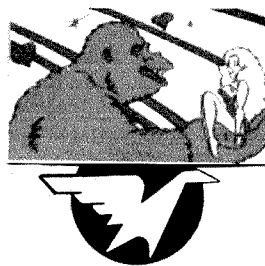


# VICTORY ROAD

## SERVICE INSTRUCTIONS



***TRADEWEST***

TRADEWEST, INC.  
2400 SOUTH HWY. 75  
CORNICANA, TEXAS 75110

214-874-2683

USER INFORMATION - F.C.C.

**WARNING**

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS.

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 ENVIROMENT.

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.

## INTRODUCTION

"VICTORY ROAD" 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 100 MHZ oscilloscope and a logic probe would be helpful.

Technical assistance is available at your Tradewest Distributor. Questions or comments concerning "Victory Road" are welcome and should be directed to :

TRADEWEST, INC.  
2400 South Highway 75  
Corsicana, Texas 75110

## HOW TO PLAY

- \* 1P or 2P game
- \* 2nd player can join the game anytime after the 1st player starts and either player can join anytime and any stage during playing.
- \* Control players' HERO by Joystick (LS-30) and 2-firing buttons.
- \* Control direction of players' HERO by 8-way Joystick and control direction of firing by rotating switch.
- \* Players' HERO will be protected occasionally with armor when player get "POW" appears from earths' surface.
- \* Right firing button is for GRENADE only. Operate left firing button for many other weapons.
- \* Get POWER POINTS hidden inside of Rocks, Walls and Pyramids, etc.
  - Thunder : "SUPER POWER"....All enemies can be destroyed.
  - Earthquake: Stops all enemies' action.
  - Eye Mark : Secret "POW" appears in sight.
  - Key : This key allows you to move through the multi-dimensional space.
  - Star mark : Watch the angel, it tells you which "POW" will help you.

Dozens of "POW" are hidden in secret place.

- \* Player can destroy almost obstacles in sight.
- \* Select your weapons : Sword, boomerang, bazooka, hand grenades, machine gun, etc.
- \* Become a master with your sword.
  - It will destroy your enemies and stop their bullets.
  - When your super-powered lightening swords are crossed, you will discover a secret power.
- \* Watch the panels flying from multi-dimensional space.
  - If you touch these panels, you will be lost in the Black Hole.

## CONTINUE PLAY

- \* Receive additional warriors during play by inserting coin and and pushing 1 or 2 player button.
- \* You can play continuously from the stage finished the game by inserting coin and pushing start button within 10 seconds after indication of "GAME OVER".

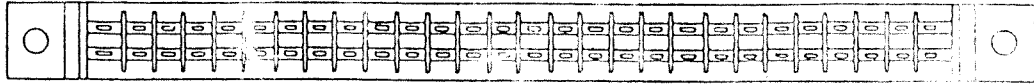
HARNES S

CONNECTOR CR7E-56DA-3.96E (HRS) 3.96mm Pitch

(1)

PARTS SIDE

(28)



(A)

SOLDER SIDE

(1)

| SOLDER SIDE                      | PIN NO. |    | PARTS SIDE                       |
|----------------------------------|---------|----|----------------------------------|
| GND                              | A       | 1  | GND                              |
| GND                              | B       | 2  | GND                              |
| +5V                              | C       | 3  | +5V                              |
| +5V                              | D       | 4  | +5V                              |
| -5V                              | E       | 5  | -5V                              |
| +12V                             | F       | 6  | +12V                             |
| IN-CORRECT INSERT PREVENTING KEY | H       | 7  | IN-CORRECT INSERT PREVENTING KEY |
| COIN COUNTER 2                   | J       | 8  | COIN COUNTER 1                   |
|                                  | K       | 9  |                                  |
| SPEAKER (-)                      | L       | 10 | SPEAKER (+)                      |
|                                  | M       | 11 |                                  |
| VIDEO GREEN                      | N       | 12 | VIDEO RED                        |
| VIDEO SYNC                       | P       | 13 | VIDEO BLUE                       |
| SERVICE SWITCH                   | R       | 14 | VIDEO GND                        |
|                                  | S       | 15 |                                  |
| COIN SWITCH 2                    | T       | 16 | COIN SWITCH 1                    |
| START SWITCH 2                   | U       | 17 | START SWITCH 1                   |
| 2P CONTROL 1 UP                  | V       | 18 | 1P CONTROL 1 UP                  |
| 2P CONTROL 2 DOWN                | W       | 19 | 1P CONTROL 2 DOWN                |
| 2P CONTROL 3 LEFT                | X       | 20 | 1P CONTROL 3 LEFT                |
| 2P CONTROL 4 RIGHT               | Y       | 21 | 1P CONTROL 4 RIGHT               |
| 2P CONTROL 5 PUSH1               | Z       | 22 | 1P CONTROL 5 PUSH1               |
| 2P CONTROL 6 PUSH2               | a       | 23 | 1P CONTROL 6 PUSH2               |
|                                  | b       | 24 |                                  |
|                                  | c       | 25 |                                  |
|                                  | d       | 26 |                                  |
| GND                              | e       | 27 | GND                              |
| GND                              | f       | 28 | GND                              |

OPTIONAL DIP SWITCH SETTINGS

DIP SWITCH

---

DIP SW No. 1

| ITEM               | SPECIFICATION  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |  |
|--------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                    |                | OFF |     |     |     |     |     |     |     |  |
|                    | UNITED STATES  | ON  |     |     |     |     |     |     |     |  |
| GAME STYLE         | UPRIGHT        |     | OFF |     |     |     |     |     |     |  |
| BONUS              | * EVERY BONUS  |     |     | OFF |     |     |     |     |     |  |
|                    | * SECOND BONUS |     |     | ON  |     |     |     |     |     |  |
| NUMBER OF HERO     | 3              |     |     |     | OFF |     |     |     |     |  |
|                    | 5              |     |     |     | ON  |     |     |     |     |  |
| PLAY FEE<br>COIN 1 | 1 COIN 1 PLAY  |     |     |     |     | OFF | OFF |     |     |  |
|                    | 2 COIN 1 PLAY  |     |     |     |     | ON  | OFF |     |     |  |
|                    | 3 COIN 1 PLAY  |     |     |     |     | OFF | ON  |     |     |  |
|                    | 4 COIN 1 PLAY  |     |     |     |     | ON  | ON  |     |     |  |
| PLAY FEE<br>COIN 2 | 1 COIN 6 PLAY  |     |     |     |     |     |     | OFF | OFF |  |
|                    | 1 COIN 4 PLAY  |     |     |     |     |     |     | ON  | OFF |  |
|                    | 1 COIN 3 PLAY  |     |     |     |     |     |     | OFF | ON  |  |
|                    | 1 COIN 2 PLAY  |     |     |     |     |     |     | ON  | ON  |  |

‡ EVERY BONUS.....CREDIT EACH ONE HERO IN EVERY 2ND BONUS.  
 ‡ SECOND BONUS.....CREDIT ONE HERO AT 1ST AND 2ND BONUS ONLY.  
 NO FURTHER HERO CREDITED AFTERWARD.

OPTIONAL DIP SWITCH SETTINGS

Dip Switch No.2

GAME LEVEL OF DIFFICULTY

DIP SW NO. 2

| ITEM                         | SPECIFICATION         | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|------------------------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| GAME LEVEL OF DIFFICULTY     | EASY                  | OFF | OFF |     |     |     |     |     |     |
|                              | NORMAL                | ON  | OFF |     |     |     |     |     |     |
|                              | HARD                  | OFF | ON  |     |     |     |     |     |     |
|                              | DIFFICULT             | ON  | ON  |     |     |     |     |     |     |
| ATTRACTION SOUND             | WITHOUT SOUND         |     |     | OFF |     |     |     |     |     |
|                              | WITH ATTRACTION SOUND |     |     | ON  | OFF |     |     |     |     |
| MONITOR SETTING              | STOP VIDEO DISPLAY    |     |     | ON  | ON  |     |     |     |     |
|                              | NEVER FINISH          |     |     | OFF | ON  |     |     |     |     |
| BONUS POINTS SETTING 1ST/2ND | 50000/100000          |     |     |     |     | OFF | OFF |     |     |
|                              | 60000/120000          |     |     |     |     | ON  | OFF |     |     |
|                              | 100000/200000         |     |     |     |     | OFF | ON  |     |     |
|                              | NO BONUS              |     |     |     |     | ON  | ON  |     |     |
| CONTINUE PLAY                | WITHOUT CONTINUE      |     |     |     |     |     |     | OFF |     |
|                              | WITH CONTINUE         |     |     |     |     |     |     | ON  |     |
|                              |                       |     |     |     |     |     |     |     | OFF |

## 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 HARNESSSES. 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.



## ROUTINE MAINTENANCE & SERVICE

Because of the solid state electronic circuitry, this machine should require very little maintenance, and only occasional 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. Occasionally 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.  
"DO NOT MAKE ANY ADJUSTMENTS ON THIS MACHINE WHILE THE POWER IS ON.!"

### POWER SUPPLY

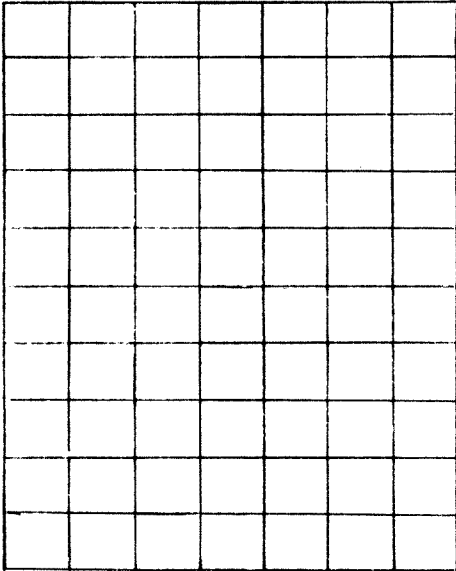
The Computer Board in this game operates most efficiently and reliably when the power supply is set so the voltage on the Board is +5.0 volts. To check voltage, place a digital multimeter across +5 volts (pin-3, pin-4) and ground (27,28) on the P.C. Board edge connector. Adjust, if necessary, the +5 volt Pot (control) located on the power supply so the meter reads between +4.9 and +5.1 volts.

### FOR SERVICE INFORMATION CONTACT:

Your Local  
Tradewest Distributor  
or  
Tradewest, Inc.  
Attn: Service  
214/874-2683

## P.C. BOARD DIAGNOSTIC TEST

A MANUAL TEST MAY BE PERFORMED BY DEPRESSING THE "PLAYER 1" START BUTTON DURING POWER-UP. WHEN THE "CROSS-HATCH" PATTERN APPEARS, RELEASE THE BUTTON AND PROCEED AS FOLLOWS:

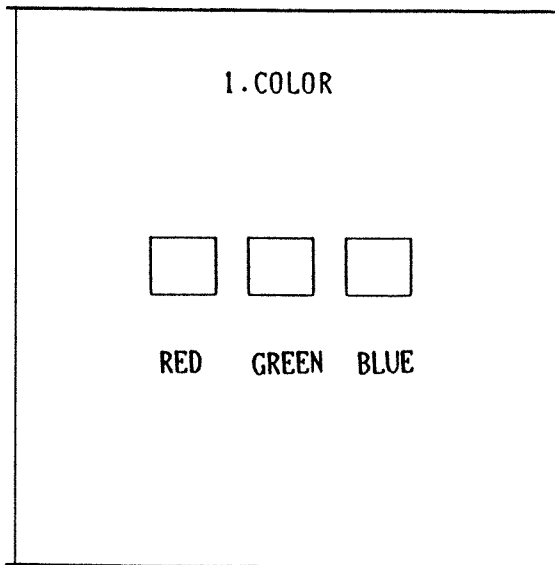


Picture 1 "Cross Hatch"

Adjustment to the monitor may be made to center and/or extend the borders of the picture.

Press "PLAYER 1" button to change to picture 2.

Picture 2 "Color Test"



Adjustment of colors on the monitor may be made.

Press "PLAYER 1" button to change to picture 3.

### 2. LEVER

|          |   |          |   |
|----------|---|----------|---|
| P1 UP    | 0 | P2 UP    | 0 |
| P1 DOWN  | 0 | P2 DOWN  | 0 |
| P1 RIGHT | 0 | P2 RIGHT | 0 |
| P1 LEFT  | 0 | P2 LEFT  | 0 |
| P1 NOBU  | 0 | P2 NOBU  | 0 |
| P1 PUSH1 | 0 | P2 PUSH1 | 0 |
| P1 PUSH2 | 0 | P2 PUSH2 | 0 |
| COIN     | 0 | PLAY2    | 0 |

### Picture 3 "Joystick & Switch Test"

The screen will display all switches with a zero (0) to the right. The zero (0) should change to one (1) and increase by one each time Joystick is moved to the right. Moving Joystick to the left decreases each number by one. Inserting coin or pushing service switch increases coin number by one.

Press "PLAYER 1" button to change to picture 4.

### 3. MODE

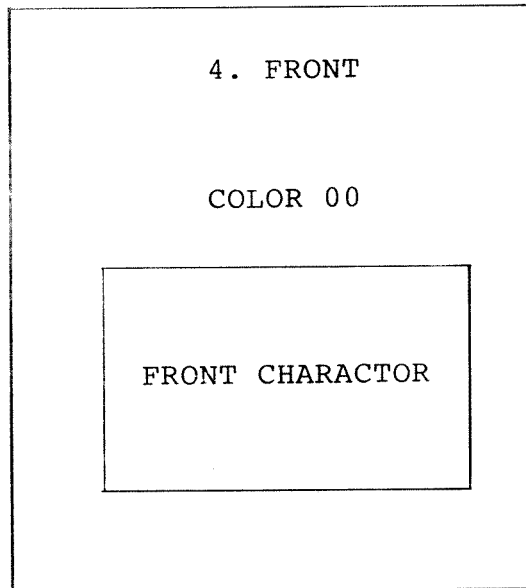
|               |                 |
|---------------|-----------------|
| DIP1          | 12345678        |
|               | 00000000        |
| DIP2          | 12345678        |
|               | 00000000        |
| TYPE          | TABLE           |
| HERD          | 3               |
| 1 COIN 1 PLAY | 1 COIN 2 6 PLAY |
| BONUS 1       | 50000P          |
| BONUS 2       | 100000 EVERY    |
| LEVEL 1       |                 |

### Picture 4 "Mode Check"

The screen will automatically display all programmable features with their respective settings. Settings should correspond to the position of the dip switches on the P.C. Board. The actual set mode is displayed at the bottom of the screen.

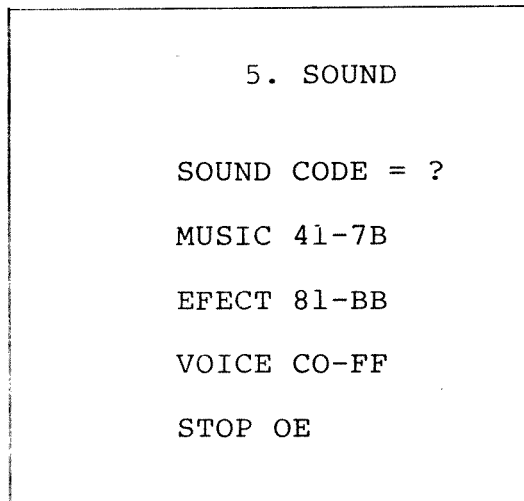
Press "PLAYER 1" button to change to picture 5.

PICTURE 5



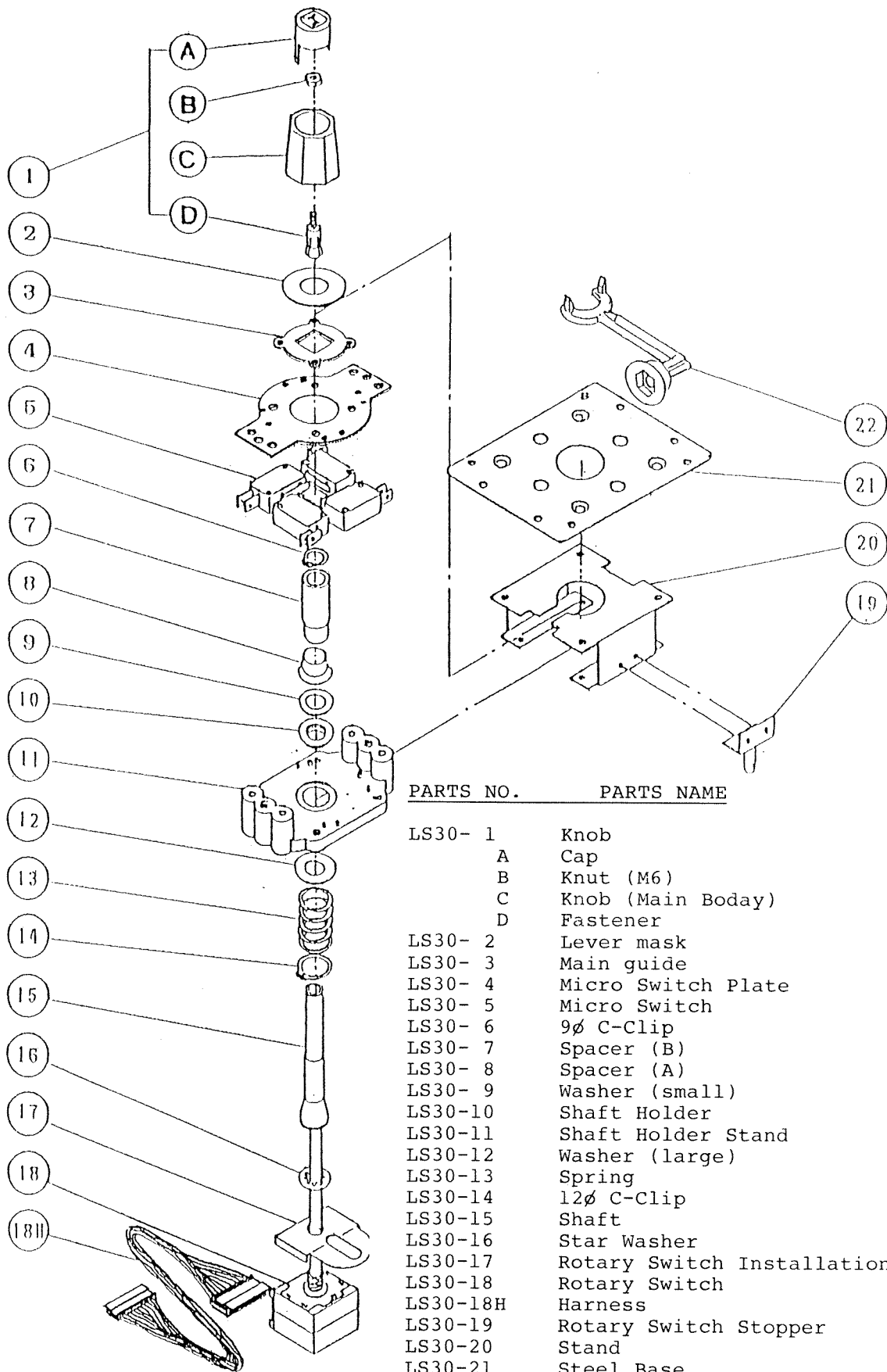
PICTURE 5. FRONT TEST  
Confirm if Characters  
are displayed on the  
monitor.

PICTURE 6



PICTURE 6 SOUND TEST  
Set up Music Code  
("? " of Picture 6)  
to 41-7B or 81-BB or  
CO-FF by lever and push  
firing button. Then  
music or effective sound;  
or voice comes out. If  
you wish to stop it, set  
up Music Code to OE and  
push firing button.

LS 3 0 - 24 JOYSTICK ASSEMBLY

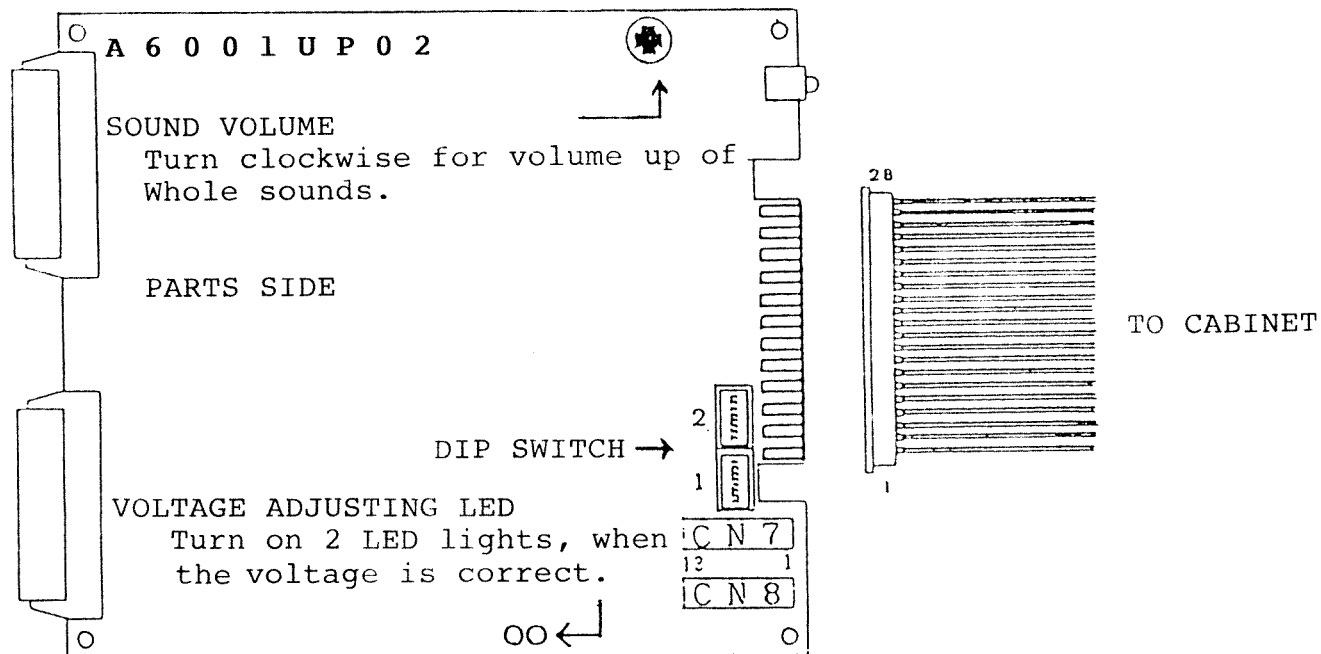


| PARTS NO. | PARTS NAME                             |
|-----------|--|
| LS30- 1   | Knob                                   |
| A         | Cap                                    |
| B         | Knut (M6)                              |
| C         | Knob (Main Boday)                      |
| D         | Fastener                               |
| LS30- 2   | Lever mask                             |
| LS30- 3   | Main guide                             |
| LS30- 4   | Micro Switch Plate                     |
| LS30- 5   | Micro Switch                           |
| LS30- 6   | 9ø 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   | 12ø 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                      |

**P. C. B. SPECIFICATIONS**

|   |                |                           |     |
|---|----------------|---------------------------|-----|
| 1 | EDGE CONNECTOR | CR7E-56DA-3. 96E(56PIN) : | HRS |
| 2 | SWITCHING      | DC +5V                    | 7A  |
|   | REGURATOR      | DC +12V                   | 1A  |
|   |                | DC -5V                    | 1A  |

\*Use with voltage on P.C.B. between the range of +5.00V -- +5.10V



1. Even if Solid State Module is clearly found defective, please do not check Circuit with a Tester, etc. The ICs may be destroyed by the voltage of a Tester.
2. Turn on 2 LED lights, when the voltage is correct. If only one LED light turns on, adjust by 5VADJVR of switching regulator. When no LED light turns on, check electric voltage of power source.
3. Don't forget to cut off Power Source when you change Parts or insert/pull off of Connector.
4. Please be sure to Disconnect Power Source by pulling Plug. (Not by Cord)
5. Be careful for handling Monitor and it's part of High Tension.

A lot of ICs and Memories are used, by which Electric power consumption for +5V (Volts) is about 5A (Amperes). Please connect P.C.B. to Cabinet and adjust electric voltage of Power Source to be +5V at each Edge Connector (56pin) of P.C.B.

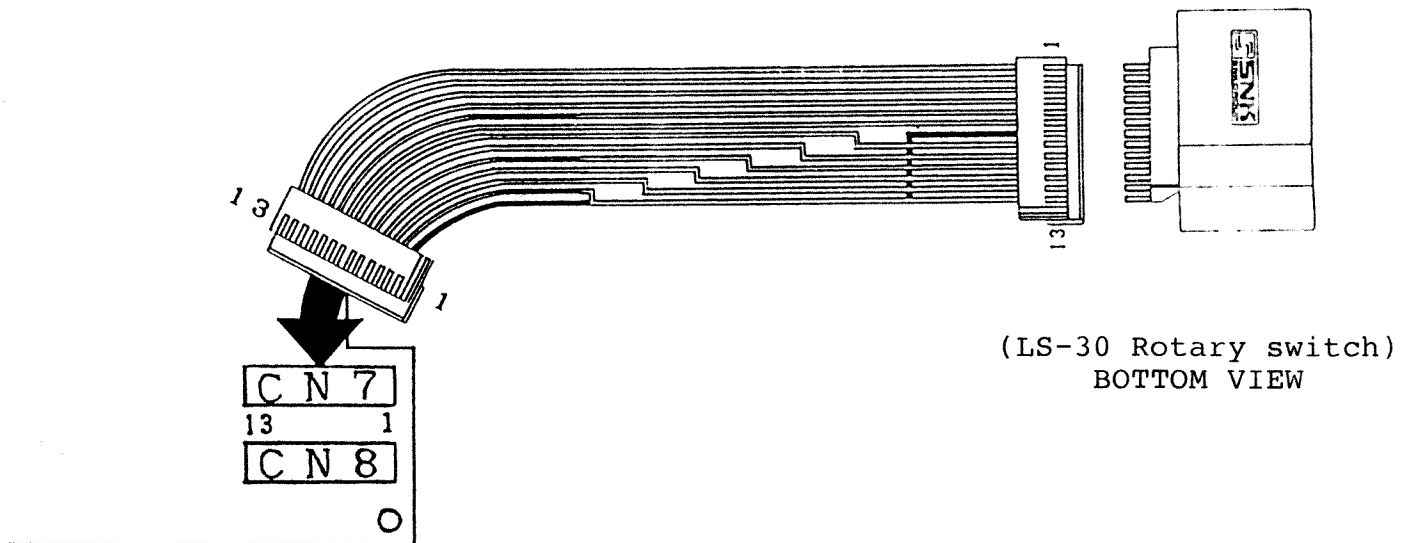
In case voltage does not indicate more than +5V even by fully adjusted by Voltage Adjustor, it is because of insufficient Power Source or lack of capacity of Electric Current. So, please change Power Supply of which rated voltage is higher.

For +5V, please use sufficient cable (1.25mm x 2 or 3.5mm) which is capable for Electric Currency.

Voltage of intermediate Harness descend by contact resistance, so please avoid to connect several intermediate Harnesses to keep sufficient voltage.

If +6V Coin counter is connected from +5V, which causes Voltage drop, so please use +12V Coin Counter.

### ROTARY SWITCH WIRING



Connect Joystick of PLAYER 1 with CN7 of PCB and PLAYER 2 with CN8 of PCB.