

# Asteroids Deluxe Dual Upgrade (ASTDELUXE-DUAL-DB) Instructions

## Version 1.01

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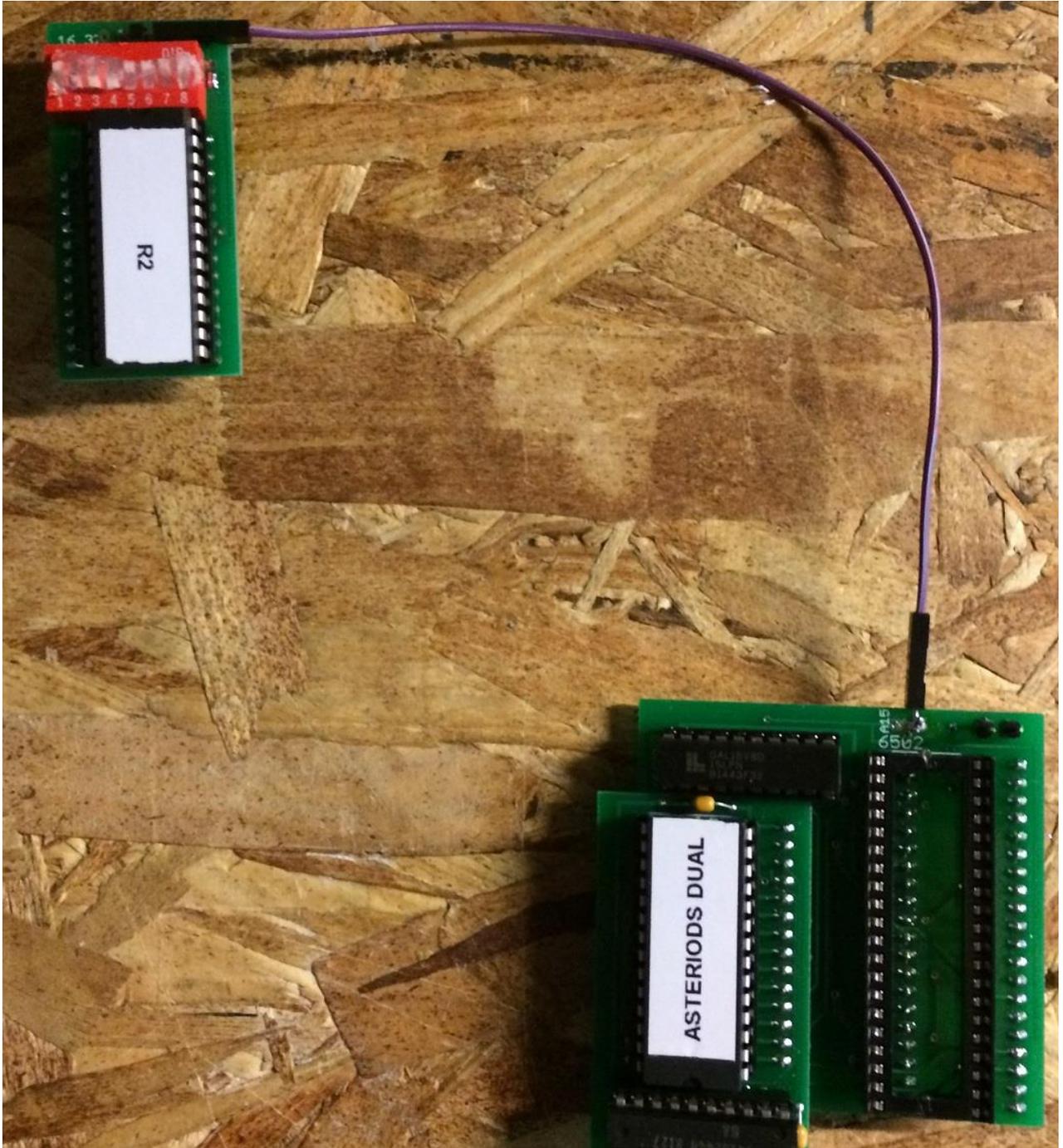
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## Summary

The Asteroids Deluxe Dual Upgrade (ASTDELUXE-DUAL-DB) was designed to allow an Atari Asteroids Deluxe PCB owner the ability to play Asteroids Deluxe version 1 (very hard) and Asteroids Deluxe version 3 on the same PCB board.

## What is Included

1. 1 x ASTDELUXE-DUAL-DB CPU daughter board
2. 1 x ROM R2 adapter board

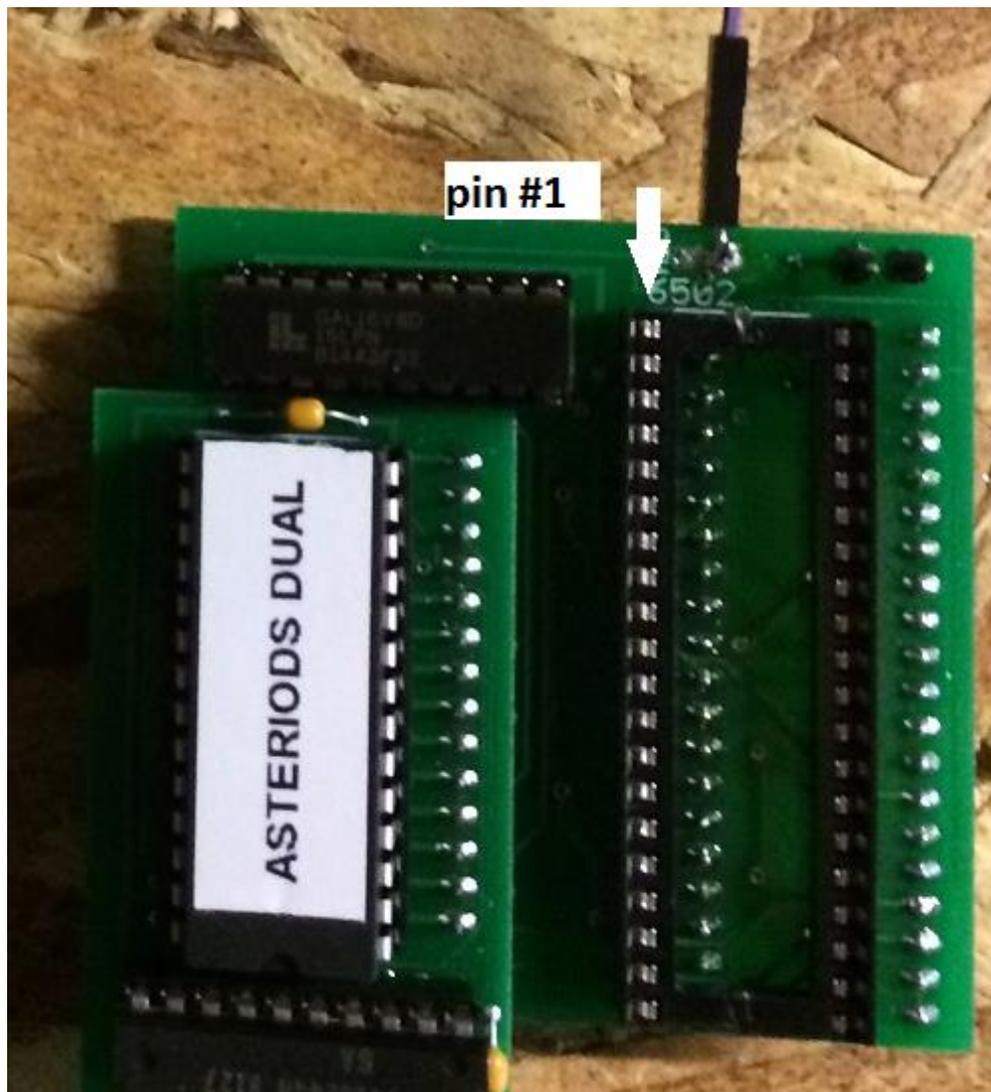


*Figure 1 – Image of assembled ASTDELUXE-DUAL-CB*

## Installation Instructions

Use the following steps to install your board

1. Carefully remove the 6502 CPU from your game board.
2. Remove the 2716 EPROMs at position D1, EF1, FH1, J1, and NP2 on the game board
3. Insert the 6502 CPU into the CPU socket on the daughter board. Be very careful to ensure that pin #1 on the CPU matches up with the silkscreened image of the CPU on the adapter board. Most 6502s have small semicircular notches at the “top” of the CPU ensure the notch on the CPU matches the notch on the CPU socket.
4. Remove the 2716 EPROM at position NP2 on the game board



*Figure 2 – Image of pin #1 alignment on daughter board*

3. Insert the CPU daughter board into the empty CPU socket of the Asteroids Deluxe game board. Ensure that pin #1 on the CPU is oriented in the same direction as pin #1 on the game board. (see figure #3)
4. Insert the ROM adapter board into the socket @ NP2 on the game board. Ensure pin #1 of the EPROM is facing the same direction as pin #1 as the existing EPROM in R2 (see figure #3)
5. Plug in wire from CPU daughter board to ROM adapter board

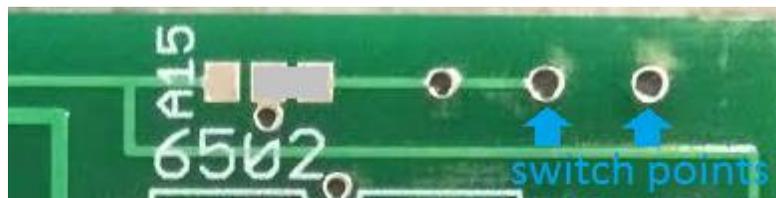


Figure 3 – Image of installed ASTDELUXE-DUAL-CB

## Using an external switch (Optional)

The ASTDELUXE-DUAL-DB allows you to switch between version 1 and version 3 using an optional switch. To install the switch, simply install two wires from a permanent contact switch into the switch points as illustrated below. If you purchased our switch at time of purchase you will have 2 mail terminal pins installed, and your switch will have 2 female terminal housings. Insert the housings onto the pins. It does NOT matter which pin goes on which housing.

NOTE: when switching games via the switch you must power cycle the game or reset the CPU board after switching. The easiest way to do that is usually just flipping the test switch on and off. Most Asteroids Deluxe games should have a test switch mounted on the inside of the deluxe coin doors.



Solder jumper configured for  
switch operation

*Optional switch point vias*