GUERRILLA WAR

INSTRUCTION MANUAL

FCC WARNING

   This equipment operates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio commmunications.
   It has been tested and found to comply with the limits for a class "A" computing device pursuant to sub-part J of part-15 of F.C.C. rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.
   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 required to correct the interference.
   SNK Corporation recommends a grounded 3 wire outlet to be used for supplying power.

NOTICE:

Specifications and modifications may be changed without advance notice or warning.

GUERRILLA WAR

TABLE OF CONTENTS

I. GENERAL INFORMATION

INTRODUCTION

Guerilla War is a microprocessor based coin-operated electronic game that makes extensive use of digital integrated circuitry and television monitor concepts. This manual is designed for the use of maintenance technicians who possess a general knowledge of solid-state circuitry and video monitor theory. Any individual NOT knowledgeable in these areas SHOULD NOT attempt repair of the electronic portions of the game.

In addition to this manual and training in electronics, troubleshooting and repair will be facilitated by access to general-type handtools, a multimeter, a 50 or 100MHZ oscilloscope and a logic probe would be helpful.

Technical assistance is available by contacting your SNK distributor or by calling 408-736-8844.

Questions or comments concerning Guerrilla War are welcome and should be directed to:

> SNK CORPORATION OF AMERICA
> 246 Sobrante Way
> Sunnyvale, CA 94086
>
> (408) 736-8844

This game comes in a cabinet equipped with DYNAMO'S Universal Video Hardware System. It provides the needs for additional game conversion.

UNIVERSAL CONTROL PANELS FOR GAME CONVERSION ARE AVAILABLE UPON REQUEST THROUGH DYNAMO CORPORATION SALES DEPARTMENT.

> contact: DYNAMO CORPORATION
> 2525 Handley-Ederville Rd.
> Richland Hills, TX 76118
>
> (817) 589-7699

WARNING

Do not attempt to troubleshoot or repair the PCB if it is found to be faulty or your warranty may be voided and repair charges will be more costly. Always contact an authorized SNK distributor or the SNK Service Manager to troubleshoot your PCB problems.

Whenever you change parts or insert/disconnect the edge connector, always check to make sure the power is off! After you are sure the power is off, wait approximately 10 seconds before proceeding to remove the edge connector to allow time for the power supply to discharge.

Always use caution to stay clear of the high voltage sections to avoid the possiblity of electrical shock.

Guerrilla War is a 1 or 2 player survival shooting game. Play can be simultaneous or either player can join in at any stage during play. The rotary joystick controls the hero's movement and 8-way fire direction. Press yellow button to fire machine gun and press black button to fire grenades and to get in and out of tank. Players may get into enemie's tank when they are destroyed. When certain enemies are killed they change into bonus weapons. The dip switch adjusts the level of difficulty in four stages.

ROTATE JOYSTICK FOR DIRECTION OF FIRE.

1-PLAYER   2-PLAYERS

GRENADE

FIRE

GRENADE

FIRE

FIRE GRENADE   GRENADE FIRE
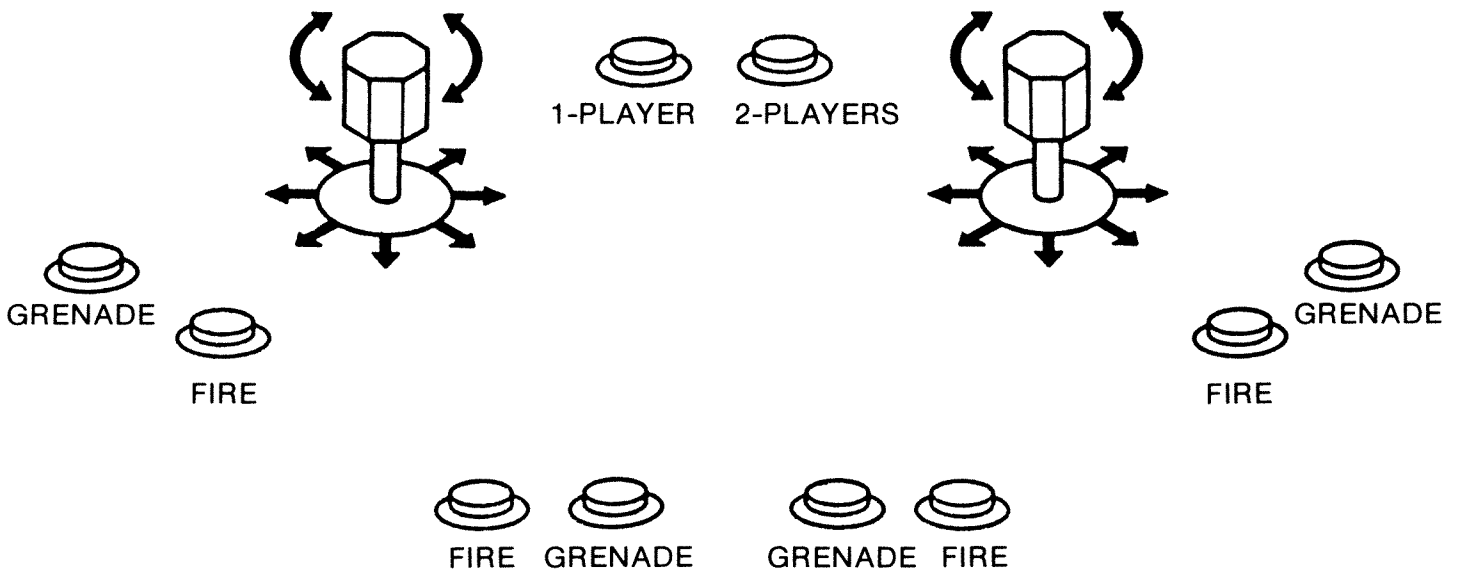
II. OPERATION

INSTALLATION

Your game was shipped from the factory in ready-to-play condition.

A brief inspection is suggested before the machine is removed from the carton. If there is damage to the shipping carton, contact the freight carrier for claim purposes. External damage could indicate possible damage to the cabinet and/or electronic components.

After the carton has been satisfactorily inspected, remove the machine from the shipping carton.

Examine the interior of the game for disconnected wires, cables or harnesses. Make sure the electronic devices are securely mounted in their sockets, etc. Record any problem and contact your customer service representative for technical assistance.

ELECTRICAL REQUIREMENTS

Unless otherwise specified, this game is set to operate at 110 volts A.C.

PCB SPECIFICATIONS

Operating requirements

    Voltage +5.00 volts to 5.10 volts D.C., -5VDC, +12VDC.
    Amperage 7.5 amps
    Power 38.5 watts
    Temperature 0° to 30°C or 32° to 100°F
    Humidity 95% relative

The 5 volt supply draws about 7.5 amps on this PCB design and the power supply should be adjusted for maximum efficiency and reliability. When the voltage is correct, both LEDs will be lit. If only one LED is lit the 5 volt supply must be adjusted.

ROUTINE MAINTENANCE AND SERVICE

Because of the solid state electronic circuitry, this machine should require very little maintenance and only occassional adjustment. However, it is necessary to take steps to insure this.

The game volume controls are located on the printed circuit board and can be accessed through the rear cabinet door.

The video monitor was properly adjusted for best color and sharp picture display before shipping. Occassionally minor adjustments are necessary. All adjustment controls for the monitor are located on the rear of the monitor assembly.

This machine should only be adjusted by a QUALIFIED technician.

OPTIONAL SETTINGS

DIP SW NO. 1

ITEM	SPECIFICATION	1	2	3	4	5	6	7	8
GAME STYLE	COIN UP CONTINUE	OFF							
GAME STYLE	STANDARD	ON							
DISPLAY	NORMAL PICTURE		OFF						
DISPLAY	INVERSE PICTURE		ON						
BONUS	*SECOND BONUS			OFF					
BONUS	**EVERY BONUS			ON					
NUMBER OF HERO	3				OFF				
NUMBER OF HERO	5				ON				
COIN 1	1 COIN 1 PLAY					OFF	OFF		
COIN 1	2 COIN 1 PLAY					ON	OFF		
COIN 1	3 COIN 1 PLAY					OFF	ON		
COIN 1	4 COIN 1 PLAY					ON	ON		

*Second Bonus ..... Credit one (HERO) every 2nd bonus

**Every Bonus ..... Credit one (HERO) at 1st and 2nd bonus only. No further heros awarded.

DIP SW NO. 2

ITEM	SPECIFICATION	1	2	3	4	5	6	7	8
LEVEL OF DIFFICULTY	EASY	OFF	OFF	LEVEL 1					
LEVEL OF DIFFICULTY	NORMAL	ON	OFF	LEVEL 2					
LEVEL OF DIFFICULTY	HARD	OFF	ON	LEVEL 3					
LEVEL OF DIFFICULTY	DIFFICULT	ON	ON	LEVEL 4					
ATTRACTION SOUND	WITHOUT SOUND			OFF	OFF	DEMO SOUND OFF			
ATTRACTION SOUND	WITH ATTRACTION SOUND			ON	OFF	DEMO SOUND ON			
MONITOR SETTING	CONTINUOUS PLAY			OFF	ON	NEVER RESTART			
MONITOR SETTING	STOP VIDEO DISPLAY			ON	ON	STOP			
BONUS POINTS SETTING 1ST/2ND	30,000/50,000					OFF	OFF		
BONUS POINTS SETTING 1ST/2ND	40,000/80,000					ON	OFF		
BONUS POINTS SETTING 1ST/2ND	50,000/100,000					OFF	ON		
BONUS POINTS SETTING 1ST/2ND	NO BONUS					ON	ON		

NOTE: Bold face suggests factory recommended settings.

DISPLAY TEST MODE

A. SELF ROM CHECK

The memories are automatically self checked whenever power is applied. To enter the test mode, hold the test switch on until PICTURE is displayed. Press the test switch to continue the display tests or reapply power to start the game.

B. PICTURE 1 - CROSS HATCH

Adjust the monitor for a SQUARE PATTERN throughout the display and on the edge of the monitor.
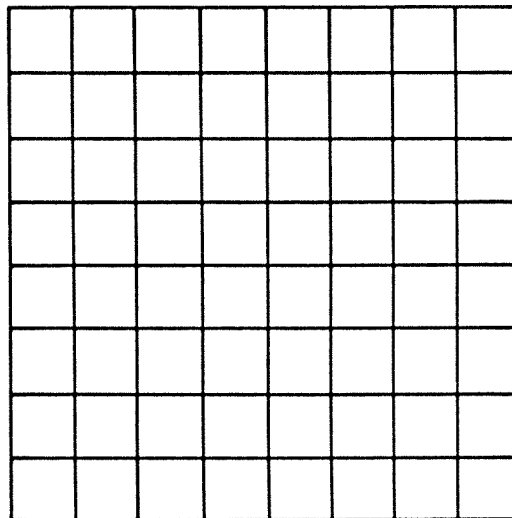
C. PICTURE 2 - COLOR TEST

Assures that the correct colors are properly wired to the monitor.

2 COLOR TEST

RED GREEN BLUE
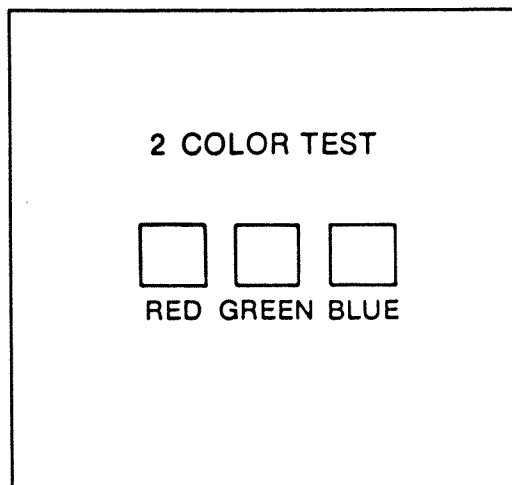
D. PICTURE 3 - CONTROL TEST

As a lever or switch turns on, 0 on the monitor will change to 1. Turning the joystick dial clockwise increments the LEVER DIAL by one. Turning the joystick dial counter-clockwise decrements the LEVER DIAL by one. Insert coin and confirm that the COIN change from a 0 to 1. The service switch can also be checked here.

3 LEVER SWITCH

P1 START	0	P2 START	0
P1 UP	0	P2 UP	0
P1 DOWN	0	P2 DOWN	0
P1 LEFT	0	P2 LEFT	0
P1 RIGHT	0	P2 RIGHT	0
P1 DIAL	0	P2 DIAL	0
P1 PUSH1	0	P2 PUSH1	0
P1 PUSH2	0	P2 PUSH2	0
COIN	0	COIN2	0
SERVICE	0		

E. PICTURE 4 - MODE CHECK

Set desired mode by setting the DIP SWITCHES on the PCB. (Refer to the OPTIONAL SETTINGS.) When the switch turns on, the number of that BIT will change from 0 to 1. The actual mode will also be displayed.

```
            4 MODE


DIP 12345678   DIP 12345678
 1  00100000    2  10101000
CONTINUE
DISPLAY        NORMAL
HERO           3
1 COIN1 1PLAY  1 COIN2 6PLAY
LEVEL          2
DEMO    SOUND ON
1ST  BONUS 40,000P
2ND  BONUS 80,000P EVERY
```

F. PICTURE 5 - 7 FONT TEST

Confirm that the Characters are displayed on the monitor. There are   different colors of characters that will be displayed automatically.

Picture 6   Font 2
Picture 7   Background Check

```
         5 FONT 1




     ----------------------
    |                      |
    |  FONT CHARACTER      |
    |                      |
     ----------------------
```

G. PICTURE 8 - SOUND CHECK

Set up the sound Code ("?") to 41-7F, 81-BF or CO-FF by moving the joystick. The music, special effects or voice will activate when you press 1st Player Control Button A. If you want to stop the sound, set the Code to OE and press 1st Player Control Button A.

```
       8 SOUND CHECK

     SOUND CODE = ?

       MUSIC  41-7F
       EFFECT 81-BF
       VOICE  CO-FF
       STOP   OE
```

D. JOYSTICK ROTARY CONNECTIONS:

*NOTE: "R"(Rotary) for proper connection of the harness.

JOYSTICK
ROTARY
CONNECTORS

PARTS SIDE

CN8
Player 2   PCB
1 CN7   13   Rotary
Player 1   Connectors

1
8   DIP 1
    SWITCH

1
8   DIP 2
    SWITCH

TOP PCB LAYOUT

PARTS SIDE

Proper Voltage
Indicating LEDs

VR 1 ✻   Volume Control
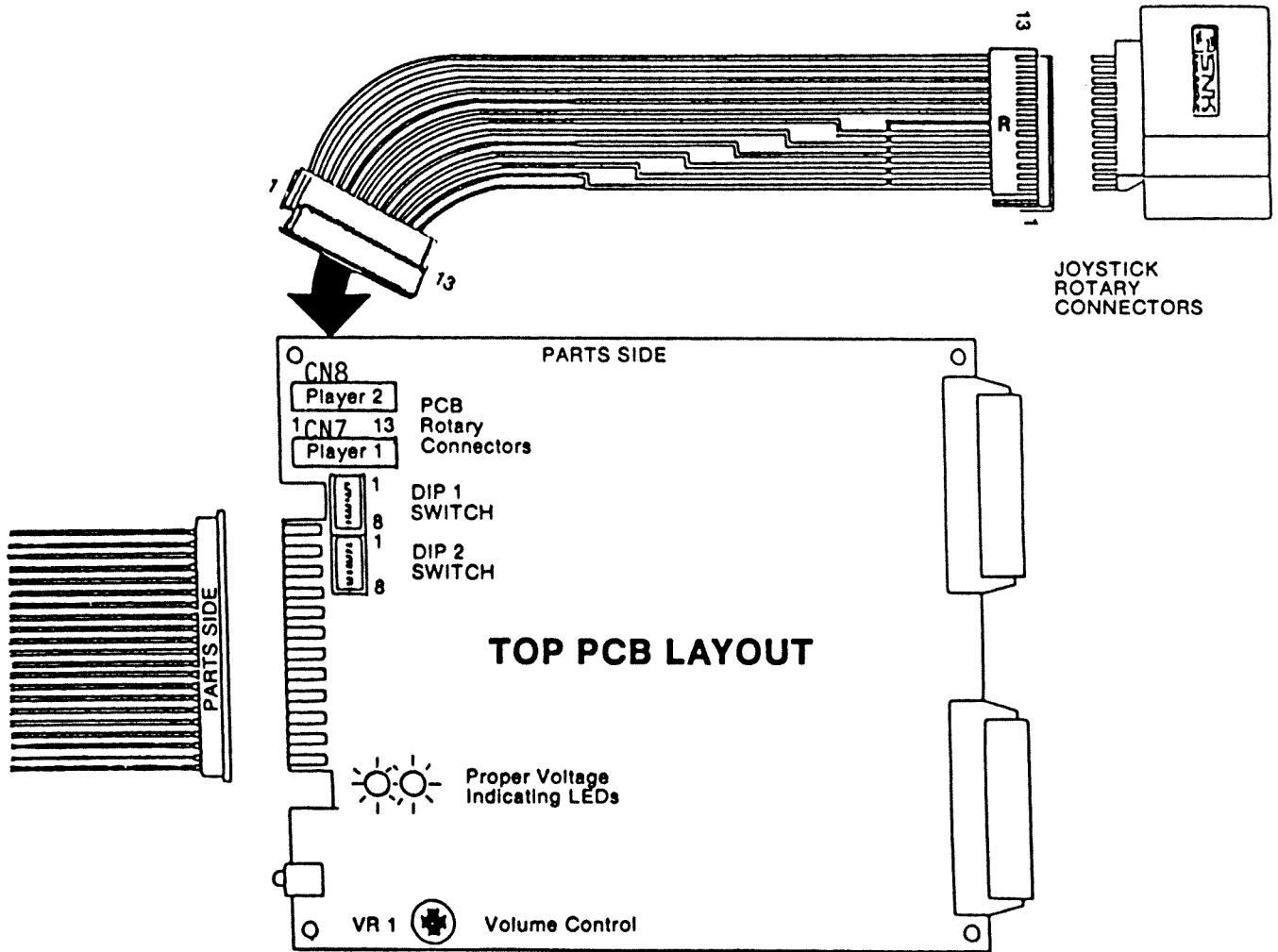
FIGURE 1

E. LS30 - 24 JOYSTICK ASSEMBLY DIAGRAM

HOW TO REMOVE KNOB OF JOYSTICK ASSEMBLY.

1. Insert "fingers" of joystick tool under knob. Make sure to align fingers with dots under knob. Push up to open top cap.
2. Use hex wrench to remove shaft nut.

Knob Setting Tool

PARTS NO.	PARTS NAME
LS30- 1	Knob
A	Cap
B	Knut (M6)
C	Knob (Main Body)
D	Fastener
LS30- 2	Lever mask
LS30- 3	Main guide
LS30- 4	Micro Switch Plate
LS30- 5	Micro Switch
LS30- 6	90 C-Clip
LS30- 7	Spacer (B)
LS30- 8	Spacer (A)
LS30- 9	Washer (small)
LS30-10	Shaft Holder
LS30-11	Shaft Holder Stand
LS30-12	Washer (large)
LS30-13	Spring
LS30-14	120 C-Clip
LS30-15	Shaft
LS30-16	Star Washer
LS30-17	Rotary Switch Installation Plate (SUS)
LS30-18	Rotary Switch
LS30-18H	Harness
LS30-19	Rotary Switch Stopper
LS30-20	Stand
LS30-21	Steel Base
LS30-22	Knob setting tool
LS30-24	Complete Assembly

FIGURE 2

9

SPEAKER

MARQUEE LIGHTS

CONTROL PANEL

MONITOR

REMOVEABLE BLOCKS (5)

TO

GAME BOARD

ON/OFF SWITCH

COIN DOOR

GAME BOARD

CONVERSION

FUSE

FILTER

ISO. TRANSFORMER

POWER SUPPLY

WITH

HARNESS & COMPONENT LAYOUT

FIGURE 3

10

MONITOR

CONTROL
PANEL

TO

COIN BOX
CLIP

PC BOARD
CAGE

COIN
DOOR

CHASSIS
GROUND
LAYOUT
green wires
from filter

POWER SUPPLY

FILTER

ISO. TRANSFORMER

FIGURE 4

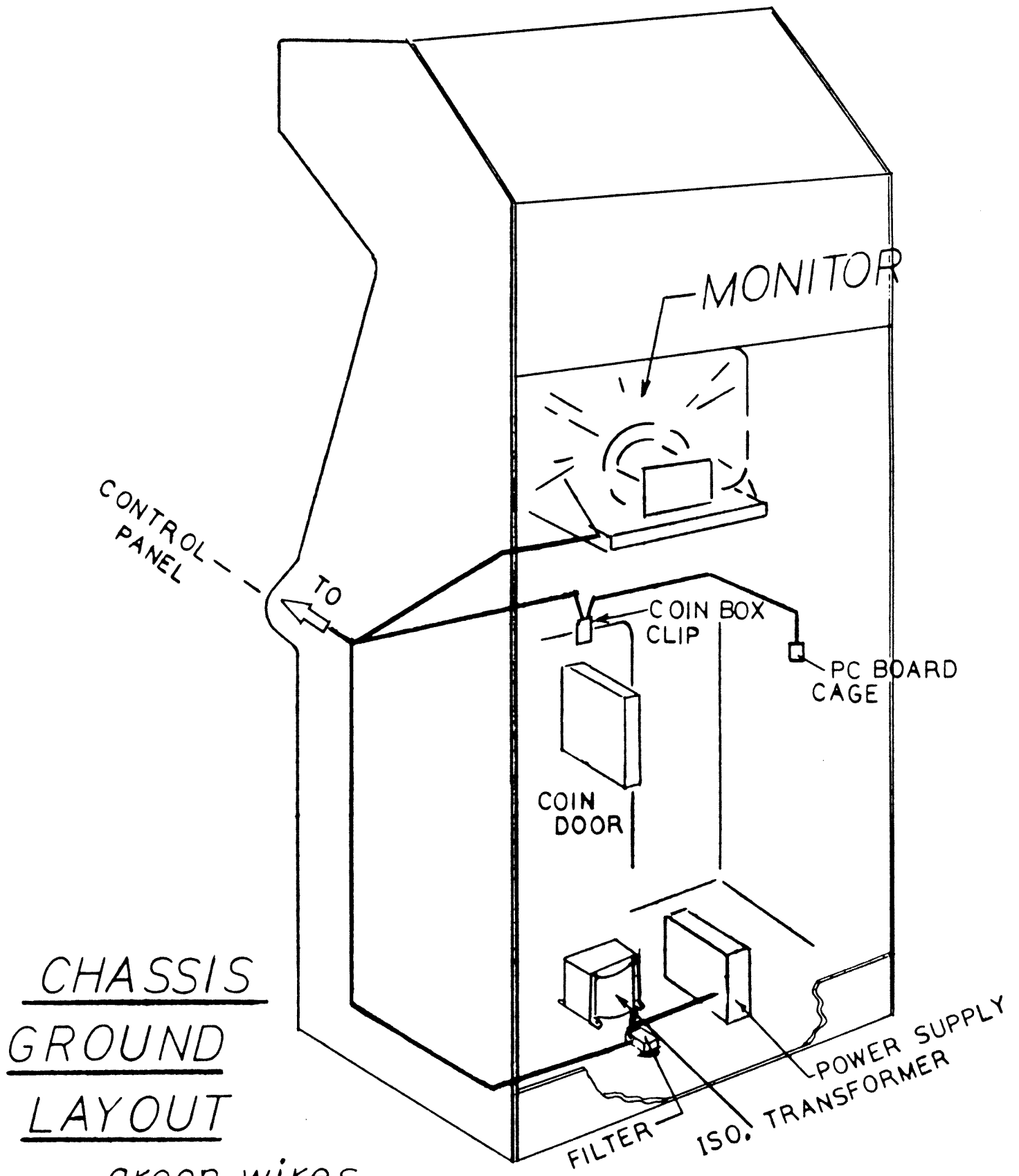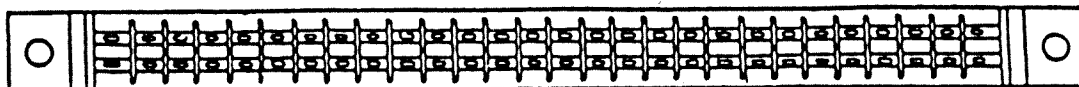# MAIN HARNESS CONNECTIONS

CONNECTOR CR7E - 56DA - 3.96E (HIROSE)

(1)   (28)

(A)   (f)

Color Key: Stripe / Background

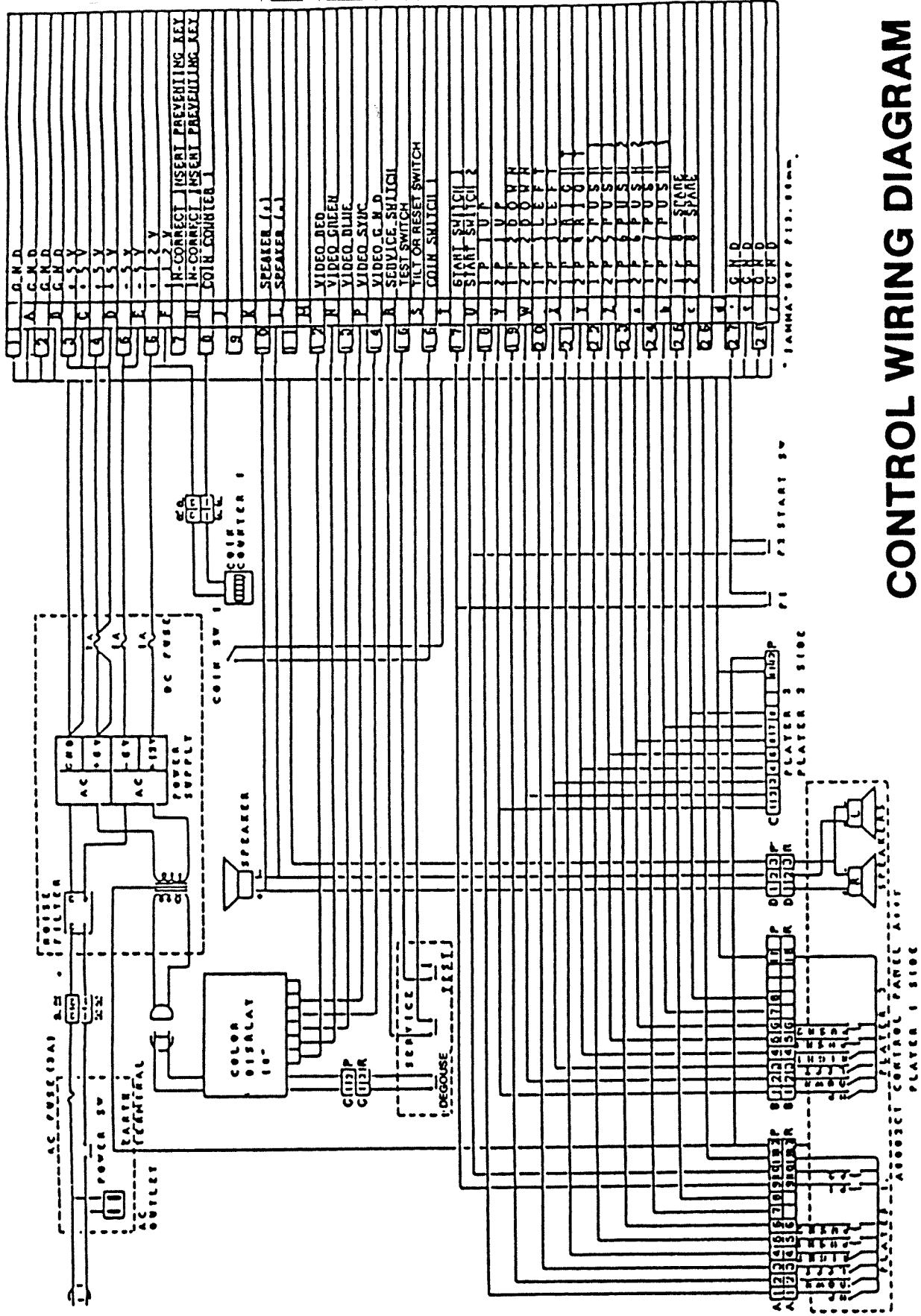| WIRE COLOR	SOLDER SIDE	PIN NAME PIN #		PARTS SIDE	WIRE COLOR
BLACK	Ground	A	1	Ground	Black
BLACK	Ground	B	2	Ground	Black
RED	+5VDC	C	3	+5VDC	RED
RED	+5VDC	D	4	+5VDC	RED
GREEN	-5VDC	E	5	-5VDC	GREEN
YELLOW	+12VDC	F	6	+12VDC	YELLOW
	KEY	H	7	KEY	
		J	8	Coin Counter 1	BROWN
	Ground	K	9	Ground	
WHITE	Left Speaker -	L	10	Right Speaker +	White
		M	11	Audio (+)	
GREEN	Video Green	N	12	Video Red	PINK
GRAY/WHITE	Video Sync	P	13	Video Blue	LIGHT BLUE
VIOLET	Service Switch	R	14	Video Ground	BLACK
GRAY	RESET	S	15	Test Switch	ORANGE
		T	16	Coin Switch 1	VIOLET/WHITE
WHITE/BLACK	2P Start	U	17	1P Start	BLACK/WHITE
BROWN/BLACK	2P Control 1 UP	V	18	1P Control 1 UP	WHITE/BROWN
RED/BLACK	2P Control 2 DOWN	W	19	1P Control 2 DOWN	WHITE/RED
ORANGE/BLACK	2P Control 3 RIGHT	X	20	1P Control 3 RIGHT	WHITE/ORANGE
YELLOW/BLACK	2P Control 4 LEFT	Y	21	1P Control 4 LEFT	WHITE/YELLOW
GREEN/BLACK	2P Control 5 PUSH 1	Z	22	1P Control 5 PUSH 1	WHITE/GREEN
BLUE/BLACK	2P Control 6 PUSH 2	a	23	1P Control 6 PUSH 2	WHITE/BLUE
		b	24		
		c	25		
		d	26		
BLACK	Ground	e	27	Ground	BLACK
BLACK	Ground	f	28	Ground	BLACK

FIGURE 5

CONTROL WIRING DIAGRAM

FIGURE 6