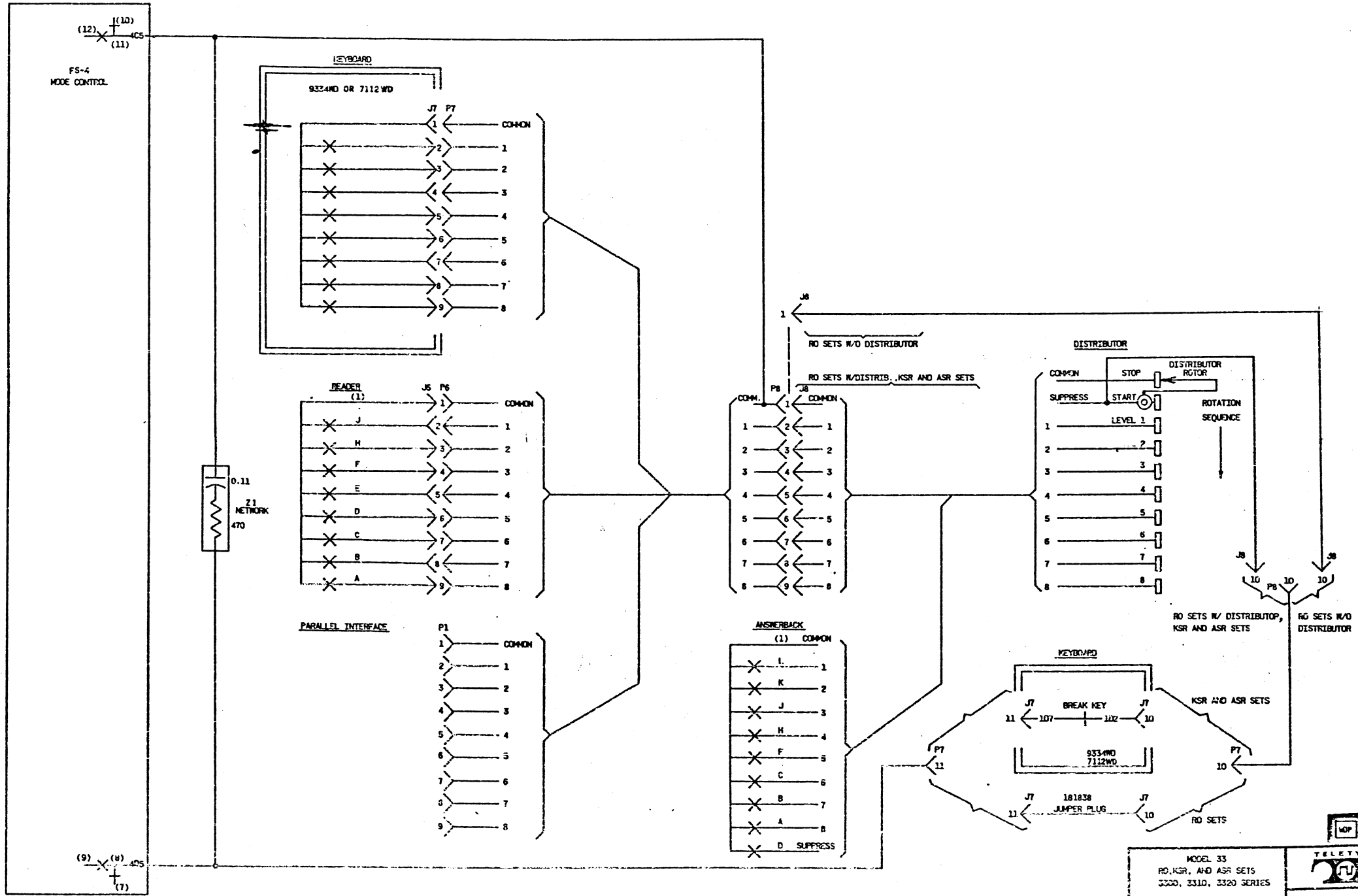


FS-2 SEND CIRCUIT



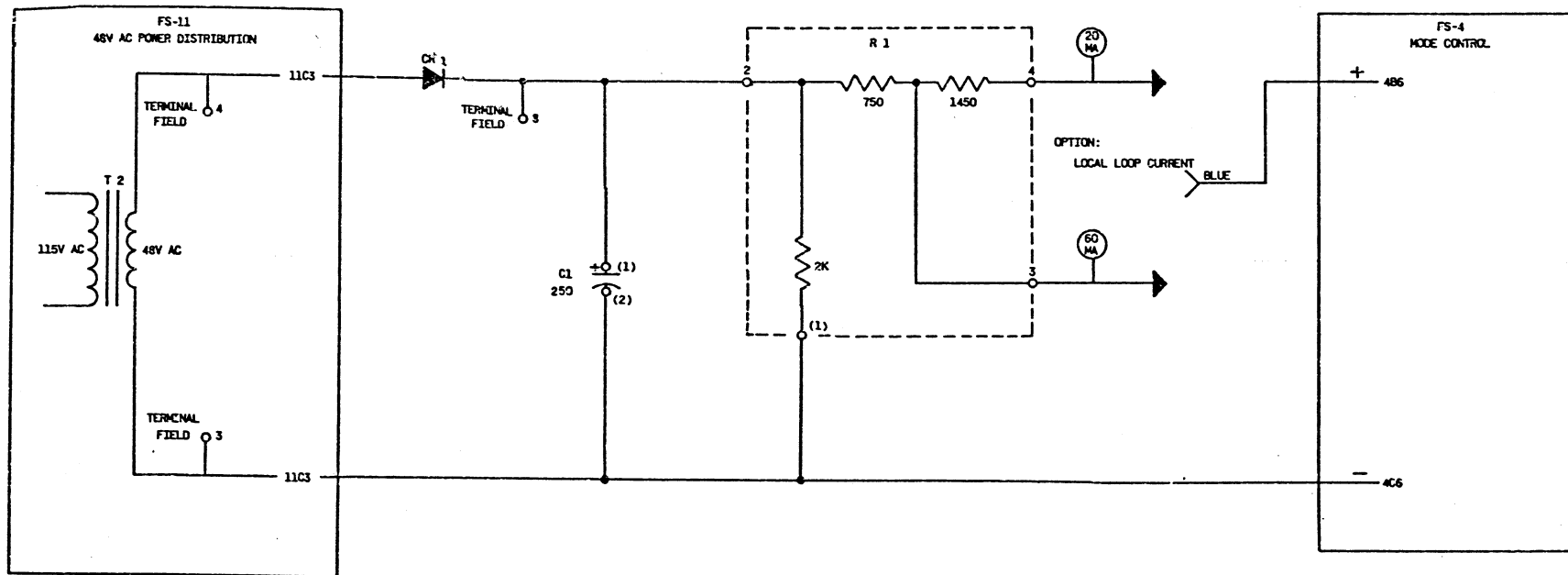
MODEL 33
RO, KSR, AND ASR SETS
3300, 3310, 3320 SERIES



1180 SD-B2

FS-3 LOCAL LOOP CURRENT SUPPLY

| |
|-------|
| ISSUE |
| 1 |
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| |
| |
| |



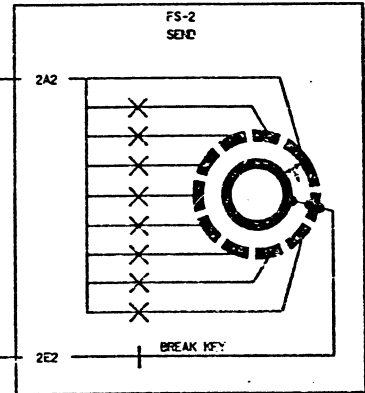
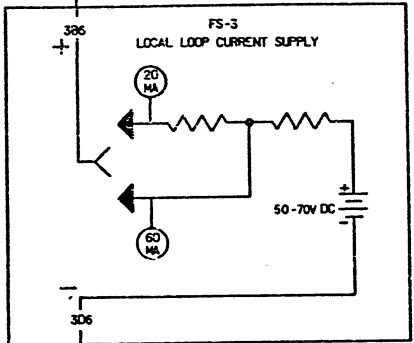
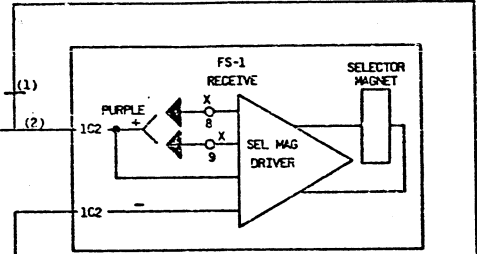
FS-4 MODE CONTROL

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

CUSTOMER SERIAL SIGNAL INTERFACE
HALF DUPLEX FULL DUPLEX

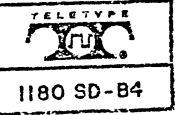
RECEIVE AND SEND RECEIVE

NOT USED SEND (NOT POLARITY SENSITIVE)



A
B
C
D
E

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



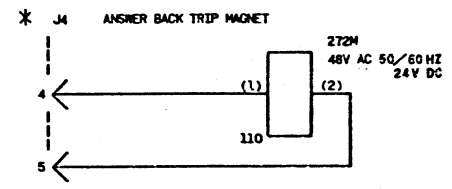
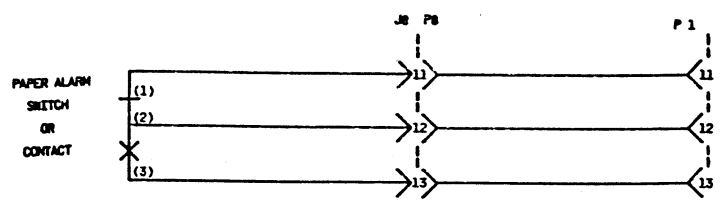
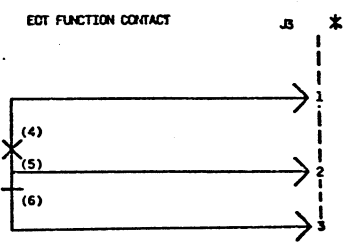
FS-5 AUXILIARY CIRCUITS (FOR CUSTOMER USE)

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

PAPER ALARM

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

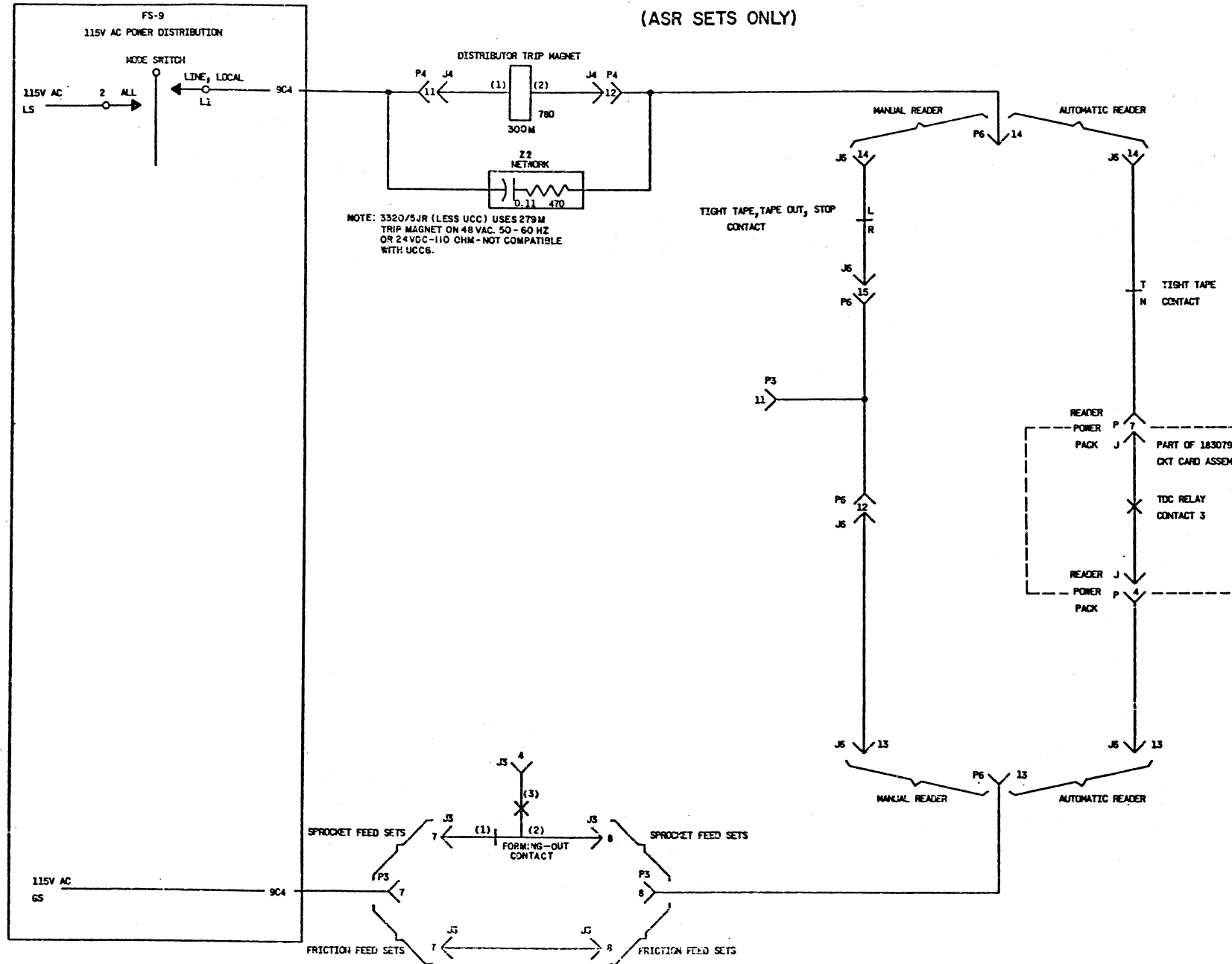
| | LOCATION | CONTACT RATING |
|------------|-------------------------|----------------|
| FRICITION: | IN FRONT OF MOTOR FAN | |
| SPROCKET: | NEAR LEFT END OF PLATEN | |



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

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

FS-6 READER CONTROL (ASR SETS ONLY)

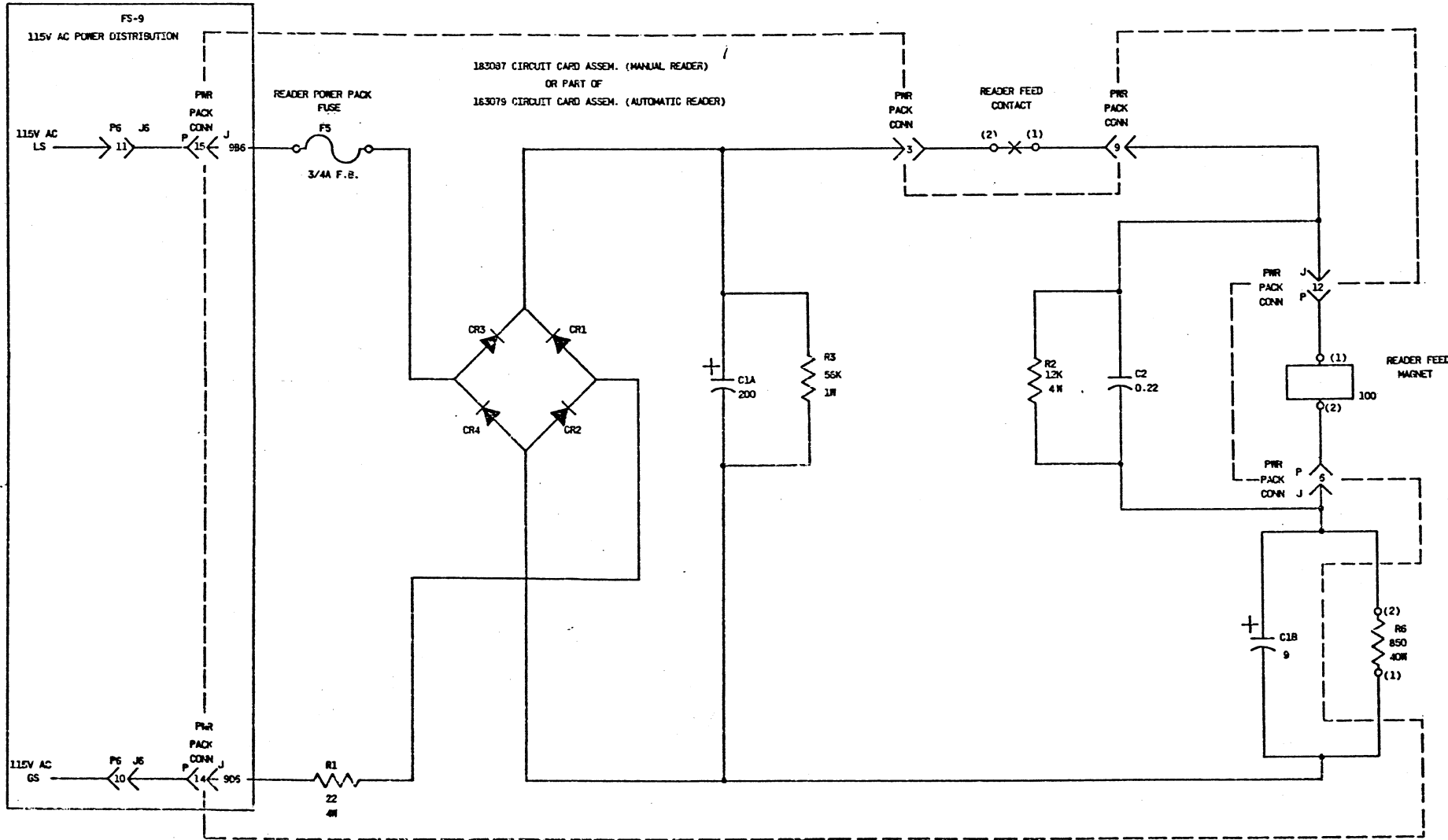


NOTE: 3320/5JR (LESS UCC) USES 279 M TRIP MAGNET ON 48 VAC. 50 - 60 HZ OR 24 VDC - 110 OHM - NOT COMPATIBLE WITH UCC6.

FS-8

READER FEED

(ASR SETS ONLY)



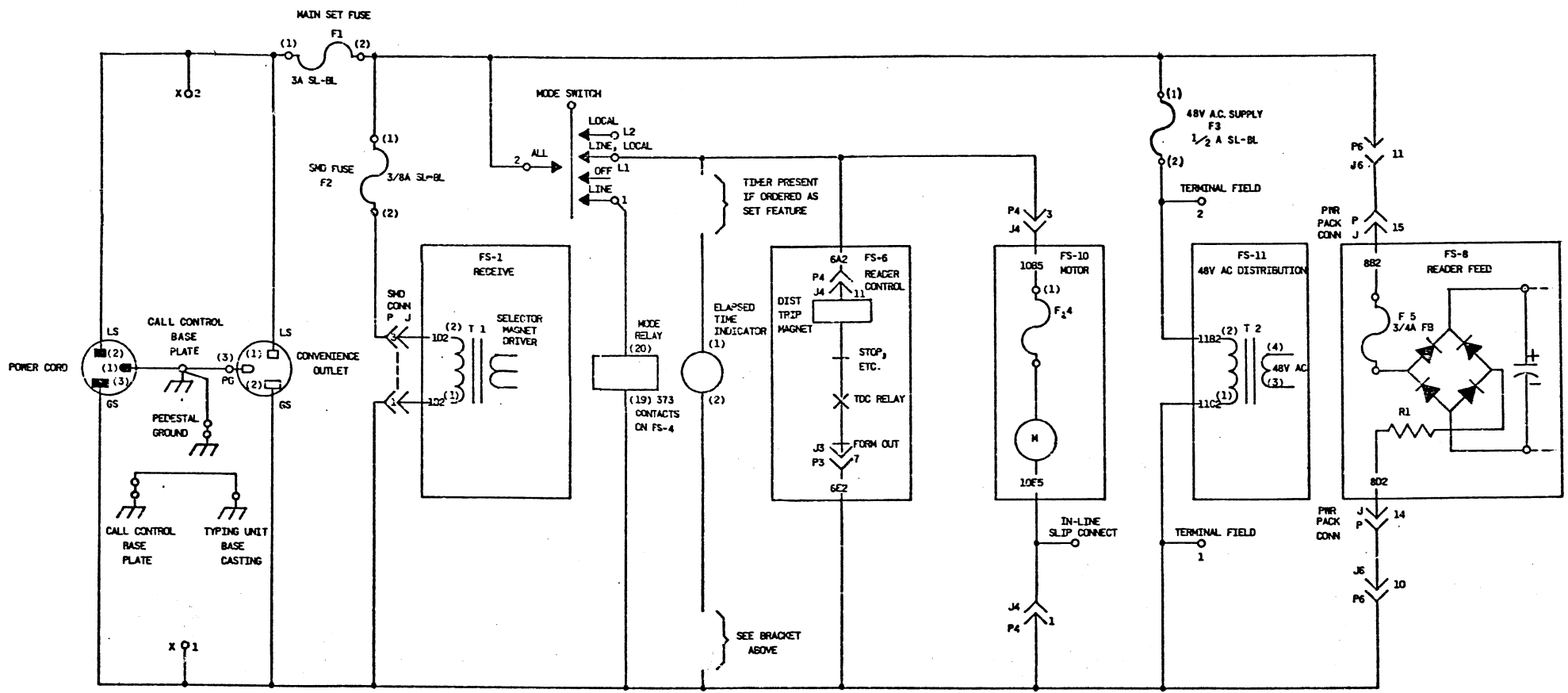
MODEL 33
 RO, KSR, ASR SETS
 3300, 3310, 3320 SERIES



1180 SD-88

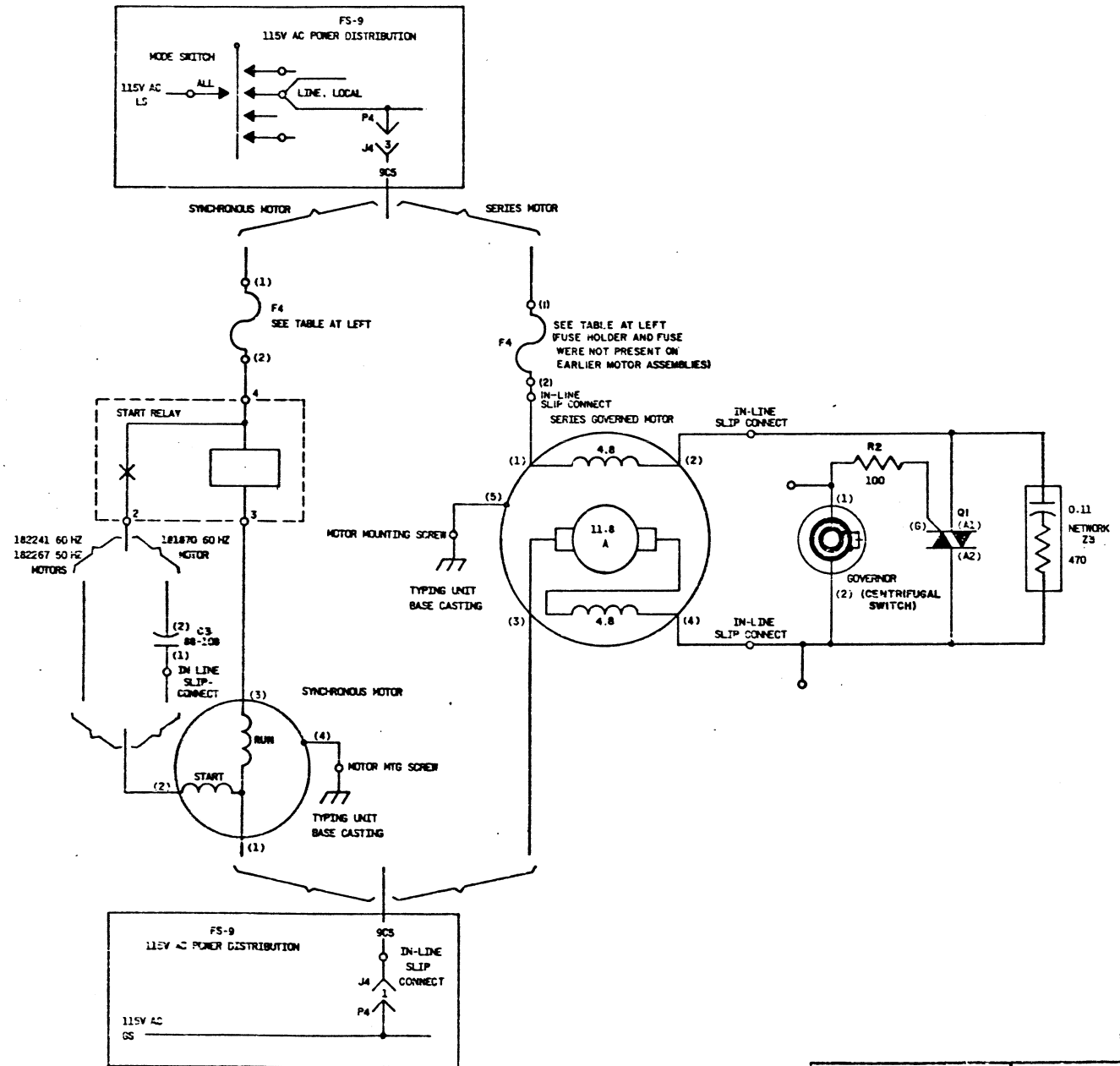
FS-9

115VAC POWER DISTRIBUTION



FS-10 MOTORS

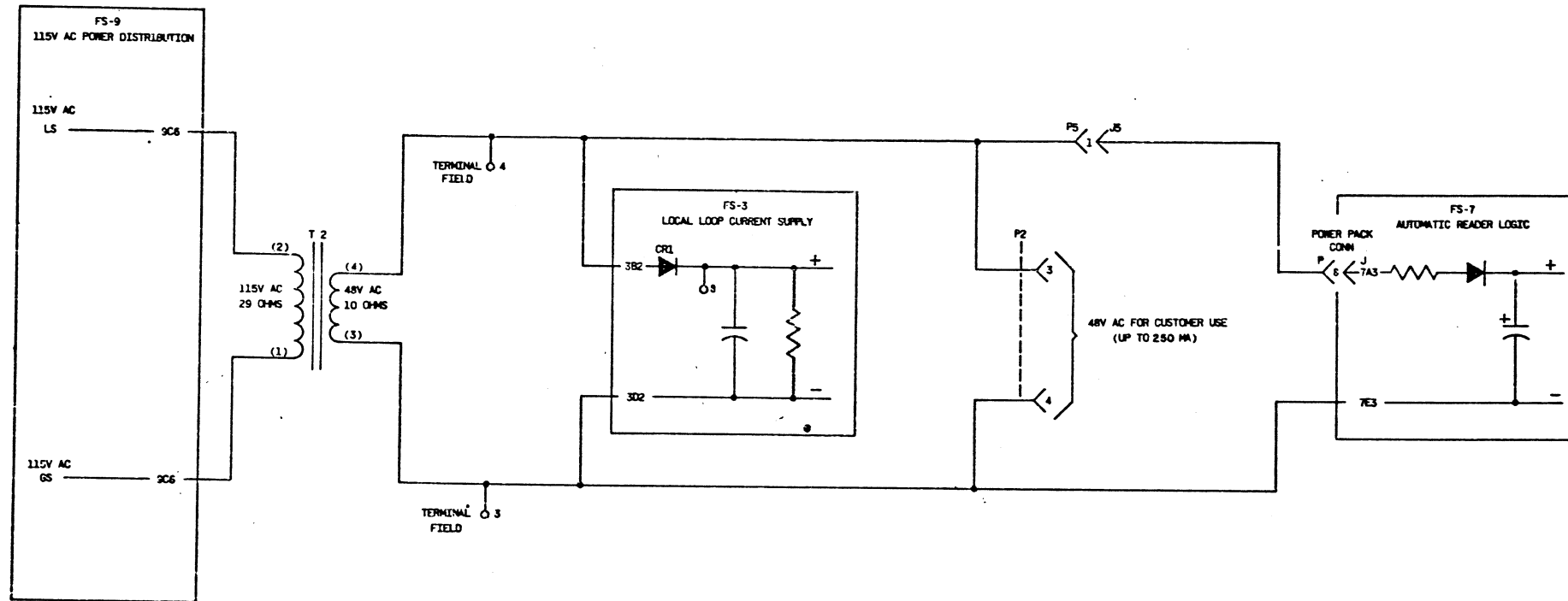
| SYNCHRONOUS MOTORS | | | | |
|-----------------------|----------|----------------|-----|------------|
| MOTOR PART NUMBER | FREQ. HZ | FUSE F 4 | H-P | CAPACITOR |
| 181870 | 60 | 2 1/4A SL-BL | 33 | 88-108 MFD |
| 182241 | 60 | 2A SL-BL | 33 | — |
| 182267 | 50 | 1 3/8 A. SL-BL | 35 | — |
| SERIES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



FS-II

48VAC POWER DISTRIBUTION

| |
|-------|
| ISSUE |
| 1 |
| 2 |
| |
| |



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



1180 SD-B11

APPARATUS FIGURES

CAPACITORS (NOT ON CKT CARD ASSEM.)

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

CIRCUIT CARD ASSEMBLIES

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

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

CONNECTORS, TITLED

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

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

SMD CONN

J = FRAME SIDE, P = CABLE SIDE

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

CONNECTORS NUMBERED

CONNECTOR SHELL DESIGNATION J = CABLE SIDE P = FRAME SIDE

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

CONTACTS

- ANSWERBACK 2D5
- BREAK KEY 2E6
- FORMING OUT FUNCTIONS 6E3
- DC1 7C5
- DC3 7D6
- ENQ 7E6
- EOT 5B6
- KEYBOARD 2B3
- PAPER OUT 9C2
- PARALLEL INTERFACE 2D6
- READER FEED 8B5
- READER (SIGNAL) 2C3
- START (AUTO READER) 7C6
- STOP (AUTO READER) 7B6
- TAPE OUT (AUTO READER) 796
- TIGHT TAPE (AUTO READER) 6B6
- TIGHT TAPE, TAPE OUT; STOP (MANUAL READER) 6E5

CORD

- POWER 9C1

DIODES (NOT ON CKT. CARD ASSEMBLY)

- ORL 3B3

DISC

- DISTRIBUTOR 2C6

FUSES

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

GOVERNOR

- 10C6

MAGNETS

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

MOTOR

- SYNCHRONOUS 1C04
- SERIES GOVERNED 10C6

NETWORKS

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

RECEPTACLE

- CONVENIENCE OUTLET 9C2

RELAYS

- MODE
- COIL 9C3

CONTACTS:

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

MOTOR START

- 10C4

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

- COIL 7A4

CONTACTS:

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

RESISTORS (NOT ON CKT. CARD ASSEM.)

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

SWITCH

- LOW PAPER 5C2
- MODE 9B3

TERMINAL FIELD

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

TERMINAL STRIP

X (CUSTOMER INTERFACE)

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

THYRISTOR (TRIAC)

(NOT ON CKT CARD ASSEM.)

- Q1 10C7

TRANSISTOR (NOT ON CKT. CARD ASSEM.)

- Q2 OF SMD ASSEMBLY 1C5

TIMER

- ELAPSED TIME INDICATOR 9C4

TRANSFORMER

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

NOTES

CIRCUIT NOTES

101. FUSING

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

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

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

102. OPTIONS

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

*SELECT ONLY ONE OPTION FROM THIS GROUP

EQUIPMENT NOTES

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

INFORMATION NOTES

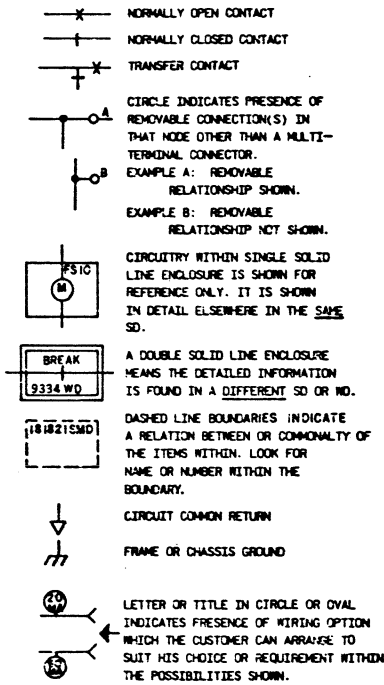
301. SHEET COORDINATES LOCATION LEGEND



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

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

304. SYMBOLS



WIRING STATUS:

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

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



NOTES
GENERAL INFORMATION

COILS

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

RELAYS

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

SWITCHES

| <u>NUMBER</u> | <u>182037</u> | <u>183445</u> | <u>181441</u> | <u>155954</u> |
|---|---|--|---|---|
| FUNCTION | FUNCTIONS DC1, DC3, EQ1 & EQ2 | PAPER ALARM-SPROCKET FEED | PAPER ALARM-FRICTION FEED | 186848 LOW TAPE MOD. KIT |
| VOLTAGE RATING | 115 VAC 115 VDC | 115 VAC 10-48 VDC | 120-240 VAC 30 VDC | 125-250 VAC 30 VDC |
| MAXIMUM CONTACT CURRENT | 100 MA (IND & RES) AC 100 MA (IND & RES) DC IN/SPARK PROT. | 2 AMPS AC 15 MA (IND) 300 MA (RES) DC | 5 AMPS AC 3 AMPS (IND) 4 AMPS (RES) DC | 5 AMPS (RES) AC 3 AMPS (IND) 4 AMPS (RES) DC |
| TIME FROM END OF START PULSE TO CONTACT OPERATION | 140-150 ms | — | — | — |
| DURATION OF BOUNCE | 3 ms | — | — | — |
| DURATION OF OPERATION INCLUDING BOUNCE | 35-40 ms | — | — | — |

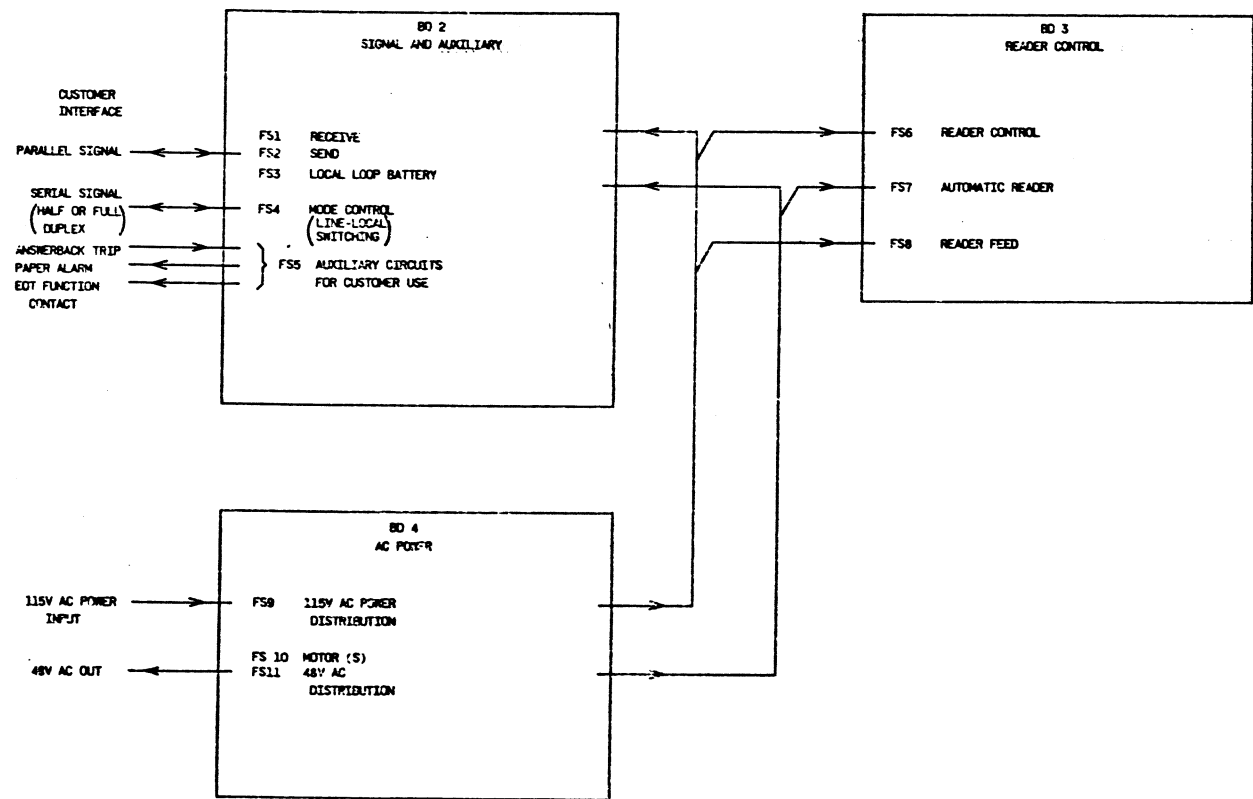
MOTORS

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

BD-1

CIRCUIT BLOCK DIAGRAM

| |
|-------|
| ISSUE |
| 1 |
| |
| |
| |



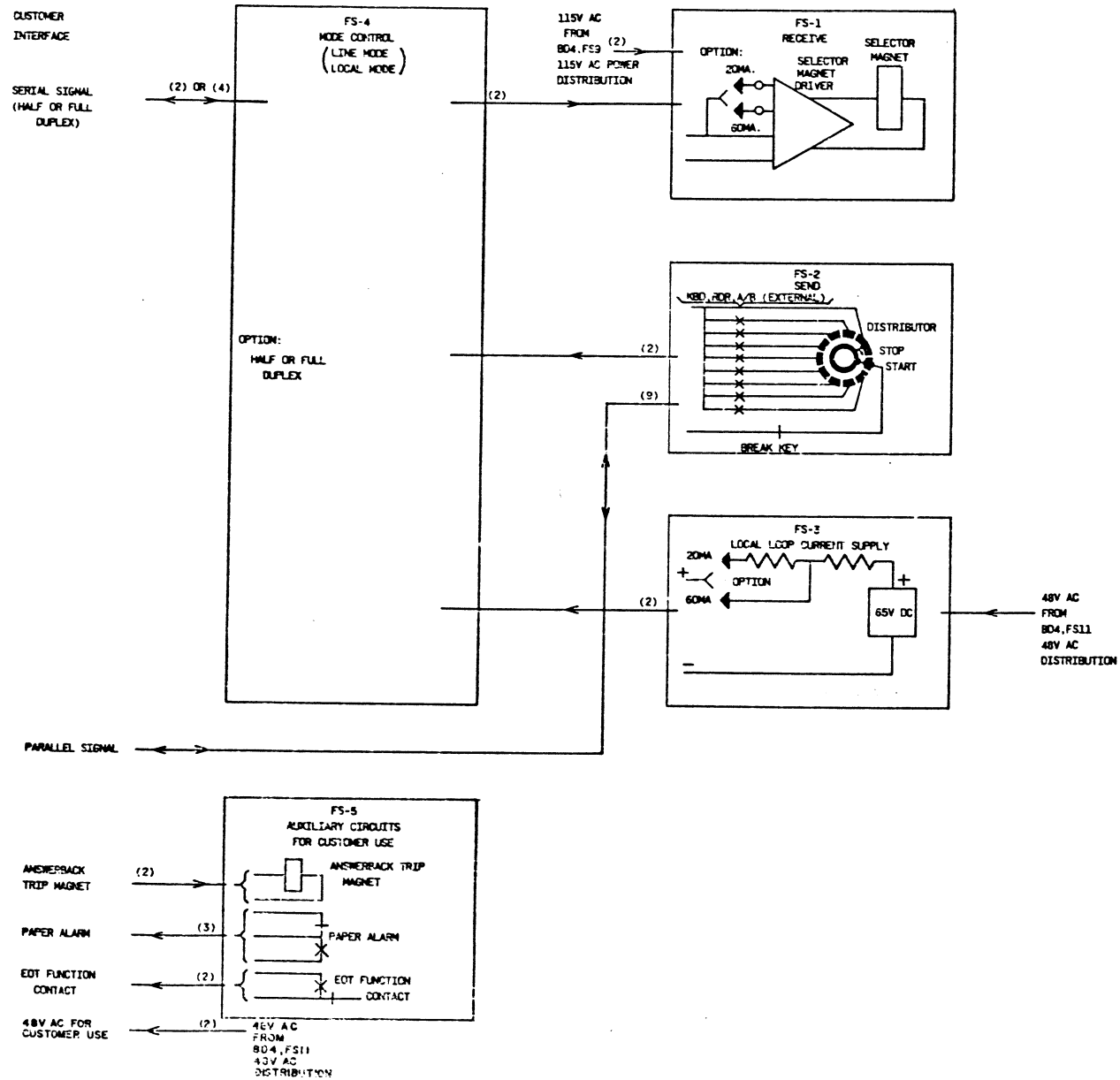
MODEL 33
 RD, KSR, AND ASR SETS
 3300, 3210, 3320 SERIES



1180 SD-HI

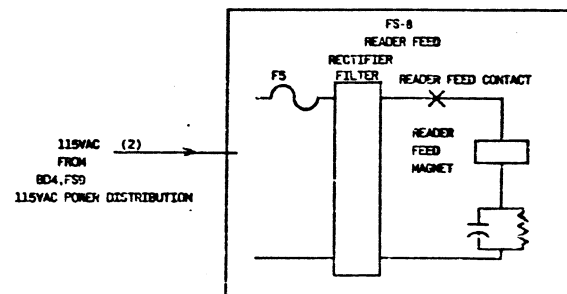
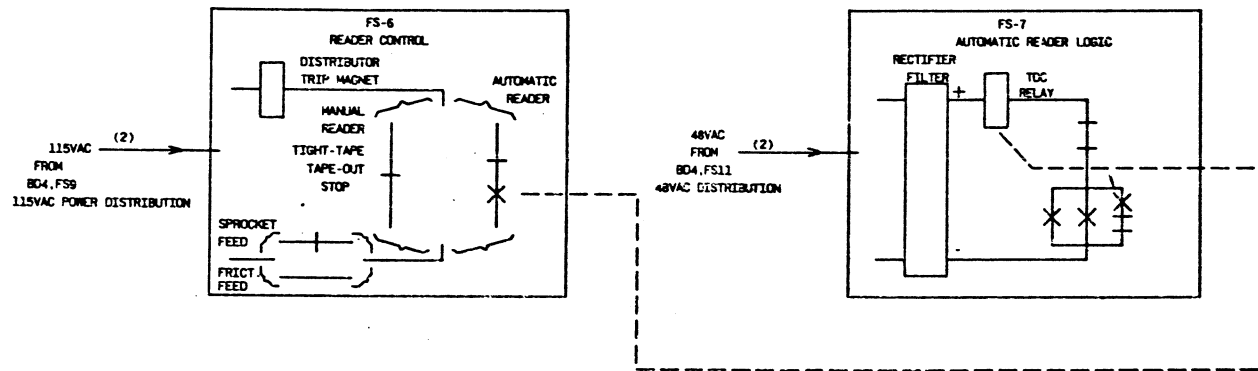
BD-2 SIGNAL AND AUXILIARY

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



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

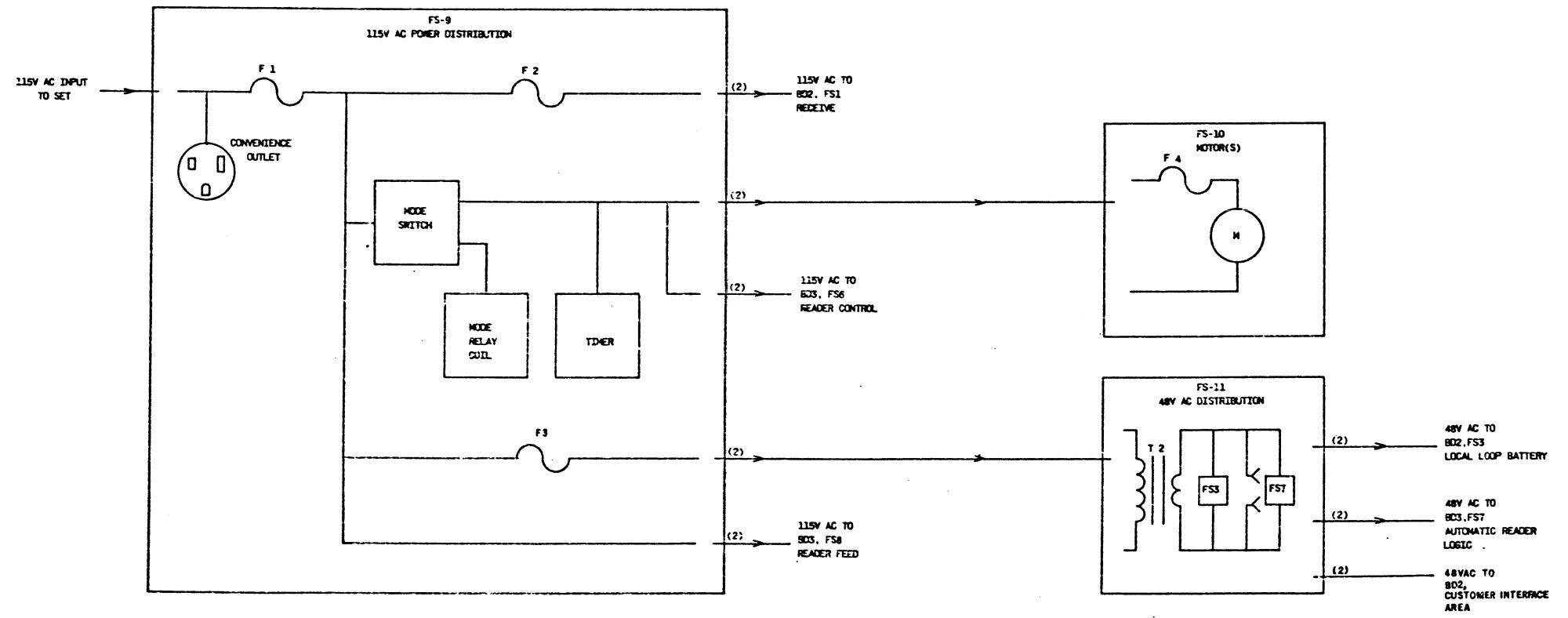
BD-3 READER CONTROL (ASR SET ONLY)



BD-4

AC POWER

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



NOTES

SCHEMATIC

1. SYMBOLOLOGY

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

CONTACT CONTROL, SHIFT, BREAK

DEFINITION OF NORMAL KEY NOT DEPRESSED

RESPECTIVE CODE BARS ARE IN THE SPACING POSITION, AND KEYBOARD IS TRIPPED

SCHEMATIC AND ACTUAL

2. SYMBOLOLOGY

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

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

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

FUNCTIONAL OPTIONS FOR WHICH THIS PATH MUST BE CONNECTED

REFERENCE DESIGNATION OF ASSOCIATED LEAD

ACTUAL

4. SYMBOLOLOGY

WIRING LEGEND:

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

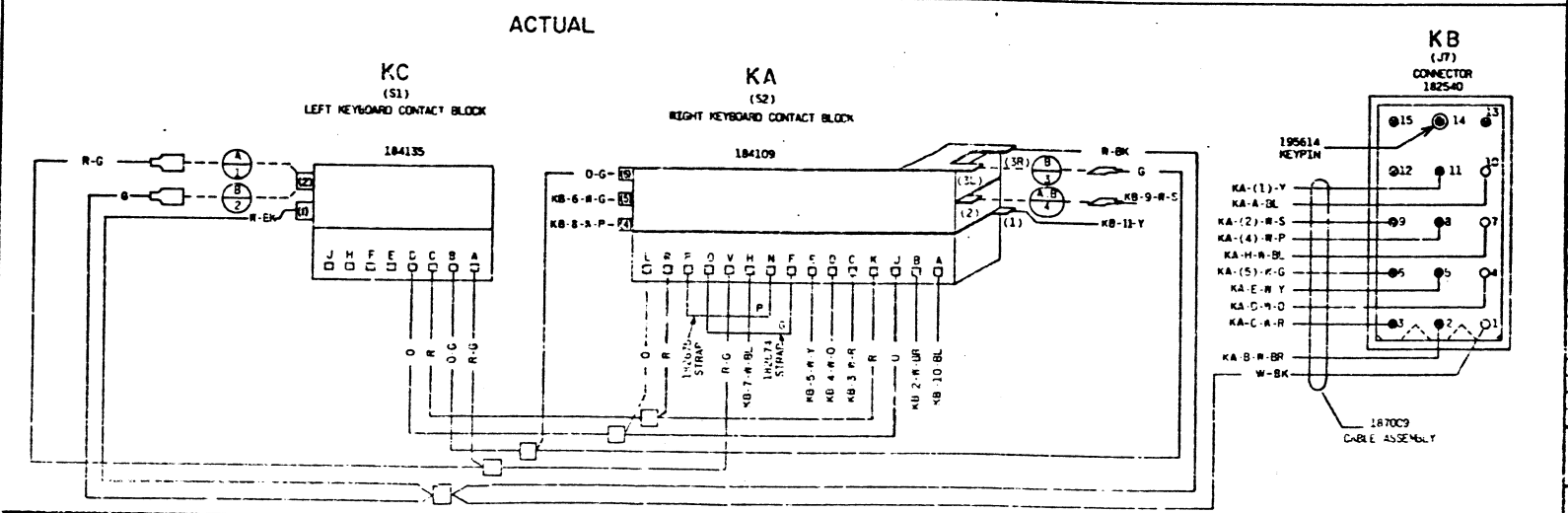
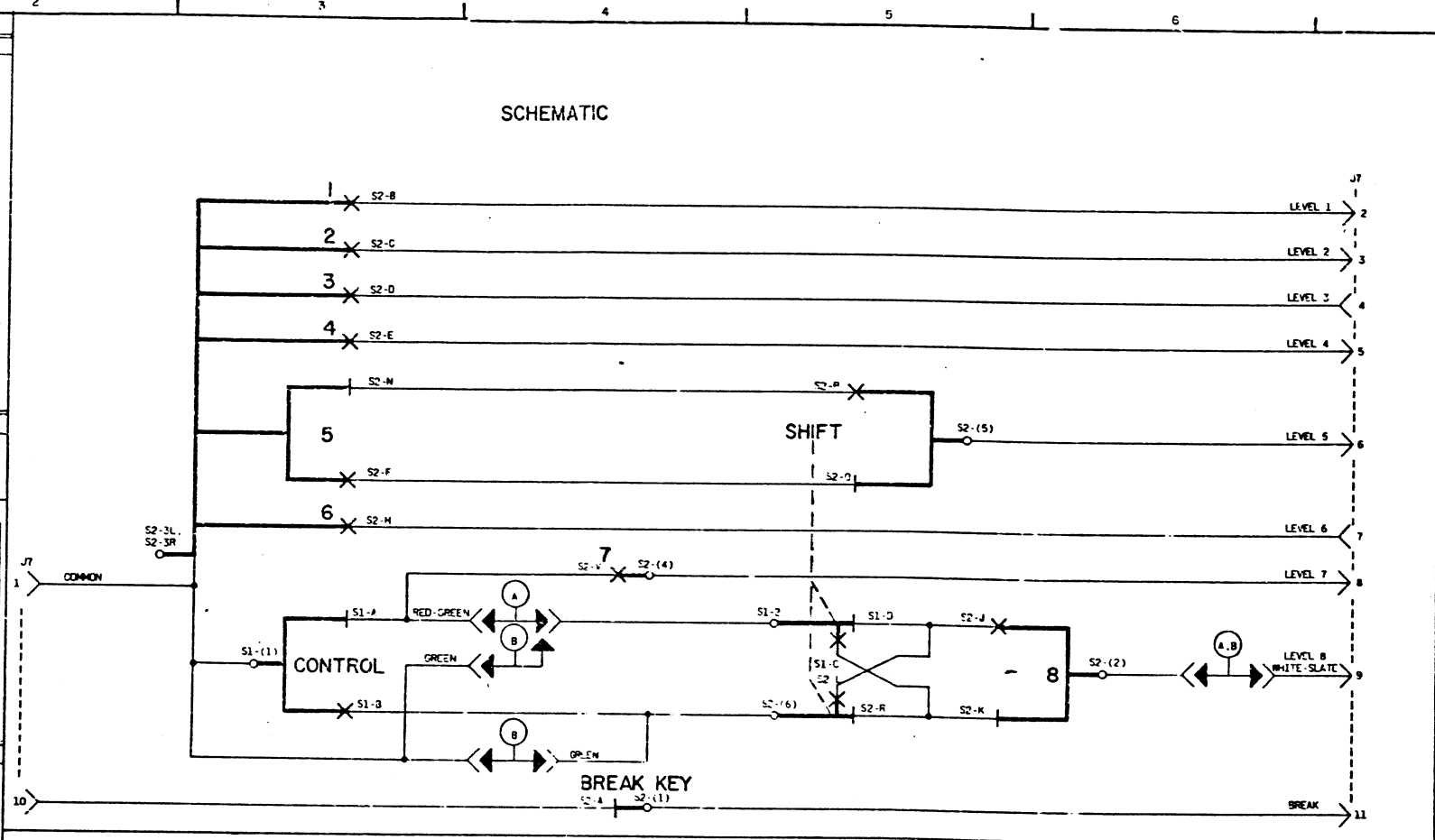
KC-A-B-P

CONNECTORS:

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

5. WIRE COLOR CODE:

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



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

**MODEL 33 KEYBOARD
UK 819**

WDP

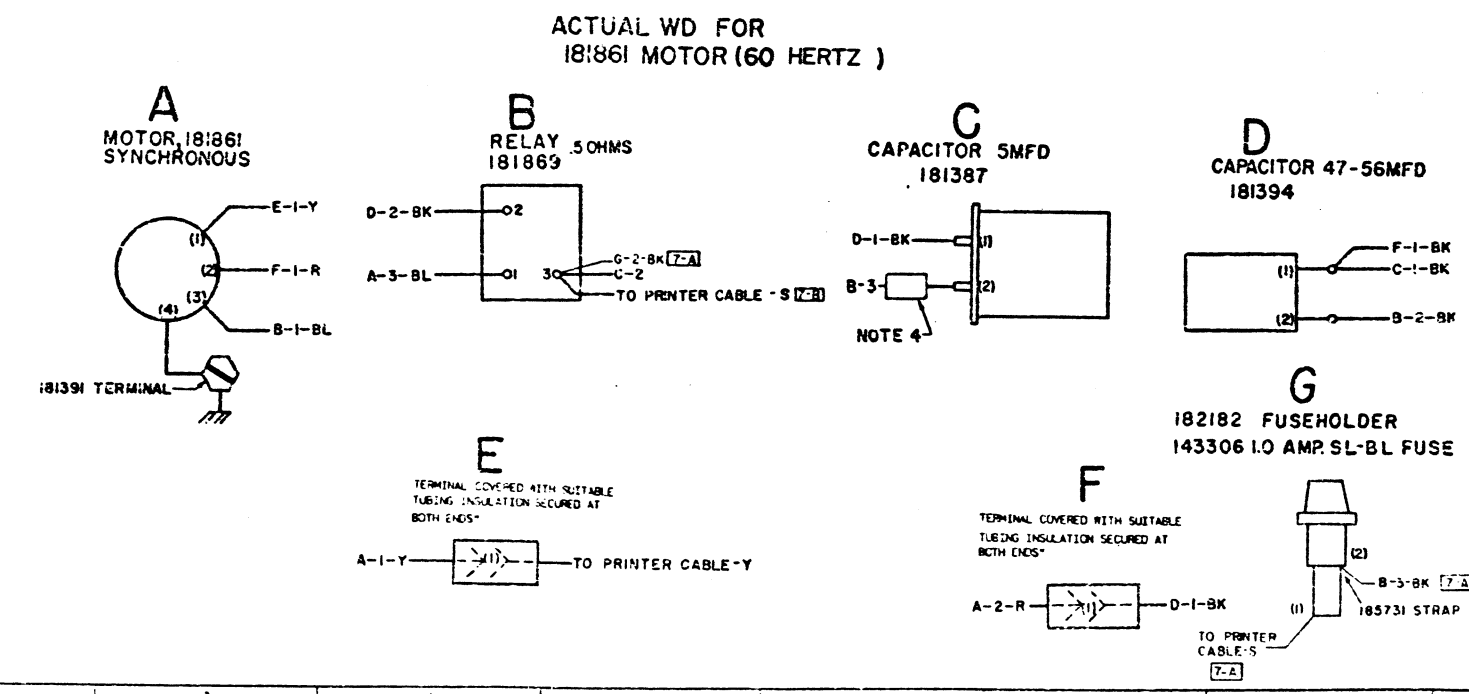
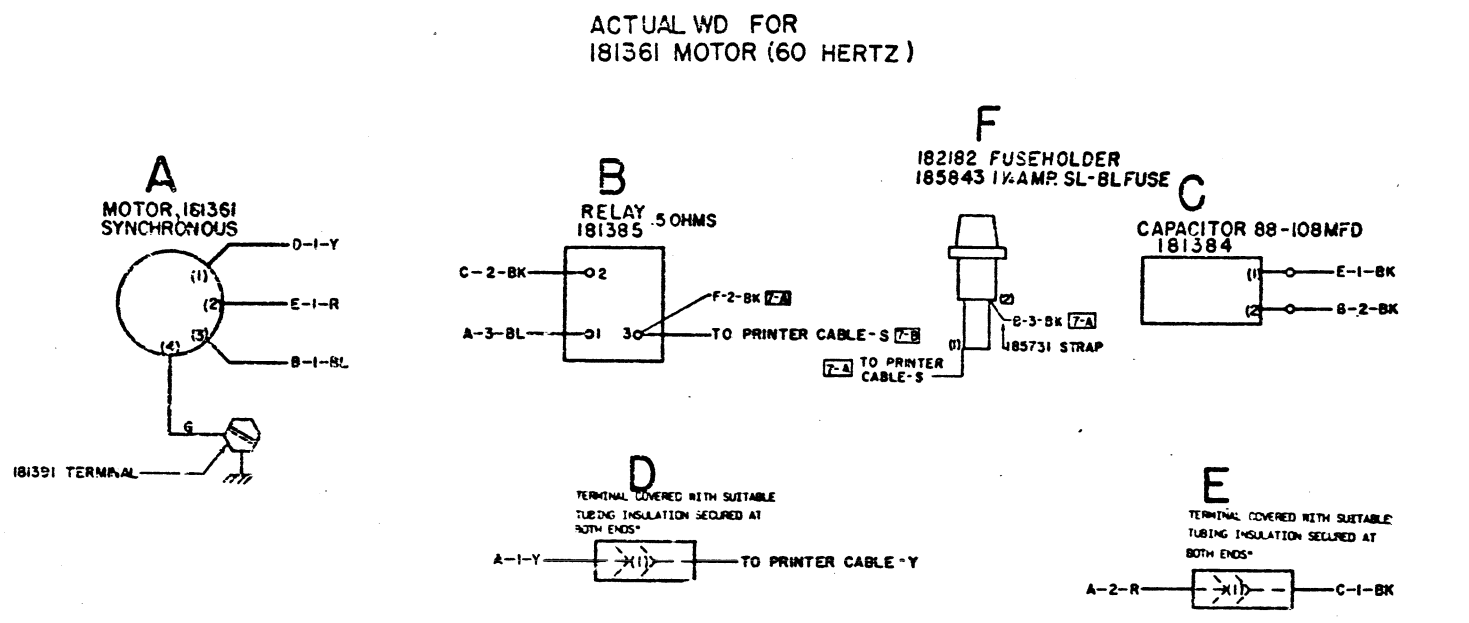
APPROVALS

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

TELETYPE

9334 WD

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



4405 WD

| REVISIONS | | |
|-----------|----------|-----------|
| ISSUE | DATE | AUTH. NO. |
| 12 | 3-3-62 | 30-978 |
| 13 | 11-6-62 | 30-5330 |
| 14 | 1-3-63 | 30-5869 |
| 15 | 11-11-63 | 78856 |
| 16 | 6-9-64 | 91773 |
| 17 | 8-8-65 | 37050 |
| 18 | 1-13-64 | 898-1-3 |
| 19 | 3-9-64 | 89 2. 2 |
| 20 | 2-18-70 | 59647-4 |
| 21 | 8-24-70 | 821 |
| 22 | 12-9-70 | 2145 |
| 23 | 12-14-70 | 2220 |
| 24 | 9-28-76 | 18760 |

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

SHEET 1 TOP

| | |
|---------------------------|--------|
| ACTUAL WIRING DIAGRAM FOR | |
| FOR MODEL 32 & 33 MOTORS | |
| APPROVALS | |
| D AND R | E OF M |
| E-NUMBER | |
| PROJ. NO. 480562 | |
| DATE 2-8-62 | |
| P.D. FILE NO. 1-231.15348 | |
| DRAWN | CHKD. |
| EMOD. P.R.S. | APPD. |
| TELETYPE CORPORATION | |
| 4405 WD | |

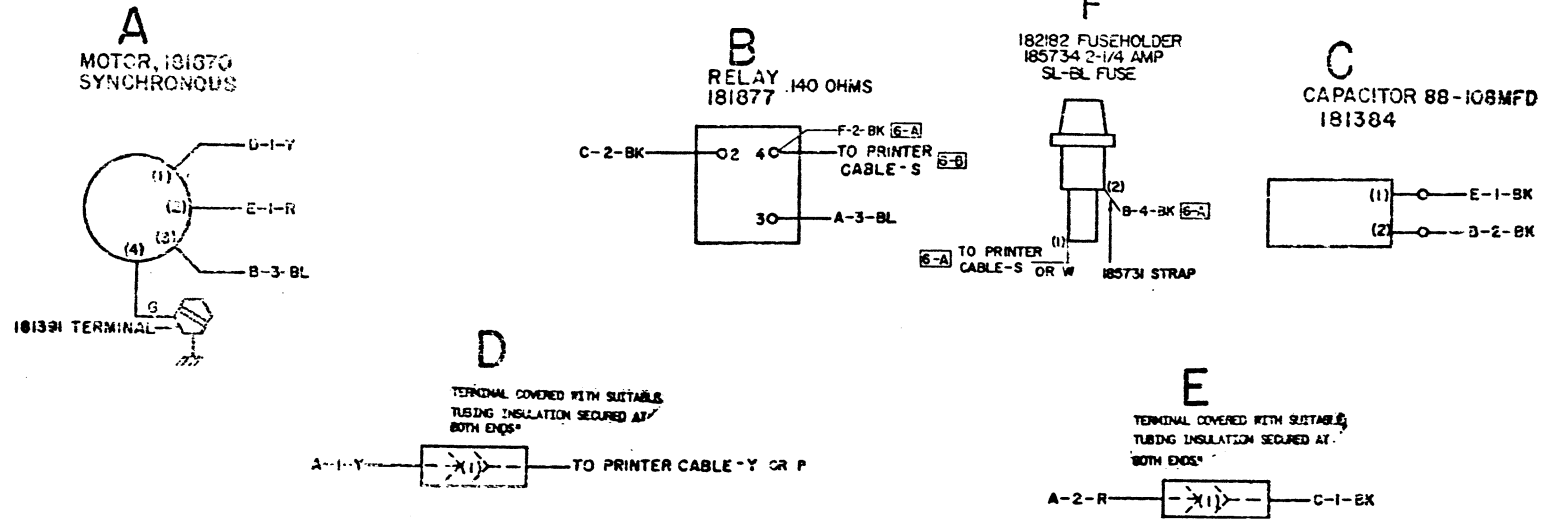
NOTE: ALL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH THE WIRING DIAGRAM AND THE LIST OF SHEETS CONTAINING THE WIRING.

4405WD

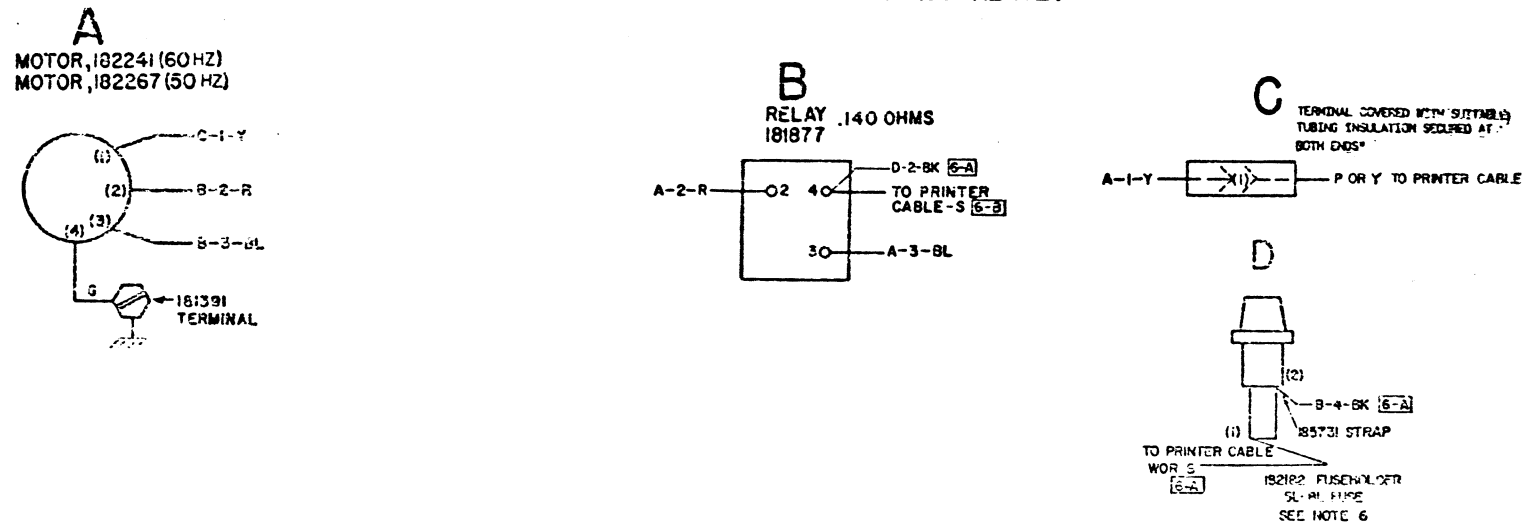
REVISIONS

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

ACTUAL WD FOR 181870 MOTOR (60 HERTZ)



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



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

SHEET 2

ACTUAL WIRING DIAGRAM

FOR MODEL 22 & 33 MOTORS

APPROVALS

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

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

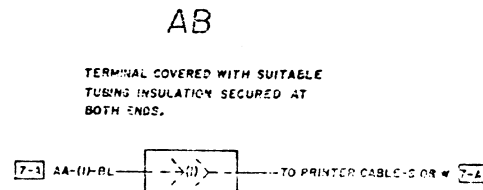
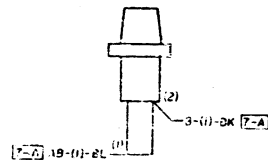
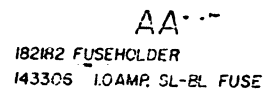
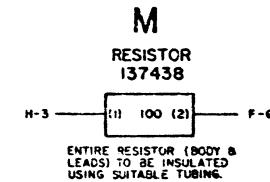
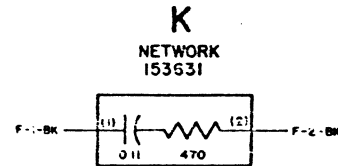
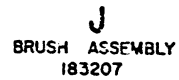
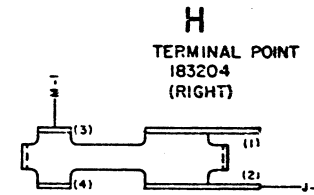
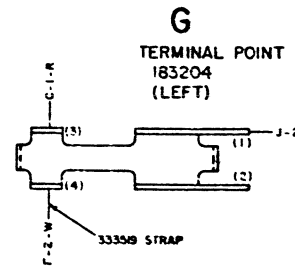
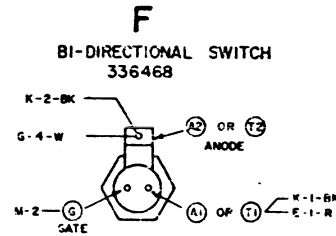
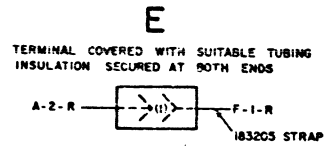
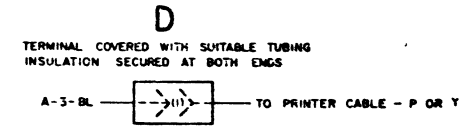
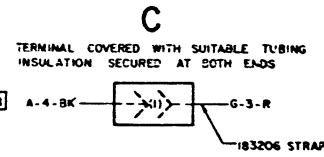
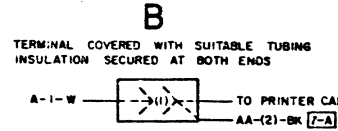
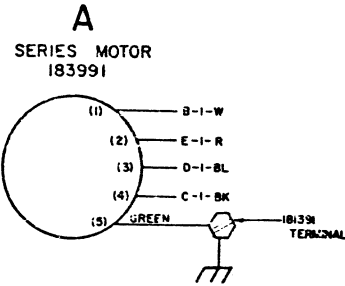
TELETYPE CORPORATION

4405WD

ACTUAL WD FOR
333521 AC SERIES MOTOR

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

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



SEE LIST OF SHEETS COMPRISING THIS

SHEET 3

ACTUAL
WIRING DIAGRAM
FOR MODEL 32/33
MOTORS

APPROVALS

| | | |
|-------------|--------------|------------------|
| PROJ. SUPV. | PROJ. DIR. | MFG. REL. COMPL. |
| | | |
| ENGR. A S | DESIGNER A S | |
| DRN. C E C | DATE 0-1-70 | |
| S-NUMBER | | |

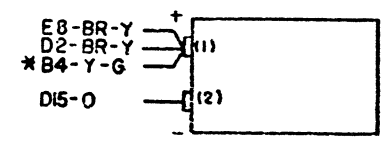


4970 WD

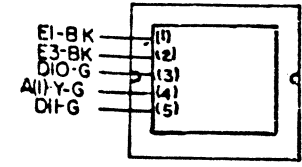
| ISSUE | DATE | AUTH NO |
|-------|---------|---------|
| 1 | 8-1-62 | 30-1265 |
| 2 | 8-5-63 | 77081 |
| 3 | 1-31-64 | 79903 |
| 4 | 5-10-68 | 95523-4 |
| 5 | 1-14-71 | 736 |

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

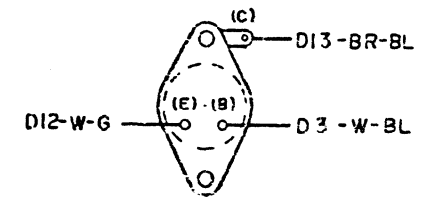
A CAPACITOR FILTER (182501)



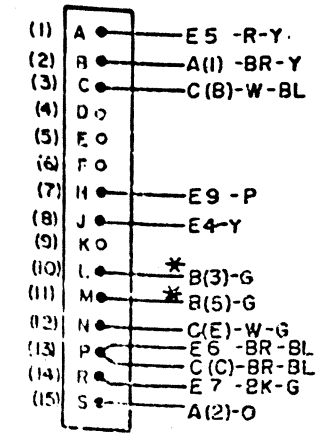
B TRANSFORMER, POWER (337992) 50/60 Hz NOTE 5



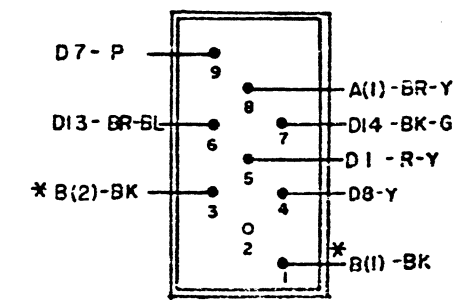
C TRANSISTOR, POWER (181675)



D CONNECTOR, CARD (181819) NOTE 5



E CONNECTOR, RECEPTACLE (182716)



ACTUAL
WIRING DIAGRAM
FOR
182695 B 181815
SELECTOR MAGNET
DRIVER

APPROVALS

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

ENGINEER NUMBER
PRG. NO 4970 WD

DATE: 6-22-62
PD. FILE NO 1-165,33AA
DRAWN *[Signature]* CHK'D *[Signature]*
ENGR. P.R.S. APP'D

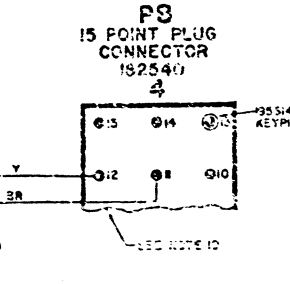
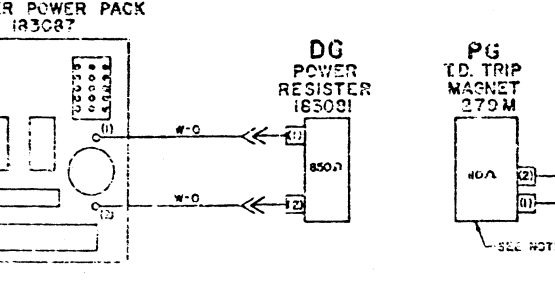
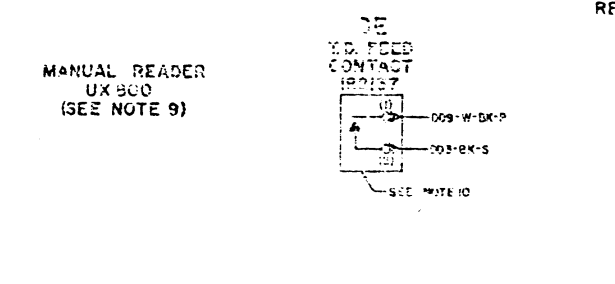
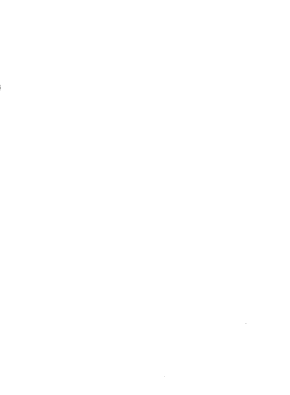
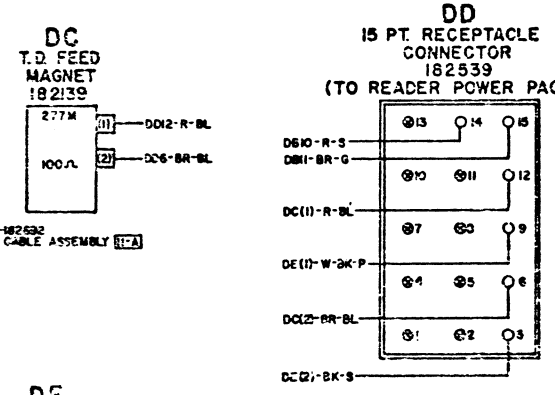
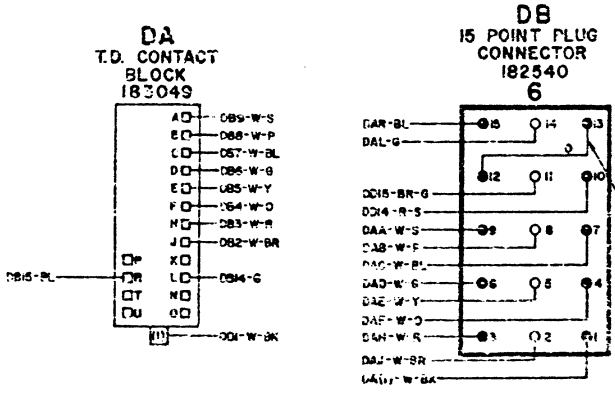
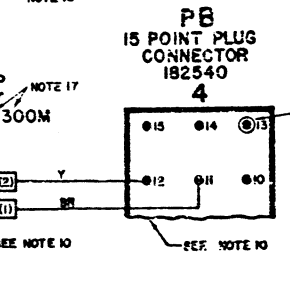
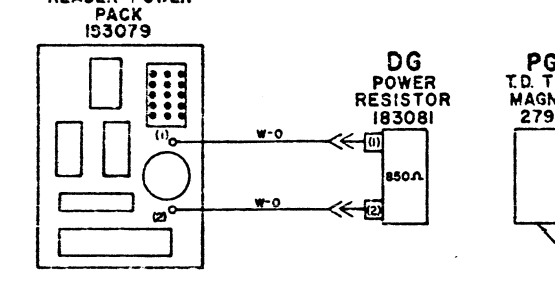
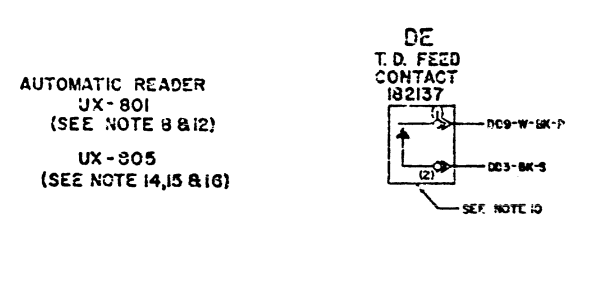
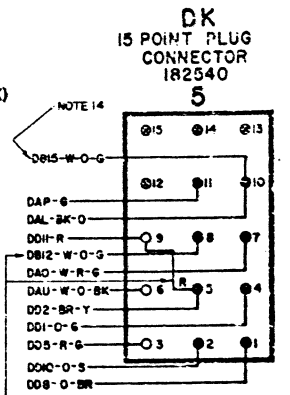
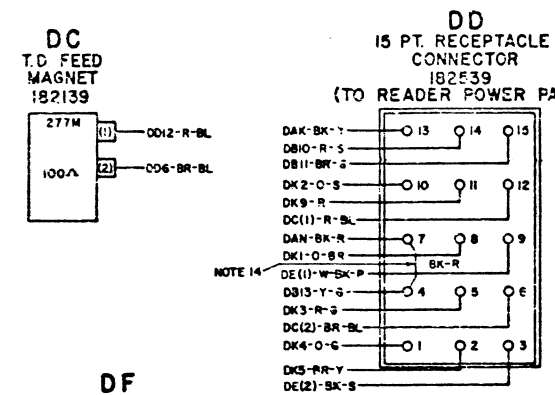
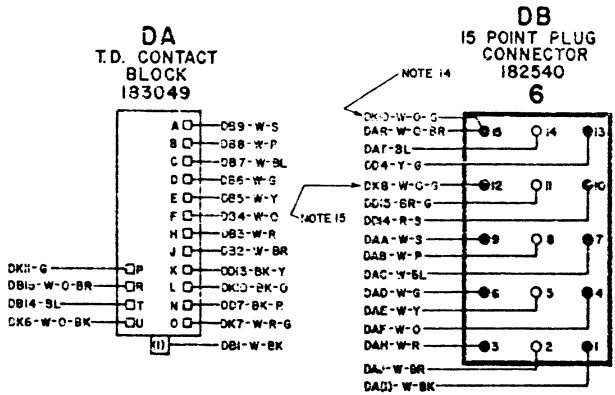
TELETYPE
CORPORATION
4970 WD

7887 WD

REVISIONS

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

- NO. NOTES
1. WIRING LEGEND:
 D - DISTANT TERMINATING AREA
 DT - DISTANT TERMINATING DESIGNATION
 C - COLOR CODE
 DB4-SL
 2. WIRE COLOR CODE:
 W - WHITE BL - BLUE
 BK - BLACK BR - BROWN
 O - ORANGE P - PURPLE
 Y - YELLOW S - SLATE
 G - GREEN R - RED
 3. TERMINALS DESIGNATED () DO NOT APPEAR ON COMPONENT.
 4. FOR TELETYPE PERSONNEL REFERENCES, SPECIFICATION 60425
 5. CONNECTORS VIEWED FROM WIRED END.
 6. FOR SCHEMATIC WIRING DIAGRAM SEE 7882 WD OR S19 WD.
 7. ASSOCIATED UNIT ACTUAL WIRING DIAGRAMS:
 7884 WD PRINTER - UP800, 801, 802, 803, 820
 7885 WD KEYBOARD - UK800, 804
 7886 WD MOTOR
 7888 WD CALL CONTROL - UCC-3
 4970 WD SELECTOR MAGNET DRIVER
 8158 WD CALL CONTROL - UCC 26
 8160 WD PRINTER - UP 836
 8. OPTIONAL UX-801 AUTOMATIC READER - 183073 CABLE ASSEMBLY, USED ONLY WITH UP801, 803, 820 PRINTER ASSEMBLIES.
 9. MANUAL READER - UX800 183074 CABLE ASSEMBLY, USED ONLY WITH UP801, 803 PRINTER ASSEMBLIES.
 10. THESE COMPONENTS ARE MOUNTED ON UP801, 803, 820 PRINTER ASSEMBLIES BUT ACTUALLY ARE PART OF READER CIRCUIT. SEE PRINTER 7884 WD.
 11. 182592 CABLE ASSEMBLY (STRAP) NOT REQUIRED WHEN UX800 IS USED WITH EARLY STYLE (BEFORE UCC-3 WIRING CHANGED TO ACCOMMODATE UX801 FACILITIES) UCC-3 CALL CONTROL UNITS WITHOUT WIRES IN POSITION 12 AND 13 OF MATING CALL CONTROL RECEPTACLE CONNECTOR NO. 6.
 12. SEE PRINTER 7884 WD FOR MODIFICATION TO UP801, 803 PRINTER ASSEMBLIES TO PROVIDE AUTOMATIC READER CONTROL OPTIONS.
 13. WIRING STATUS:
 RECTANGULAR BOX INDICATES HISTORY OF WIRING CHANGES
 B - DENOTES WIRING BEFORE THE CHANGE DESCRIBED BY THE DESIGNATED NOTE NUMBER ENTERED THE PRODUCT.
 A - DENOTES WIRING AFTER THE CHANGE DESCRIBED BY THE DESIGNATED NOTE ENTERED THE PRODUCT.
 14. ASSOCIATED WITH THE UX-805 ONLY.
 15. THERE WIRES DO NOT APPEAR ON UX-805
 16. AUTOMATIC READER UX-805 183340 CABLE ASSEMBLY.
 17. 279M - 48VAC - 110 Ω
 300M - 115VAC - 760 Ω



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

APPROVALS

D AND R E OF M

E-NUMBER

PROD. NO. 7887 WD

DATE 9-3-55

P.D. FILE NO. G-A152AA

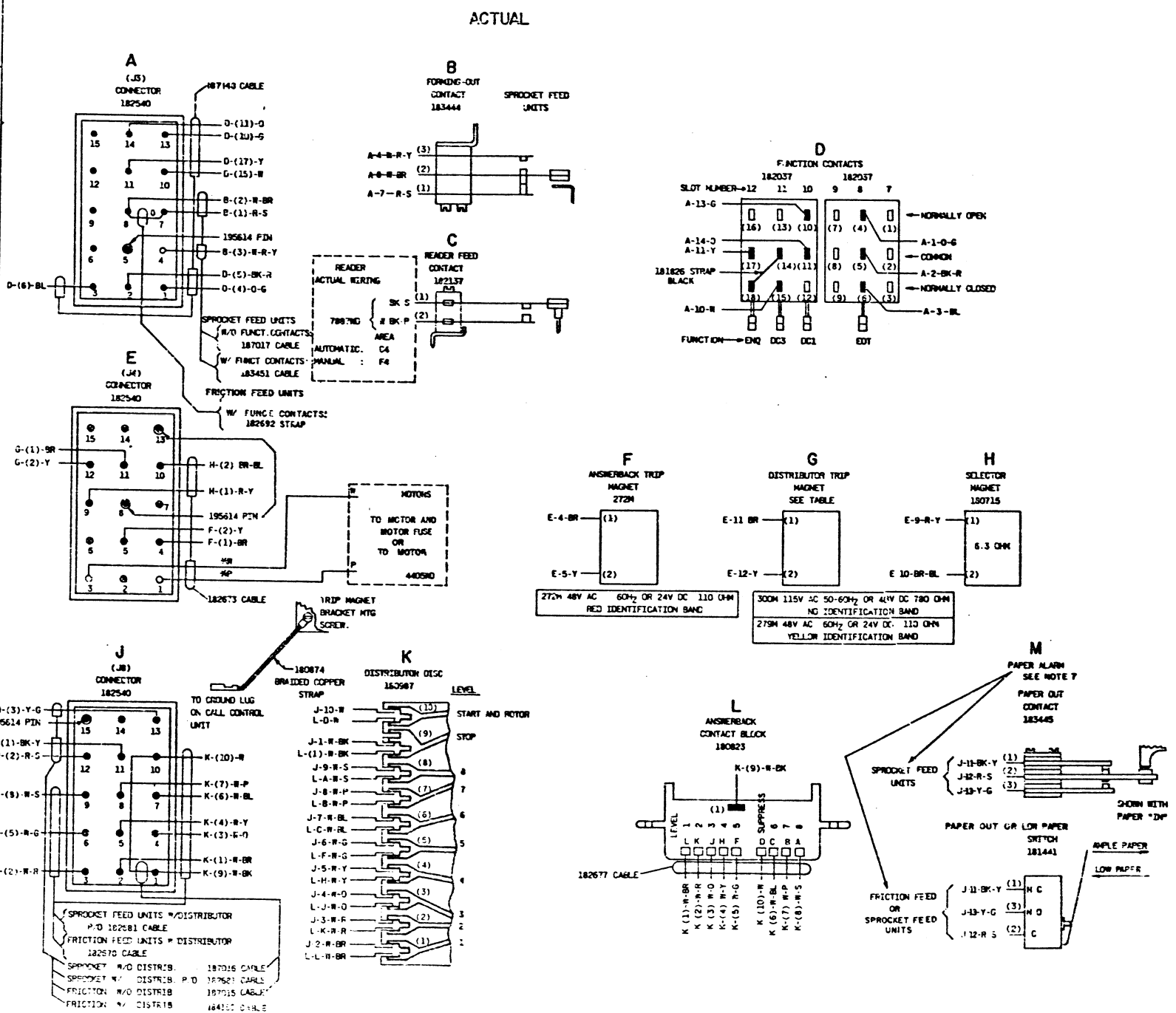
DRAWN RMB

ENGD. JWS

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.
 - SYMBOLY:
() 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:
J3 P3
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 9387WD EXCEPT FOR AREA DESIGNATIONS.
 - PAPER ALARM SWITCH "M" (SPOCKET FEED) CHANGED FROM CONTACT PILE TO SNAP ACTION SWITCH AT ISSUE 5 OF THIS DRAWING.



| REVISIONS | | |
|-----------|---------|-----------|
| ISSUE | DATE | AUTH. NO. |
| 1 | 7-7-71 | 21643R |
| 2 | 8-5-71 | 4243-RC |
| 3 | 1-2-72 | 4953-RC |
| 4 | 1-17-72 | 4453 |
| 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. | WFB REL. COMPL. |
| W.F.P. RKS | | |
| ENGR. DES. 10569R | | |
| DRN. S.D. DATE 5-12-71 | | |
| P.O. FILE 6-1152 212A | | |
| S. NUMBER 61 310 | | |

TELETYPE

9335 WD

SHEET INDEX

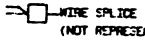
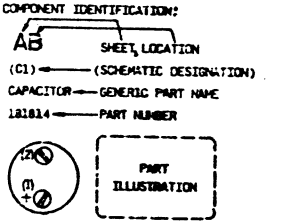
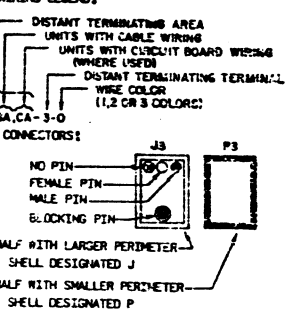
| CONTENTS | SHEET NO. | ISSUE NO. | | | | | | | | | | | | | | | | | | | | | | | | | | | | SHEET NO. |
|---|-----------|-----------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | |
| SHEET INDEX AND NOTES | A1 | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | 11 |
| MODEL 33 CALL CONTROL UNIT UCC 6 WIRING | B1 | 1 | 2 | 3 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | B1 |
| MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CABLE WIRING) | B2 | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | | | | | | | | | | | | | B2 |
| MODEL 33 CALL CONTROL UNIT UCC 6 WIRING (UNITS WITH CIRCUIT BOARD WIRING) | B2A | | | 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | B2A |

SUPPORTING INFORMATION

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

REVISIONS

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

- NO. NOTES
- WIRE COLOR CODES:
BK - BLACK G - GREEN
BR - BROWN BL - BLUE
R - RED P - PURPLE
O - ORANGE S - SLATE
Y - YELLOW W - WHITE
 - COMPONENT VIEWS SHOWN FROM WIRED SIDE.
 - SYMBOLS
() TERMINAL DESIGNATION WITHIN IS FOR REFERENCE AND IS NOT MARKED ON THE COMPONENT.
--- ASSOCIATED TERMINALS, CONNECTIONS, OR FUNCTIONS.
* DENOTES 20 AWG. WIRE,
** DENOTES 18AWG WIRE,
ALL OTHER IS 24AWG.
 WIRE SPLICE (NOT REPRESENTED ON SCHEMATIC)
 - COMPONENT IDENTIFICATION:

 - WIRING LEGENDS:

 - ALL WIRING PART OF 221820 CABLE ASSEMBLY EXCEPT WHERE OTHERWISE SPECIFIED.
 - REFER TO 1180SD FOR A RELATED SET SCHEMATIC DIAGRAM.

- THIS DRAWING SHOWS ALL WIRING AND ELECTRICAL COMPONENTS USED ON THIS SERIES OF SETS. THE PRESENCE OF A GIVEN COMPONENT ON A PARTICULAR SET, HOWEVER, DEPENDS UPON THE FEATURES ORDERED ON THAT SET.
- CUSTOMER OPTIONS:
THIS UNIT CONTAINS WIRING OPTIONS FOR INTERFACING A 20MA OR 60MA DC CURRENT SIGNAL LOOP AS WELL AS INTERFACING IN A HALF DUPLEX (TWO WIRE) OR FULL DUPLEX (4 WIRE) CONFIGURATION.
20 AND 60MA SIGNALING CURRENT OPTION WIRING APPEARS AT THE COMPONENTS DESIGNATED AC AND BL.
HALF AND FULL DUPLEX OPTION WIRING APPEARS AT COMPONENT BL.
OPTION WIRING SHOULD BE CONNECTED AS INDICATED FOR THE DESIRED OPTION.
THIS UNIT HAS BEEN PRE-WIRED AT THE FACTORY FOR 60MA DC, HALF DUPLEX OPERATION.
- REFER TO 4970WD FOR WIRING OF 181818 SELECTOR MAGNET DRIVER ASSEMBLY WHICH IS ALSO PART OF THIS UNIT.

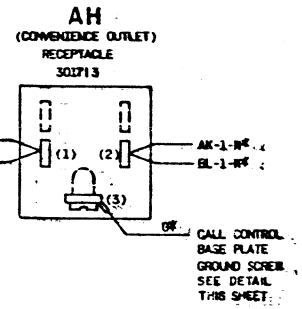
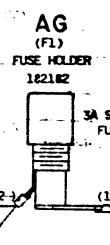
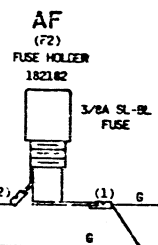
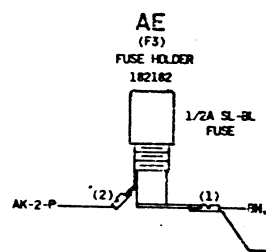
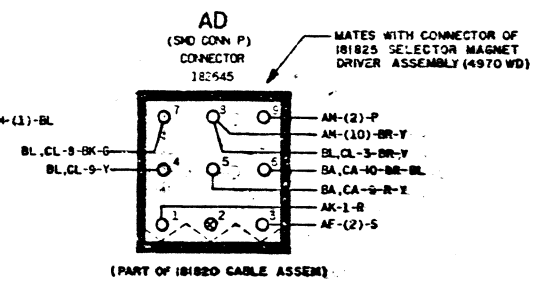
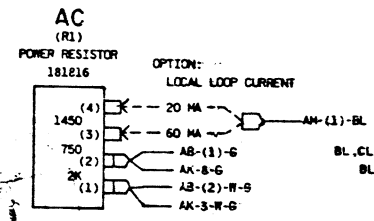
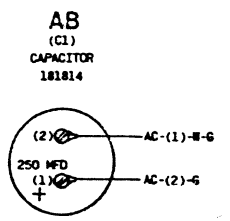
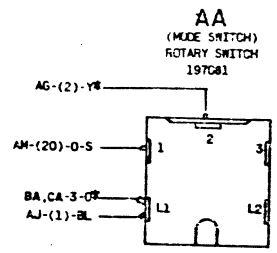
- SHEET INDEX NOTES
- WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
 - THIS SHEET INDEX WILL BE REISSUED AND UPDATED EACH TIME ANY SHEET OF THE DRAWING IS REISSUED OR A NEW SHEET IS ADDED.
 - THE LAST COMPLETED COLUMN INDICATES THE LATEST ISSUE NUMBER OF THE SHEET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

WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

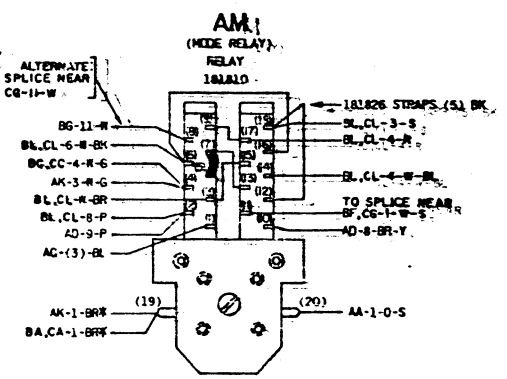
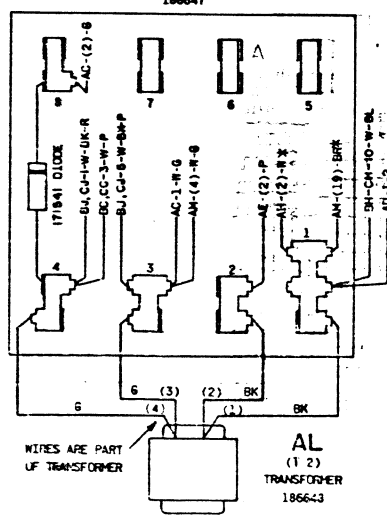
APPROVALS

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

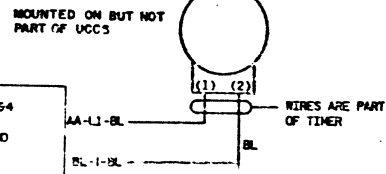
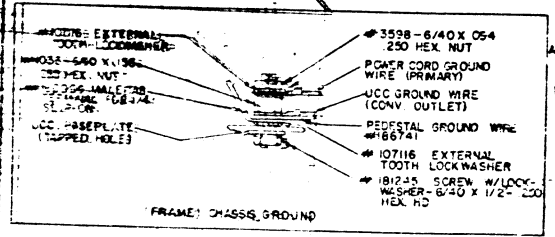
| REVISIONS | | |
|-----------|----------|-----------|
| ISSUE | DATE | AUTH. NO. |
| 1 | 8-6-71 | 21643R |
| 2 | 5-23-73 | 8197 |
| 3 | 11-21-75 | 8046 |
| 4 | 2-2-75 | 722 B |



AK
(TERMINAL FIELD)
TERMINAL BOARD ASSEMBLY
186647



THE ORDER OF ASSEMBLY AS ILLUSTRATED MUST BE FOLLOWED TO MEET CSA STANDARDS C22.2



WIRING DIAGRAM FOR MODEL 33 CALL CONTROL UNIT UCC 6

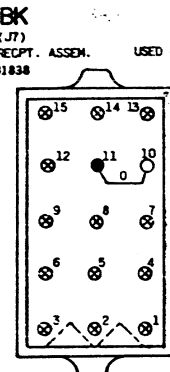
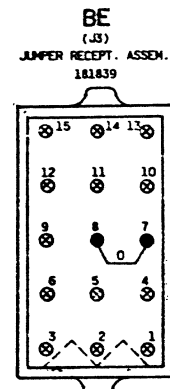
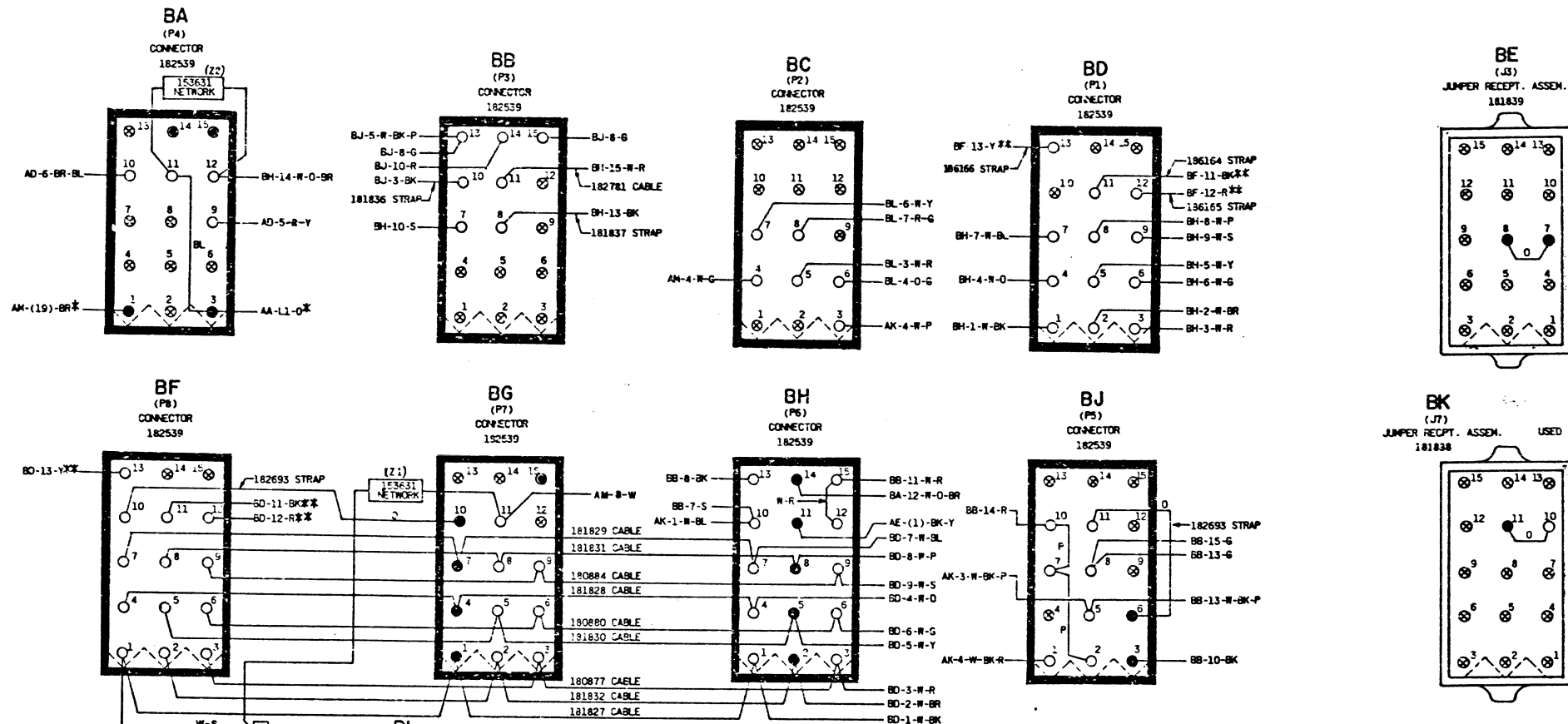
APPROVALS

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



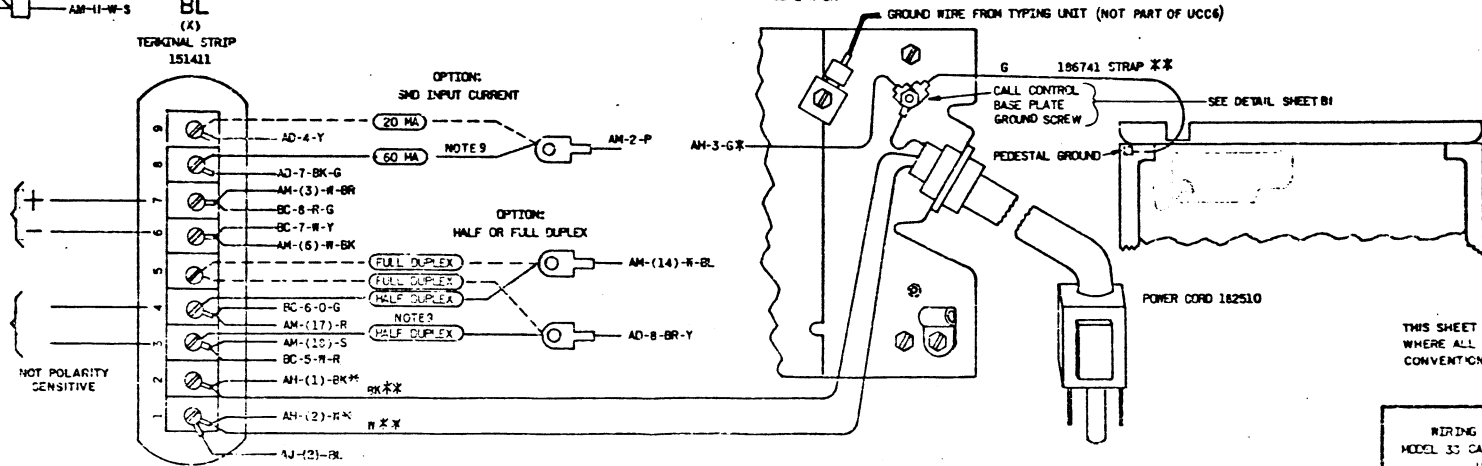
UNITS WITH CABLE WIRING

| |
|-------|
| ISSUE |
| 1 |
| 2 |
| 3 |
| 4 |
| 5 |



CUSTOMER SIGNAL INTERFACE

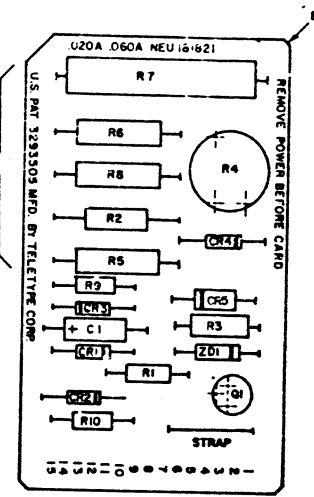
| | |
|------------------|-------------|
| HALF DUPLEX | FULL DUPLEX |
| RECEIVE AND SEND | RECEIVE |
| NOT USED | SEND |



WIRING DIAGRAM FOR
MODEL 35 CALL CONTROL UNIT
UCC 6

| NO | NOTES |
|----|---|
| 1 | MASTER ARTWORK NO 181821AW FOR PRINTING SCREEN IS AVAILABLE IN R&D OFFICE SERVICE SECTION |
| 2 | RAISE R2 5, 6, 7 8 - 1/32 TO 1/16" ABOVE CIRCUIT CARD |
| 3 | TO FACILITATE MANUFACTURE THE COMPONENT LAYOUT WAS CHANGED INCLUDING R1 AND CR-5 WHICH WAS CHANGED FROM VERTICAL MOUNTING AND THE ADDITION OF 336470 OR RM-39550 STRAP. |
| 4 | CR1, CR2-182520 (1N4393) AND CR3, CR4-181619 (1N482) WERE REPLACED FOR STANDARDIZATION. |
| 5 | TO FACILITATE MANUFACTURE, Q1 WAS CHANGED FROM 131671. THIS ALSO REQUIRED CHANGING CR5 FROM 178844 VARISTOR (100A) AND ZD1 FROM 182774 (1N4732A 4.7V). SCHEMATIC SYMBOL FOR 178844 WAS AND IT COULD BE INSERTED IN BOARD IN EITHER DIRECTION. |

SEE NOTE 2



CIRCUIT DESCRIPTION

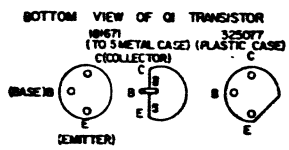
THE SELECTOR MAGNET DRIVER CIRCUIT IS POWERED FROM A SOURCE OF 117 VOLT ALTERNATING CURRENT THROUGH A STEP DOWN ISOLATION TRANSFORMER. DIODES CR1 AND CR2 PROVIDE FULL WAVE RECTIFICATION OF THE REDUCED VOLTAGE TO 20 VOLTS DC AT TERMINAL 15. THE CIRCUIT COMMON IS CONNECTED TO TERMINAL 2 AND A POWER SUPPLY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

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

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

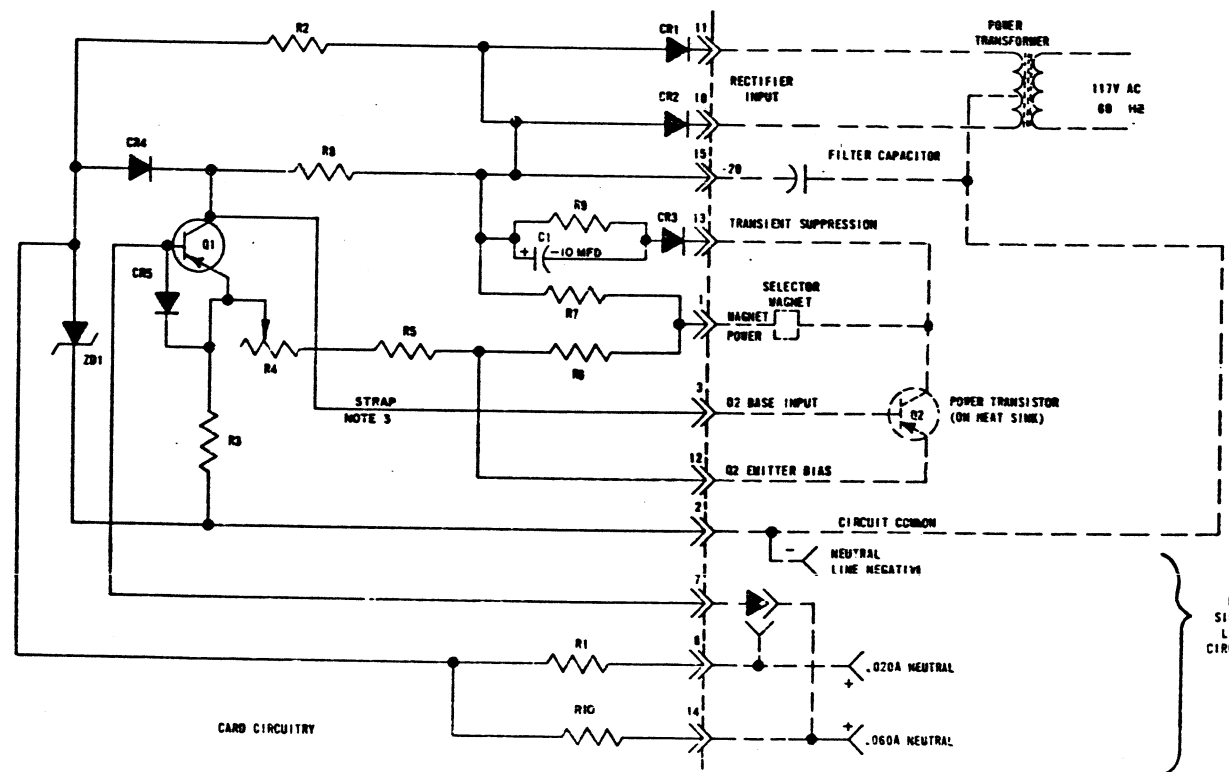
WITH THE SIGNAL LINE IN THE OPEN OR SPACING CONDITION, Q1 IS TURNED ON BY BASE CURRENT SUPPLIED THROUGH RESISTOR R1 OR T.D. THE POTENTIAL AT THE COLLECTOR OF Q1 WILL BE NEAR ZERO OFF-BIASING Q2 WITH Q2 OFF. NO SELECTOR MAGNET CURRENT FLOWS, ALLOWING THE MAGNET TO RELEASE. DURING THE TURN OFF OF Q2, THE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

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



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 1/20 | Q1 AMP SWITCHING LINE |
| R10 | 182797 | 1 | RESISTOR 135 OHMS 1/20 | Q2 AMP SWITCHING LINE |
| R2 | 181669 | 1 | RESISTOR 330 OHMS 2 5/8 | ZENER CURRENT LIMITING |
| R3 | 182778 | 1 | RESISTOR 0.82 OHMS 1/20 | COMMON EMITTER BIAS ADJUST |
| R4 | 182773 | 1 | RHEOSTAT 3 OHMS 2 5/8 | OUTPUT CURRENT ADJUST |
| R5 | 181717 | 1 | RESISTOR 2 OHMS 5/8 | Q2 EMITTER BIAS |
| R6 | 182770 | 1 | RESISTOR 270 OHMS 4 1/8 | Q2 EMITTER BIAS |
| R7 | 182772 | 1 | RESISTOR 14 OHMS 1/8 | Q2 COLLECTOR LOAD |
| R8 | 182827 | 1 | RESISTOR 390 OHMS 4 1/8 | Q1 COLLECTOR LOAD |
| R9 | 182776 | 1 | RESISTOR 150 OHMS 1/20 | Q2 COLLECTOR - TRANSIENT LIMITING |
| CR1 | 171541 | 3 | DIODE (NOTE 4) | POWER RECTIFIER |
| CR2 | | | SAME AS CR1 | POWER RECTIFIER |
| CR3 | 197464 | 2 | DIODE (NOTE 4) | COLLECTOR TRANSIENT LIMITING |
| CR4 | | | SAME AS CR3 | VOLTAGE CLAMPING |
| CR5 | | | SAME AS CR1 | INPUT PROTECTION |
| ZD1 | 342922 | 1 | DIODE ZENER 1N4733A 5.1V | REFERENCE |
| C1 | 182828 | 1 | CAPACITOR 10 MFD 250 VDC | COLLECTOR TRANSIENT LIMITING |
| Q1 | 32077 | 1 | TRANSISTOR 2N4350 | INPUT SWITCH |
| RM39550 | | | STRAP | NOTE 3 |
| EC | 181823 | 1 | CIRCUIT BOARD, ETCHED | |

SEE NOTE 5

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

| REV. NO. | DATE | BY | CHKD. |
|----------|----------|----|-------|
| 1 | 10/28/63 | | |
| 2 | 11/10/63 | | |
| 3 | 1/15/64 | | |
| 4 | 4/1/64 | | |
| 5 | 4/28/67 | | |

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

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

SIMILAR TO:

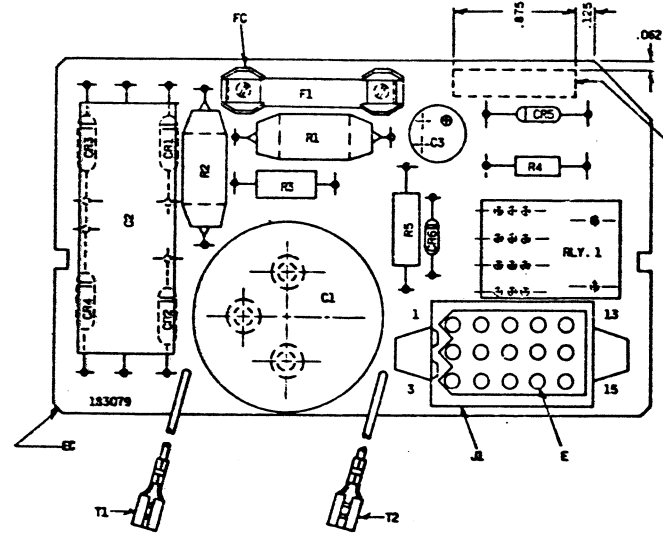
| NO | NOTES |
|----|--|
| 1. | MASTER ARTWORK NO.: 183079AM FOR PRINTED SCREENER AVAILABLE IN R & D OFFICE SERVICE SECTION. |
| 2. | SOME PREVIOUS CIRCUIT CARD ASSEM. USED 1/2 AFB. 3/4 AFB. IS PREFERABLE. |
| 3. | COMPONENT LAYOUT WAS CHANGED TO ALLOW FOR NEW STYLE CAPACITOR WITH VENT. |
| 4. | R5 CHANGED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

CIRCUIT DESCRIPTION

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

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

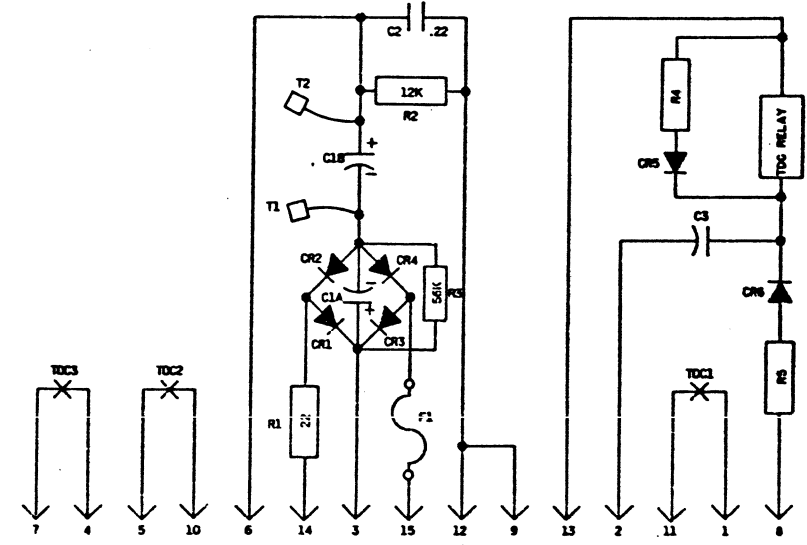
TDC RELAY CONTACTS ARE USED FOR AUTOMATIC READER CONTROL. 48V AC INPUT IS RECTIFIED THRU R5 AND CR6 BEFORE REACHING TDC RELAY. CAPACITOR C3 FILTERS TO GROUND THRU COMMON POINT OF TDC1.



UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

| REVISIONS | | | | | |
|-------------------------------|-------|------|-----------|-----------------|-----------|
| CIRCUIT NUMBER IDENTIFICATION | ISSUE | DATE | AUTH. NO. | COMPLIANCE DATE | AUTH. NO. |
| 13 | B | 5 | 14 | 12174 | |

POWER PACK ASSEMBLY W/RELAY



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

CIRCUIT CARD
EC 183079
POWER PACK ASSEMBLY
W/RELAY

| APPROVALS | |
|-----------------------|------------------------|
| PROG. SUPV. | PROG. MFG. REL. COMPL. |
| ENGR. T.Y. DSGM. | |
| DRN. F.R. DATE 8-4-72 | |
| E-NUMBER | |
| SD-CD NO | |
| R & D FILE 1-47-60-AA | |
| TELETYPE | |
| | |
| 183079 | |

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED

UL RECOGNITION SYMBOL REQUIRED PER MR 2001.

CIRCUIT CARD ASSEMBLY

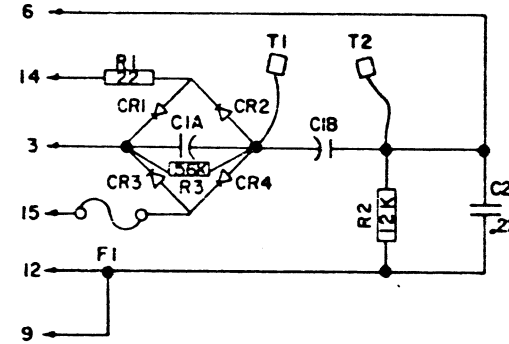
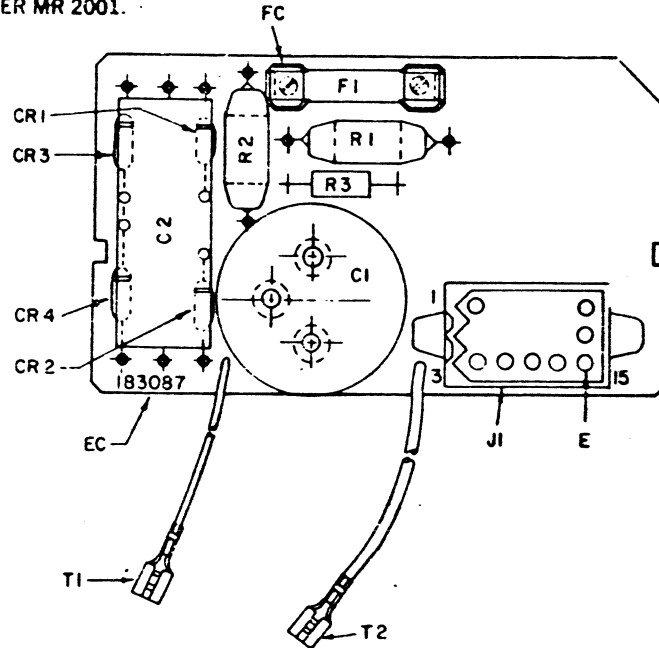
POWER PACK ASSEMBLY

NO B/M

183087

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

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



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

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

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

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

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

WDP

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

TELETYPE CORPORATION
183087

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

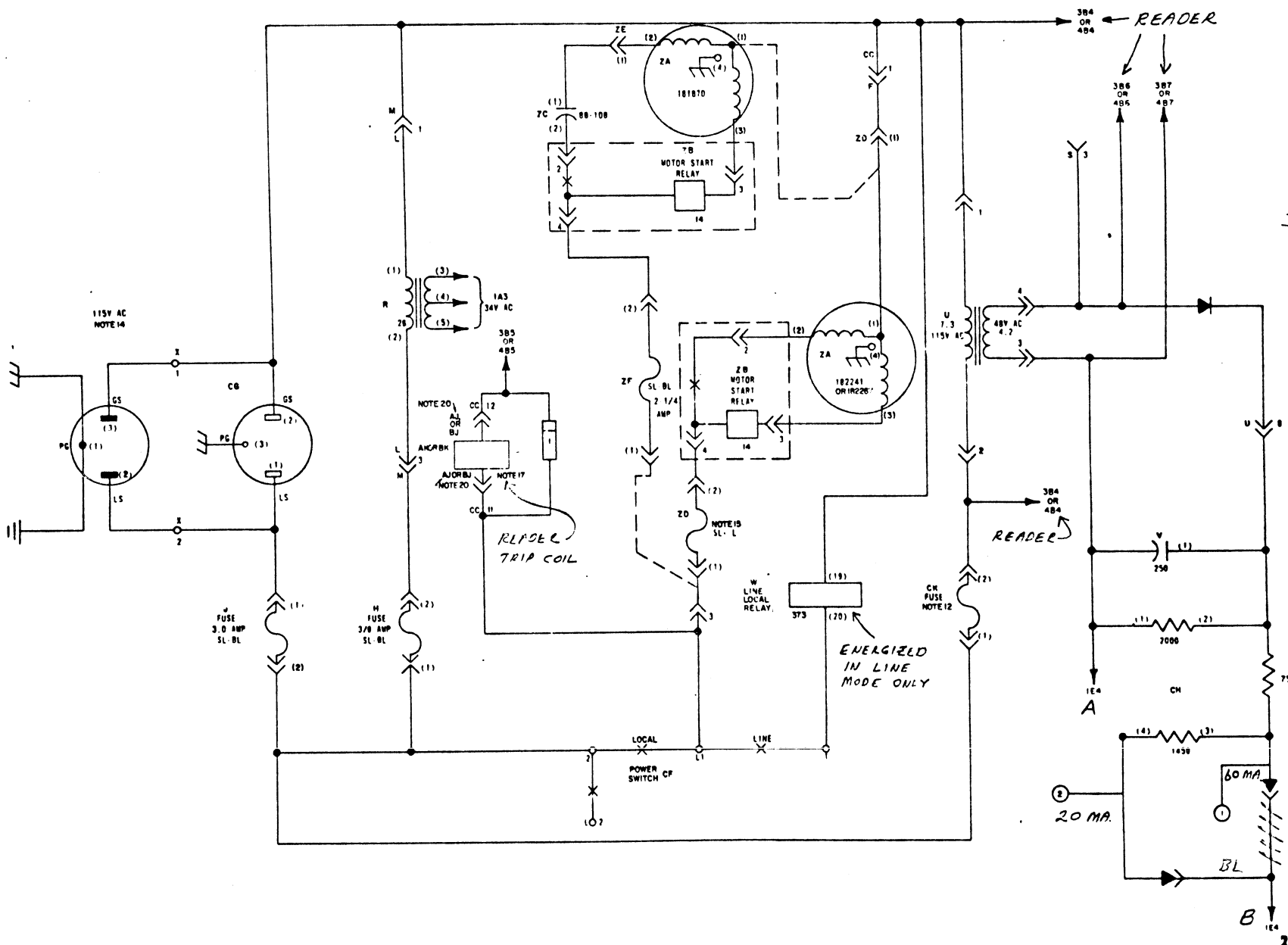
SEE SHEET 1 FOR NOTES

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

6353WD

REVISIONS

| ISSUE | DATE | A/JTM NO. |
|-------|----------|------------|
| 2 | 11-20-63 | 256 |
| 3 | 1-8-64 | 1334 |
| 4 | 4-9-64 | 140 |
| 5 | 6-9-64 | 173 |
| 6 | 11-27-64 | 4672 |
| 7 | 2-16-65 | 113 |
| 8 | 3-14-65 | 143 |
| 9 | 8-3-65 | 153 |
| 10 | 10-15-65 | 11182 |
| 11 | 12-17-65 | 12267 |
| 12 | 1-13-66 | 13443 |
| 13 | 2-17-66 | 14597 |
| 14 | 3-9-66 | 15721 |
| 15 | 3-29-66 | 16790 |
| 16 | 5-2-66 | 18074 |
| 17 | 9-10-66 | 19314 |
| 18 | 10-2-66 | 20271 |
| 19 | 10-4-66 | 21111 |
| 20 | 12-28-66 | 2197 |
| 21 | 12-21-67 | 25147, INC |



SEE ISSUE CONTROL RECORD FOR ORIGINATOR'S LIST OF SHEETS COMPRISING THIS WORK
SHEET 5

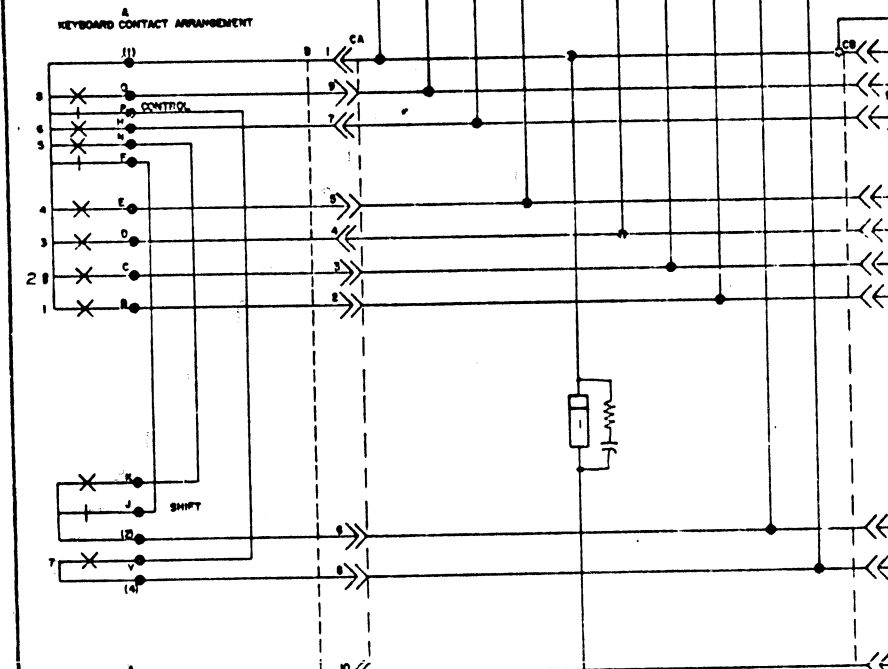
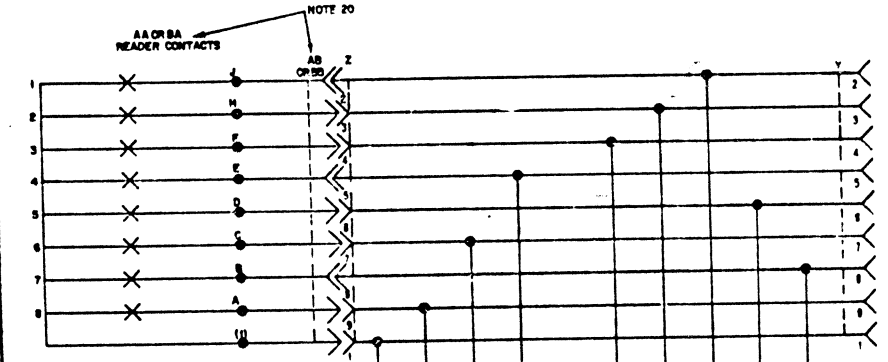
SCHEMATIC
WIRING DIAGRAM
FOR
MODEL 33
AMP, KSR, MO
DC SIGNAL LINE

APPROVALS
D AND R
E OF M

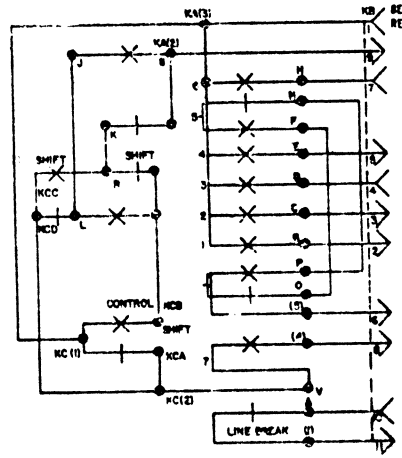
E-NUMBER
PROD. NO. 6353 WD
DATE 4 23 67
P.D. FILE NO. 2-50152/1114
DRAWN JR
ENGD. A B

TELETYPE
CORPORATION
6353WD

SEE SHEET 1 FOR NOTES



SPARE
OR CUSTOMER'S
OPTION



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

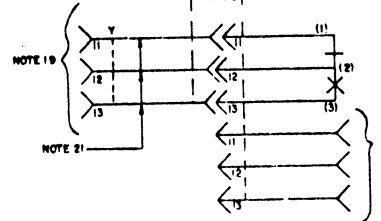
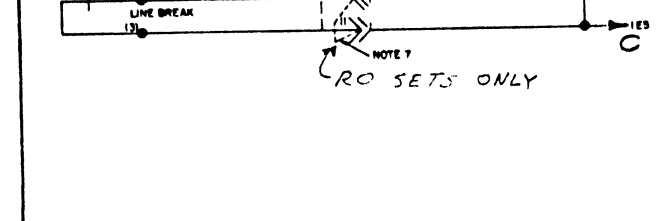
KA AND KC
PARITY KEYBOARD CONTACT
ARRANGEMENT

6353WD

REVISIONS

| ISSUE | DATE | AUTH. NO. |
|-------|----------|-----------|
| 2 | 11-27-63 | 79269 |
| 3 | 1-9-64 | 79334 |
| 4 | 4-9-64 | 84407 |
| 5 | 6-9-64 | 8773 |
| 6 | 11-27-64 | 84402 |
| 7 | 2-15-65 | 84771 |
| 8 | 3-2-65 | 84771 |
| 9 | 3-2-65 | 84771 |
| 10 | 3-2-65 | 84771 |
| 11 | 3-2-65 | 84771 |
| 12 | 3-2-65 | 84771 |
| 13 | 3-2-65 | 84771 |
| 14 | 3-2-65 | 84771 |
| 15 | 3-2-65 | 84771 |
| 16 | 3-2-65 | 84771 |
| 17 | 3-2-65 | 84771 |
| 18 | 3-2-65 | 84771 |
| 19 | 3-2-65 | 84771 |
| 20 | 3-2-65 | 84771 |
| 21 | 3-2-65 | 84771 |
| 22 | 3-2-65 | 84771 |

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



O PAPER OUT
ALARM

NOTE 19

NOTE 11

SHEET 2

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

APP: RC WALS

D AND R E OF M

E-NUMBER

PROD. NO. 6353WD

DATE 4 12 67

P.R. FILE NO. 3 30 152 10248

DRAWN JR CHD

EMD 65 APPS

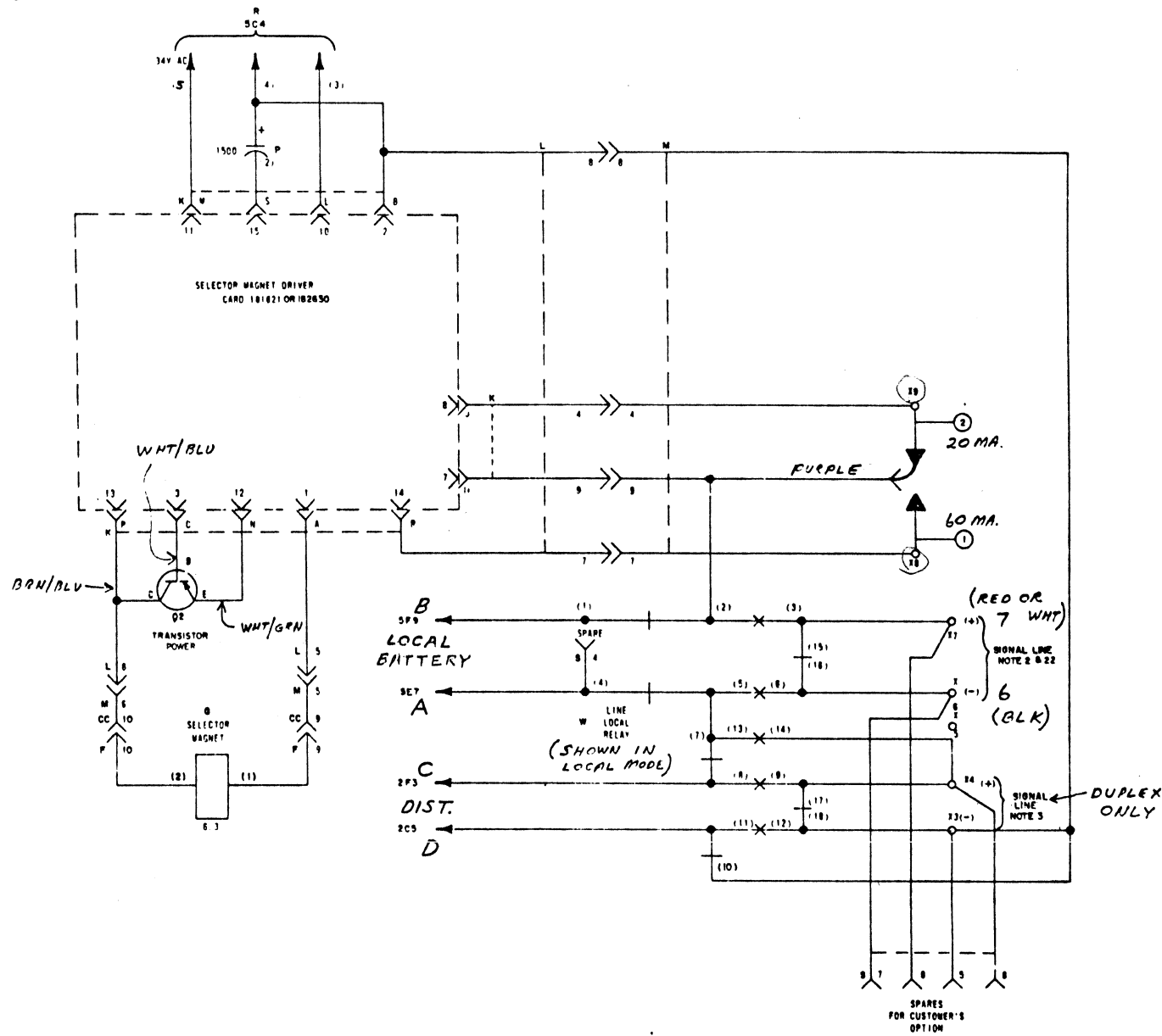
TELETYPE
CORPORATION

6353WD

- NO. NOTES
- FOR ACTUAL WIRING DIAGRAM SEE 6354WD
 - THE SET IS SHOWN WIRED FOR SIMPLEX 020 AMP NEUTRAL SIGNAL LINE ON TERMINALS 8 AND 7 OF THE 151411 TERM. STRIP FOR 020 AMP NEUTRAL SIGNAL LINE MOVE THE P WIRE FROM TERMINAL 8 TO TERMINAL 9 OF THE 151411 TERMINAL STRIP ALSO MOVE THE BL WIRE FROM TERMINAL 3 OF THE POWER RESISTOR 181818 TO TERMINAL 4
 - FOR FULL DUPLEX OPERATION CONNECT THE SEND SIGNAL LINE TO TERMINAL 4 AND 3 OF THE 151411 TERMINAL STRIP MOVE THE W. BL WIRE FROM TERMINAL 4 TO 5 AND THE BR Y WIRE FROM TERMINAL 3 TO 5 ON THE 151411 TERMINAL STRIP
 - ON KSR SETS ALL ASSOCIATED READER WIRING IS NOT USED
 - ALL CAPACITANCE VALUES IN MICROFARADS UNLESS OTHERWISE SPECIFIED
 - ALL RESISTORS 1/2 WATT AND RESISTANCE VALUES IN OHMS UNLESS OTHERWISE SPECIFIED
 - ON RD SETS USE 181836 PLUG ASSEMBLY
 - THESE CONNECTIONS ARE MADE AS OPTIONS BY THE CUSTOMER AND OR THE FACTORY
 - 020 AMP SIGNAL LINE OPTION ①
020 AMP SIGNAL LINE OPTION ②
 - THIS IS AN 8 LEVEL UNIT
 - THESE WIRES ARE IN THE DISTRIBUTOR CABLE AT SPARES IF NOTE 19 APPLIES TAPE AND TIE BACK THESE WIRES.
 - THIS FUSE NOT INCLUDED ON SOME SETS. FUSE VALUES ARE AS FOLLOWS
- | TRANSFORMER | FUSE | PART NO. |
|-------------|------------------|----------|
| 181818 | 1/2 AMP SL. BL. | 117116 |
| 182857 | 8 10 AMP SL. BL. | 182380 |
- WIRING SHOWN AS FA IS FOR EVEN PARITY KEYBOARDS
 - FURNISH 115V AC @ 10% 60 CYCLE EXCEPT 50 CYCLE ON 33TAB TAN KSR SETS, 33TAC, TA1, TAP, AAR SETS AND 33TBM NO BERTS.
 - APPROPRIATE FUSE IN 182182 FUSEHOLDER NOT INCLUDED IN EARLY SETS
- | MOTOR | FUSE VALUE | FUSE PART. NO. |
|--------|------------|----------------|
| 182241 | 2 0 AMPS | 138538 |
| 182287 | 1 0 AMPS | 37248 |
- NETWORK 153831
 - 80 CYCLE READER TRIP COIL RESISTANCE IS 830 Ω 50 80 CYCLE READER TRIP COIL RESISTANCE CHANGED FROM 830 Ω TO 780 Ω FOR IMPROVED 50 CYCLE OPERATION
 - LOW PAPER ALARM CONTACTS NOT FOUND IN ALL UNITS CONTACT RATING 4 AMP AT 30V DC
 - TO CUSTOMER SUPPLIED ALARM
 - AAAB, A1, A2, REFER TO MANUAL READER, BA, BB, B1, B2, REFER TO AUTOMATIC READER
 - MAY NOT BE FOUND ON EARLY UNITS.
 - 33TCB TO BE WIRED FOR .020 AMP. SIGNAL LINE OPERATION

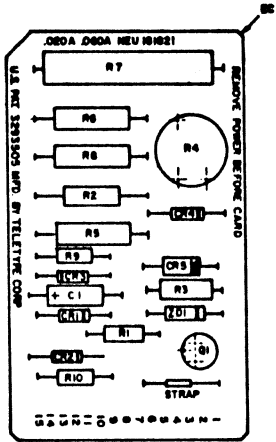
.020 USED ON BOTH 6000 & 6130
 6000 - ABOUT 24 V DRIVE
 6130 - ABOUT 6.8 V DRIVE

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



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

SEE NOTE 2



CIRCUIT DESCRIPTION

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

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

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

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

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

ALL RECOMMENDATION SYMBOLS REQUIRED PER MR 2001.

CIRCUIT BOARD EC

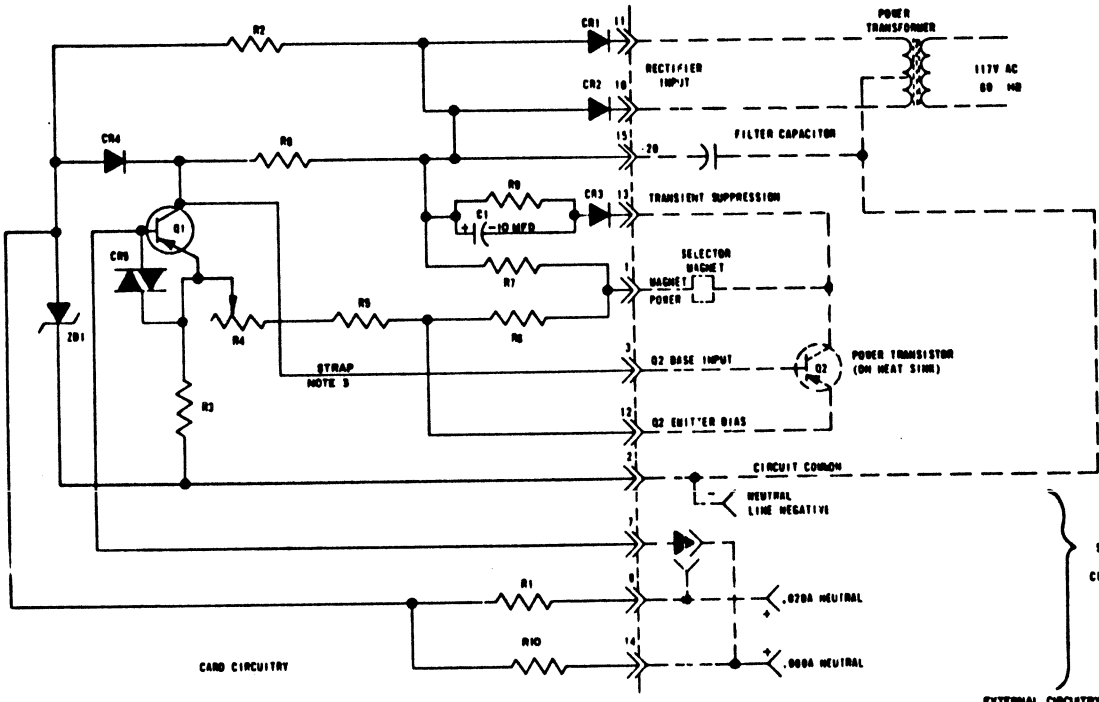
| REF. DESIG. | TELETYPE PART NO. | TOTAL QTY. | NAME AND DESCRIPTION | LOCATING FUNCTION |
|-------------|-------------------|------------|--------------------------|--|
| R1 | 102770 | 1 | RESISTOR 420 OHMS 1/2W | Q1 500 AMP SWITCHING FOR 020A NEUTRAL |
| R10 | 102787 | 1 | RESISTOR 135 OHMS 1/2W | Q1 500 AMP SWITCHING FOR 020A NEUTRAL LINE |
| R2 | 101009 | 1 | RESISTOR 330 OHMS 2.5W | ZENER CURRENT LIMITING |
| R3 | 102770 | 1 | RESISTOR 0.02 OHMS 1/2W | COMMON EMITTER BIAS |
| R4 | 102773 | 1 | RHEOSTAT 3 OHMS 2.5W | OUTPUT CURRENT ADJUST |
| R5 | 101717 | 1 | RESISTOR 9 OHMS 5W | Q2 EMITTER BIAS |
| R6 | 102770 | 1 | RESISTOR 270 OHMS 4.0 | Q2 EMITTER BIAS |
| R7 | 102772 | 1 | RESISTOR 14 OHMS 10W | Q2 COLLECTOR LOAD |
| R8 | 102627 | 1 | RESISTOR 300 OHMS 4W | Q1 COLLECTOR LOAD |
| R9 | 102770 | 1 | RESISTOR 150 OHMS 1/2W | Q2 COLLECTOR TRANSIENT LIMITING |
| CR1 | 102570 | 2 | DIODE 1N3193 | POWER RECTIFIER |
| CR2 | 102570 | 2 | SAME AS CR1 | POWER RECTIFIER |
| CR3 | 101019 | 2 | DIODE 1N402 | COLLECTOR TRANSIENT LIMITING |
| CR4 | 101019 | 1 | SAME AS CR3 | VOLTAGE CLAMPING |
| CN5 | 170044 | 1 | VARIATOR 100R | INPUT PROTECTION |
| ZD1 | 102774 | 1 | DIODE ZENER 4.7V 5.1W | REFERENCE |
| C1 | 102620 | 1 | CAPACITOR 10 MFD 350 VDC | COLLECTOR TRANSIENT LIMITING |
| Q1 | 101021 | 1 | TRANSISTOR HIGH GAIN | INPUT SWITCH |
| 336470 | 1 | 1 | STRAP | NOTE 3 |
| EC | 101023 | 1 | CIRCUIT BOARD ETCHED | |

181821

REVISIONS

| ISSUE | DATE | AUTH. NO. |
|-------|----------|-----------|
| 2 | 4-19-65 | 00501 |
| 3 | 9-19-66 | 000 6 |
| 4 | 11-29-66 | 000 6-1 |
| 5 | 3-3-67 | 95450 |
| 6 | 7-2-68 | 95450 |
| 7 | 7-3-68 | 95450 |
| 8 | 11-8-68 | 95450 |
| 9 | 12-20-68 | 98766 |
| 10 | 3-3-71 | 9320 |
| 11 | 3-20-72 | 230 |
| 12 | 3-20-72 | 230-1 |

CONSTANT CURRENT 500 AMP SELECTOR MAGNET DRIVER



MOD. 33

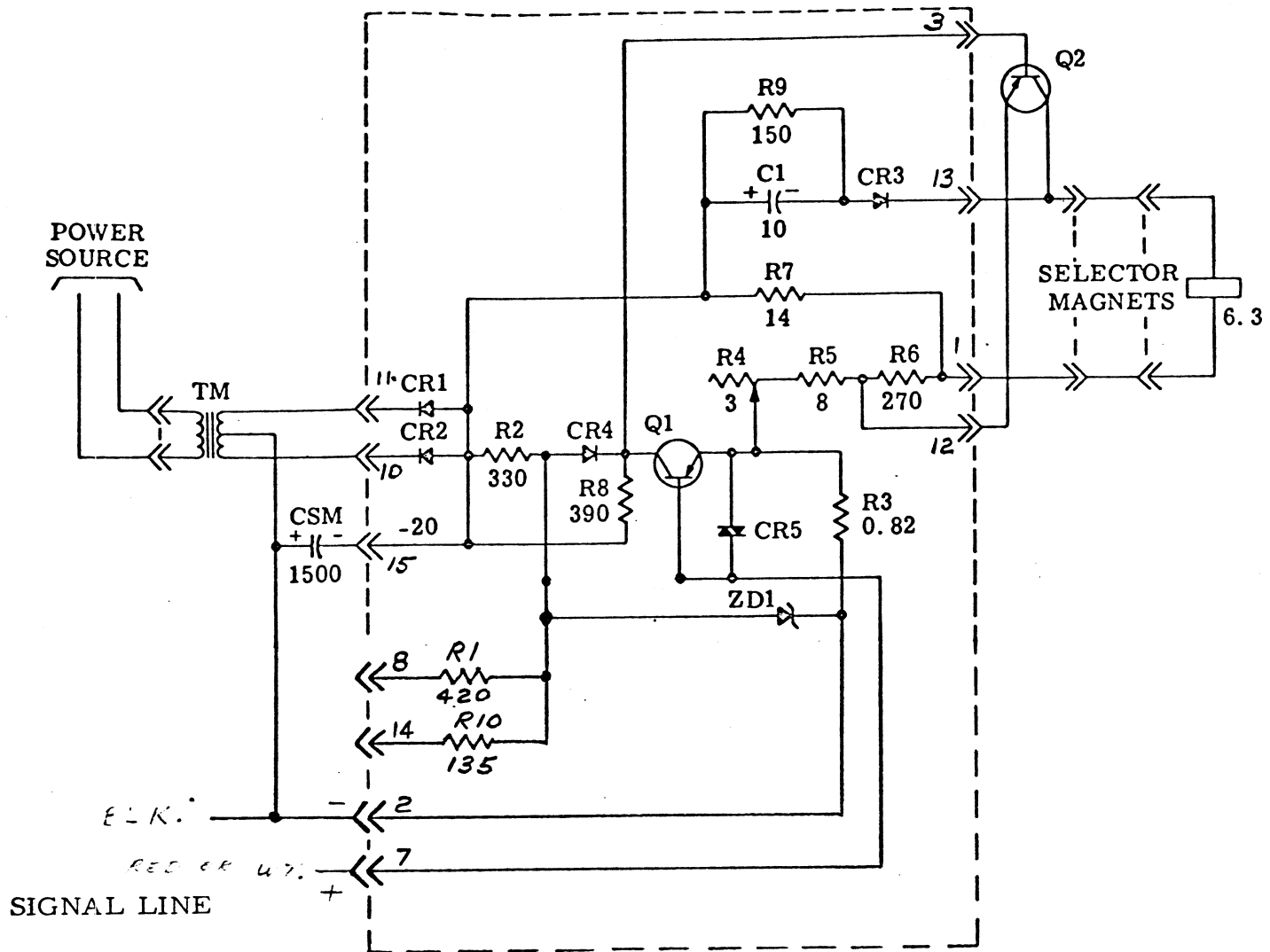
APPROVALS

| | |
|-----------------------|----------|
| R AND D HJK | E OF W |
| E-NUMBER | |
| PROD NO 10021 | |
| DATE 4-20-65 | |
| R&D FILE 2-30-52-5300 | |
| DRAWN JER-C6 | CHRD HBJ |
| ENGD AS-PDS | APPD JLV |

TELETYPE CORPORATION

181821

Model 33 Selector Magnet Driver Circuit.



TELETYPE PART NO. 181821

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

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