

RAM TESTS

ADDRESS 8000 - A000

Bytes = 1K
DBUS = Address
R/W = Write
Game Tester = Game
R/W mode = Off
Checksum = Off

Select Address 8000 Display Reads 8000
R/W mode to pulse then off (Char Ram 0) 9M/2016
R/W = Read
R/W mode to pulse then off
Address signature displays Reads 8400 (If problem-trouble shoot)
(If correct-go on)

R/W = Write
R/W mode to pulse then off (Char RAM 0) 9M/2016
R/W Read
R/W mode to pulse then off
Display Reads 8800 (If correct go on - If problem - troubleshoot)
R/W = Write
R/W mode to pulse then off (obi RAM) 9J/K, 9E/F 2114
R/W = Read
R/W mode to pulse then off
Display Reads 8200 (If correct go on - If problem - troubleshoot)
R/W = Write
R/W mode to pulse then off
R/W = Read
R/W mode to pulse then off
Display reads 9000 (If correct go on - If problem - torubleshoot)
R/W = Write
R/W mode to pulse then off (POS RAM)
R/W = Read 9H, 9H/J - 2114
R/W mode to pulse then off
Display Reads 9400 (If correct go on - If problem - troubleshoot)
R/W = Write
R/W mode to pulse then off
R/W = Read
R/W mode to pulse then off
Display Reads 9800 (If correct go on - If problem - troubleshoot)
R/W = Write
R/W mode to pulse then off (Flip RAM)
R/W = Read 9G/H, 9 F/G = 2114
R/W mode to pulse the off
Display Reads 9C00
R/W = Write
R/W mode to pulse then off
R/W = Read
R/W mode to pulse then off
Display Reads A000 End at RAM Test

ROM TEST
ADDRESS 0000 - 3000

R/W mode = off
R/W = end
Game/Tester = Game
Bytes = 256
DBUS Source = Data
Checksum = ON
Select Address - 0000 ROM 0 61
R/W mode to pulse then off
Display Reads : 0d.4b. - 04
Select Address - 1000
R/W mode to pulse then off
Display Reads : 1688-04
Select Address - 2000 ROM 2 6 N/P
R/W mode to pulse then off
Display Reads: 7910 - 04
Select Address 3000 ROM 3 6R
R/W mode to pulse then off
Display Reads: b/8A.A. - 04

Remove Processor clip off priority 1
Place on priority 2 Processor
Hit tester reset, display should read - 0000-00

Select Address - 0000 ROM 4 6C
R/W mode to pulse then off
Display Reads: b.F.02-04
Select Address - 1000 ROM 5 6D
R/W mode to pulse then off
Display Reads: E.3E.1-04

Checksum = Off
R/W mode = Off
R/W = Write
Error data display = Game
Bytes = 1024
DBUS = Address
Select Address - 8000
R/W mode to pulse then off 3 times

This test allows me to see that the 2nd priority Bus Controller and Address Buffers are working. All alphanumerics and characters should be displayed in order on the screen (8D, 6G, 7F and 7D)

Remove Processor clip from 2nd priority, place on 3rd priority processor.

R/W mode = Off
 R/W = Read
 Error data display = Game
 Bytes = 256
 DBUS source = Data
 Checksum = On
 Select Address - 0000
 R/W mode to pulse then off
 Display Reads: 9F.A.A. - 04

ROM 6 5L

Checksum = Off
 R/W mode = Off
 R/W = Write
 Error data display = Game
 Bytes = 1024
 DBUS Source = Address
 Select Address - 8000
 R/W mode to pulse then off 3 times

This test allows you to see that the 3rd priority Bus Controller and address buffer are working.

All alphanumerics are displayed in order on the screen.
 (8J, 7M, 7K/L and 4H)

Select	8000	FF	1K
"	8400	FF	1K
"	8800	FF	1K
"	8C00	FF	1K
"	9000	FF	1K
"	9400	FF	1K
"	9800	FF	1K
"	9C00	FF	1K

Select	A000	00	1 BYTE	5 M/N Pin 4 = 0	Clears cross Hatch
		01	"	4 = 1	Cross Hatch
Select	A001	00	"	5 = 0	
		01	"	5 = 1	
Select	A002	00	"	6 = 0	
		01	"	6 = 1	
Select	A003	00	"	7 = 0	Enables screen
		01	"	7 = 1	Blanks screen
Select	A004	00	"	9 = 0	Changes sand color
		01	"	9 = 1	Changes sand color
Select	A005	00	"	10 = 0	Changes sand color
		01	"	10 = 1	Changes sand color
Select	A006	00	"	11 =	Not used
		01	"	11 =	Not used
Select	A007	00	"	12 = 0	Flip
		01	"	12 = 1	Inverts Picture

VIDEO PLAYFIELD TEST

R/ \bar{W} mode = Off
 R/ \bar{W} = Write
 Error data = Game
 BYTES = 1K
 BUS = Address
 Tester mode = R/W
 Select Address = 8000
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 8400
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 8800
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 8C00
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 9000
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 9400

R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 9800
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read 9C00
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Read A000
 R/ \bar{W} mode to pulse then off
 R/ \bar{W} = Write
 R/ \bar{W} mode to pulse then off

Set up Sig
 Tester mode = Sig
 Start to UBLANK
 Stop UBLANK
 Clock can vary to 6 mgz
 +5 = PACU
 gnd = 0000