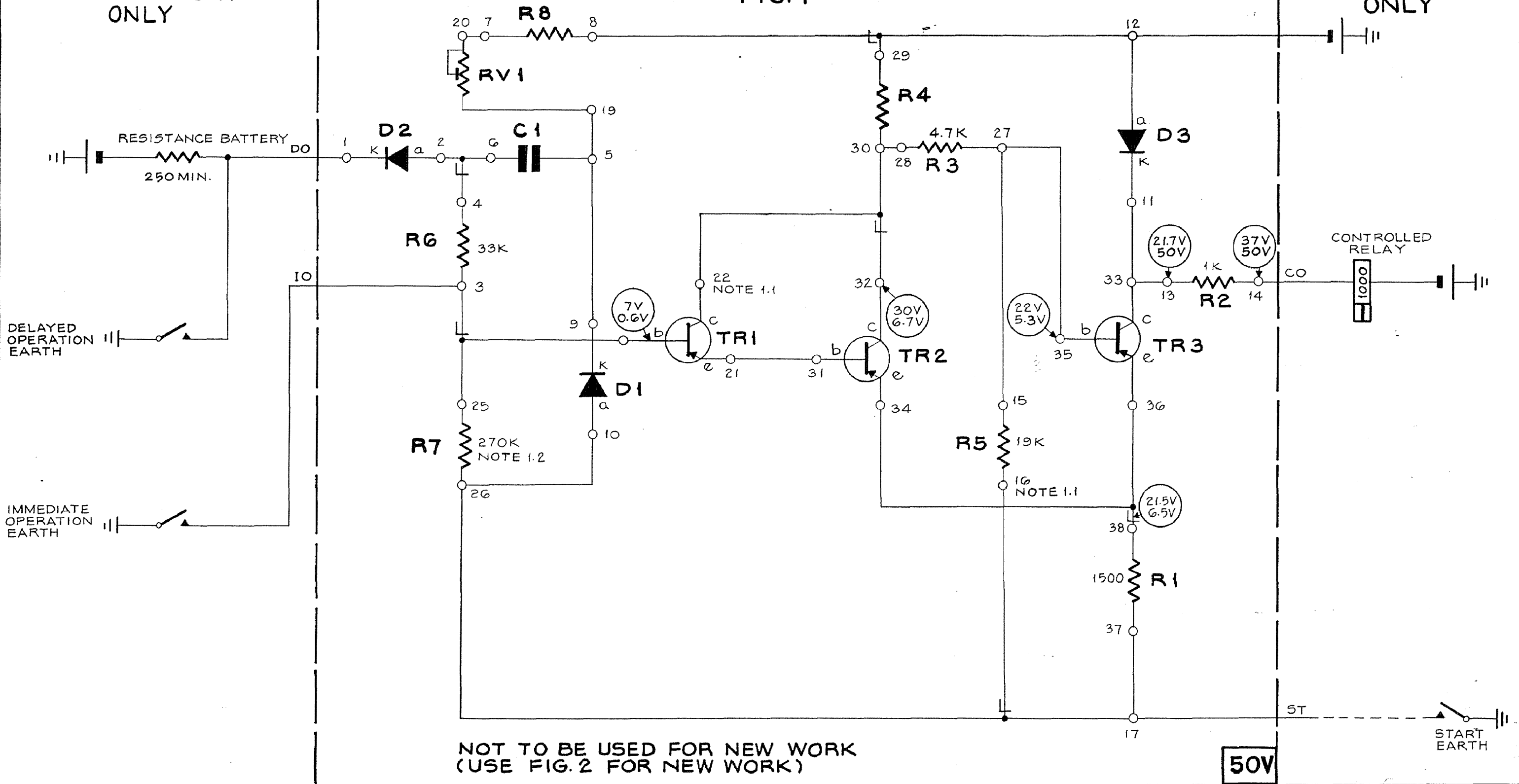


EXPLANATORY ONLY

FIG. 1

EXPLANATORY ONLY



NOT TO BE USED FOR NEW WORK  
(USE FIG. 2 FOR NEW WORK)

50V

TABLE 'A'

DELAY	R8	C1	RV1
75 M/5	560K	0.12 $\mu$ f	470K
—	—	—	—
—	—	—	—

NOTES:

- 1.1 TAG NOS ARE FOR LAYOUT SHOWN ON FIG.XA, SHEET 3 ON SOME EARLIER MODELS, TAG NOS ARE AS SHOWN ON FIG. XB, FIG.XC OF SHEET 3.
- 1.2 R7 NOT PROVIDED WHEN TR1 & TR2 ARE BCY 32.

1.3 VOLTAGE REFS. ARE TYPICAL MEASURED WITH A MODEL 8 AVO. HIGHER VOLTAGE IS WITH TRANSISTOR OFF. LOWER VOLTAGE IS WITH TRANSISTOR ON.

ELECTRONIC TIMER

FIG. 1

DEL	CKD	APD	ORDER	DATE	ISS	CHANGE	N Z P O ENGINEER-IN-CHIEF, WELLINGTON.	
DCW	KG	CJW	72961	23.6.67	A		COY NO	ORIGIN T-EQPT.
CBK	LKT	CGS	132553	31.1.80	H	RETRACED FROM TEMPORARY REPLACEMENT. TRACING 155.G, 135.77.	1 of 4	DRAWN T-EQPT. TRACED CBK.
							A3	34391

EXPLANATORY ONLY

FIG. 2

EXPLANATORY ONLY

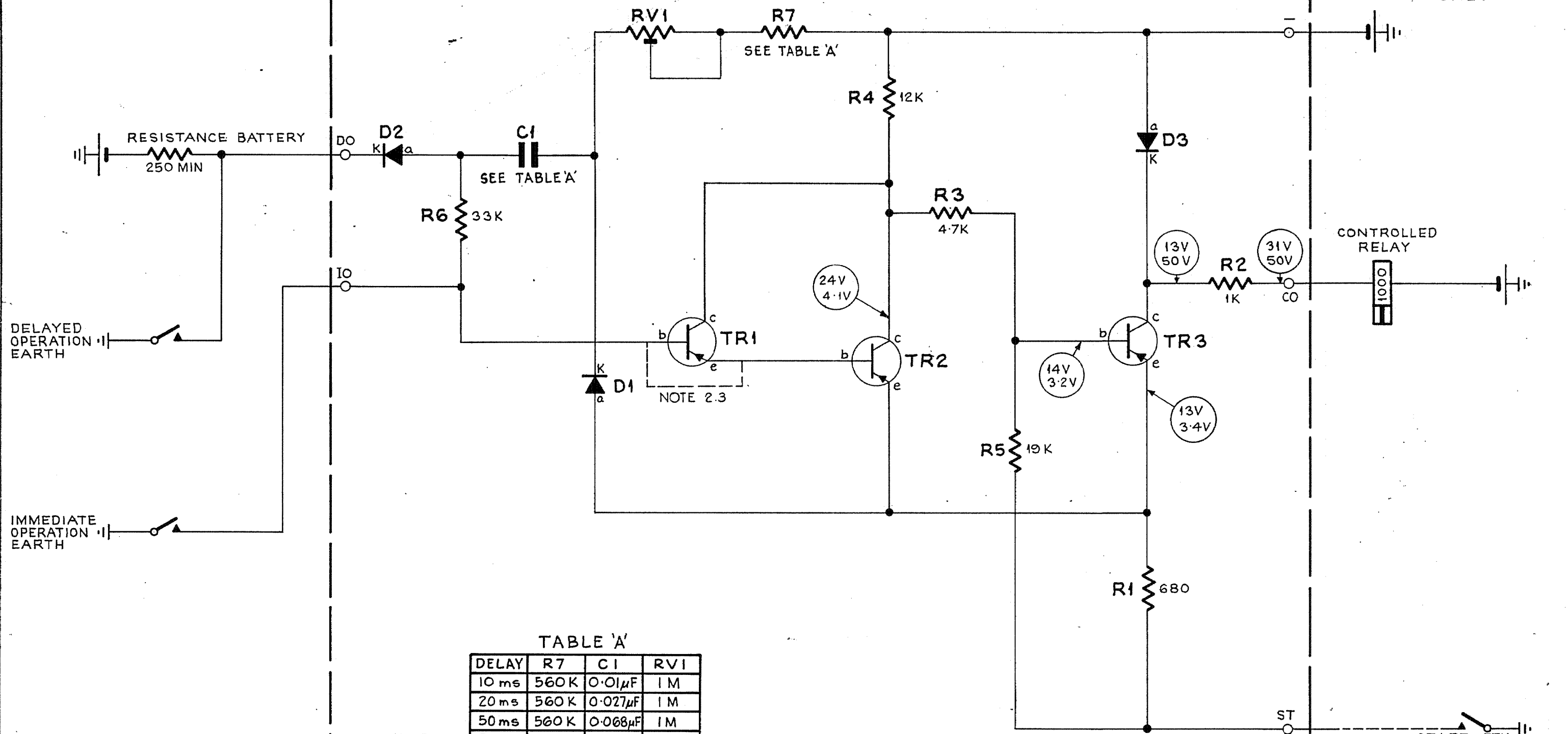


TABLE 'A'

DELAY	R7	C1	RVI
10 ms	560K	0.01μF	1M
20 ms	560K	0.027μF	1M
50 ms	560K	0.068μF	1M
75 ms	560K	0.1 μF	1M
100 ms	560K	0.15μF	1M
200 ms	560K	0.22μF	1M
500 ms	560K	0.68μF	1M
750 ms	1.0 M	0.68μF	1M
1 sec	1.5 M	0.68μF	1M
2 sec	1.5 M	2.0 μF	1M
7 sec	1.5 M	5.0 μF	1M
10 sec	1.5 M	8.0 μF	1M
30 sec	1.5 M	22.0 μF	1M

NOTE 2-2

NOTES:

- 2-1 VOLTAGE REFS. ARE TYPICAL MEASURED WITH A MODEL 8 AVO. TOP VOLTAGE READING IS WITH TR1 & TR2 OFF. LOWER VOLTAGE READING IS WITH TR1 & TR2 ON.
- 2-2 TIMER STOCKED COMPLETE EXCEPT FOR C1 & R7. THE COMPONENTS FOR THE REQUIRED TIME ARE TO BE FITTED IN ACCORDANCE WITH TABLE 'A'
- 2-3 WHEN TR2 IS MPS 3638A TR1 NOT FITTED STRAP TR1 b-e

50V

ELECTRONIC TIMER  
FIG. 2

DEL	CKD	APD	ORDER	DATE	ISS	CHANGE	N Z P O	
APSK	KG	CJW	122287	5.8.74	B	NEW INFORMATION, NOW 4 SHTS.	ENGINEER-IN-CHIEF, WELLINGTON	
JWC	GRH	CJW	122593	5.11.74	C	TABLE 'A' AMD TO SHOW COMPONENTS FOR 'ARIOUS DELAY TIMINGS	COY NO	ORIGIN: T-EQPT
PE	GRB	CJW	68366	27.1.75	D	NO CHANGE, SHT 4 AMENDED.	2 OF 4	DRAWN: T-EQPT TRACED A.P.S.
J.V.	GRB	CJW	68281	3.9.75	E	NOTE 2.3 ADD.	A3	34391
WBL	GRB	CJW	68213	26.5.76	F	NOTE 2.2 CHANGED.		
LD	KG	RED	43291	13.5.77	G	750ms DELAY ADDED TO TABLE A.		
CBK	LRT	CGS	132553	31.1.80	H	NO CHANGE, SHT. 4 AMD. & SHT. 1 RETRACED.		

# RELAY CODES AND COMPONENTS LIST

RELAY NAME	B.C.C. CODE	N.Z.P.O. CODE	B.P.O. CODE	COY. CODE	NOTES	COMPONENT DESIGNATION	B.P.C. CODE	COY. CODE	NOTES	MISC. COMPONENTS	NOTES
						R1		RADIO TYPE	1500Ω 1 WATT 5%		
						R2			1K 1 WATT 5%	MTG STRIP	BPO 176 A
						R3			4.7K 1/4 WATT 5%		
						R4			12K 1/2 WATT 5%		
						R5			19K 1/4 WATT 5%		
						R6			33K 1/4 WATT 5%		
						R7			270K 1/4 WATT 5%	NOTE 3-2	
						R8			TABLE A 560K 5%		
						TR1, 2 & 3		ACY 17 OR BCY 32 OR EQUIV		NOTE 3-2	
						D1 & D2		HS 1009 OR EQUIV			
						D3					
						C1			TABLE A 160V 2%		
						RV1			MINIATURE POTENTIOMETER 470K PRESET		

### NOTES

A - SPECIAL FACTORS OF SAFETY B - SPECIAL ADJUST. C - CCT. POINTS OR MODS.

### NOTES

- 3-1 LAYOUT TO FIG XB NOT TO BE USED FOR NEW WORK
- 3-2 TR1, TR2 TO BE OF SAME TYPE NUMBER WHEN BCY 32 USED R7 TO BE REMOVED
- 3-3 ON SAME EARLY EQUIPMENT USING FIG XB TERMINALS 15 TO 20 & 35 TO 40 ARE NOT EQUIPPED

### LAYOUT

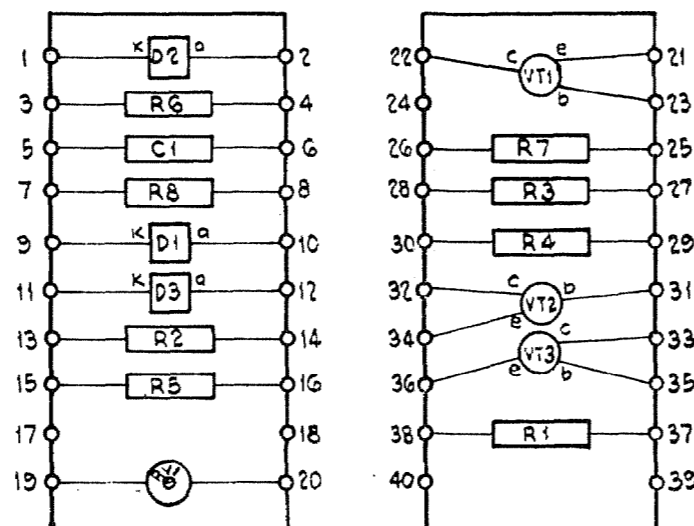


FIG XA

TABLE 'A'			
TIME	R8	C1	RV1
75ms	560K	0.12mf	470K
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

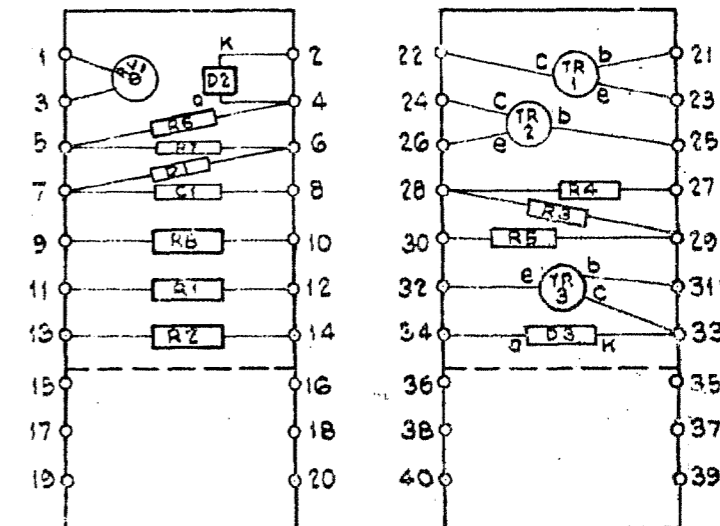
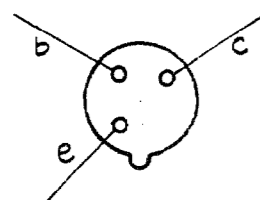


FIG XB

NOTE 3-1 & 3-3

VIEW OF TRANSISTOR BASE



NOT TO BE USED FOR NEW WORK - USE FIG. 2.

ELECTRONIC TIMER  
RCCL FIG. 1

DEL	CKD	APD	ORDER	DATE	ISS	CHANGE
LDV	RL	CJW	122961	23-8-67	A	
APS	KG	CJW	122987	5-8-74	B	WAS SHT 2 TITLE AMD
WJS	GRB	CJW	122983	5-1-74	C	MINOR AMENDS TO NOTE NUMBERS
PE	GRB	CJW	68366	27-1-75	D	NO CHANGE SHT. 4 AMENDED
JY	GRB	CJW	68281	3-9-75	E	RESTRICTION NOTE AMD
WBL	GRB	CJW	68213	26-5-76	F	NO CHANGE SHTS. 2 & 4 AMENDED
LD	KG	RED	43291	13-5-77	G	NO CHANGE SHT. 2 AMD
CBR	LRT	CGS	132553	31-1-80	H	NO CHANGE, SHT. 4 AMD & SHT. 1 RETRACED.

N.Z.P.O.  
ENGINEER-IN-CHIEF WELLINGTON

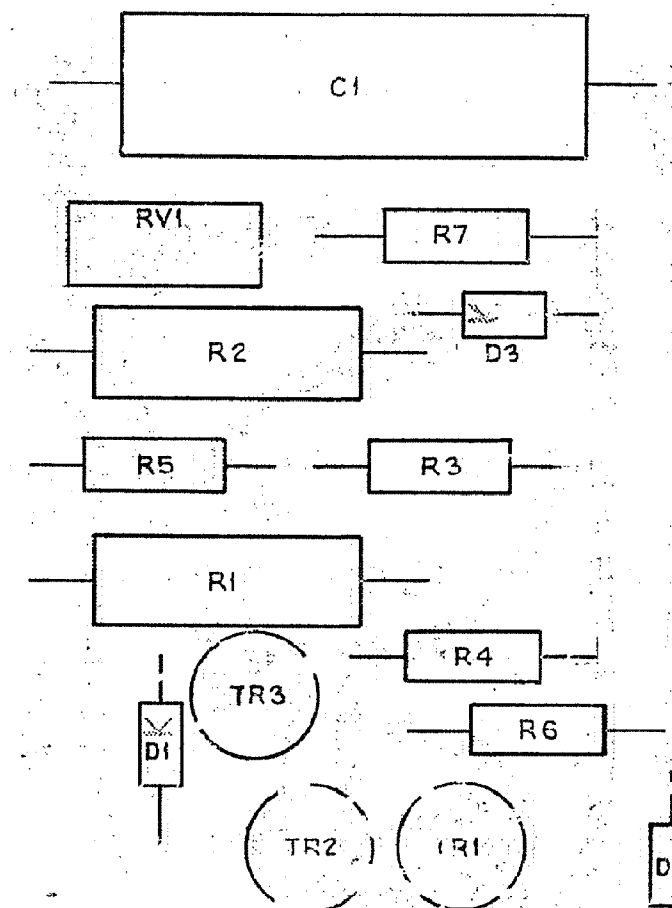
COY. No: 3 OF 4 DRAWN: T-EQPT. TRACED: DW

A3 34391

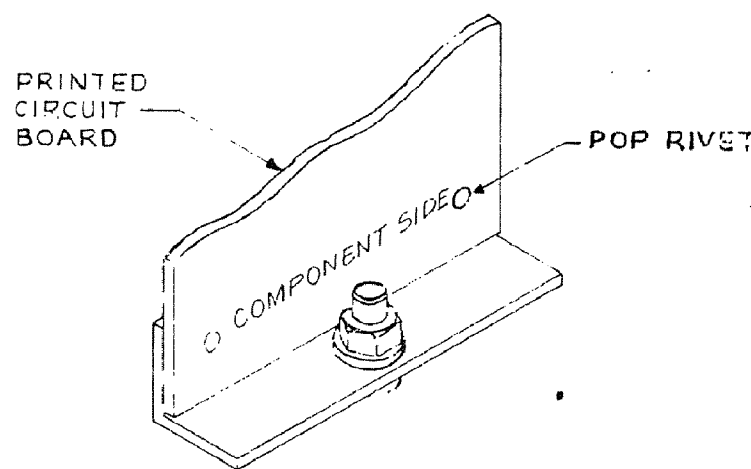
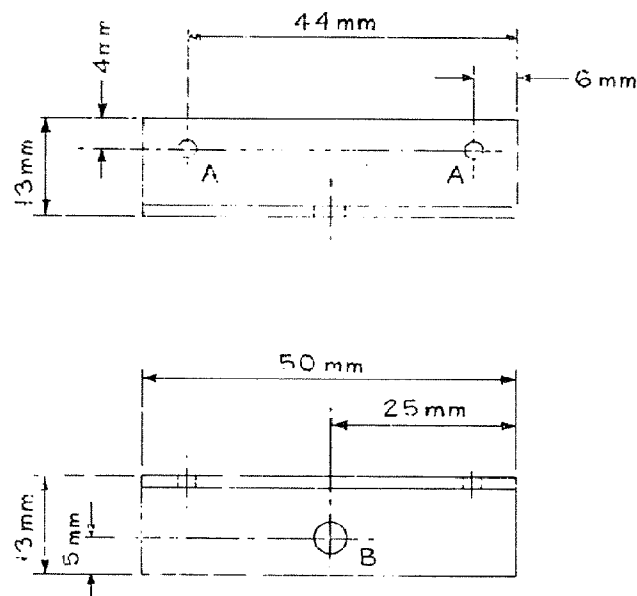
# COMPONENTS LIST

COMPONENT DESIGNATION	PHILLIPS CODE (OR EQUIV)	COY. CODE	NOTES	NZPO S.L. N°
R1	STYLE 68		680 Ω 1 WATT 5%	ER 423
R2	STYLE 68		1K 1 WATT 5%	ER 425
R3	STYLE 37		4.7K ¼ WATT 5%	ER 233
R4	STYLE 37		12K ¼ WATT 5%	ER 238
R5	STYLE 37		18K ¼ WATT 5%	ER 240
R6	STYLE 37		33K ¼ WATT 5%	ER 243
R7	STYLE 37		560K OR 1.5 MEG ¼ W 5% NOTE 2.2	ER 258 ER 263
TR1 & 2		2N 3638	NOTE 4.2	CC 846
TR2		MPS 3638A	NOTE 4.2	
TR3		2N4356	NOTE 4.1	CC 763
DI, 2 & 3		1N 5062		K907
C1			10% TOLERANCE MIN. 160V NOTE 2.2	SEE TABLE B
RV1	2322 410-05014 OR 2322 411-02214		MINIATURE POTENTIOMETER 1M PRESET.	ER 13
DELAY TIMER			COMPLETE (EXCEPT FOR C1 & R7)	K973

TABLE B		
DELAY	C1	NZPO S.L. N°
10 ms	0.01 μF	EF 180
20 ms	0.027 μF	LP
50 ms	0.068 μF	EF 185
75 ms	0.1 μF	EF 186
100 ms	0.15 μF	EF 192
200 ms	0.22 μF	EF 187
500 ms	0.68 μF	EF 194
1 sec	0.68 μF	EF 194
2.5 sec	2.0 μF	KC 330
7 sec	5.0 μF	LP
10 sec	8.0 μF	LP
30 sec	22.0 μF	LP



**FIG. 2A**  
MOUNTING BRACKET DETAILS



NOTES -  
 4.1 EARLIER CIRCUITS TR3 WAS 2N3638  
 4.2 WHEN TR2 IS MPS 3638A, TPI NOT FITTED.

DRILLING INFORMATION:-  
 'A' DRILL SIZE TO CLEAR POP RIVET.  
 'B' DRILL SIZE 4.0mm CLEAR.

MATERIAL: 13mm x 13mm x 1.6mm ALUMINIUM ANGLE  
 FINISH : AS PRODUCED.  
 QUANTITY : ONE OFF PER ASSY.

## ELECTRONIC TIMER RCCL AND PCB FIG.2

**FIG 2B**  
RCB COMPONENT SIDE  
(VIEW FROM REAR)

SUGGESTED DRILLINGS:  
 MOUNTING HOLES:- TO CLEAR POP RIVET  
 TERMINAL PINS:- TO SUIT PIN, MUST BE PRESS. FIT OR RIVETED.  
 RV1 HOLES:- 1.35mm DRILL SIZE N° 55  
 TRANSISTOR HOLES:- 0.8mm DRILL SIZE N° 68  
 OTHER COMPONENTS:- 1mm DRILL SIZE N° 60

MATERIAL: 2 OZ COPPER LAMINATE G10 (EPOXIDE GLASS).

DEL	CKD	APD	ORDER	DATE	ISS	CHANGE	N Z P O	
							ENGINEER - IN-CHIEF, WELLINGTON	
							ORIGIN: T-EQPT	
							4 OF 4	DRAWN: T-EQPT TRACED: A.P.S.
							A3	34391