SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington 98005 USA
Telephone: (425) 643-9866   Telex: 292915 SBEI UR
Fax: (425) 643-9954   email: seabird@seabird.com

SBE P/N 50194

DATE	REV	REVISION RECORD	AUTH	DR	CHK
9.23.04	A	Changed hose clamp	CB	KLP	

SBE9plus to C-Star XMISS Mount Kit

KIT CONTENTS

SBE P/N	Manufacturer P/N	Primary SBE Application	QTY
231126	SBE19 C-Star Xmiss Mount Block	Used with hose clamps to secure C-Star to CTD	2
30409	Tape, .010 x 1" Natural (Teflon)	Teflon tape used to electrically insulate hose clamps	2'
30423	Bolt, 1/4-20 x 1-1/2 Socket SS	Bolts used to tighten mount blocks onto Xmiss	2
31338	Hose Clamp, AWAB 316 SS, #88	Used with Mount Blocks to secure Xmiss to CTD	2

Instructions

A. Installing Teflon Tape On Hose Clamps
1. Hose clamps should have a layer of Teflon tape on the inside. This will insulate against any unlike metal contact.
2. Cut Teflon tape to about 2"-3" shorter than inside dimension of the hose clamp.
3. Clean inside of hose clamps with alcohol, and apply the tape.
   a. You may press against the tape to keep it aligned.
   b. You may also peal it back off to correct as you go.
4. Use a sharp blade to cut a notch next to the clamp area.
5. Remove any tape hanging over the edge of the hose clamps, leaving a small flap to protect the clamp.

B. Install C-Star onto Mount Blocks
1. Install one bolt (30423) into each mount block. Thread the bolt in most of the way, but do not allow bolt to tighten the mount block at all.
2. Arrange mount blocks such that notched hose clamp shelves face toward each other, which is toward the center of the C-Star.
3. Slide one mount block over each end about 1/2 way along the length of the thicker portion of the transmissometer.
4. Lay C-Star / mount block assembly next to CTD to make sure that the mount blocks will have a place to fit against its housing.
5. Secure C-Star into mount blocks by tightening the mount block bolts.
   a. This bolt needs to be tight in order to insure that C-Star cannot work itself loose.
   b. Bolts into celcon are tricky, because overtightening them can cause the celcon to strip.
   c. You may prefer to use Loctite to assist in this bond. Sea-Bird recommends Loctite 425 for Plastics.

SBE DRAWING: 67098

TITLE: SBE9plus to C-Star Xmiss Mount Kit Assembly

Sea-Bird Electronics Procedure
PROCEDURE NUMBER: **67098**
TITLE: **SBE9plus to C-Star Xmiss Mount Kit**
REVISION: **A**
EFFECTIVE DATE: **9/23/2004**
CHECKED BY: __KLP__   PAGE 1 of 2

C. Installing C-Star / Mount Block Assembly onto CTD
1. Line up C-Star against housing in the manner you previously determined.
   a. There is no absolute position for the C-Star to be installed.
   b. Sea-Bird recommends installing external sensors onto the housings of SBE9plus or SBE16/19 CTD, and onto the cage for SBE25 CTDs.
   c. The final position of the C-Star will depend on space available, current configuration of the plumbing, and reconfiguration needs of the plumbing.
2. Open up the hose clamps as wide as you need in order to fit them over the CTD housing and the mount blocks.
   a. Make sure that Teflon tape is in place before proceeding.
   b. Install hose clamps over mount block shelves and tighten.
      - *These clamps will need to be as tight as you can get them using only hand tools.*
      - *Never use any power tools to assemble or disassemble any Sea-Bird equipment, as hardware threading is often easy to damage.*
3. Before you tighten the hose clamps completely, make sure that the C-Star is positioned how you want it.
4. Go ahead and secure the hose clamps the rest of the way.

D. Re-plumbing the CTD System
1. If you are not using a flow tube
   a. There is no additional plumbing required for use of C-Stars without flow chambers.
   b. Look over the system once more to make sure that no cables or plumbing interferes with any other aspects of the system.
   c. Configuration should be complete at this point.
2. If you are using a flow tube
   a. Plumbing will need to be routed through the flow tube.
   b. Sea-Bird does not have exact specifications for the best way to make this work.
   c. In general, you want your flow inside the plumbing to be as direct and even as possible. It is not recommended to remove the air bleed in order to make flow move separately through the tubing.
   d. Rather, you want your tubing to produce a direct, unidirectional path for the water to move.
   e. Sea-Bird has photography available of many configurations. If you have further questions, please direct them toward the Sea-Bird Customer service department.

SBE DRAWING: 67098

TITLE: SBE9plus to C-Star Xmiss Mount Kit Assembly

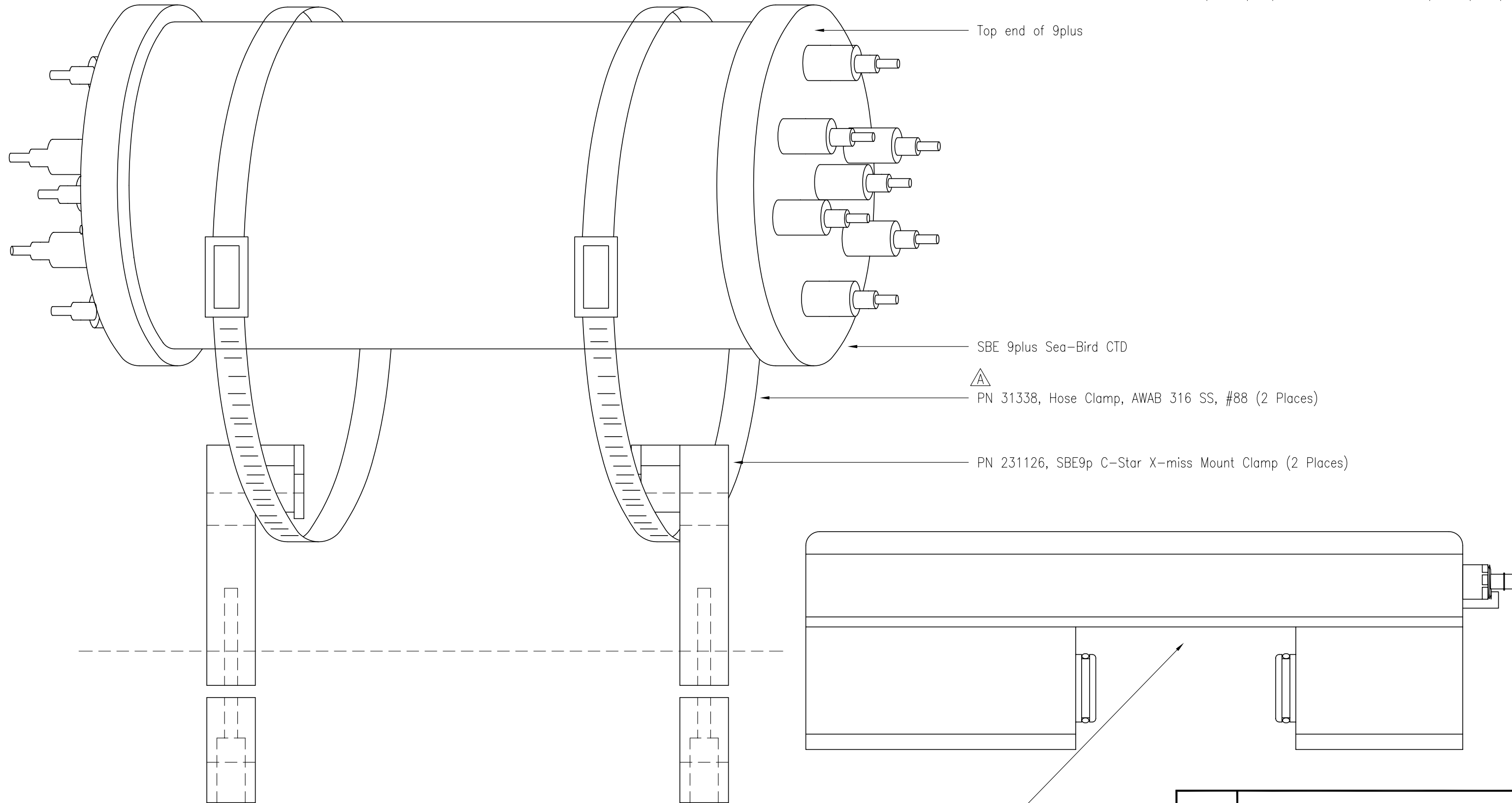**Sea-Bird Electronics Procedure**
PROCEDURE NUMBER: **67098**
TITLE: **SBE9plus to C-Star Xmiss Mount Kit**
REVISION: **A**
EFFECTIVE DATE: **9/23/2004**
CHECKED BY: KLP   PAGE 2 of 2

Top end of 9plus

SBE 9plus Sea-Bird CTD

⚠ PN 31338, Hose Clamp, AWAB 316 SS, #88 (2 Places)

PN 231126, SBE9p C-Star X-miss Mount Clamp (2 Places)

PN VARIES, C-Star Transmissometer