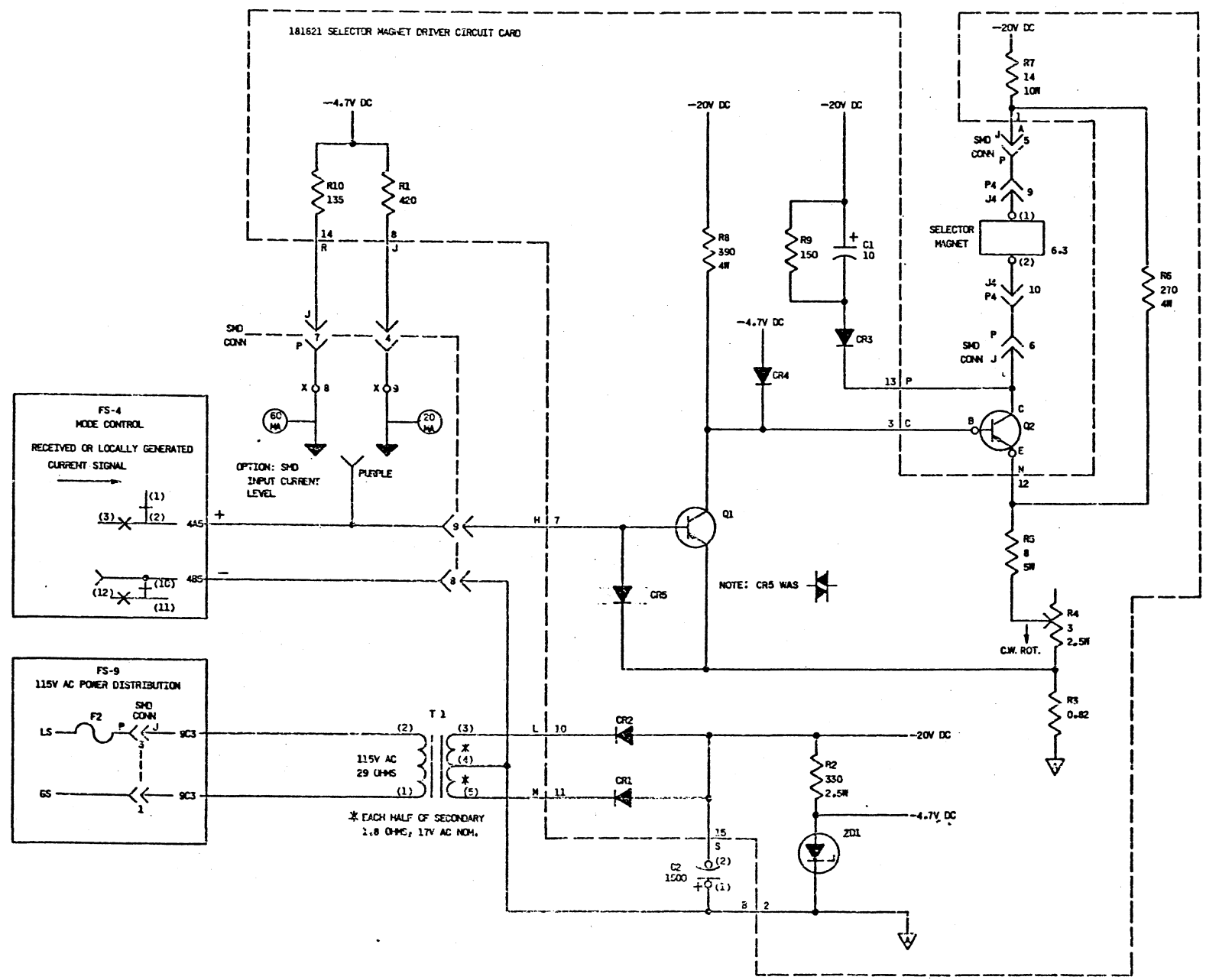
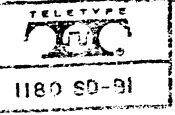


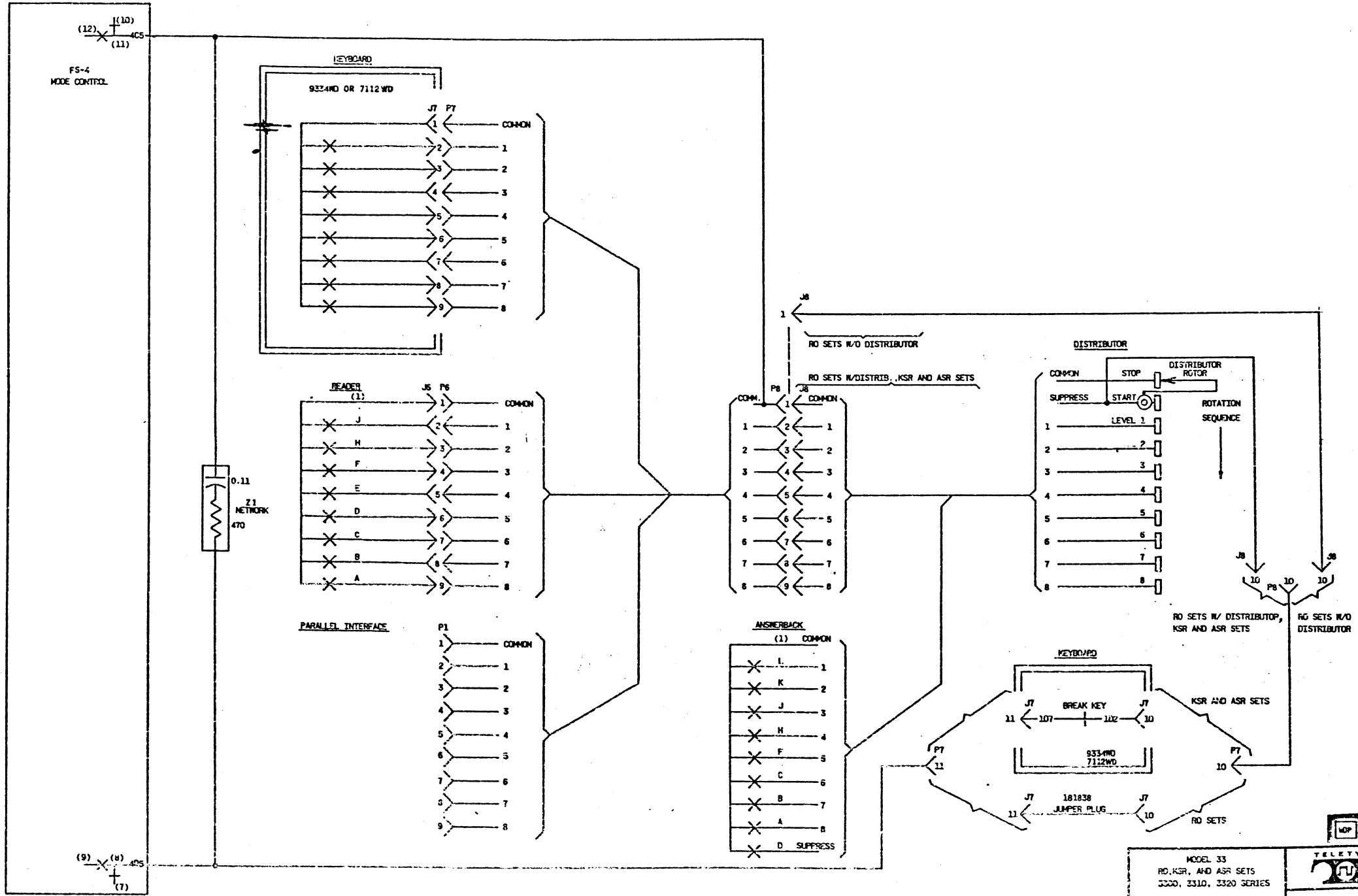
FS-1 RECEIVE



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



FS-2 SEND CIRCUIT



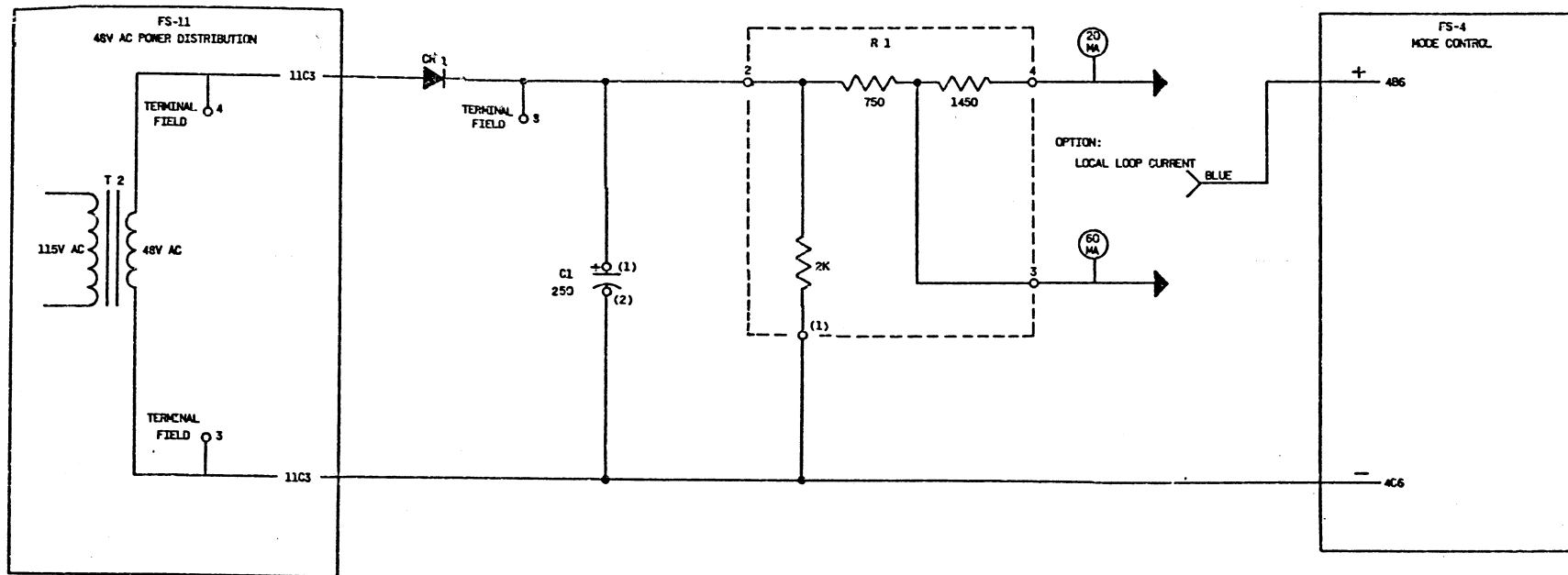
MODEL 33
RO, KSR, AND ASR SETS
3300, 3310, 3320 SERIES



1180 SD-B2

FS-3 LOCAL LOOP CURRENT SUPPLY

ISSUE
1



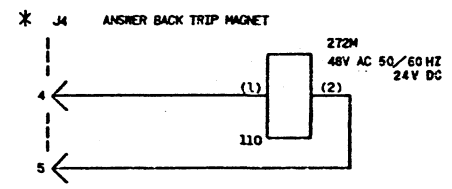
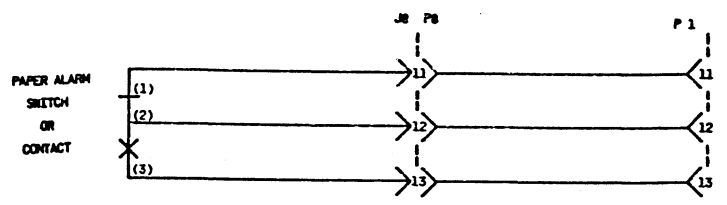
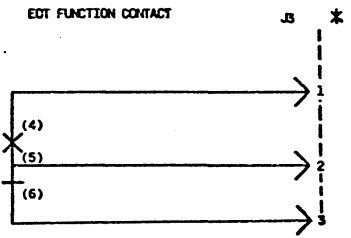
FS-5 AUXILIARY CIRCUITS (FOR CUSTOMER USE)

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

PAPER ALARM

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

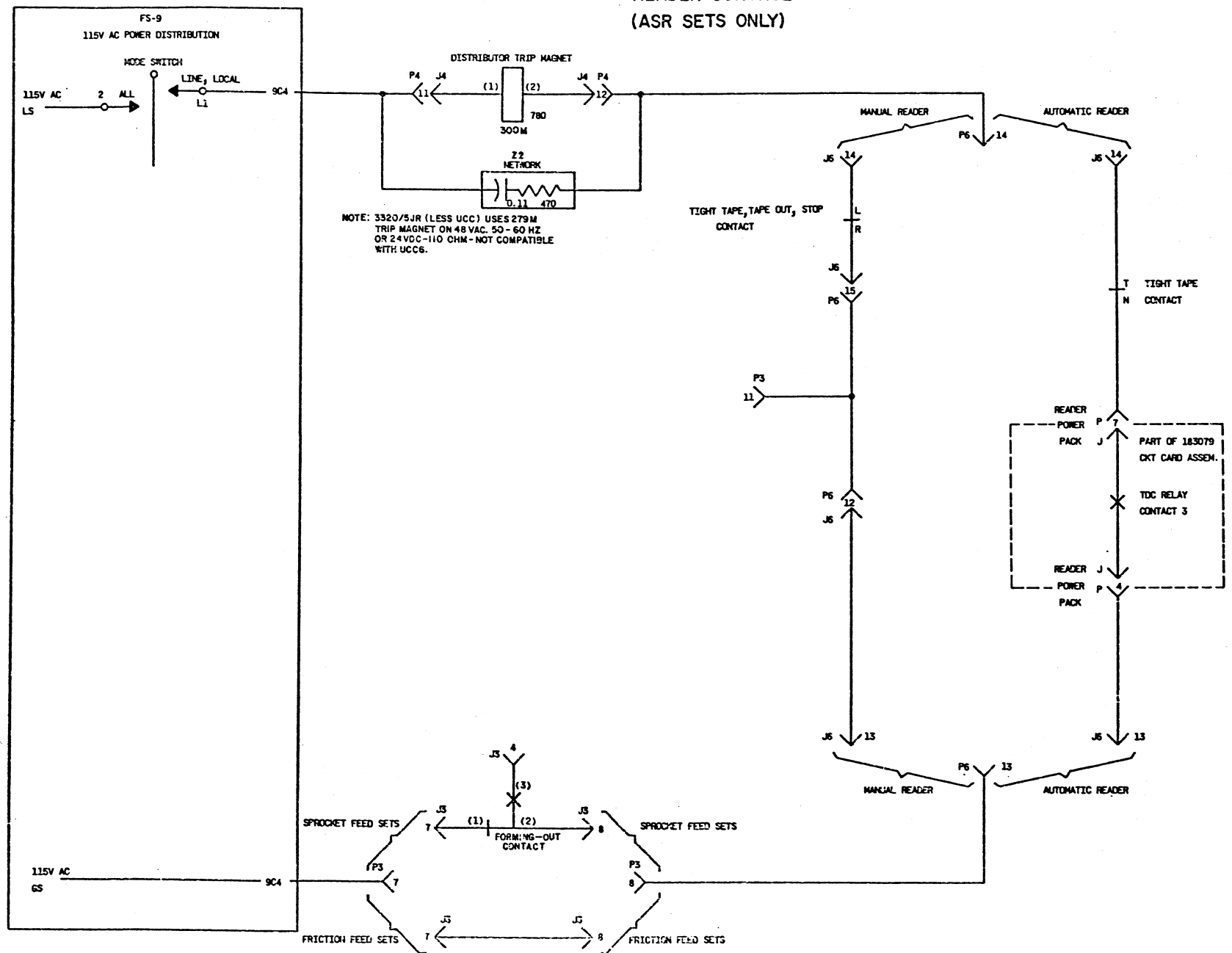
	LOCATION	CONTACT RATING
FRICITION:	IN FRONT OF MOTOR FAN	
SPROCKET:	NEAR LEFT END OF PLATEN	



* CUSTOMER ACCESS TO THE PINS SHOWN IS TO BE MADE FROM INSIDE THE CALL CONTROL UNIT BACK PLATE, USING 182644 (22-28 AWG) OR 185477 (18-20 AWG) FEMALE TERMINALS.

MODEL 33 RO, KSR, 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

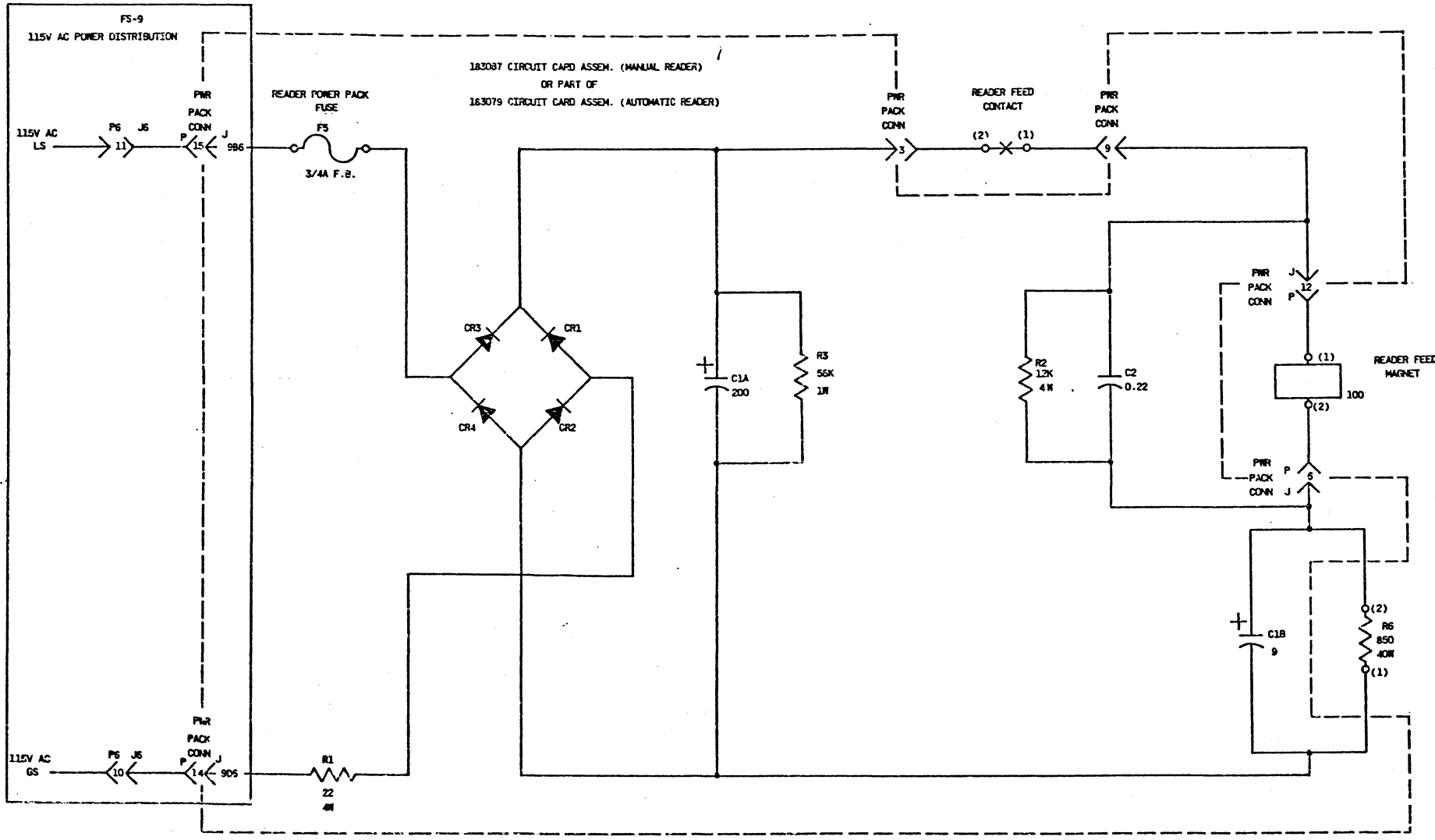


1180 SD-B6

FS-8

READER FEED

(ASR SETS ONLY)



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

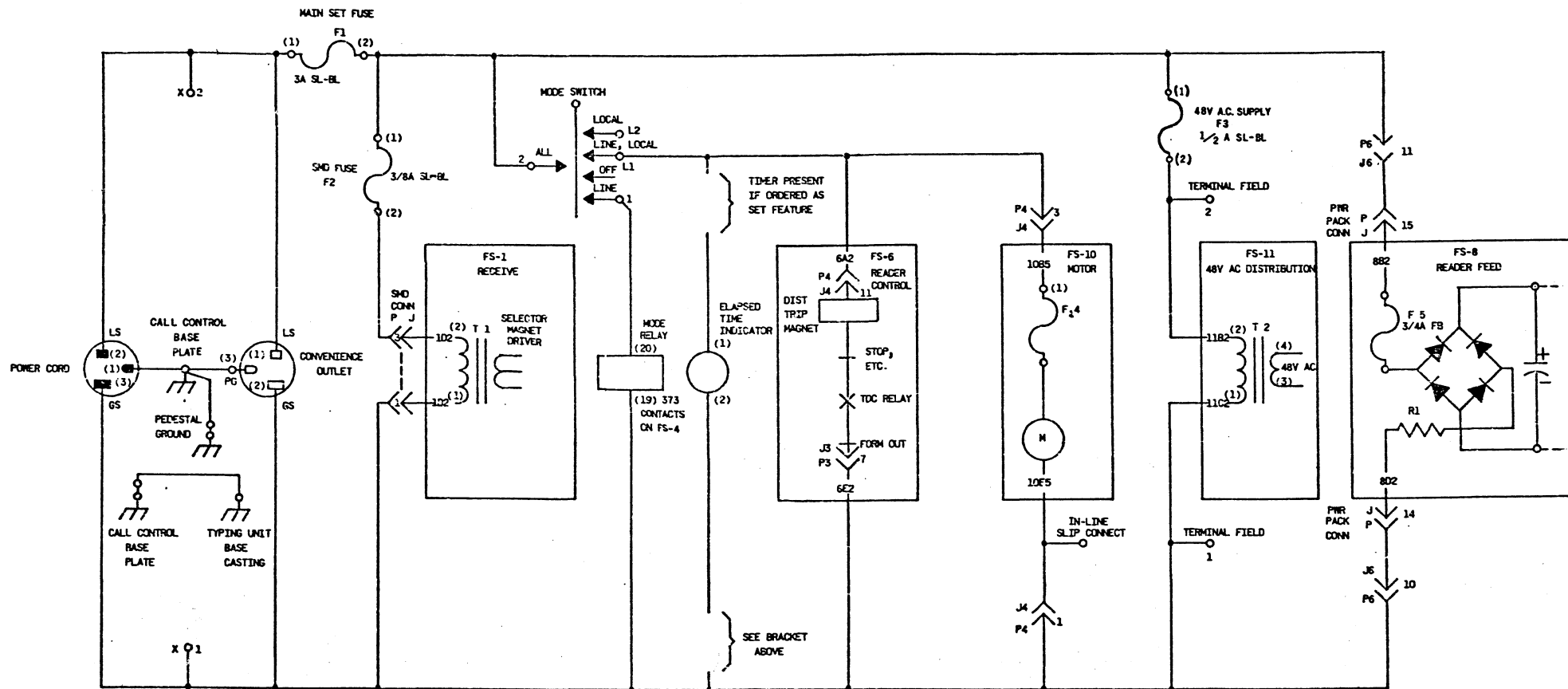


1180 SD-B8

FS-9

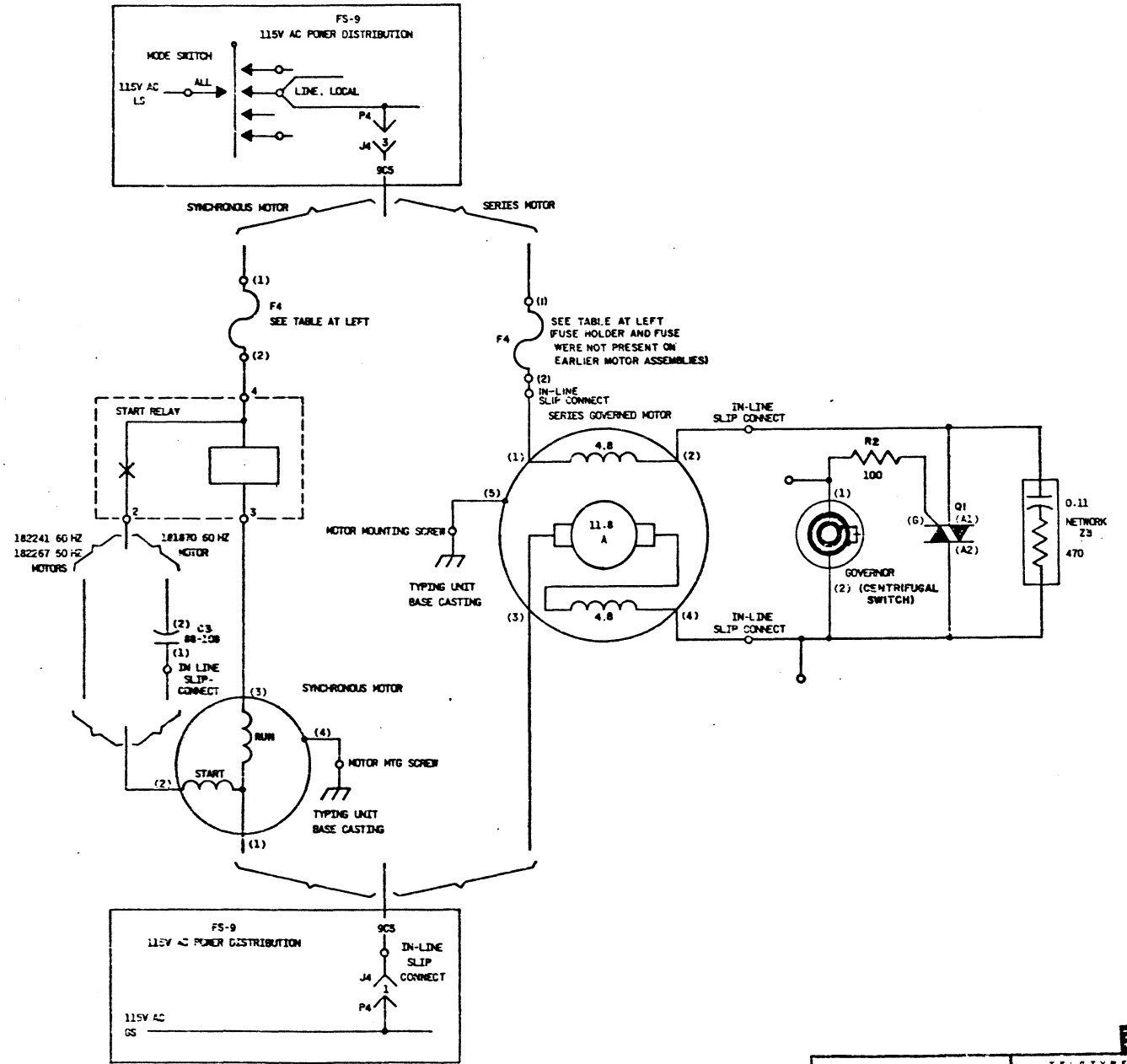
115VAC POWER DISTRIBUTION

ISSUE
1
2



FS-10 MOTORS

SYNCHRONOUS MOTORS				
MOTOR PART NUMBER	FREQ. HZ	FUSE F 4	HHP	CAPACITOR
181870	60	2 1/4A SL-BL	33	88-108 MFD
182241	60	2A SL-BL	33	—
182267	50	1 5/8 A SL-BL	35	—
SERIES GOVERNED MOTOR				
183991	50-60	1A SL-BL	83	—



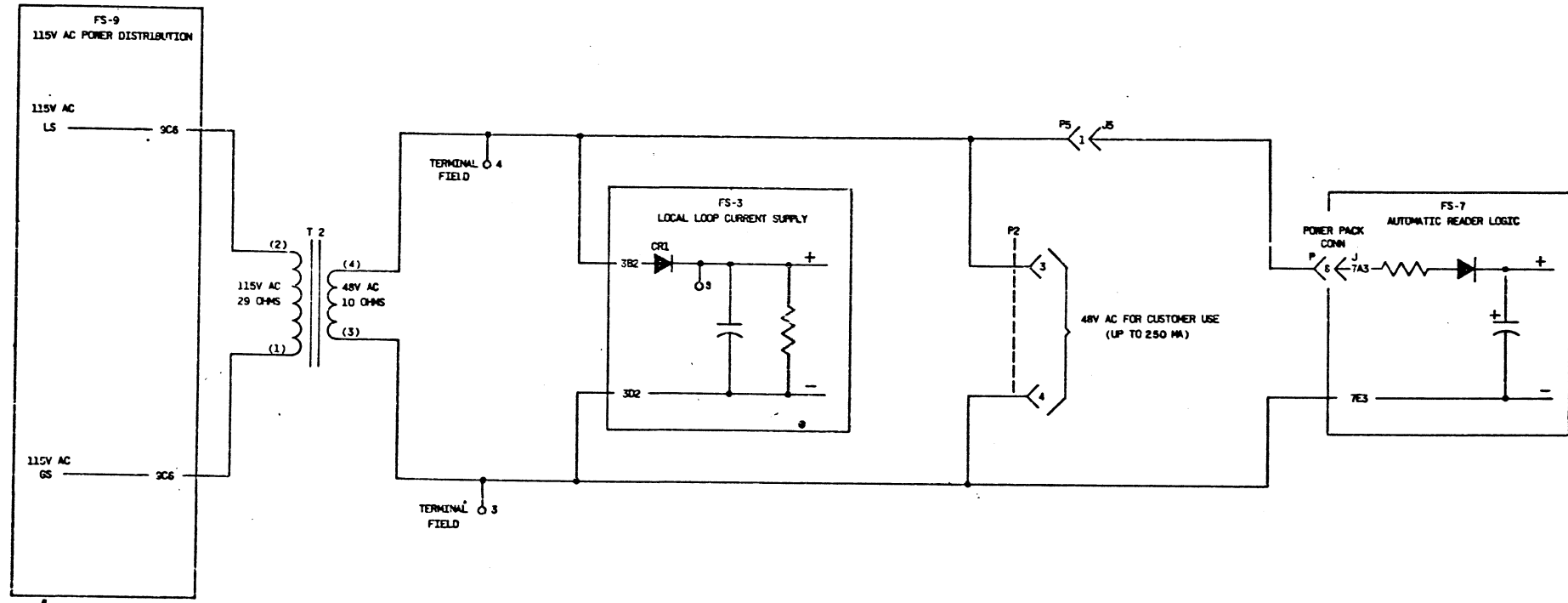
MODEL 33
RO. KSR. AND ASR SETS
3300, 3310, 3320 SERIES



FS-II

48VAC POWER DISTRIBUTION

ISSUE
1
2



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



1180 SD-911

APPARATUS FIGURES

CAPACITORS (NOT ON CKT CARD ASSEM.)

C1 (LOCAL LOOP SUPPLY)	3C3
C2 (SELECTOR MAG. DRIVER)	1E4
C3 (MOTOR START)	10D4

CIRCUIT CARD ASSEMBLIES

AUTOMATIC READER	183079	
READER FEED SUPPLY		SHEET 8
RDR LOGIC	764	
MANUAL READER	183087	SHEET 8

SMD_CONN

J = FRAME SIDE, P = CABLE SIDE

TERM	FS/LOC
1	9C3
2	-
3	9C3
4	1B3
5	1B6
6	1E6
7	1B3
8	1C3
9	1C3

CONNECTORS NUMBERED

CONNECTOR SHELL DESIGNATION J = CABLE SIDE P = FRAME SIDE

SELECTOR MAGNET 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

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

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		5D6
5		7D6
6	8C6	
7		6C6
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
END	7E6
EDT	9B5
KEYBOARD	2B3
PAPER OUT	5C2
PARALLEL INTERFACE	2E4
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)

CR1	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	5C6
DISTRIBUTOR TRIP	6A3
READER FEED	9C6
SELECTOR	1D5

MOTOR

SYNCHRONOUS	10D4
SERIES GOVERNED	10C6

NETWORKS

Z1	2C2
Z2	6B3
Z3	10C7

RECEPTACLE

CONVERGENCE OUTLET	9C2
--------------------	-----

RELAYS

MODE	
COIL	9C3

CONTACTS:

FORM	TERMG
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
--	------

TOC (P/O 183079 CKT. CARD ASSEM.)

COIL	7A4
------	-----

CONTACTS:

1	7C3
2	7C6
3	6D6

RESISTORS (NOT ON CKT. CARD ASSEM.)

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

SWITCH

LOW PAPER	9C2
MODE	9B3

TERMINAL FIELD

TERMINAL	
1	9C6
2	9B6
3	11D3
4	11B3
5	-
6	-
7	-
8	3B3

TERMINAL STRIP

X (CUSTOMER INTERFACE)

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

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%
90Hz SETS	± 3/4%
50-60Hz SETS	48 TO 62Hz

102. OPTIONS

OPTION	FS LOC	ACTUAL LOC	FACTORY PROVIDED
✗ 20MA SIGNAL INPUT	1C3, 3B5	9336ND.	
✗ 60MA SIGNAL INPUT	1C3, 3C5	1A5, 2D3	●
✗ HALF DUPLEX SIGNALING	4C4, 4E4	9335ND.	●
✗ FULL DUPLEX SIGNALING		2E3	
✗ EVEN PARITY KEYBOARD		9334ND	●
LEVEL 8 ALWAYS MARK	2B3 AND 9334ND		
LEVEL 8 ALWAYS SPACE			

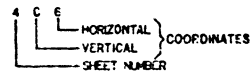
*SELECT ONLY ONE OPTION FROM THIS GROUP

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

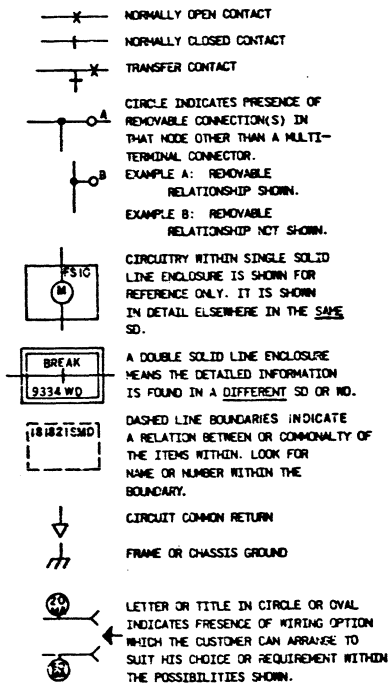
301. SHEET COORDINATES LOCATION LEGEND



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	READER TRIP	READER 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, ENQ & 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 (D-C & RES) DC W/SPARK PRCT.	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	---	---	---

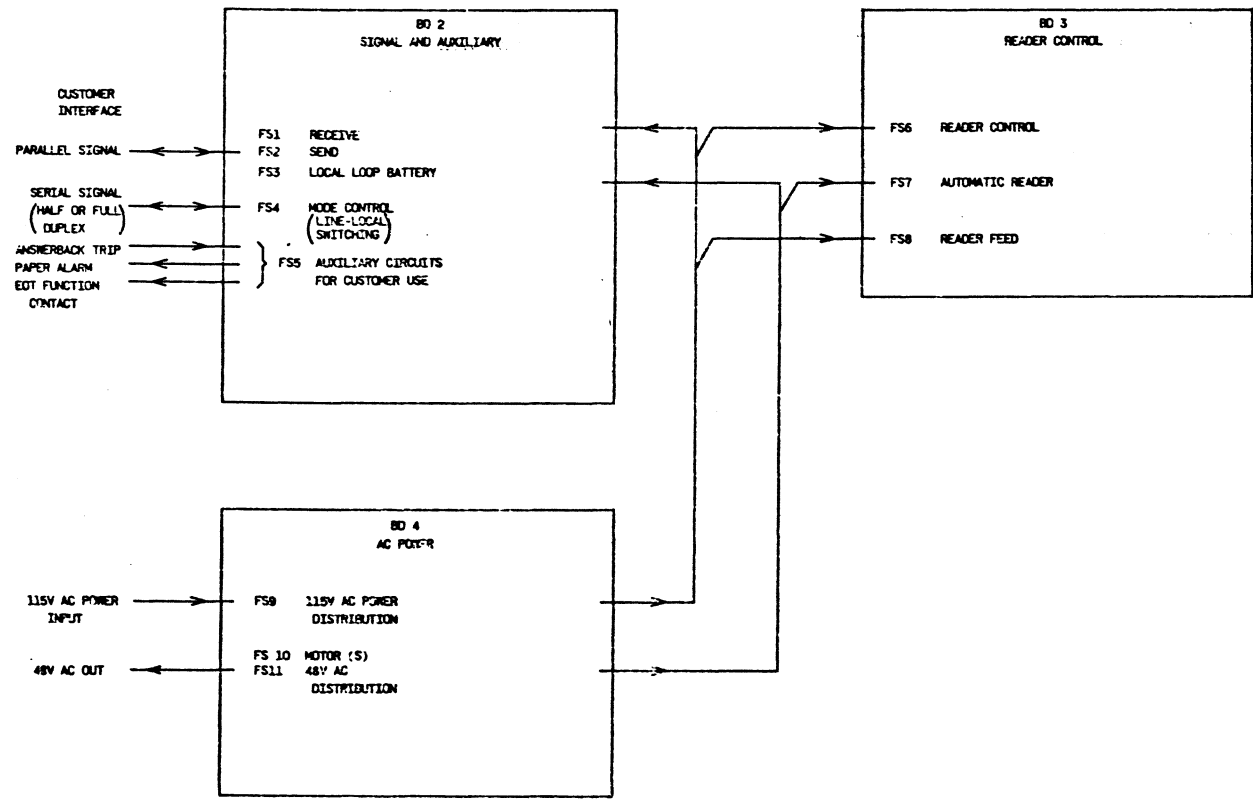
MOTORS

<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	10.7 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	6 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, 3310, 3320 SERIES

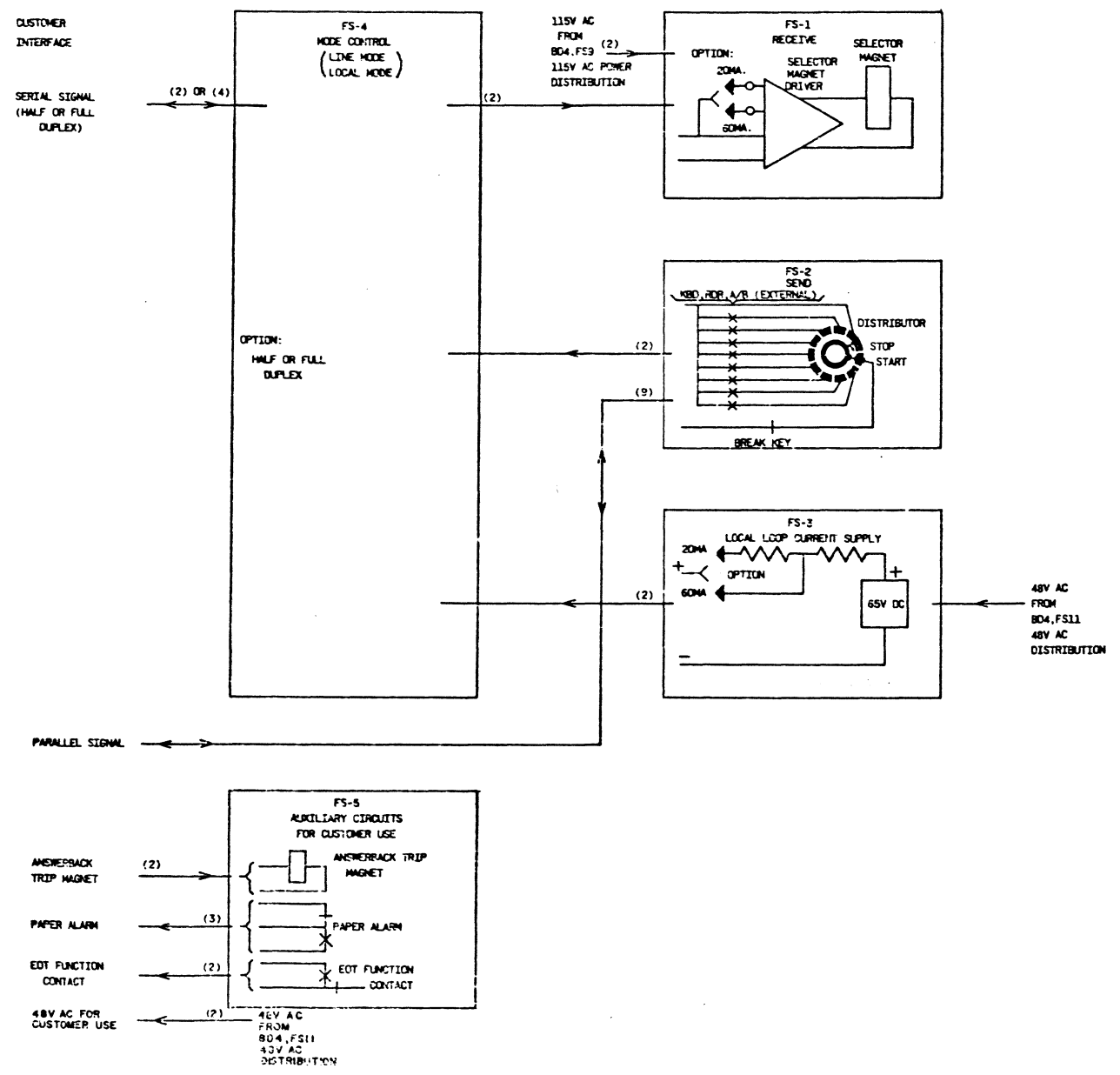


1180 SD-HI

MDP

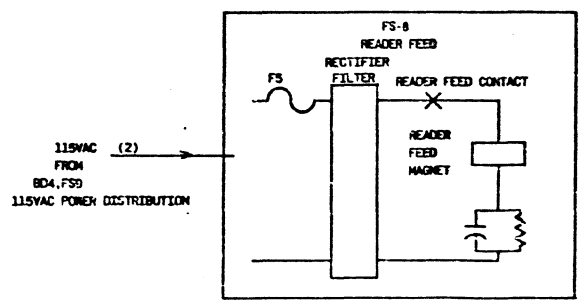
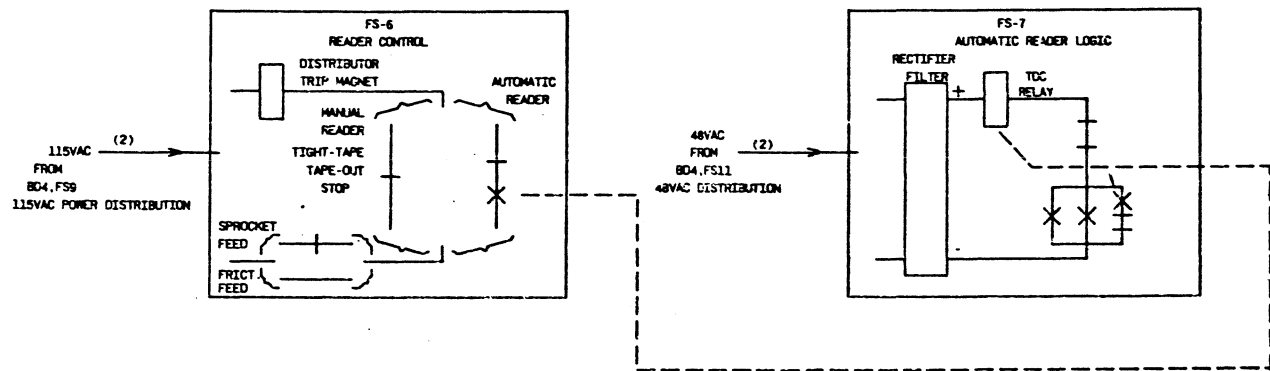
BD-2 SIGNAL AND AUXILIARY

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



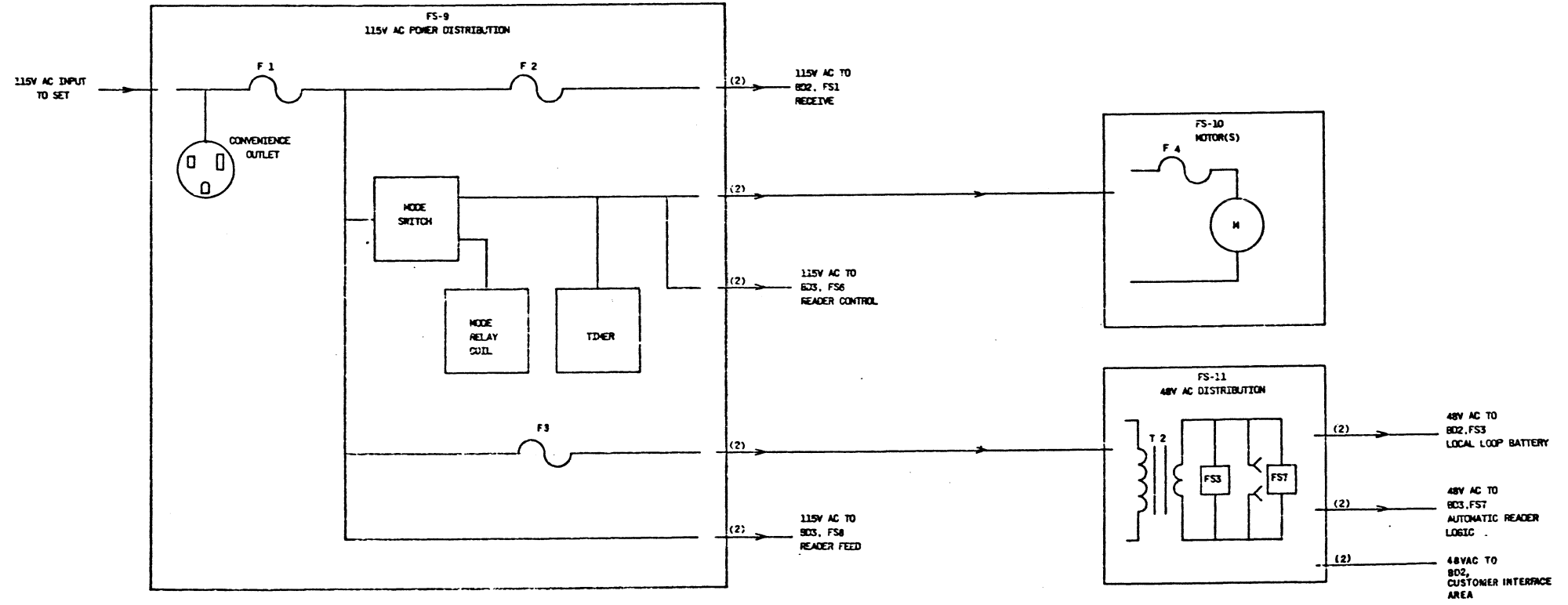
BD-3 READER CONTROL (ASR SET ONLY)

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



BD-4 AC POWER

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



NOTES

SCHEMATIC

1. SYMBOLOGY

- 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 DEFINITION OF NORMAL KEY NOT DEPRESSED

CONTROL, SHIFT, BREAK

LEVEL 1 THROUGH 8

RESPECTIVE CODE BARS ARE IN THE SPACING POSITION, AND KEY-BOARD IS TRIPPED

SCHEMATIC AND ACTUAL

2. SYMBOLOGY

(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

ACTUAL

4. SYMBOLOGY

WIRING LEGEND:

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

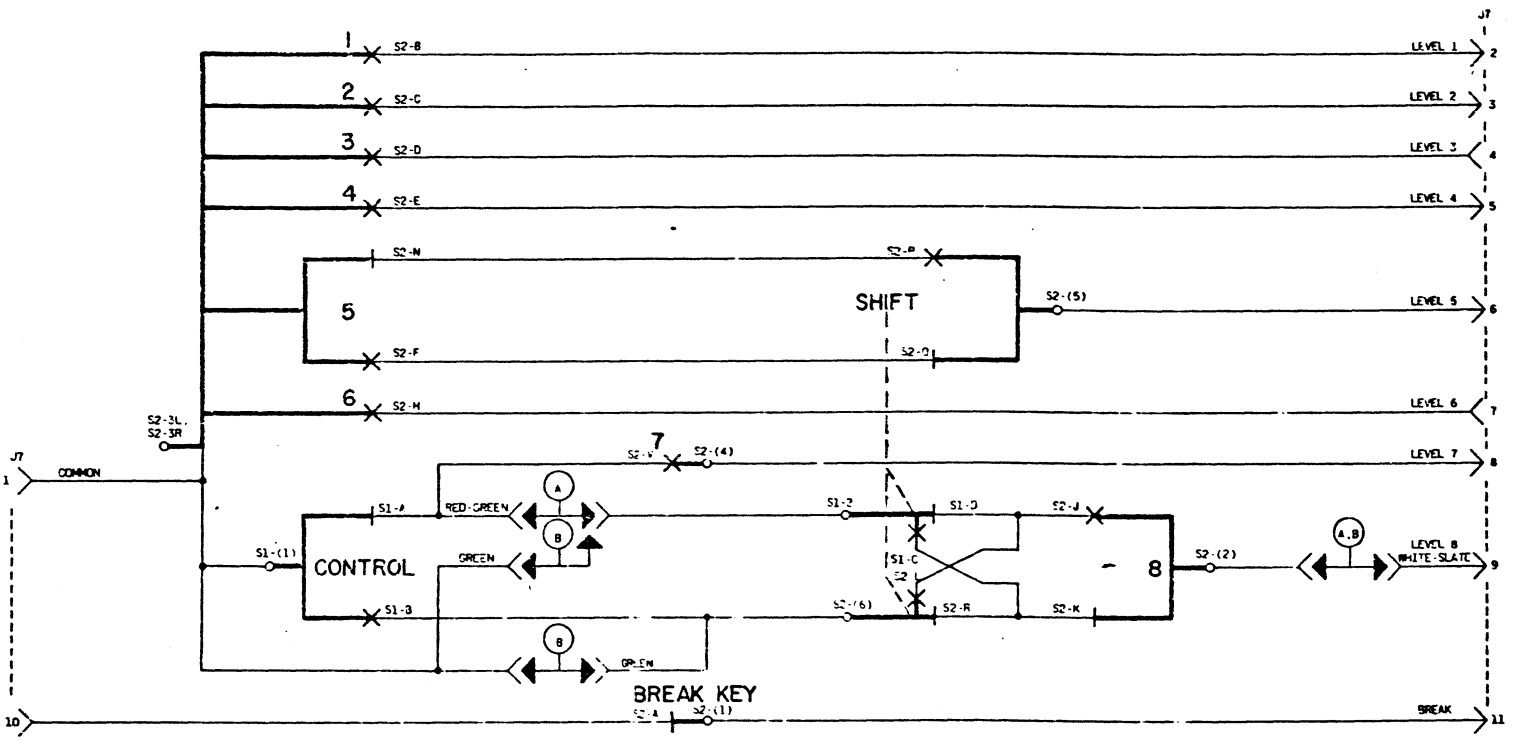
CONNECTORS:

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

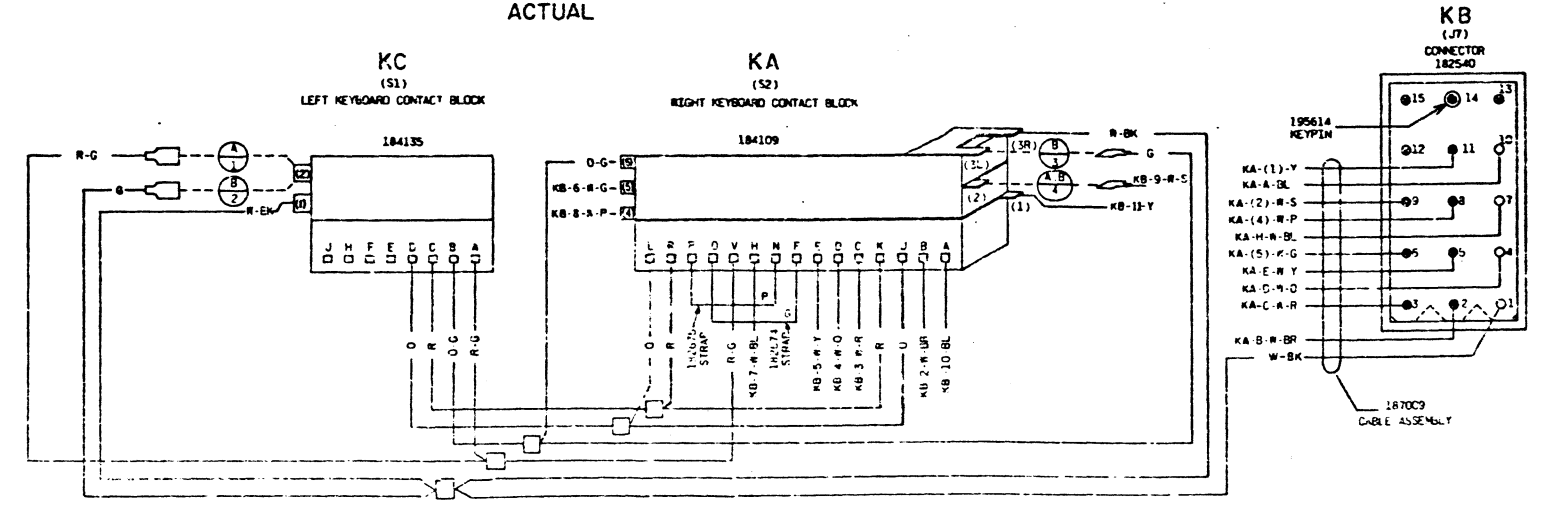
5. WIRE COLOR CODE:

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

SCHEMATIC



ACTUAL



REVISIONS

ISSUE	DATE	AUTH. NO.
1	7-7-71	5643R
2	2-72	5653R

MODEL 33 KEYBOARD
UK 819

APPROVALS

PROJ. SUPV. [Signature]

PROJ. MFG. REL. COMPL. [Signature]

ENGR. DFR. [Signature]

DRN. SLD. DATE 4-27-71

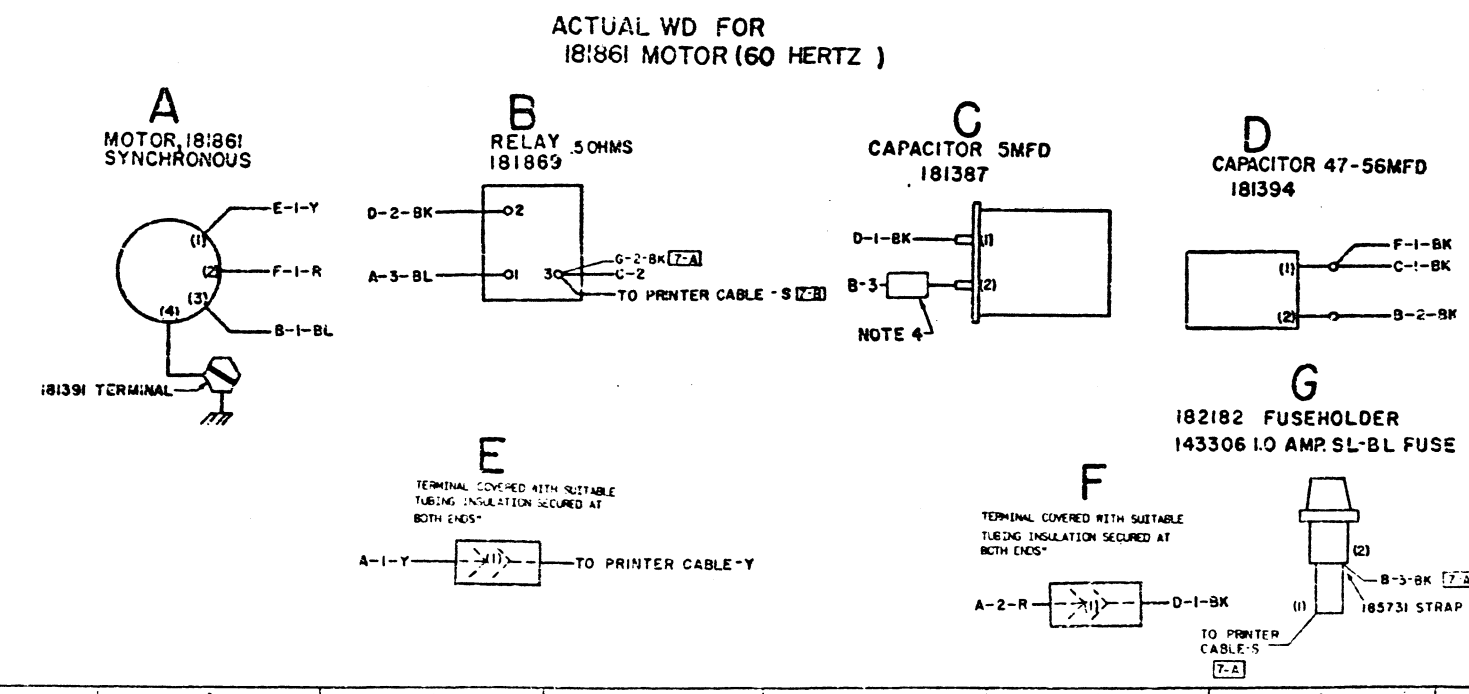
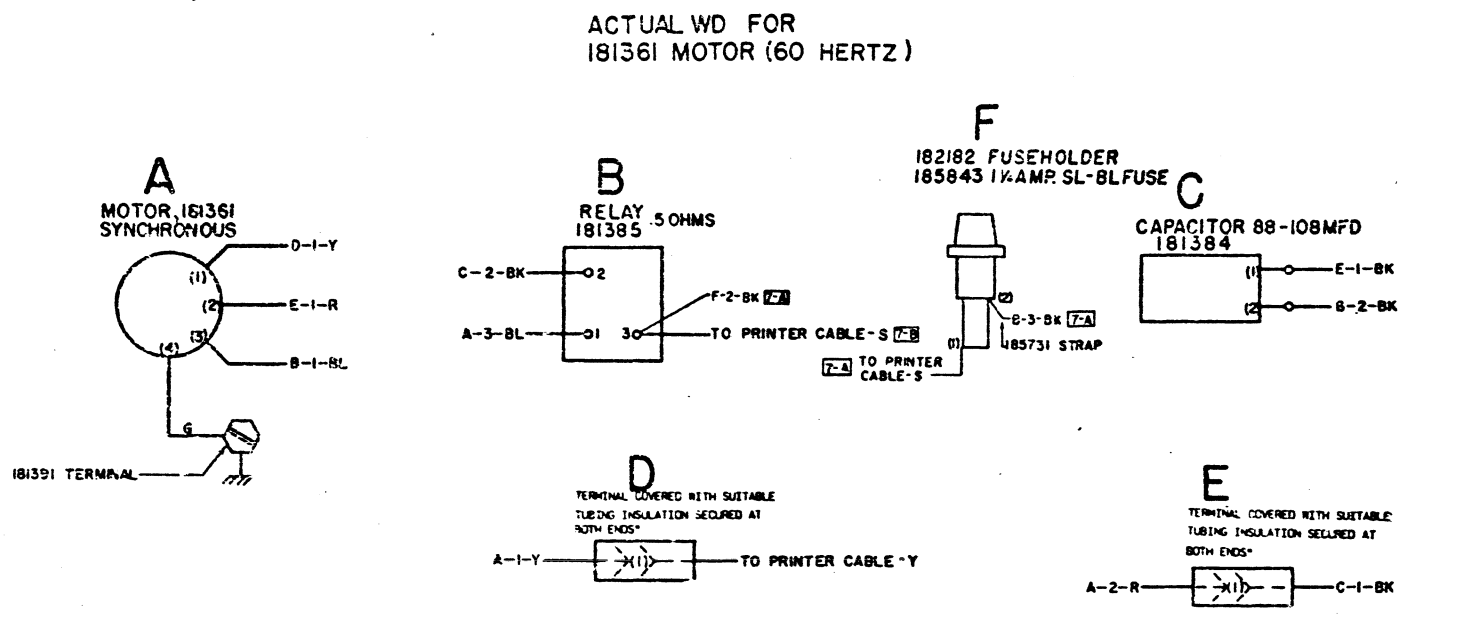
R & D FILE 5 A152 C13A

S-NUMBER 41 210



9334 WD

NO.	NOTES										
1.	<p>WIRING LEGEND:</p> <p>— DISTANT TERMINATING AREA — DISTANT TERMINATING DESIGNATION A-2-Y (6-B) NOTE-5 — WIRE COLOR CODE</p>										
2.	<p>COLOR CODE:</p> <table border="0"> <tr> <td>BK-BLACK</td> <td>P-PURPLE</td> </tr> <tr> <td>BL-BLUE</td> <td>R-RED</td> </tr> <tr> <td>BR-BROWN</td> <td>S-SLATE</td> </tr> <tr> <td>Y-YELLOW</td> <td>O-ORANGE</td> </tr> <tr> <td>G-GREEN</td> <td>W-WHITE</td> </tr> </table>	BK-BLACK	P-PURPLE	BL-BLUE	R-RED	BR-BROWN	S-SLATE	Y-YELLOW	O-ORANGE	G-GREEN	W-WHITE
BK-BLACK	P-PURPLE										
BL-BLUE	R-RED										
BR-BROWN	S-SLATE										
Y-YELLOW	O-ORANGE										
G-GREEN	W-WHITE										
3.	ASSOCIATED SCHEMATIC #403WD.										
4.	182272 RESISTOR-10 OHMS, 5 WATT (PART OF 181387 CAPACITOR W/RESISTOR ASSEMBLY).										
5.	<p>WIRING STATUS:</p> <p>RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES.</p> <p>6-3 B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.</p> <p>NOTE NUMBER</p> <p>6-7 A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.</p>										
6.	<p>185731 STRAP AND FUSE ASSEMBLY NOT INCLUDED IN EARLY SETS.</p> <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	10-972
13	11-8-62	10-5334
14	1-3-63	10-5869
15	11-11-63	78856
16	5-9-64	81773
17	6-8-65	37050
18	1-13-64	0854-3
19	3-9-66	09-2-2
20	2-18-70	0944-4
21	8-28-70	621
22	12-3-70	2149
23	12-14-70	2220
24	9-28-76	16760

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

ACTUAL WIRING DIAGRAM FOR

FOR MODEL 32 & 33 MOTORS

APPROVALS	
D AND R	E OF M

E-NUMBER
PRCD. NO. 403WD
DATE 2-8-62
P.D. FILE NO. 1-231.153AA
DRAWN
ENGD. P.R.S. APPD. /

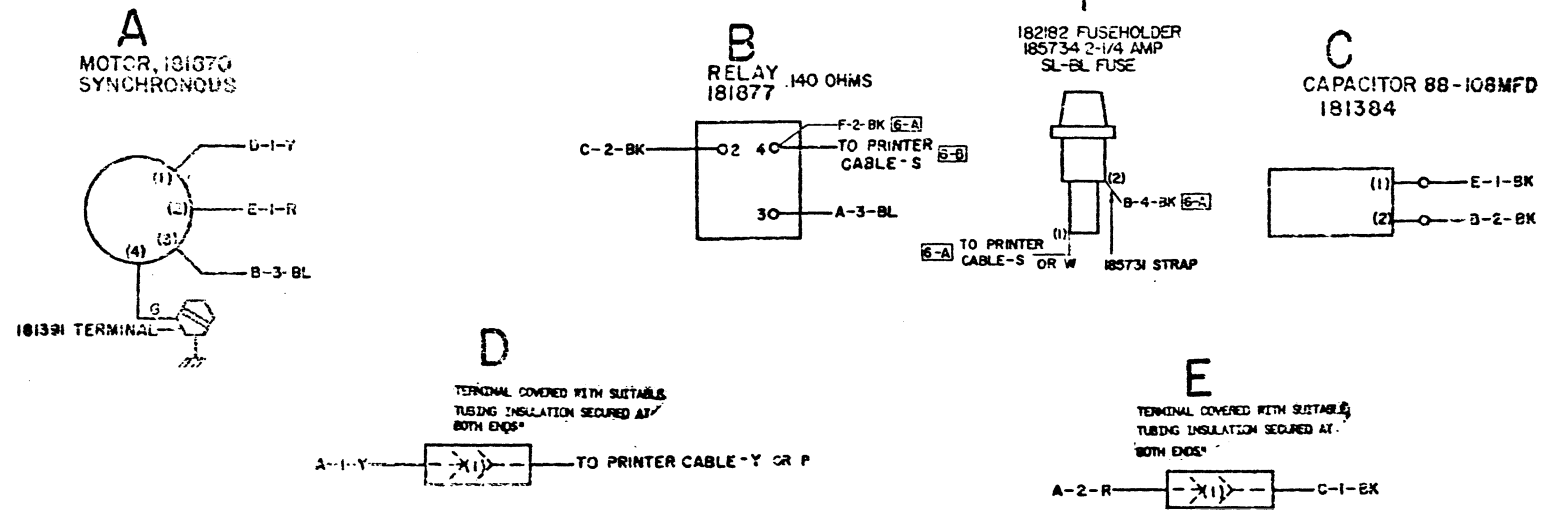
TELETYPE CORPORATION

4405 WD

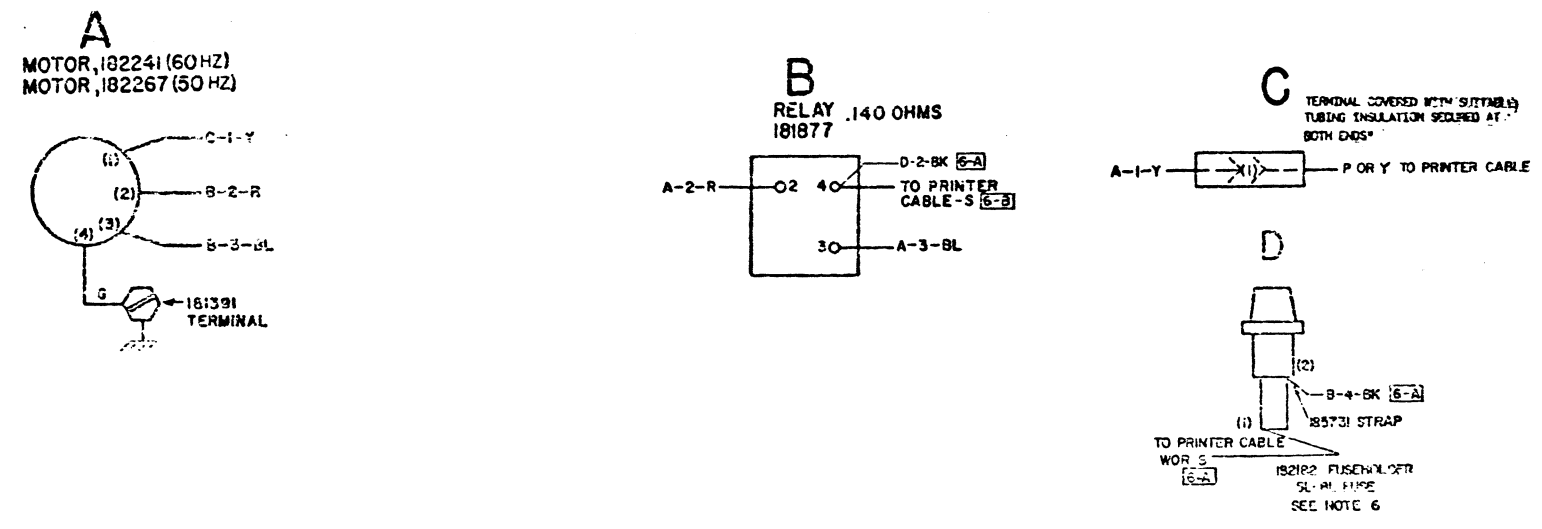
NOTE: THIS INDICATION MUST ALSO BE KEPT ON THE CONTROL RECORD ANALYSIS PRINT IN THIS FRAME

4405WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
A2	3-3-62	30-978
B3	11-5-62	30-5330
F4	1-3-63	30-5869
B5	11-11-63	75955
6	5-2-64	91773
7	5-8-65	97050
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 CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS W.D.
SHEET 2

ACTUAL WIRING DIAGRAM
FOR MODEL 32 & 33 MOTORS

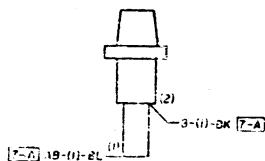
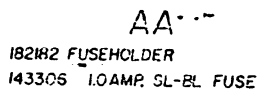
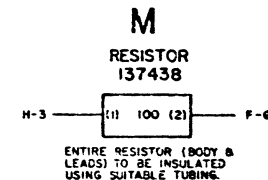
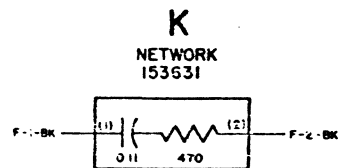
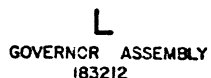
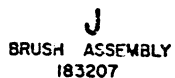
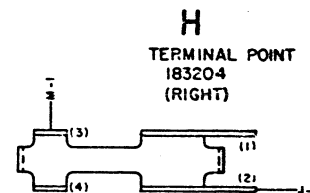
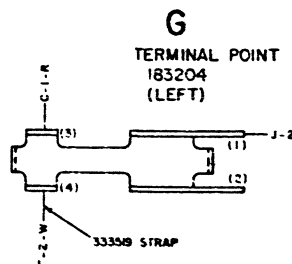
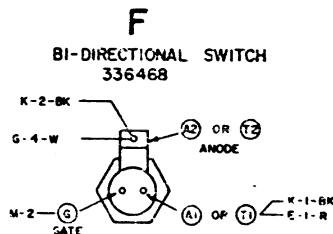
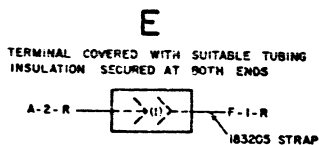
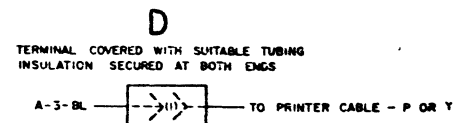
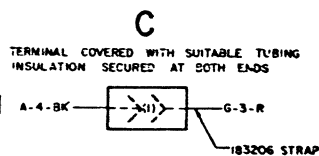
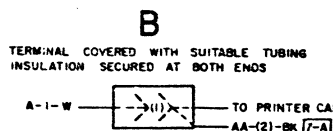
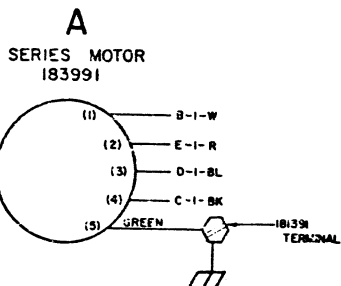
APPROVALS	
D AND R	E OF B
<i>[Signature]</i>	<i>[Signature]</i>
E-NUMBER	
PRCD. NO. 4405WD	
DATE 2-2-62	
P.D. FILE NO. 1-231, 15011	
DRAWN R.H.B.	CHKD.
ENGD. P.R.S.	APPD.

TELETYPE CORPORATION

ACTUAL WD FOR
333521 AC SERIES MOTOR

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

REVISIONS		
ISSUE	DATE	AUTH NO
2	2-14-70	222D
3	1-13-71	459J
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 5	DESIGNER A 5	
DRN. C E C	DATE 0-1-70	
S-NUMBER		

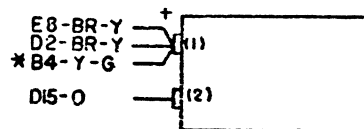


4970 WD

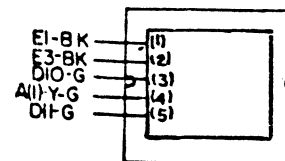
ISSUE	DATE	AUTH NO
2	8-5-62	30-1265
3	8-5-63	77081
4	1-31-64	79903
5	5-10-68	95523-4
6	1-14-71	736

NO	NOTES
1.	<p>WIRING CODE</p> <p>— DISTANT TERMINATING AREA</p> <p>— DISTANT TERMINATING POINT</p> <p>— COLOR CODE</p> <p>A3-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>

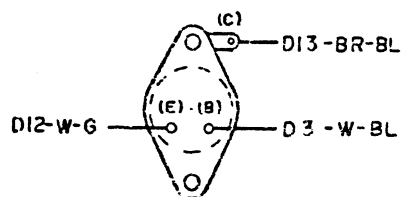
A CAPACITOR FILTER (182501)



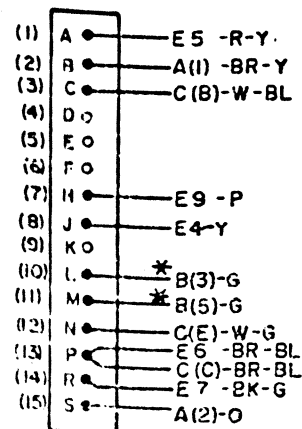
B TRANSFORMER, POWER (337992) 50/60 Hz NOTE 5



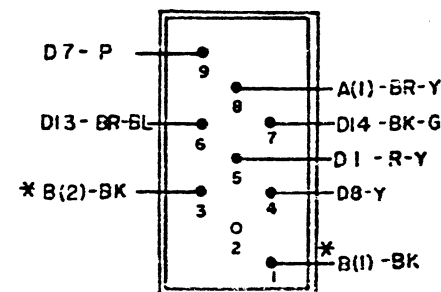
C TRANSISTOR, POWER (181675)



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

NUMBER
PRGD. NO 4970 WD

DATE 6-22-62
PD FILE NO 1-165,53AA
DRAWN C.A. CHKD P.P.
ENGR P.R.S. APPD

TELETYPE
CORPORATION

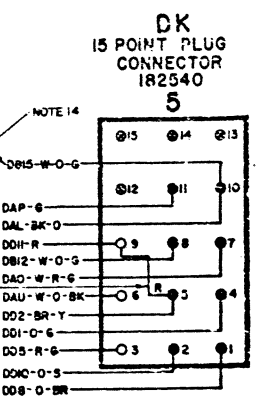
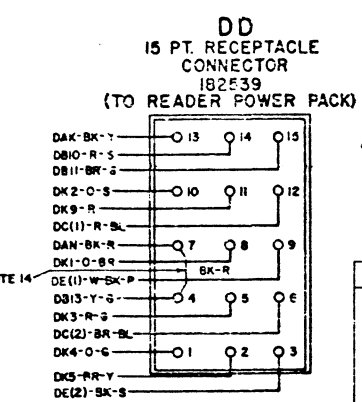
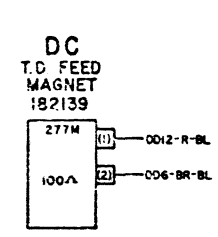
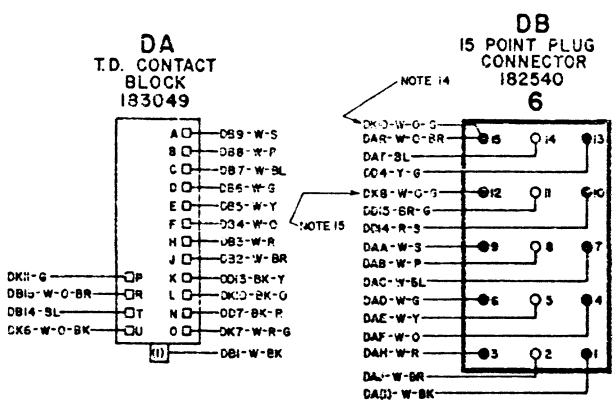
4970 WD

7887 WD

REVISIONS

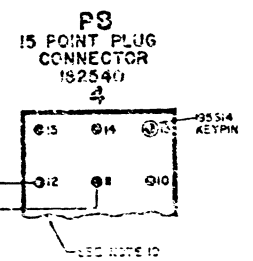
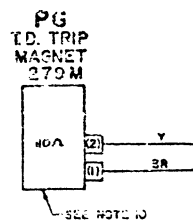
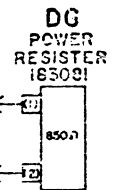
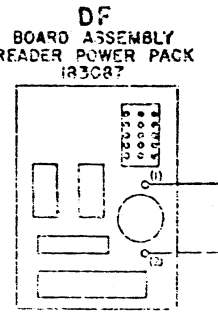
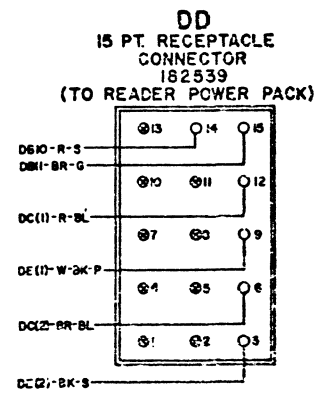
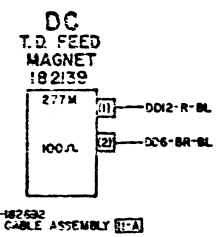
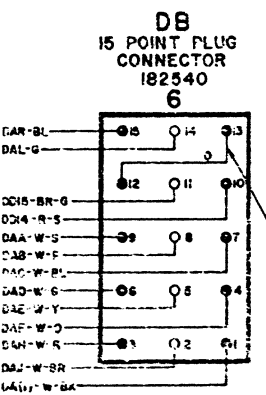
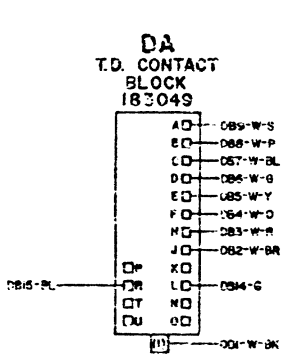
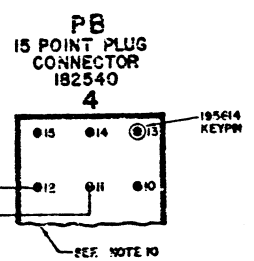
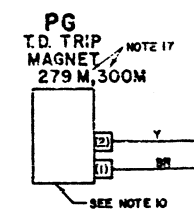
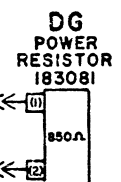
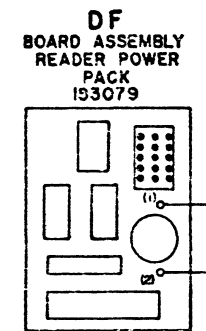
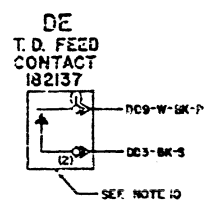
ISSUE	DATE	AUTH. NO.
1	4-25-56	17470-R
2	11-3-66	92300-RC
3	1-31-68	95171
4	1-12-72	4853-RC

- NOTES**
- WIRING LEGEND:
DISTANT TERMINATING AREA
DISTANT TERMINATING DESIGNATION
COLOR CODE
DB4-BL
 - WIRE COLOR CODE:
W-WHITE B-BLUE
BK-BLACK BR-BROWN
O-ORANGE P-PURPLE
Y-YELLOW S-SLATE
G-GREEN R-RED
 - TERMINALS DESIGNATED () DO NOT APPEAR ON COMPONENT.
 - FOR TELETYPE PERSONNEL REFERENCES: SPECIFICATION 6042S
 - CONNECTORS VIEWED FROM WIRED END.
 - FOR SCHEMATIC WIRING DIAGRAM SEE 7882 WD OR S19 WD.
 - ASSOCIATED UNIT ACTUAL WIRING DIAGRAMS:
7884 WD PRINTER-UP800,801,802,803,820
7885 WD KEYBOARD-UK800,804
7886 WD MOTOR
7886 WD CALL CONTROL-UCC-3
4870 WD SELECTOR MAGNET DRIVER
8:58 WD CALL CONTROL-UCC 26
8160 WD PRINTER-UP 836
 - OPTIONAL UX-801 AUTOMATIC READER-18307S CABLE ASSEMBLY. USED ONLY WITH UP801,803,820 PRINTER ASSEMBLIES.
 - MANUAL READER-UX800 18307A CABLE ASSEMBLY. USED ONLY WITH UP801,803 PRINTER ASSEMBLIES.
 - THESE COMPONENTS ARE MOUNTED ON UP801,803,820 PRINTER ASSEMBLIES BUT ACTUALLY ARE PART OF READER CIRCUIT. SEE PRINTER 7884 WD.
 - 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.
 - SEE PRINTER 7884 WD FOR MODIFICATION TO UP801,803 PRINTER ASSEMBLIES TO PROVIDE AUTOMATIC READER CONTROL OPTIONS.
 - WIRING STATUS:
RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES
B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
NOTE NUMBER
A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
 - ASSOCIATED WITH THE UX-805 ONLY.
 - THERE WIRES DO NOT APPEAR ON UX-805
 - AUTOMATIC READER UX-805 183340 CABLE ASSEMBLY.
 - 279M-48VAC-110 Ω
300M-115VAC-760 Ω



AUTOMATIC READER
UX-801
(SEE NOTE 8 & 12)

UX-805
(SEE NOTE 14, 15 & 16)



MANUAL READER
UX-800
(SEE NOTE 9)

ACTUAL WIRING DIAGRAM FOR MODEL 33 B LEVEL MANUAL GR 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 5-3-63

P.D. FILE NO. G-A152AA

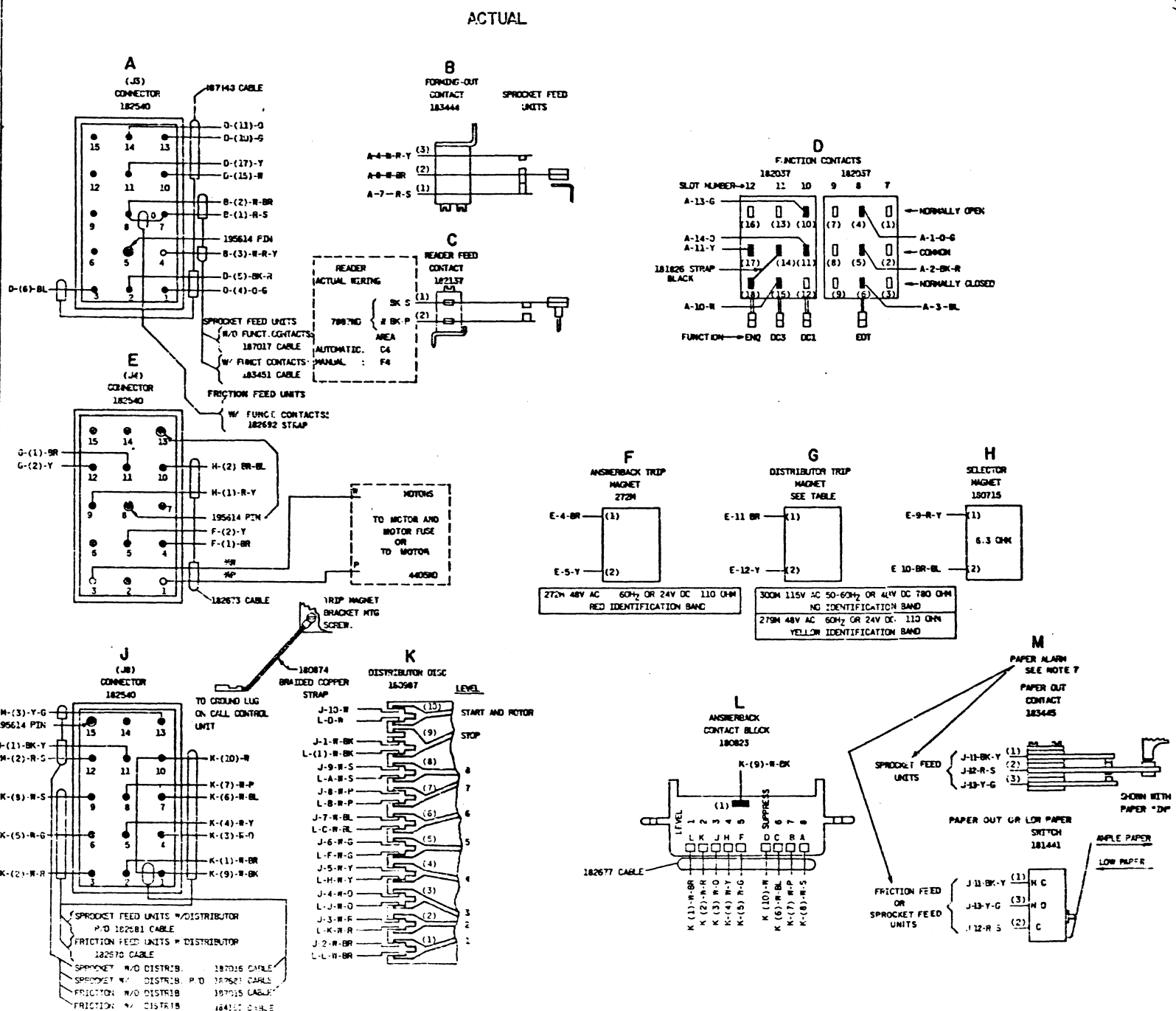
DRAWN R H B CHKD JLC

ENGD. JWS APPD JLC

TELETYPE CORPORATION

7887 WD

- NOTES
- 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.
 - WIRE COLOR CODE:
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.
 - SYMBOLOLOGY:
() TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.
* DENOTES 18AWG WIRE ALL OTHER IS 24AWG
WIRING LEGEND:
DISTANT TERMINATING AREA
DISTANT TERMINATING TERMINAL
WIRE COLOR (1, 2, OR 3 COLORS)
J-1-R-B
CONNECTORS:
NO PIN
FEMALE PIN
MALE PIN
BLOCKING PIN
HALF WITH LARGER PERIMETER SHELL DESIGNATED J
HALF WITH SMALLER PERIMETER SHELL DESIGNATED P
 - REFER TO 1180SD FOR A RELATED SET SCHEMATIC DIAGRAM.
 - CROSS REFERENCE: THIS WIRING DIAGRAM SAME AS 9367WD EXCEPT FOR AREA DESIGNATIONS.
 - PAPER ALARM SWITCH 'M' (SPROCKET FEED) CHANGED FROM CONTACT PILE TO SNAP ACTION SWITCH AT ISSUE 9 OF THIS DRAWING.



REVISIONS		
ISSUE	DATE	AUTH. NO.
1	7-7-71	21643R
2	8-5-71	4243-RC
3	1-2-72	4853-RC
4	1-17-72	4465
5	2-28-74	8853-1

WIRING DIAGRAM FOR MODEL 33 TYPING UNITS UP 1-1-71 UP 2-1-71

APPROVALS

PROJ. SUPV.	PROJ. DIR.	WFR. REL. COMPL.
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
ENGR. DEC. 1971	DATE 5-13-71	W.D. FILE 6-11-71
S-NUMBER 51 110		

TELETYPE

9535 WD

CONTENTS	SHEET NO.	SHEET INDEX																												SHEET NO.
		ISSUE 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																								A1
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

NO.	NOTES										
1.	<p>WIRE COLOR CODE:</p> <table border="0"> <tr> <td>BK - BLACK</td> <td>G - GREEN</td> </tr> <tr> <td>BR - BROWN</td> <td>BL - BLUE</td> </tr> <tr> <td>R - RED</td> <td>P - PURPLE</td> </tr> <tr> <td>O - ORANGE</td> <td>S - SLATE</td> </tr> <tr> <td>Y - YELLOW</td> <td>W - WHITE</td> </tr> </table>	BK - BLACK	G - GREEN	BR - BROWN	BL - BLUE	R - RED	P - PURPLE	O - ORANGE	S - SLATE	Y - YELLOW	W - WHITE
BK - BLACK	G - GREEN										
BR - BROWN	BL - BLUE										
R - RED	P - PURPLE										
O - ORANGE	S - SLATE										
Y - YELLOW	W - WHITE										
2.	<p>COMPONENT VIEWS SHOWN FROM WIRED SIDE.</p>										
3.	<p>SYMBOLS</p> <p>() TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.</p> <p>--- ASSOCIATED TERMINALS, CONNECTIONS, OR FUNCTIONS.</p> <p>* DENOTES 20 AWG. WIRE.</p> <p>** DENOTES 18AWG WIRE. ALL OTHER IS 24AWG.</p> <p>□ WIRE SPLICE (NOT REPRESENTED ON SCHEMATIC)</p>										
4.	<p>COMPONENT IDENTIFICATION:</p> <p>AS SHEET LOCATION (C1) (SCHEMATIC DESIGNATION) CAPACITOR - GENERIC PART NAME 121814 - PART NUMBER</p> <p>PART ILLUSTRATION</p>										
5.	<p>WIRING LEGEND:</p> <p>DISTANT TERMINATING AREA UNITS WITH CABLE WIRING UNITS WITH CIRCUIT BOARD WIRING (WHERE USED) DISTANT TERMINATING TERMINAL WIRE COLOR (1, 2 OR 3 COLORS)</p> <p>CONNECTORS:</p> <p>BA, CA - 3-0</p> <p>NO PIN FEMALE PIN MALE PIN BLOCKING PIN</p> <p>HALF WITH LARGER PERIMETER SHELL DESIGNATED J HALF WITH SMALLER PERIMETER SHELL DESIGNATED P</p>										
6.	<p>ALL WIRING PART OF 121820 CABLE ASSEMBLY EXCEPT WHERE OTHERWISE SPECIFIED.</p>										
7.	<p>REFER TO 118050 FOR A RELATED SET SCHEMATIC DIAGRAM.</p>										
8.	<p>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.</p>										
9.	<p>CUSTOMER OPTIONS:</p> <p>THIS UNIT CONTAINS WIRING OPTIONS FOR INTERFACING A 20MA OR 60MA DC CURRENT SIGNAL LOOP AS WELL AS INTERFACING IN A HALF DUPLEX (THO WIRE) OR FULL DUPLEX (4 WIRE) CONFIGURATION.</p> <p>20 AND 60MA SIGNALING CURRENT OPTION WIRING APPEARS AT THE COMPONENTS DESIGNATED AC AND BL.</p> <p>HALF AND FULL DUPLEX OPTION WIRING APPEARS AT COMPONENT BL.</p> <p>OPTION WIRING SHOULD BE CONNECTED AS INDICATED FOR THE DESIRED OPTION.</p> <p>THIS UNIT HAS BEEN PRE-WIRED AT THE FACTORY FOR 60MA DC, HALF DUPLEX OPERATION.</p>										
10.	<p>REFER TO 4970WD FOR WIRING OF 121515 SELECTOR MAGNET DRIVER ASSEMBLY WHICH IS ALSO PART OF THIS UNIT.</p>										

SUPPORTING INFORMATION	
CATEGORY	NO.
WIRING DIAGRAM PACKAGE FOR MODEL 33 RO, KSR, AND ASR SETS 3300, 3310, 3320 SERIES	NOP 0316

- 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.

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	8-6-71	21643R
2	5-23-73	6197
3	11-21-73	8046
4	3-20-74	10712-RC
5	2-12-75	22218

WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

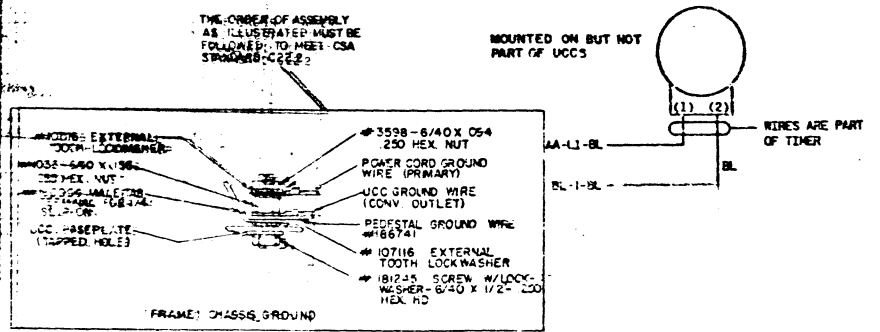
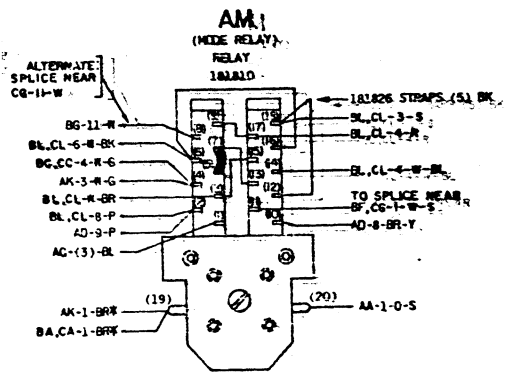
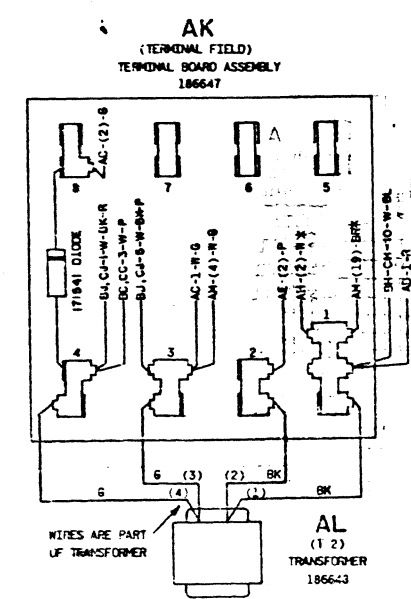
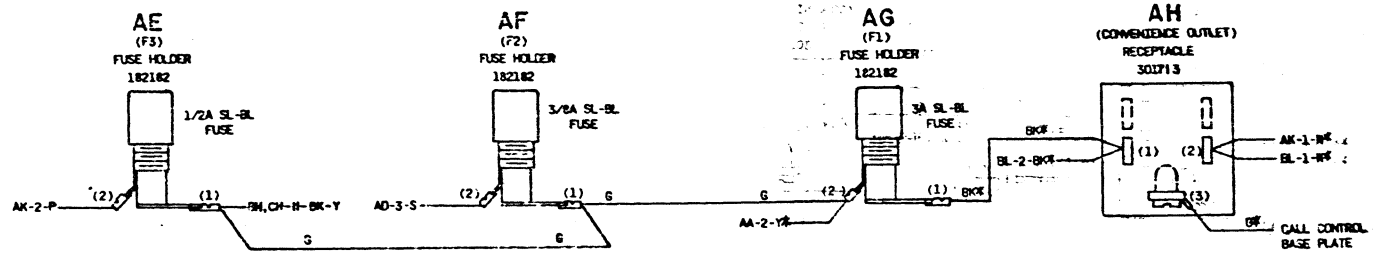
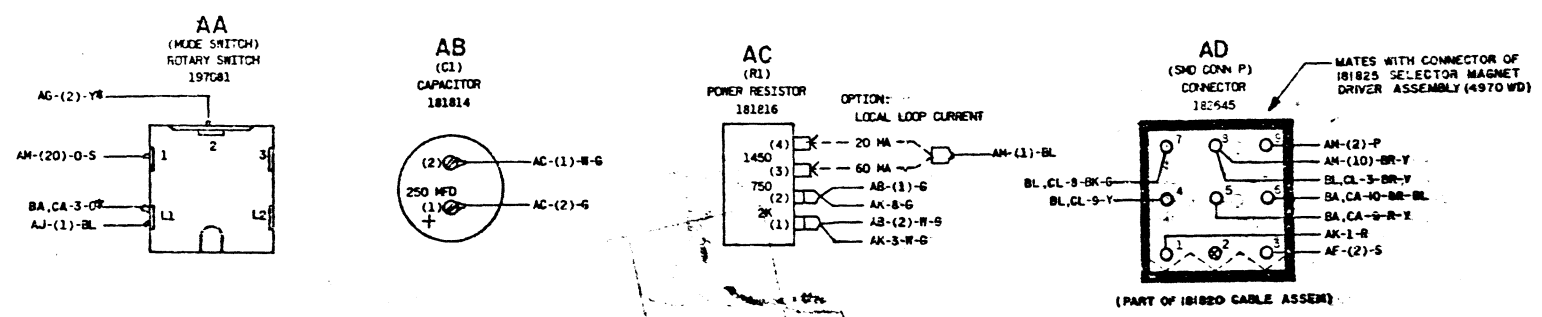
APPROVALS

PROJ. SUPV. <i>DJR</i>	PROJ. DIR. <i>RRS</i>	WFG. REL. COMPL. <i>MM</i>
ENGR. OFD [SIGNATURE]		
DRW. S. L. G. DATE 8-2-71		
R&D FILE 6-A152-219A		
S-NUMBER 61.310		

TELETYPE

9336WD-A1

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	8-6-71	21643R
2	5-22-73	8197
3	11-21-73	8045
4	2-12-75	722-8



CALL CONTROL BASE PLATE GROUND SCREW SEE DETAIL THIS SHEET.

WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

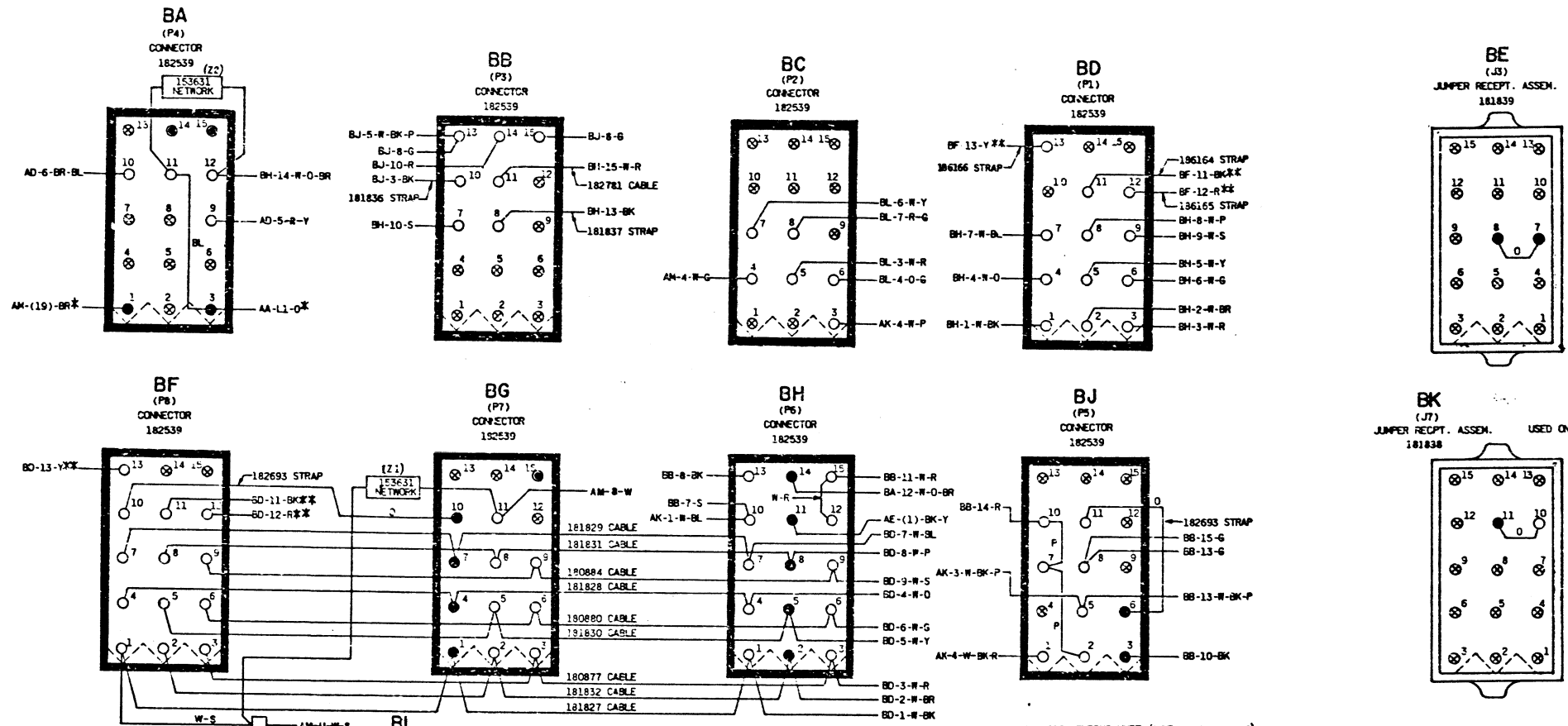
APPROVALS		
PROJ. SUPV.	PROJ. DIR.	SPS. REL. COMPL.
DR	RRS	AW
ENGR. DATE	DSGMR.	
DRW. S. I. C. DATE		
NO. OF FILE	6-2102 210A	
4-NUMBER	EL 910	



9336WD-B

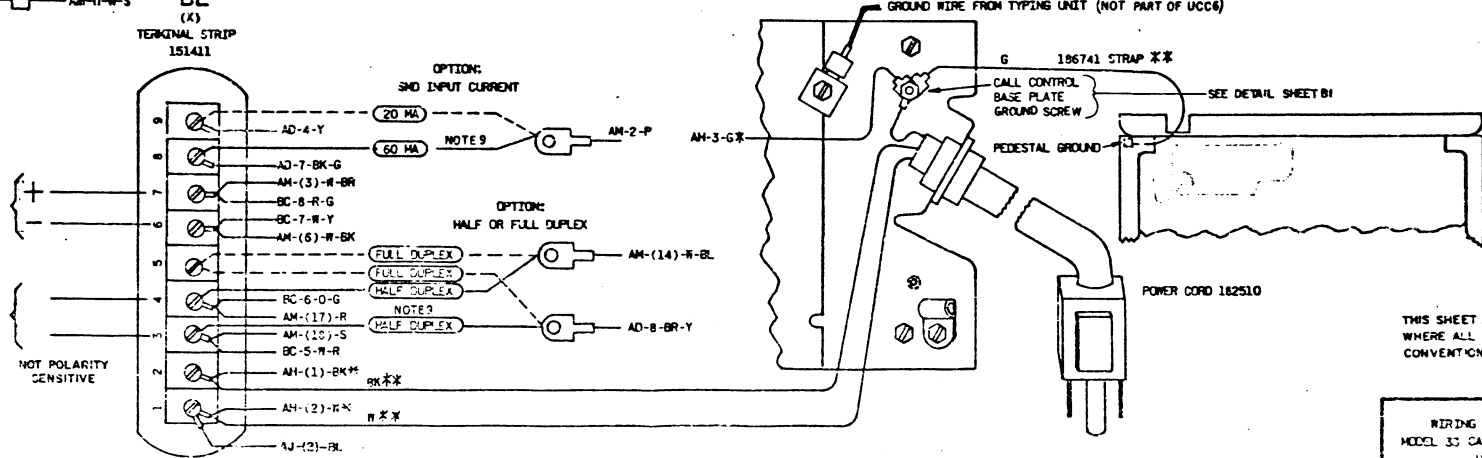
UNITS WITH CABLE WIRING

ISSUE
1
2
3
4
5



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

TELETYPE

9336WD-B2

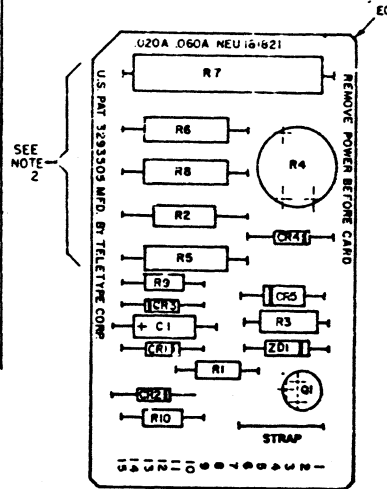
USED ONLY ON FRICTION FEED ASR SETS WITH MANUAL READER

(NOT PART OF UCC6)

USED ON RO SETS

(NOT PART OF UCC6)

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 TO 1/16" ABOVE CIRCUIT CARD
3	TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R4 AND CR5 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 OR RM-39550 STRAP.
4	CR1, CR2-182520 (IN393) AND CR3, CR4-1819 (IN482) WERE REPLACED FOR STANDARDIZATION.
5	TO FACILITATE MANUFACTURE, Q1 WAS CHANGED FROM 131671. THIS ALSO REQUIRED CHANGING CR5 FROM 178844 VARISTOR (100A) AND ZD1 FRL-1 182774 (1M4732A 4.7V). SCHEMATIC SYMBOL FOR 178844 WAS AND IT COULD BE INSERTED IN BOARD IN EITHER DIRECTION.



CIRCUIT DESCRIPTION

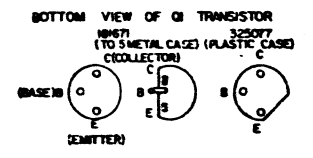
THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO 20 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY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

THE DIRECT CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 14 OR 9 AND 2 DEPENDING ON LINE CURRENT. TERMINAL 7 STRAPPED EXTERNALLY TO TERMINAL 14 OR 9, 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.

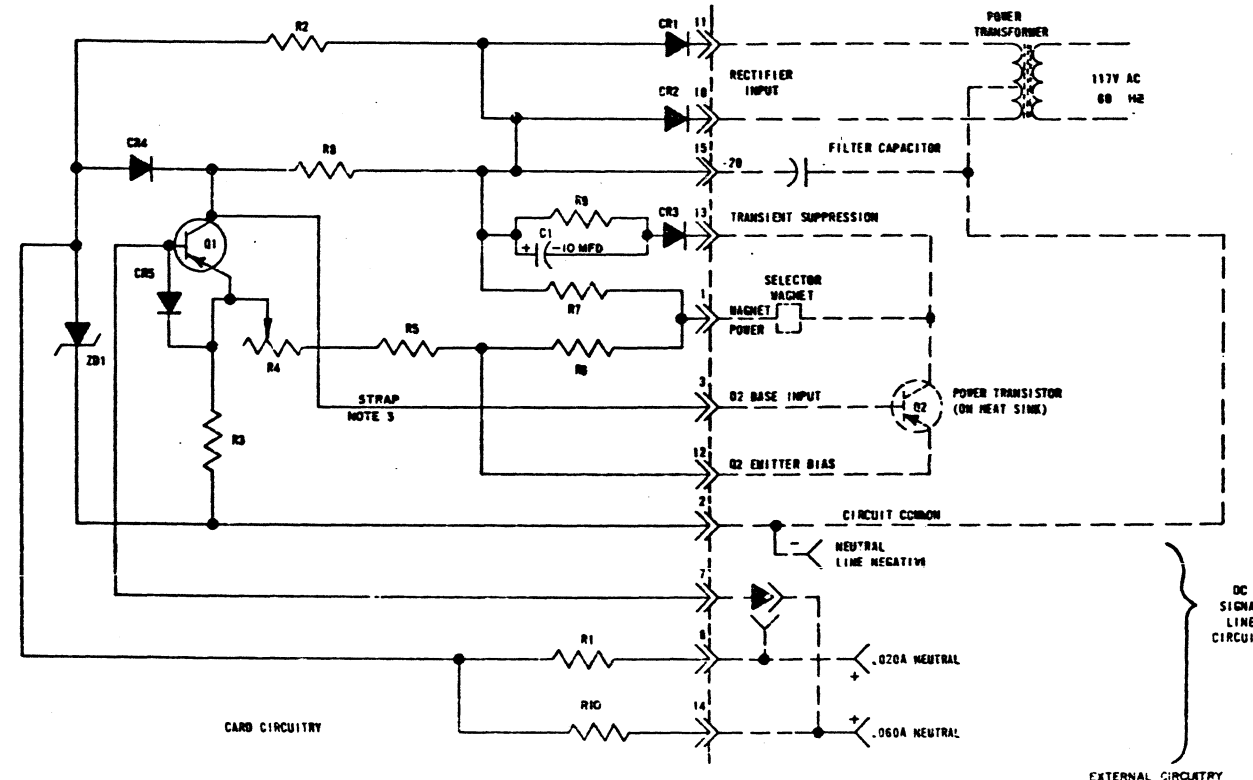
WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR P.D. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2 WITH Q2 OFF, NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE. DURING THE TURN OFF OF Q2 THE 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.



UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

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 1/2W	Q1 AMP SWITCHING LINE
R10	182797	1	RESISTOR 135 OHMS 1/2W	Q2 AMP SWITCHING LINE
R2	181669	1	RESISTOR 330 OHMS 2.5W	ZENER CURRENT LIMITING
R3	182778	1	RESISTOR 0.82 OHMS 1/2W	COMMON EMITTER BIAS
R4	182713	1	RHEOSTAT 3 OHMS 2.5W	OUTPUT CURRENT ADJUST
R5	181717	1	RESISTOR 2 OHMS 5W	Q2 EMITTER BIAS
R6	182770	1	RESISTOR 270 OHMS 4W	Q2 EMITTER BIAS
R7	182772	1	RESISTOR 14 OHMS 10W	Q2 COLLECTOR LOAD
R8	182527	1	RESISTOR 390 OHMS 4W	Q1 COLLECTOR LOAD
R9	182776	1	RESISTOR 150 OHMS 1/2W	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	312922	1	DIODE ZENER, 4M4733A, 5.1V	REFERENCE
C1	182628	1	CAPACITOR 10 MFD 250 VDC	COLLECTOR TRANSIENT LIMITING
Q1	32077	1	TRANSISTOR 2N4355	INPUT SWITCH
RM39550		1	STRAP	NOTE 3
EC	181823	1	CIRCUIT BOARD, ETCHED	

181821			
REVISIONS			
ISSUE	DATE	AUTH. NO.	
- 2	4-19-65	86501	
- 3	9-9-66	98816	
- 4	11-25-66	89816-1	
- 5	5-5-67	93502	
- 6	4-2-69	95450	
- 7	7-5-68	95938	
- 8	11-6-68	96521	
- 9	12-20-68	98266	
- 10	3-3-71	9920	
- 11	3-29-72	235	
- 12	3-29-72	236-1	

SEE NOTE 5

REVISED BY	DATE	REASON
WDP		

APPROVALS	
R AND D	E OF M
H.J.K.	
E-NUMBER	
PROD NO: 181821	
DATE 7-20-63	
DATE 4-28-67	
R&D FILE 2-30152/153AA	
DRAWN BY - CG	CHKD. H.A.J.
ENGR. AS - PPS	APPD. J.U.
TELETYPE CORPORATION	
181821	

REF. DESIG.	PART NO.	QTY.	DESCRIPTION	FUNCTION
R1	183083	1	RESISTOR, 22 OHM	SURGE LIMITER
R2	183082	1	RESISTOR, 12,000 OHM	ARC SUPPRESSOR
R3	116138	1	RESISTOR, 56,000 OHM	BLEEDER
R4	116163	1	RESISTOR, 10,000 OHM	ARC SUPPRESSOR
R5	144464	1	RESISTOR, 220 OHM (NOTE 4)	VOLTAGE DROPPING
C1	183078	1	CAPACITOR, DUAL SECTION A - 200 MFD, 200V DC	POWER SUPPLY FILTER
C2	183084	1	CAPACITOR, .22 MFD	SURGE SOURCE
C3	153121	1	CAPACITOR, 15 MFD	FILTER
CR1	312341	6	DIODE, 400V (NOTES)	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 WIRE 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 PREFERRED.

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.

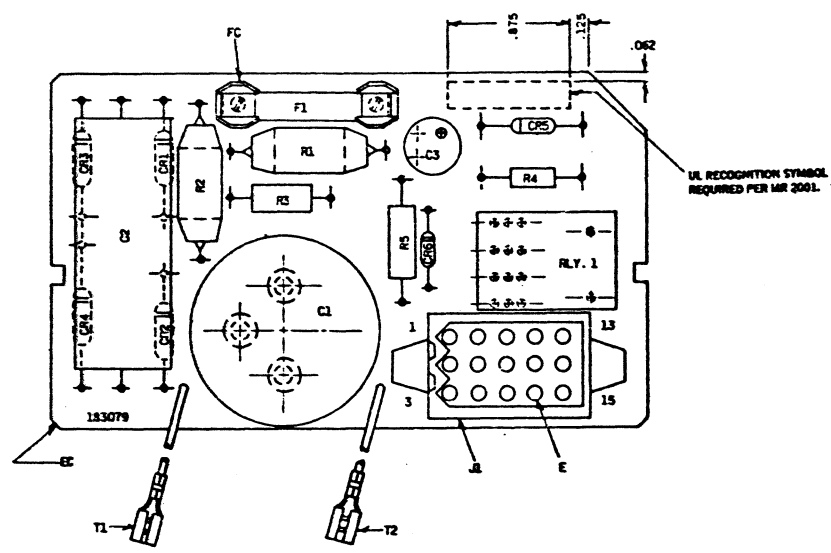
5. FOR STANDARDIZATION CR1-6 WERE CHANGED FROM 1B1654.

CIRCUIT DESCRIPTION

THIS POWER PACK CONSISTS OF A 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.

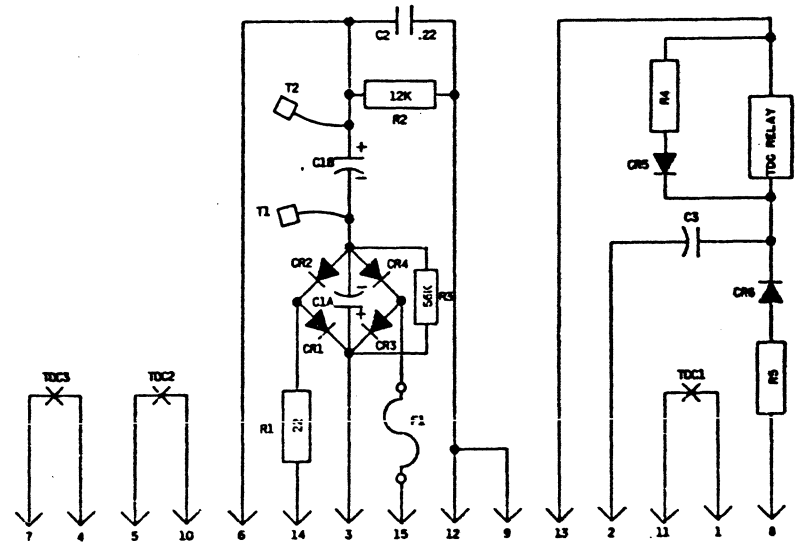
TDC RELAY CONTACTS ARE USED FOR AUTOMATIC READER CONTROL. 48V AC INPUT IS RECTIFIED THRU R5 AND CR6 BEFORE REACHING TDC RELAY. CAPACITOR C3 FILTERS TO GROUND THRU COMMON POINT OF TDC1.



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

REVISIONS					
IDENTIFICATION	ISSUE	VERSION	ASSOCIATED NOTE	DRAWING ISSUE	COMPLIANCE DATE
13	B	5	14		12174

POWER PACK ASSEMBLY W/RELAY



CIRCUIT CARD
EC 183079
POWER PACK ASSEMBLY
W/RELAY

APPROVALS

PROJ. SUPV.	PROJ. DIR.	MFG. REL. COMPL.
		(S)

EMER. T.Y. 0564M.
ORN. 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

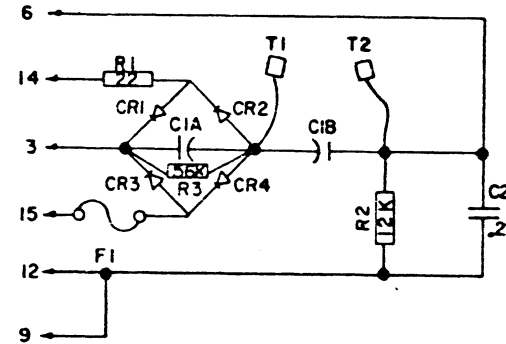
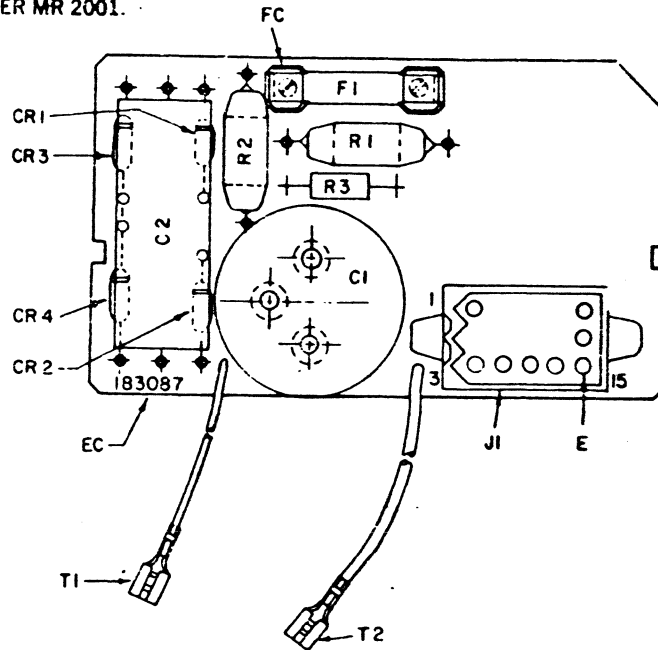
183087

PARTS REC	NO REC	USED ON	NO REC
SFE		182134	1
BELOW			

REVISIONS			
ISSUE NO	DATE	AUTHOR	NO
2	8-20-62	30-1276	
3	9-26-62	30-1319	
4	2-20-63	30-5537	
5	6-26-63	76-90	
6	9-19-66	88818	
7	11-25-66	88816-1	
8	8-22-68	95993	
9	9-17-69	99187	
10	2-10-70	99187-2	
11	3-3-71	2320	
12	-20-72	564-2	
13	12-18-72	6803	

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

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.	POWER SUPPLY FILTER
C2	183084	1	8 - 9 M.F.D. 200 V.D.C.	SURGE SOURCE
CR1	312341	4	CAPACITOR, 22 M.F.D.	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 40 WATT 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.

MOP

APPROVALS	
D AND R	E OF M
E NUMBER	
PROG NO 183087	

SCALE	STOCK SPECIFICATION
1/1	
DRAWN	PD FILE NO
TR	1-4760AA
DESIGNED	DATE
ENGINEER	6-7-62
CHECKED	APPROVED
JAU	44

SIZE	KINC	SHAPE	TEMPER

TELETYPE
INSPIRATION
183087

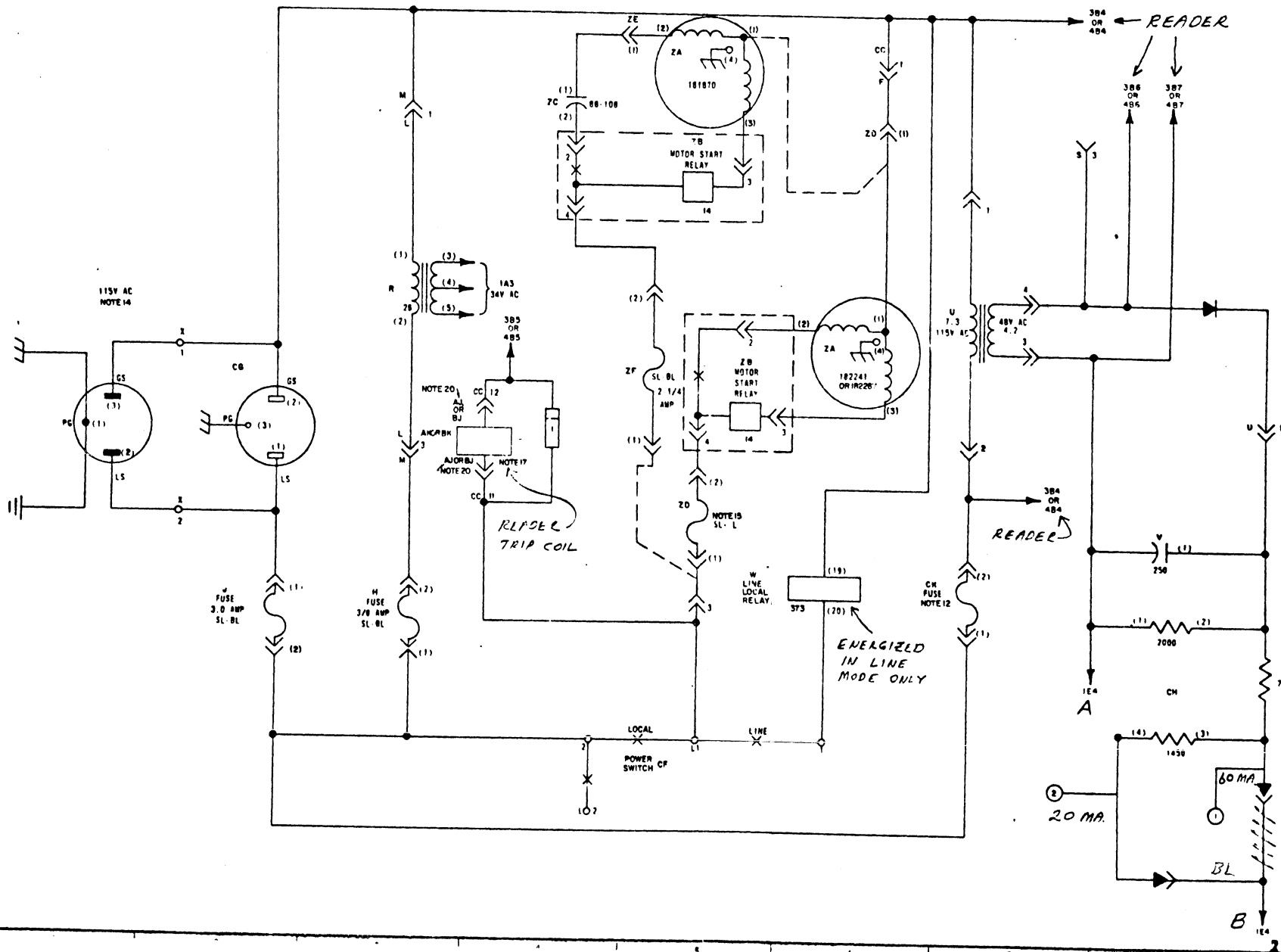
SEE SHEET 1 FOR NOTES

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

6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	11-20-63	786
2	1-9-64	934
3	4-9-64	145
4	6-9-64	173
5	7-2-64	1672
6	7-15-65	1713
7	7-15-65	1743
8	8-5-65	1753
9	10-15-65	17482
10	12-17-65	17247
11	1-13-66	90337
12	2-17-66	89721
13	3-9-66	90790
14	5-23-66	90374
15	5-23-66	90374
16	5-10-66	90374
17	10-12-66	92771
18	10-19-66	92771
19	12-28-66	9287
20	12-21-67	95147



SEE ISSUE CONTROL RECORD FOR COMPLETE LIST OF SHEETS COMPRISING THIS SET

SHEET 5

SCHEMATIC
WIRING DIAGRAM
PNO
MODEL 33
AMP, KSR, RO
DC SIGNAL LINE

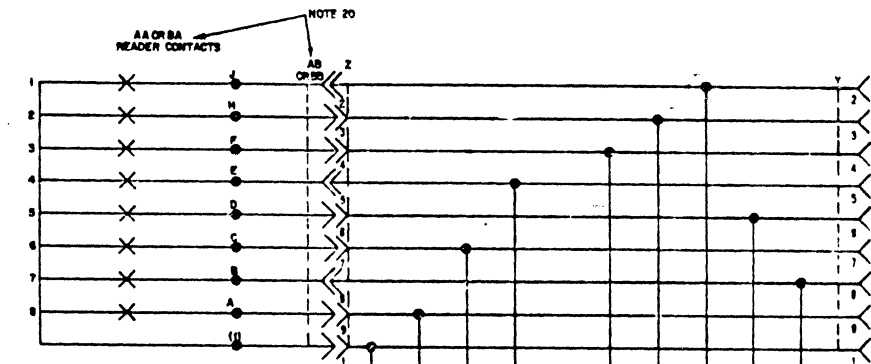
APPROVALS
D AND R E OF M

E-NUMBER
PROD. NO. 6353 WD
DATE 4 23 67
P.D. FILE NO. 2-30157/1118
DRAWN JR CHD
ENGD. AB APPD

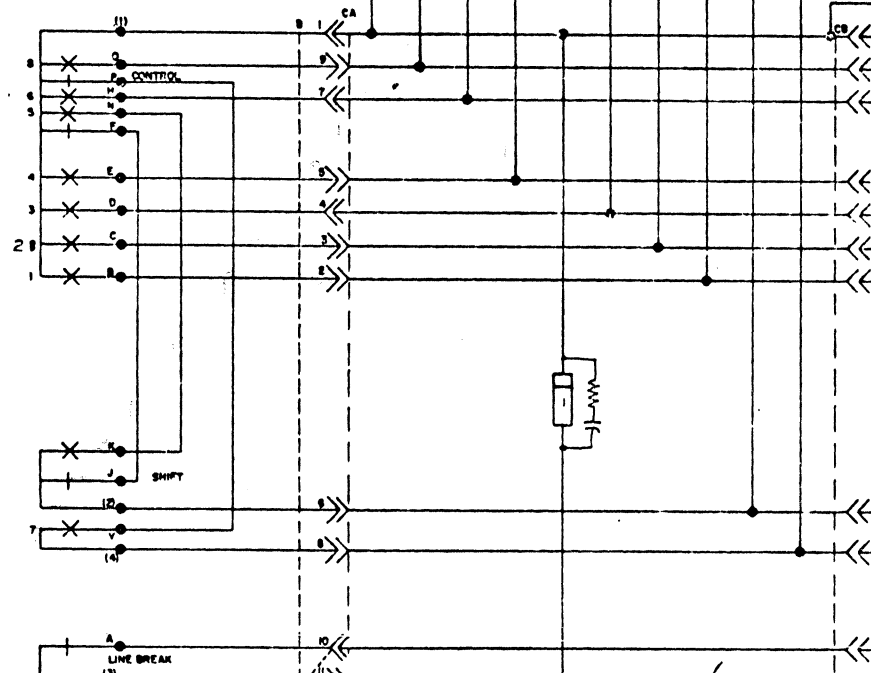
TELETYPE CORPORATION

6353WD

SEE SHEET 1 FOR NOTES



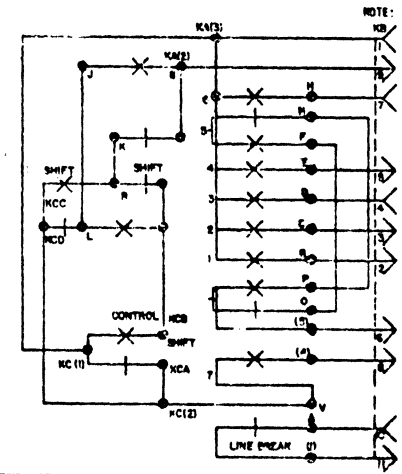
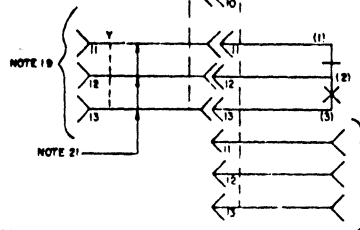
A KEYBOARD CONTACT ARRANGEMENT



SPARES
OF CUSTOMER'S
OPTION

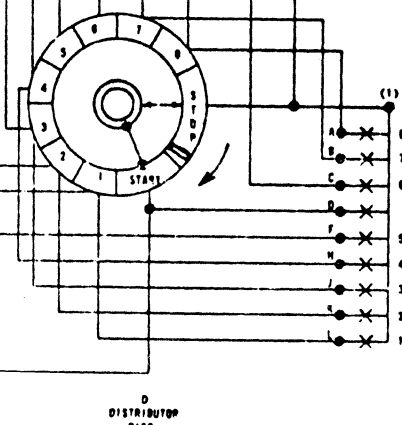
175 D

175 C



NOTE: REVISION INFORMATION MUST ALSO
BE REFLECTED ON THE ISSUE CONTROL
RECORD, WHICH IS PART OF THIS 0 0.

KA AND RC
PARITY KEYBOARD CONTACT
ARRANGEMENT



D DISTRIBUTOR
DISC

6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-20-63	79188
3	1-8-64	79334
4	4-9-64	8140
5	6-5-64	8173
6	11-27-64	84602
7	2-15-65	84797
8	3-2-65	84844
9	3-2-65	84844
10	3-2-65	84844
11	3-2-65	84844
12	3-2-65	84844
13	3-2-65	84844
14	3-2-65	84844
15	3-2-65	84844
16	3-2-65	84844
17	3-2-65	84844
18	3-2-65	84844
19	3-2-65	84844
20	3-2-65	84844
21	3-2-65	84844
22	3-2-65	84844

SEE ISSUE CONTROL RECORD FOR
COMPLETE LIST OF SHEETS
COMPRISING THIS 0 0

SHEET 2

SCHEMATIC
WIRING DIAGRAM
FOR
MODEL 33
ASR, RSP, MO
DC SIGNAL LINE

AP: RC VALS
B AND H E OF W

E-NUMBER
PROG. NO. 6353WD
DATE 4 12 67
P.R. FILE NO. 2 30 152 13340
DRAWN JR CHD
ENBD 65 APPD

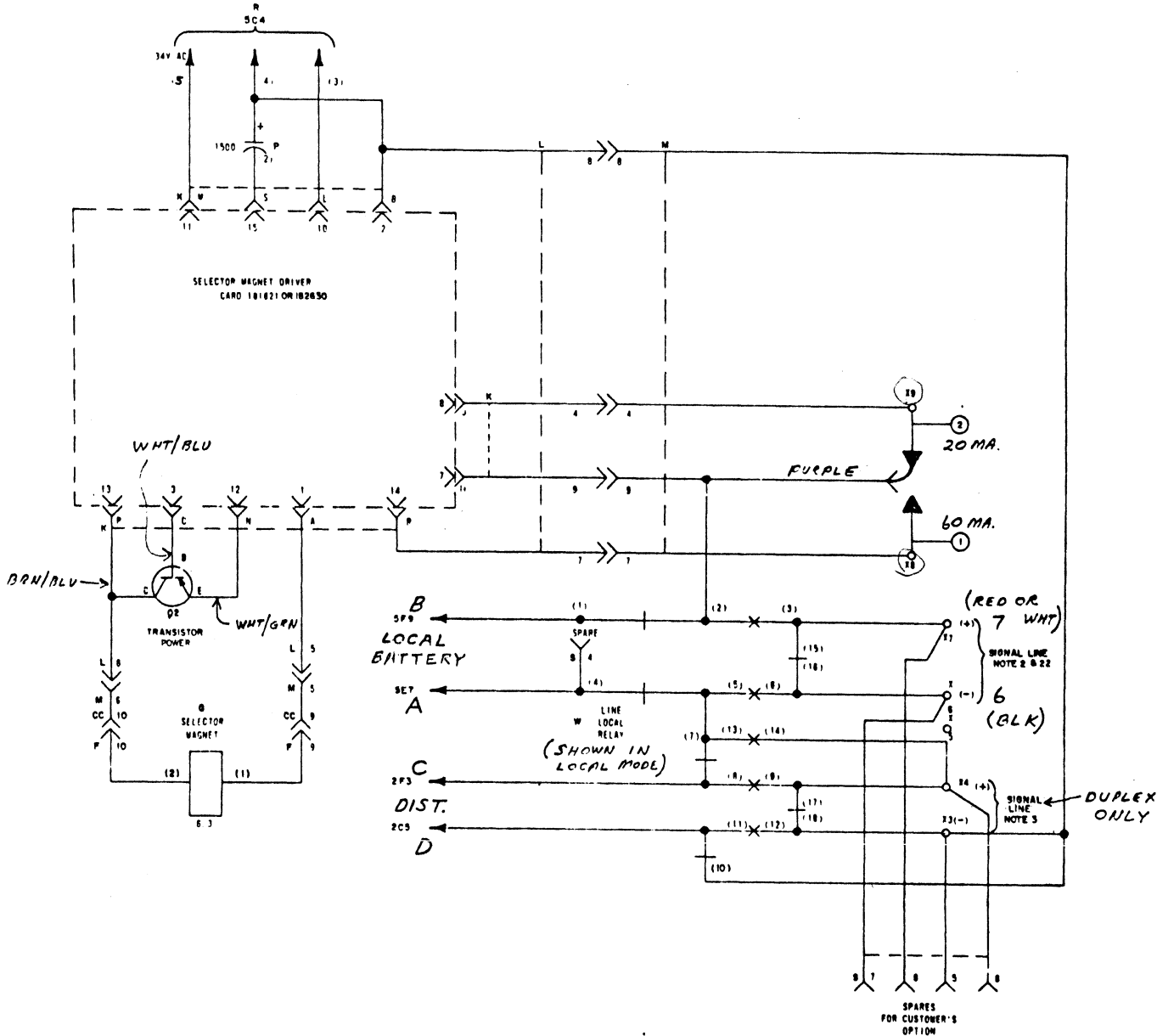
TELETYPE
CORPORATION

6353WD

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAM SEE 6354WD
 - THE SET IS SHOWN WIRED FOR SIMPLER .020 AMP. NEUTRAL SIGNAL LINE ON TERMINALS 6 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 101010 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 RO SETS USE 101026 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 OPT. ON (2)
 - THIS IS AN B LEVEL UNIT
 - THESE WIRES ARE IN THE DISTRIBUTOR CABLE AS SPARES. IF NOTE 10 APPLIES TAPE "NO" TO BACK THESE WIRES.
 - THIS FUSE NOT INCLUDED ON SOME SETS. FUSE VALUES ARE AS FOLLOWS
- | TRANSFORMER | FUSE VALUE | PART NO. |
|-------------|----------------|----------|
| 101010 | 1/2 AMP SL-BL | 117176 |
| 102851 | 8 10 AMP SL-BL | 102360 |
- WIRING SHOWN AS PA 15 FOR EVEN PARITY KEYBOARDS
 - FURNISH 115V AC @ 60. 60 CYCLE EXCEPT 50 CYCLE ON 33TAB TAN KSR SETS, 33TAC 1A1, TYP, ABR SETS AND 33TMO RO SETS.
 - APPROPRIATE FUSE IN 102102 FUSEHOLDER NOT INCLUDED IN EARLY SETS
- | MOTOR | FUSE VALUE | FUSE PART NO. |
|--------|------------|---------------|
| 102241 | 2 0 AMPS | 136530 |
| 102281 | 1 0 AMPS | 329240 |
- NETWORK 153031
 - 80 CYCLE READER TRIP COIL RESISTANCE IS 830 ~ 50 80 CYCLE READER TRIP COIL RESISTANCE CHANGED FROM 830 ~ TO 780 ~ 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
 - AA, AB, AJ, AK REFER TO MANUAL READER, BA, BB, BJ, BK REFER TO AUTOMATIC READER
 - MAY NOT BE FOUND ON EARLY UNITS.
 - 33TCB TO BE WIRED FOR .020 AMP. SIGNAL LINE OPERATION

.020 USED ON ROTH 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 W D



6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
2	11-20-63	79268
3	1-8-64	79914
4	4-9-64	81640
5	4-9-64	81773
6	11-24-64	94602
7	2-15-65	94798
8	3-15-65	95443
9	8-8-65	96233
10	10-12-65	98233
11	12-21-65	99262
12	1-15-66	99347
13	2-17-66	99357
14	3-9-66	99357
15	3-29-66	99750
16	4-27-66	99750
17	5-10-66	99880
18	10-12-66	99877
19	10-25-66	99877
20	12-28-66	99877
21	1-23-67	99877
22	8-24-67	99877
23	1-16-68	99877

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

SHEET 1

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

APPROVALS

D AND R E OF M

E-NUMBER

PROD. NO. 6353 WD

DATE 4-24-67

P.D. FILE NO. 2 30 152/1534A

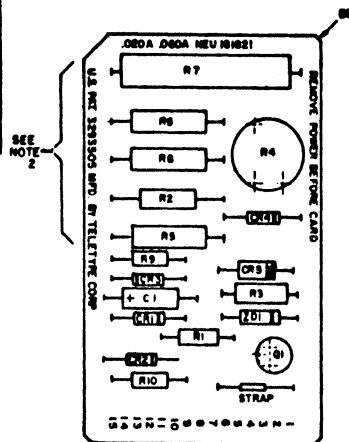
DRAWN JEA

ENGR. A.S.

TELETYPE CORPORATION

6353WD

NO.	NOTES
1	MASTER PARTWORK NO. 008849 FOR PRINTING SCREEN IS AVAILABLE IN R&D OFFICE SERVICE SECTION.
2	RAISE R2, 5, 8, 7, 8 - 1/32 TO 1/16" ABOVE CIRCUIT CARD.
3	TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R4 AND CR 5 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 356470 STRAP.



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 WARKING 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.

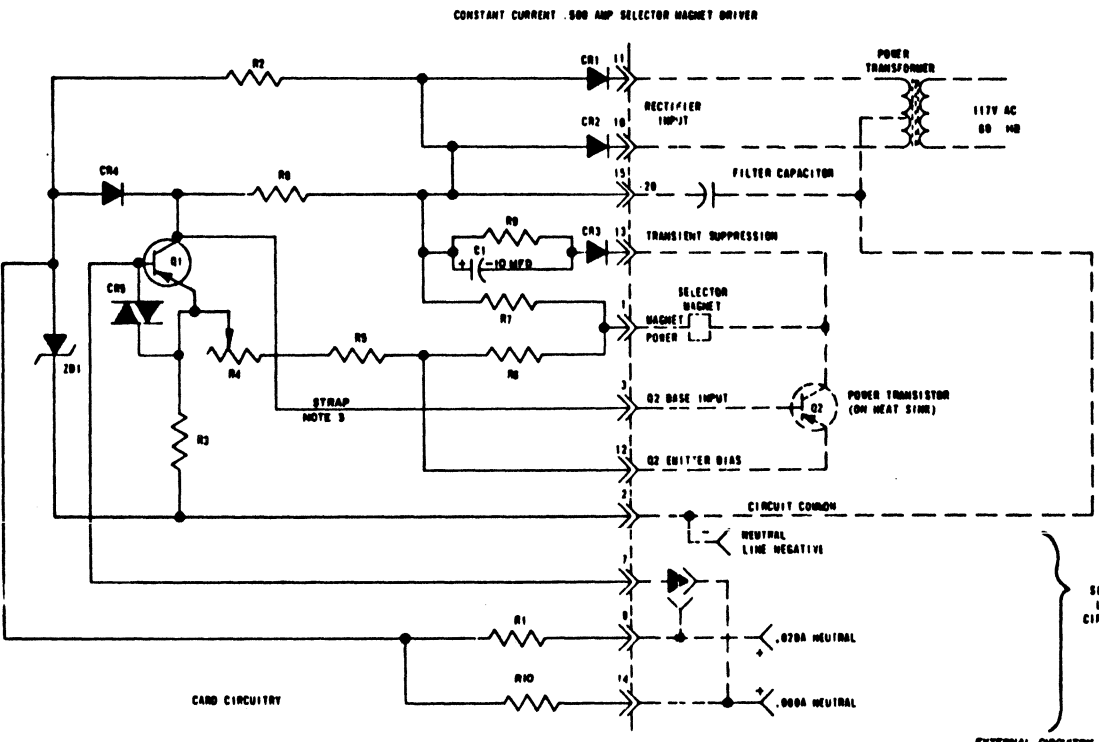
WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR R10. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2 WITH Q2 OFF NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE DURING THE TURN OFF OF Q2 THE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

US RECOGNITION SYMBOL 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	010 AMP SWITCHING
				FOR 020A NEUTRAL
R10	102707	1	RESISTOR 135 OHMS 1/2W	030 AMP SWITCHING
				FOR 000A NEUTRAL
R2	101869	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 8 OHMS 5W	Q2 EMITTER BIAS
R6	102770	1	RESISTOR 270 OHMS 4W	Q2 EMITTER BIAS
R7	102772	1	RESISTOR 14 OHMS 10W	Q2 COLLECTOR LOAD
R8	102827	1	RESISTOR 380 OHMS 4W	Q1 COLLECTOR LOAD
R9	102770	1	RESISTOR 150 OHMS 1/2W	Q2 COLLECTOR
				TRANSIENT LIMITING
CR1	102520	2	DIODE 1N3193	POWER RECTIFIER
CR2	102520	2	SAME AS CR1	POWER RECTIFIER
CR3	101019	2	DIODE 1N4002	COLLECTOR TRANSIENT
				LIMITING
CR4	101010	1	SAME AS CR3	VOLTAGE CLAMPING
CR5	170044	1	VARIATOR 100A	INPUT PROTECTION
ZD1	102774	1	DIODE ZENER 4.7V 5-1W	REFERENCE
C1	102620	1	CAPACITOR 10 MFD 75V DC	COLLECTOR TRANSIENT
				LIMITING
Q1	101071	1	TRANSISTOR HIGH GAIN	INPUT SWITCH
356470		1	STRAP	NOTE 3
EC	101023	1	CIRCUIT BOARD ETCHED	

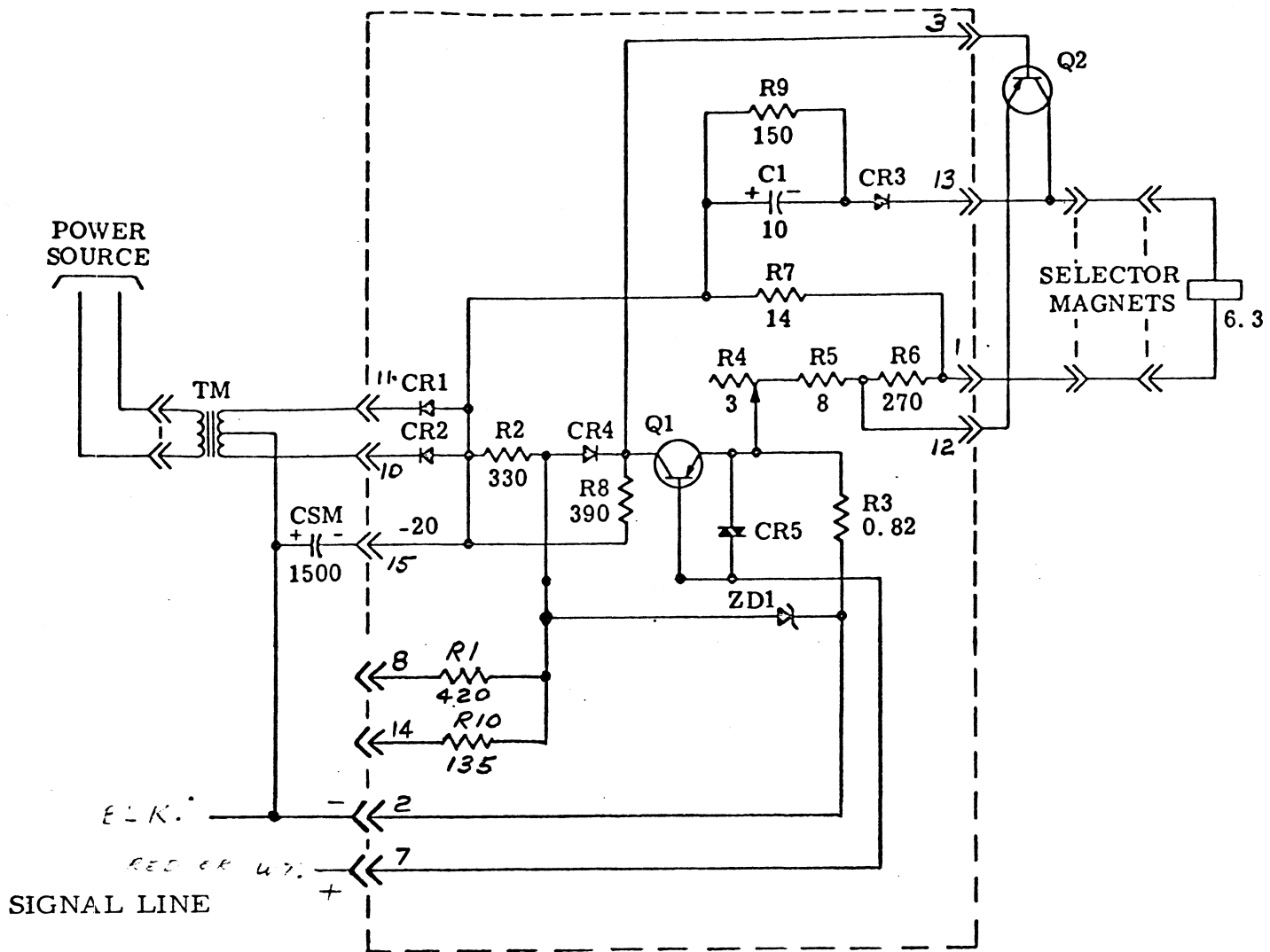
181821		
REVISIONS		
ISSUE	DATE	AUTH. NO.
- 2	4-10-63	04501
- 3	8-10-60	000 0
- 4	11-25-60	000-B-1
- 5	9-5-67	05532
- 6	4-2-60	05490
- 7	7-5-67	05388
- 8	11-0-60	04121
- 9	12-20-60	00748
- 10	3-5-71	000
- 11	3-20-72	000
- 12	3-20-72	050-1



M00. 33

APPROVALS	
R AND D	E C M
<i>HJK</i>	
E-NUMBER	
PROD NO 101921	
DATE 4-20-67	
R&D FILE 2-30-52-33AA	
DRAWN JER-C6 (HRD HJK)	
ENGD AS-PMS APPD JLM	
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 |