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INSTRUCTIONS FOR INSTALLING THE 199593 AUTOMATIC ANSWER ASSEMBLY MODIFICATION KIT ON HIGH SPEED TAPE-TO-TAPE SYSTEM RECEIVERS

1. GENERAL

a. The 199593 automatic answer assembly provides high speed tape-to-tape system receivers 1B (VS218) and 2B (VS220) with an unattended feature. This assembly provides unattended receiver start and automatic disconnect.

b. The 199593 assembly will cause a Type 202 Data set to automatically answer a call when the "AUTO" button on the data set is depressed. The receiver terminal punch and tape handling motors start when the data set goes to the "DATA" mode of operation. The punch is blinded until carrier is present.

c. The automatic disconnect will place a data set "on hook" after thirty seconds of absence of "carrier detect" from the data set. Reliable disconnect operation requires the use of Type 202C and 202D Data sets which have an improved carrier detector over the one used in Type 202A and 202B Data Sets. Disconnects will be provided on the following conditions: wrong number calls and end of transmission.

d. The 199593 automatic answer assembly replaces the 146528 automatic answer assembly in all high speed tape-to-tape system receivers.

e. The 199593 automatic answer assembly comes assembled from the factory and only an appropriate screw driver is required for installation.

f. For parts ordering information see Teletype Parts Bulletin 1154B.

2. INSTALLATION

CAUTION

Disconnect power cord before attempting installation.

NOTE

Installation procedure is the same for the VS218 and VS220 Receivers.

a. Remove the rear panel of the cabinet. Remove the cabinet cable connector from the 146528 automatic answer assembly. Remove the cabinet ac power, and motor leads from the automatic answer assembly. Remove and <u>discard</u> the 146528 automatic answer assembly from the receiver cabinet.

b. Install the new 199593 automatic answer assembly in place of the previous automatic answer assembly. Reconnect the cabinet ac power and motor leads to Terminal Board TB501: The S lead connects to terminal 1; the BK lead connects to terminal 2; the BL lead connects to terminal 3, and the grounding lead connects to the terminal board mounting post. Plug connector J501 of the cabinet cable assembly into connector P501 of the automatic answer assembly.

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- 2 -5035**7**S

c. Remove the data set cable connector from the data set. Remove the cable clamp and locate three spare leads which are not connected to the data set connector. Connect the white-green and the orange-green leads together. Retape the spare leads to the data set cable and assemble the cable clamp. Reconnect the data set cable connector to the data set. Replace the rear panel of the cabinet.

NOTES

For manual operation do not depress the "AUTO" button on the data set.

For unattended operation depress the "AUTO" button on the data set.

d. The data test center should call to the unattended high speed tape-to-tape system receiver and check the automatic answer and disconnect operation after installation is completed.

3. ADJUSTMENTS AND LUBRICATION

The 199593 assembly has no adjustments or lubrication procedure. For standard adjustments and lubrication procedure of related equipment refer to standardized information.

4. THEORY OF OPERATION (See 7279WD Schematic Diagram)

a. The automatic answer logic consists of Circuit Board Assembly Z501 and relay K501. Circuit Board Assembly Z501 contains the electronic logics to operate relay K501 and to blind the receiving distributor. Relay K501 operates the punch and tape handling motors.

b. Emitter Follower Z502A amplifies the Interlock signal of a data set. When +8 volts appears on the Interlock lead of a data set, Relay Driver Z501A will operate Relay K501. Operating Relay K501 will turn on the punch and the tape handling motors of the receiver terminal.

c. The Amplifier Z501B is used to blind the receiving distributor, when the data set does not detect carrier on line. When +8 volts appears on the Carrier Detect lead of a data set, the zero volt blind on the receiving distributor is removed which in turn enables the punch.

d. The automatic disconnect logic consists of Circuit Board Assembly Z502 and Relay. K502. When +8 volts appears on the Interlock lead of a data set and absence of carrier detect (-8V) exists, then the output of Relay Driver Z502B will turn "ON" Relay K502. Relay K502 is a thermal delay relay requiring 30 seconds of "ON" time for operation. When Relay K502 operates, its break contacts will open circuit the data set Release leads. This will place an unattended data set "on hook." The break contacts will close again within 10 seconds after a call has been dropped.