

ASTEROIDS

FREE PLAY + HIGH SCORE SAVE KIT

ORIGINAL ATARI VECTOR ARCADE HARDWARE / 6502



STANDARD + WI-FI EDITIONS

6502 CPU • Daughter PCB • Pin 1 • Testing • Resources

Before you begin

ONE DAUGHTER CARD, ORIGINAL 6502 CPU

The Asteroids kit includes one HighScoreSaves 6502 daughter PCB. A compatible 6502 CPU is required: use your existing processor or the CPU selected with the order. Both Standard and Wi-Fi options are sold.

SAFETY FIRST

Turn off and unplug the cabinet before touching the game PCB. Avoid the vector monitor and high-voltage circuits, which may retain dangerous charge after shutdown. Use ESD precautions and an illuminated, static-safe workbench.

PRE-INSTALL CHECKLIST

- Confirm the original Asteroids PCB operates correctly before modification.
- Photograph all game-PCB connectors and their orientation before disconnecting.
- Check that the 6502 CPU is socketed. A soldered CPU requires a qualified technician.
- Check the Asteroids Version 2 vector ROM set requirement listed on the current kit product page.
- Have a suitable chip-removal tool; protect the original 6502 pins and retain all removed hardware.

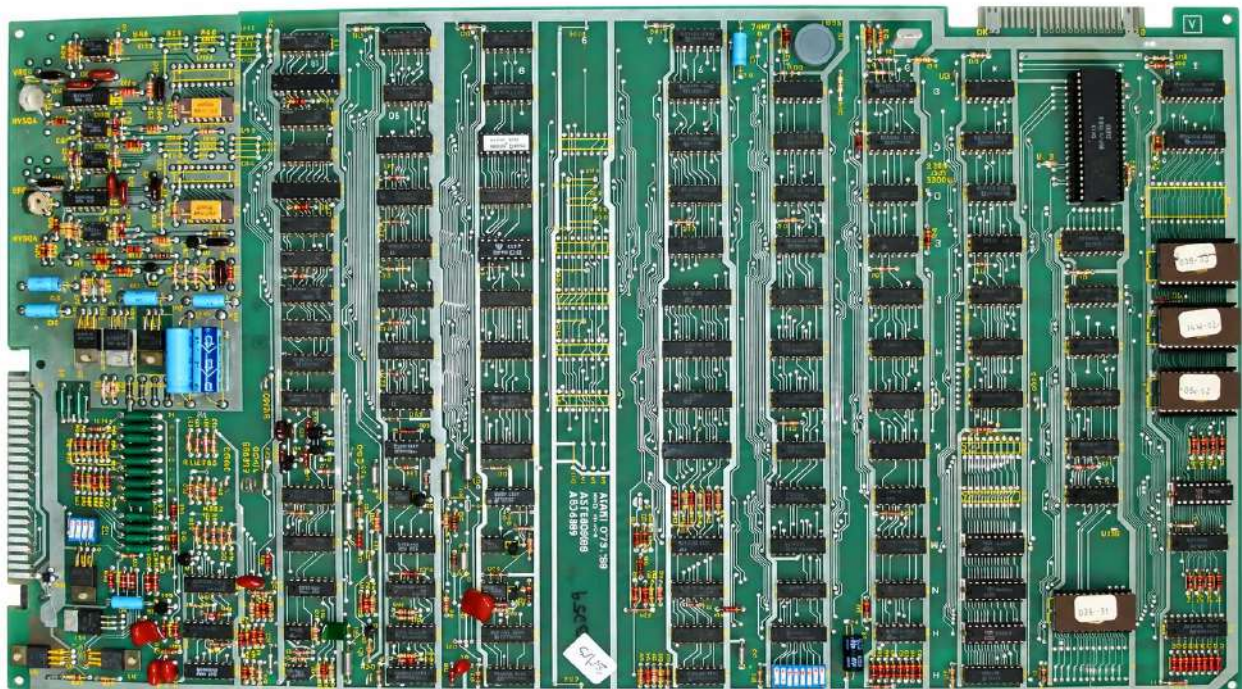
KIT CONTENTS AND ORIENTATION

Included: 1 × HighScoreSaves 6502 Daughter PCB.

Needed: Compatible 6502 CPU and a correctly oriented 40-pin socket on the original game board. No soldering is required if the CPU is already socketed.

Identify the original Asteroids PCB

Compare your board to this full-board reference photo of the original Atari Asteroids PCB before removing any components. Use the overall board shape, connector positions, analog section on the left, and ROM area on the right to confirm you have the correct board.



PCB AND ROM COMPATIBILITY CHECKS

The kit is intended for a compatible original Atari Asteroids PCB, not a different Atari vector title or an unverified replacement board. The current HighScoreSaves product page specifies the Version 2 vector ROM set. Confirm this before ordering or installation.

If your PCB layout, connector arrangement, or ROM population differs from this reference image, pause and confirm compatibility before continuing.

Locate and remove the 6502 CPU

Use the highlighted full-board photo to locate the 6502 CPU, then use the close-up to verify Pin 1 orientation before removal. Lift the original socketed CPU gently and evenly to avoid bent pins.



REMOVAL GUIDELINES

- Note the CPU notch direction and the Pin 1 end before lifting the chip.
- Use a chip puller or work the CPU upward evenly from both ends.
- Do not twist the chip or force one side upward faster than the other.
- If the 6502 is soldered in place instead of socketed, stop and have a qualified technician install a socket.

Move the 6502 to the save kit

Place the original 6502 CPU into the 40-pin processor socket on the HighScoreSaves 6502 daughter card. Align the CPU notch and Pin 1 with the card socket marking. Inspect every pin before applying any pressure.



CHECK ALIGNMENT BEFORE INSTALLATION

The source photo shows the assembled daughter card on an Asteroids PCB. Confirm CPU orientation, straight pins and full seating in the daughter-card socket. Do not force the CPU or assume that all board revisions have identical markings.

Install and inspect the daughter card

With the 6502 installed in the daughter card, insert the assembled daughter card into the vacated original 6502 CPU socket. Keep the same CPU orientation as before removal. Align all 40 pins and press evenly until fully seated.



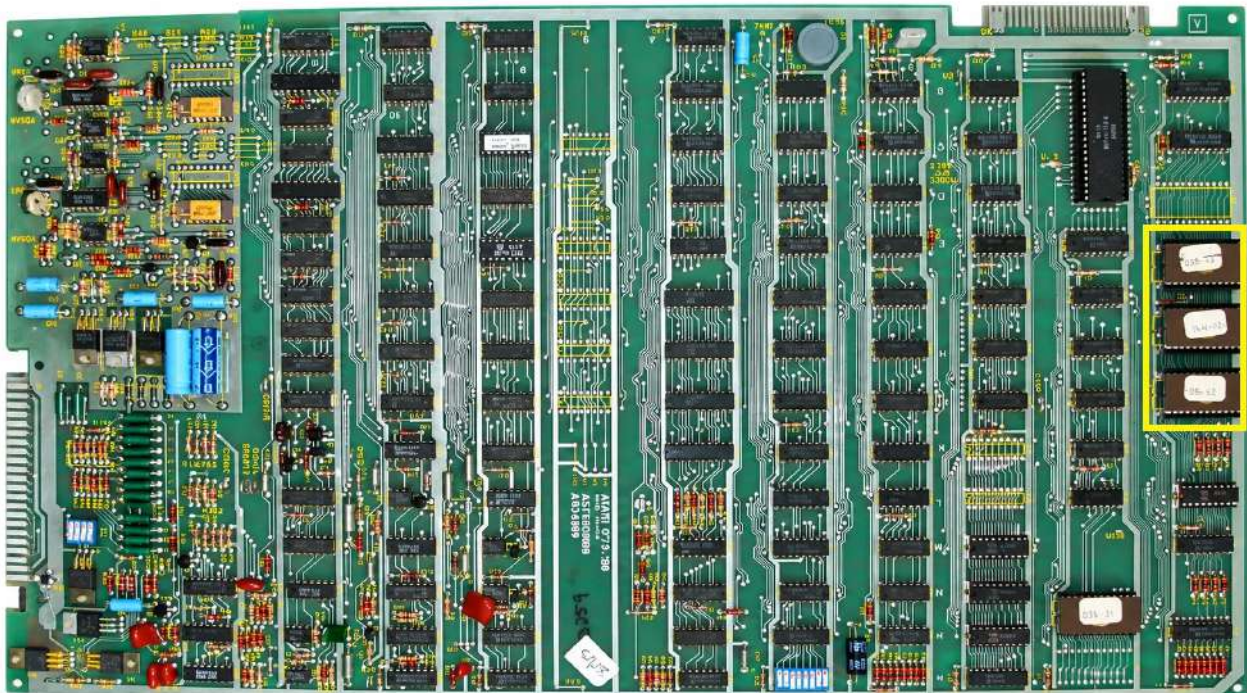
BEFORE RECONNECTING THE GAME BOARD

- Confirm the daughter-card Pin 1 aligns with the original 6502 socket.
- Verify all 40 pins are in the socket, without bent or missed pins.
- Check that no contacts touch the underside of the new daughter PCB.
- A compatible socket riser may be used if additional clearance is required.

Optional program ROM removal

OPTIONAL PROGRAM ROM REMOVAL

If you are using the optional ROM Saver procedure, remove the three program ROMs highlighted in yellow in the image below. If you are not using this option, you can leave these ROMs installed.



OPTIONAL ROM REMOVAL NOTES

- Remove only the three ROM chips inside the yellow box shown in the reference image.
- Pull each ROM straight up and store the originals safely in case you need them later.
- Do not remove other chips from the right-side ROM column unless specifically instructed by HighScoreSaves.

WHEN IN DOUBT, LEAVE THEM INSTALLED

This step is optional. If the ROM positions on your PCB appear different from this marked reference image, stop and confirm the board revision before removing anything.

Power-on testing and settings

PRE-POWER CHECK

- Original 6502 CPU correctly seated in the daughter-card socket.
- 6502 and daughter-card Pin 1 orientations verified.
- Daughter card fully seated into the original Atari 6502 socket.
- No components or traces touching the underside of the daughter card.
- All original connectors restored using pre-installation photographs.
- Correct compatible original Asteroids board and Version 2 vector ROM set confirmed.

POWER-ON TEST

Restore the PCB to the cabinet; reconnect the original harnesses. Power on and verify the Asteroids start screen, normal vector display, buttons and gameplay. Test Free Play and confirm saved Top 10 scores remain after powering off and back on.

OPEN THE SETTINGS MENU

With power off, hold Player 1 Start during power-on; release it when the on-screen prompt instructs you. The current product page describes an approximately four-second hold. Watch the linked settings video for the menu controls.

IF THE BOARD DOES NOT START

Turn the power off immediately. Recheck Pin 1, seating, connector placement and clearance before trying again.

Standard and Wi-Fi operation

LOCAL HIGH SCORE SAVING WORKS WITHOUT WI-FI

Both kit options use the original Asteroids PCB and 6502 installation described here. Standard saves locally. The optional Wi-Fi version can submit qualifying scores to the HighScoreSaves online leaderboard on a compatible 2.4 GHz network.

FIRST CONFIRM LOCAL OPERATION

- Power on and verify normal Asteroids gameplay and controls.
- Confirm Free Play and local score-saving behavior.
- If using the Wi-Fi kit, follow the current HighScoreSaves setup for the particular hardware version.
- Use the account-specific PK and SK keys only with the authorized kit, if required.
- Check the online leaderboard after submitting a qualifying score.

WI-FI HARDWARE NOT SHOWN IN ORIGINAL PDF

NO CHANGE TO LOCAL OPERATION

A disabled or unavailable Wi-Fi connection does not prevent local score storage or normal game operation. After initial testing, you can configure online scores separately. The final page links directly to the official Wi-Fi information and other core support resources.

Helpful resources and support

These links go to the current HighScoreSaves pages, original Atari reference materials, and the game-specific video. Confirm live page requirements before replacing sockets or removing ROMs.



Asteroids Free Play and High Score Save Kit

Product variants, CPU options and specifications



Asteroids PCB compatibility category

Check the HighScoreSaves and Braze kit differences



Asteroids settings menu video

HighScoreSaves game-specific video demonstration



Original Atari Asteroids operator manual

1979 Asteroids cabinet service and operation reference



Atari Asteroids PCB schematics

Main board microprocessor and ROM circuit reference



Standard vs. Wi-Fi kit guide

Current module, networking and account details



Installation Guides PDF library

Find all current HighScoreSaves kit documents



Contact HighScoreSaves support

Confirm board revision, ROMs or installation concerns