

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.**

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.

Williams ELECTRONIC MANUFACTURING CORP.

3401 N. CALIFORNIA AVENUE

CHICAGO, ILLINOIS 60618

STD 32 A

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.

STD 3A

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.**

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

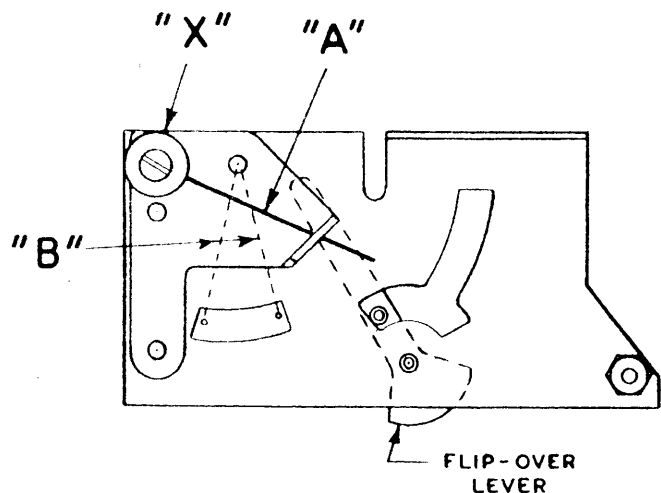
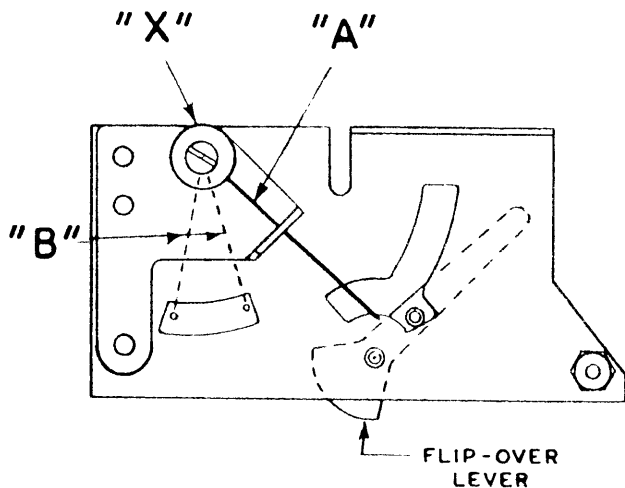
FOR 1 COIN - FOR 1 PLAY

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 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.

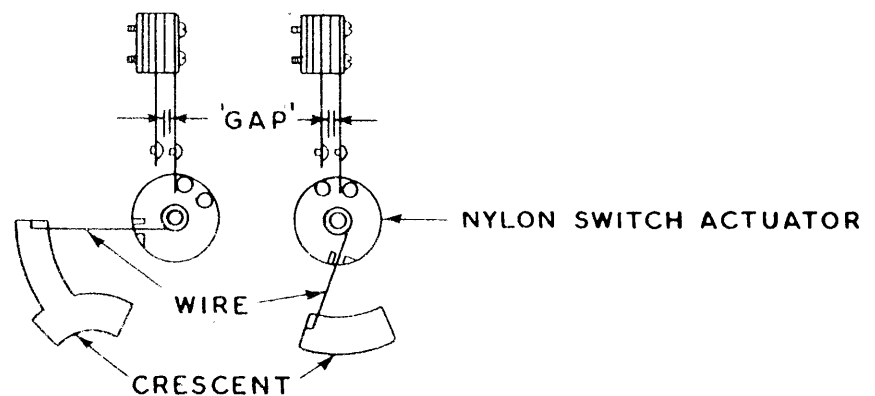
WILLIAMS ELECTRONICS INC.

3401 N. California Avenue

Chicago Ill.,

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.

PARTS LIST FOR "SHANGRI-LA"

UNIT NAME	CONTACT DISC	WIPER ASSY.	RATCHET GEAR ASSY.	MOTORS
Replay	---	---	A 6400	14 A 7805 (60 Cycle)
Ball Count	C 6932-1	C 6520-2	A 6402-5	
No. Match	C 6879-1	C 6520-10	A 6401	14 A 7806 (50 Cycle)
Coin	C 6896-1	C 6520-9	A 6402-3	
Player	C 6417	C 6521-20	A 6405-3	
0 - 9	B 6297	A 6294	3 C 7128	
Tens	---	---	3 C 7128	
Hundreds	B 6297	A 6294	3 C 7128	
Thousands	B 6297	A 6294	3 C 7128	

RELAY COILS

M 29-1000	1st & 2nd RESET RELAY 3rd & 4th RESET RELAY GAME OVER (TRIP)	INSERT INSERT MECH. PANEL
M 29-1100	1 PT. RELAY 10 PT. RELAY 100 PT. RELAY NO. 1 BUMPER RELAY NO. 2 BUMPER RELAY NO. 3 BUMPER RELAY NO. 4 BUMPER RELAY	INSERT INSERT INSERT PLAYFIELD PLAYFIELD PLAYFIELD PLAYFIELD
M 30-1400	GATE EXTRA BALL RELAY	PLAYFIELD MECH. PANEL
M 36-5500	10¢ RELAY 25¢ RELAY	MECH. PANEL MECH. PANEL
Z 27-1000	CENTER TARGET RELAY RESET RELAY OUTHOLE RELAY PLAYER RESET RELAY GAME OVER (LATCH) 300 RELAY	MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL MECH. PANEL
Z 28-1150	LOCK RELAY	MECH. PANEL
Z 28-1200	BALL INDEX RELAY	MECH. PANEL
Z 35-4200	COIN RELAY REPLAY RELAY	MECH. PANEL MECH. PANEL
S 27-500	<u>RELAY BANK COILS</u> RELAY BANK COILS ..(10 req'd.)	MECH. PANEL

"SHANGRI-LA"

ADJUSTMENT SHEET

TO MAKE GAME MORE CONSERVATIVE - MOVE POSTS 3/16", AS SHOWN IN SKETCH. SPOTTING HOLES ARE PROVIDED AND CAN BE SEEN ON REMOVAL OF POSTS.

NO. MATCH ON-OFF SWITCH,

LOCATED IN BACK BOX. WHEN SWITCH IS IN 'ON' POSITION, NUMBER MATCH WILL PAY 10% OR 1 GAME IN 10 FOR ONE PLAYER MATCHING LAST NUMBER IN POINT SCORE TO NUMBER THAT APPEARS ON BACK GLASS WHEN GAME IS OVER. IN 'OFF' POSITION, MATCH LITES WILL NOT LITE ON COMPLETION OF GAME.

3-5 BALL ADJUSTMENT SWITCH,

LOCATED IN BACK BOX. THE SWITCH CHANGES 3 TO 5 BALL, OR VICE VERSA.

10¢ ADJUSTMENT JACK,

LOCATED ON PANEL. WILL PROVIDE 1 OR 2 PLAYS FOR 1 COIN.

25¢ ADJUSTMENT JACK,

LOCATED ON PANEL. WILL PROVIDE 2-3-4 OR -5 PLAYS FOR 25¢.

EXTRA BALL CHANGE OVER,

"EXTRA BALL" RELAY ASSEMBLY AVAILABLE, WITH COMPLETE MOUNTING INSTRUCTIONS, TO CHANGE GAME FROM REPLAY TO EXTRA BALL PLAY.

THE POWER TRANSFORMER,

LOCATED ON PANEL, IS EQUIPPED WITH A SECONDARY TAP. IF YOUR GAME IS ON LOCATION WITH EXTREMELY LOW LINE VOLTAGE, REMOVE LEAD FROM LUG MARKED 24 VOLT AND SOLDER TO ALTERNATE LUG MARKED 'HIGH'. THIS WILL BOOST SECONDARY VOLTAGE BY APPROXIMATELY 4 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 OR DECREASE SCORES, RAISE REAR LEG LEVELERS TO INCREASE PITCH.

SUGGESTED SCORE CARDS,

FOR REGULAR PLAY:
5 BALL PLAY - 333-4
3 BALL PLAY - 333-4A

ROTO-TARGET UNIT ADJUSTMENT

WITH STAR IN VIEW, RED SWITCH SHOULD BE IN ACTUATED POSITION.

FOR EXTRA BALL ONLY: (NO REPLAYS)

5 BALL PLAY - 333-EB-4
3 BALL PLAY - 333-EB-4A

RUBBER RING CHART

PART NO.	INSIDE DIAMETER	WHERE USED	AMT. REQ'D
23 A 6300	5/16"	Single Posts	12
23 A 6301	3/4"	Flippers	4
23 A 6304	1-1/2"	See Adjustment Sheet	3
23 A 6306	2-5/16"	See Adjustment Sheet	3
23 A 6307	2-7/8"	See Adjustment Sheet	1
23 A 6308	3-3/8"	See Adjustment Sheet	2

"SHANGRI-LA" COIL CHART

#333

NOTICE:

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

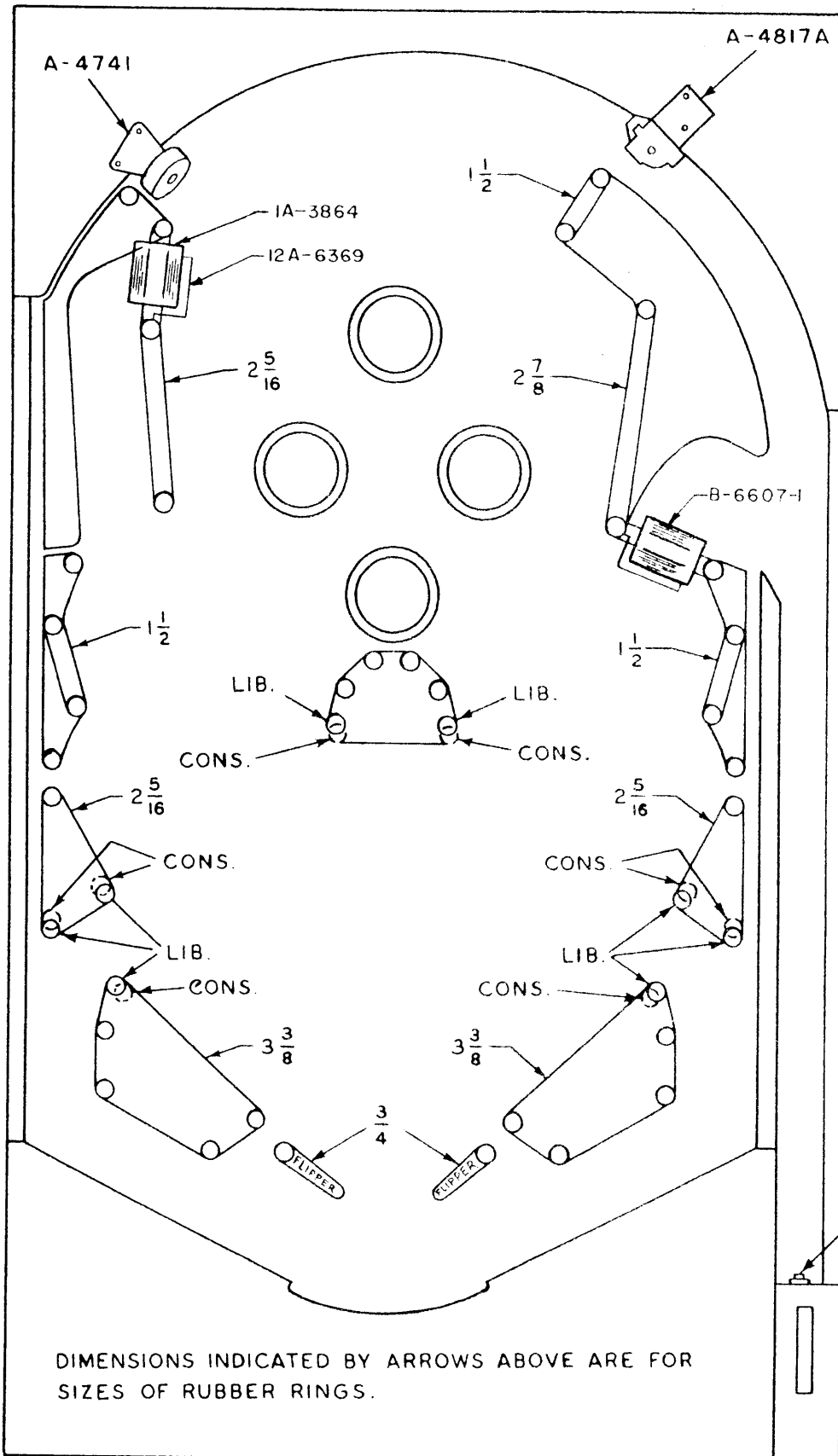
NUMBER	DESCRIPTION	LOCATION
14 A 7805	SCORE MOTOR - 60 CYCLE	MECH. PANEL
14 A 7806	SCORE MOTOR - 50 CYCLE	MECH. PANEL
15 A 6771	TRANSFORMER - 60 CYCLE	MECH. PANEL
15 A 6773	TRANSFORMER - 50 CYCLE	MECH. PANEL
B 6396	24 VOLT METER (Coil XM 27-675)	MECH. PANEL

SOLENOID COILS

A 22-550	BALL RELEASE COIL PLAYER UNIT STEP UP MATCH UNIT STEP UP COIN UNIT STEP UP TARGET ADVANCE	PLAYFIELD INSERT INSERT MECH. PANEL PLAYFIELD
A 23-600	BALL COUNT UNIT STEP UP REPLAY UNIT STEP UP	MECH. PANEL INSERT
A2-23-750	LARGE BELL KNOCKER	CABINET CABINET
B 26-800	COIN UNIT RESET REPLAY UNIT RESET PLAYER UNIT RESET BALL COUNT UNIT RESET SCORE DRUM UNIT ..(16 req'd.)	MECH. PANEL INSERT INSERT MECH. PANEL INSERT
D 24-1150	RELAY BANK RESET	MECH. PANEL
FL 21-375/ 28-400	FLIPPER COILS .. (2 req'd.)	PLAYFIELD
G 22-550	JET BUMPER COILS ... (4 req'd.)	PLAYFIELD
G 23-750	KICKER COILS ... (2 req'd.)	PLAYFIELD

" SHANGRI-LA" - 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 ○

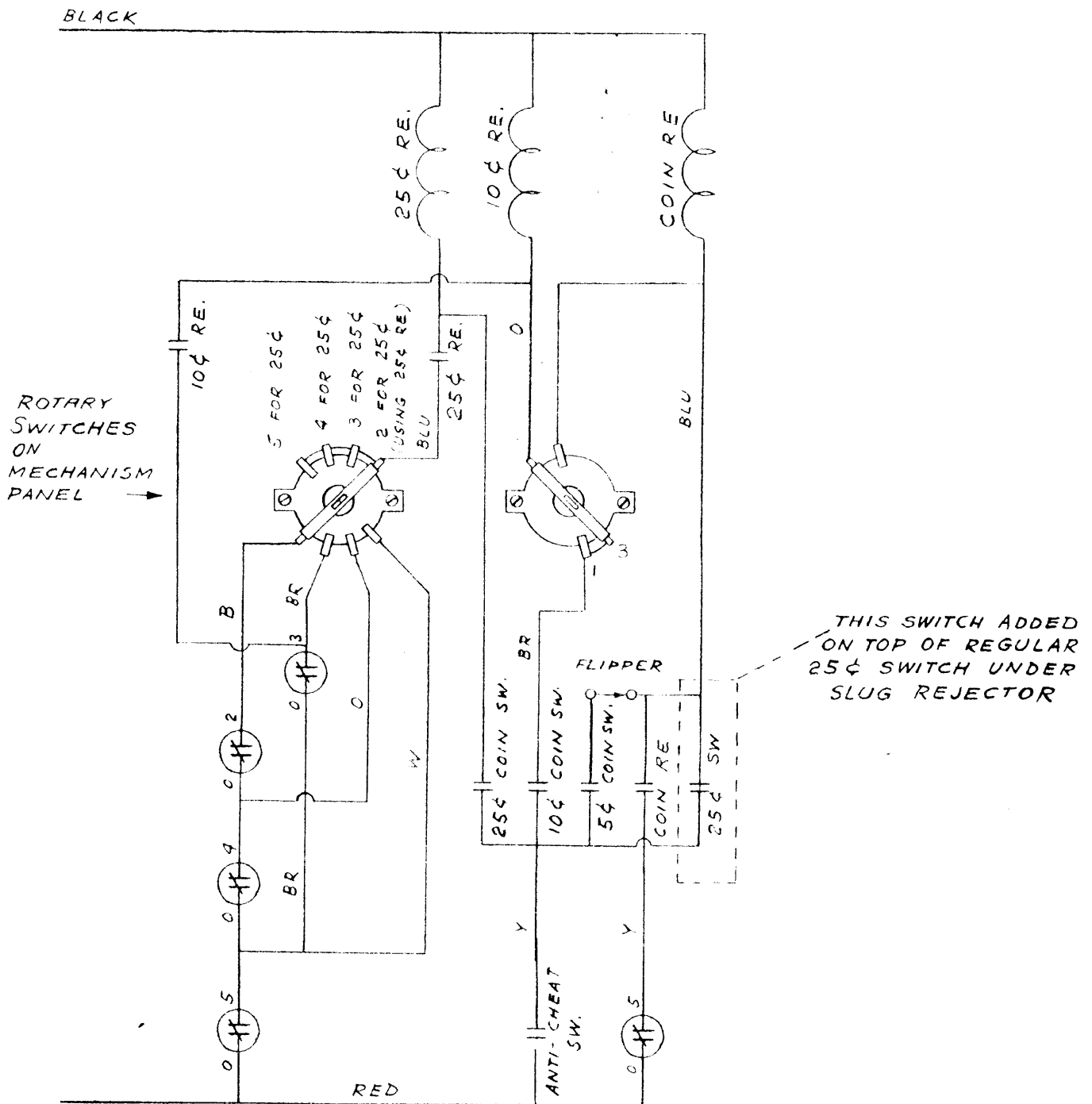
RUBBER RING NUMBERS
 23A-6300 - $\frac{5}{16}$ " I.D.
 23A-6300 - $\frac{3}{4}$ " I.D.
 23A-6304 - $1\frac{1}{2}$ " I.D.
 23A-6306 - $2\frac{5}{16}$ " I.D.
 23A-6307 - $2\frac{7}{8}$ " I.D.
 23A-6308 - $3\frac{3}{8}$ " I.D.

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

IA-3864 CONTROL GATE COVER.
 12A-6369 CONTROL GATE WIRE.
 B-6607-1 FREE BALL GATE ASSEM.

23A-6327 - BALL SHOOTER RUBBER TIP

CIRCUIT 6 PLAYS FOR 25¢



U. S.	GERMANY	FINLAND	JAPAN
25¢	1 MARK	1 MARK	¥ 100
10¢	50 PFG	50 PENNIA	¥ 50
5¢	20 PFG 2 X 10 PFG	20 PENNIA	¥ 20 2 X ¥ 10

CASH BOX CHECK-OFF LIST

JAPAN - GERMANY - FINLAND - AUSTRIA

- | | |
|---|--------------------------|
| 1. SCHEMATIC | <input type="checkbox"/> |
| 2. POST ADJUSTMENT SHEET | <input type="checkbox"/> |
| 3. COIL CHARTS | <input type="checkbox"/> |
| 4. INSTRUCTION FOR CONVERTING SLUG REJECTORS | <input type="checkbox"/> |
| 5. CLEANING PLAYFIELD INSTRUCTIONS (PLACE ON
CASH BOX COVER) | <input type="checkbox"/> |
| 6. SCORE CARDS AND SCORE CARD BLANKS (TWO) | <input type="checkbox"/> |
| 7. ADJUSTMENT SHEET | <input type="checkbox"/> |
| 8. 1 STEEL BALL 1-1/16 DIA. | <input type="checkbox"/> |
| 9. 4 BACK BOX BOLTS 3-1/2 x 3/8 x 16 | <input type="checkbox"/> |
| 10. 4 LEG CASTERS | <input type="checkbox"/> |
| 11. 4 HEX NUTS 3/8 x 16 | <input type="checkbox"/> |
| 12. 4 WASHERS 7/16 x 1" x 1/8 THICK | <input type="checkbox"/> |
| 13. 8 LEG BOLTS 2-3/8" x 3/8 x 16 | <input type="checkbox"/> |
| 14. 6 PLAYS PER COIN SCHEMATIC | <input type="checkbox"/> |

PACKED BY 901