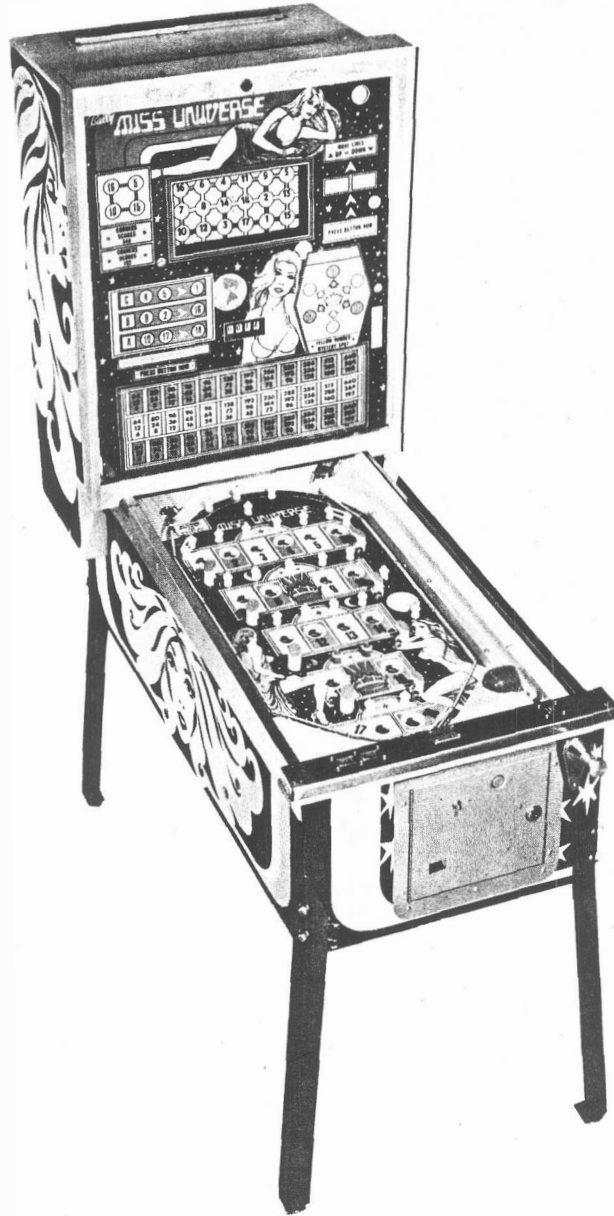


*Bally.*

GAME 1061  
SPRING 78

# MISS UNIVERSE

SERVICE MANUAL & PARTS GUIDE



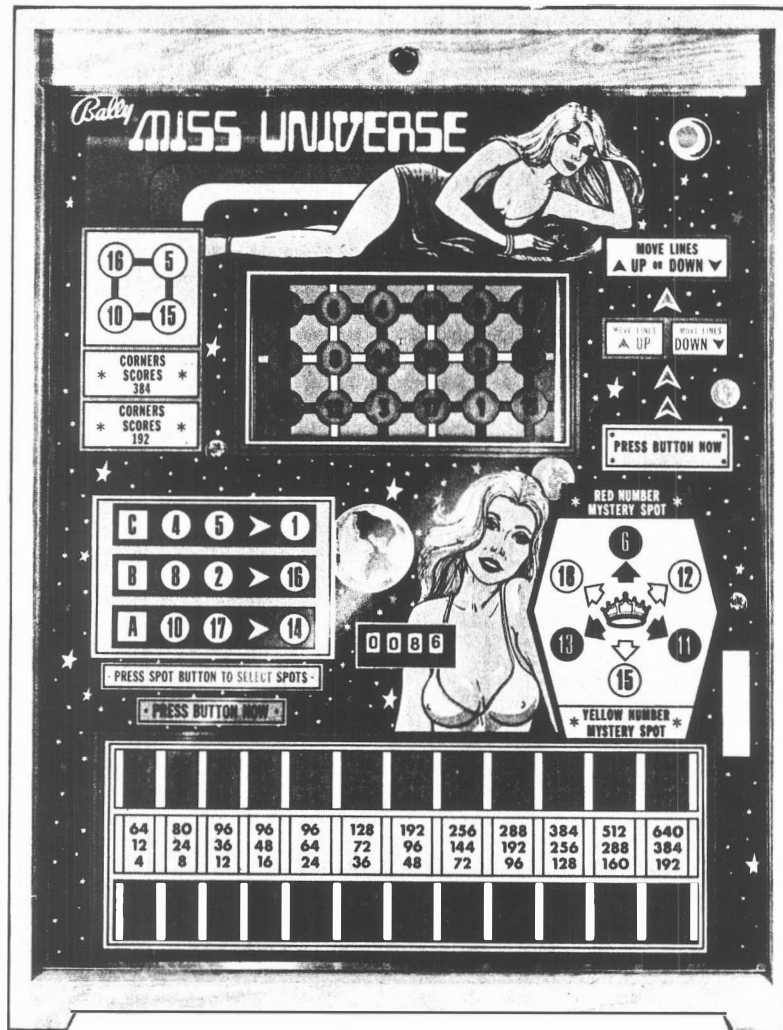
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MANUFACTURING CORPORATION

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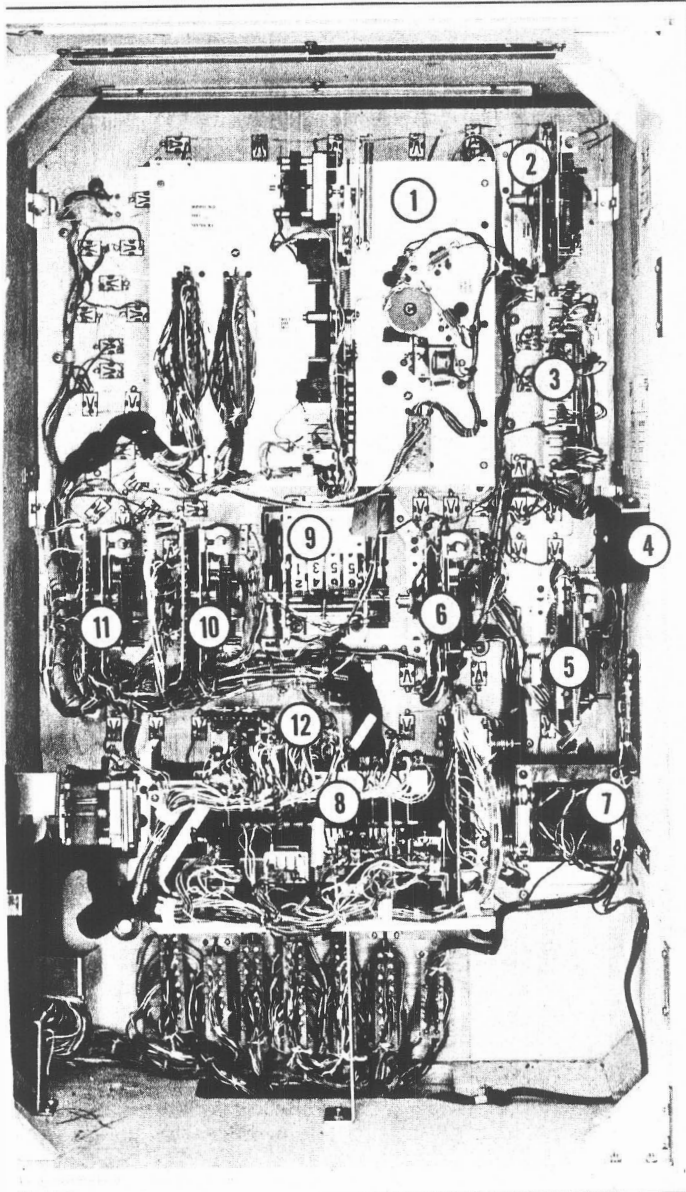
# MISS UNIVERSE



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# INSERT ASSEMBLY

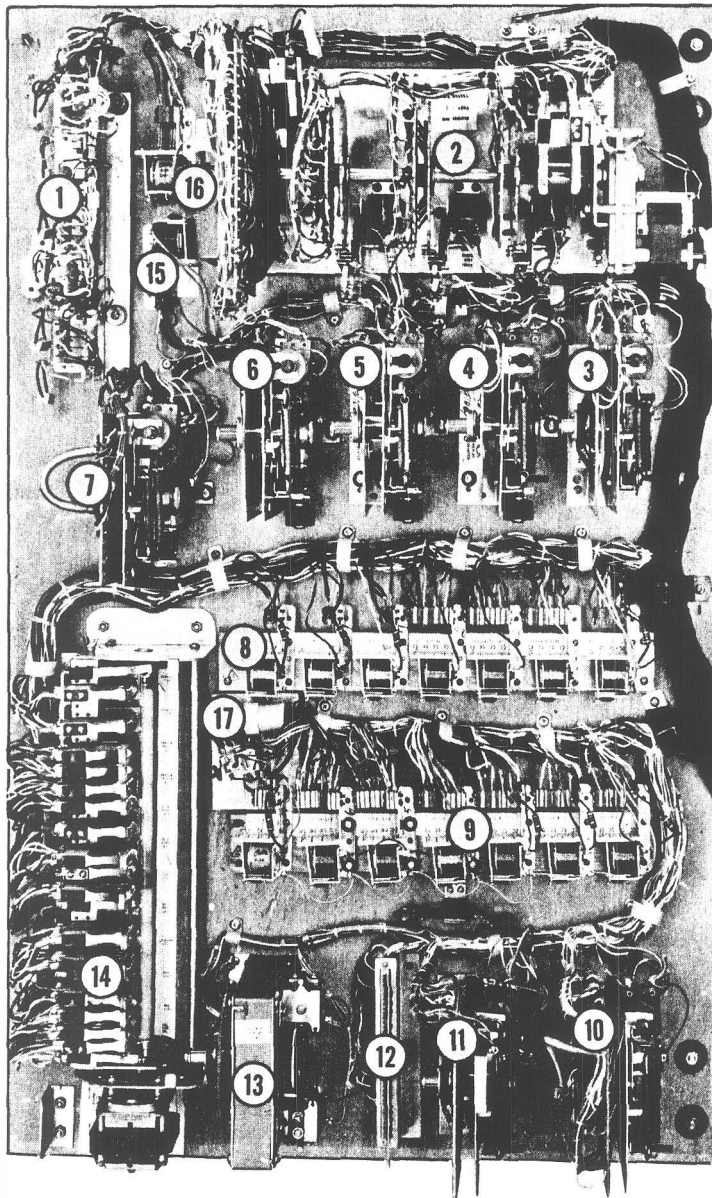


## INSERT ASSEMBLY

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**ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS**

# BACK DOOR ASSEMBLY



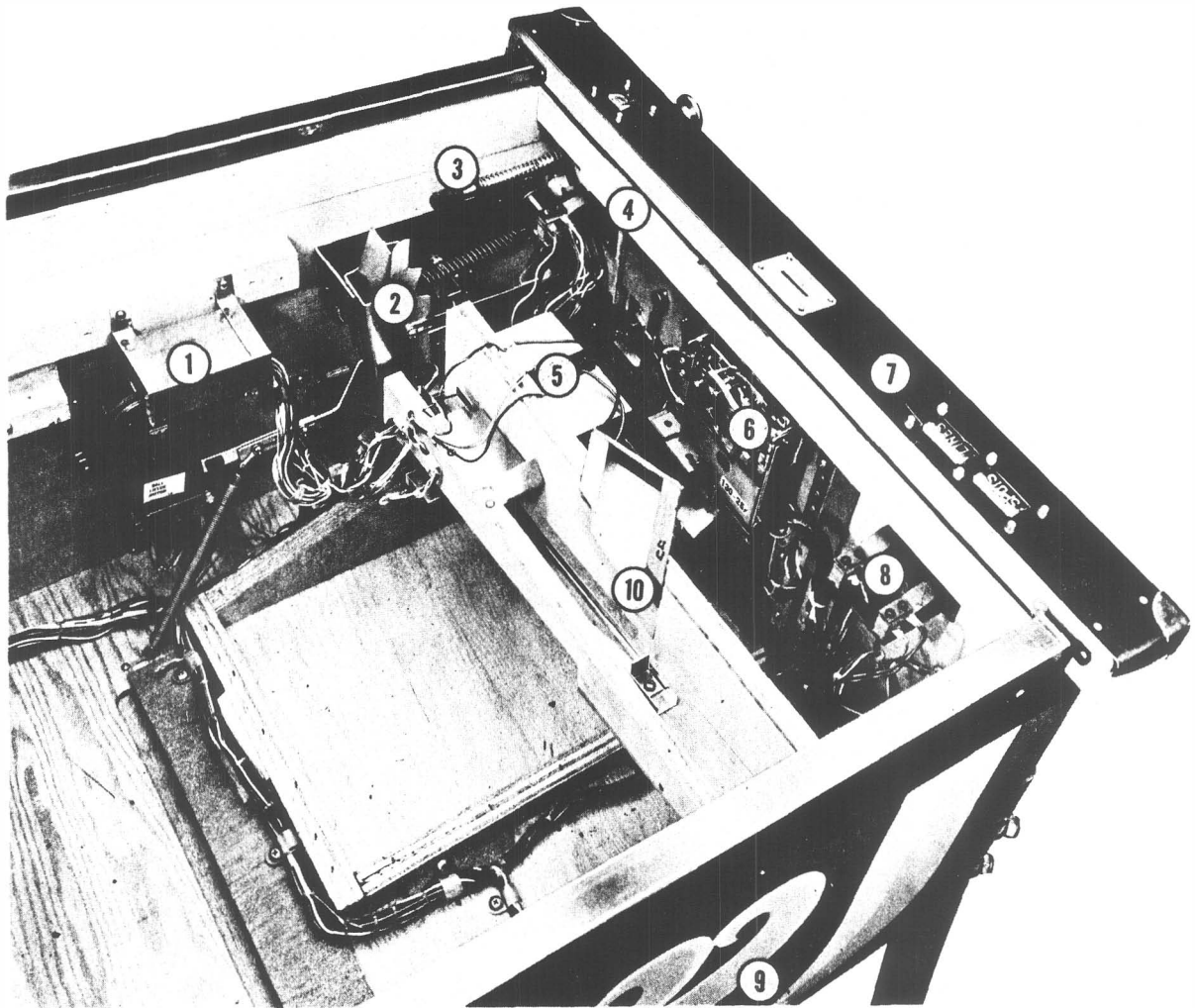
BACK DOOR ASSEMBLY

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**ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS**



# FRONT CABINET ASSEMBLY

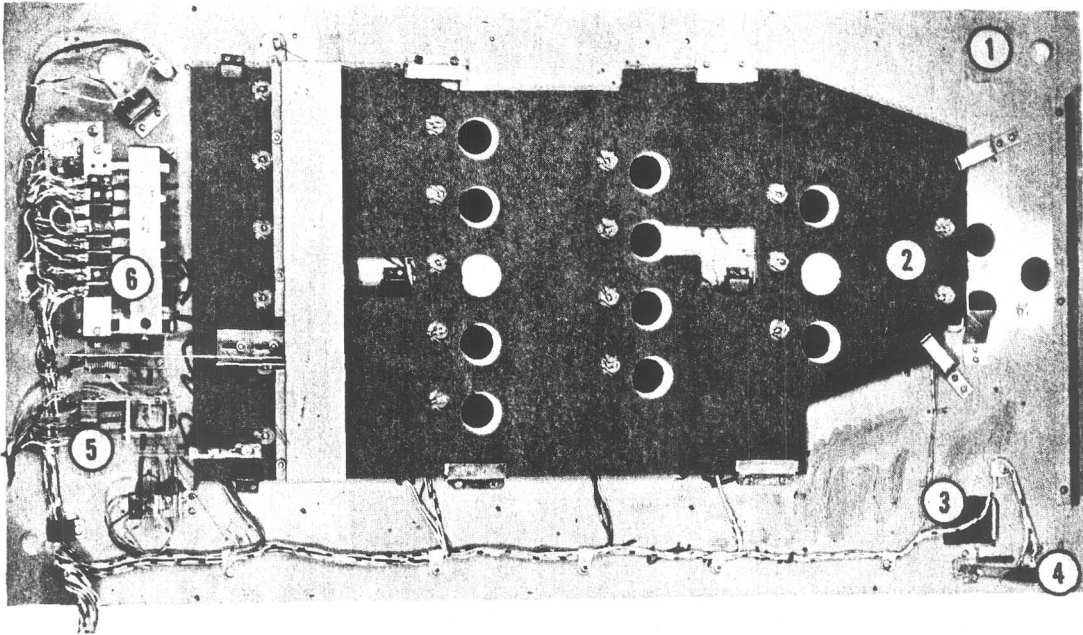


## FRONT CABINET LAYOUT

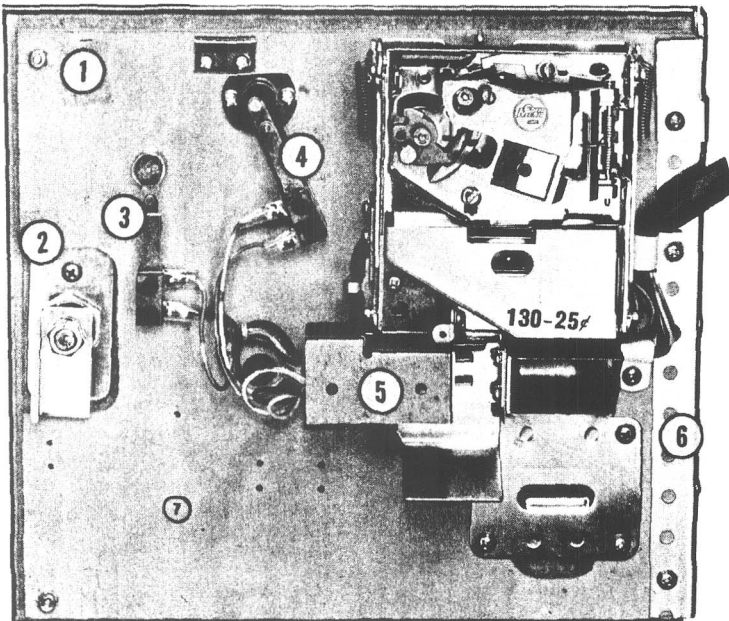
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**ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS**

# PLAYFIELD PANEL & FRONT DOOR



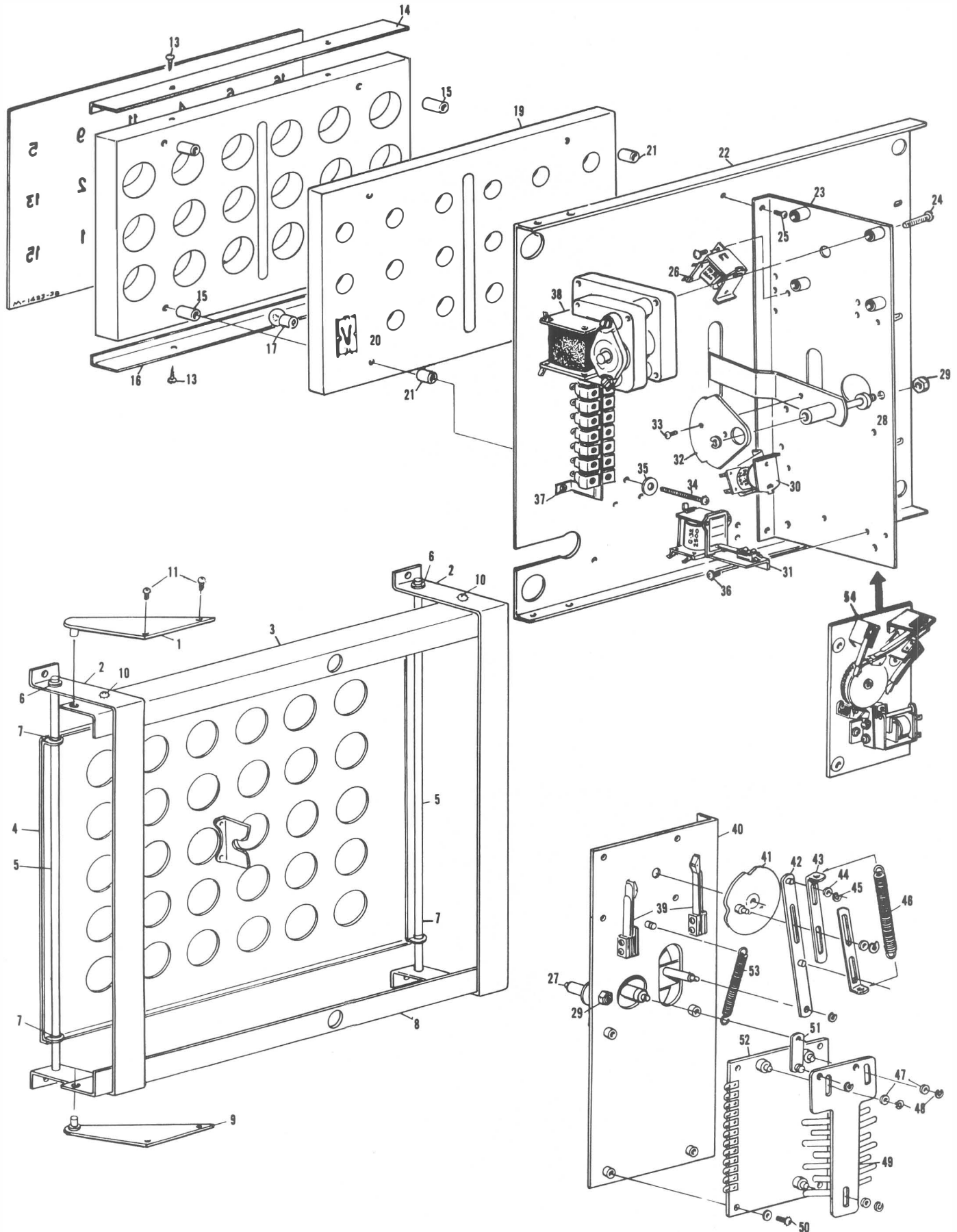
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## FRONT DOOR ASSEMBLY

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# MAGIC CARD UNIT



ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

# MAGIC CARD UNIT

Index No.	Part No.	Description	No. Req.				
1	A-2997-3	Pivot Arm . . . . .	1	28	S-737-59	Pivot Arm Stud . . . . .	1
2	P-6264-140	Leg Bracket . . . . .	2	29	M-319-8	Nut . . . . .	1
3	P-6665-481	Tie Brace (top) . . . . .	1	30	FE-32-2600	Magnet Assy. Coil . . . . .	1
4	A-3794	Face Plate . . . . .	1	31	G-32-2500	"G" Relay Coil . . . . .	1
5	S-739-221	Vertical Rod . . . . .	2		ASW-R2-5	"G" Relay Sw. . . . .	1
6	P-2891-6	"E" Ring . . . . .	4	32	P-1743	Latch Cam . . . . .	1
7	C-537-5			33	LSPR-832-1104	Screw . . . . .	2
8	P-6665-480	Tie Brace (Bottom) . . . . .	1	34	LSPR-1032-1138	Screw . . . . .	4
9	A-2997-2	Pivot Arm . . . . .	1	35	P-800-6	Washer . . . . .	8
10		Screw . . . . .	4	36	RLPP-632-1804	Screw . . . . .	
11	LSPR-632-1104	Screw . . . . .	4	37	RLPP-632-1804	Screw . . . . .	
12	M-1852	Plastic Number Field . . . . .	1	38	E-119-467	Motor . . . . .	1
13	SAPR-600-1106	Scfe . . . . .	8	39	ASW-C7-6	Switch . . . . .	2
14	P-6665-484	Rail Guide . . . . .	2	40	A-3001-3	Pivot Arm Plate . . . . .	1
15	S-231-687	Spacer . . . . .	4	41	A-800-185	Switch Cam . . . . .	1
16	P-6665-484	Rail Guide . . . . .	2	42	A-3793	Pivot Arm Link . . . . .	1
17	E-125-47	Bulb (W 1464-17V) . . . . .	18	43	P-6665-479	Pivot Arm Link . . . . .	2
18	CA-967-7	Aux. Insert Overlay . . . . .	1	44	PW-10-12	Washer . . . . .	2
19	AS-2883-3	Insert Assy. (with Sockets) . . . . .	1	45	P-2891-5	"E" Ring . . . . .	2
20	A-1653-1	Bulb Socket . . . . .	18	46	SP-100-322	Spring . . . . .	1
21	S-231-816	Spacer . . . . .	4	47	PW-10-12	Washers . . . . .	3
22	P-6599-1	Base Plate . . . . .	1	48	P-2891-5	"E" Ring . . . . .	3
23	A-3001-3	Pivot Arm Plate . . . . .	1	49	A-1371-144	Wiper Assembly . . . . .	
24	LSPR-1032-1112	Screw . . . . .	4	50	LSPR-832-1106	Screw . . . . .	4
25	LSPR-832-1104	Screw . . . . .	3	51	A-3787	Wiper Link . . . . .	1
26	FC-32-2600	Magnet Assy. Coil . . . . .	1	52	W-1173-2	Contact Plate . . . . .	1
27	A-2996-2	Pivot Arm . . . . .	1	53	SP-100-321	Spring . . . . .	1
				54	AS-1237-9	Corner Replay Counter	

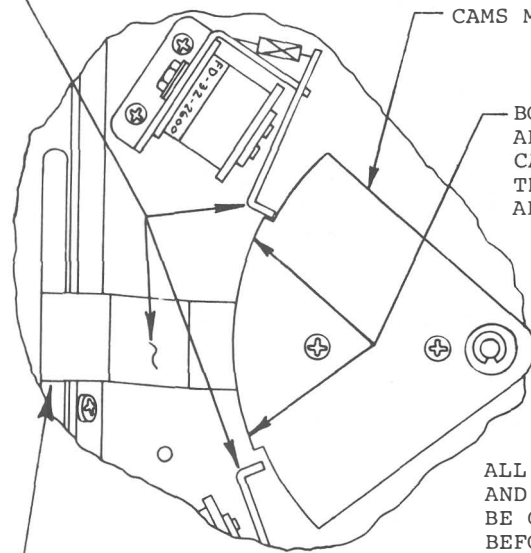
ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS

# MAGIC CARD UNIT

THE NUMBERS SHOULD BE NO MORE THAN 1/16 INCH OFF CENTER IN THE HOLES OF THE MOVING PLATE ASSEMBLY.



THE HOMING POSITION OF THE UNIT IS WHEN EITHER MAGNET ARMATURE IS RESTING AGAINST THE CAM SHOULDER AND THE CENTER CONTROL ARM IS IN IT'S CENTER POSITION. (SEE \*W-1173-2a FOR HOMING POSITIONS).

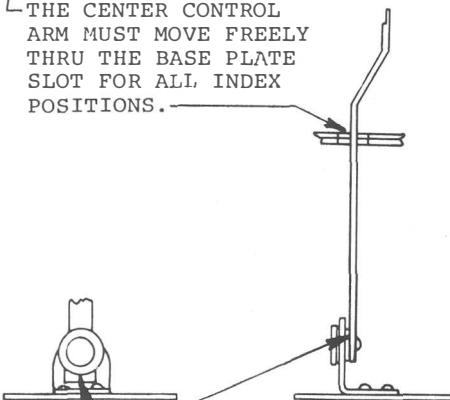


CAMS MUST BE GREASED

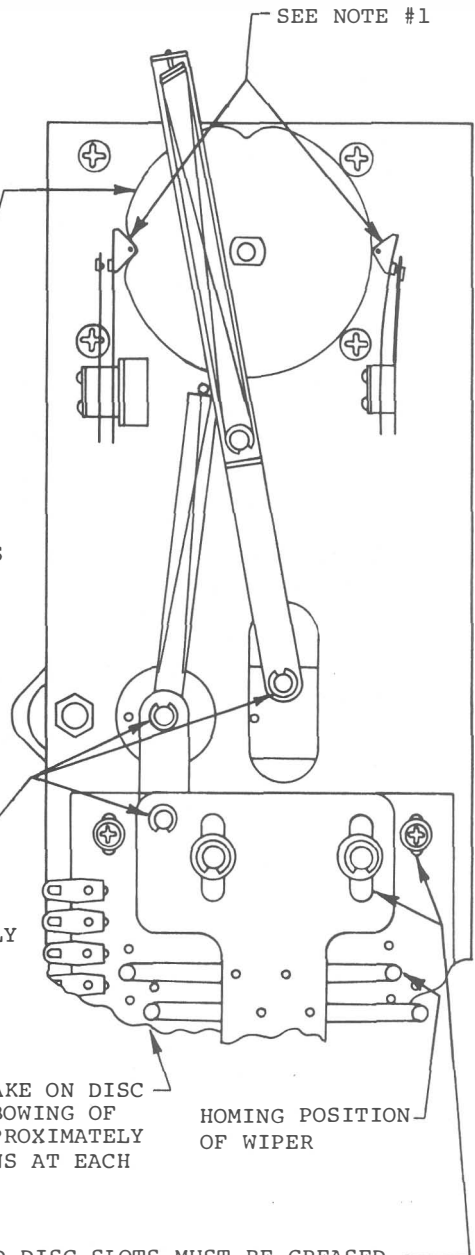
BOTH MAGNET ASSEMBLY ARMATURES MUST CLEAR CAM SURFACES, WHEN THE MAGNET ASSEMBLIES ARE INDEXED.

ALL BEARING SURFACES AND MOVING PARTS MUST BE GREASED AND GREASED BEFORE ANY ASSEMBLING IS DONE, AND MOVE FREELY WITHOUT BINDING.

THE CENTER CONTROL ARM MUST MOVE FREELY THRU THE BASE PLATE SLOT FOR ALL INDEX POSITIONS.



THE CENTER CONTROL ARM STUD MUST SEAT IN THE MOVING PLATE ASSEMBLY FORK FOR ALL INDEX POSITIONS WITHOUT BINDING.



SEE NOTE #1

ALL WIPER BLADES MUST MAKE ON DISC BUTTONS WITHOUT EXCESS BOWING OF WIPER BLADES, AND BE APPROXIMATELY AT CENTER ON DISC BUTTONS AT EACH INDEX POSITION.

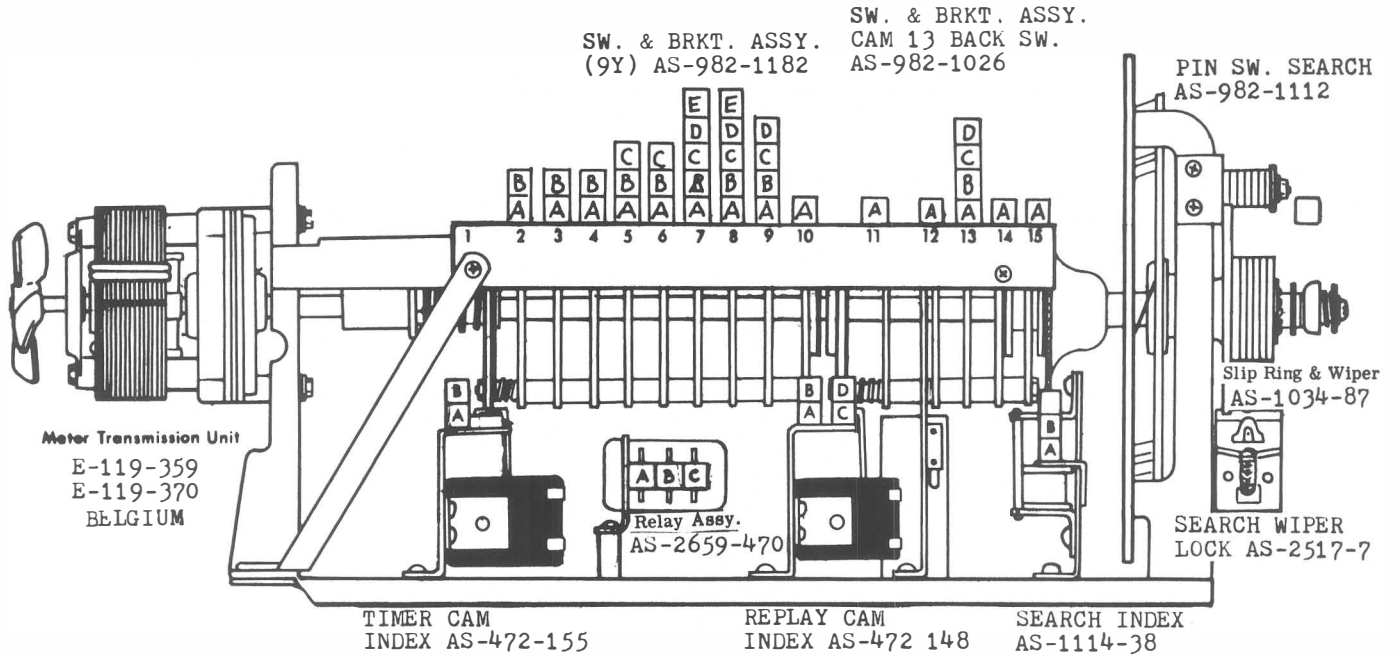
HOMING POSITION OF WIPER

ALL WIPER AND DISC SLOTS MUST BE GREASED.

NOTE #1:  
SWITCHES MUST SHOW FOLLOW THRU OF THE CONTACTS AFTER MAKING OF THE CONTACTS WITHOUT EXCESS BOWING OF THE SWITCH BLADES. SWITCH ROLLERS MUST RIDE AND BE CENTERED ON THE CAM 360° WITHOUT EXCESS BOWING OF THE SWITCH BLADES.

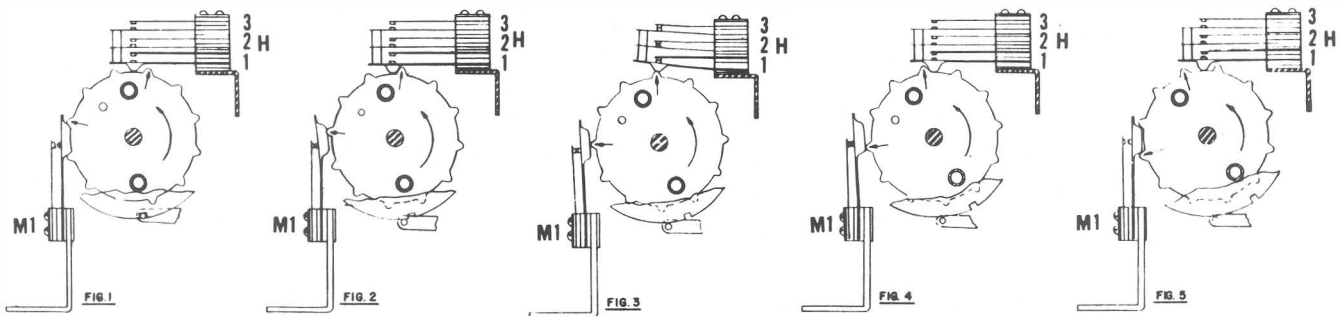
**ALWAYS GIVE MODEL AND PART NO. WHEN ORDERING SERVICE PARTS**

# CONTROL UNIT



The correct adjustment & synchronization of the Switches controlled by Cam No.'s 10A & 12 is vitally important to the Replay Counter Circuit. Out of adjustment Back Switches (12-C & 10A-A) can cause the four Replay Counters to become overloaded & burn out (affects the Printed Circuit Disc.) Figure 3 shows these Cam Switches in a proper "Made" position. The Back Switches are adjustable. Note that the 12-C switch closes first & opens last. Cam Switch 12 X is used for our testing purposes only.

(CAM 7)



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

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
C. U. Motor (Belgium)	E-119-359 E-119-370	F-2	95-16 92-16	Grey-White Grey-Blue	Energizes C. U. Motor.
Cam #1 Pin Sw. N. C.	ASW-C2-28	F-7	30 25-6	Yellow Blue-White	Directs circuit to multi-play re. sw.
Cam #2 A. N. C.	ASW-C1-3	H-6	30 48-2	Yellow Green-Black	Directs circuit to start re. sw. and replay reg. "O" switch.
Cam #2 B. T.	ASW-C3-3	B-22	78-11 38-10 65-11	Orange-Black Yellow-Black Brown-White	Completes 78-11 circuit to total re-play meter coil, or completes 65-11 circuit to total play meter coil.
Cam #3 A. N. O.	ASW-C1-3	G-52	30 60-10	Yellow Brown	Completes circuit to flash index coil.
Cam #3 B. N. C.	ASW-C2-4	H-35	21-3 80-8	Blue-Red Black	Directs circuit to before 2nd trip sw.
Cam #4 A. N. O.	ASW-C1-3	B-7	84-2 27-7	Black-Green Blue-Orange	Completes circuit to coin meter coil.
Cam #4 B. T.	ASW-C3-3	L-39	78 21-3 25-11	Orange-Black Blue-Red Blue-White	Directs 78 circuit to reflex factor index sw., and C. U. cam #5 sw., or directs 25-11 circuit to feed wiper on reflex disc and reflex factor disc pad.
Cam #5 A. N. O.	ASW-C1-3	K-38	78 47-3	Orange-Black Green-Orange	Directs circuit to roving cam 1 - pulse switch.
Cam #5 B. N. O.	ASW-C1-8	D-10	30 J 63-10	Yellow Brown-Yellow	Directs circuit to coin center top sw.
Cam #5 C. N. O.	ASW-C1-8	G-12	30 J 31-2	Yellow Yellow-Red	Completes circuit to A. C. re coil.
Cam #6 A. N. O.	ASW-C1-52	D-47	31-11 60-9	Yellow-Red Brown	Completes circuit to all scores re. coil.
Cam #6 B. N. O.	ASW-C1-8	C-40	41-10 54-2	Green-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #6 C. N. O.	ASW-C1-8	C-42	71-4 53-4	Orange-Red White-Yellow	Directs circuit to lines selector open at top switch.
Cam #7 A. N. O.	ASW-C1-3	C-39	81-7 54-2	Black-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #7 B. N. O.	ASW-C1-8	C-41	25-5 53 J	Blue-White White-Yellow	Directs circuit to lines selector open at top switch.
Cam #7 C. N. O.	ASW-C1-8	C-41	34-3 53 J	Yellow-Green White-Yellow	Directs circuit to lines selector open at top switch.
Cam #7 D. N. O.	ASW-C1-8	E-45	58-3 64	White-Black Brown-Green	Directs circuit to red, yellow and green re. switches.
Cam #7 E. N. O.	ASW-C1-8	G-4	30 83-9	Yellow Black-Yellow	Completes circuit to reflex play magnet coil.
Cam #8 A. N. O.	ASW-C1-3	C-39	81-7 54 J	Black-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #8 B. N. O.	ASW-C1-8	C-40	31-9 54 J	Yellow-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #8 C. N. O.	ASW-C1-8	C-41	25-5 53 J	Blue-White White-Yellow	Directs circuit to lines selector open at top switch.
Cam #8 D. N. O.	ASW-C1-8	C-42	34-3 53 J	Yellow-Green White-Yellow	Directs circuit to lines selector open at top switch.
Cam #8 E. N. O.	ASW-C1-8	E-46	74-3 64	Orange-Green Brown-Green	Directs circuit to red, yellow and green re. switches.
Cam #9 A. N. O.	ASW-C1-3	E-46	63-3 64	Brown-Yellow Brown-Green	Directs circuit to red, yellow and green re. switches.
Cam #9 B. N. O.	ASW-C1-8	C-39	81-7 54 J	Black-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #9 C. N. O.	ASW-C1-8	C-40	31-9 54 J	Yellow-Red White-Green	Directs circuit to spot unit open at top switch.
Cam #9 D. N. O.	ASW-C1-8	C-41	25-5 53-4	Blue-White White-Yellow	Directs circuit to lines selector open at top switch.



# CONTROL UNIT

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Cam #9Y A. N.O.	ASW-C1-55	D-47	25-4 32-4	Blue-White Yellow-Blue	(Back Sw.) directs circuit to up or down trip sw.
Cam #9Y B. N.O.	ASW-C3-17	J-41	82-2 70 J	Black-Blue Orange	(Back Sw.) (15 K. Ohm 1/2 W Resistor) Completes circuit to 70 wire via 15 K resistor. (Delay relay circuit)
Cam #9Y C. T.	ASW-A0-3	F-44	48-7 67-3 14-3	Green-Black Brown-Orange Red-Green	(Back Sw.) Completes 14-3 circuit to reflex re. #2 switch or completes 48-7 circuit to reflex re. #3 Switch.
Cam #10 A. N.O.	ASW-C1-3 ASW-A0-3	D-20	41-7 30	Green-Red Yellow	(multiplay) Directs circuit to multi-play re. switch.
Cam #11 (X16) Sw. N.O.	ASW-C1-4	B-29	85-4 27-4	Black-White Blue-Orange	Completes circuit to corners center coil.
Cam #11Y (X2) Sw. N.O.		D-34	52 70 J	White-Blue Orange	(Back Sw.) Completes circuit to 70 wire.
Cam #12 (X8) Sw. N.O.	ASW-C1-3	D-35	63 70	Brown-Yellow Orange	Completes circuit to 70 wire.
Cam #13 A. Sw. N.O.	ASW-C1-3	D-22	61-6 68-4	Brown-Red Brown-Black	Directs circuit to multi-play re. sw. reflex replay mag. coil, and total replay meter coil.
Cam #13 B. N.O.	ASW-C1-8	D-34	45 70 J	Green-White Orange	Completes circuit to 70 wire.
Cam #13 C. N.O.	ASW-C1-8	70 J	70 J	Orange	(Extra Switch)
Cam #13 D. Lug	ASW-A0-3		61 J	Brown-Red	
Cam #13 Back Sw. N.O.	ASW-C1-8	G-19	21-3 23-8	Blue-Red Blue-Yellow	Directs circuit to replay cam index switch (MWE).
Cam #14 (X4) Sw. N.O.	ASW-C1-3	D-34	57 70	White-Orange Orange	Completes circuit to 70 wire.
Cam #15 Sw. N.O.	ASW-C1-4	H-25	75-8 56-4	Orange-White White-Brown	Directs circuit to before 3rd trip sw.
Search Pin Sw. N.O.	ASW-C1-25	D-19	21-3 58-8	Blue-Red White-Black	Completes circuit to search wiper re. coil.
Search Wiper Lock	FD-30-1300	A-17	23-9 70	Blue-Yellow Orange	Energizes search wiper lock coil.
Timing Cams Index	BF-27-126	A-9	70 54-7	Orange White-Green	Energizes C. U. Timing cams index coil.
A. N.O.	ASW-A1-43	H-2	94-16 92-16	Grey-Green Grey-Blue	Completes circuit to C. U. Motor.
B. N.C.	ASW-A2-18	C-8	27-7 61-10	Blue-Orange Brown-Red	Completes circuit to coin lock out coil.
LUG	Resistor 1.8 Kohm 7 Watt E-8		30	Yellow	30 Jumps through resistor to 61-10 B. Switch.
Replay Cams Index	CF-28-1025	A-20	70-20 40-8	Orange Green	Energizes replay cam index coil.
A. N.O.	ASW-A1-11	F-19	23-8 68 J	Blue-Yellow Brown-Black	Directs circuit to replay cam index sw., search index sw., replay cam X1 Sw., and Fd. Wiper on search disc.
B. N.O.	ASW-A1-56	H-25	75-8 56-4	Orange-White White-Brown	Directs circuit to before 3rd trip sw.
C. N.C.	ASW-A2-27	C-19	68-4 15-2	Brown-Black Red-White	Completes circuit to search index coil.
D. N.C.	ASW-A2-29	C-14	27-2 36-2	Blue-Orange Yellow-Brown	Directs circuit to timer open at top switch.

# CONTROL UNIT

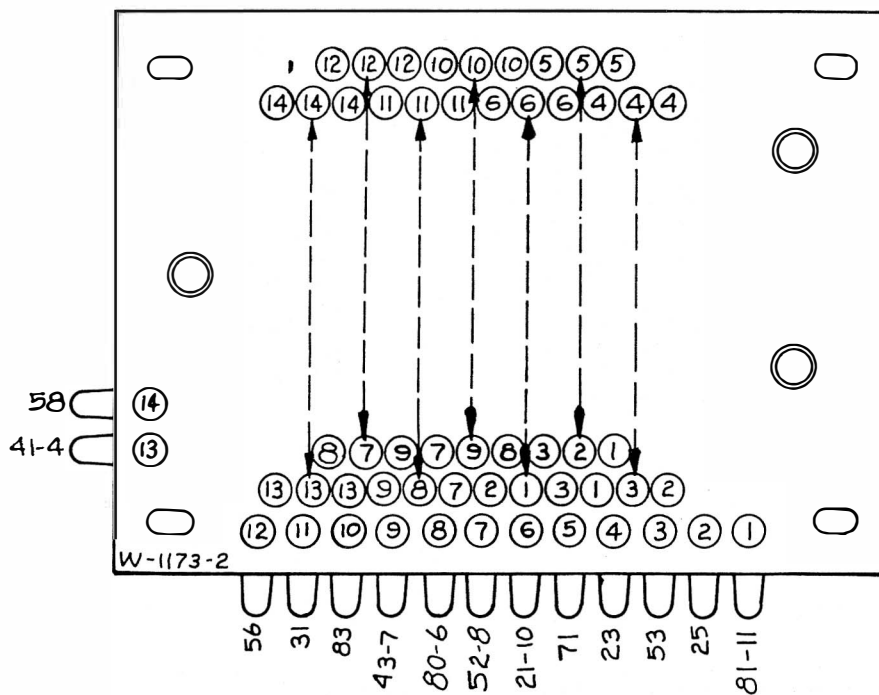
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Search Index	EA-29-950	A-19	70 J 15-2	Orange Red-White	Energizes search index coil.
A. N. O.	ASW-A2-28	C-20	68-4 40-8	Brown-Black Green	Completes circuit to replay cam index coil.
B. N. O.	ASW-A2-29	H-33	21-3 27	Blue-Red Blue-Orange	Directs circuit to red, yellow and green replay re. switches.
Search Wiper Relay	G-31-2000	A-19	70 58-8	Orange White-Black	Energizes search wiper re. coil.
A. N. C.	ASW-R2-5	C-17	60-6 23-9	Brown Blue-Yellow	Completes circuit to search wiper lock coil.
B. N. C.	ASW-R2-5	C-6	85-8 13-5	Black-White Red-Yellow	Directs circuit to key switch.
C. N. C.	ASW-R2-5	E-50	40-9 81-9	Green Black-Red	Directs circuit to lines button switch.

# C. U. SEARCH DISC WIPER UNIT & POSITIONS CHART

## PICTORIAL CARD HOLE REFERENCE

A	B	C	D	E	F		DISC WIPER- WINNERS POSITIONS
16 G	6 H	4 I	11 J	9 K	5 L	RED	9 RQPONM
7 M	8 N	14 O	18 P	2 Q	13 R		12 LKJIHG
10 G	12 H	3 I	17 J	1 K	15 L		15 FEDCBA
						YEL	18 RMFA
							21 RLF
							24 QKE
						GRN	27 PJD
							30 OIC
							33 NHB
							36 MGA
							39 RQPONM
							42 LKJIHG
							45 FEDCBA

## MAGIC CARD CONTACT PLATE



# C.U. SEARCH WIPER UNIT & SEARCH DISC

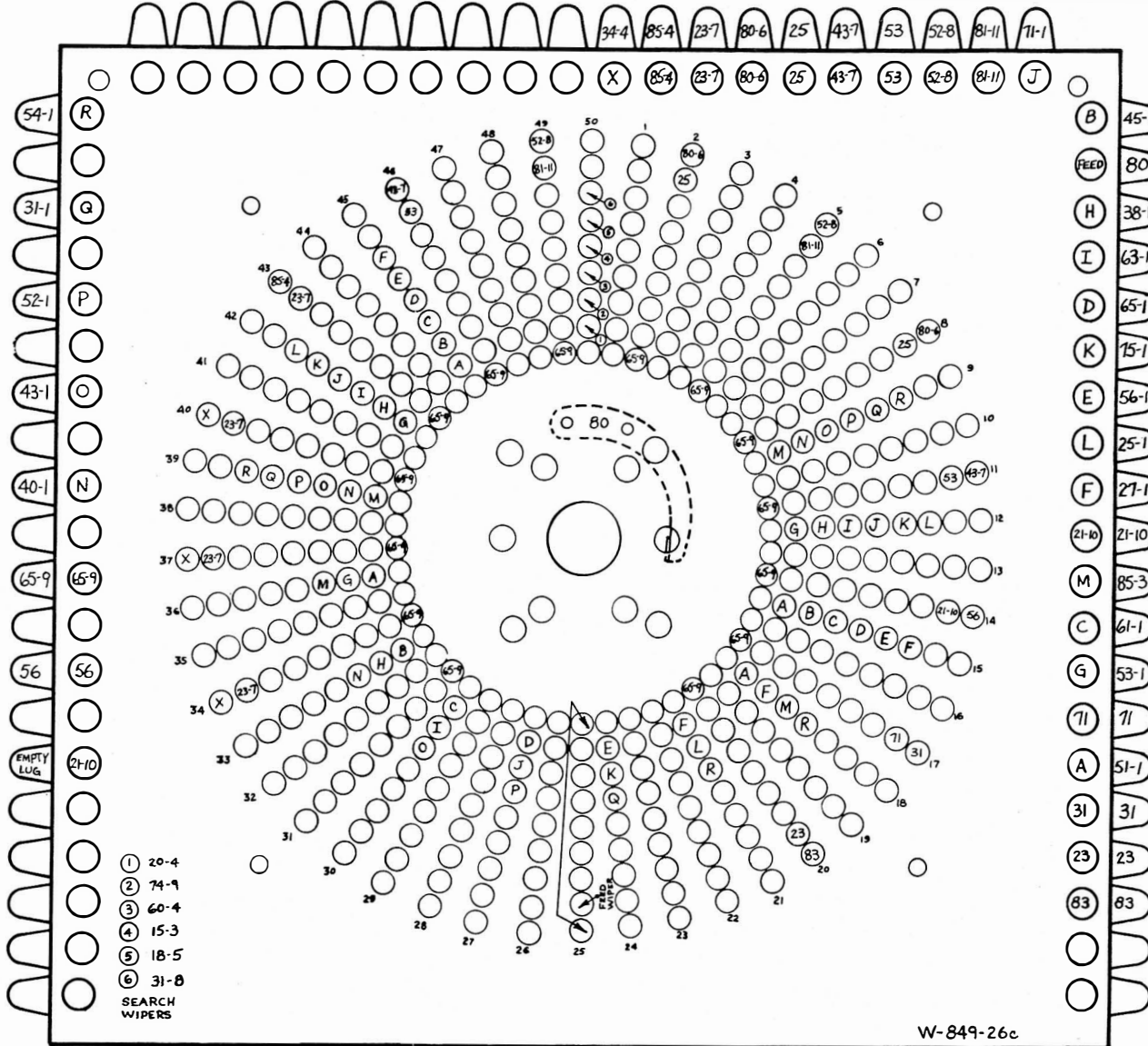
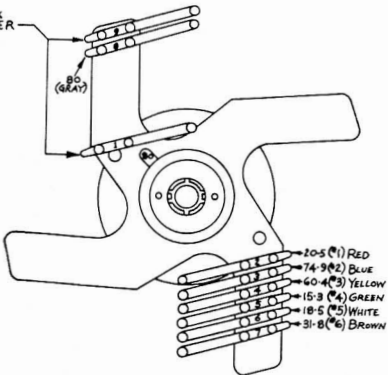
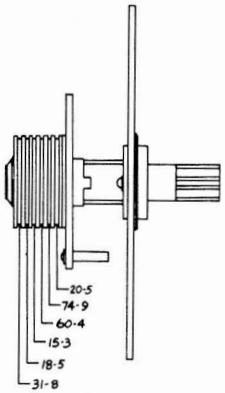
54-1 CIR. FD. TO #15 LITE,CARD UNIT  
 31-1 CIR. FD. TO #1 LITE,CARD UNIT  
 52-1 CIR. FD. TO #17 LITE,CARD UNIT  
 43-1 CIR. FD. TO #3 LITE,CARD UNIT  
 40-1 CIR. FD. TO #12 LITE,CARD UNIT  
 71-1 CIR. FD. TO #18 LITE,CARD UNIT  
 38-1 CIR. FD. TO #8 LITE,CARD UNIT  
 63-1 CIR. FD. TO #13 LITE,CARD UNIT

65-1 CIR. FD. TO #11 LITE,CARD UNIT  
 75-1 CIR. FD. TO #2 LITE,CARD UNIT  
 56-1 CIR. FD. TO #9 LITE,CARD UNIT  
 25-1 CIR. FD. TO #13 LITE,CARD UNIT  
 27-1 CIR. FD. TO #5 LITE,CARD UNIT  
 85-3 CIR. FD. TO #10 LITE,CARD UNIT  
 53 CIR. FD. FROM RED REP. DISC.

25 CIR. FD. FROM YEL. REP. DISC.  
 81-11 CIR. FD. FROM GRN. REP. DISC.  
 23-7 CIR. FD. FROM CORNERS CNTR. SWS. (C-29)  
 43-7 CIR. FD. TO RED REP. COIL (A-24)  
 83 CIR. WIPER FD. TO UP-DOWN DISC.  
 80-6 CIR. FD. TO YEL. REP. COIL (A-26)

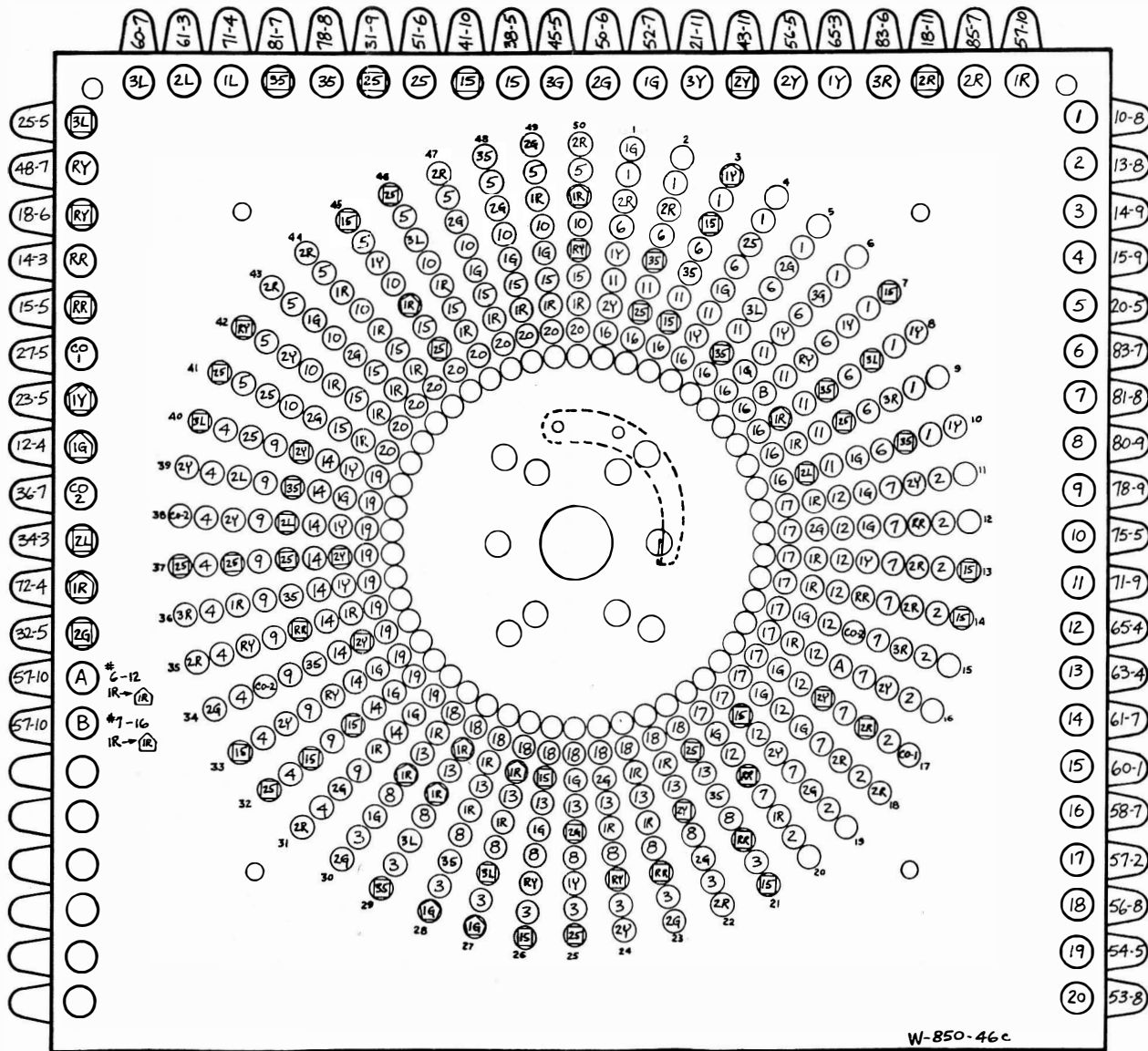
31 CIR. WIPER FD. TO UP-DOWN DISC.  
 52-8 CIR. FD. TO GRN. REP. COIL (A-27)  
 56 CIR. WIPER FD. TO UP-DOWN DISC.  
 34-4 CIR. FD. TO 6 IN LINE RE. COIL  
 85-4 CIR. FD. TO 6 IN LINE RE. SW. &  
 C.U. REPLAY #CAM x 16

23  
 71 CIR. FD. PICK-UP FROM UP-DOWN WIPER DISC  
 21-10



# PROGRAM DISC ASSEMBLY

57-10	FD. CIR. TO SCRAMBLER DISC PAD	52-7	FD. CIR. TO SCRAMBLER DISC PAD	25-5	FD. CIR. TO #7, #8 & #9 C.V. CAMS
72-4	FD. CIR. #3 REF. RELAY SW.	12-4	FD. CIR. TO #3 REF. RELAY SW.	60-7	FD. CIR. TO #1 REF. RELAY SW.
85-7	FD. CIR. TO #2 STEP RELAY COIL	50-6	FD. CIR. TO #2 STEP RELAY COIL	34-3	FD. CIR. TO #7 & #8 C.V. CAM SWS.
18-11	FD. CIR. TO #1 REF. RELAY SW.	32-5	FD. CIR. TO #3 REF. RELAY SW.	61-3	FD. CIR. TO #2 REF. RELAY SW.
83-6	FD. CIR. TO #3 STEP RELAY COIL	45-5	FD. CIR. TO #3 STEP RELAY COIL	71-4	FD. CIR. TO #6 C.V. CAM SW.
65-3	FD. CIR. TO SCRAMBLER DISC PAD	81-7	FD. CIR. TO C.V. CAM 7 SW.	18-6	FD. CIR. TO RANDOM YEL. TRIP SW.
23-5	FD. CIR. TO #3 REF. RELAY SW.	78-8	FD. CIR. TO #1 REF. RELAY SW.	48-7	FD. CIR. TO #3 REF. RELAY SW.
56-5	FD. CIR. TO #2 STEP RELAY COIL	51-6	FD. CIR. TO #1 REF. RELAY SW.	14-3	FD. CIR. TO #2 REF. RELAY SW.
43-11	FD. CIR. TO #1 REF. RELAY SW.	31-9	FD. CIR. TO #8&#9 C.V. CAM SWS.	15-5	FD. CIR. TO RANDOM RED TRIP SW.
21-11	FD. CIR. TO #3 STEP RELAY COIL	41-10	FD. CIR. TO #6 C.V. CAM SW.	36-7	FD. CIR. TO #2 REF. RELAY SW.
		38-5	FD. CIR. TO #2 REF. RELAY SW.	27-5	FD. CIR. TO CORNER TRIP SW.

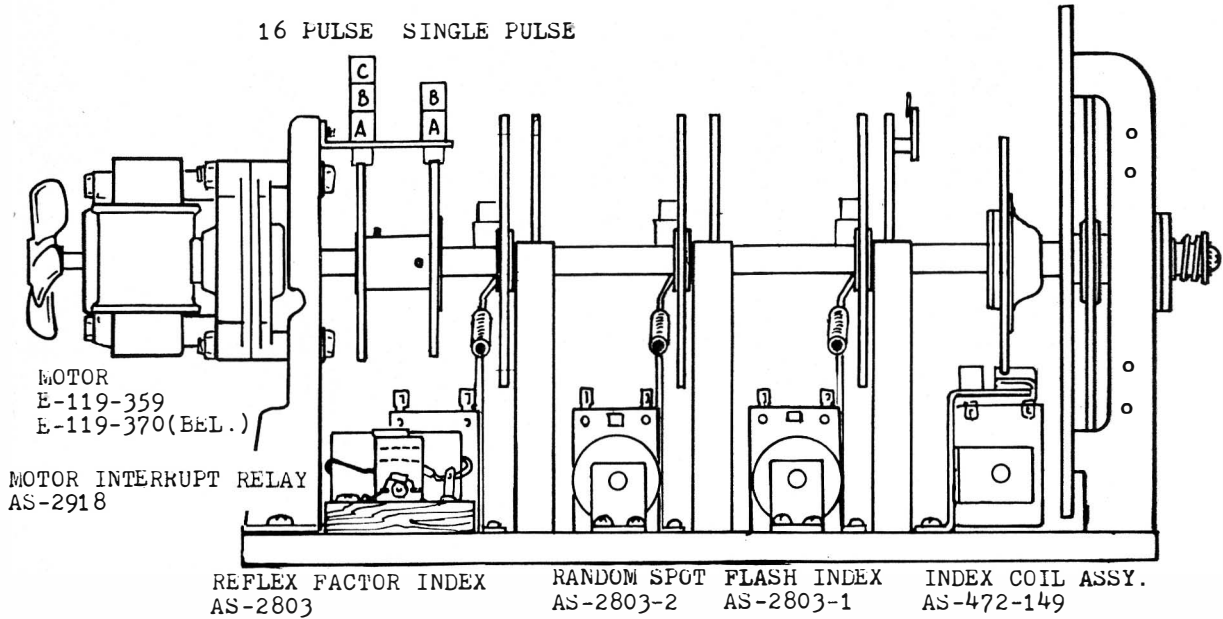


AVAILABLE CIRCUIT FEEDS FROM COIN COUNTER DISC

W-850-46c

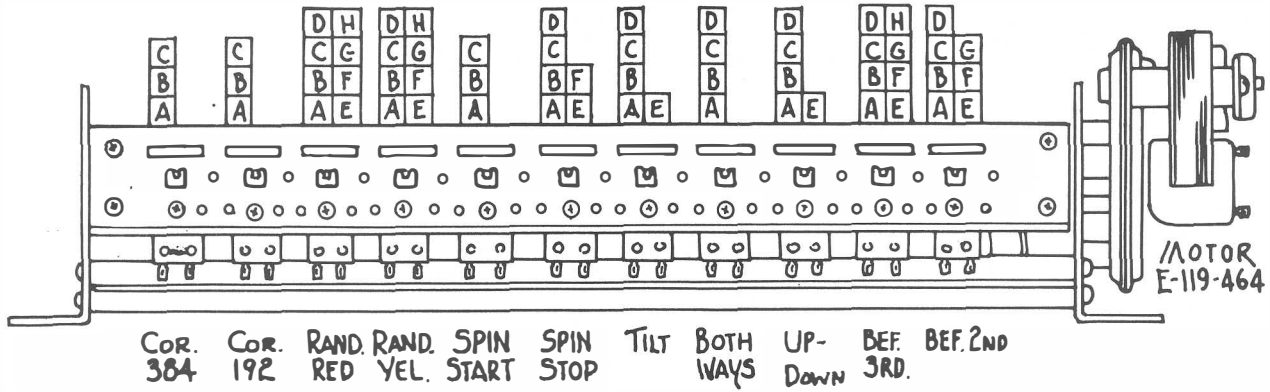
# PROGRAM ASSEMBLY

16 PULSE SINGLE PULSE



Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Mixer Motor	E-119-370	F-3	98-16 95-16	Grey-Black Grey-White	Energizes mixer motor.
Program Index	BF-27-1250	I-38	70 23 J	Orange Blue-Yellow	Energizes program index coil.
A. N. C.	ASW-A2-64	J-38	23-10 23 J	Blue-Yellow Blue-Yellow	Completes circuit to program index coil.
Reflex Factor Index	CR-28-1100	I-39	70 10-10	Orange Red	Energizes reflex factor index coil.
A. N. O.	ASW-A1-124	K-39	78 47-3	Orange-Black Green-Orange	Directs circuit to roving cam 1 - pulse switch.
Random Spot Index	CR-28-1100	I-36	70 85 J	Orange Black-White	Energizes random spot index coil.
A. N. C.	ASW-A2-76	I-31	35-4 30	Yellow-White Yellow	Directs circuit to spin stop trip switch.
B. N. O.	ASW-A1-161	I-14	38-11 65-2	Yellow-Black Brown-White	Directs circuit to random disc pad.
C. N. C.	ASW-A2-74	J-36	85-6 85 J	Black-White Black-White	Completes circuit to random spot index coil.
Flasher Index	CR-28-1100	H-52	70 60-10	Orange Brown	Energizes flash index coil.
A. N. O.	ASW-A1-124	J-11	30 J 13-2	Yellow Red-Yellow	Directs circuit to fd. wiper on flasher disc.
B. N. O.	ASW-C1-40	J-22	30 J 56-7	Yellow White-Brown	Directs circuit to fd. wiper on flasher disc.
C. N. O.	ASW-C1-40	J-9	30 J 43-2	Yellow Green-Yellow	Directs circuit to fd. wiper on flasher disc.
Mixer 16 Pulse	ASW-C1X-2	G-31	30 38-2	Yellow Yellow-Black	Directs circuit to shutter cam #5 (C. W. O.)
A. N. O.	ASW-C1X-2	L-6	23-4 20	Blue-Yellow Blue	Completes circuit to select now lights.
16 Pulse	ASW-C1X-2	E-5	75-2 51-9	Orange-White White	Directs circuit to replay reset re. switch.
C. N. O.	ASW-C1X-2	D-14	36-9 27-2	Yellow Blue-Orange	Directs circuit to replay cam index switch.
Single Pulse Cam A.	ASW-C1X-2	J-39	47-3 10-10	Green-Orange Red	Completes circuit to reflex factor index coil.
N. C.					

# 11 TRIP BANK



Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
MOTOR TRIP BANK	E-119-464	A-11	70 51-10	Orange White-Red	Energizes Motor
Bef. 2nd Trip Coil	D-27-425	A-18	70 54 J	Orange White-Green	Energizes before 2nd Trip Coil.
A. N. O.	ASW-B-2	G-14	71-7 14-8	Orange-Red Red-Green	Completes Circuit to Lifter Cam #2 Sw.
B. N. O.	ASW-B-2	L-37	57-11 57-11	White-Orange White-Orange	Directs Circuit to both random red trip sw. and random yellow trip sw.
C. N. O.	ASW-B-2	K-38	81-2 23-10	Black-Red Blue-Yellow	Directs circuit to prog. index sw.
D. N. C.	ASW-B-2	C-18	54-6 54 J	White-Green White-Green	Directs circuit to before 2nd trip coil.
E. N. C.	ASW-B-1	J-5	48-5 51-5	Green-White White-Red	Completes circuit to timer disc pad.
F. N. C.	ASW-B-1	B-31	18 85-9	Red-Black Black-White	Directs circuit to spot select coil.
G. N. C.	ASW-B-1	H-35	80-8 56-11	Black White-Brown	Directs circuit to coin counter top switch.
Bef. 3rd Trip Coil	D-27-425	A-18	70 74 J	Orange Orange-Green	Energizes before 3rd trip coil.
A. N. O.	ASW-B-2	E-15	78-6 36-9	Orange-Black Yellow-Brown	Directs circuit to both 1 - Pulse roving cam sw. & ball lifter cam #1 Switch.
B. N. O.	ASW-B-2	F-17	63-6 53-3	Brown-Yellow White-Yellow	Directs circuit to "R" button sw.
C. N. O.	ASW-B-2	G-25	56-4 45-4	White-Brown Green-White	Directs circuit to #4 Relay Sw. & #3 relay switches.
D. N. C.	ASW-B-1	B-18	74-7 74 J	Orange-Green Orange-Green	Directs circuit to before 3rd trip coil.
E. N. C.	ASW-B-1	J-5	32-3 72-2	Yellow-Blue Orange-Blue	Completes circuit to timer disc pad.
F. N. C.	ASW-B-1	L-38	21-3 81-2	Blue-Red Black-Red	Directs circuit to before 2nd trip switch.
G. N. C.	ASW-B-1	G-51	21-J 40-9	Blue-Red Green	Directs circuit to search wiper relay switch.
H. N. O.	ASW-B-3	J-37	52-10 43-4	White-Blue Green-Yellow	Directs circuit to spin start trip sw.



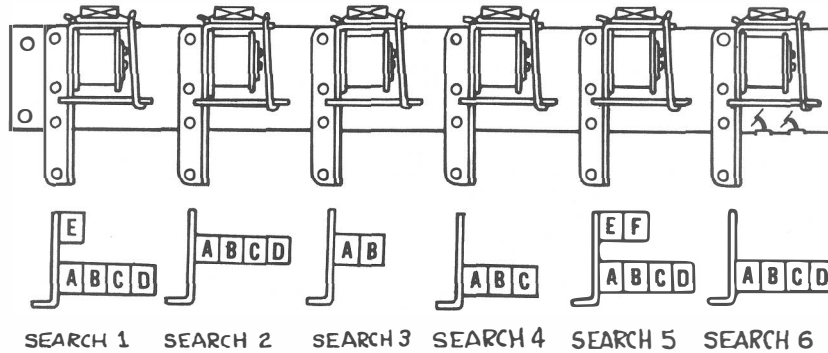
# 11 TRIP BANK

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Up Down Trip Coil	D-27-425	A-48	70 32 J	Orange Yellow-Blue	Energizes Up-Down Trip Coil.
A. N. C.	ASW-B-2	B-48	32-4 32 J	Yellow-Blue Yellow-Blue	Directs circuit to up-down trip coil.
B. T.	ASW-B-3	C-51	15-4 15J 14-4 18-4	Red-White Red-Green Red-Black	Directs circuit to up release coil or down release coil.
C. T.	ASW-B-3	C-51	18-4 13-4 15-J	Red-Black Red-Yellow Red-White	Directs circuit to down release coil or up release coil.
D. T.	ASW-B-3	E-48	48-4 38-4 31-12	Green-Black Yellow-Black Yellow-Red	Directs circuit to either both ways trip switches.
E. T.	ASW-B-3	J-10	43-3 45-3 65-8	Green-Yellow Green-White Brown-White	Completes circuit to either line sel. disc pad or to "Up" light.
Both Ways Trip Coil	D-27-425	A-49	70 40-J	Orange Green	Energizes both ways trip coil.
A. N. C.	ASW-B-2	B-49	40-3 40-J	Green Green	Directs circuit to both ways trip coil.
B. T.	ASW-B-3	D-49	48-4 50-4 21-3	Green-Black White Blue-Red	Directs 48-4 circuit from up-down sw. to up carry-over cam sw., or directs 21-3 circuit to up carry-over cam switch.
C. T.	ASW-B-3	D-48	31-13 20-2 57-J	Yellow-Red Blue White-Orange	Directs 31-12 circuit to down carry-over cam sw., or directs 57J circuit to both ways trip switch.
D. T.	ASW-B-3	C-48	58-4 75-7 57 J	White-Black Orange-White White-Orange	Directs circuit to card relay coil and energizes card motor.
Tilt Trip Coil	D-27-425	A-12	70 14-5	Orange Red-Green	Energizes tilt trip coil.
A. N. O.	ASW-B-2	C-6	85-8 13-5	Black-White Red-Yellow	Directs circuit to key switch.
B. N. C.	ASW-B-2	G-3	96-16 92-16	Grey-Brown Grey-Black	Directs circuit to motor interrupt relay switch.
C. N. C.	ASW-B-1	K-27	74-8 51-7	Orange-Green White-Red	Directs circuit to A. C. relay sw.
D. T.	ASW-B-3	H-10	21-3 30 15	Blue-Red Yellow Red-White	Completes circuit to timer disc fd. wiper and 21-3 common, or directs circuit to shutter cam #4 sw.
E. T.	ASW-B-3	K-26	36-5 18-8 45-10	Yellow-Brown Red-Black Green-White	Directs 36-5 circuit to A-C Relay Sw. or directs 45-10 circuit to tilt light.
Spin Stop Trip	D-27-425	I-37	70 84-J	Orange Black-Green	Energizes spin stop trip coil.
A. N. O.	ASW-B-2	I-14	38-11 65-2	Yellow-Black Brown-White	Directs circuit to Random Disc Pad.
B. N. O.	ASW-B-2	I-31	47-2 35-4	Green-Orange Yellow-White	Directs circuit to Random Spot Index Sw.
C. N. O.	ASW-B-1	K-40	21-3 40-12	Blue-Red Green	Directs circuit to alt. cam #9 sw., & energizes Delay Relay Coil.
D. T.	ASW-B-3	K-36	85-6 20-9 53-9	Black-White Blue White-Yellow	Directs circuit to Random Spot Index Sw., or Motor interrupt relay coil.
E. T.	ASW-B-1	J-37	84-3 84 J	Black-Green Black-Green	Directs circuit to spin stop trip coil.
F. T.	ASW-B-1	J-4	62-4 30	Brown-Blue Yellow	Completes circuit to timer disc fd. wiper and 30 common.

# 11 TRIP BANK

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Spin Start Trip	D-27-425	I-37	70 52 J	Orange White-Blue	Energizes spin start trip coil.
A. N. O.	ASW-B-2	L-36	20-9 21-J	Blue Blue-Red	Directs circuit to spin stop trip sw.
B. N. C.	ASW-B-2	K-41	21-3 40-12	Blue-Red Green	Directs circuit to alt. cam #9 switch and energizes delay relay coil.
C. N. C.	ASW-B-1	J-37	52-10 52-J	White-Blue White-Blue	Directs circuit to spin start trip coil.
Random Yellow Trip	D-27-425	A-43	70 71-J	Orange Orange-Red	Energizes Random Yellow Trip Coil.
A. N. O.	ASW-B-2	J-12	10-2 30	Red Yellow	Completes circuit to Random Yellow Light.
B. N. O.	ASW-B-1	K-13	50-9 65	White Brown-White	Completes circuit to random disc pad and Arrow Light.
C. N. O.	ASW-B-1	K-14	58-6 84	White-Black Black-Green	Completes circuit to Random Disc Pad and Arrow Light.
D. N. O.	ASW-B-1	K-15	75-6 14-1	Orange-White Red-Green	Completes circuit to Random Disc Pad and Arrow Light.
E. N. O.	ASW-B-1	J-32	32-2 47-2	Yellow-Blue Green-Orange	Directs circuit to spin stop trip switch.
F. N. C.	ASW-B-1	C-43	18-6 71-2	Red-Black Orange-Red	Directs circuit to Random Yellow trip coil.
G. N. O.	ASW-B-1	K-37	57-11 43-4	White-Orange Green-Yellow	Directs circuit to delay relay switch, and rebound micro sw. , and before 3rd switch.
H. N. O.	ASW-B-1	K-4	54-4 62-4	White-Green Brown-Black	Directs circuit to spin stop trip switch.
Random Red Trip	D-27-425	A-43	70 60-J	Orange Brown	Energizes Random Red Trip Coil.
A. N. O.	ASW-B-2	J-31	67-2 47-2	Brown-Orange Green-Orange	Directs circuit to spin stop trip switch.
B. N. O.	ASW-B-1	J-12	74-1 30	Orange-Green Yellow	Completes circuit to Random Red Light.
C. N. O.	ASW-B-1	K-13	51-3 35	White-Red Orange-White	Completes circuit to Random Disc Pad and Arrow Light.
D. N. O.	ASW-B-1	K-13	53-2 72	White-Yellow Orange-Blue	Completes circuit to Random Disc Pad and Arrow Light.
E. N. O.	ASW-B-1	K-15	85-11 12-1	Black-White Red-Blue	Completes circuit to Random Disc Pad and Arrow Light.
F. N. C.	ASW-B-1	C-43	15-5 60-J	Red-White Brown	Directs circuit to Random Red Trip Coil.
G. N. O.	ASW-B-1	K-43	57-11 43-4	White-Orange Green-Yellow	Directs circuit to delay relay switch, rebound micro sw. , and before 3rd sw.
H. N. O.	ASW-B-1	J-4	54-4 62-4	White-Green Brown-Blue	Directs circuit to spin stop trip sw.
Corners 384 Trip	D-27-425	A-44	70 40-J	Orange Green	Energizes corners 384 trip coil.
A. N. C.	ASW-B-2	C-44	13-3 40-2	Red-Yellow Green	Completes circuit to corn. 384 trip
B. T.	ASW-B-3	D-29	62 82 48-9	Brown-Blue Black-Blue Green-Black	Directs circuit to corn. 192 trip sw. , or corn. cntr. open at 24 Sw.
C. T.	ASW-B-3	I-12	34 30 52-5	Yellow-Green Yellow White-Blue	Completes circuit to corn. 640 Light, or directs circuit to corn. 192 trip switch.
Corners 192 Trip	D-27-425	A-44	70 14-J	Orange Red-Green	Energizes corners 192 trip coil.
A. N. O.	ASW-B-2	D-30	62 57-8	Brown-Blue White-Orange	Directs circuit to corners cntr. open at 12 switch.
B. N. O.	ASW-B-1	J-12	41-5 34	Green-Red Yellow-Green	Completes circuit to corn. 192 light.
C. N. C.	ASW-B-1	C-44	27-5 14-2	Blue-Orange Red-Green	Completes circuit to corn. 192 trip coil.

# 6 SEARCH BANK

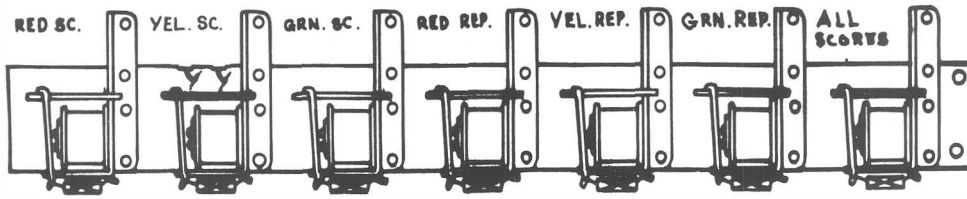


Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function	
#1 Search	G-28-750	L-32	20-4 10 J	Blue Red	Energizes #1 Search Coil.	
A.	N. O.	ASW-R1-8	G-23	52-4 65-9	White-Blue Brown-White	Completes circuit to wiper feeds to red, yellow and green score disc.
B.	N. O.	ASW-R1-8	G-27	57-4 81-6	White-Orange Black-Red	Directs circuit to red, yellow and green replay re. switches.
C.	N. O.	ASW-R1-8	G-28	21-12 61-4	Blue-Red Brown-Red	Directs circuit to red, yellow and green replay re. switches.
D.	N. O.	ASW-R1-8	F-30	80-10 27-8	Black Black-Orange	Directs circuit to #6 search switch.
E.	N. O.	ASW-R1-8	G-30	58-9 64-3	White-Black Brown-Green	Directs circuit to 6 in line re. switch.
#2 Search	G-28-750	L-33	74-9 10 J	Orange-Green Red	Energizes #2 search coil.	
A.	N. O.	ASW-R1-8	G-23	50-3 52-4	White White-Blue	Directs circuit to #1 search switch.
B.	N. O.	ASW-R1-8	F-23	51-4 65-9	White-Red Brown-White	Completes circuit to wiper feeds to red, yellow and green score disc.
C.	N. O.	ASW-R1-8	H-27	53-6 57-4	White-Yellow White-Orange	Directs circuit to #1 and #5 search switches.
D.	N. O.	ASW-R1-8	H-29	53 J 58-9	White-Yellow White-Black	Directs circuit to #1 and #5 search switches.
#3 Search	G-28-750	L-34	60-4 10 J	Brown Red	Energizes #3 search coil.	
A.	N. O.	ASW-R1-8	H-23	45-4 50-3	Green-White White	Directs circuit to #2 and #4 search switches.
B.	N. O.	ASW-R1-8	G-26	45 J 63-9	Green-White Brown-Yellow	Directs circuit to #4 search switch.
#4 Search	G-28-750	L-34	15-3 10 J	Red-White Red	Energizes #4 Search Coil.	
A.	N. O.	ASW-R1-8	H-22	45-4 56-6	Green-White White-Brown	Directs circuit to #5 search switch.
B.	N. O.	ASW-R1-8	H-26	63-9 53-6	Brown-Yellow White-Yellow	Directs circuit to #2 and #5 search switches.
C.	N. O.	ASW-R1-8	G-24	50-3 51-4	White White-Red	Directs circuit to #2 and #5 search switches.

# 6 SEARCH BANK

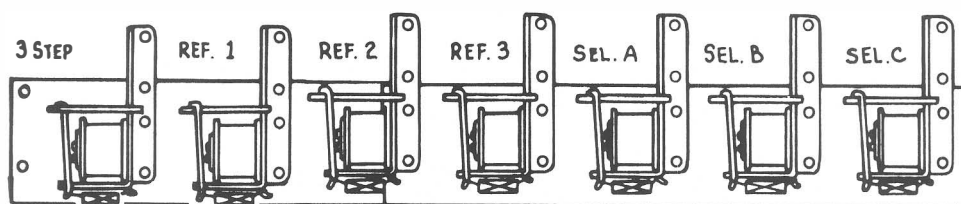
#5 Search		G-28-750	L-34	18-5 10 J	Red-Black Red	Energizes #5 search coil.
A.	N. O.	ASW-R1-8	G-24	51-4 65-9	White-Red Brown-White	Completes circuit to wiper feeds to red, yellow and green score disc.
B.	N. O.	ASW-R1-8	G-22	56-6 13-9	White-Brown Red-Yellow	Directs circuit to #6 search switch.
C.	N. O.	ASW-R1-8	G-26	57-4 81-6	White-Orange Black-Red	Directs circuit to Red, Yellow, and green replay re. switches.
D.	N. O.	ASW-R1-8	H-28	53-6 25-9	White-Yellow Blue-White	Directs circuit to #6 search switch.
E.	N. O.	ASW-R1-8	G-29	58-9 21-12	White-Black Blue-Red	Directs circuit to #1 and #6 search switches.
F.	N. O.	ASW-R1-8	G-30	80-10 58-9	Black White-Black	Directs circuit to #1 search switch.
#6 Search		G-28-750	L-35	31-8 10 J	Yellow-Red Red	Energizes #6 search coil.
A.	N. O.	ASW-R1-8	G-22	13- <del>0</del> 65-9	Red-Yellow Brown-White	Completes circuit to wiper feeds to red, yellow and green score disc.
B.	N. O.	ASW-R1-8	G-28	25-9 81-6	Blue-White Black-Red	Directs circuit to red, yellow and green replay re switches.
C.	N. O.	ASW-R1-8	G-29	21-12 61-4	Blue-Red Brown-Red	Directs circuit to red, yellow and green replay re. switches
D.	N. O.	ASW-R1-8	E-30	27-8 57-8 13-9	Bl White-Orange Red-Yellow	Directs circuit to corners center open at 12 switch. Directs circuit to #1 search switch.

# 7 RELAY BANK UPPER



Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Red Score Re.	G-32-2500	A-35	70 J 20-7	Orange Blue	Energizes red score re. via scrambler disc.
A. N. O.	ASW-R1-7	D-45	64 48-10	Brown-Green Green-Black	Energizes red score step-up coil via control unit.
Yellow Score Re	G-32-2500	A-37	70 J 83-4	Orange Black-Yellow	Energizes Yellow score relay via scrambler disc.
A. N. O.	ASW-R1-7	D-46	64 58-2	Brown-Green White-Black	Directs cir. to yellow score step-up coil.
Green Score Re.	G-32-2500	A-38	70 J 54-8	Orange White-Green	Energizes green score re. via scrambler disc.
A. N. O.	ASW-R1-7	D-46	64 61-2	Brown-Green Brown-Red	Completes circuit to green score step-up coil.
Red Replay Re.	G-32-2500	A-24	70 J 43-7	Orange Green-Yellow	Energizes red replay relay via search disc.
A. N. O.	ASW-R1-3	G-31	27 38	Blue-Orange Yellow-Black	Completes circuit to red replay step-up coil.
B. N. O.	ASW-R1-3	F-22	81-6 75-11	Black-Red Orange-White	Completes circuit to wiper fd. on red score disc.
C. N. O.	ASW-R1-3	F-23	61-4 78-12	Brown-Red Orange-Black	Completes circuit to wiper fd. on red replay counter.
D. N. O.	ASW-R1-3	D-23	68-4 12-5	Brown-Black Red-Blue	Completes circuit fd. to wiper on search disc.
Yellow Replay Re.	G-32-2500	A-26	70 J 80-6	Orange Black	Energizes Yellow replay relay
A. N. O.	ASW-R1-3	G-33	27 43	Blue-Orange Green-Yellow	Completes circuit to yellow replay step-up.
B. N. O.	ASW-R1-3	F-25	81-6 54-3	Black-Red White-Green	Completes circuit to yellow score wiper fd.
C. N. O.	ASW-R1-3	F-26	61-4 83-8	Brown-Red Black-Yellow	Completes circuit to Yellow score wiper fd.
D. N. O.	ASW-R1-3	D-22	68-4 12-5	Brown-Black Red-Blue	Completes circuit fd. to wiper on search disc.
Green Replay Re.	G-32-2500	A-27	70 J 52-8	Orange White-Blue	Energizes green replay relay coil.
A. N. O.	ASW-R1-3	G-34	27 48	Blue-Orange Green-Black	Completes circuit to Green replay step-up.
B. N. O.	ASW-R1-3	F-28	81-6 10-4	Black-Red Red	Completes circuit to green score wiper feed.
C. N. O.	ASW-R1-3	F-30	61-4 18-9	Brown-Red Red-Black	Completes circuit to green replay relay feed.
D. N. O.	ASW-R1-3	D-23	68-4 12-5	Brown-Black Red-Blue	Completes circuit fd. to wiper on search disc.
All Scores Re.	G-30-1500	A-47	70 J 60 J	Orange Brown	Energizes all scores relay coil via C. U. Cam #6.
A. N. O.	ASW-R1X-6	B-45	48-10 60-9	Green-Black Brown	Completes circuit to red score step-up coil.
B. LUG			21-3	Blue-Red	
C. N. O.	ASW-R1X-1	B-46	58-2 60 J	White-Black Brown	Completes circuit to Yellow score step-up coil.
D. N. O.	ASW-R1X-1	B-46	61-2 60 J	Brown-Red Brown	Completes circuit to green score step-up coil.

# 7 RELAY BANK LOWER



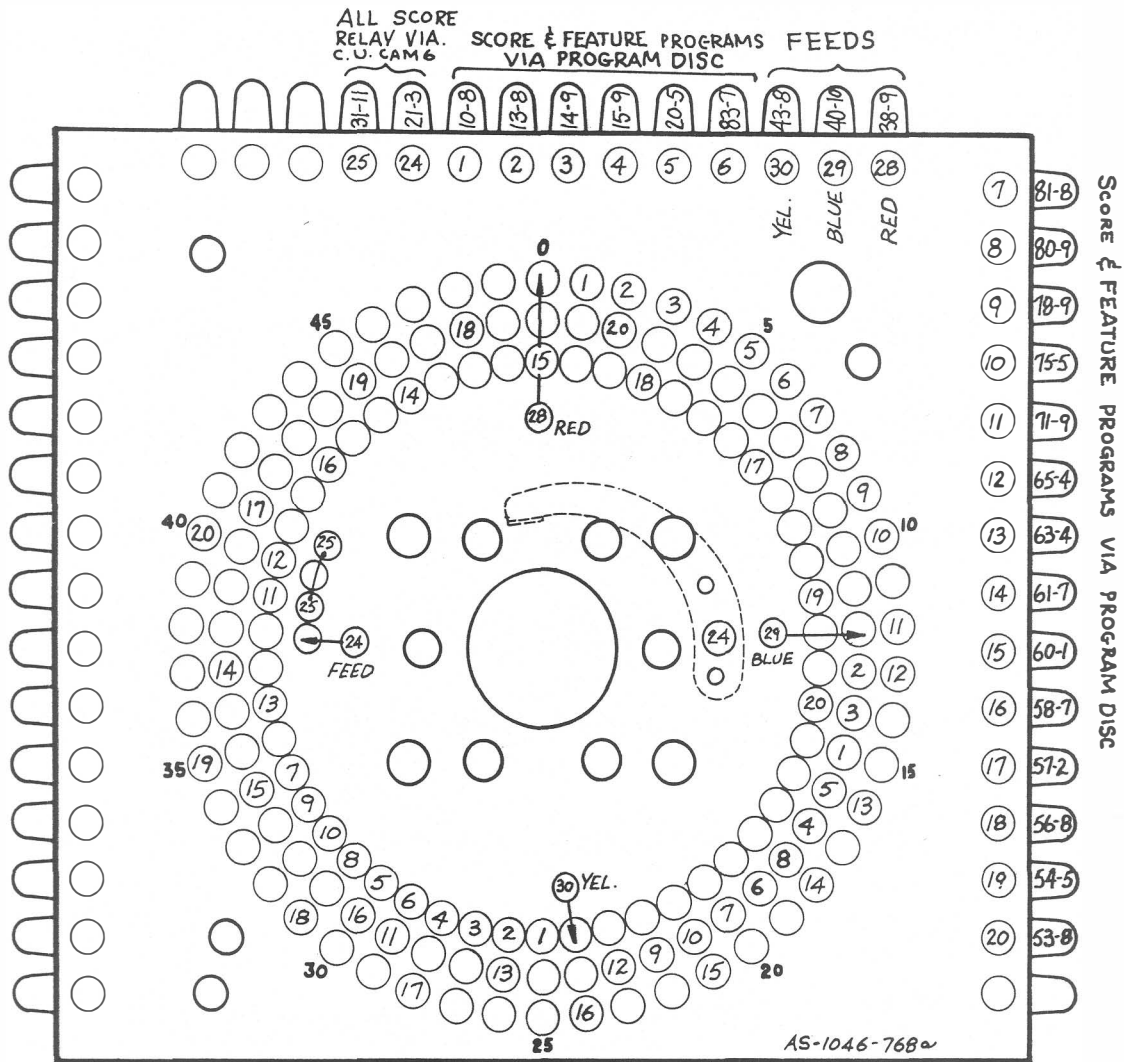
Switch/Coil	Part No.	Location On Diagram	Wire No.	Wire Color	Function
3 Step Re.	G-32-2500	A-39	70 75-4	Orange Orange-White	Energizes 3 step relay coil.
A. N. O.	ASW-R1-7	F-46	68-2 74-3	Blue-Red Orange-Green	Directs circuit to control unit cam #8 switch.
B. N. O.	ASW-R1-3	F-46	63-3 21-J	Brown-Yellow Blue-Red	Directs circuit to control unit cam #9 sw.
Reflex Re. #1	G-32-2500	G-35	70 40-J	Orange Green	Energizes reflex #1 coil.
A. T.	ASW-R3-6	E-41	34-3 60-7 25-5	Yellow-Green Brown Blue-White	Directs 25-5 circuit to C. U. Cam Switches #7, 8, 9, or directs 34-3 circuit to c. u. cam switches #7, 8.
B. T.	ASW-R3-6	E-36	83-6 18-11 85-7	Black-Yellow Red-Black Black-White	Completes circuit to scrambler disc pad and energizes 3 step relay coil, or completes circuit to scram. disc pad & energizes 2 step relay coil.
C. T.	ASW-R3-6	E-37	21-11 43-11 56-5	Blue-Red Green-Yellow White-Brown	Completes 56-5 circuit to scram. disc pad and energizes 2 step re. coil, or completes 21-11 circuit to scram disc pad and energizes 3 step re coil.
D. T.	ASW-R3-6	E-40	41-10 51-6 31-9	Green-Red White-Red Yellow-Red	Directs 31-9 circuit to C. U. cam sw.'s #8, 9 or directs 41-10 circuit to C. U. Cam Sw. #6.
E.	ASW-R3-6	E-39	31-9 78-8 81-7	Yellow-Red Orange-Black Black-Red	Directs 81-7 circuit to C. U. Cam Sw.'s. #7, 8, 9 or directs 31-9 circuit to C. U. cam switches #8, 9.
Reflex Re. #2	G-32-2500	G-35	70-J 40-J	Orange Green	Energizes reflex re. #2 coil.
A. T.	ASW-R3-6	E-44	27-5 36-7 13-3	Blue-Orange Yellow-Brown Red-Yellow	Directs 13-3 circuit to corn. 384 trip sw. , or directs 27-5 circuit to corn. 192 trip sw.
B. T.	ASW-R3-6	F-45	74-3 21-3 58-3	Orange-Green Blue-Red White-Black	Directs 58-3 circuit to C. U. cam #7 Sw. , or directs 74-3 circuit to C. U. Cam #8 Sw.
C. T.	ASW-R3-6	E-42	71-4 61-3 34-3	Orange-Red Brown-Red Yellow-Green	Directs 34-3 circuit to C. U. Cam switches #7, 8 or directs 71-4 circuit to C. U. cam sw. #6.
D. T.	ASW-R3-6	E-43	71-J 14-3 15-5	Orange-Red Red-Green Red-White	Directs 71-4 circuit to C. U. cam sw. #6, or directs 15-5 circuit to random red trip sw.
E. T.	ASW-R3-6	E-41	71-J 38-5 41-10	Orange-Red Yellow-Black Green-Red	Directs 41-10 circuit to C. U. Cam Sw. #6 or directs 71-4 circuit to C. U. cam sw. #6.

# 7 RELAY BANK LOWER

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Reflex Re.	G-32-2500	I-39	70 J 40 J	Orange Green	Energizes reflex re. #3 coil.
A. N. O.	ASW-R1-3	G-43	68 47-1	Brown-Black Green-Orange	Completes circuit to prog. extender disc pad.
B. N. O.	ASW-R1-3	E-37	65-3 23-5	Brown-White Blue-Yellow	Completes circuit to scram. disc pad.
C. N. O.	ASW-R1-3	E-38	52-7 12-4	White-Blue Red-Blue	Completes circuit to scram. disc pad.
D. N. O.	ASW-R1-3	E-35	57-10 72-4	White-Orange Orange-Blue	Completes circuit to scram. disc pad.
E. T.	ASW-R3-6	E-43	41-10 48-7 18-6	Green-Red Green-Black Red-Black	Directs 41-10 circuit to C. U. cam Sw. #6, or directs 18-6 circuit to Random Yellow Trip Sw.
F. T.	ASW-R3-6	E-39	45-5 32-5 50-6	Green-White Yellow-Blue White	Completes 50-6 circuit to scram. disc pad and energizes 2 step re. coil, or completes 45-5 circuit to scram. disc pad and energizes 3 step re. coil.
Select "A" Spot Relay	G-32-2500	A-32	70 J 41-1	Orange Green-Red	Energizes spot re. "A" coil.
A. N. O.	ASW-R1-7	K-9	27-10 30 J	Blue-Orange Yellow	Completes circuit to "A" light.
B. N. O.	ASW-R1-3	J-28	85-3 30 J	Black-White Yellow	Completes circuit to "10" light and search disc pad.
C. N. O.	ASW-R1-3	J-29	52-1 13	White-Blue Red-Yellow	Completes circuit to "17" light, spot disc pad, and search disc pad.
D. N. O.	ASW-R1-3	J-30	63-10 56-10	Brown-Yellow White-Brown	Completes circuit to "14" light, scram. disc pad, and search disc pad.
Select "B" Spot Relay	G-32-2500	A-32	70 J 18-2	Orange Red-Black	Energizes spot re. "B" coil.
A. N. O.	ASW-R1-7	K-9	85 30 J	Black-White Yellow	Completes circuit to "B" light.
B. N. O.	ASW-R1-3	J-28	38-1 30 J	Yellow-Black Yellow	Completes circuit to "8" light and search disc pad.
C. N. O.	ASW-R1-3	J-29	75-1 23-6	Orange-White Blue-Yellow	Completes circuit to "Z" light, spot disc pad, and search disc pad.
D. N. O.	ASW-R1-3	J-30	51-1 43-10	White-Red Green-Yellow	Completes circuit to "16" light, scram. disc pad, and search disc pad.
Select "C" Spot Relay	G-32-2500	A-32	70 J 78-4	Orange Orange-Black	Energizes spot re. "C" coil.
A. N. O.	ASW-R1-7	K-10	25-10 30 J	Blue-White Yellow	Completes circuit to "C" light.
B. N. O.	ASW-R1-3	J-28	61-1 30 J	Brown-Red Yellow	Completes circuit to "4" light, and search disc pad.
C. N. O.	ASW-R1-3	J-29	27-1 81-5	Black-Orange Black-Red	Completes circuit to "S" light, spot disc pad, and search disc pad.
D. N. O.	ASW-R1-3	J-30	31-1 54-10	Yellow-Red White-Green	Completes circuit to "1" light, scram. disc pad, and search disc pad.



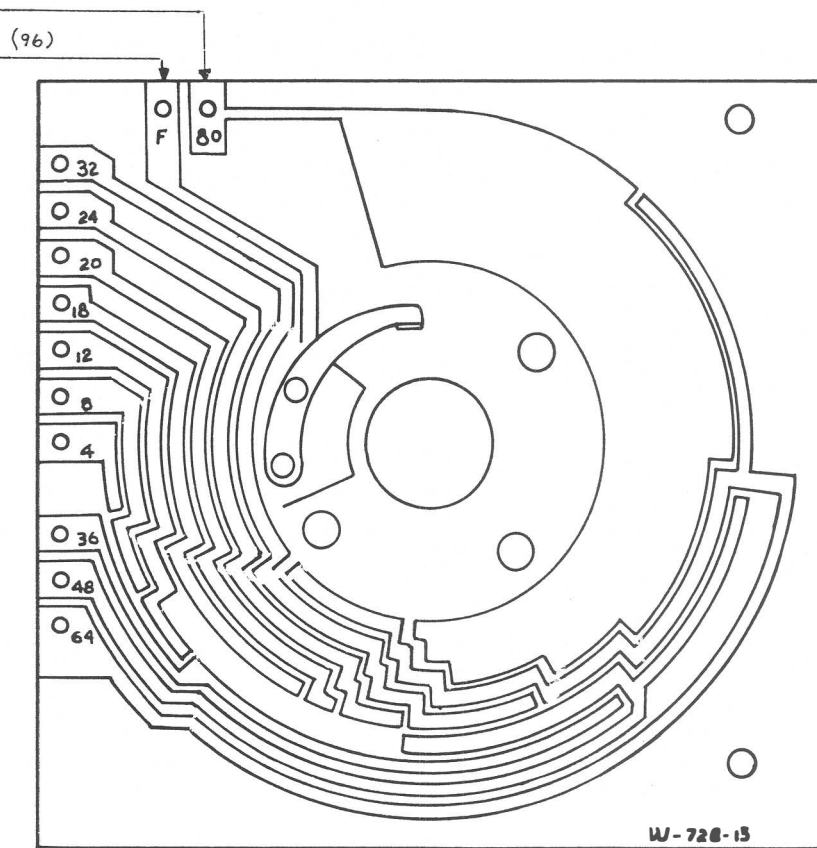
# COIN COUNTER



Coin Cntr. Step Up	B-25-925	A-10	70 J 63 J	Orange Brown-Yellow	Energizes coin cntr. step up-coil.
Coin Cntr. Reset	C-28-1100	F-52	70 J 78-3	Orange Orange-Black	Energizes coin cntr. reset coil.
A. Top Switch T.	ASW-U3-5	B-10	32 63-10 63 J	Yellow-Black Brown-Yellow Brown-Yellow	Completes 32 circuit to extender unit S. U. coil, or completes 63J circuit to coin cntr. S. U. Coil.
B. Top Switch T.	ASW-U3	G-35	82-1 56-11 68	Black-Blue White-Brown Brown-Black	Directs 68 circuit to feed wiper on prog. extender disc and reflex #3 re. sw., or directs 82-1 circuit to feed wiper on scramb.

# REPLAY COUNTERS

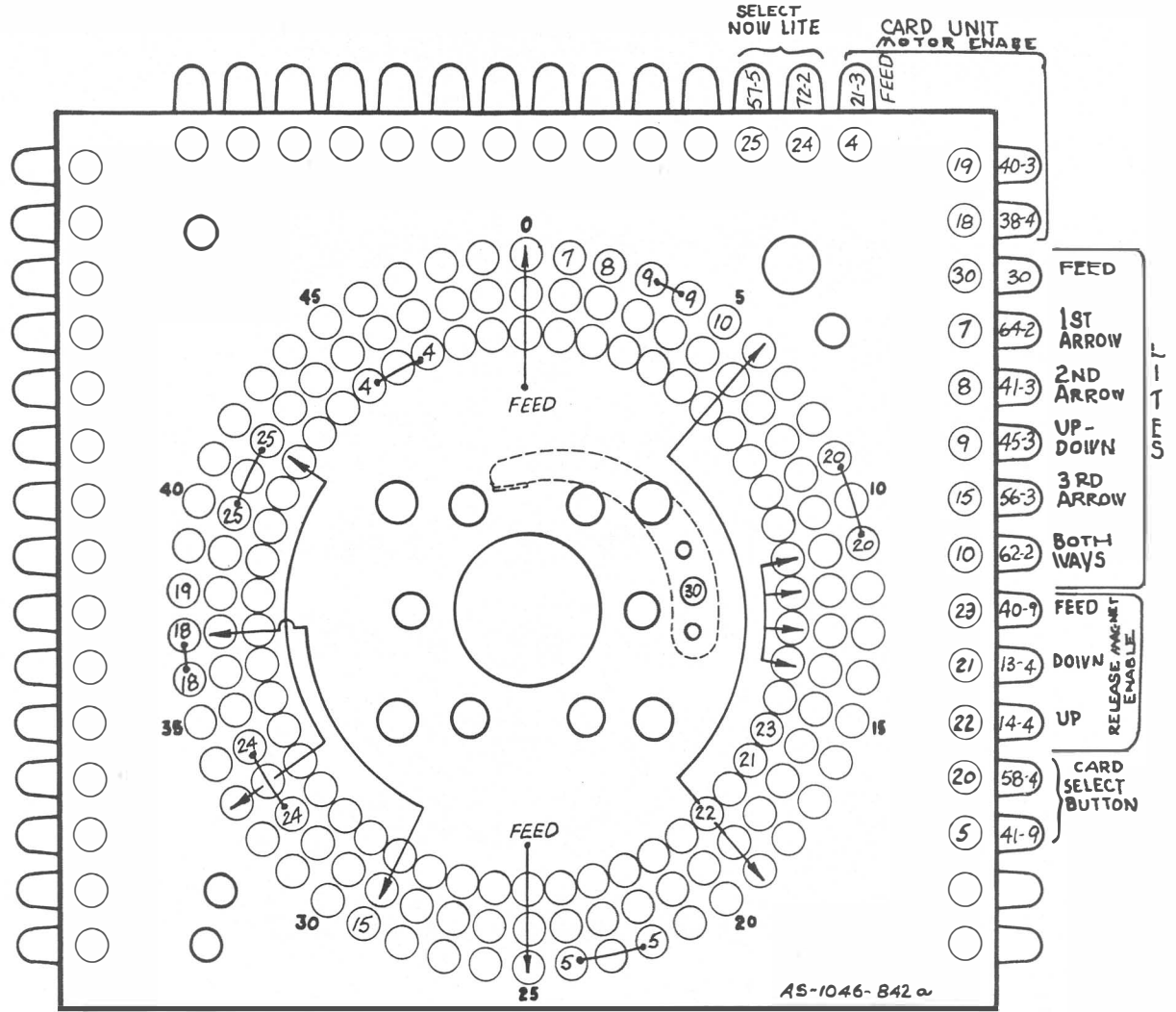
RED	YEL.	GRN.
15-7	21-4	15-10
45-7	40-11	35-2
10-3	12-2	20-6
85-2	23-2	13-1
83-2	58-10	27-6
74-2	81-1	40-5
60-2	78-1	41-8
71-11	83-1	21-9
21-8	60-3	54
20-3	41-2	57-9
23-3	51-2	60-8
25-3	52-2	61-9



## REPLAY COUNTERS

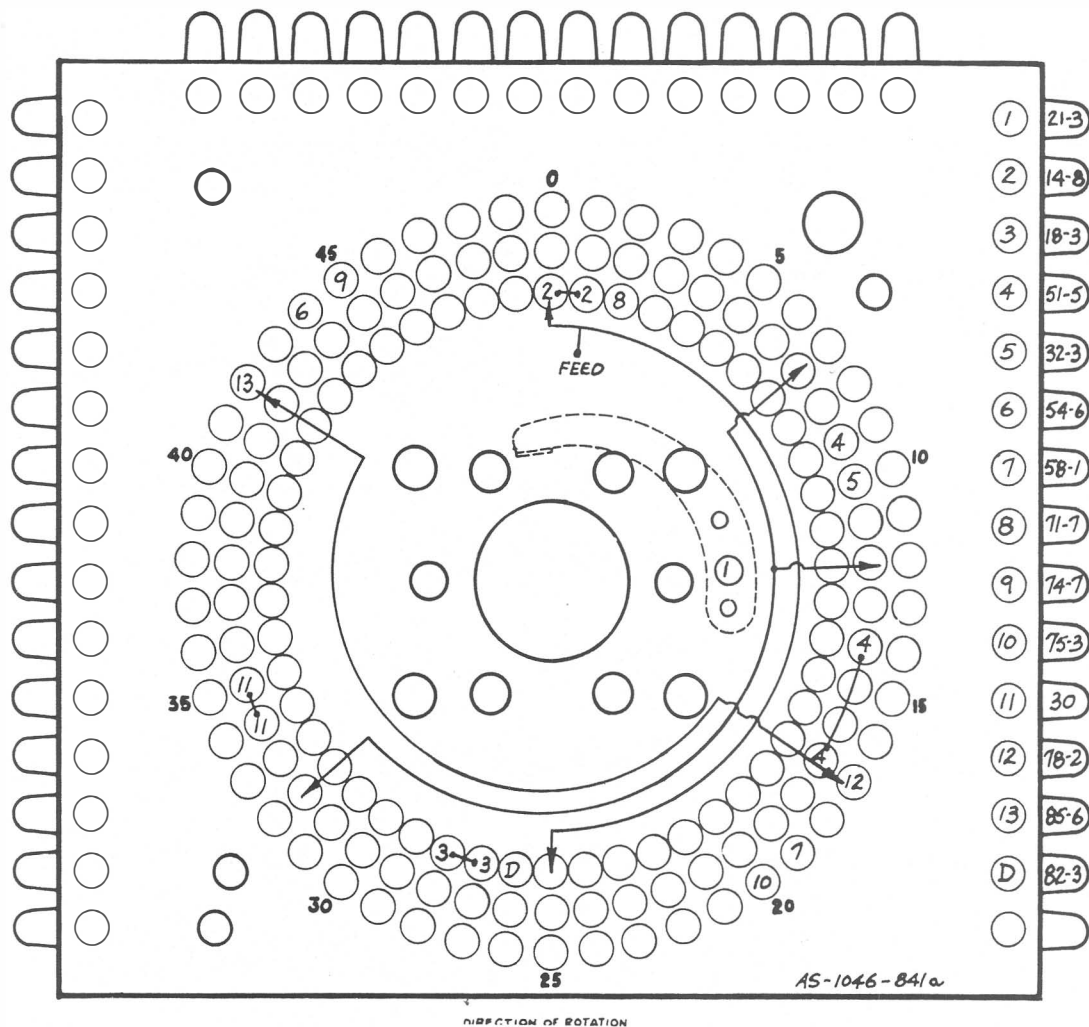
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Red Replay Step-Up	B-25-925	F-31	41 38	Green-Red Yellow-Black	Energized red replay step up coil
Red Replay Reset	C-28-1100	A-52	70 85-5	Orange Black-White	Energizes red replay reset coil.
Open at 96 N. C.	ASW-U2-3	D-24	45-7 53	Green-White White-Yellow	Completes circuit to search disc and card unit pad.
Yellow Replay Step-Up	B-25-925	F-33	74 43	Orange-Green Green-Yellow	Energizes yellow replay step up coil
Yellow Replay Reset	C-28-1100	B-52	70 85-5	Orange Black-White	Energizes Yellow replay reset coil
Open At 96 N. C.	ASW-U2-3	D-26	40-11 25	Green Black-White	Completes circuit to search disc and card unit pad.
Green Replay Step-Up	B-25-925	F-34	75 48	Orange-White Green-Black	Energizes green replay step up coil
Green Replay Reset	C-28-1100	B-52	70 85-5	Orange Black-White	Energizes green replay reset coil
Open At 96 N. C.	ASW-U2-3	D-27	35-2 81-11	Yellow-White Black-Red	Completes circuit to search disc and card unit pad.

# LINE SELECT UNIT



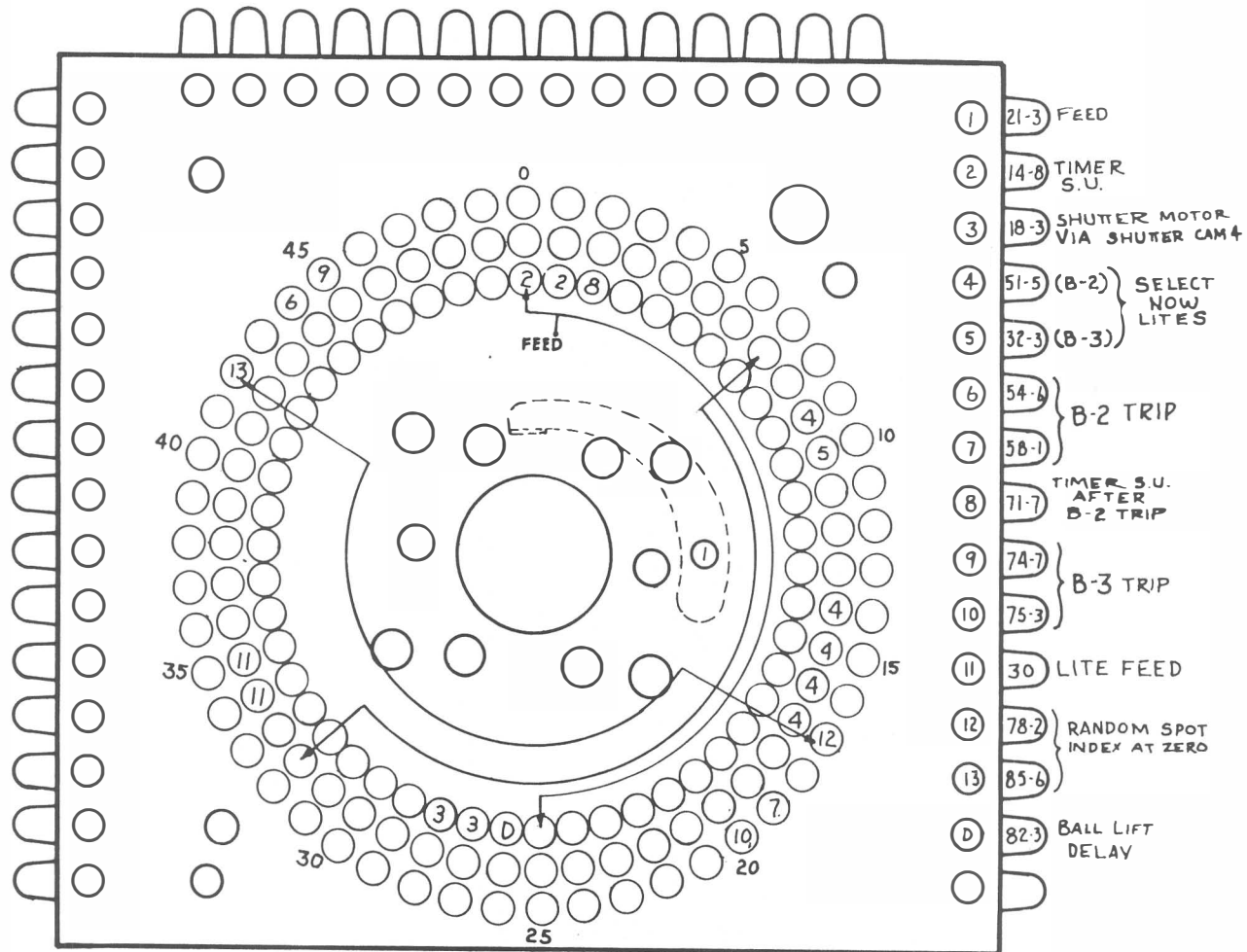
Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Line Select Step-Up	B-25-925	A-42	70 J 35 J	Orange Yellow-White	Energizes line selector step up coil.
Line Select Reset	C-28-1100	G-52	70 J 78-3	Orange Orange-Black	Energizes line select or reset coil.
Open At Top S. W.      N. C.	ASW-U1	B-42	35-3 53-4	Yellow-White White-Yellow	Completes circuit to line selector

# SPOT UNIT



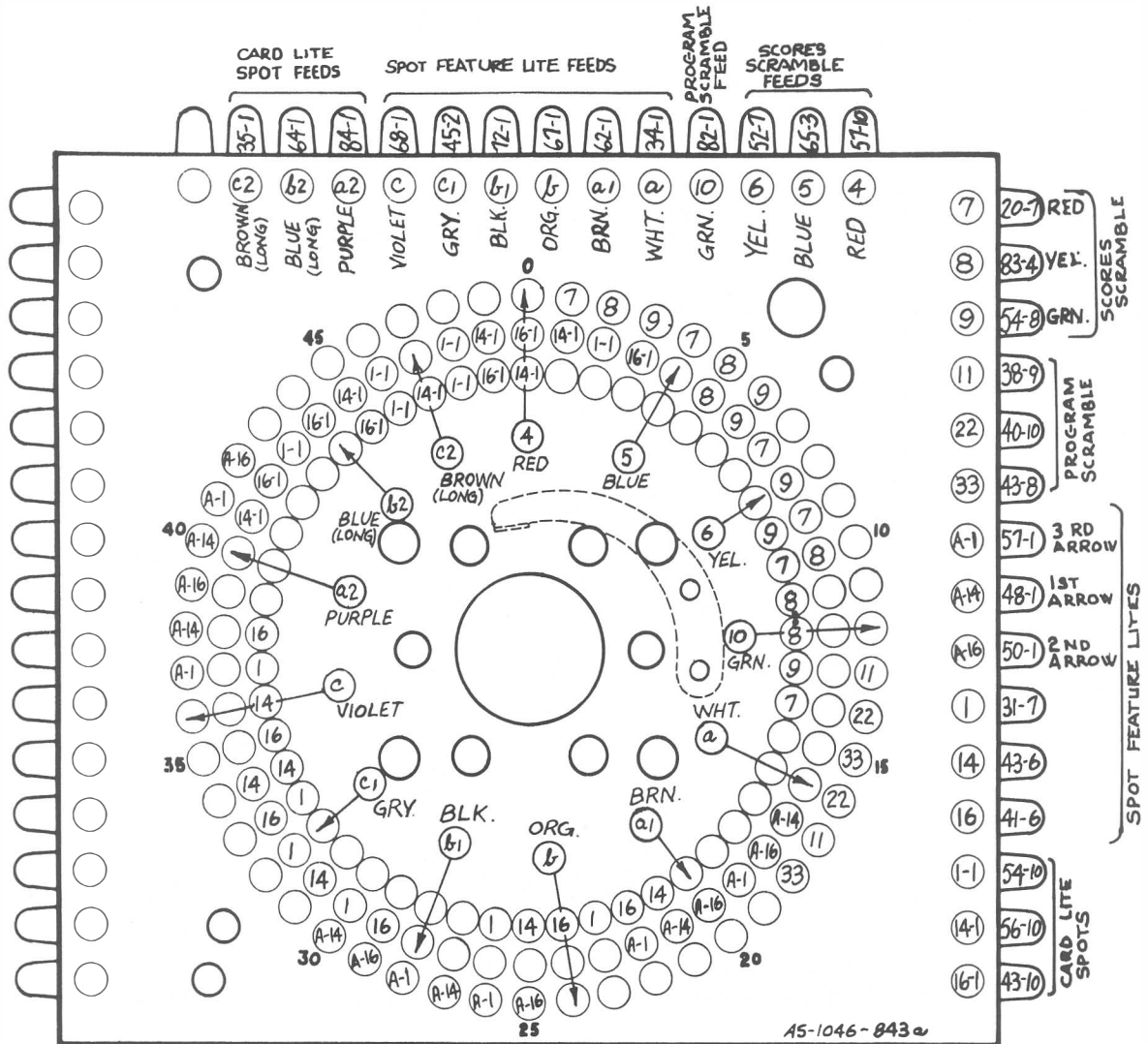
Spot Unit Step-Up	B-25-925	A-40	70 J 47 J	Orange Green-Orange	Energizes spot unit step up coil.
Spot Unit Reset	C-28-1100	C-52	70 J 85-5	Orange Black-White	Energizes spot unit reset coil.
Open At Top Switch N. C.	ASW-U1	B-40	47 54-2	Green-Orange White-Green	Completes circuit to spot unit S. U. coil and to gong.

# TIMER ASSEMBLY



Timer Step-Up	B-25-925	A-14	70 36 J	Orange Yellow-Brown	Energizes timer step up coil.
Timer Reset	C-28-1100	A-15	70 J 71 J	Orange Orange-Red	Energizes timer reset coil.
A. N. C. Open At "O"	ASW-U2	B-16	41-11 38-3	Green-Red Yellow-Black	Completes circuit to ball lift motor.
B. N. C. Open At "O"	ASW-U2-2	G-16	30 83-12	Yellow Black-Yellow	Directs circuit to shutter cam #5 Sw. (CWO).
C. N. C. Open At Top	ASW-U2-6	H-3	94-16 96-16	Grey-Green Grey-Brown	Directs circuit to tilt trip sw.
D. N. C. Open At Top	ASW-U2-5	B-14	36-2 36 J	Yellow-Brown Yellow-Brown	Completes circuit to timer step up coil.
E. N. C. Open At "O"	ASW-U2-13	B-15	71-8 71 J	Orange-Red Orange-Red	Completes circuit to timer reset coil.

# SCRAMBLER ASSEMBLY



Scrambler Step-Up	B-25-925	A-47	70 34-2	Orange Yellow-Green	Energizes scrambler step up coil.
Scrambler Reset	C-28-1100	A-52	70 J 75 J	Orange Orange-White	Energizes scrambler reset coil.
Closed At Top	ASW-U2	B-52	85-5 75-10	Black-White Orange-White	Completes circuit to scrambler reset coil.

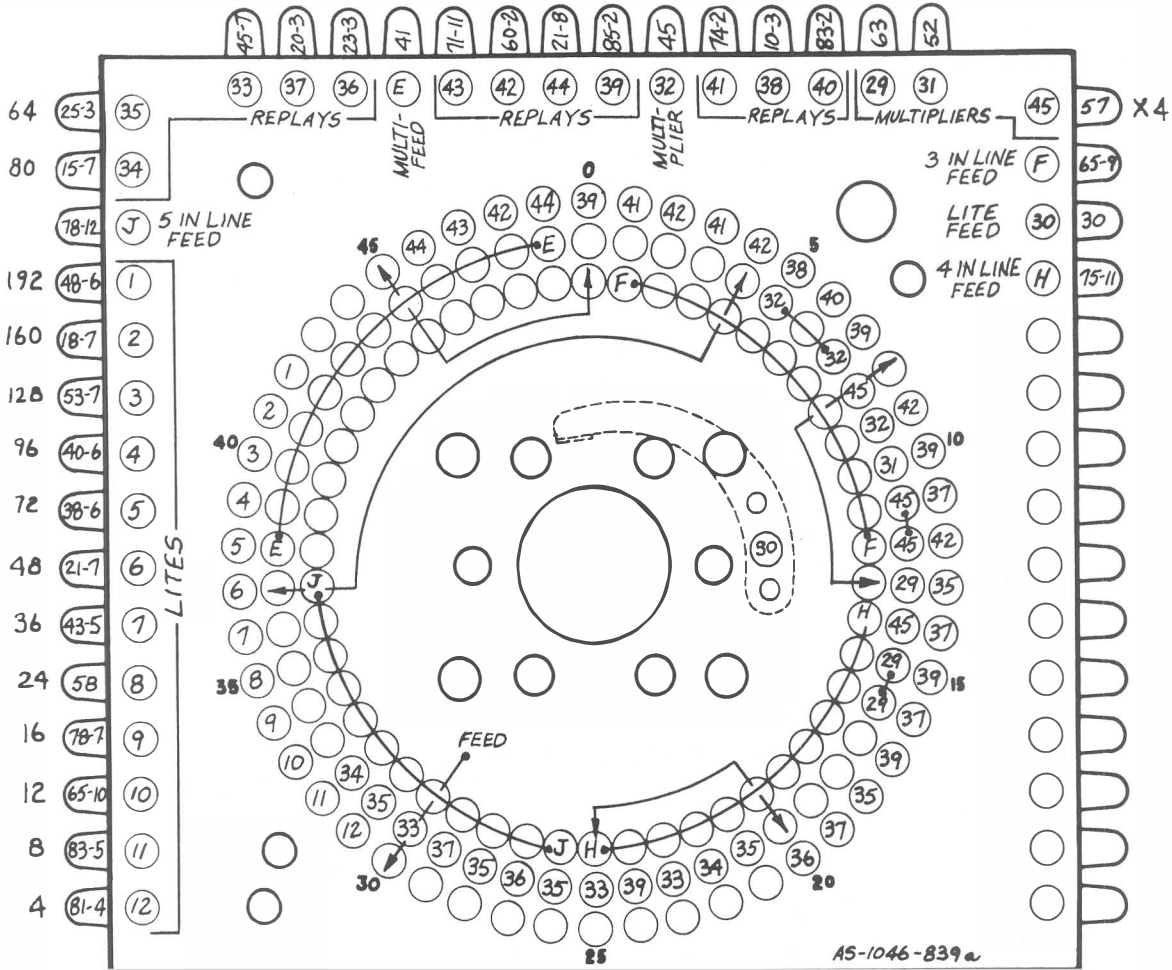




# SCORE UNITS

YEL GRN	35-2	57-9	60-8	75	21-9	41-8	54	13-1	4-5	40-5	20-6	27-6	63	52
YEL GRN	40-11	41-2	51-2	74	83-1	78-1	60-3	23-2	4-5	81-1	12-2	58-10	63	52

GRN	VEL
61-9	52-2
15-2	21-4
18-9	83-8
50-8	80-5
14	12-3
75-9	36-1
30-1	78-5
27-3	74-5
25-2	71-5
61-8	18-12
23-1	65-5
81-3	83-3
21-2	63-5
20-1	61-5
15-1	60-5

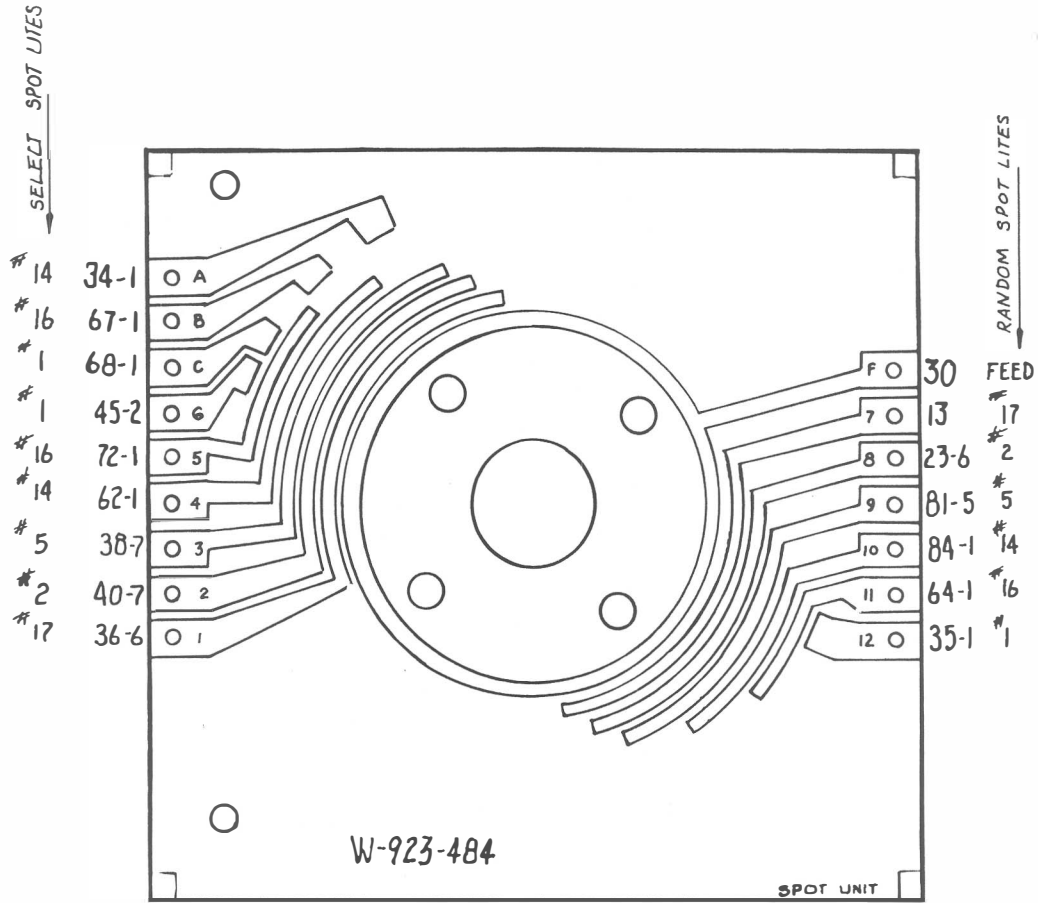


VEL	GR.
57	57
65-9	65-9
30	30
54-3	10-4

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Red Score Step-Up	B-25-925	A-45	70 48 J	Orange Green-Black	Energizes red score step-up coil.
Red Score Reset	C-28-1100	E-52	70 78-3	Orange Orange-Black	Energizes red score reset coil.
Open at "O" N. C.	ASW-U2	G-10	14-7 15	Red-Green Red-White	Directs circuit to shutter cam #4 sw. (CWO).
Open at Top N. C.	ASW-U1	C-45	68-3 48-10	Brown-Black Green-Black	Directs circuit to gong.
Yellow Score Step-Up	B-25-925	A-46	70 58-J	Orange White-Black	Energizes Yellow score step up coil.
Yellow Score Reset	C-28-1100	E-52	70 78-3	Orange Orange-Black	Energizes yellow score reset coil.
Open at Top N. C.	ASW-U1	C-46	72-3 58-2	Orange-Black White-Black	Directs circuit to gong.
Green Score Step-Up	B-25-925	A-46	70 61 J	Orange Brown-Red	Energizes green score step up coil.
Green Score Reset	C-28-1100	F-52	70 J 78-3	Orange Orange-Black	Energizes green score reset coil.
Open at Top N. C.	ASW-U1	C-46	80-3 61-3	Black Brown-Red	Directs circuit to Gong.

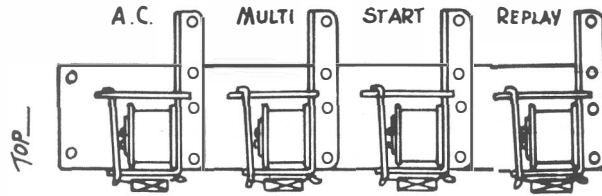
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# SPOT SELECTOR



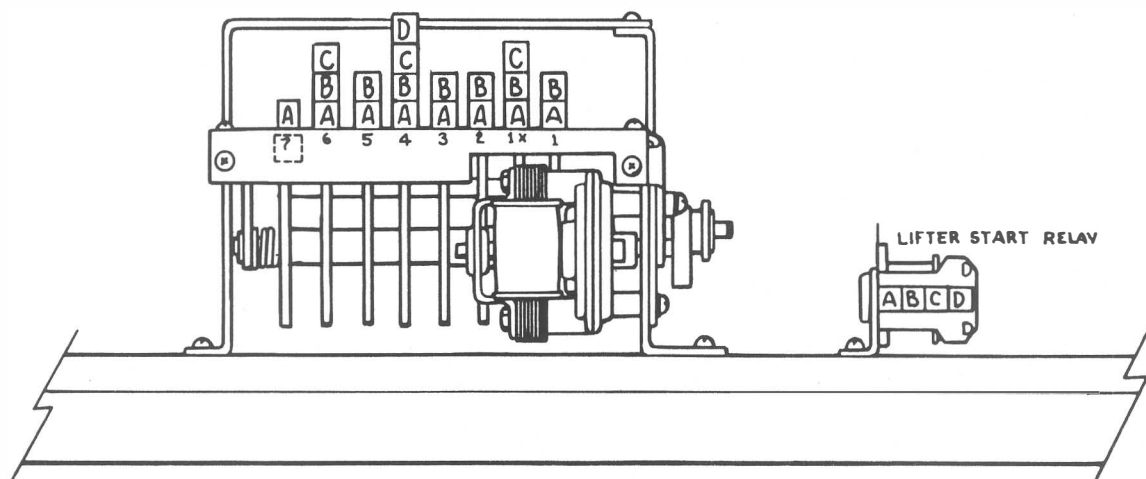
Switch/Coil	Part No.	Location Diagram	Wire No.	Wire Color	Function
Spot Selector Step-Up	CT-30-1800	A-31	70 85-9	Orange Black-White	Energizes spot select step-up coil.

# 4 RELAY BANK



Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Replay Reset Re.	G-31-2000	A-5	70 J 75 J	Orange Orange-White	Energizes replay reset relay coil.
A. N. O.	ASW-R1-8	F-5	56-2 75 J	White-Brown Orange-White	Completes circuit to replay reset relay coil, and directs circuit to 16 pulse cam switch.
B. N. O.	ASW-R1-3	H-2	94-16 92-16	Grey-Green Grey-Blue	Completes circuit to control unit motor.
C. N. C.	ASW-R2-5	D-21	30 50-5	Yellow White	Directs circuit to key switch eos.
D. N. C.	ASW-R2-5	D-6	10-5 85-8	Red Black-White	Directs circuit to search wiper relay switch and tilt trip switch.
E. T.	ASW-R3-6	D-5	83-9 81-10 51-9	Black-Yellow Black-Red White-Red	Directs circuit to multi-play relay switch.
Start Re.	G-32-2500	A-6	70 J 83-11	Orange Black-Yellow	Energizes start relay coil.
A. N. O.	ASW-R1X-1	F-9	48-2 13-5	Green-Black Red-Yellow	Directs circuit to start relay switch and key switch.
B. N. O.	ASW-R1X-1	C-9	25-8 13 J	Blue-White Red-Yellow	Directs circuit to shutter cam #4 switch.
Multi Play Re.	G-32-2500	A-7	70 J 31 J	Orange Yellow-Red	Energizes multi-play relay coil.
A. N. O.	ASW-R1-8	E-7	25-6 31-10	Blue-White Yellow-Red	Completes circuit to multi-play coil.
B. N. O.	ASW-R1-3	E-6	85-10 10-5	Black-White Red	Directs circuit to replay reset relay switch.
C. N. C.	ASW-R2-5	C-5	81-10 74-4	Black-Red Orange-Green	Completes circuit to replay reg. reset coil.
D. T.	ASW-R3-6	C-20	61-6 15-8 41-7	Brown-Red Red-White Green-Red	Completes 61-6 circuit to reflex replay mag. coil, and directs circuit to key switch eos.
A. C. Relay	G-32-2500	A-13	70 J 31 J	Orange Yellow-Red	Energizes A-C relay coil.
A. N. O.	ASW-R1-8	F-13	30 31-2	Yellow Yellow-Red	Completes circuit to A-C relay coil.
B. N. O.	ASW-R1-3	J-27	51-7 80-1	White-Red Black	Directs circuit to tilt relay trip switch.
C. N. C.	ASW-R2-5	H-10	30 J 14-7	Yellow Red-Green	Directs circuit to red score switch (open at 'O').
D. T.	ASW-R3-6	J-25	45-10 36-5 40	Green-White Yellow-Brown Green	Completes 40 circuit to odds lights or completes 45-10 circuit to tilt light.
E. T.	ASW-R3-6	F-6	75-2 56-2 50-2	Orange-White White-Brown White	Completes 75-2 circuit to replay reset relay coil, or directs 50-2 circuit to play button switch.

# PANEL SHUTTER MOTOR ASSEMBLY



SHUTTER CAMS

Switch/Coil	Part No.	Location on Diagram	Wire NO.	Wire Color	Function
Motor	E-119-379	A-9	70 53-5	Orange White-Yellow	Energizes shutter motor.
Cam #1 A. N. O.	ASW-C1-27	G-9	30 53-5	Yellow White-Yellow	Completes circuit to shutter motor and to shutter cam #4 switch.
Cam #1 B. N. C.	ASW-C2-15	B-9	45-6 54-7	Green-White White-Green	Completes circuit to C. U. timing cams index coil.
Cam #1X A. N. O.	ASW-C2-6	I-14	65-2 30	Brown-White Yellow	Directs circuit to spin stop trip sw. & random spot index switch.
Cam #1X B. N. O.	ASW-C2-2	H-25	21 J 75-8	Blue-Red Orange-White	Directs circuit to replay cam index sw. (M.W.E) and replay #15 safety cam Switch)
Cam 1X C. N. O.	ASW-C2-2	G-15	21-3 78-6	Blue-Red Orange-Black	Directs circuit to before 3rd trip sw.
Cam #2 A. N. C.	ASW-C1-27	E-16	31-3 52-9	Yellow-Red White-Black	Directs circuit to manual button sw. and ball lifter sw.
Cam #2 B. N. O.	ASW-C2-15	F-48	21-3 25-4	Blue-Red Blue-White	Directs circuit to C. U. alt. Cam 9Y Back Sw.
Cam #3 A. N. O.	ASW-C10-5	D-11	30 J 51-10	Yellow White-Red	Completes circuit to trip bank reset motor.
Cam #3 B.	ASW-C10-1	D-52	30 J 85-5	Yellow Black-White	Completes circuit to spot unit coil & red, yellow and green replay coils & scrambler sw. when closed at top.
Cam #4 A. N. O.	ASW-C1-27	H-18	21-3 10-1	Blue-Red Red	Directs circuit to lifter start re. switch.
Cam #4 B. N. C.	ASW-C2-15	F-10	53 J 18 J	White-Yellow Red-Black	Completes circuit to shutter motor & shutter cam 34 switch.
Cam #4 C. N. C.	ASW-C2-2	G-10	15 18-3	Red-White Red-Black	Directs circuit to shutter cam #4 switch (C. W. O.)
Cam #4 D. T.	ASW-C3-2	C-9	53-5 25-8 45-6	White-Yellow Blue-White Green-White	Directs 45-6 circuit to shutter cam #1 switch or completes 53-5 circuit to shutter motor.
Cam #5 A. N. O.	ASW-C2-6	F-16	83-12 31-4	Black-Yellow	Directs circuit to ball gate switch.
Cam #5 B. N. O.	ASW-C2-2	E-31	38-2 80-2	Yellow-Black Black	Directs circuit to corners cntr. homing switch.

# PANEL SHUTTER MOTOR ASSEMBLY

Switch/Cams	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Cam #6 A. N. O.	ASW-C10-5	D-10	30 J 51-10	Yellow White-Red	Completes circuit to trip bank reset motor.
Cam #6 B.	ASW-C10-1	G-52	30 J 78-3	Yellow Orange-Black	Completes circuit to line selector & coin cntr. coils, and to red, yellow and green score coils.
Cam #6 C.	ASW-C10-1	E-15	30 J 71-8	Yellow Orange-Red	Completes circuit to timer reset coil.
Cam #7 A. N. O.	ASW-C1-27	F-47	30 34-2	Yellow Yellow-Green	Completes circuit to scrambler step up coil.
Shutter Switch A. N. O.	ASW-C111-4	F-50	21-3 38-4 41-4	Blue-Red Yellow-Black Green-Red	Completes 41-4 circuit to fd. wiper on card unit, or directs 38-4 circuit to up or down trip switch.
Shutter Switch B. N. O.	ASW-C2-36	L-36	21 J 78-2	Blue-Red Orange-Black	Completes circuit to timer disc pad.
Lifter Start Relay	G-32-2500	A-16	70 38 J	Orange Yellow-Black	Energizes lifter start relay coil.
A. N. O.	ASW-R1-8	D-16	36 38-8	Yellow-Brown Yellow-Black	Completes circuit to lifter start re. coil.
B. N. C.	ASW-R2-5	H-16	21-3 50	Blue-Red White	Directs circuit to ball lift delay re. switch.
C. N. C.	ASW-R2-5	G-18	10-1 63-6	Red Brown-Yellow	Directs circuit to ball lifter cam #1 sw. , & before 3rd trip switch.
D. T.	ASW-R3-6	G-11	71-3 82-3 61	Orange-Red Black-Blue Brown-Red	Completes 61 circuit to ball lift delay coil, or directs 71-3 circuit to ball lifter cam #1 switch.
Ball Lifter Motor	E-119-339	A-16	70 38-3	Orange Yellow-Black	Energizes ball lifter motor.
Cam #1 A. N. O.	ASW-C2-2	F-17	30 41-11	Yellow Green-Red	Directs circuit to timer "Open at O" sw. , and 3rd ball trough switch.
Cam #1 B. N. C.	ASW-C2-2	D-15	36-9 25-7	Yellow-Brown Blue-White	Directs circuit to "R" button sw. (top).
Cam #1 C. N. C.	ASW-C2-15	F-11	18-3 71-3	Red-Black Orange-Red	Directs circuit to shutter cam #4 sw. (C. W. O.).
Cam #1 C. N. C.	ASW-C1-54	F-18	63-6 75-3	Brown-Yellow Orange-White	Directs circuit to trough sw. (2nd ball up), and to ball lifter sw.
Cam #2 A. N. O.	ASW-C1-54	E-14	14-8 27-2	Red-Green Blue-Orange	Directs circuit to replay cam index switch.

## FRONT CABINET SWITCH ASSEMBLIES&COIL CHART

Ball Runway A. N. O.	ASW-A1-30	F-16	30 38-3	Yellow Yellow-Black	Completes circuit to lifter start re. coil.
Ball Gate A. N. C.	ASW-A2-71	E-16	31-4 36	Yellow-Red Yellow-Brown	Directs circuit to lifter start re. sw.
Ball Lifter A. N. O.	ASW-A2-7	C-17	52-9 41-11	White-Blue Green-Red	Directs circuit to timer "Open at O" Sw. , & 3rd ball trough switch.
Ball Lifter B. N. C.	ASW-A1-26	F-18	75-3 75-12	Orange-White Orange-White	Completes circuit to timer disc pad.
Manual Lift A. N. O.	ASW-A2-9	C-16	52-9 41-11	White-Blue Green-Red	Directs circuit to timer "Open at O" sw. , & 3rd ball trough switch.
Manual Lift B. N. C.	ASW-A1-26	G-15	30 31-4	Yellow Yellow-Red	(Manual Button) Directs circuit to ball gate switch.

# FRONT CABINET SWITCH ASSEMBLIES

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Play Button A. N.O.	ASW-A1-37	E-6	50-2 63-2	White Brown-Yellow	(Manual Button) Directs circuit to replay reg. "O" switch.
Spot Select A. N.O.		C-31	21-3 18	Blue-Red Red-Black	(Manual Button) Directs circuit to before 2nd trip switch.
"R" Button A. N.O.	ASW-A11-4	C-15	25-7 71-8	Blue-White Orange-Red	(Manual Button) Completes circuit to timer reset coil.
"R" Button B. N.O.	ASW-A11-4	D-17	53-3 60-6	White-Yellow Brown	(Manual Button) Directs circuit to search wiper re. switch.
Lines Button A. N.O.		D-50	81-9 41-9	Black-Red Green-Red	Completes circuit to fd. wiper on line selector disc.
Coin Switch T.	AS-277-105	F-7	85-10 27-7 31-10	Black-White Black-Orange Yellow-Red	Completes 31-10 circuit to multi-play re. coil, or directs 85-10 circuit to multi-play re. switch.
Back Door Sws. A. N.O.	ASW-A1-16	B-22	38-10 48-11	Yellow-Black Green-Black	Directs circuit to C. U. Cam #2 Sw.
Front Door Sws. B. N.O.	ASW-M2-6	A-22	48-11 70	Green-Black Orange	Directs circuit to door switch.
Front Door A. N.O.	ASW-M2-6	I-26	50-7 30	White Yellow	Completes circuit to meter ill. light.
Down Mag. Release	FC-32-2600	A-51	70 15-4	Orange Red-Black	Energizes down release magnet coil.
Up Mag Release	FC-32-2600	A-51	70 18-4	Orange Red-Black	Energizes up release magnet coil.
Card Unit Motor	E-119-467	A-50	70 58-4	Orange White-Black	Energizes card unit motor.
Card Unit C.O. Sw. A.	ASW-C7-6	D-48	20-2 58-4	Blue White-Black	(Carryover Sw.) N.O. Down Sw. Directs circuit to card re. coil & card unit motor.
Card Unit C.O. Sw. B.	ASW-C7-6	D-49	50-4 75-7	White Orange-White	(Carryover Sw.) N.O. Up Sw. Directs circuit to both ways trip sw.
Card Relay Coil	G-32-2500	A-48	70 58-4	Orange White-Black	Energizes card relay coil.
A. N.C.	ASW-R2-5	L-27	74-8 10	Orange-Green Red	Completes circuit to card lights.
Reflex Play Magnet	EA-32-1550	A-4	70 83-9	Orange Black-Yellow	Energizes reflex play magnet coil.
Reflex Replay Magnet	EA-30-1150	A-21	70 61-6	Orange Brown-Red	Energizes reflex replay magnet coil.
Key Meter	E-130-10	A-21	70 63-8	Orange Brown-Yellow	Energizes key meter coil.
Key Switch A. N.O.	ASW-B1	B-21	80-4 63-8	Black Brown-Yellow	Completes circuit to key meter coil.
Key Switch B. N.O.	ASW-B1	G-13	30 31-2	Yellow Yellow-Red	Completes circuit to A-C re. coil.
Key Sw. C. N.O.	ASW-B1	D-12	21-3 14-5	Blue-Red Red-Green	Completes circuit to tilt trip coil.
Key Sw. D. N.C.	ASW-B2	B-6	13-5 83-11	Red-Yellow Black-Yellow	Completes circuit to start re. coil.
Key Switch E. T.	ASW-C3-6	C-20	15-8 80-4 50-5	Red-White Black White	Completes 80-4 circuit to replay reg. step-up coil and key switch.
Total Play Meter	E-130-10	C-22	83-9 65-11	Black-Yellow Brown-White	Energizes total play meter coil.
Total Play Meter	E-130-10	C-22	61-6 78-11	Brown-Red Orange-Black	Energizes total replay meter coil.
On-Off Sw.	E-108-57	G-1	93-16 90-16	Grey-Yellow Grey	Directs circuit to fuse.

# FRONT CABINET SWITCH ASSEMBLIES

Switch/Coil	Part No.	Location on Diagram	Wire No.	Wire Color	Function
Arch. Sw. Panel N. O.		J-37	43-4 52-10	Green-Yellow White-Blue	Directs circuit to spin start trip sw.
Tilt Sw. N. O.		D-12 14-5	21-3 14-5	Blue-Red Red-Green	Completes circuit to tilt trip coil.
3rd Ball Trough Sws.	ASW-A1-20	B-17	41-11 38-3	Green-Red Yellow-Black	(N. O.) Sw. Completes circuit to ball lift motor.
2nd Ball Up Trough Sw.	ASW-A2-62	E-18	75-3 58-1	Orange-White White-Black	(N. C.) Sw. Completes circuit to timer disc pad.
Coin Lockout Coil	M-37-2700	A-8	70 61-10	Orange Brown-Red	Energizes coin lockout coil.
Gong	CB-30-2000	A-45	70 23-11	Orange Blue-Yellow	Energizes gong coil.
Coin Meter	E-130-10	A-7	70 84-2	Orange Black-Green	Energizes coin meter coil.
Motor Interrupt Delay		I-35	30 53-9	Orange White-Yellow	Energizes motor interrupt re-coil.
A. N. C.		F-2	92-16 98-16	Grey-Blue Grey-Black	Completes circuit to mixer motor.
B. N. C.		F-3	92 J 98 J	Grey-Blue Grey Black	Completes circuit to mixer motor.
2nd Ball Lift Delay Relay		A-13	70 61	Orange Brown-Red	Energizes ball lift delay re. coil.
A. N. C.		G-17	50 31-3	White Yellow-Red	Directs circuit to shutter cam #2 Sw.

2 Step Re.	G-32-2500	A-39	70 10-9	Orange Red	Energizes 2 step re. coil.
A. N. O.	ASW-R1-7	F-45	74-3 74-3	Blue-Red Orange-Green	Directs circuit to C. U. Cam #8 sw.
6 In Line Re.	G-32-2500	A-28	70 34 J	Orange Yellow-Green	Energizes 6 in line re. coil.
A. N. O.	ASW-R1-8	B-29	85-4 34-4	Black-White Yellow-Green	Directs circuit to replay cam #11 switch (X16).
B. N. C.	ASW-R2-5	F-30	64-3 82	Brown-Green Black-Blue	Directs circuit to corn. 640 trip switch.

**3-BALLS**  
*Per Game*

**DEPOSIT COIN  
TO START NEW GAME**

TO LIGHT ADDED FEATURES  
AND ADVANCE SCORES  
DEPOSIT ADDITIONAL COINS

TO PLAY REPLAYS  
SIMPLY PRESS RED BUTTON  
WITHOUT DEPOSITING COINS

WHEN GAME IS COMPLETED  
**PRESS (R) BUTTON**

FOR AMUSEMENT ONLY  
No Prizes or Gambling Permitted

SHOOT TO LIGHT ADJOINING NUMBERS  
CONNECTED BY  
RED, YELLOW OR GREEN LINES

**RED LINE SCORES**

5-IN-LINE 61 80 86 96 96 128 192 256 288 384 512 640  
4-IN-LINE 12 24 36 48 64 72 96 144 192 256 288 384  
3-IN-LINE 4 8 12 16 24 36 48 72 96 128 160 192

**YELLOW LINE SCORES**

5-IN-LINE 64 80 86 96 96 128 192 256 288 384 512 640  
4-IN-LINE 12 24 36 48 64 72 96 144 192 256 288 384  
3-IN-LINE 4 8 12 16 24 36 48 72 96 128 160 192

**GREEN LINE SCORES**

5-IN-LINE 64 80 86 96 96 128 192 256 288 384 512 640  
4-IN-LINE 12 24 36 48 64 72 96 144 192 256 288 384  
3-IN-LINE 4 8 12 16 24 36 48 72 96 128 160 192

**6-IN-LINE  
SCORES 5-IN-LINE  
PLUS 192 BONUS SCORE**

**ONLY HIGHEST SCORE PER COLOR SCORES**

# MISS UNIVERSE PARTS GUIDE

## FRONT CABINET ASSY.

PART NO.	DESCRIPTION
CA-1119-54	FRONT CABINET
M-281-58	LOCK (REPLAY SWITCH)
AS-982-673	TOP REPLAY SWITCH
AS-982-671	BOTTOM REPLAY SW.
A-1533	COIN SLIDE ASSY.
AS-186-11	BALL LIFTER ASSY.
AS-187-17	BALL SHOOTER ASSY.
A-100-7	KNOB & SHOOTER ROD
SP-243	COMPRESSION SPRING 1"
SP-200-24	CO,PRESSION SPRING 6"
R-108-3	SHOOTER TIP
P-2891-8	RETAINING RING
E-108-57	GAME ON-OFF SW.
A-2618	LEGS
M-106-1	LEG BOLT (8)
M-163-4	LEG ADJUSTER
N3-816-1110	LEG ADJ. NUT
A-2790-59	CASH BOX
P-3089-55	CASH BOX COVER
P-921-39	CHROME GLASS MOLDING- LF.
P-921-40	CHROME GLASS MOLDING- RT.
G-213	TOP GLASS
CA-439-28	BALL RETURN PANEL

## FRONT DOOR ASSEMBLY

PART NO.	DESCRIPTION
AS-2041-82	FRONT DOOR ASSY. (COMPLETE)
M-281-54	LOCK
A-254-117	HINGE ASSY.
M-1400-SERIES	SLUG REJECTOR (SPECIFY COIN DENOMINATION)
AS-2517-14	COIN LOCKOUT ASSY.
P-6431-SERIES	COIN SW. & WIRE ASSY.
P-6694-SERIES	COIN GUIDE SPACER (SPECIFY COIN DENOMINATION)
A-1729-16	COIN GUIDE (SPECIFY COIN DENOMINATION)
P-800-2	PUSH BUTTON ASSY. (REPLAY)
P-2891-7	WASHER
ASW-A1-15	RETAINING RING
ASW-A1-27	REPLAY SWITCH
	TILT SWITCH

## BACK DOOR ASSEMBLY

PART NO.	DESCRIPTION
CA-1120-58	BACK DOOR (PAINTED)
P-2335-48	HINGE (2)
M-281-24	2 LOCK SET
P-758-31	LOCK CAM (2)

## FRONT MOLDING ASSY.

PART NO.	DESCRIPTION
AS-1305-64	FRONT MOLDING ASSY. (COMPLETE)
P-2210-COIN	COIN DROP PLATE
A-1272-69	"LINES" BUTTON & PIN ASSY.
A-1272-68	"SPOTS" BUTTON & PIN ASSY.
A-1272-29	"R" BUTTON & PIN ASSY.
A-2719-4	COIN SLIDE ASSY.
SP-200-111	BUTTON COMPRESSION SPRING
P-801-214	WASHER (BUTTONS)
P-448-6	SNAP WASHERS (BUTTONS)

## PLAYFIELD PANEL

PART NO.	DESCRIPTION
CA-2042-187	PANEL ASSEMBLY (COMPLETE w/ALL UNITS INSTALLED)
CA-638-100	PANEL
CA-1100-9	ARCH BOTTOM
CA-1103	ARCH GUIDE STRIP
CA-1104	ARCH TOP
CA-529-15	SHUTTER (20 HOLE)
C-326-9	LIGHT SHIELD POST (8) (WHITE)
E-125-2	LIGHT BULB #47 (9)
M-170	REBOUND COIL SPRING (8)
SP-112-1	SHORT PANEL SPRING (3)
SP-112	LONG PANEL SPRING (9)
S-1071-84	PANEL PINS (50)
C-119-21	RED BUMPER POST (2)
R-243-2	RED BUMPER RUBBER (2)
C-119-27	YELLOW BUMPER POST (27)
R-243	YELLOW BUMPER RUBBER (23)
R-115-30	REBOUND RUBBER - TOP
C-153	RED PLASTIC BALL LIFT COVER

## BACK CABINET

PART NO.	DESCRIPTION
G-292-41	BACK GLASS
CA-1120-57	BACK CABINET (PAINTED)
M-281-74	LOCK (BACK GLASS)
E-126-63	CORD SET
A-3400-243	WOOD INSERT & LIGHT SOCKET ASSY.
E-125-5	LIGHT BULB NO.55 (95)