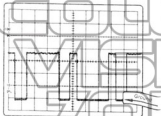


#### U1:28 — RSFH

Vertical Sensitivity — 1V/Div

Horizontal Sensitivity — 5 $\mu$ Sec/Div

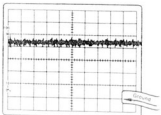


#### U1:35 — ADDRESS LINE A5

Vertical Sensitivity — 1V/Div

Horizontal Sensitivity — 4 $\mu$ Sec/Div

All Address Lines Should Have a Similar Signal (Pulses). If No Pulses Are Seen the Address Line is Dead. The Signal Shown is During Blue Menu Screen of Game Cartridge.

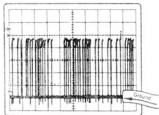


#### U6:5 GATE 2B

Vertical Sensitivity — 50mV/Div

Horizontal Sensitivity — 0.2 $\mu$ Sec/Div

Signal Should Be a DC Level Less Than 250mV.

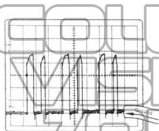


### U7:3

Vertical Sensitivity — 1V/Div

Horizontal Sensitivity — 2 $\mu$ Sec/Div

Signal Shown is During Blue Menu Screen of Game Cartridge.

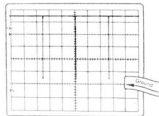


### U7:3

Vertical Sensitivity — 1V/Div

Horizontal Sensitivity — 0.5 $\mu$ Sec/Div

Signal Shown is During Blue Menu Screen of Game Cartridge.

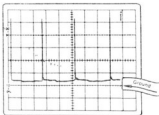


### U7:8 INTERRUPT

Vertical Sensitivity — 1V/Div

Horizontal Sensitivity 500 $\mu$ Sec/Div

Signal Shown is with Spinner Interface Tester in Operation.



#### U7:9

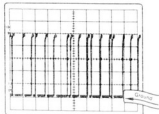
Vertical Sensitivity 1V/Div  
Horizontal Sensitivity 500 $\mu$ Sec/Div

Signal Shown is with Spinner Interface Tester in Operation



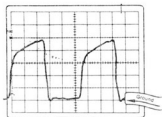
#### UB:1 M1

Vertical Sensitivity — 1V/Div  
Horizontal Sensitivity — 0.5 $\mu$ Sec/Div



#### UB:1 M1

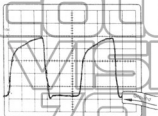
Vertical Sensitivity — 1V/Div  
Horizontal Sensitivity — 5 $\mu$ Sec/Div



### U8:3 3.58 MHz CLOCK

Vertical Sensitivity 1V/Div

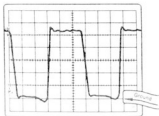
Horizontal Sensitivity — 50nSec/Div



### U8:8 3.58 MHz CLOCK

Vertical Sensitivity 1V/Div

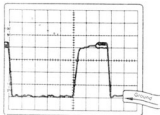
Horizontal Sensitivity 50nSec/Div



### U8:9 3.58 MHz CLOCK

Vertical Sensitivity 1V/Div

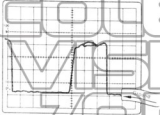
Horizontal Sensitivity 50nSec/Div



### U9:1 — RAS

Vertical Sensitivity 1V/Div

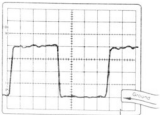
Horizontal Sensitivity 50nSec/Div



### U9:2 — CAS

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 50nSec/Div

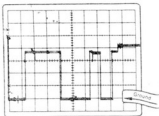


### U9:3 — VDP ADDRESS LINE A7

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 50nSec/Div

All VDP Address Lines Should Have Similar Waveforms (Pulses). If No Pulses Are Seen the Address Line Is Dead.

**U9:13 — MODE A0**

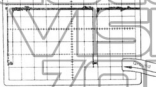
Vertical Sensitivity 1V/Div

Horizontal Sensitivity 0.1 $\mu$ Sec/Div**U9:14 — VDP CSW**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 2 $\mu$ Sec/Div

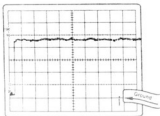
Signal Shown Is Right After the Reset Switch Was Released

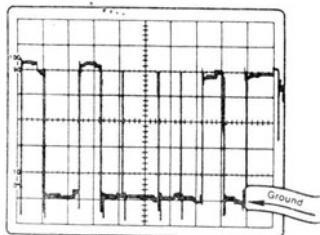
**U9:15 — VDP CSR**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 2 $\mu$ Sec/Div

Signal Shown Is During Game Play of a Game Cartridge. The Negative Pulse May or May Not Be Present. Negative Pulses Are Always Present Although Sometimes They Are Too Fast for the Oscilloscope.

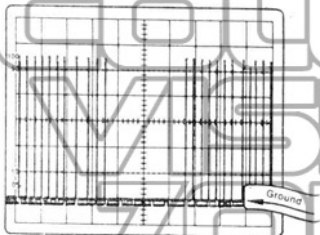


**U9:17 — DATA LINE D7**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity  $1\mu\text{Sec}/\text{Div}$ 

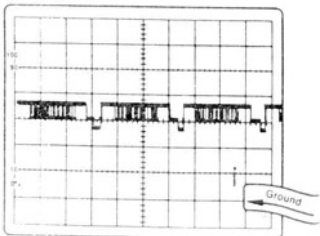
Signal Shown Is During Blue Menu Screen of Game Cartridge. All the Data Lines Should Have a Similar Waveform, If Not, the Data Line Is Dead.

**U9:25 — VDP DATA LINE RD7**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity  $0.1\text{mSec}/\text{Div}$ 

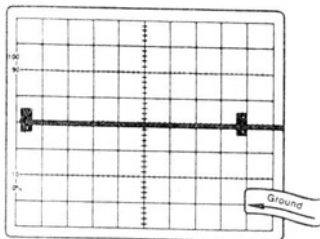
Signal Shown Is During Blue Menu Screen of Game Cartridge. All Data Lines Should Have a Similar Waveform, If Not the Data Line Is Dead.

**U9:35 — B-Y VIDEO OUTPUT**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity  $20\mu\text{Sec}/\text{Div}$ 

Signal Shown Is During Blue Menu Screen of Game Cartridge.


**U9:38 — R-Y VIDEO OUTPUT**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 2mSec/Div

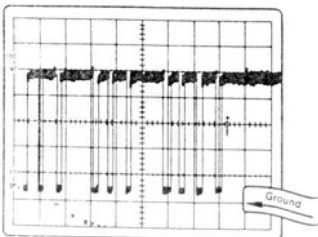
 Signal Shown Is During Blue Menu  
Screen of Game Cartridge.

**U9:40 — VDP CLOCK**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 50nSec/Div

Frequency 10.7MHz

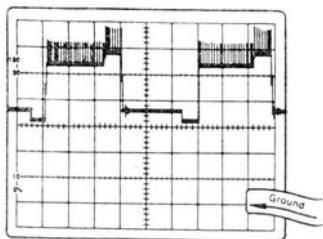

**U20:5, 6**

Vertical Sensitivity 1V/Div

Horizontal Sensitivity 0.5mSec/Div

 Signal Shown Is During Game Play of a  
Game Cartridge.



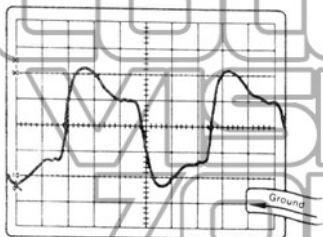


### U20:7 — AUDIO OUTPUT

Vertical Sensitivity 0.5V/Div

Horizontal Sensitivity 10mSec/Div

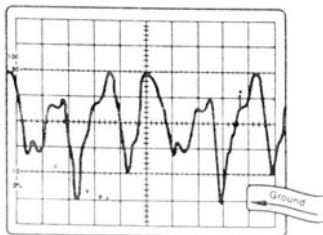
Signal Shown Is During Game Play of a Game Cartridge. This Signal Will Vary Depending on the Sound.



### U20:14 — SOUND GENERATOR CLOCK

Vertical Sensitivity 0.5V/Div

Horizontal Sensitivity 0.5μSec/Div

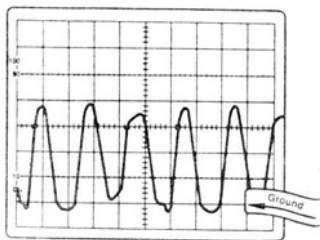


### U22:1 INPUT TO THIRD HARMONIC WAVE SHAPER

Vertical Sensitivity 0.5V/Div

Horizontal Sensitivity 5μSec/Div

Signal Shown Is with C91 Installed. C91 Is Not in All Revisions. The Waveform Will Vary Slightly with C91 Removed.



### U22:3

Vertical Sensitivity 1V/Div  
Horizontal Sensitivity 5 $\mu$ Sec/Div

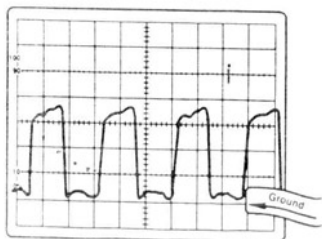
Signal Shown Is with C91 Installed.  
C91 Is Not in All Revisions. The  
Waveform Will Vary Slightly with C91  
Removed.



### U22:4

Vertical Sensitivity 1V/Div  
Horizontal Sensitivity 5 $\mu$ Sec/Div

Signal Shown Is with C91 Installed.  
C91 Is Not in All Revisions. The  
Waveform Will Vary Slightly with C91  
Removed.



### U22:8 7.159 MHz CLOCK

Vertical Sensitivity 1V/Div  
Horizontal Sensitivity 5 $\mu$ Sec/Div