

MEMPHIS TO EXCLUSIVE



SaitekTM

RW9

PROJECT : Mephisto Exclusive (RW9)
DCC. NO. : RW9-PS-040
REV. : 1
DATE : 12 September, 1995

MEPHISTO EXCLUSIVE GENERAL PRODUCT SPECIFICATIONS

- A. Operating voltage : 9.0 +/- 2.0 volts
- B. Current consumption : Operating voltage = 9V
26mA Typical
40mA max
- C. Power consumption : 360mW max

Remark : Above current and power consumption are measured together with the Diagnostic Tester.

PREPARED BY :

K. H. AU

APPROVED BY :

[Signature]

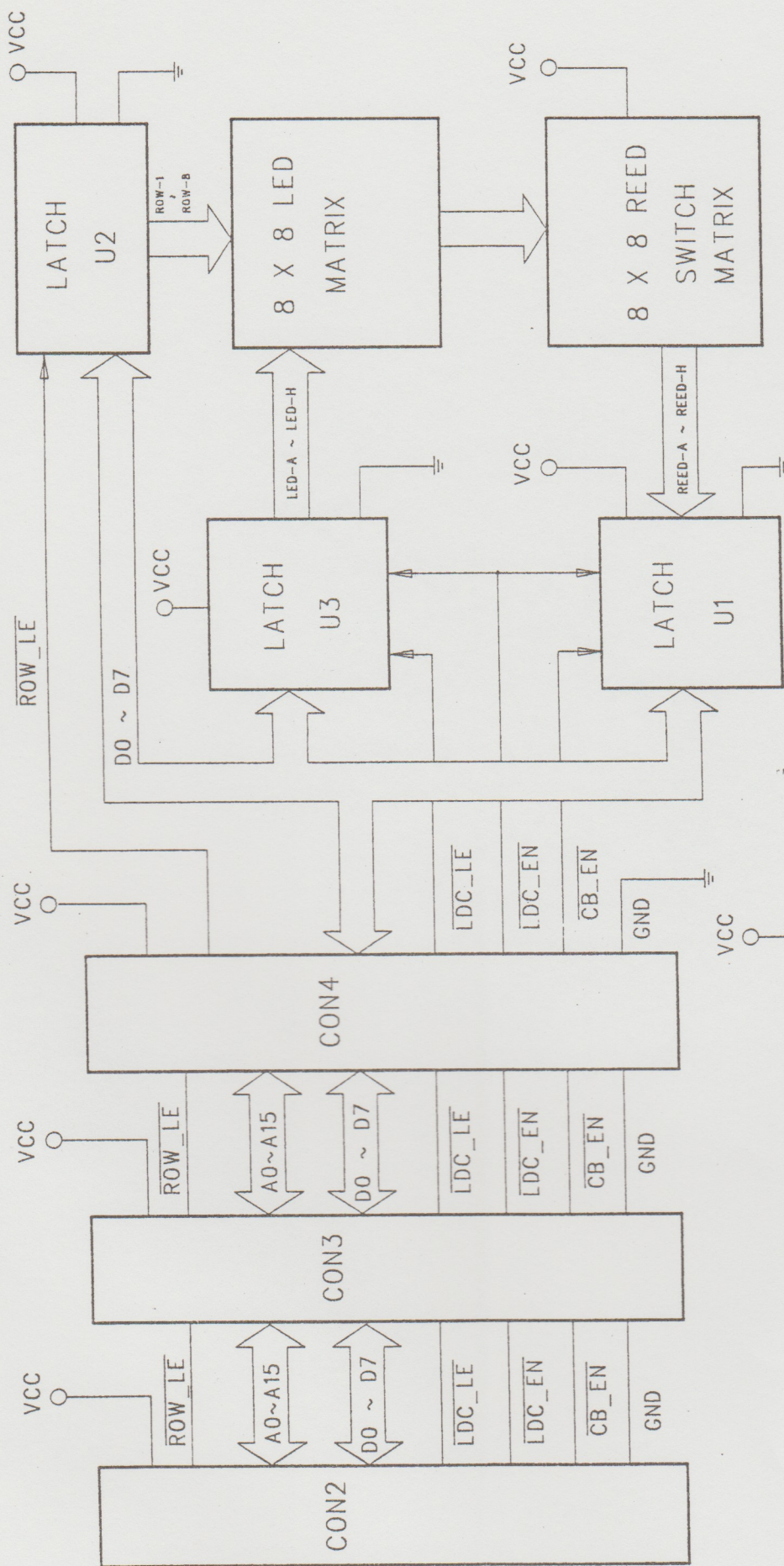
DIST : BDM, QAM, SEE, SEA, IEM, PE

Filename : RW9_PS.DOC

RW9 P. 1/31

ORIGINAL

REVISION		ECN F
DATE	DESCRIPTION	NO.



APPROVALS	DATE	Saitek Ltd.	
DRAWN E.FUNG	8/5/95	BLOCK DIAGRAM	
Q.A.R. J. S. 1/5/95	1/5/95	TITLE: MEPHISTO EXCLUSIVE	
B.D.D. R.R.	1/5/95	[450]	
DWG. NO. RW9-PE-002		REV. 0	

POWER SUPPLY
SW1,F1,L1,L2,L3
C1~C8,U4,D1~D3

DR1: SEE. SEA, TEN, BOM1. ~~Q.A.R.~~ JAC. PE

RW9 P. 2/31

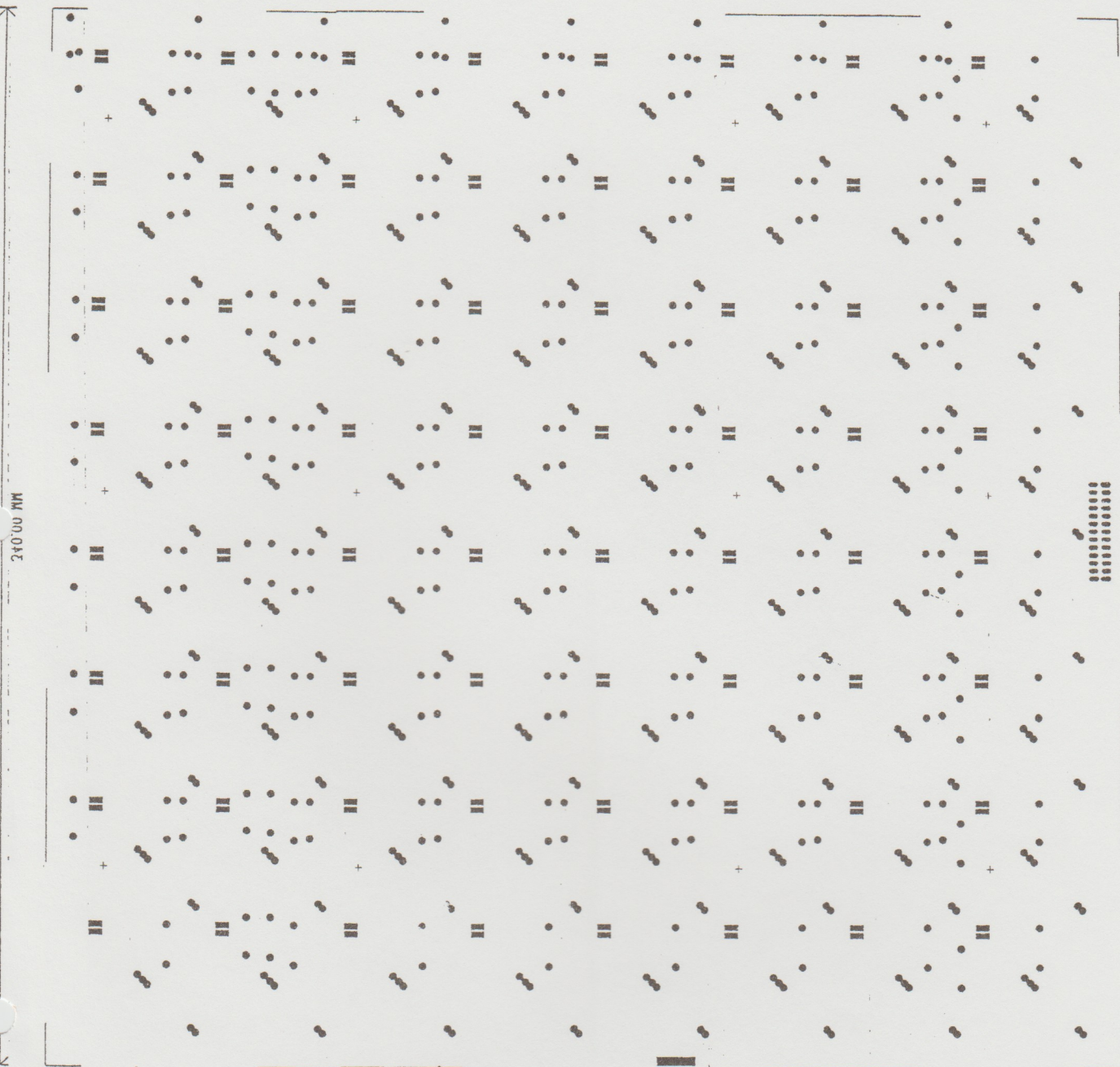
Mephisto Exclusive Trouble Shooting Chart

SYMPTOMS		POSSIBLE CAUSES
Unit does not function after the module is connected	1. 2. 3. 4. 5. 6. 7.	Make sure the module connected is functionally good. Check if the proper adapter is used with the module in use as specified. Check if the fuse is blown. Check for no broken wiring between PCBs. Check if Vcc is between 4.75V to 5.25V. Check if connectors CON2, CON3 and CON4 are good contact or not contaminated. Check if U1, U2 are U3 are functionally good.
LED missing or turn on when it should not	1. 2. 3. 4.	Check if the corresponding LEDs are defective. Check for no broken wiring connection between PCBs. Check for short/open circuit on PCBs. Check if U2 and U3 are functionally good.
Chess piece cannot be detected	1. 2. 3. 4.	Check if the corresponding reed switches and diodes are not defective. Check for no broken wiring connection between PCBs. Check for short/open circuit on PCBs. Check if U1 and U2 are functionally good.
Excessive current drain Current > 25mA	1. 2.	Check for short circuit on PCBs. Check if U4, D1, D2 and D3 are functionally good.

Dist : BDM1, QAM, PE



RW9



240.00 MM

240.00 MM



RW9 P. 4/1

340.00 MM

Saitek

P/N : 516500-00320

A

B

C

D

E

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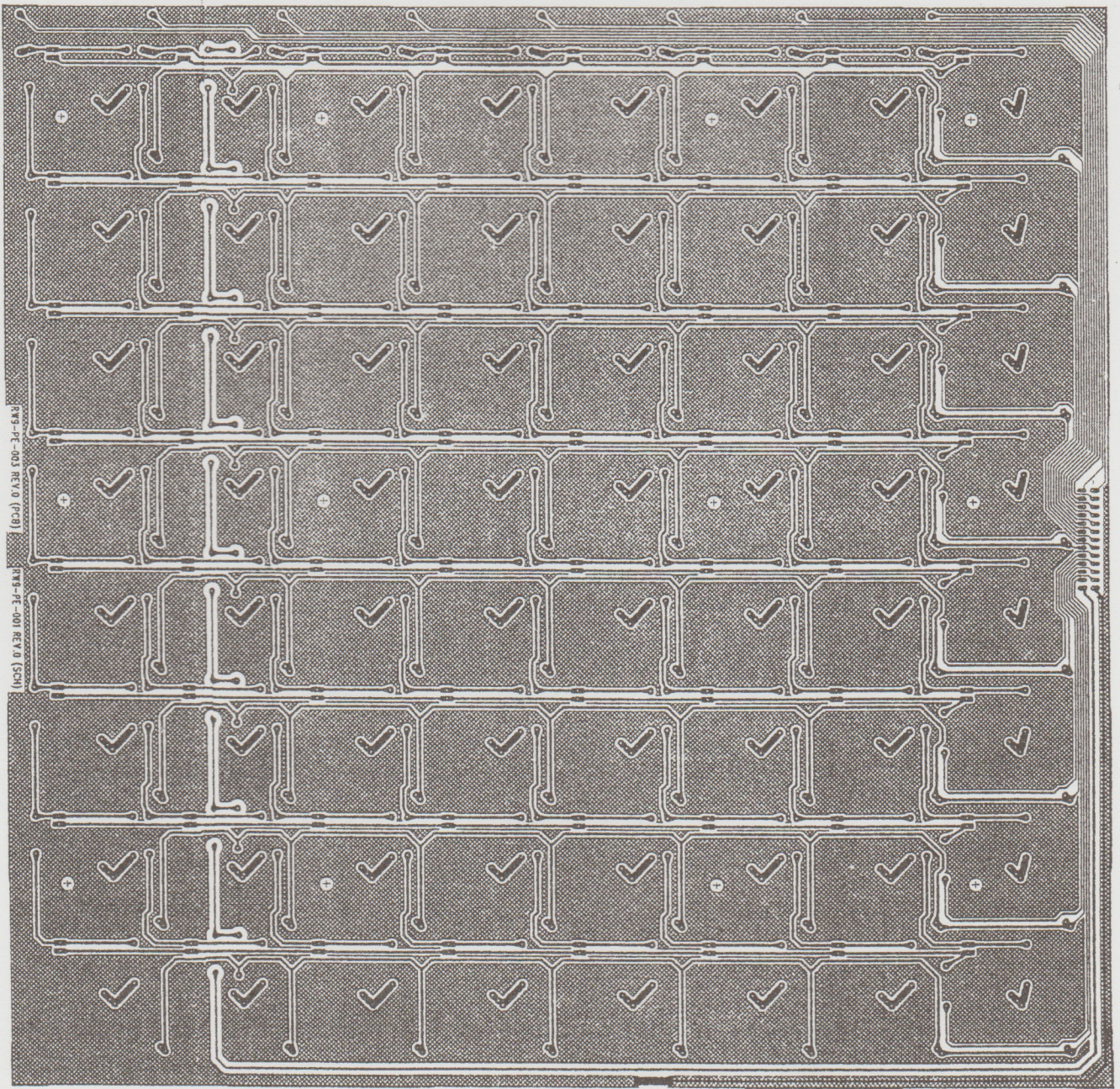
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RW9 P. 2/1



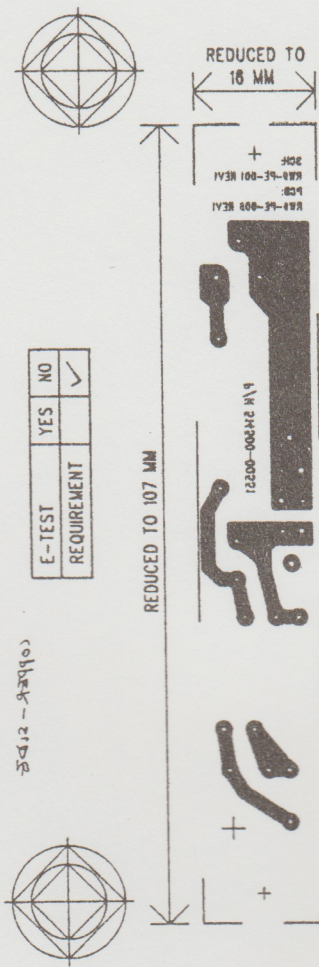
MM 00.041

MM 00.042

MM 00.042

E-TEST REQUIRED		
	YES	NO

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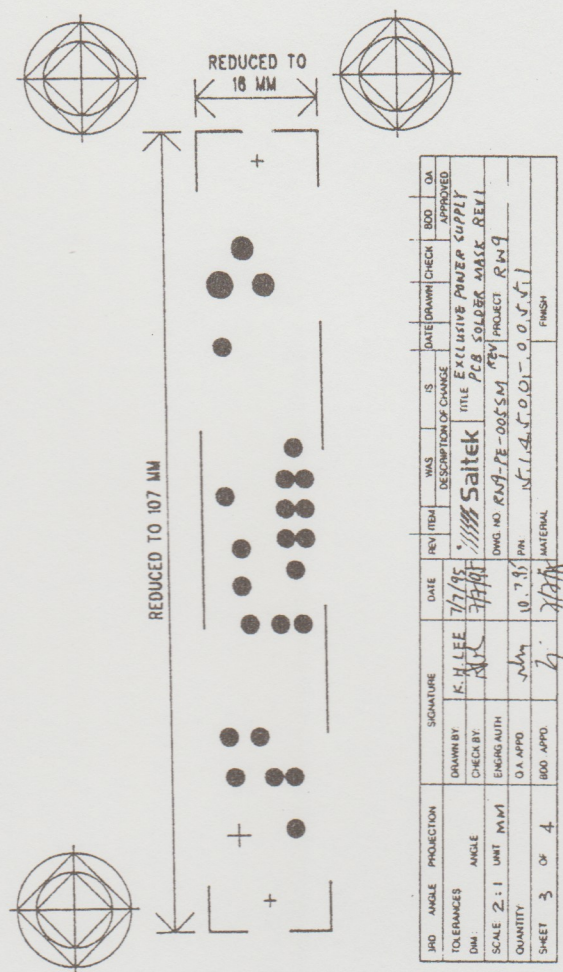


E-TEST	YES	NO
REQUIREMENT		✓

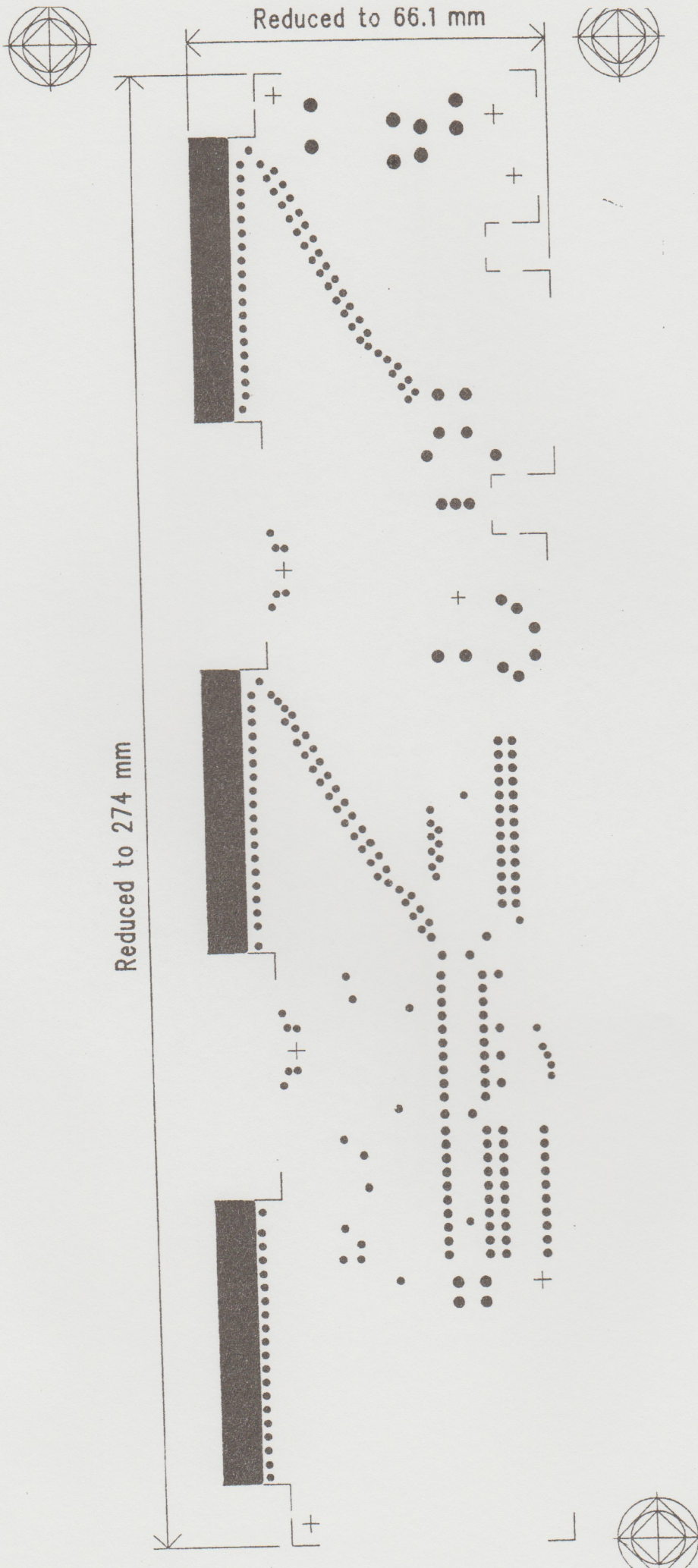
3RD	ANGLE	PROJECTION	SIGNATURE	DATE	REV	ITEM	WAS	IS	DATE	DRAWN	CHECK	BOO	QA
TOLERANCES													
DIM													
SCALE	2:1	UNIT	MM										
QUANTITY													
SHEET	2	OF	4										

DRAWN BY: K. H. LEE
 CHECK BY: N. L.
 ENGINEER: N. L.
 O.A. APPRO: N. L.
 DATE: 7/7/95
 REV: 1
 ITEM: 12200-006M2 M1
 WAS: Saltek
 IS: Saltek
 DATE: 7/7/95
 DOW: 10. RW9-PE-005ET
 PIN: 1.450.01-0.05.51
 MATERIAL: 1.6mm PAPER PHENOLIC BARE COPPER

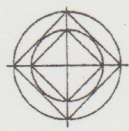
RW9 P.8



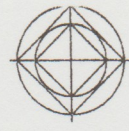
RW9 p. 9/31



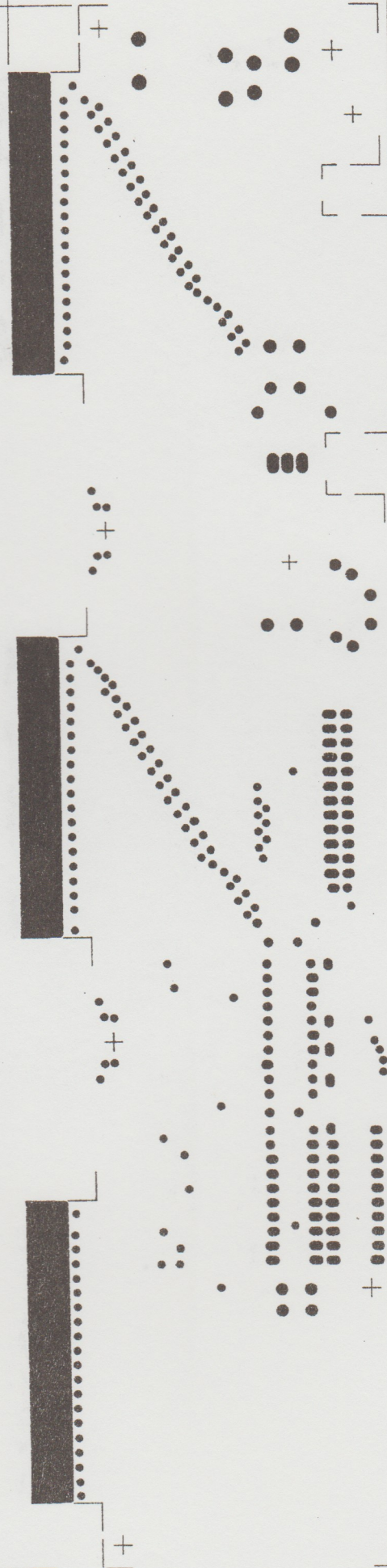
RW9 P. 00
A1



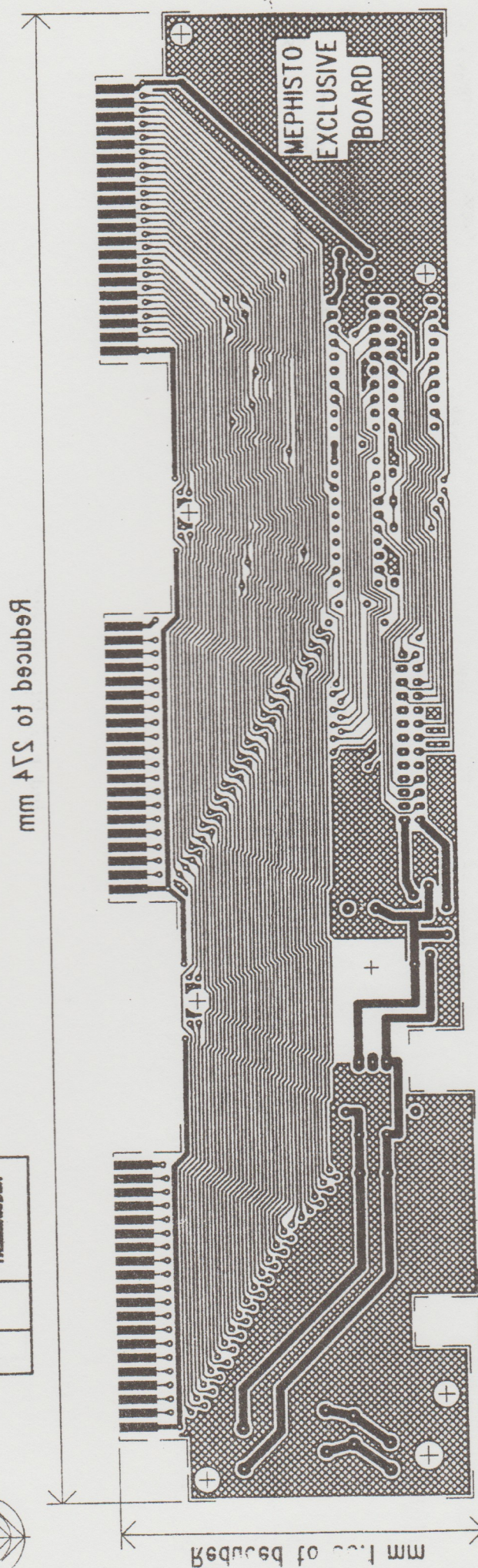
Reduced to 66.1 mm



Reduced to 274 mm



RW9 P. 1/31



REQUIREMENT	
E-TESTER	YES
NO	



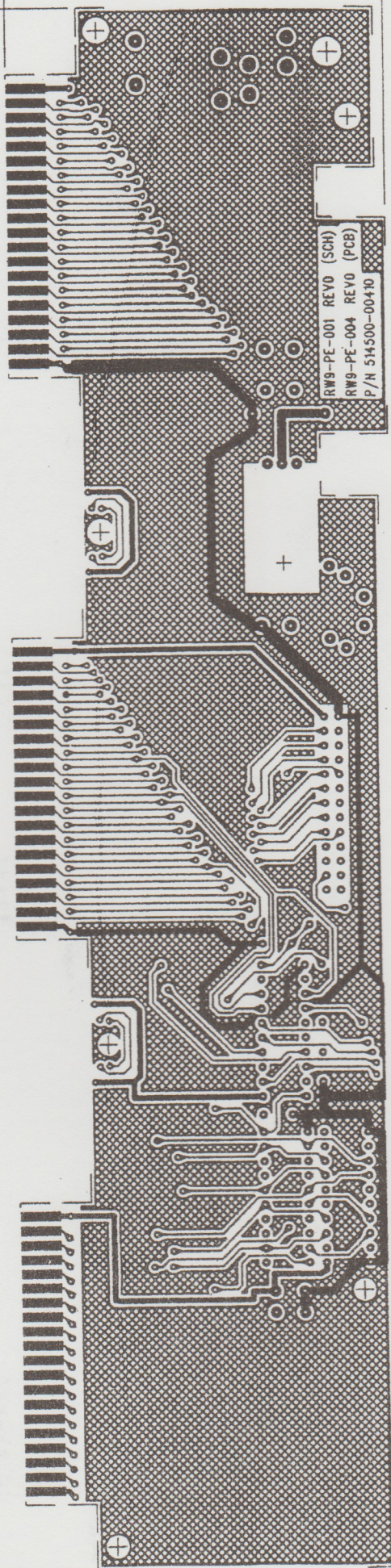
RW9 P. 12/11



Reduced to 60.1 mm



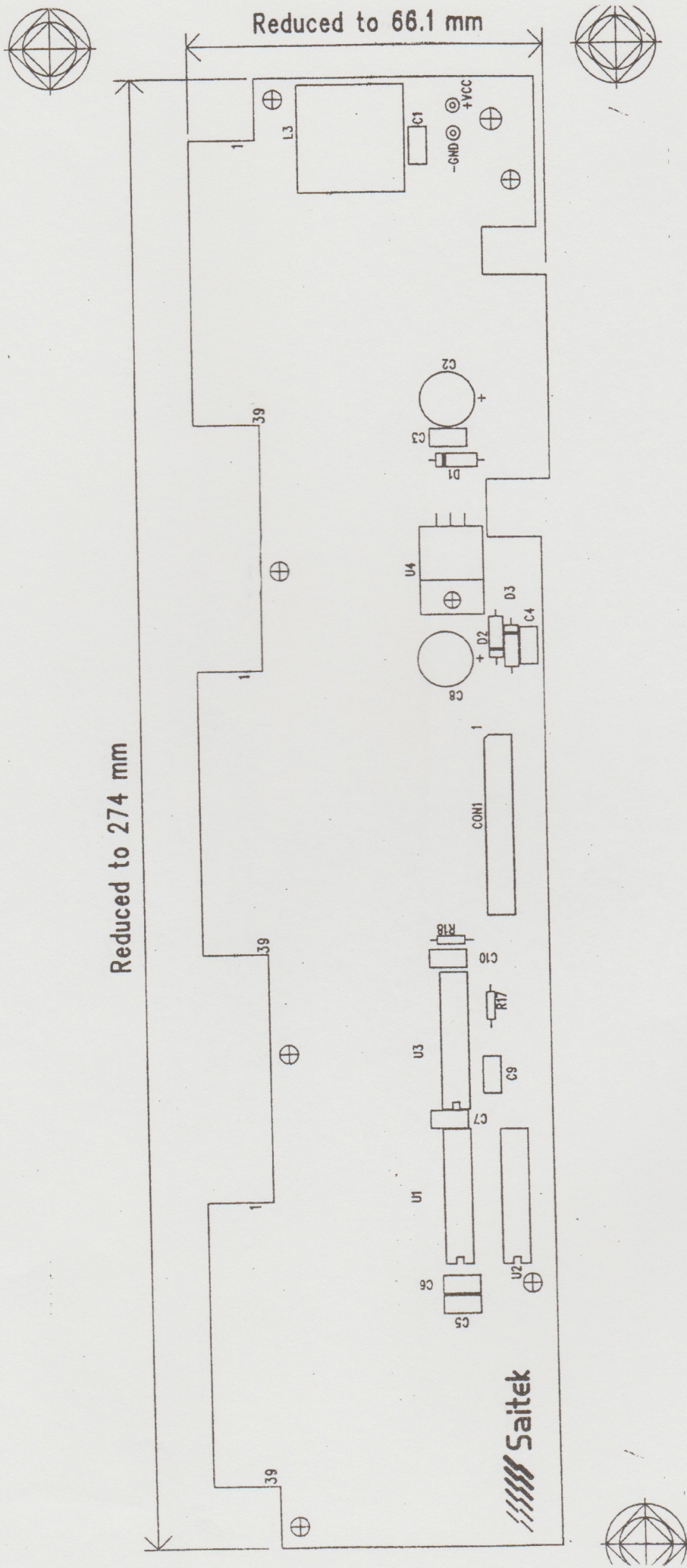
Reduced to 274 mm

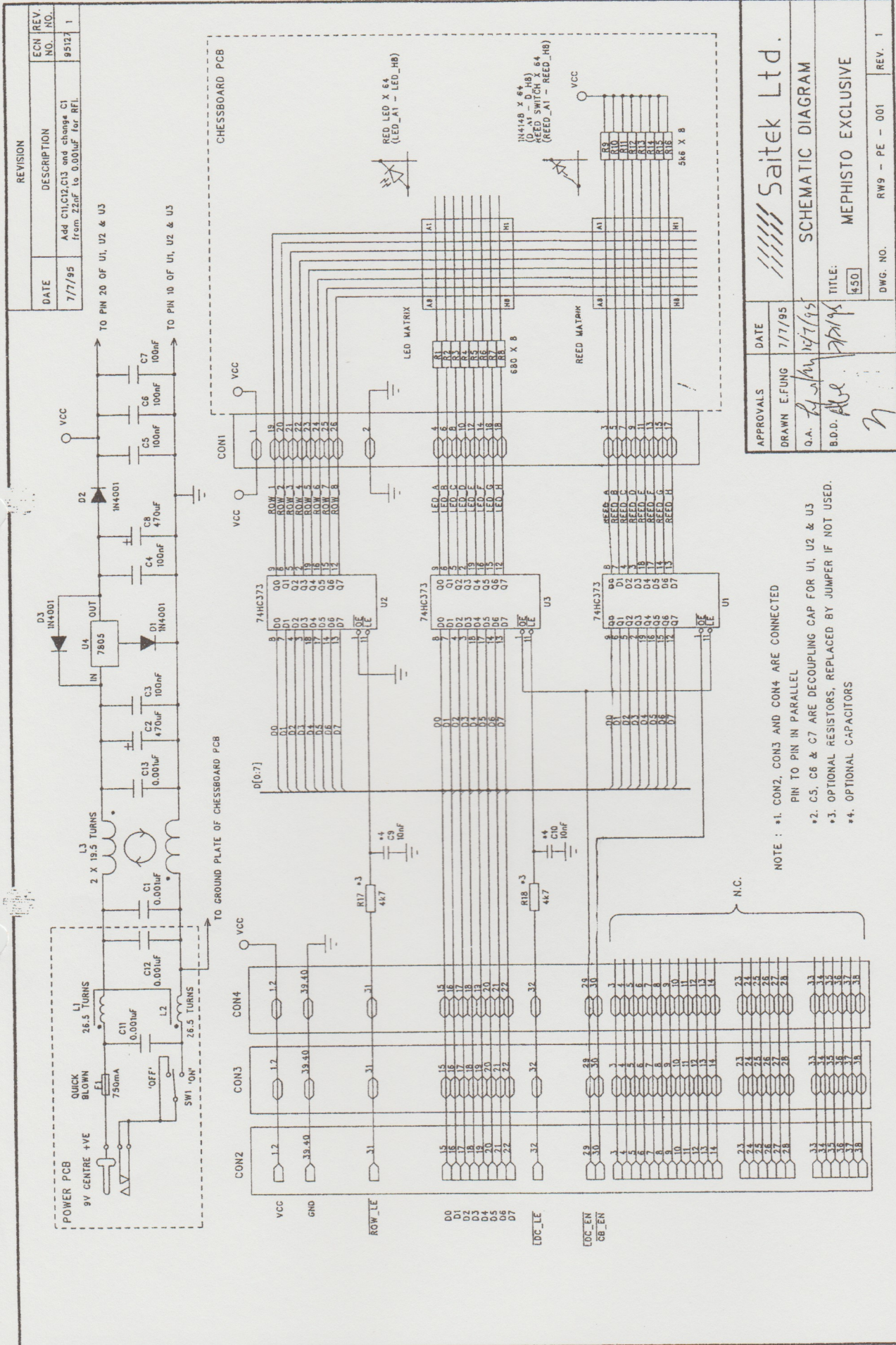


RW9-PE-001 REV0 (SCH)
RW9-PE-004 REV0 (PCB)
P/N 514500-00410



RW9 P. 13/21





REVISION		ECN REV.	
DATE	DESCRIPTION	NO.	HO.
7/7/95	Add C11,C12,C13 and change C1 from 22nF to 0.001uF for RFL.	95127	1

APPROVALS	DATE	Saitek Ltd.	
DRAWN E.FUNG	7/7/95	SCHEMATIC DIAGRAM	
Q.A. <i>[Signature]</i>	14/7/95	TITLE: MEPHISTO EXCLUSIVE	
B.D.D. <i>[Signature]</i>	17/7/95	DWG. NO. RW9 - PE - 001	
		REV. 1	

- NOTE :
- *1. CON2, CON3 AND CON4 ARE CONNECTED PIN TO PIN IN PARALLEL
 - *2. C5, C6 & C7 ARE DECOUPLING CAP FOR U1, U2 & U3
 - *3. OPTIONAL RESISTORS, REPLACED BY JUMPER IF NOT USED.
 - *4. OPTIONAL CAPACITORS

DPL : SEE. SEA. 2EH1, 6DM, 1QC, PE

RW9 P. 1/31

SAITEK

BILL OF MATERIALS

PROJECT : RW9 (Mephisto Exclusive)
ART.NO. : 450
SHIP VER. : EV
REVISION : 3

REVISION HISTORY

<u>REVISION</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF CHANGES</u>
P1	15/6/95	K.H. AU	Preliminary BOM.
1	11/8/95	K.H. AU	Added components, changed two components reference, two components price and ALC price
2	29/8/95	K.H. AU	ECN : 95127
3	2/1/96	K.H. AU	ECN : 95236

RELATED DOCUMENTSREV

Schematic dwg : RW9-PE-001 1

Prepared By : Abraham Au

Approved by : BDM

Distribution :

+1.00 [X] MMM, FAM, SE, QAM
+0.10 [] MMM, FAM, SE, QAM
+0.01 [] MMM, IEM

Date issue : 3 JAN 1996

CHG MOD: NW=new component; *=desc/PN/Ref changed +/-=cost up/down; C/NC=consigned/non-consigned; +/-Q=QTY up/down

RW9 P. 1/1

924500 - RW2, MEMPHISTO EXCLUSIVE Rev : 3

Level	Item	Qty	Stock Code	Rev	Cons	Description	Qty Per Reference
1		1	924500-00001	1		UNIT ASSEMBLY, FOR RW2	1.000
2		1	914500-00001	1		GUTS ASSEMBLY, -LOGIC, FOR RW2	1.000
3	1		514500-00410			PCB, LOGIC, DS, 1.6MM, FR-4	1.000
3	2		74173X-40373	RC		TTL, -40373B, 8 BIT LATCH WITH 3-STATE, DIP	1.000 U3
3	3		741723-00373	RC		TTL, -373, 8 BIT LATCH, HC, DIP20	2.000 U1,2
3	4		690010-07805	RC		ELECT. REGULATOR, 5V, 7805	1.000 U4
3	5		624772-01615			CAPACITOR, E-CAP, 470UF, +80-20%, 16V	1.000 C8
3	6		624772-01615			CAPACITOR, E-CAP, 470UF, +80-20%, 16V	.000 C2, OPTIONAL
3	7		654001-20000			DIODE, RECTIFIER, 1N4001	2.000 D1,2
3	8		654001-20000			DIODE, RECTIFIER, 1N4001	.000 D3, OPTIONAL
3	9		62104M-01611			CAPACITOR, C-CAP, 0.1UF, +/-20%, 16V	4.000 C4-7
3	10		62104M-01611			CAPACITOR, C-CAP, 0.1UF, +/-20%, 16V	.000 C3, OPTIONAL
3	11		62102M-01611			CAPACITOR, C-CAP, 0.001UF, +/-20%, 16V	.000 C1, C13 OPTIONAL
3	12		62102M-01611			CAPACITOR, C-CAP, 0.01UF, +/-20%, 16V	.000 C9&10, OPTIONAL
3	13		614725-31102			RESISTOR, FIXED C-FILM, 4K7, 5%, 1/4W	.000 R17&18, OPTIONAL
3	14		630027-10000	RC		INDUCTOR, TOROID, 0.75MH	1.000 L3
3	15		000190-00028	RC		CONNECTOR, LATCHED HEADER, 891477, 26PINS	1.000 CON1
3	16		000051-20153			JUMPER, L=12MM, LL=15MM, D=0.5MM	2.000 REPLACE R13 R17
3	17		000071-20524			SCREW, M/S, 1/4IN, HZ, OXPO, 5X6MM, FLAT	1.000 FOR U4 IN LOGIC
3	18		000110-00050			NUT, M3, OXPO, 5X1.5MM, MILD STEEL	1.000 FOR U4 IN LOGIC
3	19		000073-21524			SCREW, 3/T, 1/4IN, HZ, OXPO, 4MM, A	6.000 FOR LOGIC PCB
2		1	914500-00002	1		GUTS ASSEMBLY, -LED, FOR RW2	1.000
3	20		514500-00321			PCB, LED, SS, 1.6MM, PAPER PHENOLIC	1.000
3	21		660001-11003	RC		LED, RED, DOM, D=3MM, TOSHIBA, TLRI24	64.000
3	22		525120-00530	RC		SWITCH, REED, FOR SW7, ORD9215	64.000
3	23		654148-10000			DIODE, SWITCHING, 1N4148	64.000
3	24		000051-20153			JUMPER, L=12MM, LL=15MM, D=0.5MM	72.000
3	25		615623-31102			RESISTOR, FIXED C-FILM, 5K6, 5%, 1/4W	8.000 R9-16
3	26		616815-31102			RESISTOR, FIXED C-FILM, 680, 5%, 1/4W	8.000 R1-8
2		1	914500-00003	1		GUTS ASSEMBLY, -POWER SUPPLY, FOR RW2	1.000
3	27		514500-00551			PCB, POWER SUPPLIER, S3, 1.6MM, PAPER	1.000
3	28		526200-00030			SWITCH, 2P2T, FOR B3, SK-22F03-G9	1.000 SW1
3	29		000220-00003			SOCKET, DC POWER JACK, DC 208	1.000
3	30		660023-00001	RC		ELECT. FUSE, 750MA, 120V, SLOW BLOW, BEL	1.000 F1
3	31		630028-20000	RC		INDUCTOR, CHOCK, 4.3UH	2.000 L1, L2
3	32		62102M-01611			CAPACITOR, C-CAP, 0.001UF, +/-20%, 16V	2.000 C11, C12
2		1	264500-00000	1		CASING ASSEMBLY, FOR RW9	1.000
3	33		234500-00601	RC		WOOD, TOP CABINET WITH SILKSCREEN, RW9	1.000
3	34		234500-00701	RC		WOOD, LEFT BAR, WHITE WOOD, RW9	1.000
3	35		234500-00801	RC		WOOD, RIGHT BAR, WHITE WOOD, RW9	1.000
3	36		214500-01500	RC		PLASTIC, E-CAP, AES, BLACK, FOR RW9	1.000
3	37		214500-00900	RC		PLASTIC, DUMMY TOP COVER, FOR RW9	2.000
3	38		214500-01000	RC		PLASTIC, DUMMY BOTTOM CABINET, FOR RW9	2.000
3	39		000052-20040			STRAND WIRE, RED, L=200MM, E=3.5MM, SWG#23	1.000
3	40		000060-20040			STRAND WIRE, BLACK, L=200MM, E=3.5MM, SWG#23	1.000
3	41		000063-20043			STRAND WIRE, GREEN, L=200MM, E=3.5MM, AWG#23	1.000
3	42		234500-01300	RC		WOOD, FRONT BAR, FOR RW9	1.000

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294500 - RW9, MEMPHISTO EXCLUSIVE

Rev : 3

Level	Item	Ctg	Stock Code	Rev	Cons	Description	Qty	Per	Reference
3	43		214500-02000	RC		PLASTIC, HANDLE, LEFT, ABS, BLACK, RW9	1.000		
3	44		214500-02900	RC		PLASTIC, HANDLE, RIGHT, ABS, BLACK, RW9	1.000		
3	45		224500-02000	RC		METAL, LOCKING PLATE, FOR RW9	2.000		
3	46		224500-01700	RC		METAL, SPACER, FOR RW9	4.000		BOTTOM CABINET
3	47		224500-03400	RC		METAL, DRAWER KNOB, FOR RW9	1.000		
3	48		000073-11713			SCREW, S/T, +BIND, M4X10MM, A	4.000		L & R BARS
3	49		000022-00080			RUBBER FT, 3M/HIG, FREE, 20, 50QX7.6MM, TAPR	4.000		
3	50		594500-00410	RC		CABLE ASSEMBLY, 26PIN HEADERX2, 23CM CABLE	1.000		
3	51		334500-03800	RC		RATING PLATE, FOR RW9, FOIL PAPER	1.000		
3	52		594500-00390	RC		INSULATION PLATE, THK 0.3MM, WITH AL PAPER	1.000		
3	53		224500-03500	RC		METAL MOUNTING PLATE, FOR RW9	4.000		
3	54		000073-11224			SCREW, S/T, +BIND, M2.5X6MM, A	2.000		DC JACK PCB
3	55		000073-11434			SCREW, S/T, +BIND, M2.5X6MM, A	12.000		FOR LED PCB
3	56		000073-11414			SCREW, S/T, +BIND, M2.5X5MM, A	4.000		MOUNTING PLATE
3	57		000073-11414			SCREW, S/T, +BIND, M2.5X6MM, A	4.000		ENCLOSED SPACER
3	58		224500-01900	RC		METAL, PUSH, FOR RW9	4.000		FOR SPACER
3	59		000071-10K74	RC		SCREW, M/C, +BIND, M3.5X15MM, FLAT	1.000		FOR DRAWER KNOB
3	60		000071-30950	RC		SCREW, M/S, +TRUSS, HEAD, #4X12MM, BLACK	2.000		L & R HAHOLES
3	61		000073-11434	RC		SCREW, S/T, +BIND, M2.5X6MM, A	1.000		FOR CABLE ASSEM
3	62		294570-03400	RC		CABLE PROTECT PLATE #1, SMALL	.000		
3	63		0000080-00070			WASHER, COPPER, ID=4.3MM, OD=11.5MM, T=0.9MM	.000		
3	64		000030-00250			WASHER, OD=5, ID=1.9, T=0.5	.000		
1			944500-10000	1		PACKING ASSEMBLY, FOR RW9	1.000		
2	65		454500-04400			POLYFOAM, FOR RW9, ROD SHAPE	1.000		
2	66		454500-02701			POLYFOAM, FOR RW9	4.000		
2	67		000125-00500			POLYBAG, 500X500X0.045MM	1.000		FOR CHESSBOARD
2	68		000122-50160			POLYBAG, 250X160X0.045MM	2.000		FOR CHESSMEN
2	69		454500-03601			INSERT, FOR RW9, PAPER, CHESSPIECE	2.000		FOR CHESSMEN
2			244500-26700	1		CHESSMEN SET, RW9, 70MM, BLITZ	1.000		
3			244500-26810	1		CHESSMEN SUBSET, RW9, 70MM, BLITZ, BROWN	1.000		
4			244500-270K0	1		CHESSMEN, RW9, KING, BROWN, D13X4, BLITZ	1.000		
5	70		234500-02100	RC		WOOD, KING, DEEP BROWN, WITHOUT MAGNET	1.000		
5	71		000161-00150	RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	72		295100-08211	RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-271Q0	1		CHESSMEN, RW9, QUEEN, BROWN, D13X4, BLITZ	1.000		
5	73		234500-02200	RC		WOOD, QUEEN, DEEP BROWN, WITHOUT MAGNET	1.000		
5	74		000161-00150	RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	75		295100-08211	RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-272R0	1		CHESSMEN, RW9, ROOK, BROWN, D13X4, BLITZ	2.000		
5	76		234500-02300	RC		WOOD, ROOK, DEEP BROWN, WITHOUT MAGNET	1.000		
5	77		000161-00150	RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	78		295100-08211	RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-273N0	1		CHESSMEN, RW9, KNIGHT, BROWN, D13X4, BLITZ	2.000		
5	79		234500-02400	RC		WOOD, KNIGHT, DEEP BROWN, WITHOUT MAGNET	1.000		

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994500 - RW9, MFPHISTO EXCLUSIVE

Rev : 3

Level	Item	Chg	Stock	Code	Rev	Cons	Description	Qty	Per	Reference
5	80		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	81		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-274E0	1			CHESSMEN, RW9, BISHOP, BROWN, D13X4, BLITZ	2.000		
5	82		234500-02500		RC		WOOD, BISHOP, DEEP BROWN, WITHOUT MAGNET	1.000		
5	83		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	84		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-275P0	1			CHESSMEN, RW9, PAWN, BROWN, D13X4, BLITZ	8.000		
5	85		234500-02600		RC		WOOD, PAWN, DEEP BROWN, WITHOUT MAGNET	1.000		
5	86		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	87		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
3			244500-26910	1			CHESSMEN SUBSET, RW9, 70MM, BLITZ, BEIGE	1.000		
4			244500-276K0	1			CHESSMEN, RW9, KING, BEIGE, D13X4, BLITZ	1.000		
5	88		234500-02110		RC		WOOD, KING, BEIGE, WITHOUT MAGNET	1.000		
5	89		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	90		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-277Q0	1			CHESSMEN, RW9, QUEEN, BEIGE, D13X4, BLITZ	1.000		
5	91		234500-02210		RC		WOOD, QUEEN, BEIGE, WITHOUT MAGNET	1.000		
5	92		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	93		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-278R0	1			CHESSMEN, RW9, ROOK, BEIGE, D13X4, BLITZ	2.000		
5	94		234500-02310		RC		WOOD, ROOK, BEIGE, WITHOUT MAGNET	1.000		
5	95		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	96		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-279N0	1			CHESSMEN, RW9, KNIGHT, BEIGE, D13X4, BLITZ	2.000		
5	97		234500-02410		RC		WOOD, KNIGHT, BEIGE, WITHOUT MAGNET	1.000		
5	98		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	99		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-280B0	1			CHESSMEN, RW9, BISHOP, BEIGE, D13X4, BLITZ	2.000		
5	100		234500-02510		RC		WOOD, BISHOP, BEIGE, WITHOUT MAGNET	1.000		
5	101		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	102		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
4			244500-281P0	1			CHESSMEN, RW9, PAWN, BEIGE, D13X4, BLITZ	8.000		
5	103		234500-02610		RC		WOOD, PAWN, BEIGE, WITHOUT MAGNET	1.000		
5	104		000161-00150		RC		MAGNET, ISO, FERRITE, D13X4	1.000		
5	105		295100-08211		RC		FELT, DIA 20MM, BLK, W ADHESIVE	1.000		
3			242990-19400C				CHESSMEN SET, SW12, ALC	1.000		
2	107		370000-00000				LABEL ASSEMBLY	1.000		
2	108		360000-00220				LABEL, FOR SERIAL NO, ADHESIVE PAPER, STD.	1.000		
2	109		454500-04200				CARTON, FOR RW9, 4PCS/CTN	1.250		
2	110		414500-61100		RC		MANUAL, FOR RW9, F/G/E/D/I/S	1.000		

RW9 P. 19/31

994500 - RW2, MEPHISTO EXCLUSIVE Rev : 3

Level	Item	Chg	Stock	Code	Rev	Cons	Description	Qty	Per	Reference
2	111		434500-61000				ADDENDUM, REMOVE, POLYFOAM R00, G/F/E/D/I/S	1.000		
1			974500-00000		1		OPTIONS ASSEMBLY, FOR RW2	1.000		
2	112		424500-61100			RC	GIFTBOX, FOR RW9, G/F/E/D/I/S	1.000		
2	113	A/W	414500-61100			RC	MANUAL, FOR RW2, F/G/E/D/I/S	1.000		

RW9 P. 20/21

SAITEK

BILL OF MATERIALS

PROJECT : RW9M (Mephisto Exclusive VI)
 ART.NO. : 474
 SHIP VER. : EV
 REVISION : 1

REVISION HISTORY

<u>REVISION</u>	<u>DATE</u>	<u>BY</u>	<u>DESCRIPTION OF CHANGES</u>
P1	4/1/96	K.H. AU	Preliminary BOM.
1	5/2/96	K.H. AU	Added componets and changed component's reference

RELATED DOCUMENTS REV

Schematic dwg : RW9-PE-001 1
 RM19-PE-001 0
 RD2-PE-003 0

Prepared By : Abe
 Abraham Au

Approved by : [Signature]
 BDM

Distribution :

+1.00 [X] MMM, FAM, SE, QAM*
 +0.10 [] MMM, FAM, SE, QAM
 +0.01 [] MMM, IEM

Date issue : 6 FEB 1996

REPORT3 BILL OF MATERIAL - SAIIEK

SAIIEK LTD.

924740 - RW2M, MEPHISTO EXCLUSIVE VI

Rev : 1

Level	Item	Chg	Stock Code	Rev	Cons Description	Qty Per Reference
4			244500-27500	1	CHESSMEN,RW9,PAWN,BROWN,D13X4,BLITZ	8.000
5	134		234500-02600	RC	WOOD,PAWN,DEEP BROWN, WITHOUT MAGNET	1.000
5	135		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	136		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
3			244500-26310	1	CHESSMEN 3BUSET,RW9,20MM,BLITZ,BEIGE	1.000
4			244500-27680	1	CHESSMEN,RW2,KING,BEIGE,D13X4,BLITZ	1.000
5	137		234500-02110	RC	WOOD,KING,BEIGE, WITHOUT MAGNET	1.000
5	138		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	139		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
4			244500-27700	1	CHESSMEN,RW9,QUEEN,BEIGE,D13X4,BLITZ	1.000
5	140		234500-02210	RC	WOOD,QUEEN,BEIGE, WITHOUT MAGNET	1.000
5	141		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	142		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
4			244500-27800	1	CHESSMEN,RW2,ROOK,BEIGE,D13X4,BLITZ	2.000
5	143		234500-02310	RC	WOOD,ROOK,BEIGE, WITHOUT MAGNET	1.000
5	144		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	145		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
4			244500-27980	1	CHESSMEN,RW9,KNIGHT,BEIGE,D13X4,BLITZ	2.000
5	146		234500-02410	RC	WOOD,KNIGHT,BEIGE, WITHOUT MAGNET	1.000
5	147		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	148		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
4			244500-28080	1	CHESSMEN,RW2,BISHOP,BEIGE,D13X4,BLITZ	2.000
5	149		234500-02510	RC	WOOD,BISHOP,BEIGE, WITHOUT MAGNET	1.000
5	150		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	151		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
4			244500-28100	1	CHESSMEN,RW2,PAWN,BEIGE,D13X4,BLITZ	8.000
5	152		234500-02610	RC	WOOD,PAWN,BEIGE, WITHOUT MAGNET	1.000
5	153		000161-00150	RC	MAGNET,ISO,FERRITE,D13X4	1.000
5	154		295100-08211	RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000
3			242220-124000		CHESSMEN SET,SW12,ALC	1.000
2			370000-00000		LABEL ASSEMBLY	1.000
2			360000-00220		LABEL,FOR SERIAL NO,ADHESIVE PAPER,STD.	1.000
2			454740-00100		CARTON,FOR RW2M,3PCS/CIN	1.330
2			434500-61000		ADDENDUM,REMOVE,POLYFOAM ROD,G/F/E/D/I/S	1.000
2			364740-00200	RC	STICKER,FOR RW2M GIFTBOX,PAPER	1.000
2			364740-00300	RC	STICKER,FOR RW2M ARTICAL NO.,PAPER	1.000
1			974740-00000	1	OPTIONS ASSEMBLY,FOR RW2M	1.000
2	162		424500-61100	RC	GIFTBOX,FOR RW2,G/F/E/D/I/S	1.000
2	163		414500-61100	RC	MANUAL,FOR RW2, F/G/E/D/I/S	1.000
2	164		414720-61200	RC	MANUAL,FOR RM12,G/F/E/D/I/S	1.000
2	165		414720-22100	RC	MANUAL,FOR RM12,G/E	1.000

RW9 P. 22/31

994740 - RW9M, MEMPHISTO EXCLUSIVE VI

Rev : 1

Level	Item	Chg	Stock	Code	Rev	Cons	Description	Qty	Per	Reference
3	104		621067	-0161X			CAPACITOR,E-CAP,10UF,+50%/-20%,16V,MINI	1.000	C4	
3	105		000120	-00027			CONNECTOR, EDGE, 40PIN, BFNDED LEADS	1.000	CON1	
2			214730	-00003	1		GUTS ASSEMBLY, -LCD, FOR RD2	1.000		
3	106		514730	-00620			PCB,LCD,S.S.,1.6MM,PAPER PHEONLIC,RD2	1.000		
3	107		000030	-01400			CORN ARRAY,NELL,1.40MM,P=2.54MM,F=3.5MM	3.000		
2			364730	-00000	1		CASING ASSEMBLY, FOR RD2	1.000		
3	108		214610	-00120		RC	PLASTIC,I,CAB,ABS,BLACK,W/3ILKSGREEN,RD2	1.000		
3	109		214610	-00200		RC	PLASTIC,E,CABINET,ABS,BLACK,RM18	1.000		
3	110		532030	-00330		RC	LCD,FOR ST12B	1.000		
3	111		250000	-00524		RC	ZIFRA CONNECTOR,SG,52X2,2X4,7,P=0.10MM	1.000		
3	112		212030	-01100		RC	PLASTIC,SUPPORT FRAME,HIP3	1.000		
3	113		000073	-11424			SCREW,S/T,1BND,M2,6X6MM	4.000		
1			944740	-10000	1		PACKING ASSEMBLY, FOR RW9M	1.000		
2	114		454500	-04400			POLYFOAM, FOR RW9, ROD SHAPE	1.000		
2	115		454500	-02701			POLYFOAM, FOR RW9	4.000		
2	116		000125	-00500			POLYBAG,500X500X0.045MM	1.000	FOR CHESSEBOAR	
2	117		000122	-50160			POLYBAG,250X160X0.045MM	2.000	FOR CHESSEMAN	
2	118		454500	-03601			INSERT, FOR RW9, PAPER, CHESSPICE	2.000	FOR CHESSEMAN	
2			244500	-26700	1		CHESSEMAN SET,RW9,70MM,BLITZ	1.000		
3			244500	-26810	1		CHESSEMAN SUBSET,RW9,70MM,BLITZ,BROWN	1.000		
4			244500	-270K0	1		CHESSEMAN,RW9,KING,BROWN,D13X4,BLITZ	1.000		
5	119		234500	-02100		RC	WOOD,KING,DEEP BROWN, WITHOUT MAGNET	1.000		
5	120		000161	-00150		RC	MAGNET,ISO,FERRITE,D13X4	1.000		
5	121		295100	-08211		RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000		
4			244500	-27100	1		CHESSEMAN,RW9,QUEEN,BROWN,D13X4,BLITZ	1.000		
5	122		234500	-02200		RC	WOOD,QUEEN,DEEP BROWN, WITHOUT MAGNET	1.000		
5	123		000161	-00150		RC	MAGNET,ISO,FERRITE,D13X4	1.000		
5	124		295100	-08211		RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000		
4			244500	-27200	1		CHESSEMAN,RW9,ROOK,BROWN,D13X4,BLITZ	2.000		
5	125		234500	-02300		RC	WOOD,ROOK,DEEP BROWN, WITHOUT MAGNET	1.000		
5	126		000161	-00150		RC	MAGNET,ISO,FERRITE,D13X4	1.000		
5	127		295100	-08211		RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000		
4			244500	-27300	1		CHESSEMAN,RW9,KNIGHT,BROWN,D13X4,BLITZ	2.000		
5	128		234500	-02400		RC	WOOD,KNIGHT,DEEP BROWN, WITHOUT MAGNET	1.000		
5	129		000161	-00150		RC	MAGNET,ISO,FERRITE,D13X4	1.000		
5	130		295100	-08211		RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000		
4			244500	-27480	1		CHESSEMAN,RW9,BISHOP,BROWN,D13X4,BLITZ	2.000		
5	131		234500	-02500		RC	WOOD,BISHOP,DEEP BROWN, WITHOUT MAGNET	1.000		
5	132		000161	-00150		RC	MAGNET,ISO,FERRITE,D13X4	1.000		
5	133		295100	-08211		RC	FELT,DIA 20MM,BLK,W ADHESIVE	1.000		

RW9 P. 2/31

REPORTS BILL OF MATERIAL - SALIER

SALIER LTD

Rev : 1

- RW9M. MEMPHISIO EXCLUSIVE VI

994740

Level	Item	Chg	Stock	Code	Rev	Cons	Description	Qty	Per	Reference
5	84		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00900	1			SWITCH, TACT, RM19, BISHOP, 320 E1-1	1.000		
5	85		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00910	1			SWITCH, TACT, RM19, ROOK, 320 E1-1	1.000		
5	86		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00920	1			SWITCH, TACT, RM19, QUEEN, 320 E1-1	1.000		
5	87		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00930	1			SWITCH, TACT, RM19, KING, 320 E1-1	1.000		
5	88		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00940	1			SWITCH, TACT, RM19, "SAVE", 320 E1-1	1.000		
5	89		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00950	1			SWITCH, TACT, RM19, "OPT", 320 E1-1	1.000		
5	90		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00960	1			SWITCH, TACT, RM19, "LEV", 320 E1-1	1.000		
5	91		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00970	1			SWITCH, TACT, RM19, "INFO", 320 E1-1	1.000		
5	92		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00980	1			SWITCH, TACT, RM19, "POS", 320 E1-1	1.000		
5	93		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-00990	1			SWITCH, TACT, RM19, "NEW GAME", 320 E1-1	2.000		
5	94		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-01000	1			SWITCH, TACT, RM19, ARROW LEFT, 320 E1-1	1.000		
5	95		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-01010	1			SWITCH, TACT, RM19, ARROW RIGHT, 320 E1-1	1.000		
5	96		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-01020	1			SWITCH, TACT, RM19, "ENT", 320 E1-1	1.000		
5	97		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			524720-01030	1			SWITCH, TACT, RM19, "CL", 320 E1-1	1.000		
5	98		524660-00830		RC		SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000		
4			520000-00001C				SWITCH SILKSCREENING CHARGE PER SET	1.000		
3	100		334720-00700		RC		BAITING PLATE, FOR RM19, SILVER GRAY PAPER	1.000		
2			914730-00001	1			GUIS ASSEMBLY, LOGIC, FOR RD2	1.000		
3	101		514730-00510				PCB, LOGIC, S.S., 1.6MM, PAPER PHEONL IC, RD2	1.000		
3	102		750008-04015		RC		IC, DUAL 4-BIT SHIFT REGISTER	3.000		U1-U3
3	103		62104M-01611				CAPACITOR, C-CAP, 0.1UF, +/-20%, 16V	3.000		CI-3

RW9 P. 26/31

994740 - RW2M, MEPHISTO EXCLUSIVE VI

Rev : 1

Level	Item	Chg	Stock Code	Rev	Cons Description	Qty	Per Reference
3	43		224500-02000	RC	METAL, LOCKING PLATE, FOR RW2	2.000	
3	44		224500-01700	RC	METAL, SPACER, FOR RW2	4.000	BOTTOM CABINET
3	45		224500-03400	RC	METAL, DRAWER KNOB, FOR RW2	1.000	
3	46		000073-11734	RC	SCREW, S/T, #10, M2.5X13MM, A	4.000	L & R BARS
3	47		000022-00030	RC	RUBBER FT. 3M/11G, FRIE. 20.53X7.6MM, TAFTER	4.000	
3	48		524500-00410	RC	CABLE ASSEMBLY, 26PIN HEADERX2, 23CM CABLE	1.000	
3	49		334500-03900	RC	RATING PLATE, FOR RW2, FOIL PAPER	1.000	
3	50		000040-50030	RC	EYELET 5X3 MM	4.000	INSULATE PLATE
3	51		594500-00392	RC	INSULATION PLATE, 0.3MM, WITH AL PAPER, EMC	1.000	
3	52		224500-03500	RC	METAL, MOUNTING PLATE, FOR RW2	4.000	
3	53		000073-11224	RC	SCREW, S/T, #10, M2.5X13MM, A	2.000	DC JACK PCB
3	54		000073-11434	RC	SCREW, S/T, #10, M2.5X13MM, A	12.000	FOR LED PCB
3	55		000073-11414	RC	SCREW, S/T, #10, M2.5X13MM, A	4.000	MOUNTING PLATE
3	56		000073-11414	RC	SCREW, S/T, #10, M2.5X13MM, A	4.000	LOCKING PLATE
3	57		224500-01900	RC	METAL, PUSH, FOR RW2	4.000	ENCLOSED SPACER
3	58		000071-10874	RC	SCREW, M/C, #10, M2.5X13MM, FLAT	4.000	FOR SPACER
3	59		000071-30950	RC	SCREW, M/S, #10, M2.5X13MM, BLACK	1.000	FOR DRAWER KNOB
3	60		000073-11434	RC	SCREW, S/T, #10, M2.5X13MM, A	2.000	L & R HANDLES
3	61		294570-03400	RC	CABLE PROTECT PLATE #1, SMALL	1.000	FOR CABLE ASSEM
3	62		000080-00070	RC	WASHER, OD=5.10=1.9, T=0.5	.000	
3	63		000030-00250	RC	SHIELDING PLATE, FOR RW2 LOGIC PCB, EMC	1.000	
3	64	AW	524500-00520	RC	METAL, DIA 15X4MM, COPPER SPACER	4.000	SHIELDING PLATE
3	65	AW	222990-04500	RC	NUT, M2.5X1.6MM, MILD STEEL	4.000	FOR SPACER
3	66	AW	000110-00040	RC	NUT, M2.5X1.6MM, MILD STEEL	.000	
2	67		914720-00001	1	GUTS ASSEMBLY, -LOGIC, FOR RM12	1.000	
3	67		514720-00610	RC	PCB, LOGIC, S.S., 1.6MM, PAPER PHEONOLIC, RM12	1.000	
3	68	AW	750034-93056	RC	IC, MEMORY, EEPROM, 2K BIL, 23C56	1.000	U2
3	69		870003-4325A	RC	ZTAT, 8 BIT, 32K ROM, H06473258P-10, SDIP	1.000	U1
3	70		000140-64178	RC	IC, SOCKET, DIP, 64 PINS, 1.73MM	1.000	ZTAT
3	71		654143-10000	RC	DIODE, SWITCHING, 1N4143	3.000	D1-3
3	72		642000-02250	RC	RESONATOR, 20MHZ, 50PPM	1.000	X1
3	73		617535-21102	RC	RESISTOR, FIXED, C-FILM, 75K, 1/2W	1.000	R1
3	74		621501-05014	RC	CAPACITOR, C-CAP, NPO, 15PF, 1/2W, 50V	2.000	C1, 2
3	75		622252-01615	RC	CAPACITOR, E-CAP, 2.2UF, 180-203, 16V	1.000	C3
3	76		622267-01615	RC	CAPACITOR, E-CAP, 22UF, 180-203, 16V	1.000	C5
3	77		621044-01611	RC	CAPACITOR, C-CAP, 0.1UF, 1/2W, 50V	1.000	C4
3	78		000132-00200	RC	RUBBER, 20MM WITH CARBON	1.000	BZ1
3	79		000190-00027	RC	CONNECTOR, EDGE, 40PIN, BENDED LEADS	1.000	COH1
3	80		000051-20155	RC	JUMPER, 1.2MM, 1.1=1.5MM, 0=0.5MM	3.000	
2	81		964720-00000	1	CASING ASSEMBLY, FOR RM12	1.000	
3	81		214610-00102	RC	PLASTIC, T.CAB, ABS, BLACK, WITH SILK 'N, RM12	1.000	
3	82		214610-00200	RC	PLASTIC, B.CABINET, ABS, BLACK, RM13	1.000	
3	83		520000-00001	1	SWITCH ASSEMBLY, FOR RM12	1.000	
4	83		524720-00830	1	SWITCH, TACT, RM12, PAWN, 320 E1-1	1.000	
5	83		524660-00830	RC	SWITCH, KEY, FOR RM20, BLANK, BLACK	1.000	
4	83		524720-00830	1	SWITCH, TACT, RM12, KNIGHT, 320 E1-1	1.000	

RW9 P. 21

994740

- RW2M,

MEPHISTO EXCLUSIVE VI

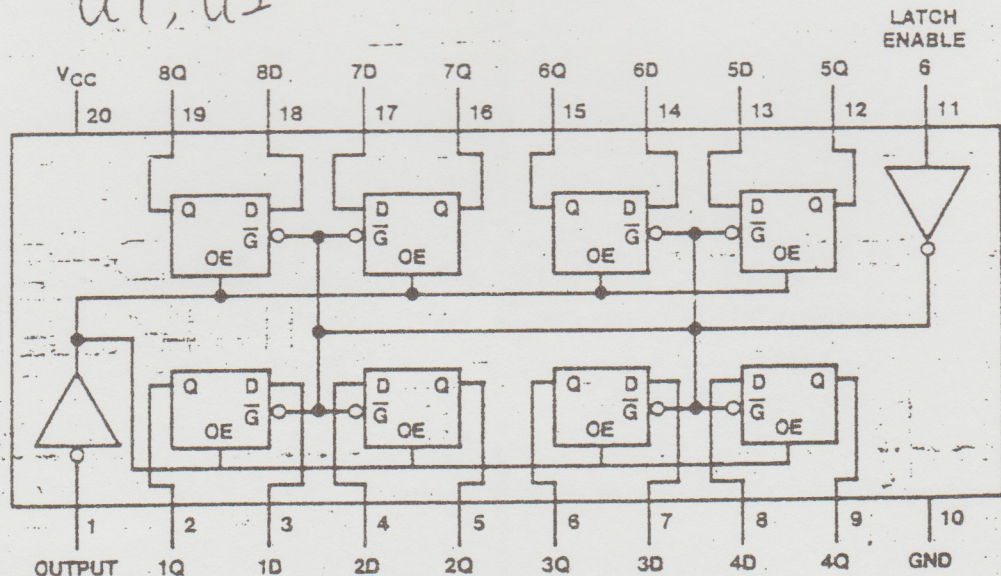
Rev : 1

Level	Item	Chg	Stock Code	Rev	Cons Description	Qty Per Reference
1			984740-00000	1	UNIT ASSEMBLY, FOR RW2M	1.000
2			914500-00001	1	GUTS ASSEMBLY, -LOGIC, FOR RW9	1.000
3	1		514500-00410		PCB, LOGIC, D3, 1.6MM, FR-4	1.000
3	2		741738-40373	RC	TTL, -40373B, 8 BIT LATCH WITH 3-STATE, DIP	1.000 U3
3	3		741723-00373	RC	TTL, -373, 2 EII LATCH, HC, DIP20	2.000 U1,2
3	4		690010-07805	RC	ELECT, REGULATOR, 5V, 7305	1.000 U4
3	5		624772-01615		CAPACITOR, E-CAP, 470UF, +80-20%, 16V	1.000 C3
3	6		624772-01615		CAPACITOR, E-CAP, 470UF, +80-20%, 16V	.000 C2, OPTIONAL
3	7		654001-20000		DIODE, RECTIFIER, 1N4001	2.000 D1,2
3	8		654001-20000		DIODE, RECTIFIER, 1N4001	.000 D3, OPTIONAL
3	9		62104M-01611		CAPACITOR, C-CAP, 0.1UF, +/-20%, 16V	4.000 C4-7
3	10		62104M-01611		CAPACITOR, C-CAP, 0.1UF, +/-20%, 16V	.000 C3, OPTIONAL
3	11		62102M-01611		CAPACITOR, C-CAP, 0.001UF, +/-20%, 16V	.000 C1, C13, OPTIONAL
3	12		62103M-01611		CAPACITOR, C-CAP, 0.01UF, +/-20%, 16V	.000 C2&10, OPTIONAL
3	13		614725-31102		RESISTOR, FIXED, C-FILM, 4K7, 5%, 1/4W	.000 R17&18, OPTIONAL
3	14		630027-10000	RC	INDUCTOR, TOROID, 0.75MH	1.000 L3
3	15		000120-00028	RC	CONNECTOR, LAATCHED HEADER, 321477, 26PINS	1.000 C0H1
3	16		000051-20155		JUMPER, L=12MM, LL=15MM, D=0.5MM	2.000 REPLACE R13 R17
3	17		000071-20524		SCREW, M3, 4PAN, M3, 0X20, 5X6MM, FLAT	1.000 FOR U4 IN LOGIC
3	18		000110-00050		NUT, M3, 0XPO, 5X1.8MM, MILD STEEL	1.000 FOR U4 IN LOGIC
3	19		000073-21534		SCREW, S/T, 4PAN, M3, 0X3MM, A	6.000 FOR LOGIC PCB
2			914500-00002	1	GUTS ASSEMBLY, -LED, FOR RW9	1.000
3	20		514500-00321		PCB, LED, SS, 1.6MM, PAPER PHENOLIC	1.000
3	21		660001-11003	RC	LED, RED, DOME, D=3MM, TOSHIBA, TLR124	64.000
3	22		525120-00530	RC	SWITCH, REED, FOR SW7, ORD9215	64.000
3	23		654143-10000		DIODE, SWITCHING, 1N4148	64.000
3	24		000051-20155		JUMPER, L=12MM, LL=15MM, D=0.5MM	72.000
3	25		615625-31102		RESISTOR, FIXED, C-FILM, 5K6, 5%, 1/4W	8.000 R2-16
3	26		616815-31102		RESISTOR, FIXED, C-FILM, 680, 5%, 1/4W	8.000 R1-8
2			914500-00005	1	GUTS ASSEMBLY, -POWER SUPPLY, FOR RW9	1.000
3	27		514500-00551		PCB, POWER SUPPLIER, SS, 1.6MM, PAPER	1.000
3	28		526200-00030		SWITCH, 2P2T, FOR E3, SK-22F03-G9	1.000 SW1
3	29		000220-00003		SOCKET, DC POWER JACK, DC, 203	1.000
3	30		690023-00001	RC	ELECT, FUSE, 750MA, 120V, SLOW BLOW, BEL	1.000 F1
3	31		630028-20000	RC	INDUCTOR, CHOKE, 4.3UH	2.000 L1, L2
3	32		62102M-01611		CAPACITOR, C-CAP, 0.001UF, +/-20%, 16V	2.000 C11, C12
2			964740-00000	1	CASING ASSEMBLY, FOR RW2M	1.000
3	33		234500-00701	RC	WOOD, TOP CABINET WITH SILKSCREEN, RW9	1.000
3	34		234500-00701	RC	WOOD, LEFT BAR, WHITE WOOD, RW9	1.000
3	35		234500-00801	RC	WOOD, RIGHT BAR, WHITE WOOD, RW9	1.000
3	36		214500-01500	RC	PLASTIC, B. CAB, ABS, BLACK, FOR RW9	1.000
3	37		000062-2004C		STRAND WIRE, RED, L=200MM, E=3.5MM, SWG#28	1.000
3	38		000060-2004C		STRAND WIRE, BLACK, L=200MM, E=3.5MM, SWG#28	1.000
3	39		000065-20043		STRAND WIRE, GREEN, L=200MM, E=3.5MM, AWG#28	1.000
3	40		234500-01300	RC	WOOD, FRONT BAR, FOR RW9	1.000
3	41		214500-02800	RC	PLASTIC, HANDLE, LEFT, ABS, BLACK, RW2	1.000
3	42		214500-02900	RC	PLASTIC, HANDLE, RIGHT, ABS, BLACK, RW9	1.000

RW9 P. 16/31

U1, U2

Dual-In-Line Package



Top View

8. FUNCTIONAL TEST PROCEDURE FOR RW9

Make sure that the ON/OFF switch of RW9 is at OFF position before any module is inserted into the unit. Plug the RW9 logic tester module and RW9 tester LED modules into the slots. Then insert the energized adapter into DC socket.

<u>Purpose</u>	<u>Procedure</u>	<u>Observation</u>
1. Open / short test of logic PCB	a. Slide the ON/OFF switch to ON position	- The LEDs on the two LED modules will scan according to the Table 1. (The LEDs on chessboard will not turned on during the test).
2. Chessboard square test	a. Slide the ON/OFF switch to OFF position	- All LEDs turned OFF
	b. Remove all tester module from the chessboard.	
	c. Plug the chessboard LED tester into the unit.	
	d. Slide the ON/OFF switch to ON position	- LEDs start scanning from A1, A2, ... A7, A8, B8, B7, ... B2, B1, C1, C2, ... C7, C8, D8, D7, ... D2, D1, E1, E2, ... E7, E8, F8, F7, ... F2, F1, G1, G2, ... G7, G8, H8, H7, ... H2, H1, then in reverse order respectively.
	e. Place a RW9 chesspieces on one of the square	- LEDs scanning stopped - Corresponding LED will be turned ON.

PurposeProcedureObservation

- | | | |
|------------------|--|--|
| | f. Short the reed switches of column A with magnets. After the chessboard LED turns on steadily, put a <u>testing chessman</u> on squares labelled with 1 on Table 2 (H1, G2, F3, B7, B8) | - Corresponding LED will turned ON steadily. |
| | g. Repeat the above step for column B, C, D, E, F, G, H and put a testing chessman on square labelled with 2, 3, 4, 5, 6, 7, 8 respectively on Table 2. | Corresponding LED will turned ON steadily. |
| 3. Test finished | a. Slide the ON/OFF switch to OFF position | - All LEDs are OFF |
| | b. Remove the testers from the unit. | |
| | c. Unplug the adapter from the unit. | |

Table 1

Scanning sequences of LED modules tester.

Sequences	Observation
1	All LEDs OFF
2	The eight red LEDs of first row will turn on.
3	The eight red LEDs of second row will turn on.
4	The eight red LEDs of third row will turn on.
5	The eight red LEDs of forth row will turn on.
6	The four red LEDs of the first column will turn on.
7	The four red LEDs of the second column will turn on.
8	The four red LEDs of the third column will turn on.
9	The four red LEDs of the forth column will turn on.
10	The four red LEDs of the fifth column will turn on.
11	The four red LEDs of the sixth column will turn on.
12	The four red LEDs of the seventh column will turn on.
13	The four red LEDs of the eighth column will turn on.
14	The first green LED of last column will turn on.
15	The second green LED of last column will turn on.
16	The third green LED of last column will turn on.
17	The forth green LED of last column will turn on.
18	Repeat the step 1 to 17

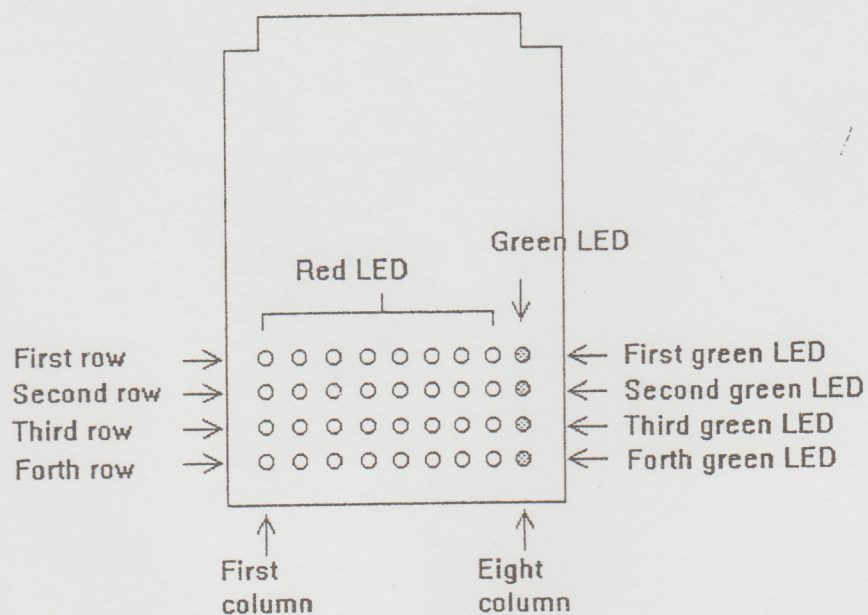


Table 2

8	8	1	2	3	4	5	6	7
7	8	1	2	3	4	5	6	7
6	7	8	1	2	3	4	5	6
5	6	7	8	1	2	3	4	5
4	5	6	7	8	1	2	3	4
3	4	5	6	7	8	1	2	3
2	3	4	5	6	7	8	1	2
1	2	3	4	5	6	7	8	1
	A	B	C	D	E	F	G	H

Note : The testing chessman should rest on the square for at least 1 second.