

## ■ The Crystal of Kings Soft Dip ■

### Initial Description Screen

The Crystal of Kings	
LANGUAGE	ENGLISH
CONTINUE	WITH
DIFFICULTY	LEVEL 4 NORMAL
NUMBER OF PLAYER	2
PLAYER HIT MODE	NORMAL (COPPER TITLE MODE)
EXTEND BONUS	1st 300000 2nd 800000 No every
EFFECT	NORMAL (LITTLE BLOOD)
EXIT(MAIN MENU)	

### <How to change settings>

- 1) Move the joystick up and down to match the cursor to the item you want to adjust
- 2) Push the A button and proceed in the stated order to adjust settings.

### <Game Settings>

LANGUAGE	Allows the display of game messages in 1 of 2 languages. ENGLISH/JAPANESE
CONTINUE	Determines whether Continue is available or not. WITH/WITHOUT
DIFFICULTY	Changes game difficulty to 1 of 8 levels. LEVEL 1/2/3/4/5/6/7/8
NUMBER OF PLAYER	Determines the number of player per one play 1/2/3/4/5/6/7/8/9
PLAYER HIT MODE	Changes "Player Hit Mode" to 1 of 3 levels. NORMAL(COPPER TITLE MODE) All player's attacks don't hit to the other one. HARD(SILVER HIT MODE) All player's attacks without Magical Effects hit to the other one. VERY HARD(GOLD TITLE MODE) All player's attacks hit to the other one.
EXTEND BONUS	Determines the extend bonus score to 1 of 10 levels. 1st 70000/2nd 150000/every +100000 1st 100000/2nd 200000/every +100000 1st 200000/2nd 400000/every +200000 1st 300000/2nd 600000/every +300000 1st 300000/2nd 600000/No every 1st 300000/2nd 800000/No every 1st 400000/2nd 999900/No every 1st 500000/No every 1st 999900/No every No Extend
EFFECT	Determines whether "spurting blood" is shown during game play. SOFT(NO BLOOD) Also, background color of STAGE 6 changes to Purple. NORMAL(LITTLE BLOOD) Also, background color of STAGE 6 changes to Red. REAL(MANY BLOOD) Also, background color of STAGE 6 changes to Red.
EXIT(MAIN MENU)	Back to MAIN MENU

# The Crystal of Kings

ATTACKS (Get Items)

**A** **B** **G**

**MAGIC ATTACKS** **JUMP**

4 LEVELS OF MAGICAL EFFICACY  
(When the magic gauge is at level 1 or higher)

Level Gauge: Lv.1, Lv.2, Lv.3, Lv.4

An attribute of crystal is changed by conducts of players Powers of crystal rises when the gauge reaches max!  
Bright Side (MAX) / Dark Side (MIN)

## How to play

When characters face right

→→	Dash
→→A	Dash attacks
↑↑B	Guards
↑↑A	Low attacks
→→A	Distance attacks
→→A	Spin around attacks
↓→A	Further attacks
↑→A	Continuous attacks
A+B	Antiair attacks
	Emergency avoidance (Downward tilt)

## FAIRIES

Flying around characters and support them with various effects

- [RED FAIRY] Supports attacks
- [BLUE FAIRY] Supports strength
- [GREEN FAIRY] Supports magical powers
- [GOLD FAIRY] Supports scores

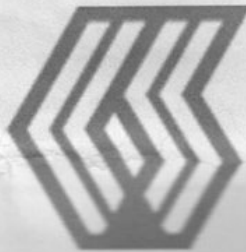
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**VRenderZERO for CRYSTAL SYSTEM**

**Instruction Manual**

**VRenderZERO Board**

-Ultimate 2D Arcade Game Board -



CRYSTAL SYSTEMS

**MAGIC EYES**



**BrezaSoft Corporation**

**MagicEyes Digital Co.  
BrezaSoft Corp.**



# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual



### WARNING

1. To prevent fire or shock hazard, do not expose the unit to rain or moisture.
2. Incorrect reassembly may cause electrical shock or other risks.
3. You are cautioned that any changes or modification not expressly approved by your authorized distributor could void your authority to operate this unit.
4. Never dispose of back-up battery in a fire. There is a serious risk of explosion and/or the release of highly toxic chemicals.
5. Unplug this unit from the arcade game machine and power supplier, and refer servicing to qualified personnel under the following conditions ;
  - When the power supply cord, plug, or adaptor is damaged or frayed.
  - If liquid has been spilled into the product.
  - If the product has been exposed to rain or water.
  - If the product does not operate properly after instructions have been followed.
  - If the product has been dropped, or the cover appears damaged.
  - If the product exhibits a distinct change in performance

Before using the product, be sure to read the following:

#### To maintain the safety:

- This game cartridge is for CRYSTAL SYSTEM only.
- Insert the game cartridge correctly into the VRenderZERO, or else, it may cause damage.
- Perform work in accordance with the instructions herein stated.
- Be sure to turn off power before working on the machine.
- Be sure to ground the Earth Terminal (this, however, is not required in the case where a power cord with earth is used)
- Be sure to select "CLEAR SOFT BACKUP" in "HARDWARE SETTING MENU", to prevent software malfunction. (Refer to PAGE 11)
- Be sure to keep the board operating for 8hours to secure correct backup data. This is recommended when the game is set up for the first time.

# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

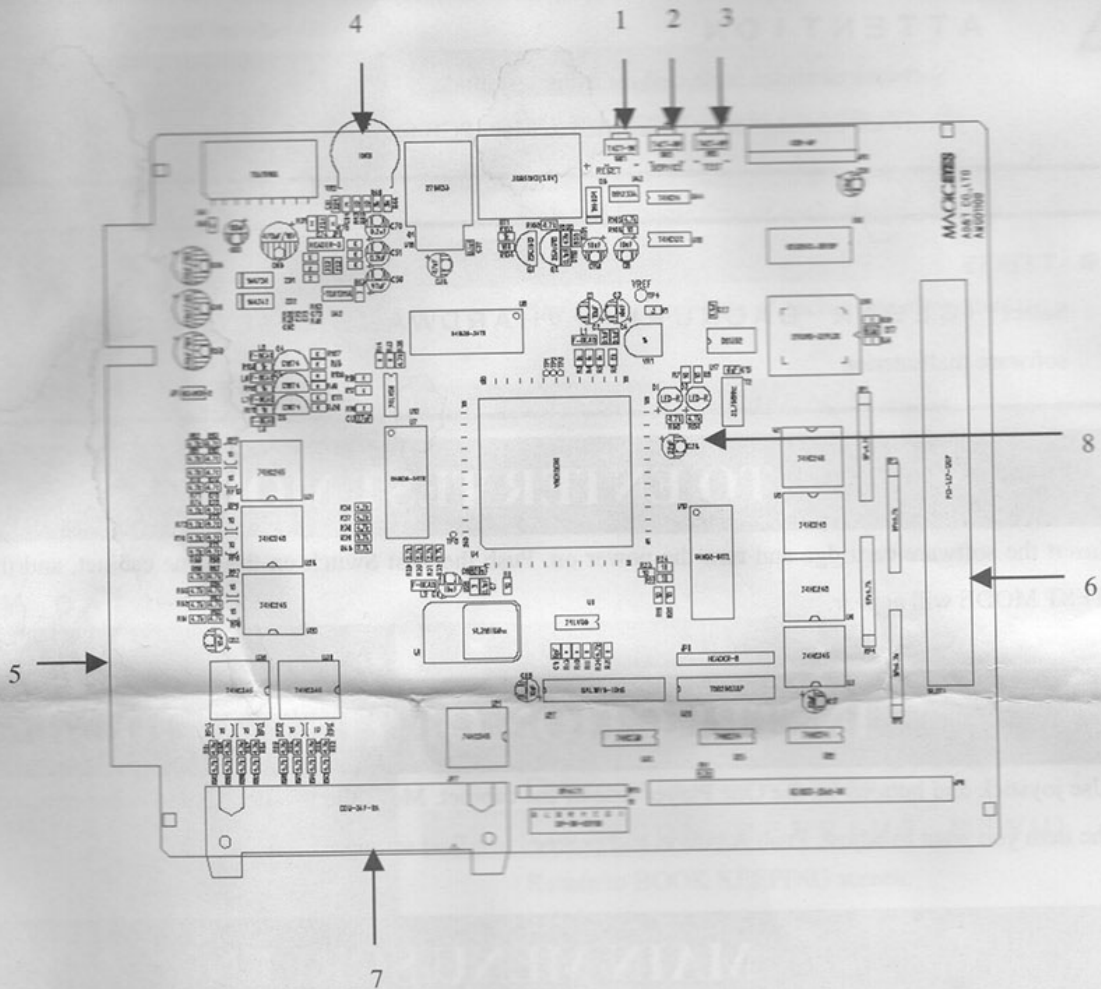
### SPECIFICATION SHEET

Processor (CPU + 2D Graphic + Sound)	32Bit EISC CPU Core (Cache 4Kbyte), 240QFP Pin Wavetable Synthesizer (32Channel, 16bit) High Performance 2D Graphic Based on 3D Memory Controller, Other Peripherals
Operating Frequency	CPU : 43MHz / Graphic Core : 86MHz
Memory	Main Memory : 8Mbyte Texture Memory : 8Mbyte Frame Memory : 8Mbyte Data Memory (Selectable)
Copy Protection	Built-in Copy Protection
Display	RGB Monitor Horizontal Freq. : 15Khz, 24Khz, 30Khz
Interface	JAMMA, Extension Slot, External Serial Port, 3/4P Expansion Slot,
Sound Format	44.1Khz, 16bit Stereo, I <sup>2</sup> S Format
Graphic Effect	Zoom In/Out, Rotation, Alpha Blending, Shading, Line-scrolling
Back-up System	32KByte SRAM, RTC
AMP	22Watt, Stereo
Power Supply	DC 5V (+/-10%) and 12V (+/-10%)
Operating Temperature	0°C ~ 60°C
Dimension	185mm*153mm (Main board only)
Weight	181g (Main board only)

# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### HOW TO USE HARDWARE



1. Reset switch : Reset system.
2. Service switch : While pressing and holding Test and Service Switch together, turn the power on to display Self Test (Configuration).
3. Test switch : While pressing and holding Test and Service Switch together, turn the power on to display Self Test (Configuration)..
4. Volume switch : Adjust volume .
5. JAMMA connector : Connect to standard JAMMA.
6. PCI connector : Connect to ROM pack (or flash board).
7. Extension slot : Signal input/output through this slot for 3/4player.
8. Contrast switch : Adjust contrast.

# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

# TEST MODE



### ATTENTION

Software cartridge is needed for using test mode.

Software cartridge must be inserted to Main PCB for using test mode.

### ● AT FIRST

Select 「CLEAR BACKUP」 in 「HARDWARE SETTING MENU」, to prevent software malfunction

## TO ENTER TEST MODE

Insert the software cartridge and turn the power on. Push the Test Switch on the game cabinet, and the menu of the TEST MODE will appear.

## INSTRUCTION OF TEST MODE

Use joystick and buttons on the One Player side of the cabinet. Move the joystick up and down to match the cursor to the item you want to adjust. Push A button and proceed to adjust settings.

## MAIN MENU SCREEN

### ■ SYSTEM SET UP MAIN MENU

Move the joystick up and down to match the cursor to the item you want to adjust. Push A button and proceed to adjust settings.

SYSTEM SET UP MAIN MENU

- ▶ BOOK KEEPING
  - Evolution Soccer
- SOFT DIP SET UP
- CABINET DIP SET UP
- HARDWARE TEST
- EXIT (RETURN TO GAME)

P1 stick up, down=SELECT MENU.  
P1 Button=SET, P1 Button=EXIT

- BOOK KEEPING
  - Coin and Play data
- SOFT DIP SET UP
  - Setting of game
- CABINET DIP SET UP
  - Setting of cabinet
- HARDWARE TEST
  - Test of hardware and clear back up memory
- EXIT (RETURN TO GAME)



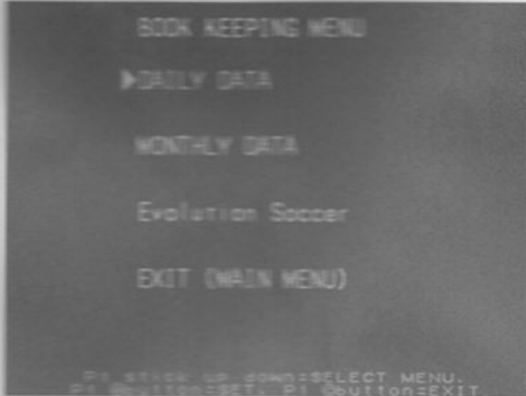
# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### COIN DATA

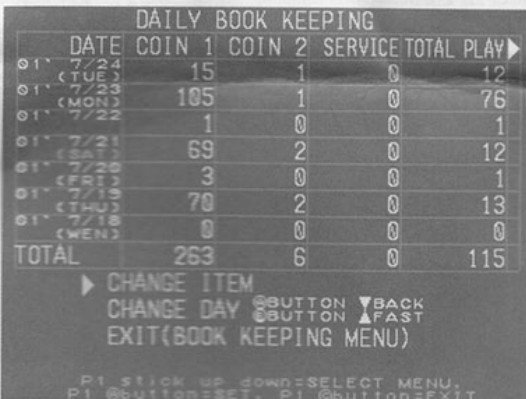
#### BOOK KEEPING

Use for checking the Play and Income data.



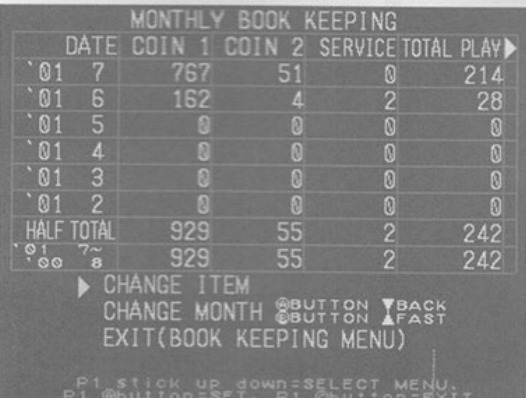
- DAILY DATA**  
Play and Income data of each day per week.
- MONTHLY DATA**  
Play and Income data of each month per year.
- Evolution Soccer**  
Play and Income data of each game after resetting.
- EXIT (MAIN MENU)**  
Return to main menu.

#### DAILY DATA



- CHANGE ITEM**  
Change displayed screen by using A button.
- CHANGE DAY**  
Change day by using A/B button.
- EXIT (BOOK KEEPING MENU)**  
Return to BOOK KEEPING screen.

#### MONTHLY DATA



- CHANGE ITEM**  
Change displayed screen by using A button.
- CHANGE MONTH**  
Change month by using A/B button.
- EXIT (BOOK KEEPING MENU)**  
Return to BOOK KEEPING screen.



# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### ■ Evolution Soccer (Example Software Title)

DAILY BOOK KEEPING				
DATE	COIN 1	COIN 2	SERVICE	TOTAL PLAY
01 7/24 (TUE)	15	1	0	12
01 7/23 (MON)	105	1	0	76
01 7/22	1	0	0	1
01 7/21 (SAT)	69	2	0	12
01 7/20 (FRI)	3	0	0	1
01 7/19 (THU)	70	2	0	13
01 7/18 (WEN)	0	0	0	0
TOTAL	263	6	0	115

▶ CHANGE ITEM @BUTTON ▼BACK  
 CHANGE DAY @BUTTON ▲FAST  
 EXIT(BOOK KEEPING MENU)

P1 STICK UP DOWN=SELECT MENU.  
 P1 @button=SET. P1 @button=EXIT

- CHANGE ITEM**  
Change displayed screen by using A button.
- CHANGE DAY**  
Change day by using A/B button.
- EXIT (BOOK KEEPING MENU)**  
Return to BOOK KEEPING screen.

DATE	
COIN 1	Data of credit in Coin1
COIN 2	Data of credit in Coin2
SERVICE	Data of service credit
TOTAL PLAY	Total play number
P1 PLAY	Total play number in P1 side.
P2 PLAY	Total play number in P2 side.
CONTINUE	Number of continue
TIME Ave.	Average play time

## GAME OPTION

### ■ SOFT DIP SET UP

Move the joystick up and down to match the cursor to the item you want to adjust. Push A button and proceed to adjust settings. Setting differs according to the game.

Evolution Soccer SOFT DIP SETTING	
▶ LANGUAGE	ENGLISH
CONTINUE	WITHOUT
DIFFICULTY	AUTO
AUTO DIFFICULTY	02:00
FOR MEXICO	NO
EXIT (MAIN MENU)	

P1 STICK UP DOWN=SELECT MENU.  
 P1 @button=SET. P1 @button=EXIT

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BrezaSoft Corp.**

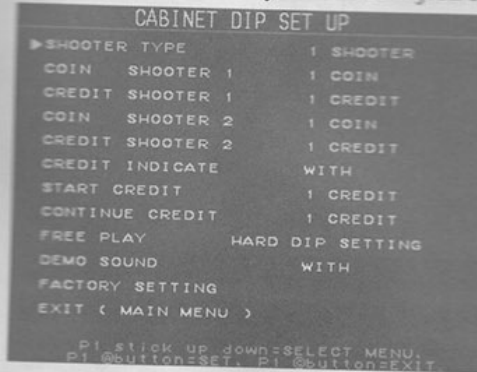
# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### CABINET SET UP

#### CABINET DIP SET UP

Move the joystick up and down to match the cursor to the item you want to adjust. Push A button and proceed to adjust settings.



#### SHOOTER TYPE

Set type of coin shooter.

#### COIN SHOOTER 1

Set number of coins in Coin1.

#### CREDIT SHOOTER 1

Set number of credits in Coin1.

#### COIN SHOOTER 2

Set number of coins in Coin2.

#### CREDIT SHOOTER 2

Set number of credits in Coin2

#### CREDIT INDECCATE

Set display of CREDITS

#### START CREDIT

Set number of credits for game start

#### CONTINUE CREDIT

Set number of credits for continue

#### FREE PLAY

Set ON/OFF of free play.

#### DEMO SOUND

Set ON/OFF of demo sound

#### FACTORY SETTING

Setting return to factory setting.

#### EXIT (MAIN MENU)

Return to main menu

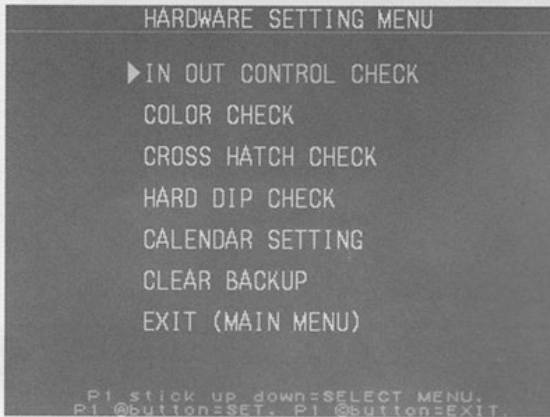
# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### HARDWARE SET UP

#### HARDWARE SETTING MENU

Move the joystick up and down to match the cursor to the item you want to adjust. Push A button and proceed to adjust settings.



#### IN OUT CONTROL CHECK

Check hardware control.

#### COLOR CHECK

Display monitor color adjustment screen.

#### CROSS HATCH CHECK

Display monitor adjustment screen.

#### CALENDAR SETTING

Set calendar.

#### CLEAR BACKUP

Clear backup memory.

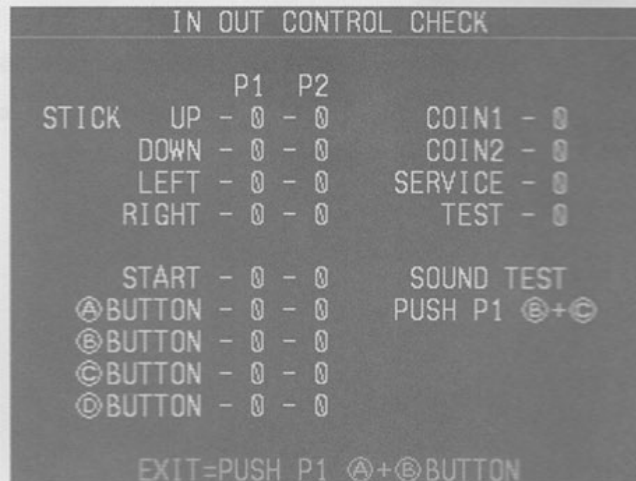
#### EXIT (MAIN MENU)

Return to main menu.

### IN OUT CONTROL TEST

#### IN OUT CONTROL CHECK

In 「IN OUT CONTROL CHECK」 screen, moving each switch turns 「0 (OFF)」 to 「1 (ON)」 on the screen.



To return, push A and B button simultaneously on 1player side.

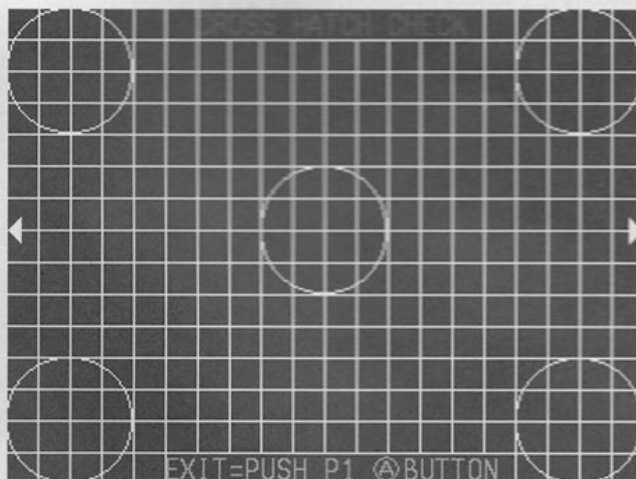
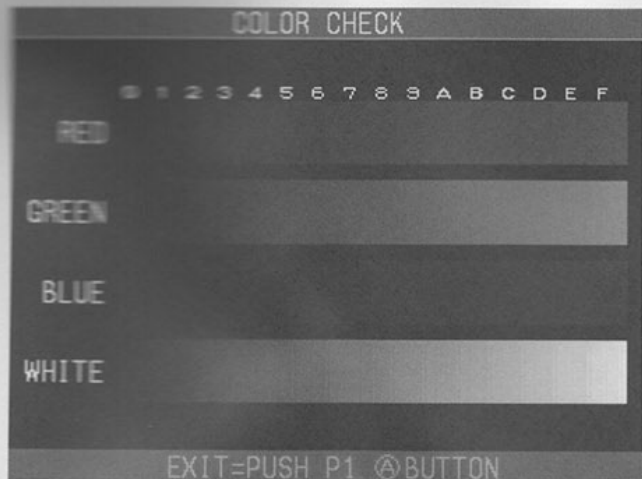


# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### MONITOR TEST

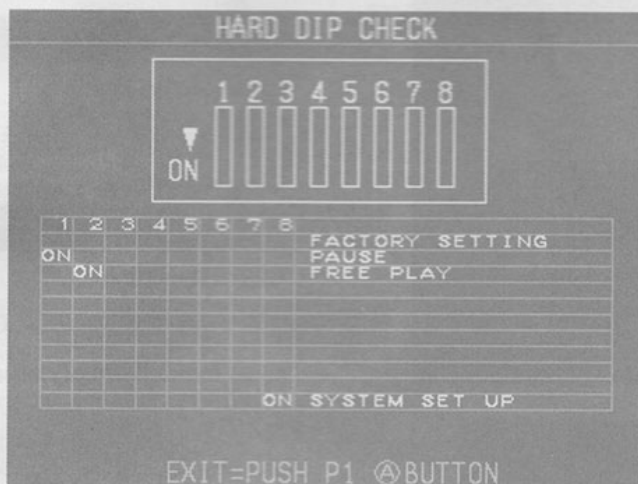
#### COLOR CHECK/CROSS HATCH CHECK



To return, push A button on 1player side.

### HARD DIP CHECK

#### HARD DIP CHECK



To return, push A button on 1player side.

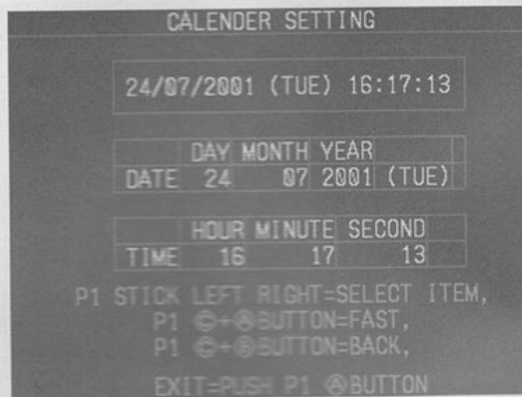
# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### CALENDAR SETTING

#### CALENDAR SETTING

Set calendar inside PCB. Move the joystick left and right to match the cursor to the item you want to adjust. Push C+A button to adjust, push C+B to return.

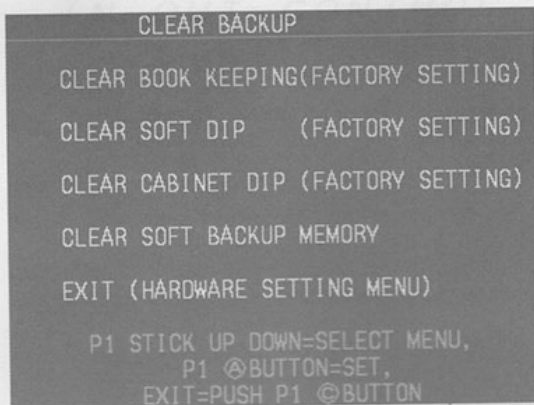


To return, push A button on 1player side.

### CLEAR BACKUP MEMORY

#### CLEAR BACKUP

Clearing high score and income data. Move the joystick to match the cursor to the item you want to adjust. Push A button in 1 player side to select, and push A+B button to clear data.



#### CLEAR BOOK KEEPING

Clear income data.

#### CLEAR SOFT DIP

Clear soft setting.

#### CLEAR CABINET DIP

Clear cabinet setting.

#### CLEAR SOFT BACKUP MEMORY

Clear backup memory of software.

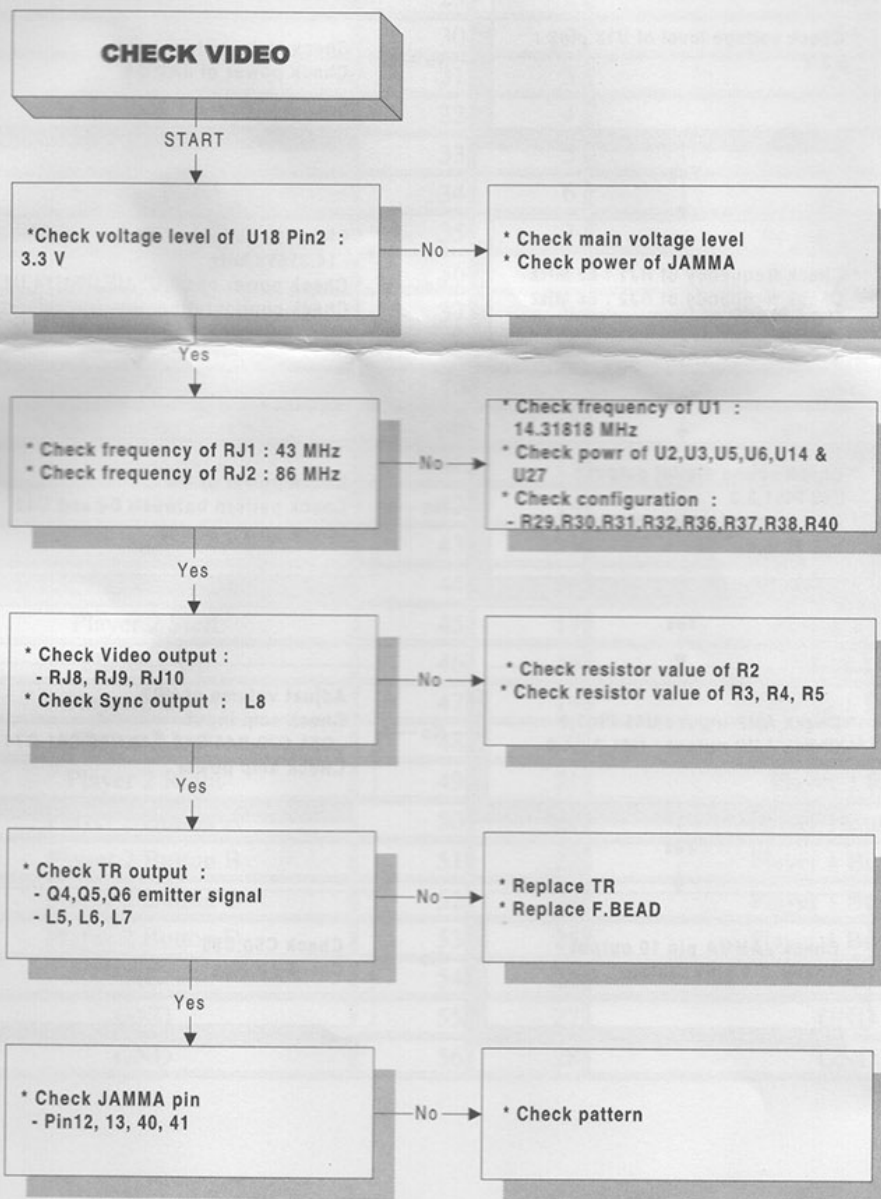
#### EXIT

Return to hardware setup screen.

# Trouble Shooting

## 1.No Display

- (1) Check whether the power cable is connected properly or not.
- (2) Please turn power-switch on/off sometimes.
- (3) Press Reset Switch of VRender0 b'd.
- (4) Please follow the check process.



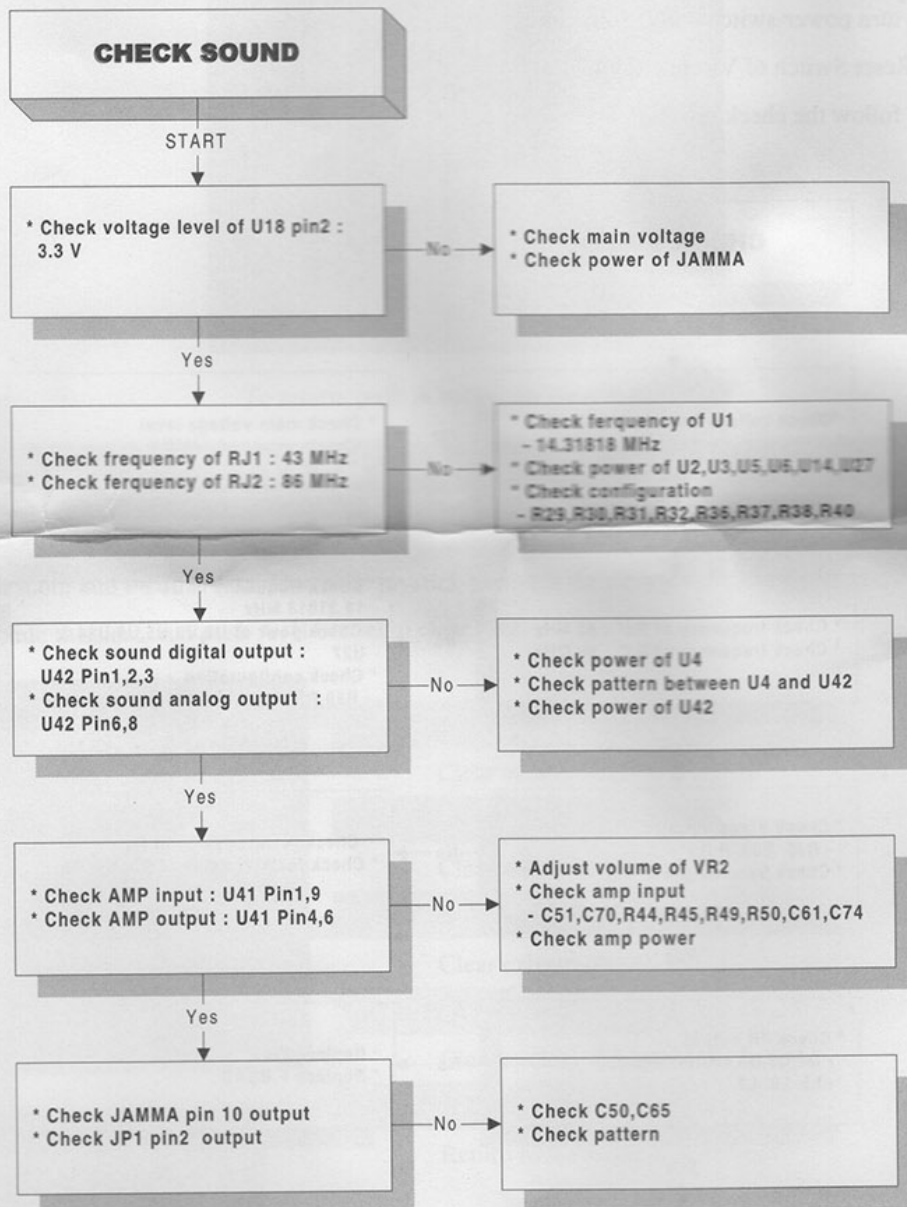


# VRenderZERO for CRYSTAL SYSTEM

## Instruction Manual

### 2.No Sound

- (1) Adjust Volume Switch of VRender0 b'd.
- (2) Check the connection with speaker and b'd.
- (3) Please follow the check procedure below.



**VRenderZERO for CRYSTAL SYSTEM****Instruction Manual****JAMMA PIN**

JAMMA is a standard connector used on many arcade boards to simplify conversion of cabinets from one game to another. The majority of games use a subset of this pin-out. Some games which need extra buttons have extra connectors for these additional controls. The JAMMA connector is a 3.96mm-pitch edge connector (male on the game board).

SOLDER SIDE	#	#	PARTS SIDE
GND	29	1	GND
GND	30	2	GND
+5V	31	3	+5V
+5V	32	4	+5V
NC	33	5	NC
+12V	34	6	+12V
no pin (SPACE)	35	7	no pin (SPACE)
Coin counter 1	36	8	Coin counter 0
NC	37	9	Right Loudspeaker(+)
Loudspeaker(-)	38	10	Left Loudspeaker(+)
NC	39	11	NC
Video analog Green	40	12	Video analog Red
Video composite sync	41	13	Video analog Blue
CONFIG	42	14	GND
NC	43	15	SERVICE SW
Coin 1	44	16	Coin 0
Player 2 Start	45	17	Player 1 Start
Player 2 Up	46	18	Player 1 Up
Player 2 Down	47	19	Player 1 Down
Player 2 Left	48	20	Player 1 Left
Player 2 Right	49	21	Player 1 Right
Player 2 Button A	50	22	Player 1 Button A
Player 2 Button B	51	23	Player 1 Button B
Player 2 Button C	52	24	Player 1 Button C
Player 2 Button D	53	25	Player 1 Button D
NC	54	26	NC
GND	55	27	GND
GND	56	28	GND