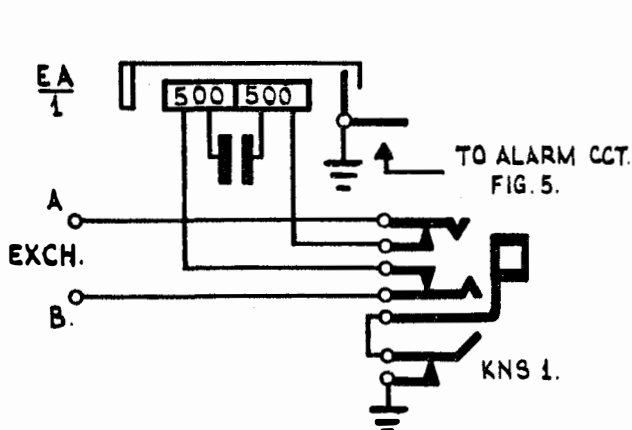


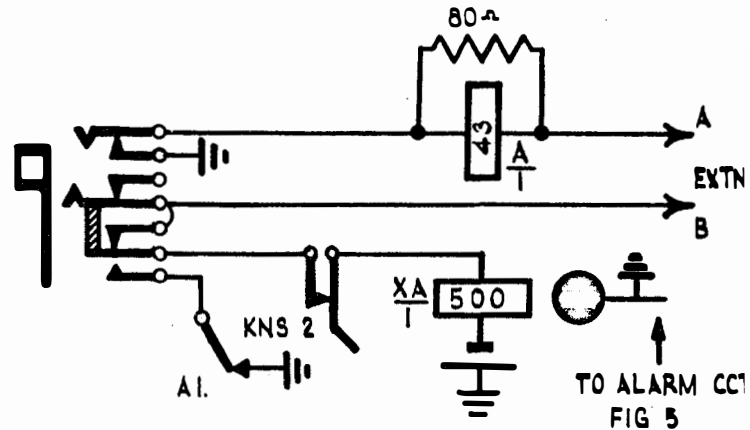
TA1005.		SX C	Sheet No. ___ of ___ Sheets
Approved <i>[Signature]</i> / SEE(E/T)		Date 7. 8. 63.	
Originated by		Date /	
Drm. <i>[Signature]</i> / Trd.		Ckd. A.E.P.	
SX	Amendment	Orig.	D/O
C.	Revised.		
			Approved SEE Date

# SWITCHBOARD C.B. 873.

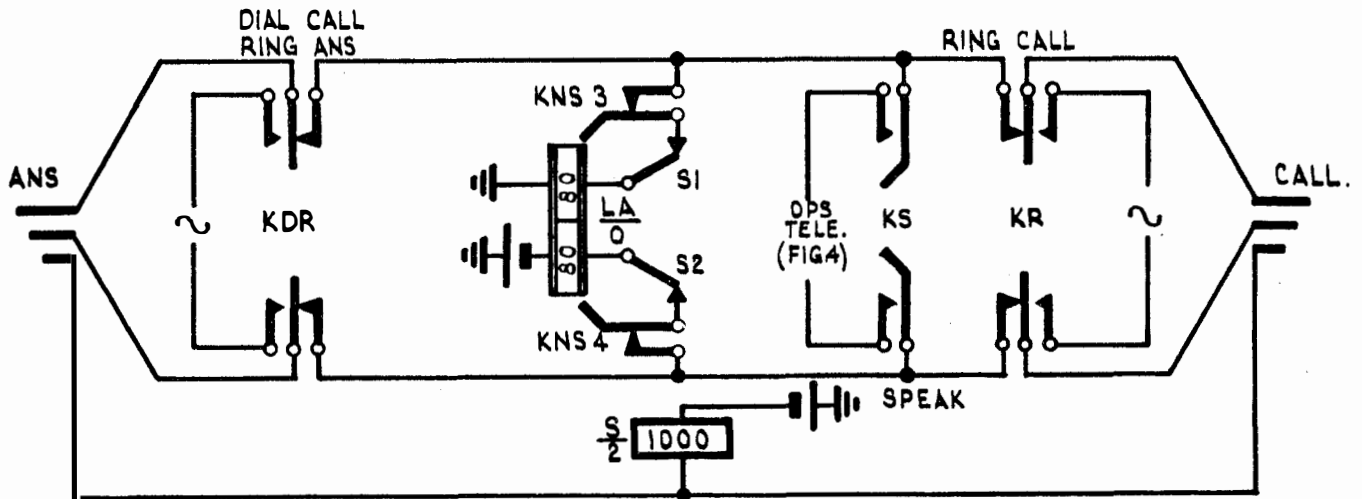
(25 LINE SW. BD.)



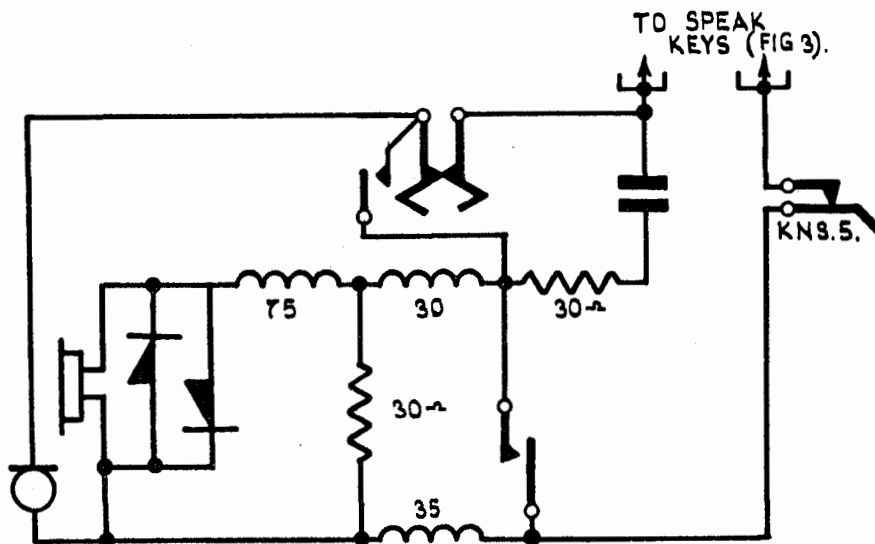
EXCHANGE LINE CIRCUIT (Fig. 1)



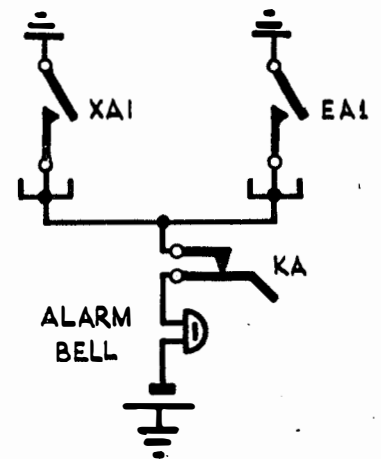
EXTENSION LINE CIRCUIT (Fig. 2)



CORD CIRCUIT (Fig. 3)



OPERATORS TELE. CIRCUIT (Fig. 4)



ALARM CCT. (Fig. 5)

**SWITCHBOARD AT. 3796.**  
(65 & 180 LINE BOARDS.)

<b>TA 1006</b>		Sx B	Sheet No of ___ Sheets
Approved <i>W.B. S.E.E.(E/T)</i>		Date	
Originated by		Date	
Dwn	Ind <i>W.B.</i>	Ckd. <i>J.W.A.</i>	
Sx	Amendment	Orig	Approved S.E.E. Date
A	Redrawn	W.B.	4.5.56
B	Amended	W.B.	3.12.57
C	Amended	R.B.	2.2.64

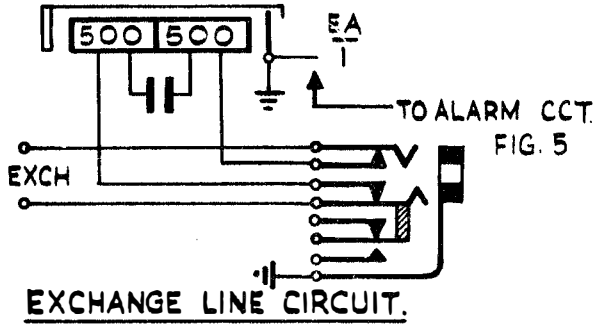
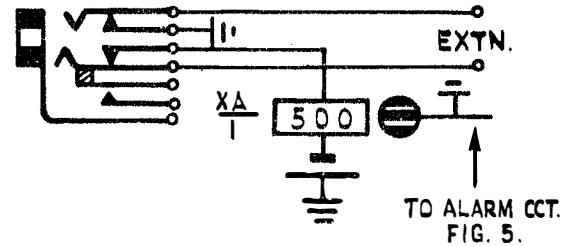
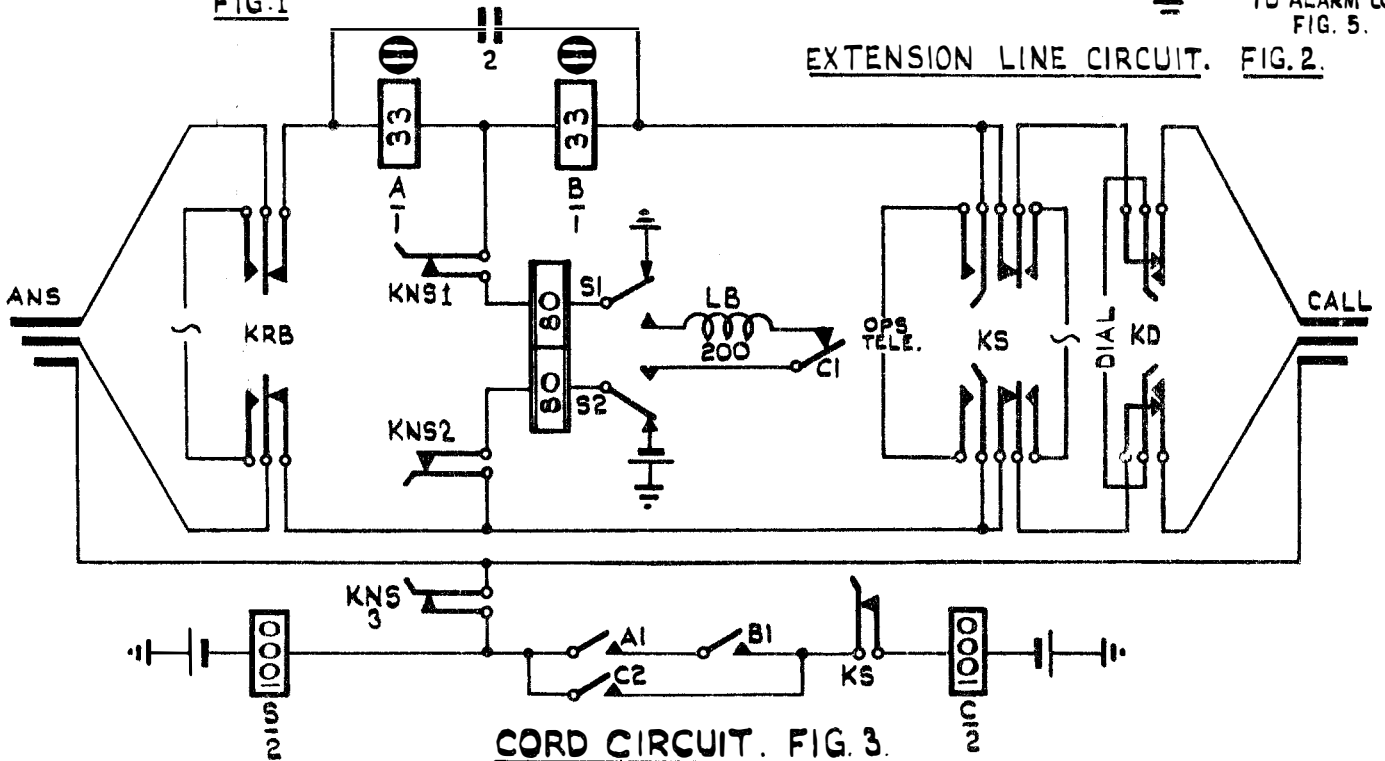


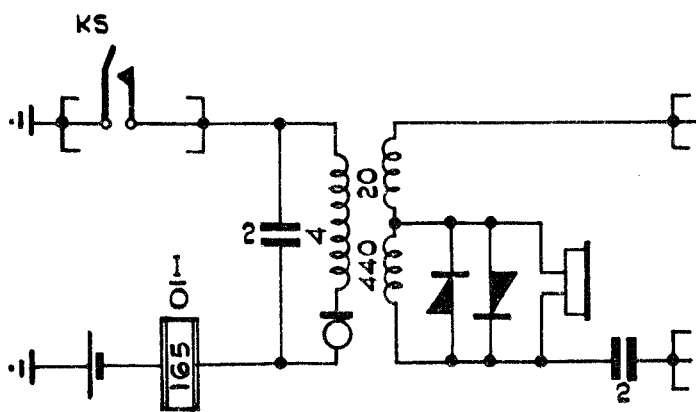
FIG. 1



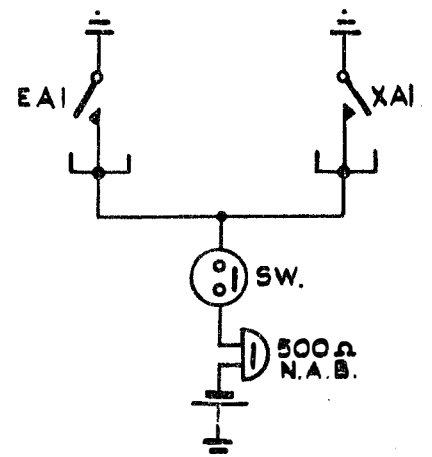
EXTENSION LINE CIRCUIT. FIG. 2.



CORD CIRCUIT. FIG. 3.



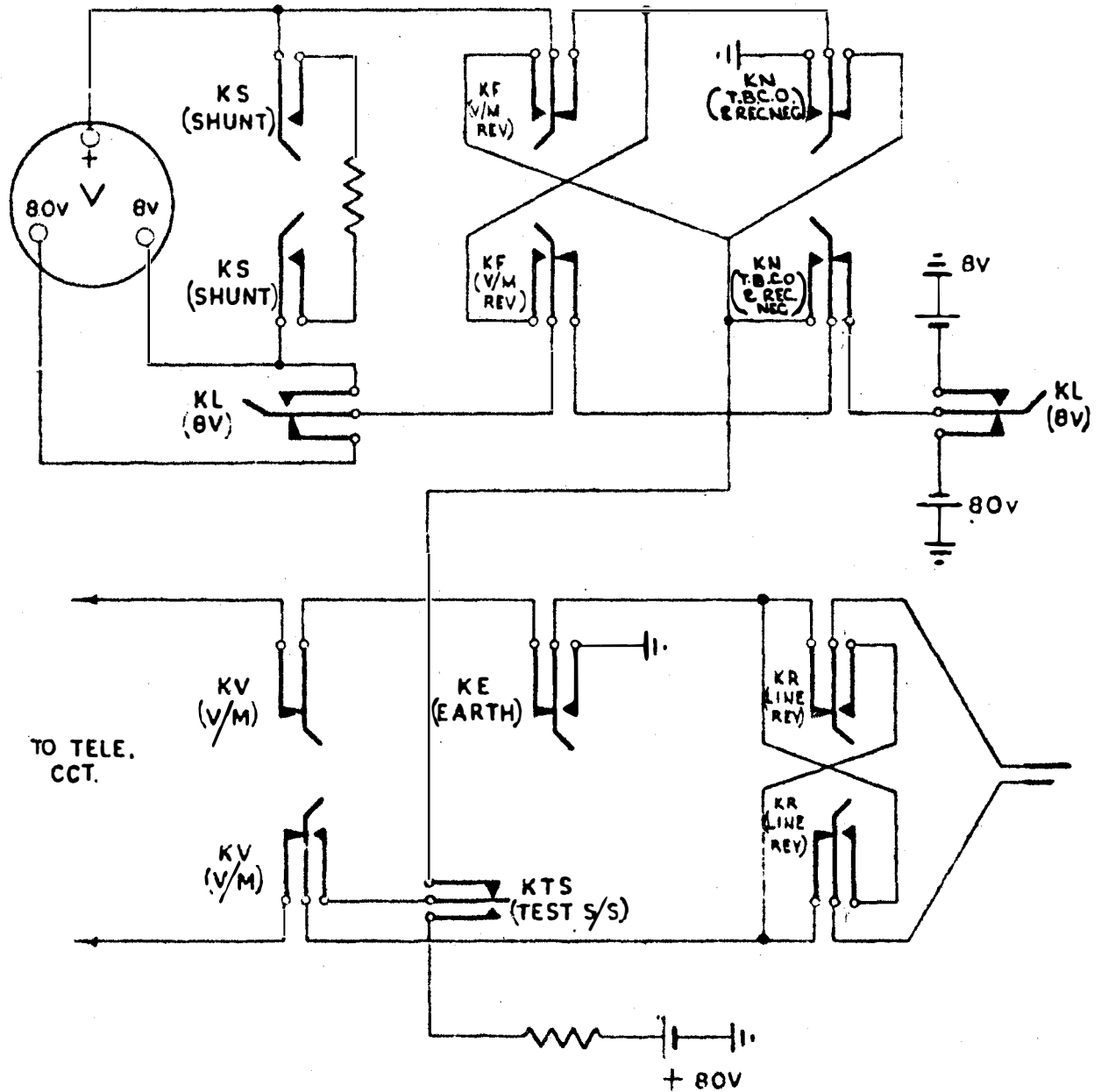
OPERATORS TELE. CIRCUIT. FIG. 4



NIGHT ALARM CIRCUIT. FIG. 5.

CIRCUIT ELEMENT OF  
TEST CORD CIRCUIT.

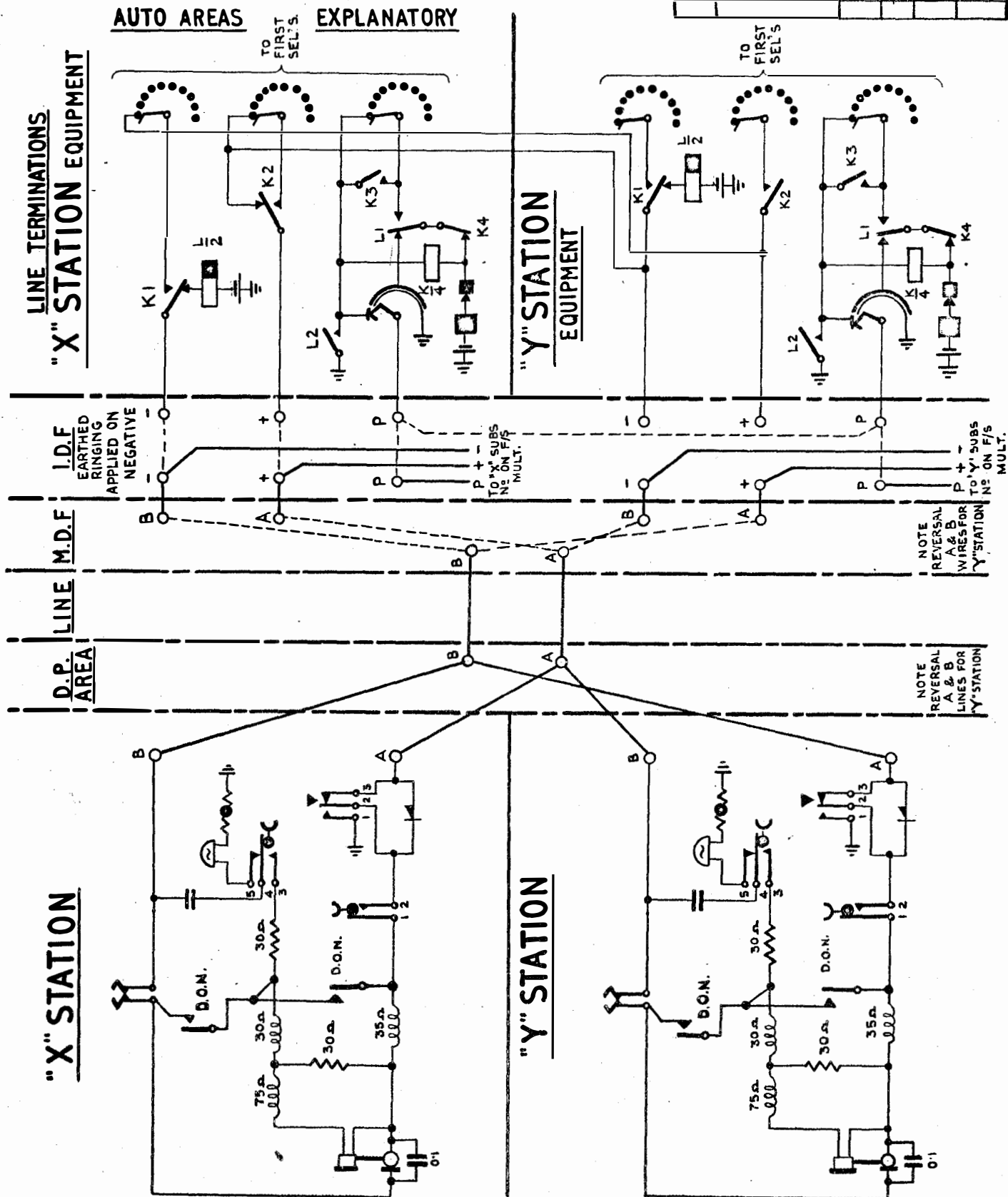
TA 1012		SX	Sheet No. --- of --- Sheets	
Approved. C.W. S.E.E. (P/H)			Date. 17.6.55	
Originated by J.P.C.F.			Date. 12.5.55	
Drn.	Trd. J.T	CKd. <i>[Signature]</i>		
SX	Amendment	Orig	C/P	Approved S.E.E. Date
A	Amended	GF	12	17.6.55



TA 1014		SX B	Sheet No. --- of --- Sheets
Approved <i>[Signature]</i> SEE (E/H)		Date	
Originated by		Date 6.7.56	
Drn.	Trd. H.Y.	Ckd. <i>[Signature]</i>	
SX	Amendment	Orig	D/O
A	REDRAWN	H.V.	6.7.56
B	MINOR AMENDS.	H.V.	22.3.60

# SHARED SERVICE - SEPARATE METERING

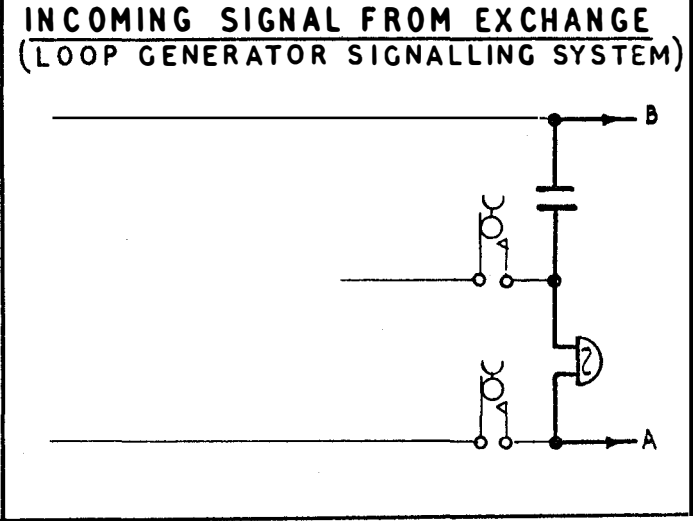
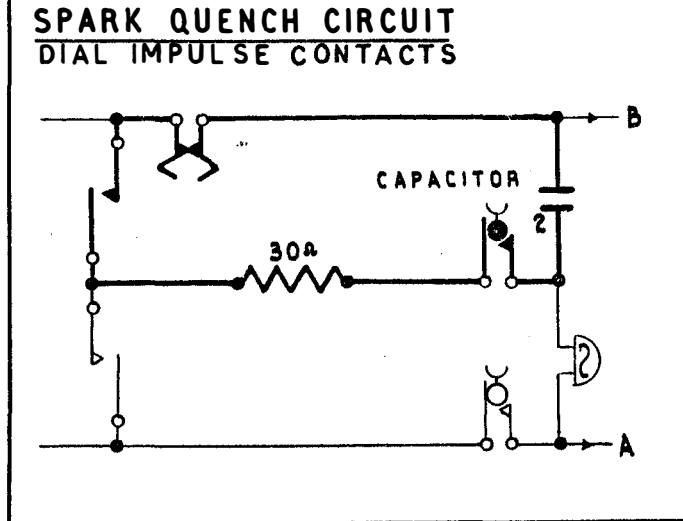
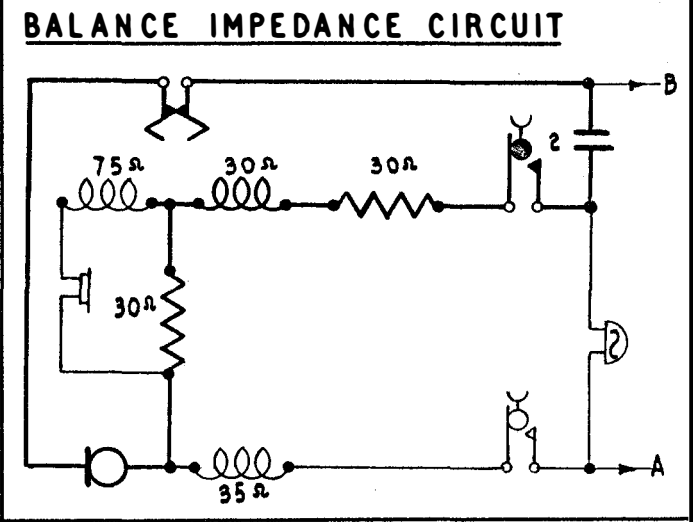
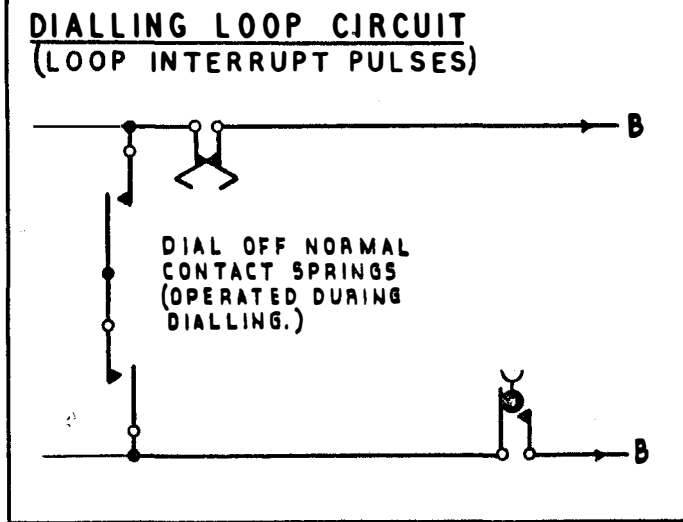
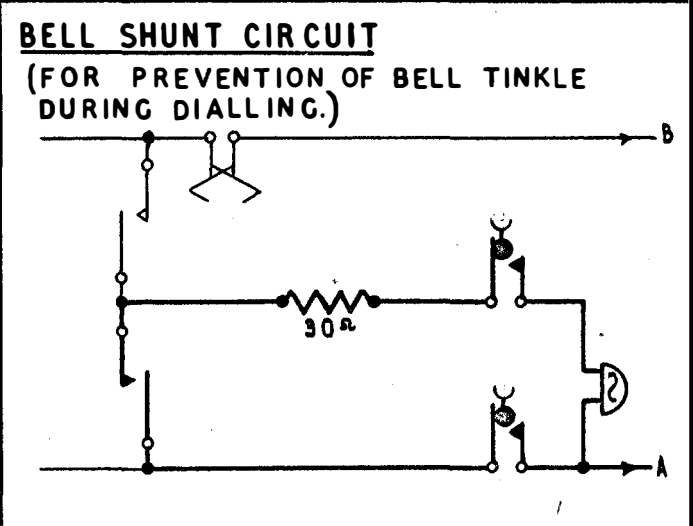
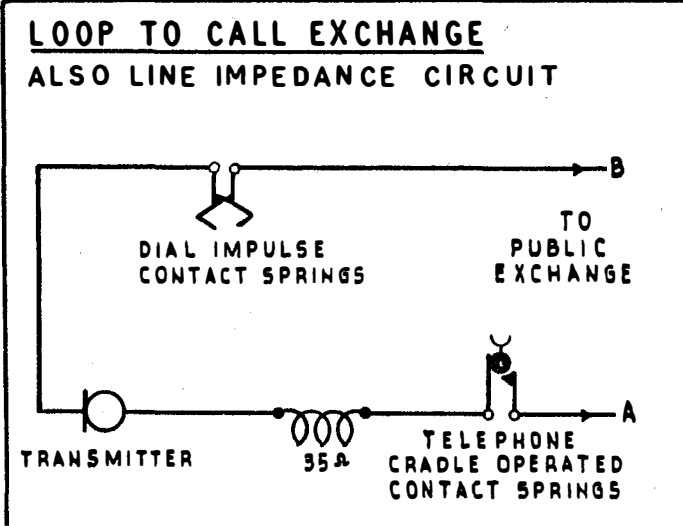
USING TELES. N° 312



TA 10 38		SX	Sheet No. _____
Approved <i>CEA</i> SEE (P)		Date	1. 11. 55
Originated by E.C.T		Date	6. 9. 55.
Dwn. J.T.   Ed. J.T.		Old <i>J.T.</i>	
SX	Amendment	Orig	Date

# CIRCUIT ELEMENTS OF A 300-TYPE TELEPHONE

## DIAGRAM N 432 PANEL 2 REFERS



**MAGNETIC FIELDS PRODUCED BY A  
CONDUCTOR CARRYING CURRENT.**  
(USED IN CONJUNCTION WITH NS 1/3)

TA 1040		SX. A	Sheet No. --- of --- Sheets	
Approved by: S.E.E. (1/1)		Date		
Originated by		Date 5.11.57		
Drn. 44b	Trd.	Ckd. <i>Ind</i>		
SX. A	Amendment VARIOUS	Orig. -	% -	Approved S.E.E. Date -

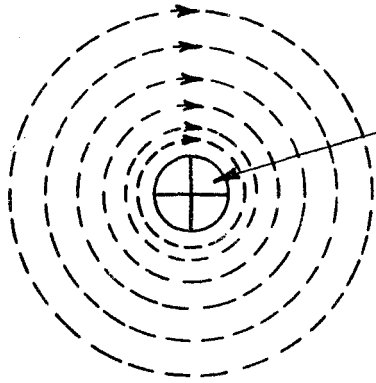


FIG. 1.

SECTION OF CONDUCTOR  
CARRYING CURRENT.

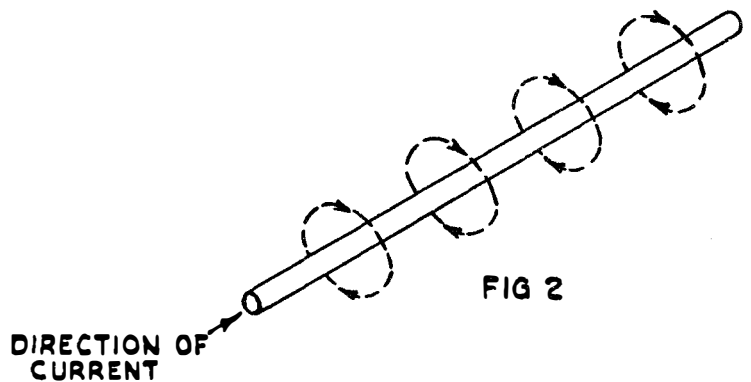


FIG 2

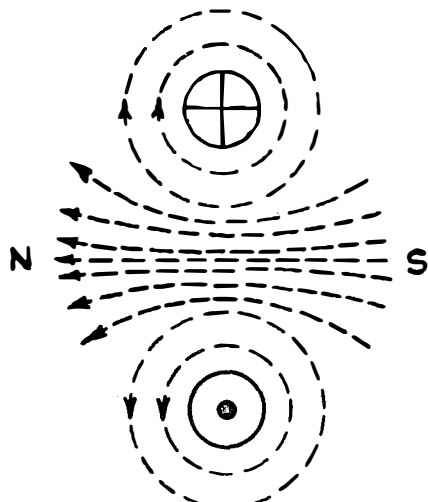


FIG. 3.

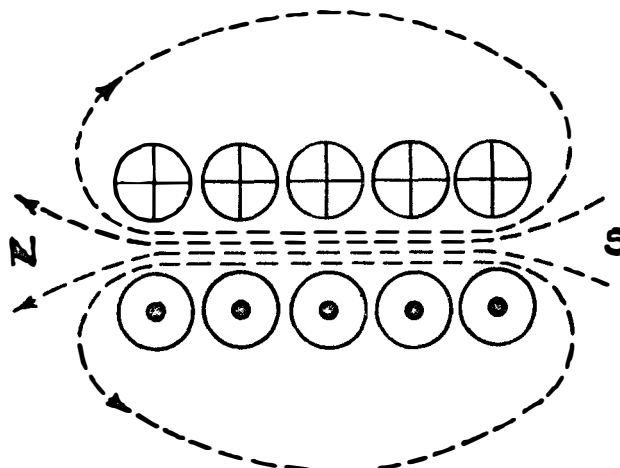


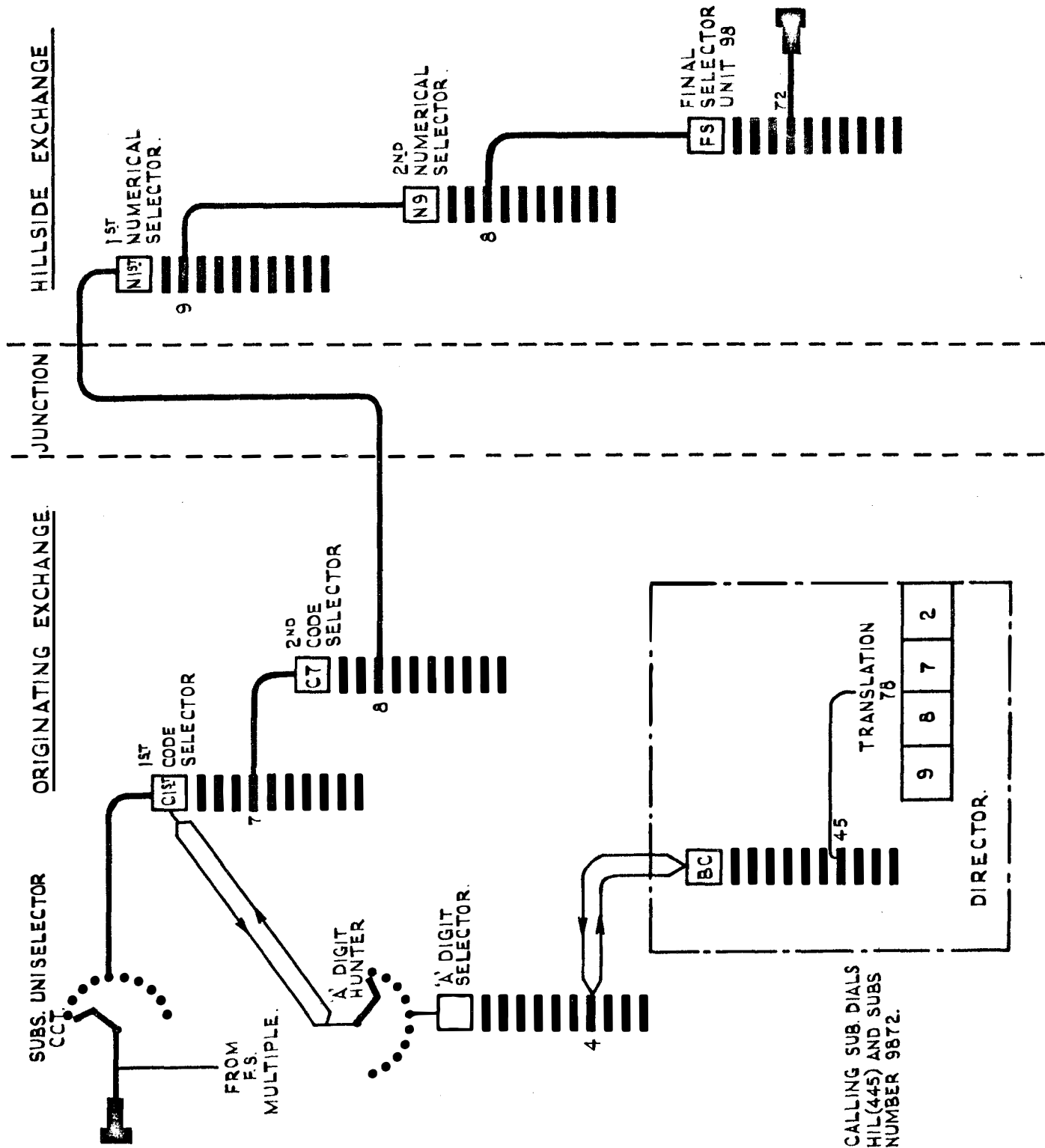
FIG. 4.

**NOTES:-**

- (a)  $\oplus$  INDICATES CURRENT FLOWS INTO PAPER.  
(b)  $\odot$  INDICATES CURRENT FLOWS FROM PAPER.
- ARROWS INDICATE DIRECTION OF LINES OF FORCE.

**AUTO-AUTO CALL (DIRECTOR SYSTEM)**  
**SUBSCRIBER ON UNISELECTOR TYPE**  
**EXCHANGE CALLING HILLSIDE 9872.**

TA1045		SX	Sheet No. ___
			of ___ Sheets
Approved C.E.P.J. S.E.E. (E/T)			Date 7.4.55
Originated by C.V.S.		Date 16.2.55	
Drn. P.J.B.	Trd.	Ckd. A.E.P.	
SX	Amendment	Orig.	D/O
A	WIRING FROM 1ST CODE TO A DIG & DIR. MODIFIED	J.T.	C.E.P.J.
B	REDRAWN TRANSLATION MODIFIED	P.J.B.	FEB. 64
			ENG. 2

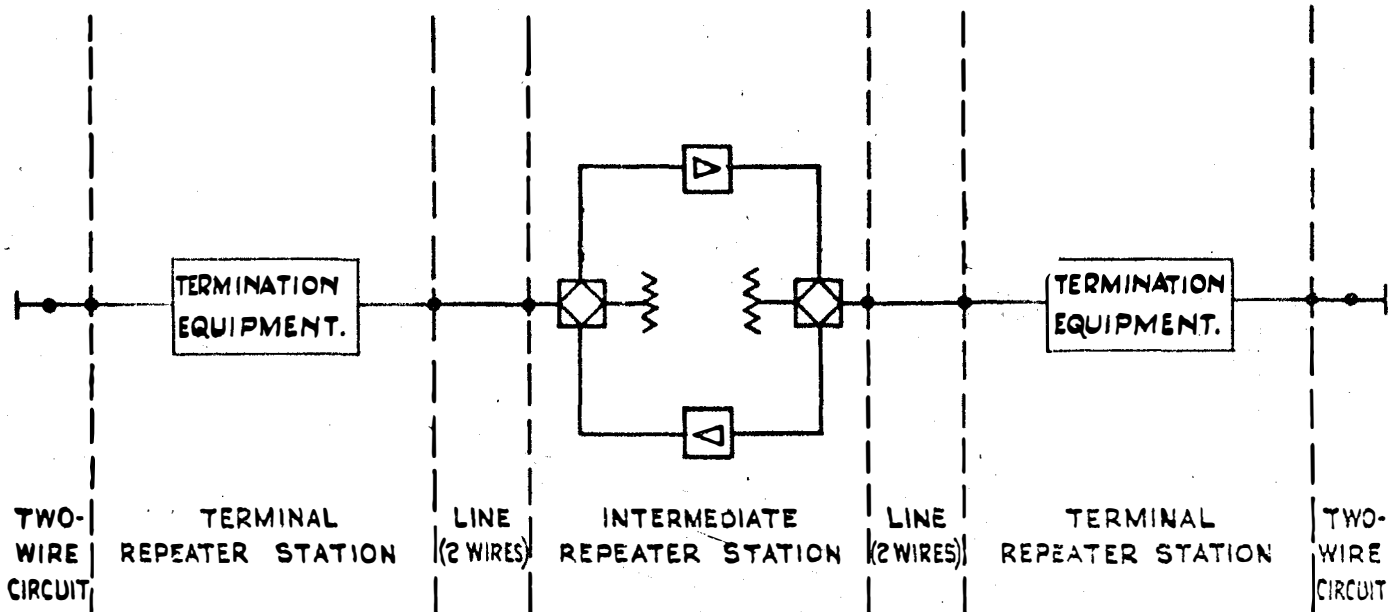


TA 1052		SX A	Sheet No. ___ of ___ Sheets	
Approved <i>C.S. SEE (1/1)</i>			Date 30.1.55	
Originated by J.E.S.R			Date 24.3.55	
Drn. MB		Trd. MB		Ckd. <i>J.P.</i>
SX	Amendment	Orig	D/O	Approved S.E.E. Date
'A'	2 Wire Redrawn		0/8	18.12.57

## TWO-WIRE AND FOUR-WIRE REPEATERED CIRCUITS.

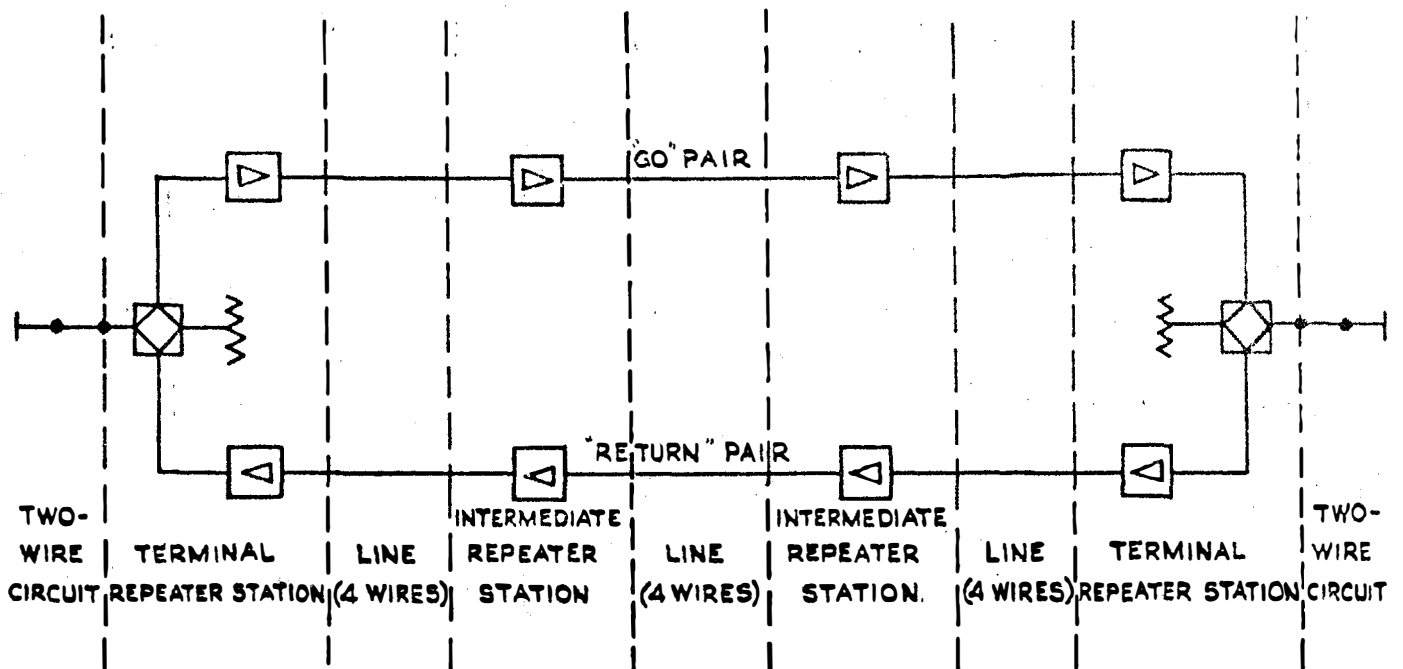
### (WORKING THROUGH REPEATER STATION)

#### TWO-WIRE WORKING. (TYPICAL)



NOTE :- THE REPEATER MAY BE CONNECTED AT EITHER AN INTERMEDIATE OR TERMINAL REPEATER STATION.

#### FOUR-WIRE WORKING

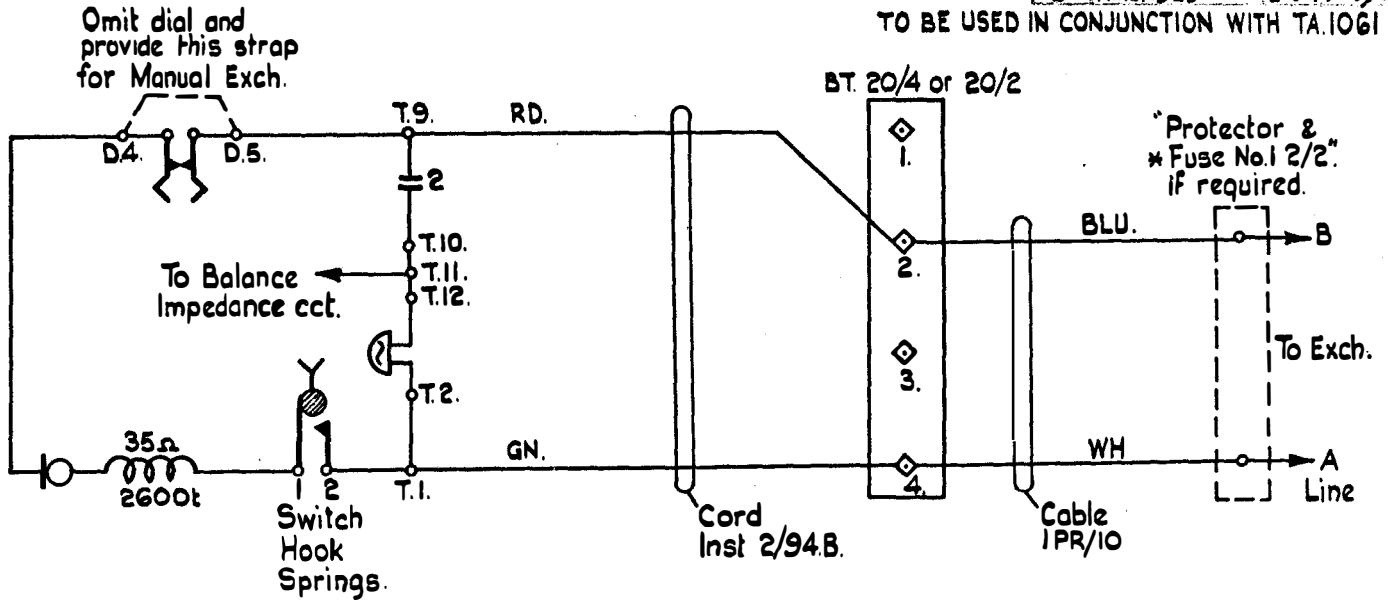




TA 1060	SX A	Sheet No. _____ of _____ Sheets
Approved C.E.P.J.S.E.E.(/4)		Date -
Originated by E.C.T.		Date 28-9-53
Drn.	Trd. <i>4/6</i>	Ckd. <i>4/6</i>
SX	Amendment	Orig % Approved Date
A	REDRAWN.	
B	AMENDED	E/T 4 W. Ref. 20-1-53

**FIG. 1.** INSTALLATION OF DIRECT EXCHANGE LINE  
USING STANDARD TELEPHONE No. 332.  
(WITHOUT EXTENSION BELL.)

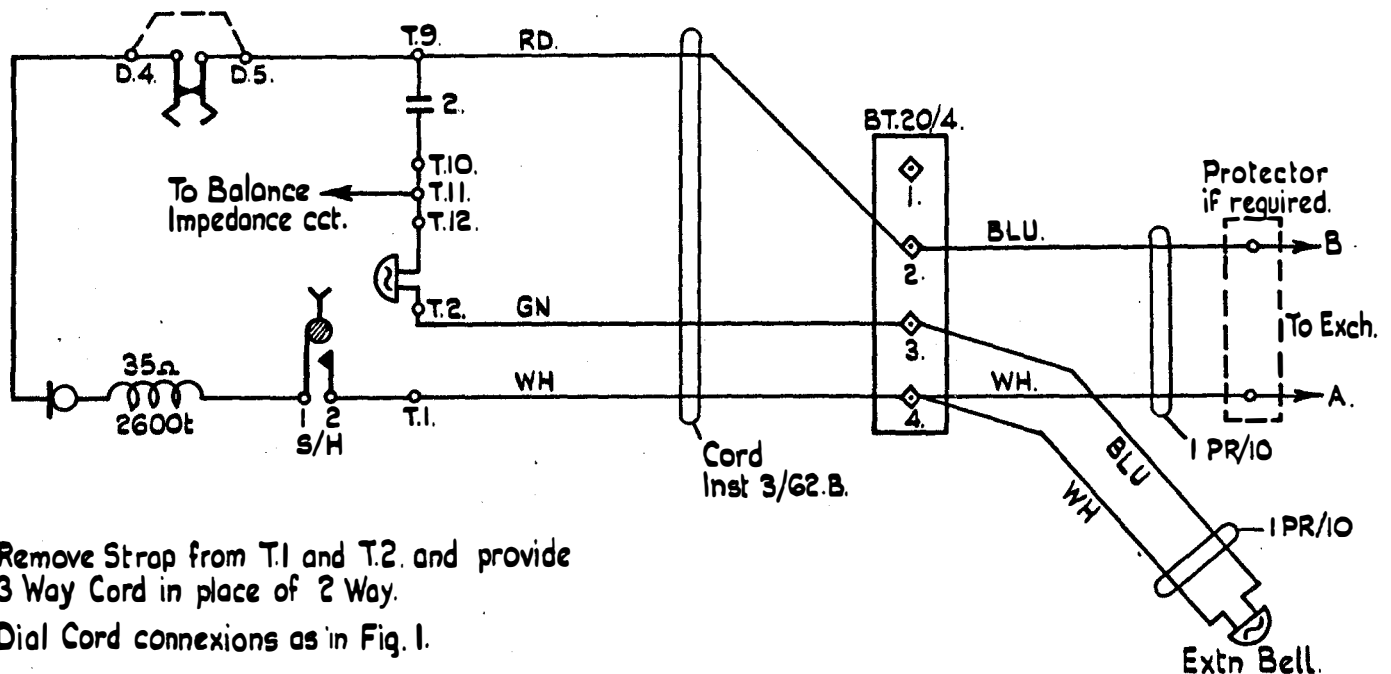
TO BE USED IN CONJUNCTION WITH TA.1061



Dial Terminal 5	to Dial Strip Terminal	5. OR.
" "	4 " " "	4. PK.
" "	3 " " "	3. BRN.
" "	2 " " "	2. SL.
" "	1 " " "	1. BLU

Strap Dial Terminals 2 and 3.  
\* Fit with five or more spans of O/H on lead in.

**FIG. 2.** INSTALLATION OF DIRECT EXCHANGE LINE  
USING STANDARD TELEPHONE No. 332.  
(WITH EXTENSION BELL.)

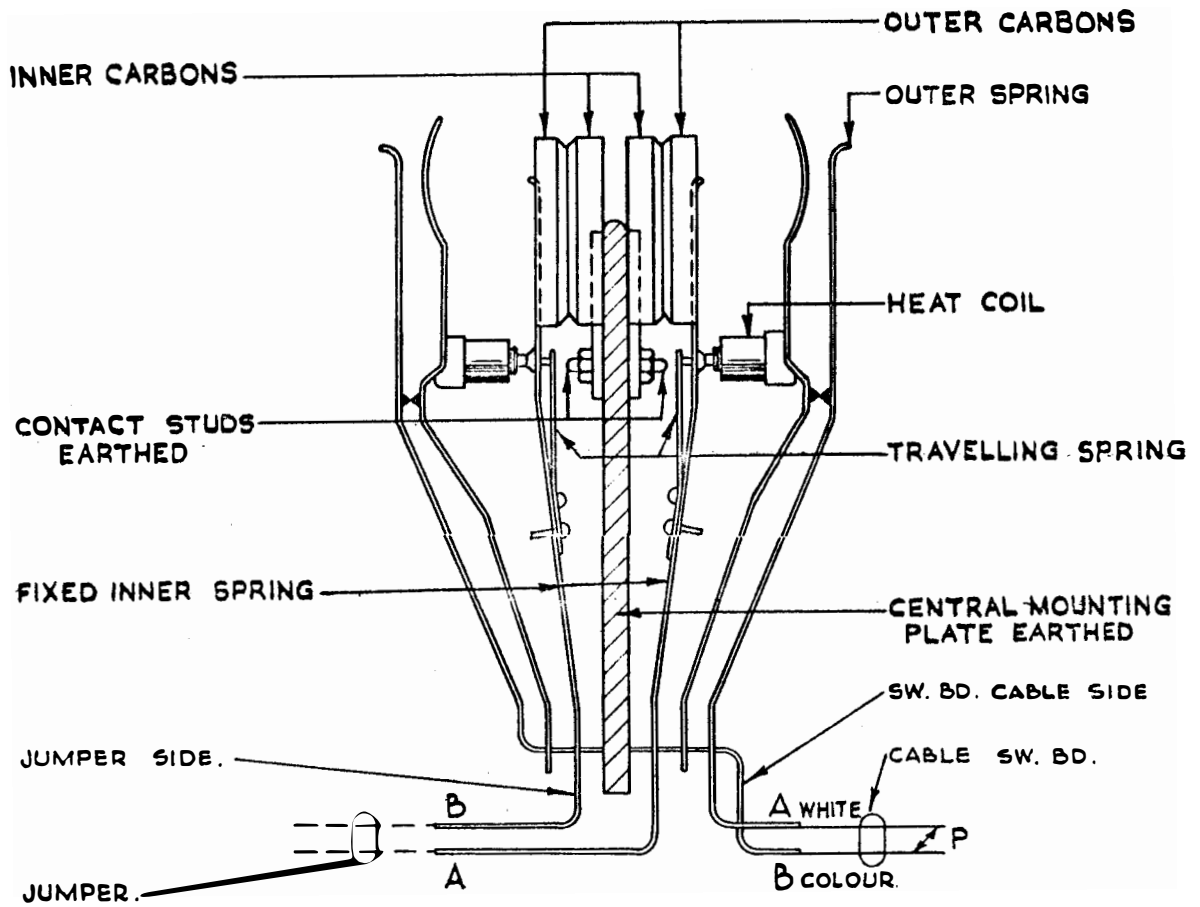


Remove Strap from T.1 and T.2. and provide  
3 Way Cord in place of 2 Way.  
Dial Cord connexions as in Fig. 1.

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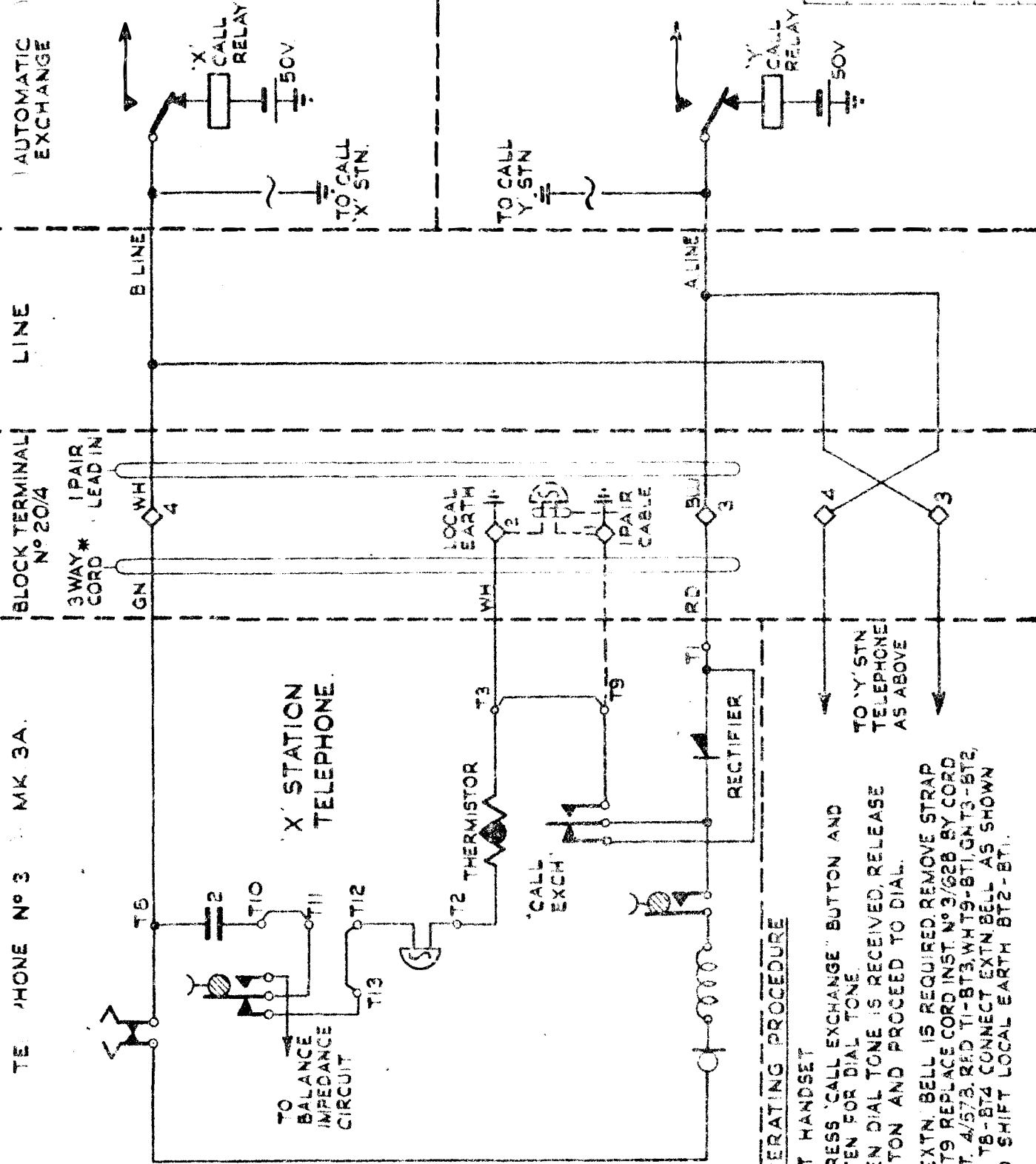
HEAT COIL & PROTECTOR  
MOUNTING (M.D.F.)

TA 1087		SX B	Sheet No. 1 of 1 Sheets		
Approved.		S.E.E.(E/T)	Date.		
Originated by J.E.S.R		Date. 24.6.55			
Drn.	Trd. <i>apb.</i>	Ckd. <i>LWA</i>			
SX	Amendment	Orig	%	Approved S.E.E.	Date
A	Redrawn			<i>S.E.E.</i>	21.7.55
B	SPRING CONS: AMD'D AS E.I.		<i>100</i>	<i>S.E.E.</i>	23.8.55



TA 1093	5X B	Sheet No. --- of --- Sheets
Approved	SEE (1/2)	Date 4 4 55
Originated by		Date 16-12-54
Drawn by	Trd.	Ckd. <i>J.W.A.</i>
SX	Amendment	Orig
A	Redrawn	
B	Notes & 2 Amendments	
		Approved SEE Date
		7 5 57 3 7 50

# SHARED SERVICE (SEPARATE METERING) USING TELEPHONE No. 3124 MARK 3A WITH OR WITHOUT EXTENSION BELL. DIAGRAM N.412 REFERS.



**OPERATING PROCEDURE**

1. LIFT HANDSET
  2. DEPRESS 'CALL EXCHANGE' BUTTON AND LISTEN FOR DIAL TONE.
  3. WHEN DIAL TONE IS RECEIVED, RELEASE BUTTON AND PROCEED TO DIAL.
- \* IF EXTN. BELL IS REQUIRED, REMOVE STRAP T3-T9 REPLACE CORD INST. No 3/628 BY CORD INST. 4/573. RED T1-BT3, WH T9-BT1, GN T3-BT2, BLU T8-BT4 CONNECT EXTN BELL AS SHOWN AND SHIFT LOCAL EARTH BT2-BT1.

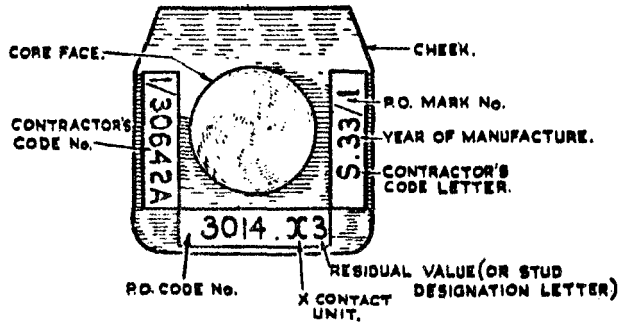
TELEPHONE No 3124 MARK 3A.

LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL

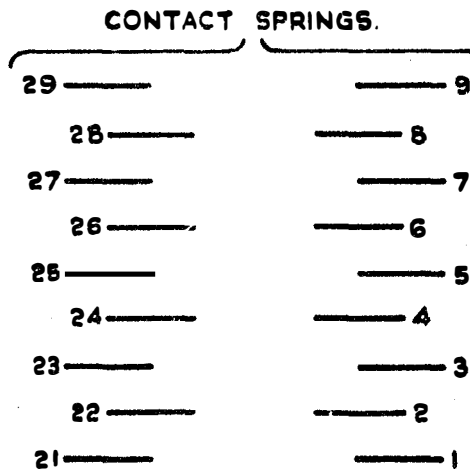
P.O. 3000-TYPE RELAY.  
SKETCHES OF COMPONENT PARTS AND  
ADJUSTMENT, FOR USE IN CONJUNCTION  
WITH NOTE FOR STUDENTS No. NS 19)  
SEE ALSO TA 1106 AND TA 1107.

TA 1105		SX	Sheet No. ....
			of .... Sheets
Approved. C.E. S.E.E. (4)		Date. 4.5.55	
Originated by E.C.T.		Date. 10.3.55	
Drn. MB	Trd. MB	CKd. <i>Sw</i>	
SX	Amendment	Orig	% Approved S.E.E. Date.

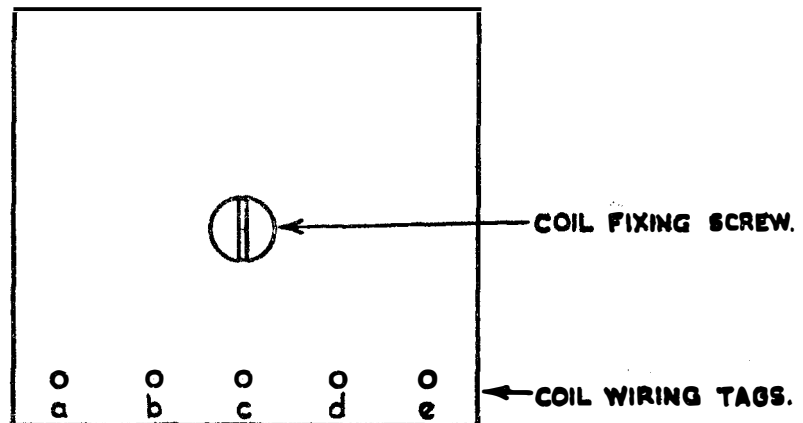
**FIG. 1.**  
(SEE "GENERAL"  
NOTE NS 19)



**FIG. 2.**  
(SEE "GENERAL"  
NOTE NS 19)



ENLARGED DIAGRAM.  
SHOWING CONTACT SPRINGS  
& COIL TAGS VIEWED  
FROM THE REAR OF  
THE RELAY.

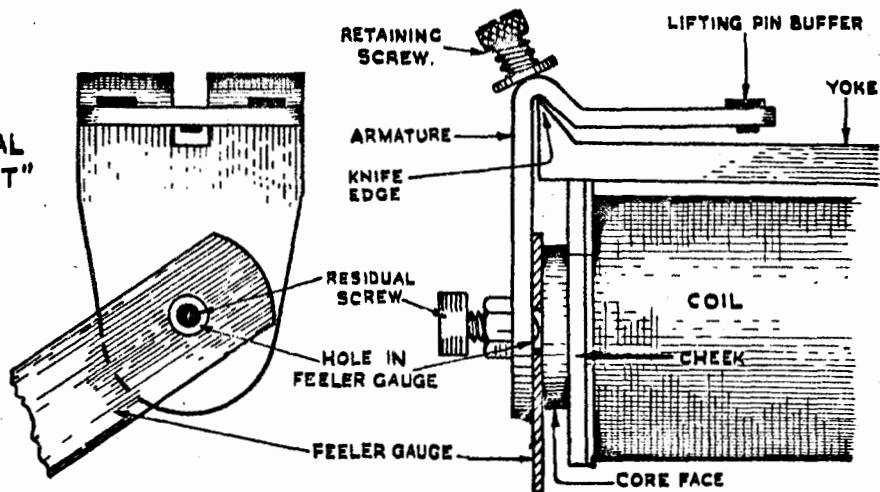


**P.O. 3000-TYPE RELAY (CONTINUED)**  
**ADJUSTMENTS.**  
**(SEE ALSO TA 1105, TA 1107 AND**  
**NOTE FOR STUDENTS No. NS 19)**

TA 1106		SX	Sheet No. ....
			OF ..... Sheets
Approved. <i>CEP</i> S.E.E. (4/7)		Date. 4.5.55	
Originated by E.C.T.		Date. 10.3.55	
Drn. /	Trd. MB	CKd. <i>Una</i>	
SX	Amendment	Orig	D/O Approved S.E.E. Date

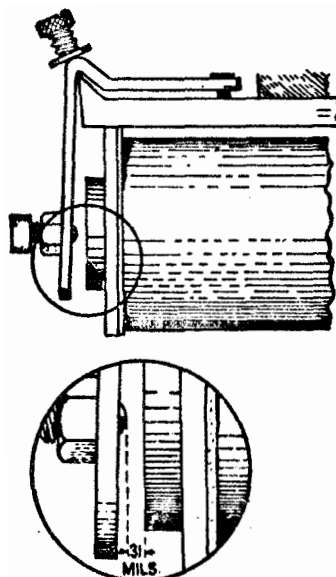
**FIG. 3.**

(SEE NOTE "RESIDUAL AIR GAP ADJUSTMENT" NS 19)



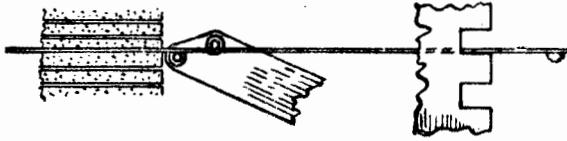
**FIG. 4.**

(SEE NOTE "ARMATURE TRAVEL ADJUSTMENTS" NS 19)



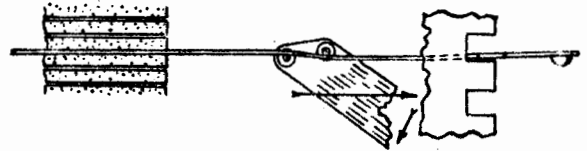
**P.O. 3000 TYPE RELAY  
ADJUSTMENTS (CONTINUED)  
SEE ALSO TA1105 AND TA1106 AND  
NOTE FOR STUDENTS No NS 19**

TA 1107		SX	Sheet No. _____
Approved. <i>C. J. S.E.E. (P)</i>			of _____ Sheets
Originated by E.C.T.			Date 4.5.55
Drn. MB	Trd. MB	Ckd. <i>S. A.</i>	
SX	Amendment	Orig	%
			Approved S.E.E. Date



POSITION OF "ADJUSTER, SPRING, No. 1"

**FIG. 5.**



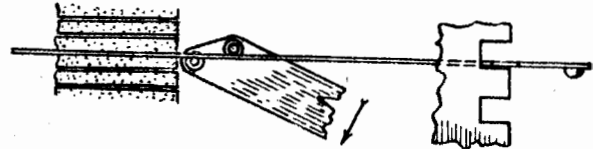
STROKING THE SPRING.

**FIG. 6.**



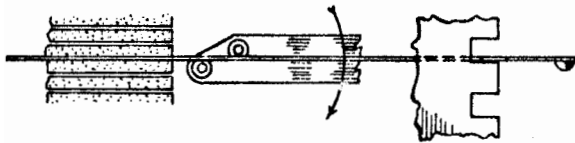
BOW IN SPRING

**FIG. 7.**



FINAL SET IN SPRING.

**FIG. 8.**



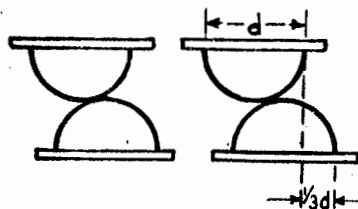
FOR INCREASING TENSION



FOR DECREASING TENSION

**FIG. 9.**

FIGS. 5 - 9. SEE NOTE "TENSION OF SPRINGS" NS 19



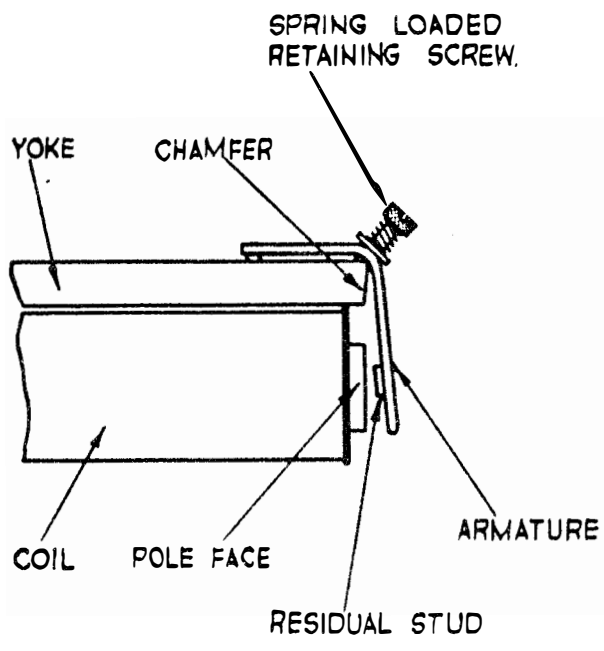
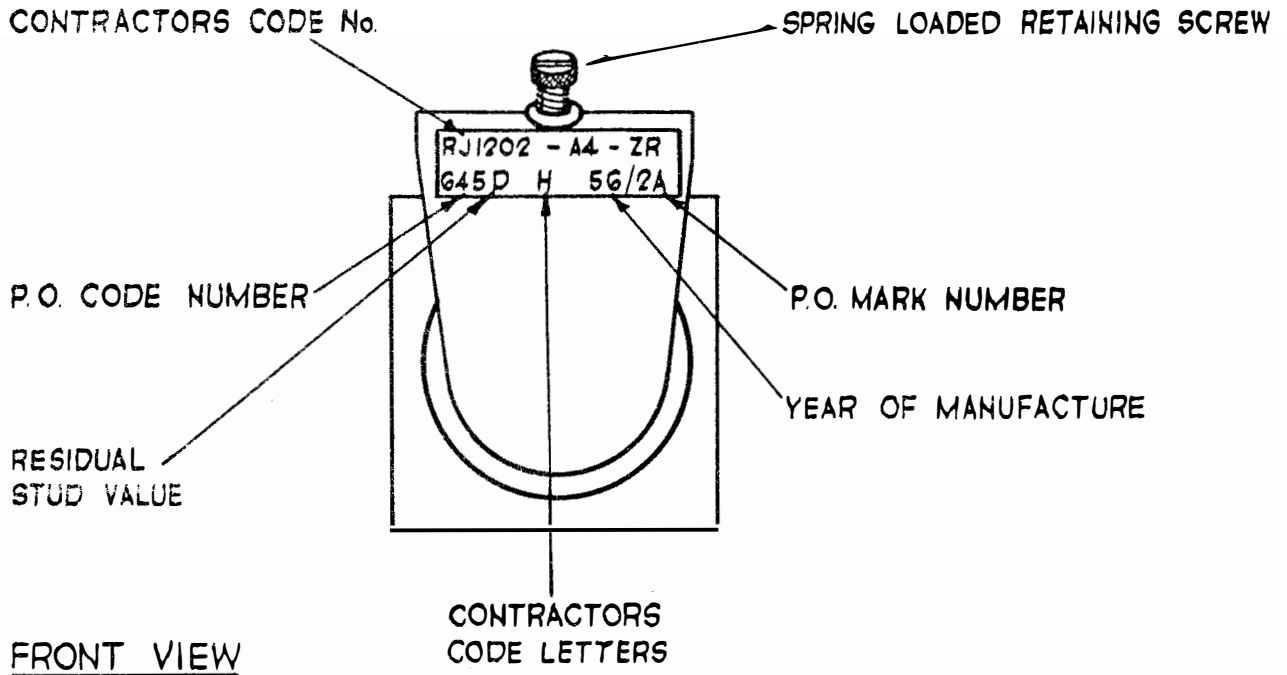
**SHOWING CONTACT  
OVERLAP**

**FIG. 10.**

(SEE NOTE "OVERLAP OF CONTACTS" NS 19)

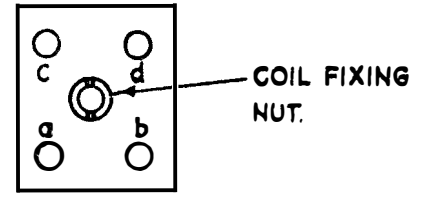
**P.O. 600 TYPE RELAY**  
**LAYOUT OF COMPONENT PARTS**  
**LABELLING AND COIL TAG NUMBERING**

TA 1108		SX B	Sheet No. ___ of ___ Sheets
Approved M.G-R.S.E.E.(E/H)		Date 4.5.55	
Originated by		Date 10.8.55	
Drn.	Trd.	Ckd.	
SX	Amendment	Orig.	D/O
B	Revised & Redrawn	T.H.B	g/k
			Approved S.E.E. Date 30.10.65



SIDE VIEW SHOWING CHAMFER END OF YOKE ACTING AS ARMATURE HINGE

- 26 - - 6
- 25 - - 5
- 24 - - 4
- 23 - - 3
- 22 - - 2
- 21 - - 1



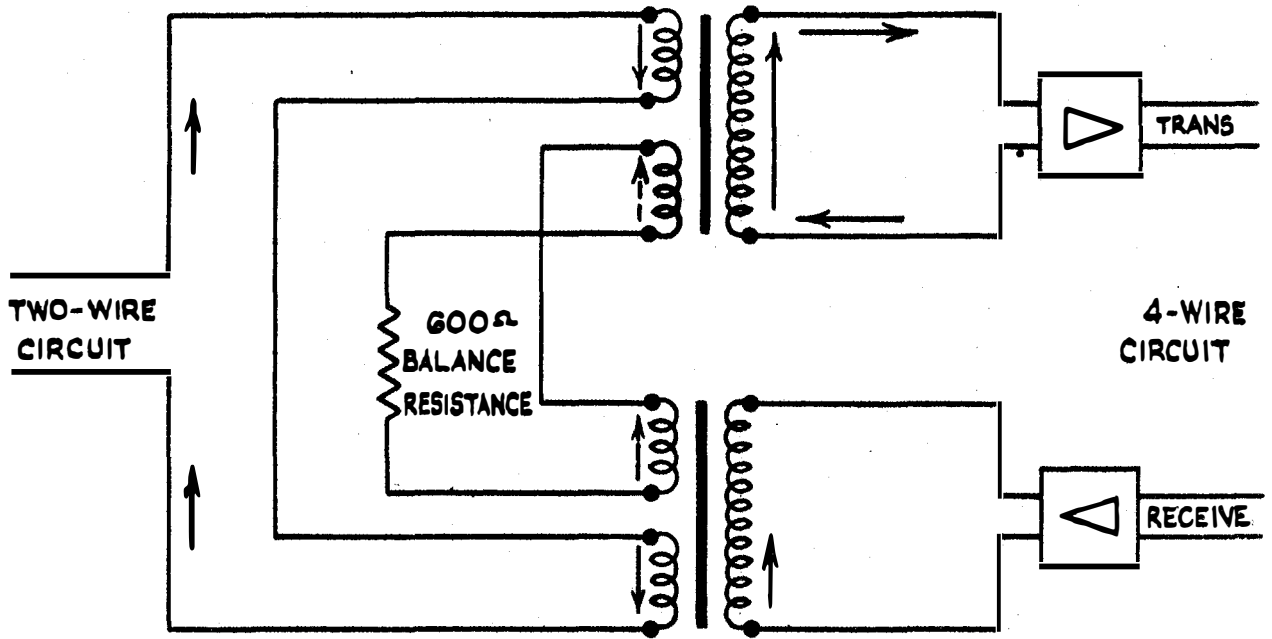
a - b - c - d — COIL WIRING TAGS

ONE WINDING :  
CONNECT TO TAGS a AND b. OMIT TAGS c AND d.  
INNER ENDS OF WINDINGS ALWAYS TO a AND c

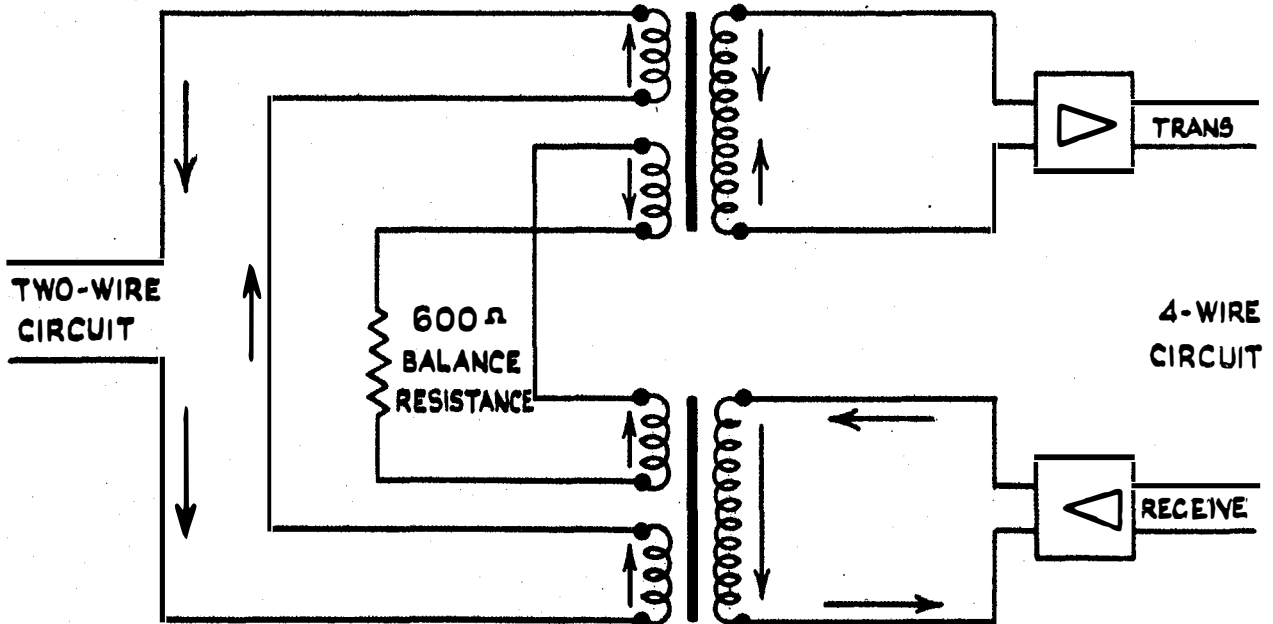
REAR VIEW SHOWING CONTACT SPRINGS

**TWO-WIRE AND FOUR-WIRE  
REPEATERED CIRCUITS.  
PRINCIPLES OF HYBRID TRANSFORMER  
& BALANCE NETWORK.**

TA 1109		SX	Sheet No. ___ of ___ Sheets	
Approved <i>CEP</i> S.E.E.(1/2)		Date 30.4.55		
Originated by J.E.S.R.		Date 30.3.55		
Drm. MB		Trd. MB		Ckd. <i>Shea</i>
SX	Amendment	Orig	D/O	Approved S.E.E.   Date
A	MINOR AMENDMENT			18.11.55



(a) SIGNAL ENTERING HYBRID TRANSFORMER FROM  
TERMINAL TWO-WIRE CIRCUIT.



(b) SIGNAL ENTERING HYBRID TRANSFORMER FROM  
"RECEIVE" PATH OF FOUR WIRE CIRCUIT.

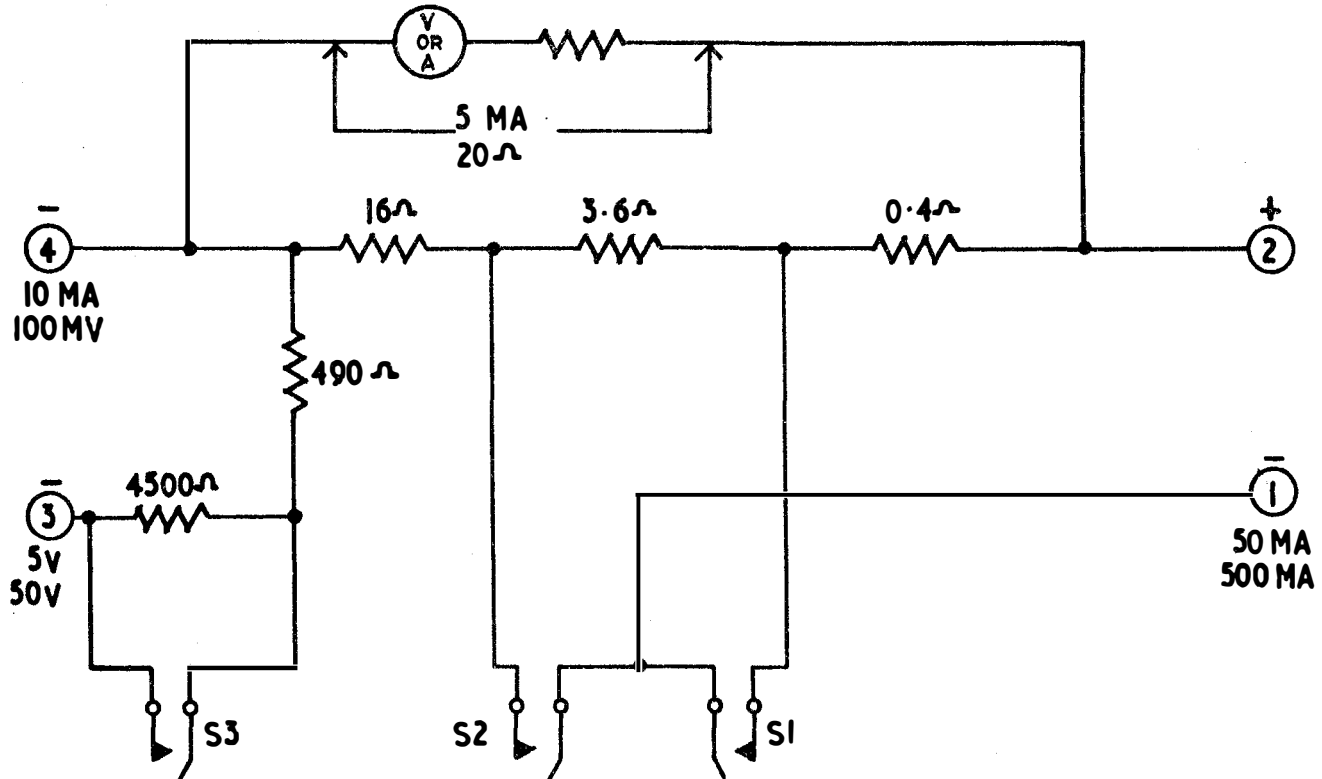


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ENGINEERING TRAINING SCHOOL

TA 1110		SX	Sheet No. ___ of ___ Sheets	
Approved <i>SEE (E/H)</i>		Date 4-7-63		
Originated by		Date 15-11-62		
Drn.	Trd. R.G.F.	Ckd. <i>Y&amp;W</i>		
SX	Amendment	Orig.	D/O	Approved SEE Date
A	Mk. 1.0 & later		R.F.	

DETECTOR No. 4

MARKS 10-12



RANGE	CONTACT OPERATED
500 MA	S 1
50 MA	S 2
50 V	NONE
5 V	S 3

FOR FURTHER INFORMATION OF DETECTOR SEE  
E.I. TESTS AND INSPECTION GENERAL B1012

**LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL**




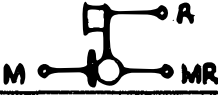






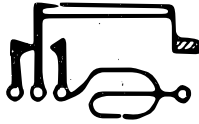

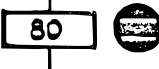
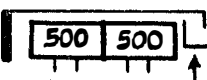

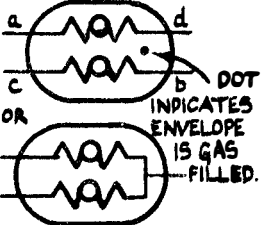
<b>TA 1116</b>		<b>SX</b>	Sheet No. --- of --- Sheets	
Approved <i>accy</i> S.E.E. (R)			Date 12-11-65	
Originated by			Date	
Drn.	Trd. <i>H.M.B.</i>	Ckd. <i>gp.</i>		
<b>SX</b>	<b>Amendment</b>	<b>Orig</b>	<b>P/O</b>	<b>Approved S.E.E.</b>
B	REDRAWN	G.F.J		accy 10-65

COMPONENT	SYMBOL
ELECTRICAL CONDUCTOR.	
CONDUCTORS CROSSING WITHOUT BEING IN CONTACT.	
COMMON CONNEXION POINT.	
CONDUCTORS IN CONTACT, OR TAPPINGS.	
EARTH CONNEXION POINT.	
FRAME OR CHASSIS.	
ELECTRICAL BATTERY OR CELL.	
WIRES IN CABLE AND CORDS.	
PROTECTOR ELECTRODE (LIGHTNING PROTECTOR).	
ALTERNATIVE WIRING CONNEXIONS.	
JUMPER WIRE.	
WIRING STRAPS OR CONNEXIONS REQUIRING REF. TO THE NOTES ON THE DIAGRAM.	
THREE POINT JACK.	
SINGLE BREAK JACK WITH AUXILIARY SPRING CONTACTS.	
PLATE TYPE BREAK JACK WITH AUXILIARY SPRING CONTACTS.	

COMPONENT	SYMBOL
OPERATORS JACK	
SWITCH BOARD PLUG	
OPERATORS PLUG	
INDUCTOR	
TRANSFORMER WITH IRON CORE. (CENTRE PARALLEL LINES OMITTED FOR AIR CORED TRANSFORMER).	
LAMP (COLOUR INDICATED). (OTHER LAMPS LP2, LP3 ETC).	
METAL RECTIFIER (OTHER RECTIFIERS MR2, MR3 ETC).	
CAPACITOR OTHER CAPACITORS C2, C3 ETC.	
ELECTROLYTIC CAPACITOR.	
NON-INDUCTIVE RESISTOR OTHER RESISTORS R2, R3 ETC.	
NON-INDUCTIVE RESISTOR WOUND ON CORE OF RELAY P.	
LEVER TYPE KEYS NON-LOCKING MAKE (M).	
NON-LOCKING CHANGE OVER (C)	
LOCKING BREAK (B).	
LOCKING MAKE BEFORE BREAK (K).	
PLUNGER TYPE KEYS NON-LOCKING CHANGE OVER (C)	
LOCKING CHANGE OVER (C).	

**LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL**

<b>TA 1117</b>		<b>SX.</b>	Sheet No. --- of --- Sheets
Approved <i>act</i> S.E.E.(%)		Date	
Originated by		Date	
Drn.	Trd. <i>mg.</i>	Ckd. <i>gp.</i>	
<b>SX</b>	<b>Amendment</b>	<b>Orig.</b>	<b>%</b>
<b>C</b>	<b>REDRAWN</b>	<b>(R.F.)</b>	<b>act 10-65</b>

TELEPHONE TRANSMITTER		PUSH BUTTON MAKE (BREAK, CHANGEOVER & MAKE BEFORE BREAK).	
TELEPHONE RECEIVER			
TELEPHONE HANDSET			
D.C. OR TREMBLER BELL			
A.C. OR MAGNETO BELL			
D.C. BUZZER			
A.C. BUZZER			
TELEPHONE GRAVITY SWITCH.			
DIAL PULSE SPRINGS.			
HAND GENERATOR AND ITS ASSOCIATED CONTACT UNIT.			
TUMBLER SWITCH.			
DOLLS EYE INDICATOR.			
DROP FLAP INDICATOR.			
DEVICE WITH PRONOUNCED NEGATIVE RESISTANCE/ TEMPERATURE CHARACTERISTICS e.g. THERMISTOR.			
DEVICE WITH PRONOUNCED POSITIVE RESISTANCE/TEMPERATURE CHARACTERISTICS. e.g. BALLAST RESISTOR OR REGULATOR LAMP (RESISTOR LAMP NO 15).			

**LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL**

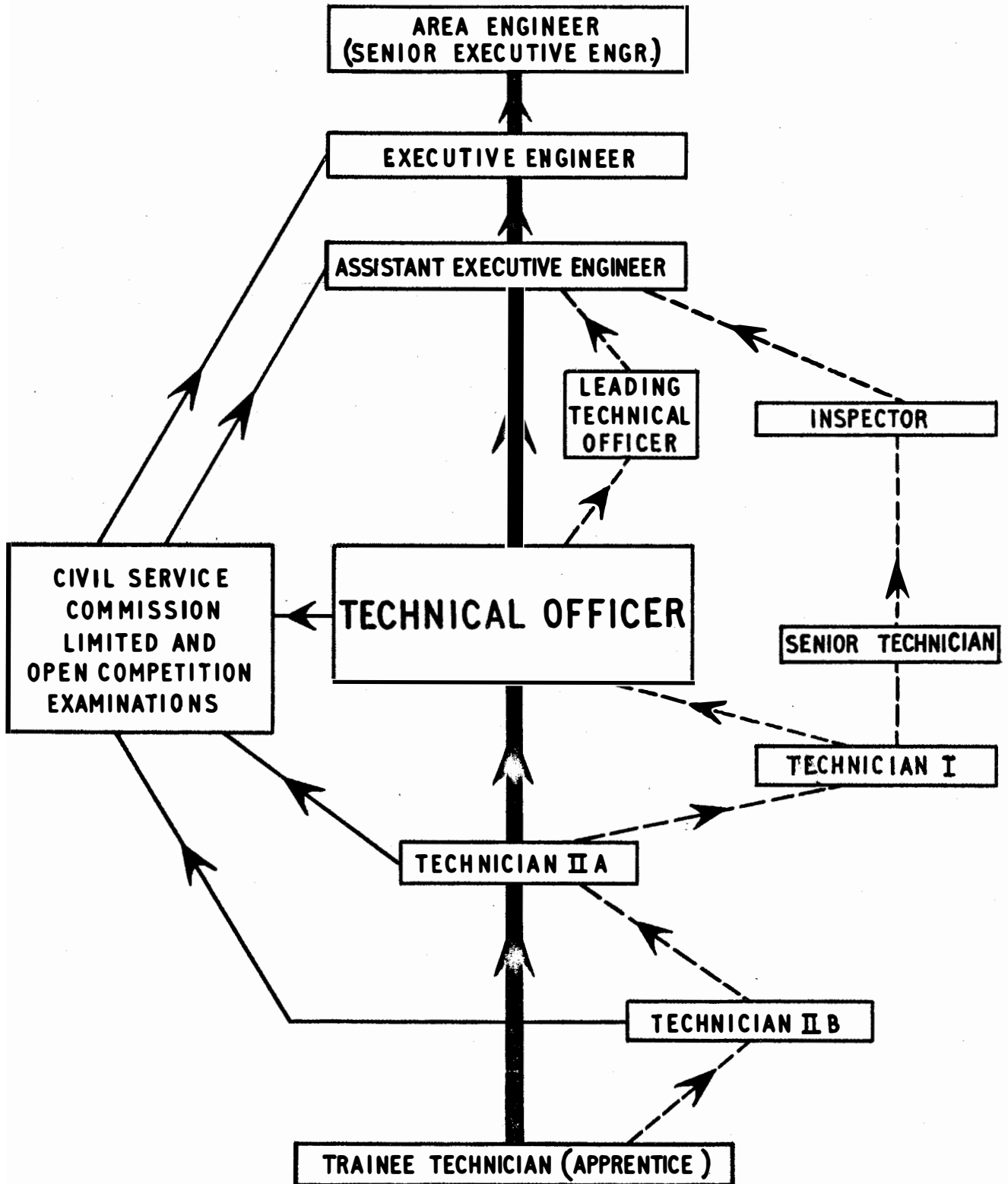
<b>TA 1118</b>		<b>SX.</b>	Sheet No. --- of --- Sheets
Approved <i>acx</i> SEE (47)		Date	
Originated by		Date	
Drn.	Trd. <i>H.M.B.</i>	Ckd. <i>yl</i>	
<b>SX.</b>	<b>Amendment</b>	<b>Orig. D/O</b>	<b>Approved SEE. Date</b>
<i>D</i>	<i>REDRAWN</i>	<i>G.F.J.</i>	<i>acx 12.11.5</i>

<p><b>RELAY WITH ONE WINDING</b> GS IS THE RELAYS CIRCUIT CODE 4 INDICATES THE NUMBER OF SPRING SETS.</p>		<p align="center"><b>U POINTS</b></p>	
<p><b>RELAY WITH TWO WINDINGS.</b></p>		<p align="center"><b>U POINTS WITH ROUTINER ACCESS.</b></p>	
<p><b>RELAY WITH THREE WINDINGS</b> THE COMMON TAG (b or e) MAY BE SHOWN SEPARATELY FOR EACH WINDING.</p>	<p align="center">ARRANGMENT OF COIL TAGS TYPICAL ONLY.</p>	<p align="center"><b>SELECTOR AND RELAY TEST JACK.</b></p>	<p align="center">TJ  09</p>
	<p align="center"><b>ISOLATION JACK</b></p>	<p align="center">TJA  01 02</p>	
<p><b>SLOW OPERATING RELAY (FORE OR ARMATURE END SLUG)</b></p>		<p align="center"><b>RELAY. MAKE CONTACT UNIT (M).</b> DC INDICATES FIRST UNIT ON RELAY TO OPERATE.</p>	
<p><b>SLOW RELEASING RELAY (HEEL END SLUG).</b></p>		<p align="center"><b>RELAY BREAK CONTACT UNIT (B)</b> y INDICATES LAST UNIT ON RELAY TO OPERATE.</p>	
<p><b>HIGH IMPEDANCE RELAY (IN SPEECH CIRCUITS ETC).</b></p>		<p align="center"><b>RELAY CHANGE-OVER CONTACT UNIT (C)</b> IF CONTACTS NOT SILVER:- W INDICATES TUNGSTEN CONTACTS Hg INDICATES MERCURY CONTACTS. PE INDICATES PLATINUM CONTACTS. Pd INDICATES PALADIUM CONTACTS.</p>	
<p><b>SHUNT FIELD RELAY. WITH CURRENT IN DIRECTION OF ARROWS THE RELAY DOES NOT OPERATE. THE REVERSAL OF EITHER CURRENT CAUSES THE RELAY TO OPERATE.</b></p>		<p align="center"><b>RELAY. MAKE BEFORE BREAK CONTACT UNIT. (K)</b></p>	
<p><b>HIGH SPEED RELAY.</b></p>			
<p><b>VERY SLOW OPERATING. E.G. THERMAL RELAY</b></p>			
<p><b>POLARISED RELAY.</b></p>			
<p><b>REMANENT RELAY</b></p>			

LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL

**CAREER OPPORTUNITIES**

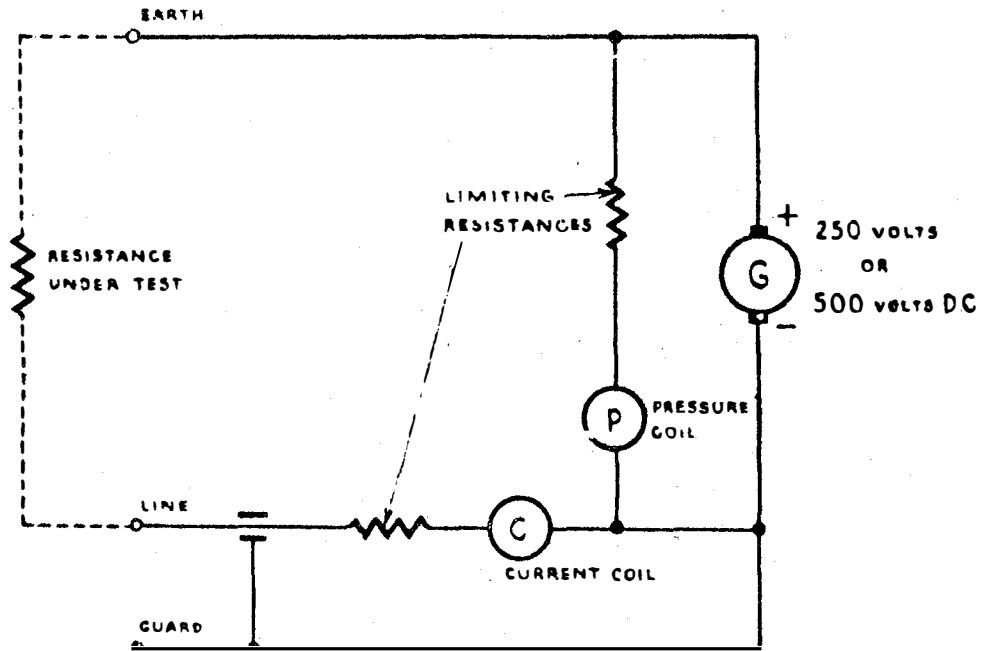
TA 1120		SX.	Sheet No. --- of --- Sheets	
Approved <i>ew</i>		S.E.E. (1/1)	Date 12.3.56	
Originated by J. E. S. R		Date 7.12.55		
Drn. J. T	Trd. P.K.	Ckd. <i>Lwa</i>		
SX.	Amendment	Orig.	D/O	Approved S.E.E. Date
A.	TITLES AMENDED		P.B. 2/11/64	9.10.64
B.	SEN TECH		6P.	18-7-64



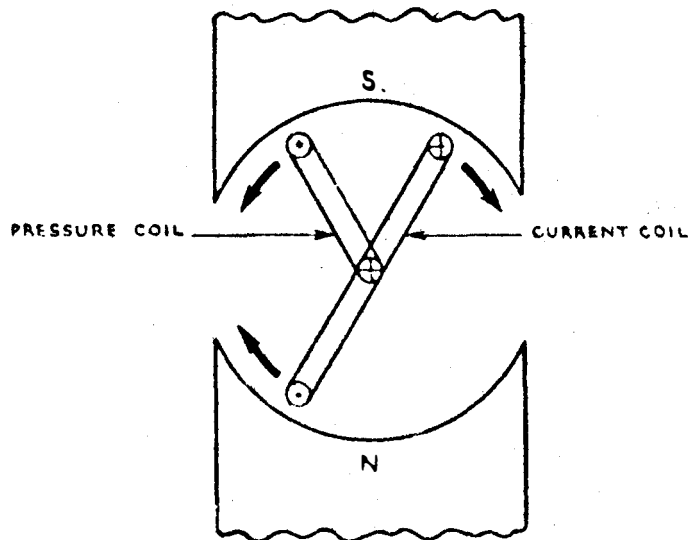
TA 1123		ISX	Sheet No. ....
		of ... Sheets	
Approved (C.I.S.) SEE (1/1)		Date 12.4.56	
Originated by J.P.C.P.		Date 19.3.56	
Dr. F.A.	Trd. F.B.	Cku. <i>[Signature]</i>	
ISX	Amendment	Orig	D/n Approved SEE Date

# PRINCIPLE OF THE OHM-METER

USED IN CONJUNCTION WITH TA 1122



SCHEMATIC DIAGRAM. FIGURE 1.

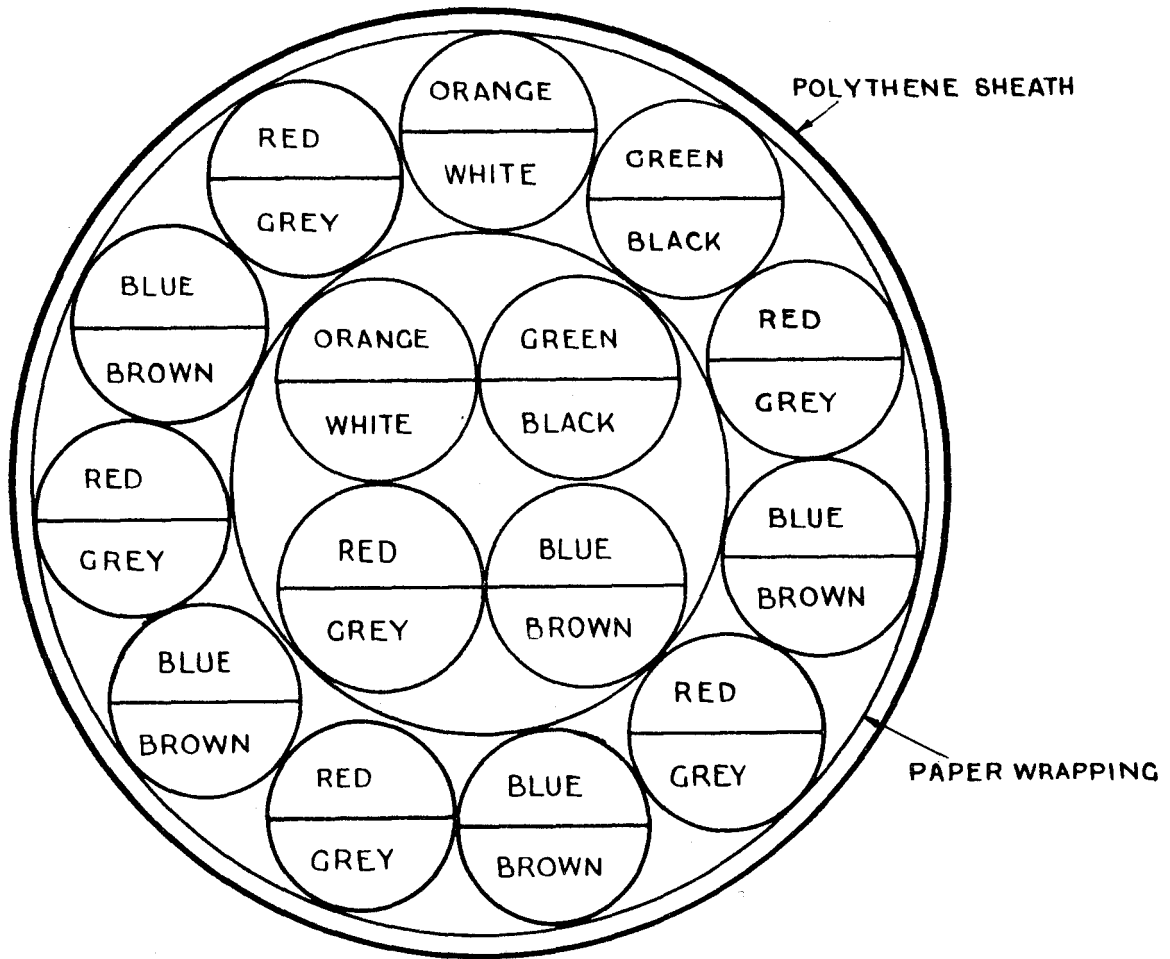


DIAGRAMMATIC REPRESENTATION (LOW RESISTANCE UNDER TEST) FIGURE 2.

**LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL**

TA 1158		SX	Sheet No. ___	
			of ___ Sheets	
Approved <i>SEE</i>			Date 12.10.66	
Originated by J.ESP			Date 13.9.66	
Drr. P.B.K.		Trd.	Ckd.	
SX	Amendment	Orig.	D/O	Approved SEE Date

POLYTHENE CABLE 15 PR.

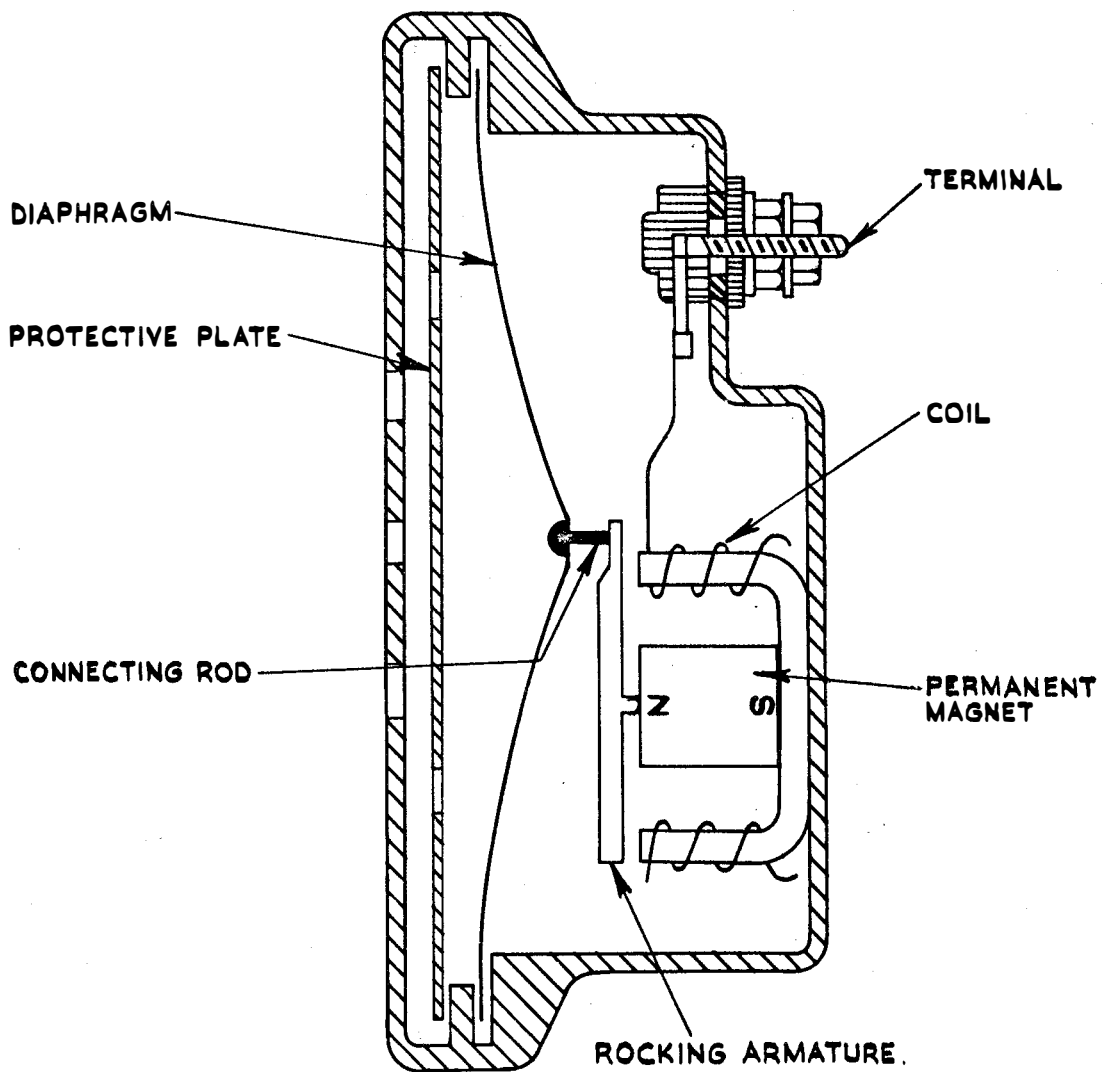


MARKER PAIRS      ORANGE / WHITE  
 REFERENCE PAIRS    GREEN / BLACK

LONDON TELECOMMUNICATIONS REGION  
ENGINEERING TRAINING SCHOOL

THE 'ROCKING ARMATURE'  
RECEIVER

TA 1223		SX	Sheet No. ....	
			of. .... Sheets	
Approved <i>J.C.S.E.E.(E/H)</i>		Date <i>3-7-60</i>		
Originated by		Date		
Drn. <i>J.M.S.</i>	Trd. <i>J.M.S.</i>	Ckd. <i>J.L.</i>		
SX	Amendment	Orig	P/O	Approved S.E.E.   Date

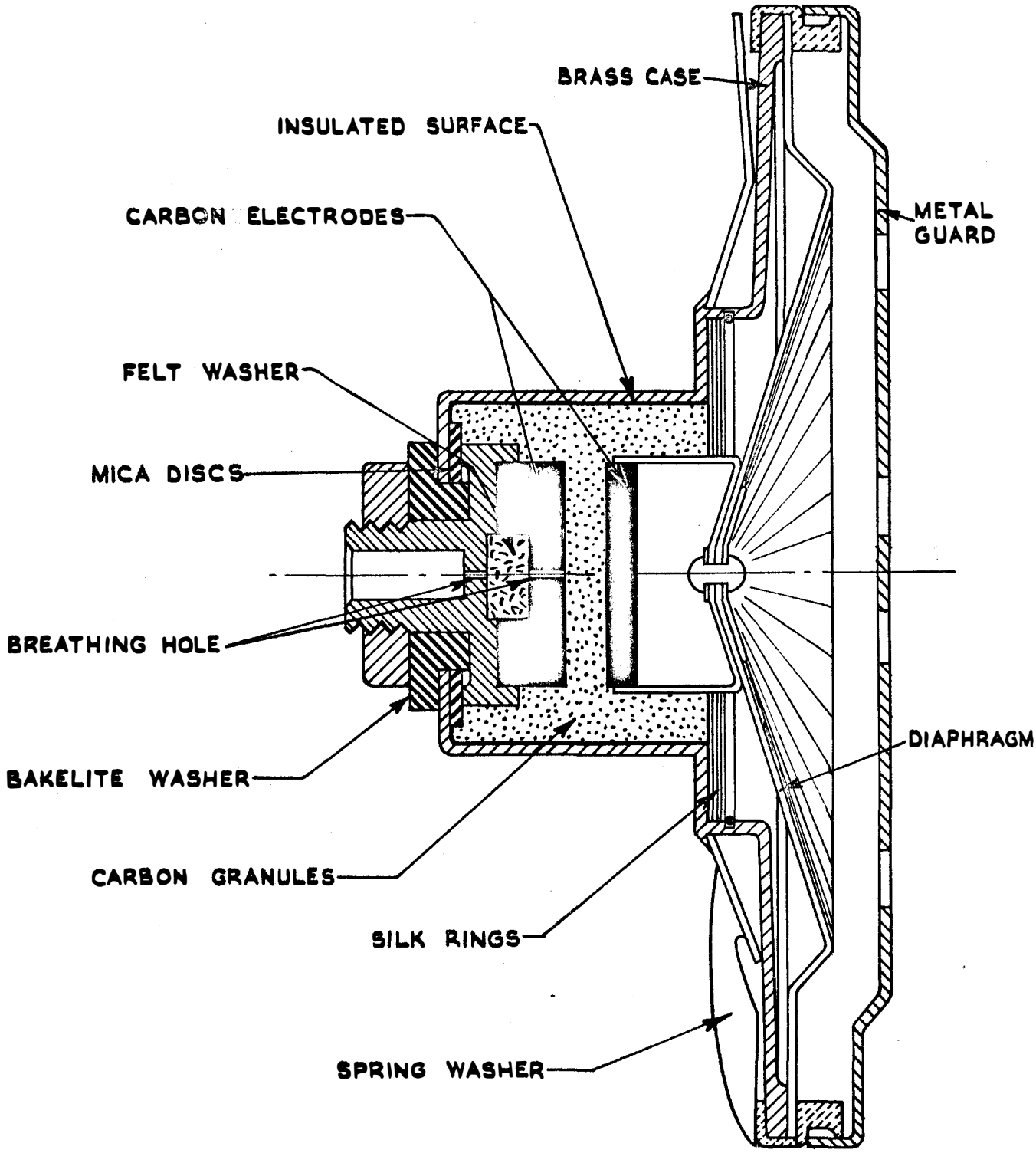


RECEIVER INSET N° 4 T.



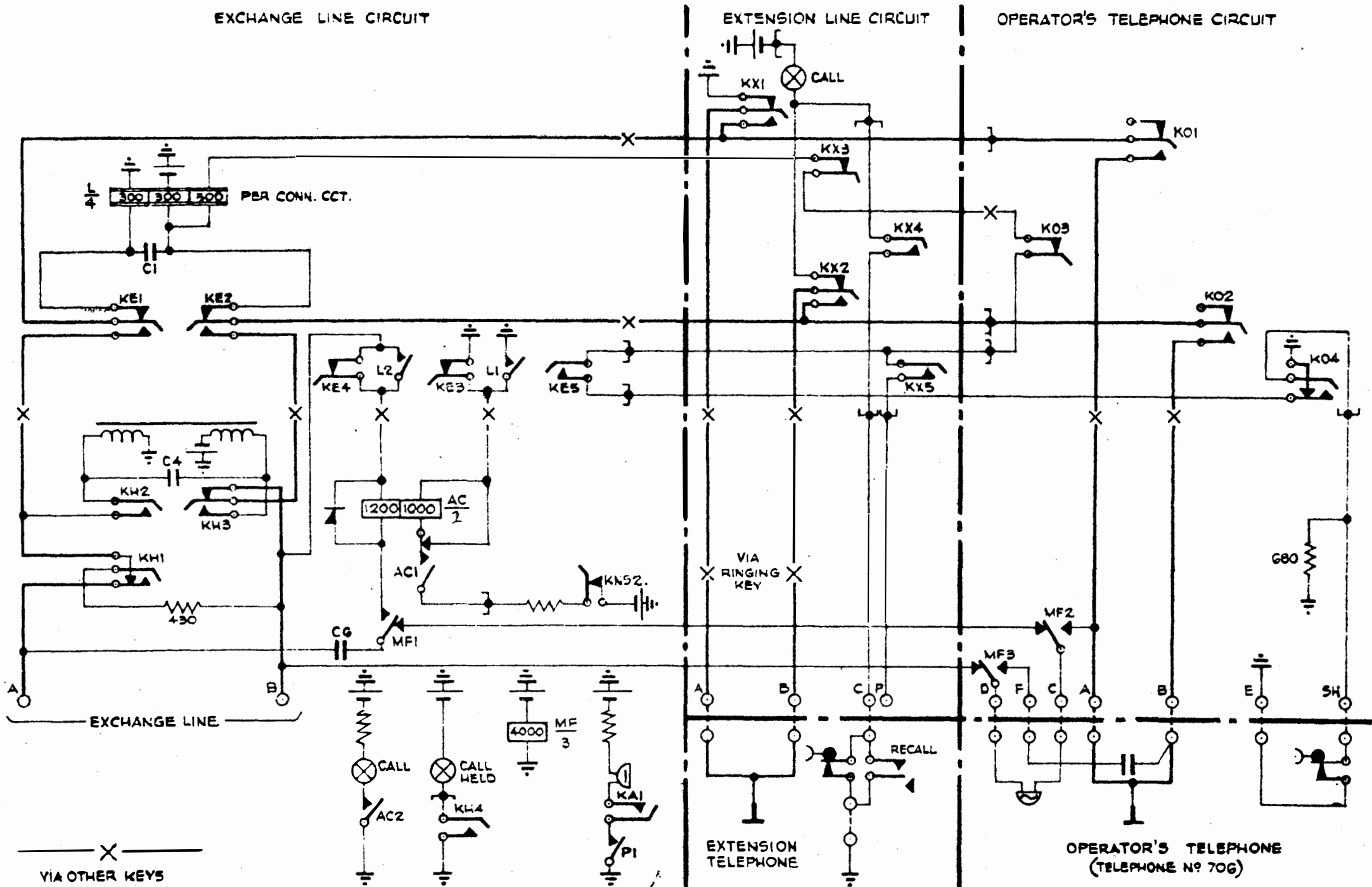
**TRANSMITTER  
 INSET N° 13**

TA 1224		SX	Sheet No. --- of --- Sheets	
Approved by <i>W.G. S.E.E. (7/7)</i>			Date 28-5-50	
Originated by			Date	
Drn. <i>W.G.</i>	Trd. <i>W.G.</i>	Ckd. <i>W.G.</i>		
SX.	Amendment	Orig.	D/O	Approved S.E.E.   Date



TA 1241		Six	Sheet No 1,	
			of Sheets	
Approved for SEE (S/r)			Date 25.1.68	
Originated by D P A			Date 11-1-62	
Drn.	Tnd. R.G.F.	Ckd.		
Six	Amendment	Orig	D/O	Approved SEE/Date

# SWITCHBOARD PMBX No. 2/2A SIMPLIFIED CIRCUIT (REF. N1102.)



# CIRCUIT ELEMENTS OF 706 TELEPHONE N.806 REFERS (REGULATOR REVERSED)

TA i244	Sx	Sheet No 1 of 1 Sheets
Approved by R.S.E.E.(Eh)	Date 11-5-62	
Originated by	Date 28-3-62	
Drn. R.G.F.   Trd. R.G.F.	Ckd. A.E.P.	
Sx	Amendment	Orig   %   Approved SEE DS:2

FIG.1. LOOP TO CALL EXCHANGE

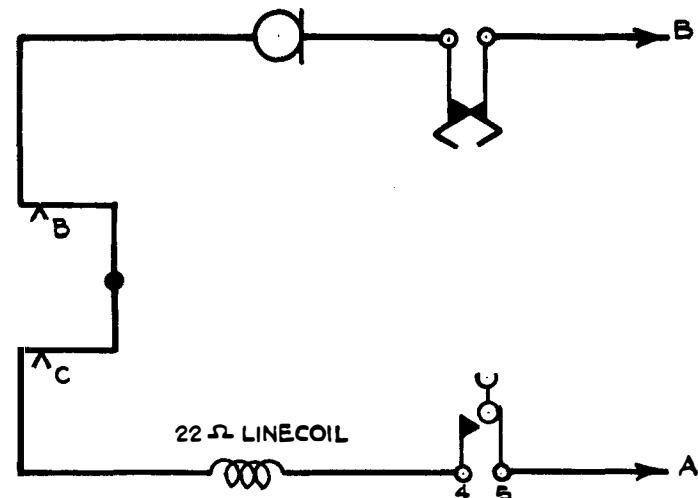


FIG.2. DIAL LOOP

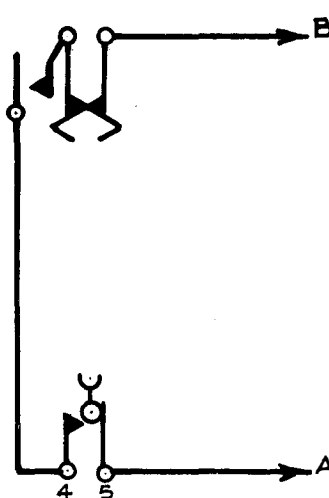


FIG.3. INCOMING RING CIRCUIT.

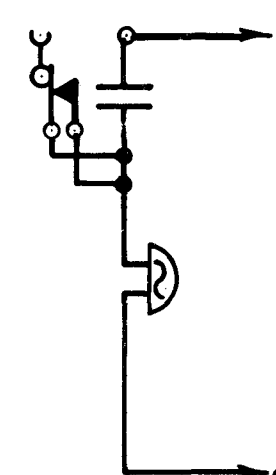


FIG.4. SPARK QUENCH CIRCUIT

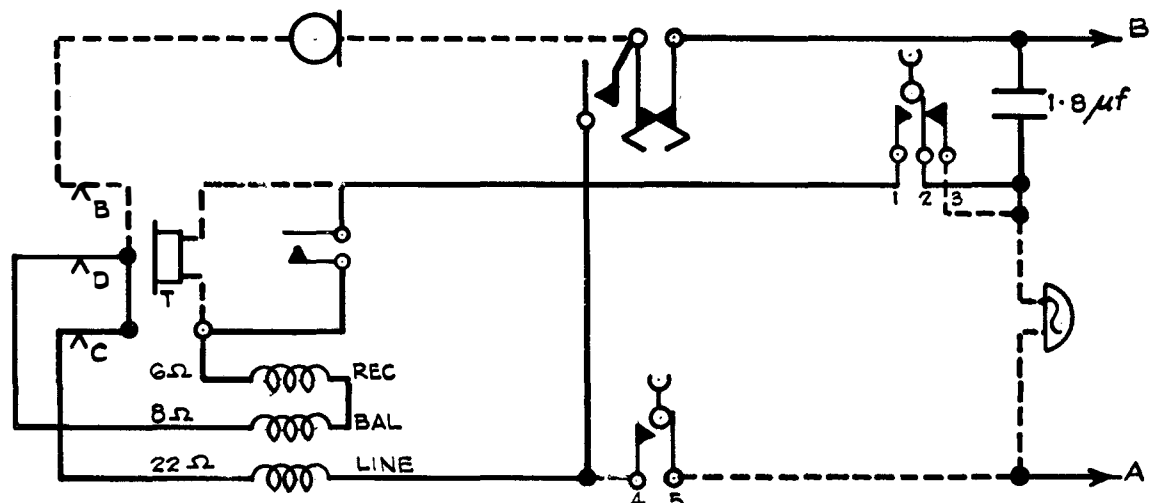


FIG.5. BALANCE IMPEDANCE CIRCUIT

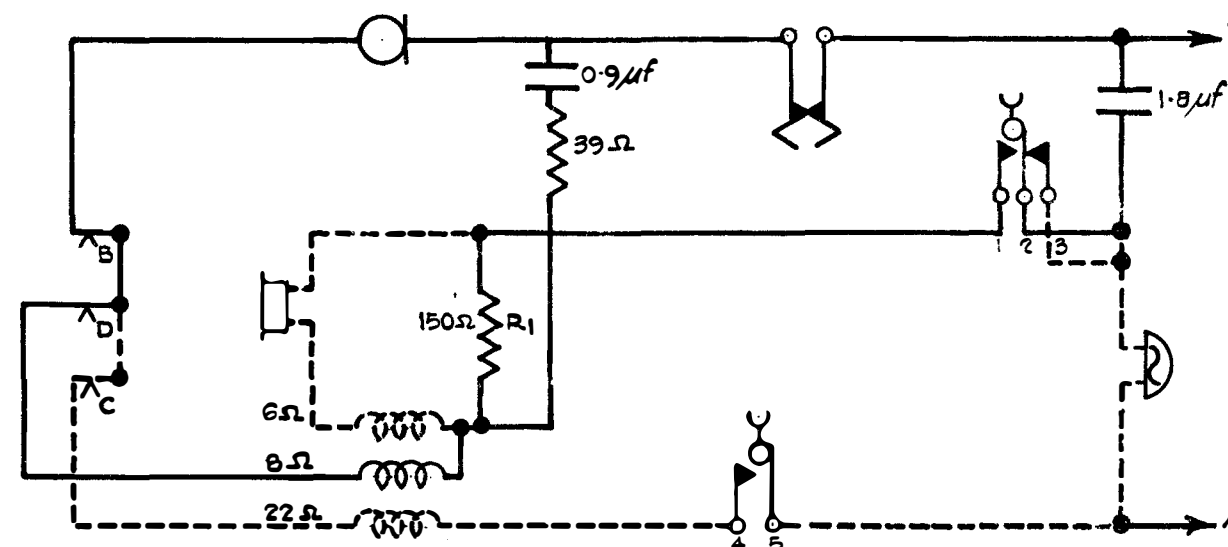


FIG.6. BELL SHUNT

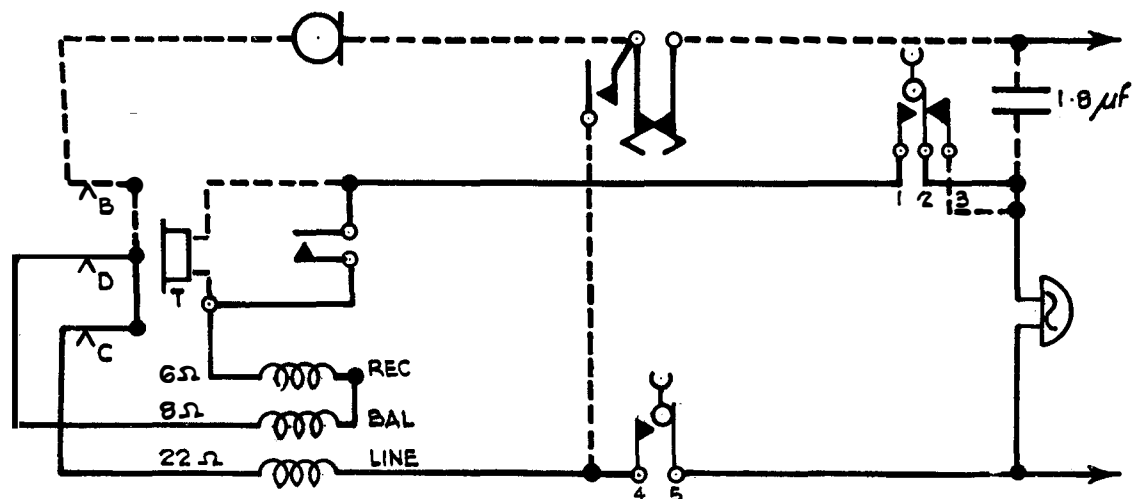
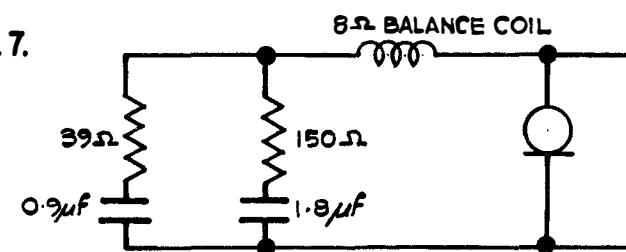


FIG.7.



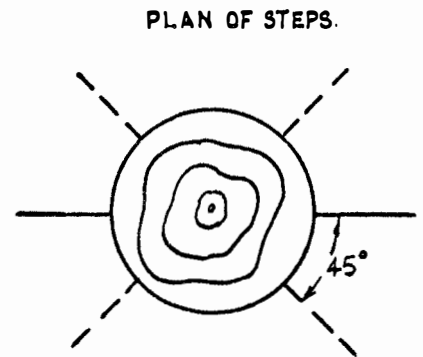
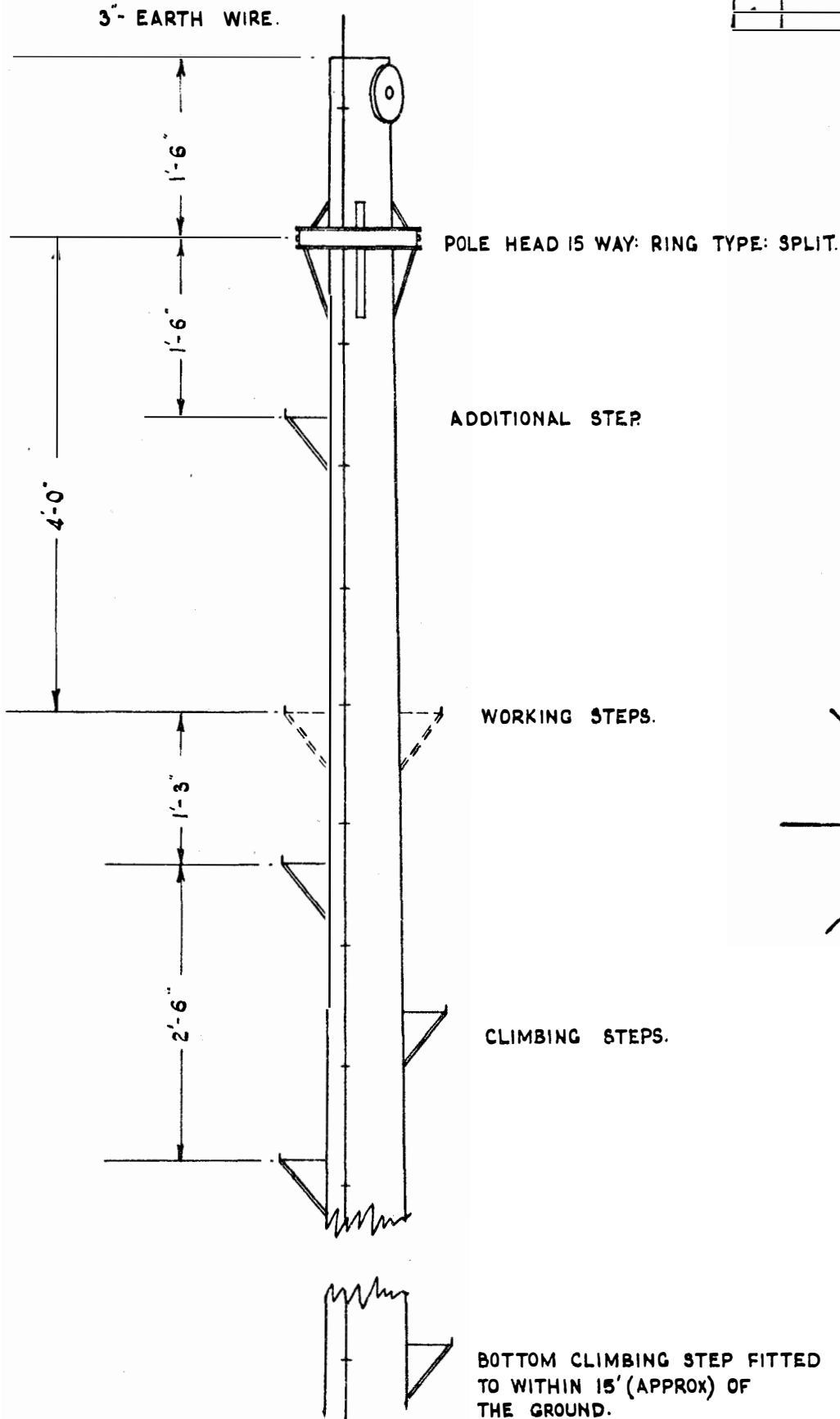
NOTES.

1. ON BOTH BELL SHUNT (FIG.6) & SPARK QUENCH (FIG.4) CIRCUITS R<sub>1</sub> 150 RESISTOR IS IN PARALLEL WITH THE 6Ω RECEIVER WINDING OF THE INDUCTION COIL BUT IS NOT SHOWN.
2. THE BALANCE IMPEDANCE CIRCUIT IS SEEN TO CONSIST OF TWO UNEQUAL IMPEDANCE PATHS IN PARALLEL ACROSS THE TRANSMITTER AS IN FIG.7.

**OPEN WIRE RING TYPE D.P.**

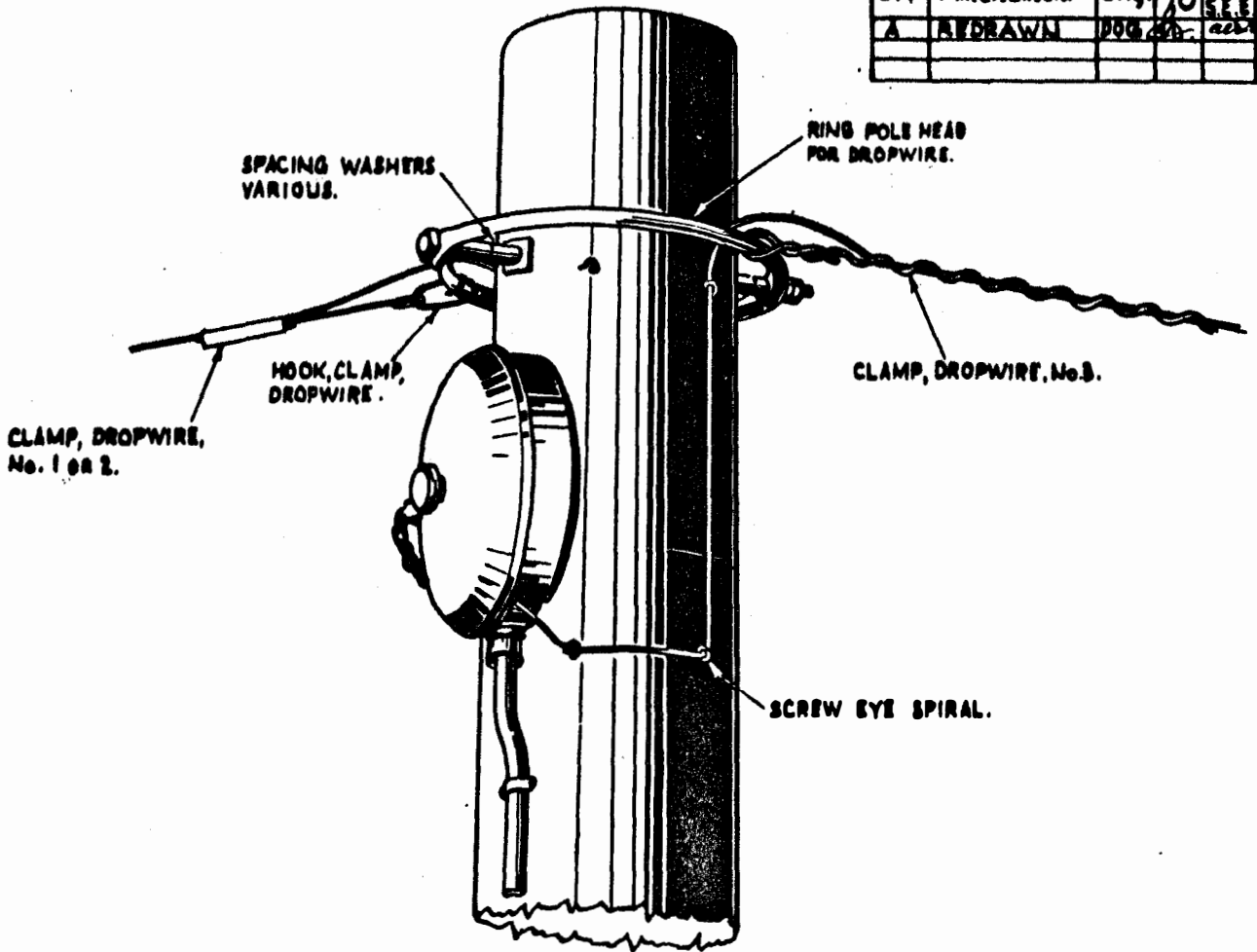
LINES O/H C3151, E3130.

TA1248		SX	Sheet No. ___ of ___ Sheets	
Approved by <i>R.S.E.E.(E/H)</i>		Date 24.7.62		
Originated by		Date		
Drn. <i>T.P.S.</i>	Trd.	Ckd. A.E.P.		
SX	Amendment	Orig.	D/O	Approved S.E.E. Date

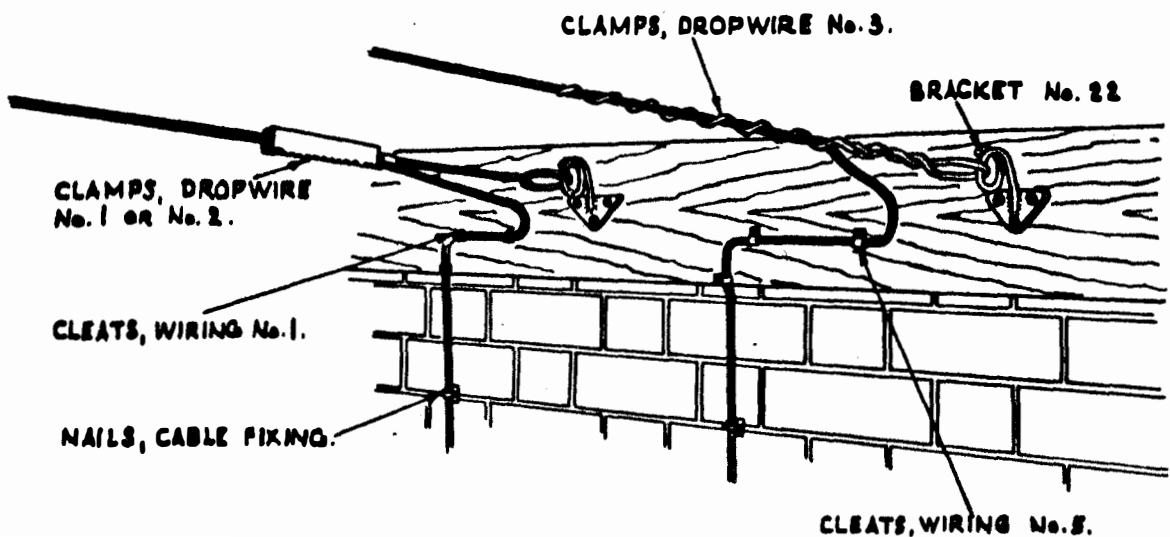


LONDON TELECOMMUNICATIONS REGION  
 ENGINEERING TRAINING SCHOOL  
**O/H DISTRIBUTION FOR CABLE  
 DROPWIRING Nos. 1-2-3**  
 LINES O/H E.3101

<b>TA 1249</b>		<b>SX</b> A	Sheet No. ___ of ___ Sheets
Approved EMGR S.E.E.(4)		Date 24-7-62	
Originated by		Date 24-7-62	
Drn.	Trd.	Ckd.	
<b>SX</b> A	<b>Amendment</b> BY DRAWN	<b>Orig.</b> DUG	<b>D/O</b> 22
			<b>Approved</b> S.E.E. Date 22/12/62



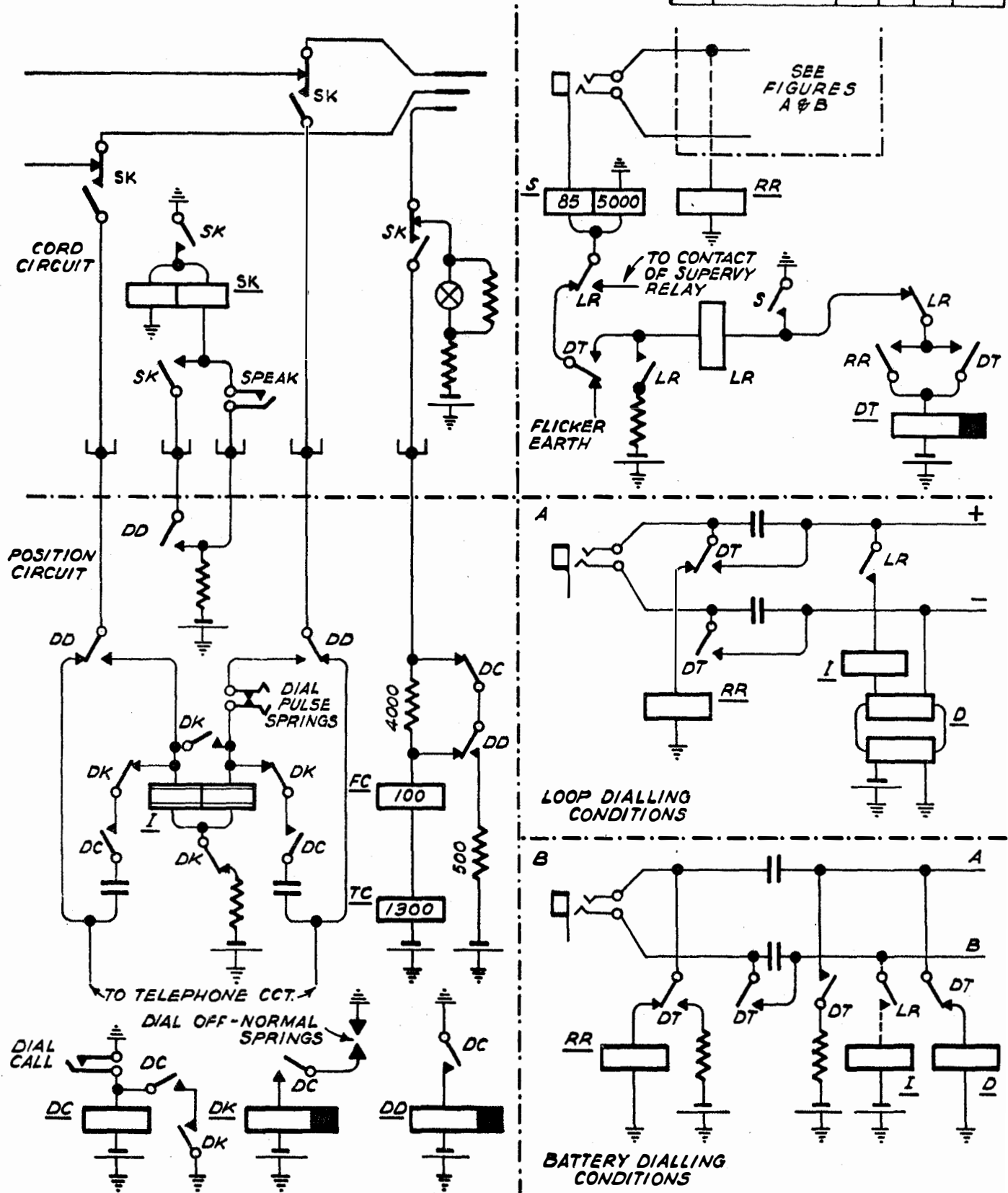
**RING, POLE HEAD, DPOPWIRE.**



**FITTING A DROPWIRE CLAMP AND BRACKET No.22  
 AT SUBSCRIBERS PREMISES**

TA 1252		SX	Sheet No. ___
			of ___ Sheets
Approved <i>E.T. S.E.E.</i>			Date 2-3-62
Originated by G.F.J.		Date 28-6-62	
Drn.	Trd. RGF	Ckd. A.E.P.	
SX	Amendment	Orig.	D/O
			Approved
			S.E.E.
			Date

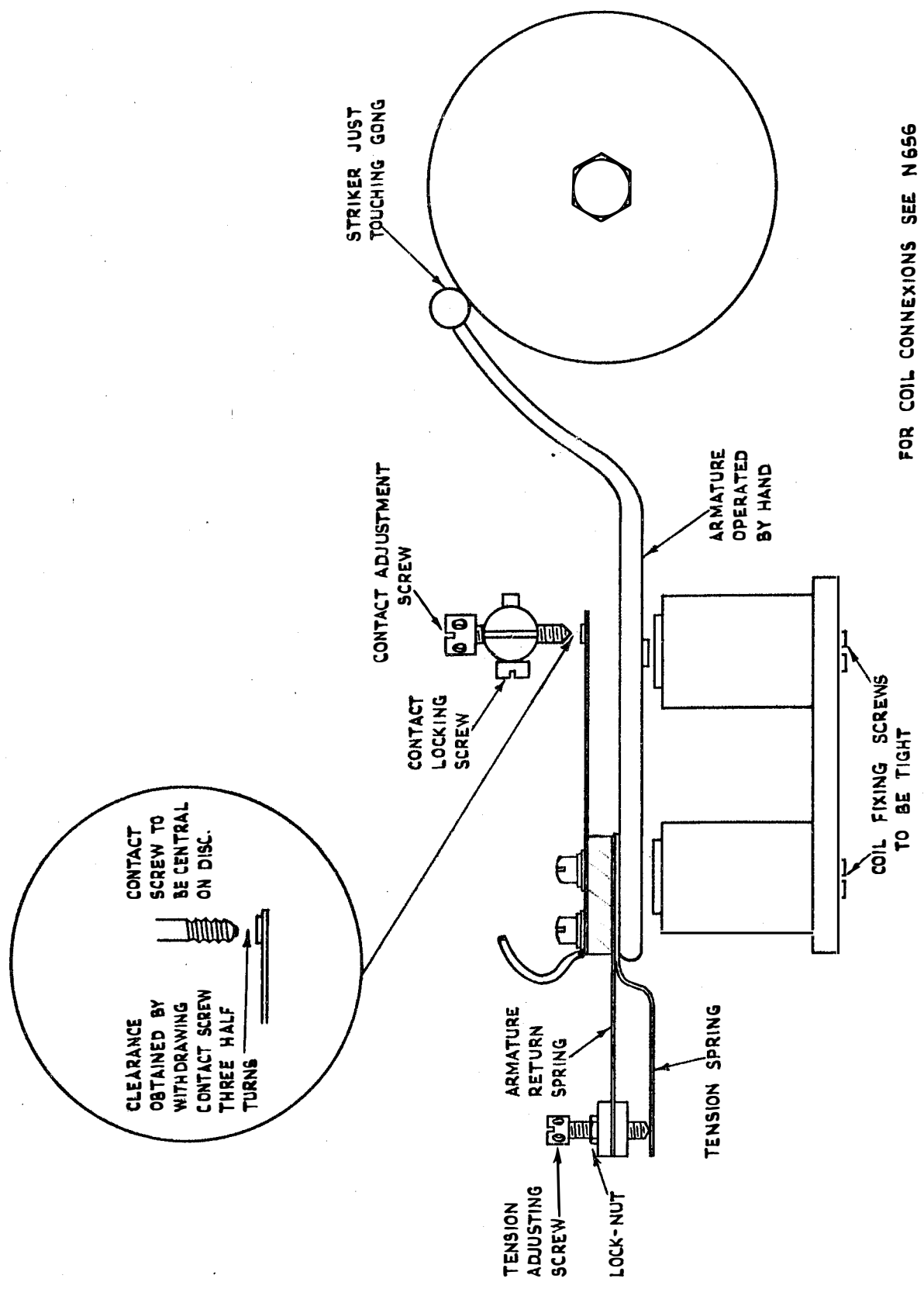
# SLEEVE CONTROL SWITCHBOARD DIALLING OUT CIRCUIT.



TA1281		SX	Sheet No. ___ of ___ Sheets	
Approved <i>EAG RSEE (4)</i>		Date 13.1.65.		
Originated by D. H. L		Date 13.1.65.		
Drn. <i>YJB</i>	Trd.	Ckd. A.E.P.		
SX	Amendment	Orig.	D/O	Approved S.E.E. Date

# ADJUSTMENT POINTS OF D.C. BELL (BELL 56 & 65)

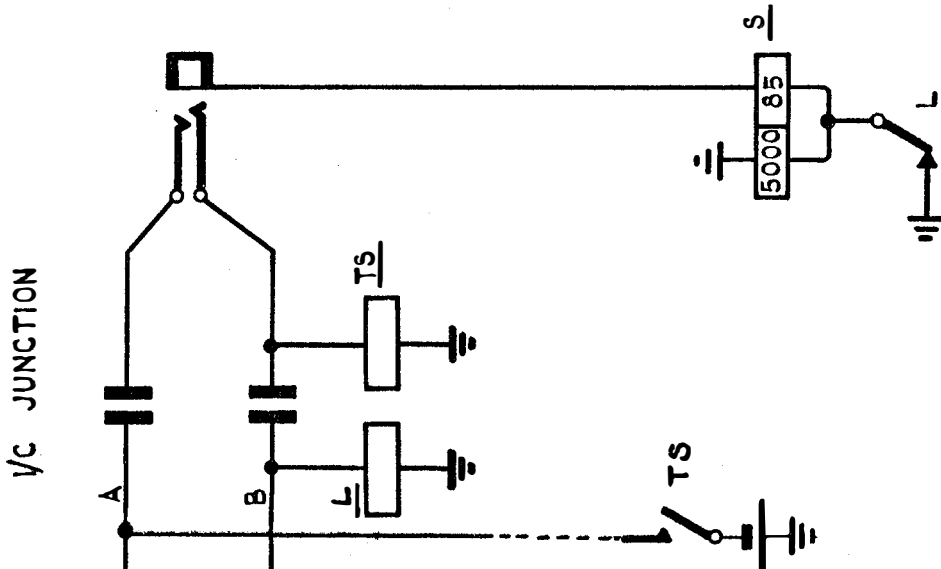
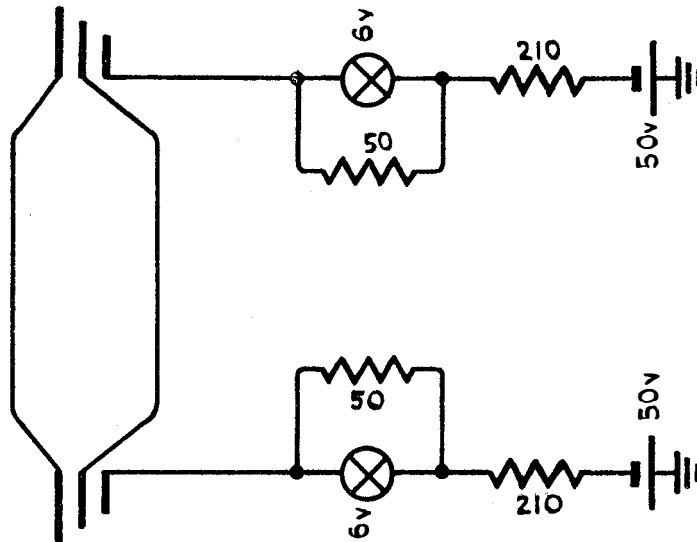
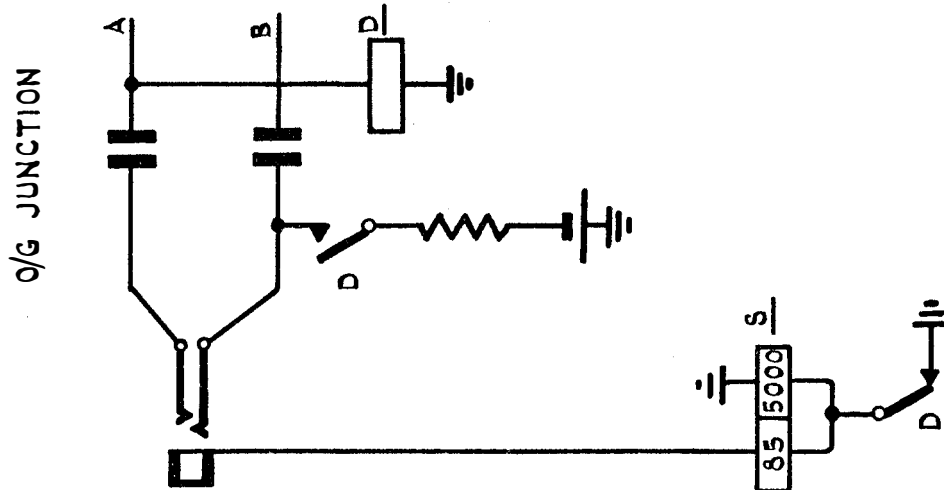
E.I. TELES STATIONS A5201 REFERS  
TO BE USED WITH N656 & NS95



FOR COIL CONNEXIONS SEE N656

# SLEEVE CONTROL SYSTEM SUPERVISORY ARRANGEMENTS

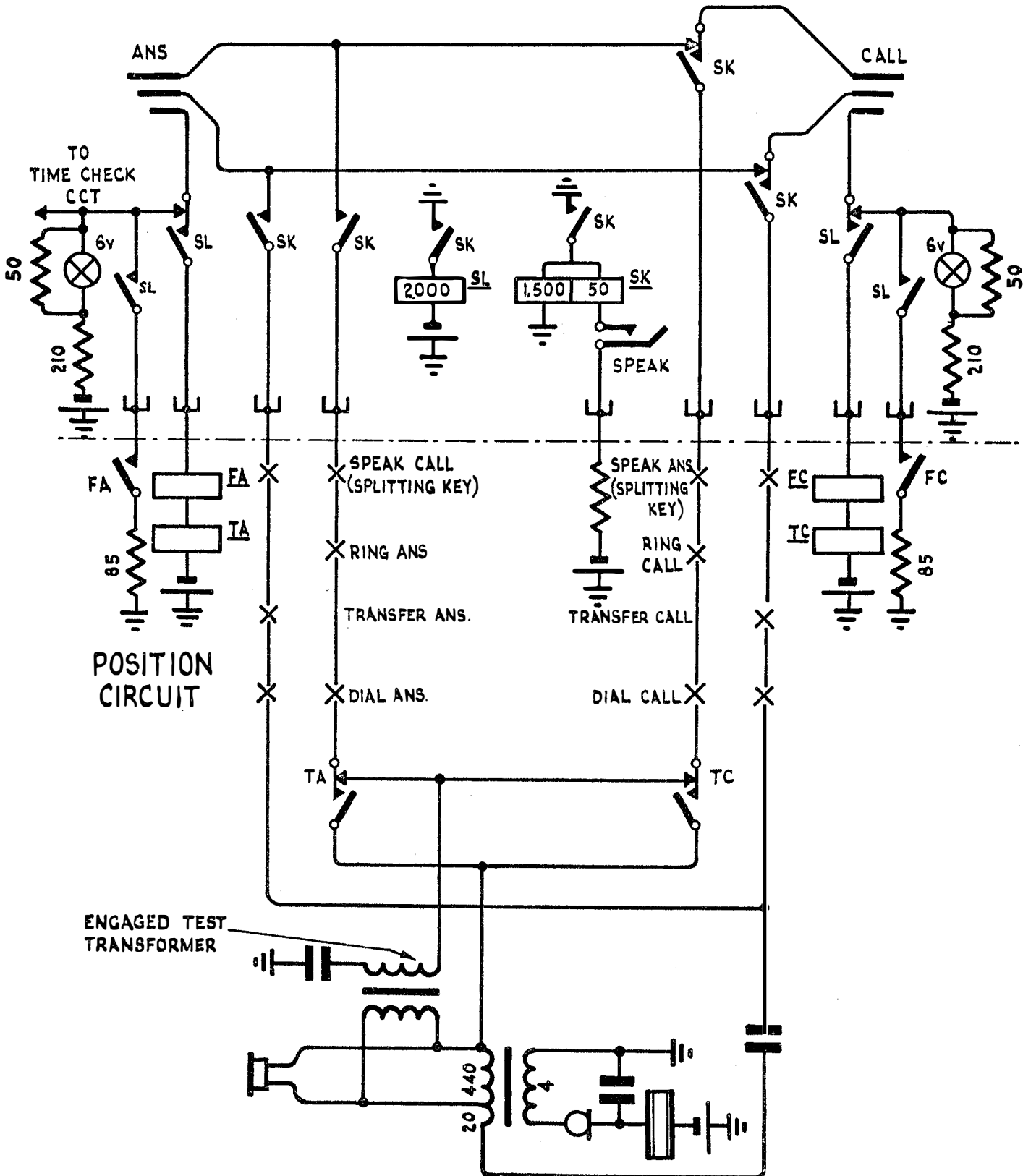
TA1283		SX	Sheet No. 1	
			of 2 Sheets	
Approved EMG & S.E.E. (E/T)			Date 10-2-65	
Originated by E. J. R.			Date 28.1.65	
Drm. <i>fjg</i>		Trd.	Ckd. A.E.P.	
SX	Amendment	Orig.	D/O	Approved S.E.E. Date
A	Various	E/T.A.	Do.	2/13-4-65





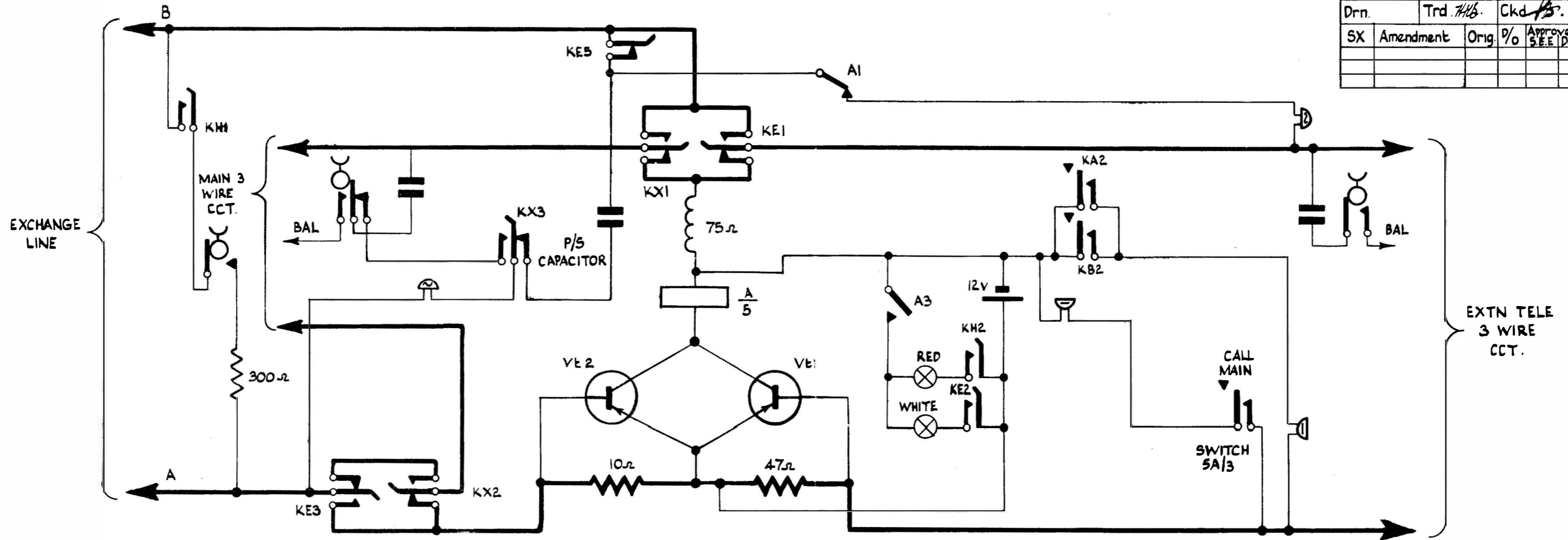
**CORD AND POSITION CIRCUIT**

TA 1283		SX	Sheet No. 2	
			of 2 Sheets	
Approved ENG R.S.E.E. (E/T)			Date 10-2-65	
Originated by E.J.R.			Date 28.1.65.	
Dra. P.g.B. Trd.			Ckd. A.E.P.	
SX	Amendment	Orig.	D/O	Approved S.E.E. Date
A	ADD SL	E/T4		11/65 20/5/65



SIMPLIFIED CIRCUIT OF A PLAN 107 WITH INTERNAL EXTENSION  
SHOWING SIGNALLING PRINCIPLES (REF N4509 PLS 2,3&5)

TA 1288		SX	Sheet No. ___ of ___ Sheets	
Approved <i>act</i> S.E.E. (E.H.)		Date 28.4.65		
Originated by D.R.W		Date 8-3-65		
Drn.	Trd. <i>H.B.</i>	Ckd. <i>A.S.</i>		
SX	Amendment	Orig	%	Approved S.E.E. Date



KEY POSITION

INCOMING CALLS (a) SPEAK TO EXTN ALL KEYS NORMAL :- RINGING ON 'B' LINE OPERATES MAIN BELL, VIA KE5 NORMAL, P/S ADAPTOR CAPACITOR, KX3 NORMAL, MAIN BELL TO 'A' LINE .

(b) SPEAK TO EXTN - KH OPERATED :- 1/C RINGING CCT AS ABOVE .

EXCH HELD

(c) SPEAK TO EXCH :- KX OPERATED :- RINGING ON 'B' LINE OPERATES MAIN BELL, VIA KX1 OPERATED, CAPACITOR IN TELE 706, KX3 OPERATED, MAIN BELL 'A' LINE .

(d) EXTN TO EXCH :- KE OPERATED :- RINGING ON 'B' LINE OPERATES MAIN & EXTN'S BELL, VIA KE1 OPERATED, EXTN'S BELL, A1 CONTACT NORMAL, P/S CAPACITOR KX3 NORMAL, MAIN BELL 'A' LINE .

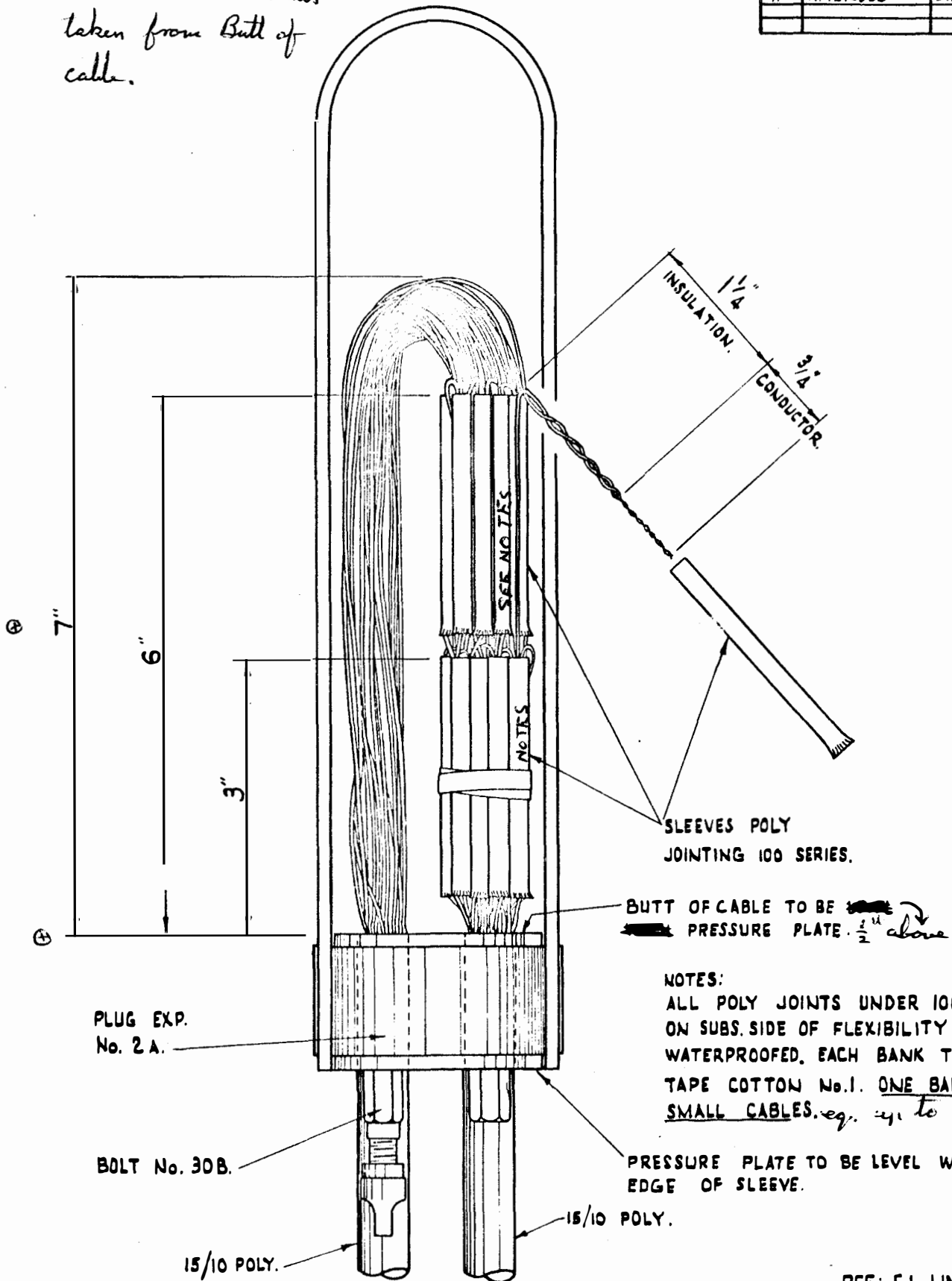
MAIN CALLS EXTN ALL SWITCH POSITIONS. KA OR KB OPERATED, KA2 OR KB2 COMPLETES CIRCUIT FOR BUZZER AT EXTN FROM 12V SUPPLY VIA 47Ω RESISTOR .

EXTN CALLS MAIN ALL SWITCH POSITIONS CALL MAIN (5A/3) BUTTON OPERATED :- COMPLETES CIRCUIT FOR BUZZER AT MAIN FROM 12V SUPPLY VIA 47Ω RESISTOR .

<b>TA.1308</b>		SX.	Sheet No. 1
		OF	Sheets
Approved <i>acw</i> S.E.E.(E/T)		Date 23-11-65	
Originated by C.A.C.W.		Date 26-8-65	
Drn.	Trd. <i>S.R.P.</i>	Ckd. <i>bc</i>	
SX.	Amendment	Orig.	D/O
A	AMENDED	J.D.J.	<i>acw</i>
			27-9-65

**POLY 'U' TYPE JOINT.**

⊕ These measurements taken from Butt of cable.

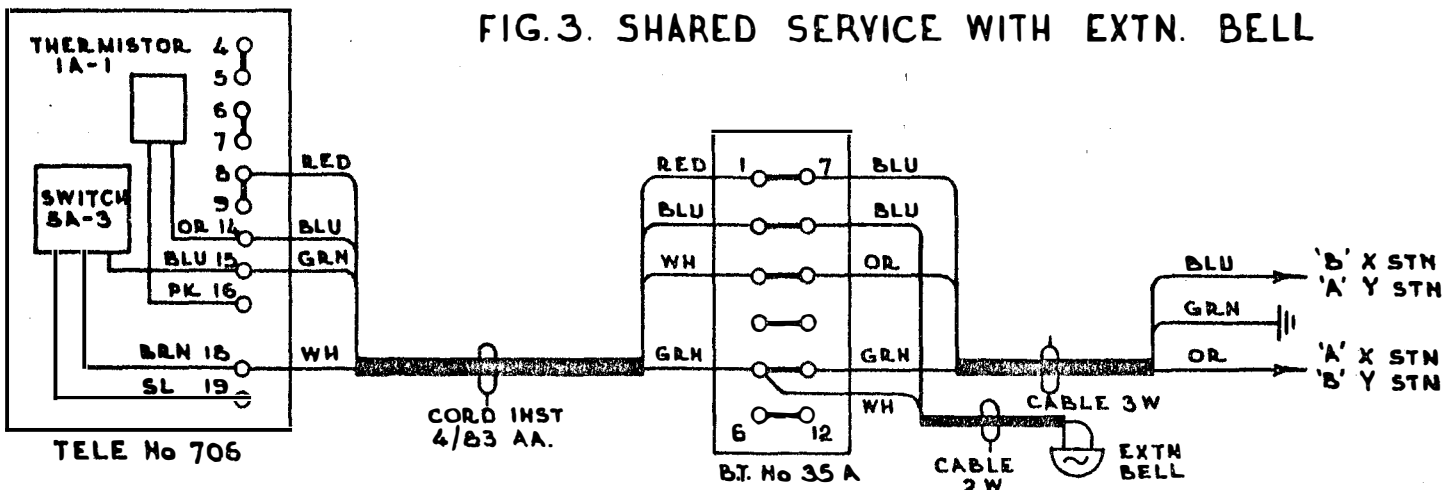
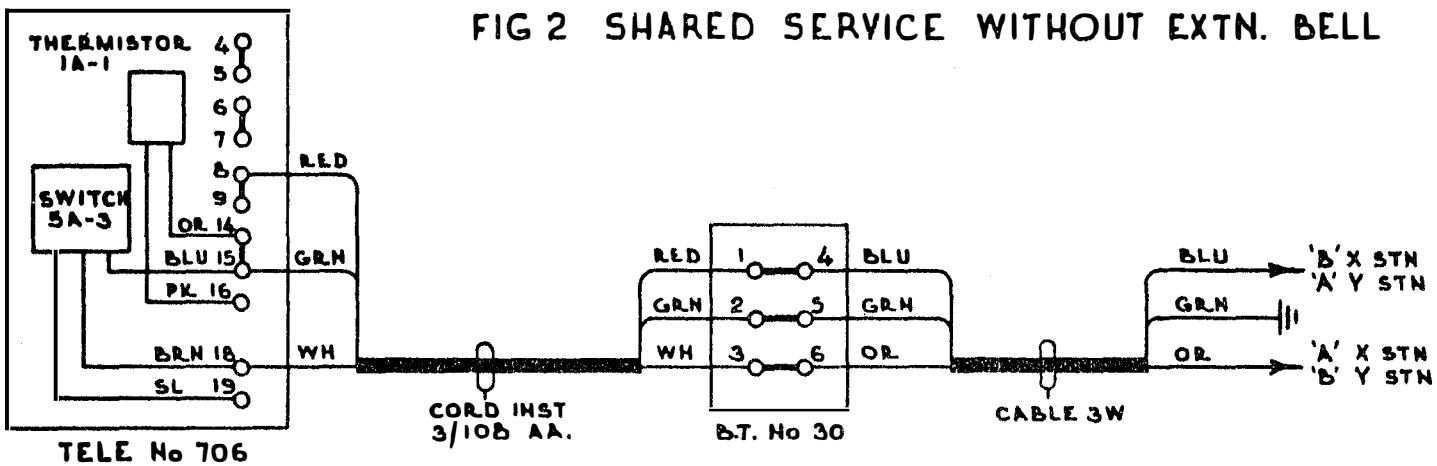
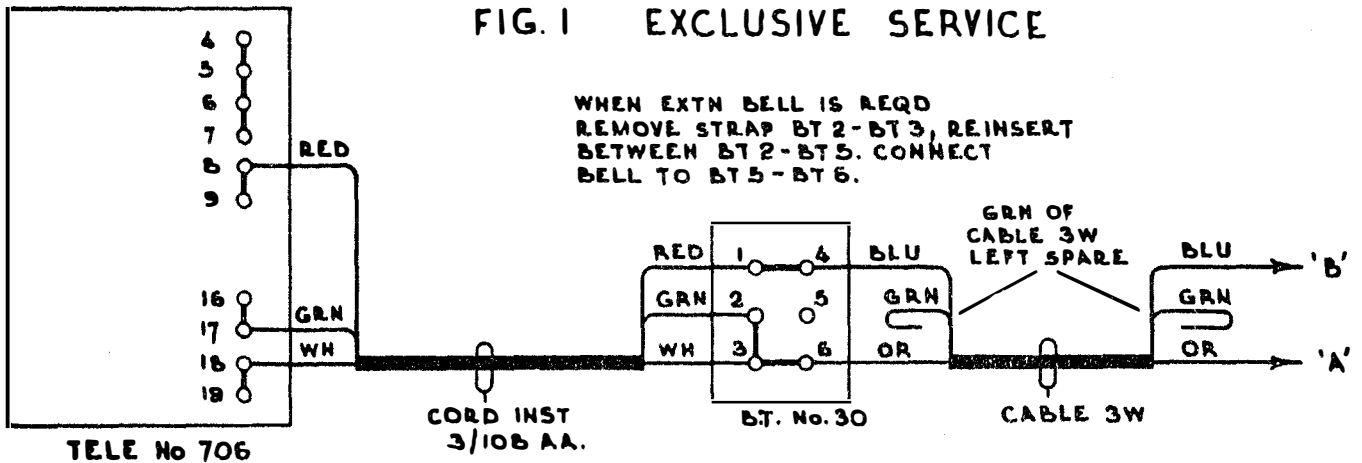


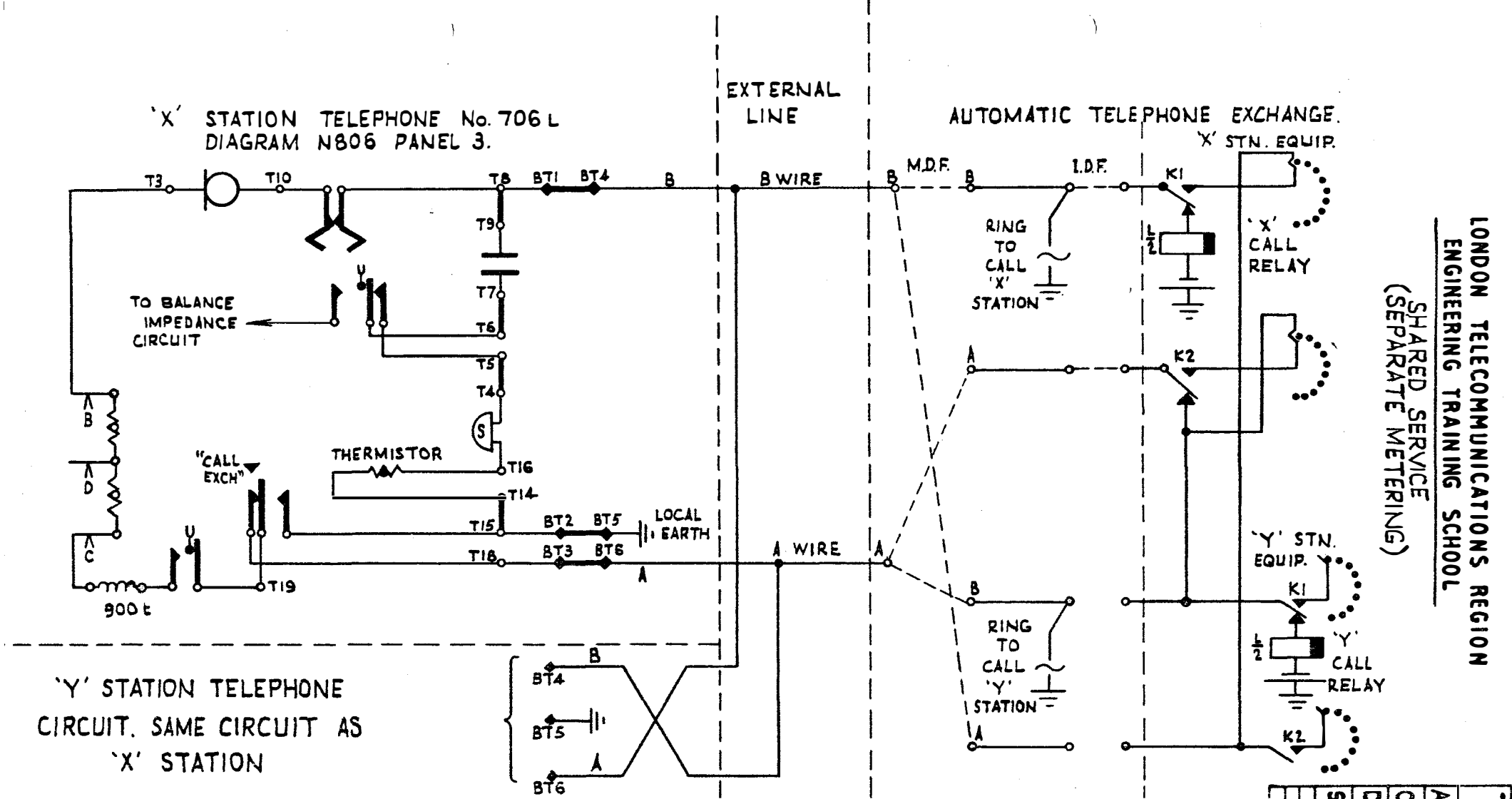
NOTES:  
ALL POLY JOINTS UNDER 100 PAIRS ON SUBS. SIDE OF FLEXIBILITY POINT WATERPROOFED. EACH BANK TIED WITH TAPE COTTON No.1. ONE BANK ON SMALL CABLES. eg. 4 to 15 PAIRS.

PRESSURE PLATE TO BE LEVEL WITH EDGE OF SLEEVE.

TA 1324	SX	SHEET No. --- OF --- SHEETS
APPROVED <i>SEE (4)</i>		DATE 3-3-66
ORIGINATED BY DNL		DATE FEB 1966
DRN.	TRD. BKB	CKD. <i>g/b</i>
SX	AMENDMENT	ORIG
		D/O
		APPROVED S.E.E. DATE

# INSTALLATION OF DIRECT EXCHANGE LINE USING TELE No 706 (N806 REFERS)





'Y' STATION TELEPHONE  
CIRCUIT. SAME CIRCUIT AS  
'X' STATION

**OPERATING PROCEDURE**

1. Lift handset.
2. Listen to see if line is free.
3. If line is free press 'CALL EXCH.' button until dial tone is received.
4. Release button and proceed to dial.

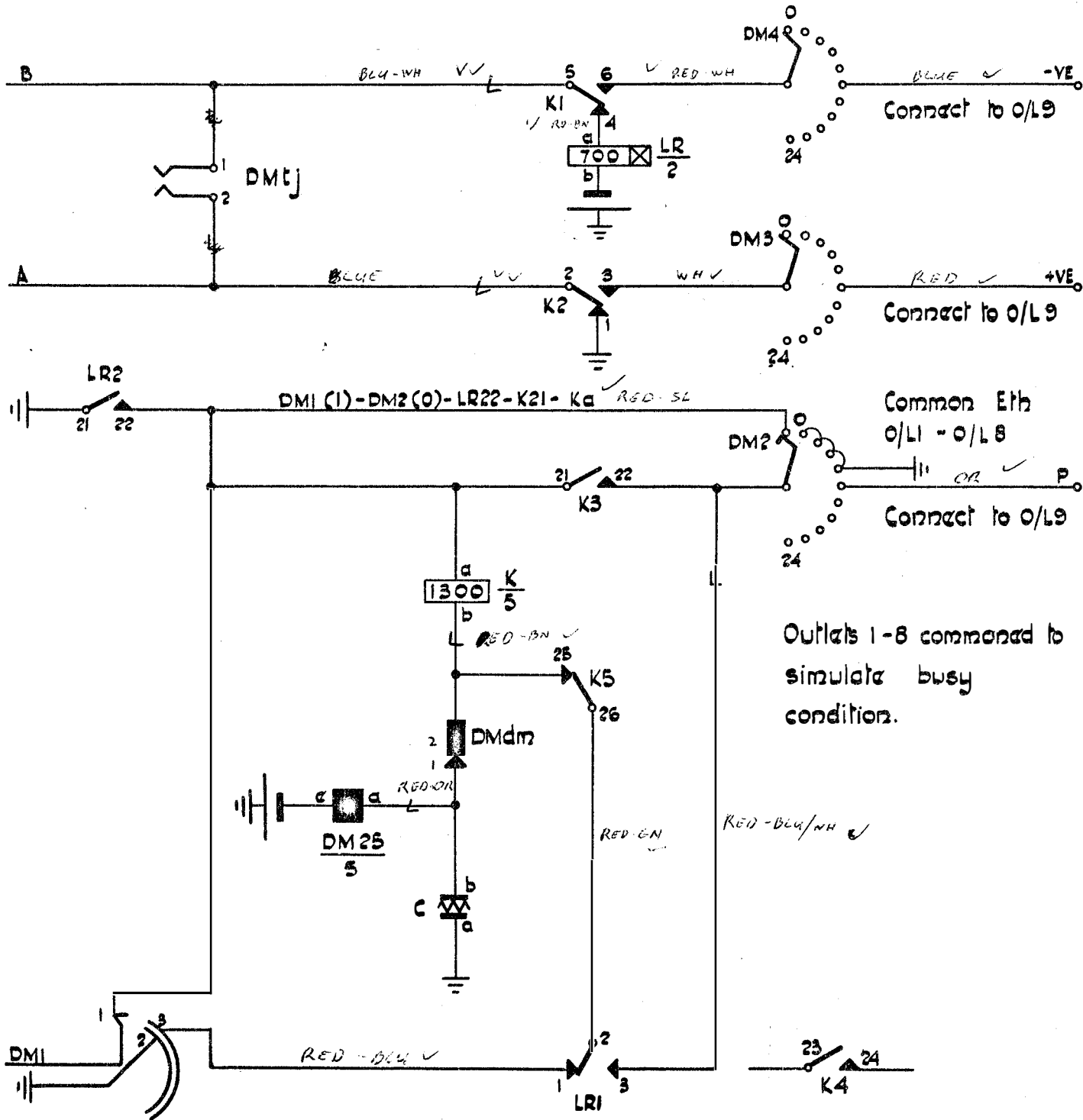
**NOTES**

1. Reversal between line and 'Y' station.
2. Reversal on M.D.F. for 'Y' subscriber.
3. Normal test to exchange: BATTERY A and B; test when line is in use BATTERY on one wire Earth on the other.
4. Reference: Engineering Instructions: Telephones, Stations, C3110 and C3140.

TA/1330	SX	Sheet No. ---	of --- Sheets
Approved <i>[Signature]</i> SEE(F) Date 1.8.66	Originated by	Date	
Drn. <i>[Signature]</i>	Trd. SRT	Ckd. <i>[Signature]</i>	
SX Amendment	Orig.	D/O	Approved
		SEE Date	SEE Date

TA 1346		SX	Sheet No. _____ of _____ Sheets	
Approved		S.E.E. (E.H.)		Date
Originated by J.E.S.R.		Date 26.8.66		
Drn.	Trd.	Ckd.		
SX	Amendment	Orig.	D/O	Approved S.E.E. Date
'A'	Redrawn & Homing Arc.			E.H., 12.10.67

# SUBSCRIBERS LINE CIRCUIT



All common wiring run in Green  
Earth (Red) KI - LR 21 - DM1 (?) - DM2 (B) - Ca  
Battery (White) LRb - DMc.