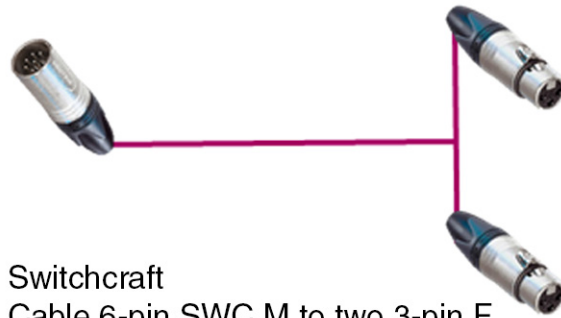
Switchcraft
Cable 6-pin SWC M to two 3-pin F

FIGURE 2. Optional Cables

XLR (4-Pin)

4-Pin XLR	
Pin	**Description**
1	GND
2	Mic IN
3	Headset +
4	Headset -

Specifications

Power Requirements[a]

Max. Operating Current (unbalanced)

50 mA

Max. Operating Current (balanced)

55 mA

Channel Supplied

18–33 VDC

Local Power

18–33 VDC

Environmental

Operating Temperature

32° F to 131° F (0° C to 55° C)

Operating Humidity

5% to 95%, non-condensing

Storage Temperature

-4° F to 158° F (-20° C to 70° C)

Storage Humidity

15% to 90%, non-condensing

Dimensions

3.75" W x 1.35" D [1.55" D w/beltclip] x
4.69" H [4.79" H w/top panel button]
95.2 mm W x 34.2 mm D [39.4 mm D w/
beltclip] x 119.2 mm H [121.6 mm H w/top
panel button]

Weight

0.813 lbs (369 g)

Interface Requirements

Headset

50 to 200 Ω (dynamic)

1 k to 13 k Ω (electret)

Microphone Output Adjustable

max. 15dB (3dB per level)

Headphones

50 to 600 Ω

Balanced Intercom Channel

Output Level

0.0 dBu nominal

Frequency Response

200Hz – 8kHz

Noise Contribution

<-60 dBu

Total Harmonic Distortion

<1.0%

Terminating Impedance

Balanced

300 Ω

Bridging Impedance

>10 k Ω

Call Signaling

Send

20 kHz

Receive

20 kHz

Mic Off Frequency

Send

24 kHz

Receive

24 kHz

Unbalanced Intercom Channel

Output Level

0 dBu nominal

Frequency Response

200Hz – 8kHz

Terminating Impedance

200 Ω

Noise Contribution

<-60 dBu

Total Harmonic Distortion

<1.0%

Bridging Impedance

Unbalanced

>10 k Ω

Call Signaling

Send

DC only

Receive

DC only

Total Harmonic Distortion

<1.0%

Headphone Amplifier

Maximum Output

>140 mW into 150 Ω load

Frequency Response

200 Hz -8 kHz ±3dB

Audible Alert

1 kHz

Total Harmonic Distortion

<1.0%

Sidetone

>13 dB dynamic adjustment range

Crosstalk

<-60dB

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a. Proper beltpack operation includes the use of a power supply which has been tested and listed at a recognized safety test laboratory.
Safe operation requires that a power supply be selected which supports the maximum current required for the total number of beltpacks on the system.

System Configuration and Power

System Configuration

The BP-6000 is capable of operating in two different modes:

Audiocom Mode – Balanced, shared power and audio
Clear-Com Mode – Unbalanced, separate power and audio

Balanced and Unbalanced refer to the type of audio signal being used on the beltpack.

Unbalanced Audio – Uses ground reference signalling.
Balanced Audio – Uses differential mode signalling.

Power

The BP-6000 use an external power supply unit, such as a PS-20, PS-2001L, PS-4001, etc to power the beltpacks. Power is passed through the beltpacks via the Intercom Channel Connector (See Figure 1 on page 8). Depending upon cable length, up to 35 beltpacks (if powered on two channels) can be daisy-chained together operating off the same power supply.

Channel Power

The external power supply provides power to the beltpacks in the system via the channel connector on the power supply and the beltpack. Two power supplies can be used to run a large system or a system that has a long cable run between sets/banks of beltpacks. Using multiple power supplies can evenly distribute power throughout system. In a two power supply system, the local power setting on the beltpack is commonly used.

TABLE 1. Audiocom Y-Cable Wiring Diagram

	XLR-6	XLR-3 CH1	XLR-3 CH2
Pin 1	Ground	Ground	Ground
Pin 2	N/A	Audio Hi	Audio Hi
Pin 3	CH1 Audio Hi	Audio Lo	Audio Lo
Pin 4	CH1 Audio Lo		
Pin 5	CH2 Audio Hi		
Pin 6	CH2 Audio Lo		

TABLE 2. Clear-Com Y-Cable Wiring Diagram

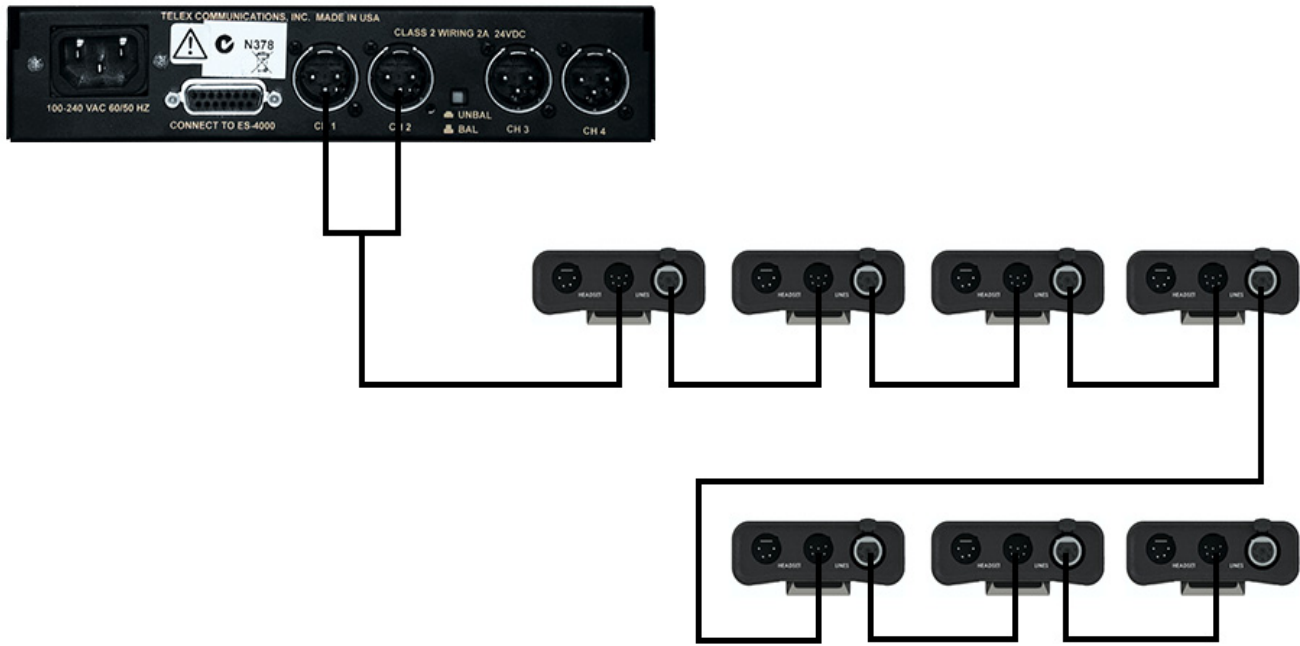|	XLR-6	XLR-3 CH1	XLR-3 CH2
Pin 1	Ground	Ground	Ground
Pin 2	Power	Power	Power
Pin 3	CH2 Audio	Audio	Audio
Pin 4	CH1 Audio		
Pin 5	N/A		
Pin 6	N/A		

FIGURE 3. Single Power Supply System
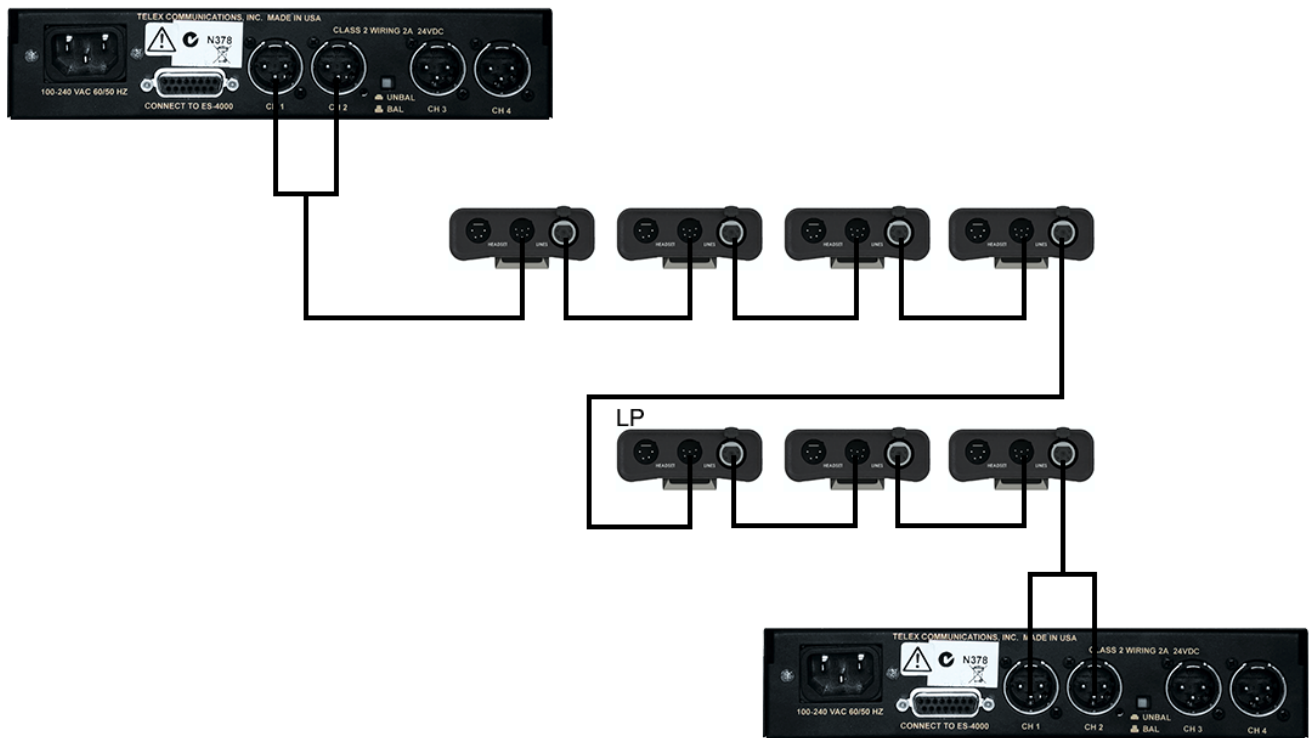
FIGURE 4. Two Power Supply System
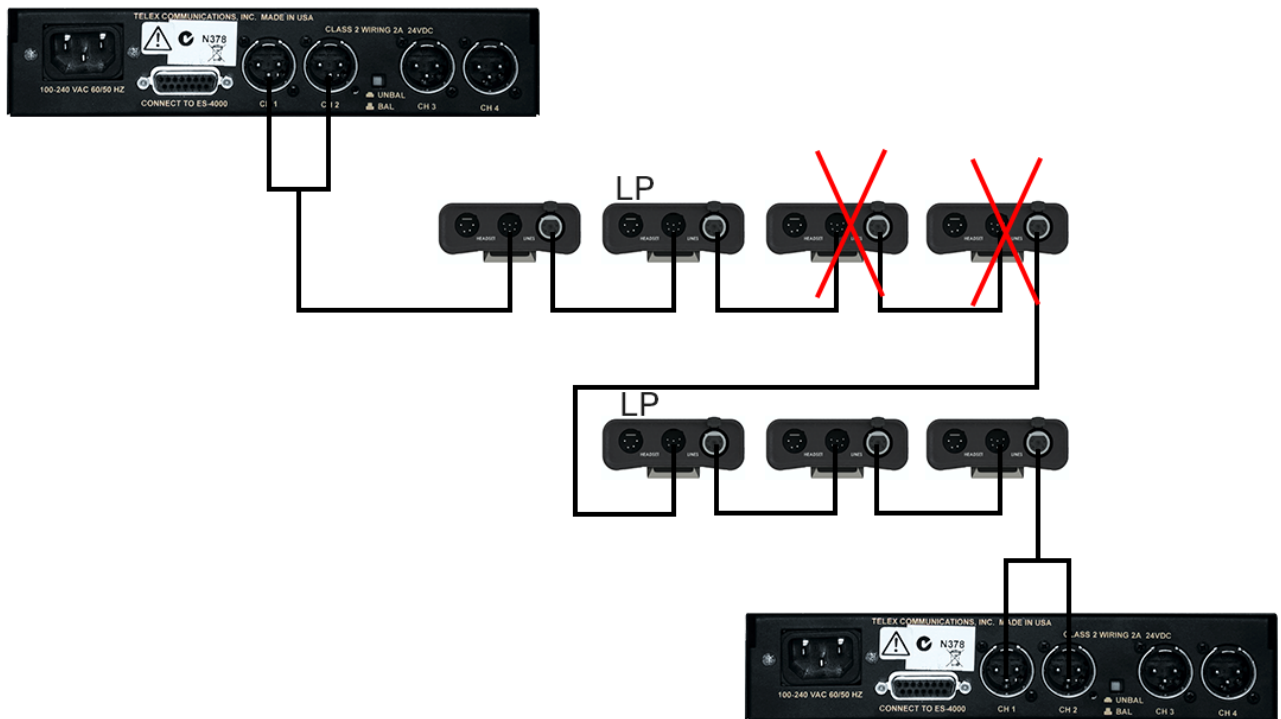
Two Local Power Settings in a System

Local Power

The **Local Power** setting is used to isolate the DC power (voltage) so line noise is reduced without losing signal voltage. Use the local power setting when you have two power supplies feeding a system of beltpacks over a long distance (up to 1000 feet supported). For information on how to set local power, see "Set Local Power" on page 29.

IMPORTANT:	When using the local power setting only one beltpack in the line should be set to LP (Local Power). Commonly, the first beltpack after a long cable run is set to LP, as shown in Figure 4. In a two power supply system, if two beltpacks are set to local power, then any beltpacks in between those two devices do not receive power (see Figure 5).

Initial Setup and Configuration

Initial BP-6000 Setup

The BP-6000 has a mode-sensing setup built into it. Mode-sensing detects the system configuration and then sets the beltpack to run in this mode.

The mode of the BP-6000 needs to be correctly reconfigured through mode-sensing setup. The mode can be verified by the sequence of flashing LEDs upon power up or through the program menu.

The factory setting for the BP-6000 is Audiocom mode. For more information on the different modes of operation, see "System Configuration" on page 13.

IMPORTANT:	Mode-sensing setup can only be done using a hot plug of the UBP into an already powered network. Mode sensing is not reliable when done in conjunction with enabling power to an entire network using a switched power supply or master station. The voltage ramping characteristics of a switched power supply during power up do not allow the BP-6000 to reliably determine the mode of the network
IMPORTANT:	When using BP-6000 and BP4000/5000 beltpacks in Clear-Com mode, the first BP-4000/5000 in the network must be manually set to Clear-Com mode.
IMPORTANT:	By default, the beltpack is configured for Audiocom mode.The headset microphone is auto-sensing, which means it automatically determines if an Electret or Dynamic headset is attached to the unit.

Setup Mode Indication

When power is applied to beltpack, the LED lights blink to indicate the setup mode it is currently running.

Audiocom – LEDs blink six times in three seconds

Clear-Com – LEDs blink nine times in three seconds

Firmware Version

Knowing the version of firmware running on the beltpack can assist a service technician to better troubleshoot problems on the beltpack, if needed. When the beltpack has power applied to the unit while pressing the TALK button, a voice prompt is heard in the headset saying the firmware version currently installed.

To **check the firmware version of the beltpack**, do the following:

1. Verify the **beltpack does not have power connected**.
2. While pressing the TALK button, plug the **power cable** from the power supply or powered network to the Intercom Channel Connector located on the bottom plate of the beltpack (see Figure 1 on page 8).
   [voice prompt] "X.X.X "(where X represents the firmware version).

Programming the Beltpack

Enter Program Menu

To **enter the program menu**, do the following:

1. Put the **headset on your head**.
2. Press and hold the **TALK and CALL buttons simultaneously** for three seconds.

IMPORTANT:	The beltpack must detect both buttons pressed together within 1/2 of a second. If the TALK and CALL buttons are pressed more than 1/2 second apart, the PROGRAM MENU is not entered.

3. Release **both buttons**.
    The CALL and TALK LED indicators blink once and then stay lit.
    [voice prompt] "Program Menu, Talk Mode".
4. Press the **CALL button** to navigate through the voice prompt menu.
    Voice prompts are heard at every press of the button listing the available menu options.
5. Press the **TALK button** to select the desired menu.
6. Exit the **Program Menu**.

NOTE: After 15 seconds of inactivity, the beltpack automatically exits programming mode and no changes are saved. Each time the intercom system power is turned on, the beltpack resets to the previous program settings.

Exit Program Menu

NOTE: You must exit the program menu for any of the configuration modifications to take effect.

- If the Program Menu times out and closes, any modifications made are not implemented.

- If an incoming call is received while in the Program Menu, the beltpack automatically exits the Program Menu without saving any modifications.

To **exit the Program Menu**, do the following:

> While in the Program Menu, press and hold the **TALK and CALL buttons simultaneously** for three seconds.
> *The CALL and Talk indicators blink once and then turn off.*
> *[voice prompt] "Exit"*

IMPORTANT:	The beltpack must detect both buttons pressed together within 1/2 of a second. If the TALK and CALL buttons are pressed more than 1/2 second apart, the PROGRAM MENU is not exited.

Menu System

Talk Mode	On	Off	Momentary	Switched (Default)	

Mic Gain	One	Two	Three	Four (Default)	Five

Sidetone Adjust	One (Default)	Two	Three	Four	Five

Incoming Call Beep	Off(Default)	On

Channel Lock	Off (Default)	Channel One	Channel Two

Power	Channel One (Default)	Channel Two

Mic Kill	On (Default)	Off

Send Mic Kill	No (Default)	Yes

LEDs	On (Default)	Dim

Factory Reset	No (Default)	Yes
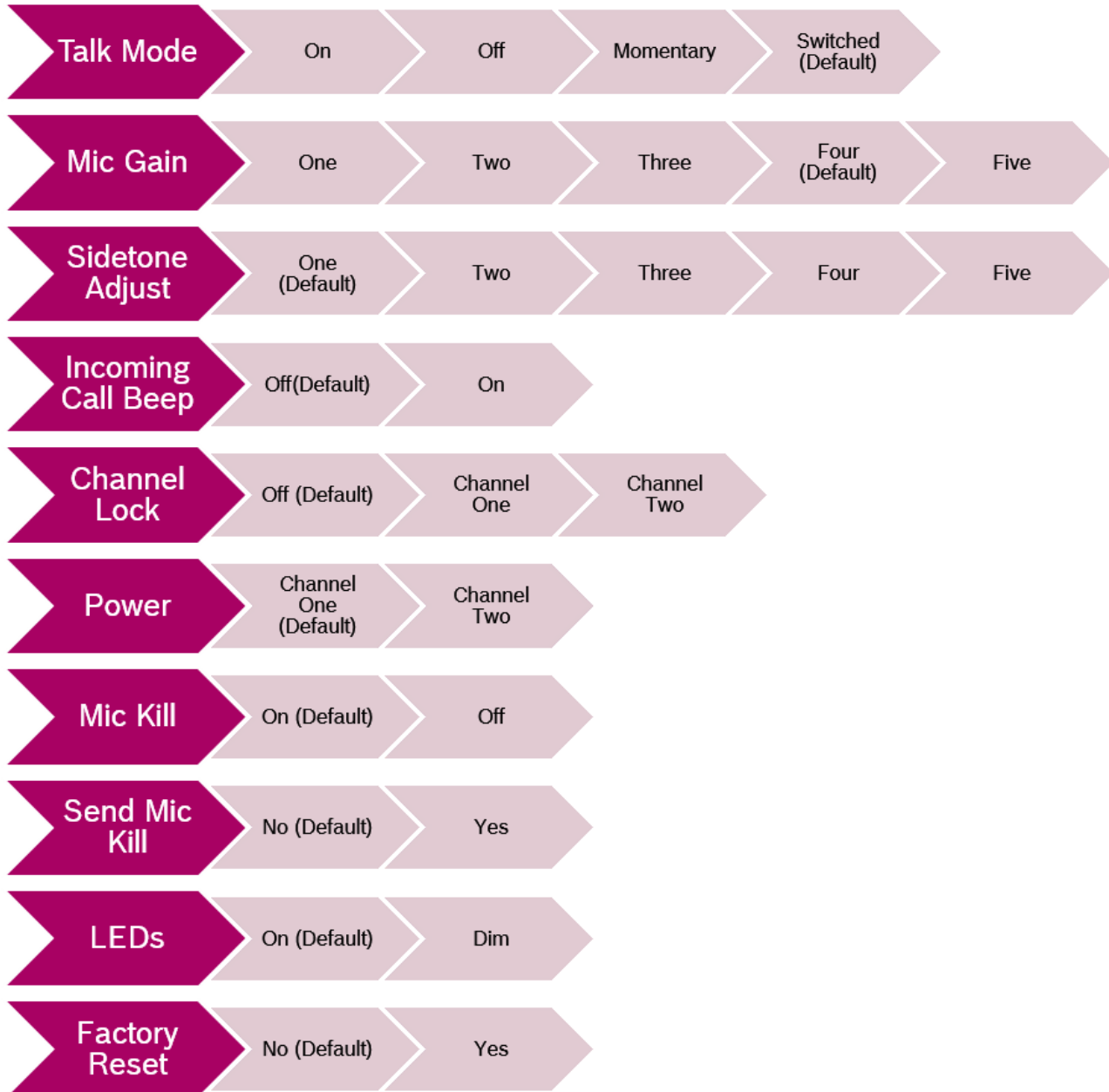
Talk Mode Menu

The **Talk Mode** menu is used to program how the TALK button operates.

Available menu options are:

Switched (d) – The TALK button toggles on and off as long as the button press is less the 400msec. If the TALK button is held longer, the button does not latch on.
Press the TALK button to turn on. Press the TALK button again to turn off.

On –   The TALK button is always on. Talk cannot be turned off even when a mic kill signal is sent.

Off –   The TALK button is always off.

Momentary – TALK is only active as long as the button is held.

To **program TALK mode**, do the following:

1. While in the program menu, navigate to **Talk Mode**.
    [voice prompt] "Talk Mode".

2. Press the **TALK button**.
    [voice prompt] "Switched".
    OR
    Press the **TALK button again.**
    [voice prompt] "Off".
    OR
    Press the **TALK button again**.
    [voice prompt] "On".
    OR
    Press the **TALK button again.**
    [voice prompt] "Momentary".

3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Mic Gain Menu

The **Mic Gain** menu is used to set the mic gain for the beltpack. Mic gain adjusts the audio level being sent out on the line.

Available options for this menu are *1, 2, 3, 4,* and *5*.
1 represents the lowest gain setting, while 5 represents the highest gain setting.

The default for this menu is *4*.
A mic gain setting of 4 sets the output to 0dBu, given a -45dBu nominal input on a dynamic microphone.

To **configure the mic gain**, do the following:

1. While in the program menu, navigate to **Mic Gain**.
   [voice prompt] "Mic Gain".
2. Press the **TALK button** to navigate to the desired gain level.
   [voice prompt] "<gain level X>".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Sidetone Adjust Menu

The **Sidetone Adjust** menu is used to set the level of sidetone heard in the user's headphones. Sidetone is the amount of the user's own voice, which is fed back (with minimal delay) into the user's headset speakers. It provides confirmation to the user of an active network and allows users to better control their level of speaking.

Available options for this menu are *1, 2, 3, 4, and 5*.
1 represents the lowest sidetone level, while 5 represents the loudest sidetone level.

The default for this menu is *1*.

To **configure the sidetone adjust**, do the following:

1. While in the program menu, navigate to **Sidetone Adjust**.
   [voice prompt] "Sidetone Adjust".
2. Press the **TALK button** to navigate to the desired sidetone level.
   [voice prompt] "<sidetone level X>".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Incoming Call Beep Menu

The **Incoming Call Beep** menu is used to enable and disable whether a beep is heard in the headset when a call comes into the beltpack.

Available options are *On* or *Off*.

The default for this menu is *Off*.

To **configure incoming call beep**, do the following:

1. While in the program menu, navigate to **Incoming Call Beep**.
   [voice prompt] "Incoming Call Beep".
2. Press the **TALK button** to enable Incoming Call Beep.
   [voice prompt] "Off".
   OR
   Press the **TALK button** to disable Incoming Call Beep.
   [voice prompt] "On".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Channel Lock Menu

The **Channel Lock** menu is used to program whether the BP-6000 has access to one or two channels. When channel lock is used, the beltpack only operates on the locked channel. For example, if channel 1 is locked, the beltpack only operates on channel 1.

Available options are *Channel 1, Channel 2* or *Off*.

The default for this menu is *Off*.

To **configure channel lock**, do the following:

1. While in the program menu, navigate to **Channel Lock**.
   [voice prompt] "Channel Lock".
2. Press the **TALK button** to select Channel 1.
   [voice prompt] "Channel 1".
   OR
   Press the **TALK button again** to select Channel 2.
   [voice prompt] "Channel 2".
   OR
   Press the **TALK button again** to select Off.
   [voice prompt] "Off".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Power Source Menu (Audiocom Only)

The **Power Source** menu is used to select which channel the beltpack draws power. By distributing the power draw, more beltpacks can be used on the same party-line.

Available options are *Channel 1* or *Channel 2*.

The default for this menu is *Channel 1*.

To **configure the power source**, do the following:

1. While in the program menu, navigate to **Power**.
    [voice prompt] "Power".
2. Press the **TALK button** to select Channel 1.
    [voice prompt] "Channel 1".
    OR
    Press the **TALK button again** to select Channel 2.
    [voice prompt] "Channel 2".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Mic Kill Menu (Audiocom Mode Only)

The **Mic Kill** menu is used to enable or disable the ability to ignore a Send Mic Kill signal sent to turn off the mic on the beltpack.

Available options are *On* or *Off*.

The default for this menu is *On*.

To **configure mic kill**, do the following:

1. While in the program menu, navigate to **Mic Kill**.
    [voice prompt] "Mic Kill".
2. Press the **TALK button**.
    [voice prompt] "On".
    OR
    Press the **TALK button** again.
    [voice prompt] "Off".
3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

Send Mic Kill Menu (Audiocom Mode Only)

The **Send Mic Kill** menu is used to send a shut off signal to a microphone on a beltpack, user station, or master station that has been left on. A 24 kHz signal is sent to the party-line where the beltpack with the microphone left on, signalling it to shut off.

Available options are *Yes* or *No*.

IMPORTANT:	The Send Mic Kill signal is not sent until the beltpack has properly exited the program menu.

To **send a mic kill**, do the following:

1. While in the program menu, navigate to **Send Mic Kill**.
   [voice prompt] "Send Mic Kill".

2. Press the **TALK button**.
   [voice prompt] "No".
   OR
   Press the **TALK button** again.
   [voice prompt] "Yes".

3. Exit the **Program Menu** (see "Exit Program Menu" on page 19).

LEDs Menu

The **LEDs menu** is used to set the LEDs to normal intensity or dimmed on a beltpack.

Available options are *On* or *DIM*.

The default for this menu is *On*.

To **configure LEDs**, do the following:

1. While in the program menu, navigate to **LEDs**.
   [voice prompt] "LEDs".

2. Press the **TALK button**.
   [voice prompt] "On".
   OR
   Press the **TALK button** again.
   [voice prompt] "DIM".

3. Exit the **Program Menu**.

Factory Reset

The **Factory Reset** menu is used to reset the beltpack to its original, factory settings.

Available options are *Yes* or *No*.
The default for this menu is *Off.*

To **perform a factory reset on the beltpack**, do the following:

1. While in the program menu, navigate to **Factory Reset**.
    [voice prompt] "Factory Reset".

2. Press the **TALK button**.
    [voice prompt] "No".
    OR
    Press the **TALK button** again.
    [voice prompt] "Yes".

3. Press the **CALL** and **TALK buttons simultaneously**.
    The CALL and TALK indicators blink once and then turn off.
    [voice prompt] "Exit"
    The LED indicators blinks the number of times associated with the mode it is in (see "Setup Mode Indication" on page 18). The beltpack is reset to factory defaults.

Operation and Maintenance

Operation

Adjust the Volume

To **adjust the volume on the beltpack**, do the following:

> On the top panel of the beltpack, turn the **volume knob clockwise** to increase the volume.
> OR
> Turn the **volume knob counterclockwise** to decrease the volume.

Change the Channel

To **change the channel on the beltpack**, do the following:

> On the top panel of the beltpack, press the **CH 1/2 button once**.
> *The active channel is toggled between CH1 and CH2.The blue LED indicates the active channel.*

Maintenance

Replace the Beltclip

To **replace the beltclip on the beltpack**, do the following:

1. Using a screwdriver, remove the **two locking washers and screws** holding the beltclip in place. *Set the washers and screws aside for later use.*
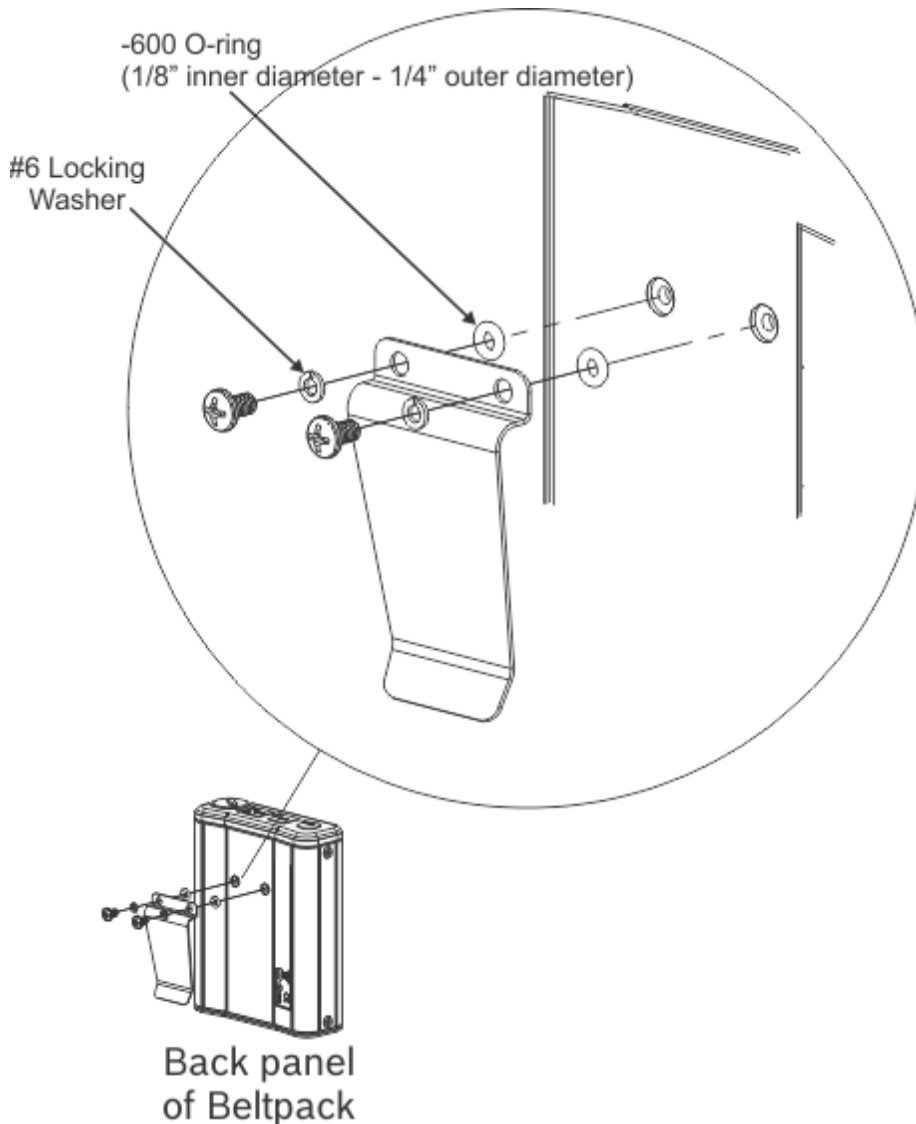
2. Remove the **beltclip from the unit**.

    NOTE: Take care to keep the O-rings for later use.

3. Using the existing washer, screws and O-rings, reattach the **new beltclip to the beltpack**.

Set Local Power

Local Power is set by shorting pins on the J3, J4 and J5 jumper located on the PCBA board. The board must be removed from the beltpack housing to make this adjustment. For more information on Local power, see "Local Power" on page 15.

To **set local power**, do the following:

1.   Remove the **two side screws** from the beltpack unit (see below).

IMPORTANT: There are two red o-rings to strengthen the seal and keep moisture out of the beltpack. Keep these o-rings with the screw. They can sometimes become lodged in one of the screw holes.

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2.   Carefully slide the **top plate assembly from the beltpack enclosure** just far enough to expose the entire PCBA board. Take care not to disconnect the connectors from the headers.
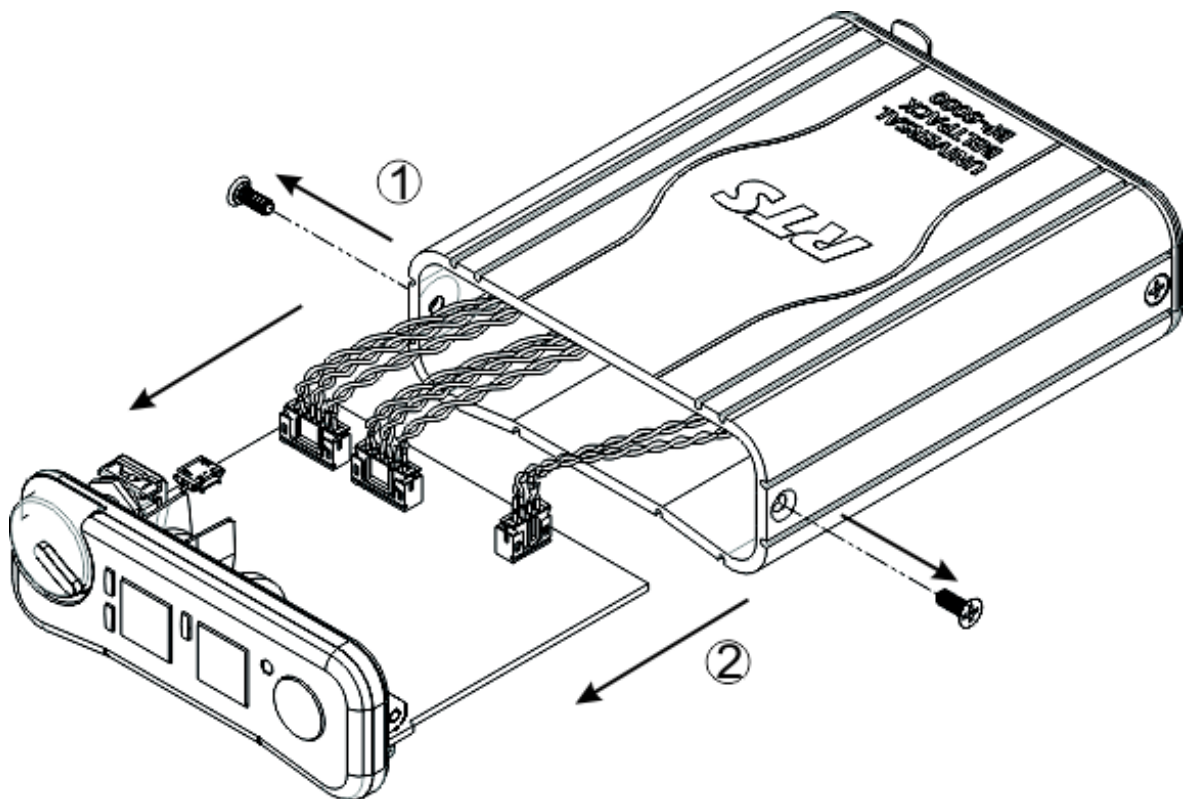
3. Being careful not to pull the connectors from the headers, attach **jumpers to J3, J4 and J5 on the board**, as described in Table 3.

IMPORTANT: If you need to move the connector wires to access the J4 jumper, gently push them to either side.
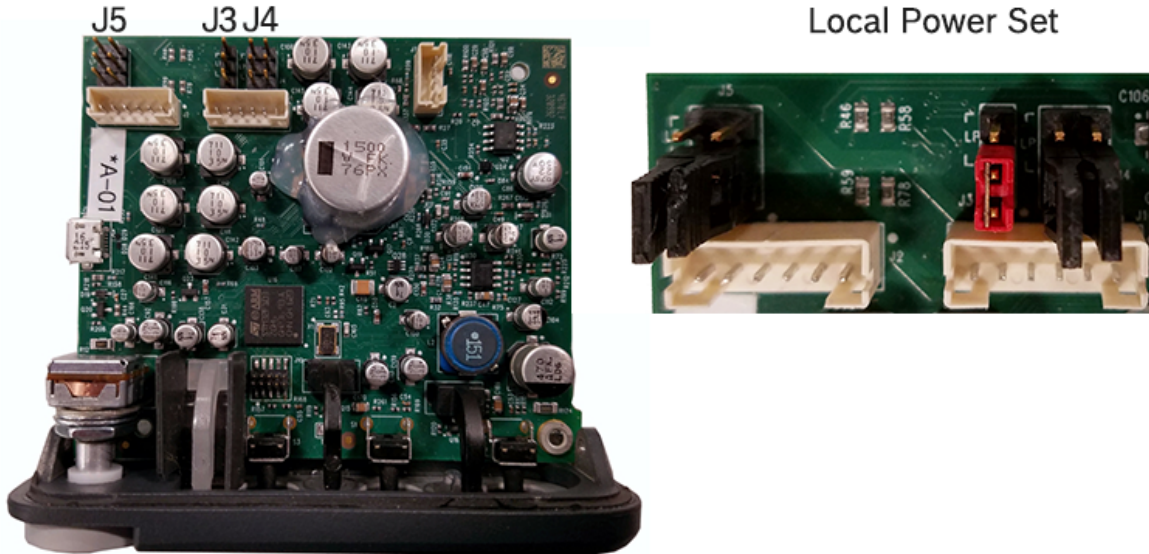

TABLE 3. J4 and J5 Jumpers

Normal	Local Power
Pins 1&3 and Pins 2&4 shorted	Pins 3&5 and Pins 4&6 shorted

TABLE 4. J3 Jumpers

Normal	Local Power
Pins 1&2 shorted	Pins 2&3 shorted

4. Carefully slide the **top plate assembly** into the beltpack enclosure.
5. Using the provided screws and O-rings, replace the **side screws**.

IMPORTANT: To ensure the beltpack is properly grounded when reassembling, fully tighten the screws on one side of the unit, and then fully tighten the screws on the other side of the unit.

Notes

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