GAME NO. 653
JULY, 1979

MIDWAY'S 18 WHEELER PARTS AND OPERATING MANUAL



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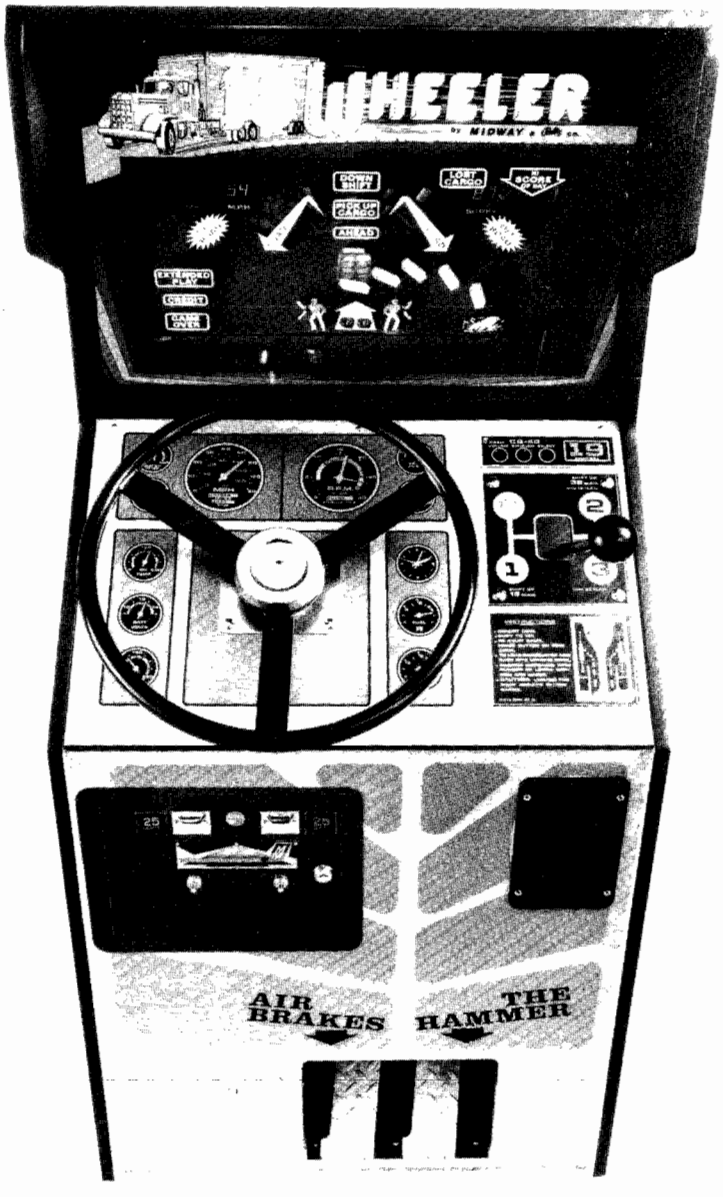
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WARNING

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

DEAR OPERATOR

18 WHEELER HAS A SHILL OR ATTRACT MODE WHICH IS ACTIVATED WHEN THE GAME IS NOT PLAYED FOR A PERIOD OF 20 MINUTES. THE SHILL MODE HAS PROVEN TO ATTRACT MORE PLAYERS DURING OUR LOCATION TESTS, AND WILL UNDOUBTEDLY DO THE SAME FOR YOU.



18 WHEELER

DIAGNOSTICS/ALIGNMENTS/SOUNDS

GAME TEST

1. Place gear shift in neutral position.
2. Place switch #8 (located on Mother Board) in "ON" position.
3. Close tilt switch located on coin door assy.

The program goes through a RAM/ROM test.

BAD RAM

If score display reads	0 1	RAM 4 located at A-1 is bad
If score display reads	0 2	RAM 3 located at A-2 is bad
If score display reads	0 3	RAM 2 located at A-3 is bad
If score display reads	0 4	RAM 1 located at A-4 is bad

BAD ROM

If score display reads	8 1	ROM 1 located at B-1 is bad
If score display reads	8 2	ROM 2 located at B-2 is bad
If score display reads	8 3	ROM 3 located at B-3 is bad
If score display reads	8 4	ROM 4 located at B-4 is bad

If the RAMs and ROMs check out as good, the program goes through countdown of the display

9 8 7 6 5 4 3 2 1 0
8 7 6 5 4 3 2 1 0 1
– – – – – – – – – –
– – – – – – – – – –
0 1 2 3 4 5 6 7 8 9

and ends the test by writing 8 8 8 8 8 8 8 8 8 8 on the displays.

At the end of the display test, the program goes into lamp test. This is done by switching half of the lamps on at one time for 2-3 seconds and then switching the other half of the lamps on.

The display will continue to read 8's and lamps will continue to switch on and off until switch #8 (located on Mother Board) is returned to "OFF" position and tilt switch is closed.

GENERAL INSTRUCTIONS FOR "18 WHEELER"

INSTALLATION

1. Remove shipping cleats located on the bottom of the 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 (105 volts or less), a boost in the output voltage of the transformer may be obtained by removing the wire from the 115 volt tap of the transformer and rewiring it to the 105 volt position.

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 lower back door area. When the door is removed, it opens the circuit to the line voltage. To restore power (when servicing), pull switch fully out.

TO REMOVE CONTROL SHELF FOR SERVICE

1. Open coin door.
2. Unlatch 3 clamps, 2 on left side, 1 on right front side of cabinet.
3. Disconnect control shelf connector.
4. Remove wing nut, washer and steering cable from steering wheel assy.

MASTER VOLUME CONTROL POT

Located on Game Logic Board (P.C. A084-90700-A653) and controls the volume of all sounds and may be varied as desired, by rotating pot control.

COIN, TIME, EXTENDED PLAY AND TEST SWITCHES located on Mother Board (P.C. A082-90400-B000) and may be adjusted as indicated on separate instructions in back box area.

S E R V I C E B U L L E T I N

GAME: 18 Wheeler

SUBJECT: Projection Lamp & Air Circulation

1. All games will be shipped with projection lamp removed and stored in cash box area. (or rear of game)
2. When installing lamp, insert completely in lamp socket for proper operation.
3. A spare projection lamp will be shipped with each game.
4. Do not set game flush against a wall. For proper air circulation and longer lamp life, leave three to four inches of space behind the game.

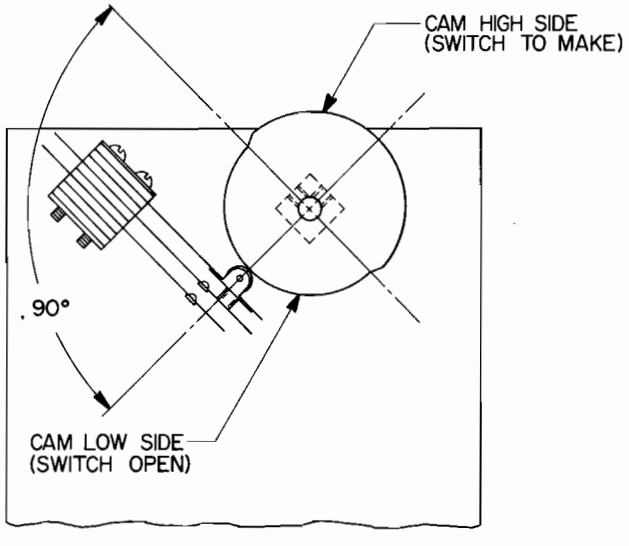
TO ALIGN ACCELLERATOR ENCODER

1. Remove three (3) bolts & two (2) wood screws on forward portion of accelerator/brake pedal assy. at front of game and pull assy. forward.
2. Place gear shift in 1st gear position.
3. Place switch #8 (located on Mother Board) in "ON" position.
4. Close tilt switch located on coin door assy.

   The program continuously monitors the accellerator encoder and displays a number on the score display.

5. Loosen the two set screws on the encoder gear and rotate the encoder shaft until the score display reads " 00 " . When number "00" is reached, the horn sound is turned on. If desired, the horn sound may now be turned off by placing gear shift in neutral position.
6. Tighten two set screws on encoder gear to encoder shaft. Verify that the score display still reads "00" and the horn sound is turned on when in 1st gear position.
7. Return switch #8 (located on Mother Board) to "OFF" position.
8. Close tilt switch to go into game mode.

BRAKE CAM & SWITCH ADJUSTMENT

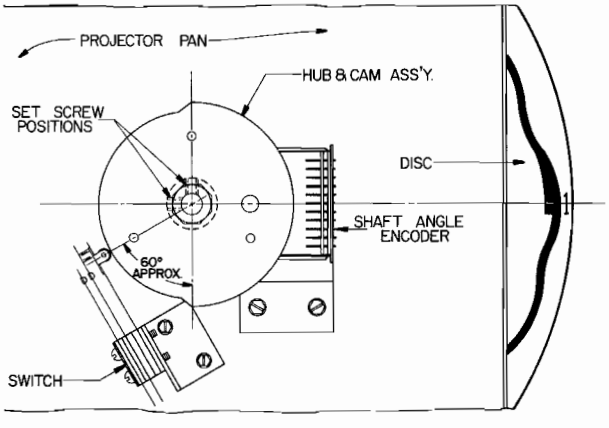


Position brake cam as per sketch above with brake pedal up.

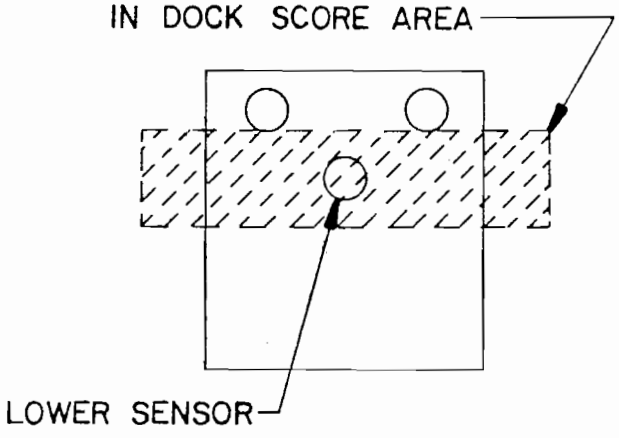
TO ALIGN THE ROAD DISC ENCODER

1. Place gear shift in 2nd gear position.
2. Place switch #8 (located on Mother Board) in "ON" position.
3. Close tilt switch located on coin door assy.

4. Loosen two set screws on white plastic gear at the rear of the projector disc and disengage large gear from small gear by sliding large gear to rear of shaft. Next, loosen two set screws on cam assy. to free cam from encoder shaft. See Sketch A.
5. Remove two short mounting brackets holding Game Logic and Mother Board printed circuit assy. in place.
6. Pull printed circuit assy. out of cabinet as far as slack in cable will allow. This will provide access to the disc drive motor which is located on the front surface of the projector pan assy. in the upper left hand corner.
7. Carefully lift motor off disc using provided lever and rotate disc until number " 1 ", on the outside of the disc, is exposed on the right side of the projector pan. See Sketch A.
8. Carefully position the disc until the pick-up cargo score area is in line with the lower optical sensor. See Sketch B. This may be seen in the lower front reflector mirror.
9. Release motor to lock road disc in position.
10. Rotate small pinion gear on encoder shaft until crash sound is heard. Rotate small pinion gear on encoder shaft in opposite direction until another crash is heard. Position pinion to approximately split travel between crashes.
11. Carefully engage white plastic gear (with set screw up, see Sketch A) with the pinion gear and tighten set screws. The score display should now read "37". If any other number is displayed, loosen set screws on white plastic gear and repeat step 10 and 11.
12. Reassemble cam in position shown in Sketch A. Note this position does not have to be precise.
13. Adjust leaf switch for proper operation.
14. Return switch #8 (located on Mother Board) to "OFF" position and close tilt switch to go into game mode.



SKETCH A



SKETCH B

SOUND AND INPUT SWITCH DIAGNOSTICS

1. Place gear shift in neutral position.
2. Place switches #7 and #8 (located on Mother Board) in "ON" position.

3. Close tilt switch located on coin door assy.

If coin switch is closed	Bell will sound
If start switch is closed	Crash will sound
If 1st gear switch is closed	Engine will sound
If shift is in gear & accellerator is depressed	Engine will rev up
If 2nd gear switch is closed	Horn will sound
If 3rd gear switch is closed	Bell will sound twice
If reverse gear switch is closed	Horn will sound twice
If brake switch is closed	Air brake will sound

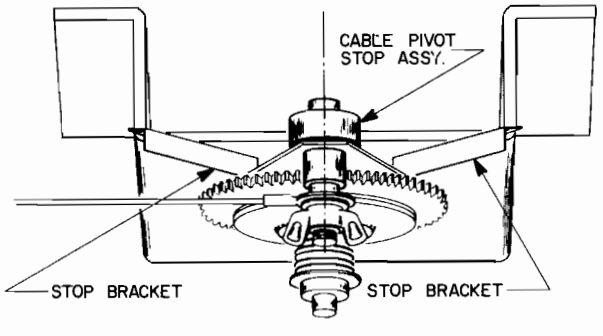
4. Return switches #7 and #8 (located on Mother Board) to "OFF" position.
5. Close tilt switch to go into game mode.

FOCUS

1. Place switch #8 (located on Mother Board) in "ON" position.
2. Close tilt switch located on coin door assy.
3. Remove two short mounting brackets holding Game Logic and Mother Board printed circuit assy. in place.
4. Pull printed circuit assy. out of cabinet as far as slack in cable will allow. This will provide access to the lens assy. which is located on the front surface of the pan assy. on the lower left hand side.
5. Loosen two thumb screws on lens bushing and move lens in or out to obtain the sharpest image of the road at the bottom half of the screen when viewed from rear of game.
6. Retighten thumb screws and remount printed circuit assy.
7. Return switch #8 (located on Mother Board) and close tilt switch to go into game mode.

STEERING WHEEL CABLE AND PROJECTOR PAN ALIGNMENT

1. Place switch #8 (located on Mother Board) in "ON" position.
2. Close tilt switch located on coin door assy.
3. Viewing up through coin door opening, turn steering wheel until cable pivot stop assy. is centered between two stop brackets. See sketch below.



4. From rear of cabinet, remove spring from pivot channel located at the bottom of the cabinet.

5. Making sure the steering wheel cable is drawn over (2) pulleys on the side of the cabinet, insert cable through adjusting block on pivot channel leaving about three (3) inches of cable through the left side of the adjusting block. Do not tighten cap screw at this time.
6. Remove two short mounting brackets holding Game Logic and Mother Board printed circuit assy. in place.
7. Pull printed circuit assy. out of cabinet as far as slack in cable will allow. This will provide access to the disc drive motor which is located on the front surface of the projector assy. in the upper left hand corner.
8. Carefully lift motor off disc using provided lever and rotate disc until white scoring area is in line with the truck cab pivot screw at top of screen.
9. Pivot projector pan assy. until white scoring area is centered from left to right about truck cab pivot screw.
10. Take up all slack in steering wheel cable by pulling cable through adjusting block until cable is taught. Tighten cap screw on adjusting block and replace spring.
11. Loosen two set screws on truck pivot. (located above projector pan unit under screen). Align truck pivot in center of slotted cut-out in screen, being careful to position truck pivot bracket 1/4" below screen and tighten set screws.
12. Replace printed circuit board assy. Return switch #8 (located on Mother Board) to "ON" position and close tilt switch to go into game mode.

SWITCH ADJUSTMENTS

COIN

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

TIME-EXTENDED PLAY

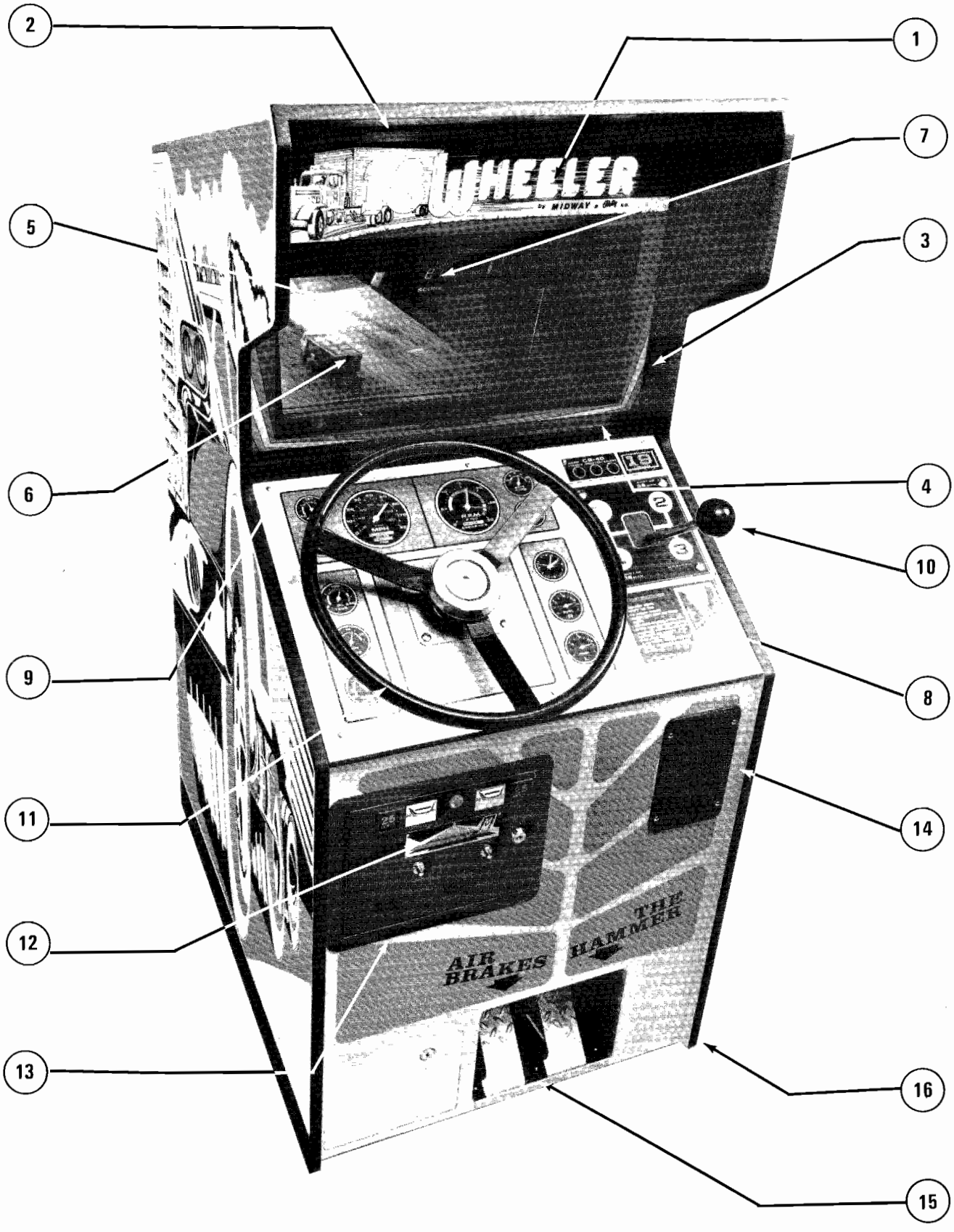
TIME	EXT. PLAY	SCORE	SW. 3	SW. 4	SW. 5	SW. 6
60 SEC.	20 SEC.	4,000	ON	ON	ON	ON
60 SEC.	30 SEC.	8,000	OFF	ON	ON	ON
60 SEC.	15 SEC.	8,000	ON	OFF	ON	ON
60 SEC.	30 SEC.	10,000	OFF	OFF	ON	ON
70 SEC.	20 SEC.	6,000	ON	ON	OFF	ON
70 SEC.	30 SEC.	9,000	OFF	ON	OFF	ON
70 SEC.	20 SEC.	9,000	ON	OFF	OFF	ON
70 SEC.	30 SEC.	12,000	OFF	OFF	OFF	ON
80 SEC.	20 SEC.	8,000	ON	ON	ON	OFF
80 SEC.	30 SEC.	12,000	OFF	ON	ON	OFF
80 SEC.	20 SEC.	12,000	ON	OFF	ON	OFF
80 SEC.	30 SEC.	16,000	OFF	OFF	ON	OFF
90 SEC.	20 SEC.	10,000	ON	ON	OFF	OFF
90 SEC.	30 SEC.	15,000	OFF	ON	OFF	OFF
90 SEC.	20 SEC.	15,000	ON	OFF	OFF	OFF
90 SEC.	30 SEC.	20,000	OFF	OFF	OFF	OFF

TEST - PLAY

	SW. 7	SW. 8
RAM/ROM – TEST	ON	ON
GAME MODE	OFF	OFF

M051-00653-A010

NO. 653 — 18 WHEELER — PICTURE



ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	0653-00911-01SC	DISPLAY PLEX
2	0537-00903-0023	GLASS CHANNEL - 27¾''
3	0537-00903-0042	GLASS CHANNEL - 18¾'' (2 REQD.)
4	0629-00902-0500	GLASS LIFT CHANNEL - 27-7/8''
5	0653-00910-0000	PLEXIGLASS SCREEN
6	A653-00038-0000	TRUCK SYSTEM ASSY.
	A084-91326-B653	TRUCK LIGHTS P.C. BRD. ASSY.
	0017-00031-0029	MIN. WEDGE SOCKET (8 REQD.)
	0017-00003-0226	6.3V WEDGE LAMP (8 REQD.)
7	A084-91325-C653	L.E.D. DISPLAY BRD. ASSY.
8	0653-00158-00XF	CONTROL PANEL PLATE
9	0017-00102-0079	#6-32 x 1¼ CARRIAGE BOLTS (6 REQD.)
	0017-00104-0013	#6 PERIPHERY WASHER (6 REQD.)
	0017-00103-0005	#6-32 HEX NUT (6 REQD.)
10	A653-00048-0000	GEAR SHIFT ASSY.
11	0653-00902-00XF	STEERING WHEEL
12	A090-00020-2001	DOUBLE ENTRY COIN DOOR
	0017-00003-0102	COIN METER (MOUNTED ON DOOR)
13	0090-00002-02GR	COIN DOOR FRAME
	0017-00101-0555	#6-32 x 5/16 BLK. HEX HD. S.M.S. (3 REQD.) (MOUNTS DOOR TO FRAME)
14	0017-00009-0393	SPEAKER GRILL & HARDWARE
	0017-00003-0187	6 x 9 SPEAKER - 8 OHM, 9W
	0017-00101-0642	#8-32 x 1½ CARRIAGE BOLTS (4 REQD.)
15	A653-00028-0000	ACCELERATOR PEDAL UNIT ASSY.
16	0017-00102-0048	LEG LEVELERS (4 REQD.)
	0017-00103-0026	LEG LEVELER NUTS (4 REQD.)
		NOT SHOWN LIST
	0653-00908-00XF	1/8'' MIRROPANE MIRROR - 27-7/8x15-1/2x1/8'' (UPPER)
	A653-00052-0000	¼'' MIRROPANE MIRROR ASSY. - 27-7/8x15-7/8x¼''
	0653-00148-0000	LOWER 1/4'' MIRROPANE RETAINER
	0653-00149-0000	UPPER 1/4'' MIRROPANE RETAINER
	0605-00104-01B0	GLASS LOCK BRKT. (2 REQD.)
	0017-00009-0009	TURNBUTTONS (2 REQD.)
	0603-00131-00XF	STRIKE (3 REQD.)

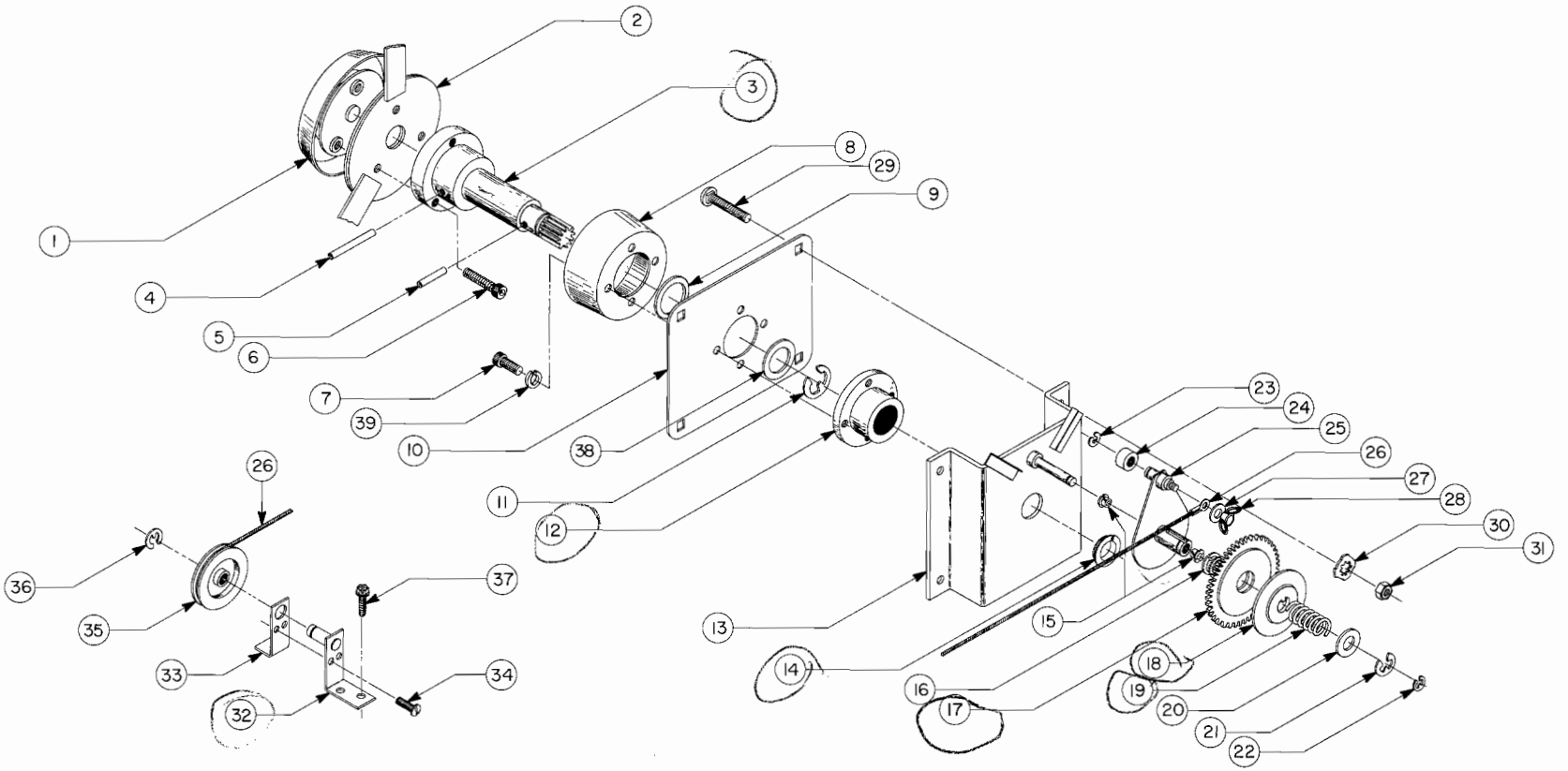
ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
	0017-00009-0033	BASSICK CLAMP (3 REQD.)
	0017-00101-0028	#8 x ¾ HEX HD. W/W BLK. SCR. (8 REQD.)
	0653-00907-0000	BACK-UP DISPLAY CARDBOARD
	0653-00914-00XF	SCORE MASK CARDBOARD
	0653-00913-0000	CARDBOARD BACK-UP FOR ¼'' MIRROPANE
	0653-00912-0000	CARDBOARD CABLE COVER-UP
	0586-00036-0000	ON-OFF SWITCH
	0567-00106-0100	SWITCH MTG. PLATE
	0017-00101-0025	#8 x ½ HEX HD. WD. SCR. (2 REQD.)
	A653-00029-0000	DISPLAY INSERT ASSY.
	0017-00003-0219	#194 WEDGE LAMP - 14V (5 REQD.)
	A653-00032-0000	BACKGROUND INSERT ASSY.
	0017-00003-0226	#444 WEDGE LAMP - 6.3V (27 REQD.)

NOTES

This space is provided for personal notes

NO. 653 — 18 WHEELER — PULLEY & STEERING WHEEL ASSEMBLIES

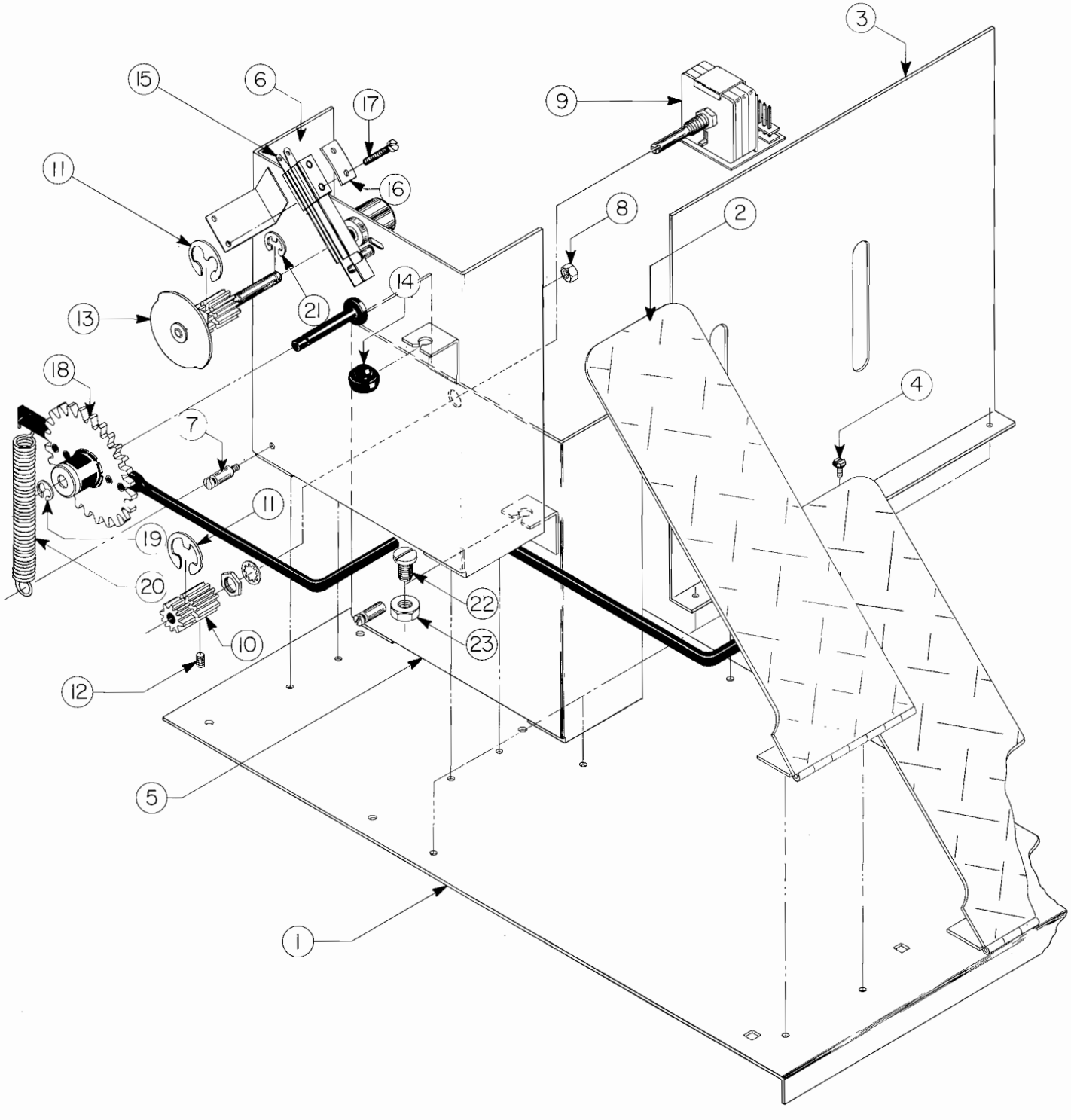


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ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	A653-00001-0000	HORN BUTTON ASSY.
2	0653-00902-00XF	STEERING WHEEL
3	A653-00043-0000	SHAFT & HUB ASSY.
4	0017-00007-0082	1/8 x 1-3/8 ROLL PIN
5	0017-00007-0077	1/8 x 3/4 ROLL PIN
6	0017-00101-0344	1/4 - 20 x 1-1/4 SOCKET CAP SCREW (3 REQD.)
7	0017-00102-0005	1/4 - 20 x 5/8 SOCKET CAP SCREW (4 REQD.)
8	0653-00917-0000	STEERING POST SHIELD
9	0653-00918-0000	NYLON WASHER
10	0653-00150-0000	TOP PLATE
11	0017-00100-0109	3/4 "E" - RING
12	0017-00009-0088	BEARING ASSY.
13	A653-00046-0000	STEERING BRKT. WELDMENT
14	0017-00042-0168	3/4 NYLINER
15	0017-00042-0022	1/4 NYLINER (2 REQD.)
16	0017-00042-0097	1/2 NYLINER
17	A653-00044-0000	GEAR ASSY.
18	0653-00153-0000	CLUTCH WASHER
19	0010-00594-0000	COMPRESSION SPRING
20	0017-00104-0044	3/4 x 1/2 x 1/16 STL. WASHER
21	0017-00100-0050	1/2 "E" - RING
22	0017-00100-0025	1/4 "E" - RING
23	0017-00100-0031	5/16 "E" - RING
24	0017-00104-0090	RUBBER STOP WASHER
25	A653-00047-0000	PIVOT STOP ASSY.
26	0653-00160-0000	STEERING CABLE
27	0017-00104-0023	STL. WASHER
28	0017-00103-0070	#10 - 32 WING NUT
29	0017-00102-0019	1/4 - 20 x 1-1/2 CARRIAGE BOLTS (4 REQD.)
30	0017-00104-0014	1/4 PERIPHERY WASHER (4 REQD.)
31	0017-00103-0018	1/4 - 20 HEX NUT (4 REQD.)
		PULLEY ASSEMBLY
32	A653-00050-0000	PULLEY BRKT. ASSY. (2 REQD.)
33	0653-00166-0000	CABLE GUIDE (2 REQD.)
34	0017-00101-0558	#6 - 32 x 5/16 S.T.M.S. (4 REQD.)
35	0017-00042-0206	PULLEY (2 REQD.)
36	0017-00100-0031	5/16 "E" RING (2 REQD.)
37	0017-00101-0027	#8 x 3/4 HEX HD. WD. SCREWS (4 REQD.)
38	0017-00104-0080	1-1/4 x 3/4 x 1/16 STL. WASHER
39	0017-00104-0005	1/4 SPLIT LOCKWASHER (4 REQD.)

NO. 653 — 18 WHEELER — BRAKE & ACCELERATOR PEDAL ASSY.

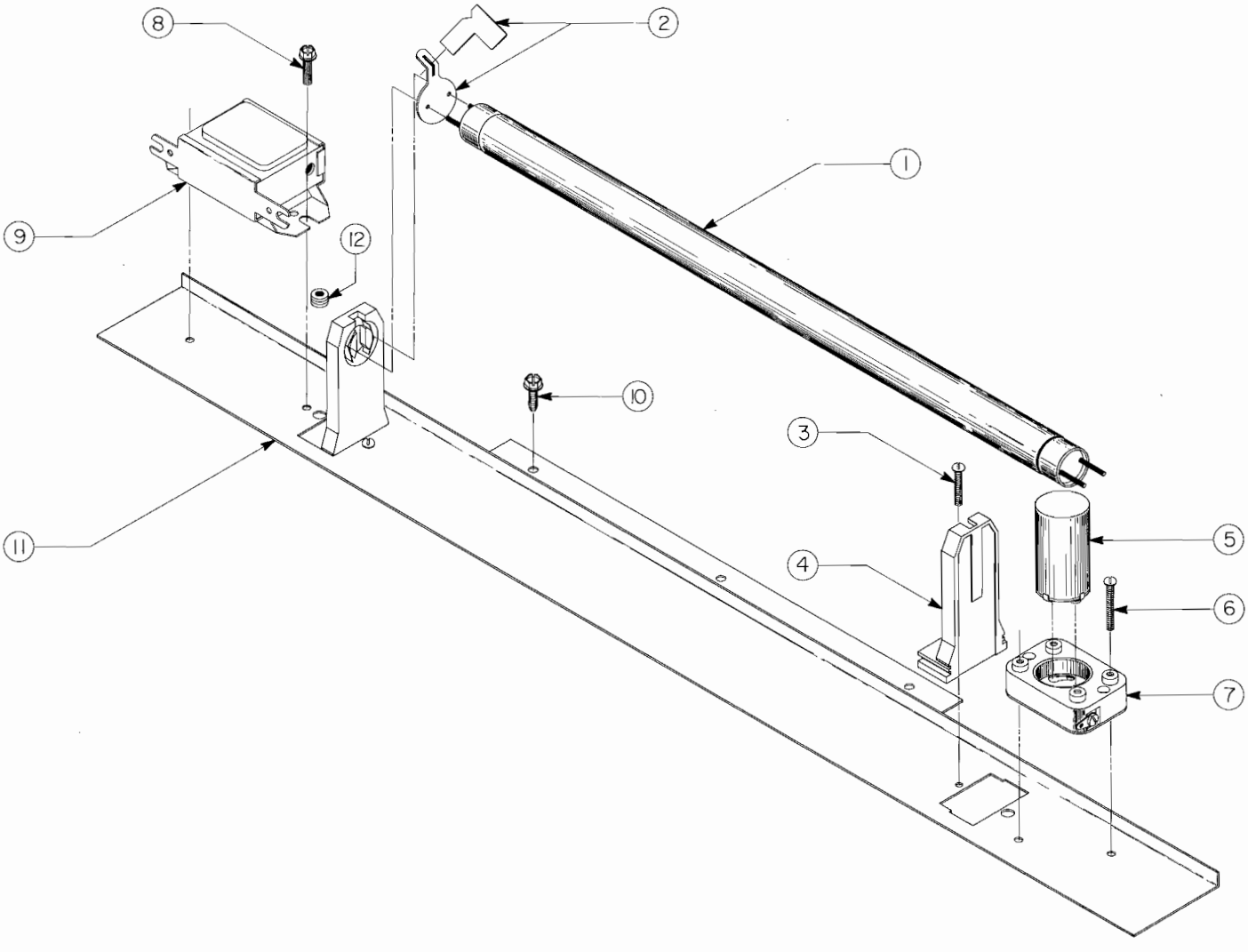


NO. 653 — 18 WHEELER — BRAKE & ACCELERATOR PEDAL ASSY.

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	0653-00105-0000	CONTROL MTG. BRKT.
2	0610-00002-0000	ACCELERATOR PEDAL & HINGE ASSY. (2 REQD.)
3	0653-00104-0000	ACCEL. PEDAL COVER PLATE
4	0017-00101-0597	#8 x 5/16 HEX HD. S.T. SCR. (17 REQD.)
5	0610-00004-0000	MTG. BRKT. ASSY. - ACCELERATOR
6	A653-00003-0000	MTG. BRKT. ASSY. - BRAKE
7	0011-00100-0600	PIVOT POST (2 REQD.)
8	0017-00103-0011	#10 - 32 LOCK NUT (2 REQD.)
9	A082-91101-B000	ANGLE ENCODER SWITCH (1 REQD.)
10	0583-00723-0000	GEAR (1 REQD.)
11	0017-00100-0050	1/2'' E - RING (2 REQD.)
12	0017-00101-0308	#8 - 32 x 3/16 SOCKET SET SCREW (2 REQD.)
13	A653-00067-0000	SWITCH CAM ASSY.
14	017-00041-0015	RUBBER BUMPER (2 REQD.)
15	A653-00053-0000	BRAKE SW. ASSY.
16	0020-00202-0000	SWITCH PLATE
17	0017-00101-0529	#5 - 40 x 7/8 R.H.M.S. (2 REQD.)
18	0610-00003-0000	GEAR & LEVER ASSY. (2 REQD.)
19	0017-00100-0031	5/16'' E - RING (2 REQD.)
20	0010-00228-0000	SPRING (2 REQD.)
21	0017-00100-0025	1/4'' E - RING (2 REQD.)
22	0017-00101-0785	1/4 - 20 x SLT. EXT. PAN HD. S.T.M.S.
23	0653-00734-0000	STOP -ENCODER LIMIT

NO. 653 — 18 WHEELER — FLUORESCENT FIXTURE ASSY.



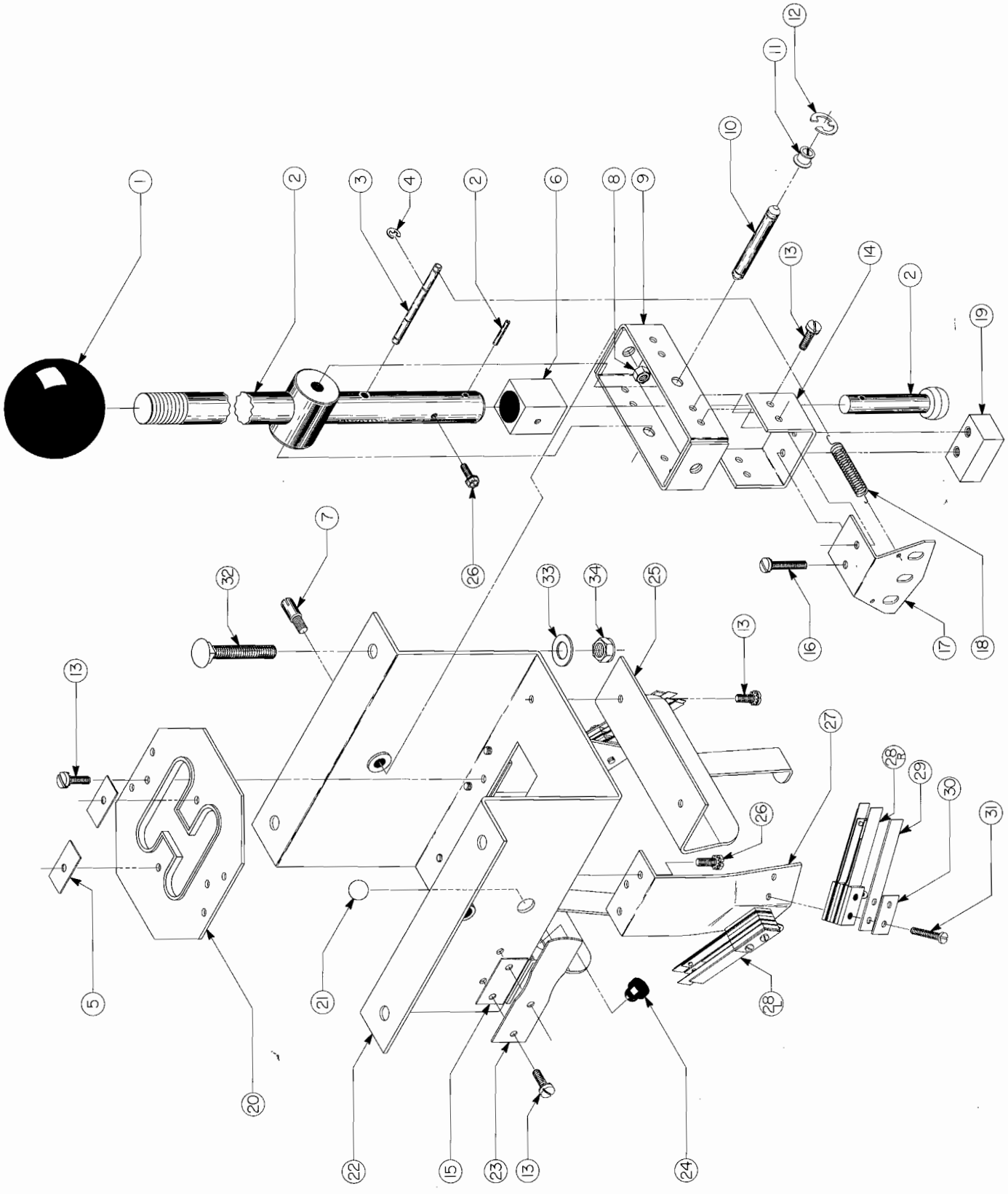
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NO. 653 — 18 WHEELER — FLUORESCENT FIXTURE ASSY.

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	0017-00003-0095	18'' FLUORESCENT BLACK LIGHT
2	0017-00021-0005	FLUORESCENT LOCKS (2 REQD.)
3	0017-00101-0573	#6 - 32 x 1/2 R.H.M.S. (2 REQD.)
4	0017-00031-0036	FLUORESCENT SOCKET (2 REQD.)
5	0017-00003-0019	STARTER
6	0017-00101-0528	#5 - 40 x 3/4 R.H.M.S. (2 REQD.)
7	0017-00021-0079	STARTER HOLDER
8	0017-00101-0555	#6 x 5/16 HEX HD. S.M.S. (2 REQD.)
9	0017-00003-0026	BALLAST
10	0017-00101-0017	#6 x 1/2 BLK. HEX HD. W/W S.M.S. (3 REQD.)
11	A653-00054-0000	FLUORESCENT BRACKET ASSY.
12	0017-00041-0013	GROMMET (2 REQD.)

NO. 653 — 18 WHEELER — GEAR SHIFT ASSEMBLY

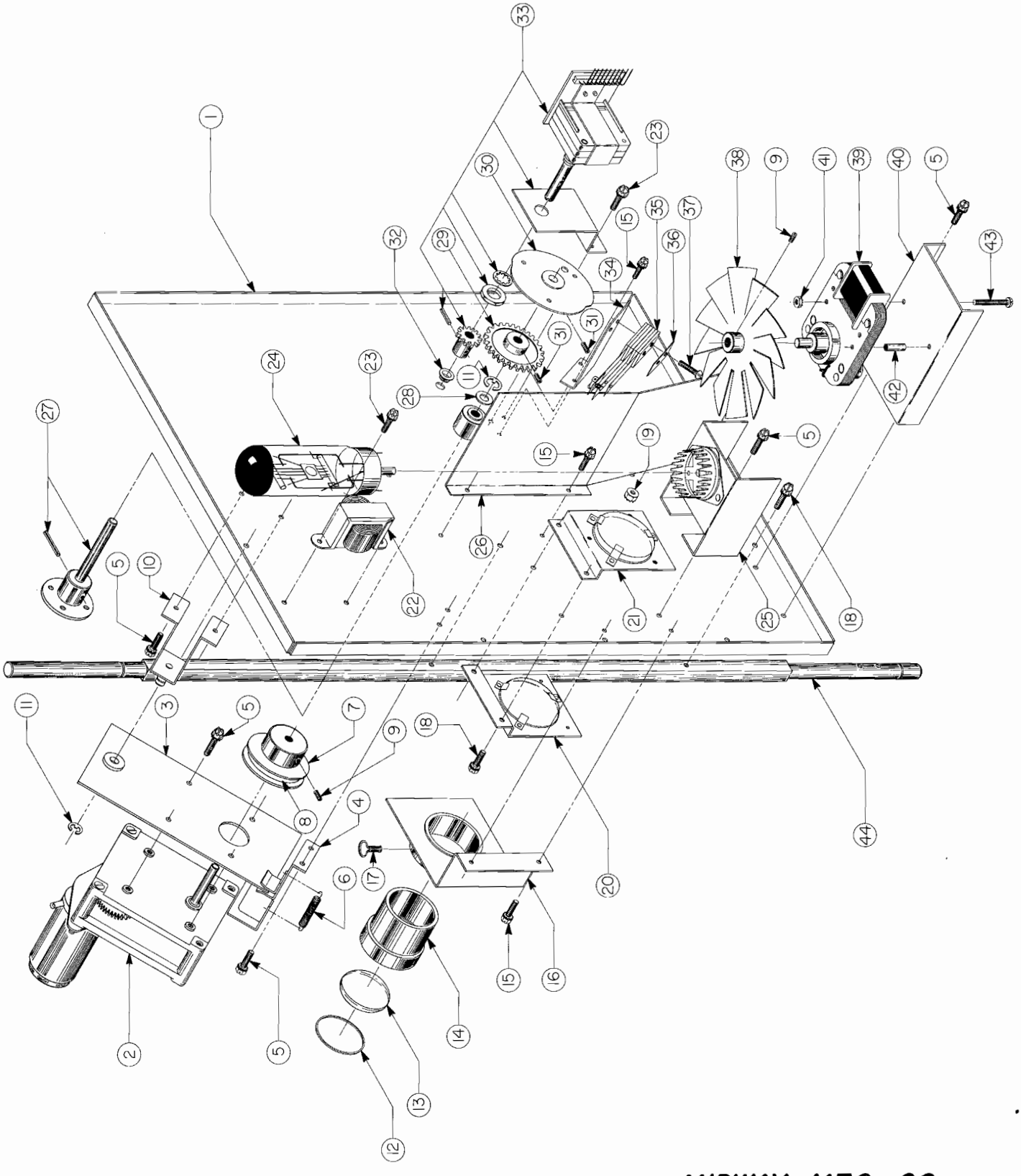


MIDWAY MFG. CO.
A BALLY COMPANY

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	0017-00009-0435	KNOB
2	A653-00041-0000	GEAR SHIFT LEVER & SW. ACTIVATOR ASSY.
3	0653-00726-0000	SPRING PIN
4	0017-00100-0021	7/32'' ''E'' RING (2 REQD.)
5	0653-00178-0000	WASHER PLATE (2 REQD.)
6	0653-00924-0000	SHAFT ADAPTOR
7	0653-00727-0000	GIMBEL PIN (2 REQD.)
8	0017-00103-0049	5/16 - 18 HEX NUT (2 REQD.)
9	A653-00007-0000	PIVOT ASSY.
10	0653-00705-0000	PIVOT PIN
11	0017-00042-0023	NYLINER (2 REQD.)
12	0017-00100-0037	3/8'' ''E'' RING (2 REQD.)
13	0017-00101-0652	#10 - 32 x 3/8'' SLOT. PAN HD. EXT. S.E.M.S. (16 REQD.)
14	0653-00156-0000	U-BRACKET
15	0653-00170-0000	SPRING PLATE
16	0017-00101-0796	#10 - 32 x 3/4'' SLOT. PAN HD. EXT. S.E.M.S. (2 REQD.)
17	0653-00110-0000	DETENT BRKT.
18	0010-00255-0000	SPRING (2 REQD.)
19	0653-00163-00XF	SUPPORT
20	0653-00916-0000	GEAR PLATE
21	0017-00006-0052	BALL BEARING
22	0653-00113-0000	HOUSING
23	0653-00109-0000	DETENT SPRING
24	0017-00041-0015	RUBBER BUMPER (4 REQD.)
25	A653-00042-0000	SWITCH MTG. BRKT. & LEG ASSY. (2 REQD.)
26	0017-00101-0599	#8 - 32 x 3/8 SLOT. HEX HD. S.E.M.S. (6 REQD.)
27	0653-00162-0000	SWITCH MTG. DEVICE (2 REQD.)
28R	A653-00005-0000	SWITCH ASSY. - RIGHT (2 REQD.)
28L	A653-00006-0000	SWITCH ASSY. - LEFT (2 REQD.)
29	0091-00119-0000	BACK UP STRIP
30	0020-00202-0000	SWITCH PLATE (4 REQD.)
31	0017-00101-0528	#5 - 40 x 3/4'' PAN HD. M.S. (8 REQD.)
32	0017-00102-0071	5/16 - 18 x 1-1/2'' CARRIAGE BOLTS (4 REQD.)
33	0017-00104-0046	FLAT WASHER (4 REQD.)
34	0017-00103-0027	5/16 - 18 ELASTIC STOP NUT (4 REQD.)
		NOT SHOWN LIST
	0653-00107-0000	SLIDE DISC
	0653-00176-0000	SWITCH MTG. BRACE
	0653-00175-0000	PROTECTION PLATE
	0017-00101-0598	#8 - 32 x 5/16'' S.T. SLT. HEX HD. M.S. (2 REQD. FOR ABOVE BRACE & 2 REQD. PLATE)

NO. 653 — 18 WHEELER — OPTICAL SYSTEM ASSEMBLY



MIDWAY MFG. CO.
A BALLY COMPANY

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	A653-00024-0000	PAN & HUB ASSY.
2	0040-00617-0000	D. C. MOTOR 12V, 16 R.P.M.
3	A653-00016-0000	MOTOR MOUNT ASSY.
4	A653-00012-0000	SUPPORT BRKT. ASSY.
5	0017-00101-0086	#8 x 5/16 SLT. HEX WASHER HD. S.M.S. (16 REQD.)
6	0010-00258-0000	3/4'' LG. SPRING
7	0653-00701-0000	PULLEY - DRIVE
8	0017-00041-0051	DRIVE TIRE - 2'' O.D. x 1-1/2'' I.D. x 1/4''
9	0017-00101-0305	#6 - 32 x 3/8 SET SCREEN (4 REQD.)
10	A653-00017-0000	MOTOR PIVOT BRKT. & STUD ASSY.
11	0017-00100-0031	5/16 E - RING (2 REQD.)
12	0010-00254-0000	SPRING LENS RETAINER
13	0653-00900-0000	OBJECTIVE LENS
14	0653-00718-0000	LENS HOLDER
15	0017-00101-0085	#6 x 5/16 SLT. HEX WASHER HD. S.M.S. (12 REQD.)
16	A653-00013-0000	OBJECTIVE LENS MTG. ASSY.
17	0017-00101-0605	#8 - 32 x 3/8 THUMB SCREW M.S. (2 REQD.)
18	0017-00101-0596	#8 - 32 x 1/2 SLT. HEX HD. WASHER M.S. (5 REQD.)
19	0017-00103-0061	#8 - 32 HEX LOCK NUT (2 REQD.)
20	A653-00011-0000	CONDENSOR LENS ASSY.
21	A653-00023-0000	HEAT SHIELD & CONDENSOR LENS ASSY.
22	0067-011XX-XXFX	INDUCTOR - 125mh, .55A., 60HM
23	0017-00101-0599	#8 - 32 x 3/8 SLT. EXT. HEX M.S. S.E.M.S. (4 REQD.)
24	0017-00003-0237	PROJECTOR LAMP - 120V, 300W — OF CRT — CZA-CZB
25	A653-00070-0000	SOCKET & BRACKET ASSY.
26	0653-00188-0000	AIR DEFLECTOR
27	A653-00018-0000	HUB & SHAFT ASSY. - SCENERY DISC
28	0017-00104-0094	NYLON WASHER
29	0653-00921-0000	GEAR REWORK
30	A653-00055-0000	HUB & CAM ASSY. - 180°
31	0017-00101-0308	#8 - 32 x 3/16 SET SCREW (4 REQD.)
32	0017-00042-0093	NYLINER
33	A653-00064-0000	ENCODER & PINION ASSY.
34	0653-00172-0000	SWITCH BRACKET
35	A760-00044-0000	SWITCH ASSY.
36	0020-00202-0000	SWITCH PLATE
37	0017-00101-0527	#5 - 40 x 5/8 SLT. RD. HD. M.S. (2 REQD.)

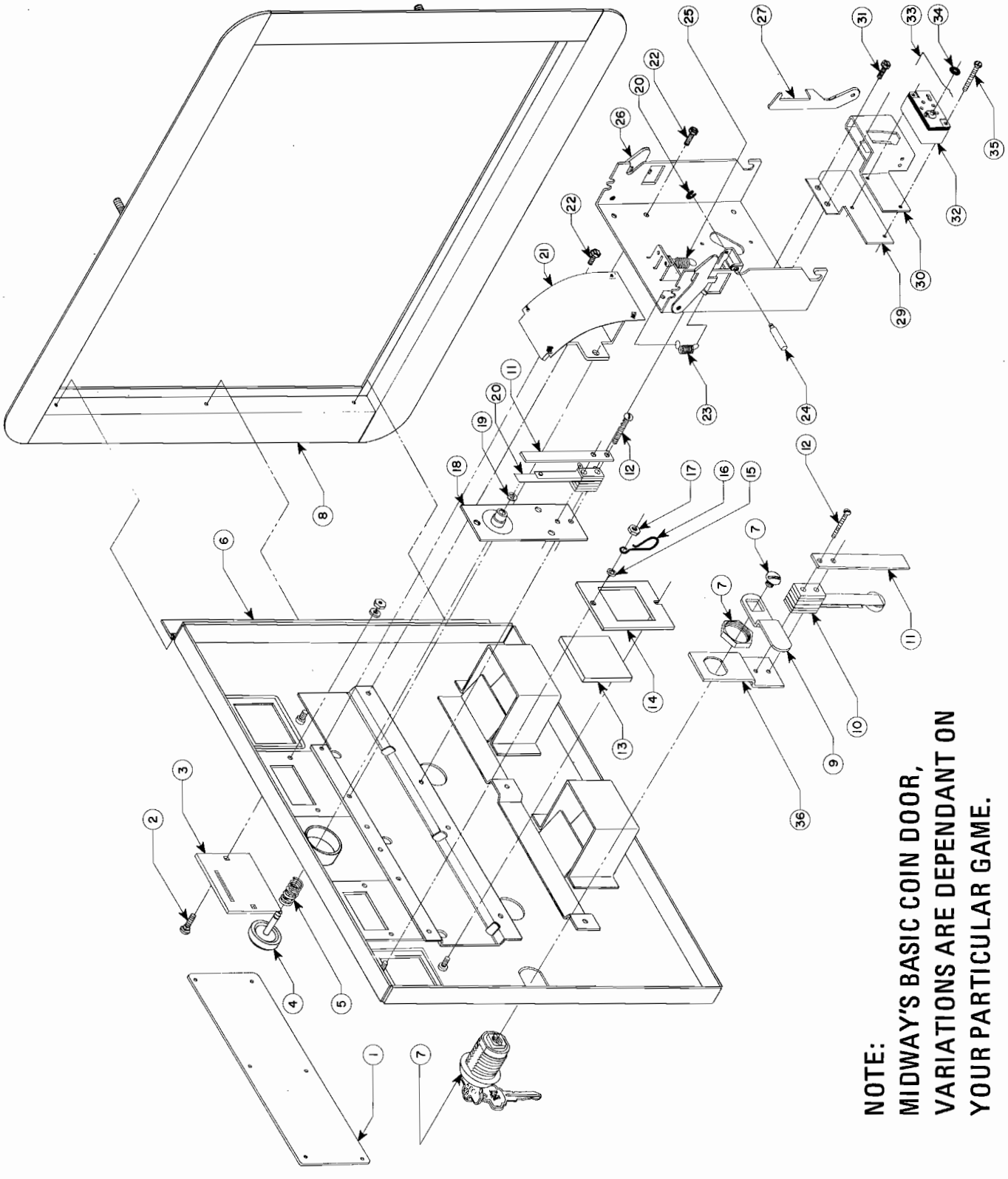
ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
38	0017-00009-0454	FAN - 10 BLADE - 4'' DIA.
39	0017-00003-0236	A. C. MOTOR 110V.
40	0653-00129-0000	FAN MOTOR PLATFORM
41	0017-00103-0005	#6 - 32 HEX NUT (2 REQD.)
42	0017-00042-0204	PLASTIC SPACER (2 REQD.)
43	0017-00101-0583	#6 - 32 x 1-1/4 SLT. RD. HD. M.S. (2 REQD.)
44	0653-00717-0000	PIVOT ROD
		NOT SHOWN LIST
	0010-00257-0000	EXTENSION SPRING - BASE - 6-1/4'' LG.
	A653-00020-0000	BEARING ASSY. - BASE
	A653-00021-0000	UPPER BEARING SUPPORT ASSY.
	0653-00901-00SC	SCENERY DISC
	0653-00142-0000	PROJECTOR LIGHT SHROUD
	0653-00138-0000	PROJECTOR SHROUD CAP

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
	A097-00001-0000	LOCK ASSY. (1 UPPER, 1 LOWER)
	0618-00117-00ZN	VENT SCREEN (1 UPPER, 1 LOWER)
		NEXT FOUR ITEMS FOR 1ST 250 GAMES
	0653-00139-0000	COIN BOX
	A653-00026-0000	COIN BOX COVER ASSY.
	A653-00025-0000	COIN BOX GUIDE BRACKET ASSY.
	0653-00117-0000	COIN BOX GUIDE BRACKET
		NEXT FOUR ITEMS AFTER THE 250TH GAME
	A653-00068-0000	COIN BOX ASSY.
	A653-00069-0000	COIN BOX COVER ASSY.
	0653-00182-0000	COIN BOX SIDE CHANNEL
	0653-00183-0000	COIN BOX COVER
	0017-00101-0642	#8 - 32 x 1-1/2'' CARRIAGE BOLTS (4 REQD.)
	0017-00003-0225	SAFETY INTERLOCK SWITCH
	0625-00133-0000	SWITCH BRACKET
	0017-00101-0025	#8 x 1/2'' HEX HD. W/W S.M.S. (2 REQD.)
	A653-00022-0000	COIN DROP CHUTE ASSY.
	A084-90700-A653	GAME LOGIC BOARD ASSY.
	A084-90004-B653	MOTHER BOARD ASSY. - Z80 COMPACT
	A653-00065-0000	TRANSFORMER BOARD ASSY.
	A084-90406-C760	POWER SUPPLY ASSY.
	A084-91334-A653	SENSOR P.C. BOARD ASSY. (TRUCK)
	0653-00141-0000	SENSOR P.C. ADJ. & SUPPORT BRKT.
	0624-00902-0100	P.C. SUPPORT BRACKET - 12'' (3 REQD.)
	0624-00902-0300	P.C. SUPPORT BRACKET - 2-1/2'' (4 REQD.)
	0653-00920-0000	BLACK SHIELD 16 x 28-7/8 - UNDER CONTROL SHELF
	0653-00922-0000	INSULATOR 9 x 5-1/2'' - TRANSFORMER
	0653-00923-0000	INSULATOR 3 x 3-3/4'' - SENSOR P.C.
		TRANSFORMER ASSY.
	MT00-00075-0000	TRANSFORMER 120V, 60 CYCLE
	0720-00001-0300	FUSE BLOCK
	0017-00003-0006	FUSE - 3A
	0017-00003-0169	FUSE - 5A
	0017-00003-0064	LINE CORD

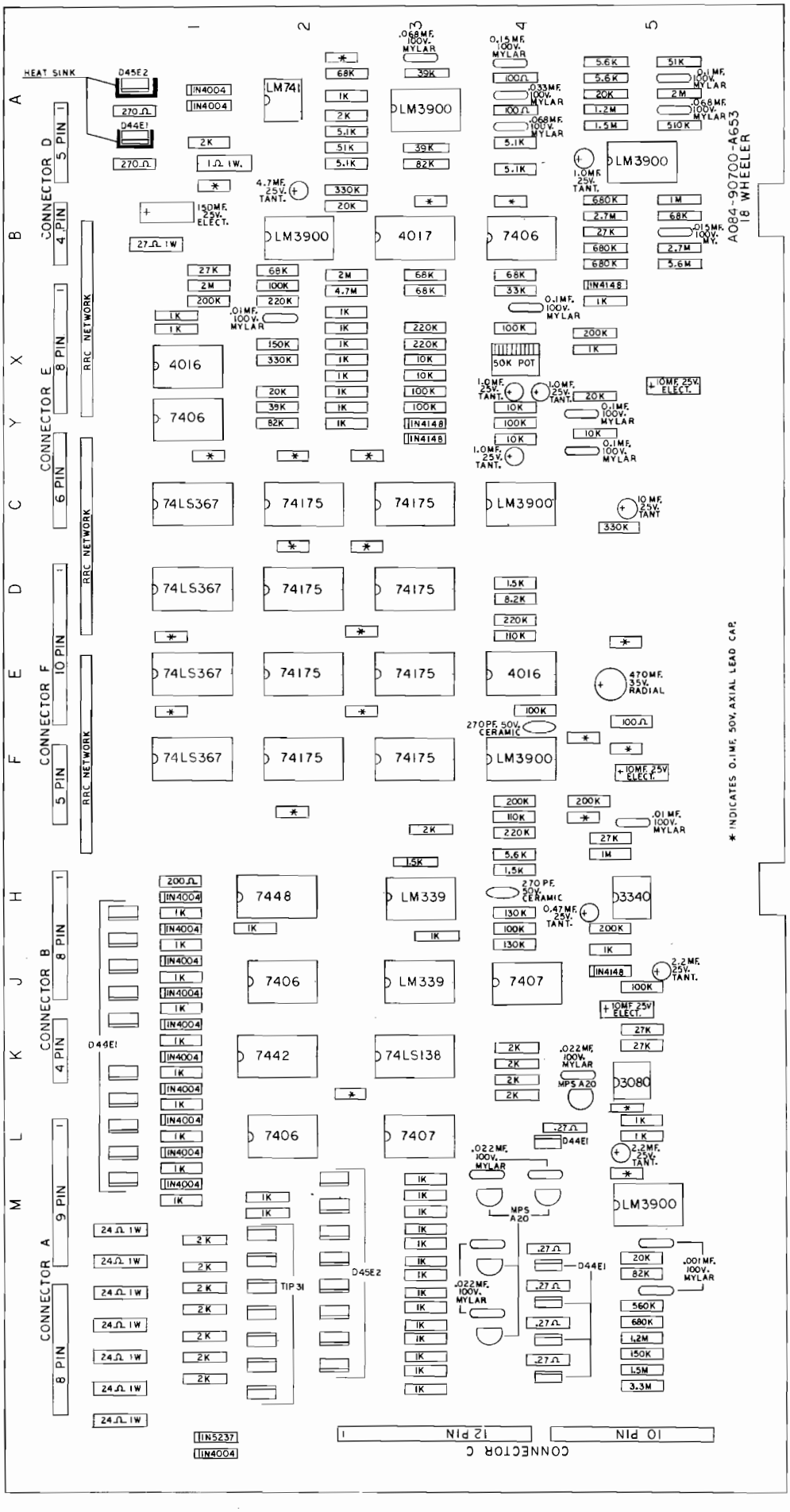
NO. 653 — 18 WHEELER — FRONT DOOR ASSY.

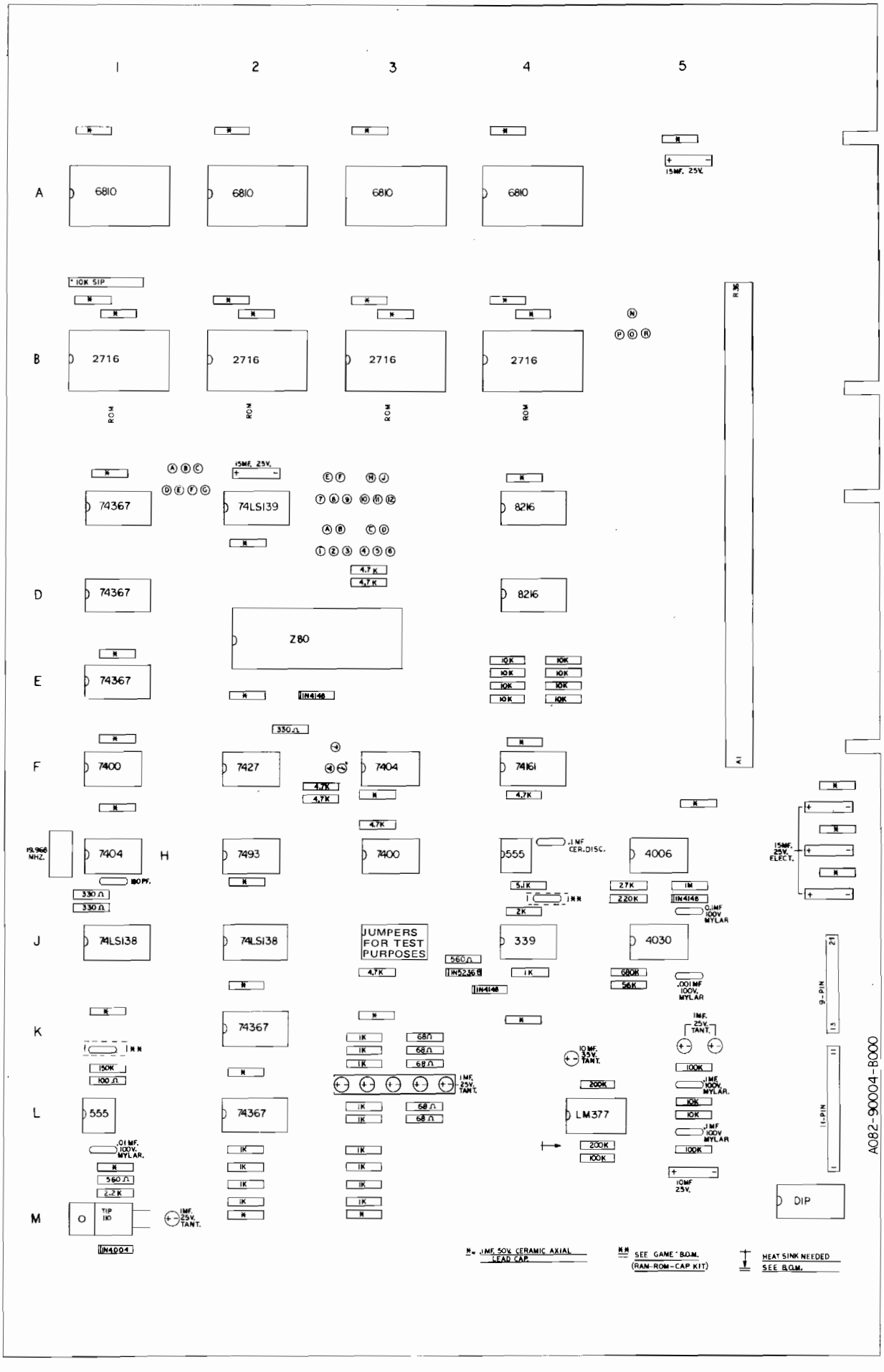


NOTE:
MIDWAY'S BASIC COIN DOOR,
VARIATIONS ARE DEPENDANT ON
YOUR PARTICULAR GAME.

ORDER BY PART NUMBER ONLY

ITEM	PART NO.	DESCRIPTION
1	0090-00902-0000	DRESS PLATE
	0090-00902-0100	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

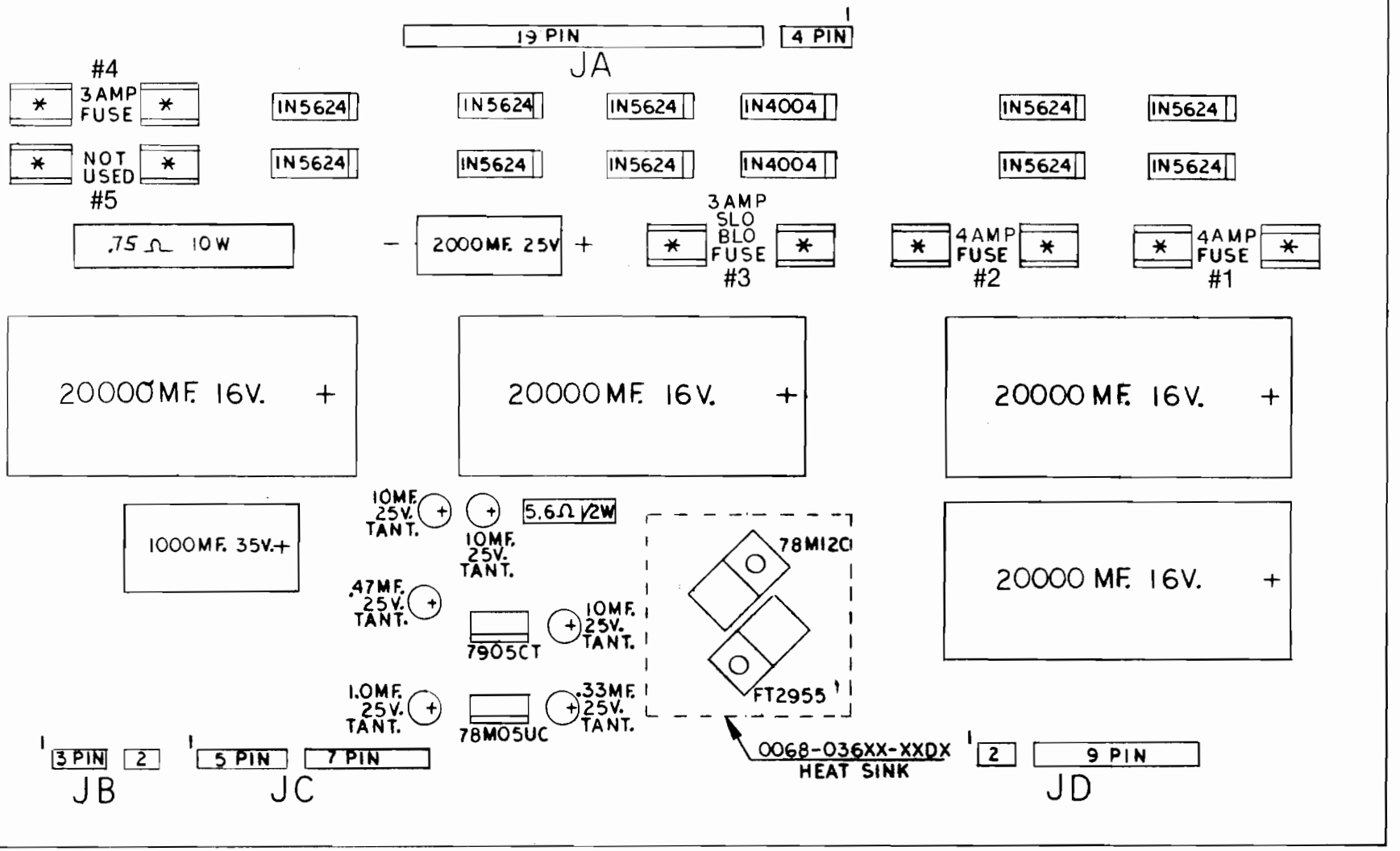

A084-90700-A653
18 WHEELER
GAME LOGIC COMPONENT LAYOUT PART NO. M051-00653-A003
* INDICATES 0.1MF. 50V. AXIAL LEAD CAP.
CONNECTOR C
12 PIN
10 PIN
CONNECTOR A
9 PIN
8 PIN
CONNECTOR B
8 PIN
4 PIN
CONNECTOR D
5 PIN
4 PIN
CONNECTOR E
8 PIN
6 PIN
CONNECTOR F
10 PIN
5 PIN
RRC NETWORK
HEAT SINK
D45E2
D44E1
LM741
LM3900
4017
7406
4016
74LS367
74175
7448
LM339
7407
74LS138
3340
3080
MPS A20
TIP31
IN4004
IN4148
IN5237


1
2
3
4
5
A
6810
6810
6810
6810
15MF. 25V.
10K SIP
B
2716
2716
2716
2716
ROM
ROM
ROM
ROM
R-36
A1
74367
74LS139
8216
D
74367
8216
Z80
E
74367
1N4148
10K
F
7400
7427
7404
74161
330Ω
4.7K
19.968 MHZ.
H
7404
7493
7400
555
4006
.1MF CER.DISC.
180PF.
330Ω
5.1K
2K
27K
220K
1M
1N4148
.01MF 100V MYLAR
J
74LS138
74LS138
JUMPERS FOR TEST PURPOSES
339
4030
560Ω
1N5236B
1N4148
680K
56K
.001MF 100V MYLAR
K
74367
150K
100Ω
68Ω
1K
1MF. 25V. TANT.
10MF. 35V. TANT.
200K
100K
.1MF 100V MYLAR
L
555
74367
LM377
.01MF. 100V. MYLAR.
560Ω
2.2K
M
TIP 110
1N4004
1MF. 25V. TANT.
10MF 25V.
15MF. 25V. ELECT.
9-PIN
15
21
14-PIN
1
11
DIP
A082-90004-B000
Z80 COMPACT COMPONENT LAYOUT PART NO. M051-00078-A001
N = .1MF. 50V. CERAMIC AXIAL LEAD CAP.
NN = SEE GAME B.O.M. (RAM-ROM-CAP KIT)
= HEAT SINK NEEDED SEE B.O.M.

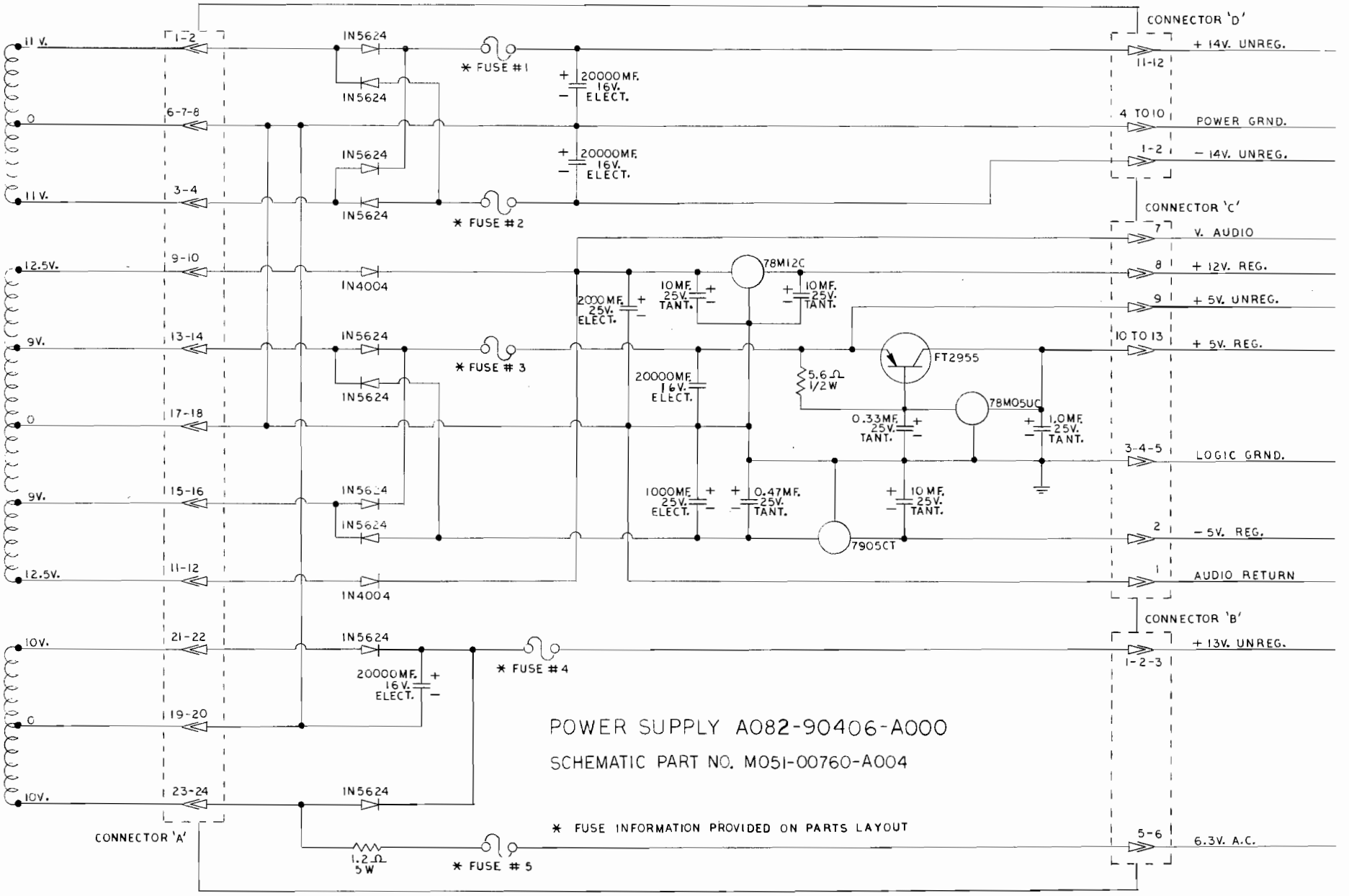
POWER SUPPLY A082-90406-A000

COMPONENT LAYOUT PART NO. M051-00653-A021

18 WHEELER

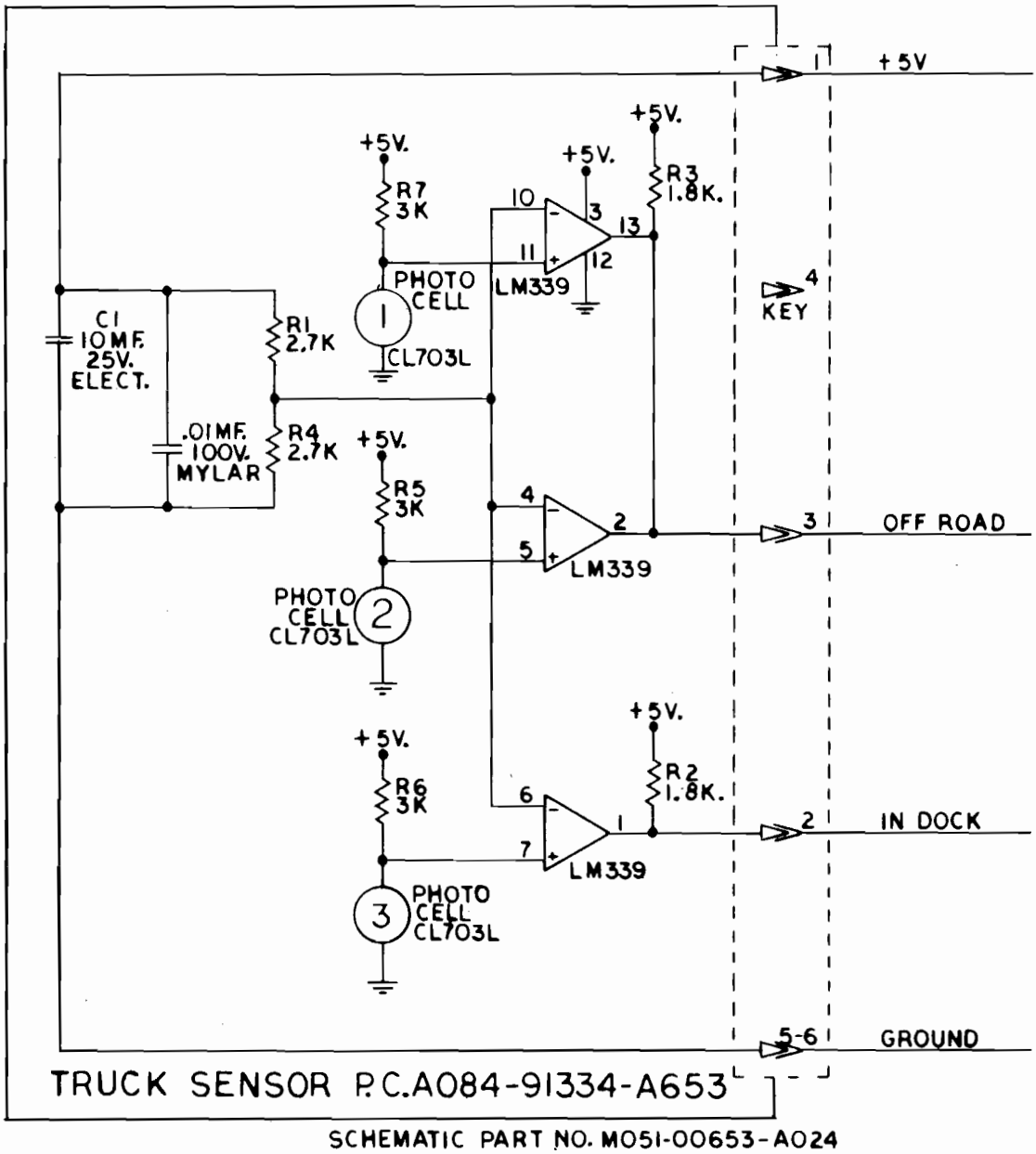


* DENOTES FUSE CLIP

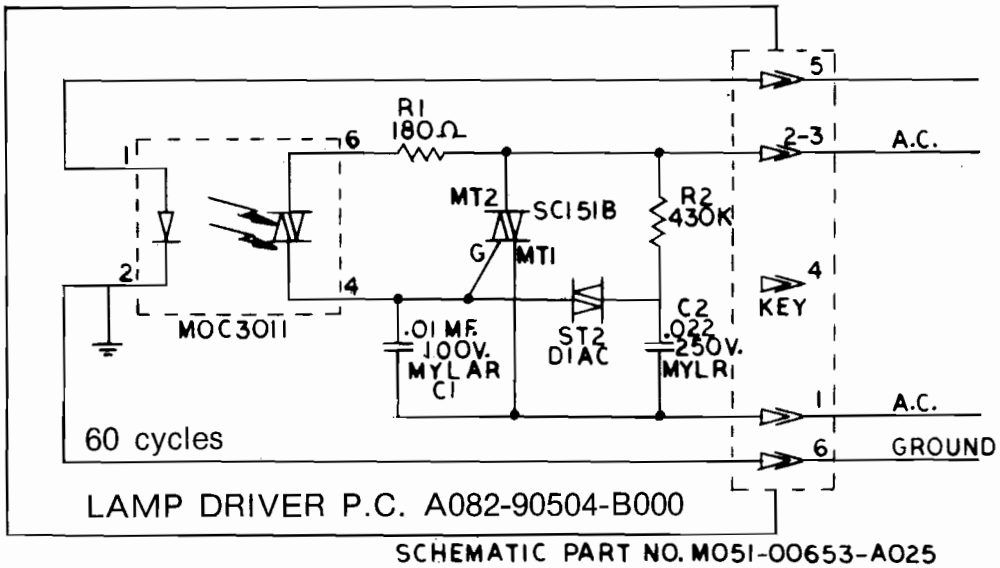


POWER SUPPLY A082-90406-A000

SCHEMATIC PART NO. M051-00760-A004



SCHEMATIC PART NO. M051-00653-A024



SCHEMATIC PART NO. M051-00653-A025

"18 WHEELER"
MIDWAY MFG. CO.
10750 W. GRAND AVE.
FRANKLIN PARK, IL. 60131

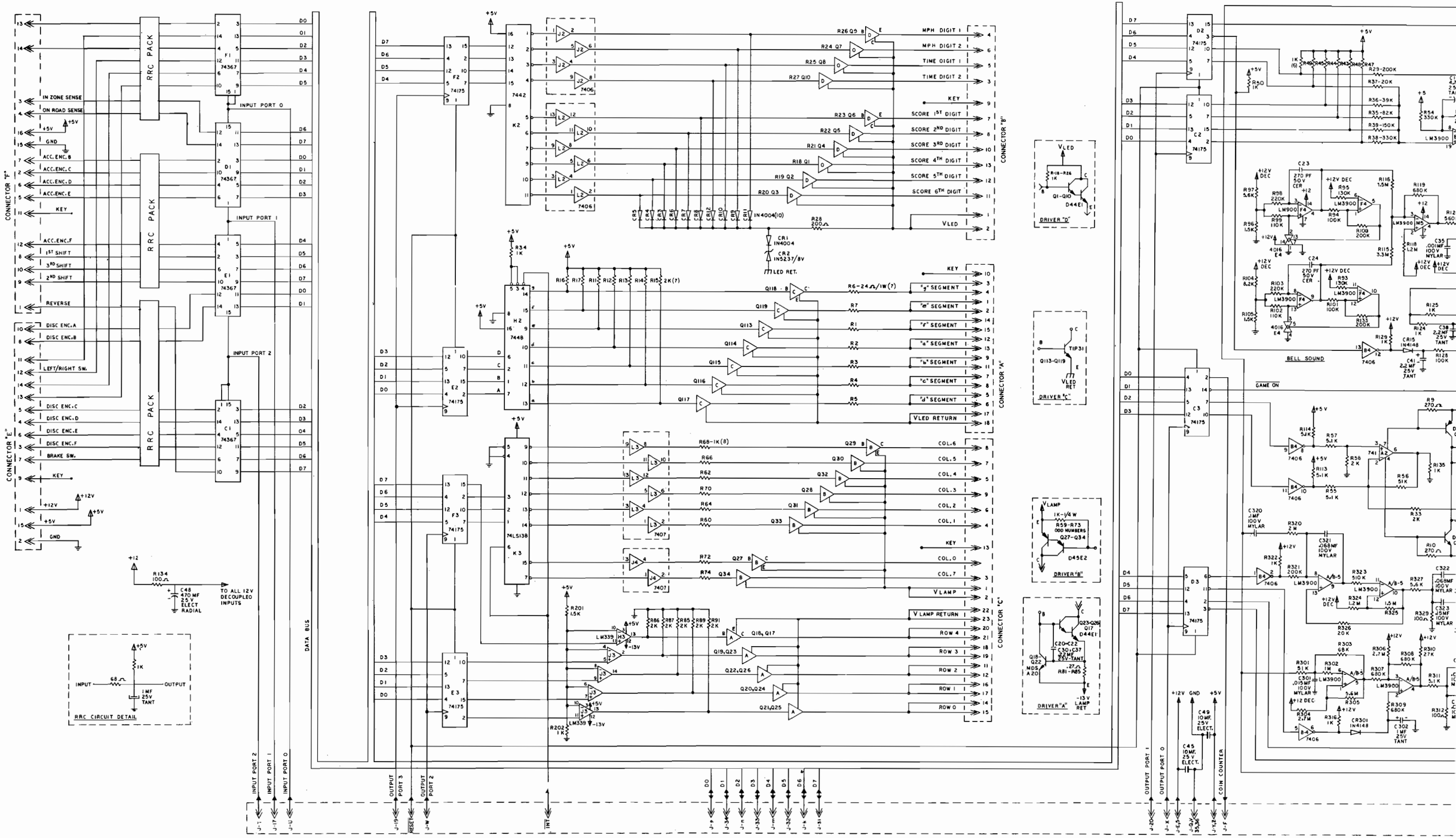
MOTHER BOARD
P.C. A082-90400-B000

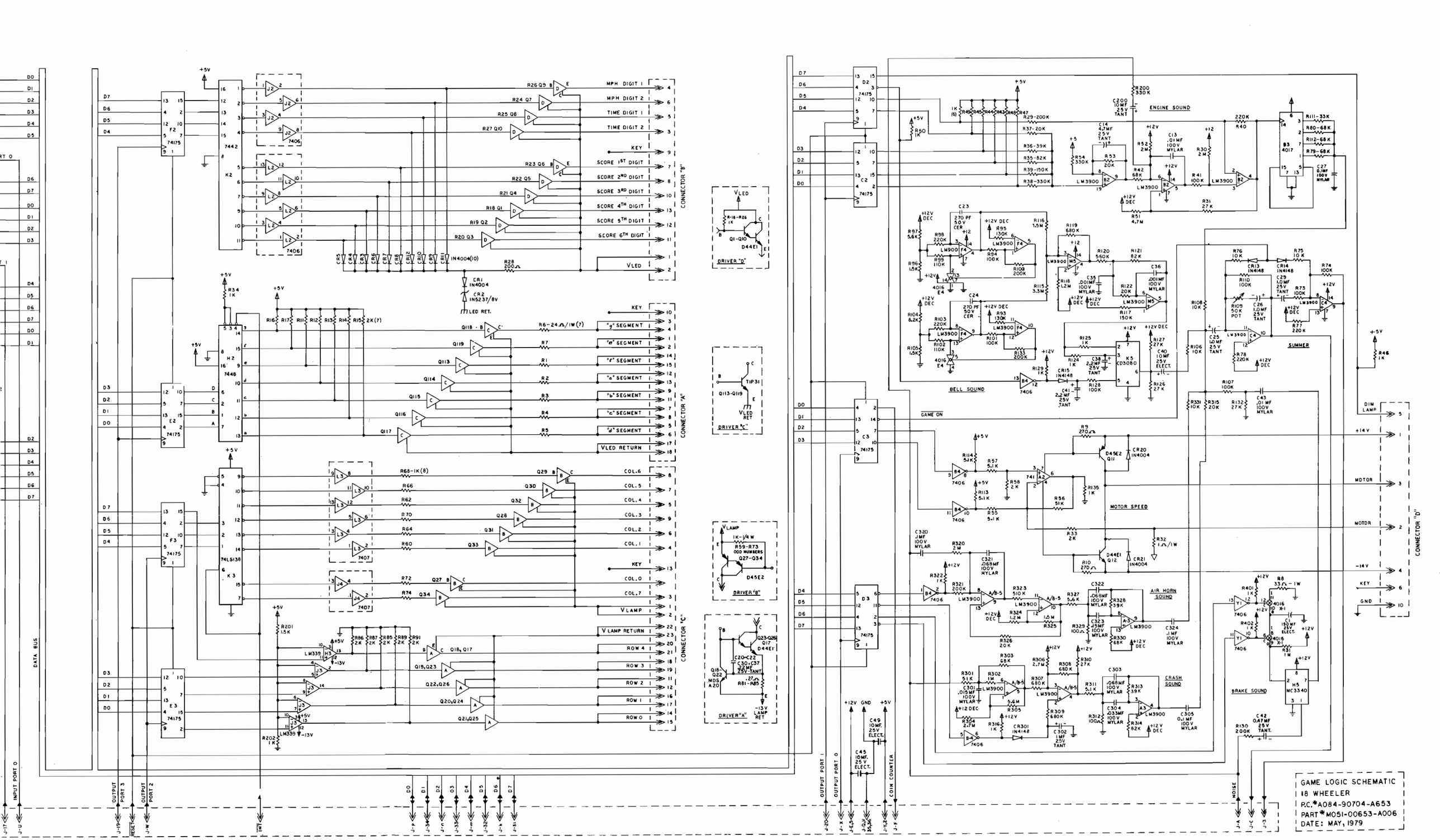
WIRING SCHEMATIC PART NO. M051-00653-A005

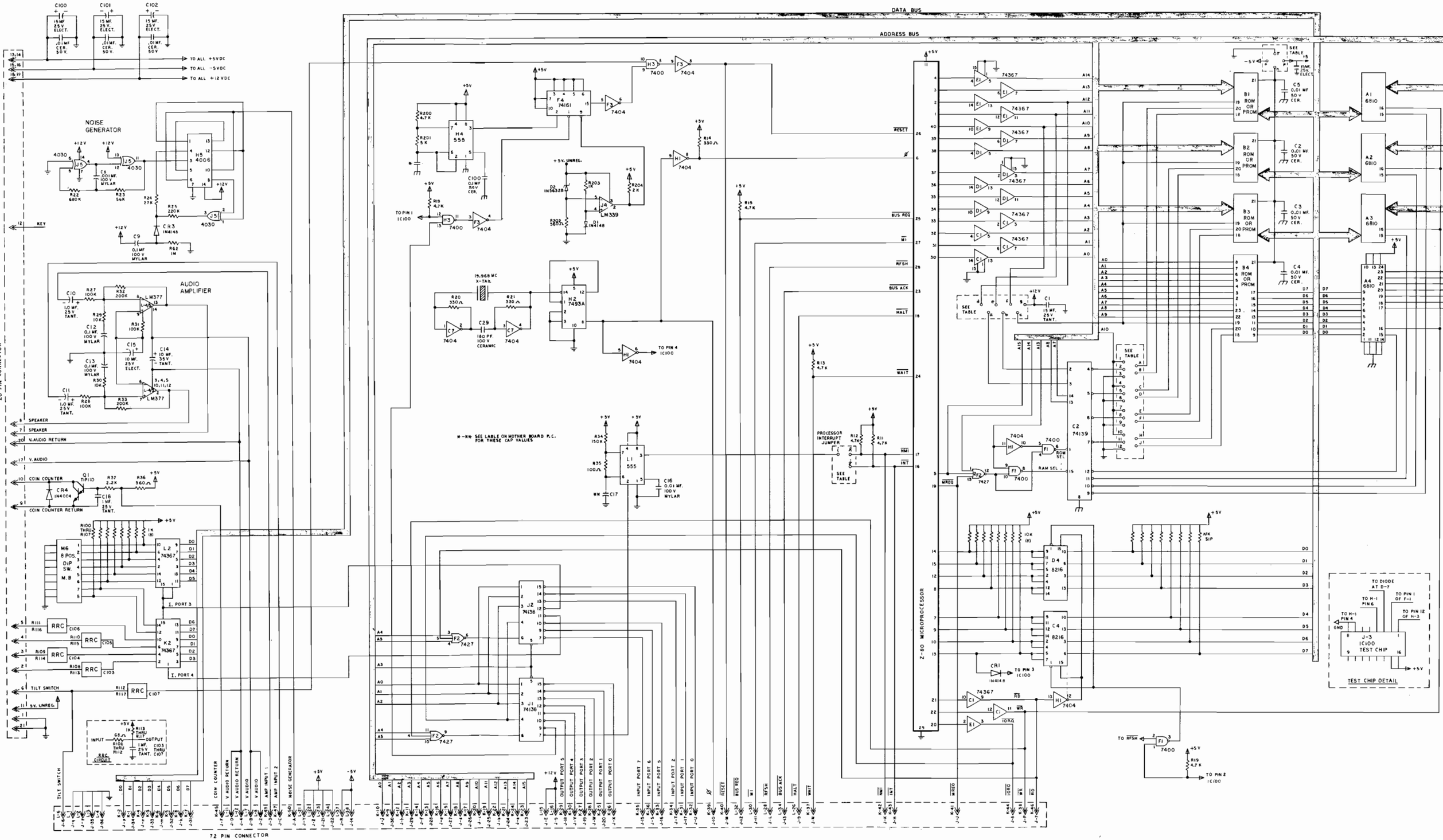
115V. 60 CYCLE ONLY

GAME LOGIC
P.C. A084-90700-A653

LITE NO.	LITE DESCRIPTION
1	1 CARGO
2	2 CARGO
3	3 CARGO
4	4 CARGO
5	5 CARGO
6	6 CARGO
7	7 CARGO
8	8 CARGO
9	RIGHT CRASH
10	HI SCORE
11	LOST CARGO
12	LOWER RIGHT LOAD ZONE
13	UPPER RIGHT LOAD ZONE
14	6 POS. LOAD LOST SEQUENCE
15	5 POS. LOAD LOST SEQUENCE
16	4 POS. LOAD LOST SEQUENCE
17	3 POS. LOAD LOST SEQUENCE
18	2 POS. LOAD LOST SEQUENCE
19	GO
20	1 POS. LOAD LOST SEQUENCE
21	AHEAD
22	PICK UP CARGO
23	DOWN SHIFT
24	NOT USED
25	NOT USED
26	RIGHT MAN ARM UP
27	RIGHT MAN ARM DOWN
28	RIGHT MAN BODY
29	NOT USED
30	LEFT CRASH
31	LEFT MAN ARM DOWN
32	LEFT MAN BODY
33	LEFT MAN ARM UP
34	GAME OVER
35	CREDIT
36	EXTENDED PLAY
37	LOWER LEFT LOAD ZONE
38	UPPER LEFT LOAD ZONE


CONNECTOR "F"
CONNECTOR "E"
RRC PACK
IN ZONE SENSE
ON ROAD SENSE
+5V
GND
ACC.ENC.B
ACC.ENC.C
ACC.ENC.D
ACC.ENC.E
KEY
ACC.ENC.F
1ST SHIFT
3RD SHIFT
2ND SHIFT
REVERSE
DISC ENC.A
DISC ENC.B
LEFT/RIGHT SW.
DISC ENC.C
DISC ENC.D
DISC ENC.E
DISC ENC.F
BRAKE SW.
+12V
INPUT PORT 0
INPUT PORT 1
INPUT PORT 2
F1
F2
D1
E1
C1
E2
E3
F3
74367
74175
74LS138
7442
7406
7407
7448
LM339
LM3900
4016
TIP31
D44E1
R134 100Ω
C48 470 MF 25 V ELECT RADIAL
TO ALL 12V DECOUPLED INPUTS
RRC CIRCUIT DETAIL
1K
68Ω
1 MF 25V TANT
INPUT
OUTPUT
DATA BUS
CONNECTOR "B"
CONNECTOR "A"
CONNECTOR "C"
MPH DIGIT 1
MPH DIGIT 2
TIME DIGIT 1
TIME DIGIT 2
SCORE 1ST DIGIT
SCORE 2ND DIGIT
SCORE 3RD DIGIT
SCORE 4TH DIGIT
SCORE 5TH DIGIT
SCORE 6TH DIGIT
VLED
CR1 IN4004
CR2 IN5237/8V
LED RET.
"g" SEGMENT
"e" SEGMENT
"f" SEGMENT
"a" SEGMENT
"b" SEGMENT
"c" SEGMENT
"d" SEGMENT
VLED RETURN
COL.6
COL.5
COL.4
COL.3
COL.2
COL.1
COL.0
COL.7
V LAMP
V LAMP RETURN
ROW 4
ROW 3
ROW 2
ROW 1
ROW 0
DRIVER "D"
DRIVER "C"
DRIVER "B"
DRIVER "A"
BELL SOUND
GAME ON
OUTPUT PORT 1
OUTPUT PORT 0
COIN COUNTER
INPUT PORT 2
INPUT PORT 1
INPUT PORT 0
OUTPUT PORT 3
OUTPUT PORT 2
RESET
INT


DATA BUS
INPUT PORT 0
OUTPUT PORT 3
OUTPUT PORT 2
INT
OUTPUT PORT 1
OUTPUT PORT 0
COIN COUNTER
NOISE
CONNECTOR "C"
CONNECTOR "B"
CONNECTOR "A"
CONNECTOR "D"
MPH DIGIT 1
MPH DIGIT 2
TIME DIGIT 1
TIME DIGIT 2
KEY
SCORE 1ST DIGIT
SCORE 2ND DIGIT
SCORE 3RD DIGIT
SCORE 4TH DIGIT
SCORE 5TH DIGIT
SCORE 6TH DIGIT
VLED
"g" SEGMENT
"e" SEGMENT
"f" SEGMENT
"a" SEGMENT
"b" SEGMENT
"c" SEGMENT
"d" SEGMENT
VLED RETURN
COL.6
COL.5
COL.4
COL.3
COL.2
COL.1
COL.0
COL.7
VLAMP
VLAMP RETURN
ROW 4
ROW 3
ROW 2
ROW 1
ROW 0
DRIVER "D"
DRIVER "C"
DRIVER "B"
DRIVER "A"
ENGINE SOUND
BELL SOUND
GAME ON
MOTOR SPEED
AIR HORN SOUND
CRASH SOUND
BRAKE SOUND
SUMMER
DIM LAMP
MOTOR
KEY
GND
GAME LOGIC SCHEMATIC
18 WHEELER
P.C.*A084-90704-A653
PART*M051-00653-A006
DATE: MAY, 1979


DATA BUS
ADDRESS BUS
20 PIN COINNECTOR
72 PIN CONNECTOR
NOISE GENERATOR
AUDIO AMPLIFIER
TO ALL +5VDC
TO ALL -5VDC
TO ALL +12VDC
KEY
SPEAKER
SPEAKER
V.AUDIO RETURN
V. AUDIO
COIN COUNTER
COIN COUNTER RETURN
TILT SWITCH
5V. UNREG.
I. PORT 3
I. PORT 4
M-KK SEE LABLE ON MOTHER BOARD P.C. FOR THESE CAP VALUES
PROCESSOR INTERRUPT JUMPER
Z-80 MICROPROCESSOR
TEST CHIP DETAIL
TO PIN 1 IC100
TO PIN 2 IC100
TO PIN 3 IC100
TO PIN 4 IC100
TO RFSH
TO DIODE AT D-7
TO H-1 PIN 6
TO PIN 1 OF F-1
TO H-1 PIN 4
TO PIN 12 OF H-3
GND
J-3 IC100 TEST CHIP
RRC CIRCUIT
RESET
BUS REQ
M1
RFSH
BUS ACK
HALT
WAIT
NMI
INT
WREQ
IOREQ
RD
WR

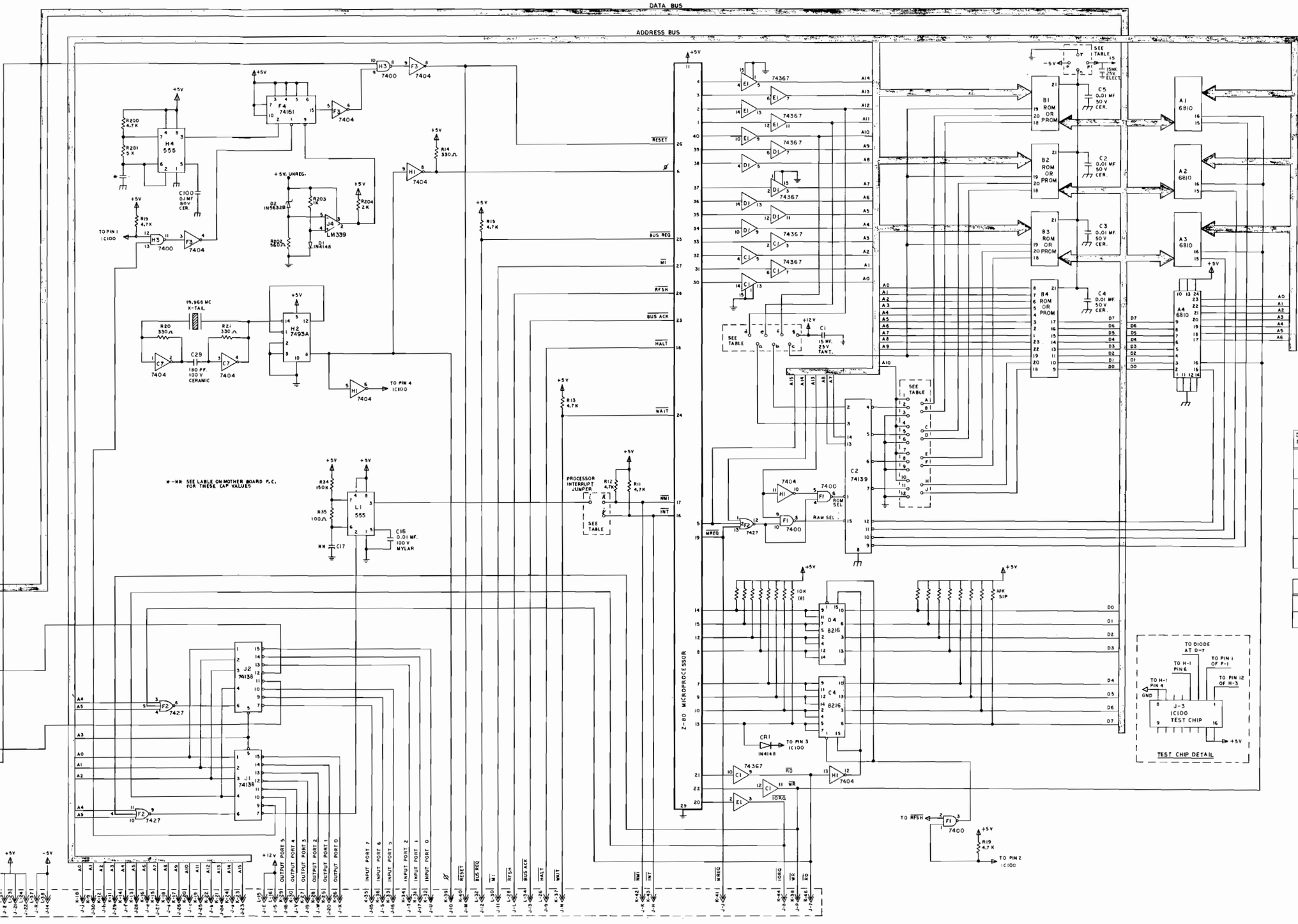
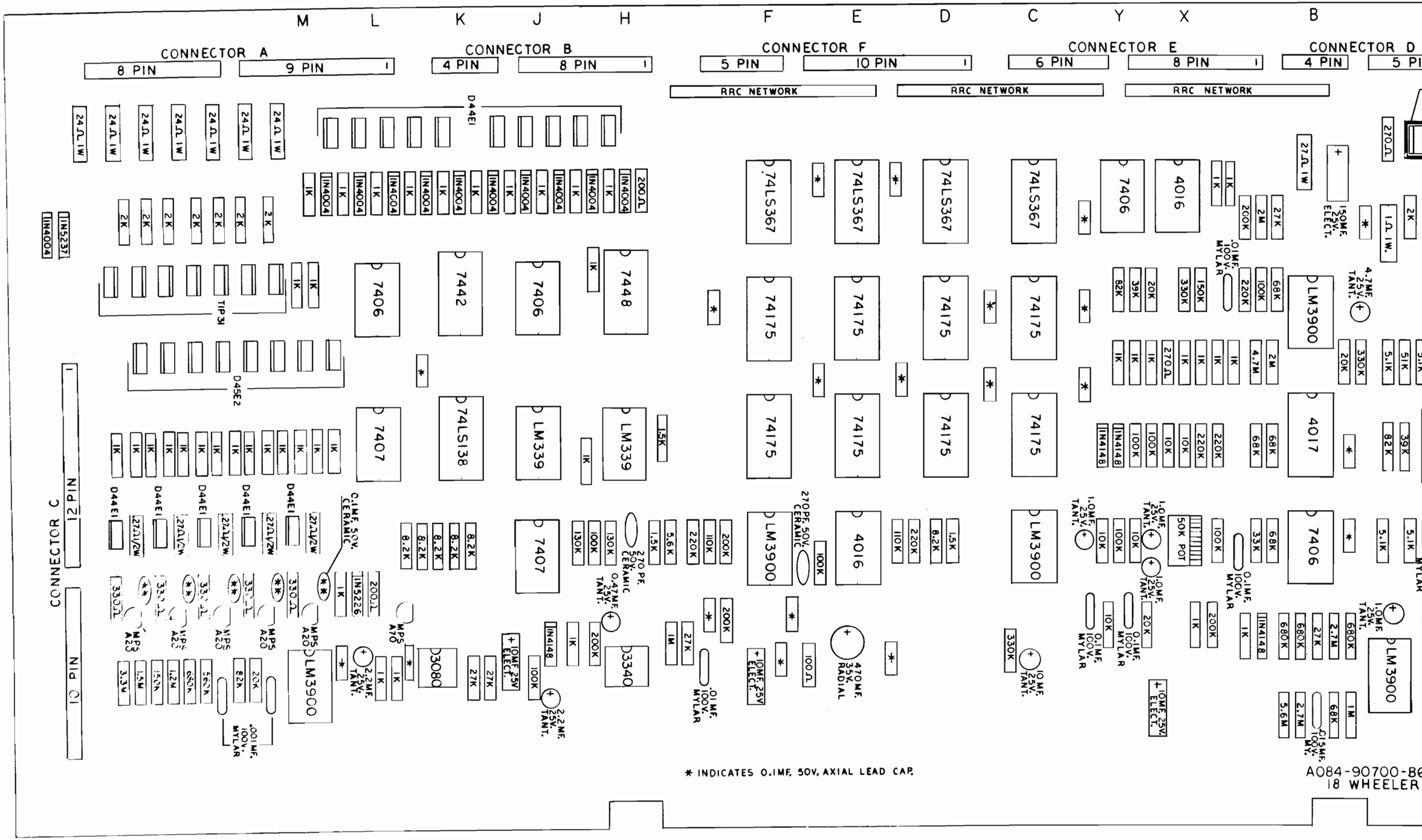


TABLE OF JUMPER OPTIONS

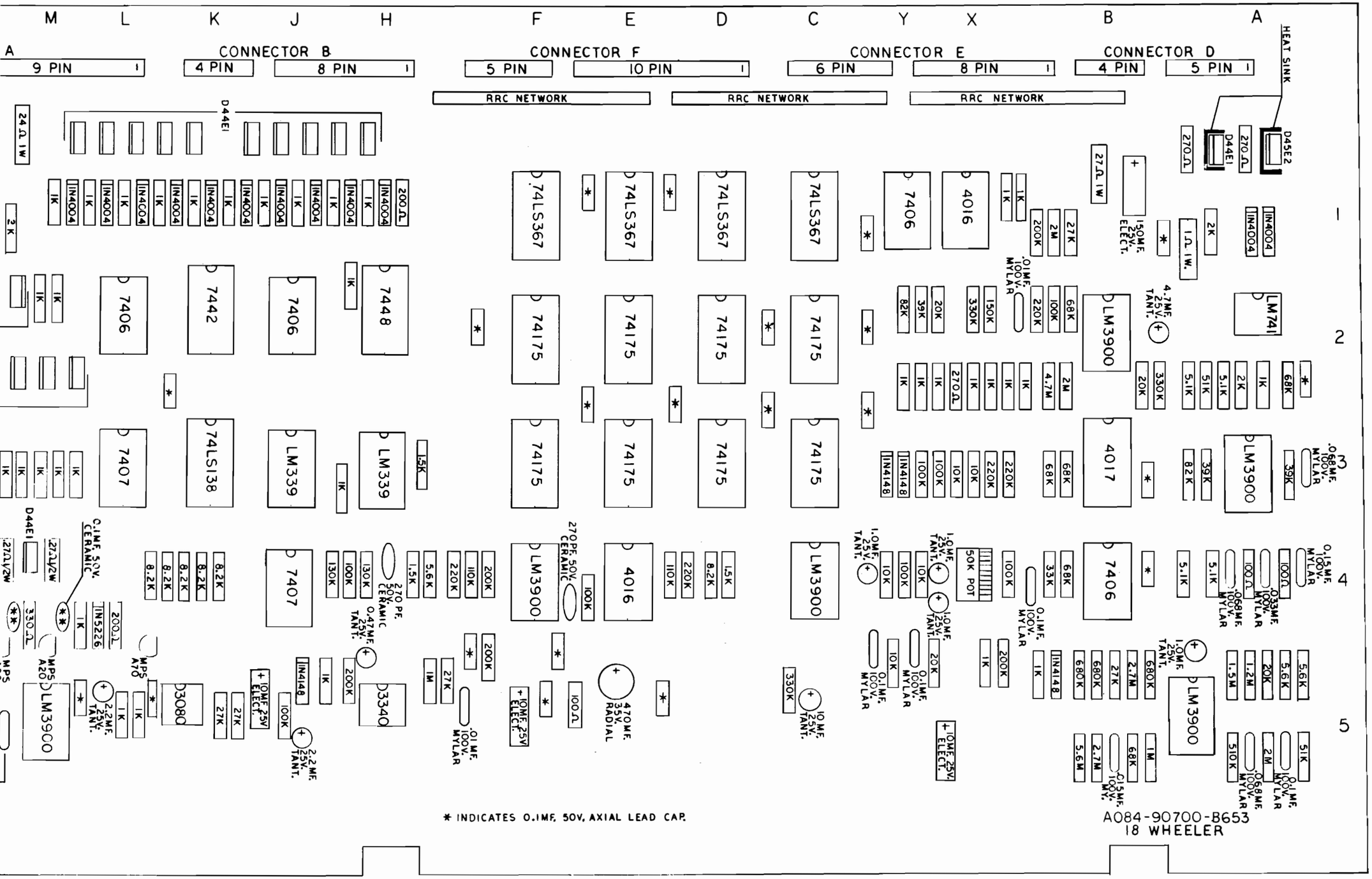
DESC. OF ROM/PROM	JUMPER											
ANY 2708 PROM	A TO 2	B TO 3	C TO 5	D TO 6	E TO 8	F TO 9	H TO 11	J TO 12	a TO e	b TO f	c TO g	n TO o
T.I. 2716 PROM	A TO i	B TO 2	C TO 4	D TO 5	E TO 7	F TO 8	H TO 10	J TO 11	a TO d	b TO e	c TO g	n TO o
INTEL 2716 PROM	A TO 3	B TO 2	C TO 6	D TO 5	E TO 9	F TO 8	H TO 12	J TO 11	a TO d	b TO e	c TO f	n TO p
G.I. 9316 ROM	A TO 2	B TO 3	C TO 5	O TO 6	E TO 8	F TO 9	H TO 11	J TO 12	a TO d	b TO e	c TO f	n TO r

INTERRUPT OPTION	JUMPER
FOR ORDINARY INTERRUPT	h TO i
FOR NON-MASKABLE INTERRUPT	j TO i

LOGIC SCHEMATIC FOR
Z-80 COMPACT MOTHER BOARD
A082-90004-A000
PART NO: M051-00078-0000

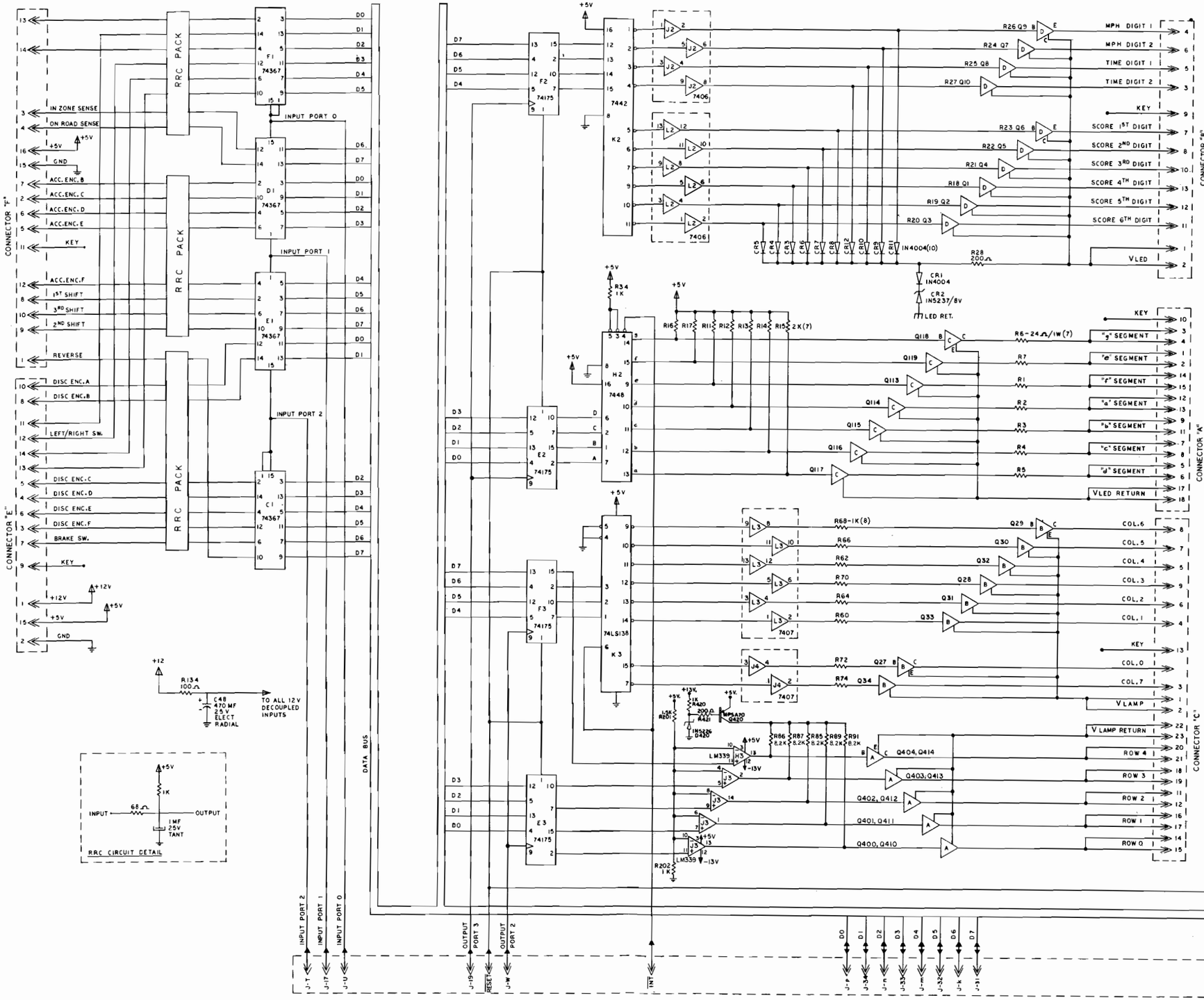


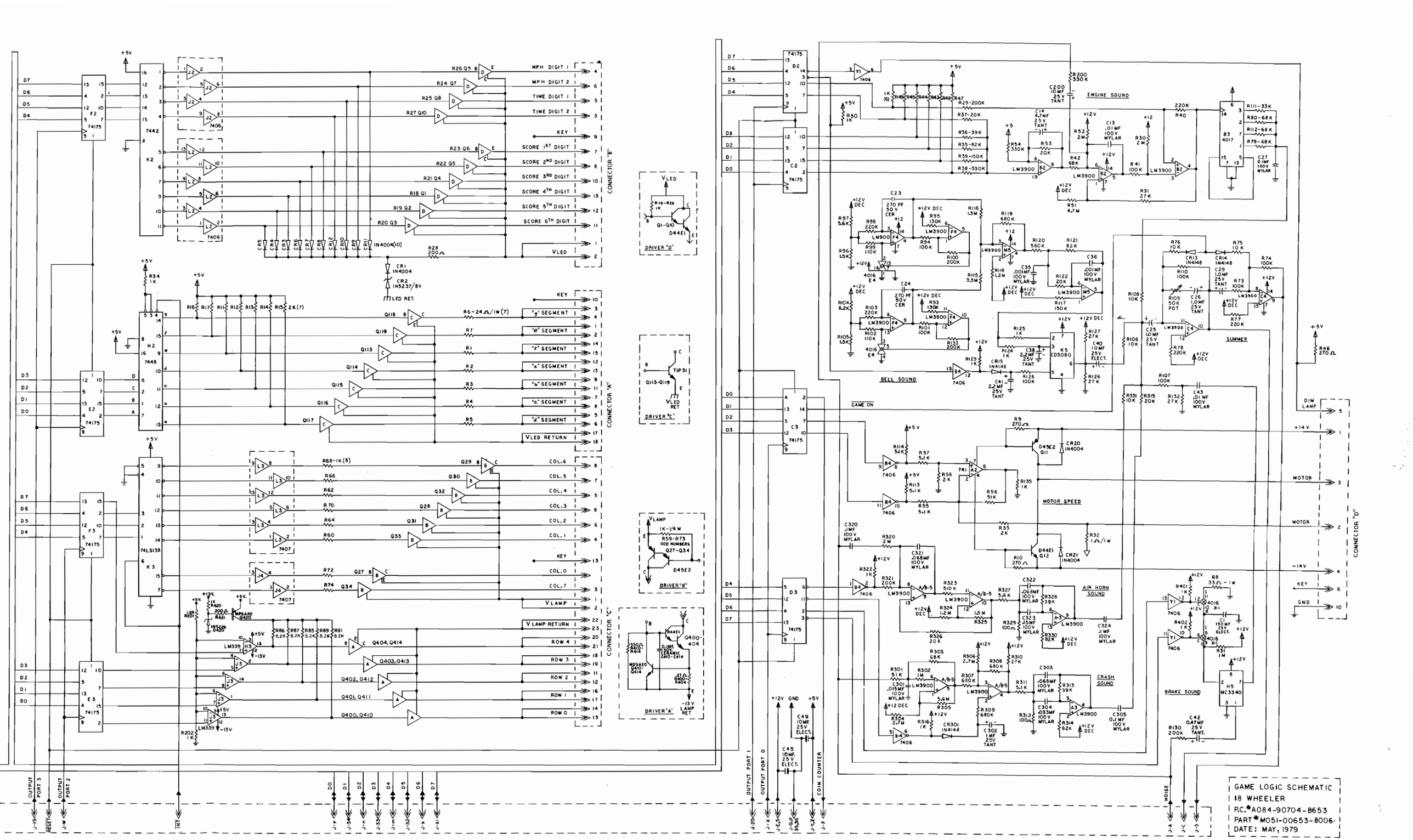
GAME LOGIC COMPONENT LAYOUT PART NO. M051-00653-B003



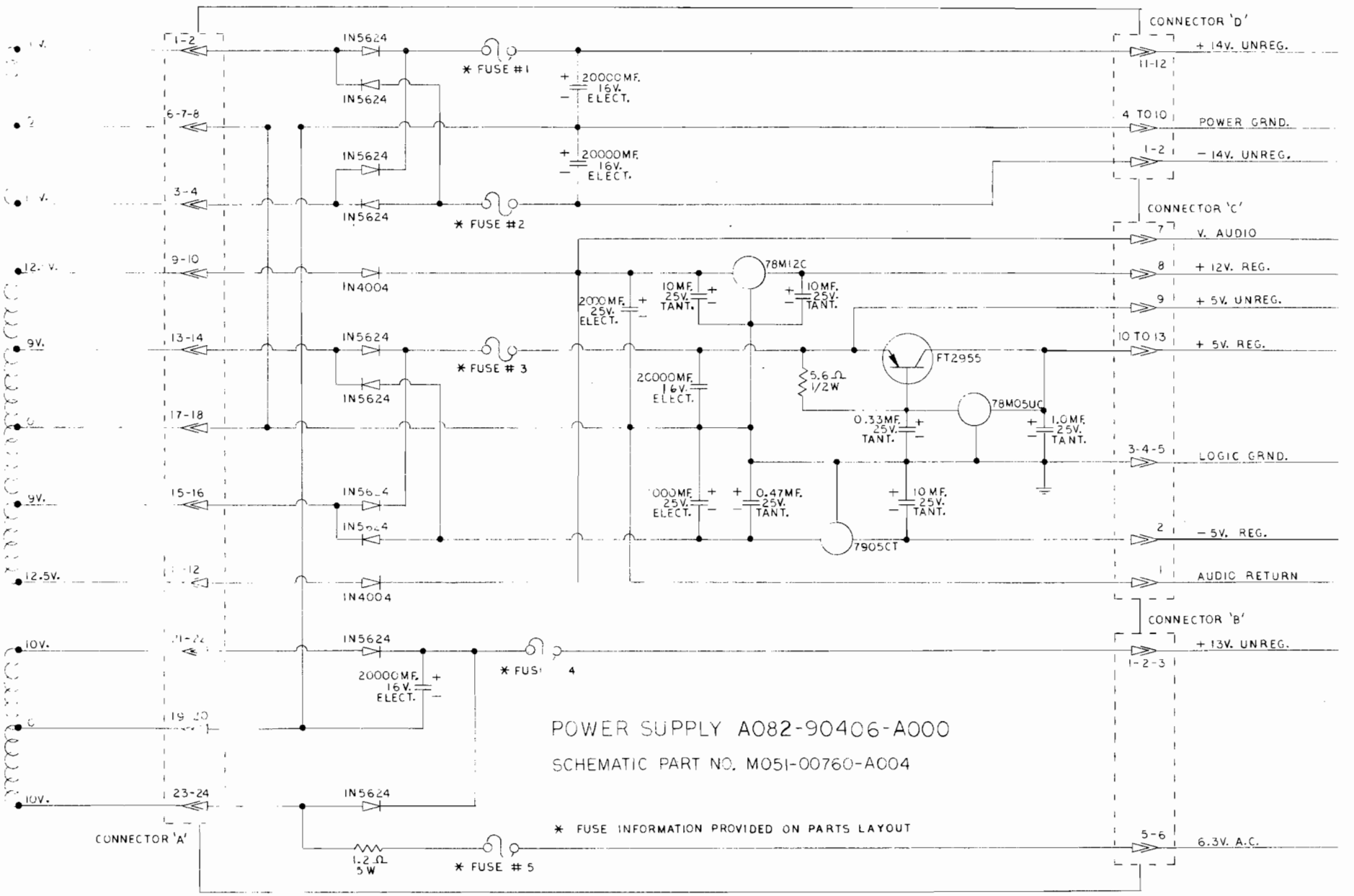
* INDICATES 0.1MF. 50V. AXIAL LEAD CAP.

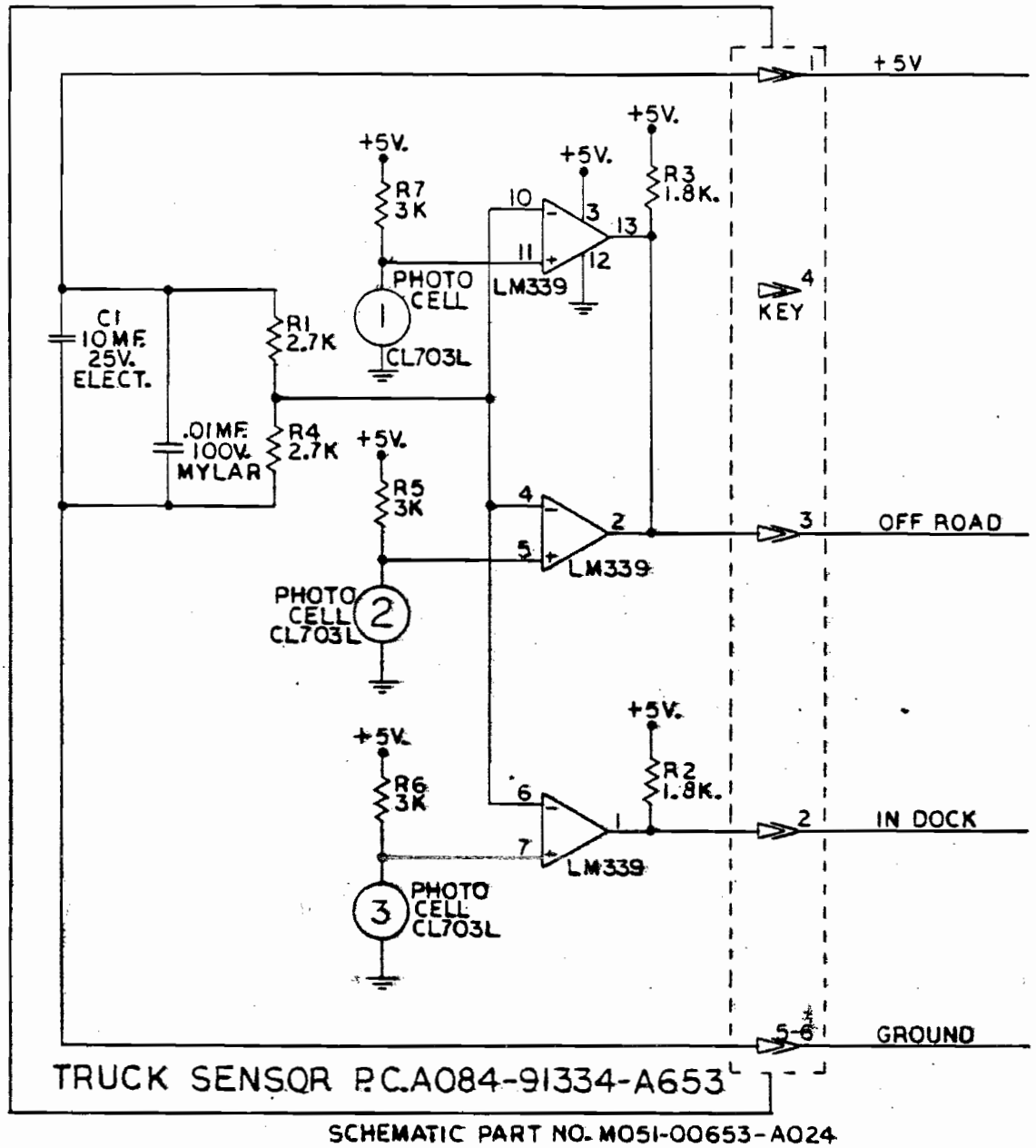
GAME LOGIC COMPONENT LAYOUT PART NO. M051-00653-B003


CONNECTOR "E"
RRC PACK
IN ZONE SENSE
ON ROAD SENSE
+5V
GND
ACC.ENC.B
ACC.ENC.C
ACC.ENC.D
ACC.ENC.E
KEY
ACC.ENC.F
1ST SHIFT
3RD SHIFT
2ND SHIFT
REVERSE
DISC ENC.A
DISC ENC.B
LEFT/RIGHT SW.
DISC ENC.C
DISC ENC.D
DISC ENC.E
DISC ENC.F
BRAKE SW.
KEY
+12V
+5V
GND
INPUT PORT 0
INPUT PORT 1
INPUT PORT 2
F1
D1
E1
C1
74367
D0
D1
D2
D3
D4
D5
D6
D7
+12
R134 100Ω
C48 470 MF 25 V ELECT RADIAL
TO ALL 12 V DECOUPLED INPUTS
RRC CIRCUIT DETAIL
+5V
1K
INPUT
68Ω
OUTPUT
1MF 25V TANT
DATA BUS
INPUT PORT 2
INPUT PORT 1
INPUT PORT 0
OUTPUT PORT 3
OUTPUT PORT 2
RESET
INT
J-T
J-17
J-U
J-19
J-W
J-P
J-34
J-N
J-33
J-M
J-32
J-K
J-31
D7
D6
D5
D4
D3
D2
D1
D0
J2
7406
K2
7442
L2
7406
F2
74175
R26 Q9
R24 Q7
R25 Q8
R27 Q10
R23 Q6
R22 Q5
R21 Q4
R18 Q1
R19 Q2
R20 Q3
MPH DIGIT 1
MPH DIGIT 2
TIME DIGIT 1
TIME DIGIT 2
KEY
SCORE 1ST DIGIT
SCORE 2ND DIGIT
SCORE 3RD DIGIT
SCORE 4TH DIGIT
SCORE 5TH DIGIT
SCORE 6TH DIGIT
VLED
CONNECTOR "B"
CR5 CR4 CR3 CR6 CR7 CR8 CR12 CR10 CR9 CR11 IN4004(10)
R28 200Ω
CR1 IN4004
CR2 IN5237/8V
LED RET.
+5V
R34 1K
H2
7448
R16 R17 R11 R12 R13 R14 R15 2K(7)
Q118
Q119
Q113
Q114
Q115
Q116
Q117
R6-24Ω/1W(7)
R7
R1
R2
R3
R4
R5
"g" SEGMENT
"e" SEGMENT
"f" SEGMENT
"a" SEGMENT
"b" SEGMENT
"c" SEGMENT
"d" SEGMENT
VLED RETURN
CONNECTOR "A"
E2
E3
74175
H3
LM339
J3
J4
7407
74LS138
K3
R68-1K(8)
R66
R62
R70
R64
R60
Q29
Q30
Q32
Q28
Q31
Q33
COL.6
COL.5
COL.4
COL.3
COL.2
COL.1
COL.0
COL.7
VLAMP
VLAMP RETURN
ROW 4
ROW 3
ROW 2
ROW 1
ROW 0
R72
R74
Q27
Q34
R202 1K
R201 1.5K
IN5226 B420
MPS A20 Q420
R86 R87 R85 R89 R91 8.2K
Q404, Q414
Q403, Q413
Q402, Q412
Q401, Q411
Q400, Q410
VLED
R18-R26 1K
Q1-Q10
D44E1
DRIVER "D"
Q113-Q119
TIP31
VLED RET
DRIVER "C"
VLAMP
1K-1/4 W
R59-R73 ODD NUMBERS
Q27-Q34
D45E2
DRIVER "B"
MPS A20 Q420
MPS A70 Q414
Q400-404
.1MF CERAMIC C410-C414
27Ω 1/2W R404
-13V LAMP RET
DRIVER "A"
CONNECTOR "C"
D7
D6
D5
D4
D3
D2
D1
D0
74175
D2
C2
C3
D3
Y1
7406
R50 1K
R49 R45 R44 R43 R48 R47 1K (6)
R29-200K
R37-20K
R36-39K
R35-82K
R39-150K
R38-330K
C14 4.7MF 25V TANT
R54 330K
R53 20K
LM3900
B2
19
+12V DEC
C23 270 PF 50V CER
R97 5.6K
R88 220K
R99 110K
R95 130K
R94 100K
R100 200K
R96 1.5K
R16 1.5M
R119 680K
R120 560K
R115 3.3M
R118 1.2M
C35 .001MF 100V MYLAR
4016 E4
C24 270 PF 50V CER
R104 8.2K
R103 220K
R102 110K
R93 130K
R101 100K
R133 200K
R105 1.5K
R125 1K
R124 1K
C38 2.2MF 25V TANT
R129 1K
CR15 IN4148
R128 100K
C41 2.2MF 25V TANT
BELL SOUND
GAME ON
R9 270Ω
D45E2 Q11
R114 5.1K
R57 5.1K
R58 2K
R135 1K
R56 51K
R55 5.1K
R33 2K
D44E1 Q12
R10 270Ω
C320 .1MF 100V MYLAR
R320 2M
C321 .068MF 100V MYLAR
R322 1K
R321 200K
R323 510K
R324 1.2M
R325 1.5M
R326 20K
C322 .068MF 100V MYLAR
R327 5.6K
R328 39K
C323 .15MF 100V MYLAR
R329 100Ω
R330 82K
R303 68K
R306 2.7M
R308 680K
R310 27K
R301 5.1K
C301 .015MF 100V MYLAR
R302 1M
R307 680K
R311 5.1K
R305 5.6M
R304 2.7M
R316 1K
CR301 IN4148
R309 680K
C303 .068MF 100V MYLAR
C304 .033MF 100V MYLAR
R312 100Ω
C302 1MF 25V TANT
C49 10MF 25V ELECT.
C45 10MF 25V ELECT.
OUTPUT PORT 1
OUTPUT PORT 0
COIN COUNTER
J-20
J-X
J-E5
J-GX
J-36
J-12
J-F

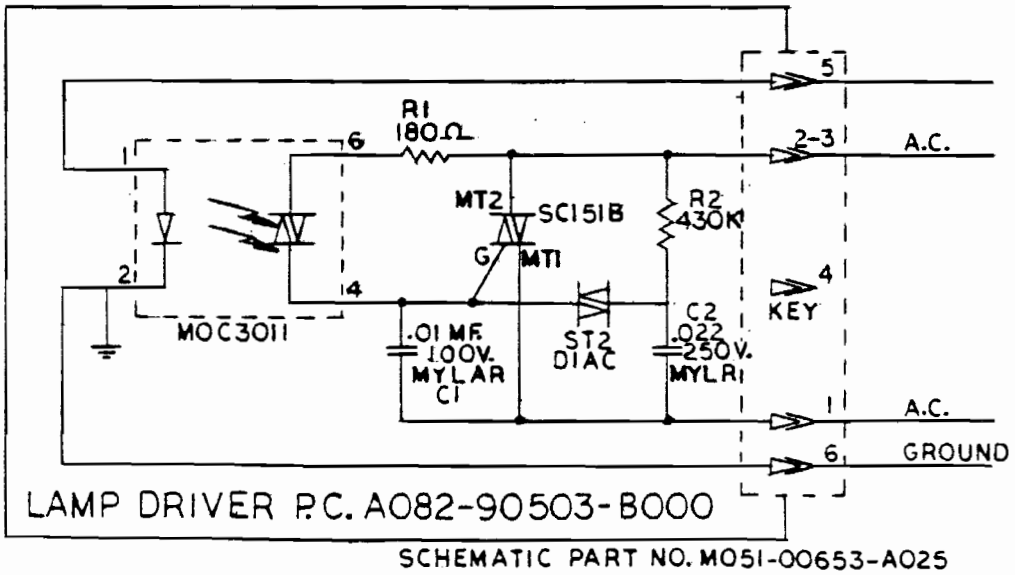

CONNECTOR "B"
MPH DIGIT 1
MPH DIGIT 2
TIME DIGIT 1
TIME DIGIT 2
KEY
SCORE 1ST DIGIT
SCORE 2ND DIGIT
SCORE 3RD DIGIT
SCORE 4TH DIGIT
SCORE 5TH DIGIT
SCORE 6TH DIGIT
VLED
CONNECTOR "A"
KEY
"g" SEGMENT
"e" SEGMENT
"f" SEGMENT
"a" SEGMENT
"b" SEGMENT
"c" SEGMENT
"d" SEGMENT
VLED RETURN
COL.6
COL.5
COL.4
COL.3
COL.2
COL.1
KEY
COL.0
COL.7
V LAMP
V LAMP RETURN
ROW 4
ROW 3
ROW 2
ROW 1
ROW 0
CONNECTOR "C"
DRIVER "D"
DRIVER "C"
DRIVER "B"
DRIVER "A"
ENGINE SOUND
BELL SOUND
GAME ON
MOTOR SPEED
AIR HORN SOUND
CRASH SOUND
BRAKE SOUND
SUMMER
DIM LAMP
MOTOR
MOTOR
-14V
KEY
GND
CONNECTOR "D"
OUTPUT PORT 3
OUTPUT PORT 2
OUTPUT PORT 1
OUTPUT PORT 0
COIN COUNTER
NOISE
GAME LOGIC SCHEMATIC
18 WHEELER
P.C.*A084-90704-8653
PART*M051-00653-8006
DATE: MAY, 1979

MIDWAY MFG. CO.
A BALLY COMPANY


CONNECTOR 'D'
+ 14V. UNREG.
11-12
4 TO 10
POWER GRND.
1-2
- 14V. UNREG.
CONNECTOR 'C'
7
V. AUDIO
8
+ 12V. REG.
9
+ 5V. UNREG.
10 TO 13
+ 5V. REG.
3-4-5
LOGIC GRND.
2
- 5V. REG.
1
AUDIO RETURN
CONNECTOR 'B'
+ 13V. UNREG.
1-2-3
5-6
6.3V. A.C.
CONNECTOR 'A'
1-2
6-7-8
3-4
9-10
13-14
17-18
15-16
23-24
IN5624
IN4004
* FUSE #1
* FUSE #2
* FUSE # 3
* FUSE # 5
20000MF. 16V. ELECT.
2000MF. 25V. ELECT.
10MF. 25V. TANT.
78M12C
FT2955
5.6Ω 1/2W
78M05UC
0.33MF. 25V. TANT.
1.0MF. 25V. TANT.
1000MF. 25V. ELECT.
0.47MF. 25V. TANT.
7905CT
1.2Ω 5W
POWER SUPPLY A082-90406-A000
SCHEMATIC PART NO. M051-00760-A004
* FUSE INFORMATION PROVIDED ON PARTS LAYOUT



SCHEMATIC PART NO. M051-00653-A024



SCHEMATIC PART NO. M051-00653-A025

EXTENDED PLAY AWARDED AT 10,000 POINTS
EXTENDED PLAY AWARDED AT 4,000 POINTS
EXTENDED PLAY AWARDED AT 6,000 POINTS
EXTENDED PLAY AWARDED AT 8,000 POINTS
EXTENDED PLAY AWARDED AT 9,000 POINTS
EXTENDED PLAY AWARDED AT 10,000 POINTS
EXTENDED PLAY AWARDED AT 12,000 POINTS
EXTENDED PLAY AWARDED AT 15,000 POINTS
EXTENDED PLAY AWARDED AT 16,000 POINTS
EXTENDED PLAY AWARDED AT 20,000 POINTS