

Instruction Manual FOR HONEY



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"HONEY"

4 PLAYER

GAME OPERATES AS FOLLOWS:

CENTER EJECT HOLE SCORES LIT VALUE; EITHER 1,000 POINTS, 3,000 POINTS, 5,000 POINTS OR 10,000 POINTS. VALUE OF CENTER EJECT INCREASES BY GOING OVER TOP CENTER ROLLOVER LANE OR BY GOING INTO CENTER EJECT HOLE. MAKING 10,000 POINTS IN CENTER EJECT HOLE RESETS VALUE BACK TO 1,000 POINTS.

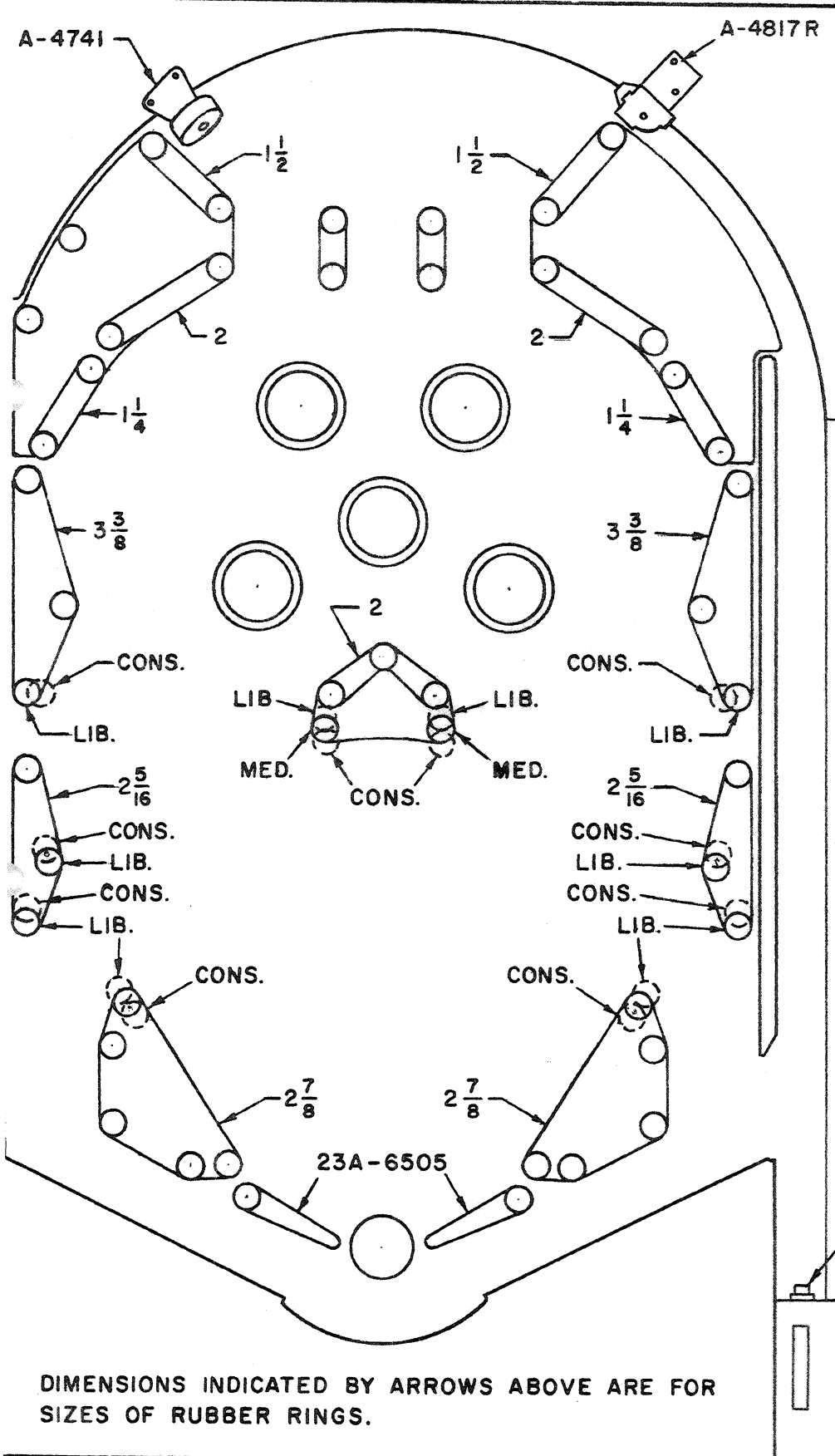
CENTER EJECT HOLE RAISES CENTER TARGET, EXCEPT WHEN 1,000 POINTS IS LIT.

SIDE EJECT HOLE VALUES INCREASE EVERY TIME 1 TO 5 ROLLOVER BUTTONS ARE MADE. 1 TO 5 CAN BE MADE BY GOING OVER LIT ROLLOVER BUTTONS, TOP ROLLOVER BUTTON OR MAKING "A" & "B" TARGETS. MAKING "A" & "B" TARGETS ADVANCE 1 TO 5 THREE TIMES AND OPENS GATE.

MAKING "A" & "B" TARGETS WILL NOT OPEN GATE IF EXTRA BALL LITE IS LIT. IF GATE WAS OPEN BEFORE EXTRA BALL LITE WAS MADE THEN GATE REMAINS OPEN UNTIL IT IS MADE OR BALL IS LOST.

"HONEY" — POST ADJUSTMENT SHEET

TO MAKE GAME MORE "CONSERVATIVE" OR "LIBERAL" — MOVE POSTS $\frac{3}{16}$ " AS SHOWN IN SKETCH BELOW. SPOTTING HOLES ARE PROVIDED AND CAN BE SEEN ON REMOVAL OF POSTS.



ABBREVIATIONS :

CONS.—CONSERVATIVE
LIB.—LIBERAL
MED.—MEDIUM

RUBBER RING NUMBERS :

23A-6300	5/16" I. D.
23A-6303	1 1/4" I. D.
23A-6304	1 1/2" I. D.
23A-6305	2" I. D.
23A-6306	2 5/16" I. D.
23A-6307	2 7/8" I. D.
23A-6308	3 3/8" I. D.
23A-6505	1 1/2" I. D.

A-4741 REBOUND ASS'Y.
A-4817R BALL GATE ASS'Y.

23A-6327 BALL SHOOTER
RUBBER TIP

DIMENSIONS INDICATED BY ARROWS ABOVE ARE FOR SIZES OF RUBBER RINGS.

I. GENERAL

NEVER EXPERIMENT with any of the mechanism. Locate any trouble with the aid of Wiring Diagrams or Operating & Servicing Information supplied with the machine, then check for proper adjustment of the units involved before making any changes. Improper adjustment or make-shift repair will only cause serious damage to other parts of the machine or repeated failure of the part.

NOTE: Always look for a possible loose wire, bad connection at a plug and socket, broken or unhooked springs on step-up units, relays, etc., before adjustments are made or wires reconnected.

2. FUSES

IMPORTANT: Never replace fuses with any rating other than specified on the fuse block; this block is located adjacent to the transformer.

3. LUBRICATION

Over-lubrication causes far more trouble in coin operated equipment than under-lubrication. Practically all cases of poor contact on switches and wiper discs are due to oil or grease, or oil vapor, which forms a film or residue on the contacts and will not allow current to pass through. Excess lubricant may also seep into clutches causing them to slip.

IMPORTANT: NEVER USE VASELINE FOR LUBRICATION OF ANY PART OF THE MACHINE. Vaseline is not a true lubricant. It leaves a dirty and gummy residue and it becomes very thick when cold. A special Coin Machine Lubricant is supplied with each machine.

STEP-UP Levers, Ratchets, Cams, Shafts and other sliding or oscillating parts should be very lightly greased with special Coin Machine Lubricant (supplied with machine) not oftener than every six months. The bakelite discs (biscuits) on the Motor Units and Step-up Units will require lubrication with the special Coin Machine Lubricant only after the grease is completely evaporated (3 to 12 months, depending on climate) or when the film of grease becomes dirty. In either event, clean the parts thoroughly with a solvent, then apply an extremely thin coat of the special grease.

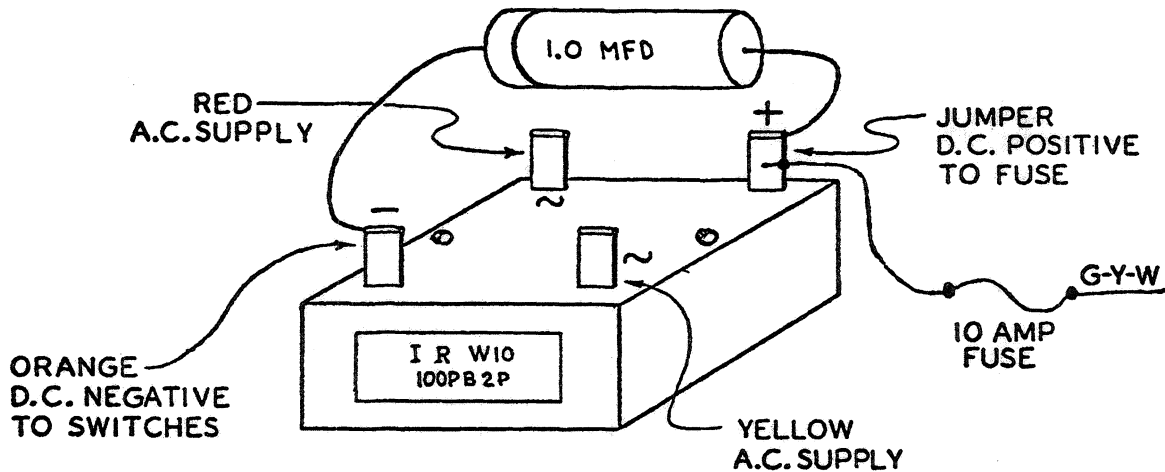
Solenoid Plungers should not have a lubricant of any kind. Should there be a sluggish tendency or if plungers are sticking, the parts should be cleaned with a solvent and flaked graphite applied on reassembly.

SWITCH ADJUSTMENT

BEFORE ADJUSTING SWITCHES, MAKE CERTAIN THE SCREWS HOLDING THE SWITCH STACKS ARE DOWN TIGHTLY. BAKELITE SPACERS IN THE SWITCH STACKS, DUE TO EXCESSIVE MOISTURE, HAVE OCCASIONALLY SHRUNK BY DRYING OUT, CAUSING POOR ADJUSTMENT.

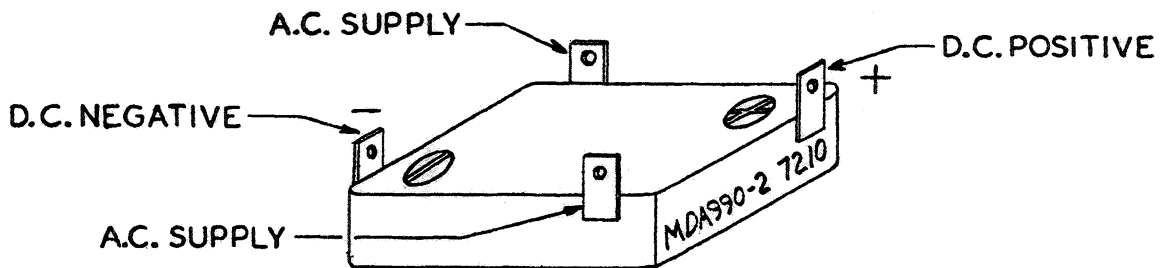
SILICON BRIDGE RECTIFIER

PART NO. 5A-8741



SILICON BRIDGE RECTIFIER

5A-8749



THE FUNCTION OF THE RECTIFIER AND CAPACITOR IS TO CONVERT THE ALTERNATING CURRENT (A.C.) TO DIRECT CURRENT (D.C.), SUPPLYING D.C. TO THE BUMPERS, KICKERS ETC.

THE BRIDGE RECTIFIER SHOULD PRACTICALLY NEVER NEED REPLACING, AS IT IS RATED WELL OVER THE VOLTAGE AND CURRENT REQUIREMENTS OF THE COMPONENTS IT SUPPLIES.

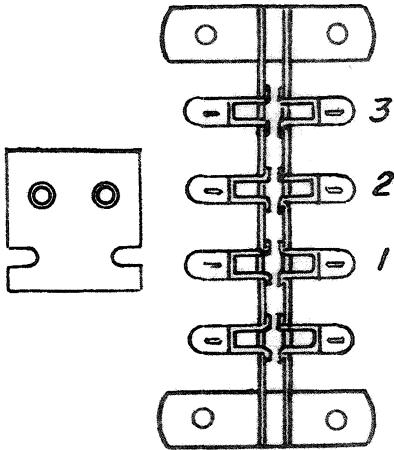
IF, HOWEVER, THE 15 AMP 24 VOLT FUSE ON THE MECHANISM PANEL OPENS, IT COULD BE DUE TO A FAULTY RECTIFIER. DISCONNECT THE A.C. INPUT TO RECTIFIER, REPLACE FUSE, AND RECHECK.

IF THE 10 AMP FUSE LOCATED NEXT TO THE RECTIFIER OPENS, CHECK ALL D.C. COMPONENTS I.E. BUMPERS, KICKERS ETC. FOR SHORTS.

EITHER ONE OF THE ABOVE RECTIFIERS MAY BE USED.

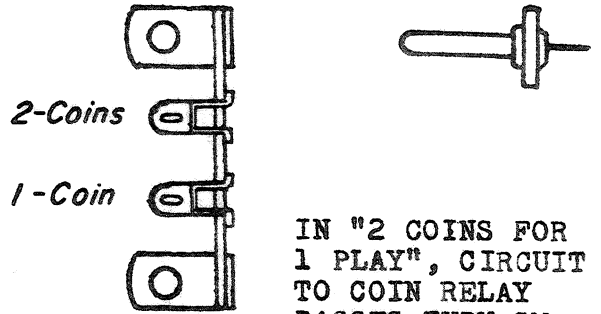
ADJUSTMENTS ON MECHANISM PANEL

10¢ Adjustment



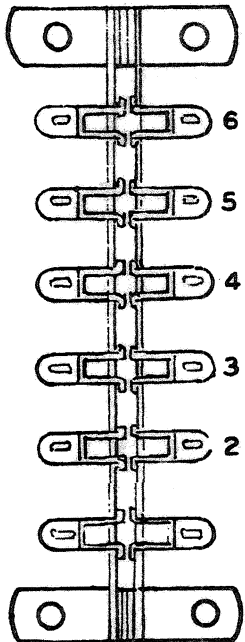
PROVIDES
1, 2 OR
3 PLAYS
FOR ONE
COIN.

5¢ Adjustment



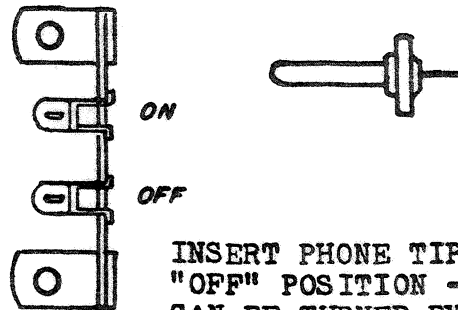
IN "2 COINS FOR
1 PLAY", CIRCUIT
TO COIN RELAY
PASSES THRU SW.
ON ALTERNATOR
UNIT.

25¢ Adjustment



PROVIDES 2, 3, 4, 5
OR 6 PLAYS FOR 25¢.

Motor Service Jack



INSERT PHONE TIP IN
"OFF" POSITION - CAMS
CAN BE TURNED BY HAND
TO CHECK ADJUSTMENT OF
SWITCHES.

SUGGESTED SCORE CARDS

REPLAY

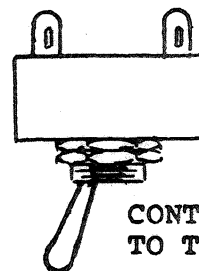
5 BALL-----404-15
3 BALL-----404-6

EXTRA BALL

5 BALL-----404-29
4 3 BALL-----404-23

MASTER ON-OFF SW.

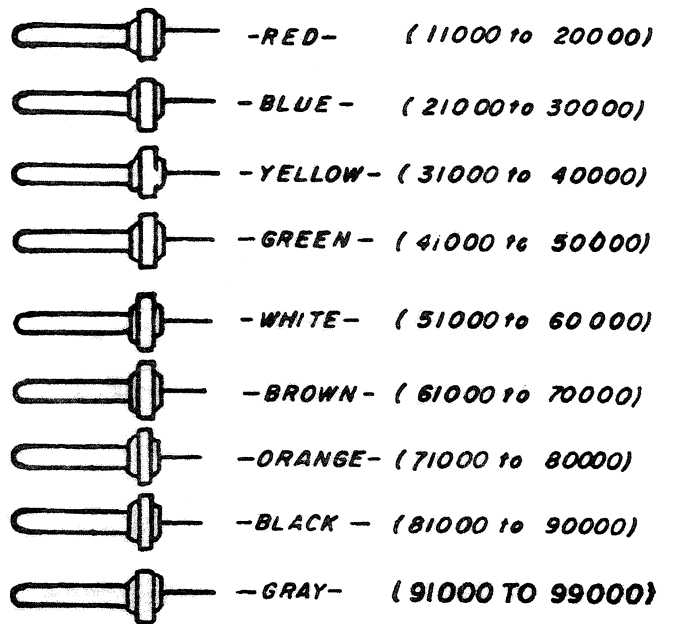
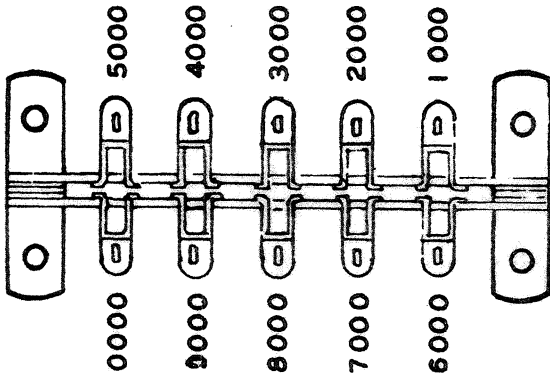
*(Located under front of
Cabinet)*



CONTROLS POWER
TO TRANSFORMER

ADJUSTMENTS IN BACKBOX

Hi-Score Adjustment



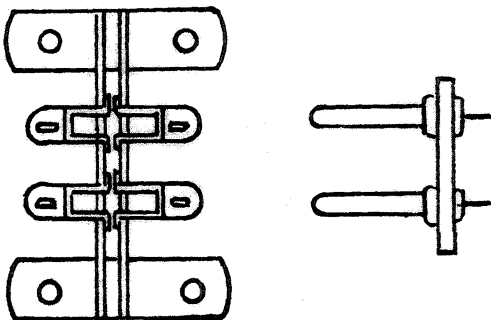
Insert plugs into 10 Point Female at desired positions.

Examples:

Yellow wire into 3000 position scores at 33000.
 Yellow wire into 0000 position scores at 40000.

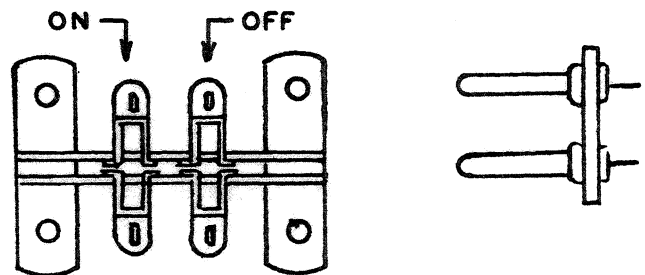
No. of Balls Adjustment

3 BALL — 5 BALL



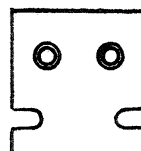
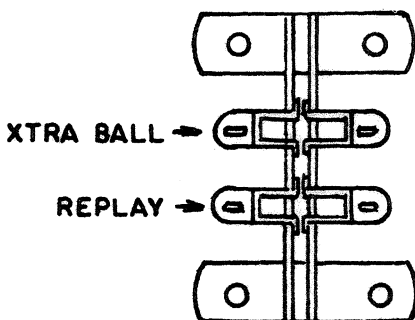
THIS JACK CHANGES 3 BALL TO 5 BALL PLAY OR VICE VERSA.

NUMBER MATCH ADJUSTMENT



In 'ON' position, a number match lite will appear when game is over. To award replays, when number is matched, Extra Ball Adjustment Jack must be in 'Replay' position. In 'Off' position, Number Match is inoperative.

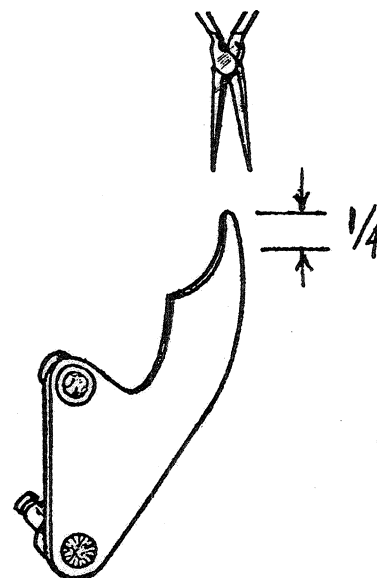
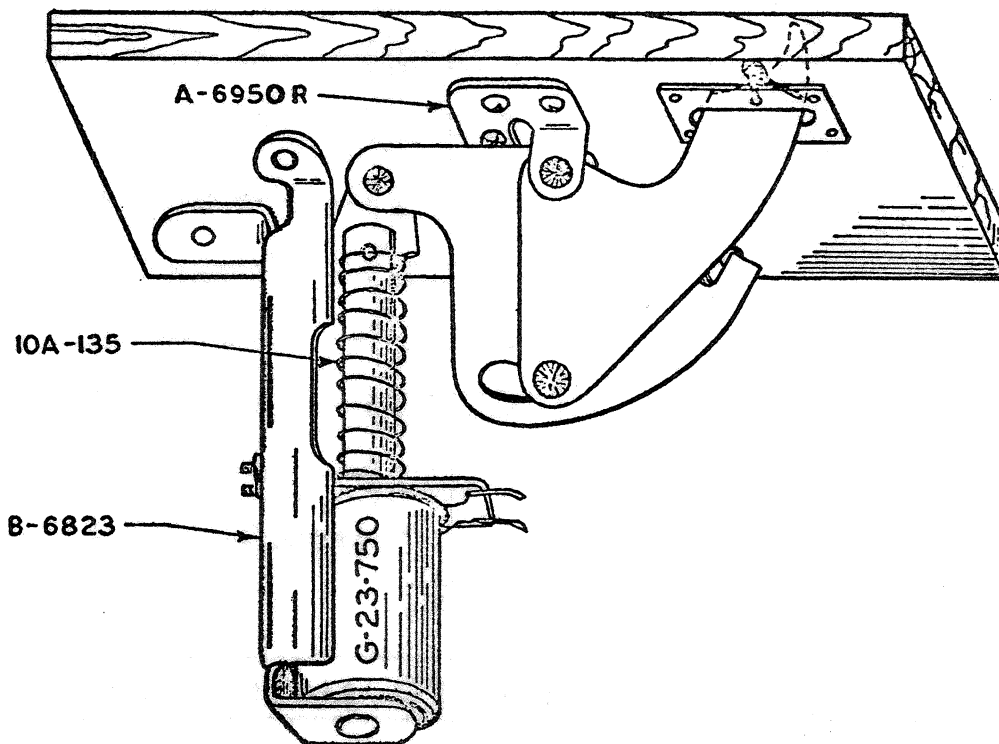
Extra Ball Jack Adj.



IN REPLAY POSITION... HI-SCORES AND NUMBER MATCH AWARD REPLAYS.

IN EXTRA BALL POSITION... HI-SCORE AWARDS AN EXTRA BALL AND NUMBER MATCH SHOULD BE IN "OFF" POSITION.

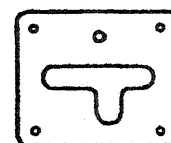
BALL EJECT CAM UNIT



TO CHANGE DIRECTION OF BALL,
WHEN EJECTED, GRASP "BALL EJECT CAM"
WITH LONG-NOSED PLIERS (APPROXIMATELY
1/4") AND BEND SLIGHTLY.

BENDING TO THE LEFT WILL CHANGE
DIRECTION OF EJECTED BALL SLIGHTLY
TO THE RIGHT, AND VICE-VERSA.

CAUTION
IF BEND IS TOO GREAT, IT MAY
CAUSE A BIND WHEN "BALL EJECT CAM"
IS RESTING IN PART #3A-6015G-6.



3A-6015G-6

IMPORTANT NOTICE

KINDLY INFORM LOCATIONS THAT THEY CAN TURN DISPLAY LIGHTS ON BY PRESSING LEFT FLIPPER BUTTON. MACHINE CAN STILL BE SHUT OFF BY TAPPING BOTTOM OF CABINET.

MASTER SWITCH (ON-OFF) IS LOCATED UNDERNEATH FRONT PART OF CABINET.

CAUTION!

The playboard on this machine has an improved finish with excellent wearing properties. Do not under any circumstances clean the board with water, water soap solutions or harsh abrasives. Avoid such things as steel wool, kitchen cleansers or abrasive hand soap. Water will weaken the adhering of the paint to the board and abrasives shorten the board life by many thousand plays. A wax base cleaner with negligible abrasive qualities used lightly, but frequently, will extend the board life to its full capabilities.

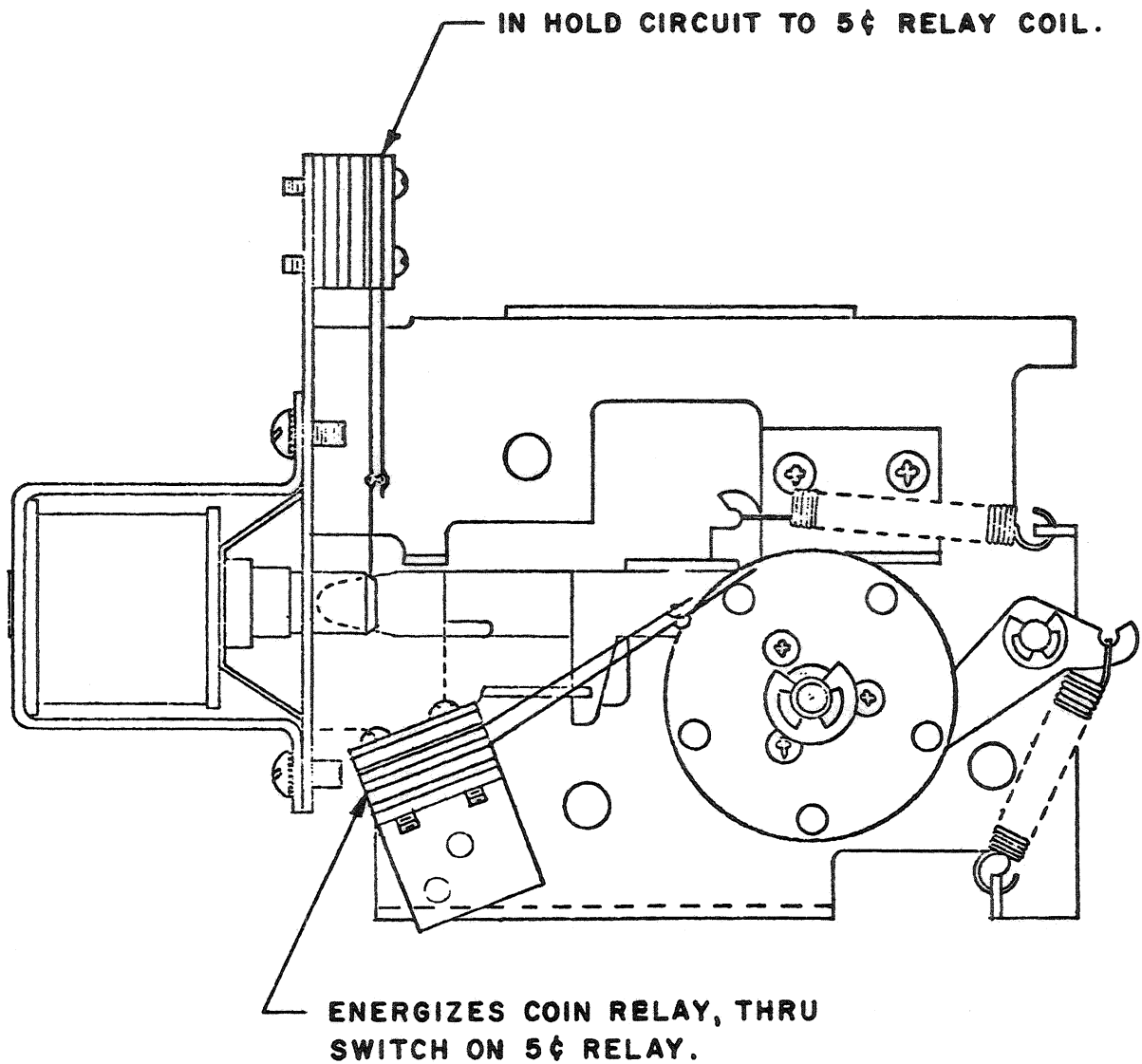
SERVICEMAN TO REMOVE BACKGLASS:

- **WITH BACK DOOR REMOVED, PULL BACK ON BRACKETS AT INSIDE TOP OF LITE BOX.**
- **FROM THE FRONT OF GAME, LIFT GLASS UP AND OUT.**

ALTERNATOR UNIT

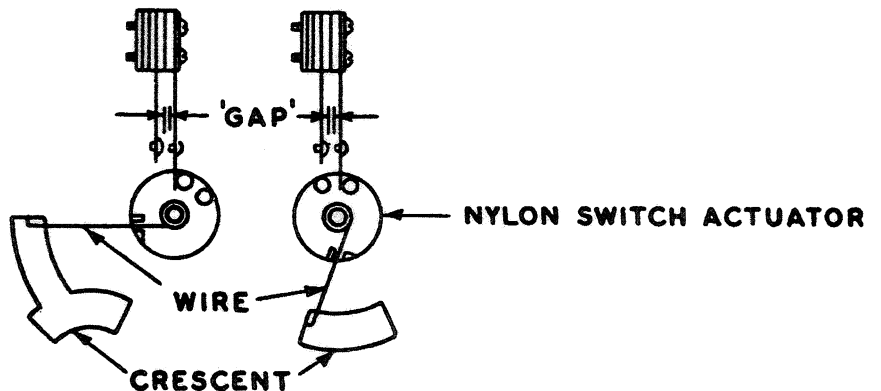
LOCATED ON MECHANISM PANEL.

USED IN CONJUNCTION WITH 5¢ RELAY FOR "2 COINS-1 PLAY" FEATURE.



INSTRUCTIONS FOR COIN TRIP SWITCH ADJUSTMENT

WIRE SHOULD BE IN CONTACT WITH END OF CRESCENT OPENING WHEN BLADE ADJUSTMENT IS MADE.



Long blade should be in contact with nylon switch actuator and have a maximum overtravel of 1/32.

or

Using a gram gauge, tension of long blade should not exceed 10 grams.

SWITCH ADJUSTMENT

1. For small coins, such as dimes, adjust short blade so that the 'gap' between the silver contacts is .045 to .055.
2. For larger & heavier coins the 'gap' should be .045 to .060.
3. Do not adjust 'gap' closer than .040.

POWER TRANSFORMER:

LOCATED ON MECHANISM PANEL, IT IS EQUIPPED WITH A SECONDARY TAP. IF YOUR GAME IS ON LOCATION WITH EXTREMELY LOW LINE VOLTAGE, REMOVE LEAD FROM LUG MARKED 24 VOLTS AND SOLDER TO ALTERNATE LUG MARKED "HIGH". THIS WILL BOOST SECONDARY VOLTAGE APPROXIMATELY 2-3 VOLTS.

LEG LEVELERS:

ARE PROVIDED FOR TWO PURPOSES - 1ST TO LEVEL GAME ON LOCATION, 2ND TO INCREASE PITCH FOR GAME PERCENTAGING. IF IT IS DESIRED TO SPEED UP PLAY AND DECREASE SCORES, RAISE REAR LEG LEVELERS TO INCREASE PITCH.

INSTRUCTIONS FOR ALTERING COIN CHUTES EQUIPPED WITH A FLIP-OVER DEVICE.

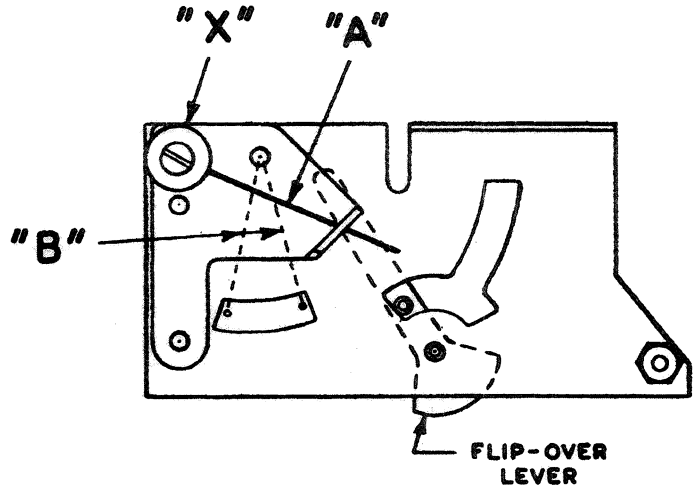
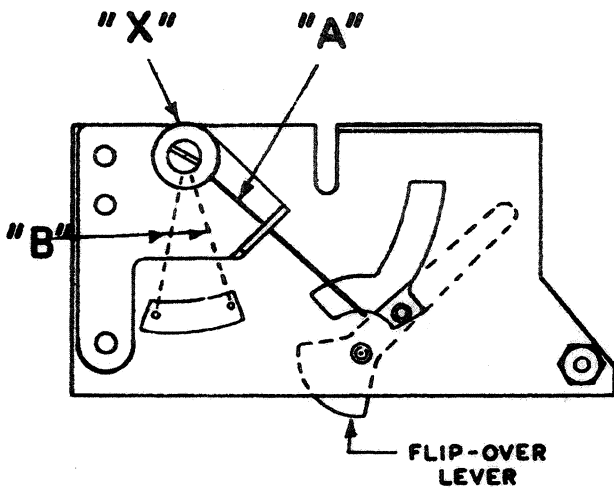
FOR 1 COIN - FOR 1 PLAY

OR

2 COINS - FOR 1 PLAY

FIGURE 1

FIGURE 2



1 COIN - FOR 1 PLAY (FIGURE 1):

Wire form "A" should be in position as shown in Figure 1. Flip-over lever should rebound from wire form "A" and return to position shown in Figure 1 everytime a coin is inserted. All coins pass over the coin trip switch wire "B".

2 COINS - FOR 1 PLAY (FIGURE 2):

Wire form "A" should be in position as shown in Figure 2 (see note). Flip-over lever should alternate from side to side. 1st coin should go to cash box without actuating coin trip switch wire "B", 2nd coin should pass the coin trip switch wire "B" and returns flip-over to position as shown in Figure 2.

NOTE:

To change from 1 coin play to 2 coin play or vice versa - loosen screw "X" and move screw, bushing & wire form "A" to position as required - shown in Figure 1 position as required - shown in Figure 1 or Figure 2.

When using 1 coin for 1 play, wire form "A" should not under any circumstances be allowed to enter the "Banana" slot and cause binding of flip-over lever.

WARRANTY

THE MOTORS IN ALL NEW WILLIAMS PRODUCTS
ARE UN-CONDITIONALLY GUARANTEED FOR
6 MONTHS FROM DATE OF PURCHASE.

ANY DEFECTIVE MOTORS RETURNED DURING THE
WARRANTY PERIOD WILL BE REPLACED FREE OF
CHARGE BY YOUR WILLIAMS DISTRIBUTOR.

IMPORTANT NOTICE

WHEN ORDERING PARTS ALWAYS SPECIFY NAME OF
UNIT, GAME AND SERIAL NUMBER, IN ADDITION TO A
CLEAR DESCRIPTION OF THE PART AND PART
NUMBER IF POSSIBLE.

UNIT PARTS LIST

UNIT NAME	CONTACT DISC	WIPER ASSEMBLY	RATCHET GEAR ASSEMBLY	MOTORS
REPLAY	-----	-----	A-6400	
BALL COUNT	C-6414	B-7456-6	A-6402-5	
NO. MATCH	C-6414	B-7456-2	A-6401	
PLAYER	C-6417	C-6521	A-6405-3	
COIN	C-6414	B-7456-9	A-6402-3	14A-7805 (60 CYCLE)
SIDE ADV.	C-6417	B-7456-6	A-6402-15	SCORE MOTOR
CENTER ADV.	C-6417	B-7456-8	A-6402-3	14A-7806 (50 CYCLE)
10 POINT	B-7253	A-6294	3C-7272	SCORE MOTOR
100 POINT	-----	-----	3C-7272	
1000 POINT	B-7253	A-6294	3C-7272	
10000 POINT	B-7253	A-6294	3C-7272	
ALTERNATOR	-----	-----	3C-7272	

"HONEY" COIL CHART

NOTICE:

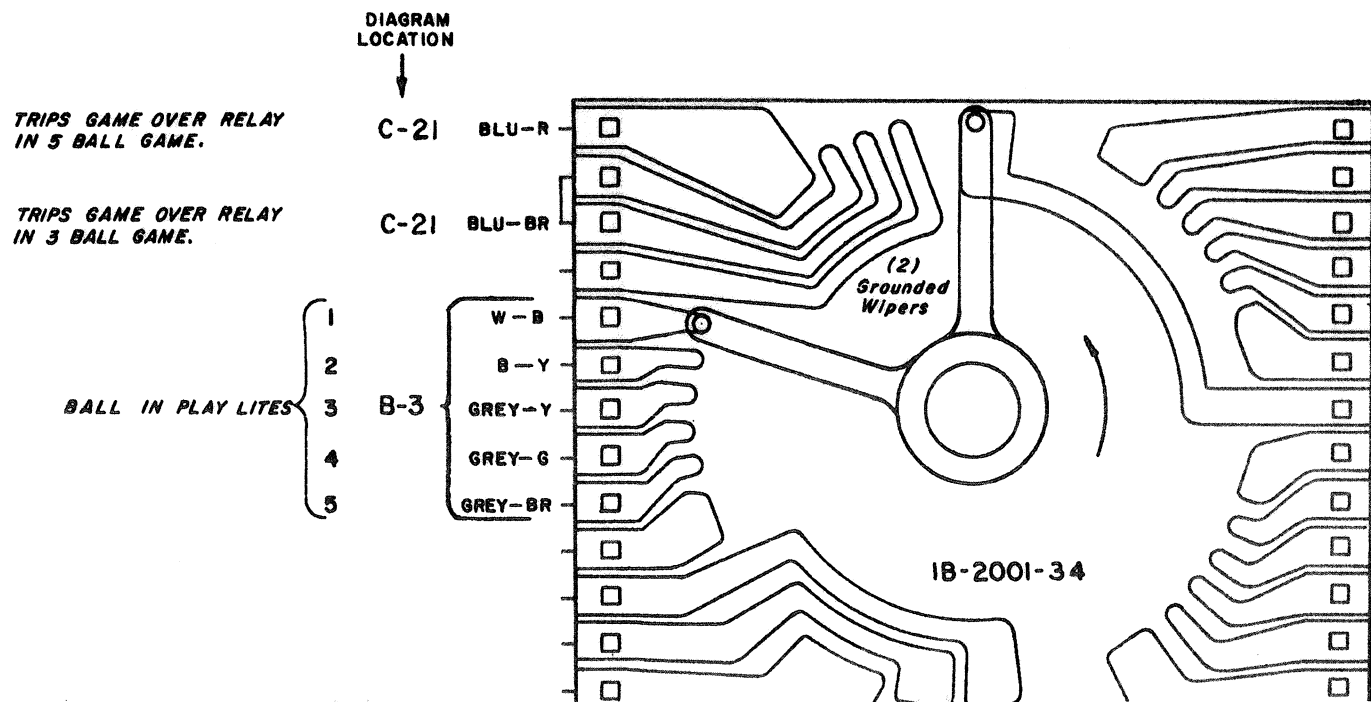
THIS GAME OPERATES ON 24 VOLTS. WHEN ORDERING REPLACEMENT TRANSFORMERS, MOTORS, COILS OR METERS ... MAKE SURE TO SPECIFY CORRECT PART NUMBERS.

NUMBERS	DESCRIPTION	LOCATION
14 A-7805	CONTROL MOTOR - 60 CYCLE	MECH. PANEL
14 A-7806	CONTROL MOTOR - 50 CYCLE	MECH. PANEL
15 A-6771	TRANSFORMER - 60 CYCLE	MECH. PANEL
15 A-6782-1	TRANSFORMER - 50 CYCLE	MECH. PANEL
B 6396	24 VOLT METER	MECH. PANEL
<u>SOLENOID COILS</u>		
A 22-550	COIN UNIT STEP UP SIDE ADVANCE UNIT STEP UP CENTER ADVANCE UNIT STEP UP NUMBER MATCH UNIT STEP UP PLAYER UP UNIT STEP UP BALL RELEASE COIL	MECH. PANEL PLAYFIELD PLAYFIELD INSERT INSERT PLAYFIELD
A 23-600	BALL COUNT UNIT STEP UP CENTER EJECT REPLAY UNIT STEP UP	MECH. PANEL PLAYFIELD INSERT
A 2-23-750	KNOCKER LARGE BELL	CABINET CABINET
B 26-800	BALL COUNT UNIT RESET COIN UNIT RESET ALTERNATOR UNIT STEP UP CENTER ADVANCE UNIT RESET SIDE ADVANCE UNIT RESET REPLAY UNIT RESET PLAYER UP UNIT RESET	MECH. PANEL MECH. PANEL MECH. PANEL PLAYFIELD PLAYFIELD INSERT INSERT
B1-26-800	SCORE DRUM UNITS ... (16 req'd.)	INSERT
FL 21-375/ 28-400	FLIPPERS ... (2 req'd.)	PLAYFIELD
G 22-550	DROP TARGET RESET ... (3 req'd.)	PLAYFIELD
G 23-750	JET BUMPER COILS ... (5 req'd.) SIDE EJECT COILS ... (2 req'd.) KICKER COILS ... (2 req'd.) DOWN POST COIL	PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD
M 29-900	1 - 2 RESET RELAY 3 - 4 RESET RELAY	INSERT INSERT
M 29-1000	GAME OVER RELAY TRIP UP POST COIL TARGET RESET RELAY	MECH. PANEL PLAYFIELD PLAYFIELD
M 29-1100	5 ¢ RELAY 10 ¢ RELAY 25 ¢ RELAY POST RELAY CENTER ADVANCE RELAY SIDE ADVANCE RELAY 500 RELAY 3,000 RELAY 5,000 RELAY 10,000 RELAY 10 POINT RELAY 100 POINT RELAY 1,000 POINT RELAY	MECH. PANEL MECH. PANEL MECH. PANEL PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD INSERT INSERT INSERT
M1-31-1500	COIN LOCKOUT COIL	FRONT DOOR
XM 27-675	TOTAL PLAY METER COIL	MECH. PANEL
Z 27-1000	CENTER EJECT RELAY COIN RELAY GAME OVER RELAY LATCH OUTHOLE RELAY PLAYER RESET RELAY REPLAY RELAY RESET RELAY SIDE EJECT RELAY	MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL
Z 28-1150	EXTRA BALL RELAY BALL INDEX RELAY TILT RELAY CHANGE RELAY GATE RELAY ON GREEN RELAY ON RED RELAY	MECH. PANEL MECH. PANEL MECH. PANEL PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD
Z 29-1250	LOCK RELAY	MECH. PANEL

BALL COUNT UNIT DISC

THIS UNIT RESETS AT THE START OF A NEW GAME, (DURING RESET CYCLE). IT ADVANCES ONE STEP EACH TIME THE LAST PLAYER COMPLETES HIS TURN.

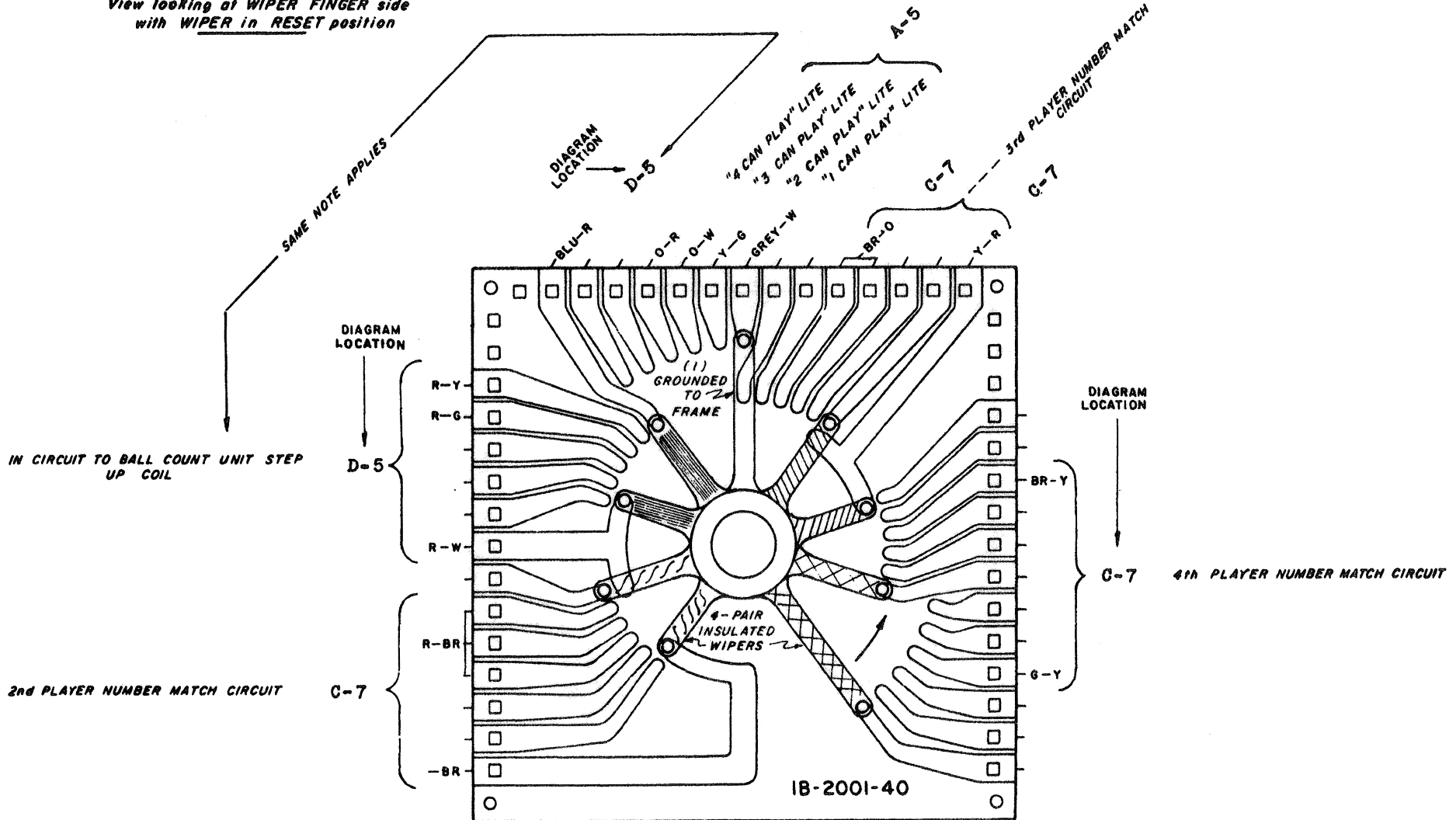
View looking at WIPER FINGER side with WIPER in ZERO position.



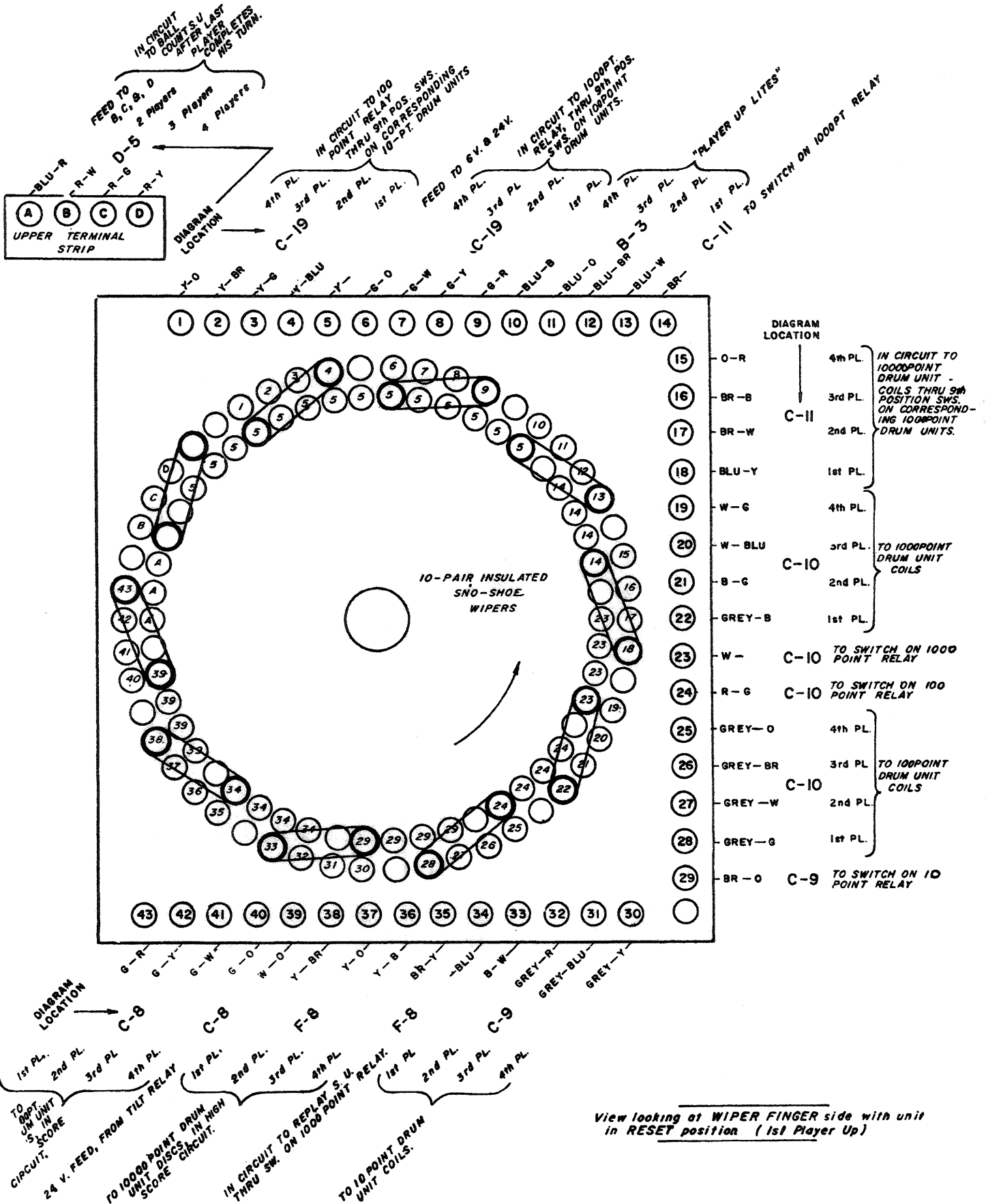
COIN S. U. DISC

THIS UNIT RESETS AT START OF
A GAME (DURING RESET CYCLE).
IT THEN ADVANCES ONE STEP EACH
TIME THE COIN RELAY IS PULSED.

View looking at WIPER FINGER side
with WIPER in RESET position



PLAYER UNIT DISC



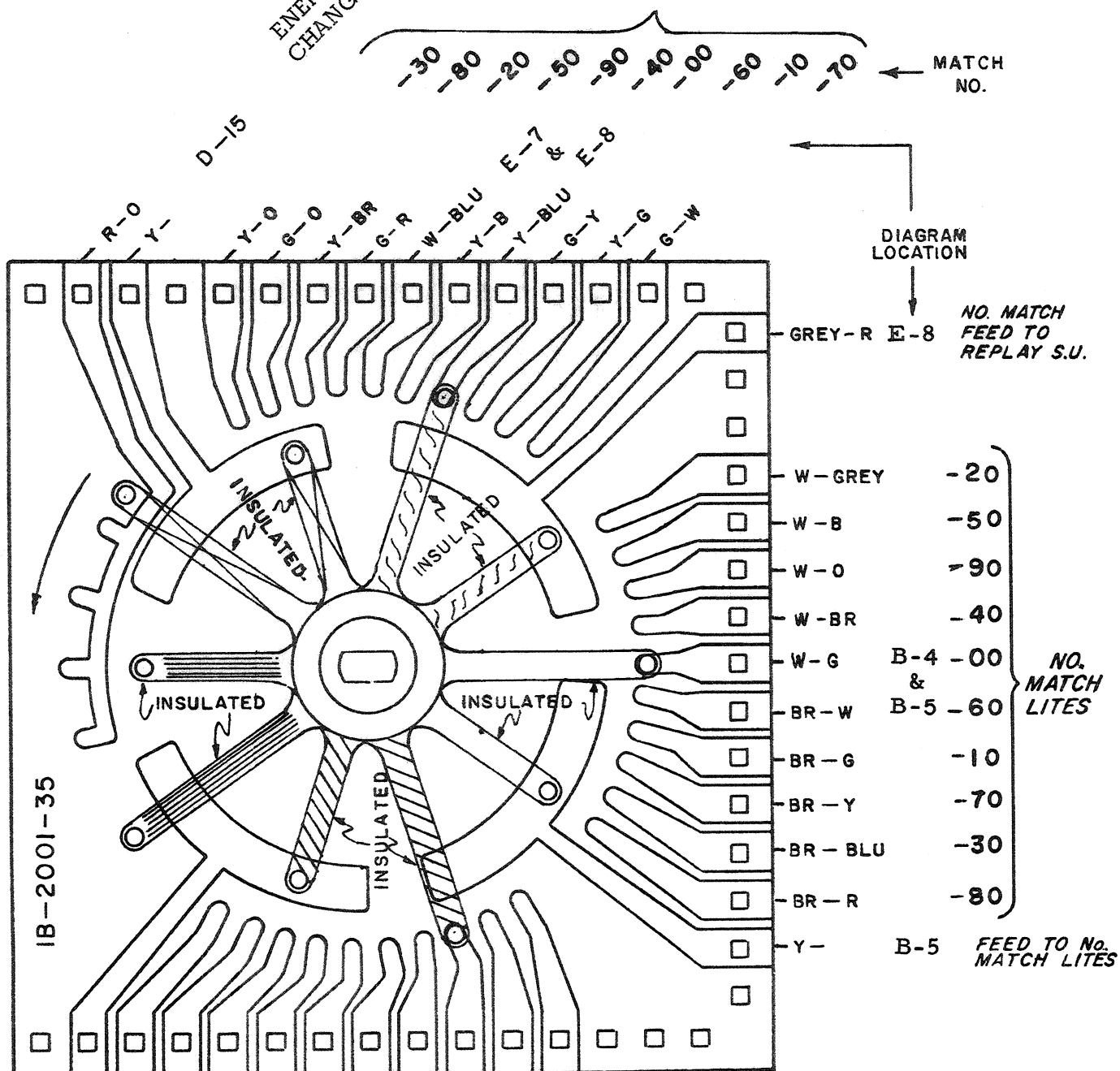
No. MATCH UNIT

THIS UNIT ADVANCES ONE STEP EACH TIME THE TEN POINT RELAY IS PULSED.

VIEW LOOKING AT WIPER FINGER SIDE

IN NO. MATCH CIRCUIT, THESE WIRES COME FROM THE 10 PT. D.U. DISC OF ALL 4 PLAYERS.

ENERGIZES CHANGE RE.



CENTER ADVANCE UNIT

VIEW LOOKING AT WIPER FINGER SIDE, WITH
WIPER IN RESET POSITION.

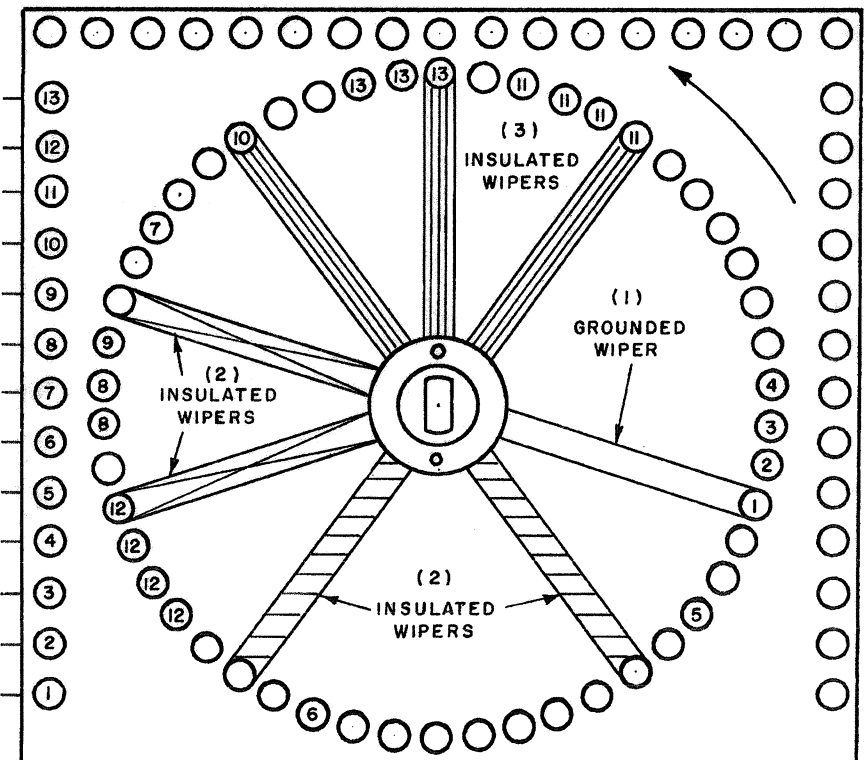
THIS UNIT ADVANCES ONE STEP EACH TIME THE
CENTER ADVANCE RELAY IS PULSED.
ALSO BY CENTER EJECT RELAY, THRU LUGS 11
AND 13 ON THIS UNIT DISC.
IT RESETS, DURING RESET CYCLE, AT CAM
SWITCH 4D (NORMAL DWELL), THRU RESET RELAY,
TARGET RESET RELAY AND COIN RELAY.
IT ALSO RESETS, DURING PLAY, AT CAM
SWITCH 4D, THRU BALL INDEX RELAY, TARGET
RESET RELAY AND OUTHOLE RELAY---OR--- THRU
5,000 RELAY, 10,000 RELAY, TARGET RESET
RELAY AND CENTER EJECT RELAY.

TO CENTER ADVANCE S.U., THRU CAM SWITCH 3A.
FEEDS LUGS 8 AND 9 FROM SW. ON CENTER EJECT RE.
FEEDS LUGS 7, 10 AND 13 FROM SW. ON CENTER EJECT RE.
TO 1,000 POINT RELAY, THRU CAM SW. 1D.
TO 3,000 POINT RELAY.
IN CIRCUIT TO 5,000 RELAY.
TO 10,000 RELAY, THRU CAM SW. 1E.
FEEDS LUG 5, FROM SW. ON CENTER EJECT RE.
TO CENTER EJECT COIL.
TO CENTER 10,000 LITE.
TO CENTER 5,000 LITE.
TO CENTER 3,000 LITE.
TO CENTER 1,000 LITE.

DIAGRAM
LOCATION



C-16	GRAY-O	(13)
E-16	Y-BLU	(12)
C-16	Y-R	(11)
D-16	B-O	(10)
E-16	G-O	(9)
E-16	B-Y	(8)
D-16	O-W	(7)
D-12	Y-G	(6)
D-12	Y-BLU	(5)
B-8	W-O	(4)
B-8	W-B	(3)
B-8	BR-O	(2)
B-8	BR-B	(1)



SIDE ADVANCE UNIT

THIS UNIT RESETS, DURING RESET CYCLE, AT CAM SWITCH 2C, THRU TARGET RESET RELAY AND COIN RELAY.
 DURING PLAY, IT RESETS AT CAM SWITCH 2C THRU TARGET RESET RELAY AND OUTHOLE RELAY.
 THIS UNIT ADVANCES ONE STEP EACH TIME THE SIDE ADVANCE RELAY IS PULSED.

NO. 3 LEFT & RIGHT R. O. BUTT.
 NO. 2 LEFT & RIGHT R. O. BUTT.
 NO. 1 LEFT & RIGHT R. O. BUTT.

PULSE SIDE ADVANCE RELAY, THRU

NO. 4 LEFT & RIGHT R. O. BUTTON SW.
 NO. 5 LEFT & RIGHT R. O. BUTTON SW.
 IN CIRCUIT TO EXTRA BALL RELAY.

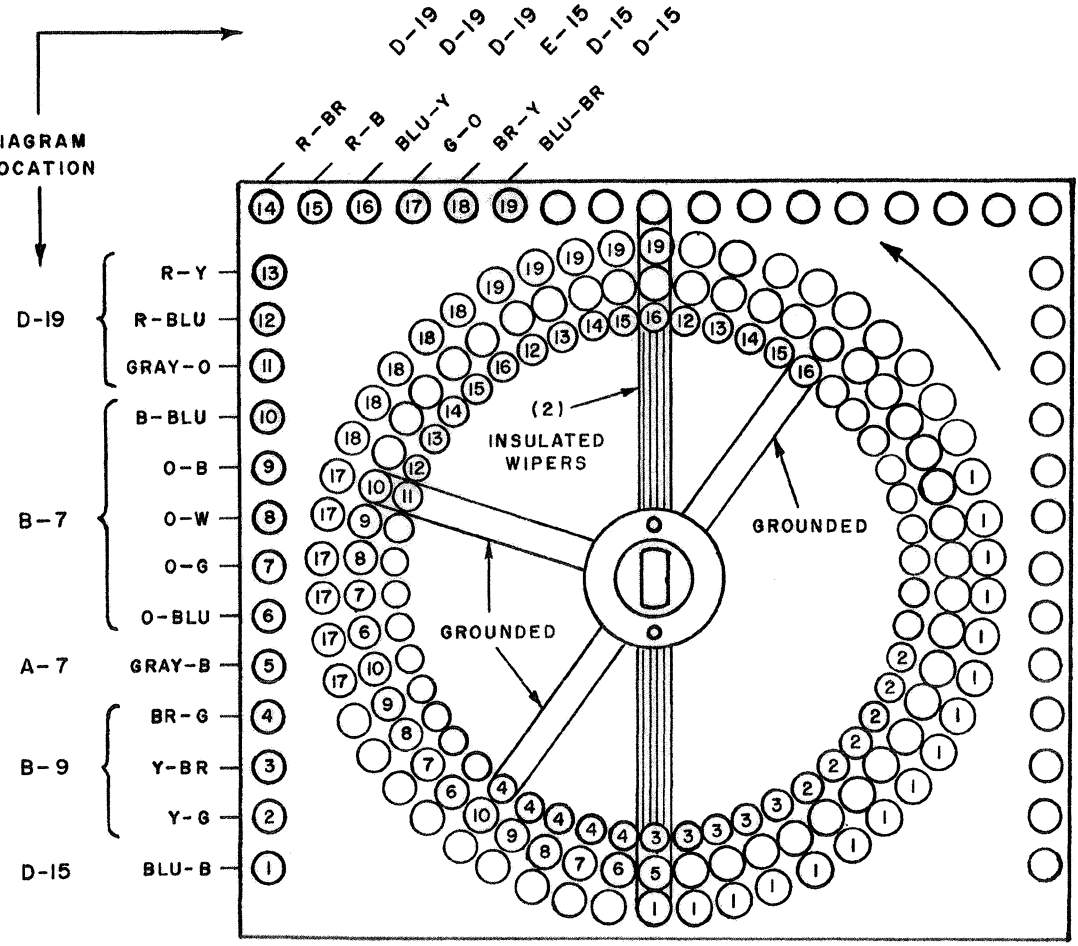
- NO. 1 ROLLOVER.
- NO. 2 BUTTON
- NO. 3 LITES
- NO. 4
- NO. 5

TO LEFT OR RIGHT EJECT "EXTRA BALL" LITES.

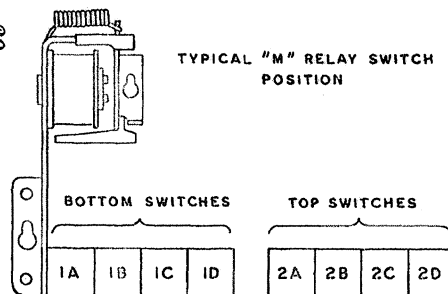
- "500" LITE SIDE.
- "1,000" LITE EJECT
- "3,000" LITE LITES.

FEED FROM SW. ON SIDE EJECT RELAY.

DIAGRAM LOCATION



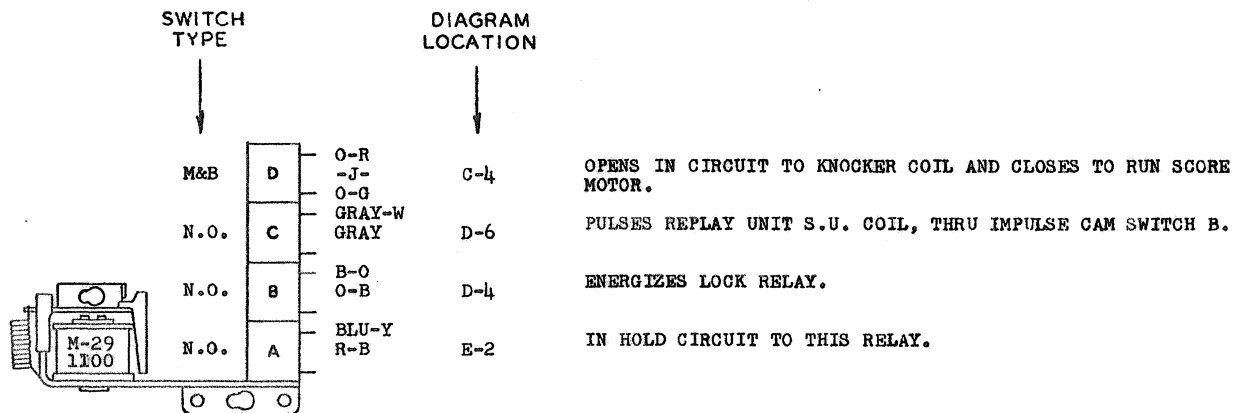
PULSE SIDE ADVANCE RELAY, THRU TO 3,000 RELAY.
 TO 1,000 RELAY.
 TO 500 RELAY.



10¢ RELAY

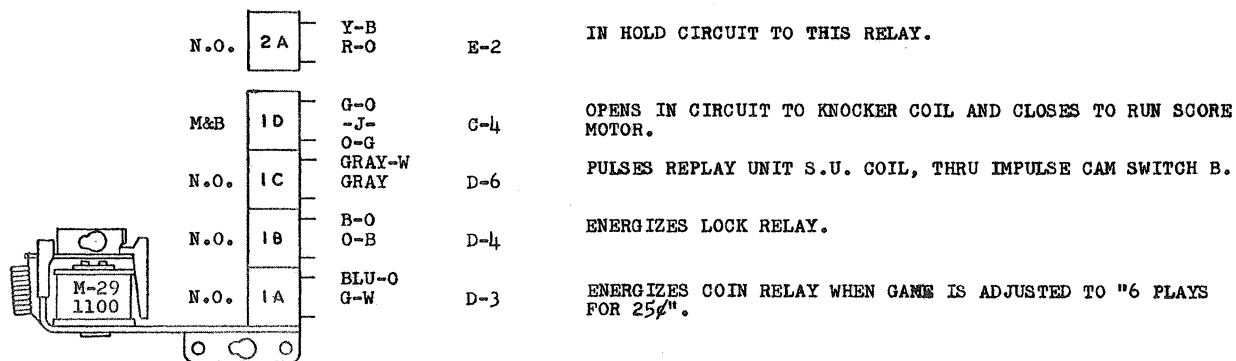
IS ENERGIZED BY 10¢ COIN SWITCH IF "10¢ ADJUSTMENT JACK" IS IN "2" OR "3" PLAYS FOR 1 COIN POSITION.

RELAYS & SWITCHES LOCATED ON MECHANISM PANEL



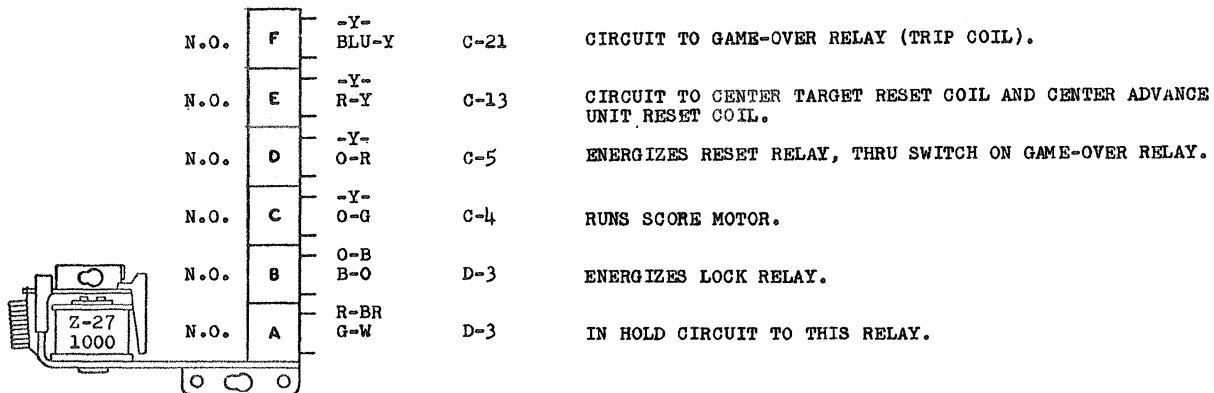
25¢ RELAY

IS ENERGIZED BY 25¢ COIN SWITCH, THRU FRONT DOOR SLAM SWITCH.



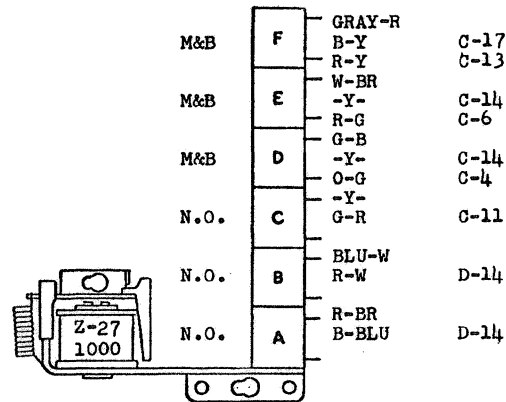
COIN RELAY

IS ENERGIZED BY REPLAY RELAY OR COIN SWITCH.



OUTHOLE RELAY

IS ENERGIZED BY OUTHOLE SWITCH, THRU INDEX CAM SWITCH E.



OPENS IN CIRCUIT TO 100 POINT RELAY AND CLOSES TO CENTER TARGET RESET COIL.

OPENS IN HOLD CIRCUIT TO TILT, ON GREEN & ON YELLOW RELAYS AND CLOSES IN SERIES WITH SWITCH C ON EXTRA BALL RELAY.

OPENS IN HOLD CIRCUIT TO BALL INDEX RELAY AND CLOSES TO RUN SCORE MOTOR.

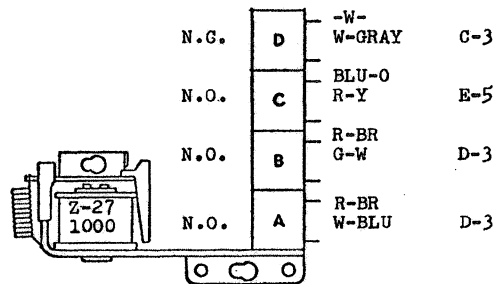
PULSES DOWN POST COIL.

PULSES BALL RELEASE COIL.

IN HOLD CIRCUIT TO THIS RELAY.

REPLAY RELAY

IS ENERGIZED BY REPLAY BUTTON, THRU ZERO SWITCH ON REPLAY UNIT.



OPENS CIRCUIT TO COIN LOCKOUT COIL.

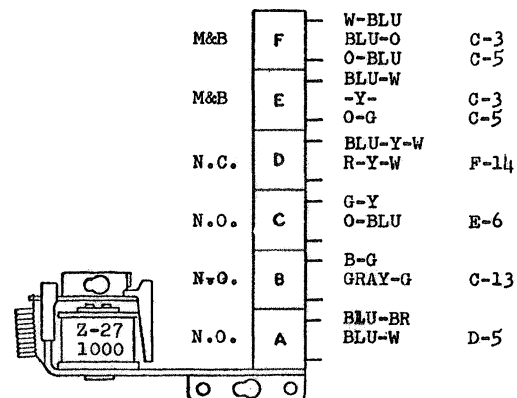
CIRCUIT TO REPLAY UNIT RESET COIL.

ENERGIZES COIN RELAY.

IN HOLD CIRCUIT TO THIS RELAY.

RESET RELAY

IS ENERGIZED BY COIN RELAY, THRU SWITCH ON GAME-OVER RELAY.



OPENS IN CIRCUIT TO COIN UNIT S.U. AND CLOSES TO RESET COILS ON COIN, BALL COUNT AND GAME-OVER.

OPENS IN CIRCUIT TO REPLAY RELAY AND CLOSES TO RUN SCORE MOTOR.

IN SERIES WITH SWITCH A ON GAME-OVER RELAY.

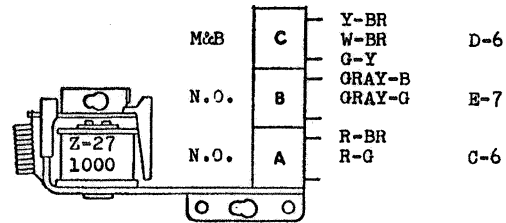
IN CIRCUIT TO PLAYER UNIT RESET COIL.

CIRCUIT TO CENTER ADVANCE UNIT RESET COIL.

IN HOLD CIRCUIT TO THIS RELAY.

PLAYER RESET RELAY

IS ENERGIZED BY BALL COUNT UNIT END-OF-STROKE SWITCH. IT THEN HOLDS IN THRU INDEX CAM SWITCH C.



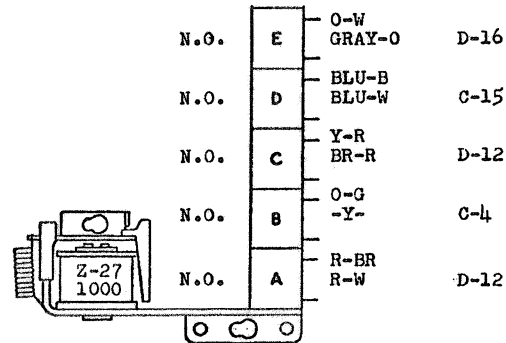
OPENS IN CIRCUIT TO PLAYER UNIT S.U. COIL AND CLOSES TO PLAYER UNIT RESET COIL.

IN NUMBER MATCH CIRCUIT TO REPLAY UNIT S.U. COIL.

HOLD CIRCUIT TO THIS RELAY, THRU INDEX CAM SWITCH C.

SIDE EJECT RELAY

IS ENERGIZED BY LEFT OR RIGHT SIDE EJECT SWITCH, THRU INDEX CAM SWITCH E.



IN CIRCUIT TO EXTRA BALL RELAY, THRU LEFT OR RIGHT EJECT POKET WHEN LIT.

TO 500, 1,000 OR 3,000 RELAY, THRU SIDE ADVANCE UNIT DISC.

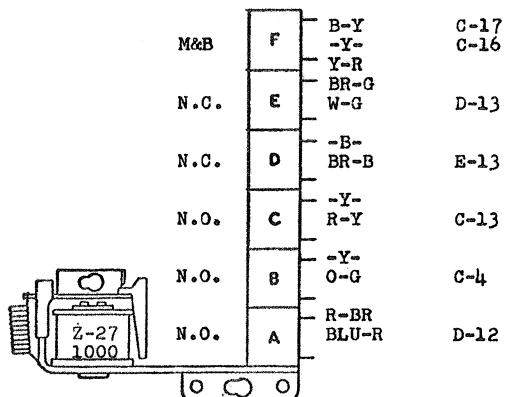
PULSES LEFT AND RIGHT EJECT COILS AT SCORE MOTOR CAM SWITCH 4C.

RUNS SCORE MOTOR.

IN HOLD CIRCUIT TO THIS RELAY.

CENTER EJECT RELAY

IS ENERGIZED BY CENTER EJECT SWITCH, THRU INDEX CAM SWITCH E.



OPENS IN CIRCUIT TO 100 POINT RELAY AND CLOSES TO SCORE LIT VALUE AT CENTER TARGET.

OPENS CIRCUIT TO CENTER TARGET RESET COIL WHEN COLLECTING 1,000 POINTS.

OPENS CIRCUITS TO RESET COILS ON "A" TARGET, "B" TARGET AND SIDE ADVANCE UNITS.

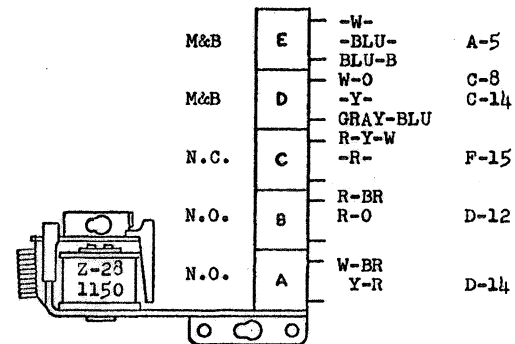
ENERGIZES CENTER TARGET RESET COIL WHEN COLLECTING 3,000, 5,000 OR 10,000.

RUNS SCORE MOTOR.

IN HOLD CIRCUIT TO THIS RELAY.

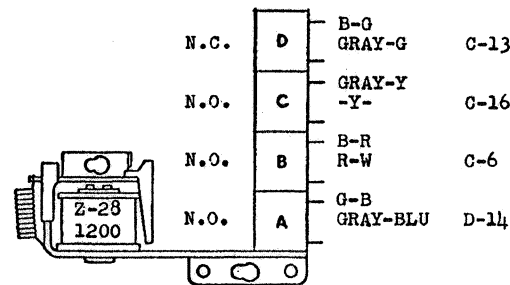
TILT RELAY

IS ENERGIZED BY PLUMB BOB TILT, BALL ROLL-DOWN TILT OR PLAYFIELD VIBRATION TILT SWITCH.



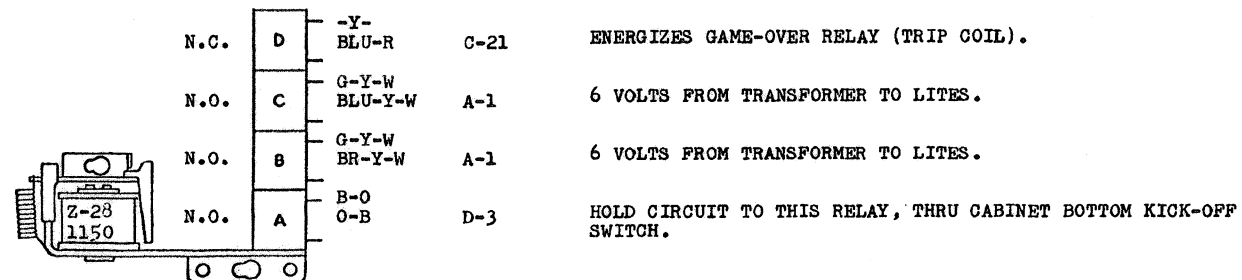
BALL INDEX RELAY

IS ENERGIZED BY 10 POINT, 100 POINT OR 1,000 POINT RELAY, THRU SWITCH ON EXTRA BALL RELAY.
ALSO BY TILT RELAY.



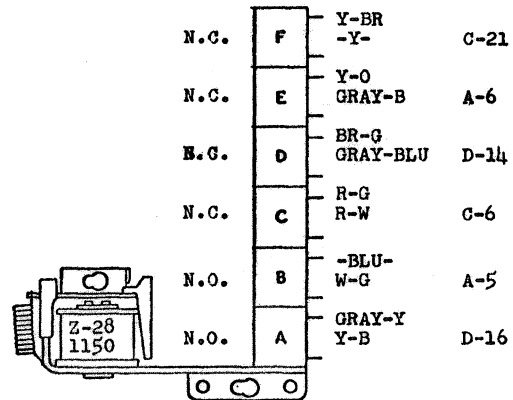
LOCK RELAY

IS ENERGIZED BY LEFT FLIPPER BUTTON OR 5¢, 10¢, 25¢ OR COIN RELAYS.



EXTRA BALL RELAY

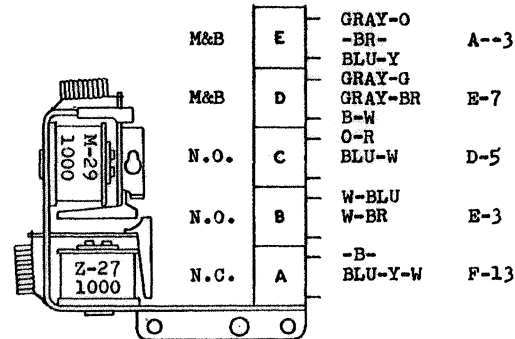
IS ENERGIZED BY LEFT OR RIGHT EJECT SWITCH, THRU CHANGE RELAY, SIDE EJECT RELAY AND SIDE ADVANCE UNIT DISC. IT IS ALSO ENERGIZED BY HI-SCORE CIRCUIT, THRU "REPLAY-EXTRA BALL" ADJUSTMENT JACK.



GAME OVER RELAY

INTERLOCK

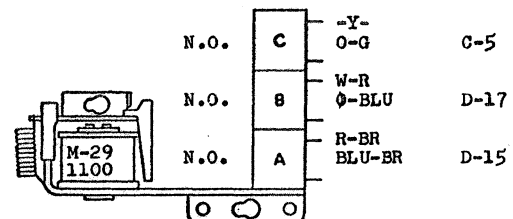
LATCH COIL IS PULSED BY SCORE MOTOR CAM SWITCH 1A, THRU SWITCHES ON COIN RELAY AND RESET RELAY. TRIP COIL IS ENERGIZED BY COIN RELAY, LOCK RELAY OR WIPER ON BALL COUNT UNIT.



LOCATED ON PLAYFIELD

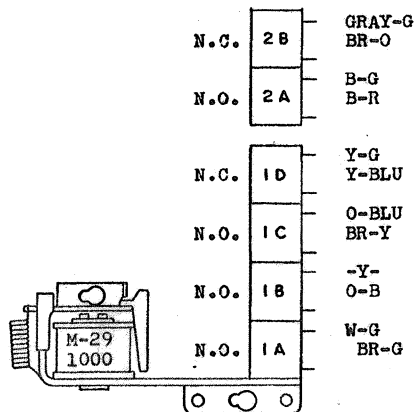
500 RELAY

IS ENERGIZED BY LEFT OR RIGHT TOP ROLL-OVER SWITCH, THRU SWITCH ON CHANGE RELAY. ALSO BY SIDE EJECT RELAY, THRU WIPER ON SIDE ADVANCE UNIT.



5000 RELAY

IS ENERGIZED BY CENTER EJECT RELAY, THRU WIPER ON CENTER ADVANCE UNIT.



IN CIRCUIT TO CENTER ADVANCE UNIT RESET COIL, THRU CAM SWITCH 4 D

HOLD CIRCUIT TO THIS RELAY, THRU SCORE MOTOR CAM SWITCH 6A.

IN CIRCUIT TO CENTER EJECT COIL.

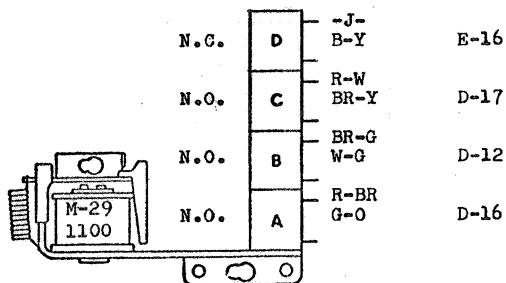
PULSES 1,000 POINT RELAY, THRU IMPULSE CAM SWITCH C.

IN HOLD CIRCUIT TO 10,000 RELAY.

IN CIRCUIT TO CENTER TARGET RESET COIL.

3000 RELAY

IS ENERGIZED BY CENTER EJECT RELAY, THRU WIPER ON CENTER ADVANCE UNIT--- OR BY SIDE EJECT RELAY, THRU WIPER ON SIDE ADVANCE UNIT.



IN SERIES WITH SWITCH 1D ON 10,000 RELAY.

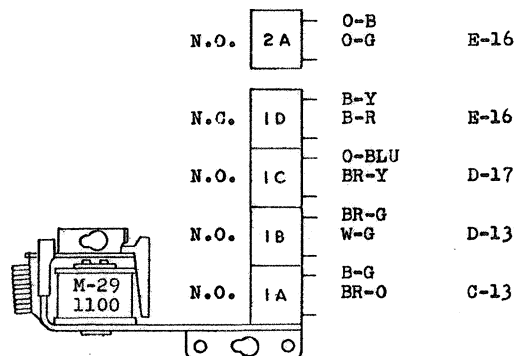
PULSES 1,000 POINT RELAY, THRU CAM SWITCH 1C.

IN CIRCUIT TO CENTER TARGET UNIT RESET COIL.

IN HOLD CIRCUIT TO THIS RELAY.

10,000 RELAY

IS ENERGIZED BY CENTER EJECT RELAY, THRU WIPER FINGER ON CENTER ADVANCE UNIT.



IN HOLD CIRCUIT TO THIS RELAY.

IN CIRCUIT TO 5,000 RELAY.

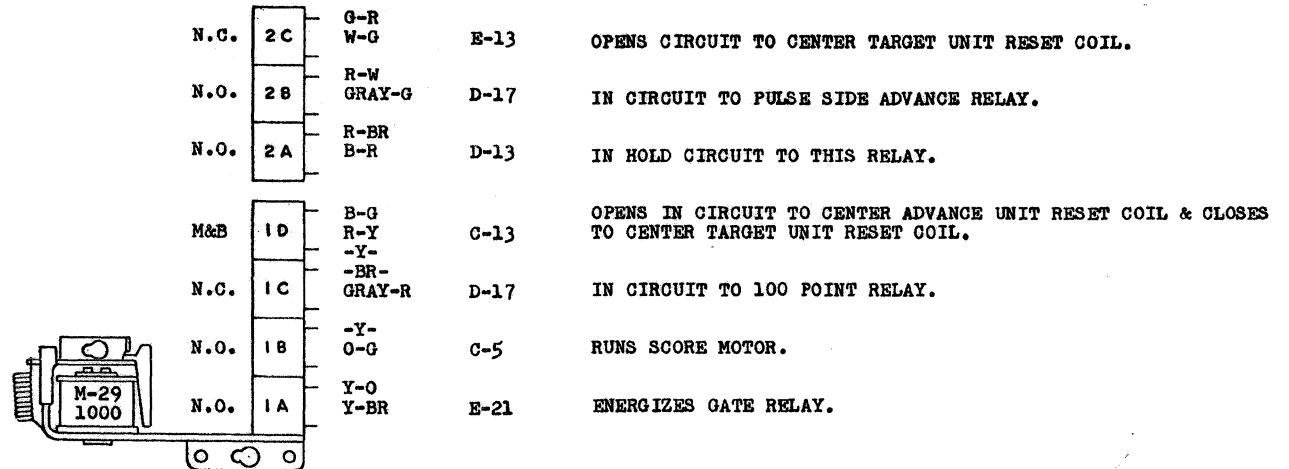
PULSES 1,000 POINT RELAY, THRU IMPULSE CAM SWITCH C.

IN CIRCUIT TO CENTER TARGET UNIT RESET COIL.

IN SERIES WITH SWITCH 2B ON 5,000 RELAY.

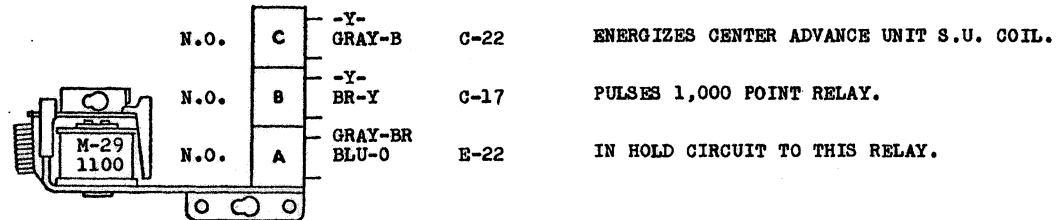
TARGET RESET RELAY

IS ENERGIZED BY "A" AND "B" TARGET SWITCHES AT SCORE MOTOR INDEX GAM SWITCH E.



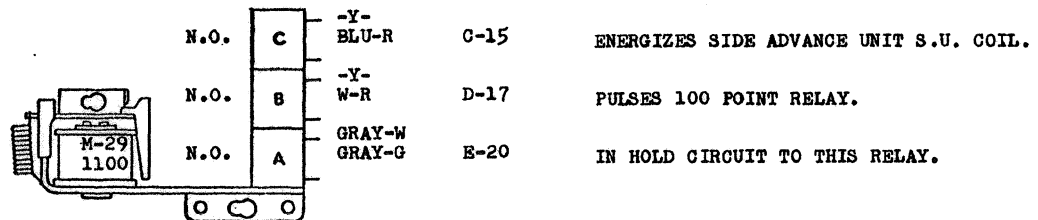
CENTER ADVANCE RELAY

IS ENERGIZED BY TOP CENTER ROLLOVER SWITCH.



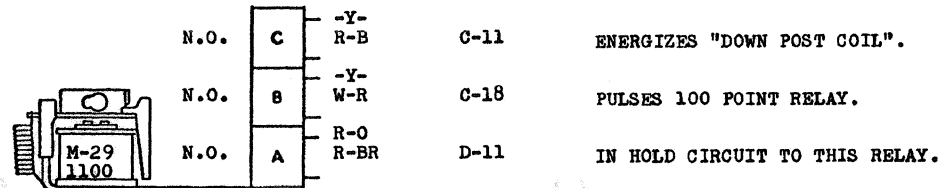
SIDE ADVANCE RELAY

IS PULSED BY "TARGET RESET RELAY" OR BY ANY OF THE 10 ROLLOVER BUTTONS WHEN LIT. ALSO BY THE TOP CENTER ROLLOVER BUTTON SWITCH.



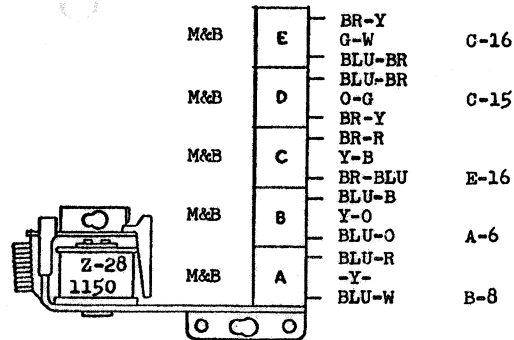
POST RELAY

IS ENERGIZED BY ROLLOVER BUTTON (AS INDICATED), OR BY TILT RELAY.



CHANGE RELAY

IS ENERGIZED BY WIPER FINGER ON NUMBER MATCH UNIT (EVERY OTHER STEP).



OPENS TO 1,000 POINT RELAY AND CLOSES TO 500 RELAY (WHEN MAKING RIGHT TOP ROLLOVER SW.)

OPENS TO 500 RELAY AND CLOSES TO 1,000 POINT RELAY (WHEN MAKING LEFT TOP ROLLOVER SW.)

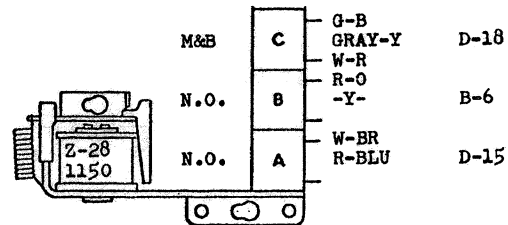
IN CIRCUIT TO EXTRA BALL RELAY, THRU LEFT OR RIGHT EJECT POCKET SW.

OPENS TO LEFT EJECT "EXTRA BALL" LITE AND CLOSES TO RIGHT EJECT "EXTRA BALL" LITE.

OPENS TO RIGHT TOP ROLLOVER LITE AND CLOSES TO LEFT TOP ROLLOVER LITE.

ON RED RELAY

IS ENERGIZED BY LEFT TOP ROLLOVER SWITCH.



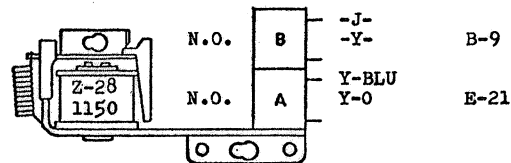
OPENS IN CIRCUIT TO 10 POINT RELAY AND CLOSES TO 100 POINT RELAY, THRU LEFT TOP OR RIGHT BOTTOM BUMPER SWITCHES.

TO LEFT TOP AND RIGHT BOTTOM JET BUMPER LITES.

IN HOLD CIRCUIT TO THIS RELAY.

GATE RELAY

IS ENERGIZED BY TARGET RESET RELAY, THRU SWITCH ON EXTRA BALL RELAY.

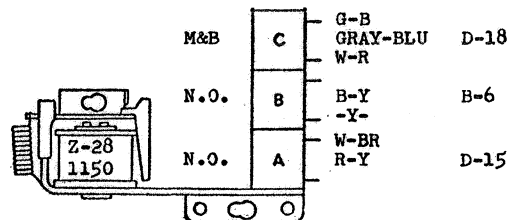


TO RIGHT BOTTOM ROLLOVER LITE.

HOLD CIRCUIT TO THIS RELAY, THRU "BALL REST SWITCH".

ON GREEN RELAY

IS ENERGIZED BY RIGHT TOP ROLLOVER SWITCH.



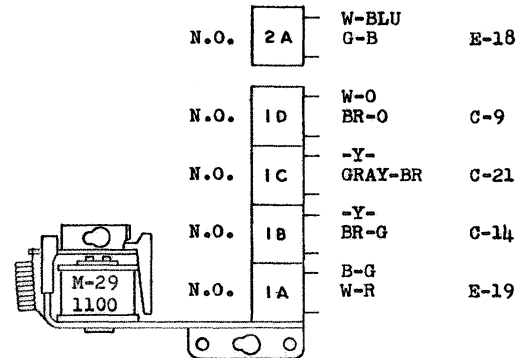
OPENS IN CIRCUIT TO 10 POINT RELAY AND CLOSES TO 100 POINT RELAY, THRU RIGHT TOP OR LEFT BOTTOM BUMPER SWITCHES.

TO RIGHT TOP AND LEFT BOTTOM JET BUMPER LITES.

IN HOLD CIRCUIT TO THIS RELAY.

LOCATED IN BACKBOX**10 POINT RELAY**

IS PULSED BY JET BUMPER SWITCHES, THRU "ON RED" OR "ON GREEN" RELAYS. ALSO BY STAND-UP AND KICKER SWITCHES.



IN HOLD CIRCUIT TO THIS RELAY.

PULSES 10 POINT DRUM UNITS, THRU PLAYER UNIT DISC.

ENERGIZES NUMBER MATCH S.U. COIL.

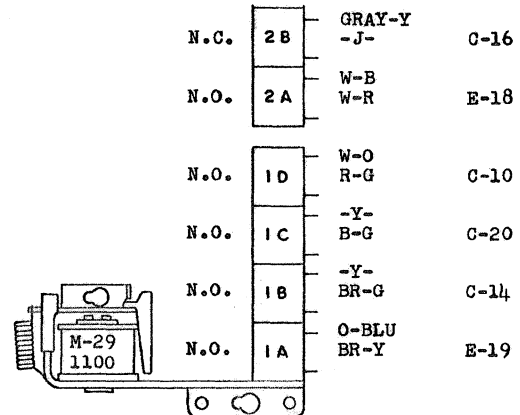
IN SERIES WITH SWITCH D ON EXTRA BALL RELAY.

PULSES 100 POINT RELAY, THRU 9TH POSITION SWITCHES ON 10 POINT DRUM UNITS.

100 POINT RELAY

IS PULSED BY:

- POST RELAY.
- CENTER JET BUMPER SWITCH.
- OTHER 4 JET BUMPER SWITCHES, THRU "ON RED" AND "ON GREEN" RELAYS.
- LEFT AND RIGHT STAND-UP SWITCH.
- "A", "B" AND "CENTER" DROP TARGET SWITCHES.
- SIDE ADVANCE RELAY.
- 500 RELAY, THRU IMPULSE CAM SW. C.



IN HOLD CIRCUIT TO EXTRA BALL RELAY.

IN HOLD CIRCUIT TO THIS RELAY.

PULSES 100 POINT DRUM UNITS, THRU PLAYER UNIT DISC.

PULSES LARGE BELL COIL.

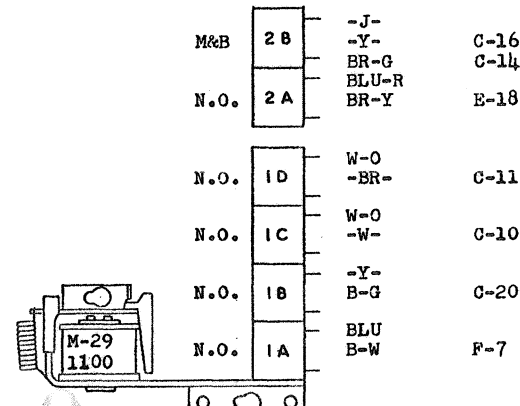
IN SERIES WITH SWITCH D ON EXTRA BALL RELAY.

PULSES 1,000 POINT RELAY, THRU 9TH POSITION SWITCHES ON 100 POINT DRUM UNITS.

1000 POINT RELAY

IS PULSED BY:

- SIDE EJECT RELAY, THRU WIPER ON SIDE ADVANCE UNIT.
- LEFT AND RIGHT TOP ROLLOVER SWITCH, THRU SWITCHES ON CHANGE RELAY.
- CENTER EJECT RELAY, THRU WIPER ON CENTER ADVANCE UNIT.
- CENTER ADVANCE RELAY.
- LEFT AND RIGHT BOTTOM ROLLOVER SWS.
- 3,000 RELAY, 5,000 RELAY OR 10,000 RELAY.



OPENS IN HOLD CIRCUIT TO EXTRA BALL RELAY AND CLOSSES IN SERIES WITH SWITCH D ON EXTRA BALL RELAY.

IN HOLD CIRCUIT TO THIS RELAY.

PULSES 10,000 POINT DRUM UNITS, THRU 9TH POSITION SWITCHES ON 1,000 POINT DRUM UNITS.

PULSE 1,000 POINT DRUM UNITS, THRU PLAYER UNIT DISC.

PULSES LARGE BELL COIL.

IN HI-SCORE CIRCUIT TO REPLAY S.U. COIL OR EXTRA BALL RELAY.

I-2 RESET RELAY

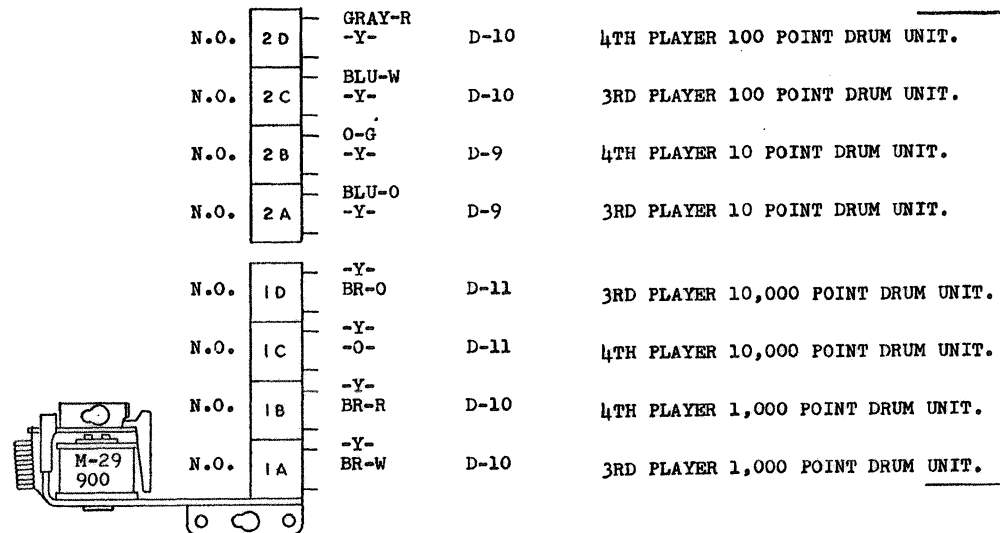
IS PULSED BY IMPULSE CAM SW. A, THRU SWITCH A ON RESET RELAY.



THESE SWITCHES PULSE THE INDICATED DRUM UNIT, THRU ZERO SWITCH ON THAT UNIT.

3-4 RESET RELAY

IS PULSED BY IMPULSE CAM SW. A, THRU SWITCH A ON RESET RELAY.



THESE SWITCHES PULSE THE INDICATED DRUM UNIT, THRU ZERO SWITCH ON THAT UNIT.

CATALOG SUPPLEMENT "S-S"

WITH
NEW PARTS & UNITS

FOR

HONEY



Williams[®] ELECTRONICS, INC.
SUBSIDIARY OF THE SEEBURG CORPORATION

3401 N. California Ave.
Phone 267-2240

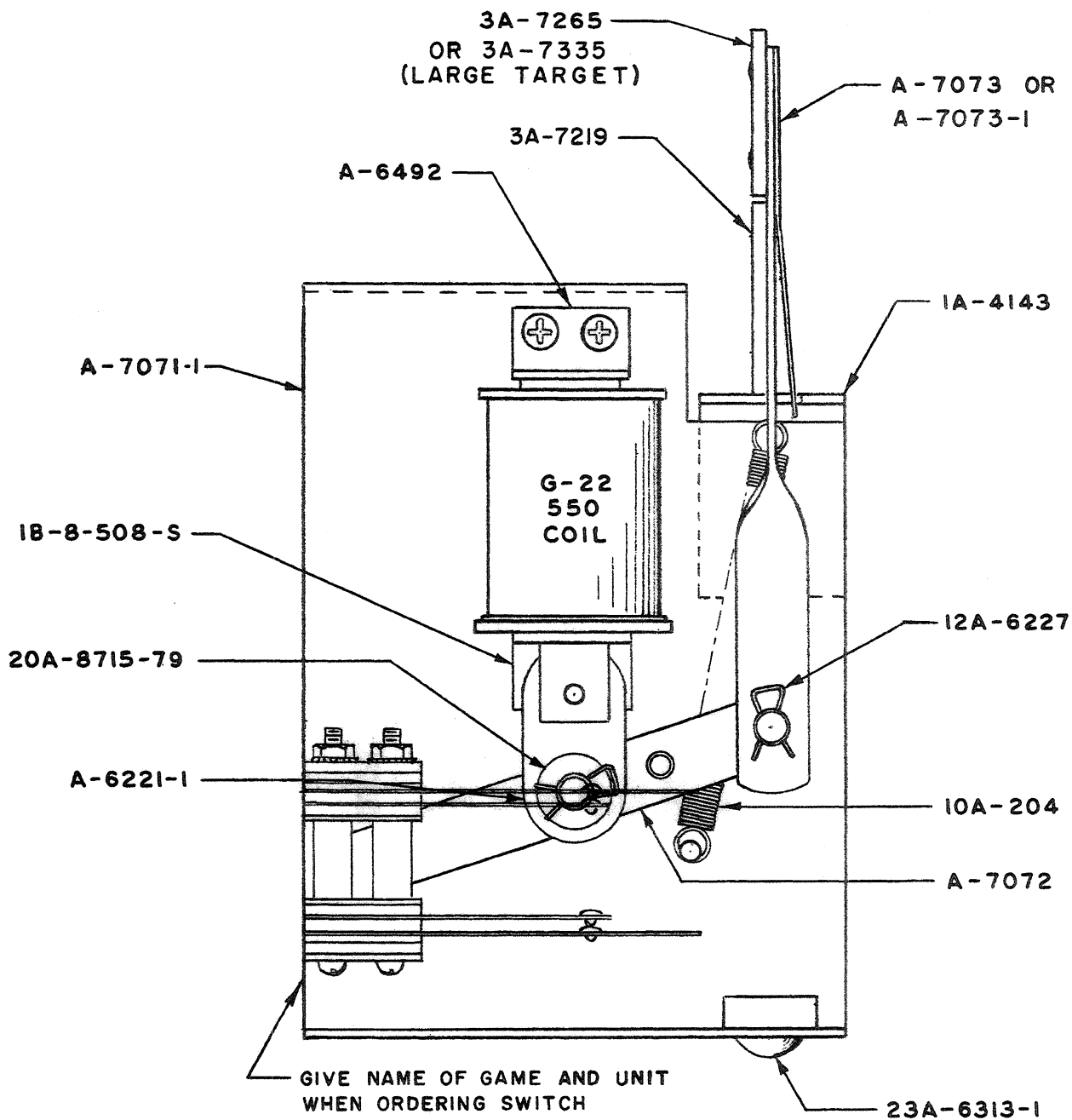
Chicago, Ill. 60618, U.S.A.
Cable Address: Wilcoin

DROP TARGET ASSEMBLY

C-7090 (WITH SMALL TARGET)

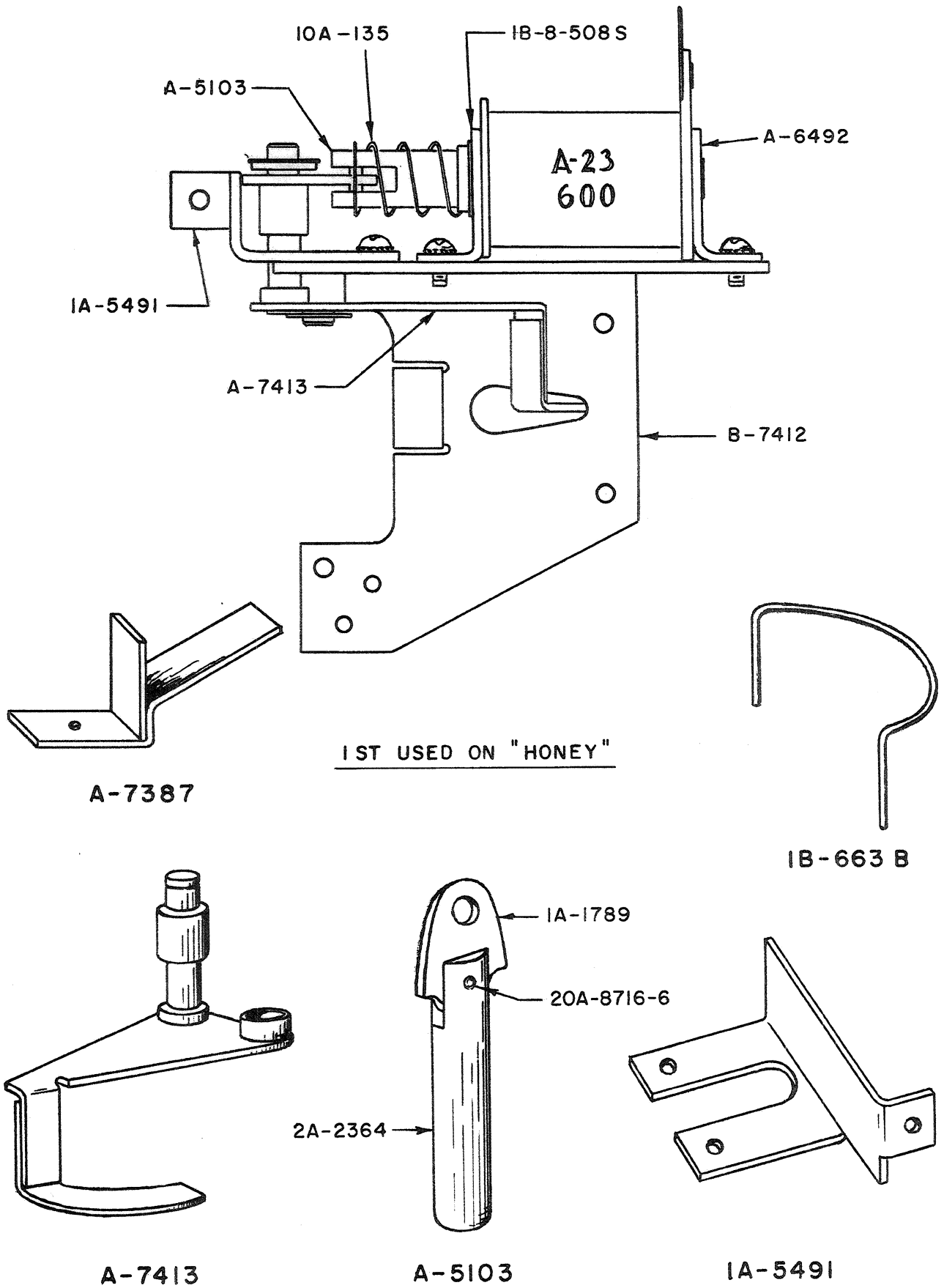
C-7090-I (WITH LARGE TARGET)

USED ON "HONEY "



NOTE: SPECIFY DESIGN AND COLOR ON TARGET

B-7407 BALL EJECT ASS'Y.



PRICE LIST

ARRANGED IN NUMERICAL ORDER

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
1B-8-508-S	Coil Support Bracket.....	.08
1B-663-B	Ball Guide Wire.....	.52
1A-1789	Armature Link.....	.14
1A-4143	Stop Bracket.....	.70
1A-5491	Plunger Stop Bracket.....	.50
2A-2364	Solenoid Plunger.....	.38
3A-7219	Plastic Stage-Drop Target.....	.04
3A-7265	Plastic Target Small (Specify Design).....	.14
3A-7335-4	Plastic Target Large (Specify Design).....	.14
10A-135	Plunger Spring.....;	.04
10A-204	Spring-Drop Target.....	.08
12A-6227	Hairpin Clip.....	.02
20A-8713-25	Truarc Crescent Ring.....	.04
20A-8715-79	Washer.....	.02
20A-8716-6	Roll Pin 1/8 x 7/16 Long.....	.04
23A-6313-1	Rubber Bumper.....	.04
A-23-600	Coil-Ball Eject.....	2.10
G-22-550	Coil-Drop Target.....	2.00
A-5103	Plunger & Link.....	.78
A-6221-1	Plunger & Link.....	.80
A-6492	Coil Stop.....	.82
A-7071-1	Frame.....	2.30
A-7072	Target Crank.....	1.82
A-7073	Arm Assembly W/Small Target.....	2.44
A-7073-1	Arm Assembly W/Large Target.....	1.80
C-7090	Drop Target W/Small Target.....	15.88
C-7090-1	Drop Target W/Large Target.....	15.30
A-7387	Ball Stop Bracket.....	.70
A-7407	Center Ball Eject-Special.....	9.50
B-7412	Mounting Plate.....	1.36
A-7413	Eject Lever.....	1.50
B-7442	Switch & Bracket-Small Target.....	3.10
B-7442-1	Switch & Bracket-Large Target.....	2.00

15B-6782 POWER TRANSFORMER

(Replaces — 15A-6773)

<i>USE TAP</i>	<i>IF LINE VOLTAGE IS</i>
105 V.	109 or LESS
117 V.	110 to 122
130 V.	123 to 135
160 V.	150 to 170

<i>USE TAP</i>	<i>IF LINE VOLTAGE IS</i>
205 V.	190 to 208
225 V.	209 to 228
240 V.	229 to 250

If game has sluggish action and dim lites, check line voltage and use proper primary tap as suggested above. For example, if line voltage is below 110V., wire may be disconnected from 117V. tap and soldered to 105V. tap. This will increase secondary voltage approximately 2-3 volts.

If action is sluggish, and proper primary tap is being used, disconnect wire from 24V. tap and solder to "high" tap. This will increase voltage to coils approximately 2-3 volts.

10 OR 12 PLAYS FOR 1 - COIN
 4 - PLAYER

