

Burroughs Corporation		DATE E LUNDA 11/3/76	PROJ A-21628706	REV A
ADDRESS BOSTON, MASSACHUSETTS, U.S.A.		CHG 11/23/76	APPD PAGE 1 OF 8	
PROPERTY OF BURROUGHS CORPORATION -- NOT TO BE REPRODUCED NOR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR PRIOR WRITTEN CONSENT			TITLE INTERFACE TIMING DIAGRAM	

REV	CONTROL NO. AND	DATE	CHNG	APPD & DATE	PAGE	LINE OF T	REVISION DESCRIPTION
4		08/01/76					

Burroughs Corporation		PROJ E LUNDA	PROJ A 2162 8706	REV A
ADDRESS BOSTON, MASSACHUSETTS, U.S.A.		CHNG	APPD	PAGE 2 OF 8
PROPERTY OF BURROUGHS CORPORATION -- NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR PRIOR WRITTEN CONSENT			TITLE INTERFACE TIMING DIAGRAMS	

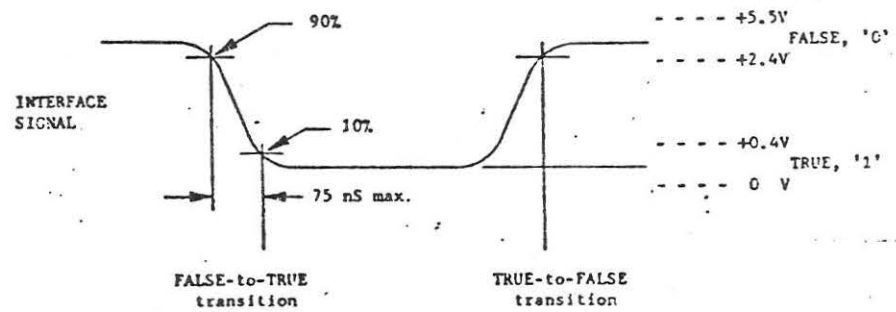


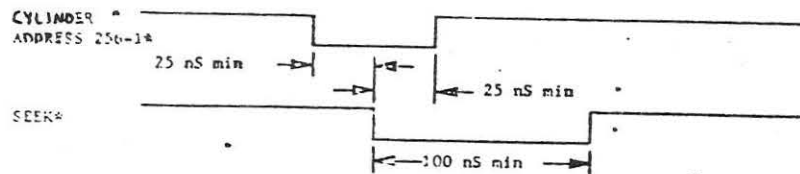
FIGURE 1
SIGNAL CHARACTERISTICS

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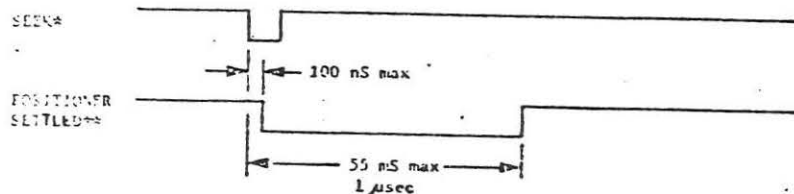
141

Burroughs Corporation WESTLAKE PLANT WESTLAKE VILLAGE CALIF 91360 U.S. AMERICA	TYPE	FIGURE	A 2162 8706	A
	CHNO	APPO		
<small>PROPERTY OF BURROUGHS NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR PRIOR WRITTEN CONSENT</small>		TITLE INTERFACE TIMING DIAGRAMS		

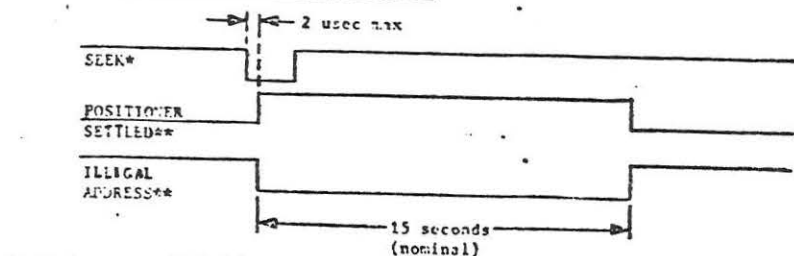
SEEK Command Requirements



SEEK operation to Valid Cylinder Address



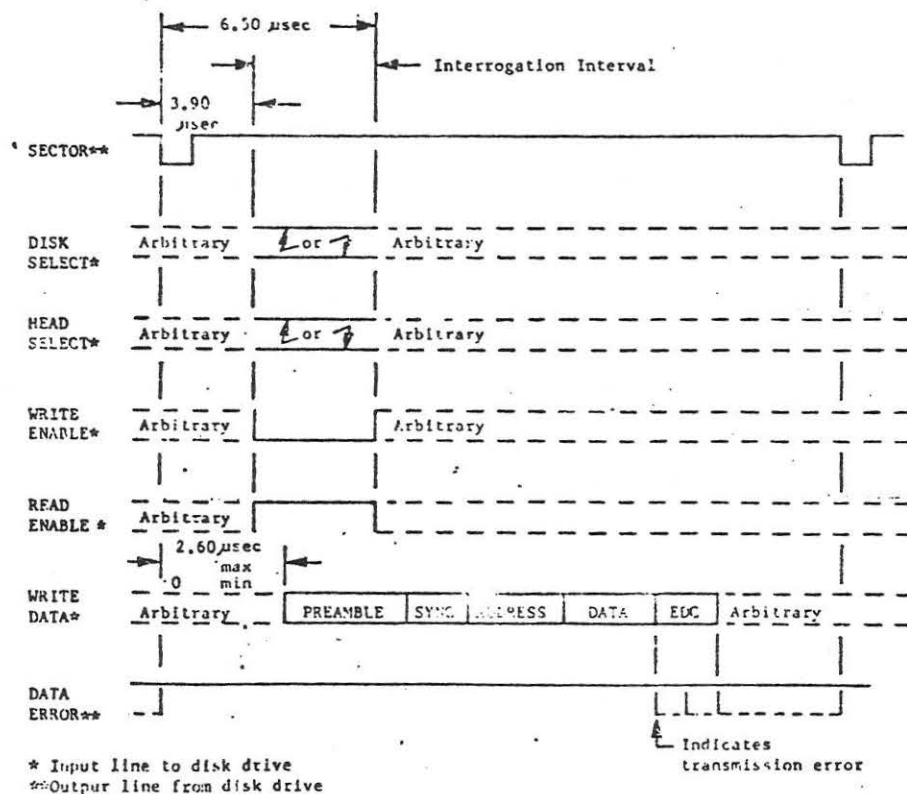
SEEK Operation to Illegal Cylinder Address



* Input line to disk drive
** Output line from disk drive

FIGURE 2
SEEK OPERATIONS

Burroughs Corporation WESTLAKE PLANT WESTLAKE VILLAGE CALIF 91360 U.S. AMERICA	TYPE	FIGURE	A 2162 8706	A
	CHNO	APPO		
<small>PROPERTY OF BURROUGHS NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR PRIOR WRITTEN CONSENT</small>		TITLE INTERFACE TIMING DIAGRAMS		



* Input line to disk drive
** Output line from disk drive

FIGURE 3
WRITE OPERATION PRESENT SPINDLE SELECTED

Burroughs Corporation VISITORS PLANT WILKINSON VILLAGE CALIF 91706 U.S.A.	PREP	PROJ	A 2162 8706	A
	CMD	APPD		
TITLE			PAGE 5 OF 9	
INTERFACE TIMING DIAGRAMS				

Burroughs Corporation VISITORS PLANT WILKINSON VILLAGE CALIF 91706 U.S.A.	PREP	PROJ	A 2162 8706	A
	CMD	APPD		
TITLE			PAGE 6 OF 8	
INTERFACE TIMING DIAGRAMS				

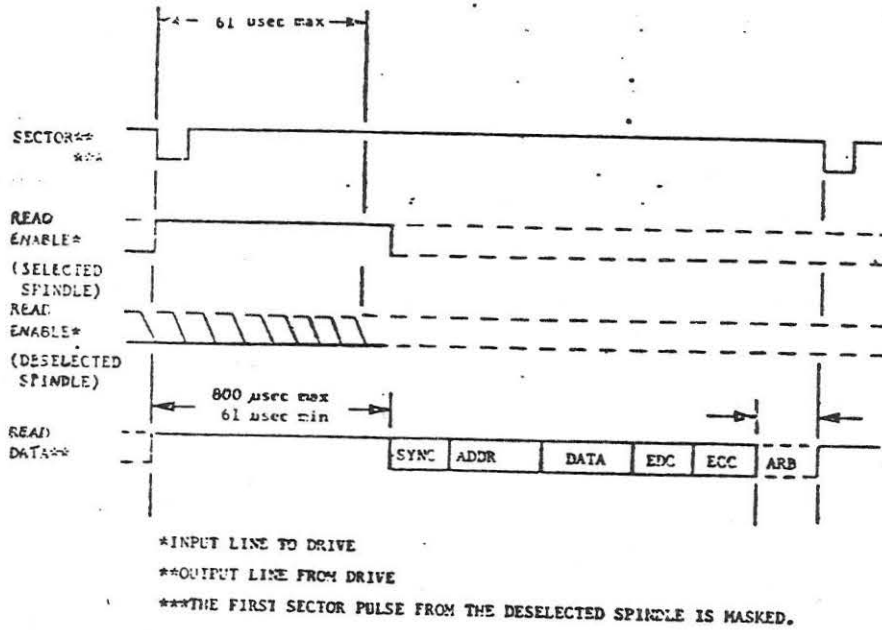


FIGURE 4
READ OPERATION TO DESELECTED SPINDLE

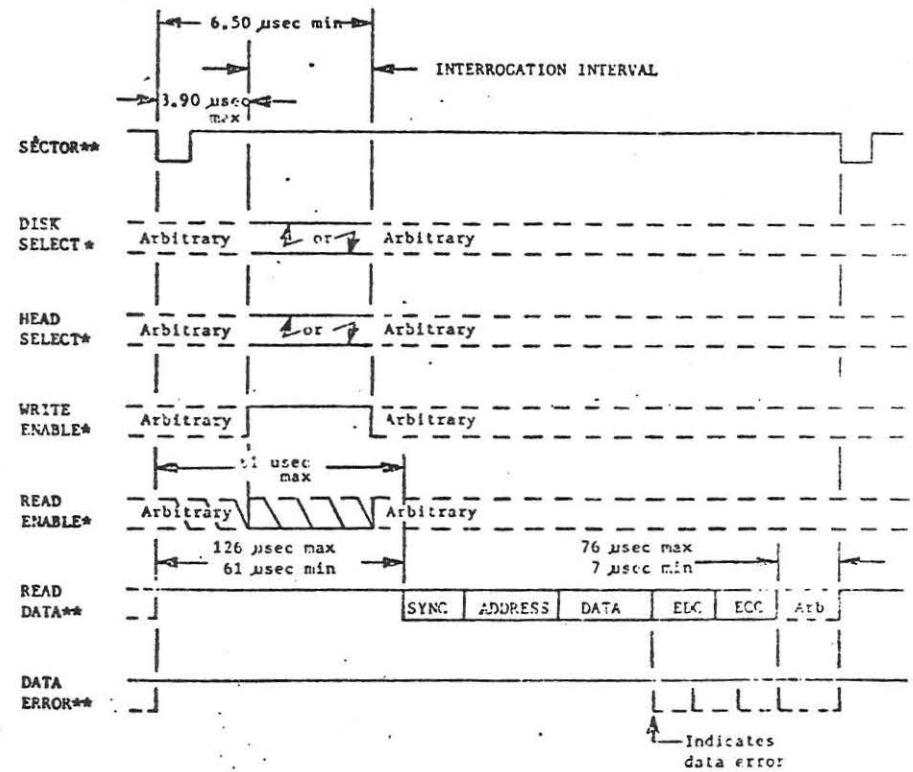
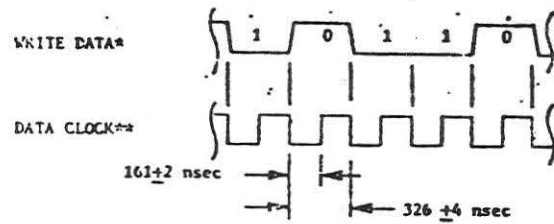


FIGURE 5
READ OPERATION PRESENT SPINDLE SELECTED

Burroughs Corporation <small>WESTLARK PLANT WESTLARK VILLAGE CALIF 94590 US AMERICA</small>	PRP#	PROJ#	A 2162 8706 PAGE 7 of 8	A
	TRD	APPD		
<small>PROPRIETARY TO BURROUGHS NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR AS PER WRITTEN CONSENT</small>		TITLE INTERFACE TIMING DIAGRAMS		

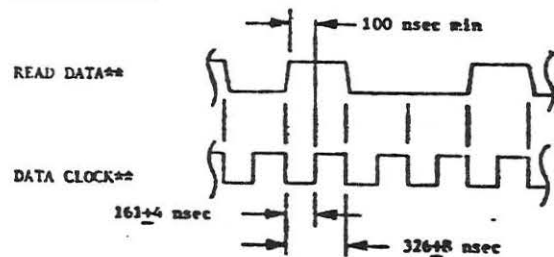
Burroughs Corporation <small>WESTLARK PLANT WESTLARK VILLAGE CALIF 94590 US AMERICA</small>	PRP#	PROJ#	A 2162 8705 PAGE 8	A
	TRD	APPD		
<small>PROPRIETARY TO BURROUGHS NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURROUGHS ORDER OR AS PER WRITTEN CONSENT</small>		TITLE INTERFACE TIMING DIAGRAMS		

Write Operation



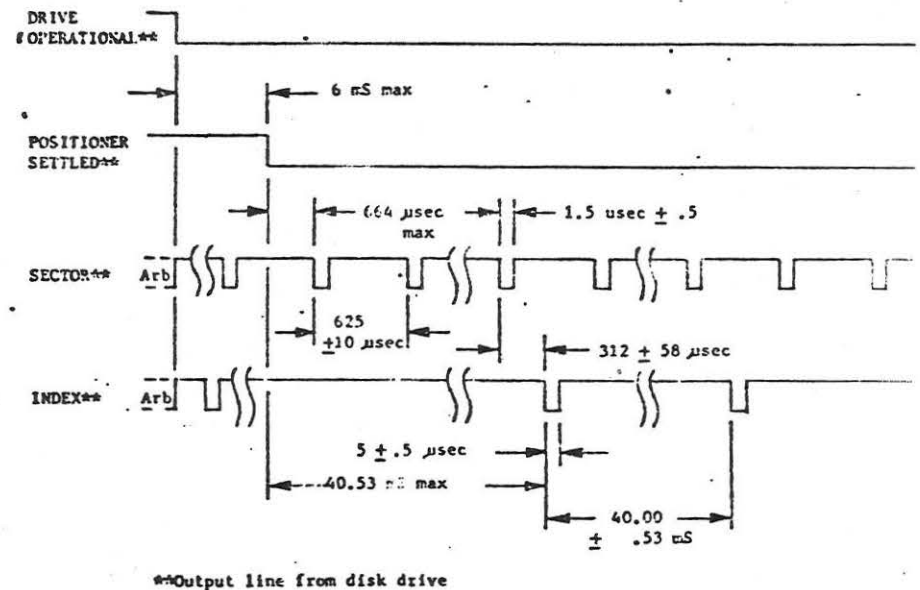
NOTE: The phase relationship shown is nominal only (Section 5.2.4)

Read Operation



*Input line to disk drive
 **Output line from disk drive

FIGURE 6
 DATA SYNCHRONIZATION



**Output line from disk drive

FIGURE 7
 INDEX AND SECTOR PULSES

ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 6 Oct, 1977

PRINTED: 6 Oct, 1977

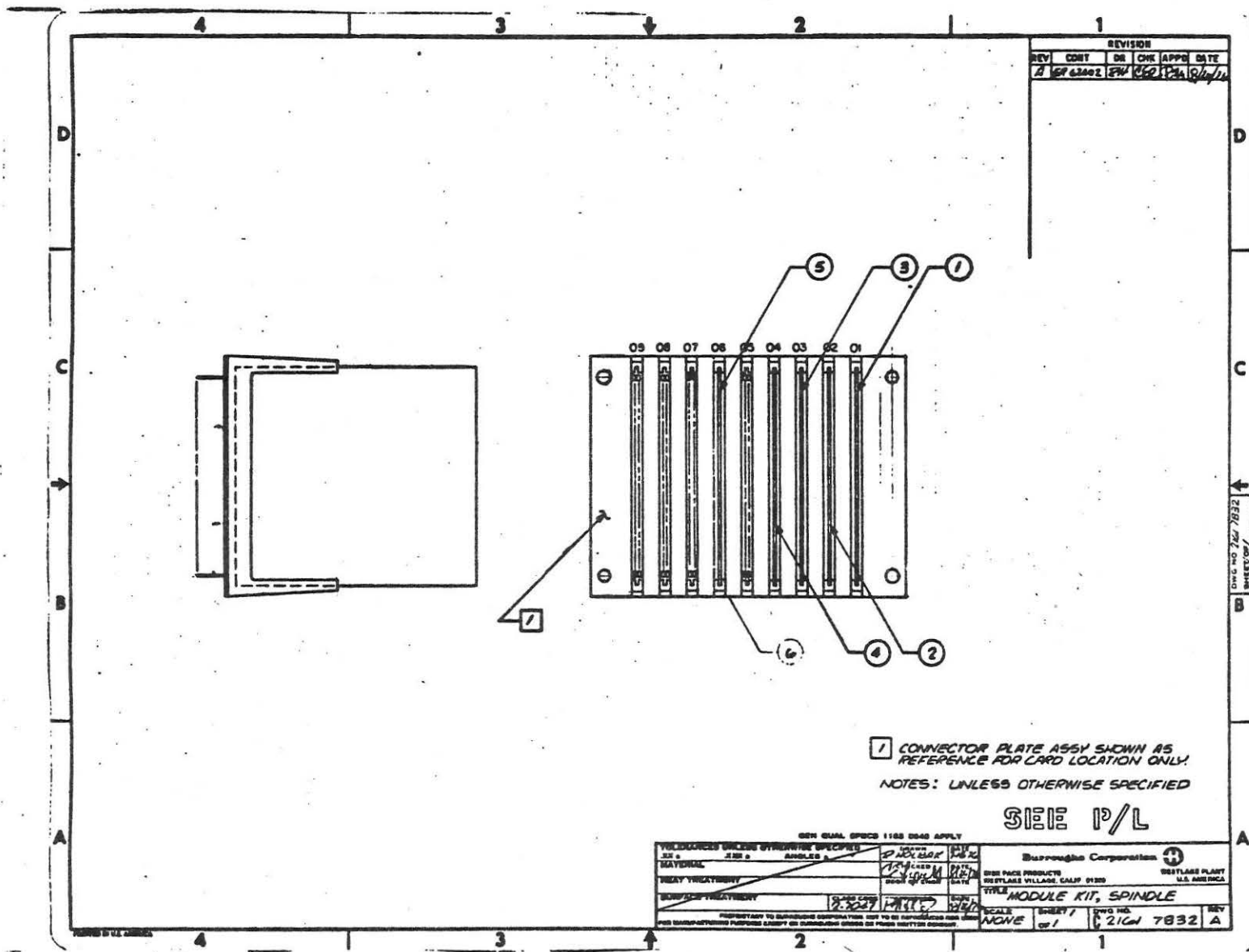
PART/DOC TRAN NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UDN	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2161 7832	PL	MODULE KIT-SFINDLE	C	A	8	EA	2-7047-000	2	ECN	10524	027

TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UDN	ECT	ECNO
1	PL	D		2161 7881		1	999 2	PWBA-READ/WRIT AMP	1.00	EA		
2	PL	D		2163 0660		3	999 2	PWBA-WRITE DRIVER	1.00	EA	ECN	63100
3	PL	D		2163 0249		2	999 2	PWBA-XDCR AMP	1.00	EA	ECN	62770
4	PL	D		2857 1487		8	999 2	PWBA-SERVO AMP	1.00	EA	ECN	10524
5	PL	D		2161 7923		1	999 2	PWBA-TEMP COMP	1.00	EA		

*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

D	4	PL	D	2857 1339		7	999 2	PWBA-SERVO AMP	1.00	EA		
A	4	PL	D	2857 1487		8	999 2	PWBA-SERVO AMP	1.00	EA	ECN	10524

*****LAST LINE*****



REVISOR					
REV	CDTY	DE	CHK	APPR	DATE
1	REV 62402	EW	RCP	PLA	10/2/77

1 CONNECTOR PLATE ASSY SHOWN AS REFERENCE FOR CARD LOCATION ONLY.
 NOTES: UNLESS OTHERWISE SPECIFIED

SEE P/L

THE DIMENSIONS SHOWN ARE UNLESS OTHERWISE SPECIFIED UNLESS INDICATED OTHERWISE		GEN. DIM. SPACES 1188 0040 APPLY	
TITLE MAYORAL	DESIGNED BY R. S. GARDNER	DRAWN BY R. S. GARDNER	CHECKED BY R. S. GARDNER
DATE 10/2/77	SCALE NONE	SHEET NO. 1	SHEET TOTAL 1
PROPERTY OF BUSHNELL CORPORATION. NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT AS AUTHORIZED BY BUSHNELL CORPORATION.		BUSHNELL CORPORATION 907 LAKE VILLAGE, CALIF. 91230 U.S. AMERICA	
TITLE MODULE KIT, SPINDLE		DWG. NO. 2161 7832 A	

DWG. NO. 2161 7832
 SHEET 01/01

TFAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DJCI CODE	ECT	ECNO	DSGN CNTL	PL REV
	2161 7881	PL	PWBA-READ/WRITE AMP	D		B 3	EA	2-7045-000	2	ECN	11043	829	7
TFAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC CUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO	
	1	PL	D	2161 7899		1 .599 0		PWB-READ/WRITE AMP	1.00	EA			
	2		S	1269 6985		1 .599 0		NE592K VIDEO AMP	2.00	EA			
	3		S	2155 2112		1 .599 0		IC,E.C.L. 10116	1.00	EA			
	4	S	A	2604 3547		1 .599 0		I.C. 7445	1.00	EA			
	5		S	1446 7153		1 .599 0		TRANS,2N2222A	2.00	EA			
	6		S	1446 7187		1 .599 0		TRANS,2N2907A	3.00	EA			
	7		S	1446 7245		1 .599 0		DIODE,1N4448	10.00	EA			
	8		S	2300 5424		1 .599 0		DIODE,ZENER 1N5230	2.00	EA			
	9	S		2027 2605		1 .599 0		CAP,13PF 5% 100V	1.00	EA			
	10		A	1269 5318		1 .599 0		CAP,56PF	1.00	EA			
	11	S		2027 2753		1 .599 0		CAP,52PF 5% 100V	1.00	EA			
	12		S	1269 5342		1 .599 0		CAP CER 100PF	1.00	EA			
	13		S	2300 5572		1 .599 0		CAP,1000PF 20% 50V	1.00	EA			
	15		ST	2300 5747		1 .599 0		CAP,.022UF 10% 50V	1.00	EA			
	16		S	2300 5879		1 .599 0		CAP 0.1UF	14.00	EA			
	17		ST	1267 9064		1 .599 0		CAP TANTALUM 2.2UF	1.00	EA			
	18		S	1267 9106		1 .599 0		SCAP 4.7 UF 10V	2.00	EA			
	19		S	1111 8254		1 .599 0		RES,10 2% 1/4W	4.00	EA			
	20		S	1111 8304		1 .599 0		RES,16.2 OHM 1/4W	2.00	EA			
	21		S	1111 8387		1 .599 0		RES,34.8 2% 1/4W	1.00	EA			

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TFAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DJCI CODE	ECT	ECNO	DSGN CNTL	PL REV
	2161 7881	PL	PWBA-READ/WRITE AMP	D		B 3	EA	2-7045-000	2	ECN	11043	829	
TFAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC CUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO	
	22		S	1111 8429		1 .599 0		RES,51.1 2% 1/4W	2.00	EA			
	23		S	1111 8478		1 .599 0		RES,82.5 2% 1/4W	2.00	EA			
	24		S	1111 8494		1 .599 0		RES,100 1/4W 2%	9.00	EA	ECN	62746	
	25		S	1111 8528		1 .599 0		RES,133 2% 1/4W	2.00	EA			
	26		S	1111 8668		1 .599 0		RES,511 1/4W 2%	6.00	EA			
	27		S	1111 8692		1 .599 0		RES,681,2% 1/4W	2.00	EA			
	28		S	1111 8700		1 .599 0		RES,750 2% 1/4W	2.00	EA			
	29		S	1111 8858		1 .599 0		RES,3.16K 2% 1/4 W	2.00	EA			
	30		S	1111 8874		1 .599 0		RES,3830 2% 1/4W	2.00	EA			
	31		S	1111 8932		1 .599 0		RES,5810+ 2% 1/4W	2.00	EA			
	32		S	1111 8973		1 .599 0		RES,10K OHM 2% 1/4W	4.00	EA			
	33		S	2010 5971		1 .599 0		CHOKE,27UH	2.00	EA			
	34		A	1447 1734		1 .599 0		POST-MOD 2	5.00	EA			
	35		B	2857 1636		1 .599 0		SPACER MOD	2.00	EA	ECN	10545	
	36		C	2857 3939		1 .599 0		SHIELD,R/W AMP	1.00	EA	ECN	10976	
	37		S	2047 0035		1 .599 0		MYLAR, ADH BACKED		AR			
	38		D	2161 7915	D	1 .599 4		SCH-R/W AMP DS		RF	ECN	11043	
	39		A	2162 1776		1 .599 4		SPEC,PERF-R/W AMP		RF			
	40	S	A	2028 5970		1 .599 0		CONN,HEADER-5 PIN	1.00	EA			

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LATEST ISSUE ***

LAST CHANCE: 5/14/80

FILE GEN: 56

PRINTED: 05/23/80

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DFW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC C/D/E	ECT	ECNO	DSGN CNTL	PL REV
	2161 7001	PL	PRBA-READ/WFIT AMP	D	B	3	EA	2-7045-000	2	ECN	11043	829	
TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	CR% REV	ISSUE IN-OUT CODE	DOC	DESCRIPTION	QUANTITY	UOM	ECT	ECNO	
	41	S		1111 8734		1 599 0		RES, 1K 1/4W 2%	1.00	EA			
	42	S		1111 8882		1 599 0		RES, 4.22K 2Z1/4 W	1.00	EA			
	43	D		2857 4176	A	3 599 7		SCHEM R/W AMP 55		RF	ECN	11043	

*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

A	43	D		2857 4176	A	3 599 7		SCHEM R/W AMP 55		RF	ECN	11043	
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*****LAST LINE*****

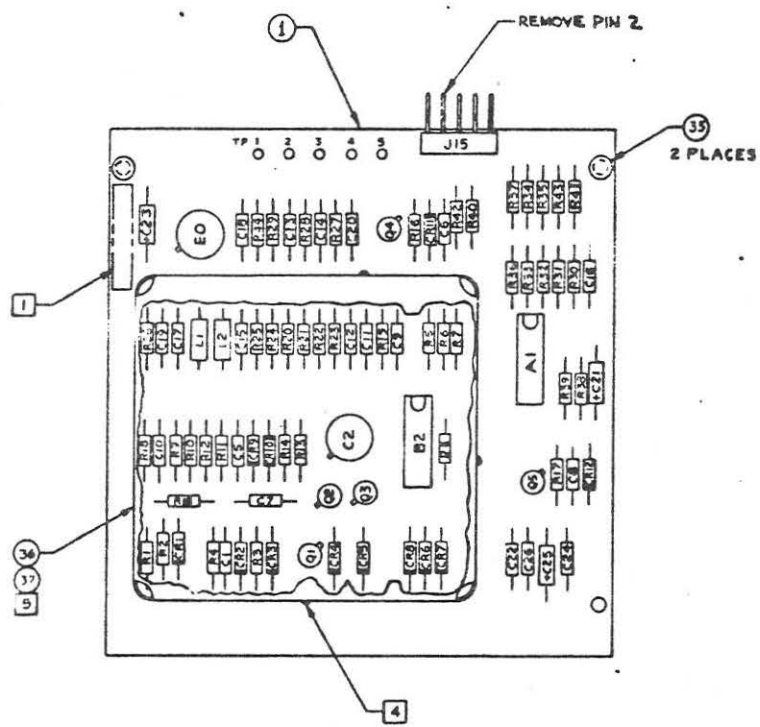
D 2161 7881B (PT)
PWBA - READ/WRITE AMP

1 AND 1 APPROX
188/1712 (04 048)

REVISION					
REV	CONT	DE	CHK	APPRD	DATE
A	ED	JO	G.B.	KY	12/2/64
B	R21	R24	A.S.		12/2/64

ADDED NOTE 7
11 DS. IN NOTE 2

REF. DESIGNATION TABLE	
ITEM NO.	REF DESIGNATION OR LOCATION
2	C2, EO
3	A1
4	B2
5	Q1, Q4
6	Q2, Q3, Q5
7	CR1 THRU CR10
8	CR11, CR12
9	C15
10	C5
11	C17
12	C18
13	C1
15	C7
16	C6, C8, C9, C10, C11, C12, C13, C14
	C16, C19, C20, C21, C24, C28
17	C25
18	C21, C23
19	R18, R19, R26, R27
20	R16, R17
21	R15
22	R13, R14
23	R40, R42
24	R20, R23, R28, R29, R32
	R33, R38, R39, R44
25	R41, R43
26	R30, R31, R34, R35, R36, R37
27	R11, R12
28	R21, R22
29	R24, R25
30	R9, R10
31	R3, R4
32	R5, R6, R7, R8
33	L1, L2
34	TP1, TP2, TP3, TP4, TP5
40	J15
41	R1
42	R2



7. SEE ITEM 43 ON P/L FOR SCHEMATIC S.S.

6. MAX. HEIGHT OF COMPONENTS UNDER SHIELD TO BE .312

5. COMPLETELY INSULATE INSIDE AND OUTSIDE OF TOP OF ITEM 36 USING ITEM 37

4. TACK SOLDER SHIELD TO GND PLANE APPROX AS SHOWN

3. SEE ITEM 39 ON P/L FOR PERFORMANCE SPEC.

2. SEE ITEM 38 ON P/L FOR SCHEMATIC .D.S.

1. MARK ASSY NO. AND ISSUE LEVEL, APPROX WHERE SHOWN, IN .12 HIGH GOTHIC CHARACTERS USING BLACK STENCIL INK.

NOTES: UNLESS OTHERWISE SPECIFIED

SEE P/L

TOLERANCES UNLESS OTHERWISE SPECIFIED		DIMEN UNLESS OTHERWISE SPECIFIED		DATE	
FRACTIONS		DECIMALS		12/2/64	
MATERIAL		ANODS		DESIGNED BY	
HEAT TREATMENT		FINISH		CHECKED BY	
SURF. PREP/TREATMENT		CLASS. CODE		APPROVED BY	
PROPERTY TO BURGESS CORPORATION NOT TO BE REPRODUCED OR USED FOR MANUFACTURING PURPOSES EXCEPT ON BURGESS ORDER OR PRIOR WRITTEN CONSENT		DRAWN BY		DATE	
		SCALE		SHEET NO.	
		2701		1	
		D 21617881		REV	
				B	

DRAWING NO. 21617881 SHEET 1 OF 1

A

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

PART/DOC TRAN NUMBER	CT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UDK	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CATL
2163 0660	PL	PMB-WRITE DRIVER	D		A	4	EA	2-7045-000	2	ECN	10723 027

TRAN ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UDK	ECT	ECNO
1	PL	D	2163 0678		1 999	2	PMB-WRITE DRIVER	1.00	EA		
2	S		2046 9698		1 999	0	DIBDE-TYPE 1A914-A	6.00	EA		
3	A		1674 4963		1 999	0	IC OC HEX INV 7406	1.00	EA		
4			2159 3306		1 999	0	IC,CA3054	1.00	EA		
5			2160 5126		1 999	0	TX,HHQ29070UAD PHP	1.00	EA		
6	ST		2600 1537		1 999	0	IC-D-FF 74S74	1.00	EA		
7	S		1446 7107		1 999	0	TRANS,2N2907A	1.00	EA		
8	S		2118 8297		1 999	0	IC LM339COMPARATOR	1.00	EA		
9	ST	A	2300 5713		1 999	0	CAP .015MF	1.00	EA		
10	S		2300 5879		3 999	0	CAP 0.1 UF 50V	5.00	EA	ECN	10631
11	S		1111 8320		1 999	0	RES-19.6 1/4W 2X	1.00	EA		
12	S		1111 8403		1 999	0	RES-42.2 1/4W 2X	1.00	EA		
13	S		1111 8445		1 999	0	RES-61.9 2X1/4W	2.00	EA		
14	S		1111 8569		1 999	0	RES-196 2X 1/4W	1.00	EA		

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

PART/DOC TRAN NUMBER	CT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UDK	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CATL
2163 0660	PL	PMB-WRITE DRIVER	D		A	4	EA	2-7045-000	2	ECN	10723 027

TRAN ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UDK	ECT	ECNO
15	S		1111 9203		1 999	0	RES-90.9K 2X1/4W	1.00	EA		
16	S		1111 8676		1 999	0	RES,562 2X 1/4W	1.00	EA		
17	S		1111 8604		1 999	0	RES,619 2X 1/4W	1.00	EA		
18	S		1111 8734		1 999	0	RES, 1K 1/4W 2X	6.00	EA		
19	S		1111 8502		1 999	0	RES,110 2X1/4W	1.00	EA		
20	S		1111 8759		1 999	0	RES,1.21K 2X 1/4W	1.00	EA		
21	S		1111 8767		1 999	0	RES-1330 2X 1/4W	1.00	EA		
22	S		1111 8783		1 999	0	RES,1.62K 2X 1/4W	1.00	EA		
23	S		1111 8858		1 999	0	RES,3.16K 2X1/4 W	1.00	EA		
24	S		1111 8866		1 999	0	RES,3.48K 2X1/4 W	1.00	EA		
25	S		1111 8908		1 999	0	RES,5110 2X,1/4W	2.00	EA		
26	S		1111 8940		1 999	0	RES,7.5K 2X 1/4W	1.00	EA		
27	S		1111 8973		1 999	0	RES,10K 2X,1/4W	7.00	EA		
28	S		1111 9070		1 999	0	RES-26.1K 2X 1/4W	1.00	EA		

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

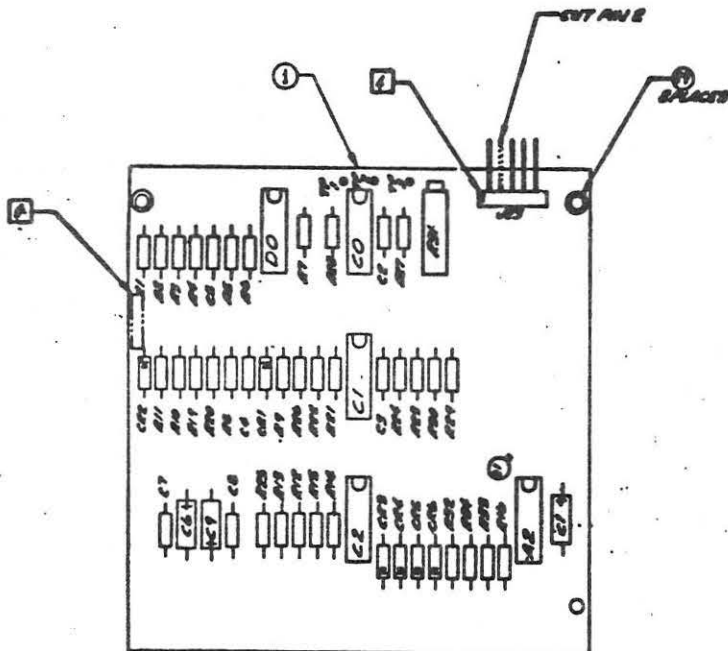
TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRM SIZE	DRM REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
	2163 0660	PL	PNBA-WRITE DRIVER	D		A 4	EA	2-7045-000	2	ECN	10723	027

TRAN	ITEM	DT	DRM SIZE	PART/DOC NUMBER	DRM REV	ISSUE IN	DOC OUT	CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	29		B	2857 1636		2	999	0	SPACER,MOD	2.00	EA	BCN	10545
	30		D	2161 8194	D	4	999	4	SCHEM-WRITE DRIVER	0.00	RF	ECN	10723
	31		A	2162 2071		1	999	4	SPS-WRITE DRIVER	0.00	RF		
	32		S	1267 9106		3	999	0	CAP 4.7UF 10V	3.00	EA	ECN	10631
	33	S	A	2028 5870		1	999	0	CORN,HEADER-5 PIN	1.00	EA		
	34		S	1877 4299		1	999	0	POT,10K,3/4W	1.00	EA		
	35		A	1447 1734		1	999	0	POST-MOD 2	3.00	EA		

*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

C 30 D 2161 8194 C 1 3 4 SCHEM-WRITE DRIVER 0.00 RF ECN 10723

***** LAST LINE *****



REV DESIGNATION TABLE	
ITEM NO.	REV DESIGNATION OR LOCATION
1	C1 THROUGH C4
2	C1
3	DO
4	CE
5	CO
6	Q1
7	AR
8	CA
9	CA
10	C1, C3, C4, C5
11	R1A
12	R1B
13	R2, R6
14	R15
15	R3A
16	R4
17	R13
18	R3, R7, R8, R9, R10, R11
19	R25
20	R6
21	R7
22	R1
23	R2
24	R10
25	RULET
26	R19
27	R16, R20, R22, R27, R28
28	R32, R33
29	R11
30	C1, C6, C7
31	J2
32	R31
33	T1, T2, T3

- 4 MARK PIN NO. AND REF DESIGNATION WHERE SHOWN, USING .12 HIGH GOTHIC WHITE STENCIL INK CHARACTERS.
- 3 SEE ITEM 21 ON P/L FOR PERFORMANCE SPEC.
- 2 SEE ITEM 30 ON P/L FOR SCHEMATIC.
- 1 MARK ASSY NO. AND ISSUE LEVEL, APPROX WHERE SHOWN, IN .12 HIGH GOTHIC CHARACTERS USING BLACK STENCIL INK.

NOTES: UNLESS OTHERWISE SPECIFIED

SEE P/L

PART NUMBER: PWSB WRITE DRIVER SPEC 12-7095 REV: 1 DATE: 12-7095 DESIGNED BY: K. M. M.		DRAWN BY: K. M. M. CHECKED BY: K. M. M. APPROVED BY: K. M. M.	
TITLE: PWSB WRITE DRIVER SCALE: 2701 SHEET: 1 OF 1		DRAWING NO.: 2701 SHEET: 1 OF 1	

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	QTY	ECT	ECNO	DSGN CNTL	PL REV
	2163 0249	PL	PWBA-XDCR AMP	D		E 5	EA	2-7045-000	2	ECN	11045		829
TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC CUT	DESCRIPTION	QUANTITY	UOM	ECT	ECNO	
	21		S	1111 9054		1 999	0	RES-21.5K 2% 1/4W	2.00	EA	ECN	11045	
	22		S	1111 9096		1 999	0	RES-31.6K 2% 1/4W	1.00	EA	ECN	11045	
	24		S	1111 8809		1 999	0	RES-1960 2% 1/4W	1.00	EA			
	25		S	1267 0766		1 999	0	RES-301K 1/4W 1%	2.00	EA			
	26		ST	1267 1012		1 999	0	RES-1 MEG 1Z1/4W	6.00	EA			
	27		B	2857 1636		1 999	0	SPACER MOD	2.00	EA	ECN	10545	
	28		A	1447 1734		1 999	0	POST-MOD 2	5.00	EA	ECN	10609	
	29		D	2162 0968	G	1 999	4	SCHEM-XDCR AMP		RF	ECN	11045	
	30		A	2162 2030		1 999	4	SPS-XDCR AMP		RF			
	31		S	1269 5342		1 999	0	CAP CER 100PF	3.00	EA			
	32		S	1111 9013		1 999	0	RES-14.7K 2% 1/4W	2.00	EA			
	33		S	2157 3076		1 999	0	CAP MYLAR .0047UF	1.00	EA			
	34		S	1267 9106		1 999	0	SCAP 4.7 UF 10V	1.00	EA			
	35		S	1111 8916		1 999	0	RES-5620 + 2% 1/4W	2.00	EA	ECN	10969	

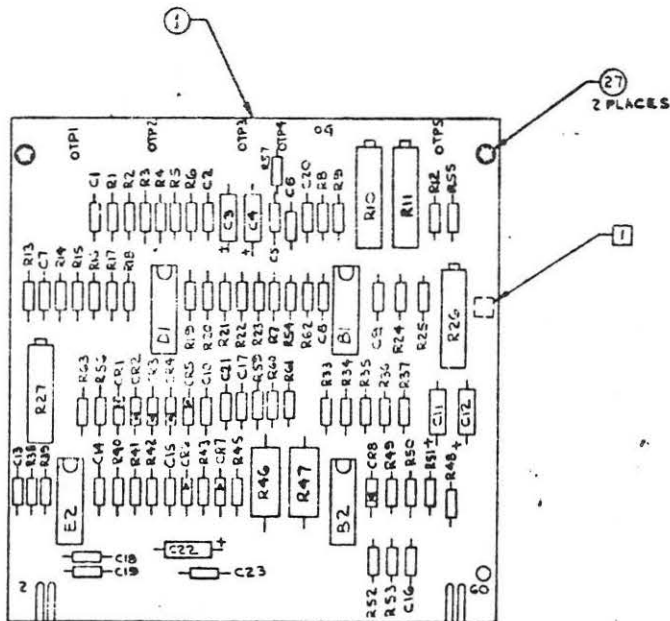
*****LAST LINE*****

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TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	QTY	ECT	ECNO	DSGN CNTL	PL REV
	2163 0249	PL	PWBA-XDCR AMP	D		E 5	EA	2-7045-000	2	ECN	11045		829 7
TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC CUT	DESCRIPTION	QUANTITY	UOM	ECT	ECNO	
	1		PL	D 2163 0256		1 999	0	PWB-XDCR AMP	1.00	EA			
	2		S	2118 8297		1 999	0	IC LM339COMPARATOR	2.00	EA			
	3		S	1907 7726		1 999	0	PKG-OP AMPL 747	2.00	EA			
	4		S	1446 7245		1 999	0	DIODE-1N4448	7.00	EA	ECN	10964	
	5		S	1110 2373		3 999	0	1U746A	1.00	EA	ECN	10969	
	6		S	2300 5697		1 999	0	CAP .01 MF	13.00	EA			
	7		ST	1267 9031		1 999	0	CAP-1 UF 20%35V	4.00	EA			
	8		A	1877 4273		1 999	0	POT-2K	1.00	EA			
	9		S	1877 4323		1 999	0	POT 50K	2.00	EA			
	10		S	A 1877 4349		1 999	0	POT 200K	1.00	EA			
	11		S	A 1265 7938		1 999	0	RES-4.30HM 5% 1W	1.00	EA			
	12		S	A 1265 7946		1 999	0	RES-4.7 OHM 5% 1W	1.00	EA			
	13		S	1111 8726		1 999	0	RES-909 2% 1/4W	1.00	EA			
	14		S	1111 8627		1 999	0	RES-348 2% 1/4W	1.00	EA			
	15		S	1119 7753		1 999	0	CAP-.1UF-20% 25V	1.00	EA			
	16		S	1111 8734		1 999	0	RES-1K 1/4W 2%	7.00	EA			
	17		S	1111 8817		1 999	0	RES-2150 2% 1/4W	2.00	EA			
	18		S	1111 8882		1 999	0	RES-4.22K 2%1/4 W	2.00	EA			
	19		S	A 1111 8908		1 999	0	RES-5110 2%1/4W	6.00	EA			
	20		S	1111 8973		1 999	0	RES-10K OHM2% 1/4W	15.00	EA			

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2163 0249E 1041
PWR - X DCB AMP



REF. DESIGNATION TABLE	
ITEM NO.	REF. DESIGNATION OR LOCATION
2	B2, D1
3	B1, R2
4	CR1, 2, 4, 5, 6, 7, 8
5	CR3
6	CI, 2, 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, 21
7	C3, 4, 11, 12
8	R26
9	R10, 27
10	R11
11	R46
12	R47
13	R60
14	R61
15	C28
16	R12, R13, R36, R38, R41, R49, R57
17	R34, R37
18	R45, R59
19	R3, R18, R21, R43, R50, R51
20	R1, 2, 5, 6, 7, 15, 16, 17, 18, 19, 22, 23, 48, 52, 53
21	R55, R8
22	R39
23	
24	R25
25	R9, R24
26	R4, 14, 20, 35, 40, 42
31	C18, 19, 20
32	R62, R64
33	C17
28	TP1, TP2, TP3, TP4, TP5
34	C22
35	R63, R66

REV. CONT. OR CONT. DATE
A. INITIAL ISSUE
B. INITIAL REVISION
C. MODIFIED
D. MODIFIED
E. MODIFIED
F. MODIFIED
G. MODIFIED
H. MODIFIED
I. MODIFIED
J. MODIFIED
K. MODIFIED
L. MODIFIED
M. MODIFIED
N. MODIFIED
O. MODIFIED
P. MODIFIED
Q. MODIFIED
R. MODIFIED
S. MODIFIED
T. MODIFIED
U. MODIFIED
V. MODIFIED
W. MODIFIED
X. MODIFIED
Y. MODIFIED
Z. MODIFIED

3. SEE ITEM 30 ON P/L FOR PERFORMANCE SPEC.
 2. SEE ITEM 28 ON P/L FOR SCHEMATIC.
- 1 MARK ASSY NO. AND ISSUE LEVEL, APPROX WHERE SHOWN, IN .12 HIGH GOTHIC CHARACTERS USING BLACK STENCIL INK.

NOTES: UNLESS OTHERWISE SPECIFIED

SEE P/L

DEF. QUAL. SPEC. 1183 8945 APPLY

TOLERANCE UNLESS OTHERWISE SPECIFIED	ANGLE	FINISH	DATE	BY
MATERIAL				
HEAT TREATMENT				
SURFACE TREATMENT				

Burrage Corporation

2163 0249 E

ENGINEERING PARTS LIST REPORT

LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

PART/DOC TRAN NUMBER		DT	DESCRIPTION	DRN SIZE	DRN REV	ISSUE	UON	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTRL
2857 1487		PL	PWBA-SERVO AMP	0		A 3	EA	2-7045-000	2	ECN	10723	027

TRAN	ITEN	DT	DRN SIZE	PART/DOC NUMBER	DRN REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UON	ECT	ECNO
1		PL	D	2857 1479		1 999	2	PWB-SERVO AMP	1.00	EA	ECN	10524
2		S		2118 8297		1 999	0	IC LM339COMPARATOR	1.00	EA		
3				2155 6394		1 999	0	PROG AMP 2405	1.00	EA		
4		S		1446 7153		1 999	0	TRANS.2N2222A	1.00	EA		
5		S		1446 7245		1 999	0	DIODE.1N4448	2.00	EA		
6		S	A	2204 6973		1 999	0	DIODE 1N759A	1.00	EA		
7		S		2204 7005		1 999	0	DIODE.TYPE 1N755A	1.00	EA		
8		S		1269 5342		1 999	0	CAP CER 100PF	1.00	EA		
9		S		2300 5697		1 999	0	CAP. .01 MF	5.00	EA		
10		ST		1267 9031		1 999	0	CAP-1 UF 20X35W	2.00	EA		
11		S		2158 0626		1 999	0	RESISTOR VAR 5K	1.00	EA		
12		S		1111 8494		1 999	0	RES.100 1/4W 2X	2.00	EA		
13		S		1111 8676		1 999	0	RES.562 2X 1/4W	1.00	EA		
14		S		1111 8619		1 999	0	RES.316.2X 1/4W	1.00	EA		

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

PART/DOC TRAN NUMBER		DT	DESCRIPTION	DRN SIZE	DRN REV	ISSUE	UON	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTRL
2857 1487		PL	PWBA-SERVO AMP	0		A 3	EA	2-7045-000	2	ECN	10723	027

TRAN	ITEN	DT	DRN SIZE	PART/DOC NUMBER	DRN REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UON	ECT	ECNO
15		S		1111 8734		1 999	0	RES. 1K 1/4W 2X	1.00	EA		
16		S		1111 8759		1 999	0	RES.1.21K 2X 1/4W	2.00	EA		
17		S		1111 8783		1 999	0	RES.1.62K 2X 1/4W	1.00	EA		
18		S		1111 8775		1 999	0	RES.1.47K 2X 1/4W	1.00	EA		
19		S		1111 8866		1 999	0	RES.3.46K 2X1/4 W	1.00	EA		
20		S		1111 8890		1 999	0	RES.4640 2X 1/4W	1.00	EA		
21		S		1111 8908		1 999	0	RES.5110 2X.1/4W	2.00	EA		
22		S		1111 8916		1 999	0	RES-5620 2X 1/4W	1.00	EA		
23		S		1111 8940		1 999	0	RES.7.5K 2X 1/4W	1.00	EA		
24		S		1111 8973		1 999	0	RES.10K 2X.1/4W	5.00	EA		
25		S		1111 9039		1 999	0	RES.17.8K 1/4W	1.00	EA		
26		S		1111 9047		1 999	0	RES.19.6K 2X 1/4W	1.00	EA		
27 ¹		S		1111 9054		1 999	0	RES-21.5K 2X 1/4W	1.00	EA		
29		S		1111 9070		1 999	0	RES-26.1K 2X 1/4W	1.00	EA		

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ASSEMBLY 2857 1487 ISSUE 3

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 14 Jul, 1978

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TRAN NUMBER	PART/DOC	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2857 1487	PL		PWBA-SERVO AMP	D	A	3	EA	2-7045-000	2	ECN	10723	027

TRAN ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
30	S		1111 8973		1	999 0	RES. 10KOHM2% 1/4W	1.00	EA	ECN	10524
31	S		1111 9146		1	999 0	RES. 51.1K 2% 1/4W	6.00	EA	ECN	10507
32			1111 9153		1	999 0	RES. 56.2K 2% 1/4W	1.00	EA		
33	S		1111 9179		1	999 0	RES. 68.1K 2% 1/4W	1.00	EA		
34	S		1111 9211		1	999 0	RES. 101K 1/4W 2%	1.00	EA		
35			1111 9252		1	999 0	RES. 147K 2% 1/4W	1.00	EA	ECN	10507
36	S	A	1265 6773		1	999 0	RES. 750K 5% 1/4W	4.00	EA		
38	B		2857 1636		2	999 0	SPACER, MOD	2.00	EA	ECN	10545
39	D		2857 1354	C	3	999 4	SCHEM-SERVO AMP	0.00	RF	ECN	10723
40	A		2162 1792		1	999 4	SPEC. PERF-SVO AMP	0.00	RF		
41			1265 7375		1	999 0	RES. 5.1 NEG.	1.00	EA		
42	A		1877 4349		1	999 0	POT.	1.00	EA	ECN	10524

***** ADDITIONS AND DELETES SINCE LAST ISSUE *****

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 14 Jul, 1978

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TRAN NUMBER	PART/DOC	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2857 1487	PL		PWBA-SERVO AMP	D	A	3	EA	2-7045-000	2	ECN	10723	027

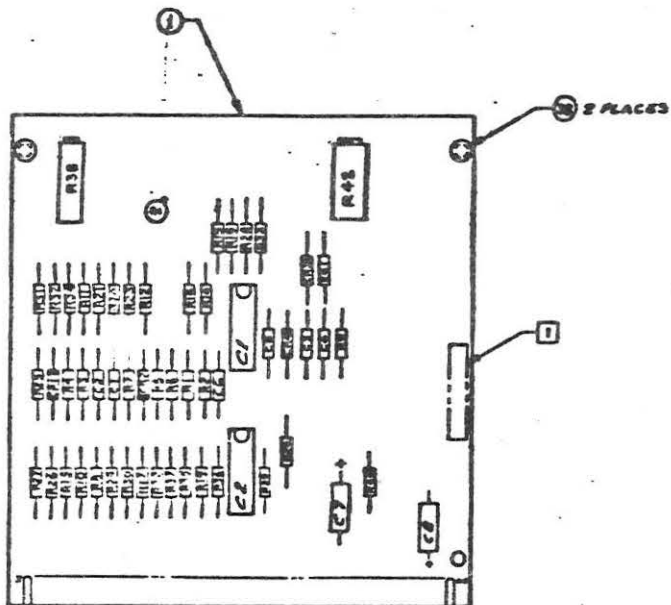
TRAN ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
C 39	D		2857 1354	B	1	2 4	SCHEM-SERVO AMP	0.00	RF	ECN	10723

***** LAST LINE *****

D 2857 1487 A 1st 1
Pwba Servo Amp

1 OF 1 SHEET
REV. 1000

REVISION
REV. CONT. BY OR APPD. DATE
A REV. 1000
MAY 2057 1959



REF. DESIGNATION TABLE	
ITEM NO.	REF. DESIGNATION OR LOCATION
1	C2
2	C1
3	Q1
4	CR2, CR3
5	CR4
6	CR1
7	CS
8	C1, C2, C4, C5, C6
10	C7, C8
11	R38
12	R17, R14
13	R33
14	R36
15	R34
16	R1, R11
17	R28
18	R27
19	R30
20	R2
21	R4, R39
22	R24
23	R32
24	R3, R10, R25, R33, R40
25	R16
26	R18
27	R35
28	R21
29	R20
31	R5, R6, R7, R13, R30, R12
32	R3
33	R31
34	R23
35	R26
36	R10, R25, R26, R27
41	R41
42	R42

1. SEE ITEM 40 ON P/L FOR PERFORMANCE SPEC.
2. SEE ITEM 39 ON P/L FOR SCHEMATIC.
- 1 MARK ASSY NO. AND ISSUE LEVEL, APPROX WHERE SHOWN, IN .12 HIGH GOTHIC CHARACTERS USING BLACK STENCIL MARK.

NOTES: UNLESS OTHERWISE SPECIFIED

SEE P/L

UNLESS OTHERWISE SPECIFIED BY P/L		GPN ORN. MFG. TO THE MAX.		Burroughs		PLANT OR BRANCH	
QUANTITY	DATE	ISSUED BY	DATE	PERSONNEL PRODUCTS GROUP	QUANTIFIABLE	ALSO	CLASS CODE
DATE RECEIVED	DATE	DATE	DATE	TITLE			
				PWBA SERVO AMP 2-7010			
				SCALE 1/4" = 1" DIM. UNLESS OTHERWISE SPECIFIED			
				2101 174 571 D NO 2857 14-87 A			

PAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTRL	PL REV
	2857 3921	PL	PWR-INTERFACE RD	D		2		2-7010-000	0	ECN	10986	929	10

PAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT	CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	1		G	2857 3970	A	2	999	3	ART-INTERFACE RD		RF	ECN	10986
	2			2160 2743		2	999	0	SCH,R/W INTRFC-32		RF		
	3		D	2160 5316		2	999	4	SCH-SVO INTRFCE RD		RF		
	4		A	2157 8737		2	999	4	PROCESS SPEC		RF		
	5		D	2162 4101		2	999	4	SCH,R/W INTRFC 201		RF		

*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

C	2		A	2157 8737		1	1	4	PROCESS SPEC		RF		
C	2		D	2160 2743		1	1	0	SCH,R/W INTRFC-32		RF		
C	3		D	2160 5316		1	1	0	SCH-SVO INTRFCE RD		RF		
C	4		D	2162 4101		1	1	0	SCH,R/W INTRFC 201		RF		
C	1		G	2857 3970	A	1	1	3	ART-INTERFACE RD		RF	ECN	10986

*****LAST LINE*****

ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 14 Jul, 1978

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PART/DOC TRAN NUMBER	DT	DESCRIPTION	DRM SIZE	DRM REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2161 7923	PL	PWBA-TEMP COMP	D	B	5	EA	2-7045-09G	2	ECN	10723	027

****HEADER LINE CHANGES SINCE LAST ISSUE****

A

TRAN ITEM	DT	DRM SIZE	PART/DOC NUMBER	DRM REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
1	PL	D	2161 7931		1 999	2	PWB-TEMP COMP	1.00	EA		
2	S		1907 7726		1 959	0	PKG-OP ANPL 747	3.00	EA		
3	S		2118 8297		1 999	0	IC LM339COMPARATOR	1.00	EA		
4	S		1446 7245		1 959	0	DIODE, 1N4448	2.00	EA		
5	S		2204 7005		1 999	0	DIODE, TYPE 1N755A	2.00	EA		
6	S		2300 5697		1 999	0	CAP, .01 MF	13.00	EA		
7	S		1907 8815		3 999	0	CAP 1.0UF 20% 50V	1.00	EA	ECN	62745
8	S		1267 9106		1 999	0	CAP 4.7UF 10V	1.00	EA		
9	S		1111 8668		1 999	0	RES, 511 1/4W 2%	1.00	EA		
10	S		1111 8734		1 999	0	RES, 1K 1/4W 2%	6.00	EA		
11	S		1111 8866		1 959	0	RES, 3.48K 2% 1/4 W	1.00	EA		
12	S		2157 6871		1 959	0	RES 4.02K 1/8W 1%	1.00	EA		
13	S		1111 9908		1 999	0	RES, 5110 2%, 1/4W	4.00	EA		

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 14 Jul, 1978

PRINTED: 14 Jul, 1978

PART/DOC TRAN NUMBER	DT	DESCRIPTION	DRM SIZE	DRM REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2161 7923	PL	PWBA-TEMP COMP	D	B	5	EA	2-7045-09G	2	ECN	10723	027

****HEADER LINE CHANGES SINCE LAST ISSUE****

A

TRAN ITEM	DT	DRM SIZE	PART/DOC NUMBER	DRM REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
14	S		1111 8924		1 999	0	RES, 6.19K 2% 1/4W	2.00	EA		
15	S		1111 8973		1 999	0	RES, 10K 2%, 1/4W	5.00	EA		
16	S		1111 9054		1 999	0	RES-21.5K 2% 1/4W	1.00	EA		
17	S		1111 9070		1 999	0	RES-26.1K 2% 1/4W	1.00	EA		
18	S		1111 9096		1 999	0	RES, 31.6K 2%, 1/4W	3.00	EA		
19	S		1111 9104		1 999	0	RES-34.8K 2% 1/4W	3.00	EA		
20	S		1111 9112		1 999	0	RES 38.3K 2% 1/4W	1.00	EA		
21	S		1111 9120		1 999	0	RES, 42.2K 1/4W 2%	1.00	EA		
22	S		1111 9161		1 999	0	RES, 61.9K 2% 1/4W	1.00	EA		
23	S		1111 9211		1 999	0	RES, 100K 1/4W 2%	4.00	EA		
24	S		1111 9286		1 999	0	RES, 196K 2% 1/4W	4.00	EA		
25	B		2857 1636		4 999	0	SPACER, MOD	2.00	EA	ECN	10545

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 14 JUL, 1978

PRINTED: 14 Jul, 1978

PART/DOC	DRN	DESCRIPTION	DRN	DRN REV	ISSUE	UOM	CLASS CODE	DOC	ECT	ECNO	DSGN
TRAN NUMBER	SIZE		SIZE					CODE			CNTL
2161 7923	FL	PNBA-TEMP COMP	D	B	5	EA	2-7045-000	2	ECN	10723	027

****HEADER LINE CHANGES SINCE LAST ISSUE****

A

TRAN	ITEM	DRN	PART/DOC	DRN	DRN REV	ISSUE	QTY	UOM	ECT	ECNO	DESCRIPTION
		DT	SIZE	NUMBER		IN	OUT				
26		A	1447 1734			3	999	0	EA	ECN 62745	POST-MOD 2
27		D	2161 7949	C		5	999	4	RF	ECN 10723	SCHEM-TEMP COMP
28		A	2162 1875			1	999	4	RF		SPEC-PERF-TEMPCOMP
29		ST	1267 9031			3	999	0	EA	ECN 62745	CAP-1 UF 20235V

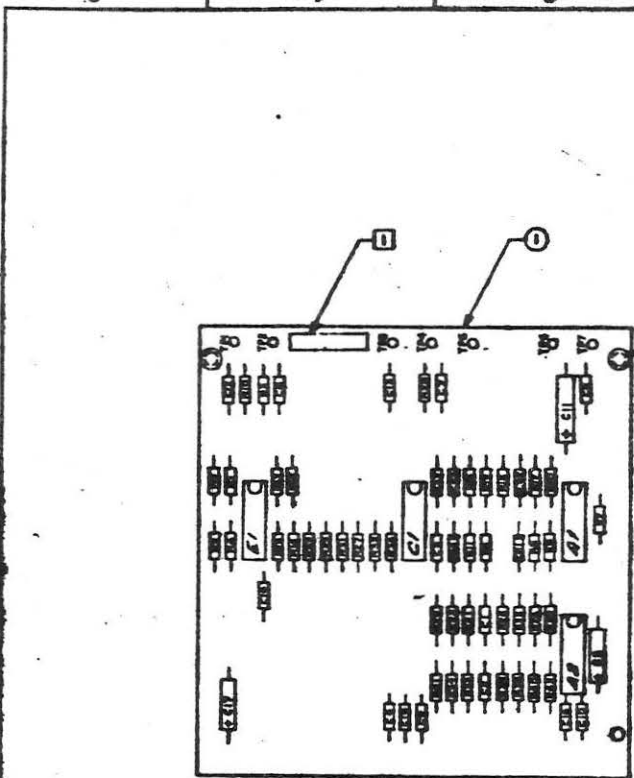
*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

C	27	D	2161 7949	B		2	4	4	RF	ECN 10723	SCHEM-TEMP COMP
---	----	---	-----------	---	--	---	---	---	----	-----------	-----------------

*****LAST LINE*****

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D 2661 7923 1 of 1
Power Temp Comp



REF. IDENTIFICATION TABLE	
1	AS, CI, EI
2	AI
3	CR1, CR2
4	CR3, CR4
5	CI, CI, CI, CI, CI, CI, CI, CI
6	CR, CR, CR, CR, CR
7	CS
8	CS
9	R37
10	R3, R7, R10, R15, R20, R25
11	R39
12	R40
13	R41, R42, R43, R44
14	R4, R16
15	R1, R2, R18, R19, R21
16	R16
17	R17
18	R1, R12, R15
19	R5, R8, R11
20	R4
21	RM
22	R22, R24, R26, R28
23	R11, R23, R27, R28
24	R2, R3, R6, R12
25	R1, R13, R14
26	CR, CR
27	CR, CR

REVISION				
REV	DATE	BY	APP'D	DATE
A	12/20/68	E.B.	W.C.	12/20/68
B	7/22/72	R.T.	W.C.	7/22/72

IN REF DESIGNATION LIST
FROM 7 WRS. CS, CI, CR
ADDED FROM 26 CH, C17

- SEE ITEM 26 ON P/L FOR PERFORMANCE SPEC.
 - SEE ITEM 27 ON P/L FOR SCHEMATIC.
- I** MARK ANY DR. AND IDENT NUM., APPROX THESE MARKS, IN -02 WASH GIBBS CHARACTERS USING BLACK STENCIL INK.

NOTE: UNLESS OTHERWISE SPECIFIED

SEE P/L

PREPARED BY: [Signature] CHECKED BY: [Signature] DATE: 12/20/68		APPROVED BY: [Signature] DATE: 12/20/68	
DRAWN BY: [Signature] DATE: 12/20/68		CHECKED BY: [Signature] DATE: 12/20/68	
TITLE: POWER TEMP COMP		PART NO: 2161 7923	
SHEET: 1 OF 1		REV: B	

ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 21 Jul, 1978

PRINTED: 21 Jul, 1978

TRAN	PART/DOC NUMBER	CT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CATL
2162	4127	PL	PNBA-PNR AMP MOD	D	C	7	EA	2-7045-000	2	ECN	10723	027

TRAN	ITEM	DRW DT SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	1	PL D	2160 0788		1 999	2	PNB-PONER AMP MOD	1.00	EA		
	2		2160 5662		1 999	0	XSTR,NPN 2N4962	1.00	EA		
	3	S	1446 7153		1 999	0	TRANS,2N2222A	1.00	EA		
	4	S	1446 7187		1 999	0	TRANS,2N2907A	2.00	EA		
	5	S	2110 8297		1 999	0	IC LM339COMPARATOR	1.00	EA		
	6	S	1907 7726		1 999	0	PKG,OP AMPL 747	1.00	EA		
	7		1115 3687		1 999	0	RES,HN C.20HM 10M	1.00	EA		
	8	S	1111 8734		1 999	0	RES, 1K 1/4W 2%	5.00	EA		
	9	S	1111 8874		1 999	0	RES,303C 2X1/4W	1.00	EA		
	10	S	1111 8973		1 999	0	RES,10K 2%,1/4W	5.00	EA		
	11	S	1111 9047		1 999	0	RES,19.6K 2% 1/4W	5.00	EA		
	12		1111 9270		1 999	0	RES,178K 2% 1/4W	1.00	EA		
	13	S	1111 9237		1 999	0	RES-121K 2X1/4W	1.00	EA		
	14	S	1446 7245		1 999	0	DIODE,1N4448	3.00	EA		

ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 21 Jul, 1978

PRINTED: 21 Jul, 1978

TRAN	PART/DOC NUMBER	CT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CATL
2162	4127	PL	PNBA-PNR APP MOD	D	C	7	EA	2-7045-000	2	ECN	10723	027

TRAN	ITEM	DRW DT SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	15	S	1269 5342		1 999	0	CAP CER 160PF	2.00	EA		
	16	S	2300 5879		1 999	0	CAP 0.1 UF 50V	4.00	EA		
	17	ST	1267 9031		1 999	0	CAP-1 UF 20X35V	1.00	EA		
	18		1104 5614		1 999	0	CAP,25UF 50V TANT	2.00	EA		
	19		2161 2058		1 999	0	HEADER P.C.8D-3PIN	1.00	EA		
	20		1944 3324		1 999	0	CONN,2C CONTACT	1.00	EA		
	21	PL A	2857 2782		6 999	0	ASSY, CONN 24 PIN	1.00	EA	ECN	10716
	22									ECN	10629
	23									ECN	10716
	28	A	1447 1734		1 999	0	POST-MOD 2	2.00	EA		
	29		2857 1883	A	2 999	3	SPEC,PERF-PNR AMP	0.00	RF	ECN	10560
	30	D	2162 4150	B	7 999	4	SCHER PNR AMP MOD	0.00	RF	ECN	10723
	31	S	1111 8429		1 999	0	RES,51.1 2% 1/4W	1.00	EA		
	32	S	1900 0835		1 999	0	CAP-.056UF 10% 50V	1.00	EA	ECN	10629

ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 21 Jul, 1978

PRINTED: 21 Jul, 1978

PART/DOC TRAN NUMBER	DT	DESCRIPTION	DPW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN CNTL
2162 4127	PL	PWBA-PWR AMP MOD	D	C	7	EA	2-7045-000	2	ECN	10723	027

TRAN ITEM	DT	DRW SIZE	PART/DOC NUMBER	DPW REV	ISSUE IN OUT	DOC CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
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*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

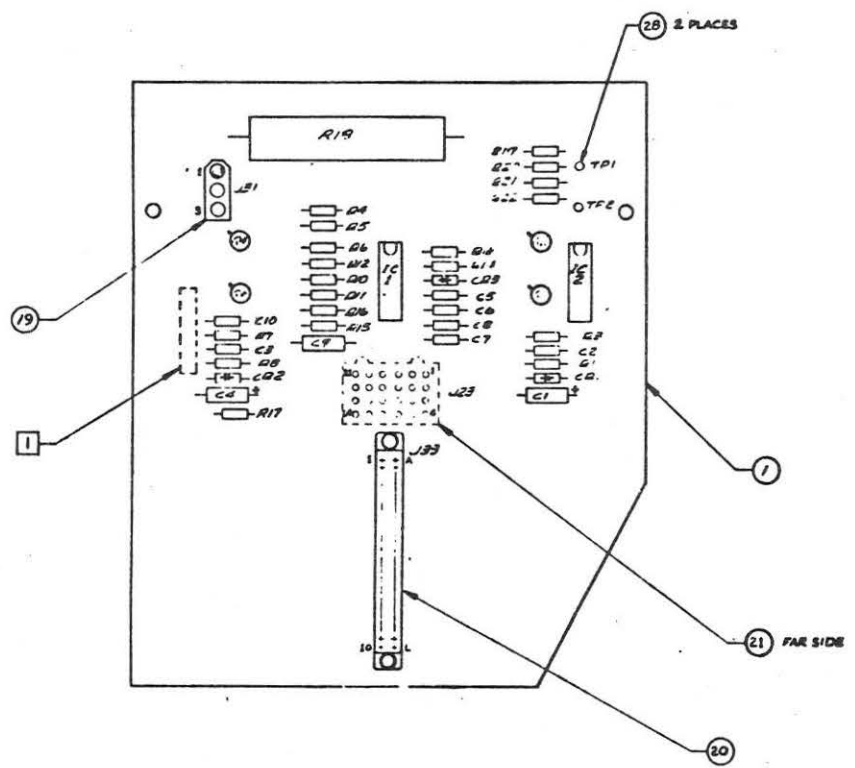
C 30 D 2162 4150 A 1 6 4 SCHEM-PWR AMP MOD 0.00 RF ECN 10723

***** LAST LINE *****

D 2162 4127 C 1041
PWR - Pwr. Amp. Mod.

FIG. 1 AND 2
4710 2017

DATE	1/11/62
BY	W. J. ...
CHECKED BY	...
DESIGNER'S REFERENCE	...
APPROVED BY	...



ITEM NO.	DESIGNATION	LOCATION
2	R2	
3	C6	
4	R1, R4	
5	IC1	
6	IC2	
7	R18	
8	R1, R3, R5, R7, R8	
9	R2	
10	R6, R19, R20, R21, R22	
11	R10, R11, R12, R15, R16	
12	R14	
13	R13	
14	C1, C2, C3	
15	C2, C3	
16	C5, C6, C7, C8	
17	C9	
18	C1, C4	
31	R17	
32	C10	

MADE ASSY NO. AND ISSUE LEVEL APPROX WHERE SHOWN USING .12 HIGH GOTHIC WHITE STENCIL INK CHARACTERS.

NOTES, UNLESS OTHERWISE SPEC'ED

SEE P/L

MATERIAL		DATE	BY	APPROVED
TREATMENT		1/11/62	W. J.
SURFACE TREATMENT		Burrington Corporation		
PART NAME		PWR AMP MOD		
PART NO.		141 D 2162 4127 C		

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UCM	CLASS CODE	DJCI CODE	ECT	ECNO	DSGN Cntl	PL REV
	2162 7013	PL	PWB,VOLT REG	D	0	6	EA	2-7045-000	2	ECN	11029	829	9

TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE	DOC CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	1	FL	D	2162 7021		1 599 0		PWB-VOLTAGE REG	1.00	EA		10015
	2	A		1270 8426		1 599 0		REGULATOR-LAS1815	1.00	EA	ECN	10429
	3	A		1270 8434		1 599 0		REGULATOR-LAS1515	1.00	EA	ECN	10429
	4	A		2857 1891		1 599 0		HYBRID REG	1.00	EA	ECN	10544
	5	A		2028 8130		1 599 0		XSTR,2N5786	1.00	EA		10015
	6	S		1080 5364		1 599 0		TSTR,TYPE 2N3055	1.00	EA		10015
	7	A		1270 8418		1 599 0		CVP L12-0V-5	2.00	EA		10015
	8	S		2041 8034		1 599 0		HEATSINK	2.00	EA		10015
	9	A		2028 8122		1 599 0		HEATSINK,XSTR	1.00	EA		10015
	10	A		2857 3962		6 599 0		CAPACITOR FIXED	2.00	EA	ECN	11029
	11	A		1267 9114		1 599 0		CAP,4.7UF 35V	2.00	EA		10015
	12	S		1267 9106		1 599 0		SCAP 4.7 UF 10V	1.00	EA		10015
	13	A		1102 8309		1 599 0		WASHER	4.00	EA		10015
	14	S	A	1720 8950		1 599 0		CAP,1000 F,10V	1.00	EA		10015
	15	S	A	1117 7896		1 599 0		RES,402 OHM 30 3W	1.00	EA		10015
	16	S		1102 8767		1 599 0		SPACER,S/B PLAIN	4.00	EA		10015
	17	ST		1265 7912		1 599 0		RES,3.9 1W 5%	1.00	EA		10015
	18	S		2200 1956		1 599 0		RECT,IN4719	4.00	EA		10015
	19	S		1111 8494		1 599 0		RES,100 1/4W 2%	1.00	EA		10015
	20	S	A	1920 5509		1 599 0		INSULATOR	4.00	EA		10015

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UCM	CLASS CODE	DJCI CODE	ECT	ECNO	DSGN Cntl	PL REV
	2162 7013	PL	PWB,VOLT REG	D	0	6	EA	2-7045-000	2	ECN	11029	829	

TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE	DOC CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	21	A		1877 4273		1 599 0		POT,2K	1.00	EA		10015
	22	S		2160 3717		1 599 0		TERMINAL CONTACT	5.00	EA		10015
	23	S	A	2028 7389		1 599 0		FAST-ON-.110 FMLE	4.00	EA		10015
	24	B		2162 2998		1 599 0		BRACKET-HT SMK	1.00	EA		10015
	25	A		2028 8080		1 599 0		HEATSINK HP 3	2.00	EA		10015
	26	A		2028 8098		1 599 0		HEATSINK HP 1	2.00	EA		10015
	27	S	A	1951 6376		1 599 0		CONN HEADER 15 CKT	2.00	EA		10015
	28	FL	A	2857 2782		1 599 2		ASSY,CONN 24 PIN	1.00	EA	ECN	10716
	30	S	A	2028 6316		1 599 0		SCR,6-32X3/8 SEM	7.00	EA		10015
	31	ST		1256 8010		1 599 0		WASHER, #6 PLAIN	8.00	EA		10015
	32	ST		1256 7442		1 599 0		LOCKWASHER,#6	4.00	EA		10015
	33	A		1256 5248		1 599 0		NUT-4EX6-32 M/C	2.00	EA		10015
	34	D		2161 9572	F	4 599 3		SCHEM-VOLTAGE REG		RF	ECN	11007
	35	A		2162 2386		1 599 4		SPS-VOLTAGE REG		RF		10015
	36	S		2306 8760		1 599 0		INSULATOR,MICA	4.00	EA		10015
	37	ST		1256 8371		1 599 0		SCREW,4-00 X 1/2	8.00	EA		10015
	38	ST		1256 7707		1 599 0		WASHER-#4 IT LOCK	8.00	EA		10015
	39	ST		1256 7996		1 599 0		WASHER,FLAT #4	8.00	EA		10015
	40	S	A	1256 5206		1 599 0		NUT,4-4C HEX	8.00	EA		10015

TRAN	PART/DEC NUMBER	DT	DESCRIPTION	DFW SIZE	DRW REV	ISSUE	UCM	CLASS CODE	DJG CODE	ECT	ECNO	DSGN CNTL	PL RE
	2162 7013	PL	PWBA-VOLT REG	D	D	6	EA	2-7045-000	2	ECN	11029		829

TRAN	ITEM	CT	DRW SIZE	PART/DOC NUMBER	CRV REV	ISSUE IN	DOC CUT CODE	DESCRIPTION	QUANTITY	UCM	ECT	ECNO
	41		ST	1256 0942		1	599 0	SCR-#6-32X1 1/8 PH	4.00	EA	ECN	10456
	42		S	2158 0568		1	599 0	GREASE THERMAL		AR		
	43	S	A	1265 7124		1	599 0	IC 5.2VR	1.00	EA		10015
	44		S	2009 7390		5	599 0	TRANS PAD	1.00	EA	ECN	10994

*****ADDITIONS AND DELETES SINCE LAST ISSUE*****

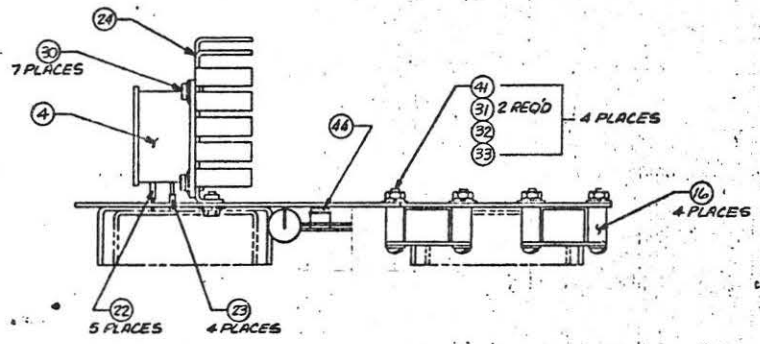
D	10			2012 5928		1	5 0	CAP-50VF	2.00	EA		
A	10	A		2857 1962		6	599 0	CAPACITOR FIXED	2.00	EA	ECN	11029

*****LAST LINE*****

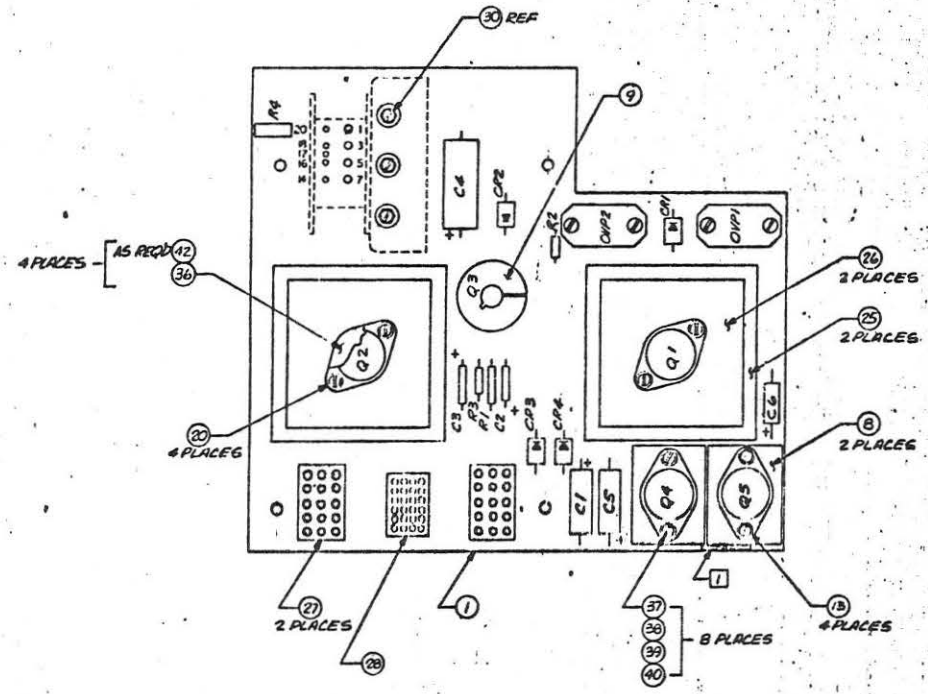
D 2162 7013 D 1041
PWBA, VOLTAGE REGULATOR

7 00 / 23210
CPL. 8716 CH. 840

REV	CON	DR	CHK	APPO	DATE
A					11/10/55
INITIAL RELEASE					
B/A DELETED ITEM 6/24 MOD.					
ON REF DESIGNATION TABLE					
C/3 ITEM 2: WAS Q3					
ITEM 3: WAS Q5					
15 Q6					
D/6 ADDED ITEM 44					



ITEM NO.	REF DESIGNATION OR LOCATION
2	Q3
3	Q4
5	Q5
6	Q1
7	OVP1, OVP2
10	C1, C5
11	C3, C4
12	C2
14	C4
15	R1
17	R3
18	CR1, CR2, CR3, CR4
19	R2
21	R4
43	Q2



- 5. SEE ITEM NO. 88 ON P/L FOR PERFORMANCE SPEC.
- 8. SEE ITEM NO. 84 ON P/L FOR SCHEMATIC.
- 1. MARK ASBY NO AND ISSUE LEVEL APPRXI WHERE SHOWN USING .12 HIGH GOTHIC, BLACK STENCIL INK CHARACTERS.

NOTES: UNLESS OTHERWISE SPECIFIED
SEE P/L

VOLTAJES UNLESS OTHERWISE SPECIFIED		DATE	DATE	DATE
SIZE	ANGLES	10-32	10-32	10-32
MATERIAL				
TREAT TREATMENT				
SURFACE TREATMENT				
GEN. QUAL. SPEC. 1188 8945 APPLY		Burrage Corporation		
PROPRIETARY TO BURRAGE CORPORATION. NOT TO BE REPRODUCED FOR ANY OTHER MANUFACTURING PURPOSES EXCEPT ON BURRAGE ORDER OR PAID WRITTEN ORDER.		WESTLAKES PLANT WESTLAKES VILLAGE, CALIF. 91380		
SCALE		TITLE: PWBA, VOLTAGE REGULATOR		
SHEET		DWG. NO. D 2162 7013		
REV		REV		

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 7 Dec, 1978

PRINTED: 7 Dec, 1978

PART/DOC		DT	DESCRIPTION	DRW		ISSUE	UOM	CLASS CODE	DOC		ECNO	DSGN	
TRAN	NUMBER			SIZE	REV				CODE	ECT			CNTL
2857	3061	PL	PWBA-I/O MOD S.S.		D	A	1	EA	2-7045-000	2	ECN	10761 027	
TRAN	ITEM	DT	SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT	CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	1	PL	D	2857 2535		1 999	E		PWB-I/O MOD	1.00	EA		
	2		S	1951 6350		1 999	O		HEADER 9 POSITION	1.00	EA		
	3		S	2160 2586		1 999	O		CONN 50 PIN RT ANGL	2.00	EA		
	4		S	2857 2618		1 999	O		CONN RT ANGLE 60 POS	1.00	EA		
	5		ST	1447 3524		1 999	O		IC, 4-2IN AND 7408	2.00	EA		
	6		ST	1447 3532		1 999	O		IC, HEX INV 7404	1.00	EA		
	7		A	1447 3581		1 999	O		IC, DC NAND 7438	1.00	EA		
	8		ST	2602 3291		1 999	O		IC, 74LS157	1.00	EA		
	9			1449 1039		1 999	O		IC, 8 PIN S TIMER 555	1.00	EA		
	10		A	1449 1260		1 999	O		HEX D FL-FLP 74174	4.00	EA		
	11		A	1674 4963		1 999	O		IC DC HEX INV 7406	3.00	EA		
	12		S	2158 6235		1 999	O		IC-2- MULTI 74123	1.00	EA		
	13			2600 1495		1 999	O		HEX INV 74S04	5.00	EA		
	14	S	A	2607 1845		1 999	O		IC 74LS112	1.00	EA		

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ENGINEERING PARTS LIST REPORT

*** LAST CHANGE: 7 Dec, 1978

PRINTED: 7 Dec, 1978

PART/DOC		DT	DESCRIPTION	DRW		ISSUE	UOM	CLASS CODE	DOC		ECNO	DSGN	
TRAN	NUMBER			SIZE	REV				CODE	ECT			CNTL
2857	3061	PL	PWBA-I/O MOD S.S.		D	A	1	EA	2-7045-000	2	ECN	10761 027	
TRAN	ITEM	DT	SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT	CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	15	S	A	2608 2073		1 999	O		IC, 74LS157	3.00	EA		
	16		S	1446 7153		1 999	O		TRANS 2N2222A	3.00	EA		
	17			1472 8349		1 999	O		2N930 TSTR NPN	1.00	EA		
	18		S	2300 5697		1 999	O		CAP 0.01 MF	1.00	EA		
	19			1876 9893		1 999	O		CAP 0.1UF 50V.	18.00	EA		
	20		S	1267 9072		1 999	O		CAP 2.2UF 35V	1.00	EA		
	21		S	1267 9106		1 999	O		CAP 4.7UF 10V	1.00	EA		
	22			1267 9148		1 999	O		CAP 6.8UF	1.00	EA		
	23		S	1111 8734		1 999	O		RES, 1K 1/4W 2%	11.00	EA		
	24		S	1111 9112		1 999	O		RES, 39.3K 2% 1/4W	1.00	EA		
	25		S	1111 9211		1 999	O		RES, 100K 1/4W 2%	1.00	EA		
	26		S	1111 9286		1 999	O		RES, 196K 2% 1/4W	1.00	EA		
	27		S	1265 6658		1 999	O		RES, 510K 5% 1/4W	1.00	EA		
	28		D	2857 2626	B	1 999	4		SCHEM-I/O MOD	0.00	RF		

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 7 Dec, 1978

PRINTED: 7 Dec, 1978

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN ENTL
	2857 3061	FL	PWBA-I/O MOD S.S.	D	A	1	EA	2-7045-000	2	ECN	10761	027

TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	CFW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
	29		A	2857 2659	B	1	999 4	SPS-I/O MOD	0.00	RF		
	30			2159 2779		1	999 0	RES, NETWORK	4.00	EA		
	31			2159 5681		1	999 0	RETAINER FEMALE	4.00	EA		
	32		ST	1256 0355		1	999 0	SCREW 4-40X3/8 PH	4.00	EA		
	33		S	1103 4386		1	999 0	WASHER FLAT NYLON	4.00	EA		
	34		ST	1256 7426		1	999 0	WASHER LOCK #4	4.00	EA		
	35	S	A	1256 5206		1	999 0	NUT HEX 4-40	4.00	EA		
	36		ST	2696 9765		1	999 0	N.BUFF QUAD 2IN74S37	1.00	EA		
	37		S	2200 8965		1	999 0	WIRE SOLID INSULAT	0.50	FT		
	38		C	1447 4308		1	999 0	BUS BAR P.C. (ASSY)	3.00	EA		
	39			2857 2642		1	999 0	I/O CLK T.P. ASSY	1.00	EA		
	40			1447 9596		1	999 0	QUAD 2IN NAND BFR 7437	1.00	EA		

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ENGINEERING PARTS LIST REPORT

LAST CHANGE: 7 Dec, 1978

PRINTED: 7 Dec, 1978

TRAN	PART/DOC NUMBER	DT	DESCRIPTION	DRW SIZE	DRW REV	ISSUE	UOM	CLASS CODE	DOC CODE	ECT	ECNO	DSGN ENTL
	2857 3061	FL	PWBA-I/O MOD S.S.	D	A	1	EA	2-7045-000	2	ECN	10761	027

TRAN	ITEM	DT	DRW SIZE	PART/DOC NUMBER	DRW REV	ISSUE IN	DOC OUT CODE	DESCRIPTION	QUANTITY	UOM	ECT	ECNO
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***** ADDITIONS AND DELETES SINCE LAST ISSUE *****

***** LAST LINE *****

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