



## SEA-BIRD ELECTRONICS, INC.

13431 NE 20th Street, Bellevue, Washington 98005 USA

Telephone: (425) 643-9866 Telex: 292915 SBEI UR

Fax: (425) 643-9954

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SBE P/N 50112

DATE	REV	REVISION RECORD	AUTH	DR	CHK
4.99	B	Added reference to pre-assemblies	MJ		
6.7.05	C	Updated Drawings	CB	KLP	
11.4.05	D	Updated parts list & drawing		KLP	
11.15.10	E	Reworked drawing to display correct configuration quantities	CB	PC	
11.26.13	F	Add OTE anode hardware	CB		

## SBE 32 1" Frame Assembly Hardware Kit

### KIT CONTENTS

SBE P/N	Description	Primary SBE Application	QTY
23694	SBE 32 Cage U-Bolt	Interface Extension Stand to Lower Guard	4
23695	SBE 32 Cage Flange	Interface Extension Stand to Lower Guard	4
30044	Seacat Anode, 1"	6 used on guards, 2 used on extension stand	8
30409	Teflon Tape	Used on all strapping, and contact points of U bolts and flanges	3'
30666	Blue Moly	Used on all threaded hardware to prevent seizing of metal on metal	1can

### HARDWARE

SBE P/N	Description	Primary SBE Application	QTY
30210	Nut, 3/8-16 nylon stop	Extension stand U-Bolts; 1 on CTD bolt (30195)	8
30231	Nut, 1/2-13 Hex	Pylon hub to top & bottom guards	8
30256	Washer, 1/4 Ext Tooth, SS	Used on OTE supplied anode	2
30257	Washer, 3/8 flat	Extension stand U-Bolts	8
30259	Washer, 1/2 flat/narrow	2 on each Hub/Plate/Guard bolt (30603)	16
30377	Screw, 1/4-20 x 1-1/4, Socket	Used on OTE supplied anode	2
30594	Washer, 1/2 split ring	1 on each Hub/Plate/Guard bolt (30603)	8
30596	Screw, 1/4-20 x 1-1/2 FH	Frame bars to guards	12
30603	Screw, 1/2-13 x 3-1/2 Socket	Adapter plates / hub to guards	8

### Kits:

SBE P/N	Description	Primary SBE Application	QTY
50199	Extension Stand CTD Installation Kit	Contains parts to mount a cage to the extension stand	1
50297	1" Deck Pad Kit	Contains parts to attach deck pads to frame	1

### SBE Drawings:

**40683** CTD Extension Stand Installation  
**40684** Hub/Adapter/Frame Assembly  
**40714** Carousel Frame Parts Table  
**67117** Deck Pad Assembly

### Sea-Bird Electronics Procedure

PROCEDURE NUMBER: **67049**

TITLE: **SBE 32 1" Frame Assembly Hardware Kit**

REVISION: **F**

EFFECTIVE DATE: **11/26/2013**

CHECKED BY: \_\_\_\_\_ PAGE 1 of 4



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### APPLICATIONS:

#### Accessory Parts

SBE P/N	Part Description	Primary SBE Application	QTY
30044	Seacat Anode, 1"	6 used on guards, 2 used on extension stand	8
30409	Teflon Tape	Wrap 8" around each position where a U-Bolt will go	3 ft
30666	Blue Moly/NeverSeez	Apply liberally to ALL threaded areas that receive nuts	1 can

#### Hub to Bottom Adapter Plate and Lower Guard

SBE P/N	Part Description	Primary SBE Application	QTY
30231	Nut, 1/2-13 Hex	Pylon hub to top & bottom guards	4
30256	Washer, 1/4 Ext Tooth, SS	Used on OTE supplied anode	1
30259	Washer, 1/2 flat/narrow	2 on each Hub/Plate/Guard bolt (30603)	8
30377	Screw, 1/4-20 x 1-1/4, Socket	Used on OTE supplied anode	1
30594	Washer, 1/2 split ring	1 on each Hub/Plate/Guard bolt (30603)	4
30603	Screw, 1/2-13 x 3-1/2 Socket	Adapter plates / hub to guards	4

#### Hub to Top Adapter Plate and Upper Guard

SBE P/N	Part Description	Primary SBE Application	QTY
30231	Nut, 1/2-13 Hex	Pylon hub to top & bottom guards	4
30256	Washer, 1/4 Ext Tooth, SS	Used on OTE supplied anode	1
30259	Washer, 1/2 flat/narrow	2 on each Hub/Plate/Guard bolt (30603)	8
30377	Screw, 1/4-20 x 1-1/4, Socket	Used on OTE supplied anode	1
30594	Washer, 1/2 split ring	1 on each Hub/Plate/Guard bolt (30603)	4
30596	Screw, 1/4-20 x 1-1/2 FH	Frame bars to guards	12
30603	Screw, 1/2-13 x 3-1/2 Socket	Adapter plates / hub to guards	4

#### Extension Stand

SBE P/N	Part Description	Primary SBE Application	QTY
23694	SBE 32 Cage U-Bolt	Interface Extension Stand to Lower Guard	4
23695	SBE 32 Cage Flange	Interface Extension Stand to Lower Guard	4
30210	Nut, 3/8-16 nylon stop	Extension stand U-Bolts; 1 on CTD bolt (30195)	8
30257	Washer, 3/8 flat	Extension stand U-Bolts, 2 on CTD mount bolt (30195)	10
30409	Teflon Tape	Used on all strapping, contact points of U bolts and flanges	3'

### Note on Prep Work

1. Many parts for the extension stand may already be installed.
2. All of the anodes may be installed.
3. Deck pads are installed.
4. Lifting bale assembly will not be installed on the hub, but the bail insulators may be installed.
5. All screws need a liberal amount of Blue Molly/NeverSeez applied before installation.

#### SBE Drawings:

**40683** CTD Extension Stand Installation  
**40684** Hub/Adapter/Frame Assembly  
**40714** Carousel Frame Parts Table  
**67117** Deck Pad Assembly

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

PROCEDURE NUMBER: **67049**

TITLE: **SBE 32 1" Frame Assembly Hardware Kit**

REVISION: **F**

EFFECTIVE DATE: **11/26/2013**

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### **Carousel Frame Final Assembly**

*Refer to SBE Assembly drawing for details*

1. Clear off a large enough space and cover the floor with carpet or cardboard to protect the paint on the frame.
2. Assemble the frame according to the following instructions.

#### **A. Install and secure the hub and lower adapter plate to the lower guard.**

1. Set the lower frame on 2x4's to allow access for hardware installation.
  - a. Brace the frame on no less than 4 equally spaced blocks to prevent tipping.
2. Place the bottom plate on the lower guard so that all the pins are facing up.
  - a. Align it so that the 2 largest holes on the plate are lined up with the same size holes on the guard. (these are for the lifting bale that will be installed later)
3. Install the hub, without the pylon, onto the bottom plate.
  - a. The end of the hub with the most holes goes upward.
  - b. Secure the hub to the bottom plate and lower guard with 4 bolts (30603), 8 flat washers (30259), 4 lock washers (30594), and 4 nuts (30231).
  - c. From the top – put each bolt through one flat washer then through the hub, the bottom plate and lower guard, a second flat washer, a lock washer and finally the nut.
  - d. Position the bolts so that they go through the four smaller holes, not the ones that will be used for the lifting bail.
    - *See the assembly drawing for more information*

#### **B. Install and secure upper plate and upper guard.**

1. Install the top plate so that the curved edge of the outer ring is on top.
  - a. Line up the plate so that the large holes line up over the large holes in the lower plate/hub.
2. Install the upper guard over the top plate.
  - a. Align it so that the 2 largest holes on the guard are lined up with the same size holes on the plate.
    - *These are for the lifting bale that is installed later.*
  - b. Secure the hub to the bottom plate and lower guard with 4 bolts (30603), 8 flat washers (30259), 4 lock washers (30594), and 4 nuts (30231).
  - c. From the top – put each bolt through one flat washer then through the hub, the bottom plate and lower guard, a second flat washer, a lock washer and finally the nut.
  - d. Position the bolts so that they go through the four smaller holes, not the ones that will be used for the lifting bail.
    - *See the assembly drawing for more information*
  - e. Do not tighten these all the way at this time – it will make it difficult to put the side bars in.
3. The side bars are secured to the upper and lower guards with one bolt (30611) on each end.
  - a. There are two different styles of side bars – one has 1 arc on each end, the other has 1 arc on one end and a double arc on the other.
  - b. The 3 bars with single arcs on both ends line up under the three bars on the upper guard.
    - *The arched area goes over the outside of the carousel guard frame.*
  - c. The other 3 bars go in the remaining places, with the double arc end attached to the upper guard and the arched area on the bottom goes over the outside of the carousel guard frame.
4. Tighten down the bolts in the center of the adapter plate.

#### SBE Drawings:

**40683** CTD Extension Stand Installation  
**40684** Hub/Adapter/Frame Assembly  
**40714** Carousel Frame Parts Table  
**67117** Deck Pad Assembly

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

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TITLE: **SBE 32 1" Frame Assembly Hardware Kit**

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### C. Install the Lifting Bail

1. Install two large 2.85" bail insulators (23921) from the top into the large holes in the upper guard/top plate.
  - a. The flange will rest on the top.
2. Install the four 1.2" bail insulators (23920) into the large holes in the bottom plate/lower guard.
  - Two go in from the top, the other two from the bottom.
  - The flange rest on the outside of the parts.
3. Insert the two legs of the lifting bail into the two upper bail insulators.
4. Thread on a nut (30231), a lock washer (30594), and a flat washer (30259) (in that order) onto the leg of the lift bail.
  - a. Thread these up far enough that the spacers in the top adapter plate are sitting on the surface of the upper bail insulators.
5. Feed the legs of the lift bail through the insulators in the bottom plate and lower guard.
  - a. Make sure that the insulators through the bottom of the guard aren't pushed out.
6. On the bottom of the lift bail install a flat washer, a lock washer, and a nut (in that order). Tighten these down.
7. Tighten down the nuts on the top of the bottom plate.
  - a. The nuts should be tightened down on the top and bottom of the bottom plate/lower guard.

### D. Install CTD cage into extension stand per drawing 40683

1. Place the extension stand, deck pad side down, onto the floor.
2. The CTD and cage installs into the frame per drawing 40683 with pre-installed hardware.
  - a. You will need to remove the hardware and use it to install the cage.
3. Any external sensors may be mounted later for safety, or now for convenience.

### E. Install the carousel onto the extension stand per assembly drawing 41468.

1. Wrap the top bar of the extension stand with 1" wide Teflon tape (pn 30409).
  - a. Three (3) locations total – evenly spread out around the extension stand.
  - b. Wrap each location 2-3 times.
2. Use a winch to lift the carousel and set it on the extension frame.
  - a. If a winch is not available have 4 or more people lift eh carousel and set it on the extension frame.
  - b. Line up the support bars with the extension stand uprights.
3. Wrap the surface of the lower guard with 1" wide Teflon tape corresponding to the tape on the extension stand.
4. Secure each location with one u-bolt (23694), one cage flange (23695), two washers (30257) and two nuts (30210).
  - a. Place the u-bolt over the lower guard then the extension frame, then place the cage flange over both legs of the u-bolt; one washer and one nut, in that order, are placed over each leg of the u-bolt and evenly tighten down.

#### SBE Drawings:

**40683** CTD Extension Stand Installation  
**40684** Hub/Adapter/Frame Assembly  
**40714** Carousel Frame Parts Table  
**67117** Deck Pad Assembly

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

PROCEDURE NUMBER: **67049**

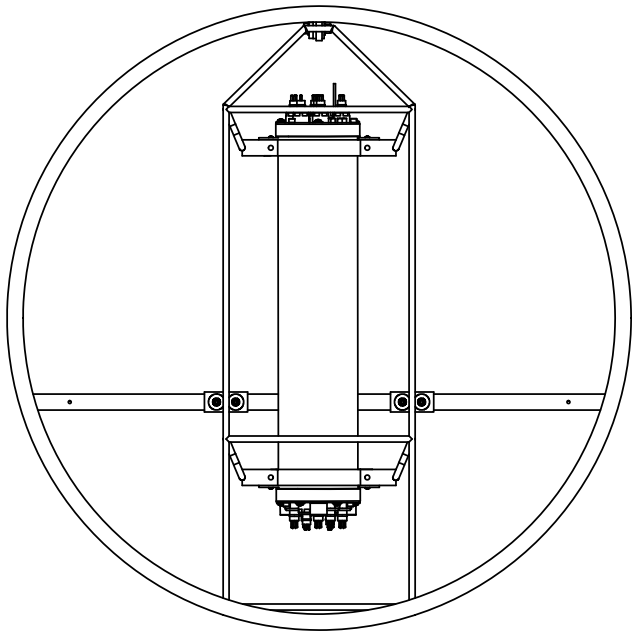
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REVISION: **F**

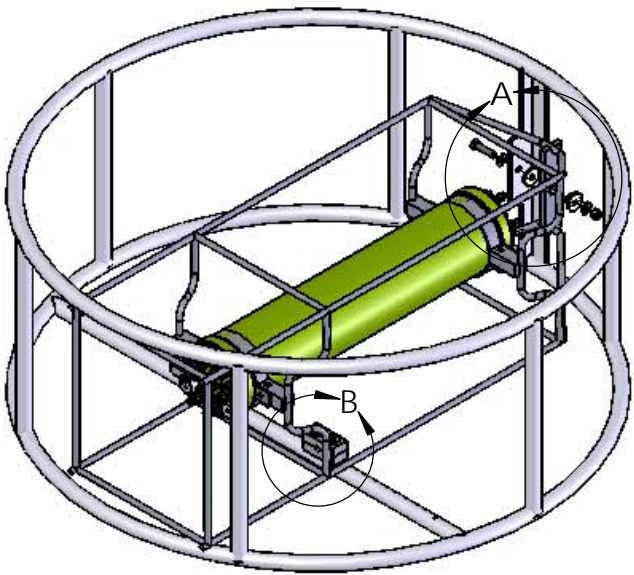
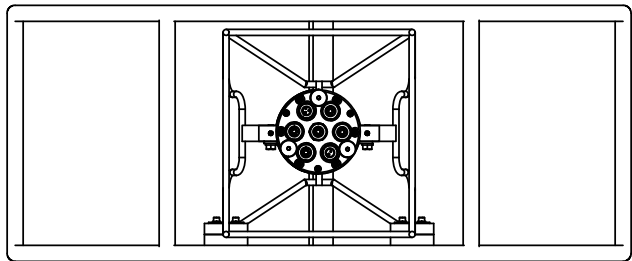
EFFECTIVE DATE: **11/26/2013**

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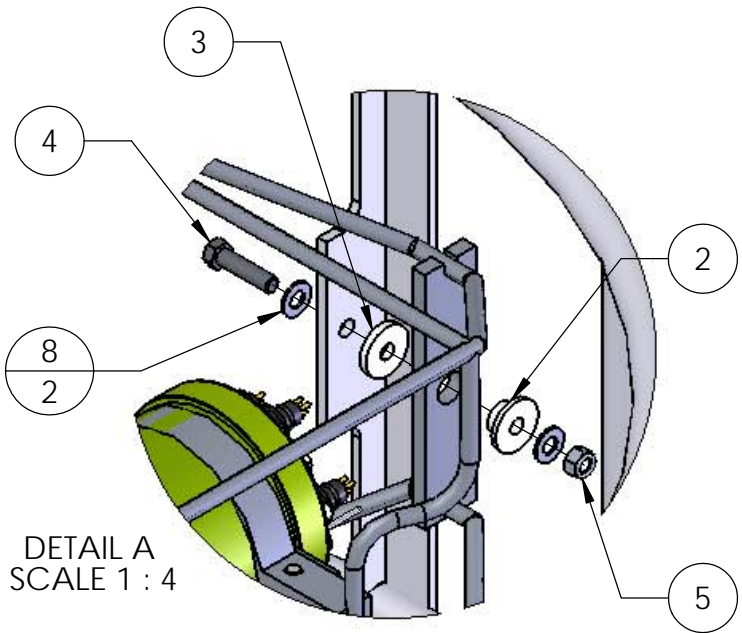
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1	23686	20710	SBE32 CTD Mount Clamp	4
2	23687	20711	SBE32 CTD Insulator Bushing	1
3	23688	20728	SBE32 CTD Insulator Washer	1
4	30195	N/A	Bolt, 3/8-16 x 1-1/2 Hex, SS	1
5	30210	N/A	Nut, 3/8-16 Nylon Stop	1
6	30253	N/A	Washer, 1/4 Fender, SS, 1"OD	4
7	30254	N/A	Washer, 1/4 Split Ring Lock, SS	4
8	30257	N/A	WASHER, 3/8 FLAT, SS, 7/8" OD MAX	2
9	30602	N/A	Cap Screw, 1/4-20 x 2-1/4, Socket Head, SS	4



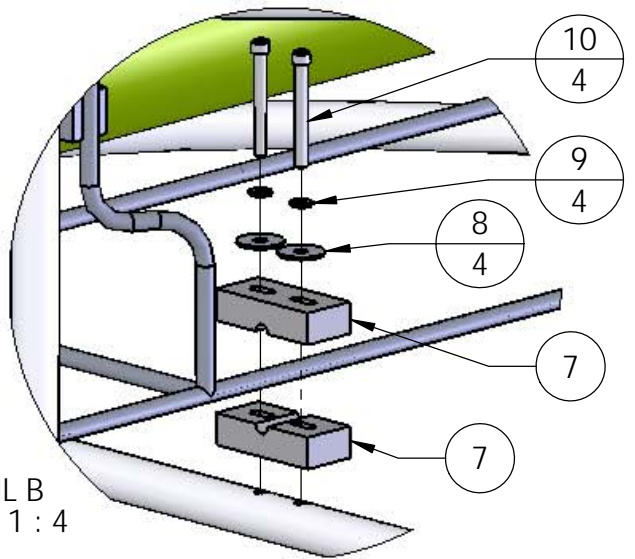
SBE32 12P 1.2-12L EXT STAND, PAINTED



REV.	DATE	ZONE	DESCRIPTION	AUTH	DWG	CHK
B	8/8/2011		Redrawn in Solidworks	CB	PC	



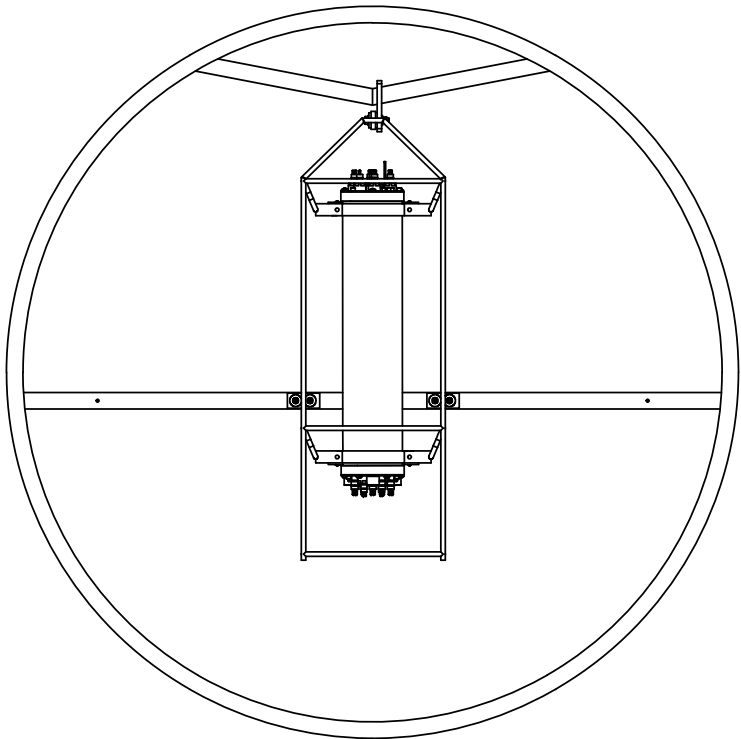
DETAIL A  
SCALE 1 : 4



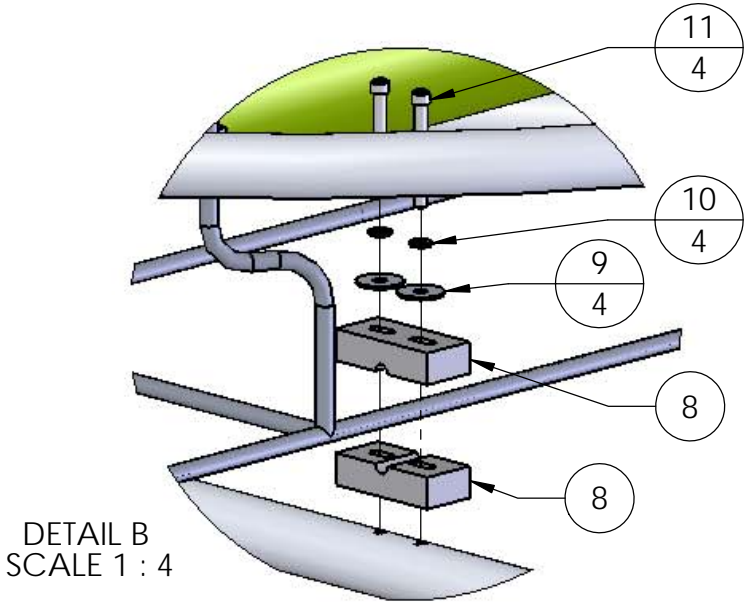
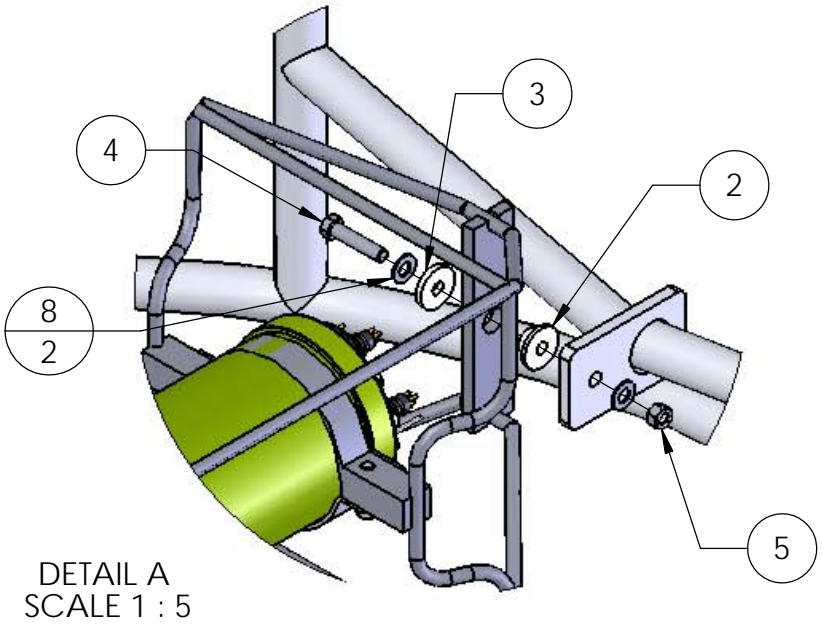
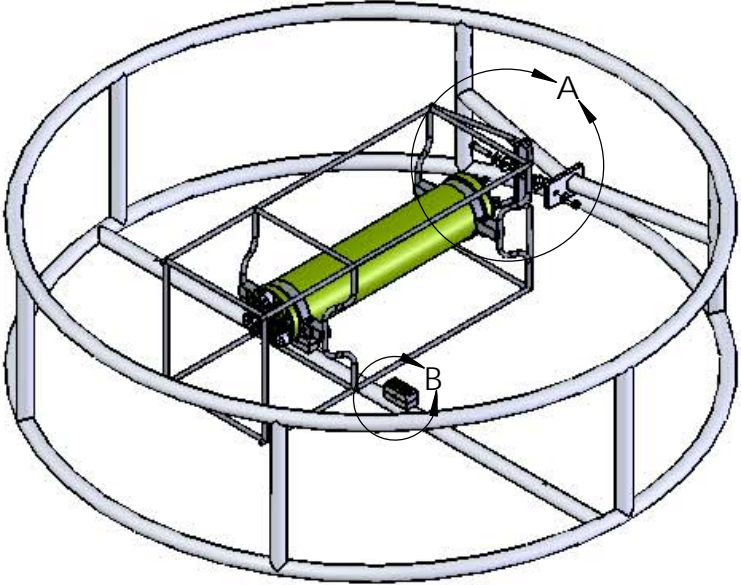
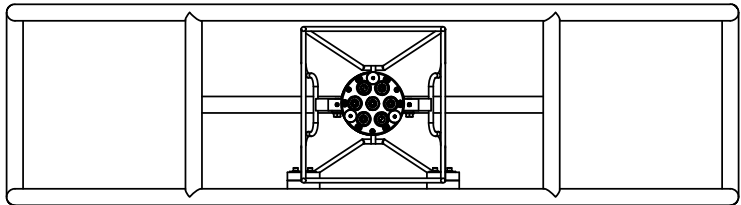
DETAIL B  
SCALE 1 : 4

UNLESS OTHERWISE SPECIFIED:		NAME		DATE		SEA-BIRD ELECTRONICS, INC.			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/x ANGULAR: ± 0.5° .X ± .05 .XX ± .01 .XXX ± .003 MACHINED SURFACES		DRAWN		PC		08/08/11		13431 NE 20th Street, Bellevue, WA 98005 425-643-9866	
		PROPRIETARY AND CONFIDENTIAL						TITLE:  SBE9P Carousel Mount Kit	
		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SEA-BIRD ELECTRONICS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SEA-BIRD ELECTRONICS, INC. IS PROHIBITED.							
		COMMENTS:							
		DEBUR AND BREAK SHARP EDGES							
INTERPRET GEOMETRIC TOLERANCING PER: ANSI Y14.5M - 1994		PART NO.						50199	
MATERIAL		SIZE						DWG. NO.	
		B						40683B	
FINISH		Old Part/Draw Info							
DO NOT SCALE DRAWING		/						SCALE: 1:12	
								SHEET 1 OF 3	

ITEM NO.	PART NUMBER	DRAWING NUMBER	DESCRIPTION	QTY.
1	23686	20710	SBE32 CTD Mount Clamp	4
2	23687	20711	SBE32 CTD Insulator Bushing	1
3	23688	20728	SBE32 CTD Insulator Washer	1
4	30196	N/A	Bolt, 3/8-16 x 1-3/4 Hex, SS	1
5	30210	N/A	Nut, 3/8-16 Nylon Stop	1
6	30253	N/A	Washer, 1/4 Fender, SS, 1"OD	4
7	30254	N/A	Washer, 1/4 Split Ring Lock, SS	4
8	30257	N/A	WASHER, 3/8 FLAT, SS, 7/8" OD MAX	2
9	30602	N/A	Cap Screw, 1/4-20 x 2-1/4, Socket Head, SS	4



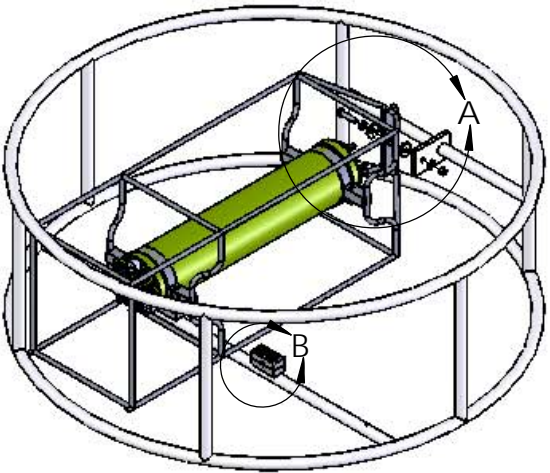
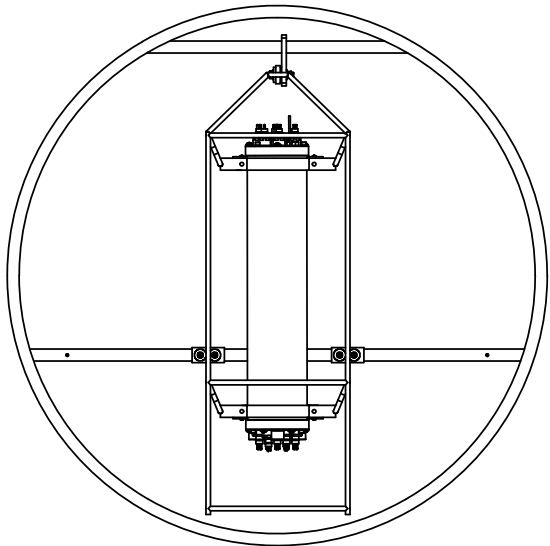
SBE32 24P 5-12L EXT STAND, PAINTED



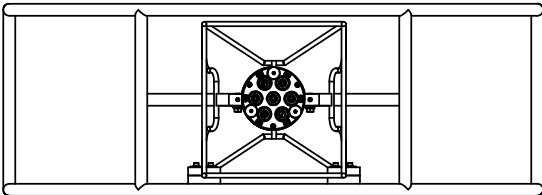
UNLESS OTHERWISE SPECIFIED:		NAME	DATE	SEA-BIRD ELECTRONICS, INC.				
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/x ANGULAR: ± 0.5°      BEND ± .X    ± .05                  TYP RAD .01 .XX   ± .01 .XXX ± .003 MACHINED SURFACES		DRAWN	PC	08/08/11	13431 NE 20th Street, Bellevue, WA 98005 425-643-9866			
		PROPRIETARY AND CONFIDENTIAL				TITLE:		
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						PART NO.		
						50199		
INTERPRET GEOMETRIC TOLERANCING PER: ANSI Y14.5M - 1994		COMMENTS:	SIZE	DWG. NO.	40683B			
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DO NOT SCALE DRAWING	/				SCALE: 1:12		SHEET 2 OF 3	



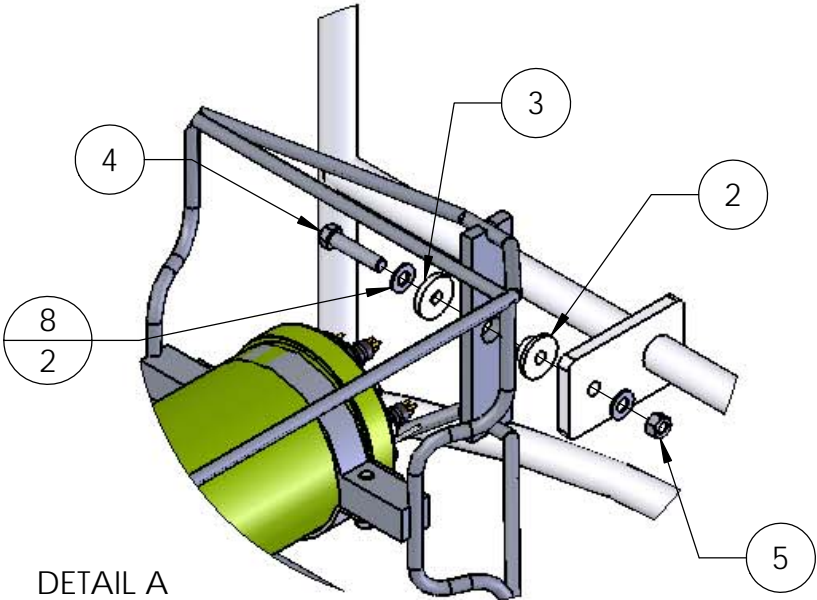
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4	30196	N/A	Bolt, 3/8-16 x 1-3/4 Hex, SS	1
5	30210	N/A	Nut, 3/8-16 Nylon Stop	1
6	30253	N/A	Washer, 1/4 Fender, SS, 1"OD	4
7	30254	N/A	Washer, 1/4 Split Ring Lock, SS	4
8	30257	N/A	WASHER, 3/8 FLAT, SS, 7/8" OD MAX	2
9	30602	N/A	Cap Screw, 1/4-20 x 2-1/4, Socket Head, SS	4



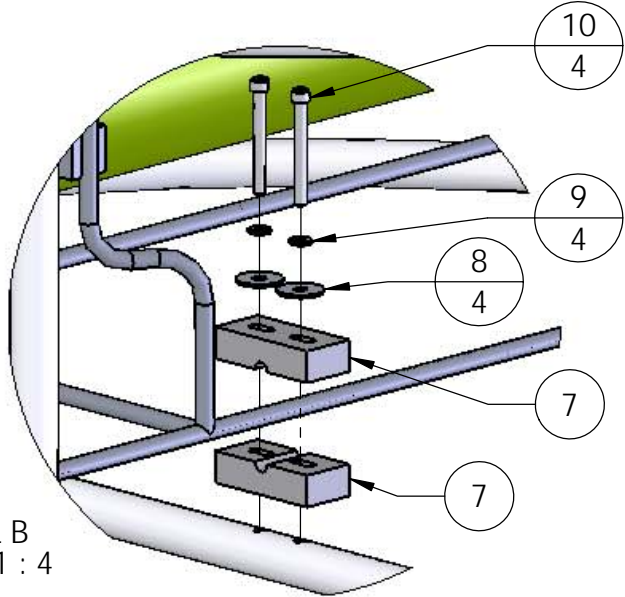
SBE32 24P 1.2-2.5L EXT STAND, PAINTED



REV.	DATE	ZONE	DESCRIPTION	AUTH	DWG	CHK
-	-	-	See Sheet1	-	-	-



DETAIL A  
SCALE 1 : 5




DETAIL B  
SCALE 1 : 4

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	SEA-BIRD ELECTRONICS, INC.	
DIMENSIONS ARE IN INCHES		DRAWN	PC	08/08/11	13431 NE 20th Street, Bellevue, WA 98005
TOLERANCES:		PROPRIETARY AND CONFIDENTIAL		TITLE:	
FRACTIONAL ±1/x		THE INFORMATION CONTAINED IN THIS		SBE9P Carousel Mount Kit	
ANGULAR: ± 0.5°		DRAWING IS THE SOLE PROPERTY OF		PART NO.	
.X ± .05		SEA-BIRD ELECTRONICS, INC. ANY		50199	
.XX ± .01		REPRODUCTION IN PART OR AS A WHOLE		SIZE	
.XXX ± .003		WITHOUT THE WRITTEN PERMISSION OF		DWG. NO.	
MACHINED SURFACES		SEA-BIRD ELECTRONICS, INC. IS PROHIBITED.		40683B	
INTERPRET GEOMETRIC TOLERANCING		COMMENTS:		SCALE: 1:12	
PER: ANSI Y14.5M - 1994		DEBUR AND BREAK		SHEET 3 OF 3	
MATERIAL		SHARP EDGES			
FINISH		Old Part/Draw Info			
DO NOT SCALE DRAWING		/			

HUB IS NOT INCLUDED:			HUB PART NUMBERS			HUB IS INCLUDED:		
6800M	7000M	10,500M	6800M	7000M	10,500M			
90409, 12–Position	90413, 12–Position	90416, 12–Position	90420, 12–Position	90425, 12–Position	90427, 12–Position			
90410, 24–Position	90414, 24–Position	90417, 24–Position	90421, 24–Position	90426, 24–Position	90428, 24–Position			
Subconn								
90476, 12–Position	90479, 12–Position	90482, 12–Position						
90477, 24–Position	90480, 24–Position	90483, 24–Position						

DATE	SYM	REVISION RECORD	AUTH.	DR.	CK.
07/28/94	A	P/Ns ADDED FOR 24/8,10,12	PG	DG	
08/23/94	B	P/Ns CHANGED FOR 12/1.7	RB	DG	
06/4/96	C	Updates for New Assemblies		JEB	
12.05.00	D	Update 12–20, Remove SC	CB	MJ	CB
12.04.02	E	See Rev.E Text File	CB	MJ	CB
12.03.03	F	Added Subconn to Pylon only	CB	KLP	CB
10.25.04	G	ADDED GUARD DIA. TABLE	MJ	KHH	
8.10.05	H	ADDED MORE KITS	KLP	KLP	

CAROUSEL ASSEMBLY PART NUMBERS

										ADAPTER PLATES					
BOTTLE MOUNT STAND				GUARD		GUARD SIDE BAR		CTD EXTENSION STAND		SBE P/N		PRICE LIST P/N	LIFTING BAIL	CAGE U–BOLT	U–BOLT FLANGE
DESCRIPTION	PRICE LIST P/N			UPPER	LOWER	1	2	SBE P/N	PRICE LIST P/N	TOP	BOTTOM	(SET)			
12 BOTTLE / 1.2 LITER	80723	–none–	1 in.	23677C	–none–	23742C	23743C	23675C	80742	70071 (SET)		80737	23678	23694	23695
12 BOTTLE / 1.7 LITER	80723	41468	1 in.	23677C	23676C	23679C	23681C	23675C	80742	70071 (SET)		80737	23678	23694	23695
12 BOTTLE / 2.5 LITER	80724	41466	1 in.	23677C	23741C	23739C	23740C	23675C	80742	70071 (SET)		80737	23678	23694	23695
12 BOTTLE / 5 LITER	80725	41468	1 in.	23677C	23676C	23679C	23681C	23675C	80742	70071 (SET)		80738	23678	23694	23695
12 BOTTLE / 8 LITER	80726	41466	1 in.	23677C	23741C	23739C	23740C	23675C	80742	70071 (SET)		80738	23678	23694	23695
12 BOTTLE / 10 LITER	80727	41469	1 in.	23677C	23683C	23680C	23682C	23675C	80742	70071 (SET)		80738	23678	23694	23695
12 BOTTLE / 12 LITER	80728	41470	1 in.	23677C	23703C	23701C	23702C	23675C	80742	70071 (SET)		80738	23678	23694	23695
12 BOTTLE / 20 LITER	80729	41438	1.375 in.	23720C	23857C	23855C	23856C	23724C	80743	23902C	23903C	80739	23723	23714	23715
12 BOTTLE / 30 LITER	80730	41439	1.375 in.	23720C	23783C	23781C	23782C	23724C	80743	23902C	23903C	80739	23723	23714	23715
24 BOTTLE / 1.2 LITER	80731	–none–	1 in.	23736C	–none–	23742C	23743C	23738C	80744	23729C	23730C	80740	23678	23694	23695
24 BOTTLE / 1.7 LITER	80731	–none–	1 in.	23736C	–none–	23742C	23743C	23738C	80744	23729C	23730C	80740	23678	23694	23695
24 BOTTLE / 2.5 LITER	80732	41467	1 in.	23736C	23737C	23725C	23726C	23738C	80744	23729C	23730C	80740	23678	23694	23695
24 BOTTLE / 5 LITER	80733	41434	1.375 in.	23720C	23719C	23721C	23722C	23724C	80743	23716C	23717C	80741	23723	23714	23715
24 BOTTLE / 8 LITER	80734	41435	1.375 in.	23720C	23857C	23855C	23856C	23724C	80743	23716C	23717C	80741	23723	23714	23715
24 BOTTLE / 10 LITER	80735	41436	1.375 in.	23720C	23854C	23852C	23853C	23724C	80743	23716C	23717C	80741	23723	23714	23715
24 BOTTLE / 12 LITER	80736	41437	1.375 in.	23720C	23783C	23781C	23782C	23724C	80743	23716C	23717C	80741	23723	23714	23715

NOTES:

1. REFER TO FRAME ASSEMBLY DRAWING 40713 FOR PART LOCATIONS.  
2. ASSEMBLY DRAWING DOES NOT INCLUDE BOTTLES, PYLON & SENSORS

TOLERANCES	SEA-BIRD ELECTRONICS, INC			
FRACTIONAL	P/N	SCALE	DRAWN BY DG	
		—	APPROVED BY	
DECIMAL	TITLE			
	SBE 32 CAROUSEL : FRAME COMPONENTS			
ANGULAR	DATE	DWG NO.		REV
	4/11/94	SHEET 1 OF 2 40714		H



DATE	SYM	REVISION RECORD	AUTH.	DR.	CK.
07/28/94	A	P/Ns ADDED FOR 24/8,10,12	PG	DG	
08/23/94	B	P/Ns CHANGED FOR 12/1.7	RB	DG	
06/4/96	C	Updates for New Assemblies		JEB	
12.05.00	D	Update 12–20, Remove SC	CB	MJ	CB
12.04.02	E	See Rev.E Text File	CB	MJ	CB
12.03.03	F	Added Subconn to Pylon only	CB	KLP	CB
10.25.04	G	ADDED GUARD DIA. TABLE	MJ	KHH	
8.10.05	H	ADDED MORE KITS	KLP	KLP	

ASSEMBLY KITS							
BOTTLE MOUNT STAND	FRAME SIZE	HARDWARE	LIFT BAIL	EXTENSION STAND CTD INSTALL	DECK PAD	U–Bolt Sets	
12 BOTTLE / 1.2 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 1.7 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 2.5 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 5 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 8 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 10 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 12 LITER	1 in.	50112	50111	50199	50297	50211	
12 BOTTLE / 20 LITER	1.375 in.	50115	50156	50199	50296	50212	
12 BOTTLE / 30 LITER	1.375 in.	50115	50156	50199	50296	50212	
24 BOTTLE / 1.2 LITER	1 in.	50112	50111	50199	50297	50211	
24 BOTTLE / 1.7 LITER	1 in.	50112	50111	50199	50297	50211	
24 BOTTLE / 2.5 LITER	1 in.	50112	50111	50199	50297	50211	
24 BOTTLE / 5 LITER	1.375 in.	50115	50156	50199	50296	50212	
24 BOTTLE / 8 LITER	1.375 in.	50115	50156	50199	50296	50212	
24 BOTTLE / 10 LITER	1.375 in.	50115	50156	50199	50296	50212	
24 BOTTLE / 12 LITER	1.375 in.	50115	50156	50199	50296	50212	

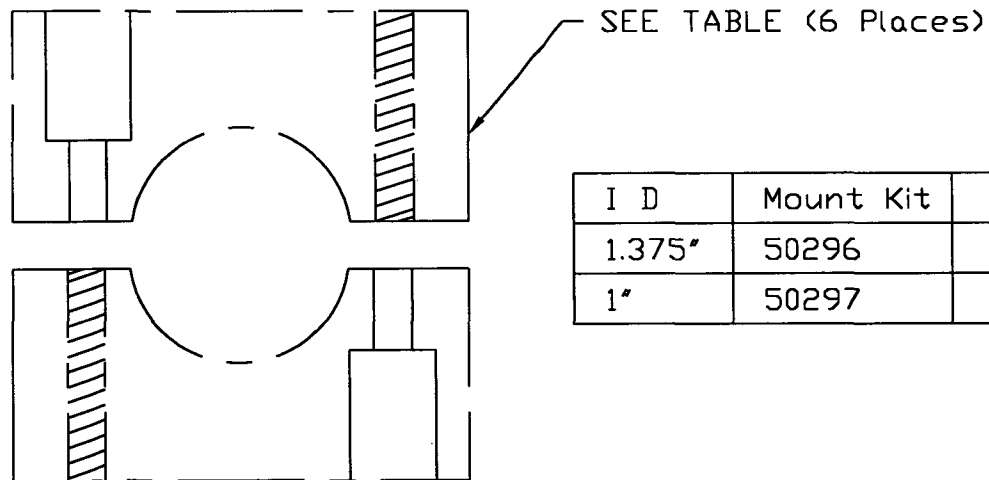
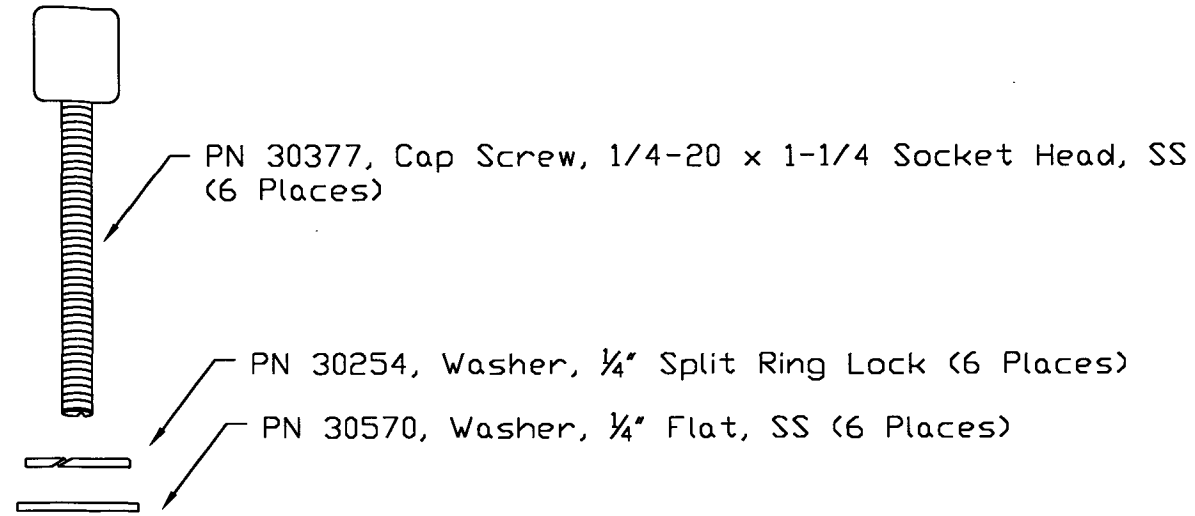
1. REFER TO FRAME ASSEMBLY DRAWING 40713 FOR PART LOCATIONS.
2. ASSEMBLY DRAWING DOES NOT INCLUDE BOTTLES, PYLON & SENSORS

TOLERANCES	SEA-BIRD ELECTRONICS, INC				
FRACTIONAL	P/N	SCALE —	DRAWN BY DG		
			APPROVED BY		
DECIMAL	TITLE SBE 32 CAROUSEL : FRAME COMPONENTS				
ANGULAR	DATE 4/11/94	DWG NO. SHEET 2 OF 2 40714			REV H

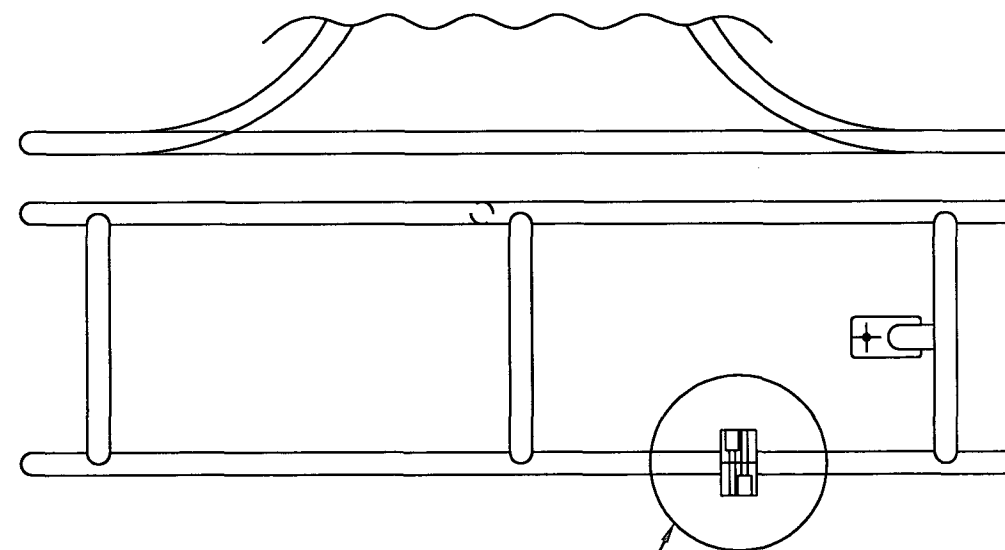
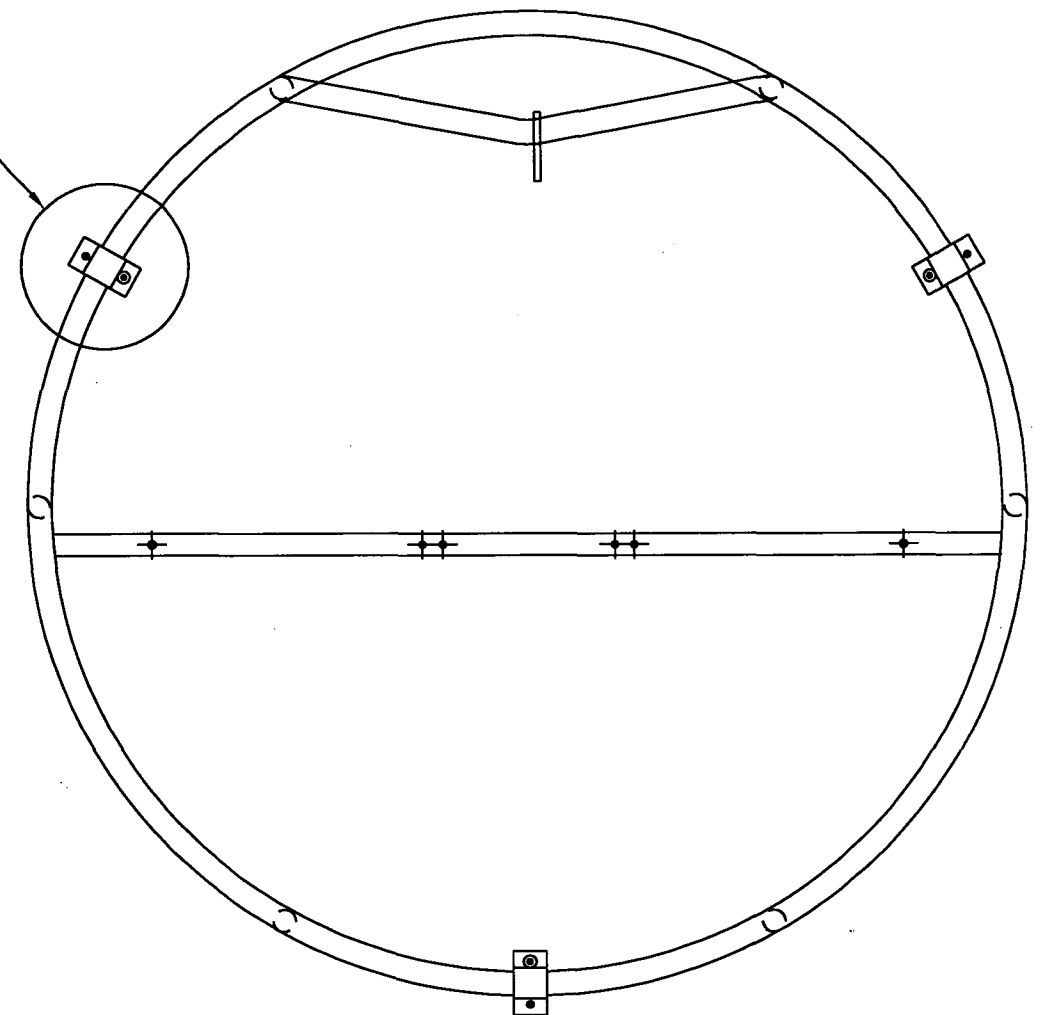
DATE	SYM	REVISION RECORD	AUTH.	DR.	CK.

# DETAIL A:

SEE DETAIL A:



I D	Mount Kit	Mount Block
1.375"	50296	PN 23919, SBE32 Deck Pad, 1.375" Dia
1"	50297	PN 23918, SBE32 Deck Pad, 1" Dia



TOLERANCES	SEA-BIRD ELECTRONICS, INC				
FRACTIONAL	P/N	Varies	SCALE NTS	DRAWN BY	MJ
DECIMAL	TITLE SBE32 Deck Pad Kit Installation / Assembly				
ANGULAR	DATE	DRAWING NUMBER	REV		
	11.12.01	67117			