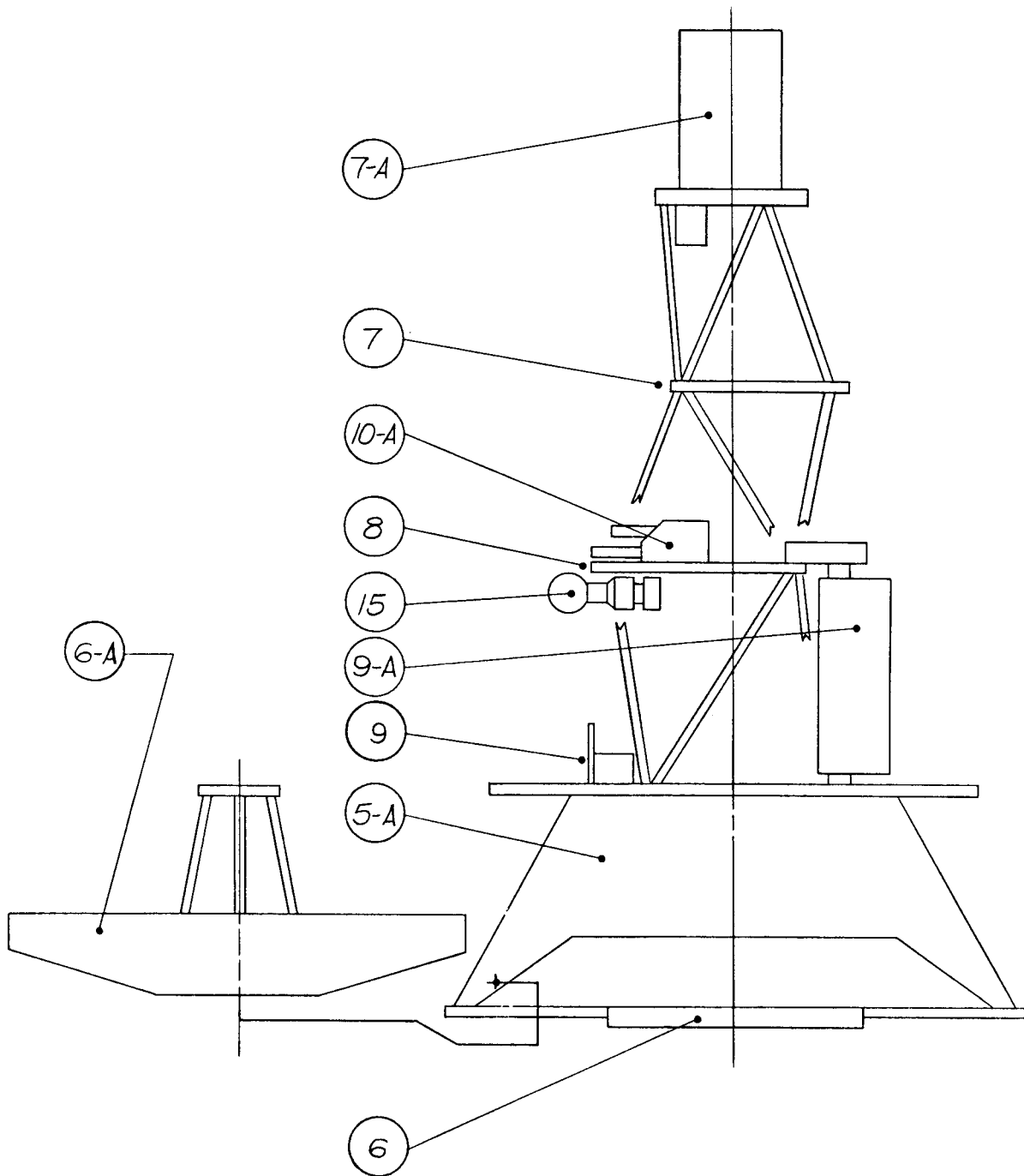


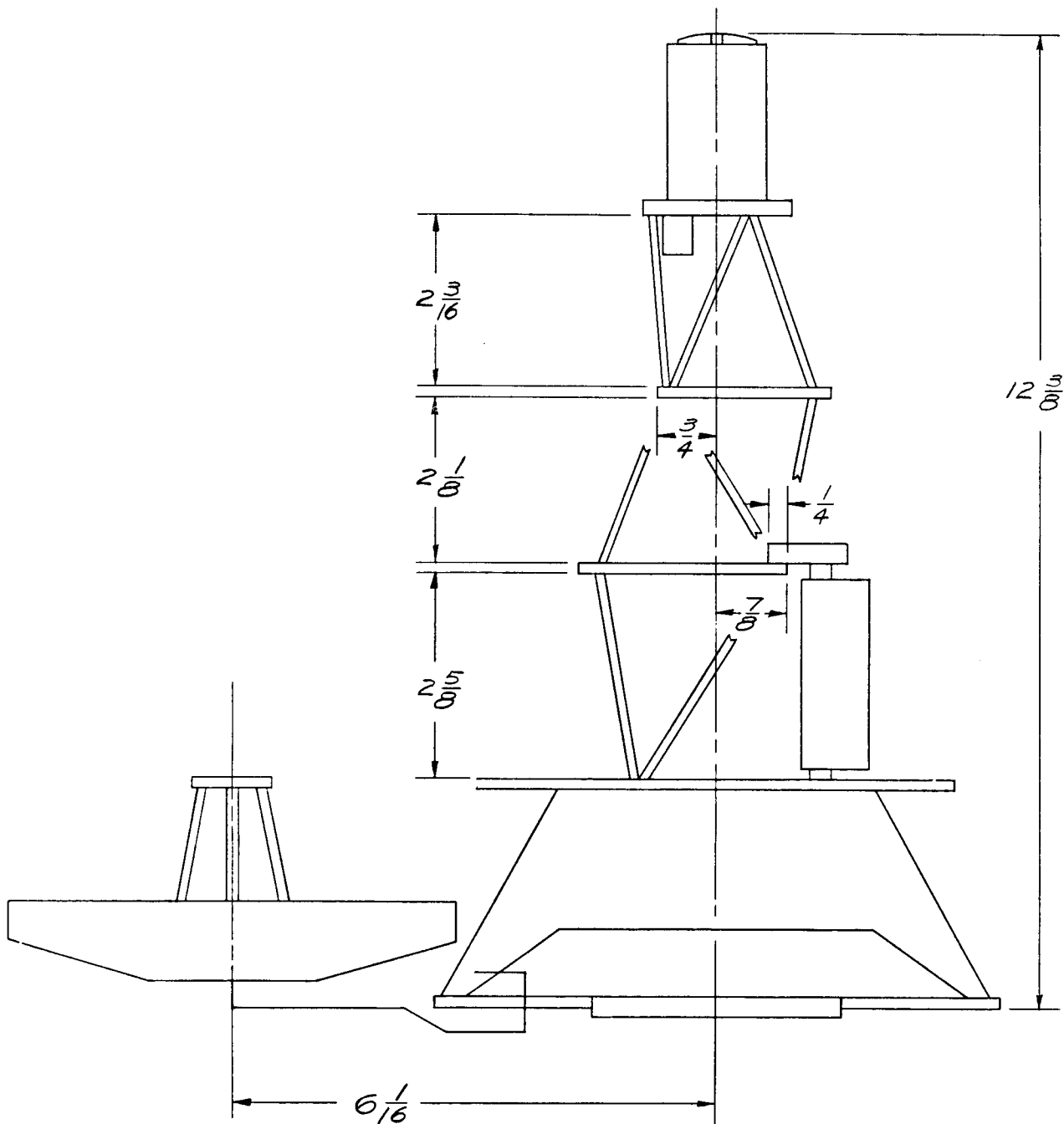
(1-A)

MARINER

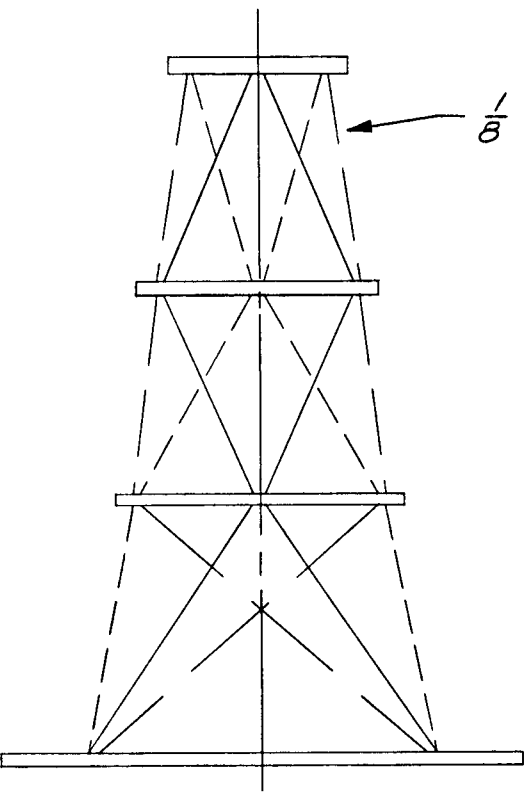
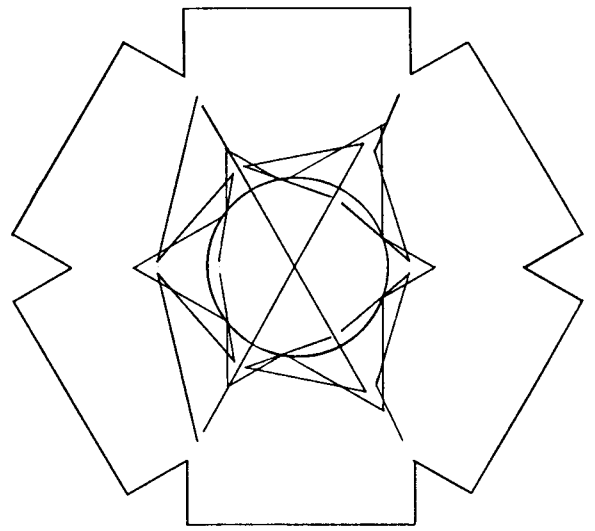
PARTIAL ELEVATION



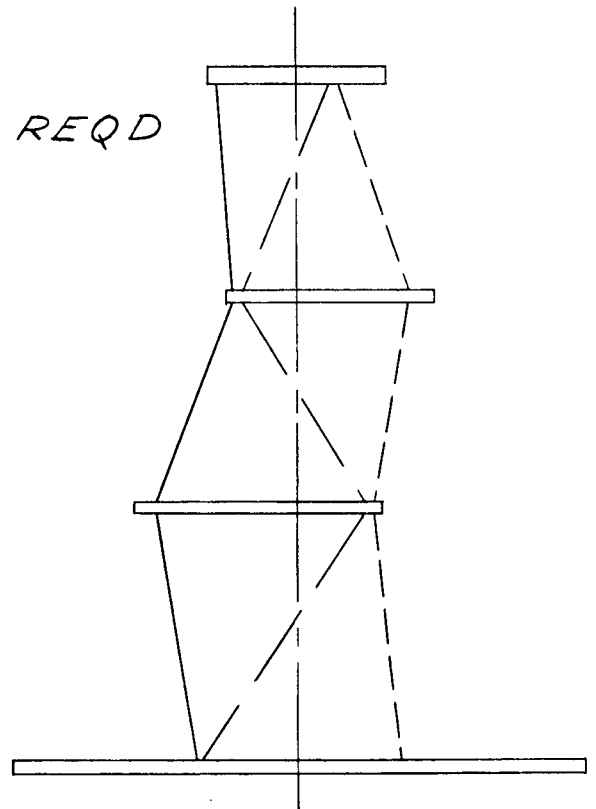
(2-A) SIDE ELEVATION



3-A SIDE ELEVATION

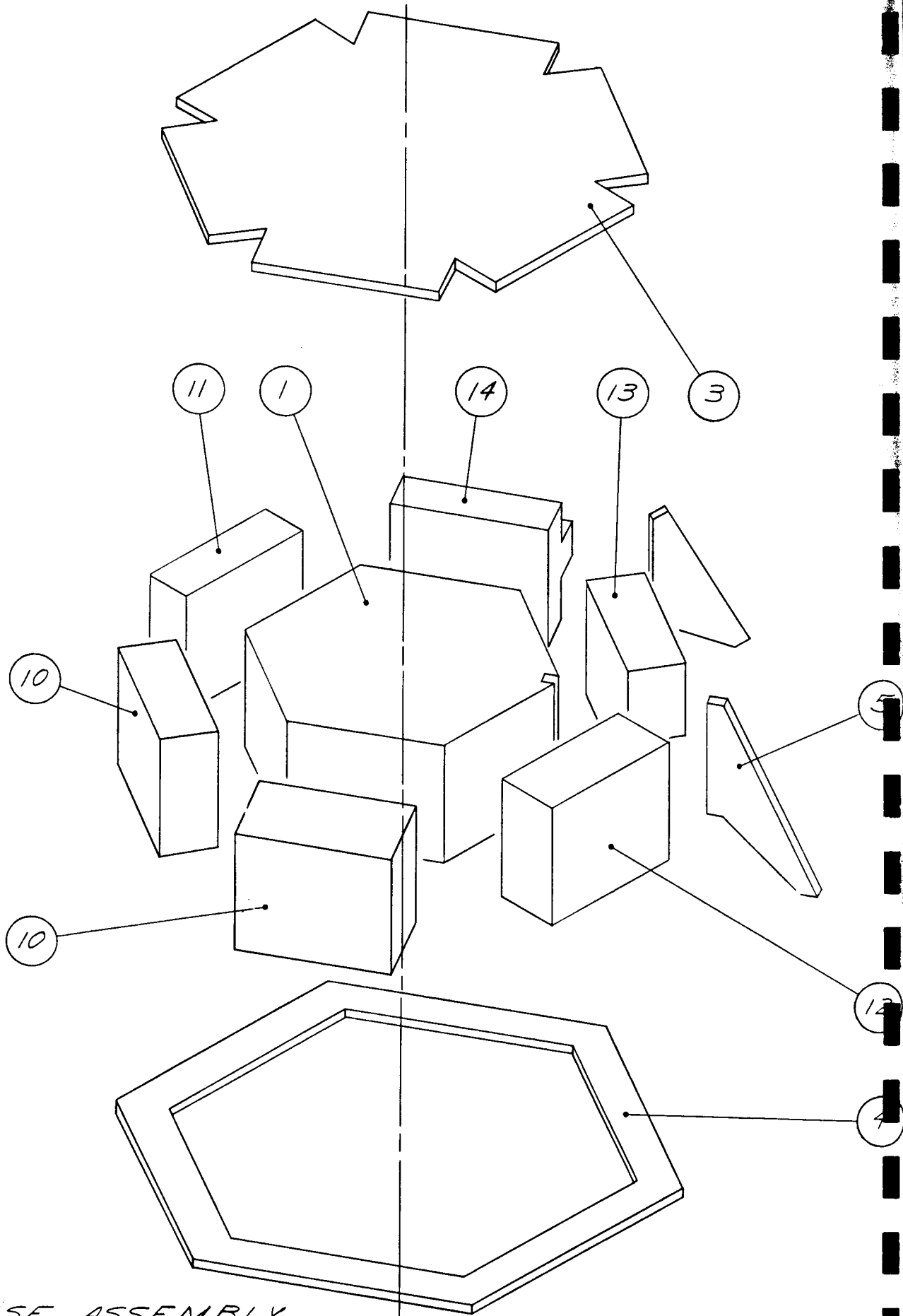


← $\frac{1}{8}$ DIA. 18 REQD

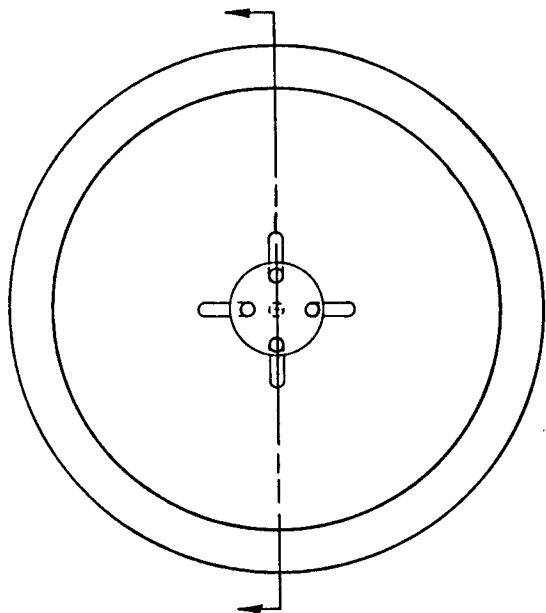


4-A FRONT

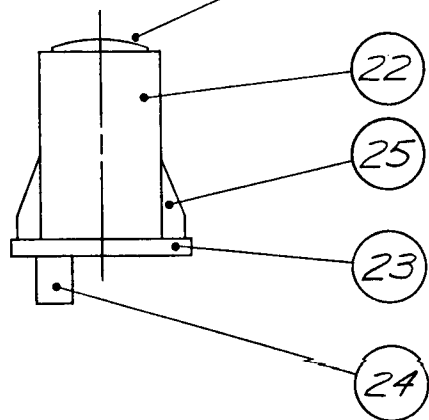
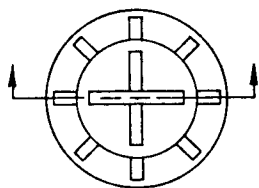
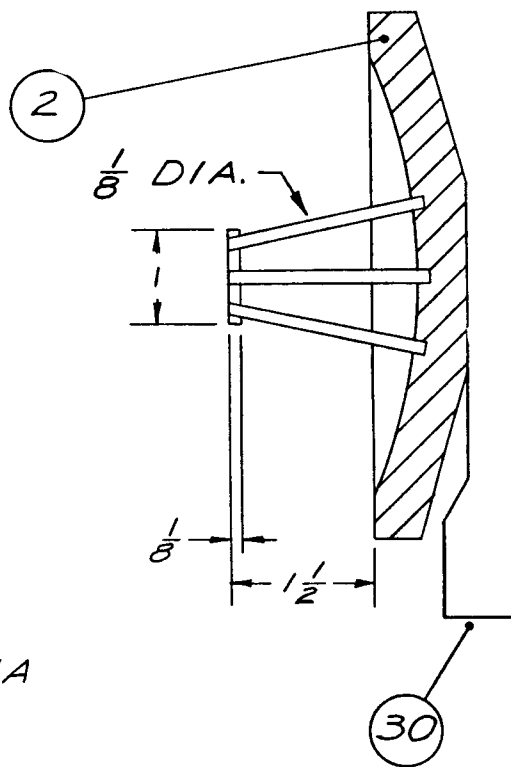
SIDE



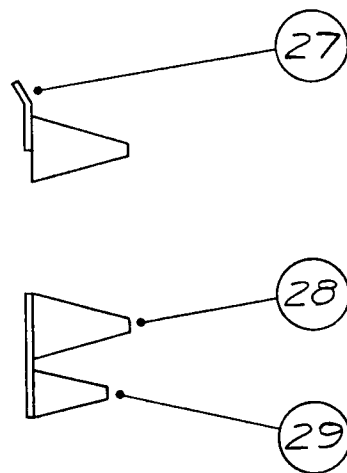
5-A BASE ASSEMBLY



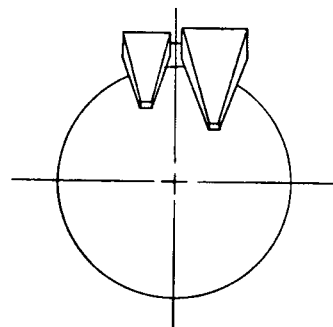
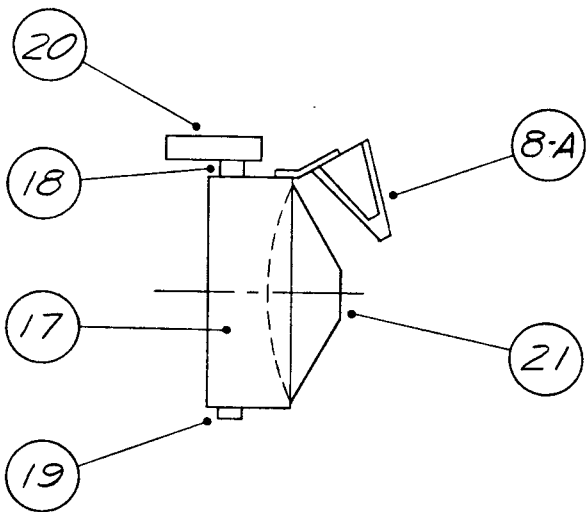
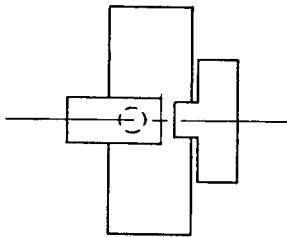
(6-A) HIGH - GAIN ANTENNA



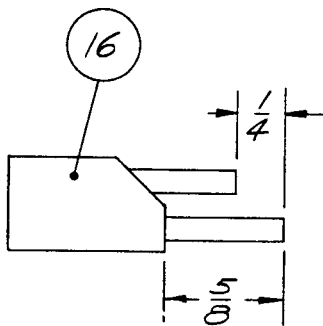
(7-A) OMNI - ANTENNA



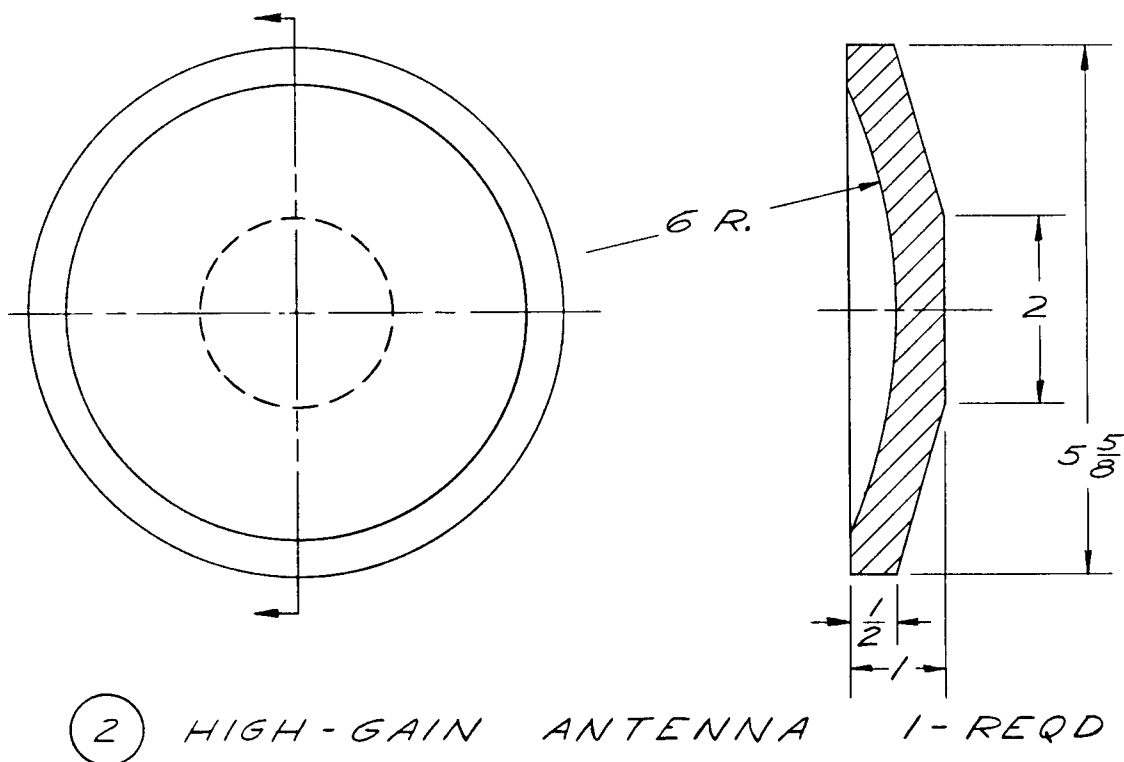
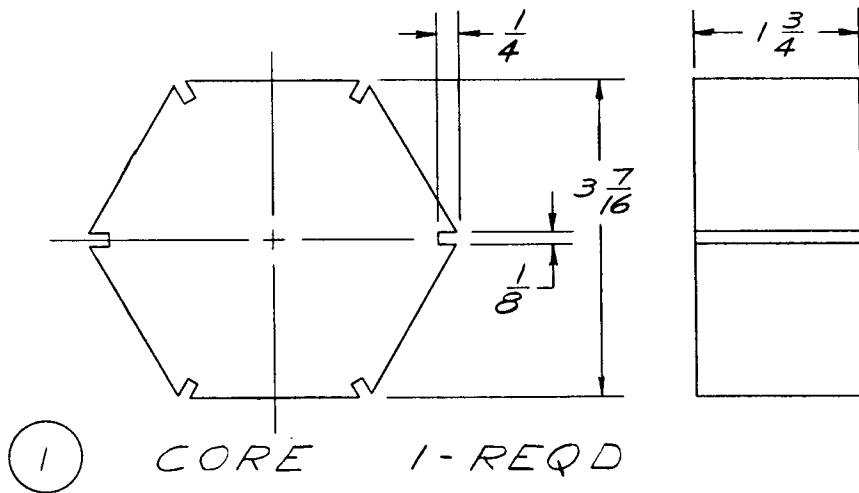
(8-A) RADIOMETER REFERENCE HORN5

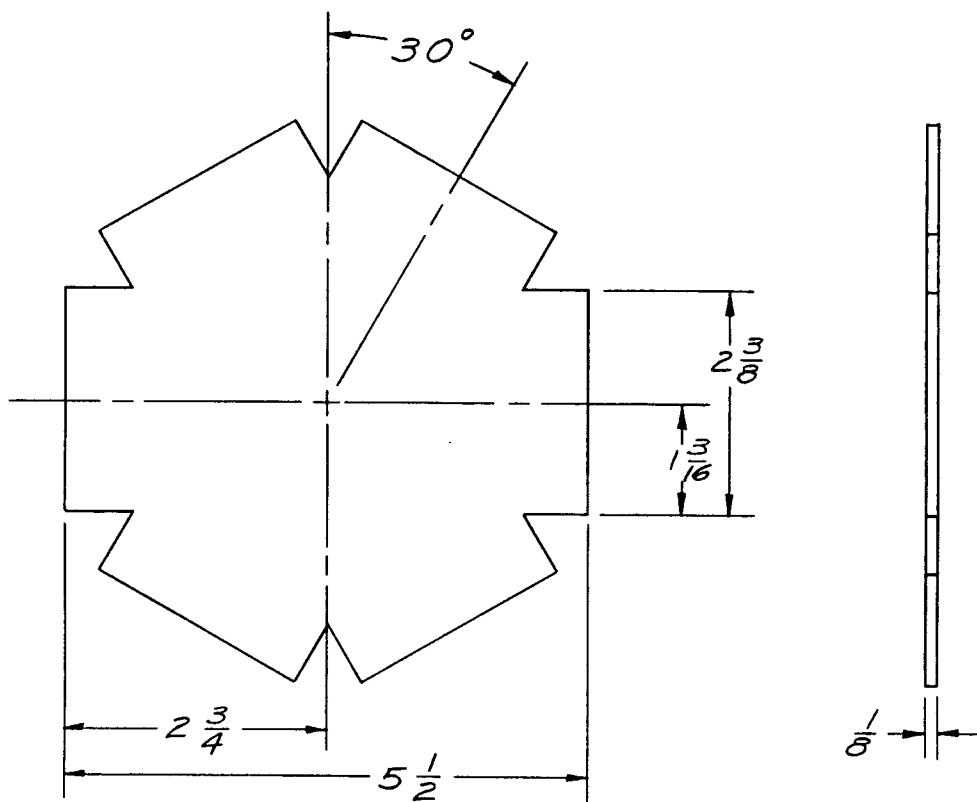


(9-A) RADIOMETER

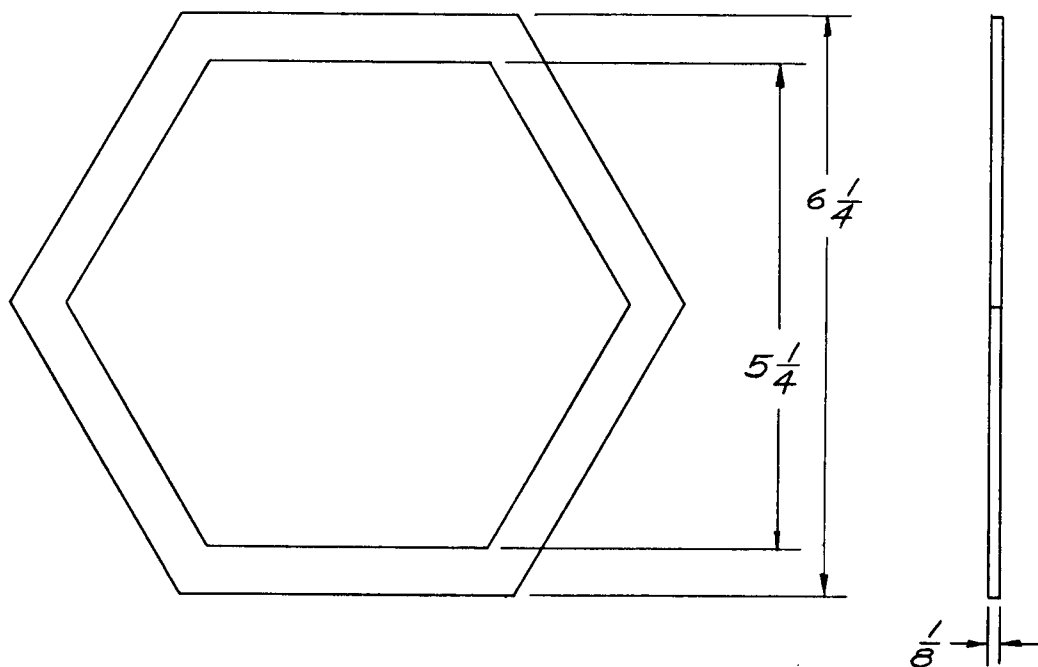


(10-A) COSMIC DUST DETECTOR

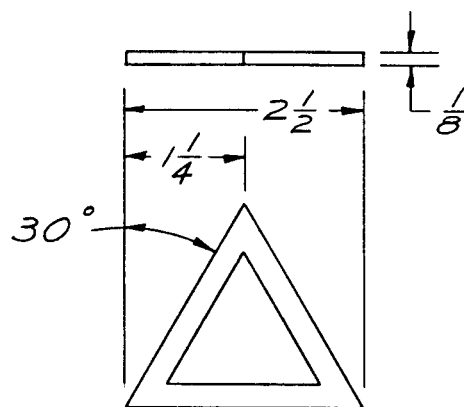
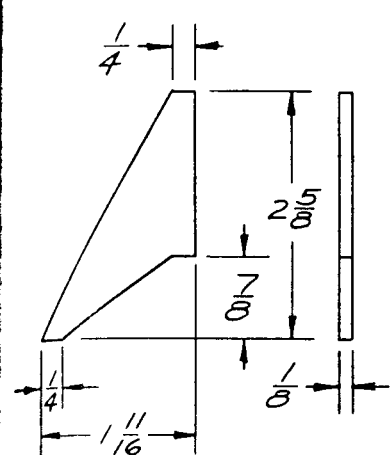




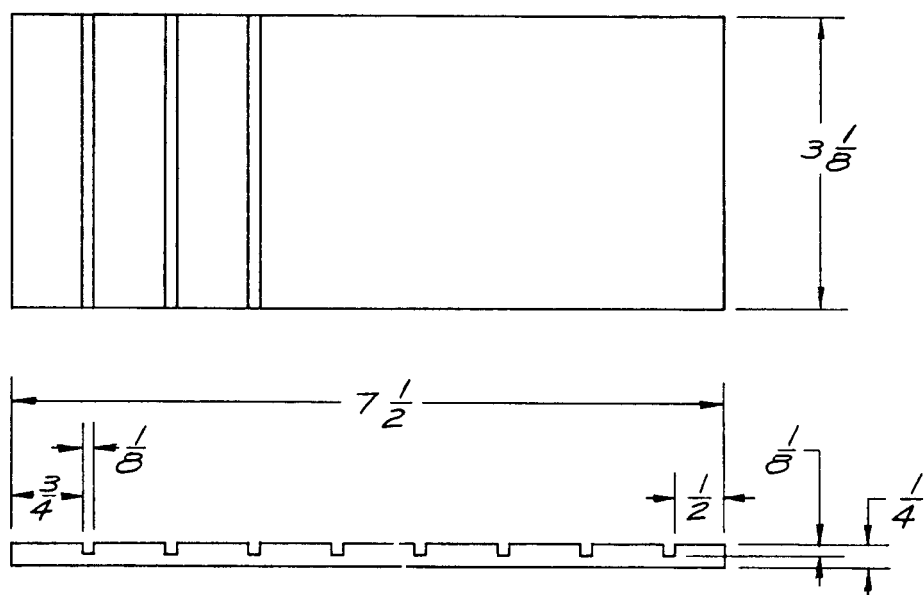
③ TEMPERATURE CONTROL SHIELD 1-REQD



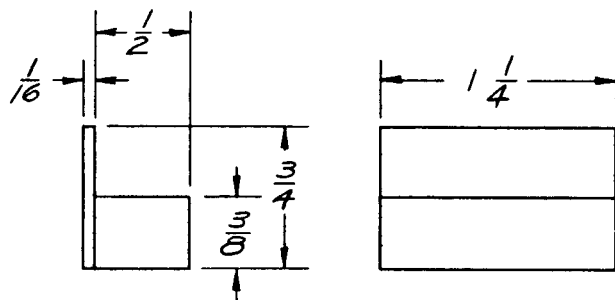
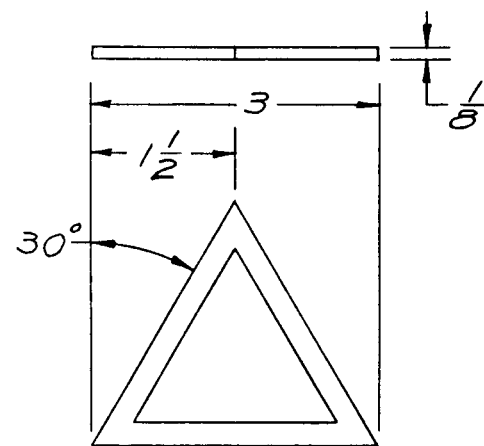
④ LEG BASE 1-REQD.



(5) LEG 6 - REQD (7) UPPER ANTENNA SUPPORT 1 - REQD

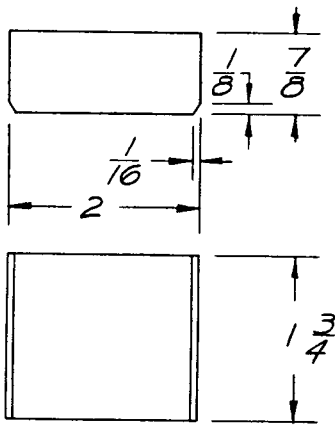


(6) SOLAR PANEL 2 - REQD

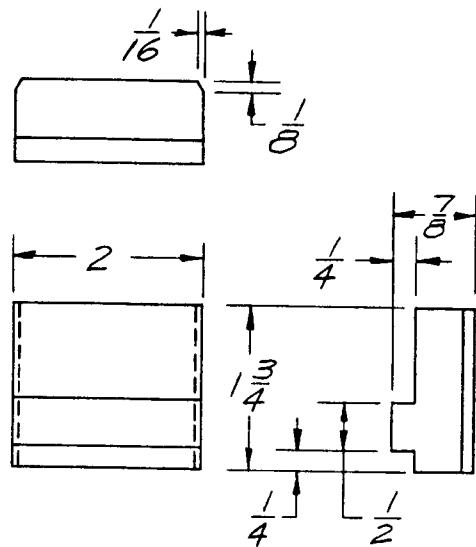


(9) COSMIC DUST DETECTOR

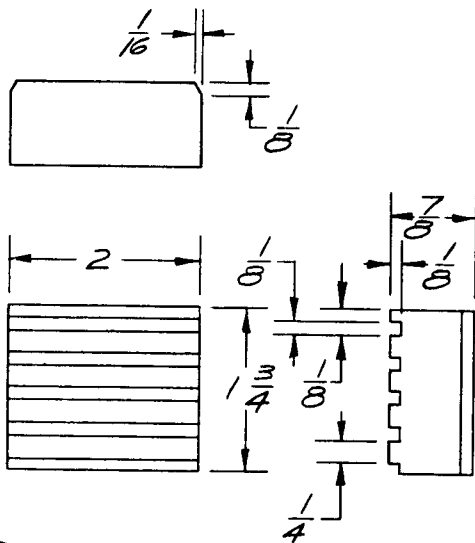
(8) LOWER ANTENNA SUPPORT 1 - REQD



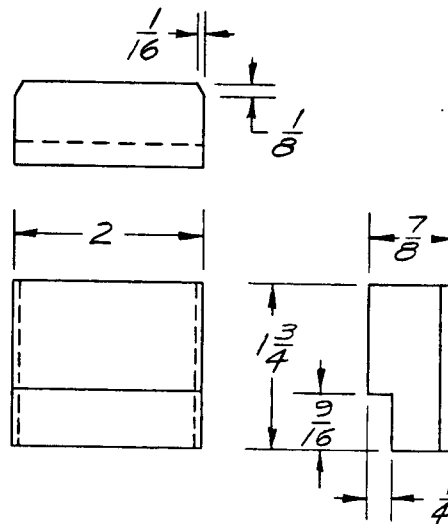
10



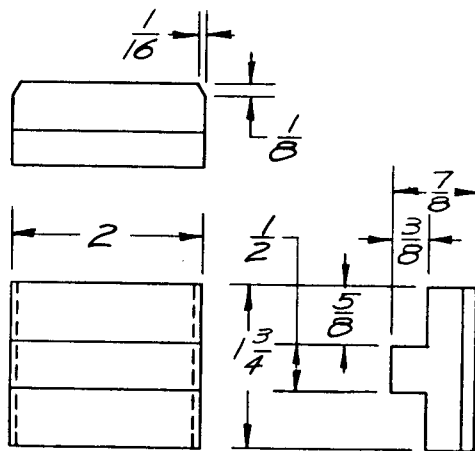
11



12

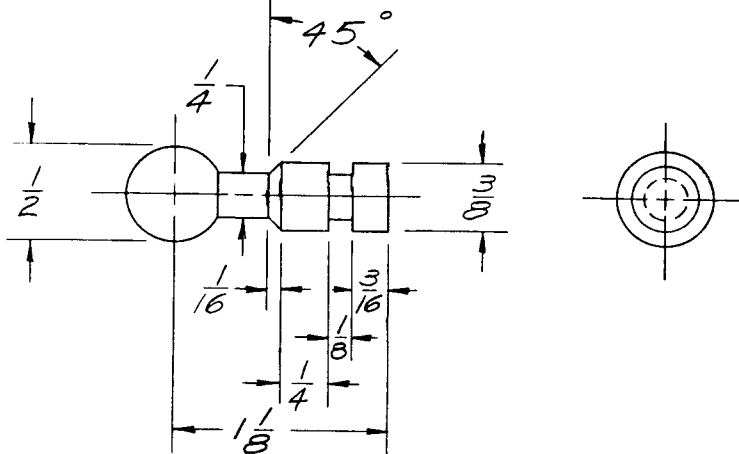


13

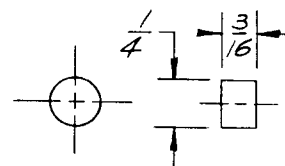


14

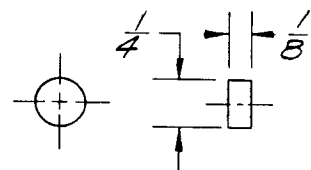
TEMPERATURE CONTROL LOUVER 1-REQD



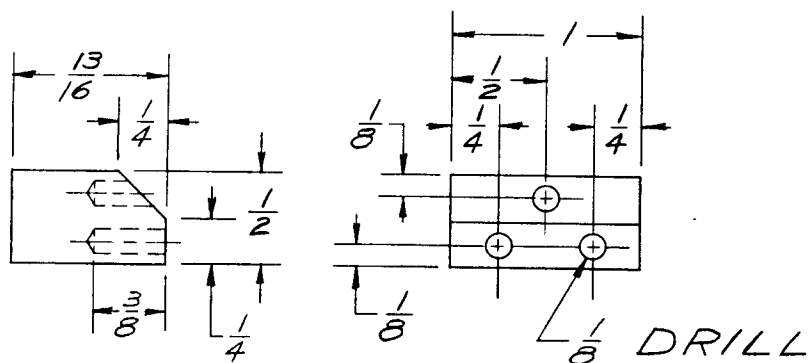
(15) 10N CHAMBER 1-REQD



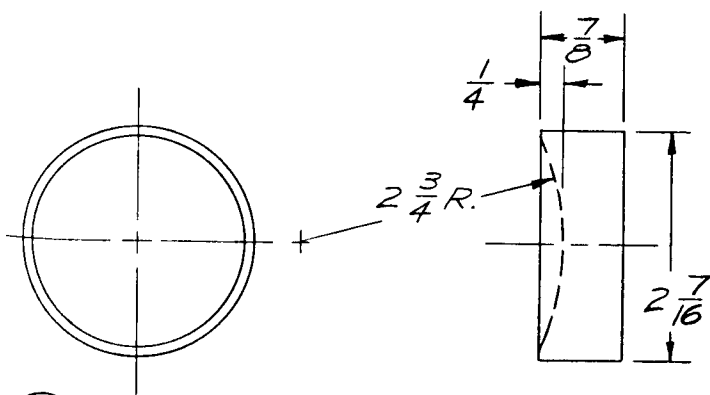
(18) SPACER 1-REQD



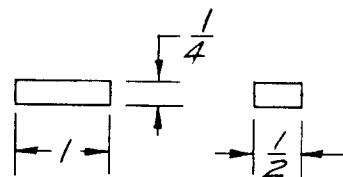
(19) SPACER 1-REQD



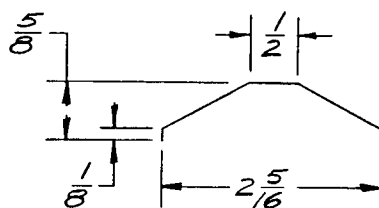
(16) PARTICLE FLUX DETECTOR 1-REQD



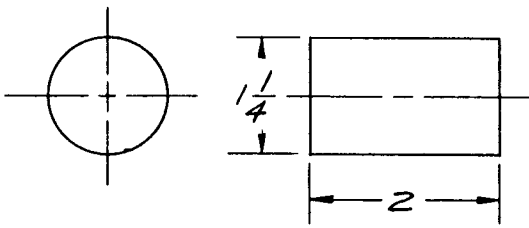
(17) RADIOMETER 1-REQD



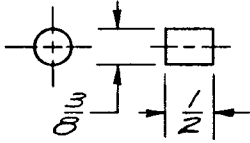
(20) SPACER 1-REQD



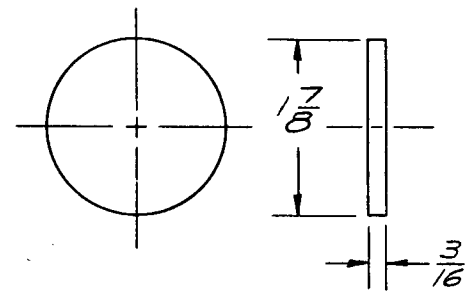
(21) WIRE 2-REQD



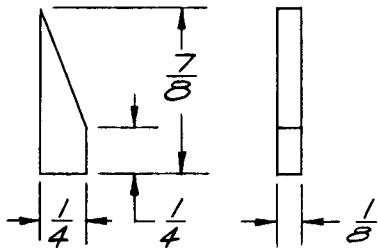
(22) OMNI SHAFT



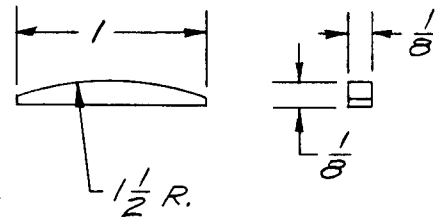
(24) SENSOR



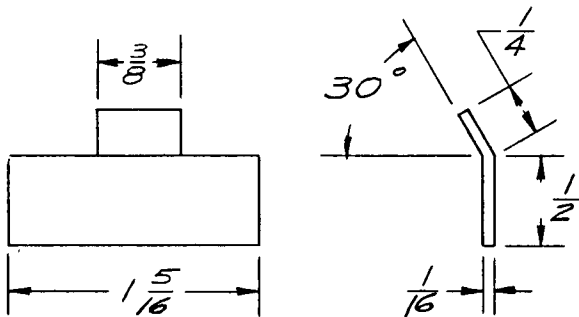
(23) OMNI BASE



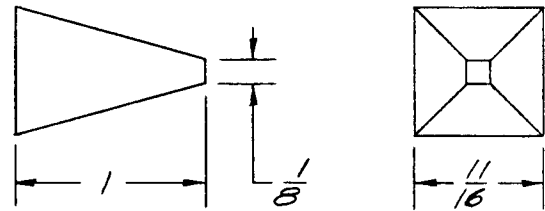
(25) OMNI BRACE 8-REQD
2 X



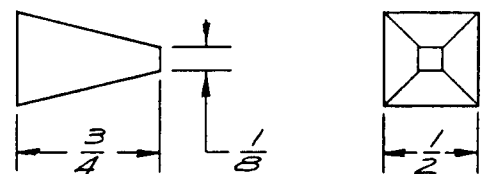
(26) OMNI TOP 2-REQD
2 X



(27) HORN BASE 2 X



(28) HORN 2 X



(29) HORN 2 X

Mariner

Recommended materials for construction			
Part no.	Number required	Recommended material	Color
1	One	Wood - pine	Silver
2	One	Wood - maple	Gold
3	One	Wood – pine	Silver
4	One	Aluminum	Gold
5	Six	Aluminum	Gold
6	Two	Plastic	Silver-purple
7	One	Wood - pine	Gold
8	One	Wood - pine	Gold
9	One	Wood - balsa	Gold
10	Two	Wood - pine	Silver
11	One	Wood - pine	Silver
12	One	Wood - pine	Silver
13	One	Wood - pine	Silver
14	One	Wood - pine	Silver
15	One	Wood - maple	Silver
16	One	Wood - pine	Silver
17	One	Wood - maple	Silver
18	One	Dowel - rod	Silver
19	One	Dowel - rod	Silver
20	One	Wood - pine	Silver
21	Two	Wire	Silver
22	One	Wood - pine	Light brown
23	One	Wood - pine	Light brown
24	One	Dowel - rod	Light brown
25	Eight	Wood - pine	Light brown
26	One	Wood - pine	Light brown
27	One	Aluminum	Silver
28	One	Wood - pine	Silver
29	One	Wood - pine	Silver
30	One	Wire	Gold
31	Two	Sheet metal	Gold

Recommended procedure for construction				
Part no.	Suggested materials	Fabrication technique	Surface treatment	Assembly recommendations
1	Wood or plastic	Layout and cut a hexagon to specified dimensions and "slot" to accommodate part no. 5 as indicated on detail no. 1	Finish sand all surfaces	
3	Wood – pine	Cut and shape to specified dimensions	Finish sand all surfaces	
4	Metal – sheet aluminum	Cut and shape to specified dimensions	Polish	
5	Metal – sheet aluminum	Cut and shape to specified dimensions	Polish	Subassemble parts no. 5, 1, and 4 using epoxy resin
10	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 1 as specified on detail no. 5A
11	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 1 as specified on detail no. 5A
12	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 1 as specified on detail no. 5A
13	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 1 as specified on detail no. 5A
14	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 1 as specified on detail no. 5A
7	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	
8	Wood - pine	Cut and shape to specified dimensions	Finish sand all surfaces	
22	Wood - pine	Turn on lathe to specified dimensions	Finish sand	
23	Wood – pine	Cut and shape to specified dimensions	Finish sand	
24	Dowel – rod	Cut and shape to specified dimensions	Finish sand	
25	Balsa wood	Cut and shape to specified dimensions	Finish sand all surfaces	
26	Wood - pine	Cut and shape to specified dimensions	Finish sand	Glue parts no. 22, 23, 24, 25 and 26 as indicated on detail drawing no. 7A
				Assemble parts no. 3, 7 and 8 and subassemble no. 7A using 1/8" dowel rod as indicated on detail nos. 1A, 3A, and 4A

9	Wood – balsa	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 3 as indicated on detail no. 1A
15	Wood – maple	Turn on lathe to specified dimensions	Finish sand	Glue to 1/8" dowel rods supporting part no. 8 as indicated on detail no. 2A
16	Wood – pine	Cut and shape to specified dimensions. Layout and drill holes as specified	Finish sand all surfaces	
10A				Glue 1/8" dowels to part no. 16 as specified on detail no. 10A. Glue part no. 10A to part no. 8 as indicated on detail no. 2A
17	Wood – maple	Turn on lathe to specified dimensions	Finish sand all surfaces	
18	Dowel – rod	Cut to specified length		Glue to part no. 17 using epoxy resin
19	Dowel - rod	Cut to specified length		Glue to part no. 17 using epoxy resin
20	Wood – pine	Cut and shape to specified dimensions	Finish sand all surfaces	Glue to part no. 18 using epoxy resin as indicated on detail no. 9A
21	Wire	Shape as specified on detail no. 21		Glue to part no. 17 as indicated on detail no. 9A using epoxy resin
27	Sheet metal – aluminum	Cut and shape to specified dimensions		
28	Wood – pine	Cut and shape to specified dimensions	Finish sand all surfaces	
29	Wood – pine	Cut and shape to specified dimensions	Finish sand all surfaces	
8A				Subassemble parts no. 27, 28 and 29 as specified. Glue to part no. 9A using epoxy resin
31	Sheet metal	Cut and shape to specified dimensions	Finish all surfaces	
6	Plastic or wood (maple)	Cut and shape to specified dimensions	Finish all surfaces	Assemble to part no. 31 using brads. Glue part no. 31 to part no. 4 using epoxy resin
2	Wood - maple	Turn on lathe as specified in detail no. 2	Finish sand	
6A		Complete fabrication of antenna as indicated on detail no. 6A		

30		Using no. 16 wire construct hinge as indicated on detail no. 2A		Attach to part no. 6A using epoxy resin. Secure remaining end to part no. 5 so antenna will hinge into part no. 4
			Paint parts no. 1, 3, 6, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 27, 28 and 29 silver	
			Paint parts no. 2, 4, 5, 7, 8, 9, 30 and 31 gold	
			Paint part no. 15 black	
			Paint parts no. 22, 23, 24, 25 and 26 light brown	
			Paint solar cell surfaces on part no. 6 purple	