

CIRCUIT ELEMENTS. MULTIPLE STATIONS.
EXCHANGE LINE SPEECH, RINGING AND SIGNALLING CIRCUIT

- FIG. 1 Ringing Circuit (Earth Return Ringing)
- FIG. 2 Ringing Circuit (Loop Ringing)
- FIG. 3 Speech Circuit. Station 1 engaging Exchange Line 1.
- FIG. 4 Hold Circuit. Station 1 holding Exchange Line 1.

NOTES:-

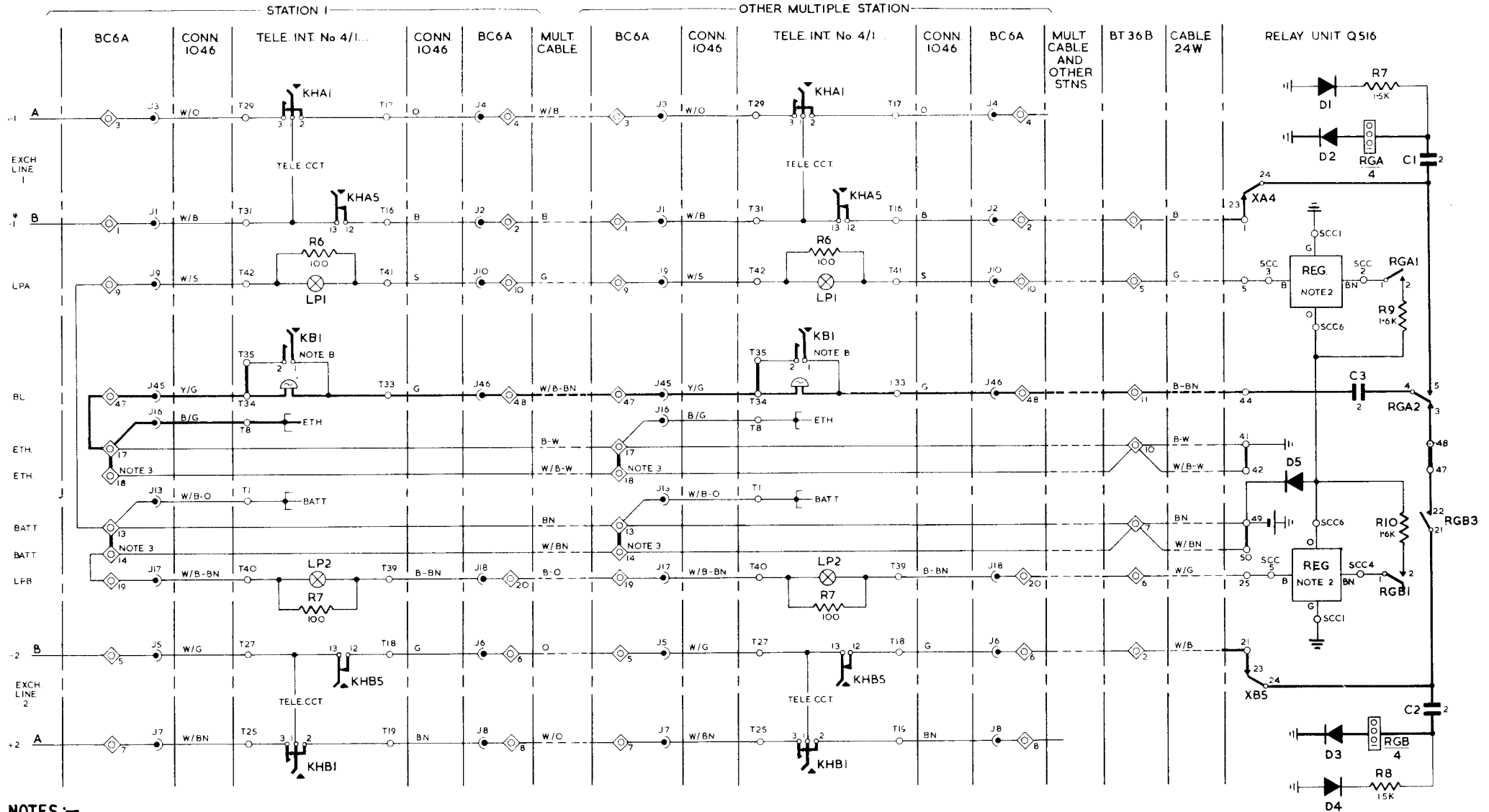
- 1. For full details of Apparatus, Cable Connexions, etc., shown in these circuit elements, see diagrams listed below.

| ITEM | DGM. Q... |
|-----------------------------|-----------|
| Layout of typical system | 502 |
| Multiple cable connexions | 503 |
| Box, Connexion No. 6A | 510 |
| Relay Unit Q 516 | 516 |
| Connector No. 1046 | } 540 |
| Telephone, Intercom No. 4/1 | |

- 2. Regulator No. 4A allows 104 ±12 mA current to flow in LPA/LI Lead when contacts RGA1/RGB1, or FLA2/FLB2, are operated.
- 3. Terminals 13-14 and 17-18 are solder strapped on rear of Terminal Tablet in B.C. 6A.
- 4. The diagram shows the circuit element for Exchange Line 1. The circuit element for Exchange Line 2 will be similar.

| | | | | |
|--|-------|---------------------------|--|----------------|
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| | | B | Pages and Figures renumbered. Ringing Circuit with Loop Ringing added. | W.L.P. 107.2.1 |
| | A | Relay Unit Q 516 amended. | W.L.P. | 9.2.68 |

FIG. I. RINGING CIRCUIT (NOTE A)
WITH EARTH RETURN RINGING ON BOTH LINES



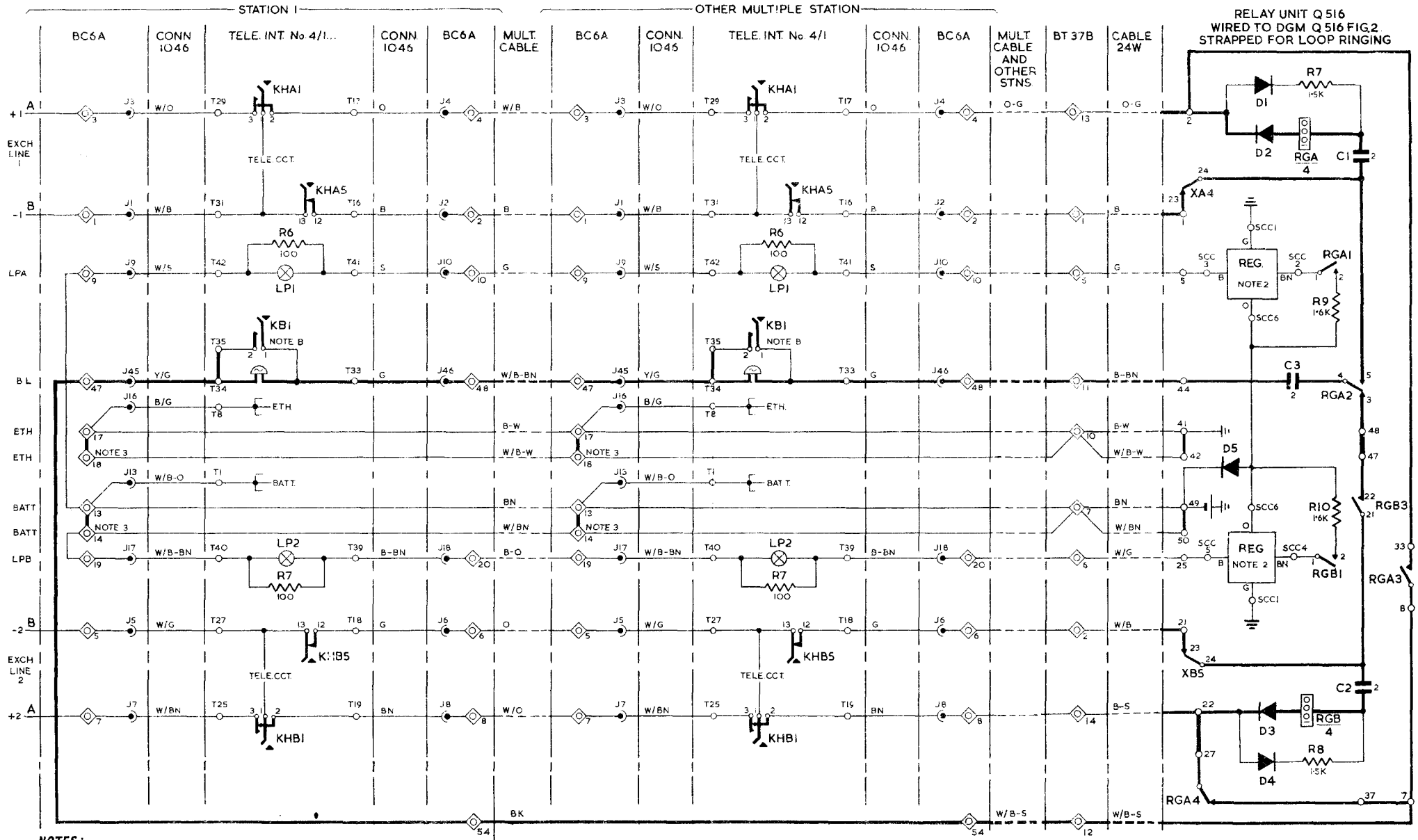
NOTES:—

- A. Incoming Call.
Ringing current on first exchange line operates Relay RGA. RGA2 connects instrument bells, in series to earth, to B' wire. RGA1, via Regulator No 4A, lights first exchange line lamps. Similarly, ringing current on second exchange line operates Relay RGB. RGB3 connects bells to B' wire. RGB1 controls second exchange line lamps, via Regulator No.4A.

- B. The instrument bell may be placed under the control of Bell on-off Key (KB) by strapping terminals T34-T35. Removal of this strap will connect the bell permanently in circuit.

— Indicates part of the circuit used.

FIG. 2. RINGING CIRCUIT (NOTE A)
WITH LOOP RINGING ON BOTH LINES

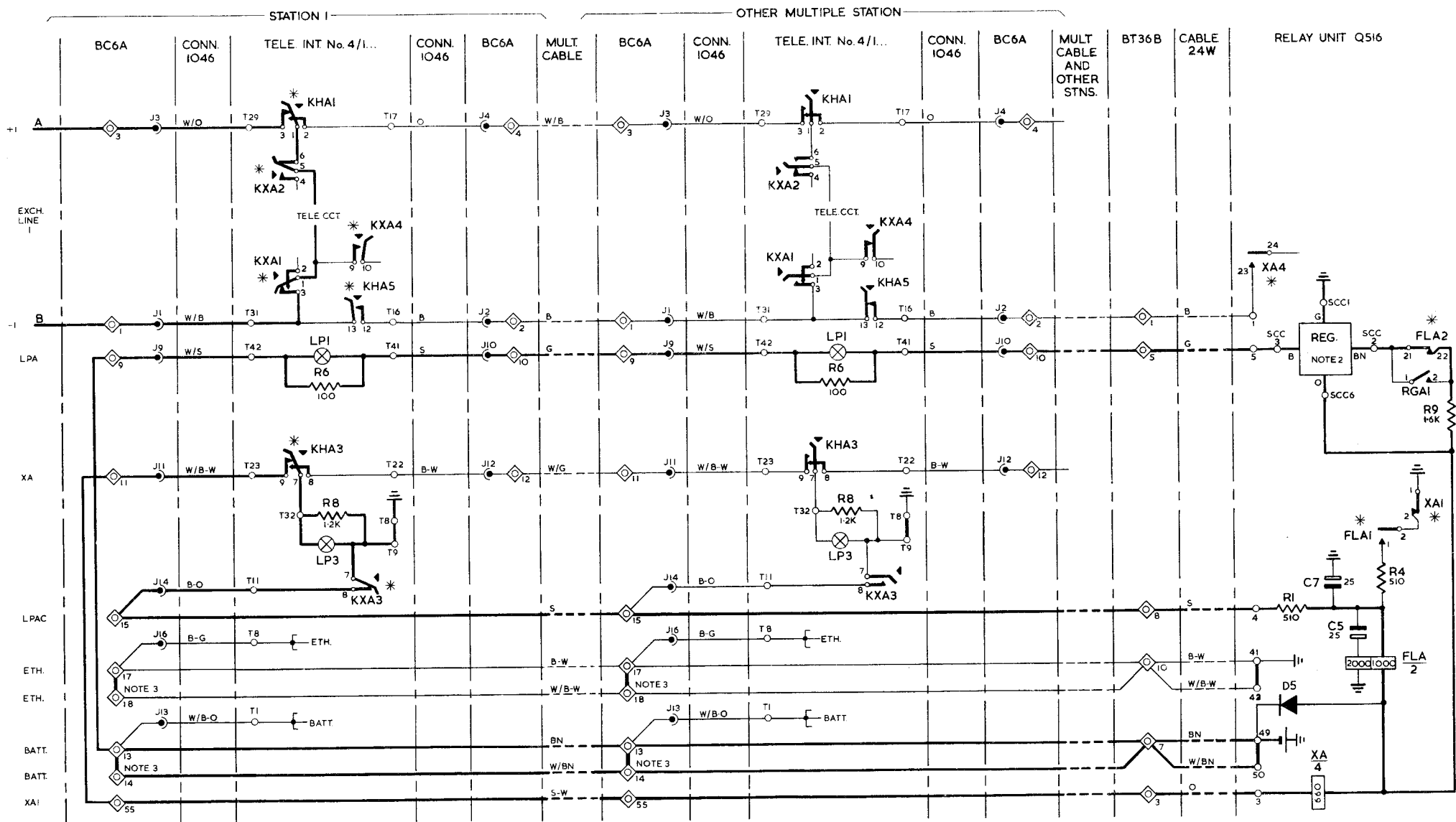


NOTES:—

- A. Incoming Call.
Ringing current on first exchange line operates Relay RGA. RGA 2 and RGA 3 connect the bell circuit to the A & B wires of the exchange line. RGA 4 disconnects the bell circuit from the A wire of the second exchange line. RGA 1, via Regulator No. 4A, lights first exchange line lamps. Similarly ringing current on the second exchange line operates RGB. RGB 3 connects the bell circuit to the B wire. The A wire is connected to the bell circuit via RGA 4 normal. RGB 1 controls second exchange line lamps via Regulator No. 4A.
- B. The instrument bell may be placed under the control of Bell on-off Key (KB) by strapping terminals T34-T35. Removal of this strap will connect the bell permanently in circuit.

— Indicates part of the circuit used

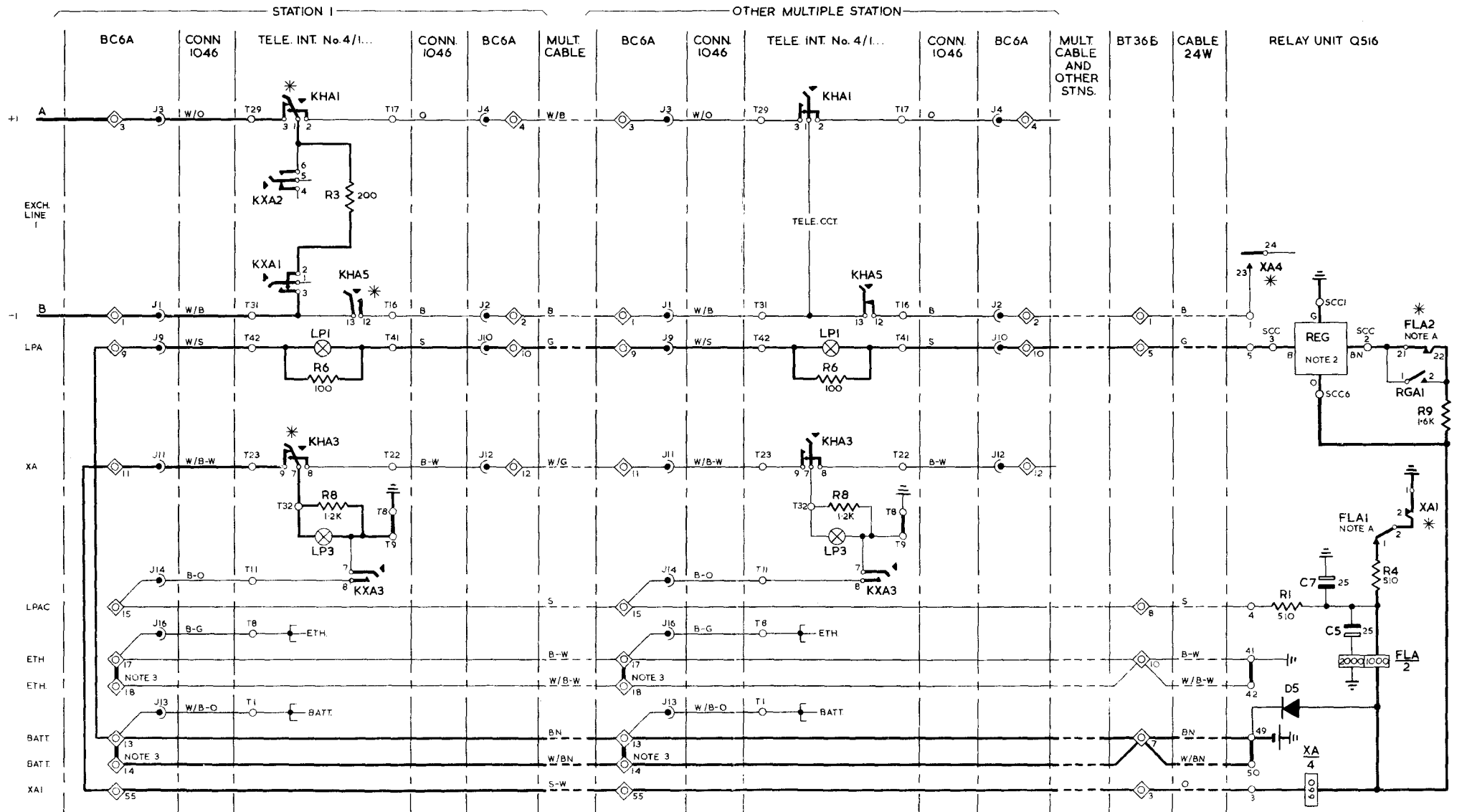
FIG. 3. SPEECH CIRCUIT
STATION I ENGAGING EXCHANGE LINE I (NOTE 4)



* CONTACTS SHOWN OPERATED

— INDICATES THE PART OF CIRCUIT USED

FIG.4.HOLD CIRCUIT
STATION I HOLDING EXCHANGE LINE I (NOTE 4)



* CONTACTS SHOWN OPERATED

— INDICATES THE PART OF CIRCUIT USED

NOTE :-

- A. Relay FLA operates and releases 2 to 3 times a second, via FLA1 and XA1. FLA2 controls Regulator No.4A, which causes the lamps to flash.