

Manual No. 3100
Gama No.1025
3 Card Bingo

Bally

BALI

Bingo



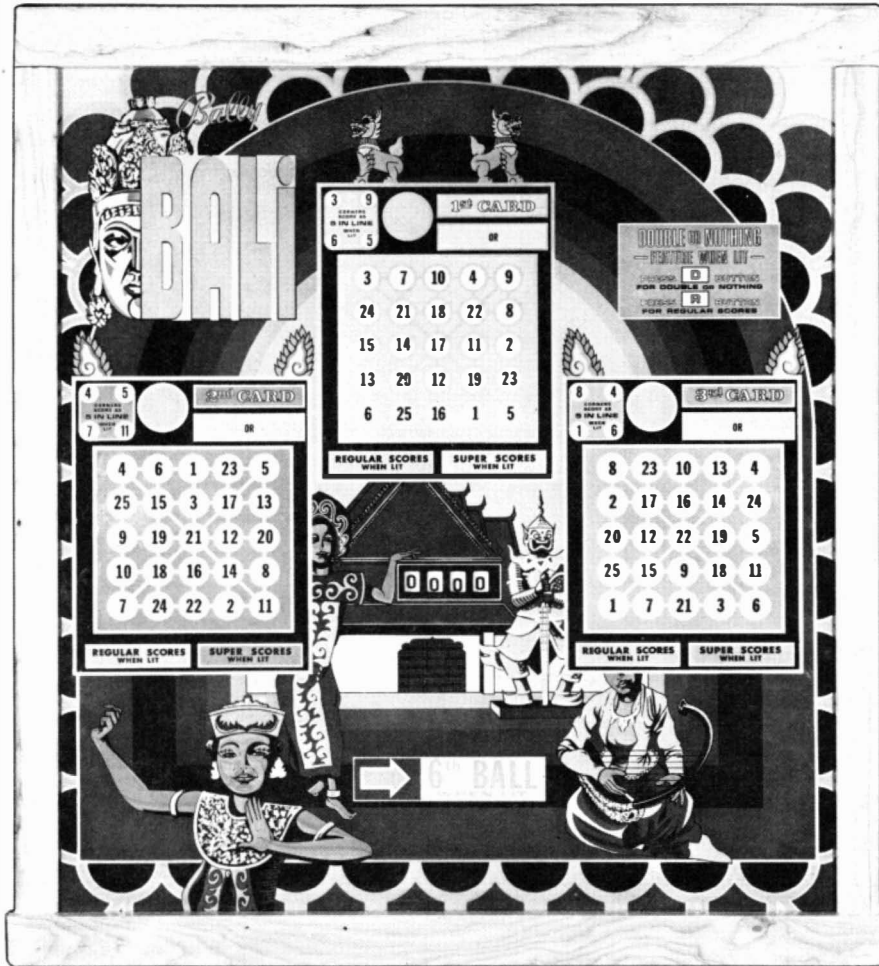
Bally

MANUFACTURING CORPORATION

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GAME 1025 WALL STREET BINGO



INTRODUCTION

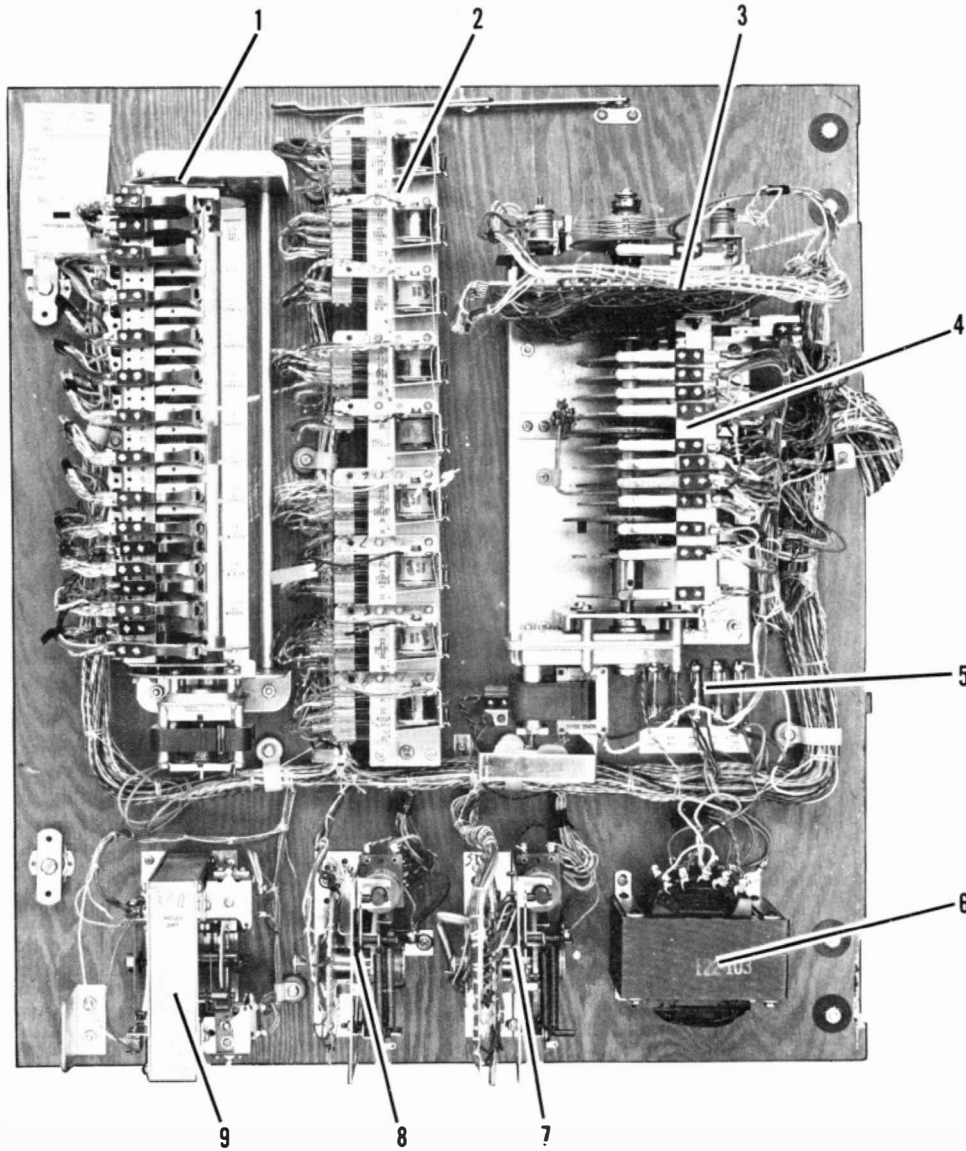
The Bally "Bali" Bingo is Bally's new 7 coin, 3 card, 25 hole feature bingo game. This game is a successor to the line of easy playing 6 card bingos starting with "Stock Market" in 1971, "Ticker Tape" and "Wall Street" in 1974. The "Bali" game has a new feature with the additional 4th, 5th and 6th coins, which lights the super scores and the corners panel on a mystery basis. An added incentive is the new 7th coin, 6th ball feature which adds a skill shot challenge to the game play.

SWITCH CODE	
N. C. . .	Normally Closed
N. O. . .	Normally Open
N. B. B. .	Make Before Break
S. P. D. T.	Single Pole Double Throw (or transfer sw. "T")
Note: All Switches on Bally Diagrams work clockwise.	

WIRE COLOR CODE		
1. . . .	Red	A. First number is wire body color
2. . . .	Blue	
3. . . .	Yellow	
4. . . .	Green	B. Second number is tracer color (stripe)
5. . . .	White	
6. . . .	Brown	
7. . . .	Orange	C. Number after dash indicates re-use of same color wire in a different circuit.
8. . . .	Black	
9. . . .	Gray	
0. . . .	No Tracer	

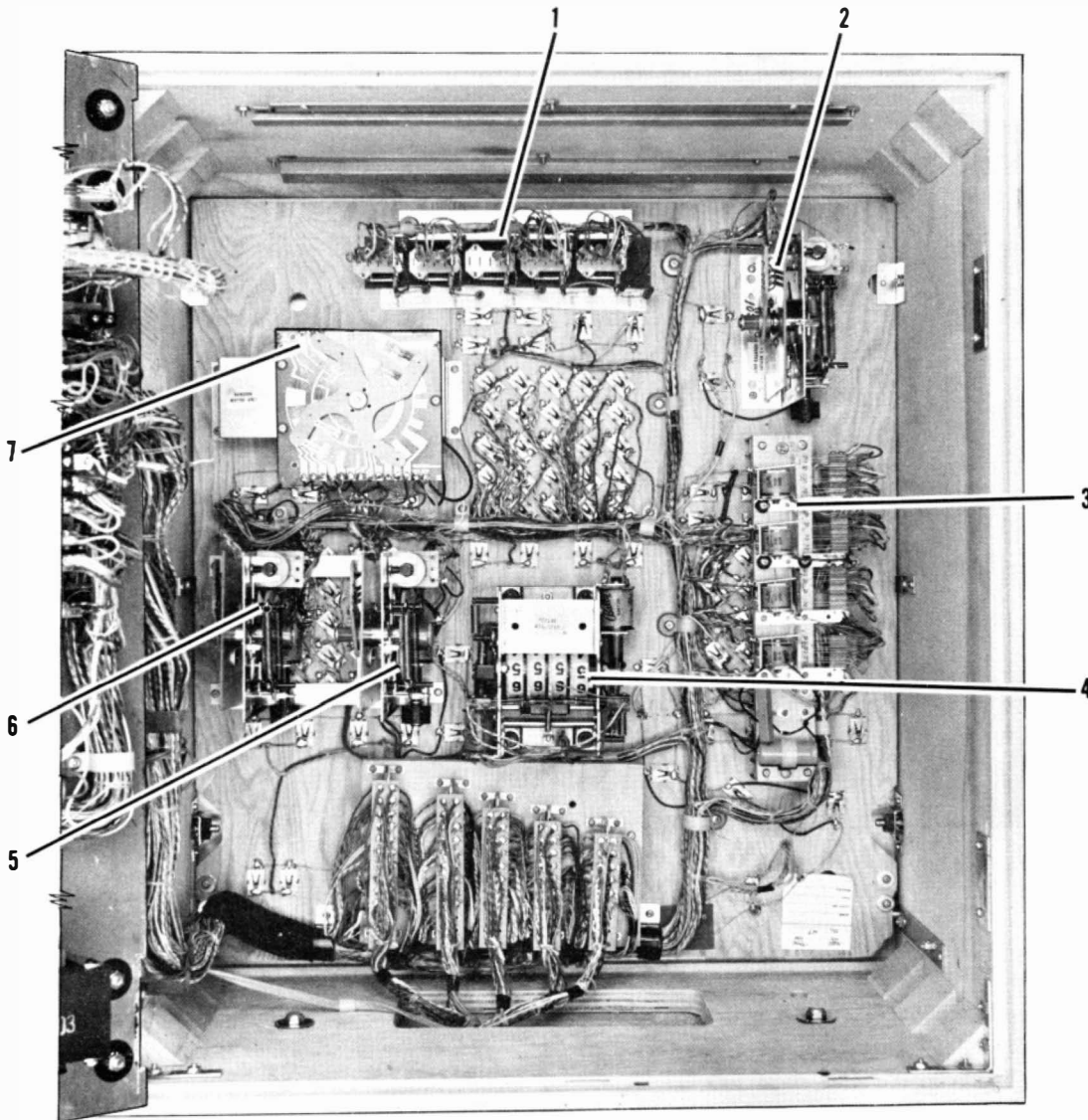
SWITCH SYMBOLS		
Normally Open (N. O.)	Normally Closed (N. C.)	Transfer (T.) (S. P. D. T.)

BACK DOOR UNIT LAYOUT & PAGE INDEX



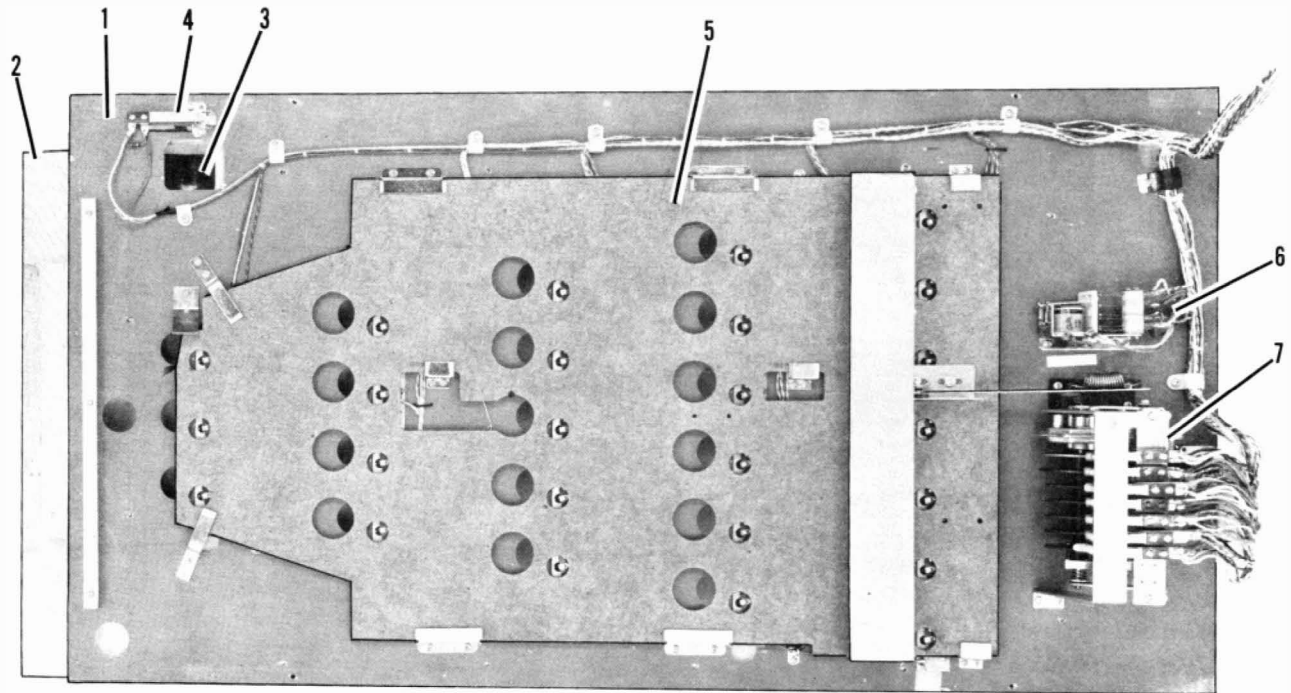
Index No.	Part No.	Description	Page No.	Index No.	Part No.	Description	Page No.
1	AS-2409-32	Trip Relay Assy. (11 Bank)	12	6	E-122-103	Transformer	
2	E-300-753	Relay Bank Assy. (9)	15	7	AS-1022-151	Selection Unit Assy.	26-29
3	A-234-285	Contact Plate Assy.	8	8	AS-1110-49	Timer Unit Assembly	26-28
4	AS-798-120	Control Unit Assy.	9	9	AS-873-44	Reflex Assembly	27
5	E-148-5 E-133-10	Fuse Block Fuse (10 Amp)(5)	-				

BACK CABINET UNIT LAYOUT & PAGE INDEX



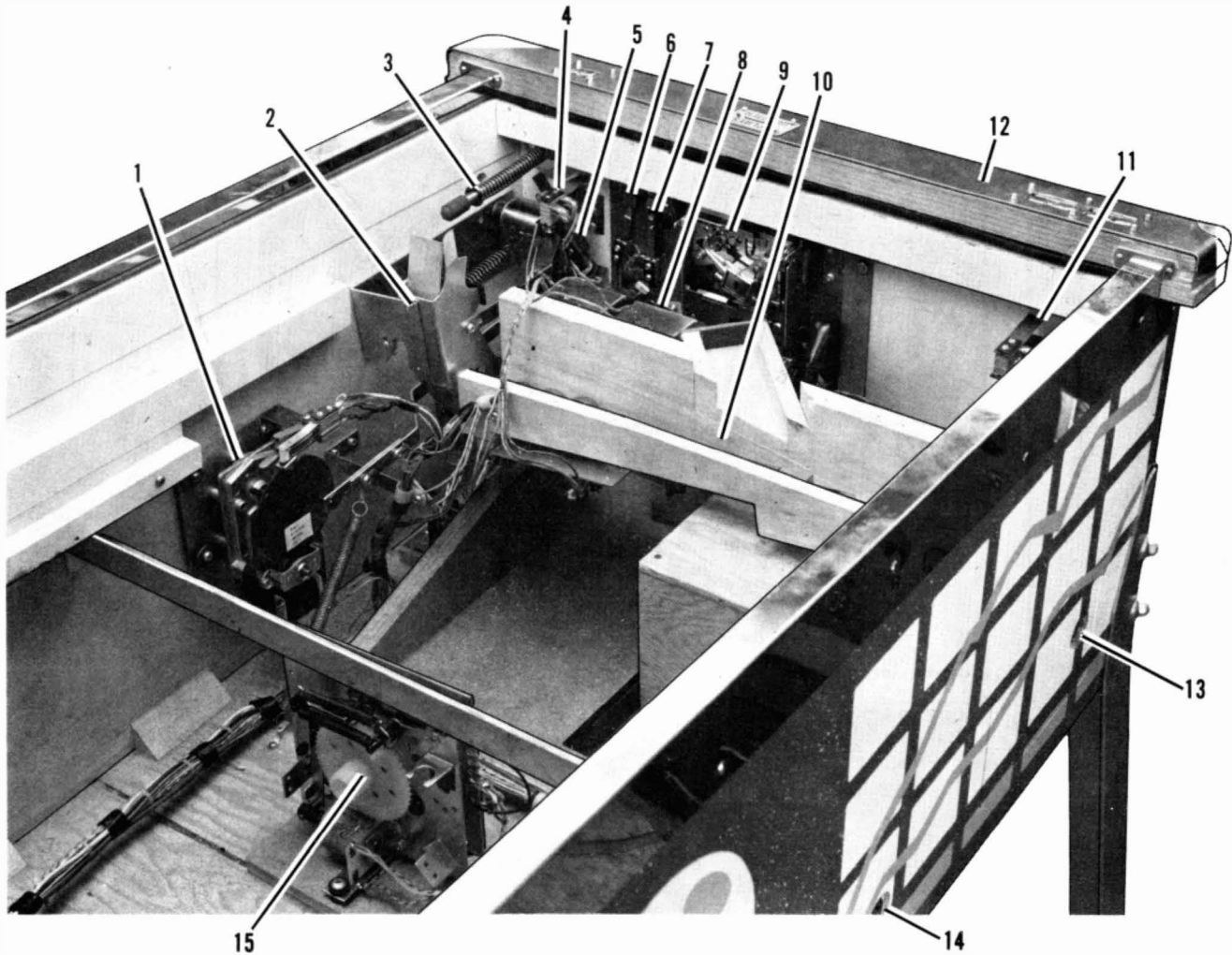
Index No.	Part No.	Description	Page No.	Index No.	Part No.	Description	Page No.
1	E-300-597	Search Relay Bank Assy.	20	5	AS-1022-150	Replay Counter Assy. #2	26-30
2	AS-1022-150	Replay Counter Assy. #3	26-30	6	AS-1022-150	Replay Counter Assy. #1	26-30
3	E-300-752	Relay Bank Assy. (4)	18	7	AS-2610-19	Random Unit Assy.	27-31
4	AS-473-54	Replay Register Assy.	27				

PLAYFIELD PANEL UNIT LAYOUT & PAGE INDEX



Index No.	Part No.	Description	Page No.	Index No.	Part No.	Description	Page No.
Note: All top panel play units are listed in the parts list in the rear of the book.				3	C-153	Red Plastic Ball Lift Cover	34
1.	CA-638-92	Panel	34	4	ASW-1A-30	Ball Runway Switch	34
	CA-1104	Panel Top Arch	34	5	AS-1433-14	Shutter Assy.	--
	CA-1103	Arch/Ball Guide Strip	34	6	AS-2662-58	Lift Start Relay	23
2	CA-1100-4	Arch Bottom	34	7	AS-232-86	Shutter Motor Assy.	32

FRONT CABINET UNIT LAYOUT & PAGE INDEX



Index No.	Part No.	Description	Page No.	Index No.	Part No.	Description	Page No.
1	AS-1139-27 SP-100-35	Ball Lifter Motor Assy. Extension Spring . . .	22 --	10	AS-1145-52 M-168-15	Ball Trough & Sw. Assy. Ball Set (6).	25 33
2	AS-186-11	Ball Lifter Assy. . .	25	11	AS-982-948	"R" & "D" Button Switch & Brkt. Assy.	25
3	AS-187-17	Ball Shooter Assy. . .	33	12	AS-1305-57	Front Molding Assy. . .	25 & 33
4	AS-982-933	"C" ButtonSw. & Brkt. Assembly.	25	13	CA-1105	Side Cash Box Door . .	33
5	ASW-A1-26 ASW-A2-9	Manual Lift Button Sw. . Manual Lift Button Sw. .	25 25	14	AS-982-671 AS-982-673	Replay Key Switch Unit Bottom. Replay Key Switch Unit (top)	25 25
6	ASW-A1-27	Tilt Switch.	--	15	AS-1358-22	Coin Unit Assembly . .	27
7	ASW-A1-37	Replay Switch (Red Button Play)	25	<p>Note: The Coin Unit automatically divides the coins between the two cash boxes & has an adjustment plug for split ratio (1/6, 1/5, 1/4, 1/3, 1/2).</p>			
8	E-130-10	Counters (Replay Key & Coins In)	25				
9	AS-277-144 M-1400-Series	Coin Sw. & Reject. Mount Slug Rejector - Specify Coin Denomination	33 33				

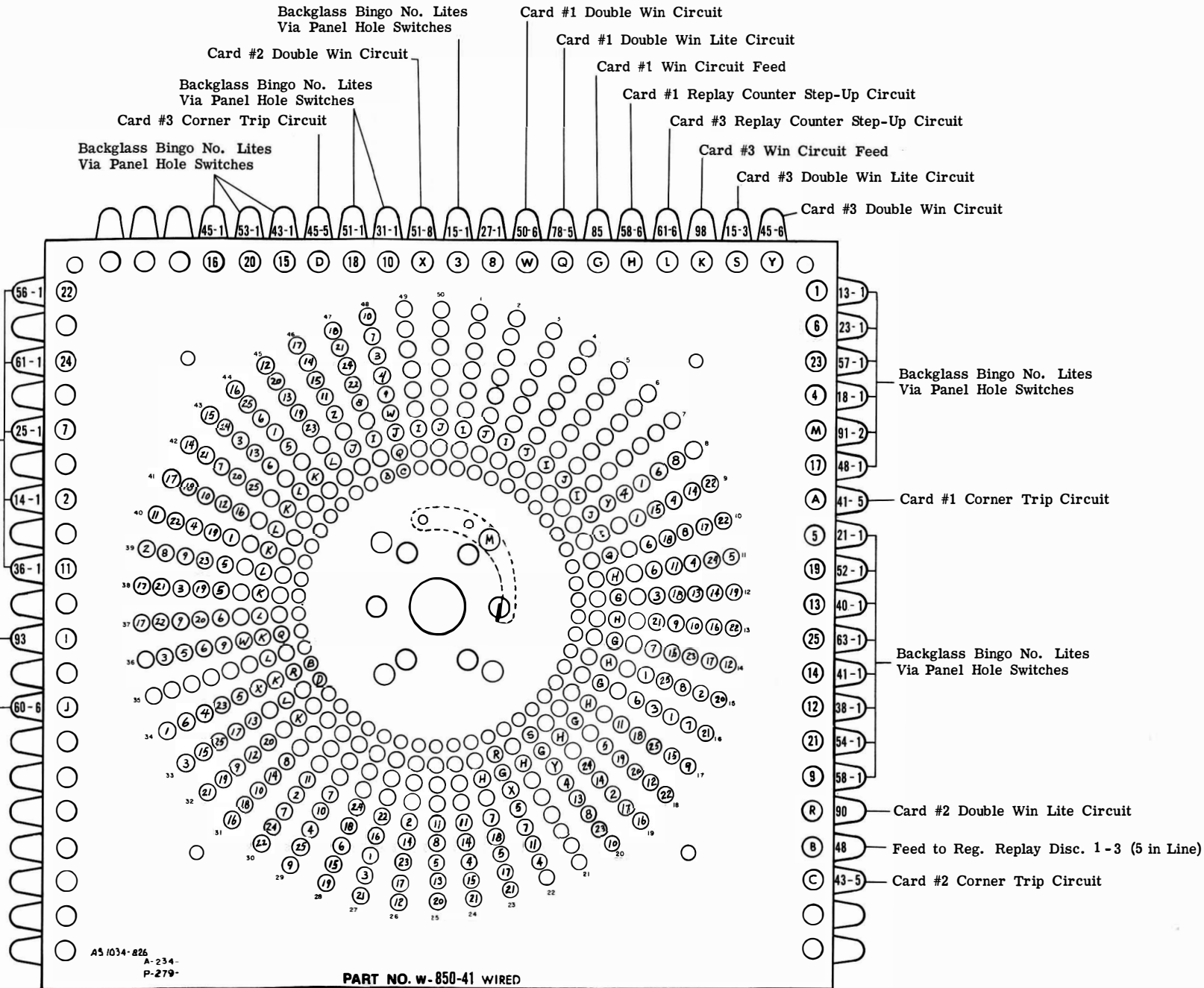
CONTROL UNIT WINNER SEARCH POSITIONS CHART

	Wiper at Disc Location No. :	Wiper #5 Search Relay No. 1	Wiper #6 Search Relay No. 2	Wiper #7 Search Relay No. 3	Wiper #4 Search Relay No. 4	Wiper #3 Search Relay No. 5
	1.					
	2.					
	3.					
	4.	Winners Read Across				
	5.					
	6.					
Card No. 3 Corners Winners -	7.					
	8.	6	8		1	4
	9.	4	14	22	15	1
	10.	8	17	22	18	6
Card No. 3 Winners	11.	4	24	4	11	6
	12.	13	14	19	18	3
	13.	10	16	22	9	21
	14.	23	17	12	15	77
	15.	8	2	20	25	1
	16.	1	7	21	3	6
	17.	25	15	9	18	11
	18.	20	12	22	19	5
	19.	2	17	16	14	24
	20.	8	23	10	13	4
Card No. 2 Corners Winners -	21.					
	22.	11	4		7	5
	23.	5	17	21	18	7
	24.	4	15	21	14	11
	25.	5	13	20	8	11
	26.	23	17	12	14	2
Card No. 2 Winners	27.	1	3	21	16	22
	28.	6	15	19	18	24
	29.	4	25	9	10	7
	30.	7	24	22	2	11
	31.	10	18	16	14	8
	32.	9	19	21	12	20
	33.	25	15	3	17	13
	34.	4	6	1	23	5
Card No. 1 Corners Winners -	35.					
	36.	5	3		6	9
	37.	9	22	17	20	6
	38.	3	21	17	19	5
	39.	9	8	2	23	5
	40.	4	22	11	19	1
	41.	10	18	17	12	16
	42.	7	21	14	20	25
Card No. 1 Winners	43.	3	24	15	13	6
	44.	6	25	16	1	5
	45.	13	20	12	19	23
	46.	15	14	17	11	2
	47.	24	21	18	22	8
	48.	3	7	10	4	9
	49.					
	50.					

1 - 2 - 3 CONTROL UNIT SEARCH DISC

VIEWED FROM WIRING SIDE

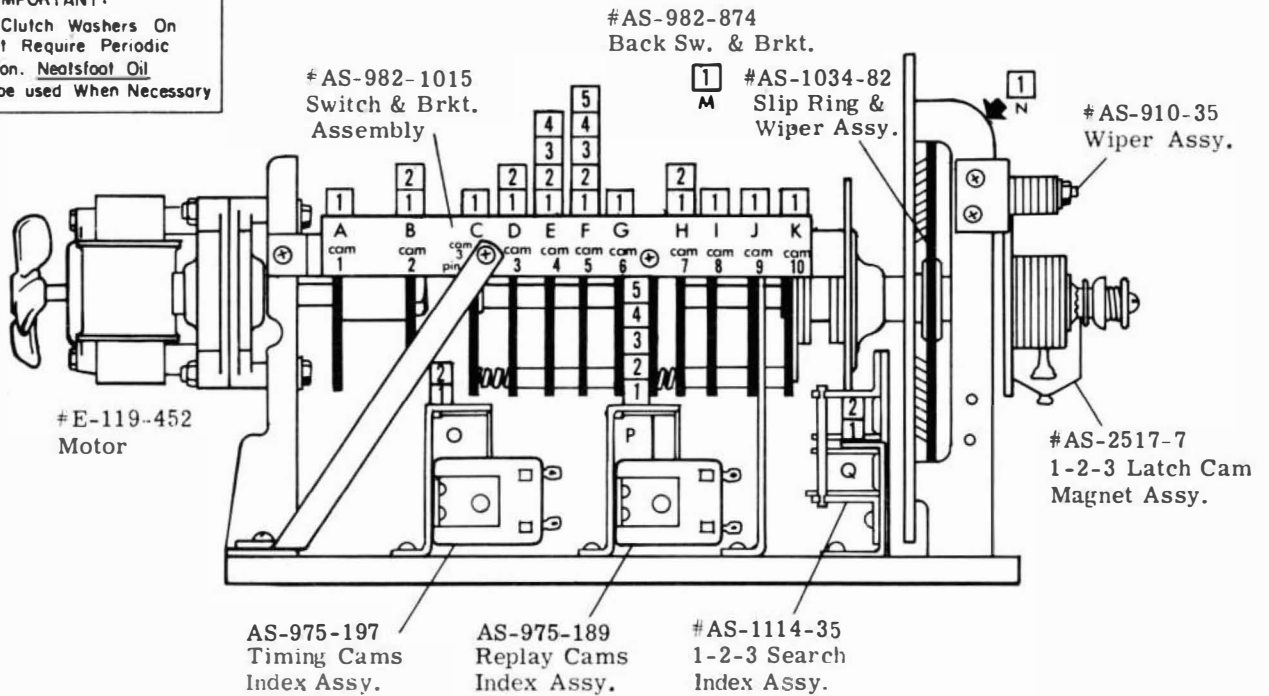
Search Wiper	Relay	Wiper Feeds
1	A	48-3
2	Z	95
3		40
4		38
5		20-1
6		31
7		36



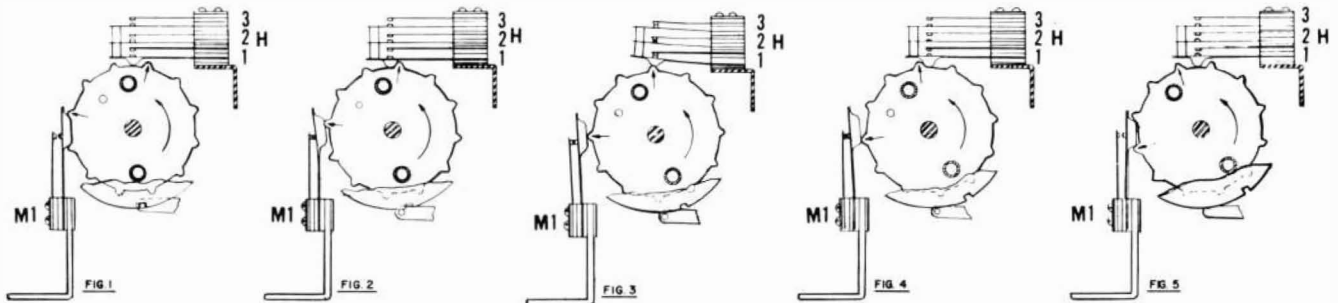
CONTROL UNIT

Control Unit (#AS-798-120ND) Pictorial View

IMPORTANT:
Leather Clutch Washers On
This Unit Require Periodic
Lubrication. Neatsfoot Oil
Should be used When Necessary



The correct adjustment & synchronization of the H & M Switches is vitally important to the Replay Counter Circuit. Out of adjustment H & M Switches can cause the 6 Replay Counter Discs (printed circuit) to become overloaded and burn out. Figure 3 shows the H & M Switches in a proper "made" position - these switches are adjustable for proper operation. Note that the M1 Switch closes first and opens last.



Replay cams shown in a norm. indexed pos. All Switches are open

Cams now starting to rotate. Sw. M-1 closed - Sw. H1-2-3 still open.

All Switches are closed & perfectly synchronized.

H Switches are now open again. M1 is still closed.

All Switches are open again. This cycle is repeated thru out repl. scoring.

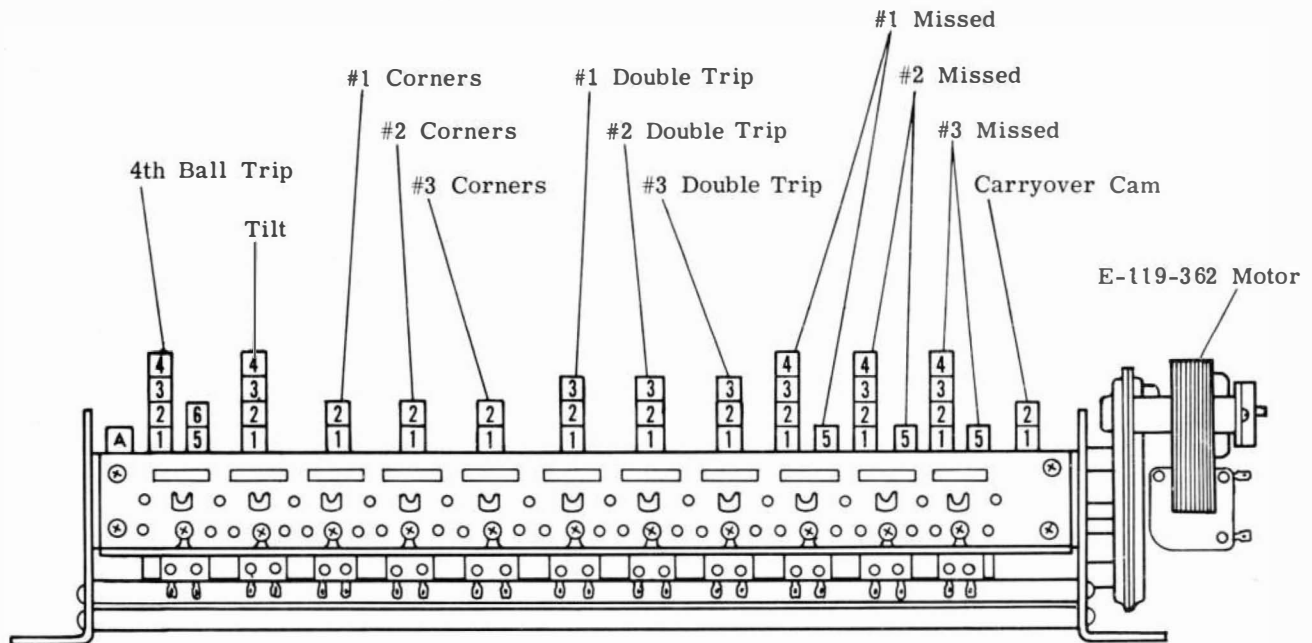
CONTROL UNIT FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
MOTOR	E-119-452	E-2	50P 20P	White Blue	Operates unit thru replay reset relay & timer index sw.
A 1 Cam 1	N. O. ASW-C1-4	D-10	65-2 63-2	Brown-White Brown-Yellow	
B 1 Cam 2	N. O. ASW-C1-3	D-5	75-4 74-1	Orange-White Orange-Green	Resets the replay resistor reset coil (new game) (1).
B 2 Cam 3	N. C. ASW-C2-15	G-6	30 20	Yellow Blue	Flashes feature lites
C 1 Cam 3	N. O. Pin ASW-C1-5	F-4	30 90-5	Yellow Grey	Completes circuit to in reflex coil. (2)
D 1 Cam 3	N. C. ASW-C1-4	G-5	30 80-9	Yellow Black	Opens circuit to start relay.
D 2 Cam 3	S. P. D. T. ASW-C3-3	C-14	36-2 98-4 91-7	Yellow-Brown Grey-Black Grey-Red	Not Used (Coin Circuit) (3)
E 1 Cam 4	N. O. ASW-C1-4	D-21	21-3 27-5	Blue-Red Blue-Orange	Steps up selection unit
E 2 Cam 4	N. O. ASW-C1-8	E-25	74-4 85-6	Orange-Green Black-White	Completes a selection unit circuit to double win relay & 3 corner trip relays.
E 3 Cam 4	N. O. ASW-C1-8	C-4	30 13-7	Yellow Red-Yellow	Completes a circuit to anti-cheat relay
E 4 Cam 4	N. C. ASW-C2-4	F-8	30 93-4	Yellow Grey-Yellow	Opens circuit to multiplay relay
F 1 Cam 5	N. O. ASW-C1-4	E-15	21-3 31-2	Blue-Red Yellow-Red	Steps-up replay register step-up coil for multiplay coin.
F 2 Cam 5	N. O. ASW-C1-8	A-7	93-1 98-8	Grey-Yellow Grey-Black	Completes circuit to coin meter.
F 3 Cam 5	S. P. D. T. ASW-C3-3	D-6	65-1 91-3 50J	Brown-White Grey-Red White	Completes circuit to tilt (anti-stringing)
F 4 Cam 5	LUG ASW-A0-9	D-7	50J 78-1	White Orange-Black	Multiple & single coin adjust.
G 1 Cam 6	N. C. ASW-C2-18	E-30	14-9 48-4	Red-Green Green-Black	Opens circuit to random motor (Double Wins).
H 1 Cam 7	N. O. ASW-C1-3	D-16	41-6 40-2	Green-Red Green	Completes a circuit to the replay Register step-up coil.
H 2 Cam 7	N. O. ASW-C1-43		70J	Orange	(Stop Replay Test)
I 1 Cam 8	N. O. ASW-C1-4	A-17	70 13-2	Orange Red-Yellow	Steps-up replay counters on regular scores.
J 1 Cam 9	N. O. ASW-C1-4	A-17	70 14-8	Orange Red-Green	Steps-up replay counters on double scores.
K 1 Cam 10	N. C. ASW-C1-4	F-16	85-1 23-6	Black-White Blue-Yellow	A hold in circuit for winner search
M 1 Back Sw.	N. O. ASW-CIX-21	E-17	53 78	White-Yellow Orange-Black	Completes circuits to search index coils replay cam index coils, replay register step-up & reflex unit counter coil.
N 1	N. O.	E-22	21-3 50-1	Blue-Red White	1-2-3 Search wiper lock cam completes circuit to search wiper relay.
TIMER CAMS INDEX COIL	BF-27-1250	A-7	70 52	Orange White-Blue	Timer cam index coil.
O 1	N. O. ASW-A1-43	F 2	10P 20P	Red Blue	Completes a circuit to the control unit motor.
O 2	N. C. ASW-A2-18	B 7	93-1 45-3	Grey-Yellow Green-White	Opens circuit to coin lockout coil.
REPLAY CAMS INDEX COIL	CF-28-1025	A-16	70 40-2	Orange Green	Energized thru the search relays, replay discs and search disc.

CONTROL UNIT FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
P 1 N. O.	ASW-A1-11	F-17	53 21-3	White-Yellow Blue-Red	Completes a winners search circuit to search index coils, register step-up & out reflex coil.
P 2 N. O.	ASW-A1-54	F-16	85-1 23-6	Black-White Blue-Yellow	Hold-in sw. for winner search
P 3 N. C.	ASW-A2-27	B-10	63-2 60-2	Brown-Yellow Brown	Opens a circuit to timer step-up coil.
P 4 N. C.	ASW-A2-51	B-24	61 57-7	Brown-Red White-Orange	Opens circuit to double play relay.
P 5 N. O.	ASW-A1-56	D-30	14-9 15-G	Red-Green Red-White	Completes a circuit from timer disc to random motor.
1-2-3 Search Index Coil	EA-29-950	C-13	85-5 70	Black-White Orange	1-2-3 Card Winner
Q 1 N. O.	ASW-A2-43	B-13	78 91-2	Orange-Black Gray-Red	Hold-in circuit to 1-2-3 Search Index Coil
Q 2 N. O.	ASW-A2-49	F-28	21-3 81-5	Blue-Red Black-Red	Completes circuit to Search Index Relay

TRIP RELAY ASSEMBLY - 11



TRIP RELAY BANK (11) SWITCH & RELAY COIL
FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
CAM #2 SWITCH	ASW-B0-1	NOT CONNECTED			
4th BALL TRIP RELAY COIL	D-27-425	A-23	70 60 J	Orange Brown Jumper	Energized thru Lifter Start Relay (permits a collect after the 4th ball)
1. N.O.	ASW-B-1	E-24	95 80-5	Grey-White Black	A circuit which feeds either a reg. win button, or double win button.
2. N.O.	ASW-B-1	E-9	50-2 65-2	White Brown-White	A circuit to timer step-up coil.
3. N.O.	ASW-B-1	C-29	53-4 31-6	White-Yellow Yellow-Red	Energizes double delay relay coil.
4. N.O.	ASW-B-1	C-22	38-3 54-2	Yellow-Black White-Green	Circuit to search wiper lock coil.
5. N.C.	ASW-B-2	A-23	60-9 60 J	Brown Brown Jumper	Circuit to 4th ball relay coil.
6. N.O.	ASW-B-1	C-23	52-3 98-1	White-Blue Grey-Black	Circuit to timer reset coil.

TRIP RELAY ASSEMBLY - 11

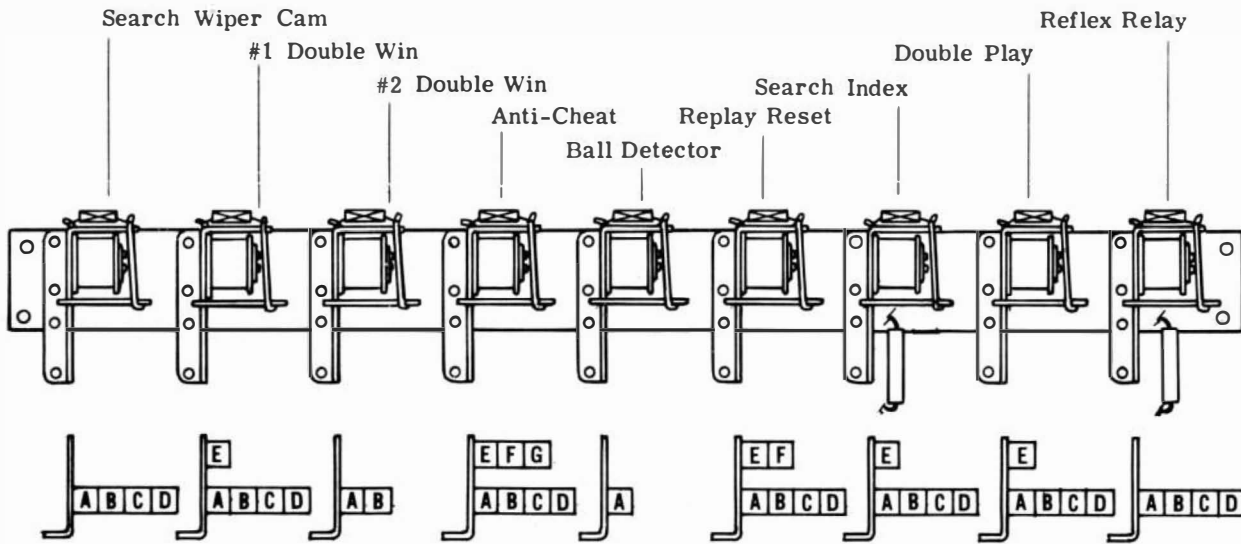
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
TILT RELAY COIL	D-27-425	A-13	70	Orange	Coil energized via all tilt switches.
1. N. C.	ASW-B-2	E-2	65-1 70P 20P	Brown-White Orange Blue	Switch de-energizes control unit motor.
2. N. C.	ASW-B-2	J-14	15 10	Red-White Red	Switch de-energizes all insert lights & search relays.
3. S. P. D. T.	ASW-B-3	J-13	51-7 54-5 18	White-Red White-Green Red-Black	Circuit to tilt light & anti-cheat relay.
4. S. P. D. T.	ASW-B-3	F-9	21-3 30 36-3	Blue-Red Yellow Yellow-Brown	Energizes shutter motor when tripped, opens replay circuit.
#1 CORNERS RELAY COIL	D-27-425	A-25	70	Orange	Trips thru selection & random units discs.
1. N. O.	ASW-B-1	G-11	13-4 50-4 30	Red-Yellow White Yellow	Lites No. 1 corner lite.
2. N. O.	ASW-B-1	D-20	61-7 41-5	Brown-Red Green-Red	Corner winner on card #1
#2 CORNERS RELAY COIL	D-27-425	A-26	70	Orange	Trips thru selection & random unit discs.
1. N. O.	ASW-B-1	H-12	14-4 51-4 30	Red-Green White-Red Yellow	Lites No. 2 corner lite.
2. N. O.	ASW-B-1	D-20	61-7 43-5	Brown-Red Green-Yellow	Corners payout on Card #2.
#3 CORNERS RELAY COIL	D-27-425	A-26	70	Orange	Trips thru selection & random unit discs.
1. N. O.	ASW-B-1	G-12	15-4 52-4 30	Red-White White-Blue Yellow	Lites No. 3 corner lite
2. N. O.	ASW-B-1	D-20	61-7 45-5	Brown-Red Green-White	Corners winner on Card #3.
#1 DOUBLE RELAY COIL	D-27-425	A-27	70	Orange	Energized thru double win relay & double delay relay thru search disc 1-2-3.
1. N. C.	ASW-B-2	H-7	23-4 48-10 37-7	Blue-Yellow Green-Black Yellow-Orange	Hold-in circuit for card #1 reg/nothing scoring.
2. S. P. D. T.	ASW-B-3	J-7	95-5 65-6 30	Grey-White Brown-White Yellow	Lites #1 Double or nothing lite.
3. S. P. D. T.	ASW-B-3	E-28	75-5 50-6	Orange-White White	A win circuit to card #2 "Double or nothing feature".
#2 DOUBLE RELAY COIL	D-27-425	A-28	70	Orange	Energized thru double win relay & Double Delay Relay thru search disc 1-2-3.
1. N. C.	ASW-B-2	H-8	25-4 31-8 52-7	Blue-White Yellow-Red White-Blue	Hold-in circuit for score collect lites (#2).
2. S. P. D. T.	ASW-B-3	J-9	57-5 63-7 30	White-Orange Brown-Yellow Yellow	Lites #2 Double or Nothing Lite on Win.
3. S. P. D. T.	ASW-B-3	E-28	74-5 51-8	Orange-Green White-Red	Awin circuit to card #2 "Double or Nothing Feature".
#3 DOUBLE RELAY COIL	D-27-425	A-29	70	Orange	Energized thru double win relay & delay relay thru search disc 1-2-3.
1. N. C.	ASW-B-2	H-10	10-3 53-7 95-7	Red White-Yellow Grey-White	Hold-in circuit for score collect lites (#3).
2. S. P. D. T.	ASW-B-3	J-10	58-3 60-5 30	White-Yellow White-Black Brown Yellow	Lites #3 Double or Nothing Lite on win.
3. S. P. D. T.	ASW-B-3	E-29	71-7 45-6 56-5	Orange-Red Green-White	A win circuit to card #3 "Double

TRIP RELAY ASSEMBLY - 11

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
#1 MISSED RELAY COIL	D-27-425	A-28	70 40 J	Orange Green Jumper	Energized thru 1-2-3 search disc & double delay relay.
1. N. C.	ASW-B-2	D-28	40-7 40 J	Green Green Jumper	Hold-in circuit thru search index relay 1-2-3.
2. N. C.	ASW-B-2	C-17	10-2 85	Red Black-White	#1 Relay counter step-up circuit
3. N. C.	ASW-B-2	G-7	30 48-10	Yellow Green-Black	Lites #1 Score collect lite.
4. S. P. D. T.	ASW-B-3	H-7	95-5 74-6 30	Grey-White Orange-Green Yellow	Lites #1 nothing lite when energized.
5. N. C.	ASW-B-2	H-8	65-6 78-5	Brown-White Orange-Black	Opens #1 Coin lite circuit.
#2 MISSED RELAY COIL	D-27-425	A-28	70 41 J	Orange Orange-Red Jumper	Energized thru 1-2-3 search disc & Double Delay Relay.
1. N. C.	ASW-B-2	D-28	41-7 41 J	Green-Red Green-Red Jumper	Hold-in circuit thru search index relay 1-2-3.
2. N. C.	ASW-B-2	C-17	13-3 93	Red-Yellow Grey-Yellow	#2 Replay Counter step-up circuit
3. N. C.	ASW-B-2	G-8	30 31-8	Yellow Yellow-Red	Lites #2 score collect lite.
4. S. P. D. T.	ASW-B-3	G-9	57-5 36-4 30	White-Orange Yellow-Brown Yellow	Lites #2 nothing lite when energized.
5. N. C.	ASW-B-2	H-9	63-7 90	Brown-Yellow Grey	Open #2 win lite circuit
#3 MISSED RELAY COIL	D-27-425	A-29	70 43 J	Orange Green-Yellow Jumper	Energized thru 1-2-3 search disc & double delay relay
1. N. C.	ASW-B-2	D-29	43-7 43 J	Green-Yellow Green-Yellow Jumper	Hold-in circuit thru search index relay 1-2-3
2. N. C.	ASW-5-2	C-18	14-2 98	Red-Green Grey-Black	#3 Replay counter step-up circuit
3. N. C.	ASW-B-2	G-10	30 53-7	Yellow White-Yellow	Lites #3 score collect lite
4. S. P. D. T.	ASW-B-3	H-10	58-3 83 30	White-Black Black-Yellow Yellow	Lites #3 nothing lite when energized.
5. N. C.	ASW-B-2	H-11	60-5 15-3	Brown Red-White	Opens #3 win lite circuit
CARRY OVER SW. #1 N.O.	ASW-B-20	F-20	90-1 30	Grey Yellow	Resets Trip Bank
CARRY OVER SW. #2 N.C.	ASW-B-1	J-12	51-7 41-2	White-Red Green-Red	6 V. Lite Circuit
MOTOR	E-119-362	A-20	70 90-1	Orange Gray	

9 RELAY BANK

Pictorial View & Technical Information



Coil Chart

Name	Search Wiper Cam	#1 Double Win	#2 Double Win	A. C.	Ball Detector	Replay Reset	Search Index	Double Play	Reflex
Coil No.	G-32-2500	G-31-1800	G-32-2500	G-33-2800	G-32-2500	G-31-1800	G-32-2500	G-32-2500	G-32-2500
Coil Resist. Nominal	78 Ohm.	49 Ohm.	78 Ohm.	105 Ohm.	78 Ohm.	49 Ohm.	78 Ohm.	78 Ohm.	78 Ohm.
Operating Voltage	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.	50 V. A. C.
Test Voltage	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.	34 V. A. C.
Ext. Spring Part No.	White SP-199-28	White SP-199-28	White SP-199-28	Red SP-199-29	White SP-199-28	White SP-199-28	Red SP-199-29	Red SP-199-29	Red SP-199-29

9 RELAY BANK SWITCH & RELAY COIL FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
SEARCH WIPER COIL	G-32-2500	A-23	70 50-1	Orange White	Energized during a winner search (collect button play).
A. N. O.	ASW-R1-3	F-29	21-3 14-9	Blue-Red Red-Green	Completes a winners search circuit to the double delay relay.
B. N. O.	ASW-R1-3	F-1	10 P 20 P	Red Blue	Completes a winners search circuit (collect button) to run the control unit motor
C. N. C.	ASW-R2-4	B-22	54-2 18-2	White-Green Red-Black	Opens a circuit to the 1-2-3 search wiper lock coil.
D. N. C.	ASW-R2-4	F-5	80-9 27-4	Black Blue-Orange	Opens the entire coin & game start circuit.

9 RELAY BANK

9 RELAY BANK SWITCH & RELAY COIL FUNCTION CHART

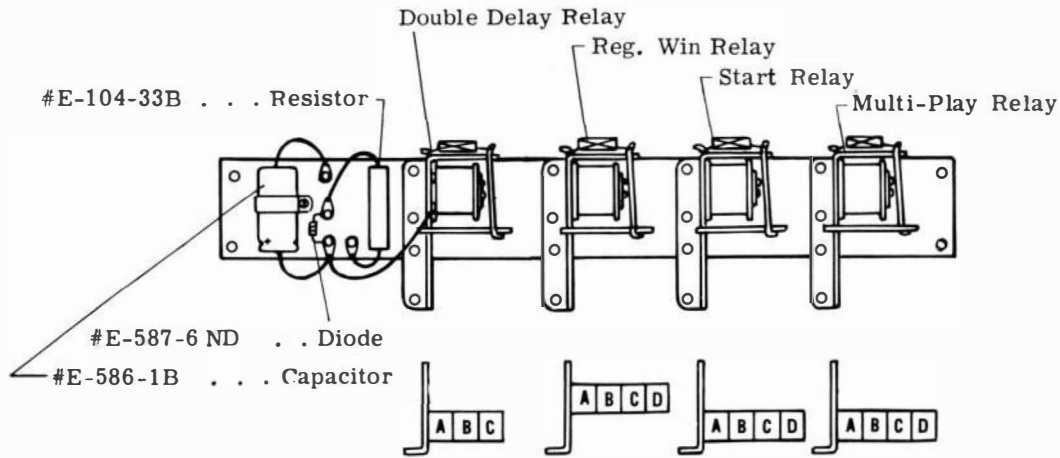
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
1# DOUBLE WIN RELAY	G-31-1800	A-25	70 43	Orange Green-Yellow	Energized if qualified for double win.
A. N. O.	ASW-R1-8	A-25	61 43	Brown-Red Green-Yellow	Pulls in double play relay thru double button sw.
B. N. O.	ASW-R1-3	D-27	95-4 23-4	Grey-White Blue-Yellow	Trips #1 Double Trip.
C. N. O.	ASW-R1-3	D-28	25-4 83-4	Blue-White Black-Yellow	Trips #2 Double Trip
D. N. O.	ASW-R1-3	F-29	30 56-5	Yellow White-Brown	Energizes double trip relay #2
E. N. O.	ASW-R1-3	D-28	90-4 10-3	Grey Red	Trips #3 Double Trip
2# DOUBLE WIN RELAY	G-32-2500	A-29	70 56-5	Orange White-Brown	Energizes double win relay #2
A. N. O.	ASW-R1-3	D-16	78 40-2	Orange-Black Green	Energizes replay cam index.
B. S. P. D. T.	ASW-R3-4	A-17	13-2 81-1 14-8	Red-Yellow Black-Red Red-Green	Controls 1-2-3 replay counters for double or regular
ANTI-CHEAT RELAY	G-32-1250	A-4	70 38 J	Orange Yellow-Black	Energized by control unit cam 4
A. N. O.	ASW-R1-8	C-4	30 13-7	Yellow Red-Yellow	Anti-cheat hold-in circuit
B. N. O.	ASW-R1-3	H-14	15 80-7	Red-White Black	Card lite circuit (17 V.)
C. N. C.	ASW-R2-4	E-7	51-2 93-1	White-Red Grey-Yellow	Energizes coin lock out coil.
D. N. C.	ASW-R2-4	D-6	95-3 63-4	Grey-White Brown-Yellow	Opens a circuit to the start relay
E. N. C.	ASW-R2-4	A-3	70 38J	Orange Yellow-Black	Hold-in circuit
F. S. P, D. T.	ASW-R3-4	H-14	18 78-6 54-5	Red-Black Orange-Black White-Green	Card lite circuit (6 V.)
G. S. P. D. T.	ASW-R3-4	E-5	75-4 56-2 90-2	Orange-White White-Brown Grey	Transfers a circuit from the reset system to energize the start relay via replay button.
BALL DETECTOR RELAY	G-32-2500	A-14	70 83-2	Orange Black-Yellow	Energizes ball detector coil.
A. N. C.	ASW-R2-4	E-12	1-4 21-3	Orange-Red Blue-Red	Opens circuit to ball lifter sw.
REPLAY RESET RELAY	G-30-1500	A-5	70 75-4	Orange Orange-White	Energized when there are credits on the replay register.
A. N. O.	ASW-R1-3	F-5	56-2 75-4	White-Brown Orange-White	Hold-in circuit
B. N. O.	ASW-R1-3	F-2	10 P 20 P	Red Blue	Energizer control unit motor
C. N. C.	ASW-R2-4	E-15	30 93-2	Yellow Grey-Yellow	Opens circuit to replay register step-up coil.
D. N. C.	ASW-R2-4	B-5	10-1 98-3	Red Grey-Black	Open circuit to start relay
E. N. C.	ASW-R2-4	A-22	18-2 27-3	Red-Black Blue-Orange	Opens a circuit to the 1-2-3 search wiper lock coil.
F. S. P. D. T.	ASW-R2-4	C-5	90-5 65-7 74-1	Grey Brown-White Orange-Green	Directs circuit to replay register reset (when there are credits on register) when starting new game.

9 RELAY BANK

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
SEARCH INDEX RELAY	G-30-1500	A-27	70 81-5	Orange Black-Red	Energized thru any win on any card.
A. N. O.	ASW-R1-8	F-24	21-3 95	Blue-Red Grey-White	Completes a win circuit to regular & double buttons (double or nothing).
B. N. O.	ASW-R1-3	H-6	50-3 48-3	White Green-Black	Double or nothing feature lite
C. N. O.	ASW-R1-3	J-6	78-4 48-3	Orange-Black Green-Black	Completes circuit from search index relay to double fea. lite.
D. N. O.	ASW-R1-3	C-30	18-8 60-8	Red-Black brown	Completes a winners "double or nothing" circuit to the random disc.
E. N. C.	ASW-R2-4	B-16	91-2 85-5	Grey-Red Black-White	Opens a circuit to the 1-2-3 search index coil.
DOUBLE PLAY RELAY	G-31-1500	A-24	70 61	Orange Brown-Red	Energized through double button switch.
A. N. O.	ASW-R1-8	B-25	71-1 61	Orange-Red Brown-Red	Hold-in circuit for double win relay #2.
B. N. O.	ASW-R1-3	B-25	80-1 43	Black Green-Yellow	Completes a win circuit to the dbl. win re. via. the random disc.
C. N. C.	ASW-R2-4	B-24	23-5 56	Blue-Yellow White-Brown	Opens the regular win circuit during double or nothing play.
D. N. C.	ASW-R2-4	E-29	53-4 14-9	White-Yellow Red-Green	Opens a win circuit to the double delay relay during "D" button play.
E. S. P. D. T.	ASW-R3-4	C-30	15-6 14-9 18-8	Red-White Red-Green Red-Black	Directs a winner circuit to the random disc during double or nothing play.
LUG	LUG		21-3 61	Blue-Red Brown-Red	
REFLEX RELAY	G-32-2500	C-27	70 J	Orange	Energized through the reflex cam switch.
A. N. O.	ASW-R1-8	E-26	57-3 91	White-Orange Grey-Red	Hold-in circuit for reflex relay.
B. N. O.	ASW-R1-3	C-25	25 80-1	Blue-White Black	Completes a double play circuit to the double win relay via the random unit disc.
C. N. O.	ASW-R1-3	D-26	21-7 36-6	Blue-Red Yellow-Brown	Energizes random disc through reflex relay.
D. N. C.	ASW-R2-4	A-27	91 91 J	Grey-Red Grey-Red	Feed to reflex relay

4 RELAY BANK

Pictorial View & Technical Information



Coil Chart

Name	Double Delay	Reg. Win	Start	25¢
Coil No.	#G-35-5200	#G-31-1800	#G-32-2500	#G-32-2500
Coil Resist. Norminal.	43 Ohm.	49 Ohm.	78 Ohm.	78 Ohm.
Operating Voltage	50 V.	50 V.A.C.	50 V.A.C.	50 V.A.C.
Test Voltage	28 V.D.C.	37 V.A.C.	37 V.A.C.	37 V.A.C.
Ext. Spring Part No.	White #SP-199-28	White #SP-199-28	Red #SP-199-29	Red #SP-199-29

4 RELAY BANK SWITCH & RELAY COIL FUNCTION CHART

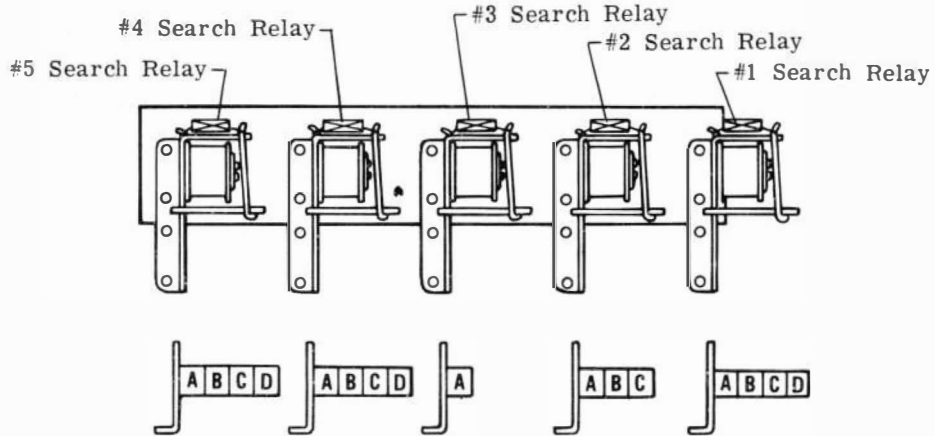
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
DOUBLE DELAY RELAY COIL	G-35-5200	A-30	70 31-6	Orange Yellow-Red	Energized when a winner has been achieved thru the 4th ball trip re. sw.
A. S.P.D.T.	ASW-R3-4	E-28	40-7 75-5 95-4	Green Orange-White Grey-White	Check for double or nothing on card #1.
B. S.P.D.T.	ASW-R3-4	E-28	41-7 74-5 83-4	Green-Red Orange-Green Black-Yellow	Checks for double or nothing on Card #2.
C. S.P.D.T.	ASW-R3-4	E-29	43-7 71-7 90-4	Green-Yellow Orange-Red Grey	Checks for double or nothing on Card #3.

4 RELAY BANK

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
REG. WIN RELAY COIL	G-31-1800	A-24	70 56	Orange White-Brown	Energized thru reg. win button to collect winner.
A. N.O.	ASW-R1-3	D-16	78 40-2	Orange-Black Green	Complete circuit to relay cam coil.
B. N.C.	ASW-R2-4	G-6	20 50-3	Blue. White	Opens double lite circuit
C. N.C.	ASW-R2-4	B-24	65-8 57-7	Brown-White White-Orange	Opens circuit to double play relay.
D. S.P.D.T.	ASW-R3-4	C-24	71-1 80-5 23-5	Orange-Red Black Blue-Yellow	Opens circuit to double feature win relay.
START RELAY	G-32-2500	A-5	70 48-2	Orange Green-Black	Energized thru front door coin sw. or replay button.
A. N.O.	ASW-R1-8	E-8	80-9 98-3	Black Grey-Black	Start Relay hold-in switch.
B. N.O.	ASW-R1-3	C-8	58 98-3	White-Black Grey-Black	Completes circuit to timer index.
C. N.C.	ASW-R2-4	F-10	21-3 50-2	Blue-Red White	Opens circuit to timer step-up coil.
D. N.C.	ASW-R2-4	E-27	95-1 91	Grey-White Grey-Red	Opens circuit to reflex relay.
MULT. PLAY RELAY	G-32-2500	A-8	70 78-1	Orange Orange-Black	Energized by 25¢ coin sw.
A. N.O.	ASW-R3-4	E-8	93-4 78-1	Grey-Yellow Orange-Black	Hold-in for 25¢ Relay.
B. N.O.	ASW-R2-4	E-6	51-2 10-1	White-Red Red	Completes circuit to start relay.
C. N.C.	ASW-R1-8	B-5	65-7 50	Brown-White White	Opens circuit to replay register reset coil.
D. S.P.D.T.	C-15	C-15	41-6 14 31-2	Green-Red Red-Green Yellow-Red	Directs winner or 25¢ credit circuit to step replay register.

SEARCH RELAY BANK - 5

Pictorial View & Technical Information



Note: A #E-105-64B Resistor is installed on each Coil.

Coil Chart

Name	Search #5	Search #4	Search #3	Search #2	Search #1
Coil No.	G-28-750	G-28-750	G-28-750	G-28-750	G-28-750
Coil Resist. Nominal	9.5 Ohm.	9.5 Ohm.	9.5 Ohm.	9.5 Ohm.	9.5 Ohm.
Operating Voltage	17 V.A.C.	17 V.A.C.	17 V.A.C.	17 V.A.C.	17 V.A.C.
Test Voltage	12 V.	12 V.	12 V.	12 V.	12 V.
Ext. Spring Part No.	White SP-199-28	White SP-199-28	White SP-199-28	White SP-199-28	White SP-199-28

SWITCH CODE

N. C.	Normally Closed
N. O.	Normally Open
M. B. B. . . .	Make Before Break
S. P. D. T. . .	Single Pole Double Thrown

SEARCH RELAY BANK - 5

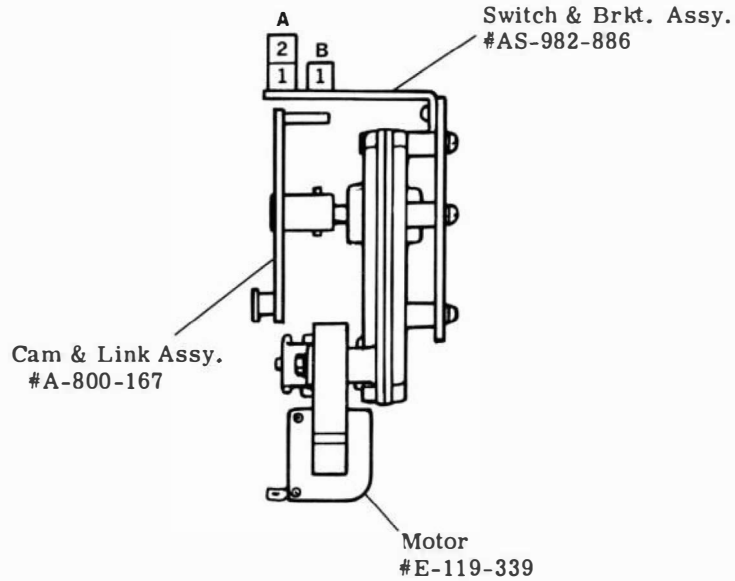
Switch & Relay Coil Function Chart

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
#1 SEARCH	G-28-750	J 21	10 20-1	Red Blue	Energized thru 1 - 2 - 3 - 4 - 5 Search Disc
A. N. O.	ASW-R1-8	E-17	75-2 52-2	Orange-White White-Blue	Winner circuit for 3 in-line.
B. N. O.	ASW-R1-8	F-20	60-7 85-2	Brown Black-White	Winner circuit for 4 in-line.
C. N. O.	ASW-R1-8	D-20	53-2 85-2	White-Yellow Black-White	Winner circuit for 4 in-line.
D. N. O.	ASW-R1-8	F-17	25-6 23-6	Blue-White Blue-Yellow	Corners winner circuit
#2 SEARCH	G-28-750	J-21	10 31	Red Yellow-Red	Energized thru 1-2-3-4-5 Search Disc.
A. N. O.	ASW-R1-8	F-18	71-2 74-2	Orange-White Orange-Green	Winner circuit for 4 and 5 in line.
B. N. O.	ASW-R1-8	E-18	75-2 74-2	Orange-White Orange-Green	Winner circuit for 3 in line.
C. N. O.	ASW-R1-8	F-18	25-6 27-6	Blue-White Blue-Orange	Corners winner circuit.
#3 SEARCH	G-28-750	J-22	10 36	Red Yellow-Brown	Energized thru 1-2-3-4-5 search disc.
A. N. O.	ASW-R1-8	F-17	23-6 74-2	Blue-Yellow Orange-Green	Winner circuit for 3 in line.
#4 SEARCH	G-28-750	J-22	10 38	Red Yellow-Black	Energizes thru 1-2-3-4-5 search disc.
A. N. O.	ASW-R1-8	E-18	75-2 52-2	Orange-White White-Blue	Winner circuit for 3 in line.
B. N. O.	ASW-R1-8	E-19	74-2 81-2	Orange-Green Black-Red	Winner circuit for 3 in line.
C. N. O.	ASW-R1-8	F-19	85-2 71-2	Black-White Orange-Red	Winner circuit for 4 in line.
D. N. O.	ASW-R1-8	F-19	14-6 27-6	Red-Green Blue-Orange	Corners winner circuit
#5 SEARCH	G-28-750	J-23	10 40	Red Green	Energized thru 1-2-3-4-5 search disc.
A. N. O.	ASW-R1-8	E-18	52-2 81-2	White-Blue Black-Red	Winners circuit for 3 in line.
B. N. O.	ASW-R1-8	E-20	53-2 85-2	White-Yellow Black-White	Winner circuit for 4 in line.
C. N. O.	ASW-R1-8	E-20	60-7 48	Brown Green-Black	Winner circuit for 5 in line.
D. N. O.	ASW-R1-8	F-20	61-7 14-6	Brown-Red Red-Green	Corners winner circuit

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

BALL LIFTER MOTOR

Ball Lifter Motor Assy.
#AS-1139-27 ND (Complete)



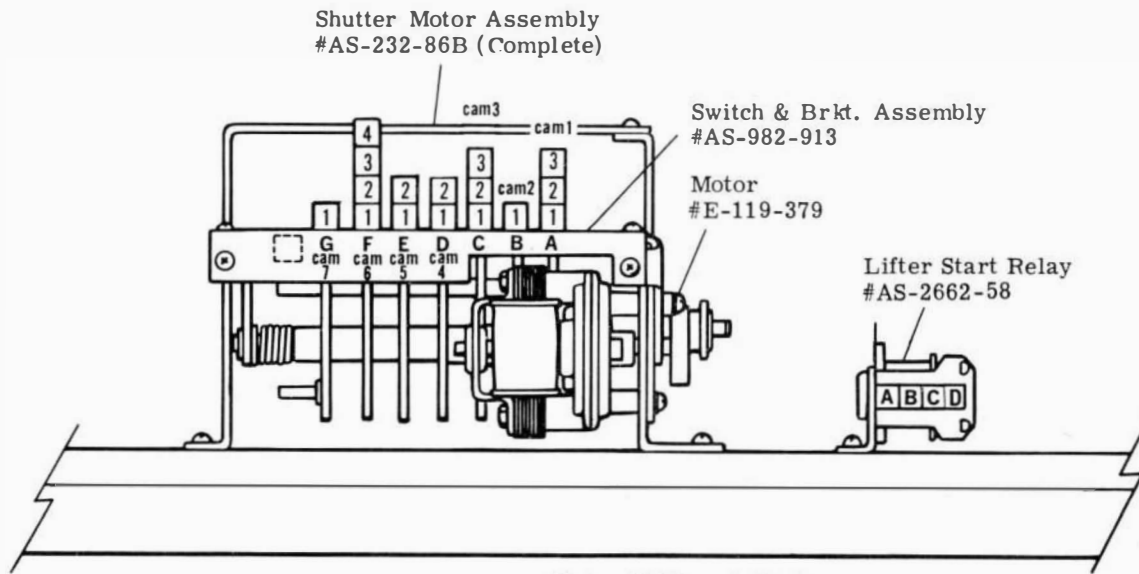
BALL LIFTER MOTOR SWITCH FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
MOTOR	#E-119-339B	A-11	70 74-3	Orange Orange-Green	
1.(A) N.O.	ASW-C1XA	F-11	30 61-3	Yellow Brown-Red	Runs ball lifter motor
2.(A) N.C.	ASW-C2-15A	B-8	27-2 80-2	Blue-Orange Black	Runs ball lifter motor
1.(B) N.O.	ASW-C1X-3A	E-9	30 63-2	Yellow Brown-Yellow	Steps-up timer unit

SWITCH CODE

N.C.	Normally Closed
N.O.	Normally Open
M.B.B.	Make Before Break
S.P.D.T.	Single Pole Double Thrown

PANEL SHUTTER MOTOR UNIT PANEL LIFTER START RELAY



Panel Assembly Pictorial View & Tech.
Information - Bottom Rear View

SWITCH CODE

N. C.	Normally Closed
N. O.	Normally Open
M. B. B. . . .	Make Before Break
S. P. D. T. . .	Single Pole Double Throw

Name	Lifter Start Relay
Coil No.	G-32-2500
Coil Resist. Nominal	78 Ohm.
Operating Voltage	50 V.
Test Voltage	34 V.
Ext. Spring Part No.	White SP-199-28

LIFTER START SWITCH & COIL FUNCTION CHART

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
LIFTER START RELAY COIL	G-32-2500	A-11	70 40-3	Orange Green	Energized thru ball runway sw. circuit when each ball is lifted to shooter, de-energized when each ball enters playfield.
A. N. O.	ASW-R1-8	C-10	54-3 40-3	White-Green Green	Completes lock-in circuit to this relay.
B. N. O.	ASW-R1-3	D-23	43-2 95-2	Green- Yellow Grey-White	Completes circuit to 4th ball trip relay.
C. N. C.	ASW-R2-4	E-13	83-2 60-3	Black- Yellow Brown	Completes circuit to ball lifter motor.
D. N. C.	ASW-R2-4	D-9	57-2 38-2	White-Orange Yellow-Black	Opens timer disc circuit to shutter motor while relay is energized.

PANEL SHUTTER MOTOR UNIT

SHUTTER MOTOR SWITCH FUNCTION CHART

Note: When reading Diagram - Cam No.'s & their corresponding Switch Numbers read from Motor Side (1-7) of Unit.

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
MOTOR	E-119-379	A-9	70 80-2	Orange Black	Energized when game is coined or when credits are on register via <u>start relay switches.</u>
A 1 CAM 1	N. O. ASW-C1-27	D-8	80-2 30	Black Yellow	Carry over switch
A 2 CAM 1	N. C. ASW-C2-15	F-16	85-1 30	Black-White Yellow	Open entire winner/search circuit to start new game.
A 3 CAM 1	N. C. ASW-C2-2	A-7	54 52	White-Green White-Blue	Opens a circuit to timer cam index.
B 1 Cam 2	N. C. ASW-C2-6	E-23	43-2 21-3	Green-Yellow Blue-Red	Opens circuit to 4th ball trip relay.
C 1 CAM 3	N. O. ASW-C1-27	E-23	98-1 30	Grey-Black Yellow	Resets timer unit.
C 2 CAM 3	N. O. ASW-C1-8	E-21	30 85-3	Yellow Black-White	Completes a circuit to reset all stepping units.
C 3 CAM 3	N. O. ASW-C1-8	E-21	30 90-1	Yellow Grey	Completes a circuit to the 18 trip bank motor.
D 1 CAM 4	N. O. ASW-C1-27	E-7	51-2 93-1	White-Red Grey-Yellow	Completes a circuit to the coin lockout coil.
D 2 CAM 4	N. O. ASW-C1-8	E-22	21-3 50-9	Blue-Red White	Completes a circuit to the 1-2-3 search wiper lock coil via "C" <u>button switch.</u>
E 1 CAM 5	N. O. ASW-C1-27	C-6	95-3 63-4	Grey-White Brown-Yellow	Completes a circuit to the start relay if credits are on register.
E 2 CAM 5	N. C. ASW-C2-15	F-25	21-3 74-4	Blue-Red Orange-Green	Opens a circuit to the selection & random unit discs.
F 1 CAM 6	S. P. D. T. ASW-C3-8	B-8	80-2 58 54	Black White-Black White-Green	Directs a circuit to energize the timer cam index coil
F 2 CAM 6	N. C. ASW-C2-3	E-10	81-4 56-3	Black-Red White-Brown	Completes a circuit to the lifter start relay at onset of new game.
F 3 CAM 6	N. C. ASW-C2-2	F-9	36-3 38-2	Yellow-Brown Yellow-Black	Completes a circuit to the shutter motor - if tilted.
F 4 CAM 6	N. C. ASW-C2-2	C-9	27-2 38-2	Blue-Orange Yellow-Black	Completes a circuit to the shutter motor via timer unit disc.
G 1 CAM 7	N. O. ASW-C10-5	E-21	90-1 30	Grey Yellow	Completes a circuit to the 18 trip bank motor.

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

CONTROL BUTTONS

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
"C" Button (Collect) A.	ASW-A11-4 (Bottom)	D-22	50-9 38-3	White Yellow-Black	Can be pushed in after 4th ball (4th Ball Trip Re.) on winner - energizes the 1-2-3 Search Wiper Lock Coil. - Must be pushed before "R" or "D" Button.
"C" Button (Collect) B.	ASW-A-11-4 (Top)	D-23	21-3 52-3	White-Red White-Blue	Energizes the Timer Reset Coil
"R" Button (Regular Win) S. P. D. T.	ASW-A21-1	D-24	23-5 80-5 15J	Blue- Yellow Black Red-White	Can be pushed in <u>AFTER</u> pushing in "C" Button (Winner Search) (After 4th or 5th Ball) to put a regular win on Register
"D" Button (Double or Nothing)	ASW-A1-22	C-24	65-8 15J	Brown-White Red-White	Can be pushed in <u>AFTER</u> pushing "C" Button (winner search) (After 4th or 5th Ball to determine a double or nothing win on Register
Replay Button (Red) Sw. N. O.	ASW-A1-37	D-5	90-2 63-4	Gray Brown-Yellow	When there are credits on the Register "Replay Button" can be pressed to set up new game.
Manual Lift Button (Below Plunger) A. N. O.	ASW-A1-26	D-11	60-3 61-3	Brown Brown-Red	Completes a circuit to the Ball Lifter Motor
B. N. C.	ASW-A2-9	D-10	56-3 30	White-Brown Yellow	Opens a circuit to the Lifter Start Relay

FRONT CABINET UNITS

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
5th BALL Trough Sw. A. (balls out) N. C.	ASW-A2-62	D-23	95-2 10-4	Gray-White Red	Opens circuit to 4th Ball Trip Relay
6th BALL Trough Sw. B. N. O.	ASW-A1-20	D-13	61-3 74-3	Brown-Red Orange-Green	Completes a circuit to Ball Lifter Motor
BALL RUNWAY Switch N. O. (bottom)	ASW-A1-30	C-10	30 40-3	Yellow Green	Energizes the lifter Start Relay
BALL GATE Sw. (Top) N. C.	ASW-A2-5	D-10	56-3 54-3	White-Brown White-Green	Breaks the energized Lifter Start Relay circuit when ball enters playfield
Coin Divider Coil (Front Door)	FC-33-2600	A-9	70 10-9	Orange Red	Energized thru the Coin Unit Disc. Divides coins between the two Cash Boxes.
REPLAY KEY SWITCH					
Key Play Meter	E-130-10	A-15	70 43-3	Orange Green-Yellow	Energized in series with the Replay Register step-up thru turning the key (single step)
1. N. C.	ASW-B-1	A-5	98-3 48-2	Gray-Black Green-Black	Opens circuit to Start Relay Coil
2. N. O.	ASW-B-2	D-15	93-2 80-3	Gray- Yellow Black	Completes circuit to Key Meter & Register Step-Up
3. N. O.	ASW-B-2	A-12	78-3 43-3	Orange-Black Green-Yellow	Completes circuit to key meter
4. N. O.	ASW-B-2	B-10	21-3 65-1	Blue-Red Brown-White	Completes a circuit to the Tilt Trip Relay
5. N. O.	ASW-B-2	B-3	30 13-7	Yellow Red-Yellow	Completes a circuit to the Anti-Cheat Relay
6. S. P. D. T.	ASW-C3-6	A-12	14 78-3 80-3	Red-Green Orange-Black Black	Directs Key Circuit to Register Step-Up & Key Meter

STEPPING UNITS SW. & COIL CHART

This Switch & Coil Function Chart explains the circuit function's of the Stepping Units, the Random Unit, the Reflex Unit, Coin Divider & the Replay Register. The contact plate disc circuit charts for these units follows this switch & coil chart in the same unit sequence.

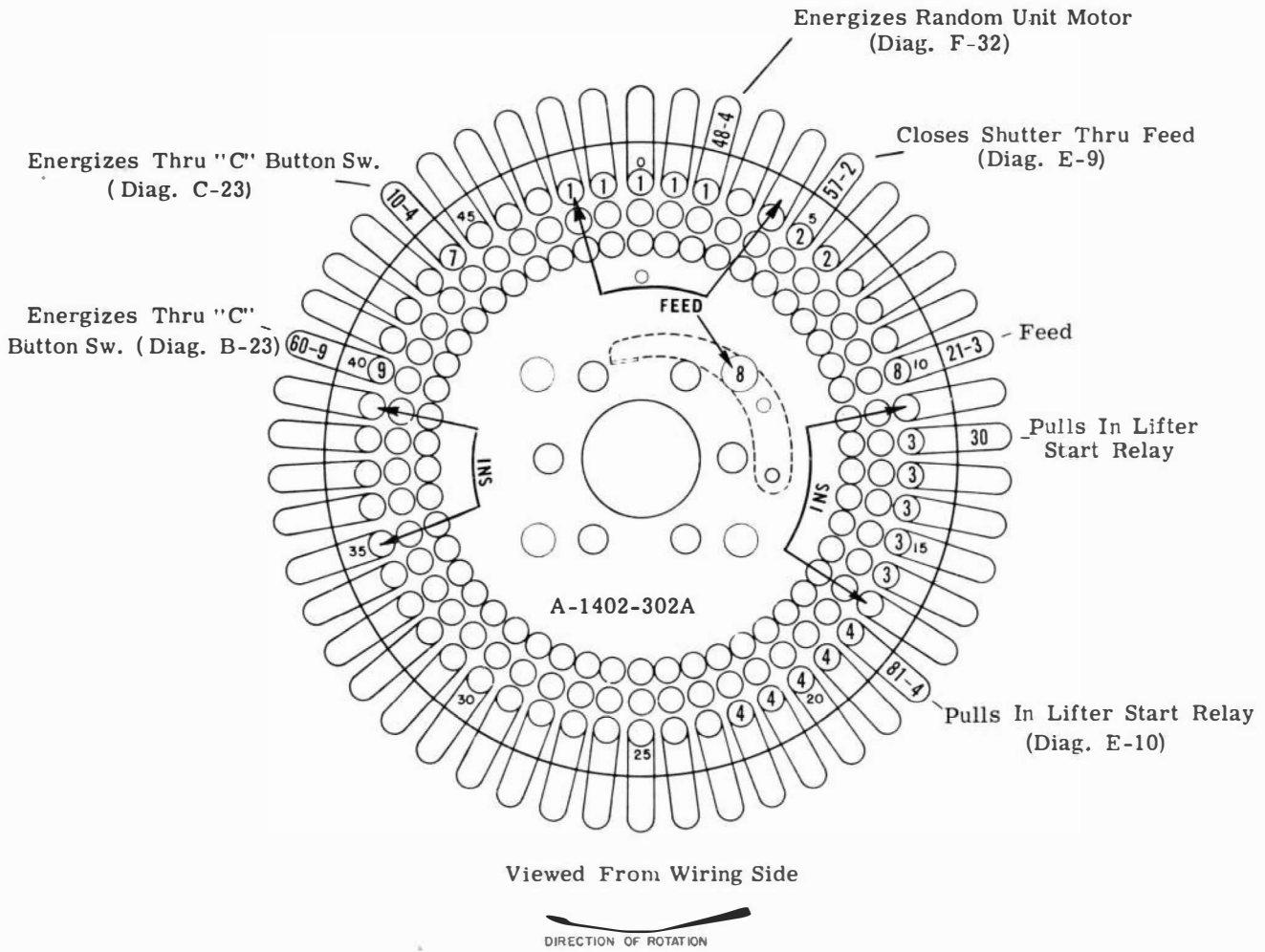
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
TIMER UNIT					
Step-Up	B-25-925	A-8	70 60-J	Orange Brown	Energized thru Timer Disc count circuit by Ball Lifter Cam #2 & by C.U. Cam #1 Sw.
Reset Coil	C-28-1100	A-23	70 98 J	Orange Gray-Black	Energized via "C" Button Sw. after 4th Ball Winner
Open at Zero A. S. W. N. O.	ASW-U2	A-23	98-1 98-J	Gray-Black Gray-Black	Completes circuit to Timer Reset Coil
Open at Zero B. Sw. N. O.	ASW-U2-1	C-11	61-3 74-3	Brown-Red Orange-Green	Completes a circuit to Ball Lifter Motor
Open at Top C. Sw. N. O.	ASW-U2-6	G-2	10P 70P	Red Orange	Opens a Circuit (at 5th Step) to the Control Unit Motor
Open at Top D. Sw. N. C.	ASW-U2-5	A-8	60-2 60J	Brown Brown	Opens a circuit to the Timer Step-Up Coil
SELECTION UNIT ASSEMBLY					
Step-Up Coil	B-25-925	A-20	70 27-5	Orange Blue-Orange	Energized by Control Unit Cam #4 Sw.
Reset Coil	C-28-1100	D-21	70 85-3	Orange Black-White	Energized thru Shutter Cam #3
Open at Top B. Sw. N. C.	ASW-U2-6	C-5	63-4 95-3	Brown-Yellow Gray-White	Opens a Circuit to the Start Relay
Open at Top C. Sw. N. C.	ASW-U2-5	D-6	51-2 93-1	White-Red Gray-Yellow	Opens a circuit to the Coin Lockout Coil
REPLAY COUNTER #1					
Step-Up Coil	B-25-925	A-14	58-6 81-1	White-Black Black-Red	Energized thru winners search circuit
Reset Coil	C-28-1100	A-21	70 85-3	Orange Black-White	Energized thru Shutter Cam #3
Transfer Sw. S. P. D. T.	ASW-U3	H-5	95-5 60-10 36-7	Gray-White Brown Yellow-Brown	Directs circuit to #1 Regular or Double Lites
REPLAY COUNTER #2					
Step-Up Coil	B-25-925	A-15	60-6 81-1	Brown Black-Red	Energized thru winners search circuit
Reset Coil	C-28-1100	A-21	70 85-3	Orange Black-White	Energized thru Shutter Cam #3
Transfer Sw. S. P. D. T.	ASW-U3	H-6	57-5 61-10 52-7	White-Orange Brown-Red White-Blue	Directs current to #2 Regular or Double Lites
REPLAY COUNTER #3					
Step-Up Coil	B-25-925	A-16	61-6 81-1	Brown-Red Black-Red	Energized thru winners search circuit
Reset Coil	C-28-1100	A-21	70 85-3	Orange Black-White	Energized thru Shutter Cam #3
Transfer Sw. S. P. D. T.	ASW-U3	H-8	58-3 63-10 95-7	White-Black Brown-Yellow Gray-White	Directs circuit to #3 Regular or Double Lites

[Continued]

STEPPING UNITS SW. & COIL CHART

REFLEX UNIT					
Reflex Unit "IN" Coil	EA-32-1550	A-4	70 90-5	Orange Gray	Energized thru Control Unit Cam #3 Pin Sw.
Reflex Unit "OUT" Coil	EA-30-1150	A-12	70 41-6	Orange Green-White	Energized thru winner circuit
Cam Sw. N. O.	ASW-C1-27	F-27	21-3 95-1	Blue-Red Gray-White	Completes a circuit to the Reflex Relay
Cam Sw. N. C.	ASW-C2-6	F-27	21-3 57-3	Blue-Red White-Orange	Opens the circuit to the Reflex Relay
RANDOM UNIT					
Random Disc Motor	E-119-427	A-32	70 15-6	Orange Red-White	Energized thru the Timer Disc or the Search Wiper Cams
COIN UNIT					
Step-Up Coil	BD-25-925	A-6	70 98-8	Orange Gray-Black	Is energized thru the Control Unit Cam #5 (If no credits on Register)
The Unit has adjustment Plug: 1/6, 1/5, 1/4, 1/3, 1/2 Ratio for Cash Box Divide					
REPLAY REGISTER					
Step-Up Coil	A-27-1400	A-12	70 78-3	Orange Orange-Black	Energized thru Control Unit Cam #5 - also thru Replay Key Unit
Reset Coil	A-26-1100	A-4	70 50	Orange White	Energized thru 16 Pulse Control Unit Cam #2
Transfer "O" Sw. S. P. D. T.	ASW-U3-6	E-5	56-2 27-4 51-2	White-Brown Blue-Orange White-Red	Directs circuit to start Relay via the "R" Button Switch when credits on Register
"O" Switch N. O.	ASW-U1-6	C-5	95-3 10-1	Gray-White Red	Completes Circuit to the Start Relay when credits are on Register

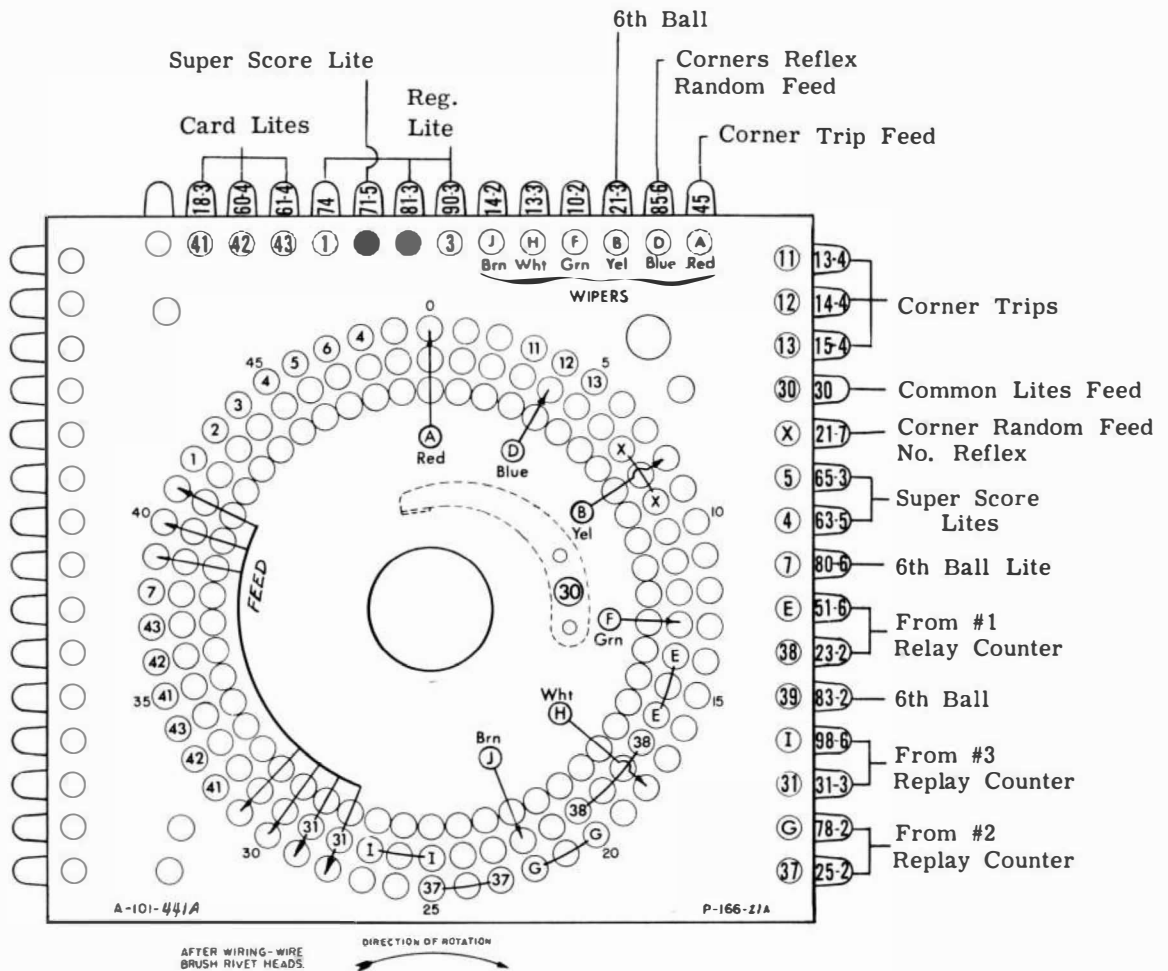
TIMER UNIT DISC



Description	Part No.
Complete Unit	AS-1110-49ND
Ratchet & Shaft	C-1050-5-38
Reset Coil	C-28-1100
Step-Up Coil	B-25-925
Step-Up Arm	A-1765-4
Disc (Wired)	W-1151-2
Wiper Assembly	AS-1046-695

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

SELECTION UNIT DISC

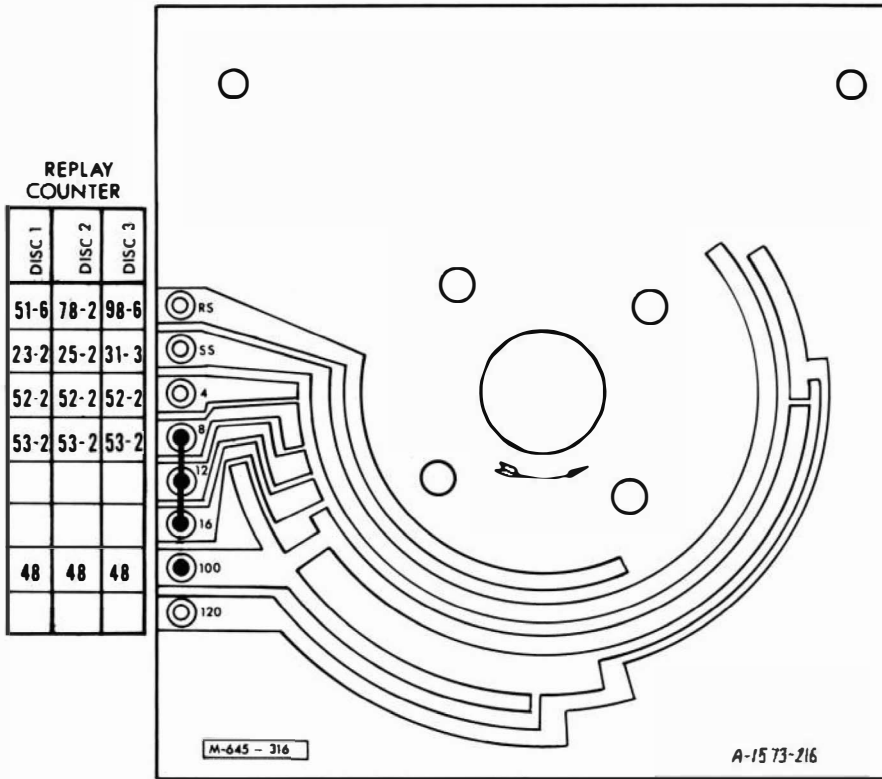


Viewed From Wiring Side

Description	Part No.
Complete Unit	AS-1022-146
Ratchet & Shaft	C-1050-0639
Reset Coil	C-28-1100
Step-Up Coil	B-25-925
Step-Up Arm	A-1765-8
Disc (Wired)	W-764-17
Wiper Assembly	AS-1046-751

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

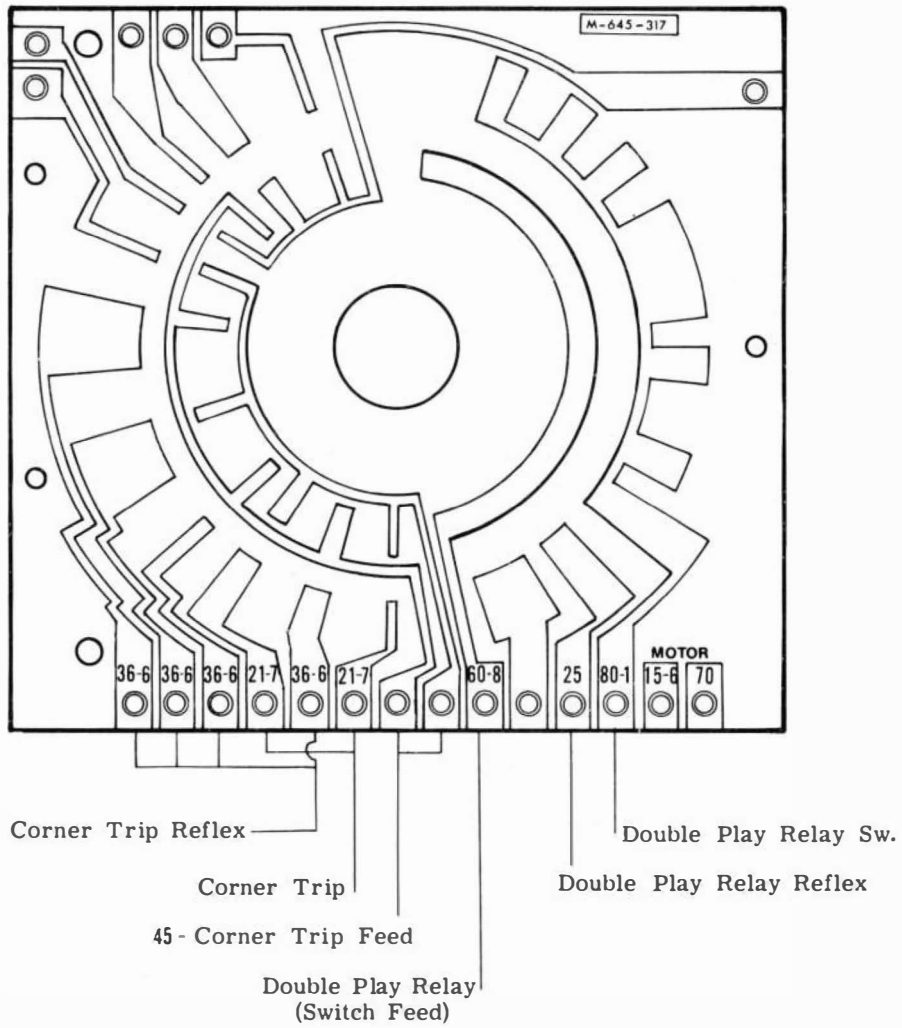
CARD NO. 1,2 & 3 REPLAY UNIT DISC



Replay Unit Disc	
Description	Part No.
Complete Unit	AS-1022-150
Ratchet & Shaft	C-100-70
Step-Up Coil	B-25-925
Step-Up Plunger	AS-1366-3
Step-Up Arm	A-1765-8
Disc Wired	W-923-385
Wiper Assembly	AS-1046-773
Reset Coil	C-28-1100

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

RANDOM UNIT DISC



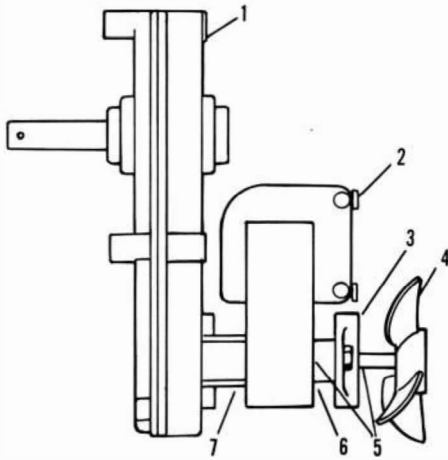
Viewed From Wiper Side

Description	Part No.
Complete Unit	AS-2610-15
Motor	E-119-427
Disc (wired)	W-923-2
Wiper Assembly	A-1371-129

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

MOTOR PARTS GUIDE

Control Unit Motor E-119-452

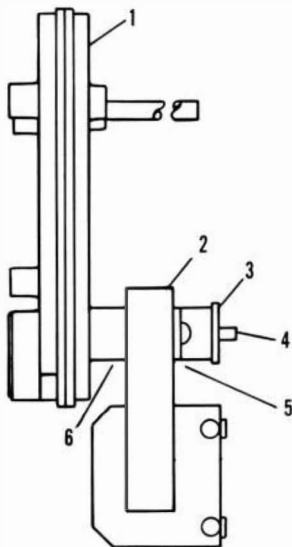


Index No.	Part No.	Description	No. Req.
1	GC3-4017-1	Transmission Unit	1
2	AS3-4017-1	Stator Unit	1
3	ABB-1010-02	Bearing & Brkt. Assy. . .	1
4	S-1011-00	Fan	1
Note: Order Index No.'s 5 - 7 as a unit.			
5	AR3-4017-1	Rotor & Shaft Unit	1
6	W-1014-03	Rotor Shaft Washer . . .	1
7	W-1017-20	Rotor Shaft Washer . . .	1
	W-1014-15	Rotor Shaft Washer . . .	1
	W-1014-25	Rotor Shaft Washer . . .	1

Trip Bank Relay Motor E-119-362

Index No.	Part No.	Description	No. Req.
1	GC2-2535-1	Transmission Unit	1
2	AS2-2535-1	Stator Unit	1
3	ABB-1010-01	Bearing & Brkt. Assy. . .	1
4	S-1011-00	Fan	1
Note: Order Index No.'s 5 - 7 as a unit			
5	AR2-2535-1	Rotor & Shaft Unit	1
6	W-1015-03	Rotor Shaft Washer . . .	1
7	J-1011-80	Shaft Shim Spring	1
	W-1014-15	Rotor Shaft Washer . . .	1

Panel Shutter Motor E-119-379



Index No.	Part No.	Description	No. Req'd
1	GC2-1725-1	Transmission Unit	1
2	AS2-1725-1	Stator Unit	1
3	ABB-2010-01	Bearing & Brkt. Assy. . .	1
Note: Order Index No.'s 4 - 6 as a Unit.			
4	AR2-1725-1	Rotor & Shaft Unit	1
5	W-1015-03	Rotor Shaft Washer . . .	1
6	J-1011-60	Shaft Shim Spring	1

Ball Lifter Motor E-119-339

Index No.	Part No.	Description	No. Req.
1	GC2-1743-1	Transmission Unit	1
2	AS2-1743-1	Stator Unit	1
3	ABB-1010-1	Bearing & Brkt. Assy. . .	1
Note: Order Index No.'s 4 - 6 as a Unit.			
4	AR2-1743-1	Rotor & Shaft Unit	1
5	W-1015-03	Rotor Shaft Washer . . .	1
6	J-1011-60	Shaft Shim Spring	1

BALI PARTS GUIDE

BACK CABINET

G-394-3	Bali Back Glass
CA-713-92	Back Cabinet (painted)
M-475-1	Nut (2 req'd) Glass Molding Retainer
CA-1173-4	Wood Side Molding - Right
CA-1173-5	Wood Side Molding - Left
P-2830	Lock Bracket (2)
M-281-31	2 Lock Set
P-2831	Lock Retainer (2)
E-126-	Cord Set
A-1511-34	Back Door Hinge - Top
A-1511-33	Back Door Hinge - Bottom
A-1450-3	Insert Hinge & Stud Unit (2)
A-3400-178	Wood Insert & Light Socket Assy.
E-125-2	Light Bulb #47 (75 Req'd)
E-125-5	Light Bulb #55 (55 Req'd)
E-120-99	Lamp Socket (1 Req'd)

FRONT MOLDING ASSEMBLY

AS-1305-57	Front Molding Assy. (complete)
P-2210-8	Coin Drop Plate (5¢ - no numeral)
P-2210-9	Coin Drop Plate (10¢ - no numeral)
P-2210-12	Coin Drop Plate (blank - no hole)
P-2210-150	Coin Drop Plate (5¢)
P-2210-151	Coin Drop Plate (10¢)
P-2210-152	Coin Drop Plate (25¢)
P-2210-188	Coin Drop Plate (1 Kr.)
P-2210-187	Coin Drop Plate (1 Fr.)
A-1272-20	Button & Pin Assy. ("O")
A-1272-25	Button & Pin Assy. ("C")
A-1272-59	Button & Pin Assy. ("R")
SP-200-111	Button Compression Spring
P-801-214	Washer (Buttons)
P-448-6	Snap Washers (buttons)

FRONT CABINET ASSEMBLY

GA-1197-8	Front Cabinet (Painted)
CA 1105-8	Side Door
M-281-54	Lock (Side Door)
M-281-58	Lock (Replay Switch)
AS-982-671	Replay Sw. Unit (bottom)
AS-982-973	Replay Sw. Unit (top)
AS-982-948	"R & D" Button Sw. & Brkt. Unit
AS-982-933	"C" Button Sw. & Brkt. Unit
E-108-57	Game Off-On Switch
A-2618	Less
M-106-1	Leg Bolt (8)
M-163-4	Leg Adjuster
N3-816-1110	Leg Adjuster Nut
A-1533A	Coin Slide Assembly
A-2790-48	Front Door Cash Box
P-3089-48	Cash Box Cover
A-2790-47	Side Door Cash Box
P-921-68	Chrome Glass Molding - Left
P-921-69	Chrome Glass Molding - Right

G-213	Top Glass
CA-439-27	Ball Return Panel
P-5940-18	Front Door Trim (left side)
P-5940-33	Front Door Trim (right side)
P-5940-34	Front Door Trim (top)
P-5940-35	Front Door Trim (bottom)
M-168-15	Game Ball Set (5)
AS-187-17	Ball Shooter Assembly
A-100-7	Knob & Shooter Rod
SP-243	Front Compression Spring
AS-1835	Front Shooter Guide Unit
SP-200-24	Rear Compression Spring
P-2879	Spring Cap(rear)
P-2891-8	Retaining Ring
R-108-3	Shooter Tip

FRONT DOOR ASSEMBLY

AS-2041-76	Front Door Assembly (complete)
M-261-66	Lock
A-254-84	Hinge Assembly
	Slug Rejector (specify coin denomination)
AS-2517-14	Coin Lockout Assembly
AS-2517-12	Coin Deflector (cash box split)
E-108-92	Coin Switch
P-6431 Series	Coin Guide Spacer (specify coin denomination)
P-6694 Seriesq	Coin Guide (Specify coin denomination)
A-1729-16	Push Button Assy. (replay)
P-800-2	Washer
P-2891-7	Retaining Ring
ASW-A1-37	Replay Switch
ASW-A1-27	Tilt Switch

BACK DOOR ASSEMBLY

CA-1120-48	Back Door (painted)
P-2335-9	Hinge (2)
M-281-24	2 Lock Set
P-758-16	Lock Cam (bottom)
P-758-17	Lock Cam (top)
R-206-1	Rubber Bumper (outside door) - 2 Req'd

Note: You will find all Contact Plates, Switches, Relays & Coil Part Numbers listed under their respective units in the function charts & contact plate illustrations. This parts list covers appearance items, play panel parts & coinage details.

Continued

ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

BALI PARTS GUIDE

PLAYFIELD PANEL

AS-2042-138	Playfield Panel - Complete W/All Units Installed	SP-112	Long Panel Spring (8 Req'd)
CA-638-94	Panel	S-196	Playfield Pin (Springs - 15 Req'd)
CA-1100-4	Arch Bottom	S-1071-84	Pinning Rods (29)
CA-1103	Arch Guide Strip	C-119-21	Red Bumper Post (4)
CA-1104	Arch Top	R-243-2	Red Bumper Rubber (4)
C-326-9	Light Shield Post (White)	C-119-23	Yellow Bumper Post (30)
E-125-2	Light Bulb #47 (8 Req'd)	R-243	Bumper Rubber (26)
M-170	Rebound Spring Unit (8 Req'd)	R-135	Double Bumper Rubber (2)
SP-112-1	Short Panel Spring (4 Req'd)	R-115-4	Top Rebound Rubber
		AS-1315	Ball Gate & Sw. Assembly
		C-153	Red Plastic Ball Lift Cover

Note: You will find all Contact Plates, Switches, Relays & Coil Part Numbers listed under their respective units in the function charts & contact plate illustrations. This parts list covers appearance items, play panel parts & coinage details.

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