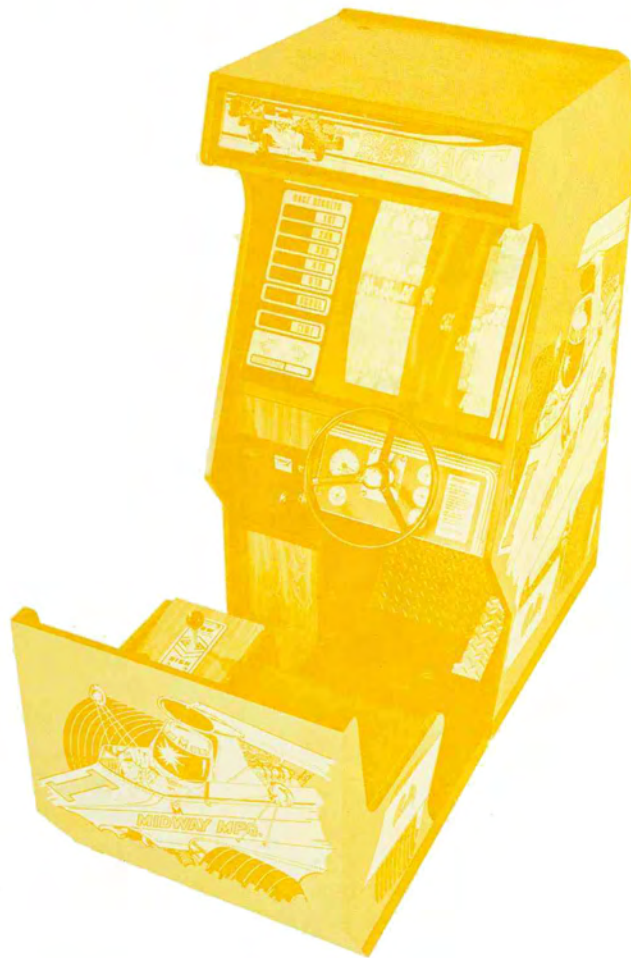


GAME NO. 762  
NOVEMBER, 1979

# **MIDWAY'S SUPER SPEED RACE PARTS AND OPERATING MANUAL**



**MIDWAY MFG. CO.**

A BALLY COMPANY

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FRANKLIN PARK, ILLINOIS 60131  
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## WARNING

THIS GAME MUST BE GROUNDED. FAILURE TO DO SO MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.

## **"GENERAL INSTRUCTIONS FOR SUPER SPEED RACER"**

### **INSTALLATION:**

1. Remove shipping cleats located on bottom of cabinet.
2. Install four (4) provided leg levelers to bottom of cabinet and level cabinet.
3. The power is controlled by a switch located on top of the cabinet. Plug into A.C. only, 115 volts, 60 cycles. In low line areas, a boost in the output voltage of the transformer may be obtained by removing the wire from the 115 volt tap and rewiring to the 100 volt tap.

### **VOLTAGE CONTROL POTS:**

Located on Power Supply (P.C. A082-90401-C000) are preset at the factory and should not be tampered with unless the Distributor Service Department has been contacted.

### **MASTER VOLUME CONTROL POT:**

Located on Audio board (P.C. A084-90900-C762) controls the volume of all sounds and may be varied as desired by rotating pot shaft.

### **LINE VOLTAGE SAFETY SWITCH:**

A line voltage safety switch has been provided for your protection. It is located on the right rear side of the cabinet in the back door area. When the back door is removed, it opens the circuit to the line voltage. To restore power (when servicing), pull switch fully out.

### **COIN, TIME AND EXTENDED PLAY ADJUSTMENT SWITCHES:**

Located on Mother Board (P.C. A082-90004-C000) and may be adjusted as indicated on separate instruction card in back box area.

### **TO ADJUST ACCELERATOR PEDAL ENCODER:**

1. Place adjustment switches 6, 7 and 8 located on Mother Board (P.C. A082-90004-C000) in position indicated on instruction card in back box area.
2. Loosen set screws on Accelerator Encoder gear.
3. Rotate Encoder shaft until time display reads "02".
4. Tighten set screws on Accelerator Encoder gear.
5. Place switches 6, 7 and 8 in Game Mode as indicated on instruction card in back box area.

### **RAM/ROM TEST:**

Place adjustment switches 6, 7 and 8 located on Mother Board (P.C. A082-90004-C000) in positions indicated on instruction card in back box area. The program will begin a sequence count shown on all Score Displays, 0000, 1111, etc. to 9999. If all Rams and Roms are good, the program will continually repeat. If a Ram is bad, the program will stop and show the faulty Ram's location in the first or second race results Score Display. Example: Ram 2 is faulty. First race results Score Display will show 0022. If a Rom is bad, it's location will be shown in the third or fourth race results Score Display. When test is completed, place switches 6, 7 and 8 in Game Mode as indicated on instruction card in back box area.

### INSTALLATION OF SEAT ASSEMBLY:

1. Remove shipping cleats located on bottom of seat assembly.
2. Install four (4) provided leg levelers to bottom of seat assembly and level seat.
3. Position seat assembly in front of cabinet.
4. Slide tongue on left side of seat assembly into provided slot in cabinet.
5. Assemble support straps on each side of cabinet and seat assembly (see sketch below) using provided cap screws and washers.
6. Relevel seat assembly.
7. Open shift assembly access door and feed shift cable into cabinet as indicated on instructions in shift assembly cavity.

### SEAT ADJUSTMENT:

To adjust seat for additional leg room:

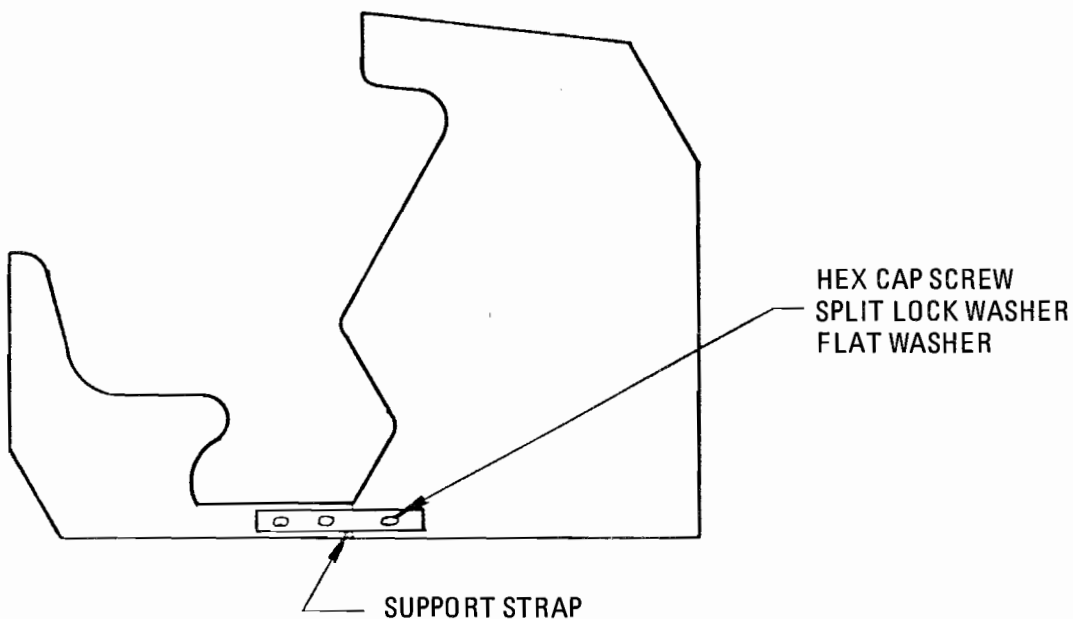
1. Loosen four (4) bolts in seat assembly support strap.
2. Position seat at desired location.
3. Tighten four (4) bolts in seat assembly.

### TO SERVICE SCORE DISPLAY:

1. Remove upper rear access door.
2. From rear, loosen two (2) screws in cross member at top of glass.
3. Remove glass from front. Score display may now be adjusted or removed.

### TO REMOVE STEERING PANEL:

1. Unlock and remove access panel below steering assembly.
2. Unlatch two (2) clamps on sides of steering panel assembly.
3. Remove steering panel for service.



M051-00762-A015

## ADJUSTMENT SWITCHES

### COINS

	SW. 1	SW. 2
1 COIN = 1 PLAY	ON	ON
2 COINS = 1 PLAY	OFF	ON
1 COIN = 2 PLAYS	ON	OFF
2 COINS = 3 PLAYS	OFF	OFF

### TIME

	SW. 3	SW. 4
60 SECONDS	ON	ON
70 SECONDS	OFF	ON
80 SECONDS	ON	OFF
90 SECONDS	OFF	OFF

### EXTENDED PLAY

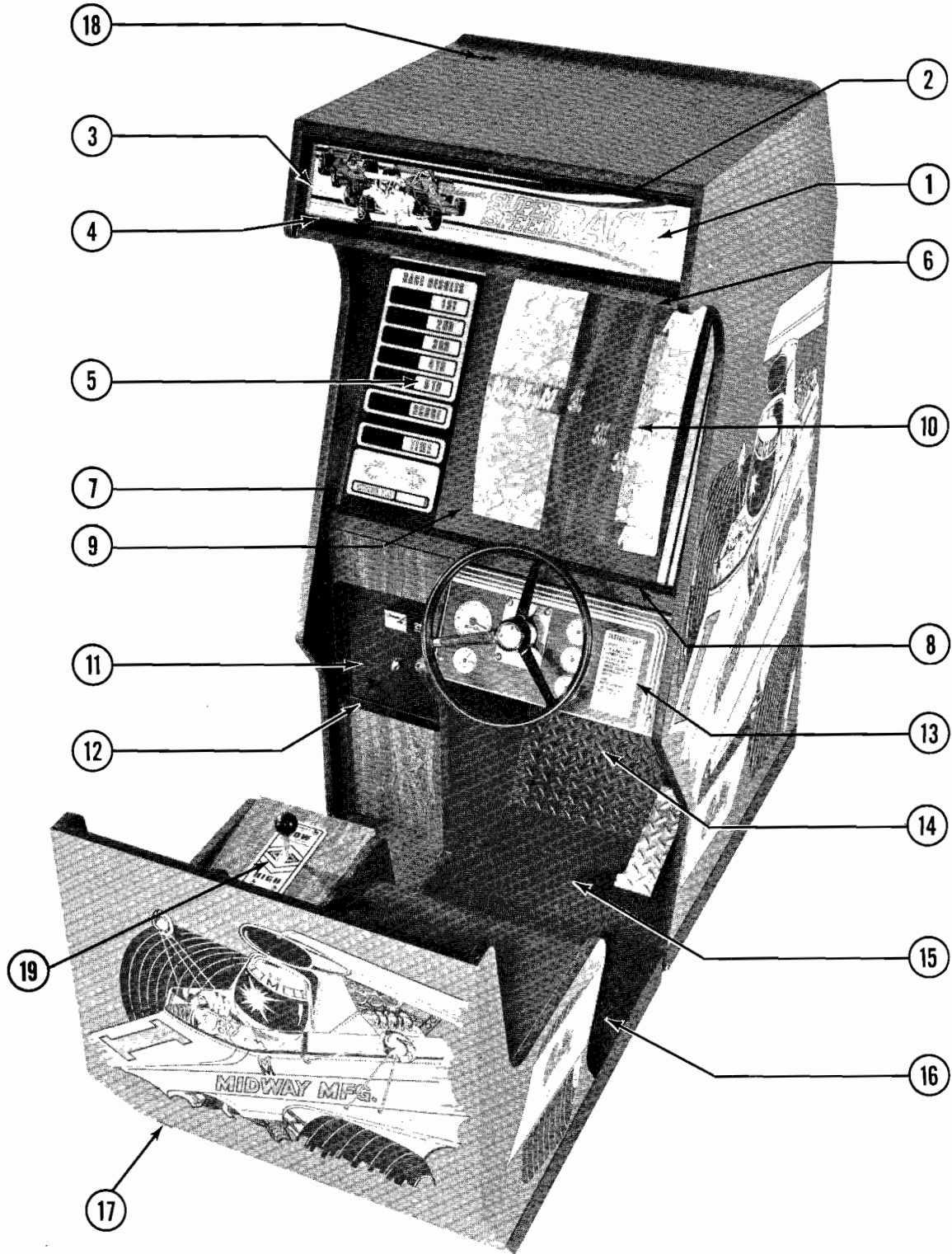
	SW. 5
EXTENDED PLAY = 20 SECONDS	ON
EXTENDED PLAY = 30 SECONDS	OFF

### TEST - PLAY

	SW. 6	SW. 7	SW. 8
PLAY MODE	OFF	ON	ON
RAM/ROM TEST	OFF	ON	OFF
ACCELERATOR ADJUSTMENT	OFF	OFF	OFF

M051-00762-B016

**NO. 762 – SUPER SPEED RACE – PICTURE**



**NO. 762 – SUPER SPEED RACE – PICTURE**  
**ORDER BY PART NUMBER ONLY**

ITEM	PART NO	DESCRIPTION
1	0762-00906-00XF	NAME DISPLAY PLEX – 27-7/8" x 6-1/8"
2	0537-00903-0023	GLASS CHANNEL – 27-3/4" LG.
3	0537-00903-0044	GLASS CHANNEL – 5" LG. (2 REQ'D.)
4	0629-00902-0500	GLASS LIFT CHANNEL – 27-7/8" LG.
5	0762-00905-01XF	MAIN DISPLAY PLEX – 27-7/8" x 26-1/2"
6	0537-00903-0023	GLASS CHANNEL – 27-3/4" LG.
7	0537-00903-0045	GLASS CHANNEL – 25-3/8" LG. (2 REQ'D.)
8	0629-00902-0500	GLASS LIFT CHANNEL – 27-7/8" LG.
9	0762-00901-0000	T.V. BEZEL
10	0017-00003-0204	25" T.V. MONITOR – COLOR
	0017-00102-0052	1/4-20 x 1" HEX HD. BOLT (4 REQ'D.)
	0017-00104-0072	FLAT WASHER (4 REQ'D.)
	0017-00103-0073	1/4-20 TINNERMAN (4 REQ'D.)
11	A090-00056-0000	COIN DOOR ASSY.
12	0090-00002-01BK	COIN DOOR FRAME
	0017-00101-0555	#6-32 x 5/16 HEX HD. S.T.M.S. (3 REQ'D.) (MOUNTS TO DOOR FRAME)
	0017-00003-0102	COUNTER METER (MOUNTS TO COIN DOOR)
13	0762-00114-00XF	CONTROL PLATE
14	0762-00109-00XF	FRONT FLOOR PLATE
15	0767-00108-00XF	REAR FLOOR PLATE
16	0762-00110-00XF	CHAIR FLOOR PLATE
	0017-00101-0088	#8 x 1/2 PHIL. FLAT HD. BLK. S.M.S. (18 REQ'D.-TOTAL)
17	0017-00102-0048	LEG LEVELERS (8 REQ'D.)
	0017-00103-0026	LEG LEVELER NUTS (8 REQ'D.)
18	0586-00036-0000	ON-OFF SWITCH
	0567-00106-0000	SWITCH MTG. PLATE
19	0762-00111-00XF	GEAR SHIFT PLATE
		<u>NOT SHOWN LIST</u>
	0762-00116-0000	C.R.T. CABINET BRACE
	0017-00102-0026	1/4-20 x 2" CARRIAGE BOLTS (4 REQ'D.)
	0017-00104-0014	1/4 PERIPHERY WASHER (4 REQ'D.)
	0017-00103-0018	1/4-20 HEX NUT (4 REQ'D.)
	A161-00002-0000	DAG SPRING ASSY.
	3000-17155-0000	GROUND STRAP
	0017-00009-0033	BASSICK CLAMP (2 REQ'D.)
	0603-00131-0000	STRIKE (2 REQ'D.)
	0017-00003-0259	SPEAKER
	0017-00009-0450	SPEAKER GRILL – BLACK
	0017-00101-0642	#8-32 x 1-1/2 CARRIAGE BOLTS (4 REQ'D.)

NO. 762 – SUPER SPEED RACE – PICTURE

*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION
	A762-00018-0000	NAME DISPLAY INSERT ASSY.
	0017-00031-0040	LAMP SOCKET (5 REQ'D.)
	0017-00003-0219	LAMP – 14 V. (5 REQ'D.)
	A762-00017-0000	GAME OVER INSERT ASSY.
	0017-00031-0040	LAMP SOCKET (3 REQ'D.)
	0017-00003-0219	LAMP – 14 V.
	0017-00003-0226	LAMP – 6 V. (2 REQ'D.)



# NOTES

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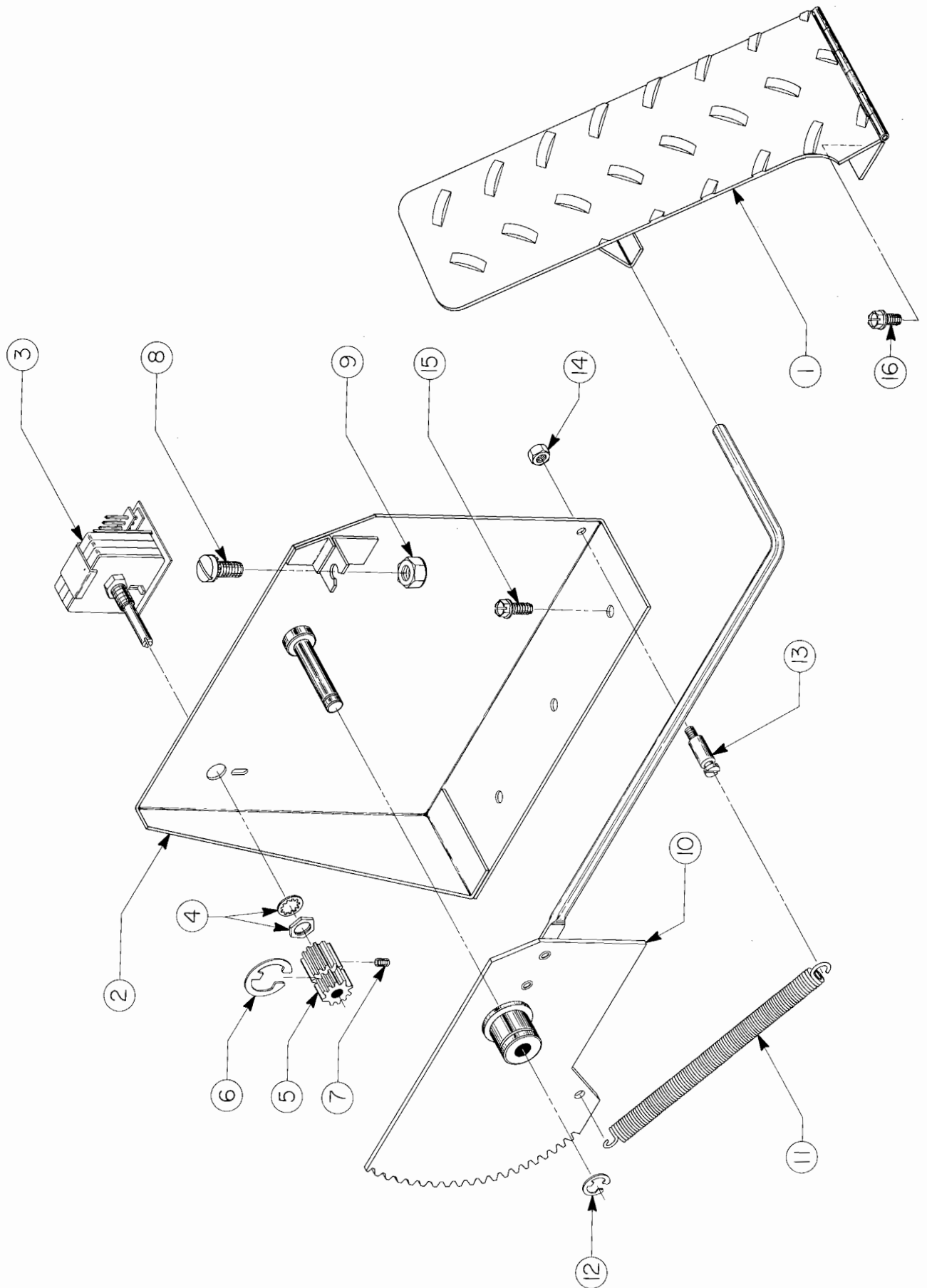


**NO. 762 – SUPER SPEED RACE – GEAR SHIFT ASSY.**

***ORDER BY PART NUMBER ONLY***

<b>ITEM</b>	<b>PART NO</b>	<b>DESCRIPTION</b>
1	0017-00009-0386	KNOB – PHENOLIC BALL
2	0017-00102-0019	CARRIAGE BOLTS 1/4-20 x 1-1/2 (4 REQ'D.)
3	0591-00902-0000	SLIDE
4	0017-00102-0065	5/16 x 18 x 3/4" LONG SOCKET HD. CAP SCREW (2)
5	0017-00101-0510	#4-40 x 1/2 PAN HD. M.S. (2 REQ'D.)
6	0017-00032-0006	MICRO SWITCH
7	0588-00911-0000	INSULATOR
8	0610-00123-0000	SWITCH MOUNTING BRACKET
9	0610-00001-0000	CONTROL HOUSING WELDING ASSY.
10	0544-00907-0000	RUBBER BUMPER (2 REQ'D.)
11	0017-00042-0021	NYLINER (2 REQ'D.)
12	0017-00101-0598	#8-32 x 5/16 HEX HD. S.T. M.S. (4 REQ'D.)
13	0017-00101-0593	#8-32 x 1/4 PAN HD. M.S. SEMS (7 REQ'D.)
14	0591-00127-0000	"U" BRACKET
15	0610-00102-0000	REARING SUPPORT PLATE
16	0610-00009-0000	BRACKET & PLATE ASSY.
17	0017-00104-0014	PERIPHERY WASHER (4 REQ'D.)
18	0017-00103-0018	1/4-20 HEX NUT (4 REQ'D.)
19	0591-00702-0000	SPRING ROLLER
20	0017-00100-0015	"E" RING
21	0610-00703-0000	GEAR SHIFT ROD
22	0610-00704-0000	PIVOT BUSHING
23	0017-00101-0720	#10-32 x 3/4 LOCKING SOCKET CAP SCREW
24	0010-00227-0000	TORSION SPRING

**NO. 762 -- SUPER SPEED RACE -- ACCELERATOR PEDAL ASSEMBLY**

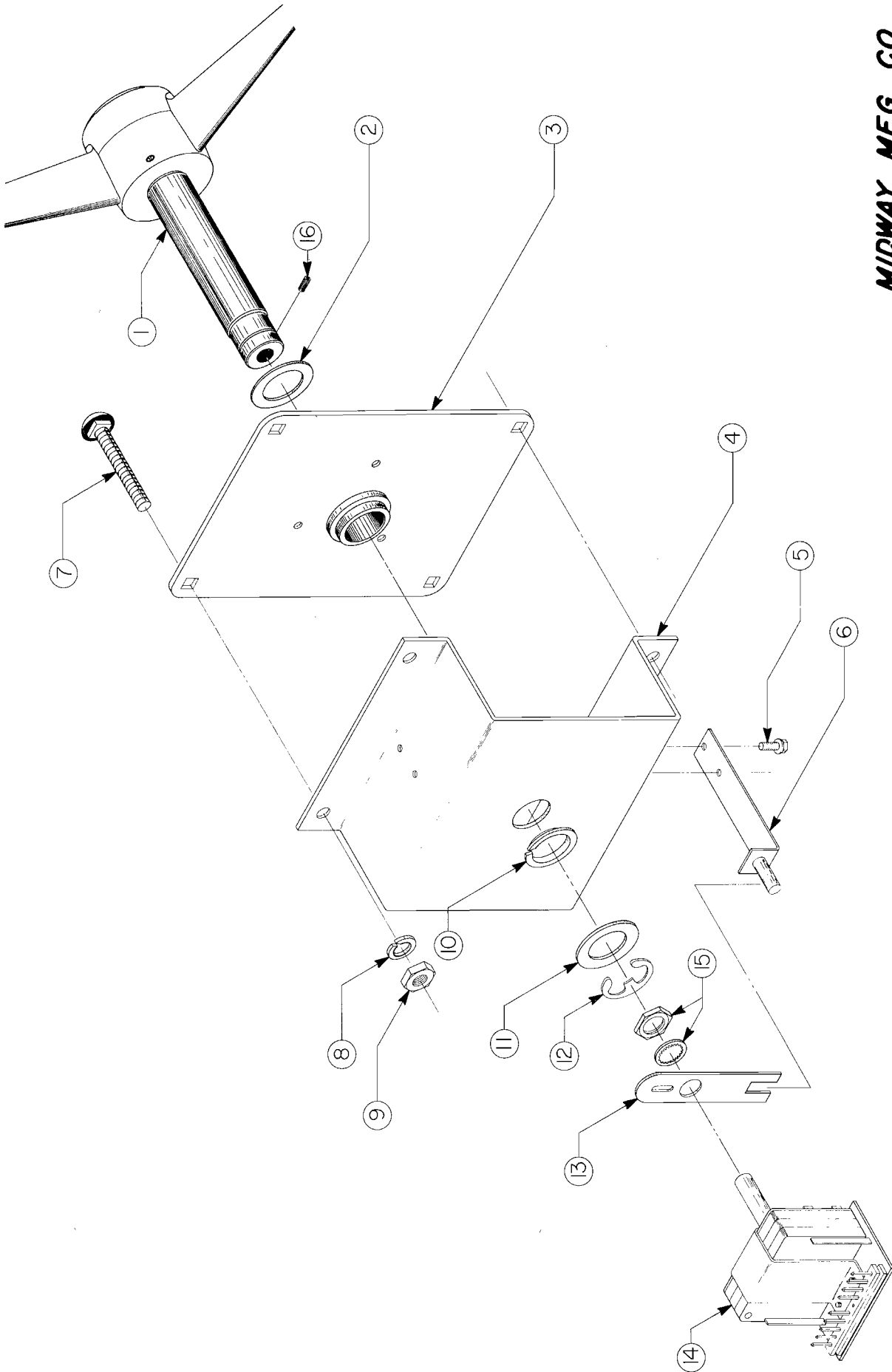


**NO. 762 – SUPER SPEED RACE – ACCELERATOR PEDAL ASSEMBLY**

***ORDER BY PART NUMBER ONLY***

ITEM	PART NO	DESCRIPTION
1	A762-00001-00XF	ACCELERATOR PEDAL & HINGE ASSY.
2	A762-00002-0000	MOUNTING BRACKET ASSY.
3	A082-91101-B000	SHAFT ANGLE ENCODER SWITCH
4		HARDWARE FOR ITEM NO. 3
5	0583-00723-0000	16 TOOTH GEAR
6	0017-00100-0050	"E" RING
7	0017-00101-0308	#8-32 x 3/16 SOCKET SET SCREW (2 REQ'D.)
8	0017-00101-0785	1/4-20 x 1/4 SLT. PAN HD. EXT. S.T.M.S.
9	0653-00734-0000	STOP – POT LIMIT
10	A762-00003-0000	GEAR & LEVER ASSY.
11	0010-00228-0000	SPRING
12	0017-00100-0031	"E" RING
13	0011-00100-06XF	POST – PIVOT
14	0017-00103-0011	#10-32 LOCK NUT
15	0017-00101-0769	#10 x 3/4 SLT. HEX HD. W/WASH. S.T.M.S. (3 REQ'D.)
16	0017-00101-0728	#10 x 1/2 SLT. HEX HD. W/WASH. S.T.M.S. (2 REQ'D.)

**NO. 762 -- SUPER SPEED RACE -- STEERING WHEEL ASSEMBLY**



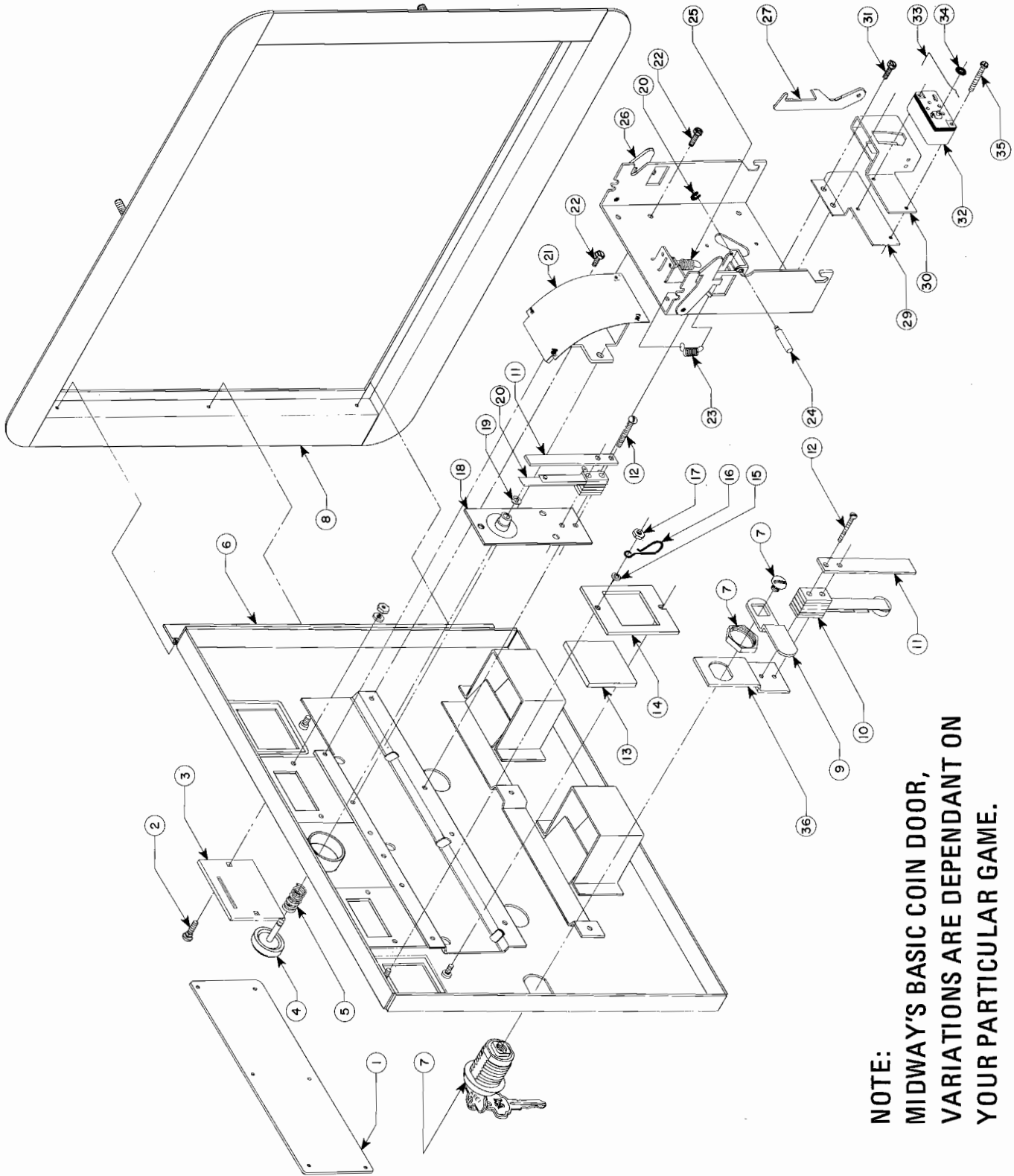
**MIDWAY MFG. CO.**  
A BALLY COMPANY

**NO. 762 – SUPER SPEED RACE – STEERING WHEEL ASSEMBLY**

***ORDER BY PART NUMBER ONLY***

<b>ITEM</b>	<b>PART N<sup>o</sup></b>	<b>DESCRIPTION</b>
1	A762-00012-0000	STEERING WHEEL & SHAFT ASSEMBLY
2	0610-00111-0000	NYLON WASHER – 29/32 x 1-1/2 x 1/16
3	0610-00016-0000	FRONT MOUNTING PLATE ASSY.
4	0624-00113-0000	MAIN MOUNTING BRKT.
5	0017-00101-0555	#6 x 5/16 HEX HD. S.T.S. (2 REQ'D.)
6	0610-00007-0000	BRKT. & POST SUB ASSY.
7	0017-00102-0019	1/4-20 x 1-1/2 CARRIAGE BOLT (4 REQ'D.)
8	0017-00104-0005	1/4 SPLIT LOCK WASHER (4 REQ'D.)
9	0017-00103-0018	1/4-20 HEX NUT (4 REQ'D.)
10	0017-00042-0168	NYLINER
11	0017-00104-0080	STEEL WASHER – 3/4 x 1-1/4 x 1/16
12	0017-00100-0109	"E" – RING
13	0591-00105-0100	POT LOCATOR
14	A082-91101-B000	ANGLE ENCODER SWITCH ASSY.
15		HARDWARE FOR ITEM NO. 14
16	0017-00101-0309	#8-32 x 1/4 SET SCREW (2 REQ'D.)

**NO. 762 – SUPER SPEED RACE – FRONT DOOR ASSY.**



**NOTE:  
MIDWAY'S BASIC COIN DOOR,  
VARIATIONS ARE DEPENDANT ON  
YOUR PARTICULAR GAME.**

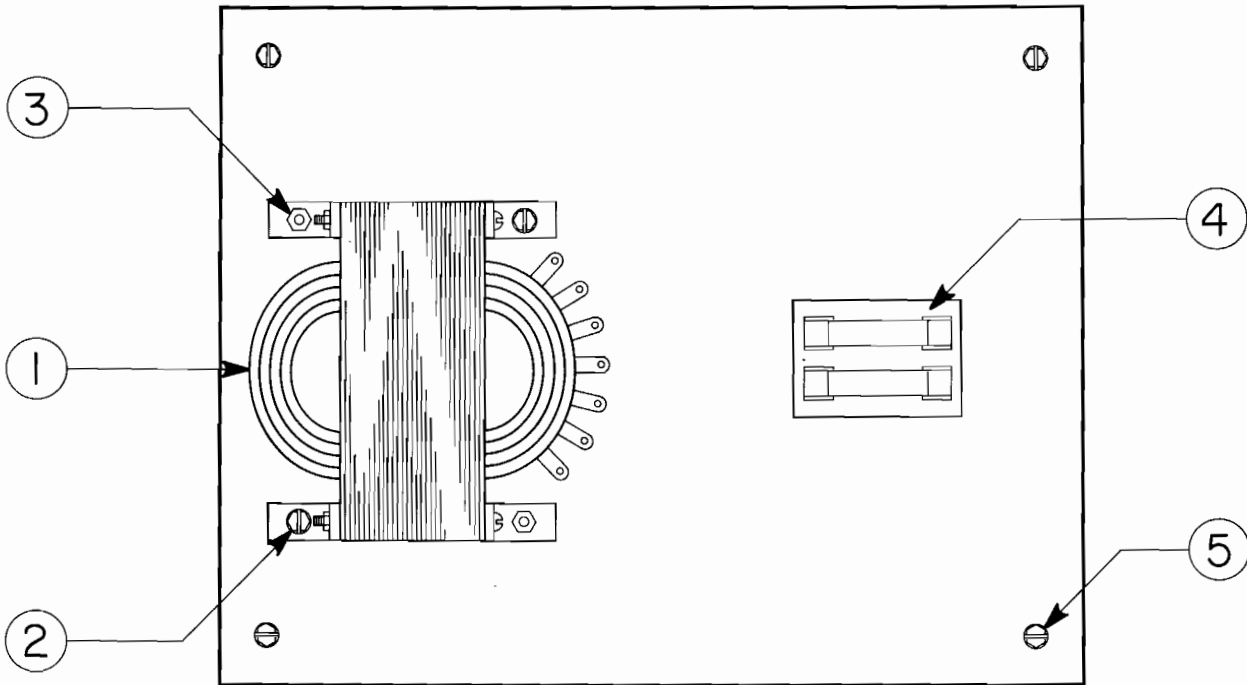


**NO. 762 – SUPER SPEED RACE – FRONT DOOR ASSY.**

***ORDER BY PART NUMBER ONLY***

<b>ITEM</b>	<b>PART N<sup>o</sup></b>	<b>DESCRIPTION</b>
1	0090-00902-0000 0090-00902-0100	DRESS PLATE DRESS PLATE (W/O PRESS BUTTON TO START GAME)
2	0017-00101-0552	#6-32 x 1/4 CARRIAGE BOLT (2)
3	0090-00117-03XF	COIN ENTRY PLATE (25¢)
4	0090-00906-0000	PLASTIC START BUTTON
5	0010-00007-0000	COMPRESSION SPRING
6	0090-00013-0200	DOOR ASSY. DOUBLE ENTRY
7	0017-00005-0050	DOOR LOCK & KEY WITH SCREW & NUT
8	0090-00002-02BR	DOUBLE DOOR FRAME
9	0017-00005-0041	421 N.S. CAM
10	0090-00901-0000	DOOR SWITCH
11	0090-00126-01XF	SWITCH BACKUP PLATE
12	0017-00101-0528	#5-40 x 3/4" LNG. M.S.
13	0090-00903-0040	25¢ WINDOW
14	0090-00143-0000	COIN PLEX RETAINER
15	0017-00104-0002	SPLIT LOCK WASHER
16	0017-00007-0019	KEY HOOK
17	0017-00103-0005	#6-32 HEX NUT
18	0090-00010-0000	SW. PLATE & OILLITE ASSY.
19	0017-00100-0018	"E" RING
20	0090-00131-0000	SWITCH
21	0090-00104-0000	TOP & BTM. COIN CHUT W/BRKT. ASSY.
22	0017-00101-0598	#8-32 x 5/16 SCREW
23	0010-00181-0100	SPRING
24	0090-00129-00XF	PIVOT POST
25	0010-00134-0000	SPRING
26	0090-00008-0000	ACCEPTOR FRAME ASSY.
27	0093-00155-00XF	REJECTOR LEVER
28	0017-00100-0012	"E" RING
29	0093-00151-00XF	COIN GUIDE MTG. BRACKET
30	0090-00005-0000	COIN GUIDE ASSY.
31	0017-00101-0555	#6-32 x 5/16 SCREW
32	0017-00005-0039	COIN SWITCH
33	0010-00557-2500	TRIP WIRE
34	0017-00007-0132	PUSH-ON RING (BIK)
35	0017-00101-0507	#4-36 x 3/4 SCREW
36	0090-00128-00XF	SWITCH BRKT. – DOOR TILT

**NO. 762 – SUPER SPEED RACE – TRANSFORMER BOARD ASSY.**

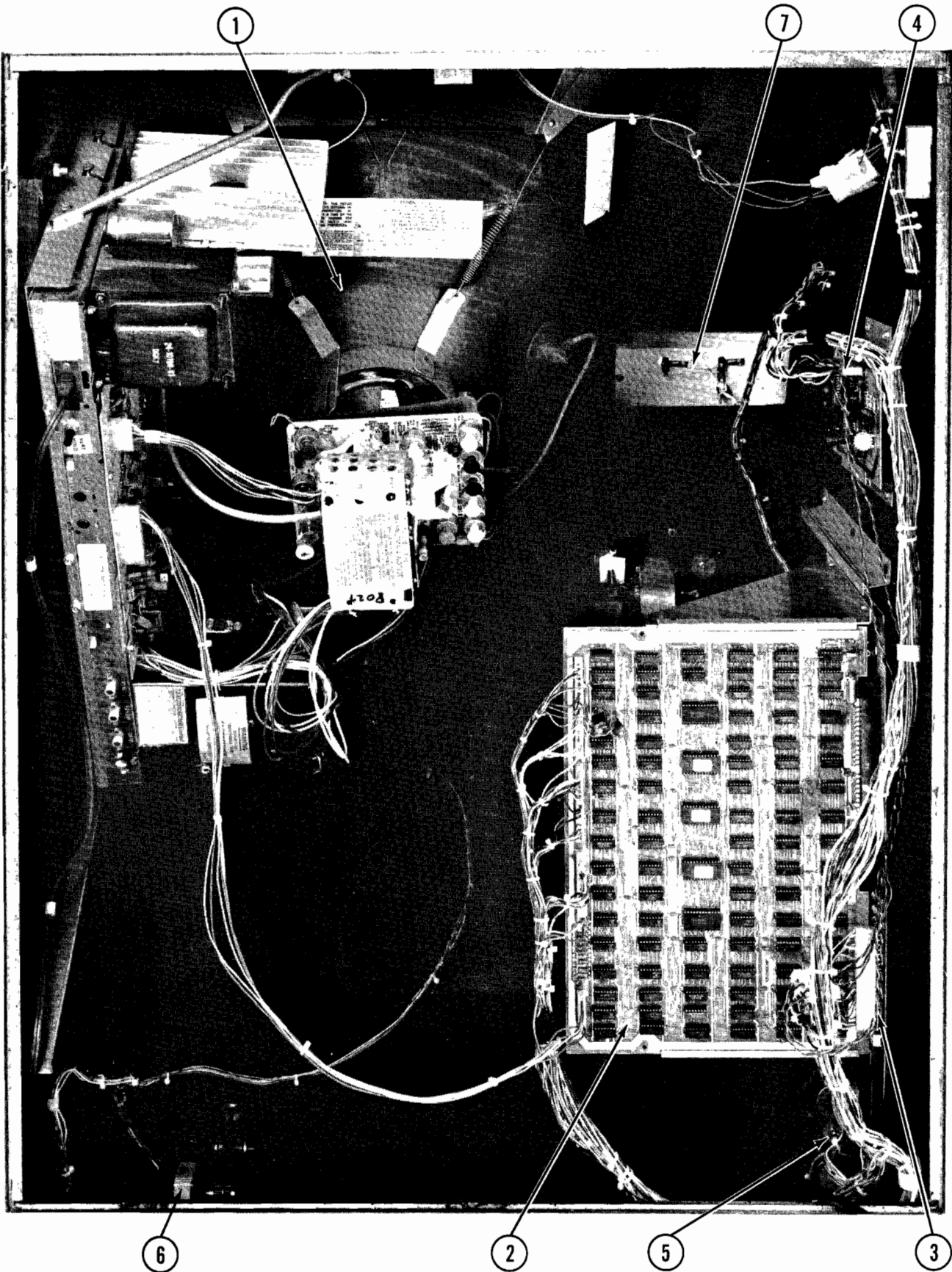


NO. 762 – SUPER SPEED RACE – TRANSFORMER BOARD ASSY.

*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION
1	MT00-00077-0000	TRANSFORMER – UNIVERSAL
2	0017-00101-0017	#6-1/2 SLT. HEX HD. WD. SCR. (2 REQ'D.)
3	0017-00101-0637	#8-32 x 1" CARRIAGE BOLT (2 REQ'D.) WITH
	0017-00103-0008	#8-32 HEX NUT (2 REQ'D.)
4	0720-00001-0200	2 POSITION FUSE BLOCK
	0017-00003-0103	FUSE 1 AMP
	0017-00003-0006	FUSE 3 AMP
5	0017-00101-0018	#6 x 3/4 SLT. HEX HD. SCREW (5 REQ'D.)
	0017-00003-0064	16 FT. LINE CORD – NOT SHOWN

**NO. 762 – SUPER SPEED RACE – OPEN BACK VIEW**



**NO. 762 – SUPER SPEED RACE – OPEN BACK VIEW**

***ORDER BY PART NUMBER ONLY***

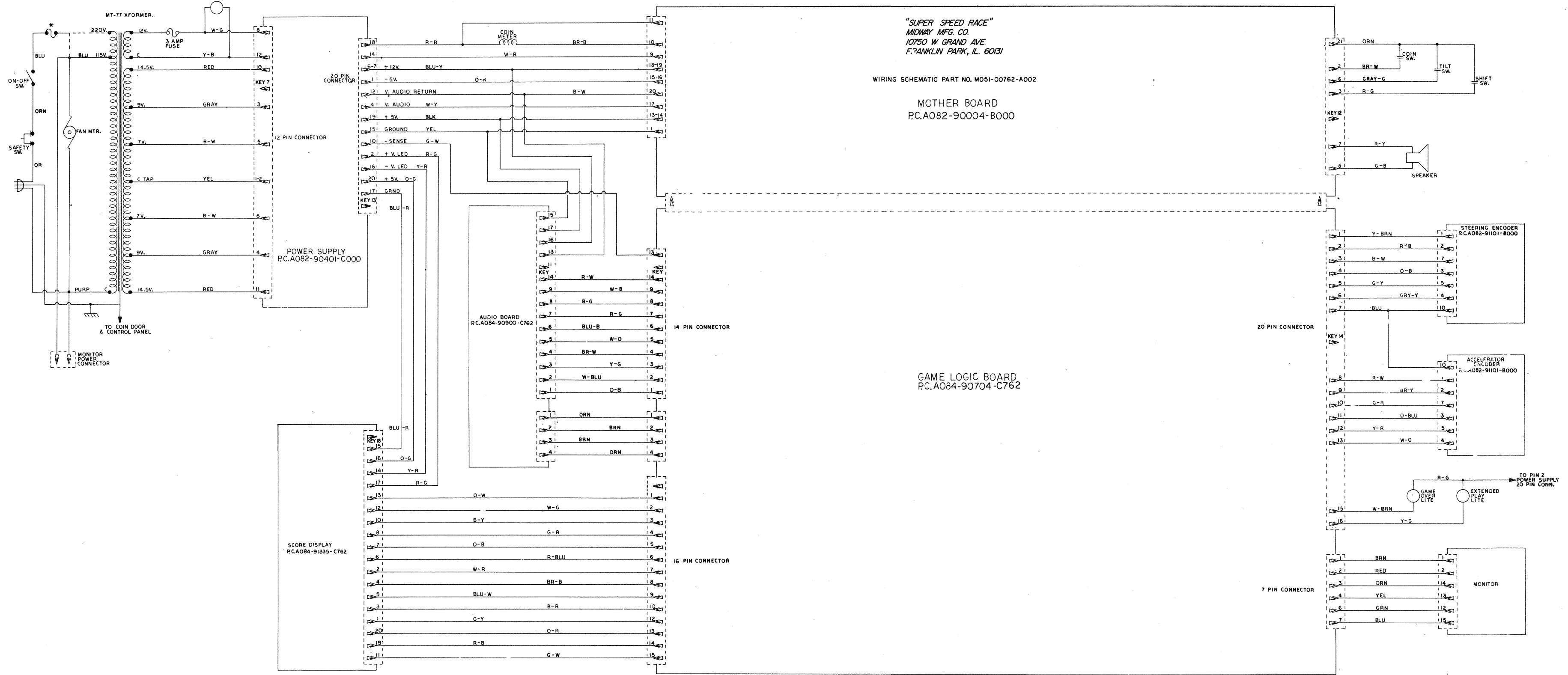
<b>ITEM</b>	<b>PART N<sup>o</sup></b>	<b>DESCRIPTION</b>
1	0017-00003-0204	25" T.V. MONITOR – COLOR
2	A082-90004-B762	MOTHER BOARD ASSY.
3	A084-90704-C762	GAME BOARD ASSY.
4	A084-90900-C762	AUDIO BOARD ASSY.
5	A082-90401-C000	POWER SUPPLY BOARD ASSY.
6	A762-00001-00XF	ACCELERATOR PEDAL ASSY.
7	A762-00017-0000	GAME OVER INSERT ASSY.

**NO. 762 – SUPER SPEED RACE – ADDITIONAL PARTS LIST**

***ORDER BY PART NUMBER ONLY***

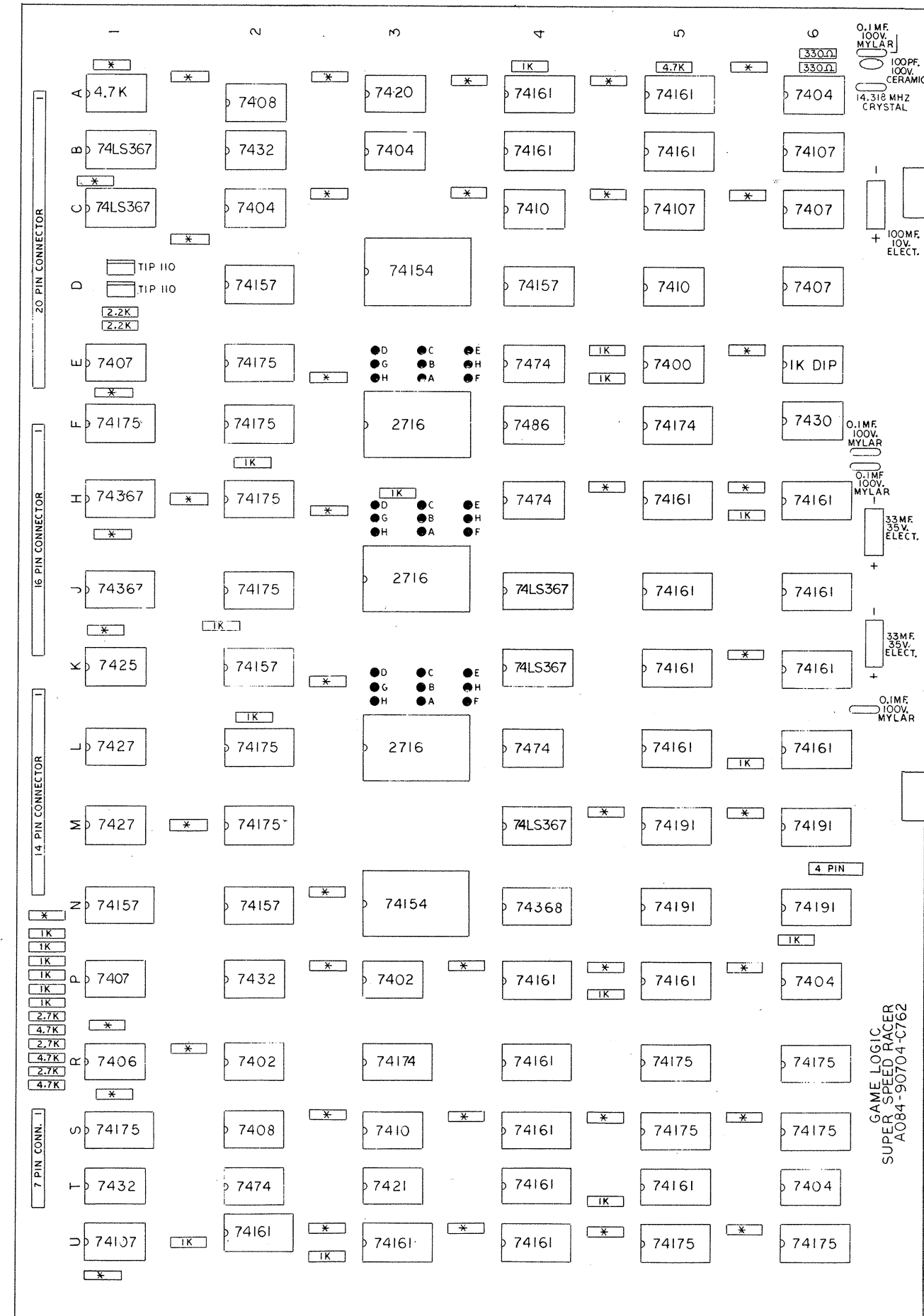
ITEM	PART N <sup>o</sup>	DESCRIPTION
	A762-00016-0000	BACK DOOR ASSY.
	A097-00001-0000	LOCK ASSY. (1 BACK DOOR, 1 ACCESS DOOR)
	0762-00903-0000	PROTECTIVE BUBBLE
	0017-00101-0628	#8-32 x 3/4 CARRIAGE BOLTS (4 REQ'D.)
	0017-00101-0619	#8-32 x 1/2 CARRIAGE BOLTS (2 REQ'D.)
	0017-00104-0021	#8 BRASS WASHER 7/16 x 3/16 x 1/32 (6 REQ'D.)
	0017-00103-0061	#8-32 HEX LOCKNUT SEMS. (6 REQ'D.)
	A627-00003-0000	CASH BOX ASSY.
	A762-00013-0000	CASH BOX COVER ASSY.
	A625-00024-0000	CASH BOX GUIDE BRKT. ASSY.
	0625-00117-0000	CASH BOX SIDE CHANNEL
	0017-00101-0628	#8-32 x 3/4 CARRIAGE BOLTS (4 REQ'D.)
	0017-00103-0061	#8-32 HEX NUT SEMS. (4 REQ'D.)
	0017-00104-0022	#8 STL. WASHER (4 REQ'D.)
	0762-00900-0000	HINGE – GEAR SHIFT PANEL
	0017-00101-0639	#8-32 x 1-1/4 CARRIAGE BOLTS (4 REQ'D.)
	0017-00103-0061	#8-32 HEX NUT SEMS. (4 REQ'D.)
	0017-00003-0225	CHEAT INTERLOCK SW.
	0625-00133-00B0	MOUNTING BRKT. – INTERLOCK SW.
	A775-00013-0000	FAN ASSY.
	0618-00117-00ZN	VENT GRILL (2 REQ'D.)
	A082-90004-B762	MOTHER BOARD ASSY.
	A084-90704-C762	GAME BOARD ASSY.
	A082-90401-C000	POWER SUPPLY BOARD ASSY.
	A084-90900-C762	AUDIO BOARD ASSY.
	A084-01335-C762	DISPLAY DRIVER P.C. ASSY.
	0762-00115-0000	READ OUT SUPPORT MTG. BRKT.
	0624-00902-0100	P.C. BRKT. SUPPORT – 12 IN. (4 REQ'D.)
	0624-00902-0300	P.C. BRKT. SUPPORT – 2-1/2 IN. (6 REQ'D.)
	0624-00902-0500	P.C. BRKT. SUPPORT – 6 IN.
	0017-00101-0017	#6 x 1/2 HEX HD. WD. SCREW (20 REQ'D.)
	0017-00104-0027	FLAT WASHER – 3/4 x 3/16 x 1/16 (20 REQ'D.)
	0017-00009-0419	PIN EXTRACTOR TOOL (PIN POPPER) (MOLAX JACKS ONLY)

\* USE 4 AMP SLO BLO AT 115V, 60 CYCLE  
 USE 2 AMP SLO BLO AT 220V, 50 CYCLE

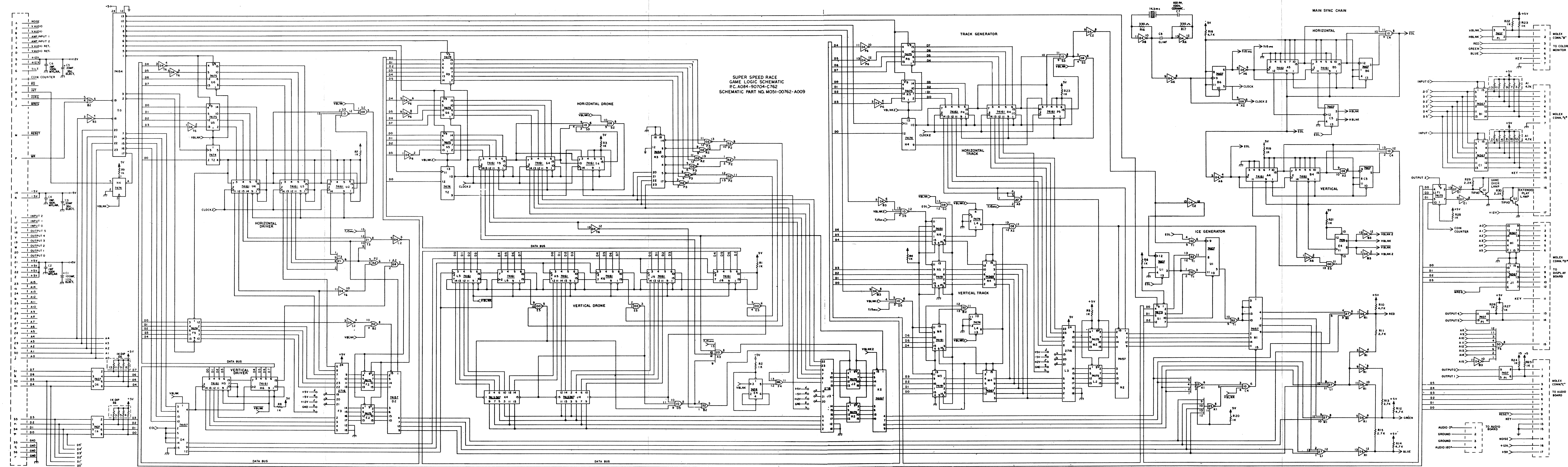


# NOTES

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SUPER SPEED RACE  
GAME LOGIC SCHEMATIC  
PC A084-90704-C762  
SCHEMATIC PART NO. M051-00762-A009

- A NOISE
- B V AUDIO
- C AMP INPUT 1
- D AMP INPUT 2
- E V AUDIO RET.
- F V AUDIO RET.
- G +12V
- H 15L1
- I 15L2
- J 15L3
- K 15L4
- L 15L5
- M 15L6
- N 15L7
- O 15L8
- P 15L9
- Q 15L10
- R 15L11
- S 15L12
- T 15L13
- U 15L14
- V 15L15
- W 15L16
- X 15L17
- Y 15L18
- Z 15L19
- AA 15L20
- AB 15L21
- AC 15L22
- AD 15L23
- AE 15L24
- AF 15L25
- AG 15L26
- AH 15L27
- AI 15L28
- AJ 15L29
- AK 15L30
- AL 15L31
- AM 15L32
- AN 15L33
- AO 15L34
- AP 15L35
- AQ 15L36
- AR 15L37
- AS 15L38
- AT 15L39
- AU 15L40
- AV 15L41
- AW 15L42
- AX 15L43
- AY 15L44
- AZ 15L45
- BA 15L46
- BB 15L47
- BC 15L48
- BD 15L49
- BE 15L50
- BF 15L51
- BG 15L52
- BH 15L53
- BI 15L54
- BJ 15L55
- BK 15L56
- BL 15L57
- BM 15L58
- BN 15L59
- BO 15L60
- BP 15L61
- BQ 15L62
- BR 15L63
- BS 15L64
- BT 15L65
- BU 15L66
- BV 15L67
- BW 15L68
- BX 15L69
- BY 15L70
- BZ 15L71
- CA 15L72
- CB 15L73
- CC 15L74
- CD 15L75
- CE 15L76
- CF 15L77
- CG 15L78
- CH 15L79
- CI 15L80
- CJ 15L81
- CK 15L82
- CL 15L83
- CM 15L84
- CN 15L85
- CO 15L86
- CP 15L87
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- CS 15L90
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- CU 15L92
- CV 15L93
- CW 15L94
- CX 15L95
- CY 15L96
- CA 15L97
- CB 15L98
- CC 15L99
- CD 15L100
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- CF 15L102
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- CI 15L105
- CJ 15L106
- CK 15L107
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- CM 15L109
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- CO 15L111
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- CQ 15L113
- CR 15L114
- CS 15L115
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- CP 15L187
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- CU 15L192
- CV 15L193
- CW 15L194
- CX 15L195
- CY 15L196
- CA 15L197
- CB 15L198
- CC 15L199
- CD 15L200

- 1 HBLNK
- 2 HBLNK
- 3 RED
- 4 GREEN
- 5 BLUE
- 6 KEY
- 7 MOLEX CONN "B"
- 8 TO COLOR MONITOR
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# NOTES

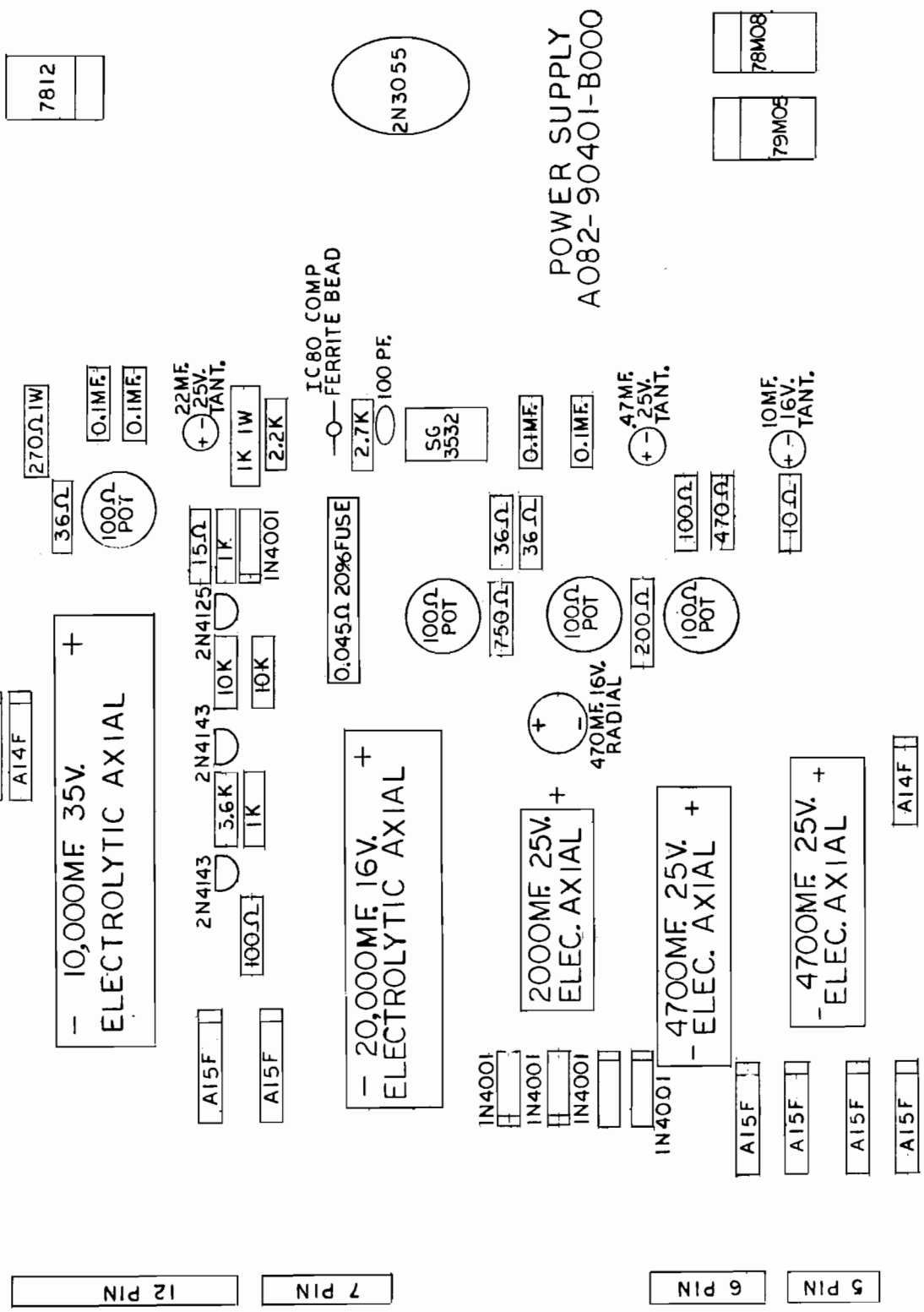
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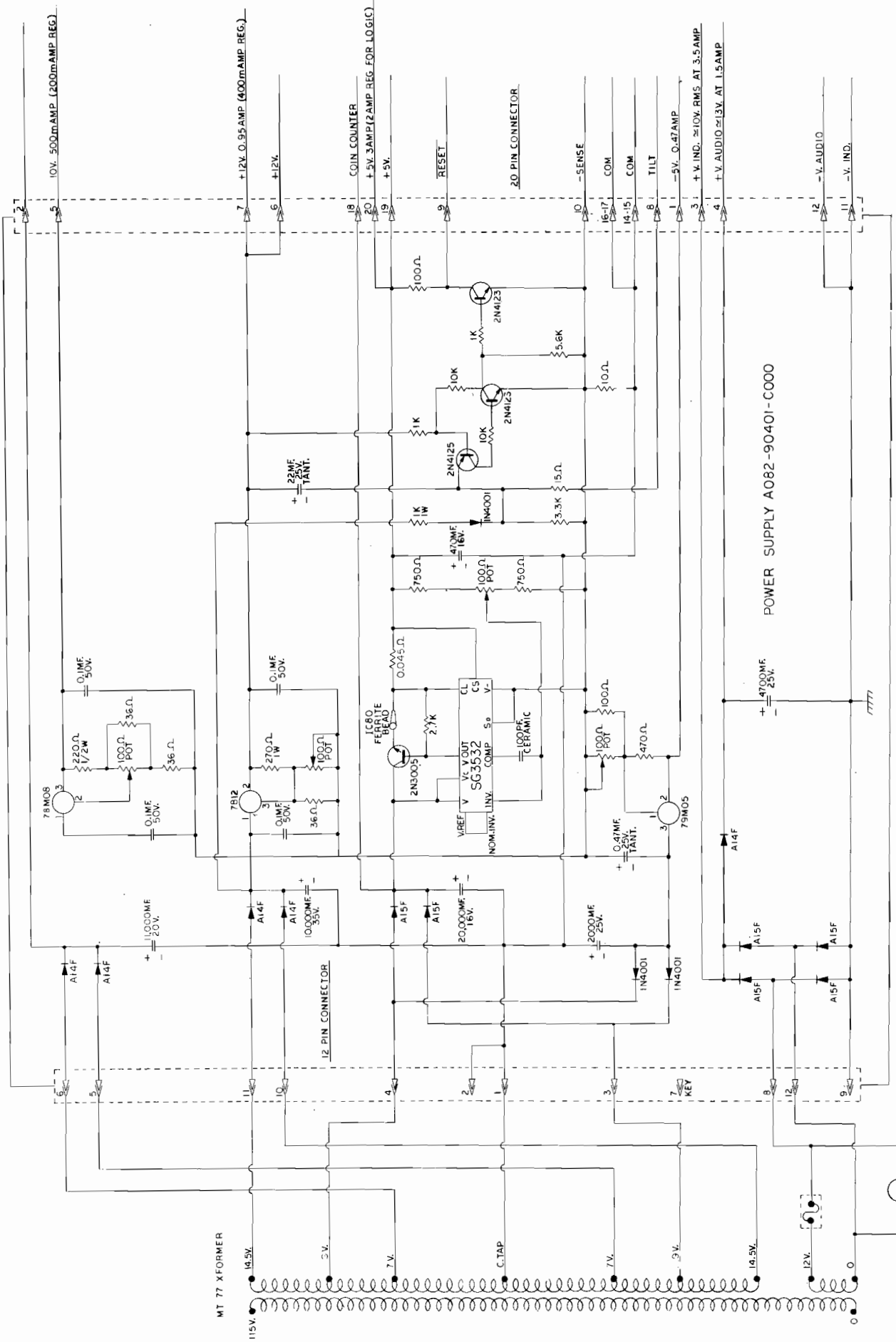
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# NOTES

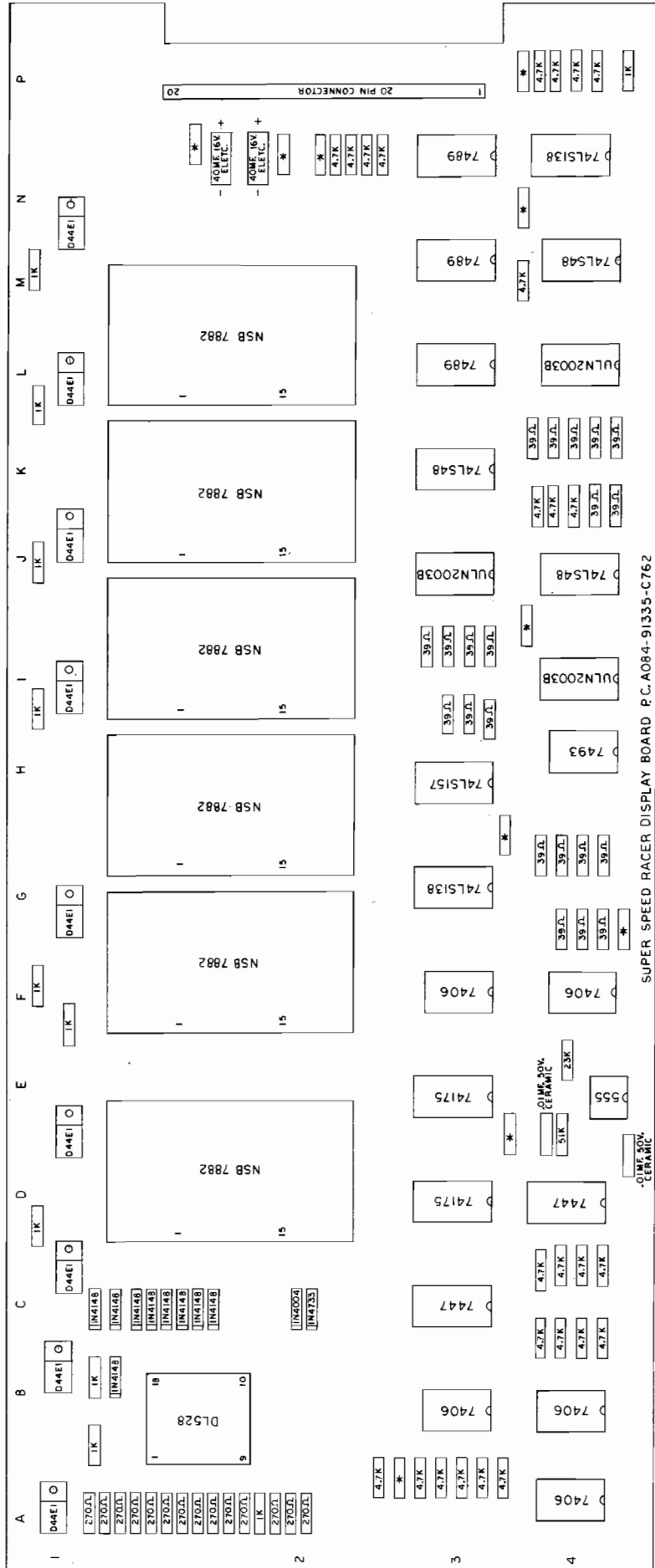
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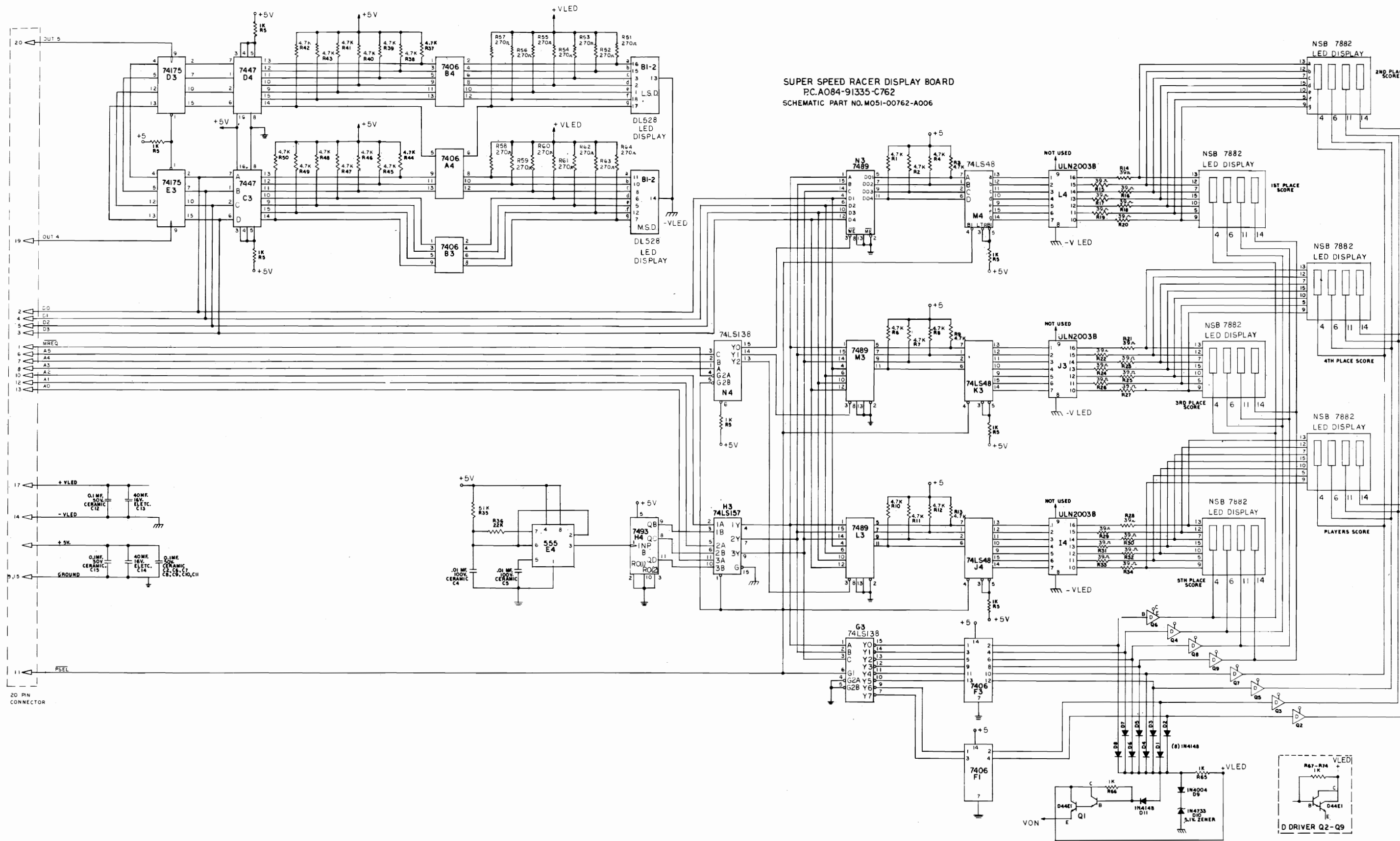
SCHEMATIC PART NO M051-00762-A018



SUPER SPEED RACER DISPLAY BOARD P.C. A084-91335-C762

\* INDICATES 0.1µF 50V AXIAL LEAD CERAMIC CAP

COMPONENT LAYOUT PART NO. M051-00762-A007

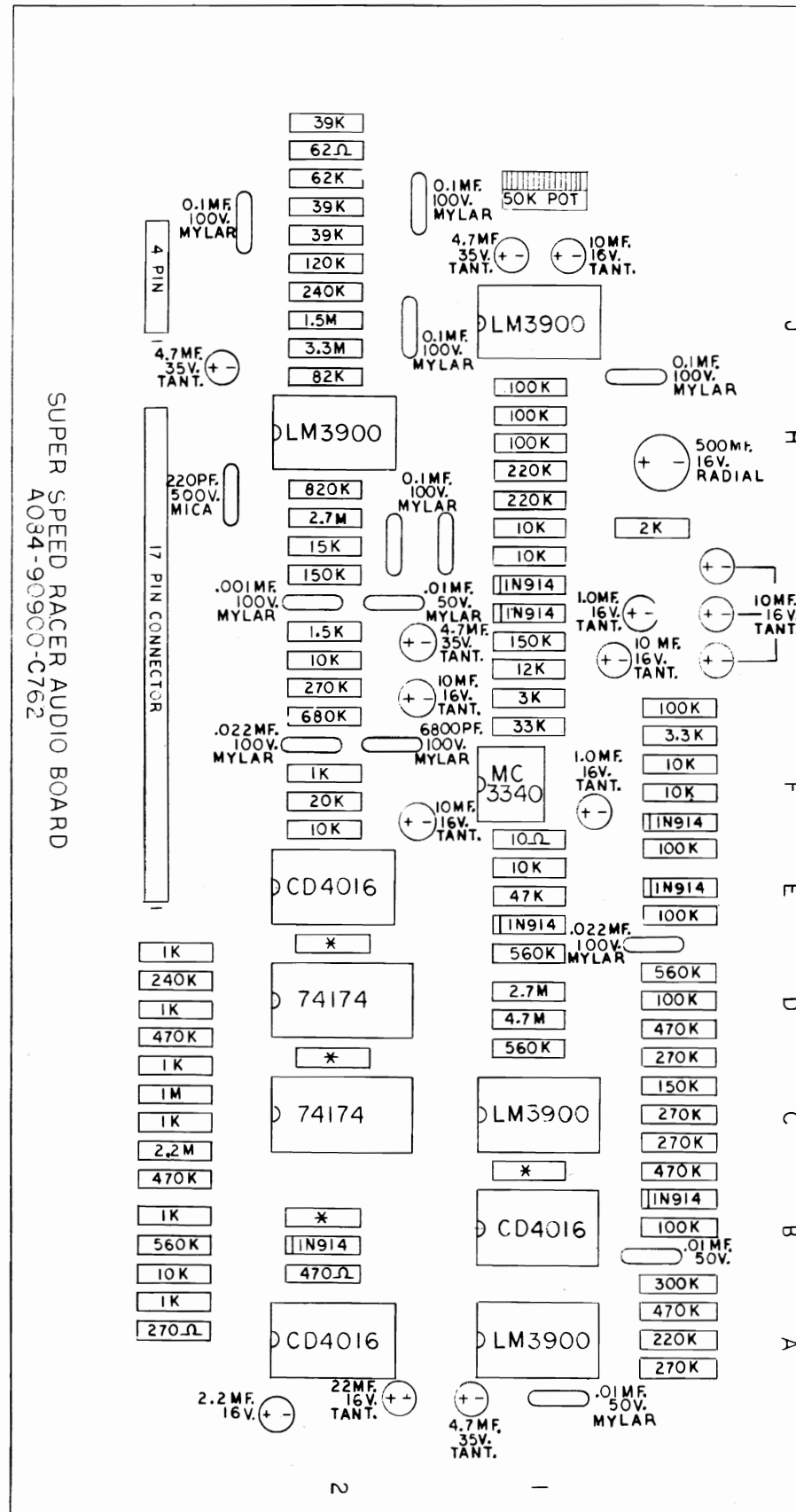


**SUPER SPEED RACER DISPLAY BOARD**  
 P.C.A084-91335-C762  
 SCHEMATIC PART NO.M051-00762-A006



# NOTES

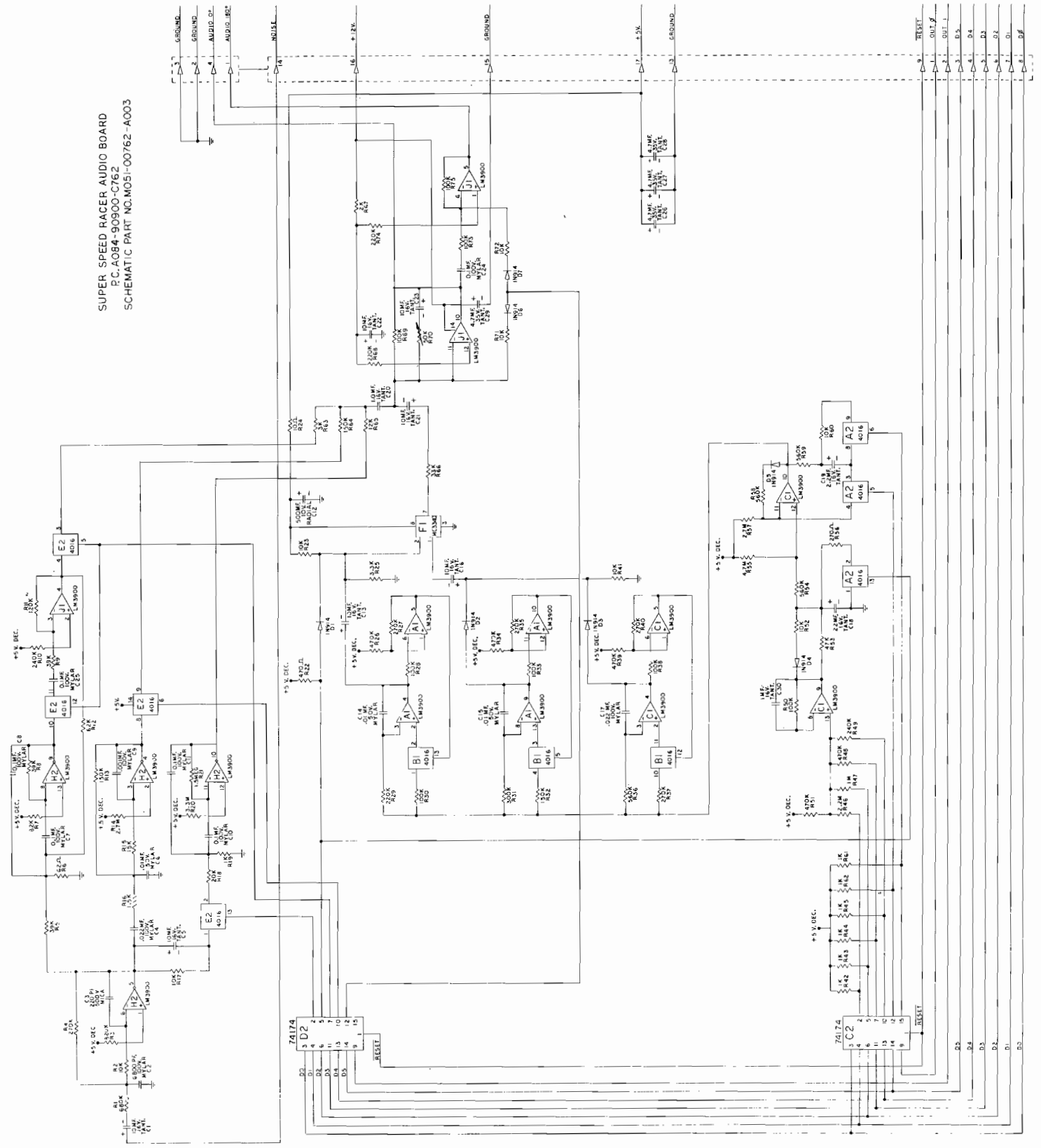
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\* INDICATES 0.1MF, 50V, AXIAL LEAD CERAMIC CAP.

COMPONENT LAYOUT PART NO. M051-00762-A004

SUPER SPEED RACER AUDIO BOARD  
 P.C. 4084-90900-C762  
 SCHEMATIC PART NO. M051-00762-A003



## SUPER SPEED RACE

### Game Logic A084-90704-C762

Chip Number	Function
7400	Quad 2 input nand
7402	Quad 2 input nor
7404	Hex inverter
7406	Buffer (inverting)
7407	Buffer
7408	Quad 2 input and
7410	Triple 3 input nand
7420	Dual 4 input nand
7421	Dual 4 input and
7425	Dual 4 input nor with strobe
7430	8 input nand
7432	Quad 2 input or
7474	Dual "D" flip-flop
7486	Quad 2 input exclusive or
7427	Triple 3 input nor
74107	Dual "JK" flip-flop
74154	4 line to 16 line decoder
74157	Quad 2 line to 1 line selector
74161	4 bit counter
74174	Hex "D" flip-flop
74175	Quad "D" flip-flop
74191	Up-down counter
74367	Hex Bus Driver
74368	Hex Bus Driver (inverting)
TIP110	NPN transistor
14.318	Crystal
2716	16K Prom

Note: LS chips should be replaced with LS chips only.

## SUPER SPEED RACE

### Audio Board A084-90900-C762

Chip Number	Function
LM3900	Quad op. amp.
4016	Quad switch
MC3340	Attenuator
74174	Hex "D" flip-flop

## SUPER SPEED RACE

### Display Board A084-91335-C762

Chip Number	Function
7406	Buffer (inverting)
7447	BCD to 7 segment decoder
7448	BCD to 7 segment decoder
7489	64 bit Ram
7493	4 bit counter
74LS138	3 to 8 line decoder
74LS157	Quad multiplexer
74175	Quad "D" flip-flop
555	Timer
ULN2003B	Transistor driver pack
DL528	LED display (time)
NSB7882	LED display (score)
D44E1	NPN transistor

### Z80 COMPACT MOTHER BOARD

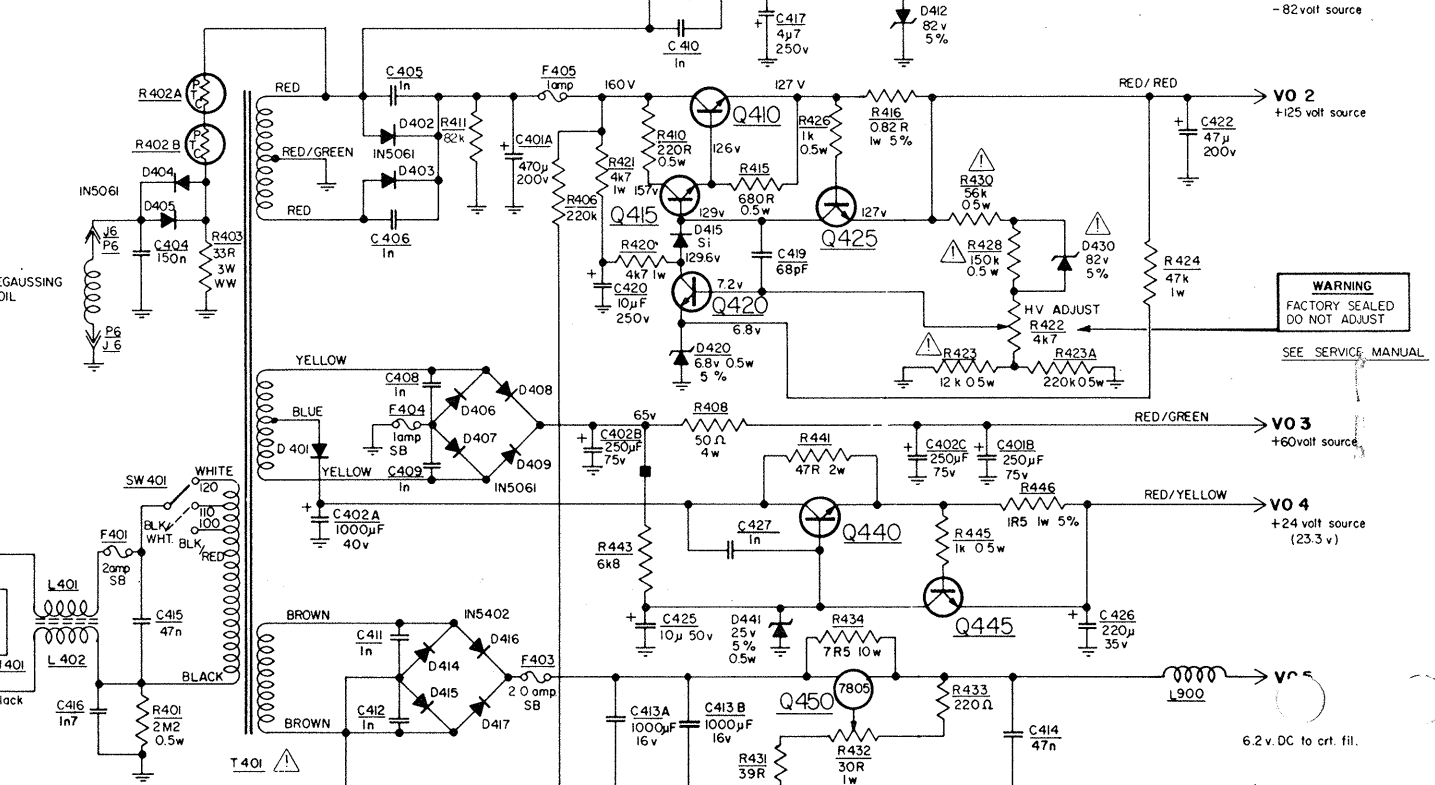
Chip Number	Function
7400	Quad 2 input Nand gate
7404	Hex inverter
7427	Triple 3 input Nor gate
7493	4 Bit counter
74LS138	3 to 8 Line decoder
74LS139	3 to 8 Line decoder
74161	4 Bit counter
74367	Hex bus driver buffer
4006	18 Bit shift register
4030	Quad Ex. Or.
6810	128 X 8 Bit static RAM
2716	PROM 16K
9316	ROM 16K
Z80	CPU
8216	Bi-directional driver
LM339	Voltage comparitor
LM377	Amplifier
555	Timer

#### Additional Devices:

TIP 110	Transistor (NPN)
19,968	Crystal
LS	Low schottky

NOTE: When an I.C. is a low schottky, it should be replaced by a low schottky device.

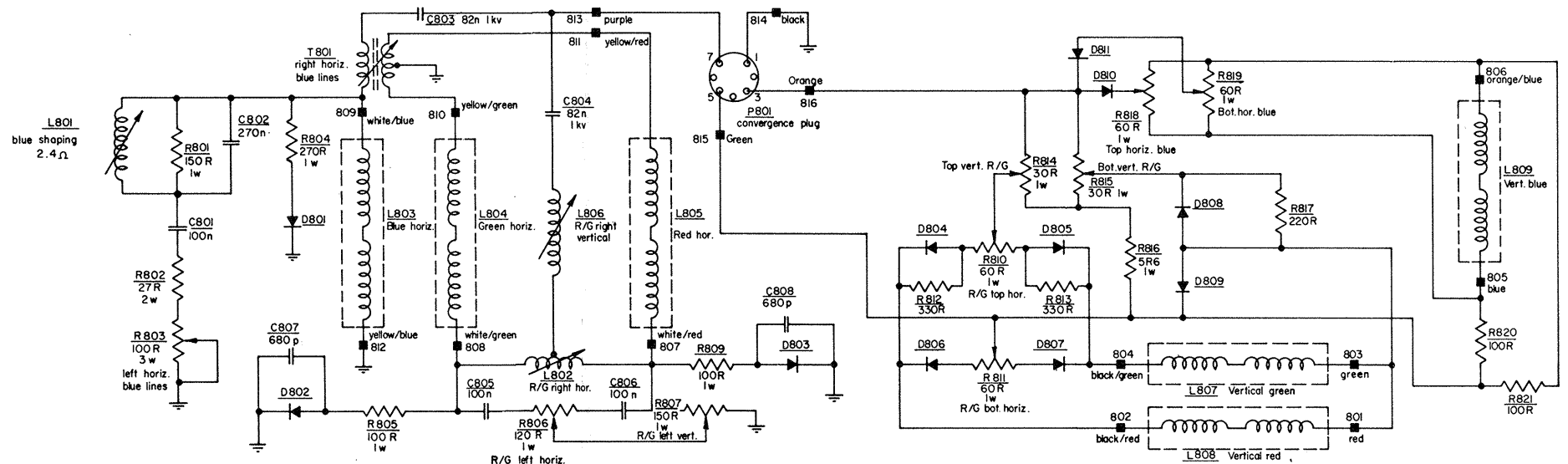
**POWER SUPPLY**



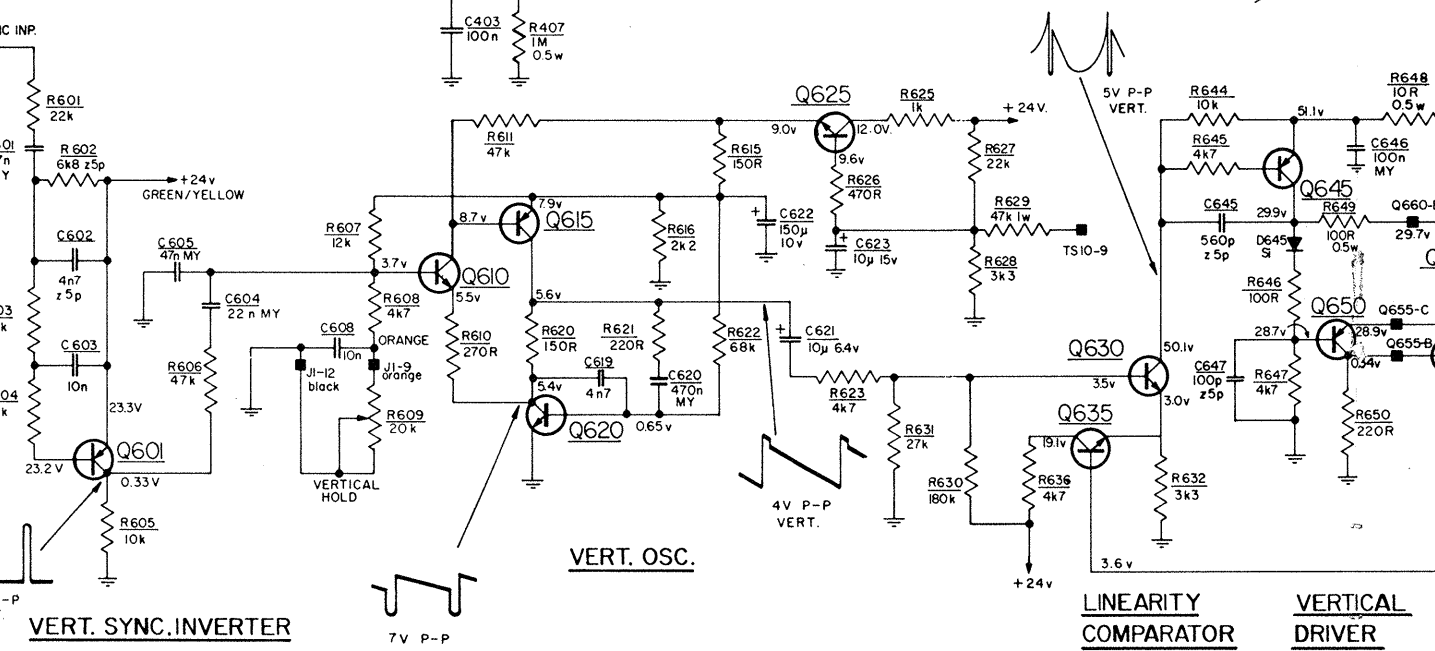
**TRANSISTORS**

Q 410	I4-60I-35
Q 415	I4-915-23
Q 420	I4-915-23
Q 425	I4-806-12
Q 440	I4-929-12
Q 445	I4-806-12
Q 450	I4-2032-01 7805

**THERMISTOR** 42-60-01 120 V 60R

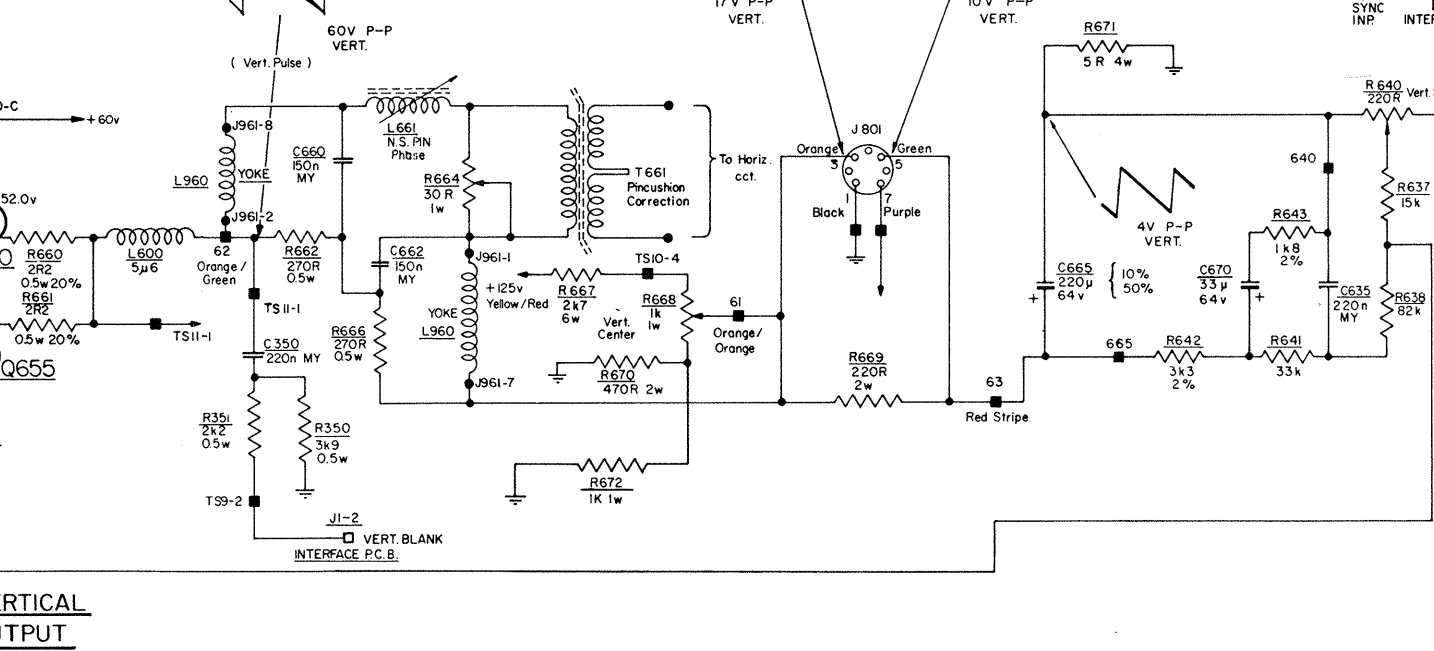


**DYNAMIC CONVERGENCE**



**VERT. OSC.**

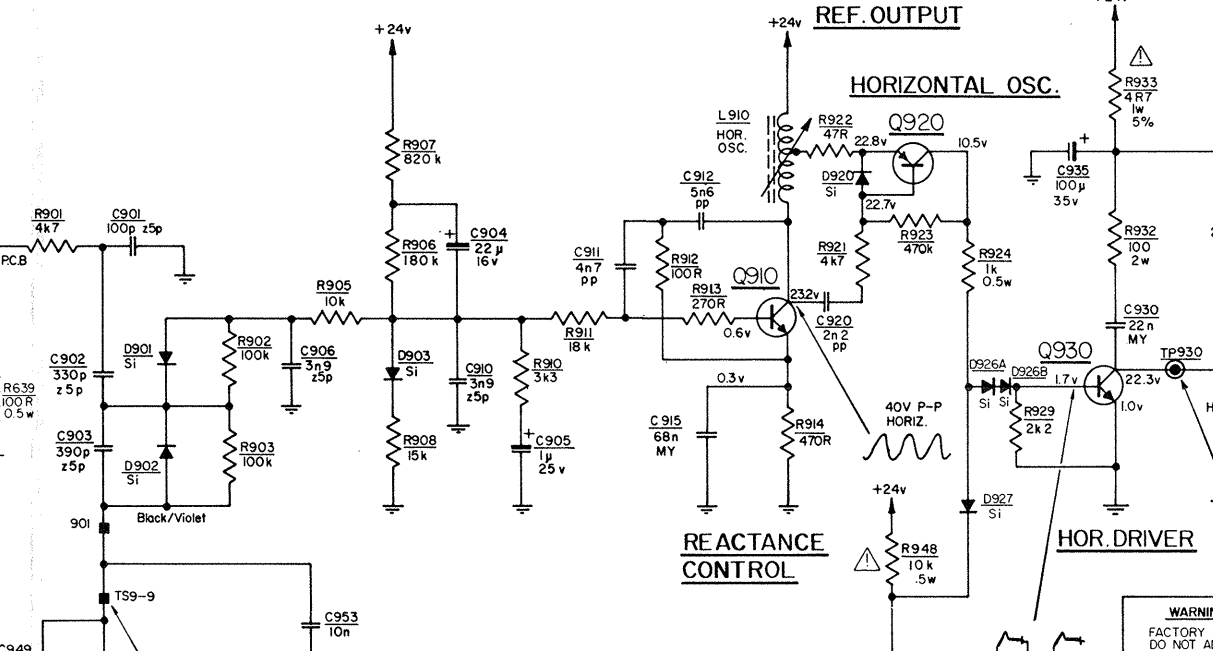
**VERT. SYNC. INVERTER**



**LINEARITY COMPARATOR**

**VERTICAL DRIVER**

**VERTICAL OUTPUT**



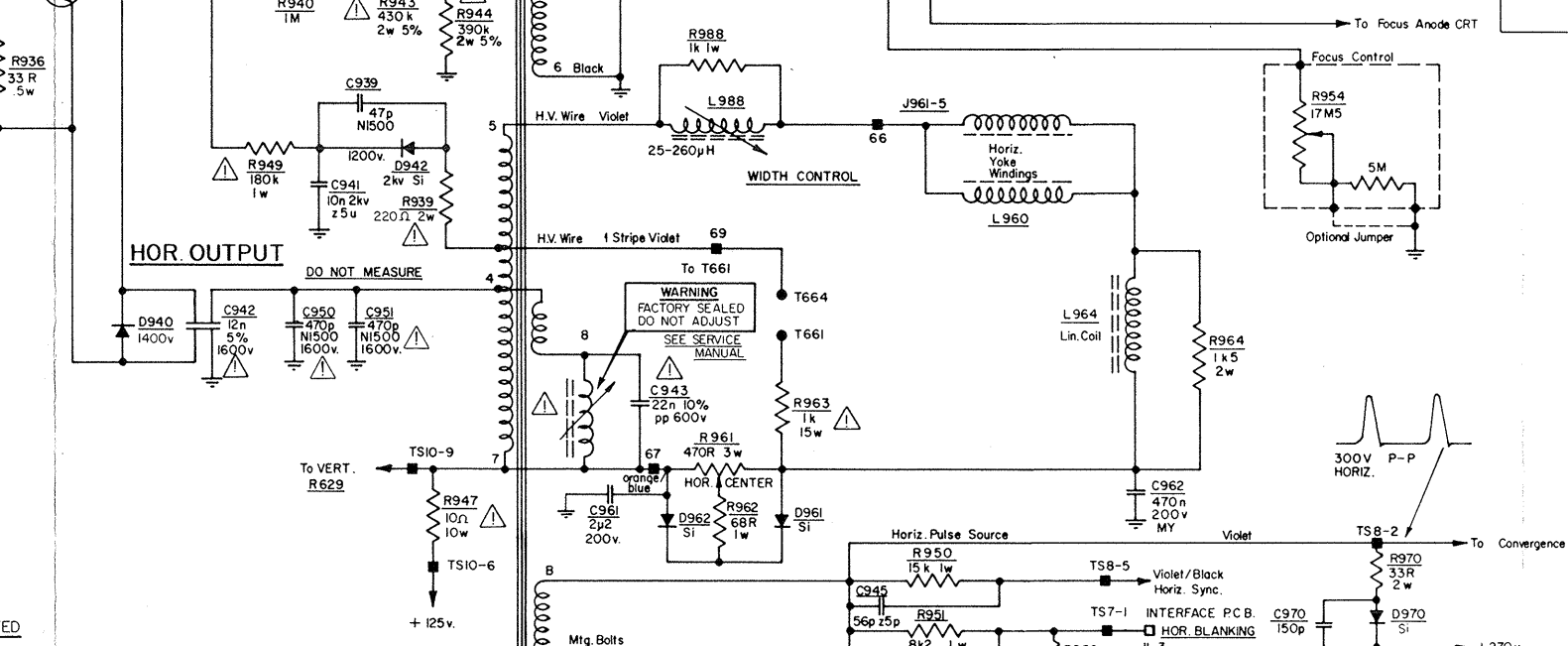
**REACTANCE CONTROL**

**HOR. DRIVER**

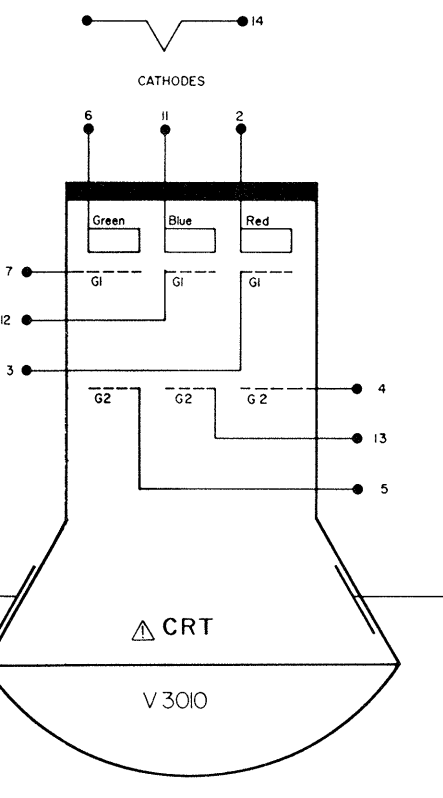
**REF. OUTPUT**

**HORIZONTAL OSC.**

**HOR. OUTPUT**



**VIDEO OUTPUT PCB**



**CAUTION** - FOR CONTINUED SAFETY, REPLACE THOSE COMPONENTS INDICATED BY  $\Delta$  WITH EXACT REPLACEMENT PARTS ONLY. CONSULT SERVICE MANUAL PARTS LIST "SAFETY COMPONENTS".

**GO2 CHASSIS** Issue 1 **00-4085-01**

**TRANSISTOR REFERENCE**  
SEE DRAWING NO. 00-1758-03.

**DC VOLTAGES**  
MEASURED WITH HIGH-IMPEDANCE METER AND 120 VAC LINE. ALL THE DC VOLTAGES INDICATED ARE POSITIVE  $\pm 10\%$ . A PAIR, LIKE 240V, 190V INDICATES VOLTAGES RESULTING FROM MINIMUM AND MAXIMUM CONTROL SETTINGS.  
**CAUTION** - USE ONLY H.V. METER OR PROBE IN HORIZONTAL OUTPUT CIRCUIT.

**WAVEFORMS**  
VOLTAGE GIVEN IS PEAK-PEAK USING A WIDE-BAND OSCILLOSCOPE WITH HIGH IMPEDANCE PROBE.  
CONTROLS ARE SET FOR AVERAGE COLOR PICTURE VIEWING. OSCILLOSCOPE SWEEP RATES USED ARE 30 Hz (VERT.) OR 78.75 Hz (HORIZ.).

**LEGEND**  
RESISTORS - RESISTANCE IN OHMS, K (KILO-OHMS), OR M (MEG-OHMS),  $\frac{1}{4}$  WATT, 5% TOLERANCE UNLESS OTHERWISE NOTED.  
CAPACITORS - CAPACITY IN p (PICOFARADS), n (NANO-FARADS) OR  $\mu$  (MICRO-FARADS), DCW AND TOLERANCE NOTED WHERE CRITICAL.  
SPECIAL CAPACITORS ARE IDENTIFIED AS FOLLOWS:

P.S. POLYSTYRENE  
P.P. POLYPROPYLENE  
M.Y. METALIZED MYLAR  
M MICA  
NPO TEMPERATURE COEFFICIENT = NEGATIVE POSITIVE ZERO  
N150 TEMPERATURE COEFFICIENT = NEGATIVE 150 PPM/°C  
INDUCTORS - INDUCTANCE IN  $\mu$ H (MICRO HENRIES).  
ZENER DIODES - ZENER VOLTAGE IN VOLTS. ELECTROLYTICS OR TANTALUMS  $\pm$  - CAPACITY IN  $\mu$ F DCW IN VOLTS.

**MULTIPLIER NOTATION**

MULTIPLIER OR SUB-MULTIPLE	PREFIX	SYMBOL	SYMBOL
$10^6$	MEGA	M	M
$10^3$	KILO	k	k
$10^{-3}$	MILLI	m	m
$10^{-6}$	MICRO	$\mu$	$\mu$
$10^{-9}$	NANO	n	n
$10^{-12}$	PICO	p	p

**EXAMPLE FOR CAPACITORS**  
1n = 1nF  
 $10^4$  = 10<sup>4</sup> FARAD  
.001 = .001  $\mu$ F  
1000P = 1000pF

**NEW NOTATION**

$\mu$	$\mu$ F
n	nF
p	pF

**OLD NOTATION**

$\mu$ F	$\mu$ F
k	k
mmf	mmf

