

TELESCRIPT SETS

INSTALLATION

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1. GENERAL

1.01 This Section provides installation and service information for Telescript Transmitters, Receivers and Transceivers.

1.02 All models are coded with a three digit number starting at 001. Minor changes are indicated by a suffix number, i.e., 008-4; major changes are indicated by a change in code, i.e., 008 to 009. See Section 596-800-909CA.

1.03 All models are compatible in that they will write to and receive messages from other sets regardless of vintage. Model changes are made for reasons of improved performance or reduced costs.

1.04 Illustrations used in this section do not necessarily indicate the latest model of any set.

1.05 References and connections illustrated are based on the use of a 25 Terminal Binding Post Board. Sets not so equipped may be returned to the Telephone House. They will be "modernized" and updated for improved performance.

1.06 If, to complete an installation or rearrangement, use of terminals 17 to 25 are required (and these are not present) it is re-

commended that the set be replaced and returned to the Telephone House for updating.

1.07 This section is reissued to make many minor corrections and to rearrange some material for emphasis. Due to the nature of this revision, marginal arrows have been omitted.

1.08 Illustrations and text, in part, courtesy of Victor Comptometer Corporation.

2. DESCRIPTION

2.01 These machines are analogue devices designed to furnish instantaneous direct transmission of any form of information that can be hand written.

2.02 To employ the service, the transmitting pen or stylus is used to write on the paper provided. The Receiving Capillary Pen will record a facsimile of the transmitting pen's movements.

2.03 The service may be provided over regular telephone lines, private lines or local connections.

2.04 As furnished, the paper feed mechanism is set to advance paper in 3 inch increments. This may be changed by the installer, to feed 1.5, 2, 4, 6 or 8 inches of paper. See Section 596-800-903CA, Par. 7.

2.05 A five foot cord is furnished for connection to a commercial power outlet. A "U" ground receptacle is required. A thirteen foot grey mounting cord is furnished for connection to the line.

2.06 Special paper, ink, and ball point pen refills are required for use with these machines. Except for the initial supply, these items must be obtained by the customer.

3054+ NM 2
New Brunswick Tel. Co.
Cust. Services Supvr.-I&R
Water St.,
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2.07 At time of installation, the Plant man will equip each machine with a roll of blank paper and ink or a ball point pen refill. No further supply of these items are to be furnished by the Company.

2.08 Transmitter and Transceiver units have three indicating lamp signals:

- On: Set is energized and ready for use.
- BUSY: Indicates that pen or stylus is lifted to start a message (Busy lamps light on other transmitters and transceivers on the same line).
- SEND: Line is in use by another transmitter or transceiver. At transmitters, if send lamp is lighted, it indicates adequate pressure on ball point pen.

2.09 Receivers possess one indicating lamp signal to show when the power is on.

2.10 In order to send a message both receiving station and transmitting station must be turned on. If the switched telephone network is to be used, the transmitting station must establish a connection. (See Section 596-010-200CA for Telescript operation on the switched network using the 601A Data Set.) When private lines or direct connections are used this procedure is not necessary unless a local switching system is installed.

2.11 Raise ball point pen or stylus to writing position. Send lamp will light. Apply stylus to magnetic ball or pen point to writing area with sufficient pressure to bring on busy lamp signal at a transmitter or to cause pen to contact paper at a transceiver. Write in a careful and deliberate manner. As far as possible, **Do Not Print**. (See Fig. 1).

2.12 When a fresh writing area is required, momentarily move pen or stylus to upper left area near the sign "Paper Feed". Paper will advance to a new area (or new form) at both the transmitter and receiver.

Note: It is good practice to advance the paper to provide a fresh writing area at the end of each transmission.

3. UNPACKING

3.01 New and repaired sets are carefully packed to minimize damage in transportation. Use the following procedure when unpacking:

3.02 All Sets

- (1) Open carton and remove all internal cardboard inserts.
- (2) Carefully lift unit clear by gripping the front edge of the cover and the metal lip of the base (located at the rear of the unit under the writing platform).

CAUTION: DO NOT LIFT OR CARRY UNIT BY HOLDING PAPER FEED ROLL.

- (3) Remove set from Polyethylene bag.
- (4) Remove "Quality Control" card from unit, record any difficulties, and promptly send card to address indicated on the card.

3.03 Transmitters

- (1) Carefully remove crossed tapes holding pen and cord.
- (2) Remove rubber band holding paper spindle to the frame.
- (3) Remove rubber band holding paper tear off bracket and locking bracket together.

3.04 Receivers and Transceivers

- (1) Peel back tapes holding styro foam pantograph supporting blocks from plate, one tape at a time, while holding down cushion blocks with light squeezing pressure. (See Fig. 3.)
- (2) With a sideward motion, carefully remove styrofoam blocks 4-1253 and 4-1253-1.

IMPORTANT: Any lifting motion of pen while still captivated in cushion blocks will **DAMAGE** pantograph and affect pen overtravel.

- (3) Remove Transceiver glass plate from underside of top filler cardboard. Store in a safe place until ready to install it.

(4) The plastic window on the receiver can be cleaned with water or any chemical cleaning agent that DOES NOT CONTAIN "ACETONE".

4. PACKING

4.01 To ensure minimum damage to sets being returned to the Telephone House use the Telescript Packing Kit.

4.02 Order packing kits as follows: (Quantity) Telescript Transmitter Packing Kit, for Transmitters, Telescript Receiver Packing Kit, for receivers and Telescript Transceiver Packing Kit, for transceivers.

4.03 The Packing Kit is furnished with all required cardboard inserts, styrofoam blocks, polyethylene bags and packing instructions.

4.04 Transmitter Packing

- (1) Remove the paper roll from the machine.
- (2) Mount the paper spindle to the frame with a rubber band starting at the hub on one end of the spindle, around the two brackets and then to the hub on the other end of the spindle.
- (3) Insert pen tip in mylar coupling.
- (4) Remove pen plug from its socket and place cable and pen in polyethylene bag, Part No. 4-1535, and tape tightly at center of pen, and near coupler.
- (5) Place pen so that the end is in center of writing area and pen is in horizontal center of naugahyde and place tape over tape in Step 4 and to naugahyde. Also place tape over cable at point it exists from pen.
- (6) Hold paper tear-off bracket to paper stripper plate with a rubber band.
- (7) Place unit in polyethylene bag, Part No. 9511.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

- (8) Set up 4-1311-1 carton, stitch or tape bottom.

(9) Fold 4-1311-3 and 4-1311-2 scored sheets and mate the -3 into recess of the -2.

(10) Place unit in recess of mated corrugated inserts, then place in carton.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

- (11) Place trouble report along left side of unit.
- (12) Fold 4-1311-6 scored sheet at scored lines, and insert into carton at rear of unit.
- (13) Fold 4-1311-4 scored sheet at score lines, and insert into carton with folded portion at front end of unit.
- (14) Close flaps of carton and seal with reinforced gummed tape.
- (15) Prepare shipping label and place on the carton.
- (16) With black crayon, write the model, serial number and specification and/or features (where applicable) on the outside of the carton.

4.05 Receiver Packing (Open Reservoir)

- (1) *Remove all ink from the hose and pen by depriming.*
- (2) *Remove all ink from the ink reservoir with a syringe or squeeze bottle. (Pipette Part No. T-507 or equivalent).*
- (3) Rinse ink reservoir, ink hose and pen with water and *leave them on unit.*
- (4) Remove paper roll from the machine.
- (5) Mount the paper spindle to the frame by means of a rubber band, starting at the hub on one end of the spindle, around the two brackets and then to the hub on the other end of the spindle.
- (6) Position cushion blocks adjacent to pen on paper platform in approximate center. (See Fig. 3).

CAUTION: Any lifting of pen while positioning cushion blocks will damage pantograph and affect pen over-travel.

(7) Firmly squeeze cushion blocks together and while holding in this position, place cross-tape "A" across top and press sufficiently for proper adhesion. Tape must follow sides of blocks to corners with paper platform, then outward on paper plate. Repeat with cross-tape "B".

IMPORTANT: Tape must form square corners at paper platform.

(8) After securing tapes properly to paper plate, apply cover tapes "C" and "D" as shown, with edge adjacent to cushion blocks firmly secured in corner, over ends of tapes "A" and "B". Smooth out and press firmly. There should be no movement of the pen in any direction.

(9) Hold paper tear-off bracket to paper stripper plate with a rubber band.

(10) Place unit in polyethylene bag. Part No. 9511.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

(11) Set up 4-1311-1 carton, stitch or tape bottom.

(12) Fold 4-1311-3 and 4-1311-2 scored sheets and mate the -3 into recess of the -2.

(13) Place unit in recess of mated corrugated inserts, then place in carton.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

(14) Place trouble report along left side of unit.

(15) Fold 4-1311-6 scored sheet at score lines, and insert into carton at rear of unit.

(16) Place padding under Receiver window and leave in open position.

(17) Fold 4-1311-4 scored sheet at lines and insert in carton with folded portion at front end of unit.

(18) Close flaps of carton and seal with reinforced gummed tape.

(19) Prepare shipping label and place on the carton.

(20) With black crayon, write the model, serial number and specification and/or features (where applicable) on the outside of the carton.

4.06 Transceiver Packing (Open Reservoir)

(1) *Remove all ink from the hose and pen by depriming.*

(2) *Remove all ink from the ink reservoir with a syringe or squeeze bottle. (Pipette Part No. T-507 or equivalent).*

(3) Rinse ink reservoir, ink hose and pen with water and *leave them on unit.*

(4) Remove the paper roll from the machine.

(5) Mount the paper spindle to the frame by means of a rubber band, starting at the hub on one end of the spindle, around the two brackets and then to the hub on the other end of the spindle.

(6) Position cushion blocks adjacent to pen on paper platform in approximate center. (See Fig. 3).

CAUTION: Any lifting of pen while positioning cushion blocks will damage pantograph and affect pen over-travel.

(7) Firmly squeeze cushion blocks together and while holding in this position, place cross-tape "A" across top and press sufficiently for proper adhesion. Tape must follow sides of blocks to corners with paper platform. Repeat with cross-tape "B".

IMPORTANT: Tape must form square corners at paper platform.

(8) After securing tapes proper to paper platform, apply cover tapes "C" and "D" as shown, edge adjacent to cushion blocks firmly secured in corner, over ends of tapes "A" and "B". Smooth out and press firmly. There should be no movement of the pen in any direction.

(9) Hold paper tear-off bracket to paper stripper plate with a rubber band.

(10) Remove pen plug from its socket and place cable and pen in polyethylene bag,

Part No. 4-1535 and tape to center of nauga-hyde cover, positioned so as to insert in slot of 4-1311-5, using two strips of masking tape.

- (11) Place unit in polyethylene bag, Part No. 9511.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

- (12) Set up 4-1311-1 carton, stitch or tape bottom.
- (13) Fold 4-1311-3 and 4-1311-2 scored sheets and mate the -3 into recess of the -2.
- (14) Place unit in recess of mated corrugated inserts, then place in carton.

DO NOT CARRY UNIT BY HOLDING PAPER FEED ROLL.

- (15) Place trouble report along left side of unit.
- (16) Fold 4-1311-6 scored sheet at score lines, and insert into carton at rear of unit.
- (17) Fold 1311-5 scored sheet at score lines and insert in carton with folded portion at front end of unit.
- (18) Wrap 4-1521 glass plate in tissue paper and insert into well of 4-1311-7 die cut scored sheet, then secure the four corrugated locking devices.
- (19) Tape 4-1311-7 onto 4-1311-5 in designated area in fold and insert into carton with fold at front end of Transceiver.
- (20) Fold 4-1311-4 scored sheet at score lines, and insert into carton with folded portion at front end of unit.
- (21) Close flaps of carton and seal with reinforced gummed tape.
- (22) With black crayon, write the model, serial number and specification and/or features (where applicable) on the outside of the carton.

**4.07 Receiver and Transceiver Packing
(Closed Reservoir)**

- (1) Remove cover and tip unit counter clockwise to allow ink to be deprimed from pen and hose.

- (2) Return unit to its normal position and withdraw Reservoir THEN, while holding reservoir with hose UP, remove hose from reservoir.

- (3) Rinse pen and hose with water and leave on unit, tape end of hose to unit casting.

- (4) Comply with Steps 4 through 20 for Receiver Packing and Steps 4 through 22 for Transceiver Packing.

5. FACILITIES CHECK

5.01 General

From a practical point of view, communication circuits may be classified as: on premises private line or switched network. Communication may be established by direct line or by one of the switching systems such as dial or pushbutton. Telescript systems involve: receive only, transmit only, alternate transmit and receive, and alternate voice and transmission, and/or reception of writing. They utilize a single pair, double pairs, or multiple-line systems.

5.02 Permissible Intermodulation on Signal Line

Up to 30 per cent intermodulation can be tolerated where the non-linear element has a square law characteristic. A peak clipping characteristic should be avoided.

5.03 Permissible Noise Level on Signal Line

In the absence of intermodulation, "white" noise (i.e., having uniform frequency distribution) which is 15db under the TELESRIPT signal will be unnoticed in received copy. Other types of noise are difficult to specify, due to their special nature, such as impulse noise where peak amplitude and repetition rate may vary, and interfering carriers where frequency is a variable. If intermodulation occurs, permissible noise level is reduced.

5.04 Receiver Squelch

A squelch is provided which prevents receiver operation from noise pulses under -35db in the absence of transmitted signal. This is adequate for long distance telephone circuits.

5.05 Minimum Composite Signal Level

Minimum receive signal level at Receivers and Transceivers must be greater than 0.010 volts using a VTVM or greater than -32 dbm using a bridge type transmission measuring set.

Minimum receive signal level at Transmitters must be greater than 0.035 volts in order to satisfactorily operate lock-out amplifier.

When a system is rearranged or stations added, measure signal levels at all stations to ensure that the signal levels remain adequate for satisfactory operation. Adjust if necessary.

5.06 Dataphone

Where a Dataphone Data Set is used, follow instructions in Section 596-010-200CA.

5.07 Private Line

For Private Line service see attachment to service order and testing instructions which follow.

5.08 Private Line Testing

It is advisable to make as thorough a test of the line facilities as possible before connecting a Telescript set to the line. If the line is of an impossibly low quality, or if the line is marginal, no attempt should be made to connect the Telescript sets to it, and new facilities should be obtained.

On Premises

- (1) At one end of the line, join the two conductors together, and at the other (open) end measure the dc resistance of the loop. This serves as a check of the continuity of the line. It is unlikely that the resistance on an On premise loop will be too high for Telescript signals.
- (2) At the open end, using a vacuum tube voltmeter, check any noise potential. Check ac and dc potentials across the open terminals and from each terminal to group.
- (3) If dc potential is present, a 1 mfd, 200 vdc capacitor connected in one leg of the line, can be used to block it.
- (4) If ac potential or noise is present, connect the line to the vacuum tube voltmeter through the isolation filter of the T542 Test

Set. This filter corresponds to the filter in the Telescript receiving unit.

- (5) When making signal and noise measurements it is important to distinguish between the Telescript tones and other frequencies which may be on the line, but which do not affect receiving station performance.

- (6) To make signal to noise measurements using the T542 Test Set, proceed as follows:

- (a) Connect the line to be used to the input (brown cable) of the T542 Test Set.
- (b) Connect the voltmeter to the output (grey cable) of the T542 Test Set with the shield to voltmeter ground.
- (c) To measure noise level (with no signal on line) turn switch to Vertical Filter position for noise in vertical band. Turn switch to Horizontal Filter position for noise in horizontal band.
- (d) To measure signal level, connect a known good transmitting unit, at the opposite end of line, and turn oscillators on by hanging pen or stylus over edge of table. Turn switch on Test Set to Vertical Filter for signal plus noise in vertical band and to Horizontal Filter for signal plus noise in horizontal band.
- (e) Subtract the readings obtained in (c) from those in (d) for true signal level.
- (f) The ratio of (e) to (c) is the signal to noise ratio.
- (g) Repeat the above at each receiving station measuring signal level and signal to noise ratio from each distant transmitting station. At alternate send-receive station using transmitters and receivers instead of transceivers connect a transmitter on the line in parallel with the input of the T542 Test Set.
- (h) In the absence of a T542 Test Set, measure receiver filter output, see circuit diagram for code or receiver being used.
- (7) Connect the receivers and turn them on. Check their response to transmission. If noise causes interference, an attempt should be made to suppress it by placing an attenuator in the signal line at the receiver end and adjusting it for best results. See

Section 596-800-903CA for details concerning Telescript attenuators. At a transmitter-receiver station, the attenuator must be connected to affect only the receiver.

(8) The squelch relay in the receiver prevents receiver operation from noise pulses under -35 dbm in the absence of signals. If noise overrides the squelch, the addition of an attenuator may be to correct the situation provided there is a usable signal to noise ratio.

(9) If no interference was found on the line before the Telescript sets were connected to it, and interference is apparent on the receivers, the possibility of noise on the power lines should be investigated, and an AC power line filter installed if necessary (see Section 596-800-903CA).

6. INSTALLATION

6.01 Allow set to come to room temperature before connecting power cord. The transistors may draw destructive currents at low temperatures.

Caution: Do not install set in a contaminated or hazardous atmosphere. Locate set on a firm horizontal surface free from vibration and passing traffic. Arrange with the customer to provide a protective transparent cover if chemicals, metallic dust, Acidic vapours or other material which may come in contact with the set.

6.02 For "Off Premises" private line service, a 120E Repeating Coil is required at each station. Fig. 4 shows an appropriate mounting arrangement for the coil. Make connections on the terminal board in accordance with the appropriate terminal board layout in Fig. 4. Use a D3BP-61 mounting cord.

Note: For direct connections or "On Premises" private lines using local cables, the 120E Repeating Coil is not required.

6.03 For switched network service, terminate the telephone line with a 601A Data Set (see Section 596-010-200CA for further instructions on installing the 601A Data Set) and an End-of-Message Unit. (See 596-800-913CA).

Make connections to the set terminal board in accordance with Fig. 5.

6.04 The power cord should be plugged into a U ground outlet not under control of a switch. If cord is not long enough arrange with customer to relocate power outlet.

6.05 Before placing paper and ink in the Telescript Set, make a "Dry Run" test of the equipment to ensure as far as is possible that there are no major faults. When necessary, carefully demonstrate to the customer or his agent, how to place the paper, fill the ink reservoir, prime or clean the receiving pen and replace the transmitter pen cartridge.

6.06 Install P43A354 Station Number Card Holder. Use Form E-4096 as covered in Section 501-150-100CA.

6.07 Placing The Paper

(1) Turn machine OFF. At transmitters, move the pen to the lower left corner. At receivers, open the hinged window. At Transceivers, remove the upper writing platform.

(2) Release the "tear-off" blade by pressing the lever on either side.

(3) Place the roll of paper on the wooden roller and position the roll in the supports so that it will unwind as shown in Fig. 10. Tear the leading edge to a point and guide it into the chute until it appears at the edge of the writing platform. Carefully pull the paper over the writing platform (avoid damage to the pen) and under the tear-off blade. (See Fig. 6). Sprocket feed paper should be fitted onto the socket pins.

(4) Lock the tear-off blade into position, turn the machine ON and press the paper feed button at least once to tighten up the paper.

6.08 Changing Pen Cartridge

(1) The ball point pen is constructed with two internal switches. Because of this, special Victor Comptometer replacement cartridges are required.

(2) To replace the cartridge, turn the transmitter off, hold the centre portion of the pen, and screw off the bottom portion. The 4-1664 pen may be removed from the 4-1669

pen arm extension to facilitate cartridge replacement.

- (3) Pull out the old cartridge. Start the ink flowing in the new cartridge by rubbing it on a piece of paper. Insert the new cartridge

(Part No. 4-1663) and put the pen together by rotating the bottom part only. Turn the transmitter on.

Note: Do not remove the upper portion of the pen from the centre section.

TABLE A
Connections to Telescript Set
when using a 601A Data Set

Strap Terminals		Receiver Previous To Code 011 9-23 5-21	Receiver Code 011 or Later 122-123	Transceiver 103-110 106-107 108-116 113-119 122-123	Transmitter 17-19
Cable 5-714					
Socket No.	Wire Color				
1	Brown	3	103	103	3
2	Red	Dead	Dead	Dead	21
3	Orange	9	123	123	16
4	Yellow	10	115	115	10
5	Green	4	104	104	7
6	Blue	5	124	124	14
7	Violet	Dead	Dead	115	19 - Note 1
8	Slate	Dead	Dead	109	Note 2
9	White	6	105	105 - Note 3	8
10	Black	13	110	Dead	4
11	Tan	16	125	125	Dead
12	Pink	16	125	125	Dead

Note 1: Remove strap 17 to 19 when lockout amplifier is used.

Note 2: For monitoring copy leave slate conductor disconnected. For local suppression connect slate conductor to Transmitter Binding Post 14.

Note 3: Remove strap 104 to 111 and strap 105 to 112.

Note 4: Tape and store individually each dead lead in the Telescript Set.

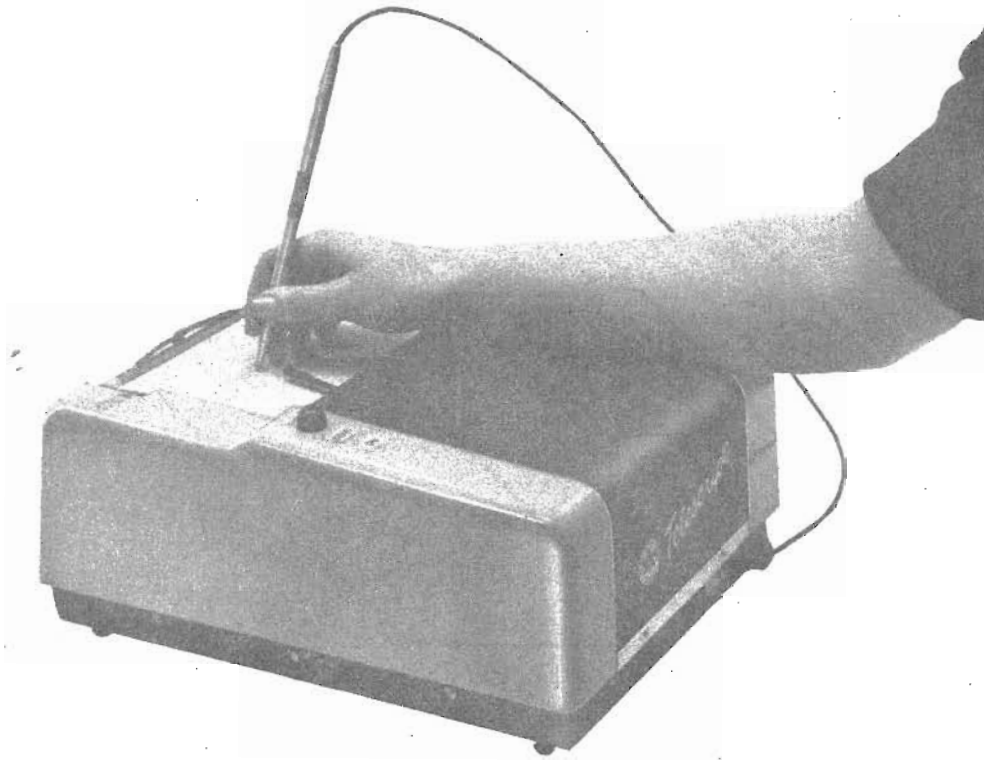


Fig. 1 — Transmitter

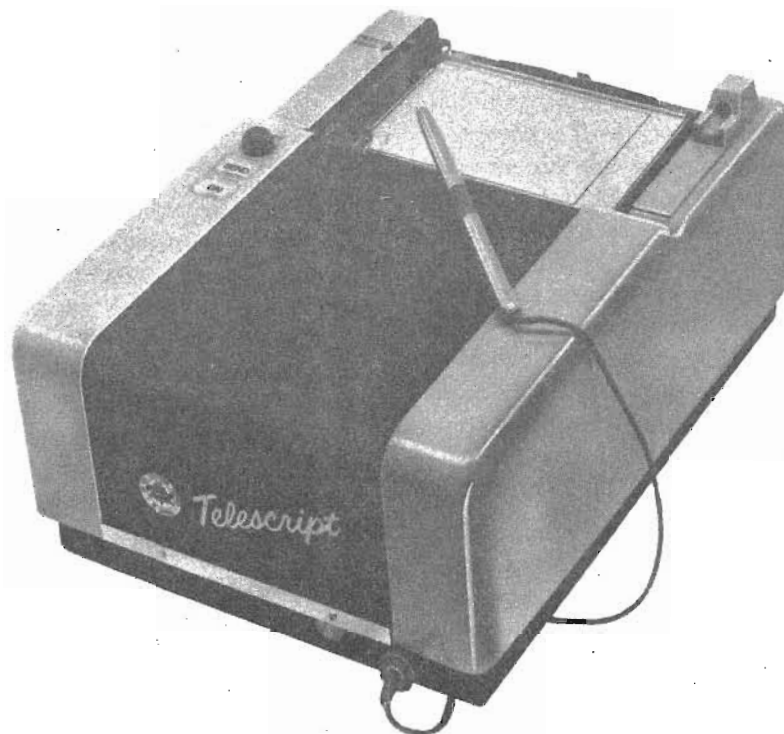


Fig. 2 — Transceiver

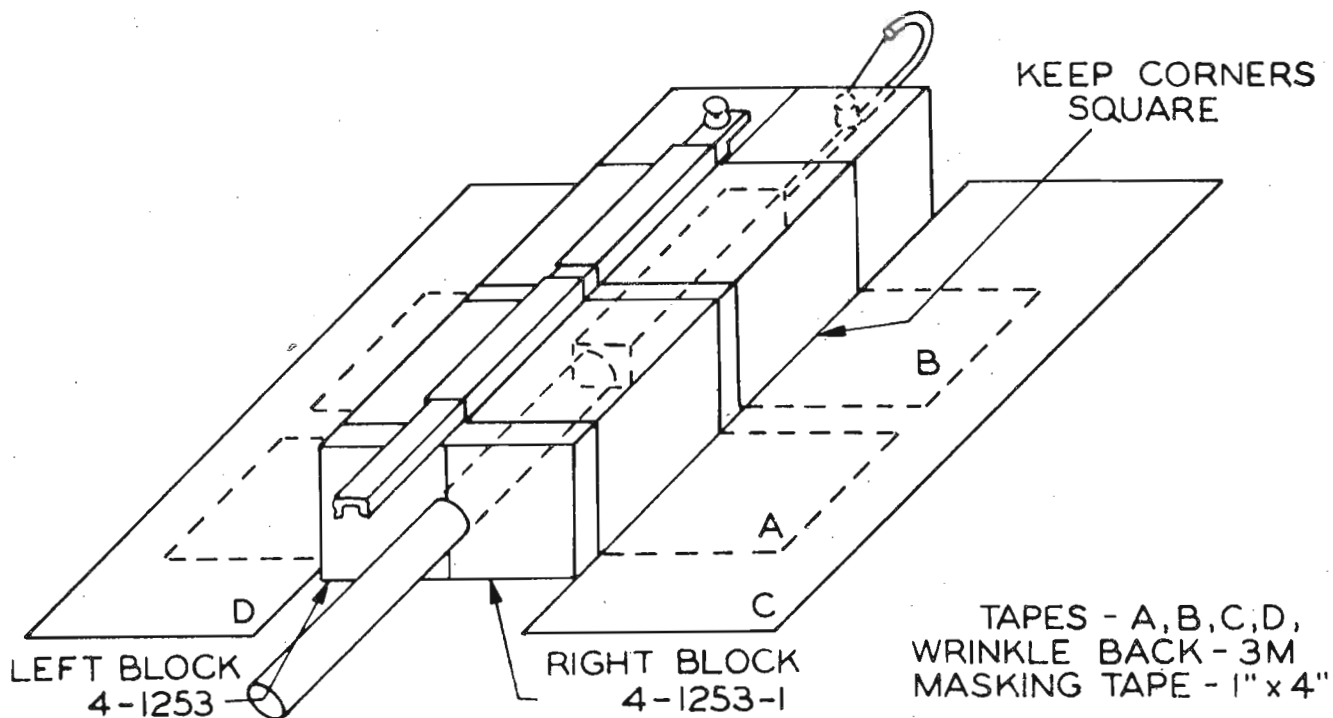


Fig. 3 — Receiver or Transceiver Pen Packing

6.09 Filling The Ink Reservoir

(1) Special ink (Part No. 5-610) only should be used in the Receiver or Transceiver. The ink reservoir holds enough ink for several weeks use. The supply can be checked by lifting the hinged plastic lid on Receivers, or by remov-

ing the stylus holder on Transceivers, exposing the plastic reservoir on the upper right hand corner. (See Fig. 10). If the reservoir requires filling, insert the ink hose in the small hole on top of the reservoir. Fill the reservoir to a point level with the lower portion of the metal retaining clamp by squeezing the container.

(2) **To Start Ink Flowing:** Normally, no priming is necessary, but it may be required after holiday closings or if the ink has become completely exhausted before refilling. To prime the pen, open the hinged window or remove the stylus holder and place a blunt pointed pencil in the reservoir filling hole. Press gently with a finger on the plastic reservoir until ink just appears in the curved plastic tube at the pen tip. Then remove the

pencil from the hole before removing the finger. (See Fig. 10).

6.10 Multiple Arrangements

Where more than ten transmitters, receivers or transceivers are connected to the same circuit, local transmission engineers should be requested to make recommendations. It is important that above minimum signal levels be maintained at each station for satisfactory service. A 400D Hewlett Packard VTVM or equivalent, when bridged across the receive terminals of a receiver or a receiving transceiver, must read a signal level greater than -32 dbm (i.e. -31 dbm) for successful operation.

6.11 Tests: Telescript Sets are designed to provide a readable copy, at the receiver, of hand-written material from the transmitter. Make a writing test to a known good receiver, writing characters and letters about one quarter inch in height. If copy is not legible, make adjustments in accordance with instructions in Section 596-800-904CA.

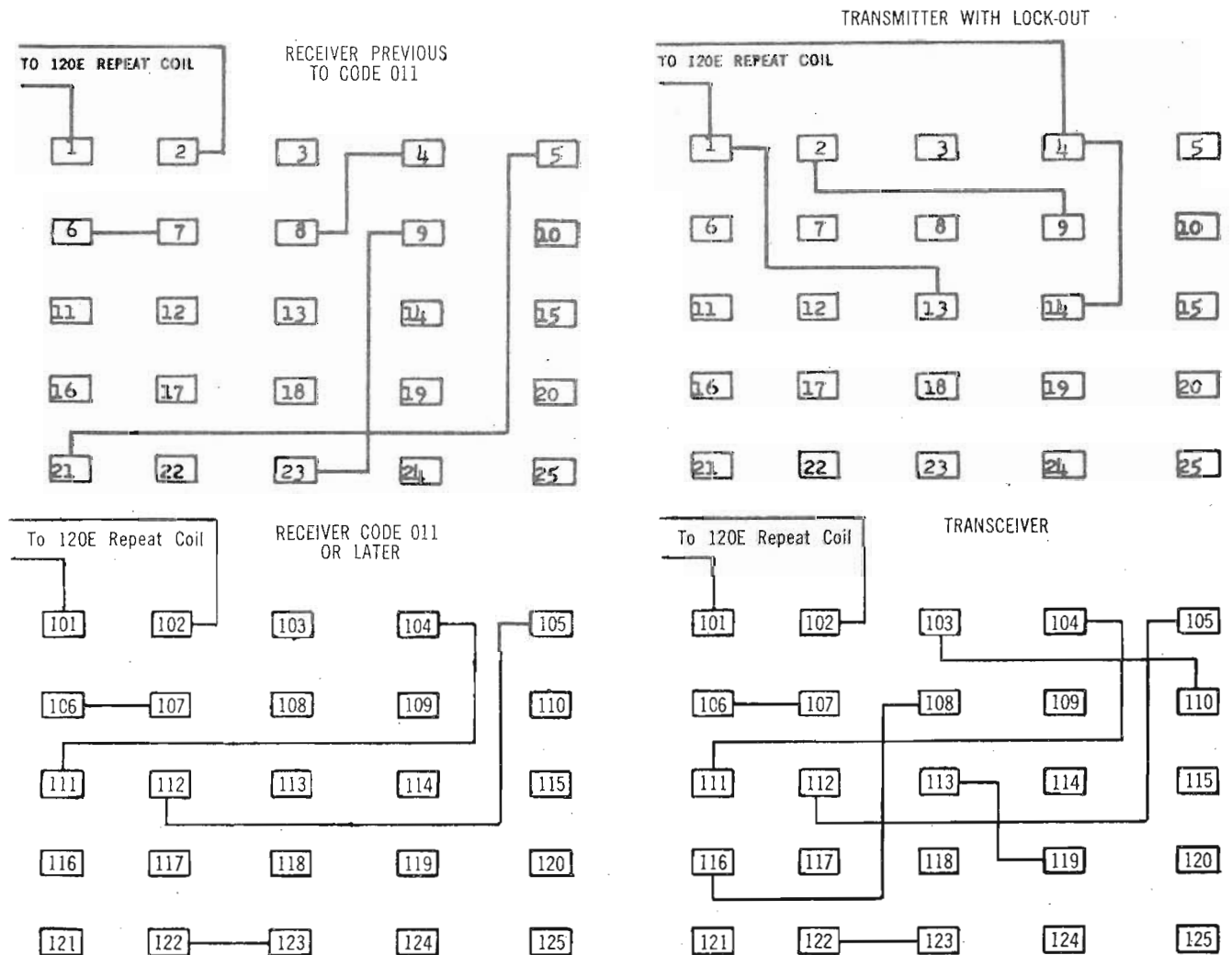
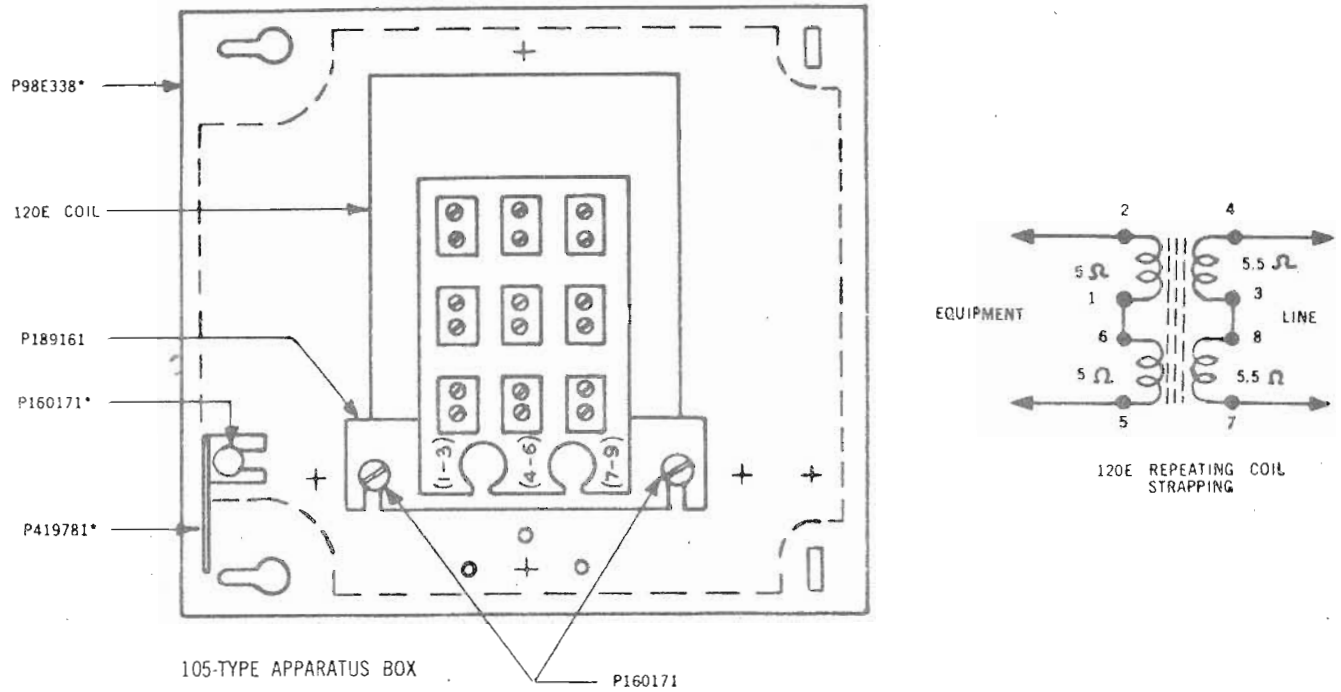
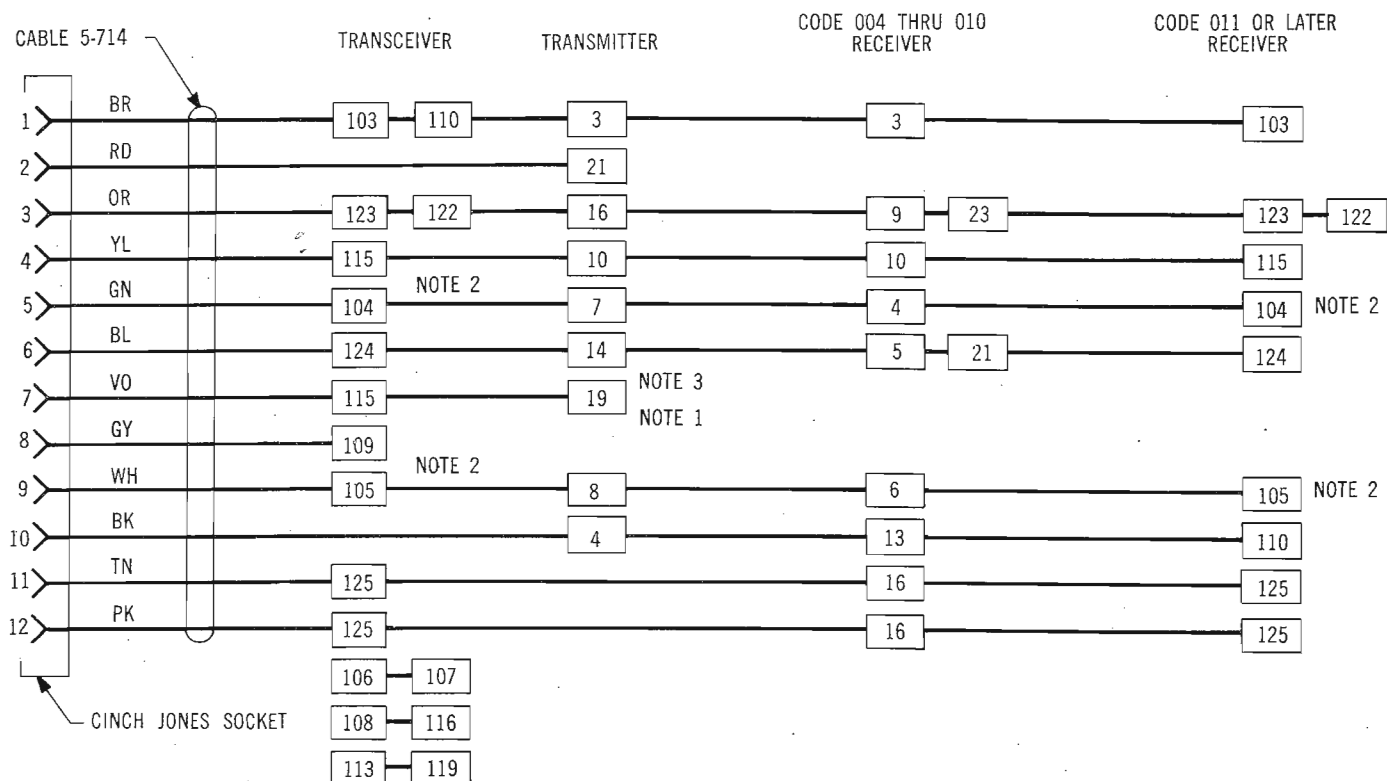


Fig. 4 — Private Line Connections



At Transmitter only stations connect the 'Jones' socket to the 'T' plug of End-of-Message Unit and connect a 5-1099 Shunt Socket to the 'RC' plug.

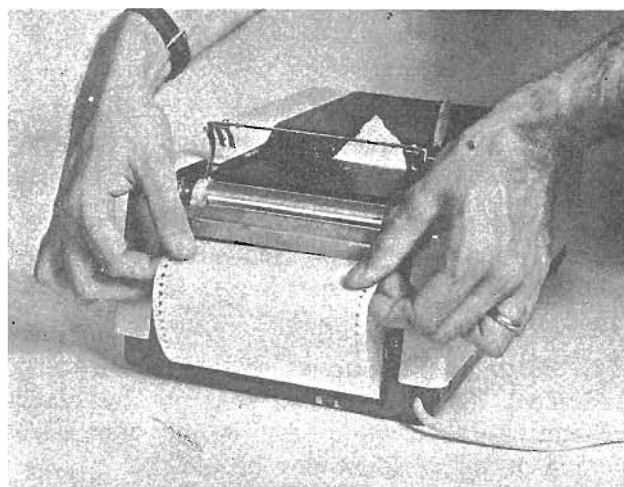
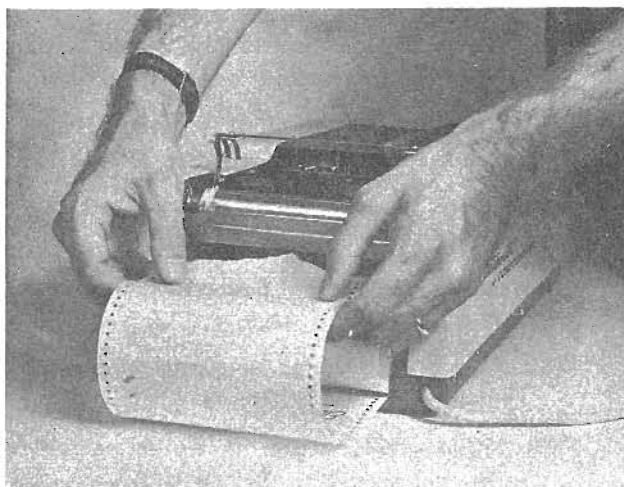
At Receiver only or Transceiver stations connect the 'Jones' socket to the 'RC' plug of the End-of-Message Unit and connect a 5-1098 Shunt Socket to the 'T' plug.

At Transmitter-Receiver stations connect the Transmitter 'Jones' socket to the 'T' plug of the End-of-Message Unit and the Receiver 'Jones' socket to the 'RC' plug. See 596-800-913CA for information on Transmitter modifications.

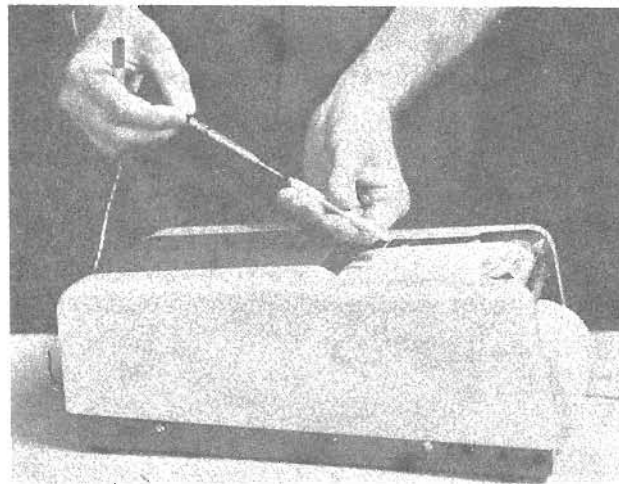
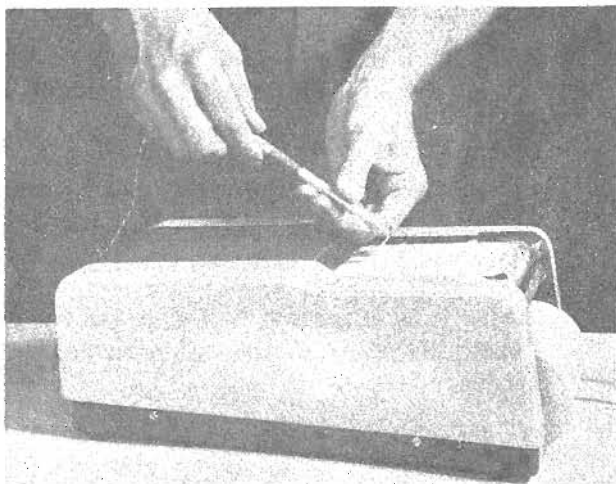
Notes:

- For monitoring copy at Transmitter-Receiver stations leave gray conductor of the transmitter 5-714 cable disconnected. For local suppression connect the Gray conductor to Transmitter Binding Post 14.
- Remove strap 104-111 and strap 105-112.
- Remove strap 17-19 when a Lock-Out amplifier is used.

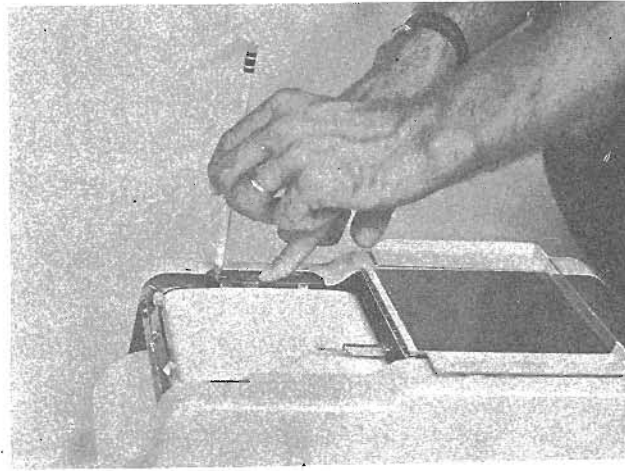
Fig. 5 — Cable Assembly Connections



Feeding in a New Paper Roll



Changing the Pen Cartridge



Filling the Ink Reservoir

Starting the Ink Flowing

Fig. 6

7. MAINTENANCE

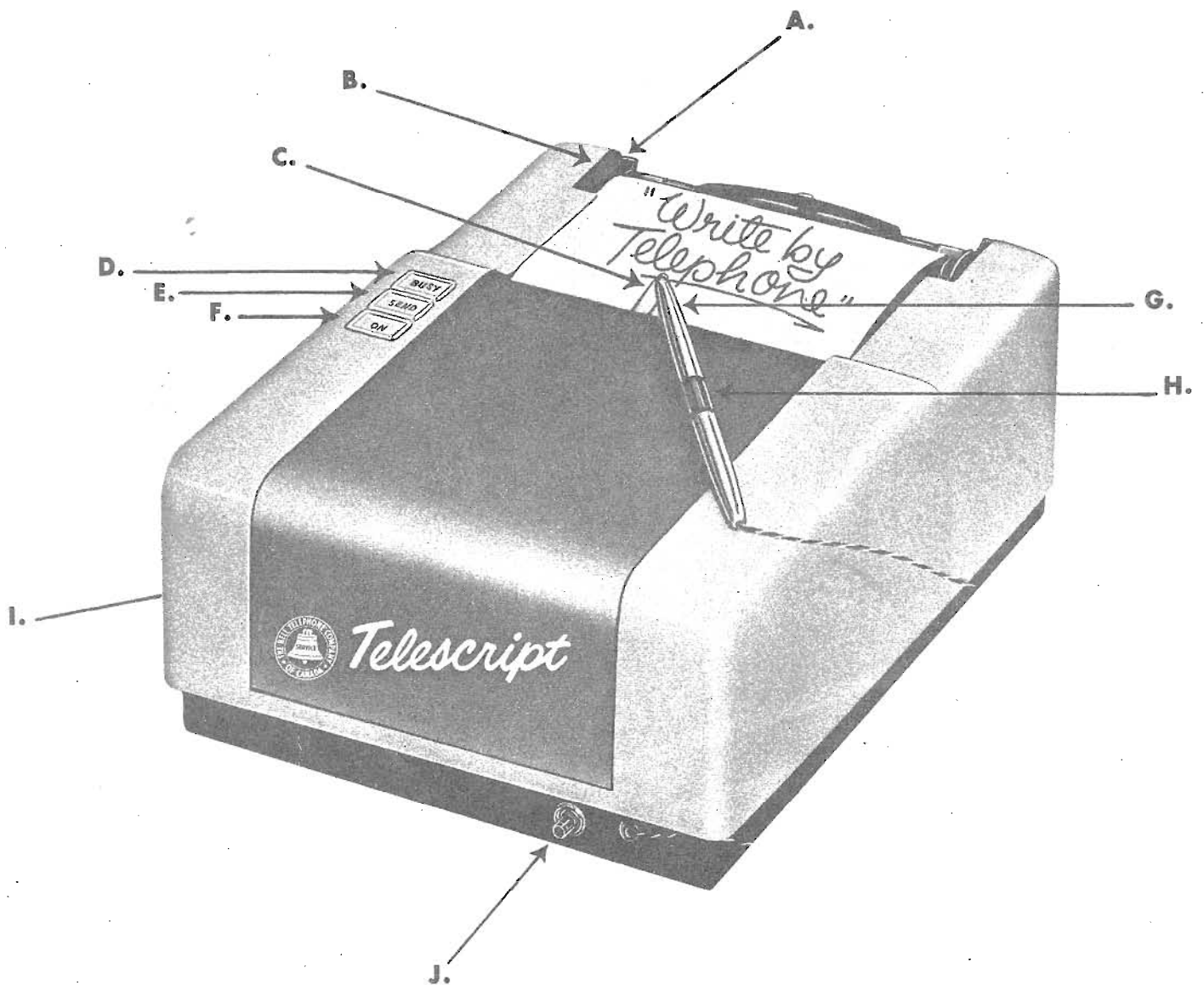
7.01 Preventive maintenance should be performed at intervals not exceeding 12 months. Perform the following:

- (1) Remove reservoir and hose. Flush out reservoir until clean. Shake out all water and re-install. Place new hose. (Part No. 4-1550).
- (2) Purge pen. Clean out with Wire Cleaning Tool T521. Hold pen securely by black plastic pen head while reaming out with wire tool. Pen holder T545 may be used.
- (3) Examine snorkel and replace if it is contaminated with dust or grease.
- (4) Reassemble ink system and fill with ink. The ink is corrosive and a good conductor. Any overflow must be cleaned up promptly.
- (5) Oil all pivot joints, rotating tension roller and paper feed roller bearing surfaces lightly with NS6232 Oil. **Do not oil pen motor shafts.**
- (6) Check overall wiring and cleanliness of set. Look for discoloured or burned components.

- (7) Clean the outside of the cover with non-detergent soap and water if needed.
- (8) Clean paper chaff, dust, ink residue and other foreign matter from inside the set.
- (9) Check paper feed tension, feed out and positioning.
- (10) Check mechanical pen travel to all corners of the writing area.
- (11) Change the mylar pen extension on transmitters.
- (12) Make sure the pen or stylus switch operates reliably.
- (13) Using a known good Receiver check that Transmitters (Transceivers) write properly.
- (14) Using a known good Transmitter check that Receivers (Transceivers) write properly.

7.02 For mechanical and electrical adjustments follow the steps outlined in Section 596-800-904CA.

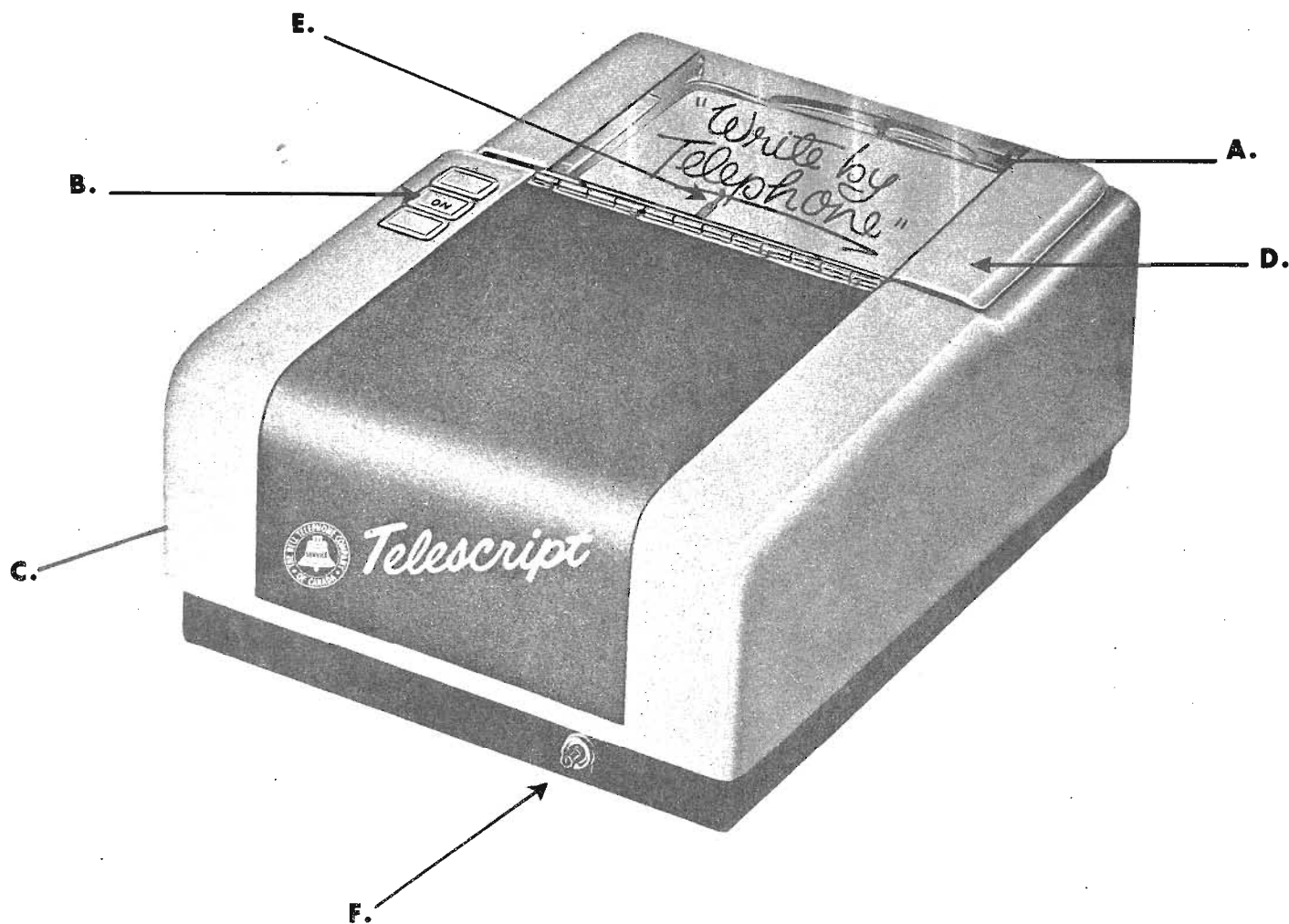
Note: It is important to follow the sequence exactly as many of the adjustments are interdependent.



- A. TEAR-OFF BLADE RELEASE
- B. PIN WHEEL ROLLER
- C. MYLAR COUPLING
- D. "BUSY" LIGHT
- E. "SEND" LIGHT
- F. "ON" LIGHT

- G. TRANSMITTER BALL POINT PEN
- H. CENTER PLASTIC SECTION
- I. ON-OFF SWITCH
- J. LOCAL PAPER FEED BUTTON

Fig. 7 — Telescript Transmitter



- A. FRICTION ROLLER
- B. "ON" LIGHT
- C. ON-OFF SWITCH

- D. HINGED WINDOW
- E. RECEIVER PEN
- F. LOCAL PAPER FEED BUTTON

Fig. 8 — Telescript Receiver

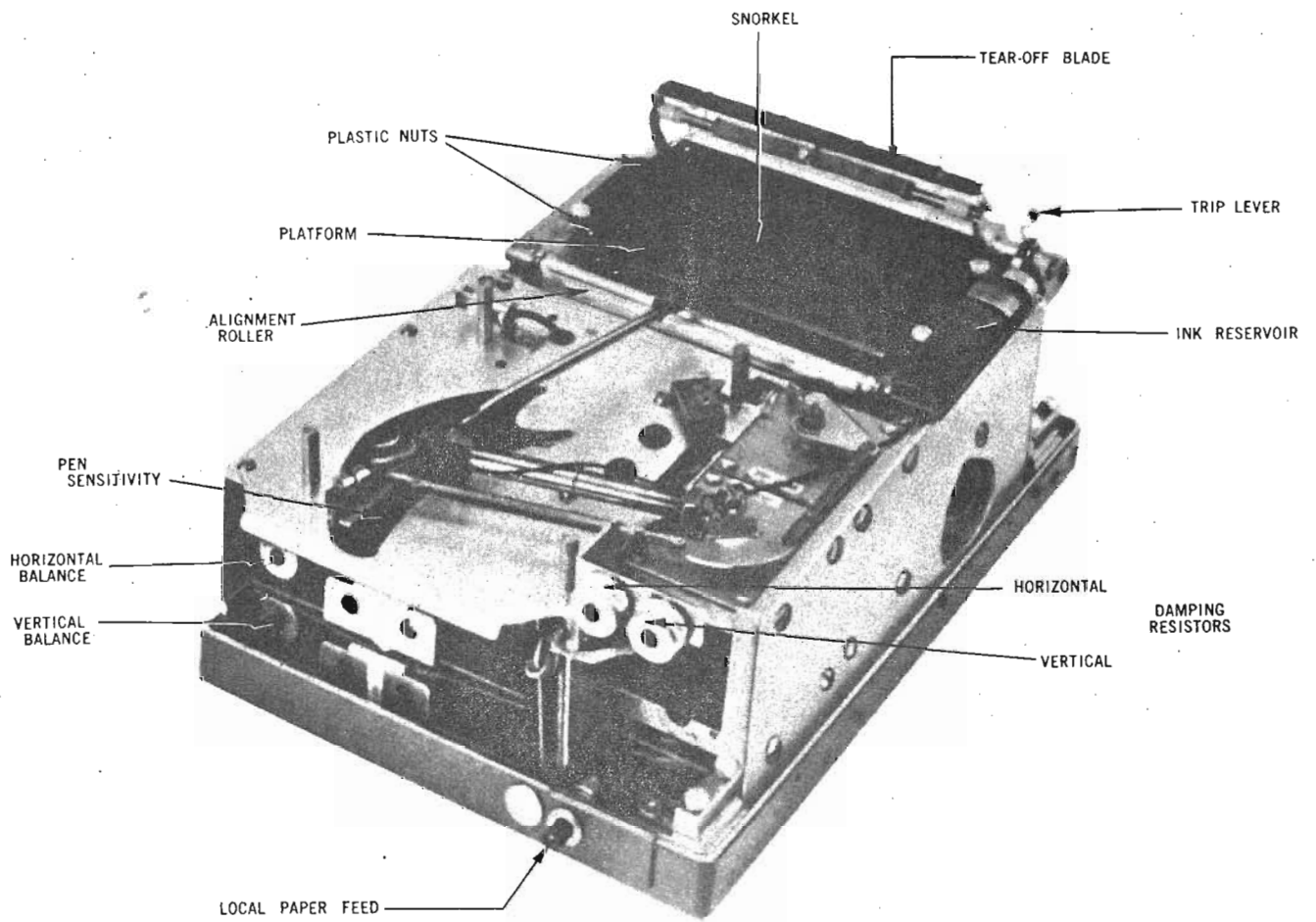


Fig. 9 — Receiver with Cover Removed