

**BELL SYSTEM PRACTICES**  
**Teletypewriter and Data Stations**

**SECTION P34.301**  
**Issue 8, December, 1962**  
**AT&TCo Standard**

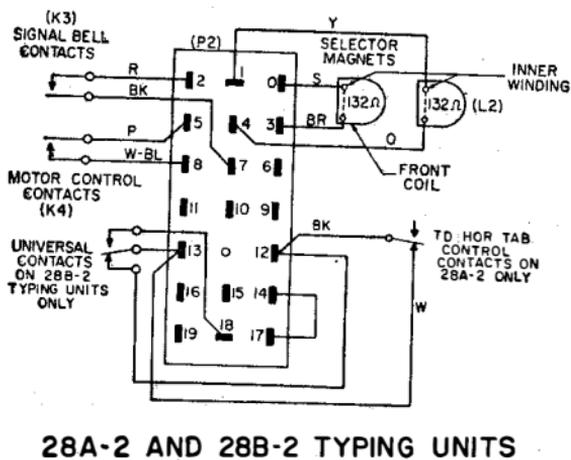
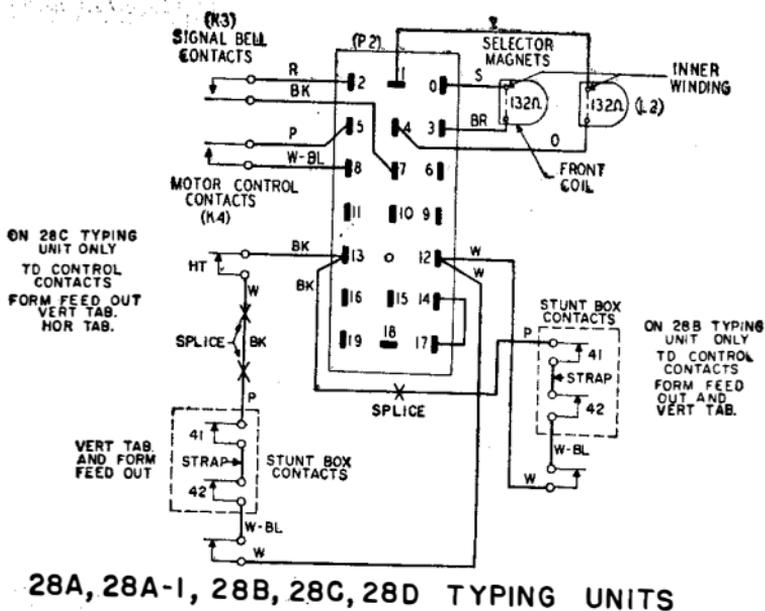
## **28-TYPE TELETYPEWRITER**

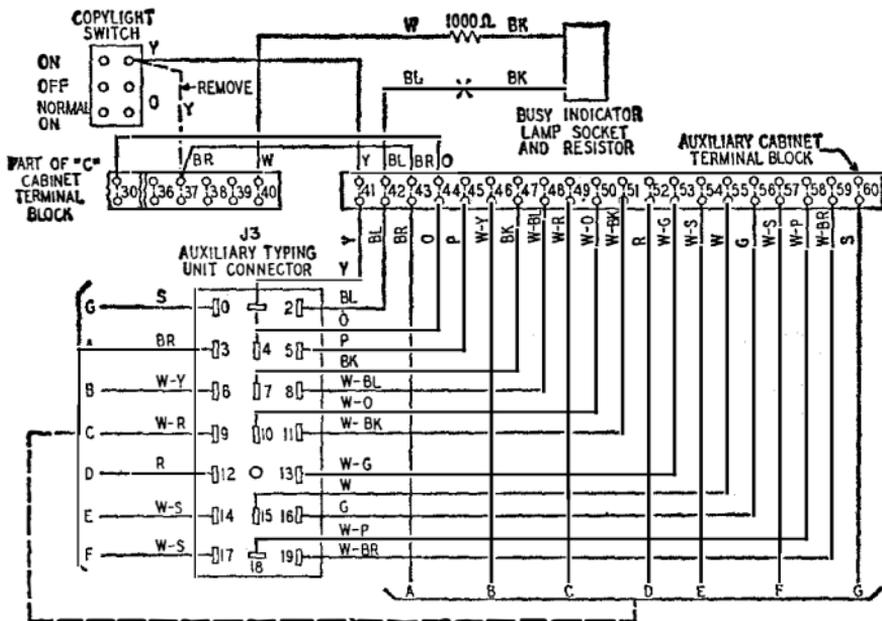
### **TYPING UNIT, MOTOR UNIT AND BASE**

### **WIRING DIAGRAM**

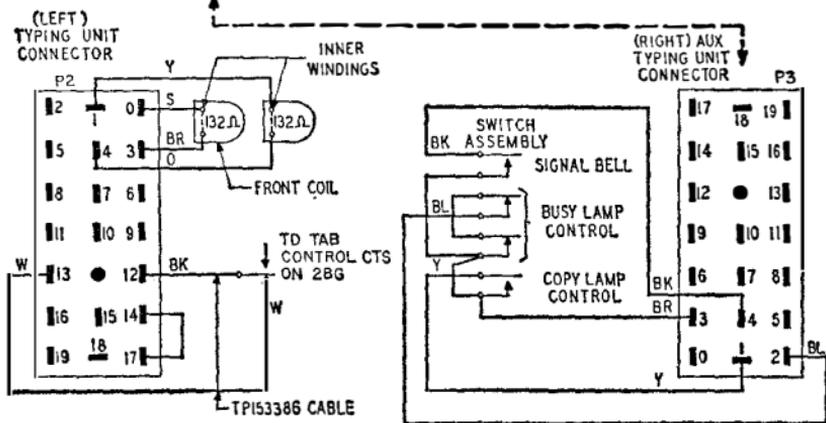
#### **1. GENERAL**

- 1.01 This section shows the wiring diagram of the 28-type typing units, motor units and teletypewriter bases.
- 1.02 This section is reissued to add the wiring of the 28J, 28J-1, 28U, 28W, 28AB, 28AC, 28LF typing units, and the 28H and 28H-1 teletypewriter bases. The drawing showing the wiring of the 28L, 28S and 28T typing units has been reissued to add horizontal tabulation contacts, vertical tabulation and form feed-out contacts. Note 2 has been added to the drawing showing the wiring of the 28LB, 28LC, 28LD, 28LE and 28LF typing units.





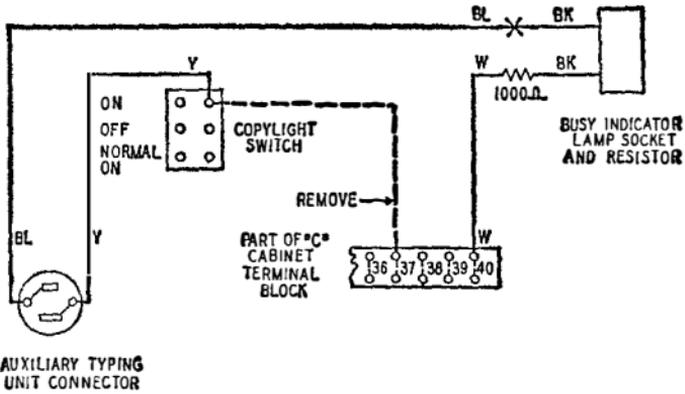
MODIFICATION OF WIRING OF 28B, C, D & E TTY CABINETS  
USING PARTS FURNISHED WITH 28E, F, & G TYPING UNITS



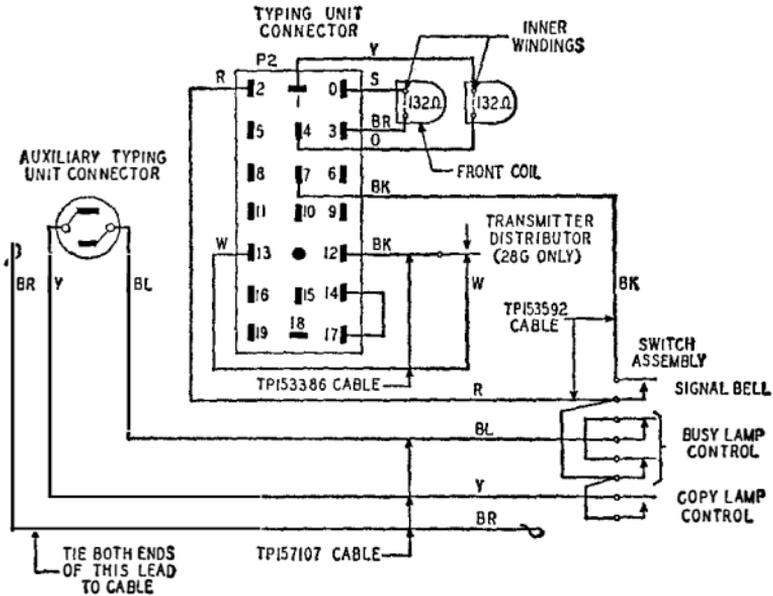
28E, F & G TYPING UNITS

28-TYPE TELETYPEWRITER  
TYPING UNIT,  
MOTOR UNIT  
AND BASE  
WIRING  
DIAGRAM

P34.301



**MODIFICATION OF WIRING OF 28 TTY CABINET  
USING PARTS FURNISHED WITH 28E, F & G TYPING UNITS  
AUGUST 1955 PRODUCTION**



**28E, F & G TYPING UNITS  
WIRING FOR UNITS AUGUST 1955 PRODUCTION**

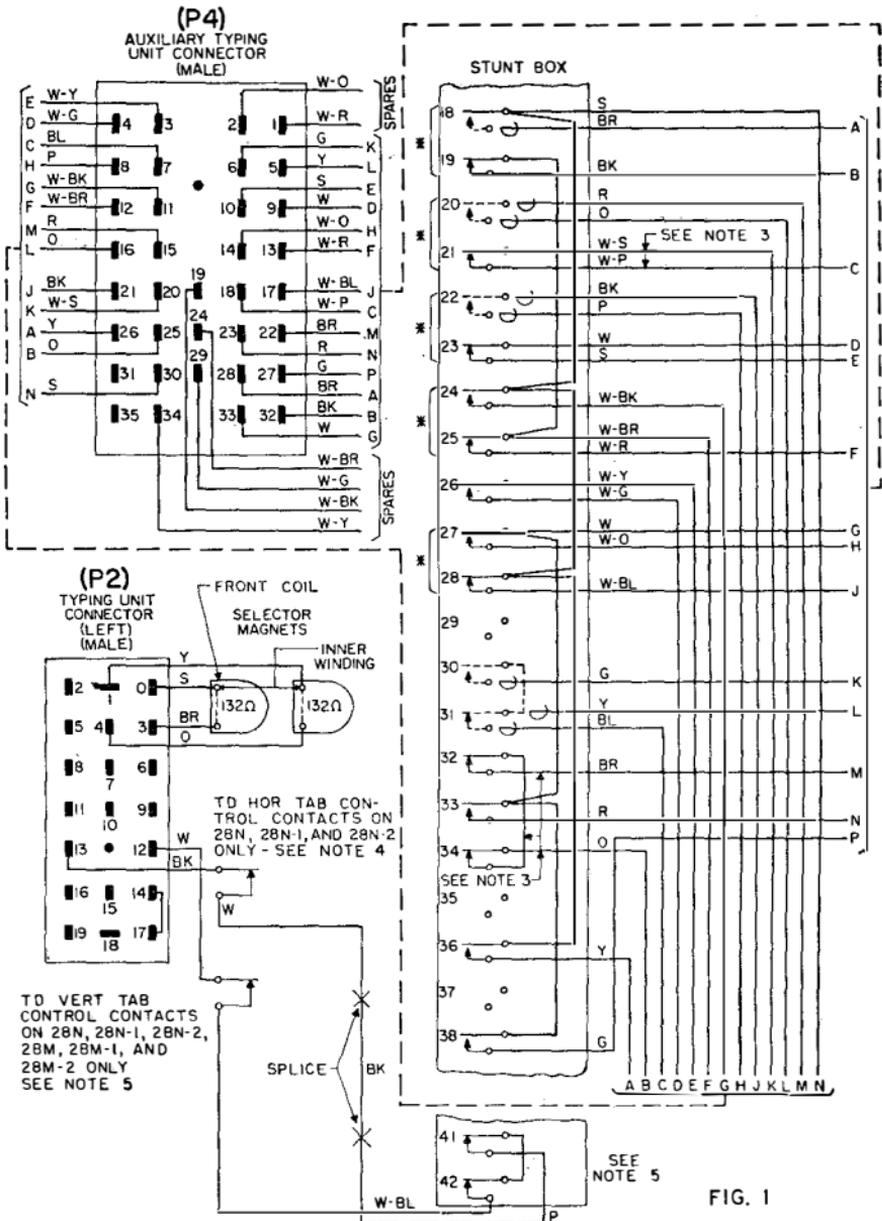


FIG. 1

**28H, 28H-1, 28H-2, 28M, 28M-1, 28M-2, 28N, 28N-1, 28N-2  
Typing Units**

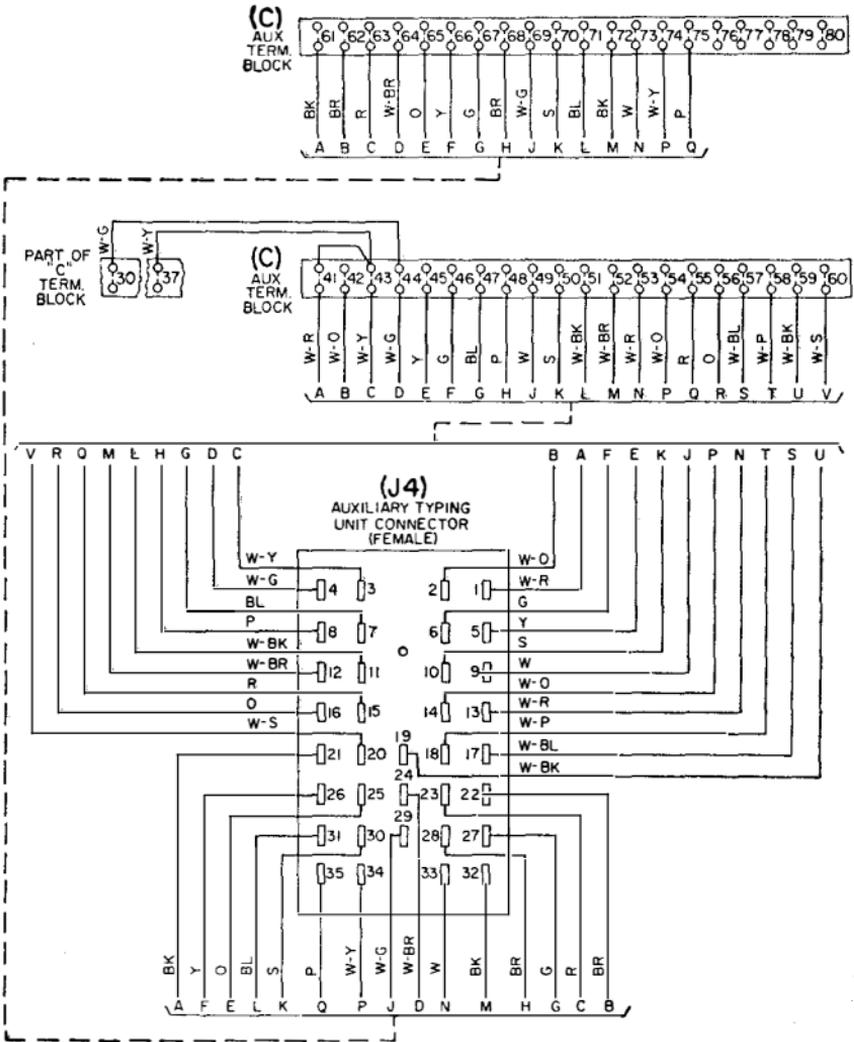


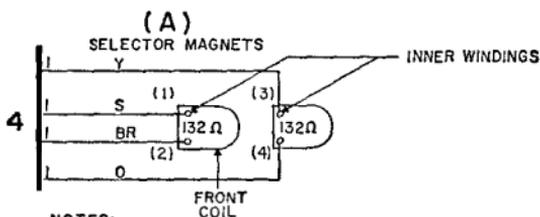
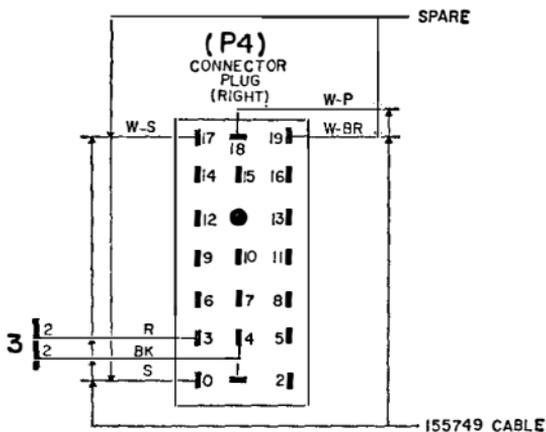
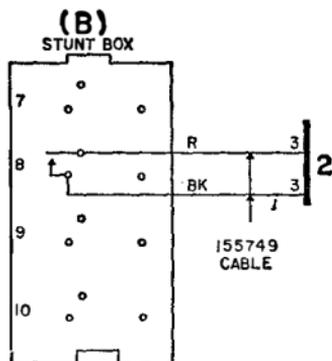
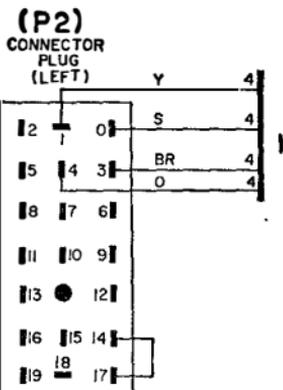
FIG. 2

28H, 28H-1, 28H-2, 28M, 28M-1, 28M-2, 28N, 28N-1, 28N-2  
Typing Units

**NOTES•**

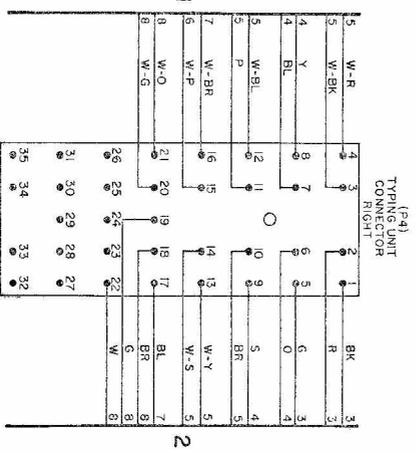
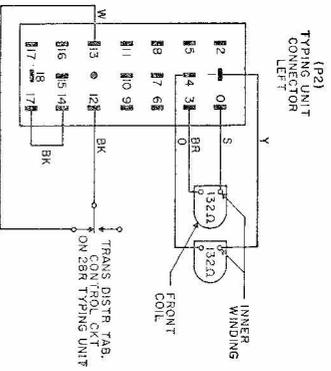
1. \* BOTH CONTACTS OF A PAIR OPERATE FROM THE FUNCTION LEVER IN THE HIGHER NUMBER SLOT.
2. DOTTED CONTACTS ARE OPTIONAL AND ARE PROVIDED WHEN SPECIFIED. WIRING IS RUN FOR ALL OPTIONAL FEATURES.
3. THESE LEADS NOT REQUIRED ON 28N-1 OR 28N-2 TYPING UNITS. THEY ARE TO BE TAPED AND TIED BACK TO CABLE. OMIT STRAP BETWEEN CONTACTS 32 AND 34.
4. TD HORIZONTAL TABULATION CONTROL CONTACTS ARE PART OF 28N, 28N-1, AND 28N-2 TYPING UNITS ONLY. ON 28M, 28M-1, AND 28M-2 THE WHITE WIRE CONNECTED TO ONE SIDE OF THESE CONTACTS IS CONNECTED TO TERMINAL 13 ON THE (P2) CONNECTOR.
5. TD VERTICAL TABULATION CONTROL CONTACTS AND FORM FEED OUT CONTACTS WITH ASSOCIATED WIRING ON STUNT BOX (41 AND 42) ARE PART OF 28M, 28M-1, 28M-2, 28N, 28N-1, AND 28N-2 TYPING UNITS ONLY.

**28H, 28H-1, 28H-2, 28M, 28M-1, 28M-2, 28N, 28N-1, 28N-2  
Typing Units**

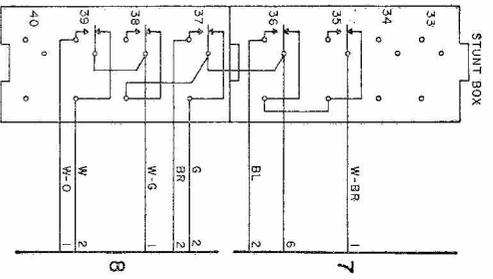
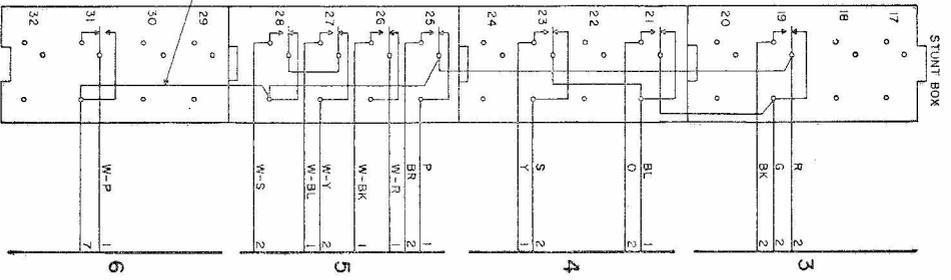


NOTES:  
1. LEADS NOT IDENTIFIED ARE RM STRAPPING WIRES, RM TUBING.

**28J and 28J-1 Typing Units**



28K, 28P, 28R, Typing Units



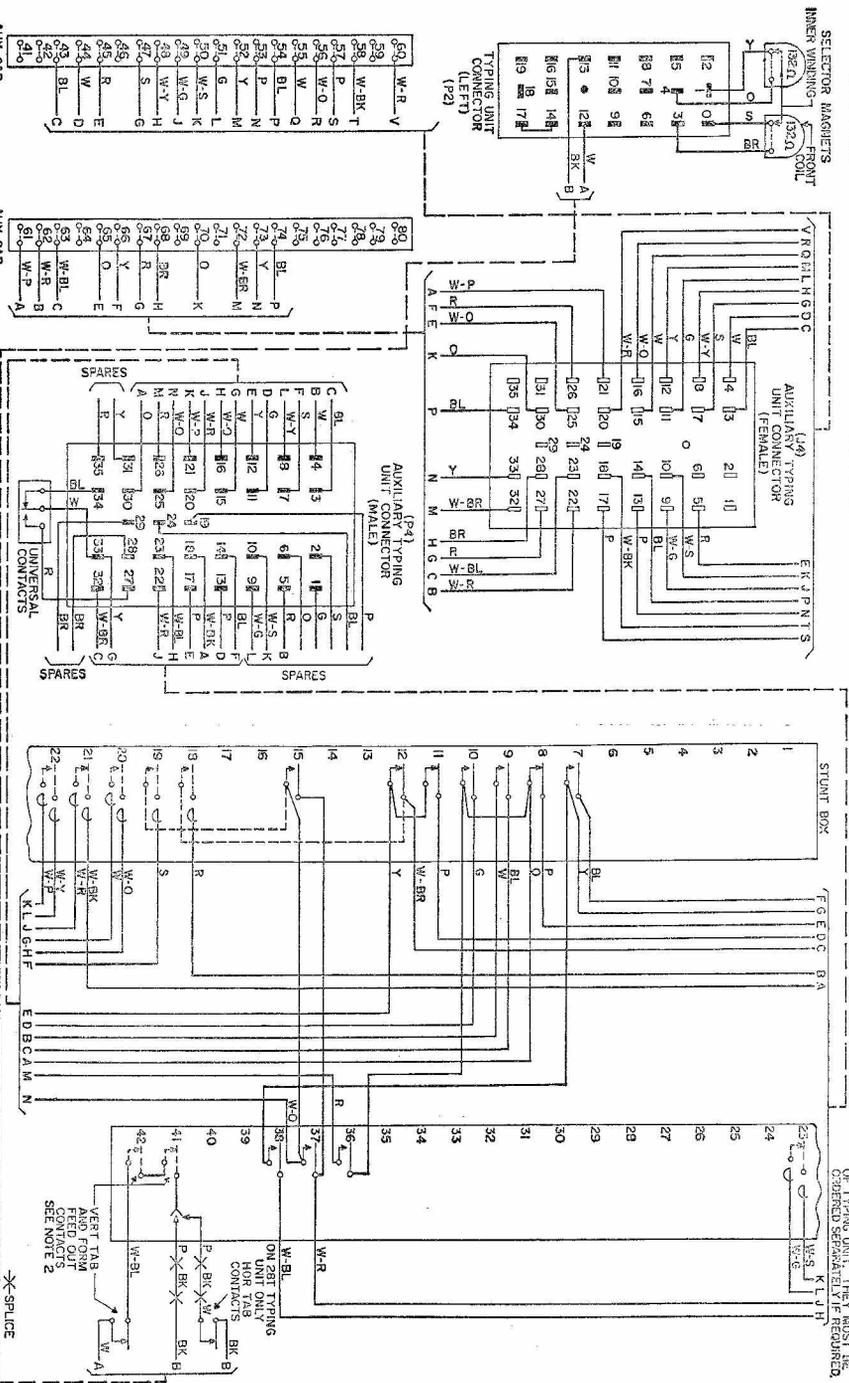
- NOTES:  
 1. LEADS NOT IDENTIFIED ARE RM STRAPPING WIRE, RM TUBING.  
 2. CONTACT ARM LIFTED BY FUNCTION LEVER  
 3. CONTACT ARM LOWERED BY FUNCTION LEVER  
 4. "FRONT" AND "REAR" REFER TO DIRECTIONS AS SEEN FROM THE KEYBOARD OR THE CORNER-POUND-ARM OF THE REAR CONTACT ARM. FOLLOW THE SAME FRONT AND REAR CONVENTIONS FOR SINGLE (NON-TRANSFER) CONTACTS.

- 1. CONTACT ARM LIFTED BY FUNCTION LEVER OPERATION**  
 ○ FRONT-MAKE  
 ○ CONTACT ARM  
 ○ REAR-BREAK
- 2. CONTACT ARM LOWERED BY FUNCTION LEVER OPERATION**  
 ○ FRONT-BREAK  
 ○ CONTACT ARM  
 ○ REAR-MAKE

**LEGEND**

"FRONT" AND "REAR" REFER TO DIRECTIONS AS SEEN FROM THE KEYBOARD ON THE CORRESPONDING FACE OF THE SEQUENCE SELECTOR. I.E. THE REAR CONTACT IS AT THE REGULATOR END CONVENTIONS FOR SINGLE (WIDTANGSSEN) CONTACTS.

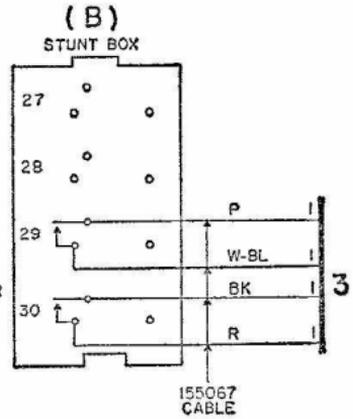
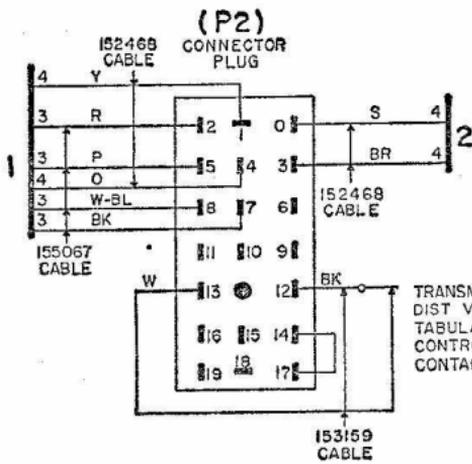
**NOTES:**  
 1. DOTTED CONTACTS ARE OPTIONAL AND ARE PROVIDED WHEN SPECIFIED FEATURES ARE ORDERED FOR ALL OPTIONAL FEATURES.  
 2. STUNT BOX CONTACTS SHOWN IN SLOTS 41 AND 42 ARE NOT PART OF THE STANDARD UNIT IF REQUIRED. ORDERED SEPARATELY IF REQUIRED.



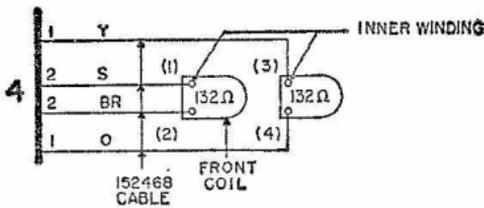
AUX. CAB. TERM. BLOCK (C)

AUX. CAB. TERM. BLOCK (C)

**281, 285 and 28T Typing Units**



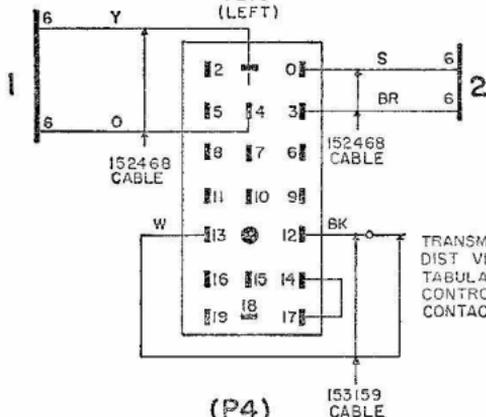
(A)



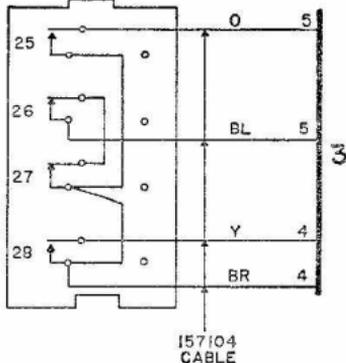
NOTES:  
1. LEADS NOT IDENTIFIED ARE RM STRAPPING WIRES, RM TUBING.

## 28U Typing Unit

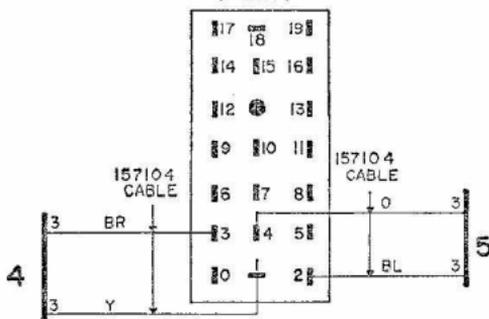
(P2)  
CONNECTOR  
PLUG  
(LEFT)



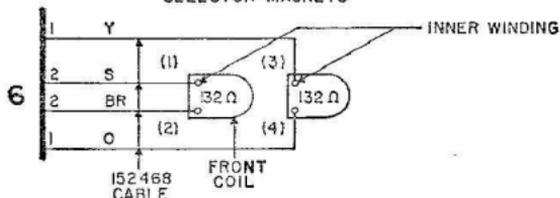
(B)  
STUNT BOX



(P4)  
CONNECTOR  
PLUG  
(RIGHT)



(A)  
SELECTOR MAGNETS

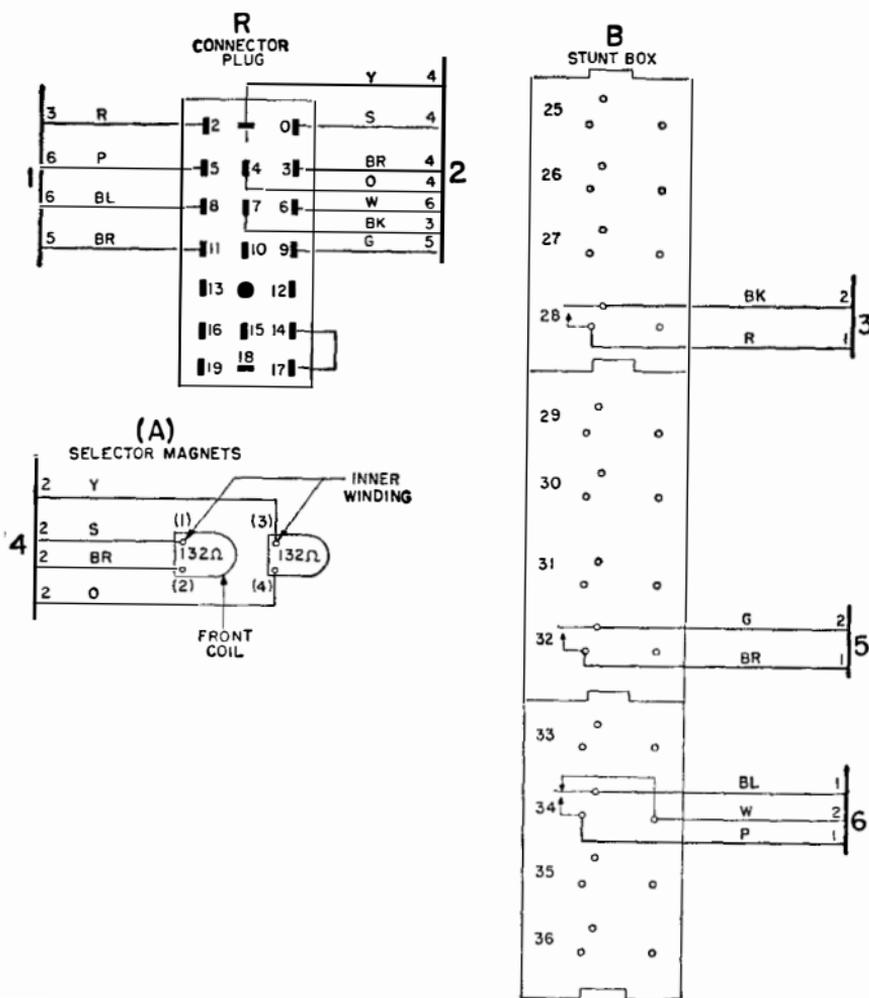


NOTES:

1. LEADS NOT IDENTIFIED ARE RM STRAPPING WIRES, RM TUBING.



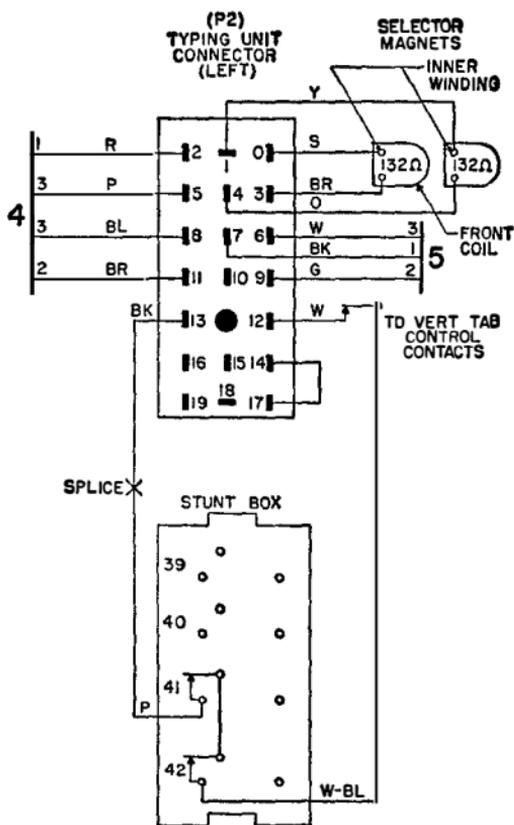
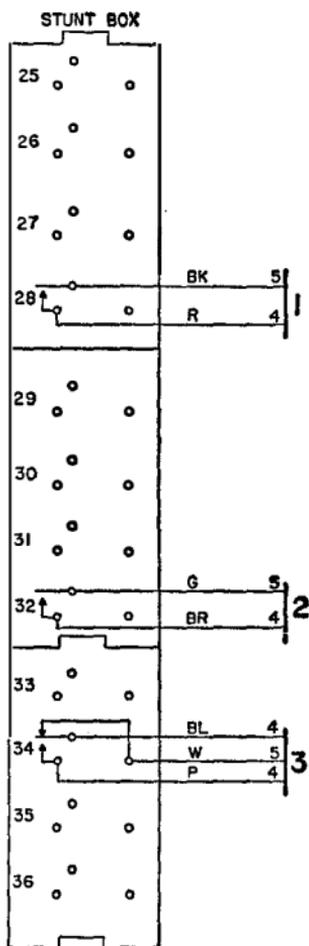




NOTES:  
 L LEADS NOT IDENTIFIED ARE RM STRAPPING WIRES, RM TUBING.

### 28AB and 28AD Typing Units

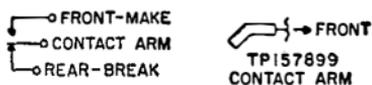
28-TYPE TELETYPEWRITER  
 TYPING UNIT,  
 MOTOR UNIT  
 AND BASE  
**P34.301** WIRING  
 Page 15 DIAGRAM



NOTES:

1. LEADS NOT IDENTIFIED ARE RM STRAPPING WIRE, RM TUBING.

2. CONTACT ARM LIFTED BY FUNCTION LEVER



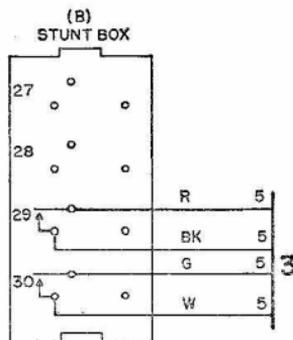
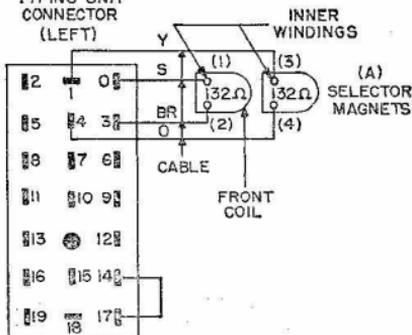
3. CONTACT ARM LOWERED BY FUNCTION LEVER



4. "FRONT" AND "REAR" REFER TO DIRECTIONS AS SEEN FROM THE KEYBOARD; I.E., THE REAR CONTROL IS AT THE INSULATOR END OF THE CONTACT ARM. FOLLOW THE SAME FRONT AND REAR CONVENTIONS FOR SINGLE (NON-TRANSFER) CONTACTS.

28AC Typing Unit

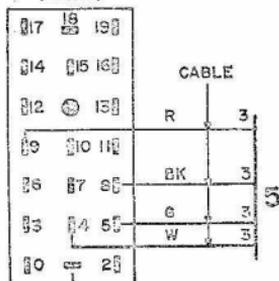
**P2**  
TYPING UNIT  
CONNECTOR  
(LEFT)



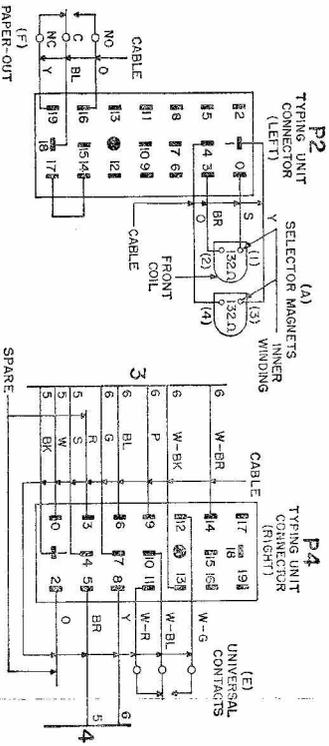
NOTES:

- LEADS NOT IDENTIFIED ARE RM STRAPPING WIRES, RM TUBING.

**P4**  
TYPING UNIT  
CONNECTOR  
(RIGHT)

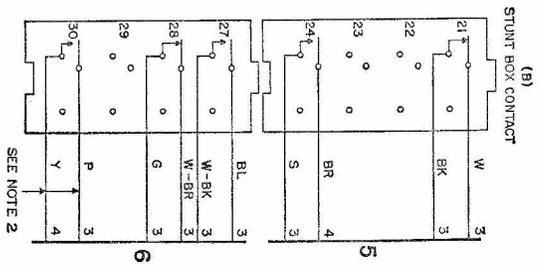


**26LA Typing Unit**

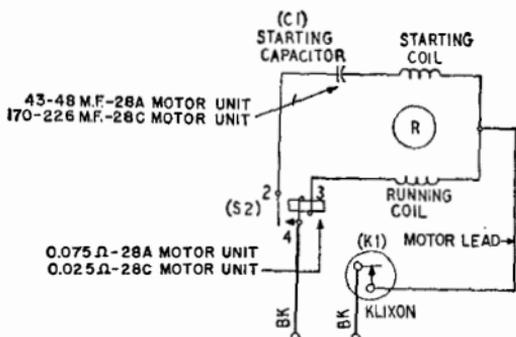


- NOTES:
- LEADS NOT IDENTIFIED ARE RM STRAPPING WIRE, RM TUBING.
  - ON 28LF TYPING UNIT, THE YELLOW AND PURPLE WIRES ARE TAPED AND TIED BACK.

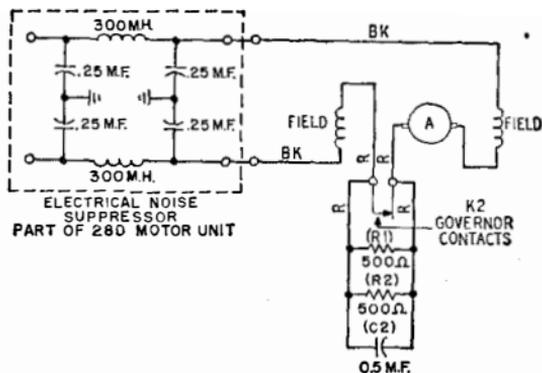
PAPER-OUT CONTACT (PART OF 28LB A 28LC TYPING UNIT)



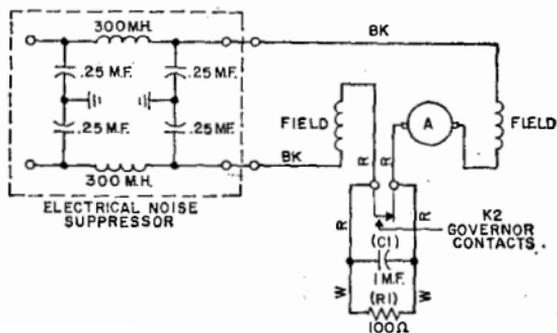
28LB, 28LC, 28LD, 28LE and 28LF Typing Units



## 28A AND 28C MOTOR UNITS



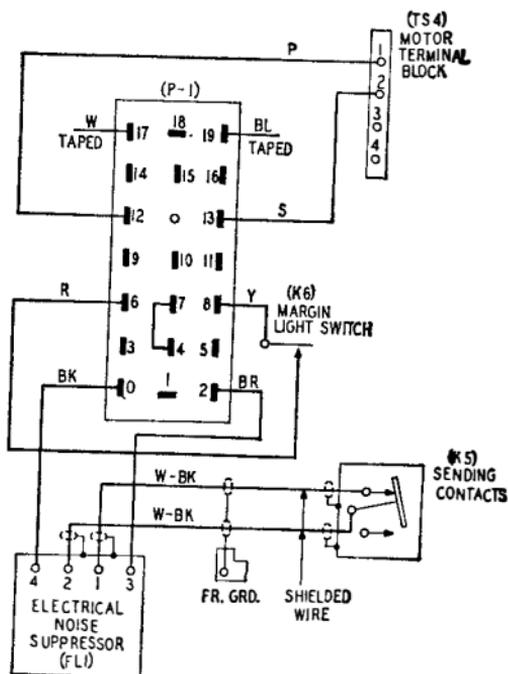
## 28B AND 28D MOTOR UNITS



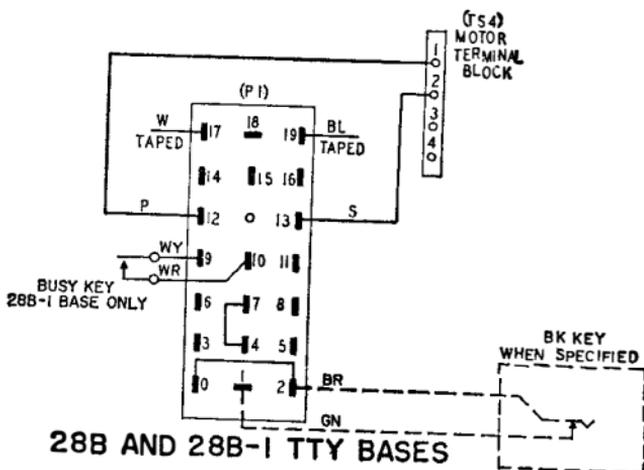
## 28E MOTOR UNIT

### NOTES:

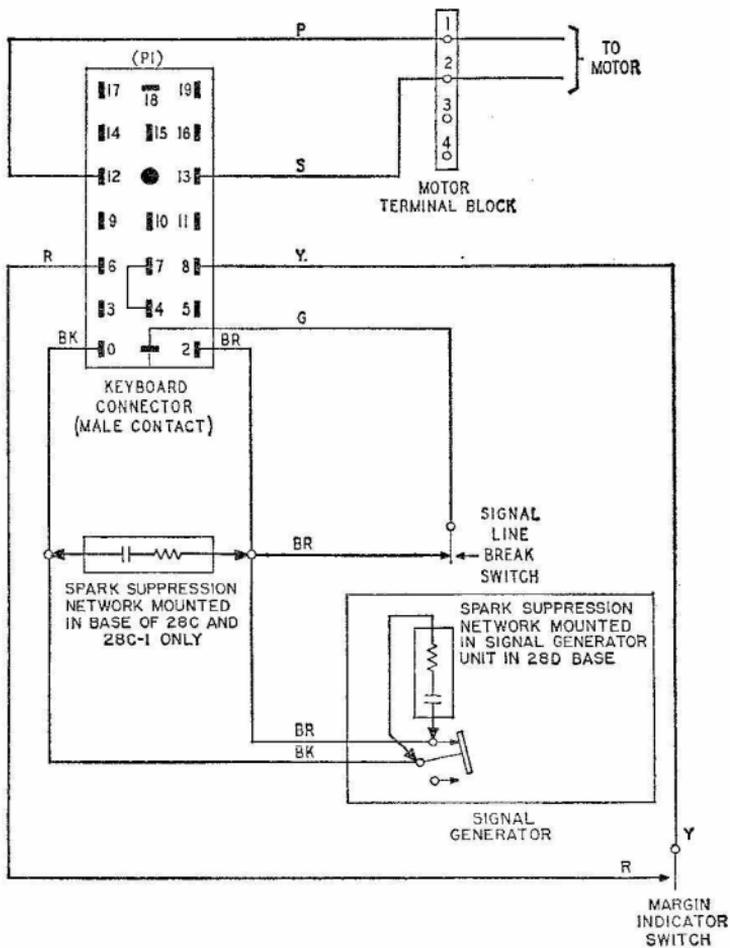
1. A TP91228 GROUND STRAP IS CONNECTED BETWEEN THE MOTOR FRAME AND A MOTOR MOUNTING SCREW
2. THE 28E MOTOR UNIT OPERATES ON 48V DC.



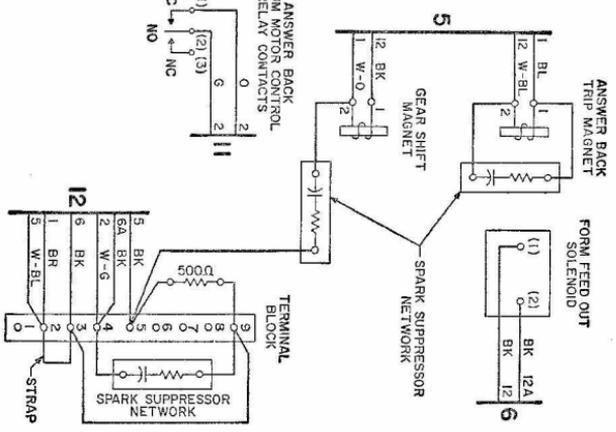
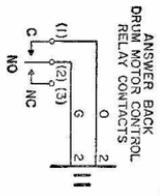
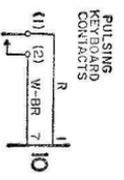
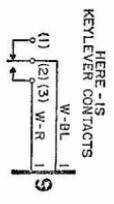
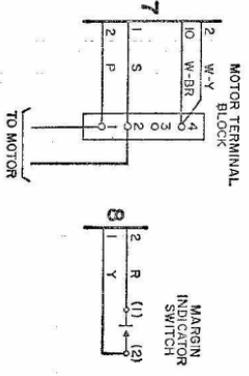
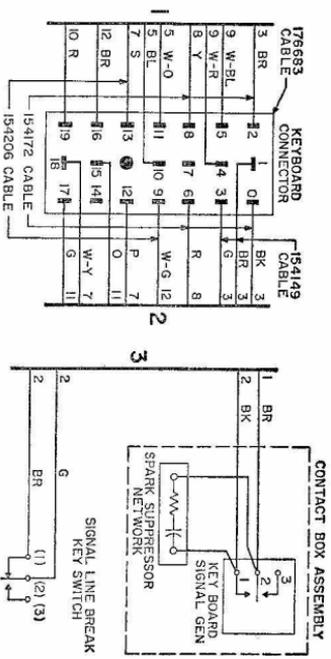
28A TTY BASE



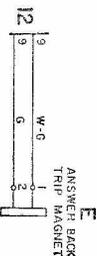
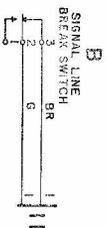
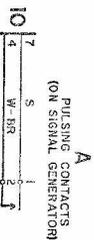
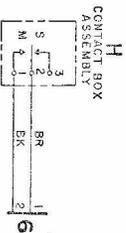
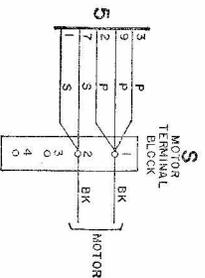
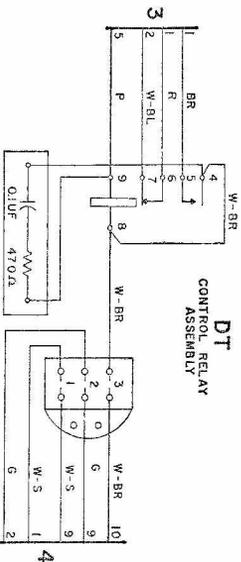
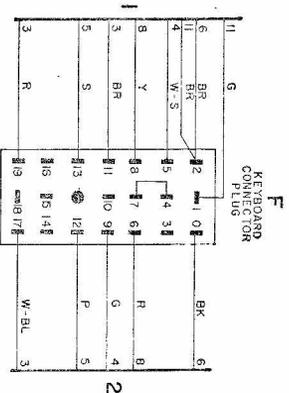
28B AND 28B-1 TTY BASES



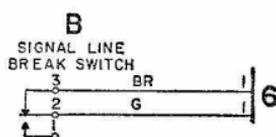
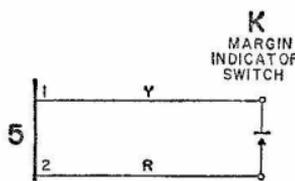
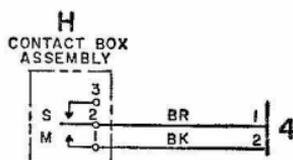
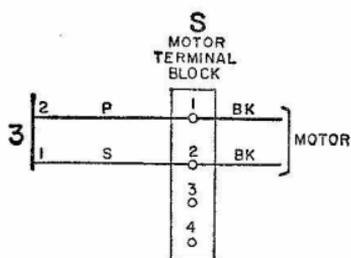
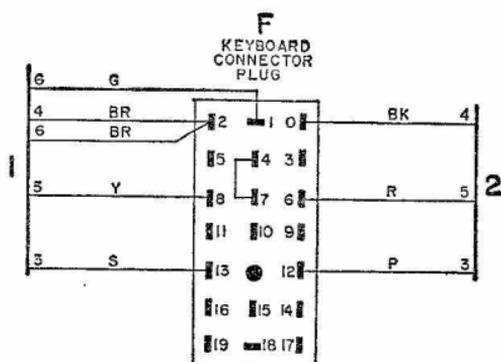
28C, 28C-1, 28D Teletypewriter Bases



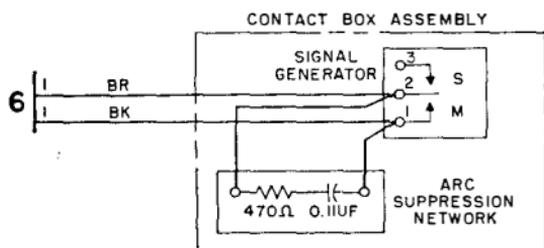
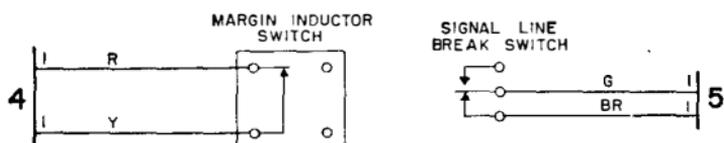
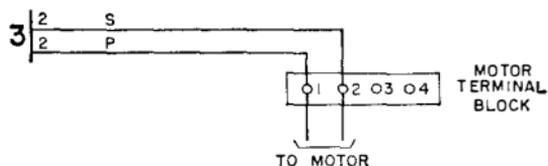
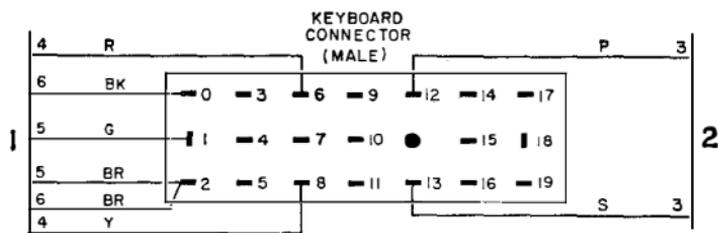
28G Teletypewriter Base



**28H Teletypewriter Base**



**28H-1 Teletypewriter Base**



## 28J Teletypewriter Base