DATASPEED TAPE RECEIVER 5B

INSTALLATION AND CHECKOUT PROCEDURE

1. GENERAL

1.01 This section provides the installation and checkout procedure for the DATASPEED Tape Receivers 5B, 5B-1, 5B-2, and 5B-3. It is reissued to add information on interconnections with apparatus unit options and on the location and removal of wiring options. Since there are many changes, marginal arrows ordinarily used to indicate changes and additions are omitted.

1.02 Description, trouble shooting, adjustments and lubrication, as well as information on apparatus unit options, can be found in the appropriate sections.

1.03 The 5B-1, 5B-2, and 5B-3 Receivers are the same as the 5B Receiver except that they have the following apparatus unit options:

● The 5B-1 has a TP199784 identifier.

● The 5B-2 has a TP199788 unattended send-receive unit.

● The 5B-3 has a TP199788 unattended send-receive unit and a TP199784 identifier.

1.04 Tables 1, 2, and 3 indicate the various types of operation available with the Receiver as well as providing information on equipment required, wiring options, and strapping plugs. The 5A-1 and 5C-1 Senders of Table 3 are the same as the basic senders 5A and 5C except that they have a TP198002 recognizer apparatus unit option. Figure 1 provides interconnecting information.

2. INSTALLATION

LOCATION

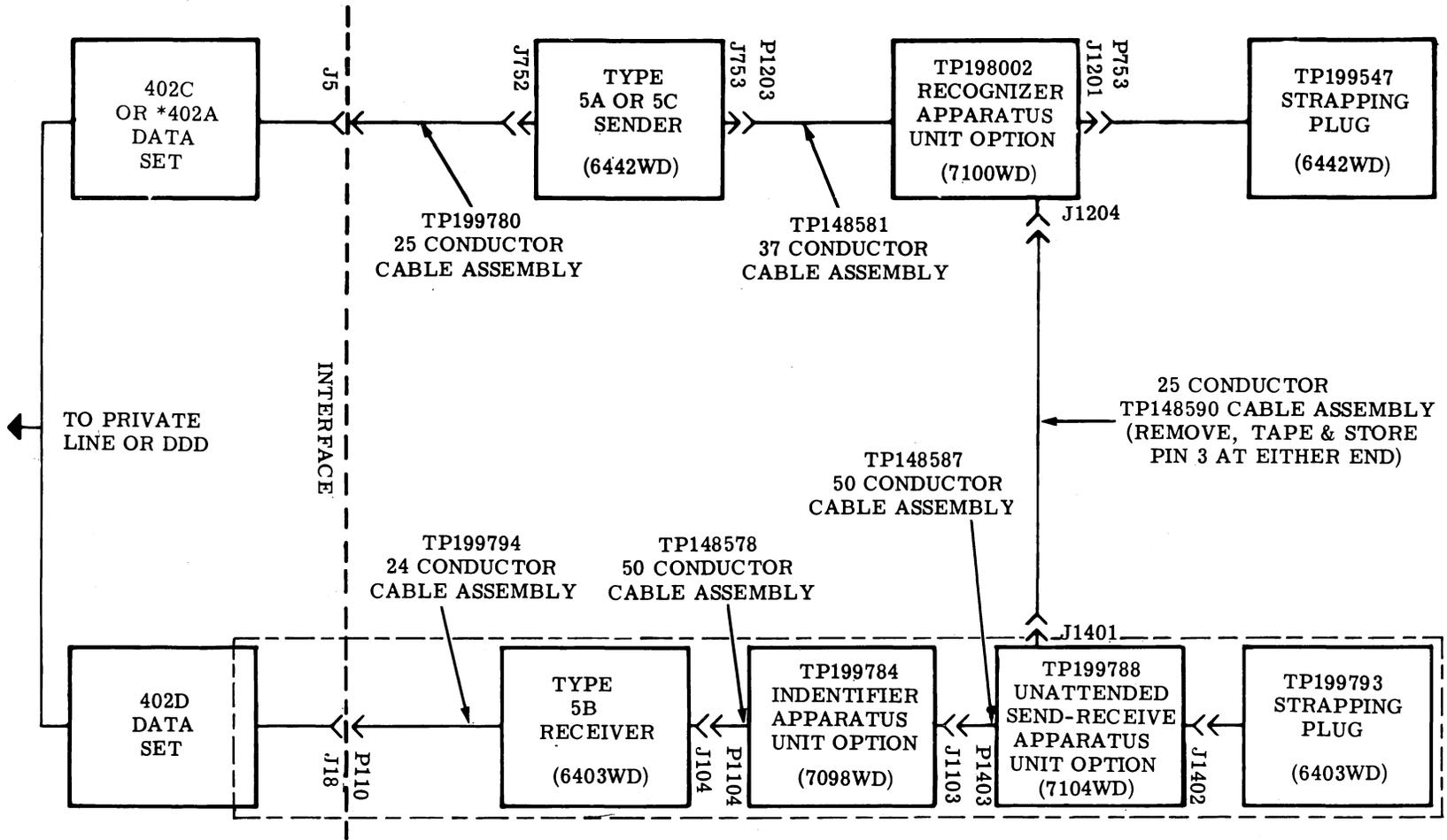2.01 In choosing a site for the Tape Receiver, consider the following:

(a) The cabinet is 16 inches wide, 24-3/8 inches deep, and 54-1/4 inches high. Sufficient space should be provided at the front of the cabinet to permit the door covering the lower half of the cabinet to be swung open. Allow 3 inches ventilation and access space at the rear of the cabinet. The Receiver Set weighs 196 pounds.

(b) The cabinet should be placed near a 3-wire grounding, 115 volt ac receptacle. The receptacle should be separately fused to preclude unnecessary interruptions in service, and must be capable of supplying a peak current of 10 amps.

UNPACKING INFORMATION

2.02 The unpacking procedure appears on a label affixed to the shipping carton. Refer to those instructions when unpacking the unit.

Figure 1 – Send-Receive Terminal Interconnecting Diagram


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                    J5                J752    TYPE      P1203         TP198002        P753      TP199547
  402C              |                 |       5A OR 5C  J753          RECOGNIZER      J1201     STRAPPING
  OR *402A          |                 |       SENDER    |             APPARATUS       |         PLUG
  DATA              |<<               |<      (6442WD)   >>            UNIT OPTION     >>
  SET               |                                                 (7100WD)                  (6442WD)
                                                                            |
                          TP199780              TP148581                   J1204
                          25 CONDUCTOR          37 CONDUCTOR
                          CABLE ASSEMBLY        CABLE ASSEMBLY

  TO PRIVATE                                                                25 CONDUCTOR
  LINE OR DDD       INTERFACE                                               TP148590 CABLE ASSEMBLY
                                                                           (REMOVE, TAPE & STORE
                                                      TP148587              PIN 3 AT EITHER END)
                                                      50 CONDUCTOR
                                                      CABLE ASSEMBLY

                          TP199794          TP148578                       J1401
                          24 CONDUCTOR      50 CONDUCTOR
                          CABLE ASSEMBLY    CABLE ASSEMBLY

  402D              P110      TYPE      P1104  TP199784   P1403  TP199788          J1402   TP199793
  DATA              J18       5B        J104   INDENTIFIER J1103  UNATTENDED               STRAPPING
  SET               |<        RECEIVER  |<     APPARATUS   |<    SEND-RECEIVE      |<      PLUG
                              (6403WD)         UNIT OPTION       APPARATUS
                                               (7098WD)          UNIT OPTION               (6403WD)
                                                                 (7104WD)
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LEGEND: J=CONNECTOR ATTACHED TO EQUIPMENT
P=STRAPPING PLUG OR CONNECTOR ATTACHED TO A CABLE
→>– REPRESENTS MULTIPLE CONNECTOR IN DRAWING
––– AREA PERTINENT TO RECEIVER
IS OUTLINED BY BROKEN LINE
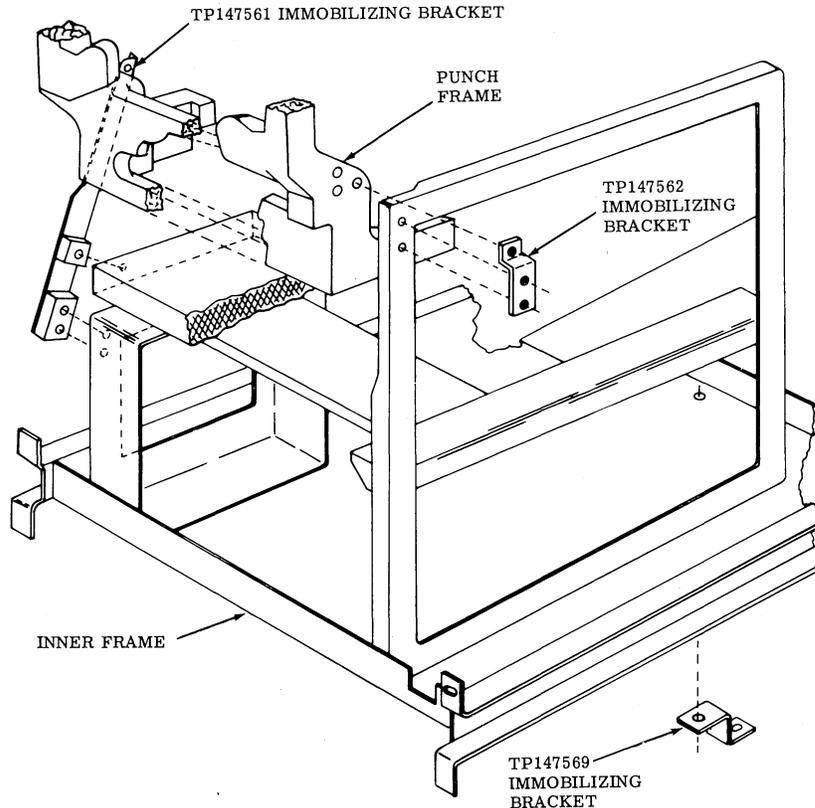*402A CAN BE USED WITH MANUAL SEND STATION ONLY

Figure 2 - Tape Receiver 5B Shipping Fastenings

2.03 Three immobilizing brackets (Figure 2) are used to secure the tape punch and its mounting frame during shipment. Remove the cabinet back panel to gain access to the TP147569 bracket. Remove this bracket, slide the punch assembly forward and remove the remaining two brackets.

2.04 Remove shipping tape from the DRPE cover and the tape sensing arm.

INSTALLING DATA SET

A. Receive-Only Station

2.05 A shelf located near the center of the cabinet accommodates the data auxiliary set 804A. The companion data set 402D is to be mounted at the bottom of the cabinet. The installation procedure is given in the paragraphs following. Refer also to Table 3 and the cabling diagram 6448WD ("Schematic and Actual Wiring Diagrams" section), and to the instruction material supplied with the data set.

(1) Place the unit in an area allowing clear access to the front and rear. Remove the rear panel first loosening the single captive screw at the top.

(2) Open the cabinet door by pulling on the upper left hand corner and pull the receiver module forward as far as it will go. Lift the front of the module to clear the cabinet stop, remove the module and place it on the floor. It is not necessary to disconnect the cables. Similarly remove the accessories mounting frame.

(3) Loosen the four captive screws which secure the shelf at the bottom of the cabinet, and remove the shelf.

(4) Place the data set in the bottom of the cabinet. Tilt the 402D data set slightly and make connections between the data set, electrical service panel and Receiver module. Replace the bottom shelf, the Receiver module, and the accessories frame.
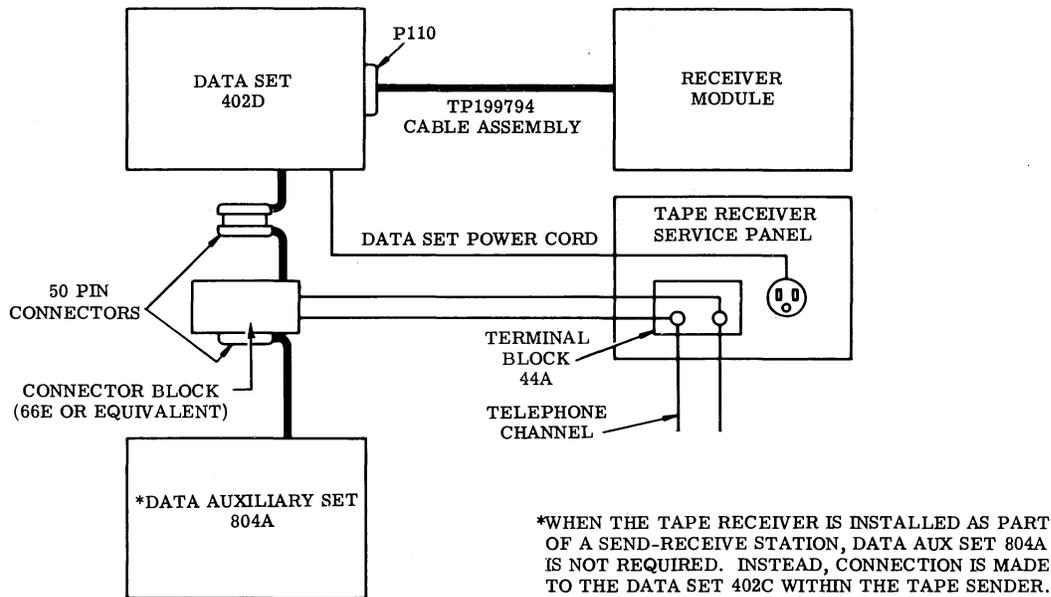
Figure 3 - Data Set Connections (Receive Only)

(5) Mount a 44A telephone terminal block backboard, and terminal board on the electrical service panel at the rear of the cabinet if required. Two mounting holes on the left side of the cabinet (looking from the rear) are provided. (Refer to the data set instruction material for the type of terminal block required.)

(6) Remove the three screws that secure the panel at the center of the cabinet, remove the panel and place the data auxiliary set 804A on the shelf provided. Replace the panel.

(7) Make connections between the data set, data auxiliary set and telephone terminal block and connector block as shown in Figure 3. Refer to the instruction material supplied with the data set when choosing or wiring the connector block.

(8) Replace rear cabinet cover.

B. Send-Receive Station

2.06 When installing a Tape Receiver as part of a send-receive station (ie, a Sender and Receiver at the same site sharing a common telephone line) the data auxiliary set 804A is not required. An optional TP199633 blank panel is available to replace the two panels which normally mount the data auxiliary set. Figures 1 and 3 reflect the wiring changes for send-receive operation.

OPTIONS (Tables 1, 2 and 3)

2.07 Early design 5B Receivers are wired for 8-level operation. These Receivers require the addition of straps for 5-, 6- or 7-level operation. Late design Receivers have three switches on the front panel to select or omit levels numbered 8, 7 and 1 (from left to right) respectively. Add straps or position switches for the various levels as indicated below.

(a) 8 Level - No straps or all switches positioned up in PUNCH LEVEL SELECTION position.

(b) 7 Level - Add strap between pins 1 and 24 on XZ111 (see 6403WD and 6404WD in Wiring Diagram section) or position 8-level switch down to OMIT position.

(c) 6 Level - Add straps between pins 1 and 24 on XZ111 and on XZ110 or position 8 and 7 level switches down to OMIT positions (6403WD and 6404WD).

(d) 5 Level - Add straps between pins 1 and 24 on XZ111, XZ110 and XZ104 or position level switches 8, 7 and 1 down to OMIT positions (6403WD and 6404WD).

2.08 Locate the accessory strapping plug connected to J104 on the Receiver module. Withdraw the plug and remove the plug cover. If the station is not to be used on a receive-only rotary hunting line, grasp pin 23 of the plug with a long nose pliers and pull it out of the connector body. Tape the bare pin. Similarly pull out, and tape pin 15 if automatic answering is to be permanently disabled. Replace the accessory plug.

2.09 A set of contacts is provided on the Receiver module (TB104) which can be connected to an external signaling device to advise the operator of an incoming call.

3. CHECKOUT PROCEDURES

PRELIMINARY INSPECTION

Note: The following tests do not require operation of the equipment on line.

3.01 Connect the Receiver power cord to the ac outlet. Press the power switch to turn the power on. The power switch should be illuminated and should flash on and off, indicating a low tape condition.

3.02 Load and thread tape through the punch as explained in the related "Description and Operation" section. The power switch should now be continuously illuminated.

3.03 Press the BLANKS FEED OUT button and observe that the tape is fed out unperforated (except for feed holes). Press the LETTERS FEED OUT button and observe that the tape is perforated at all levels.

3.04 Check the perforation spacing with a tape gauge. Perforations should be spaced correctly and form a straight line parallel to the edges of the tape. (Refer to section on DRPE type "High Speed Tape Punch Adjustments", if required).

3.05 Remove the tape supply spool if necessary, to allow the tape sensing arm to drop. Observe that the LOW TAPE lamp lights as the arm swings toward the hub. The low tape switch is factory adjusted to indicate a low tape condition when the tape supply drops below about 150 feet. The switch may be readily adjusted (refer to related "Adjustments, Lubrication, and Disassembly" section) to suit the requirements of the customer.

SIGNAL LINE HOOKUP

3.06 Make connection between the data set and telephone line in accordance with the instructions supplied with the data set. The terminal board mounted on the electrical service panel at the rear of Receiver (Par. 2.05) is provided expressly for this purpose. Perform whatever tests are called for in the data set literature.

TEST CENTER TESTS

3.07 Make use of the system test centers (where available) to make final test of the system.

TABLE 1

SERVICE ARRANGEMENTS

The following table summarizes the apparatus required for various types of service arrangements. The use of suffixes in the coding scheme permits initial ordering of the arrangements needed. The addition of apparatus unit options to existing standard equipments can provide the same arrangements.

SERVICE	SENDER APPARATUS STATION 1	RECEIVER APPARATUS STATION 2
Attended at both stations	5A or 5C Sender data set 402C or 402A	5B Receiver data set 402D and data auxiliary set 804A
Sender attended Receiver unattended	5A or 5C Sender data set 402C or 402A	5B Receiver - use auto answer feature in data set 402D and data auxiliary set 804A
Sender unattended Receiver attended	5A-1 or 5C-1 Sender - use auto answer feature in data set 402C	5B-1 Receiver data set 402D and data auxiliary set 804A
Unattended send-receive stations	5A-1 or 5C-1 Sender - use auto answer feature in data set 402C	5B-2 Receiver - use auto answer and send-receive features in data set 402D
Unattended send-receive stations Receiver in manual condition and capable of calling unattended Sender	5A-1 or 5C-1 Sender - use auto answer feature in data set 402C	5B-3 Receiver - use auto answer and send-receive features in data set 402D

For the table-mounted sender, the TP198002 recognizer option for discrete calling and unattended service mounts beside the other apparatus units in the wall mounted apparatus box. For the floor mounted Sender, this unattended service apparatus unit option is mounted in a space provided in the equipment cabinet.

Unattended Send/Receive Station

This station consists of a Sender arranged for unattended service and a Receiver containing an unattended send/receive apparatus unit option (TP199788). The send/receive station will automatically arrange itself to send or receive as appropriate to the type of calling station. A send/receive station used in placing a call can be manually switched to function as a sender or as a receiver; and a remote unattended send/receive station will follow these switching operations.

Note: Refer to text paragraphs covering options.

TABLE 2

RECEIVER ONLY TERMINAL

TYPE OF OPERATION		EQUIPMENT REQUIRED	WIRING OPTIONS REQUIRED	STRAPPING PLUG AND LOCATION
1.	Manual	5B Receiver	None (Standard factory wiring)	TP199793 in 5B Receiver J104
2.	Unattended service	5B Receiver	None	TP199793 in 5B Receiver J104
3.	Manual Capable of calling an unattended Sender	5B-1 Receiver (TP199784 identifier included)	None	TP199793 in TP199784 identifier J1103
4.	Unattended service with an out-of-service feature when low tape condition exists	5B Receiver	In TP199793 strapping plug, remove ZA wiring: Remove and tape either pin 23 or pin 39.	TP199793 in 5B Receiver J104
5.	Manual with automatic answering permanently disabled	5B Receiver	In TP199793 strapping plug, remove ZB wiring: Remove and tape either pin 15 or pin 28.	TP199793 in 5B Receiver J104
Equipment Descriptions 5B Floor mounted Receiver without options			5B-1 Floor mounted Receiver with TP199784 identifier apparatus unit option	

Note: Refer to the text paragraphs covering options.

TABLE 3

UNATTENDED SEND-RECEIVE TERMINAL

ADDITIONAL TYPES OF OPERATION		EQUIPMENT REQUIRED	WIRING OPTIONS	STRAPPING PLUG AND LOCATION
	PERTAINING ONLY TO UNATTENDED SEND-RECEIVE TERMINAL.		Note: Always remove and tape pin 3 at one end of cable between unattended send-receive and recognizer.	
1.	Unattended send-receive service using all 3 answerbacks; to indicate no tape, low tape and both (Answerbacks: A = low tape in Receiver. B = no tape in Sender. AB = both conditions). Station will answer automatically with a low tape-no tape condition.	5A-1 or 5C-1 Send	In recognizer, remove SO wiring: On connector card pin H, remove and tape wire to 1U of K1202-U relay.	TP199547 in TP198002 recognizer J1201
		5B-2 Receive	In unattended send-receive unit, remove R wiring: (retain ZC and/or ZD wiring) remove and tape one end of jumper between 9 and 9M on K1405-U relay.	TP199793 in TP199788 unattended send-receive unit J1402
2.	Unattended send-receive service using 2 answerbacks (A or B) to indicate low tape in Receiver or no tape in Sender. Station will not answer automatically with a low tape-no tape condition.	5A-1 or 5C-1 Send	In recognizer: Remove ZC wiring; remove, twist together and tape two wires on 12M of K1203 relay and remove and tape wire on 3B of 1201-L relay. Remove SO wiring (same as 1. send above)	TP199547 in TP198002 unit J1201
		5B-2 Receive	In unattended send-receive unit: Remove R wiring (same as 1. receive above)	TP199793 in unattended send-receive unit J1402
3.	Unattended send-receive service using answerback A to indicate low tape in the Receiver. Station will not answer automatically with a low tape-no tape condition.	5A-1 or 5C-1 Send	In recognizer: Remove ZC wiring and SO wiring (same as 2. send above)	TP199547 in TP198002 recognizer unit J1201
		5B-2 Receive	In unattended send-receive unit, remove ZD wiring: Remove and tape wire on 10B of K1405-U relay. (Retain R wiring).	TP199793 in TP199788 unattended send-receive unit J1402
4.	Unattended send-receive service, with Receiver in manual condition, capable of calling unattended Sender.	5A-1 or 5C-1 Send	In recognizer: Remove SO wiring (same as 1. send above). Either remove or retain ZC wiring (see 2. send above).	TP199547 in TP198002 recognizer unit J1201
		5B-3 Receive	In unattended send-receive unit: Remove either R or ZD wiring (same as either 1. or 3. receive above)	TP199793 in TP199788 unattended send-receive unit J1402

TABLE 3 (Cont)

UNATTENDED SEND-RECEIVE TERMINAL

Note: In addition to the types of operation in this table, any send or receive type of operation listed under the Sender only and Receiver only terminals, or a combination of any send and receive type so listed, may also be used at a send-receive terminal. See following list for descriptions of equipment required. Refer to appropriate section for detailed description of any set or apparatus unit option.

5A-1   Table mounted Sender with TP198002 recognizer apparatus unit option.

5C-1   Floor mounted Sender with TP198002 recognizer apparatus unit option.

5B   Floor mounted Receiver without options.

5B-1   Floor mounted Receiver with TP199784 identifier apparatus unit option.

5B-2   Floor mounted Receiver with TP199788 unattended send-receive apparatus unit option.

5B-3   Floor mounted Receiver with TP199784 identifier and TP199788 unattended send-receive apparatus unit options.

Note: Refer to text paragraphs covering options.