UNITED'S

EPSILON

SHUFFLE ALLEY

ABBREVIATIONS USED		SWITCH SYMBOLS
ADJ.- ADJUSTMENT	RE.-RELAY	NORMALLY OPEN SWITCH CLOSED WHEN ENERGIZED
J - JUMPER	R.O.- ROLLOVER	NORMALLY CLOSED SWITCH OPEN WHEN ENERGIZED
M'T'R.- MOTOR	S.U.- STEP UP UNIT	SWITCH CONTAINED WITHIN A CIRCLE INDICATES OPERATION BY A MOTOR CAM
P - PLAYER	SW.- SWITCH	MAKE & BREAK SWITCH
POS.- POSITION	SWS.-SWITCHES	
E.O.S.-END OF STROKE	D.U.-DRUM UNIT	

WIRE COLOR CODE		
B - BLACK	G - GREEN	R - RED
BLU - BLUE	O - ORANGE	W - WHITE
BR - BROWN	P - PURPLE	Y - YELLOW
EXAMPLE:	W-R INDICATES A WHITE WIRE WITH A RED TRACER	

-YELLOW-

SCORE MOTOR DISC (III) W RIVETS, (II) U RIVETS, (II) T RIVETS

REAR ROLL OVER RE. Z-31P 2000

1st BALL RE. S-29 950

2nd BALL "A" RE. S-29 950

2nd BALL "A" RE

1st POS. SCORE MOTOR

GAME SELECTION DISC

1st BALL RE.

SCORE MOTOR RE.

ZERO POS. SCORE MOTOR

2nd BALL "A" RE.

I RE.

I-10 RE.

FLASH RE.

LOCK RE.

BONUS RESET RE. Z-29P 1400

REAR ROLL OVER RE.

(8) REAR ROLL OVER SWS

2-WATTS 2700 Ω

GAME OVER RE.

(3) RESET RELAYS Z-29P 1400 "A" "B" "C"

START RE.

SEE SECTION C-12

FLASH MOTOR RELEASE COIL Z-30P 1600

FLASH MOTOR 14A-7766

FLASH RE. 25P 2000

GAME OVER RE. S-29 950

BONUS LITE RE.

11th FRAME RE. S-29 950

11th FRAME RE.

BONUS RESET RE.

BONUS RESET RE.

BONUS RESET RE.

PLAYER UP DISC

(6) STRIKE SPARE S.U. ZERO POS. SWS.

FRAME CONTROL DISC

GAME SELECTION DISC

BONUS RE. Z-30P 1800

I-10 RE.

11th FRAME RE.

BONUS LITE RE. Z-31P 2000

2-WATTS 2700 Ω

PLAYER UP DISC

(6) 10-90 DRUM S.U. SWS. CLOSED AT 9th POS.

10-90 SCORE RE.

SCORE MOTOR DISC

BONUS RE.

PLAYER UP DISC

(6) 1-9 DRUM S.U. SWS. CLOSED AT 9th POS.

1-9 SCORE RE.

10-90 SCORE RE. M-31P 1500

100's SCORE RE. M-31P 1500

GAME SELECTION DISC

FLASH RE.

FLASH MOTOR DISC

2nd BALL "A" RE

GAME SELECTION DISC

SCORE MOTOR DISC

FRAME CONTROL DISC

1st PLAYER STRIKE SPARE DISC

PLAYER UP DISC

2nd 3rd

STRIKE

11th FRAME RE.

I-10 RE.

GAME SELECTION DISC

I-10 RE.

BONUS RE.

STRIKE SPARE RESET RE. M-31P 1500

GREY

-BLACK-

-RED-

15 AMP FUSES

VOLTAGE CONTROL JACK A-HIGH B-NORMEL

(6) 1-9 DRUM S.U. B-28 1450

(6) 10-90 DRUM S.U. B-28 1450

(6) 100's DRUM S.U. B-28 1450

(6) 1000's DRUM S.U. B-28 1450

FRAME DRUM S.U. B-28 1450

(6) STRIKE-SPARE RESET B-27 1100

(6) STRIKE-SPARE S.U. A-25 1000

STRIKE-SPARE RESET RE.

STRIKE-SPARE RESET RE.

STRIKE-SPARE ADVANCE RE.

(25) DRUM S.U. ZERO POS. SWS

(25) RESET RE. SWS.

PLAYER UP DISC

1-9 SCORE RE.

10-90 SCORE RE.

100's SCORE RE.

START RE.

(6) 100 S.U. 9th POS. SWS.

FRAME CONTROL S.U. E.O.S. SW.

FRAME CONTROL DISC

-YELLOW-

-BLACK-

-RED-

15A-6775 TRANSFORMER

ON-OFF SW.

-PURPLE-

115-Volts 60-Cycles

20 WATT BALLAST

20 WATT BALLAST

SCORE CONTROL RE.

115 VOLTS SERVICE OUTLET

BONUS RE.

3rd POS SCORE MOTOR

FS-2 STARTER

SCORE INSERT

FLUORESCENT LIGHT BULB

FS-2 STARTER

HOOD INSERT

F40T12CW FLUORESCENT LIGHT BULB

RELAY BANK RESET COIL D-22 1150

15 AMP. FUSE

50 Volts

6 Volts

-BLUE-

15 AMP. FUSES

DISPLAY LITES

GAME SELECTION DISC

NAME OF GAME LITES

DUAL

FLASH

REGULATION

BONUS

X XX 100

COIN DISC

NUMBER OF PLAYER LITES

1 2 3 4 5 6

GAME OVER

GAME OVER RE.

PLAYER UP LITES

1 UP 2 UP 3 UP 4 UP 5 UP 6 UP

FRAME DRUM LITE

10th FRAME LITE

BOWL AGAIN LITE

EXTRA SHOTS DISC

10th FRAME STRIKE SPARE LITES

/ X

-YELLOW-

-WHITE-

-YELLOW-

-WHITE-

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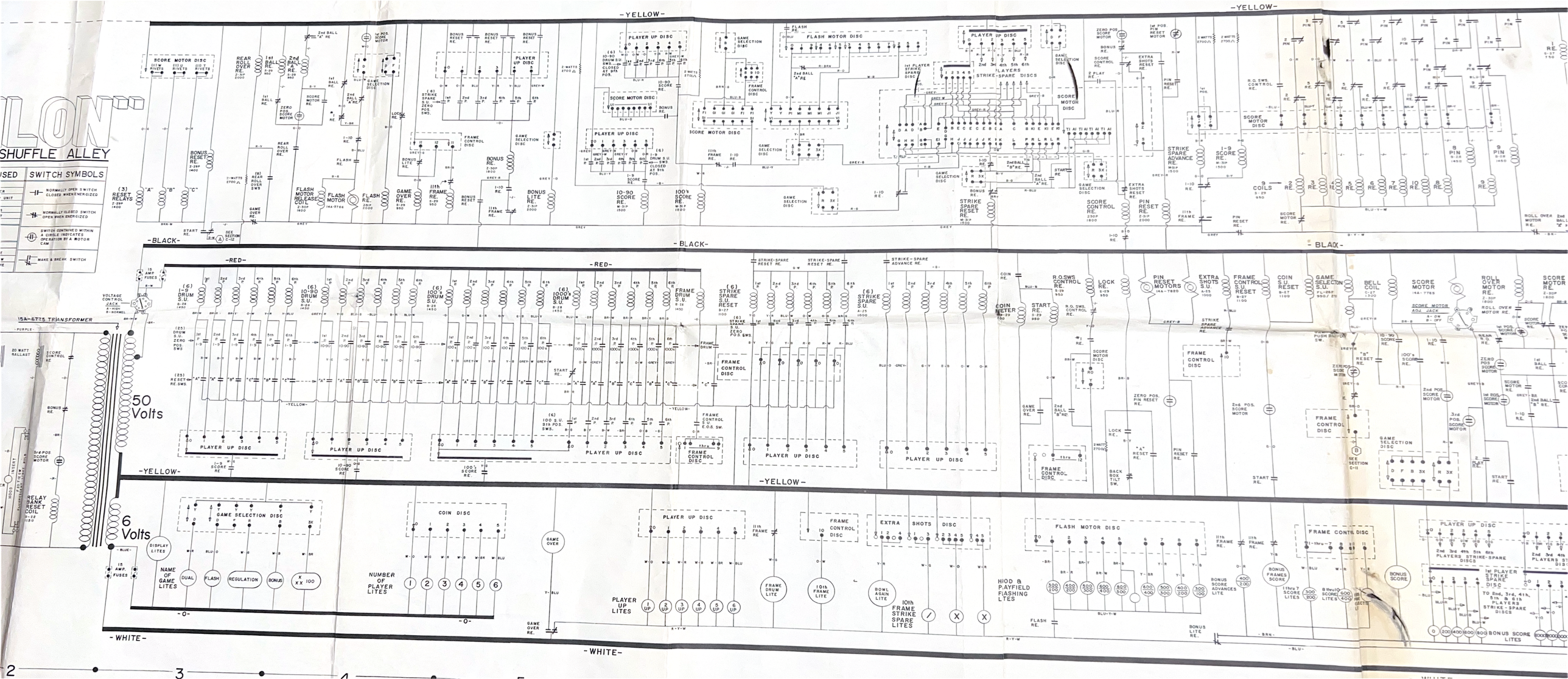
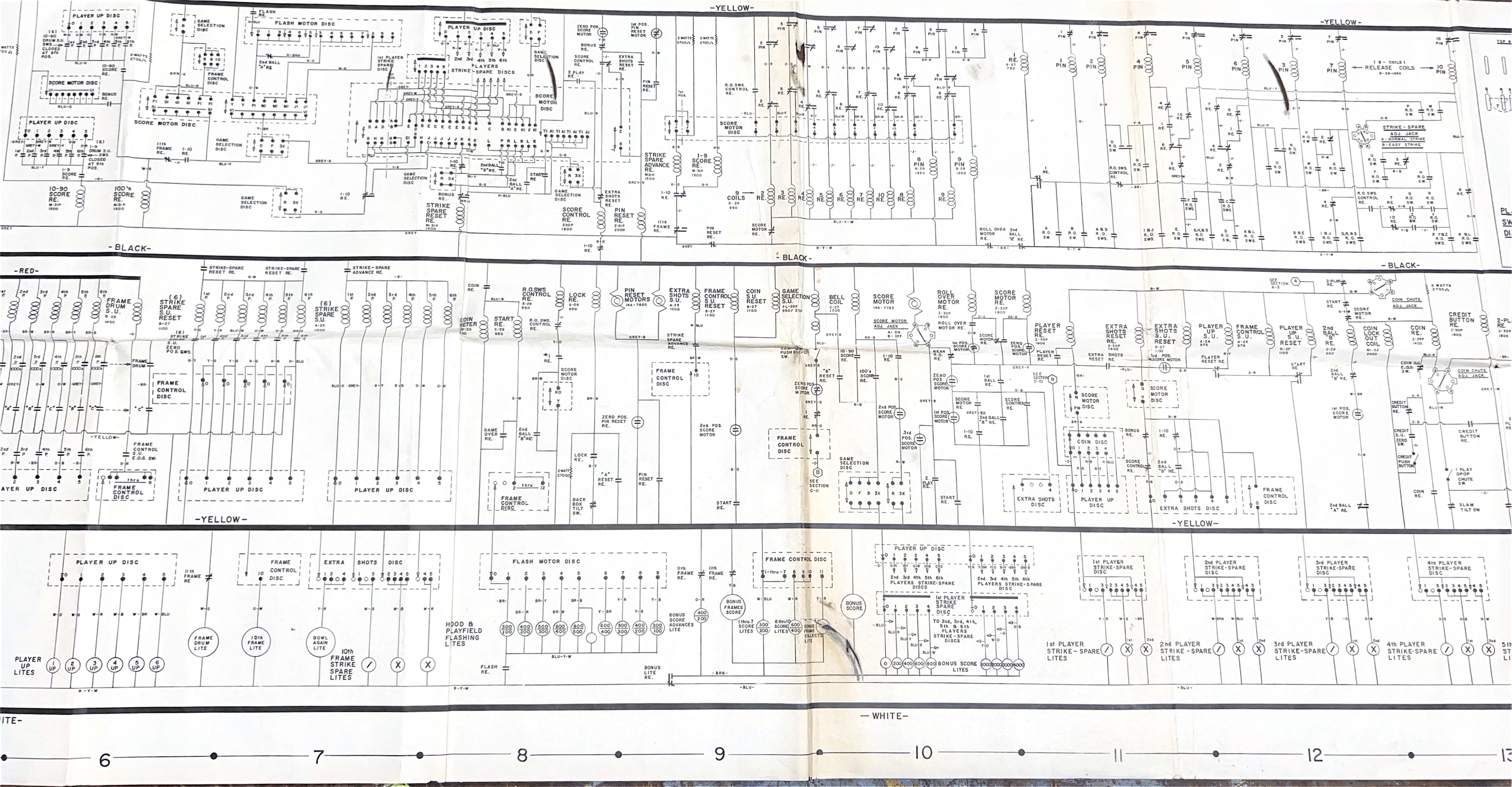
11-5-69

BY-R.V.

1 2 3 4 5 6 7



SHUFFLE ALLEY
SWITCH SYMBOLS
NORMALLY OPEN SWITCH CLOSED WHEN ENERGIZED
NORMALLY CLOSED SWITCH OPEN WHEN ENERGIZED
SWITCH CONTAINED WITHIN A CIRCLE INDICATES OPERATION BY A MOTOR CAM
MAKE & BREAK SWITCH
-YELLOW-
-BLACK-
-RED-
-WHITE-
50 Volts
6 Volts
15A-6775 TRANSFORMER
SCORE MOTOR DISC
PLAYER UP DISC
FLASH MOTOR DISC
FRAME CONTROL DISC
GAME SELECTION DISC
COIN DISC
EXTRA SHOTS DISC
NAME OF GAME LITES
DUAL
FLASH
REGULATION
BONUS
NUMBER OF PLAYER LITES
PLAYER UP LITES
FRAME DRUM LITE
10th FRAME LITE
BOWL AGAIN LITE
10th FRAME STRIKE SPARE LITES
HIOD & PAYFIELD FLASHING LTES
BONUS SCORE ADVANCES LITE
BONUS FRAMES SCORE
BONUS SCORE
BONUS SCORE LITES
RELAY BANK RESET COIL


-YELLOW-
-BLACK-
-RED-
-WHITE-
PLAYER UP DISC
FLASH MOTOR DISC
SCORE MOTOR DISC
GAME SELECTION DISC
FRAME CONTROL DISC
PLAYERS STRIKE-SPARE DISCS
STRIKE SPARE RESET RE.
STRIKE SPARE ADVANCE RE.
SCORE CONTROL RE.
PIN RESET RE.
10-90 SCORE RE.
100's SCORE RE.
1-9 SCORE RE.
9 COILS
RELEASE COILS
STRIKE-SPARE ADJ. JACK
A-NORMAL STRIKE
B-EASY STRIKE
FRAME DRUM S.U.
(6) STRIKE SPARE S.U. RESET
(6) STRIKE SPARE S.U.
R.O.SWS CONTROL RE.
LOCK RE.
PIN RESET MOTORS
EXTRA SHOTS S.U.
FRAME CONTROL S.U. RESET
COIN S.U. RESET
GAME SELECTION S.U.
BELL COIL
SCORE MOTOR
ROLL OVER MOTOR RE.
SCORE MOTOR RE.
PLAYER RESET RE.
EXTRA SHOTS RESET RE.
EXTRA SHOTS S.U. RESET
PLAYER UP S.U.
FRAME CONTROL S.U.
PLAYER UP S.U. RESET
COIN LOCK OUT COIL
COIN RE.
CREDIT BUTTON RE.
COIN CHUTE ADJ. JACK
COIN DISC
EXTRA SHOTS DISC
PLAYER UP LITES
FRAME DRUM LITE
10th FRAME LITE
BOWL AGAIN LITE
10th FRAME STRIKE SPARE LITES
HOOD & PLAYFIELD FLASHING LITES
BONUS SCORE ADVANCES LITE
BONUS FRAMES SCORE
BONUS SCORE
BONUS SCORE LITES
1st PLAYER STRIKE-SPARE DISC
2nd PLAYER STRIKE-SPARE DISC
3rd PLAYER STRIKE-SPARE DISC
4th PLAYER STRIKE-SPARE DISC
1st PLAYER STRIKE-SPARE LITES
2nd PLAYER STRIKE-SPARE LITES
3rd PLAYER STRIKE-SPARE LITES
4th PLAYER STRIKE-SPARE LITES
6
7
8
9
10
11
12

-YELLOW-

-YELLOW-

TOP 9 SWITCHES OPERATE 1st & 2nd BALL RELAYS

PLAYFIELD SWITCHES DIAGRAM

STRIKE ZONES

- BLACK -

- BLACK -

-YELLOW-

-YELLOW-

— WHITE —

— WHITE —

8 9 10 11 12 13 14