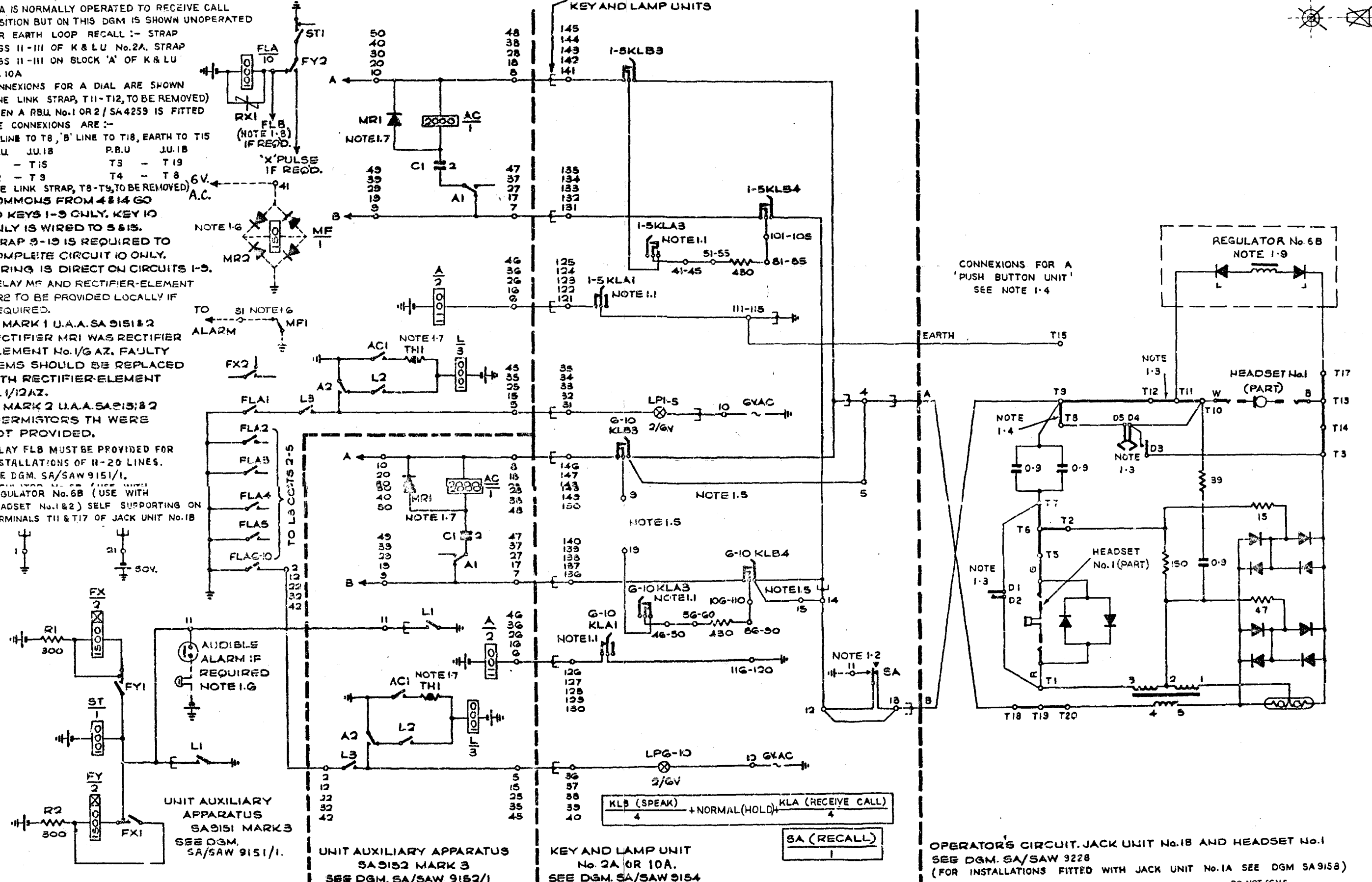
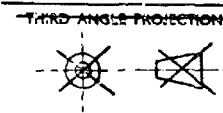


NOTES:-

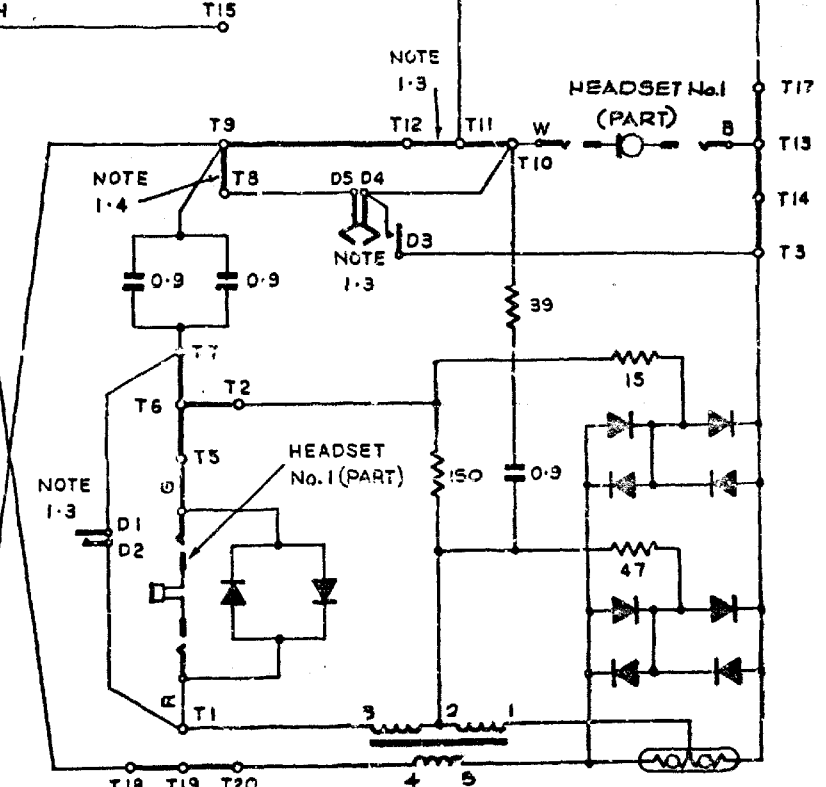
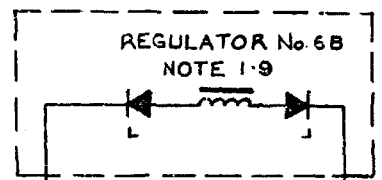
- 1.1. KLA IS NORMALLY OPERATED TO RECEIVE CALL POSITION BUT ON THIS DGM IS SHOWN UNOPERATED
- 1.2. FOR EARTH LOOP RECALL :- STRAP TAGS II-III OF K & LU No.2A. STRAP TAGS II-III ON BLOCK 'A' OF K & LU No. 10A
- 1.3. CONNEXIONS FOR A DIAL ARE SHOWN (ONE LINK STRAP, T11-T12, TO BE REMOVED)
- 1.4. WHEN A RBU No.1 OR 2/SA4259 IS FITTED THE CONNEXIONS ARE :-  
 'A' LINE TO T8, 'B' LINE TO T18, EARTH TO T15  
 R.B.U. JU.1B P.B.U. JU.1B  
 T1 - T15 T3 - T19  
 T2 - T9 T4 - T8  
 (ONE LINK STRAP, T8-T9, TO BE REMOVED)
- 1.5. COMMONS FROM 4&14 GO TO KEYS 1-9 ONLY. KEY 10 ONLY IS WIRED TO 5&15. STRAP 9-19 IS REQUIRED TO COMPLETE CIRCUIT 10 ONLY. WIRING IS DIRECT ON CIRCUITS 1-9.
- 1.6. RELAY MF AND RECTIFIER-ELEMENT MR2 TO BE PROVIDED LOCALLY IF REQUIRED.
- 1.7. IN MARK 1 U.A.A. SA 9151&2 RECTIFIER MRI WAS RECTIFIER ELEMENT No.1/6 AZ. FAULTY ITEMS SHOULD BE REPLACED WITH RECTIFIER-ELEMENT No.1/12AZ. IN MARK 2 U.A.A. SA 9151&2 THERMISTORS TH WERE NOT PROVIDED.
- 1.8. RELAY FLB MUST BE PROVIDED FOR INSTALLATIONS OF 11-20 LINES. SEE DGM. SA/SAW 9151/1.
- 1.9. REGULATOR No.6B (USE WITH HEADSET No.1&2) SELF SUPPORTING ON TERMINALS T11 & T17 OF JACK UNIT No.1B

FIG.1. SCHEMATIC.

COMMONS TO OTHER KEY AND LAMP UNITS



CONNEXIONS FOR A 'PUSH BUTTON UNIT' SEE NOTE 1.4



OPERATOR'S CIRCUIT. JACK UNIT No.1B AND HEADSET No.1 SEE DGM. SA/SAW 9228 (FOR INSTALLATIONS FITTED WITH JACK UNIT No.1A SEE DGM SA 9151&2)

<b>A1</b> <b>A2</b> DRN CIRCUITAPS CKD <i>MSB</i> LTR CERTIFICATION DATE 29.5.69. E-IN-C 4651	JACK-UNIT No.1B WAS 1A REGULATOR No.6B WAS 6A PUSH BUTTON UNIT ADDED NOTES 1.2, 1.3 AND 1.4 AMENDED KLAB AMENDED <i>M. 288 (6) JMR</i>	<b>C</b> REGULATOR No.6A & NOTE 1.9 ADDED, MINOR AMENDMENTS 27-4-71 DIAL SPRING D3 WAS 3.11.69, CONNECTED TO T1 AMENDMENT	<b>B</b> <b>A</b> ORDER TABLE WORKING USING KEY & LAMP UNIT NO.2A OR 10A AND UAA SA9151, UP TO 20 EXCHANGE LINES OR R.B.X. EXTENSIONS. DO NOT SCALE REFERENCES SEE SCHEDULE	POST OFFICE TELECOMMUNICATIONS HQRS TO 2.5.3 SECTION SA 9156/2 SHT1-5

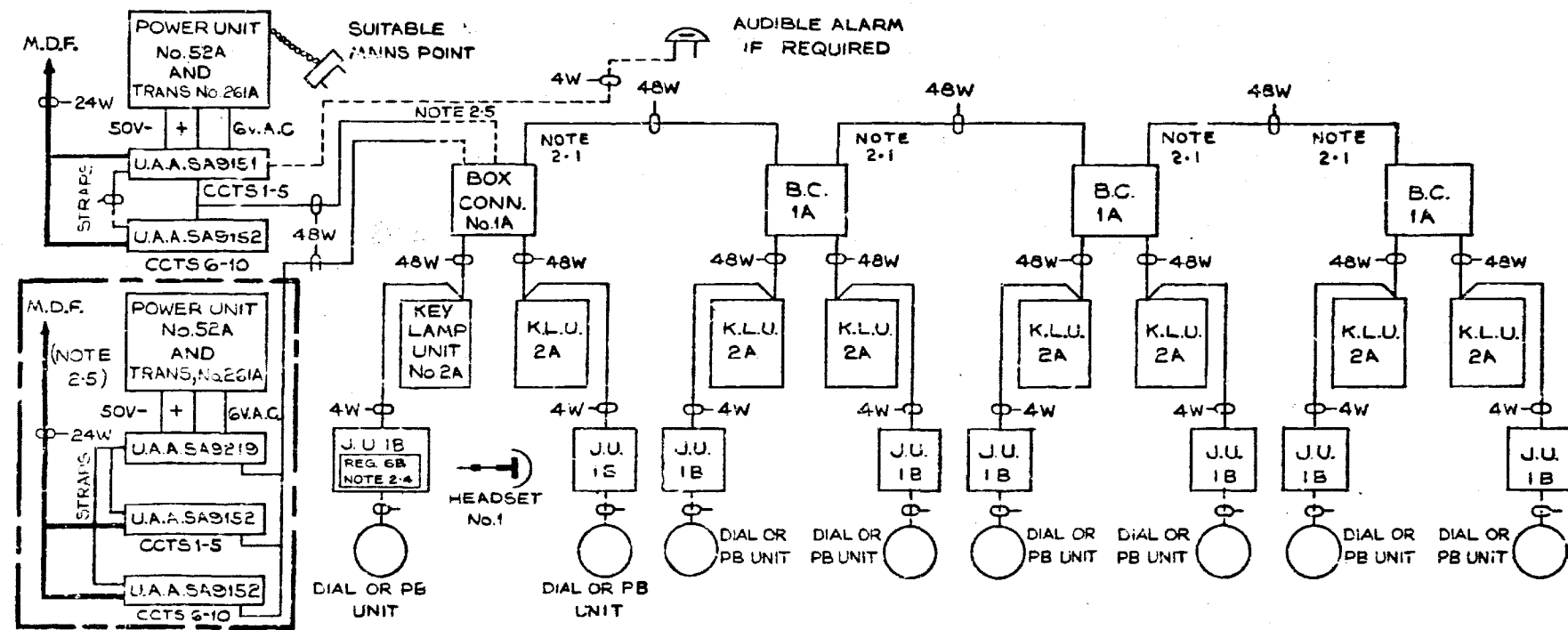


FIG. 2A TYPICAL LAYOUT, UP TO 10 LINES

NOTES:-

- 2.1 THE LAYOUTS SHOWN ARE TYPICAL ONLY. EACH INSTALLATION SHOULD BE PLANNED LOCALLY FOR MOST ECONOMIC USE OF CABLE AND EQUIPMENT E.G. ALTERNATIVE DISTRIBUTION UNITS, CABLE SIZES AND CABLE ROUTINGS MAY BE USED
- 2.2 XFMR No. 261A IS SUITABLE FOR UP TO 150 LAMP APPEARANCES. SEE TI C3M2001 FOR INFORMATION ON FUSING
- 2.3 XFMR No. 315A IS SUITABLE FOR UP TO 400 LAMP APPEARANCES. SEE TI C3M2001 FOR INFORMATION ON FUSING
- 2.4 REGULATOR No. 6B IS USED WITH HEADSETS No. 1 AND 2 WHEN A MIXTURE OF LONG AND SHORT LINES CONNECTED TO THE INSTALLATION RESULTS IN LOW AND HIGH TRANSMITTER CURRENTS OF OVER 40mA. E.G. AN INSTALLATION TO WHICH EXCHANGE AND PBX EXTENSION LINES ARE CONNECTED IF THE LINE CURRENT IS HIGH AND APPROXIMATELY THE SAME FOR ALL LINES A SUITABLE RESISTOR AND PARALLEL CAPACITOR, CONNECTED IN SERIES WITH THE TRANSMITTER, SHOULD BE USED TO LIMIT THE TRANSMITTER CURRENT TO 40mA
- 2.5 ALTERNATIVE APPARATUS WITH TYPICAL CABLING
- 2.6 OTHER EQUIPMENT AS FOR SCHEDULE 1 EXCEPT FOR U.A.A. SA9151: U.A.A. SA 9219 PROVIDES SPACE FOR ADDITIONAL RELAYS ETC. E.G. A PRIVATE WIRE TERMINATING CIRCUIT AS SHOWN ON DGM SA9157
- 2.7 FOR INSTALLATIONS FITTED WITH JACK-UNIT NO. 1A SEE DGM SA 9158

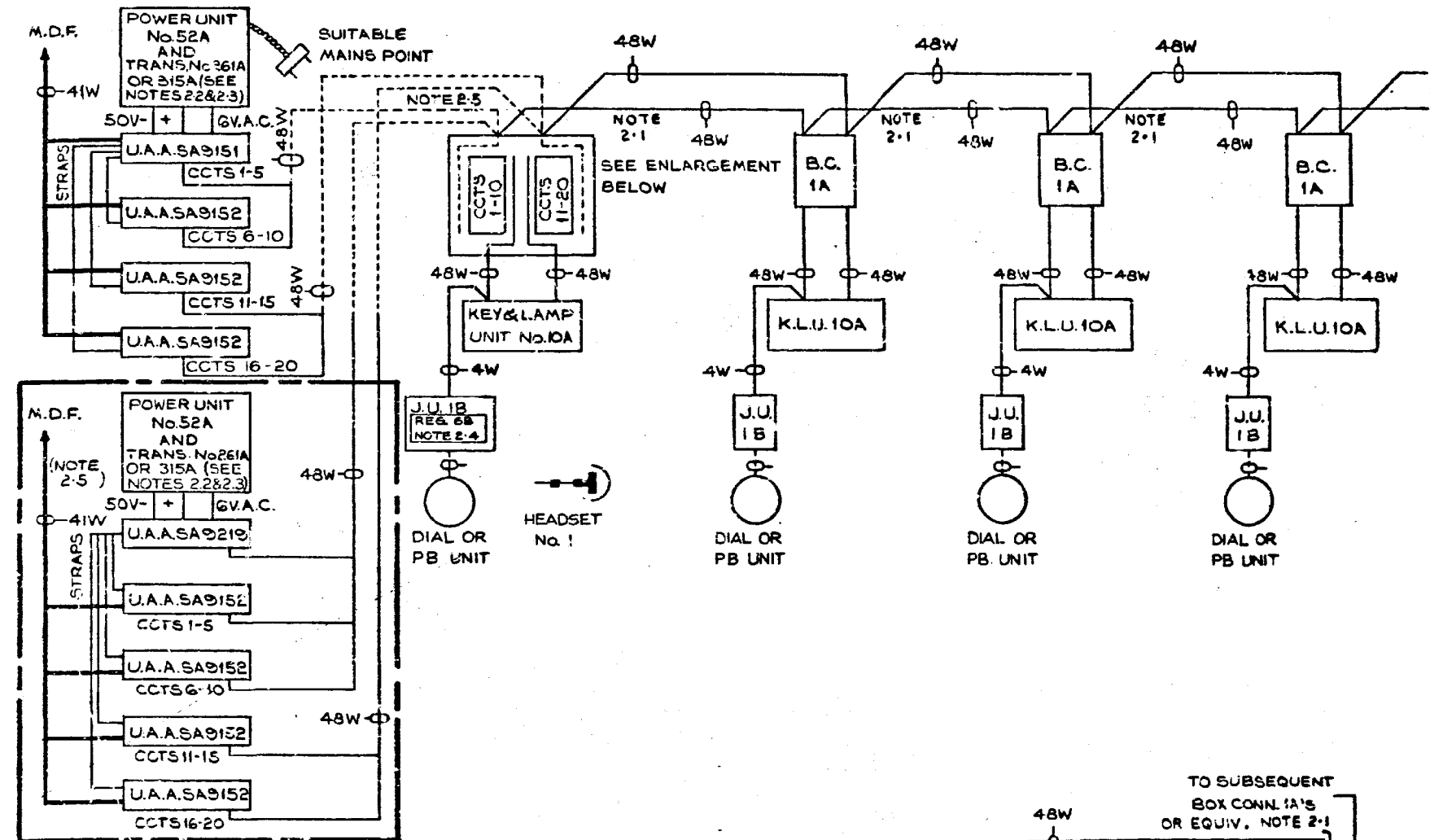
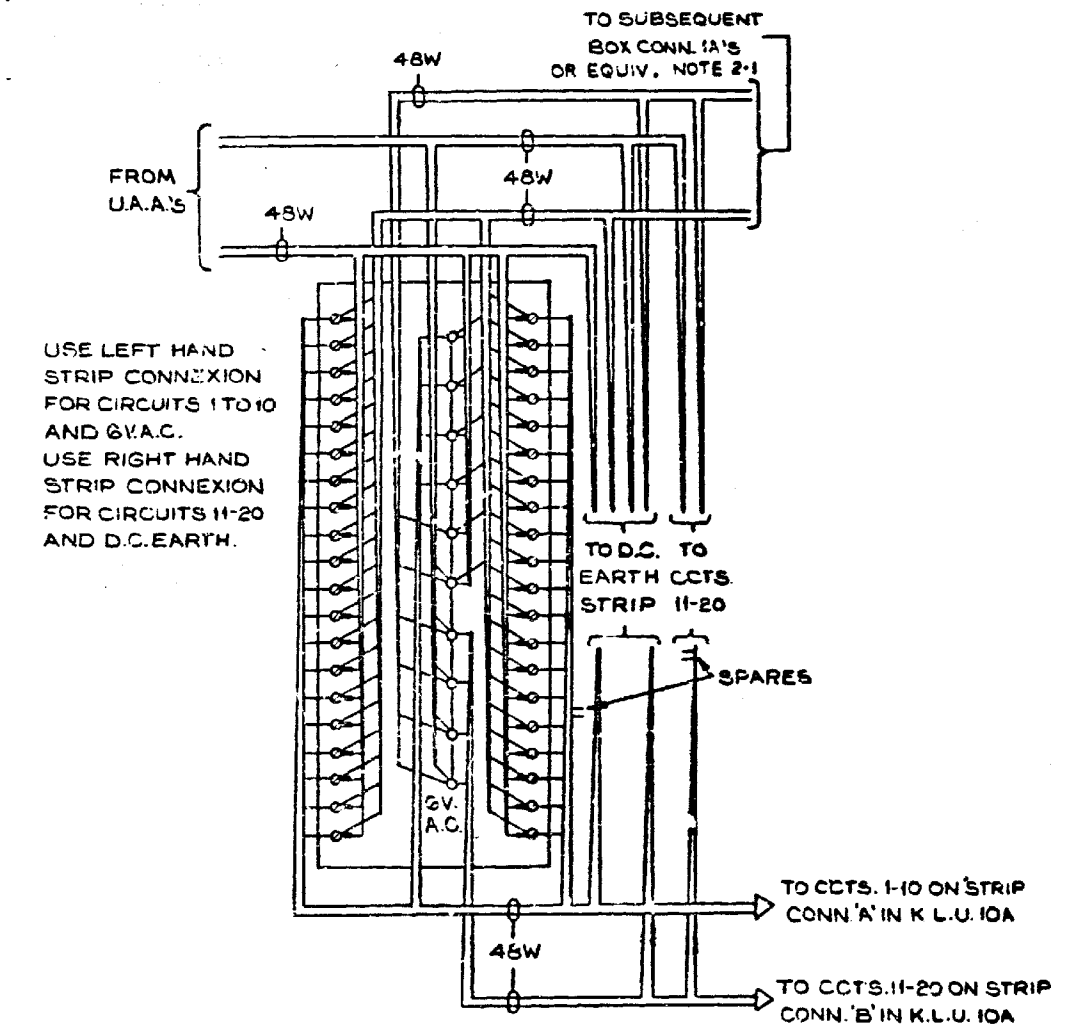


FIG. 2B TYPICAL LAYOUT, 11-20 LINES

SCHEDULE 1					
TYPICAL SCHEDULE, WHEN EACH OPERATOR HAS ACCESS TO ALL LINES					
APPARATUS	1-5 LINES	6-10 LINES	11-12 LINES	13-15 LINES	16-20 LINES
POWER UNIT No. 52A	1	1	1	1	1
XFMR No. 261A (FITTED INSIDE PWR UNIT) NOTE 2.2	1	1	1	1	1
XFMR No. 315A NOTE 2.3	—	—	—	1	1
RELAY No. 10/78 (FITTED IN U.A.A. SA9151) (FLB)	—	—	1	1	1
U.A.A. SA9151 (5 LINE CCTS & FLASHER UNIT)	1	1	1	1	1
U.A.A. SA9152 (5 LINE CCTS)	—	1	2	2	3
KEY AND LAMP UNIT No. 2A	ONE PER OPER.	—	—	—	—
KEY AND LAMP UNIT No. 10A	—	—	ONE PER OPER.	—	—
JACK UNIT No. 1B (OR EQUIVALENT) NOTE 2.7	ONE PER OPERATOR	—	—	—	—
MOUNTING DIAL AUTO No. 21 GREY	ONE PER OPERATOR IF REQD.	—	—	—	—
BOX CONNECTION No. 1A NOTE 2.1	AS REQD. (APPROX. 1 PER 2 KLU: 1 OR 1 PER KLU: 10A)	—	—	—	—
HEADSET No. 1 (OR ALTERNATIVE)	ONE PER OPERATOR	—	—	—	—
BRACKETS, MOUNTINGS, RACK ETC.	AS REQUIRED	—	—	—	—
REGULATOR No. 6B NOTE 2.4	AS REQUIRED	—	—	—	—
PUSH-BUTTON UNIT No. 10R2/S 4 4259	ONE PER OPERATOR IF REQD.	—	—	—	—

SCHEDULE (ALTERNATIVE APPARATUS)					
TYPICAL SCHEDULE, USING U.A.A. SA9219 (NOTE 2.6) OPERATOR ACCESS AS IN SCHEDULE 1					
APPARATUS	1-5 LINES	6-10 LINES	11-12 LINES	13-15 LINES	16-20 LINES
U.A.A. SA9219 (FLASHER UNIT)	1	1	1	1	1
U.A.A. SA9152 (5 LINE CCTS)	1	2	3	3	4



USE LEFT HAND STRIP CONNECTION FOR CIRCUITS 1 TO 10 AND G.V.A.C.  
USE RIGHT HAND STRIP CONNECTION FOR CIRCUITS 11-20 AND D.C. EARTH.

FIG. 2B TYPICAL LAYOUT, 11-20 LINES

NOTES:-

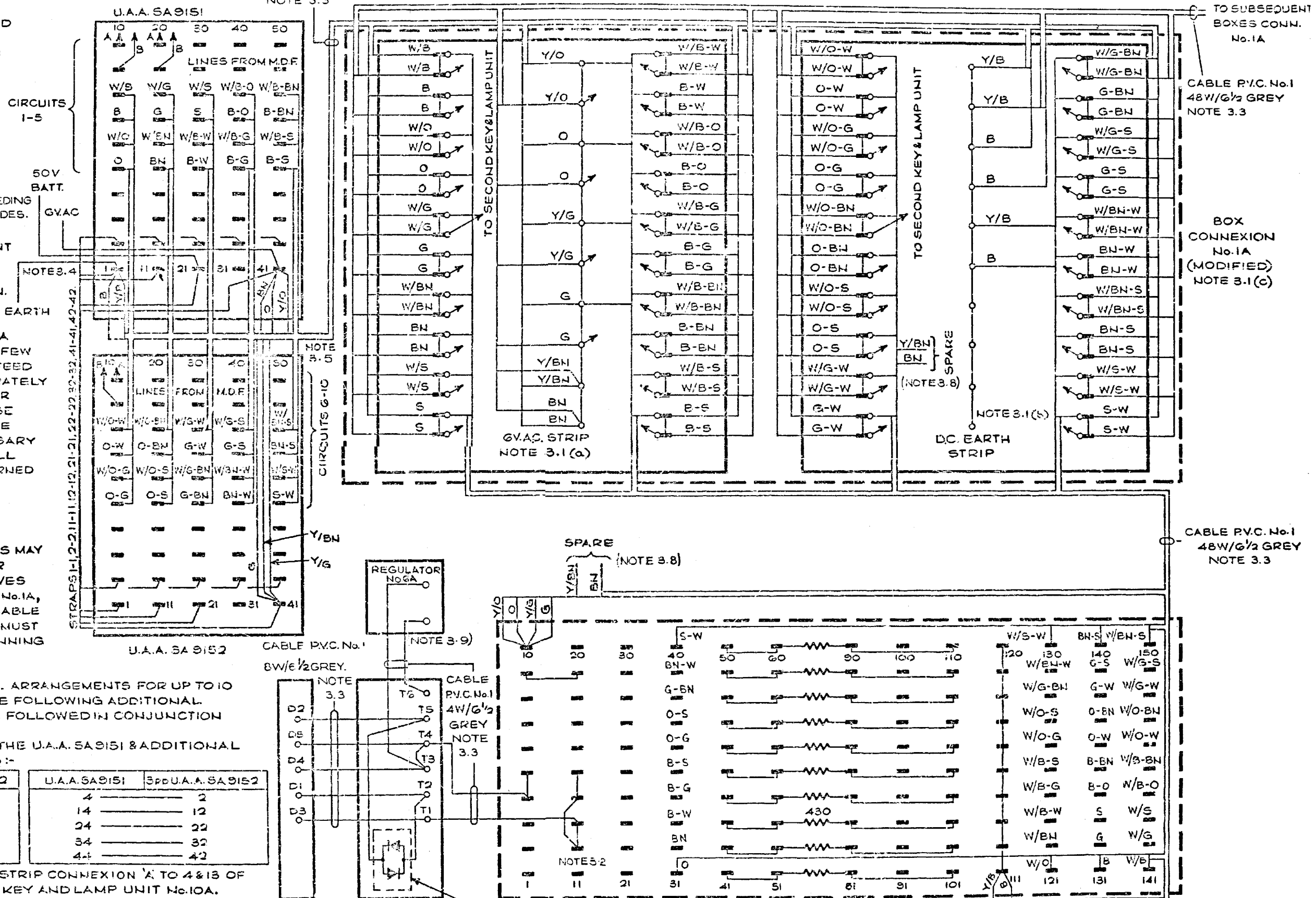
- 3.1.(a) THIS EARTHING STRIP IS USED FOR G.V.A.C. COMMON.
- (b) THIS EARTHING STRIP IS USED FOR D.C. EARTH.
- (c) REMOVE THE WIRE BETWEEN THE LEFT HAND AND RIGHT HAND EARTHING STRIPS. IF ADDITIONAL TERMINALS ARE REQUIRED, REPLACE D.C. EARTHING STRIP BY PART 1/DST/725.
- 3.2. FOR EARTH LOOP RECALL STRAP TAGS II-III OF THE KEY AND LAMP UNIT.
- 3.3. DIAGRAM N4500 SHOWS SUPERSEDING CABLES AND WIRING COLOUR CODES.
- 3.4. THE G.V.A.C. AND EARTH WIRE SUPPLY TO THE U.A.A. EQUIPMENT SHOULD BE IN HEAVY GAUGE CONDUCTOR ACCORDING TO THE SIZE OF THE INSTALLATION.
- 3.5. IF THE CABLE FROM THE RACK EQUIPMENT TO THE FIRST BOX CONNEXION No. 1A IN THE MULTIPLE EXCEEDS A FEW FEET, AN ADDITIONAL G.V.A.C. FEED WIRE SHOULD BE RUN SEPARATELY IN A HEAVY GAUGE CONDUCTOR DIRECT FROM THE G.V.A.C. FUSE TO THE BOX CONNEXION. IF NECESSARY THIS CONDUCTOR MAY LINK ALL BOX CONNEXIONS & BE RETURNED TO THE G.V. TRANSFORMER TO COMPLETE A RING CIRCUIT.
- 3.6. THE CABLING SHOWN IN THE DIAGRAM IS TYPICAL ONLY, ALTERNATIVE ARRANGEMENTS MAY BE MADE TO SUIT PARTICULAR CIRCUMSTANCES. ALTERNATIVES MAY BE USED FOR JACK UNIT No. 1A, BOX CONNEXION No. 1A AND CABLE ETC. BUT SUCH ALTERNATIVES MUST BE CONSIDERED BY THE PLANNING GROUP.
- 3.7. UP TO 20 LINES:-  
FIG. 3 DESCRIBES THE TYPICAL ARRANGEMENTS FOR UP TO 10 LINES. FOR UP TO 20 LINES THE FOLLOWING ADDITIONAL ARRANGEMENTS SHOULD BE FOLLOWED IN CONJUNCTION WITH FIG. 2B (SHEET 2):-  
PROVIDE STRAPS BETWEEN THE U.A.A. SA 9151 & ADDITIONAL U.A.A.'S SA 9152 AS FOLLOWS:-

U.A.A. SA 9151	2nd U.A.A. SA 9152	U.A.A. SA 9151	3rd U.A.A. SA 9152
3	2	4	2
13	12	14	12
23	22	24	22
33	32	34	32
43	42	44	42

STRAP TERMINALS 4 & 13 OF STRIP CONNEXION 'A' TO 4 & 13 OF STRIP CONNEXION 'B' IN THE KEY AND LAMP UNIT No. 10A.

- 3.8. THE COLOUR SCHEME SHOWN FOR CABLES CONNECTED TO THE BOX CONNEXION No. 1A INCLUDES THE CABLING FROM THE KEY AND LAMP UNIT EXCEPT FOR THE SPARE PAIR Y/BN AND BN.
- 3.9. REGULATOR No. 6A FOR USE WITH HEADSET No. 1 & 2

CABLE P.V.C. No. 1  
48 W/G 1/2 GREY  
NOTE 3.3



REGULATOR No. 6A  
MOUNTING DIAL No. 21G GREY (IF REQUIRED)  
JACK UNIT No. 1A

RECTIFIER ELEMENT No. 205  
STRIPS CONNEXION IN KEY & LAMP UNITS Nos. 2A & 10A

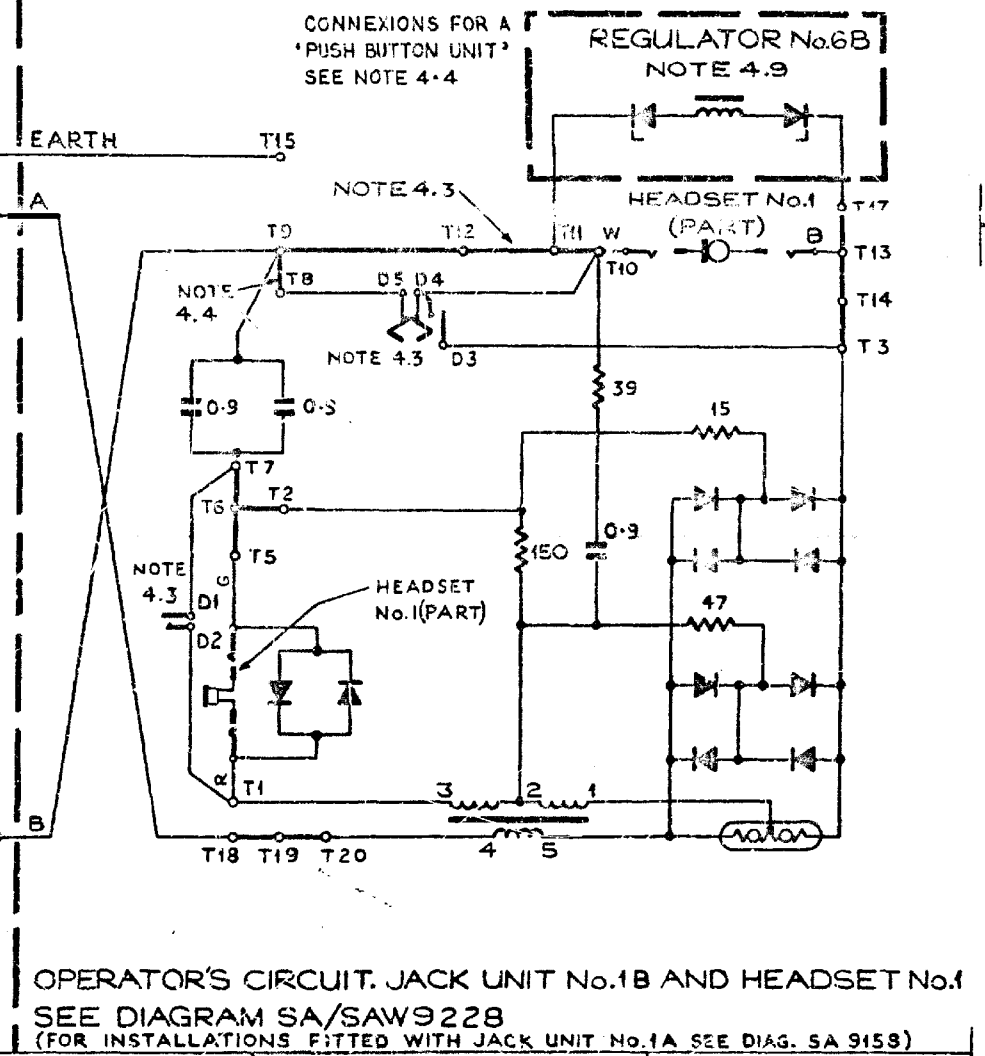
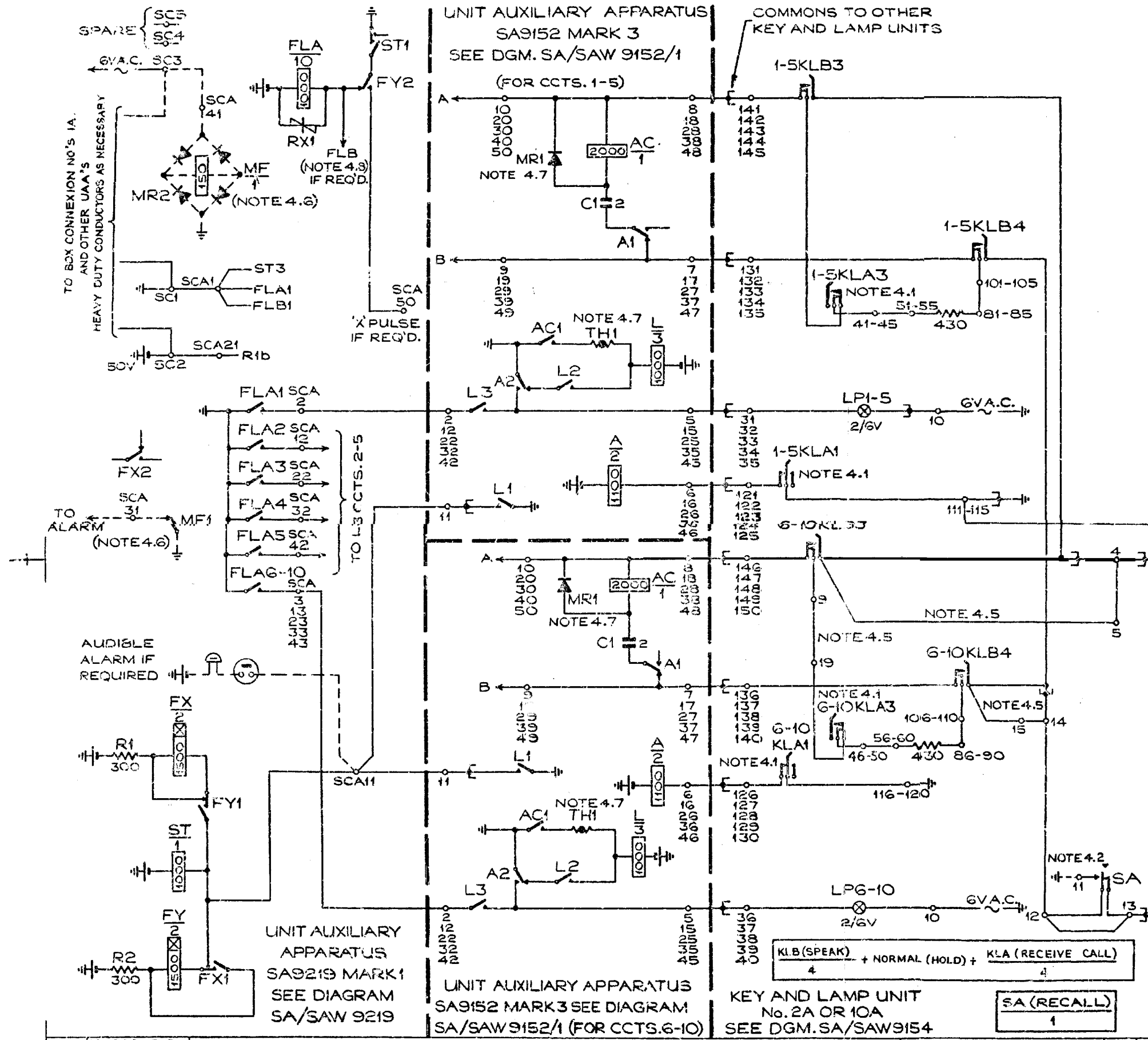
FIG. 3. CABLING (TYPICAL NOTES 3.6 & 3.7)

DRN CIRCUITRY LTD.  
CKD  
A1  
A2  
DATE 29.5.69.

REGULATOR No. 6A, NOTE 3.9 & NOTE 3.3 ADDED. EN 27-4-71	A	ORDER TABLE WORKING USING KEY & LAMP UNIT No. 2A OR 10A. UP TO 20 EXCHANGE LINES OR R.B.X. EXTENSIONS.	REFERENCES
AMENDMENT	ISSUE	POST OFFICE TELECOMMUNICATIONS HORS TD 2.3.3 SECTION	SA 9156/2 SHT. 3

FIG. 4 SCHEMATIC

- NOTES:-
- 4.1 KLA IS NORMALLY OPERATED TO RECEIVE CALL POSITION BUT ON THIS DGM IS SHOWN UNOPERATED
  - 4.2 FOR EARTH LOOP RECALL:- STRAP TAGS 11-111 OF K&LU No.2A. STRAP TAGS 11-111 ON BLOCK 'A' OF K&LU No.10A
  - 4.3 CONNECTIONS FOR A DIAL ARE SHOWN. (ONE LINK STRAP, T11-T12, TO BE REMOVED)
  - 4.4 WHEN A P.B.U. No.1 OR 2/SA 4259 IS FITTED THE CONNECTIONS ARE:- 'A' LINE TO T8, 'B' LINE TO T18, EARTH TO T15
  - 4.5 COMMONS FROM 4 AND 14 GO TO KEYS 1-9 ONLY. KEY 10 ONLY IS WIRED TO 5 AND 15. STRAP 9-13 IS REQUIRED TO COMPLETE CIRCUIT 10 ONLY. WIRING IS DIRECT ON CIRCUITS 1-9.
  - 4.6 RELAY MF AND RECTIFIER ELEMENT MR1 TO BE PROVIDED LOCALLY IF REQUIRED.
  - 4.7 IN MARK 1 U.A.A. SA9152 RECTIFIER MR1 WAS RECTIFIER-ELEMENT No.1/6 AZ.
  - 4.8 RELAY FLB MUST BE PROVIDED FOR INSTALLATIONS OF 11-20 LINES.
  - 4.9 SEE DIAGRAM SA/SAW9219. REGULATOR No.6B (USE WITH HEADSET No.1 AND 2.) SELF SUPPORTING ON TERMINALS T11 AND T17 OF JACK UNIT No.1B



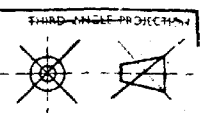
AI  
A2  
E-IR-C  
4651  
DATE 27-4-71

DRN/CIRCUIT/APE LTD  
CERTIFICATION  
DATE 27-4-71

JACK-UNIT No.1B WAS 1A. REGULATOR No. 6B WAS 6A. PUSH BUTTON UNIT ADDED. NOTES 4.2, 4.3 & 4.4 AMENDED KLA3 AMENDED  
388 314 (COW) 976  
7-11-73  
AMENDMENT

ORDER TABLE WORKING USING REFERENCES SEE SCHEDULE  
KEY AND LAMP UNIT No.2A OR 10A AND UNIT AUXILIARY APPS SA9219 MARK 1 UP TO 20 EXCHANGE LINES OR P.B.X. EXTENSIONS.  
POST OFFICE TELECOMMUNICATIONS HQ TD 2.5.3 SECTION SA9156/2 SHT. 4





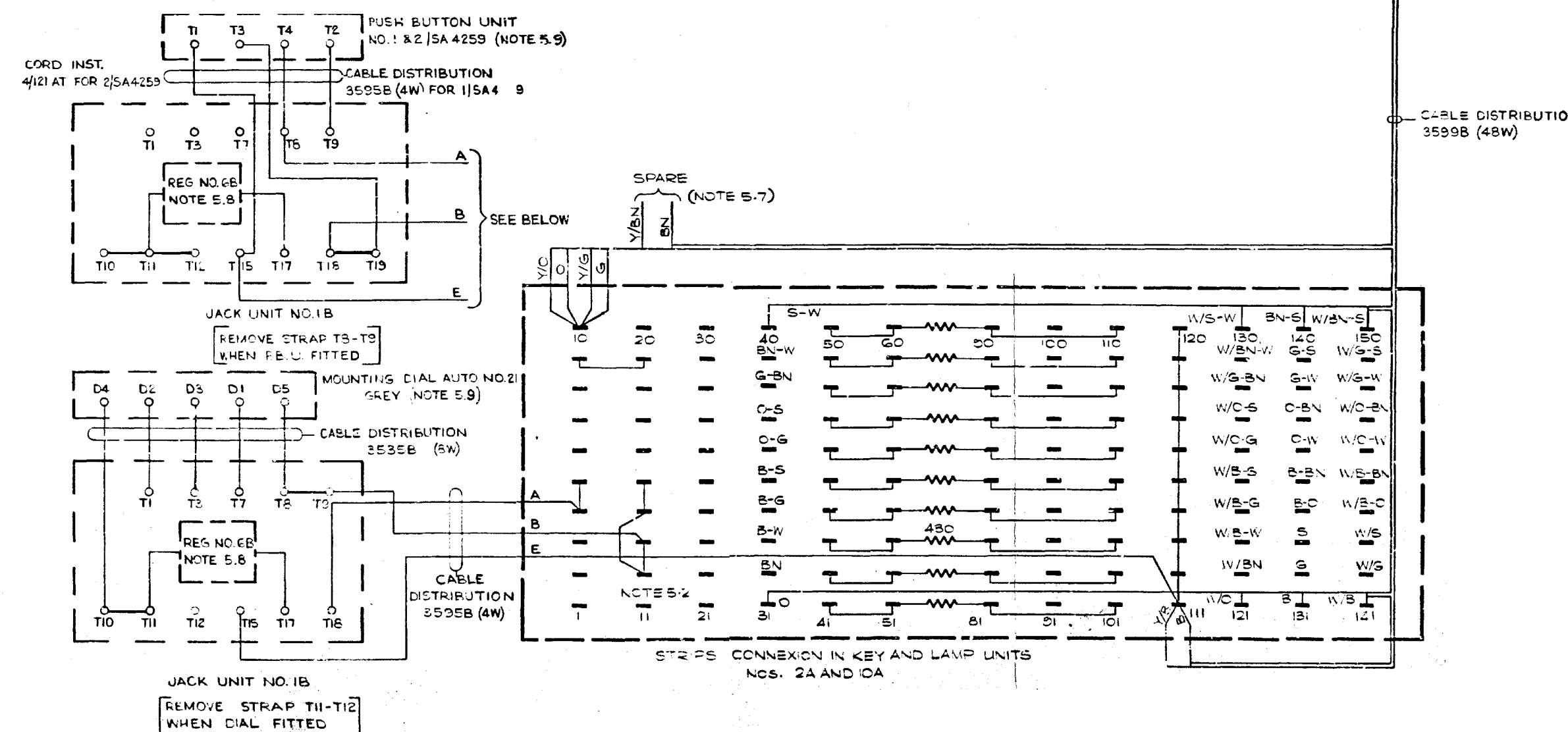
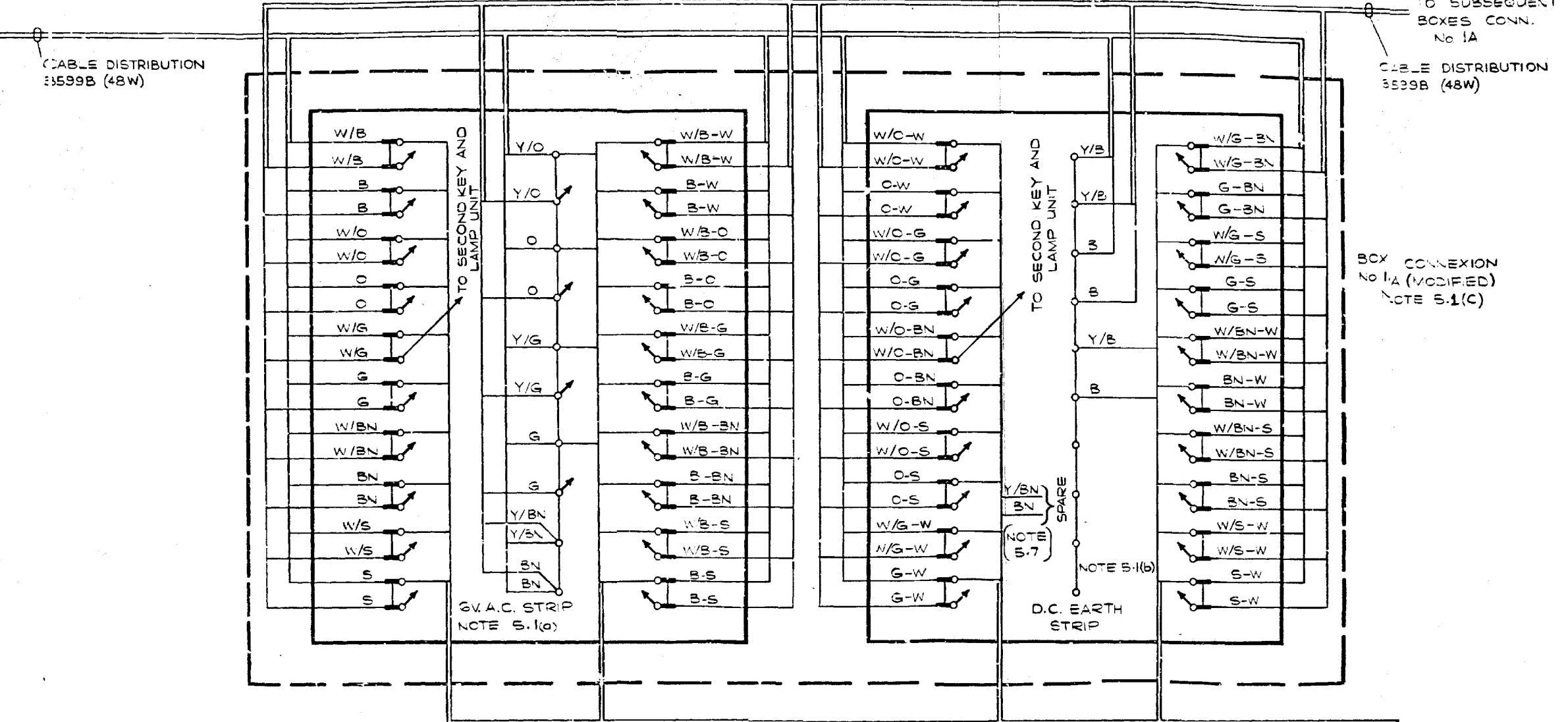
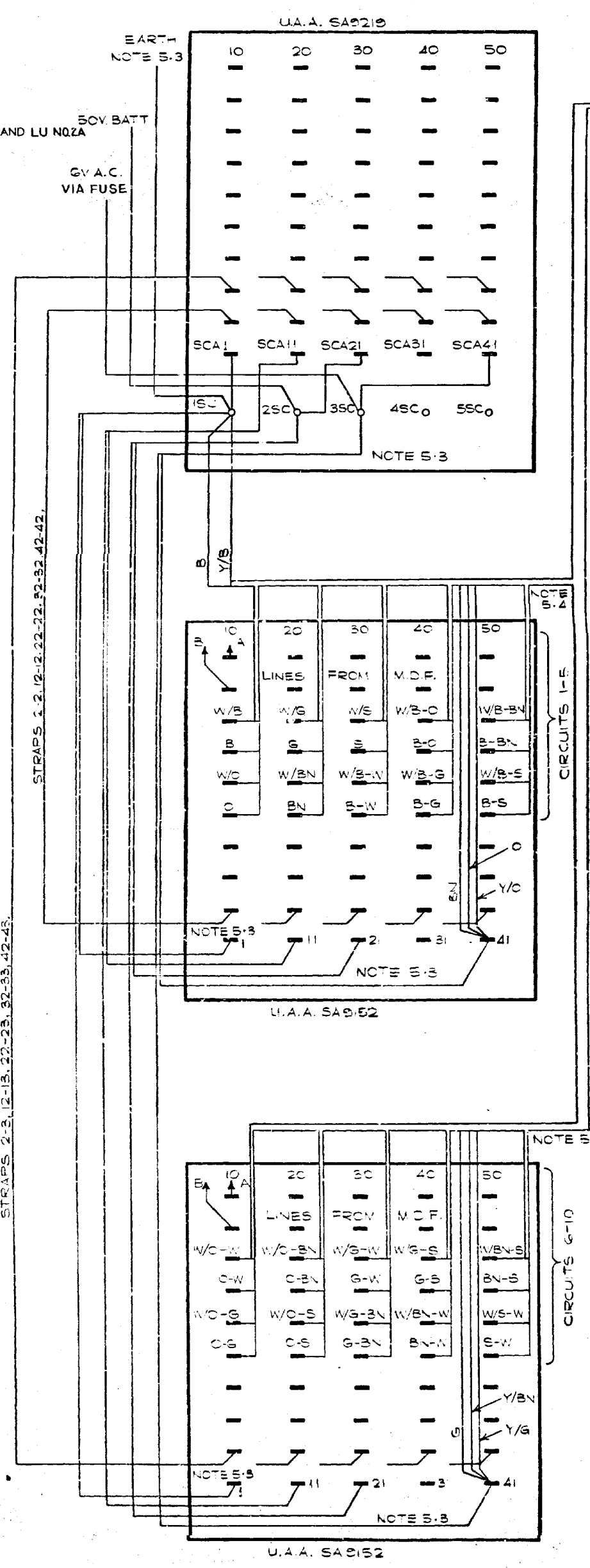
NOTES:-

- 5.1 (a) THIS EARTHING STRIP IS USED FOR G.V.A.C. COMMON.
- (b) THIS EARTHING STRIP IS USED FOR D.C. EARTH.
- (c) REMOVE THE Wires BETWEEN THE LEFT HAND AND RIGHT HAND EARTHING STRIPS, IF ADDITIONAL TERMINALS ARE REQUIRED, REPLACE D.C. EARTHING STRIP BY PART VDS/725.
- 5.2 FOR EARTH LOOP RECALL STRAP TAGS II-III OF K AND LU NO.2A STRAP TAGS II-III ON BLOCK 'A' OF K AND LU NO.10A
- 5.3 THE G.V.A.C. AND EARTH WIRE SUPPLY TO THE U.A.A. EQUIPMENT SHOULD BE IN HEAVY GAUGE CONDUCTOR ACCORDING TO THE SIZE OF THE INSTALLATION.
- 5.4 IF THE CABLE FROM THE RACK EQUIPMENT TO THE FIRST BOX CONNECTION No. 1A IN THE MULTIPLE EXCEEDS A FEW FEET, AN ADDITIONAL G.V.A.C. FEED WIRE SHOULD BE RUN SEPARATELY IN A HEAVY GAUGE CONDUCTOR DIRECT FROM THE G.V.A.C. FUSE TO THE G.V.A.C. COMMON ON THE BOX CONNECTION, IF NECESSARY THIS CONDUCTOR MAY LINK ALL BOX CONNECTIONS AND BE RETURNED TO THE G.V. TRANSFORMER TO COMPLETE A RING CIRCUIT.
- 5.5 THE CABLING SHOWN IN THE DIAGRAM IS TYPICAL ONLY, ALTERNATIVE ARRANGEMENTS MAY BE MADE TO SUIT PARTICULAR CIRCUMSTANCES, ALTERNATIVES MAY BE USED FOR JACK UNIT NO.1B, BOX CONNECTION NO.1A AND CABLE ETC. BUT SUCH ALTERNATIVES MUST BE CONSIDERED BY THE PLANNING GROUP.
- 5.6 UP TO 20 LINES:- FIG.5 DESCRIBES THE TYPICAL ARRANGEMENTS FOR UP TO 10 LINES. FOR UP TO 20 LINES THE FOLLOWING ADDITIONAL ARRANGEMENTS SHOULD BE FOLLOWED IN CONJUNCTION WITH FIG 23 (SHEET 2):- PROVIDE STRAPS BETWEEN THE U.A.A. S4219 AND ADDITIONAL U.A.A.'S S4252 AS FOLLOWS:-

U.A.A. S4219	3RD U.A.A. S4252
SCA4	2
SCA14	12
SCA24	22
SCA34	32
SCA44	42

U.A.A. S4219	4TH U.A.A. S4252
SCA5	2
SCA15	12
SCA25	22
SCA35	32
SCA45	42

- 5.7 THE COLOUR SCHEME SHOWN FOR CABLES CONNECTED TO THE BOX CONNECTION NO.1A INCLUDES THE CABLING FROM THE KEY AND LAMP UNIT EXCEPT FOR THE SPARE PAIR Y/BN AND BN.
- 5.8 REGULATOR NO.28 (FOR USE WITH HEADSET NO.1 AND 2) SELF SUPPORTING, ON TERMINALS T11 AND T17 OF JACK UNIT NO.1B WHEN REQUIRED FIT EITHER DIAL AUTO NO.21 GREY OR PUSH BUTTON UNIT NO.1 OR 2 (SA4259) (DIAG. SA(L)4259)
- 5.9 WHEN REQUIRED



(FOR INSTALLATIONS FITTED WITH JU. NO. 1A) SEE DIAG. SA 9158

FIG. 5 CABLING (TYPICAL NOTES 5.5 AND 5.6)

A0	SAVING COPY
A1	CERTIFICATION
740	DATE 27-4-71

JACK UNIT NO.1B WAS 1A. REGULATOR NO.28 WAS G.V. PUSH-BUTTON UNIT ADDED. NOTES 5.2, 5.8, 5.9 AMENDED. CABLE UPDATED. 7-11-73	A	ORDER TABLE WORKING USING KEY AND LAMP UNIT NO.2A OR 10A AND UNIT AUX APPS S4252 MK I, UP TO 20 EXCHANGE LINES OR PB X EXTENSIONS.	REFERENCES SEE SCHEDULE
A W E N D M S T			ISSUE
POST OFFICE TELECOMMUNICATIONS HEADQUARTERS TO 2.5.3. SECTION			SA9159/2 SHEET 5