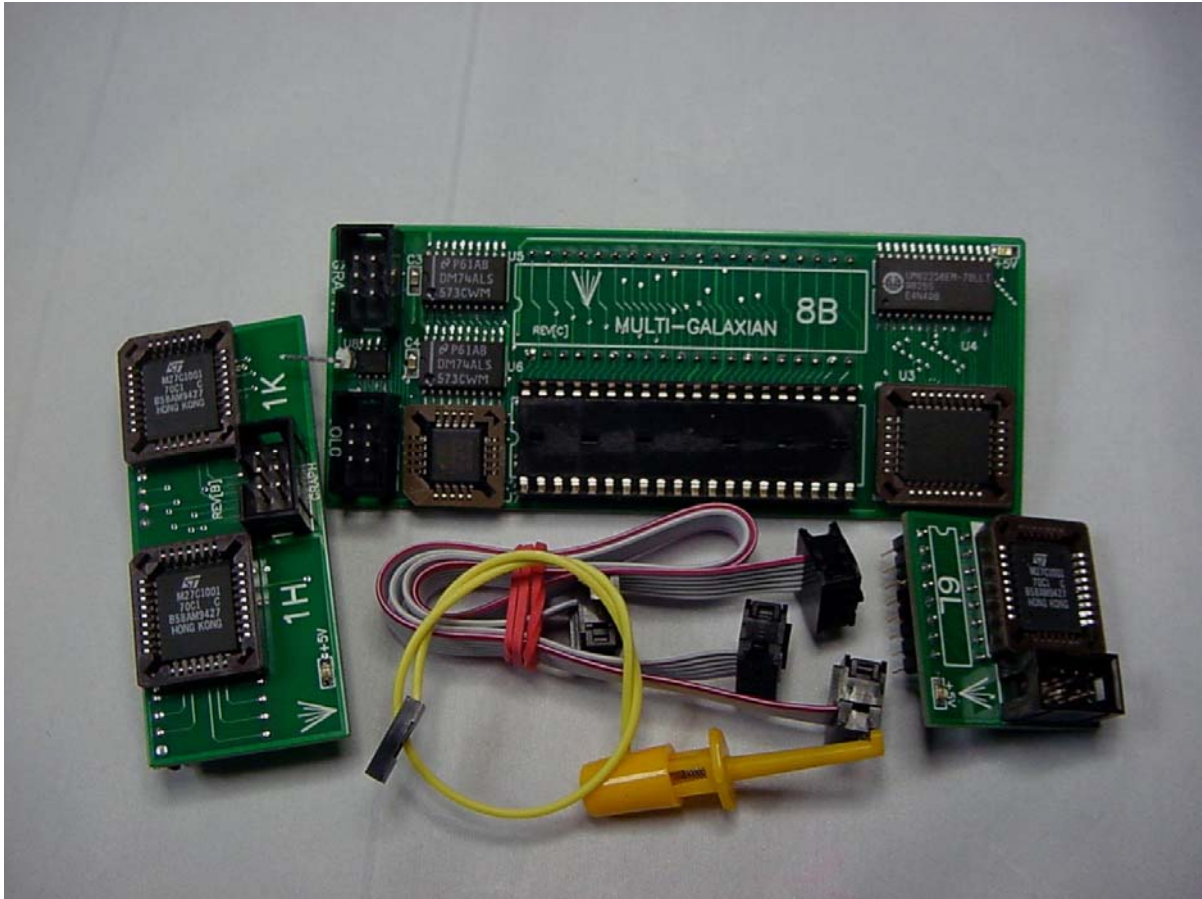


Galaxian 19in1 INSTALL GUIDE

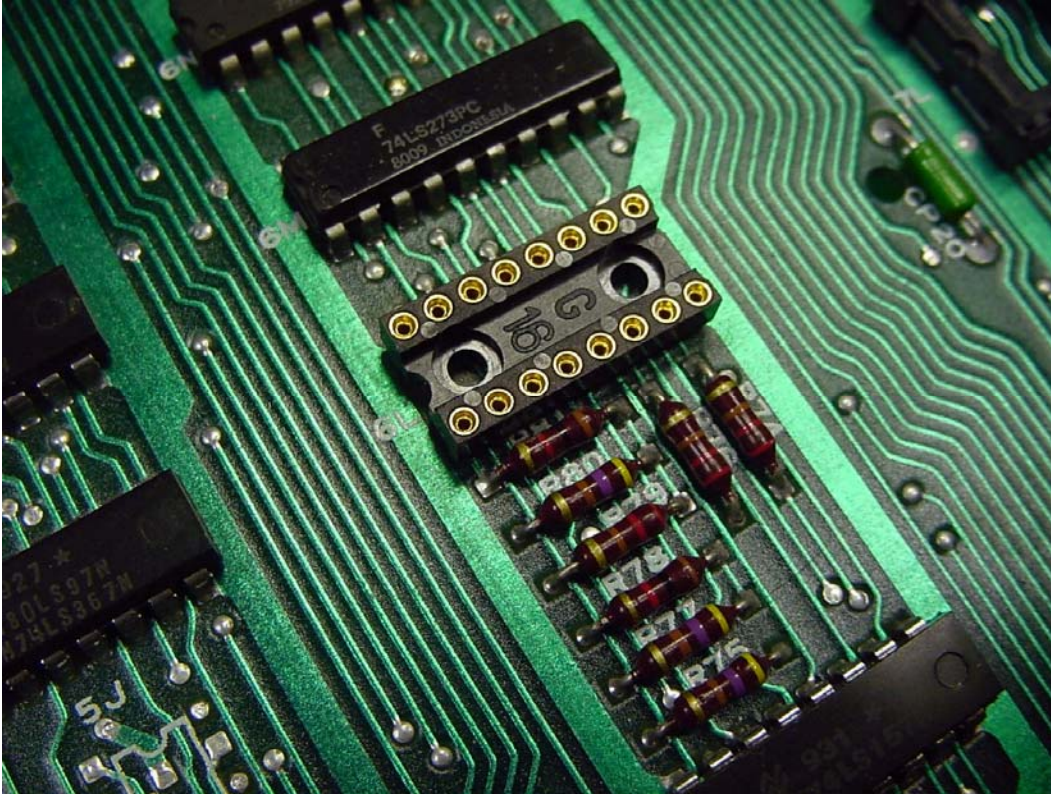


Each Galaxian 19in1 MultiGame includes the following items:

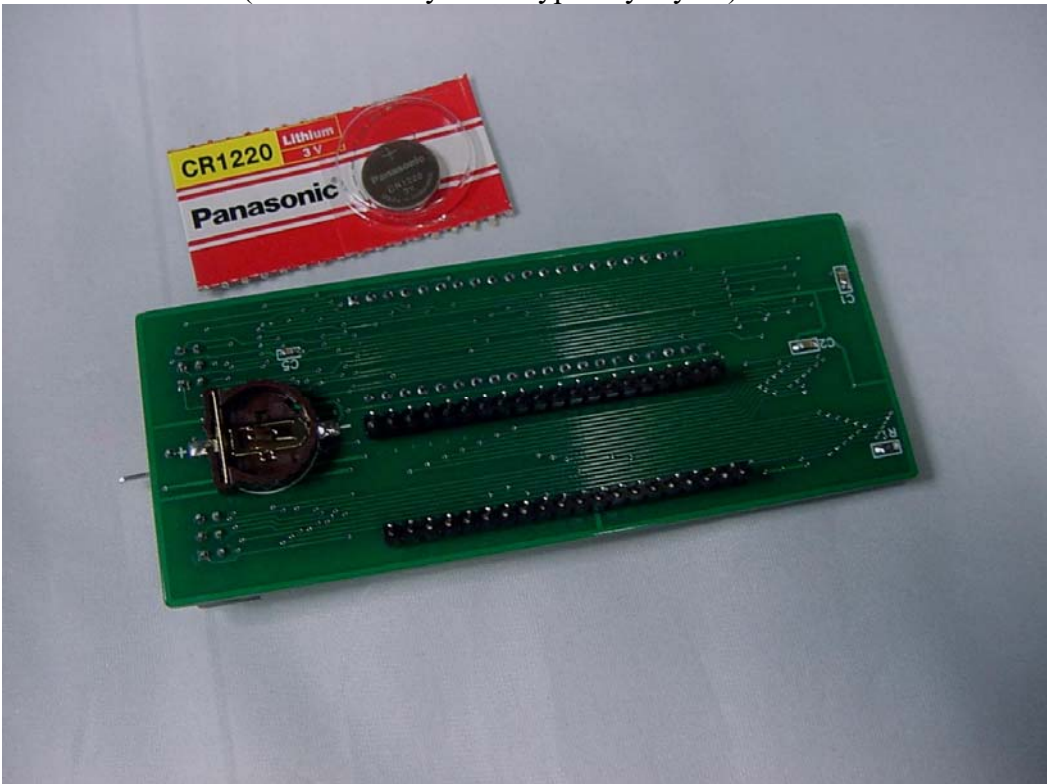
1. 19in1 CPU daughter PWB
2. 19in1 Color Prom PWB
3. 19in1 Graphics PWB
4. Two 6pin ribbon cables
5. Single Mini Grabber
6. CR1220 Battery

STEP1: Remove large ROM pcb from IC locations 7F and 7L

STEP2: Some of the Galxian pcb's have a socket for the color PROM at location 6L. If your board doesn't then you will need to remove chip 6L and install a 16pin socket.



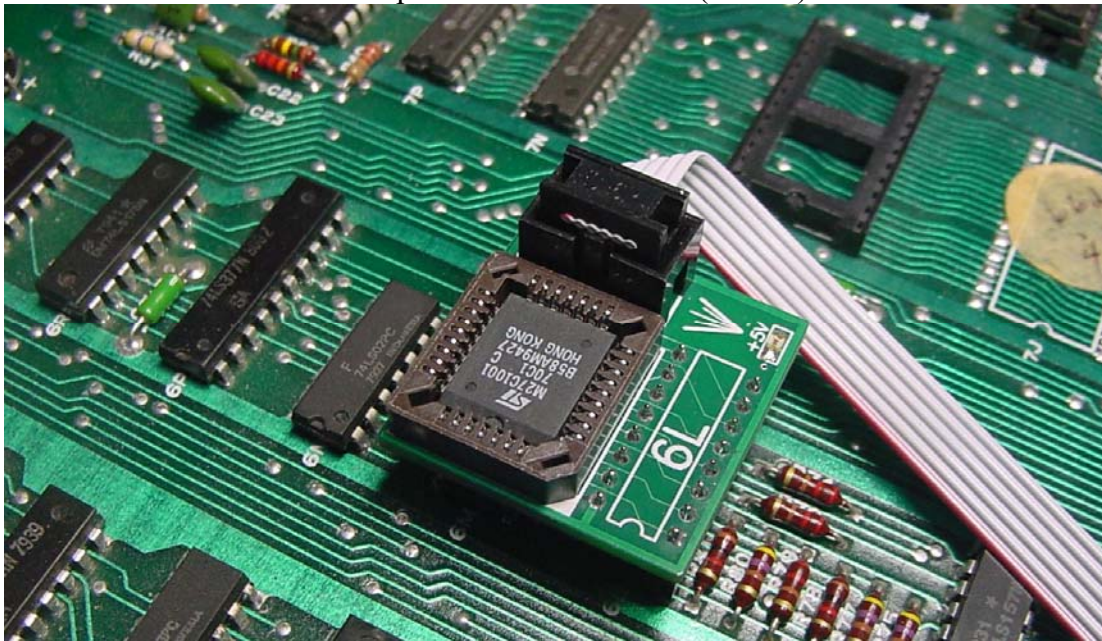
STEP3: Remove Z80 from socket 8B. Install CR1220 battery into CPU daughter PWB.
(NOTE:Battery life is typically 1 year)



STEP4: Install main 19in1 board into Z80 socket at location 8B
Plug Z80 cpu back into 19in1 board

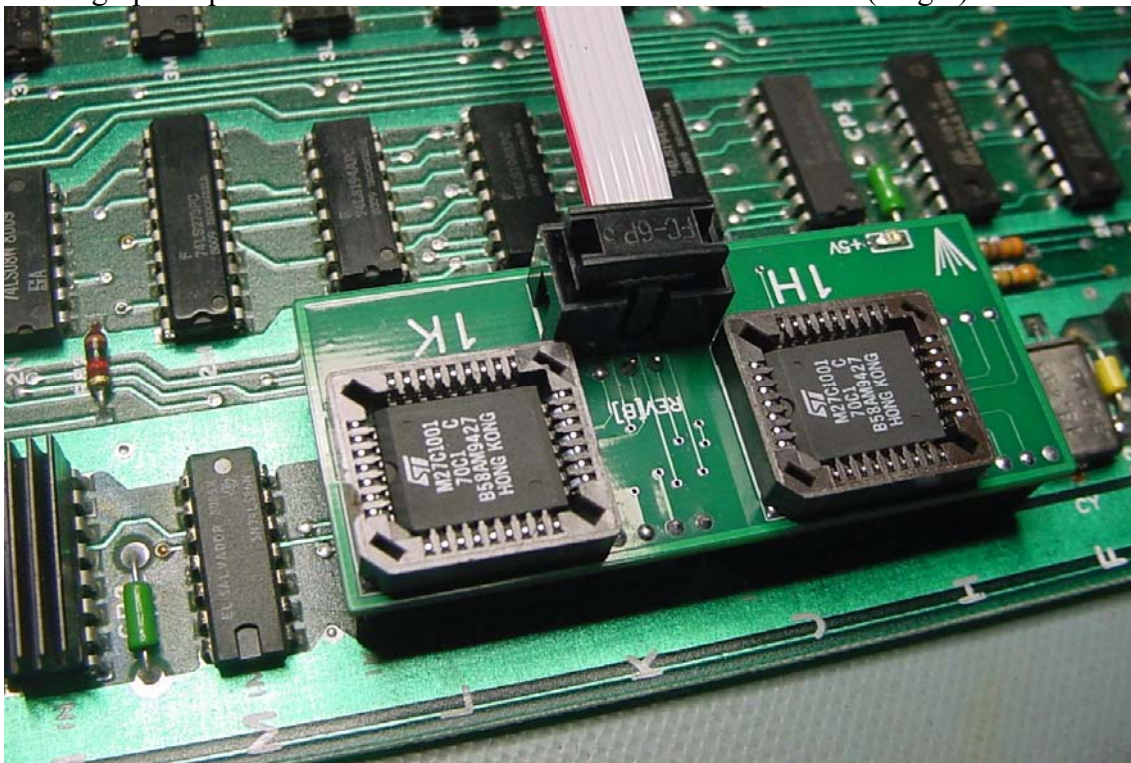


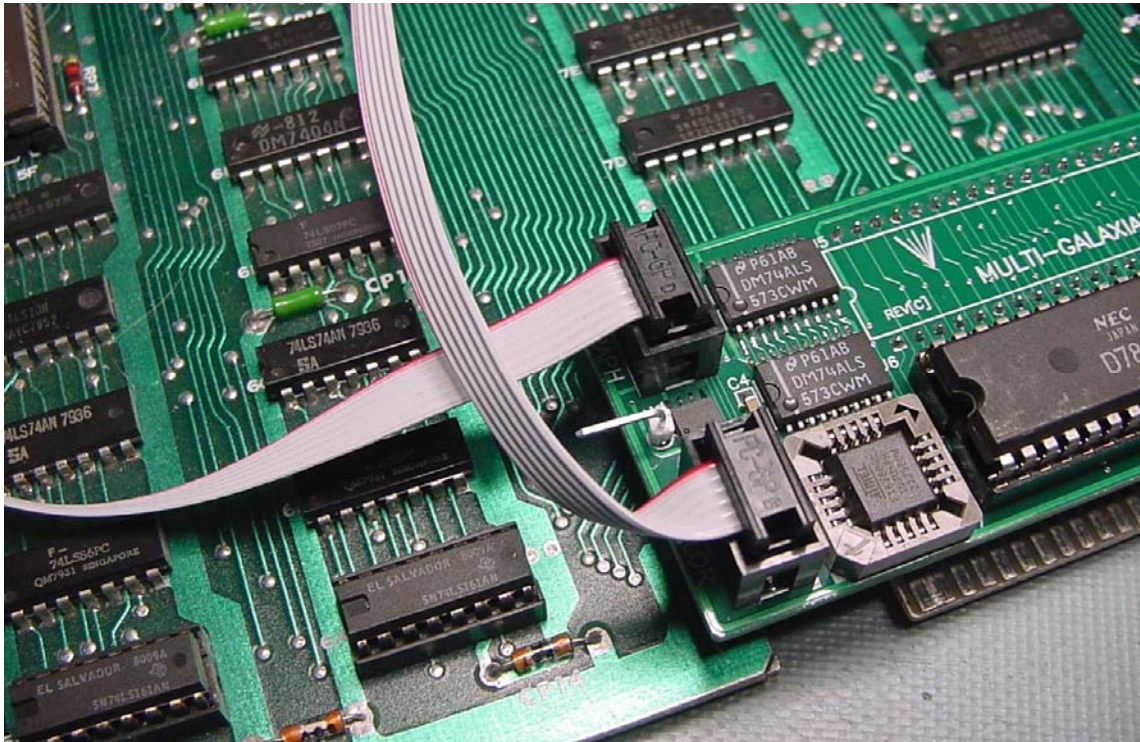
STEP4: Install color PROM replacement and connect (shorter) ribbon cable.



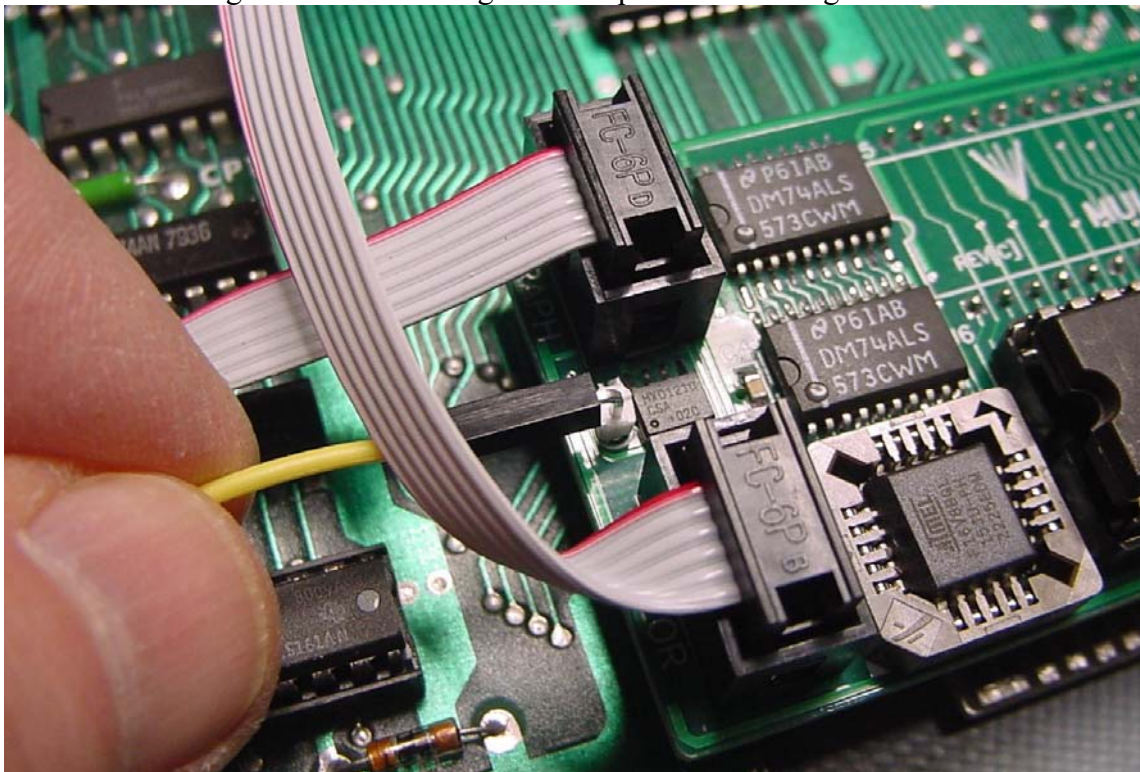


STEP5: Remove ROM's from locations 1H & 1K.
Install graphics pcb into sockets at locations 1H & 1K and connect (longer) ribbon cable

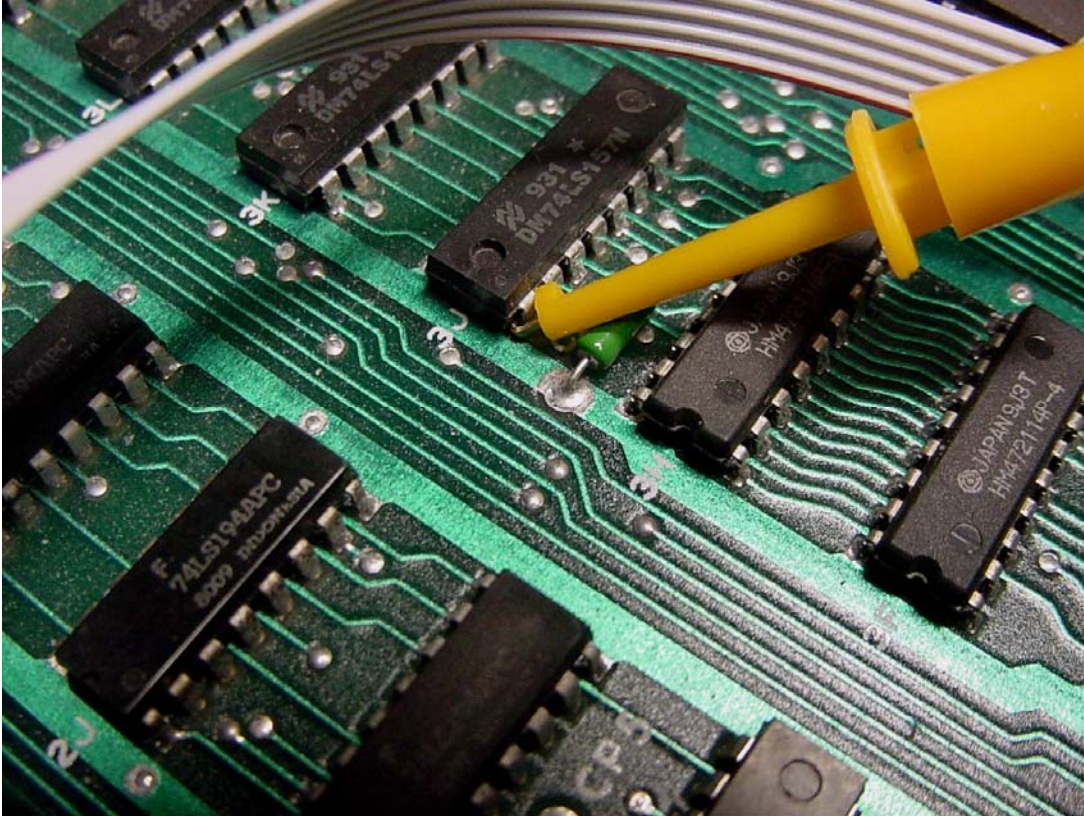




STEP6: Connect grabber cable to single header pin on CPU daughter PWB



STEP6: Connect grabber to PIN1 of IC at location 3J



IMPORTANT INFORMATION PLEASE READ & UNDERSTAND FULLY

If you tell the menu system what controls you have fitted to the cabinet, it can restrict the selection of games to ones that can be played using those controls. 4 way 2 button is only required by Scramble, 4 way 1 button is needed for Mr Do's Nightmare, Amidar, War of the Bugs, Devil Fish, Frog and Ladybug and 2 way 1 button handles the rest.

The Galaxian edge connector changes are the following:

1. Edge pin #9 formally (credit) is now player1 joystick UP
2. Edge pin #K formally (service) is now player1 joystick DOWN
3. Edge pin #R formally (table) is now player1 BUTTON2
4. Edge pin #8 formally (coin2) is now player2 UP
5. Edge pin #14 formally (n/c) is now player2 DOWN

Components		Solder	
Ground	Z	22	Ground
Ground			Ground
+12v (-12v)			+12v (-12v)
+12v (+12v)	W		+12v (+12v)
* Speaker -			Speaker +
Video Blue			Video Sync
Video Red			Video Green
Ground	S		Video Ground
Player 1 Fire 2			Player 2 Down
Player 2 Left			Player 2 Right
Player 1 Fire 1			Player 2 Fire
Player 1 Left			Player 1 Right
Start 1	L		Start 2
Player 1 Down			Player 1 Up
Coin 1			Player 2 Up
Coin Lockout			Coin Counter
1 Play Lamp			2 Play Lamp
NC (7v out)	E		NC (7v out)
+5v (-7v)			+5v (-7v)
+5v (+7v)			+5v (+7v)
Ground			Ground
Ground	A	1	Ground

GAME LIST

AMIDAR
BLACK HOLE
DEVIL FISH
DINGO
EXODUS
FROG
GALAXIAN
GALAXIAN PART X
LADY BUG
MOON ALIEN 2
MOON CRESTA
MR DO'S NIGHTMARE
OMEGA
PISCES
SCRAMBLE
SUPER INVADER ATTACK
UNI WARS
VIDEO POOL
WAR OF THE BUGS

POWER SUPPLY CONSIDERATIONS

The power supplies contained in classic arcade games in general are over 25 years old some may have “drifted” out of spec on the +5v power rails. It may be necessary to replace these aging power supplies with something newer and more stable. We recommend that you perform the following test to ensure reliable & trouble free operation of your arcade game & 4 game selector. It will require an accurate digital voltmeter. Power up your game and take note of which adapter has its green LED’s lit. Take your volt meter and probe the two corner pins of one of the 20pin IC’s on the game PCB as shown in the picture below.



THE VOLTAGE READING SHOULD BE NO LOWER THAT 4.75VDC.

If it is lower and your power supply does not have a way of adjusting the voltage to at least that minimum level then we strongly suggest you purchase a new switching power supply and install it like the one shown on the next page. TTL devices in these older arcade games require that the +5v line be in the range of 4.75v minimum to a maximum of 5.25v.

If you run your game PCB's at a voltage less than the spec WILL cause intermittent failures at best, to not running the game at all as a worst case.