TAKING EQUIPMENT OUT OF SERVICE
TRANSLATORS
NO. 1 CROSSBAR OFFICES ARRANGED FOR AMA

1. GENERAL

1.01 This section covers the method to be followed in taking translator circuits out of service in No. 1 crossbar offices arranged for AMA. Part 3 of this section covers the method of taking translator circuits and individual pieces of apparatus associated with these circuits out of service. Part 4 covers the precautions to be followed when working on the apparatus associated with these circuits.

1.02 Local instructions should be followed with reference to recording any register operations caused by working on the apparatus.

1.03 Whenever it is necessary to take a translator circuit out of service, the traffic department should be advised as soon as practicable in accordance with local instructions.

1.04 A translator may handle possibly one thousand subscribers lines and when it is made busy will cause toll calls made by these subscribers to be re-routed to overflow or permit local calls to be made without a charge record. For this reason, avoid if possible, making a translator busy during the daytime and/or busy hour periods.

2. APPARATUS

2.01 No. 322A (make busy) plugs, as required.

2.02 No. 893 cord, 6 feet long, equipped with two No. 360A tools (1 W13B cord) and two KS-6278 tools (for use when working on the TMB relay.)

2.03 Two No. 893 cords, 3 feet long, each equipped with two No. 360A tools (1 W13A cord) and two No. 419A tools (for use when working on the T-NO, T-OP and Z relays).

3. METHOD OF TAKING EQUIPMENT OUT OF SERVICE

Translator

3.01 At the transverter trouble indicator frame, insert a make busy plug into the TRNSL-MB jack.

Caution: Taking a translator circuit out of service prevents the completion of toll calls made by the subscribers served by that particular translator circuit and also prevents charging for local calls made by these subscribers. For this reason, a translator should be made busy only when it will greatly expedite clearing trouble.

Translator Path to a Particular Transverter

3.02 At the transverter trouble indicator frame, insert a make busy plug into the TV-MB jack to make busy the transverter.

Individual Pieces of Apparatus

3.03 AR Relay: Restore the SA key, if operated.

3.04 CH, CH1 or CH2 Relay: Restore the SA key, if operated. Block non-operated the OTR relay.

3.05 E0 to E7,TR or TR0 to TR7 Relays: Restore the SA key,if operated. Insulate the 1T contact of the OTR relay.

Caution: If a chain failure on the TVP- relays occurs while any of these relays are out of service,the automatic transfer of the preference feature to the E- relay chains will not take place. If a chain failure occurs, the CH lamp will light at the translator frame and a minor alarm will sound. In this case, operate and restore the SA key to retire the alarm.

3.06 E-SW, G0 to G19, SW0, SW1, SW2, SW4, SW7 or VF0 to VF4 Relays: To remove any of these relays from service, block the relay non-operated. However, these relays cannot be removed from service without seriously limiting service and the trouble preventing their proper use should be cleared immediately. When any of these relays is in an inoperative condition for any reason, the calls requiring its use will be blocked, thereby bringing in a trouble indication on the transverter trouble indicator. After the trouble indication is registered,

a second trial call is made which will also be blocked and cause local calls to be completed without a charge record made or cause toll calls to be re-routed to overflow. If it will greatly expedite the clearing of trouble by removing the translator from service, make busy the translator as described in 3.01.

Note: When any of these relays with the exception of the GO to G19 relays are inoperative because of an open or short circuited winding, the relay may be used to furnish emergency service by removing its operating lead from the primary winding and then connecting it to the secondary winding. On the SW-relays, transfer the leads (operating and contact protection) from the 13TF to the 14TR terminal. On the VF-relays, transfer the lead from the 12BF to the 13BR terminal. On the E-SW or O-SW relays, transfer the leads (operating and contact protection) from the 10TF to the 11TR terminal.

3.07 GON Relay: Make busy the translator as described in 3.01.

3.08 HNO to HN9, OFFO to OFF9, TO to T9, THO to TH9 or UO to U9 Coils and Vacuum Tubes: These coils and vacuum tubes cannot be removed from service without seriously limiting service, therefore the trouble preventing their proper use should be cleared immediately. When any of these coils or vacuum tubes is in an inoperative condition, the calls requiring their use will be blocked, thereby bringing in a trouble indication on the transverter trouble indicator. After the trouble indication is registered, a second trial call is made which will also be blocked and cause local calls to be completed without a charge record made or cause toll calls to be re-routed to overflow. If it will greatly expedite the clearing of trouble by removing the translator from service, make busy the translator as described in 3.01.

Note: When a coil is inoperative because one of its two windings is open, emergency service may be furnished by connecting together the terminals of the open winding on this coil. During the time that a coil is working on one winding only, an incomplete trouble indication may be received as a result of a failure on directory number check, therefore the defective coil should be replaced promptly. However, emergency service cannot be furnished through a coil when one or both of its windings are shortcircuited.

3.09 OTR Relay: Restore the SA key, if operated. Block non-operated the OTR relay.

3.10 SST Relay or Vacuum Tube: Block operated the Z relay. This permits the translator to furnish service by using only the SST1 surge supply.

3.11 SST1 Relay or Vacuum Tube: Block non-operated the Z relay. This permits the translator to furnish service by using only the SST surge supply.

3.12 TMB Relay: This relay is normally out of service when the translator is not made busy.

3.13 T-NO or T-OP Relay: These relays are normally out of service when tests of the directory number tubes are not being made from the subscribers sender test frame.

3.14 TVI-0 to TVI-7 or TVO-0 to TVO-7 Relays: To remove any of these relays from service, block the relay non-operated. If any of these relays is in an inoperative condition for any reason, the calls requiring its use will be blocked, thereby bringing in a trouble indication on the transverter trouble indicator. However, when the second trial is made and if another transverter is idle, the call should be completed through the TVI- and TVO- relays of the other transverter. If completion of calls on second trial is undesirable, make busy the transverter associated with the TVI- or TVO- relay as described in 3.02.

3.15 TVPO to TVP7 Relays: Operate the SA key and then block operated the OTR relay. This permits the translator to furnish service by using only the E relay preference chain and disables the automatic transfer of preference chains.

3.16 W or Z Relay: Block operated the Z relay. This permits the translator to furnish service by using only the SST1 surge supply.

3.17 XTB Relay: Insulate the 3T contact of the TMB relay. This disables the false ground detection feature on the TB lead to the transverters.

3.18 XVF Relay: Block non-operated the XVF relay. This disables the crossed vertical file lead detection feature.

4. PRECAUTIONS TO BE FOLLOWED WHEN WORKING ON THE APPARATUS

E-SW, GO to G19, GON, O-SW, SWO, SW1, SW2, SW4, SW7, TVI-0 to TVI-7, TVO-0 to TVO-7 VFO to VF4 or XVF Relays

4.01 Before working on these relays, insert a make busy plug into the TRNSL-MB jack at the transverter trouble indicator frame to make busy the translator.

Caution: Taking a translator circuit out of service prevents the completion

of toll calls made by the subscribers served by that particular translator circuit and also prevents charging for local calls made by these subscribers. For this reason, a translator should be made busy only as required to work on equipment and should be restored to service as quickly as possible.

4.02 Observe the following precaution when working on the relays noted in 4.03.

4.03 TVI-0 to TVI-7 or TVO-0 to TVO-7 Relays: Insert a make busy plug into the TV-MB jack at the transverter trouble indicator frame to make busy the associated transverter.

AR Relay

4.04 Restore the SA key, if operated. Insulate the 2B contact of the OTR relay to prevent sounding an alarm.

CH, CH1 or CH2 Relays

4.05 Block non-operated the OTR relay to prevent sounding an alarm.

E0 to E7 Relays

4.06 Restore the SA key, if operated. Block non-operated the OTR relay to prevent the translator start through the emergency preference relays.

OTR Relay

4.07 Restore the SA key, if operated.

4.08 Remove the blocking tool from the OTR relay if blocked non-operated.

4.09 Insulate the 9B contact of the AR relay to prevent sounding an alarm.

4.10 Block non-operated the TR and TRO to TR7 relays to prevent interference with the translator start.

SST Relay

4.11 Block operated the Z relay to permit the translator to continue in service by using only the SST1 surge supply.

SST1 or W Relay

4.12 Block non-operated the Z relay to permit the translator to continue in service by using only the SST surge supply.

TMB Relay

4.13 If the translator is not made busy, insulate the 2T contact of the TMB relay to prevent sending a false indication of translator made busy to the transverter circuits.

4.14 If the translator is made busy, connect ground to the one of the TB punchings on the TRVA or TRV terminal strips at the top of the frame and then remove the make busy plug from the TRNSL-MB jack at the transverter trouble indicator frame.

T-NO or T-OP Relay

4.15 Before working on either of these relays, connect the 2T terminal to the 3T terminal and connect the 2B terminal to the 3B terminal at the wiring side of the relay to be worked on.

TR Relay

4.16 If the OTR and TR- relays are operated, block them operated. If these relays are released, block them non-operated.

4.17 Insulate the 1T contact of the OTR relay.

4.18 Before restoring the TR relay to service, first remove the insulator from the OTR relay and then remove the blocking tools from the OTR and TR- relays.

TR0 to TR7 Relays

4.19 Make busy the transverter associated with the relay to be worked on as described in 4.03.

4.20 If the OTR, TR and TR- relays are operated, block them all operated except the relay to be worked on. If the OTR, TR and TR- relays are released, block them all non-operated except the relay to be worked on.

4.21 Insulate the 1T contact of the OTR relay.

4.22 Before restoring the relays to service, first remove the insulator from the OTR relay and then remove the blocking tools from the OTR and TR- relays.

TVP0 to TVP7 Relays

4.23 Operate the SA key. Then block operated the OTR relay to prevent a translator start through the regular preference relays.

XTB Relay

4.24 The XTB lamp will light and the minor alarm will sound while this relay is operated.

Z Relay

4.25 Before working on this relay, prepare the circuit in the following sequence:

(1) Block non-operated the Z relay.

(2) Connect the 1T terminal to the 2T terminal of the Z relay at the wiring side of the relay.

(3) Connect the 4T terminal to the 5T terminal of the Z relay at the wiring side of the relay.

(4) Remove the SST-1 relay from its socket.

(5) Remove the blocking tool from the Z relay.

4.26 When restoring the Z relay to service, use the following sequence:

(1) Block non-operated the Z relay.

(2) Remove the test connections on the wiring side of the Z relay.

(3) Replace the SST-1 relay in its socket.

(4) Remove the blocking tool from the Z relay.

5. REPORTS

5.01 Where required, the record of the equipment removed from service should be entered on the proper form.

5.02 Where required, the record of register operations caused by working on the apparatus should be forwarded according to local instructions.