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Midway's

GAME NO. 618
JULY 1977

DESERT GUN

PARTS CATALOG



MIDWAY MFG. CO.
A BALLY COMPANY

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NOTICE

DESERT GUN CATALOG COVERS BOTH ROAD RUNNER & DESERT GUN. BOTH GAMES ARE THE SAME, THERE WAS JUST A NAME CHANGE DURING PRODUCTION.

GENERAL INSTRUCTIONS FOR "DESERT GUN"

INSTALLATION:

1. Remove shipping cleats located on the bottom of the cabinet.
2. Install 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 of the transformer and rewiring to the 105 volt position.

VOLTAGE CONTROL POTS:

Located on Power Supply Board (P.C. 0080-0094D) and are preset at the factory. These pots should not be tampered with unless the Distributor Service Department is contacted.

MUSIC (1 Meg) AND VOLUME (50K) ADJUSTMENT POTS:

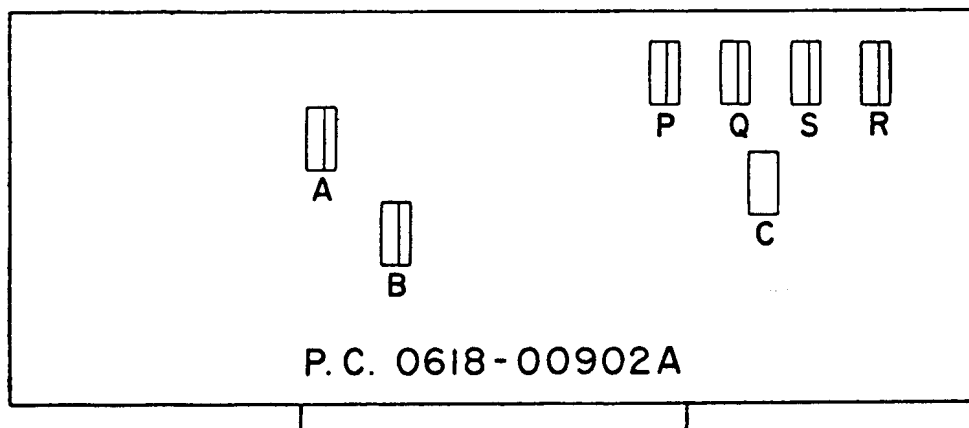
Located on Game Logic Board (P.C. 0618-00902D) The 1 Meg Music Pot raises or lowers the volume of the background music. The 50K Pot raises or lowers all sounds. (See sketch below)

RIFLE ALIGNMENT POTS:

Located on Game Logic Board (P.C. 0618-00902D) See separate instructions in back box area for alignment procedure. See sketch below for alignment pot locations.

COIN, TIME, LANGUAGE AND EXTENDED PLAY OPTION SWITCHES:

Located on Game Logic Board (P.C. 0618-00902D) and may be adjusted as indicated on separate instructions sheet in back box area. See sketch below for switch location.



- A — MUSIC POT
- B — VOLUME POT
- C — COIN, TIME, ETC. OPTION SWITCH
- P, Q, R, S, — RIFLE ALIGNMENT POTS

RIFLE ALIGNMENT PROCEDURE

1. Set option switches #7 and #8 (Located on P.C. Board 0618-00902E in rear of game) to "off" position. Close tilt switch on front door assembly. This switch closure will initiate the Ram/Rom test.
2. Pull and hold trigger switch. At the end of the Ram/Rom test cycle, the alignment pattern will appear. Release trigger switch.
3. Set alignment pots P, Q, R, S, (located on P.C. Board 0618-00902E in rear of game) to approximately center position.
4. The entire front panel of this unit is removable to ease service problems. To remove this panel release clamps located on each inside wall of cabinet thru cash box door opening.
5. Disengage spring loaded gear rack (located on lower rifle assembly) from gear assembly by pulling rack away from gear. Do not loosen set screws on gear assemblies.
6. Rotate 25K horizontal and vertical pot gears (located on lower rifle assembly) until rifle dot aligns itself approximately with alignment pattern dot and rifle sights. Should the rifle object dot cross any portion of the alignment pattern that portion will disappear. Depress trigger switch to reset alignment pattern.
7. Aim rifle object dot approximately at the center of horizontal line "P" about 1" below horizontal line.
8. Rotate alignment pot "P" until rifle object dot aligns itself with rifle sights and area aimed at. Rotating all alignment pots counterclockwise (as viewed from pot face) moves rifle object dot toward the center of the screen.
9. Aim rifle object dot approximately at the center of horizontal line "Q" about 1" above horizontal line.
10. Rotate alignment pot "Q" until rifle object dot aligns itself with rifle sights and area aimed at.
11. Repeat steps 7 thru 10 to fine tune alignment.
12. Aim rifle object dot approximately at the center of vertical line "R" about 1" right of vertical line.
13. Rotate alignment pot "R" until rifle object dot aligns itself with rifle sights and area aimed at.
14. Aim rifle object dot approximately at the center of vertical line "S" about 1" left of vertical line.
15. Rotate alignment pot "S" until rifle object dot aligns itself with rifle sights and area aimed at.
16. Repeat steps 12 thru 15 to fine tune alignment.
17. When alignment procedure has been completed, reset switches #7 and #8 to desired extended play positions.
18. Depress power switch "off" and then "on" to reset game to play mode.
19. Note low +5 voltage can cause alignment problems.

METHOD OF PLAY ADJUSTMENTS

	SW. #1	SW. #2
1 COIN – 1 PLAY	ON	ON
1 COIN – 2 PLAYS	OFF	OFF
2 COINS – 1 PLAY	ON	OFF
2 COINS – 3 PLAYS	OFF	OFF

TIME ADJUSTMENTS

	SW. #3	SW. #4
40 SECONDS	ON	ON
50 SECONDS	OFF	ON
60 SECONDS	ON	OFF
70 SECONDS	OFF	OFF

LANGUAGE ADJUSTMENTS

	SW. #5	SW. #6
ENGLISH	ON	ON
GERMAN	OFF	ON
FRENCH	ON	OFF
SCANDANAVIAN	OFF	OFF

SCORE ADJUSTMENTS

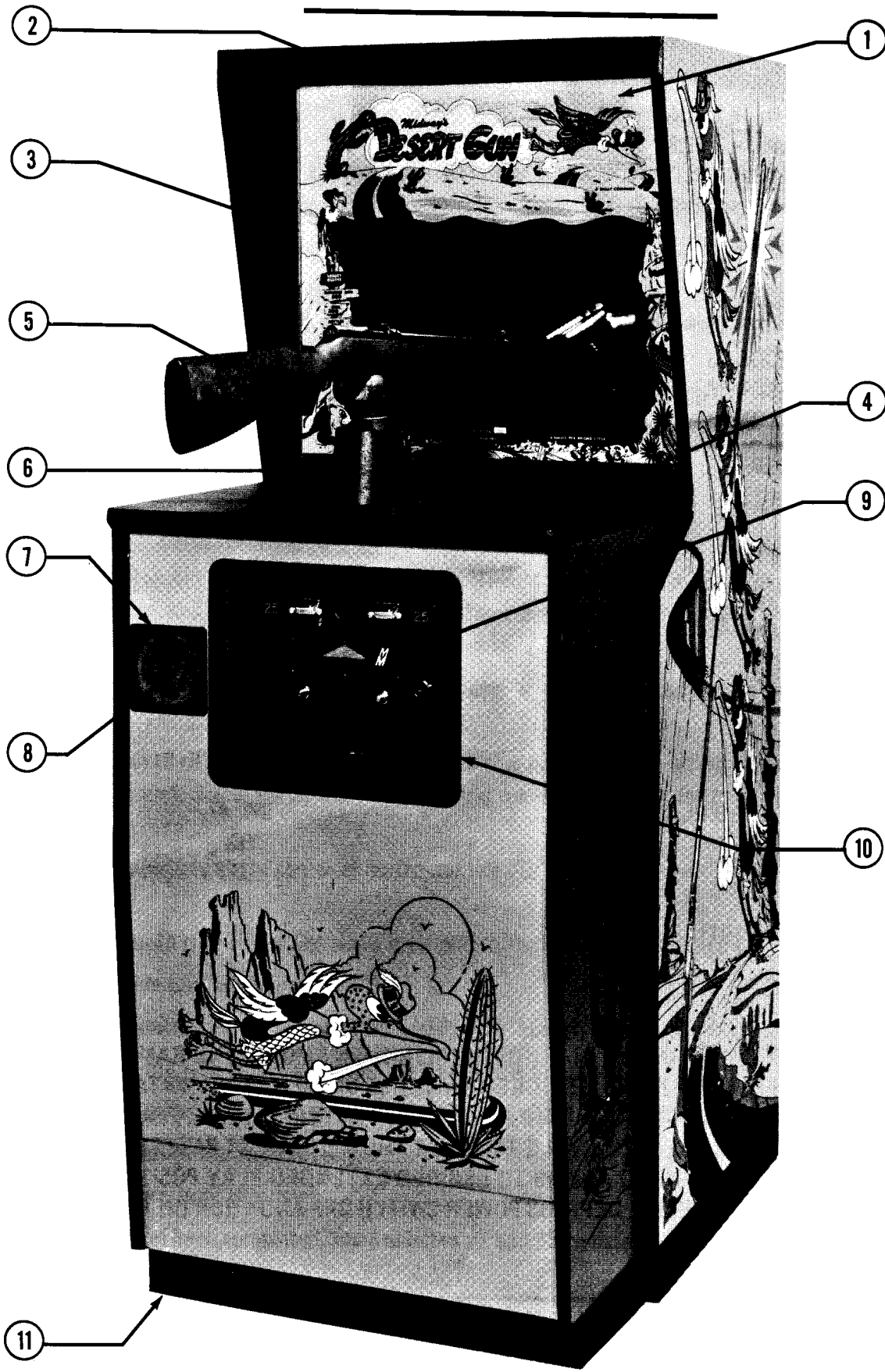
	SW. #7	SW. #8
EXTENDED PLAY AT:		
5000	ON	ON
7000	OFF	ON
9000	ON	OFF
*DIAGNOSTIC/ALIGNMENT	OFF	OFF

*NOTE: WHEN IN THE DIAGNOSTIC/ALIGNMENT MODE, THE RAM/ROM TEST WILL CONTINUE TO REPEAT UNTIL THE TRIGGER SWITCH IS CLOSED. THIS SWITCH CLOSURE INITIATES THE ALIGNMENT PROGRAM. THE ALIGNMENT PATTERN WILL APPEAR WHEN THE RAM/ROM TEST HAS COMPLETED IT'S CYCLE TO RESET THE ALIGNMENT PATTERN PULL TRIGGER AGAIN. RESET SWITCHES #7 AND #8 TO DESIRED EXTENDED PLAY POSITIONS. WHEN ALIGNMENT HAS BEEN COMPLETED, DEPRESS POWER SWITCH OFF AND THEN ON TO RESET GAME TO PLAY MODE.

WARNING

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

NO. 618 - DESERT GUN PICTURE



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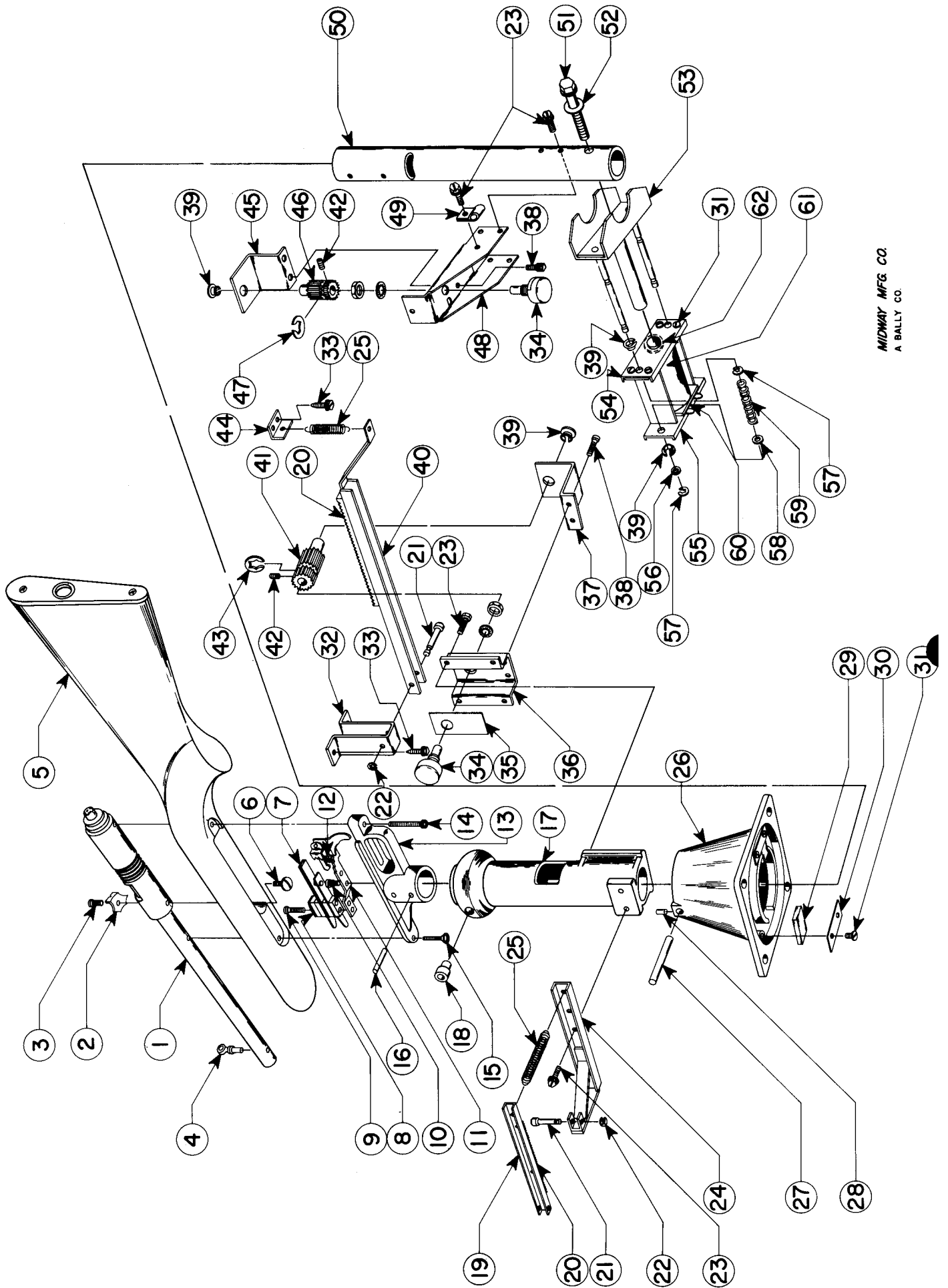
PRICE LIST*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION	PRICE
1	0618-00900-01SC	DISPLAY PLEX	\$35.80
2	0537-00903-3100	CYCLOAC GLASS EDGING	.50
3	0537-00903-0200	CYCLOAC GLASS EDGING (2 REQ'D.)	.50
4	0537-00138-0000	GLASS LIFT BRACKET	2.80
5	0618-00002-0000	RIFLE ASSEMBLY	77.30
6	0618-00003-0000	GUN MOUNT SUB ASSEMBLY	175.60
7	0569-00001-00BR	SPEAKER BEZEL ASSEMBLY	2.00
8	0549-00128-0000	SPEAKER GRILL	1.20
	0017-00003-0161	SPEAKER	3.90
	0017-0041-0576	SPEAKER GASKET	.20
	0017-00103-0005	#6 - 32 HEX NUTS (4 REQ'D.)	.20
9	0090-00020-02BR	DOUBLE ENTRY COIN DOOR	128.00
10	0090-00002-02BR	COIN DOOR FRAME	7.90
11	0017-00102-0048	LEG LEVELER (4 REQ'D.)	.50
	0017-00103-0026	LEG LEVELER NUT (4 REQ'D.)	.20
		<u>NOT SHOWN LIST</u>	
	0618-00116-0000	GLASS LOCK BRACKET (2 REQ'D.)	1.60
	0017-00009-0009	TURN BUTTON (2 REQ'D.)	.20
	0017-00101-0018	#6 x 3/4 HX. HD. BLK. S.M.S. (6 REQ'D.)	.20
	0566-00120-0000	CASH BOX	6.40
	0566-00121-0000	CASH BOX COVER	2.20
	0601-00010-0000	CASH BOX LOCK BRACKET	1.50
	0017-00101-0579	CARRIAGE BOLT (2 REQ'D.)	.20
	0017-00103-0005	NUTS (6 - 32 HEX) (2 REQ'D.)	.20
	0618-00120-0000	MIRROR SUPPORT EXTRUSION (2 REQ'D.)	1.10
	0618-00909-0000	1/8 REG. MIRROR (UPPER)	12.90
	0618-00908-0000	MIRROR PANE MIRROR (LOWER)	60.50
	0618-00114-0000	MIRROR RETAINER BRACKET	.60
	0618-00115-0000	MIRROR RETAINER BRACKET	.50
	0017-00009-0033	BASSICK CLAMP (2 REQ'D.)	1.80
	0603-00131-0000	STRIKE (MIDWAY) (2 REQ'D.)	.40
	0017-00101-0027	#8 x 3/4 HX. HD. WOODSCREWS (8 REQ'D.)	.20
	0017-00003-0140	23" MOTOROLA MONITOR	390.00
	0017-00101-0637	#8 - 32 x 1 CARRIAGE BOLT (4 REQ'D.)	.20
	0017-00104-0022	WASHER (4 REQ'D.)	.20
	0017-00103-0008	NUTS (8 - 32 HEX) (4 REQ'D.)	.20
	0618-00124-0000	PROTECTIVE BRACKET	3.20
	0017-00101-0017	#6 x 1/2 HEX HD. W/W S.M.S. (4 REQ'D.)	.20

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PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NO. 618 - DESERT GUN - RIFLE ASSEMBLY



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PRICE LIST*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION	PRICE
1	0549-0051-0000	GUN BARREL ASSEMBLY	21.20
2	0518-00138-0000	REAR GUN SIGHT	.50
3	0017-00101-0328	#6 - 32 x 1/4 BUTTON HD. SOCKET SCR.	.20
4	0538-00718-0000	FRONT GUN SIGHT	1.30
5	0542-00009-0000	WOOD GUN STOCK ASSEMBLY	42.80
6	0017-00102-0007	1/4 - 20 x 3/4 RD. HD. MACH. SCR.	.20
7	0618-00009-0000	TRIGGER SWITCH ASSEMBLY	.90
8	0020-00202-0000	HEADER PLATE	.20
9	0017-00101-0523	#5 - 40 x 1/2 BIND. HD. MACH. SCR. (2 REQ'D.)	.20
10	0017-00101-0554	#6 - 32 x 1/4 SEMS MACH. SCR. (2 REQ'D.)	.20
11	0542-00010-0000	TRIGGER ASSEMBLY	2.50
12	0010-00176-0100	SPRING	.20
13	0538-00908-0000	TRIGGER HOUSING	5.40
14	0017-00102-0027	1/4 - 20 - 2" SOC. HD. CAP SCR.	.20
15	0017-00101-0336	1/4 - 20 - 2" FLAT HD. SOC. SCR.	.30
16	0017-00007-0097	3/16 DIA. x 1-5/8 ROLL PIN	.20
17	0618-00901-0000	PIVOT HOUSING	26.30
18	0518-00700-0000	TRUST BUSHING	.60
19	0618-00101-0000	HORIZONTAL RACK MTG. BRKT.	.60
20	0618-00903-0000	RACK - 32 PITCH (2 REQ'D.)	1.10
21	0618-00701-0000	PIN - RACK PIVOT (2 REQ'D.)	.40
22	0017-00100-0012	"E" RING (2 REQ'D.)	.20
23	0017-00101-0598	#8 - 32 x 5/16 HEX. HD. S.T.S. (11 REQ'D.)	.20
24	0618-00001-0000	HORIZONTAL MTG. BRKT. ASSY.	3.20
25	0010-00244-0000	SPRING - RACK (2 REQ'D.)	.20
26	0518-00902-0000	GUN MOUNT	33.50
27	0518-00701-0000	PIVOT SHAFT	.70
28	0017-00007-0073	ROLL PIN	.20
29	0518-00918-0000	STOP - GUN (2 REQ'D.)	.80
30	0618-00110-0000	RETAINER AND STOP (2 REQ'D.)	.50
31	0017-00101-0647	#10 - 32 x 1/4 BIND. HD. MACH. SCR. (8 REQ'D.)	.20
32	0618-00108-0000	VERTICAL PIVOT BRKT. RACK	.70
33	0017-00101-0028	WOOD SCREWS (4 REQ'D.)	.20
34	0063-2770X-1GKX	POTENTIOMETER (2 REQ'D.)	5.20
35	0618-00119-0000	INSULATOR - VERTICAL POT.	.20

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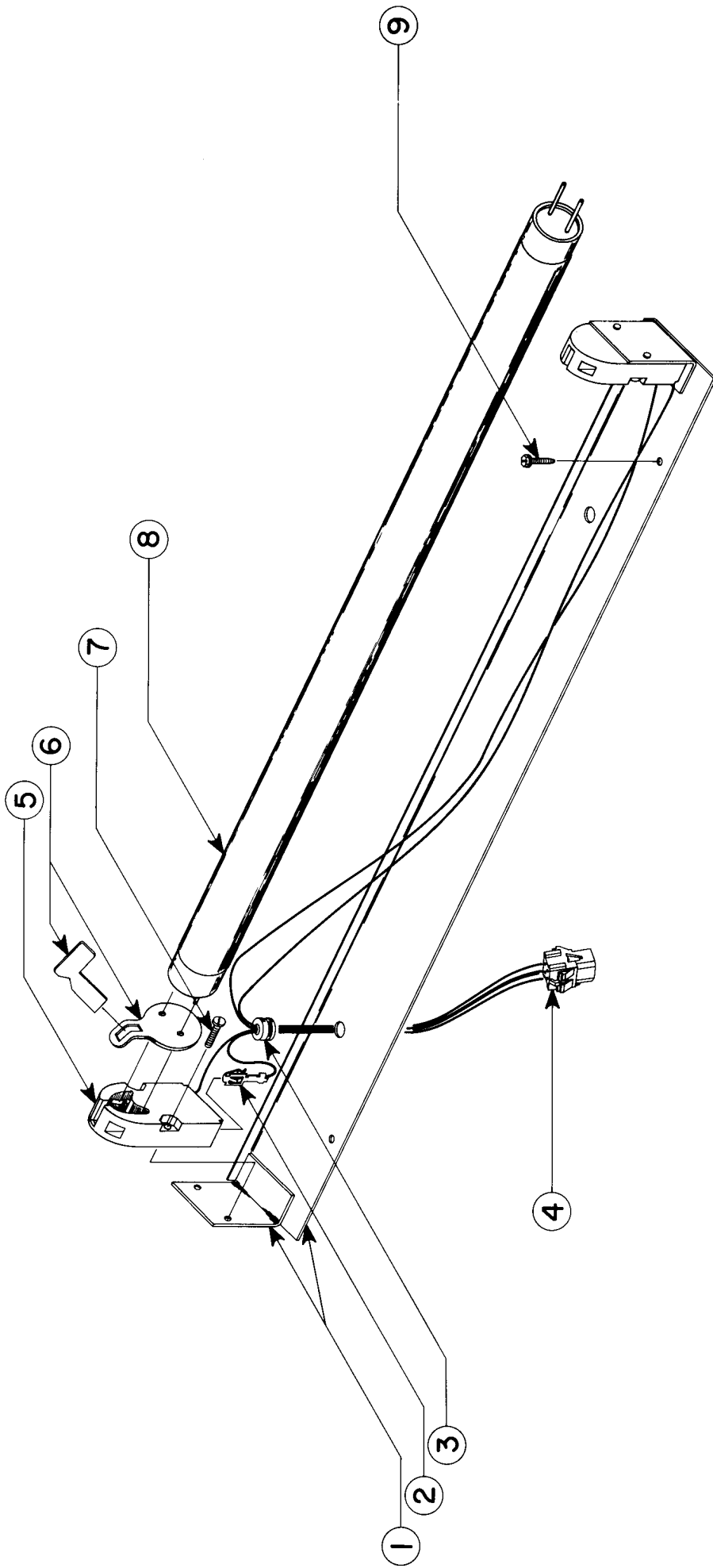
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PRICE LIST*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION	PRICE
36	0618-00106-0000	VERTICAL POT. MTG. BRKT.	.90
37	0618-00104-0000	VERTICAL GEAR SUPPORT BRKT.	.40
38	0017-00101-0555	#6 - 32 x 5/16 HEX. HD. S.T.S. (4 REQ'D.)	.20
39	0017-00042-0023	#6L2FF NYLINER (6 REQ'D.)	.20
40	0618-00100-0000	VERTICAL RACK MTG. BRKT.	1.10
41	0618-00703-0000	24 TOOTH PINION	4.30
42	0017-00101-0308	#8 - 32 x 3/16 SOC. SET. SCR. (4 REQ'D.)	.20
43	0017-00100-0075	"E" RING	.20
44	0618-00109-0000	SPRING BRACKET	.50
45	0618-00103-0000	HORIZONTAL GEAR SUPPORT BRKT.	.70
46	0618-00702-0000	16 TOOTH PINION	2.80
47	0017-00100-0050	"E" RING	.20
48	0618-00105-0000	HORIZONTAL POT. MTG. BRKT.	1.70
49	0017-00042-0003	CABLE CLAMP	.20
50	0618-00700-0000	GUN SUPPORT TUBE	23.30
51	0017-00102-0200	1/4 - 20 x 1-3/4 LG. WHIZZ BOLT	.20
52	0017-00104-0005	1/4 LOCK WASHER	.20
53	0518-00116-0000	PIPE BRACKET ASSEMBLY	4.60
54	0518-00123-0000	END PLATE	.50
55	0518-00122-0000	SOLENOID BRKT. ASSEMBLY	5.00
56	0017-00104-0024	PLAIN WASHER (2 REQ'D.)	.20
57	0017-00100-0025	"E" RING (4 REQ'D.)	.20
58	0017-00104-0079	NYLON WASHER (2 REQ'D.)	.20
59	0010-00140-0000	SPRING (2 REQ'D.)	.20
60	0535-00149-0000	INSULATOR	.20
61	G010-00023-1300	COIL	5.50
62	0017-00104-0063	SPRING WASHER	.20

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NO. 618 -- DESERT GUN -- FLUORESCENT BRACKET ASSEMBLY



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PRICE LIST

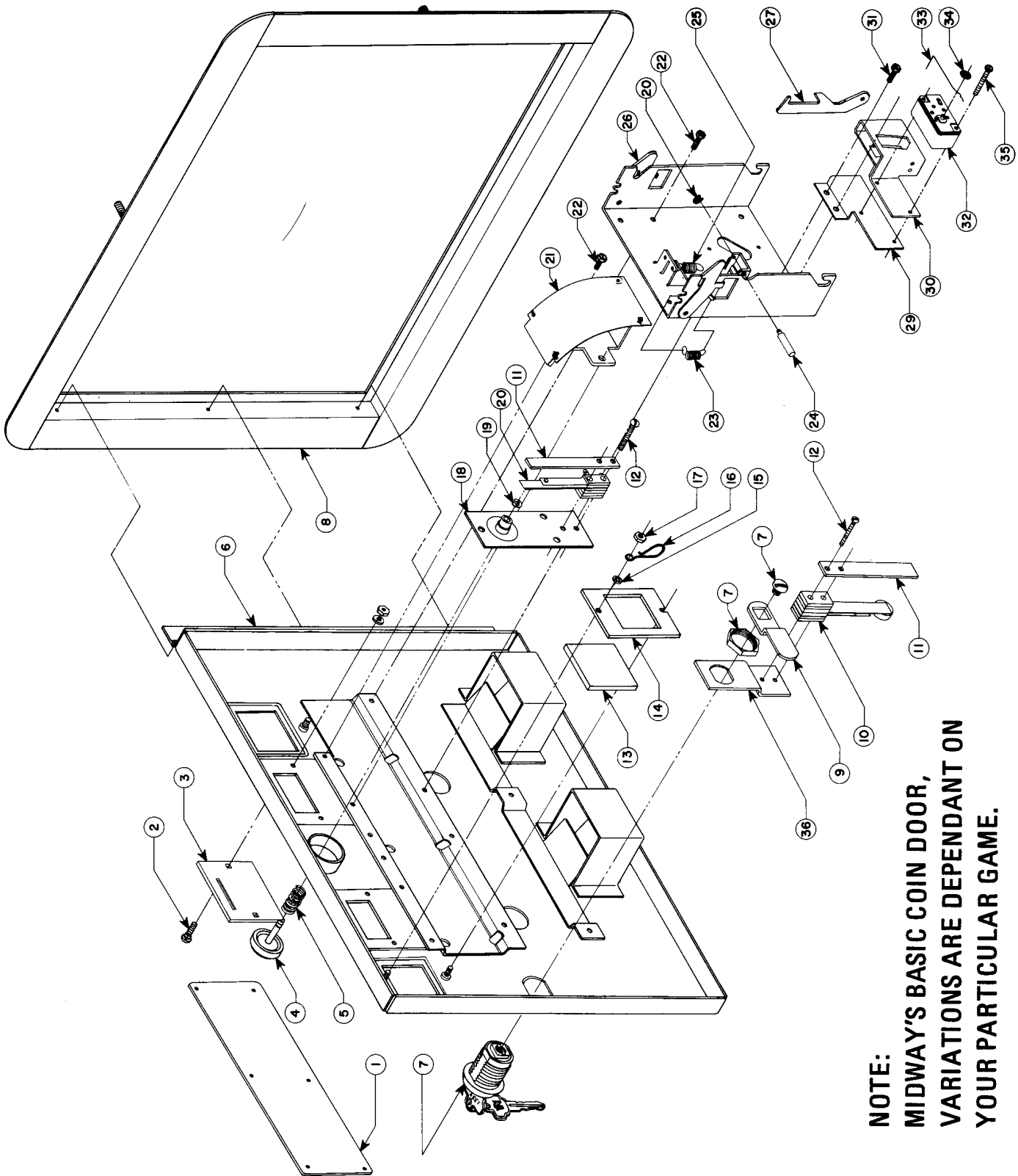
ORDER BY PART NUMBER ONLY

ITEM	PART N ^o	DESCRIPTION	PRICE
1	0618-00004-0000	FLUORESCENT BRKT. ASSY. (2 REQ'D.)	2.40
2	0017-00021-0078	LUG – (8 REQ'D.)	.20
3	0017-0041-0013	GROMMETS (2 REQ'D.)	.20
4	0017-00021-0105	JACK (2 TERM - FEMALE) (2 REQ'D.)	.30
5	0017-00031-0015	LAMP HOLDERS (4 REQ'D.)	.50
6	0017-00021-0005	FLUORESCENT LOCKS (4 REQ'D.)	.30
7	0017-00101-0521	5 - 40 x 3/8 BINDER HD. MACH. SCREW (8 REQ'D.)	.20
8	0017-00003-0046	FLUORESCENT LAMP - 18" (2 REQ'D.)	8.00
9	0017-00101-0017	#6 x 1/2 HX. HD. WOOD SCREW (4 REQ'D.)	.20
	0618-00026-0000	FLUORESCENT & FIXTURE ASSY. – COMPLETE	19.30

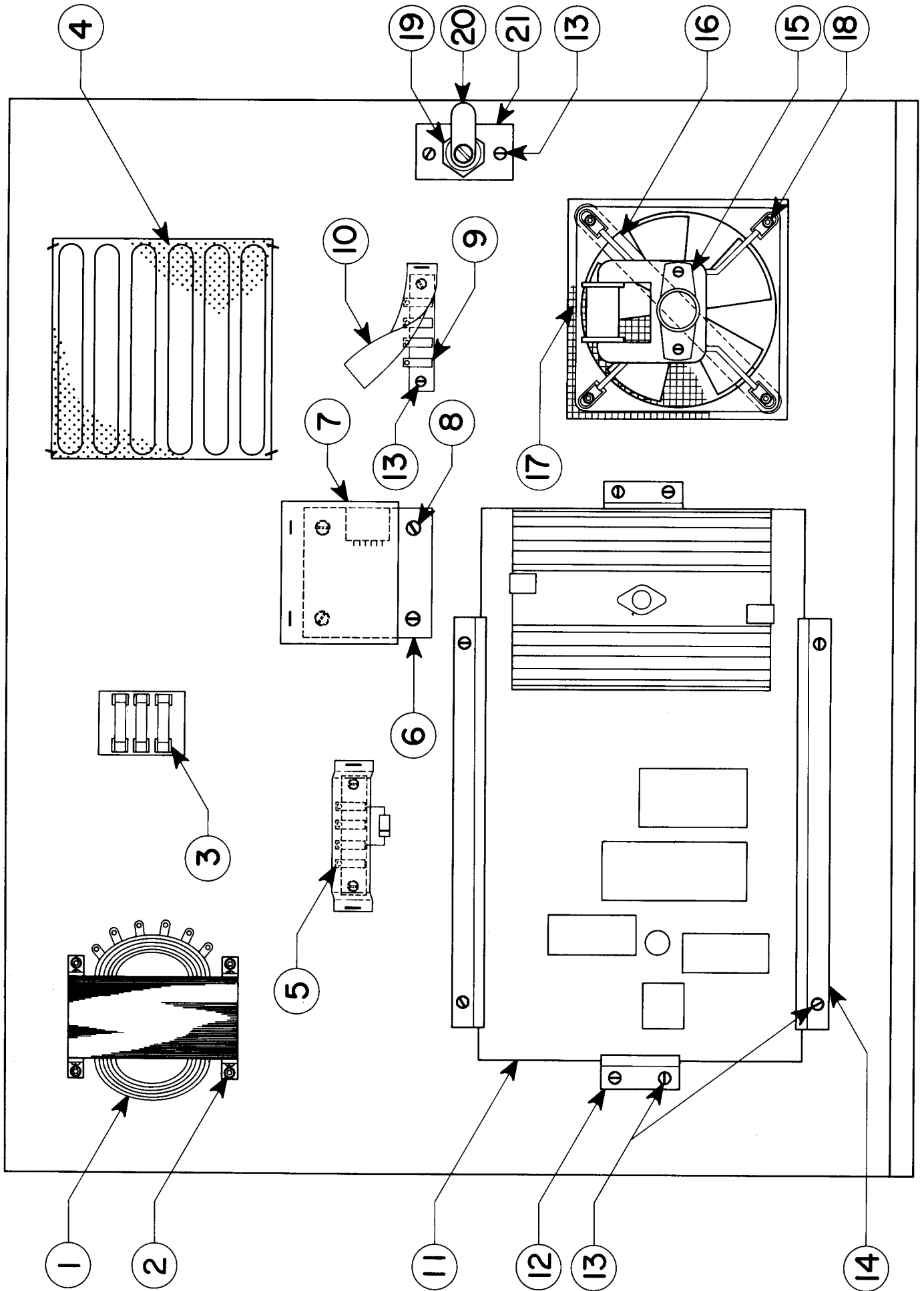
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NO. 618 – DESERT GUN – FRONT DOOR ASSY.



NO. 618 -- DESERT GUN -- UPPER BACK DOOR



PRICE LIST*ORDER BY PART NUMBER ONLY*

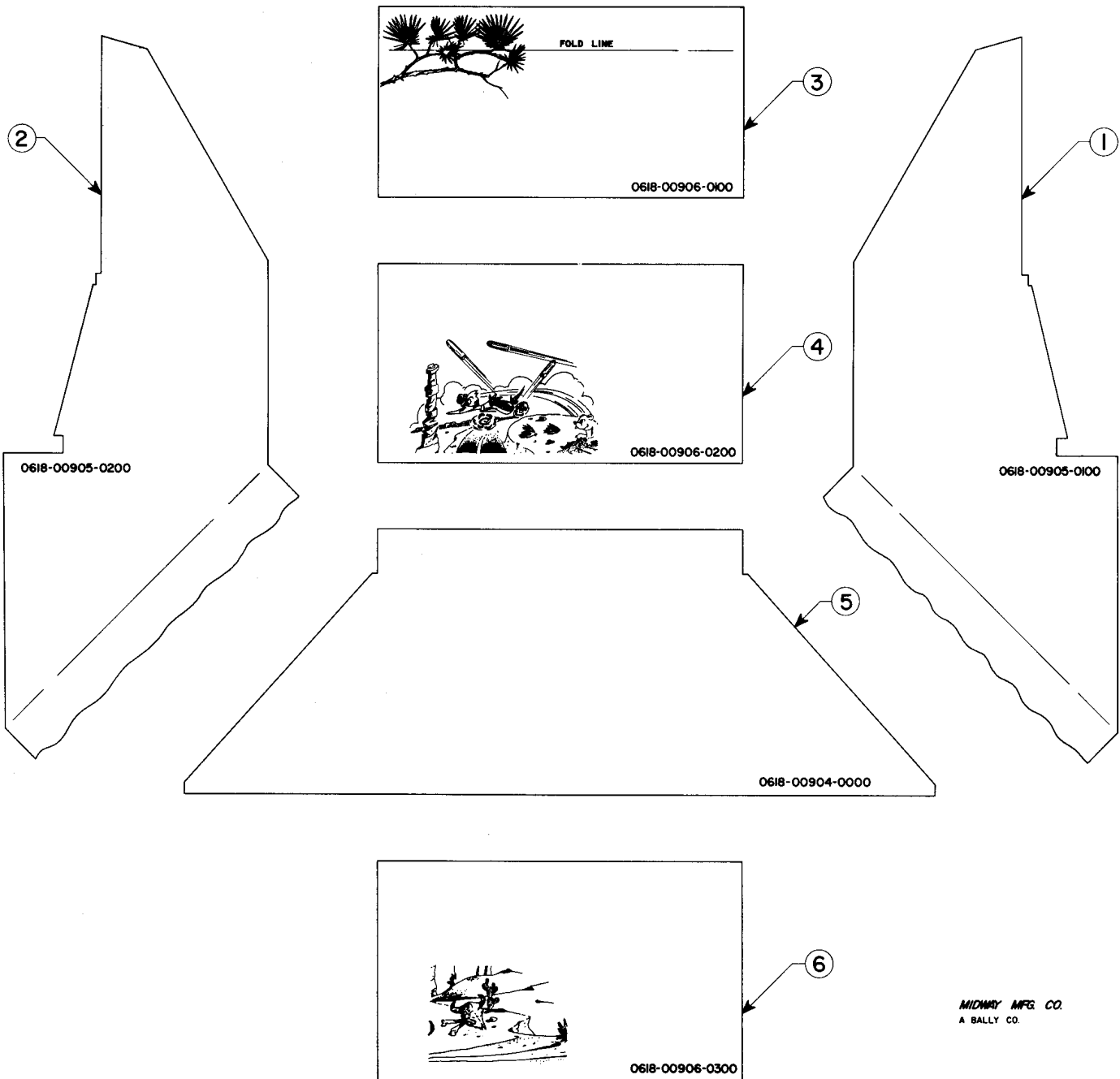
ITEM	PART NO	DESCRIPTION	PRICE
1	MT00-00058-0000	TRANSFORMER - 60 CYCLE OR	28.20 EA.
	MT00-00059-0000	TRANSFORMER - 50 CYCLE	33.90 EA.
2		HARDWARE	
	0017-00101-0637	8 - 32 x 1" CARRIAGE BOLT (4 REQ'D.)	.20
	0017-00104-0022	7/16 x 3/16 x 3/64 STEEL WASHER (4 REQ'D.)	.20
	0017-00103-0008	8-32 HEX. NUT	.20
3	0720-00001-0300	FUSE BLOCK ASSEMBLY	2.10
4	0618-00117-00ZN	VENT GRILL	1.10
5	A031-00002-0000	TERMINAL STRIP ASSEMBLY	.50
6	A618-00907-0000	SOLENOID DRIVER ASSEMBLY	11.10
7	0618-00121-0000	FISHPAPER SHIELD	.20
8	0017-00101-0018	#6 x 3/4" HEX HD. SHEET METAL SCREW (4 REQ'D.)	.20
9	0031-00001-0000	TERMINAL STRIP ASSEMBLY	.30
10	0618-00122-0000	FISHPAPER SHIELD (2 REQ'D.)	.20
11	A080-00904-F000	POWER SUPPLY ASSEMBLY	90.00
12	0591-00017-0000	P.C. MTG. BRKT. ASSY. (2 REQ'D.)	.90
13	0017-00101-0017	#6 x 1/2" HEX. HD. S.M.S. (14 REQ'D.)	.20
14	0567-00003-0000	P.C. MTG. BRKT. ASSY. (2 REQ'D.)	1.70
15	0604-00112-0000	FAN MOTOR ASSEMBLY	29.00
16	0604-00113 0000	SCREEN BRACE	.40
17	0604-00111 0000	SCREEN VENT	.30
18		HARDWARE	
	0017-00102-0070	#6 - 32 x 1-3/4 CARRIAGE BOLT (4 REQ'D.)	.20
	0017-00103-0005	#6 - 32 HEX. NUT (4 REQ'D.)	.20
	0017-00104-0002	#6 SPLIT LOCK WASHER (4 REQ'D.)	.20
	0017-00104-0027	1/2 x 5/32 x 1/16 STEEL WASHER (4 REQ'D.)	.20
19	0017-00005-0046	BACK DOOR LOCK	3.40
20	0017-00005-0042	CAM	.20
21	0017-00005-0051	LOCK PLATE	.30

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NO. 618 – DESERT GUN – SCENERY CARDS



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PRICE LIST

ORDER BY PART NUMBER ONLY

ITEM	PART Nº	DESCRIPTION	PRICE
1	0618-00905-0100	SIDE SCENERY CARD - RIGHT	17.00
2	0618-00905-0200	SIDE SCENERY CARD - LEFT	17.00
3	0618-00906-0100	MID - FRONT SCENERY CARD	7.70
4	0618-00906-0200	MID - BACK SCENERY CARD	7.70
5	0618-00904 0000	BACK GROUND SCENERY CARD	23.60
6	0618-00906-0300	LOWER BACK DOOR SCENERY CARD	7.70

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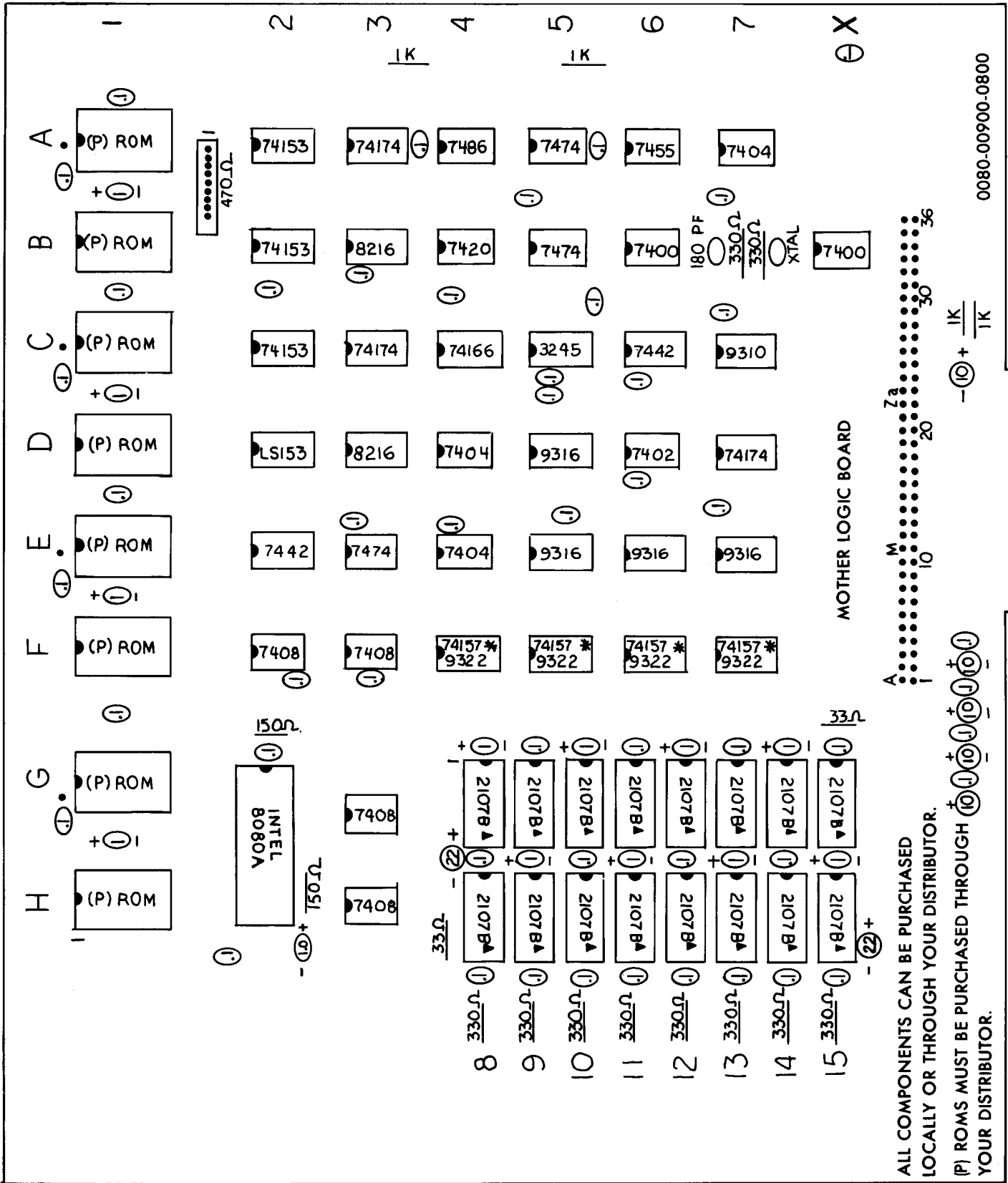
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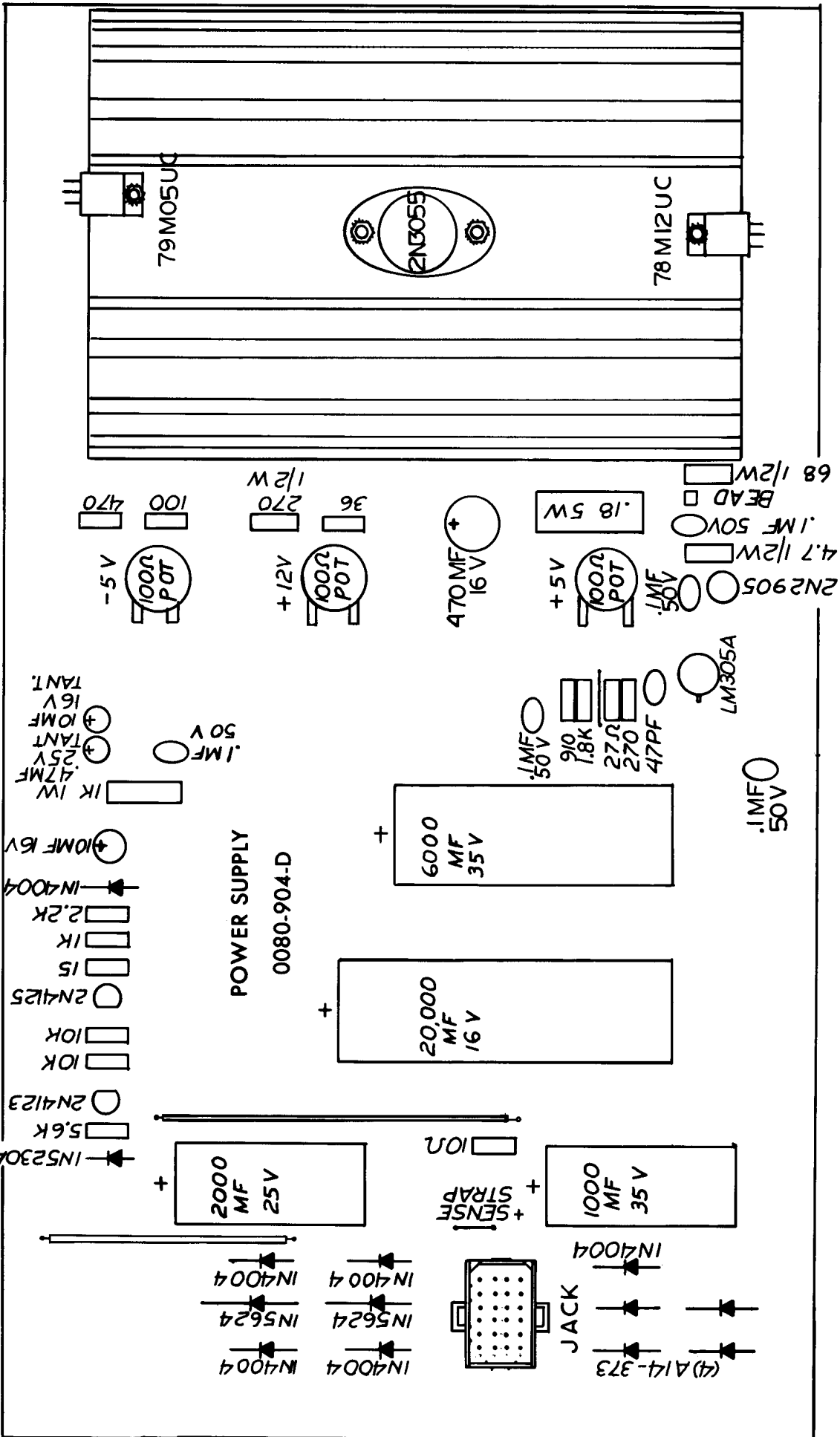
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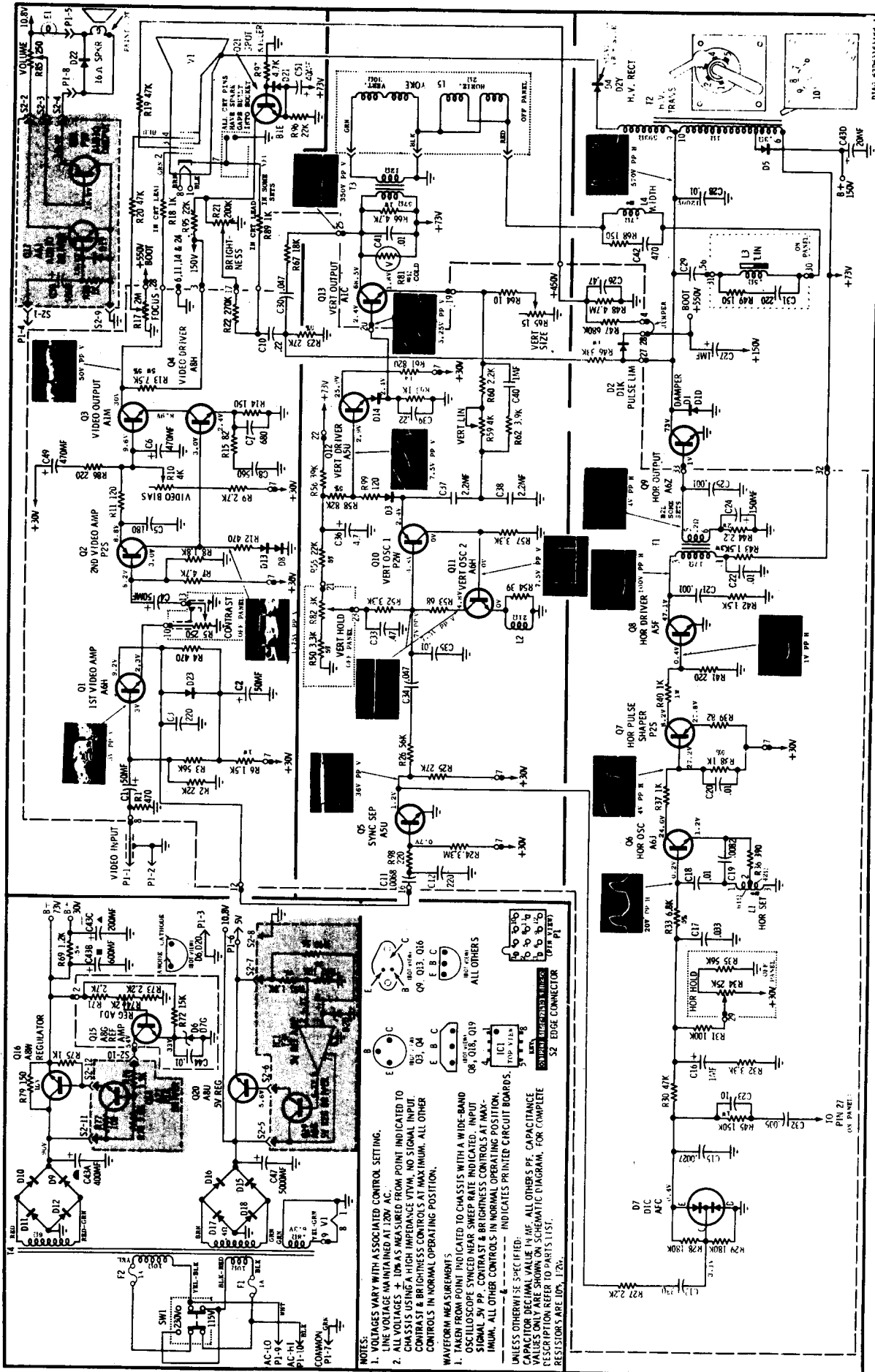
ORDER BY PART NUMBER ONLY

ITEM	PART NO	DESCRIPTION	PRICE
	0017-00032-0005	ON-OFF SWITCH	.80
	0567-00106-0100	SWITCH MTG. PLATE	.60
	0017-00003-0102	COUNTER METER	9.00
	0618-00021-0000	P.C. SUPPORT BRKT. ASSY. (2 REQ'D.)	1.00
	0017-00031-0002	LAMP SOCKETS (5 REQ'D.)	.20
	0017-00031-0052	LAMPS (5 REQ'D.)	.40
	0080-00900-F000	MOTHER BOARD ASSEMBLY	850.00
	0618-00902-0800	GAME BOARD ASSEMBLY	242.00

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Schematic Diagram
XM-702-10

- NOTES:
- VOLTAGES VARY WITH ASSOCIATED CONTROL SETTING.
 - VOLTAGE MEASUREMENTS AT 120V AC.
 - ALL VOLTAGES $\pm 10\%$ AS MEASURED FROM POINT INDICATED TO CHASSIS USING A HIGH IMPEDANCE VTVM. NO SIGNAL INPUT.
 - CONTRAST & BRIGHTNESS CONTROLS AT MAXIMUM. ALL OTHER CONTROLS IN NORMAL OPERATING POSITION.
 - WAVEFORM MEASUREMENTS:
 - TAKEN FROM POINT INDICATED TO CHASSIS WITH A WIDE-BAND OSCILLOSCOPE SYNC'D NEAR SWEEP RATE INDICATED. INPUT SIGNAL 5V PP. CONTRAST & BRIGHTNESS CONTROLS AT MAXIMUM. ALL OTHER CONTROLS IN NORMAL OPERATING POSITION.
 - INDICATES PRINTED CIRCUIT BOARDS.
 - UNLESS OTHERWISE SPECIFIED:
 - CAPACITOR DECIMAL VALUE IN μF . ALL OTHERS PF. CAPACITANCE VALUES ONLY ARE SHOWN ON SCHEMATIC DIAGRAM. FOR COMPLETE DESCRIPTION REFER TO PARTS LIST.
 - RESISTORS ARE 10% $\pm 2\%$.