

Customer..... LUMO KA/NORTHWEST Date..... 16.12.85 Serial No..... 9253

Bom No.	Rev	Drawing No.	Rev	Drawing Title
-	-	E810357FB	C	Energy Control Card Circ. Diag.
-	-	E810358FC	C	Pulse Generator Circ. Diag.
-	-	E830403FC	A	Pockels Cell Drive Unit Circ. Diag.
-	-	E830427FB	C	Pockels Cell Driver Power Card Circ.
-	-	E810428FB	B	Power Card Circ. Diag.
-	-	E820500FB	A	Mk.2 Trigger Card Circ. Diag.
-	-	E810520FB	A	TSA 2000/SCR Card Circ. Diag.
-	-	E820523FC	B	Trigger Output Circ. for 4 Parallel Fed. Lamps
-	-	E810779FC	D	Shutter and Interlock Wiring for Oscillator and
-	-			Oscillator/Wiring Power Supply
-	-	E811041FB	B	PD 2000 Card Circ. Diag.
-	-	E811204FB	A	O/V Card Circ. Diag.
-	-	E816967FC	D	Holographic High and Low Power Chassis Circ. Diag.
-	-	E836985FB	F	Remote Controller Circ. Diag.
-	-	E818006TB	A	Power Chassis Application Drawing 500/2KWL
-	-	E818018FC	E	Energy Monitor/Delay Card Circ. Diag.
-	-	E818039FB	A	Delay Thumbswitch Circ. Diag.
-	-	E818082FC	D	Holographic Control Unit Circ. Diag.
E8181130C	B	E818113FC	B	PC Delay & Divider Card Assy.
E8180370X	A	-	-	Delay Thumbwheel Assy.
E8180380X	A	-	-	Delay Thumbwheel Assy.
E8343210X	A	-	-	Assy Card PPG 2000 Lower.
E8343220X	A	-	-	Assy Card PPG 2000 Upper.
-	-	E818205LC	B	Power Supply Cabinet Component Layout (Cabinet 1)
-	-	E818205TB	A	Cabinet Assy. Application Drawing
-	-	E818209TB	A	3 Digit Thumbswitch V-Demand Circ. Diag.
E8105670B	A	E810567AB	A	TSA 2000/SCR Card Assy.
E8208590B	B	E820859AB	B	Mk.2 Trigger Card Assy.
E8110300B	B	E811030AB	A	L System PD 2000 Card Assy.
E8110720B	C	E811072AC	C	2000L Pulse Generator Card Assy.
E8111070X	B	E811107AB	A	Power Supply Card Assy.
E8111080X	C	E811108AB	B	CU 2000L Card Assy.
E8111480B	B	E811148AB	A	O/V Card Assy.
E8143950B	B	E814395AB	A	Heatsink Assy. (VAR VC50)
E8344900B	C	E834490AB	B	Pockels Cell Driver Card Assy.
E8180170X	D	E818017AC	B	Energy Monitor Delay Card Assy. (Modified)
E8180360X	A	E818040AB	B	Delay Thumbwheel Assy.
E8182080X	C	E818209AB	A	3 Digit Thumbswitch Demand Card Assy.

TYPE: HLS2

Customer: A. Stephens

Serial No: 5 1051 0

Date: 11 December 1986

BOM NO.	REV	DRAWING NO.	REV	DRAWING TITLE
-	-	E810357FB	D	2000L Energy Control Card Circ. Diag.
-	-	E810358FC	C	2000(L & H) Pulse Generator Circ. Diag.
-	-	E830427FB	C	Pockels Cell Driver Power Card Circ. Diag.
-	-	E810428FB	B	System 2000L and H Power Card Circ. Diag.
-	-	E820500FB	B	MK2 Trigger Card Circ. Diag.
-	-	E810520FB	A	TSA 2000 SCR Card Circ. Diag.
-	-	E811041FB	B	L System PD2000 Card Circ. Diag.
-	-	E811204FB	B	2000L System O/V Card Circ. Diag.
-	-	E836985FB	G	Remote Controller Circ. Diag.
-	-	E818017FC	F	Energy Monitor/Delay Card Circ. Diag.
-	-	E818039FB	A	Circ. for Delay Thumbwheel Switch Assy
-	-	E818113FC	C	P.C. Delay and Divider Card Circ. Diag.
-	-	E818209FB	A	3-Digit Thumbswitch V-Demand Circ. Diag.
-	-	E818777LC	B	Cabinet 1 HLS4 (2ppm) Cabinet Component Layout
-	-	E82C405FC	1	HLS2, & 4 Amplifier Circ. Diag. for Trigger Panel and Discharge Capacitors for Parallel Lamps
-	-	E81C419FD	1	HLS1, 2, 3 & 4 Power Supply Circ. Diag.
-	-	E81C421FC	1	Interlock Circuit
-	-	E81C424FD	1	Power Chassis Circ. Diag.
-	-	E82C428FC	1	HLS1, 2 & 4 Oscillator Circ. Diag. for Trigger Panel and Discharge Capacitors for Single or Series Lamps
-	-	E81C531FC	1	Holographic Control Unit Circ. Diag.
E8105670B	A	E810567AB	A	TSA 2000 SCR Card Assy
E8208590B	C	E820859AB	B	MK2 Trigger Card Assy
E8111070X	B	E811107AB	A	2000L and H Power Unit Card Assy
E8111080X	E	E811108AB	C	CU 2000L Card Assy
E8111480B	C	E811148AB	A	2000L System O/V Card Assy
E8344900B	D	E834490AB	C	Pockels Cell Driver Card Assy

Issue 1

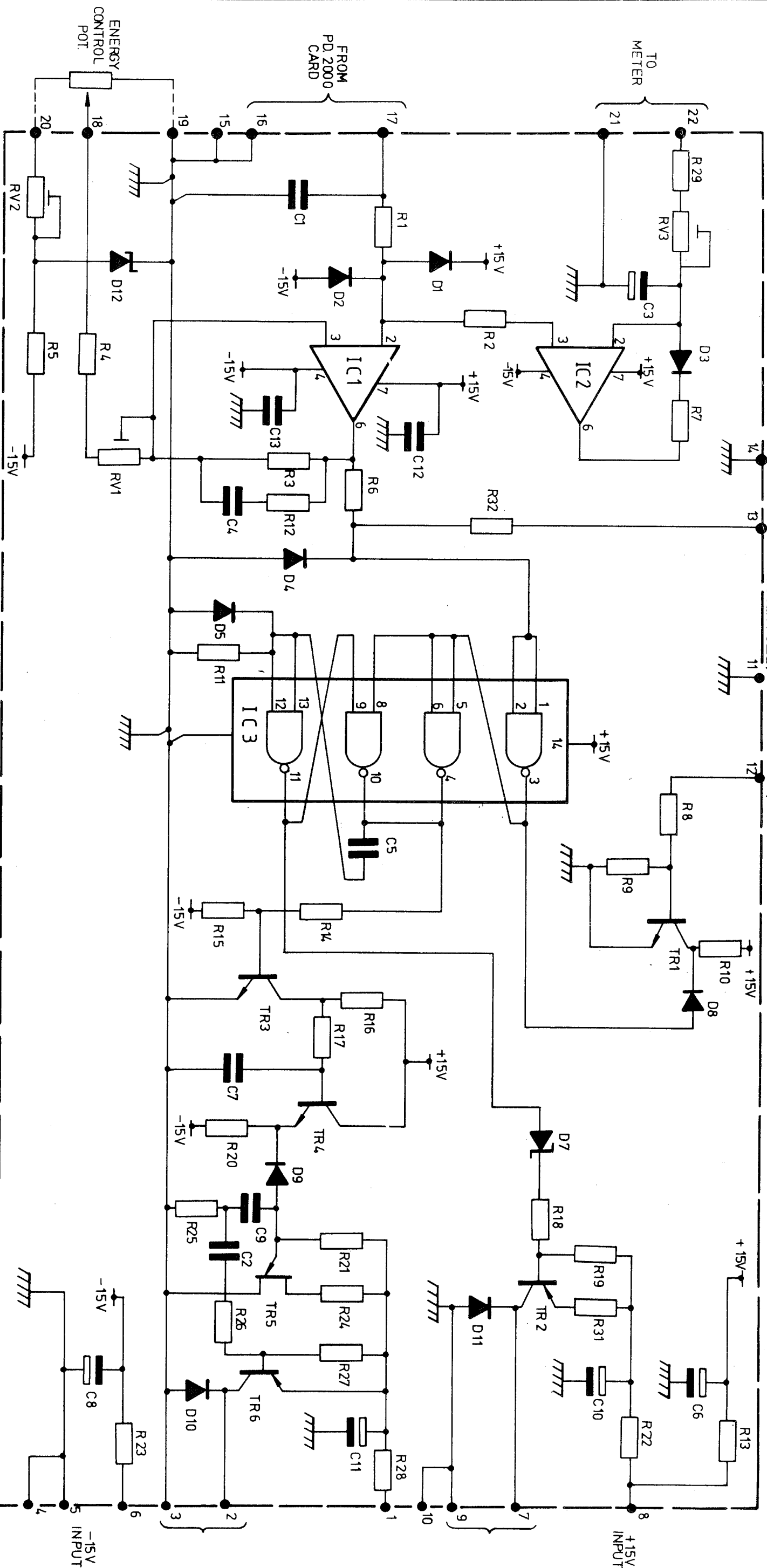
THIRD ANGLE PROJECTION.

LAMP DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DWG. No.

E81 0357 FB



TITLE

2000L ENERGY CONTROL CARD
CIRCUIT DIAGRAM

THIS DRAWING IS THE PROPERTY OF
JK LASERS LTD. IT IS CONFIDENTIAL
AND MUST NOT BE COPIED OR
REPRODUCED WITHOUT PERMISSION.

USED ON

MATERIAL

ENGINEER

FINISH

JK LASERS

A LUMONICS GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND.
TELEPHONE (0788) 70321, TELEX 311540,
FAX (0788) 79824.

MACHINING TOLERANCES
UNLESS STATED OTHERWISE:

DIM. { EXTERNAL +0 -0.3mm
V { INTERNAL -0 +0.3mm
V.X { EXTERNAL -0 -0.1mm
V.XX { INTERNAL -0 +0.1mm
CENTRE DISTANCES ±0.15mm
MACHINE AT Y

SCALE

DATE 6-10-76

DRAWN

C.J.K.

APPROVED

DWG. No.

E81 0357 FB

DO NOT SCALE DWG.

IF IN DOUBT - ASK.

DATE/MOD. No.

REV.

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A

B

C

REV.

DATE/MOD. No.

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REV.

DATE/MOD. No.

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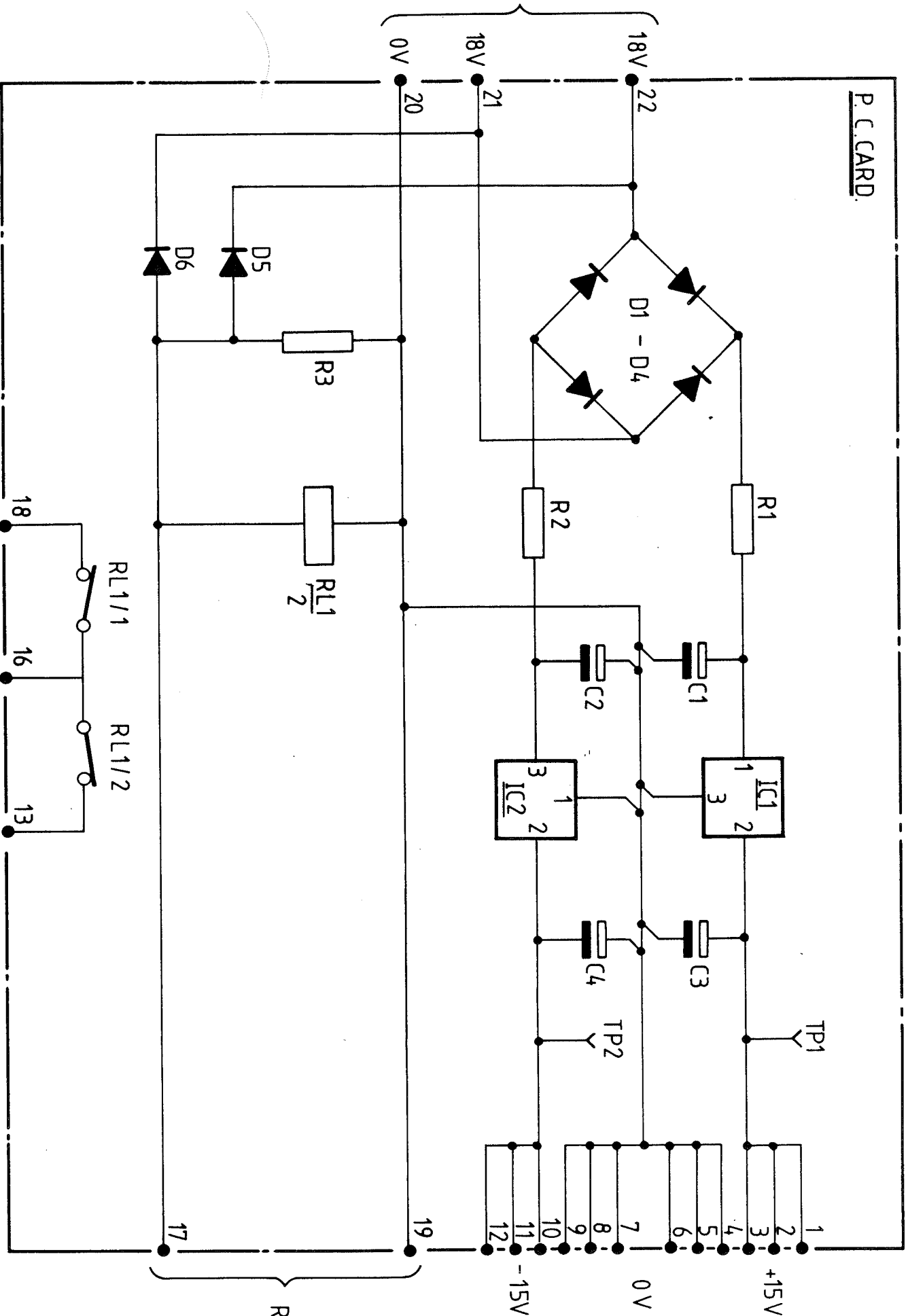
2

3

4

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

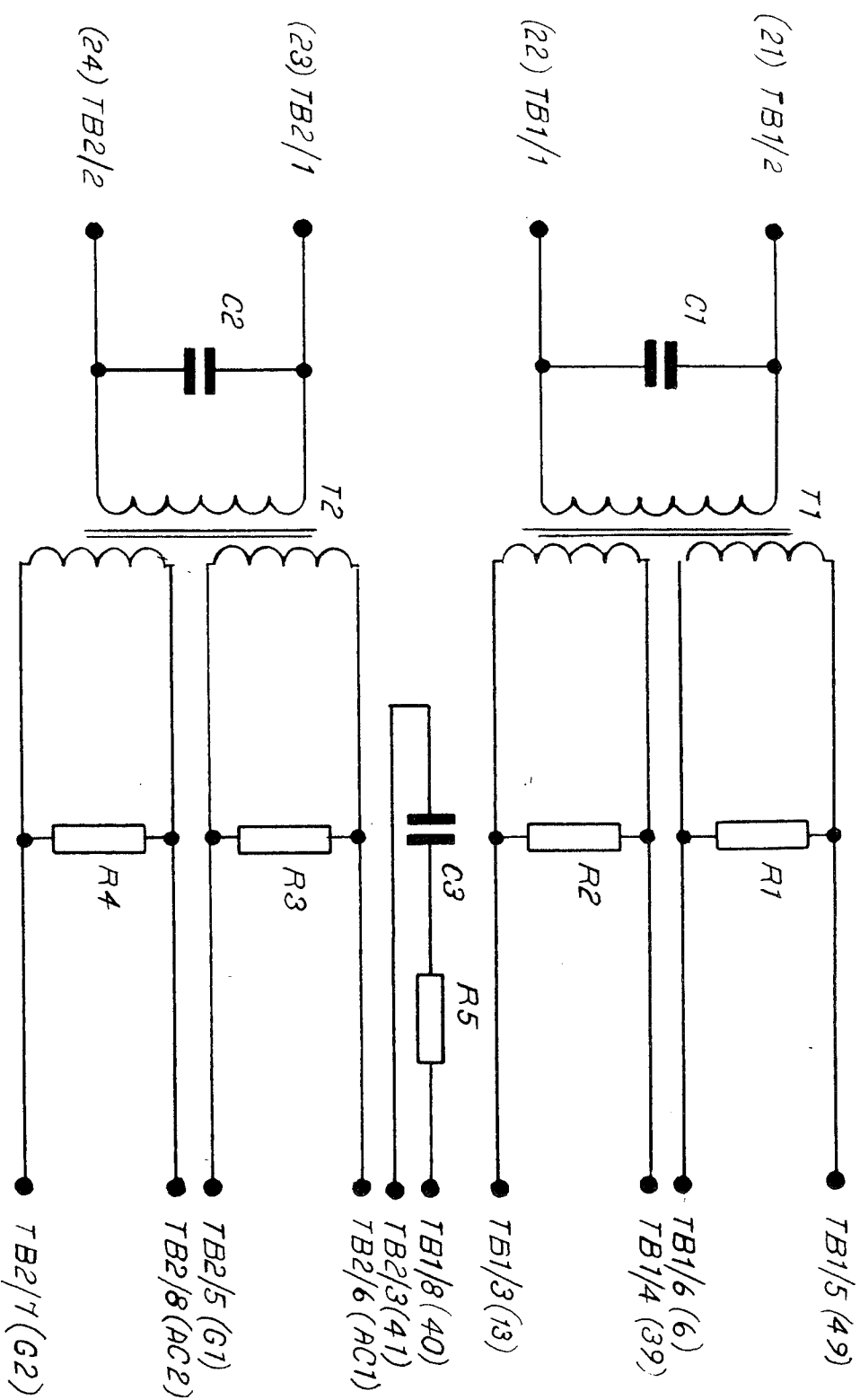


DO NOT SCALE DWG. IF IN DOUBT - ASK.

JK LASERS

A LUMONICS GROUP COMPANY

COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND
TELEPHONE (0788) 70321, TELEX 311540,
FAX (0788) 78824.



NOTE. TERMINAL DESIGNATIONS IN PARENTHESES ARE WIRE IDENTIS ON FAST SYSTEMS

TSA 2000/SCR CARD CIRCUIT DIAGRAM

21-9-77

A. N. Wells

18-7-84

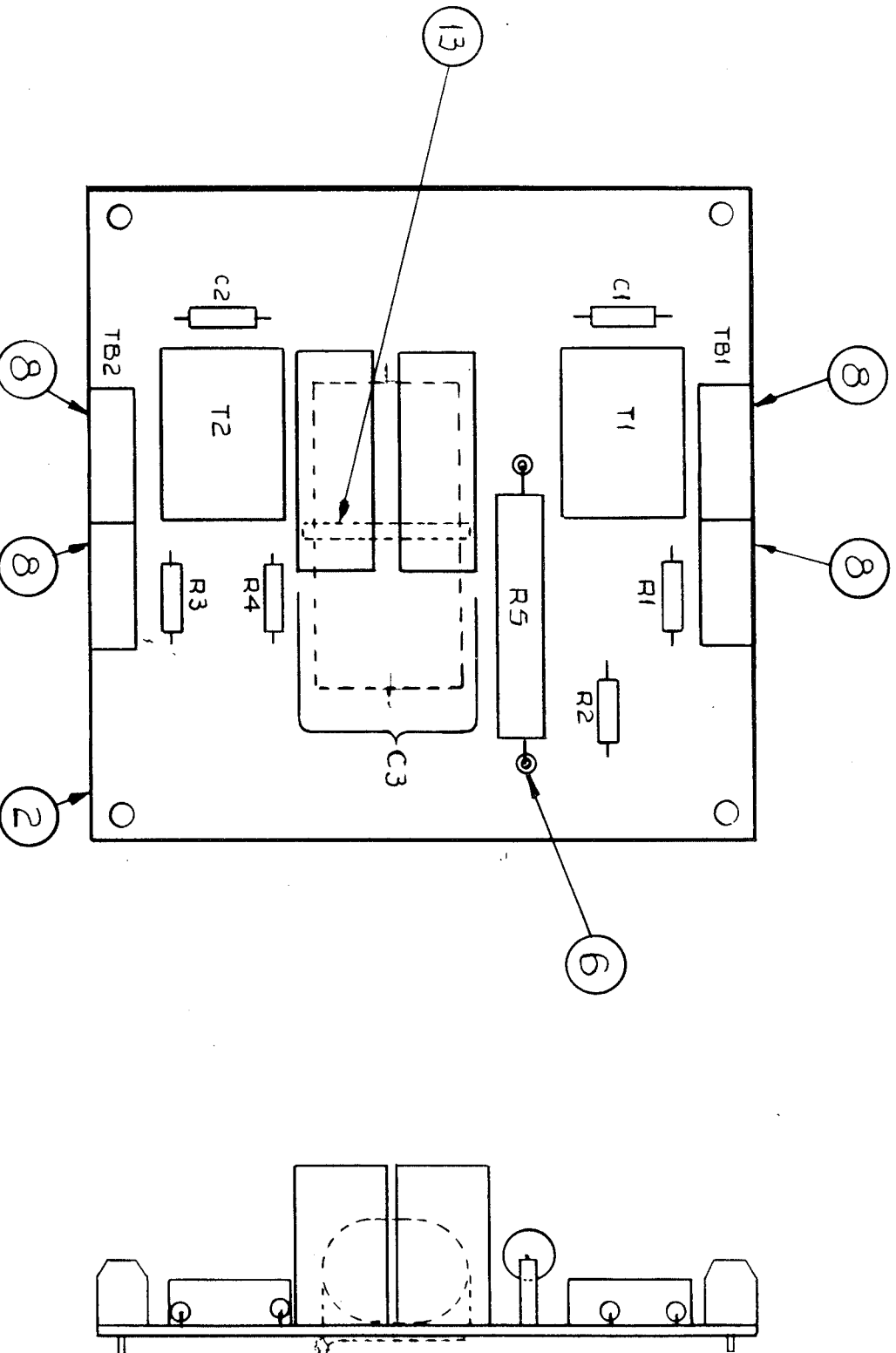


DESIGNED BY
ENGINEER

DATE
1977

E810520FB

DESIGNATION	ITEM NO
R1,2,3,4	9
R5	10
C1,2	11
C3	12
T1,2	14



VIEW ON COMPONENT SIDE OF CARD.

10	
9	
8	
7	
6	
5 A	18-7-84
4	MF 945
3	MF 322
2	MF 41
1	—
ISSUE	NOTE No.

20-8-82
4-8-80
15-5-78

DO NOT SCALE DRG.

IF IN DOUBT - ASK.

MACHINING TOLERANCES UNLESS STATED OTHERWISE: THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.

INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM
EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM
CENTRE DISTANCES ± 0.25MM MACHINE AT V

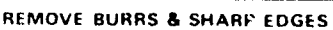
SCALE 1:1
DATE 21-2-78
TITLE T5A 2000/5CR CARD ASSEMBLY

USED ON

MATERIAL E8105670B TREATMENT — DRAWN PASSED

JK LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND. TELEPHONE (0788) 70321 TELEEX 31540 DRG. No. E810567AB



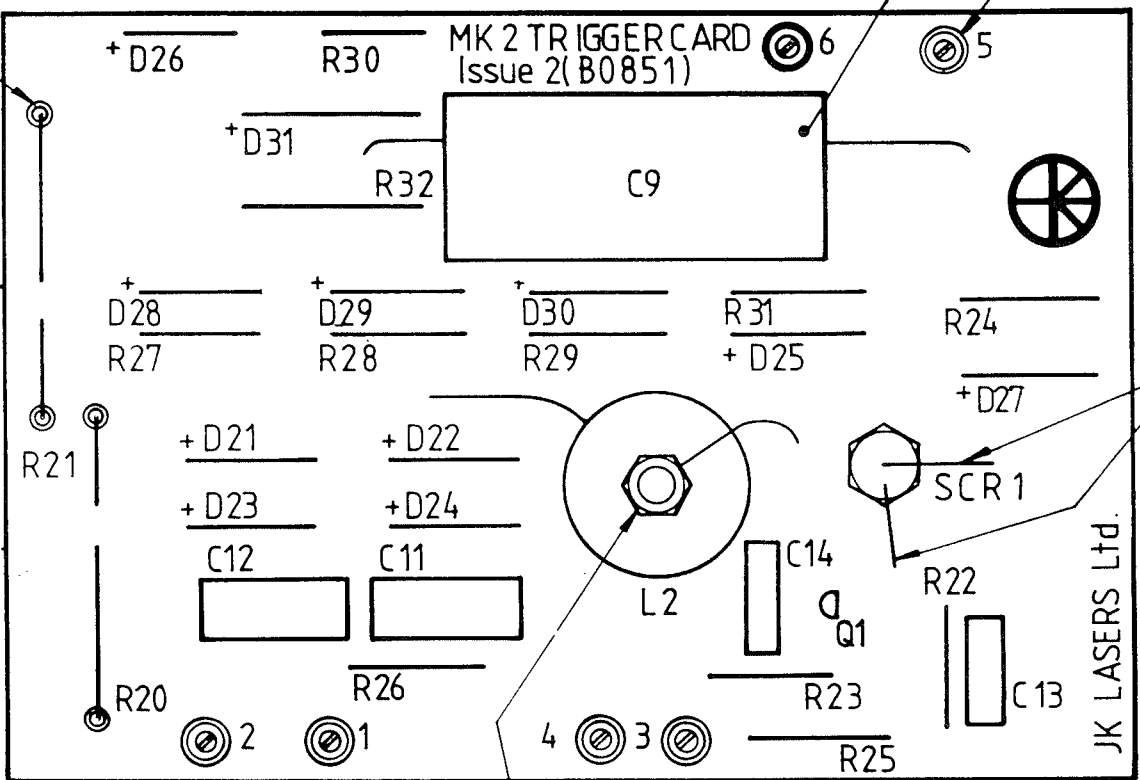


THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DESIGNATION	ITEM No.
R20, R21	13
R22	14
R23	15
R24, 30, 32	16
R25	17
R26	18
R27, 28, 29	19
R31	20
C11, 12	21
C13, 14	22
C9	23
D21, 22, 23, 24	24
D28, 29, 30	25
D25	26
D26, 27, 31	27
Q1	28
SCR1	29
L2	30



Head of screw to be inside Capacitor Clip

REV.	DATE/MOD.No.
1	
2	18-8-82 / MF 944
A	23-7-84
B	9-10-85 / 2840/1

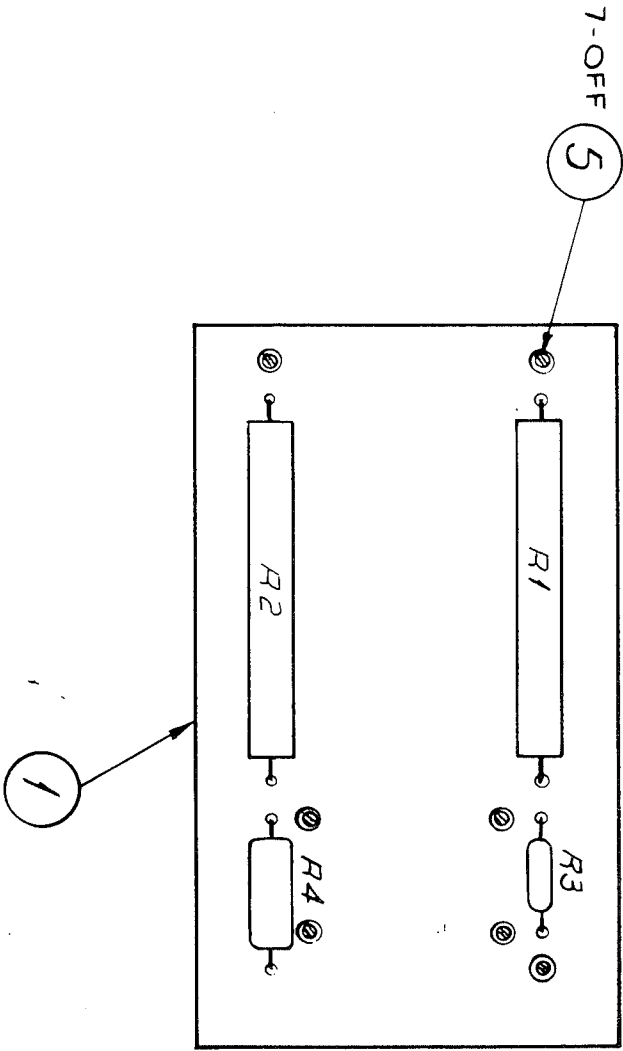
NOTES:-

- Card Manufactured to Drawing E8108521B
- Card to be assembled in accordance with Silk Screened Legend

TITLE	THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.
USED ON	ENGINEER
MATERIAL	FINISH

A LUMONICS GROUP COMPANY COSFORD LANE, SWIFT VALLEY, RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND. TELEPHONE (0788) 70321. TELEX 311540. FAX (0788) 79824.		MACHINING TOLERANCES UNLESS STATED OTHERWISE DIM { EXTERNAL +0 -0.3mm INTERNAL -0 +0.3mm Y, XX { EXTERNAL +0 -0.1mm INTERNAL -0 +0.1mm CENTRE DISTANCES ±0.15mm MACHINE AT Y		SCALE	DATE
JK LASERS		DRAWN C.J.K.		26-2-85	APPROVED
E82 0859 AB					

DESIGNATION	ITEM No.
R1	6
R2	9
R3	7
R4	8



MACHINING TOLERANCES UNLESS STATED OTHERWISE:		MACHINE WHERE MARKED THUS ✓		SCALE
INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM				1:1
EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM				DATE
CENTRE DISTANCES ± 0.25MM				24-6-80
TITLE <u>L SYSTEM PD2000 CARD ASSEMBLY</u>				
USED ON <u>POWER CHASSIS</u>				
MATERIAL	TREATMENT	DRAWN	PASSED	
E810300B	—	<i>Alan</i>		
J.K. LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND.		TELEPHONE (0788) 70321 TELEX 311540	DRG. No. E81030AB	
REV/A				
DO NOT SCALE DRG.				
IF IN DOUBT - ASK.				
10				
9				
8				
7				
6				
5				
4				
3				
2	MF1826			
1	24-6-80			
ISSUE	NOTE No.			

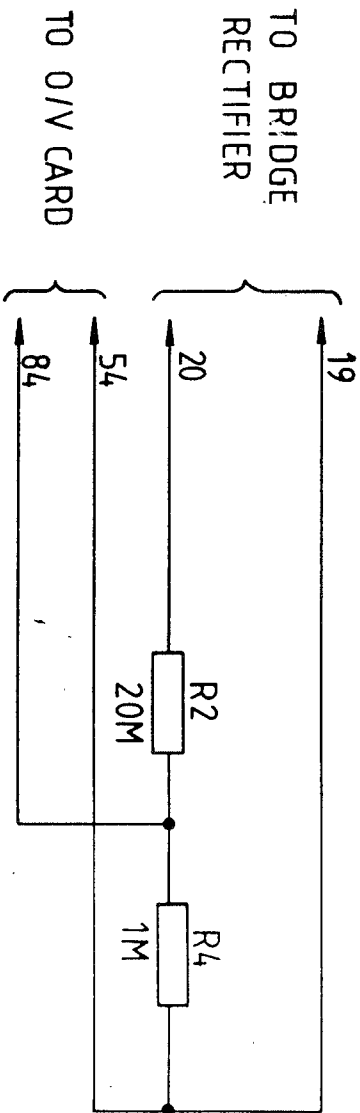
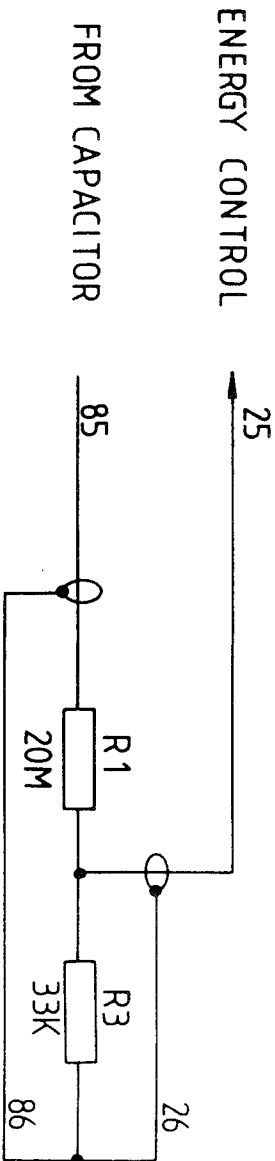
DWG.No.

E81 1041 FB

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.



TITLE

L SYSTEM PD 2000 CARD
CIRCUIT DIAGRAM

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USED ON

ENGINEER

MATERIAL

FINISH

JK LASERS

A LUMONICS GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND.
TELEPHONE (0788) 70321, TELEX 311540.
FAX (0788) 79824.

MACHINING TOLERANCES
UNLESS STATED OTHERWISE

DIM
V { EXTERNAL +0 -0.3mm
V.X { INTERNAL -0 +0.3mm
V.XX { EXTERNAL +0 -0.1mm
INTERNAL -0 +0.1mm
CENTRE DISTANCES ±0.15mm
MACHINE AT V

SCALE

DATE 24.6.80

DRAWN

C.J.K.

APPROVED

DWG. No.

E81 1041 FB

DO NOT SCALE DWG.

IF IN DOUBT - ASK.

DATE/MOD.No.

REV.

1 24.6.80

2 3.3.82

A 18.7.84

B 2.10.85

2639

A

B THIRD ANGLE PROJECTION

C

D

E DO NOT SCALE DRAWING

F

G

DIMENSIONS IN MILLIMETRES

E8105391C

JK LASERS LTD

PULSE GENERATOR CARD REV B

LEADS OF R42 (ITEM 40) TO BE INSULATED WITH 1mm BORE RUBBER SLEEVING

NOTE

1. NOT ALL COMPONENTS SHOWN ON SILK SCREEN ARE FITTED. LOOK BELOW COMPONENT CHART FOR NOT FITTED COMPONENTS.
2. LINK TO BE ACROSS CONNECTIONS FOR RV2
3. THROUGH CONNECTIONS TO BE MADE WITH TRACK PINS ITEM 72.
4. FOR REV B CARDS ONLY - WIRE LINKS ON REVERSE SIDE OF PC CARD.
- a. BOTTOM OF C8 TO IC3 PIN 14
- b. IC2 PIN 8 TO IC2 PIN 11
- c. IC3 PINS 3, 5, 11, 13 TO IC3 PIN 16
- d. LINKS TO BE WIRE TYPE 140 580 050

REV	DATE / MOD. NO
1	16-7-84
A	6-8-84
B	23-9-85 2797
C	7-10-85 / 2804

DESIGNATION	ITEM No.
R1, R28	11
R2, R4, R19	12
R3	13
R5	14
R6, R35	15
R7, R8	16
R9	17
R10	18
R11	19
R12, R13, R14	20
R15	21
R16	22
R17	23
R18, R21	24
R22, R20	32
R27	27
R33	28
R34, R32, R30	29
R39	30
R42	40
R25	25
C1	41
C2	42
C3	43
C4	44
C5	45
C6	46
C7	47
C8	48

DESIGNATION	ITEM No.
C11	49
C12	50
C13	51
C14	52
RV1	53
TR1	55
TR2, TR3	56
TR4	57
TR6	58
TR8	59
IC1	60
IC2	61
IC3	62
D1, D3, D4, D5, D7	63
D2, D9, D10, D12, D14, D15	64
D8	65
D6	66
RL1	67

COMPONENTS NOT FITTED

R23, R24, R29, R31, R36, R37, R38, R40, C9, C10, RV2, TR5, TR7, R9, D11, D13, R41.

FOR CIRCUIT DIAGRAM SEE DRAWING E810358FC

TITLE

2000L PULSE GENERATOR CARD ASSEMBLY

USED ON E8110720C

JK LASERS LTD
ALUMINUM GROUP COMPANY
COVENTRY LANE, BURNLEY VALLEY,
RUGBY, WARWICKSHIRE, CV21 1DN, ENGLAND.
TELEPHONE (0789) 70331, TELEFAX 31540,
FAX (0789) 79824.

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ENGINEER

FINISH

SCALE

DATE

16-7-84

APPROVED

DWG. No.

E811072AC

REMOVE BURRS & SHARP EDGES

THIRD ANGLE PROJECTION.

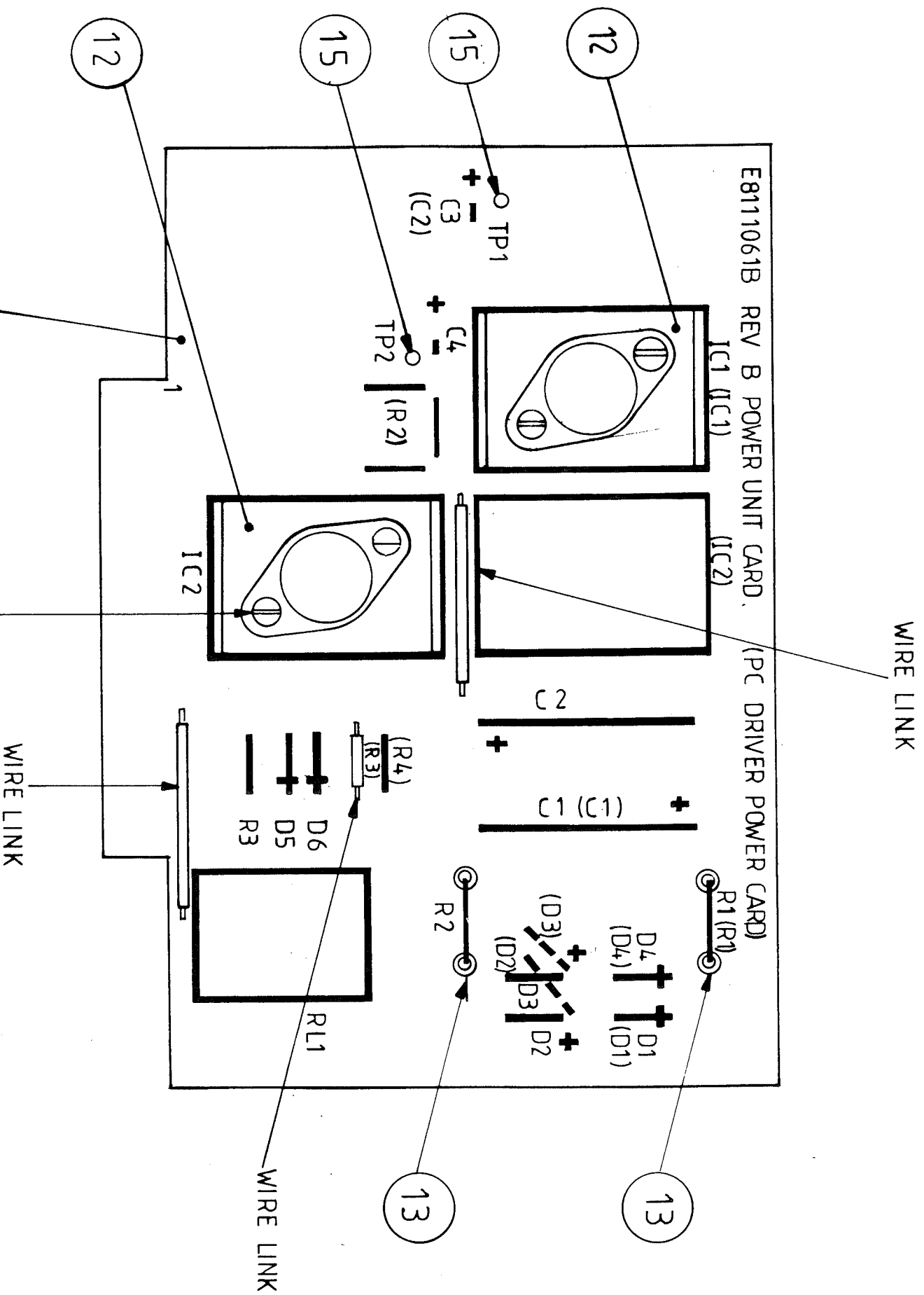
DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DESIGNATION	ITEM No.
R1, R2	4
R3	5
C1, C2	6
C3, C4	11
D1, D2, D3 D4	7
D5, D6	
IC1	8
IC2	9
RL1	10

NOTES

1. COMPONENT REFERENCES IN BRACKETS ON SILK SCREEN TO BE IGNORED
2. ALL LINKS TO BE SLEEVED



A	15-8-84
REV.	DATE/MOD.NO.

TITLE		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.	
POWER UNIT CARD ASSEMBLY			
USED ON 2000 L AND H		ENGINEER	
MATERIAL E8111070X		FINISH	

THIRD ANGLE PROJECTION.

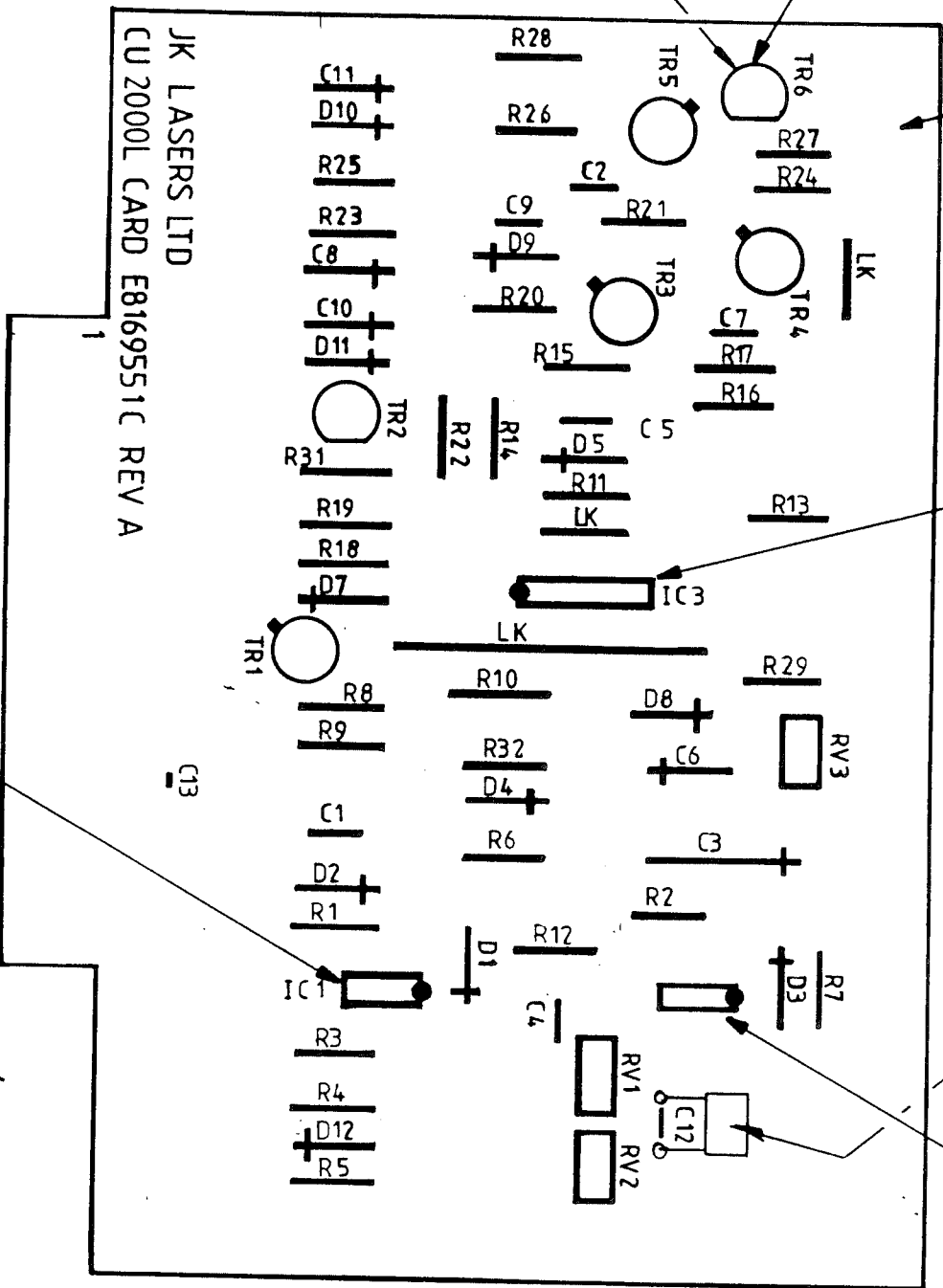
DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DWG. No.
E811108AB

DESIGNATION	ITEM No
R1, 2	3
R3	4
R4	5
R5, 22, 24	6
R6 2.1 27	7
R7	8
R8, 14	9
R9	10
R10, 20	11
R12	13
R13	14
R15, 19	15
R17, 25	16
R18	17
R23	18
R26	19
R28,	20
R29, 32	21
R31	22
R16	23
IC1, 2	24
IC3	26
C1, 5, 9	27
C2	28
C3	29
C6 8 10 11	31
C12 13	32

DESIGNATION	ITEM No
C7	33
RV1, 2	34
RV3	35
D1, 2, 3, 4, 5, 8, 9	36
10, 11	
D7	37
D12	38
TR1, 3	39
TR4	40
TR2, 6	41
TR5	42
R11	12



JK LASERS LTD
CU 2000L CARD E8169551C REV A

NOTE

- 1, ALL LINKS TO BE RUBBER SLEEVED
- 2, WHEN TESTING, IF THE HIGH STABILITY VERSION OF THE CARD IS REQUIRED, CHANGE IC1 FROM ITEM 24 TO ITEM 25 ALSO REMOVE C1 FROM CARD.
- 3, C12 TO BE MOUNTED LYING FLAT ON CARD AS SHOWN

REV.	DATE/MOD. No.
B	11-11-85 2839
A	6-9-84

DO NOT SCALE DWG. IF IN DOUBT - ASK.

MY(1)179204 R

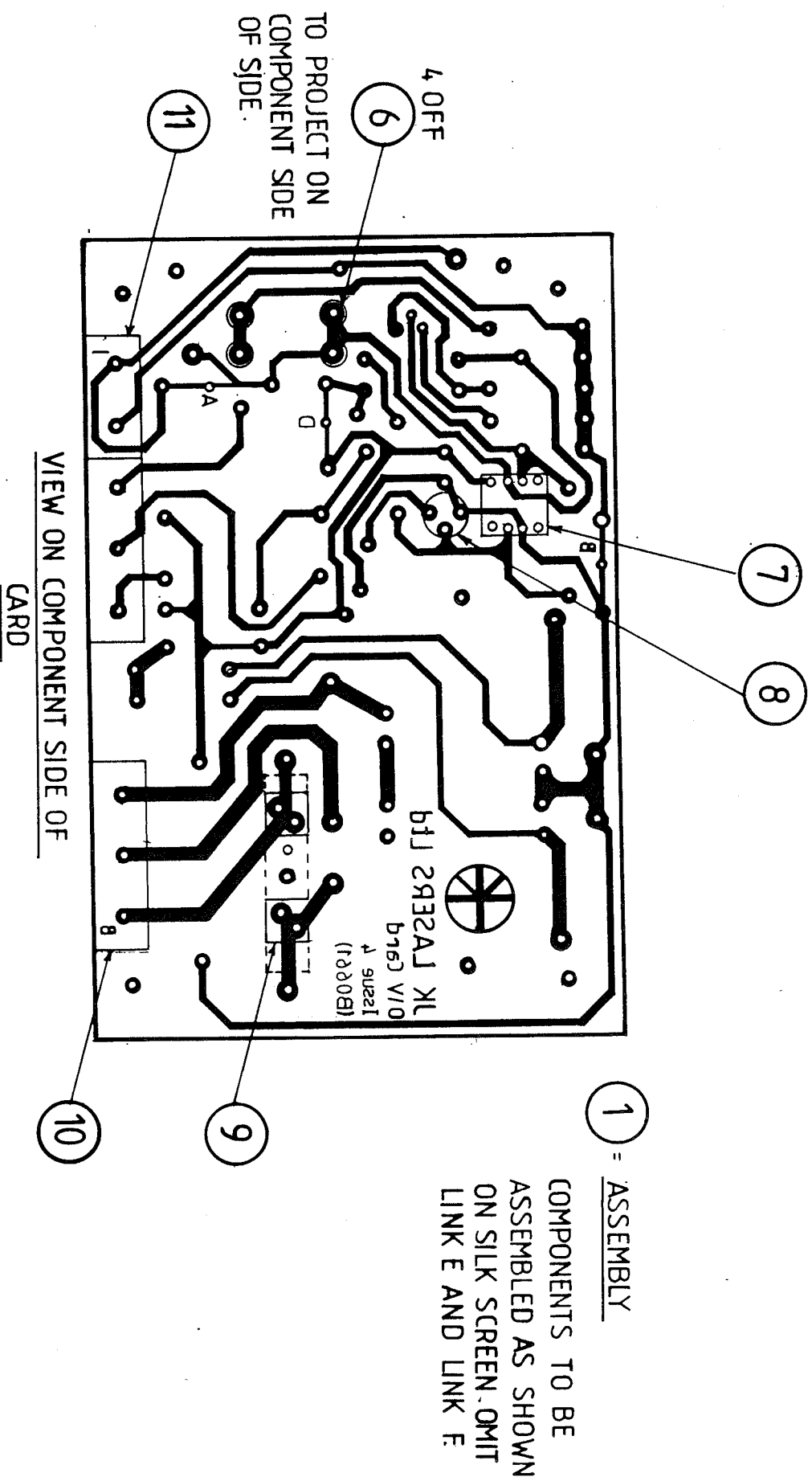
TITLE CU 2000L CARD ASSEMBLY		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.	
USED ON		ENGINEER	
MATERIAL E8111080X		FINISH	
A LUMONICS GROUP COMPANY COSFORD LANE, SWIFT VALLEY, RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND TELEPHONE (0788) 70321. TELEX 311540. FAX (0788) 79824		SCALE 1:1 DATE 6-9-84 APPROVED DWG. No. E811108AB	

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

REV. NO. E811148AB



NOTE: R2 a, b TO BE SELECTED ON TEST

REV.	DATE/MOD.No.
A	18-7-84
1	14-2-81

DO NOT SCALE DWG. IF IN DOUBT - ASK.

TITLE

O/V CARD ASSEMBLY

USED ON 2000L SYSTEM

MATERIAL

JK LASERS

A LUMONICS GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND.
TELEPHONE (0788) 70321, TELEX 311540,
FAX (0788) 79824.

MACHINING TOLERANCES
UNLESS STATED OTHERWISE

DIM
Y
Y.X
Y.X.X
EXTERNAL +0 -0.3mm
INTERNAL -0 +0.3mm
EXTERNAL +0 -0.1mm
INTERNAL -0 +0.1mm
CENTRE DISTANCES ±0.15mm
MACHINE AT Y

ENGINEER

FINISH

SCALE

DRAWN

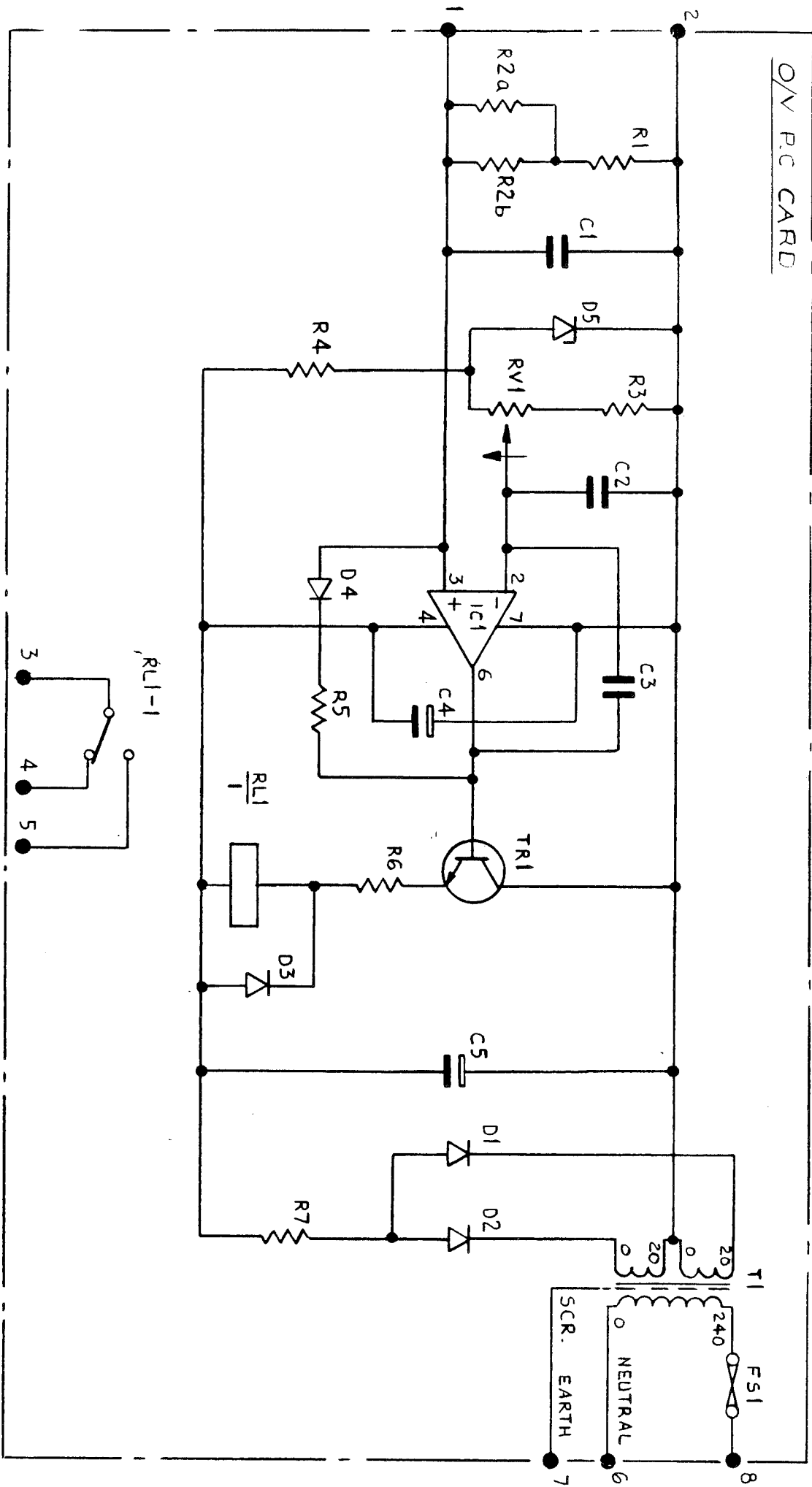
DATE

APPROVED

DWG. NO.

E811148AB

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NOTES.

1. P.C. CARD IS MOUNTED ON CHARGER CHASSIS.
2. FOR DUAL VOLTAGE LIMITS THE LINK BETWEEN R2a AND R2b IS BROKEN AND A SWITCH WIRED IN ITS PLACE

10	
9	
8	
7	
6	
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4	
3	
2	A 6-9-84
1	
REV	
1000E	NOTE No.

DO NOT SCALE DRG.

IF IN DOUBT - ASK.

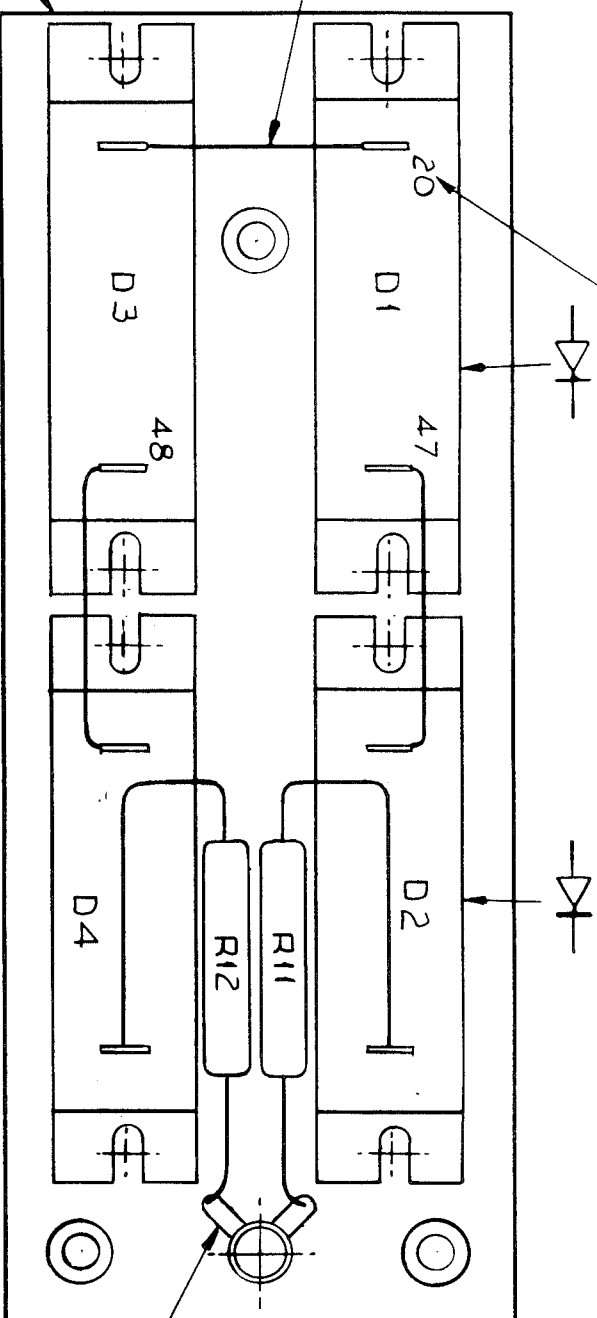
MACHINING TOLERANCES UNLESS STATED OTHERWISE: INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM CENTRE DISTANCES ± 0.25MM MACHINE AT ✓		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.	SCALE
TITLE O/V CARD CIRCUIT DIAGRAM			—

USED ON 2000 L SYSTEM

MATERIAL	TREATMENT	DRAWN	PASSED
JK LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND.		TELEPHONE (0788) 70321 TELEX 311540	DRG. No. E811204FB

WIRE NUMBER OF CABLES
FROM CHARGING CHASSIS

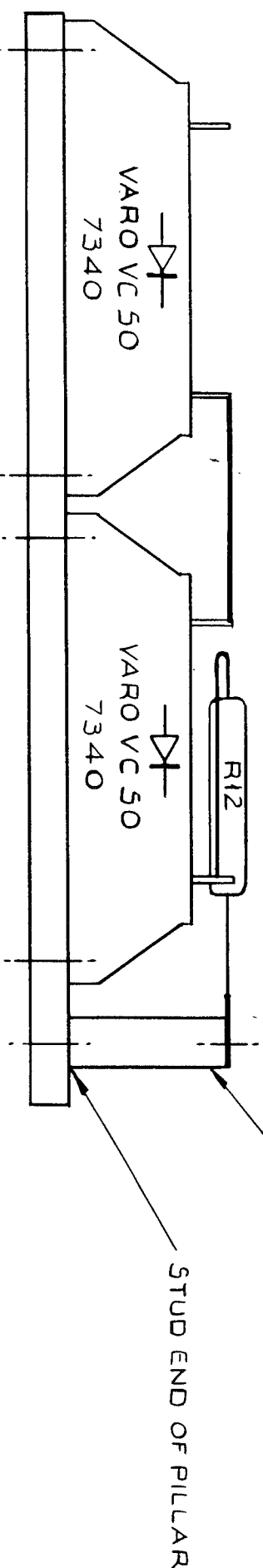
13/0.2 E.H.T. PERMANOID



1 = ASSEMBLY.

NOTES

1. RECTIFIERS SHOULD BE FITTED USING SUITABLE GREASE.
2. DEVICE FIXING SCREWS MUST NOT PROJECT BELOW HEATSINK.



SEE SEPARATE PARTS LIST

MACHINING TOLERANCES UNLESS STATED OTHERWISE:
INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM
EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM
CENTRE DISTANCES ± 0.25MM MACHINE AT V

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SCALE
1:1

DATE
16-8-82

TITLE HEATSINK ASSEMBLY

USED ON POWER SUPPLY CABINET

MATERIAL

TREATMENT

DRAWN

PASSED



JK LASERS LTD.
23, SOMERS RD.
RUGBY, ENGLAND.

TELEPHONE
(0788) 70321
TELEX 311540

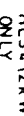
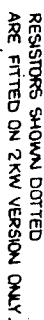
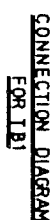
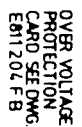
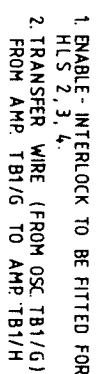
DRG. No.

E814395 AB

ISSUE NOTE No.

DO NOT SCALE DRG.

IF IN DOUBT - ASK.



1. SK1, PL2, SK10 are used for Oscillator Power Chassis only.

2. For Amplifier Power Chassis

SK1 becomes SK3
PL2 — " — PL4
SK10 — " — SK11

3. WIRE NUMBERS INDICATED THUS ⑥

ALTERNATIVE CODES FOR 2KW
VERSION ARE SHOWN THUS [D]

[illegible]

NOTE :

1. WHEN THE 500WL & 2KWL POWER CHASSIS ARE USED WITH THE COMBINED HOLOGRAPHIC CONTROL UNIT. THE 34 WAY MIRC CONNECTOR IS REPLACED WITH THREEE 12 PIN CONNECTOR.
2. THE CABLE SHOULD BE SLEEVED AS SHOWN ON THE APPROPRIATE ASSEMBLY DRAWING AND CRIMP PINS (MALE OR FEMALE AS REQUIRED) FITTED TO THE WIRE ENDS. A CUMULATIVE CHART SHOWS THE MIRC/MOLEX CONNECTOR PIN/WIRE NUMBERS.
3. PRIOR TO ASSEMBLY OF THE POWER CHASSIS INTO THE CABINET THE CABLE SHOULD BE FED THROUGH THE CABINET / CONTROL UNIT CONDUIT AND THE CRIMP PINS FITTED INTO THE CONNECTOR RECEPTACLE.
4. FIT EXTRA WIRING TO CONNECTOR A4 AND A5
5. CONNECTOR 'A' IS A 9 WAY MOLEX SOCKET.
CONNECTOR 'B' IS A 12 WAY MOLEX SOCKET.
CONNECTOR 'C' IS A 15 WAY MOLEX SOCKET.
(MOLEX CONNECTIONS ARE SHOWN AS "CONNECTOR" "PIN NUMBER")
6. REFER TO CIRCUIT DIAGRAM E810653FC OR E816967FC.

WIRE NO.	WIRE NO.	WIRE NO.	WIRE NO.
A	A15	1	1
B	A14	2	2
C	A13	3	3
D	A12	4	4
E	A11	5	5
F	A10	6	6
G	A9	7	7
H	A8	8	8
I	A7	9	9
J	A6	10	10
K	A5	11	11
L	A4	12	12
M	A3	13	13
N	A2	14	14
O	A1	15	15
P	A0	16	16
Q	A-1	17	17
R	A-2	18	18
S	A-3	19	19
T	A-4	20	20
U	A-5	21	21
V	A-6	22	22
W	A-7	23	23
X	A-8	24	24
Y	A-9	25	25
Z	A-10	26	26
1	A-11	27	27
2	A-12	28	28
3	A-13	29	29
4	A-14	30	30
5	A-15	31	31
6	A-16	32	32
7	A-17	33	33
8	A-18	34	34
9	A-19	35	35
10	A-20	36	36
11	A-21	37	37
12	A-22	38	38
13	A-23	39	39
14	A-24	40	40
15	A-25	41	41
16	A-26	42	42
17	A-27	43	43
18	A-28	44	44
19	A-29	45	45
20	A-30	46	46
21	A-31	47	47
22	A-32	48	48
23	A-33	49	49
24	A-34	50	50
25	A-35	51	51
26	A-36	52	52
27	A-37	53	53
28	A-38	54	54
29	A-39	55	55
30	A-40	56	56
31	A-41	57	57
32	A-42	58	58
33	A-43	59	59
34	A-44	60	60
35	A-45	61	61
36	A-46	62	62
37	A-47	63	63
38	A-48	64	64
39	A-49	65	65
40	A-50	66	66
41	A-51	67	67
42	A-52	68	68
43	A-53	69	69
44	A-54	70	70
45	A-55	71	71
46	A-56	72	72
47	A-57	73	73
48	A-58	74	74
49	A-59	75	75
50	A-60	76	76
51	A-61	77	77
52	A-62	78	78
53	A-63	79	79
54	A-64	80	80
55	A-65	81	81
56	A-66	82	82
57	A-67	83	83
58	A-68	84	84
59	A-69	85	85
60	A-70	86	86
61	A-71	87	87
62	A-72	88	88
63	A-73	89	89
64	A-74	90	90
65	A-75	91	91
66	A-76	92	92
67	A-77	93	93
68	A-78	94	94
69	A-79	95	95
70	A-80	96	96
71	A-81	97	97
72	A-82	98	98
73	A-83	99	99
74	A-84	100	100

POWER CHASSIS APPLICATION DRAWING , 500WL & 2KWL.

6203

BT/RD#ES/MB

E8180067E

A

B

THIRD ANGLE PROJECTION

C

D

E

DO NOT SCALE DRAWING

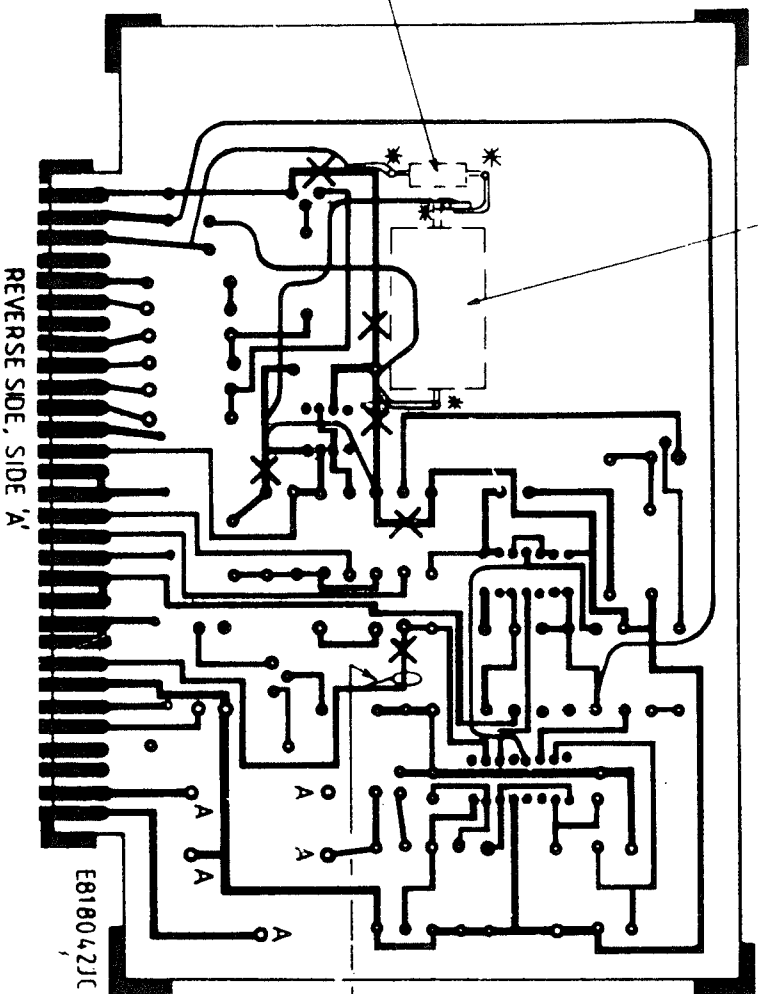
F

G

1

C15

R29



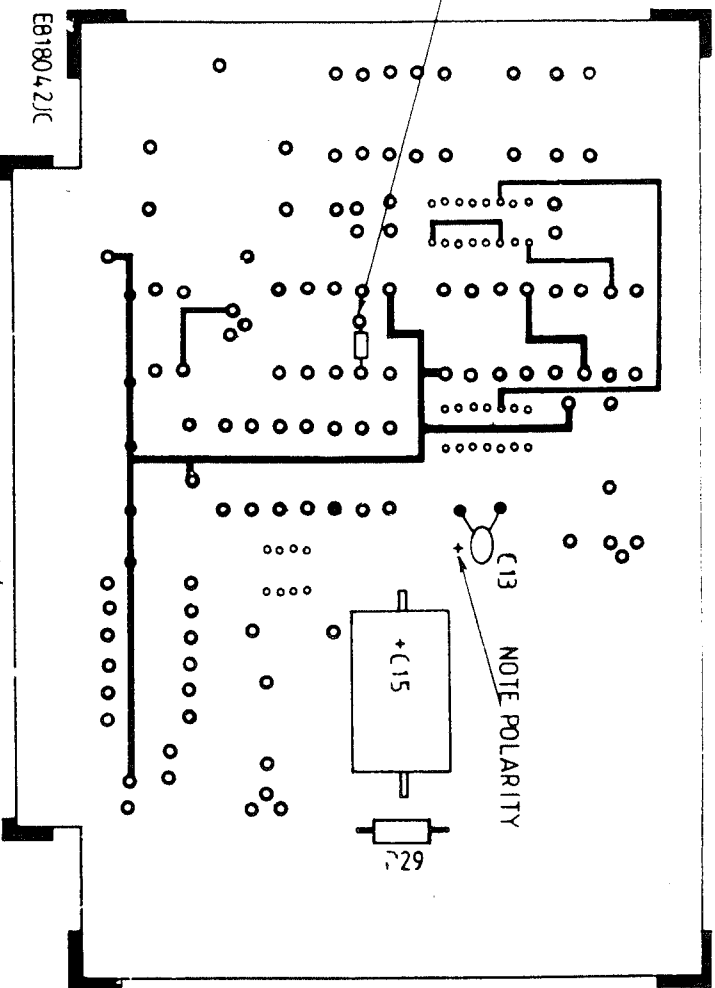
REVERSE SIDE, SIDE 'A'

WIRE END OF
RESISTOR R28

DRILL NEW HOLE
ADD R28

E818042JC

COMPONENT SIDE, SIDE 'B'



NOTE POLARITY

+C15

R29

DIMENSIONS IN MILLIMETRES

2

4

NOTE

- 1 5 OFF WIRE LINKS TO BE SOLDERED IN POSITIONS SHOWN
- 2 TRACKS TO BE CUT AS SHOWN THUS *
- 3 R28 TO BE FITTED AS SHOWN IN C14 POSITION
- 4 ASSEMBLE CARD TO SILK SCREENED LEGEND AND CIRCUIT E818018FC
- 5 C15 AND R29 TO BE ON COMPONENT SIDE OF CARD
- 6 4 HOLES TO BE DRILLED AT POSITIONS MARKED THUS * FOR C15 AND R29 LEADS

REMOVE BURRS & SHARP EDGES

2

4

5

REV	A	DATE/MOD. NO
B	3-10-84	MF2048
A	3-9-84	

TITLE

ENERGY MONITOR AND DELAY CARD ASSEMBLY
(MODIFIED)

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USED ON

HOLOGRAPHIC CONTROL UNITS

ENGINEER

MATERIAL

E8180170X

FINISH

JK LASERS

A LUNDSMITH GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND.
TELEPHONE (0788) 70321, TELEX 315540.
FAX (0788) 78824.

MACHINING TOLERANCES
UNLESS STATED OTHERWISE

DIM. EXTERNAL: +0 -0.3mm
INTERNAL: -0 +0.3mm
DIM. EXTERNAL: +0 -0.1mm
INTERNAL: -0 +0.1mm
CENTRE DISTANCES: ±0.15mm
MACHINE AT V

SCALE 1:1
DATE 3-9-84

DWG. NO. E818017AC

B

C

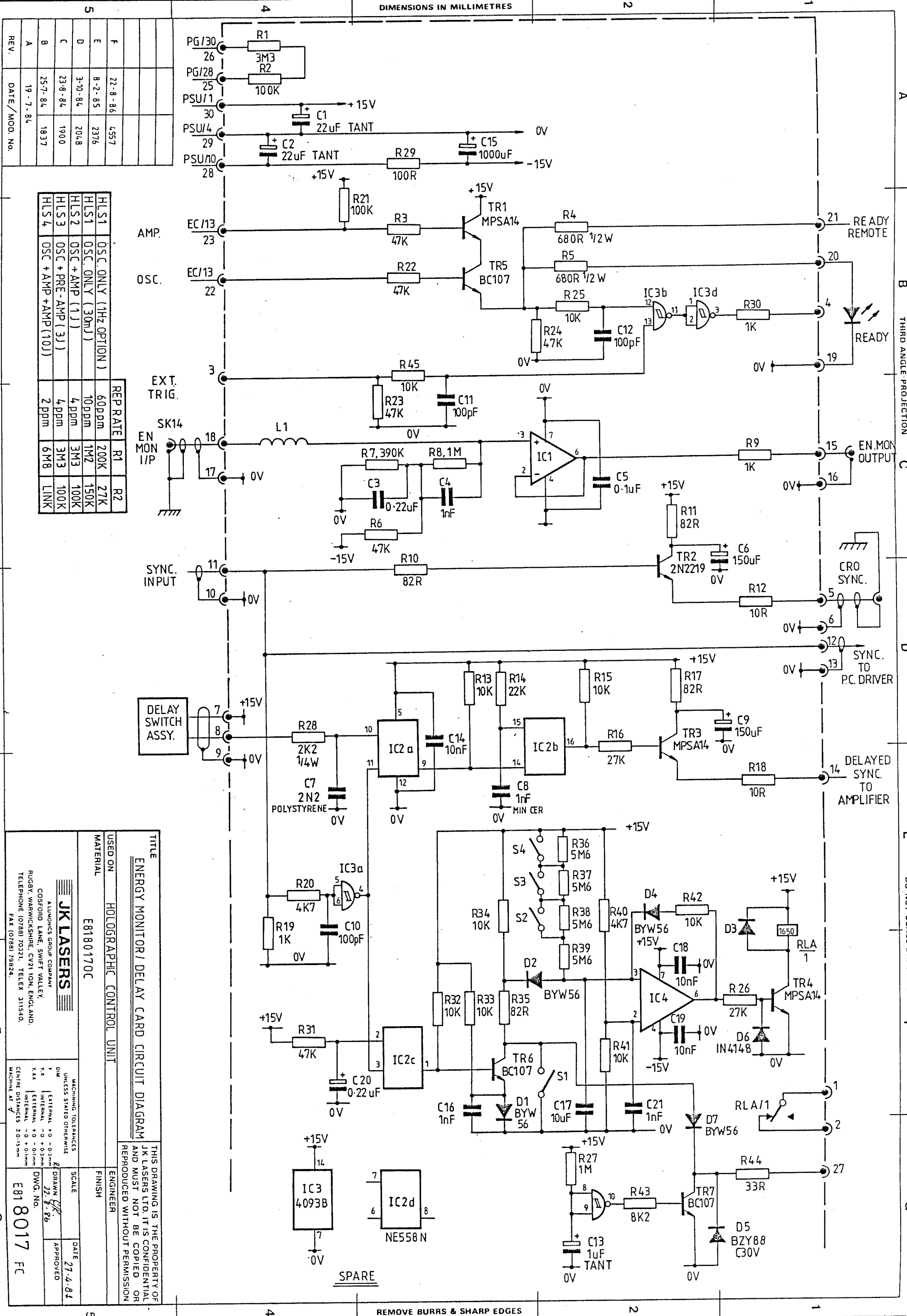
IF IN DOUBT - ASK

E

F

G

DIMENSIONS IN MILLIMETRES



REV.	DATE/MOD. No.	DESCRIPTION
A	19-7-84	1837
B	25-7-84	1900
C	23-8-84	2048
D	3-10-84	2376
E	8-2-85	4557
F	22-8-86	

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

REPAIR	R1	R2
REPAIR	200K	27K
REPAIR	100K	150K
REPAIR	4.7K	100K
REPAIR	3M3	100K
REPAIR	6M8	LINK

TITLE
ENERGY MONITOR/ DELAY CARD CIRCUIT DIAGRAM

USED ON
HOLOGRAPHIC CONTROL UNIT

MATERIAL
E8180170C

FINISH
ENGINEER

SCALE
DATE 27.4.84

APPROVED
DATE 27.8.86

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JK LASERS
AUXILIARY GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1GN, ENGLAND.
TELEPHONE (0788) 70221, TELEX 311540.
FAX (0788) 79824.

DATE
27.8.86

DWG. No.
E81 8017 FC

REMOVE BURRS & SHARP EDGES

SPARE

IC2d NE558N

IC3 4093B

IC2c

IC2b

IC2a

IC3a

IC3b

IC3d

IC4

IC5

IC6

IC7

IC8

IC9

IC10

IC11

IC12

IC13

IC14

IC15

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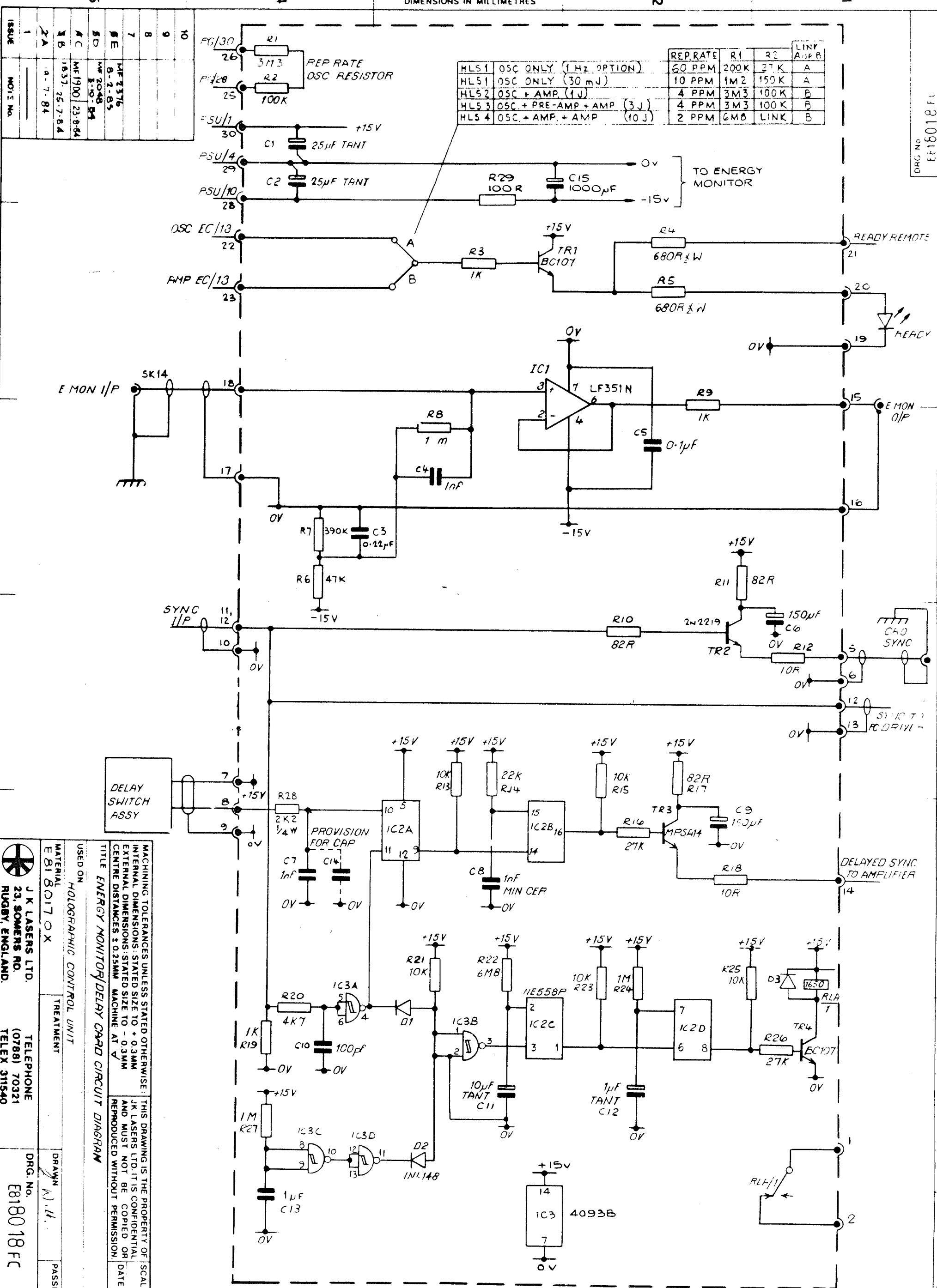
IC221

IC222

IC223

IC224

HL5	OSC ONLY (1 Hz OPTION)	REP RATE	R1	R2	LINK
HL5 1	OSC ONLY (1 Hz OPTION)	50 PPM	200K	27K	A
HL5 2	OSC ONLY (30 mJ)	10 PPM	1M2	150K	A
HL5 3	OSC + AMP (1J)	4 PPM	3M3	100K	B
HL5 4	OSC + PRE-AMP + AMP (3J)	4 PPM	3M3	100K	B
HL5 5	OSC + AMP + AMP (10J)	2 PPM	6M6	LINK	B



J K LASERS LTD.
23, SOMERS RD.
RUGBY, ENGLAND.

TELEPHONE
(0788) 70321
TELEX 311540

DRG. No.
E818018FC

SCALE
1:1

DATE
1.4.84

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USED ON
HOLOGRAPHIC CONTROL UNIT

MATERIAL
E8180170X

TREATMENT

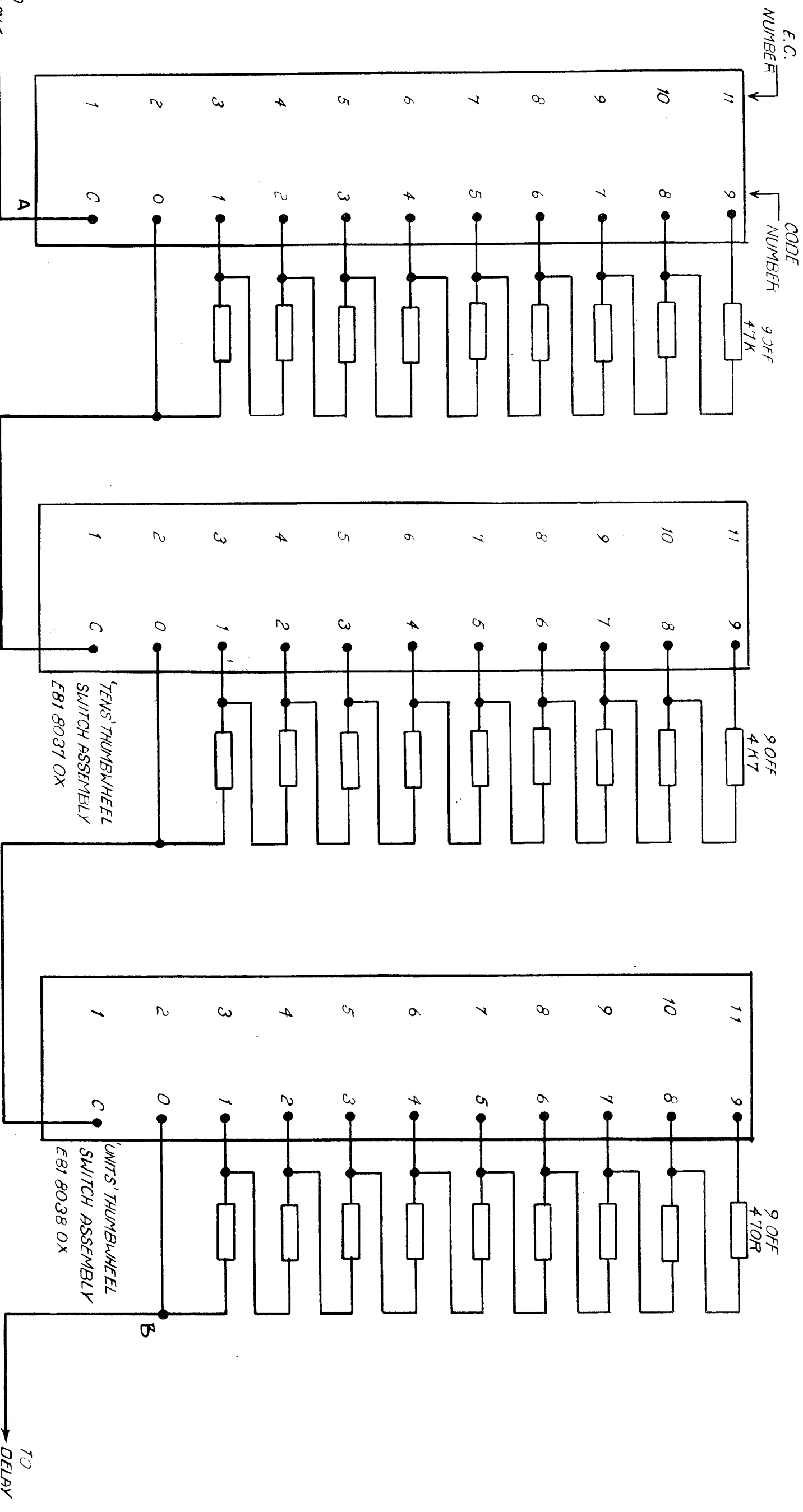
REMOVE BURRS & SHARP EDGES

31 6E08 183
8N.GRD

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.



'HUNDREDS' THUMBWHEEL
SWITCH ASSEMBLY
E81 8036 OX

'TENS' THUMBWHEEL
SWITCH ASSEMBLY
E81 8037 OX

'UNITS' THUMBWHEEL
SWITCH ASSEMBLY
E81 8038 OX

FOR ASSEMBLY SEE;
E8180410B
E8180419B

REV.	NOTE NO.
K	
J	
H	
G	
F	
E	
D	
C	
B	
A	

DO NOT SCALE DRG.

IF IN DOUBT - ASK.

MACHINING TOLERANCES UNLESS STATED OTHERWISE:
INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM
EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM
CENTRE DISTANCES ± 0.25MM MACHINE AT V

SCALE

DATE

TITLE CIRCUIT FOR DELAY THUMBWHEEL SWITCH ASSEMBLY

USED ON HOLOGRAPHIC CONTROL UNITS

MATERIAL

TREATMENT

DRAWN

PASSED

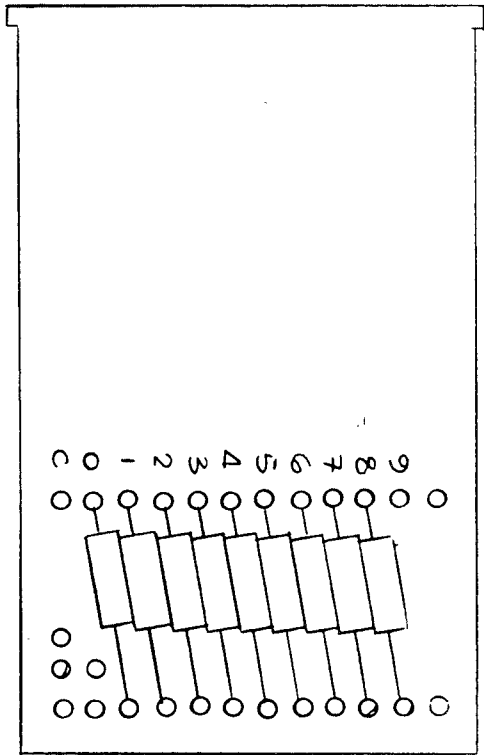
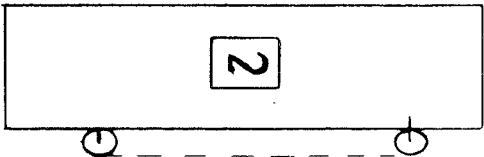


JK LASERS LTD.
23, SOMERS RD.
RUGBY, ENGLAND.

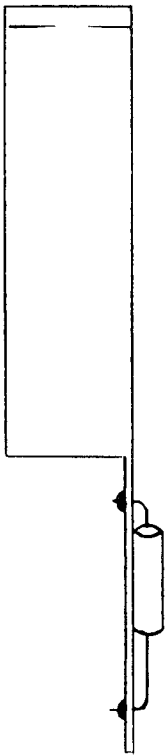
TELEPHONE
(0788) 70321
TELEX 311540

DRG. No.

E818039FB



VIEW ON PC SIDE OF SWITCH



CODE
NUMBER

E.C.
NUMBER

9 OFF RESISTORS

ON E81 8036 08 - 47k
ON E81 8037 08 - 4k7
ON E81 8038 08 - 470R

FOR CIRCUIT SEE
E81 8039 FB

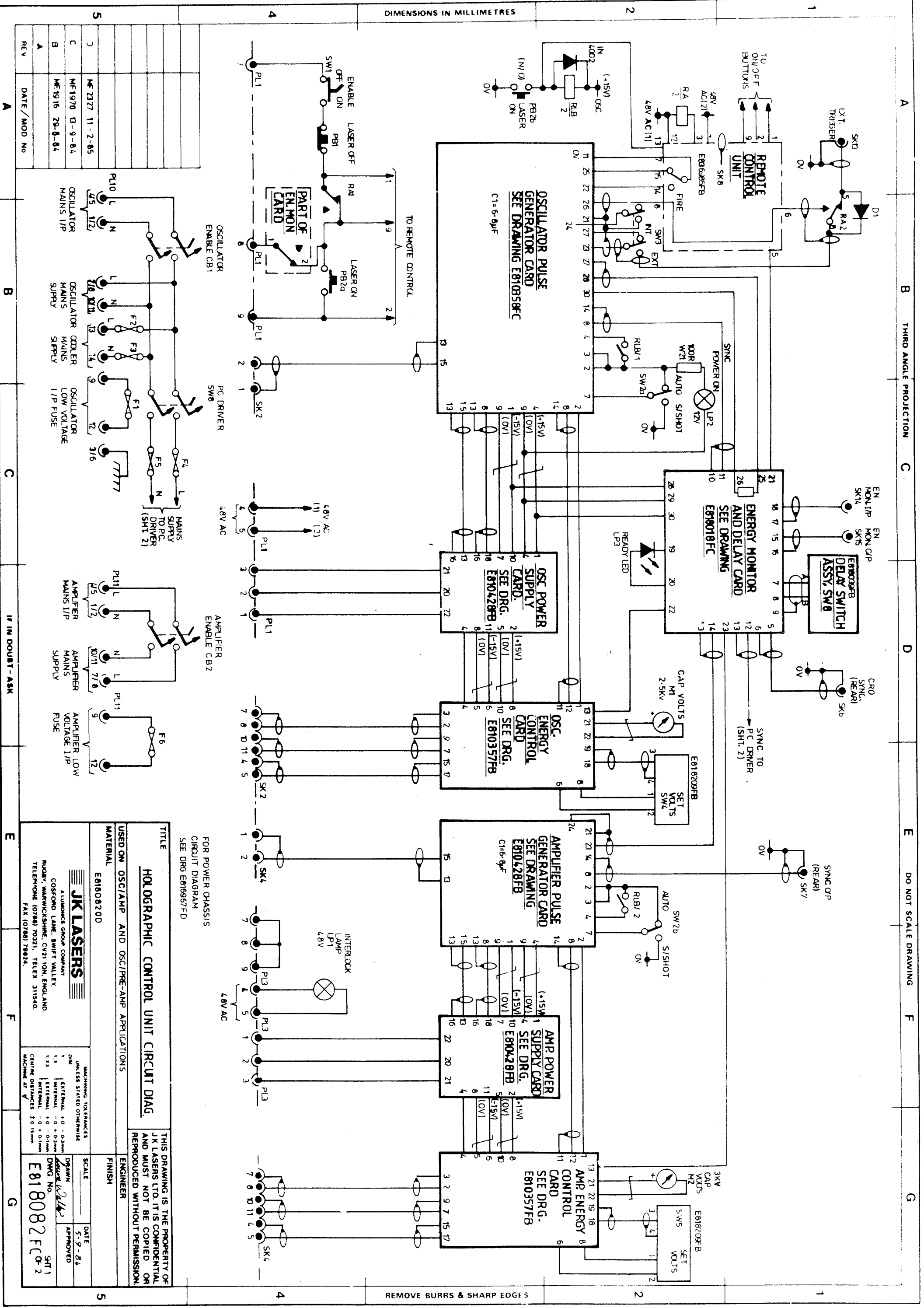
K	
J	
H	
G	
F	
E	
D	
C	
B	24-7-84
A	
REV.	NOTE No.

DO NOT SCALE DRG.

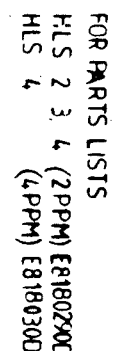
IF IN DOUBT - ASK.

MACHINING TOLERANCES UNLESS STATED OTHERWISE: INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM CENTRE DISTANCES ± 0.25 MM MACHINE AT $\checkmark$			THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.		SCALE 2:1
TITLE TUMBLER SWITCH ASSEMBLY					DATE 29-5-84
USED ON HOLOGRAPHIC CONTROL UNITS					
MATERIAL	TREATMENT	DRAWN M	PASSED		
JK LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND.		TELEPHONE (0788) 70321 TELEX 311540	DRG. No. E81 8040 AB		

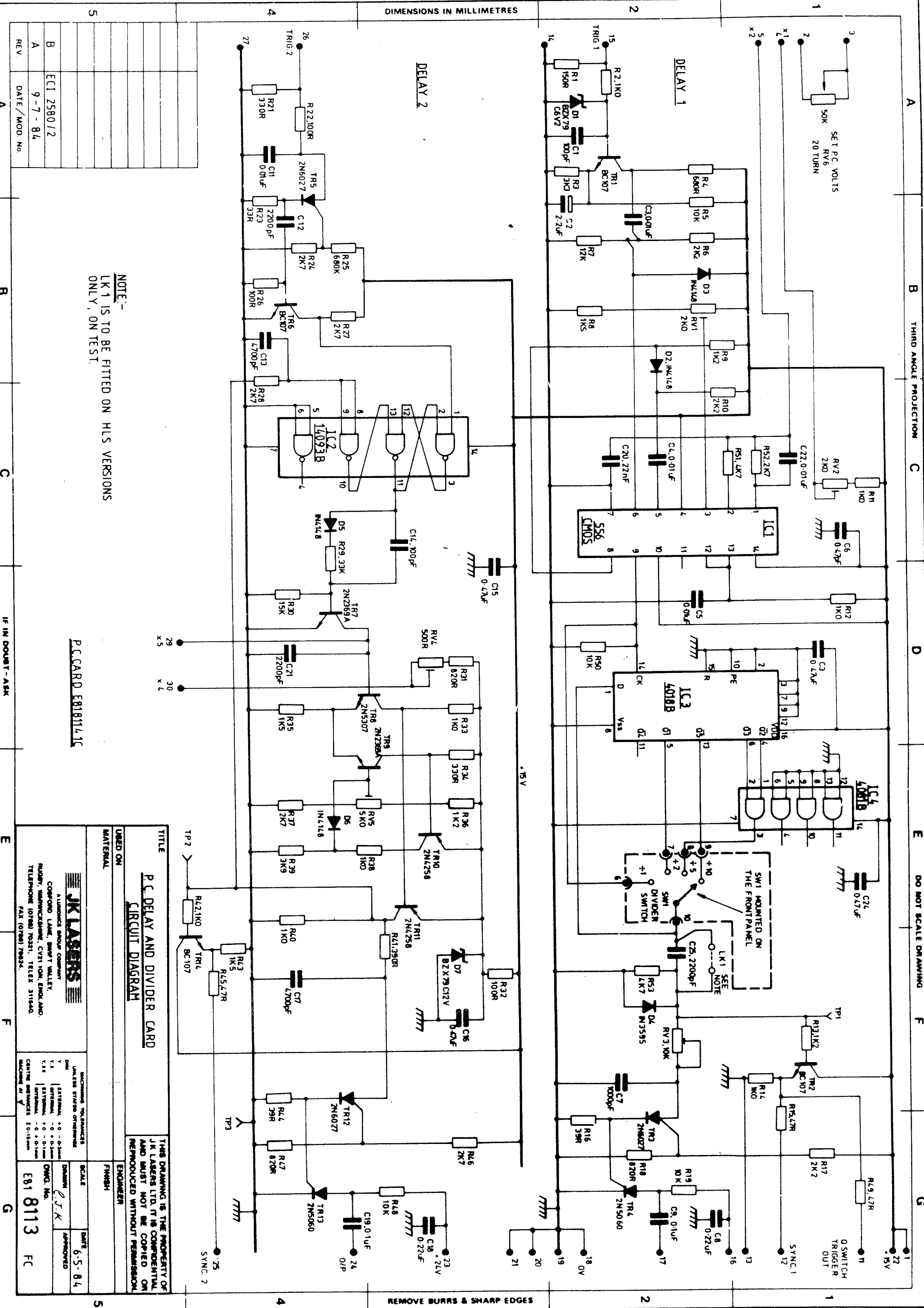




DIMENSIONS IN MILLIMETRES	
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99	100



TITLE		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION	
HOLOGRAPHIC CONTROL UNIT CIRCUIT DIAGRAM			
USED ON OSC/AMP AND OSC/PRE-AMP APPLICATIONS HL52, 3, 4		ENGINEER	
MATERIAL		FINISH	
E81808200		SCALE _____ DATE 5-4-84	
 JK LASERS ALUMINUMS GROUP COMPANY CONCORD LAKE, NEWT WALLEY RUGBY, WARWICKSHIRE, CV21 1ON, ENGLAND. TELEPHONE (0788) 70331, TELEFAX (0788) 78924.		MACHINING TOLERANCES UNLESS STATED OTHERWISE DIM Y { INTERNAL +0 -0.1mm X { INTERNAL +0 -0.1mm Z { INTERNAL +0 -0.1mm CENING DISTANCES ±0.15mm MACHINING AT $\sqrt{\quad}$	
DWG. NO. E818082FC SHT 2 OF 2		DRWING <i>JKL</i> APPROVED	



5 4 3 2 1

A B C D E F G

IF IN DOUBT - ASK

REMOVE BURRS & SHARP EDGES

015028183
EN DRG

THIRD ANGLE PROJECTION

D

E

DO NOT SCALE DRAWING

F

G



INTERLOCK OVERRIDE SWITCH

DOOR SAFETY SWITCH

CHARGER CHASSIS
TWO MOUNTED BACK TO
BACK AMPLIFIER CHASSIS
AT FRONT. OSCILLATOR
CHASSIS AT REAR

TSA 2000 SCR CARD
SEE DRAWING B0500

PD 2000 CARD IN
ENCLOSURE. SEE DRAWING
B1041

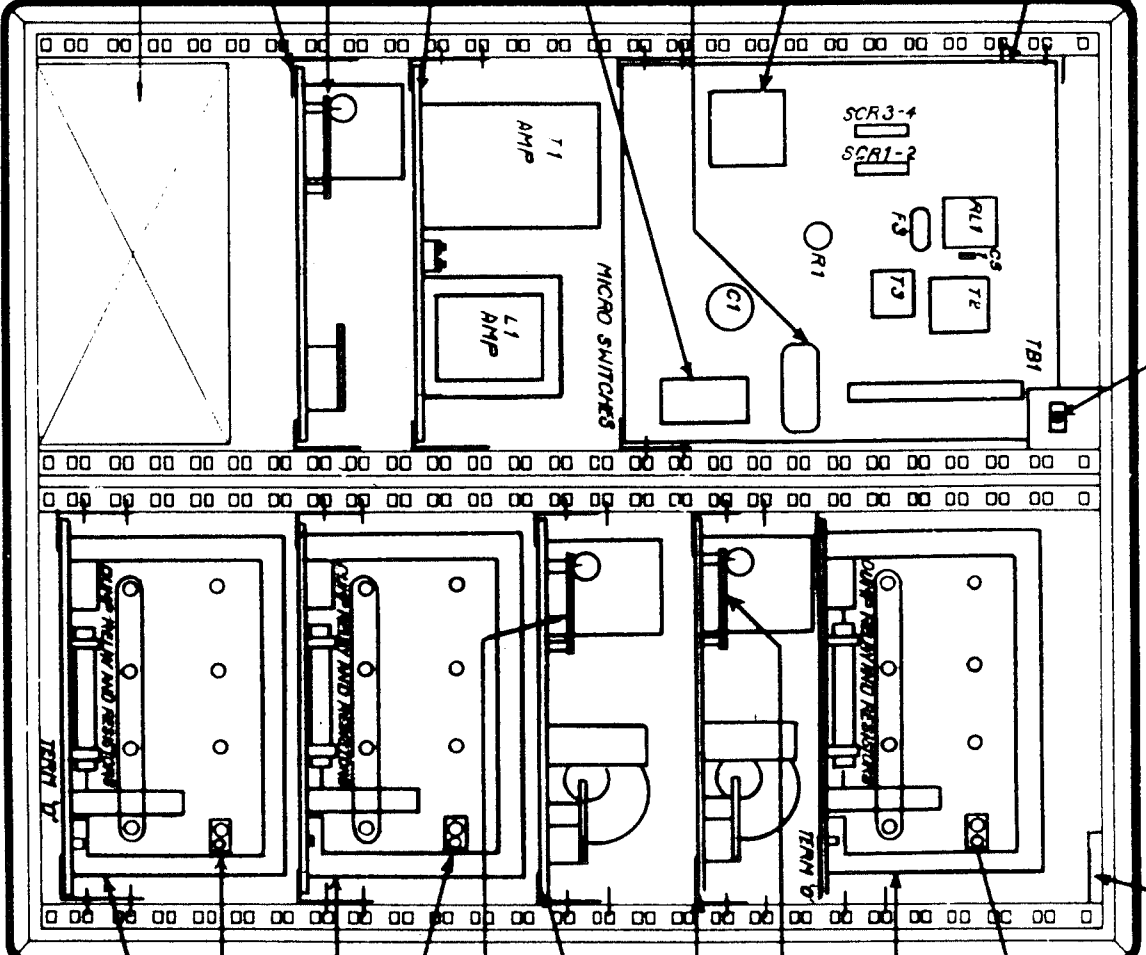
OVERVOLTAGE PROTECTION
CARD SEE DRAWING B1204

OSCILLATOR AND AMPLIFIER, T₁,
LI AND DIODE HEATSINK
ASSEMBLY

MR2 TRIGGER CARD
SEE DRAWING B0500

OSCILLATOR TRIGGER
PANEL

COOLING



DISCHARGE SOCKET

AMPLIFIER DISCHARGE
CAPACITOR

MR2 TRIGGER CARD
SEE DRAWING B0500

AMPLIFIER TRIGGER PANEL

AMPLIFIER TRIGGER PANEL

MR2 TRIGGER CARD
SEE DRAWING B0500

DISCHARGE SOCKET

AMPLIFIER DISCHARGE
CAPACITOR

DISCHARGE SOCKET

OSCILLATOR DISCHARGE

VIEW ON FRONT OF CABINET WITH DOORS REMOVED

FOR REAR VIEW OF CABINET SHOWING CONDUIT BOXES
SEE DWG M66 9592 AB

DIMENSIONS IN MILLIMETRES

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2	MC 283U 25-1-85
1	3-6-84
ISSUE	NOTE NO.

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4

2

1

TITLE POWER SUPPLY CABINET COMPONENT LAYOUT (CABINET 1) NV
USED ON LLS 2

MATERIAL TREATMENT DRAWN PASSED

J.K. LASERS LTD.
23, SOMERS RD.
RUGBY, ENGLAND.

TELEPHONE
(0788) 70321
TELEX 311540

DRG. NO.
E818205LC

THIS DRAWING IS THE PROPERTY OF SCALE APPROX.
JK LASERS LTD. IT IS CONFIDENTIAL
AND MUST NOT BE COPIED OR
REPRODUCED WITHOUT PERMISSION.
DATE 3-6-84

REMOVE BURRS & SHARP EDGES

2

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B

C

IF IN DOUBT - ASK

E

F

G

SIZE A2

		OSCILLATOR	AMPLIFIER
CHARGER	TYPE	L	L
	POWER	500W	500W
	AC CAPS	40uf	40uf
	TRANSFORMER	1788 (800+800+400V)	1788 (800+800+800V)
	INDUCTOR	NA301	NA301
	RECT BRIDGE	VARO	VARO
	REMARKS	-	-
TRIGGER UNIT	S/P	S	P
	L	500uH	500uH
	TRIGGER TRANSFORMER	29T (STANDARD)	29T (STANDARD)
	SIMMER	-	-
CAPACITOR		500uf	2x500uf (250uf PER LAMP)
HEAT EXCHANGER		W/W	-
CABINET		4-15T	
PERFORMANCE		2.5KV @ 4PPM	
MAINS VOLTAGE		220VAC 50HZ	

CABINET ASSEMBLY - APPLICATION DRAWING
6308, 6346, 6357, 6379.

24-5-84

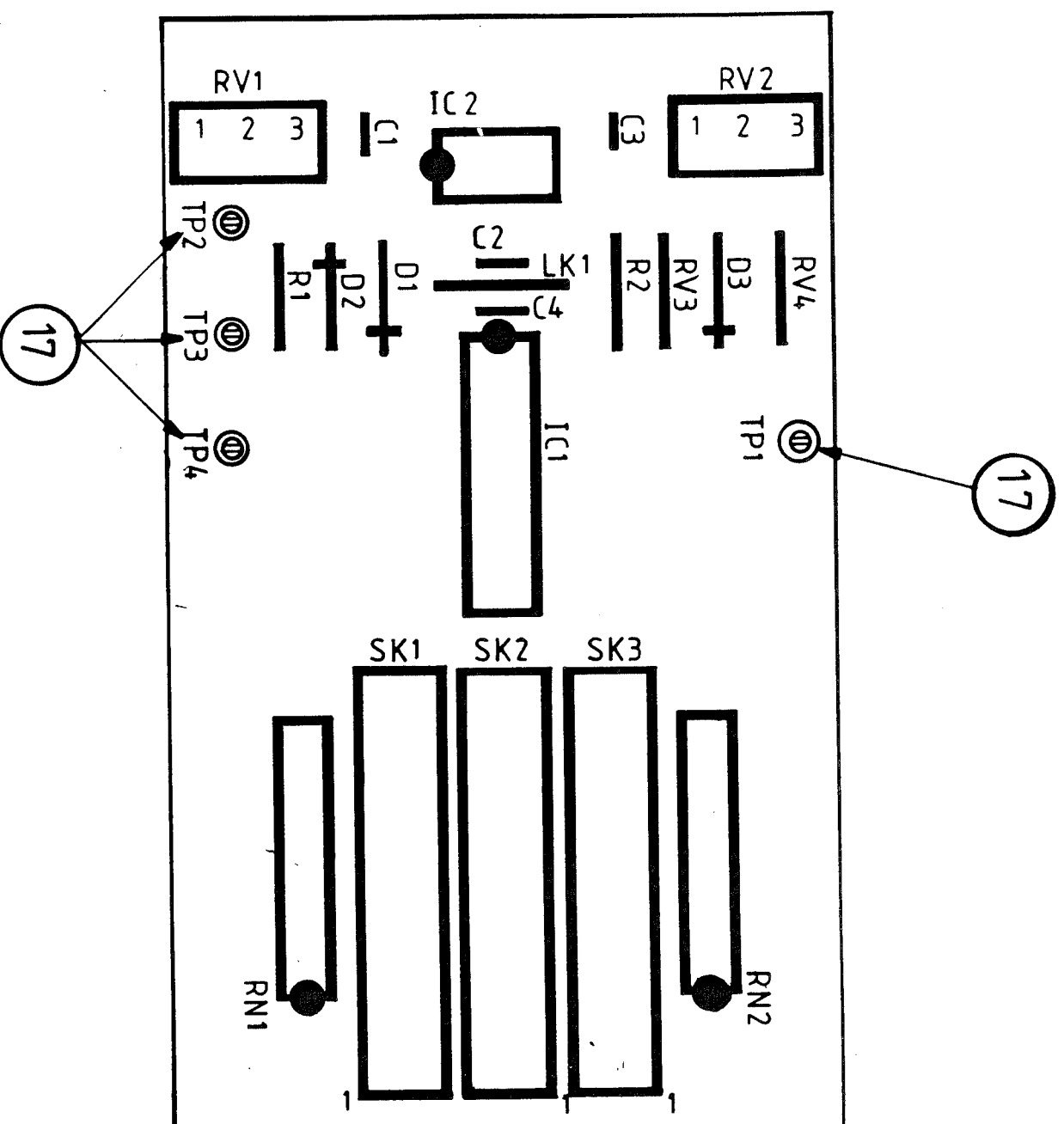
MJB/SK

E818205TB

REMOVE BURRS & SHARP EDGES.

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.



DESIGNATION	ITEM No.
R1	1
R2	2
R3	3
R4	4
RV1	5
RV2	6
RN1, RN2	7
C1, C2, C3, C4	8
D1, D3	9
D2	10
IC1	11
IC2	12
SK1, SK2, SK3	13
SK4 (FOR IC1)	14
SK5 - (FOR IC2)	15

FOR 1KV BILL OF MATERIAL
SEE E8182070X
FOR 3KV BILL OF MATERIAL
SEE E8182080X

[illegible]

DO NOT SCALE DWG. IF IN DOUBT - ASK.

TITLE		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.									
3 DIGIT THUMB SWITCH DEMAND CARD ASSEMBLY											
USED ON		ENGINEER									
MATERIAL		FINISH									
JK LASERS A LUMONICS GROUP COMPANY COSFORD LANE, SWIFT VALLEY, RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND. TELEPHONE (0788) 70321. TELEFAX 311540. FAX (0788) 79824.		MACHINING TOLERANCES UNLESS STATED OTHERWISE. <table><tr><td>DIM</td><td></td></tr><tr><td>Y</td><td>{ EXTERNAL +0 - 0.3mm INTERNAL -0 + 0.3mm</td></tr><tr><td>Y, X</td><td>{ EXTERNAL +0 - 0.1mm INTERNAL -0 + 0.1mm</td></tr><tr><td>Y, X, X</td><td>CENTRE DISTANCES ±0.15mm</td></tr></table> MACHINE AT Y		DIM		Y	{ EXTERNAL +0 - 0.3mm INTERNAL -0 + 0.3mm	Y, X	{ EXTERNAL +0 - 0.1mm INTERNAL -0 + 0.1mm	Y, X, X	CENTRE DISTANCES ±0.15mm
DIM											
Y	{ EXTERNAL +0 - 0.3mm INTERNAL -0 + 0.3mm										
Y, X	{ EXTERNAL +0 - 0.1mm INTERNAL -0 + 0.1mm										
Y, X, X	CENTRE DISTANCES ±0.15mm										
SCALE 2:1		DATE 31-5-83									
DRAWN <i>[Signature]</i>		APPROVED									
DWG. NO. E818209AB											

P.C. CARD
E8182101B

SIZE A3

37/668133
CIN DRD

B THIRD ANGLE PROJECTION

D

E DO NOT SCALE DRAWING

F

G

CHARGE CHASSIS
TWO MOUNTED BACK TO
BACK AMPLIFIER CHASSIS
AT FRONT OSCILLATOR
CHASSIS AT REAR

TSA 2000 SCR CARD
SEE DRAWING E820500FB

PD 2000 CARD IN
ENCLOSURE SEE DRAWING
E81041FC

OVERVOLTAGE PROTECTION
CARD SEE DRAWING E81204FB
OSCILLATOR AND AMPLIFIER T₁,
L₁ AND DIODE HEATSINK,
ASSEMBLY

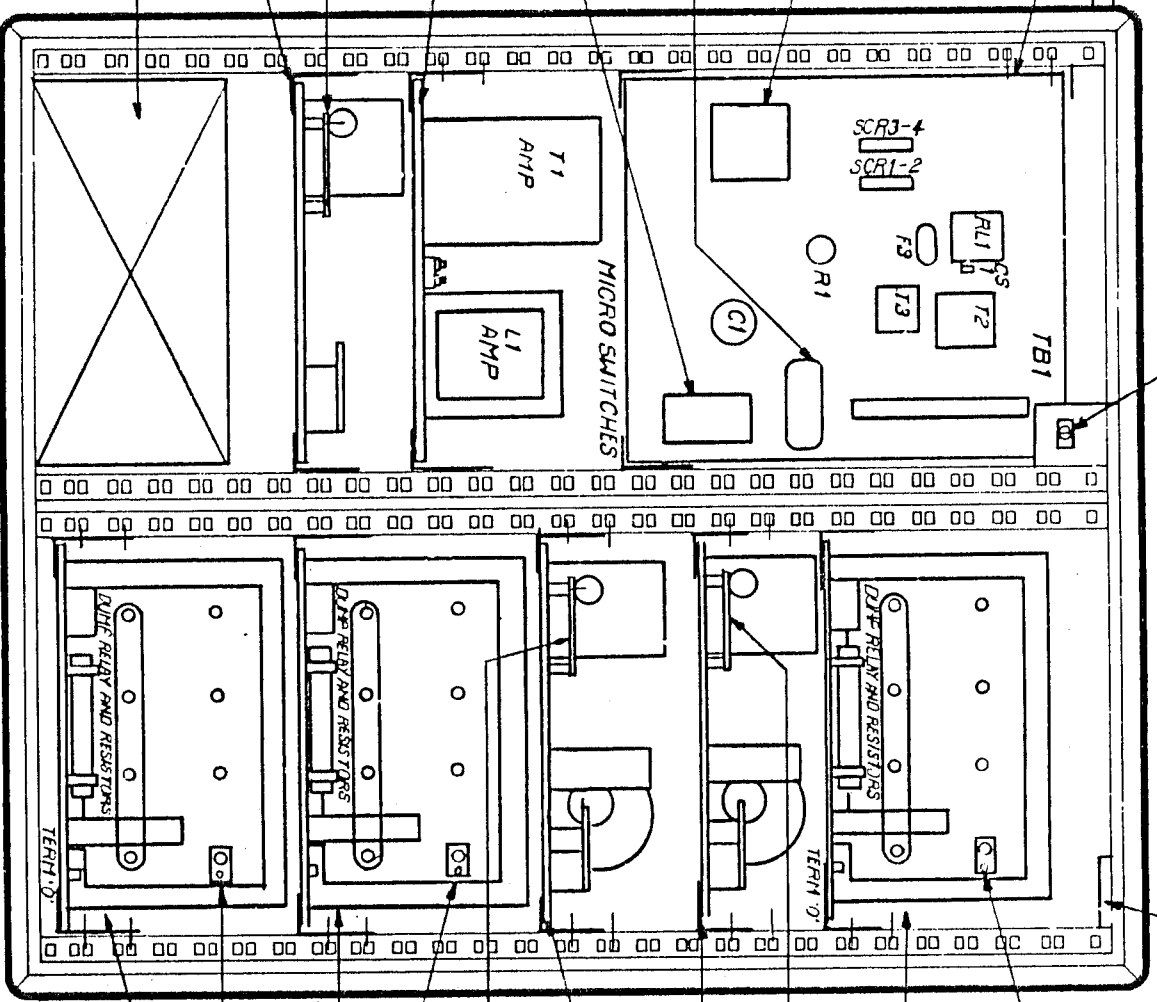
MX2 TRIGGER CARD
SEE DRAWING E820500FB

OSCILLATOR TRIGGER
PANEL

COOLER

INTERLOCK OVERHIDE SWITCH

DOOR SAFETY SWITCH



DISCHARGE SOCKET

AMPLIFIER DISCHARGE
CAPACITOR

MX2 TRIGGER CARD
SEE DRAWING E820500FB

AMPLIFIER TRIGGER PANEL

AMPLIFIER TRIGGER PANEL

MX2 TRIGGER CARD
SEE DRAWING E820500FB

DISCHARGE SOCKET

AMPLIFIER DISCHARGE
CAPACITOR

DISCHARGE SOCKET

OSCILLATOR DISCHARGE

VIEW ON FRONT OF CABINET WITH DOORS REMOVED

FOR VIEW ON REAR OF CABINET
SEE DWG. NO 66 9534 AB

DIMENSIONS IN MILLIMETRES

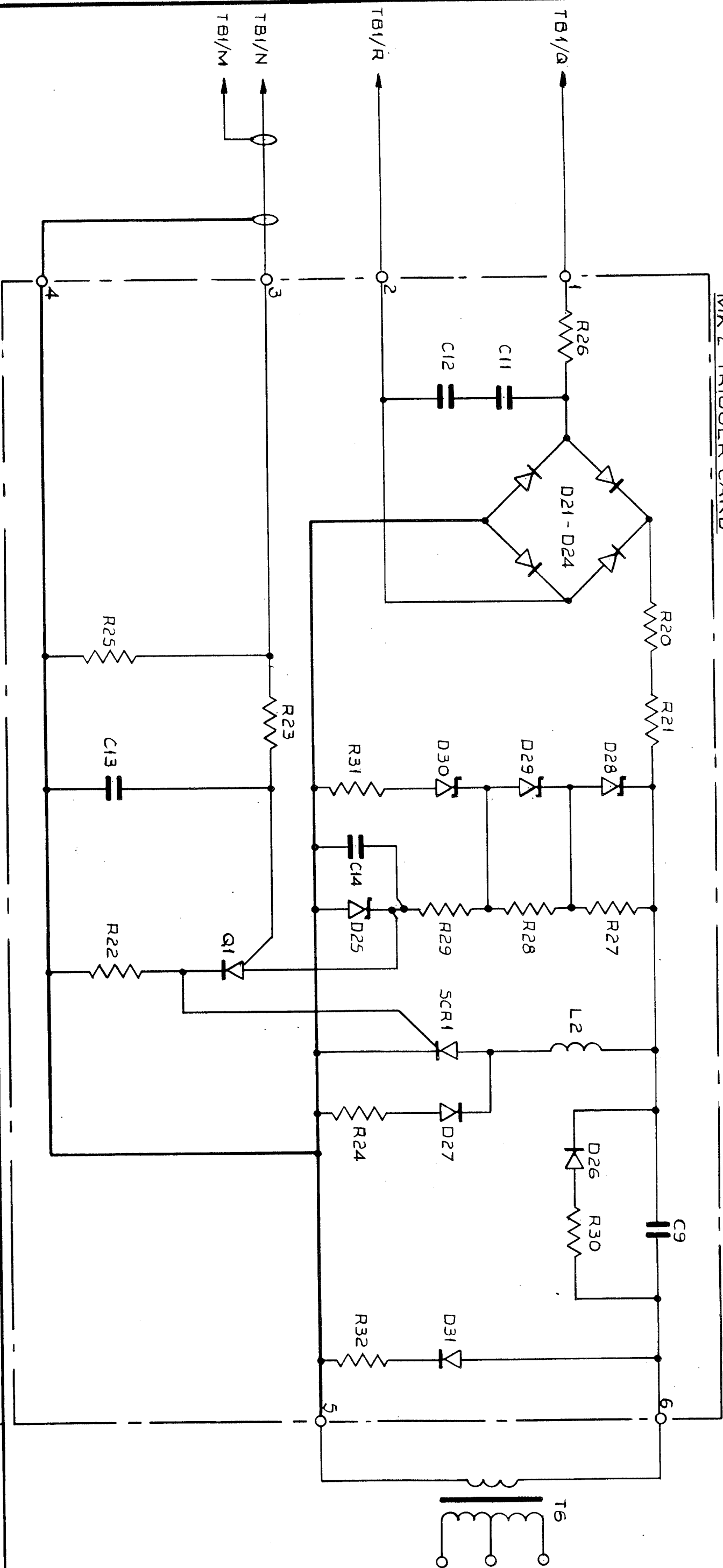
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	26 11 24
	ISSUE NOTE NO

THIS DRAWING IS THE PROPERTY OF SCALE APPROX
JK LASERS LTD IT IS CONFIDENTIAL 1/6 FULL SIZE
AND MUST NOT BE COPIED OR DATE 14-11-54
REPRODUCED WITHOUT PERMISSION

TITLE		CABINET 1 TEST 22mm CABINET COMPONENT LAYOUT	
USED ON			
MATERIAL		TREATMENT	
J. K. LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND.		TELEPHONE (0788) 70321 TELEX 311540	
DRAWN BY		PASSED	
DRG. NO.		E818777LC	

REMOVE BURRS & SHARP EDGES

MK 2 TRIGGER CARD



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5 A	18-7-84
4	MF130
3	MF29
2	MF22
1	31-5-77
ISSUE	NOTE No.

DO NOT SCALE DRG.

IF IN DOUBT - ASK.

MACHINING TOLERANCES UNLESS STATED OTHERWISE: INTERNAL DIMENSIONS: STATED SIZE TO + 0.3MM EXTERNAL DIMENSIONS: STATED SIZE TO - 0.3MM CENTRE DISTANCES ± 0.25MM MACHINE AT ✓		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.		SCALE —
TITLE MK 2 TRIGGER CARD CIRCUIT DIAGRAM				
USED ON				
MATERIAL —	TREATMENT —	DRAWN [Signature]	PASSED	
JK LASERS LTD. 23, SOMERS RD. RUGBY, ENGLAND.		TELEPHONE (0788) 70321 TELEX 31640		DRG. No. E 820500 FB

316 25/83
ON DRG

A

B THIRD ANGLE PROJECTION

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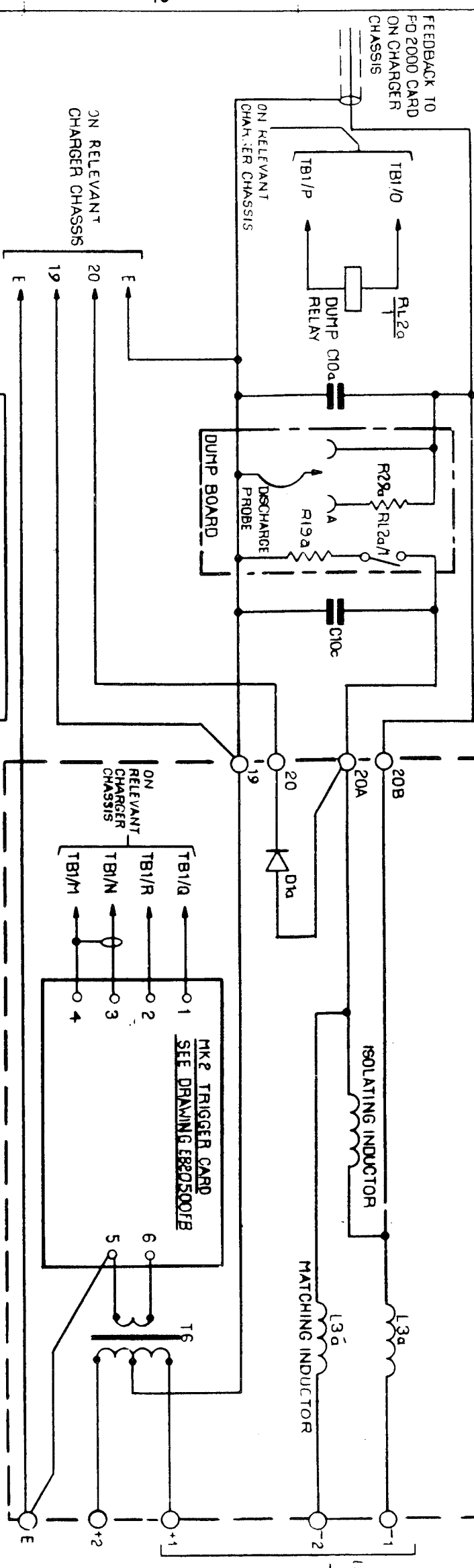
E

DO NOT SCALE DRAWING

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G

TRIGGER OUTPUT BOARD 1 (UPPER)



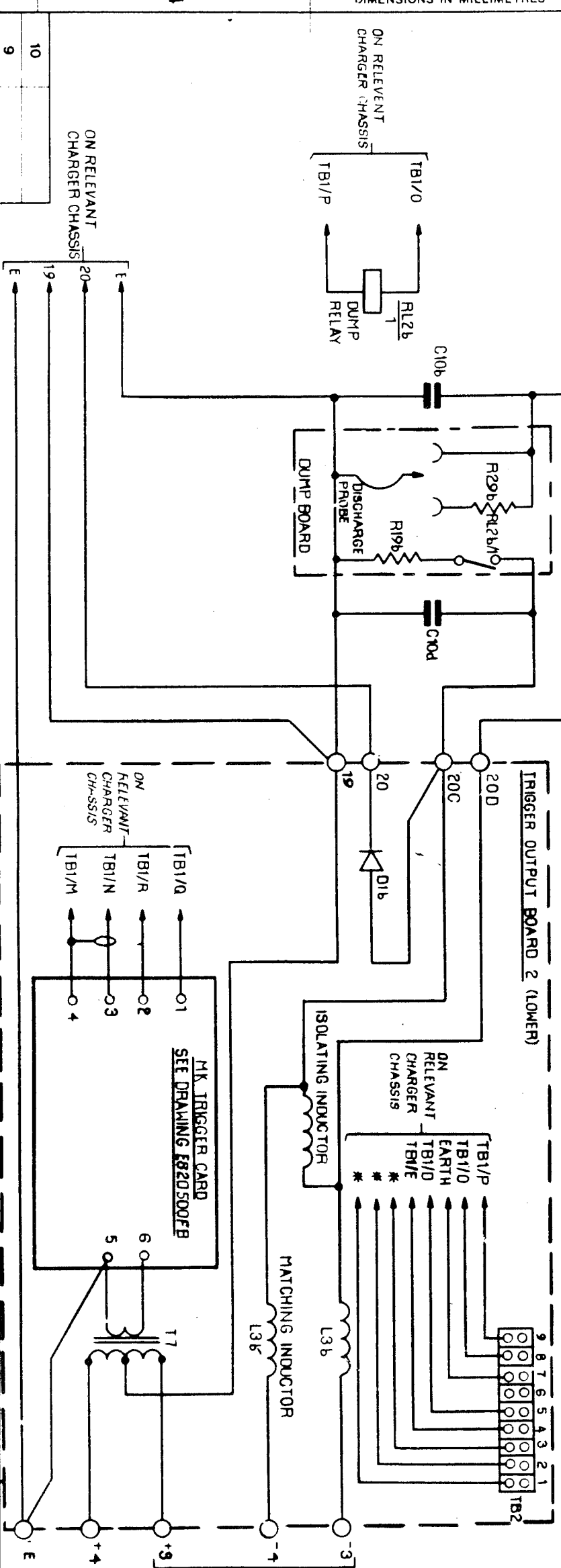
NOTES:

1. O CANNOTS OBA TERMINAL
2. R19, R29 AND RL2 ARE MOUNTED ON AN S.R.B.P. STRIP WITHIN OF C10
3. ALL EXTERNAL WIRES TO THE CHARGER CHASSIS IS TERMINATED IN THE CHARGER CHASSIS. WIRES SHOWN THIS ARE TERMINATED AS SHOWN IN THE TABLE BELOW

SOURCE	ASSOCIATED WITH OSCILLATOR	ASSOCIATED WITH AMPLIFIER
TB2/1	OSC. 0/V CARD	AMP. 0/V CARD
TB2/2	OSC. 0/V CARD	OSC. TB1/H
TB2/3	OSC. TB1/H VIA DOOR SWITCHES SEE DWG E810779FC	OSC. TB1/H

4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING E810779FC

DIMENSIONS IN MILLIMETRES



MACHINING TOLERANCES UNLESS STATED OTHERWISE: THIS DRAWING IS THE PROPERTY OF SCALE
INTERNAL DIMENSIONS: STATED SIZE TO ± 0.3 MM
EXTERNAL DIMENSIONS: STATED SIZE TO ± 0.3 MM
CENTRE DISTANCES ± 0.25 MM MACHINE AT V
REPRODUCED WITHOUT PERMISSION
DATE 26 - 9 - 77

TITLE TRIGGER OUTPUT CIRCUIT FOR 4 PARALLEL FED LAMPS

USED ON SYSTEM 2000L

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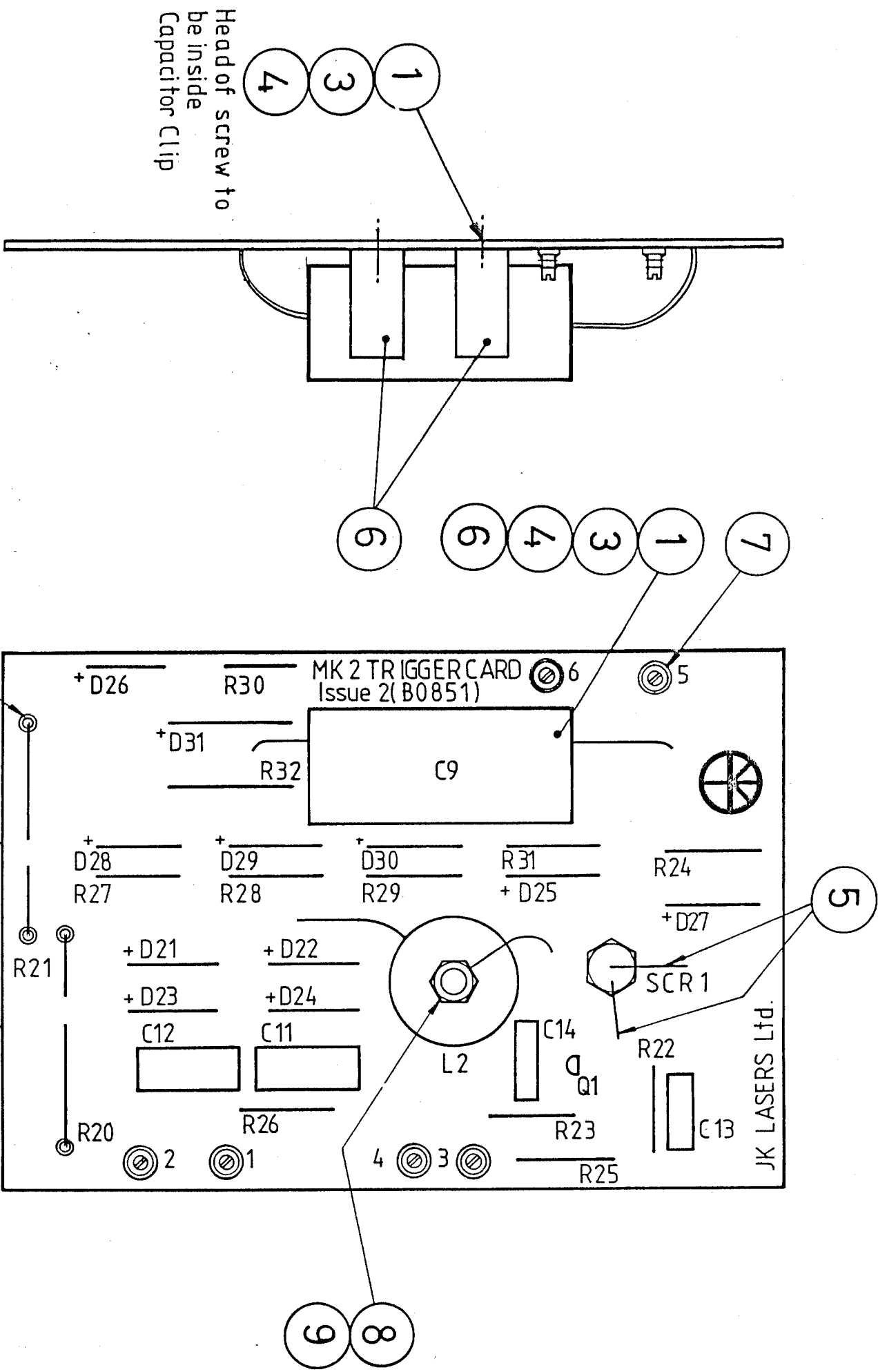
1	26-9-77
2	30-10-78
3	11-7-75

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DESIGNATION	ITEM No.
R20, R21	13
R22	14
R23	15
R24, 30, 32	16
R25	17
R26	18
R27, 28, 29	19
R31	20
C11, 12	21
C13, 14	22
C9	23
D21, 22, 23, 24	24
D28, 29, 30	25
D25	26
D26, 27, 31	27
Q1	28
SCR1	29
L2	30



NOTES:-

- Card Manufactured to Drawing E8108521B
- Card to be assembled in accordance with Silk Screened Legend

REV.	DATE/MOD.No.
1	18-8-82/MF 944
2	23-7-84
A	9-10-85/ 2840/1
B	

TITLE	THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.
MK 2 TRIGGER CARD ASSEMBLY DETAILS	

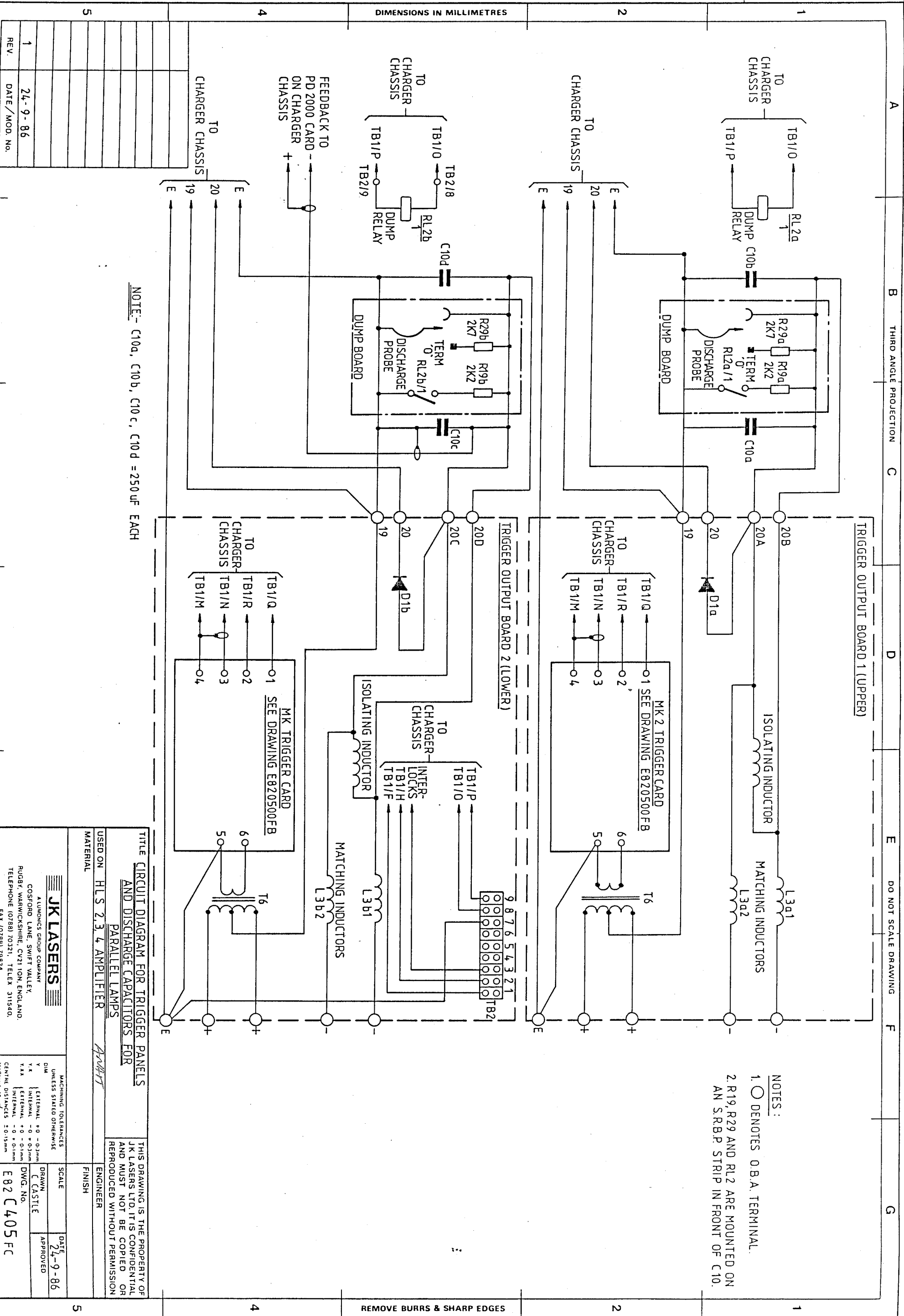
USED ON	ENGINEER
AM-17	

MATERIAL	FINISH

MACHINING TOLERANCES UNLESS STATED OTHERWISE.		SCALE	DATE
DIM			26-2-85
Y	{ EXTERNAL +0 -0.3mm	DRAWN	
Y.X	{ INTERNAL -0 +0.3mm	CJK.	
Y.X.X	{ EXTERNAL +0 -0.1mm	DWG. No.	
	{ INTERNAL -0 +0.1mm		
CENTRE DISTANCES	±0.15mm		
MACHINE AT	Y		

JK LASERS
A LUMONICS GROUP COMPANY
COSFORD LANE, SWIFT VALLEY,
RUGBY, WARWICKSHIRE, CV21 1ON, ENGLAND.
TELEPHONE (0788) 70321, TELEX 311540.
FAX (0788) 79824.

E82 0859 AB

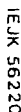


TITLE CIRCUIT DIAGRAM FOR TRIGGER PANELS AND DISCHARGE CAPACITORS FOR PARALLEL LAMPS		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION	
USED ON HLS 2,3,4 AMPLIFIER		ENGINEER	
MATERIAL		FINISH	
JK LASERS ALUMINUMS GROUP COMPANY COSFORD LANE, SWIFT VALLEY, RUGBY, WARWICKSHIRE, CV21 1ON, ENGLAND. TELEPHONE (0788) 70121, TELEX 311540. FAX (0788) 79824.		SCALE	
DRAWN C CASTLE		DATE 24-9-86	
DWG. NO. E82 C 405 FC		APPROVED	

MACHINING TOLERANCES
 UNLESS STATED OTHERWISE

DIM	SCALE
EXTERNAL +0 -0.05mm	DATE 24-9-86
INTERNAL -0 +0.05mm	APPROVED
FAK { INTERNAL +0 -0.1mm	
EXTERNAL -0 +0.1mm	
CENTRE DISTANCES 5.0-15mm	
MACHINE AT V	

NOTES:
 1. O DENOTES 0.B.A. TERMINAL.
 2. R19, R29 AND RL2 ARE MOUNTED ON AN S.R.B.P. STRIP IN FRONT OF C10.



DRAG



2

31-10-74

PASSED

2

11

二

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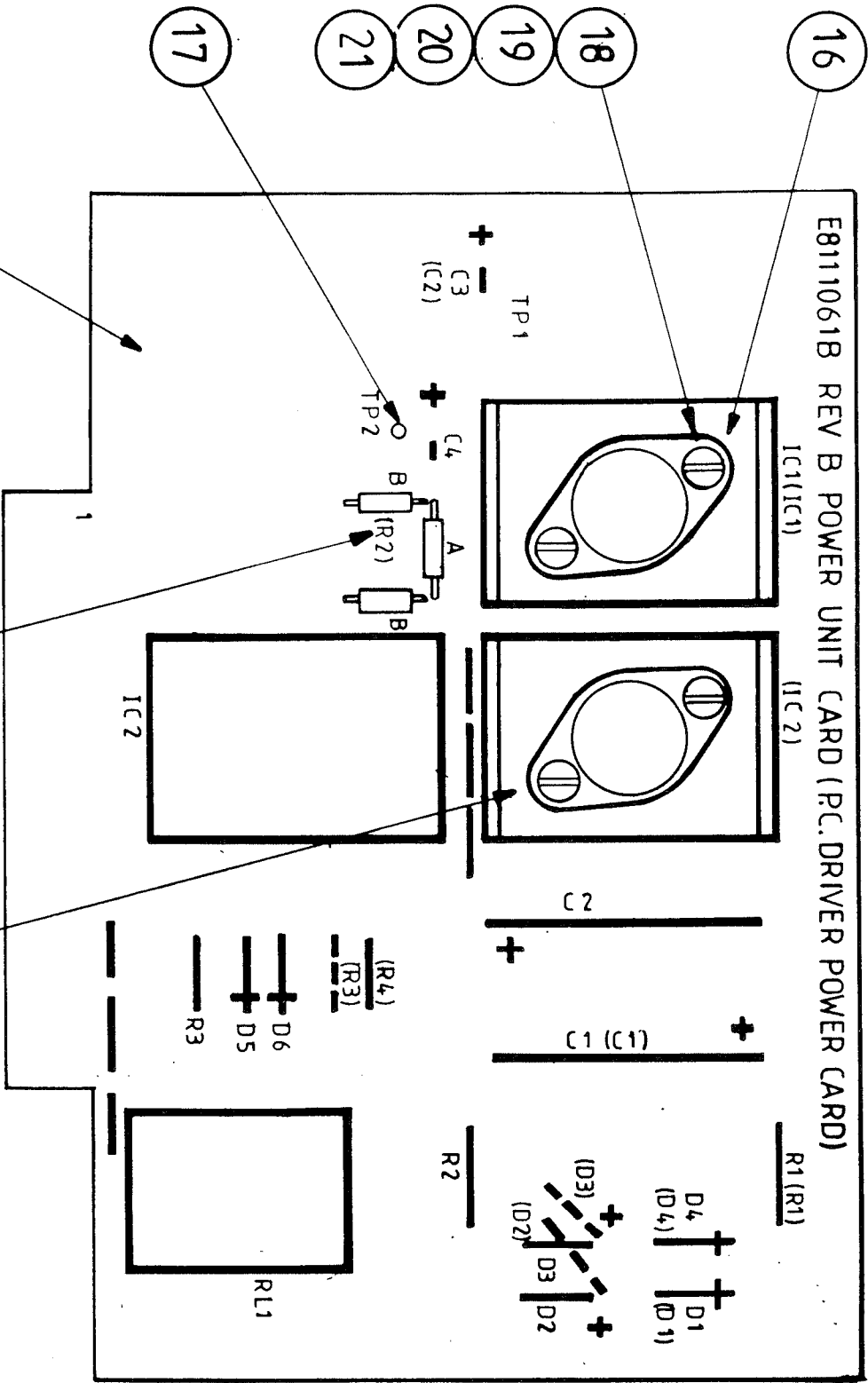
THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.

DESIGNATION	ITEM No.
R1	4
C1	9
C2	8
D1, 2, 3, 4	10
IC1	11
IC2	12
C4	23

- NOTE
1. RESISTORS R2 R3 R4 TO BE SELECTED ON TEST
 2. COMPONENT REFERENCES NOT IN BRACKETS TO BE IGNORED



WHEN ONLY A SINGLE RESISTOR FOR R2 IS REQUIRED PUT RESISTOR IN POSITION 'A' WHEN TWO RESISTORS ARE REQUIRED USE POSITIONS B-B

REV	DATE/MOD. No.
A	15-8-84
B	9-10-85 / 284013

DO NOT SCALE DWG. IF IN DOUBT - ASK.

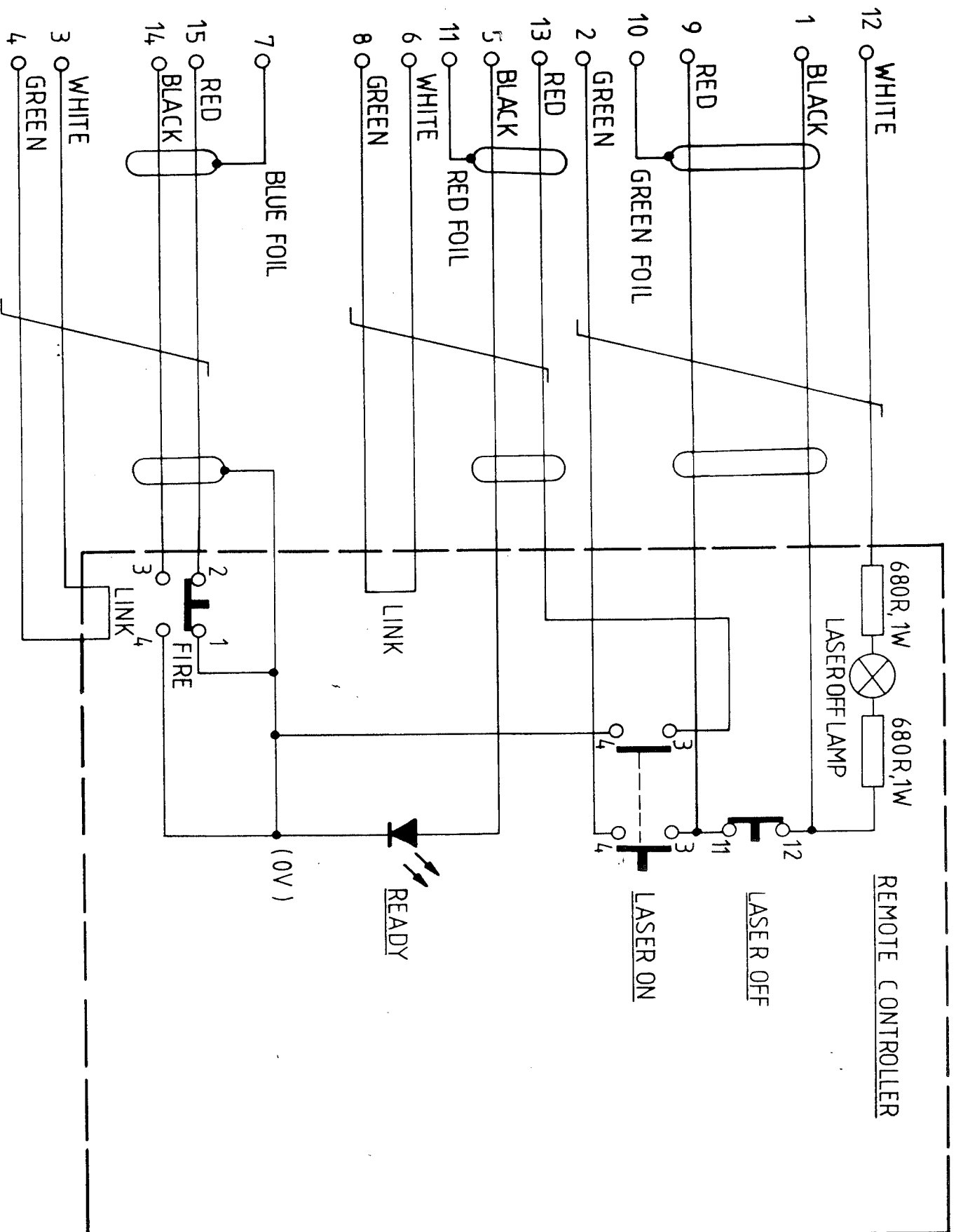
TITLE	POCKELS CELL DRIVER CARD ASSEMBLY	THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.
USED ON SINGLE AND DOUBLE POCKELS CELL DRIVER	ENGINEER	FINISH
MATERIAL	E8344900B	SCALE
		1:1
		DATE
		15-8-84

JK LASERS	MACHINING TOLERANCES	DRAWN	DATE
A LUMONICS GROUP COMPANY	UNLESS STATED OTHERWISE	2.4.84	15-8-84
COSFORD LANE, SWIFT VALLEY			
RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND			
TELEPHONE (0788) 70321. TELEX 311540			
FAX (0788) 79824			

THIRD ANGLE PROJECTION.

DIMENSIONS IN MILLIMETRES.

REMOVE BURRS & SHARP EDGES.



TITLE		THIS DRAWING IS THE PROPERTY OF JK LASERS LTD. IT IS CONFIDENTIAL AND MUST NOT BE COPIED OR REPRODUCED WITHOUT PERMISSION.	
<u>REMOTE CONTROLLER CIRCUIT DIAGRAM</u>		ENGINEER	
USED ON	HOLOGRAPHIC CONTROL UNIT	FINISH	
MATERIAL		SCALE	
		DATE	
F	16-10-85 / 2924	6-6-85	
E	ECI 2625/3	DRAWN C.J.K.	
D	MF 2373	APPROVED	
C	MF 1958	DWG. No.	
B	MF 1888	E836985 FB	
A	19-7-84		
REV.	DATE/MOD. No.		

DO NOT SCALE DWG. IF IN DOUBT - ASK.	
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JK LASERS ALLUMONICS GROUP COMPANY COSFORD LANE, SWIFT VALLEY, RUGBY, WARWICKSHIRE, CV21 1QN, ENGLAND. TELEPHONE (0788) 70321. TELEX 311540. FAX (0788) 79824.		MACHINING TOLERANCES UNLESS STATED OTHERWISE DIM Y { EXTERNAL +0 -0.3mm X { INTERNAL -0 +0.3mm Z { EXTERNAL +0 -0.1mm Y, X { INTERNAL -0 +0.1mm CENTRE DISTANCES ±0.15mm MACHINE AT ✓
---	--	---

DATE	6-6-85
DRAWN	C.J.K.
APPROVED	
DWG. No.	E836985 FB

DATE	6-6-85
DRAWN	C.J.K.
APPROVED	
DWG. No.	E836985 FB