

NEO-GEO SYSTEM

UNIVERSAL CONVERSION KIT

INSTALLATION MANUAL

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©1991 SNK Corporation of America
20603 EARL STREET
TORRANCE, CA 90503
TEL: (310) 371-7100
FAX: (310) 371-0969

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1. GENERAL INFORMATION

a. Foreword

Thank you for purchasing the NEO-GEO System Universal Conversion Kit. This kit will allow you to convert your existing video game cabinet into a single slot NEO-GEO System.

Once the conversion is complete, you will be able to change the game simply by replacing the Game Cartridge and Game Title Card. In addition, the system stores advanced bookkeeping information to allow accurate monitoring and tuning of each cartridge. This information is discussed in detail in the Operation Manual.

SNK Corporation of America has released many different types of game cartridges for the Neo-Geo System, and you will find that by changing the game cartridge on a regular basis, the cabinet earnings will be maintained at a higher average. In addition, rotating the cabinet from one location to another will no longer be necessary, making your job and the cabinet's much easier!

We have designed this kit to be installed into a JAMMA type system cabinet. It can, however be installed into an older cabinet by installing a new Main Harness. We have provided a JAMMA wiring harness for this purpose.

When installing any conversion kit, please take extra effort in regards to electrical and mechanical safety for the player and for service personnel. Always use proper wire connectors rated specifically for the types of voltages present. In addition, make certain that the exposed metal parts on your cabinet are securely wired to Earth Ground.

This conversion should be a productive part of your game operation for many years to come. Please take all necessary steps to ensure that the installation reflects this long term outlook.

b. Kit Contents

OK, you've opened the box and found this manual, now lets check to see that all rest of the parts are present and accounted for:

<u>QTY</u>	<u>DESCRIPTION</u>
1	MV-Main PCB
1	Jamma Main Harness
1	4 Pin Stereo Speaker harness
1	Logo Plex
1	Control Panel Overlay
1	Monitor Card
2	Side Decal/Label Sheet
1	Operation Manual

c. Cabinet Requirements

For proper operation, your cabinet should meet or exceed the following specifications:

MONITOR

RGB (Positive Video)
Composite Sync (negative)
Horizontal Mount

POWER SUPPLY

+ 5 VDC @ 11 Amperes
+ 12 VDC @ 2 Amperes
- 5 VDC Not Used

COIN DOOR

Left (P1) & Right (P2) Coin Chutes
available & working.
These MUST be wired
separately.

CONTROL PANEL

Room for 2 joysticks and 4
pushbuttons per player, plus
two Start Buttons.

FCC WARNING:

It is the responsibility of the person installing this kit that the finished game meets the requirements for a Class A Computing Device as required in Subpart J of Part 15 of FCC Regulations. This provides reasonable protection from Electro-Magnetic Interference (EMI) when the equipment is operated in a commercial environment. This conversion kit complies with the requirements for a Class A Computing Device when installed in accordance with this instruction manual.

Apply the FCC Label provided in this kit to the upper rear of the cabinet when the installation is completed.

2. INSTALLATION INSTRUCTIONS

NOTE: IT IS ASSUMED THAT THE CABINET HAS ALREADY BEEN WIRED TO JAMMA SPECIFICATIONS. IF YOUR CABINET HAS NOT, PLEASE REFER TO THE WIRING DIAGRAM AND INSTALL THE KIT HARNESS PROVIDED.

a. MV-Main PCB

If possible, position the MV-Main PCB on the right side wall (as you face the front of the cabinet) with the JAMMA edge connector toward the front of the cabinet. This will allow easy access to the Sound Volume controls and Dipswitch.

If you have a drawer cabinet, go ahead and mount the PCB on the drawer.

SPECIAL NOTE REGARDING STEREO SOUND: The MV-Main PCB uses the JAMMA standard edge connector pin-out with MONO Sound output. If you use a single audio channel, switch the AUDIO SELECT Switch on the MV-Main PCB to the MONO position.

If you wish to utilize the stereo sound capability, the speakers must be hooked up to the 4 Pin header (CN2) on the MV-Main PCB (see Wiring Diagram). You **MUST** switch the AUDIO SELECT Switch on the MV-Main PCB to the STEREO position. Note the position of the AUDIO SELECT Switch and connectors in Figure 1.

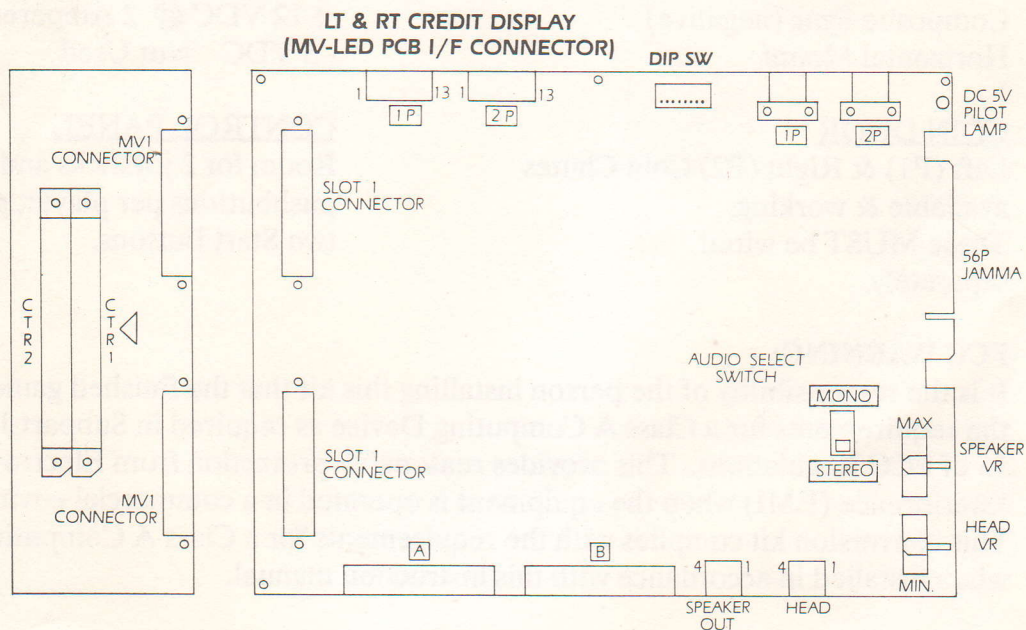


Figure 1

b. Control Panel

To assemble your control panel, please examine Figure 2 for the suggested control layout. You will need to prepare the holes for the joystick and buttons in this or a similar pattern.

Once the panel is prepared, install the Control Panel Overlay supplied in the kit. Cut out the required holes using a small razor or knife, using care not to remove your fingers or other personal extremities.

Install the Button Labels (around the button holes), Joysticks, and Buttons. Mount the finished control panel back onto the cabinet. Looks good!

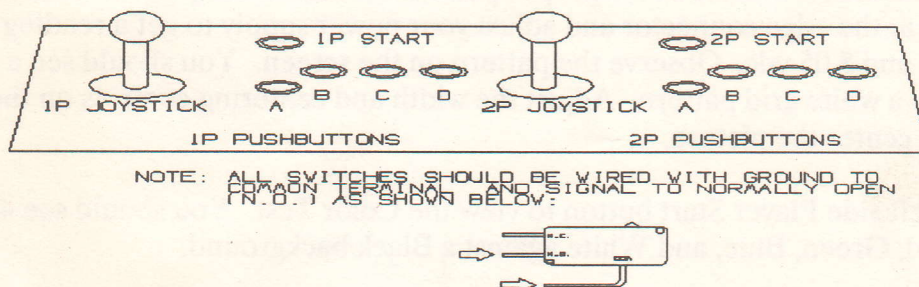


Figure 2

Refer to the wiring diagram for specific information on wiring the control switches. NOTE: The wire colors specified in the JAMMA Harness Pin-Out pertain to the use of the Jamma harness supplied in this kit. If you are using the original harness that came in the cabinet for this conversion, refer to the cabinet's wiring diagram.

c. Logo Plex

We have supplied a logo plex that has a pocket on the rear to hold the game Title Card. A unique Title Card is supplied with each software cartridge. When cutting the plex to the proper size, make sure that the title card window is not blocked by the plex retainers and is fully visible to the player. The plex is designed to be illuminated from behind.

CAUTION: Make certain that there is sufficient distance between the marquee lamp and the Title Card to prevent the heat from melting the Title Card. NEVER use lamps that are greater than 20 Watts in power consumption.

d. Final Touches

To give a completed look to your conversion, we have provided Side Decals and a Monitor Card. The Monitor Card can be used with either a 19" or 25" monitor. In addition, because of the 1P-2P coin requirement, we have provided a decal to apply directly above the Coin Entry chutes. This decal informs the players which slot to insert their coins into.

e. Smoke Test

You are now ready to test your conversion. Make certain that the Game Cartridge is NOT INSTALLED in the PCB Slot.

In addition, check the wiring to ensure that Power Supply wires are correct, and the AUDIO SELECT Switch is in the proper position. Turn on the power. Measure the 5 vdc level at the edge connector and adjust your power supply to get a reading between 4.95 and 5.05 vdc. Observe the pattern on the screen. You should see a black screen with a white grid pattern. Adjust the width and centering controls on the monitor to center the picture.

Press the left side Player Start button to view the Color Test. You should see 4 color blocks, Red, Green, Blue, and White against a Black background.

Press the left side Player Start button to see the I/O Test screen. Check each Joystick, Button, and Coin Switch for proper operation. Press the left side Player Start button to perform the Sound Test. Check each speaker for a series of Beep sounds. If you do not hear the sounds, adjust the volume control near the edge connector on the MV-Main PCB. Also, check the AUDIO SELECT Switch for proper setting.

Press the left side Player Start button until you get to the Clear Back-up Memory screen. Press the left side A,B, and C buttons simultaneously to clear the bookkeeping information stored in the MV-Main PCB.

Check the setting of the Clock/Calendar and set as required to the present Date and Time.

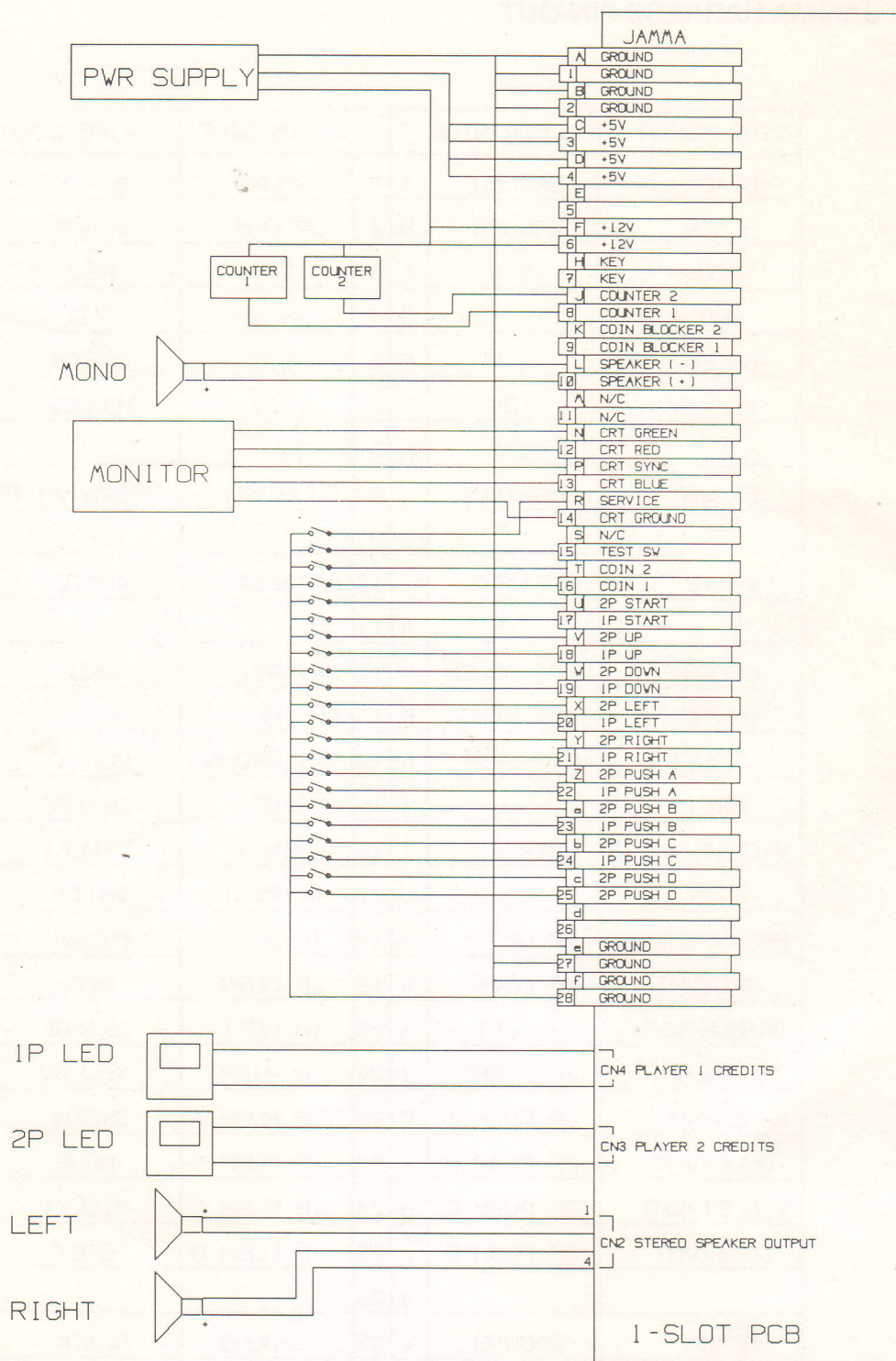
Thats it, your done! Refer to the Operation Manual to familiarize yourself with setting up the cabinet for operation.

3. WIRING DIAGRAMS

a. JAMMA HARNESS PIN-OUT

WIRE COLOR	SOLDER SIDE	PARTS SIDE		WIRE COLOR
BLACK	GROUND	A 1	GROUND	BLACK
BLACK	GROUND	B 2	GROUND	BLACK
RED	+5 V	C 3	+5 V	RED
RED	+5 V	D 4	+5 V	RED
GREEN	-5 V	E 5	-5 V	GREEN
YELLOW	+12V	F 6	+12V	YELLOW
	KEY	H 7	KEY	
BROWN	COUNTER2	J 8	COUNTER1	BROWN/WHITE
		K 9		
WHITE	SPEAKER-	L 10	SPEAKER+	WHITE
		M 11		
GREEN	CRT GREEN	N 12	CRT RED	RED
WHITE	CRT SYNC	P 13	CRT BLUE	BLUE
VIOLET	SERVICE	R 14	CRT GROUND	BLACK
GREY		S 15	TEST	ORANGE
VIOLET/WHT	COIN 2	T 16	COIN 1	VIOLET
PINK	START 2	U 17	START 1	WHITE
BROWN/WHT	2P UP	V 18	1P UP	BROWN
RED/WHT	2P DOWN	W 19	1P DOWN	RED
ORANGE/WHT	2P LEFT	X 20	1P LEFT	ORANGE
YELLOW/WHT	2P RIGHT	Y 21	1P RIGHT	YELLOW
GREEN/WHT	2P PUSH A	Z 22	1P PUSH A	GREEN
BLUE/WHT	2P PUSH B	a 23	1P PUSH B	BLUE
VIOLET/WHT	2P PUSH C	b 24	1P PUSH C	VIOLET
GREY/WHT	2P PUSH D	c 25	1P PUSH D	GREY
		d 26		
BLACK	GROUND	e 27	GROUND	BLACK
BLACK	GROUND	f 28	GROUND	BLACK

b. SYSTEM WIRING DIAGRAM



NEO-GEO WARRANTY POLICY

SNK Corporation of America (Seller) warrants to the original purchaser (Buyer) that the components listed below are free from defects in manufacturing and materials for the period of time specified in the list below. The Warranty period is effective from the date of original shipment from Seller's factory.

ITEM	PERIOD
MV-MAIN CPU PCB	12 MONTHS

No other parts of Seller's product are covered by this warranty.

The Seller's sole responsibility shall be, at its option, to repair or replace any item covered by this warranty that is found to be defective during the warranty period. The Buyer's responsibility shall be to notify the Seller of the defective material, and return it, freight pre-paid, to the location specified by the Seller.

The Seller shall not be responsible for the cost of unauthorized repairs, loss of income, or any charges or losses incurred as a result of the use of this product.

DISCLAIMER

This Warranty is not applicable for normal wear and tear and shall be void if inspection of the returned product indicates the defect was caused by misuse, or if unauthorized repairs were attempted, or if the item was damaged due to improper handling, shipping, or customer negligence.



SNK CORPORATION OF AMERICA
20603 EARL STREET
TORRANCE, CALIFORNIA 90503
TEL (310) 371-7100 FAX (310) 371-0969