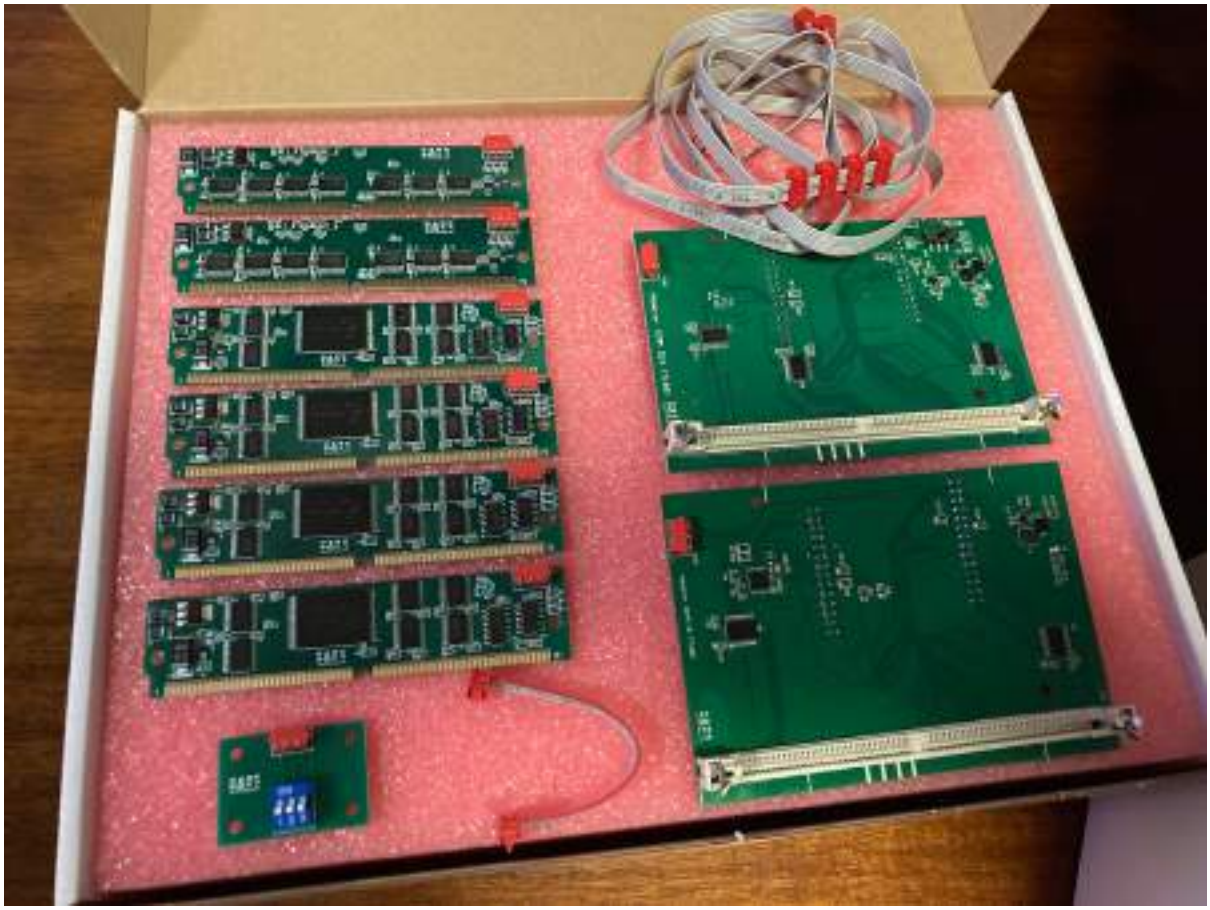
DARKSOFT CPS-3 ULTRASIMM SETUP GUIDE

In this guide, we will explain how to program your Darksoft UltraSIMMs and how to get your setup hooked up and running. Thank you for your purchase, we're sure that you'll be impressed with the instant loading times and quality of this product. Please join the arcade-projects.com forums if you have any issues and the community can guide you through any troubleshooting steps.

Your kit will come with the following items:

- 2 x UltraSIMM: Dual-Flash
- 4 x UltraSIMM: Single-Flash
- 1 x Dual-Flash (SIMM 512) Adapter for ProMan/TL86_Plus programmer + cable
- 1 x Single-Flash (SIMM 1G) Adapter for ProMan/TL86_Plus programmer
- 1 x Daisy Chain Connector Cable / Dip Bank Selector PCB



If you are missing any of the items above, please be in touch with your place of purchase to find out what has happened.

To run a CPS-3 setup with the UltraSIMMs you require two other pieces of hardware:

1. A Working **CPS-3 Motherboard** (doesn't matter what region, or game)
2. A **UltraBIOS cart**. Reproductions are available on the arcade-projects.com forums, or you can alternatively convert your current working game cart or re-flash your existing SuperBIOS cart. There are people on the arcade-projects.com forums who can help out if you are unable to do this yourself.

   NOTE: UltraSIMMs are functional with both a "custom SH-2" processor (like those found in original game carts) and also "standard SH-2" (as found in reproduction carts) – See the photo below for examples of each. Depending on which cart you are using, you will need to flash UltraSIMMs #1 & 2 accordingly with the correct files.

First thing to do is label the UltraSIMMs. The 2 x Dual-Flash SIMMS, label them #1 and #2. The other 4 SIMMS, label them #3-#6. These will later fit into the slots on the motherboard corresponding to their respective number.


SINGLE FLASH SIMM
#3-6

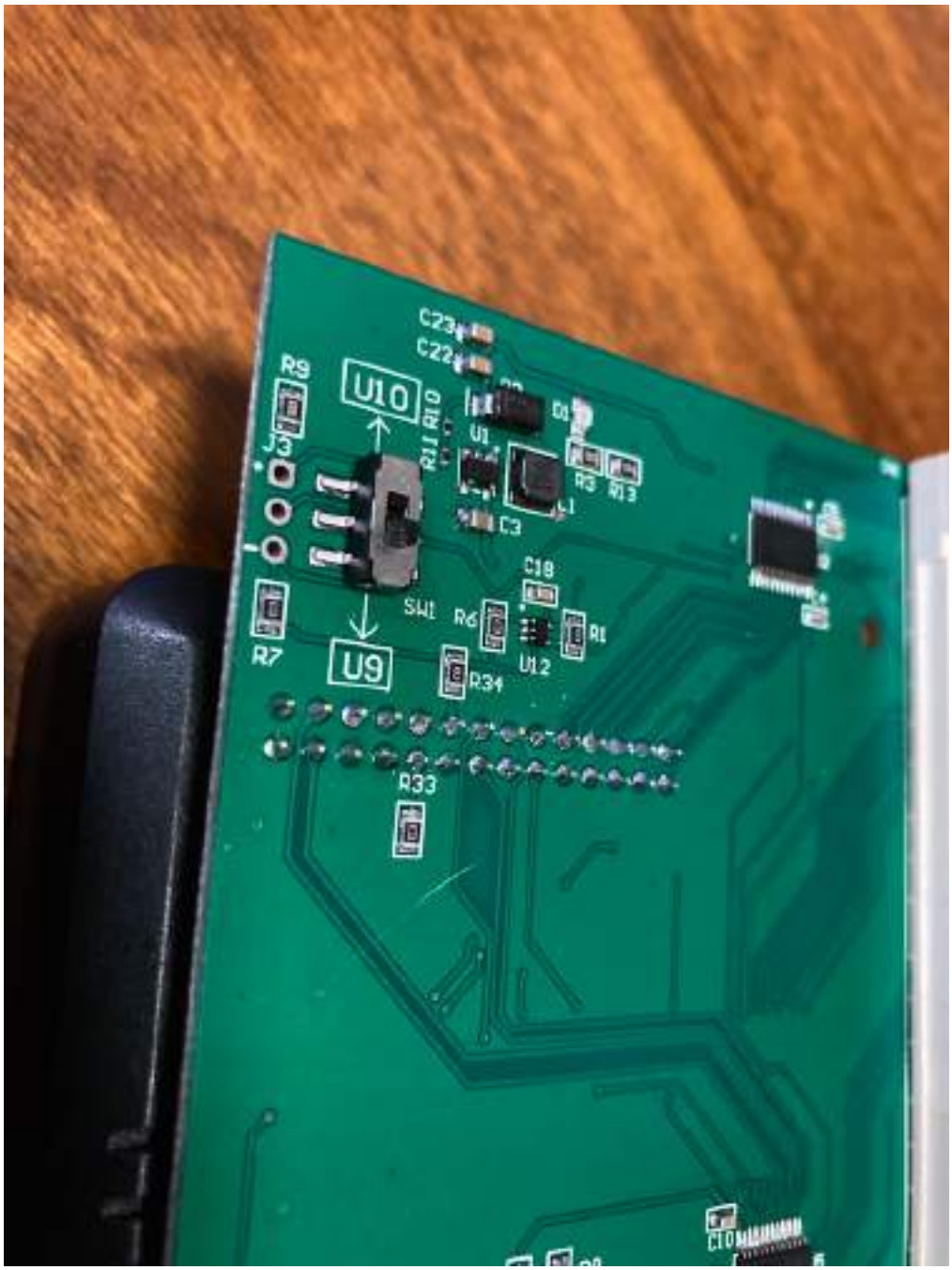
PROGRAMMING THE ULTRASIMMs

The fastest method of programming the UltraSIMMs is with a ProMan (also known as TL86_Plus) programmer. These can be found on online marketplaces such as aliexpress or eBay for around $100 USD. If you choose to program them another way or with another device, you must ERASE the chip first, otherwise the write will not work. On the arcade-projects forums, there is a list of people worldwide who can help out with programming, if you are unable to do so yourself. You can find more information here: https://www.arcade-projects.com/threads/simm-writing-service-tl86_plus-proman-programming.15697/

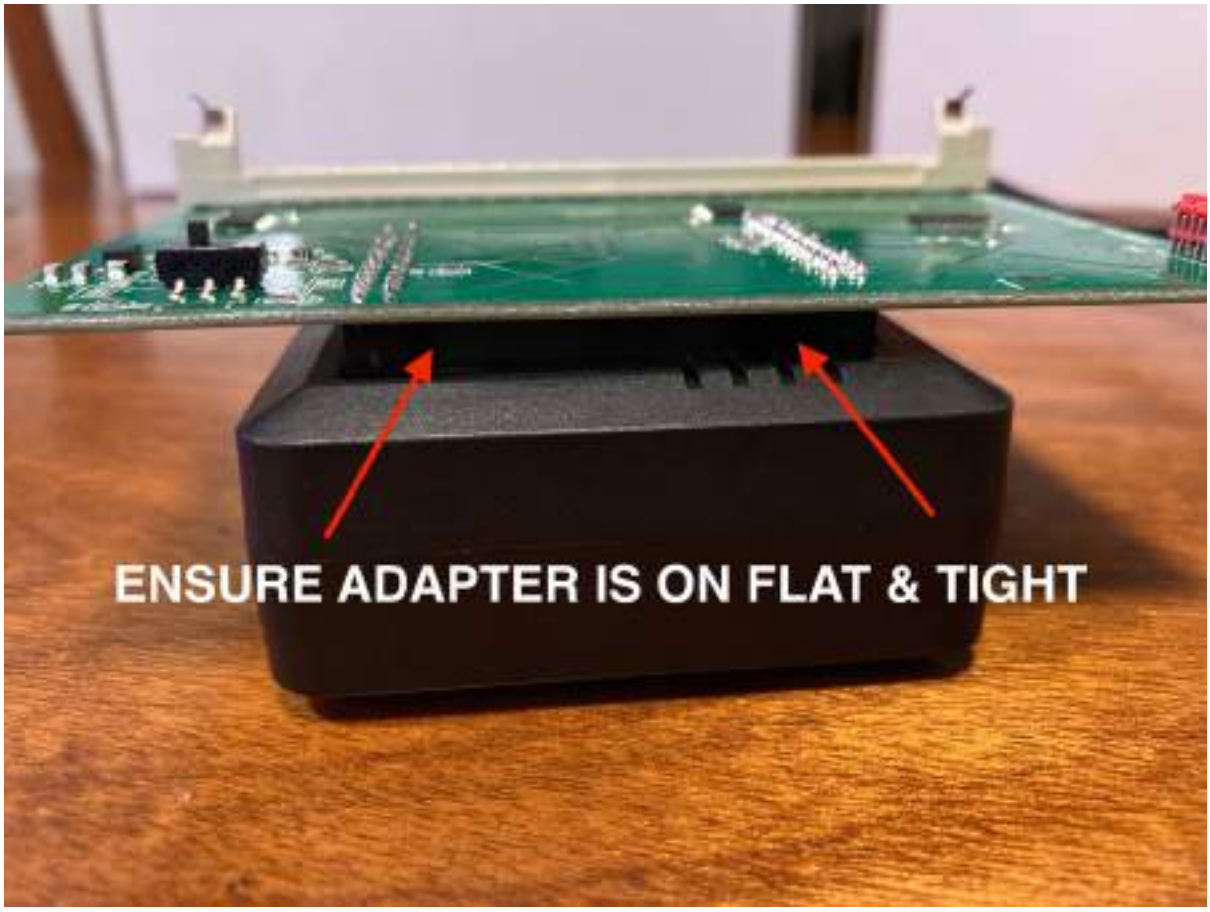
If you are programming the UltraSIMMs yourself, firstly, download the programmer software from this link: https://www.mediafire.com/file/rv7zvl71n422yr6/TL86PLUS-ProMan-Nandpro_v062.rar/file

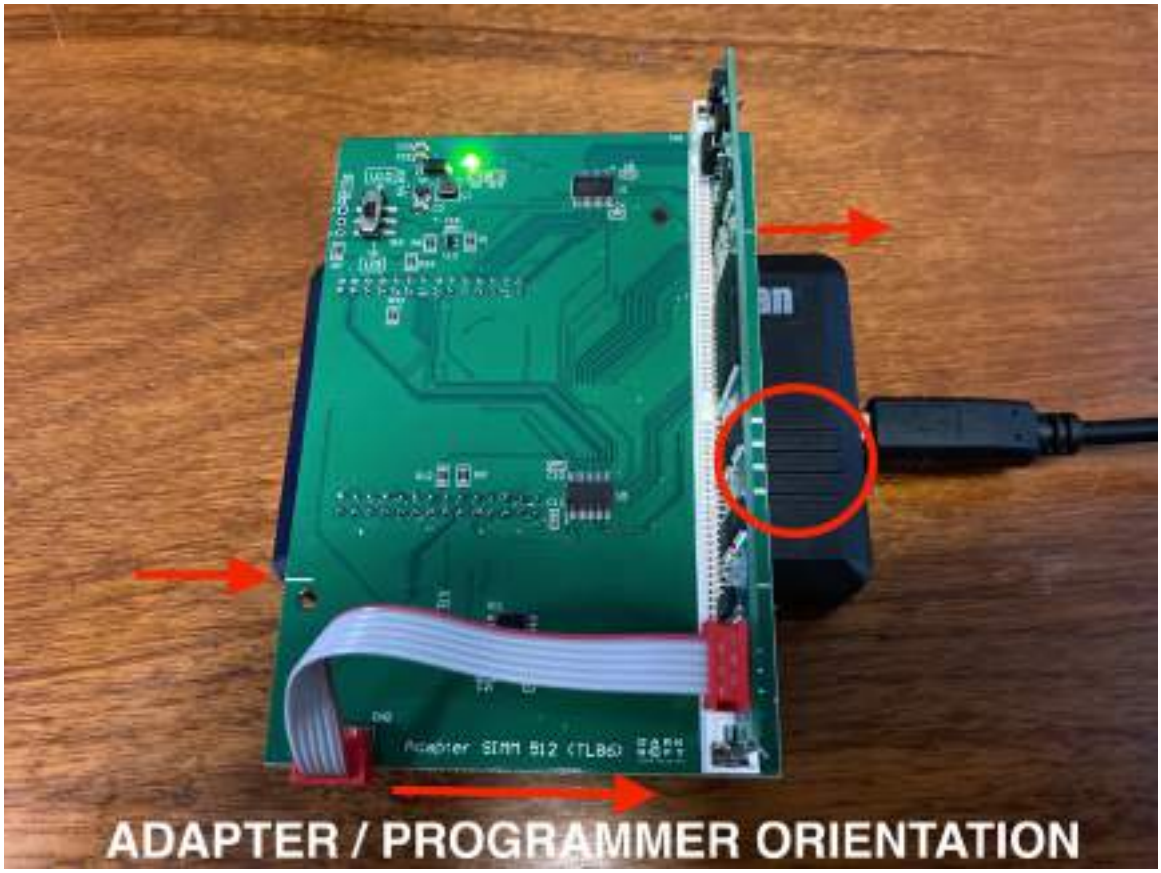
Next, hunt the Internetz and download the latest CPS-3 roll-up pack or create your own files.

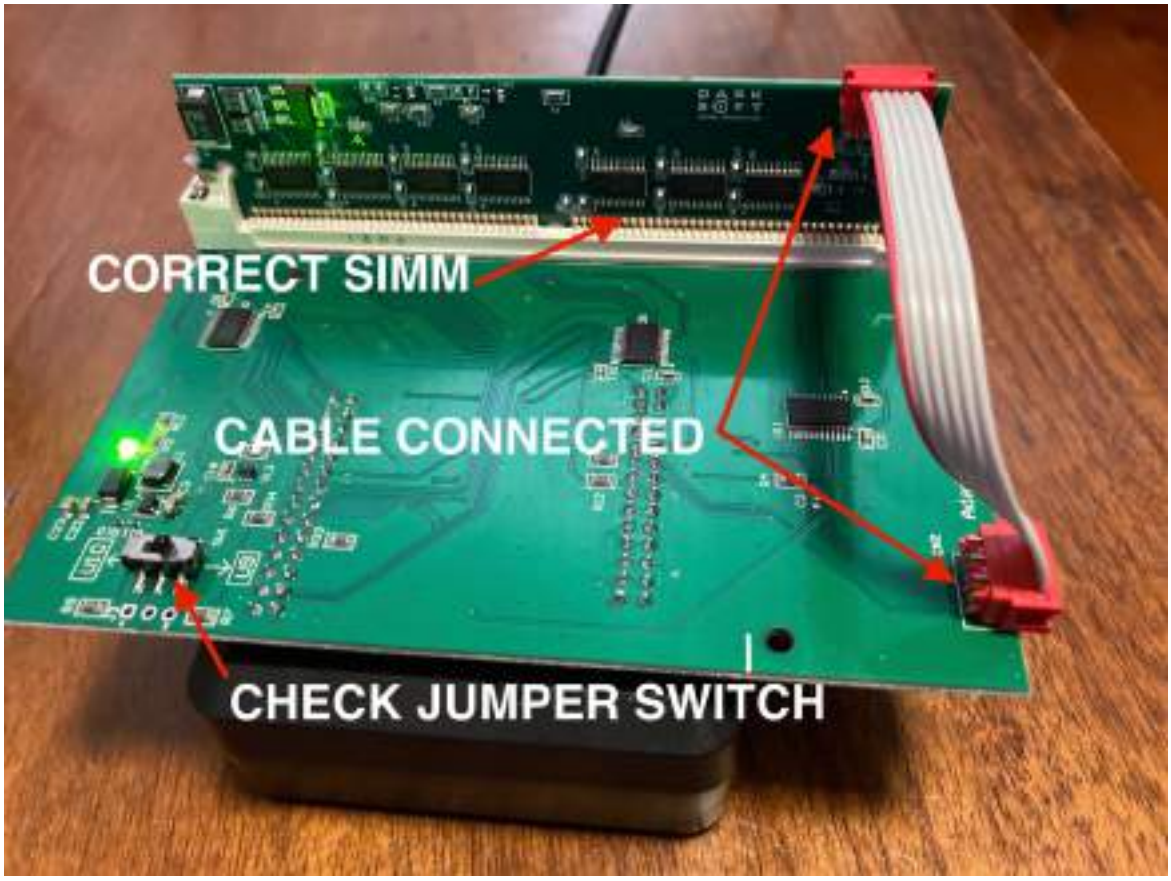
First, we'll program UltraSIMMs #1 and #2. These two UltraSIMMs are different to the other 4 as there are two banks to program. To do this, we simply program one bank by setting the jumper switch on programmer adapter to "U9" and then programming the next bank with the switch set to "U10".



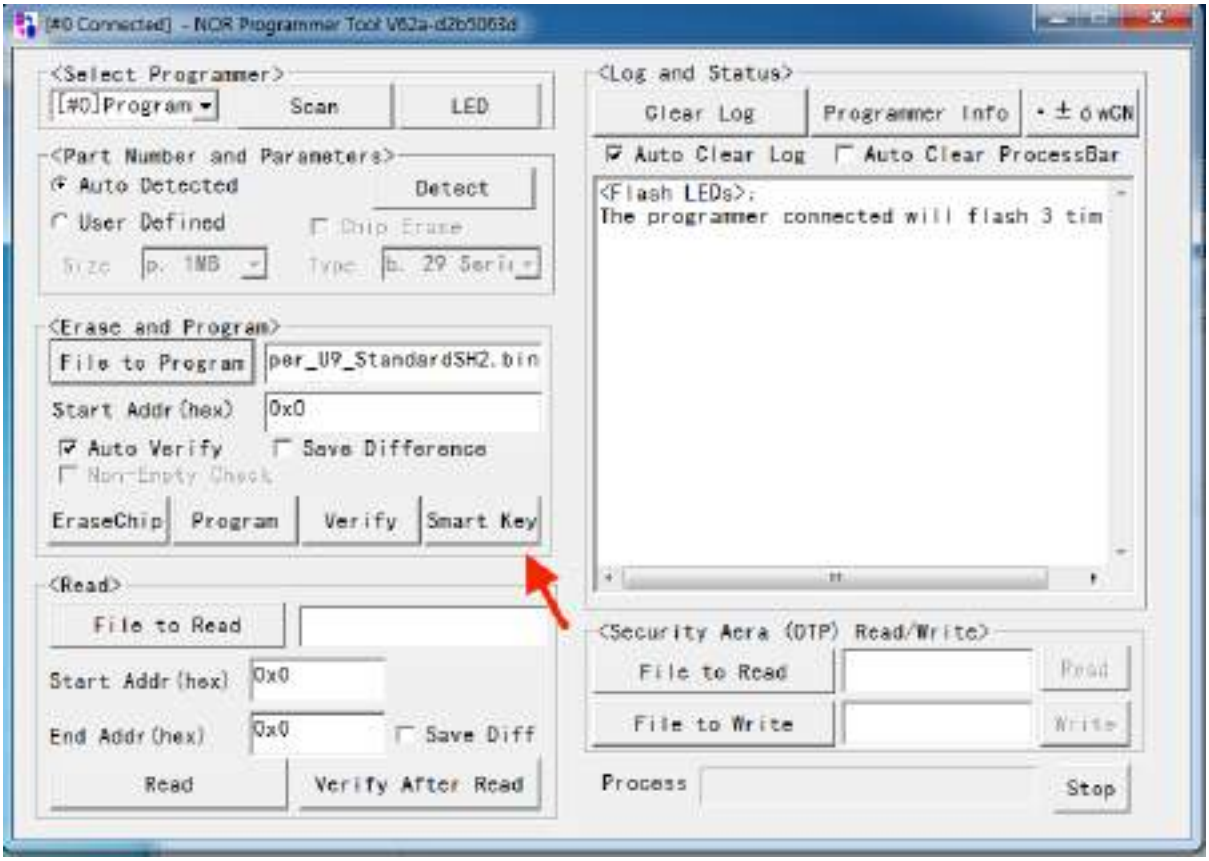
1. Connect the Programmer Adapter labelled “SIMM 512” to the ProMan, take care and ensure the adapter is pushed all the way down and making strong contact with the Proman and also that the orientation is correct (there are markings on the adapter PCB to show orientation/insertion). Insert the UltraSIMM labelled #1 into the adapter. Next, connect the red ends of the cable to the UltraSIMM and also to the Programmer adapter. Set the jumper switch to U9 as we’ll program that bank first. See photos below for how it should all look.



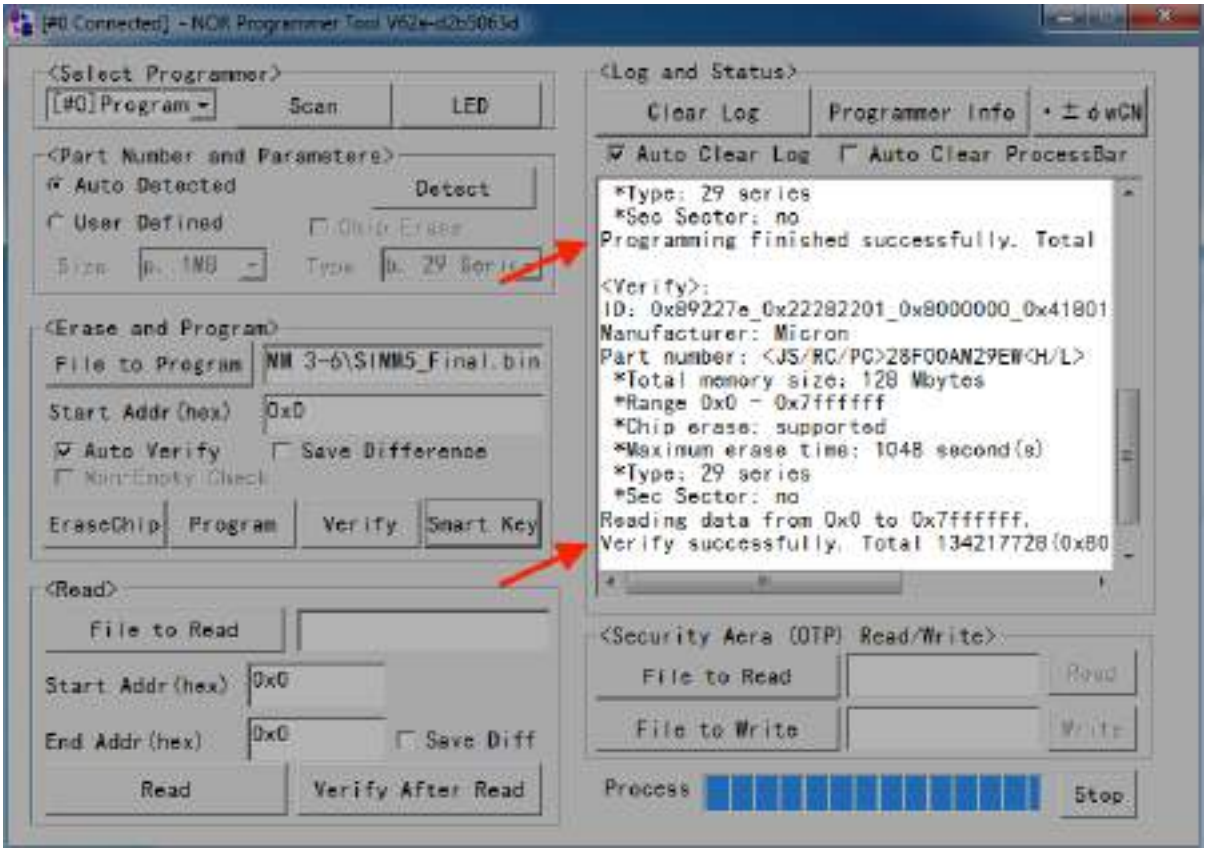

ADAPTER / PROGRAMMER ORIENTATION


CORRECT SIMM
CABLE CONNECTED
CHECK JUMPER SWITCH

2. Connect your ProMan via USB to your computer and launch the programmer software (NOR062_Beta_A.exe).
3. After launching the software, check your programmer is recognised by clicking the “Scan” button under the <Select Programmer> menu. The <Log and Status> box should indicate that 1 programmer is connected. Press the SCAN button multiple times if needed until the unit is recognised. If it doesn’t recognise, unplug and re-plug the USB cable of the programmer to your computer and try again.
4. Next, click the “File to Program” button in the <Erase & Program> section of the software. Select your first file (for example, “SIMM1_Jumper_U9_StandardSH2.bin”). **NOTE:** If you are using a custom SH-2 (original Capcom) cart, you must use alternate files specifically for “Custom SH2” carts. Make 100% sure that the jumper switch is set properly to “U9” on your programmer adapter and then click the <Smart Key> button. This button erases the memory, programs the file, then verifies the data.



Once completed, check the <Log and Status> window to make sure everything went right and verified correctly (check this after every write you make to each of the UltraSIMMs).



5. Next, repeat the above process, exactly the same, however this time with the jumper switch set to “U10” on the programmer adapter and using another file (for example, “SIMM1_Jumper_U10_StandardSH2.bin”) or alternatively, the relevant file for a “Custom SH2” cart.
6. Congratulations, you’ve now programmed your first SIMM. Now complete the process with the other Dual UltraSIMM and by using files such as SIMM2_Jumper_U9 and U10, making sure to the jumper switch is in the right “U9” or “U10” position between flashes and also that you’re flashing the correct files for your cart type.

IMPORTANT: You must unplug the USB cable from your computer every time when installing a new SIMM and/or adapter. You should have all the parts and cables connected before re-plugging the USB into your computer for it to be recognised properly!

Now we have programmed both Dual-Bank SIMMS, we should install them on the CPS-3 motherboard in Slots 1 & 2 which are on the right hand side of the PCB behind the cartridge slot.

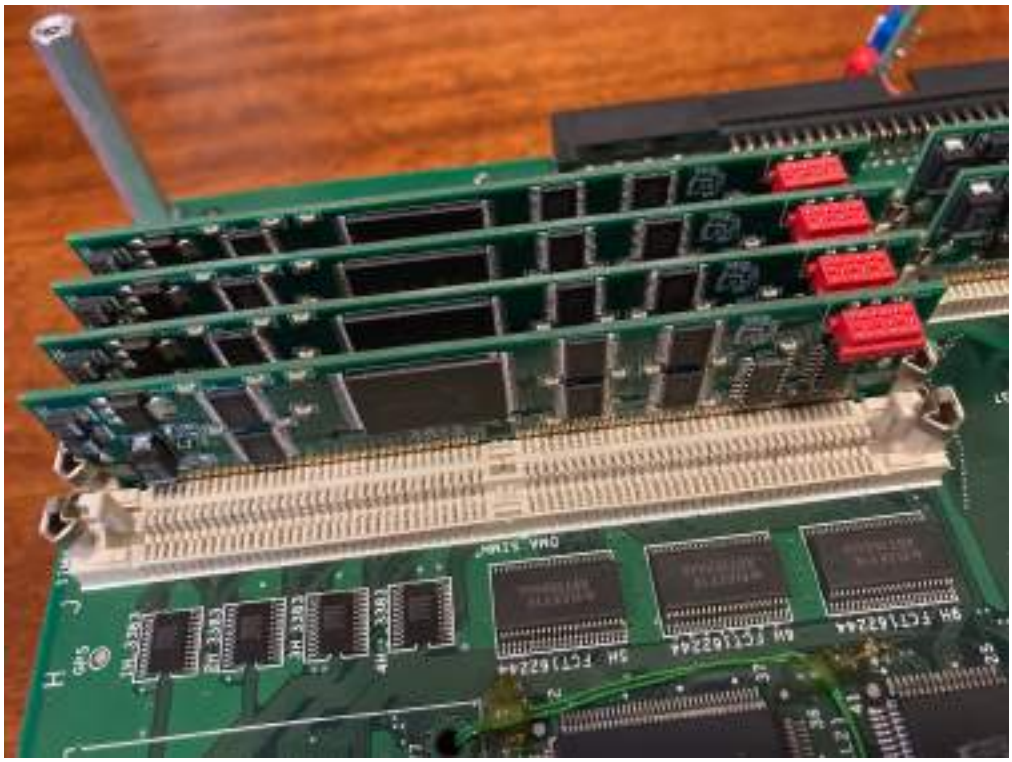
With that out the way, we can now move onto the Single UltraSIMMs. These use a different adapter, and don't require you to use a jumper switch, or require the need to select either "Custom" or "Standard". Simply repeat the steps as above and only flash one file per UltraSIMM. **NOTE:** For these 4 SIMMs, make sure you use the other adapter labelled "SIMM 1G" without the jumper switch on it!

In example, files that can be written to the UltraSIMMs can be named as follows:

SIMM3_Final.bin → UltraSIMM #3
SIMM4_Final.bin → UltraSIMM #4
SIMM5_Final.bin → UltraSIMM #5
SIMM6_Final.bin → UltraSIMM #6

Now all the SIMMS are programmed. It's time to connect everything to the CPS-3 Motherboard and get to playing games!

Connect SIMMS #3-#6 to the to their respective positions labelled on the silkscreen on the CPS-3 motherboard.



Next, connect the daisy chain cable with the Dip Bank selector to all 6 chips, ensuring good solid contact has been made and the orientation is correct. Start by connecting the cable to SIMM #1 & #2, then SIMM #4 and #5 in the middle, then finally SIMM #3 and #6. Take your time, be careful and use only gentle force to connect the cable to each UltraSIMM. The cable connector only fits one way, so if you are having trouble, ensure you are trying to insert in the right orientation.

Place your UltraBIOS cart into the cartridge slot, set the DIP to the game you want to play, and power on the unit! Congratulations, you should be greeted with a region selection screen for a game!

Here’s one example of how the games can be programmed onto the cart and their respective DIP switch settings:

000: Street Fighter III: 4rd Strike: Arrange Edition 2013
001: JoJo's Bizarre Adventure
010: Street Fighter II: 3rd Strike
011: Warzard
100: Street Fighter III: 3rd Strike: Makoto Fix
101: Street Fighter III: 2nd Impact
110: JoJo's Venture
111: Street Fighter III: New Generation

PLEASE NOTE: Street Fighter III: 4th Strike and other mods will only work on Standard SH-2 carts / repro carts, and not with “custom” carts.

Above are some examples of how the DIP selector works with popular cases. If using the Jasen customs case, the DIP selector can be routed directly to the JAMMA edge. If using the TR Fight Stick case, the DIP switch can be routed out the back or alternatively from the cartridge slot.

Guide written and last edited 13-Jan-2021 by @djsheep