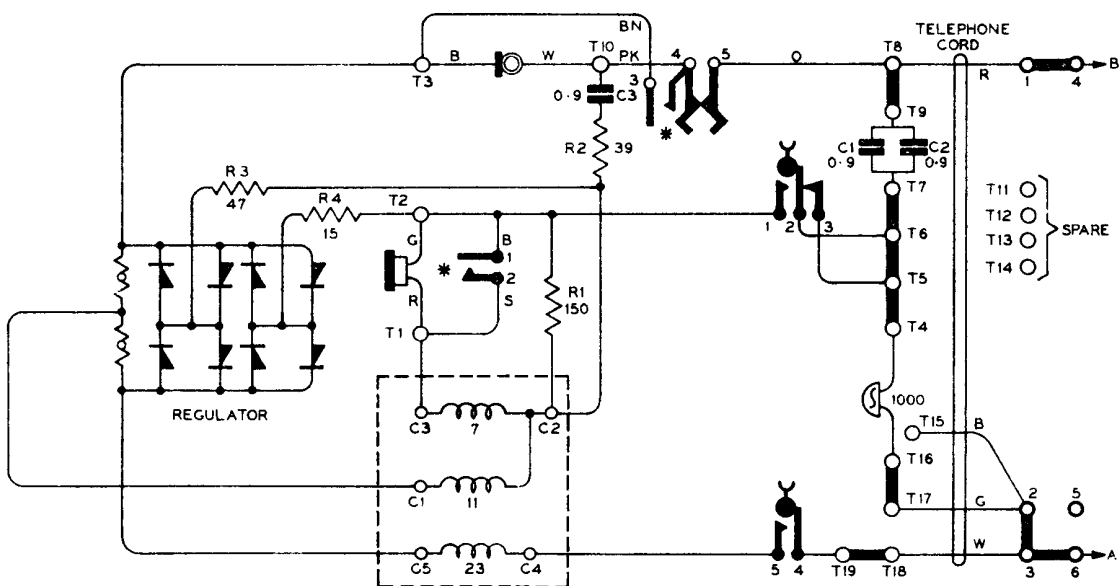


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T TELEPHONE TERMINALS
C INDUCTION COIL TERMINALS
* DIAL SPRINGS
O BLOCK TERMINALS

FIG. 1

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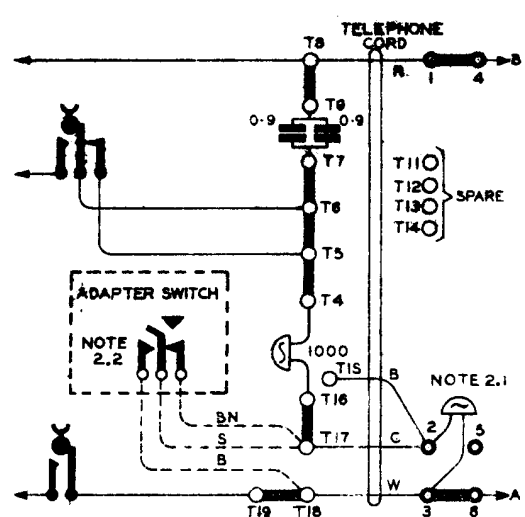


FIG. 2

NORMAL EXTN BELL: SEE NOTE 2

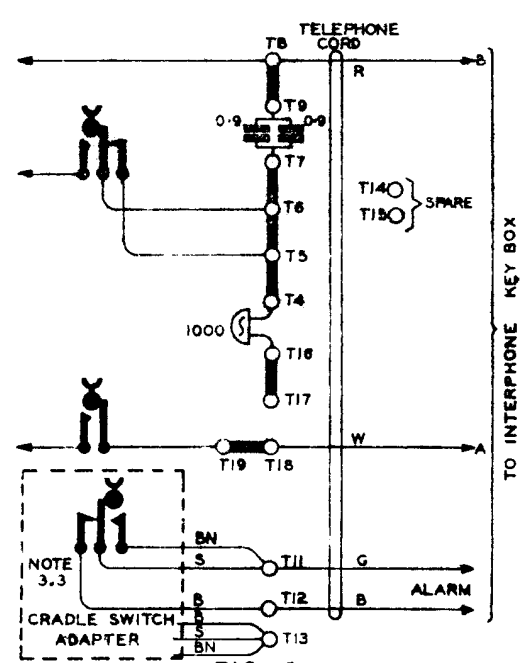


FIG. 3

N.Z.R.Q. INTERPHONE: SEE NOTE 3

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SL N&HC 401



P.A.B.X. RECALL: SEE NOTE 4



P.A.B.X. RECALL WITH EXTENSION BELL: SEE NOTE 4

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P.A.B.X. RECALL WITH EXTN BELL CUT-OFF KEY:
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SHARED SERVICE: SEE NOTE 5

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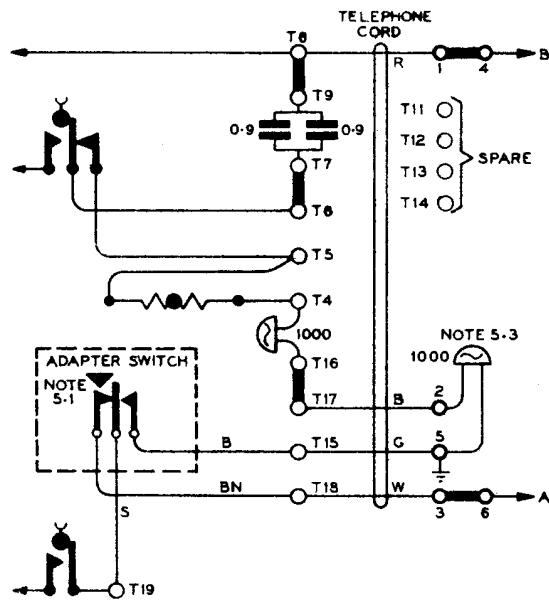


FIG. 8

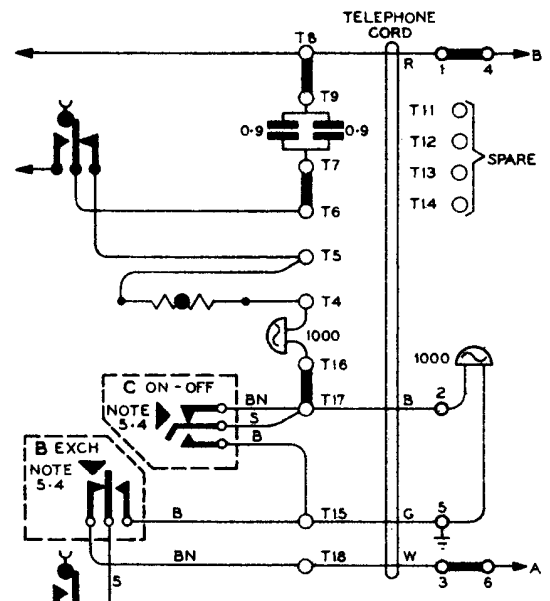
SHARED SERVICE WITH EXTN BELL:
SEE NOTE 5

FIG. 9

SHARED SERVICE, WITH EXTN BELL CUT-OFF KEY:
SEE NOTE 5AUTOMATIC TELEPHONE (TABLE)
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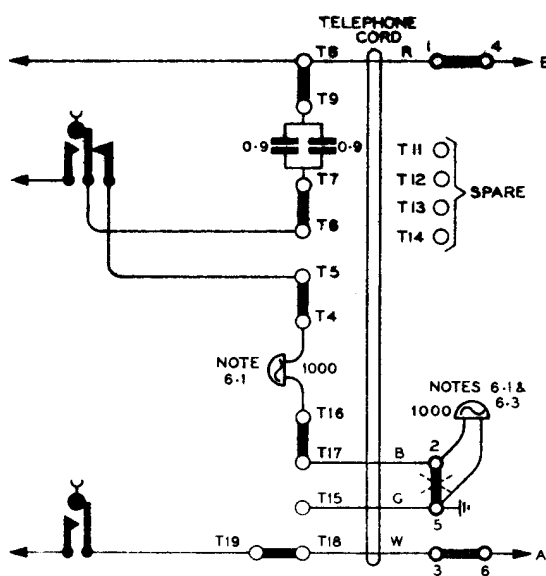
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FIG. 10

2 PARTY: SEE NOTE 6

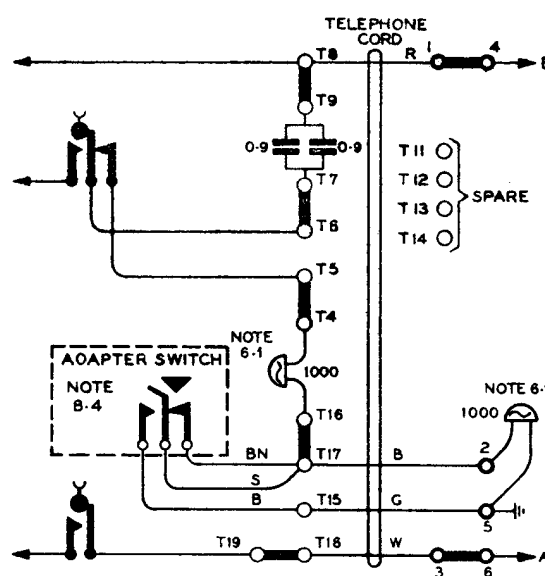
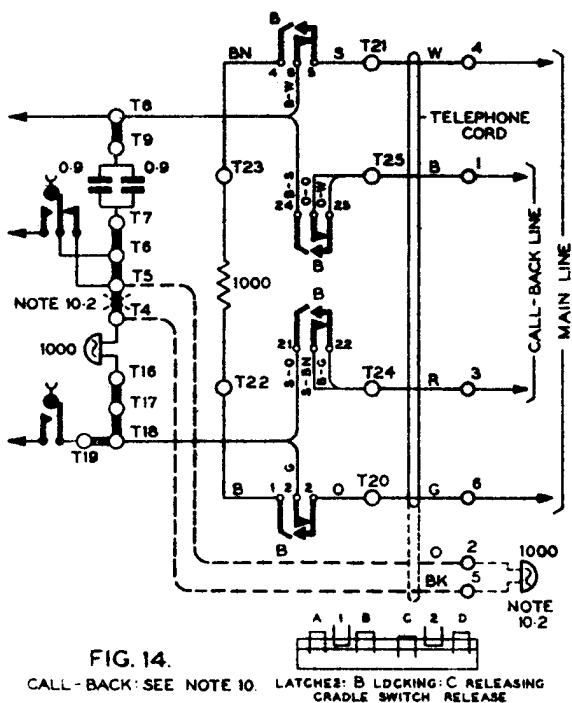
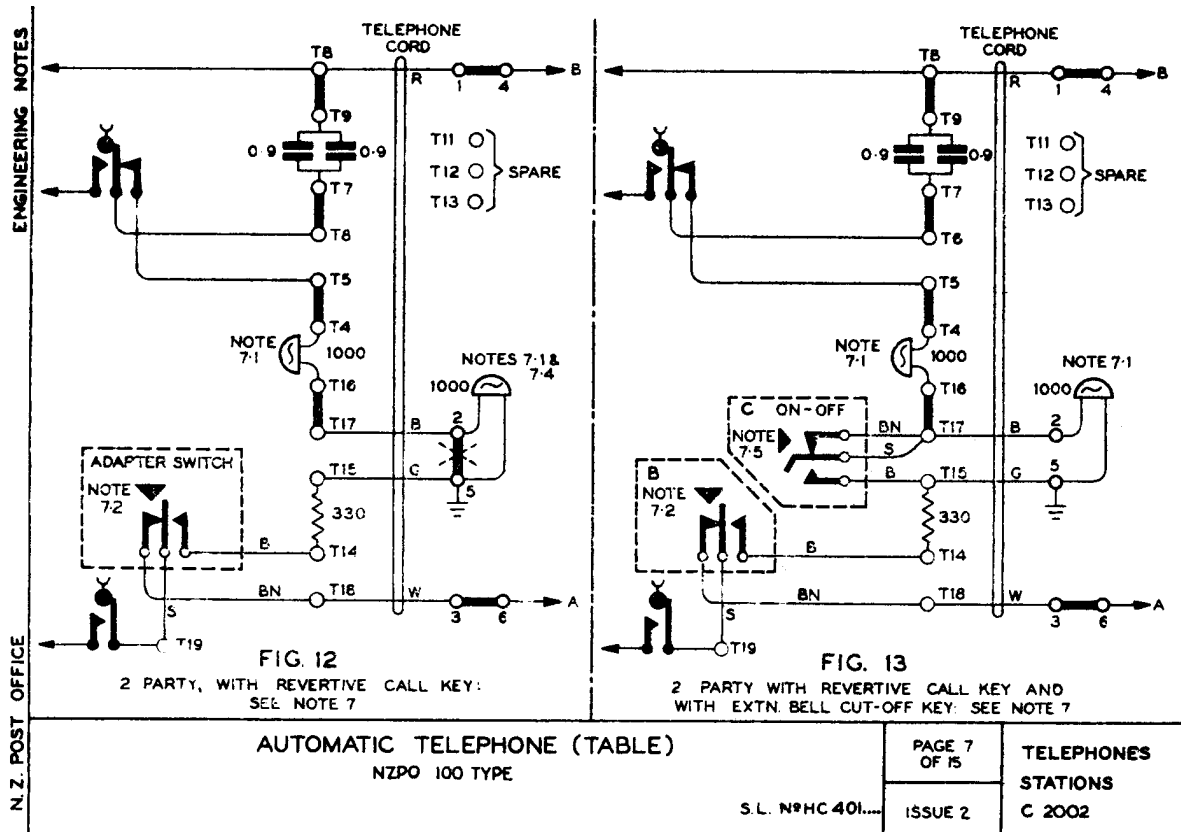


FIG. 11

2-PARTY WITH EXTN BELL CUT-OFF KEY:
SEE NOTE 6TELEPHONES
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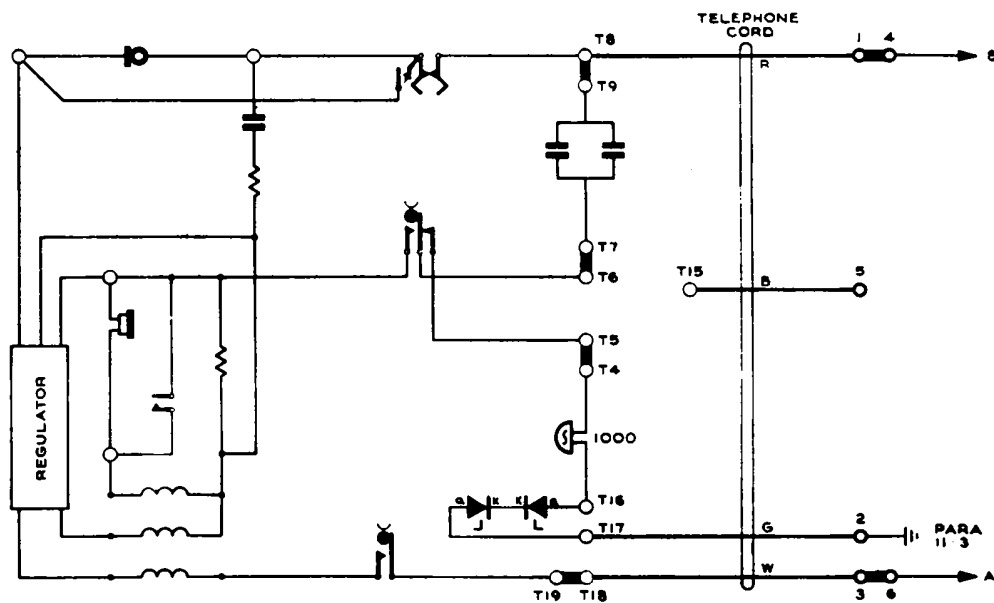


FIG. 15 M PARTY FROM CROSSBAR EXCHANGE (SEE PARA 11 PAGE 5 2)

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11. M-PARTY FROM CROSSBAR EXCHANGE

11.1 Apparatus

Telephone	Zenner Diode
HC 400 - 406	CC 925 (2)

Table 1	
Ringin ^g Code	Revertive No.
A	131
D	132
M	133
R	134
S	135

11.2 Connections for the A, D and M subscribers are shown in fig. 15. For R and S subscribers, reverse the A and B line wires at block terminals 4 and 6. A revertive call will prove a correct connection. Revertive numbers are shown in table 1. (See para. 11.4).

11.3 Present restrictions of one bell per subscriber still apply, extension bell arrangements are to be wired via a ring detector (NZPO 34739).

11.4 Rural Carrier Channels - All M-party subscribers connected to Rural Carrier Channels are to be wired as per Step by Step M-party, (i.e., they are to be made loop ringing).

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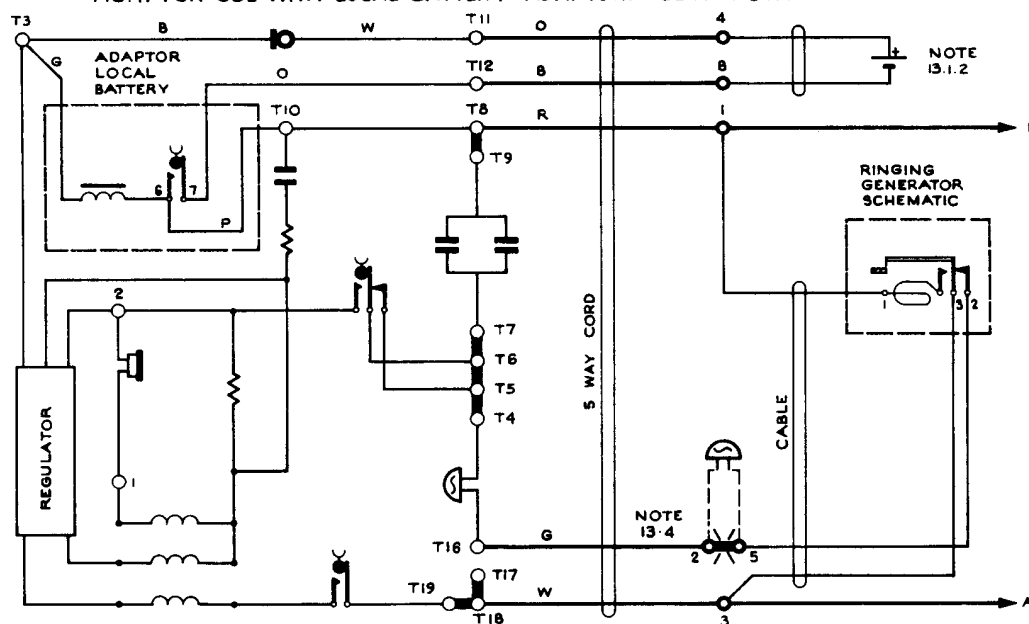
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FIG. 17 FOR USE WITH LOCAL BATTERY ADAPTOR. SL N2 HC 101



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13. LOCAL BATTERY ADAPTORS.

13.1 General.

13.1.1 Normal plan extension requirements may be applied except in the case of party lines where only one bell should be provided.

13.1.2 For line lengths 0-600a provide a 3V battery. For line lengths 600-1000a provide 4½V and local arrangement battery box.

13.2 Apparatus

Cord	Block	Adaptor L.B.	Screws	Hand Generator
KC739A-F	HC200A-F	HC101	S1012x2	G215A
Battery Box	Telephone	Dial		
G104(2 Cell)	HC401-406	HC300A-F		

13.3 Connections.

13.3.1 Telephone. Remove dial and fit dummy dial (HC 300). Strap T8 to T10. Transfer wire from T10 to T11. Fit adaptor HC101 as per Fig. 17. Remove all straps on Block (HC 200), strap BT2 to BT5.

13.3.2 Generator. As per Fig. 17.

13.3.3 Local Battery. As per Fig. 17.

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13.4 Extension Bells.

13.4.1 See para. 13.1.1.

13.4.2 Connect extension bells in place of BT 2 and 5.

13.4.3 No more than four bells may be placed across an individual line.

13.4.4 On party lines extra extn bells must be wired via a ring detector.

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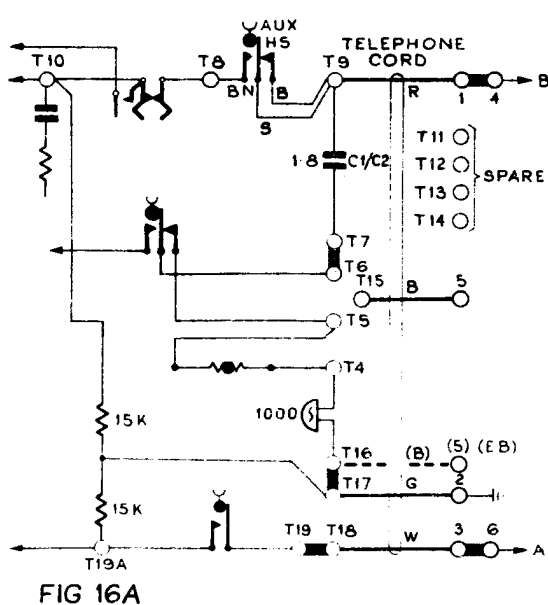


FIG 16A

2-PARTY X SUBSCRIBER X BAR SEE NOTE 10
INCLUDES CONNECTIONS FOR 22 TERMINAL P.C.B.

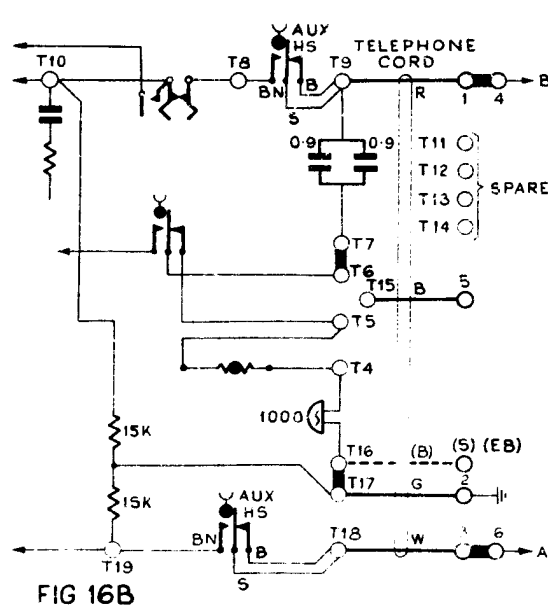


FIG 16B

2-PARTY X SUBSCRIBERS X BAR SEE NOTE 10
INCLUDES CONNECTIONS FOR 19 TERMINAL P.C.B.

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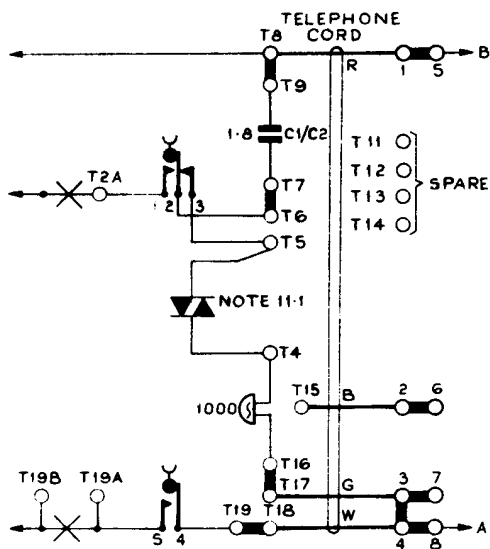


FIG 17

M-PARTY STEP BY STEP SEE NOTE 11
INCLUDES CONNECTION FOR 3 WAY BLOCK

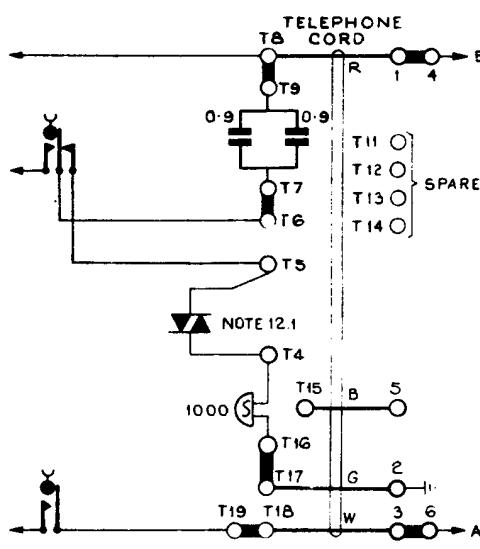


FIG 18

M-PARTY CROSSBAR SEE NOTE 12

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SL. N° HC 401....

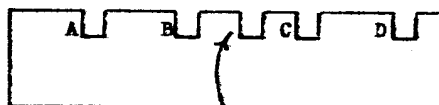
ENGINEERING NOTES

1. GENERAL.

1.1 The NZPO 100 Telephone may be used for these services -

Individual automatic lines	2 - Party
NZPC Interphone	2 - Party, with revertive call key
P.A.E.X. Recall	M - Party
Shared Service	Central Battery
	Call Back

1.2 Centre Position: For the purposes of this or other E.N.s the term centre position for mounting adapters is as shown in the following diagram:



Centre Position (not marked on plate)

2. NORMAL TELEPHONES.

2.1 Extension Bell, Fig. 2. Connect extension bell in place of strap 2-3 in the block.

2.2 Extension Bell Control Key. Fit adapter switch HC 409, in the centre position and button HC 416 with two retaining pins HC 680 in place of the dummy.

2.2.1 For cut-off, extension bell, wire as shown in Fig. 2.

2.2.2 For change-over, main to extension bell, move the BN switch wire from T17 to T4.

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3. NZPO INTERPHONE.

3.1 Use normal telephone Fig. ' without the terminal block. Connect the green and blue spare cord conductors to a spare keybox terminal, leaving the telephone bell disconnected.

3.2 For P.A.B.X. Recall. Fit into the centre position the following:

Adapter HC 408, Plunger HC 375, Spring HC 684. Remove dummy and fit button HC 422 and two button retaining pins HC 680. Connect as shown in Fig. 4, omit the terminal block, anchor the spare blue cord wire to a spare keybox terminal.

3.3 Holding Key Alarm. Fit cradle switch springset HC 407.

3.3.1 Normal telephones connect as shown in Fig. 3.

3.3.2 P.A.B.X. recall. Add adapter, button and springset as in pars. 3.2 and 3.3. Replace the 4-wire cord with a 5-wire cord KC 739....connect as shown in Fig. 4, use the cord wiring shown in brackets.

4. P.A.B.X. RECALL.

4.1 Fit into the centre position the following:

Adapter HC 408, Plunger HC 375, Spring HC 684. Remove dummy and fit button HC 422 and two button retaining pins HC 680. Connect as shown in Fig. 4.

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Para. 3.2.1

Fujitsu and NEC PABX Systems Use Switchhook flash for recall.

Recall (Earth) should only be provided on mains fail and permanent night switch extensions on these systems.

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4.2 Extension Bell, Fig. 5. Connect extension bell in place of strap 2-3 in the block.

4.3 Extension Bell Control Key. Fit key assemblies as follows:

Button	Pins Button Ret.	Adapter	Plunger	Springs	Position	Latch
HC 458 On/Off	HC 680	HC 409			B	Locking
HC 464 Recall	HC 680	HC 408	HC 375	HC 684	C	Non-locking

4.3.1 For cut-off, extension bell, wire as shown in Fig. 6.

4.3.2 For change-over, main to extension bell, move the BN switch wire from T17-T4.

5. SHARED SERVICE.

5.1 Fit into the centre position the following:

Adapter HC 408, Plunger HC 375, Spring HC 684. Remove dummy and fit button HC 422 and two button retaining pins HC 680. Fit a thermistor K 972A and connect as shown in Fig. 7.

5.2 Connection for an "X" station are shown in Figs. 7, 8 and 9. For a "Y" station reverse the A and B line wires at block terminals 4 and 6.

5.3 Extension Bell, Fig. 8. Connect extension bell in place of strap 2-5 in the block.

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5.4 Extension Bell Control Key. Fit assemblies as follows:

Button	Pins Button Ret.	Adaptor	Plunger	Springs	Position	Latch
HC 470 Exch	HC 680	HC 408	HC 375	HC 684	B	Non-locking
HC 458 On/Off	HC 680	HC 409			C	Locking

5.4.1 For cut-off, extension bell, wire as shown in fig. 9.

5.4.2 For changeover, main to extension bell move BN switch wire from T17 - T4.

6. TWO PARTY.

6.1 Fit thermistor S.L. No. K 972A where shown between T4 and T5.

6.2 Connections for an "X" station are shown in Figs 10 and 11, for a "Y" station reverse the A and B line wires at block terminals 4 and 6.

6.3 For exchange areas where party, code, leg ringing is employed, omit thermistor and fit a bias spring assembly HC 509 and HC 509A to each telephone and extension bell. The method of fitting bias springs is shown in E.I. TELS Stns C 3213.

6.4 Extension Bell Fig. 10. Connect extension bell in place of strap 2-5 in the block.

6.5 Extension Bell Control Key. Fit adaptor switch HC 409 in centre position and button HC 416 with two button retaining pins HC 680 in place of dummy.

6.5.1 For cut-off, extension bell, wire as shown in Fig. 11.

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6.5.2 For changeover, main to extension bell, move BN switch wire from T17 to T14.

7. TWO PARTY, WITH REVERTIVE CALL KEY

7.1 Fit thermistor S.L. No. K 972A where shown between T4 and T5.

7.2 Connections for an "X" station are shown in Figs 12 and 13, for a "Y" station:

- (a) Reverse the A and B line wires at block terminals 4 and 6, and
- (b) Reverse the adaptor switch wires, brown and slate on T18 and T19.

7.3 For exchange areas where party, code, leg ringing is employed, use bias springs as detailed in para. 6.3 above.

7.4 Fit in the centre position the following:

Adaptor HC 408, Plunger HC 375, Spring HC 684
Remove Dummy and fit button HC 410 and two button retaining pins HC 680. Also fit a resistor 330 ohm 1 watt carbon, S.L. No. ER 419; enclose the resistor in insulated sleeving.

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7.4 Extension Bell, Fig. 12. Connect extension bell in place of strap 2-5 in the block.

7.5 Extension Bell Control Key. Fit key assemblies as follows:

Button	Pins Button Ret.	Adapter	Plunger	Spring	Position	Latch
HC 440	HC 680	HC 408	HC 375	HC 684	B	Non-locking
HC 458 On/Off	HC 680	HC 409			C	Locking

7.5.1 For cut-off, extension bell, wire as shown in Fig. 13.

7.5.2 For change-over, main to extension bell move the BN switch wire from T17 to T4.

8. M-PARTY.

8.1 For M-Party service, connect a valve 995 D in place of strap T4-T5, Fig. 1.

8.2 Extension Bell. An extension bell may be connected to the main telephone as required, but a switch must be connected to allow only one bell to ring at each subscriber's premises.

8.3 If more than one bell is required to ring at a subscriber's premises fit ringing detector NZPO 34739. NOTE: this item is not stock listed and is required to be made up from stock listed parts.

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9. CENTRAL BATTERY - MANUAL.

9.1 Remove dial complete with cord from the telephone.

9.1.1 Strap terminals T8 and T10 together, Fig. 1.

9.1.2 Fit dial dummy HC 300.... to the case.

10. CALL BACK.

10.1 Fit apparatus as follows:

Latching bracket

Latch plate HC 682, Plungers HC 375 and Springs HC 684.

Button	Pins Button Ret.	Springset	Position	Latch Fig. 14	Cradle	Terminal Strip	Resistor
HC 464 Recall	HC 680	HC 687	B	Locking	Switch	HC 695	ER 425
HC 440	HC 680	HC 689A	C	Releasing	Release		

10.1.1 Connect as shown in Fig. 14. Enclose the 1000 ohm 1 watt resistor in insulated sleeving.

10.2 Extension Bell, Fig. 14. Replace the 4-wire cord with a 6-wire cord KC 745....

Remove the strap shown

Connect cord as shown.... in Fig. 14.

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10. 2-PARTY, XBAR, X SUBSCRIBER

10.1 Apparatus Telephone Aux. S/Hk (2) Thermistor Screws (2) Resistors

HC 401 or 750....	HC 407 (2)	K 972A	S 1012	ER 856K (2)
-------------------	------------	--------	--------	-------------

10.2 Connect X Party, as shown in Fig. 16A or 16B: Fit the thermistor between T4-T5: Use the specified close tolerance 15K, LINE IDENTIFICATION RESISTORS.

10.3 To fit two auxiliary hookswitches, remove one microswitch from its bracket and mount it adjacent to the other microswitch on the second bracket, use two screws S.L. NO. S 1012, 8BA RH 19 mm. The second ZBar then operates both microswitches, and the complete unit can be mounted in the normal manner.

10.4 Extension bell is permitted, max. 4 bells in circuit at any one time. Fig. 16 A-B. Remove strap T16-T17, connect Blue cord wire to T16 and EB to Block terms 2-5.

10.5 Extension Bell control key is permitted as in Fig. 10-11 with one bell minimum at any time.

10.6 Revertive Test, dial 136: Sub LT.

10.7 2-PARTY, XBAR, Y SUBSCRIBER: Use standard 2-Party (SxS) telephone, see Fig. 10 and Note 6.

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11. M-PARTY, SxS

11.1 For M-Party service, connect a diac, HC 759, in place of strap T4-T5, Fig. 17.

11.2 Extension Bell. An extension bell may be connected to the main telephone as required, but a switch must be connected to allow only one bell to ring at each subscriber's premises.

11.3 If more than one bell is required to ring at a subscriber's premises fit ringing detector NZPO 34739. NOTE: This item is required to be made up from stock listed parts.

12. M-PARTY, XBAR

12.1 For M-Party service connect a diac S.L. No. HC 759 in place of strap T4-T5, Fig. 18.

12.2 One bell per subscriber is permitted. An extension bell may be connected to the main phone as required but a switch must be connected to allow only one bell to ring at each subscriber's premises at one time.

12.3 If more than one bell is required to ring at a sub's premises fit ringing detector NZPO Drg 34739. NOTE: This item is required to be made up from stock listed parts.

12.4 Connections for A, D and M sub are shown in Fig. 18. For R & S subs, reverse the A & B line wires at block terminals 4 & 6.

Revertive numbers are: A-131: D-132: M-133: R-134: S-135.

Identification of leg, proof of connection and correct code is best checked by dialled call than by the use of the Revertive call feature.

12.5 RURAL CARRIER CHANNELS - All M-Party telephones on Rural Carrier Channels connect as for M-Party SxS, Fig. 17, Note 11, i.e., connect for use on loop ringing.

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12.4 If more than one bell is required to ring at a subscriber's premises fit ringing detector NZPO 34739. NOTE: This item is required to be made up from stock listed parts.

12.5 Connections for A, D and M sub are shown in Fig. 18. For R and S subs, reverse the A and B line wires at block terminals.

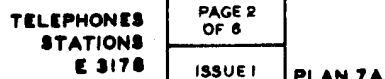
Revertive numbers are: A-131 D-132 M-133 R-134 S-135. Identification of leg, proof of connection and correct code is best checked by dialled call than by the use of the revertive call feature.

12.6 Rural Carrier Channels - All M-Party telephones on Rural Carrier Channels are connected as for M-Party SXS, Fig 17, ie., connected for use with loop ringing.

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---CONNECTIONS TO TELEPHONE