

28 RECEIVING SELECTOR AND SENDING DISTRIBUTOR BASE

WIRING DIAGRAMS

1. GENERAL

1.01 This section shows the wiring of the receiving selector unit or sending distributor base used with the 28A, 28B, and 28C mounting and cover assemblies. These assemblies consist of a base, cover, and motor assembly.

1.02 This section is reissued to update the 28A wiring information, to include the 28B and 28C wiring, to change format, and to change title to more accurately reflect content.

1.03 A complete listing of wiring diagrams, which are attached as part of this publication, is presented in the diagram index. The index also lists the subject matter and current issue of each diagram.

1.04 Notes on the wiring diagrams explain symbols used and point out special conditions to be observed. These diagrams show the origin and termination of the various leads as well as the color coding of each of the leads for each of the components.

2. WIRING DIAGRAM INDEX (ATTACHMENTS)

TITLE	DIAGRAM NUMBER	SHEET NO.	WD ISSUE
Wiring Diagram for 28 and 35 Motor Units (LMU31 Part of Bell 28A and C, LMU3 Part of Bell 28B)	2900WD	CTRL 1 2	8 44 45
Wiring Diagram LRSB201 (Part of Bell 28A)	4705WD	1	5
Wiring Diagram LRSB203 (Part of Bell 28B)	7133WD	1	2
Wiring Diagram LRSB204 (Part of Bell 28C)	7299WD	1	4
Schematic Wiring Diagram for 28A and 28B Bases (LRSB 201, 202, 203)	No Number	1	1
Schematic Wiring Diagram for 28C Base (LRSB204)	No Number	1	1

SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO.																												SHEET NO.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
	1																													
	2																													
		29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	
	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												

SUPPORTING INFORMATION	
CATEGORY	NO.

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND UPDATED EACH TIME ANY SHEET OF THE DRAWING IS REISSUED OR A NEW SHEET IS ADDED.
3. THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NO.
5. ISSUE DATES WILL BE SHOWN ON THE SHEET INDEX ONLY.

REVISIONS		
ISSUE	DATE	AUTH. NO.
8	6-12-69	99366

ACTUAL WIRING DIAGRAM FOR MODEL 28 & 35 MOTOR UNITS

APPROVALS		
PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
ENGR. B. M. B.	DSGMR.	
DRN. M. A. A.	DATE 6-12-69	
R & D FILE		
S-NUMBER		



2900WD

# SYNCHRONOUS MOTOR UNITS

NOTE:  
REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING.

## 2900WD

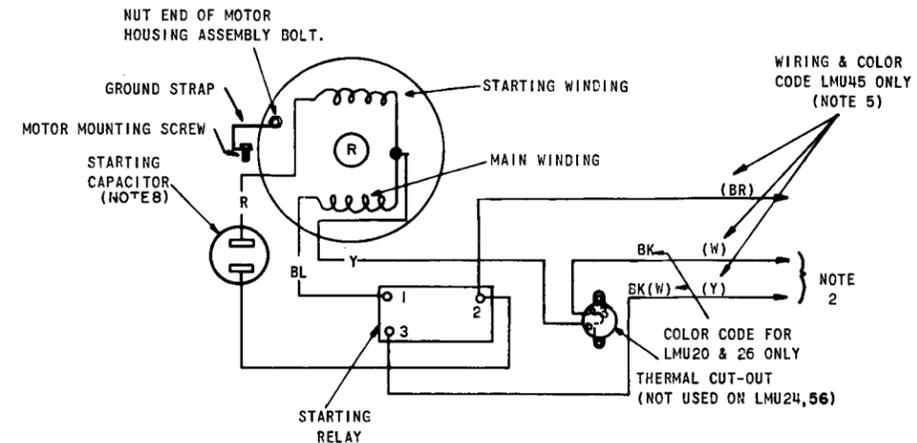
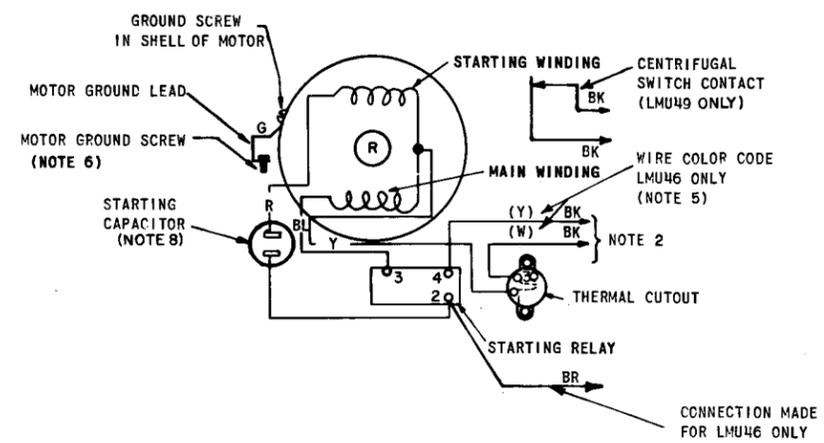
### REVISIONS

ISSUE	DATE	AUTH. NO.
L	2-15-60	28-12447
M	5-17-60	28-13280
N	5-27-60	28-13361
P	7-6-60	28-13494
Q	9-13-60	28-13899
R	12-14-60	28-14406
S	6-23-61	70265
T	8-8-61	70559
U	10-18-61	71471
V	11-30-61	71805
W	8-24-62	74285
X	9-20-62	74557
Y	11-29-62	75216
Z	4-15-63	76528
AA	4-15-63	76522
AB	5-16-63	76965
AC	5-28-63	76149
AD	8-22-63	77845
AE	1-13-64	79966
AF	1-24-64	79730-1
32	4-13-64	79730-2
33	5-22-64	82008
34	11-4-64	84364
35	3-4-65	82432
36	4-10-65	82432-1
37	9-22-65	82432-3
38	11-8-65	82432-4
39	11-10-65	87664
40	2-22-66	90356
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42	9-21-66	91790
43	2-27-68	95441
44	1-30-69	98432

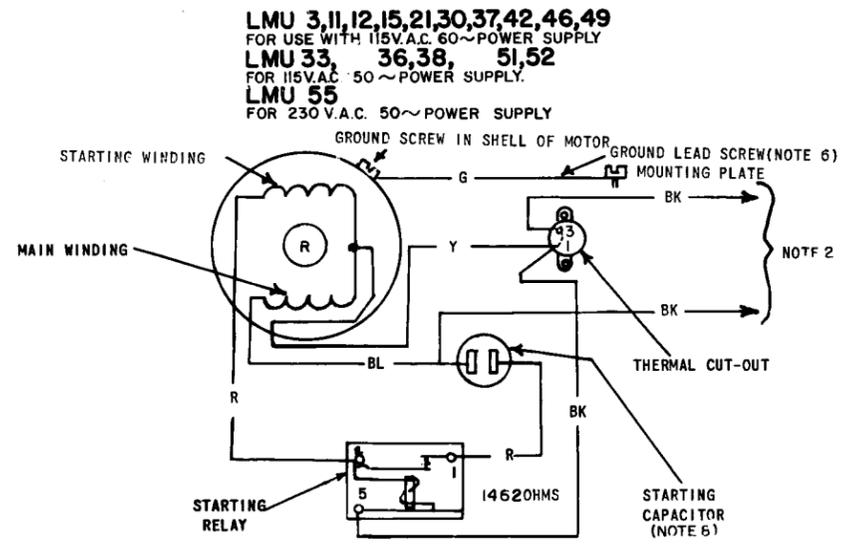
- NOTES**
1. SYNCHRONOUS MOTOR OPERATES ON REGULATED FREQUENCY ( $\pm 0.75\%$ ) MAXIMUM AC ONLY.
  2. CONNECT EITHER WIRE TO DESIGNATED TERMINALS OF UNIT TERMINAL BLOCK, PER WIRING DIAGRAM OF ASSOCIATED UNIT
  3. MOTOR LEADS OF SAME COLOR ARE INTERCHANGEABLE.
  - 4.
  5. EXTERNAL NOISE SUPPRESSION NETWORK CONSISTING OF 100 OHM, 1/2 WATT RESISTOR IN SERIES WITH 0.25 MFD 1K V CAPACITOR CONNECTED ACROSS YELLOW AND BROWN WIRES. (FOR LMU45,46)
  6. MOTOR GROUND LEAD (GREEN) TERMINAL MUST BE FASTENED TO MOUNTING CRADLE OF MOTOR UNDER A SEPARATE GROUND SCREW ONLY. A SCREW USED FOR ANOTHER PURPOSE CANNOT BE USED FOR GROUNDING (UNDERWRITERS LABORATORIES REQUIREMENT).
  7. WIRE COLOR CODE:  

BK - BLACK	R - RED
BL - BLUE	O - ORANGE
BR - BROWN	Y - YELLOW
P - PURPLE	S - SLATE
W - WHITE	G - GREEN
  8.

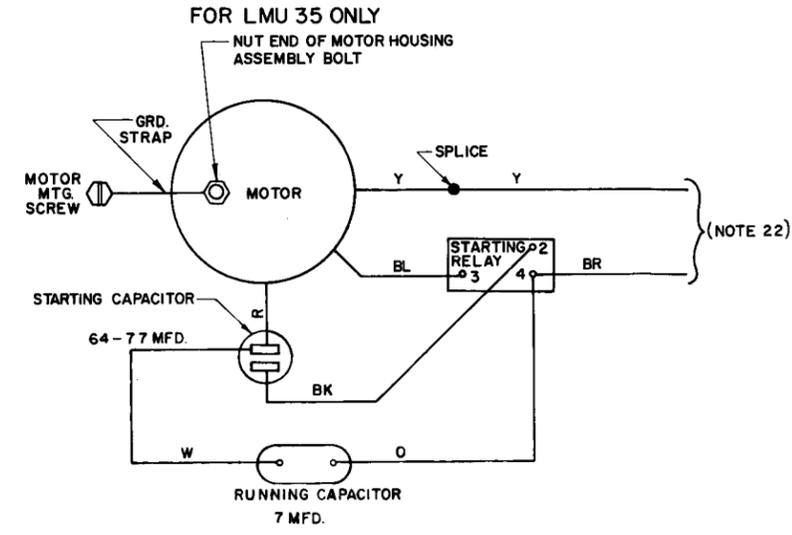
LMU	STARTING CAPACITOR VALUE
3,15,21,30,33,36,37,38,42,46,49,51,52	43-48 MFD
11,12	170-226 MFD
35	64-77 MFD
55	15-18 MFD
19,20,24,26,31,45,56	88-108 MFD
50,	161-193 MFD



**LMU 19,20,24,26,31,45,56**  
FOR USE WITH 115V AC 60~POWER SUPPLY ONLY



**LMU 50,**  
FOR USE WITH 115V AC 50~POWER SUPPLY ONLY



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1 WDP

ACTUAL  
WIRING DIAGRAM  
FOR  
MODEL 28 & 35  
MOTOR UNITS

**APPROVALS**

D AND R	E OF M
-----	-----

E-NUMBER  
 PROD. NO. 2900WD  
 DATE 1-28-65  
 R.D. FILE NO. 1-30-65. 156A  
 DRAWN E. R.      CHKD. R E J  
 ENGD. B. M. B.    APPD.

**TELETYPE CORPORATION**

## 2900WD

# SERIES GOVERNED MOTOR UNITS

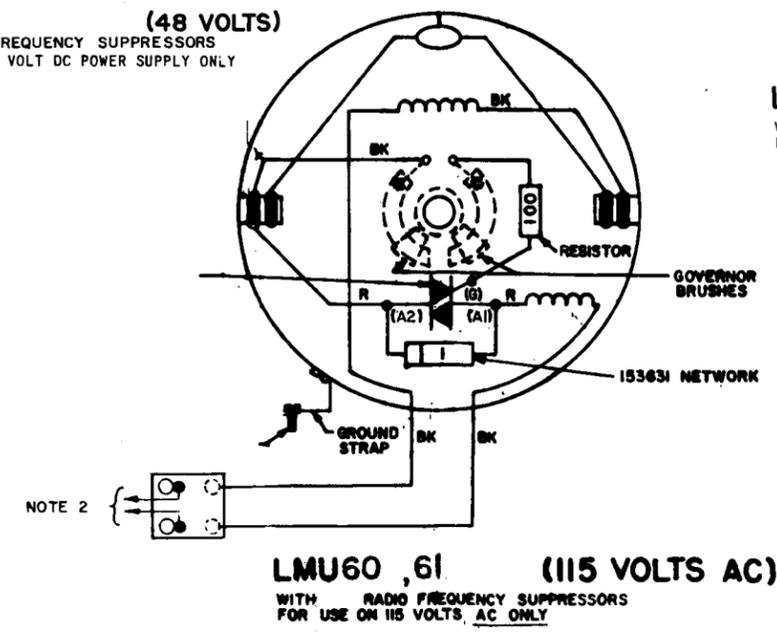
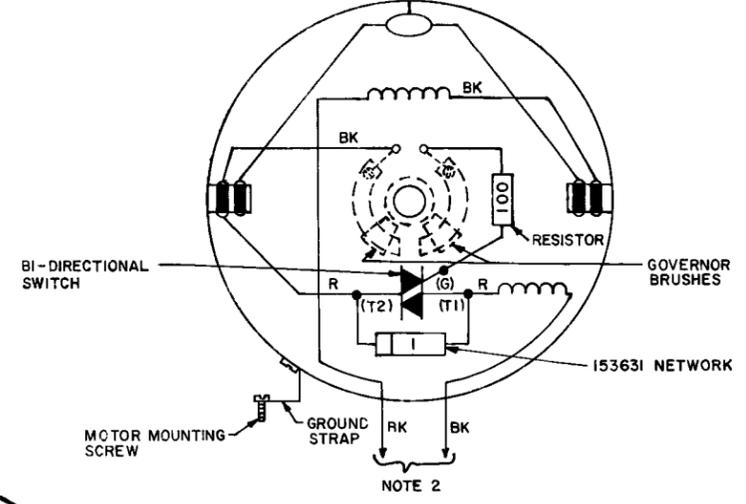
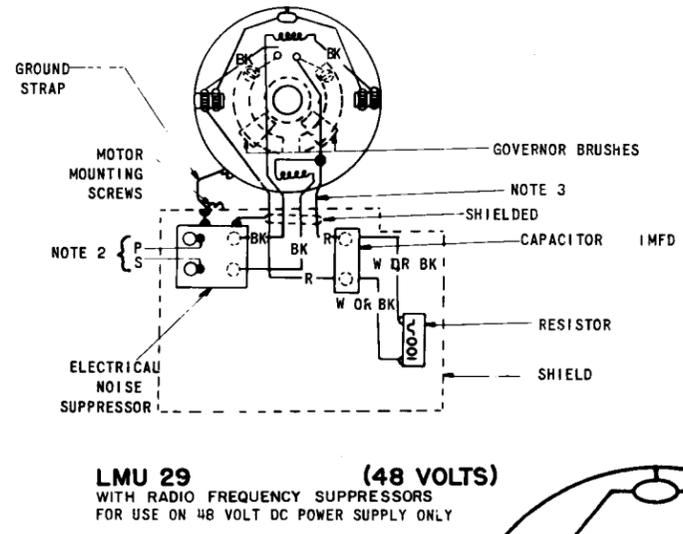
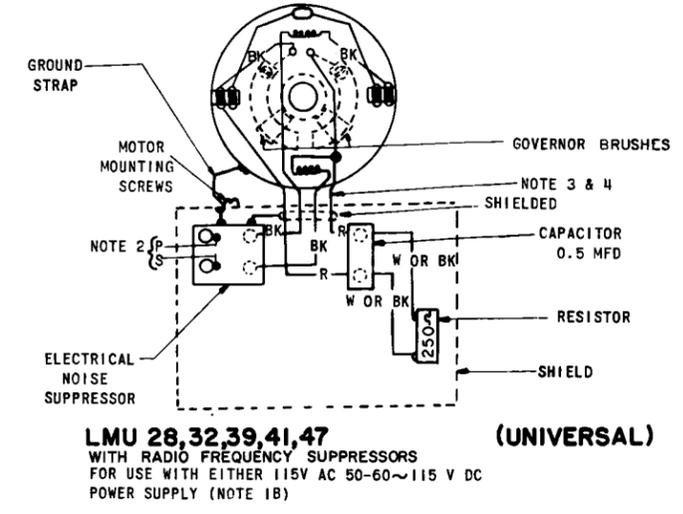
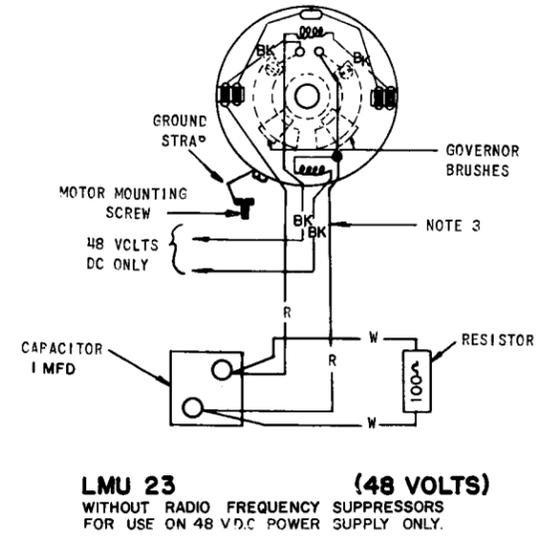
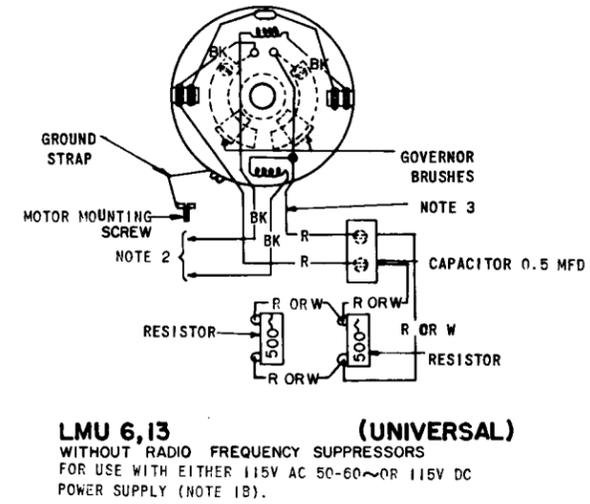
NOTE:  
REVISION INFORMATION MUST ALSO BE  
REFLECTED ON THE ISSUE CONTROL REC-  
ORD, WHICH IS A PART OF THIS DRAWING.

## 2900WD

### REVISIONS

ISSUE	DATE	AUTH. NO.
L	2-15-60	28-12447
M	5-17-60	28-13280
N	5-27-60	28-13361
P	7-6-60	28-13494
Q	9-13-60	28-13899
R	12-14-60	28-14406
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U	10-18-61	71471
V	11-30-61	71806
W	8-24-62	74285
X	9-20-62	74557
Y	11-29-62	75216
Z	4-15-63	76588
AA	4-15-63	76592
AB	5-16-63	76965
AC	5-28-63	76149
AD	8-22-63	77845
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AF	1-24-64	79730-1
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36	4-10-65	82432-1
37	9-22-65	82432-3
38	11-8-65	82432-4
39	11-10-65	87664
40	2-22-66	90366
41	4-5-66	90628
42	4-26-67	93975
43	5-26-67	94128-RC
44	5-13-68	95859
45	6-12-69	99366

- NO. NOTES**
1. A. AC SERIES MOTOR UNITS OPERATE ON UN-REGULATED AC POWER.  
B. ASSOCIATED LESU MUST BE EQUIPPED WITH CAPACITOR-RESISTOR ASSEMBLY FOR DC OPERATION OF GOVERNED MOTORS.
  2. CONNECT EITHER WIRE TO DESIGNATED TERMINALS OF UNIT TERMINAL BLOCK, PER WIRING DIAGRAM OF ASSOCIATED UNIT.
  3. MOTOR LEADS OF SAME COLOR ARE INTER-CHANGEABLE.
  4. MOTOR LEADS ARE ENCLOSED IN APPROXIMATELY 10" LONG COPPER SHIELDING & FASTENED TO MOTOR AND CONTROL PARTS COMPARTMENT. (FOR LMU28).
  5. LMU4, 10, AND 14 MOTOR UNITS (UNIVERSAL SERIES GOVERNED) CONTAIN TWO 500 OHM RESISTORS WIRED IN PARALLEL EQUIVALENT TO 250 OHMS  
LMU4 MOTOR UNIT SUPERSEDED BY LMU41 MOTOR UNIT.  
LMU10 MOTOR UNIT SUPERSEDED BY LMU47 MOTOR UNIT.  
LMU14 MOTOR UNIT SUPERSEDED BY LMU39 MOTOR UNIT.
  6. WIRE COLOR CODE:  
BK - BLACK      R - RED  
BL - BLUE      O - ORANGE  
BR - BROWN    Y - YELLOW  
P - PURPLE     S - SLATE  
W - WHITE      G - GREEN



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 2

**ACTUAL WIRING DIAGRAM FOR MODEL 28 & 35 MOTOR UNITS**

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**APPROVALS**

D AND R	E OF M
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E-NUMBER

PROD. NO. 2900WD

DATE 1-28-56

P.D. FILE NO. 1-30.65.156A

DRAWN E.R.      CHKD. (A.S.)

ENGD. B.M.B.    APPD.

**TELETYPE CORPORATION**

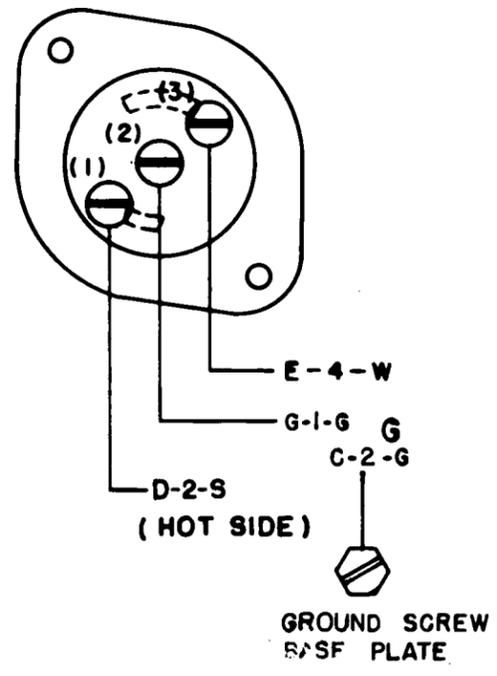
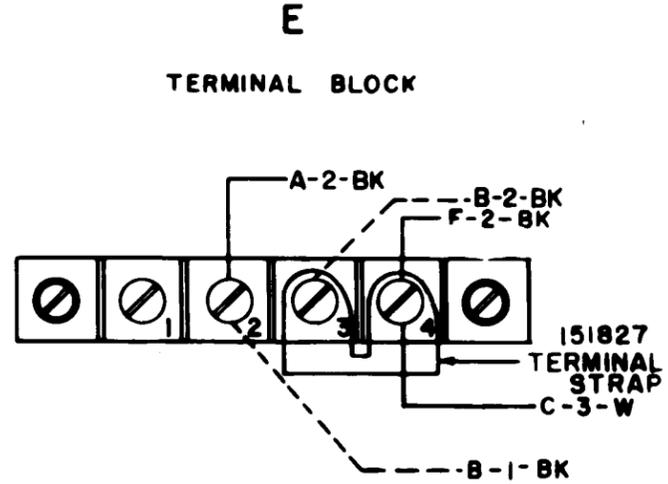
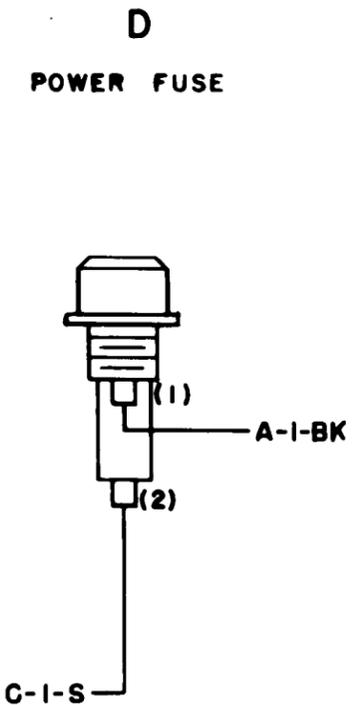
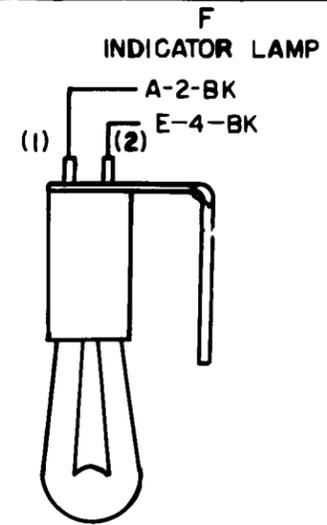
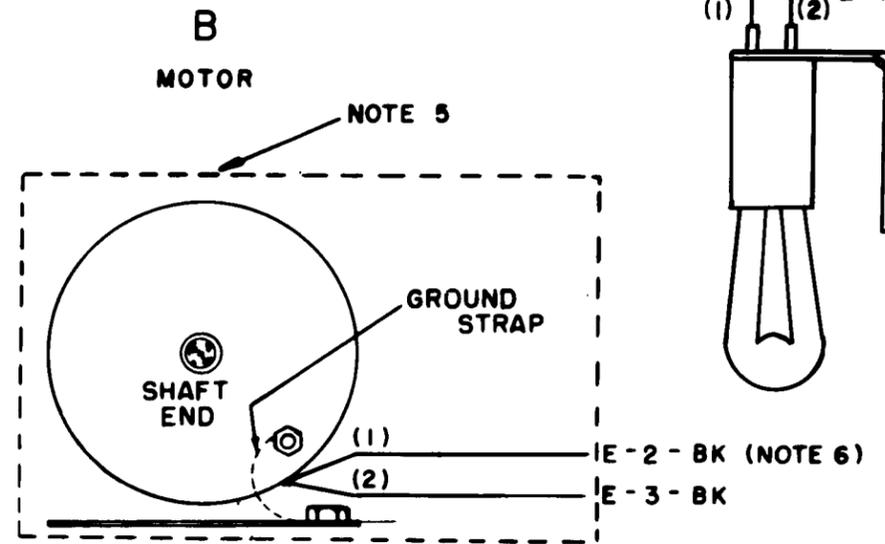
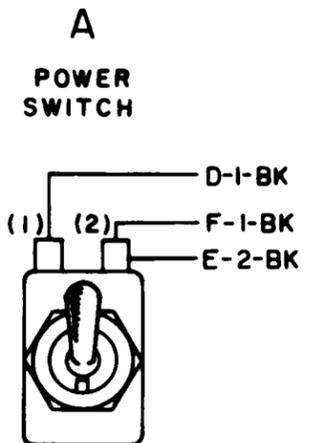
## 2900WD

NOTES

1. **COLOR CODE**  

BK BLACK	G GREEN
BR BROWN	BL BLUE
R RED	P PURPLE
O ORANGE	S SLATE
Y YELLOW	W WHITE
2. **WIRING LEGEND**  

DISTANT TERMINAL AREA  
 DISTANT TERMINAL DESIGNATION  
 WIRE COLOR CODE  
 B-2-R
3. TERMINALS DESIGNATED IN PARENTHESES ARE NOT MARKED ON COMPONENTS
4. TERMINALS ON CONNECTOR SHOWN AS VIEWED FROM SOLDER END.
5. THE MOTOR IS NOT A PART OF THE LRSB201 UNIT.
6. THE YELLOW LEAD OF LMU 40 CONNECTS TO E2.
7. FOR TELETYPE PERSONNEL REFERENCE SPECIFICATION



<b>4705WD</b>		
ISSUE	DATE	AUTH. NO.
1	8-10-62	74182
2	11-29-62	75216
3	2-30-63	78952
4	7-8-64	82984
5	5-19-65	86370

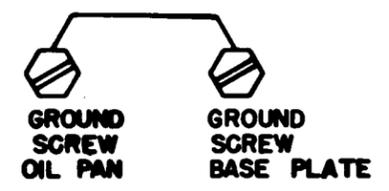
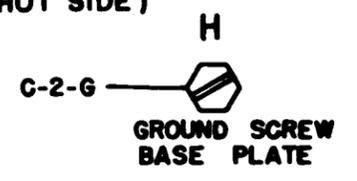
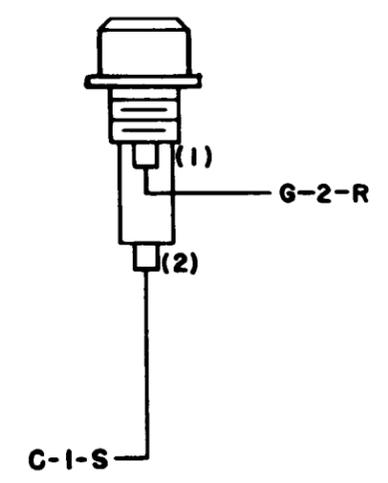
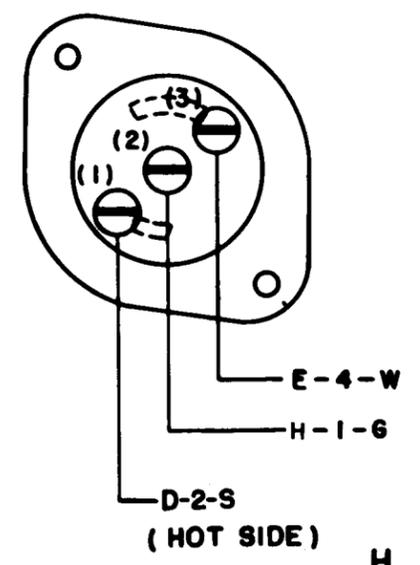
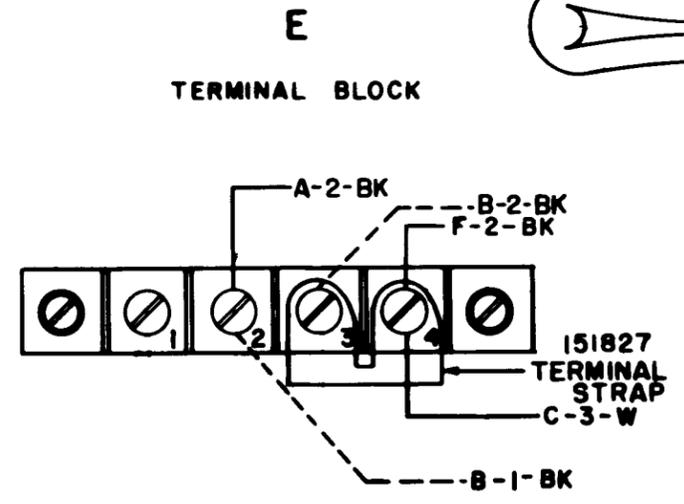
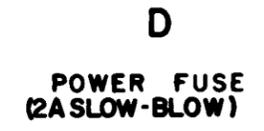
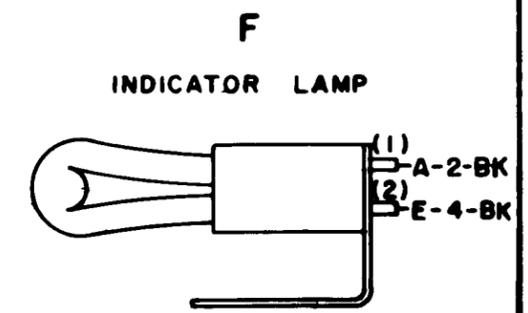
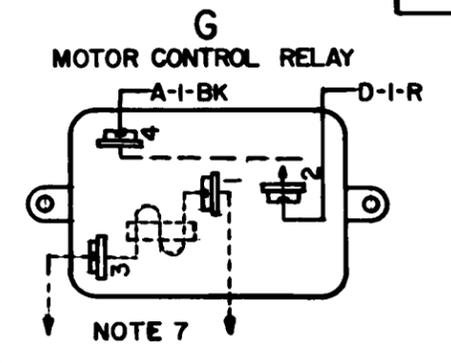
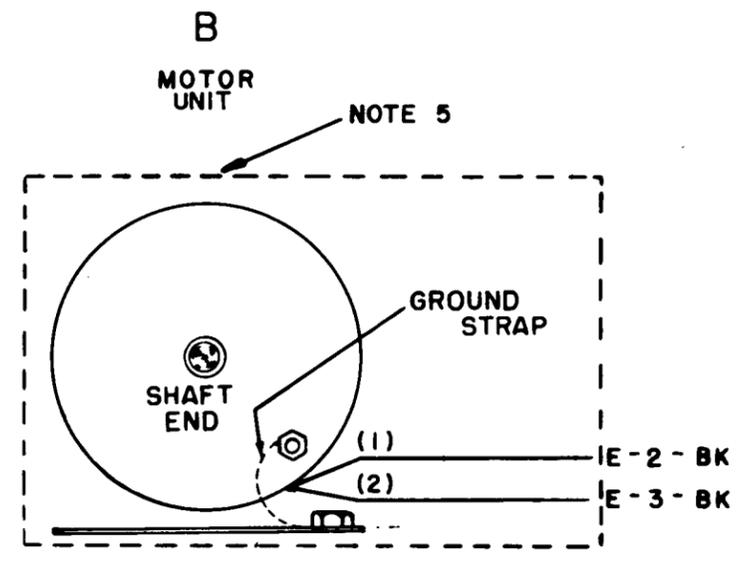
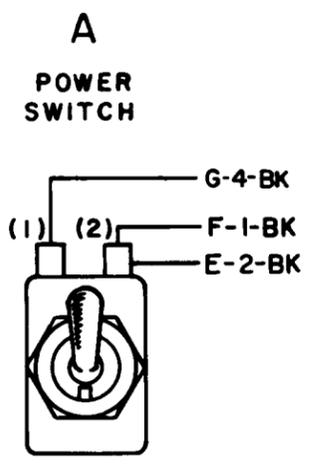
**ACTUAL WIRING DIAGRAM**  
 MODEL 28  
 RECEIVING SELECTOR  
 OR SENDING  
 DISTRIBUTOR BASE  
 LRSB-201&202  
 APPROVALS

D AND R	E OF M
E-NUMBER	
PROD. NO. 4705 WD	
DATE: 5-12-61	
P.D. FILE NO I-A65.192A	
DRAWN R.R.W. CHKD	
ENGD K.S. APPR	
<b>TELETYPE CORPORATION</b>	
<b>5 4705WD</b>	

7133 WD

ISSUE	DATE	AUTH. NO.
2	5-19-63	86370

- NOTES**
- COLOR CODE**  
 BK BLACK            G GREEN  
 BR BROWN          BL BLUE  
 R RED                P PURPLE  
 O ORANGE          S SLATE  
 Y YELLOW          W WHITE
  - WIRING LEGEND**  
  
 DISTANT TERMINAL AREA  
 DISTANT TERMINAL DESIGNATION  
 WIRE COLOR CODE  
 B-2-R
  - TERMINALS DESIGNATED IN PARENTHESES ARE NOT MARKED ON COMPONENTS
  - TERMINALS ON CONNECTOR SHOWN AS VIEWED FROM SOLDER END.
  - THE MOTOR UNIT IS NOT A PART OF THE LRSB UNIT.
  - ASSOCIATED CABLES AND CORDS:  
 199905 CABLE ASSEMBLY  
 157230 ELECTRICAL WIRE ASSEMBLY (2)  
 179004 STRAP W/TERMINAL  
 179000 LAMP HOLDER CABLE ASSEMBLY
  - LEADS TO TERMINALS 1 AND 3 "G" MOTOR CONTROL RELAY ARE FURNISHED IN CABLE ASSEMBLY OF ASSOCIATED DISTRIBUTOR UNIT. SEE 7134WD FOR LD18 DISTRIBUTOR WIRING.



ACTUAL WIRING DIAGRAM  
 MODEL 28  
 RECEIVING SELECTOR  
 OR SENDING  
 DISTRIBUTOR BASE  
 LRSB 203

APPROVALS

D AND R	E OF M
<i>HAR 3-16-64</i>	<i>[Signature]</i>

E-NUMBER  
 PROD. NO. 7133WD

DATE 10-23-63  
 PD FILE NO 1-162/1163AA  
 DRAWN N.K.G.    CHKD [Signature]  
 ENGD D.E.T.    APPD [Signature]

TELETYPE CORPORATION  
 7133 WD

7299WD

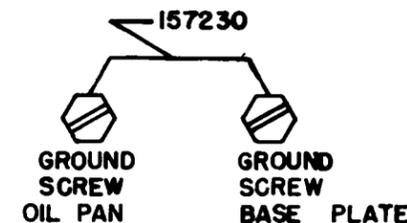
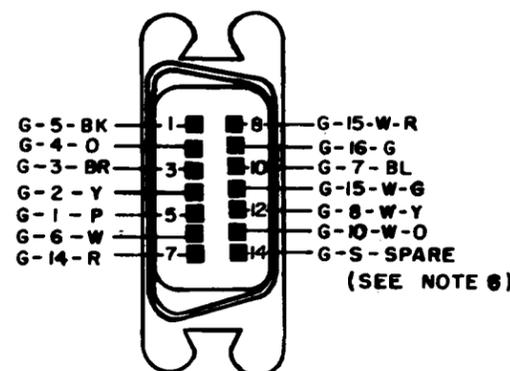
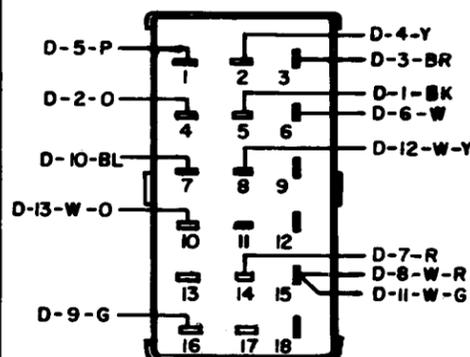
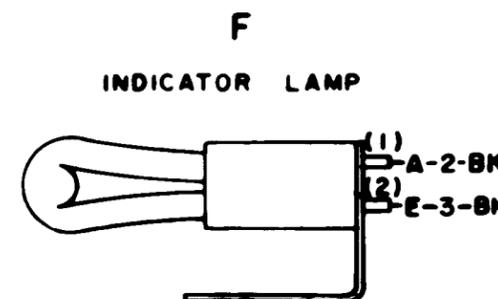
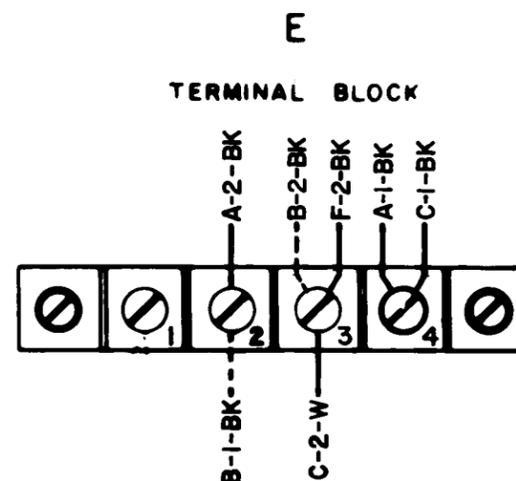
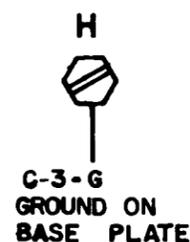
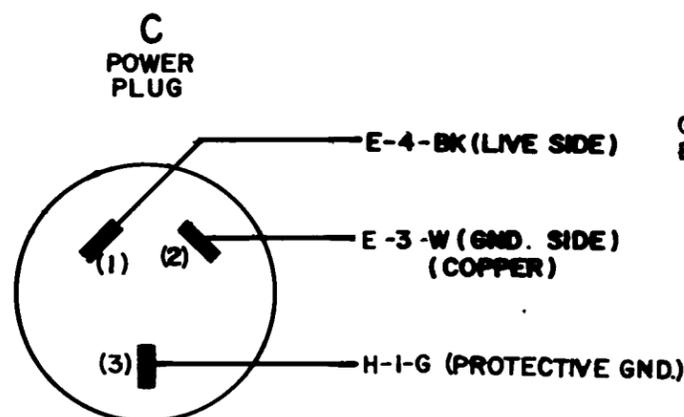
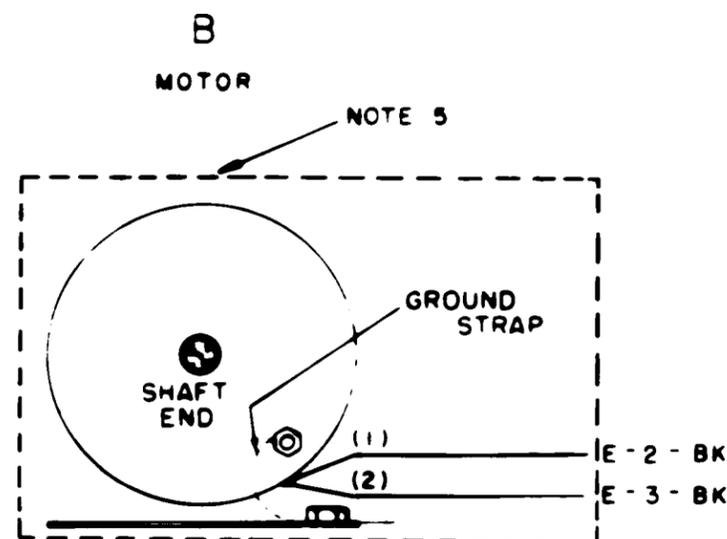
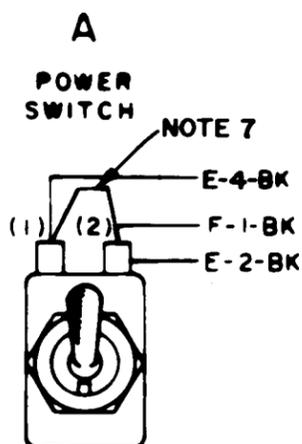
REVISIONS

ISSUE	DATE	AUTH NO
1	6-23-64	15882
2	10-1-64	84118
3	12-15-65	85768
4	5-19-65	86370

NOTES

- COLOR CODE  
BK BLACK            G GREEN  
BR BROWN        BL BLUE  
R RED              P PURPLE  
O ORANGE        S SLATE  
Y YELLOW        W WHITE
- WIRING LEGEND  

DISTANT TERMINATING AREA  
DISTANT TERMINATING DESIGNATION  
WIRE COLOR CODE  
B-2-R
- TERMINALS DESIGNATED IN PARENTHESES ARE NOT MARKED ON COMPONENTS
- TERMINALS ON CONNECTOR SHOWN AS VIEWED FROM SOLDER END.
- THE MOTOR IS NOT A PART OF THE LRSB204 UNIT.
- SLATE WIRE IS TO RUN FROM CONNECTOR D TO CONNECTOR G THROUGH CABLE 305781. TIE BACK WIRE AT CONNECTOR G.
- STRAP TERMINALS 1 AND 2 OF POWER SWITCH A. STRAP MAY BE REMOVED IN FIELD.



ACTUAL WIRING  
DIAGRAM  
MODEL 28  
RECEIVING SELECTOR  
OR SENDING  
DISTRIBUTOR BASE  
LRSB204

APPROVALS

D AND P	E OF M
---------	--------

E-NUMBER

PROD NO. 7299WD

DATE 5-13-64

PD FILE NO H-165AA

DRAWN WPH    CHKD R.C.

ENGD A.K.    APPD

TELETYPE  
CORPORATION

7299WD

NOTES

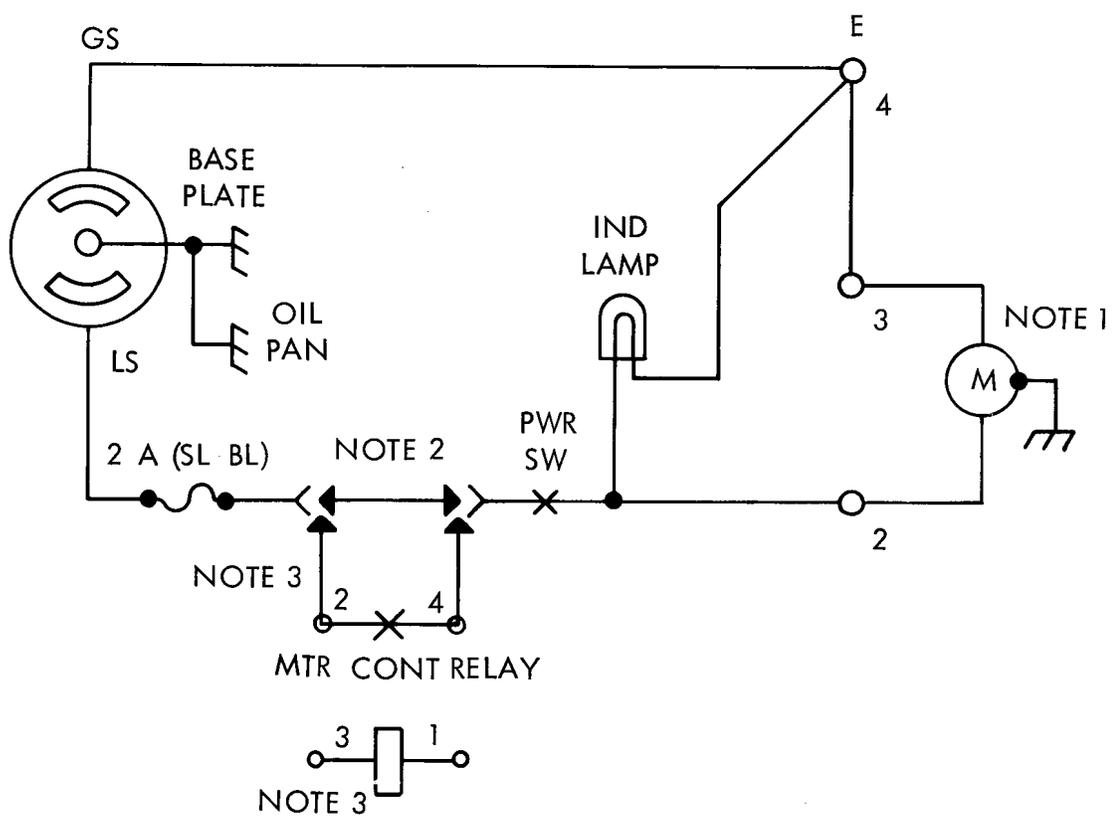
1. THE MOTOR UNIT IS NOT PART OF LRSB.
2. 28A BASE (MOTOR = LMU31)
3. 28B BASE (MOTOR = LMU3)
4. LEADS TO MOTOR CONTROL RELAY WINDINGS ARE FURNISHED WITH DISTRIBUTOR UNIT CABLE.

ISSUE

DATE

1

2-69



SCHMATIC  
WIRING DIAGRAM  
FOR 28A & 28B BASE  
(LRSB 201, 202, 203)

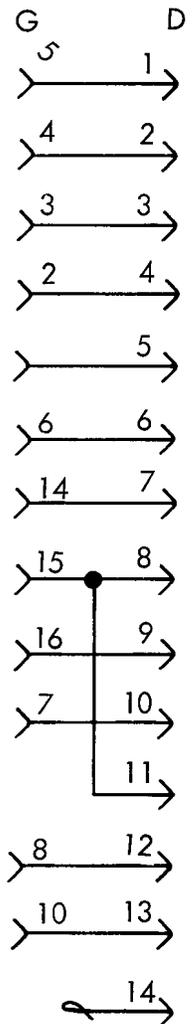
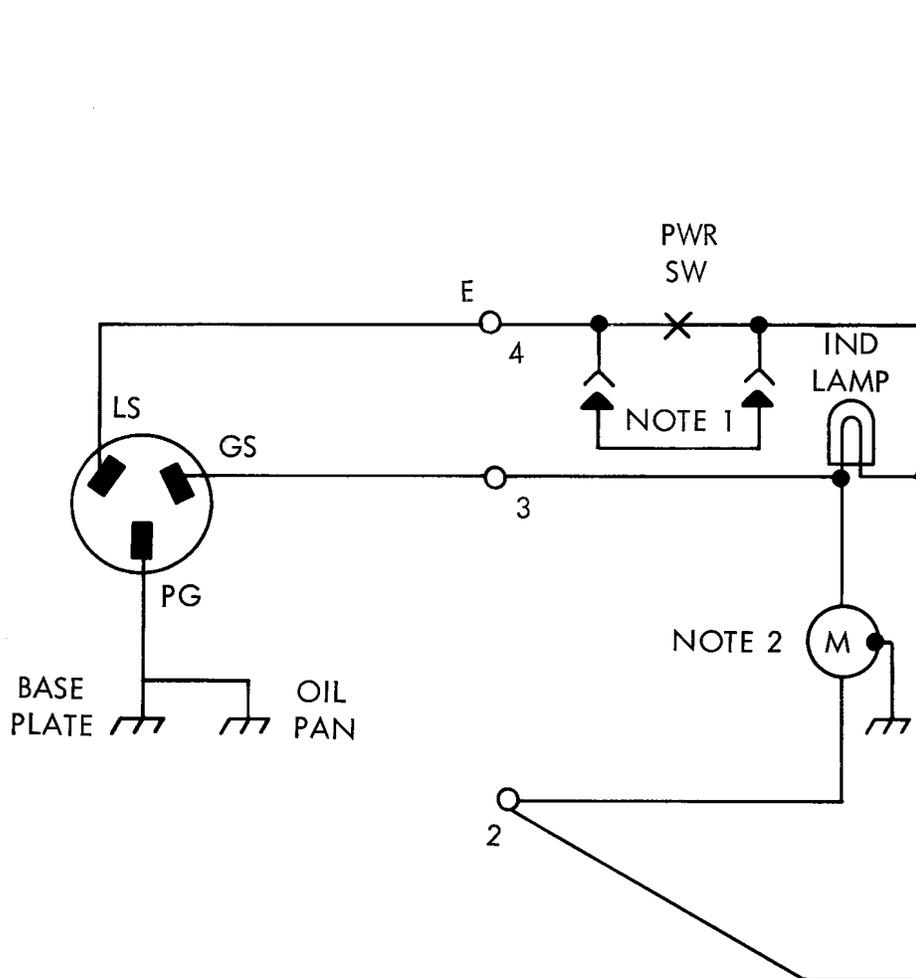
NOTES

1. FACTORY WIRING — MAY BE REMOVED IN FIELD.

2. MOTOR IS NOT PART OF 28C BASE (MOTOR = LMU31)

ISSUE DATE

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SCHMATIC WIRING DIAGRAM FOR 28C BASE (LRSB 204)