

INSTALLATION AND GENERAL GAME OPERATION INSTRUCTIONS

INSTALLATION

On all games there are certain items that should be checked after shipment. These are visual inspections which may avoid time consuming service work later. Minor troubles caused by abusive handling in shipment are unavoidable. Cable plugs and sockets may be loosened, switches (especially tilt switches) may go out of adjustment. Plumb bob tilt switch should always be adjusted after game is set on location and leg levelers are adjusted.

Visual inspections before plugging in line cord: ;

1. Check that all cable plugs are firmly seated in proper sockets.
2. Check that cables are clear of all moving parts and relays.
3. Check for any wires that may have become disconnected.
4. Check switches for loose solder or other foreign material that may have come loose in shipment and could cause shorting of contacts.
5. Check wires on relay coils for proper soldering, especially the bare (common) wire connecting a row of relay coils. Cold solder connections may not show up in factory inspection, but vibration in shipment may break contact.
6. Check that fuses are firmly seated and making good contact.
7. Check (manually) the stepping and resetting of all step-up units. The wiper action should not be sluggish.
8. Check transformer for any foreign material shoring across wiring lugs.
9. Check wiring of transformer to correspond to location voltage.  
(Transformer wiring card in front cabinet).

Before line cord is plugged in: -

Check all plugs and sockets and dress cables:

- (A) Plugs in correct sockets.
- (B) Plugs securely seated in sockets.
- (C) Dress cables away from relays.

Check adjustment of the three (normally open) tilt switches:

- (A) Panel tilt on bottom of playfield panel.
- (B) Plumb-bob tilt on left side of cabinet near front door.
- (C) Ball tilt above plumb-bob tilt.

Insert one of the two balls into ball tilt assembly and adjust bracket so ball will roll over switch blade if front of cabinet is raised.

Check adjustment of the kick-off and slam switches:

Check adjustment of the normally open kick-off switch on cabinet mounting board. Check adjustment of the normally open slam switch, on front door. These switches energize the delay relay.

#### GENERAL GAME OPERATION

Place ball onto playfield by out hole.

Plug in the line cord.

#### Coin Game:

If the coin should be rejected, move on-off master switch at the bottom right front corner of cabinet to "on" position, then coin game. The coin lock-out device rejects all coins when power (master switch) is off.

- 1A. If the coin is inserted in the 1st (nickel) coin chute and the game is set for 1 play-5¢, it will energize the coin relay. If game is set for 1 play-10¢, the first coin inserted will advance the 2-coin unit, then the second coin inserted will energize the coin relay thru the 2-coin unit switch.  
(See 1st coin chute adjustment plug positions on game adjustments sheet).
- 1B. If the coin is inserted in the 2nd (dime) coin chute and the game is set for 1 play-10¢, it will energize the coin relay. If game is set for 2 plays-10¢, it will energize the 2nd coin chute relay and the 2nd coin chute relay will advance the credit unit (2 or more steps) thru the coin credit circuit.  
(See 2nd coin chute adjustment plug positions on game adjustments sheet. Also the 3rd coin chute adjustment plug for the number of credits).
- 1C. If the coin is inserted in the 3rd (quarter) coin chute and the game is set for 2-3-4-5 or 6 plays-25¢, it will energize the 3rd coin chute relay and the 3rd coin chute relay will advance the credit unit 2-3-4-5-6 steps thru the coin credit circuit.  
(See 3rd coin chute adjustment plug positions on game adjustments sheet).
- 1D. When the credit unit has been advanced from the 2nd or 3rd coin chute, (as described in section 1B and 1C) the front door credit button switch will energize the credit relay and then the credit relay will energize coin relay.

### Add-A-Ball Scoring

- 1A. The game was completed before starting a new game:  
The game over trip relay is tripped.  
The ball count unit is in zero position.  
The game relay is tripped.
- 1B. A coin relay switch will latch the game relay thru a normally closed #1 score motor switch. Another coin relay switch will step up the ball count unit, 2 steps for 3 ball game or 4 steps for 5 ball game thru score motor switches.
- 1C. Unlike regular replay games, the ball count unit is reset one step at the end of each play, and extra balls are registered by stepping up the ball count unit. The "ball in play" lites now become "balls to play" lites. The game starts with either 3 balls to play or 5 balls to play. When an add-a-ball has been earned, the ball count unit steps up, adds another ball to play, up to a 9 maximum. The game ends when 1 ball to play is lit and the game over lights.
- 1D. The first ball played will trip the game relay.
- 2A. If the game is started before the game is completed:  
The ball count unit is off the zero position.  
The game relay may or may not be tripped.
- 2B. A coin relay switch will trip the game relay thru a normally closed #1 score motor switch and a ball count unit zero switch. Another coin relay switch will trip the game over trip relay thru a normally closed #1 score motor switch and resets the ball count unit thru a normally open #2 score motor switch. When the ball count unit has been reset to zero position the game relay is latched thru a normally closed #1 score motor switch. The coin relay remains energized for another half cycle during which time the ball count unit is stepped up as described under 1C.

**"FORE"**  
**FEATURE OPERATION & SCORING**

**HOLES AND BONUS RELAY FEATURES:**

Holes unit is advanced by the holes roll-over buttons when the ball rolls over the lit buttons in sequence from #1 thru #9. The holes unit is also advanced when all yards trip relays are tripped; and when the ball goes thru the top center lane when lit. When 1, 2 or 3 holes are made (adjustable), the bonus relay is energized and remains energized for the duration of the game. When the bonus relay is energized, it will lite the center 5000 target and alternately lite the left and right 5000 targets until the 4th hole is made at which time both left and right 5000 targets are lit for the duration of the game. When lit these targets score 5000 points.

**YARDS TARGETS FEATURE:**

The yards targets when hit will trip its corresponding trip relay. In addition, the top left lane roll-over will trip the 25 yards trip relay and the top right lane roll-over will trip the 45 yards trip relay. The left out lane will trip 85 yds. and the right out lane will trip 65 yds. When all are tripped, the game will award a special and all trip relays will reset.

**TOP CENTER LANE FEATURE:**

The top center lane roll-over scores 1000 points and in addition will advance the holes unit when lit. The lite is controlled by the alternator relay which is energized by the 00-90 unit disc. The 00-90 unit advances whenever 10 points is scored.

**SPECIAL RELAY FEATURE IN A 3 BALL GAME:**

The special relay is energized whenever all ten yards target trip relays are tripped, also when the 9th hole is made. The yards target trip relays are reset whenever the special relay is energized.

**SPECIAL RELAY FEATURE IN A 5 BALL GAME:**

The special relay is energized only when all ten yards target trip relays are tripped. The yards target trip relays are reset whenever the special relay is energized. When the bonus relay is energized, it will lite a 5000 target lite. After the bonus relay is energized, the yards target trip relays will be reset whenever a hole is made.

**SPECIAL RELAY FEATURE ON ALL GAMES:**

The yards target trip relays will reset at the start of a game. The special relay when energized will award a credit, an extra ball or 5000 points, adjustable thru the special feature adjustment plug. When adjusted to award 5000 points, the novelty adjustment plug should be adjusted so that the blue-orange wire is in contact with the yellow wire. Both adjustment plugs are located on the mounting panel.

FEATURE OPERATION AND SCORING

PLAYMORE POST FEATURE:

The post goes up when the ball rolls over either up-post roll-over button thru preventing the ball from going into the outhole between the flippers. The post goes down when the ball rolls over the down post roll-over button; also when the ball goes into the outhole, the game is tilted and at the start of a game.

5000 TARGETS FEATURE:

The 5000 targets when hit score 5000 when lit. The center 5000 target lites when the bonus relay become energized. The left and right 5000 targets are lit alternately when the bonus relay becomes energized. When the 5th hole is lit both targets are lit for the duration of the game. The bonus relay when energized (adjustable) remains energized for the duration of the game. The adjustment is thru the holes adjustment plug, located on the bottom of the playfield panel by the ball trough.

THUMPER BUMPER LITE FEATURE:

The thumper bumpers when hit score 10 points or 100 points when lit. The blue and red thumper bumpers lite alternately thru the alternator cam. (score motor cam #12).

## GAME ADJUSTMENTS

### HI-SCORE ADJUSTMENT PLUG:

Located on back box lite insert. This plug provides a wide range of coverage at which hi-score credits or add-a-ball can be scored. (see score adjustment card in back box for plug positions).

### BALLS PER GAME ADJUSTMENT PLUG:

Located on back box lite insert. This plug provides positions to operate game on 5 ball or 3 ball play.

### MATCH FEATURE ADJUSTMENT PLUG:

Located on back box lite insert. This plug provides positions to turn match feature "on" or "off".

### 1ST COIN CHUTE ADJUSTMENT PLUG:

Located on the 2 coin unit, on the front cabinet mounting board. This plug provides positions to give 1 play for 1 coin or 1 play for 2 coins thru the 1st (nickel) coin chute.

### 2ND COIN CHUTE ADJUSTMENT PLUG:

Located on the front cabinet mounting board. This plug provides positions to give 1 play for 1 coin or 2 plays for 1 coin thru the 2nd (dime) coin chute. Note: When this plug is set for 2 plays - 1 coin, brown-white (male plug) wire on 3rd coin chute adjustment must be in position 2.

### 3RD COIN CHUTE ADJUSTMENT PLUG:

Located on the front cabinet mounting board. This plug provides positions to give 2 to 6 plays for 1 coin thru the 3rd (quarter) coin chute, orange-white (male plug) wire. See 2nd coin chute note above for use of brown-white (male plug) wire.

### SPECIAL FEATURE ADJUSTMENT PLUG:

Located on front cabinet mounting board. This plug provides positions to award credits, extra ball or 5000 points for special award.

### NOVELTY ADJUSTMENT PLUG:

Located on front cabinet mounting board. This plug should be plugged into blank position except when the special feature adjustment is plugged into 5000 points position.

### HOLES UNIT ADJUSTMENT PLUG:

Located on the bottom of the playfield panel under the ball trough. This controls the number of holes that must be made to energize the bonus relay.

**"FORE"**  
**PARTS LIST**

9.

<u>MISCELLANEOUS</u>	<u>PART NO.</u>	<u>ASSEMBLY COILS</u>	<u>PART NO.</u>
Transformer	E-122-95	Coin Lock-out	FC-33-2600
Score Motor (Domestic)	E-119-354	Knocker	C-27-1000
Score Motor (Export)	E-119-411	Chimes (3)	CC-29-2000
Reset Motor (Domestic)	E-119-362	Thumper-bumpers (4)	A-25-1000
Reset Motor (Export)	E-119-385	Down Post	AP-26-1200
Meter (Total Play)	E-32-1700	Outhole Kicker	A-25-950
		Post Latch	G-31-2000
		Sling-shots (2)	AP-26-1200
		Flippers (2)	AF-25-600/28-800
<u>INTERLOCK RELAYS</u>		<u>UNIT COILS</u>	
Game (Trip)	G-31-2000	2 coin (Step-up)	CD-29-1600
Game (Latch)	G-31-2000	Score Drums (step-up)	CD-29-1600
Tilt (Trip)	G-31-2000	(4)	
Tilt (Latch)	G-31-2000	00-90 (Step-up)	B-27-1300
100,000 (Trip)	G-31-2000	Credit (Step-up)	B-26-1100
100,000 (Latch)	G-31-2000	Credit (reset)	C-28-1100
		Holes (Step-up)	B-26-1100
		Holes (reset)	C-28-1100
		Ball count (step-up)	B-26-1100
		Ball count (reset)	
<u>TRIP RELAYS</u>		<u>UNIT CONTACT DISCS.</u>	
All trip relay coils	D-28-500	00-90	W-1034-12
		Holes	W-1072-25
		Ball count	W-1034-19
<u>"G" RELAYS</u>		<u>UNITS WIPER ASS'Y</u>	
Delay	G-31-1600	00-90	AS-1046-627
Coin	G-31-2000	Holes	AS-1046-708
2nd Coin Chute	G-31-2000	Ball count	AS-1046-681
3rd Coin Chute	G-31-2000		
Credit	G-31-2000		
Lock	G-33-2800		
Down Post	G-31-2000		
Reset	G-31-2000		
Score reset	G-30-1500		
Outhole	G-31-2000		
Ball Index	G-32-2500		
Advance Hole	G-31-2000		
Special	G-31-2000		
500 point	G-31-2000		
Alternator	G-32-2500		
Top center lane	G-31-2000		
Bonus	G-32-2500		
5000 point	G-31-2000		
1000 point	G-31-2000		
100 point	G-31-2000		
10 point	G-31-2000		
Thumper-bumper (4)	G-31-2000		

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# RUBBER PARTS

A- R-115-4	REBOUND	
B- R-521a	3/4"	(3)
C- R-521-2	1-1 2"	(4)
D- R-521-4	2-1 2"	(2)
E- R-521-5	3"	(2)
F- R-406-3	FLIPPER	(2)
G- R-243a	5 16	(16)

## PANEL TOP PARTS

1- TOP ARCH	P-5839-53
2- BOTTOM ARCH	P-5871-43
3- SHOOTER GAGE	P-6359-10
4- SIDE RAIL (L)	CA-1208-2
5- SIDE RAIL (R)	CA-1208-1
6- GUIDE RAIL	P-6495-74
7- REBOUND ASSEMBLY	A-493-3
8- BALL GATE	A-1475-1
9- BALL GATE COVER	P-2996-5
10- BUMPER CAP (BLUE)	C-719-16
11- BUMPER CAP (RED)	C-719-12
12- ROLLOVER BUTTON (L)	C-387-5
13- ROLLOVER BUTTON (S)	C-387-6
14- HOLE PLUG	C-776
15- FLIPPER & SHAFT	AS-2214-19
16- ROLLOVER WIRE	M-1338-11
17- ROLLOVER WIRE	M-1338-3
18- ROLLOVER WIRE	M-1338-2
19- LITE SHIELDS	A-2890-89
20- BALL GUIDE	C-695-1
21- BALL GUIDE	C-696-2
22- TARGET ASSEMBLY	AS-982-699
23- TARGET ASSEMBLY	AS-982-723
24- TARGET ASSEMBLY	AS-982-752
25- BUMPER POST	C-810

