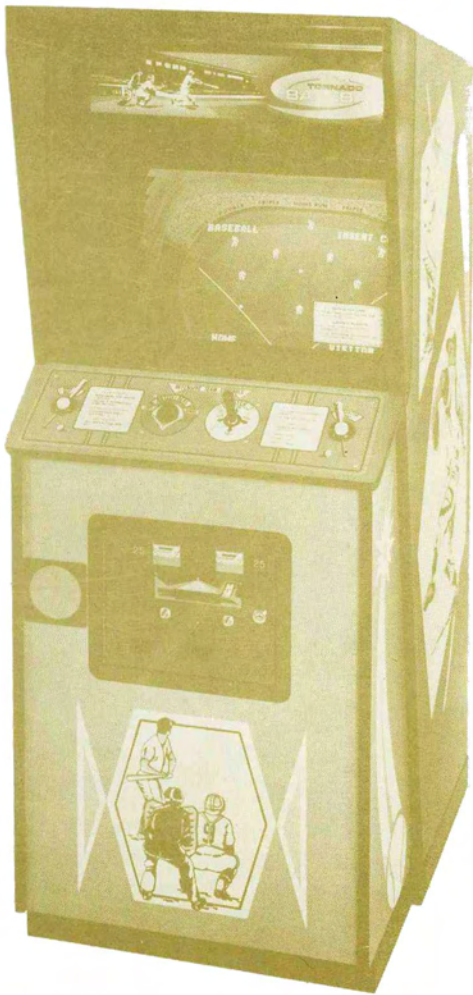


Midway's

GAME NO. 605 & 607
JULY, 1976

TORNADO BASEBALL PARTS CATALOG



NO. 0605 UPRIGHT



NO. 0607 COCKTAIL TABLE

MIDWAY MFG. CO.

A BALLY COMPANY

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GENERAL INSTRUCTIONS FOR "TORNADO BASEBALL"

INSTALLATION:

1. Remove shipping cleats located on the bottom of the cabinet.
2. The power is controlled by a switch located on top of the cabinet. Plug into A.C. only, 115 volts 60 cycles. In low lines areas, (105 volts or less) a boost in the output voltage of the transformer may be achieved by removing the wire from the 115 volt tap of the transformer, and rewiring to the 105 volt position.
3. In event the game is tilted, or the line cord is removed, and credit (Innings) accumulated will reset to zero.

VOLTAGE CONTROL POT:

Located on Power Supply Board (P.C. 80-905) and is preset at the factory. This pot should not be tampered with unless the factory Service Department is contacted.

INNING AND COIN ADJUSTMENT SWITCHES:

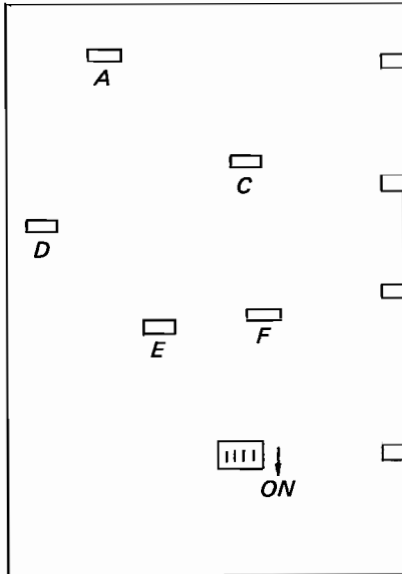
Located on Game Logic Board (P.C. 605-905B) and may be adjusted as indicated on separate instruction sheet located in back box area.

TONE, WHISTLE, SIREN, LOGIC, CHEER AND MASTER VOLUME CONTROL POTS:

Located on Game Logic Board (P.C. 605-905B) and may be adjusted as desired by rotating pots as indicated on separate instructions in back box area.

WARNING

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



NOTE: CLOCKWISE ROTATION IDENTIFIED AS VIEWED FROM POT FACE.

- A. SIREN VOLUME: To increase rotate clockwise.
- C. MASTER VOLUME: To increase all volumes rotate clockwise.
- D. CHEER VOLUME: To increase rotate clockwise.
- E. WHISTLE VOLUME: To increase rotate clockwise.
- F. LOGIC VOLUME: To increase "HIT & STRIKE" volume rotate clockwise.
- G. GAME CONTROL SWITCH: May be set at 1, 2, 3 or 4 coins per play.

GAME CONTROL SWITCH ADJUSTMENTS
 GAME CONTROL SWITCH ADJUSTMENTS

		2	3	4	5
1 COIN	1 INNING	ON	ON	ON	ON
1 COIN	2 INNING	ON	ON	OFF	ON
1 COIN	4 INNING	ON	ON	ON	OFF
1 COIN	9 INNING	ON	ON	OFF	OFF
2 COINS	1 INNING	OFF	ON	ON	ON
2 COINS	2 INNING	OFF	ON	OFF	ON
2 COINS	4 INNING	OFF	ON	ON	OFF
2 COINS	9 INNING	OFF	ON	OFF	OFF
3 COINS	1 INNING	ON	OFF	ON	ON
3 COINS	2 INNING	ON	OFF	OFF	ON
3 COINS	4 INNING	ON	OFF	ON	OFF
3 COINS	9 INNING	ON	OFF	OFF	OFF
4 COINS	1 INNING	OFF	OFF	ON	ON
4 COINS	2 INNING	OFF	OFF	OFF	ON
4 COINS	4 INNING	OFF	OFF	ON	OFF
4 COINS	9 INNING	OFF	OFF	OFF	OFF

NOTE: Switches 1 - 6 - 7 should remain in "ON" position.

RAMs, ROMs, and PROMs TESTING

GAME: Tornado Baseball

SUBJECT: RAMs, ROMs, and PROMs

The Tornado Baseball game micro-computer system has been programmed to detect a defective RAM, ROM, and PROM. To utilize the test, proceed as follows:

1. Set switch #6 to the 'OFF' position on the game board (PC 605-900).
2. Activate coin door, tilt switch.
3. The RAM test sequence will scan and vertical lines will appear.
4. After RAM test sequence is completed and a RAM is defective, 16 vertical columns will appear. (Refer to figure 1 for method of locating bad RAM).*
5. When 16 vertical columns do not appear after RAM sequence, this indicates all RAMs are good.
6. When RAM test is completed and all RAMs are good, the TV screen will go blank and now indicate a bad ROM or PROM by displaying letters locating it.
7. When all ROMs and PROMs are good, the blank TV screen will display nothing.
8. Return switch #6 to 'ON' position (PC 605-900).
9. Activate the tilt switch to return game to normal operation.

NOTE — All RAMs must be good before ROM or PROM test can be made.

GAME: Tornado Baseball

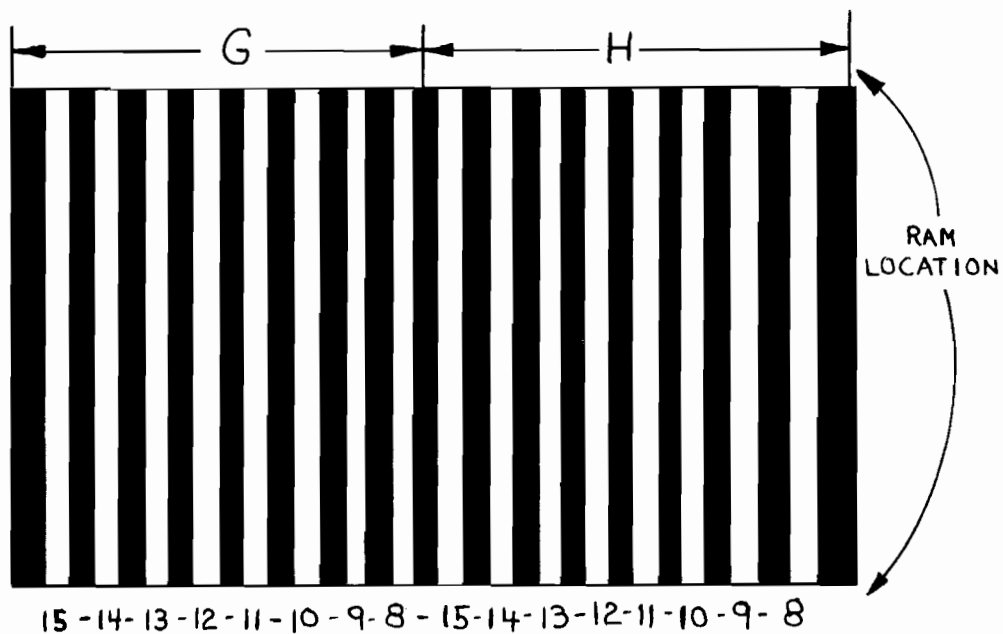


Figure One – Method of Locating a Bad RAM

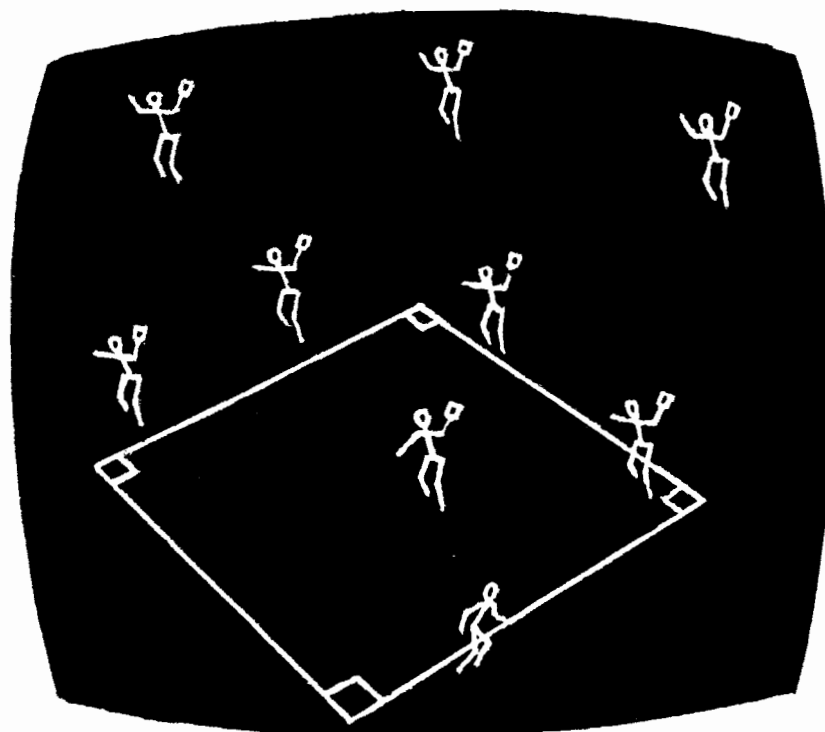
1. When one or more columns are missing or altered, this would indicate a RAM problem.
2. Use Figure One TV display to determine location of faulty RAMs.

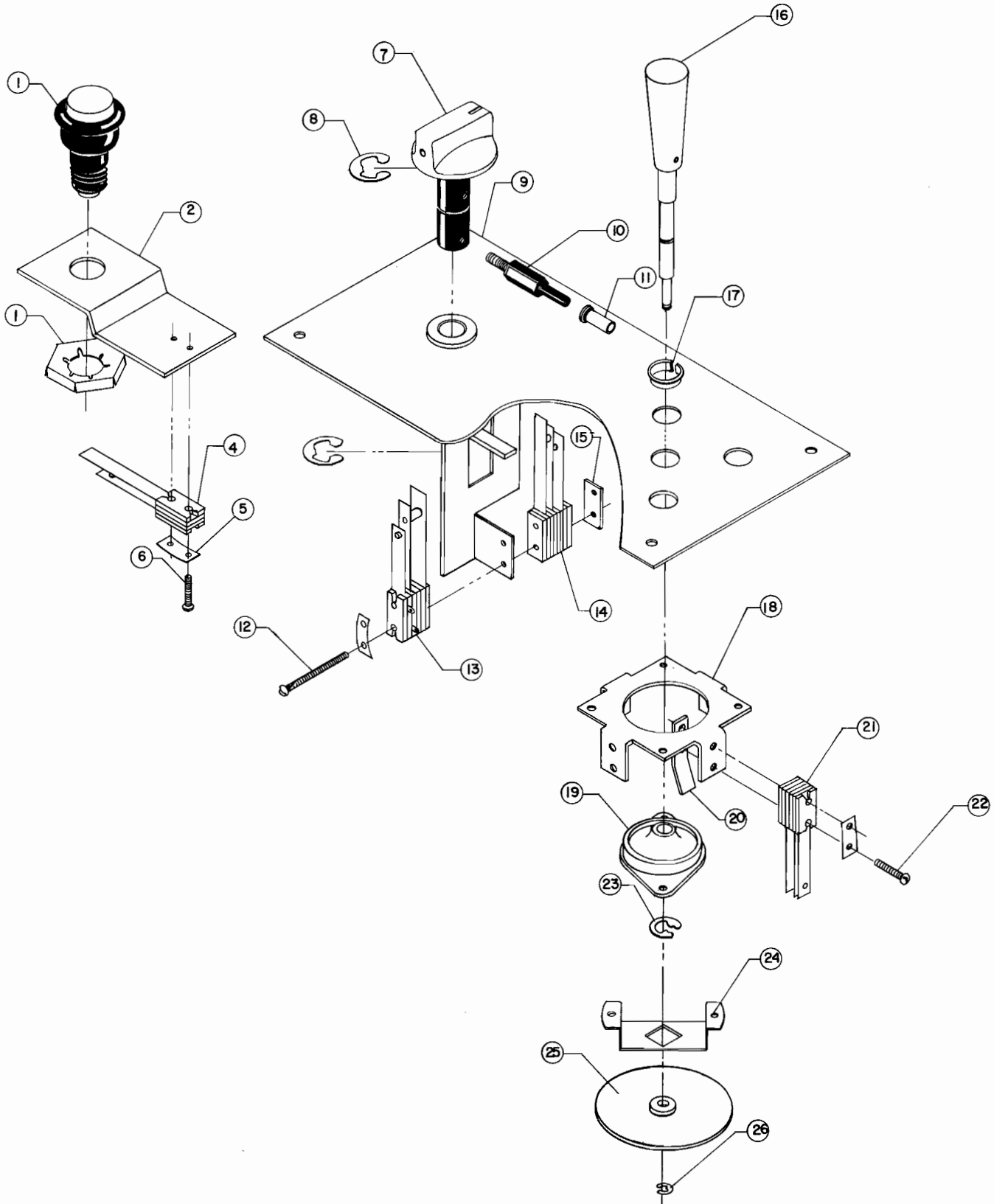
SERVICE BULLETIN

GAME: Tornado Baseball

The Tornado Baseball Up-Right and the Tornado Baseball Cocktail Table logic game board, P.C. 605-900, are not inter-changeable due to different control circuits. The above circuits are shown on game logic board schematic.

This does not effect the mother logic board, P.C. 80900.





PRICE LIST*ORDER BY PART NUMBER ONLY*

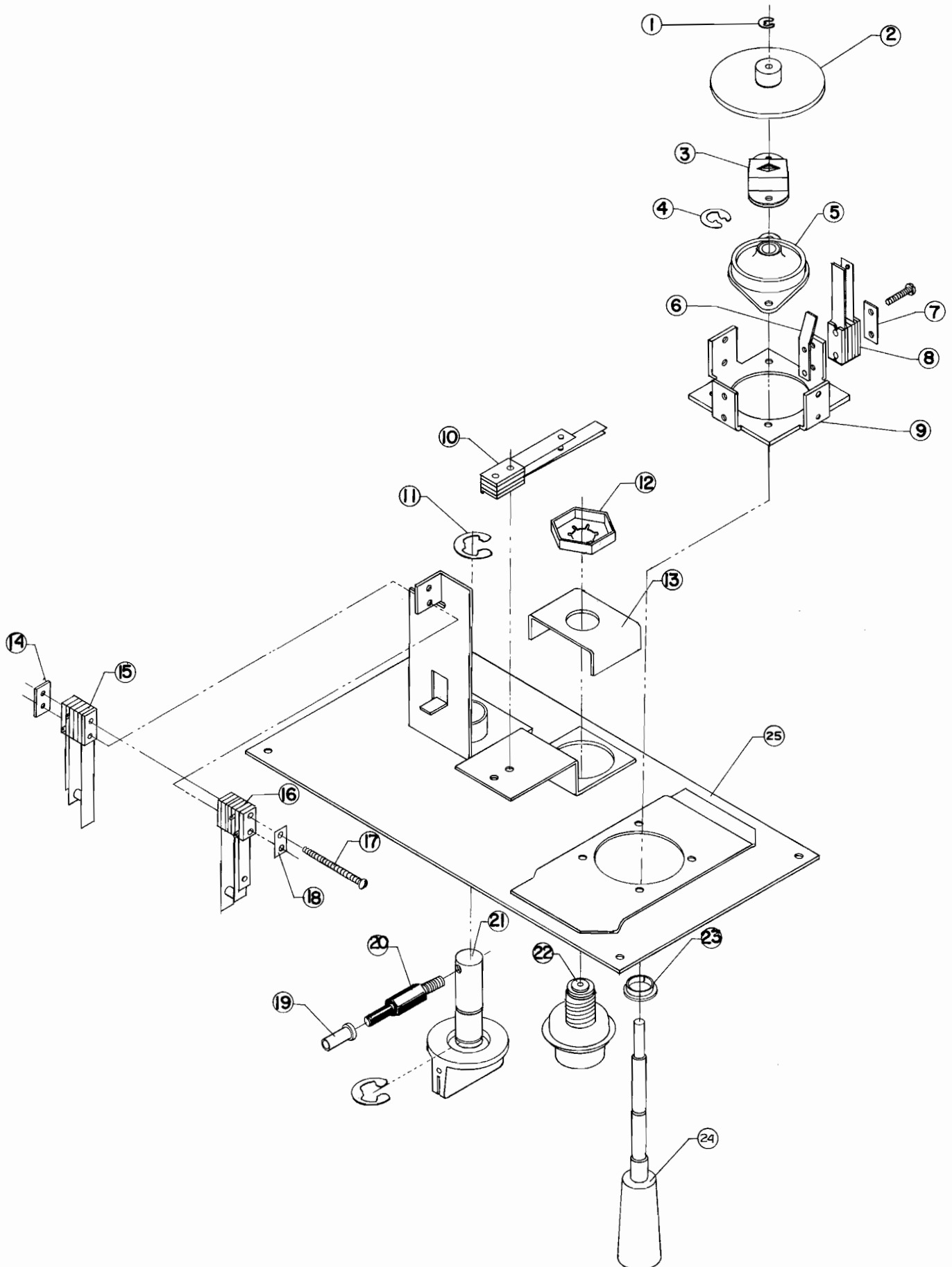
ITEM	PART NO	DESCRIPTION	PRICE
1	0589-00010	PUSH BUTTON	3.30 EA.
2	0586-00107	MOUNTING BRACKET (2)	.40 EA.
4	0586-00036	PUSH BUTTON SWITCH	.70 EA.
5	0020-00202	SWITCH PLATE	.20 EA.
6	0017-00101-0521	5-40 x 3/8 P.H. M.S.	.20 EA.
7	0605-00002	KNOB & SHAFT ASSY.	3.80 EA.
8	0017-00100-0050	"E" RING	.20 EA.
9	0605-00009	MOUNTING BRACKET ASSY.	3.30 EA.
10	0589-00700	PIN	.90 EA.
11	0577-00703	SLEEVING	.40 EA.
12	0017-00101-0534	5-40 x 1 3/8 R.H. M.S.	.20 EA.
13	0605-00006	SWITCH, OUTFIELD LEFT	1.40 EA.
14	0605-00005	SWITCH, OUTFIELD RIGHT	1.40 EA.
15	0520-00138	SWITCH PLATE	.20 EA.
16	0605-00001	HANDLE ASSY.	5.60 EA.
17	0017-00042-0018	NYLINER	.20 EA.
18	0597-00104	SWITCH MOUNTING BRACKET	2.10 EA.
19	0017-00009-0220	GROMMET (150PD-6)	2.50 EA.
20	0597-00113	GUARD STRIP	.40 EA.
21	0597-00004	CONTROL SWITCH	1.10 EA.
22	0017-00101-0527	5-40 x 5/8 P.H. M.S.	.20 EA.
23	0017-00100-0025	"E" RING	.20 EA.
24	0597-00106	STOP BRACKET BOTTOM	.50 EA.
25	0605-00004	WASHER & BUSHING – SUB ASSY.	.90 EA.
26	0017-00100-0015	"E" RING	.20 EA.

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NO. 0607-COCKTAIL-TABLE CONTROL SHELF



PRICE LIST*ORDER BY PART NUMBER ONLY*

ITEM	PART NO	DESCRIPTION	PRICE
1	0017-00100-0015	"E" RING	.20 EA.
2	0605-00004	WASHER & BUSHING ASSY.	.90 EA.
3	0597-00106	STOP BRACKET BOTTOM	.50 EA.
4	0017-00100-0025	"E" RING	.20 EA.
5	0017-00009-0220	GROMMET	2.50 EA.
6	0597-00113	GUARD STRIP	.40 EA.
7	0020-00202	SWITCH PLATE	.20 EA.
8	0597-00004	CONTROL SWITCH	1.10 EA.
9	0597-00104	SWITCH MTG. BRACKET	2.10 EA.
10	0586-00036	BUTTON SWITCH	.70 EA.
11	0017-00100-0050	"E" RING	.20 EA.
12		COMES WITH ITEM NO. 22	
13	0607-00102	SPACER	.60
14	0520-00138	SWITCH PLATE	.20
15	0605-00006	SWITCH, OUTFIELD LEFT	1.40
16	0605-00005	SWITCH, OUTFIELD RIGHT	1.40
17	0017-00101-0534	5-40 x 1 3/8 R.H. M.S.	.20 EA.
18	0020-00202	SWITCH PLATE	.20 EA.
19	0577-00703	SLEEVING	.40 EA.
20	0589-00700	PIN	.90 EA.
21	0605-00002	KNOB & SHAFT & ASSY.	3.80 EA.
22	0589-00010	PUSH BUTTON (COMES WITH ITEM NO. 12 ALSO)	3.30 EA.
23	0017-00042-0018	NYLINER	.20 EA.
24	0605-00001	HANDLE ASSY.	5.60 EA.
25	0607-00001	CONTROL PANEL ASSY. W/CABLE	80.00 EA.

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TORNADO BASEBALL – ADDITIONAL PARTS LIST

PRICE LIST

ORDER BY PART NUMBER ONLY

ITEM	PART N ^o	DESCRIPTION	PRICE
		<u>COCKTAIL TABLE (0607)</u>	
	0017-00003-0165	19" TV. MONITOR – MOTOROLA	390.00 EA.
	0017-00003-0032	SPEAKER	7.30 EA.
	0604-00900	PENTAGONAL GLASS	124.20 EA.
	0604-00901	LIGHT PANEL	1.30 EA.
	0607-00900-00SC	SILK SCREENED CARDBOARD	7.10 EA.
	0604-00903	19" TV. BEZEL	14.00 EA.
	0569-00001	SPEAKER BEZEL ASSY.	2.00 EA.
	0549-00128	SPEAKER GRILL	1.20 EA.
	0017-00041-0576	GASKET	.20 EA.
	0604-00101	CASH BOX	6.00 EA.
	0604-00102	CASH BOX COVER	2.40 EA.
	0601-00010	CASH BOX LOCK BRACKET	1.40 EA.
	0017-00102-0048	LEG LEVELER	.50 EA.
	0017-00103-0026	LEG LEVELER NUT	.20 EA.
	0604-00111	VENT GRILL	.30 EA.
	0017-00031-0002	SOCKET, LAMP	.20 EA.
	0017-00003-0052	LAMP	.40 EA.
	0017-00005-0046	BACK DOOR LOCK	3.40 EA.
	0017-00005-0051	LOCK PLATE	.40 EA.
	0017-00005-0042	CAM	.40 EA.
	0017-00003-0102	COUNTER	9.00 EA.
	0567-00003	P.C. BOARD MOUNTING ASSY.	1.70 EA.
	0591-00017	P.C. SUPPORT BRACKET ASSY. (SMALL)	.90 EA.
	0597-00012-0100	P.C. SUPPORT BRACKET ASSY. (R.H.)	3.10 EA.
	0597-00012-0002	P.C. SUPPORT BRACKET ASSY. (L.H.)	3.10 EA.
	0080-00001	HEAT SINK ASSY.	7.50 EA.
	0017-00102-0069	1/4 x 20 x 3 1/2 HEX HEAD BOLT	.20 EA.
	0017-00104-0039	3/4 x 9/32 x 1/16 FLAT WASHER	.20 EA.
	0604-00108	GLASS RETAINER	1.00 EA.
	0607-00103	FRONT RETAINER	6.00 EA.
	0604-00002	MOUNTING FRAME, HORIZONTAL ASSY.	4.40 EA.
	0604-00112	COOLING MOTOR	28.20 EA.
	0604-00111	VENT GRILL	.40 EA.

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TORNADO BASEBALL – ADDITIONAL PARTS LIST

PRICE LIST

ORDER BY PART NUMBER ONLY

ITEM	PART N ^o	DESCRIPTION	PRICE
	0607-00901	GREEN ACETATE COLOR MASK <u>UPRIGHT CABINET (0605)</u>	4.20 EA.
	0605-00003	CONTROL SHELF ASSY. W/CABLE	90.50 EA.
	0605-00907	FRONT GLASS	11.60 EA.
	0605-00907-00TE	TEMPERED FRONT GLASS	26.70 EA.
	0605-00010	FLOURESCENT FIXTURE ASSY W/O BL-BULB	28.70 EA.
	0017-00003-0110	24" FLOURESCENT BL-BULB	7.00 EA.
	0017-00031-0002	SOCKETS	.20 EA.
	0017-00003-0052	LAMPS	.40 EA.
	0597-00012-0200	P.C. SUPPORT BRACKET ASSY. (L.H.)	3.10 EA.
	0605-00902-00SC	NAME GLASS	11.60 EA.
	0605-00907-00TE	TEMPERED FRONT GLASS	26.70 EA.
	0605-00902-00SC	NAME GLASS	13.60 EA.
	0605-00909	TINT OVERLAY	.20 EA.
	0605-00906	MIRROPANE MIRROR	71.50 EA.
	0537-00138	GLASS LIFT BRACKET 24"	2.60 EA.
	0605-00108	GLASS LOCK EXT.	.80 EA.
	0605-00104-0001	GLASS LOCK BRACKETS	1.70 EA.
	0017-00009-0009	TURN BUTTON	.20 EA.
	0090-00020-02BR	DOUBLE ENTRY COIN DOOR	104.00 EA.
	0090-00002-02BR	DOOR FRAME	7.80 EA.
	0566-00120	CASH BOX	6.00 EA.
	0566-00121	CASH BOX COVER	2.20 EA.
	0601-00010	CASH BOX LOCK BRACKET	1.40 EA.
	0017-00005-0046	BACK DOOR LOCK	3.40 EA.
	0017-00005-0051	LOCK PLATE	.40 EA.
	0017-00005-0042	CAM	.20 EA.
	0017-00003-0102	COUNTER METER	9.00 EA.
	0017-00003-0161	SPEAKER	6.00 EA.
	0569-00010-00BR	SPEAKER BEZEL	2.00 EA.
	0017-00041-0576	SPEAKER GASKET	.20 EA.
	0596-00137	SUPPORT CHANNEL SHIPPING	1.20 EA.
	0605-00010	FLOURESCENT FIXTURE ASSY.	28.70 EA.

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TORNADO BASEBALL – ADDITIONAL PARTS LIST

PRICE LIST

ORDER BY PART NUMBER ONLY

ITEM	PART NO	DESCRIPTION	PRICE
	0017-00003-0110	LAMP 24" FLOURESCENT BL-BULB	7.00 EA.
	0017-00031-0015	LAMP HOLDERS	.60 EA.
	0017-00003-0019	STARTER	.20 EA.
	0017-00021-0079	STARTER HOLDER	2.00 EA.
	0017-00021-0005	FLOURESCENT LOCKS	.30 EA.
	0017-00041-0013	GROMETS	.20 EA.
	0017-00003-0036	BALLAST	2.20 EA.
	0567-00106-0100	SWITCH MTG. PLATE	.60 EA.
	0572-00103	VENT GRILL	1.20 EA.
	0605-00107	FISHPAPER BARRIER	.60 EA.
	0605-00003	CONTROL SHELF ASSY. W/CABLE	90.50 EA.
	0597-00012-0100	P.C. SUPPORT BRACKET ASSY. (R.H.)	3.10 EA.
	0605-00008	P.C. BD MTG. ASSY.	15.50 EA.
	0567-00003	P.C. BD MTG. ASSY.	1.70 EA.
	0017-00003-0140	MOTOROLA MONITOR	390.00 EA.
	0161-00002	DAG SPG. ASSY.	1.50 EA.

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