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SBE P/N 60055

DATE	REV	REVISION RECORD	AUTH	DR	CHK
8-2013	A	Added Air Bleed Wire & Cell Sticker	AD	AD	CB

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

KIT CONTENTS

SBE P/N	Description	Primary SBE Application	QTY
30633	Washer, ¼" Split Ring Lock, Titanium	Secures guide to modem end cap	2
30634	Washer, ¼" Flat, Titanium	Secures guide to modem end cap	2
30857	O-ring, Parker 2-033E515-80	Battery end cap O-rings	2
30858	O-ring, Parker 2-133 N674-70	Battery pack end cap O-ring	1
30867	Washer, #6 Split Ring Lock, Ti	Secures clamp to sensor end cap	1
30900	Bolt, ¼-20 x 2" Hex, Ti	Secures guide to modem end cap	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 ½" FH Philips, Titanium	Secures cell guard to housing	2
31118	Screw, 10-32 x 3/8 FH Philips, Titanium	Secures cell guard to sensor end cap	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 end cap	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 end cap to housing	2
31873	Cap Screw, 6-32 x ¾" Socket Head, Ti	Secures clamp to sensor end cap	1
311281	SBE 37P Removable Shipping Sticker	Close the ends of the cell for storage	1
Cleaning Wire	Air Bleed Valve Wire Kit (6" P/N 311276, P/N 31414 & P/N 31862)	Bagged air bleed Valve Wire for clearing bleed Valve	1

Removing and Replacing the Cable Mount Clamps

A. At the Sensor End cap 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 end cap 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:

TITLE:

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B. At the Modem End cap 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 end cap using the bolts.
      - *The o-rings sit in internal countersinks on the blocks.*

Removing and Replacing Modem End cap

C. Removing MicroCAT Modem End cap
1. Remove the 2 titanium screws (31755) that secure the end cap to the housing using a 9/64 hex key (31516).
2. Carefully pull the end cap free.
   - *End caps 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 end cap off of the housing.*

D. Re-Installing the MicroCAT Modem End cap
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 end cap carefully into the housing.
   a. DO NOT TILT OR OFFSET THE END CAP, as it will bind during installation.
   b. Make sure the screw holes on the end cap line up with the screw holes on the sensor guard.
3. Secure the end cap 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 end cap 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 end cap (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 end cap with the hole in the battery pack housing.
5. Gently screw the end cap into the housing using the handle.
6. Tighten the end cap down using a 7/64" hex key (31749).

Replacing Anti-foulant Devices

> **WARNING!**
> **AF24173 Anti-Foulant Devices contain bis(tributyltin) oxide. Handle the devices only with rubber or latex gloves. Wear eye protection. Wash with soap and water after handling.**
>
> **Read precautionary information on product label before proceeding.**
>
> **It is a violation of US Federal Law to use this product in a manner inconsistent with its labeling.**

A. Replace the Anti-foulant Devices (Not Included in the Kit)

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 end cap 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 end cap.
6. If the unit is going to put into storage affix a P/N 311281Removable Shipping Sticker to the cell guard covering the two holes for the conductivity cell intake and exhaust.

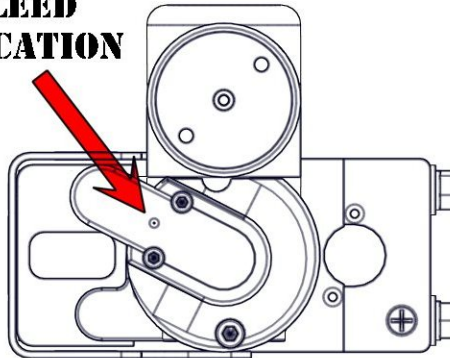| SBE DRAWING:	**Sea-Bird Electronics Procedure**
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Cleaning the Air Bleed Hole

The internal pumped plumbing system on this SBE37 MicroCAT contains an air bleed valve hole. This hole must be open and clean if the instrument is deployed with the air bleed valve pointed towards the surface. If necessary, before deployment, clean the hole by inserting a 0.016" (AWG #26) OD wire ½" into the hole and by spraying water into it.

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