MALLY 37   REPLACTOR SALLY ASSISTED.   COMMON CASE   ATT		GAME	NOTES			CAME	SEI CTIO	N DID SW	ITCU SE			CBIT CLOC	K IIIMDEDS	DAM WIDTH SE
Septimen		GAME		A20	A19		_			A14	A13			
19		BALLY -17	REPLACING BALLY AS-2518-17	DIP-1	DIP-2	DIP-3	DIP-4	DIP-5	DIP-6	DIP-7	DIP-8	B1	S1	DIP-1 TO DIP-4
100	000	Black Jack	DIP 17, 18 & 19 ON for free play. Enhanced Switch Test	ON	ON	ON	ON	ON	ON	ON	ON	IN	OUT	OFF
200   Mach   1967   14   20 for for Sepa Print Program (1962)   20   20   20   20   20   20   20		•				_	_							
March   1977   18.4 for the march programming   1978   18.4 for the march programming   1979   1						_					_			
May   1985   May   1987   19									_	_				
See   Property   Company   Company											_			
Mary As   Personal Content   1971   3.6   15 Cit for from part printment bases   1991   1992   1992   1993   1994   1995   1994   1995   1994   1995   1994   1995   1994   1995   199				ON	ON	ON	ON	ON	OFF	OFF	ON	IN	OUT	OFF
Meth   Promise   Promise	007	Power Play	DIP 17, 18 & 19 ON for free play. Enhanced Switch Test	ON	ON	ON	ON	ON	OFF	OFF	OFF	IN	OUT	OFF
200   BMA		·			_	_				_	_			
100   100														
Delta   Column   Co											_			
100   Column From 170   Colu						_					_			
1945   Day   1976   24 Cell for the rate			1.7			_			_					
19.5   Egif half Danison   19.00   20.00   2	013	Cybernaut	DIP 25 & 26 ON for free play	ON	ON	ON	ON	OFF	OFF	ON	OFF	IN	OUT	OFF
10						_	_				_			
100   Parkers   100   25.0 A COLO for the gay														
100   Crispoych time 108   New Policy Color De Part Sept Selegacy   ON   ON   ON   OFF   ON   ON   ON   O														
1916   Carlyman From 190   Three (1904) (Sp. Other 1909)   1975   1975   1975 (Sp. Other 1909)   197					_	_				_	_			
Part					_	_			_	_				
2022   Freshold Tomes	020	Fathom	DIP 25 & 26 ON for free play	ON	ON	ON	OFF	ON	OFF	ON	ON	IN	OUT	OFF
2012   Sinched III		Fathom Home V5	Home ROM by Oliver O.			_				_	_	IN		
2012   Sean Corden						_					_			
2025   Fixed Green French   Dire 26, 28 COM for the gaby   Formed Language   ON   ON   ON   ON   ON   ON   ON   O			1.7			_				_	_			
Secondary   Company   Co			1 1		_	_			_	_	_			
2022   Filture Signer   Direct 24 & 20 Not for the pub. DIPEZ 64 & 20 Not for the pub. DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 67 Not DIPEZ 65 & 20 Not for the pub. DIPEZ 65 & 20 Not f			, , , , , , , , , , , , , , , , , , , ,			_	_							
2006   Histology   Professionary   DP 26 & 26 ON for the pay, DP 27 ON F 20 ON   ON ON ON ON ON ON ON ON ON ON ON ON ON			1.7			_					_			
2009   Mongager   2009   Exclosurer   2009   Compare							-							
Digney of Seeles											_			
2022   Dist Polytic   Folgistide State   Profession   P						_	OFF		OFF		_	IN		OFF
2031   Leaf World						_		-		_	_			
Description					_	_				_				
Magnetic New Norman			1 1		_	_	_		_					
Separation   Sep											-			
1972   Not O'Crund Shaker   Diff 28 & 20 No for fee play (Diff 21 ONe 7 dig display, ""						_								
238   Paragon   Dil PT, 18 & 10 M for fine play   ON   ON   OFF   ON   ON   OFF   ON   ON		·			_	_			_		_			
					_	_				_				
1941   Psyckoy 7-Dig    7-Dig  Displays), No free play   7-Dig  Displays), No free play   7-Dig  Displays), No free play   7-Dig  Displays, No free play   7		-		ON	ON		ON	ON	OFF		OFF	IN	OUT	OFF
Decimal Colors   Deci	040	Playboy	DIP 17, 18 & 19 ON for free play	ON	ON	OFF	ON	OFF	ON	ON	ON	IN	OUT	OFF
Separation   1972 St. 26 ON for five play, DIP2 ON for 7 aget display ***											_			
Description					_	_								
Stateball Nome					_	_			_	_				
Speakersyst Player   Dill 28 & 26 ON for fee play   Dill 26 Age   Dill						_	_							
Dept.   Speakeasy Player   Dip 25, 22 ON for free play   ON ON OFF ON OFF OFF OFF OFF OFF OFF OF						_					_			
Spectrum		'	1, 3, 1,			_				_	_			
Not Used	048	Speakeasy 2 Player	DIP 25 & 26 ON for free play	ON	ON	OFF	OFF	ON	ON	ON	ON	IN	OUT	OFF
SSY Hunter			1 1			_			_	_				
Star Trek						_	_							
Signar   S		• •	1 2			_					_			
Supersonic   DIP 17, 18 & 19 ON for fee play   ON ON OFF OFF ON OFF OFF ON OFF OFF ON ON OUT OFF OFS Supersonic   7 Digit Displays. No free play   ON ON ON OFF OFF OFF ON OFF OFF IN OUT OFF OFS THE SIX Million Dollar Man   DIP 17, 18 & 19 ON for fee play   DIP 31 must be OFF. ON ON ON ON OFF OFF OFF OFF ON											_			
Supersonic   70   Digit Displays, No free play   Dip   Dip														
1956   The Six Million Dollar Mam			1 1			_					_			
The Six Million Dollar Mam					_				_		_			
		The Six Million Dollar Man	7 Digit Displays, No free play	ON	ON	_	_	OFF	ON		OFF	IN		
060   Viking					_				1					
			-						<del> </del>		-			
Voltan Escapes Cosmic Doom   7 Digit Displays, No free play   ON   ON   OFF   OFF														
OR   OR   OR   OR   OR   OR   OR   OFF		·			_									
Magic   Same ROM as Cornic Princess   DiP 25 & 26 ON for free play   ON OFF   ON						_				_				
STERN MPU-100   REPLACING STERN MPU-100   DIP-1   DIP-2   DIP-3   DIP-4   DIP-5   DIP-6   DIP-7   DIP-8   B1   S1   DIP-1 TO DIP-6   Cosmic Princess   DIP-20 ON for free play. Credit Display Always On.					_									
Diagram   Diag					DIP-2		DIP-4	DIP-5	DIP-6	DIP-7	DIP-8	B1	S1	DIP-1 TO DIP-4
Hot Hand   DiP 20 ON for free play. Credit Display Always On.   ON OFF ON ON ON ON OFF ON ON ON OFF ON ON ON OFF ON ON ON ON ON ON OFF ON ON ON ON OFF ON ON ON ON ON OFF OFF														
Dip 20 ON for free play. Credit Display Always On.					_	_								
Magic         Same ROM as Cosmic Princess         ON         OFF         ON         ON         ON         ON         ON         OFF         IN         OUT         OFF           069         Memory Lane         DIP 20 ON for free play. Credit Display Always On.         ON         OFF         ON         ON         OFF         ON         OFF         IN         OUT         OFF           068         Nugent         Same ROM as Lectronamo         ON         OFF         ON         ON         ON         ON         OFF         ON         ON<						_			_					
Memory Lane   DIP 20 ON for free play. Credit Display Always On.   ON OFF ON ON ON OFF ON OFF ON ON ON OFF ON ON ON OFF ON ON ON ON OFF ON						_	_			_				
Magent         Same ROM as Lectronamo         ON         OFF         ON         ON         OFF         ON         ON         IN         OUT         OFF           070         Pinball         DIP 20 ON for free play. Credit Display Always On.         ON         OFF         ON         ON         OFF         OFF         ON         ON         OFF         OFF         ON         IN         OUT         OFF           070         Stingray         Same ROM as Pinball         ON         OFF         ON         ON         OFF         OFF         ON         ON         OFF         OFF         ON         IN         OUT         OFF           072         Trident         Factory Modified ROM P11A. Unknown changes. No free play.         ON         OFF         ON         ON         OFF         ON         ON         ON         OFF         ON								_			_			
070         Pinball         DIP 20 ON for free play. Credit Display Always On.         ON         OFF         ON         ON         OFF         OFF         ON         IN         OUT         OFF           071         Stars         DIP 20 ON for free play. Credit Display Always On.         ON         OFF         ON         ON         OFF         OFF         OFF         OFF         ON         ON         OFF         OFF         OFF         ON         ON         O						_				_	_			
070         Stingray         Same ROM as Pinball         ON         OFF         ON         ON         OFF         OFF         ON         IN         OUT         OFF           072         Trident         Factory Modified ROM P11A. Unknown changes. No free play.         ON         OFF         ON         ON         OFF         ON         ON         ON         OFF         ON         OFF         ON         ON         ON         OFF         ON         OPF         ON         OPF         ON         OPF		Pinball												
072         Trident         Factory Modified ROM P11A. Unknown changes. No free play.         ON         OFF         ON         ON					_	ON								
073         Trident         DIP 20 ON for free play. Credit Display Always On.         ON         OFF         ON         ON         OPF         ON         ON <t< td=""><td></td><td></td><td></td><td></td><td></td><td>_</td><td>_</td><td></td><td></td><td>_</td><td>-</td><td></td><td></td><td></td></t<>						_	_			_	-			
066         Wild Fyre         Same ROM as Dracula         ON         OFF         ON         ON         ON         OPF         ON         IN         OUT         OFF           STERN MPU-200**         REPLACING STERN MPU-200         DIP-1         DIP-2         DIP-3         DIP-4         DIP-5         DIP-6         DIP-7         DIP-8         B1         S1         DIP-1 TO DIP           074         Ali         Stock ROM. No free play         ON         OFF         OFF         ON         OFF								_						
STERN MPU-200 **         REPLACING STERN MPU-200         DIP-1         DIP-2         DIP-3         DIP-3         DIP-4         DIP-5         DIP-6         DIP-7         DIP-8         B1         S1         DIP-1 TO DIP           074         Ali         Stock ROM. No free play         ON         OFF         ON         ON         OFF         OFF         ON         OFF         ON         OFF         ON         OFF         ON         ON         OFF         ON         OFF         ON         ON         OFF         ON						_				_				
074         Ali         Stock ROM. No free play         ON         OFF         ON         ON         OFF         OFF         ON         OFF         OFF         ON         ON         OFF         OFF         ON         ON         OFF         ON         ON         OFF         ON         ON         OFF         ON         OFF         ON         OFF         OUT         IN         ON           077         Big Game         Always free play         ON         OFF         ON         OFF         ON         OFF         ON         OFF         OUT         IN         ON														
075         Ali         Always free play         ON         OFF         ON         OFF         ON         OFF         OFF         OUT         IN         ON           076         Big Game         Stock ROM. No free play         ON         OFF         ON         OFF         OFF         ON         ON         OUT         IN         ON           077         Big Game         Always free play         ON         OFF         ON         OFF         OFF         ON         OFF         OUT         IN         ON														
076         Big Game         Stock ROM. No free play         ON         OFF         ON         OFF         OFF         ON         ON         OUT         IN         ON           077         Big Game         Always free play         ON         OFF         ON         OFF         OFF         ON         OFF         OUT         IN         ON					_				_					
077         Big Game         Always free play         ON         OFF         ON         OFF         OFF         ON         OFF         OUT         IN         ON						_				_				
134         Big Game V9         Custom ROM. See website for info bxt         OFF         ON         ON         ON         OFF         OFF         ON         OUT         IN         ON	077	Big Game			_									
	134	Big Game V9	Custom ROM. See website for info txt	OFF	ON	ON	ON	ON	OFF	OFF	ON	OUT	IN	ON

	GAME	NOTES	GAME SELCTION DIP SWITCH S5								CPU CLOCK JUMPERS RA		RAM WIDTH S6
		COMBO ROM 09-17-21	A20	A19	A18	A17	A16	A15	A14	A13	.5Mhz	.895Mhz	D0-D4
	STERN MPU-200 **	REPLACING STERN MPU-200	DIP-1	DIP-2	DIP-3	DIP-4	DIP-5	DIP-6	DIP-7	DIP-8	B1	S1	DIP-1 TO DIP-4
078	Catacomb	Stock ROM. No free play	ON	OFF	ON	ON	OFF	OFF	OFF	ON	OUT	IN	ON
079	Catacomb	Always free play	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OUT	IN	ON
080	Cheetah	Stock ROM. No free play	ON	OFF	ON	OFF	ON	ON	ON	ON	OUT	IN	ON
081	Cheetah	Stock ROM. B16 version. No free play	ON	OFF	ON	OFF	ON	ON	ON	OFF	OUT	IN	ON
082	Cheetah	Always free play	ON	OFF	ON	OFF	ON	ON	OFF	ON	OUT	IN	ON
083	Cheetah Home	Only one collect bonus per ball.	ON	OFF	ON	OFF	ON	ON	OFF	OFF	OUT	IN	ON
084	Dragonfist	Stock ROM. No free play	ON	OFF	ON	OFF	ON	OFF	ON	ON	OUT	IN	ON
085	Dragonfist	Always free play	ON	OFF	ON	OFF	ON	OFF	ON	OFF	OUT	IN	ON
086	Dragonfist Home v1106	Bonus X bug fix. DIP 19 ON = Free play	ON	OFF	ON	OFF	ON	OFF	OFF	ON	OUT	IN	ON
087	Flight 2000	Stock ROM. No free play	ON	OFF	ON	OFF	ON	OFF	OFF	OFF	OUT	IN	ON
088	Flight 2000	Always free play	ON	OFF	ON	OFF	OFF	ON	ON	ON	OUT	IN	ON
132	Flight 2000 V3347	Custom ROM *** WARNING *** READ INFO FIRST. See website for info tx	OFF	ON	ON	ON	ON	OFF	ON	ON	OUT	IN	ON
089	Freefall	Stock ROM. No free play	ON	OFF	ON	OFF	OFF	ON	ON	OFF	OUT	IN	ON
090	Freefall	Always free play	ON	OFF	ON	OFF	OFF	ON	OFF	ON	OUT	IN	ON
091	Galaxy	Stock ROM. No free play	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	OUT	IN	ON
092	Galaxy	Always free play	ON	OFF	ON	OFF	OFF	OFF	ON	ON	OUT	IN	ON
093	Iron Maiden	Stock ROM. No free play	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	OUT	IN	ON
094	Iron Maiden	Always free play	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OUT	IN	ON
095	Lightning	Stock ROM. No free play	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	OUT	IN	ON
096	Lightning	Always free play	ON	OFF	OFF	ON	ON	ON	ON	ON	OUT	IN	ON
097	Meteor	Stock ROM. No free play. Factory Bonus X underflow to 256X bug fix	ON	OFF	OFF	ON	ON	ON	ON	OFF	OUT	IN	ON
098	Meteor 7 Digit	V24 7 Digit Displays	ON	OFF	OFF	ON	ON	ON	OFF	ON	OUT	IN	ON
099	Meteor Divide by 10	Scoring divided by ten. No free play	ON	OFF	OFF	ON	ON	ON	OFF	OFF	OUT	IN	ON
100	Meteor Free	Always free play	ON	OFF	OFF	ON	ON	OFF	ON	ON	OUT	IN	ON
135	Meteor V66	Custom ROM. See website for info txt	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OUT	IN	ON
137	Meteor V77	Custom ROM. See website for info txt	OFF	ON	ON	ON	OFF	ON	ON	OFF	OUT	IN	ON
101	Nine Ball	Stock Rom. No free play	ON	OFF	OFF	ON	ON	OFF	ON	OFF	OUT	IN	ON
102	Nine Ball	Always free play	ON	OFF	OFF	ON	ON	OFF	OFF	ON	OUT	IN	ON
138	Nine Ball V14	*** BETA *** Custom Rom. Spinner Flips counted	OFF	ON	ON	ON	OFF	ON	OFF	ON	OUT	IN	ON
103	Orbitor One	Stock Rom. No free play	ON	OFF	OFF	ON	ON	OFF	OFF	OFF	OUT	IN	ON
103	Orbitor One	Always free play	ON	OFF	OFF	ON	OFF	ON	ON	ON	OUT	IN	ON
105	Orbitor One	No minimum game time. Always free play	ON	OFF	OFF	ON	OFF	ON	ON	OFF	OUT	IN	ON
106	Quicksilver	Stock Rom. No free play	ON	OFF	OFF	ON	OFF	ON	OFF	ON	OUT	IN	ON
107	Quicksilver	Always free play	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	OUT	IN	ON
136	Quicksilver V7	Custom ROM. See website for info txt	OFF	ON	ON	ON	OFF	ON	ON	ON	OUT	IN	ON
108	Seawitch	Stock Rom. No free play	ON	OFF	OFF	ON	OFF	OFF	ON	ON	OUT	IN	ON
100	Seawitch	Always free play	ON	OFF	OFF	ON	OFF	OFF	ON	OFF	OUT	IN	ON
110	Split Second	Stock Rom. No free play	ON	OFF	OFF	ON	OFF	OFF	OFF	ON	OUT	IN	ON
111	Split Second	Always free play	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OUT	IN	ON
112	Star Gazer	Stock Rom. No free play	ON	OFF	OFF	OFF	ON	ON	ON	ON	OUT	IN	ON
113	Star Gazer	Always free play	ON	OFF	OFF	OFF	ON	ON	ON	OFF	OUT	IN	ON
114	Star Gazer Home R9	Home ROM by Oliver O.	ON	OFF	OFF	OFF	ON	ON	OFF	ON	OUT	IN	ON
129		Cntr drops for bot roll overs. L/R banks for spinner 10x. Bonus X halved	OFF	ON	ON	ON	ON	ON	ON	OFF	OUT	IN	ON
115	Viper	Stock Rom. No free play	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	OUT	IN	ON
116	Viper	Always free play	ON	OFF	OFF	OFF	ON	OFF	ON	ON	OUT	IN	ON
110	Bally Video and Special	REPLACING AS-2518-133 and Conversion Kits	DIP-1	DIP-2	DIP-3	DIP-4	DIP-5	DIP-6	DIP-7	DIP-8	B1	S1	DIP-1 TO DIP-4
117	Baby Pacman	No free play.	ON	OFF	OFF	OFF	ON.	OFF	ON	OFF	IN	OUT	OFF
118	Granny and the Gators	No free play.	ON	OFF	OFF	OFF	ON	OFF	OFF	ON	IN	OUT	OFF
119	Grand Slam 2 Player	DIP 25 & 26 ON for free play	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	IN	OUT	OFF
120	Grand Slam 4 Player	DIP 25 & 26 ON for free play	ON	OFF	OFF	OFF	OFF	ON	ON	ON	IN	OUT	OFF
121	Goldball	No free play.	ON	OFF	OFF	OFF	OFF	ON	ON	OFF	IN	OUT	OFF
122	Goldball Home	Home ROM by Oliver O.	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	IN	OUT	OFF
123	Mystic Star	No free play	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	IN	OUT	OFF
123	World Defender	No free play	ON	OFF	OFF	OFF	OFF	OFF	ON	ON	IN	OUT	OFF
124	Super Bowl	No free play	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	IN	OUT	OFF
125	Super Bowl	Custom Free play ROM by Quench	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	IN	OUT	OFF
127	Saturn 2	No free play	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	IN IN	OUT	OFF
127	Midnight Mauraders	πο που ριαγ	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	IN	OUT	OFF
130	Rapid Fire		OFF	ON	ON	ON	ON	ON	OFF	ON	IN	OUT	OFF
131		Stern Shuffle Board	OFF	ON	ON	ON	ON	ON	OFF	OFF	IN IN	OUT	OFF
	Black Beauty									_			
133 254	Monroe Bowl MEMORY CLEAR **	Monroe Ball Bowler	OFF OFF	ON OFF	ON OFF	ON OFF	ON OFF	OFF OFF	ON	OFF	IN EITHER R	OUT	OFF
254	WEWORT CLEAR	When the LED begins to blink the memory will be cleared.	UFF	UFF	UFF	UFF	UFF	UFF	OFF	ON	EITHER B	OKSTIN	ON

## NOTES:

RAM width is a four position DIP switch. All switches down for Bally and Stern MPU-100 games. All switches up for MPU-200 games.

B1 and S1 jumpers set the CPU clock speed. B IN for 0.5MHz (Bally -17, -35, -133 and Stern MPU-100). S IN for 0.895MHz (Stern MPU-200)

Jumper shunt U2 Enable is removed when the U1 expanded ROM socket is used.

Clear audits to 00 with the Test and NMI Audit Clear buttons on the MPU after switching games. Push the test button until 01 appears on the credit/match display, then use NMI to clear. Starting in Revision 14 the game select dip switch is oreintated so UP is on and DOWN is off.

The blue adjustment pot labeled dispaly interrupt sets how often the displays are updated. This is mostly used for seven digit games, adjust until the displays look the best.

\*\* If you experience wrong sounds in a Stern Meteor use the MEMORY CLEAR software (DEC # 254). Power up and when the LED begins to blink the memory has been cleared.

\*\*\* DIP 21 Must be off when using original six digit displays in a game that supports seven digit displays.

## MPU Setup pictures at http://nvram.weebly.com/mpu.html