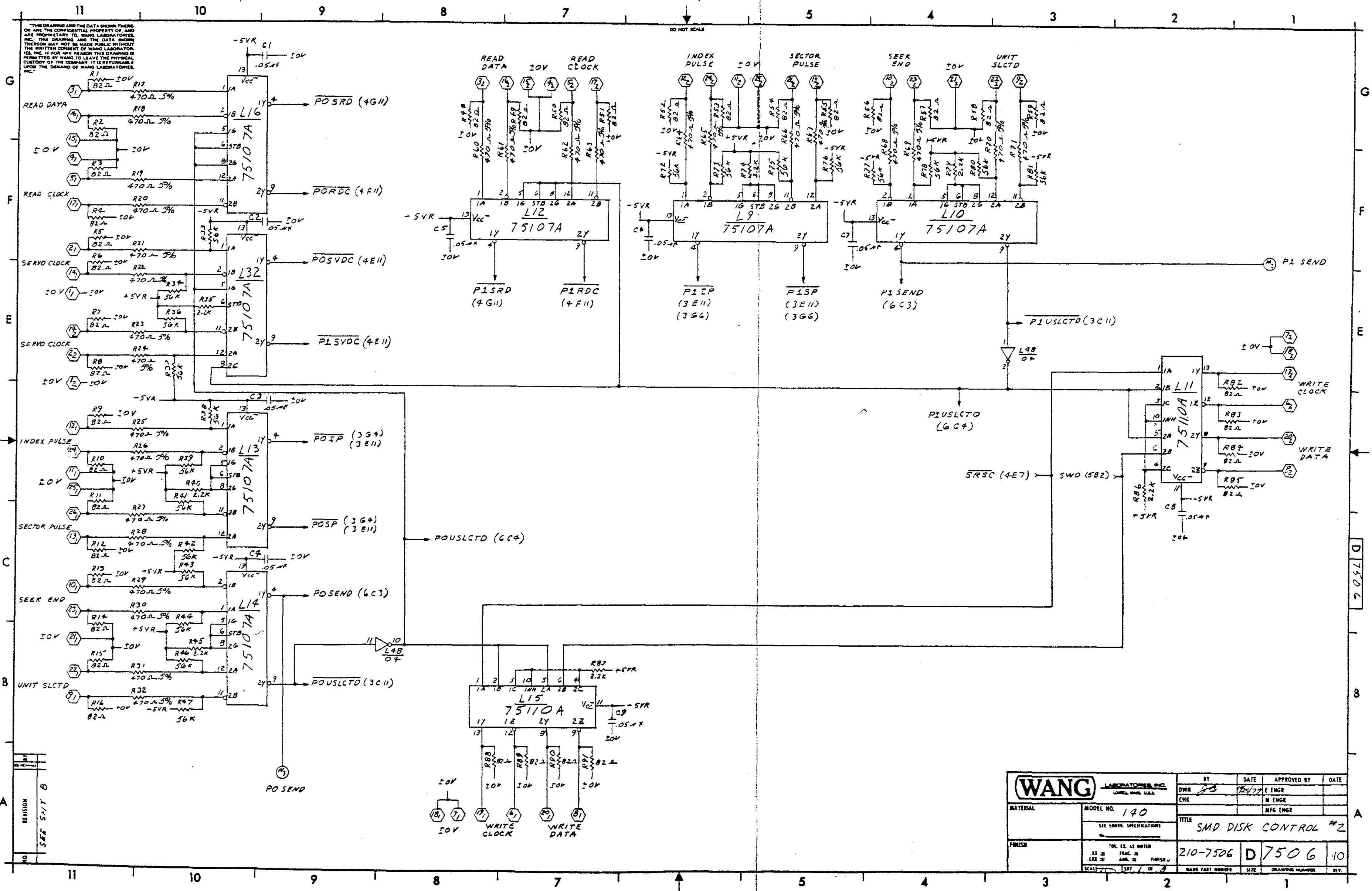
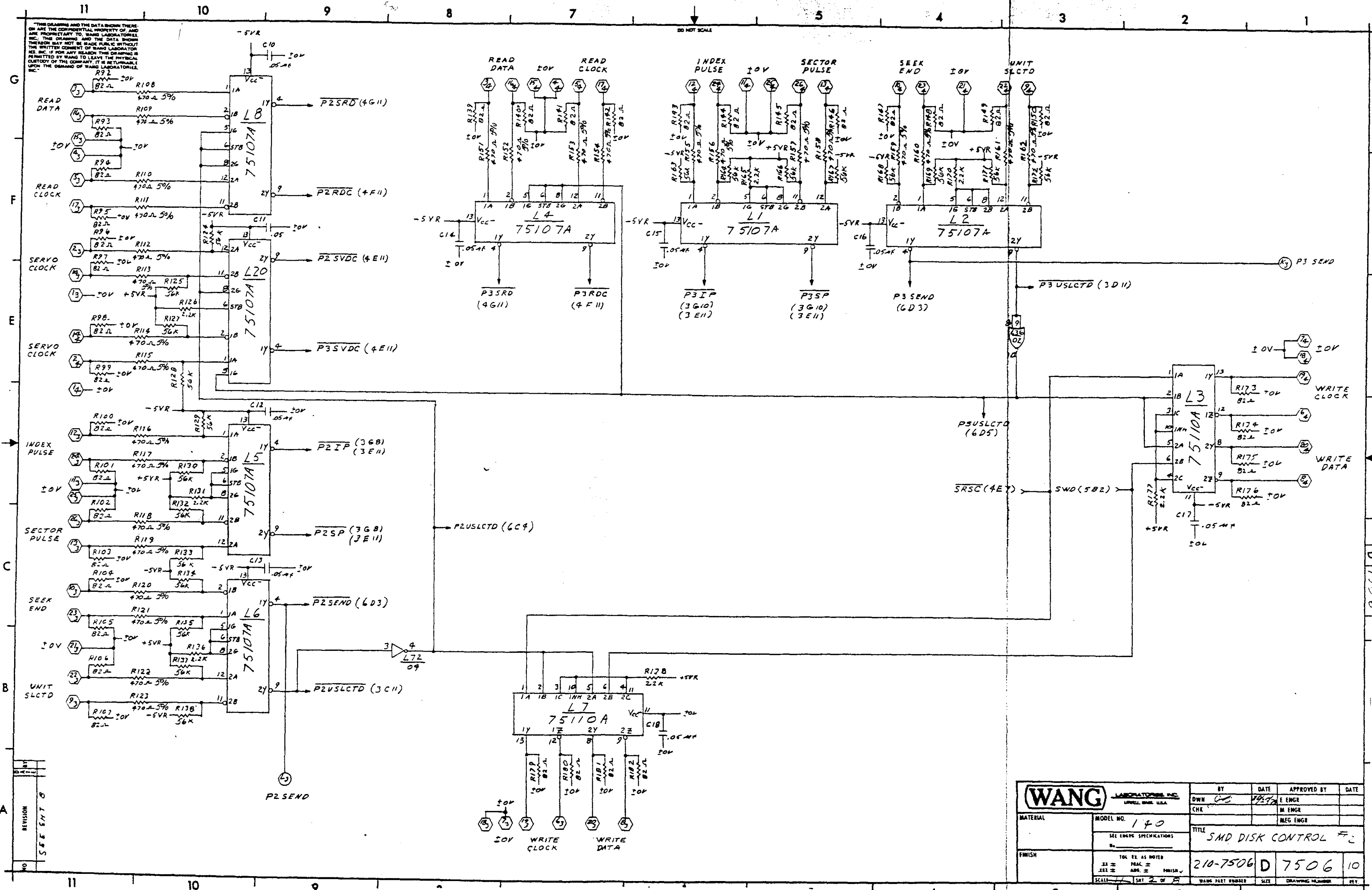


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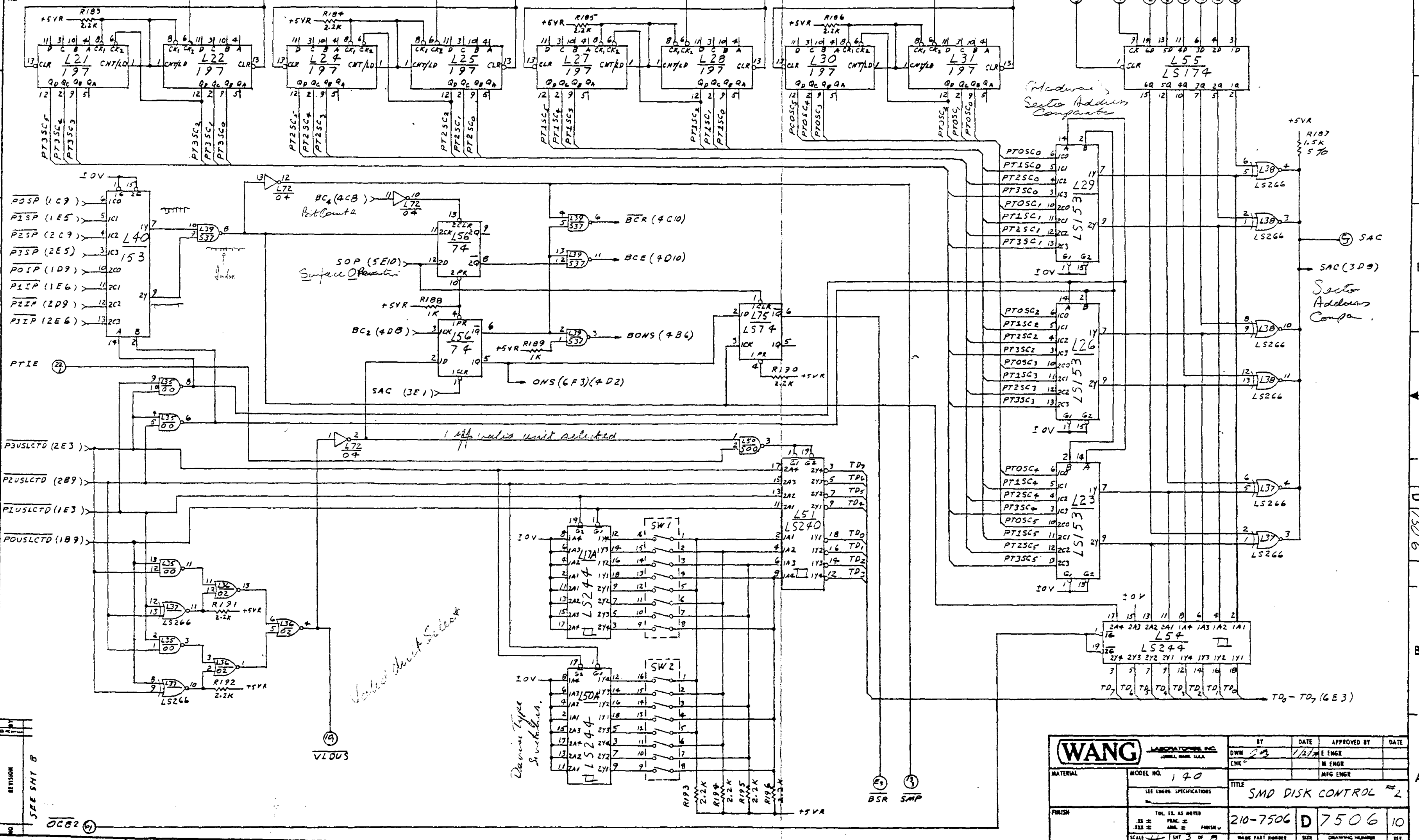
| REV | DATE | BY | CHK | APP'D | DATE |
|-----|------|----|-----|-------|------|
| 1 | | | | | |
| 2 | | | | | |

| | | | | | |
|--|----------------------------|------------------------------|---------------|-----------------------|------|
| WANG LABORATORIES, INC. LOWELL, MASS. U.S.A. | | BY DWH | DATE 12/77 | APPROVED BY E ENGR | DATE |
| MATERIAL | MODEL NO. 140 | CHK CH | | M ENGR | |
| | SEE EMERG. SPECIFICATIONS | | | MFG ENGR | |
| FURNISH | TOL. AS NOTED | TITLE SMD DISK CONTROL #2 | | | |
| | XX ± XXX ± SCALE 1/2 | 210-7506 | D 7506 | 10 | |
| | FRG 1/2 | NAME PART NUMBER | SIZE | DRAWING NUMBER | REV. |



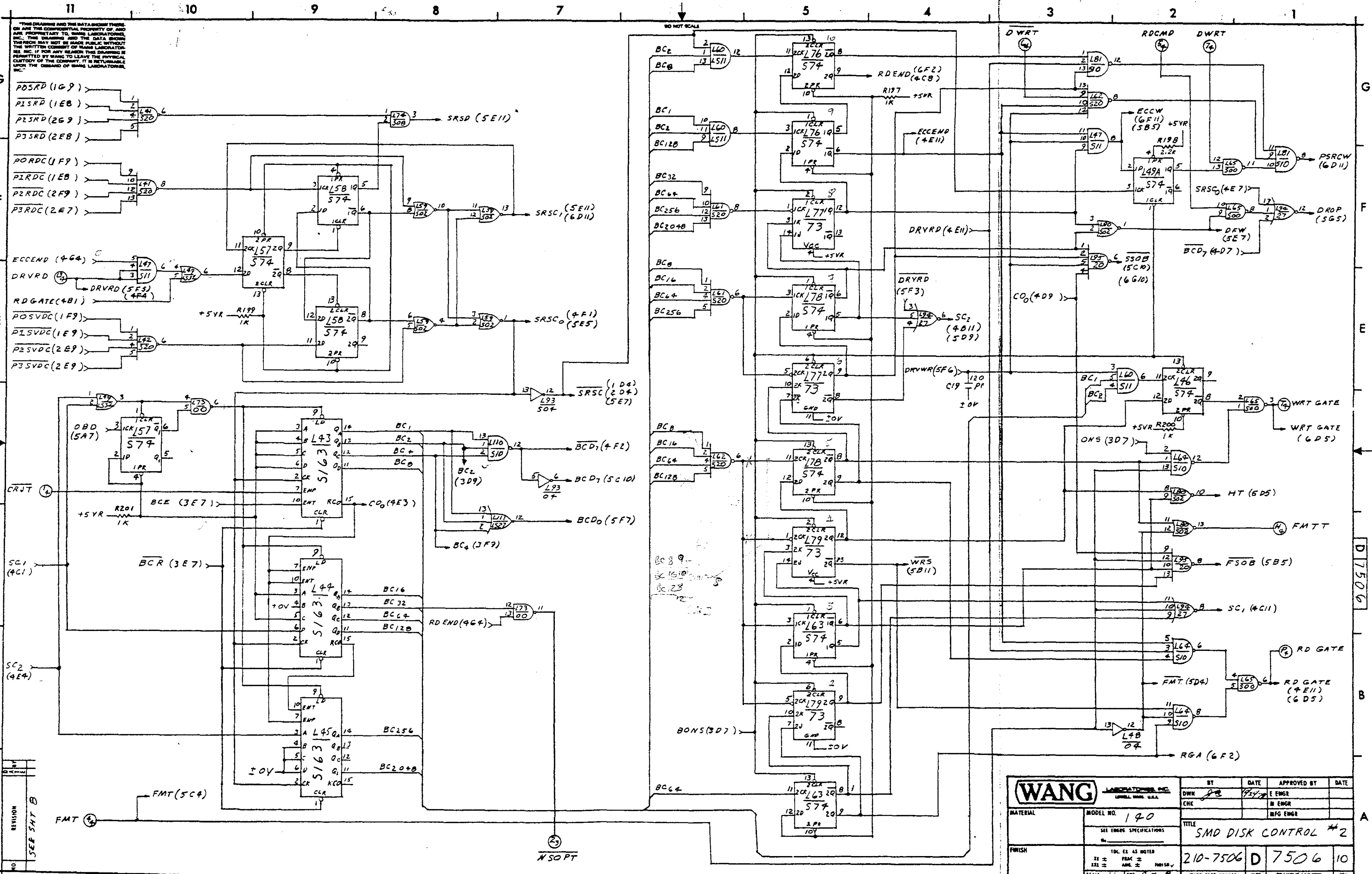
| | | | | | |
|--|-------------------------|-------------------------|------------------|---------------------|----------------|
| WANG LABORATORIES, INC. LITTLE ROCK, ARK. U.S.A. | | BY: DWN | DATE: 1/27/70 | APPROVED BY: E ENGR | DATE: |
| MATERIAL: | MODEL NO. 140 | CHK: CNE | | M ENGR: | |
| | SEE ENGR SPECIFICATIONS | | | MEG ENGR: | |
| FINISH: | TOL AS NOTED | TITLE: SMD DISK CONTROL | | | |
| | 22 ± | FRAC ± | 210-7506 D | 7506 | 10 |
| | 33 ± | ANG ± | SCALE: 1:1 | SHEET 2 OF 5 | DATE: 1/27/70 |
| | 50 ± | FINISH | WANG PART NUMBER | SIZE | DRAWING NUMBER |

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| | | | | | |
|--|--|------------------------------|-----------------|--|------|
| WANG LABORATORIES, INC. GENERAL BUREAU, U.S.A. | | BY DWM | DATE 1/17/68 | APPROVED BY E ENGR | DATE |
| MATERIAL | | CNK | | M ENGR | |
| MODEL NO. 140 | | TITLE SMD DISK CONTROL #2 | | MFG ENGR | |
| FINISH | | TOL. EX. AS NOTED | | 210-7506 D 7506 10 | |
| SCALE 1/2" = 1" | | SHT 3 OF 3 | | PAGE PART NUMBER SIZE DRAWING NUMBER REV | |

REVISION
SEE SMT B
OCB2 (6)



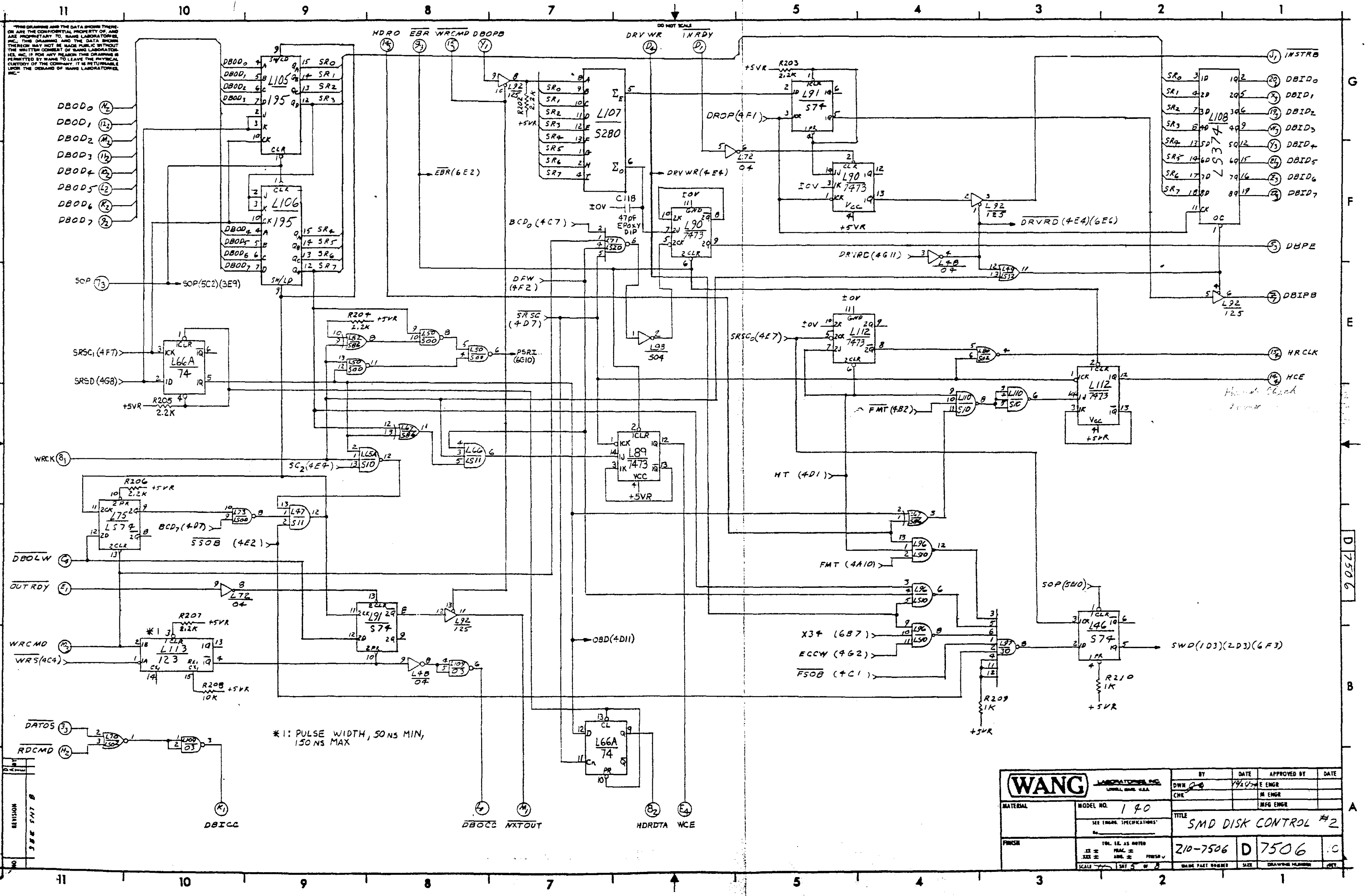
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| REV | DATE | BY | CHK |
|-----|------|----|-----|
| 1 | | | |

REVISION
SEE SH 8

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|--|------------------|------------------------------|-----------------|-----------------------|------|
| WANG LABORATORIES, INC. CORPORATE HEADQUARTERS 220 WEST WASHINGTON STREET CAMBRIDGE, MASSACHUSETTS 02142 | | BY DWN | DATE 1/24/70 | APPROVED BY E ENGR | DATE |
| MATERIAL | MODEL NO. 140 | CHK ENR | | MFG ENGR | |
| SEE ENGR SPECIFICATIONS | | TITLE SMD DISK CONTROL #2 | | | |
| FINISH | | TOL. EX. AS NOTED | | 210-7506 D 7506 10 | |
| | | SCALE 1:1 | | WANG PART NUMBER | |

N50PT

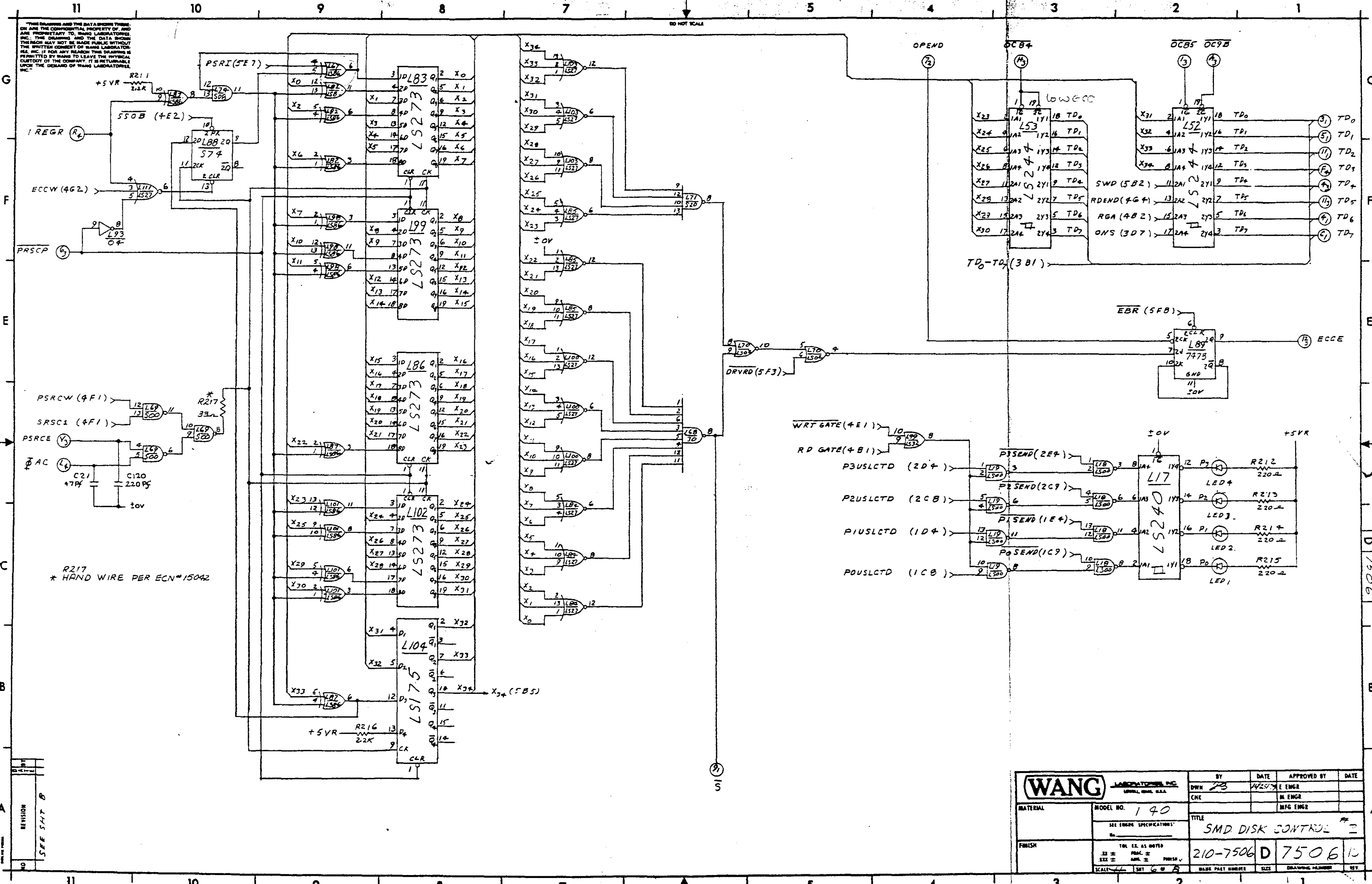


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*1: PULSE WIDTH, 50 NS MIN, 150 NS MAX

| | | | | | |
|--|-------------------|------------------------------|-----------------|-----------------------|------|
| WANG LABORATORIES, INC. LITTLE ROCK, ARK. U.S.A. | | BY DWN | DATE 1/24/74 | APPROVED BY E ENGR | DATE |
| | | CHK CHR | | M ENGR | |
| | | | | MFG ENGR | |
| MATERIAL | MODEL NO. 140 | TITLE SMD DISK CONTROL #2 | | | |
| SEE DRAWING SPECIFICATIONS | | | | | |
| FINISH | TOL. 16. AS NOTED | 210-7506 D 7506 10 | | | |
| SCALE 1:1 | | DRAWING NUMBER | | | |

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R217 * HAND WIRE PER ECN#15042

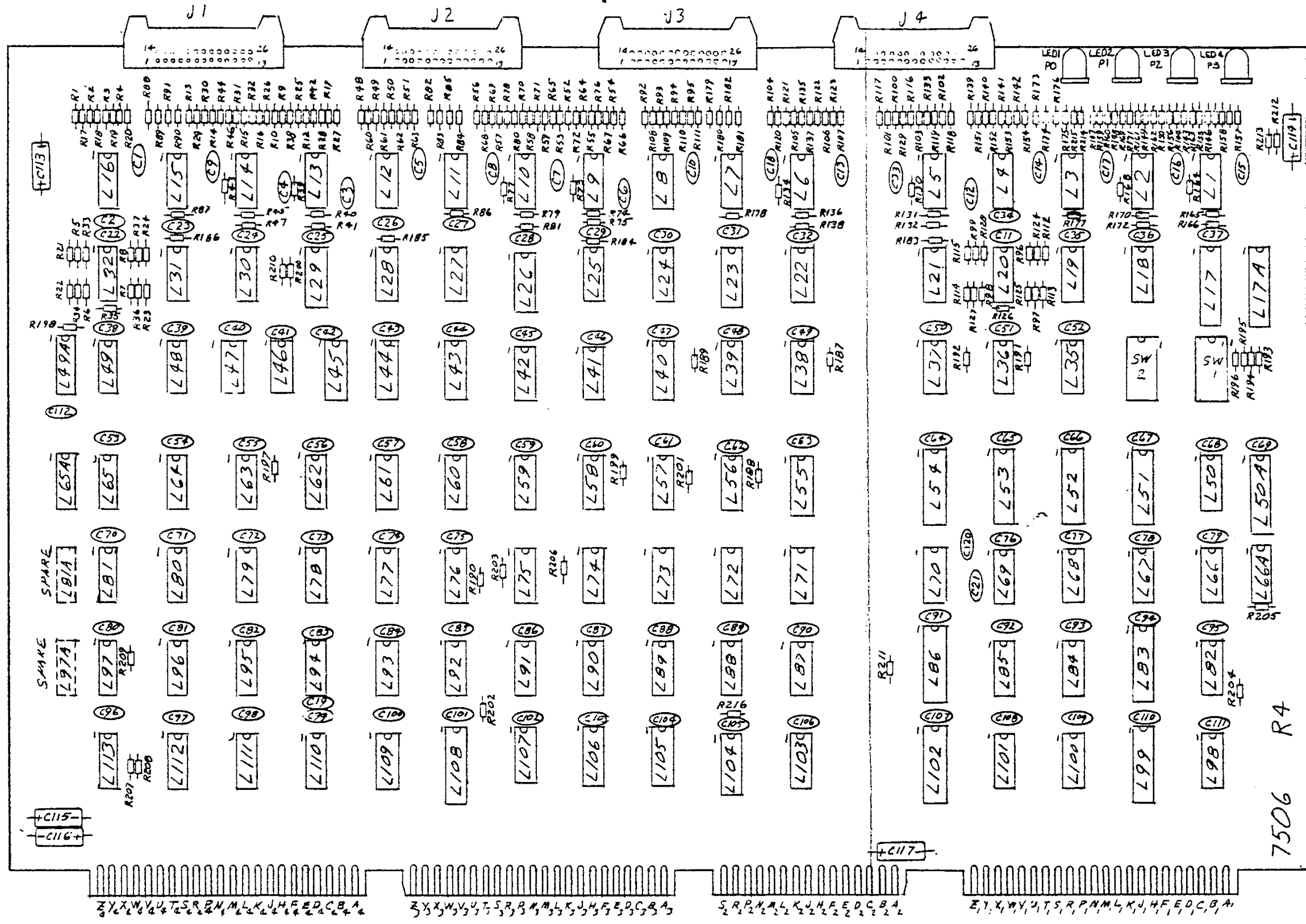
| REVISION | DATE | BY |
|----------|------|----|
| 1 | | |

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|--|---------------------------|------------------|-------------|------|
| WANG LABORATORIES, INC. 200 WEST MAIN STREET CAMBRIDGE, MASS. 02142 | BY | DATE | APPROVED BY | DATE |
| | CHK W3 | 11/25/70 | E ENGR | |
| MATERIAL | MODEL NO. 190 | TITLE | | |
| | SEE ENGINE SPECIFICATIONS | SMD DISK CONTROL | | |
| FINISH | TOE EX. AS NOTED | 210-7506 D | 750610 | |
| | SCALE 1/4" = 1" | SHEET 6 OF 7 | | |

101506

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DO NOT SCALE

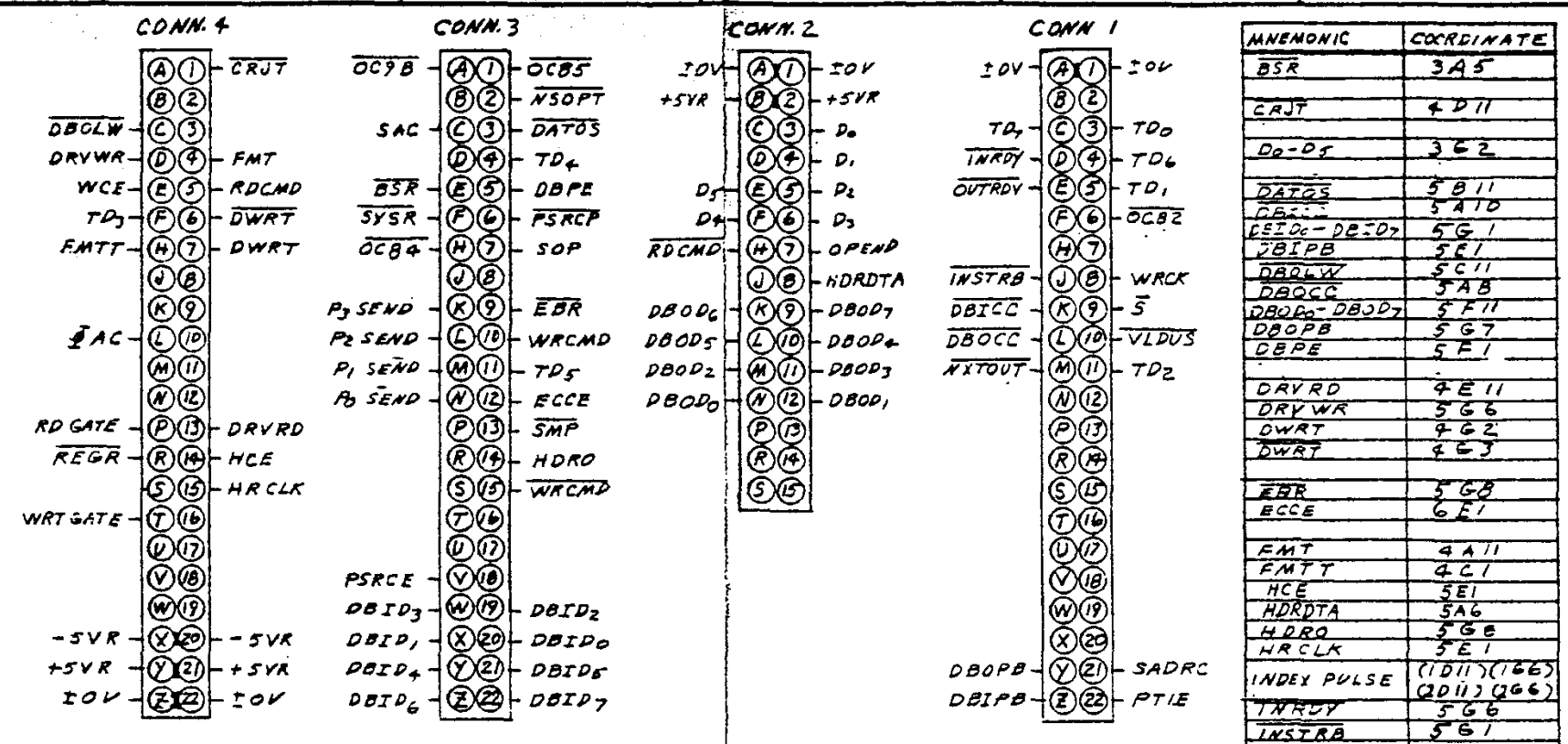
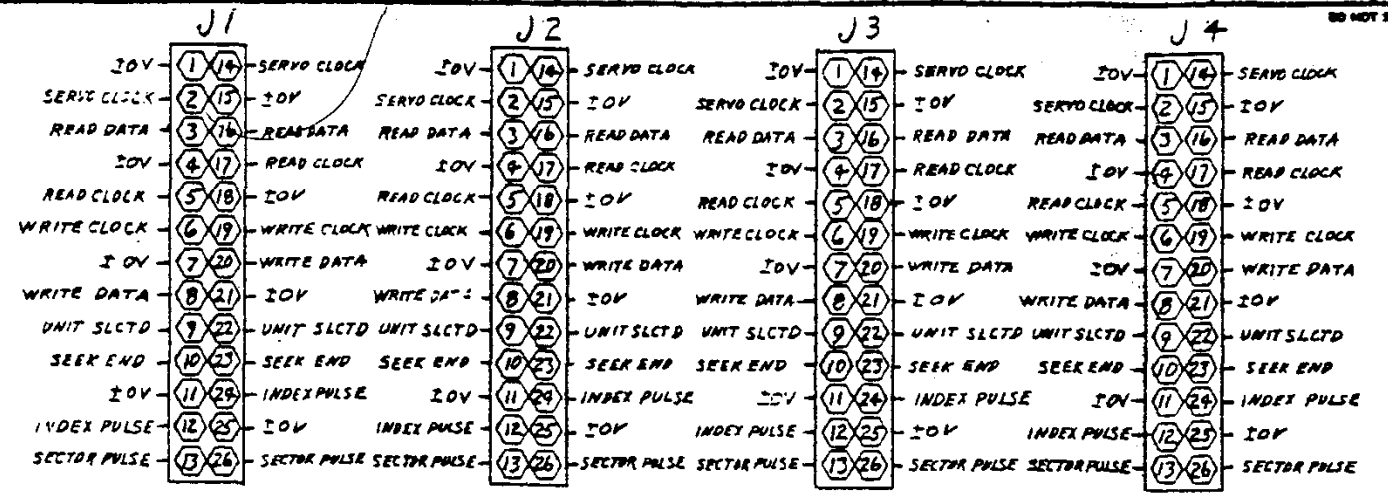


| REV. | DATE | BY | CHK. |
|------|------|----|------|
| 1 | | | |

SEE SHY B

| | | | | | |
|--|--|------------------------------|--------|------------------|---------------------|
| WANG LABORATORIES, INC. 700 WEST 12TH AVENUE, DENVER, COLORADO 80202, U.S.A. | | BY | DATE | APPROVED BY | DATE |
| MATERIAL | | DWN | 9/2/77 | E ENGR | |
| MODEL NO. 140 | | CHK | | M ENGR | |
| SEE ENGR. SPECIFICATIONS | | | | MFG ENGR | |
| FINISH | | TITLE SMD DISK CONTROL #2 | | | |
| VOL. 13, AS SHOWN | | 210-7506 D | | 7506 | 0 |
| SCALE 1/1 | | SHEET 1 OF 2 | | NAME PART NUMBER | SIZE DRAWING NUMBER |

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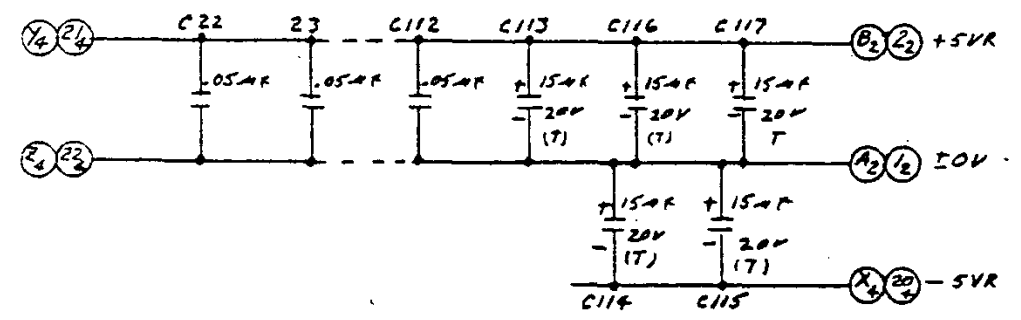
| I.C. TYPE | LOC | SPARES |
|-----------|------|--------|
| 7400 | L73 | 1 |
| 74500 | L69 | 1 |
| 74LS02 | L70 | 1 |
| 7453 | L109 | 2 |
| 7404 | L48 | 1 |
| 74504 | L93 | 2 |
| 7450B | L74 | 1 |
| 74510 | L81 | 1 |
| 74510 | L65A | 2 |
| 74LS11 | L66 | 2 |
| 74520 | L42 | 1 |
| 74LS27 | L11 | 1 |
| 74574 | L42A | 1 |
| | L8B | 1 |
| 74586 | L67 | 1 |
| 74586 | L87 | 1 |
| 74123 | L110 | 1 |
| 74LS240 | L17 | 1 |

| I.C. LOCATION | W.L. PART NO. | TYPE |
|-------------------------------------|---------------|---------|
| L1,2,4,5,6,8,9,19,12,13,14,16,20,22 | 376-0146 | 75107A |
| L3,7,11,15 | 376-0253 | 75110A |
| L17A,59A,52,53,54 | 376-0288 | 74LS24 |
| L17,59 | 376-0297 | 74LS240 |
| L18,19 | 376-0257 | 74LS00 |
| L20,22,24,25,27,28,30,31 | 376-0083 | 74LS17 |
| L23,26,29 | 376-0156 | 74LS153 |
| L35,72 | 376-0002 | 7400 |
| L36 | 376-0016 | 7402 |
| L37,38 | 376-0148 | 74LS246 |
| L39 | 376-0296 | 74LS37 |
| L40 | 376-0098 | 74LS13 |
| L41,42,G1,G2 | 376-0230 | 74LS20 |
| L43,44,45 | 376-0235 | 74LS163 |
| L46,58A,54,57,58,63,76,77,89 | 376-0202 | 74LS74 |
| L47 | 376-0237 | 74LS11 |
| L48,72 | 376-0119 | 7404 |
| L49 | 376-0211 | 74LS32 |
| L50,65,69 | 376-0228 | 74500 |
| L55 | 376-0139 | 74LS174 |
| L59,80 | 376-0199 | 74502 |
| L60,66 | 376-0234 | 74LS11 |
| L64,65A,B1,110 | 376-0238 | 74LS10 |
| L66A | 376-0006 | 7474 |
| L67 | 376-0271 | 74586 |
| L68,97 | 376-0203 | 7430 |
| L70 | 376-0208 | 74LS02 |
| L74 | 376-0200 | 7450B |
| L75 | 376-0153 | 74LS74 |
| L77,79,89,90,112 | 376-0003 | 7473 |
| L81A,97A | | SPARE |
| L82,87,98,101 | 376-0231 | 74LS86 |
| L83,86,92,102 | 376-0302 | 74LS273 |
| L84,85,109,103,111 | 376-0245 | 74LS27 |
| L92 | 376-0324 | 74123 |
| L93 | 376-0197 | 74504 |
| L94 | 376-0123 | 7427 |
| L95 | 376-0004 | 7420 |
| L96 | 376-0209 | 74LS10 |
| L104 | 376-0160 | 74LS175 |
| L105,106 | 376-0097 | 74193 |
| L107 | 376-0246 | 745280 |
| L108 | 376-0286 | 74LS374 |
| L109 | 376-0028 | 7403 |
| L113 | 376-0080 | 74123 |
| L71 | 376-0210 | 74LS20 |

| COMPONENT | W.L. PART NO. | TYPE |
|--|---------------|---------------------|
| R1-16,48-59,82-85,88-101,139-150,173-176,179-182 | 330-1082 | 82L 1/2W 10% |
| R17-32,60-71,108-123,151-162 | 330-2048 | 470A 1/4W 5% |
| R33,35,36-39,41-44,46,47,72,73,75-78,80,81,124,125,127-134,137-138,163,164,166-169,171,172 | 330-4056 | 56K 1/4W 10% |
| R35,40,45,74,77,126,131,136,165,170,183-184,190-196,198,202-207,84,87,210,216,177,178 | 330-3022 | 2.2K 1/4W 10% |
| R187 | 330-3016 | 15K 1/4W 5% |
| R188,189,191,199,200,201,209,210 | 330-3010 | 1K 1/4W 10% |
| R208 | 330-4010 | 10K 1/4W 10% |
| R212-215 | 330-2022 | 220 1/4W 10% |
| R217 | 330-1033 | 33 1/4W 10% |
| C1-10,22-112 | 300-1900 | 0.5MFD 12V (C20) |
| C19 | 300-1120 | 120PF (C28) |
| C119,120 | 300-1220 | 220PF 50V (C29) |
| C21 | 300-1047 | 47 PF 50V (C26) |
| C113-117 | 300-4022 | 154 20V (C1) |
| C118 | 300-2602 | 47 PF 50V 10% (C11) |
| LED1-4 | 370-0026 | LED RED |
| d1,2,3,4 | 350-0058 | 26 PIN CONN |
| SW1,2 | 325-1503 | 8 BANK ROC. SW. |
| SW1,2 | 325-9047 | SW COIL |

| MNEMONIC | COORDINATE |
|-------------|---------------------------|
| TD0-TD7 | 6 F 1 |
| UNIT SLCTD | (1B11) (1B3) (2B11) (2B3) |
| VLDRUS | 3 A 9 |
| WCE | 3 A 6 |
| WRCK | 5 D 11 |
| WRCKMP | 3 B 11 |
| WRCKMP | 3 B 8 |
| WRITE CLOCK | (1A7) (1D1) (2A7) (2D1) |
| WRITE DATA | (1A7) (1D1) (2A7) (2D1) |
| WRT GATE | 4 D 1 |
| AC | 6 D 11 |

| MNEMONIC | COORDINATE |
|--------------|-----------------------------|
| BSR | 3 A 5 |
| CRJT | 4 D 11 |
| DR-D5 | 3 E 2 |
| DATGE | 5 B 11 |
| DBIPB | 5 G 1 |
| DBIPB | 5 F 1 |
| DBIPB | 5 G 11 |
| DBIPB | 5 A 8 |
| DBIPB-DBIPB | 5 F 11 |
| DBIPB | 5 G 7 |
| DBIPB | 5 F 1 |
| DRV RD | 4 E 11 |
| DRV WR | 5 G 6 |
| DWRT | 4 E 2 |
| DWRT | 4 E 3 |
| EBR | 5 G 8 |
| EBCE | 6 E 1 |
| EMT | 4 A 11 |
| FMT | 4 C 1 |
| HCE | 5 E 1 |
| HDRDTA | 5 A 6 |
| HDRD | 5 G 6 |
| HRCLK | 3 E 1 |
| INDEX PULSE | (1D11) (1E6) (2D11) (2E6) |
| INRDY | 5 G 6 |
| INSTRB | 5 B 1 |
| NSOPT | 4 A 7 |
| OUTADV | 5 A 7 |
| DRD | 6 G 2 |
| DBIPB | 3 A 11 |
| DBIPB | 6 G 2 |
| DBIPB | 6 G 2 |
| OUTADV | 5 G 4 |
| OUTADV | 5 C 11 |
| P0 SEND | 1 A 9 |
| P1 SEND | 1 F 1 |
| P2 SEND | 2 A 9 |
| P3 SEND | 2 E 1 |
| PSRCE | 6 D 11 |
| PSRCE | 6 F 1 |
| PTIE | 3 D 11 |
| RDCMD | 4 G 2 |
| RDCMD | 5 A 11 |
| RD GATE | 4 B 1 |
| READ CLOCK | (1F11) (1G7) (2F11) (2G7) |
| READ DATA | (1B11) (1G8) (2B11) (2G8) |
| REGA | 6 G 1 |
| S | 6 A E |
| SAC | 3 G 3 |
| SADRC | 3 G 3 |
| SECTOR PULSE | (1C11) (1G5) (2C11) (2G5) |
| SEEK END | (2E11) (2E4) |
| SERVO CLOCK | (1F11) (1E11) (2F11) (2E11) |
| SMP | 3 E 11 |
| SOP | 3 E 11 |
| SVR | 3 G 5 |



| NO. | REVISION | DATE | BY | APPROVED BY | DATE |
|-----|-----------------------------|------|----|-------------|------|
| 1 | ORIG. DES. BY DWG. # 100-33 | | | | |
| 2 | REVISED PER APP. # 119-2 | | | | |
| 3 | REVISED PER APP. # 119-2 | | | | |
| 4 | REVISED PER APP. # 119-2 | | | | |
| 5 | REVISED PER APP. # 119-2 | | | | |
| 6 | REVISED PER APP. # 119-2 | | | | |
| 7 | REVISED PER APP. # 119-2 | | | | |
| 8 | REVISED PER APP. # 119-2 | | | | |
| 9 | REVISED PER APP. # 119-2 | | | | |
| 10 | REVISED PER APP. # 119-2 | | | | |

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|--------------------------------|--|--------------------|---------|----------------|---------|
| WANG LABORATORIES, INC. | | BY | DATE | APPROVED BY | DATE |
| MODEL NO. 140 | | DWN | 1/25/79 | EMGR A. DESKUR | 1-30-79 |
| TITLE | | CHK | J.L.L. | M. EMGR | |
| SMD DISK CONTROL #2 | | | | MFG. EMGR | |
| MATERIAL | | TITLE | | | |
| FINISH | | 210-7506 D 7506 10 | | | |

E-REV
6