

# Versa64Cart User Guide

V0.1 Bwack 2017

## Overview

Supports 27C 64/128/256/512 roms.

## Configurations

8k roms

See the #GAME and EXROM section.

16k roms

Solder in the two diodes for 16k rom images. #GAME and #EXROM pulled to 0V. Both jumpers must be on the 16k position. Because 16k cartridges normally had two 8k roms accessed with the signals ROML and ROMH, this single rom cartridge must OR them together.

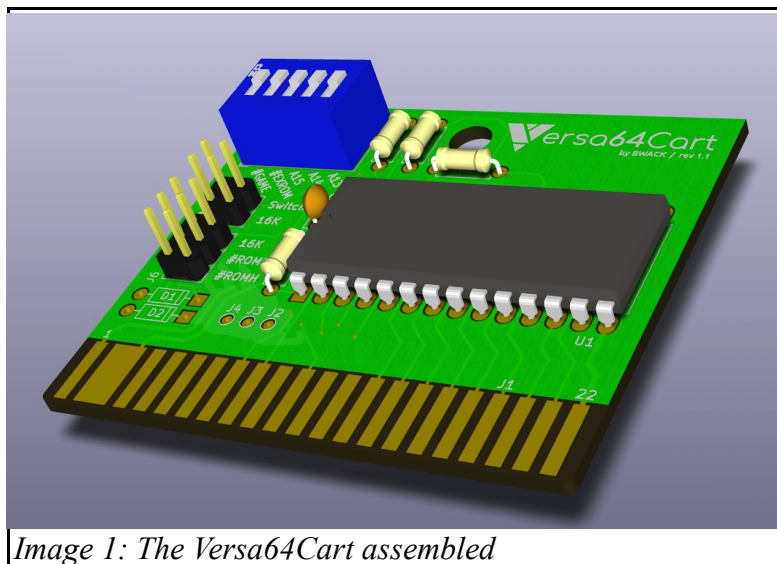


Image 1: The Versa64Cart assembled

It is possible to mix 16k and 8k rom images on a single cartridge. You can have a 16k and two 8k roms on a 27C256 EPROM. Use a dipswitch to set

## Setting #GAME and #EXROM

These are signals you must set to map the rom into memory. They are routed to the C64 PLA.

8k: #EXROM=0, #GAME=1 : start \$8000-\$9FFF ROML(8k)

8k ultimax: #EXROM=1, #GAME=0 : start \$E000-\$FFFF ROML(8k) (replaces kernal ROM)

16k: #EXROM=0, #GAME=0 : start \$8000-\$BFFF (ROML) + \$A000-\$BFFF (ROMH)

16k ultimax: #EXROM=1, #GAME=0 : start \$8000-\$9FFF (ROML) + \$E000-\$FFFF (ROMH)

To find these settings in a .CRT file, use WinVICE's cartconv.exe tool with the -f option.

```
C:\WinVICE-2.4-x86>cartconv -f Wizard_of_Wor.crt
CRT Version: 1.0
Name: Wizard of Wor
Hardware ID: 0 (Generic Cartridge)
Mode: exrom: 0 game: 0 (16k Game)

offset  sig  type  bank start size  chunklen
$000040 CHIP ROM  #000 $8000 $4000 $4010
```

Figure 1: Finding mode for Wizard of Wor in a CRT file.

## Converting .CRT to .BIN

The eprom must be burned with the binary file. You can extract it using WinVICE's cartconv.exe tool with the

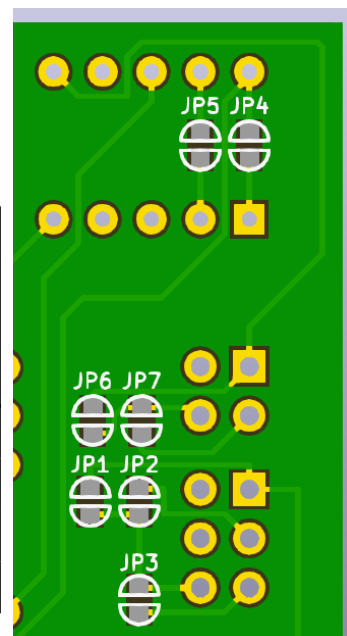
```
C:\WinVICE-2.4-x86>cartconv -i Wizard_of_Wor.crt -o wizardofwor.bin
Input file : Wizard_of_Wor.crt
Output file : wizardofwor.bin
Conversion from Generic Cartridge .crt to binary format successful.
```

Figure 2: Converting CRT to BIN for the EPROM.

## Solder Jumpers

In cases where you just want a fixed game or dead test cart, you don't need the jumper headers and the dipswitch.

mode	#EXROM JP5	#GAME JP4	switch JP6	16K JP7	16K JP1	#ROML JP2	#ROMH JP3
8k	x		x			x	
8k ultimax		x	x				x
16k	x	x		x	x		
16k ultimax		x		x	x		



JP5: #EXROM  
JP4: #GAME

JP6: A13<->Switch  
JP7: A13<->16K

JP1: 16K  
JP2: #OE<->#ROML  
JP3: #OE<->#ROMH

## Bill of Materials (BOM)