

**BELL SYSTEM PRACTICES**  
Teletypewriter and Manual  
Telegraph Station and P.B.X.  
Installation and Maintenance

**SECTION P36.481**  
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## **PAPER-OUT DEVICE FOR FRICTION FEED ON MODEL 15 TELETYPEWRITER INSTALLATION AND ADJUSTMENT OF TP119975 SET OF PARTS**

### **1. GENERAL**

1.01 This section gives the installation and adjusting information on the TP119975 paper-out device which is used on the Model 15 teletypewriter when used with friction feed roll paper.

1.02 The TP119975 paper-out device is used on the Model 15 typing unit to close or open an electrical contact when the supply of paper is almost depleted. Operation of the switch completes an electrical circuit to a signaling device which warns the attendant that a new roll of paper is needed. The switch is operated by means of an arm which rides downward on the roll of paper as the diameter decreases. This arm may be adjusted to operate the switch at any point desired.

1.03 The TP119975 set of parts consists of the following:

1	TP119471	Switch Assembly (See Fig. 1)
1	TP119759	Cable Assembly
2	TP6746	Screw
2	TP2191	Lock Washer
1	TP8884	Terminal Block
1	TP74946	Insulator
2	TP72508	Screw
2	TP2191	Lock Washer
2	TP7002	Washer
2	TP7094	Connection Spring
4	TP6811	Screw
4	TP2191	Lock Washer
2	TP7095	Spring Plate

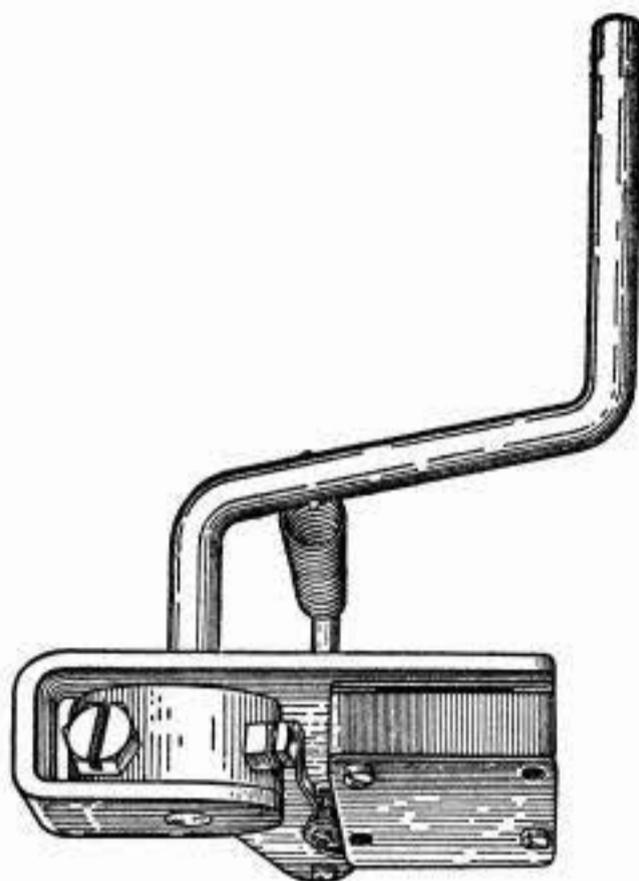


Fig. 1

1.04 For part numbers referred to in the following text, which are not included in the foregoing list, refer to the Teletype Model 15 teletypewriter parts bulletin.

## 2. INSTALLATION

2.01 Mount the TP119471 switch assembly on the TP74410 left teletypewriter frame by means of the two TP6746 screws and two TP2191 lock washers furnished using the two rear TP6-40 tapped holes as shown on Fig. 2.

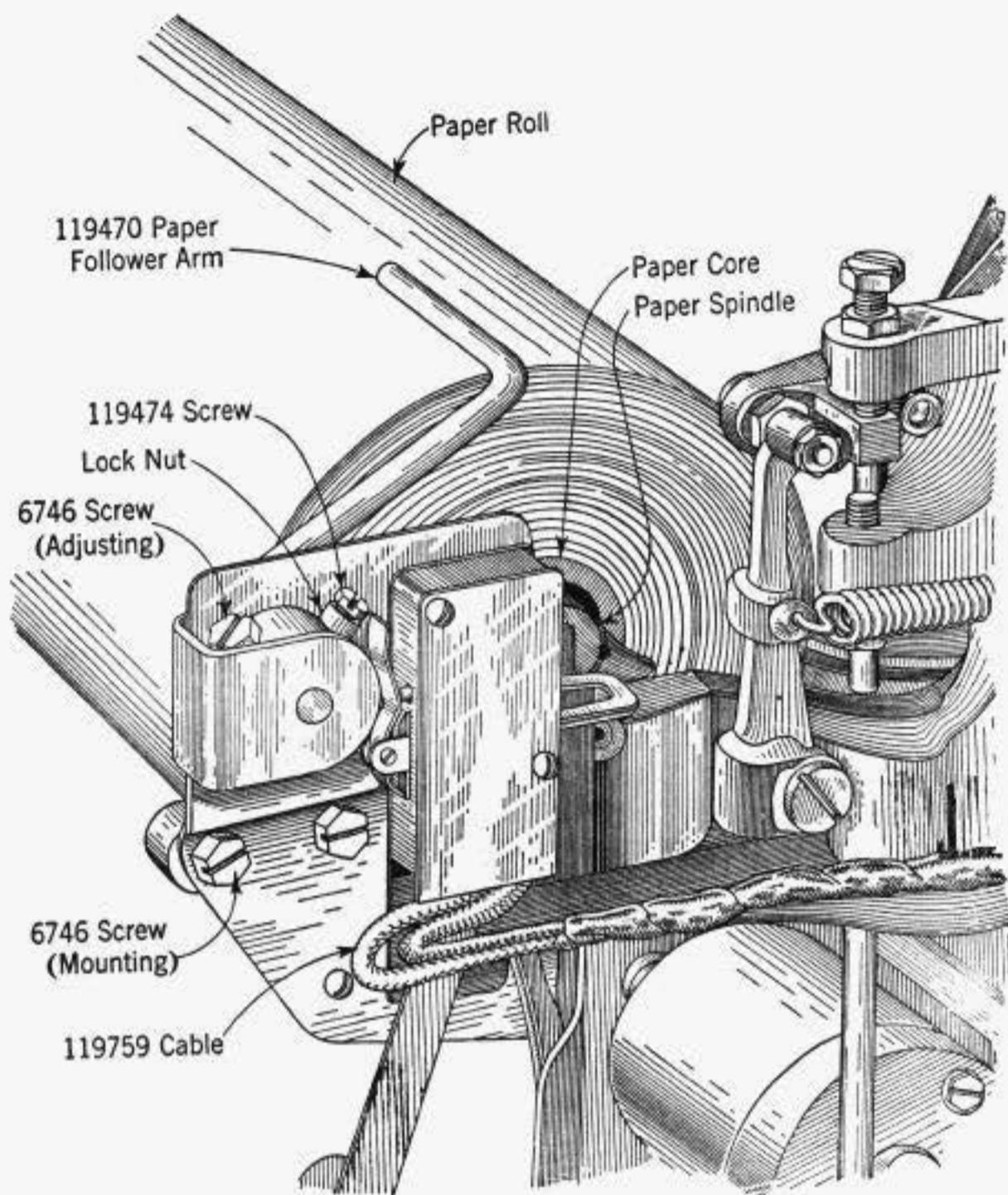


Fig. 2

2.02 Solder the two leads of one end of the TP119759 cable to the switch.

Note: The rear and center terminals of the switch are for the "make" contacts and the front and center terminals are for the "break" contacts.

2.03 Route the TP119759 cable along the teletypewriter frame down to the typing unit connecting block and tie the cable to the frame wherever necessary.

2.04 Solder the remaining ends of the cable to the typing unit connecting block terminals which are to be used.

2.05 When Terminals 109 and 110 or 111 and 112 are to be used, mount the TP8884 terminal block with the TP74946 insulator adjacent to the existing typing unit terminal block by means of the two TP72508 screws, TP2191 lock washers, and TP7002 washers furnished.

2.06 Mount the two TP7094 connection springs to the base in Positions 109 and 110 or 111 and 112 by means of the four TP6811 screws, TP2191 lock washers, and two TP7095 spring plates in the same manner as the existing base connection springs.

### **3. ADJUSTMENTS (FIG. 2)**

#### **Switch Plunger Overtravel Adjustment**

3.01 Adjust the TP119474 screw which cams the switch operating bracket to just actuate the switch. Then loosen the screw an additional one-half turn for overtravel of the pin plunger. Tighten the lock nut.

#### **Paper Follower Arm Adjustment (Applies to Both the Wood and Metal Paper Roll Spindles)**

(a) This adjustment is for operating the switch when the paper supply is reduced to approximately 10 to 15 feet on the roll.

(b) The paper follower arm is adjusted by positioning its collar. To adjust, unhook the spring from its spring post, loosen the TP6746 hexagonal head screw and position the arm and collar so that the switch will be operated when the paper follower arm is approximately 1/4 inch above the paper spindle. (Two TP95367 wrenches equaling approximately 1/4 inch may be placed on the empty paper spindle for clearance in adjusting.) Tighten the TP6746 screw and rehook the spring to its post. Make certain that the switch will be operated when the paper follower arm reaches a distance of 1/8 inch (thickness of one wrench) from the paper spindle.

#### **Paper Follower Arm Spring Tension**

Note: Remove the paper roll from the spindle before measuring this spring tension.

3.02 Hook an 8-ounce scale under the paper follower arm where the arm comes in contact with the paper and pull vertically upward. It should require from 1 to 3 ounces to pull the arm to its horizontal position.

### **4. LUBRICATION**

4.01 One drop of KS-7471 oil at the paper follower arm hub.