

SERVICE BULLETIN BOOK

FALL
1994

WMS GAMES
PARTS AND SERVICE INC.

WILLIAMS ELECTRONIC GAMES, INC.
MIDWAY MANUFACTURING COMPANY
MAKERS OF WILLIAMS AND BALLY AMUSEMENT GAMES

3401 N. CALIFORNIA AVE.
CHICAGO, IL 60618
SERVICE DEPT. PHONE: (312) 961-1544 FAX: (312) 961-1080

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WILLIAMS AND BALLY GAMES BY SYSTEM

THIS IS A LISTING OF GAMES BY THE CPU SYSTEM IT USED. 11A BOARDS CAN BE USED FOR 11 AND 11A GAMES. 11B BOARDS CAN BE USED FOR 11A, 11B, AND 11C. SYSTEM 9, 11, AND 11C CAN ONLY BE USED FOR THEIR OWN SYSTEMS RESPECTIVELY. WPC CPU'S BEFORE "INDIANA JONES" CAN ONLY BE USED ON GAMES MADE BEFORE "INDY". ANY WPC CPU'S AFTER "INDY" (GAMES WITH A "*" AFTER THEM) ARE DOWNWARD COMPATIBLE. STARTING WITH "WORLD CUP" (GAMES WITH A "S" AFTER THEM) WE WILL BE USING A SECURITY CPU, THESE CPU'S ARE NOT DOWNWARD COMPATIBLE.

<u>GAME</u>	<u>SYSTEM</u>
SPACE SHUTTLE	9
SORCERER	9
COMET	9
STRIKE ZONE	9
HIGH SPEED	11
GRAND LIZARD	11
ROAD KINGS	11
ALLEY CATS	11
PINBOT	11A
MILLIONAIRE	11A
F-14 TOMCAT	11A
FIRE!	11A
TIC TAC STRIKE	11A
BIG GUNS	11A/11B
SPACE STATION	11B
CYCLONE	11B
BANZAI RUN	11B
SWORDS OF FURY	11B
TAXI	11B
JOKERZ	11B
GOLD MINE	11B
TOP DAWG	11B
EARTHSHAKER	11B
BLACK KNIGHT 2000	11B
POLICE FORCE	11B
ELVIRA	11B
TRANSPORTER	11B
BAD CATS	11B
SHUFFLE INN	11B
MOUSIN' AROUND	11B
WHIRLWIND	11B
SHUFFLE INN DELUXE	11B
GAME SHOW	11C
POOL SHARKS	11C
ROLLER GAMES	11C

WILLIAMS AND BALLY GAMES BY SYSTEM (CONTINUED)

<u>GAME</u>	<u>SYSTEM</u>
DINER	11C
RIVERBOAT GAMBLER	11C
BUGS BUNNY	11C
DR. DUDE	11C/WPC
FUNHOUSE	WPC
HARLEY DAVIDSON	WPC
THE MACHINE	WPC
SLUGFEST	WPC
GILLIGAN'S ISLAND	WPC
TERMINATOR 2	WPC
PARTY ZONE	WPC
ADDAMS FAMILY	WPC
STRIKE MASTER	WPC
STRIKE MASTER JR.	WPC
HURRICANE	WPC
THE GETAWAY	WPC
BLACK ROSE	WPC
FISHTALES	WPC
DOCTOR WHO	WPC
CREATURE FROM THE BLACK LAGOON	WPC
WHITE WATER	WPC
HOT SHOT	WPC
DRACULA	WPC
TWILIGHT ZONE	WPC
INDIANA JONES	WPC*
JUDGE DREDD	WPC*
STAR TREK	WPC*
POPEYE	WPC*
DEMOLITION MAN	WPC*
WORLD CUP	WPC(S)
THE FLINTSTONES	WPC(S)

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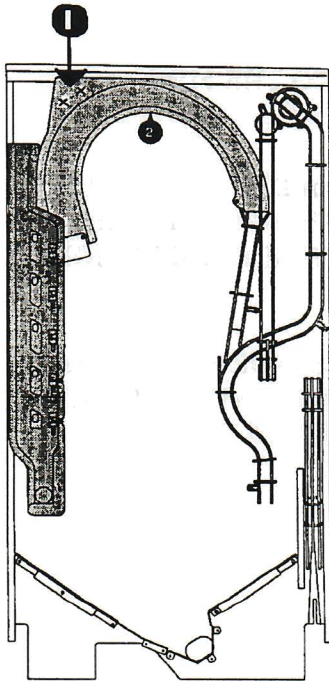
SERVICE BULLETIN

DATE: FEBRUARY 24, 1994

SB62

GAME: "POPEYE"

SUBJECT: BALL HANG-UP



WE'VE DISCOVERED A POTENTIAL BALL HANG-UP AREA ON "POPEYE". PLEASE REFER TO THE PLAYFIELD DRAWING ON THE LEFT. TO CORRECT THE HANG-UP ADD 2 POSTS (PART # 03-8319-10) AND SCREWS* (PART # 4108-01001-26) WHERE THE 2 X's ARE IN ITEM 1. ITEM 1 IS ON THE REAR OF THE RAMP ASSEMBLY (ITEM 2) WHICH IS UNDER THE MINI-PLAYFIELD. LIFTING OF THE MINI-PLAYFIELD IS NECESSARY TO BE ABLE TO INSTALL THE NEW POSTS. ATTACHED TO THIS BULLETIN IS THE PROCEDURE FOR LIFTING THE MINI-PLAYFIELD. IT IS A

VERY EASY PROCEDURE BECAUSE THE MINI-PLAYFIELD IS HINGED.

THANK YOU,

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*SHEETMETAL SCREW, #8 X 1 5/8", PHILIPS PAN HEAD.

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SERVICE BULLETIN

DATE: MARCH 7, 1994

SB63

GAME: "INDIANA JONES"

SUBJECT: MINI-PLAYFIELD MOTORS.

ON "INDIANA JONES" WE'VE DONE SOME CHANGES IN RESPECT TO THE MINI-PLAYFIELD MOTORS.

1. CPU SOFTWARE VERSION L-7 HAS INCORPORATED A 32ms DELAY BETWEEN THE OFF/ON (FORWARD AND REVERSE) STATE OF THE MOTOR. THIS WILL INCREASE THE LIFE OF THE MOTOR BECAUSE NOW THE MOTOR IS NOT CHANGING DIRECTIONS INSTANTLY.

2. THE MOTOR AND GEARBOX ASSEMBLY IS PART # 14-7988. NORMALLY THAT IS HOW THE MOTOR IS SOLD (WITH THE GEARBOX). FOR "INDIANA JONES" WE HAVE AVAILABLE, THE MOTORS ONLY. THE PART NUMBER IS A-17903 AND THE DESCRIPTION IS MOTOR AND PINION ASSEMBLY.

THANK YOU,

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DATE: MARCH 7, 1994

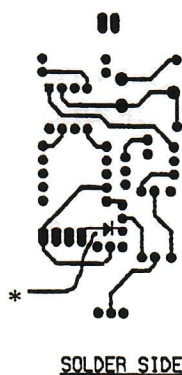
SB64

GAME: "STAR TREK"

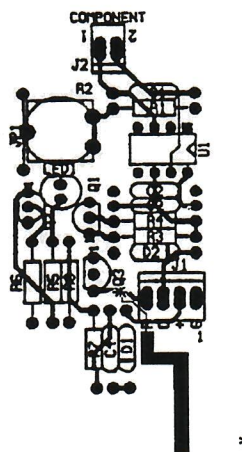
SUBJECT: EDDY SENSOR \ PROXIMITY SENSOR CREATING FALSE SWITCH READINGS.

A CONDITION CAN EXIST WHEN THE EDDY SENSOR (SWITCH MATRIX #'S 16 & 17) IS CLOSED, ANY OPTO SWITCH ON THE SAME RELATED SWITCH ROW MIGHT CHANGE STATE (IF IT'S CLOSED, IT WILL READ OPEN AND VICE-VERSA).

SOLUTION: BY CUTTING A TRACE AND ADDING A 1N4148 DIODE ON THE PROXIMITY SENSOR BOARD.



*THE DIODE IS INSTALLED BETWEEN PIN 4 OF CONNECTOR J1 AND THE COLLECTOR OF Q3. THE CATHODE OF THE DIODE GOES TO Q3. THIS IS DONE ON THE SOLDER SIDE OF THE BOARD.



* CUT TRACE GOING TO THE COLLECTOR OF Q3 ON THE COMPONENT SIDE OF BOARD.

THANK YOU,

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SERVICE BULLETIN

DATE: MARCH 7, 1994

SB65

GAME: "ADDAMS FAMILY VALUES"

SUBJECT: CPU BOARD DIP SWITCH SETTINGS.

GAME OPTIONS ON "ADDAM'S FAMILY VALUES", ARE SET BY THE DIP SWITCHES ON THE CPU BOARD (NOT THROUGH SOFTWARE LIKE PINBALL'S AND SHUFFLE ALLEY'S). THE OPERATIONS MANUAL HAS THE OPTIONS LISTED ON PAGE 1-9. THERE IS ALSO A LABEL INSIDE THE GAME ON THE LEFT HAND WALL. PLEASE KEEP IN MIND THE FOLLOWING:

1. THE DIP SWITCHES FOR SETTING THE OPTIONS ARE ON THE CPU BOARD. THE CPU BOARD IS THE NARROW BOARD THAT HAS THE BATTERIES ON IT. FOR FACTORY SETTINGS ALL SWITCHES SHOULD BE IN THE ON POSITION.
2. THE COIN DOOR INTERFACE BOARD ALSO HAS DIP SWITCHES ON IT. THESE DIP SWITCHES ARE FOR EUROPEAN COUNTRIES THAT USE AN ELECTRONIC COIN ACCEPTOR DOOR. THESE SWITCHES SHOULD ALL BE IN THE OFF POSITION FOR NORMAL USE.

NOTE: MAKE SURE SWITCH # 8 ON THE CPU BOARD IS IN THE ON POSITION FOR NORMAL GAME OPERATION.

THANK YOU,

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SERVICE BULLETIN

DATE: MARCH 8, 1994

SB66

GAME: "ADDAM'S FAMILY VALUES".

SUBJECT: OPERATING THE GAME WITH THE WOOD BASE EXTENSION (PEDESTAL).

IMPORTANT

WHEN OPERATING "ADDAM'S FAMILY VALUES" WITH A PEDESTAL, **DO NOT USE LEG LEVELERS!** THE GAME CAN BE TIPPED EASILY BY CHILDREN IF THE LEG LEVELERS ARE INSTALLED.

REPEATING: DO NOT PUT LEG LEVELERS ON AN "ADDAM'S FAMILY VALUES" WITH A PEDESTAL.

THANK YOU,

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SERVICE BULLETIN

DATE: 27 APRIL 94

SB 67

GAME: "DEMOLITION MAN"

SUBJECT: TRIGGER SPRING IN CONTROL HANDLE BREAKING

"DEMOLITION MAN" TRIGGER SPRINGS MAY BREAK ON GAMES THAT WERE MANUFACTURED BEFORE 11 APRIL 94.

REPLACEMENT SPRING AND BRACKET A-18001-1,-2 WERE CHANGED TO HELP PREVENT BREAKAGE.

NEW REPLACEMENT PARTS A-18762-1,-2 WERE INCORPORATED IN A KIT TO BE USED AS REPLACEMENTS FOR BOTH LEFT AND RIGHT CONTROL HANDLE.

KIT PART NUMBER IS A-18761-P

TO REPLACE SPRING AND INSTALL FISHPAPER INSULATOR REFER TO INSTRUCTION 16-9808

W M S G A M E S

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SERVICE BULLETIN

DATE: MAY 9, 1994

SB68

GAME: ALL PINBALL MACHINES BEGINNING WITH "WORLD CUP".

SUBJECT: SECURITY CPU BOARD.

THE NEW WPC SECURITY CPU BOARD WILL BE USED IN ALL WILLIAMS AND BALLY PINBALL MACHINES STARTING WITH "WORLD CUP".

THE OLDER CPU BOARD FROM ("FUNHOUSE" TO "DEMOLITION MAN") CANNOT BE USED IN PLACE OF THE "SECURITY" CPU. ALSO, THE NEW "SECURITY" CPU CANNOT BE USED FOR THE OLDER GAMES.

WHEN USING THE NEW "SECURITY" CPU IN ANOTHER GAME ("WORLD CUP" OR LATER), THE SECURITY CHIP (U22) MUST MATCH WITH THE SAME GAME SOFTWARE (U6). THE SECURITY CHIP WILL MATCH ANY SOFTWARE REVISION FOR THAT PARTICULAR GAME MODEL, SO UPDATING SOFTWARE WILL NOT BE A PROBLEM.

IN ADDITION TO THE SECURITY CHIP, THIS NEW CPU BOARD ALSO HAS AN ADDED EPROM SOCKET FOR FUTURE EXPANSION AND ADDED CIRCUITRY FOR 2 ADDITIONAL SWITCH COLUMNS.

REMEMBER, THE NEW "SECURITY" CPU BOARD IS NOT DOWNWARD COMPATIBLE WITH THE OLDER WPC CPU BOARD AND THE OLDER WPC CPU BOARD IS NOT UPWARD COMPATIBLE. BECAUSE OF THE COMPATIBILITY DIFFERENCES BETWEEN THE 2 TYPES OF CPU BOARDS, WE STRONGLY SUGGEST THAT OUR DISTRIBUTORS STOCK BOTH TYPES OF BOARDS.

THANK YOU,

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SERVICE BULLETIN

DATE: JUNE 9, 1994

SB69

GAME : "REVOLUTION X"

SUBJECT: ERRORS IN 3 PLAYER MANUAL (PART # 16-40040-101).

- 1.) ON PAGE 3-9, WHICH IS SHEET 3 OF 3 FOR THE GUNDRIVER BOARD, THE FUSE VALUES HAVE CHANGED. THEY SHOULD BE:
 F1- 5 AMP S.B.
 F3, F4, AND F5-1.5 AMP S.B.

- 2.) ON PAGE 1-12, DIP SWITCH 1 (U105) SETTING TABLE, THE SWITCH SETTINGS FOR CREDITS 2 TO START - 2 TO CONTINUE AND 2 TO START - 1 TO CONTINUE ARE REVERSED.

THE FIGURE BELOW IS THE REVISED DIP SWITCH TABLE.
 PLEASE MAKE ALL THE NECESSARY CHANGES TO YOUR MANUAL.

THANK YOU,

WMS GAMES PARTS & SERVICE INC.

DIP Switch 1 (U105) Setting Table

	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Mirror Display:	Off* On							
DIP Switch Coinage CMOS Coinage		Off* On						
Coinage								
USA1 Ger1 Fr1			Off*	Off*	Off*			
USA2 Ger2 Fr2			On	On	On			
USA3 Ger3 Fr3			Off	On	Off			
USA4 Ger4 Fr4			On	On	Off			
USAECA GerECA FrECA			Off	Off	On			
N/N N/U N/U			On	Off	On			
N/U N/U N/U			Off	On	On			
Free play Free play Free play			On	On	On			
Credits								
2 to Start - 2 to Continue						Off*	Off*	Off*
1 to Start - 1 to Continue						On	On	On
1 to Start - 1 to Continue						Off	On	Off
1 to Start - 2 to Continue						On	On	Off
2 to Start - 1 to Continue						Off	Off	On
2 to Start - 3 to Continue						On	Off	On
3 to Start - 1 to Continue						Off	On	On
1 to Start - 4 to Continue						On	On	On

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SERVICE BULLETIN

DATE: JUNE 15, 1994

SB70

GAME: "STAR TREK"

SUBJECT: GUN MARK SWITCHES.

IF YOU ARE HAVING PROBLEMS WITH THE GUN MARK SWITCH ACTUATORS
BREAKING OR COMING OFF, WE HAVE PUT TOGETHER A SWITCH REPLACEMENT KIT.
THE PART NUMBER FOR THIS KIT IS A-19153. THIS KIT INCLUDES 2 SWITCHES (WITH
DIODES) THAT HAVE ROLLER ACTUATORS AND THE INSTRUCTIONS NECESSARY FOR
INSTALLATION.

THANK YOU,

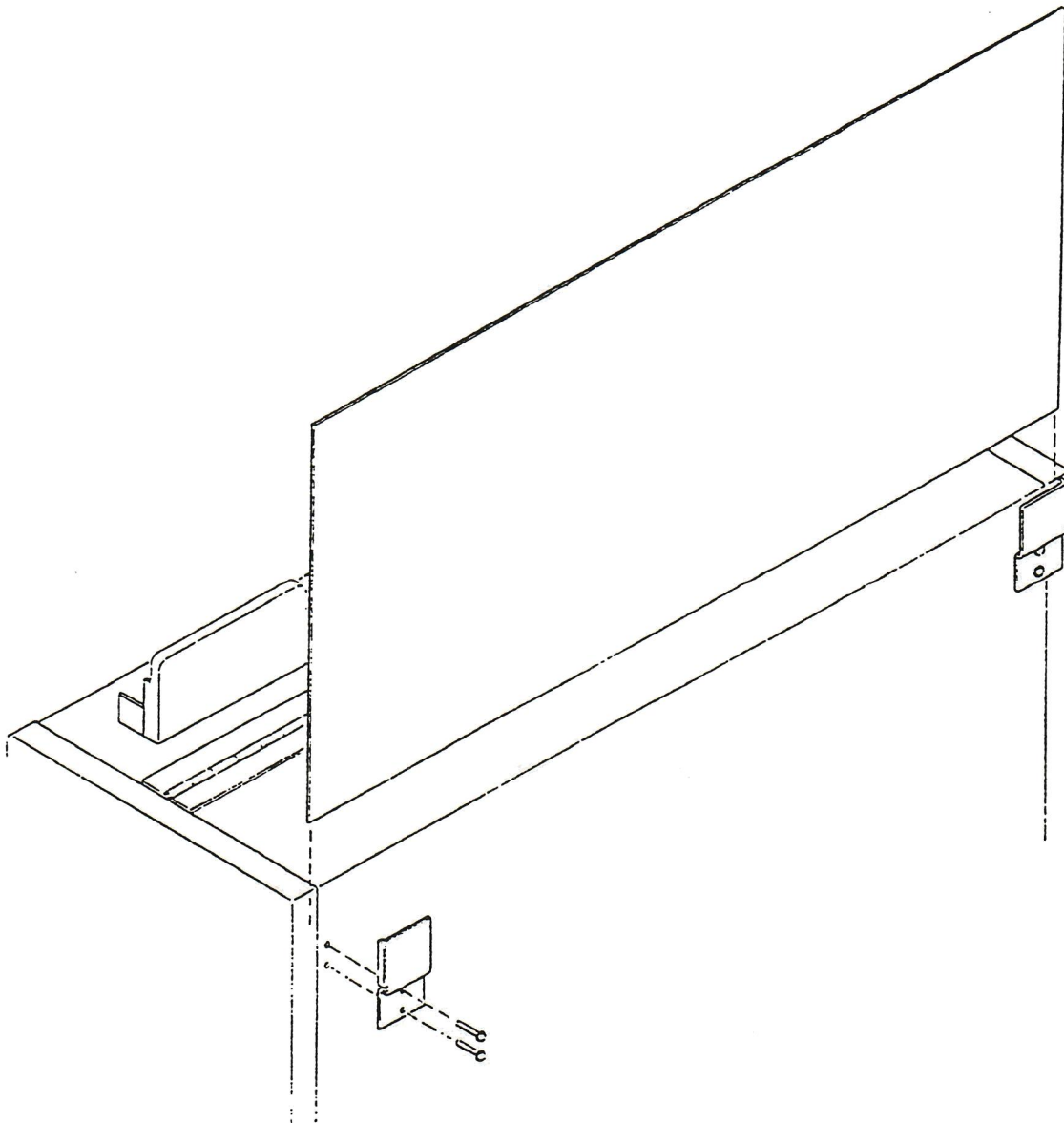
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AMENDMENTS

ADDAMS FAMILY VALUES

Jackpot Header Installation Instructions.

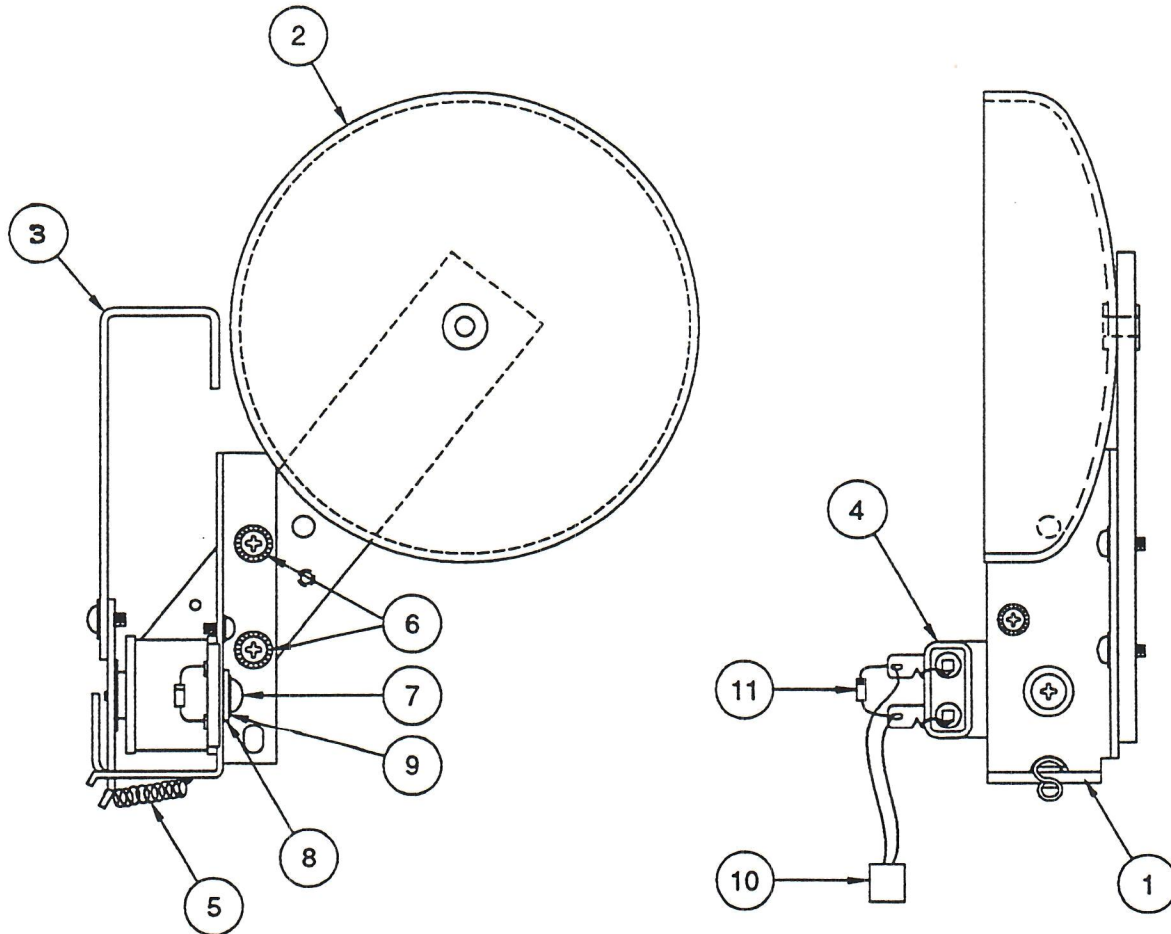
Place brackets (01-12564-L & 01-12564-R) on back of game, as shown below. Make sure the bent tab is flush with the outer edge of the cabinet. Secure in place with the four hex-washer head screws (4608-01081-11) provided. Place header (31-1899) into slots.



ADDAMS FAMILY VALUES

MANUAL AMENDMENT

This amendment is to provide parts information on the bell assembly, which was not included in the manual at the time of printing.



A-17608 Bell Assembly

<u>Item</u>	<u>Part Number</u>	<u>Description</u>
1.	B-8459	"M" Mounting Relay Frame Assembly
2.	B-8460	Bell & Mounting Plate Assembly
3.	B-8462	Armature Assembly
4.	SM1-26-600	Coil Assembly
5.	10-96	Extension Spring
6.	4006-01003-03	Mach. Screw, 6-32 x 3/16 PPH-S
7.	4008-01021-07	Mach. Screw, 8-32 x 7/16 PRH-BR
8.	4700-00089-00	Flatwasher, 11/64 x 7/16 x 16ga.
9.	4701-00003-00	Lockwasher #8 Split
10.	H-17605	Bell Cable
11.	5070-09054-00	Diode 1N4004

The ADDAMS FAMILY SPECIAL COLLECTORS EDITION

Manual Amendment

The following changes have been made to the Addams Family Special Collectors Edition Operations Manual. Please keep this amendment with your manual.

Page 2-38 Items 10, 12 & 17

The correct part number should be 03-8254-28 Bumper Cap Gold.

Page 2-38 Item 16

The correct part number should be 03-8651-28 Bumper Cap Gold.

Page 2-41 Item 21 on the Switch Matrix

Tilt switch (located on coin door) is part number 27-1066.

Tilt switch (located inside cabinet) is part number SW-1A-117.

Set sail for an all-new pinball adventure in...

POPEYE

SAVES THE EARTH™

Mini-playfield Disassembly For Maintenance And Repair

1. Turn power switch OFF.
2. Raise the playfield to its most forward position for easier access to mini-playfield.
3. Remove the two screws from each side of the Bluto head. Access these screws through the slots on the left and right mini-playfield covers. Remove Bluto head and set aside.
3. Remove the two screws on the mini-playfield that hold it in position, located through the same slots.
4. Remove the screw that secures the upper left mini-playfield plastic assembly.
5. Carefully lift up on the front of mini-playfield and let it rest against the back of the game.
6. **Always lower and re-secure the mini-playfield before moving the playfield assembly.**
7. Installation is the reverse procedure from removal.

DEMOLITION MAN MANUAL AMENDMENT

This amendment is to correct part number errors made on page 2-45, Switch Locations.

Item	Switch Number	Where Used	Item	Switch Number	Where Used
F1	SW-1A-194	Lower Rt. Flipper E.O.S.	64	5647-12693-19	Center Rollover
F2	A-17316	Lower Rt. Flipper Cab.	65	5647-12693-19	Right Rollover
F3	SW-1A-194	Lower Lt. Flipper E.O.S.	66	5647-12133-11	Eject
F4	A-17316	Lower Lt. Flipper Cab.	67	A-17596	Elevator Index
F5	Not Used	Upper Rt. Flipper E.O.S.	68		Not Used
F6	Not Used	Upper Rt. Flipper Cab.	71	A-16908 (LED)	Chase Car 1
F7	SW-1A-193	Upper Lt. Flipper E.O.S.		A-16909 (transistor)	
F8	A-17316	Upper Lt. Flipper Cab.	72	A-16908 (LED)	Chase Car 2
11	20-9663-B-4 (cabinet)	Ball Launch		A-16909 (transistor)	
	20-9804 (button)		73	A-16908 (LED)	Top Popper
	5647-12693-11 (trigger)			A-16909 (transistor)	
12	20-9804 (button)	Left Handle Button	74	A-16908 (LED)	Elevator Hold
	5647-12693-11 (trigger)			A-16909 (transistor)	
13	20-9663-1	Start Button	75		Not Used
14	20-9502-A	Plumb Bob Tilt	76	A-16908 (LED)	Bottom Popper
15	5647-12693-19	Left Outlane		A-16909 (transistor)	
16	5647-12693-19	Left Inlane	77	A-18018-4	Eyeball Standup
17	5647-12693-19	Right Inlane	78	A-18017-6	Standup 1
18	5647-12693-19	Right Outlane	81	5647-12073-17	Claw "Capture Simon"
21	A-17238	Slam Tilt	82	5647-12693-21	Claw "Sup. Jets"
22	5643-09268-00	Coin Door Closed	83	5647-12693-21	Claw "Prison Break"
23	20-9663-9	Buy-in Button	84	5647-12693-21	Claw "Freeze"
24	5643-09112-00	Always Closed	85	5647-12693-21	Claw "ACMAG"
25	A-16986	Claw Position 1	86	5647-12693-11	Upper Left Flipper Gate
26	A-16986	Claw Position 2	87	A-18018-4	Car Chase Standup
27	A-16759	Shooter Lane	88	SW-1A-120	Lower Rebound
28	5647-12693-19	Not Used			
31	A-16927 (LED)	Trough 1			
	A-16926 (transistor)				
32	A-16927 (LED)	Trough 2			
	A-16926 (transistor)				
33	A-16927 (LED)	Trough 3			
	A-16926 (transistor)				
34	A-16927 (LED)	Trough 4			
	A-16926 (transistor)				
35	A-16927 (LED)	Trough 5			
	A-16926 (transistor)				
36	A-16927 (LED)	Trough Jam			
	A-16926 (transistor)				
37		Not Used			
38	A-18017-6	Standup 5			
41	A-17801 (count)	Left Slingshot			
	SW-1A-120 (score)				
42	A-17801 (count)	Right Slingshot			
	SW-1A-120 (score)				
43	A-12030-3	Left Jet Bumper			
44	A-17801 (count)	Top Slingshot			
	SW-1A-120 (score)				
45	A-12030-3	Right Jet Bumper			
46	5647-12693-36	Right Ramp Enter			
47	5647-12693-11	Right Ramp Exit			
48	5647-12693-19	Right Freeway			
51	5647-12693-11	Left Ramp Enter			
52	5647-12693-11	Left Ramp Exit			
53	5647-12693-11	Center Ramp			
54	SW-1A-120	Upper Rebound			
55	5647-12693-19	Left Loop			
56	A-18017-6	Standup 2			
57	A-18019-6	Standup 3			
58	A-18019-6	Standup 4			
61	5647-12693-11	Side Ramp Enter			
62	5647-12693-11	Side Ramp Exit			
63	5647-12693-19	Left Rollover			

* The Score slingshot switches have diodes across them.

DEMOLITION MAN Amendment for manual 16-50028-101

The following changes occurred after the DEMOLITION MAN manual was printed. Please keep this amendment with the DEMOLITION MAN manual.

New Feature Audit

B.4 43 **EyeBall Extra Ball**
Number of times extra ball is lit from eyeball target 00% 00

Page 1-20 Difficulty Setting Table for U.S., Canadian, French, German, and European Games

Adj #	Adj Description	Extra Easy U.9 01	Easy U.9 02	Medium U.9 03 (factory)	Hard U.9 04	Extra Hard U.9 05
A.2 02	Ball Saves	2	2	1	1	0
A.2 03	Ball Save Time	9	6	6	4	—
A.2 11	Claw Difficulty	Ex. Easy	Easy	Easy	Medium	Hard
A.2 12	Quick Freeze Difficulty	Medium	Medium	Medium	Medium	Hard
A.2 13	Combo For Computer	8	9	10	12	14

Preset Adjustments Table for U.S. and Canadian Games

Adj #	Adj Description	Install 5-ball U.9 06	Install 3-ball U.9 07
A.1 01	Balls Per Game	5	3
A.1 07	Replay Start	500,000,000	350,000,000
A.2 02	Ball Saves	1	1
A.2 03	Ball Save Time	4	9
A.2 06	1st Ex. Ball Level	18	12
A.2 11	Claw Difficulty	Medium	Easy
A.2 12	Quick Freeze Difficulty	Medium	Medium
A.2 13	Combos for Computer	12	10

Page 1-27

A.2 03 **Ball Save Time**
This sets the number of seconds that the ball saver is activated.

Settings: 5-15

Factory Default: 6

Page 1-29

A.2 12 **Quick Freeze Difficulty**
This determines the difficulty of the Quick Freeze feature. This affects the Light Quick Freeze Lamp.

Settings: Easy: Lit at ball start, memory
 Medium: Lit at game start, memory
 Hard: Not lit at game start, memory
 Ex. Hard: Not lit at game start, no memory

Factory Default: Medium

New Feature Adjustment

A.2 20 Eyeball Extra Ball Level

This is the number of times the eyeball target must be hit to light extra ball.

Setting: OFF
 2-8

Factory Default: 3

New Feature Adjustment

A.2 21 Eyeball Extra Ball Memory

This determines whether the extra ball that is lit from the eyeball target stays in memory from ball to ball.

Setting: YES
 NO

Factory Default: YES

Page 1-36

Pinball Missing

This game normally uses five balls, however, it will operate with less. This message announces that a ball is missing or stuck. When located, return it to the game via the Outhole. Other possibilities for this problem could be malfunctions of the Ball Trough switches or the Ball shooter switch.

Time and Date not Set

The real time clock is not set. Go to U.4 of the Utilities Menu and set the time and date.

Page 1-40

Flipper Switches

This game uses the new Fliptronic II Electronic Flipper System. The End-of-Stroke switches are NORMALLY OPEN. The switch should close when the flipper is energized. All E.O.S. switches are gold flashed computer grade leaf switches. Only low computer current is carried through these switches. DO NOT FILE or abrasively clean these switches! DO NOT REPLACE these switches with the old style tungsten high current type switches as intermittent operation could occur. Note: Unlike the old style of flipper, an E.O.S. switch failure does not harm the flipper. The game notifies the operator of the switch being mis-adjusted in the test report, but continues to play. The E.O.S. switches are a means by which the new electronic flippers feel and play with all the subtleties of the old flippers.

Page 1-42

Power Driver Board

F101	+50VDC General (L. Flipper)	3A, S.B.
F102	+50VDC General (R. Flipper)	3A, S.B.

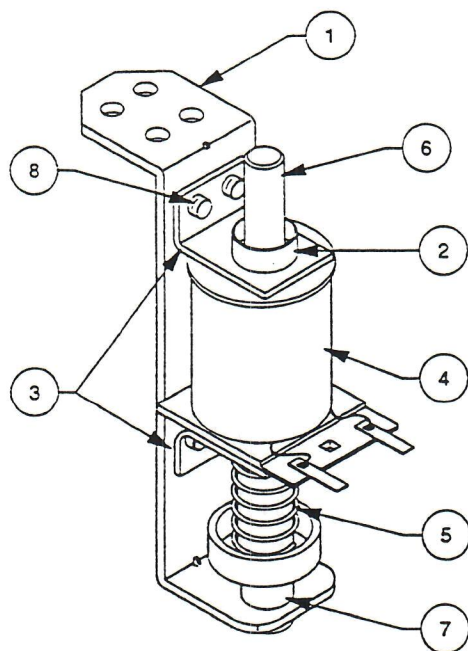
The FLINTSTONES®

MANUAL AMENDMENT

The following drawing is from page 2-24 of the FLINTSTONES® Operators Manual. The part called out as item #9 in the picture in the manual should of been called out as item #6.

Please keep this amendment with your FLINTSTONES® Operators Manual.

A-17932 Diverter Assembly



Item	Part No.	Description
1.	01-12441	Diverter Post Bracket
2.	03-7067-5	Coil Tubing
3.	01-8-508-T	Coil Retainer Bracket
4.	AE-27-1200	Coil Sub-Assembly
5.	10-135	Spring
6.	A-17986	Bell Armature Assembly
7.	23-6420	Rubber Grommet
8.	4008-01017-04	Mach. Screw, #8-32 x 1/4"