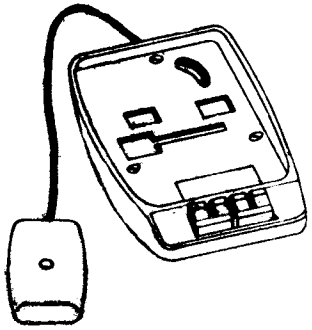
# PLAN–SET N625 MARK 1

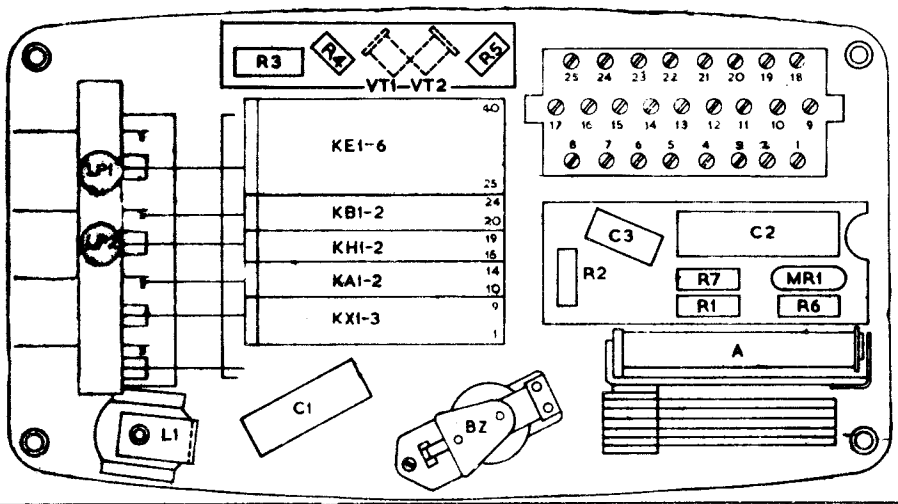


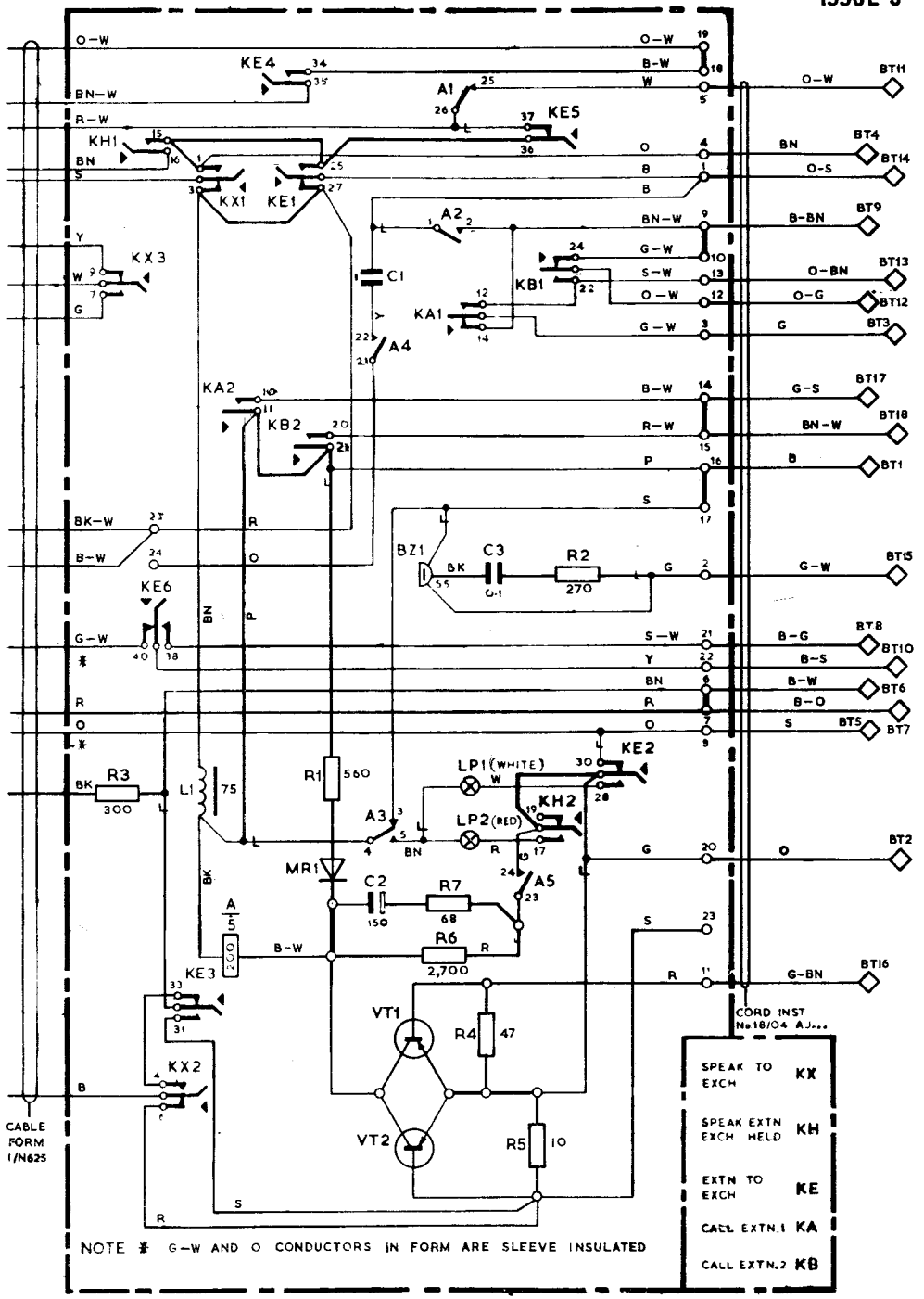


| APPARATUS SCHEDULE | | |
|---|---|---|
| CODE | ITEM | QUANTITY |
| BT | BLOCK, TERMINAL No 37A | 1 |
| BZ | BUZZER No 32A | 1 |
| C1 | CAPACITOR, PAPER No 7532 | 1 |
| C2 | CPTR ELECTROLYTIC PLESSEY TYPE CE 21152/13 150μF. 12V. WKG. | 1 |
| C3 | CAPACITOR CERAMIC No 1313 0·1 μF | 1 |
| | | |
| KA 1&2<br>KB 1&2<br>KE 1–6<br>KH 1&2<br>KX 1–3 | PART 1/DSP/1257 | |
| L1 | INDUCTOR, COIL 1718 | 1 |
| LP1 & LP2 | LAMP No. 418 | 2 |
| MR1 | VALVE, ELECTRONIC, CV448 | 1 |
| R1–2<br>R4–7 | RESISTOR, CARBON No 26 GC | 6 |
| R3 | RESISTOR, COIL No 40 | 1 |
| A | RELAY, GEC DRG 95021 ASSEMBLY 3 CH EQUIVALENT | 1 |
| VT1 & VT2 | TRANSISTOR CV 7001. | 2 |
| — | CORD, INST., No.18/04AJ.... (COLOUR)... | 1 |

FOR NOTES SEE PAGE 4

POSITION OF APPARATUS



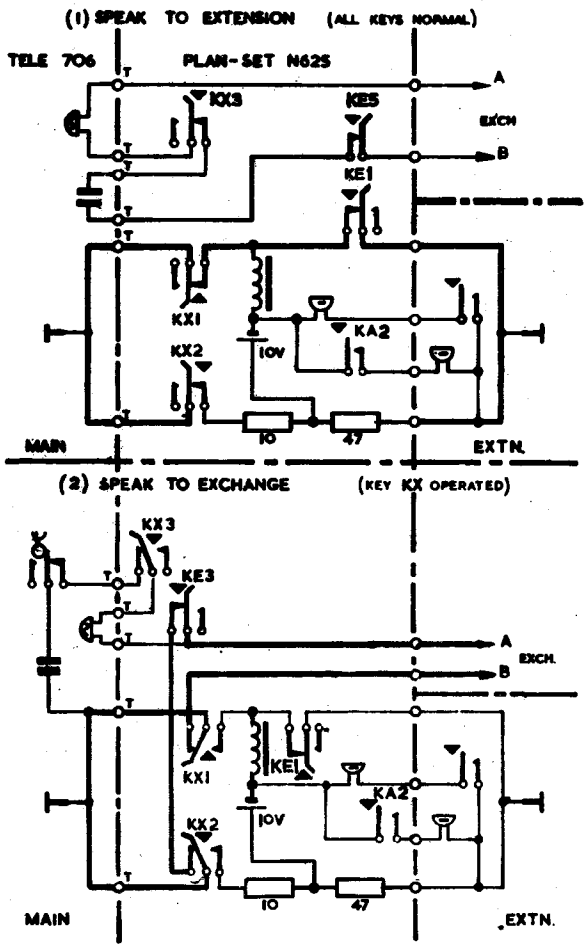

NOTE * G–W AND O CONDUCTORS IN FORM ARE SLEEVE INSULATED

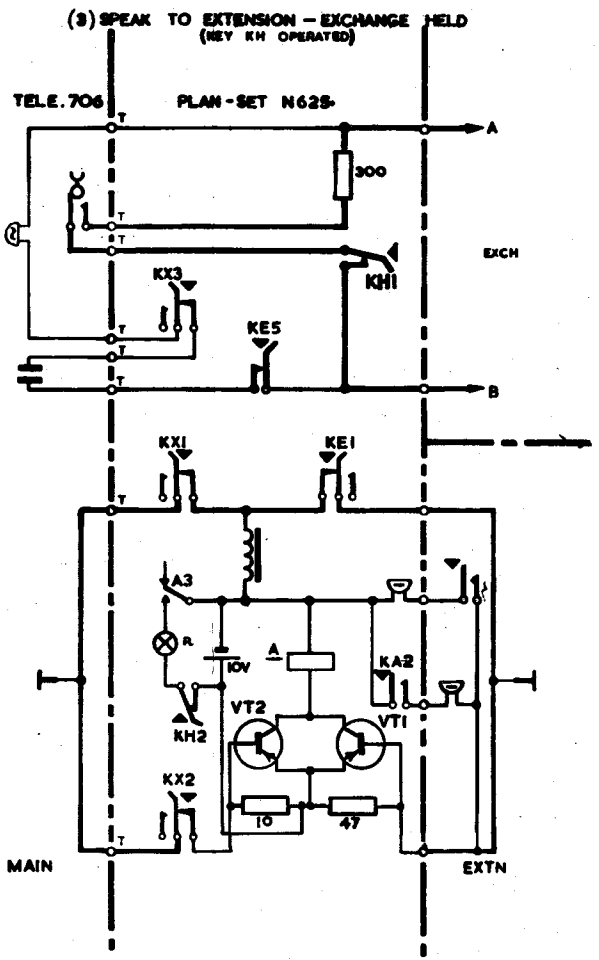
| ISSUE | | |
|---|---|---|
| J | UPDATED. PAGES 5 &6 MADE WHITE. PAGE 7 —— NOTES 5–10 ADDED. MINOR AMENDMENTS. P.E. | 3·11·75 |
| H | MARK 3 ADDED. RCL | 24·11·71 |
| G | MARK 2 ADDED. MARK 1 MADE YELLOW NEW FORMAT. Dfjo. | 27. 8. 69. |
| F | LOCAL BATTERY FEED TO MAN TELEPH NSED. K M A | 4·3·64 |
| | F E I THORE TD 7·1·1 | 19·8·60 |

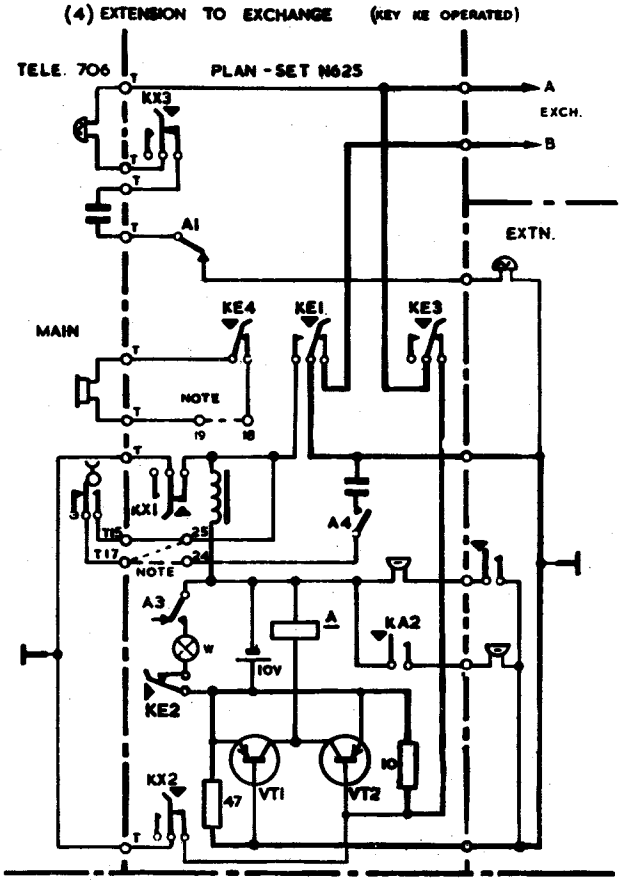
P.O. TELECOMMS HQRS.

PAPER := Y
CIRCLTN.:–
GENERAL

# TYPICAL SWITCHING ELEMENTS : PLAN 107 - INTERNAL.
## USING PLAN-SET N625 MARK 1



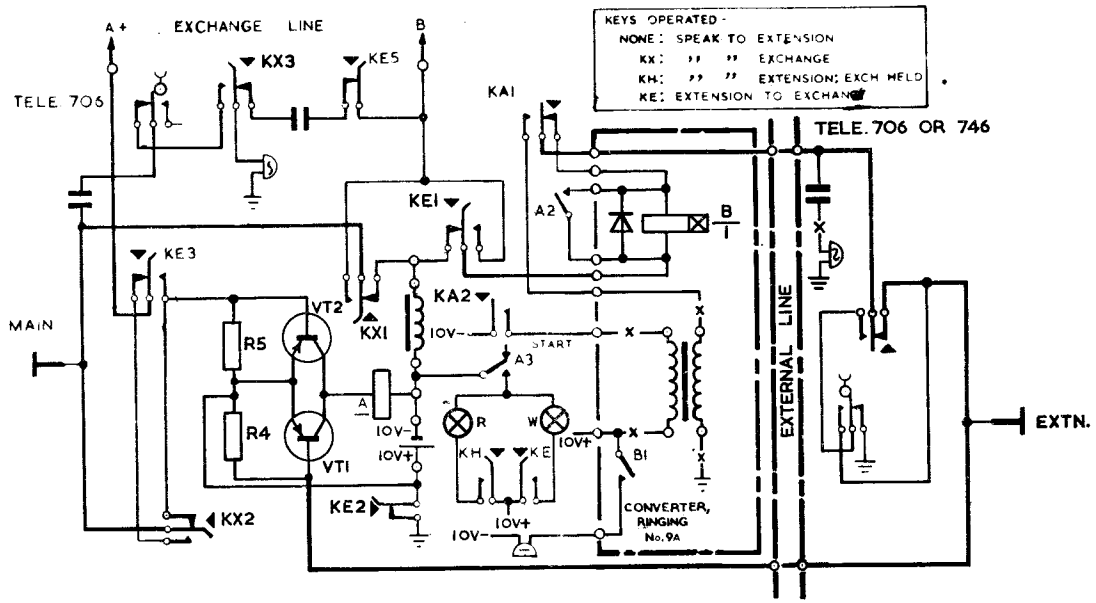




NOTE:- PLAN 107A:- PLAN-SET TERMINALS 18 & 19 STRAPPED, TELE T15 (BK-W) AND T17 (B-W) BOTH CONNECTED TO PLAN-SET TERMINAL 25.

PLAN 107:- REMOVE PLAN-SET TERMINAL 18 - 19 STRAP. TRANSFER B-W CONDUCTOR (TELE.T17) FROM PLAN-SET TERMINAL 25 TO 24.

# COMBINED SWITCHING ELEMENTS: PLAN 107 EXTERNAL
## USING PLAN-SET N625 MARK 1




PAPER:- Y.
CIRCUITN:-
GENERAL.

NOTES:- (FOR PAGES 1 TO 4).

1. FACILITIES:- Elements of the four circuit conditions are shown on Page 2. Note that the release key, unlocks any operated keys and restores the 'Main to Extn.' condition. A simplified circuit of facilities when External Extensions are fitted is given on Page 3.

2. POWER SUPPLY:- The Lamps and Relay 'A' operate from the 10V. unearthed D.C. supplied by a Power Unit No. 53A. (Dgm. N631) which is Mains driven and should be fitted as near as conveniently possible to the mains socket-outlet.

3. EXTERNAL EXTENSIONS:- Call the Main, and are rung from the Main, by means of a Convertor, Ringing No. 9A (Dgm. N 626) which relies on the 10V. D.C. supply from the Power-unit for its operation.

4. SUPERVISORY SIGNALS:- A small P.D. developed across a low resistance in the line circuit is used to bias a transistor in a common emitter circuit element and the considerable increase in current which occurs in the collector circuit is used to operate supervisory Relay 'A':-

(a) Speak to Extn., Exch. Held. When the local transmitter energising current flows, the P.D. across R4 (47 ohms) causes VT1 to conduct and Relay 'A' operates. KH3 is operated and the Red lamp lights via A3.

(b) Extn. to Exch.:- To cater for either direction of current in the Exchange Line two transistors are necessary. The P.D. across either R4 or R5 will cause either VT1 or VT2 to conduct and allow 'A' Relay to operate. As KE is operated the White lamp lights through A3. R4 is also used to limit the current in the Buzzer and therefore has a value different from R5.

5. CORD INST.:- Early supplies provided with Cord Inst. No. 18/02AJ had colours connected:-

| BT1-BLK | BT5-GRN | BT9-YEL | BT13-BRN-WH | BT17-RED-WH |
|---|---|---|---|---|
| 2-RED | 6-BLU | 10-BLU-WH | 14-SL-WH | 18-BLU-OR |
| 3-OR | 7-BRN | 11-OR-WH | 15-BLK-WH | |
| 4-WH | 8-SL | 12-GRN-WH | 16-YEL-WH | |

6. Replacement of Part 1/DST/445.

When failure of the transistor switch (Part 1/DST/445) occurs; modify Plan-set, N625, to Mark 2 by replacing the Part 1/DST/445 as follows:- Table Relay 337A or 337B
Wall Relay 337B only.

(a) Disconnect the wiring from Part 1/DST/445.

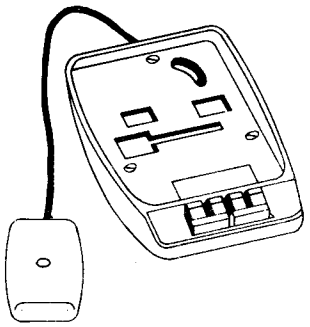
(b) Remove the Part 1/DST/445 and replace by a Relay 337...

(c) Connect the Plan-set wiring to the Relay 337...as follows:-

| | |
|---|---|
| BRN to Pin 1. | BK to Pin 2. |
| GN (2 wires) to Pin 3. | BL-WH to Pin 4. |
| SL (2 wires) to Pin 5. | RED from terminal 11 to Pin 6. |
| RED from KX2 to Pin 9. | (see Dgm. on Page 5). |

(d) Clearly mark the label Dgm. affixed to the base of the Plan-set N625 "Modified to Mark 2".

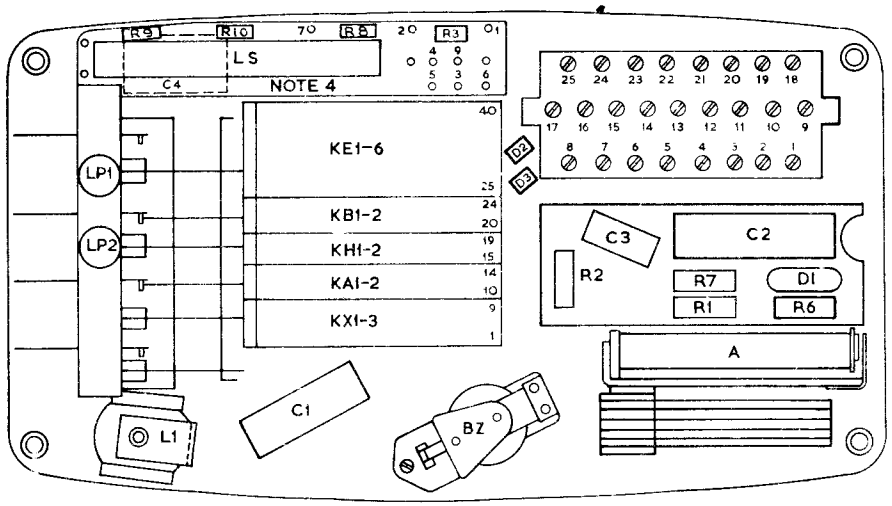
If the Plan-set N625, cannot be modified locally, the complete Plan-set should be changed. TI E5 B1103 refers.

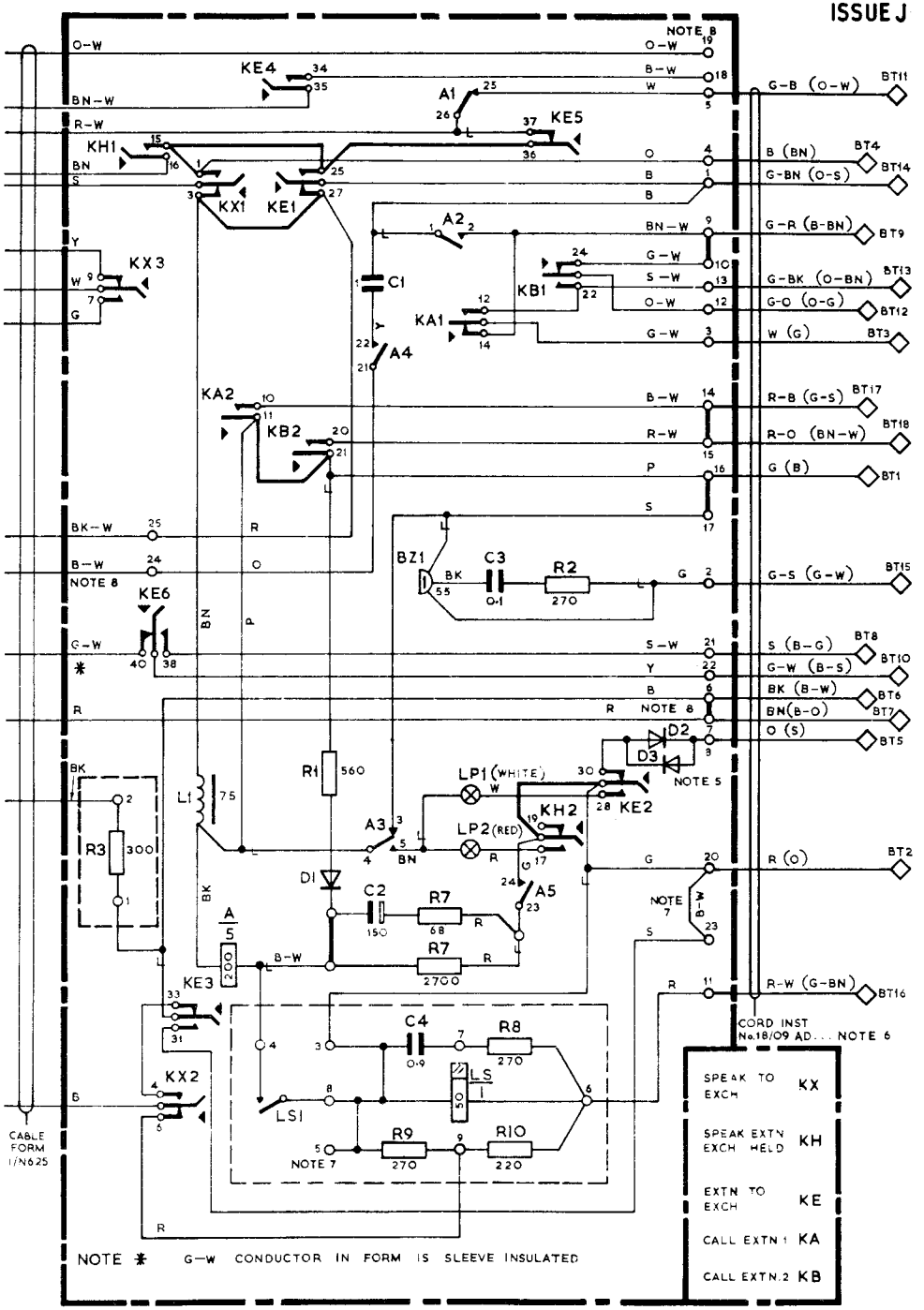


| APPARATUS SCHEDULE | | |
|---|---|---|
| CODE | ITEM | QUANTITY |
| BT | BLOCK, TERMINAL No.37B. | 1 |
| BZ | BUZZER No.32A OR 32C | 1 |
| C1 | CAPACITOR, PAPER No.7532. 1 μF. | 1 |
| C2 | CPTR., ELECTROLYTIC PLESSEY TYPE CE 21152/13 150μF. 12V. WKG. | 1 |
| C3 | CAPACITOR No.8017A 0·1μF | 1 |
| C4 | CAPACITOR No.8023B. 0·9 μF. | 1 |
| KA 1&2<br>KB 1&2<br>KE 1-6<br>KH 1&2<br>KX 1-3 | PART 1/DSP/1257. | 1 |
| L1 | INDUCTOR, COIL 171B. | 1 |
| LP1 & LP2 | LAMP No.418. | 2 |
| D1 | VALVE, ELECTRONIC, CV448. | 1 |
| R1-2<br>R6-7 | RESISTOR, CARBON No.26 GC. | 4 |
| R3 | RESISTOR, COIL No.40. | 1 |
| A | RELAY, GEC DRG.95021 ASSEMBLY 3 OR EQUIVALENT | 1 |
| LS | RELAY No.337. | 1 |
| — | CORD, INST., No.18/09 AD... (COLOUR)...m.m. NOTE 6 | 1 |
| R8-10 | RESISTOR, CARBON No.26KC. | 3 |
| D2-3 | VALVE, ELECTRONIC, CV8308 NOTE 5 | 2 |

FOR NOTES SEE PAGE 7

POSITION OF APPARATUS

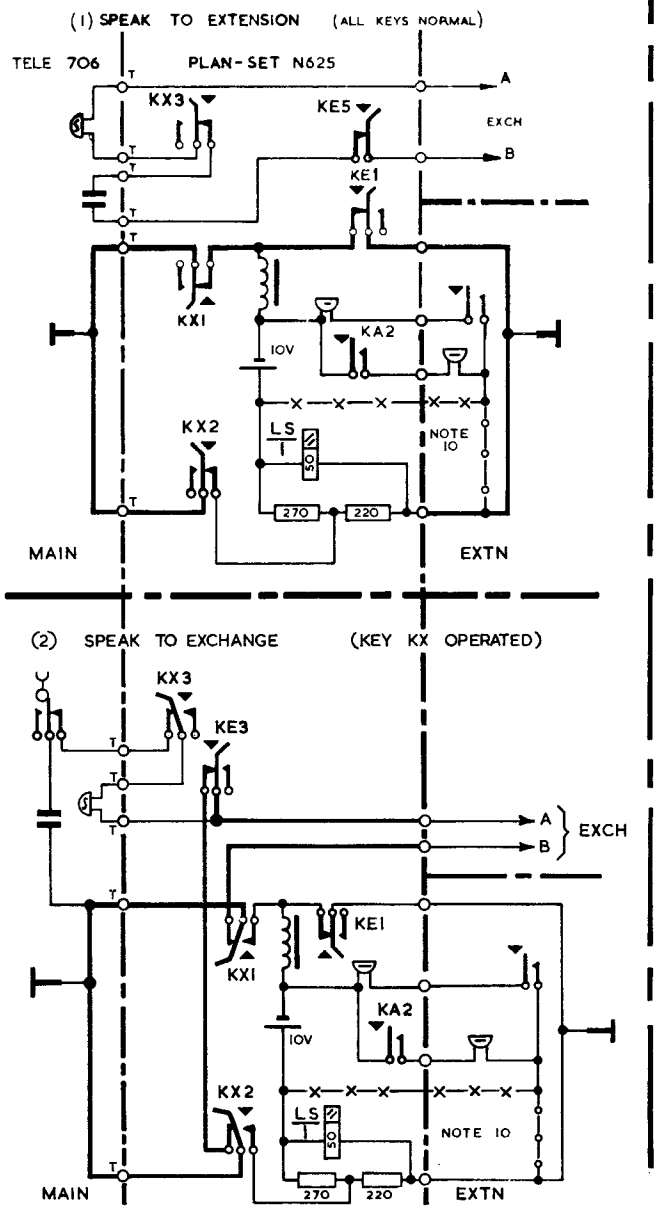


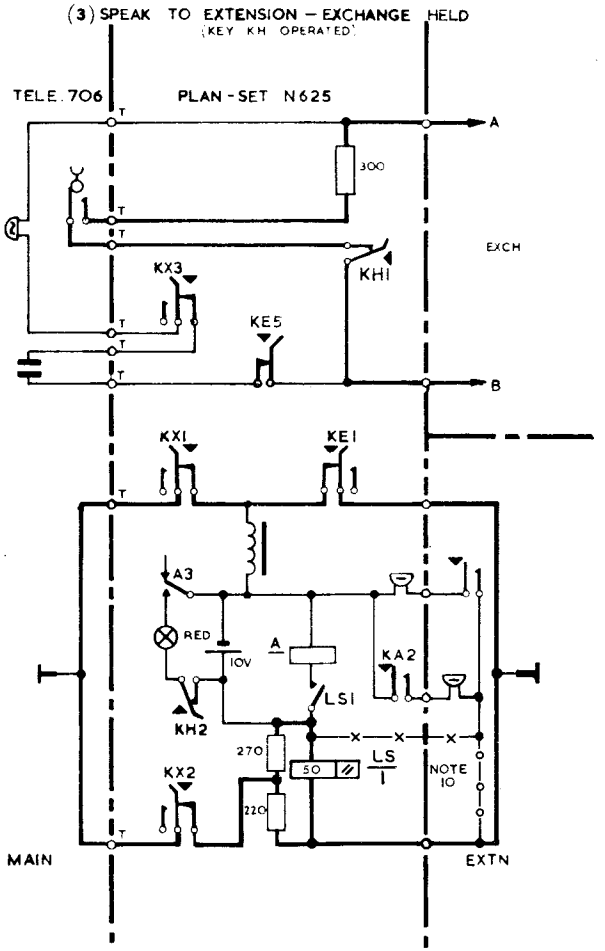



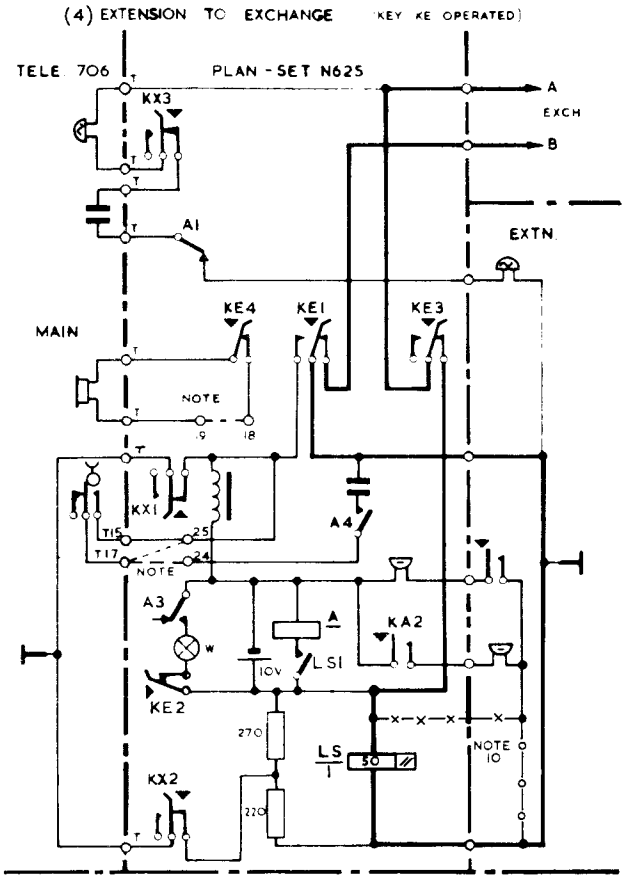

| P.O. TELECOMMS. HQRS. | ISSUE | | |
|---|---|---|---|
| PAPER:— W<br>CIRCLTN.:—<br>GENERAL | J | UPDATED. PAGES 5 & 6 MADE WHITE. PAGE 7 — NOTES 5—10 ADDED. MINOR AMENDMENTS. PE | 3·11·75 |
| | H | MARK 2 MADE YELLOW. MARK 3 ADDED | 24·11·71 |
| | G | MARK 2 ADDED. MARK 1 MADE YELLOW. NEW FORMAT. | 27. 8. 69. |
| | F | LOCAL BATTERY FEED TO MAIN TELE. CHANGED. K.M.A. | 4:3:64 |
| | | F.E.I. TROKE TD 7-1-1 | 19:8:60 |

# TYPICAL SWITCHING ELEMENTS : PLAN 107 - INTERNAL.

USING PLAN-SET N625 MARK 2 OR 3



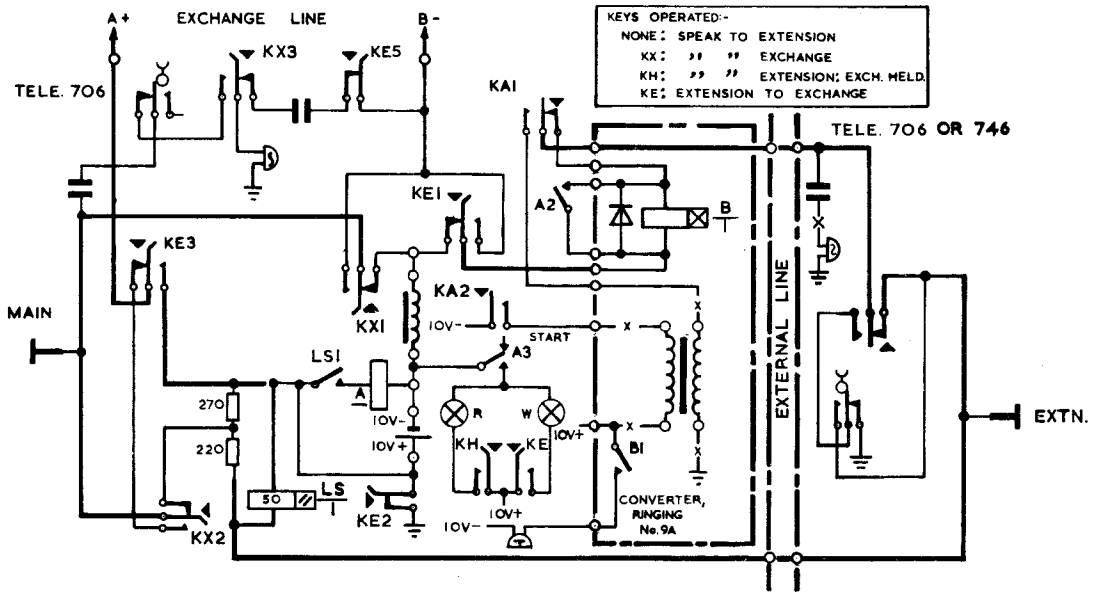




NOTE :- PLAN 107A:- (SECRET) PLAN-SET TERMINALS 18 & 19 STRAPPED, TELE. T15 (BK-W) AND T17 (B-W) BOTH CONNECTED TO PLAN-SET TERMINAL 25.

PLAN 107:- (NON SECRET) PLAN-SET TERMINALS 18-19 NOT STRAPPED. B-W CONDUCTOR (TELE. T17) TERMINATED ON PLAN-SET TERMINAL 24.

# COMBINED SWITCHING ELEMENTS: PLAN 107 EXTERNAL
## USING PLAN-SET N625 MARK 2 OR 3




NOTES:- (FOR PAGES 5 TO 8)

1. FACILITIES:- Elements of the four circuit conditions are shown on Page 6, note that the Release Key unlocks any operated Keys and restores the 'MAIN to EXTN.' condition. A simplified circuit of facilities when External Extensions are fitted is shown above.

2. POWER SUPPLY:- (SEE NOTE 9) The Lamps and Relay A operate from the 10V. Nominal unearthed D.C. supplied by a Power-Unit No.53A (DGM.N631) which is mains driven and should be fitted as near as conveniently possible to the mains Socket-outlet.

3. EXTERNAL EXTENSIONS:- Call the Main, and are rung from the Main, by means of a Converter, Ringing, No.9A (DGM.N626) which relies on the D.C. supply from the Power-Unit for its operation.

4. SUPERVISORY SIGNALS:-
   (a) Speak to Extn., Exch. Held. When local Transmitter energising current flows Relay LS operates, LS1 operates Relay A, A3 lights the red lamp via KH3.
   (b) Extn. to Exch. Relay LS operates to the line current, LS1 operates Relay A, A3 lights the white light via KE2.
   Relay LS, which is a sensitive Dry-Reed Relay, replaces the transistor common emitter circuit used in the Plan Set N625 Mark 1. Early issues of this Relay (Relay 337A Mark 1.) were conventionally wired and the layout of the components was different.

5. Diodes D2 and D3 were not provided on earlier issues, but an additional orange conductor in the Cable Form 1/N625 was provided and terminated on KE2 Spring 30.

6. The cord conductor colours shown are those for a Cord Inst. No.18/09AD... The colours shown in brackets refer to the Cord Inst. No.18/04AJ...

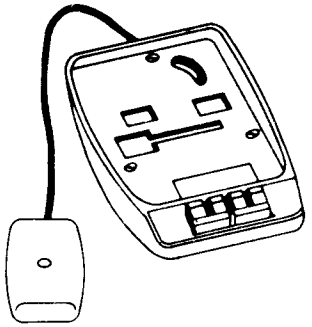
7. On earlier issues Pin 5 of Relay 337 was connected to Terminal 23, the Connexion 20—23 being omitted.

8. Early issues were supplied strapped for Plan 107A (secret) i.e. Terminals 18 & 19 strapped and the B-W conductor terminated on Plan-Set Terminal 25. Later issues are supplied wired for Plan 107 (non-secret). Two links are used between Terminals 6 & 7 in order to provide sufficient straps to allow for field modification to Plan 107A if required.

9 It is essential that each plan set in a multiple installation is provided with an independent power supply. It is thus not possible to 'common' the power supply leads of two or more plan sets.

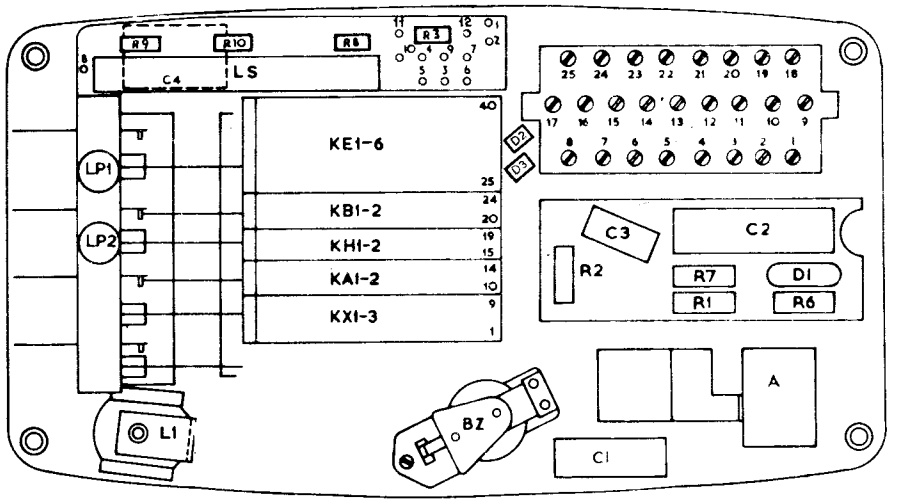
10 For new work the buzzer circuits are connected directly to the Power Unit +Ve (shown —x—x—). Many existing installations are wired with the buzzer circuit connected via the Extension A Wire (shown —o—o—).

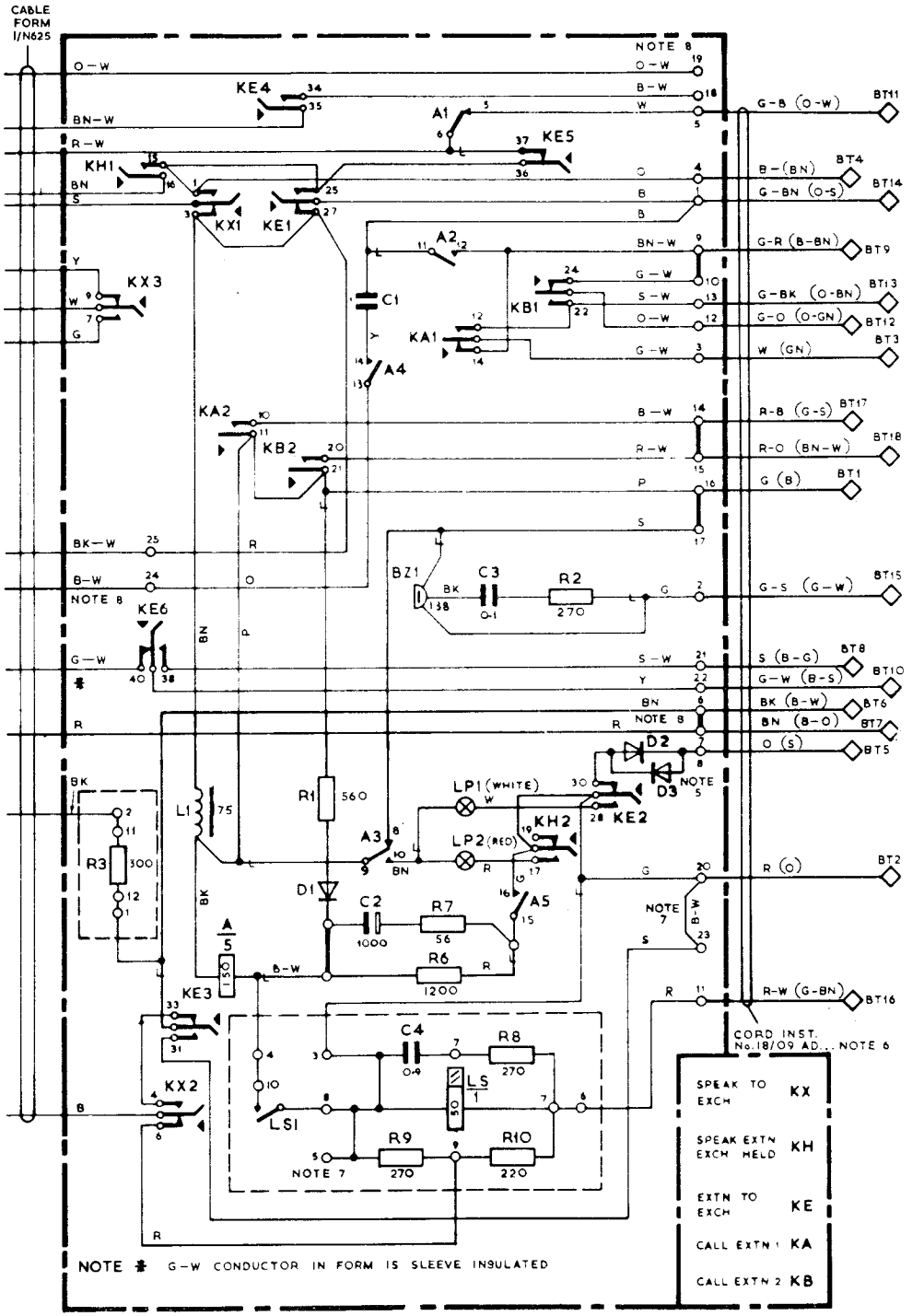
# PLAN-SET N625 MARK 3



| APPARATUS SCHEDULE | | |
|---|---|---|
| CODE | ITEM | QUANTITY |
| BT | BLOCK, TERMINAL No.378. | 1 |
| BZ | BUZZER No 32C | 1 |
| C1 | CAPACITOR, 8017A 1 µF | 1 |
| C2 | CPTR, ELECTROLYTIC MULLARD TYPE 108 1000µF 16V OR EQUIV | 1 |
| C3 | CAPACITOR, 8017A 0·1 µF | 1 |
| C4 | CAPACITOR 80238 0·9µF | 1 |
| KA 1&2<br>KB 1&2<br>KE 1-6<br>KH 1&2<br>KX 1-3 | PART 1/DSP/1257 | 1 |
| L1 | INDUCTOR, COIL 1718 | 1 |
| LP1 &LP2 | LAMP No.418. | 2 |
| D1 | VALVE, ELECTRONIC, CV7130 OR CV7875 OR CV8308 | 1 |
| R1-2 &7 | RESISTOR, CARBON No.26 GC | 3 |
| R3 | RESISTOR, COIL No 40 | 1 |
| A | RELAY, No 349A | 1 |
| LS | RELAY No 337 | 1 |
| — | CORD, INST, No 18/09 AD... (COLOUR)... mm NOTE 6 | 1 |
| R8-10 | RESISTOR, CARBON ERIE TYPE 9P2D | 3 |
| R6 | RESISTOR No 91 FJ | 1 |
| D2-3 | VALVE, ELECTRONIC, CV8308 NOTE 5 | 2 |

POSITION OF APPARATUS




FOR NOTES SEE PAGE 7