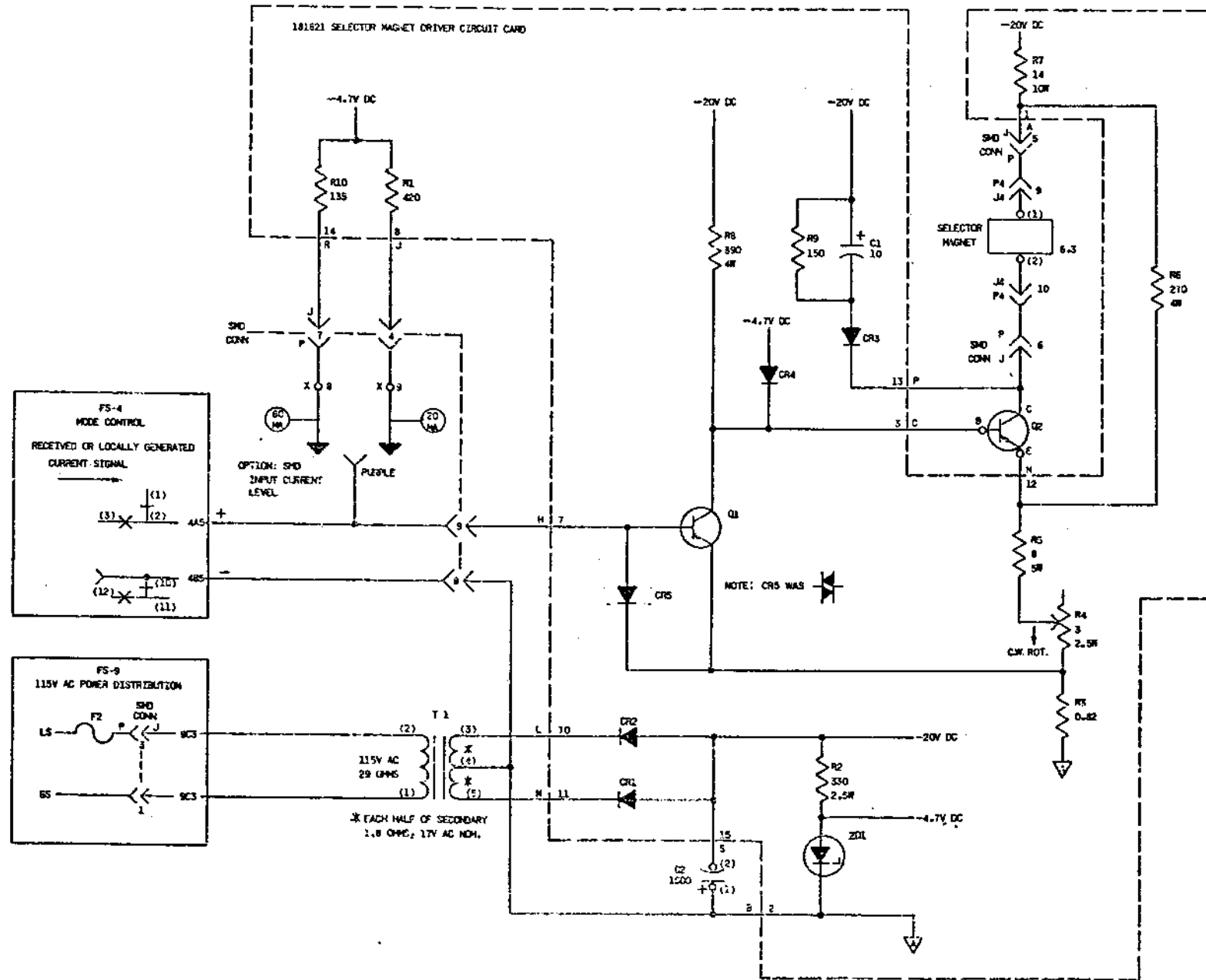
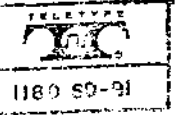


# FS-1 RECEIVE

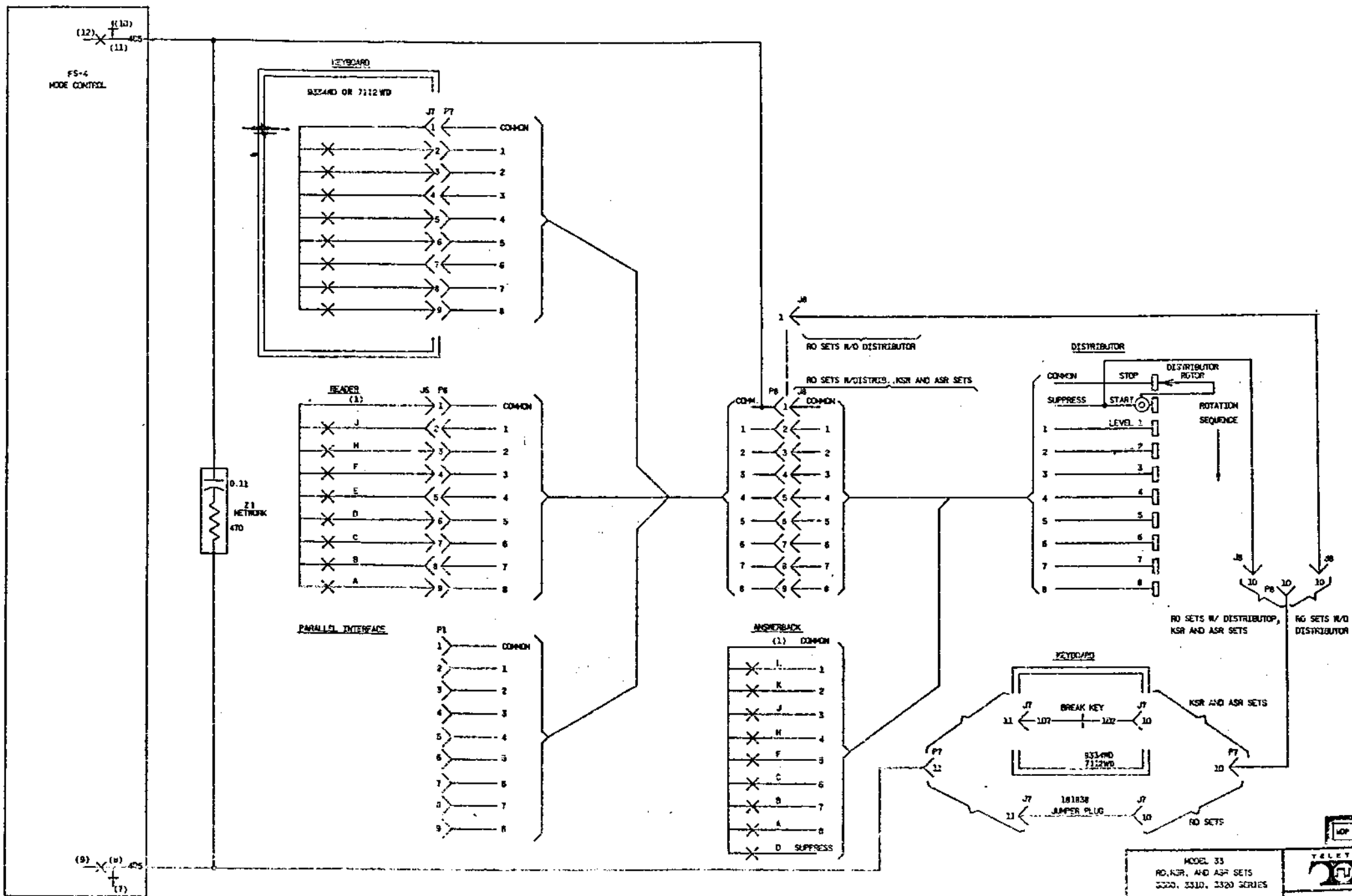
ISSUE
1
2



MODEL 33  
RO. MSR. AND ASR SETS  
3350, 3310, 3320 SERIES



# FS-2 SEND CIRCUIT



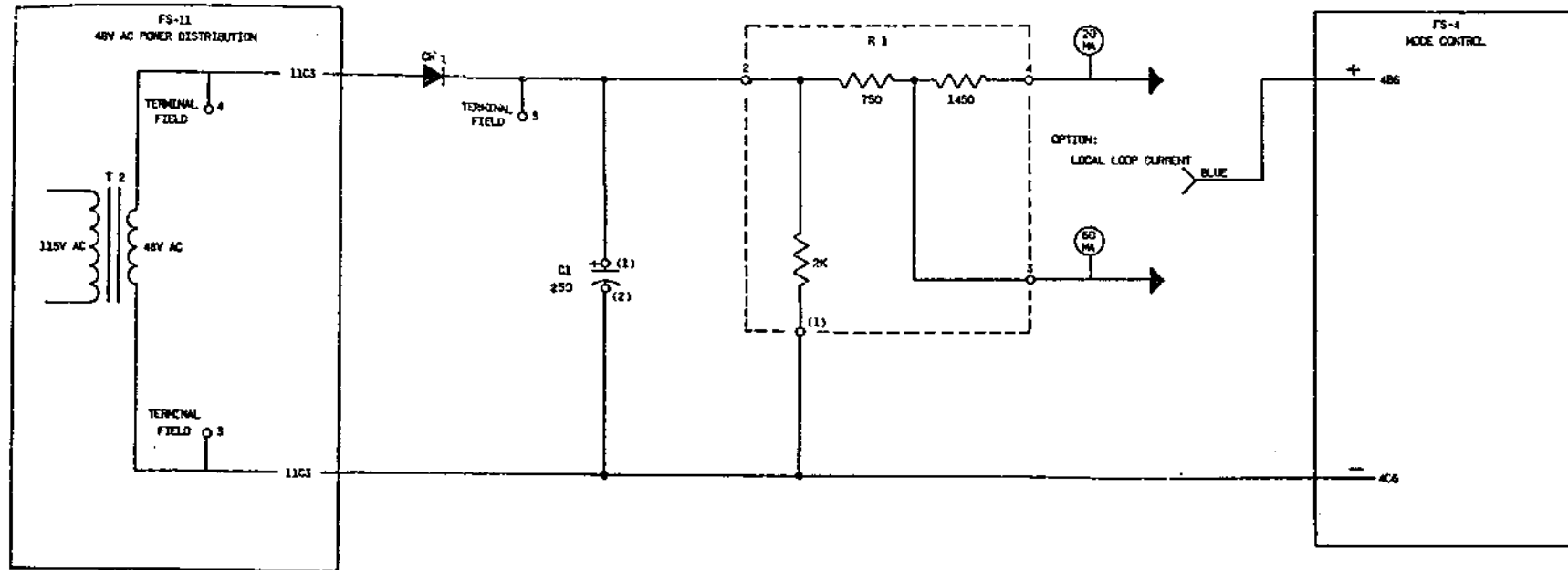
MODEL 33  
RO, KSR, AND ASR SETS  
3320, 3310, 3320 SERIES



1180 SD-B2

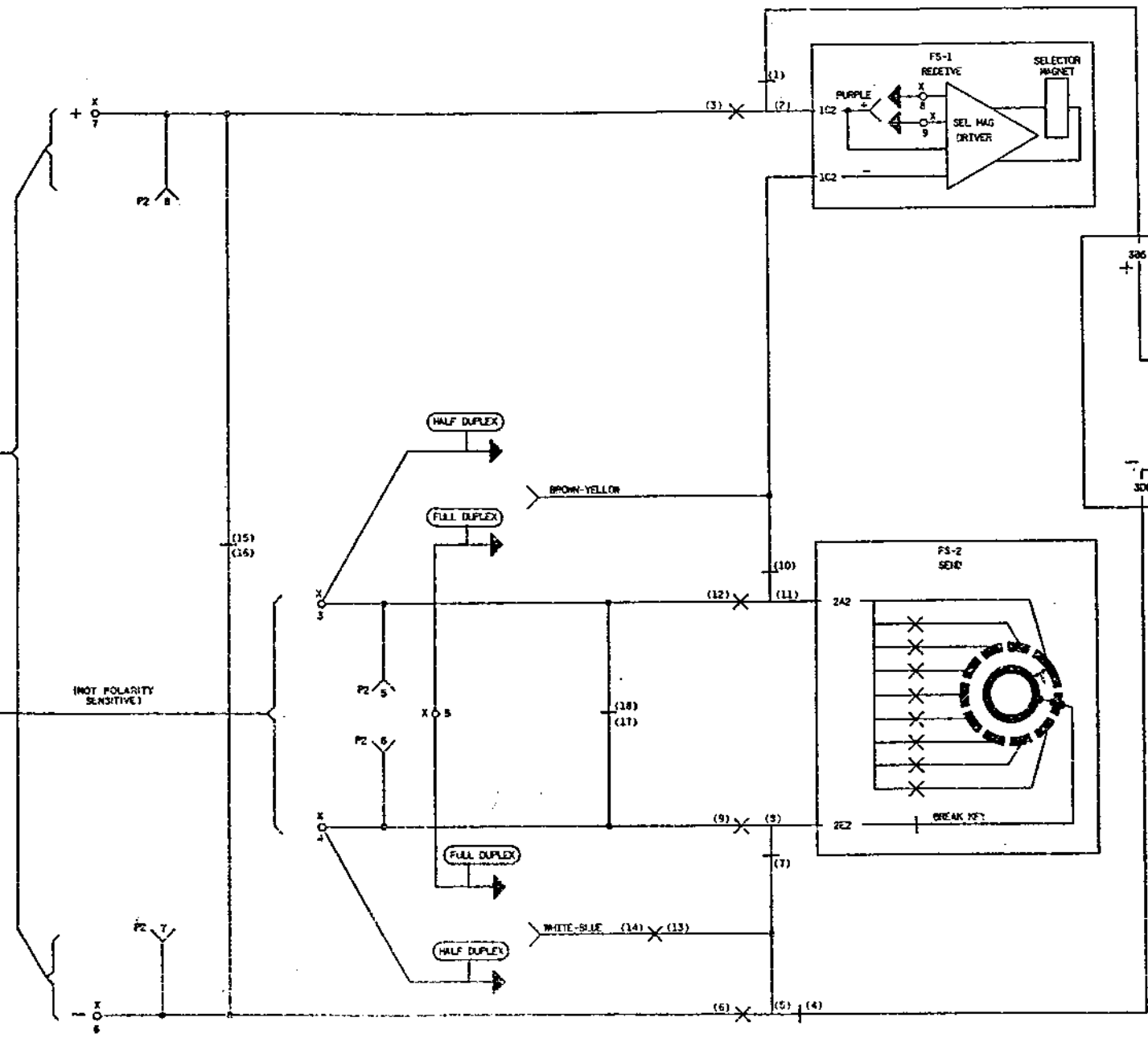
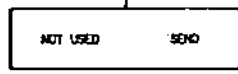
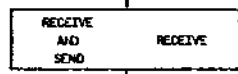
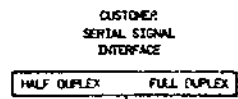
# FS-3 LOCAL LOOP CURRENT SUPPLY

ISSUE  
1



# FS-4 MODE CONTROL

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



MODEL 33  
 RO, KSR, AND ASH SETS  
 3303, 3320, 3320 SERIES



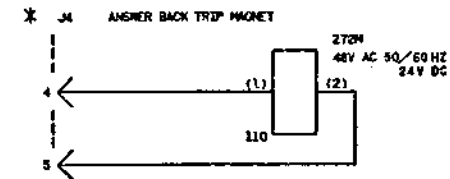
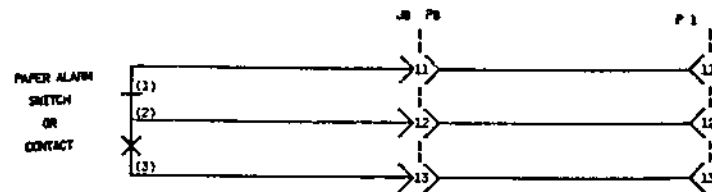
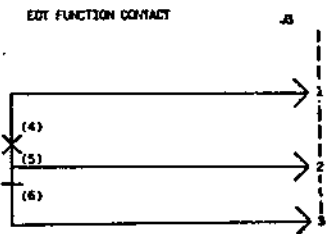
# FS-5 AUXILIARY CIRCUITS (FOR CUSTOMER USE)

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

### PAPER ALARM

PAPER FEED	TITLE	CONDITION SIGNALLED	TYPE
FRUCTION:	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
FRUCTION:	IN FRONT OF MOTOR FAN	
SPROCKET:	NEAR LEFT END OF PLATEN	

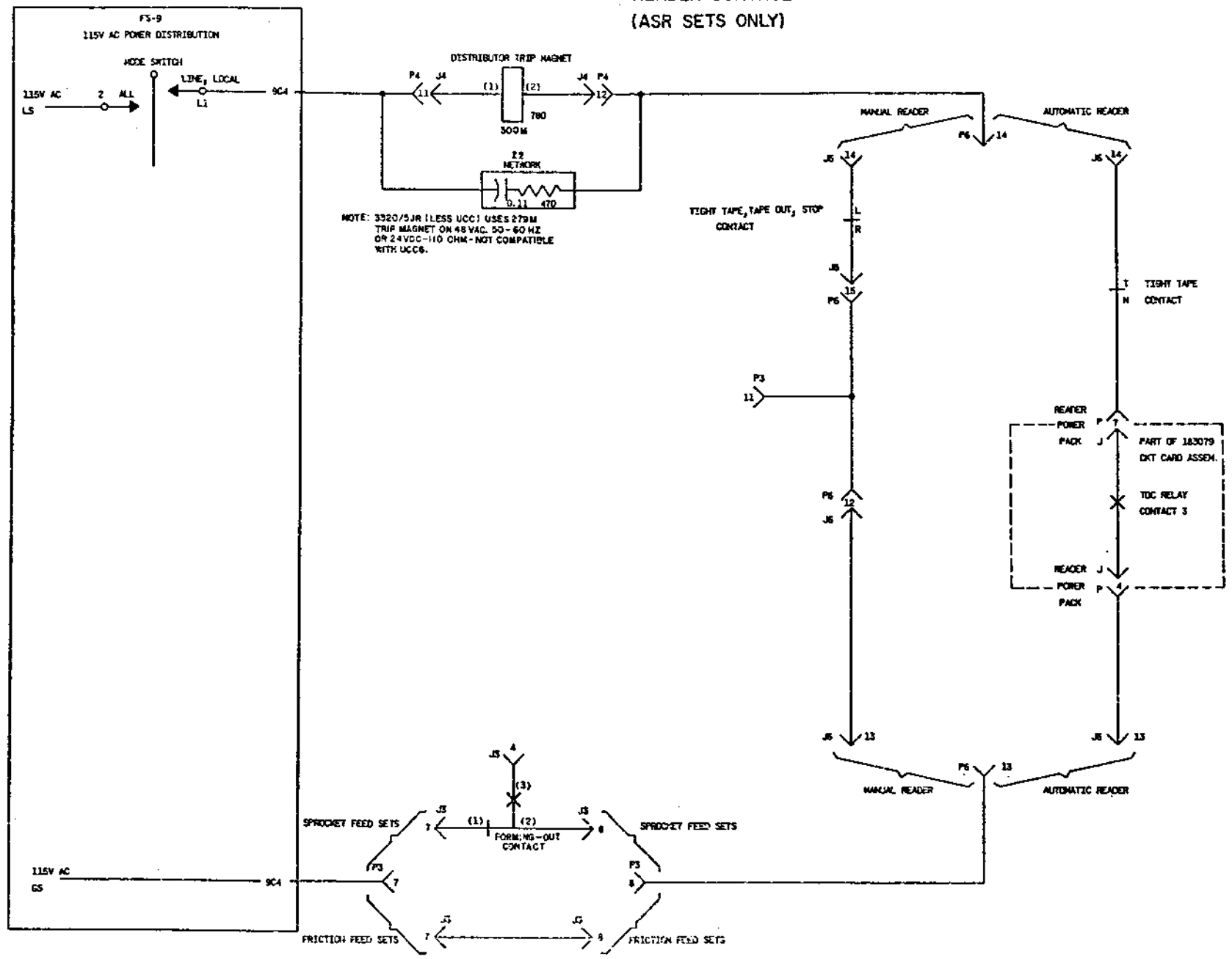


\* CUSTOMER ACCESS TO THE PINS SHOWN IS TO BE MADE FROM INSIDE THE CALL CONTROL UNIT BACK PLATE, USING 182644 (22-28 ANG) OR 185677 (18-20 ANG) FEMALE TERMINALS.

MODEL 33 RO, MSR, AND ASR SETS 3300, 3310, 3320 SERIES	
1180 SD-B5	

ISSUE
1
2

# FS-6 READER CONTROL (ASR SETS ONLY)

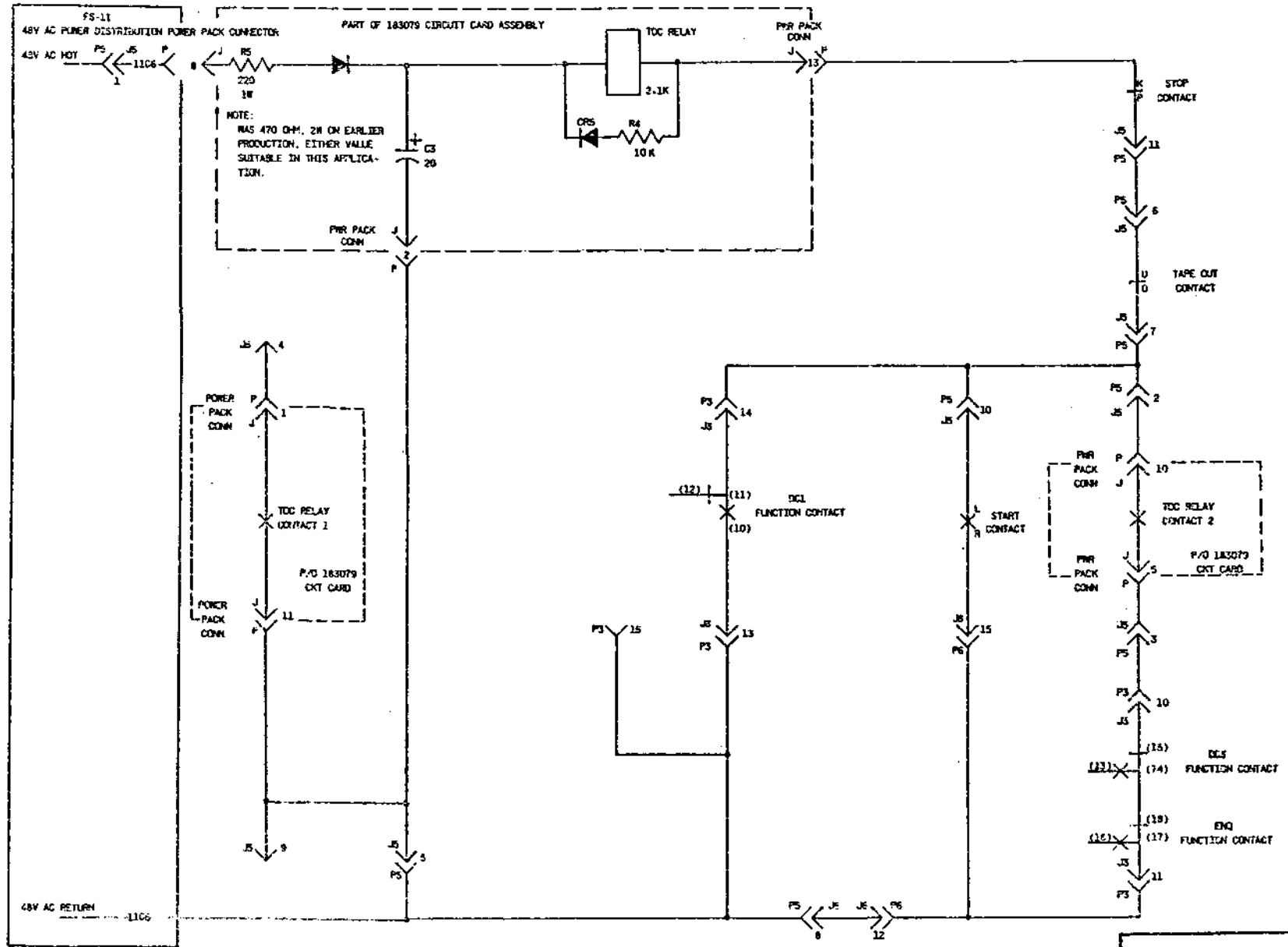


MODEL 33 RD, KSR, AND ASR SETS 3300, 3310, 3320 SERIES	 <b>1180 SD-B6</b>
--	--

# FS-7

## AUTOMATIC READER LOGIC

(ASR SETS W/AUTOMATIC READER ONLY)



MICEL 33  
RJ, KSR, ASR SETS  
330G, 331G, 332G SERIES

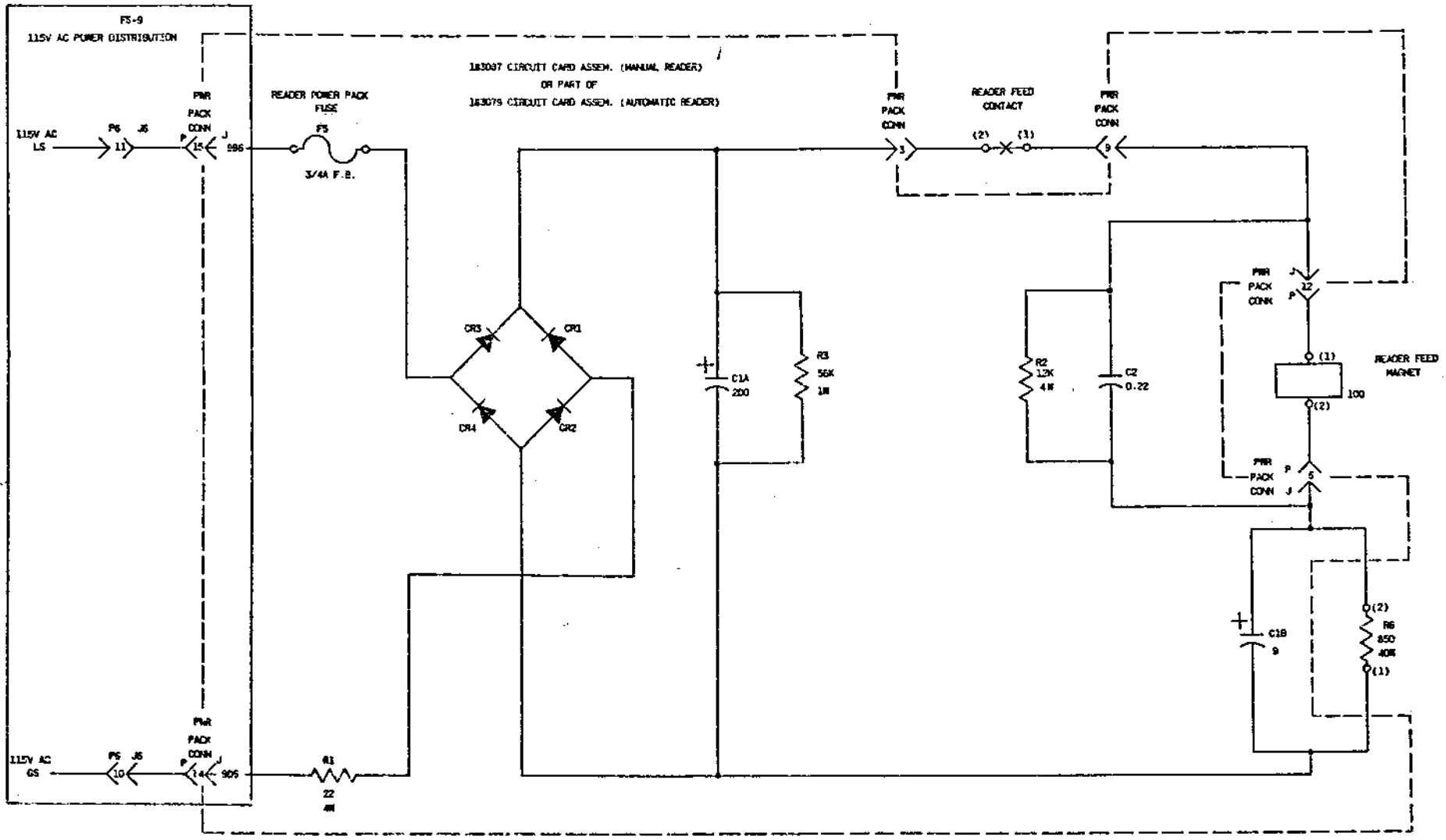


180 SD-B7

# FS-8

## READER FEED

(ASR SETS ONLY)



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



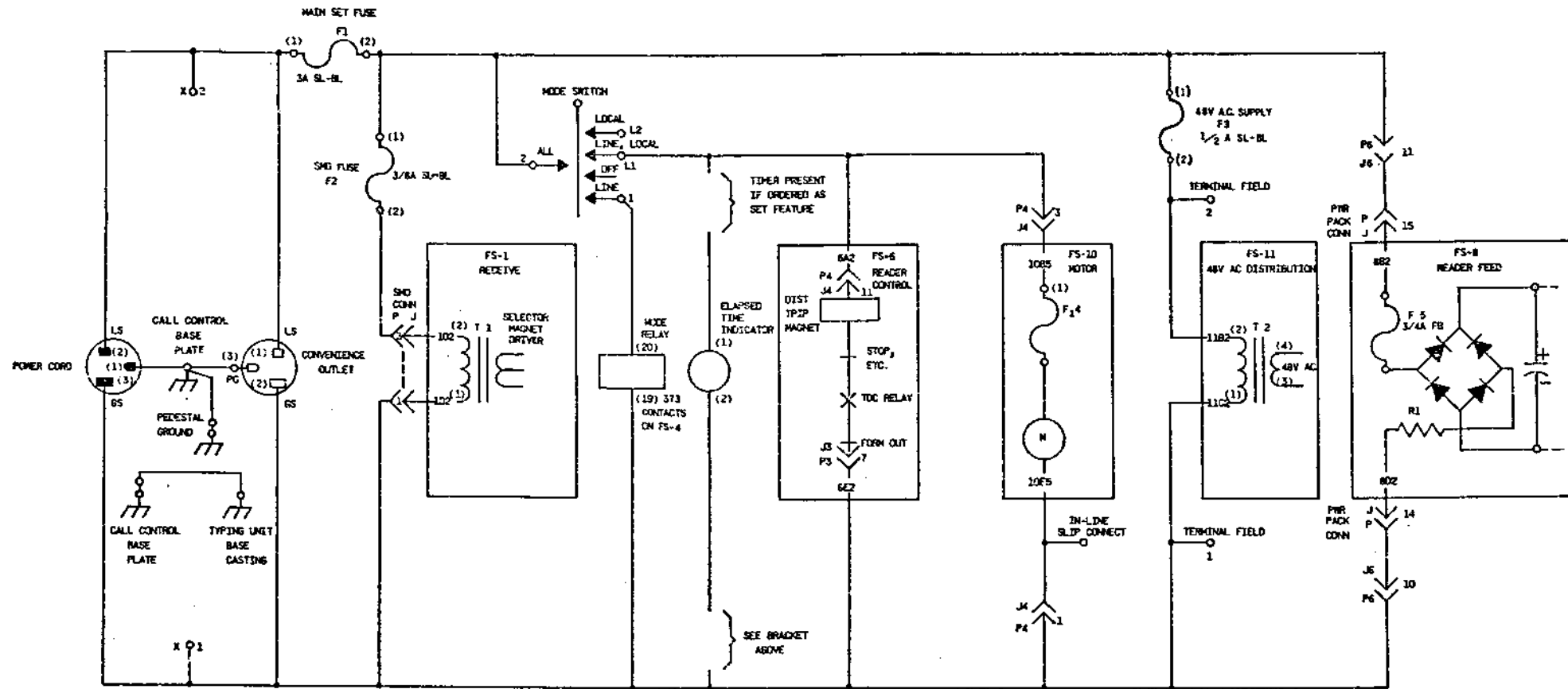
1180 SD-88



# FS-9

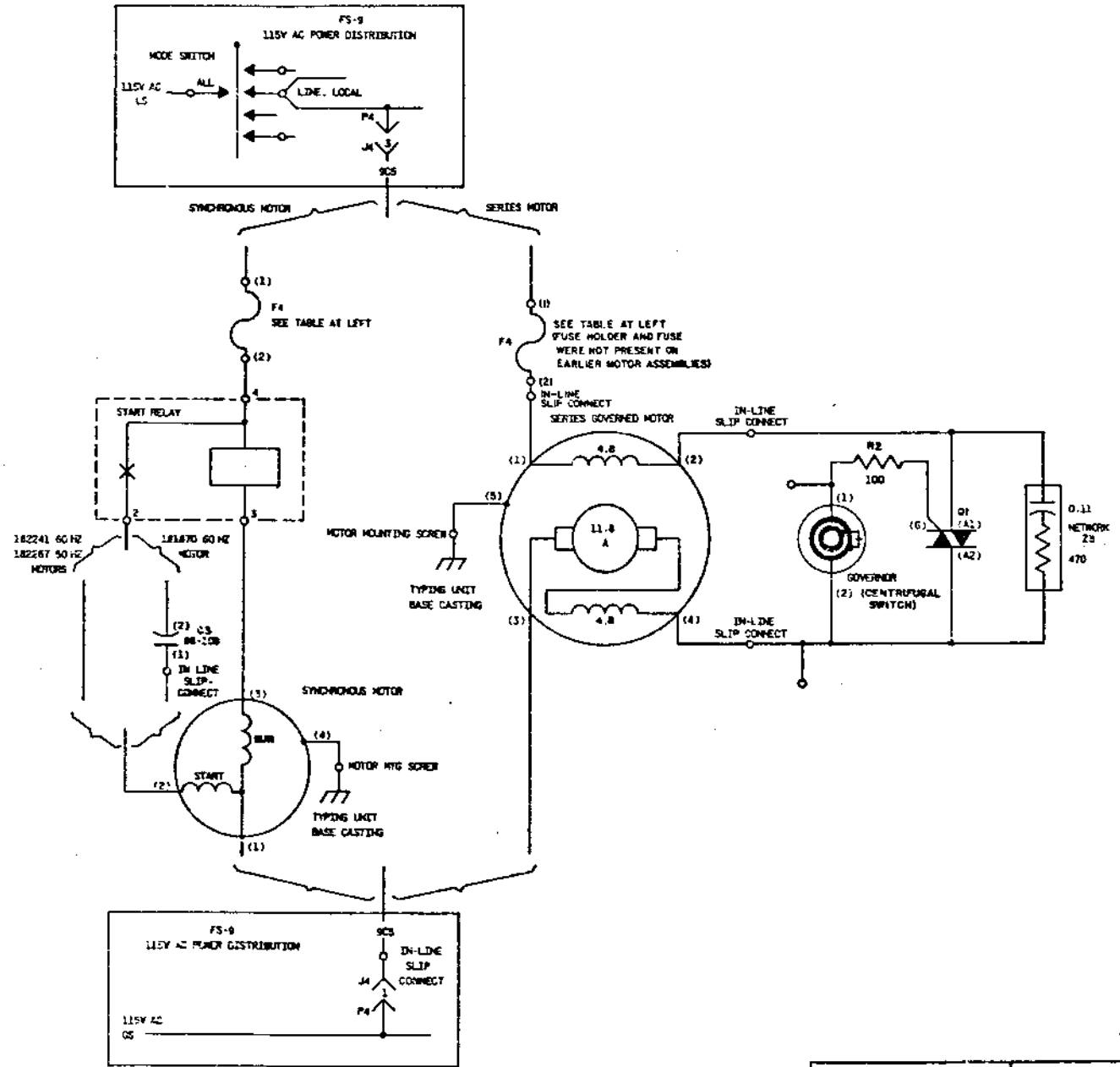
## 115VAC POWER DISTRIBUTION

ISSUE
1
2



# FS-10 MOTORS

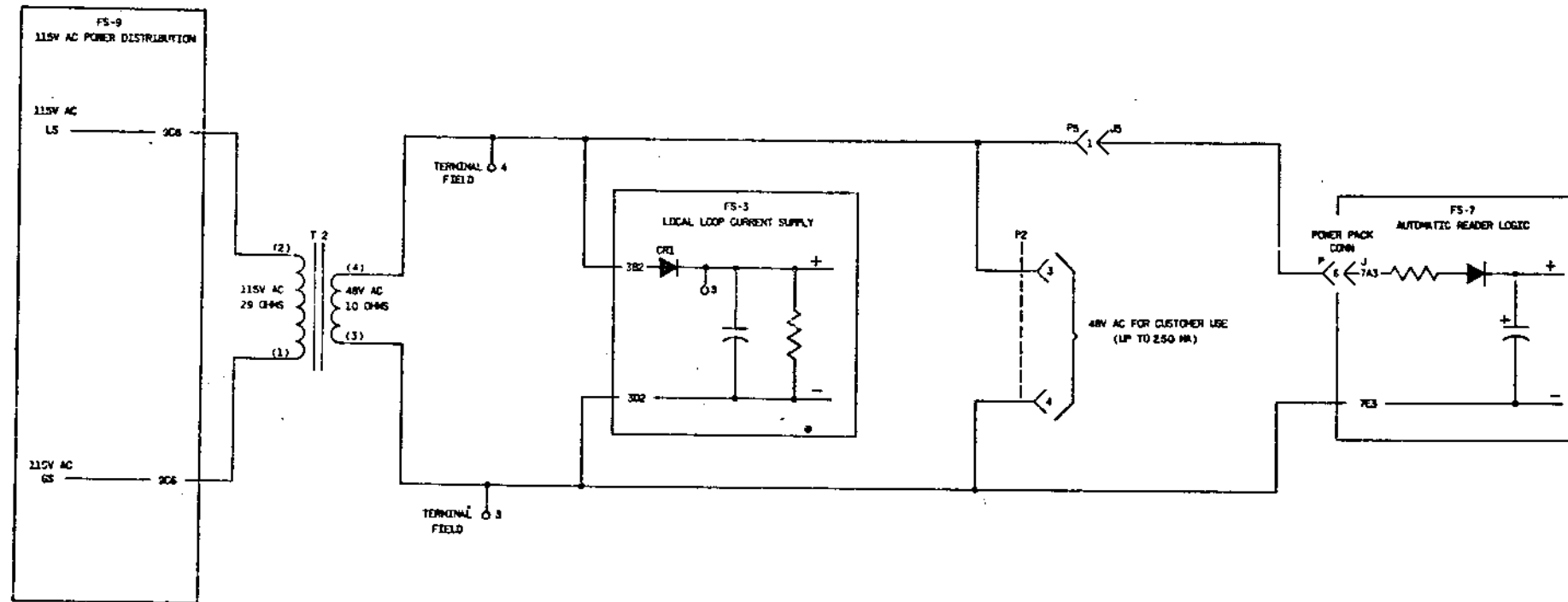
SYNCHRONOUS MOTORS				
MOTOR PART NUMBER	FREQ. HZ	FUSE F 4	H/P	CAPACITOR
181870	60	2 1/4 SL-BL	33	68-108 MFD
182241	60	2A SL-BL	33	—
182267	50	1 1/2 A SL-BL	35	—
SERIES GOVERNED MOTOR				
1A3991	50-60	1A SL-BL	85	—



# 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 OXK CARD ASSEM.)**

- C1 (LOCAL LOOP SUPPLY) 3C3
- C2 (SELECTOR MAG. DRIVER) 1E4
- C3 (MOTOR START) 1C04

**CIRCUIT CARD ASSEMBLIES**

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

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

**CONNECTORS, TITLED**

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

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

**SWD 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 DESTINATION J = CABLE SIDE P = FRAME SIDE

J AND P	1	2	3	4	5	6	7	8
TERMINAL	FS/LOCATION							
1	2C3	-	5B6	9C5	11B5	2C3	2B3	2C3
2	2C3	-	5B6	-	7D6	2C3	2B3	2C3
3	2C3	11C5	-	9B5	7D6	2C3	2B3	2C3
4	2C3	11C5	-	5C5	7C3	2C3	2B3	2C3
5	2C3	4C3	-	7C5	7E4	2C3	2B3	2C3
6	2E3	14C3	14D3	-	7B6	2C3	2B3	2C3
7	2E3	4E3	5E3	-	7C6	2C3	2B3	2C3
8	2E3	4B3	4E4	-	7E5	2C3	2B3	2D6
9	2C2	-	-	1B6	7E3	2C3	2B3	2C5
10	-	-	7D6	7D6	7C5	2E6	2E6	2D7
11	5C4	-	7E6	6A3	7B6	5E6	5E6	5C3
12	5C4	-	-	6A4	-	7E7	-	5C3
13	5C4	-	7C6	-	-	7C5	-	5C3
14	-	-	7C5	-	-	6B5	-	-
15	-	-	7D4	-	-	5C5	-	-

**CONTACTS**

- ANSWERBACK 2D5
- BREAK KEY 2E8
- FORMING OUT FUNCTIONS 6E3
  - OC1 7C5
  - OC3 7D6
  - ENQ 7E6
  - EDT 9B5
- 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) 6B5

**CORD**

- POWER 9C1

**DISCS (NOT ON OXK CARD ASSEMBLY)**

- ORL 3A3

**DISC**

- DISTRIBUTOR 8C6

**FUSES**

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

**GOVERNOR**

- 10C8

**MAGNETS**

- ANSWERBACK TRIP 9C6
- DISTRIBUTOR TRIP 6A3
- READER FEED 9C6
- SELECTOR 1B5

**MOTOR**

- SYNCHRONOUS 1C04
- SERIES GOVERNED 10C6

**METRIC**

- Z1 2C2
- Z2 6A3
- Z3 10C7

**RECEPTACLE**

- CONVERGENCE OUTLET 9C2

**RELAYS**

- None
- 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 OXK CARD ASSEM.)**

- COIL 7A4

**CONTACTS:**

- 1 7C3
- 2 7C6
- 3 8C5

**RESISTORS (NOT ON OXK CARD ASSEM.)**

- R1 3B4
- R2 10C7
- RES OF RDR PWR. PACK 8C6

**SWITCH**

- LOW PAPER 9C2
- MODE 9B5

**TERMINAL FIELD**

TERMINAL	
1	9D6
2	8B6
3	11D5
4	11B5
5	-
6	-
7	-
8	3B5

**TERMINAL STRIP**

X (CUSTOMER INTERFACE)

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

**TRIAC (TRIC)**

(NOT ON OXK CARD ASSEM.)

- Q1 10C7

**TRANSISTOR (NOT ON OXK CARD ASSEM.)**

- QR OF SWD ASSEMBLY 1C5

**TIMER**

- ELAPSED TIME INDICATOR 9C4

**TRANSFORMER**

- T1 SMO 1D8
- 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	105VAC TO 127VAC

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

102. OPTIONS

OPTION	FS LOC	ACTUAL LOC	FACTORY PROVIDED
* 20MA SIGNAL INPUT	1C3, 3B5	9336RD	
* 50MA SIGNAL INPUT	1C3, 3E5	1A5, 2D5	•
* HALF DUPLEX SIGNALING	4C4, 4E4	9335RD, 2E3	•
* FULL DUPLEX SIGNALING			•
* EVEN PARITY KEYBOARD			•
LEVEL B ALWAYS MARK	2B3 AND 9334RD	9334RD	
LEVEL B ALWAYS SPACE			

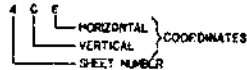
\* SELECT ONLY ONE OPTION FROM THIS GROUP

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

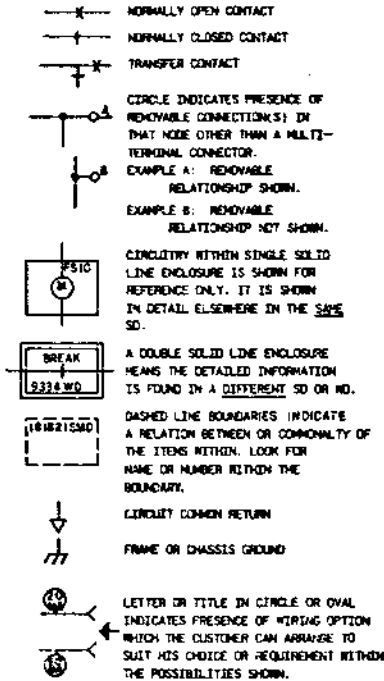
301. SHEET COORDINATES LOCATION LEGEND



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. SYMBOLOGY



WIRING STATUS:

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

**DO-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	ARMSER EACH TRIP	RELEASER TRIP	RELEASER 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 % 780 Ω ±5 %

RELAYS

<u>NUMBER</u>	<u>179106</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>183443</u>	<u>181441</u>	<u>155954</u>
FUNCTION	FUNCTIONS OCL, CCS, EQ & ECT	PAPER ALARM-SPINDRNET FEED	PAPER ALARM-FRICTION FEED	188848 LOW TAPE MOC. 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	120 MA (TNC & RES) AC 100 MA (D/C & RES) DC W/SPARK PROT.	2 AMPS AC 15 MA (D/C) 300 MA (RES) DC	5 AMPS AC 3 AMPS (D/C) 4 AMPS (RES) DC	5 AMPS (RES) AC 3 AMPS (D/C) 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	---	---	---

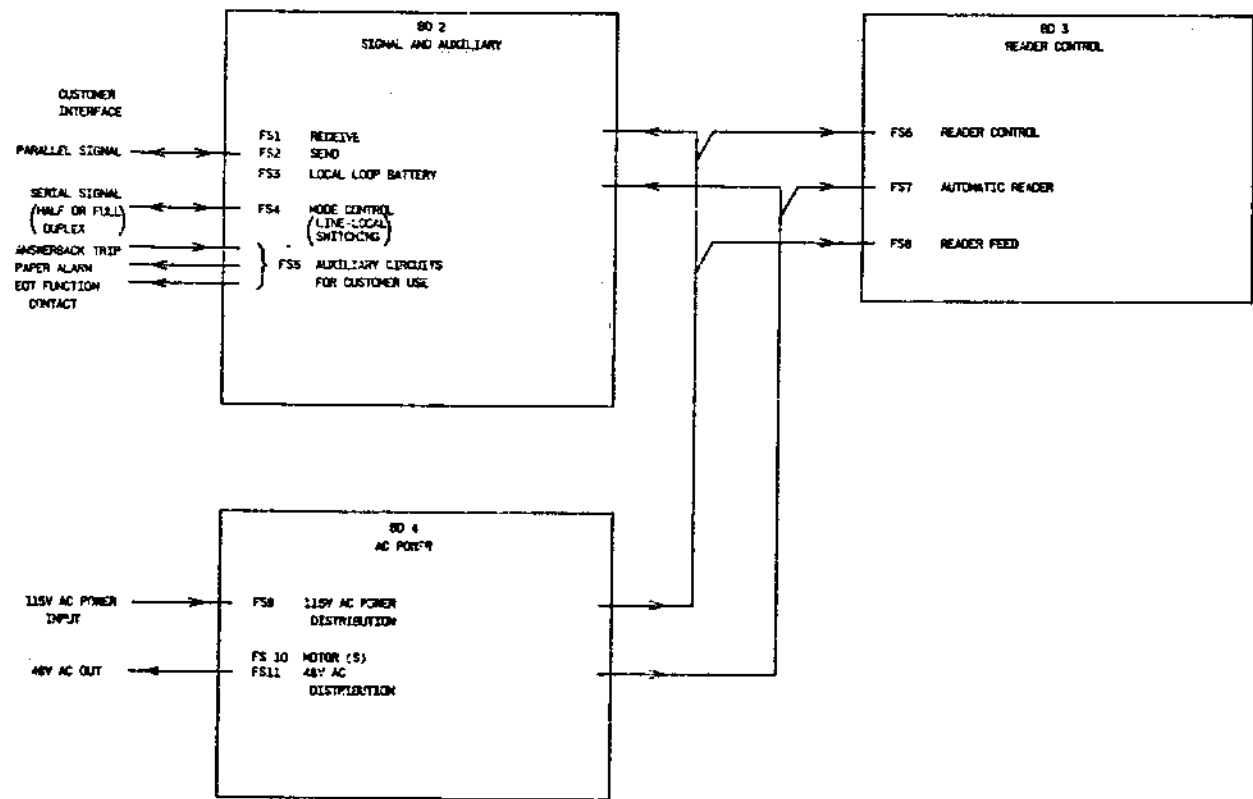
MOTORS

<u>NUMBER</u>	<u>181870</u>	<u>182241</u>	<u>182267</u>	<u>183991</u>
TYPE	33 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%, 60 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



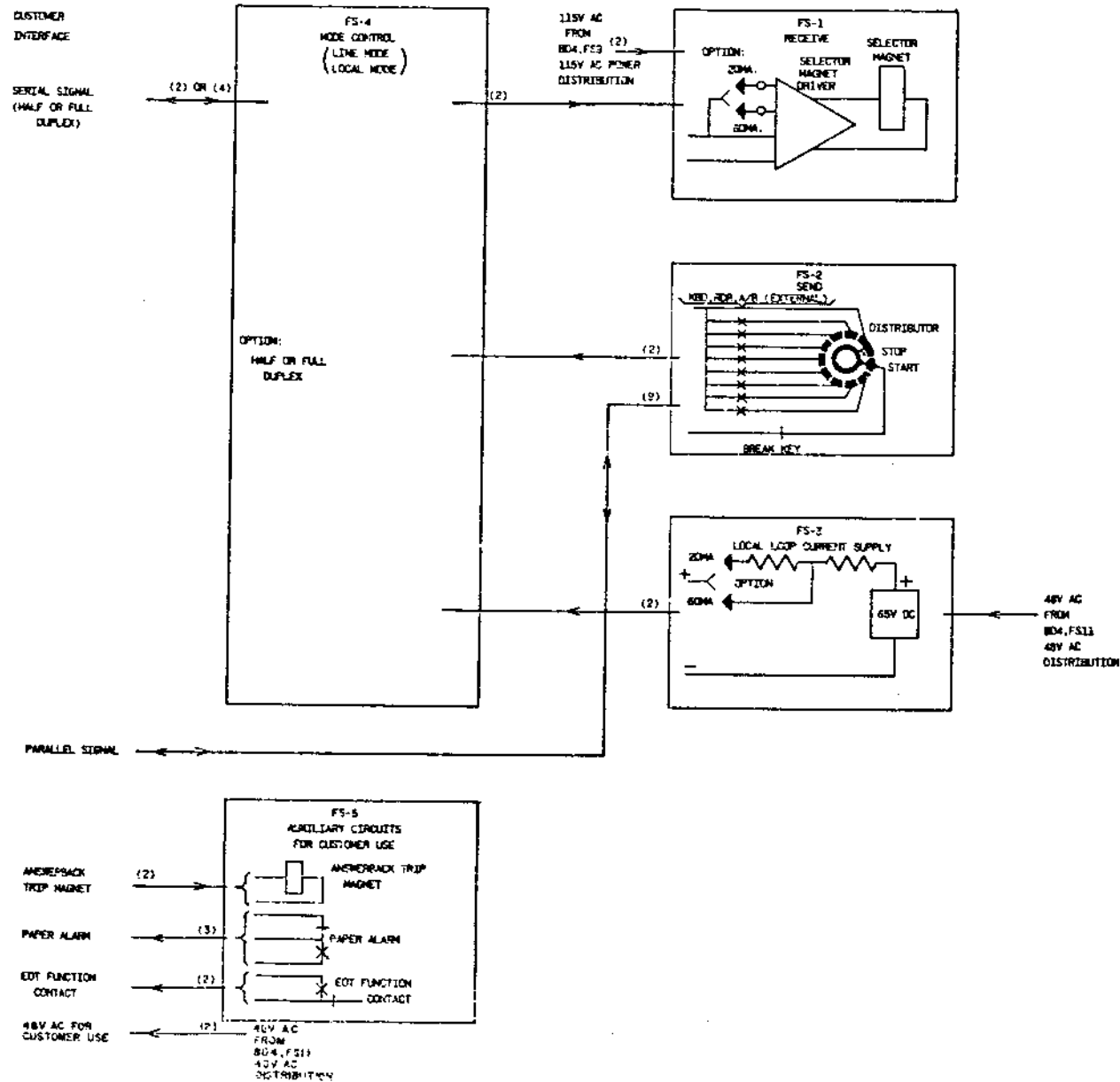
MODEL 33  
NO. KSR. AND ASR SETS  
3300, 3310, 3320 SERIES



1180 SD-HI

# BD-2 SIGNAL AND AUXILIARY

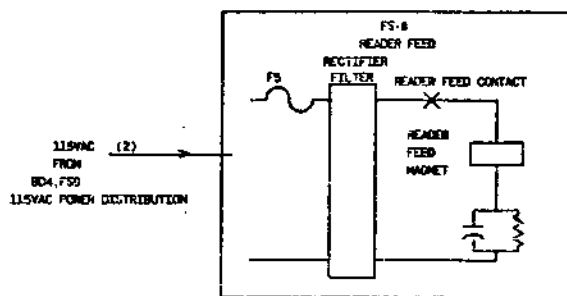
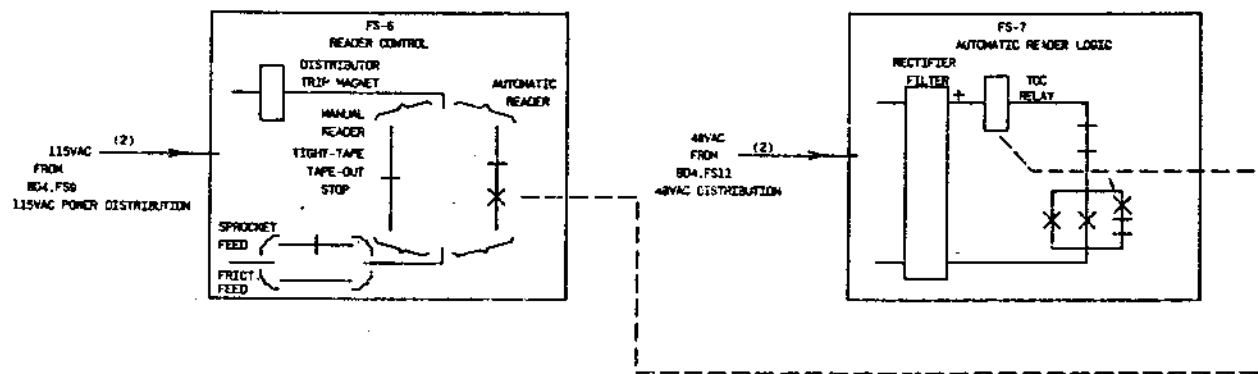
( ) INDICATES NUMBER OF WIRES REPRESENTED BY THE LINE BELOW.





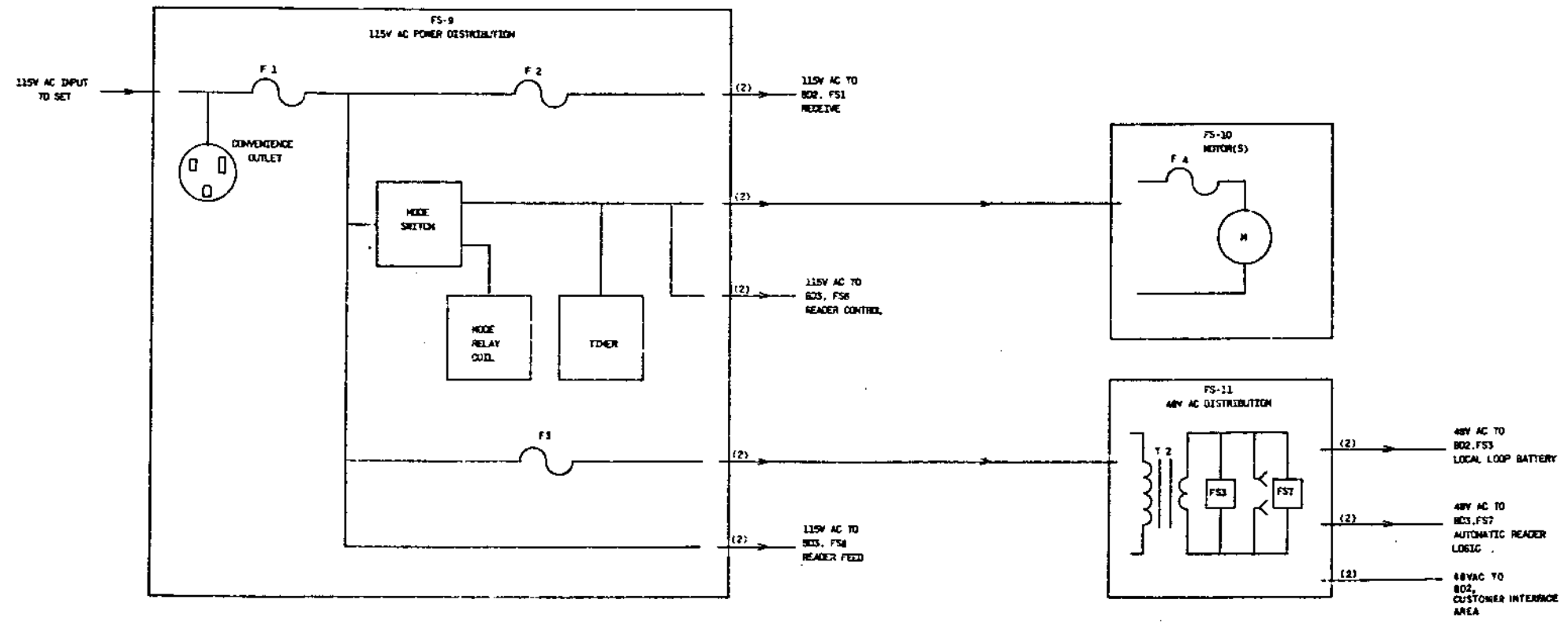
( ) INDICATES NUMBER OF WIRES REPRESENTED BY THE LINE BELOW.

# BD-3 READER CONTROL (ASR SET ONLY)



# BD-4 AC POWER

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



**NOTES**

**SYMBOLS**

- 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. SYMBOLS**

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

**3. LEVEL 8 OPTION WIRING FOR (C) 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. SYMBOLS**

**WIRING LEGEND**

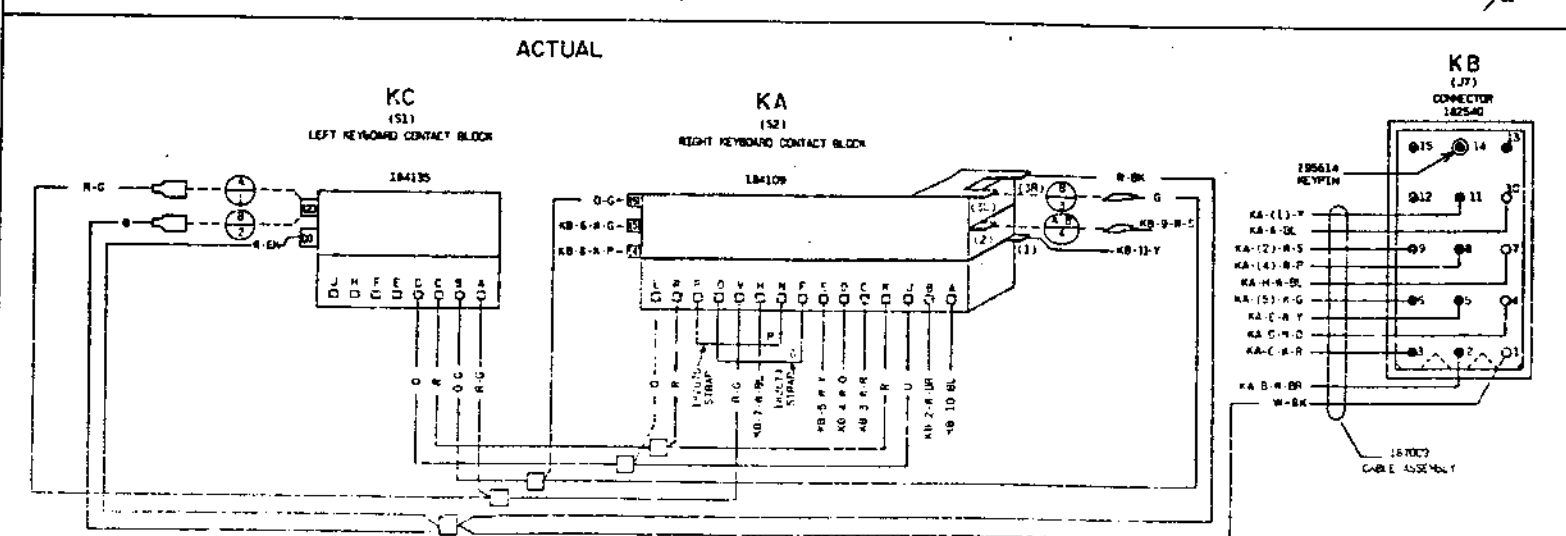
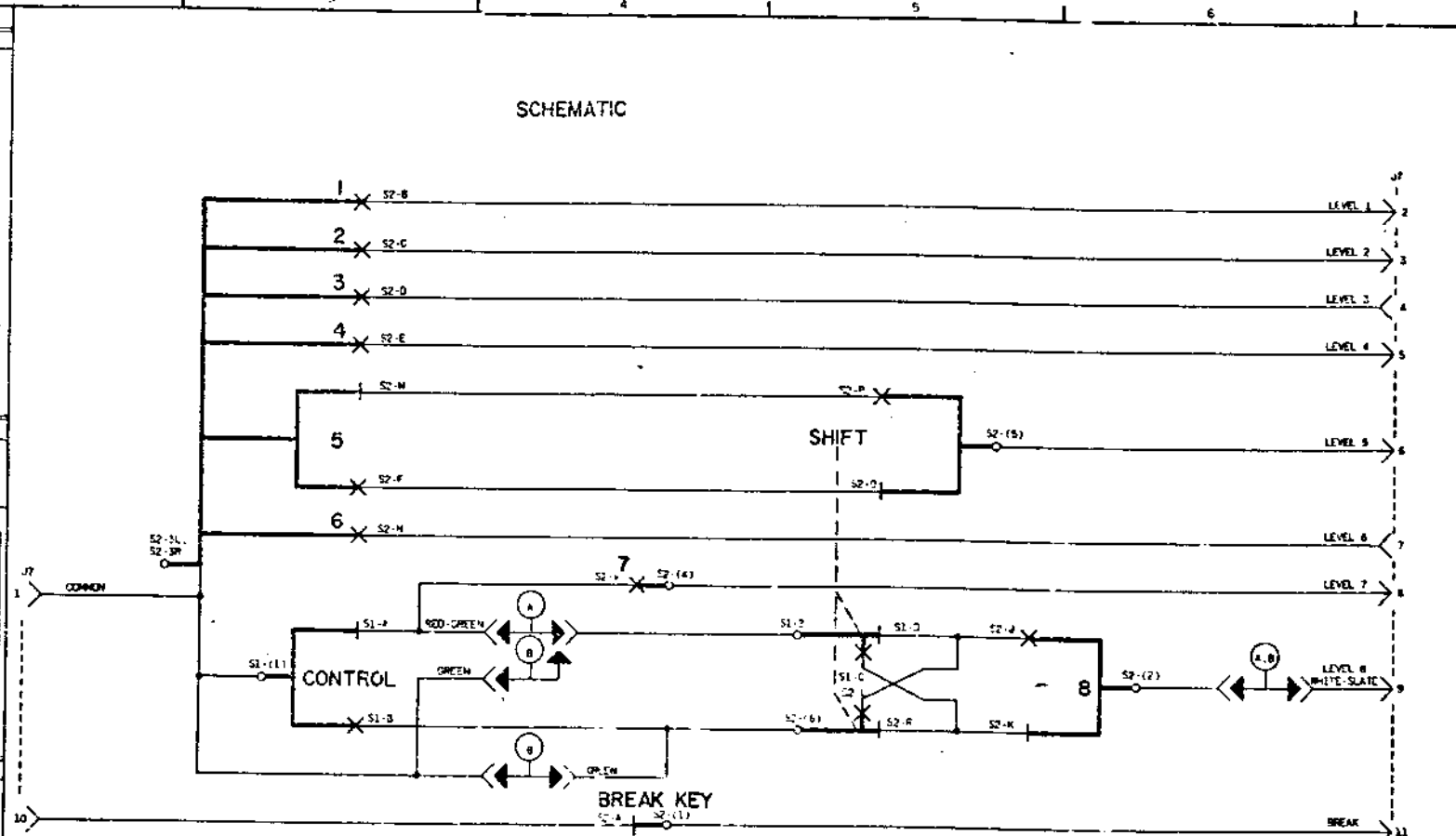
- DISTANT TERMINATING AREA
- DISTANT TERMINATING TERMINAL
- WIRE COLOR (1, 2, OR 3 COLORS)

**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
O - ORANGE	S - SLATE
Y - YELLOW	W - WHITE



REVISIONS		
ISSUE	DATE	AUTH. NO.
1	1-1-71	10438
2	2-1-72	105110

APPROVALS			
PROJ. ENGR.	PROV. ENGR.	WFO. REL. ENGR.	COMPL. ENGR.
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

MODEL 33 KEYBOARD  
UK 810

DATE: 4-27-71  
DRAWN BY: [Signature]  
CHECKED BY: [Signature]  
APPROVED BY: [Signature]

TELETYPE

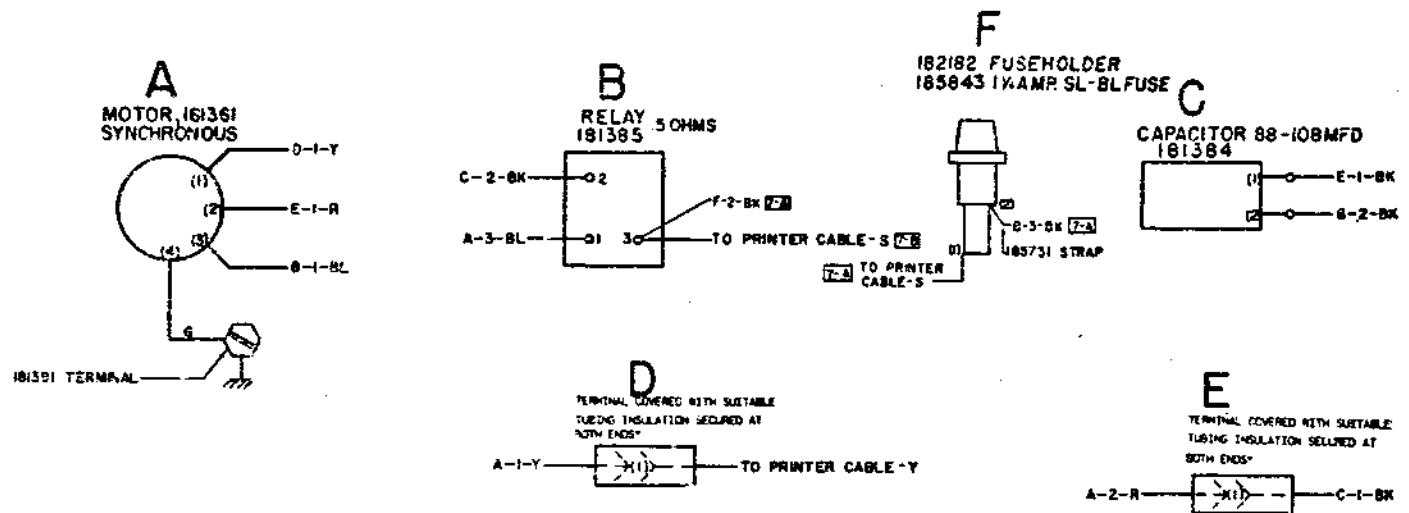
9334 WD

- NO. NOTES
1. WIRING LEGEND:  
    - DISTANT TERMINATING AREA
    - DISTANT TERMINATING DESIGNATION
    - ①-④ NOTE-S
    - WIRE COLOR CODE
  2. COLOR CODE:  

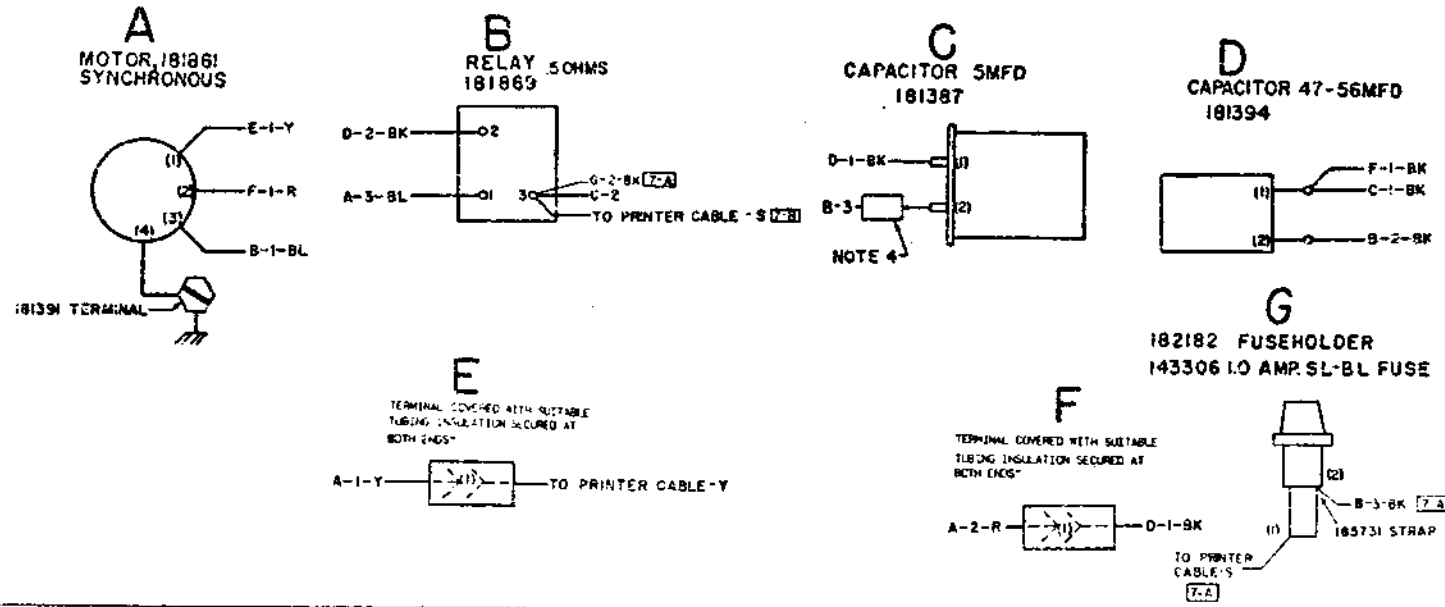
BR-BLACK	P-PURPLE
BL-BLUE	R-RED
BR-BROWN	S-SLATE
Y-YELLOW	O-ORANGE
G-GREEN	W-WHITE
  3. ASSOCIATED SCHEMATIC WIRING.
  4. 182272 RESISTOR-10 OHMS, 5 WATT (PART OF 181387 CAPACITOR W/RESISTOR ASSEMBLY).
  5. WIRING STATUS:  
 RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES.  
 B - DENOTES WIRING BEFORE 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  

MOTOR	FUSE VALUE	FUSE PART NO.
182241	2.0 AMP	134533
182267	1.0 AMP	320246
  7. A4 FUSEHOLDER, FUSE AND A8 TERMINAL CONNECTION ADDED TO 335521 A.C. SERIES MOTOR AT ISSUE 4 OF SHEET 3.

ACTUAL WD FOR 181361 MOTOR (60 HERTZ)



ACTUAL WD FOR 181861 MOTOR (60 HERTZ)



4405 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
01	3-3-62	30-978
02	11-8-62	30-5330
03	1-3-63	33-5869
04	11-11-62	78856
05	6-2-64	81772
06	8-8-65	37058
07	1-15-64	898-3
08	3-9-64	89 2, 2
09	2-18-70	19647-4
10	8-24-70	821
11	12-2-70	2148
12	12-16-70	2220
13	9-28-74	18760

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

SHEET 1

ACTUAL WIRING DIAGRAM FOR

FOR MODEL 32 & 33 MOTORS

APPROVALS

S AND R	E OF M
---------	--------

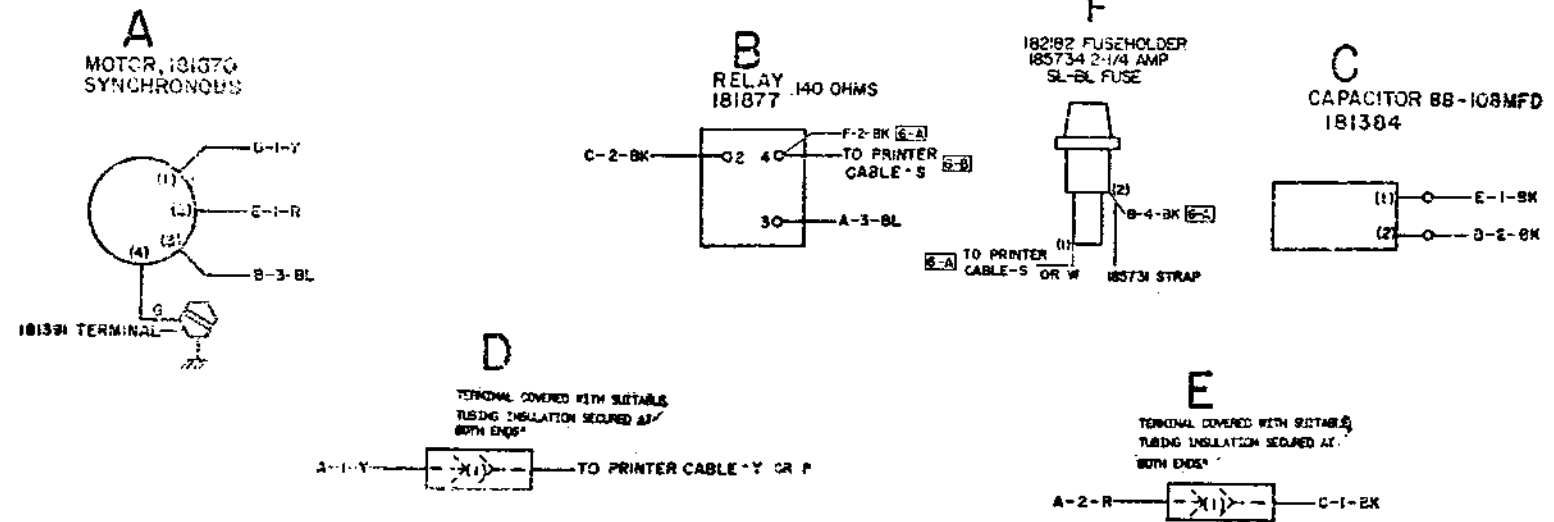
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PROC. NO.	010562
DATE	2-8-62
FILE NO.	1251-15348
DRAWN	CHND
EMD. P.P.S.	APPD.

TELETYPE CORPORATION

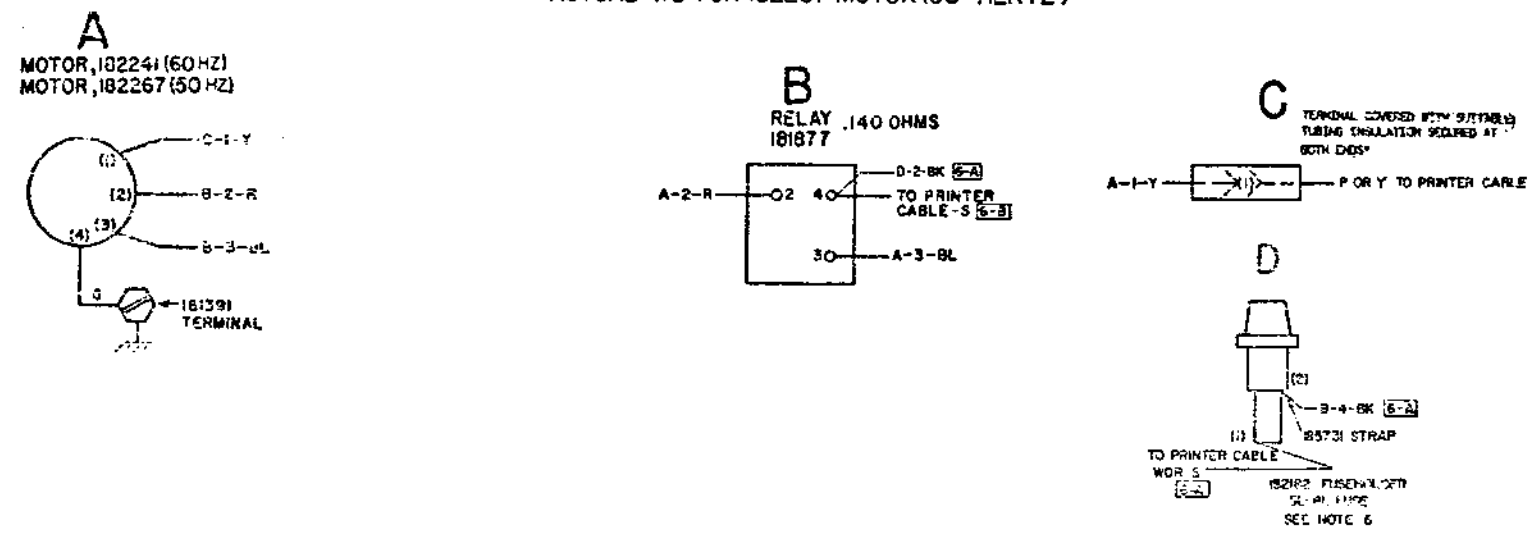
4405 WD

4405WD		
REVISIONS		
ISSUE	DATE	AUTH. NO.
AF	2-3-52	55-978
B3	11-5-52	32-5320
EN	1-2-53	30-2857
BS	11-11-53	7225
5	5-5-54	11773
7	5-8-55	87102
8	1-13-56	80841-3
9	3-3-56	89721-2
10	5-6-57	92607
11	2-18-70	79947-4
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 WIRING CONNECTIONS  
WIRING SHEET 2

ACTUAL WIRING DIAGRAM  
FOR MODEL 22 B 32 MOTORS

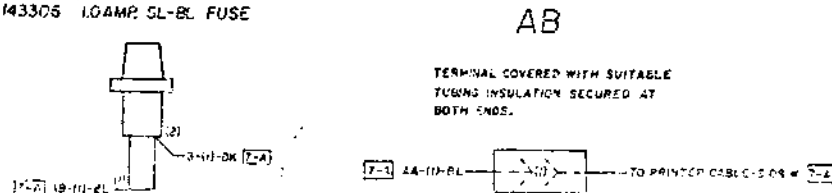
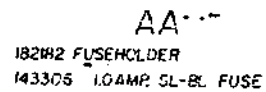
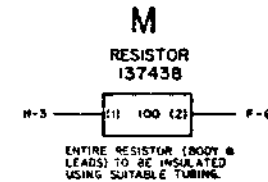
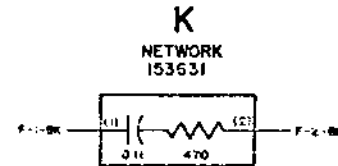
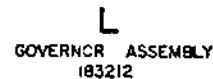
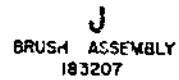
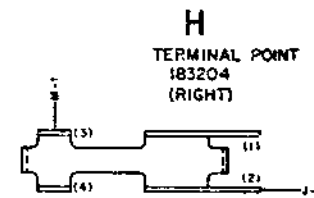
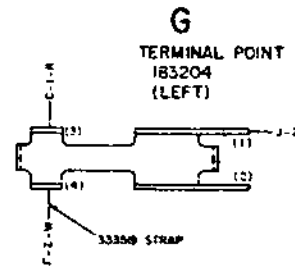
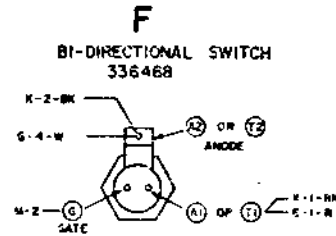
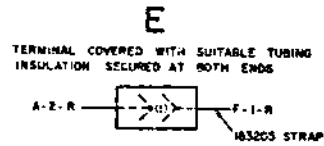
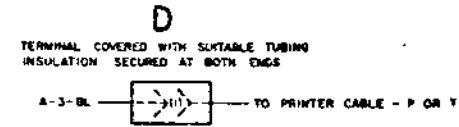
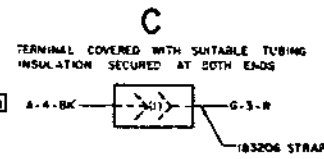
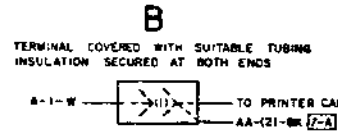
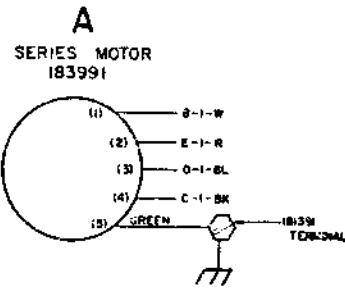
APPROVALS	
D AND R	S OF M
E-NUMBER	
PROD. NO.	OROSAC
DATE 2-8-52	
P.D. FILE NO. 1-231-15244	
DRAWN S.H.B.	CHKD.
EMSD. P.O.S.	APPROV.

TELETYPE CORPORATION  
4405WD

ACTUAL WD FOR  
333521 AC SERIES MOTOR

WHEN REVISION INFORMATION IS REFLECTED ON THE USA CONTROL RECORDS WHEN IS A PART OF THE DRAWING

REVISIONS		
ISSUE	DATE	AUTH NO.
2	2-4-70	2325
3	11-19-71	4573
4	9-27-76	16760



SEE SHEET FOR NOTES  
WHEN REVISION INFORMATION IS REFLECTED ON THE USA CONTROL RECORDS WHEN IS A PART OF THE DRAWING

SHEET 3

ACTUAL WIRING DIAGRAM FOR MODEL 32/33 MOTORS

APPROVALS

PROJ. SUPV.	PROJ. DIR.	WFB REL. COMPL.
		2/27
ENGR. A. S.	DESIGN A. S.	
DRN. C. C.	DATE 0-1-70	
DRAW FILE 1531 153AA		
S. NUMBER		

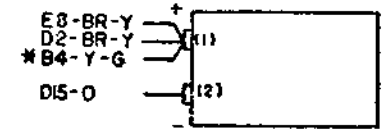


4970 WD

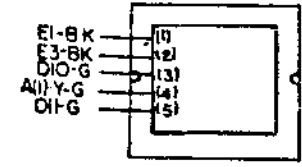
ISSUE	DATE	AUTH NO
1	1-1-62	50-1265
2	8-5-63	77081
3	4-3-64	79903
5	5-10-68	95523-4
6	1-14-71	735

NO.	NOTES
1	<p>WIRING 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>

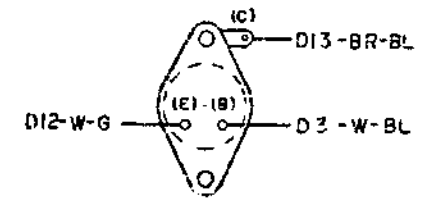
### A CAPACITOR FILTER (182501)



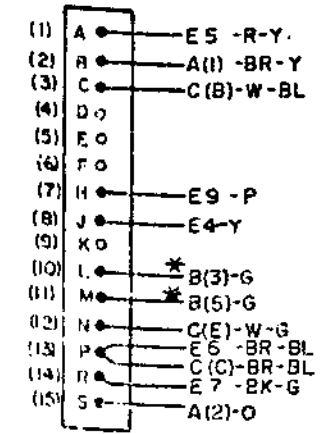
### B TRANSFORMER, POWER (337992) 50/60 Hz NOTE 5



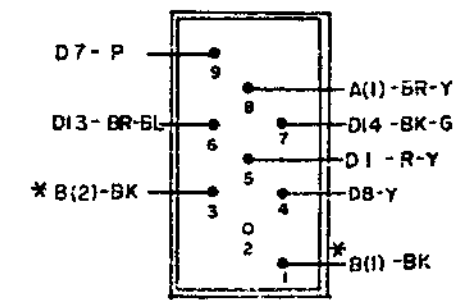
### C TRANSISTOR, POWER (181675)



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



### E CONNECTOR, RECEPTACLE (182716)



ACTUAL  
WIRING DIAGRAM  
FOR  
182695 B 181815  
SELECTOR MAGNET  
DRIVER

APPROVALS  
D AND R: [Signature]  
E OF M: [Signature]

ENGINEER  
PRG 49 4970 WD

DATE: 6-22-62  
PD FILE NO: 165,534A  
DRAWN: [Signature] CHECKED: [Signature]  
ENGR: R.S. [Signature]

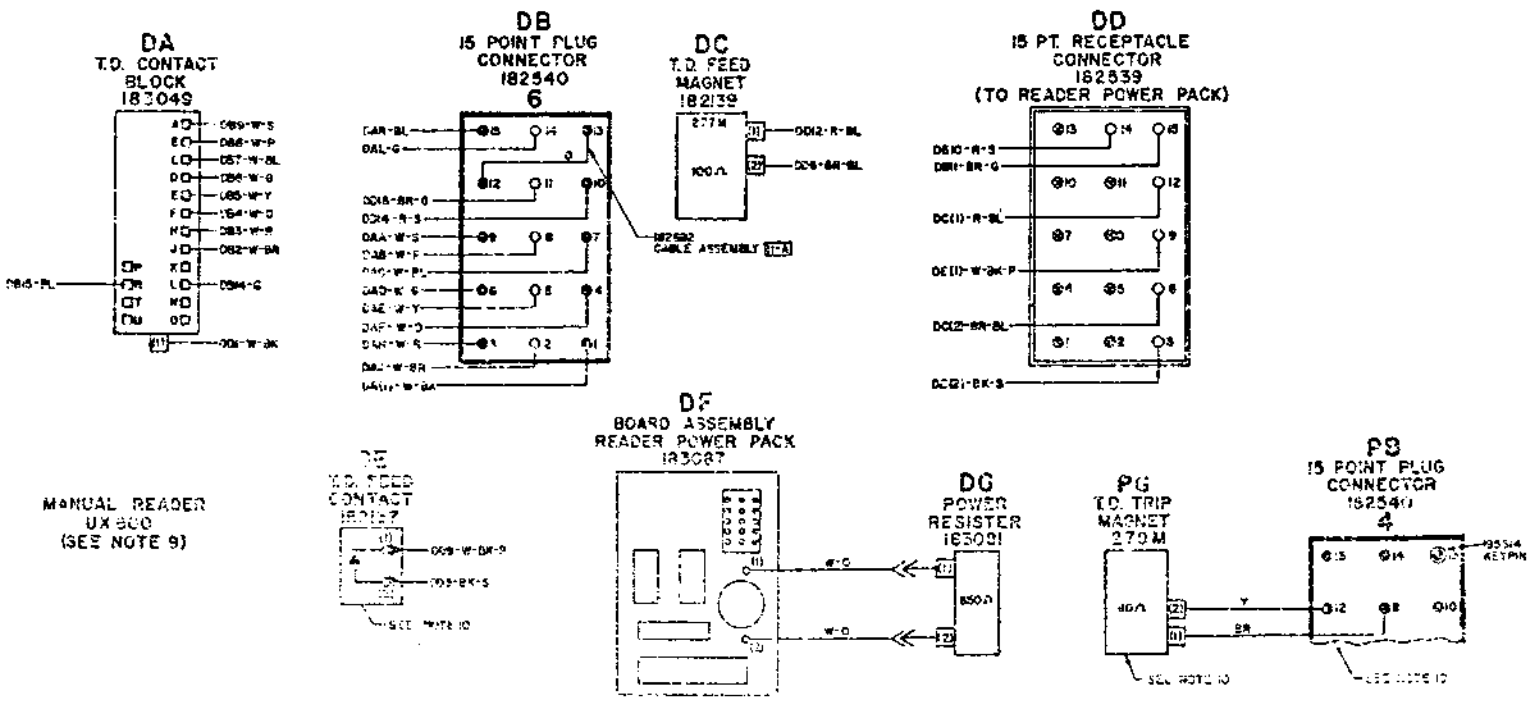
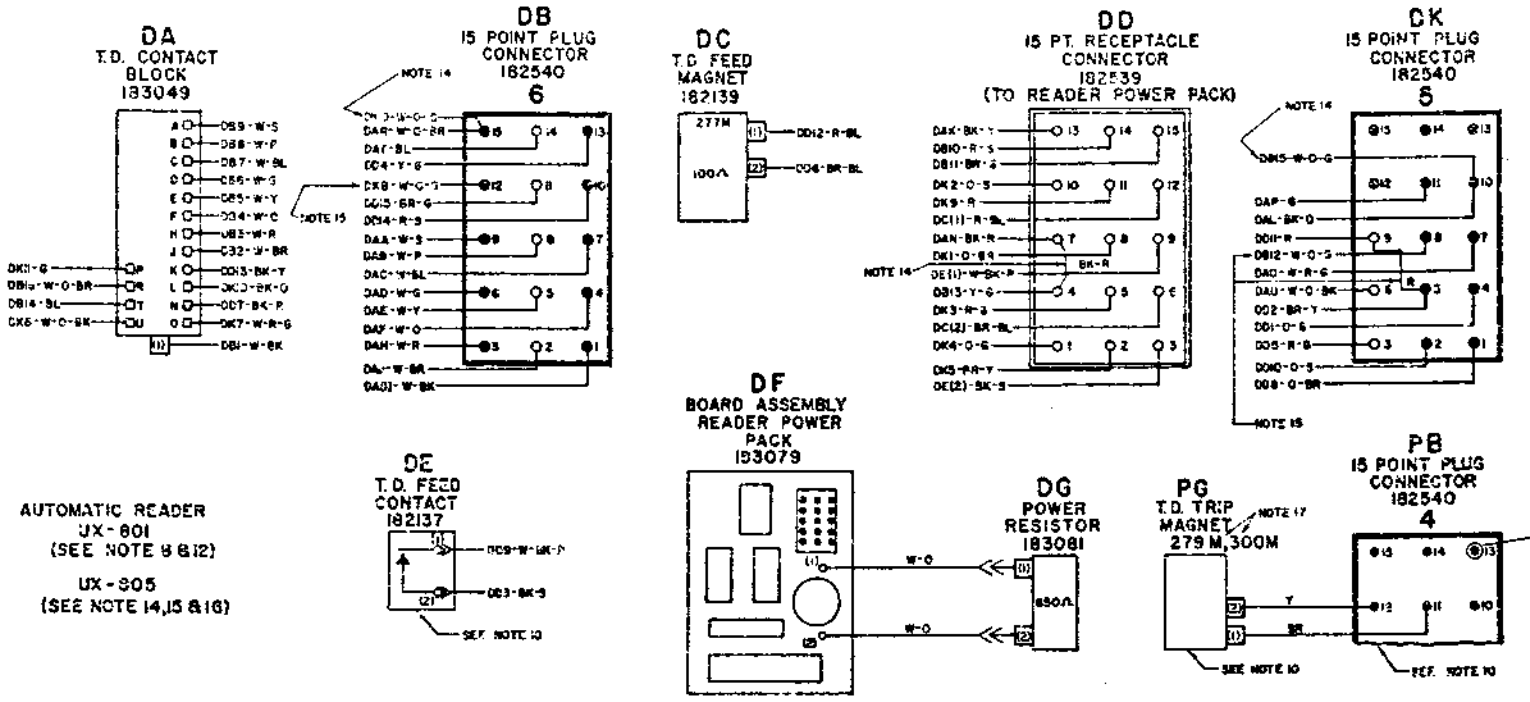
TELETYPE  
CORPORATION  
4970 WD

7887 WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	4-25-56	17470-R
2	11-3-56	82300-RC
3	1-31-58	95171
4	1-12-77	4853-RC

- NO. NOTES
1. WIRING LEGEND:  
D - DISTANT TERMINATING AREA  
D - DISTANT TERMINATING DESIGNATION  
C - COLOR CODE
  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 (I) DO NOT APPEAR ON COMPONENT.
  4. FOR TELETYPE PERSONNEL REFERENCES SPECIFICATION 60428
  5. CONNECTORS VIEWED FROM WIRE END.
  6. FOR SCHEMATIC WIRING DIAGRAM SEE 7882 WD OR 819 WD.
  7. ASSOCIATED UNIT ACTUAL WIRING DIAGRAM:  
7884WD PRINTER - UP800, 801, 802, 803, 820  
7885WD KEYBOARD - UK800, 804  
7886WD MOTOR  
7886WD CALL CONTROL - UCC-3  
4970WD SELECTOR MAGNET DRIVER  
8188WD CALL CONTROL - UCC-26  
8160WD PRINTER - UP 836
  8. OPTIONAL UX-801 AUTOMATIC READER - 18307S CABLE ASSEMBLY USED ONLY WITH UP801, 803, 820 PRINTER ASSEMBLIES.
  9. MANUAL READER - UX800 18307A CABLE ASSEMBLY USED ONLY WITH UP801, 803 PRINTER ASSEMBLIES.
  10. THESE COMPONENTS ARE MOUNTED ON UP800, 803, 820 PRINTER ASSEMBLIES BUT ACTUALLY ARE PART OF READER CIRCUIT. SEE PRINTER 7884WD.
  11. 182692 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 CABLE CONTROL RECEPTACLE CONNECTOR NO. 8.
  12. SEE PRINTER 7884WD FOR MODIFICATION TO UP800, 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 ENTERED THE PRODUCT.  
NOTE NUMBER  
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-802 182540 CABLE ASSEMBLY.
  17. 277M - 48WAC - 110A  
300M - 103WAC - 760A



ACTUAL WIRING DIAGRAM FOR MODEL 33 S LEVEL MANUAL OR AUTOMATIC TRANSMITTER DISTRIBUTOR (TAPE READER)  
UX-800-MANUAL READER  
UX-801-AUTOMATIC READER  
UX-802-AUTOMATIC READER

APPROVALS

D AND R E OF M

E-NUMBER

PROD. NO. 7887WD

DATE 9-3-55

P.D. FILE NO. G-4152AA

DRAWN R M S (CHD) JLE

ENGR. J W S APPD. JLE

TELETYPE CORPORATION

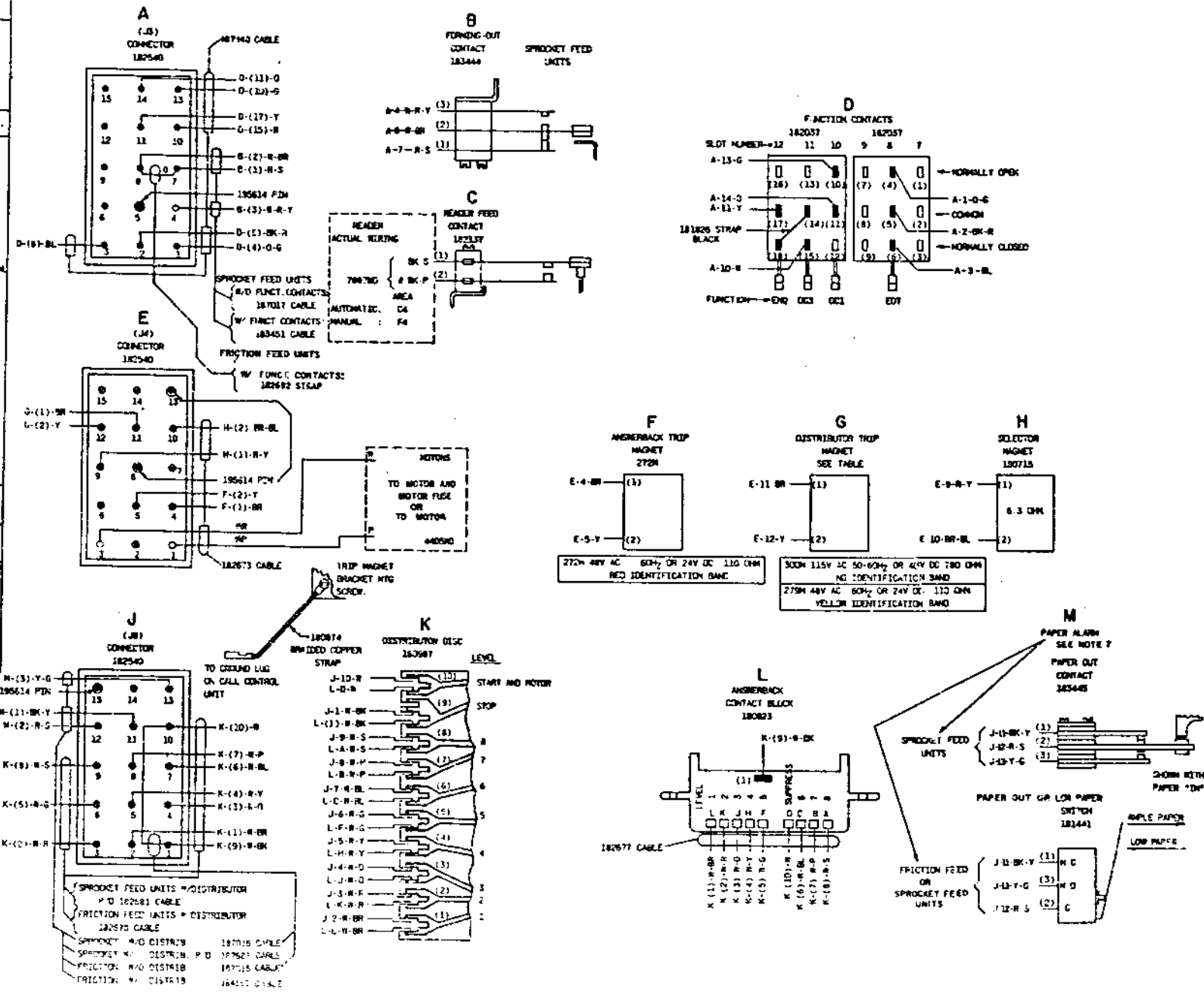
7887 WD



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 REAR SIDE.
- SYMBOLS:  
( ) TERMINAL DESTINATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.  
\* DENOTES LEAD WIRE ALL OTHER IS Z4486  
WIRING LEGEND:  
DISTANT TERMINATING AREA  
DISTANT TERMINATING TERMINAL WIRE COLOR (J, Z, OR S COLORS)  
J-2-B-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 118080 FOR A RELATED SET SCHEMATIC DIAGRAM.
- CROSS REFERENCE:  
THIS WIRING DIAGRAM SAME AS 938740 EXCEPT FOR AREA DESIGNATIONS.
- PAPER ALARM SWITCH "M" IS SPROCKET FEED CHANGER FROM CONTACT PILE TO SNAP ACTION SWITCH AT ISSUE 5 OF THIS DRAWING.

ACTUAL



REVISIONS		
ISSUE	DATE	AUTH. NO.
1	7-7-71	Z643R
2	8-5-71	4243-RC
3	11-2-72	4453-RC
4	1-17-72	4453
5	12-28-74	4853-1

WIRING DIAGRAM FOR MODEL 33 TYPING UNITS UP 3-1-72 UP 2-1-72

APPROVALS			
PROJ. SUPV.	PROJ. ENGR.	INSP. REL.	COMPL.
[Signatures]			
ENGR. DATE 5-11-73			
DRAWN BY DATE 5-11-73			
CHECKED BY DATE			

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																								21
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING	B1	1	2	3	3	4																							61	
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CABLE WIRING)	B2	1	2	3	4	5																							62	
MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CIRCUIT BOARD WIRING)	B2A			1	2	3																							62A	

SUPPORTING INFORMATION

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

REVISIONS

ISSUE	DATE	AUTH. NO.
1	8-2-71	21643R
2	5-21-73	6157
3	11-21-73	8046
4	3-29-74	10712-RC
5	2-12-75	02218

- NO. NOTES
- WIRE COLOR CODES:

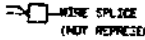
BK - BLACK	G - GREEN
BR - BROWN	BL - BLUE
R - RED	P - PURPLE
O - ORANGE	S - SLATE
Y - YELLOW	W - WHITE
  - COMPONENT VIEWS SHOWN FROM RURED SIDE.
  - SYNOLOGY

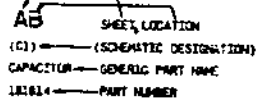
( ) TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.


--- ASSOCIATED TERMINALS, CONNECTIONS, OR FUNCTIONS.

\* DENOTES 20 AWG. WIRE.

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

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





  - WIRING LEGENDS:

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

DISTANT TERMINATING TERMINAL WIRE COLOR (1,2 OR 3 COLOR):

BA, CA - 3-0

CONNECTORS:



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 22AWG CABLE ASSEMBLY EXCEPT WHERE OTHERWISE SPECIFIED.
  - REFER TO 11800D 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 181618 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

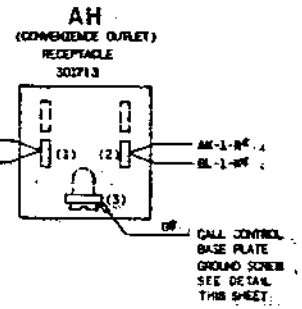
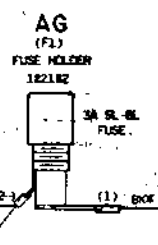
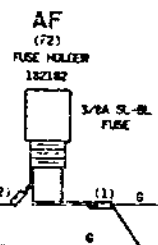
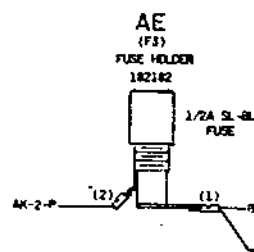
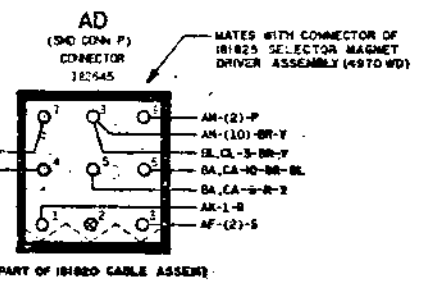
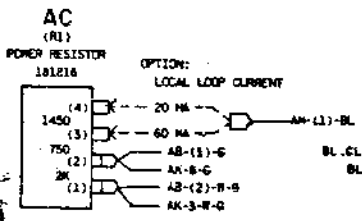
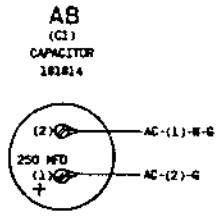
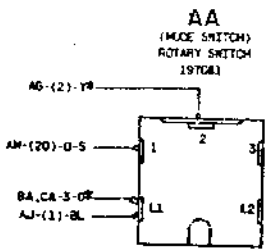
APPROVALS

PROJ. SUPV. <i>DFR</i>	PROJ. DIR. <i>RBS</i>	WIR. REL. <i>RWD</i>
ENGR. OFD <i>USGNE</i>		
ORN. S. L. D. DATE 8-2-71		
R & D FILE C-4152 210A		
# NUMBER 61-310		

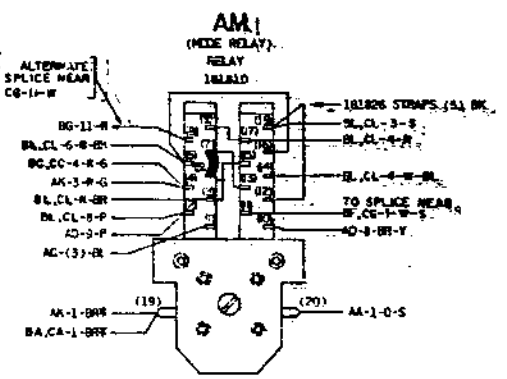
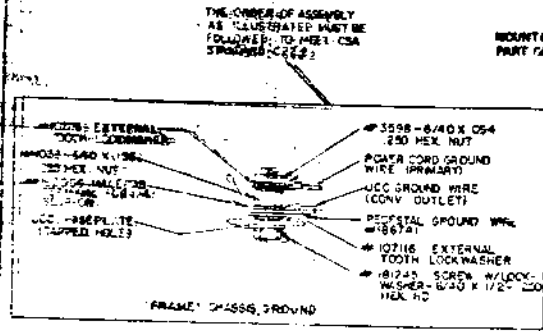
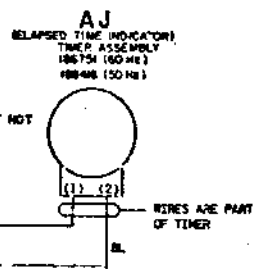
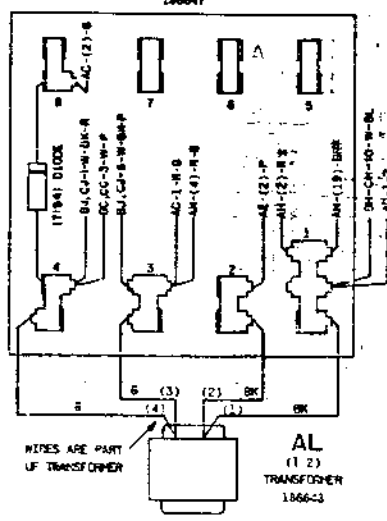
TELETYPE

933-WD-A1

REVISIONS		
ISSUE	DATE	AUTH. NO.
1	9-6-71	216434
2	5-23-73	8-97
3	11-21-75	9046
4	2-2-75	722 9



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



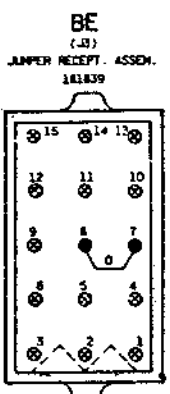
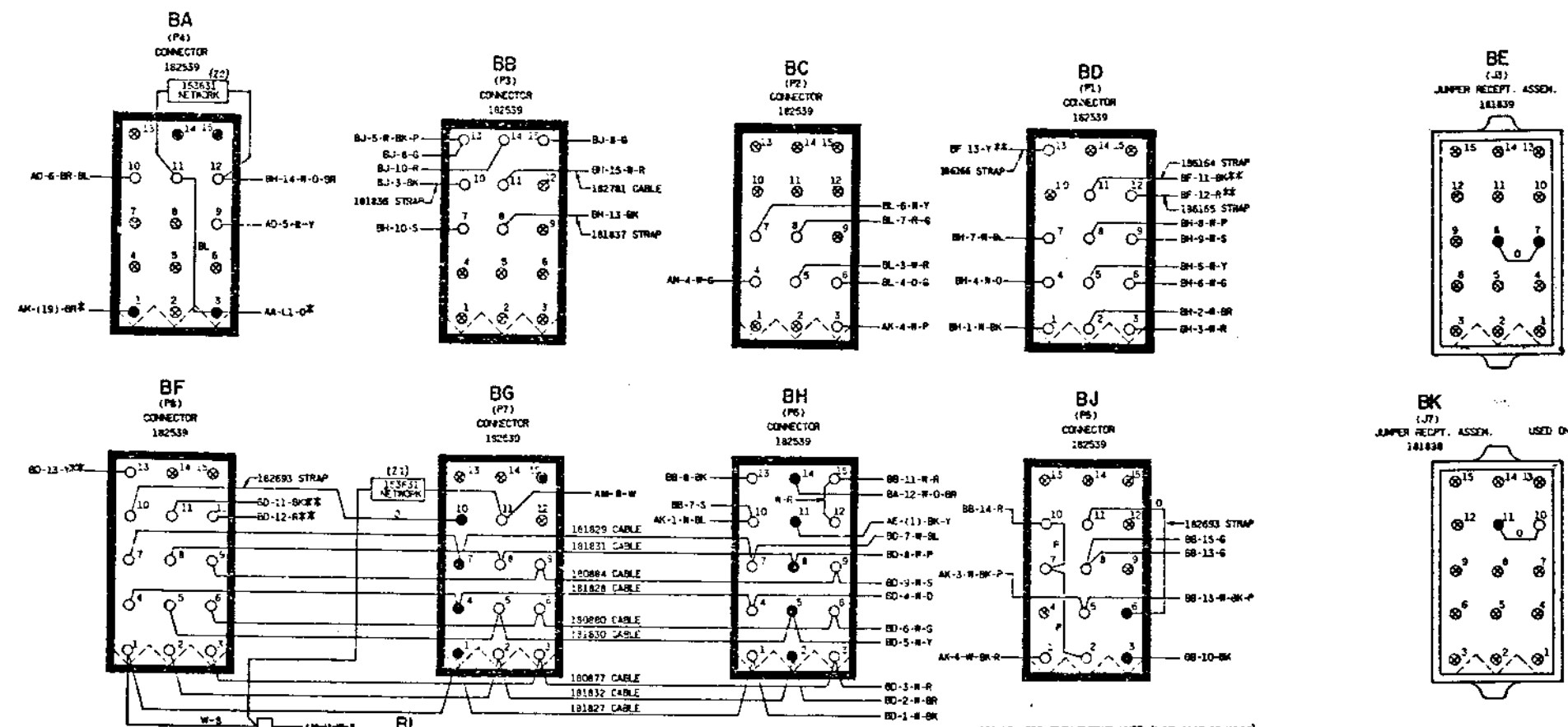
WIRING DIAGRAM FOR  
MODEL 33  
CALL CONTROL UNIT  
UCC 6

APPROVALS		
PROJ. DESIG.	PROJ. DIR.	WFS. REL. CONTROL
DJR	RRS	AM
INCH. DESIG.	DATE	
REV. 5 L.C.C. DATE		
WORK SHEET NO. 6-1142 213A		
W-NUMBER 51.910		

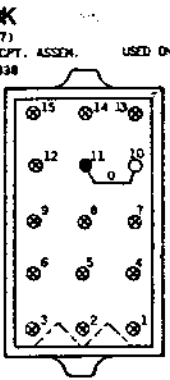


UNITS WITH CABLE WIRING

ISSUE
1
2
3
4
5



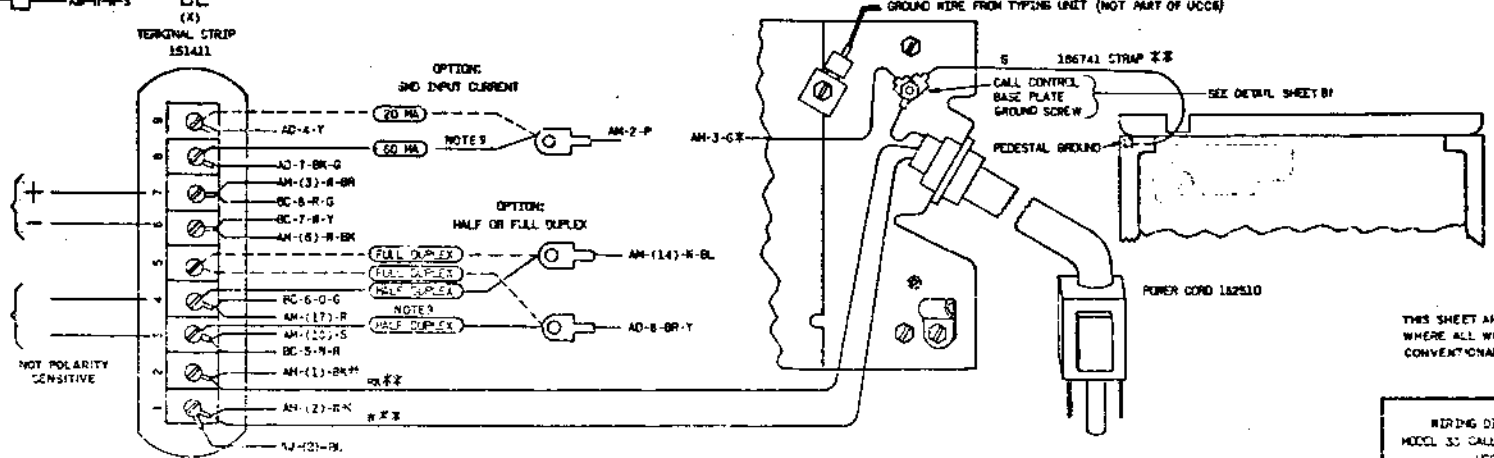
USED ONLY ON FRICTION FEED ASR SETS WITH MANUAL READER  
 (NOT PART OF UCC6)



USED ON RO SETS  
 (NOT PART OF UCC6)

CUSTOMER SIGNAL INTERFACE

HALF DUPLEX	FULL DUPLEX
RECEIVE AND SEND	RECEIVE
NOT USED	SEND



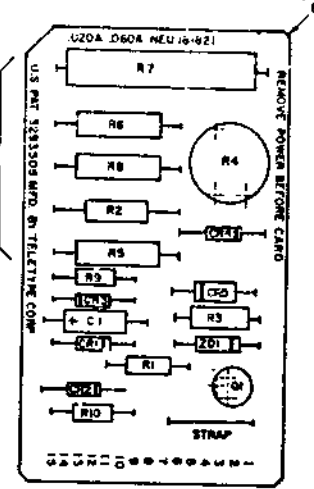
THIS SHEET APPLIES TO EARLIER UNITS WHERE ALL WIRING WAS PROVIDED BY CONVENTIONAL CABLES.

WIRING DIAGRAM FOR MODEL 35 CALL CONTROL UNIT UCC 6

TELETYPE  
 9336WD-B2

- NOTES
1. MASTER ARTWORK NO. 181821-A 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 REARRANGING WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 OR RM-39550 STRAP.
  4. CR1, CR2-102520 (1H3983) AND CR3, CR4-101619 (1H4821) WERE REPLACED FOR STANDARDIZATION.
  5. TO FACILITATE MANUFACTURE, Q1 WAS CHANGED FROM 181671. THIS ALSO REQUIRED CHANGING CR5 FROM 170844 VARIATOR (100A) AND ZD1 FROM 182774 (1H4732A 4.7V). SCHEMATIC SYMBOL FOR 170844 WAS AND IT COULD BE INSERTED IN BOARD IN EITHER DIRECTION.

SEE NOTE 2



CIRCUIT DESCRIPTION

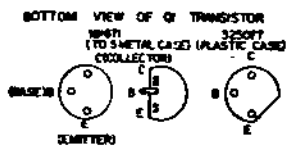
THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO 21 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY 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 1 IS 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.

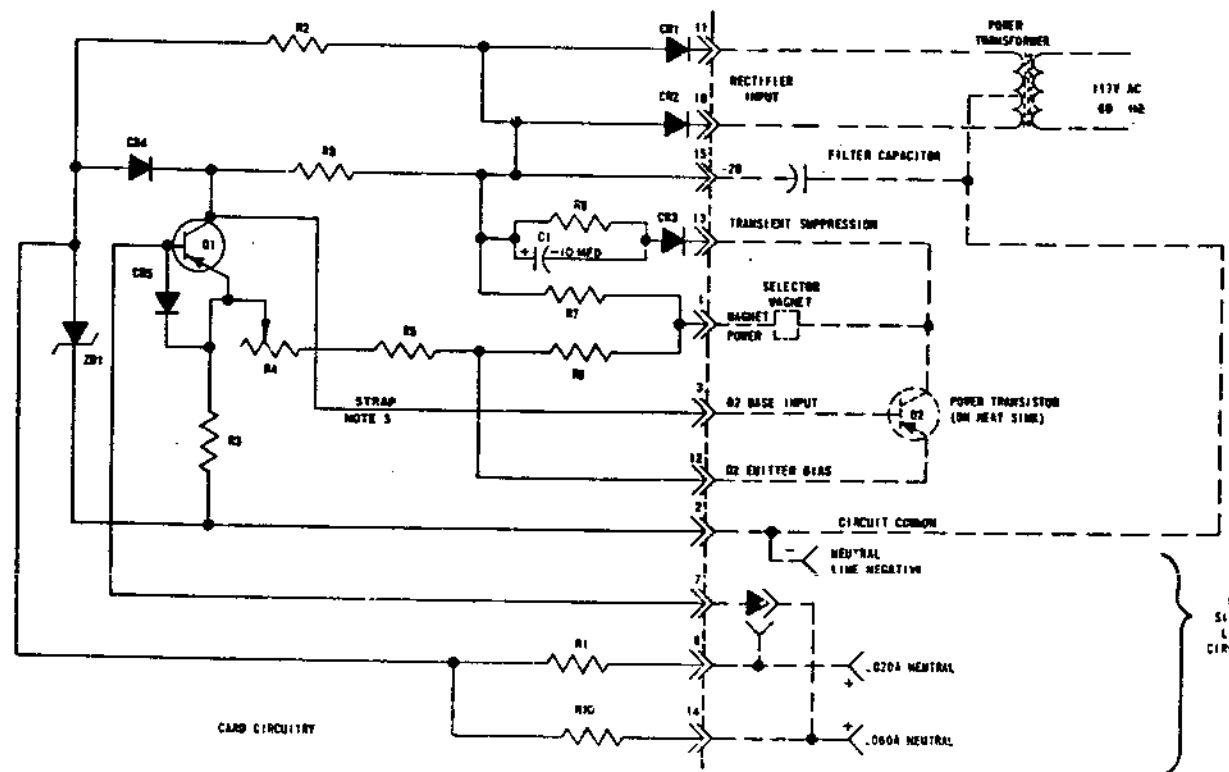
WITH THE SIGNAL LINE IN THE OPER OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR 7. D. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2. WITH Q2 OFF, NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE. DURING THE TURN OFF OF Q2 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.



USE RECOGNITION SYMBOL REQUIRED PER MR 2001.

CONSTANT CURRENT 500 AMP SELECTOR MAGNET DRIVER



CARD CIRCUITRY

EXTERNAL CIRCUITRY

CIRCUIT BOARD EC

REF. DESIGN.	TELETYPE PART NO.	QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION
R1	182118	1	RESISTOR 420 OHMS 1/2W	Q1 AMP SWITCHING FOR 000A NEUTRAL LINE
R10	182197	1	RESISTOR 135 OHMS 1/2W	Q2 AMP SWITCHING FOR 000A NEUTRAL LINE
R2	181668	1	RESISTOR 330 OHMS 2 1/2W	ZENER CURRENT LIMITING
R3	182778	1	RESISTOR 0.02 OHMS 1/2W	COMMON EMITTER BIAS ADJUST
R4	182123	1	RHEOSTAT 3 OHMS 2 1/2W	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	182827	1	RESISTOR 390 OHMS 4W	Q2 COLLECTOR LOAD
R9	182776	1	RESISTOR 150 OHMS 1/2W	Q2 COLLECTOR - TRANSCIENT LIMITING
CR1	171641	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 .04733A, 51V	REFERENCE
C1	102628	1	CAPACITOR 10 MFD 250 VDC	COLLECTOR TRANSIENT LIMITING
Q1	325077	1	TRANSISTOR 2N4350	1000V SWITCH
RM39550			STRAP	NOTE 3
EC	181823	1	CIRCUIT BOARD ETCHED	

SEE NOTE 5

181821

REVISIONS

ISSUE	DATE	AUTH. NO.
1	4-19-65	86501
2	9-3-66	88816
3	11-25-66	89616-1
4	5-5-67	93502
5	4-2-68	95450
6	7-3-69	95948
7	11-6-69	96427
8	12-20-69	98268
9	3-3-71	100
10	3-29-72	235
11	3-29-72	236-1

APPROVALS

R AND D: *H.J.K.* E OF W: *S*

E-NUMBER

PROB NO: 181821

DATE: 7-20-69 / 4-28-67

R&D FILE: 2-30152-153AA

DRAWN: JER-CG / CHKD: J.A.V.

ENG. AS-PPS / APPD: J.W.

TELETYPE CORPORATION

181821

REF DESIG	PART NO	QTY	DESCRIPTION	FUNCTION
R1	183283	1	RESISTOR 22 OHM	SURGE LIMITER
R2	183282	1	RESISTOR 12 000 OHM	ARC SUPPRESSOR
R3	11838	1	RESISTOR 56 000 OHM	BLEEDER
R4	118165	1	RESISTOR 10 000 OHM	ARC SUPPRESSOR
R5	144454	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	382341	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 8)
FC	171595	2	FUSE CLIP	
T1	183085	2	TERMINAL WITH WIRE LEAD	
T2			SAME AS T1	
CB	182540	1	CONTACT BLOCK, 15 POINT	
E	182641	15	TERMINAL, WIRE P.C.	
EC	183137	1	ETCHED CIRCUIT BOARD	
REL. 1	183088	1	RELAY, 2, 100 OHM	AUTOMATIC READER CONTROL
	151637	2	SCREW, 4-40 F.L. HEAD	
	110743	2	LOCKWASHER, 4-40	
	151880	2	NUT	

SIMILAR TO:

1. MASTER WORK NO. 183079A 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. COMPONENT LAYOUT HAS CHANGED TO ALLOW FOR NEW STYLE CAPACITOR WITH VENT.

4. R5 CHANGED FROM 470 OHM 2W. TO 220 OHM, 1 WATT ON ASSEMBLY LATER THAN ISSUE 12. CARD ASSEMBLY ISSUE 13 AND HIGHER ARE SUITABLE FOR ALL APPLICATIONS. CARD ASSEMBLY LOWER THAN ISSUE 13 PROVIDE LESS OPERATING MARGIN WHEN USED IN MODEL 34 SETS OR IN MODEL 33 SETS WITH INTEGRAL DATA SETS.

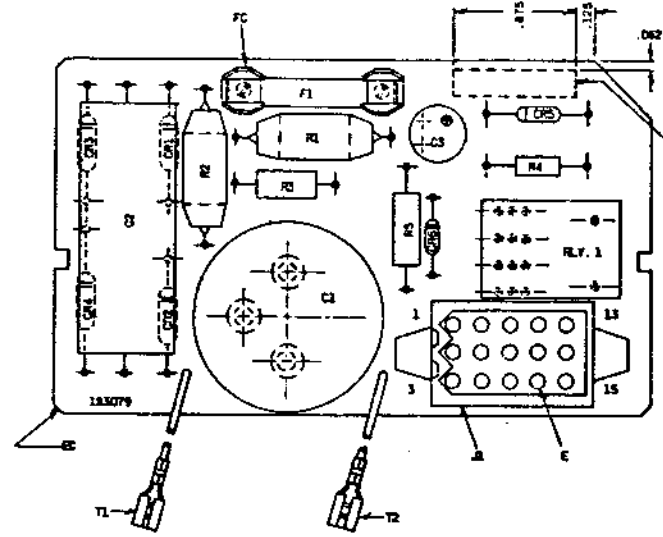
5. FOR STANDARDIZATION CR1-6 WERE CHANGED FROM 181654.

**CIRCUIT DESCRIPTION**

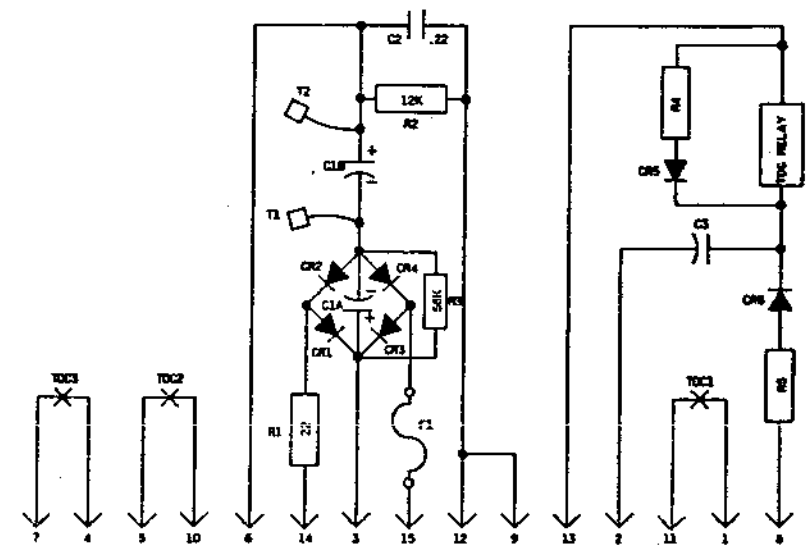
THIS POWER PACK CONSISTS OF A 150 VOLT POWER SUPPLY OPERATING DIRECTLY FROM THE 117V AC LINE, A WAVE SHAPING NETWORK, AND AN ARC SUPPRESSOR. IT IS DESIGNED TO OPERATE WITH AN INDUCTIVE LOAD OF APPROXIMATELY 100 OHMS BETWEEN TERMINALS 6 AND 12, WITH A 850 OHM, 40 WATT RESISTOR CONNECTED BETWEEN T1 AND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

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

TOC RELAY CONTACTS ARE USED FOR AUTOMATIC READER CONTROL. 48V AC INPUT IS RECTIFIED THRU R5 AND CR6 BEFORE REACHING TOC RELAY. CAPACITOR C3 FILTERS TO GROUND THRU COMMON POINT OF TOC1.



POWER PACK ASSEMBLY W/RELAY



REVISIONS		
ISSUE	DATE	AUTH NO
13	11.13.72	4350

REVISIONS				
CONTRACTOR	DATE	ASSOCIATED NOTE	ISSUE	AUTH. NO.
13	B	5	14	12174

CIRCUIT CARD  
EC 883078  
POWER PACK ASSEMBLY  
W/RELAY

APPROVALS  
 PROD. SUPV. [ ]  
 PRD. MGR. [ ]  
 ENGR. T.Y. [ ]  
 ORG. F.R. [ ]  
 I-NUMBER [ ]

SD-CO NO  
R & D FILE 1 47 50 AA  
TELETYPE  
183079

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED

UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

CIRCUIT CARD ASSEMBLY

POWER PACK ASSEMBLY

NO B/M

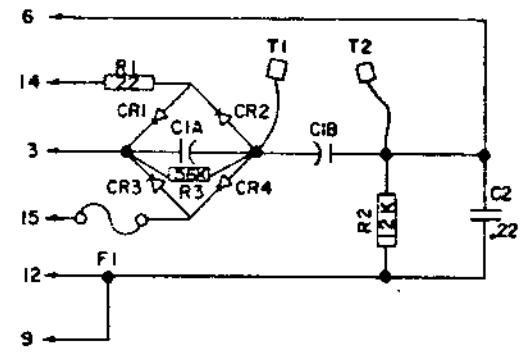
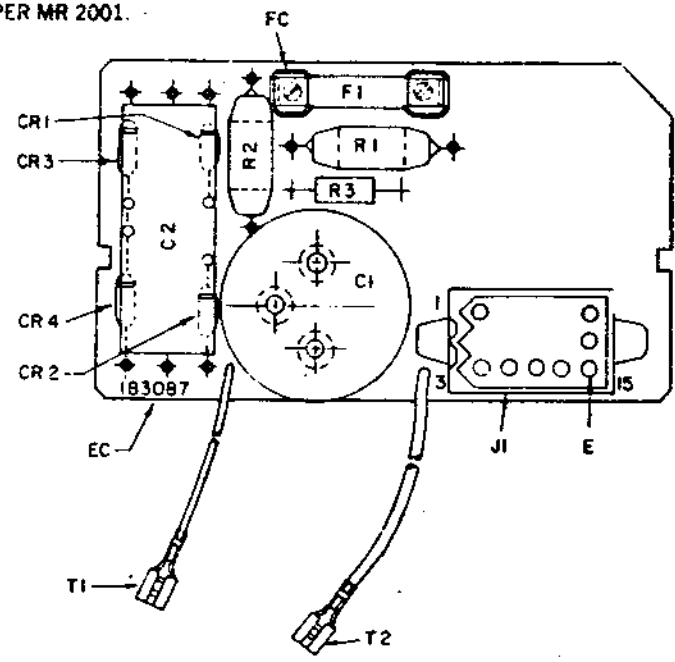
183087

PARTS REC. SEE BELOW	NO. REC.	USED BY	NO. REC.
		182134	

REVISIONS			
ISSUE NO.	DATE	AUTHOR	
2	8-20-62	30-1276	
3	9-26-63	30-13151	
4	9-26-63	30-5337	
5	6-25-63	76290	
6	9-12-66	88814	
7	11-25-66	88815-1	
8	8-22-68	95993	
9	9-17-69	99187	
40	2-10-70	99187-2	
11	3-3-71	2320	
2	-20-72	564-2	
13	12-10-72	6803	

CUSTOMER I.D. ISSUE NO.	MFG. VERSION	ASSOCIATED NOTE	DRAWING ISSUE DATE	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	18307B	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)	POWER SUPPLY RECTIFIER
CR2			"	"
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.

WOP

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

TELETYPE CORPORATION  
183087

SCALE 1/1			STOCK SPECIFICATION			
DRAWN	PD FILE NO	DATE	SIZE	MAT	SHAPE	TEMPER
TR	1-4760AA	6-7-62				
DESIGNED	ENGINEER	CHECKED	APPROVED			
	JAU	GR	2/2/62			

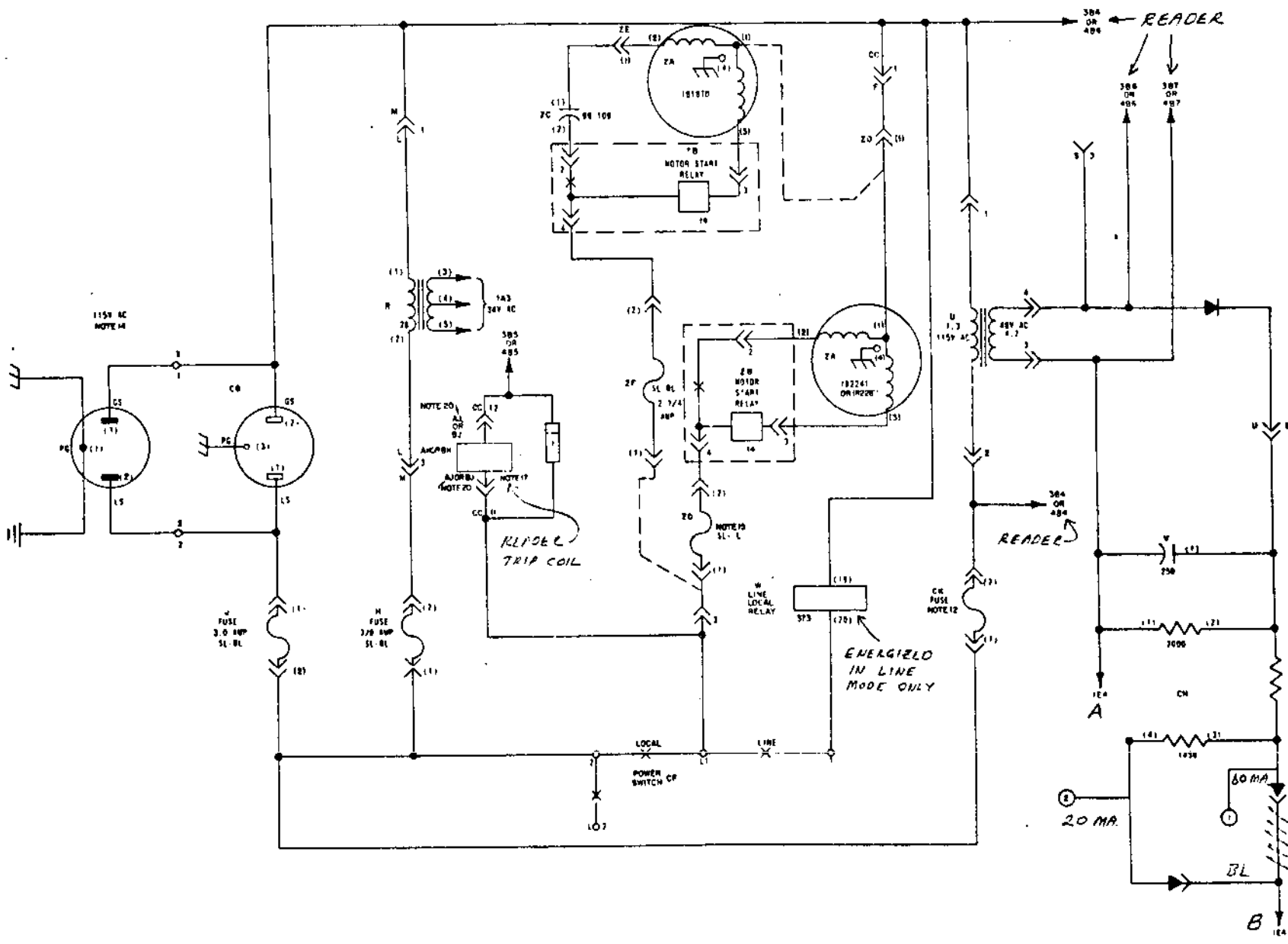
SEE SHEET 1 FOR NOTES

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

6353WD

REVISIONS

ISSUE	DATE	AJTR. NO.
1	11-27-63	156
2	7-8-64	153A
3	8-5-64	150
4	8-5-64	153
5	11-27-64	153B
6	2-2-65	153C
7	3-17-65	153D
8	8-2-65	153E
9	12-5-65	153F
10	12-17-65	153G
11	1-19-66	153H
12	2-17-66	153I
13	3-9-66	153J
14	3-29-66	153K
15	5-2-66	153L
16	5-10-66	153M
17	10-1-66	153N
18	10-4-66	153O
19	11-25-66	153P
20	12-21-67	153Q



SEE WIRE CONTROL DRAWING FOR OVER-PLATE LIST OF SHEET CONNECTIONS AND NO.

SHEET 5

SCHEMATIC  
 WIRING DIAGRAM  
 PPM  
 MODEL 33  
 AMP, 150V AC  
 DC SIGNAL LINE

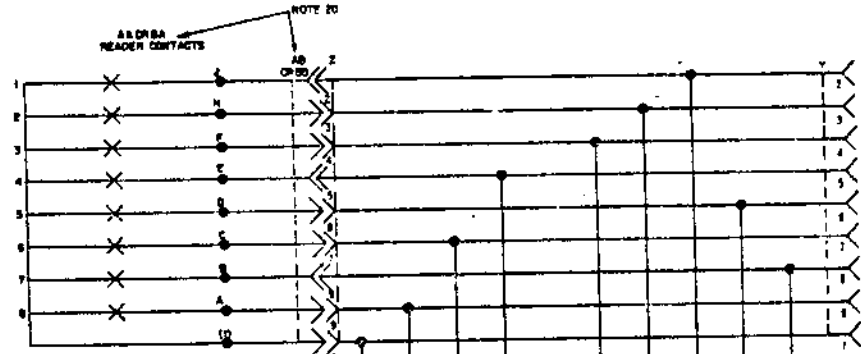
APPROVED  
 D AND W  
 E OF W

E-NUMBER  
 PROD. NO. 6353 WD  
 DATE 4-23-67  
 PAPER NO. 2-30157/1-111  
 DRAWN JR  
 ENGR. A.B.  
 CHECKED  
 APPD.

TELETYPE  
 CORPORATION  
 6353WD

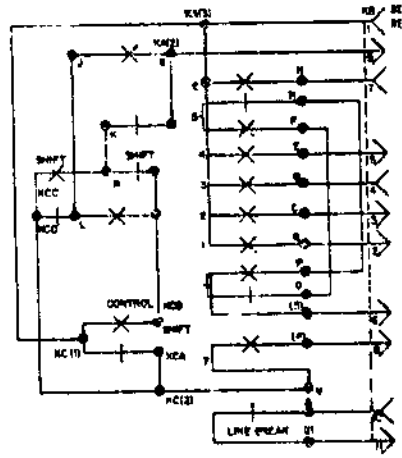


SEE SHEET 1 FOR NOTES



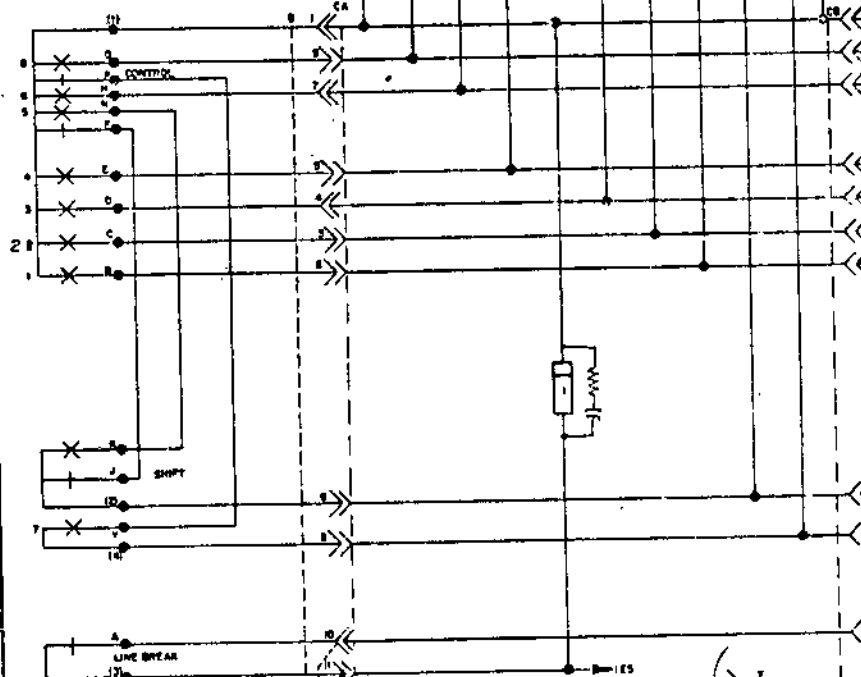
PAPER  
-ON CUSTOMER'S  
OPTION

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

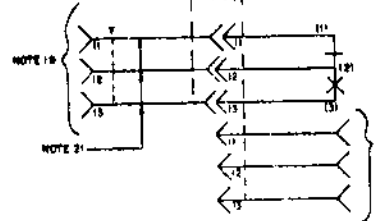


KA AND KC  
PARTY KEYBOARD CONTACT  
ARRANGEMENT

KEYBOARD CONTACT ARRANGEMENT



RO SETS ONLY



PAPER OUT  
ALARM  
NOTE 10

DISTRIBUTOR  
DISC

6353WD

REVISIONS

ISSUE	DATE	AUTH. NO.
1	11-22-63	77248
2	1-2-64	78354
3	4-9-64	81403
4	6-9-64	81773
5	11-27-64	84402
6	2-2-65	84727
7	3-2-65	85121
8	3-2-65	85121
9	3-2-65	85121
10	3-2-65	85121
11	3-2-65	85121
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26	3-2-65	85121
27	3-2-65	85121
28	3-2-65	85121
29	3-2-65	85121
30	3-2-65	85121

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

SHEET 2

SCHEMATIC  
WIRING DIAGRAM  
FOR  
MODEL 32  
ASB. NSP. NO  
DC SERIAL LINE

APPROVALS

D AND R

E NUMBER

PROD. NO. 6353WD

DATE 4 13 67

D. R. FILE NO. 3 30 153 12248

DRAWN JF

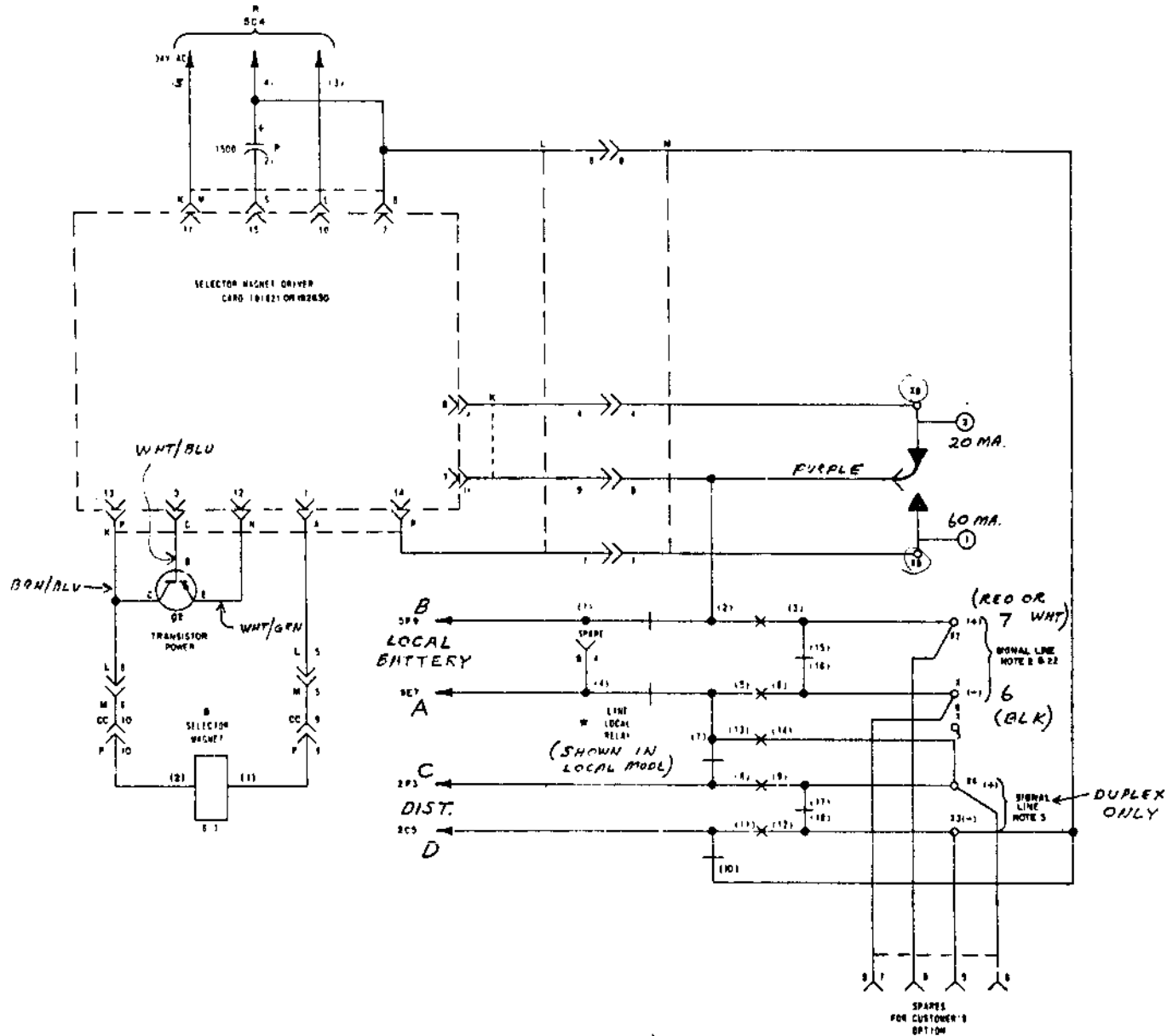
EMBD 65

TELETYPE  
CORPORATION

6353WD

NO	NOTES
1	FOR ACTUAL WIRING DIAGRAM SEE 6354WD
2	THE SET IS SHOWN WIRED FOR SIMPLER 600 AMP NEUTRAL SIGNAL LINE ON TERMINALS B AND T OF THE 151411 TERM STRIP FOR 620 AMP NEUTRAL SIGNAL LINE MOVE THE W WIRE FROM TERMINAL B TO TERMINAL 8 OF THE 151411 TERMINAL STRIP ALSO MOVE THE BL WIRE FROM TERMINAL 1 OF THE POWER RESISTOR 181101 TO TERMINAL 4
3	FOR FULL DUPLX 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 BH Y WIRE FROM TERMINAL 3 TO 5 ON THE 151411 TERMINAL STRIP
4	ON KSR SETS ALL ASSOCIATED READER WIRING IS NOT USED
5	ALL CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED
6	ALL RESISTORS 1/2 WATT AND RESISTANCE VALUES IN OHMS UNLESS OTHERWISE SPECIFIED
7	ON RD SETS USE 101131 PLUG ASSEMBLY
8	THESE CONNECTIONS ARE MADE AS OPTIONS BY THE CUSTOMER AND ON THE FACTORY
9	600 AMP SIGNAL LINE OPTION (1) 620 AMP SIGNAL LINE OPTION (2)
10	THIS IS AN R LEVEL UNIT
11	THESE WIRES ARE IN THE DISTRIBUTOR CABLE 49 SQUARES IF NOTE 10 APPLIED TAPE THE W BACK THESE WIRES
12	THIS FUSE NOT INCLUDED ON SOME SETS, FUSE VALUES ARE AS FOLLOWS
13	WIRING SHOWN AS PA IS FOR EVEN PARITY ATTACHMENTS
14	FURNISH 115V AC @ 10% 60 CYCLE EXCEPT 50 CYCLE ON 3370H 334H KSR SETS, 3370C, 741, 742, 743, 747 AND 3370H NO 8879
15	APPROPRIATE FUSE IN 147103 FUSEHOLDER NOT INCLUDED IN EARLY SETS
16	NETWORK 152051
17	50 CYCLE READER TRIP COIL RESISTANCE IS 870 OHMS 60 CYCLE READER TRIP COIL RESISTANCE CHANGED FROM 630 OHMS TO 700 OHMS FOR IMPROVED 50 CYCLE OPERATION
18	LOW PAPER ALARM CONTACTS NOT FOUND IN ALL UNITS CONTACT RATING 4 AMP AT 30V DC
19	TO CUSTOMER SUPPLIED ALARM
20	AAAB, A7AMP REFER TO MANUAL READER, BAAB, B20AMP REFER TO AUTOMATIC READER
21	MAY NOT BE FOUND ON EARLY UNITS
22	5370C TO BE WIRED FOR 620 AMP SIGNAL LINE OPERATION

.020 USED ON ROTM 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 DRAWING

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	81775
6	11-2-64	84807
7	2-1-65	84779
8	2-1-65	86063
9	8-18-65	86411
10	12-10-65	88131
11	12-27-65	89151
12	1-13-66	89151
13	2-17-66	91107
14	3-9-66	91107
15	1-25-68	94707
16	5-20-68	94707
17	5-20-68	94707
18	10-14-68	95177
19	10-28-68	95177
20	12-10-68	95177
21	8-13-69	95177
22	8-13-69	95177

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

SHEET 1

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

APPROVALS

D AND R E OF W

E-NUMBER

PROJ. NO. 6353WD

DATE 4-24-67

P.D. FILE NO. 1 30 152-15348

DRAWN JEA

CHKD.

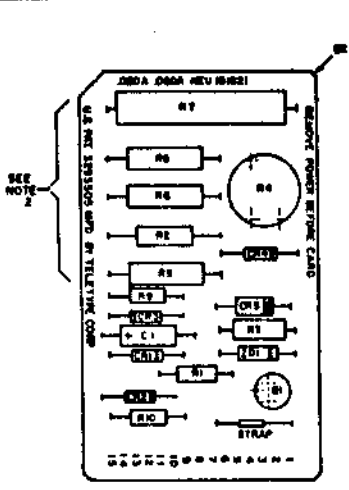
ENGR. AS

APPR.

TELETYPE CORPORATION

6353WD

NO.	NOTES
1	MAYBE ARTWORK NO. SHOWN FOR PRINTING SCREEN IS AVAILABLE IN R&D OFFICE SERVICE SECTION.
2	RAISE R2 5, 6, 7, 6 - 1/32 TO 1/16 ABOVE CIRCUIT CARD.
3	TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R1 AND CR 3 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 536470 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 76 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY FILTER CAPACITOR IS CONNECTED BETWEEN TERMINALS 7 AND 15.

THE BINARY CURRENT SIGNAL LINE CIRCUIT IS CONNECTED THROUGH TERMINALS 14 ON 6 AND 2 DEPENDING ON LINE CURRENT. TERMINAL 7 STRAPPED EXTERNALLY TO TERMINAL 14 ON 6, DEPENDING ON LINE CURRENT.

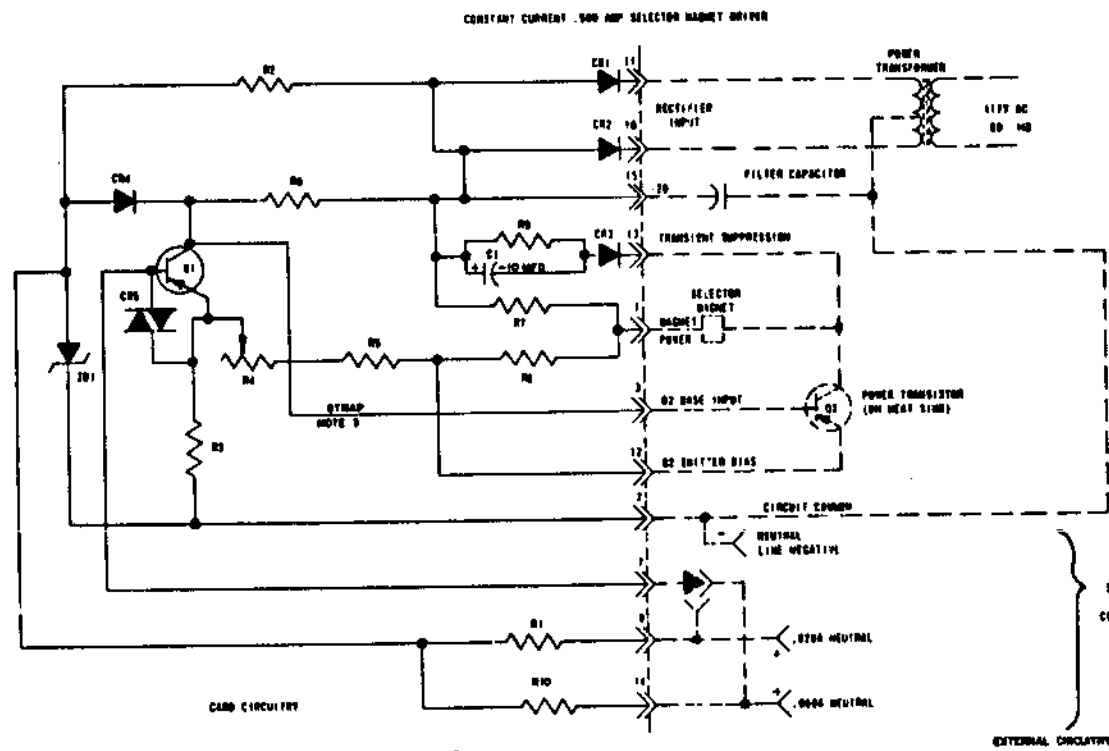
IN THE MARKING CONDITION, B1 IS OFF BIASED WITH Q1 OFF. THE BASE OF Q2 WILL BE CLAMPED BY THE ZENER REFERENCE VOLTAGE BY DIODE CR4. THIS VOLTAGE CLAMP IS THEN TRANSLATED TO CURRENT REGULATION BY THE TRANSISTOR ACTION OF Q2 THE REGULATED MAGNET CURRENT IS ADJUSTED TO 500 AMPERES BY RESISTOR R4.

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-SPACING 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.

STRAP AL110- IS SUPPLIED TO THE CIRCUIT TRANSISTIONS BY FEEDBACK IN THE EXITTER CIRCUIT OF TRANSISTOR Q1.

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED PER MIL STD 20.

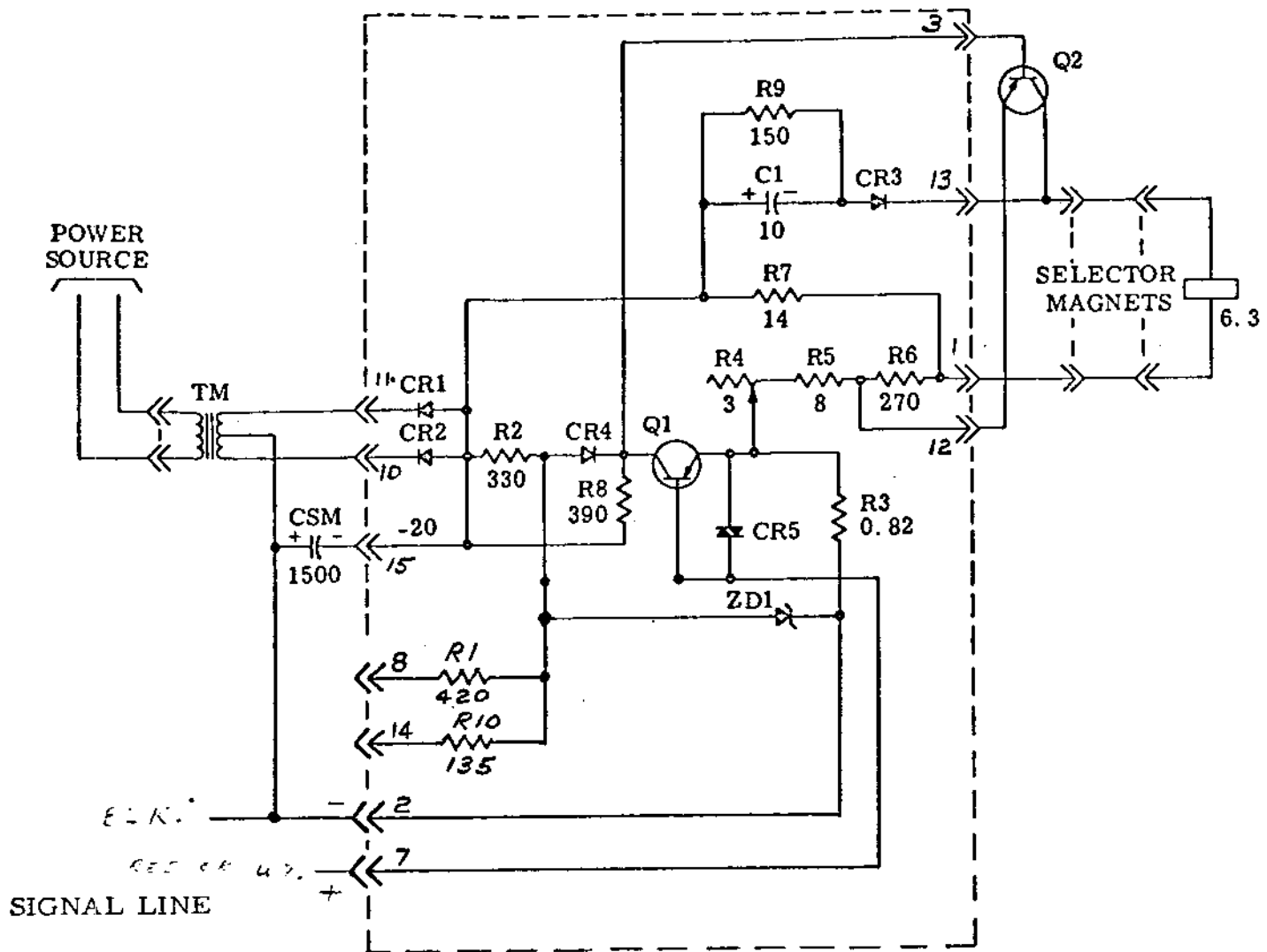
CIRCUIT BOARD EC				181821			
REF. DESIG.	TELETYPE PART NO.	TOTAL QTY.	NAME AND DESCRIPTION	LOCATING FUNCTION	REVISIONS		
R1	182770	1	RESISTOR 420 OHMS 1/2W	Q1 BIP SWITCHING LINE	ISSUE	DATE	AUTH. NO.
R10	182787	1	RESISTOR 130 OHMS 1/2W	Q2 BIP SWITCHING FOR 000A NEUTRAL LINE	2	4-19-65	06501
R2	181851	1	RESISTOR 230 OHMS 1/2W	LINEAR CURRENT CLIPPING	3	9-19-66	008 5
R3	182770	1	RESISTOR 9.02 OHMS 1/2W	COMMON EMITTER BIAS	4	11-29-66	000 6-1
R4	182773	1	RESISTOR 3 OHMS 2 1/2W	OUTPUT CURRENT LIMITING	5	3-2-67	03502
R5	181142	1	RESISTOR 9 OHMS 5W	Q2 EMITTER BIAS	6	7-2-67	03308
R6	182770	1	RESISTOR 270 OHMS 1/2W	Q2 EMITTER BIAS	7	11-2-68	011 21
R7	182772	1	RESISTOR 14 OHMS 1/2W	Q3 COLLECTOR LOAD	8	12-25-68	03708
R8	182827	1	RESISTOR 300 OHMS 1/2W	Q3 COLLECTOR LOAD	9	1-23-71	0320
R9	182770	1	RESISTOR 150 OHMS 1/2W	Q3 COLLECTOR LOAD	10	3-2-72	030
CR1	182520	2	DIODE 1N4133	TRANSIENT SUPPRESSOR	11	3-29-72	036-1
CR2	182520	2	SAME AS CR1	POWER RECTIFIER			
CR3	181819	2	DIODE 1N4001	COLLECTOR TRANSIENT SUPPRESSOR			
CR4	181819	1	SAME AS CR3	ZENER			
CR5	178842	1	VARIATOR 1000	VOLTAGE CLAMPING INPUT PROTECTION			
ZD1	182774	1	DIODE ZENER 4.7V 5-1W	REFERENCE			
C1	182678	1	CAPACITOR 10 MFD 250 VDC	COLLECTOR TRANSIENT LIMITING			
Q1	181671	1	TRANSISTOR 2N3055	INPUT SWITCH			
	336470	1	STRAP	NOTE 3			
EC	181823	1	CIRCUIT BOARD OTHER				



MOD. 33

APPROVALS	
R AND B	E G W
NJK	
E-NUMBER	
PROD NO 181821	
DATE 4-20-67	
R&D FILE 2-30-57-53A8	
DRAWN JER-C6	CHKD W.W.
ENG 48-005	APPD J.W.
<b>TELETYPE CORPORATION</b>	
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 )<br>Off for mark |
| Transistor Q2 | Off for space ( open line )<br>On for mark |