



# SEA-BIRD ELECTRONICS, INC.

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SBE P/N 60033

DATE	SYM	REVISION RECORD	AUTH	DR	CHK
04.99	A	Added parts, Instructions	MJ	DW	CEG
09.99	B	Added reference for SBE 44	MJ	MG	CEG
11.99	C	Corrected Cable mount instructions	MJ	RM	
11.03	D	Added screws and lock washers	CB	KLP	
2.04	E	Fixed Description for PN 30857	DB	KLP	

## Spare Hardware and O-Ring Kit For SBE 37 Modular Microcat and SBE 44 Slave Modem

### KIT CONTENTS

SBE P/N	Manufacturer P/N	Primary SBE Application	QTY
30149	Mach Screw, 6-32 x 5/8", PH SS	Secures Battery Retainer Plate	2
30243	Washer, #6 Split Ring Lock, SS	For Battery Retainer Plate Screw	2
30544	Mach screw, 8-32 x 1/2", FH, Ti	For Securing cell guard to housing	2
30357	Mach screw, 2-56 x 1/4", PH SS	Secure Battery Top board to Battery Pylon endplate	2
30633	Washer, 1/4" Split ring lock, Ti	For mounting clamps	4
30634	Washer, 1/4" flat, Ti	For mounting Clamps	4
30857	O-Ring, Parker 2-033E515-80	Battery Endcap O-Rings	2
30859	Mach Screw, 8-32 x 3/8", FH Ti	Secures Battery endcap to Housing	2
30900	Bolt, 1/4-20 x 2" Hex Ti	Secure mount clamps to Housing	2
30986	Washer, #2 Split Ring Lock, SS	Used with Battery top plate retaining screws	2
31019	O-ring, Parker, 2-008	Retains Mounting Hardware	4

### Removing and Replacing the Cable Mount Clamps

#### A. At the Connector Endcap End

1. Install the clamp onto the clamp mount.
  - a. Insert one lock washer (30633) and one flat washer (30634) onto each of the two bolts (30900).
  - b. Insert the screws from the flat side of the block.
  - c. Slide one o-ring (31019) onto each bolt.
  - d. Secure the clamp to the base with these bolts.
    - *The o-rings sit in internal countersinks on the blocks*

#### B. At the other Endcap

1. Install the hardware into the upper clamp part
  - a. Insert one lock washer (30633) and one flat washer (30634) onto each of the two bolts (30900).
  - b. Insert the screws from the flat side of the block.
  - c. Slide one o-ring (31019) onto each bolt.
  - d. Secure the clamp to the base with these bolts.
    - *The o-rings sit in internal countersinks on the blocks.*
2. Install the lower clamp part into the Microcat.
  - a. Lower clamp set into the endcap notch, and is secured with one screw (30860).
  - b. It is not necessary to use a lubricant; however DC-4 may be applied.

SBE DRAWING: 67063

TITLE: SBE 37 SM/IM Battery Pack Replacement

REV:

### Sea-Bird Electronics Procedure

PROCEDURE NUMBER: 67052

TITLE: **SBE 37 / SBE 44 Spare Hardware & O-Ring Kit**

REVISION: E

EFFECTIVE DATE: 2/06/2004

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3. Assemble the clamp parts.
  - a. Screw the upper part into the lower part.
  - b. It is not necessary to use a lubricant; however DC-4 may be applied.

### **Removing and Replacing Battery Endcap**

#### **A. Removing Microcat Endcap**

1. Remove the 2 titanium screws (30859) that secure the endcap to the housing.
2. Carefully pull the endcap free.
  - *Endcaps are often very difficult to remove.*
  - *You may want to wear gloves for a better grip.*
  - *Under NO CIRCUMSTANCES should you use any thing, especially anything metal, to pry the endcap off of the housing.*

#### **B. Re-Installing the Microcat Endcap**

1. Make sure the o-rings (30857) are properly lubricated, and don't show any signs of damage.
  - a. Replace any bad o-rings at this time.
  - b. Clean with a static-free wipe, and lubricate with a silicone based lubricant like Parker Super-O.
2. Slide the endcap carefully into the housing.
  - a. **DO NOT TILT OR OFFSET THE ENDCAP**, as it will bind during installation.
  - b. Make sure the screw holes on the endcap line up with the screw holes on the sensor guard.
3. Secure the endcap with the two Flathead titanium screws

### **Removing and Installing Battery Pack**

#### **A. Removing battery pack assembly from SBE 37**

1. Remove the larger, center screw (30149) and the lock washer (30243) from end of the battery pack, and set them aside with the endcap hardware.
2. Use the handle to slide the battery pack out of the Microcat housing.

#### **B. Re-Installing battery pack into the SBE 37**

1. Look inside the battery pack chamber to see how to align the pack.
2. Carefully slide the pack into the housing.
3. When the pack "bottoms out," make sure it is aligned properly, and that the pins on the underside of the pack are all firmly seated into the receiving plate in the housing.
4. Secure the pack with the remaining screw and lock washer.
5. Re-secure the endcap with the two titanium screws.

### **Installing and Replacing Batteries in the Pack**

#### **A. Remove cover plate.**

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1. Remove the two 2-56 screws (30357) and lock washers (30986) from cover plate, and set them aside with the others.
2. If there are no batteries installed, the plate will fall freely off of the pack. Otherwise, pull the plate free with your hand.

### **B. Install Batteries**

1. *If unit has previously been in service, it is a good idea to use the spare kit to replace the endcap o-rings.*
  - a. Always use a silicon-based lubricant on O-Rings.
    - *Never use petroleum-based lubricants.*
  - b. Always check O-Rings carefully for any damage.
    - *Never use O-Rings that show any signs of any damage at all.*
2. Batteries install with the pins being inserted into the lower plate (the part that is attached to the brass post).
3. Reinstall the upper retainer plate, making sure that all three of the screw holes in the board are aligned properly to the ones in the brass post.
4. Secure the assembly together with the two 2-56 screws and #2 lock washers.

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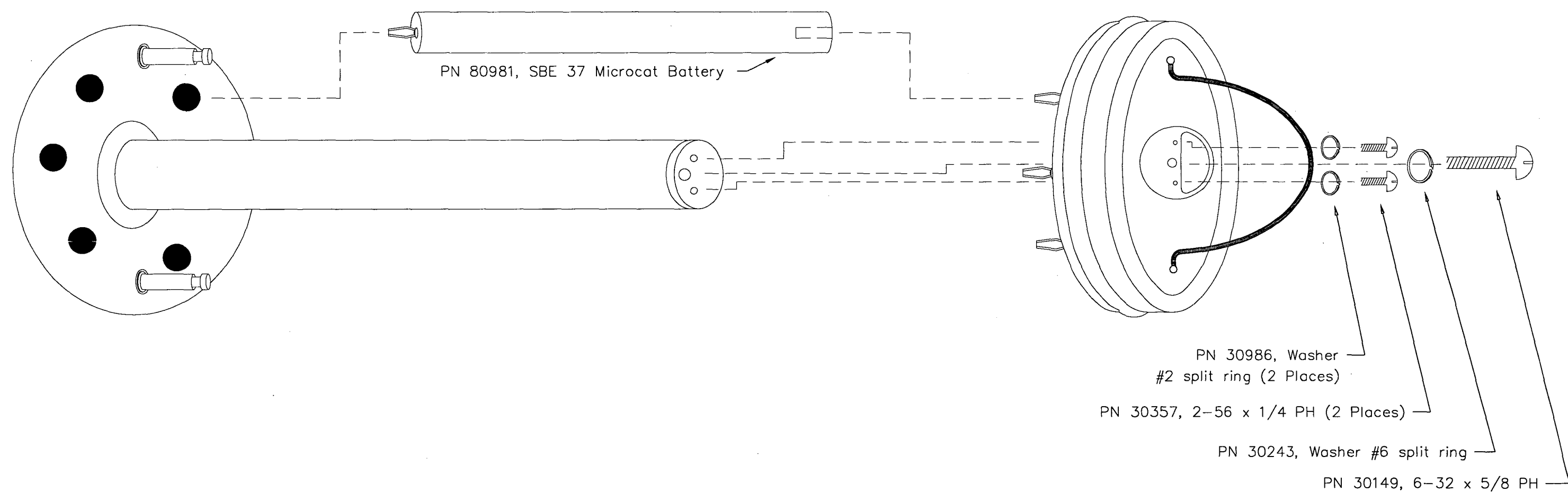
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DECIMAL	TITLE SBE 37 SM/IM Battery Pack Replacement				
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