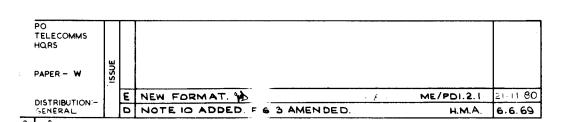
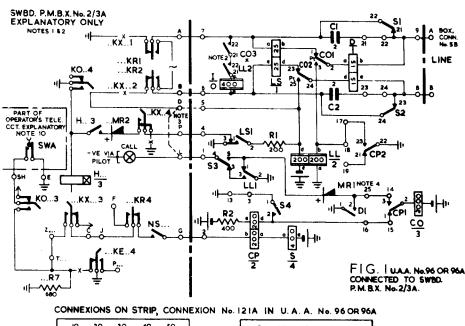
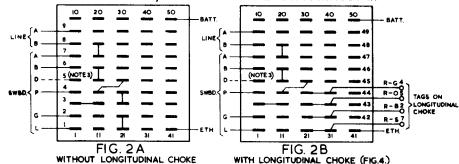
TERMINATION OF 2-WIRE EXTENSION ON SWITCHBOARD P.M.B.X. No. 2/3A

NOTES:

- 1. SEE DGM SA7164 FOR CCT AND TERM BLOCK OF SWITCHBOARD
- 2. U.A.A. NO. 96 OR 96A CAN ONLY BE PROVIDED ON EXTENSIONS 7-12 FOR CONNEXION OF THE U.A.A. SEE FIG. 3. CONTACT 112-15 NOT PROVIDED ON A U.A.A. NO. 96.
- 3. WHEN THE CONNEXION OF AN EXTENSION WITH A LINE LOOP RESISTANCE BETWEEN 500-850 IS PERMISSIBLE, DISCONNECT STRAP D-L ON TERMINAL BLOCK IN SWBD AND PROVIDE AN ADDITIONAL WIRE BETWEEN D AND TAG 5 IN THE U.A.A... ANY SPARE CONDUCTOR IN THE CORD & CABLE PROVIDED FOR CONN OF MISC FACILITIES SHOULD BE USED FOR THIS PURPOSE.
- 4. ON EARLY SUPPLIES OF THE U.A.A. NO. 96 RECIPIER MRI AND WIRING TO TAGS 12 & 25 ON THE STRIP CONN. NO. 121A WAS NOT PROVIDED, ALSO RETARD I WAS 1000 ... BEFORE ONE OF THESE U.A.A. IS CONNECTED TO THE SYBD, IT SHOULD BE MODIFIED AS DETAILED IN DGM NIT115.
- 5. CABLE P.V. C. NO. 1 12 WIRE $6\frac{1}{2}$ SHOULD NORMALLY BE USED FOR CABLING BETWEEN THE BOX, CONN. NO. 58.
- 6. THE STRAPS PROVIDED ON THE SOLDERED CONNEXION BLOCK SHOULD BE CHANGED FROM FIG 3A TO 3B OF DGM SAW71640. FIGRMER! Y LD164+ SHEET, 2
- 7. THE LONGITUDINAL CHOKE TO BE FITTED IN THE U.A.A. NO. 96 OR 96A AT P.B.X.'S WITH SUBSCRIBER'S PRIVATE METERING (S.P.M.). WHERE S.P.M. IS NOT PROVIDED THE METER PULSES MAY BE AUDIBLE AND IN THESE CASES THE LONGITUDINAL CHOKE SHOULD ALSO BE FITTED.
- 8. A WIRING FORM HAS BEEN PROVIDED IN THE U.A.A. NO. 96 OR 96A FOR THE CONNEXION OF THE LONGITUDINAL CHOKE. INDUCTOR COIL 172A. IS NOT PROVIDED WITH FAGS 1, 3, 6 & 8. THE WIRES SHOULD BE TERMINATED AS SHOWN IN FIG. 4. STRAPS SHOULD BE PROVIDED BETWEEN TAGS 1-8 & 3-6 WHEN A TRANSFORMER NO. 50A is FITTED.
- 9 WHERE A LONGITUDINAL CHOKE IS REQUIRED STRAPPING SHOULD BE PROVIDED ON THE STRIP, CONN. NO. 121A OF THE U.A.A. IN ACCORDANCE WITH FIG. 2B.
- 10 FOR CONNEXIONS TO THE OPERATOR'S TELEPHONE SEE DGM N1103 FIGS 2 OR 3 AS REQUIRED

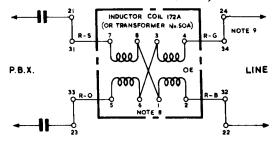






_10.	13. 3 CONNEXIONS FOR EXTENSIONS 7-12 WITH WAA, No.960H 964 (SEE ALSO NOTE 6)						
EXTN.	CHANGES TO SWITCHBOARD TERMINAL BLOCK		CABLING BETWEEN BOX, CONN No. 5B BUAA No.96 OR 96A (NOTE 5)			STRAPS PROVIDED CONN.121A	IN U.A.A.
No		PART OF TERM. BLOCK SHOWN AFTER CHANGES HAVE BEEN MADE	BOX CONN. No. 5 B		U.A.A.	WITHOUT LONGIT-	WITH LONGIT-
			WIRE	TERMINAL	TAG NUMBER	UDINAL CHOKE	UDINAL
7	DISCONNECT STRAP 62 - 63 DISCONNECT STRAP 33 - 35 PROVIDE STRAP 33 - 34 MOVE CORD FROM 5 - 35 MOVE CORD FROM 6 - 66 MOVE CORD FROM 33 - 64		A B SWBD P G D A LINE BATT EARTH.	B1 B2 B3 B4 B5 NOTE 3 D1 D2 D6 DE1	7 6 1 4 2 NOTE 3 9 8 50 41	3-13 14-25 15-16 17-18 21-22 23-24	3-13 14-25 15-16 .7-18 21-31 22-32 23-33 24-34
8	DISCONNECT STRAP 67 - 68 DISCONNECT STRAP 38 - 40 PROVIDE STRAP 38 - 39 MOVE CORD FROM 7 - 40 MOVE CORD FROM 8 - 71 MOVE CORD FROM 38 - 69		A B L P G D A B BATT H.	B6 B7 B8 B9 B10 NOTE 3 D3 D4 D9 DE2	7 6 1 4 2 NOTE 3 9 8 50 41	SEE EXTN No.7	SEE EXTN No.7
9	DISCONNECT STRAP 72 – 73 DISCONNECT STRAP 43 – 45 PROVIDE STRAP 43 – 44 MOVE CORD FROM 9 – 45 MOVE CORD FROM 10 – 76 MOVE CORD FROM 43 – 74	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	A B L SWBD. G D A LINE BATT EARTH	BII BI2 BI3 BI4 BI5 NOTE 3 D5 D6 DIO DE 3	7 6 1 4 2 NOTE 3 9 8 50 41	SEE EXTN No.7	SEE EXTN: No.7
10	DISCONNECT STRAP 77-78 DISCONNECT STRAP 48-50 PROVIDE STRAP 48-49 MOVE CORD FROM 21-50 MOVE CORD FROM 22-81 MOVE CORD FROM 48-79	\$\text{0} \text{0} \t	A B SWBD P G D A LINE BATT. EARTH.	816 817 818 819 820 NOTE 3 D16 D17 D11 DE4	7 6 1 4 2 NOTE 3 9 8 50 41	SEE EXTN Ne.7	SEE EXTN. No.7
11	DISCONNECT STRAP 82-83 DISCONNECT STRAP 53-65 PROVIDE STRAP 53-54 MOVE CORD FROM 23-55 MOVE CORD FROM 24-86 MOVE CORD FROM 53-84	\$ \$\text{\$\text{\$\text{\$\phi\$}}}\$ \$\text{\$\text{\$\phi\$}}\$ \$\text{\$\phi\$} \$\tex	A B L SWBD G D A LINE BATT. EARTH.	821 822 823 824 825 NOTE 3 D18 D19 D12 DE5	7 6 1 4 2 NOTE 3 9 8 50 41	SEE EXTN. No.7	SEE EXTN. No.7
12	DISCONNECT STRAP 87 - 88 DISCONNECT STRAP 58 - 60 PROVIDE STRAP 56 - 59 MOVE CORD FROM 25 - 60 MOVE CORD FROM 26 - 91 MOVE CORD FROM 58 - 89	\$ \$\text{9} \text{9}	A B L SWBD. P G D A LINE BATT. EARTH.	826 827 828 829 830 NOTE 3 D20 D21 D13 DE6	7 6 1 4 2 NOTE 3 9 8 50 41	SEE EXTN No.7	SEE EXTN. No.7

FIG. 4. CONNEXION OF LONGITUDINAL CHOKE IN THE U.A.A. No. 96 OR 964 (NOTE 7)



3

CIRCUIT OPERATION
EXTENSION TO EXTENSION CALL

DEPENDING ON THE LOOP RESISTANCE OF THE EXTN LINE, A CALLING SIGNAL CAN BE GIVEN AT THE SWITCHBOARD BY TWO METHODS.

- 1. EXTN. LINE WITH A LOOP RESISTANCE LESS THAN 500 A
 ETH VIA ...KX...1, ...KR1, 'A' LINE, U.A.A. (ALL RELAYS
 RUSED) EXTN TELE LOOP, U.A.A., B LINE, ...KR2, ...KX...2
 TERM D, TERM L & EXTN CALL LAMP TO BATT.
 EXTN CALL LAMP LIGHTS.
- 2. EXTN. LINE LOOP RESISTANCE 500-850
 ETH VIA ...KX...I, ...KRI, 'A' LINE, U.A.A., EXTN TELE.
 LOOP, B LINE, ...KR2, ...KX...2, TERM D, TAG 5 U.A.A.,
 TO OPERATE RELAY LL TO BATT.
 LLI LIGHTS EXTN. CALL LAMP.

THE CALL IS ANSWERED BY OPERATING KEYS ...KX... & ...KO IN THE SAME CONN. CCT & LIFTING THE OPERATORS HANDSET. ...KX.... & ...KX.... 2 DISCONNECT THE CALLING SIGNAL & EXTEND EXTN TO CONN. CCT. ETH VIA ...KE...4, ...KX...3, ...KR4, NS..., TERM G. TAG 2 U.A.A., TO OPERATE RELAYS CP & S TO BATT. ETH VIA S4 CAUSES A BALANCING CURRENT TO FLOW IN THE d-e COIL OF RELAY CP WHICH NOW RELEASES. ETH VIA 54 & CP1 OPERATES RELAY CO. CO1 & CO2 SWITCH THE U.A.A. INTO THE DIVIDED FEED CONDITION. THE TRANSMISSION FEED FOR THE EXTN. IS NOW SUPPLIED VIA RELAY LL. CONNEXION TO ANOTHER EXTN. CAN BE MADE IN THE NORMAL WAY. WHEN THE EXTN RECALLS THE OPERATOR AN EARTHED LOOP IS APPLIED ON THE A&B WIRES TO THE U.A.A.. DUE TO THE RESULTING UNBALANCED CURRENT BETWEEN THE TWO COILS OF RELAY D, THE RELAY OPERATES. DI LIGHTS EXTN CALL LAMP. WHEN THE EXTN HANDSET IS REPLACED RELAY LL RELEASES. ETH VIA LLI & S3 LIGHTS THE EXTN CALL LAMP TO GIVE A CLEARING SIGNAL.

TO CALL AN EXTN. VIA THE U.A.A. KEY ...KR IS OPERATED, ...KR1 & ...KR2 EXTEND RINGING THROUGH THE UNIT (ALL RELAYS RELEASED) TO RING THE EXTN. WHEN THE EXTN.

ANSWERS, THE CALL LAMP WILL LIGHT & KEY \dots KX \dots SHOULD BE OPERATED TO THE REQUIRED CONN CCT.

EXTENSION TO EXCHANGE CALL

WHEN THE OPERATOR EXTENDS AN EXTN. TO AN EXCH. LINE BY OPERATION OF THE SELECTED ...KE... KEY TO THE SAME CONN. CCT: THE U.A.A. REMAINS IN THE DIVIDED FEED CONDITION AND THE TRANSMISSION FEED FOR THE EXTN. IS VIA RELAY LL & THAT FOR THE OPERATOR BY THE PUBLIC EXCH.. WHEN THE OPERATOR RESTORES KEY KO ... OR REPLACES THE HANDSET, THE FULL ETH APPLIED TO RELAYS CP & S IN SERIES IS REPLACED BY A 680 .. ETH. VIA RESISTOR ...R7. (THE ETH VIA ...KE..4 WAS REMOVED WHEN KEY ...KE... WAS OPERATED.). THE RESULTING UNBALANCED CURRENT CAUSES DIFFERENTIALLY CONNECTED RELAY OF TO OPERATE. CP1 RELEASES RELAY CO. CP2 CONNECTS A SHORT-CIRCUIT ACROSS THE a-b COIL OF RELAY LL. COI & CO2 RELEASING CHANGES OVER THE EXTN. TRANSMISSION FEED FROM THE U.A.A. TO THE PUBLIC EXCH. RELAYS LS & D ARE CONNECTED IN SERIES WITH THE EXCH. LINE TO GIVE SUPERVISORY & RECALL SIGNALS RESPECTIVELY. RELAY LS OPERATES & RELAY D WILL OPERATE WHEN A RECALL SIGNAL IS APPLIED (SEE EXTN-EXTN CALL), LS1 HOLDS RELAY LL. RELAY LL NOW FUNCTIONS AS A RELIEF FOR RELAY LS. ETH. VIA LLI & S3 WILL GIVE A CLEARING SIGNAL WHEN THE EXTN. HANDSET IS REPLACED. THE SHORT-CIRCUIT APPLIED TO RELAY LL BY CP2 MAKES THE RELAY SLOW TO RELEASE & PREVENTS THE EXTN. CALL LAMP FLASHING ON THROUGH DIALLING TO THE PUBLIC EXCH.

RETARD I & CO3 'x' ENSURE THAT CALLS TO THE PUBLIC EXCH.
ARE NOT RELEASED WHEN THE U.A. A. CHANGES FROM A DIVIDED
TO A THROUGH TRANSMISSION FEED.

NIGHT SERVICE

WHEN THE NIGHT SERVICE KEY IS OPERATED RELAY NS IN THE SWITCHBOARD RELEASES. CONTACT NS... PREVENTS THE OPERATION OF RELAY S IN THE U.A.A. WHEN AN EXTENSION IS CONNECTED THROUGH ON NIGHT SERVICE. SI & 52 RELEASED CONNECT A SHORT CIRCUIT ACROSS RELAYS LS & D TO PROVIDE A THROUGH CCT TO THE PUBLIC EXCH..