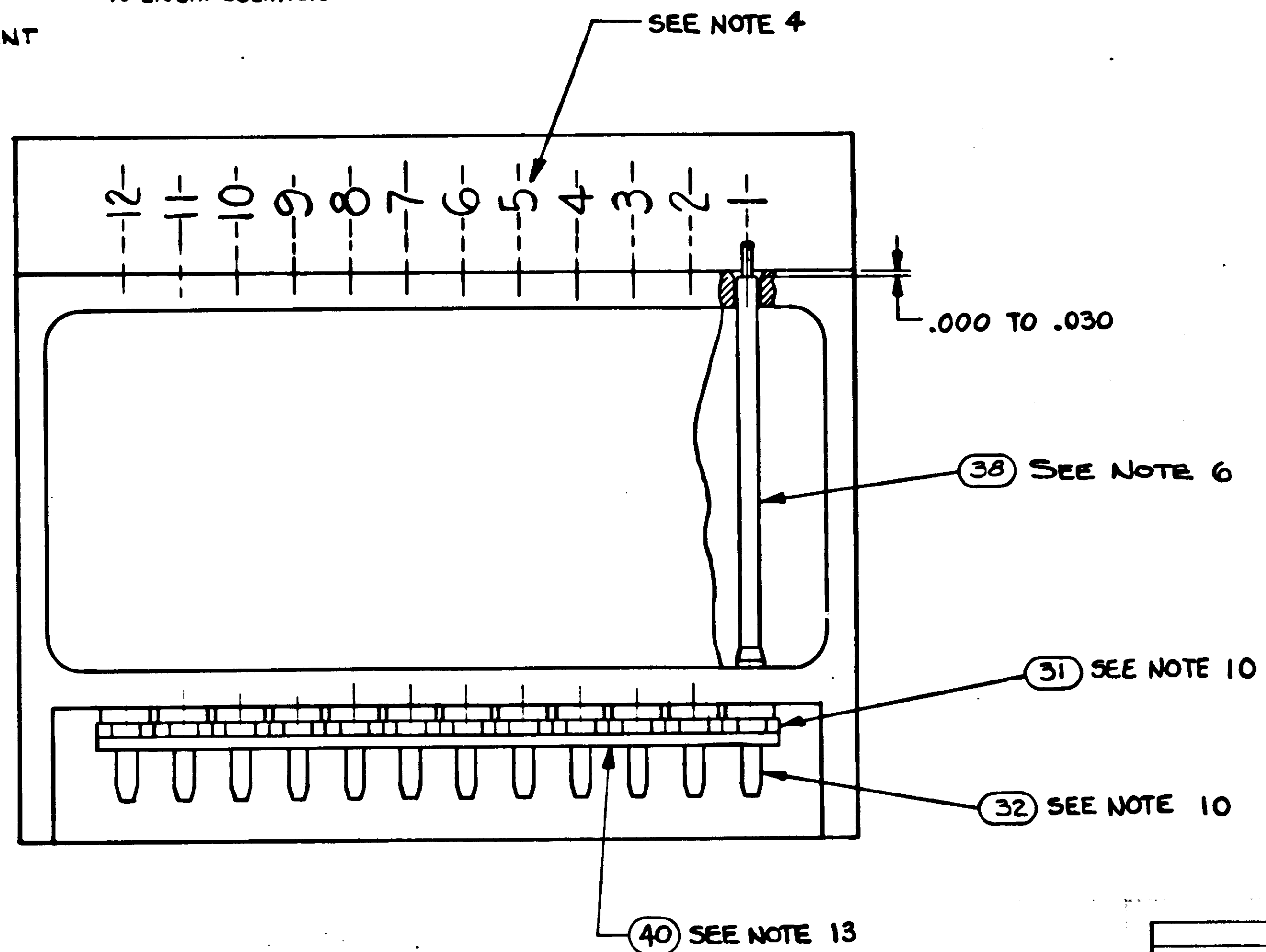


1. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
2. UNLESS OTHERWISE SPECIFIED: WIRING SHALL MEET THE REQUIREMENTS OF ND 1002069.
3. ENCAPSULATE MODULE PER ND 1002002 (BLACK POLYURETHANE FOAM) UNLESS OTHERWISE SPECIFIED PERIPHERAL ENCAPSULANT DIMENSIONS MAY EXCEED THE NOMINAL HEATSINK WIDTH AND LENGTH DIMENSIONS BY A MAXIMUM OF .005. WHEN THE HEATSINK OUTLINE EXCEEDS THE ENCAPSULANT OUTLINE, THE MAXIMUM DIMENSION BETWEEN ANY HEATSINK SURFACE AND ITS RESPECTIVE ENCAPSULANT SURFACE SHALL NOT EXCEED .015. REMOVE ALL FLASHING
4. MARK PIN NUMBERS $\frac{.100}{.060}$ HIGH (WHITE) AND ALL OTHER CHARACTERS $\frac{.140}{.100}$ HIGH (WHITE) PER ND 1002019 AND SERIALIZE PER ND 1002023. CENTRALIZE AS SHOWN.
5. AREA TO BE FREE OF ENCAPSULATING COMPOUND
6. USE AS REQUIRED
7. ON ITEMS (2), (3) AND (4):
 'K' INDICATES CATHODE SIDE OF DIODE
 FT () INDICATES FEED THRU
 'C' INDICATES COLLECTOR LEAD OF TRANSISTOR
 B = BASE
 E = EMITTER
 C = COLLECTOR
 B() = BASE
 E() = EMITTER
 MULTI-STAGE TRANSISTOR
8. WHITE DOT AND CLEAR WIRING INDICATES LOWER LEVEL WIRING. BLACK DOT AND CROSS-HATCHED WIRING INDICATES UPPER LEVEL WIRING.
9. TYPICAL SLEEVING FOR CR1 THRU CR4, R1 THRU R8, R14, R16 AND R18
10. MUST MEET REQUIREMENTS OF ND 1002136
11. TORQUE TO 4 ± 1 IN-LB FOR ASSY OF ITEM 10
12. ALL CONNECTIONS TO BE MADE BY WELDING PER ND 1002005
13. BOND ITEM (40) TO ITEM (31) PER ND 1002237.
14. COMPONENTS TO BE CEMENTED IN PLACE PER ND 1002009 METHOD M AND CENTRALIZED
15. USE MIL-1-631 TYPE F, FORM U, GRADE C, CLASS I, CATEGORY I, ONE PLACE ONLY. BOND IN PLACE PER ND 1002004, TYPE I
16. PROCURE PER PS 1007041.
17. FILL PER ND 1002117
18. BOND A .25 MIN. WIDE PERIMETER OF THE TOP AND BOTTOM INSULATORS TO THE HEATSINK AND COAT A .25 MIN. WIDE PERIMETER ON THE OUTSIDE SURFACE OF THE INSULATORS PER ND 1002187 TYPE F.

19. CLEAN MODULE WHERE POSSIBLE PRIOR TO BONDING OF WAFER BOARDS AND APPLICATION OF COATING MATERIAL BY DEGREASING WITH FECON AND 150-PROPYL ALCOHOL. ADHESIVE AND COATING MATERIAL PER ND 1002187 TYPE II. APPLY MATERIAL AND COATING AS INDICATED IN TABLE I.
20. EXCEPT FOR HELICOIL MOUNTING SURFACE, PAINT ALL SURFACES PER ND 1002110 TYPE II, AFTER ENCAPSULATION. USING BLACK PAINT PER 101279-4. CURE AT 140° F FOR EIGHT HOURS. CONNECTOR PIN BLADES INSULATORS TO BE FREE FROM PAINT.
21. CLEAN MODULE WHERE POSSIBLE BY DEGREASING WITH FECON & 150-PROPYL ALCOHOL PRIOR TO ENCAPSULATION.



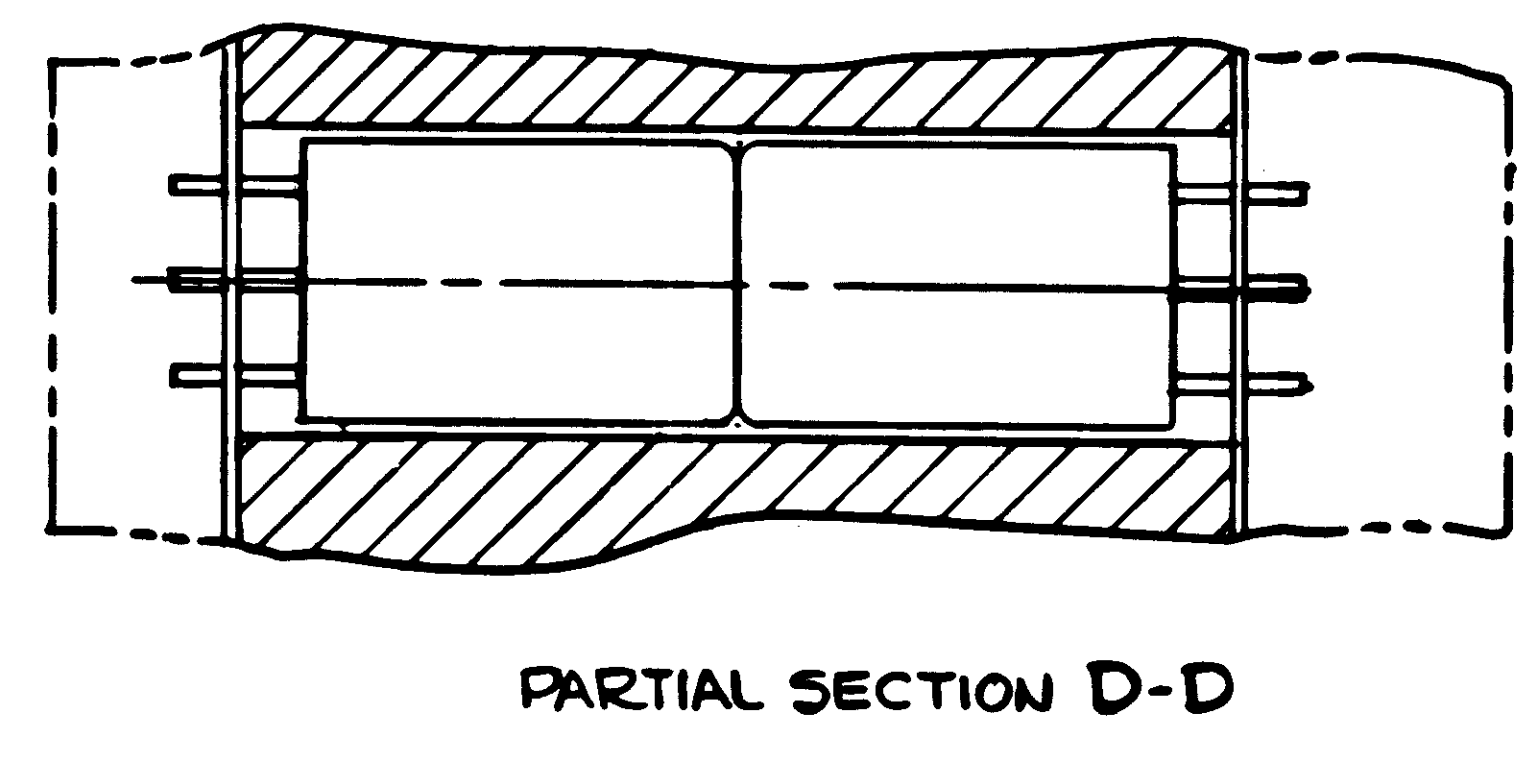
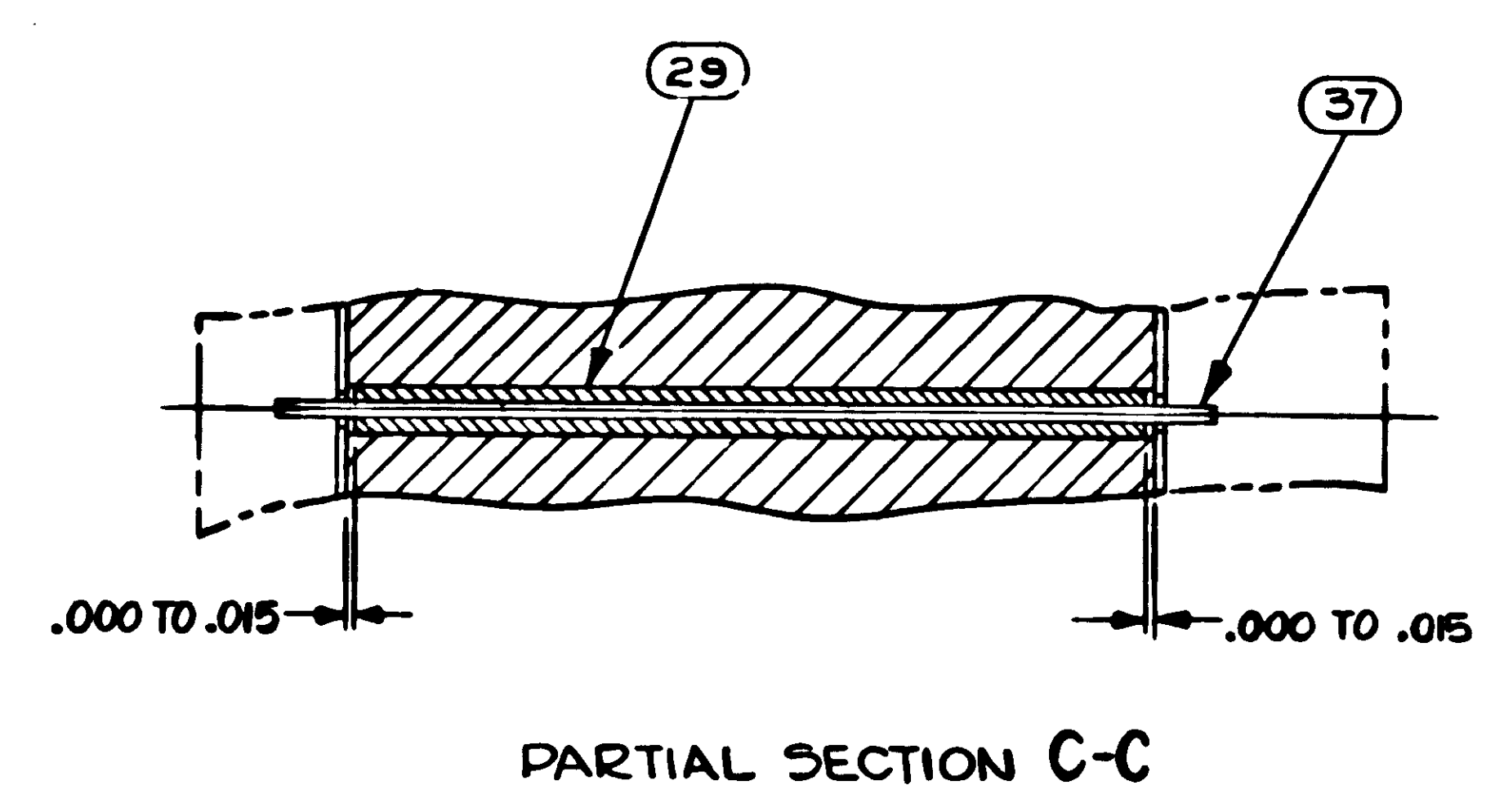
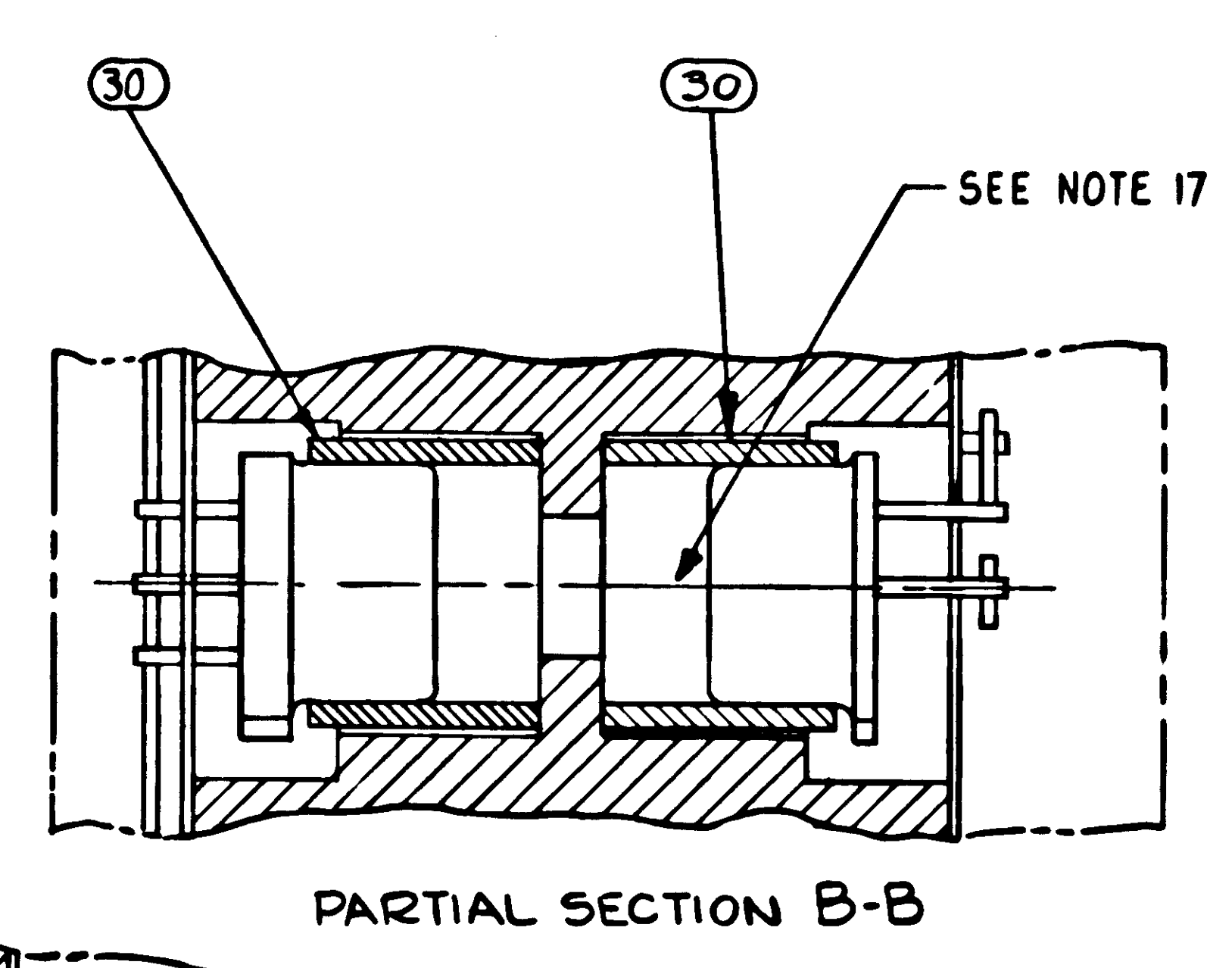
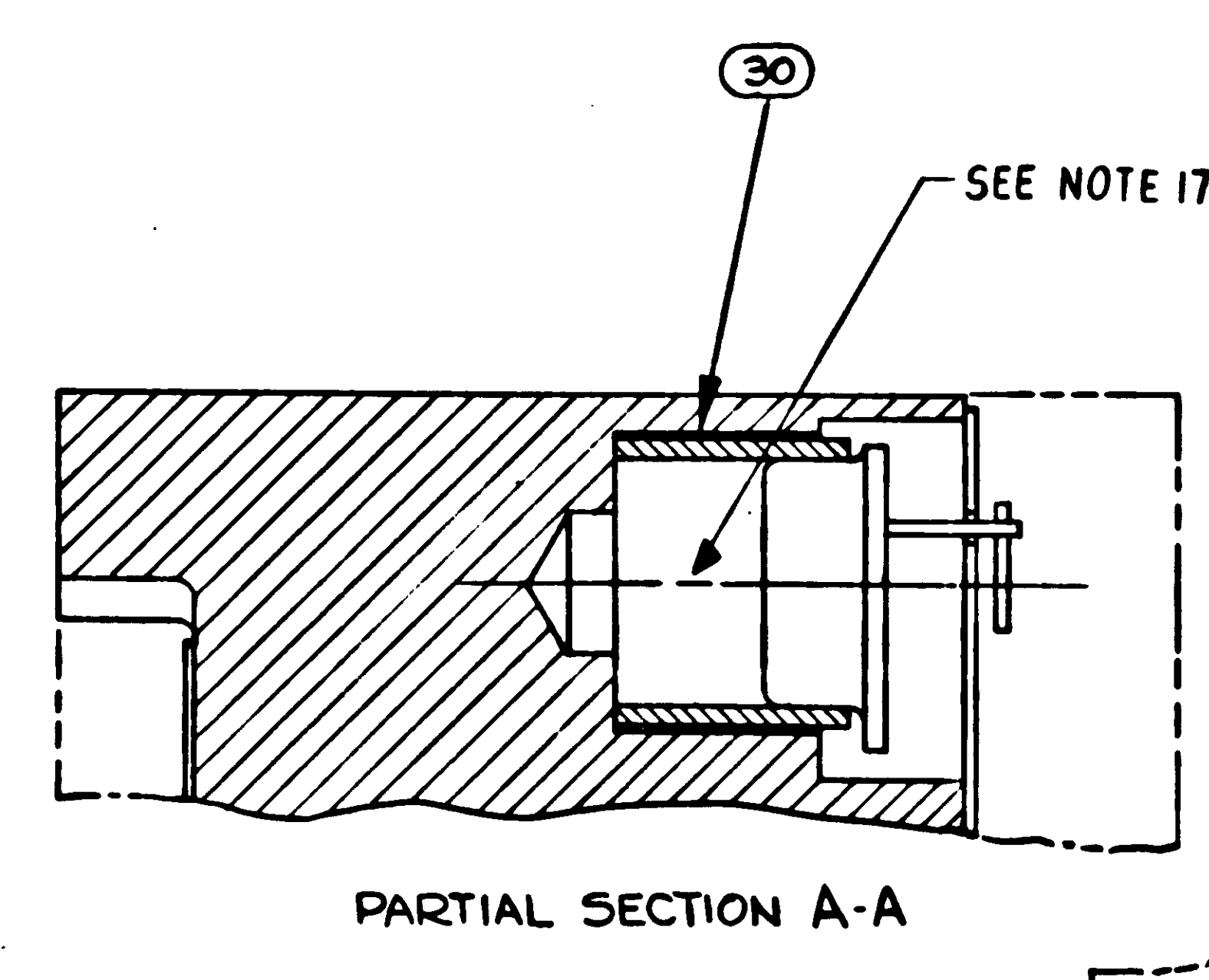
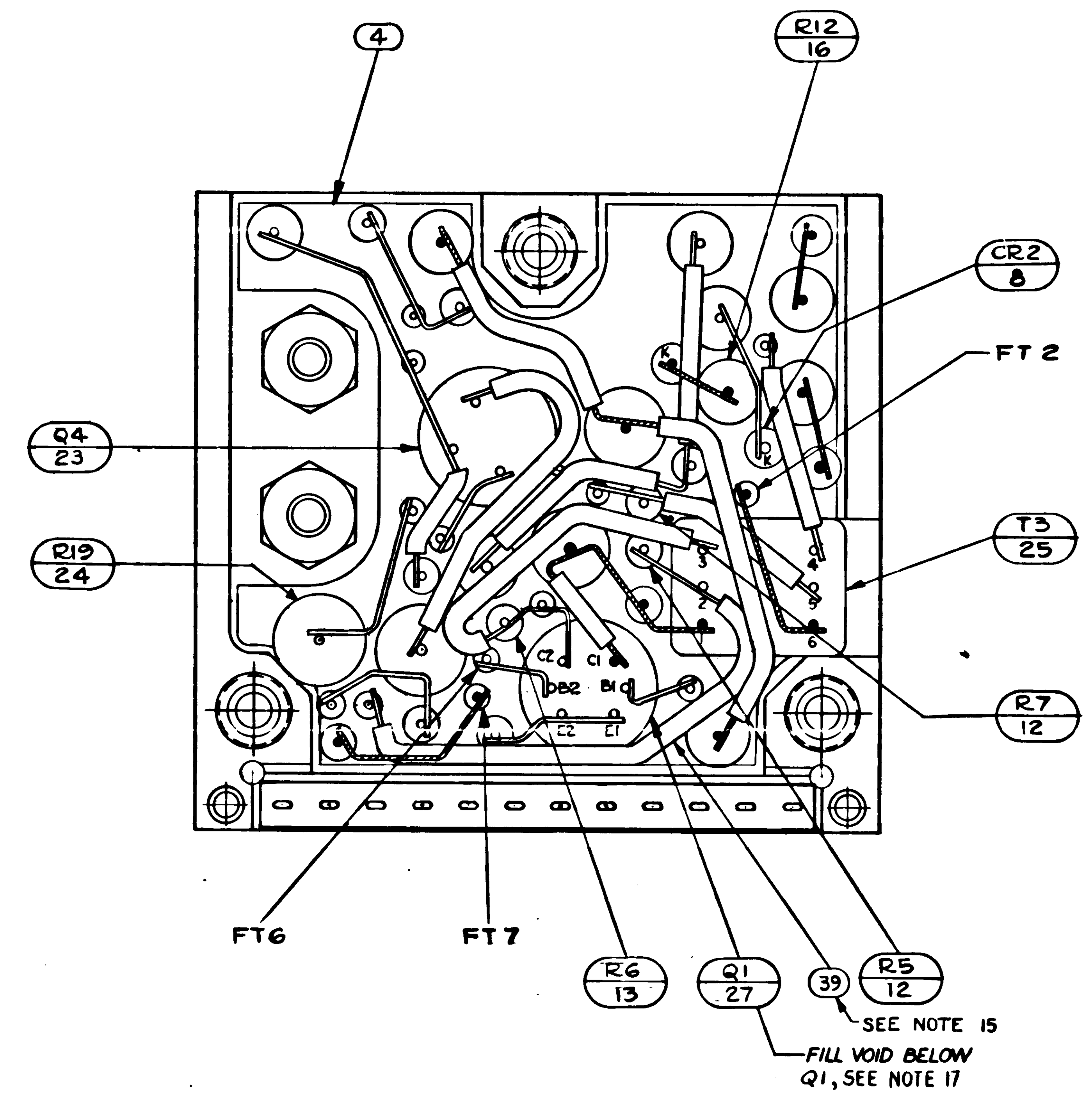
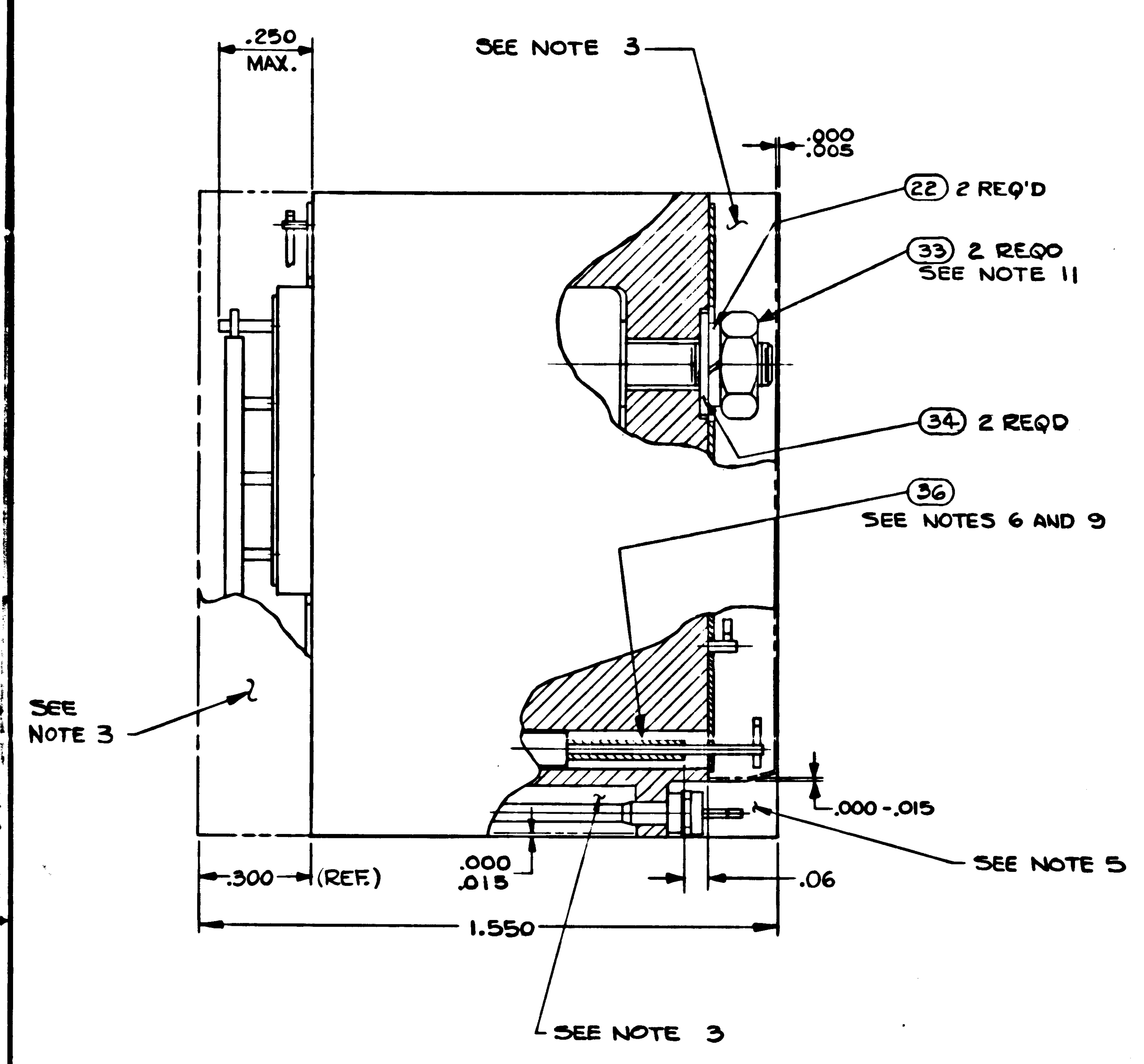
REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPRO
A		REVISED PER TDRR 175B1		
B		REVISED PER TDRR 19403		
C		REVISED PER TDRR 19429		
D		REVISED PER TDRR 19507		

CONFIGURATION	BOND BETWEEN WAFER AND HEATSINK	TOP OF WAFER ADJACENT TO HEATSINK SURFACE	HEATSINK-FOAM CONTACT SURFACE ADJACENT TO HEATSINK EXTER SURFACE
WAFER & FLAT HEATSINK	100% OF AREA .10 FROM EXTERNAL HEATSINK SURFACE/BOX OF AREA .08 FROM EXTERNAL HEATSINK SURFACE	100% OF AREA .25 FROM EXTERNAL WAFER SURFACE	N/A
WAFER AND ADJACENT VERTICAL HEATSINK SURFACE	CORNER FILLET AND VERTICAL SURFACE TO WITHIN .03 ± .03 OF EXTERNAL SURFACE	100% OF AREA .25 FROM EXTERNAL WAFER SURFACE	N/A
HEATSINK FOAM CONTACT SURFACE PERIMETER	N/A	N/A	25 MIN WIDTH OR TOTAL AVAILABLE ON 90% OF PERIMETER .10 WITHIN .03 ± .03 OF EXTERNAL EDGE

REF	QTY	DESCRIPTION	UNIT
REF 100023		SCHEMATIC	
REF 1009524		SCHEMATIC	
1	1	40 1008540-12	GASKET, CONNECTOR MINIATURE
AR	AR	39 MIL-1-631	INSULATION, SLEEVING 22 GA
AR	AR	38 1006776-20	INSULATION SLEEVING
AR	AR	37 1006757-8	WIRE, ELEC.
AR	AR	36 1006776-21	INSULATION SLEEVING
AR	AR	35 1006757-1	WIRE, ELEC.
2	2	34 1006070-5	WASHER- FLAT
2	2	33 MS20341-4A	NUT- HEX
12	12	32 1006782-5	CONTACT, WRAPOST MALE MINAT.
12	12	31 1006775	INSULATOR, WRAPOST MALE MINAT
3	3	30 1008025-2	INSULATOR, BUSHING
AR	AR	29 1006776-22	INSULATION SLEEVING
2	2	28 1010270	TRANSISTOR
1	1	27 1010252-1	TRANSISTOR
1	1	26 1010326	TRANSFORMER
2	2	25 1010328-1	TRANSFORMER
2	2	24 1010278-71	RESISTOR, FIXED
1	1	23 1010345-1	TRANSISTOR
2	2	22 MS35338-78	WASHER, LOCK
1	1	21 1010364-543	RESISTOR, FIXED
1	1	20 1006750-56	RESISTOR
1	1	19 1010364-765	RESISTOR, FIXED
1	1	18 1010369-105	RESISTOR, FIXED
1	1	17 1010364-579	RESISTOR, FIXED
4	4	16 1010364-443	RESISTOR, FIXED
1	1	15 1006750-43	RESISTOR
1	1	14 1006750-48	RESISTOR
2	2	13 1010369-97	RESISTOR, FIXED
4	3	12 1006750-73	RESISTOR
1	2	11 1006750-80	RESISTOR
1	1	10 1010353-1	RELAY, ELECTROMAGNETIC
1	1	9 1010372-22	DIODE, SEMICONDUCTOR DEVICE
4	4	8 1010392-1	DIODE, SEMICONDUCTOR DEVICE
1	1	7 1010279-232	CAPACITOR, FIXED
1	1	6 1010279-228	CAPACITOR, FIXED
1	1	5 1010264-15	CAPACITOR, FIXED
1	1	4 1015692	INSULATOR
1	1	3 1015690	INSULATOR
1	1	2 1015691	INSULATOR
1	1	1 1015689	HEATSINK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	INSTRUMENTATION LAB	SPACELCRAFT CENTER
FRACTIONS DECIMALS ANGLES	DRAWN: <i>Charles R. Rye</i>	HOUSTON, TEXAS
+ - .XXX ± .005 + -	CHECKED: <i>Charles R. Rye</i>	GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY
- - .XX ± .02 - -	APPROVAL: <i>Charles R. Rye</i>	CODE IDENT NO. 80230
DO NOT SCALE THIS DRAWING	MATERIAL	SIZE E
NEXT ASSY USED ON	APPLICABLE DASH NO.	SCALE 1:1
APPLICATION		SHEET 1 OF 2
THE ASSEMBLY PART NUMBER IS THE DRAWING NUMBER AND THE DASH NUMBER THAT APPLIES	CONTRACT NAS 9-497	

REVISIONS				
SYMBOL	DESCRIPTION	CHK NO.	DATE	APPD.
A	REVISED PER TDRR 17331		14 MAR 64	
B	REVISED PER TDRR 19403		2 JUN 64	
C	REVISED PER TDRR 19429		3 JUL 64	
D	REVISION STATUS CHG PER TDRR 19507		12 SEP 64	



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES OR FRACTIONS DECIMALS ANGLES + - + - + - DO NOT SCALE THIS DRAWING	BY INSTRUMENTATION LAB CHECKED BY DATE DRAWN CHECKED BY APPROVAL	MANAGED SPACECRAFT CENTER HOUSTON TEXAS
	80230 E	GIMBAL COARSE ALIGN AMPLIFIER MODULE ASSY
MATERIAL CONTRACT NAS 9-497	NASA APPROVAL MIL APPROVAL	CODE IDENT NO. SIZE 80230 E 1007541 SCALE 5:1 SHEET 2 OF 2