

## TERMINATION OF INTER-PBX CIRCUIT

P.M.B.X. 4 INSTALLATIONS: SIGNALLING GROUP L:

S.S.A.C. 13 (IVF)

N 764

PAGE 1-6

ISSUE B

| CONTENTS                               | ITEM No. |
|----------------------------------------|----------|
| BLOCK SCHEMATIC & CABLING ARRANGEMENTS | 1        |
| STORES LIST                            | 2        |
| CABLING SCHEDULE                       | 3        |
| DIMENSIONS EQUIP. SIGNALLING No. 25/2A | 4        |
| INSTALLATION NOTES                     | 5        |
| LINING UP PROCEDURE                    | 6        |

## REFERENCES

|                              |                                  |                       |
|------------------------------|----------------------------------|-----------------------|
| Relay Set 1/SA 8299          | Diagrams SA 8299                 | SAW 82990 & SAJ 82990 |
| Relay Set 2/SA 8299          | SA 8299                          | SAW 82990 & SAJ 82990 |
| Relay Set SA 7574            | SA 7574                          | SAW 75740 & SAJ 82890 |
| * Oscillator No. 119A        | SA 8295                          | SAW 82950             |
| * PBX Alarm                  | SA 8296                          | SAW 82960             |
| * PBX Tone Distribution      | SA 8292                          | SAW 82920             |
| Ø Receiver VF No. 4A         | SA 8297                          | SAW 82970             |
| Ø Capacitor Unit No. 14A     | SA 8291                          | SAW 82910             |
| Lamp Alarm Indicating No. 8A | N 2333                           |                       |
| PMBX No. 4 Installation      | Specifications S 1155 and S 1156 |                       |
| Description of S.S.A.C. 13   | T.I. C3 P 5000                   |                       |
| Circuit Operation            | Diagram Notes SA 7574, SA 8299   |                       |

\* Part of Equip. Signalling No. 25/2A

Ø Part of Relay Set 1/SA 8299

Ø Part of VF. Receiver

|                                                                   |       |   |                             |              |
|-------------------------------------------------------------------|-------|---|-----------------------------|--------------|
| P.O.<br>TELECOMMS<br>HQRS.<br><br>PAPER: M<br>CIRC'LTN<br>GENERAL | ISSUE |   |                             |              |
|                                                                   |       | B | LINING UP PROCEDURE CHANGED | MWH 13.3.73  |
|                                                                   |       | A | REDRAWN & REWRITTEN         | MWH 13.3.70. |
|                                                                   |       |   | TD2.4.1 SECTION             | 25.4.69      |

EQUIPMENT SIGNALLING No.25/2A.  
FIG.1. RACK LAYOUT AND CABLING ARRANGEMENTS.

FIG.1.1. RACK LAYOUT.

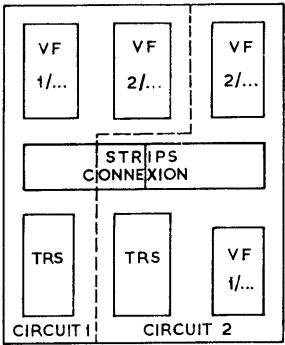
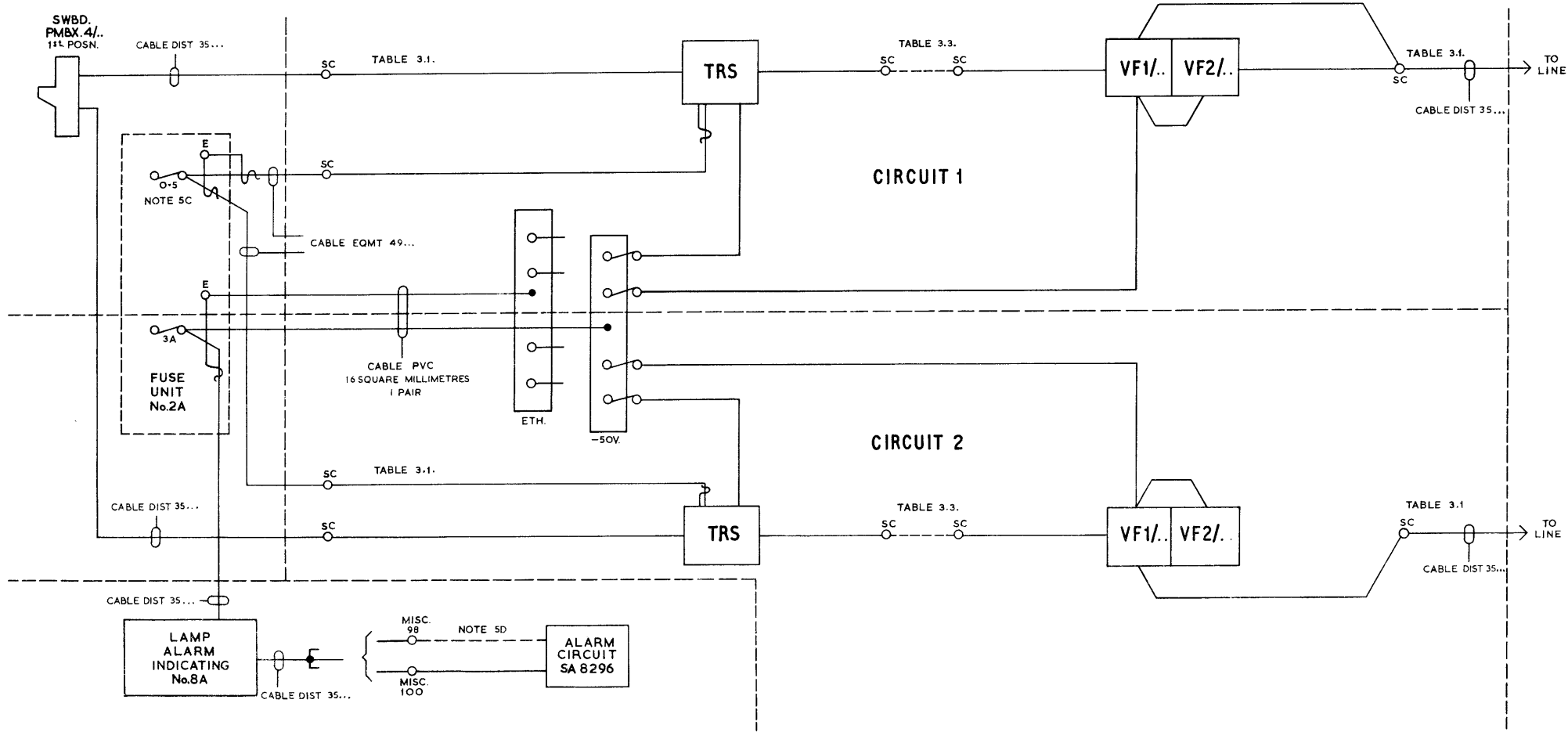


FIG. 1.2 . CABLING ARRANGEMENTS.



2. STORES REQUIRED

TABLE 2.1

| APPARATUS                      | QUANTITY                       | REMARKS                    |
|--------------------------------|--------------------------------|----------------------------|
| Equipment Signalling No. 25/2A | 1 for 2 Ccts.                  | See Note 2B                |
| Relay-Set SA7574               | 1 per Cct.                     |                            |
| " " 1/SA8299                   | 1 " "                          |                            |
| " " 2/SA8299                   | 1 " "                          |                            |
| Cover D 92417                  | 1 per Equip. Sig. No.<br>25/2A | If required. - See Note 2A |
| Lamp Alarm Indicating No. 8A   | 1 per Installation             |                            |
| Power Equipment                | 1 per Installation             | See Note 5B                |
| Sub-unit SA 7605               | See Note 2C                    | See Note 2C                |

NOTE 2A - COVERS

Covers finished in Elephant Grey colour are available as shown in Table 2.1 to encase the Equipments Signalling No. **25/2A**. These should only be provided when requested by the customer or if protection of the equipment is necessary due to local conditions.

NOTE 2B - PROVISION OF EQUIPMENT SIGNALLING NO. **25/2A**

Equipments Signalling No. **25/2A** comprise open type racks, catering for **two Inter-P.B.X. S.S.A.C. 13** circuits and are supplied complete with shelving, shelf wiring, and jacks on which the appropriate relay sets, **and covers are mounted**

NOTE 2C - PROVISION OF SUB-UNIT SA 7605

A Sub-unit SA 7605 should be fitted at single position installations that were installed to Diagram N 2231.

## 3. CABLING SCHEDULE

TABLE 3.1 - CABLING SCHEDULE FOR FIG. 1.

| FROM                                   | TO                             | COLOUR | CABLE OR WIRE                        | REMARKS                                                                                |
|----------------------------------------|--------------------------------|--------|--------------------------------------|----------------------------------------------------------------------------------------|
| Equip. Sig. No. 25/2A - SC82           | P.M.B.X.4 (1st Posn) - T       | W      | Cable Distn.<br>35...                | Per circuit. For cabling between positions<br>see Dgm. N2232                           |
| " " " " - SC73                         | " " " - R                      | B      |                                      |                                                                                        |
| " " " " - SC63                         | " " " - S                      | W      |                                      |                                                                                        |
| " " " " - SC64                         | " " " - L                      | O      |                                      |                                                                                        |
| " " " " - SC60                         | " " " - FLS                    | W      |                                      |                                                                                        |
| " " " " - SC62                         | " " " - TL                     | G      |                                      |                                                                                        |
| " " " " - SC84                         | " Distn. Frame - Line B        | B      | Cable Distn.<br>35...                | Per circuit. See Note 3A                                                               |
| " " " " - SC85                         | " " " - Line A                 | W      |                                      |                                                                                        |
| " " " " - SC76                         | " Fuse Unit 2A - Fuse          | BK     | Cable Eqmt.<br>49...                 | Transistor supply. Per circuit<br>See Note 5C                                          |
| " " " " - SC77                         | " " " " - ETH                  | R      |                                      |                                                                                        |
| " " " " - 50V Bus-bar                  | " " " " - Fuse                 | BK     | Cable P.V.C.<br>16 sq. mm.<br>1 pair | Terminating R/S supply.<br>Per Equip. Sig. No. 25/2A (See Note 3B)                     |
| " " " " - ETH " "                      | " " " " - ETH                  | R      |                                      |                                                                                        |
| " " " " - Misc. 100                    | L.A. Ind. No. 8A- Term 1       | W      | Cable Distn.<br>35...                | Per Installation. See Note 5D                                                          |
| " " " " - Misc. 98                     | " " " " - " 3                  | B      |                                      |                                                                                        |
| " " " " - Misc. 100                    | Equip. Sig. No. 25 - Misc. 100 | W      | Cable Distn.<br>35...                | Alarm Common at Installations with<br>more than 1 Equip. Sig. No. 25/2A                |
| " " " " - Misc. 98                     | " " " " - Misc. 98             | B      |                                      |                                                                                        |
| " " " " - SC69                         | " " " " - SC67                 | W      | Cable Distn.<br>35...                | If required. To complete F.L.S. chain to ccts.<br>on more than 1 Equip. Sig. No. 25/2A |
| " " " " - ETH Bus-bar<br>Conn. Strip } | " " " " - SC11                 | R      | Wire Eqmt.<br>27...                  | For the 1st Cct. of an F.L.S. Group only                                               |
| L.A. Ind. No. 8A- Term. 5              | P.M.B.X. 4 Fuse Unit 2A - Fuse | BK     | Cable Distn.<br>35...                | Per Installation                                                                       |
| " " " " - " 4                          | " " " " - ETH                  | R      |                                      |                                                                                        |
| " " " " - " 3                          | " (Selected Posn.) - B23       | W      |                                      |                                                                                        |
|                                        |                                |        | Cable Distn.<br>35...                | Audible Alarm.                                                                         |

3. CABLING SCHEDULE (CONTD.)

TABLE 3.2 - STRAPPING REQUIRED ON SWITCHBOARD P.M.B.4. (1st Posn.)

| STRAPS                         | REMARKS                                   |
|--------------------------------|-------------------------------------------|
| Inter-P.B.X. Strip Conn. TM-MF | Per Cct. with Exchange Access prohibited. |
| " " " " TM-E                   | " " allowed Exchange Access               |

TABLE 3.4 - STRAPPING REQUIRED IN RELAY-SET SA7574

| STRAP     | REMARKS                                   |
|-----------|-------------------------------------------|
| SCA 18-20 | Per cct. with Exchange Access prohibited. |
| SCA 18-16 | " " allowed Exchange Access               |

TABLE 3.3 - STRAPPING REQUIRED ON EQUIP. SIG. No. 25/2A.

| STRAPS                   | REMARKS                                                                   |
|--------------------------|---------------------------------------------------------------------------|
| SC 1-41                  | } Per Cct.                                                                |
| 2-42                     |                                                                           |
| 3-35                     |                                                                           |
| 7-47                     |                                                                           |
| 9-39                     |                                                                           |
| 12-34                    |                                                                           |
| 13-83                    |                                                                           |
| 16-86                    |                                                                           |
| 17-37                    |                                                                           |
| 18-44                    |                                                                           |
| 19-43                    | } For the 1st Cct. of an F.L.S. Group only.<br>F.L.S. chain, if required. |
| 20-50                    |                                                                           |
| 28-38                    |                                                                           |
| 32-45                    |                                                                           |
| 53-76                    |                                                                           |
| 54-77                    |                                                                           |
| 11-67                    |                                                                           |
| 69-67 of succeeding cct. |                                                                           |

NOTE 3A - CABLING TO DISTN. FRAME.

Cable Distribution 35..., may be used instead of separate 1 pair cables from Equip. Sig. No. 25/2A.

Colours:- 1st cct. - B, 2nd cct. - O.

NOTE 3B - BATTERY AND EARTH WIRING.

Some Equip. Sig. No. 25/2A have been manufactured without wiring provided between the Fuse Mtg and U 11 & 26, in which case it should be provided on installation in accordance with SAJ 82890 using Wire Equipment 27....

#### 4. DIMENSIONS OF EQUIPMENT SIG. No. 25/2A.

TABLE 4.1

|                          |                                                     |
|--------------------------|-----------------------------------------------------|
| Overall Rack Dimensions  | 5'-3 $\frac{1}{2}$ " x 1'-9" x 10 $\frac{1}{2}$ "   |
| Overall Cover Dimensions | 5'-1" x 1'-9 $\frac{1}{2}$ " x 1'-6 $\frac{1}{2}$ " |

#### 5. INSTALLATION NOTES.

##### 5A. Equipment Signalling No. 25/2A.

The Equipment Signalling No. 25/2A should be sited taking into account the following:-

- A. Maintenance access to the front of the rack.
- B. Floor loading.
- C. Cabling access.
- D. Possible growth.

The Equipment Signalling No. 25/2A shall be secured to the floor by means of suitable screws or bolts and if provided without a cover shall be supported at the top by fixing to an adjacent wall or rack. To achieve this at some installations it may be necessary to use suitable locally made metal straps. Before connecting battery supplies to the Equipment Signalling No. 25/2A check that all relay armatures on the equipment and in the relay sets are correctly positioned on their knife edges.

##### 5B. Power and Fusing arrangements.

The Equipment Signalling No. 25/2A is powered from the Fuse unit No. 2A as shown in Fig. 1.2.

Specifications S 1155 and S 1156 detail the method used to calculate the current consumption for single and multiple installations.

#### 5C. Fusing

The -50V. supply for each Eqpt. Sig. No. 25/2A is taken from a single 3A fuse located on the P.H.B.X. Fuse Unit No. 2A.

The -50V. supply for the Transistor Element in the terminating Relay-sets is cabled individually to each R/S from a separate 0.5A fuse, if available, on the Fuse Unit No. 2A. If a fuse position is not available the supply may be taken directly from the 3A fuse serving the Eqpt. Sig. No. 25/2A. Battery lead cable runs should be as short as possible and generally not exceed 50 yds.

#### 5D. Alarms.

A prompt alarm signal via tag Misc. 100 is given for a failure of the V.F. Oscillator on Equipment Signalling No. 25/2A Marks 1 and 2. On the Equipment Signalling No. 25/2A Mark 2 a prompt alarm is also given for a fuse failure.

No arrangements have yet been made for a deferred "supervisory" alarm but it is possible that it may be added in the future using tag Misc. 98.

#### 6. LIVING UP PROCEDURE.

See T.I. C3 P 5001.