T A B L E   O F   C O N T E N T S
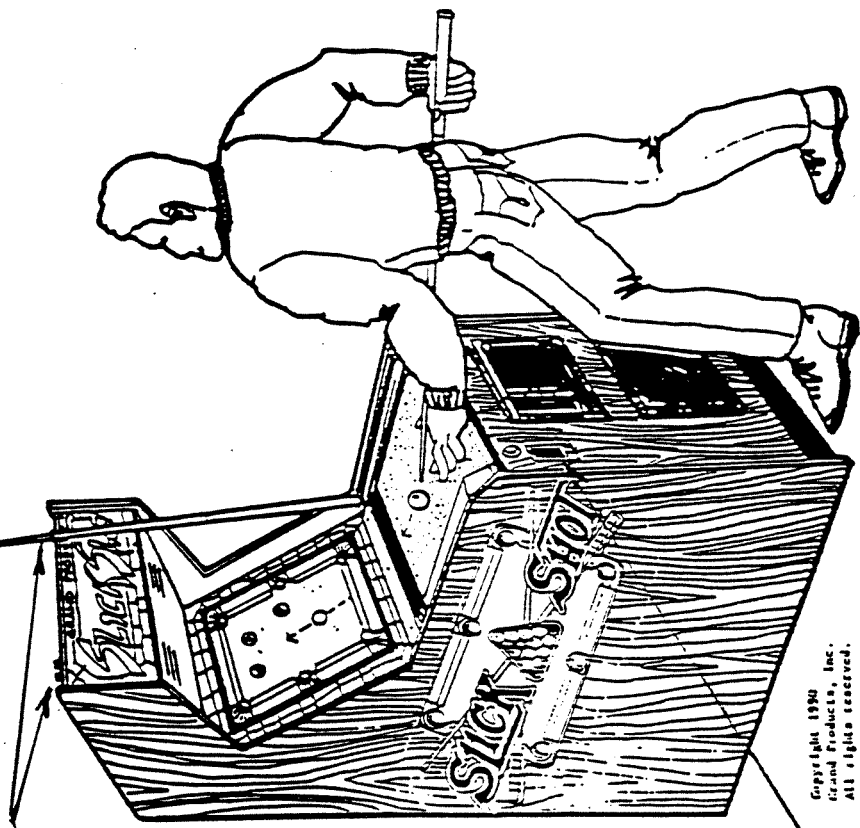
© 1990 Grand Products, Inc.

WARNING

THIS GAME MUST BE GROUNDED. FAILURE TO DO SO
MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.

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*When game is first powered up a message on screen, accompanied by an audio alarm, will inform the operator that the ball is missing. Roll the supplied cue ball into the area beneath the monitor. Once the ball is registered by the game, the message will disappear and the game will be ready to play.

-Position cue sticks as shown - sticks nest into bottom bracket and snap into clips at top.
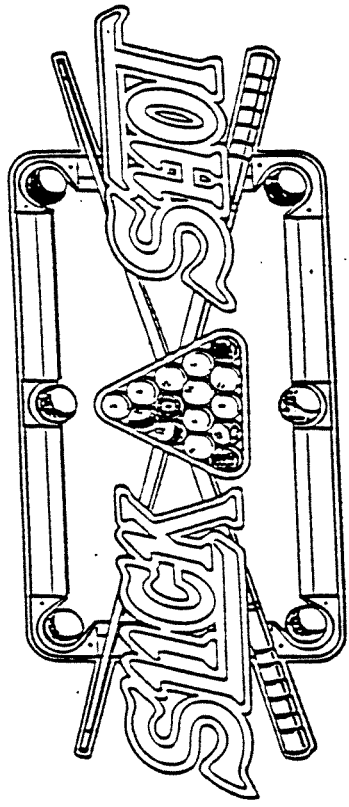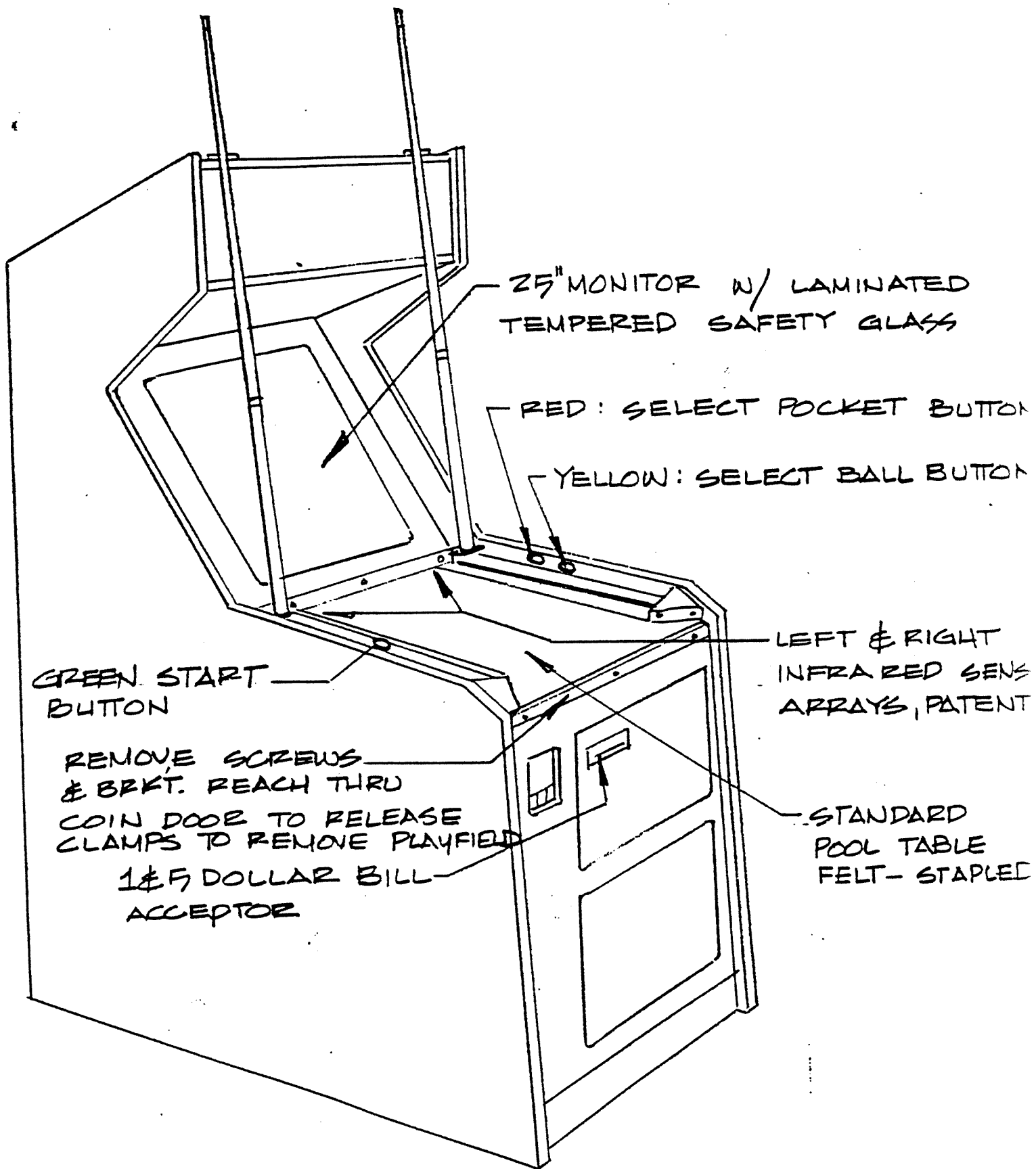
-Ball is returned into illuminated pocket in between shots for retrieval by player. The game automatically keeps the ball after the players last shot to reduce ball theft.

IMPORTANT F.C.C. WARNING

WARNING

THIS EQUIPMENT GENERATES, AND CAN RADIATE RADIO FREQUENCY
ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE
INSTRUCTION MANUAL, MAY CAUSE INTERFERENCE TO RADIO
COMMUNICATIONS. AS TEMPORARILY PERMITTED BY REGULATION IT
HAS NOT BEEN TESTED FOR COMPLIANCE PURSUANT TO SUBPART J OF
PART 15 OF FCC RULES, WHICH ARE DESIGNED TO PROVIDE
REASONABLE PROTECTION AGAINST SUCH INTERFERENCE. OPERATION
OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE
INTERFERENCE IN WHICH CASE THE USER, AT HIS OWN EXPENSE,
WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE NECESSARY
TO CORRECT THE INTERFERENCE.

25" MONITOR W/ LAMINATED
TEMPERED SAFETY GLASS

RED : SELECT POCKET BUTTON

YELLOW : SELECT BALL BUTTON

LEFT & RIGHT
INFRARED SENS
ARRAYS, PATENT

GREEN START
BUTTON

REMOVE SCREWS
& BRKT. REACH THRU
COIN DOOR TO RELEASE
CLAMPS TO REMOVE PLAYFIELD

STANDARD
POOL TABLE
FELT- STAPLED

1&5 DOLLAR BILL
ACCEPTOR

S L I C K   S H O T ™

Installation

1. Adjust 4 (four) provided leg levelers on bottom of cabinet.

   Note - Level game for proper play.

2. The 117VAC power is controlled by a switch located on top of the cabinet.

3. Plug in line cord into 117VAC 60 cycle grounded outlet.
   (Foreign games 220,240 volts.)

Volume Control

1. Located in cash box area and controls volume of all sounds which may be varied by rotating control pot.

Game Adjustment and Bookkeeping

1. Refer to operating settings and bookkeeping screens.

Self Test

1. During power up sequence the game does a self test and a bad ROM or RAM will be indicated.

Slick Shot Rules

1. Sink number balls for points.

2. Sink flashing yellow ball for bonus time.

3. Sink two or more balls per shot for bonus time.

4. Sink flashing red ball and you scratch.

5. You shoot until you miss or scratch.

6. Press flashing red or yellow button to call shot or pocket.

    Yellow Button – Select Ball
    Red Button – Select Pocket

Game Operation

After power up sequence coins or bill can be deposited and a 1 to 4 player game can be played.

Each coin or bill deposited will give credit as shown below:

Price per Credit–

25 cents – 1/2
50 cents – 1
1 dollar – 2
5 dollars – 12

Starting and Playing Game

1. Pressing Start button releases cue ball and starts game.

2. Game timer for each player starts counting down from one minute and thirty seconds only when each player takes a turn (adjustable).

3. Remove cue ball from return cup and place cue ball on playfield. Use pool stick to shoot ball under tv monitor.

4. The left and right playfield sensors will detect speed and direction of your cue ball and presents a cue ball on the tv screen pool table in line with your shot.

5. Your cue ball will be returned to you in the ball return cup.

6. Shooting at combinations of balls with numbers 1 to 9 will score the value of that ball sinking in any pocket.

7. Sinking flashing yellow bonus ball in any pocket, this allows additional bonus time added to your game timer. (adjustable)

8. When sinking two or more number balls per shot in any pocket allows additonal bonus time on your game timer. (adjustable)

   Note - 3 balls double bonus
          4 balls double, double bonus

9. Sinking a white or red ball (no number) in any pocket eliminates scoring for that shot. (scratch)

10. Timer stops counting during scoring sequence.

11. The timer can show zero but the game will not end only on a miss or scratch shot.

12. When game ends by time or a miss shot you can continue the same game by pressing start button when you have credit or depositing a coin.

13. The top ten high scores will be displayed on the screen with player initials.

14. Game allows 15 seconds between shots as per shot timer. (adjustable)

   * Note - Keep game level at all times.

High Score Feature

1. The top ten high scores will be displayed on the high score screen. The top ten high scores will also display three initials next to each score and number of games.

   The screen format will be similiar to the following:

Name	Score	Games
PMJ	50	1
TS	40	1
A	34	2
RT	30	1
DT	20	1
SH	50	5
RD	40	4

DM	30	3
A	34	2
GP	10	1

How To Enter Your Initials

Press red and yellow buttons to change letters.   Press green button to enter.

Game Adjustments and Bookkeeping

There are a series of diagnostic screeens that allows the logic system to be an aid in game adjustments, bookkeeping and sensor testing. To enter the above mode locate the test button in the cash box area. (coin door)

Screens

1. Game Stats.
2. Game Settings
3. Money Settings
4. Check Ball Sensors
5. Sound System Test
6. Ticket Settings

7. Color Bar Test
8. Ball Motion Test
9. Cartoon Screens

1. Game Stats.

Total games :	0
Average game :	00:00
Longest game :	00:00
Average bonus :	00:00
Most bonus time :	00:00
Call pocket level :	0
Call ball level :	0
Call both levels :	0
One player games :	0
Two player games :	0
Three player games :	0
Four player games :	0
Buy in games :	0

Press red button to reset.

2. Game Settings :

Shot time	00:15
Start game time	01:30
Yellow bonus time	00:30
Ball bonus time	00:10
Call pocket score	100
Call ball score	150
Call both score	200
Attract song delay	00:5
Attract sounds	ON

Use factory settings (as shown above)

Game Settings continued

Press red button for up
Press yellow button for down
Press green button to select

3. Money Settings

25 cents	1/2
50 cents	1
1 dollar	2
2 dollars	4
5 dollars	12

Money type   Dollars and tokens

Use factory settings (as shown above)

Press red button for up
Press yellow button for down
Press green button to select

4. Check Ball Sensors

Roll cue ball

Beams	03
T count 1	0050
T count 2	070F
T count 3	0067
T 01	0050
T 02	076 C
T 13	0776
X	0062
VX	0500
VY	6B00

When rolling cue ball past the sensor devices the above code will change,
if not the left or right sensor board circuit is defective.

5. Sound System Test

Current Sound 0
Press red button for up
Press yellow button for down
Press green button for sound
Press red and yellow button to return to 0

6. Ticket Settings

First ticket score	5
Additional score	15
Buy in reset	NO
Tickets Dispensed	0

Use factory settings

6.   Ticket Settings continued

Press red for up
Press yellow for down
Press green to select

Slick Shot™

General Trouble Shooting

Introduction

The most common problems occur in the harness area such as the coin door, player controls, interconnectwiring etc. The TV monitor trouble shooting will not be covered in this manual. This information can be obtained from Wells Gardner. (Telephone 708-252-8220)

The Logic PC Board is a complex device and should be handled with care.

General Suggestions

The first in trouble shooting procedure is correctly identifying the malfunction symptoms. A careful trained eye will see additional clues.

After all the clues are carefully considered, the possible malfunctioning areas can be narrowed down to one or two good suspects. Those areas can be examined until the cause of the malfunction is discovered.

Harness Component Trouble Shooting

Possible problems in this area are coin, credit, power, lights and failure of certain features.

No Coin or Credit

A coin inserted and a credit is not awarded. First check to see if the coin is in the return cup. If the coin has returned the problem would be in the coin acceptor only. Next clean and inspect the coin acceptor and try with coind. Make adjustments or replace coin acceptor.

No Credit and Coins Go Into Cash Box

In this case you have a coin switch failure or an electrical failure of the coin/start circuit. First examine the coin switch wire form, stroke and wire connections. Then check coin switch for continuity with Ohm meter. If coin switch checks out proceed to the wiring between coin door and logic board.

If the above checks out the trouble must be in the coin/credit circuits of the logic board.

Transformer and Line Voltage

Your game must have the correct line voltage to operated properly. No game will function below 105VAC. In any case the best way to check for correct line voltage is with your volt meter. Set the meter to the next higher scale above 117VAC and stick your probes in the wall outlet. If it is good here check the 117VAC transformer wiring, solder connections, fuse block, on/off switch, switch and wiring harness.

The transformer must be correctly grounded to prevent a hum bar, rolling up or down the TV screen.

Harness Problems

Additional harness problems can be fuses blowing and malfunctioning control.

The best way to approach this problem is by turning the power off and disconnecting devices that may be causing the condition such as the monitor, PC boards and controls. Disconnect the devices by pulling off the connectors and connecting your volt meter across the fuse that is blowing (power turned off) and set your meter to a resistance scale. This will save blowing fuses each time you check the circuit for a short. If the meter reads no short with all connectors removed, reconnect the devices one at a time until the meter reads a short. The last device connected caused the short. If the meter reads a short with all devices disconnected then the short is caused by the harness cable which may be pinched somewhere.

Malfunction Controls

The most common problem here would be a bad potentiometer, switch, connector or wiring. A bad pot is normally replaced and switches readjusted, cleaned or replaced. Check for pinched, broken and wire soldering. Also check wiring from controls to logic board using volt meter. If everything checks out, your trouble is in the logic board circuits.

T.V. MONITOR

Warnings

1. Power Up Warning

   Caution: If the monitor is to be powered up outside of the games console, an isolation transformer must be used for the AC power source.

2. X-Radiation

   This chassis has been designed for minimal x-radiation hazard. However, to avoid possible exposure to soft x-radiation it is IMPERATIVE that the EHT circuitry IS NOT modified.

3. High Voltage

   The colour monitor contains HIGH VOLTAGES derived from power supplies capable of delivering LETHAL quantities of energy. To avoid DANGER TO LIFE, do not attempt to service the chassis until all precautions necessary for working on HIGH VOLTAGE equipment have been observed.

4. CRT Handling

   The picture tube encloses a high vacuum and due to the large surface area is subject to extreme force. Care must be taken not to bump or scratch the picture tube as this may cause the tube to implode resulting in personal injury and property damage. Shatter-proof goggles must be worn by individuals while handling the CRT or installing it in the monitor. Do not handle the CRT by the neck.

5. To prevent fire or shock hazard DO NOT EXPOSE THIS MONITOR TO RAIN OR MOISTURE.

COLOR MONITOR SETUP INSTRUCTIONS
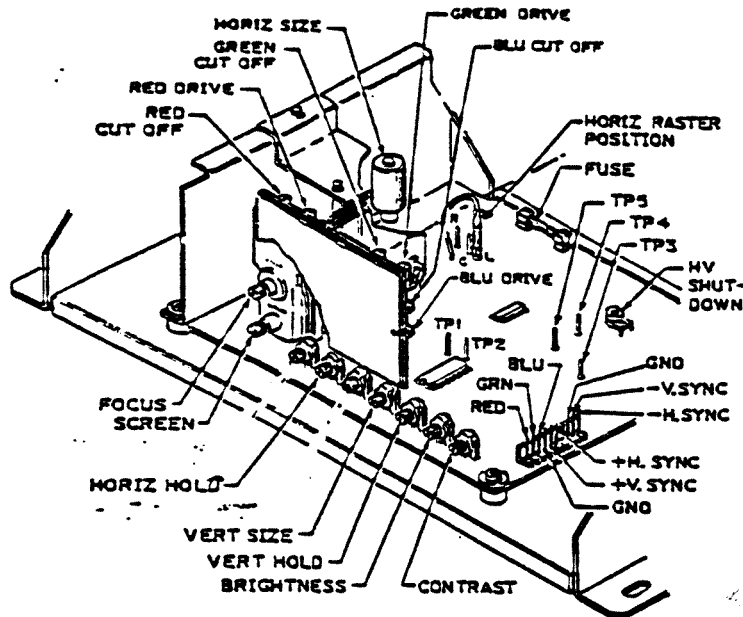
1. **HORIZONTAL FREQUENCY**

   With the monitor being driven with the display signal, connect one
   jumper between TP1 and TP2 and another jumper between TP3 and TP4.
   Adjust the horizontal hold control until the picture stops sliding
   horizontally. Remove the jumpers. Do not use the horizontal hold
   control for horizontal centering. (See #3)

   NOTE: If the sync signal is composite, use the horizontal sync input of
   the same polarity as the composite sync signal.

2. **PICTURE SIZE**

   Adjust the vertical size control, and the horizontal width coil for
   desired picture size.

3. **PICTURE CENTERING**

   If the video is off center vertically, turn the vertical raster position
   control to move the raster up or down. If the video is off center
   horizontally adjust the horizontal video shift control to center the picture.
   If any additional horizontal positioning is required, move the horizontal
   raster position jumper to the left or right position.

4. **BRIGHTNESS**

   Adjust the brightness control to obtain the proper illumination. Adjust
   this control such that the illumination is just barely extinguished from
   portions of the display which should be black.

5. **CONTRAST CONTROL**

   Adjust the contrast control for the desired picture intensity.

6. **FOCUS**

   Adjust the focus control for the best overall definition and fine picture
   detail.

-10-

Slick Shot ™

Parts List

Description	Part Number
Line Filter	0053-010-000
Florescent Lamp	A056-005-000
Starter 15W	A056-004-000
Ballast 117V 60 Cycles	A056-002-000
Speaker 8 Ohms	A056-008-000
Ballast 240V 50 Cycles	A056-002-100
Bill Acceptor (Mars)	0059-403-000
25" Monitor (Wells Gardner)	0056-032-000
Red Button Select Pocket	0059-289-000
Yellow Button Select Ball	0059-290-000
Green Button Start	0059-291-000
Cue Ball	0105-900-000
Pool Stick	0105-901-000
Switching Power Supply	0053-001-000
Ball Sensor PC (Left and Right)	0105-701-000
Main Logic PC	0105-700-000
Volume Control 100 Ohms	A057-300-000
Lamps #555 6V	0056-012-000
Top Header	0105-508-100
Front Glass	0105-509-100
Playfield Green Cloth	0105-904-000
Ball Release Coil	0050-001-000
AC Driver	0105-702-000

WIRE DIAGRAM

TO BE

ADDED LATER

NOTES

This space is provided for personal notes

HARNESS CONNECTOR

WIRE COLOR	SOLDER SIDE	PIN	PIN	COMPONENT SIDE	WIRE COLOR
Black	Gnd	A	1	Gnd	Black
Black	Gnd	B	2	Gnd	Black
Red	+5 VDC	C	3	+5 VDC	Red
		D	4	+5 VDC	Red
Yellow	-5 VDC	E	5		Blue
Orange	+12 VDC	F	6	+12 VDC	Orange
——	KEY	H	7	KEY	——
		J	8	Coin Meter 1	Blue -Black
——		K	9		——
Yellow-Red	Speaker (-)	L	10	Speaker (+)	Red-Yellow
——		M	11		——
Green	Video Green	N	12	Video Red	Red
White	Video Sync	P	13	Video Blue	Black
White-Brown	Service SW	R	14	Video Gnd	Brown
		S	15		
Green-Yellow	Start	T	16	Coin	White-Yellow
Green-Black	Select Pocket	U	17		
Black-Yellow	Pocket Lite	V	18		
White-Red	Ball Lite	W	19	Bill Acceptor	Brown-White
Yellow-Green	Ball Release	X	20		
Orange-Green	Start Lite	Y	21	Ball Switch	Orange-Green
		Z	22	Select Ball	Red-White
		a	23		
		b	24		
——		c	25		
——		d	26		
Black	Gnd	e	27		
Black	Gnd	f	28	Gnd	Black