

**Sea-Bird Electronics, Inc.**13431 NE 20th Street
Bellevue, WA 98005 United States

Phone

+1-425-643-9866

www.seabird.com

*(Do Not Send Payments To This Physical Address – See Remit to Information)***SERVICE REPORT****Service Request****1005516730****Date**

20-SEP-2023

Sales Order

320686004

CUSTOMER INFORMATIONName: NOAA - AMOL ATLANTIC OCEANOGRAPHIC and METEOROLOGICAL
LAB

PO Number:

Account : 40279759

1333MJ22FNRMA0011

GRANT RAWSON

GRANT.RAWSON@NOAA.GOV

(305) 361-4363

Bill To AddressNOAA - AMOL ATLANTIC OCEANOGRAPHIC and
METEOROLOGICAL LAB
4301 RICKENBACKER CAUSEWAY
MIAMI,FL,33149,US**Ship To Address**NOAA - AMOL ATLANTIC OCEANOGRAPHIC and
METEOROLOGICAL LAB
4301 RICKENBACKER CAUSEWAY
MIAMI,FL,33149,US**PRODUCT INFORMATION****Item:** 03P.LEGACY**Item Description:** (LEGACY) SBE 03Plus Temperature Sensor**Serial:** 03P2946**Special Notes**

Services Requested:

CAL_3

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|-------|---|-----|
| CAL_3 | SBE 3 Temperature sensor calibration; 11 points -1 to 31deg.C | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
| | | |



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PRODUCT INFORMATION

Item: 03F.LEGACY

Item Description: (LEGACY) SBE 03F Temperature Sensor

Serial: 031652

Special Notes

Services Requested:

CAL_3

Problems Found:

The temperature was found to have excessive drift and the probe requires replacement.

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

Replaced the temperature probe. *

Replaced the O-rings.

Performed a hydrostatic pressure test.

Performed a "Final" Calibration.

* The order has already been quoted and this was replaced at no charge.

| Item | Item Description | Qty |
|-------|---|-----|
| CAL_3 | SBE 3 Temperature sensor calibration; 11 points -1 to 31deg.C | 1 |

Unbilled Items

| Item | Item Description | Qty |
|--------|---|-----|
| 80004 | FAST TEMP 70 MS THERMISTOR PROBE ASSEMBLY | 1 |
| 30806 | L-SEAL, LS021 | 1 |
| 231004 | BACKUP RING FOR LS021 L-SEAL /DWG 21017B | 1 |



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PRODUCT INFORMATION

Item: 03P.LEGACY

Item Description: (LEGACY) SBE 03Plus Temperature Sensor

Serial: 03P4799

Special Notes

Services Requested:

CAL_3

Problems Found:

Temp probe found to have high drift; replacement needed.

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

Replaced the temperature probe.

Replaced the O-rings.

Performed a hydrostatic pressure test.

Performed a "Final" Calibration.

| Item | Item Description | Qty |
|-----------|---|-----|
| CAL_3 | SBE 3 Temperature sensor calibration; 11 points -1 to 31deg.C | 1 |
| CONCERT/S | Confirm and recertify sensor including opening the main housing, replacing end cap "piston" o-rings, and making minor internal repairs or modifications. Hydrostatic pressure test following closure. Cost of major repairs or modifications is not included. | 1 |
| REP3PROB | Replace SBE 3 thermistor probe | 1 |

Unbilled Items

| Item | Item Description | Qty |
|-------|---|-----|
| 80004 | FAST TEMP 70 MS THERMISTOR PROBE ASSEMBLY | 1 |



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PRODUCT INFORMATION

Item: 03P.LEGACY

Item Description: (LEGACY) SBE 03Plus Temperature Sensor

Serial: 03P2958

Special Notes

Services Requested:

CAL_3

Problems Found:

Probe found to have high drift; replacement needed.

Problems Found:

The temperature was found to have excessive drift.

The temperature probe will need to be replaced.

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

Replaced the temperature probe.

Replaced the O-rings.

Performed a hydrostatic pressure test.

Performed a "Final" Calibration.

| Item | Item Description | Qty |
|-----------|---|-----|
| CAL_3 | SBE 3 Temperature sensor calibration; 11 points -1 to 31deg.C | 1 |
| CONCERT/S | Confirm and recertify sensor including opening the main housing, replacing end cap "piston" o-rings, and making minor internal repairs or modifications. Hydrostatic pressure test following closure. Cost of major repairs or modifications is not included. | 1 |
| REP3PROB | Replace SBE 3 thermistor probe | 1 |

Unbilled Items

| Item | Item Description | Qty |
|-------|---|-----|
| 80004 | FAST TEMP 70 MS THERMISTOR PROBE ASSEMBLY | 1 |



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PRODUCT INFORMATION

Item: 04C.LEGACY

Item Description: (LEGACY) SBE 04C Conductivity Sensor

Serial: 043657

Special Notes

Services Requested:

CAL_4C

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_4C | SBE 4C Conductivity Calibration for CTD sensors (includes 6-point 35 PSU post deployment cal., and C&P with 6-point 35 PSU re-cal, if necessary) | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
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PRODUCT INFORMATION

Item: 04C.LEGACY

Item Description: (LEGACY) SBE 04C Conductivity Sensor

Serial: 043833

Special Notes

Services Requested:

CAL_4C

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_4C | SBE 4C Conductivity Calibration for CTD sensors (includes 6-point 35 PSU post deployment cal., and C&P with 6-point 35 PSU re-cal, if necessary) | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
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PRODUCT INFORMATION

Item: 04C.LEGACY

Item Description: (LEGACY) SBE 04C Conductivity Sensor

Serial: 043858

Special Notes

Services Requested:

CAL_4C

Problems Found:

The electronic board was found to have failed.

Services Performed:

Perform initial diagnostic evaluation.

Replaced the electronic board set. *

Replaced the O-rings.

Performed a hydrostatic pressure test.

Performed a "Final" Calibration.

* Order was already quoted and this was replaced at no charge.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_4C | SBE 4C Conductivity Calibration for CTD sensors (includes 6-point 35 PSU post deployment cal., and C&P with 6-point 35 PSU re-cal, if necessary) | 1 |

Unbilled Items

| Item | Item Description | Qty |
|--------|---|-----|
| 80994T | SBE-4 (ver. 2) conductivity electronics | 1 |



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PRODUCT INFORMATION

Item: 04C.LEGACY

Item Description: (LEGACY) SBE 04C Conductivity Sensor

Serial: 043860

Special Notes

Services Requested:

CAL_4C

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_4C | SBE 4C Conductivity Calibration for CTD sensors (includes 6-point 35 PSU post deployment cal., and C&P with 6-point 35 PSU re-cal, if necessary) | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
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PRODUCT INFORMATION

Item: 43.LEGACY

Item Description: (LEGACY) SBE 43 Oxygen Sensor

Serial: 432040

Special Notes

Services Requested:

CAL_43

Problems Found:

Sensor was reading 0.013V and requires a full refurbishment.

Services Performed:

Perform initial diagnostic evaluation.

Replaced the SBE 43 Anode sub assembly.

Replaced the SBE 43 Getter sub assembly.

Replaced the lid and membrane assembly (0.5 mil).

Replaced the electrolyte with new fluid.

Replaced the electronic board set.

Replaced the O-rings.

Performed a hydrostatic pressure test.

Performed a "Final" Calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_43 | SBE 43 dissolved oxygen sensor calibration | 1 |

Unbilled Items

| Item | Item Description | Qty |
|--------|---|-----|
| 41099T | TESTED SBE43 OXYGEN INTERFACE | 1 |
| 801576 | SBE43 LID & MEMBRANE SUB-ASSY, .5MIL MEMBRANE | 1 |
| 801230 | SBE43 ANODE SUB-ASSEMBLY / DWG 41092 | 1 |
| 801229 | SBE43 GETTER SUB-ASSEMBLY / DWG 41091 | 1 |



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PRODUCT INFORMATION

Item: 43.LEGACY

Item Description: (LEGACY) SBE 43 Oxygen Sensor

Serial: 432712

Special Notes

Services Requested:

CAL_43

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_43 | SBE 43 dissolved oxygen sensor calibration | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
| | | |



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PRODUCT INFORMATION

Item: 43.LEGACY

Item Description: (LEGACY) SBE 43 Oxygen Sensor

Serial: 43-2942

Special Notes

Services Requested:

CAL_43

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_43 | SBE 43 dissolved oxygen sensor calibration | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
| | | |



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PRODUCT INFORMATION

Item: 43.LEGACY

Item Description: (LEGACY) SBE 43 Oxygen Sensor

Serial: 431266

Special Notes

Services Requested:

CAL_43

Services Performed:

Perform initial diagnostic evaluation.

Performed "POST" cruise calibration.

| Item | Item Description | Qty |
|--------|--|-----|
| CAL_43 | SBE 43 dissolved oxygen sensor calibration | 1 |

Unbilled Items

| Item | Item Description | Qty |
|------|------------------|-----|
| | | |