Version 1.0

BPS

BATTERY POWER SYSTEM

OWNERS MANUAL

The Attach Anywhere, All-In-One, Chain-Able Sound Bag Power Solution

BATTERY POWER SYSTEM

TABLE OF CONTENTS

QUICK START GUIDE

POWER

1. Plug in output 1

Take the hard lined output and plug it in

2. Outputs 2-4

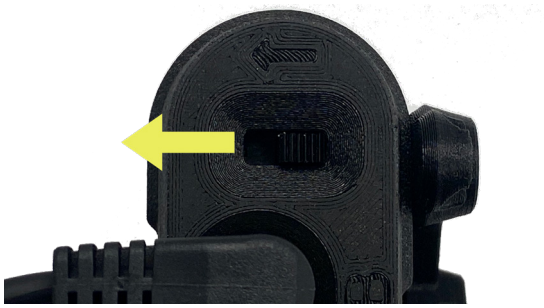
Plug in and screw down additional BPS cables to output 2-4

3. Plug in battery

Slide a battery into the battery pocket until it is seated.

4. Turn on Switch

Toggle the power switch to the ON position



QUICK START GUIDE

ATTACHMENT CLIPS

1. Click in Clip

Slide the clip into the back of the PBS until it clicks.

2. Place Screw

Put the Screw into the back of the clip and tighten.

3. Attach BPS

Attach BPS to a Sound Bag using the correct clip.

BATTERY POWER SYSTEM

FEATURE OVERVIEW

All in one system

- Powers multiple devices
- A compact design with a small footprint
- Minimizes the number of cables needed

Attach Anywhere

- Customizable for any sound kit
- Attaches inside or outside a sound bag
- Options for sound carts avalible
- More clip designs are on the way!

Daisy-Chain Multiple Units

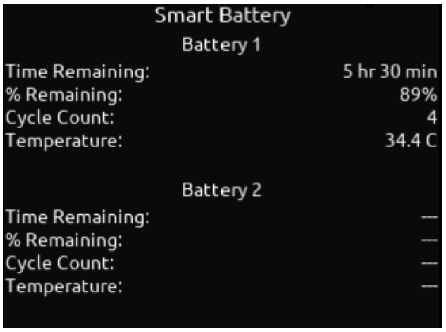
- Provides redundant power
- Allows hot-swaping of batteries
- Expands the number of outputs
- One battery can power multiple BPS Units

Quick Draw Battery Swaps

- A battery can be changed with one hand
- Batteries are held in securely
- Supports large and small smart batteries
- Battery data display always faces up

BATTERY POWER SYSTEM

FEATURE OVERVIEW

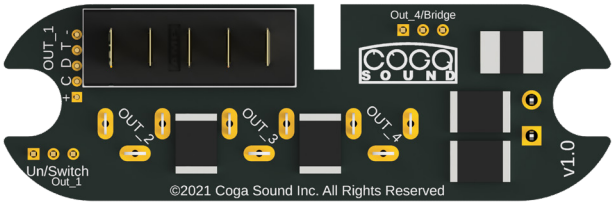


Battery Telemetry

- Output 1 is a four-wire SMBus cable
- Provides battery data to compatible re-corders or other SMBus devices
- Displays battery cycles, voltage, time remaining, and instantaneous current pull

Swappable output cable

- The Output 1 cable is user replaceable
- No soldering required
- Multiple output connectors available



Fused Input and Outputs

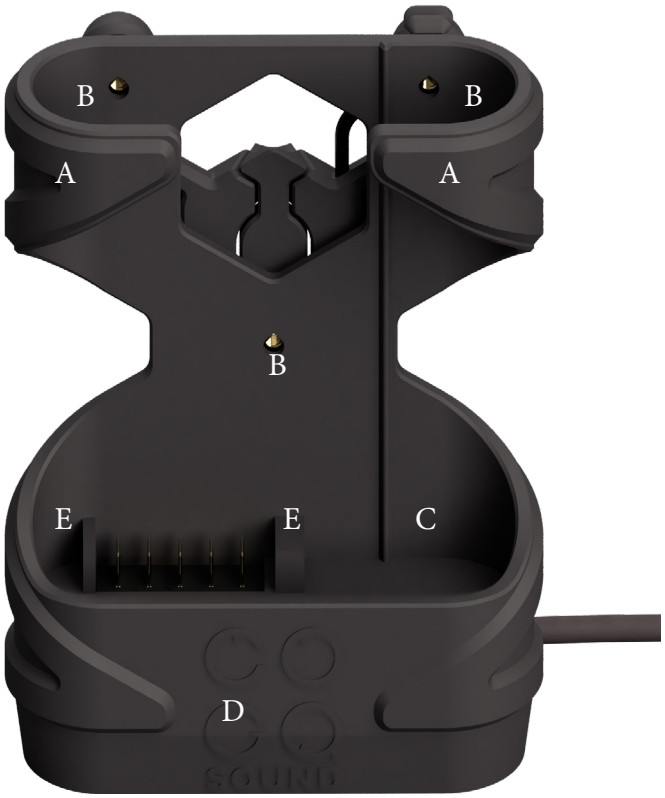
- The Input is fused at 6A
- Each output is fused at 3A
- Uses all self-resetting PPTC fuses

Light Weight Durable Design

- 114g (4oz) (TA4f cable, W/O clip)
- Carbon Fiber Nylon construction
- Minimal metal parts
- Tool storage included

BATTERY POCKET

BPS Front View



Qucik Draw Battery

A. Battery Tabs
- Batteries slide freely in and out
- Fits both Small and large batteries

B. M3 Insert Threads

C. Battery Alignment Ridge
- Prevents backwards insertion

D. PCB Compartment
- Contains the Circuit Board

E. Battery Alignment Keys
- Battery locks into keys
- Prevents accidental disconnect

OUTPUTS

BPS bottom view

4 switchable outputs

F. Output 1
- Available in 4-pin Hirose and TA4f
- Can be switched or unswitched
- Supports SMBus telemetry

G. Output 2 & 3
- Locking 2.5mm DC jack (SC 761k)

H. Output 4 & Bridge connector
- Locking 2.5mm DC jack (SC 761k)

I. Power Switch

J. Pop out Connector Plate

INPUT

BPS top view

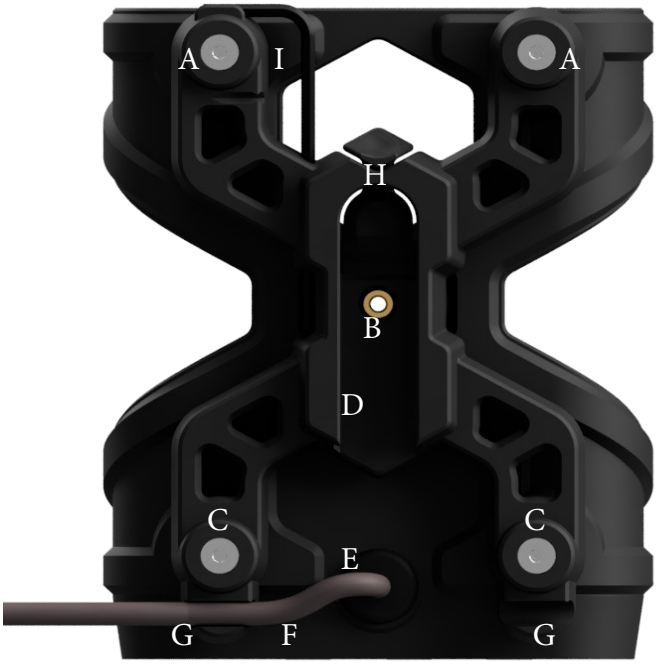
1 Smart Battery input

K. Smart Battery Power Connector

L. Top PCB Compartment Screws
- M3 x 8mm flat head 18-8 stainless steel

ATTACHMENT FRAME

BPS back view



Attachment Frame

A. Attachment Frame Screws
- M3 x 8mm flat head 18-8 stainless steel

B. M3 Insert Thread
- Use M3 x 16mm to secure clip
- If no clip is used, secure with M3 x 8mm

C. Rear PCB Compartment Screws
- M3 x 8mm flat head 18-8 stainless steel

D. Attachment Frame
- Provides additional rigidity
- Do not remove from BPS

E. Grommet

F. Output 1 Cable

G. Cable Clips
- Cable can run left or right

H. Clip Latch
- Secures clips without the screw

I. Two Position Tool Storage
- Fits included 2mm Allen Wrench

CIRCUIT BOARD

BPS bottom board view

Jumper Modes

J. Power Switch

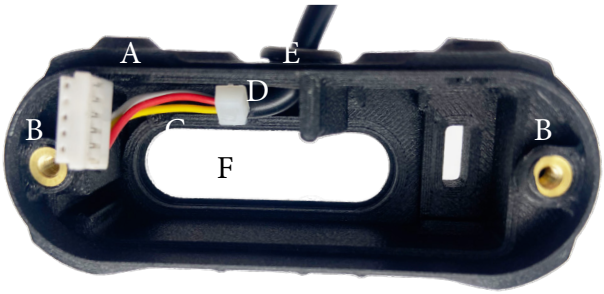
K. Output 4 to Bridge Jumper
- The Jumper connects 2 of 3 pins
- The center pin is always connected

L. Output 1 Male Header Connector

M. Output 1 Switched to Unswitched Jumper
- Allows Output 1 to be unswitched

PCB COMPARTMENT

BPS bottom board view



Swappable Cable

A. Output 1 Female Cable Header

B. M3 inserts

C. Output 1 Cable

D. Zip Tie
- For strain relief
- Secures
- 4" Type 21

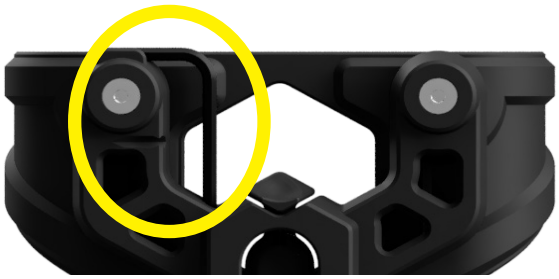
E. Grommet

F. Connector Plate Cutout
- Connector plate clicks in securely

BOARD ACCESS

1. Remove Allen Key From Tool Storage

Remove the 2mm Allen wrench from the Tool Storage.

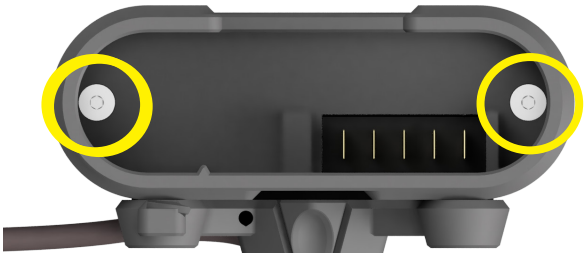


2. Remove Rear PCB Compartment Screws

Set aside. Make sure the cable is free of the Cable Clips.

3. Remove Top PCB Compartment Screws

Set aside. Remove the Battery Pocket from the PCB Compartment.

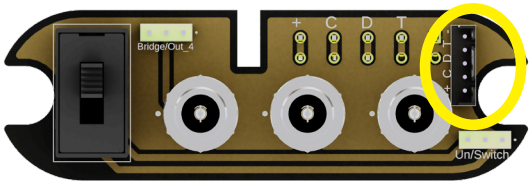


4. Gently Pop Out Connector Plate

Apply gentile force to the connectors on the bottom of the BPS, until you hear a click. DO NOT PULL BOARD FREE IMMEDIATELY. This could damage the Output 1 Header Connector.

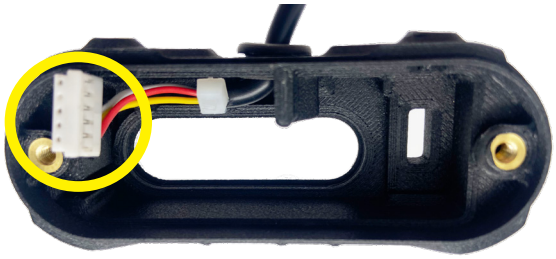
5. Disconnect Output 1 Header Connector

Once the header connector is loose, the Board will slide out freely.



6. Reassemble BPS

Replace the Output 1 Header. It only fits in one way. DO NOT USE FORCE. Before Pressing the Connector Plate back in, make sure the cable is not pinched between the Plate and the PCB Compartment. Follow the steps in reverse order.



DAISY-CHAIN IN BRIDGE MODE

What is bridge mode?

Bridge Mode enables hot-swapping of batteries by allowing multiple BPS units to share power. Output 4 on a BPS can be switched into from Output Mode to Bridge mode. Using a cable to tie these connectors together allows one or more batteries to power multiple units.

How does it work?

Putting a BPS in bridge mode bypasses the Output 4 Fuse and the Switch, connecting the Main Power Buses of multiple units. All connected BPS units must be in Bridge Mode. Other outputs or connectors cannot be used to connect BPS units.

How to tell which mode BPS is in?

The easiest way to check if the BPS unit is in bridge mode is to plug a device into output 4 and toggle the Switch on and off. If the BPS is in Output Mode the unit plugged in to Output 4 will turn on and off. If the device remains on the BPS unit is in Bridge mode.

Do not use multiple batteries in Output mode!

Make sure when connecting multiple BPS units together that they are all in Bridge Mode. If one or more of the BPS units is in Output Mode, the power avalible between units will be limited to 3A. If one BPS unit is pulling more than 3A, removing a battery will trip the input fuses on the remaining units, leading to a power loss.

ATTACH ANYWHERE

Swappable Attachement Clips

Each BPS comes with one of several Clips.
Additional Clips are avalible for purchase.

How to Change Clips

1. Remove M3 x 16mm screw
2. Press the release tab
3. Slide the Clip out
4. Slide in the new Clip in until it clicks
5. Replace M3 x 16mm screw

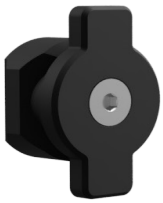
* Buddy-Lok style Clip only held in by screw

AVALIBLE ATTACHMENTS

Mod-U-LOX Style Clip

Attaches to the outside of:

Schatler/Petrol Bags
Protogear Bags



Buddy Lok Style Clip

Attaches to the outside of:

Orca Bags

Bag Anchor Clip

Attaches to the inside of:

Ktek Stingray bags
Orca bags
Schatler/Petrol Bags
Protogear Bags
Any Receiver Sleeve

Molle Clip

Attaches to the outside of:

Ktek Sting Bags
Any MOLLE bag
1 or 2 loops

More attachments to come

ATTACHMENT GUIDE

MOD-U-LOX STYLE CLIP

Mod-U-LOX Style Clip guide

The MOD-U-LOX Style clip attaches to the mating surface on Petrol, Schatler and Protogear bags. Simply slide it in and it will lock in place. To release it push in on the tab on the top of the mating surface.

BUDDY LOK STYLE CLIP

BUDDY LOK Style Clip guide

The Buddy Lok Style clip attaches to the mating surface found on Orca Bags. Turn the clip 90 degrees and slid it into the mating surface. Rotate it back vertically and it will lock in place.

BAG ANCHOR CLIP

Bag Anchor guide

The Bag Anchor is designed to hold BPS units in a receiver strap or other loops. To use this clip pull all of the cables up though the strap and plug them into the BPS. Push the BPS down through the strap and then stretch the strap between the points of the anchor. This will prevent the BPS unit from pulling out of the strap.

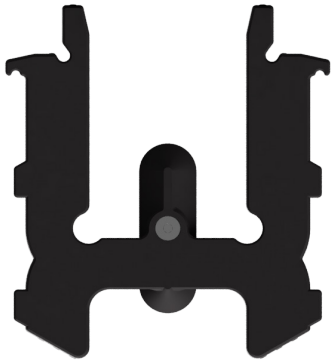
ATTACHMENT GUIDE

MOLLE CLIP

One Strap

MOLLE Straps guide

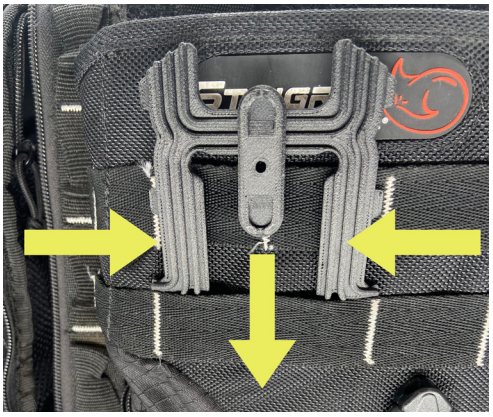
The MOLLE Clip is designed to work with both one and two rows of MOLLE straps. For use on one row orient the clip like the image on the left, for two rows orient it like the image on the right.



Two Strap

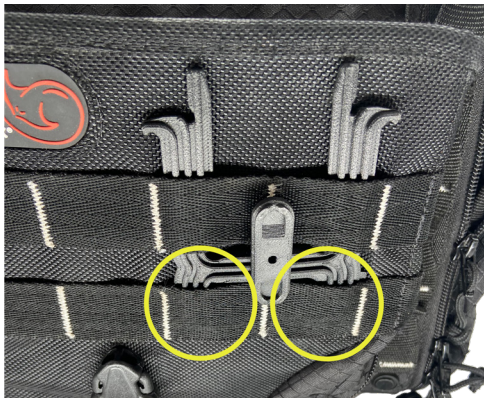
One Strap

Push the long arms down into the MOLLE strap until the tabs are through the bottom. Push inwards on the tabs and pull down until the cross-bar rests on the strap.



Two Strap

Push the long arms up into the top MOLLE strap until the tabs clear. Push inwards on the tabs until the long arms are all the way through the strap. Insert the short arms into the bottom row and push the clip down until it is firmly seated.



OUTPUT CONNECTORS & CABLES

Output 1 Cable

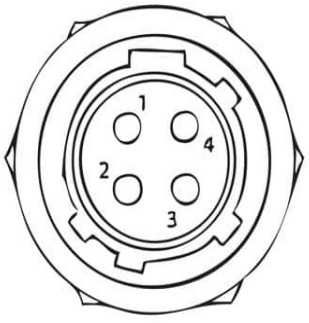
Output 1 is a hard-lined cable that connectors to the Circuit Board with a Header Connector. It can be easily replaced by the user. The BPS system comes with either a 4 pin Hirose or a TA4f.

Outputs 2-4

Outputs 2-4 use a Switchcraft 761k style connector with a locking 2.5mm barrel. Daisy-Chaining multiple BPS units together in Bridge mode uses a 761k - 761k cable to connect Output 4 on all units. To combine more than 2 BPS units a Y cable is necessary.

WIRING DIAGRAM

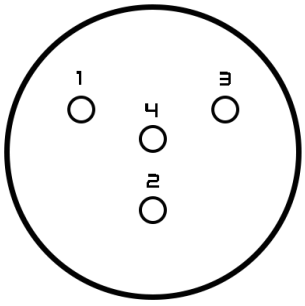
Hirose



Pinout

1. Ground (-)
2. Data
3. Clock
4. Power (+)

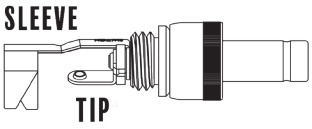
TA4f



Pinout

1. Ground (-)
2. Data
3. Clock
4. Power (+)

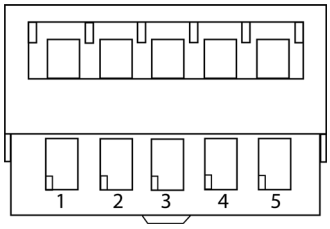
761k



Pinout

1. Sleeve - Ground (-)
2. Tip - Power (+)

Header



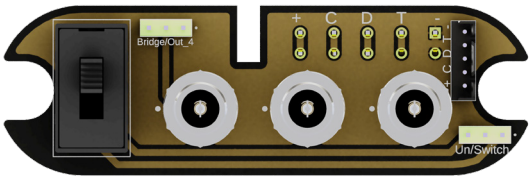
Pinout

1. Power (+)
2. Data
3. Clock
4. Empty
5. Ground (-)

CHANGING THE CABLE

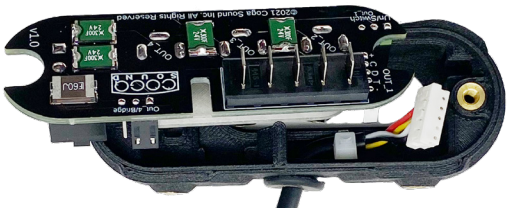
1. Access the Board

Follow board access instructions on page 8



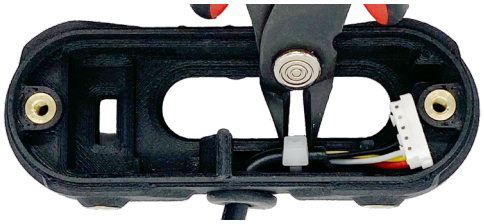
2. Unplug cable

Gently remove the header connector from the board and separate the PCB Compartment



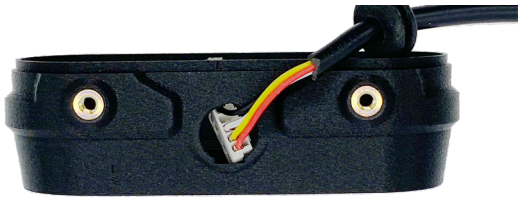
3. Cut the zip tie

Using a pair of wire cutters, clip the zip tie securing the cable in place. Remove the zip tie.



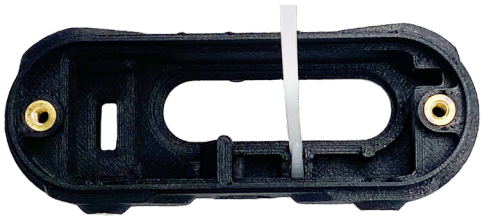
4. Remove the Cable

Once the cable is free push, the Grommet out of the hole and remove the cable.



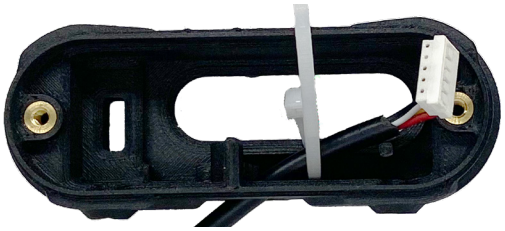
5. Insert Cable tie

Insert the new zip tie into the slot. Pliers may be helpful.



6. Insert New Cable

Push the new header connector carefully though the hole and pop the Grommet into place

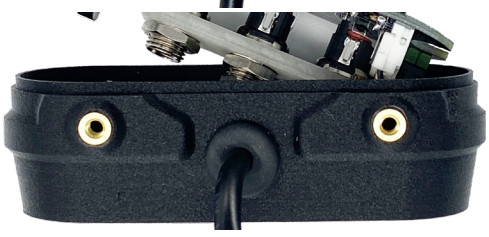


7. Secure Cable

Tighten the zip tie around the outer jacket of the cable, leaving 1/8" visible. Use cutters to clip the zip tie.

8. Plug In

Plug in the header connector to the board and resemble the unit.



TECH SPECS
Dimensions and Weight

All Units

Height: 110mm (4.33″) **Width:** 87 mm (3.5″)
Depth (No Clip): 42 mm (1.66″) **Depth (With Clip):** 47 mm (1.82″)

No attachment Clip

Weight:
No cable
92g (3.25oz)
Hirose Cable
114g (4.03oz)
TA4 Cable
110g (3.88oz)

Mod-U-LOX Style Clip

Weight:
No cable
96.5g (3.36oz)
Hirose Cable
117.6g (4.15oz)
TA4 Cable
113.6g (4oz)

Buddy-lok Clip

Weight:
No cable
93.4g (3.55oz)
Hirose Cable
115.4g (4.08oz)
TA4 Cable
111.4g (3.93oz)

Bag Anchor Clip

Weight:
No cable
97g (3.42oz)
Hirose Cable
119g (4.2oz)
TA4 Cable
115g (4.05oz)

Molle Clip

Weight:
No cable
102g (3.6oz)
Hirose Cable
124g (4.38oz)
TA4 Cable
120g (4.23oz)

Power Specifications

Input: Max 24v, 6A fuse

Output 1: Hard-lined output cable, max 24v, 3A fuse,
Hicon TA4f or optional Hirose 4-pin connector

Outputs 2-4: Output jacks, max 24V, 3A fuses,
2.5mm ID x 5.5mm OD locking DC Jack, compatible with
Switchcraft 761K connector or similar

Bridge mode: 2.5mm x 5.5mm locking DC connector, max 24v, no input fuse. Same as Output 4. Attach ONLY to the Bridge connector of another COGA Sound Battery Power System (BPS). Do not use with any other battery or power source.

Supported Batteries:
Audioroot eSmart Li-98Wh & Li-49Wh
Audioroot eSmart Li-96Neo & Li-48Neo
Inspired Energy NH2054HD34 & ND2054HD34
Remote Audio Hi-Q 98Wh & 48Wh
RRC Power Solutions RRC2054 & RRC2054-2
Sound Devices XL-Smart Battery

MODELS AND ACCESSORIES

IN THE BOX

Model #	Attachment	Output Cable	Cable Length
BPS-BTM	Bag anchor	TA4	Medium
BPS-MTM	Molle Clip	TA4	Medium
BPS-OTM	Buddy Lok Style Clip	TA4	Medium
BPS-PTM	Mod-U-Lox Style Clip	TA4	Medium
BPS-BHM	Bag anchor	Hirose 4 pin	Medium
BPS-MHM	Molle Clip	Hirose 4 pin	Medium
BPS-OHM	Buddy Lok Style Clip	Hirose 4 pin	Medium
BPS-PHM	Mod-U-Lox Style Clip	Hirose 4 pin	Medium

ATTACHMENTS

Model #	Attachment
BPSA_B	Bag anchor
BPSA_M	Molle Clip
BPSA_O	Buddy Lok Style Clip
BPSA_P	Mod-U-Lox Style Clip

SPARE PARTS

Model #	Description
BPSP_S	Spare Screws and Wrench
BPSP_T	Replacement Top
BPSP_B	Replacement Bottom
BPSP_P	Replacement Plate
BPSP_F	Replacement Frame
BPSP_E	Replacement PCB

CABLES

Model #	Cable
BPSC_TS	8" TA4 replacement output cable
BPSC_TM	15" TA4 replacement output cable
BPSC_TL	24" TA4 replacement output cable
BPSC_HS	8" 4 pin Hirose replacement output cable
BPSC_HM	15" 4 pin Hirose replacement output cable
BPSC_HL	24" 4 pin Hirose eplacement output cable
BPSC_LS	8" 761k Style locking DC Connector replacement output cable
BPSC_LM	15" 761k Style locking DC Connector replacement output cable
BPSC_LL	24" 761k Style locking DC Connector replacement output cable
BPSC_SS	8" S760 Style DC Connector replacement output cable
BPSC_SM	15" S760 Style DC Connector replacement output cable
BPSC_SL	24" S760 Style DC Connector replacement output cable
BPSC_S760K_S	8" S760 Style locking DC Connector replacement output cable
BPSC_S760K_M	15" S760 Style locking DC Connector replacement output cable
BPSC_S760K_L	24" S760 Style locking DC Connector replacement output cable
BPSC_PT_4	24" Pigtale 4 conductor replacement output cable
BPSC_PT_2	24" Pigtale 2 conductor repacement output cable

BATTERY POWER SYSTEM

LIMITED 1-YEAR WARRANTY

This product is warranted for one (1) year against defects in materials or workmanship provided it was purchased from an authorized dealer and registered through our warranty page at cogasound.com. This warranty does not cover equipment which has been abused or damaged by careless handling or shipping. This warranty does not apply to used or demonstrator equipment. Should any defect develop, COGA Sound Inc. will, at our option, repair or replace any defective parts without charge for either parts or labor. If COGA Sound Inc. cannot correct the defect in your equipment, it will be replaced at no charge with a new or comparable item. COGA Sound Inc. will pay for the cost of returning your equipment to you. This warranty applies only to items returned to COGA Sound Inc. or an authorized dealer, shipping costs prepaid. This Limited Warranty is governed by the laws of the State of California. It states the entire liability of COGA Sound Inc. and the entire remedy of the purchaser for any breach of warranty as outlined above. Neither COGA Sound Inc. nor anyone involved in the production or delivery of the products shall be liable for any indirect, special, punitive, consequential, or incidental damages arising out of the use or inability to use the product even if COGA Sound, Inc. has been advised of the possibility of such damages. In no event shall the liability of COGA Sound Inc. exceed the purchase price of any defective product.

Register your COGA Sound Products at
www.cogasound.com/warranty

COGA SOUND

CUSTOMER SUPPORT

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