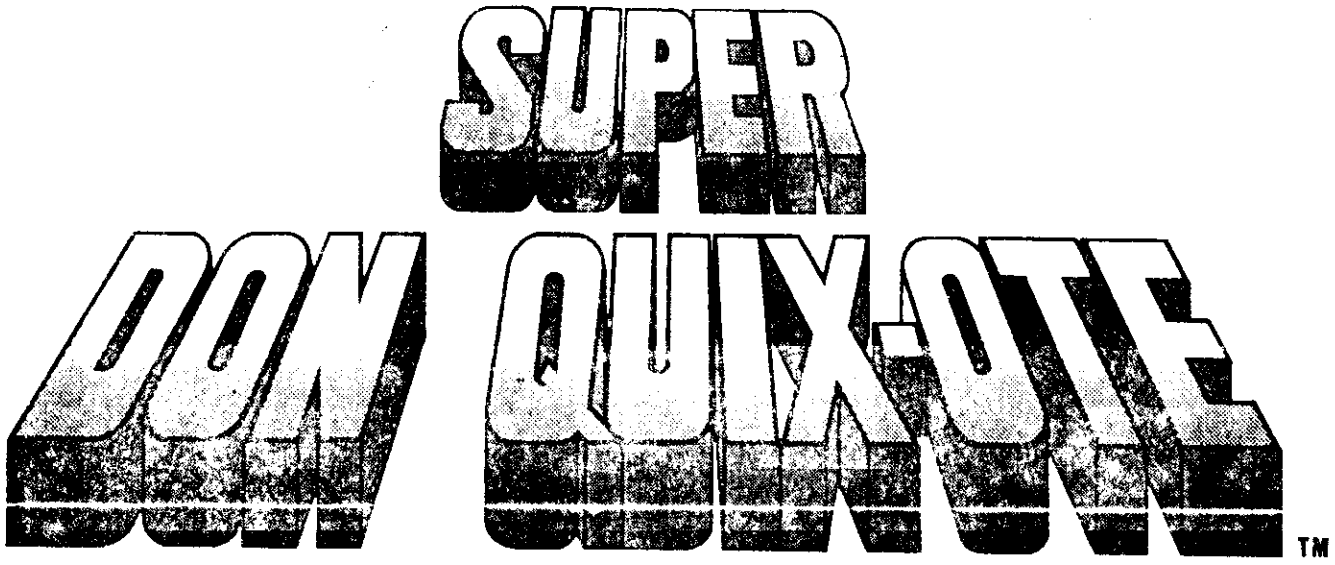
Installing and Servicing Your

FOR ADDITIONAL TECHNICAL ASSISTANCE CALL:
PAUL BIEDERMAN 408-723-2739 7-PM TO 9 PM
PACIFIC TIME



New Game Package

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SUPER DON QUIX-OTE™

1 Main Printed Circuit Board (PCB)	1 Marquee
1 PCB Cage (FCC Required)	1 Control Panel Overlay
1 Set Legs, Bolts, & Spacers	1 Plex Control Cover
1 Connecting Wire Harness	1 Set Side Graphics
1 4 WAY Joystick	1 Set Play Instructions & Function Labels
Player Button Assemblies	1 Service and Installation Manual

POWER REQUIREMENTS		MONITOR REQUIREMENTS
+5 VDC +12 VDC	5 amp 1 amp	HORIZONTAL Mount Raster Scan Negative Composite Sync

Recommended Tools and Supplies

new game package.
Phillips and Slot Screwdrivers
Socket Set
Enthusiastic Attitude
Wire Cutters and Strippers
Pliers or Channel Locks
Planning and Careful Thought
Electric Drill
3/32" • 1/4" • 7/16" Drill Bits
1/4" Plex Bit
1-3/16" Chassis or Sheet Metal Punch
1 1/4" Plex Hole Saw
Glass of Water and a Snack
Small File
Razor Knife and Sharp Blades
Straight Edge
Patience
Common Sense
Painting Supplies (if you do your own painting)
  Paint Brush and Paint (don't forget the primer)
  Paint Roller and Pan
  Sand Paper
  Putty Knife and Wood Putty
A Good Night's Sleep
Staple Gun and Staples
Soldering Iron and 60/40 **Resin Core** Solder
Vacuum Cleaner
Assorted Fastening Hardware
Shrink Tubing: 3/32" • 1/8" • 3/16"
Masking Tape
3 1/2" OR 4" Wire Ties
Spray Window Cleaner and Rags (baby diapers work GREAT!)

Dip Switch Tables

Optimize Your Profits

Thorough Research shows that two and a half minute games both satisfy players and also keep the quarters flowing.

If games aren't running about two and a half minutes long, then collections probably aren't at their peak. You'll want to tailor your game to your location. The trick is to adjust a few DIP switches. (See the chart in this book.) It's easy!

DIP SW1

		1	2	3	4	5	6	7	8
Free play ①	Normal mode ※	OFF							
	Free play	ON							
Free play ②	Normal mode ※		OFF						
	Don Quix-ote has endless lives.		ON						
No. of lives	3 ※			OFF	OFF				
	4			OFF	ON				
	5			ON	OFF				
	2			ON	ON				
Extra life	Only one per 100,000 PTS ※					OFF			
	No extra life					ON			
Demonstration sound	ON ※						OFF		
	OFF						ON		
Ease/difficulty	Easy ※							OFF	OFF
	(							OFF	ON
	)							ON	OFF
	Difficult							ON	ON

DIP SW2

		1	2	3	4	5	6	7	8
Not in use	※	OFF	OFF	OFF	OFF				
Coin switch (left)	1 coin 1 credit ※					OFF	OFF		
	1 coin 2 credits					OFF	ON		
	1 coin 3 credits					ON	OFF		
	2 coins 1 credit					ON	ON		
Coin switch (right)	1 coin 1 credit ※							OFF	OFF
	1 coin 2 credits							OFF	ON
	1 coin 3 credits							ON	OFF
	2 coins 1 credit							ON	ON

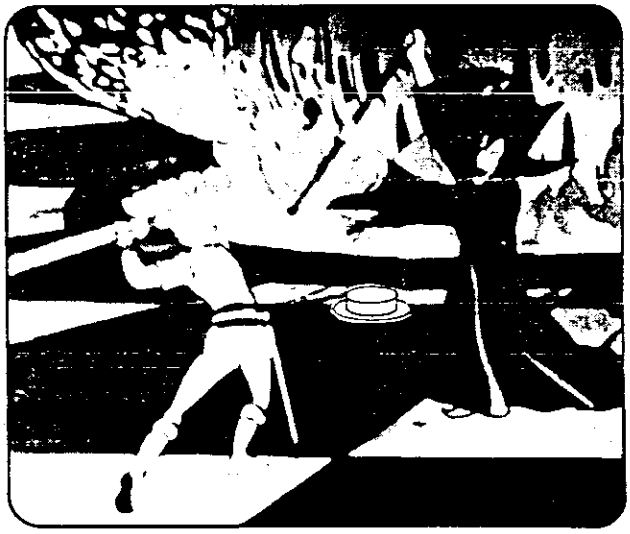
Note: 1. * denotes factory settings.

2. Dip switches 1 ~ 4 are not in use. Keep all these switches in the "OFF" position.

Game Operation

- Don Quix-ote is operated by working the joystick lever and button.
- The lever determines the direction in which Don Quix-ote will move and at what time.
- Pressing the right button at the right time causes Don Quix-ote to pull out his sword, throw something, or move in a given direction.
- Usually, the screen continues to proceed independently of button or joystick lever operation.
- When  appears in a dangerous situation, press the joystick lever in that direction.
- As the enemy approaches,  may appear on the screen. Quickly press the button to counter-attack with the sword.
- Additional lives can be awarded when the score reaches a certain number of points. (The number of points can be adjusted by means of dip switch settings.)
- When working the joystick lever and button erroneously, Don Quix-ote will lose a life. Losing all Don Quix-otes' lives ends the game.





Installation Procedures

Something To Think About

Your final product will be a **new game**.

You have made a wise decision to transform a game that has seen better days in the all important cash box into a **new game**. This is by far the most cost effective alternative to maximize the return of your initial investment. All you provide is the cabinet with a power supply and a monitor. Oh yes, you will need a touch of elbow grease. And that's it! We provide the rest. The end result is . . . a **new game** at a very low cost.

Fact: Spend a little time on the cabinet's appearance (i.e. marquee, control panel and cabinet graphics). With a little paint, some wood putty and new lights, you will raise the profits of any game. . .especially with the introduction of a **new game** package.

The **new game** look should always apply to the inside of your game as well as the outside. A few wire ties and shrink tubing on your harness; some fastening hardware on your subassemblies and a sweep with the ol' vacuum cleaner will ensure that unnecessary *glitches* do not occur.

Remember: You are creating a **new game** .

If you have any questions or just need some advice on any of your **new game** transformations, don't hesitate in giving a member of our technical staff a call.

Let's Get Our Hands Dirty

Preparing the Original Game for the New Game

Remove the following:

1. Main logic board(s)
2. Control panel
3. Monitor plexiglass
4. Monitor Bezel
5. Marquee
6. Graphics

I would recommend painting your cabinet to give it a fresh new look. (If it is geographically inconvenient to make use of our facilities, you may consider having an auto body shop take care of your painting needs.)

If your cabinet has wood grain sides; remove old graphics and adhesive (adhesive may be removed with **lacquer** thinner.

If you intend to use your original plexiglass, be sure it is in mint condition or it should be replaced.

Thoroughly clean out your cabinet.

Time To Install Your New Goodies

Before You Start . . . Remember DO NOT Do This Work With The Power On!

Logic P.C.B. Cage

Mount the logic cage securely (away from power supply).

A Mark and drill pilot holes (3/32").

B Place the logic cage (bottom) over the holes and secure it with the supplied wood screws.

C Install the P.C.B. into the logic cage. Use feet and spacers supplied and adjust them so that the screws will go through the slots int he cage bottom.
Note: Leave the cage cover off until you have attached the entire wire harness and have tested the game for proper operation.

Wire Harness

Attach the wire harness connector to the main logic board. **CAUTION:** Sometimes the connector is not keyed and it is very easy to install it reversed on the logic board. Even if it is keyed, always **triple check** to be sure the wire inputs were connected correctly to the connector and the connector to the logic board.

Connecting the Wire Harness to the Existing Wires

When you hook up the control panel, power supply, monitor or other subassemblies that remain in the game cabinet to your new wire harness, try and use their existing secondary connectors.

1. Cut the original wire approximately three inches from the original connector. Strip off about one half inch of insulation.
2. Solder the new wire designated for that position to the original wire you just stripped.

Warning: DO NOT JUST TIE THE WIRES TOGETHER. THIS CAN CAUSE NAGGING INTERMITTENT PROBLEMS THROUGH LOOSE CONNECTIONS OR OXIDATION OR BOTH. **Always take the time to do it right.**

3. Melt shrink tubing around all your in-line wire connections. Do not use electrical tape. Tape could unravel over a period of time due to the cabinet heat and cause you a great deal of trouble.
4. Use wire tie wraps, and secure the cable to the cabinet whenever it seems necessary. Remember this is a **new game** , not a sloppy conversion.

Power Wires

1. Connect the wires that are designated for your power supply. You will need a supply of +5V, +12V & ground. Your **new game** package may not require all of the voltages that were used in the original game. Tie off any unused wires.
2. You will notice that you probably have more than one wire for each voltage. It is a good idea to use all wires supplied (double up if it is necessary). This will help to ensure that you don't overload the edge connector pins and cause them to "burn".

Monitor Wires

You will be connecting the wires designated for the RED, GREEN & BLUE video guns along with the SYNC & GROUND wires.

NOTE . . .CONCERNING SYNC:

Your **new game** only calls for one sync wire connection, this is called **composite sync** (horizontal and vertical tied together). This composite sync is also **negative**. Most monitors have supply positions for both negative and positive sync. You can check your monitor manual or call our technical department for assistance.

Speaker Wires

Find the two wires that are designated for the speaker and hook 'em on up.

Coin Door Wires

1. Connect the designated wires to the coin switches and meter.
2. You can connect your door lamps to the unused −5V power supply. Some games have separate power outputs for the coin door lamps.
3. Be sure to clean and lubricate your old coin mechanisms. Keep the money coming in.

Make sure the disc player is securely as per instructions on page 25 of this manual.

Smoke Test

What Test?

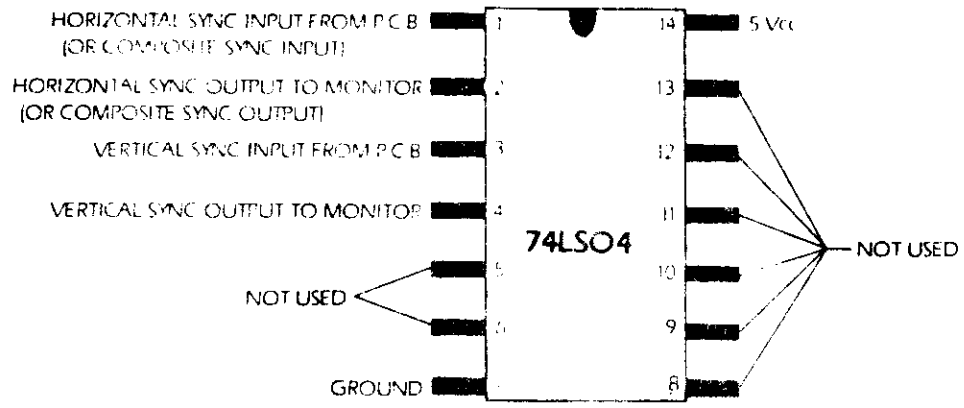
Don't worry. All this means is that you are ready to apply power to the system for the first time and you pray that there will be no smoke from a simple oversight.

You are just about ready to power up the logic board. But first we need to recheck your work.

1. Carefully inspect the game for loose power wires, exposed connections and extra fastening hardware.
2. Make sure the logic board, board cage, monitor and power supply are securely fastened in place.
3. **Double check** the connectors to be sure they are wired and connected properly.
4. Set the dip switches on the logic board to the factory recommendations. (Refer to page .) Also, be sure you set the dip switches for "DEMO WITH SOUND". This will enable you to hear as well as see that your new P.C.B. is functional.

Time to Apply Power:

1. Look and smell for smoke. (TURN OFF IMMEDIATELY IF ANY IS NOTICED)
2. Listen for game sounds
   If after one minute you have not heard any sounds:
   A) Check for proper dip switch settings.
   B) Adjust volume control and check speaker connections.
   C) Check the +12V power supply to the logic board.
   NOTE: If you do get sounds, but they are a little fuzzy, switch the wires around on the speaker.
3. How is the monitor image?
   A) **Is the picture in sync?**
   If your picture has the top and bottom halves of the screen reversed and it will not stop rolling, change your sync polarity on the monitor. (Positive to negative).
   If your monitor does not have dual polarity positions for sync, then you will need to reverse the sync yourself by installing a simple one I.C. circuit between the logic board and the monitor. (The following illustration shows a hookup for both **composite** and **separate** syncs.



   B) **Now how's your picture?**
   - Is it centered?
   - Is it too bright or dim?
   - Is it in focus?

   Check your monitor manual for these adjustments. If your screen looks "off", then your **new game** transformation may have been in vain. So let's take the time to make the monitor look great.

Control Panel Assembly

1. Remove the buttons, joysticks and wire harness and put them aside fro now. Do not remove the original panel overlay until the new holes have been drilled.
2. Mark positions on the panel for the new holes as specified on page 16.
   supplies a clear 1/8" thick piece of plexiglass with every **new game** package to cover the control panel. We feel that your **new game** investment is well worth protecting. . . and the control panel is the first place to show wear and tear.
   - You will need to cut this piece to size. Use the control panel as a template.
   - Use a razor knife to score the plexiglass **deeply**. Then use a pair of pliers to break away the extra plexiglass.
3. Now drill the holes in your panel that you have marked off for the *buttons, joystick* and *bolts.*
   Hint: For best results, use a chassis or sheet metal punch for button holes.
4. Drill the same holes on your plexiglass panel protector. Once again use your panel as a template.
   Hint: To avoid chipping while you are drilling the holes, place the plexiglass securely on a soft wood surface and use a plexiglass drill bit and hole cutter.
5. The holes are now all cut. Smooth them out on your panel and plexiglass with a fine toothed file.
6. Remove the original graphics overlay from the panel. Clean up the panel and install your graphics.
   Make It Easier: Peel the top half of the protective backing off of your graphics. Start from the center and smooth out your overlay. Make sure you have about an inch extra coming off the top. *No bubbles please.* Now peel off the bottom half and do the same as you did for the top.
7. Adhere the instruction and function labels.
8. Install the Plex Control Cover over your completed **new game** panel.
   Note: Be sure to bolt the plexiglass securely to the panel.
9. Mount the joystick and the buttons to the panel and wire them up. (Use the existing Panel wiring if possible)

Marquee Installation

Using the original marquee as a template, Center your **new game** marquee graphics and score the new marquee deeply to fit the cabinet. Break off the excess with pliers.

Be sure the light behind the marquee works. Everything should **always work** on a new game.

Take your time ... Don't forget this is going to be a **new game.**

Side Graphic Installation

1. Be sure sides of game are clean and free of old adhesive, dust, etc.
2. Mark position of decal with eraseable pen or pencil (centered on upper half of cabinet).
3. Peel off top 1/4 of decal backing and apply to cabinet with a smoothing motion (use a soft rag). Continue peeling off backing and smoothing.
4. Remove any small bubbles with a pin or razor blade (pop them!)

Finishing Touches

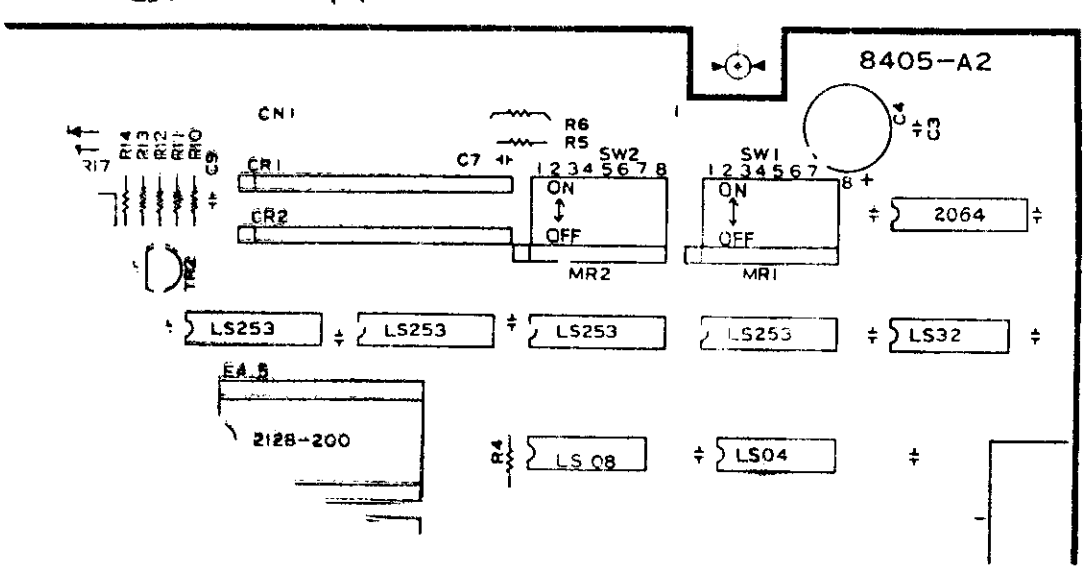
1. Check the game inside and out for any imperfections. Secure any loose wiring or fastening hardware.
2. Make sure the coin door is tight and the coin mechs are well adjusted. A game is no good to anybody if you can't get a coin into it.
3. Once again go over every step of this **new game** transformation in your mind. Be sure everything is correct and to your liking.
4. Power up the game.
   A. Check all the coin switches. (Does the coin meter work?)
   B. Play your **new game** .
   - Are all the player controls working?
   - Are the game sounds present?
   - Is the volume level proper?
   - Are the dip switches set properly?

Well, that's about it. Good Luck.

Test Mode

Your game includes a **Test Mode** that checks operation and helps you make adjustments to insure optimum performance.

DIP SWITCH LOCATION



MAIN PC BOARD

6. HOW TO USE TEST SWITCH

The "SUPER DON QUIX-OTE" is designed with a series of self tests which can be conducted by using the test switch.

1. "Test Mode"

(1) When the test switch is pressed and held for approximately 2 seconds, the "Test Mode" menu is displayed on the screen.

(2) The menu can be selected by using the test button. When you release the test switch in less than the 2 seconds, the left-side ⇨ moves step by step through the menu.

(3) When the test switch is depressed for 2 seconds, the menu at the position of ⇨ is entered.

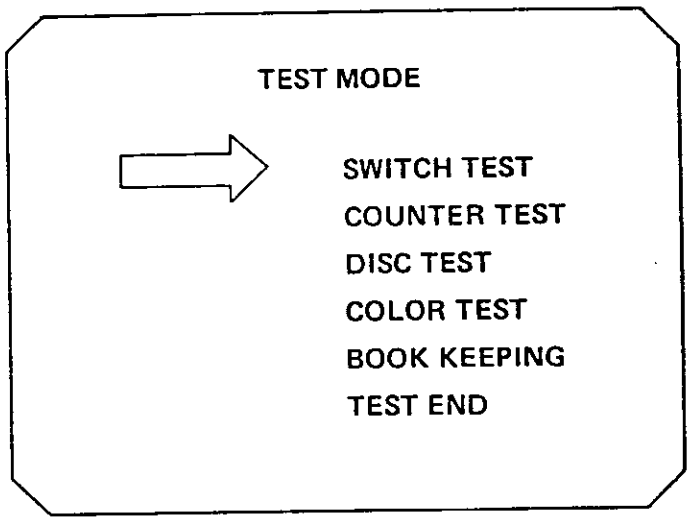


Fig. 11 "Test Mode"

(4) If you want to exit the "Test Mode", set ⇨ at "TEST END" and follow the procedure described in step 3 above.

2. "Switch Test"

In this mode, the state of the joystick lever, switches, etc. are displayed, as well as the state of dip switch settings.
(If you want to terminate the "Switch Test", depress the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.)

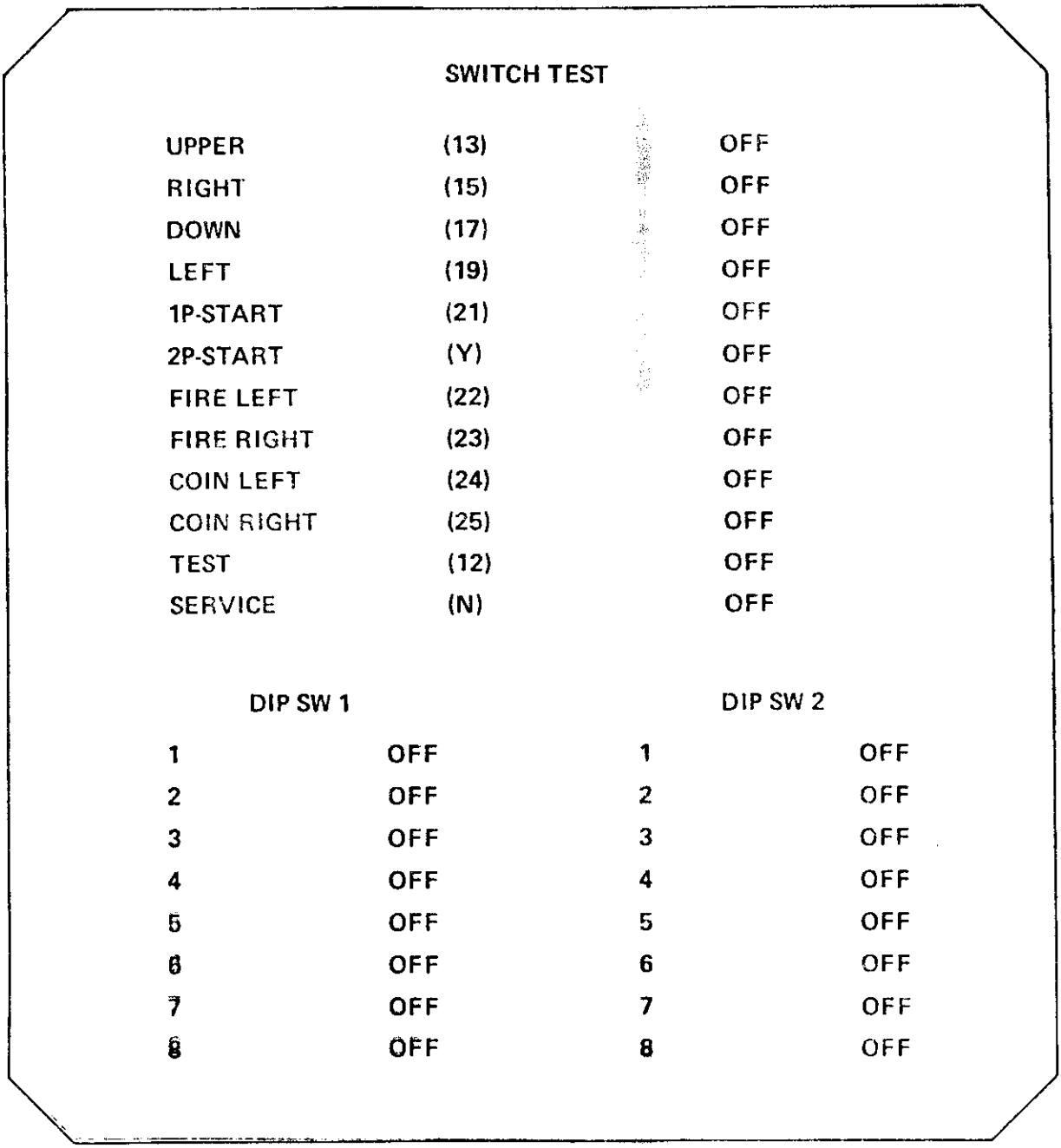


Fig. 12 "Switch Test"

3. "Counter Test"

Depress the test switch, and the coin counter will move by one point.
(If you want to exit the "Counter Test", set ⇨ at "COUNTER TEST END", and hold the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.)

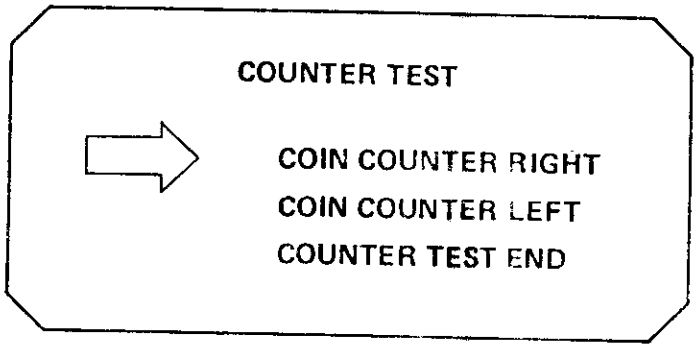


Fig. 13 "Counter Test"

4. "Disc Test"

When you press the switches on the control panel, the disc player tracks and moves respectively.
(If you want to terminate the "Disc Test", keep pressing the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.)

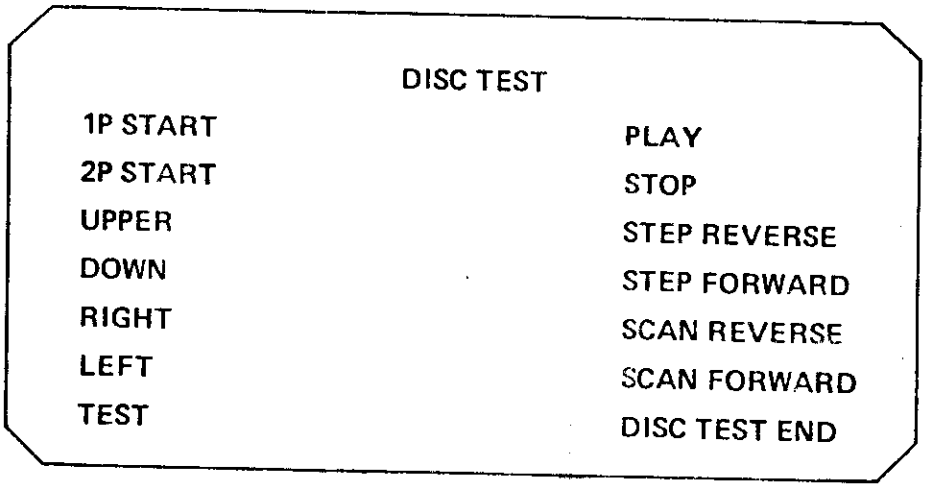


Fig. 14 "Disc Test"

- PLAY : Normal play condition.
- STOP : Stops the screen.
- STEP REVERSE * : Reverses the screen step by step.
- STEP FORWARD * : Forwards the screen step by step.
- SCAN REVERSE : Reverses at a high speed.
- SCAN FORWARD : Fast forward.

* Note: If you want to conduct STEP REVERSE and STEP FORWARD, stop the screen beforehand.

5. "Color Test"

This test mode is used when you wish to adjust the monitor.
(To exit the "Color Test", set ☞ at "COLOR TEST END", then press the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.)

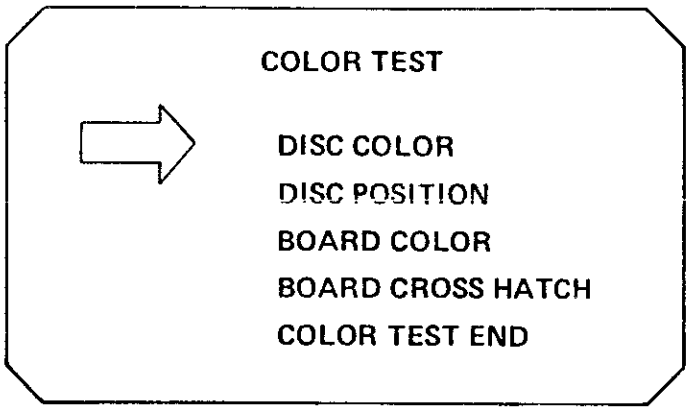
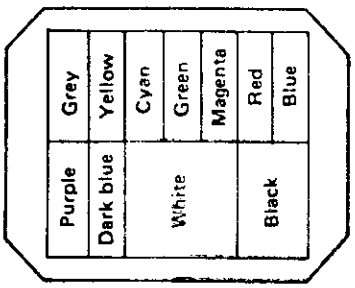


Fig. 15 "Color Test"

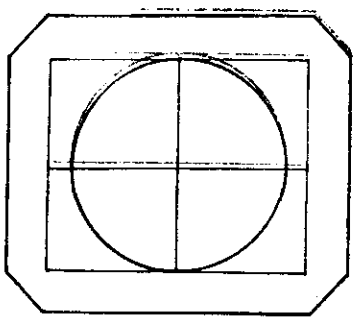
If you want to terminate any of the following tests, and proceed to the next test, depress the test switch for 2 seconds; the display will be reset to that shown in Fig. 15.

(1) "Disc Color"



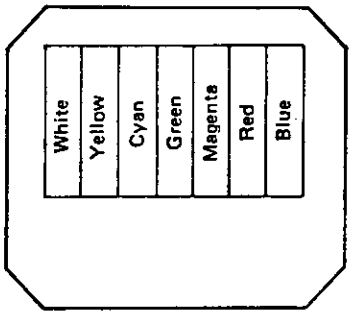
Color signals from the disc player are displayed. Adjust the balance while comparing them with the "Board Color" in (3) below.

(2) "Disc Position"



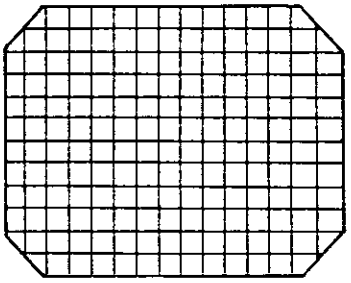
Use this mode when you want to shift an image from the disc player to the center of the screen, or when you want to adjust the vertical/horizontal balance, etc.

(3) "Board Color"



Use this mode to display color signals from the main PCB.

(4) "Board Cross Hatch"



Use this mode to check upward/downward balance, or rectilinear propagation.

6. "Sound Test"

If you continue pressing the test switch, a sound will be made.
(If you want to terminate the "Sound Test", set ⇨ at "SOUND TEST END", then press the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.)

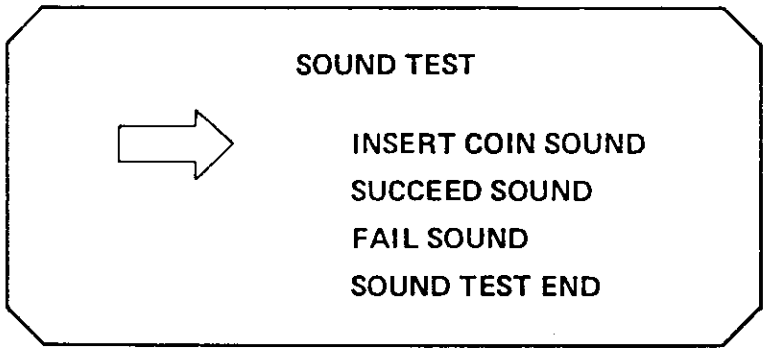


Fig. 16 "Sound Test"

"Insert Coin Sound" ..... Sound is made when the coin switch is activated.
"Succeed Sound" ..... Sound made when correct move is made.
"Fail Sound" ..... Sound made when failed.

7. "Book Keeping"

This "SUPER DON QUIX-OTE" is designed to record a variety of data of operation. In the "Book Keeping" mode, all of this data is displayed on the screen.

Note: Once you turn OFF power, all data is cleared. If you want to terminate "Book Keeping", set ⇨ at "BOOK KEEPING END", then continue pressing the test switch for 2 seconds; the display will be reset to that shown in Fig. 11.

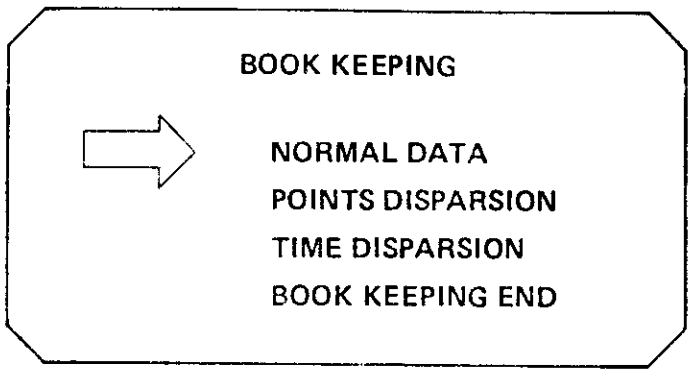
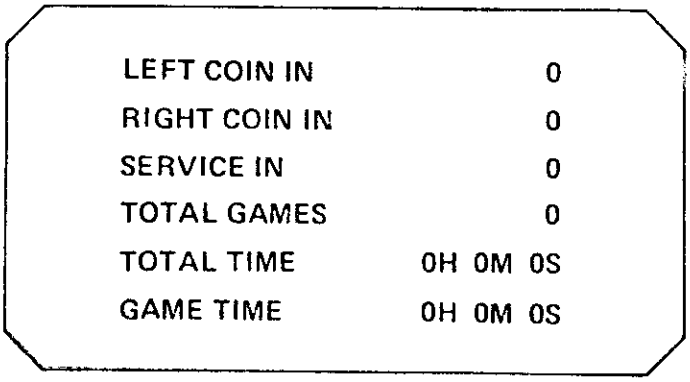


Fig. 17 "Book Keeping"

If you wish to enter the next test mode, keep pressing the test switch; the display will be reset to that shown in Fig. 17.

(1) "Normal Data"



"Left Coin In" (No. of coins inserted, left)
"Right Coin In" (No. of coins inserted, right)
"Service In" (Frequency of uses of service switch)
"Total Games" (Total No. of games played)
"Total Time" (Total length of power ON time)
"Game Time" (Total length of time for which game has actually been played)

(2) "Points Dispersion"

Dispersion of points by player's score is displayed.

e.g. There were 5 players whose score lay somewhere between 2000 and 3950 points.

0 – 1950	0
2000 – 3950	5
⟆	⟆
600000 – 699950	0
700000 – 999950	0

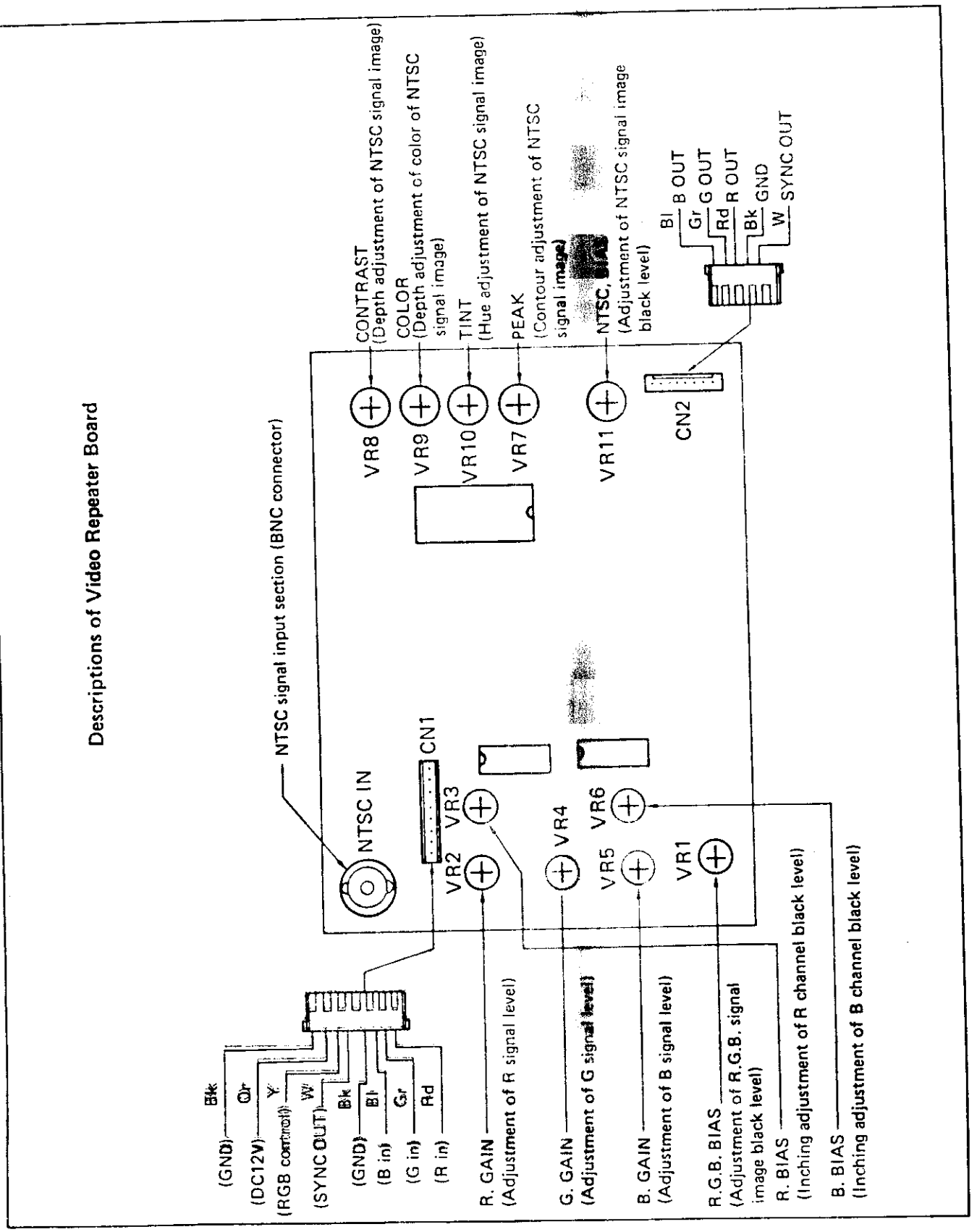
(3) "Time Dispersion"

Dispersion of the number of player(s) by time required to play a game.

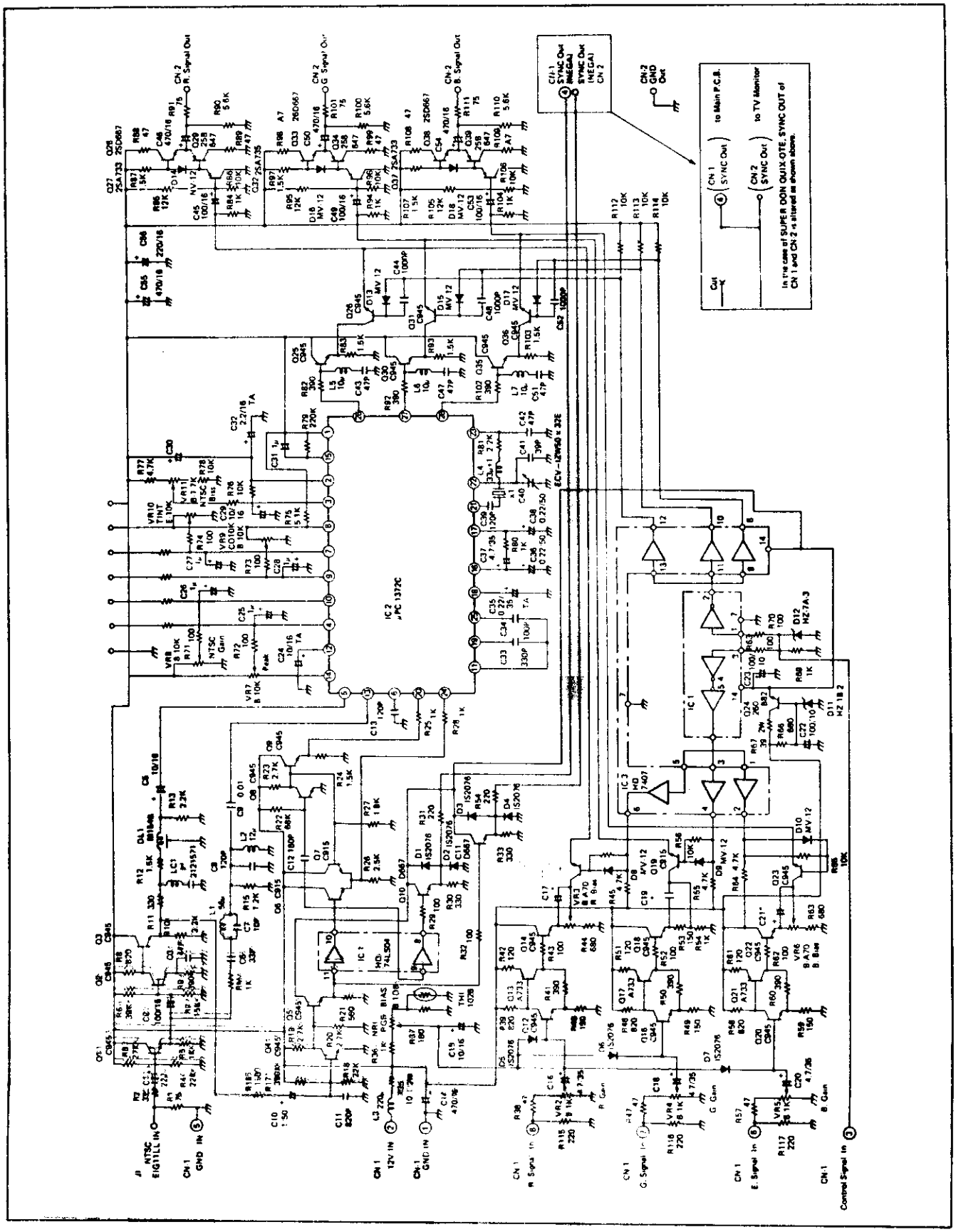
e.g. There were 3 players whose play time was shorter than one minute.

0 MINUTE	0
1 MINUTE	3
⟆	⟆
60 MINUTES	0

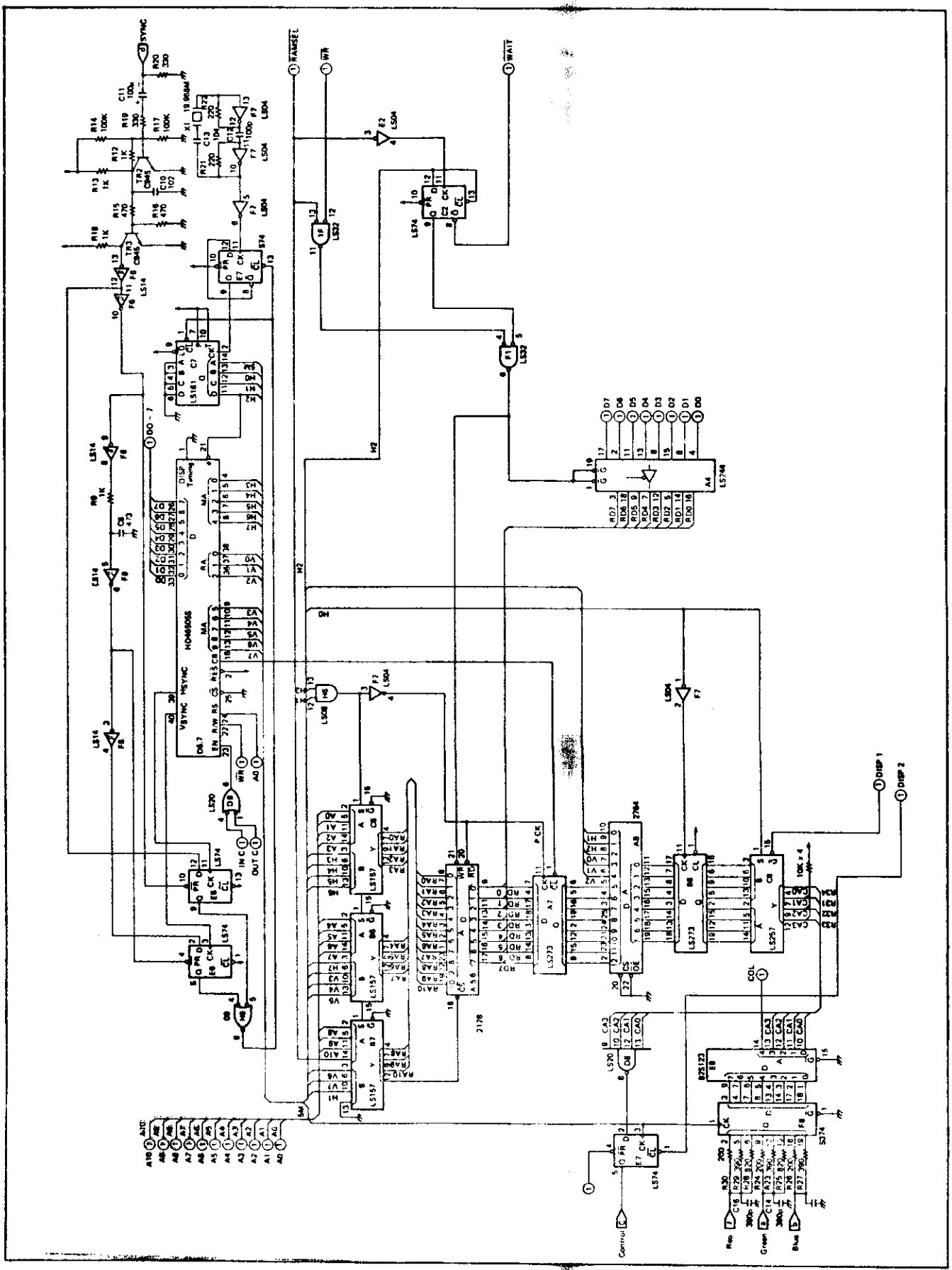
VIDEO REPEATER BOARD



Video Interface PCB

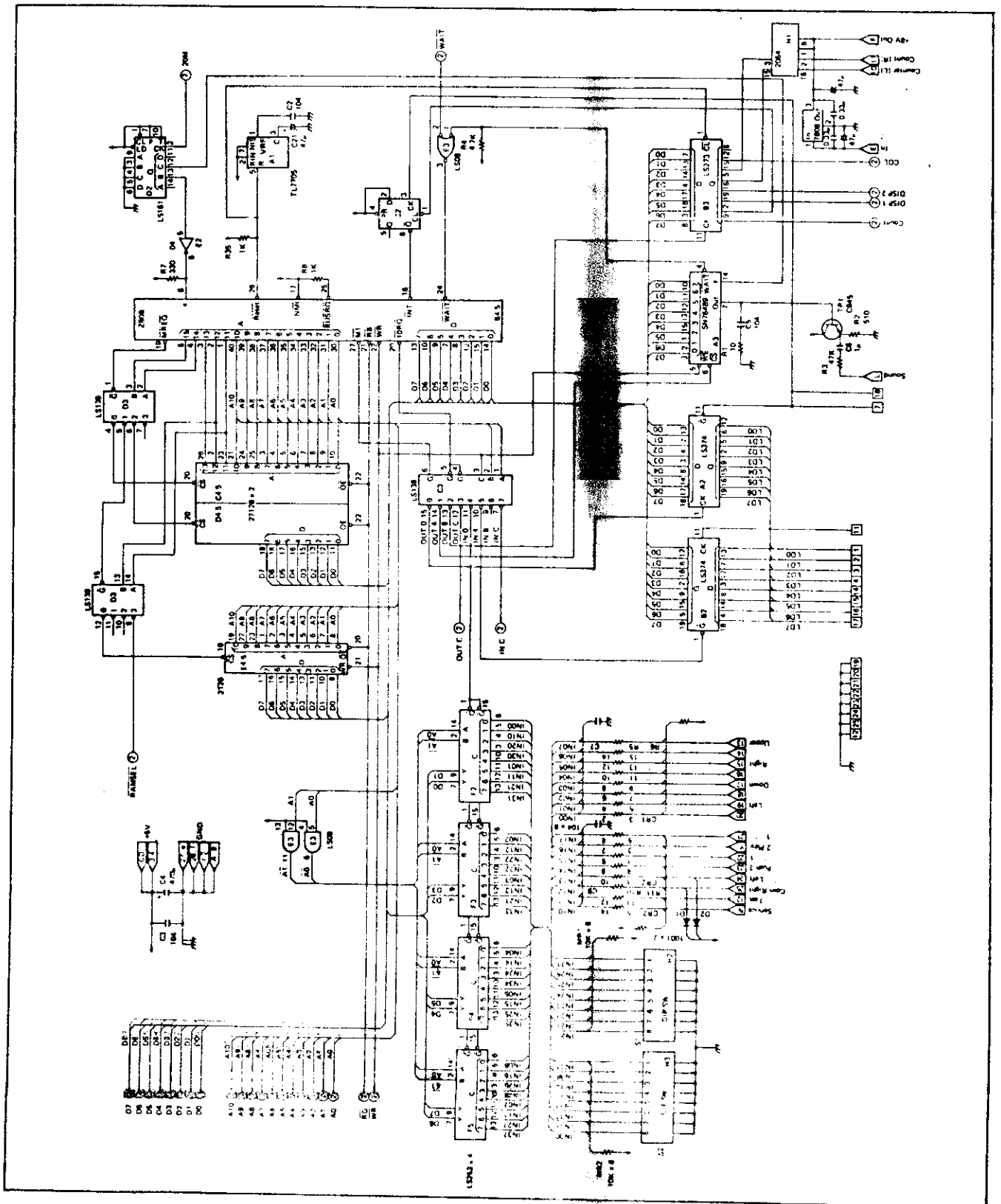


Video Interface PCB



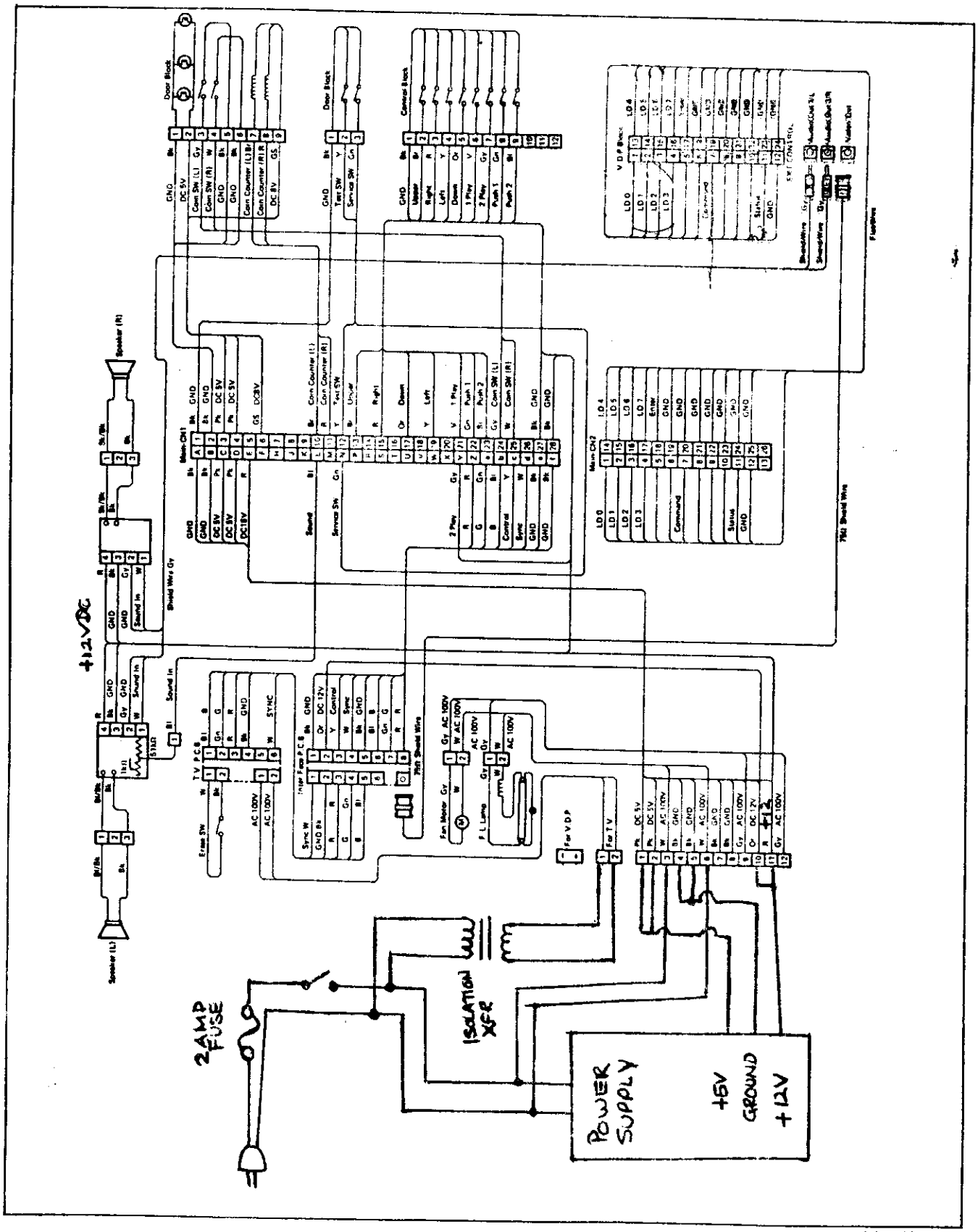
Main PCB (2)

1. Main PCB

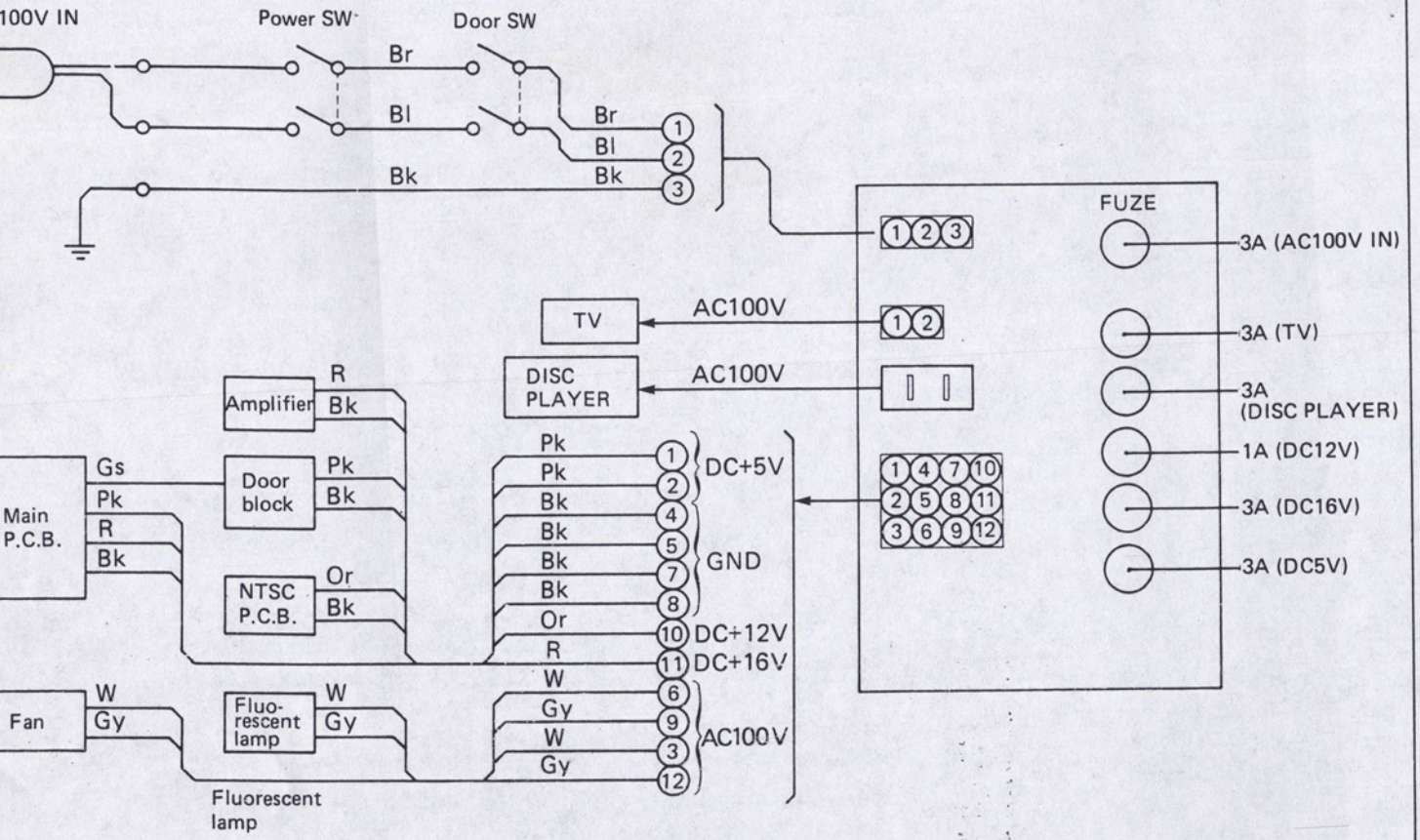


Main PCB (1)

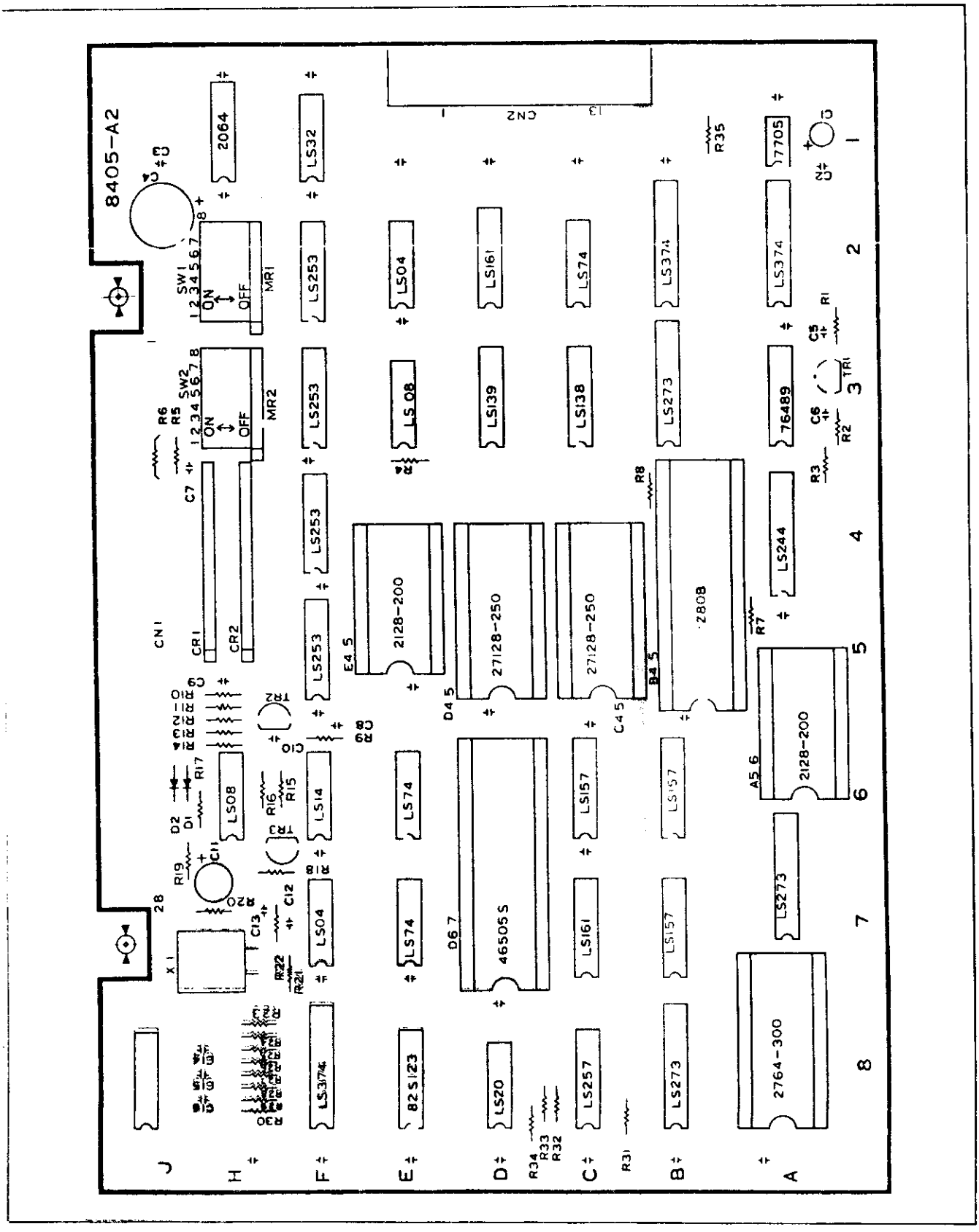
WIRING HARNESS



Wiring Harness


100V IN
Power SW
Door SW
Br
Bl
Bk
Br
Bl
Bk
1
2
3
FUZE
3A (AC100V IN)
TV
AC100V
3A (TV)
DISC PLAYER
AC100V
3A (DISC PLAYER)
1A (DC12V)
3A (DC16V)
3A (DC5V)
Amplifier
R
Bk
Main P.C.B.
Gs
Pk
R
Bk
Door block
Pk
Bk
NTSC P.C.B.
Or
Bk
Fan
W
Gy
Fluo-rescent lamp
W
Gy
Fluorescent lamp
Pk
Pk
Bk
Bk
Bk
Bk
Or
R
W
Gy
W
Gy
DC+5V
GND
DC+12V
DC+16V
AC100V

MAIN PC BOARD



HOW TO TREAT THE PLAYER AND DISC

1. How to Mount the Player

- The player is packed and shipped independently from the cabinet. Slide the bottom shelf, on which the power source, PCB, etc. are mounted, towards you. Mount the player by using the 4 bolts furnished with the player.

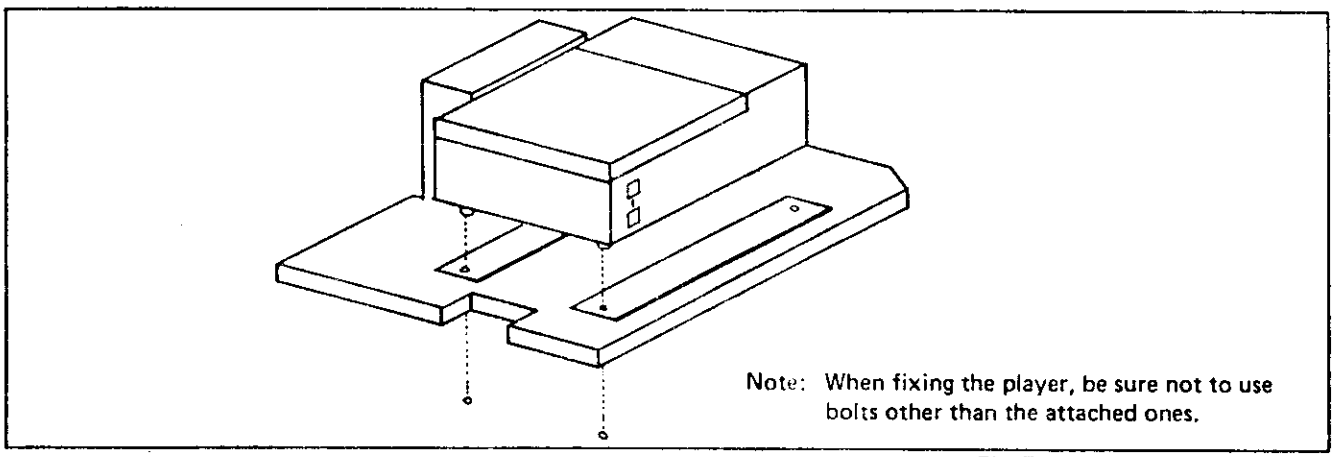
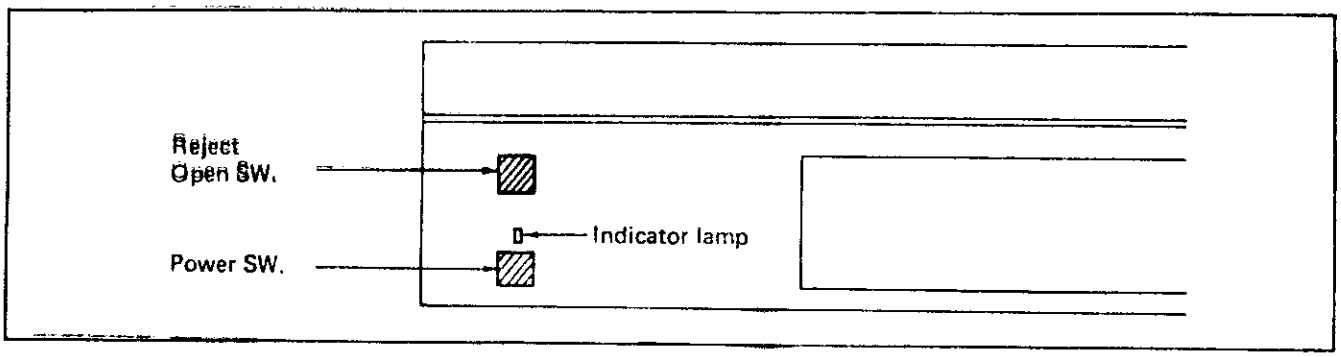


Fig. 7 How to Mount the Player

2. Opening the Dust Cover (Upper Cover of the Player)

- First, remove the DC output [12P vinyl connector] for the PCB.
- Connect the disc player's AC plug to the AC socket on the power box, and turn power ON to the machine.
- When turning power ON by pressing the "POWER" switch on the player, an indicator lamp will light.
- When pressing the "REJECT OPEN" button, the dust cover's lock is released, so that you can open it upward. (The dust cover does not open, if the player's power is not ON.)

Note: When making connections to the player, be sure to turn OFF the cabinet's power source.



The Front View of the Player

3. How to Remove the Inside Mechanism Protective Parts

- The player itself is provided with a shipping screw for protection of the inside mechanism and a lens cap for protection of the lens. **Before installing the disc, be sure to remove the shipping screw and lens cap.**

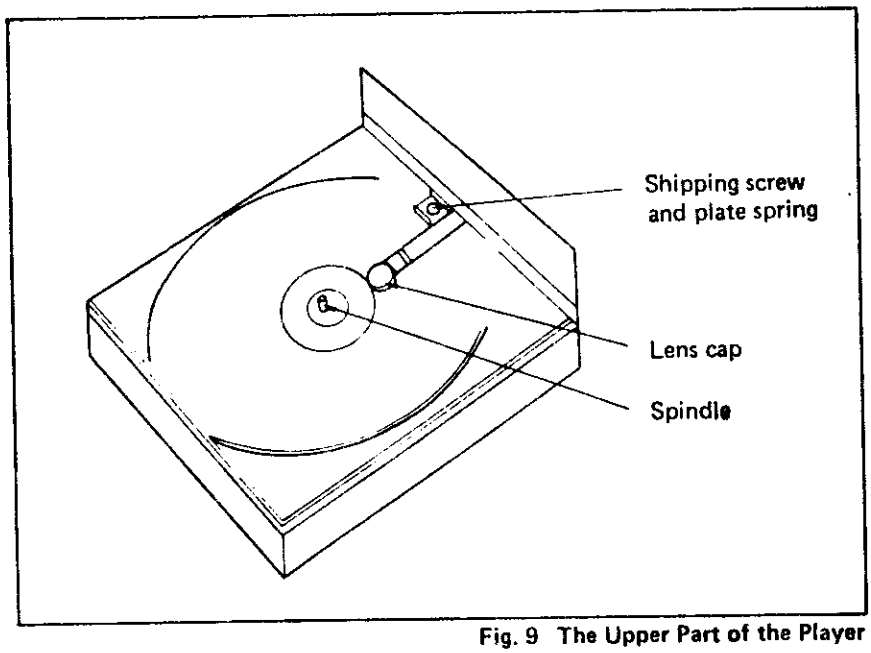


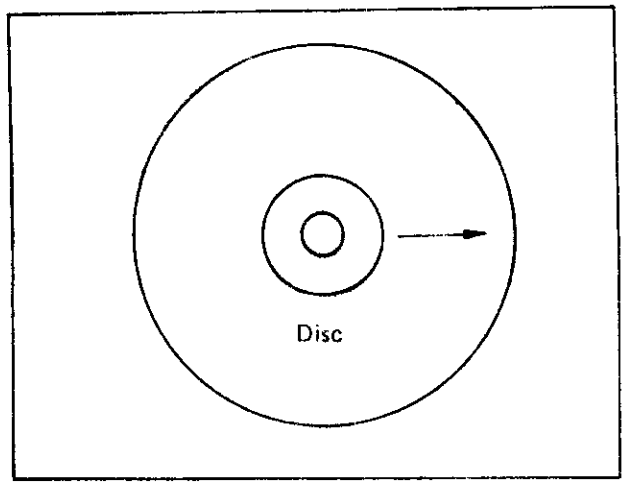
Fig. 9 The Upper Part of the Player

Note: Be sure to keep these parts, as they will be needed when transporting the player. Be sure never to touch the lens by hand.

4. How to Treat the Disc

- When handling the disc, exercise care so that you do not touch the signal recorded surface (the shining side) by hand – treat it as you treat a record.

- When you want to wipe off a stain on the surface, wipe it off from the inside to the outside with a damp cloth, then immediately wipe it off similarly with a dry cloth.



5. How to Install the Disc

- Set the disc on the spindle with the signal recorded surface facing downward.
- After installing the disc, close the dust cover securely.
- When removing the disc, turn the power OFF, remove the connectors other than the disc player's power source, and press the "REJECT" button. The dust cover will open, then remove the disc.

Note: If the dust cover does not open fully, do not force or pull it open. Press down on it slightly to re-close it, then press the reject button again.

6. How to Connect the Disc Player Harness

- After turning the player's power source OFF, make connections at the following 4 points – the control or interface connector, the video-out terminal, and 2 audio-out terminals.

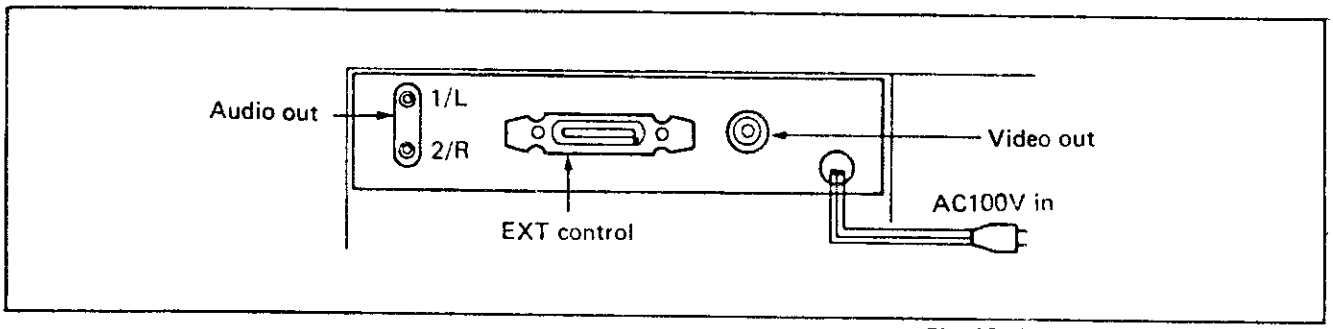


Fig. 10 The Rear View of the Player