

RETURN TO MAIN
FILE

RETURN TO MAIN
FILE

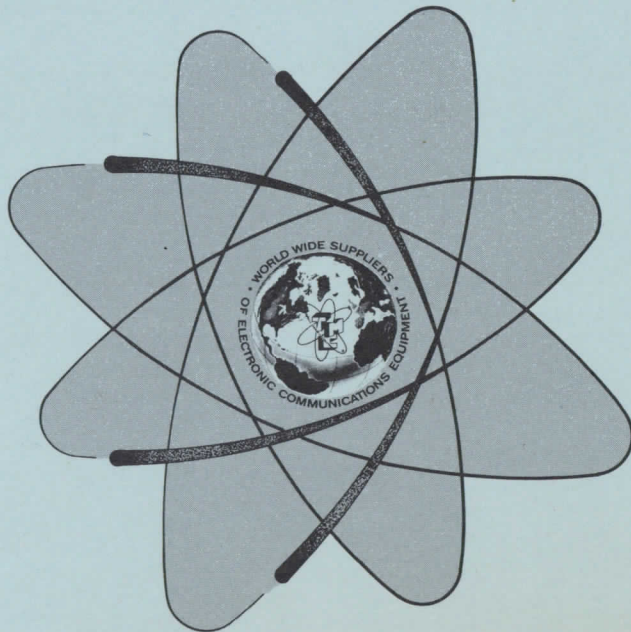
TECHNICAL MANUAL
for

SERVICE MANUAL

for

ANTENNA SWITCHING

AX5212



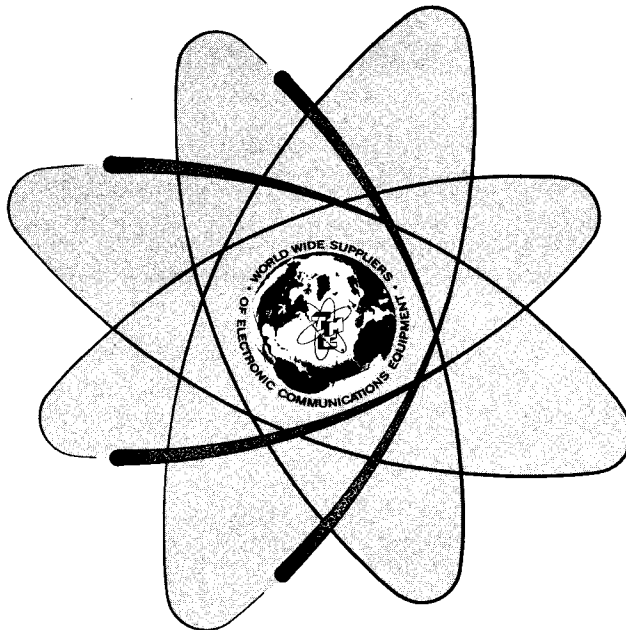
THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N. Y.

OTTAWA, ONTARIO

COPYRIGHT 1971
THE TECHNICAL MATERIEL CORPORATION

Printed in U.S.A.

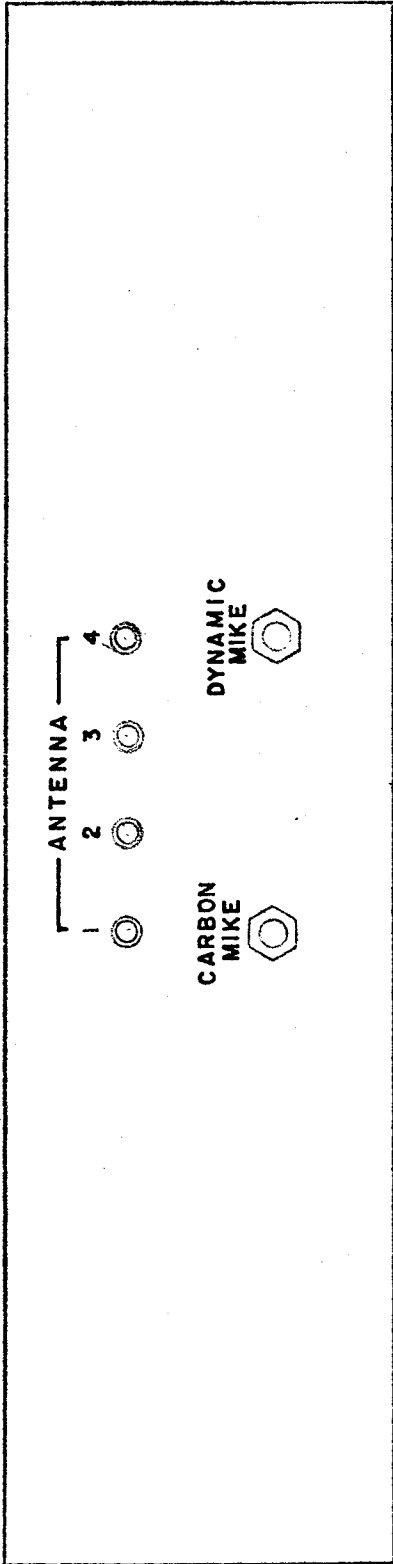
SERVICE MANUAL
for
ANTENNA SWITCHING
AX5212



THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N. Y. OTTAWA, ONTARIO

COPYRIGHT 1971
THE TECHNICAL MATERIEL CORPORATION

Printed in U.S.A.



ANTENNA SWITCHING UNIT

AX5212

SECTION 1
GENERAL INFORMATION

1-1. AX5212 ANTENNA SWITCHING UNIT

FUNCTIONAL DESCRIPTION

AX5212 is a Ledex controlled 4 channel (outputs) switching unit. It takes the RF output of GPTR-1KC and by means of 4 position switching allows 4 separate RF outputs to be used for multi-antenna operation.

By proper programming of diodes CR1, CR2, CR3, CR4, and combinations of antenna selection can be achieved. (Example: by tying CR1 and CR2 to E1. Both channels 1 and 2 will programmed to antenna output).

The front panel has antenna switching indicators DS1, DS2, DS3, and DS4 carbon mike and dynamic mike inputs. Microphone inputs are connected to SME-5C and are used for local operation. PTT operation is also brought to this panel. 24 volt Ledex control voltage is derived from TMA-1KC power supply. Channel information 1, 2, 3, 4, and TB101 are connected to channel inputs on TMA. A voltage fed to TB101 results in notch homing waffer S101 programming bandswitching to proper output. Q101 SCR firing sequence is accomplished by this trigger voltage and S101 contacts.

Output connectors are S0239 (4).

Input connectors are UG 496/U.

PARTS LIST

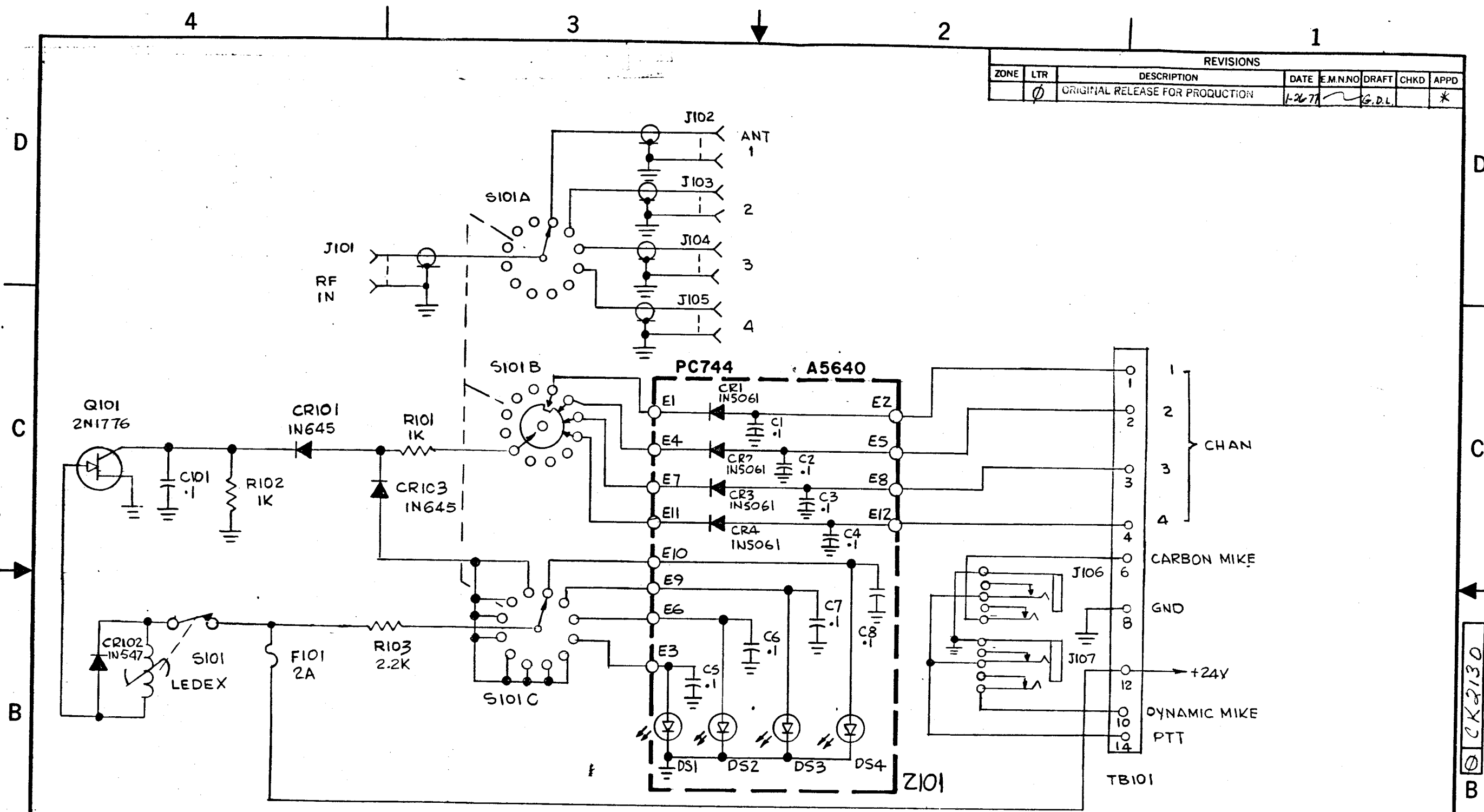
AX5212

REF SYMBOL	DESCRIPTION	TMC PART NUMBER
C101	CAP, FIXD, CER	CC131-39
CR101 CR102 CR103	SCOND, DEV, DIO. SCOND, DEV, DIO. SAME AS CR101	1N645 1N547
F101	TWO AMP FUSE	FU100-2
J101 J102 J103 J104 J105 J106	RF CONNECTOR ANT. CONNECTOR SAME AS J102 SAME AS J102 SAME AS J103 JACK TELEPHONE	UG496/U S0239A JJ083
R101 R102 R103	RES, FIXED, COMP. SAME AS R101 RES, FIXD, COMP.	RC07GF102J RC07GF222J
Q101	TRANSISTOR	2N1776

PARTS LIST

Z101

REF SYMBOL	DESCRIPTION	TMC PART NUMBER
C1 C2 C3 C4 C5 C6 C7 C8	CAP, FIXD, CER, SAME AS C1 SAME AS C1 SAME AS C1 SAME AS C1 SAME AS C1 SAME AS C1 SAME AS C1	CC131-39
CR1 CR2 CR3 CR4	SCOND, DEV, DIO SAME AS CR1 SAME AS CR1 SAME AS CR1	1N5061
DS1 DS2 DS3 DS4	INDICATOR, LED SAME AS DS1 SAME AS DS1 SAME AS DS1	BJ132



REVISIONS						
ZONE	LTR	DESCRIPTION	DATE	E.M.N.O	DRAFT	CHKD
	Ø	ORIGINAL RELEASE FOR PRODUCTION	1-26-77			G.D.L.

UNLESS OTHERWISE SPECIFIED
 1- ALL DECIMAL CAPACITANCE VALUES ARE IN MICROFARADS
 2. ALL WHOLE NUMBER ARE IN PICOFARADS
 3- ALL RESISTANCE VALUES ARE IN OHMS 1/4W

AX5212		GPTR-1KC	
QTY / UNIT	MODEL USED ON	ASSY NO.	
APPLICATION			
CODE			

NOTICE TO PERSONS RECEIVING THIS DRAWING
 THE TECHNICAL MATERIEL CORPORATION claims proprietary right in the material disclosed hereon. This drawing is issued in confidence for engineering information only and may not be reproduced or used to manufacture anything shown hereon without permission from THE TECHNICAL MATERIEL CORPORATION to the user. This drawing is loaned for mutual assistance and is subject to recall at any time.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES

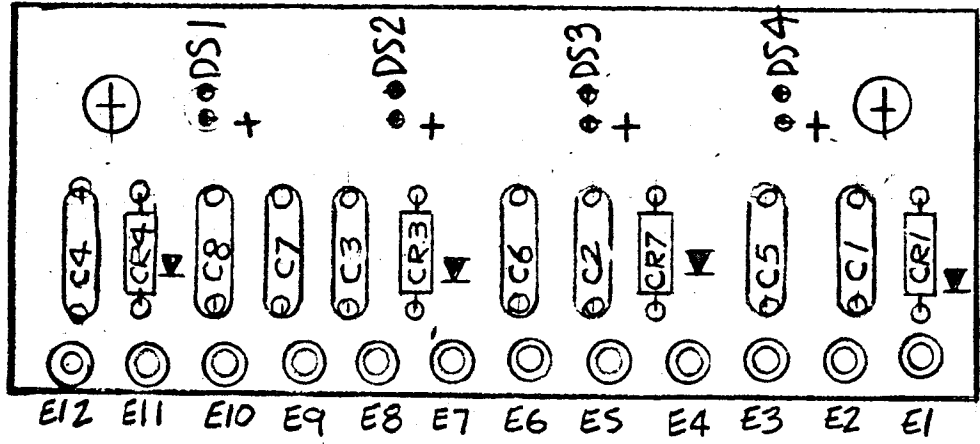
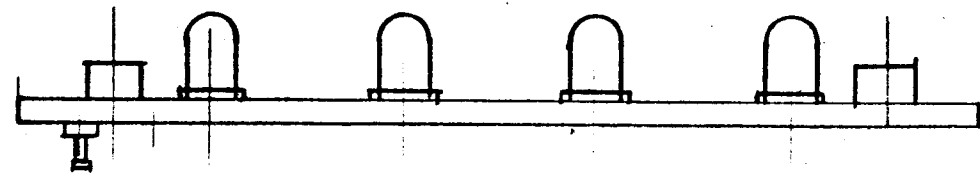
TOLERANCES ON
 DECIMALS .X ± .05
 .XX ± .01
 .XXX ± .005

FRACTIONS ± 1/64
 ANGLES ± 0°-30'

MATERIAL
 FINISH

QTY. REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
LIST OF MATERIAL				
			CK2130 SCHEMATIC, DIAGRAM RF OUTPUT SWITCHING	

REVISIONS							
EMN. NO.	DRAFT	CHKD	ZONE	LTR	DESCRIPTION	DATE	APPROVED
	<i>JS</i>				EN's Clarified	11-3-76	
	R.U.			Ø	ORIGINAL RELEASE FOR PRODUCTION	1-26-77	*



(PC744)

ASSEMBLY NOTES

1. TO MOUNT COMPONENTS INSERT LEADS THROUGH HOLES.
2. CAUTION, WHEN APPLYING HEAT & SOLDER TO LEAD & FOIL.
3. CLEAN & INSPECT AS PER SPEC S676.
4. FOR ELECTRICAL COMPONENT PART NUMBERS REFER TO NPL A
5. USE SYMBOL NUMBERS FOR ASSY. REF.

(CK2130)

REQ'D	ITEM	PART NUMBER	DESCRIPTION	SYM.
X	2	BS100	SOLDER TIN ALLOY	
1	1	PC744	PRINTED CIRCUIT BD	

1	AX5212	GPTR-1KC
QTY / UNIT	MODEL USED ON	ASS'Y NO.
APPLICATION		
	CODE	

NOTICE TO PERSONS RECEIVING THIS DRAWING
 THE TECHNICAL MATERIEL CORPORATION claims proprietary right in the material disclosed hereon. This drawing is issued in confidence for engineering information only and may not be reproduced or used to manufacture anything shown hereon without permission from THE TECHNICAL MATERIEL CORPORATION to the user. This drawing is loaned for mutual assistance and is subject to recall at any time.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	FINAL APPROVAL <i>JS</i>	DATE <i>11/5/77</i>
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	MECH. DES. <i>JS</i>	DATE <i>10-3-76</i>
FRACTIONS 1/64 ANGLES 0°-30°	ELECT. DES.	DATE
MATERIAL	CHECKED	DATE
FINISH	DRAWN <i>R. UZZO</i>	DATE <i>10-3-76</i>

LIST OF MATERIAL
 A5640
 SCHEMATIC, DIAGRAM
 ASSY P.C. INDICATOR