

INSTRUCTIONS FOR INSTALLING PAPER WINDER ON
MODEL 15 PRINTER COVER, THE 129428 MODIFICATION KIT
TO PROVIDE REVERSE OPERATION OF MODEL 15
PAPER WINDER, AND THE 104851 MODIFICATION KIT
(100 OHM RESISTOR) ON EITHER A WOODEN OR ALL-METAL TABLE

1. GENERAL

- a. The purpose of the paper winder is to automatically wind the printed copy on a paper spindle as it emerges from the cover of a Model 15 printer.
- b. The 104851 modification kit (100 ohm resistor) is furnished with certain paper winders when it is desired to operate these units on 110 volts D.C. or 25 cycle A.C.
- c. The 129428 modification kit provides a means for reversing rotation of Model 15 paper winder to allow the use of two-copy paper with interleaved carbon. The original copy is torn off and the carbon copy is wound up. The carbon passes over the top of the winder and accumulates in a basket to the rear.
- d. For part numbers referred to in the following text, other than those listed in the 129428 modification kit, refer to the Teletype Paper Winder Parts Bulletin.
- e. The following mounting parts, etc. are furnished with the paper winder (in bag attached to the unit):

2	2201	Nut 5/16-32 Hex.	2	4814	Washer, Lock
2	3438	Washer, Flat	2	7099	Screw 10-32 Thumb
2	3900	Bushing	4	104473	Bushing (Not furnished with winder for 8½" paper)

- f. The 104851 modification kit consists of:

2	2669	Washer, Lock	1	104850	Base
2	6810	Screw 10-32 x 5/8 Hex.	2	112626	Nut 10-32 Hex.
1	104849	Resistor - 100 ohm	2	125140	Screw #8 Wood

- g. The 129428 modification kit consists of:

1	92115	Screw 8-32 x 3/16 Socket	1	129430	Gear (Helical) L.H.
1	129429	Gear (Spiral) W/Hub - L.H.	1	138166	Screw 8-32 x 1/8 Socket

2. INSTALLATION

- a. TYPING UNIT PRESSURE ROLLERS

(1) If narrow paper is used, the pressure rollers which do not bear on the paper should be removed and replaced by the 104473 bushings. To install the 104473 bushings proceed as follows:

(2) Remove the type bar carriage from the typing unit. Unhook the line feed detent lever spring from its spring post. Back off the three set screws (located in the right-hand hub of the platen) that hold the platen to its shaft. Withdraw the platen shaft and remove the platen. Unhook the two tape chute springs from their spring posts. Loosen the pressure roller release lever shaft set screws and withdraw the shafts sufficiently to release the paper chute; remove the chute. Remove from their shafts, the front and rear pressure rollers that do not bear on the paper and replace them by the 104473 bushings.

(3) Replace the paper chute and position the pressure roller release lever shafts so that their outer ends project not more than 1/32" beyond the outer surfaces of the paper chute; tighten the release lever shaft set screws. Replace the platen and platen shaft, making sure that the platen set screws are properly seated in the indents of the shaft. Rehook the line feed detent lever spring. Replace the carriage.

(4) The pressure roller tension spring requirement should be increased to 6-1/2 to 7 lbs. Apply standardized adjusting procedure.

b. MOUNTING THE PAPER WINDER ON THE PRINTER COVER

The Model 15 printer cover on which the winder is to be mounted must be drilled in accordance with Figure 1, which may be used as a template, and the 3900 bushings should be secured in the holes with the two 4814 lock washers and 2201 nuts, being careful not to tighten the nuts too much, as excessive tightening will distort the bushings. Mount the paper winder on top of the cover (with the motor to the left when looking at the front of the Model 15 printer cover) by means of the two 7099 thumb screws and 3438 washers, and before tightening the thumb screws, position the paper winder so that the spindle lines up with the paper as it leaves the platen. Caution should be exercised in tightening the thumb screws as excessive tightening may possibly buckle the mounting plate and bind the paper spindle. The paper should be fed under the paper winder slack rod and then inserted into the paper spindle slot.

c. WIRING

The power cord with receptacle should be connected to the terminal blocks of the Model 15 printer base, and the proper strap should be removed from the motor resistors in accordance with the instructions on the attached Wiring Diagram 1543WD. (For wiring information pertaining to the 104851 modification kit refer to paragraph "d. (3)" below).

d. 104851 MODIFICATION KIT

(1) For application on a wooden table, the 104849 resistor together with the 104850 base should be mounted in an appropriate location selected by the installer, using the two 125140 wood screws.

(2) For application on an all-metal table, the 104849 resistor together with the 104850 base should be mounted in an appropriate location

selected by the installer, using the two 6810 screws, 2669 lock washers and 112626 nuts.

(3) The 104849 resistor should be connected in series with one of the power leads of the paper winder, as shown on the attached Wiring Diagram 1543WD. It is understood that the cord for the connection of this resistor will be furnished by the installer.

e. 129428 MODIFICATION KIT

(1) Disconnect the plug from the power supply and remove the 101021** cover by removing one 8543 screw and by backing off two 8543 screws (the cover has two slotted mounting holes).

(2) Depress the 93639 latch and remove the paper winder sprindile from its mounting to facilitate installation of the new parts.

(3) Remove the four 6810 screws, 3438 washers and 2382 lock washers which retain the 114684 motor to the 102490** bracket, being careful not to loosen any electrical connections.

(4) Remove the end thrust screw, nut and ball bearing from the gear housing, being careful not to lose the bearing. See Figure 2 for location of parts.

(5) Remove the gear housing from the motor end bell by removing three screws, being careful not to damage or lose the gasket, then remove all excess grease from the pinion and motor end bell. See Figure 2 for location of parts.

(6) Remove the gear housing cover by removing three screws, being careful not to damage or lose the gasket, then remove all grease from the gear housing. See Figure 2 for location of parts.

(7) Drive out and discard the pins which retain the pinion to the motor shaft and the fiber gear to the gear housing shaft. Remove and discard both gears.

(8) Install the 129429 fiber gear on the gear housing shaft using the 92115 set screw. Do not tighten the screw fully at this time.

(9) Install the 129430 pinion gear on the motor shaft using the 138166 set screw. Do not tighten the screw fully at this time.

(10) Reinstall the gear housing and gasket on the motor end bell.

(11) Reinstall the end thrust ball bearing, screw and nut. Turn in the screw until the motor shaft has only 1/32" end play, then tighten the nut.

(12) Looking through the opening provided by the removal of the gear housing cover, position either the pinion gear or the fiber gear so that the teeth of the fiber gear engage the teeth located in the middle section of the pinion. Check to see that there are no binds, then tighten the set screw of each gear (tightening of the fiber gear set screw may be accomplished by

removing the lubricating hole screw, shown on Figure 2, and inserting the Allen wrench through the lubricating hole). Reinstall the gear housing cover and gasket. The lubricating hole screw need not be replaced until the gear housing is filled with grease as specified in paragraph e.(14).

(13) Remount and position the motor on the bracket so that the gear housing shaft is in line with the spindle cradle at the other end of the paper winder bracket.

(14) Lubricate the gears as specified (under "LUBRICATION") in this specification.

(15) Reinstall the spindle and check the alignment and the Paper Spindle Shaft End Play Adjustment as specified (under "ADJUSTMENTS") in this specification.

(16) Plug in and start the winder. Observe the operating characteristics and be sure that there are no binds and that the motor runs quiet and does not overheat.

(17) Reinstall the 101021** cover.

3. ADJUSTMENTS

a. Paper winders for use on Model 15 printer covers are completely adjusted and checked at the factory. The following adjusting information is furnished as a convenience for the attendant who desires to check the adjustments or to readjust the unit (for Bell System refer to standardized adjustment information).

(1) PAPER SPINDLE SHAFT END PLAY

When all the play of the shaft has been taken up in the direction away from the motor unit, there should be approximately $1/32$ " clearance between the shoulder on the shaft and the friction drive assembly. The left end of the shaft should touch the wick in the friction drive assembly. To adjust, position the bearing bracket by means of its elongated mounting holes to obtain the required clearance.

(2) SLACK ROD LEVER SPRING TENSION

Hook a 32 oz. scale under each slack rod lever at the spring hole and pull in line with the spring. It should require 19 to 23 ozs. to start each lever moving.

NOTE: BE SURE THAT THE MOTOR RESISTORS ARE WIRED FOR PROPER VOLTAGE IN ACCORDANCE WITH THE INSTRUCTIONS ON ATTACHED WIRING DIAGRAM 1543WD BEFORE RUNNING THE MOTOR.

(3) FRICTION CLUTCH TORQUE

After the paper winder has been running with the spindle held stationary for at least ten minutes, hook an 8 oz. scale in the slot of the paper spindle. It should require 5 to 7 ozs. to hold the paper spindle stationary against rotation by the motor. To adjust, loosen the lock nut and adjust the capstan

nut to obtain the foregoing requirement, then tighten the lock nut.

(4) PAPER SPINDLE SHAFT LATCH SPRING TENSION

With the paper spindle removed, hook a 32 oz. scale over the spring post on the latch and pull horizontally toward the rear. It should require 22 to 30 ozs. to start the latch moving.

(5) PAPER SPINDLE CYLINDER REGULATING BUSHING

A regulating bushing and set screw have been added to the paper spindle shaft. It provides an adjustment feature (by positioning it at a desired spot on the shaft) to control the effort required to push the hub of the right-hand flange into the cylinder, or to remove it. The bushing is positioned at the factory to provide the minimum effort. This bushing may be added to older units, if so desired. The bushing and its associated screw may be ordered as follows:

119535	Bushing - Regulating	1
82440	Screw	1

4. LUBRICATION

a. Unless otherwise specified, one or two drops of oil at each of the places indicated will be sufficient. Use oil for lubrication at all of the places in the following list, except where the use of grease is specified:

(1) Upper motor bearing and gear - remove the lubricating hole screw located on top of the gear housing and fill the housing with grease, then replace the screw.

(2) Lower motor bearing - saturate the wick.

(3) Friction clutch felt washers - separate the disks and saturate the washers.

(4) Friction clutch assembly wick - saturate the wick.

(5) Shaft bearing in bearing bracket.

(6) Bearing bracket latch shoulder screw.

(7) Slack rod bearing - two.

(8) Slack rod lever shoulder screws - two.

(9) Spindle driving pin - at point of contact with friction drive fork.

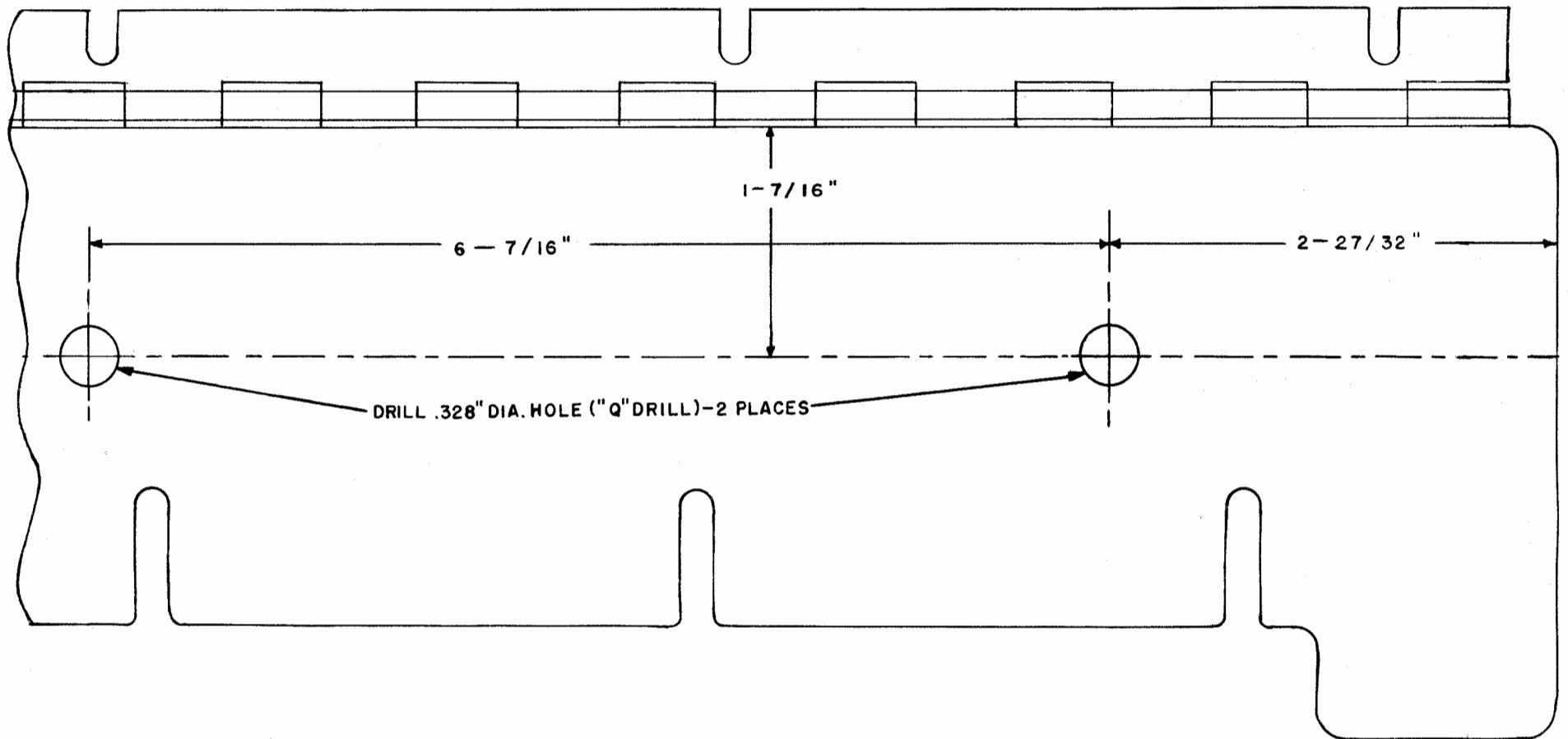


FIGURE I. (MAY BE USED AS A TEMPLATE)

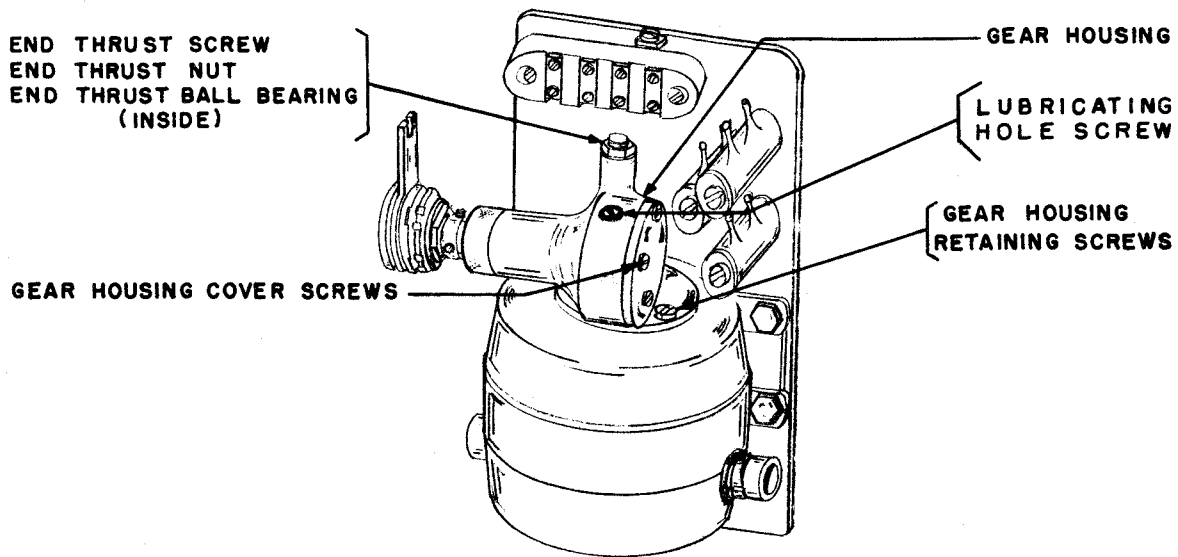
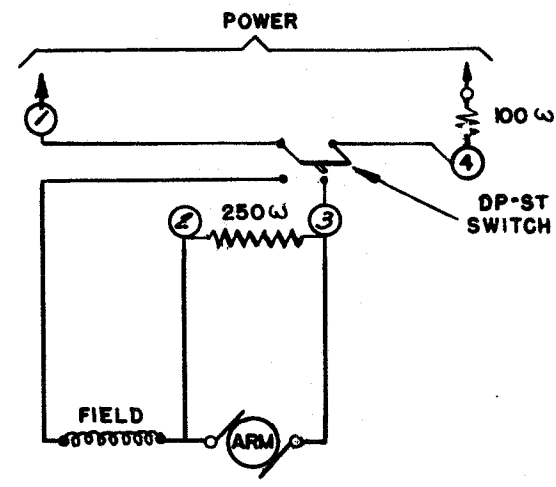


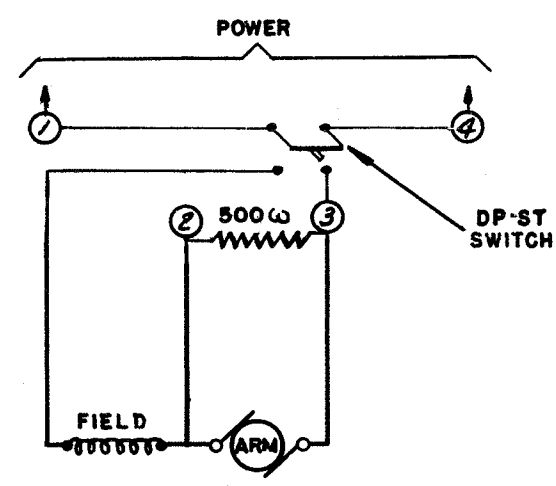
FIGURE 2

REVISIONS	
(G)	ADDED 104851 SET OF PARTS. REMOVED 100W RESISTOR. 9-15-42 G.J.K
(H)	1-16-48 43689
(I)	11-9-48 45886
(J)	1-6-49 46379
(K)	4-15-49 47229
(L)	11-16-55 62153

SCHEMATIC
25 CYCLE 110 V.A.C. OR 110 V. D.C. OPERATION.
(NOTE B)

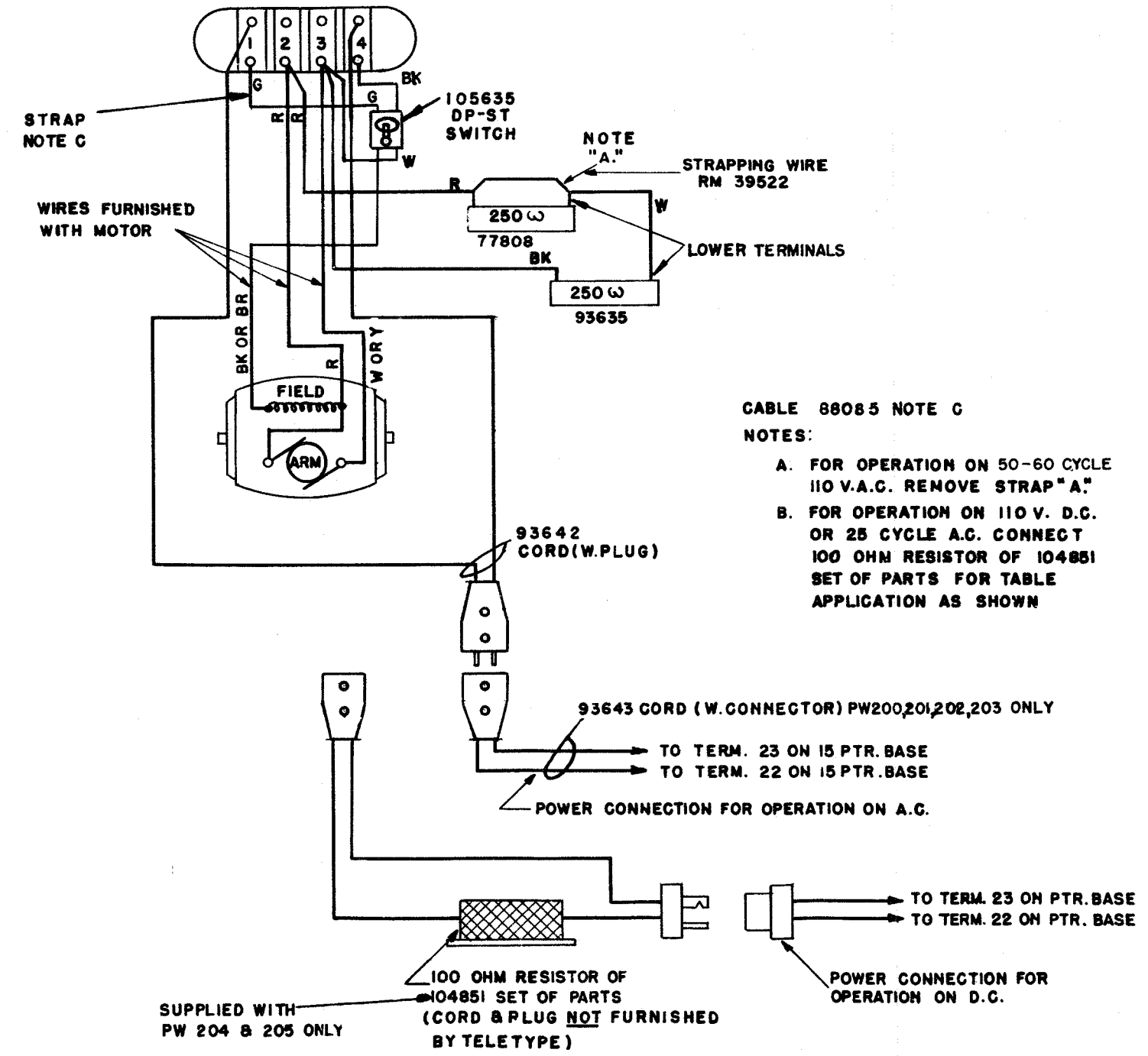


SCHEMATIC
50-60 CYCLE 110 V.A.C. OPERATION



NOTE C
88085 CABLE HAS BEEN REDESIGNED FOR USE WITH DP-ST SWITCH. WHEN UNITS EQUIPPED WITH SINGLE POLE SWITCHES ARE CHANGED TO DP-ST SWITCHES, IT MAY BE NECESSARY TO ADD STRAP AS SHOWN.

ACTUAL



CABLE 88085 NOTE C
NOTES:
A. FOR OPERATION ON 50-60 CYCLE 110 V.A.C. REMOVE STRAP "A."
B. FOR OPERATION ON 110 V. D.C. OR 25 CYCLE A.C. CONNECT 100 OHM RESISTOR OF 104851 SET OF PARTS FOR TABLE APPLICATION AS SHOWN

93642 CORD (W. PLUG)
93643 CORD (W. CONNECTOR) PW200,201,202,203 ONLY
TO TERM. 23 ON 15 PTR. BASE
TO TERM. 22 ON 15 PTR. BASE
POWER CONNECTION FOR OPERATION ON A.C.
100 OHM RESISTOR OF 104851 SET OF PARTS (CORD & PLUG NOT FURNISHED BY TELETYPE)
SUPPLIED WITH PW 204 & 205 ONLY
TO TERM. 23 ON PTR. BASE
TO TERM. 22 ON PTR. BASE
POWER CONNECTION FOR OPERATION ON D.C.

TELETYPE CORPORATION
WD 1543-
WIRING DIAGRAM
PAPER WINDERS
PW 200,201,202,
203,204,205
FILE 1 39. A2A
DRAWN C.W.B.
TRACED L.C.A.
CHECKED C.W.B.-REZ
ENG'D C.W.B.
APPROVED C.W.B.