

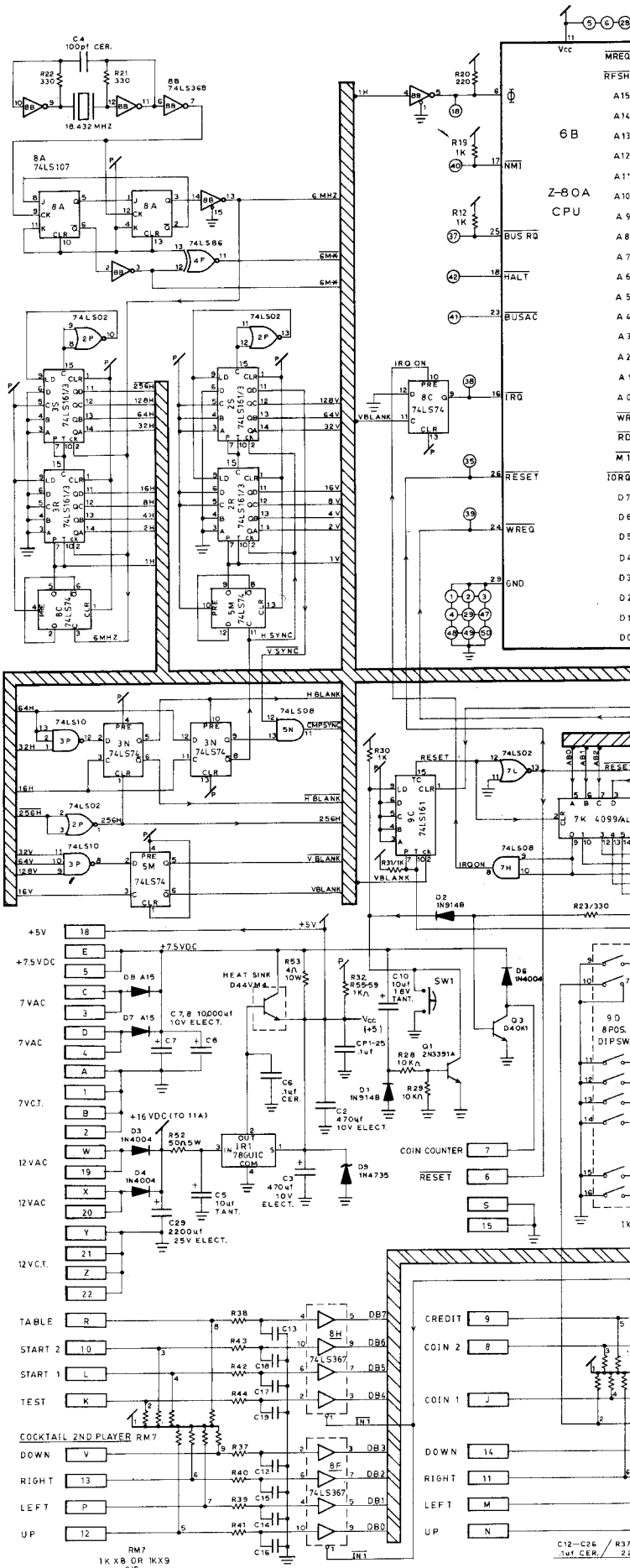
NOTE:
 USE 2532 ROMS AT 6E,6F,6H,6J
 OR USE 2716 ROMS AT 6E--6P

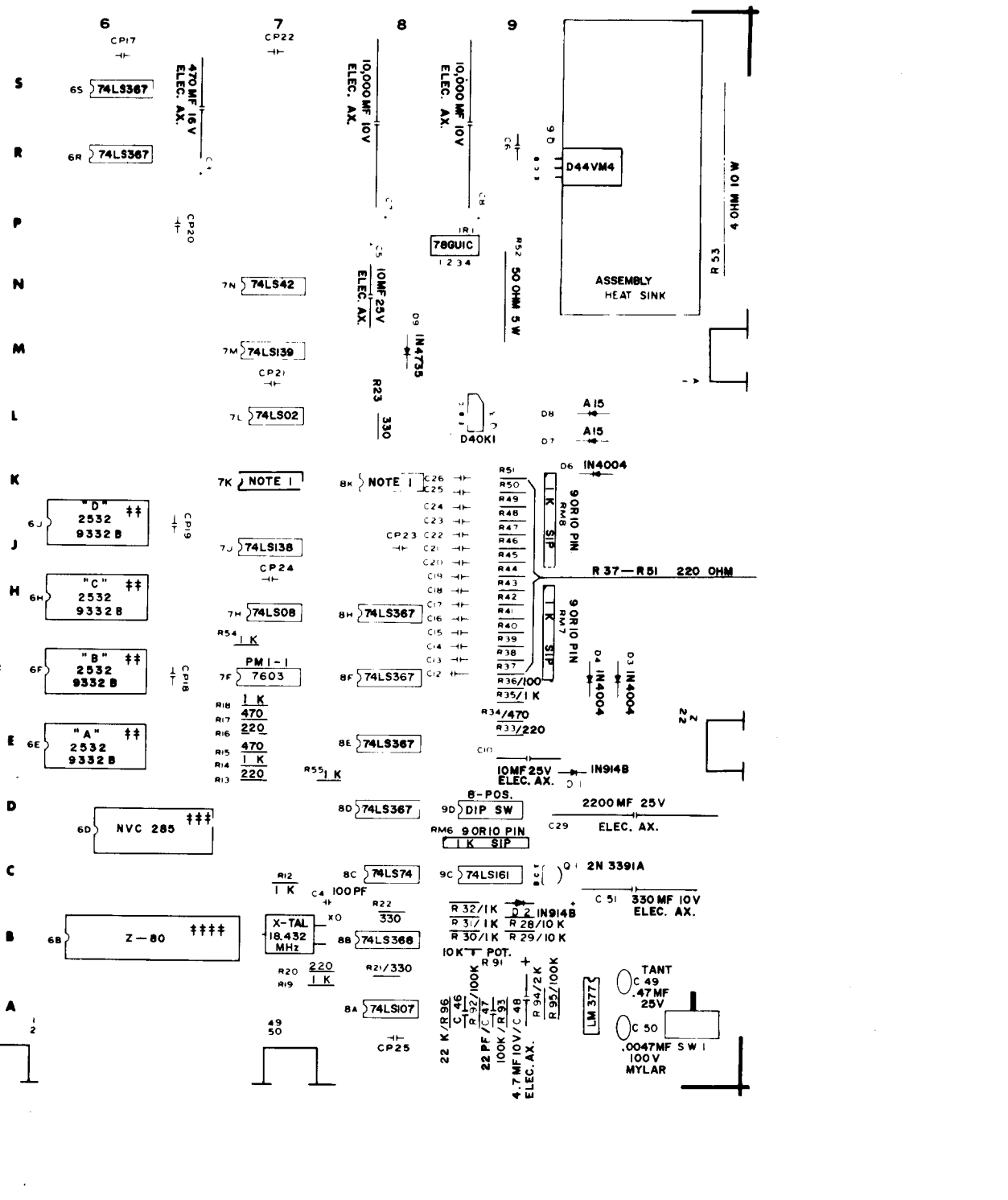
NOTE: CUSTOM IC SUBSTITUTE
 V-RAM ADDRESSER
 A082-91384-8000

NOTE: SUBSTITUTE
 2-80 SYNC
 BUSSES
 CONTROLLER
 A082-91383-
 B000

NOTE:
 USE 2532 ROMS AT 5E,5F
 OR USE 2716 ROMS
 AT 5E-5J

NOTE
 USE 27LS00 AT 1A-1D
 W/ 74LS157 AT 3A
 OR USE M8B125/SC42439
 AT 2A-2D W/ 74LS158 AT 3A





| REVISIONS | |
|-----------|--|
| | |
| | |

M051-00932-A026

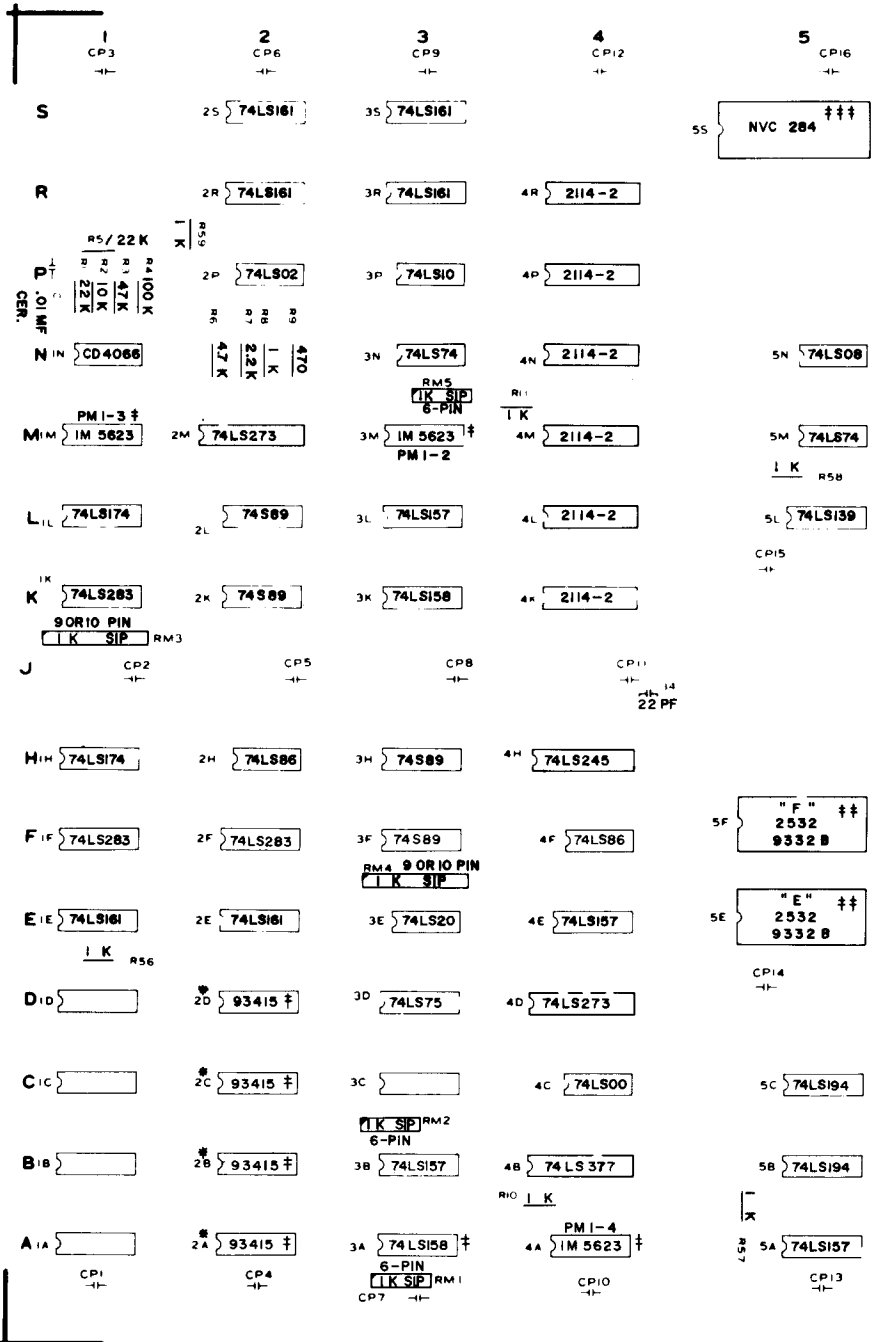
USED ON PAC-MAN "A"
NO REQ | PER

MIDWAY MFG. CO.
FRANKLIN PK. ILL.

| | |
|---------------------------------|----------------|
| DO NOT SCALE DWG | |
| DIM TOLERANCES UNLESS SPECIFIED | DRN <i>C.h</i> |
| CONVENTIONS: 1.1 - 001 | DATE 10/9/80 |
| 2.1 - 002 | |
| 3.1 - 003 | |
| 4.002 - 000 | |

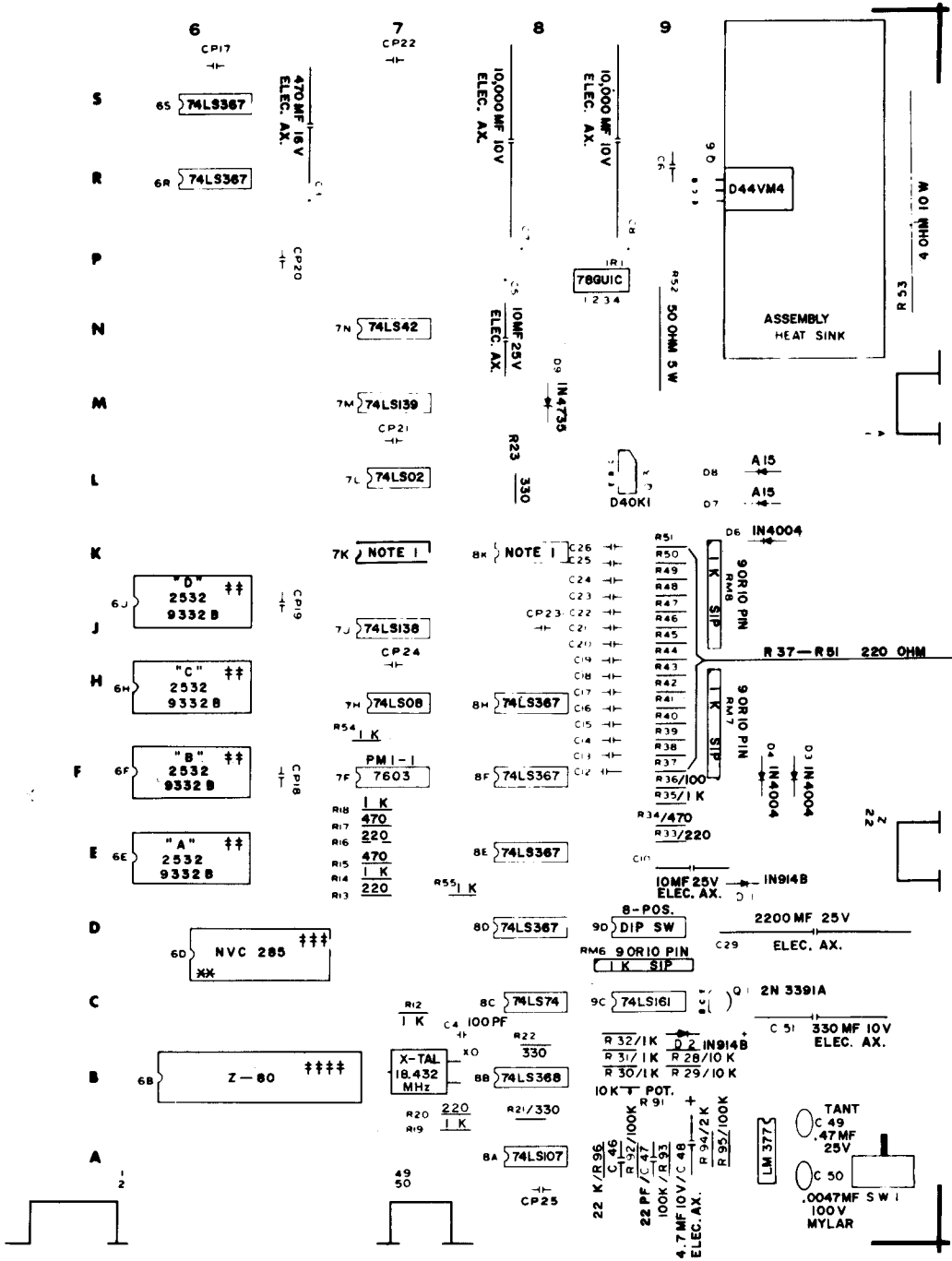
HEAT TREAT SCALE
ASSEMBLY DRAWING
PAC-MAN

PART NO.
A082 - 91375 - A000



* RAM HEAT SINK ASSEMBLY
 NOTE 1: PLACE EITHER 74LS259 IN LOC. 8 K
 OR CD 4099 IN LOC. 7 K
 UNMARKED CAPS ARE .1MF CER. AX.
 RESISTOR UNIT = Ohm

‡ - 16 PIN SOCKET (9 PER)
 ‡‡ - 24 PIN SOCKET (6 PER)
 ‡‡‡ - 28 PIN SOCKET (2 PER)
 ‡‡‡‡ - 40 PIN SOCKET (1 PER)



XX NOTE : THIS LOCATION CAN UTILIZE EITHER
 (A) CUSTOM CHIP NVC285 OR (B) PLUG IN PC A082-91383-B000 Z-80 SYNC BUSS CONTROLLER (285)

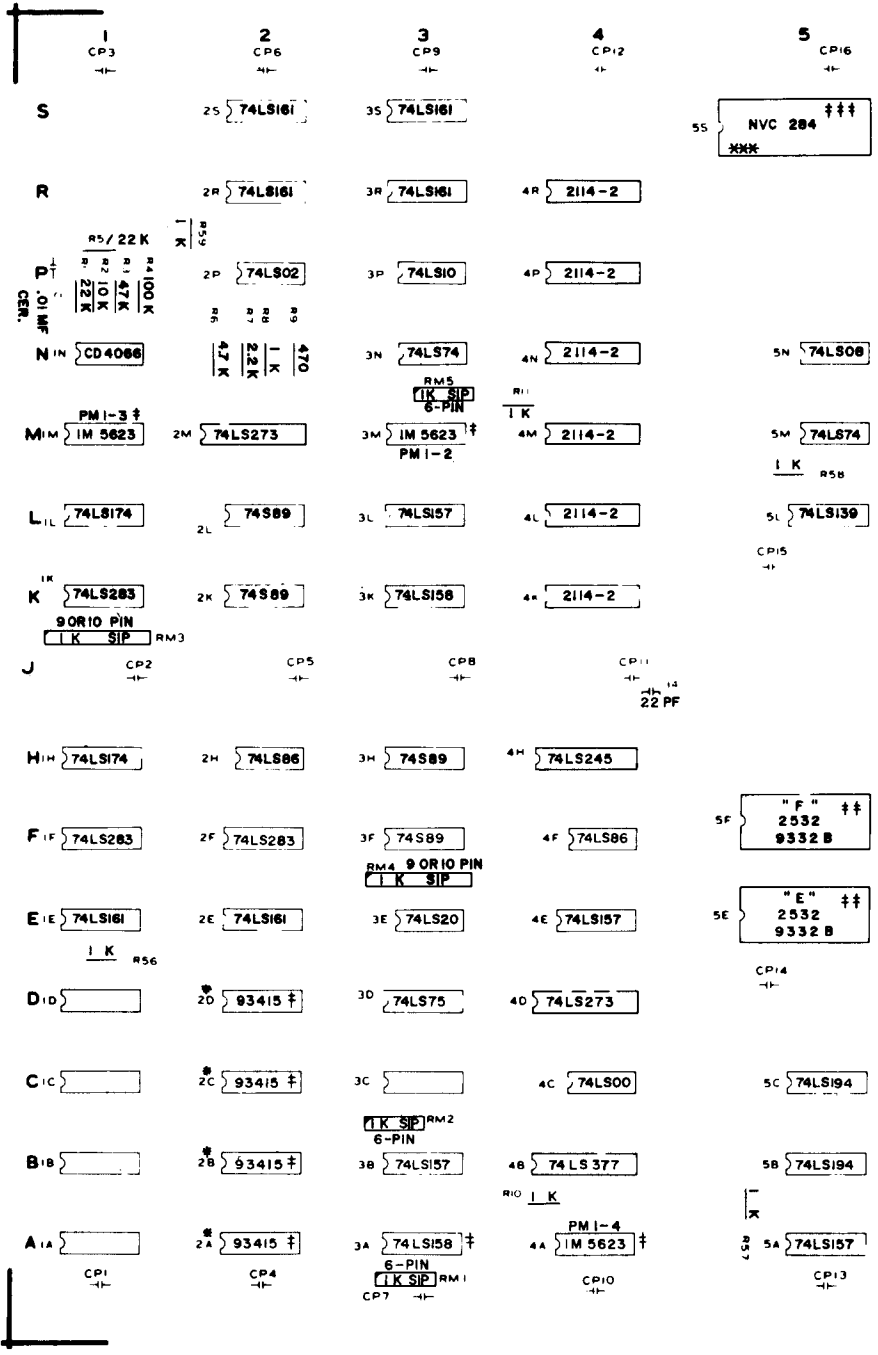
XXX NOTE : THIS LOCATION CAN UTILIZE EITHER
 (A) CUSTOM CHIP NVC284 OR (B) PLUG IN PC A082-91384-B000 V-RAM ADDRESSER (284)

M051-00932-B026

| | | | |
|---------------------------------|-----------------|------------|-------|
| DO NOT SCALE DWG | | HEAT TREAT | SCALE |
| DIM TOLERANCES UNLESS SPECIFIED | DWG <i>C.H.</i> | MAT'L | |
| DATE 10/9/80 | DATE | FINISH | |

| |
|---------------------|
| USED ON PAC-MAN "B" |
| NO REQ'D PER |
| ASSEMBLY DRAWING |
| PAC-MAN |

| |
|------------------------|
| REVISIONS |
| MIDWAY MFG. CO. |
| FRANKLIN PK ILL |
| PART NO |
| A082-91375-B000 |



* RAM HEAT SINK ASSEMBLY

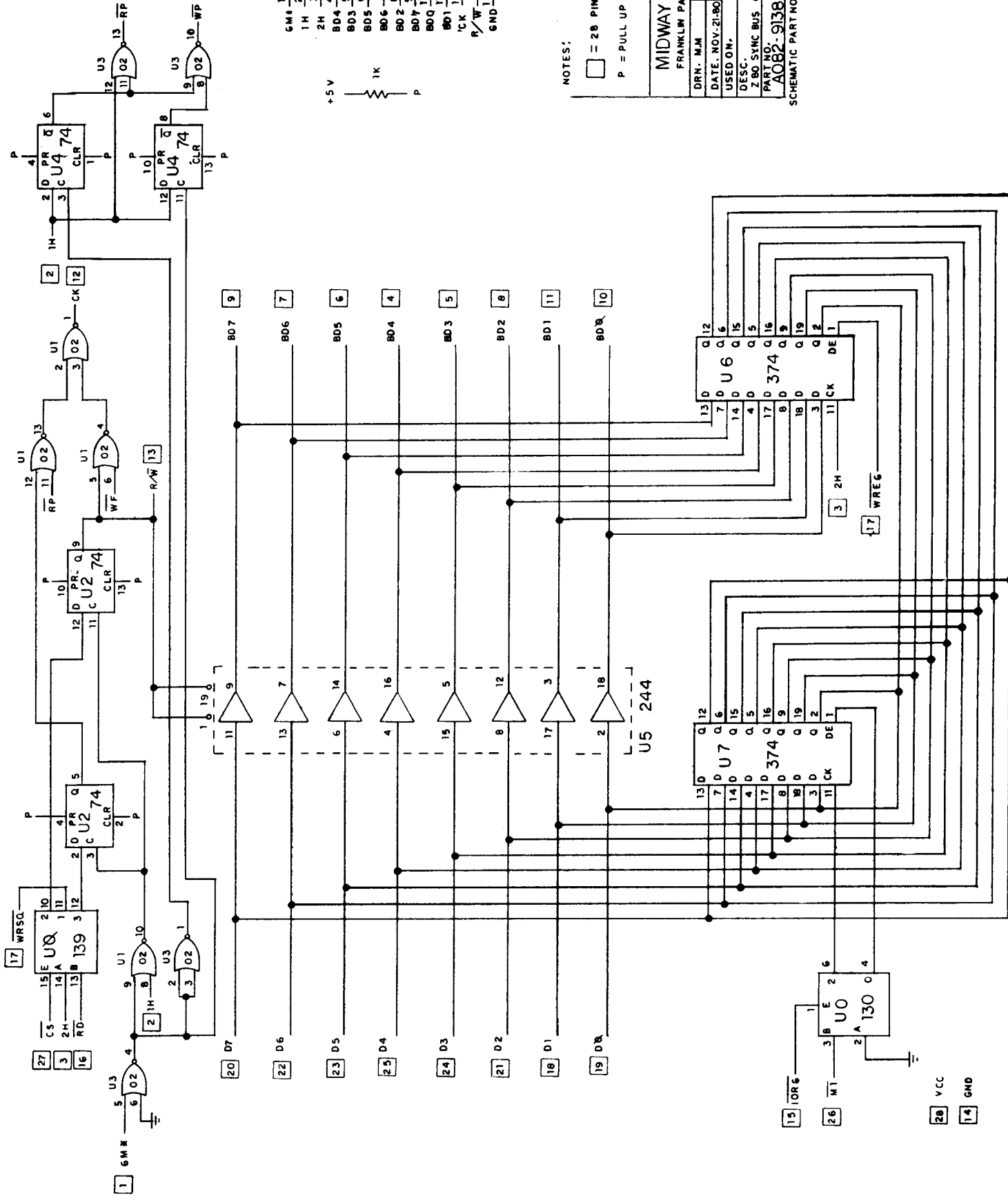
NOTE 1: PLACE EITHER 74LS259 IN LOC. 8 K
OR CD4099 IN LOC. 7 K

UNMARKED CAPS ARE .1MF CER. AX.
RESISTOR UNIT = Ohm

† — 16 PIN SOCKET (9 PER)
†† — 24 PIN SOCKET (6 PER)
††† — 28 PIN SOCKET (2 PER)
†††† — 40 PIN SOCKET (1 PER)

**GAME BOARD P.C.
PAC - MAN
P.C. A082 - 91375 - A000
B000**

| CHIP NUMBER | FUNCTION | CHIP NUMBER | FUNCTION |
|--------------------|--|--------------------|---------------------------------|
| 74LS00 | Quad 2 input Nand | NVC284 | Custom V Ram Addresser |
| 74LS02 | Quad 2 input Nor | NVC285 | Custom Z80 Sync buss controller |
| 74LS08 | Quad 2 input And | CD4066 | Quad bilateral switch |
| 74LS10 | Triple 3 input Nand | 2114 | Ram 1K x 4 |
| 74LS20 | Dual 4 input Nand | 1M5623 | Prom 256 x 4 |
| 74LS42 | BCD to decimal decoder | 7603 | Prom 32 x 8 |
| 74LS74 | Dual "D" Flip-Flop | MCM 2532 | Prom 4K x 8 |
| 74LS75 | Quad latch | SL 4239 | Ram 1K x 1 |
| 74LS86 | Quad 2 input exclusive or | 93415 | Ram 1K x 1 |
| 74S89 | 64 Bit Ram 16 x 4 | 27LS00 | Ram 1K x 1 |
| 74LS107 | Dual "JK" Flip-Flop | MB 8125 | Ram 1K x 1 |
| 74LS138 | 3 to 8 line decoder | CD 4099 | 8 bit addressable latch |
| 74LS139 | Dual 2 to 4 line decoder | N8T245 | Octal bus transceiver |
| 74LS157 | Quad 2 to 1 line multiplexer | 54LS174 | Hex "D" Flip-Flop |
| 74LS158 | Quad 2 to 1 line multiplexer inverting | MB7052 | Prom 256 x 4 |
| 74LS161 | 4 Bit binary counter | MB7051 | Prom 32 x 8 |
| 74LS174 | Hex "D" Flip-Flop | 8304 | Octal bus transceiver |
| 74LS194 | 8 bit shift register | Additional Devices | |
| 74LS245 | Octal bus transceiver | 78GVIC | Voltage regulator |
| 74LS259 | 8 bit addressable latch | D44VM4 | Transistor NPN |
| 74LS273 | Octal "D" Flip-Flop | D40K1 | Transistor NPN |
| 74LS283 | 4 Bit full adder | 2N3391 | Transistor NPN |
| 74LS367 | Hex bus driver | 1N4004 | Diode |
| 74LS368 | Hex bus driver inverting | A15 | Diode |
| 74LS377 | Octal "D" Flip-Flop | 1N914B | Diode |
| Z80 | CPU | 1N4737 | 6.2V Zener diode |
| LM377 - LM877 | Dual audio amplifier | 18.4320 | Crystal |



NOTES:

- = 28 PIN CONNECTOR
- P = PULL UP

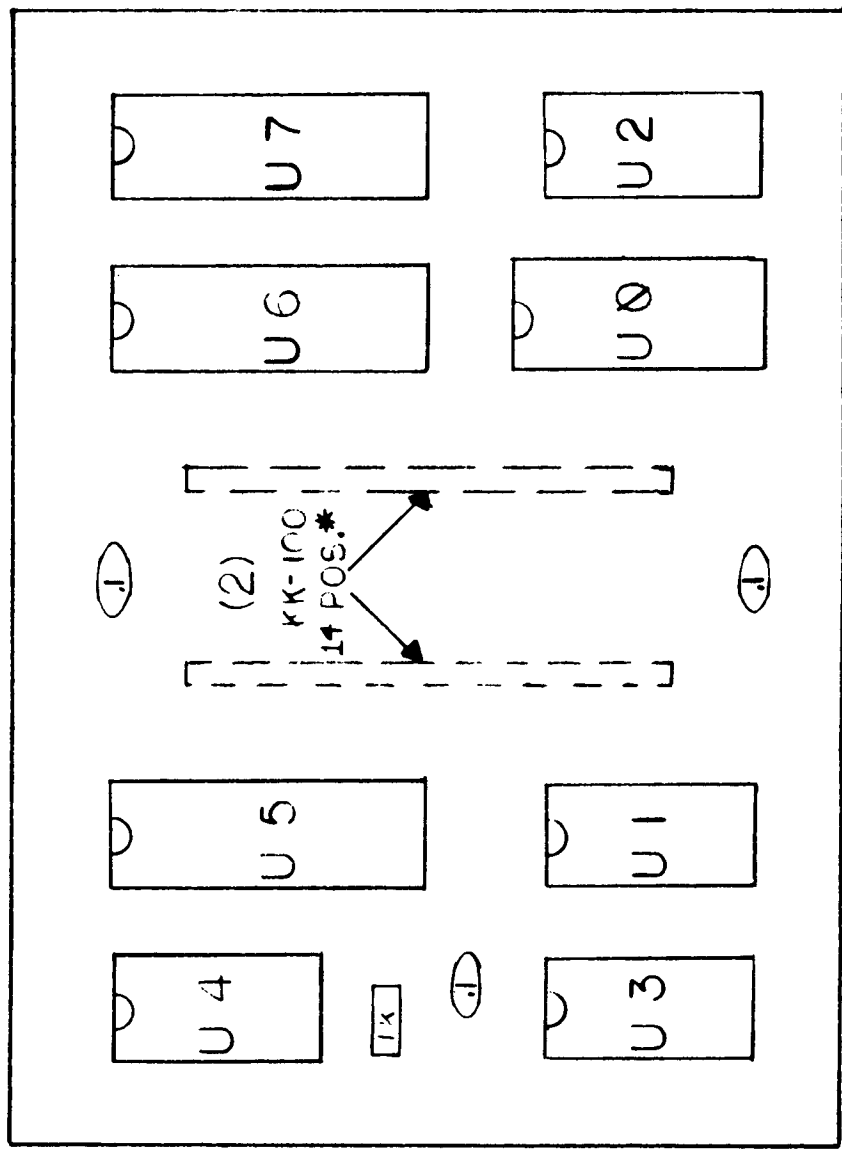
MIDWAY MFG. CO.
 FRANKLIN PARK ILL.
 DRN. M.J.M. CKD.
 DATE: NOV. 21. 80. NO. REQ'D 1
 USED ON.
 DESC.
 Z 80 SYNC BUS CONTROLLER (285)
 PART NO. AO82-91383-B000

SCHEMATIC PART NO. M051-00932-B030

U0-74LS139
 U1-74LS02
 U2-74LS74
 U3-74LS02
 U4-74LS74
 U5-74LS244
 U6-74LS374
 U7-74LS374

(3)-.1MF 50V
 AX. CER.
 (1)-1K $\frac{1}{4}$ W RESIS.

* MOUNTED ON
 SOLDER SIDE



M051-00932-8031

REVISIONS

MIDWAY MFG. CO.
 FRANKLIN PK. ILL.

PART NO.

A082-91383-8000

USED ON PRC-MAM

NO. REQ'D 1-PER

SCALE

HEAT TREAT

DO NOT SCALE DWG.

Z-80 SYNC BUSS CONTROLLER(265)
 COMPONENT LAYOUT

MAT'L.

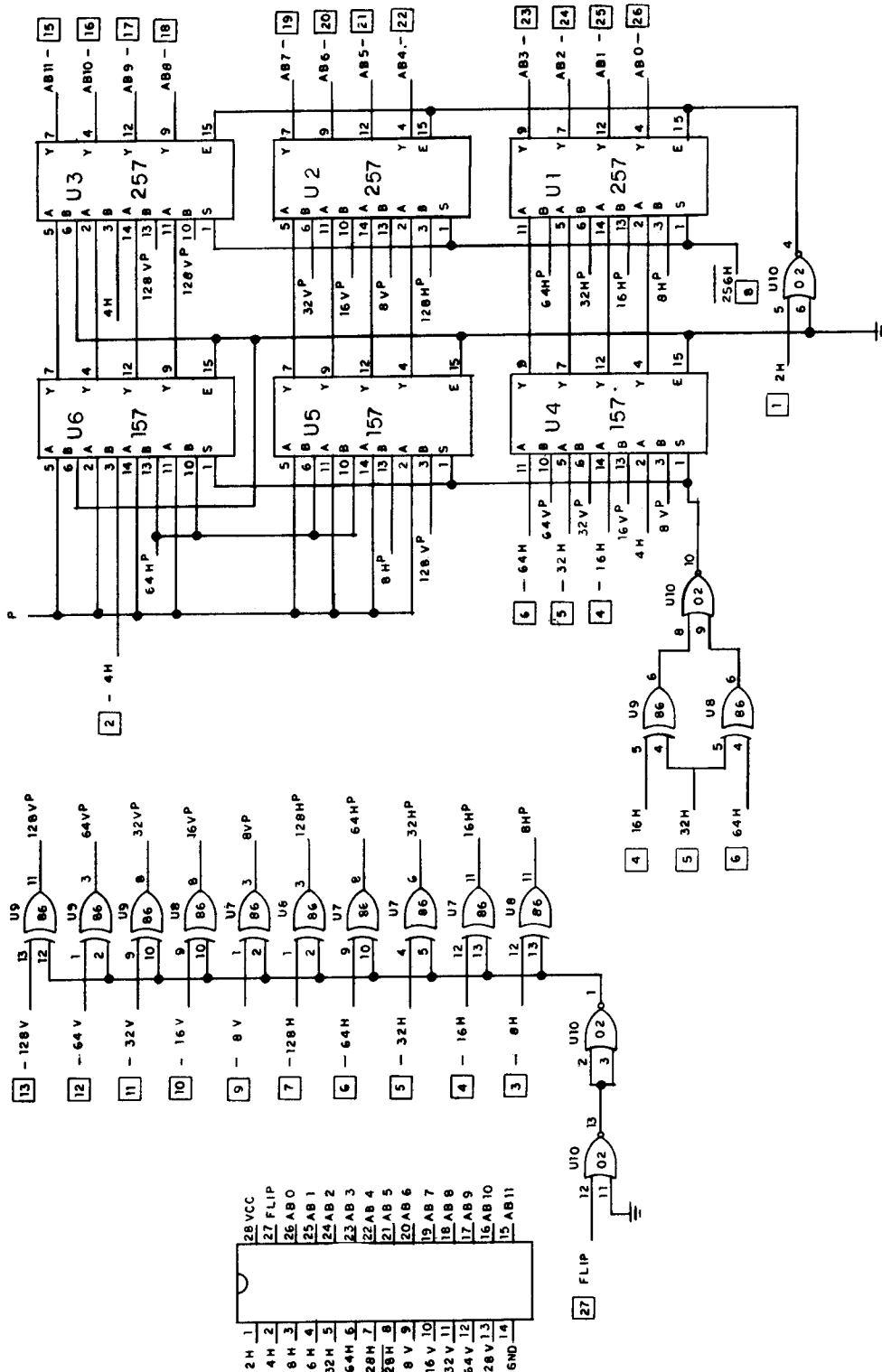
DRN. M. M

DIM. TOLERANCES UNLESS SPECIFIED

FINISH

DATE 10-23-80

CONCENTRICITY T.I.R. .003
 FRACTIONAL ± 1/64
 DECIMAL ± .008
 HOLE DIA. + .002 - .000



| | |
|----|------|
| 28 | VCC |
| 27 | FLIP |
| 26 | AB0 |
| 25 | AB1 |
| 24 | AB2 |
| 23 | AB3 |
| 22 | AB4 |
| 21 | AB5 |
| 20 | AB6 |
| 19 | AB7 |
| 18 | AB8 |
| 17 | AB9 |
| 16 | AB10 |
| 15 | AB11 |
| 14 | GND |

□ = 28 PIN CONNECTOR
P = PULL UP

MIDWAY MFG. CO
FRANKLIN PARK ILL

DRN M.M. CKD
DATE NOV 25 80 NO. REC'D 1
USED ON PAC-MAN
DESC.
PART NO. A082-91384-B000
V RAM ADDRESS INVC-284

SCHEMATIC PART NO. M051 00932 B032

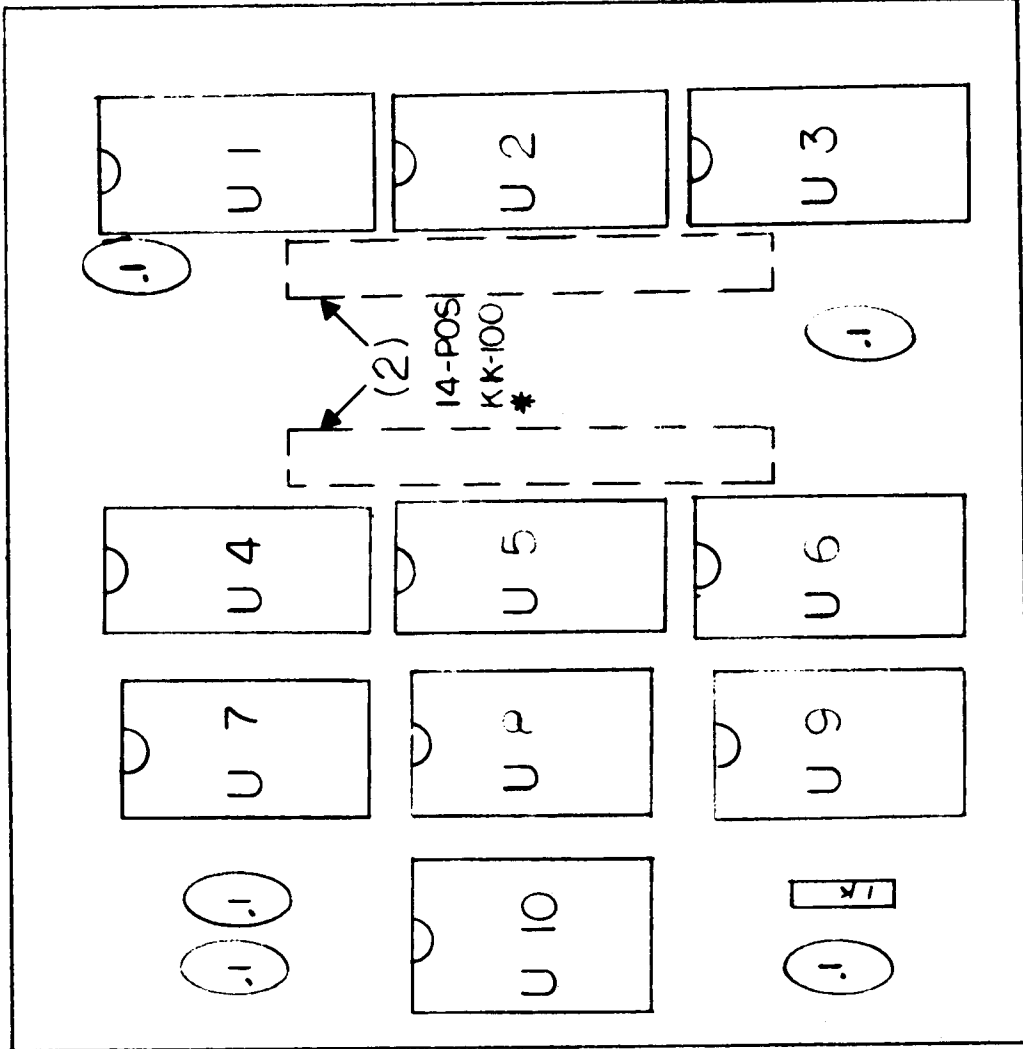
U1, U2, U3, 74LS257
 U4, U5, U6, 74LS157
 U7, U8, U9, 74LS86
 U10 - 74LS02

.1 MF 50V - (5)
 AX CER

1K 1/4w - (1)

(2) - 14-POS. KK-100

* MOUNTED ON
 SOLDER SIDE



M051-00932 - B034

| | |
|-----------|--|
| REVISIONS | |
| | |
| | |

MIDWAY MFG. CO.

FRANKLIN PK. ILL.

PART NO.

A082-91384-B000

USED ON PAC-MAN

NO. REQ'D 1-PER.

V-RAM ADDRESSER (284)
 COMPONENT-LAY-OUT

SCALE

HEAT TREAT

MAT'L.

FINISH

DO NOT SCALE DWG.

MM

DRN.

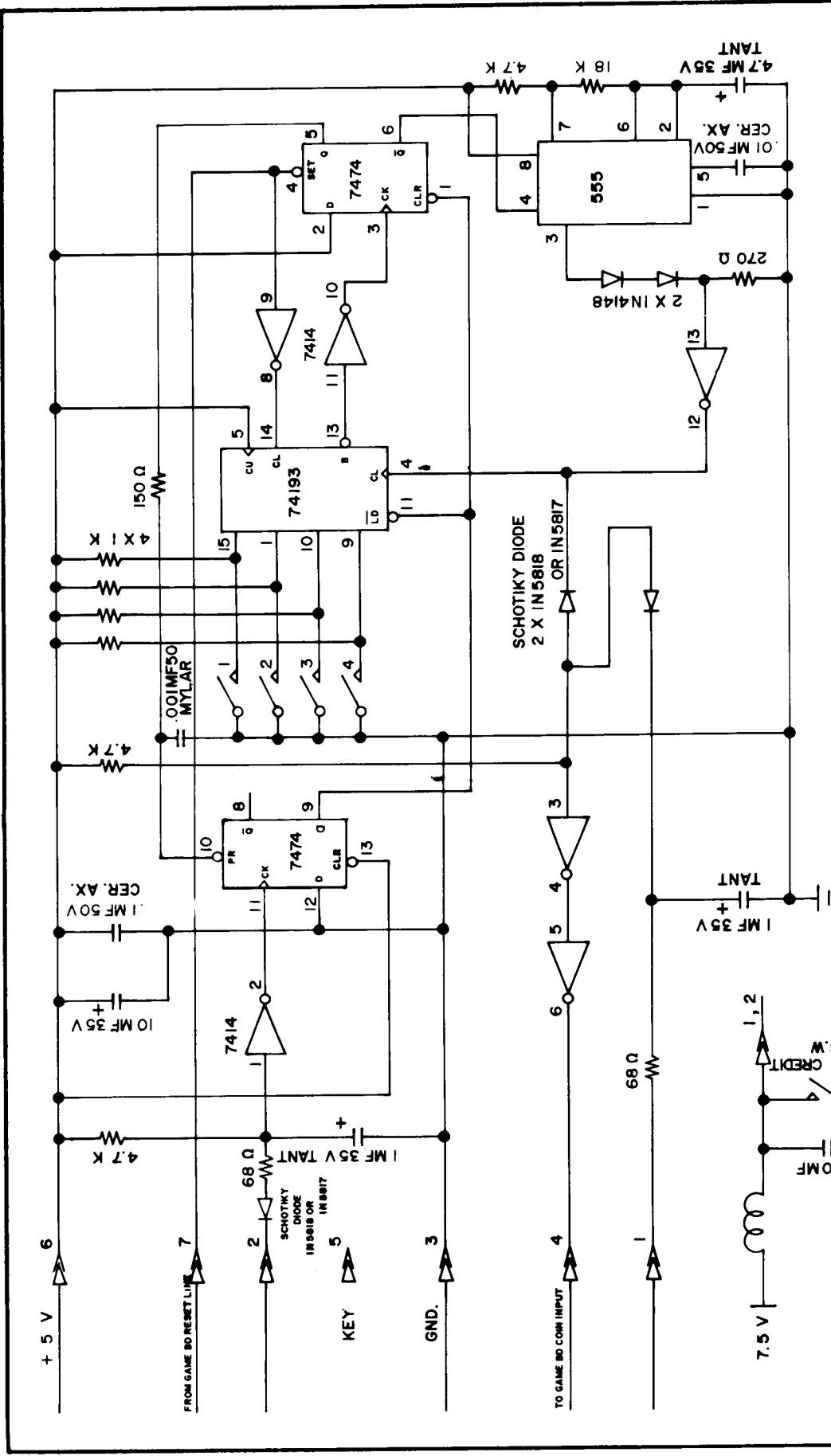
CONCENTRICITY T.I.R. .003

PRAGNATIONAL 1/84

DECIMAL .005

HOLE DIA. ±.002-.000

DATE 10-27-80



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| | |

REVISIONS

M051-00932-A029

MIDWAY MFG. CO.
FRANKLIN PK. ILL.

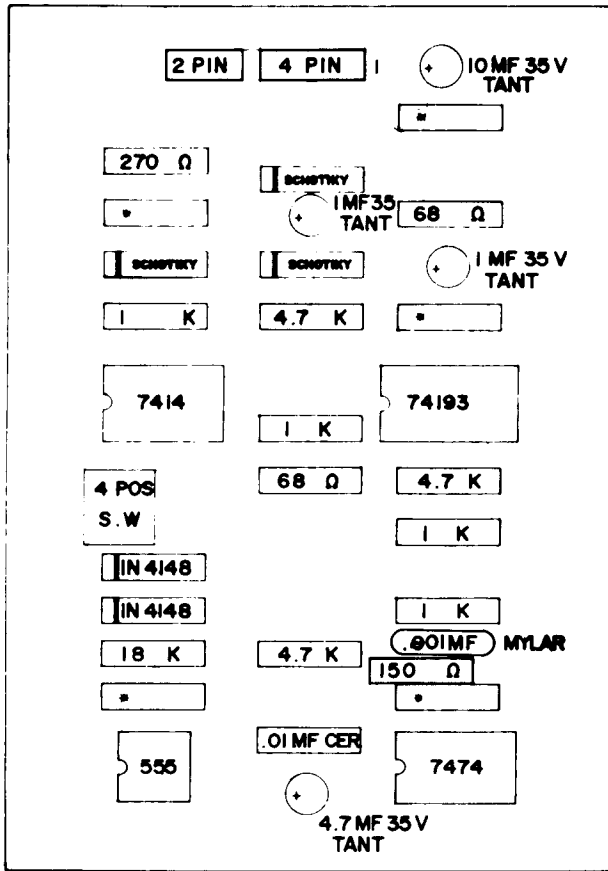
USED ON PAC-MAN
NO REQ'D

PART NO.
A082-91348-C000

SCHEMATIC DIAGRAM
CREDIT MULTIPLIER

SCALE
HEAT TREAT
MATT L
FINISH

DO NOT SCALE DWG.
DIM TOLERANCES UNLESS SPECIFIED
CONCENTRICITY 1/80
FRACTIONAL 1/64
DECIMAL .005
HOLE DIA +.002-.005
DATE 10/23/80



• 1 MF 50 V . CER. AX.

SCHOTKY DIODE - IN5818 OR IN5817

M051-00932-A027

| | | | |
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| | | | |
| | | | |
| | | | |

REVISIONS

MIDWAY MFG. CO.

FRANKLIN PK ILL.

USED ON PAC-MAN

NO REQ'D

PART NO.

A082-91348-C000

SCALE

HEAT TREAT

ASSEMBLY DRAWING
CREDIT MULTIPLIER P.C

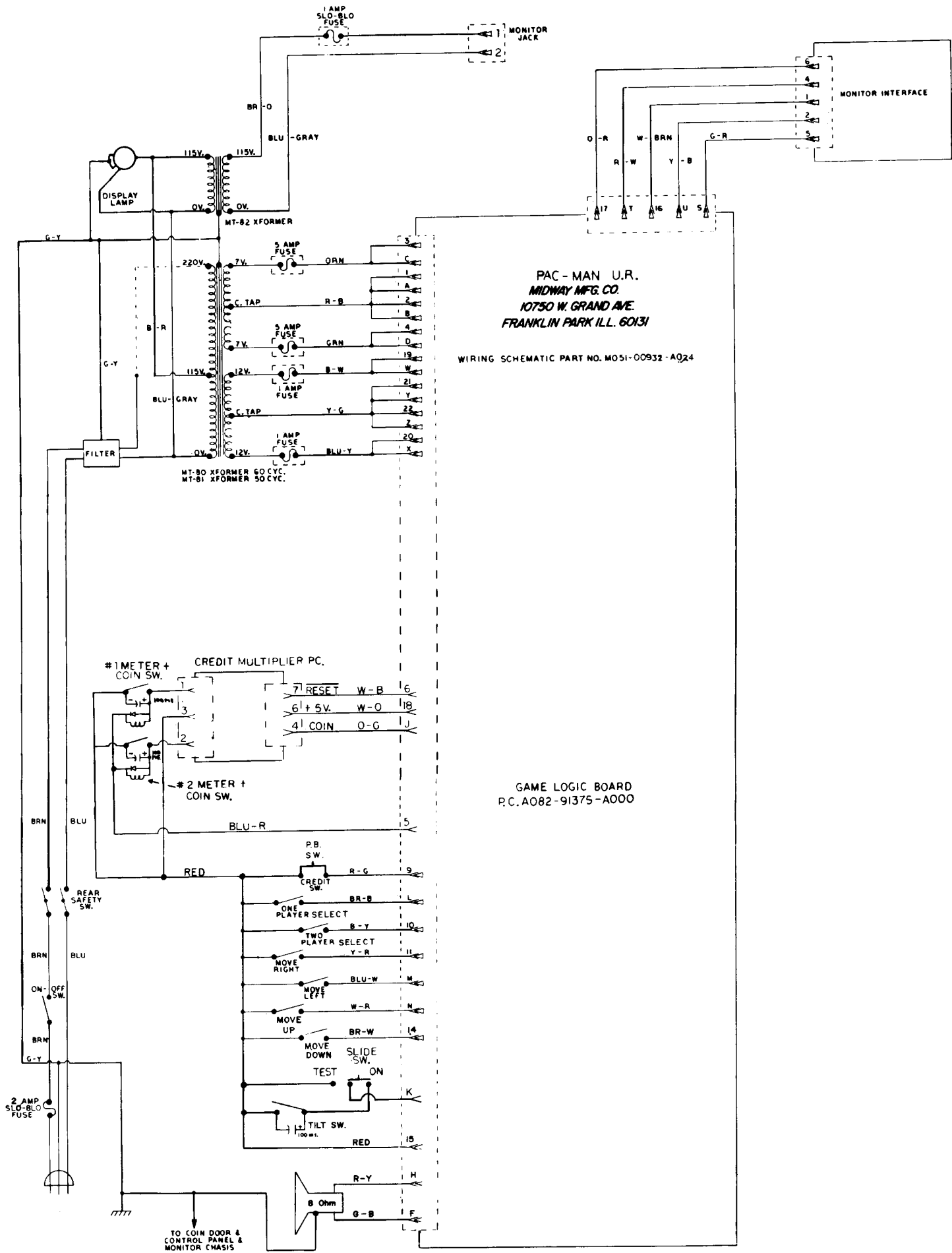
DO NOT SCALE DWG.

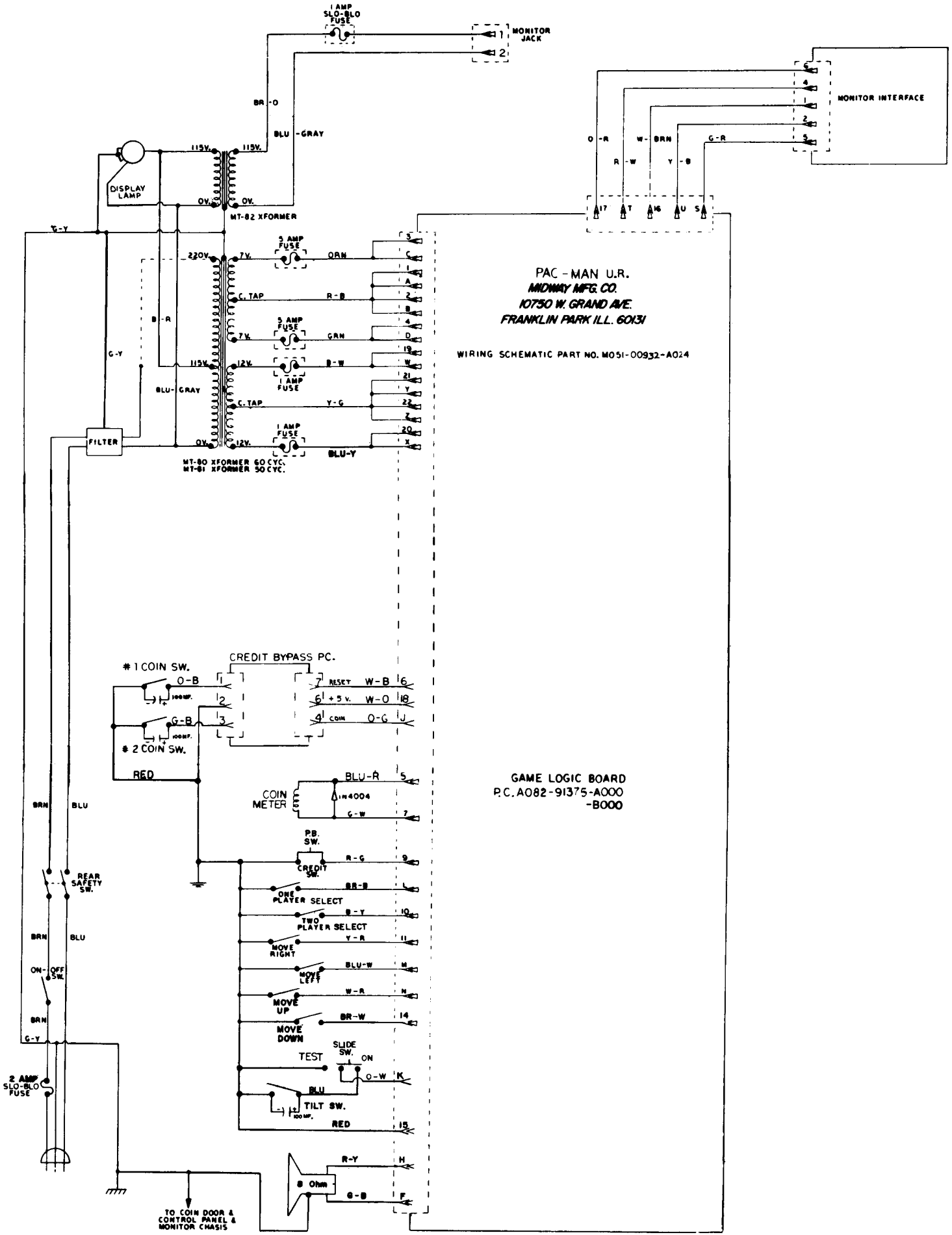
DIM. TOLERANCES UNLESS SPECIFIED

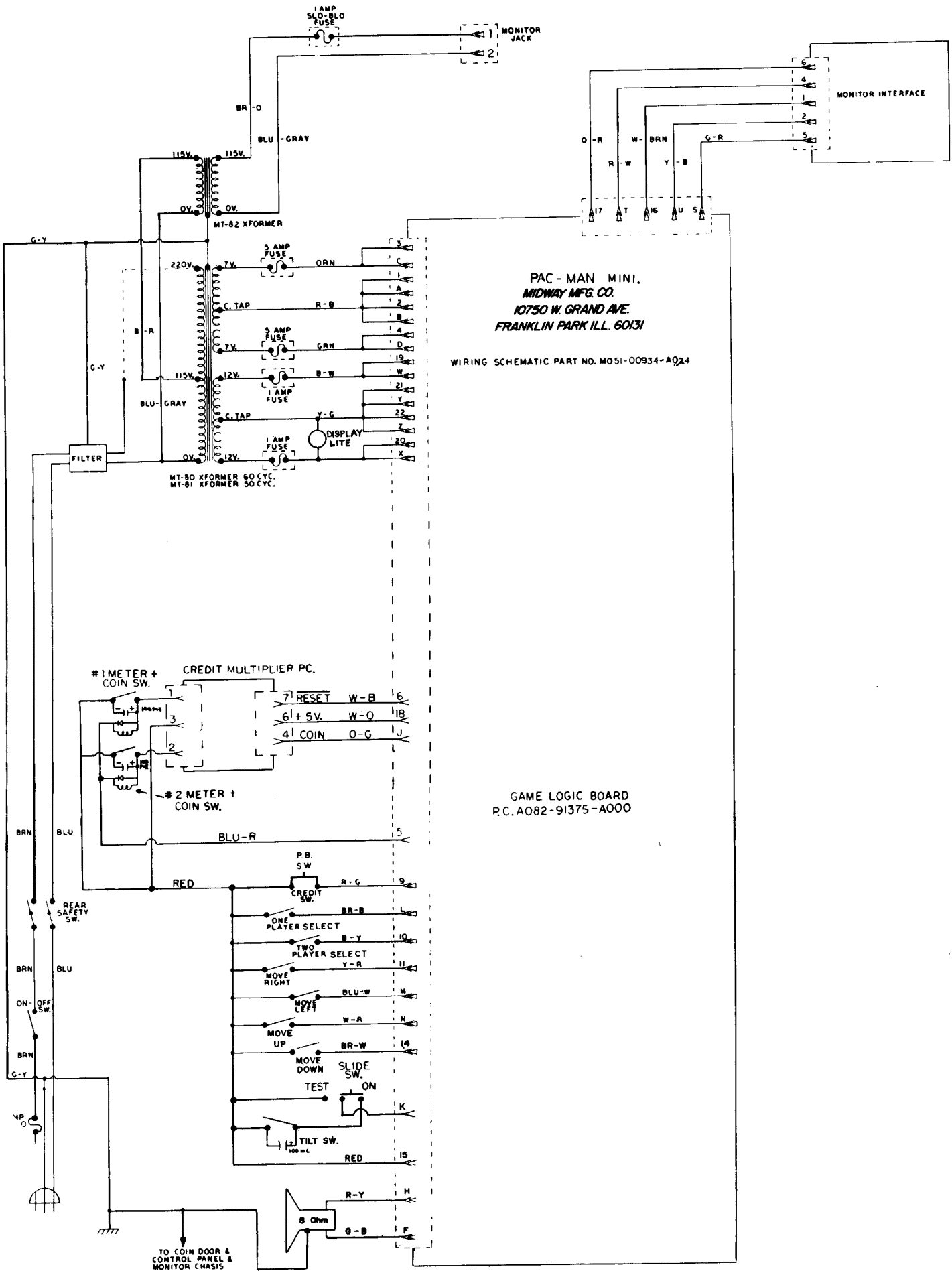
DRN *CR*

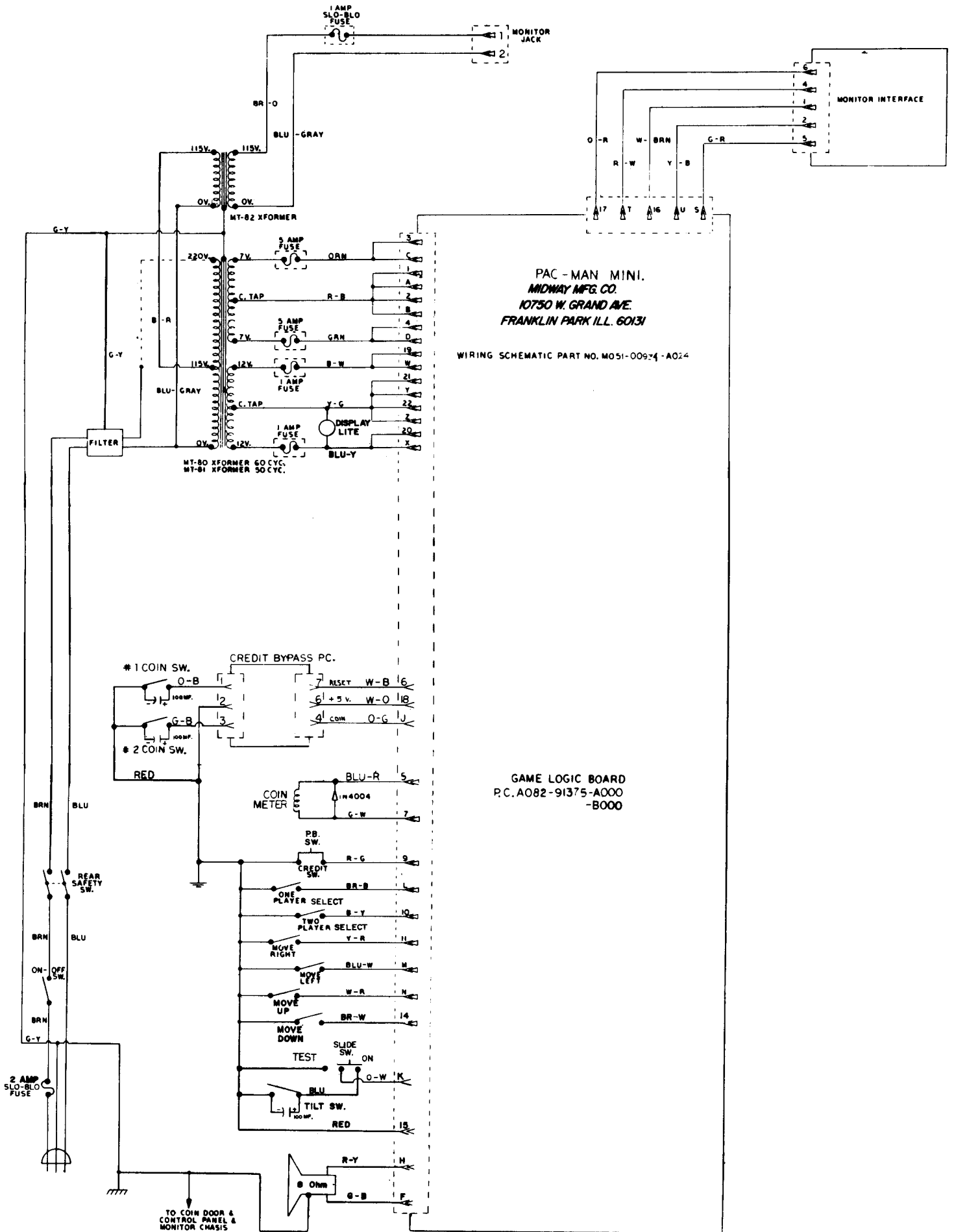
CONCENTRICITY TIR .003
FRACTIONAL 1/64 CKD
DECIMAL .003
HOLE DIA + .002 .000

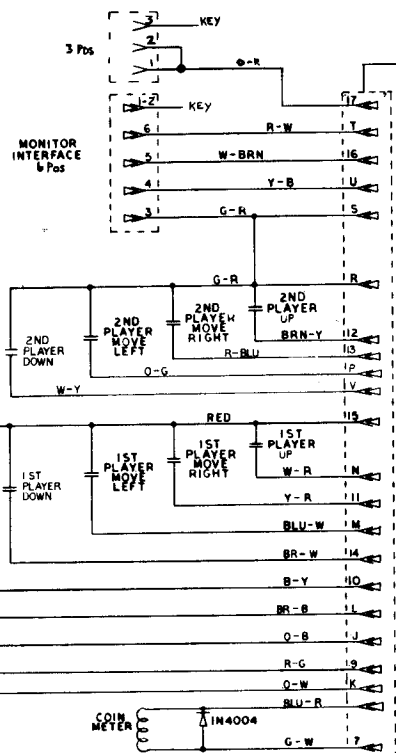
DATE 10/22/80





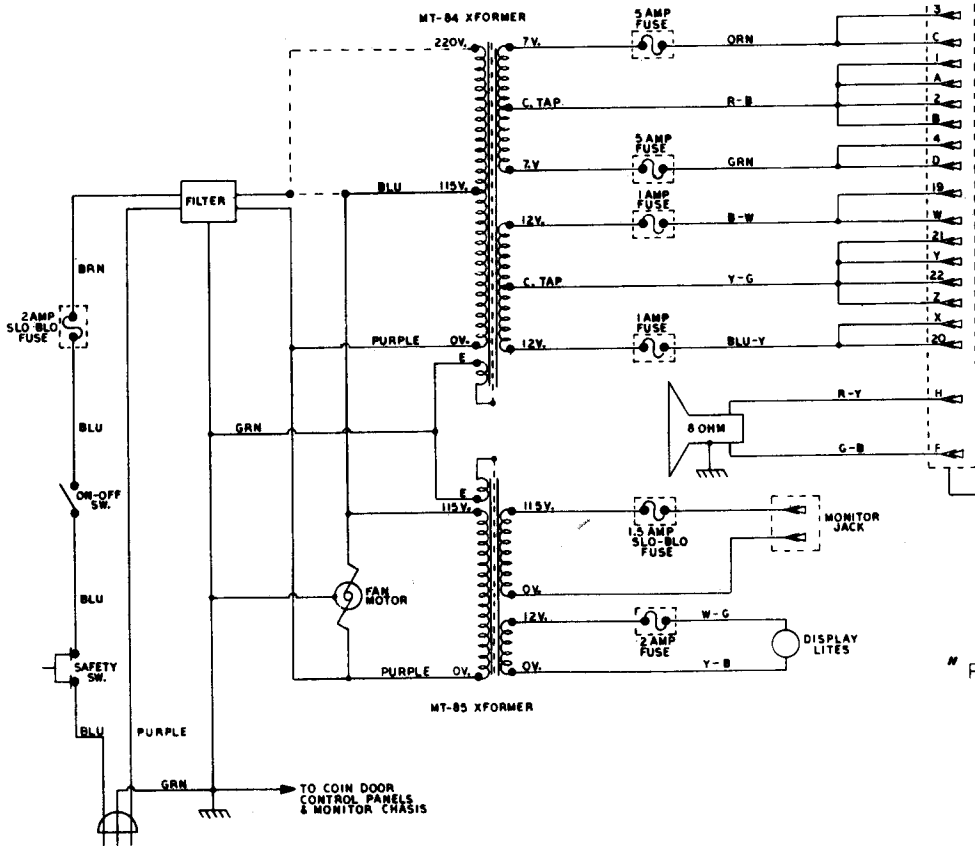






GAME LOGIC BOARD
P.C. A082-91375-A000
-B000

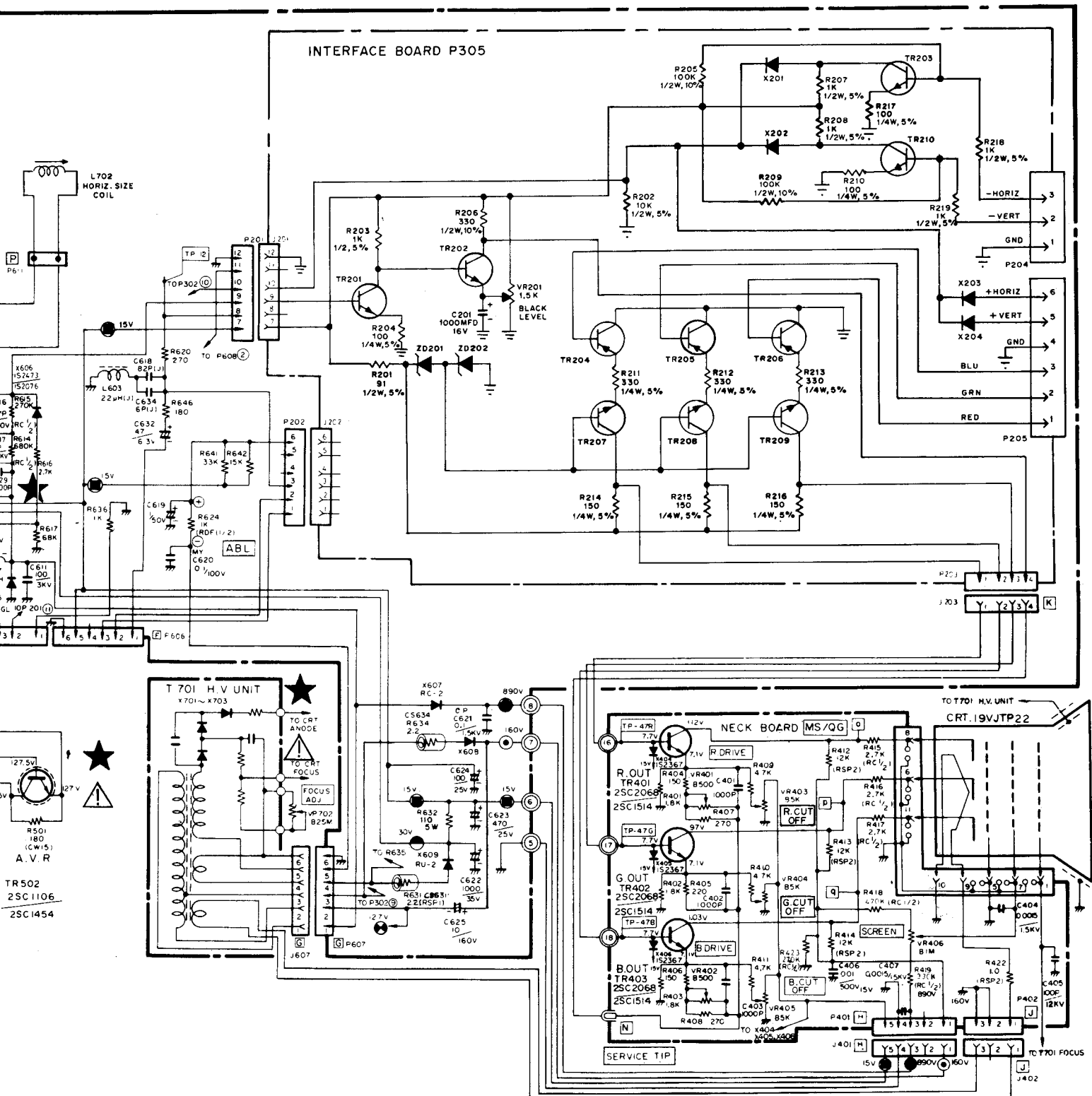
WIRING SCHEMATIC PART NO. M051-00933-A024



* PAC - MAN * COCKTAIL TABLE MODEL

MIDWAY MFG. CO.
10750 W. GRAND AVE.
FRANKLIN PARK, ILL. 60131

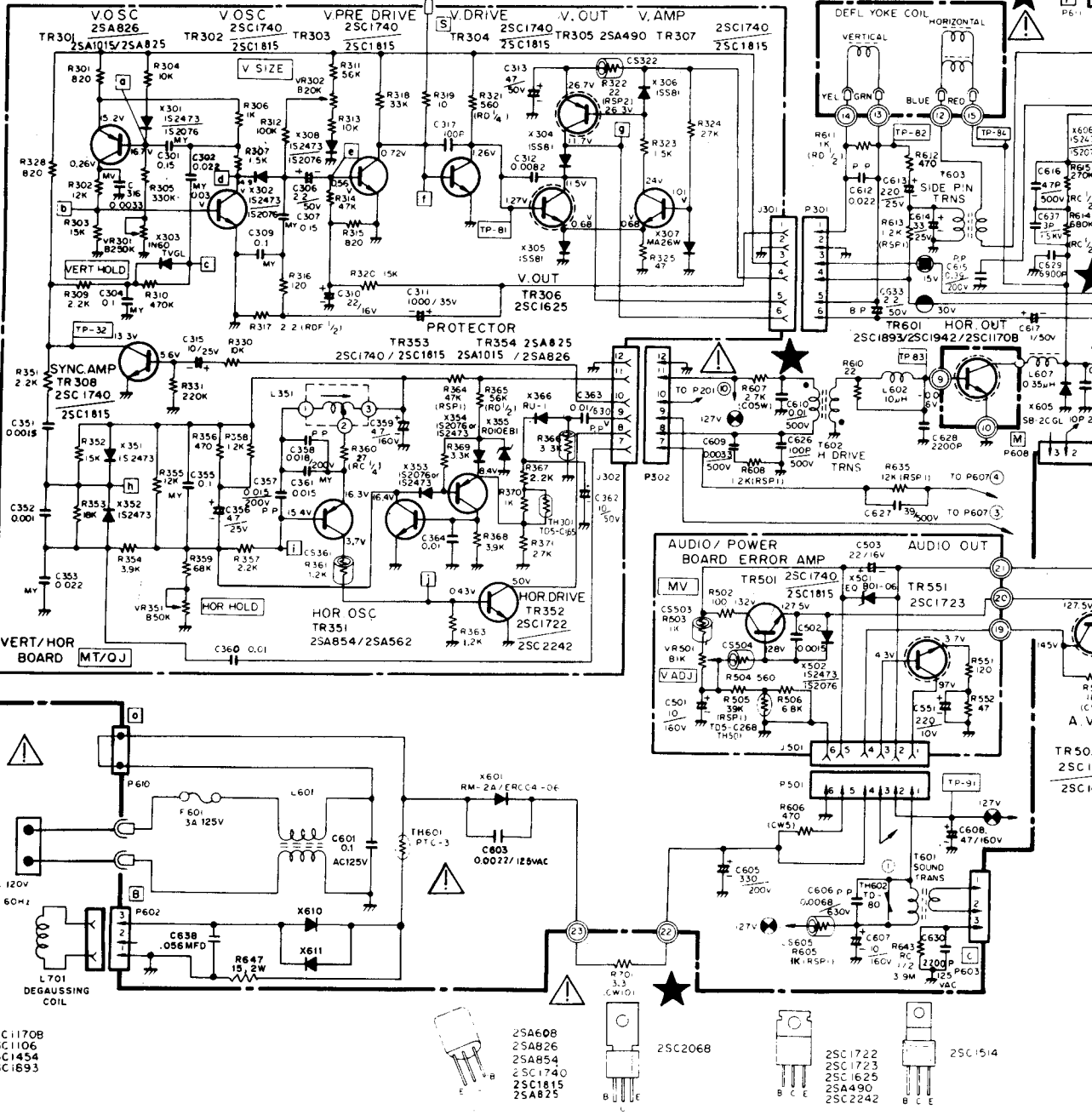
MONITOR SCHEMATIC DIAGRAM



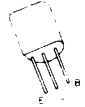
K4606-5800

MAIN BOARD MQ-29

SERVICE TIP



- 2SC1170B
- 2SC1106
- 2SC1454
- 2SC1693



- 2SA60B
- 2SA826
- 2SA854
- 2SC1740
- 2SC1815
- 2SA825



- 2SC1722
- 2SC1723
- 2SC1625
- 2SA490
- 2SC2242



- 2SC1514

VERT/HOR BOARD (MT/QJ)

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|------------------|--------------|--------------------------------|---------------------------|--------------|-----------------------------|
| RESISTORS | | | CAPACITORS (CONT.) | | |
| R301 | 203X6500-628 | 820 Ohm, ± 5%, 1/8W Carbon | C313 | 203X0025-087 | 47 uF, 50V Electrolytic |
| R302 | 203X6500-902 | 12k Ohm, ± 5%, 1/8W Carbon | C315 | 203X0015-082 | 10 uF, 25V Electrolytic |
| R303 | 203X6500-927 | 15k Ohm, ± 5%, 1/8W Carbon | C316 | 203X1100-220 | 3300 uF, 50V, ± 10% Mylar |
| R304 | 203X6500-886 | 10k Ohm, ± 5%, 1/8W Carbon | C317 | 202X8000-616 | 100 pF, 50V, ± 10% Ceramic |
| R305 | 203X6501-241 | 330k Ohm, ± 5%, 1/8W Carbon | C351 | 202X7000-281 | 1500 pF, 50V, ± 10% Ceramic |
| R306 | 203X6500-645 | 1k Ohm, ± 5%, 1/8W Carbon | C352 | 202X7000-247 | 1000 pF, 50V, ± 10% Ceramic |
| R307 | 203X6500-689 | 1.5k Ohm, ± 5%, 1/8W Carbon | C353 | 203X1100-573 | 0.022 uF, 50V, ± 10% Mylar |
| R309 | 203X6500-724 | 2.2k Ohm, ± 5%, 1/8W Carbon | C355 | 203X1100-858 | 0.1 uF, 50V, ± 10% Mylar |
| R310 | 203X6501-285 | 470k Ohm, ± 5%, 1/8W Carbon | C356 | 203X0015-105 | 4.7 uF, 25V Electrolytic |
| R311 | 203X6501-065 | 56k Ohm, ± 5%, 1/8W Carbon | C357 | 203X1201-013 | 0.015uF, 200V ± 10% PP |
| R312 | 203X6501-126 | 100k Ohm, ± 5%, 1/8W Carbon | C358 | 203X1201-034 | 0.018 uF, 200V, ± 10% PP |
| R313 | 203X6001-326 | 10k Ohm, ± 5%, 1/8W Carbon | C359 | 203X0040-013 | 4.7 uF, 160V Electrolytic |
| R314 | 203X6501-044 | 47k Ohm, ± 5%, 1/8W Carbon | C360 | 202X7000-482 | 0.01 uF, 50V, ± 10% Ceramic |
| R315 | 203X6500-628 | 820 Ohm, ± 5%, 1/8W Carbon | C361 | 203X1100-509 | 0.015 uF, 50V, ± 10% Mylar |
| R316 | 203X6500-420 | 120 Ohm, ± 5%, 1/8W Carbon | C362 | 203X0025-058 | 10 uF, 50V Electrolytic |
| R317 | 203X6206-441 | 2.2 Ohm, ± 5%, 1/2W Carbon | C363 | 203X1205-487 | 0.01 uF, 630V, ± 10% PP |
| R319 | 203X6500-169 | 100 Ohm, ± 5%, 1/8W Carbon | C364 | 202X7000-482 | 0.01 uF, 50V, ± 10% Ceramic |
| R320 | 203X6500-927 | 15k Ohm, ± 5%, 1/8W Carbon | | | |
| R321 | 203X6700-509 | 560 Ohm, ± 5%, 1/2W Carbon | | | |
| R322 | 203X9100-121 | 22 Ohm, ± 5%, 2W M.O. | | | |
| R323 | 203X6500-689 | 1.5k Ohm, ± 5%, 1/8W Carbon | | | |
| R324 | 203X6500-988 | 27k Ohm, ± 5%, 1/8W Carbon | TR301 | 200X4082-614 | Transistor, 2SA826Q |
| R325 | 203X6500-326 | 47 Ohm, ± 5%, 1/8W Carbon | TR302 | 200X3174-006 | Transistor, 2SC1740Q |
| R328 | 203X6500-628 | 820 Ohm, ± 5%, 1/8W Carbon | TR303 | 200X3174-006 | Transistor, 2SA1740Q |
| R330 | 203X6500-886 | 10k Ohm, ± 5%, 1/8W Carbon | TR304 | 200X3174-006 | Transistor, 2SC1740Q |
| R331 | 203X6501-209 | 220k Ohm, ± 5%, 1/8W Carbon | TR305 | 200X4049-081 | Transistor, 2SA490YLBGLI |
| R351 | 203X6500-724 | 2.2k Ohm, ± 5%, 1/8W Carbon | TR306 | 200X3162-538 | Transistor, 2SC1625YLBGLI |
| R352 | 203X6500-927 | 15k Ohm, ± 5%, 1/8W Carbon | TR307 | 200X3174-014 | Transistor, 2SC1740R |
| R353 | 203X6500-944 | 18k Ohm, ± 5%, 1/8W Carbon | TR308 | 200X3174-006 | Transistor, 2SC1740Q |
| R354 | 203X6500-783 | 3.9k Ohm, ± 5%, 1/8W Carbon | TR351 | 200X4085-415 | Transistor, 2SA854Q |
| R355 | 203X6500-902 | 12k Ohm, ± 5%, 1/8W Carbon | TR352 | 200X3172-208 | Transistor, 2SC1722BKS |
| R356 | 203X6500-561 | 470 Ohm, ± 5%, 1/8W Carbon | TR353 | 200X3174-006 | Transistor, 2SC1740Q |
| R357 | 203X6500-724 | 2.2k Ohm, ± 5%, 1/8W Carbon | TR354 | 200X4082-614 | Transistor, 2SA826Q |
| R358 | 203X6500-666 | 1.2k Ohm, ± 5%, 1/8W Carbon | X301 | 201X2010-144 | Diode, (SI) IS2473-T72 |
| R359 | 203X6501-088 | 68k Ohm, ± 5%, 1/8W Carbon | X302 | 201X2010-144 | Diode, (SI) IS2473-T72 |
| R360 | 203X5500-471 | 27 Ohm, ± 5%, 1/4W Comp. | X303 | 200X8000-026 | Diode, (GE), IN60TVGL |
| R361 | 203X6000-998 | 1.2k Ohm, ± 5%, 1/8W Carbon | X304 | 200X8010-165 | Diode (SI) ISS81 |
| R363 | 203X6500-666 | 1.2k Ohm, ± 5%, 1/8W Carbon | X305 | 201X2010-165 | Diode (SI) ISS81 |
| R364 | 203X9014-988 | 47k Ohm, ± 5%, 1W M.O. | X306 | 201X2010-165 | Diode (SI) ISS81 |
| R365 | 203X6700-989 | 56k Ohm, ± 5%, 1/2W Carbon | X307 | 200X8010-102 | Diode (SI) MA26W |
| R366 | 203X6001-148 | 3.3k Ohm, ± 5%, 1/8W Carbon | X308 | 200X8010-094 | Diode (SI) IS2473 |
| R367 | 340X2222-734 | 2.2k Ohm, ± 5%, 1/2W Carbon | X351 | 201X2010-144 | Diode (SI) IS2473-T72 |
| R368 | 203X6500-785 | 3.9k Ohm, ± 5%, 1/8W Carbon | X352 | 201X2010-144 | Diode (SI) IS2473-T72 |
| R369 | 203X6500-762 | 3.3k Ohm, ± 5%, 1/4W Carbon | X353 | 201X2010-144 | Diode (SI) IS2473-T72 |
| R370 | 302X6100-961 | 1k Ohm, ± 5%, 1/4W Carbon | X354 | 201X2010-144 | Diode (SI) IS2473-T72 |
| R371 | 203X6104-751 | 2.7k Ohm, ± 5%, 1/4W Carbon | X355 | 200X8220-851 | Diode (Zener) RD10EBI |
| VR301 | 204X2122-093 | Varistor, 250K Ohm, Vert. Hold | X366 | 200X8100-130 | Diode (HS) RU-1 0.3 US |
| VR302 | 204X2114-065 | Varistor, 20K Ohm, Vert. Size | | | |
| VR351 | 204X2114-059 | Varistor, 50K Ohm, Hor. Hold | | | |

SEMICONDUCTORS

CAPACITORS

| | | |
|------|--------------|-------------------------------|
| C301 | 203X1100-928 | 0.15 uF, 50V, ± 10% Mylar |
| C302 | 203X1100-573 | 0.022 uF, 50V, ± 10% Mylar |
| C304 | 203X1100-858 | 0.1 uF, 50V, ± 10% Mylar |
| C306 | 203X0025-026 | 2.2 uF, 50V, Electrolytic |
| C307 | 203X1100-928 | 0.15 uF, 50V, ± 10% Mylar |
| C309 | 203X1100-858 | 0.1 uF, 50V, ± 10% Mylar |
| C310 | 203X0010-011 | 22 uF, 16V Electrolytic |
| C311 | 203X0020-099 | 1000 uF, 35V Electrolytic |
| C312 | 202X7000-469 | 0.0082 uF, 50V, ± 10% Ceramic |

| | | |
|-------|--------------|---------------|
| J301 | 204X9300-958 | Socket, 6 Pin |
| J302 | 204X9300-958 | Socket, 6 Pin |
| P301 | 204X9601-195 | Plug, 6 Pin |
| P302 | 204X9601-195 | Plug, 6 Pin |
| TH301 | 201X0000-534 | Thermistor |

TRANSFORMERS & COILS

| | | |
|------|--------------|-------------------|
| L351 | 201X5200-091 | Coil, Horiz. Osc. |
|------|--------------|-------------------|

POWER BOARD (MV)

RESISTORS

| | | |
|-------|--------------|-----------------------------|
| R501 | 204X1725-052 | 180 Ohm, ± 10%, 15W WW |
| R502 | 203X6000-608 | 100 Ohm, ± 5%, 1/8W Carbon |
| R503 | 203X6000-960 | 1k Ohm, ± 5%, 1/8W Carbon |
| R504 | 203X6000-879 | 560 Ohm, ± 5%, 1/8W Carbon |
| R505 | 203X9014-965 | 39k Ohm, ± 5%, 1W M.O. |
| R506 | 203X6500-842 | 6.8k Ohm, ± 5%, 1/8W Carbon |
| R551 | 203X6500-420 | 120 Ohm, ± 5%, 1/8W Carbon |
| VR501 | 204X2050-001 | Varistor Vert. Adj. |

| | | |
|------|--------------|--------------------------|
| C503 | 203X0010-011 | 22 uF, 16V Electrolytic |
| C551 | 203X0005-046 | 220 uF, 10V Electrolytic |

SEMICONDUCTORS

| | | |
|---------|--------------|-----------------------------|
| TR501 | 200X3174-006 | Transistor, 2SC1740Q |
| ★ TR502 | 200X3145-404 | Transistor, 2SC1454 |
| TR551 | 200X3172-305 | Transistor, 2SC1723 |
| X501 | 201X2230-042 | Diode, (SI) Zener EQB01-06V |
| X502 | 201X2010-144 | Diode, (SI) IS2473-T72 |

CAPACITORS

| | | |
|------|--------------|-----------------------------|
| C501 | 203X0040-020 | 10 uF, 160V Electrolytic |
| C502 | 202X7000-281 | 1500 pF, 50V, ± 10% Ceramic |

MISCELLANEOUS

| | | |
|-------|--------------|---------------|
| J501 | 204X9300-958 | Socket, 6 Pin |
| P501 | 204X9601-195 | Plug, 6 Pin |
| TH501 | 201X0000-618 | Thermistor |

NECK BOARD (MS/QG)

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|------------------|--------------|-------------------------------|-----------------------|--------------|---|
| RESISTORS | | | | | |
| R401 | 203X6500-709 | 1.8k Ohm ± 5% 1/8W Carbon | C403 | 202X7000-247 | 1000 pF, 50V, 10% Ceramic |
| R402 | 203X6500-709 | 1.8k Ohm ± 5% 1/8W Carbon | C404 | 202X7110-019 | 1500 pF, 2kV ± 10% Ceramic |
| R403 | 203X6500-709 | 1.8k Ohm ± 5% 1/8W Carbon | C405 | 202X7150-018 | 100 pF, 12kV, ± 10% Ceramic |
| R404 | 203X6500-447 | 150 Ohm ± 5% 1/8W Carbon | C406 | 202X7050-483 | .01 uF, 500V, ± 10% Ceramic |
| R405 | 203X6500-481 | 220 Ohm ± 5% 1/8W Carbon | C407 | 202X7110-019 | 1500 pF, 2kV ± 10% Ceramic |
| R406 | 203X6500-447 | 150 Ohm ± 5% 1/8W Carbon | C408 | 202X8000-550 | 68 pF, 50V, ± 10% Ceramic |
| R407 | 203X6500-508 | 270 Ohm ± 5% 1/8W Carbon | C409 | 202X8000-550 | 68 pF, 50V, ± 10% Ceramic |
| R408 | 203X6500-508 | 270 Ohm ± 5% 1/8W Carbon | C410 | 202X8000-550 | 68 pF, 50V, ± 10% Ceramic |
| R409 | 203X6500-800 | 4.7k Ohm ± 5% 1/8W Carbon | SEMICONDUCTORS | | |
| R410 | 203X6500-800 | 4.7k Ohm ± 5% 1/8W Carbon | TR401 | 200X3206-800 | Transistor, 2SC2068, 2SC1514 (R output) |
| R411 | 203X6500-800 | 4.7k Ohm ± 5% 1/8W Carbon | TR402 | 200X3206-800 | Transistor, 2SC2068, 2SC1514 (G output) |
| R412 | 203X9104-809 | 12k Ohm ± 5% 2.0W Metal Oxide | TR403 | 200X3206-800 | Transistor, 2SC2068, 2SC1514 (B output) |
| R413 | 203X9104-809 | 12k Ohm ± 5% 2.0W Metal Oxide | X404 | 201X2100-126 | Diode, IS2367 (protector) |
| R414 | 203X9104-809 | 12k Ohm ± 5% 2.0W Metal Oxide | X405 | 201X2100-126 | Diode, IS2367 (protector) |
| R415 | 203X5601-313 | 2.7k Ohm ± 10% 1/2W Comp. | X406 | 201X2100-126 | Diode, IS2367 (protector) |
| R416 | 203X5601-313 | 2.7k Ohm ± 10% 1/2W Comp. | | | |
| R417 | 203X5601-313 | 2.7k Ohm ± 10% 1/2W Comp. | | | |
| R418 | 203X5602-254 | 470k Ohm ± 10% 1/2W Comp. | | | |
| R419 | 203X5602-185 | 330k Ohm ± 10% 1/2W Comp. | | | |
| R422 | 203X9105-117 | 1.0 Ohm ± 10% 2W Metal Oxide | | | |
| R423 | 203X5102-155 | 270k Ohm ± 5% 1/4W Carbon | | | |
| VR401 | 204X2115-014 | 500 Ohm Varistor R Drive | | | |
| VR402 | 204X2115-014 | 500 Ohm Varistor B Drive | | | |
| VR403 | 204X2115-006 | 5k Ohm Varistor R Cutoff | | | |
| VR404 | 204X2115-006 | 5k Ohm Varistor G Cutoff | | | |
| VR405 | 204X2115-006 | 5k Ohm Varistor B Cutoff | | | |
| VR406 | 204X2000-025 | 1M Ohm Varistor Screen | | | |

| CAPACITORS | | | MISCELLANEOUS | | |
|-------------------|--------------|---------------------------|----------------------|--------------|---------------|
| C401 | 202X7000-247 | 1000 pF, 50V, 10% Ceramic | J401 | 206X5003-729 | Socket, 5 Pin |
| C402 | 202X7000-247 | 1000 pF, 50V, 10% Ceramic | J402 | 206X5003-983 | Socket, 3 Pin |
| | | | P401 | 204X9600-329 | Plug, 5 Pin |
| | | | P402 | 204X9600-254 | Plug, 3 Pin |

★ 297X2000-072 HIGH VOLTAGE ASSEMBLY (T701)

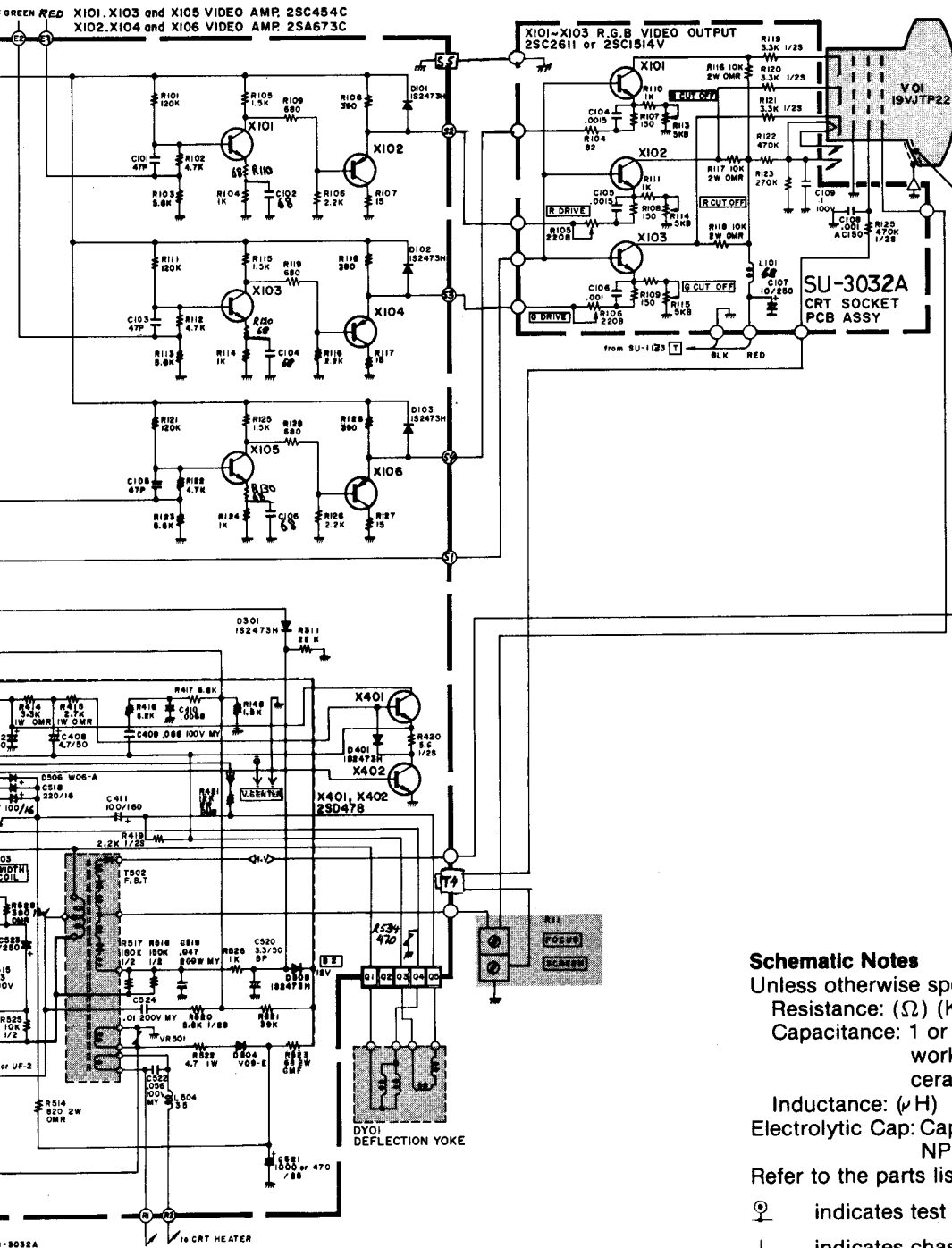
| | | | |
|--------|--------------|--------------------------------|----------------|
| ★ R701 | 204X1625-058 | 3.3 Ohm, ± 10% 10W WW Resistor | } Part of T701 |
| VR702 | 204X3901-125 | Focus Control | |
| X701 | | Diode (SI HV) | |
| X702 | | Diode (SI HV) | |
| X703 | | Diode (SI HV) | |

FINAL ASSEMBLY PARTS

| | |
|----------------|------------------------------|
| ★ 88X-0129-506 | 19VJTP22 Pix Tube |
| 38A5554-000 | Assy. Purity Shld/Degaussing |
| 205X9800-256 | Lateral/Purity Assembly |
| ★ 202X1110-810 | Yoke, Deflection |
| 208X2000-946 | CRT Socket |
| 297X2000-072 | HV Unit (T701) |
| 6A0397 | Plug, Line Cord |
| 9A2753-003 | Degaussing Coil (L701) |

INTERFACE BOARD (P305) (MODEL 19K4606)

| RESISTORS | | | SEMICONDUCTORS | | |
|-------------------|--------------|-------------------------------|-----------------------|--------------|------------------------------|
| R201 | 340X3910-934 | 91 Ohm, 5%, 1/2W Carbon | TR201 | 86X0121-001 | Transistor (NPN) |
| R203 | 340X3102-934 | 1k Ohm, 5%, 1/2W Carbon | TR202 | 86X0121-001 | Transistor (NPN) |
| R204 | 340X2101-934 | 100 Ohm, 5%, 1/4W Carbon | TR203 | 86X0121-001 | Transistor (NPN) |
| R206 | 340X3331-944 | 330 Ohm, 10%, 1/2W Carbon | TR204 | 86X0066-001 | Transistor (PNP) |
| R207 | 340X3102-934 | 1k Ohm, 5%, 1/2W Carbon | TR205 | 86X0066-001 | Transistor (PNP) |
| R208 | 340X3152-934 | 1.5k Ohm, 5%, 1/4W Carbon | TR206 | 86X0066-001 | Transistor (PNP) |
| R209 | 340X2101-934 | 100 Ohm, 5%, 1/4W Carbon | TR207 | 86X0121-001 | Transistor (NPN) |
| R210 | 340X3102-934 | 1k Ohm, 5%, 1/2W Carbon | TR208 | 86X0121-001 | Transistor (NPN) |
| R211 | 340X2331-934 | 330 Ohm, 5%, 1/4W Carbon | TR209 | 86X0121-001 | Transistor (NPN) |
| R212 | 340X2331-934 | 330 Ohm, 5%, 1/4W Carbon | ZD201 | 66X0040-018 | Diode, Zener, 6.8v, 5%, 0.5W |
| R213 | 340X2331-934 | 330 Ohm, 5%, 1/4W Carbon | ZD202 | 66X0040-019 | Diode, Zener, 3.9v, 5%, 0.5W |
| R214 | 340X2201-934 | 200 Ohm, 5%, 1/4W Carbon | MISCELLANEOUS | | |
| R215 | 340X2201-934 | 200 Ohm, 5%, 1/4W Carbon | J201 | 204X9300-958 | Socket, 6 Pin |
| R216 | 340X2201-934 | 200 Ohm, 5%, 1/4W Carbon | J202 | 204X9300-958 | Socket, 6 Pin |
| VR201 | 40X0590-017 | 1.5k Ohm, Black Level Control | J203 | 206X5019-207 | Socket, 4 Pin |
| CAPACITORS | | | P201 | 204X9601-195 | Plug, 6 Pin |
| C201 | 45X0524-038 | 1000 uF, 16V Electrolytic | P202 | 204X9601-195 | Plug, 6 Pin |
| | | | P203 | 204X9600-845 | Plug, 4 Pin |
| | | | P205 | 6A0393-006 | Plug, 6 Pin |



Schematic Notes


Unless otherwise specified

Resistance: (Ω) (K→KΩ, M→MΩ), 1/4 (W) carbon resistor
 Capacitance: 1 or higher → (pF), less than 1 → (μF)
 working voltage → 50 (V)
 ceramic capacitor

Inductance: (μH)
 Electrolytic Cap: Capacitance Value (μF)/working voltage (V),
 NP → non-polar (or bipolar) electrolytic cap.

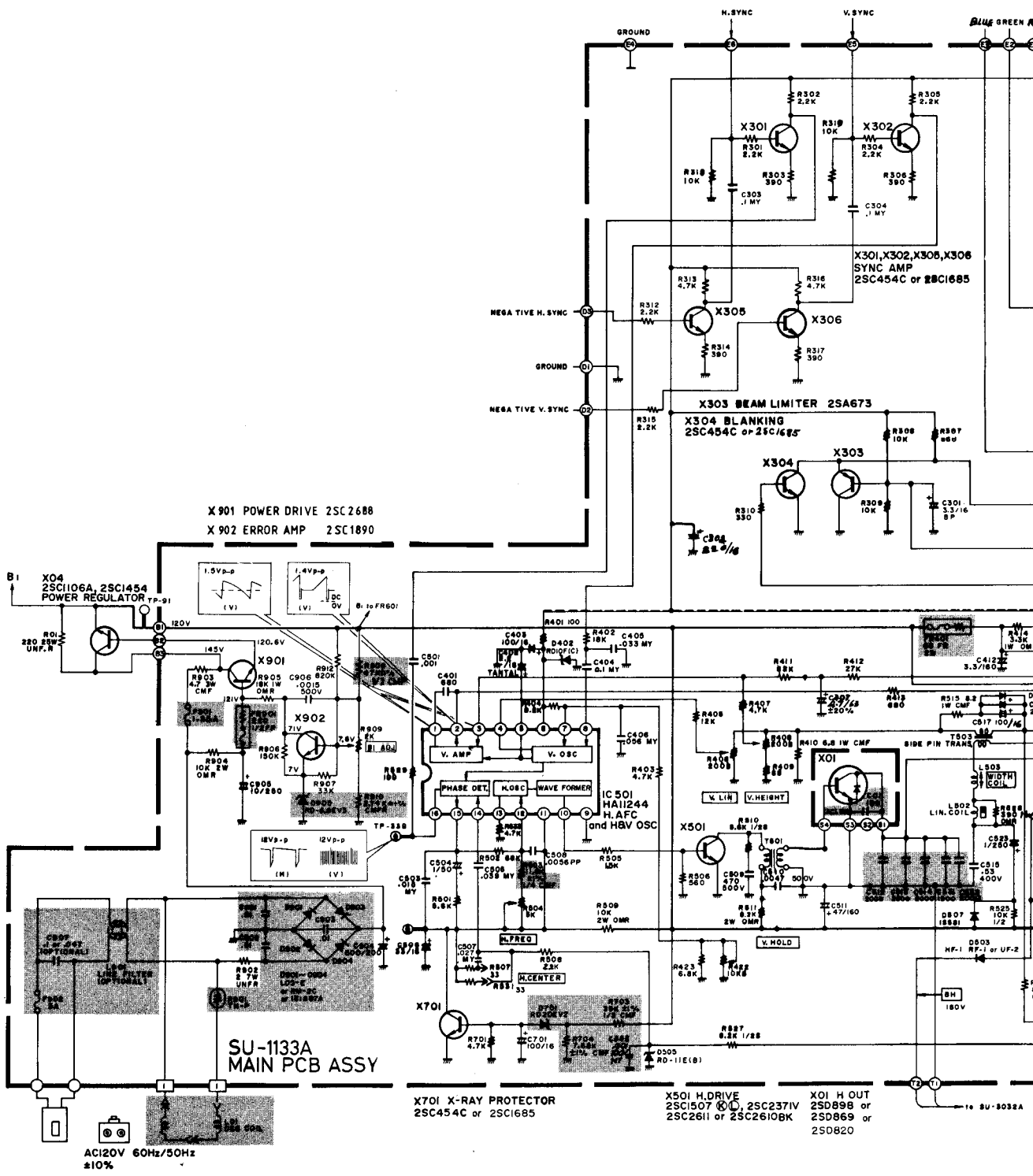
Refer to the parts list for additional component information.

- ⊙ indicates test point connection
- ⊔ indicates chassis ground unless otherwise specified
- Hz indicates cycles per second

For **safety** purposes (and continuing reliability)
 ▲ replace all components marked with safety symbol with identical type.
 NOTE: FR → fusible resistor (—)

00-4147-04
 G07-CB0

Parts identification on circuit boards:
 e.g. SU1126A (R107 = R1107)
 SU3030A (R113 = R3113)



BLUE GREEN R

10 BU-8032A

REPLACEMENT PARTS LIST - ELECTROHOME 19" MONITOR

Components identified by the Δ symbol in the PARTS LIST and on the Schematic have special characteristics important to safety.

DO NOT degrade the safety of the set through improper servicing.

Abbreviations for Resistors and Capacitors

Resistor

| | |
|---------|-------------------------------|
| C R | : Carbon Resistor |
| Comp. R | : Composition Resistor |
| OM R | : Oxide Metal Film Resistor |
| V R | : Variable Resistor |
| MF R | : Metal Film Resistor |
| CMF R | : Coating Metal Film Resistor |
| UNF R | : Nonflammable Resistor |
| F R | : Fusible Resistor |

Capacitor

| | |
|-----------|---|
| C Cap. | : Ceramic Capacitor |
| M Cap | : Mylar Capacitor |
| E Cap. | : Electrolytic Capacitor |
| BP E Cap. | : Bi-Polar (or Non-Polar) Electrolytic Capacitor |
| MM Cap. | : Metalized Mylar Capacitor |
| PP Cap. | : Polypropylene Capacitor |
| MPP Cap. | : Metalized PP Capacitor |
| PS Cap | : Polystyrol Capacitor |
| Tan. Cap. | : Tantal Capacitor |

NOTE: When ordering replacement parts please specify the part number as shown in this list including part name, and model number. Complete information will help expedite the order.

Use of substitute replacement parts which do not have the same safety characteristics as specified, may create shock, fire or other hazards. For maximum reliability and performance, all parts should be replaced by those having identical specifications.

SERVICE REPLACEMENT PARTS LIST

| Symbol | Description | Part Number |
|--------|-------------------------|--------------|
| | Main P.C.B. Ass'y | SU-1133A |
| | CRT Socket P.C.B. Ass'y | SU-3032A |
| | Purity Shield Ass'y | 07-220083-03 |

Outside of the P.C.B. Ass'y

| Symbol | Description | Part Number |
|--------|---------------------------------------|----------------------|
| | Picture Tube 19" | 17-7198-03 |
| △ | △Deflection Yoke | A29779-D = 21-141-01 |
| | PC Magnet | A75034-B = 29-32-01 |
| △ | △Flyback Transf. | A29951-B |
| △ | △HVR | A46600-A |
| R05 | UNF Resistor 220Ω,25W K | QRF258K-221 |
| C04 | C Capacitor 150pF, AC1.5KV | QCZ0101-005 |
| X01 | Si. Transistor | 2SD870 |
| X02 | Si. Transistor | 2SC1106A |
| SC | Screw #8- ³ / ₈ | 31-610818-06 |
| SC | Screw ¼ x ¾ Pix Tube Mtg. (4) | 31-601418-12 |
| WA | Pyramidal Lock Washer (4) | 33-255-01 |
| | Nut Retainer, Pix Tube Mtg. (4) | 33-494-01 |
| | Clip — P.C.B. Support | 33-629-02 |
| | Standoff | 33-670-010R-02 |
| | Wire Terminal (Gnd. Strap) | 34-228-03 |
| | Terminal Lug (Gnd.) | 34-33-04 |
| | Groundstrap Assy. | 34-574-02 |
| | Grounding Spring | 35-212-03 |
| | Wire Hook (Gnd. Strap) | 35-3053-02 |
| | Purity Shield Holddown Clamp | 35-2348-01 |
| | Support Brkt. RH | 35-3890-01 |
| | Support Brkt. LH | 35-3890-02 |
| | Chassis Base | 38-449-02 |
| | Yoke Wedge (3) | 39-1233-01 |

Purity Shield Ass'y. Parts List

| Symbol | Description | Part Number |
|------------|----------------------------------|--------------|
| D911, D912 | Degaussing Coil | 21-1007-30 |
| | Rectifier 1 Amp 600V (2) | 28-22-27 |
| | Pin Terminal (2) | 34-708-01 |
| | Pin Terminal Housing | 34-709-01 |
| | Purity Shield (2 pcs.) | 35-3847-01 |
| | Purity Shield (2 pcs.) | 35-3847-02 |
| C911 | Capacitor 100nF 10% 400V | 48-171544-62 |
| R921 | Resistor, Wirewound 33Ω, 4W | 42-113301-03 |
| | Fire Retardent Term. Strip 4 Lug | 34-492-09 |

CRT Socket P.C.B. Ass'y (SU-3032A) Parts List

Resistors

| Symbol | Description | Part Number |
|--------|-------------------|-------------|
| R3105 | V R 200 | QVZ3234-022 |
| R3106 | V R 200 | QVZ3234-022 |
| R3113 | V R 5K | QVZ3234-053 |
| R3114 | V R 5K | QVZ3234-053 |
| R3115 | V R 5K | QVZ3234-053 |
| R3116 | OM R 10KΩ2W J | QRG029J-103 |
| R3117 | OM R 10KΩ2W J | QRG029J-103 |
| R3118 | OM R 10KΩ2W J | QRG029J-103 |
| R3119 | Comp. R 3.3KΩ½W K | QRZ0039-332 |
| R3120 | Comp. R 3.3KΩ½W K | QRZ0039-332 |
| C3121 | Comp. R 3.3KΩ½W K | QRZ0039-332 |

Capacitors

| Symbol | Description | Part Number |
|--------|-------------------------|--------------|
| C3107 | E Cap. 10uF 250V A | QEW53EA-106 |
| C3108 | C Cap. 1000pF DC1400V P | QCZ9001-102M |

Coils

| Symbol | Description | Part Number |
|--------|--------------|-------------|
| L3101 | Peaking Coil | QQL043K-101 |

Semiconductors

| Symbol | Description | Part Number |
|--------|----------------|-------------|
| X3101 | Si. Transistor | 2SC1514VC |
| X3102 | Si. Transistor | 2SC1514VC |
| X3103 | Si. Transistor | 2SC1514VC |

Miscellaneous

| Symbol | Description | Part Number |
|--------|-------------|-------------|
| △ | △CRT Socket | A76068 |

Main PCB Ass'y (SU-1133A) Parts List**Resistors**

| Symbol | Description | Part Number |
|---------|---------------------|--------------|
| R1406 | V R 200Ω | QVZ3230-002 |
| R1408 | V R 200Ω | QVZ3230-002 |
| R1410 | CMF R 6.8Ω1W J | QRX019J-6R8 |
| R1414 | OM R 3.3K Ω1W J | QRG019J-332 |
| R1415 | OM R 2.7K Ω1W J | QRG019J-272 |
| R1421 | OM R 12KΩ2W J | QRG026J-123Z |
| R1422 | V R 10KΩ | QVZ3230-014 |
| △FR1401 | △F R 68Ω2W K | QRH024K-680M |
| △R1503 | △CMF R 11.8KΩ¼W +1% | QRV142F-1182 |
| R1504 | V R 5KΩ | QVZ3230-053 |
| R1509 | OM R 10KΩ2W J | QRG026J-103Z |
| R1512 | OM R 8.2KΩ2W J | QRG026J-822Z |
| R1514 | OM R 820Ω2W J | QRG026J-821Z |
| R1515 | CMF R 8.2Ω1W J | QRX019J-8R2 |
| R1522 | CMF R 4.7Ω1W J | QRX019J-4R7 |
| R1523 | OM R 68Ω2W J | QRG026J-680Z |
| R1528 | OM R 390Ω1W J | QRG019J-391 |
| R1534 | ZN R | ERZ-C05ZK471 |
| VR1501 | ZN R | ERZ-C05DK271 |
| △R1703 | △CMF R 39Ω½W +1% | QRV122F-3902 |
| △R1704 | △CMF R 7.68KΩ¼W +1% | QRV142F-7681 |
| △R1901 | △Posistor | A75414 |
| R1902 | UNF R 2Ω7W K | QRF076K-2R0 |
| R1903 | CMF R 4.7Ω3W J | QRX039J-4R7 |
| R1904 | OM R 10KΩ2W J | QRG026J-103Z |
| R1905 | OM R 18KΩ1W J | QRG019J-183 |
| △Q1908 | △CMF R 47Ω½W +1% | QRV122F-470Z |
| △R1909 | V R 2KΩ | QVP5A0B-023E |
| R1910 | △CMF R 2.74KΩ¼W +1% | QRV142F-2741 |
| △FR1901 | △F R 220Ω½W K | QRH124K-221M |

Capacitors

| Symbol | Description | Part Number |
|--------|---------------------------|--------------|
| C1301 | BPE Cap. 3.3uF 50V A | QEN61HA-335Z |
| C1402 | Tan. Cap. 2.2uF 16V K | QEE51CK-225B |
| C1407 | E Cap. 4.7uF 6.3V A | QEW51JA-475 |
| C1411 | E Cap. 100uF 160V A | QEW52CA-107 |
| C1412 | E Cap. 3.3uF 160V A | QEW52CA-335 |
| C1508 | PP Cap. 5600uF 50V J | QFP31HJ-562 |
| △C1512 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| △C1513 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| △C1514 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| C1515 | PP Cap. 0.53uF DC1200V J | QFZ0067-534 |
| C1520 | BPE Cap. 3.3uF 50V A | QEN61HA-335Z |
| C1523 | E Cap. 1uF 160V A | QEW62CA-105Z |
| C1524 | M Cap. 0.1uF 200V K | QFM720K-104M |
| △C1531 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| △C1532 | △PP Cap. 1500pF DC1500V J | QFZ0082-152 |
| C1904 | E Cap. | QEY0034-001 |
| C1905 | E Cap. 10uF 250V A | QEW52EA-106 |

Coils
Symbol
L1502
L1503
L1504

Description
Linearity Coil
Width Coil
Heater Choke

Part Number
A39835
C30380-A
C30445-A

Transformers
Symbol
T1501
T1503

Description
Hor. Drive Transf.
Side Pin Transf.

Part Number
A46022-BM
C39050-A

Semiconductors
Symbol

IC1501
X1101
X1102
X1103
X1104
X1105
X1106
X1301
X1302
X1303
X1304
X1305
X1401
X1402
X1501
X1901
X1902
D1101
D1102
D1103
D1301
D1401
D1402
D1503
D1504
D1505
D1506
D1507
D1508
△D1701
△D1901
△D1902
△D1903
△D1904
△D1905

Description
IC
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Transistor
Si. Diode
Si. Diode
Si. Diode
Si. Diode
Si. Diode
Zener Diode
Si. Diode
Si. Diode
Zener Diode
Si. Diode
Si. Diode
Si. Diode
Si. Diode
△Zener Diode
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△Si. Diode
△Si. Diode
△Si. Diode
△Zener Diode

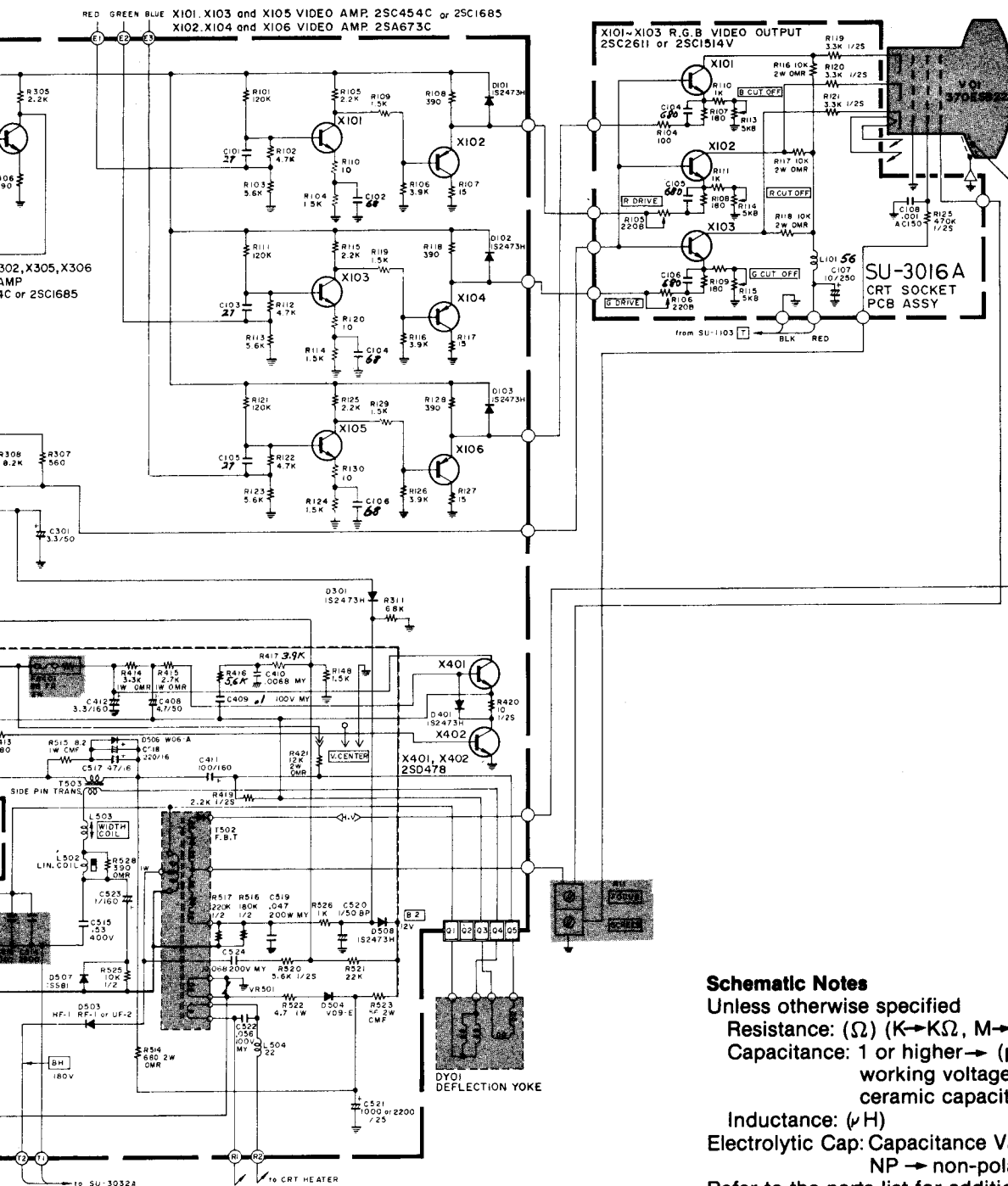
Part Number
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2SA673(C)
2SC1685(R)
2SA673(C)
2SC1685(R)
2SA673(C)
2SC1685(R)
2SC1685(R)
2SA673(C)
2SC1685(R)
2SC1685(R)
2SD478
2SD478
2SC2610BK
2SC2688 (K.L.M.)
2SC1890A (E.F.)
W06A
W06A
W06A
1SZ473H
1SZ473H
RD10F(C)
HF-1
V09E
RD11E(B)
W06A
1SS81
1SZ473H
RD20EV2
1S1887A
1S1887A
1S1887A
1S1887A
RD6.8EV3

Miscellaneous
Symbol

△F1901
△F1902

Description
△Fuse 1.25A
△UL Fuse 3A

Part Number
QMF53U1-1R25S
QMF66U1-3R0S



Schematic Notes

Unless otherwise specified

Resistance: (Ω) (K \rightarrow K Ω , M \rightarrow M Ω), 1/4 (W) carbon resistor
 Capacitance: 1 or higher \rightarrow (pF), less than 1 \rightarrow (μ F)
 working voltage \rightarrow 50 (V)
 ceramic capacitor

Inductance: (μ H)

Electrolytic Cap: Capacitance Value (μ F)/working voltage (V),
 NP \rightarrow non-polar (or bipolar) electrolytic cap.
 Refer to the parts list for additional component information.

\odot indicates test point connection

\perp indicates chassis ground unless otherwise specified

Hz indicates cycles per second

For safety purposes (and continuing reliability)

\triangle replace all components marked with safety symbol with identical type.

NOTE: FR \rightarrow fusible resistor ($\text{---}\text{FR}\text{---}$)

G07-FBO
 00-4147-03

Parts identification on circuit boards:

e.g. SU1126A (R107 = R1107)
 SU3030A (R113 = R3113)

REPLACEMENT PARTS LIST - ELECTROHOME 13" MONITOR

Components identified by the Δ symbol in the PARTS LIST and on the Schematic have special characteristics important to safety.

DO NOT degrade the safety of the set through improper servicing.

Abbreviations for Resistors and Capacitors

Resistor

| | |
|---------|-------------------------------|
| C R | : Carbon Resistor |
| Comp. R | : Composition Resistor |
| OM R | : Oxide Metal Film Resistor |
| V R | : Variable Resistor |
| MF R | : Metal Film Resistor |
| CMF R | : Coating Metal Film Resistor |
| UNF R | : Nonflammable Resistor |
| F R | : Fusible Resistor |

Capacitor

| | |
|-----------|--|
| C Cap. | : Ceramic Capacitor |
| M Cap | : Mylar Capacitor |
| E Cap. | : Electrolytic Capacitor |
| BP E Cap. | : Bi-Polar (or Non-Polar) Electrolytic Capacitor |
| MM Cap. | : Metalized Mylar Capacitor |
| PP Cap. | : Polypropylene Capacitor |
| MPP Cap. | : Metalized PP Capacitor |
| PS Cap | : Polystyrol Capacitor |
| Tan. Cap. | : Tantal Capacitor |

NOTE: When ordering replacement parts please specify the part number as shown in this list including part name, and model number. Complete information will help expedite the order.

Use of substitute replacement parts which do not have the same safety characteristics as specified, may create shock, fire or other hazards. For maximum reliability and performance, all parts should be replaced by those having identical specifications.

| Symbol | Description | Part Number |
|------------------------------------|---|--------------|
| | Main P.C.B. Ass'y | SU-1103A |
| | CRT Socket P.C.B. Ass'y | SU-3016A |
| Outside of the P.C.B. Ass'y | | |
| Symbol | Description | Part Number |
| Δ V01 | Δ Picture Tube | 370ESB22(E) |
| Δ DY01 | Δ Deflection Yoke | C29123-V |
| | PC Magnet | A76366-A |
| | Wedge | C30006 |
| | Δ Flyback Transf. | A19183-A |
| Δ R11 | Δ Focus V R | A46606-A |
| Δ R05 | UNF Resistor 220 Ω , 25W. K | QRF258K-221 |
| Δ C04 | Δ C Capacitor 150 pF, AC1.5KV | QCZ0101-005 |
| X01 | Si. Transistor | 2SD869 |
| IC01 | IC Regulator | STR383 |
| L01 | Degaussing Coil | 21-1007-31 |
| | Degaussing Coil Pin Terminal (2) | 34-708-01 |
| | Degaussing Coil Pin Terminal Housing | 34-709-01 |
| | Groundstrap Ass'y. | 34-697-04 |
| | Groundstrap Wire Terminal | 34-228-03 |
| | Groundstrap Spring (2) | 35-3560-01 |
| BR | Support Bracket RH | 35-3919-01 |
| BR | Support Bracket LH | 35-3919-02 |
| SC | SCREW 10- $\frac{1}{2}$ Pix Tube Mtg. (4) | 31-631018-08 |
| WA | Pyramidal Lockwasher (4) | 33-255-01 |
| | Clip P.C.B. Support (2) | 33-629-02 |
| | Ground Lug | 34-33-04 |
| CH | Chassis Base | 38-452-01 |

Main P.C.B. Ass'y (SU-1103A) Parts List

Resistors

| Symbol | Description | Part Number |
|---------|---------------------|--------------|
| R1406 | V R 200Ω | QVZ3230-022 |
| R1408 | V R 200Ω | QVZ3230-022 |
| R1410 | CMF R 6.8Ω1W J | QRX019J-6R8 |
| R1414 | OM R 3.3KΩ1W J | QRG019J-332 |
| R1415 | OM R 2.7KΩ1W J | QRG019J-272 |
| R1421 | OM R 12KΩ2W J | QRG029J-123 |
| R1422 | V R 10KΩ | QVZ3224-014H |
| △FR1401 | △F R 68Ω2W K | QRH024K-680M |
| △R1503 | △CMF R 11.8KΩ¼W +1% | QRV142F-1182 |
| R1504 | V R 5KΩ | QVZ3230-053 |
| R1509 | OM R 10KΩ2W J | QRG029J-103 |
| R1511 | OM R 5.6KΩ2W J | QRG029J-562 |
| R1514 | OM R 680Ω2W J | QRG029J-681 |
| R1515 | CMF R 8.2Ω1W J | QRX019J-8R2 |
| R1522 | CMF R 4.7Ω1W J | QRX019J-4R7 |
| R1523 | OM R 56Ω2W J | ORG029J-560 |
| R1528 | OM R 390Ω1W J | ORG019J-391 |
| R1534 | ZN R | ERZ-C05ZK471 |
| VR1501 | ZN R | ERZ-C05DK271 |
| △R1703 | △CMF R 39KΩ½W +1% | QRV122F-3902 |
| △R1704 | △CMF R 7.68KΩ¼W +1% | QRV142F-7681 |
| △R1901 | △Posistor | A75414 |
| R1902 | UNF R 2Ω7W K | QRF076K-2R0 |
| R1903 | CMF R 5.6Ω3W J | QRX039J-5R6 |
| R1904 | OM R 10KΩ2W J | QRG026J-103Z |
| △FR1901 | △F R 220Ω½W K | QRH124K-221M |

Capacitors

| Symbol | Description | Part Number |
|--------|---------------------------|--------------|
| C1402 | Tan. Cap. 2.2uF 16V K | QEE51CK-225B |
| C1411 | E Cap. 100uF 160V A | QEW52CA-107 |
| C1412 | E Cap. 3.3uF 160V A | QEW52CA-335 |
| C1508 | PP Cap. 5600pF 50V J | QFP31HJ-562 |
| C1511 | E Cap. 47uF 160V A | QEW52CA-476S |
| △C1512 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| △C1513 | △PP Cap. 2000pF DC1500V J | QFZ0082-202 |
| △C1514 | △PP Cap. 2500pF DC1500V J | QFZ0082-252 |
| C1515 | PP Cap. 0.53uF DC1200V K | QFZ0067-534 |
| C1520 | BPE Cap. 1uF 50V A | QEN61HA-105Z |
| C1524 | M Cap. 0.1uF 200V K | QFM72DK-682M |
| C1904 | E Cap. | QEY0034-001 |
| C1905 | E Cap. 10uF 250V A | QEW52EA-106 |
| △C1907 | △MM Cap. 0.1uF AC150V Z | QFZ9008-104 |

Colls

| Symbol | Description | Part Number |
|--------|---------------|-------------|
| L1501 | Peaking Coil | A75360-6 |
| L1502 | Linearly Coil | A39934 |
| L1503 | Width Coil | C30380-A |
| L1504 | Heater Choke | C30333-A |
| L1901 | Line Filter | A39475-J |

Transformers

| Symbol | Description | Part Number |
|--------|--------------------|-------------|
| T1501 | Hor. Drive Transf. | A46022-BM |
| T1503 | Side Pin Transf. | C39050-A |

Semiconductors

| Symbol | Description | Part Number |
|----------------------|--------------------|--------------------|
| IC1501 | I.C. | HA11244 |
| X1101 | Si. Transistor | 2SC1685(R) |
| X1102 | Si. Transistor | 2SA673(C) |
| X1103 | Si. Transistor | 2SC1685(R) |
| X1104 | Si. Transistor | 2SA673(C) |
| X1105 | Si. Transistor | 2SC1685(R) |
| X1106 | Si. Transistor | 2SA673(C) |
| X1301 | Si. Transistor | 2SC1685(R) |
| X1302 | Si. Transistor | 2SC1685(R) |
| X1303 | Si. Transistor | 2SA673(C) |
| X1304 | Si. Transistor | 2SC1685(R) |
| X1305 | Si. Transistor | 2SC1685(R) |
| X1401 | Si. Transistor | 2SD478 |
| X1402 | Si. Transistor | 2SD478 |
| X1501 | Si. Transistor | 2SC2610BK |
| X1701 | Si. Transistor | 2SC1685(P-S) |
| D1101 | Si. Diode | W06A |
| D1102 | Si. Diode | W06A |
| D1103 | Si. Diode | W06A |
| D1301 | Si. Diode | 1S2473H |
| D1401 | Si. Diode | 1S2473H |
| D1402 | Zener Diode | RD10F(C) |
| D1503 | Si. Diode | HF-1 |
| D1504 | Si. Diode | V09E |
| D1505 | Zener Diode | RD11E(B) |
| D1506 | Si. Diode | W06A |
| D1507 | Si. Diode | 1SS81 |
| D1508 | Si. Diode | 1S2473H |
| △D1701 | △Zener Diode | RD20EV2 |
| △D1901 | △Si. Diode | 1S1887A |
| △D1902 | △Si. Diode | 1S1887A |
| △D1903 | △Si. Diode | 1S1887A |
| △D1904 | △Si. Diode | 1S1887A |
| Miscellaneous | | |
| Symbol | Description | Part Number |
| △F1901 | △Fuse 1A | QMF53U1-1R0S |
| △F1902 | △UL Fuse 3A | QMF66U1-3R0S |

CRT Socket P.C.B. Ass'y (SU-3016A) Parts List

Resistors

| Symbol | Description | Part Number |
|--------|-------------------|-------------|
| R3105 | V R 200Ω | QVZ3234-022 |
| R3106 | V R 200Ω | QVZ3234-022 |
| R3113 | V R 5KΩ | QVZ3234-053 |
| R3114 | V R 5KΩ | QVZ3234-053 |
| R3115 | V R 5KΩ | QVZ3234-053 |
| R3116 | OM R 10KΩ2W J | QRG029J-103 |
| R3117 | OM R 10KΩ2W J | QRG029J-103 |
| R3118 | OM R 10KΩ2W J | QRG029J-103 |
| R3119 | Comp. R 3.3KΩ½W K | QRZ0039-332 |
| R3120 | Comp. R 3.3KΩ½W K | QRZ0039-332 |
| R3121 | Comp. R 3.3KΩ½W K | QRZ0039-332 |

Capacitors

| Symbol | Description | Part Number |
|--------|-------------------------|--------------|
| C3107 | E Cap. 10uF 250V A | QEW52EA-106 |
| C3108 | C Cap. 1000pF DC1400V P | QCZ9001-102M |

Coils

| Symbol | Description | Part Number |
|--------|--------------|-------------|
| L3101 | Peaking coil | QQL043K-101 |

Semiconductors

| Symbol | Description | Part Number |
|--------|----------------|-------------|
| X3101 | Si. Transistor | 2SC2611 |
| X3102 | Si. Transistor | 2SC2611 |
| X3103 | Si. Transistor | 2SC2611 |

Miscellaneous

| Symbol | Description | Part Number |
|--------|--------------|-------------|
| △ | △ CRT Socket | A75522 |

INSTRUCTIONS FOR MODIFICATION OF PAC-MAN GAME PCB

THE FOLLOWING ARE INSTRUCTIONS FOR MODIFYING PAC-MAN PCB SUCH THAT ① THE DEGREE OF DIFFICULTY OF THE GAME IS INCREASED.

