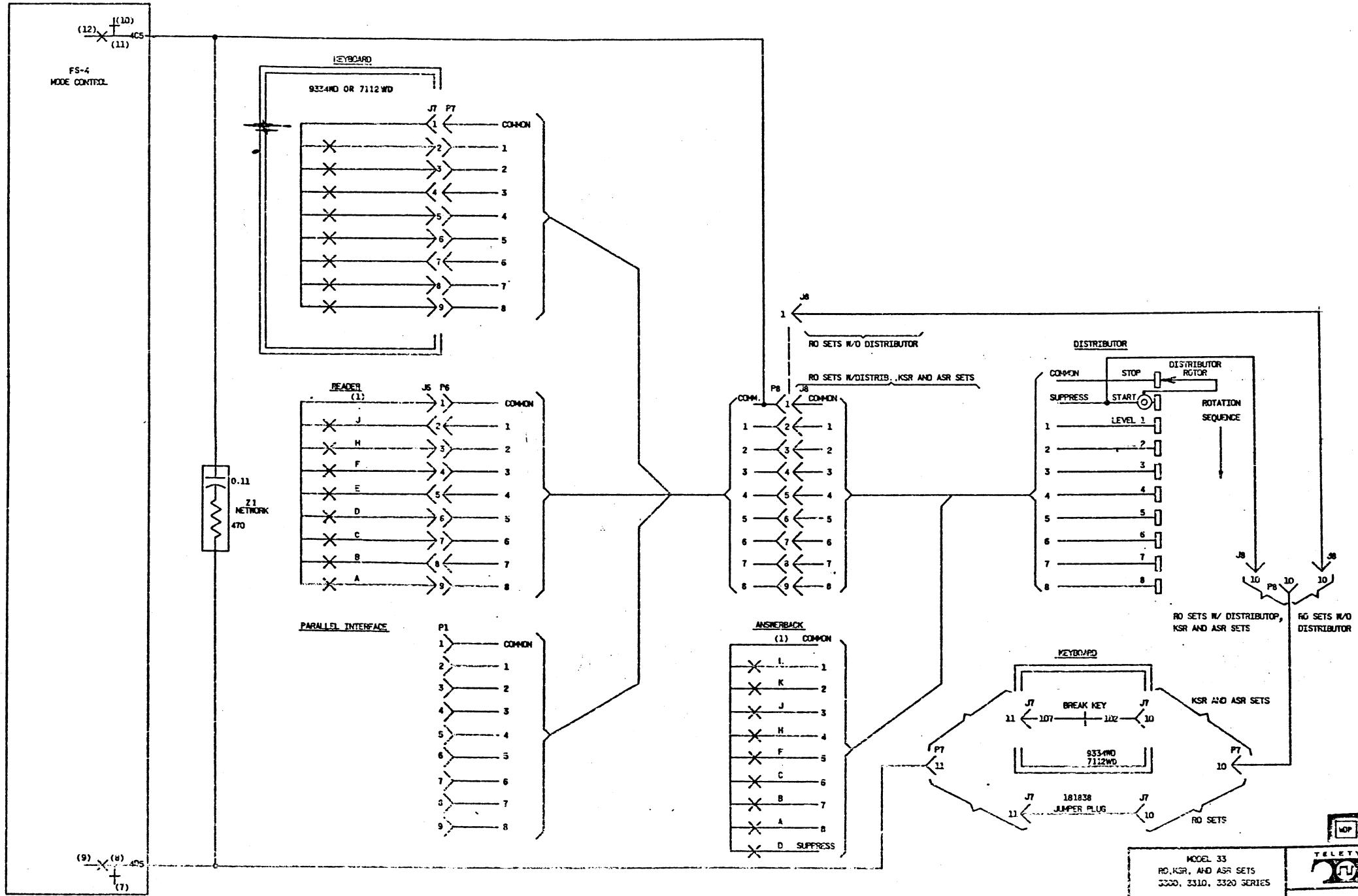


FS-2 SEND CIRCUIT



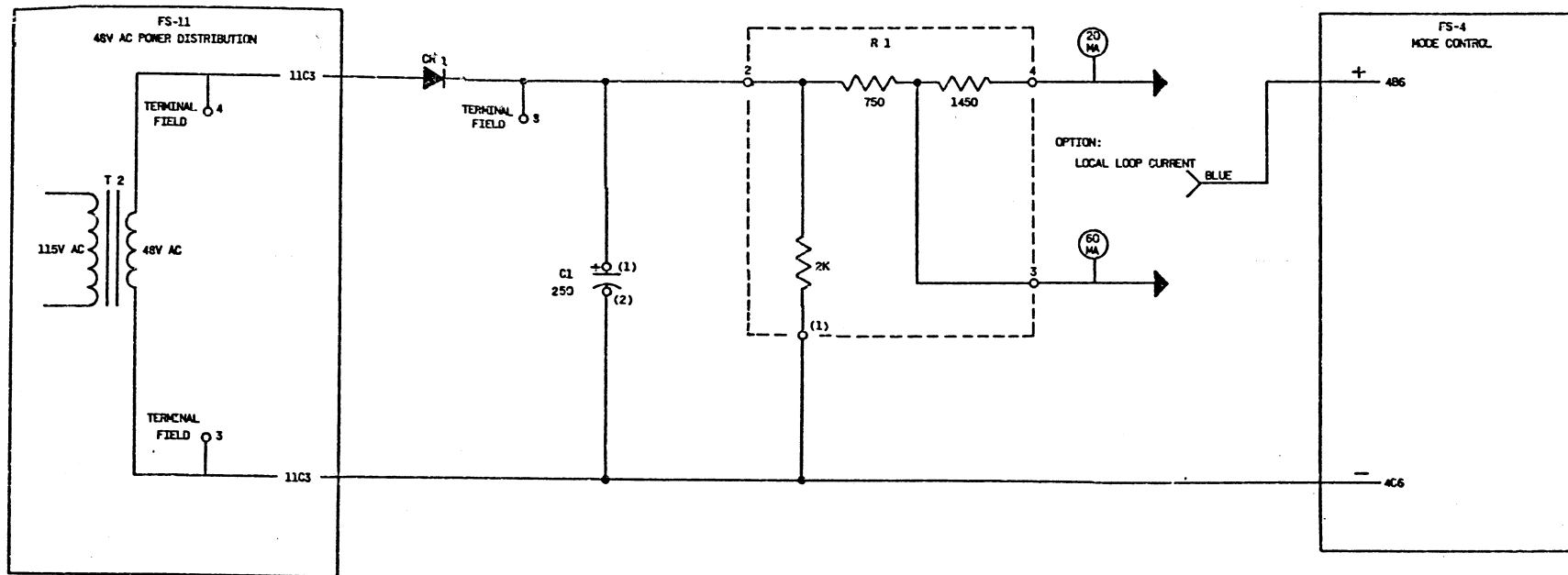
MODEL 33
RD, KSR, AND ASR SETS
3300, 3310, 3320 SERIES



1180 SD-B2

FS-3 LOCAL LOOP CURRENT SUPPLY

ISSUE
1



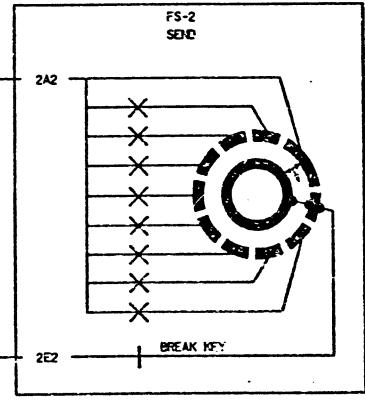
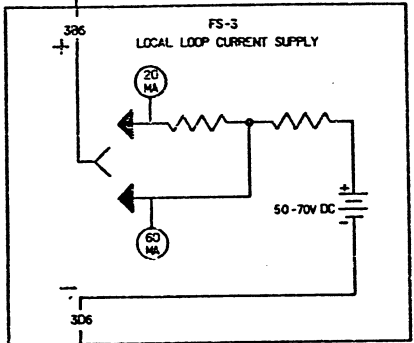
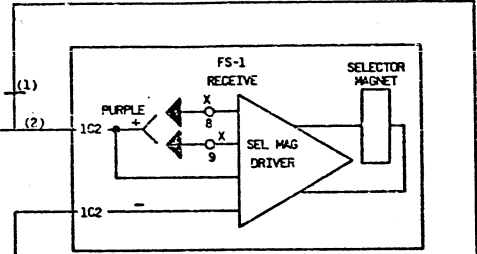
FS-4 MODE CONTROL

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

CUSTOMER SERIAL SIGNAL INTERFACE
HALF DUPLEX FULL DUPLEX

RECEIVE AND SEND RECEIVE

NOT USED SEND (NOT POLARITY SENSITIVE)



A
B
C
D
E

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



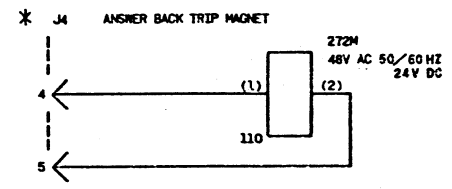
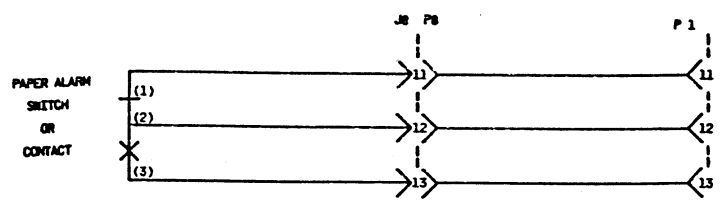
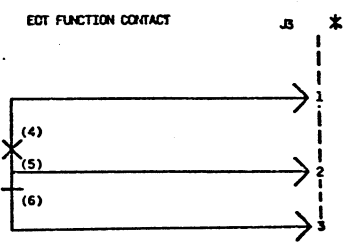
FS-5 AUXILIARY CIRCUITS (FOR CUSTOMER USE)

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

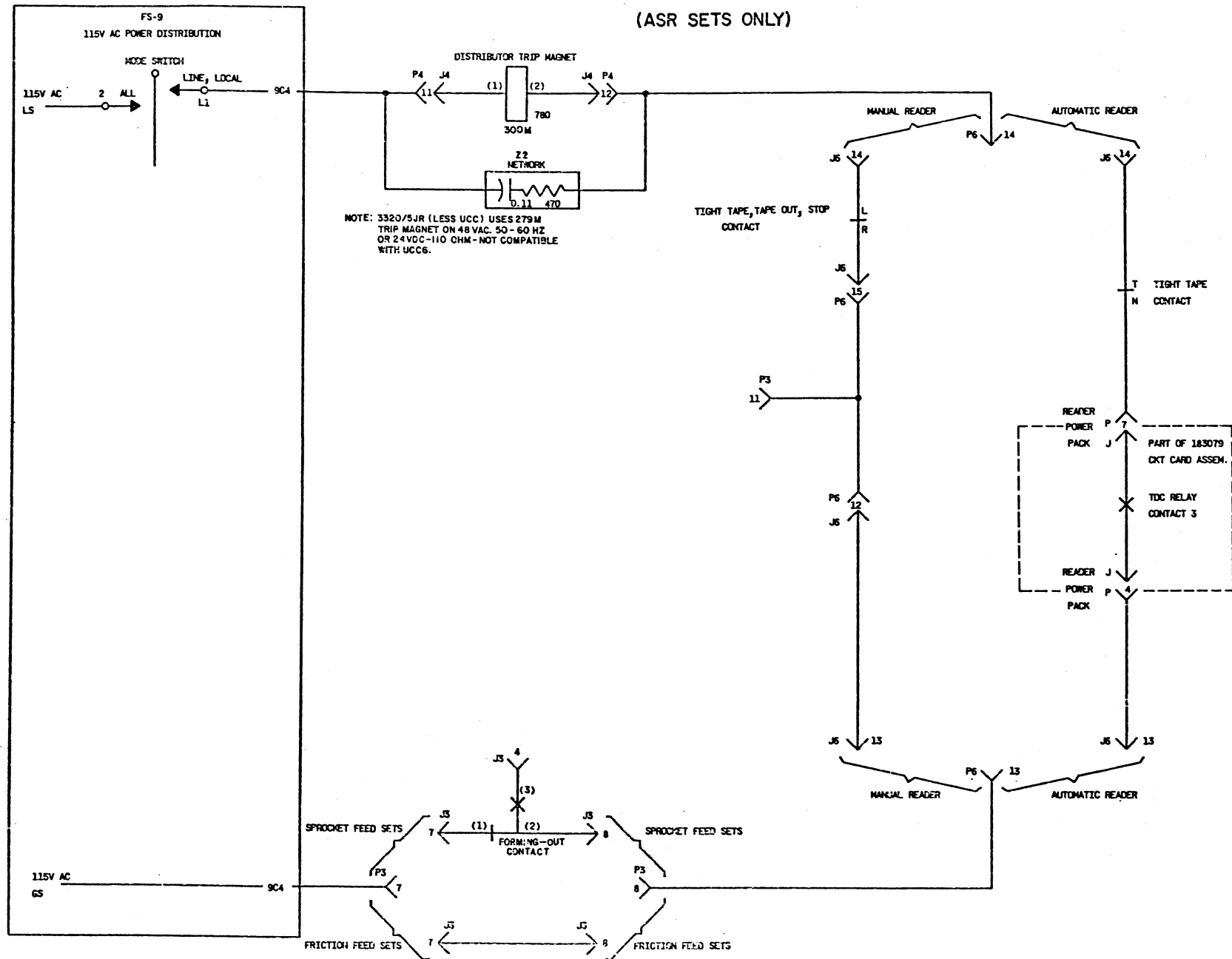
	LOCATION	CONTACT RATING
FRICITION:	IN FRONT OF MOTOR FAN	
SPROCKET:	NEAR LEFT END OF PLATEN	



* 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	 1180 SD-B5
--------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

FS-6 READER CONTROL (ASR SETS ONLY)



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

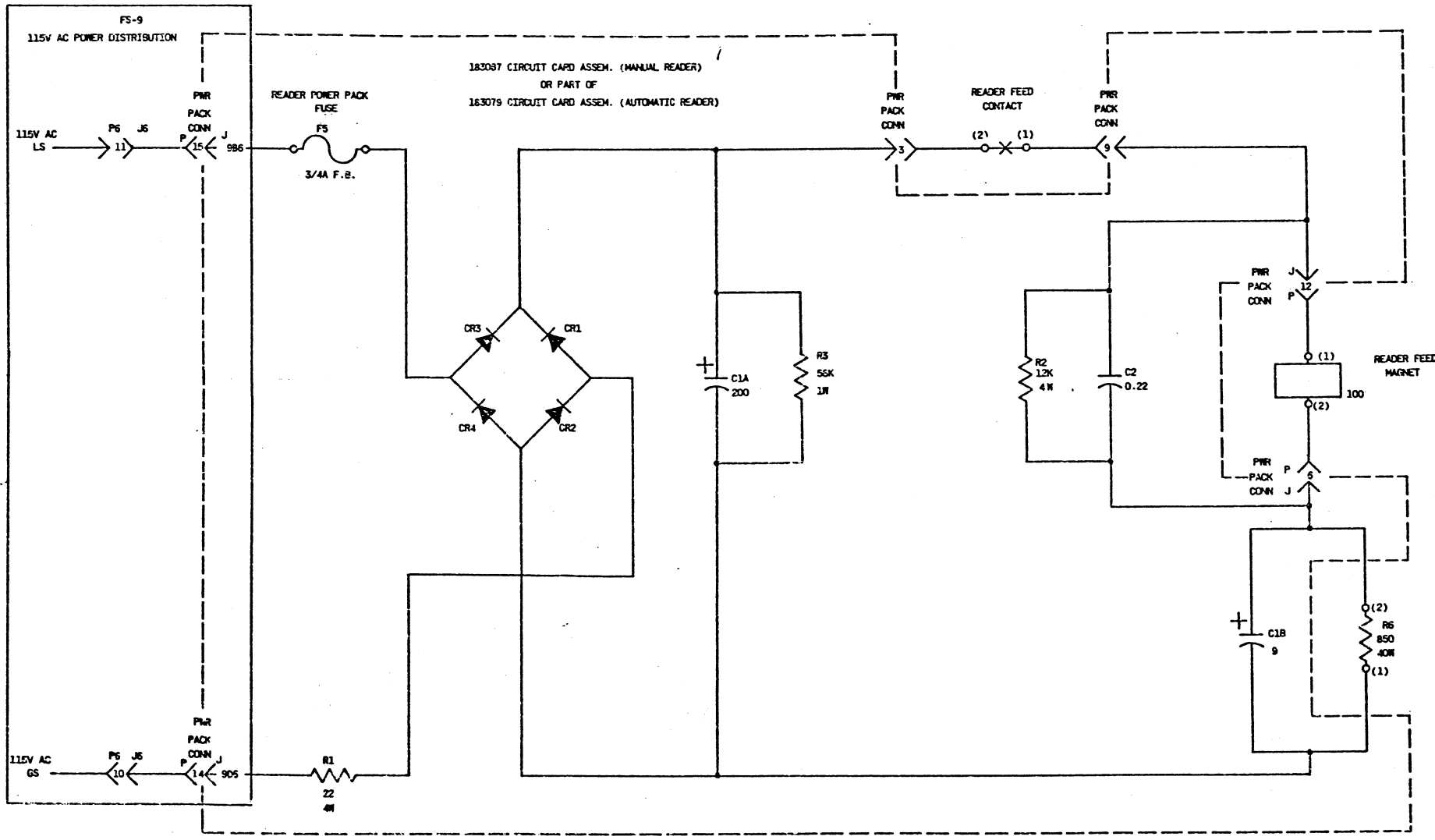


1180 SD-B6

FS-8

READER FEED

(ASR SETS ONLY)



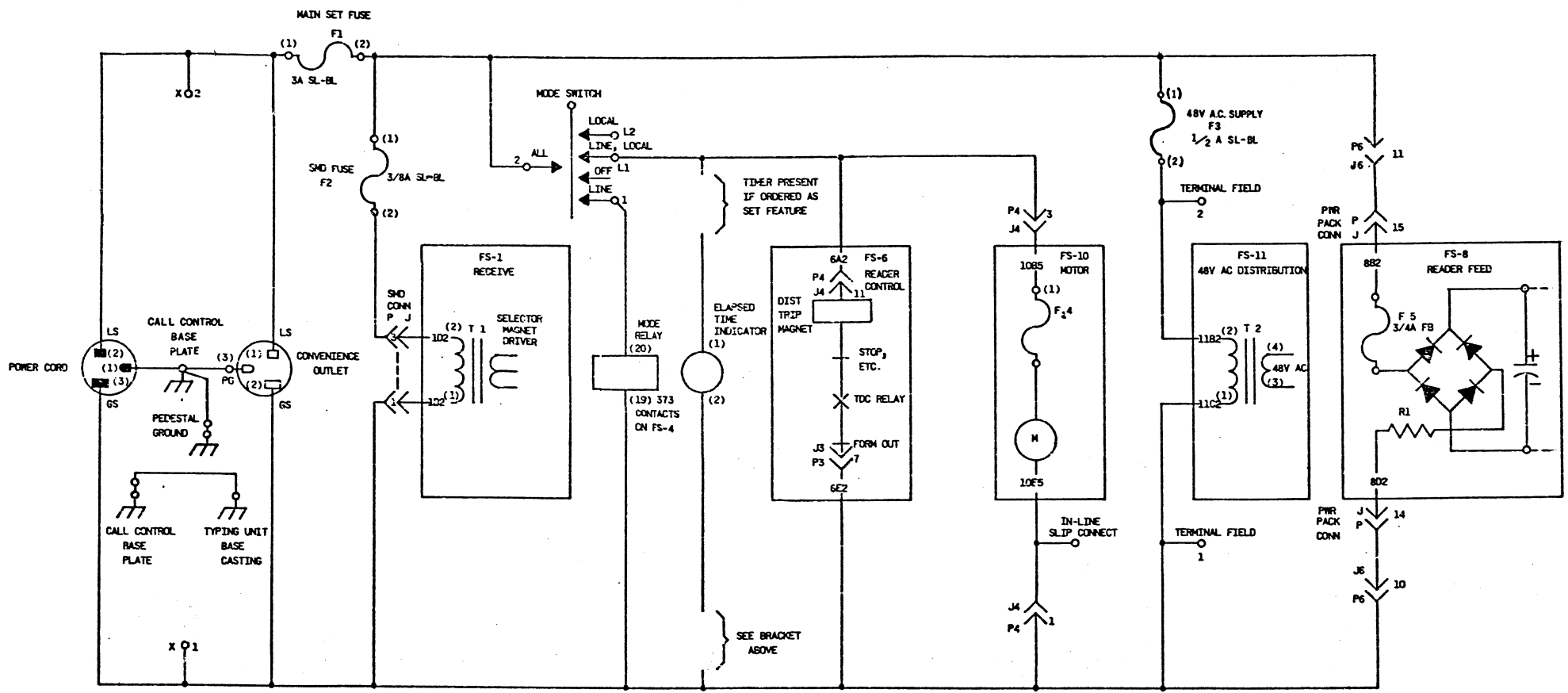
MODEL 33
RO, KSR, ASR SETS
3300, 3310, 3320 SERIES



1180 SD-88

FS-9

115VAC POWER DISTRIBUTION



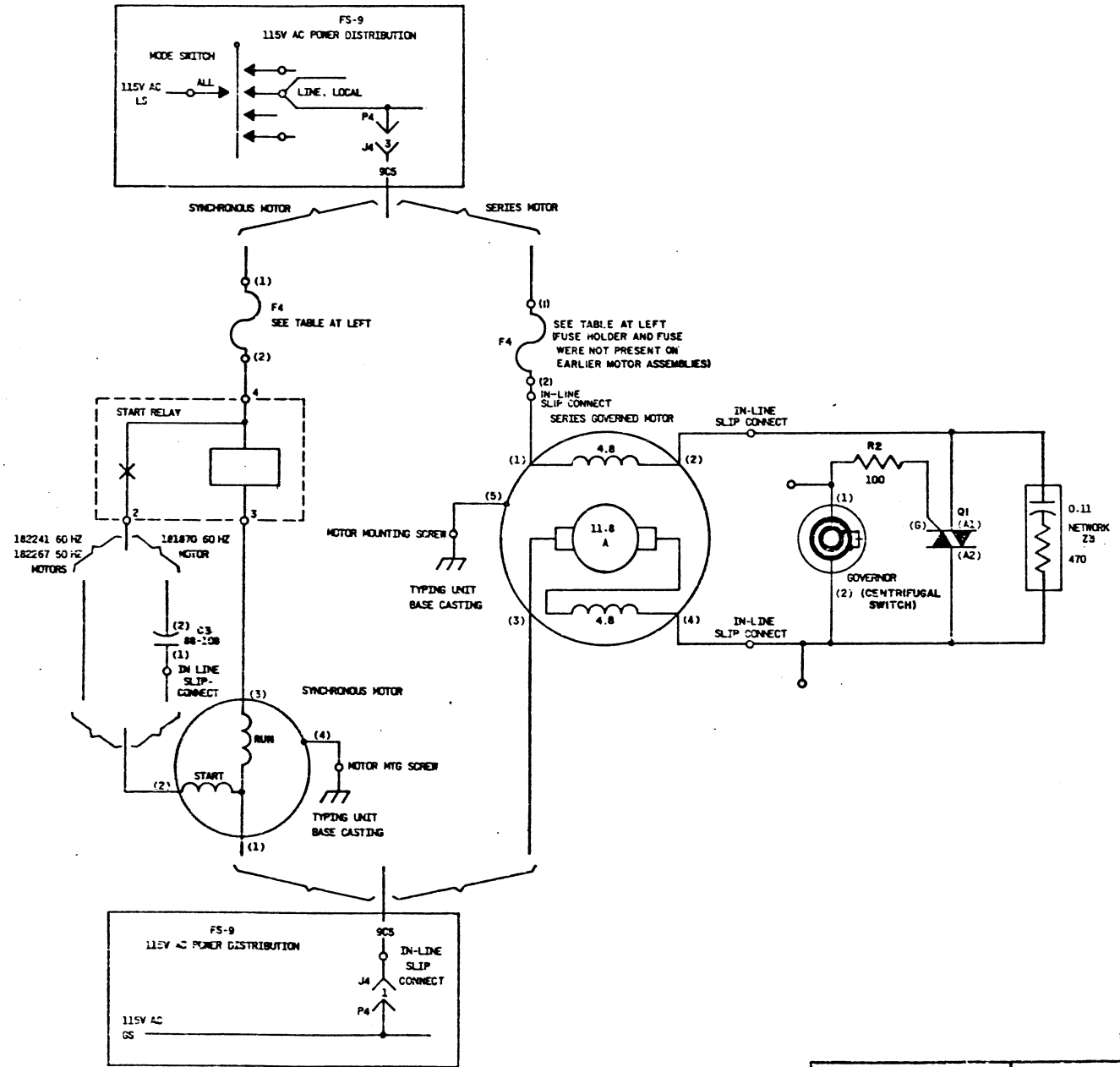
MODEL 33
RD, M'R, AND ASR SETS
3300, 3310, 3320 SERIES



1180 SD-69

FS-10 MOTORS

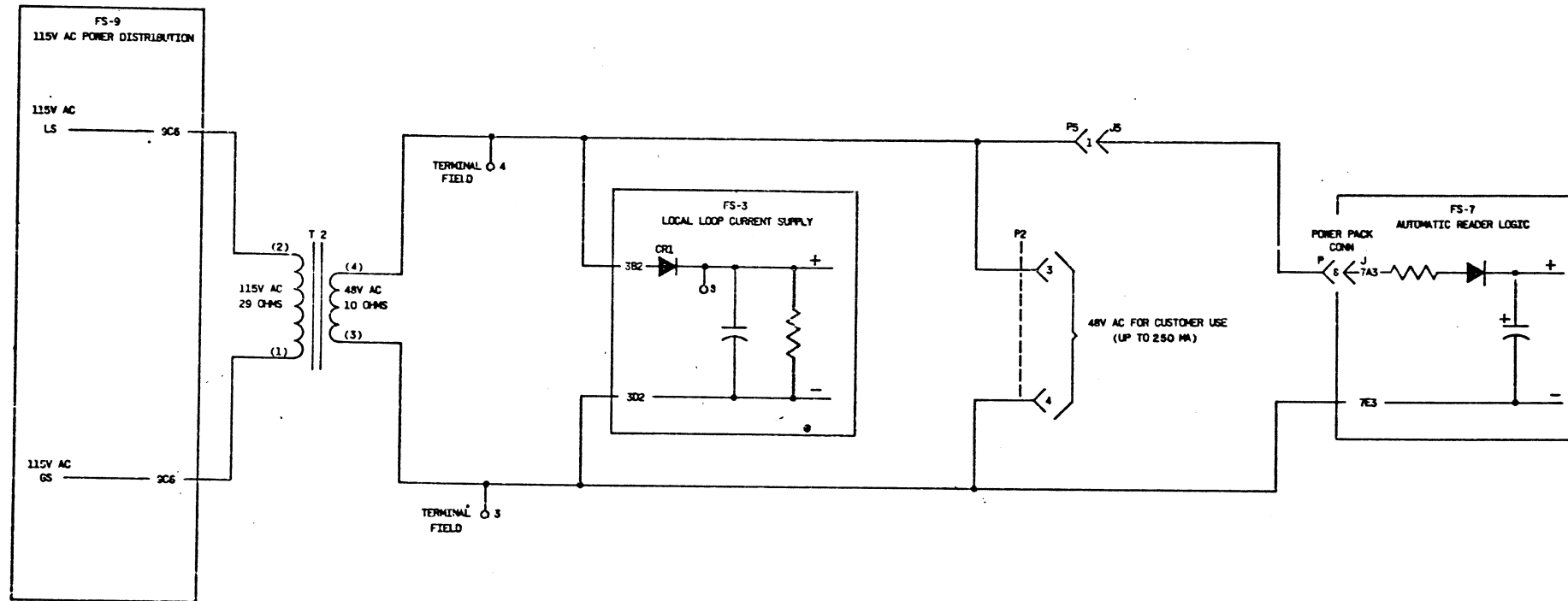
SYNCHRONOUS MOTORS				
MOTOR PART NUMBER	FREQ. HZ	FUSE F 4	H-P	CAPACITOR
181870	60	2 1/4A SL-BL	33	88-108 MFD
182241	60	2A SL-BL	33	—
182267	50	1 3/8 A. SL-BL	35	—
SERIES GOVERNED MOTOR				
183991	50-60	1A SL-BL	83	—



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) 10D4

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

CIRCUIT CARD ASSEMBLIES

- AUTOMATIC READER 183079
- READER FEED SUPPLY SHEET 8
- RDR LOGIC 7B4
- MANUAL READER 183087 SHEET 8

CONNECTORS NUMBERED

CONNECTOR SHELL DESIGNATION J = CABLE SIDE P = FRAME SIDE

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	1C5	N
13	1C5	P
14	1B3	R
15	1E4	S

J AND P	1	2	3	4	5	6	7	8
TERMINAL	FS./LOCATION							
1	2D3	-	5B6	9C5	1135	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	-	-

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		9C6
8		7B3/11C6
9	8D5	
10		7C6
11		7D3
12	8E5	
13		7B5
14	9D6	
15	9B6	

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) 6E5

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 1D3
- 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

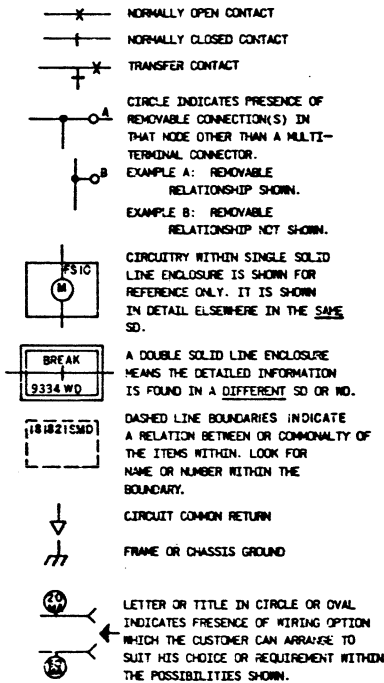
301. SHEET COORDINATES LOCATION LEGEND



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. SYMBOLS



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

NUMBER	272 M	279 M	300 M
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

NUMBER	178306
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

NUMBER	182037	183445	181441	155954
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	---	---	---

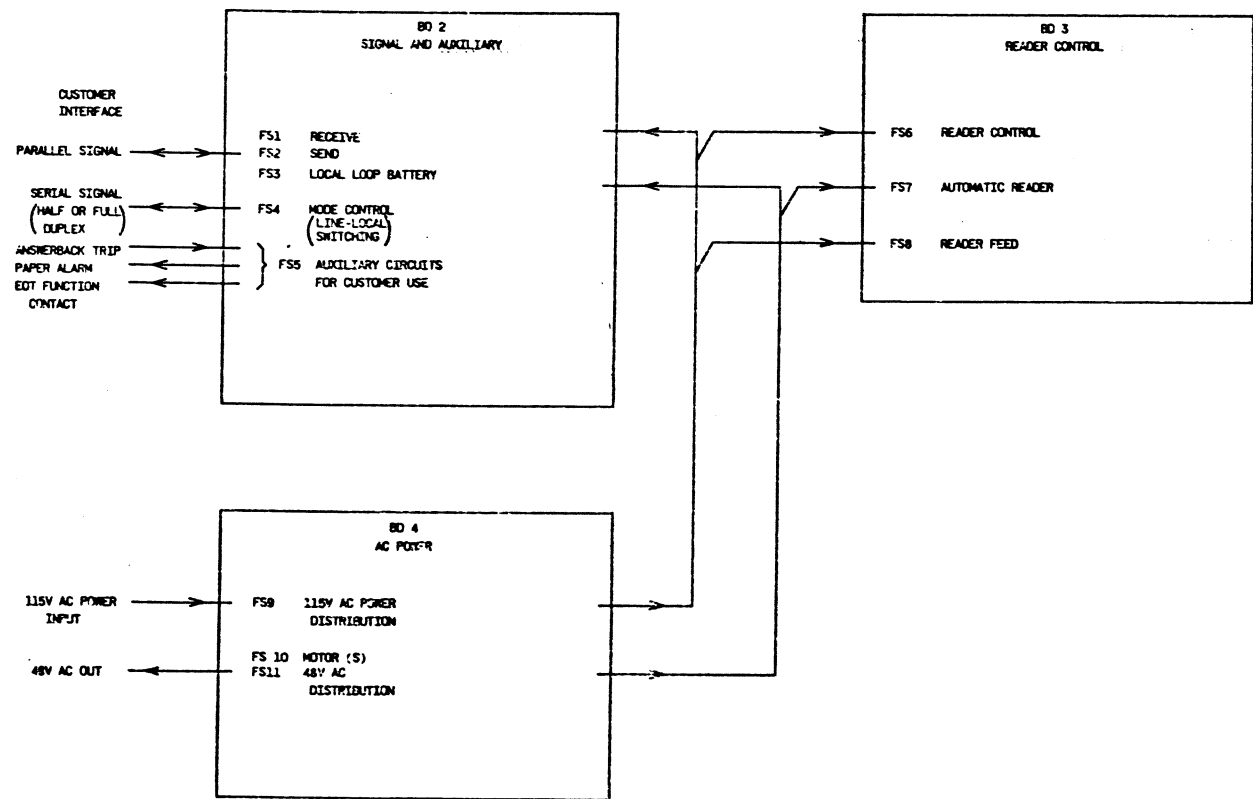
MOTORS

NUMBER	181870	182241	182267	183991
TYPE	33 HP, SINGLE PHASE, SYN.	33 HP, SINGLE PHASE, SYN.	35 HP, 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



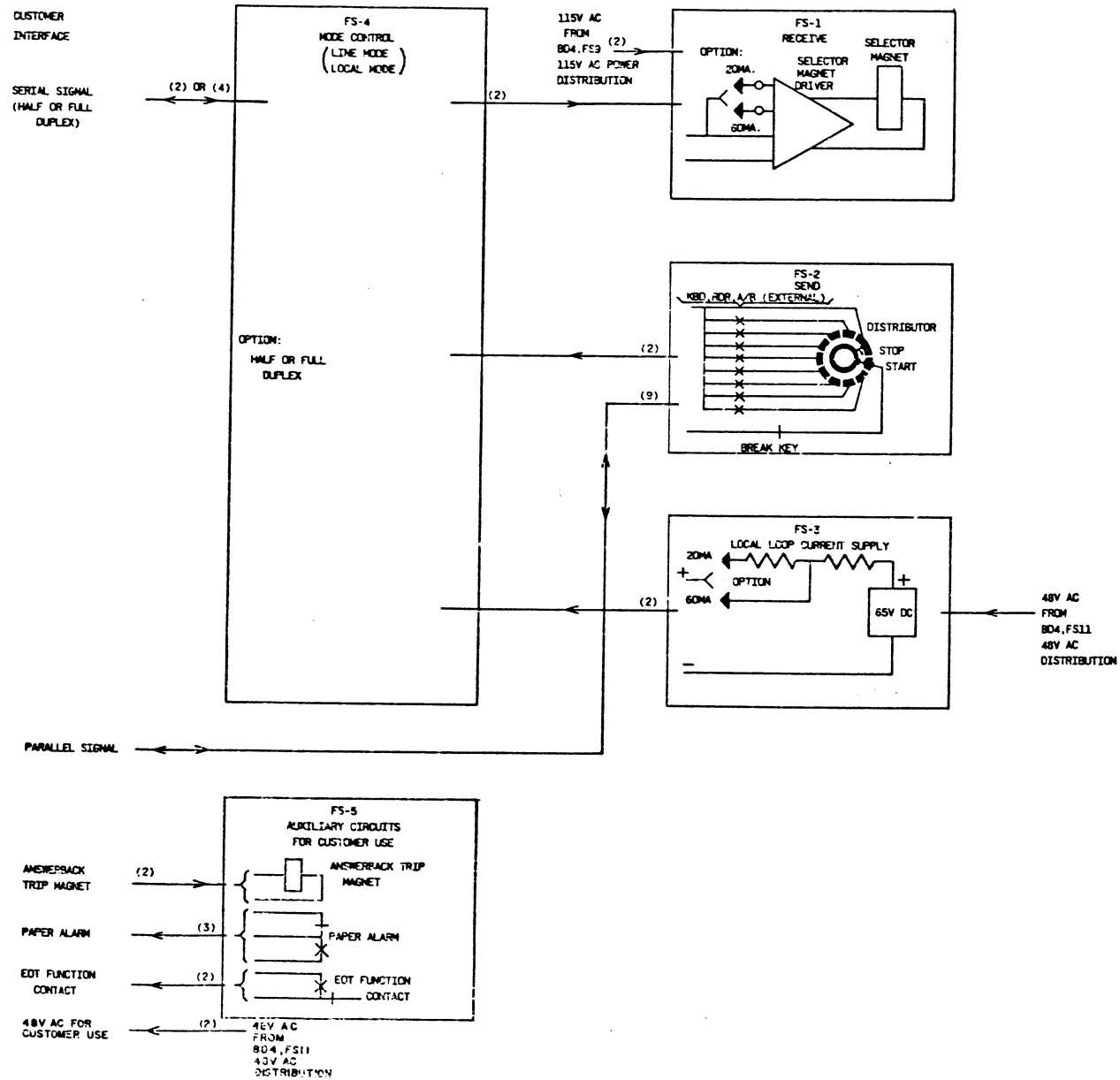
MODEL 33
 RD, KSR, AND ASR SETS
 3300, 3210, 3320 SERIES



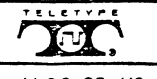
1180 SD-HI

BD-2 SIGNAL AND AUXILIARY

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



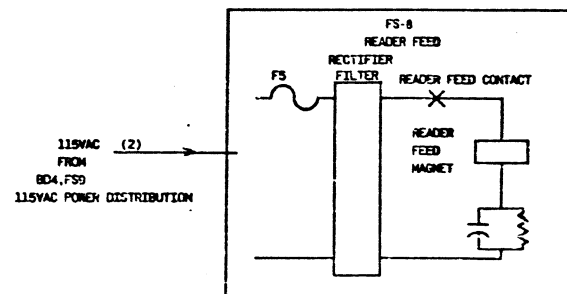
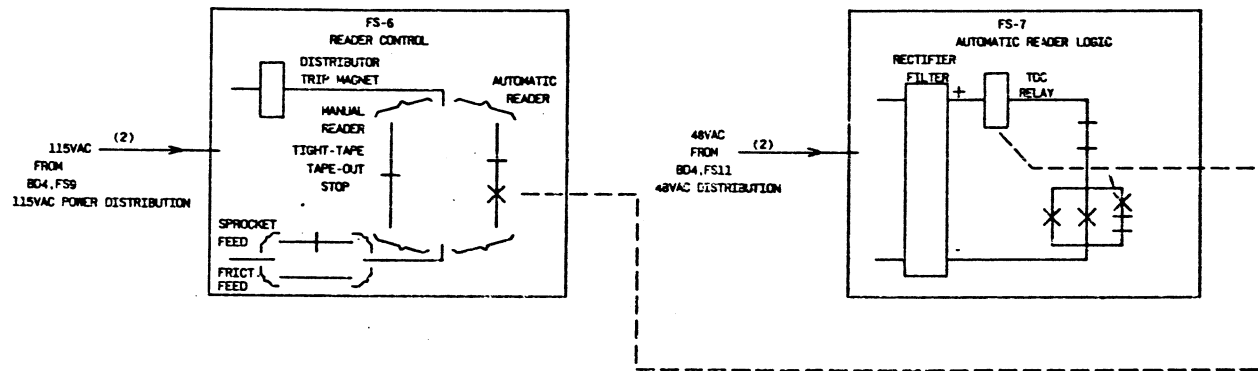
MODEL 33
RO, KSR, AND ASR SETS
3300, 3310, 3320 SERIES



1180 SD-H2

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

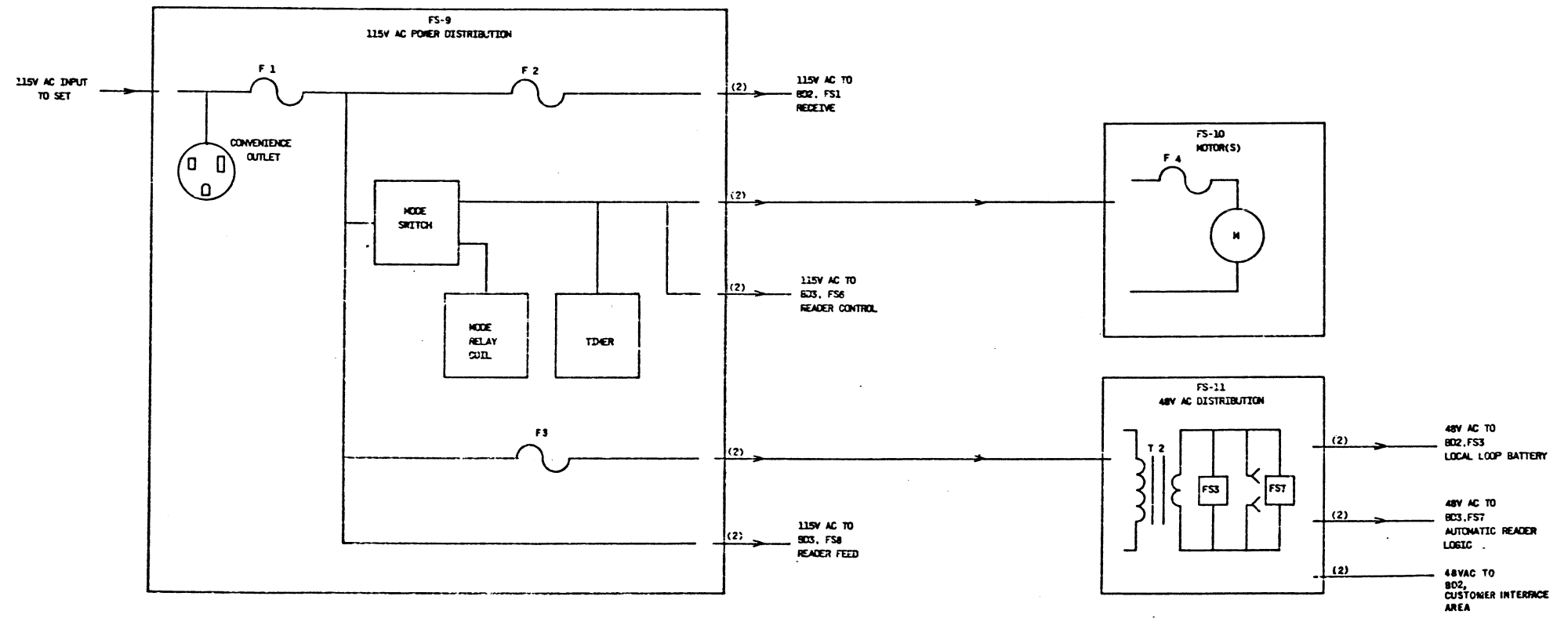
BD-3 READER CONTROL (ASR SET ONLY)



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)

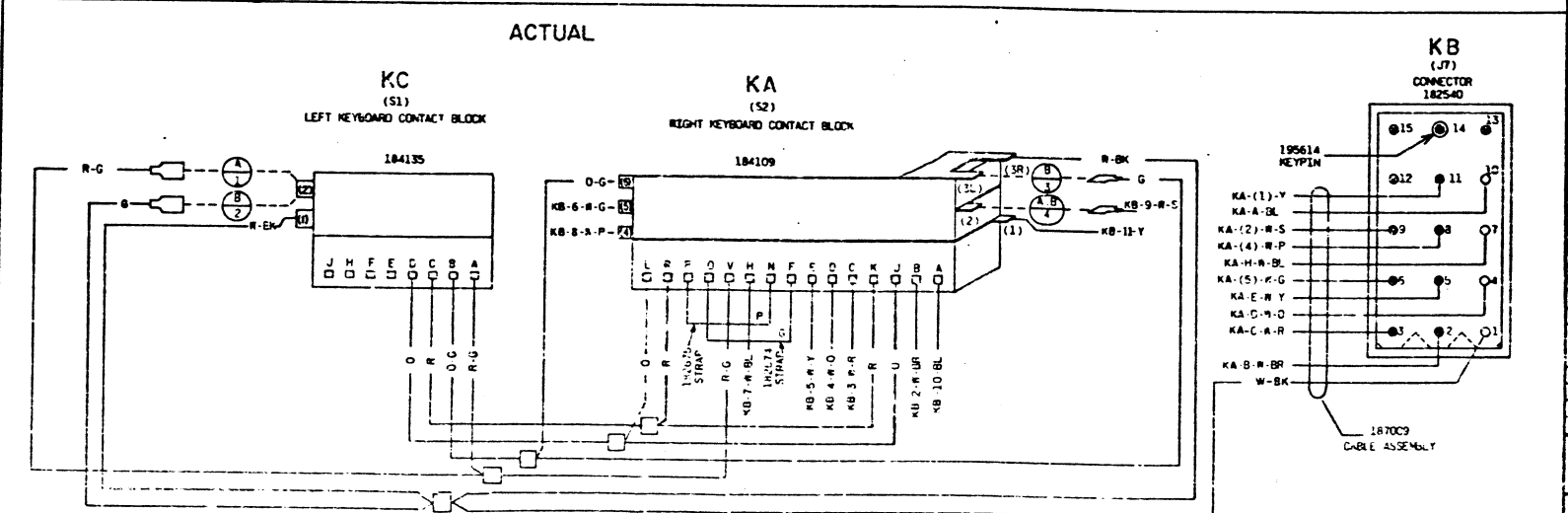
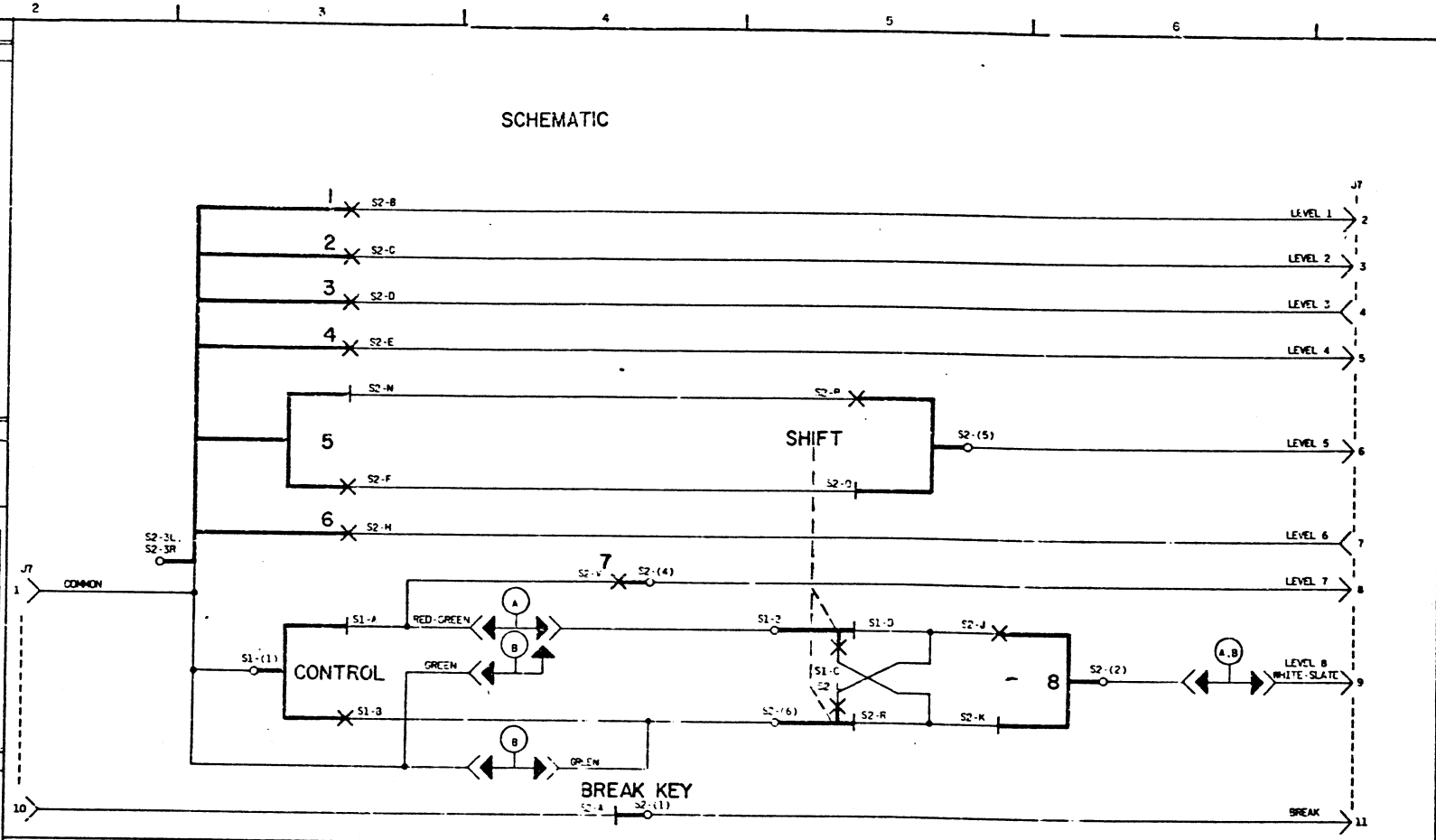
KC-B-R-P

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	443R
2	2-72	453AC

**MODEL 33 KEYBOARD
UK 819**

WDP

APPROVALS

PROJ. SUPERV.	PROJ. DIR.	MFG. REL. COMPL.
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

ENGR. DFR. *[Signature]* DSGNR.

DRN. SLD. DATE 4-27-71

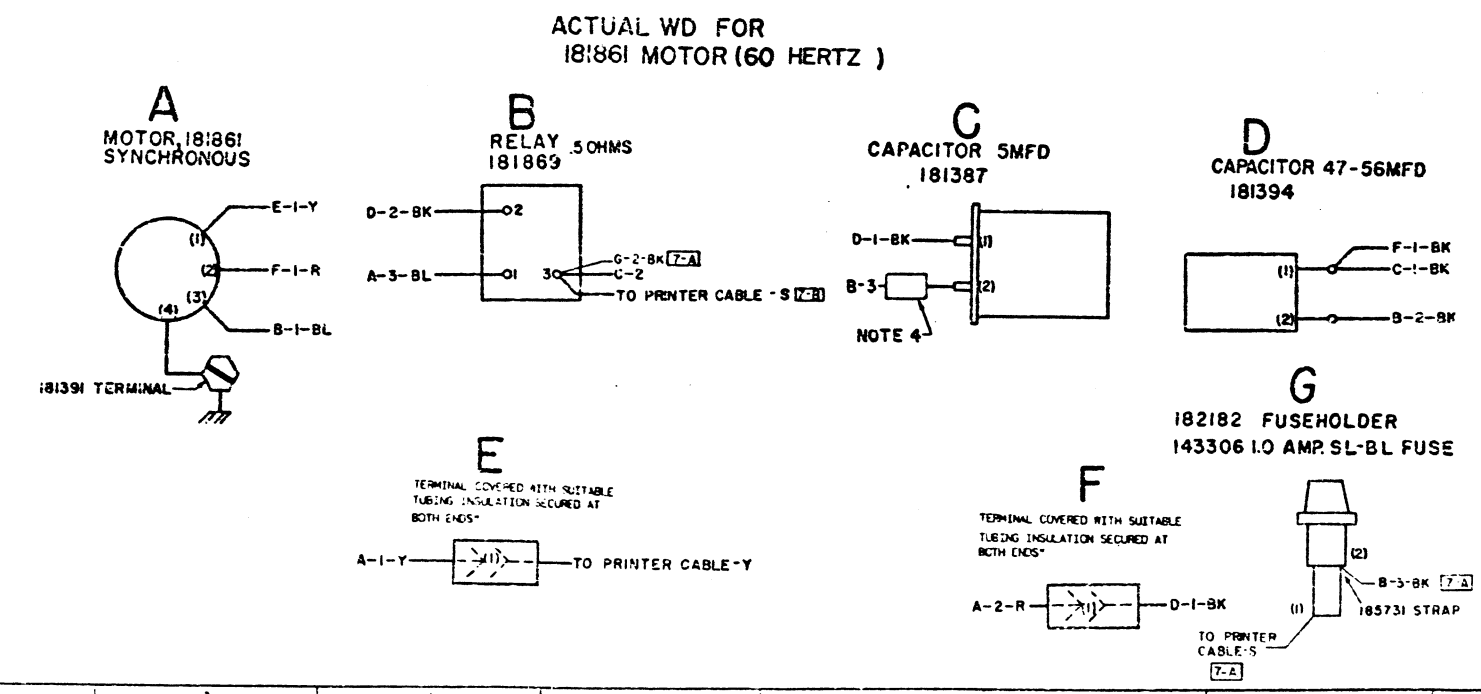
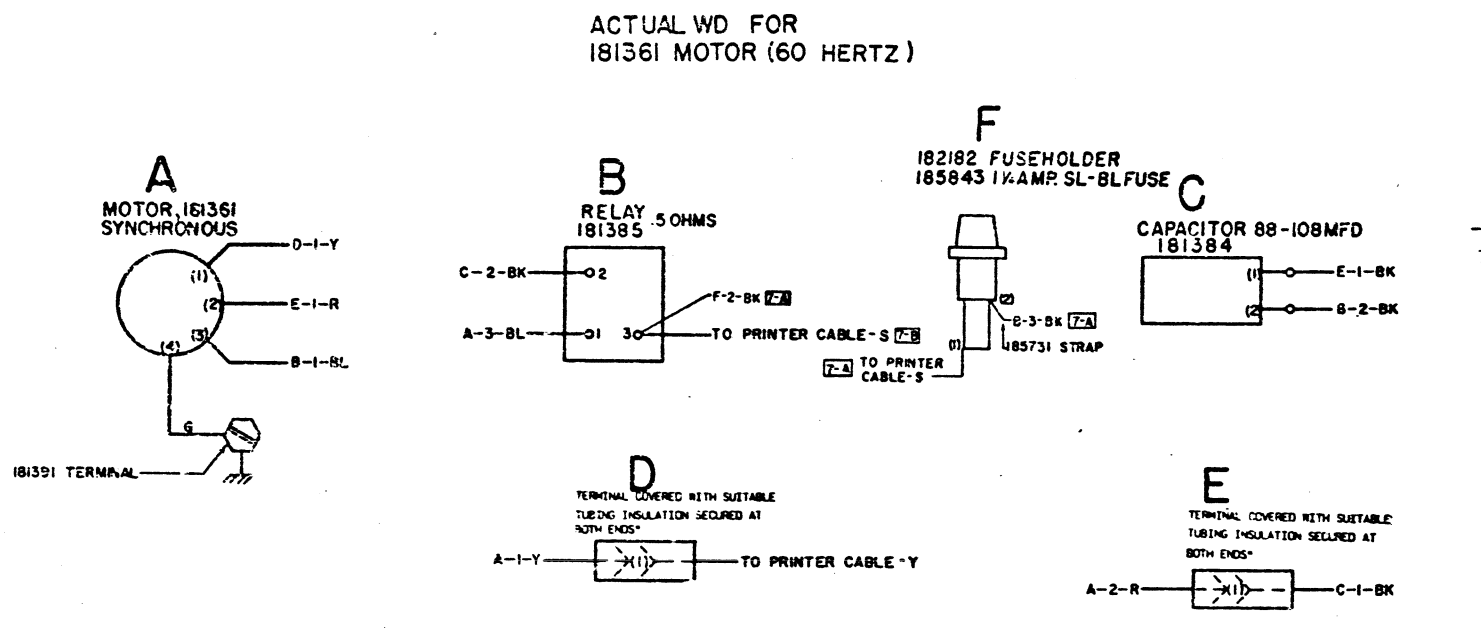
R&D FILE # 4533 JNA

S-NUMBER 51200

TELETYPE

9334 WD

NO.	NOTES									
1.	WIRING LEGEND: D- DISTANT TERMINATING AREA - D- DISTANT TERMINATING DESIGNATION E-B - NOTE-5 - WIRE COLOR CODE									
2.	COLOR CODE: 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.	WIRING STATUS: 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	898-1-3
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. 480562	
DATE 2-8-62	
P.D. FILE NO. 1-231.15348	
DRAWN	CHKD.
EMOD. P.R.S.	APPD.
TELETYPE CORPORATION	

4405 WD

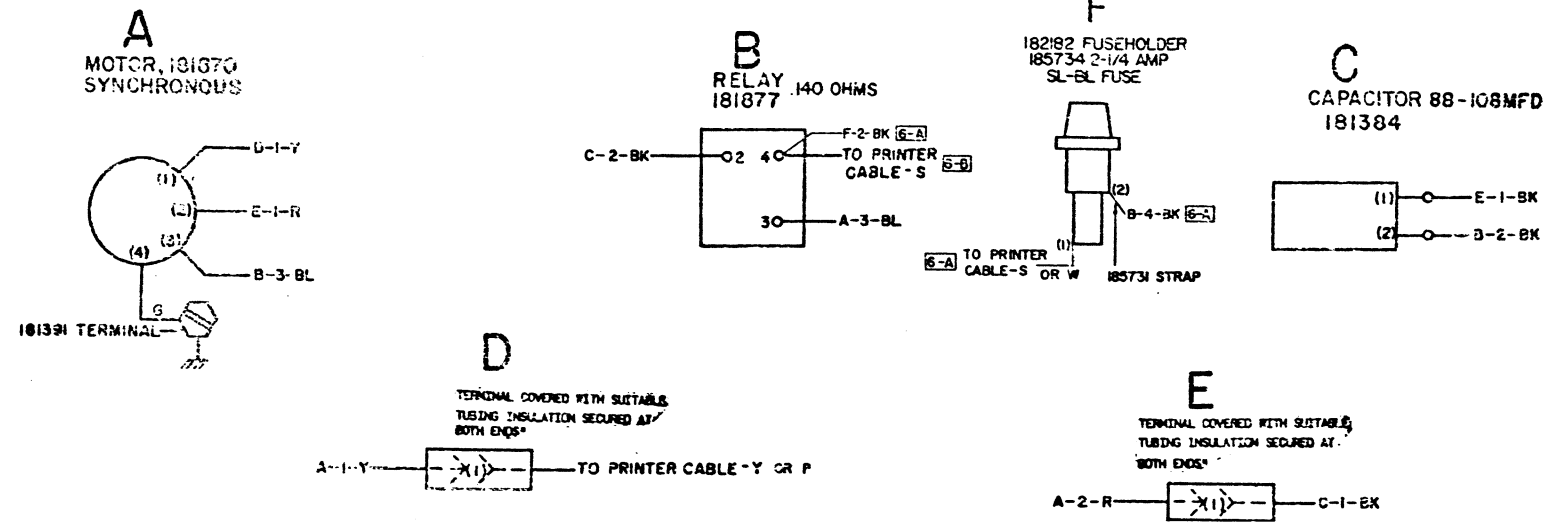
NOTE: ALL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE LIST OF SHEETS CONTAINING THE WIRING.

4405WD

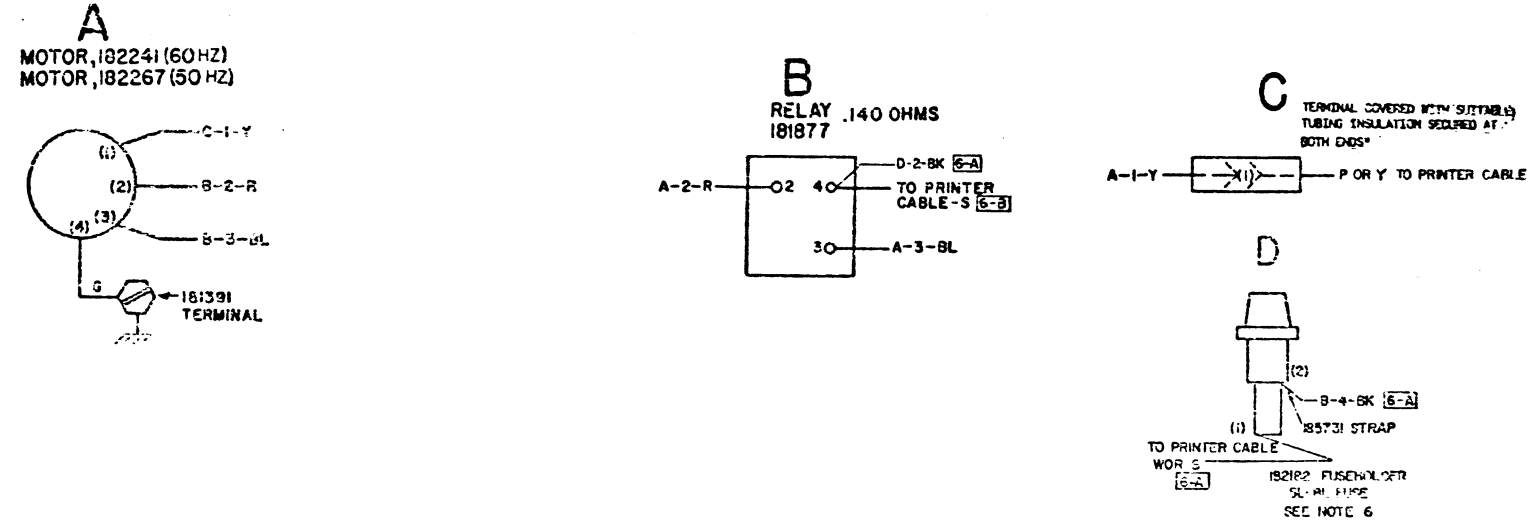
REVISIONS

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	E OF B
<i>[Signature]</i>	<i>[Signature]</i>

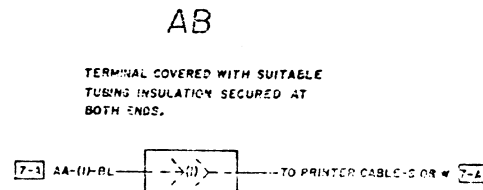
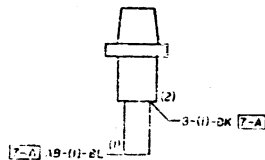
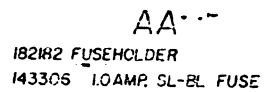
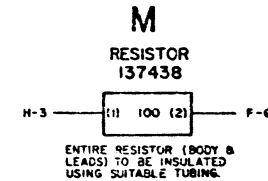
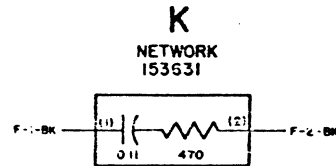
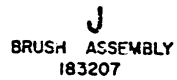
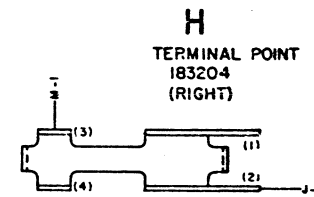
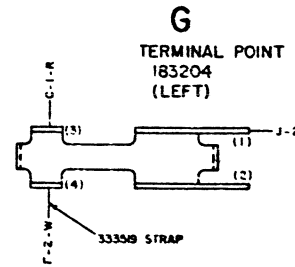
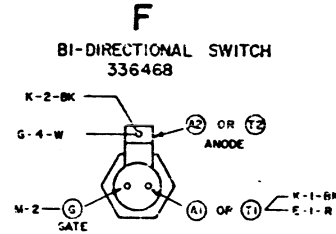
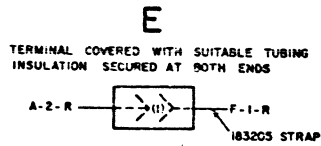
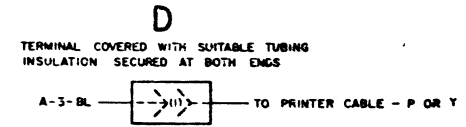
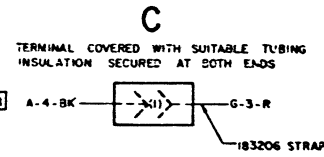
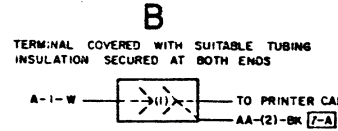
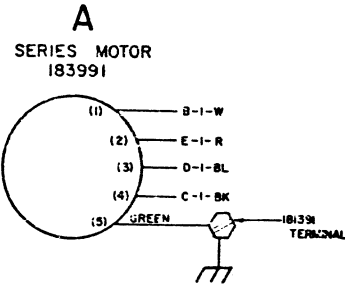
E-NUMBER	
PRCD. NO.	4405WE
DATE	2-9-62
P.D. FILE NO.	1-231-15384
DRAWN	R.H.B. CHKD.
ENGD.	P.C.S. APP'D.

TELETYPE CORPORATION

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	DESIGNER A S	
DRN. C E C	DATE 0-1-70	
S-NUMBER		

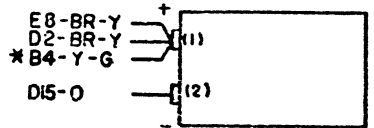


4970 WD

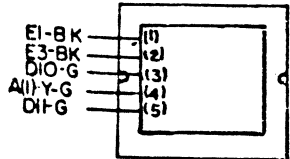
ISSUE	DATE	AUTH NO
1	8-1-62	30-1265
2	8-5-63	77081
3	1-31-64	79903
4	5-10-68	95523-4
5	1-14-71	736

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>

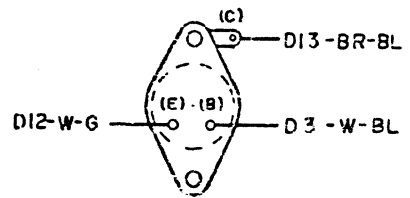
A CAPACITOR FILTER (182501)



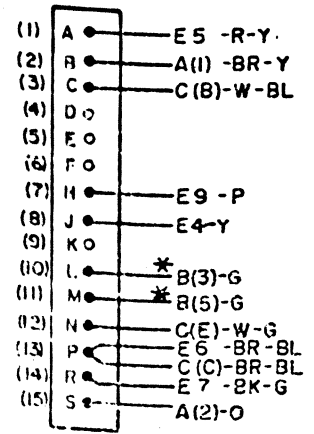
B TRANSFORMER, POWER (337992) 50/60 Hz NOTE 5



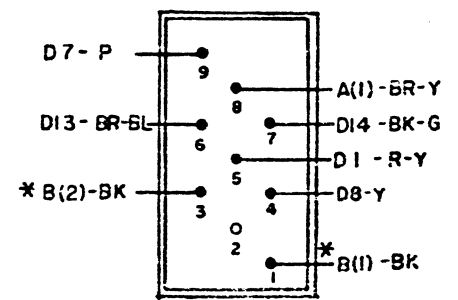
C TRANSISTOR, POWER (181675)



D CONNECTOR, CARD (181819) NOTE 5



E CONNECTOR, RECEPTACLE (182716)



WDP

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 _____

PROG. NO 4970 WD

DATE: 6-22-62

PD. FILE NO 1-165,33AA

DRAWN *[Signature]* CHKD *[Signature]*

ENGR. P.R.S. APPD

TELETYPE CORPORATION

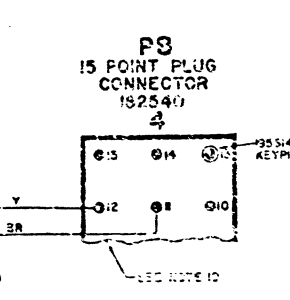
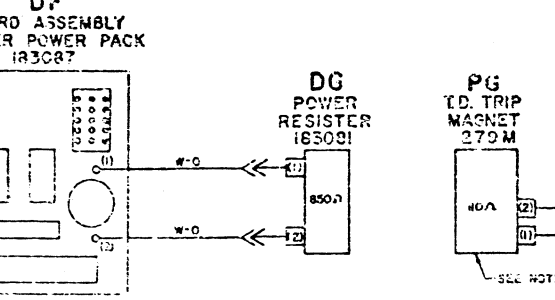
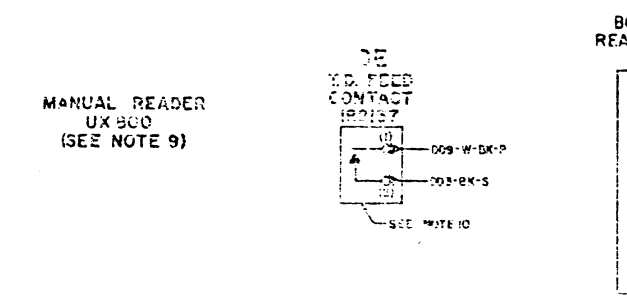
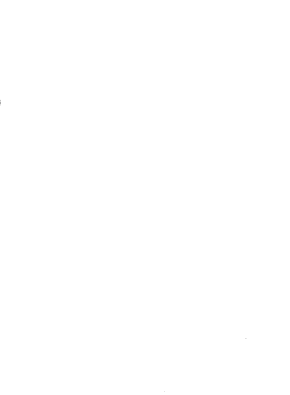
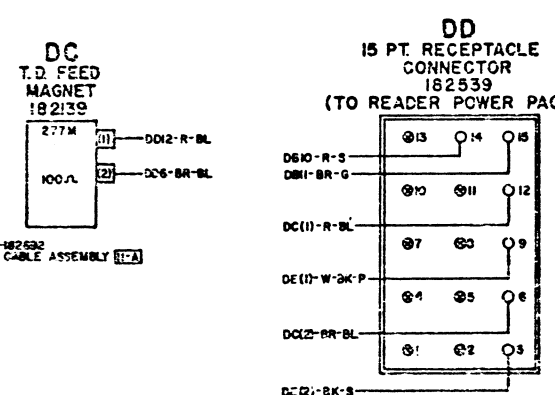
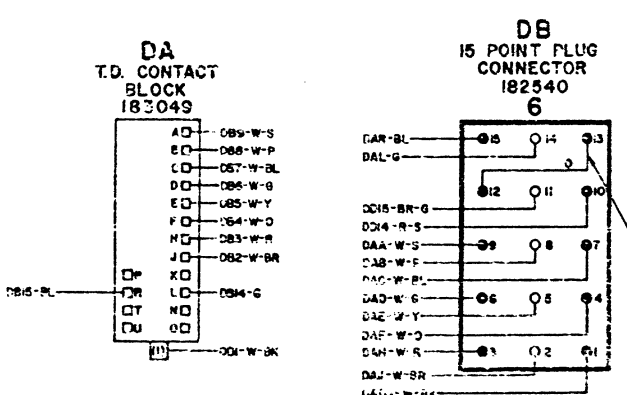
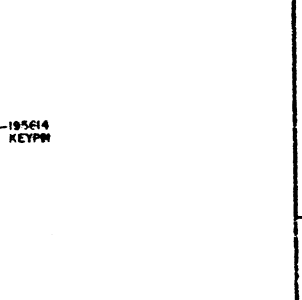
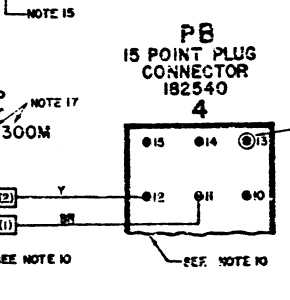
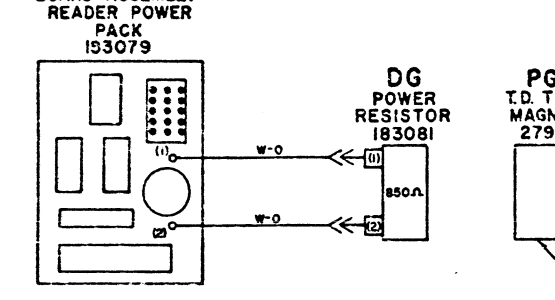
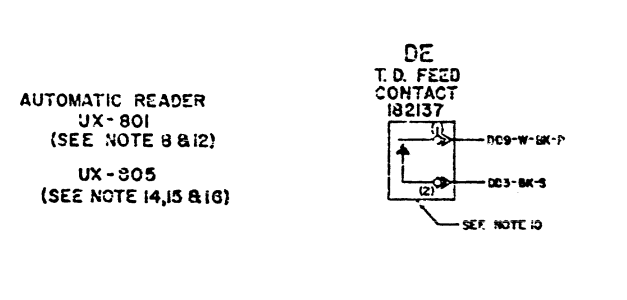
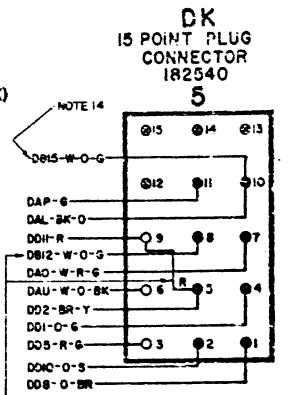
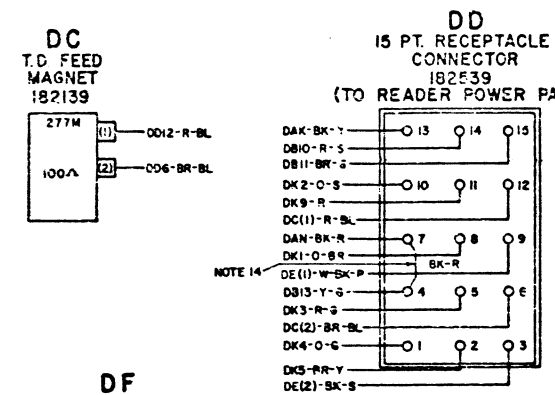
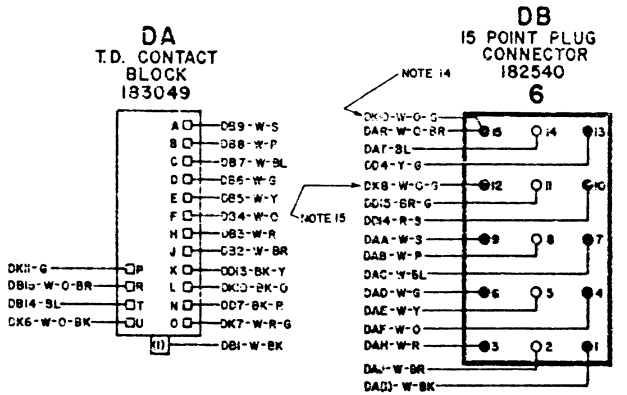
4970 WD

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

- NO. 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
 8158WD 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

DESIGNED BY: []
 CHECKED BY: []

FIG. NUMBER

PROD. NO. 7887 WD

DATE: 9-3-55
 P.D. FILE NO. G-A152AA
 DRAWN: RMB
 ENGR.: JWS
 APPR.: []

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-RG
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 (1, 2 OR 3 COLORED)

WIRE COLOR (1, 2 OR 3 COLORED)

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 221820 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.

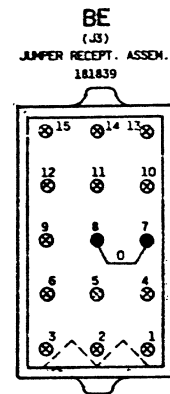
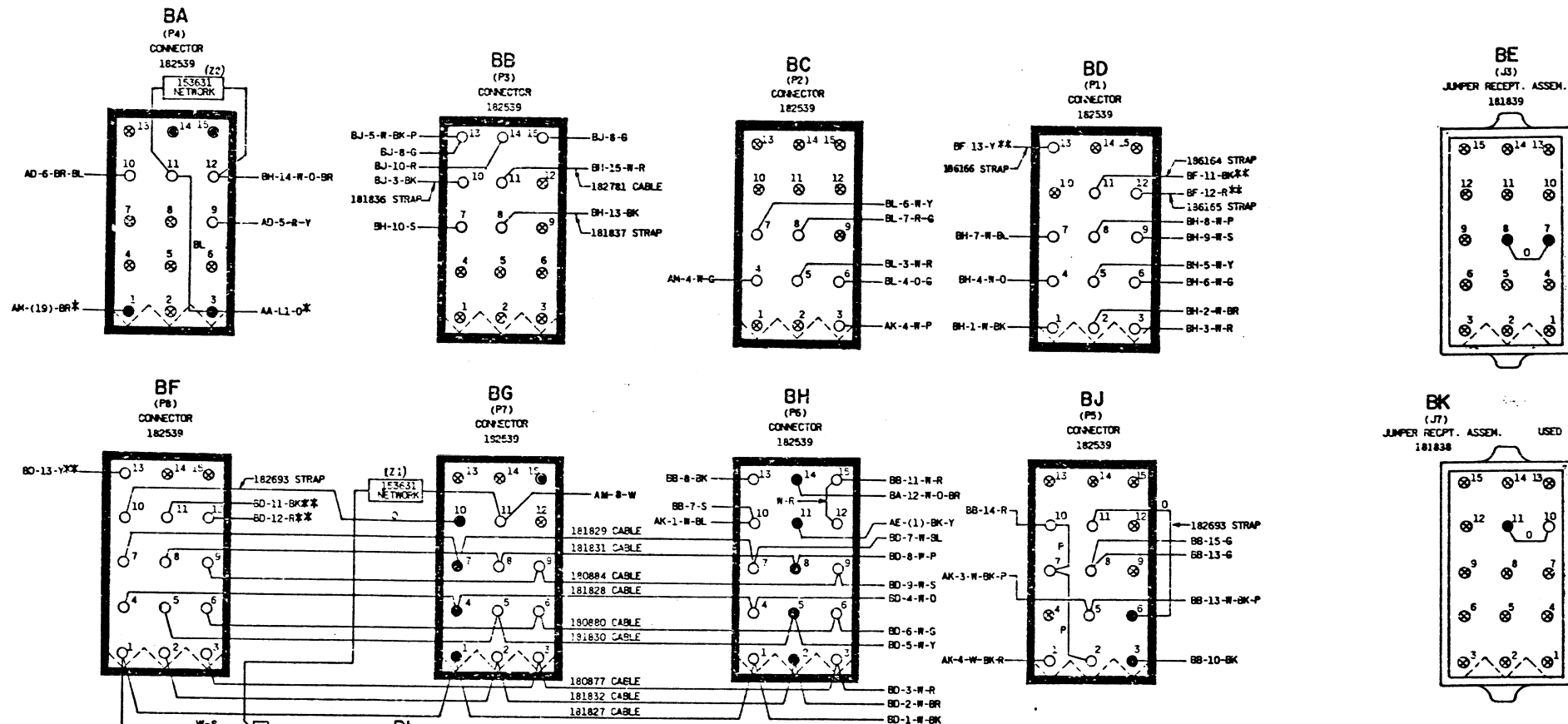
WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

APPROVALS

PROJ. SUPV. <i>DJR</i>	PROJ. DIR. <i>RPS</i>	WFR. REL. <i>RW</i>	COMPL. <i>RW</i>
ENGR. OFD (DSGNR.)			
DRN. S.L.D. DATE 8-2-71			
R & D FILE E-A152-219A			
S-NUMBER 61-310			

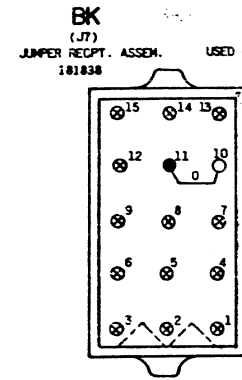
UNITS WITH CABLE WIRING

ISSUE
1
2
3
4
5



USED ONLY ON FRICTION FEED ASR SETS WITH MANUAL READER

(NOT PART OF UCC6)

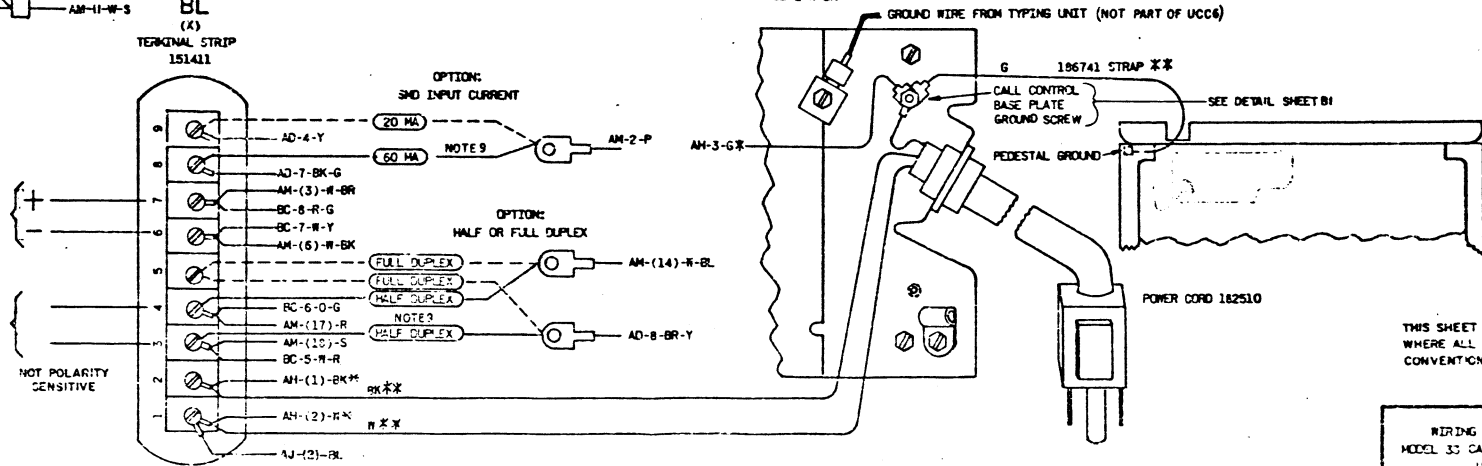


USED ON RO SETS

(NOT PART OF UCC6)

CUSTOMER SIGNAL INTERFACE

HALF DUPLEX	FULL DUPLEX
RECEIVE AND SEND	RECEIVE
NOT USED	SEND

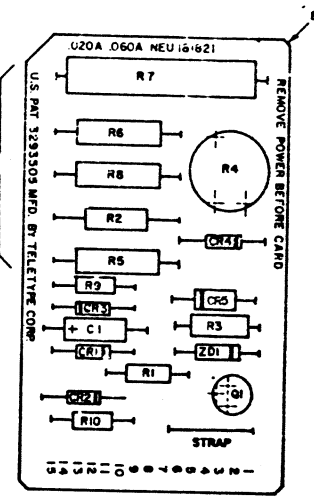


THIS SHEET APPLIES TO EARLIER UNITS WHERE ALL WIRING WAS PROVIDED BY CONVENTIONAL CABLES.

WIRING DIAGRAM FOR MODEL 35 CALL CONTROL UNIT UCC 6

NO	NOTES
1	MASTER ARTWORK NO 181821AW FOR PRINTING SCREEN 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 R1 AND CR5 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 OR RM-39550 STRAP.
4	CR1, CR2-182520 (1N4393) AND CR3, CR4-181619 (1N482) WERE REPLACED FOR STANDARDIZATION.
5	TO FACILITATE MANUFACTURE, Q1 WAS CHANGED FROM 131671. THIS ALSO REQUIRED CHANGING CR5 FROM 178844 VARISTOR (100A) AND ZD1 FROM 182774 (1N4732A 4.7V). SCHEMATIC SYMBOL FOR 178844 WAS AND IT COULD BE INSERTED IN BOARD IN EITHER DIRECTION.

SEE NOTE 2



CIRCUIT DESCRIPTION

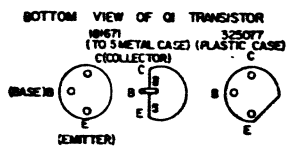
THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO 20 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY FILTER CAPACITOR IS CONNECTED BETWEEN TERMINALS 2 AND 15.

THE DIRECT CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 14 OR 8 AND 2 DEPENDING ON LINE CURRENT. TERMINAL 7 STRAPPED EXTERNALLY TO TERMINAL 14 OR 8, DEPENDING ON LINE CURRENT.

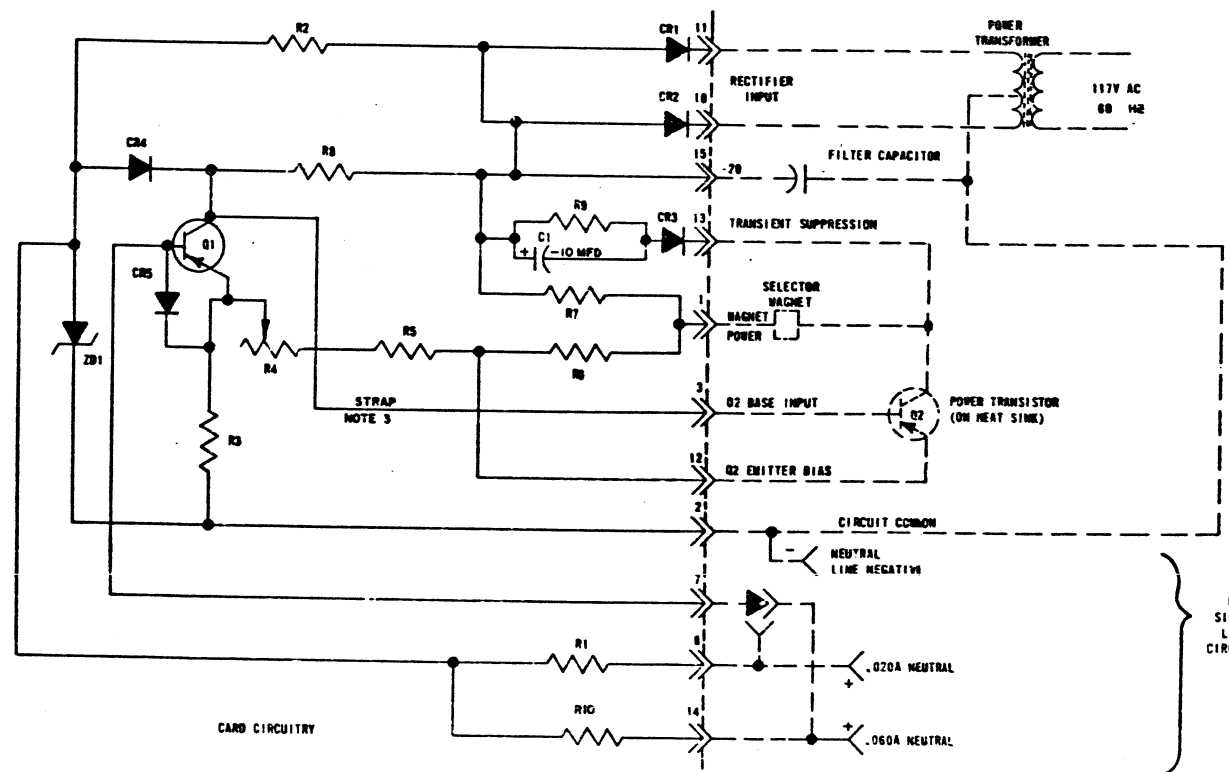
IN THE MARKING CONDITION, Q1 IS OFF-BIASED WITH Q1 OFF. THE BASE OF Q2 WILL BE CLAMPED AT THE ZENER REFERENCE VOLTAGE BY DIODE CR4. THIS VOLTAGE CLAMP IS THEN TRANSLATED TO CURRENT REGULATION BY THE TRANSISTOR ACTION OF Q2. THE REGULATED MAGNET CURRENT IS ADJUSTED TO 500 AMPERES BY RHEOSTAT R4.

WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR T.D. 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.



CONSTANT CURRENT 500 AMP SELECTOR MAGNET DRIVER



CIRCUIT BOARD EC

REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	182779	1	RESISTOR 420 OHMS 1/20	Q1 AMP SWITCHING LINE
R10	182797	1	RESISTOR 135 OHMS 1/20	Q2 AMP SWITCHING LINE
R2	181669	1	RESISTOR 330 OHMS 2 5/8	ZENER CURRENT LIMITING
R3	182778	1	RESISTOR 0.82 OHMS 1/20	COMMON EMITTER BIAS
R4	182773	1	RHEOSTAT 3 OHMS 2 5/8	OUTPUT CURRENT ADJUST
R5	181717	1	RESISTOR 2 OHMS 5/8	Q2 EMITTER BIAS
R6	182770	1	RESISTOR 270 OHMS 4 W	Q2 EMITTER BIAS
R7	182772	1	RESISTOR 14 OHMS 1/8	Q2 COLLECTOR LOAD
R8	182827	1	RESISTOR 390 OHMS 4 W	Q1 COLLECTOR LOAD
R9	182776	1	RESISTOR 150 OHMS 1/20	Q2 COLLECTOR - TRANSIENT LIMITING
CR1	171541	3	DIODE (NOTE 4)	POWER RECTIFIER
CR2			SAME AS CR1	POWER RECTIFIER
CR3	197464	2	DIODE (NOTE 4)	COLLECTOR TRANSIENT LIMITING
CR4			SAME AS CR3	VOLTAGE CLAMPING
CR5			SAME AS CR1	INPUT PROTECTION
ZD1	342922	1	DIODE ZENER 1N4733A 5.1V	REFERENCE
C1	182828	1	CAPACITOR 10 MFD 250 VDC	COLLECTOR TRANSIENT LIMITING
Q1	32077	1	TRANSISTOR 2N4355	INPUT SWITCH
RM39550			STRAP	NOTE 3
EC	181823	1	CIRCUIT BOARD, ETCHED	

SEE NOTE 5

181821		
REVISIONS		
ISSUE	DATE	AUTH. NO.
2	4-19-65	86501
3	9-9-66	38816
4	11-25-66	89816-1
5	5-5-67	93502
6	4-2-69	95450
7	7-5-69	95948
8	11-6-68	96427
9	12-20-68	98266
10	3-3-71	11370
11	3-29-72	235
12	3-29-72	236-1

REV.	DATE	BY	CHKD.
1	10/28/63		
2	11/10/63		
3	1/15/64		
4	1/22/64		
5	1/29/64		
6	2/5/64		
7	2/12/64		
8	2/19/64		
9	2/26/64		
10	3/5/64		
11	3/12/64		
12	3/19/64		

APPROVALS	
R AND D	E OF M
<i>H.J.K.</i>	
E-NUMBER	
PROD NO 181821	
DATE 4-28-67	
R&D FILE 2-30152, 153AA	
DRAWN JER-CG	CHKD. <i>H.A.V.</i>
ENG. AS-PPS	APPD. <i>J.W.</i>
TELETYPE CORPORATION	
181821	

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	118160	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:

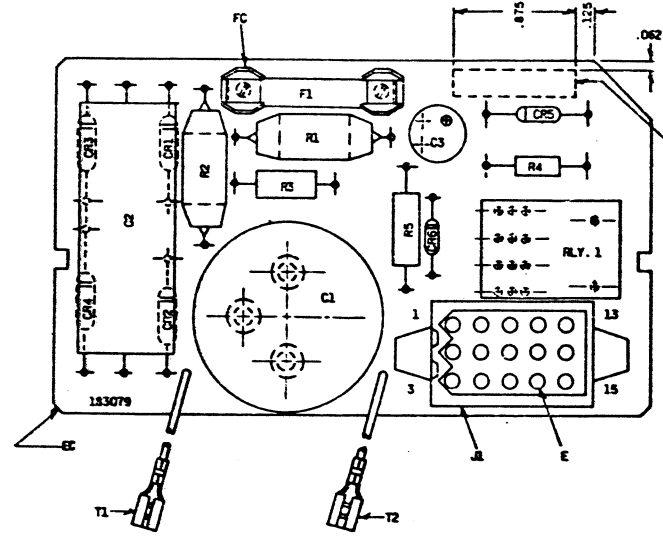
NO	NOTES
1.	MASTER ARTWORK NO.: 183079AM FOR PRINTED SCREENING AVAILABLE IN R & D OFFICE SERVICE SECTION.
2.	SOME PREVIOUS CIRCUIT CARD ASSEM. USED 1/2 AFB. 3/4 AFB. IS PREFERABLE.
3.	COMPONENT LAYOUT WAS CHANGED TO ALLOW FOR NEW STYLE CAPACITOR WITH VENT.
4.	R5 CHANGED FROM 470 OHM 2W. TO 220 OHM, 1 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.

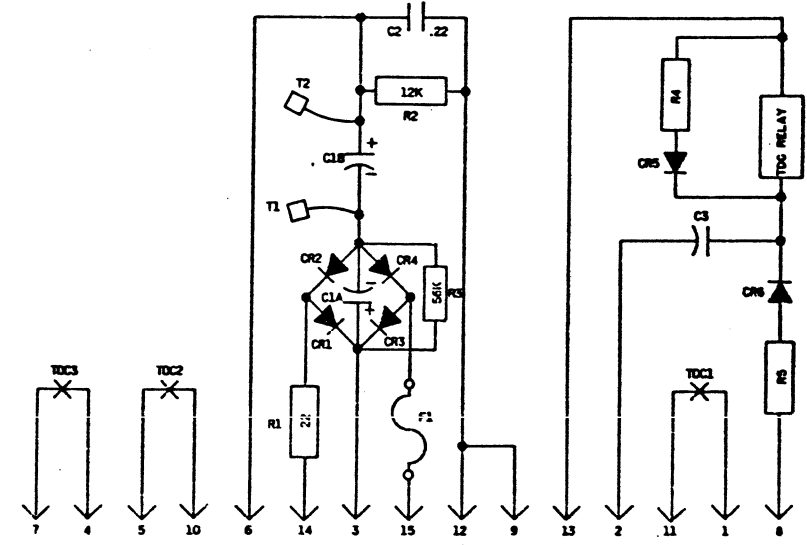
TO FEED SWITCH IS CONNECTED BETWEEN TERMINALS 9 AND 3. THE UNIT IS DESIGNED TO DRIVE THE READER MAGNET IN THE MODEL 33 ASR SET.

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.	PROJ. MGR. REL. COMPL.
ENGR. T.Y. OSSMA	(Signature)
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

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	-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

WDP

APPROVALS

D AND R E OF M

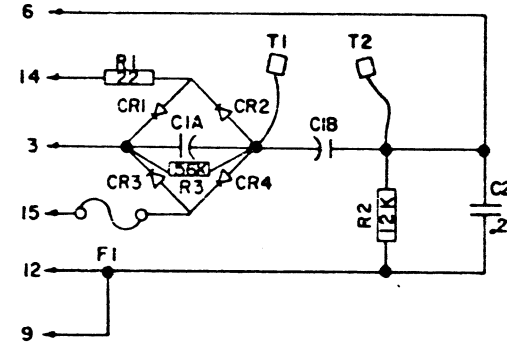
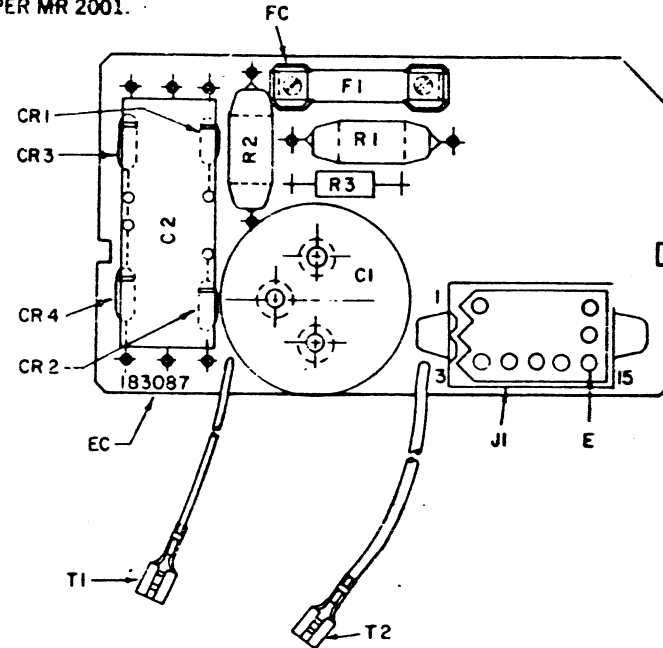
7

E. NUMBER

PROGNO 183087

TELETYPE CORPORATION

183087



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.

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.

SCALE 1/1

STOCK SPECIFICATION

DRAWN	PD FILE NO	DATE
TR	1-4760AA	6-7-62
DESIGNED	ENGINEER	CHECKED
	JAU	AA

SIZE	KIND	SHAPE	TEMPER

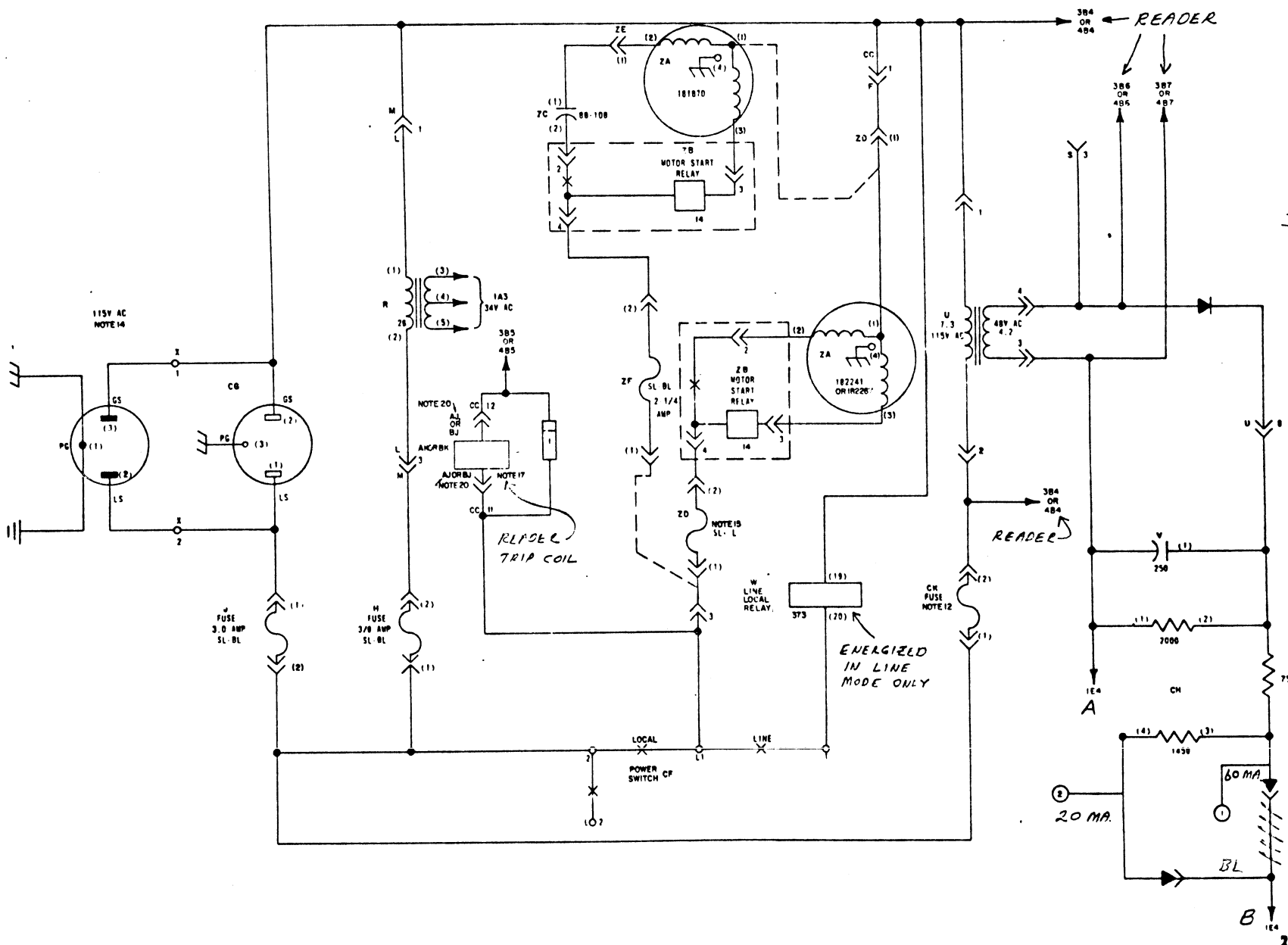
SEE SHEET 1 FOR NOTES

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

6353WD

REVISIONS

ISSUE	DATE	A/JTM NO.
2	11-20-63	256
3	1-8-64	1934
4	4-9-64	140
5	6-9-64	173
6	11-27-64	4672
7	2-16-65	113
8	3-14-65	143
9	8-3-65	153
10	10-15-65	11482
11	12-17-65	12267
12	1-13-66	13443
13	2-17-66	14597
14	3-9-66	15721
15	3-29-66	16790
16	5-2-66	18074
17	9-10-66	19314
18	10-2-66	20271
19	10-4-66	21111
20	12-28-66	2197
21	12-21-67	25147, INC



SEE ISSUE CONTROL RECORD FOR ORIGINATOR'S LIST OF SHEETS COMPRISING THIS WORK

SHEET 5

SCHEMATIC
WIRING DIAGRAM
FOR
MODEL 33
AMP, KSR, MO
DC SIGNAL LINE

APPROVALS

D AND R

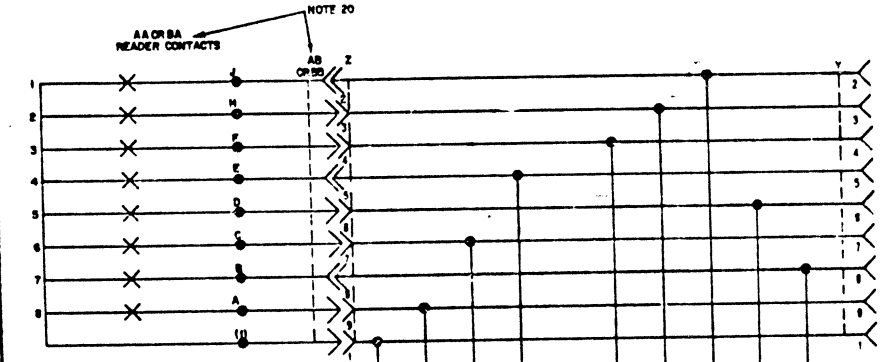
E OF M

E-NUMBER
PROD. NO. 6353 WD
DATE 4 23 67
P.D. FILE NO. 2-50152/1114
DRAWN JR
ENGD. A B

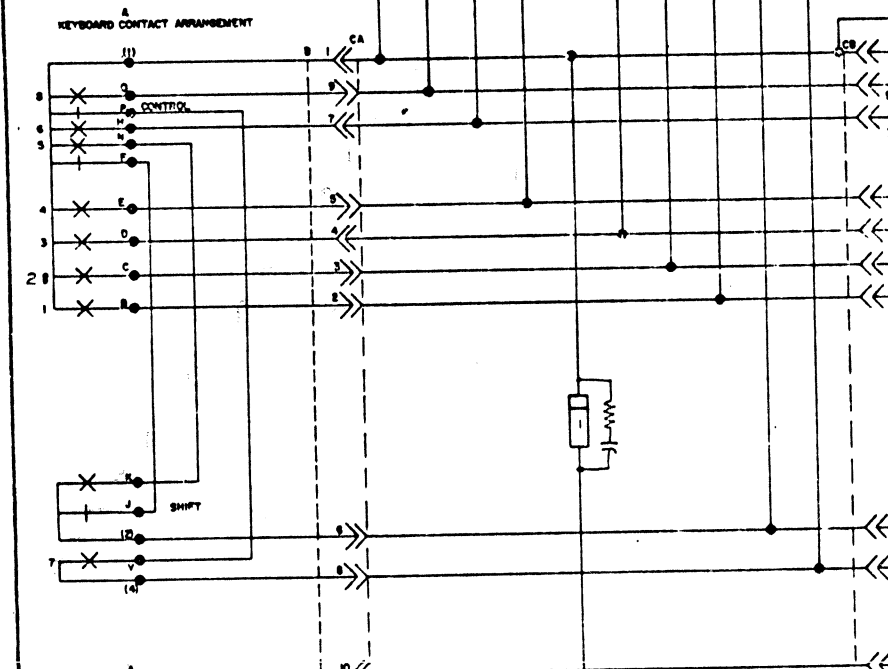
TELETYPE
CORPORATION

6353WD

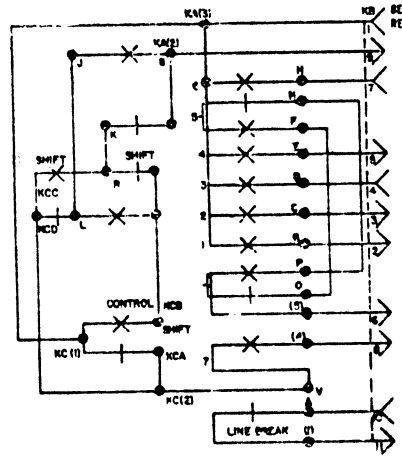
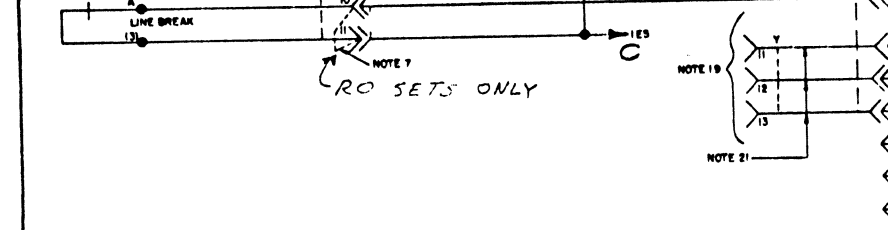
SEE SHEET 1 FOR NOTES



SPARE
OR CUSTOMER'S
OPTION



RO SETS ONLY



KA AND KC
PARITY KEYBOARD CONTACT
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	79834
4	4-9-64	8440
5	6-9-64	8773
6	11-27-64	84402
7	2-15-65	84121
8	3-2-65	84121
9	3-2-65	84121
10	3-2-65	84121
11	3-2-65	84121
12	3-2-65	84121
13	3-2-65	84121
14	3-2-65	84121
15	3-2-65	84121
16	3-2-65	84121
17	3-2-65	84121
18	3-2-65	84121
19	3-2-65	84121
20	3-2-65	84121
21	3-2-65	84121
22	3-2-65	84121

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.O. FILE NO. 3 30 152 10248

DRAWN JR CHD

EMD 65 APPS

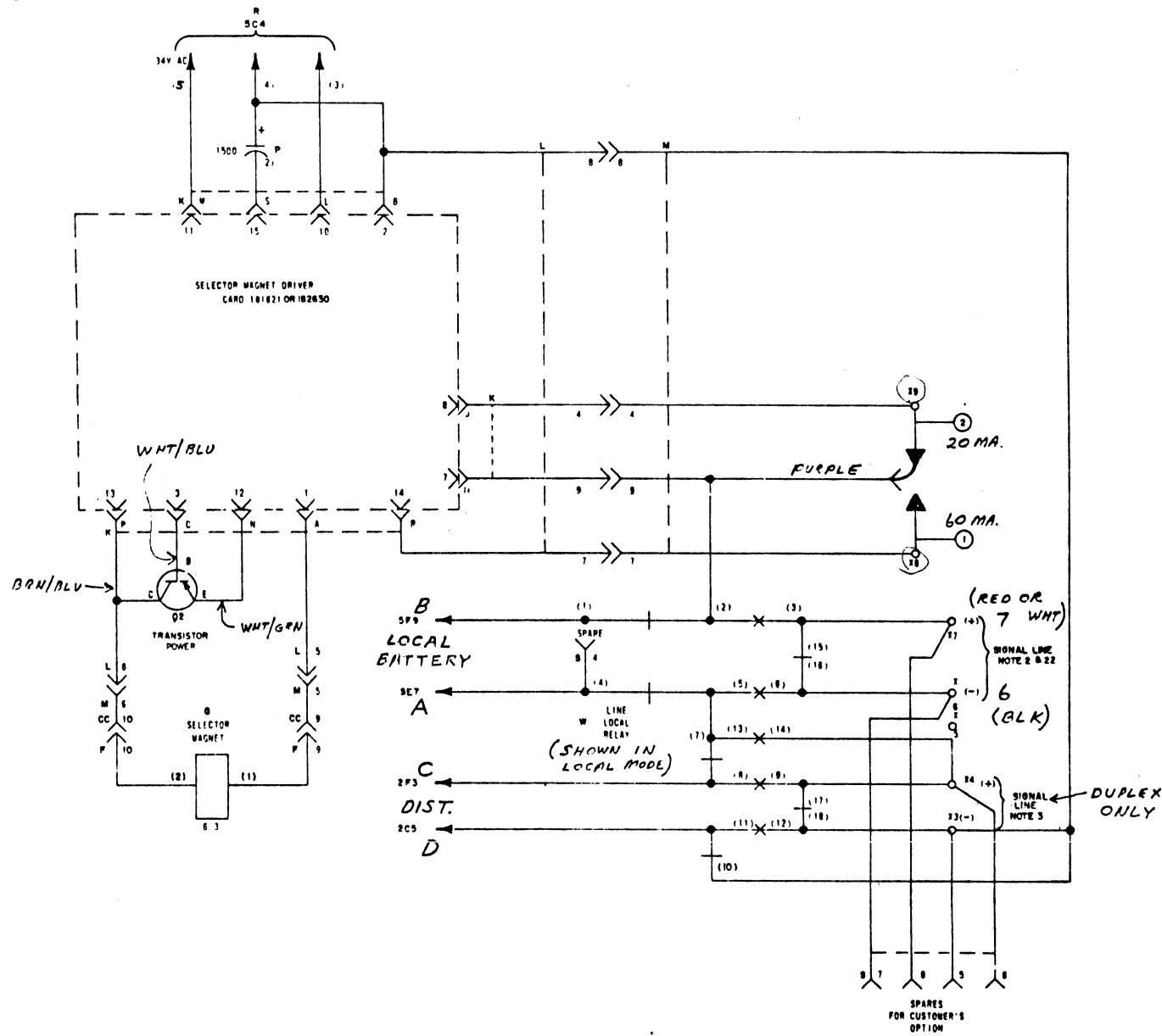
TELETYPE
CORPORATION

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, TAP, AAR 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	88941
13	2-17-66	91587
14	3-9-66	89112
15	3-29-68	87740
16	5-2-68	88740
17	5-10-68	91380
18	10-12-68	89771
19	10-2-68	91711
20	12-18-68	91264
21	8-23-67	84755
22	8-23-67	84755
23	1-16-64	81640

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

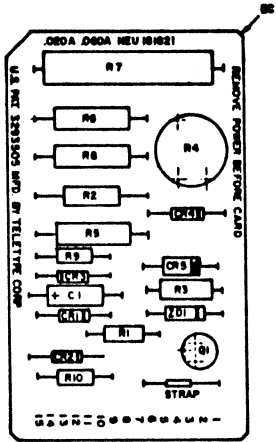
SHEET 1

SCHEMATIC WIRING DIAGRAM FOR MODEL 33 ASR, KSR, RD DC SIGNAL LINE	
APPROVALS	
D AND R	E OF 8
E-NUMBER	
PROD. NO. 6353WD	
DATE 4-24-67	
P.D. FILE NO. 2 30 152/153AA	
DRAWN JEA	CHKD.
ENGR. AS	APP'D.
TELETYPE CORPORATION	

6353WD

- 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

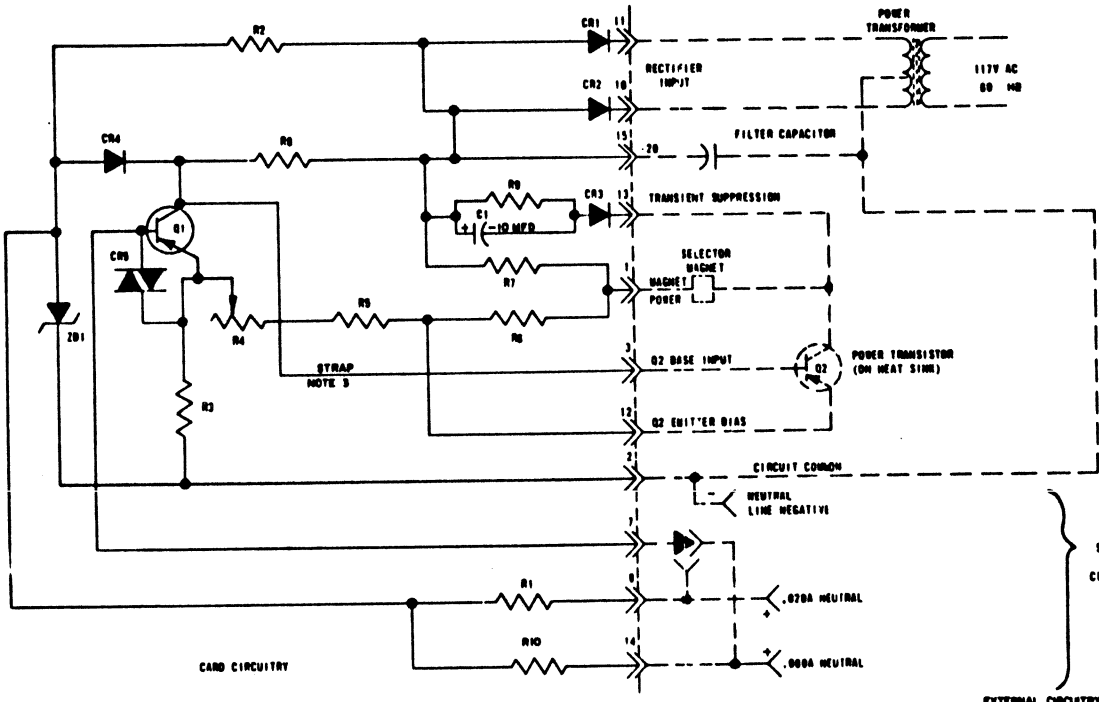
REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	102770	1	RESISTOR 420 OHMS 1/2W	Q1 500 AMP SWITCHING FOR 020A NEUTRAL
R10	102787	1	RESISTOR 135 OHMS 1/2W	Q1 500 AMP SWITCHING FOR 020A NEUTRAL LINE
R2	101009	1	RESISTOR 330 OHMS 2.5W	ZENER CURRENT LIMITING
R3	102770	1	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 4.0	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 1N4002	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	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	7-2-68	95450
7	7-3-68	95450
8	11-8-68	95450
9	12-20-68	98766
10	3-3-71	9320
11	3-20-72	230
12	3-20-72	230-1

CONSTANT CURRENT 500 AMP SELECTOR MAGNET DRIVER



CARD CIRCUITRY

DC SIGNAL LINE CIRCUIT

EXTERNAL CIRCUITRY

MOD. 33

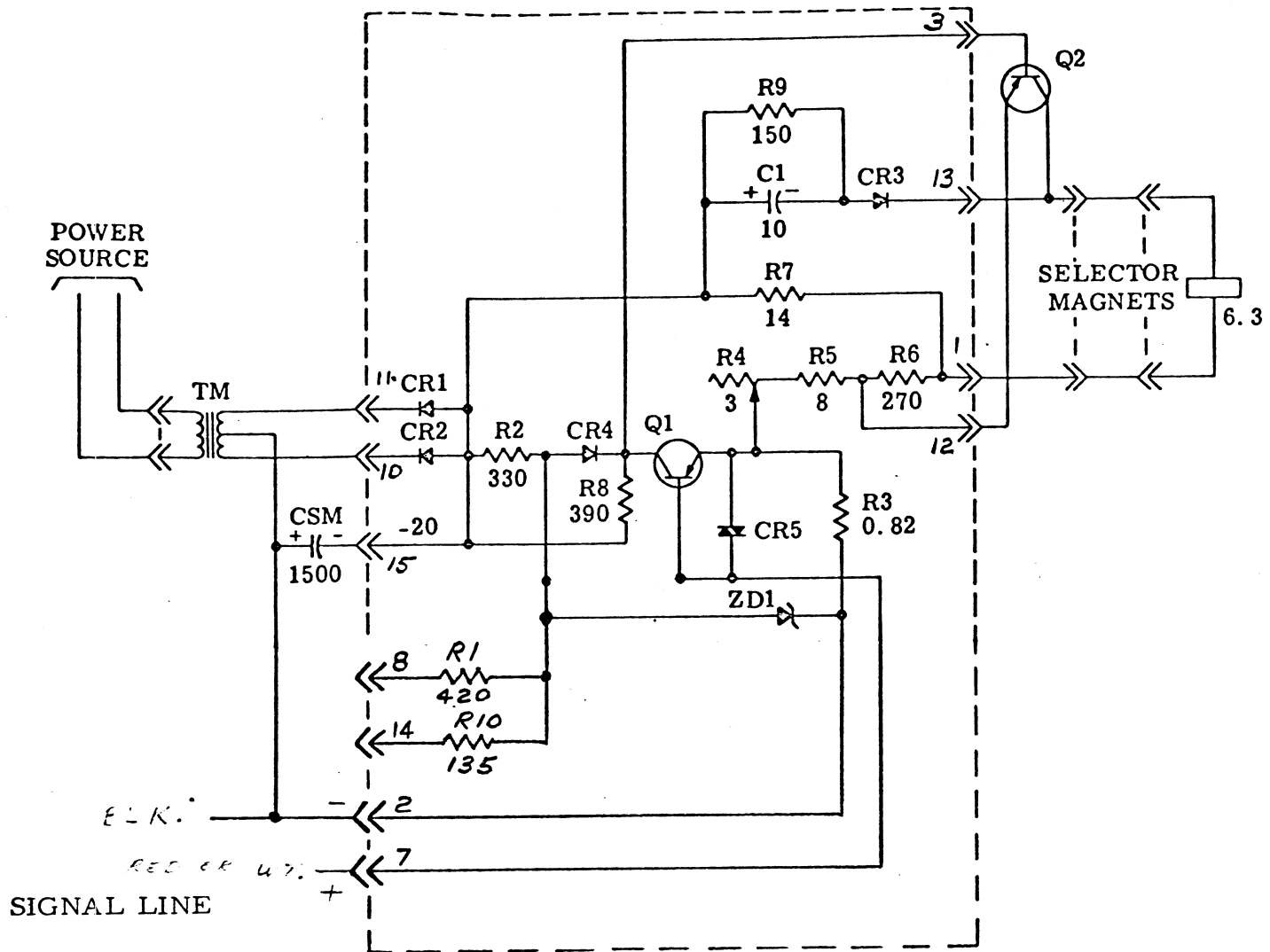
APPROVALS

R AND D HJK	E OF W
E-NUMBER	
PROD NO 10021	
DATE 4-20-65	
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