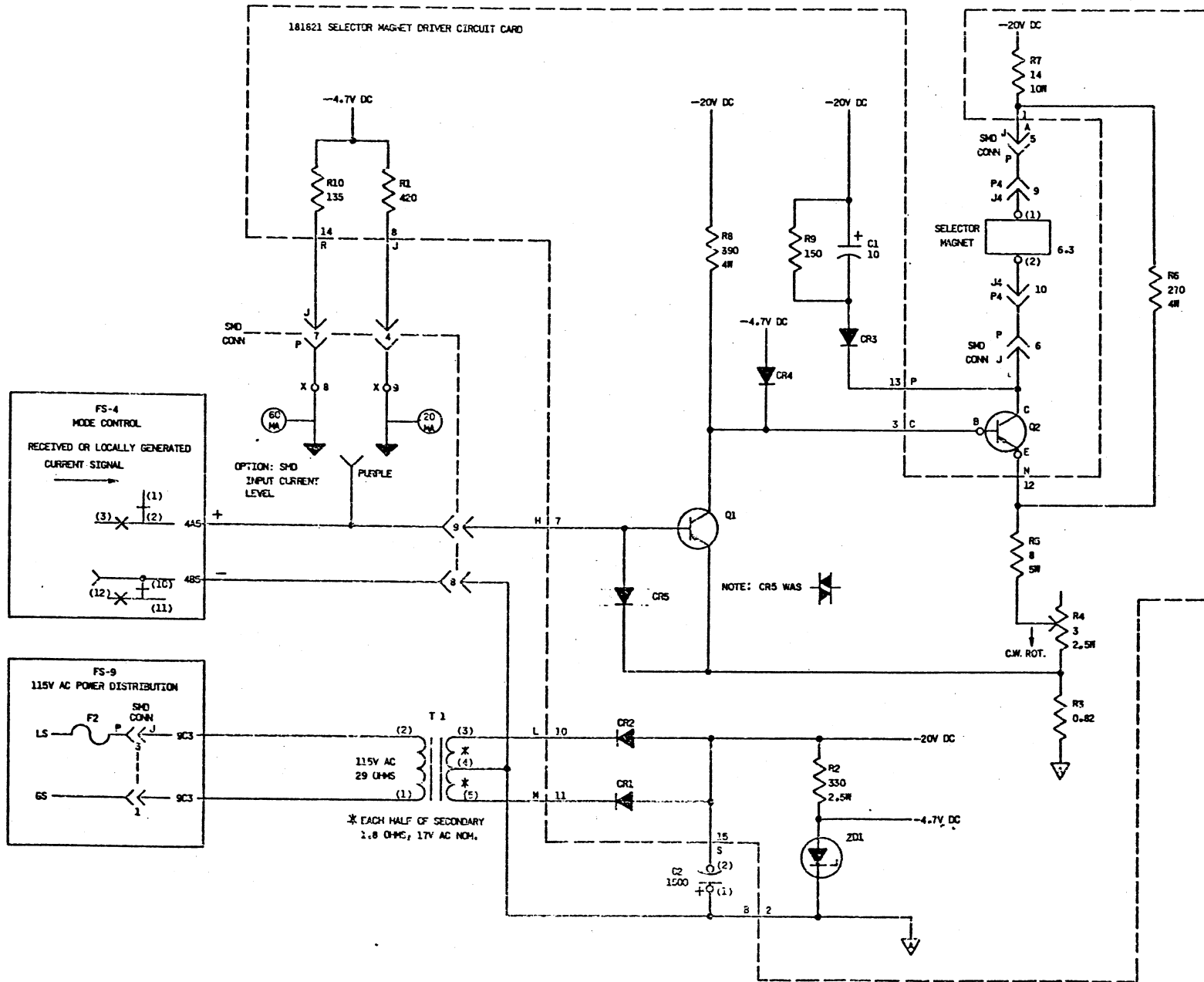


# FS-1 RECEIVE

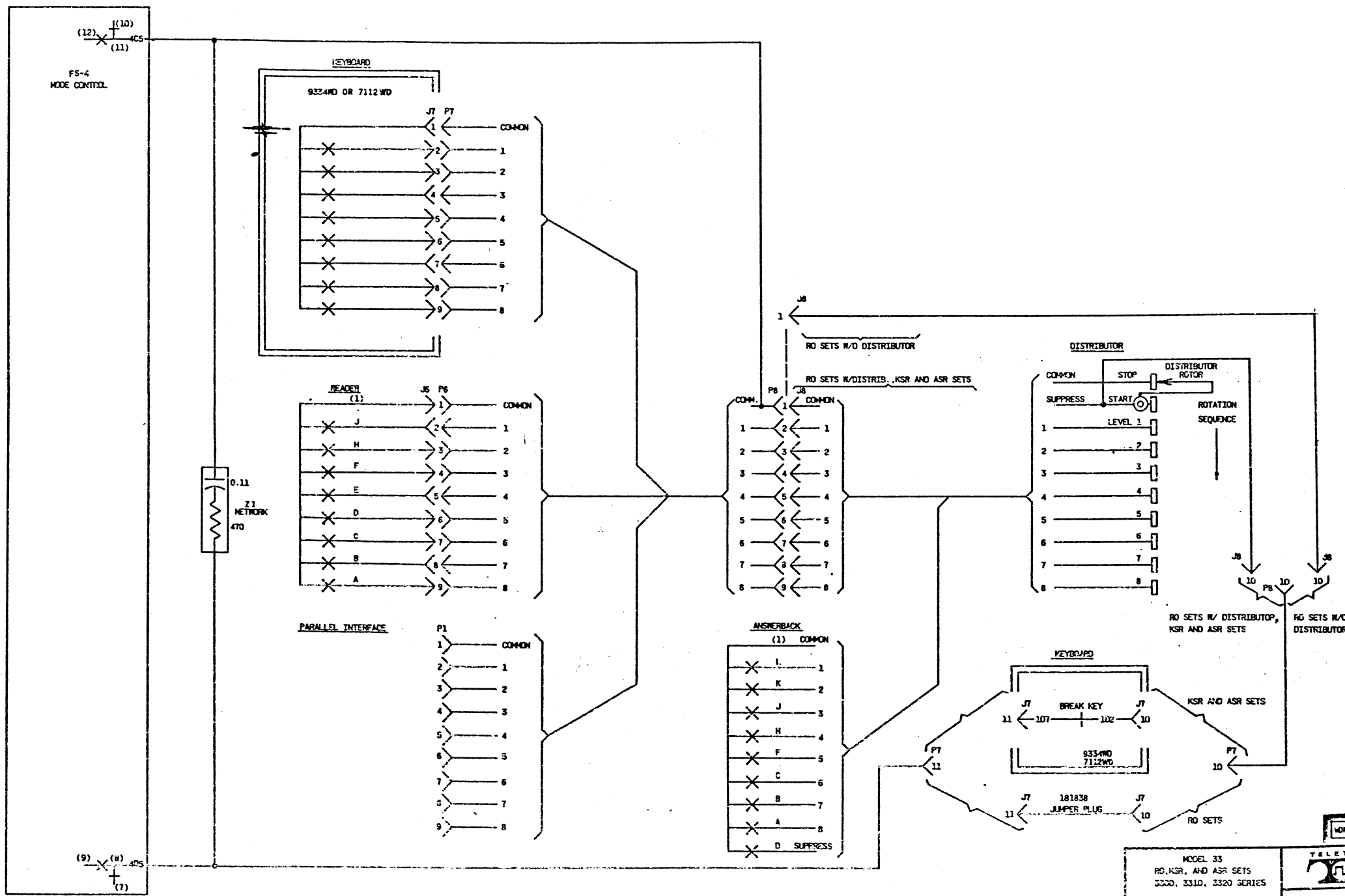


MODEL 33  
RO, MSR, AND ASR SETS  
3300, 3310, 3320 SERIES



1180 SD-91

# FS-2 SEND CIRCUIT



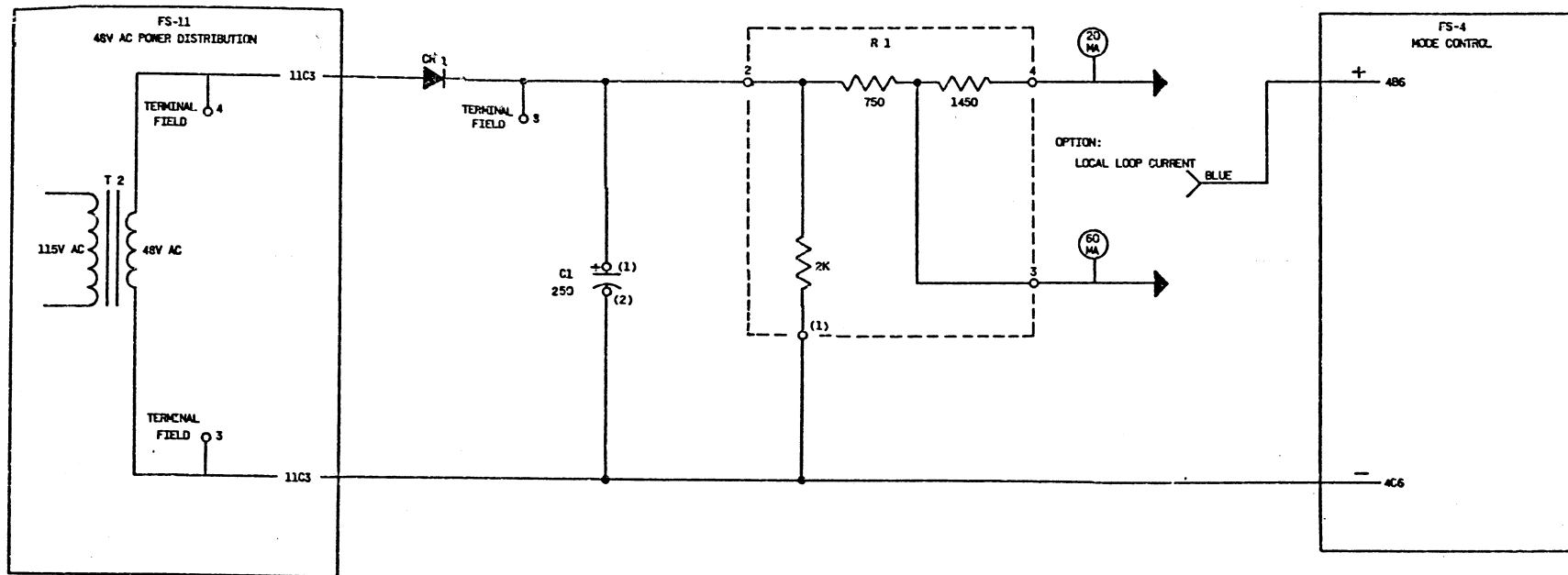
MODEL 33  
RD, KSR, AND ASR SETS  
3300, 3310, 3320 SERIES



1180 SD-B2

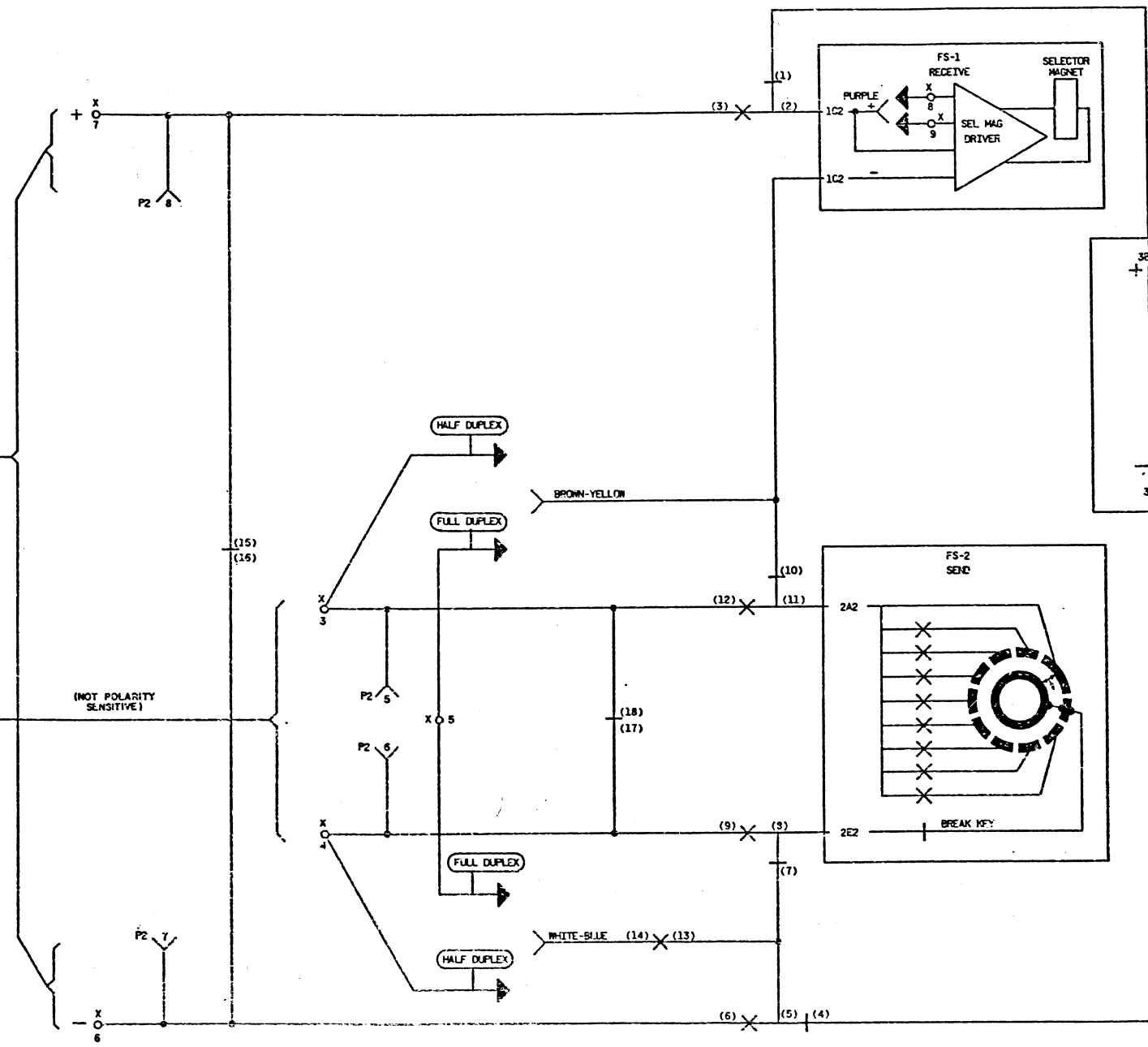
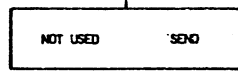
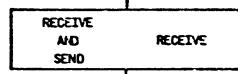
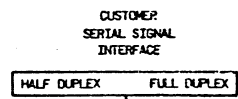
# FS-3 LOCAL LOOP CURRENT SUPPLY

ISSUE
1



# FS-4 MODE CONTROL

SHEET NOTES  
1. ALL RELAY CONTACTS ON THIS SHEET ARE PART OF THE MODE CONTROL RELAY. COIL IS SHOWN ON 9C3.



MODEL 33  
RU, KSR, AND ASR SETS  
3300, 3310, 3320 SERIES



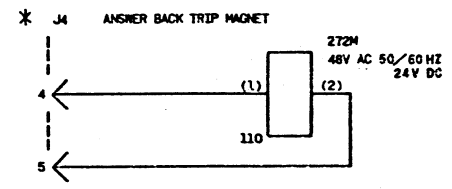
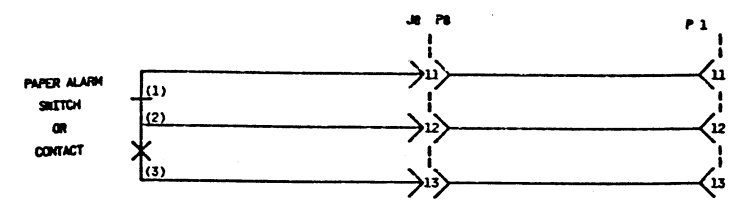
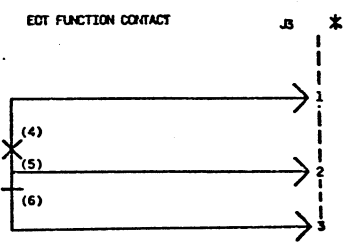
# FS-5 AUXILIARY CIRCUITS (FOR CUSTOMER USE)

ISSUE  
1  
2  
3-11-71  
5-5-71  
5-14-71


### PAPER ALARM

	TITLE	CONDITION SIGNALLED	TYPE
PAPER FEED:	LOW PAPER SWITCH	APPROX. 25 FT. OF PAPER LEFT	SNAP ACTION SWITCH
SPROCKET:	PAPER OUT CONTACT	END OF LAST FORM	CONTACT PAIR

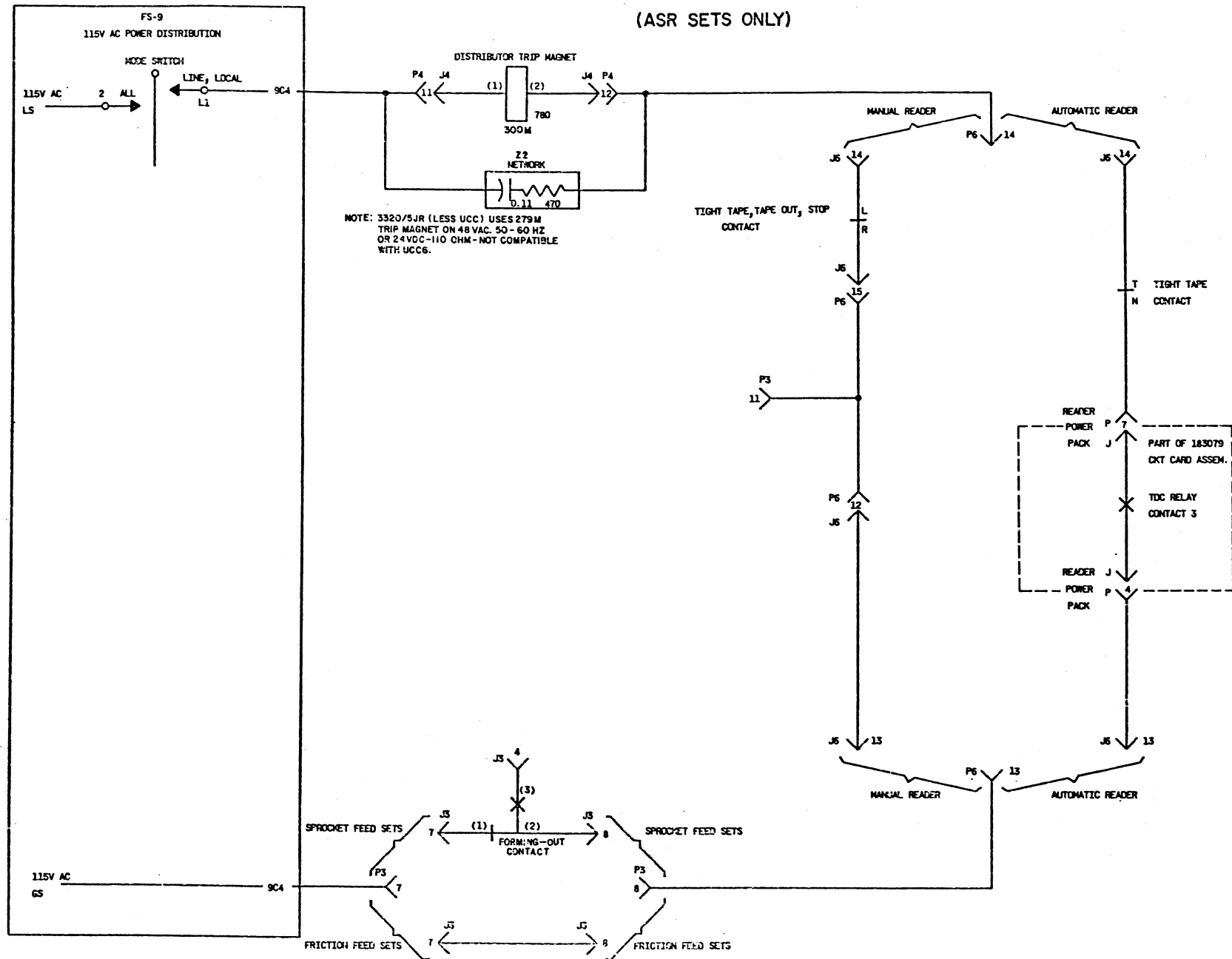
	LOCATION	CONTACT RATING
FRICITION:	IN FRONT OF MOTOR FAN	
SPROCKET:	NEAR LEFT END OF PLATEN	



\* CUSTOMER ACCESS TO THE PINS SHOWN IS TO BE MADE FROM INSIDE THE CALL CONTROL UNIT BACK PLATE, USING 182644 (22-28 AWG) OR 185677 (18-20 AWG) FEMALE TERMINALS.

MODEL 33 RO, MSR, AND ASR SETS 3300, 3310, 3320 SERIES	 <b>1180 SD-B5</b>
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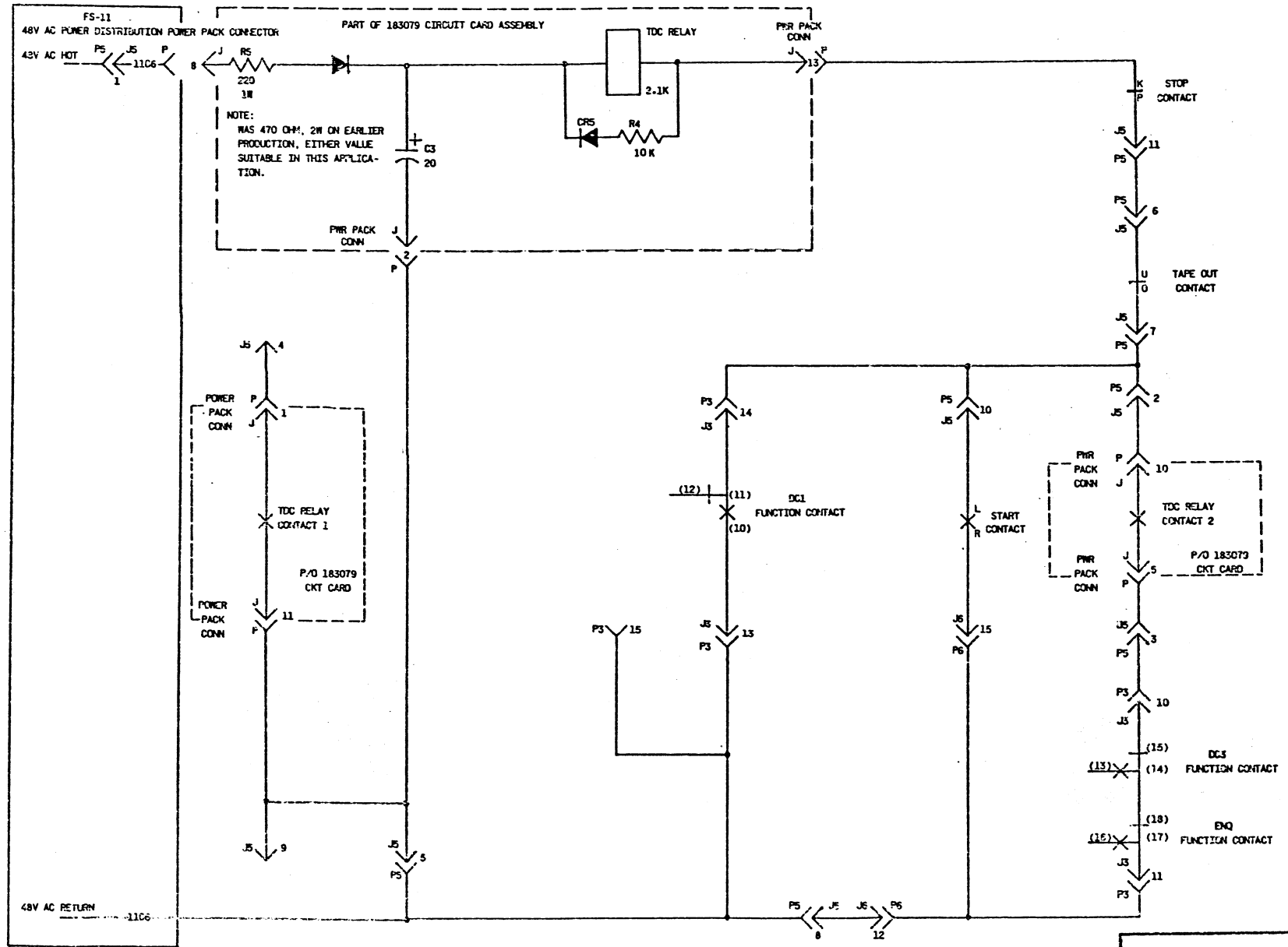
# FS-6 READER CONTROL (ASR SETS ONLY)



# FS-7

## AUTOMATIC READER LOGIC

(ASR SETS W/AUTOMATIC READER ONLY)



MODEL 33  
RJ, KSR, ASR SETS  
3300, 3310, 3320 SERIES

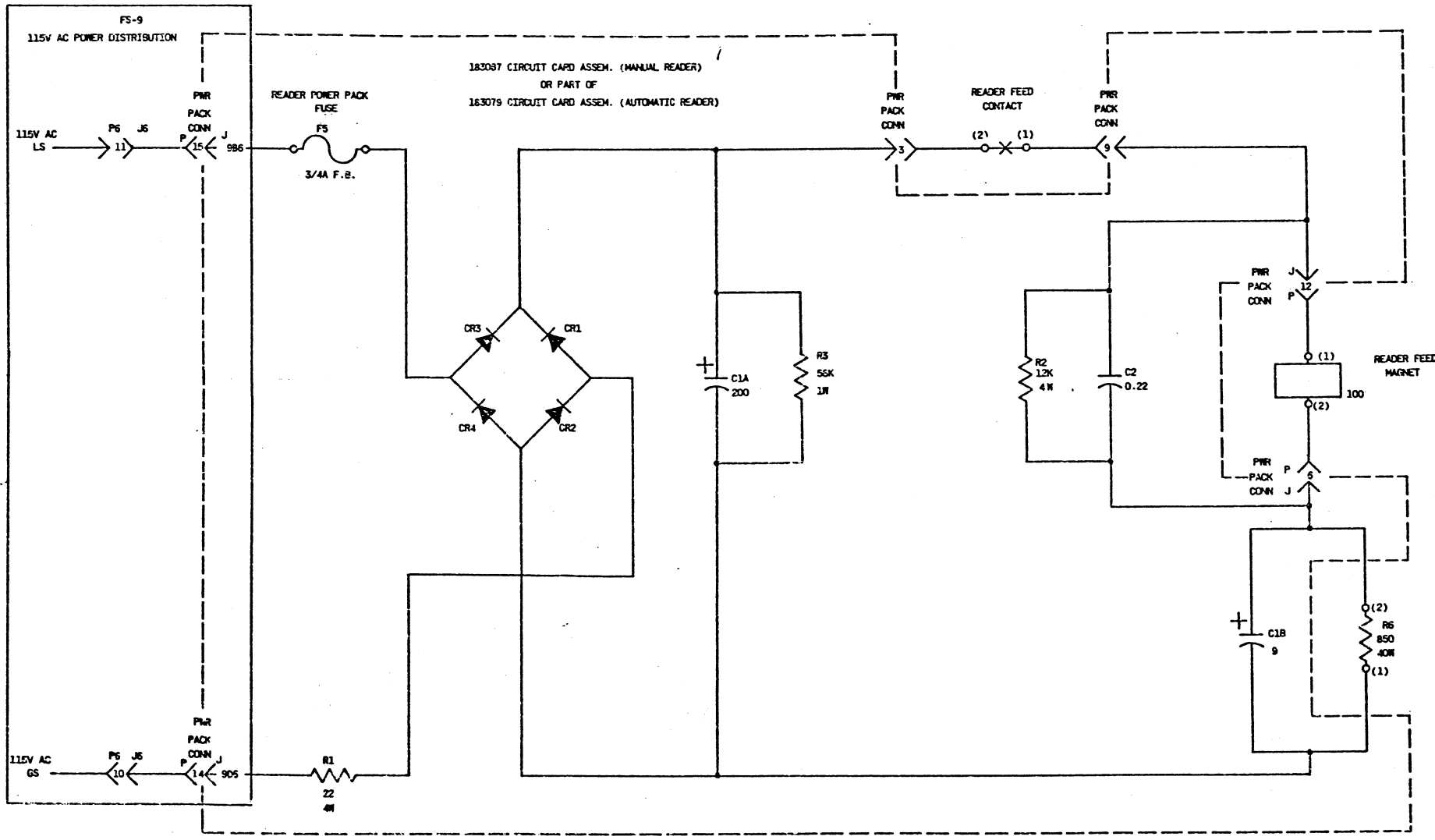


180 SD-B7

# FS-8

## READER FEED

(ASR SETS ONLY)



MODEL 33  
 RO, KSR, ASR SETS  
 3300, 3310, 3320 SERIES

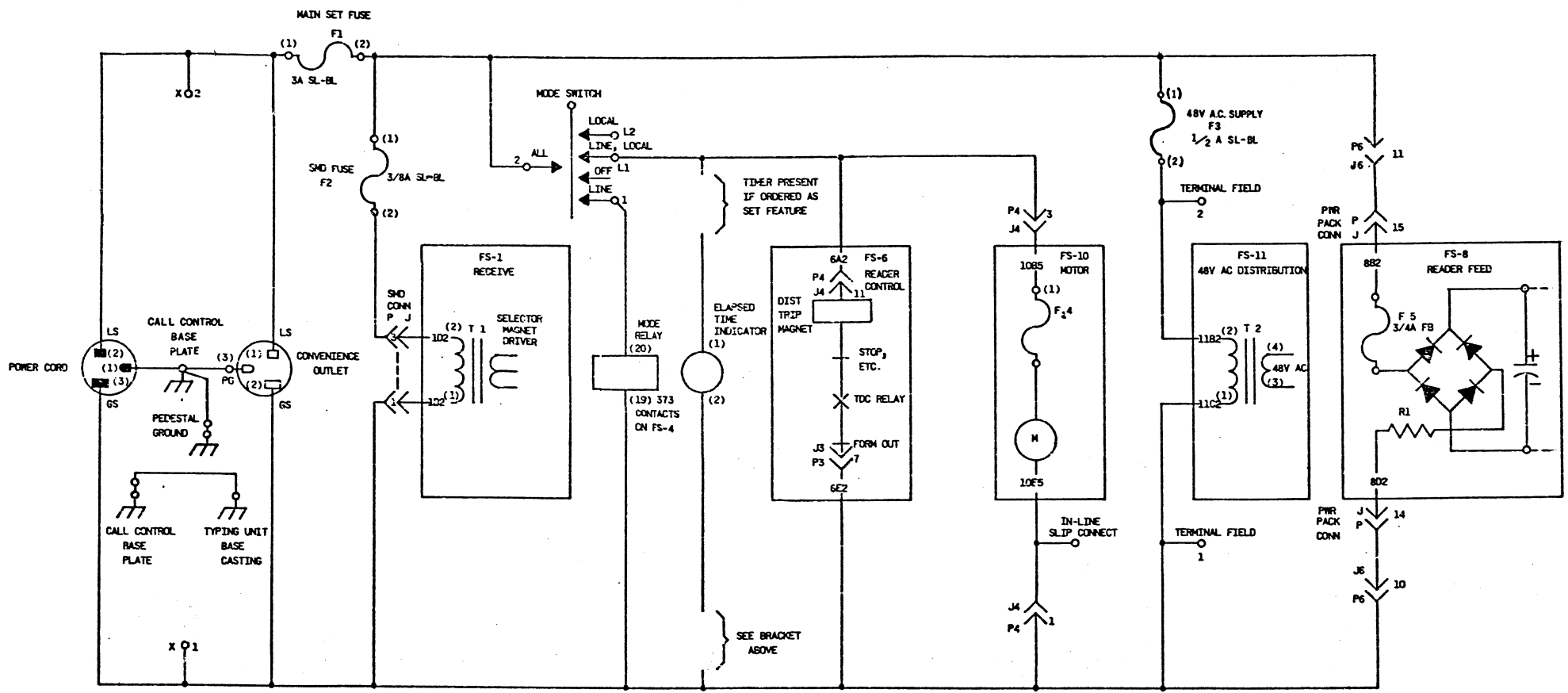


1180 SD-88



# FS-9

## 115VAC POWER DISTRIBUTION



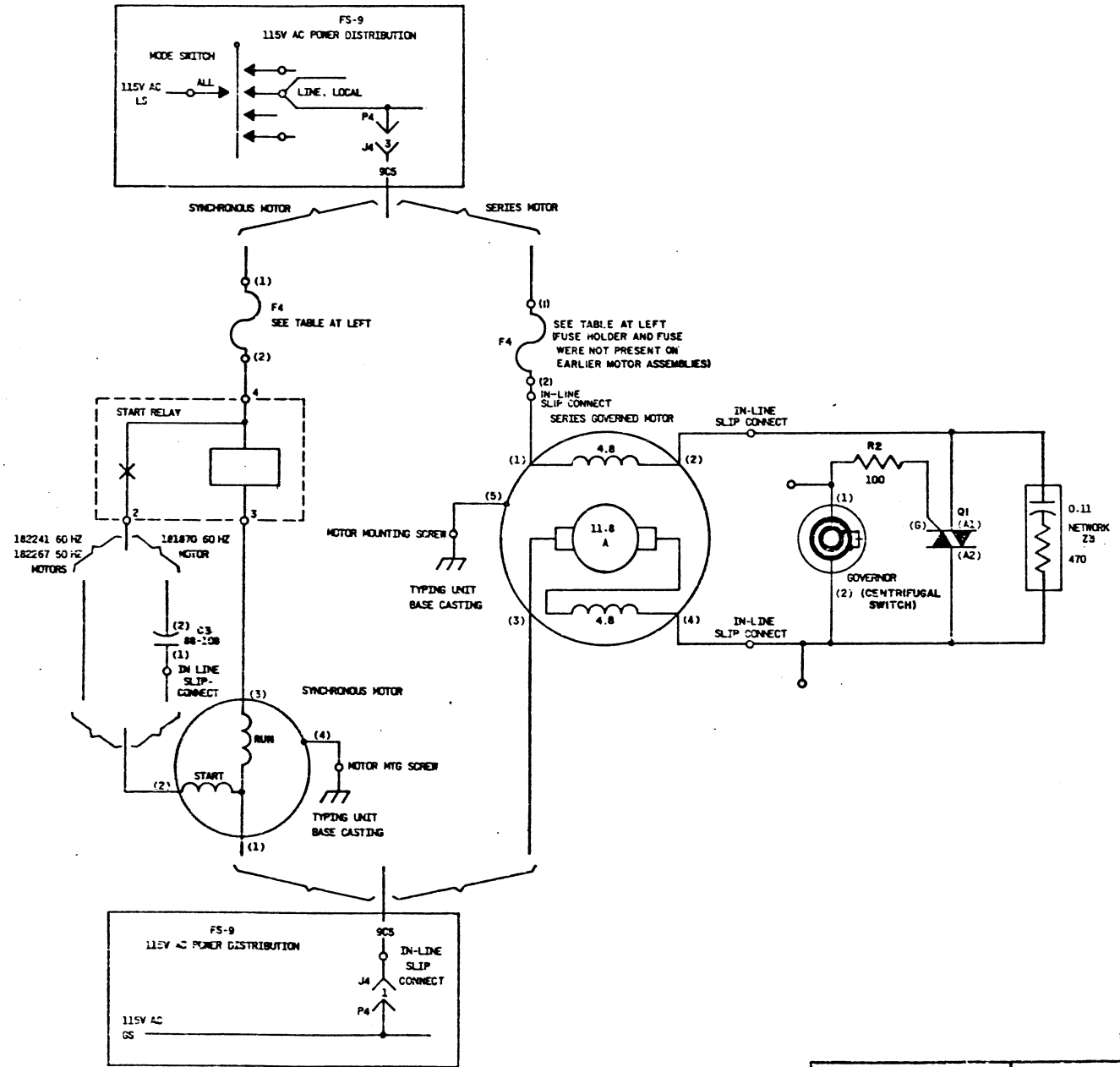
MODEL 33  
RD, MFR, AND ASR SETS  
3300, 3310, 3320 SERIES



1180 SD-69

# FS-10 MOTORS

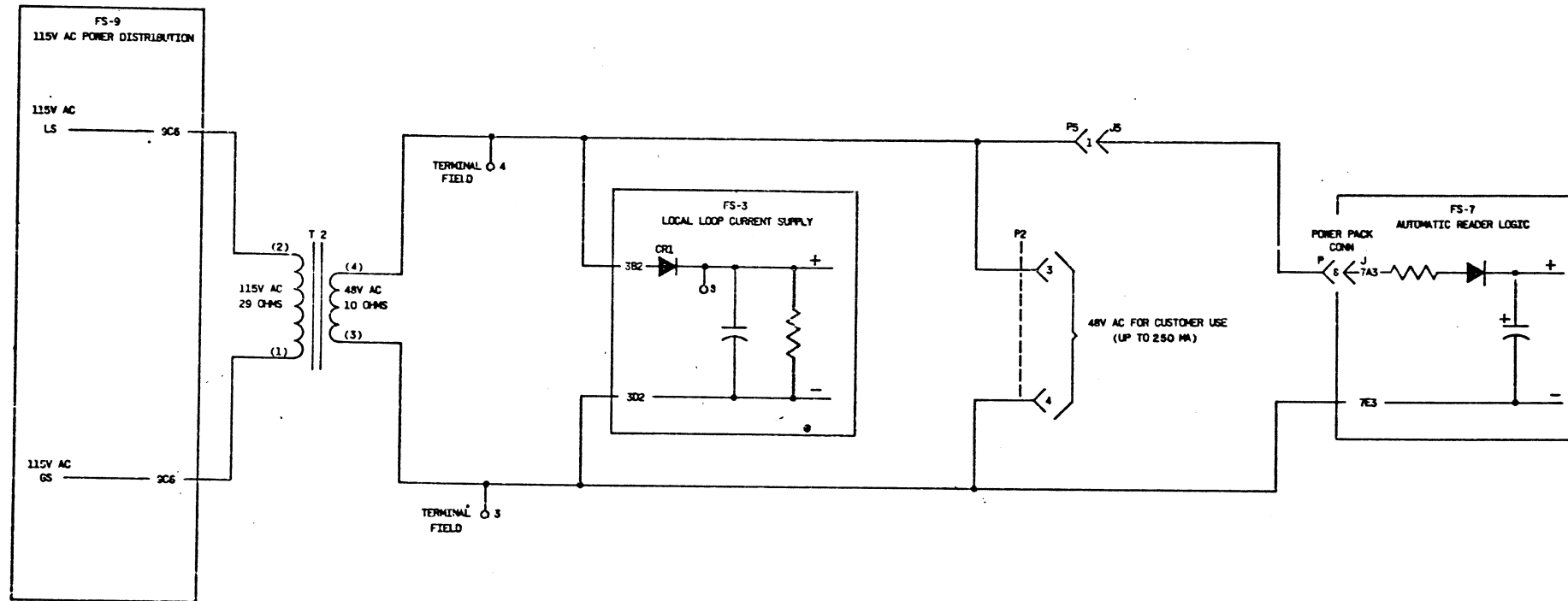
SYNCHRONOUS MOTORS				
MOTOR PART NUMBER	FREQ. HZ	FUSE F 4	H-P	CAPACITOR
181870	60	2 1/4A SL-BL	33	88-108 MFD
182241	60	2A SL-BL	33	—
182267	50	1 3/8 A. SL-BL	35	—
SERIES GOVERNED MOTOR				
183991	50-60	1A SL-BL	83	—



# FS-II

## 48VAC POWER DISTRIBUTION

ISSUE
1
2



MODEL 32  
RC, CSR, AND ASP SETS  
3300, 3310, 3320 SERIES



1180 SD-B11

# APPARATUS FIGURES

### CAPACITORS (NOT ON CKT CARD ASSEM.)

- C1 (LOCAL LOOP SUPPLY) 3C3
- C2 (SELECTOR MAG. DRIVER) 1E4
- C3 (MOTOR START) 1004

### CIRCUIT CARD ASSEMBLIES

- AUTOMATIC READER 183079
- READER FEED SUPPLY SHEET 8
- RDR LOGIC 784
- MANUAL READER 183087 SHEET 8

SELECTOR DRIVER CARD 181821	CARD SOCKET 181819	
TERM	FS/LOC	TERM
1	1B6	A
2	1E5	B
3	1C5	C
4	-	D
5	-	E
6	-	F
7	1C4	H
8	1B3	J
9	-	K
10	1D4	L
11	1D4	M
12	1C6	N
13	1C5	P
14	1B3	R
15	1E4	S

### CONNECTORS, TITLED

READER POWER PACK CONN.  
J - CARD SIDE  
P - CABLE SIDE

TERM.	FS/LOC	
	MAN. AND AUTO.	AUTO. ONLY
1		7C3
2		7B4
3	8B4	
4		9D6
5		7D6
6	8C6	
7		6C6
8		7B3/11C6
9	8D5	
10		7C6
11		7D3
12	8E5	
13		7B5
14	9D6	
15	9B6	

### SMD CONN

J = FRAME SIDE, P = CABLE SIDE

TERM	FS/LOC
1	9C3
2	-
3	9C3
4	1B3
5	1B6
6	1B6
7	1B3
8	1C3
9	1C3

### CONNECTORS NUMBERED

CONNECTOR SHELL DESIGNATION J = CABLE SIDE P = FRAME SIDE

J AND P	1	2	3	4	5	6	7	8
TERMINAL	FS/LOCATION							
1	2D3	-	5B6	9C5	11B5	2C3	2B3	2C5
2	2C3	-	5B6	-	7C6	2C3	2B3	2C5
3	2C3	11C5	-	9B5	7D6	2C3	2B3	2C5
4	2C3	11C5	-	5C5	7C3	2C3	2B3	2C5
5	2E3	4C3	-	5D5	7E4	2C3	2B3	2C5
6	2E3	4C3	6D3	-	7B6	2C3	2B3	2C5
7	2E3	4E3	6E3	-	7C6	2C3	2B3	2C5
8	2E3	4B3	6E4	-	7E5	2C3	2B3	2D5
9	2E2	-	-	1B6	7E3	2C3	2B3	2D5
10	-	-	7D6	1D6	7C6	9C6	2E6	2D7
11	5C4	-	7E6	6A3	7B6	9E6	2C6	5C3
12	5C4	-	-	6A4	-	7E4	-	5C3
13	5C4	-	7D5	-	-	6C5	-	5D3
14	-	-	7C5	-	-	6B5	-	-
15	-	-	7D4	-	-	6D5	-	-

### CONTACTS

- ANSWERBACK 2D5
- BREAK KEY 2E6
- FORMING OUT FUNCTIONS 6E3
- DC1 7C5
- DC3 7D6
- ENQ 7E6
- EOT 5B6
- KEYBOARD 2B3
- PAPER OUT 9C2
- PARALLEL INTERFACE 2D6
- READER FEED 8B5
- READER (SIGNAL) 2C3
- START (AUTO READER) 7C6
- STOP (AUTO READER) 7B6
- TAPE OUT (AUTO READER) 7B6
- TIGHT TAPE (AUTO READER) 6B6
- TIGHT TAPE, TAPE OUT; STOP (MANUAL READER) 6E6

### CORD

- POWER 9C1

### DIODES (NOT ON CKT. CARD ASSEMBLY)

- ORL 3B3

### DISC

- DISTRIBUTOR 2C6

### FUSES

- F1 (MAIN) 9B2
- F2 (SMD) 9E2
- F3 (48VAC) 9B5
- F4 (MOTOR) 10B4
- F5 (READER) 8E2

### GOVERNOR

- 10C6

### MAGNETS

- ANSWERBACK TRIP 9C6
- DISTRIBUTOR TRIP 6A3
- READER FEED 9C6
- SELECTOR 1C5

### MOTOR

- SYNCHRONOUS 1C04
- SERIES GOVERNED 10C6

### NETWORKS

- Z1 2C2
- Z2 6B3
- Z3 10C7

### RECEPTACLE

- CONVENIENCE OUTLET 9C2

### RELAYS

- MODE
- COIL 9C3

### CONTACTS:

FORM	TERMS	
C	1,2,3	4A5
C	4,5,6	4E5
C	7,8,9	4D5
C	10,11,12	4C5
A	13,14	4E4
B	15,16	4C3
B	17,18	4D4

### MOTOR START

- 10C4

### TRC (P/O 183079 CKT. CARD ASSEM.)

- COIL 7A4

### CONTACTS:

- 1 7C3
- 2 7D6
- 3 6D6

### RESISTORS (NOT ON CKT. CARD ASSEM.)

- R1 3B4
- R2 10C7
- R6 OF RDR PWR. PACK 8D6

### SWITCH

- LOW PAPER 5C2
- MODE 9B3

### TERMINAL FIELD

- | TERMINAL |      |
|----------|------|
| 1        | 9D6  |
| 2        | 9B6  |
| 3        | 11D3 |
| 4        | 11B3 |
| 5        | -    |
| 6        | -    |
| 7        | -    |
| 8        | 3B3  |

### TERMINAL STRIP

#### X (CUSTOMER INTERFACE)

TERMINAL 1	9C2
TERMINAL 2	9B2
TERMINAL 3	4C3
TERMINAL 4	4C5
TERMINAL 5	4D4
TERMINAL 6	4E2
TERMINAL 7	4A2
TERMINAL 8	1C3
TERMINAL 9	1C3

### THYRISTOR (TRIAC)

(NOT ON CKT CARD ASSEM.)

- Q1 10C7

### TRANSISTOR (NOT ON CKT. CARD ASSEM.)

- Q2 OF SMD ASSEMBLY 1C5

### TIMER

- ELAPSED TIME INDICATOR 9C4

### TRANSFORMER

- T1 SMD 1D5
- T2 48V AC 11C2

NOTES

CIRCUIT NOTES

101. FUSING

DESIGNATION	FUNCTIONAL TITLE	FUSE AMP.	POTENTIAL AT FUSE	PHYSICAL LOCATION
F1	MAIN SET FUSE	3A SL-BL	115VAC	CALL CONTROL UNIT
F2	SMO FUSE	3/8A SL-BL	.	.
F3	48VAC SUPPLY	1/2A SL-BL	.	.
F4	MOTOR FUSE	DEPENDS ON MOTOR USED. SEE SHEET 810	.	TYPING UNIT
F5	READER FUSE	3/4A SL-BL	.	READER POWER PACK AT FRONT OF CALL CONTROL UNIT

VOLTAGE SYMBOL	VOLTAGE RANGE
115V AC	103VAC TO 127VAC

FREQUENCY	FREQUENCY RANGE
60Hz SETS	± 3/4%
50Hz SETS	± 3/4%
50-60Hz SETS	48 TO 62Hz

102. OPTIONS

OPTION	FS LOC	ACTUAL LOC	FACTORY PROVIDED
* 20MA SIGNAL INPUT	1C3, 3B5	9336ND.	
* 50MA SIGNAL INPUT	1C3, 3C5	1A5, 2D3	•
* HALF DUPLEX SIGNALING	4C4, 4E4	9335ND.	•
* FULL DUPLEX SIGNALING		2E3	•
* EVEN PARITY KEYBOARD			•
LEVEL 8 ALWAYS MARK	2B3 AND 9334ND	9334ND	
LEVEL 8 ALWAYS SPACE			

\*SELECT ONLY ONE OPTION FROM THIS GROUP

EQUIPMENT NOTES

201. THIS DRAWING SHOWS ALL WIRING AND ELECTRICAL COMPONENTS USED ON THIS SERIES OF SETS. THE PRESENCE OF A GIVEN COMPONENT ON A PARTICULAR SET, HOWEVER, DEPENDS UPON THE FEATURES ORDERED ON THAT SET.

INFORMATION NOTES

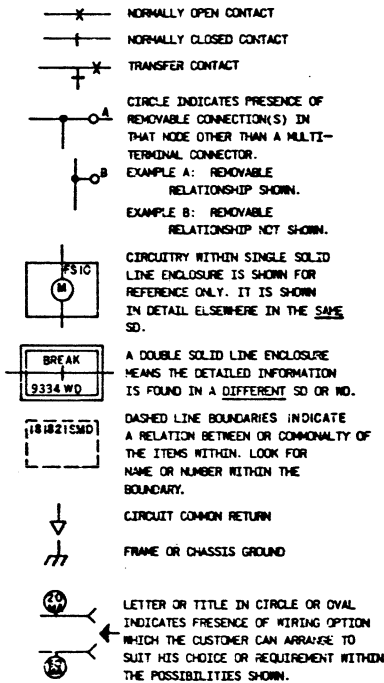
301. SHEET COORDINATES LOCATION LEGEND



302. ( ) TERMINAL DESIGNATIONS ENCLOSED IN PARENTHESES ARE FOR REFERENCE AND ARE NOT MARKED ON THE COMPONENT.

303. ALL RESISTANCE VALUES IN OHMS AND CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED.

304. SYMBOLLOGY



WIRING STATUS:

00-B B-DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.

00-A A-DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.



NOTES  
GENERAL INFORMATION

COILS

<u>NUMBER</u>	<u>272 M</u>	<u>279 M</u>	<u>300 M</u>
FUNCTION	ANSWER BACK TRIP	REACER TRIP	REACER TRIP
VOLTAGE RATING	48 VAC ±10%, 50/60 Hz 24 VDC ±10%	48 VAC ±10%, 50/60 Hz 24 VDC ±10%	115 VAC ±10%, 50/60 Hz
COIL RESISTANCE	110 Ω ±10%	110 Ω ±10%	780 Ω ±10 % .5

RELAYS

<u>NUMBER</u>	<u>178306</u>
FUNCTION	MOTOR CONTROL
VOLTAGE RATING	16-28 VDC
CONTACT RATING	1/2 HP 125-250 VAC, 8 AMPS @ 250 VAC
COIL RESISTANCE	440 Ω ±10%
PICK UP TIME	25 ms MAX.
RELEASE TIME	16 ms MAX.
CONTACT BOUNCE	5-7 ms MAX.

SWITCHES

<u>NUMBER</u>	<u>182037</u>	<u>183445</u>	<u>181441</u>	<u>155954</u>
FUNCTION	FUNCTIONS DC1, DC3, EQ1 & ECT	PAPER ALARM-SPROCKET FEED	PAPER ALARM-FRICTION FEED	186848 LOW TAPE MOD. KIT
VOLTAGE RATING	115 VAC 115 VDC	115 VAC 10-48 VDC	120-240 VAC 30 VDC	125-250 VAC 30 VDC
MAXIMUM CONTACT CURRENT	100 MA (IND & RES) AC 100 MA (IND & RES) DC IN/SPARK PROT.	2 AMPS AC 15 MA (IND) 300 MA (RES) DC	5 AMPS AC 3 AMPS (IND) 4 AMPS (RES) DC	5 AMPS (RES) AC 3 AMPS (IND) 4 AMPS (RES) DC
TIME FROM END OF START PULSE TO CONTACT OPERATION	140-150 ms	—	—	—
DURATION OF BOUNCE	3 ms	—	—	—
DURATION OF OPERATION INCLUDING BOUNCE	35-40 ms	—	—	—

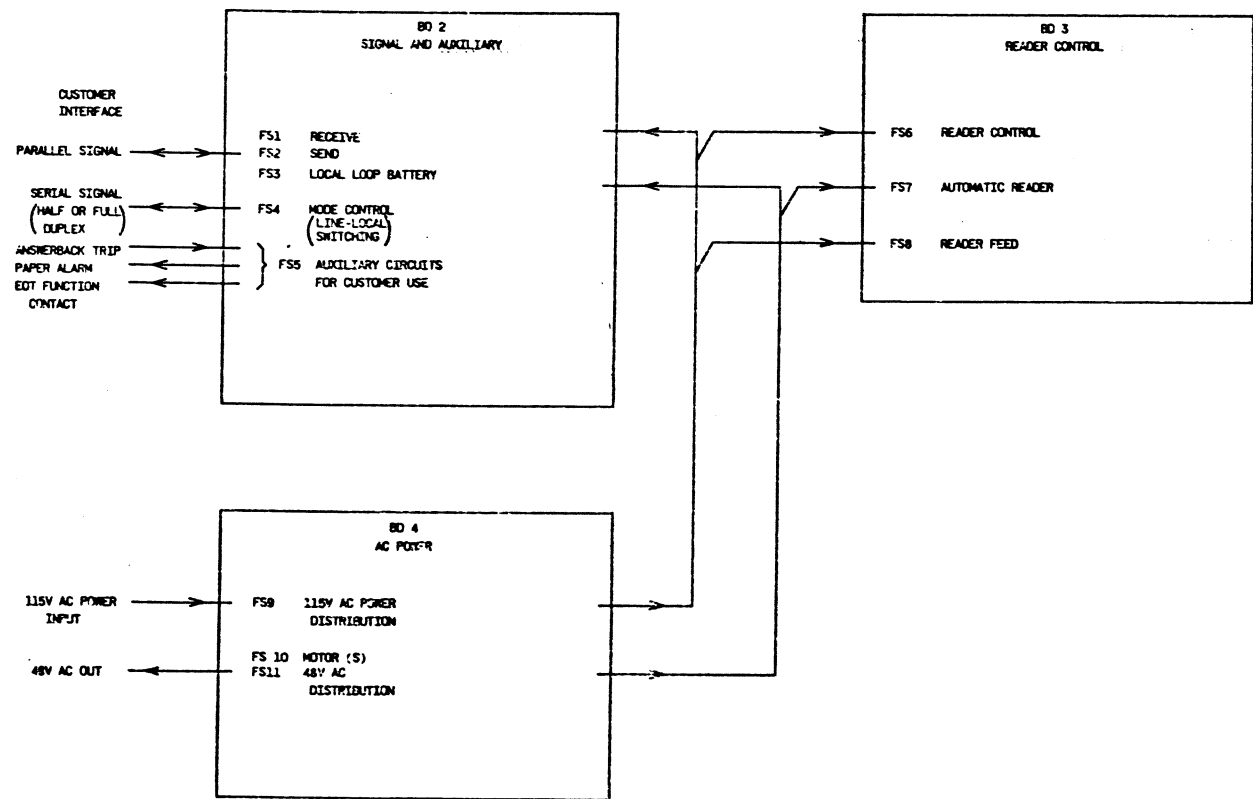
MOTORS

<u>NUMBER</u>	<u>181870</u>	<u>182241</u>	<u>182267</u>	<u>183991</u>
TYPE	33 MHP, SINGLE PHASE, SYN.	33 MHP, SINGLE PHASE, SYN.	35 MHP, SINGLE PHASE, SYN.	1/12 HP, SINGLE PHASE SERIES
DESIGNED SPEED	3600 RPM	3600 RPM	3000RPM	3600 RPM WITH SPEED REGULATOR
RATED LOAD	9 OZ. IN.	9 OZ. IN.	10.8 OZ. IN.	9 OZ. IN.
VOLTAGE RATING	115 VAC ±10%, 60 CYCLE	115 VAC ±10%, 60 CYCLE	115 VAC ±10%, 50 CYCLE	115 VAC ±10%, 50/60 CYCLE
START CURRENT	7 AMPS	11.5 AMPS	30.7 AMPS	2.5 AMPS
RUN-CURRENT-RATED LOAD	2 AMPS	1.6 AMPS	1.7 AMPS	.9 AMPS
TIME TO REACH SYNCHRONOUS SPEED-RATED VOLTAGE ±10%	WITHIN 1 SECOND	WITHIN 1 SECOND	WITHIN 1 SECOND	WITHIN 1 SECOND
POWER FACTOR-RATED LOAD	.4 NOMINAL	.4 NOMINAL	.4 NOMINAL	.6 NOMINAL
LAG ANGLE-RATED LOAD	6 DEGREES NOMINAL	6 DEGREES NOMINAL	8 DEGREES NOMINAL	—
MINIMUM INTERVAL BETWEEN REPEATED MOTOR STARTS	20 SECONDS MIN.	20 SECONDS MIN.	20 SECONDS MIN.	20 SECONDS MIN.

# BD-1

## CIRCUIT BLOCK DIAGRAM

ISSUE
1



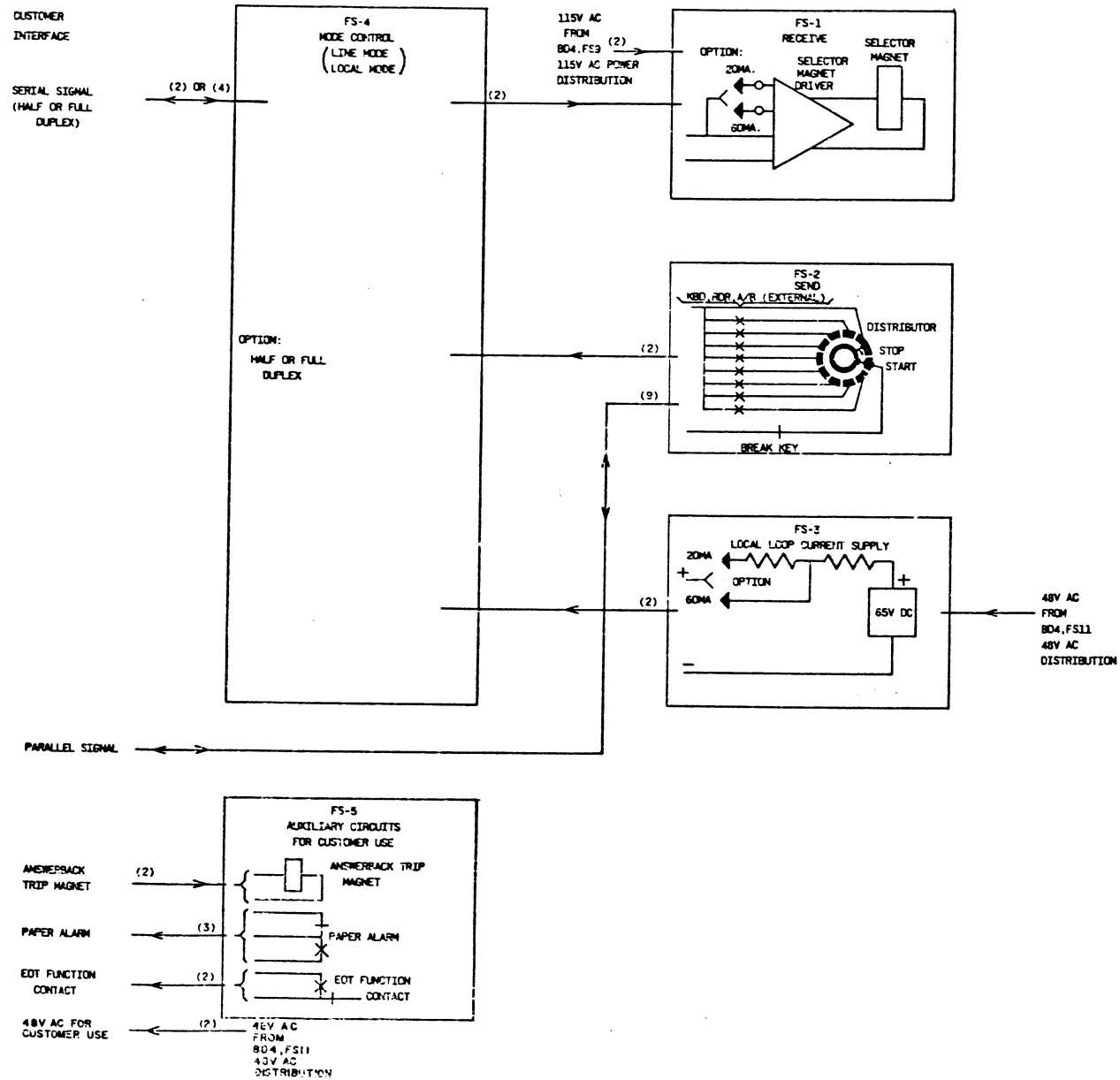
MODEL 33  
 RD, KSR, AND ASR SETS  
 3300, 3210, 3320 SERIES



1180 SD-HI

# BD-2 SIGNAL AND AUXILIARY

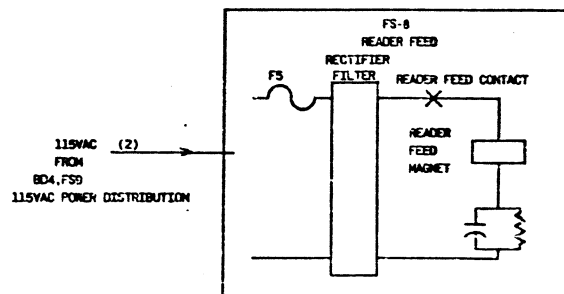
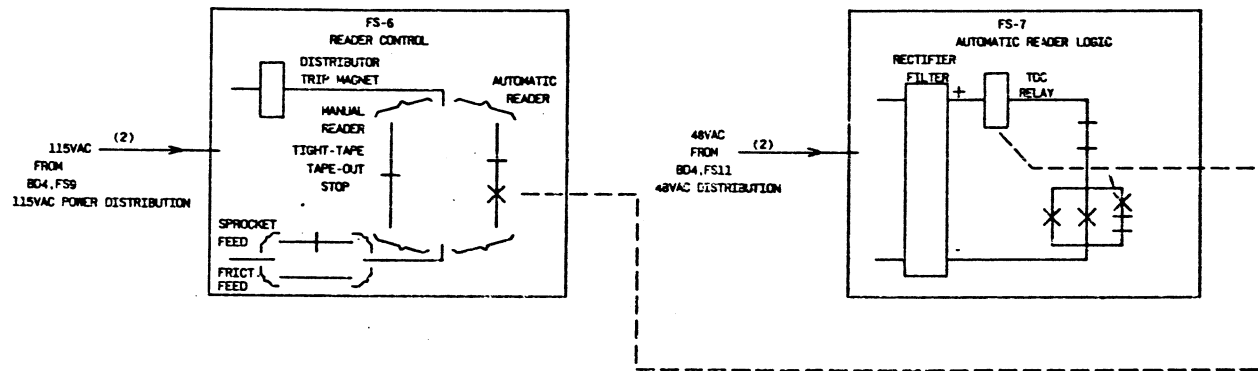
( ) INDICATES NUMBER OF WIRES REPRESENTED BY THE LINE BELOW.





( ) INDICATES NUMBER OF WIRES REPRESENTED BY THE LINE BELOW.

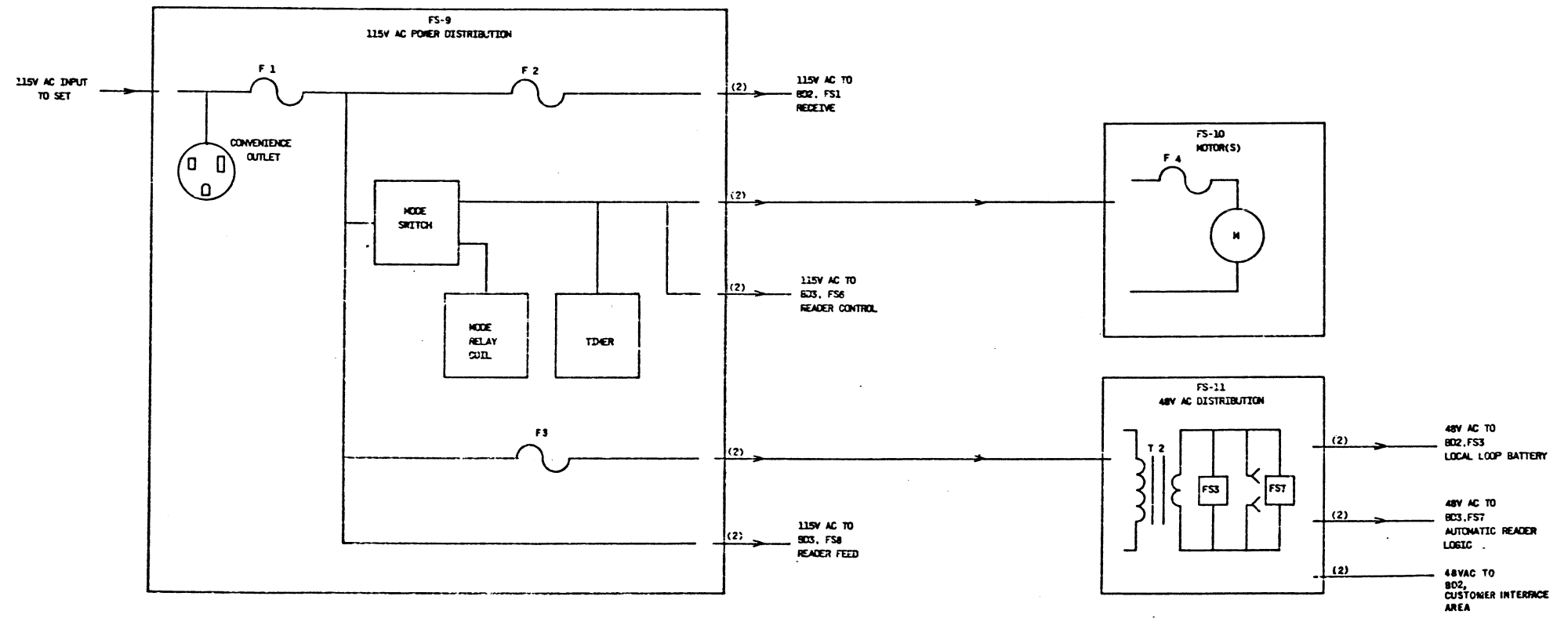
# BD-3 READER CONTROL (ASR SET ONLY)



# BD-4

## AC POWER

( ) INDICATES NUMBER OF WIRES REPRESENTED BY THE LINE BELOW.



NOTES

**SCHEMATIC**

1. SYMBOLOLOGY

- HEAVY LINES REPRESENT CIRCUIT PATHS PROVIDED BY METAL PLATES IN CONTACT BLOCK ASSEMBLY.
- CIRCLE INDICATES PRESENCE OF REMOVABLE CONNECTION IN THAT NODE OTHER THAN A MULTI-TERMINAL CONNECTOR.
- FEMALE TERMINAL OF MULTI-TERMINAL CONNECTOR
- MALE TERMINAL OF MULTI-TERMINAL CONNECTOR
- NORMALLY OPEN CONTACT
- NORMALLY CLOSED CONTACT

CONTACT CONTROL, SHIFT, BREAK  
LEVEL 1 THROUGH 8

DEFINITION OF NORMAL KEY NOT DEPRESSED  
RESPECTIVE CODE BARS ARE IN THE SPACING POSITION, AND KEYBOARD IS TRIPPED

---

**SCHEMATIC AND ACTUAL**

2. SYMBOLOLOGY

(1) TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.

3. LEVEL 8 OPTION WIRED FOR (A) AT FACTORY

OPTION	LEAD 1	LEAD 2	LEAD 3	LEAD 4
(A) EVEN PARITY	ON	OFF	OFF	ON
(B) LEVEL 8 ALWAYS MARK	OFF	ON	ON	ON
(C) LEVEL 8 ALWAYS SPACE	EITHER ONE ON OR BOTH OFF	ON OR OFF	ON OR OFF	OFF

FUNCTIONAL OPTIONS FOR WHICH THIS PATH MUST BE CONNECTED  
REFERENCE DESIGNATION OF ASSOCIATED LEAD

(A, B)

---

**ACTUAL**

4. SYMBOLOLOGY

WIRING LEGEND:

- DISTANT TERMINATING AREA
- DISTANT TERMINATING TERMINAL
- WIRE COLOR (1, 2, OR 3 COLORS)

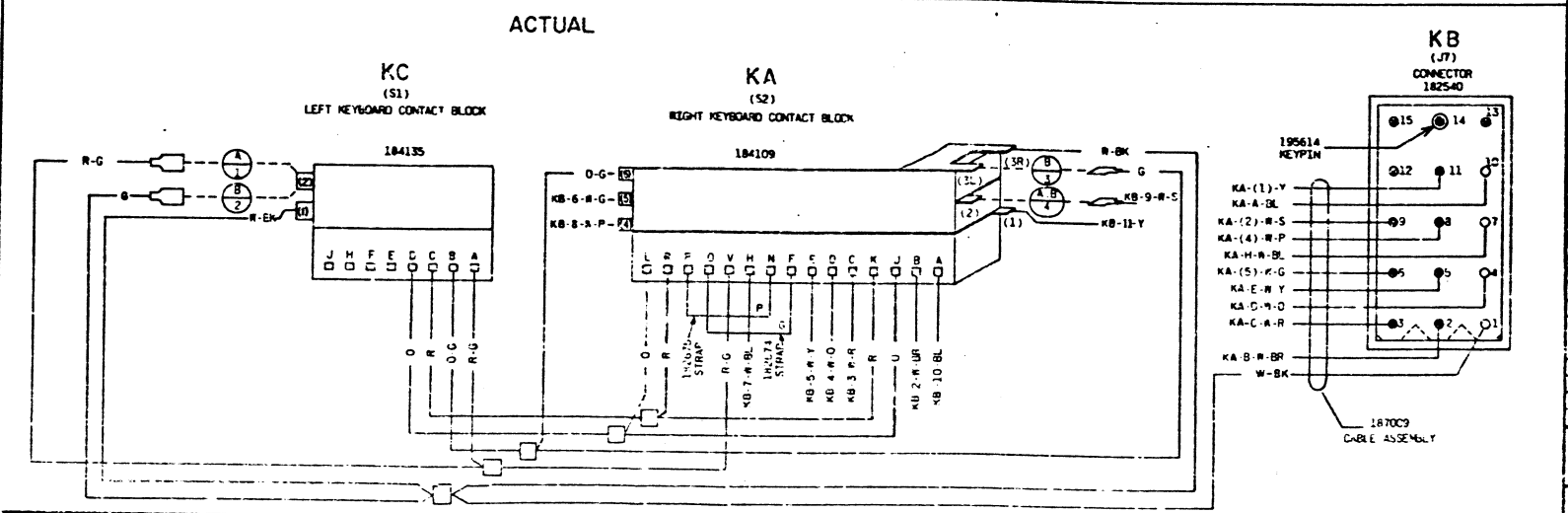
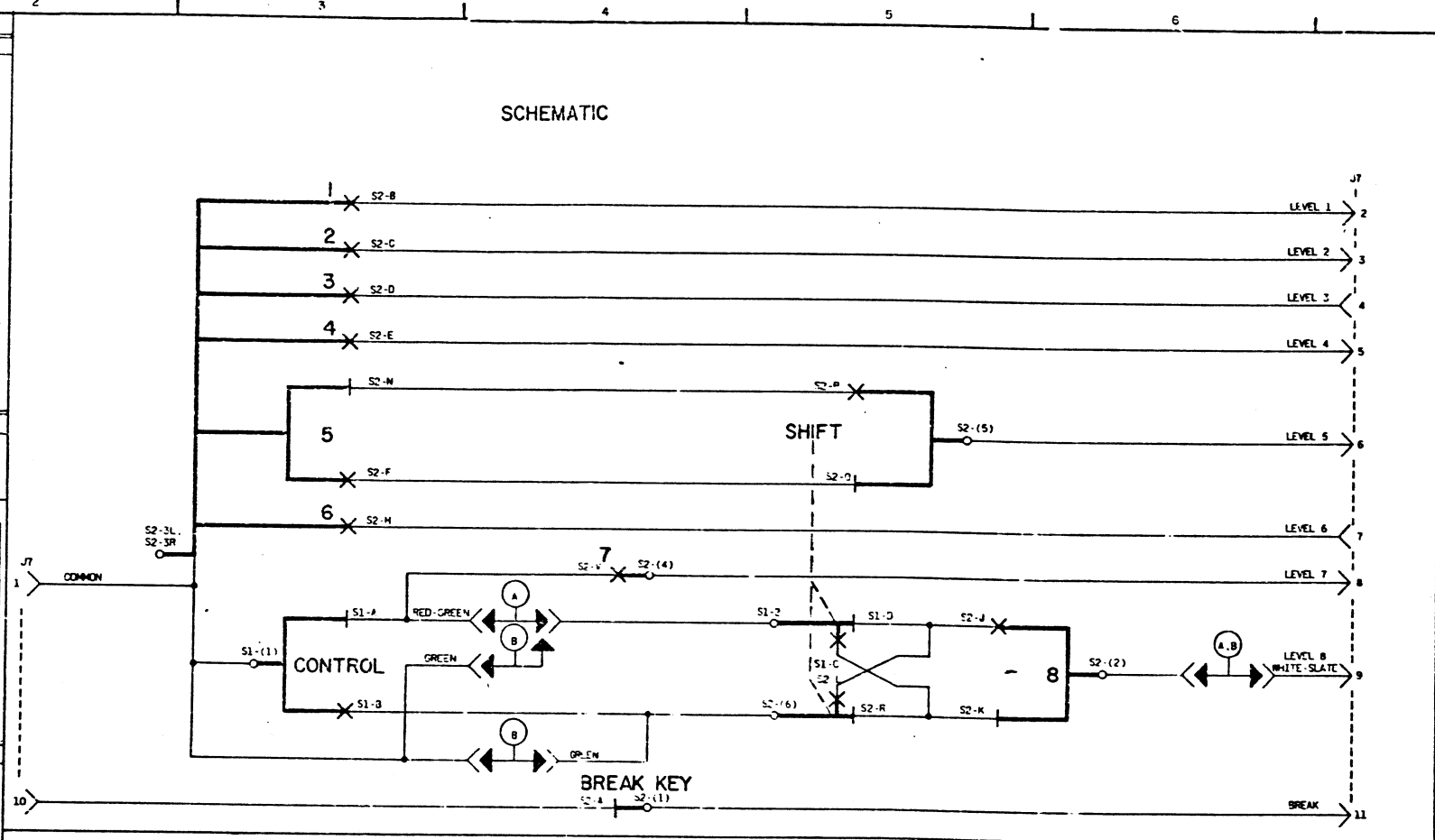
KC-B-R-P

CONNECTORS:

- NO PIN
- FEMALE PIN
- MALE PIN
- BLOCKING PIN
- LARGER PERIMETER SHELL DESIGNATED J
- SMALLER PERIMETER SHELL DESIGNATED P
- WIRE SPLICE (NOT REPRESENTED ON SCHEMATIC)

5. WIRE COLOR CODE:

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



REVISIONS		
ISSUE	DATE	AUTH. NO.
1	7-7-71	643R
2	2-72	653R

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**MODEL 33 KEYBOARD  
UK 819**







WDP

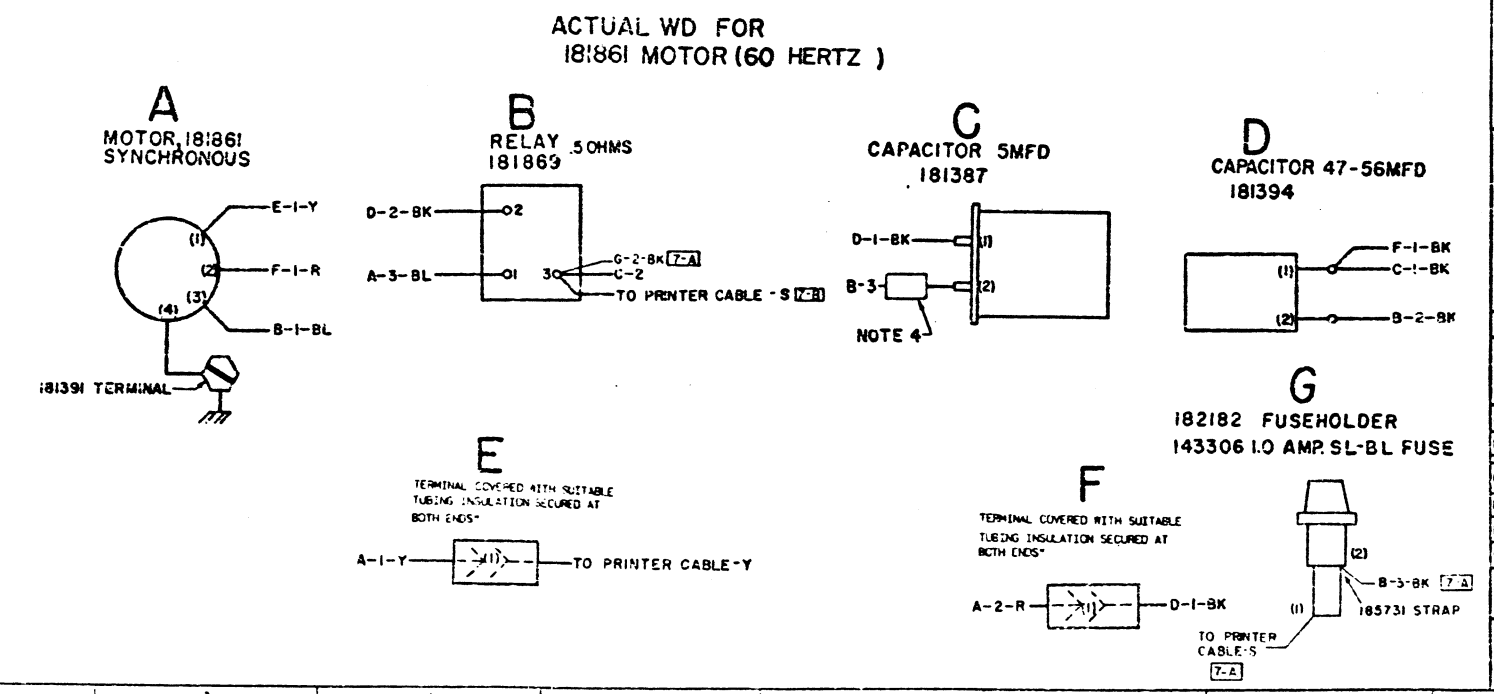
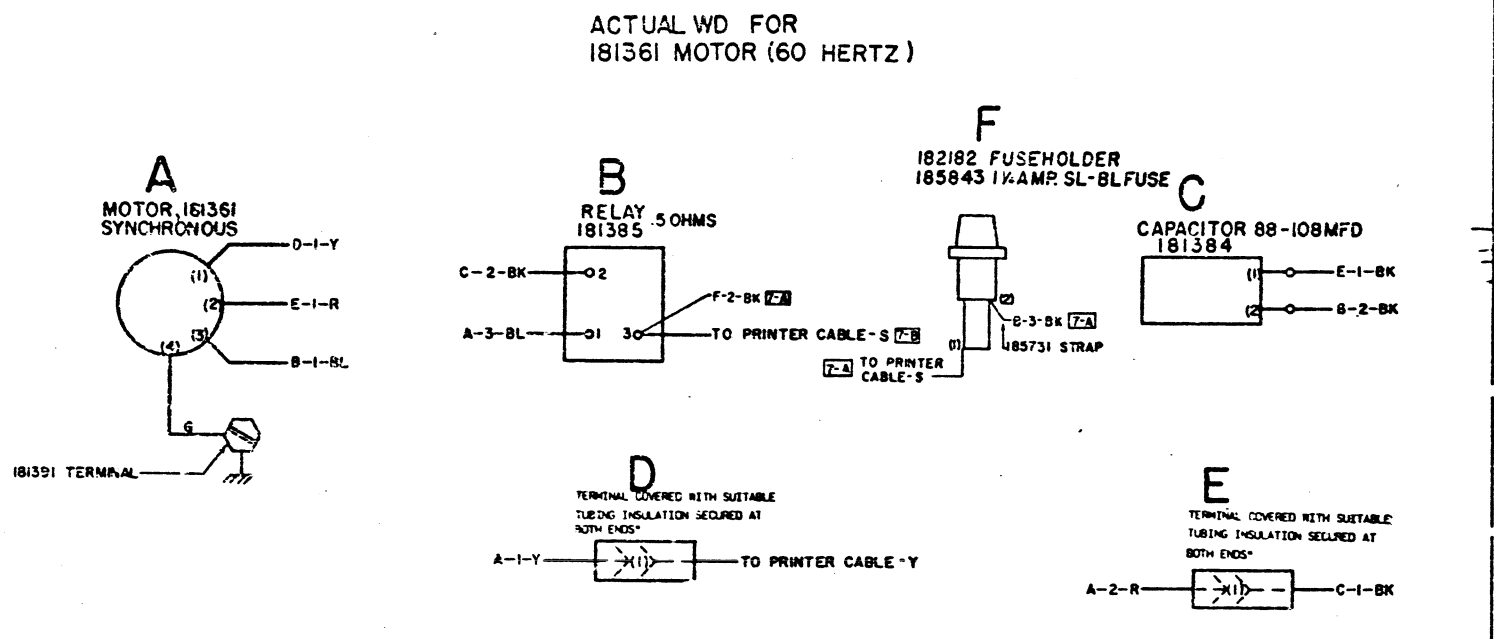
APPROVALS

PROJ. SUBV.	PROJ. DIR.	MFG. REL. COMPL.
ENGR. DFR.	ISSNMR.	
DRN. SLD	DATE 4-27-71	
R&D FILE	5 ALSC 21A	
S-NUMBER	51202	

TELETYPE

**9334 WD**

NO.	NOTES									
1.	<b>WIRING LEGEND:</b>  D-DISTANT TERMINATING AREA  D-DISTANT TERMINATING DESIGNATION  NOTE-5  WIRE COLOR CODE									
2.	<b>COLOR CODE:</b> BK-BLACK      P-PURPLE BL-BLUE      R-RED BR-BROWN    S-SLATE Y-YELLOW    O-ORANGE G-GREEN      W-WHITE									
3.	ASSOCIATED SCHEMATIC CROSSING.									
4.	182272 RESISTOR-10 OHMS, 5 WATT (PART OF 181387 CAPACITOR W/RESISTOR ASSEMBLY).									
5.	<b>WIRING STATUS:</b> RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES.  B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.  A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.									
6.	185731 STRAP AND FUSE ASSEMBLY NOT INCLUDED IN EARLY SETS. <table border="1"> <thead> <tr> <th>MOTOR</th> <th>FUSE VALUE</th> <th>FUSE PART NO.</th> </tr> </thead> <tbody> <tr> <td>182241</td> <td>2.0 AMP</td> <td>138533</td> </tr> <tr> <td>182267</td> <td>1.0 AMP</td> <td>320246</td> </tr> </tbody> </table>	MOTOR	FUSE VALUE	FUSE PART NO.	182241	2.0 AMP	138533	182267	1.0 AMP	320246
MOTOR	FUSE VALUE	FUSE PART NO.								
182241	2.0 AMP	138533								
182267	1.0 AMP	320246								
7.	AA FUSEHOLDER, FUSE AND AB TERMINAL CONNECTION ADDED TO 333521 A.C. SERIES MOTOR AT ISSUE 4 OF SHEET 3.									



**4405 WD**

REVISIONS		
ISSUE	DATE	AUTH. NO.
12	3-3-62	30-978
13	11-6-62	30-5330
14	1-3-63	30-5869
15	11-11-63	78856
16	6-9-64	91773
17	8-8-65	37050
18	1-13-64	0984-3
19	3-9-64	89 2. 2
20	2-18-70	59647-4
21	8-24-70	821
22	12-9-70	2145
23	12-14-70	2220
24	9-28-76	18760

NOTE: REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS A PART OF THIS DRAWING. SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.

SHEET 1 TOP

ACTUAL WIRING DIAGRAM FOR

FOR MODEL 32 & 33 MOTORS

APPROVALS	
D AND R	E OF M

E-NUMBER

PROJ. NO. 080562

DATE 2-8-62

P.D. FILE NO. 1-231,15344

DRAWN	CHKD.
EMOD. P.R.S.	APPD.

**TELETYPE CORPORATION**

**4405 WD**

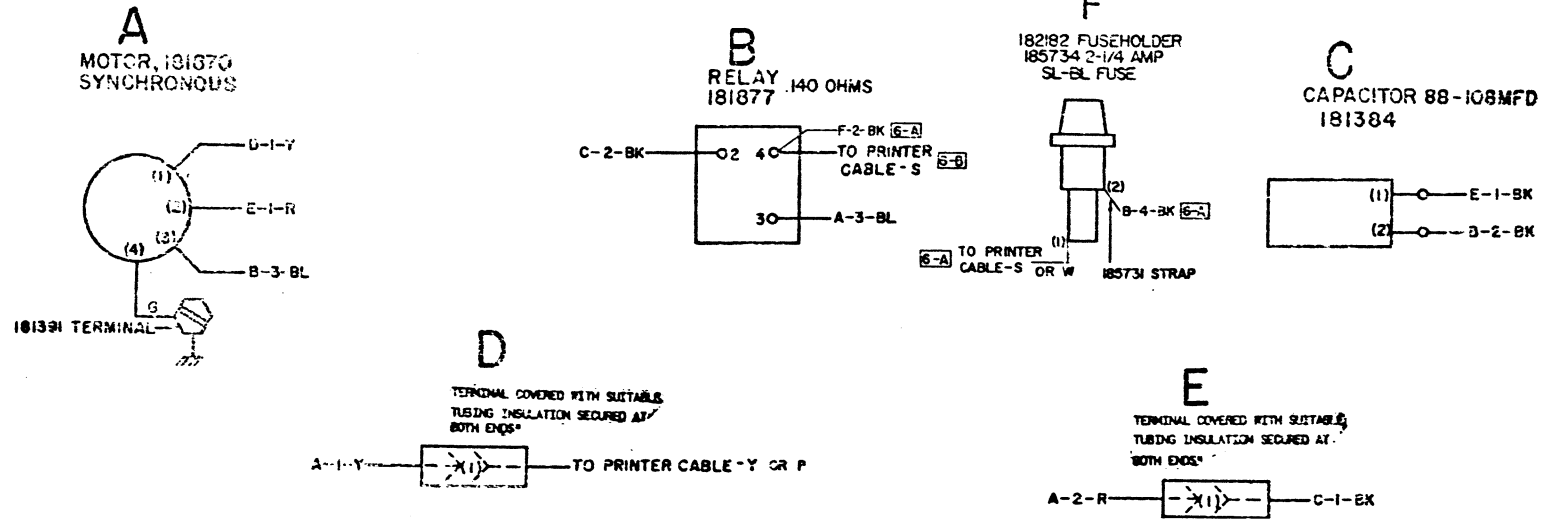
NOTE: ALL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE LIST OF SHEETS CONTAINING THE WIRING.

4405WD

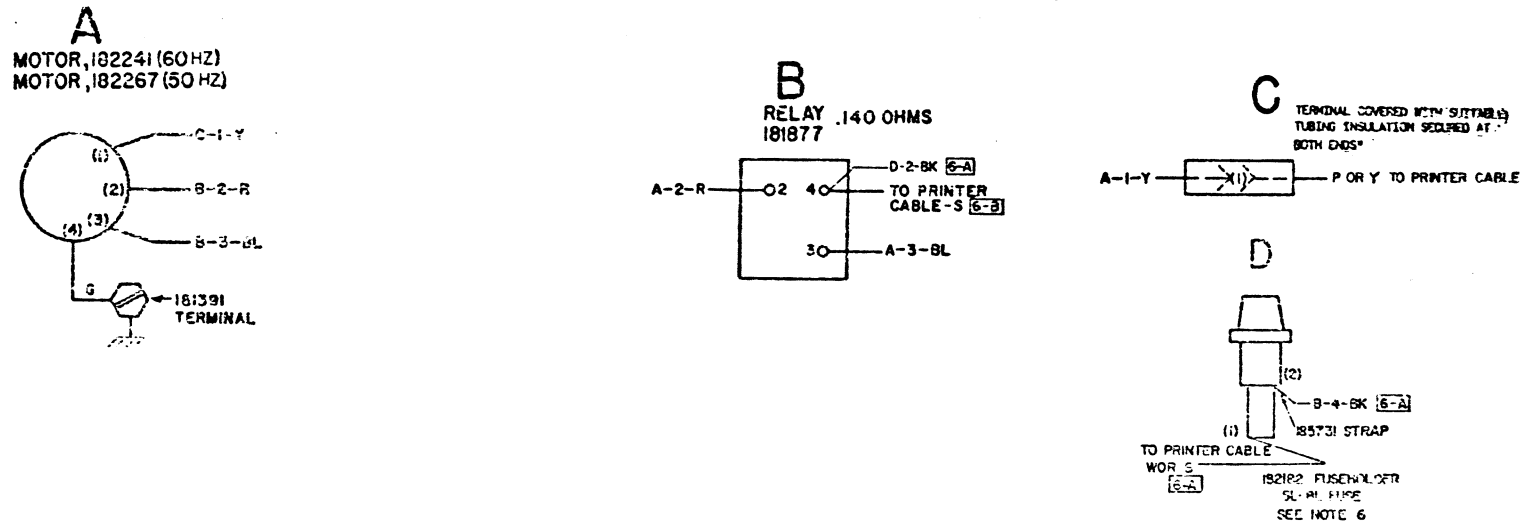
REVISIONS

ISSUE	DATE	AUTH. NO.
A2	3-3-62	50-978
B3	11-5-62	35-5332
B4	1-3-63	30-5869
B5	11-11-63	72255
6	6-9-64	81773
7	6-8-65	87050
8	1-13-66	88841-3
9	3-3-66	89721-2
10	1-26-67	92607
11	2-18-70	99947-4
12	8-24-70	621
13	12-9-70	2145
14	12-14-70	2220

ACTUAL WD FOR 181870 MOTOR (60 HERTZ)



ACTUAL WD FOR 182241 MOTOR (60 HERTZ)  
ACTUAL WD FOR 182267 MOTOR (50 HERTZ)



SEE OTHER CONTROLS RECORD FOR COMPLETE LIST OF SHEETS CONTAINING THE WIRING.

SHEET 2

ACTUAL WIRING DIAGRAM

FOR MODEL 22 & 33 MOTORS

APPROVALS

D AND R: [Signature] E OF B: [Signature]

E-NUMBER: [Blank]  
 PRCD. NO.: 4405WE  
 DATE: 2-9-62  
 P.D. FILE NO.: 1-231-15384  
 DRAWN: S.H.S. CHKD.: [Blank]  
 ENGD.: P.C.S. APPR.: [Blank]

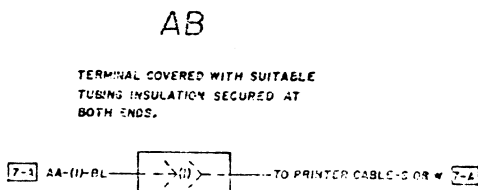
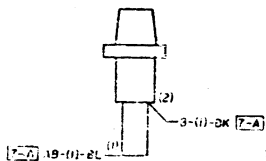
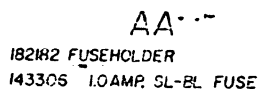
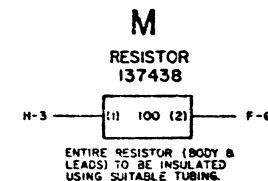
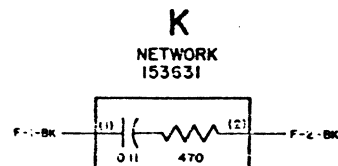
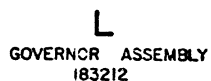
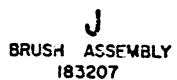
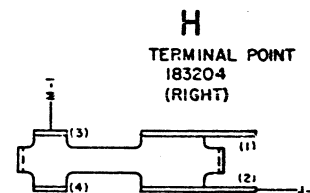
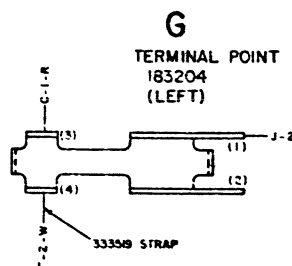
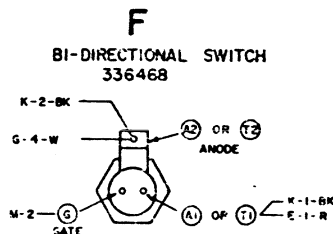
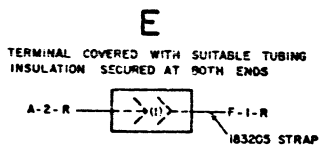
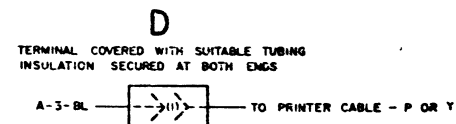
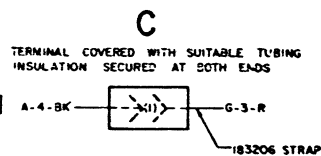
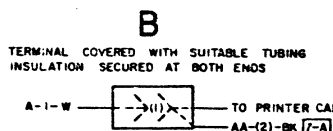
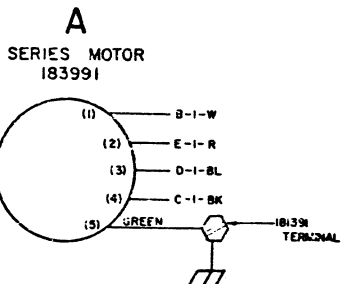
TELETYPE CORPORATION

4405WD

ACTUAL W D FOR  
333521 AC SERIES MOTOR

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

REVISIONS		
ISSUE	DATE	AUTH NO
2	12-4-70	2220
3	11-9-71	4513
4	9-27-76	16760



SEE LIST OF SHEETS COMPRISING THIS

SHEET 3

ACTUAL  
WIRING DIAGRAM  
FOR MODEL 32/33  
MOTORS

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.

ENGR. A S DSGNR. A S  
DRN. C E C DATE 0-1-70  
R&D FILE 1-131 153AA  
S-NUMBER

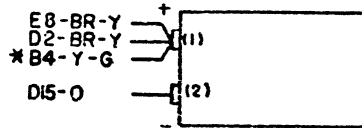


4970 WD

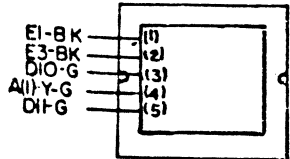
ISSUE	DATE	AUTH NO
1	8-1-62	30-1265
2	8-5-63	77081
3	1-31-64	79903
4	5-10-68	95523-4
5	1-14-71	736

- | NO | NOTES   |
|----|---|
| 1. | <p>WIRING CODE</p> <p>— DISTANT TERMINATING AREA</p> <p>— DISTANT TERMINATING POINT</p> <p>— COLOR CODE</p> <p>A 3 - BL</p>   |
| 2. | SEE 4979WD FOR SCHEMATIC WIRING DIAGRAM   |
| 3. | USE CABLE 181818  |
| 4. | * DENOTES #20 AWG WIRE. ALL OTHERS #24AWG   |
| 5. | <p>SOME 182695 UNITS CONTAIN 330793 OR 182722 TRANSFORMER AND 182696 CABLE WITH 182536 CONNECTOR.</p> <p>SOME 181815 UNITS CONTAIN 330793 OR 182722 TRANSFORMER</p> |

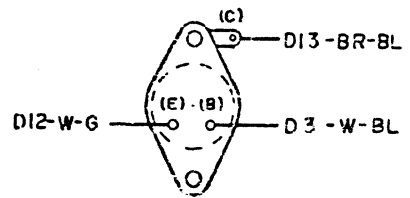
### A CAPACITOR FILTER (182501)



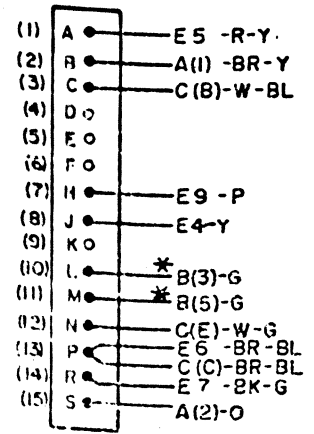
### B TRANSFORMER, POWER (337992) 50/60 Hz NOTE 5



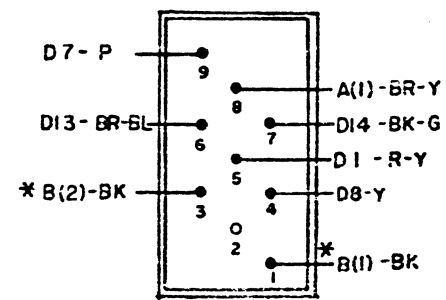
### C TRANSISTOR, POWER (181675)



### D CONNECTOR, CARD (181819) NOTE 5



### E CONNECTOR, RECEPTACLE (182716)



**ACTUAL WIRING DIAGRAM FOR 182695 B 181815 SELECTOR MAGNET DRIVER**

**APPROVALS**

D AND R	E OF M
<i>[Signature]</i>	<i>[Signature]</i>

ENGINEER NUMBER

PRG. NO 4970 WD

DATE: 6-22-62

PD. FILE NO 1-165,33AA

DRAWN *[Signature]* CHK'D *[Signature]*

ENGR. P.R.S. APP'D

**TELETYPE CORPORATION**

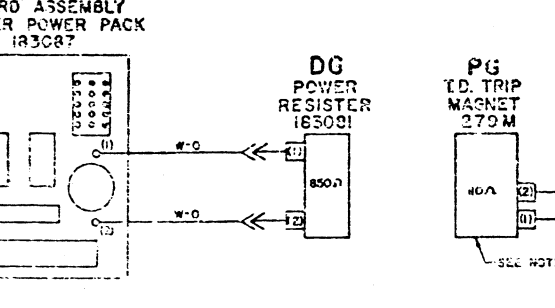
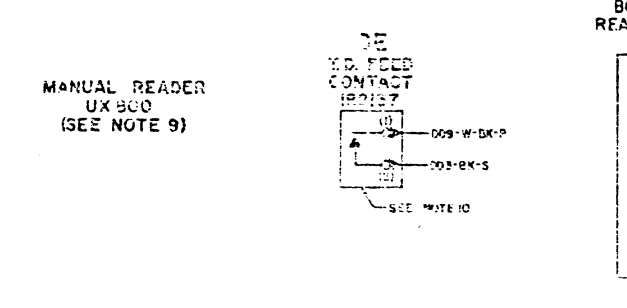
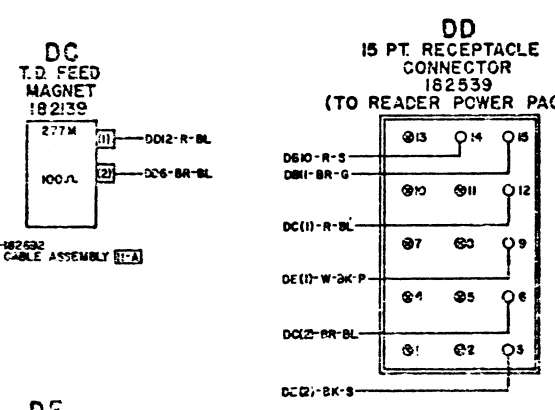
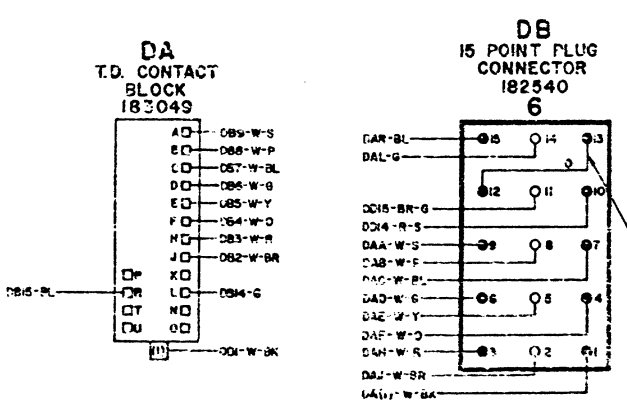
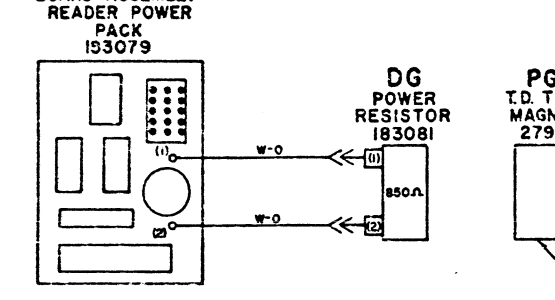
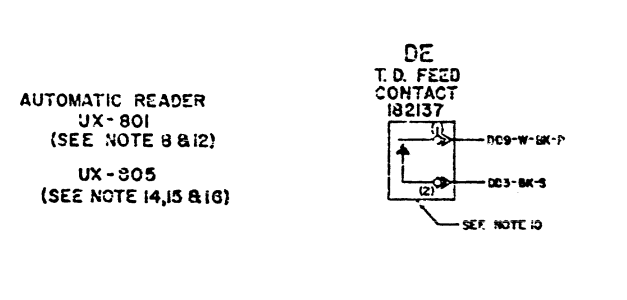
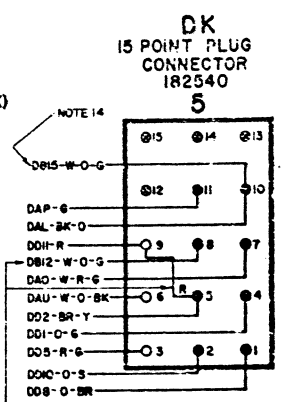
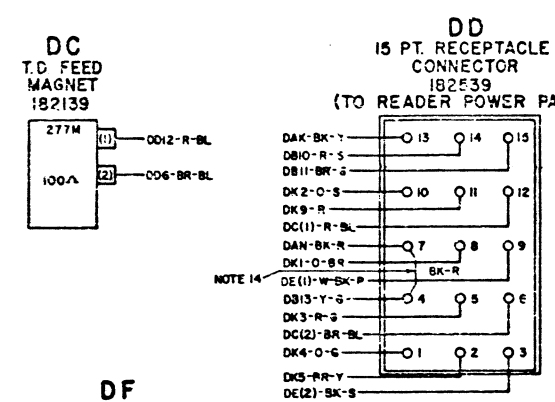
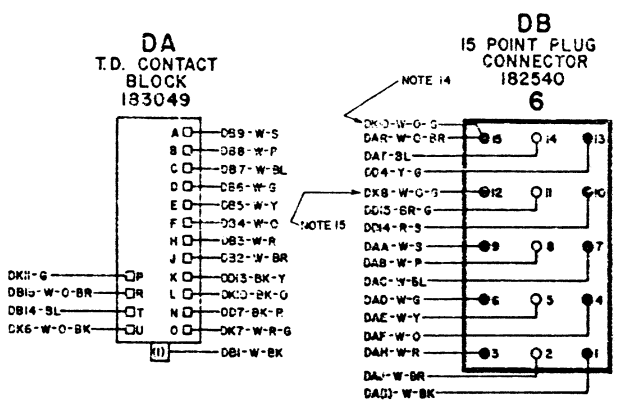
4970 WD

7887 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	4-25-56	17470-R
2	11-3-66	92300-RC
3	1-31-68	95171
4	1-12-72	4853-RC

- NOTES**
1. WIRING LEGEND:  
 □ DISTANT TERMINATING AREA  
 ○ DISTANT TERMINATING DESIGNATION  
 - COLOR CODE  
 DB4-SL
2. WIRE COLOR CODE:  
 W-WHITE BL-BLUE  
 BK-BLACK BR-BROWN  
 O-ORANGE P-PURPLE  
 Y-YELLOW S-SLATE  
 G-GREEN R-RED
3. TERMINALS DESIGNATED ( ) DO NOT APPEAR ON COMPONENT.
4. FOR TELETYPE PERSONNEL REFERENCES, SPECIFICATION 60425
5. CONNECTORS VIEWED FROM WIRED END.
6. FOR SCHEMATIC WIRING DIAGRAM SEE 7882 WD OR S19 WD.
7. ASSOCIATED UNIT ACTUAL WIRING DIAGRAMS:  
 7884WD PRINTER-UP800,801,822,803,820  
 7885WD KEYBOARD-UK800,804  
 7886WD MOTOR  
 7888WD CALL CONTROL-UCC-3  
 4970WD SELECTOR MAGNET DRIVER  
 838WD CALL CONTROL-UCC-26  
 8160WD PRINTER-UP836
8. OPTIONAL UX-801 AUTOMATIC READER-183073 CABLE ASSEMBLY, USED ONLY WITH UP801,803,820 PRINTER ASSEMBLIES.
9. MANUAL READER-UX800 183074 CABLE ASSEMBLY, USED ONLY WITH UP801,803 PRINTER ASSEMBLIES.
10. THESE COMPONENTS ARE MOUNTED ON UP801,803,820 PRINTER ASSEMBLIES BUT ACTUALLY ARE PART OF READER CIRCUIT. SEE PRINTER 7884WD.
11. 182592 CABLE ASSEMBLY (STRAP) NOT REQUIRED WHEN UX800 IS USED WITH EARLY STYLE (BEFORE UCC-3 WIRING CHANGED TO ACCOMMODATE UX801 FACILITIES) UCC-3 CALL CONTROL UNITS WITHOUT WIRES IN POSITION 12 AND 13 OF MATING CALL CONTROL RECEPTACLE CONNECTOR NO. 6.
12. SEE PRINTER 7884WD FOR MODIFICATION TO UP801,803 PRINTER ASSEMBLIES TO PROVIDE AUTOMATIC READER CONTROL OPTIONS.
13. WIRING STATUS:  
 RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES  
 □ B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE NUMBER ENTERED THE PRODUCT.  
 ○ A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
14. ASSOCIATED WITH THE UX-805 ONLY.
15. THERE WIRES DO NOT APPEAR ON UX-805
16. AUTOMATIC READER UX-805 183340 CABLE ASSEMBLY.
17. 279M-48VAC-110 Ω.  
 300M-115VAC-760 Ω.



ACTUAL WIRING DIAGRAM FOR MODEL 33 B LEVEL MANUAL OR AUTOMATIC TRANSMITTER DISTRIBUTOR (TAPE READER) UX-800-AUTOMATIC READER UX-801-AUTOMATIC READER UX-805-AUTOMATIC READER

APPROVALS

D AND R      E OF M

E-NUMBER

PROD. NO. 7887 WD

DATE 9-3-55

P.D. FILE NO. G-A152AA

DRAWN RMB      CKD JLE

ENGR. JWS      APPR. JWS

TELETYPE CORPORATION

7887 WD





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	
SHEET INDEX AND NOTES	A1	1	2	3	4	5																								11
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING	B1	1	2	3	3	4																								B1
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CABLE WIRING)	B2	1	2	3	4	5																								B2
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CIRCUIT BOARD WIRING)	B2A			1	2	3																								B2A

SUPPORTING INFORMATION

CATEGORY	NO.
WIRING DIAGRAM PACKAGE FOR MODEL 33 RO, XSR, AND ASR SETS 3300, 3310, 3320 SERIES	ROP 0316

REVISIONS

ISSUE	DATE	AUTH. NO.
1	8-6-71	21643R
2	5-23-73	8197
3	11-27-73	8046
4	3-29-74	10712-RC
5	2-12-75	22218

- NO. NOTES
- WIRE COLOR CODES:

BK - BLACK	G - GREEN
BR - BROWN	BL - BLUE
R - RED	P - PURPLE
O - ORANGE	S - SLATE
Y - YELLOW	W - WHITE
  - COMPONENT VIEWS SHOWN FROM WIRED SIDE.
  - SYMBOLS

( ) TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.

--- ASSOCIATED TERMINALS, CONNECTIONS, OR FUNCTIONS.

\* DENOTES 20 AWG. WIRE.

\*\* DENOTES 18AWG WIRE. ALL OTHER IS 24AWG.

☐ WIRE SPLICE (NOT REPRESENTED ON SCHEMATIC)
  - COMPONENT IDENTIFICATION:

AB SHEET, LOCATION  
(C1) (SCHEMATIC DESIGNATION)  
CAPACITOR - GENERIC PART NAME  
121814 - PART NUMBER

⊙ PART ILLUSTRATION
  - WIRING LEGENDS

DISTANT TERMINATING AREA UNITS WITH CABLE WIRING UNITS WITH CIRCUIT BOARD WIRING (WHERE USED)

DISTANT TERMINATING TERMINAL WIRE COLOR (1, 2 OR 3 COLORS): BA, CA - 3-0

CONNECTORS:

J3 P3

NO PIN  
FEMALE PIN  
MALE PIN  
BLOCKING PIN

HALF WITH LARGER PERIMETER SHELL DESIGNATED J  
HALF WITH SMALLER PERIMETER SHELL DESIGNATED P
  - ALL WIRING PART OF 281820 CABLE ASSEMBLY EXCEPT WHERE OTHERWISE SPECIFIED.
  - REFER TO 118050 FOR A RELATED SET SCHEMATIC DIAGRAM.

- THIS DRAWING SHOWS ALL WIRING AND ELECTRICAL COMPONENTS USED ON THIS SERIES OF SETS. THE PRESENCE OF A GIVEN COMPONENT ON A PARTICULAR SET, HOWEVER, DEPENDS UPON THE FEATURES ORDERED ON THAT SET.
- CUSTOMER OPTIONS:

THIS UNIT CONTAINS WIRING OPTIONS FOR INTERFACING A 20MA OR 60MA DC CURRENT SIGNAL LOOP AS WELL AS INTERFACING IN A HALF DUPLEX (TWO WIRE) OR FULL DUPLEX (4 WIRE) CONFIGURATION.

20 AND 60MA SIGNALING CURRENT OPTION WIRING APPEARS AT THE COMPONENTS DESIGNATED AC AND BL.

HALF AND FULL DUPLEX OPTION WIRING APPEARS AT COMPONENT BL.

OPTION WIRING SHOULD BE CONNECTED AS INDICATED FOR THE DESIRED OPTION.

THIS UNIT HAS BEEN PRE-WIRED AT THE FACTORY FOR 60MA DC, HALF DUPLEX OPERATION.
- REFER TO 4970WD FOR WIRING OF 181818 SELECTOR MAGNET DRIVER ASSEMBLY WHICH IS ALSO PART OF THIS UNIT.

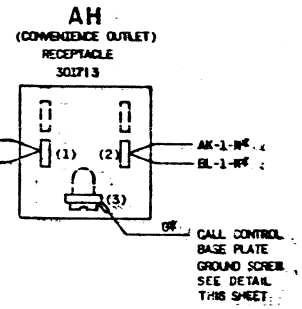
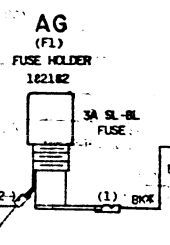
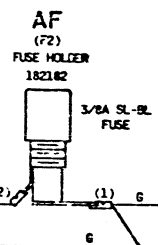
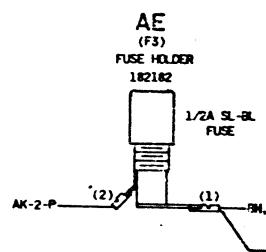
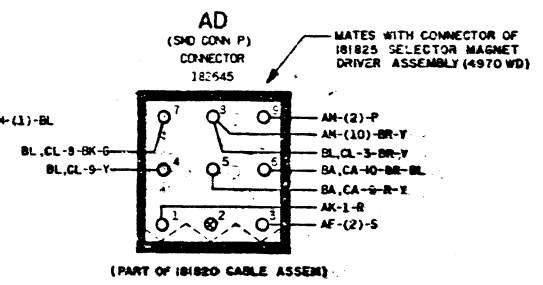
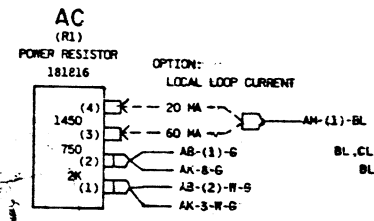
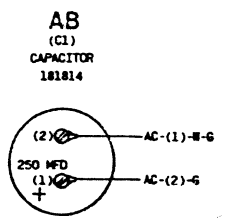
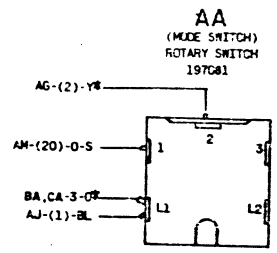
- SHEET INDEX NOTES
- WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
  - THIS SHEET INDEX WILL BE REISSUED AND UPDATED EACH TIME ANY SHEET OF THE DRAWING IS REISSUED OR A NEW SHEET IS ADDED.
  - THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF THE SHEET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

WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

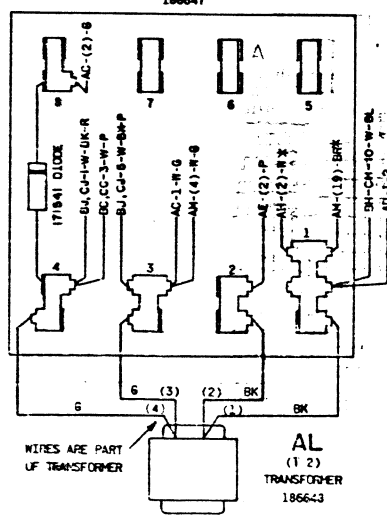
APPROVALS

PROJ. SUPV. DTR	PROJ. DIR. RPS	WFO. REL. COMPL. RWH
ENGR. OFD. DESIGNER		
DRW. S.L.D. DATE 8-2-71		
R & D FILE E-A152-219A		
S-NUMBER 61-310		

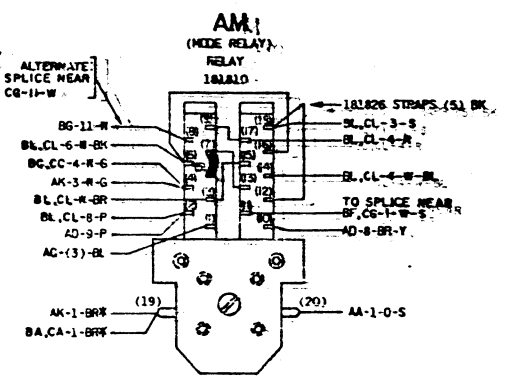
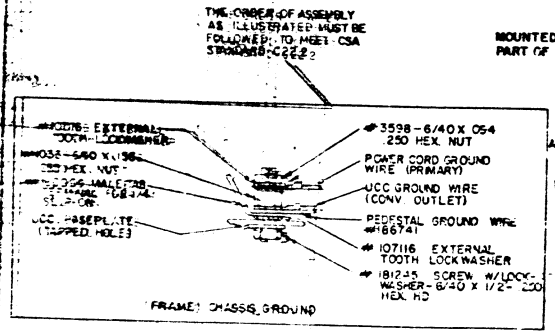
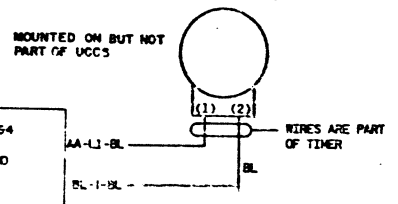
REVISIONS		
ISSUE	DATE	AUTH. NO.
1	8-6-71	21643R
2	5-23-73	8197
3	11-21-75	8046
4	2-2-75	722 B



**AK**  
(TERMINAL FIELD)  
TERMINAL BOARD ASSEMBLY  
186647



**AJ**  
(RELAPSED TIME INDICATOR)  
TIMER ASSEMBLY  
186751 (60 HR)  
188448 (50 HR)



WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

APPROVALS

PROJ. SUFY	PROJ. DIR.	WFS. REL. CONFL.
DR	RRS	AM
ENGR. SKT.	DATE	
DRW. S. L. C.	DATE	
R & D FILE 6-1162 219A		
9-NUMBER 61.910		







REF DESIG	PART NO REQ	QTY	DESCRIPTION	FUNCTION
R1	183083	1	RESISTOR 22 OHM	SURGE LIMITER
R2	183082	1	RESISTOR 12 000 OHM	ARC SUPPRESSOR
R3	118398	1	RESISTOR 56 000 OHM	BLEEDER
R4	118150	1	RESISTOR 10 000 OHM	ARC SUPPRESSOR
R5	144464	1	RESISTOR 220 OHM (NOTE 4)	VOLTAJE DROPPING
C1	183078	1	CAPACITOR DUAL SECTION A - 200 MFD, 200V DC B - 9 MFD, 200V DC	POWER SUPPLY FILTER SURGE SOURCE
C2	183084	1	CAPACITOR 22 MFD	ARC SUPPRESSOR
C3	183121	1	CAPACITOR 15 MFD	FILTER
CR1	302341	6	DIODE, 400V (NOTE 5)	POWER SUPPLY RECTIFIER
CR2			SAME AS CR1	POWER SUPPLY RECTIFIER
CR3			SAME AS CR1	POWER SUPPLY RECTIFIER
CR4			SAME AS CR1	POWER SUPPLY RECTIFIER
CR5			SAME AS CR1	ARC SUPPRESSOR
CR6			SAME AS CR1	RECTIFIER
F1	143630	1	FUSE, 3/4 A.F.B.	POWER SUPPLY PROTECTION (SEE NOTE 2)
FC	171595	2	FUSE CLIP	
T1	183085	2	TERMINAL WITH WIPE LEAD	
T2			SAME AS T1	
J1	182540	1	CONTACT BLOCK, 15 POINT	
E	182641	15	TERMINAL MALE P.C.	
EC	183137	1	ETCHED CIRCUIT BOARD	
RYL.1	183088	1	RELAY, 2, 100 OHM	AUTOMATIC READER CONTROL
	151637	2	SCREW, 4-40 FIL. HEAD	
	110743	2	LOCKWASHER, 4-40	
	151880	2	NUT	

SIMILAR TO:

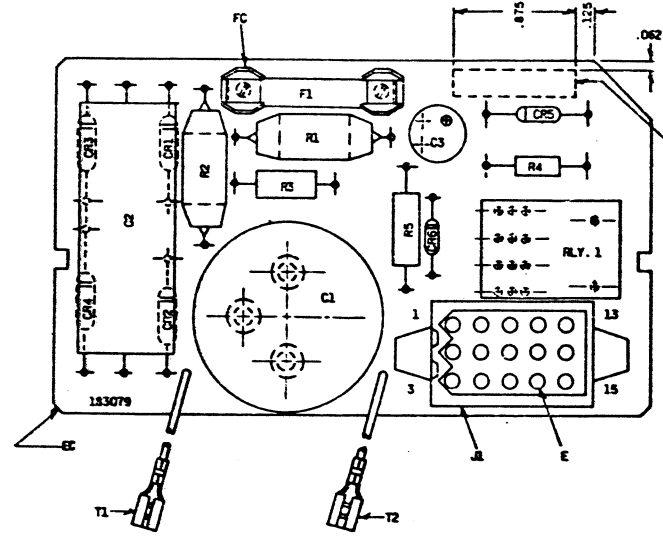
NO	NOTES
1.	MASTER ARTWORK NO.: 183079AM FOR PRINTED SCREENER AVAILABLE IN R & D OFFICE SERVICE SECTION.
2.	SOME PREVIOUS CIRCUIT CARD ASSEM. USED 1/2 AFB. 3/4 AFB. IS PREFERABLE.
3.	COMPONENT LAYOUT WAS CHANGED TO ALLOW FOR NEW STYLE CAPACITOR WITH VENT.
4.	R5 CHANGED FROM 470 OHM 2W. TO 220 OHM, 1 WATT ON ASSEM. LATER THAN ISSUE 12. CARD ASSEM. ISSUE 13 AND HIGHER ARE SUITABLE FOR ALL APPLICATIONS. CARD ASSEM. LOWER THAN ISSUE 13 PROVIDE LESS OPERATING MARGIN WHEN USED IN MODEL 38 SETS OR IN MODEL 33 SETS WITH INTEGRAL DATA SETS.
5.	FOR STANDARDIZATION CRI-6 WERE CHANGED FROM 181654.

**CIRCUIT DESCRIPTION**

THIS POWER PACK CONSISTS OF 4 150 VOLT POWER SUPPLY OPERATING DIRECTLY FROM THE 117V AC LINE, A WAVE SHAPING NETWORK, AND AN ARC SUPPRESSOR. IT IS DESIGNED TO OPERATE WITH AN INDUCTIVE LOAD OF APPROXIMATELY 100 OHMS BETWEEN TERMINALS 6 AND 12, WITH A 850 OHM, 40 WATT RESISTOR CONNECTED BETWEEN T1 AND T2.

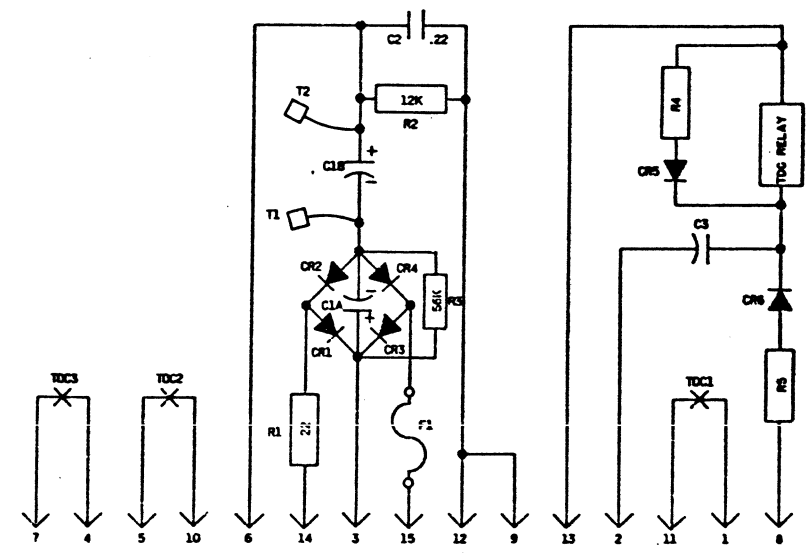
TO FEED SWITCH IS CONNECTED BETWEEN TERMINALS 9 AND 3. THE UNIT IS DESIGNED TO DRIVE THE READER MAGNET IN THE MODEL 33 ASR SET.

TDC RELAY CONTACTS ARE USED FOR AUTOMATIC READER CONTROL. 48V AC INPUT IS RECTIFIED THRU R5 AND CR6 BEFORE REACHING TDC RELAY. CAPACITOR C3 FILTERS TO GROUND THRU COMMON POINT OF TDC1.



UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

POWER PACK ASSEMBLY W/RELAY



REVISIONS		
ISSUE	DATE	AUTH NO
13	1-13-72	4350

REVISIONS					
CIRCUIT IDENTIFICATION	VERSION	ASSOCIATED NOTE	DATE	COMPLIANCE	AUTH. NO.
13	B	5	14		12174

CIRCUIT CARD  
EC 183079  
POWER PACK ASSEMBLY  
W/RELAY

APPROVALS	
PROG. SUPV.	PROG. MFG. REL. COMPL.
ENGR. T.Y. DSGM.	
DRN. F.R. DATE 8 4-72	
E-NUMBER	
SD-CD NO	
R & D FILE 1 47 60 AA	

TELETYPE  
  
183079

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED

UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

CIRCUIT CARD ASSEMBLY

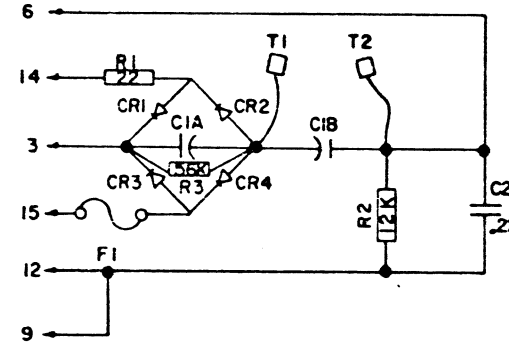
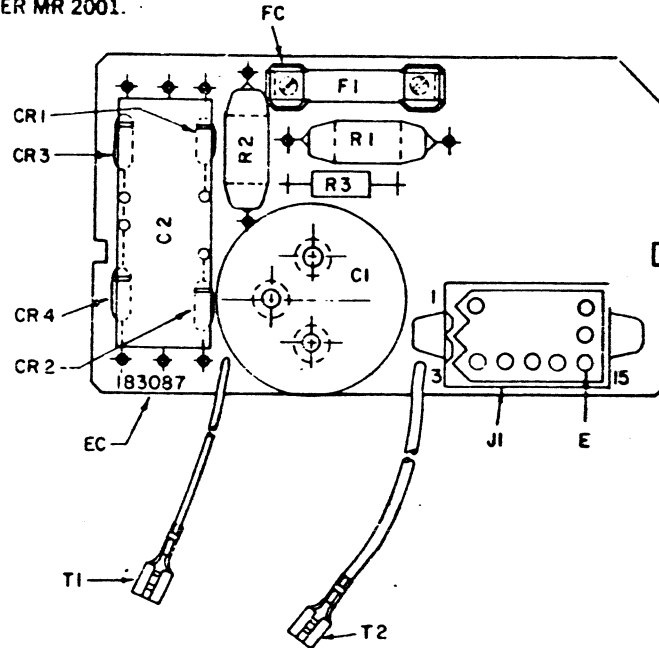
POWER PACK ASSEMBLY

NO B/M

183087

PARTS REC	NO REC	USED IN	NO REC
SEE BELOW		182134	1

NO.	NOTES
1	MASTER ARTWORK 183087AW FOR PRINTED SCREENING AVAILABLE IN R&D OFFICE SERVICE SECTION.
2	SOME PREVIOUS CIRCUIT CARD ASSEMBLY USED 1/2 AFB 3/4 AFB IS PREFERABLE.
3	ON ISSUE 10, BOARD NUMBER WAS 183080.
4	FOR STANDARDIZATION CR1-4 WERE CHANGED FROM 181-654.



REVISIONS			
ISSUE NO	DATE	AUTHOR NO	
2	8-20-62	30-1276	
3	9-26-62	30-13151	
4	10-26-62	30-5537	
5	10-26-63	76290	
6	9-17-66	88814	
7	11-25-66	88816-1	
8	8-22-68	95993	
9	9-17-69	39187	
40	2-10-70	99487-2	
11	3-3-71	2320	
12	1-20-72	564-2	
13	12-18-72	6803	

CUSTOMER I.D.	ISSUE	MFG VERSION	ASSOCIATED NOTE	DRAWING ISSUE	CONFORMANCE DATE	AUTH. NO.
13	B	4	14			12174

DESIGNATION	TELETYPE PART NO	TOTAL QTY	DESCRIPTION	FUNCTION
R1	183083	1	RESISTOR, 22 OHM	SURGE LIMITER
R2	183082	1	RESISTOR, 12,000 OHM	ARC SUPPRESSOR
C1	183078	1	CAPACITOR, DUAL SELECTION A - 200 M.F.D. 200 V.D.C. B - 9 M.F.D. 200 V.D.C.	POWER SUPPLY FILTER
C2	183084	1	CAPACITOR, 22 M.F.D.	SURGE SOURCE
CR1	312341	4	DIODE, 400 V. (NOTE 4)	ARC SUPPRESSOR
CR2			"	POWER SUPPLY RECTIFIER
CR3			"	"
CR4			"	"
F1	143630	1	FUSE, 3/4 A. FB	POWER SUPPLY PROTECTION SEE NOTE 2
FC	171595	2	FUSE CLIP	
T1	183085	2	TERMINAL WITH WIRE LEAD	
T2			"	
J1	182540	1	CONTACT BLOCK, 15 POINT	
E	182641	8	TERMINALS MALE PC.	
EC	183137	1	ETCHED CIRCUIT BOARD	NOTE 3
	151637	2	SCREW 4-40 FIL HEAD	
	110743	2	LOCK WASHER #4	
	151880	2	NUT	
R3	118198	1	RESISTOR, 56,000 OHM	BLEEDER

THIS POWER PACK CONSISTS OF A 150 VOLT POWER SUPPLY OPERATING DIRECTLY FROM THE 117 VAC LINE. A WAVE SHAPING NETWORK AND AN ARC SUPPRESSOR IT IS DESIGNED TO OPERATE WITH AN INDUCTIVE LOAD OF APPROXIMATELY 100 OHMS BETWEEN TERMINALS 6 AND 12 WITH A 850 OHM 40WATT RESISTOR CONNECTED BETWEEN T1 AND T2.

AN ON-OFF CONTROL SWITCH IS CONNECTED BETWEEN TERMINALS 9 AND 3. THE UNIT IS DESIGNED TO DRIVE THE READER MAGNET IN THE MODEL 32 AND 33 ASR.

WDP

APPROVALS	
D AND R	E OF M
<i>[Signature]</i>	
E. NUMBER	
PROG NO 183087	

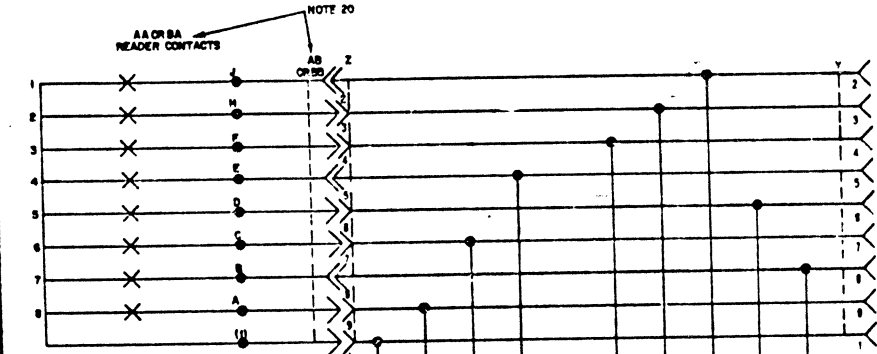
TELETYPE CORPORATION  
183087

SCALE 1/1			STOCK SPECIFICATION			
DRAWN	PO FILE NO	DATE	SIZE	KIND	SHAPE	TEMPER
TR	1-4760AA	6-7-62				
DESIGNED	ENGINEER	CHECKED	APPROVED			
	JAU	AA	[Signature]			

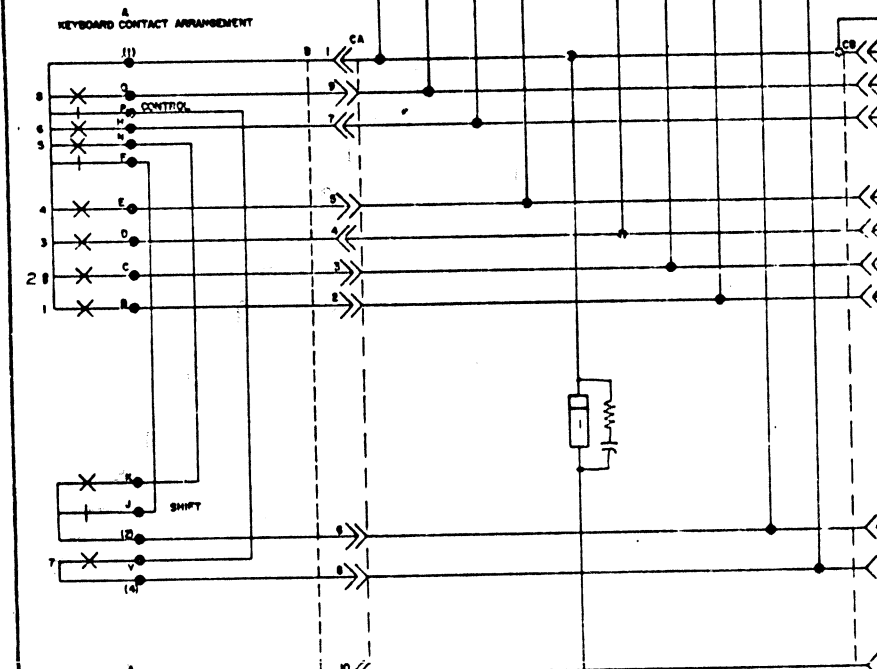




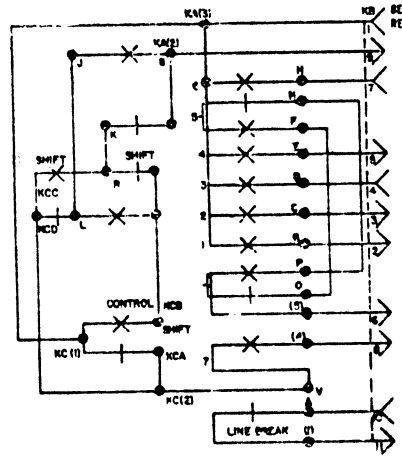
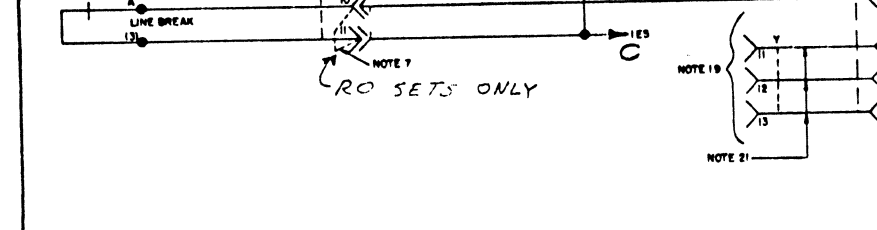
SEE SHEET 1 FOR NOTES



SPARE  
OR CUSTOMER'S  
OPTION



RO SETS ONLY



KA AND KC  
PARITY KEYBOARD  
ARRANGEMENT

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

6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-27-63	79269
3	1-9-64	79334
4	4-9-64	84407
5	6-9-64	8773
6	11-27-64	84402
7	2-15-65	84791
8	3-2-65	84791
9	3-2-65	84791
10	3-2-65	84791
11	3-2-65	84791
12	3-2-65	84791
13	3-2-65	84791
14	3-2-65	84791
15	3-2-65	84791
16	3-2-65	84791
17	3-2-65	84791
18	3-2-65	84791
19	3-2-65	84791
20	3-2-65	84791
21	3-2-65	84791
22	3-2-65	84791

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

SHEET 2

SCHMATIC  
WIRING DIAGRAM  
FOR  
MODEL 33  
ASB, HSP, PD  
DC SIGNAL LINE

APP: RC WALS

D AND R E OF M

E-NUMBER

PROD. NO. 6353WD

DATE 4 12 67

P.R. FILE NO. 3 30 152 13288

DRAWN JR CHD

EMBD 65 APPS

TELETYPE  
CORPORATION

6353WD

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAM SEE 6354WD
  - THE SET IS SHOWN WIRED FOR SIMPLEX 020 AMP NEUTRAL SIGNAL LINE ON TERMINALS 8 AND 7 OF THE 151411 TERM. STRIP FOR 020 AMP NEUTRAL SIGNAL LINE MOVE THE P WIRE FROM TERMINAL 8 TO TERMINAL 9 OF THE 151411 TERMINAL STRIP ALSO MOVE THE BL WIRE FROM TERMINAL 3 OF THE POWER RESISTOR 181818 TO TERMINAL 4
  - FOR FULL DUPLEX OPERATION CONNECT THE SEND SIGNAL LINE TO TERMINAL 4 AND 3 OF THE 151411 TERMINAL STRIP MOVE THE W. BL WIRE FROM TERMINAL 4 TO 5 AND THE BR Y WIRE FROM TERMINAL 3 TO 5 ON THE 151411 TERMINAL STRIP
  - ON KSR SETS ALL ASSOCIATED READER WIRING IS NOT USED
  - ALL CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED
  - ALL RESISTORS 1/2 WATT AND RESISTANCE VALUES IN OHMS UNLESS OTHERWISE SPECIFIED
  - ON RD SETS USE 181836 PLUG ASSEMBLY
  - THESE CONNECTIONS ARE MADE AS OPTIONS BY THE CUSTOMER AND OR THE FACTORY
  - 020 AMP SIGNAL LINE OPTION ①  
020 AMP SIGNAL LINE OPTION ②
  - THIS IS AN 8 LEVEL UNIT
  - THESE WIRES ARE IN THE DISTRIBUTOR CABLE AT SPARES IF NOTE 19 APPLIES TAPE AND TIE BACK THESE WIRES
  - THIS FUSE NOT INCLUDED ON SOME SETS. FUSE VALUES ARE AS FOLLOWS
- | TRANSFORMER | FUSE             | PART NO. |
|-------------|------------------|----------|
| 181818      | 1/2 AMP SL. BL.  | 117176   |
| 182857      | 8 10 AMP SL. BL. | 182380   |
- WIRING SHOWN AS FA IS FOR EVEN PARITY KEYBOARDS
  - FURNISH 115V AC @ 10% 60 CYCLE EXCEPT 50 CYCLE ON 337AB TAN KSR SETS, 337AC, TA1, TYP, ABR SETS AND 337BH RD SETS
  - APPROPRIATE FUSE IN 182182 FUSEHOLDER NOT INCLUDED IN EARLY SETS
- | MOTOR  | FUSE VALUE | FUSE PART. NO. |
|--------|------------|----------------|
| 182241 | 2 0 AMPS   | 138538         |
| 182287 | 1 0 AMPS   | 37248          |
- NETWORK 153831
  - 80 CYCLE READER TRIP COIL RESISTANCE IS 830 Ω 50 80 CYCLE READER TRIP COIL RESISTANCE CHANGED FROM 830 Ω TO 780 Ω FOR IMPROVED 50 CYCLE OPERATION
  - LOW PAPER ALARM CONTACTS NOT FOUND IN ALL UNITS CONTACT RATING 4 AMP AT 30V DC
  - TO CUSTOMER SUPPLIED ALARM
  - AAAB, A1 AM, REFER TO MANUAL READER, BA, BB, B1, BK, REFER TO AUTOMATIC READER
  - MAY NOT BE FOUND ON EARLY UNITS
  - 337CB TO BE WIRED FOR .020 AMP. SIGNAL LINE OPERATION

.020 USED ON BOTH 6000 & 6130  
6000 - ABOUT 24 V DRIVE  
6130 - ABOUT 6.8 V DRIVE

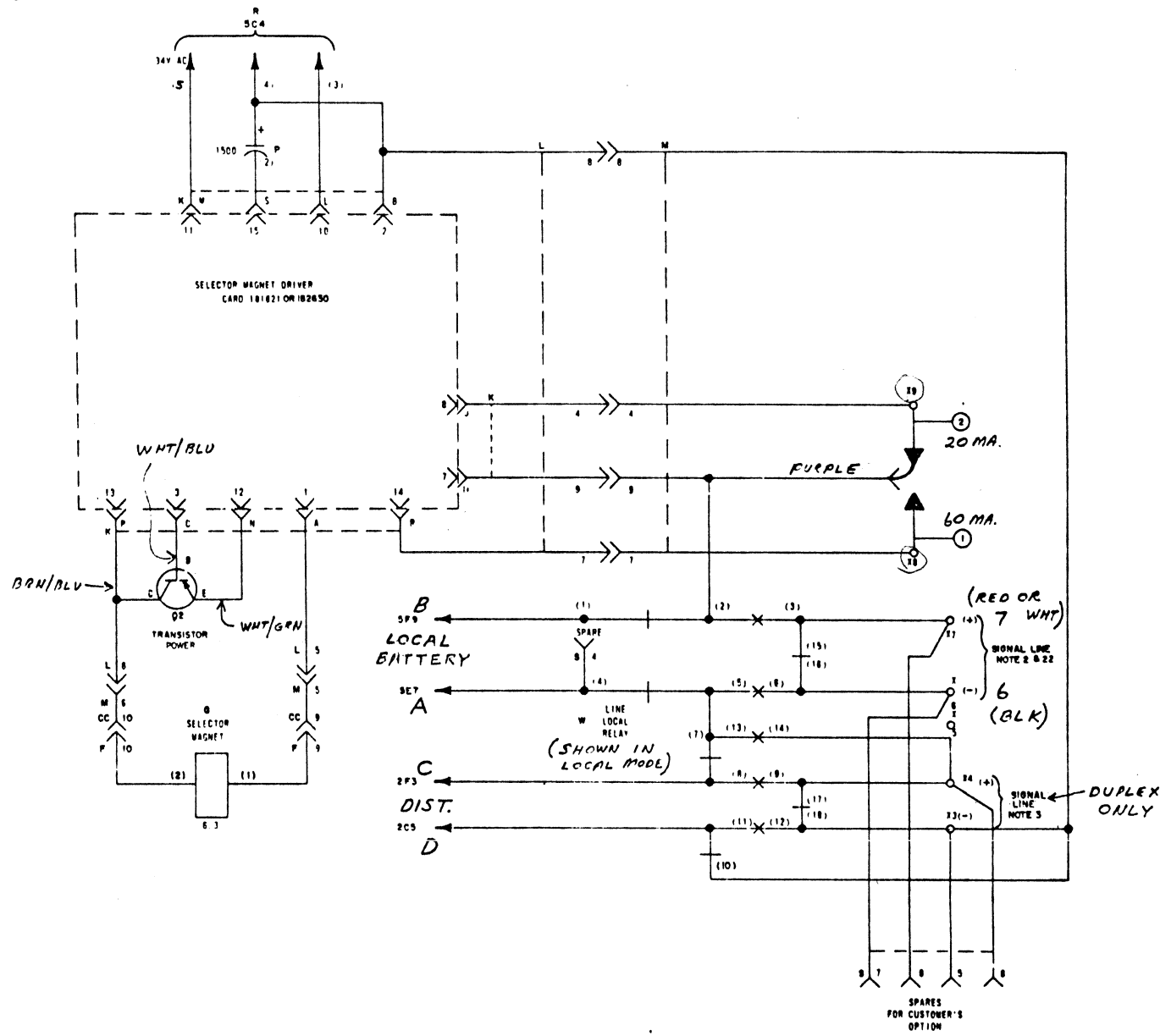
NOTE REVISION INFORMATION MUST ALSO BE REFLECTED ON THE ISSUE CONTROL RECORD, WHICH IS PART OF THIS 9 8

6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-20-63	79266
3	1-8-64	79914
4	4-9-64	81640
5	4-9-64	81773
6	11-2-64	84602
7	2-15-65	84722
8	3-15-65	85643
9	8-8-65	86233
10	10-15-65	88155
11	12-17-65	89721
12	1-13-66	89941
13	2-17-66	91587
14	3-9-66	89712
15	3-29-68	87740
16	5-2-68	87740
17	5-10-68	91380
18	10-12-68	89771
19	10-2-68	91380
20	12-18-68	91380
21	8-23-67	87740
22	1-16-64	87740

SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS 9 8



SHEET 1

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 33  
ASR, KSR, RD  
DC SIGNAL LINE

APPROVALS

D AND R E OF M

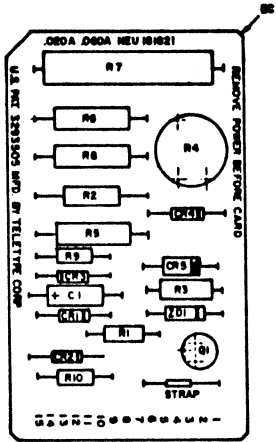
E-NUMBER  
PROD. NO. 6353WD  
DATE 4-24-67  
P.D. FILE NO. 2 30 152/153AA  
DRAWN JEA  
ENGR. AS APPR.

TELETYPE CORPORATION

6353WD

- NO. NOTES
1. MASTER ARTWORK NO. 88084M FOR PRINTING SERVICE IS AVAILABLE IN R&D OFFICE SERVICE SECTION.
  2. RAISE R2 5, 6, 7, 8 - 1/32 TO 1/16" ABOVE CIRCUIT CARD.
  3. TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R4 AND CR3 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 STRAP.

SEE NOTE 2



CIRCUIT DESCRIPTION

THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO 28 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY FILTER CAPACITOR IS CONNECTED BETWEEN TERMINALS 2 AND 15.

THE DIRECT CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 14 OR 8 AND 3 DEPENDING ON LINE CURRENT. TERMINAL 7 STRAPPED EXTERNALLY TO TERMINAL 14 OR 8. DEPENDING ON LINE CURRENT.

IN THE MARKING CONDITION, Q1 IS OFF BIASED WITH Q1 OFF, THE BASE OF Q2 WILL BE CLAMPED AT THE ZENER REFERENCE VOLTAGE BY DIODE CR4. THIS VOLTAGE CLAMP IS THEN TRANSLATED TO CURRENT REGULATION BY THE TRANSISTOR ACTION OF Q2. THE REGULATED MAGNET CURRENT IS ADJUSTED TO 500 AMPERES BY RHEOSTAT R4.

WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR R10. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2 WITH Q2 OFF. NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE. DURING THE TURN OFF OF Q2, THE INDUCTIVE TRANSIENT DEVELOPED AT THE COLLECTOR IS SUPPRESSED BY THE NETWORK CONSISTING OF CR3, R9 AND C1.

"SNAP-ACTION" IS SUPPLIED TO THE CIRCUIT TRANSITIONS BY FEEDBACK IN THE EMITTER CIRCUIT OF TRANSISTOR Q1.

ALL RECOMMENDATION SYMBOLS REQUIRED PER MR 2001.

CIRCUIT BOARD EC

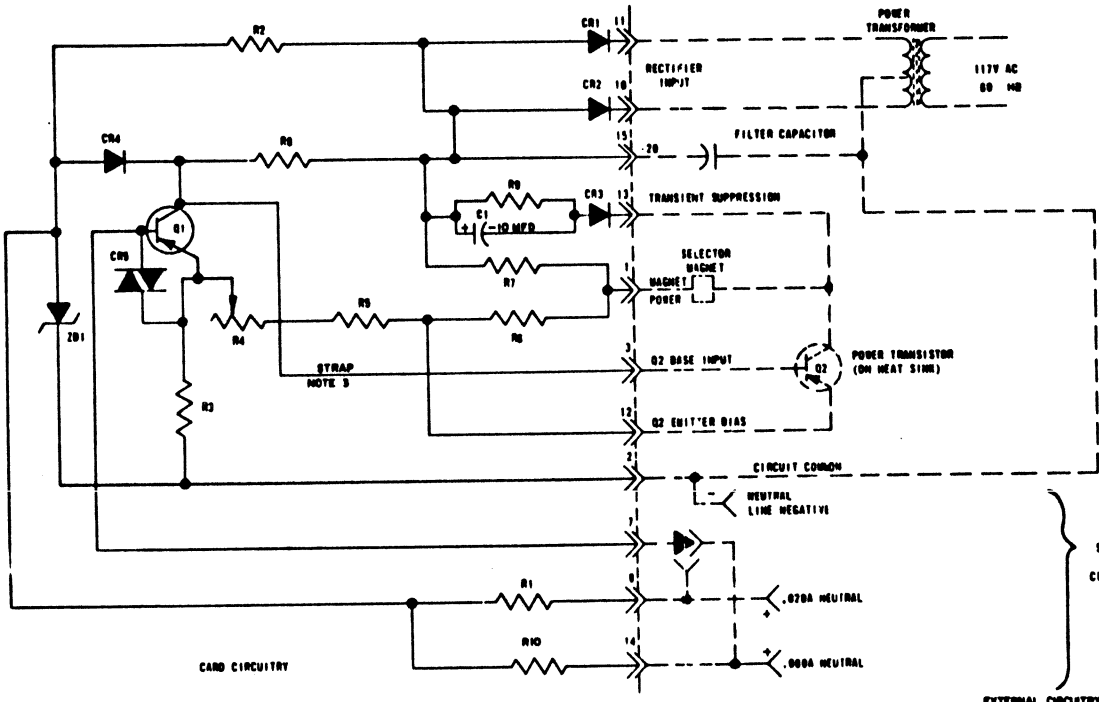
REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	102770	1	RESISTOR 420 OHMS 1/2W	Q10 AMP SWITCHING FOR 020A NEUTRAL
R10	102787	1	RESISTOR 135 OHMS 1/2W	Q10 AMP SWITCHING FOR 020A NEUTRAL LINE
R2	101009	1	RESISTOR 330 OHMS 2.5W	ZENER CURRENT LIMITING
R3	102770	1	RESISTOR 0.02 OHMS 1/2W	COMMON EMITTER BIAS
R4	102773	1	RHEOSTAT 3 OHMS 2.5W	OUTPUT CURRENT ADJUST
R5	101717	1	RESISTOR 9 OHMS 5W	Q2 EMITTER BIAS
R6	102770	1	RESISTOR 270 OHMS 4.0W	Q2 EMITTER BIAS
R7	102772	1	RESISTOR 14 OHMS 10W	Q2 COLLECTOR LOAD
R8	102627	1	RESISTOR 300 OHMS 4W	Q1 COLLECTOR LOAD
R9	102770	1	RESISTOR 150 OHMS 1/2W	Q2 COLLECTOR TRANSIENT LIMITING
CR1	102570	2	DIODE 1N3193	POWER RECTIFIER
CR2	102570	2	SAME AS CR1	POWER RECTIFIER
CR3	101019	2	DIODE 1N402	COLLECTOR TRANSIENT LIMITING
CR4	101019	1	SAME AS CR3	VOLTAGE CLAMPING
CN5	170044	1	VARIATOR 100R	INPUT PROTECTION
ZD1	102774	1	DIODE ZENER 4.7V 5.1W	REFERENCE
C1	102620	1	CAPACITOR 10 MFD 350 VDC	COLLECTOR TRANSIENT LIMITING
Q1	101021	1	TRANSISTOR HIGH GAIN	INPUT SWITCH
336470		1	STRAP	NOTE 3
EC	101023	1	CIRCUIT BOARD ETCHED	

181821

REVISIONS

ISSUE	DATE	AUTH. NO.
2	4-19-65	00501
3	9-19-66	000 6
4	11-29-66	000 6-1
5	3-3-67	95450
6	4-2-68	95450
7	7-3-67	35548
8	11-8-68	54121
9	12-20-68	90766
10	3-3-71	330
11	3-20-72	230
12	3-20-72	230-1

CONSTANT CURRENT 500 AMP SELECTOR MAGNET DRIVER



MOD. 33

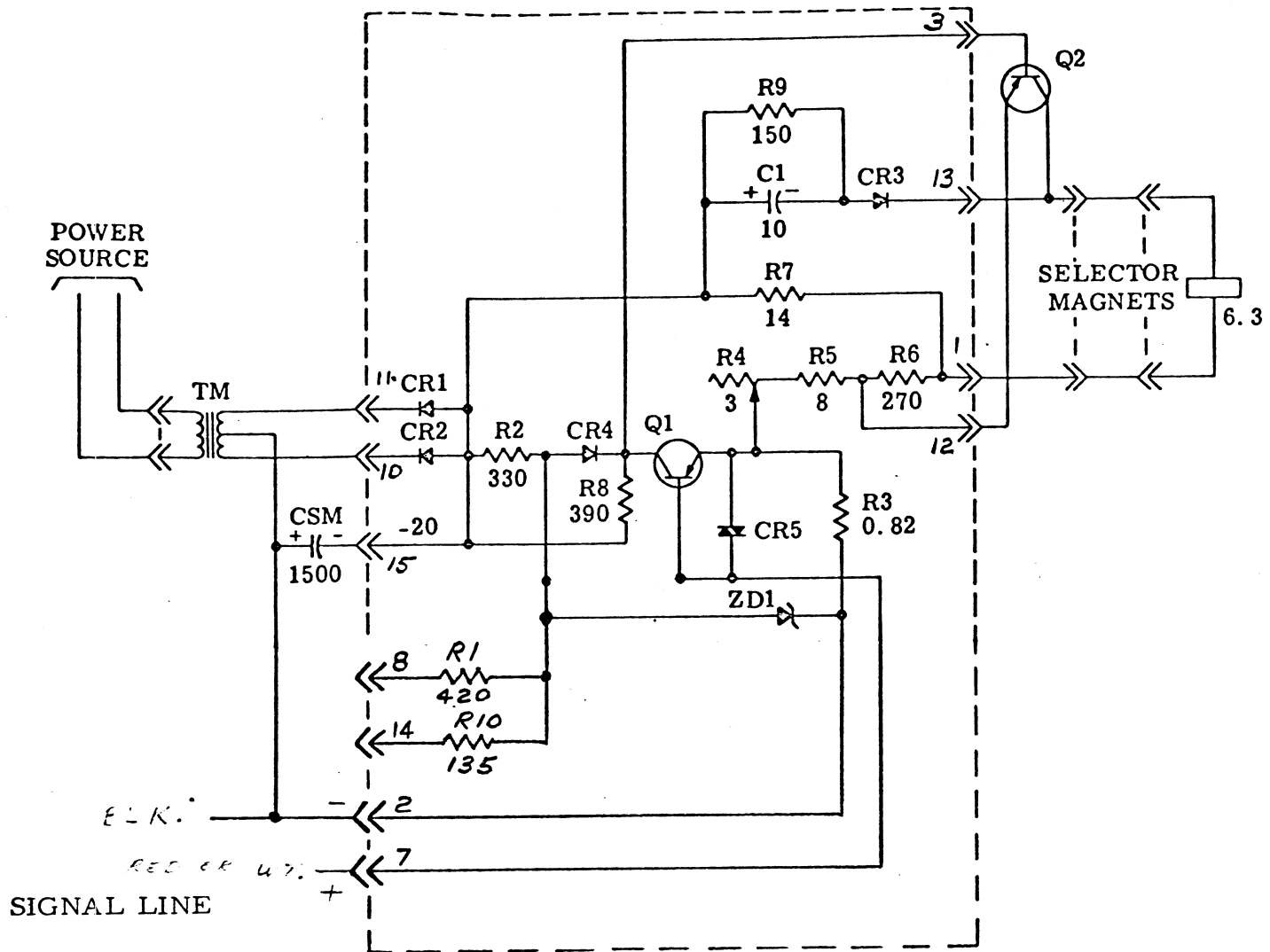
APPROVALS

R AND D HJK	E OF W
E-NUMBER	
PROD NO 10021	
DATE 4-20-67	
R&D FILE 2-30-52-5300	
DRAWN JER-C6	CHRD HBJ
ENGD AS-PDS	APPD JLV

TELETYPE CORPORATION

181821

Model 33 Selector Magnet Driver Circuit.



TELETYPE PART NO. 181821

For 20 MA line, pin 7 is tied to pin 8.  
 For 60 MA line, pin 7 is tied to pin 14.

- Transistor Q1      On for space ( open line )  
                          Off for mark
- Transistor Q2      Off for space ( open line )  
                          On for mark