# D4 REVERTIVE PULSE CHANNEL UNITS

The need for Revertive Pulse Channel Units (PRO-J98726BF, RPT-J98726BG) was primarily to meet panel office requirements. Though there are few panel offices remaining, the cross bar offices replacing them have been adapted to work with revertive pulse facilities in order to minimize the expense during cutover. Due to this embedded arrangement, demand for these channel units continues.

D4 Revertive Pulse Channel Units

RPO J98726BF SD3C340

RPT J98726BG SD3C341

NOTICE Not for use or disclosure Outside the Bell System except under written agreement Issue 6/1/79 DIGITAL FACILITY TERMINAL J98726BF CHANNEL UNIT REVERTIVE PULSE ORIGINATING RPO CHANNEL UNIT DATA SHEET

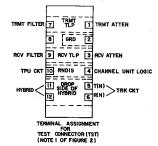
### UNIT DESCRIPTION

This 2-WIRE, 900 OHM REVERTIVE PULSE ORIGINATING (RPO) CHANNEL UNIT (J98726BF) provides the components and circuits necessary to provide the interface between a 48 Channel PCM Type D4 digital carrier system and a revertive pulse originating trunk circuit. For signaling and supervision in the transmit direction, it converts high and low loop resistance conditions from the originating trunk circuit into a time slot signal for the D4 common circuits. For signaling and supervision in the receive direction, it converts a time slot signal from the D4 common circuits into normal/reverse battery and revertive pulse conditions toward the originating trunk circuit.

It uses loop supervision.

For a detailed description of this unit, see CD 3C340-01, SD 3C340-01, and BSP 365-170-101. Prescription setting and application information can be found in BSP 855-351-105.

Figure 1 depicts a block diagram and lead plan, and Figure 2 gives switch and connector identifications.



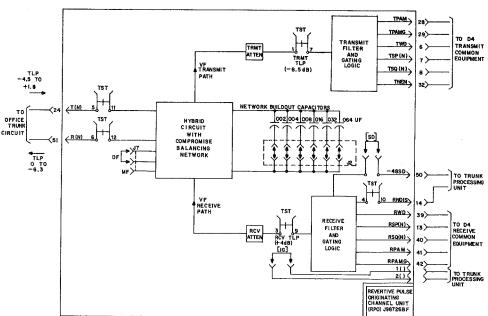
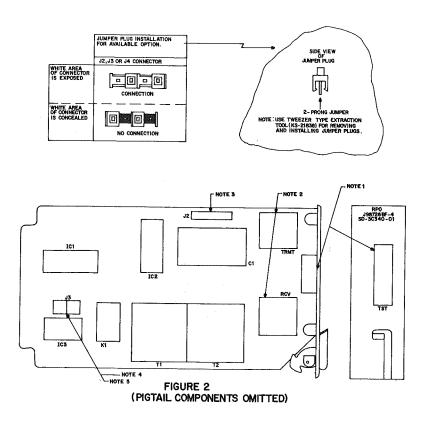


FIGURE I



#### NOTES ON SWITCHES AND CONNECTORS

- 1.  $\overline{\text{TST Connector:}}$  Insertion of a test card into this connector provides splitting access to the drop side of the hybrid, the TRMT TLP, the RCV TLP, and the RNDIS disable signal for test and maintenance purposes.
- 2. TRMT and RCV Attenuators:

  Jumper plugs on these attenuators provide from 0 to 6.3 dB of attenuation, in the transmit and/or receive transmission paths, in steps of 0.1 dB. Attenuation is inserted into the transmission path when jumper plugs are pushed into the "IN" position and the sum of the numbers associated with the "IN" jumper plugs (3.2,1.6,0.8,0.4,0.2,0.1) is the amount of attenuation inserted.
- Insert jumper plugs into (NBO) (net build out) socket (J2) according to circuit requirements.
- Connect function (SD) when channel unit is connected to a trunk circuit which requires reverse battery during a carrier failure.
- Connect function (IG) when a dry contact closure is required during a carrier failure.
   Connect function (IG) when an internally supplied ground is desired during a carrier failure.

NOTICE Not for use or disclosure Outside the Bell System except under written agreement. Issue 6/1/79 DIGITAL FACILITY TERMINAL J98726BG CHANNEL UNIT REVERTIVE PULSE TERMINATING RPT CHANNEL UNIT DATA SHEET

#### UNIT DESCRIPTION

This 2-WIRE, 900 OHM REVERTIVE PULSE TERMINATING (RPT) CHANNEL UNIT (J98726BG) provides the components and circuits necessary to provide the interface between a 48 Channel PCM Type D4 digital carrier system and a dial pulse originating trunk circuit. For signaling and supervision in the transmit direction, it converts revertive battery & revertive pulse conditions from the originating trunk circuit into a time slot signal for the D4 common circuits. For signaling and supervision in the receive direction, it converts a time slot signal from the D4 common circuits into loop closed/open conditions toward the terminating trunk circuit.

For a detailed description of this unit, see CD 3C341-01, SD 3C341-01, and BSP 365-170-101. Prescription setting and application information can be found in BSP 855-351-105.

Figure 1 depicts a block diagram and lead plan, and Figure 2 gives switch and connector identifications.

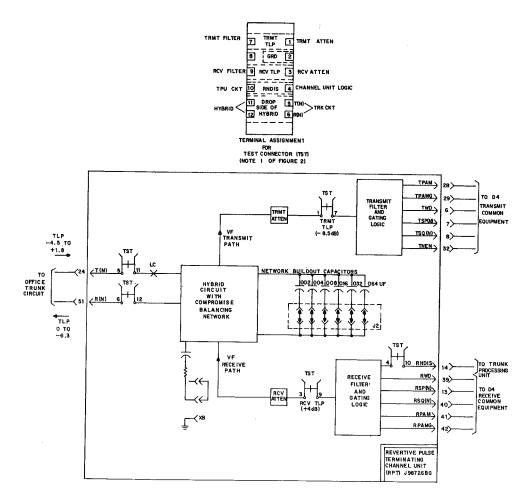
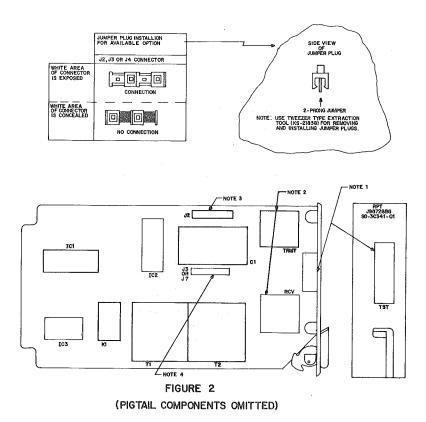


FIGURE !



#### NOTES ON SWITCHES AND CONNECTORS

- 1.  $\underline{\text{TST Connector:}}$  Insertion of a test card into this connector provides splitting access to the drop side of the hybrid, the TRMT TLP, the RCV TLP, and the RNDIS disable signal for test and maintenance purposes.
- 2. TRMT and RCV Attenuators:

  Jumper plugs on these attenuators provide from 0 to 6.3 dB of attenuation, in the transmit and/or receive transmission paths, in steps of 0.1 dB. Attenuation is inserted into the transmission path when jumper plugs are pushed into the "IN" position and the sum of the numbers associated with the "IN" jumper plugs (3.2,1.6,0.8,0.4,0.2,0.1) is the amount of attenuation inserted.
- Insert jumper plugs into (NBO) (net build out) socket (J2) according to circuit requirements.
- Provide option (XB) when the RPT channel unit is connected to X-BAR incoming registers having U-type GR relays. Insure that option XB is not used in panel offices.

# D4 CHANNEL UNIT DATA SHEET REVERTIVE PULSE ORIGINATING (RPO) J98726BF-1 L1, A D4CR100

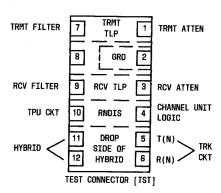
#### DESCRIPTION

The 2-wire, 900-ohm Revertive Pulse Originating (RPO) channel unit (J98726BF) provides the interface between a D4 channel bank and a 2-wire revertive pulse originating circuit. Revertive pulse signaling states are converted into pulses for transmission on the digital network. Appropriate pulses from the digital network are converted to serve the revertive pulse signaling needs.

The transmission circuitry of this unit contains a hybrid for 2- to 4-wire conversion, 0 to 6.3 dB attenuators, and network buildout circuitry.

For detail, see CD- and SD-3C340-01 and Section 365-170-112. Section 855-351-105 gives prescription (option) settings and application information.

Figure 1 is a functional block diagram of the unit, and Fig. 2 gives major component location and option information. The terminal assignment for the test connector labeled TST in Fig. 1 and 2 is shown below.



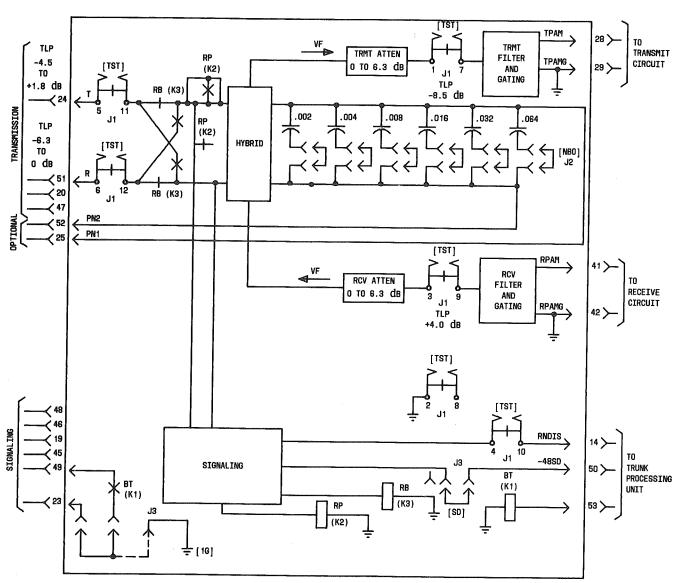
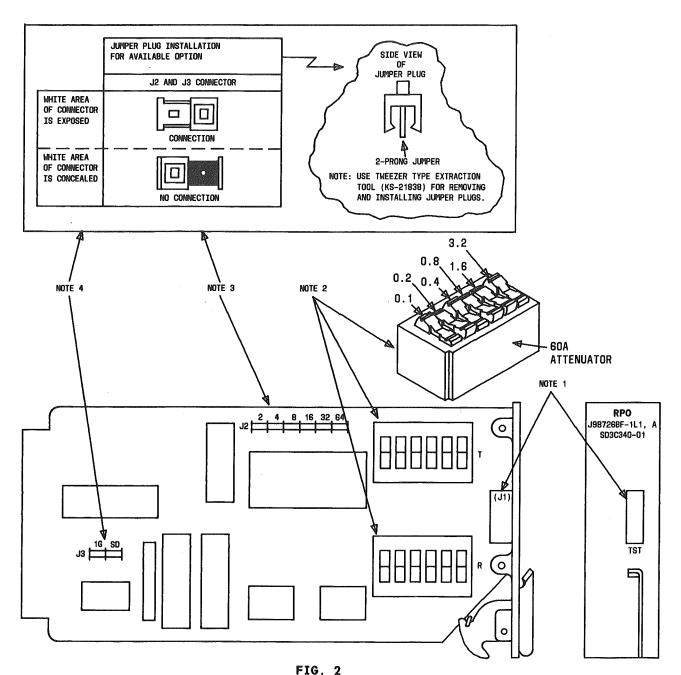


FIG. 1

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#### NOTES:

- 1. IST CONNECTOR: INSERTION OF A TEST CARD INTO THIS CONNECTOR PROVIDES SPLITTING ACCESS TO THE DROP SIDE OF THE HYBRID, THE TRMT TLP. THE RCV TLP, AND THE RNDIS LEAD FOR TEST AND MAINTENANCE PURPOSES.
- 2. TRMT AND RCV ATTENUATORS: SMITCHES ON THESE ATTENUATORS PROVIDE FROM 0 TO 6.3 db of attenuation in the transmit and/or receive TRANSMISSION PATHS IN STEPS OF 0.1 dB. ATTENUATION IS INSERTED INTO THE TRANSMISSION PATH BY DEPRESSING THE SWITCH ROCKER ARM. THE POSITION OF THE SMITCHES IN THE ABOVE DIAGRAM IS AN EXAMPLE OF HOW TO SET THE ATTENUATOR FOR A LOSS OF 2.6 db. THE TOTAL ATTENUATION IS THE SUM OF ALL THE VALUES ADJACENT TO THE END OF EACH SWITCH THAT IS DEPRESSED.
- 3. J2 NBO: JUMPER PLUGS ARE INSERTED INTO J2 ACCORDING TO CIRCUIT REQUIREMENTS. NBO VALUES ARE SELECTED BY INSERTING PLUGS INTO THE BLACK SIDE (MHITE SIDE SHOWING) OF J2 CORRESPONDING TO DESIRED VALUES (2, 4, 8, 16, 32, OR 64).
- 4. 3 SD 16 OPTIONS: OPTION SD IS SELECTED WHEN CHANNEL UNIT IS CONNECTED TO A TRUNK CIRCUIT WHICH REQUIRES REVERSE BATTERY DURING A CARRIER FAILURE. OPTION 1G IS SELECTED WHEN EITHER A DRY CONTACT IS REQUIRED OR INTERNALLY SUPPLIED GROUND IS DESIRED DURING A CARRIER FAILURE. THE OPTIONS ARE SELECTED BY INSERTING JUMPER PLUGS INTO THE BLACK SIDE (WHITE SHOWING) OF J3.

# D4 CHANNEL UNIT DATA SHEET REVERTIVE PULSE TERMINATING (RPT) J98726BG-1, L1 D4CR200

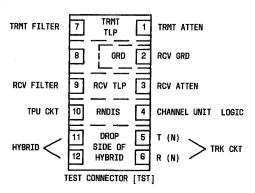
#### DESCRIPTION

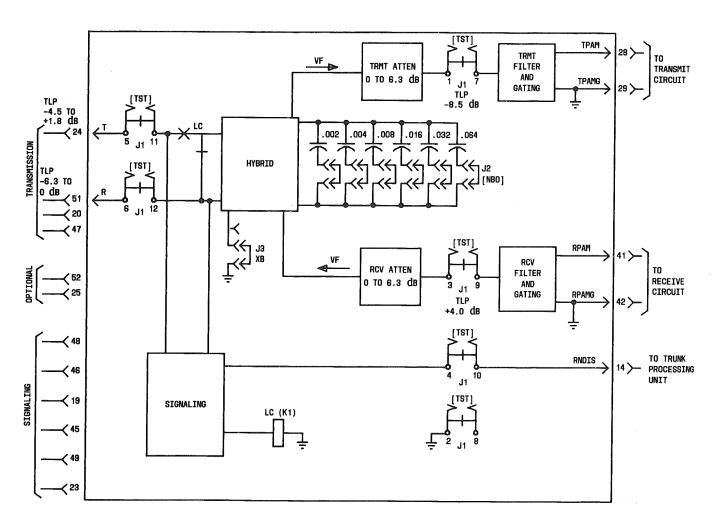
The 2-wire, 900-ohm REVERTIVE PULSE TERMINATING (RPT) channel unit (J98726BG) provides the interface between a D4 channel bank and a 2-wire revertive pulse circuit. Revertive pulse signaling states are converted into pulses for transmission on the digital network. Appropriate pulses from the digital network are converted to serve the revertive pulse signaling needs.

The transmission circuitry of this unit contains a hybrid for the 2- to 4-wire conversion, 0 to 6.3 dB attenuators, and network buildout circuitry.

For detail, see CD- and SD-3C341-01 and Section 365-170-112. Section 855-351-105 gives prescription (option) settings and application information.

Figure 1 is a functional block diagram of the unit, and Fig. 2 gives major component location and option information. The terminal assignment for the test connector labeled TST in Fig. 1 and 2 is shown below.





#### NOTICE

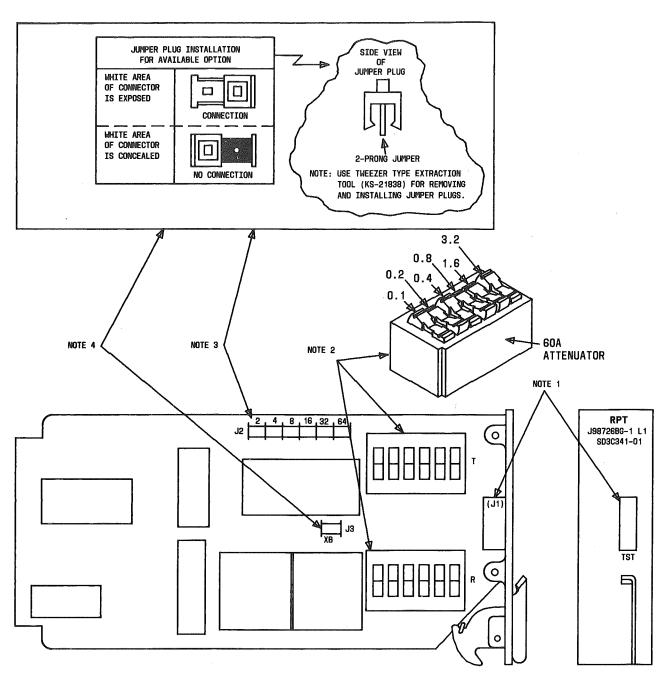


FIG. 2

## NOTES:

- 1. TST CONNECTOR: INSERTION OF A TEST CARD INTO THIS CONNECTOR PROVIDES SPLITTING ACCESS TO THE DROP SIDE OF THE HYBRID, THE TRMT TLP, THE RCV TLP, AND THE RNDIS LEAD FOR TEST AND MAINTENANCE PURPOSES.
- 2. TRMT AND RCV ATTENUATORS: SWITCHES ON THESE ATTENUATORS PROVIDE FROM 0 TO 6.3 dB OF ATTENUATION IN THE TRANSMIT AND/OR RECEIVE TRANSMISSION PATHS IN STEPS OF 0.1 dB. ATTENUATION IS INSERTED INTO THE TRANSMISSION PATH BY DEPRESSING THE SWITCH ROCKER ARM. THE POSITION OF THE SWITCHES IN THE ABOVE DIAGRAM IS AN EXAMPLE OF HOW TO SET THE ATTENUATOR FOR A LOSS OF 2.6 dB. THE TOTAL ATTENUATION IS THE SUM OF ALL THE VALUES ADJACENT TO THE END OF EACH SWITCH THAT IS DEPRESSED.
- 3. J2 NETWORK BUILDOUT (NBO): INSERT JUMPER PLUGS ACCORDING TO CIRCUIT REQUIREMENTS. NBO VALUES ARE SELECTED BY INSERTING PLUGS INTO THE BLACK SIDE (WHITE SIDE SHOWING) OF J2 CORRESPONDING TO DESIRED VALUES (2, 4, 8, 16, 32, 64).
- 4. <u>J3 OPTION XB:</u> JUMPER PLUGS ARE INSERTED INTO THE BLACK SIDE (WHITE EXPOSED) WHEN CHANNEL UNIT IS CONNECTED TO X-BAR INCOMING REGISTERS HAVING U-TYPE GR RELAYS. OPTION XB IS NOT USED IN PANEL OFFICES.