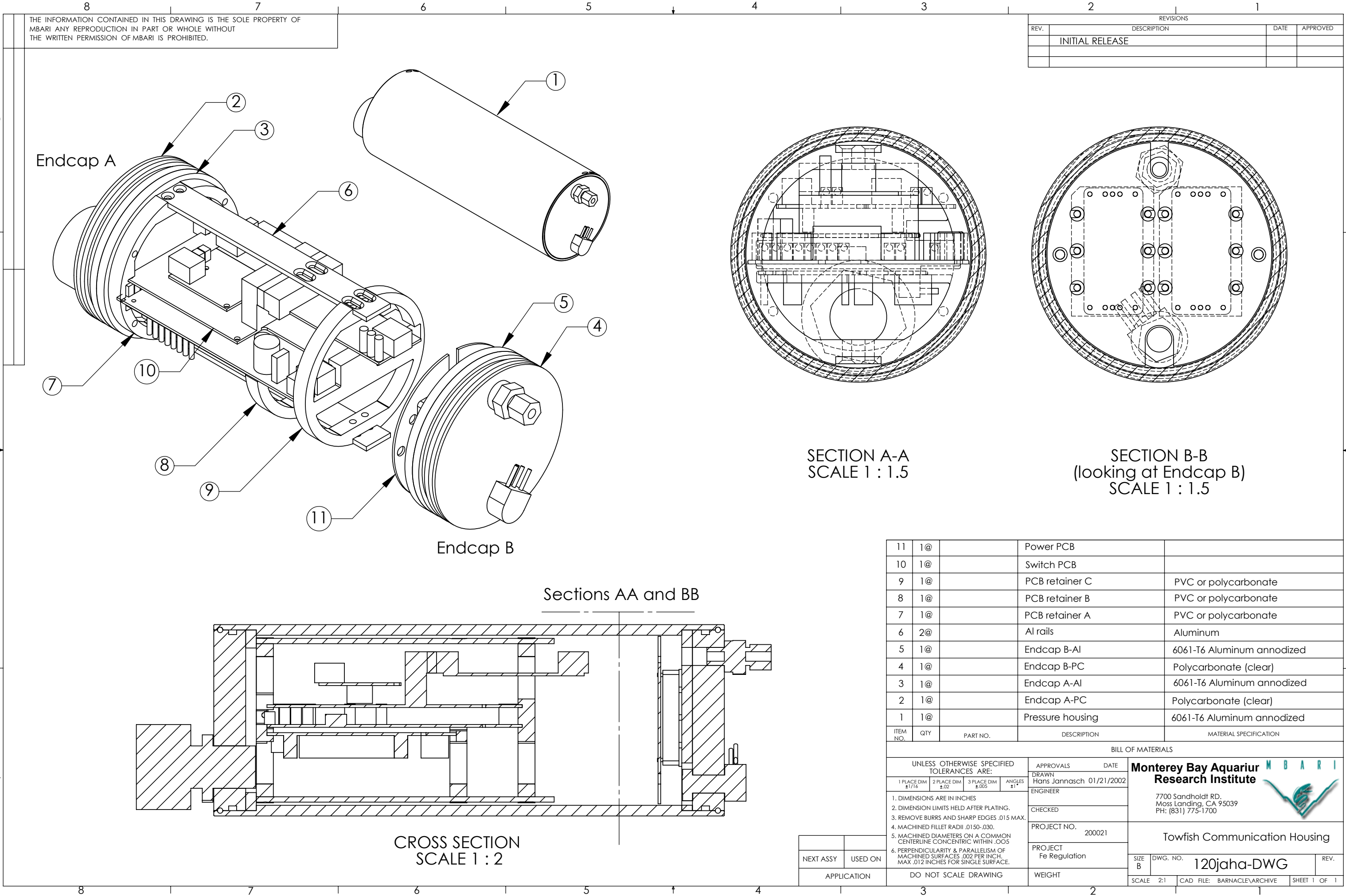




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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

SECTION A-A
SCALE 1 : 1.5

SECTION B-B
(looking at Endcap B)
SCALE 1 : 1.5

Sections AA and BB

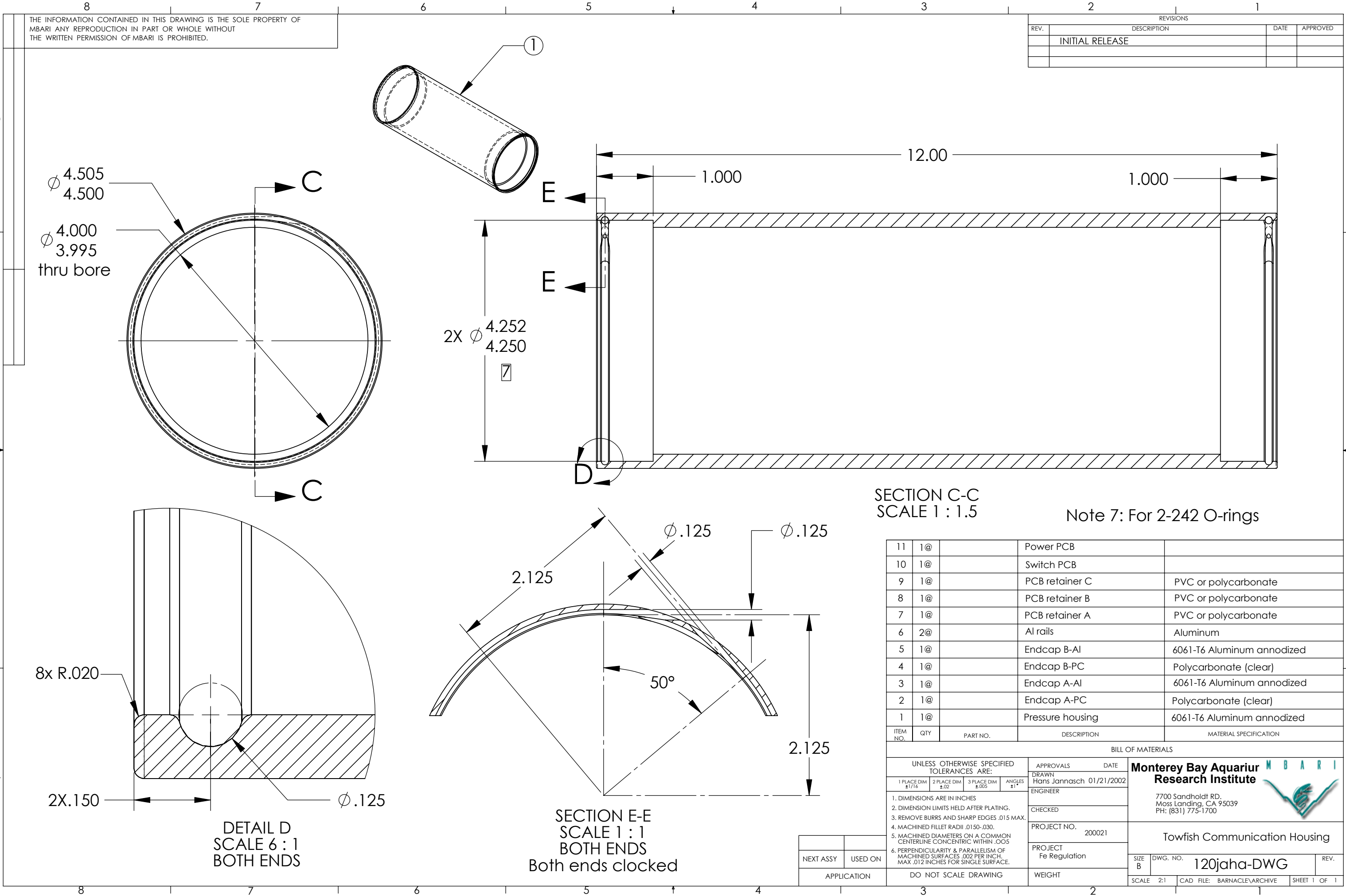
CROSS SECTION
SCALE 1 : 2

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	BILL OF MATERIALS	
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch		01/21/2002	Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
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				
				CHECKED			Towfish Communication Housing	
				PROJECT NO.		200021		
				PROJECT		Fe Regulation	SIZE B	
				WEIGHT				
				DO NOT SCALE DRAWING			DWG. NO.	
							120jaha-DWG	
							SCALE 2:1	
							CAD FILE: BARNACLE\ARCHIVE	
							SHEET 1 OF 1	

NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING





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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

SECTION C-C
SCALE 1 : 1.5

Note 7: For 2-242 O-rings

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
----------------------	---------------------	----------------------	---------------

APPROVALS

DRAWN
Hans Jannasch
ENGINEER

CHECKED

PROJECT NO.
200021

PROJECT
Fe Regulation

WEIGHT

DATE
01/21/2002

Monterey Bay Aquarium
Research Institute

7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700

Towfish Communication Housing

SIZE
B

DWG. NO.
120jaha-DWG

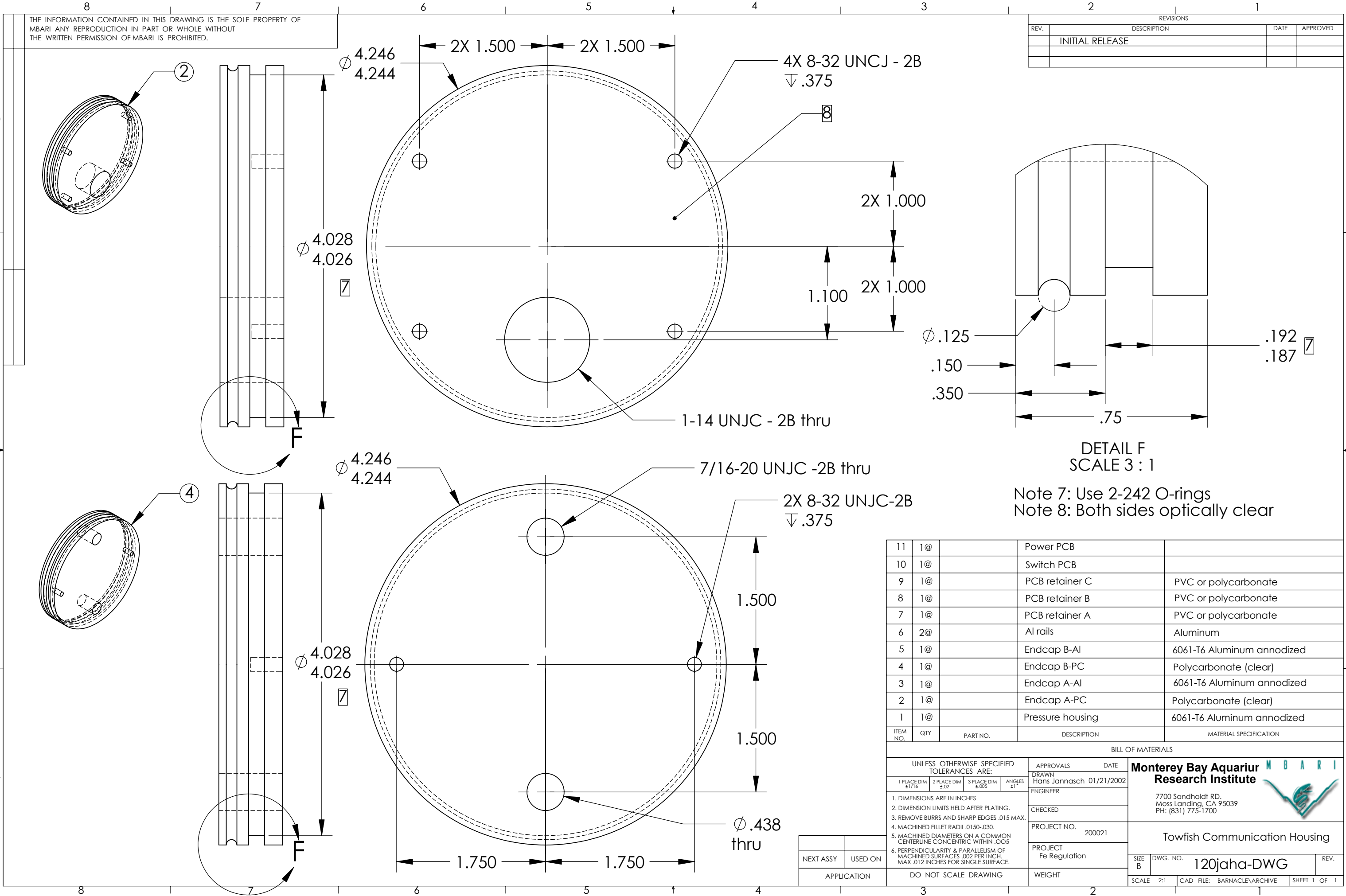
REV.

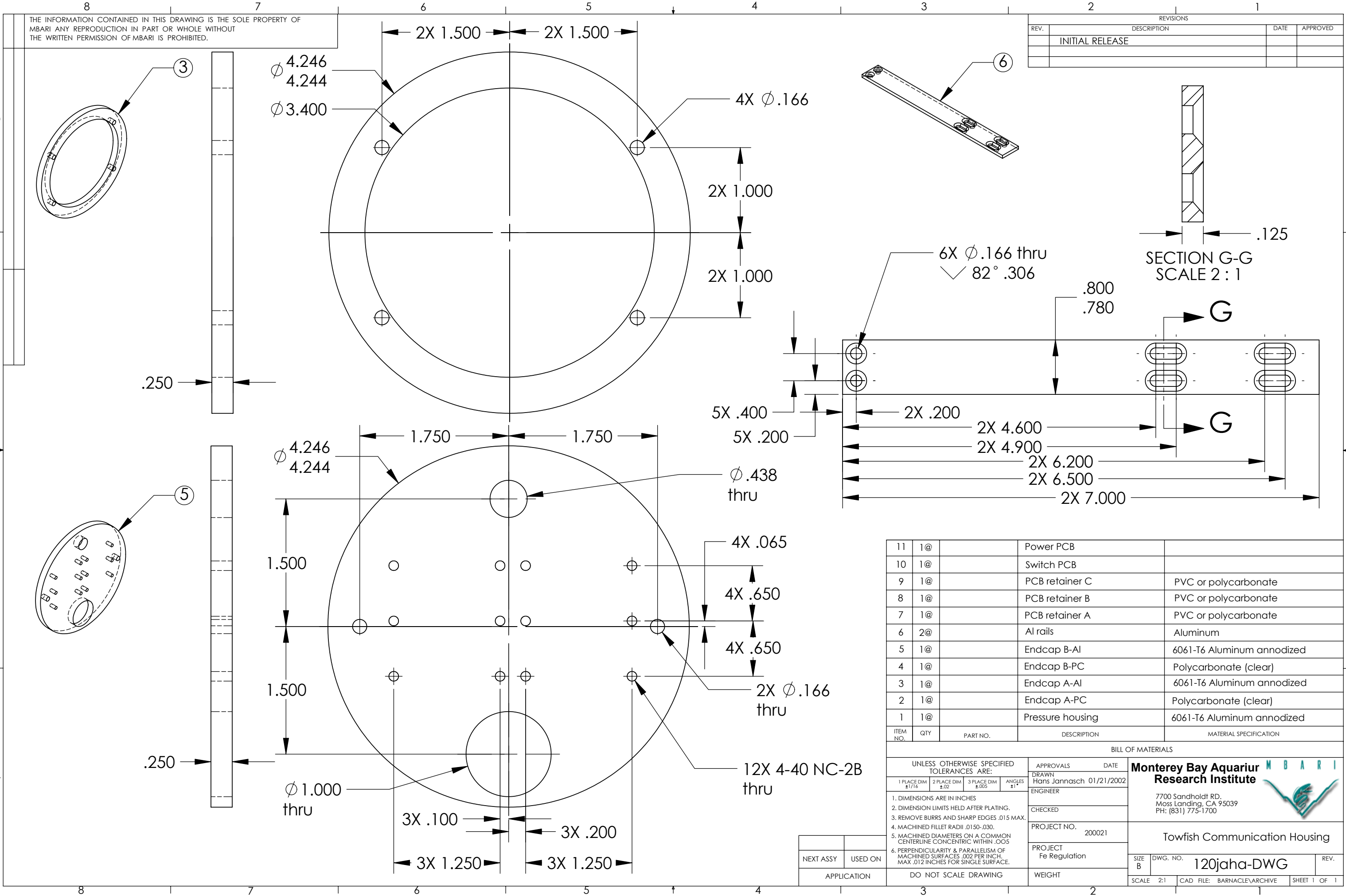
SCALE 2:1

CAD FILE: BARNACLE\ARCHIVE

SHEET 1 OF 1

NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING





Technical drawing of a mechanical part showing a cross-section. The drawing includes the following dimensions and features:

- Top dimensions: 2X .400, 2X .200, 4X 8-32NC- 2B thru, 4X .200
- Bottom dimensions: .726, 1.090, 2X 1.500
- Feature: 4X .150 depth of all recesses (hidden)
- Feature: 4X 8-32NC- 2B thru (threaded holes)
- Feature: 2X 1.500 (bottom edge)
- Feature: 2X .400 (top edge)
- Feature: 2X .200 (top edge)
- Feature: 4X .200 (top edge)
- Feature: .150 depth of all recesses (hidden)

This diagram shows an exploded perspective view of a mechanical assembly. The main component is a circular frame with a thick rim. Inside the frame, there are several rectangular blocks and cylindrical pins. A dashed line indicates the assembly path for one of the pins. A callout line with the number 7 points to a specific feature on the rim.

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

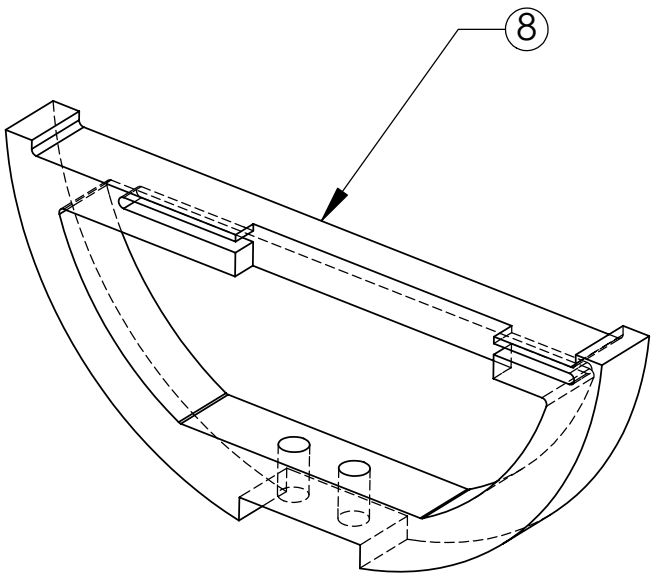
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch	01/21/2002
1. DIMENSIONS ARE IN INCHES				CHECKED	ENGINEER
2. DIMENSION LIMITS HELD AFTER PLATING.					
3. REMOVE BURRS AND SHARP EDGES .015 MAX.					
4. MACHINED FILLET RADII .0150-.030.					
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				PROJECT NO.	200021
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.				PROJECT Fe Regulation	
DO NOT SCALE DRAWING				WEIGHT	



SIZE B	DWG. NO.	120jaha-DWG	REV.
SCALE: 1:1	CAD FILE: 120jaha.dwg	SHEET 1 OF 1	

NEXT ASSY	USED ON
APPLICATION	

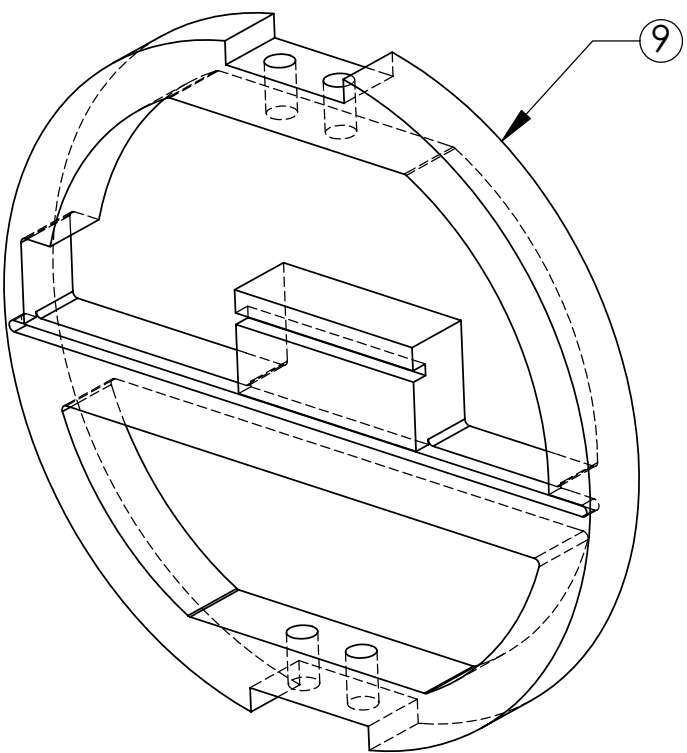
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 Towfish Communication Housing					
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch	01/21/2002	ENGINEER	CHECKED						
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.				PROJECT NO.		200021		SIZE B		DWG. NO.		REV.	
				PROJECT		Fe Regulation		120jaha-DWG					
				WEIGHT				SCALE 2:1		CAD FILE: BARNACLE\ARCHIVE		SHEET 1 OF 1	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

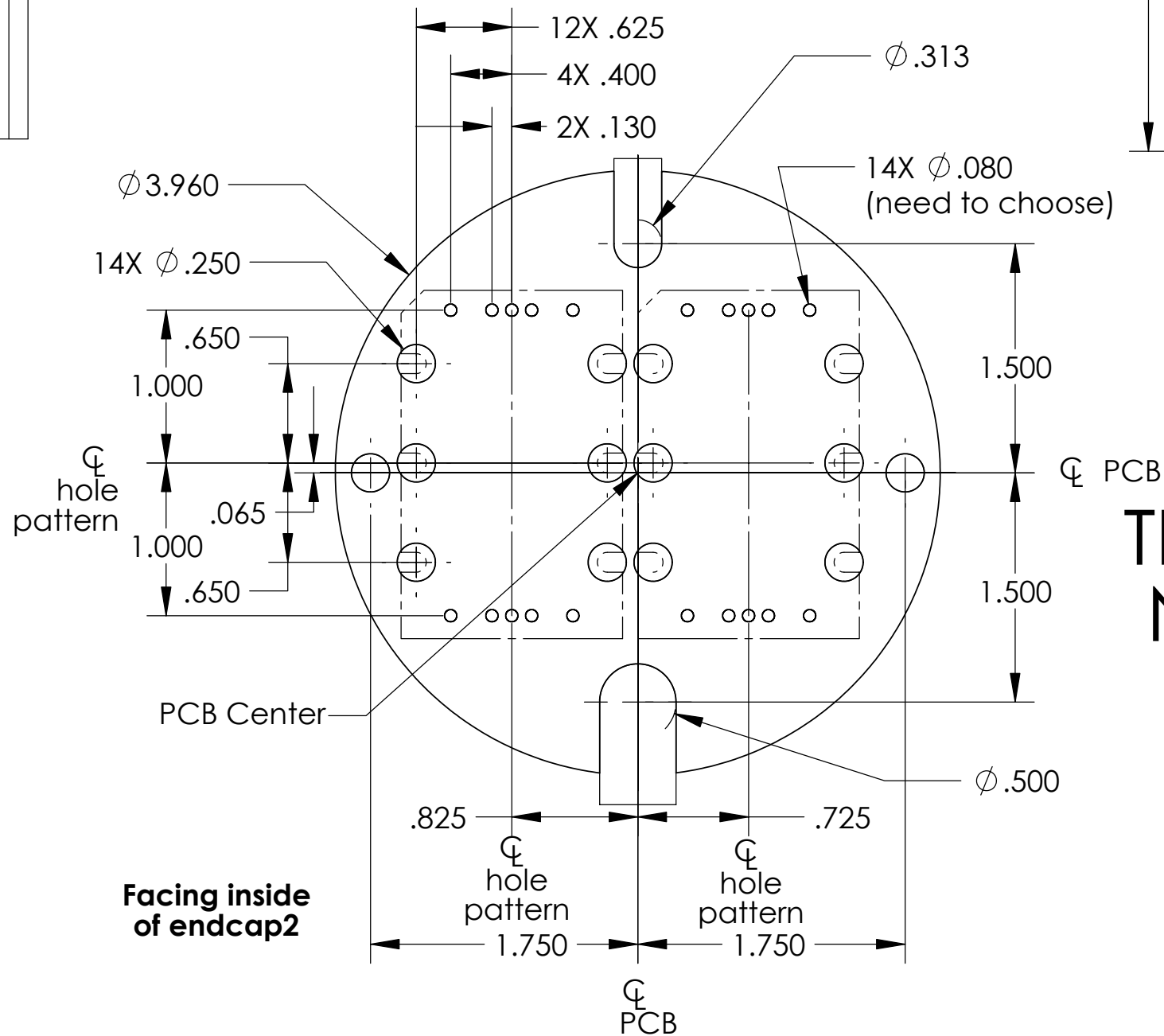
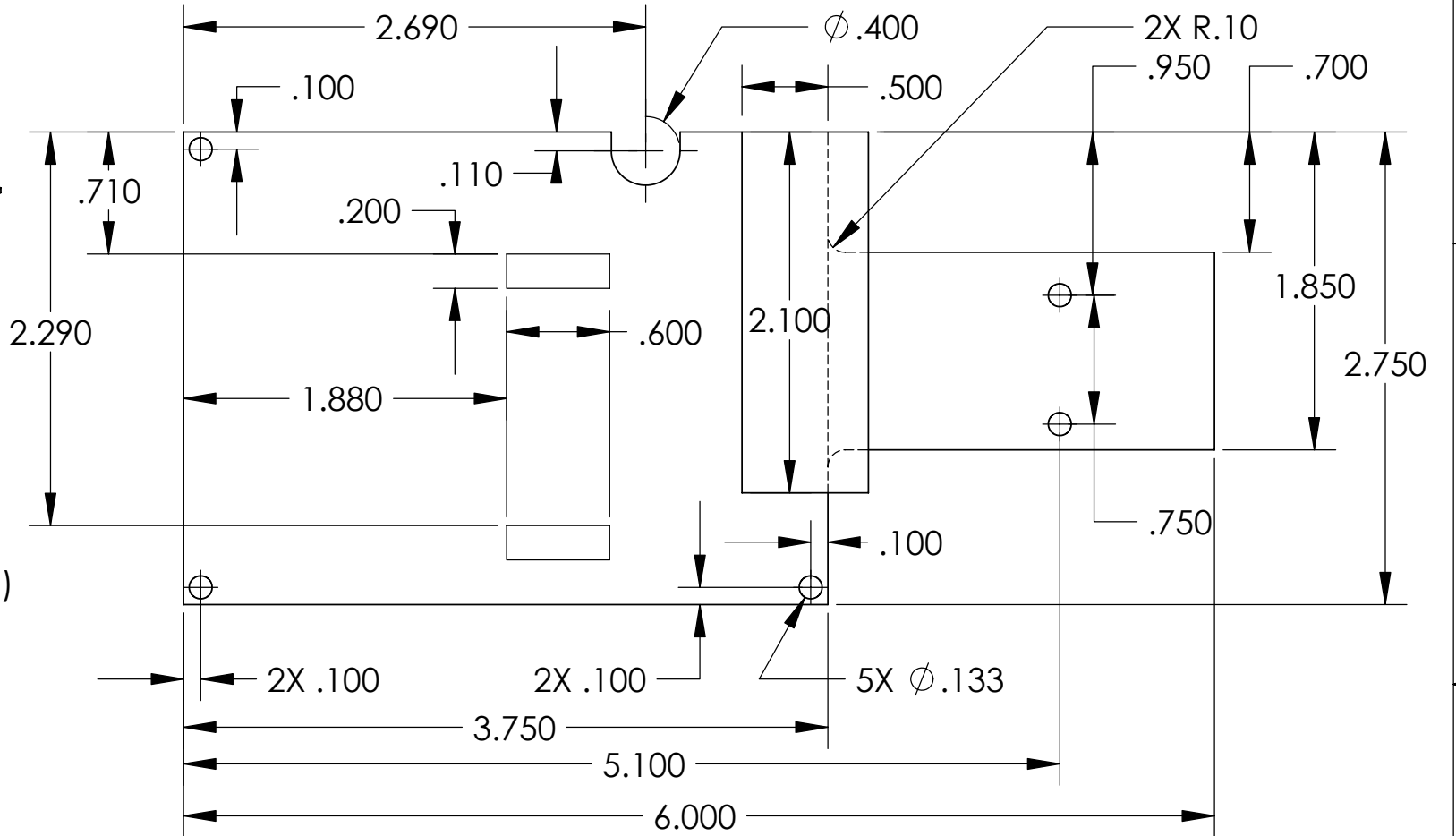
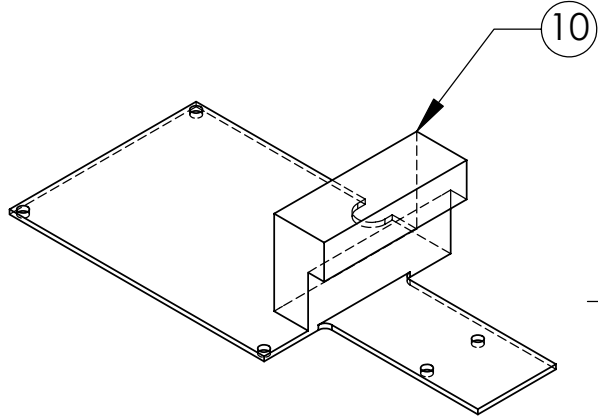
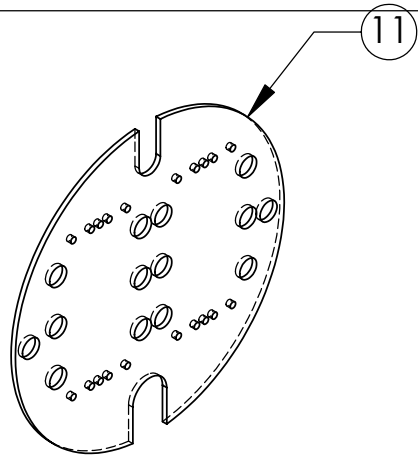


Note 9. All inside corners requiring radius: R.031

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				BILL OF MATERIALS	
1 PLACE DIM ±1/16				APPROVALS DATE	
2 PLACE DIM ±.02				DRAWN Hans Jannasch 01/21/2002	
3 PLACE DIM ±.005				ENGINEER	
ANGLES ±1°				CHECKED	
1. DIMENSIONS ARE IN INCHES				PROJECT NO. 200021	
2. DIMENSION LIMITS HELD AFTER PLATING.				PROJECT Fe Regulation	
3. REMOVE BURRS AND SHARP EDGES .015 MAX.				SIZE B DWG. NO. 120jaha-DWG REV.	
4. MACHINED FILLET RADII .0150-.030.				SCALE 2:1 CAD FILE: BARNACLE\ARCHIVE SHEET 1 OF 1	
5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				TOWFISH COMMUNICATION HOUSING	
6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX. .012 INCHES FOR SINGLE SURFACE.				7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700	
DO NOT SCALE DRAWING					

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	Clarify hole pattern	6/11/02	



THIS PAGE
NOT FOR
SHOP

11	1@		Power PCB	
10	1@		Switch PCB	
9	1@		PCB retainer C	PVC or polycarbonate
8	1@		PCB retainer B	PVC or polycarbonate
7	1@		PCB retainer A	PVC or polycarbonate
6	2@		Al rails	Aluminum
5	1@		Endcap B-Al	6061-T6 Aluminum anodized
4	1@		Endcap B-PC	Polycarbonate (clear)
3	1@		Endcap A-Al	6061-T6 Aluminum anodized
2	1@		Endcap A-PC	Polycarbonate (clear)
1	1@		Pressure housing	6061-T6 Aluminum anodized
ITEM NO.	QTY	PART NO.	DESCRIPTION	MATERIAL SPECIFICATION

BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS	DATE
1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN Hans Jannasch	01/21/2002
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	
				CHECKED	
				PROJECT NO. 200021	
				PROJECT Fe Regulation	
				DO NOT SCALE DRAWING	
				WEIGHT	

Monterey Bay Aquarium Research Institute

7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700



Towfish Communication Housing

SIZE B	DWG. NO.	120jaha-DWG	REV.
SCALE	2:1	CAD FILE: BARNACLE\ARCHIVE	SHEET 1 OF 1