

TO: Distribution  
FROM: Kent Wall  
DATE: May 19, 1978  
SUBJECT: Sales Meeting and CES - June 7-15  
REVISED SCHEDULE

This is to outline a revised schedule for both the sales meeting and the Consumer Electronics Show (CES) in Chicago. These revisions reflect changes in our handling of our video presentation. I have included a list of as many of the coordinating details as can be defined at this time. Please review the attached as it affects your specific area of responsibility and get back to me with any questions/problems. Disregard your previous copy dated May 10, 1978.

Information on hotel accommodations, etc. will be coordinated directly by Sylvia Meza (Ext. 1852).

SKW:slm

Distribution:

A. Adler  
D. Bogart  
A. Carlson  
D. Chandler  
R. Chang  
H. Cohen  
J. Dickerman  
J. Kingsbury  
E. Krakauer  
M. Kuhn  
F. Murnane  
S. Platt  
H. Reekie  
J. Rochlis  
J. Rubenstein  
P. Towne  
S. Verduzco

cc: Steve Goldstein  
Jeff Heimbuck  
Gus Lizzi  
Missy Powell

REVISED

OUTLINE / SCHEDULE

SALES MEETING AND CES 1978

EQUIPMENT/RESPONSIBILITY

DATE	TIME	ACTIVITY	LOCATION
5/6	9:00 A.M.	Booth Set Up	McCormick Place 23rd and The Lake Chicago, Illinois
			Lobby Level Booth #2055
			***
		Mattel Personnel arrive through-out the day.	Palmer House State & Monroe Streets Chicago, Illinois
5/7	9:00 A.M.	Booth Set Up Continues	
5/8	9:00 A.M.	Booth Set Up Continues	Ritz-Carlton 160 East Pearson St. At Water Tower Place Chicago, Illinois
5/9	9:00 A.M.	Booth Set Up Continues	
		Mattel Personnel and RS Personnel arrive throughout the day.	

All booth materials, carpet, furniture, etc. are the responsibility of DGC.

Other requirements include:

- Cassette Tape of Video Commercial . . . . . O&M\*
- 2 Cassette Tapes ("Football" and "Basketball" commercials/Space Alert footage) . . . . . O&M\*
- Mounted Pinball Print Ad . . . . . O&M\*
- Two 16mm Prints ("Football" and "Basketball" commercials/Space Alert footage) . . . . . O&M\*
- 200 Salesmen's Briefcases . . . . . DGC\*

\* Items stored in Mattel's suite at the Ritz-Carlton Hotel until 6/10.

DATE	TIME	ACTIVITY	LOCATION	EQUIPMENT/RESPONSIBILITY
/9	9:00 A.M.	Equipment arrives throughout the day.	Mattel's Suite at the Ritz-Carlton Hotel	Three (3) Las Vegas Pinball Machines (Jim Kingsbury) - One with arcade graphics set up and working in the suite - One with arcade graphics and one with woodgrain finish stored in the suite.
				Video System Emulator (David Chandler) - Set up and working in the suite
				Two (2) Decorated Video Consoles (David Chandler and Shel Platt) - Stored in the suite
				Six (6) Cassettes and Six (6) Cassette Packages (Shel Platt and Allen Adler) - One unit for each cartridge theme decorated and with copy in suite - Two demo instruction/ play books
				One (1) Video Console Package (Shel Platt) - One unit decorated front and back if possible and stored in the suite
				One (1) Video System In-Store Demo Unit (Lesjay Company) - One prototype unit set up in the suite
				One (1) Pinball Owner's Manual (Allen Adler) - One comp in suite

DATE	TIME	ACTIVITY	LOCATION	EQUIPMENT/RESPONSIBILITY
/9	9:00 A.M.	Equipment arrives throughout the day.		One (1) Lady Luck Display (Lesjay Company) - One prototype unit in suite
				500 Pinball Warranty Statements (John Dickerman) - Stored in the suite
				500 Lists of GE Service Centers (John Dickerman) - Stored in the suite
				500 Pinball Press Kits (Joel Rubenstein) - Stored in the suite
				500 Hand-Held Press Kits (Joel Rubenstein) - Stored in the suite
				50 Demonstrator Scripts for each Hand-Held Game (Sylvia Meza) - Stored in the suite
				Six (6) Hand-Held Counter Demo Units (Denny Bogart) - Stored in the suite
				12 Units Each Hand-Held Game with Packages (Denny Bogart and Shel Platt) - Stored in the suite

JTLINE/SCHEDULE  
 SALES MEETING AND CES 1978

DATE	TIME	ACTIVITY	LOCATION	EQUIPMENT/RESPONSIBILITY
/9	9:00 A.M.	Equipment arrives through- out the day.		10,000 Hand-Held Game Brochures (Denny Bogart and Sylvia Meza) - Stored in the suite
				3,000 Pinball Brochures (Denny Bogart and Sylvia Meza) - Stored in the suite - Collated to include Warranty Statement, Lady Luck Flyer, Advertising Schedule and Ad Print
				TV Set and Video Playback Equipment (Denny Bogart--rent in Chicago) - Set up in the suite
	9:00 A.M.	Booth Set Up Continues	McCormick Place	DGC Continues Booth Set Up
	1:00 P.M. to 4:00 P.M. }	RS Training	Mattel's Suite at the Ritz-Carlton Hotel	Kent Wall, Sharon Verduzco, and Mal Kuhn will train RS personnel on <u>Pinball and Hand-Held Games.</u>
;/10	9:00 A.M.	Set Up for Sales Meeting	Ritz-Carlton Meeting Rm.	Denny Bogart, Kent Wall, Mal Kuhn, David Chandler, and Jim Kingsbury will move the following equipment from the suite to the meeting room: - Three Las Vegas Pinball Machines - Hand-Held Games with Packages - Three hand-held game counter demo units - Video tape playback equipment for TV commercial as back up to film system.

DATE	TIME	ACTIVITY	LOCATION	EQUIPMENT/RESPONSIBILITY
/10	9:00 A.M.	Set Up for Sales Meeting	Ritz-Carlton Meeting Room	<ul style="list-style-type: none"> <li>- *16mm film of "Football" and "Basketball" commercials, also Space Alert footage.</li> <li>- Lady Luck Display Prototype</li> <li>- 200 Salesmen's Brochures for Pinball and Hand-Held Games</li> <li>- 200 Salesmen's Briefcases</li> </ul>
		* Sharon Verduzco will arrange for a 16mm sound projector, 35mm slide carousel unit and a large screen for the Sales Meeting. All price lists, etc. will be the responsibility of Sharon Verduzco and Mal Kuhn.		
/10	1:00 P.M.	Sales Meeting Begins	Ritz-Carlton Meeting Room	Attendance by all sales reps plus Ed Krakauer, Mal Kuhn, Kent Wall, Frank Murnane, Jeff Rochlis, Sharon Verduzco, David Chandler or Rick Timmons, and Jim Kingsbury.
/10	4:00 P.M.	Sales Meeting Ends		<p>At the conclusion of the Sales Meeting the following items will be moved to the McCormick Place booth by Denny Bogart, Jim Kingsbury, and David Chandler:</p> <ul style="list-style-type: none"> <li>- All Pinball Machines</li> <li>- All Hand-Held Games and Packages except for one set which stays in the suite</li> <li>- All counter demo units for hand-held games except for one which stays in the suite</li> <li>- Lady Luck Display</li> <li>- Pinball and Hand-Held press releases except for 10 which remain in the suite</li> <li>- All Salesmen's brochures for Pinball and Hand-Held except for 100 which remain in the suite</li> <li>- All Price lists and order forms</li> <li>- Pinball Print Ad</li> <li>- Brochures of GE Service Center Listings</li> </ul>

JTLINE/SCHEDULE  
ALES MEETING AND CES 1978

DATE	TIME	ACTIVITY	LOCATION	EQUIPMENT/RESPONSIBILITY
/10	4:00 P.M.	Sales Meeting Ends		- Pinball Warranty Statements - Pinball Owner's Manual - Cassette of "Football" and "Basketball" commercials and Space Alert footage.
/10	4:05 P.M.	Cocktail Party for Reps	Ritz-Carlton Meeting Room	
/11	9:00 A.M.	CES Begins	Mccormick Place	Booth manned by Kent Wall, Sharon Verduzco, Mal Kuhn and five RS personnel.
/14	6:00 P.M.	CES Ends		
/15				All equipment is packed and returned to Hawthorne or New York.

Colors limited to 8, with possibility of different (fixed) hue name for background. (mix 16 colors?)

can background be scrolled? no

Can background colors be changed during frame yes  
(to generate different colored horizontal bands, for instance)

can object data (including duplicate location) be changed during frame? yes

2 PIV'S could cover field @ 4x4 granularity  
4 " " " " " 2x2 "  
8 " " " " " 1x1 "

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3 PIV'S could:

write ~~24~~<sup>12</sup> characters in a row (if no other objects there)

Have ~~24~~<sup>12</sup> single block (+2 double block) objects on same row

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X, Y mirroring? no

Can duplicate be made to start on line immediately following first display of object yes

Does it detect or block or object contact? — object to any part of background

— signal present on block or object spots?



R<sub>0</sub> R<sub>1</sub> R<sub>2</sub> R<sub>3</sub>    R<sub>4</sub> R<sub>5</sub> R<sub>6</sub> R<sub>7</sub>    R<sub>10</sub> R<sub>11</sub> R<sub>12</sub> R<sub>13</sub>    R<sub>14</sub> R<sub>15</sub> R<sub>16</sub> R<sub>17</sub>

ALL #'s in  
OCTAL

init

40 41 41 0    0 0 0 0<sup>00</sup>    377 361 0 17    17 17 0 0

START whistle

377  
17 17 17  
370

STOP whistle

377

START CROWD

377  
15 377 377 377  
307

STOP CROWD

0

Dec Reg	Hex
0	00
1	01
2	02
3	03
4	04
5	05
6	06
7	40
8	FF
9	1B
10	0E
11	0F
12	0F
13	F0
14	00
15	00

Whistle

8 = F8

Row D

8 = DF

OSC FREQ = 1790000  
 NOTE OCT FREQ REGISTER

1  
2  
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C	1	32,7000	6	5	3	5
C#	1	34,6500	6	2	3	4
D	1	36,7100	5	7	4	7
D#	1	38,8900	5	4	7	4
E	1	41,2000	5	2	3	3
F	1	43,6500	5	0	0	3
F#	1	46,2500	4	5	6	2
G	1	49,4	3	5	3	
G#	1	51,9100	4	1	5	3
A	1	55,3	7	6	2	
A#	1	58,2700	3	5	7	7
B	1	61,7400	3	4	2	4
C	2	65,4000	3	2	5	6
C#	2	69,3000	3	1	1	6
D	2	73,4200	2	7	6	3
D#	2	77,7800	2	6	3	6
E	2	82,4000	2	5	1	5
F	2	87,3000	2	4	0	1
F#	2	92,5000	2	2	7	1
G	2	98,2	1	6	5	
G#	2	103,820	2	0	6	5
A	2	110,1	7	7	1	
A#	2	116,540	1	6	7	7
B	2	123,480	1	6	1	2
C	3	130,800	1	5	2	7
C#	3	138,600	1	4	4	7
D	3	146,840	1	3	7	1
D#	3	155,560	1	3	1	7
E	3	164,800	1	2	4	6
F	3	174,600	1	2	0	0
F#	3	185,1	1	3	4	
G	3	196,1	0	7	2	
G#	3	207,640	1	0	3	2
A	3	220,0	7	7	4	
A#	3	233,080	0	7	3	7
B	3	246,960	0	7	0	5
C	4	261,600	0	6	5	3
C#	4	277,200	0	6	2	3
D	4	293,680	0	5	7	4
D#	4	311,120	0	5	4	7
E	4	329,600	0	5	2	3
F	4	349,200	0	5	0	0
F#	4	370,0	4	5	6	
G	4	392,0	4	3	5	
G#	4	415,280	0	4	1	5
A	4	440,0	3	7	6	
A#	4	466,160	0	3	5	7
B	4	493,920	0	3	4	2
C	5	523,200	0	3	2	5
C#	5	554,400	0	3	1	1
D	5	587,360	0	2	7	6
D#	5	622,240	0	2	6	3
E	5	659,200	0	2	5	1
F	5	698,400	0	2	4	0
F#	5	740,0	2	2	7	
G	5	784,0	2	1	6	
G#	5	830,560	0	2	0	6

A 5 880 0 1 7 7  
 A# 5 932,320 0 1 6 7  
 B 5 987,840 0 1 6 1  
 410 HALT

		C	F	COARSE	FINE
C	6535	D	5D	15	135
	6234	C	9C	14	234
D	5747	B	E7	13	347
	5474	B	3C	13	067
E	5233	A	96	12	226
F	5003	A	03	12	003
	4562	9	72	11	162
G	4353	8	EB	10	353
	4153	8	6B	10	153
A	3762	7	F2	7	362
	3577	7	7F	7	177
B	3424	7	14	7	024
C	3256	6	AE	6	256
	3116	6	4E	6	116
D	2763	5	F3	5	363
	2636	5	9E	5	236
E	2515	5	4D	5	115
F	2401	5	01	5	001
	2271	4	B9	4	271
G	2165	4	75	4	165
	2065	4	35	4	065
A	1771	3	F9	3	371
	1677	3	B F	3	277
B	1612	3	8A	3	212
C	1527	3	57	3	127
	1447	3	27	3	047
D	1371	2	F9	2	371
	1317	2	C F	2	317
E	1246	2	A6	2	246
F	1200	2	80	2	200
	1134	2	5C	2	134
G	1072	2	3A	2	072
	1032	2	1A	2	032
A	0774	1	F C	1	374
	0737	1	D F	1	337
B	0705	1	C5	1	305

		C	F	COARSE	FINE
C	0653	1	A6	1	246
	0623	1	93	1	223
D	0574	1	7C	1	174
	0547	1	67	1	147
E	0523	1	53	1	123
F	0500	1	40	1	100
	0456	1	2E	1	056
G	0435	1	1D	1	035
	0415	1	0D	1	015
A	0376	0	F E	0	376
	0357	0	E F	0	357
B	0342	0	E 2	0	342
C	0325	0	D 5	0	325
	0311	0	C 9	0	311
D	0276	0	B E	0	276
	0263	0	B 3	0	263
E	0251	0	A 9	0	251
F	0240	0	A 0	0	240
	0227	0	9 7	0	227
G	0216	0	8 E	0	216
	0206	0	8 6	0	206
A	0177	0	7 F	0	177
	0167	0	7 7	0	167
B	0161	0	7 1	0	161



S. K. WALL

Dave Chandler  
MS 316

TO: Denny Bognart  
Dave Chandler

Re: CES Schedule

Video Presentation including packaging  
etc will need to be set  
up in the RITZ-Carlton  
Suite for a presentation  
to WAREDS AT 9AM on  
June 9.

Please adjust your plans  
accordingly -

cc

M. Kuhn

DM  
5/25



## EXHIBIT B

### I. SCOPE

This specification applies to those portions of the Mattel system for which General Instrument (GI) has design and development responsibilities as outlined in this Agreement. The portions involved are essentially contained on the three printed circuit boards. They are the logic board, the power supply board, and the cartridge board. In addition, the requirements for test procedures are specified.

### II. FUNCTIONAL CHARACTERISTICS, PCB'S

The Mattel product shall consist of three printed circuit boards.

i. Logic Board. This circuit shall contain the 8900 chip set, which is a standard product of GI, configured as follows:

1. 2K x 8 bits graphics ROM.
2. 512 x 8 bits graphics RAM.
3. 2K x 10 bits program ROM.
4. 128 x 8 bits additional scratchpad RAM.

The circuit shall also contain any components necessary to insure that the 8900 chip set functions as GI has specified in the appropriate data sheets.

In addition, the audio and video shall be modulated using an ASTEC 1285-1 module.

ii. Power Supply. This circuit shall contain components necessary to convert the low voltage AC supplied by the Mattel specified transformer to the DC power required by the Mattel product.

iii. Cartridge Board. This shall consist of two AY-3-9500 Program ROMs.

### III. PHYSICAL CHARACTERISTICS, PCB'S

The physical constraints imposed on the various printed circuit boards are defined by the design of the console housing and the cartridge housing as represented by Mattel's drawings numbered 2609-2109, 2609-2149, 2609-2119, 2610-9529, which are hereby included in this specification by reference. Mattel drawings Layout (2609) and Layout P.C.B. (2609) and sketches of the cartridge and power supply boards are also available to clarify these constraints.



EXHIBIT B

Page 2.

1. LOGIC BOARD

The logic board contains all the 8900 system circuitry as described in Section III above except the cartridge ROM(s) and the power supply. It is a two-sided board with plated through holes, which is mounted with the components side down. The functional interfaces with this board are:

- A. Cartridge (I/O) -- 22 position edge connector, Methode part number 186-413-00, into which the cartridge PC board plugs. The logic PC board should undercut this connector by about 0.060" on the three sides other than the lead side in order to provide an effective chamber to help guide the cartridge housing around the connector and tongue of the logic board. *Chamfer*

The 22 contacts farthest away from the logic board are used to interface the program ROMs. The signals on these contacts are DB0-DB15, 3 control lines, ground and two +5 volt lines. The +5 volt lines are the outermost lines and are used to connect power back to the logic board.

There are 11 contacts on the other side of this connector. The following signals are to be put on these contacts for future use: MCLR,  $\phi$ 1, TCI, Interrupt In, Interrupt Out, and Sound In. In addition, it would be desirable to bring the five Branch External lines from the CPU to this connector.

- B. Controllers (Input) -- Two 9 pin connectors (right angle header 0.025" square pins on 0.100" centers). See layout P.C.B. drawings for desired location. On each connector, pin 1 is ground, pins 2-9 are 8-bit input character going to sound-I/O IC. Pin 2 is least significant bit. Controllers are 8 switches to the ground line with a maximum of 100 ohms series resistance per switch.
- C. Power (Input) -- 5 pin connector (right angle header, 0.045" square pins on 0.156 centers). See layout P.C.B. drawing for desired location. Pin designation left up to GI.
- D. Antenna Cable (Output) -- Phono socket on modulator. RF signal suitable for driving all properly operating T.V.'s through antenna cable and switch.
- E. Channel Select (Input) -- Slide switch mounted on PC board.
- F. Reset Switch (Input) -- Momentary, normally open contacts. These parts must be attached to circuitry side of P.C. board and may require special holes.

## EXHIBIT B

Page 3.

### 2. POWER SUPPLY BOARD

The power supply board is a single sided PC board which is mounted with the components side up. The length of the power supply board can be extended beyond that shown on the referenced drawings if the logic board is not made the maximum length. Note that enough space must be left between the two boards for controller connector access.

The power input to the power supply board comes from the transformer through a 5-pin connector (straight pin header, 0.045" square pins, 0.156" centers). One winding of the transformer provides a center-trapped 15.4 volt, rms, input to the power supply board capable of supplying 1.0 ampere average d.c. current with center-tapped rectification into a 10,000 microfarad capacitor. The other winding provides a 14.0 volt, rms, input capable of supplying 0.160 ampere average d.c. current with bridge rectification into a 1,000 microfarad capacitor. These voltages are at an input voltage of 115 volts, rms. The input voltage range for satisfactory operation is 105 to 130 volts, rms.

The power on-off switch operates on the secondary a.c. voltages. A three pole, single throw switch for this purpose is connected to the power supply board by a six-wire cable which is soldered into the power supply board. The output power from the power supply is connected to the logic board through a 5-wire cable soldered into the power supply board.

### 3. CARTRIDGE PRINTED CIRCUIT BOARD

The printed circuit board in the cartridge is a single sided board with edge fingers to mate with the bottom row of contacts in the 22 position connector on the logic board. It is designed to mount either one or two 28 pin ROMs. The circuit connections are those described in Section 5A above.

## IV. TEST PROCEDURES

Test procedures should be specified such that the following test stations may be designed:

1. Incoming material inspection - a go/no go test on the 8900 chip set supplied by GI.
2. Final test - a cartridge program that performs a go/no go test on the completed game.

Submitted by \_\_\_\_\_

Dr. David P. Chandler  
Mattel, Inc.