

**2598 BUS TRANSFORMER REPLACEMENT PROCEDURES**  
**▶FOR THE PERIPHERAL UNIT ADDRESS BUS◀**  
**2-WIRE NO. 1 ELECTRONIC SWITCHING SYSTEM**

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**NOTICE**

Not for use or disclosure outside the  
Bell System except under written agreement

### 3. PROCEDURES FOR REPLACING 2598-TYPE TRANSFORMER STACKS BEFORE CUTOVER

#### REMOVING POWER FROM PERIPHERAL UNIT ADDRESS BUS

**3.01** ♦The peripheral unit address bus (PUAB) is routed from the central control (CC) or signal processor (SP) to the peripheral bus repeater (PBR) located in the central pulse distributor (CPD) frame (Fig. 1). This section of the bus is called the main peripheral unit address bus. The 2598 bus transformer associated with this section of the PUAB is on the input side of the PBR and is also located on the CPD frame. The bus distribution circuit keys located on the CPD frame are used to control the power for the associated PBR. The section of the PUAB routed from the PBR to the peripheral unit frame is the branch peripheral unit address bus pair. The 2598 bus transformer associated with this section of the PUAB is located on the peripheral unit frame.♦

**3.02** The procedure for removing power from the PUAB is as follows:

- (1) At the CPD, depress the BUS DISTRIBUTION REQ INH key associated with the bus containing the defective transformer.

System response:

OFF NOR lamp lights  
MA 10 OK TO RMV PWR PBS

- (2) In SP offices only at the MCC-TTY, type in  
SP-DGN-ANR.

System response:

PF  
DR01 TBL NØS SP:A ATP

**Note:** This message causes the CPD enables to be updated and reduce the possibility of F-level interrupts.

**Caution: DO NOT depress the OFF key until the system prints OK TO RMV PWR.**

- (3) At the CPD frame with the REQ INH key operated, depress the BUS DISTRIBUTION-OFF key.

System response:

MA 11 PWR RMV PBS  
♦OS lamp lights♦  
PWR OFF lamp lights

**Note:** The system may take an F-level interrupt at this time.

- (4) ♦If the 2598 bus transformer is associated with the branch peripheral unit address bus pair (Fig. 1) and is located at the peripheral frame, perform the following:

At the peripheral unit frame control panel, depress the BUS CONTROL OFF-0 or OFF-1 key for the bus associated with the defective transformer.

System response:

PWR OFF lamp lights♦

#### REMOVING 2598-TYPE TRANSFORMER STACK FROM FRAME

**3.03** The procedure for removing 2598-type transformer stacks is as follows:

- (1) TAG all leads, front and rear, before removing leads.
- (2) Using the ♦KS-20827♦ tool, remove wiring from all 1R and 2R terminals located on the rear of the transformer stack (Fig. 2). Remove the wiring from terminals 0R and 3R at the single metallic ground point (Fig. 3).

**Caution: ♦Be careful not to disturb any circuitry other than that being repaired. Care must be used not to cause shorts on adjacent buses with loose wiring.♦**

- (3) Using the ♦KS-20827♦ tool, remove all wiring from front (equipment side) of transformer stack.
- (4) Using the 4-inch screwdriver, remove the four screws located at the rear of the

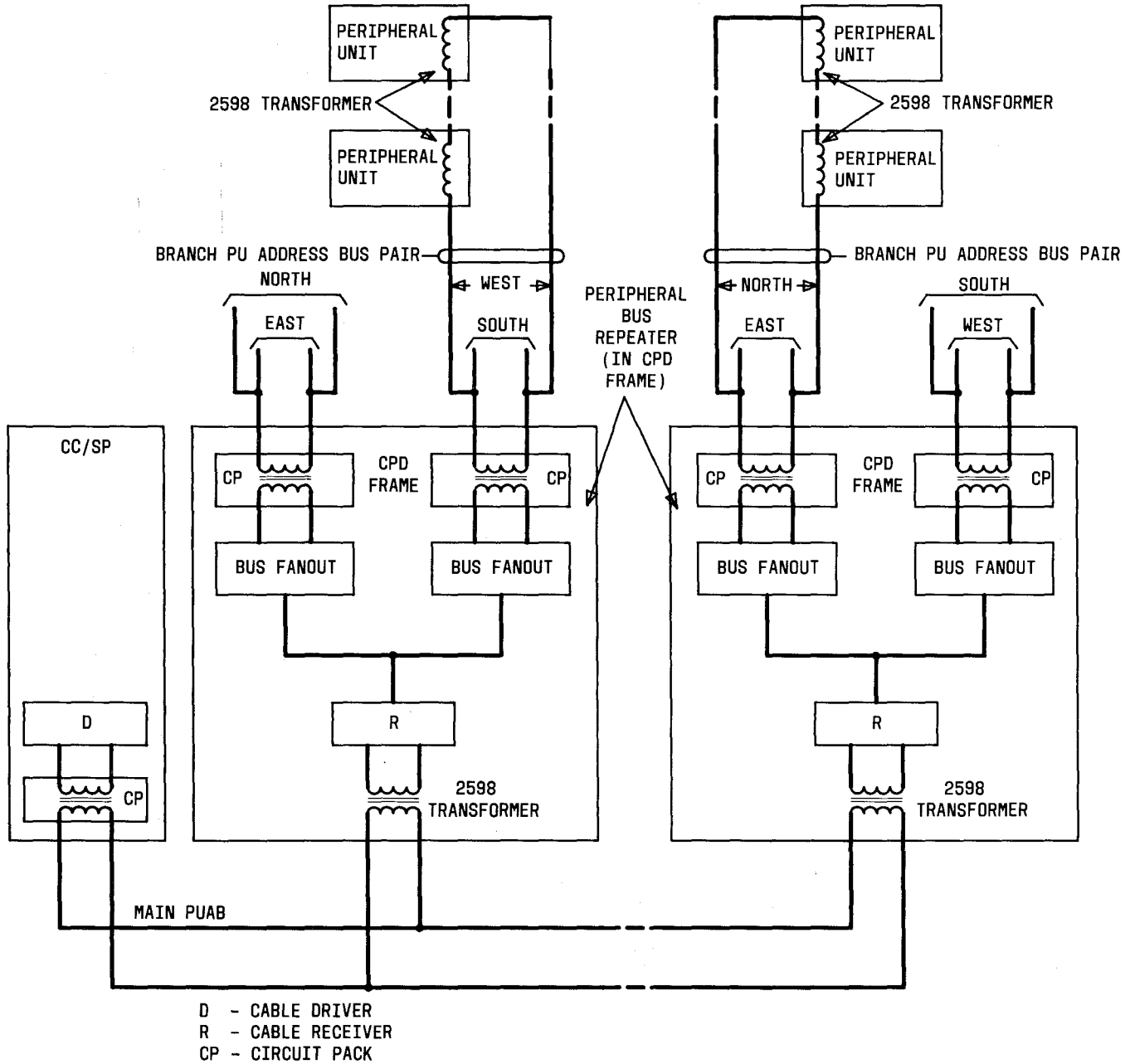


Fig. 1—Basic PUAB Fan-out Scheme

transformer stack. Remove the transformer by pulling out from the front of the frame.

### INSTALLING 2598-TYPE TRANSFORMER STACK

**3.04** The procedure for installing the transformer stack is as follows:

- (1) Place the transformer stack on the mounting plate from the front of the frame.
- (2) Using the 612 screw starter, install the 4 screws on the rear of the transformer stack.
- (3) Using new AWG 24 insulated wire and the KS-16363 wire wrapping tool, **replace** the paired wiring between all 1R and 2R terminals and the A18 or A19 cable receiver input terminals 24,21;25,23;26,19;27,17;10,7;8,3;9,5; and 11,1 (Fig. 4).

**Note:** Replacement of wiring will avoid soldering on frame.

- (4) Multiple wire all OR terminals together and connect to nearest metallic ground strip (Fig. 2).
- (5) Multiple wire all 3R terminals together and connect to nearest metallic ground strip (Fig. 3).
- (6) On front (equipment side) reconnect P and N leads from preceding frame or BTR leads to terminals 0 and 1, respectively (Fig. 4).

**Note:** Use slack in bus to reconnect leads on the equipment side of transformers. Splice leads if slack is not available. Splicing information is found in Section 632-033-102 and Section 632-400-011 (Fig. 5).

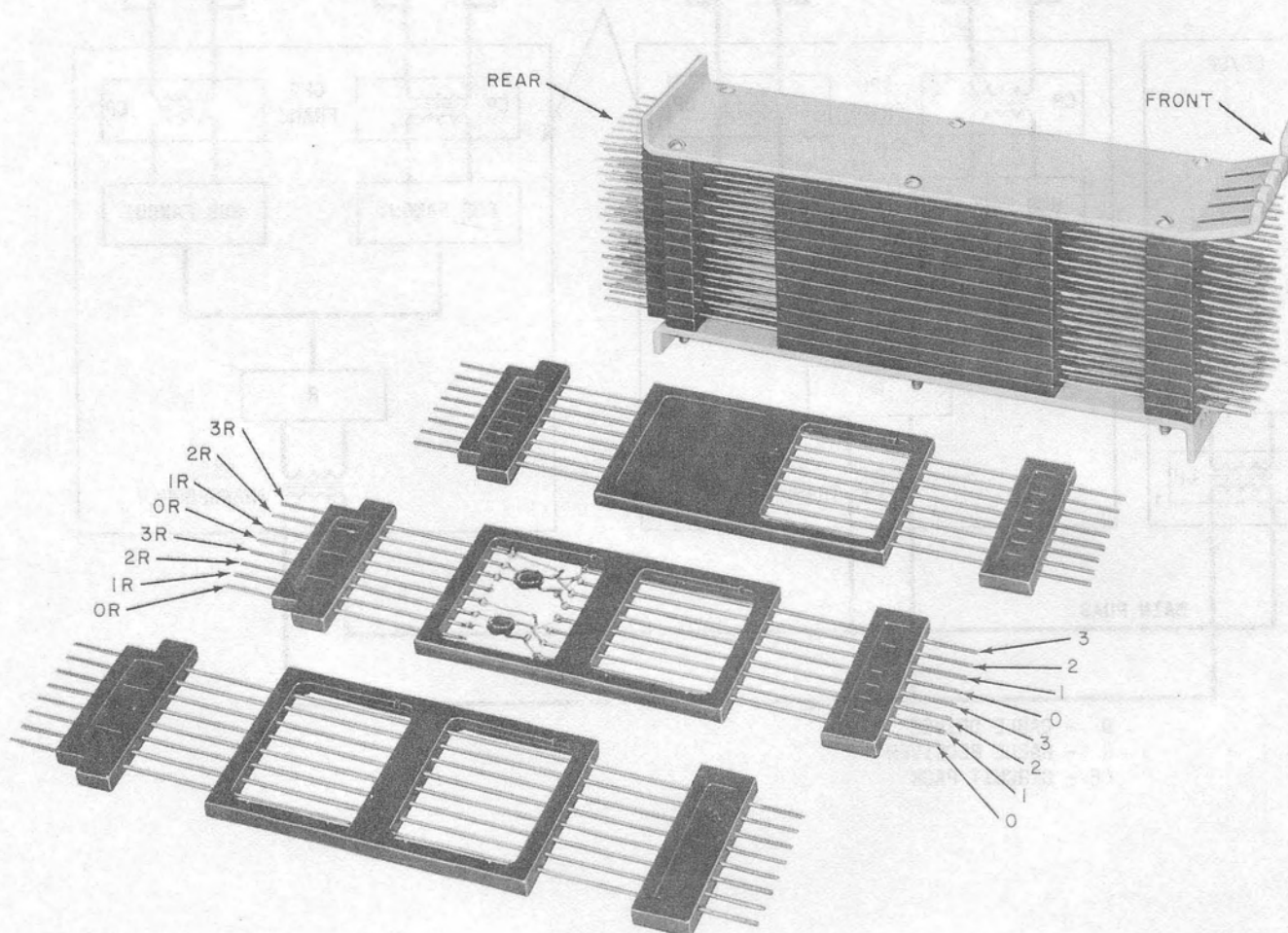


Fig. 2—Bus Transformer and Terminal Block Assembly

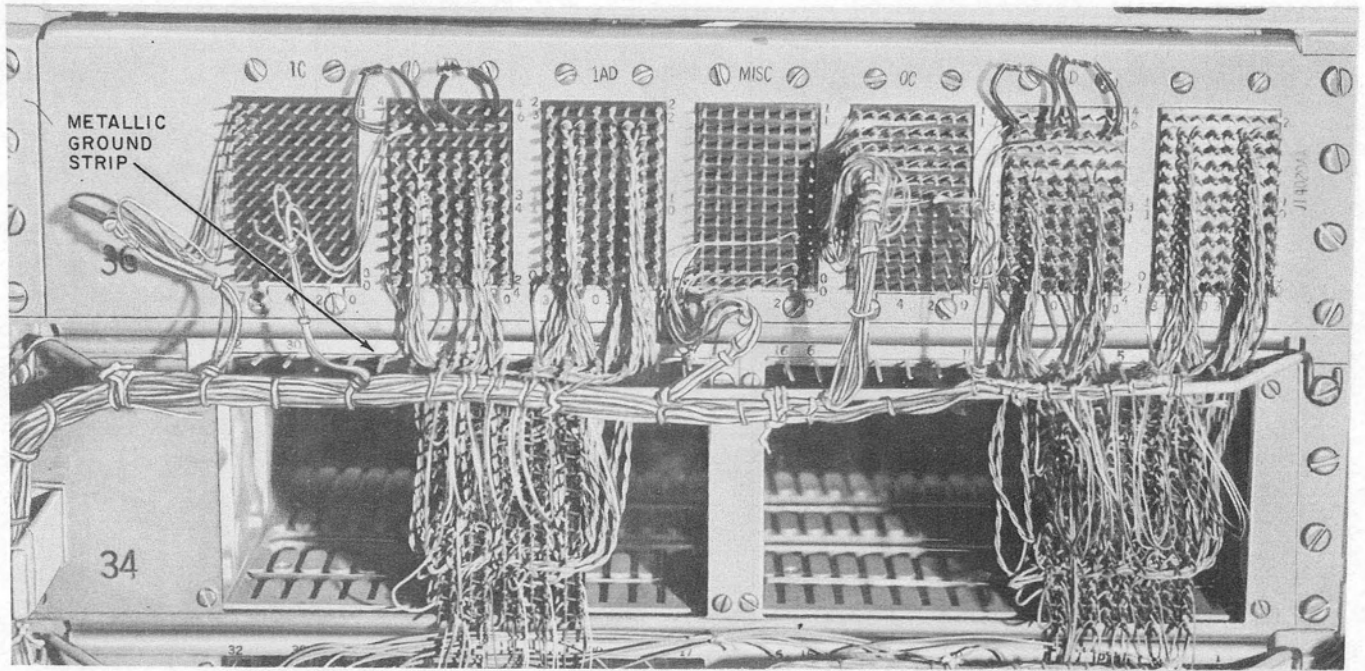


Fig. 3—Rear View of 2598-Type Transformer Installed

- (7) Reconnect P and N leads from succeeding frame or BTR to terminals 2 and 3, respectively (Fig. 4).

#### RESTORING POWER TO PERIPHERAL UNIT ADDRESS BUS

3.05 The procedure for restoring power to the PUAB is as follows:

- (1) If a peripheral unit frame BUS CONTROL OFF key was operated, depress the BUS CONTROL NOR key.

System response:

PWR OFF lamp extinguishes

- (2) At CPD frame, depress the BUS DISTRIBUTION REQ INH key; then depress the NOR key.

System response:

OFF NOR lamp extinguishes  
 PWR OFF lamp extinguishes  
 MA 12 PWR RST PBS  
 DR01 TBL NOS PBS ATP  
 OS lamp extinguishes

- (3) At the MCC-TTY, type in

CPD-DGN-abb

a = N to specify normal printout

bb = number (00-15) to specify the CPD to be diagnosed.

System response:

DR01 TBL NOS CPD ATP

- (4) Perform MOD 5 (X BUS) as outlined in Section 231-148-301. Test for transposition and polarity.

#### 4. PROCEDURES FOR REPLACING 2598-TYPE TRANSFORMERS AFTER CUTOVER

- 4.01 Remove power in accordance with Part 3.

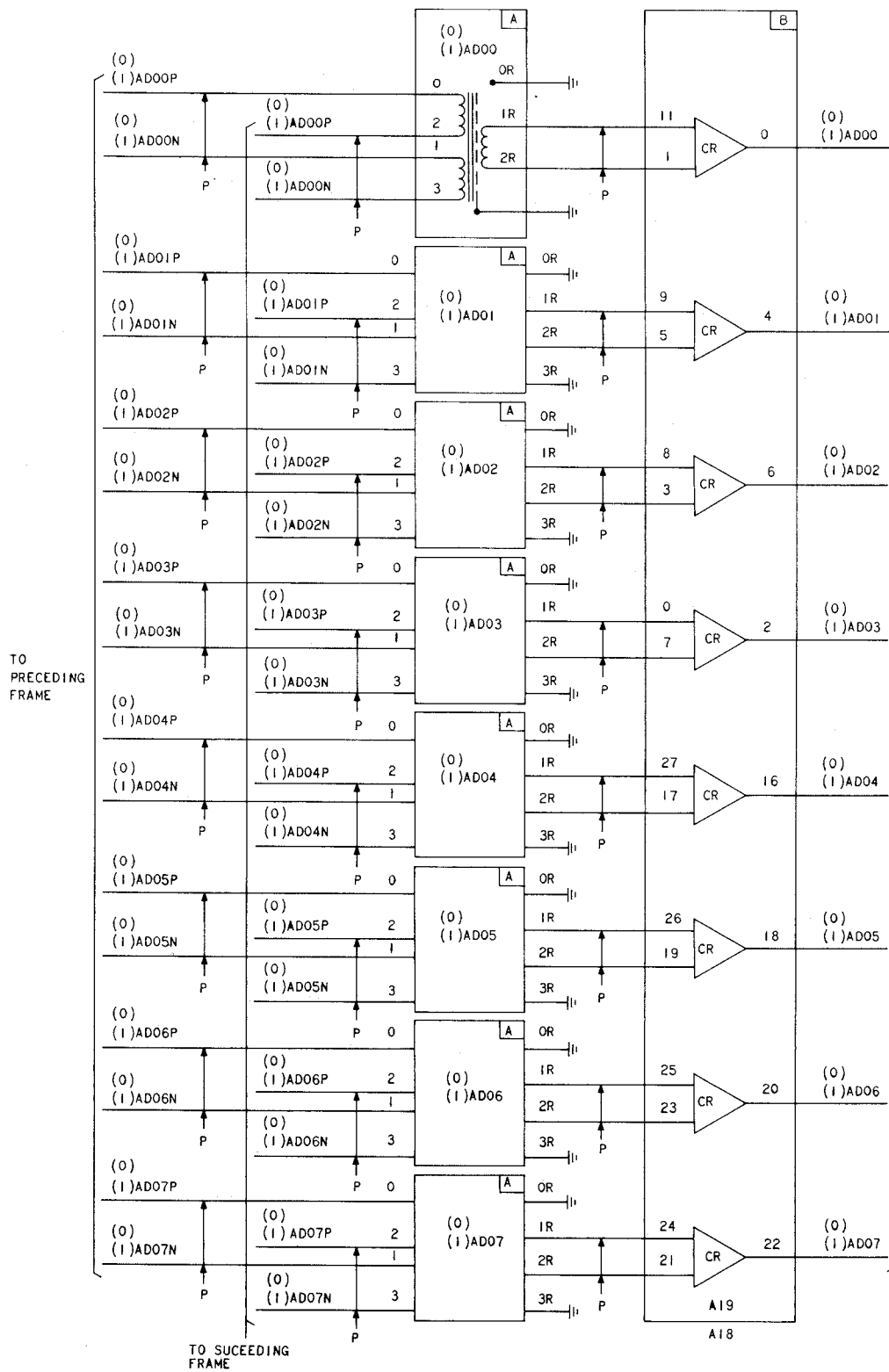


Fig. 4—Typical Connection for 2598-Type Transformer in Circuit

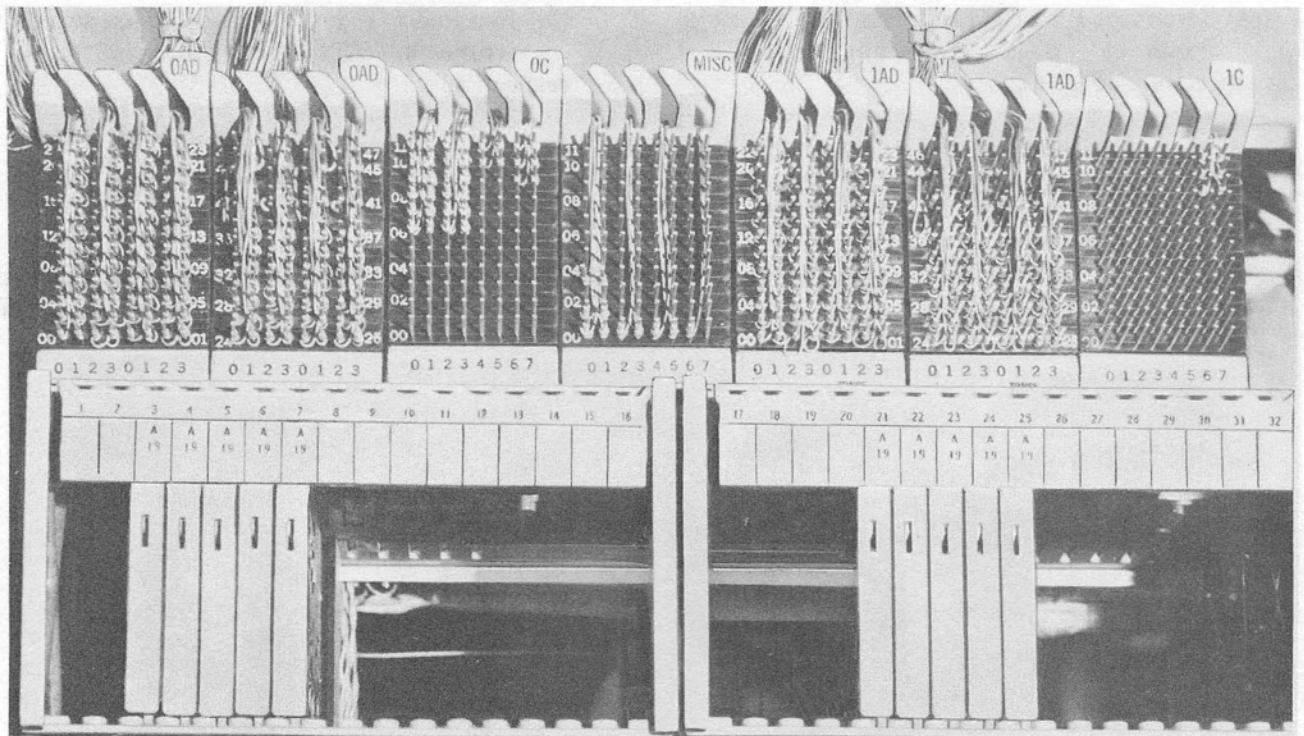


Fig. 5—Equipment Side View of 2598-Type Transformers Installed

#### REPLACING 2598-TYPE TRANSFORMER

4.02 The procedure for replacing 2598-type transformers is as follows:

- (1) Select a spare 2598 transformer in the same bus transformer stack. Use the spare transformer to replace the defective transformer. The wiring from the substitute transformer to the cable receiver (A18 or A19 pack) should **not** exceed the present 18 inch maximum requirement. Insure all paired wiring is twisted.

**Caution:** *Maintain separation of BUS 0 and BUS 1.*

- (2) If a spare transformer is not available, follow the procedure described in paragraph 3.03. If a spare transformer is available, perform steps (3) through (9).
- (3) TAG leads front and rear of defective transformer (Fig. 2).

- (4) Using the  $\blacklozenge$ KS-20827 $\blacklozenge$  tool, remove wiring from terminals 1R and 2R located on the rear of the defective 2598 transformer (Fig. 2).

**Caution:** *Be careful not to disturb any circuitry other than that being repaired. Care must be used not to cause shorts on adjacent buses with loose wiring.*

- (5) Using the  $\blacklozenge$ KS-20827 $\blacklozenge$  tool, remove wiring from terminals 0, 1, 2, and 3 on the front (equipment side) of the defective transformer.
- (6) Using new AWG 24 insulated wire and KS-16363 wire wrapping tool, **replace** the paired wire between transformer terminals 1R, 2R, and the input terminals on cable receivers A18 or A19.

**Note:** Replacement of wiring will avoid soldering on frame.

- (7) Connect terminal 0R to the 0R multiple and 3R terminal to the 3R multiple, if they are not already connected.

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(8) Reconnect P and N leads from the preceding frame or BTR to terminals 0 and 1, respectively (Fig. 4).

**Note:** Use stack in bus to reconnect leads on the equipment side of the 2598 transformer. Splice leads if stack is not available. For splicing information, refer to Section 632-033-102 and Section 632-400-011. Soldering leads on terminals should be avoided, **except** when no other method of reconnection is possible.

(9) Reconnect P and N leads from succeeding frame or BTR to terminals 2 and 3, respectively.

**4.03** Restore power in accordance with Part 3.

**4.04** Office records should indicate the defective and substituted spare transformers. The transformer should be tagged.