EAGLE

FREE PLAY + HIGH SCORE SAVE KIT

ORIGINAL CENTURI / NICHIBUTSU ARCADE HARDWARE



STANDARD + WI-FI EDITIONS

PCB identification • Z80 location 8B • Installation • Support

OVERVIEW AND PREPARATION

Before you begin

ONE INSTALLATION - TWO KIT VERSIONS

Standard and Wi-Fi editions use the same physical Z80 daughter-card installation. The Wi-Fi version includes a network module and has additional setup steps on page 9.

SAFETY FIRST

Power off and unplug the cabinet before handling either PCB. Work on an anti-static surface and handle ICs by their edges. Stay away from monitor power and high-voltage circuitry; contact a qualified arcade technician if uncertain.

PREPARATION CHECKLIST

- Confirm the Eagle PCB operates normally before installing any upgrade.
- Photograph connectors, wires, and the full board arrangement.
- Label every disconnected cable and record orientation.
- Use a well-lit, ESD-safe workspace with room for the PCB.
- Confirm the Z80 at position 8B has a suitable 40-pin socket.

WHAT'S INCLUDED

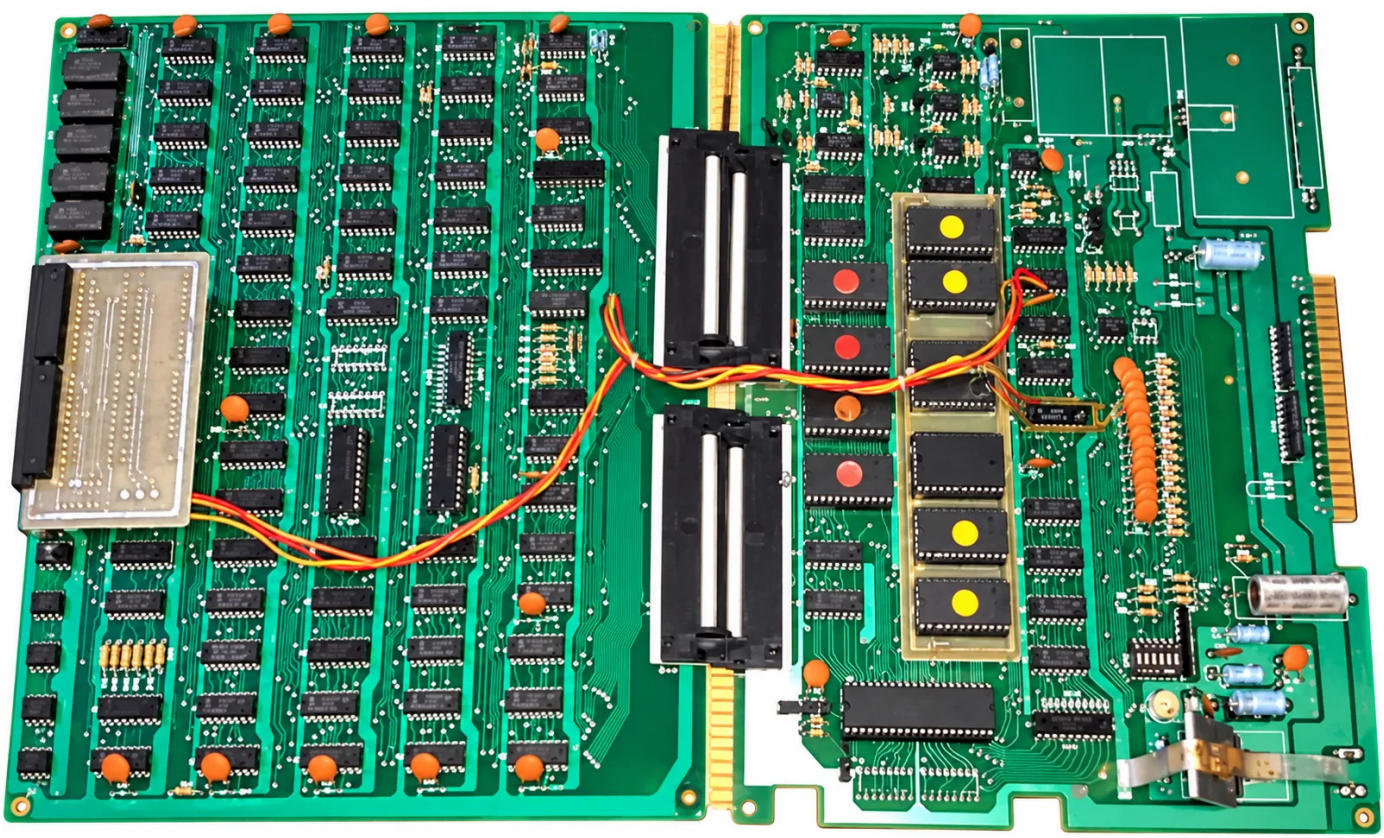
1 × HighScoreSaves Z80 daughter card. A compatible Z80 CPU is required: transfer the original socketed processor or select one with your order. Wi-Fi editions include the corresponding Wi-Fi module.

Compatibility: For original Centuri / Nichibutsu Eagle arcade hardware. Supported Moon Cresta configurations require the matching graphics-ROM setting. Not compatible with Galaxian or Gremlin hardware.

STEP 0 / BOARD IDENTIFICATION

Identify the original Eagle PCB

Use the overview photograph to identify the original Centuri / Nichibutsu-style board. The Z80 processor sits at location **8B** on the right-hand PCB. Do not use this guide for unrelated conversions or other hardware.



Original Eagle arcade PCB assembly, showing both boards.

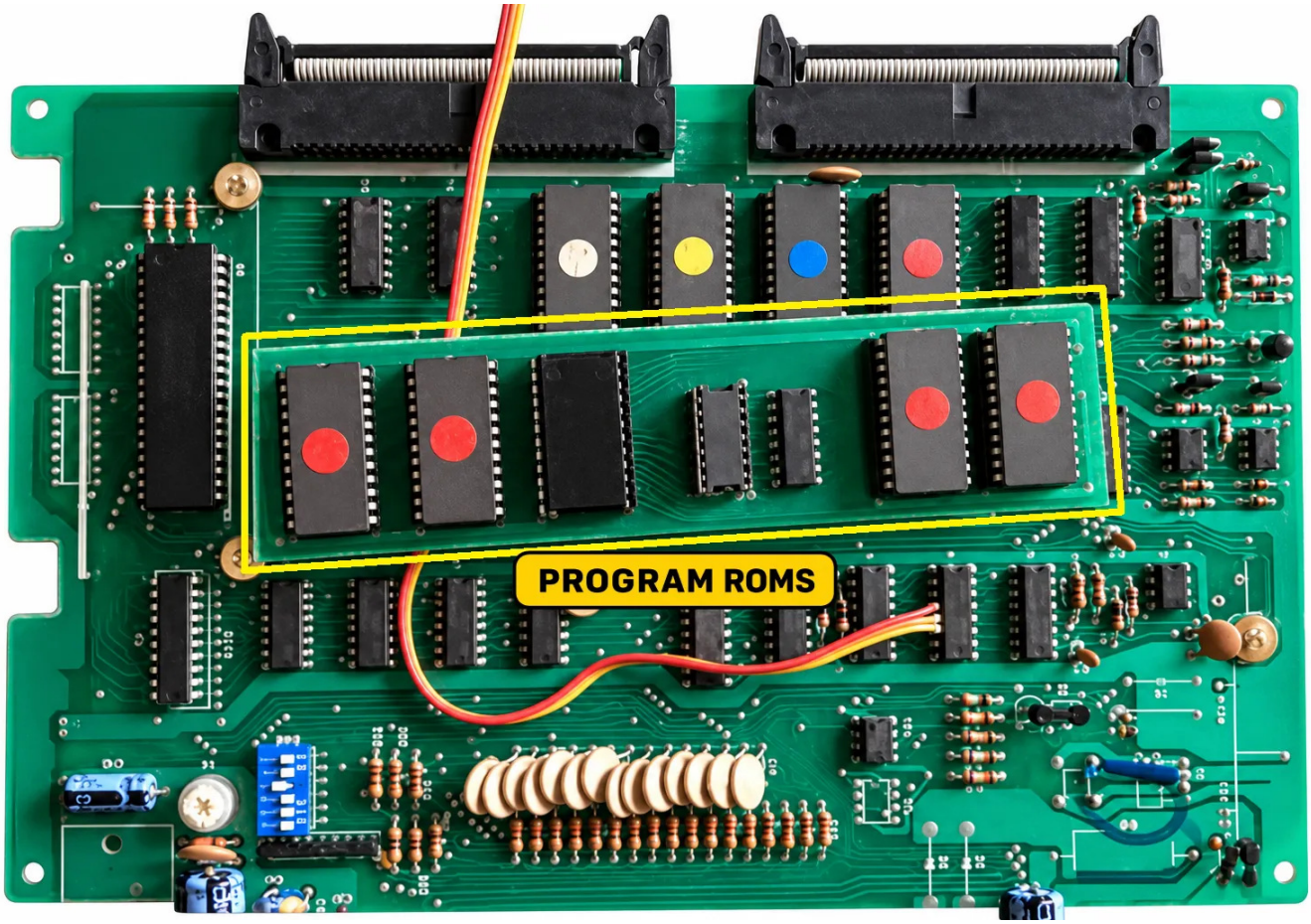
CONFIRM BOARD AND GAME VERSION

The kit supports original Eagle and certain Moon Cresta configurations. It is preset to Eagle (Centuri). For Moon Cresta, select the appropriate graphics-ROM version in the settings menu. Verify compatible hardware before installation.

STEP 1 / ORIGINAL DAUGHTERBOARD

Remove the original ROM daughterboard

Remove the existing plug-in ROM daughterboard before installing the HighScoreSaves kit. The yellow outline identifies the board and its program ROMs. Power off and unplug the cabinet, then photograph the board and cable connections before removal.



The existing ROM daughterboard is outlined in yellow.

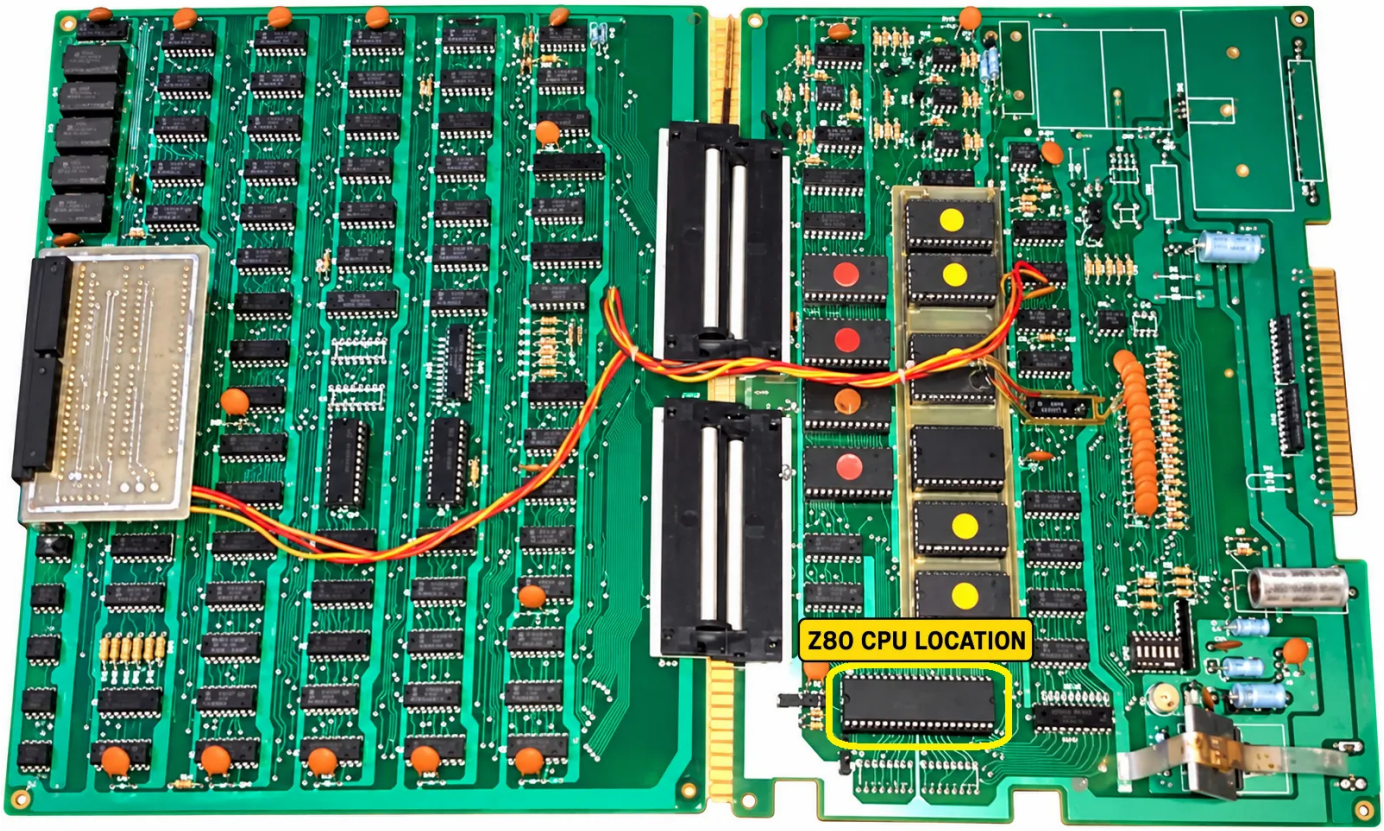
REMOVE THE BOARD, NOT RANDOM CHIPS

Carefully disconnect and remove only the existing daughterboard outlined in yellow. Keep the board and its ROMs intact for safekeeping. Do not remove individual ROM chips. If your hardware differs, stop and verify before proceeding.

STEP 2 / REMOVE THE CPU

Remove the original Z80 at 8B

On the right-hand Eagle PCB, locate the socketed **Z80 CPU at location 8B**, highlighted in yellow. Note the original orientation. Lift the processor evenly from both ends, and do not bend its legs or damage the socket.



Z80 CPU location 8B is highlighted in yellow.

DO NOT FORCE OR DESOLDER THE CPU

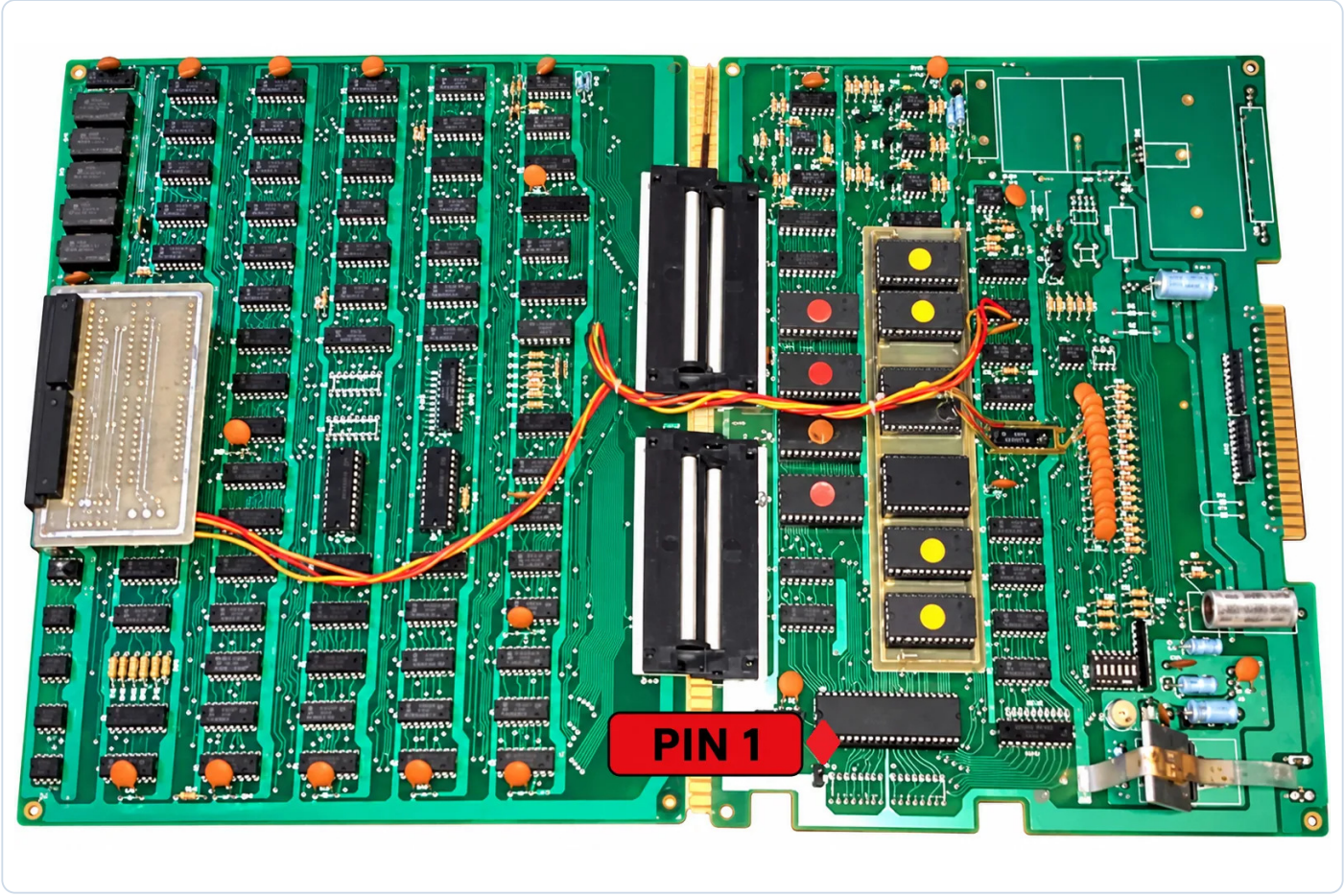
If the Z80 is soldered to the PCB, a qualified technician must install a compatible 40-pin socket. If the board has a different CPU or location, verify compatibility before proceeding.

STEP 3 / CPU ORIENTATION

Fit the Z80 to the daughter card

CRITICAL: PIN 1 ORIENTATION

Compare Pin 1 on the original CPU with Pin 1 on the HighScoreSaves daughter-card socket. The red annotation shows the original PCB orientation; match the kit socket marking before inserting the CPU.



Pin 1 of the original Z80 CPU is identified in red.

Before insertion: inspect all 40 CPU pins. Each pin must align with the daughter-card socket, and the chip must be seated evenly. Never force a bent or misaligned pin.

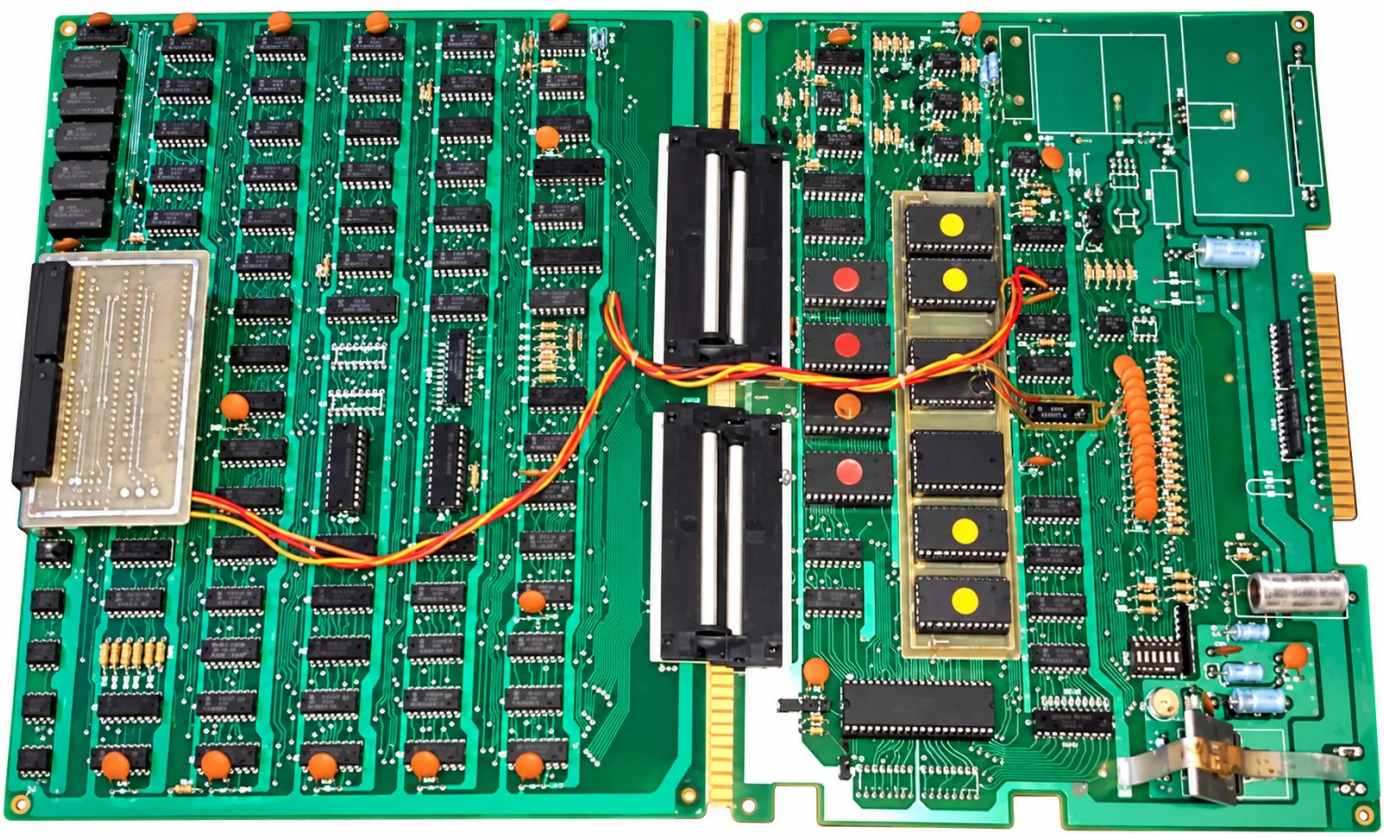
STOP IF ORIENTATION IS UNCLEAR

Verify the Pin 1 marking on both the CPU and the daughter-card socket.

STEP 4 / SEAT DAUGHTER CARD

Install the assembled daughter card

Once the Z80 is correctly installed on the HighScoreSaves daughter card, insert the assembled kit into the **original 8B CPU socket**. Check that every pin aligns with the socket, then press down evenly.



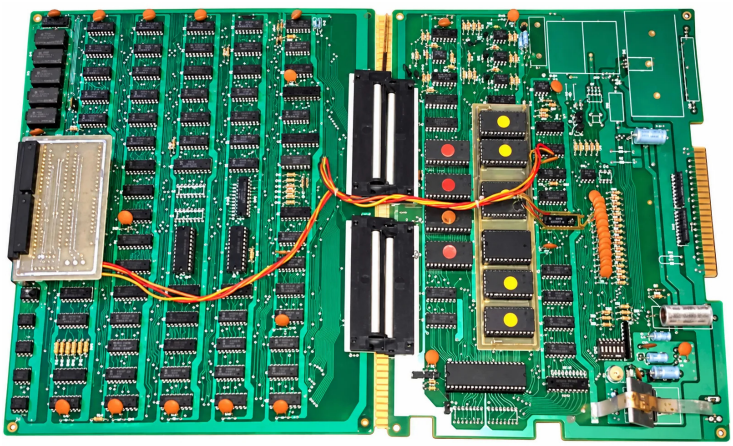
Original Eagle PCB before the HighScoreSaves daughter card is installed.

CLEARANCE AND ALIGNMENT CHECK

Verify the underside of the new card does not contact test points, nearby components, or other hardware. Do not force clearance or bend components without qualified assessment. Confirm socket seating before reconnecting power.

STEP 5 / VERIFY INSTALLATION

Final inspection and first test



Original Eagle PCB shown for installation checks.

BEFORE POWERING ON

- Z80 inserted in daughter card with correct Pin 1.
- Daughter card fully seated at original 8B socket.
- No contact under card; no bent or missed pins.
- Original daughterboard removed as applicable.
- PCB connectors restored to their original positions.

POWER-ON TEST

Reconnect the arcade PCB using your reference photos. Power on and verify normal Eagle startup, gameplay, Free Play operation, and saving a qualifying high score. If necessary, confirm that the selected graphics-ROM version matches your hardware.

HOW TO ENTER THE SETTINGS MENU

With cabinet power off, hold Player 1 Start while switching the cabinet on. Release the button when the on-screen prompt appears. The kit menu controls settings including the Eagle/Moon Cresta ROM option.

IF THE GAME DOES NOT START

Power off immediately. Check Z80 orientation, 8B socket seating, underside clearance, disconnected boards or cables, and ROM-version selection before trying again.

FOR WI-FI EDITIONS ONLY

Wi-Fi-enabled kit setup

SAME PHYSICAL INSTALLATION

The Wi-Fi edition uses the same 8B socket and CPU installation. Its Wi-Fi module is supplied with the chosen kit version. Complete the arcade installation before attempting network setup.

AFTER THE ARCADE KIT IS WORKING

1. **Obtain your PK and SK account keys**

   Use account details and instructions supplied by HighScoreSaves for your leaderboard.

2. **Enter online settings in the kit menu**

   Enter the supplied PK and SK keys exactly and save the menu configuration.

3. **Connect to a compatible 2.4 GHz network**

   Follow the current Wi-Fi setup guide to configure the module on your local network.

4. **Test a qualifying online score**

   Submit a score and verify it appears in the associated online leaderboard.

KEEP YOUR PK / SK KEYS PRIVATE

Wi-Fi instructions can change independently of this printed PDF. Use the live HighScoreSaves setup information for current connection steps, firmware behavior, and troubleshooting.

OPEN COMPLETE WI-FI SETUP INSTRUCTIONS

Network setup, PK/SK keys, and online score guidance

LINKS / REFERENCE

Helpful resources and support

These links are clickable in this PDF. For the most current compatibility, kit options, Wi-Fi instructions, and support details, use the live HighScoreSaves pages listed here.

Eagle kit product page
Kit versions, features, and ordering options

Eagle PCB compatibility
Confirm original Centuri Eagle hardware and socket requirements

Identify your original arcade PCB
General help with board identification before ordering a kit

HighScoreSaves kit tips
Menu access, score features, backup, and troubleshooting

Wi-Fi setup and Standard comparison
Current Wi-Fi kit guidance, PK/SK details, and network setup

Installation guide library
Find instructions for other HighScoreSaves arcade kits

Contact HighScoreSaves
Support and installation assistance

HighScoreSaves.com • Original arcade PCB upgrades since 2015