

5

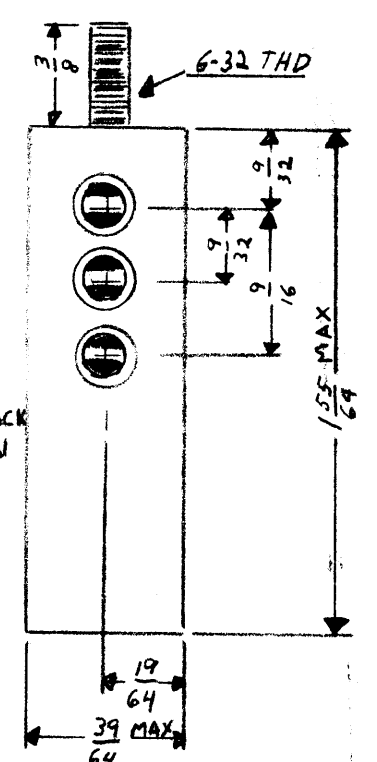
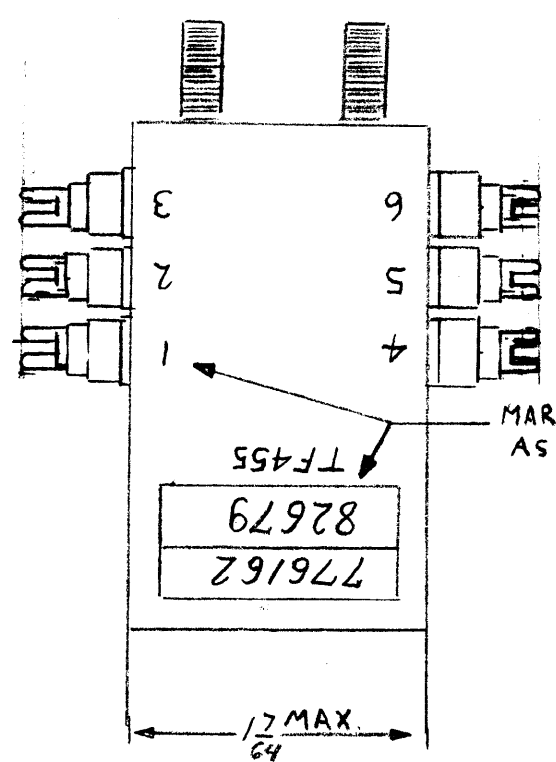
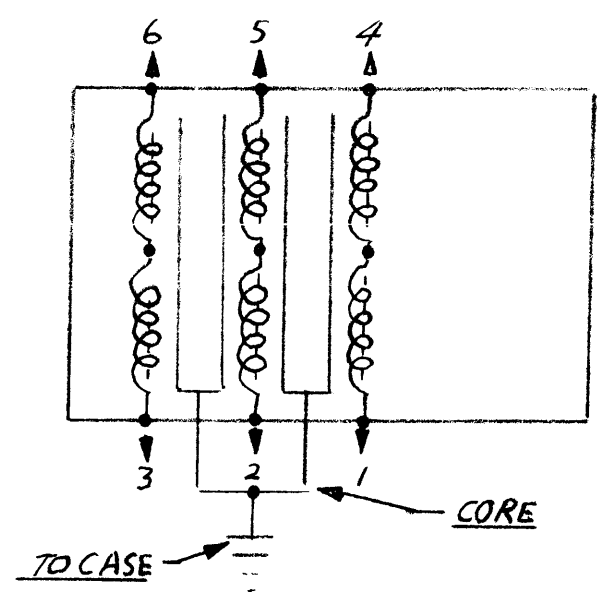
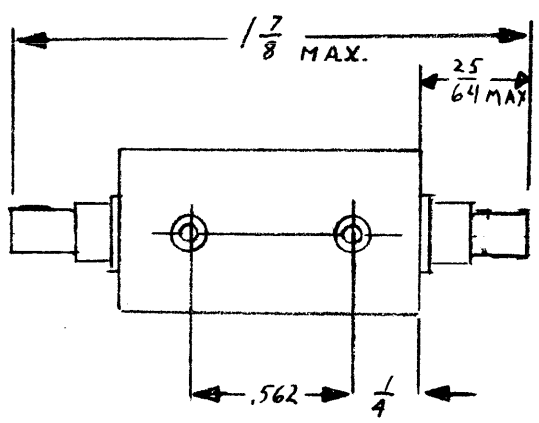
4

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2

1

REVISIONS							
EM.N.NO.	DRAFT	CHKD	ZONE	LTR	DESCRIPTION	DATE	APPROVED



BUORD DRAWING NO  
776162

FIG 1

QTY / UNIT	MODEL USED ON	ASS'Y NO.
APPLICATION		
CODE		

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	FRACTIONS 1/64 ANGLES 0° - 30'
MATERIAL	
FINISH	

REQ'D	ITEM	PART NUMBER	DESCRIPTION	SYM.
LIST OF MATERIAL				
THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK				
TRANSFORMER, PULSE TF-455				
FINAL APPROVAL	DATE			
MECH. DES.	DATE			
ELECT. DES.	DATE			
CHECKED	DATE			
DRAWN	DATE			
SIZE	CODE IDENT. NO.	ISSUE		
B	82679	TF-455		
SCALE	SHEET 1 OF 3			

5

4

3

2

1

REVISIONS							
E.M.N. NO.	DRAFT	CHKD	ZONE	LTR	DESCRIPTION	DATE	APPROVED

FIG2 TEST SETUP 2

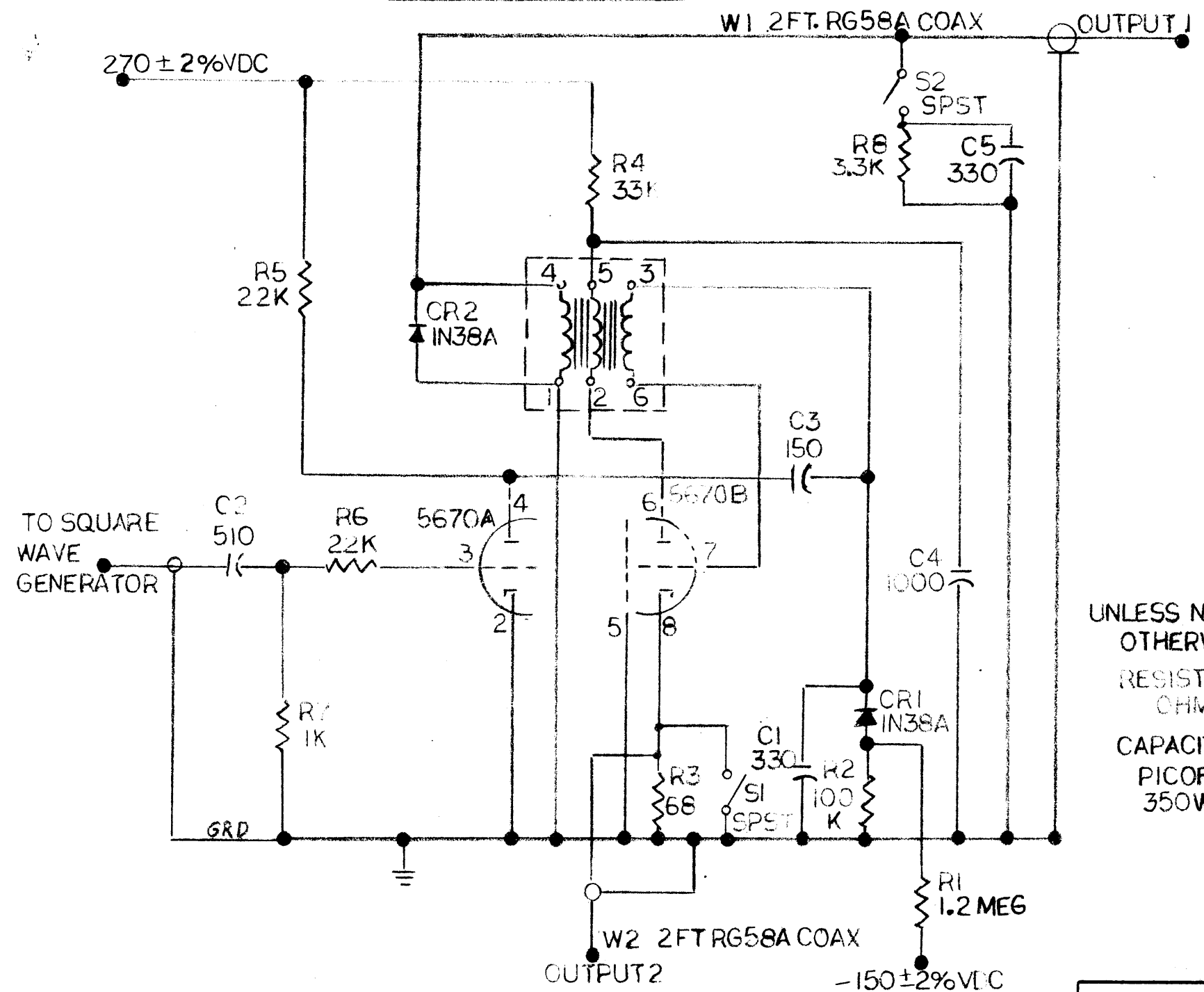
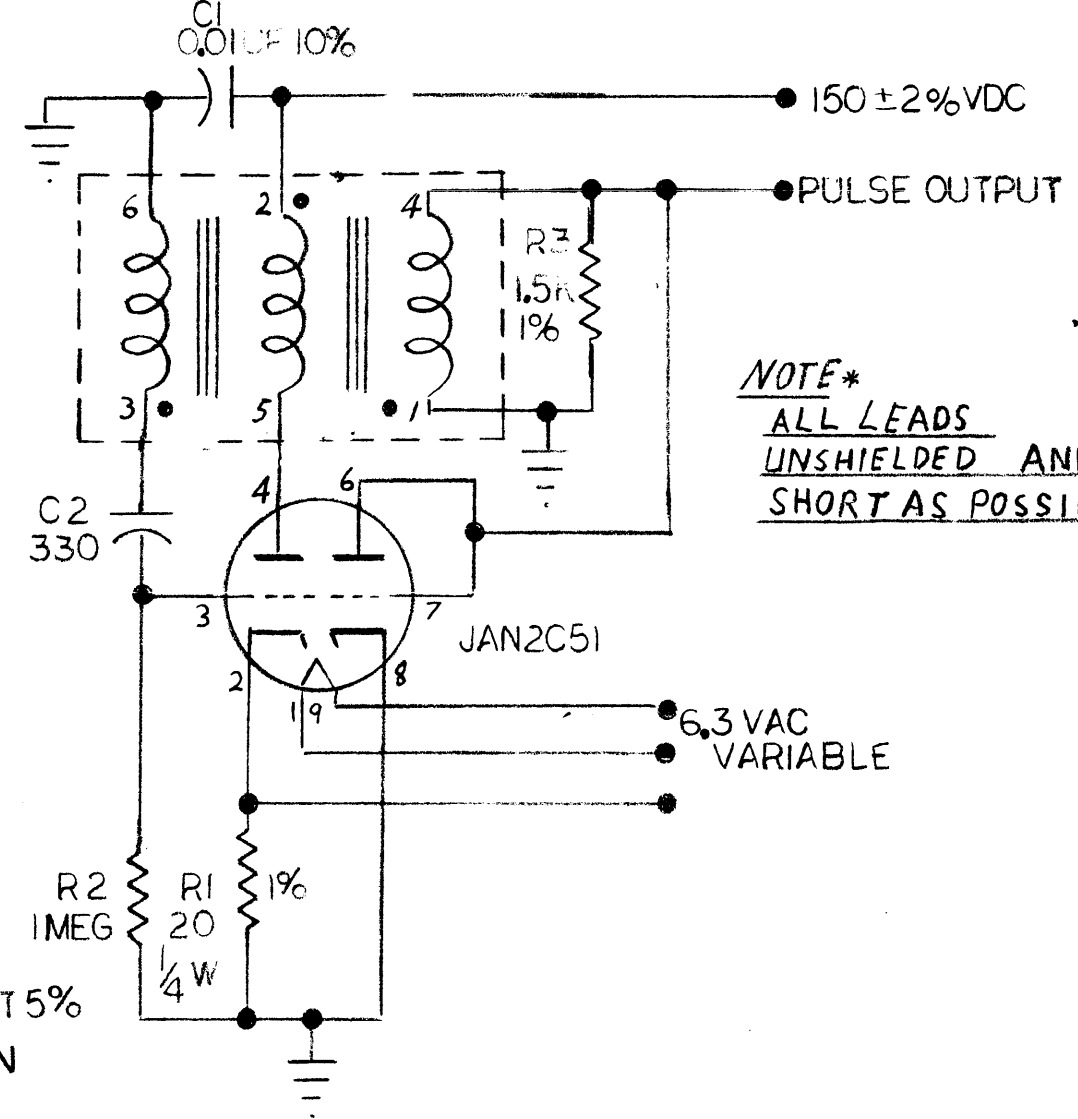


FIG3 TEST SETUP1



NOTE\*  
 ALL LEADS  
 UNSHIELDED AND AS  
 SHORT AS POSSIBLE

UNLESS NOTED  
 OTHERWISE  
 RESISTANCE IN  
 OHMS 1/2 WATT 5%  
 CAPACITANCE IN  
 PICO FARADS  
 350 WV 5% MICA

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DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	FRACTIONS 1/64 ANGLES 0° - 30'	MECH. DES.	DATE
MATERIAL		ELECT. DES.	DATE
FINISH		CHECKED	DATE
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SIZE	CODE IDENT. NO.	ISSUE		
B	82679	TF455		
SCALE			SHEET 2 OF 4	

REVISIONS

E.M.N.NO.	DRAFT	CHKD	ZONE	LTR	DESCRIPTION	DATE	APPROVED
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1. GENERAL

1.1 THIS TRANSFORMER SHALL CONSIST OF 3 SEPERATE WINDINGS. THE TRANSFORMATION RATIO FROM ONE WINDING TO ANOTHER SHALL BE 1:1 TO WITHIN 2%.

2. OPERATING CONDITIONS

2.1 THE MAXIMUM INSTANTANEOUS VOLTAGE ACROSS ANY ONE WINDING WILL BE 180 VOLTS.

2.1 THE MAXIMUM PEAK CURRENT THROUGH ANY WINDING WILL BE 0.35 AMPERES.

2.3 THE MAXIMUM D-C CURRENT THROUGH ANY WINDING WILL BE 1 MILLIAMPERE.

3. ELECTRICAL REQUIREMENTS

3.1 TERMINALS 1, 2 AND 3 SHALL HAVE THE SAME POLARITY.

3.2 THE INDUCTANCE OF ANY WINDING AT 1,000 HERTZ SHALL MEASURE 2.0 MILLIHENRIES MINIMUM WITH THE OTHER WINDINGS OPEN CIRCUITED. THE VOLTAGE ACROSS THE WINDING UNDER TEST SHALL BE 0.05 +/-0.005 VOLTS RMS.

3.3 THE TRANSFORMER SHALL BE TESTED FOR DIELECTRIC STRENGTH IN ACCORDANCE WITH THE FOLLOWING TABLE:

-----  
 MIN. DIELECTRIC STRENGTH TEST VOLTAGES  
 A.C. VOLTAGES-APPLY FOR NOT LESS THAN 5 SECONDS  
 NOR MORE THAN 1 MINUTE.  
 -----

TERMINAL	CASE	#3	#2
#1	1500	1500	1500
#2	1500	1500	--
#3	1500	--	--

-----

3.4 THE PULSING PROPERTIES OF THE TRANSFORMER WILL BE TESTED WITH THE CIRCUIT SHOWN IN FIGURE 3. TEST SETUP #1. AN OSCILLOSCOPE OF THE PROPER PASS BAND, DEFLECTION SENSITIVITY AND SWEEP SPEEDS, SHALL BE USED FOR THE MEASUREMENTS. THE OUTPUT PULSE SHALL CONFIRM TO THE FOLLOWING SPECIFICATIONS.

ADJUST THE POSITIVE SIGNAL ACROSS R1 TO READ 9 VOLTS +/-5% ON THE OSCILLOSCOPE BY VARYING THE FILAMENT INPUT VOLTAGE.

RISE TIME - THE NEGATIVE PULSE OUTPUT SHALL RISE FROM 10% TO 90% OF THE MAXIMUM VOLTAGE IN NO MORE THAN 0.25 MICRO SECONDS.

WIDTH - AT 70% OF IT'S FULL AMPLITUDE THE PULSE WIDTH SHALL BE 0.92 +/-0.03 MICRO SECONDS

AMPLITUDE - THE RATIO OF THE MAXIMUM AMPLITUDE OF THE PULSE OUTPUT TO THE SIGNAL ACROSS R1 SHALL BE 10:1 +/-10%.

3.5 INTERCHANGE TERMINAL 6 WITH TERMINAL 4 AND TERMINAL 3 WITH TERMINAL 1.

3.6 THIS TRANSFORMER SHALL ALSO COMPLY WITH FIGURE 2 ON SHEET 2.

4. OTHER REQUIREMENTS

4.1 THE TRANSFORMER SHALL COMPLY WITH SPECIFICATION MIL-T-27E GRADE 4, CLASS R.

4.2 THE EXTERIOR OF THE CASE IS TO BE FINISHED WITH PAINT OF A MEDIUM COLOR SUCH AS MUNSELL N4.5

4.3 THE TRANSFORMER SHALL BE MARKED AS SHOWN EXCEPT THAT THE MAUNFACTURER'S NAME OR SYMBOL SHALL APPEAR IN ADDITION TO THE REQUIRED INFORMATION.

5. OPERATING CONDITIONS FOR FIGURE 2, TEST SETUP #2

5.1 6.3 V.A.C. SHALL BE APPLIED TO THE HEATER (PINS 1 & 9).

5.2 THE SQUARE WAVE GENERATOR SHALL OPERATE AT 2,200 HERTZ AT 10 VOLTS MINIMUM PEAK TO PEAK.

6. REQUIREMENTS OF FIGURE 3

6.1 MEASUREMENTS SHALL BE MADE WITH A MODEL 475D TEKTRONIX OSCILLOSCOPE, OR EQUIVALENT.

6.2 WITH S1 CLOSED AND S2 OPEN, THE AMPLITUDE OF THE PULSE AT OUTPUT 1 SHALL BE 180 VOLTS MINIMUM.

6.3 WITH S1 CLOSED AND S2 CLOSED, THE AMPLITUDE OF THE PULSE AT OUTPUT 1 SHALL BE 70 VOLTS MINIMUM.

6.4 WITH S1 OPEN AND S2 OPEN, THE AMPLITUDE OF THE PULSE AT OUTPUT 2 SHALL BE 30 VOLTS MINIMUM

REQ'D	ITEM	PART NUMBER	DESCRIPTION	SYM.
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LIST OF MATERIAL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	FINAL APPROVAL <i>[Signature]</i>	DATE 3/7/86
	MECH. DES. <i>[Signature]</i>	DATE 3/10/86
	ELECT. DES. <i>[Signature]</i>	DATE 3/7/86
	CHECKED	DATE
	DRAWN <i>[Signature]</i>	DATE 3/7/86

THE TECHNICAL MATERIEL CORP.  
MAMARONECK, NEW YORK

TRANSFORMER, PULSE  
TF-455

QTY / UNIT	MODEL USED ON	ASS'Y NO.
APPLICATION		
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FINISH

SIZE B	CODE IDENT. NO. 82679	TF-455	ISSUE 0
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SCALE SHEET 3 OF 4

APPLICATION			REVISIONS						
QTY	MODEL USED ON	ASS'Y NO.	LTR	DESCRIPTION	DATE	E.M.N.NO	DRAFT	CHKD	APPD
<div style="border: 1px solid black; padding: 5px; display: inline-block;">776162</div> <div style="border: 1px solid black; padding: 5px; display: inline-block;">82679</div> TF455  4        1 5        2 6        3									

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES  DECIMALS      FRACTIONS .X ± .05      1/64 .XX ± .01      TOLS.      ANGLES .XXX ± .005      0° - 30'		REQ'D	ITEM	PART NUMBER	DESCRIPTION	SYM.	
		LIST OF MATERIAL					
MATERIAL	FINAL APPROVAL <i>DB</i>	DATE	<b>THE TECHNICAL MATERIEL CORP.</b> MAMARONECK, NEW YORK  <i>MARKING, CASE</i>				
FINISH	MECH. DES.	DATE					
	ELECT. DES.	DATE					
	CHECKED	DATE					
	DRAWN	DATE					
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				SCALE	SHEET <b>7</b> OF <b>9</b>		