

REQUIREMENTS:

1. GENERAL:

- A. INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED BY MIL-D-70327.
- B. SWITCHES SHALL BE CAPABLE OF MEETING THE REQUIREMENTS OF MIL-S-6743, EXCEPT AS OTHERWISE SPECIFIED HEREIN.
- C. THE SUPPLIER SHALL CONFORM TO QUALITY ASSURANCE PROVISIONS AS CONTAINED IN ND 1015404, CLASS 1.
- D. UNITS SHALL BE CAPABLE OF MEETING THE QUALIFICATION REQUIREMENTS OF ND 1002055 UNLESS MODIFIED OR AMENDED BY DESIGN REQUIREMENT SECTION OF THIS DRAWING.
- E. PRESERVATION, PACKAGING, PACKING AND CONTAINER MARKING PER ND 1002215 CLASS 1 CODE 1.

2. INSPECTION AND ACCEPTANCE:

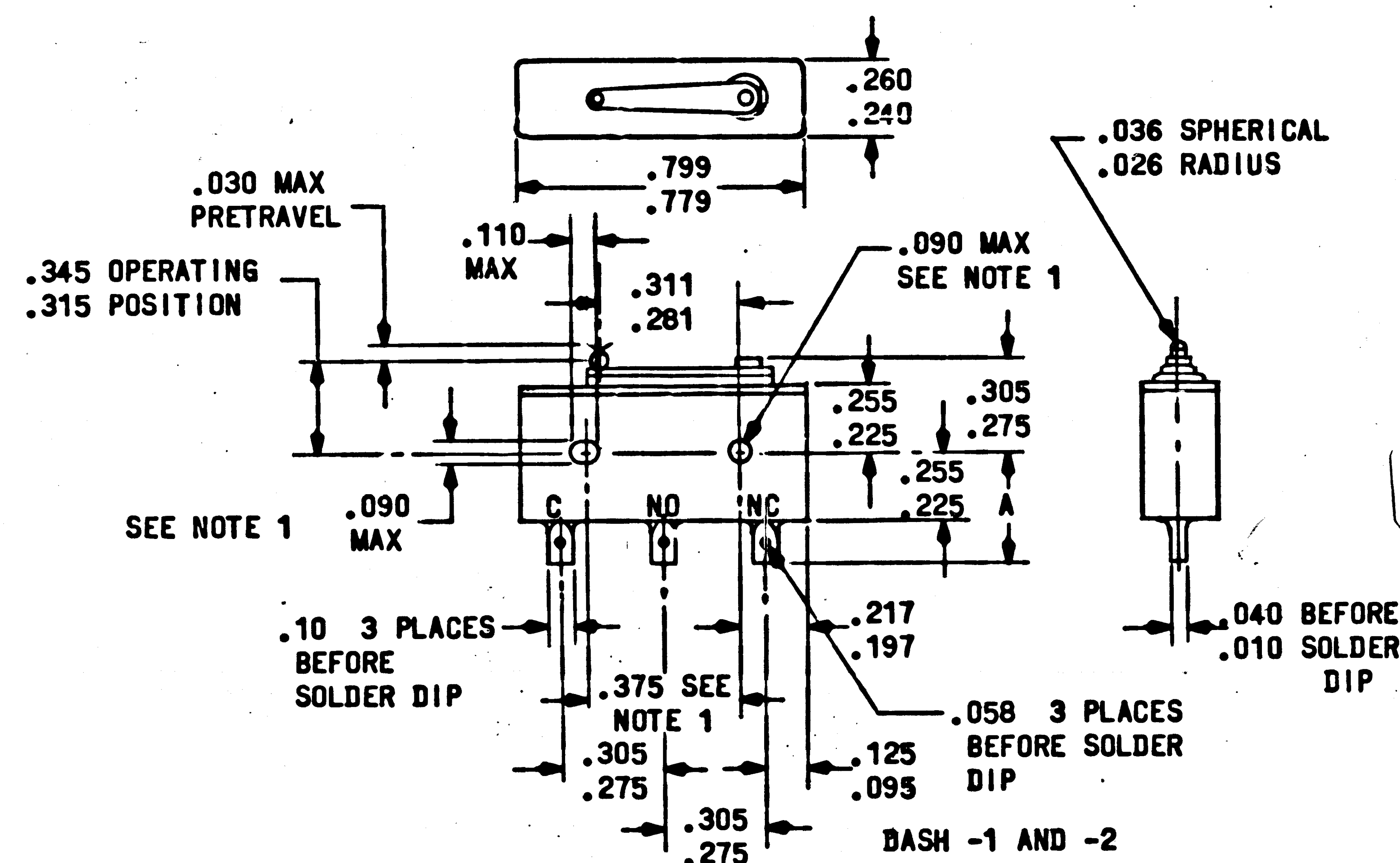
A. MECHANICAL REQUIREMENTS:

- Mechanical Requirements:**
- (1) ACTUATING FORCE: 7 OUNCES, MAXIMUM.
 - (2) RELEASE FORCE: 1 OUNCE, MINIMUM.
 - (3) PRE TRAVEL: 0.030, MAXIMUM.
 - (4) DIFFERENTIAL MOVEMENT: 0.006 MAXIMUM.
 - (5) OVER TRAVEL: 0.003, MINIMUM.
 - (6) OVER TRAVEL FORCE: 3 POUNDS MAXIMUM.
 - (7) CONTACT ARRANGEMENT: SINGLE POLE, DOUBLE THROW.
 - (8) MATERIAL AND FINISH:
 - (a) EXTERNAL METAL PARTS (EXCEPT TERMINALS) - STAINLESS STEEL, PASSIVATED.
 - (b) TERMINALS SOLDER LUG-NICKEL IRON ALLOY-SOLDER DIPPED.
 - (c) TERMINAL AND LEAD IMBEDMENT-RTV SILICONE RUBBER PER NASA DRAWING 1006720.

(9) MARKING:

- (9) MARKING:
- (a) PIECE MARKING: PARTS SHALL BE PERMANENTLY AND LEGIBLY MARKED PER ND 1002019 WITH THE NASA DRAWING NUMBER, PLUS DASH NUMBER AND REVISION LETTER, AND MANUFACTURER'S SERIAL NUMBER. TERMINAL IDENTIFICATION SHALL BE PERMANENTLY AND LEGIBLY MARKED ON THE PARTS.
 - (b) PACKAGE: INTERNAL INDIVIDUAL OR COLLECTIVE PACKAGES AND EXTERNAL PACKAGING SHALL BE MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME OR SYMBOL, NASA PART NUMBER AND REVISION LETTER, MANUFACTURER'S LOT OR SERIAL NUMBER, DATE CODE OR DATE OF MANUFACTURE.
 - (c) MANUFACTURER'S PART NUMBER MAY APPEAR ON THE PART OR PACKAGE.
- (10) SEALING: (100%) LEAKAGE SHALL BE LESS THAN 10^{-8} CC/SEC. (CONVERTED TO LEAKAGE OF HELIUM) AT A PRESSURE DIFFERENTIAL OF 1 ATMOSPHERE. TEST SHALL BE PERFORMED WITH A MASS SPECTROMETER OR OTHER EQUIPMENT CAPABLE OF THE REQUIRED ACCURACY.

PROCURE ONLY FROM APPROVED SOURCES LISTED ON
ND 1002034 FOR THIS DRAWING.



QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION		FIN NO.
LIST OF MATERIALS				
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS CONTRACT NAS 9-497		MANNED SPACECRAFT CENTER HOUSTON, TEXAS		
Dwg. No. <i>11-DEC-64</i> DATE DRAWN <i>Bender</i> CHECKED <i>M. Manning</i> <i>14 DEC 64</i> APPROVAL <i>Bender</i> <i>15 DEC 64</i> APPROVAL <i>J. J. King</i> <i>4/1/65</i>		SWITCH, SENSITIVE		
SPECIFICATION CONTROL DRAWING				
NASA APPROVAL <i>W. J. Phillips</i> <i>1-19-65</i> MIT APPROVAL <i>W. J. Phillips</i> <i>1/19/65</i>		CODE IDENT NO. 80230	SIZE C	NASA DRAWING NO. 1010901
SCALE NONF		WT		SHEET 1 OF 3

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INSPECTION AND ACCEPTANCE: (CONTINUED)

B. ELECTRICAL REQUIREMENTS:

- (1) DIELECTRIC WITHSTANDING VOLTAGE: 1000 VOLTS RMS, 70,000 FEET: 300 VOLTS RMS.
- (2) INSULATION RESISTANCE: (100%) SHALL BE A MINIMUM OF 100 MEGOHMS WHEN MEASURED WITH 100 VDC APPLIED FOR A MAXIMUM OF 1 MINUTE BETWEEN TERMINALS AND GROUND OR CASE AND MUTUALLY INSULATED PARTS.
- (3) CONTACT RESISTANCE: (100%) SHALL BE MEASURED WITH 1 MILLIAMPERE FROM A 6 VOLT DC OPEN CIRCUIT VOLTAGE. THE CONTACTS SHALL NOT SWITCH THE MEASURING LOAD. LIMITS SHALL BE 1 OHM MAX. INITIALLY, DURING AND AFTER THE SPECIFIED CYCLES OF LIFE.

3. DESIGN:

- A. TEMPERATURE RANGE: MINUS 300°F TO PLUS 250°F.
- B. CONTACT RATING (28 VOLTS DC/125 VOLTS, 400 CYCLES):
 - (1) RESISTIVE: 5 AMPERES
 - (2) INDUCTIVE: 3 AMPERES
- C. STRENGTH OF TERMINALS: PER ND 1002055, EXCEPT AS OTHERWISE NOTED IN TABLE BELOW.
- D. STRENGTH OF ACTUATOR AND STOP: 10 POUNDS.
- E. MINIMUM OPERATING CYCLES: 25,000
- F. SWITCHES SHALL BE HERMETICALLY SEALED AND FILLED WITH AN INERT GAS.
- G. TERMINALS-SOLDER LUGS ONLY, SHALL BE TINNED FOR SOLDERING.
- H. DIELECTRIC STRENGTH: PER ND 1002055, EXCEPT TEST VOLTAGE AT A SIMULATED ALTITUDE OF 70,000 FEET SHALL BE 300 VOLTS RMS AT 60 CPS.
- J. SHOCK: PER ND 1002055, EXCEPT HALF SINE WAVE SHOCK INPUT SHALL BE USED.
- K. LIFE: PER ND 1002055, EXCEPT DIELECTRIC STRENGTH SHALL BE PERFORMED AT A TEST VOLTAGE OF 500 VOLTS RMS AT 60 CPS AND CONTACT RESISTANCE LIMITS SHALL BE 500 MILLIOHMS MAXIMUM WHEN CHECKED UNDER ACTUAL LIFE TEST LOAD CONDITIONS.

4. SPECIAL CONDITIONING:

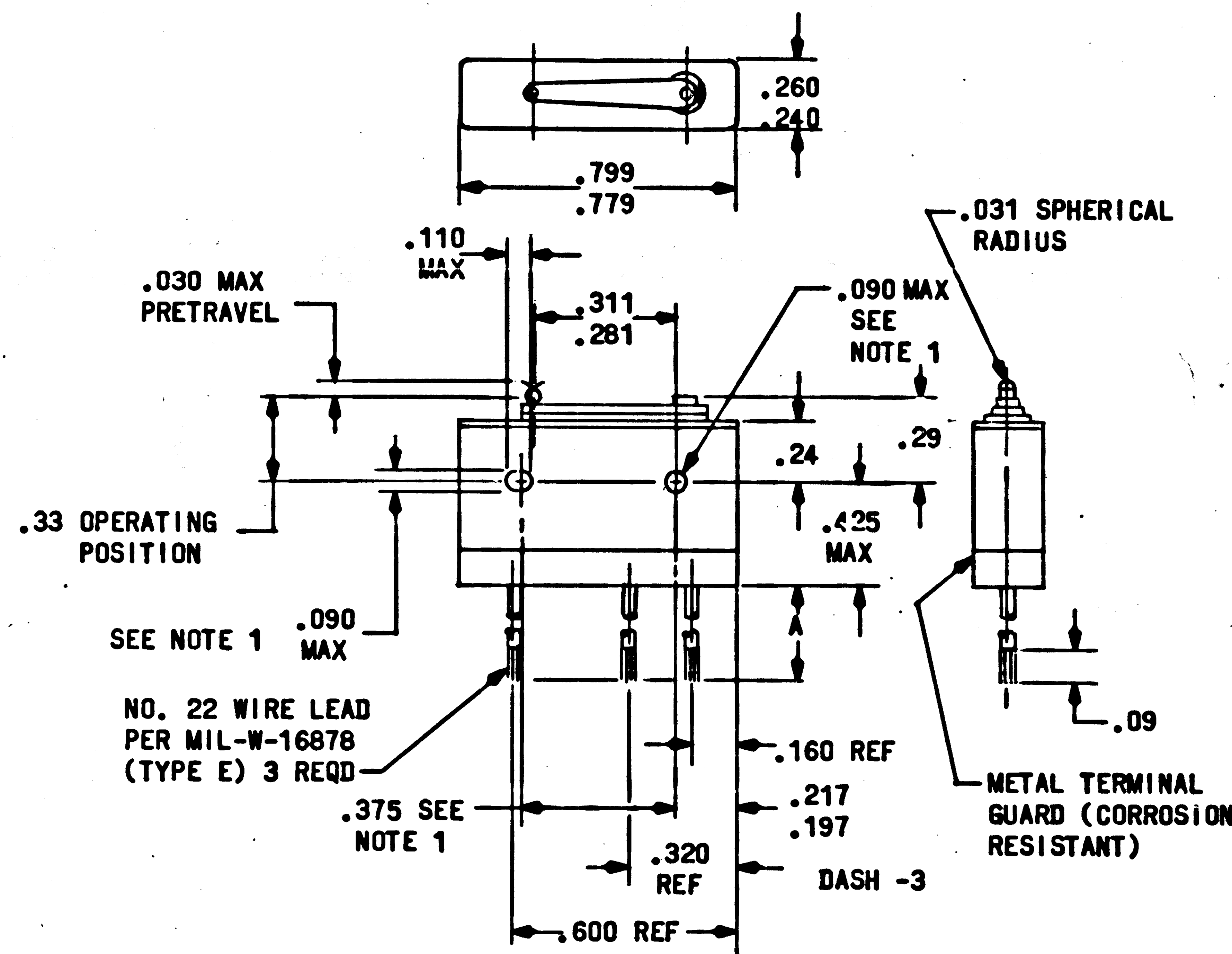
- A. EXPOSED SURFACE OF TERMINAL IMBEDMENT MATERIAL FOR SOLDER LUG TERMINALS SHALL BE ROUGHENED OR ABRADED BY SAND BLASTING OR OTHER SUITABLE MEANS FOR FUTURE PRIMING AND WATER PROOFING.

1010901

DASH NUMBER	DIMENSION "A"	TERMINATION	TERMINAL & LEAD STRENGTH
-1	.390 MAX	SOLDER LUGS	5 LBS
-2	.370 MAX	SOLDER LUGS	5 LBS
-3	12 MIN	WIRE LEADS	10 LBS
-4	12 MIN	WIRE LEADS	10 LBS

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER TDRR 15570		
A	REVISED PER TDRR 19809	6/15/65	WR
B	REVISED PER TDRR 25985	2/19/66	WR

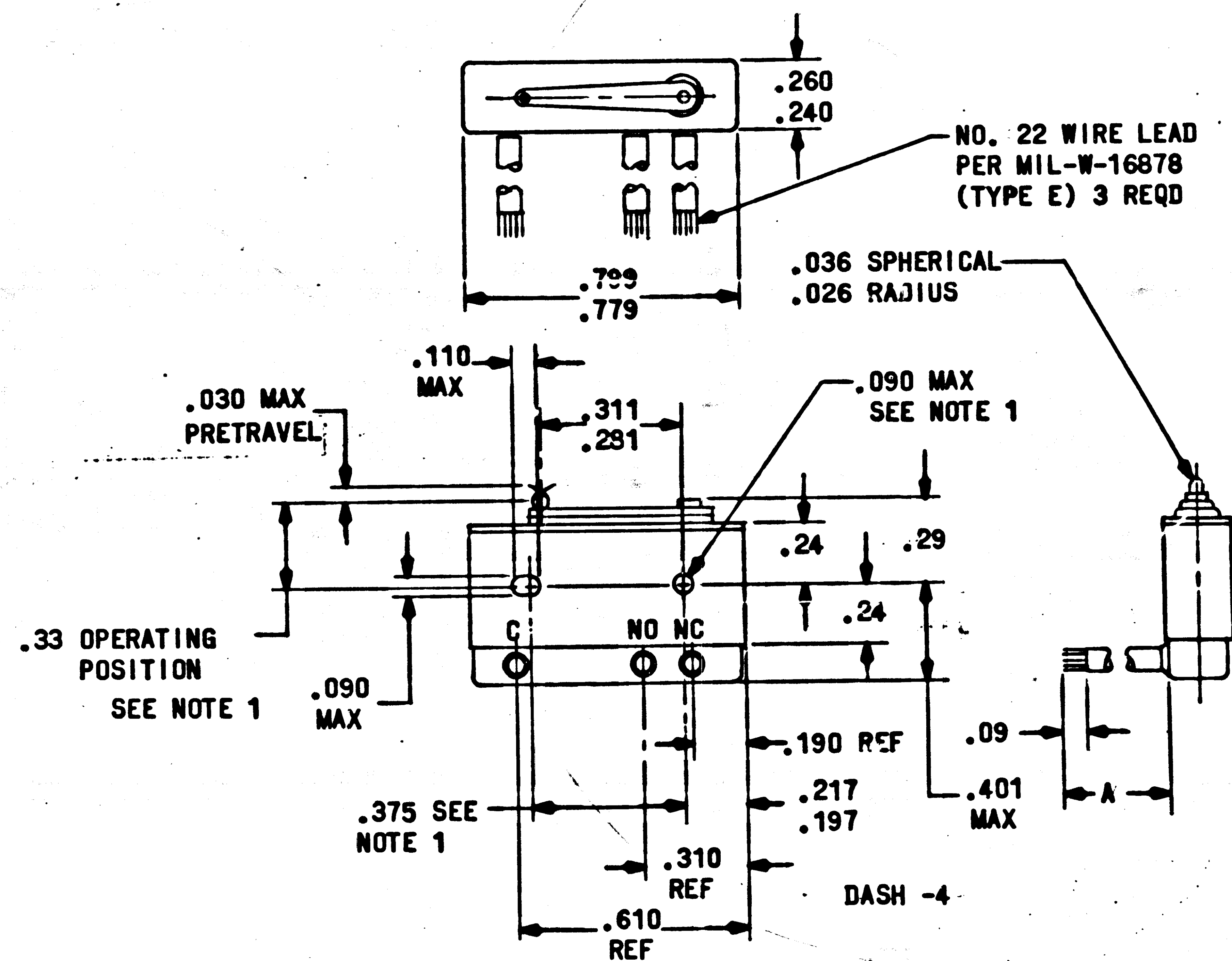
THE PART NUMBER IS THE DRAWING NUMBER PLUS THE APPLICABLE DASH NUMBER.



QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	FIG NO.
LIST OF MATERIALS			
MIT INSTRUMENTATION LAB CAMBRIDGE, MASS. Contract NAS 9-497		MANNED SPACECRAFT CENTER HOUSTON, TEXAS	
DRAWN <i>Bender</i> DATE <i>11-DEC-64</i> CHECKED <i>M. Manning</i> DATE <i>11-DEC-64</i> APPROVAL <i>W. J. R. [Signature]</i> DATE <i>11-DEC-64</i> APPROVAL <i>J. J. [Signature]</i> DATE <i>11-DEC-64</i>		SWITCH, SENSITIVE	
DO NOT SCALE THIS DRAWING		SPECIFICATION CONTROL DRAWING	
MATERIAL		CODE IDENT NO.	NASA DRAWING NO.
HEAT TREATMENT		C	1010901
FINAL FINISH		SCALE	WT
APPLICATION		SHEET 2 OF 3	

MASTER

REVISIONS			
SYN	DESCRIPTION	DATE	APPROVAL
-	INITIAL RELEASE CLASS A PER TDRR 15570		
A	REVISED PER TDRR 19809	6/19/85	WPK
B	REVISED PER TDRR 25985	2/19/86	WPK



		QTY REQ		PART OR IDENTIFYING NO.		NOMENCLATURE OR DESCRIPTION		FIND NO.	
		LIST OF MATERIALS							
		M I T INSTRUMENTATION LAB CAMBRIDGE, MASS. PROJ. NO. Contract NAS 9-497		MANNED SPACECRAFT CENTER HOUSTON, TEXAS					
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS DECIMALS ANGLES ± ± ±		DRAWN <i>Sender</i> 11-DEC-64 CHECKED <i>M. Manning</i> 14 DEC 64 APPROVAL <i>Redburn</i> 15 DEC 64 APPROVAL <i>J. J. Kiani</i> 4/2/65		SWITCH, SENSITIVE			
		DO NOT SCALE THIS DRAWING MATERIAL		SPECIFICATION CONTROL DRAWING					
		HEAT TREATMENT		NASA APPROVAL <i>W. J. Rhine</i> 4-19-65		CODE IDENT NO. SIZE 80230 C		NASA DRAWING NO. 1010901	
NEXT ASSY USED ON		FINAL FINISH		MIT APPROVAL <i>W. J. Rhine</i> 4/19/65		SCALE WT		SHEET 3 OF 3	
APPLICATION									