



SEA -B I R D E L E C T R O N I C S, I N C.

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SBE P/N 60023.1

DATE	SYM	REVISION RECORD	AUTH	DR	CHK

SBE 37 SM/IM Spare Hardware and O-Ring Kit

KIT CONTENTS

SBE P/N	Manufacturer P/N	Primary SBE Application	QTY
30857	Parker, 2-033E515-70	Battery Endcap O-Rings	2
30149	Mach Screw, 6-32 x 5/8 PH SS	Secures Battery Retainer Plate	2
30633	Washer, 1/4" Split ring lock, Ti	For Mount Guard Hardware 30875	2
30859	Mach Screw, 8-32 x 3/8" FH Ti	Secures Sensor Guard to Housing	2
30875	Bolt, 1/4-20 x 5/8" Hex Ti	Secures Mount Guard to Housing	2

HARDWARE USAGE:

SBE Application	Manufacturer P/N	SBE P/N	QTY
Secures Battery Retainer Plate	Mach Screw, 6-32 x 5/8 PH SS	30149	2
For Mount Guard Hardware 30875	Washer, 1/4" Split ring lock, Ti	30633	2
Secures Sensor Guard to Housing	Mach Screw, 8-32 x 3/8" FH Ti	30859	2
Secures Mount Guard to Housing	Bolt, 1/4-20 x 5/8" Hex Ti	30875	2

O-RING USAGE:

SBE Application	Manufacturer P/N	SBE P/N	QTY
Battery Endcap O-Rings	Parker, 2-033E515-70	30857	2

Refer to Assembly Drawing 67063 for details.

Removing and Replacing Cable Mount Guards

1. Remove and set aside bolts (30875) and lock washers (30633) from cable mount guard.
2. **SM Microcats:**
 - a. Guard will pivot loose and be able to be removed.
 - b. To re-install guard, simply hook it onto the pivots, and move it back into place.
 - c. Finally, you will replace the same bolts and lock washers, or use new ones if needed.
3. **IM Microcats:**
 - a. You will need to use a screwdriver or similar tool to push free the latch fingers.
 - b. Guard will now pivot loose and be able to be removed.
 - c. To re-install guard, hook it onto the pivots, and press on other end until latch fingers snap into place. *You may need to use a tool to snap them back.*
 - d. Finally, you will replace the same bolts and lock washers, or use new ones if needed.

Removing and Replacing Battery Endcap

A. Removing Microcat Endcap

1. Remove the 2 titanium screws (30859) that secure endcap to sensor guard.
2. Carefully pull endcap free. *You may want to wear gloves.*
3. *Endcaps are often very difficult to remove. Under NO CIRCUMSTANCES should you attempt to use any metal tools to pry the endcap off of the housing.*

SBE DRAWING: 67063

TITLE: SBE 37 SM/IM Battery Pack Replacement

REV:

Sea-Bird Electronics Procedure

PROCEDURE NUMBER: 67063

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

REVISION:

EFFECTIVE DATE: 11/20/2002

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B. Re-Installing the Microcat Endcap

1. Make sure O-Rings (30857) are lubricated properly, and show no signs of any wear at all.
2. Replace any bad O-Rings now.
3. Slide endcap carefully onto housing.
 - a. *DO NOT TILT OR OFFSET ENDCAP, as it will bind.*
 - b. Make sure screw holes on endcap line up with screw holes on sensor guard.
4. Secure 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 lock washer (30243) from end of battery pack, and set them aside with the endcap hardware.
2. Use handle to slide battery pack out of Microcat housing.

B. Re-Installing battery pack into SBE 37

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

Installing and Replacing Batteries in the Pack

A. Remove cover plate.

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

B. Install Batteries

1. *If unit has previously been in service, it is a good idea to use the spare kit (60023 / 60023.1) to replace the endcap o-rings.*
 - a. Always use silicon-based lubricant on O-Rings.
 - b. Always check O-Rings carefully for any damage.
 - c. *Never use petroleum-based lubricants.*
 - d. *Never use O-Rings that show any signs of any damage at all.*
2. Batteries install with pins being inserted into the lower plate (part attached to the brass post.)
3. Reinstall upper retainer plate, making sure that all 3 screw holes are aligned properly.
4. Secure assembly with the 2 2-56 screws and lock washers.

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TITLE: SBE 37 SM/IM Battery Pack Replacement

REV:

Sea-Bird Electronics Procedure

PROCEDURE NUMBER: **67063**

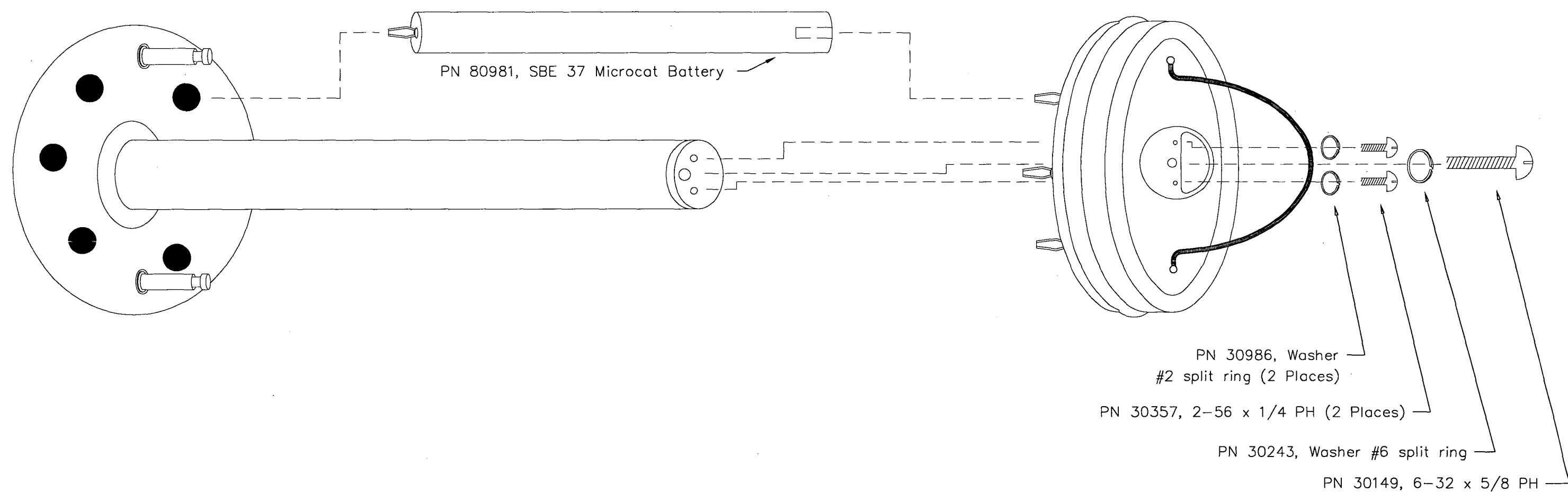
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TOLERANCES	SEA-BIRD ELECTRONICS, INC				
FRACTIONAL	P/N 801112/801122	SCALE N.T.S.	DRAWN BY MJ		APPROVED BY
DECIMAL	TITLE SBE 37 SM/IM Battery Pack Replacement				
ANGULAR	DATE 02.02.99	DRAWING NUMBER 67063	REV		