

SHT No	SIZE	SUB-TITLE				ISSUE				
1	A2	SCHEMATIC TYPE AI	(FIG. 1)	NOTE I	J	K	L			
2	A2	SCHEMATIC TYPE A	(FIG. 2)	NOTE I	H	J	K			
3	A2	SCHEMATIC TYPE A	(FIG. 3)	NOTE I	L	M	N			
4	A4	U POINT WIRING			E					
5	A4	CABLE CROSS CONNECTIONS			D					
6	A3	RCCL FOR FIGS. 1-3			G	H	J			
7	A2	SCHEMATIC TYPE AI	(FIG. 4)		A	B	C	D		
8	A3	RCCL FOR FIG. 4			A	B	C	D	E	
9										
10										
11										
12										
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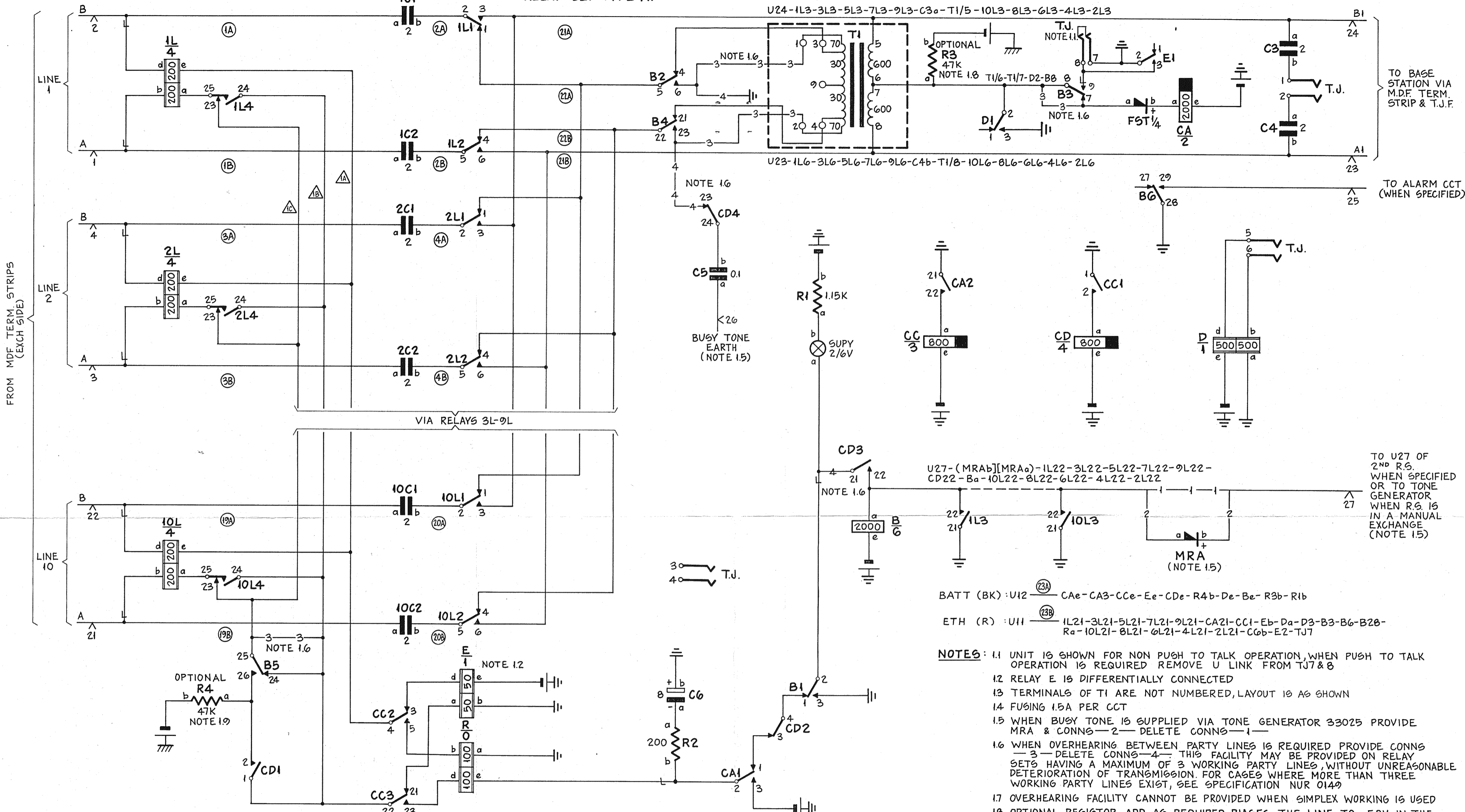
NOTES

1. SHEET 7 REPLACES SHEETS 1, 2 & 3 FOR ALL NEW WORK

MASTER TRACING, 33800.

DEL	CKD	APD	ORDER	DATE	ISS	CHANGE	N Z P O ENGINEER-IN-CHIEF WELLINGTON				
BLB	RC	CJW	46589	7-9-66	D		MOBILE RADIO TELEPHONE SERVICE PARTY LINE SWITCHING RELAY SET TYPE A AND AI (INDEX SHEET)				
CBP	GRB	BCH	55929	26-4-76	L	RETRACED FROM ISS K OF 21-11-74. SHTS 1-6 AMD. SHTS 7 & 8 ADDED.					
GRM	GRB	B.S.H	68091	23-7-76	M	SHT 8 AMD.					
AJB	DGT	LEZ	43948	24-5-77	N	SHTS 7 & 8 AMD.					
GRL	DGD	SLK	28514	12-1-84	P	SHTS 1-3, 6-8 AMD.					
WJS	DGD	RJH	55295	24-9-84	Q	SHTS 1-3, 6 & 8 AMD. SHTS 1-3 & 7 RETRACED.					
							COY. No:	IND	EC 31636		
							ORIGIN: T-EQPT.	A4			
							DWN: T-EQPT. TCD:				

RELAY SET TYPE A1



FROM MDF TERM STRIPS (EXCH SIDE)

TO BASE STATION VIA M.D.F. TERM. STRIP & T.J.F.
TO ALARM CCT (WHEN SPECIFIED)

TO U27 OF 2ND R.S. WHEN SPECIFIED OR TO TONE GENERATOR WHEN R.S. IS IN A MANUAL EXCHANGE (NOTE 1.5)

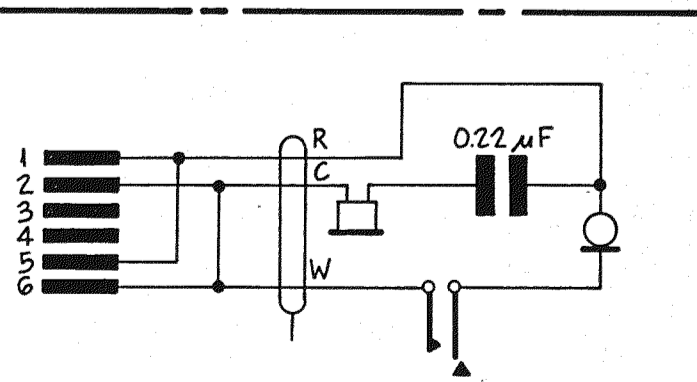


FIG. 1 TEST HANDSET
HANDSET BPO N° 6 EQUIPPED WITH SWITCH & WITHOUT CORD
SL.HC 561C OR HC 561D
PLUG SL.LH705
CORD SL.KC 996

- WIRE RUN**
- 1A 1Le-3Le-5Le-7Le-9Le-CC4-10Le-8Le-6Le-4Le-2Le
 - 1B 1L24-3L24-5L24-7L24-9L24-CC22-CD1-B24-10L24-8L24-6L24-4L24-2L24
 - 1C 1L23-3L23-5L23-7L23-9L23-B25-10L23-8L23-6L23-4L23-2L23
 - 2A 1L1-3L1-5L1-7L1-9L1-B5-10L1-8L1-6L1-4L1-2L1
 - 2B 1L4-3L4-5L4-7L4-9L4-B22-10L4-8L4-6L4-4L4-2L4

BATT (BK) : U12 (23A) CAe-CA3-CCe-Ee-CDe-R4b-De-Be-R3b-R1b
ETH (R) : U11 (23B) 1L21-3L21-5L21-7L21-9L21-CA21-CC1-Eb-Da-D3-B3-B6-B26-Ra-10L21-8L21-6L21-4L21-2L21-CC6b-E2-TJ7

- NOTES:**
- 1.1 UNIT IS SHOWN FOR NON PUSH TO TALK OPERATION, WHEN PUSH TO TALK OPERATION IS REQUIRED REMOVE U LINK FROM TJ7 & 8
 - 1.2 RELAY E IS DIFFERENTIALLY CONNECTED
 - 1.3 TERMINALS OF T1 ARE NOT NUMBERED, LAYOUT IS AS SHOWN
 - 1.4 FUSING 1.5A PER CCT
 - 1.5 WHEN BUSY TONE IS SUPPLIED VIA TONE GENERATOR 33025 PROVIDE MRA & CONNS-2- DELETE CONNS-1-
 - 1.6 WHEN OVERHEARING BETWEEN PARTY LINES IS REQUIRED PROVIDE CONNS-3- DELETE CONNS-4- THIS FACILITY MAY BE PROVIDED ON RELAY SETS HAVING A MAXIMUM OF 3 WORKING PARTY LINES, WITHOUT UNREASONABLE DETERIORATION OF TRANSMISSION. FOR CASES WHERE MORE THAN THREE WORKING PARTY LINES EXIST, SEE SPECIFICATION NUR 0149
 - 1.7 OVERHEARING FACILITY CANNOT BE PROVIDED WHEN SIMPLEX WORKING IS USED
 - 1.8 OPTIONAL RESISTOR, ADD AS REQUIRED. BIASES THE LINE TO -50V IN THE IDLE CONDITION TO PREVENT AN INVALID SIGNALLING CONDITION BEING PRESENTED TO THE RADIO BASE STATION.
 - 1.9 OPTIONAL RESISTOR, ADD AS REQUIRED. PROVIDES A LEAKAGE PATH TO DISCHARGE IDLE SUBSCRIBER LINES TO PREVENT A SUBSCRIBER CRASHING IN ON A WORKING CHANNEL

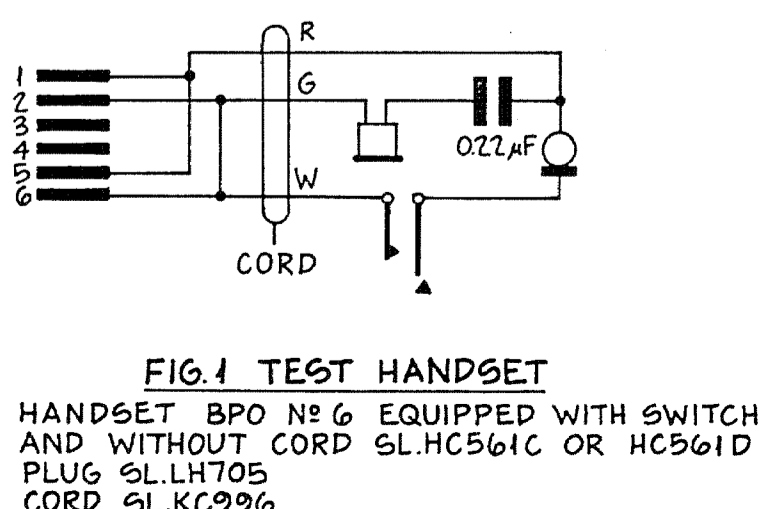
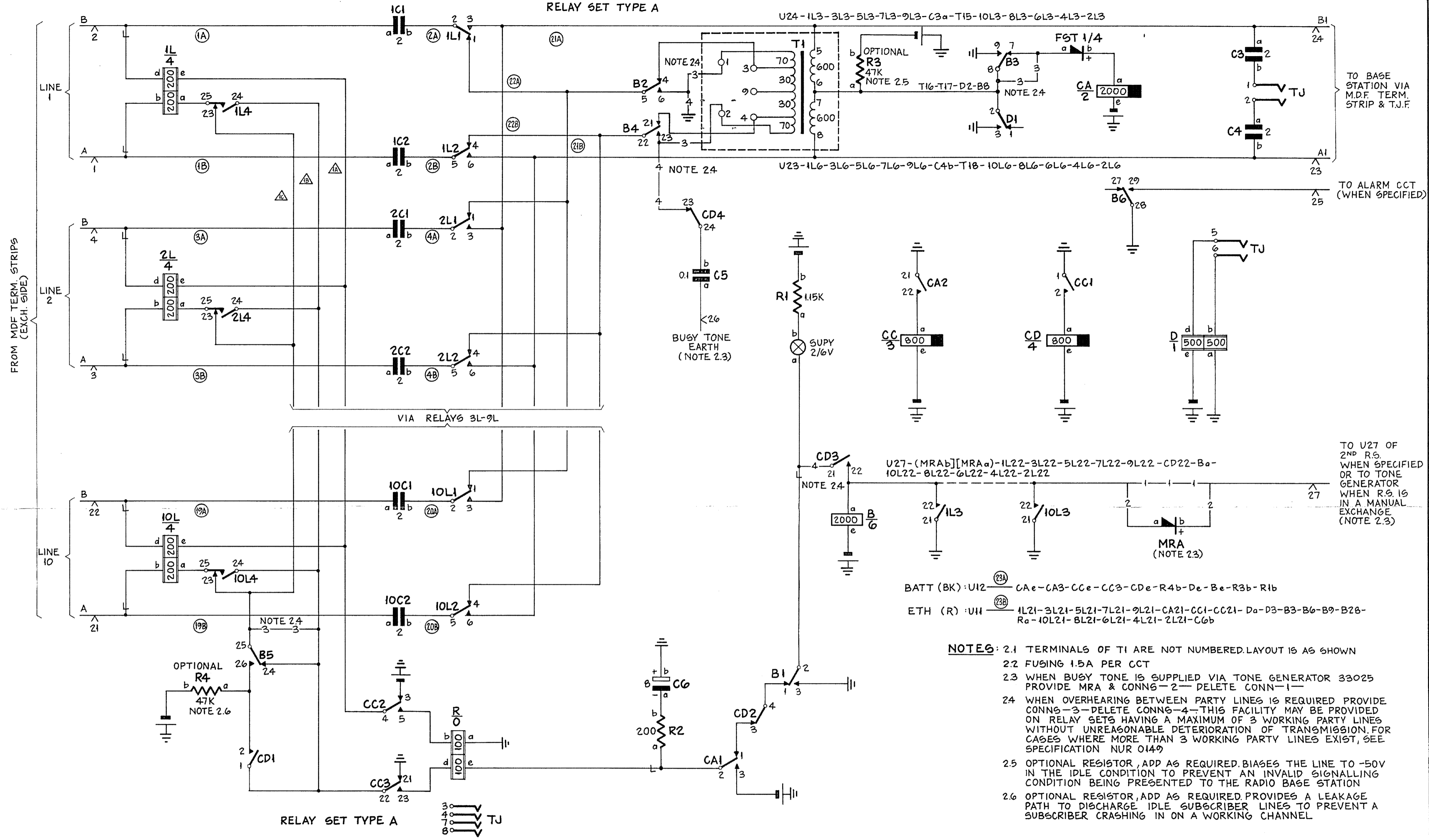
FOR NEW WORK USE EC31636 FIG.4

L	24.9.84	RETRACTED FROM ISSK 12.1.84. NOTES 1.8 & 1.9 ADDED
B	16.2.85	
ISS DATE		CHANGE

MOBILE RADIO TELEPHONE SERVICE PARTY LINE SWITCHING RELAY SET TYPE A & A1

(SCHEMATIC TYPE A1 FIG.1)

DRN	TRANS	CKD	ORIGIN	RADIO
TCD	RIG	APPD	STANDARD	
NZPO ENGINEER-IN-CHIEF, WELLINGTON				
SHT	1	EC	31636	
SIZE	A2			



- WIRE RUN**
- △ 1Le-3Le-5Le-7Le-9Le-CC4-10Le-8Le-6Le-4Le-2Le
 - △ 1L24-3L24-5L24-7L24-9L24-CC24-CD1-B24-10L24-8L24-6L24-4L24-2L24
 - △ 1L23-3L23-5L23-7L23-9L23-B25-10L23-8L23-6L23-4L23-2L23
 - ②A 1L1-3L1-5L1-7L1-9L1-B5-10L1-8L1-6L1-4L1-2L1
 - ②B 1L4-3L4-5L4-7L4-9L4-B22-10L4-8L4-6L4-4L4-2L4

FOR NEW WORK USE EC31636
FIG. 4

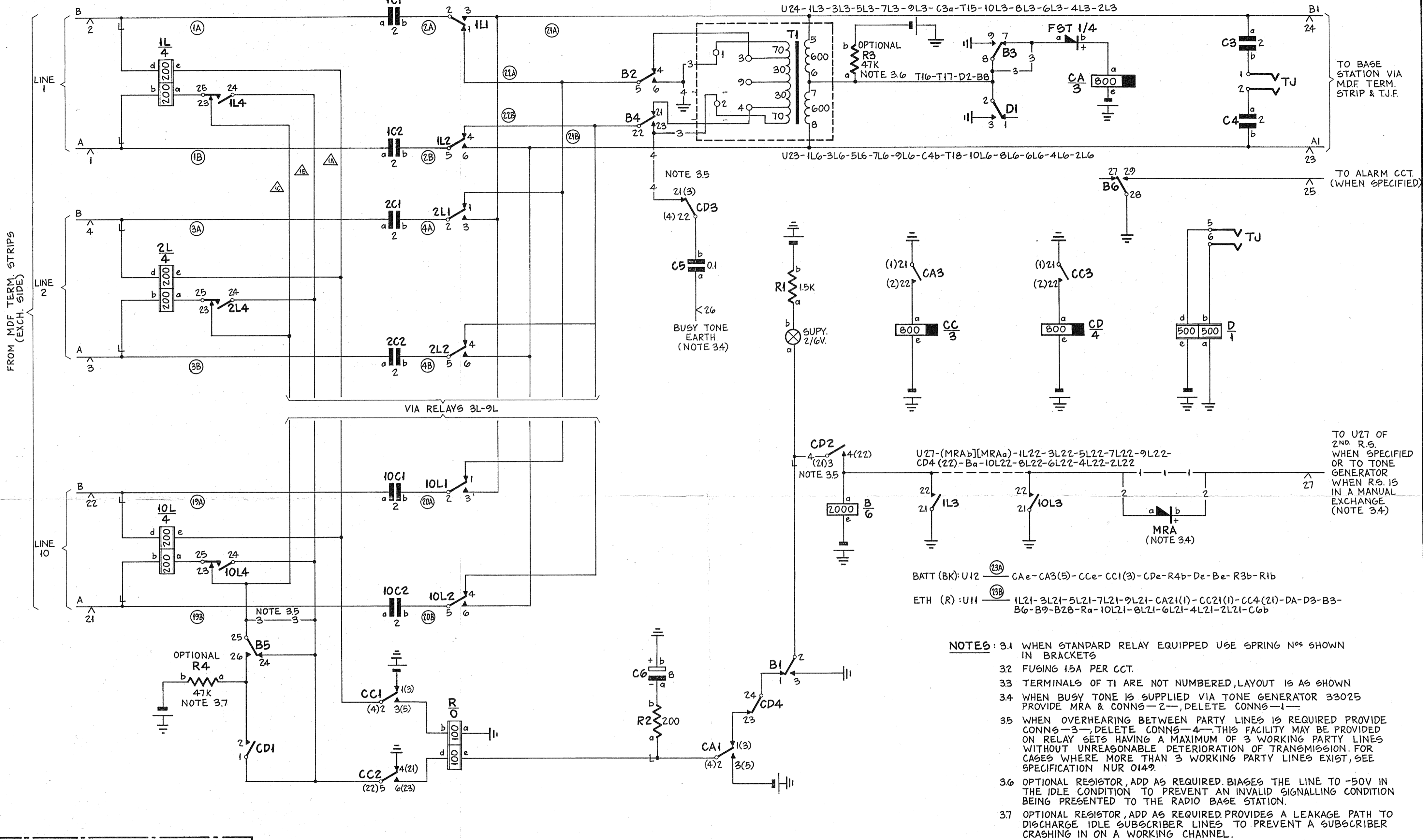
K	24.9.84	RETRACED FROM 159.J.12.104. NOTES 2.5 & 2.6 ADDED
B	16.2.65	
ISS DATE		CHANGE

**MOBILE RADIO TELEPHONE SERVICE
PARTY LINE SWITCHING RELAY SET
TYPE A & A1**

(SCHEMATIC TYPE A FIG. 2)

DRN T-EQPT	CKD	ORIGIN RADIO
TCD R B	APPD	STANDARD
NZPO ENGINEER-IN-CHIEF, WELLINGTON		
SHT	2	EC 31636
SIZE	A2	

RELAY SET TYPE A



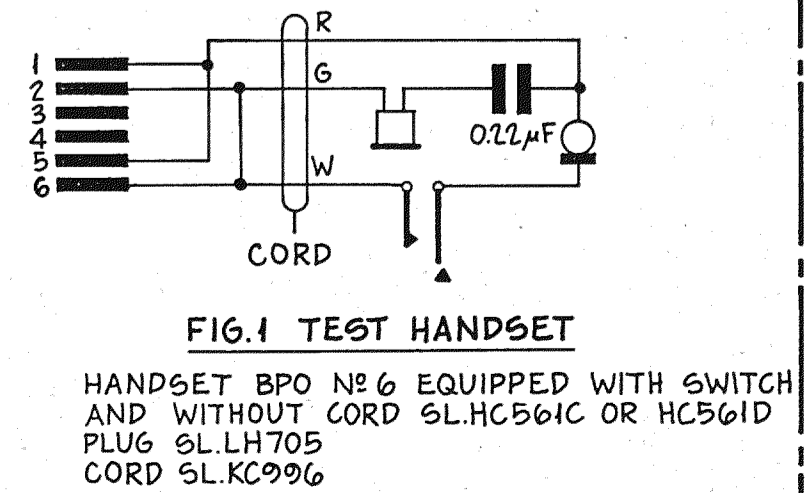
TO BASE STATION VIA MDF TERM. STRIP & T.J.F.

TO ALARM C.T. (WHEN SPECIFIED)

TO U27 OF 2ND R.S. WHEN SPECIFIED OR TO TONE GENERATOR WHEN R.S. IS IN A MANUAL EXCHANGE (NOTE 3.4)

BATT (BK): U12 CAe-CA3(5)-CCe-CC1(3)-CDe-R4b-De-Be-R3b-R1b
 ETH (R): U11 1L21-3L21-5L21-7L21-9L21-CA21(1)-CC21(1)-CC4(21)-DA-D3-B3-B6-B9-B28-Ra-10L21-8L21-6L21-4L21-2L21-C6b

- NOTES:**
- 3.1 WHEN STANDARD RELAY EQUIPPED USE SPRING NOS SHOWN IN BRACKETS
 - 3.2 FUSING 1.5A PER CCT.
 - 3.3 TERMINALS OF T1 ARE NOT NUMBERED, LAYOUT IS AS SHOWN
 - 3.4 WHEN BUSY TONE IS SUPPLIED VIA TONE GENERATOR 33025 PROVIDE MRA & CONNS-2, DELETE CONNS-1
 - 3.5 WHEN OVERHEARING BETWEEN PARTY LINES IS REQUIRED PROVIDE CONNS-3, DELETE CONNS-4. THIS FACILITY MAY BE PROVIDED ON RELAY SETS HAVING A MAXIMUM OF 3 WORKING PARTY LINES WITHOUT UNREASONABLE DETERIORATION OF TRANSMISSION. FOR CASES WHERE MORE THAN 3 WORKING PARTY LINES EXIST, SEE SPECIFICATION NUR 0149.
 - 3.6 OPTIONAL RESISTOR, ADD AS REQUIRED. BIASES THE LINE TO -50V IN THE IDLE CONDITION TO PREVENT AN INVALID SIGNALLING CONDITION BEING PRESENTED TO THE RADIO BASE STATION.
 - 3.7 OPTIONAL RESISTOR, ADD AS REQUIRED PROVIDES A LEAKAGE PATH TO DISCHARGE IDLE SUBSCRIBER LINES TO PREVENT A SUBSCRIBER CRASHING IN ON A WORKING CHANNEL.



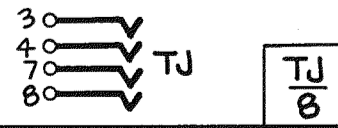
- WIRE RUN**
- 11Le-3Le-5Le-7Le-9Le-CC2(4)-10Le-8Le-6Le-4Le-2Le
 - 11B 1L24-3L24-5L24-7L24-9L24-CC5(22)-CD1-B24-10L24-8L24-6L24-4L24-2L24
 - 11C 1L23-3L23-5L23-7L23-9L23-B25-10L23-8L23-6L23-4L23-2L23
 - 21A 1L1-3L1-5L1-7L1-9L1-B5-10L1-8L1-6L1-4L1-2L1
 - 21B 1L4-3L4-5L4-7L4-9L4-B22-10L4-8L4-6L4-4L4-2L4

FOR NEW WORK USE EC 31636

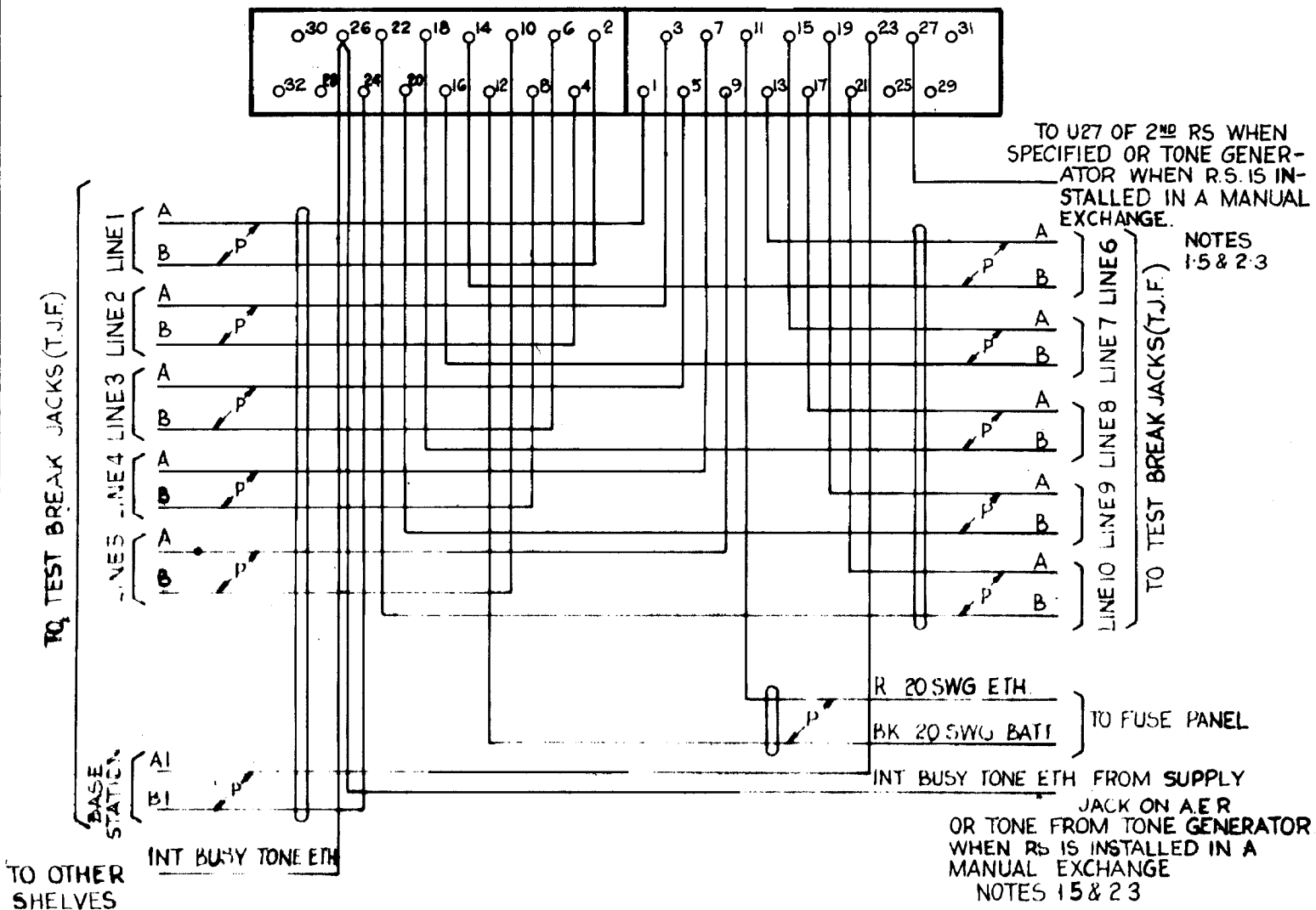
N	24984	RETRACED FROM 159.M 12.1.84. NOTES 3.6 & 3.7 ADDED
B	167.65	
ISS DATE		CHANGE

MOBILE RADIO TELEPHONE SERVICE
 PARTY LINE SWITCHING RELAY SET
 TYPE A & A1
 (SCHEMATIC TYPE A FIG. 3)

DRN T.EQPT	CKD	ORIGIN T.EQPT
TCD RB	APPD	STANDARD
NZPO ENGINEER-IN-CHIEF, WELLINGTON		
SHT	3	EC 31636
SIZE	A2	



AS SEEN FROM REAR.



NOTE 4: WHEN MORE THAN 10 PARTY-LINES ARE REQUIRED, USE 2 RELAY SETS AND STRAP U23-U23, U24-U24 & U27-U27.

ISS	DATE	CHANGE	N Z P O ENGINEER-IN-CHIEF WELLINGTON.	
B	16-2-65	TITLE CHANGED WAS SHEET 2 OF 29217	MOBILE RADIOTELEPHONE SERVICE PARTY-LINE SWITCHING RELAY SET TYPE A AND A1 (J-POINT WIRING)	
C	30-8-65	MINOR AMENDMENTS		
D	21-12-70	MINOR AMENDMENTS		
E	26-4-76	TITLE AMD.		
COY. N ^o		SHT.	4	31636
ORIGIN: RADIO SEC		A4		
DWN-T-EQPT TCD: R.B				

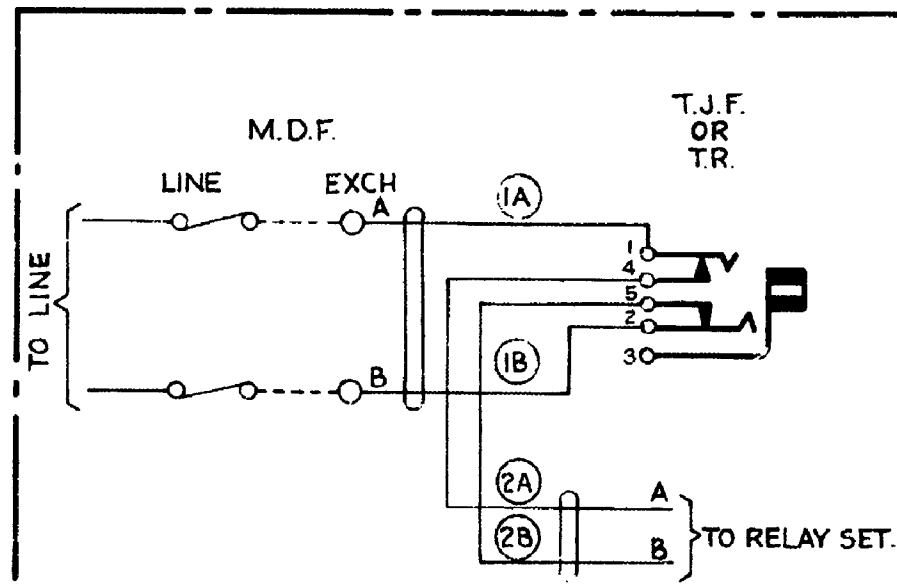
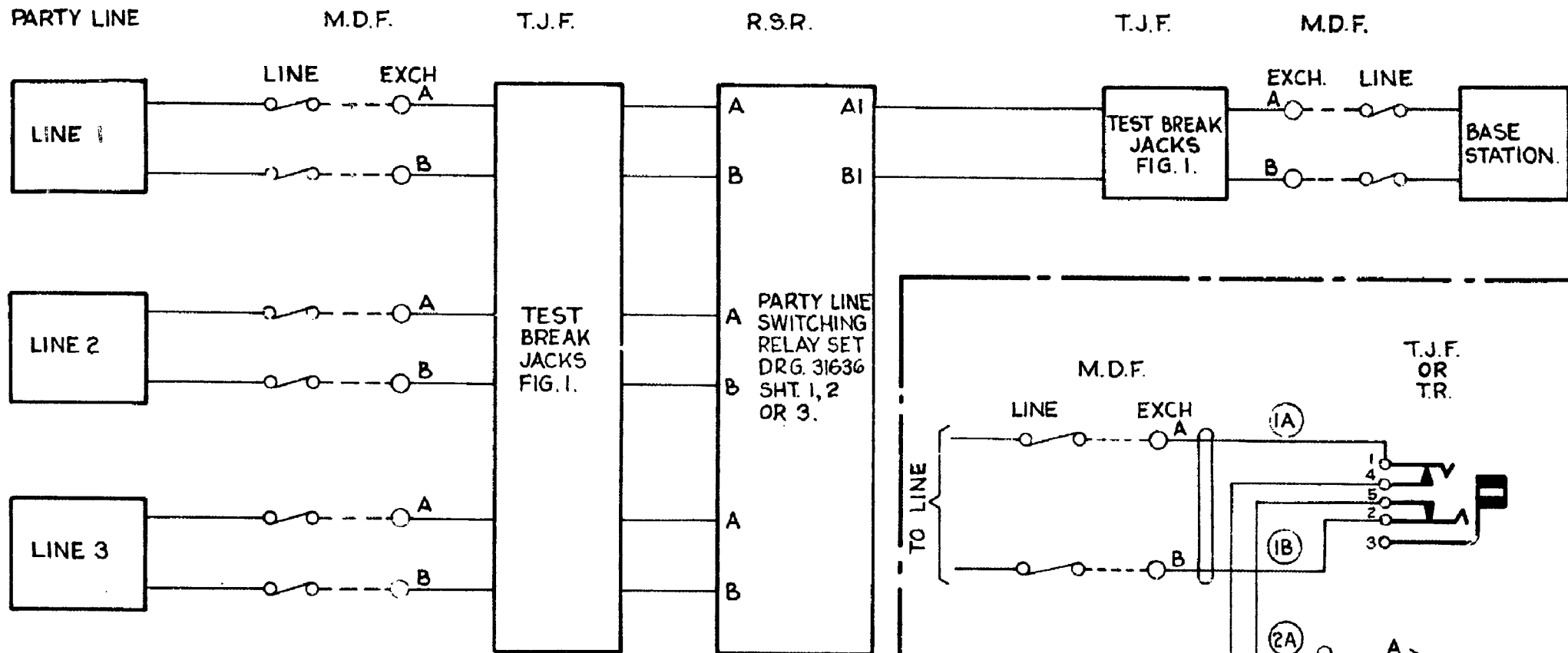


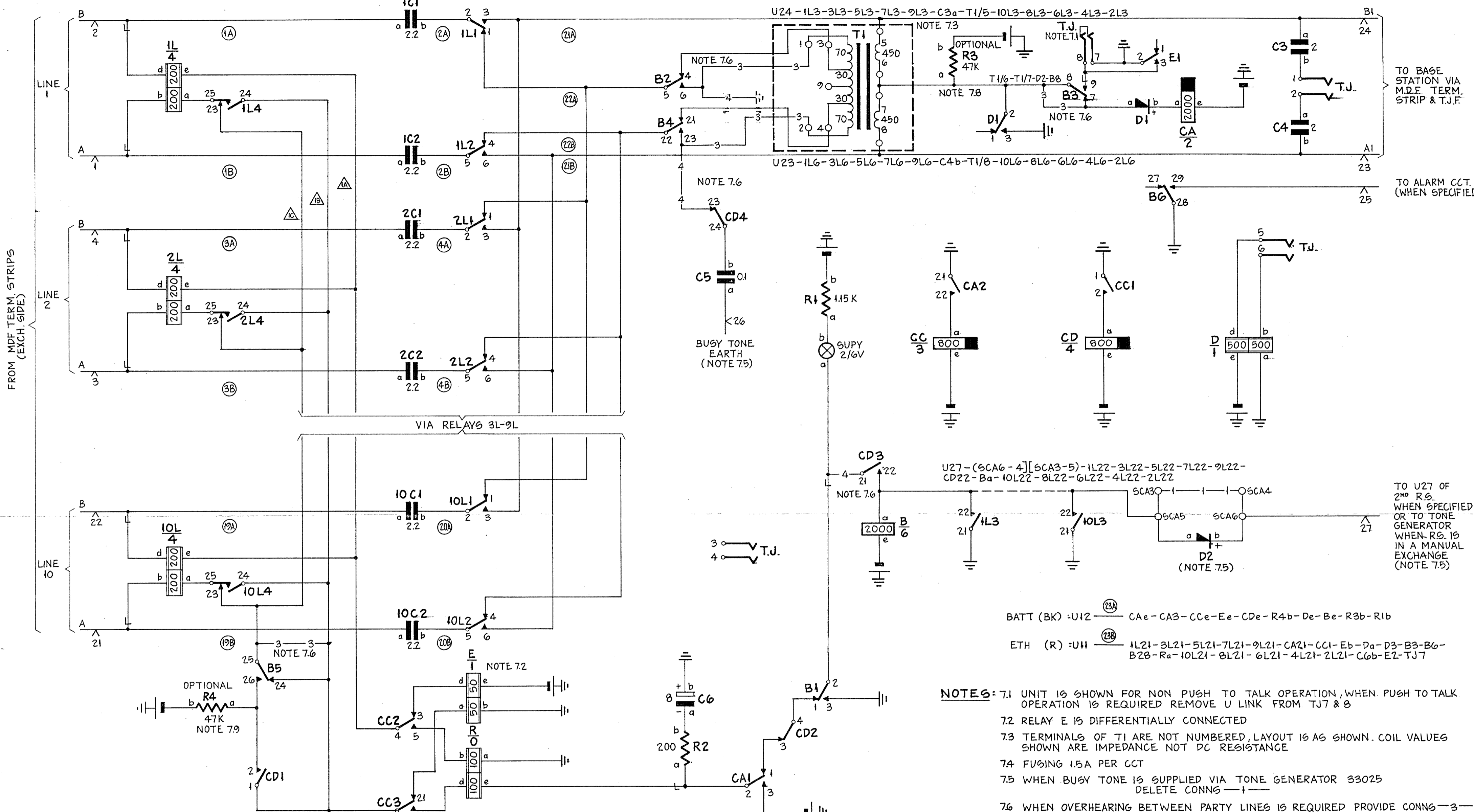
FIG. 1.
TEST BREAK JACKS
(11 PER RELAY SET)

MOBILE RADIOTELEPHONE SERVICE
PARTY-LINE SWITCHING
RELAY SET. TYPE A AND A1
(CABLE CROSS CONNECTIONS)

ISS	DATE	CHANGE
B	16.2.65	FORMERLY SHEET 3 OF 29217
C	30.8.65	NO CHANGE SHEETS 1, 2, 3, 4 AMENDED.
D	26.4.76	TITLE AMD.

NZPO	
ENGINEER-IN-CHIEF WELLINGTON	
COY NO	ORIGIN: RADIO
SHT. 5	DRAWN: T-EQPT
A4	TRACED: R.B.
31636	

RELAY SET TYPE A1



WIRE RUN

1A	1Le-3Le-5Le-7Le-9Le-CC4-10Le-8Le-6Le-4Le-2Le
1B	1L24-3L24-5L24-7L24-9L24-CC22-CD1-B24-10L24-8L24-6L24-4L24-2L24
1C	1L23-3L23-5L23-7L23-9L23-B25-10L23-8L23-6L23-4L23-2L23
22A	1L1-3L1-5L1-7L1-9L1-B5-10L1-8L1-6L1-4L1-2L1
22B	1L4-3L4-5L4-7L4-9L4-B22-10L4-8L4-6L4-4L4-2L4

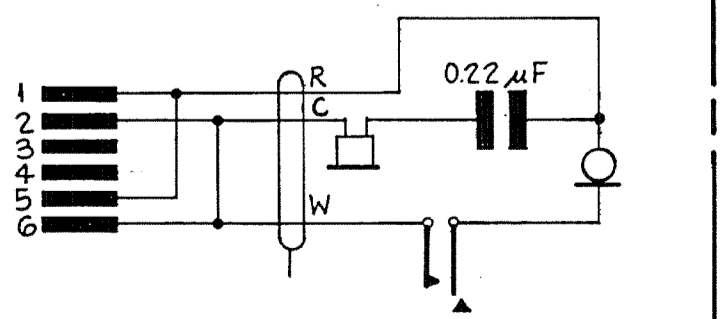


FIG. 1. TEST HANDSET
HANDSET BPO No. 6 EQUIPPED WITH SWITCH & WITHOUT CORD SL.HC.561C OR HC.561D PLUG SL.LH705 CORD SL.KC996

- NOTES:**
- 7.1 UNIT IS SHOWN FOR NON PUSH TO TALK OPERATION, WHEN PUSH TO TALK OPERATION IS REQUIRED REMOVE U LINK FROM TJ7 & 8
 - 7.2 RELAY E IS DIFFERENTIALLY CONNECTED
 - 7.3 TERMINALS OF T1 ARE NOT NUMBERED, LAYOUT IS AS SHOWN. COIL VALUES SHOWN ARE IMPEDANCE NOT DC RESISTANCE
 - 7.4 FUSING 1.5A PER CCT
 - 7.5 WHEN BUSY TONE IS SUPPLIED VIA TONE GENERATOR 33025 DELETE CONNS —
 - 7.6 WHEN OVERHEARING BETWEEN PARTY LINES IS REQUIRED PROVIDE CONNS — 3 — DELETE CONNS — 4 — THIS FACILITY MAY BE PROVIDED ON RELAY SETS HAVING A MAXIMUM OF 3 WORKING PARTY LINES, WITHOUT UNREASONABLE DETERIORATION OF TRANSMISSION. FOR CASES WHERE MORE THAN THREE WORKING PARTY LINES EXIST, SEE SPECIFICATION NURO 149
 - 7.7 OVERHEARING FACILITY CANNOT BE PROVIDED WHEN SIMPLEX WORKING IS USED
 - 7.8 OPTIONAL RESISTOR, ADD AS REQUIRED. BIASES THE LINE TO -50V IN THE IDLE CONDITION TO PREVENT AN INVALID SIGNALLING CONDITION BEING PRESENTED TO THE RADIO BASE STATION
 - 7.9 OPTIONAL RESISTOR, ADD AS REQUIRED. PROVIDES A LEAKAGE PATH TO DISCHARGE IDLE SUBSCRIBER LINES TO PREVENT A SUBSCRIBER CRASHING IN ON A WORKING CHANNEL

BATT (BK) : U12 — 23A CAe-CA3-CCe-Ee-CDe-R4b-De-Be-R3b-R1b

ETH (R) : U11 — 23B 1L21-3L21-5L21-7L21-9L21-CA21-CC1-Eb-Da-D3-B3-B6-B28-Ra-10L21-8L21-6L21-4L21-2L21-C6b-E2-TJ7

D	24-984	RETRACED FROM 195C 1216A, NOTES 7.8 & 7.9 ADDED
A	26476	
ISS DATE	CHANGE	

MOBILE RADIO TELEPHONE SERVICE PARTY LINE SWITCHING RELAY SET TYPE A & A1
(SCHEMATIC TYPE A1 FIG. 4)

DRN TRANS	CKD	ORIGIN	RADIO
TCD	RIG	APPD	STANDARD
NZPO ENGINEER-IN-CHIEF, WELLINGTON			
SHT	7	EC	31636
SIZE	A2		

RELAY CODES AND COMPONENTS LIST

RELAY NAME	B.C.C. CODE	N.Z.P.O. CODE	B.P.O. CODE	COY. CODE	NOTES	STOCK LIST N ^o	COMPONENT DESIGNATION	B.P.O. CODE	COY. CODE	NOTES	STOCK LIST N ^o	MISC. COMPONENTS	NOTES	STOCK LIST N ^o
B	B 6300	50298 AA				WS	C1-C2		PHILLIPS CODE OR EQUIV 2222 342 45225	2.2 μ F MIN 150V WORKING	LP	MTG PLATE	RS2 / 3000 / 20	LH 688
CA	B 50155	50295 PD12				WS							PLUGS	BPO 3201
CC	B 6447	50299 VD6				WS	C3-C4	102C		2 μ F	KC313	TJ	BPO 21H	LC 147B
CD	B 50156	50296 PD6				WS	C5		RADIO TYPE	MTD UNDER PLUG BRACKET 0.1 μ F 400V WORKING	LP	CAP CLIP	BPO 42	KC 404
D		54114 FB				WS	C6		RADIO TYPE	8 μ F 350V WORKING	LP			
E	B 20712					WS	D1		IN 4003		K905	TERM STRIP	1/DST/844 (SCA)	LH814
L	B 50154	54113 FB				WS	D2		IN 4003	NOTE 7.5	K905	SCREWS	4BA X $\frac{3}{4}$ "	LH610
R	B 50152	54116 FD12			RETARD	K142	R1	35B		1150 OHMS	KB 353	INS PLATE	1/5PL/196	LE811
							R2	6		200 OHMS	KB 169			
							T1			TRANSFORMER TO NZPO SPEC R181	EL 258			
							R3	(RADIO TYPE)		47 K Ω MTD OPTIONAL ON RELAY B TAGS	ER 345			
							R4	(RADIO TYPE)		47 K Ω MTD OPTIONAL ON RELAY CD TAGS	ER 345			

NOTES

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

LAYOUT

1L	2L
3L	4L
5L	6L
7L	8L
9L	10L
+	E
CA	R
CC	B <small>NOTE 8.2</small>
CD	D
C3/C4	T1
TJ	

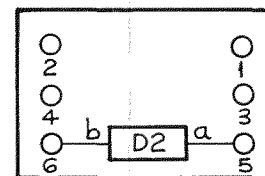
CAPACITOR BOX

NOTE 8.1

6C1	1C1
6C2	1C2
7C1	2C1
7C2	2C2
8C1	3C1
8C2	3C2
9C1	4C1
9C2	4C2
10C1	5C1
10C2	5C2

T' CLAMP

SCA MTD REAR RELAY IL



NOTE

- 8.1 CAPACITORS C1, C2, C6 AND RESISTORS R1, R2 ARE WIRED ONTO AN EXPOXIDE GLASS BOARD WHICH IS FIXED TO THE CAPACITOR BOX 'T' CLAMP
- 8.2 RELAY GUARD REQUIRED ON B RELAY.
- 8.3 STRAP TERMINALS 3&4, 3&5, 4&6 ON SCA.

**MOBILE RADIO TELEPHONE SERVICE
PARTY LINE SWITCHING RELAY SET
TYPE A AND A1
(RCCL FOR FIG. 4)**

DATE	ISS	CHANGE	N Z P O ENGINEER-IN-CHIEF WELLINGTON	
26.4.76	A		COY. N ^o :	ORIGIN: T-EQPT.
23.7.76	B	NOTE 8.2 ADDED	SHT. 8	DRAWN: T-EQPT. TRACED:
24.5.77	C	NOTE P. 3 & SCA. DDED	A3 EC 31636	
12.1.82	D	R3 & R4 SWAP		
24.9.87	E	NOTE: R3 & R4 SWAP		