



# SEA-BIRD ELECTRONICS, INC.

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SBE P/N 60055

DATE	SYM	REVISION RECORD	AUTH	DR	CHK

## Spare Hardware and O-ring Kit for SBE 37 IM V3

### KIT CONTENTS

SBE P/N	Manufacturer P/N	Primary SBE Application	QTY
30633	Washer, 1/4" Split Ring Lock, Titanium	Secures guide to modem endcap	2
30634	Washer, 1/4" Flat, Titanium	Secures guide to modem endcap	2
30857	O-ring, Parker 2-033E515-80	Battery endcap O-rings	2
30858	O-ring, Parker 2-133 N674-70	Battery pack endcap O-ring	1
30867	Washer, #6 Split Ring Lock, Ti	Secures clamp to sensor endcap	1
30900	Bolt, 1/4-20 x 2" Hex, Ti	Secures guide to modem endcap	2
31019	O-ring, Parker 2-008 N674-70	Retains bolt to clamp/guide	2
31020	Screw, 4-40 x 1", Flat Hd, SS	Secures guides to guide base/cap	4
31089	Screw, 10-32 x 1/2" FH Philips, Titanium	Secures cell guard to housing	2
31118	Screw, 10-32 x 3/8 FH Philips, Titanium	Secures cell guard to sensor endcap	2
31322	O-ring, Parker 2-130 N674-70	Battery pack housing O-rings	2
31516	Hex Key, 9/64" Long Arm, DoALL AHT58010	Tool for servicing battery endcap	1
31749	Hex Key, 7/64" Long Arm, DoALL BDH12106	Tool for servicing battery pack and clamps	1
31755	Cap Screw, 8-32 x 1/4" SH, Titanium	Secures battery endcap to housing	2
31873	Cap Screw, 6-32 x 3/4" Socket Head, Ti	Secures clamp to sensor endcap	1

## Removing and Replacing the Cable Mount Clamps

### A. At the Sensor Endcap End

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 lower clamp part onto Microcat
  - a. Lower clamp seats into endcap notch, and is secured with one cap screw (31873) and one lock washer (30867) using a 7/64 hex key (31749).
  - b. It is not necessary to use lubricant. DC-4 may be applied.
3. Assemble clamp parts
  - a. Screw upper part into lower part.
  - b. It is not necessary to use lubricant. DC-4 may be applied.

SBE DRAWING:

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### Sea-Bird Electronics Procedure

PROCEDURE NUMBER: 67209

TITLE: SBE 37IM V3 Spare Hardware & O-ring Kit

REVISION:

EFFECTIVE DATE: 03/09/2011

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### **B. At the Modem Endcap End**

1. Install the cap guide
  - a. Insert one lock washer (30633) and one flat washer (30634) onto two bolts (30900).
  - b. Insert the bolts from the flat side of the cap.
  - c. Slide one O-ring (31019) onto each bolt.
  - d. Secure cap to modem endcap using the bolts.
    - *The o-rings sit in internal countersinks on the blocks.*

### **Removing and Replacing Modem Endcap**

### **C. Removing Microcat Modem Endcap**

1. Remove the 2 titanium screws (31755) that secure the endcap to the housing using a 9/64 hex key (31516).
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.*

### **D. Re-Installing the Microcat Modem 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 titanium cap screws

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

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

1. Unscrew the cap screw in the center of the battery pack using a 7/64" hex key (31749).
2. Use handle to slide battery pack out of housing.

### **B. Re-Installing battery pack into 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 housing.
4. Secure the pack with the cap screw in the center of the battery pack.
5. Re-secure the endcap with the two titanium screws.

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

#### **A. Install the Batteries**

1. Unscrew the battery pack end cap using a 7/64 hex key (31749) and set it aside.
2. If unit has previously been in service, it is a good idea to use the spare kit to replace the endcap (30858) and housing (31322) o-rings.
  - *Always check the o-rings carefully for any damage and replace any that are worn.*
  - *Never use an o-ring that shows any signs of any damage.*
  - *Lubricant is not required for any of the o-rings on the battery pack.*
3. Install the batteries one-by-one into the slots in the battery pack.
  - *Insert the batteries into each slot per the stickers on the battery pack housing.*
  - *Note that the orientation of the batteries alternates from slot to slot.*
4. Mate the brass alignment pin on the battery pack endcap with the hole in the battery pack housing.
5. Gently screw the end cap into the housing using the handle.
6. Tighten the endcap down using a 7/64" hex key (31749).

### **Replacing Anti-foulant Devices**

#### **A. Replace the Anti-foulant Devices**

1. Unscrew the 2 screws (31089) that secure the cell guard to the housing and the 2 screws (31118) that secure the cell guard to the sensor endcap using a Philips head screwdriver.
2. Carefully pull the cell guard off of the Microcat and set aside.
3. Replace the anti-foulant devices.
4. Put the cell guard back on the Microcat.
5. Coat the threads of the 4 screws with Never-seez and use them to secure the cell guard to the housing and sensor endcap.

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