

Studio 5 ROM Upgrade: Installation & Features

Studio 5 ROM Installation Instructions

IMPORTANT: Studio 5 ROM Installation must be performed ONLY by a qualified service technician.

NOTE: When you replace the ROMs, the Studio 5 will lose all of its internal patch data. Make sure to save a patch document reflecting the patches in the Studio 5 prior to installing new ROMs.

NOTE: The ROM chips and the Studio 5 are sensitive to static electricity. To avoid static discharge from your body while handling and installing the ROMs, you must wear a ground strap.

- ① Remove the power cord from the unit and turn off any devices (synthesizers, patchers, Macintosh, etc.) connected to the Studio 5.
- ② Put a ground strap around your wrist and connect it to an earth ground.
- ③ Remove the top of the Studio 5.

To do so, remove the 3 screws in the top of the front panel, the 3 screws in the top of the rear panel, and the 4 screws on top of the unit. After removing all 10 screws, lift the top of the Studio 5 off of the unit.

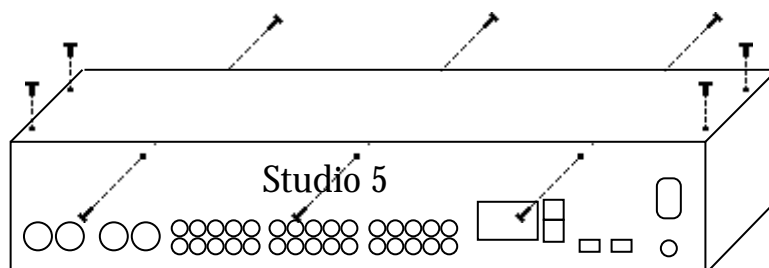


Figure 1: Remove Screws

- ④ Locate the **Even** and **Odd** ROMs located toward the middle of the main printed circuit board (as shown in [Figure 2](#)). The ROMs are

labeled with the words "even" or "odd" and with the date (not necessarily the date shown in [Figure 2](#)).

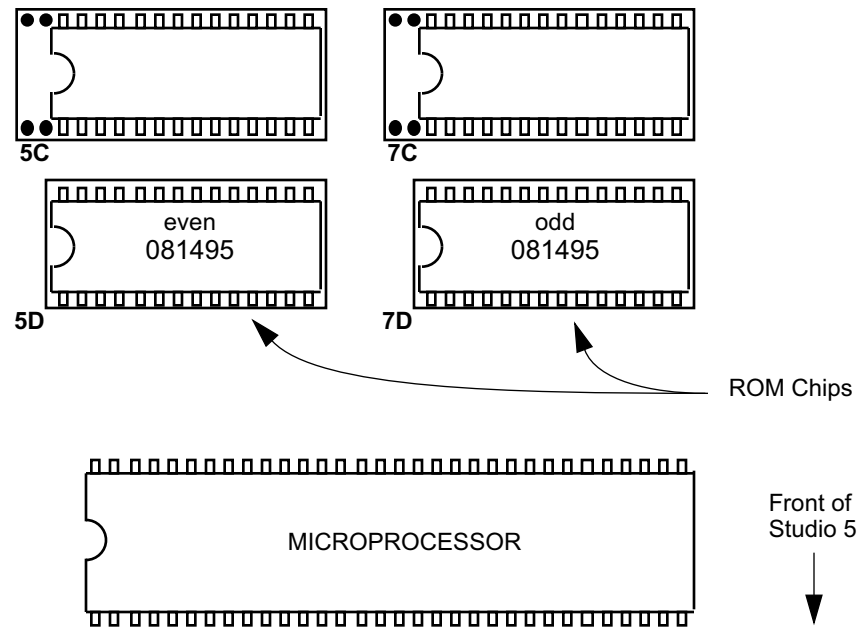


Figure 2: ROMs to Replace

- ⑤ Before you remove the existing ROMs, take note of their orientation. Specifically, with the front panel of the unit towards you, the even ROM is on the left, the odd ROM on the right. The notches in the ROMs face left.

NOTE: Some early Studio 5's have ROM sockets that are larger than the actual ROM chips (see [Figure 3](#)). If you have one of these Studio 5's, please notice that the ROM chips are placed in the far right side of the socket, leaving open pins toward the left of the socket.

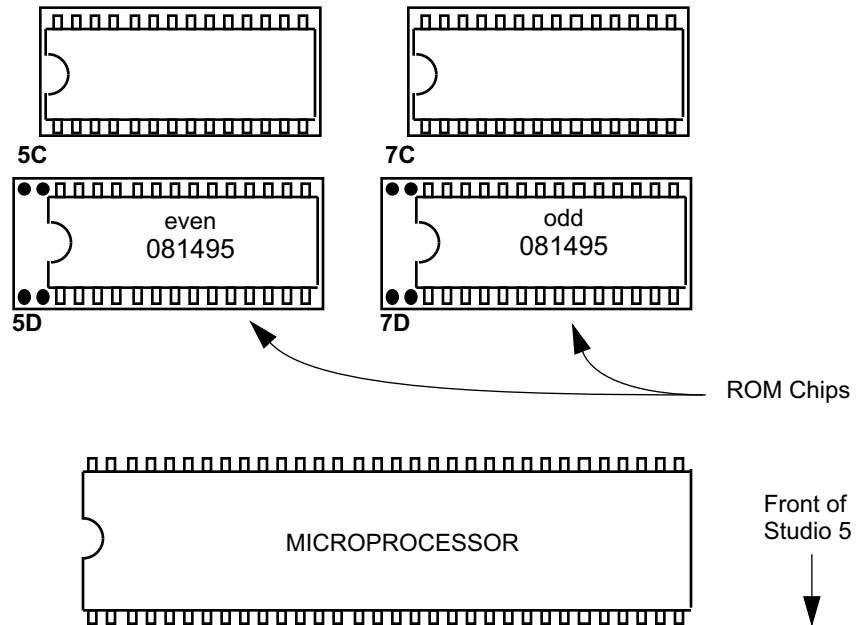


Figure 3: Alternate ROM Sockets in some Studio 5's

- ⑥ Use a chip remover to pull the two ROMs gently from their sockets.
- ⑦ Before inserting the new ROMs, examine them to make sure that there are no bent pins. Place the **Even** ROM in the left socket (if your sockets have additional empty spaces for pins to the left of the ROM, as mentioned in Step 5, make sure the new ROMs are placed all the way to the right in the socket, as shown in [Figure 3](#)). Make sure the pins align perfectly with the socket holes, and apply steady pressure to the ROM until it snaps into place.
- ⑧ Repeat the previous step for the **Odd** ROM, placing it in the right socket as shown in either [Figure 2](#) or [Figure 3](#).
- ⑨ Before you re-assemble the unit, turn it on while pressing both the increment and decrement buttons until the LED display on the front panel reads "--", after which you may let go of the buttons. The display should then flash 1 (the Studio 5 ID) and then 0. If this is not the case, recheck your work.
- ⑩ Reassemble the unit.
- ⑪ Please place the old ROMs in the anti-static materials supplied with the new ROMs and return them to us at:

Opcode Systems, Inc.
 c/o Studio 5 ROM Returns
 3950 Fabian Way, Suite 100
 Palo Alto, CA 94303

Software Installation Instructions

Follow the OMS 2.0 installation instructions included on your OMS installer disk.

New Features

This package upgrades the Studio 5 to work with OMS 2.0. Some of the new features include:

- **New Studio 5 ROM:** Permits seamless operation with OMS 2.0.
- **New Studio Patches Editor application:** Use this application to create Studio 5 patches. When used in combination with the OMS Setup application, it replaces the old version 1.2 OMS Setup+Patches application. See your new Studio Patches manual to learn how to create Studio Patches with the Studio 5.
- **OMS 2.0:** OMS 2.0 (now called the “Open Music System”) manages all your Patch Names and MIDI Controller names. This means that any OMS 2.0 compatible application (such as Studio Patches Editor) can display any patch in any MIDI device in your studio by it’s NAME. Also, any OMS 2.0-compatible application can modify the centralized patch name data and all other OMS 2.0-compatible applications automatically reflect those changes. For more information about the OMS Name Manager, see your Studio Patches manual. For more information about other OMS 2.0 features, see your OMS 2.0 manual.

Studio 5 ROM and RAM Identification

You can identify the RAM and ROM versions in your Studio 5 by choosing the **Studio 5>Display ROM Version** command in the OMS Setup application.

Specifically, when you choose this command, the Studio 5 sends information to the Macintosh as shown in [Figure 4](#).

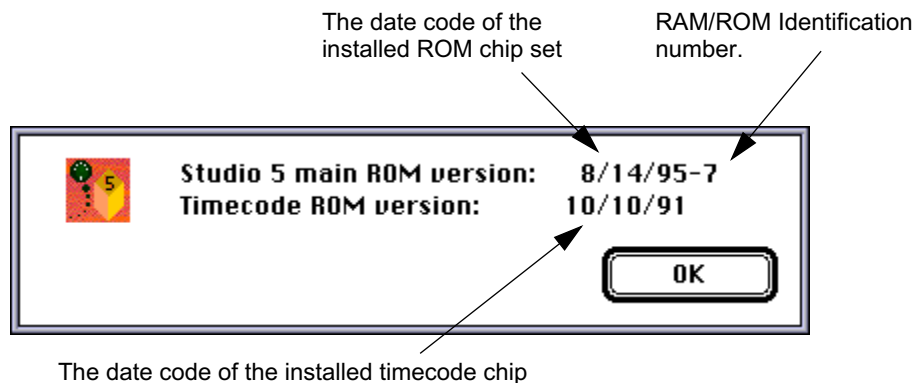


Figure 4: Display ROM Version Dialog Box

The RAM/ROM Identification number changes depending on your Studio 5's RAM and ROM configuration. Specifically:

ID Number	Meaning
0	Original ROM (101191) and 64k RAM
1	Original ROM (101191) and 256k RAM
2	101393 ROM and 64k RAM
3	Studio 5LX (101393 ROM and 256k RAM)
6	081495 ROM and 64k RAM
7	081495 ROM and 256k RAM