



# SEA-BIRD ELECTRONICS, INC.

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SBE P/N 50288/50288.1

DATE	SYM	REVISION RECORD	AUTH	DR	CHK
06.03	B	PN 231071 Usage revised	DB	MJ	
09.04	C	Added AF24173 Anti-Foulant Cylinders	DB	MJ	
09.04	D	AF24173 is Optional	MJ	KH	
09.06	E	Update AF24173 Part Number	MJ	CB	
11.9.11	F	Removed temp probe retainer	CB	PC	

## SBE19plus Moored Mode Conversion Kit w/ or w/o Anti-Foulant

### Kit Contents

SBE P/N	Description	Primary SBE Application	QTY
231071	Anti-Foulant Device Cap, with Barb	For both ports, when pump is installed	2
231505	Anti-Foulant Device Cap, No Barb	For exhaust port, when no pump is installed	1
231863	SeacatPLUS TC-Duct/ Anti-Foulant Device Cup	For use when AF24173 Anti-Foulant Devices are installed	1
231864	SeacatPLUS Exhaust/ Anti-Foulant Device Cup	For use when AF24173 Anti-Foulant Devices are installed	1
801542*	AF24173 Anti-Foulant Device	Anti-Foulant cylinders installed in cup parts	1 pair

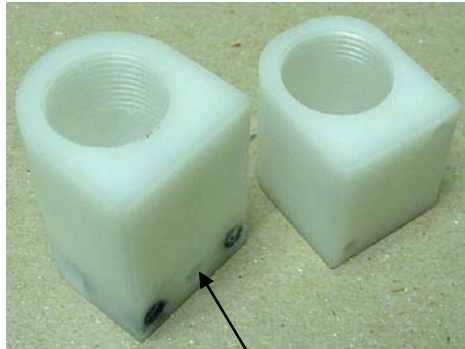
\*optional item

The SBE 19plus is intended primarily for use as a profiling instrument, and does not come standard with anti-foulant device cups and caps. Some customers, finding that they are using the 19plus in moored mode on occasion, choose to install anti-foulant device cups and caps. This procedure addresses retrofitting a 19plus with anti-foulant device cups and caps.

**Note:** This procedure can also be used to replace existing anti-foulant device cups and caps on an SBE 16plus.

Intake anti-foulant device cup

Exhaust anti-foulant device cup



Hole for thermistor

Exhaust anti-foulant device cap (barbed) for pumped applications



Intake anti-foulant device cap for all applications and exhaust cap for non-pumped applications



**Note:**

- The larger diameter of the intake cap / exhaust cap for non-pumped applications helps maintain good flow through the conductivity cell and reduces growth of biological material. Do not use the barbed cap in its place.

SBE DRAWING: 67114D, imbedded photos

TITLE: SeacatPLUS Moored Mode Conversion Kit

REV:

### Sea-Bird Electronics Procedure

PROCEDURE NUMBER: 67114

TITLE: **SBE PN 50288, SeacatPLUS Moored Mode Kit**

REVISION: F

EFFECTIVE DATE: 11/09/2011

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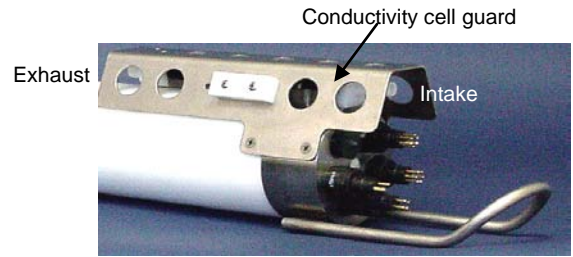
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1) On pumped applications, remove the Tygon tubing from the existing conductivity cell exhaust duct. When there is not a pump, an Anti-Foulant Dummy #231515 must be used or the kit shall not be used at all.

2) Remove the four Phillips-head screws attaching the conductivity cell guard to the housing and end cap. Remove the conductivity cell guard.



### 3) Exhaust

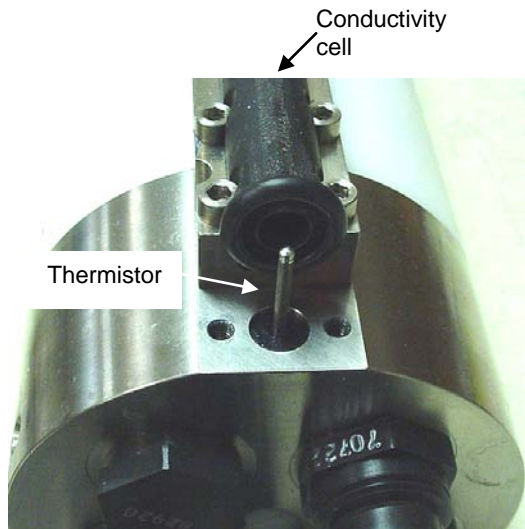
- a) On the conductivity cell guard, remove the two small screws attaching the exhaust duct to the guard.
- b) Remove the existing exhaust duct and replace with the exhaust anti-foulant device cup, reinstalling the two screws.
- c) See the SBE 19*plus* or 16*plus* manual (as applicable) for details on handling and installing the AF24173 Anti-Foulant Device.
- d) Install the anti-foulant device cap to secure the Anti-Foulant Device in the cup.



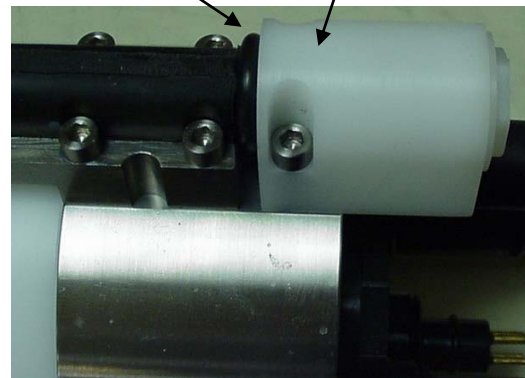
Exhaust anti-foulant device cup

### 4) Intake

- a) Remove the two hex head screws attaching the existing intake duct to the end cap.
- b) Remove the existing intake duct, pulling it straight up to avoid damaging the thermistor.
- c) Check to ensure that the o-ring at the end of the conductivity cell is still in place.
- d) Place the intake anti-foulant device cup over the thermistor and reinstall the hex head screws.
- e) See the SBE 19*plus* or 16*plus* manual (as applicable) for details on handling and installing the AF24173 Anti-Foulant Device, or dummy.
- f) Install the anti-foulant device cap to secure the Anti-Foulant Device in the cup.



O-ring (typical both ends of conductivity cell) Intake anti-foulant device cup



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PROCEDURE NUMBER: 67114

TITLE: **SBE PN 50288, SeacatPLUS Moored Mode Kit**

REVISION: F

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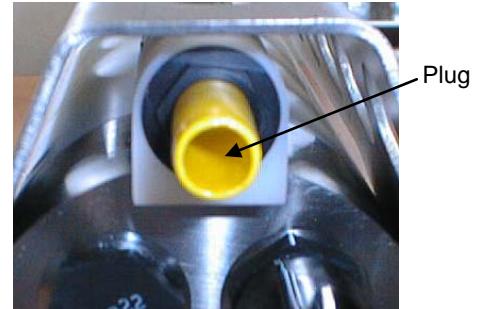
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- 5) Check the exhaust end of the conductivity cell to ensure that the o-ring is still in place.
- 6) Reinstall the conductivity cell guard on the housing and end cap using the four Phillips-head screws.

- 7) If not deploying immediately, install a protective plug:  
In the intake cap, and  
(for a non-pumped application) In the exhaust cap.



- 8) (for a pumped application) Reconnect the plumbing to the exhaust. Note that the barbed exhaust cap has a smaller diameter than the standard exhaust cap on the SBE 19*plus* (which does not accommodate Anti-Foulant Devices). When reconnecting the plumbing, place a 25 mm (1/2 inch) long piece of Tygon tubing, 9.5 mm (0.375 inch) ID, 1.59 mm (0.0625 inch) wall on the barbed cap. Then install the existing plumbing over the Tygon.

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REV:

### **Sea-Bird Electronics Procedure**

PROCEDURE NUMBER: **67114**

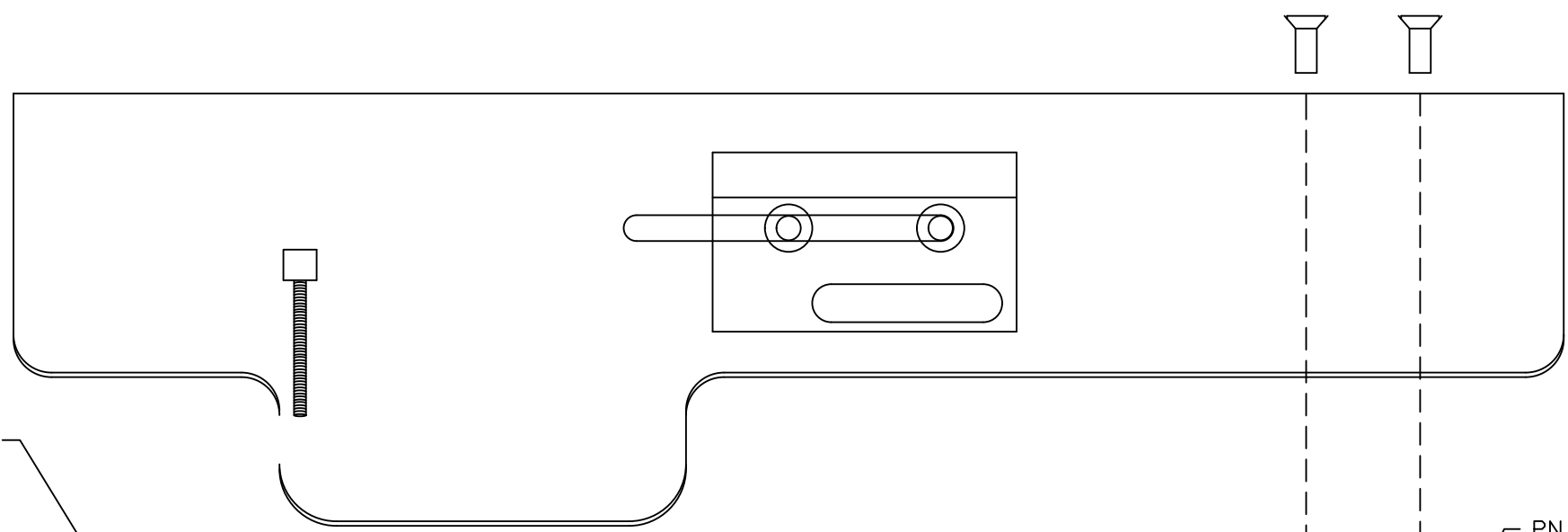
TITLE: **SBE PN 50288, SeacatPLUS Moored Mode Kit**

REVISION: **F**

EFFECTIVE DATE: **11/09/2011**

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Date	Rev	Description	Auth.	DR.	CK.
06.03	B	CORRECT DEVICE CAPS	DB	MJ	
07.23.07	C	ECN1111: BLACK ACETAL PARTS	CB	PC	
11.10.11	D	REMOVE TMP PROBE RETAINER	CB	PC	



PN 231790, SeacatPLUS  
TC Duct

PN 233544, TC Duct,  
Anti-Foulant Device  
Cup, Black

PN 233540,  
Anti-Foulant Device Cap,  
No Barb, Black

PN 231791, SeacatPLUS  
EXHAUST DUCT

NO PUMP, NO AF24173 Anti-Foulant Devices  
INSTALL NOTHING

PUMP, NO AF24173 Anti-Foulant Devices  
INSTALL 231791 ONLY

NO PUMP, WITH AF24173 Anti-Foulant Devices  
INSTALL 233545 & 233540

PUMP, WITH AF24173 Anti-Foulant Devices  
INSTALL 233545, 233538

NO PUMP, NO AF24173 Anti-Foulant Devices  
INSTALL NOTHING

PUMP, NO AF24173 Anti-Foulant Devices  
INSTALL 231790 ONLY

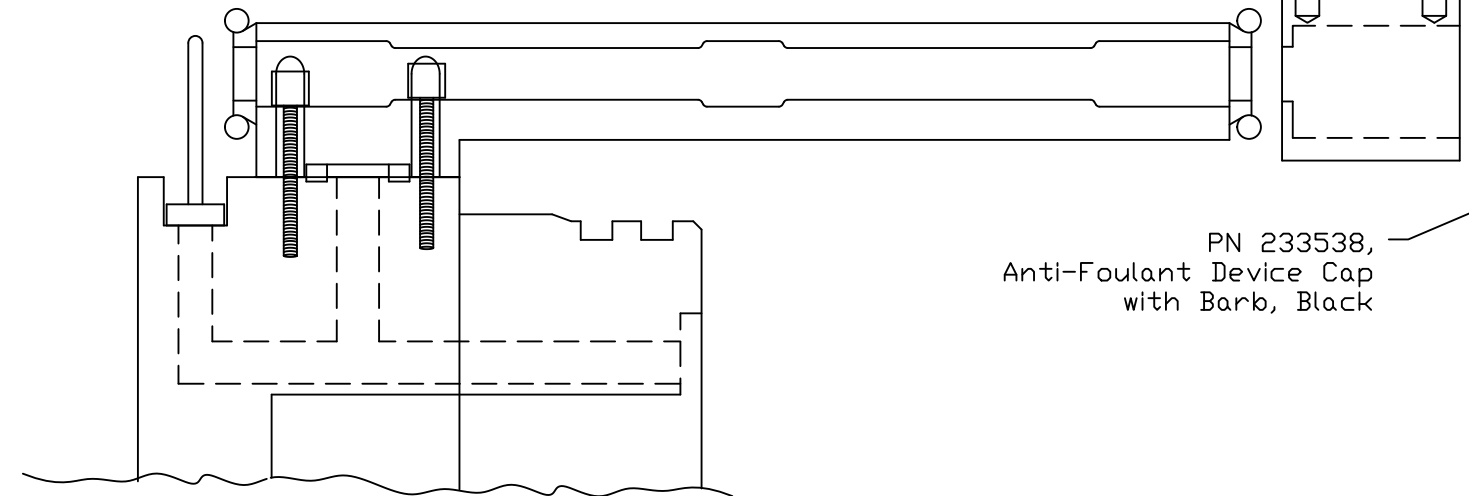
NO PUMP, WITH AF24173 Anti-Foulant Devices  
INSTALL 233544, 233540

PUMP, WITH AF24173 Anti-Foulant Devices  
INSTALL 233544 233540

PN 233545, SeacatPLUS  
Exhaust Duct, Anti-Foulant  
Device Cup, Black

PN 233540,  
Anti-Foulant Device Cap,  
No Barb, Black

PN 233538,  
Anti-Foulant Device Cap  
with Barb, Black



TOLERANCES	SEA-BIRD ELECTRONICS, INC				
FRACTIONAL	P/N	50288	SCALE	DRAWN BY MJ	
			N.T.S.	APPROVED BY	
DECIMAL	TITLE SeacatPlus Moored Mode Sensor Endcap Conversion Kit				
ANGULAR	DATE	07.12.01	DRAWING NUMBER	67114	REV D