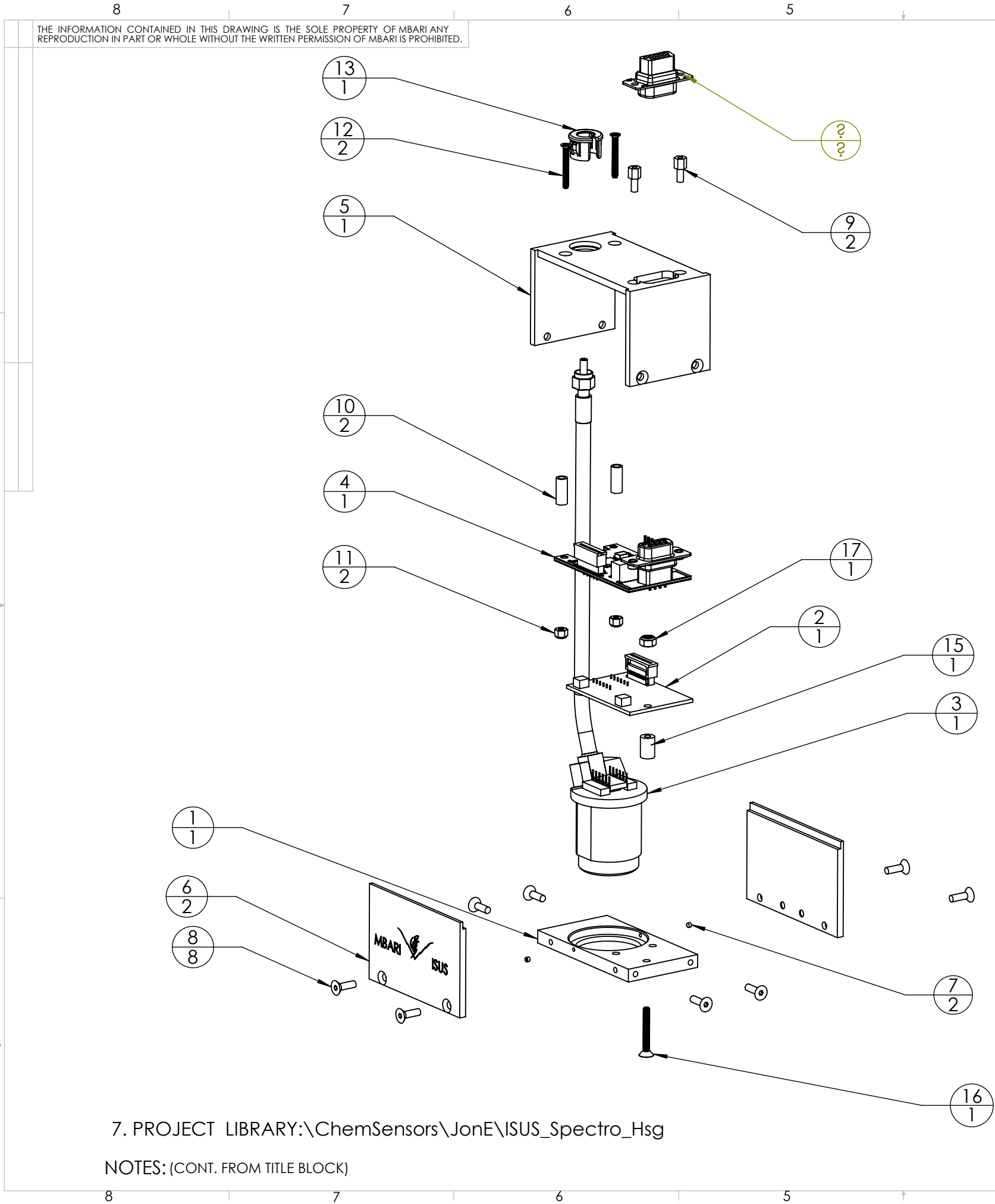




2 1

REVISIONS

INITIAL RELEASE	X/XX/01	J.E.
-----------------	---------	------

17 1 90717A005 #4-40 316 S.S. Nylon-Insert Locknut McMaster-Carr Supply Company 316 Stainless Steel

16 1 90585A126 #4-40 x 7/8 316 S.S. McMaster-Carr Supply Company AISI 316

15 1 94639A202 No.4_1/4O.D. x 3/8 LongNylon Unthreaded Spacer McMaster-Carr Supply Company Nylon 6/10

14 1 205204-4 9 Pin Male Sub D Conn.

13 1 PN8491 NYLON 6/6 Split BUSHING A.01 Keystone Nylon 6/6, BLACK UL 94V-2

12 2 92010A026 Flt Hd Phill M2.5 x 20 McMaster-Carr

11 2 93625A102 M2.5 Nylok Nut A.01 McMaster-Carr AISI 304

10 2 R30-6701294 #4 x 12mm Nylon Spacer A.01 HARWIN 6/6 Nylon

9 2 #7228 #4-40 Standard Jack Screw A.01 Keystone Steel

8 8 92125A128 FLT HD SOC SCREW M3x8 A.01 McMASTER-CARR

7 2 M2x0.4 x 2mm Hex Sckt Cone Pt. Set Screw

6 2 P-200780-09 ISUS Spectrometer Side Plate B MBARI Aluminum 6061-T6

5 1 P-200778-21 ISUS Spectrometer Case Conn End V5 MBARI 6063-T52

4 1 100221815rA_042523-1025 Zeiss MMS Digital Board MBARI

3 1 2081-872 2081-872 Zeiss MMS UV Spectrometer Zeiss

2 1 A-221xxx-23 Zeiss MMS Analog Board Assembly Rev.B B MBARI

1 1 P-200779-22 ISUS Spectrometer Base_MBARI MBARI Aluminum 6061-T6

ITEM NO.	QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL
17	1	90717A005	#4-40 316 S.S. Nylon-Insert Locknut		McMaster-Carr Supply Company	316 Stainless Steel
16	1	90585A126	#4-40 x 7/8 316 S.S.		McMaster-Carr Supply Company	AISI 316
15	1	94639A202	No.4_1/4O.D. x 3/8 LongNylon Unthreaded Spacer		McMaster-Carr Supply Company	Nylon 6/10
14	1	205204-4	9 Pin Male Sub D Conn.			
13	1	PN8491	NYLON 6/6 Split BUSHING	A.01	Keystone	Nylon 6/6, BLACK UL 94V-2
12	2	92010A026	Flt Hd Phill M2.5 x 20		McMaster-Carr	
11	2	93625A102	M2.5 Nylok Nut	A.01	McMaster-Carr	AISI 304
10	2	R30-6701294	#4 x 12mm Nylon Spacer	A.01	HARWIN	6/6 Nylon
9	2	#7228	#4-40 Standard Jack Screw	A.01	Keystone	Steel
8	8	92125A128	FLT HD SOC SCREW M3x8	A.01	McMASTER-CARR	
7	2	M2x0.4 x 2mm	Hex Sckt Cone Pt. Set Screw			
6	2	P-200780-09	ISUS Spectrometer Side Plate	B	MBARI	Aluminum 6061-T6
5	1	P-200778-21	ISUS Spectrometer Case Conn End V5		MBARI	6063-T52
4	1	100221815rA_042523-1025	Zeiss MMS Digital Board		MBARI	
3	1	2081-872	2081-872 Zeiss MMS UV Spectrometer		Zeiss	
2	1	A-221xxx-23	Zeiss MMS Analog Board Assembly Rev.B	B	MBARI	
1	1	P-200779-22	ISUS Spectrometer Base_MBARI		MBARI	Aluminum 6061-T6

BILL OF MATERIALS

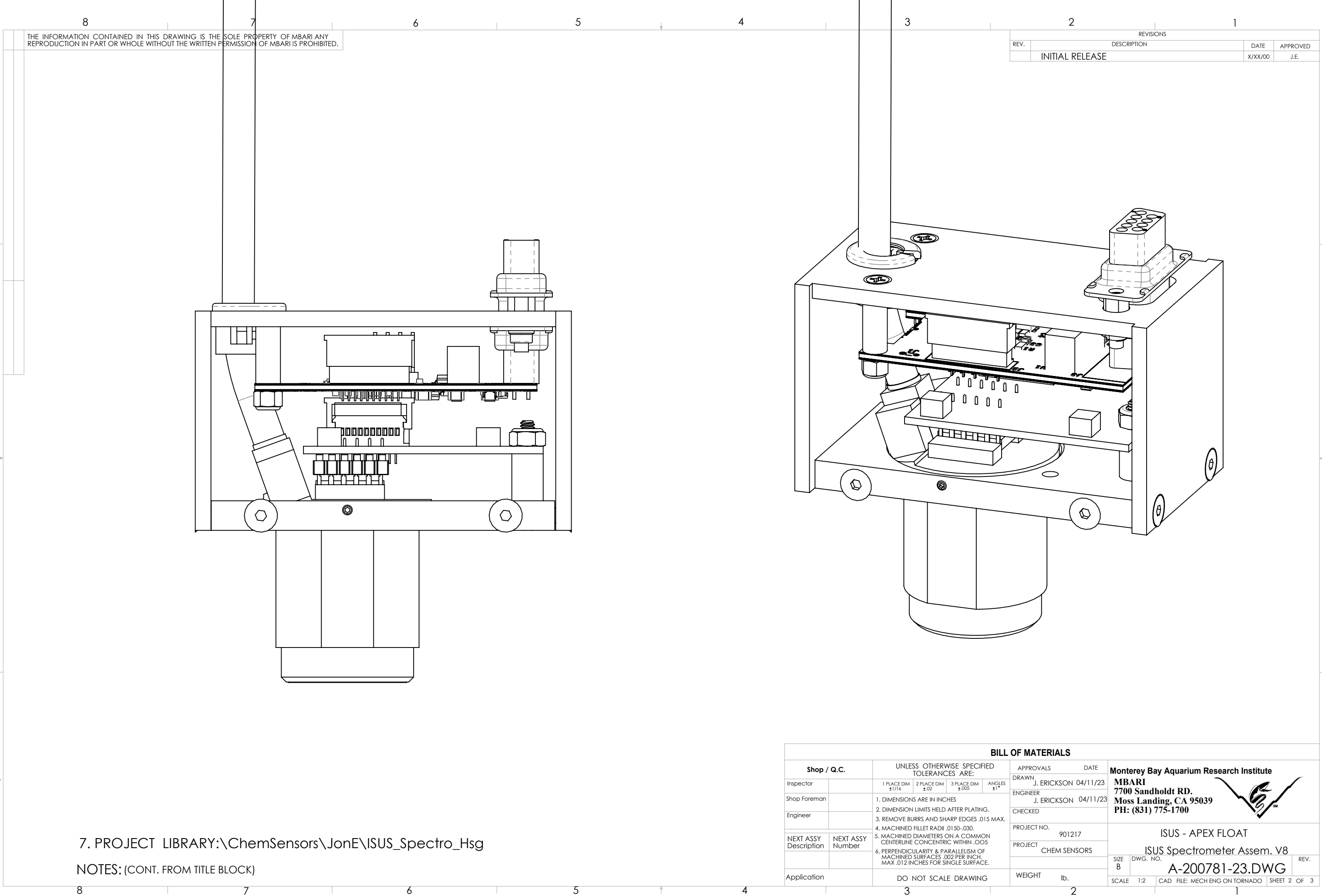
Shop / Q.C.	UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:	APPROVALS	DATE
Inspector	1 PLACE DIM ±.1/16 2 PLACE DIM ±.02 3 PLACE DIM ±.005 ANGLES ±1°	DRAWN J. ERICKSON	04/11/23
Shop Foreman	1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.	ENGINEER J. ERICKSON	04/11/23
Engineer		CHECKED	
NEXT ASSY Description	NEXT ASSY Number	PROJECT NO. 900917	
		PROJECT CHEMICAL SENSORS	
Application	DO NOT SCALE DRAWING	WEIGHT	

Monterey Bay Aquarium Research Institute
MBARI
7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700

ISUS - APEX FLOAT
ISUS Spectrometer Assem. V8

SIZE B DWG. NO. A-200781-23.DWG REV.

SCALE 1:1 CAD FILE: MECH ENG ON TORNADO SHEET 1 OF 3



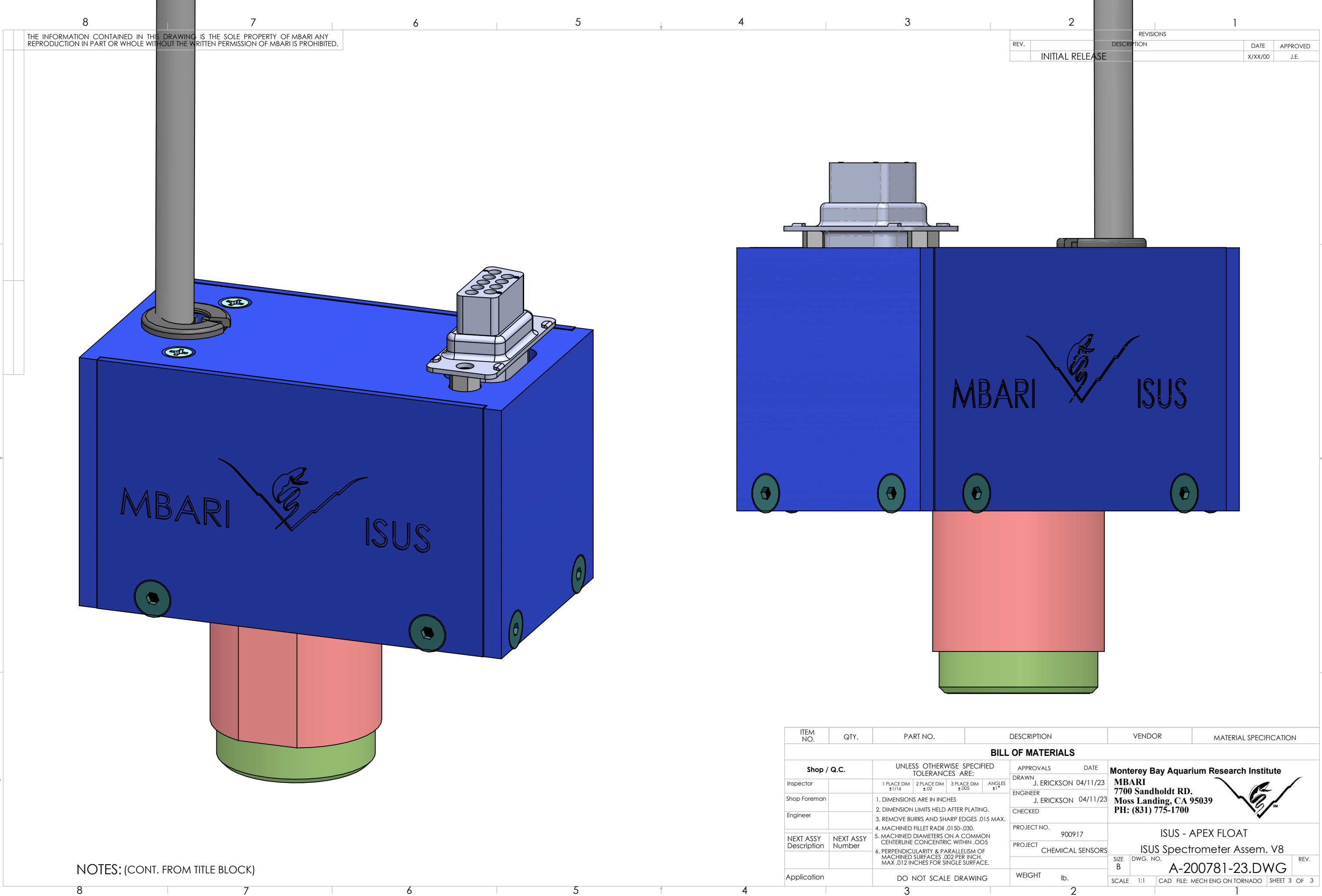
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.

7. PROJECT LIBRARY:\ChemSensors\JonE\ISUS_Spectro_Hsg

NOTES: (CONT. FROM TITLE BLOCK)

BILL OF MATERIALS									
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE	Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	J. ERICKSON 04/11/23		
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER	J. ERICKSON 04/11/23		
Engineer						CHECKED			
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.	901217		
						PROJECT	CHEM SENSORS		
Application		DO NOT SCALE DRAWING				WEIGHT	lb.	SIZE B	DWG. NO. A-200781-23.DWG
						SCALE	1:2	CAD FILE: MECH ENG ON TORNADO	SHEET 2 OF 3



THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.

NOTES: (CONT. FROM TITLE BLOCK)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	VENDOR	MATERIAL SPECIFICATION
BILL OF MATERIALS					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS	DATE
Inspector		1 PLACE DIM $\pm 1/16$	2 PLACE DIM $\pm .02$	DRAWN J. ERICKSON	04/11/23
Shop Foreman		1. DIMENSIONS ARE IN INCHES	3 PLACE DIM $\pm .005$	ENGINEER J. ERICKSON	04/11/23
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.	ANGLES $\pm 1^\circ$	CHECKED	
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.		PROJECT NO.	900917
		4. MACHINED FILLET RADII .0150-.030.		PROJECT	CHEMICAL SENSORS
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		WEIGHT	lb.
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.			
Application		DO NOT SCALE DRAWING			
				SCALE	1:1
				CAD FILE:	MECH ENG ON TORNADO
				SHEET	3 OF 3

Monterey Bay Aquarium Research Institute
MBARI
7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700



ISUS - APEX FLOAT
ISUS Spectrometer Assem. V8
A-200781-23.DWG