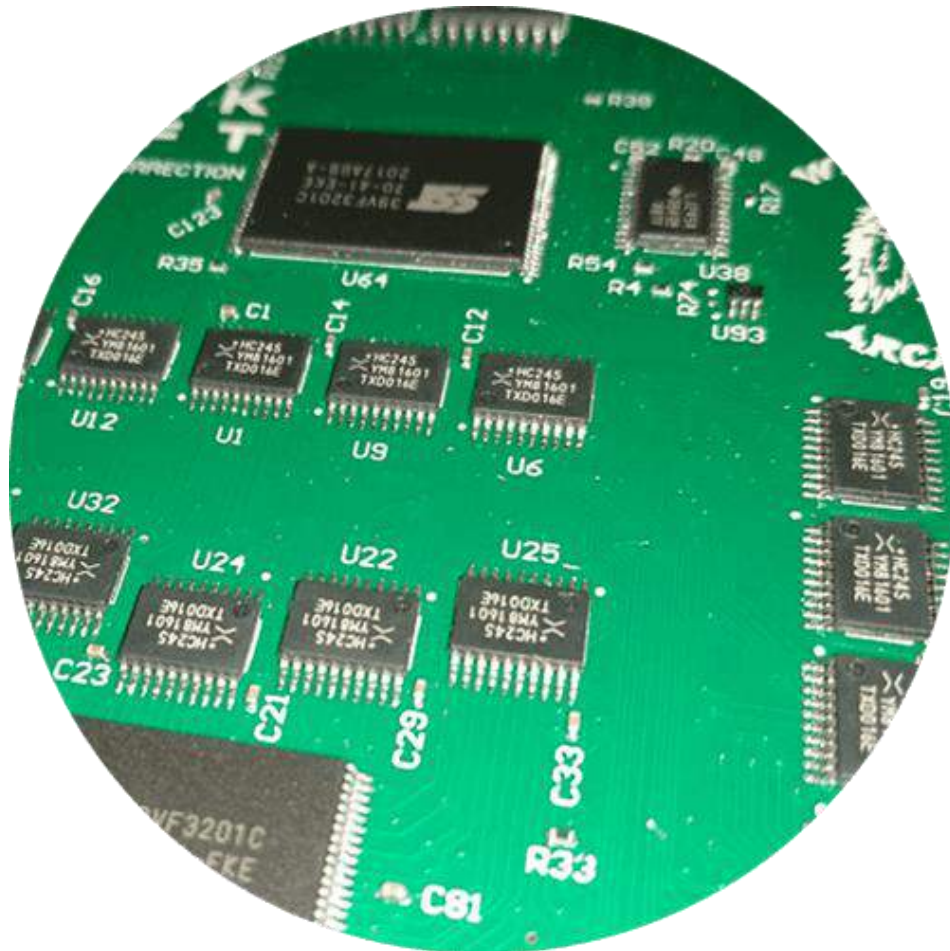


Darksoft CPS2 – Champion Edition Installation Guide



<https://highscoresave.com/>

Steps for a successful install of your online or offline high score save kit -

- Ensure your gameboard is working 100% before installing kit
- Ensure power to game is off before removing your gameboard from cabinet
- Label any connectors that you will be disconnecting. This will make reinstalling easier once kit is on gameboard
- **Note which way your connectors/cables are on.** (We suggest taking pictures to help you remember!)
- Work in a well-lit area on your workbench

Overview –

- Thanks kindly for your purchase of the Darksoft 'Champion Edition' CPSG2 Multi Kit. Functionally, this kit is identical to previously released kits, however the installation process has been streamlined and is now a lot simpler!
- There is no longer a need to be concerned about jumpers, replacement PAL chips or running a jumper wire to the PAL. There is also no longer a need to modify the original case in any way, and for most users, key writing wires are simply connected via one cable.
- Here are the items included in your CPSG2 Champion Edition Multi Kit. If you are missing anything, please contact your place of purchase before proceeding with the installation.
- We really hope you enjoy your kit, and we're always available to help with any issues that may arise with installation or functionality.



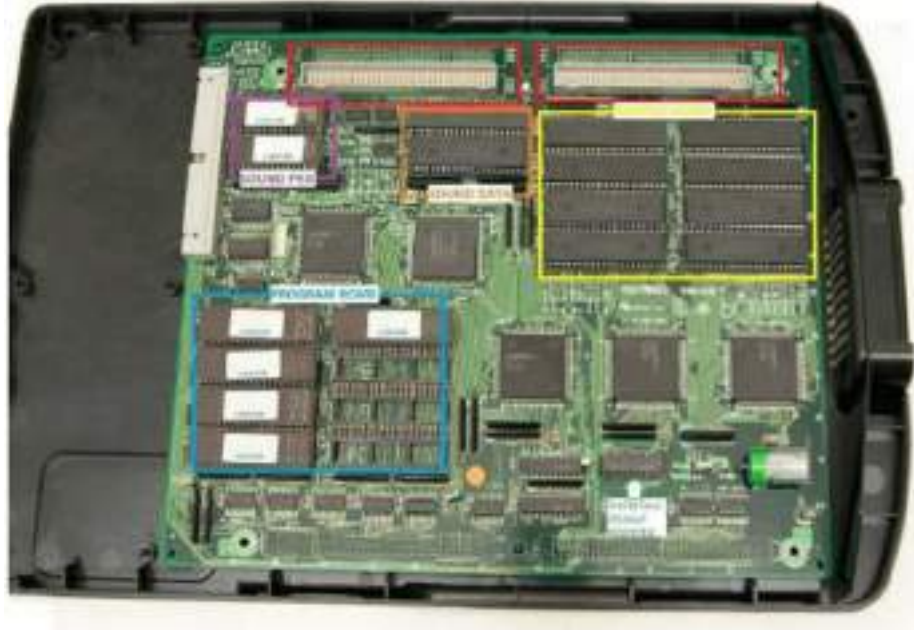
CPS-2 BOARDSET REQUIREMENTS FOR MULTI:

Aside from the multi kit, you will need any region CPSG2 matching / compatible 'A' (mother) + 'B' (game) Boards. The 'B' Board must be batteryless. We won't support anyone asking for information about how to kill a working PCB. There are plenty of "suicided" 'B' boards available on the market.

If you are purchasing a board set specifically for multi usage, it is highly recommended that you seek revisions 93646BG5 / 93646BG6 / 93646BG7 or 97691AG3 of the 'B' Board, as these come equipped with the JST NH connector for key writing. The other two revisions (93646BG3 or 93646BG4) work fine, however you will need to solder 4 wires to the CN2 connector to enable key writing. Alternatively, you can choose not to connect key writing wires, however you will only be able to run decrypted (patched) ROM sets.

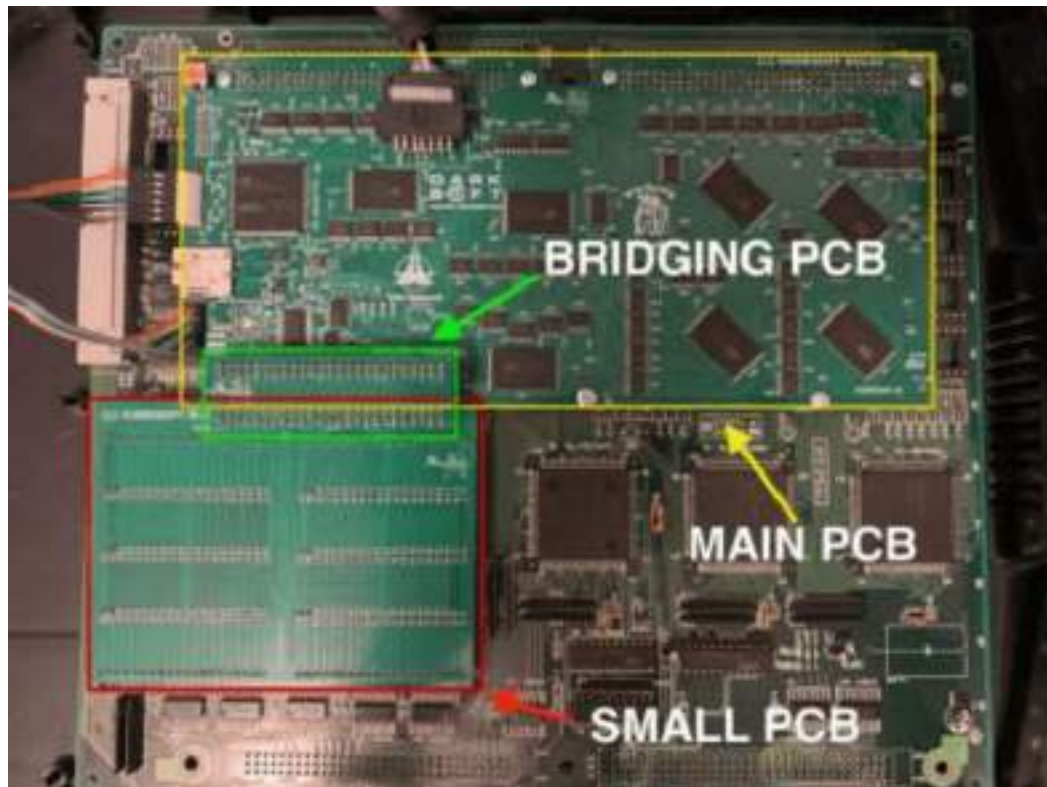
FIRST STEP, PREPARE THE 'B' BOARD:

1. Open the 'B' Board with a Torx TG20 Bit screwdriver by removing the 4 screws on the underside.
2. Remove all socketed EPROMS and MASK ROMS as shown in the picture below (outlined in purple, orange, yellow and blue). The sockets outlined in red in this photo don't need to be touched, so please don't try to remove them!



MULTI INSTALLATION:

Now that your board is ROMless, you can proceed to install the two main PCBs included in your package. These two PCBs will end up joined together by the smaller 3rd (bridging) PCB. The photo below shows a completed Multi installation, please review the photo prior to the following steps and refer to it during installation if you are unsure of anything.

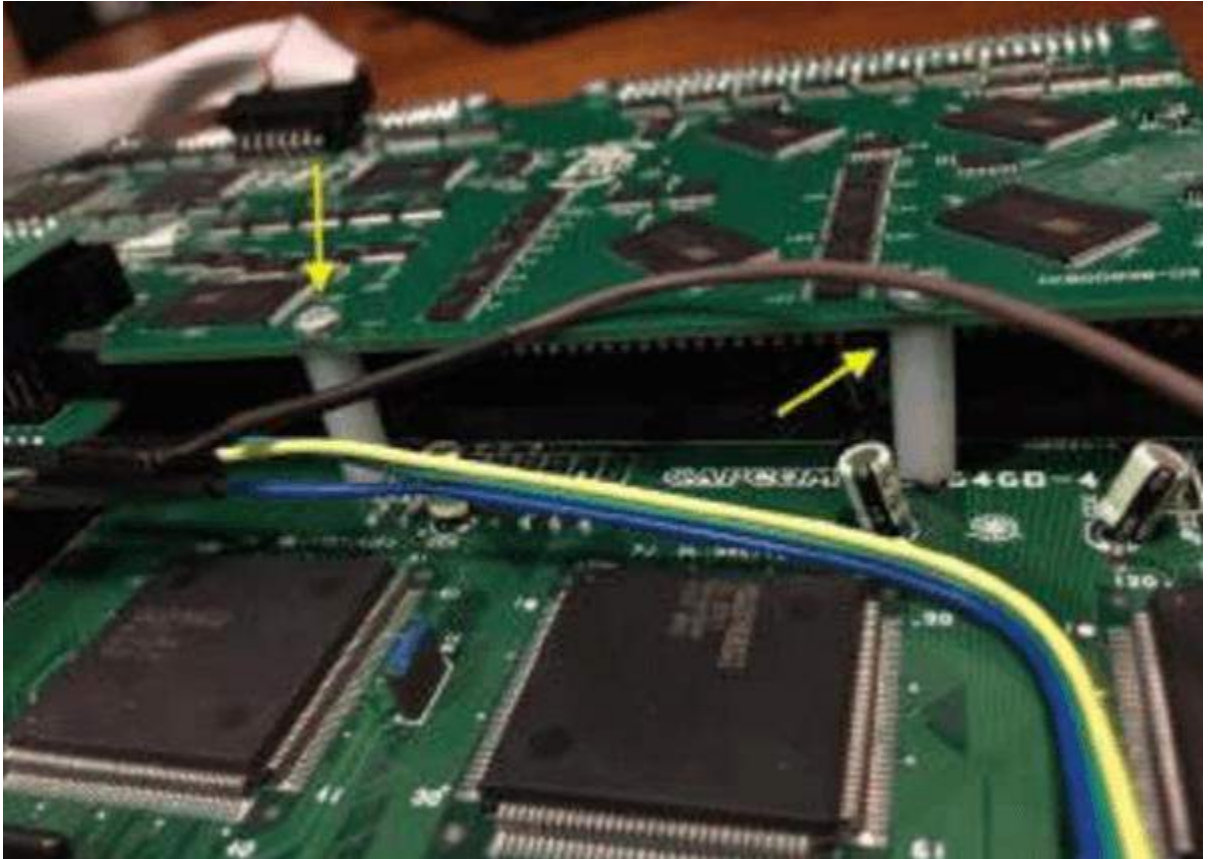


IMPORTANT! When installing these PCBs, you should make sure first that everything is properly aligned and then start pushing very gently until all the pins are inserted into the ROM or motherboard sockets. Please be careful and take your time.

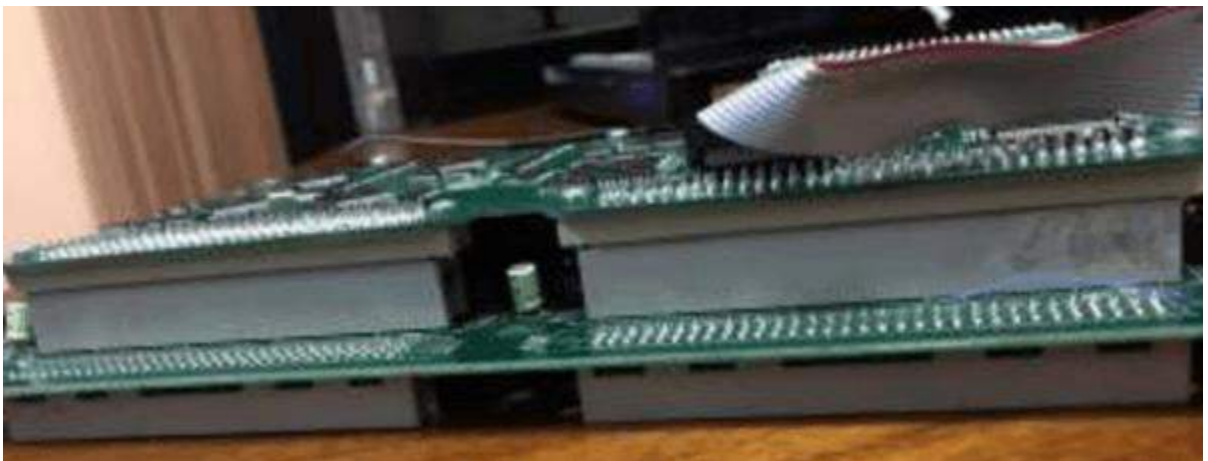
1. First, place the smaller PCB onto the 'B' board and make sure all the pins are aligned in the right place (see photo below). Now, start pushing the PCB gently at each corner whilst also alternating to the middle. Constantly assess the pins while you push to make sure everything goes gently in the right place and be careful not to bend any pins. Take it slowly!



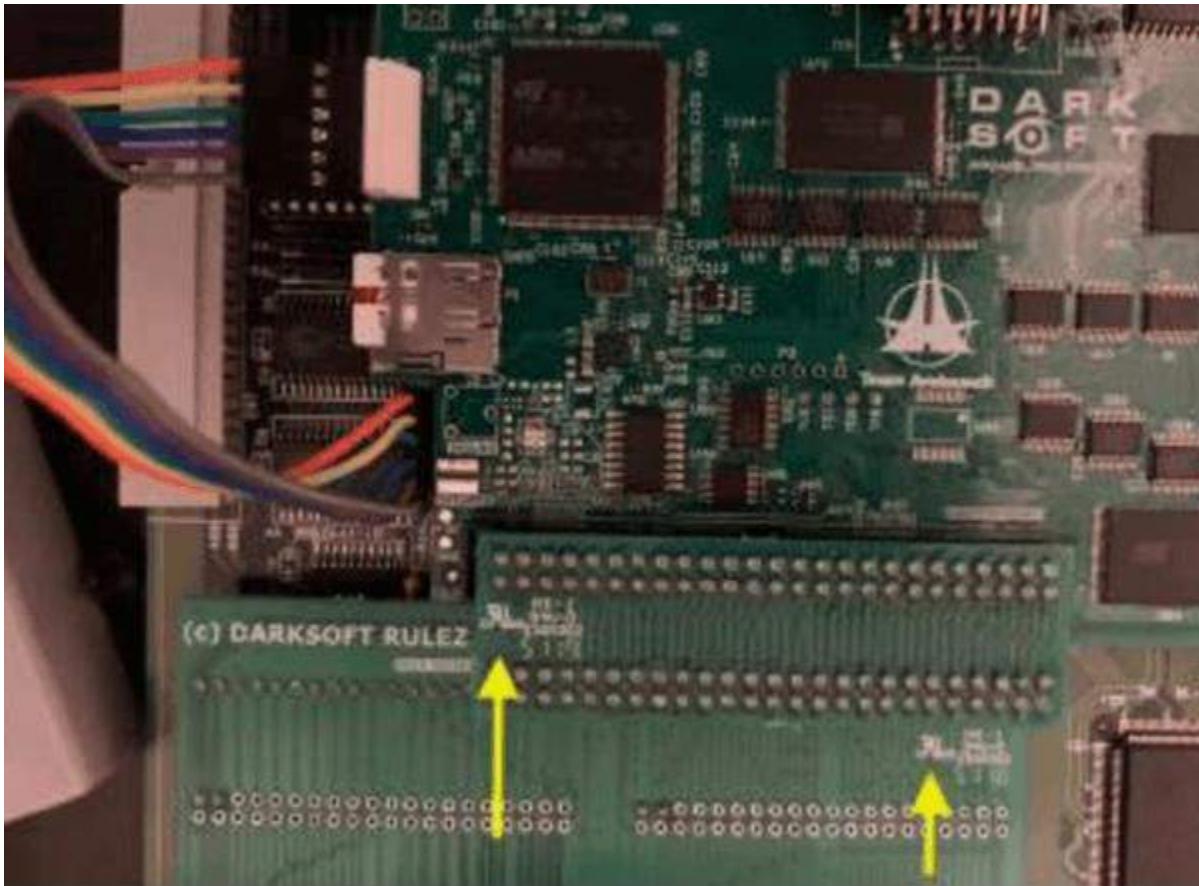
2. **BEFORE** installation of the main PCB, insert the two plastic spacers. Some spacers will require screws, otherwise the spacers will simply “push in”.



3. After inserting the spacers, install the main (larger) PCB. There are no longer any long pins and the board will easily slot into place on the sockets of the ‘B’ Board.



4. Install the tiny connector PCB to bridge the two main PCBs of the multi together. **VERY IMPORTANT!** Make sure that the RU sign is facing upwards as it's shown in the picture below. If it is the wrong way, the multi will not function. Ensure that the PCB is installed firmly, and the pins are all the way in and making good contact. You can gently push up from the underside of two main PCBs to ensure good contact is made and the pins are all the way in.

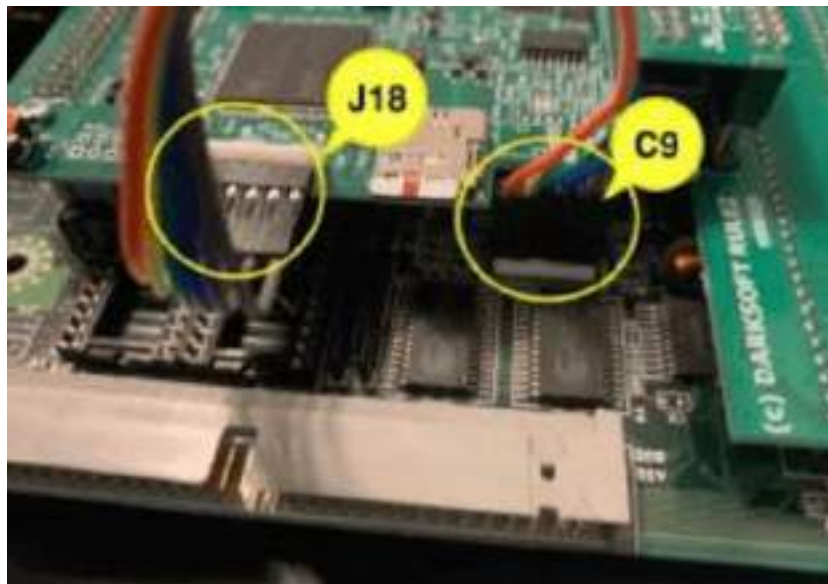


All versions of the 'Champion Edition' multi come with firmware installed that allows you to use original untouched and unpatched ROM sets. For this to happen, you need to plug a "key writing" cable between the main PCB of the kit and the JST NH connector marked CN9 on your 'B' Board. If you have one of the older type 'B' boards, then you'll need to solder 4 wires between this connector on the main PCB of the kit and CN2 of your 'B' Board (see "Additional Soldering Instructions" section below).

We implemented the key writing process discovered and made available thanks to arcadehacker.blogspot.com

5. If your B Board has the JST NH connector (labelled C9), install one end of the key writing cable to the JST NH connector on the Multi PCB (labelled J18) and the other end on your 'B' Board.

NOTE: The connector on the multi and 'B' board is 6 pins, however only pins 2 of 5 are used. There is no harm connecting all the pins. The two examples shown below use 6 x DuPont Wires or a connector with just 4 wires connected.



If your CPS+2 Motherboard doesn't have the CN9 connector on the motherboard, please see the "ADDITIONAL SOLDERING INSTRUCTIONS" section below.

6. The CPS2 multi kit comes with a LCD screen module with 3 buttons to choose which game to load. Connect the LCD Screen module to the Main PCB using the 14 pin ribbon cable.



Contrast for the LCD screen is adjustable on the main multi PCB using the pot shown in the photo below.



CONGRATULATIONS! Your CPS2 multi kit is now installed, all that is required now is to prepare the MicroSD card.

MICRO SD CARD PREPERATION:

Genuine Samsung, SanDisk or Kingston 4GB or 8GB SD Class 4 MicroSD cards are recommended. Only purchase cards from reputable sellers on online marketplaces or in trusted physical stores. Many issues arise when using counterfeit cards or cards not prepared correctly.

There is a “Roll Up Pack” available to use with this kit available on archive.org:

<https://archive.org/download/everdrivepack/Darksoft%20CPS2%202020G05G24.7z>

Alternatively, if you do not wish to use key writing, this pack is available also:

<https://archive.org/download/everdrivepack/Darksoft%20CPS2%20OLD%20Decrypt%20ed.7z>

1. Format the SD card as FAT 32. We recommend using the following tool <https://www.sdcard.org/downloads/formatter/>
2. Copy files from your selected “Roll Up Pack” link above directly to the card (under the root directory of the SD card you should have a directory /games and underneath that folders with individual game directories)
3. MAC OS/X USERS ONLY: In Terminal execute the following command to remove hidden files/folders that OS/X creates: dot_clean
"/Volumes/SDCARDNAME "
4. Finally, eject the SD card safely, and install it into the Multi. You are now ready to connect your A+B boards together, power up your kit and enjoy all the games!

ADDITIONAL SOLDERING INSTRUCTIONS:

If you have a 93646BG3 or 93646BG4 revision 'B' board, you will need to solder the key writing wires from the JST connector on the multi to the CN2 connector on the 'B' board.

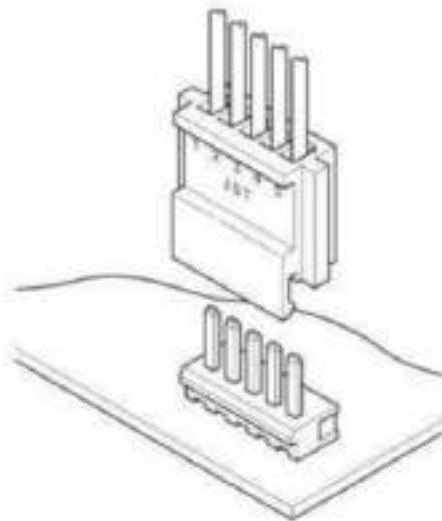
Before you attempt to solder these wires, practice soldering on a scrap board first or seek help from a trusted installer (see the list at the end of this guide or ask for assistance on the arcadeGprojects.com forum). Use good quality solder and a temperature-controlled iron at a reasonable temperature (200G250C maximum). Key writing wires are soldered at your own risk. It is recommended to only be completed by users confident with a soldering iron. As such, if you damage the board somehow it may result in your board not being able to be repaired. If it is repairable, the repair will be charged. **This will also void your warranty.**

Tin the wires with solder and then solder the tinned wire to the CN2 interface pins. This will give you the cleanest solder joint.

The wires from the JST NH connector connected to the multi correspond to the following pins on the CN2 connector:

JST J18 PIN#5 – CN2 A32 JST J18 PIN#4 – CN2 A30 JST J18 PIN#3 – CN2 A31
JST J18 PIN#2 – CN2 A29

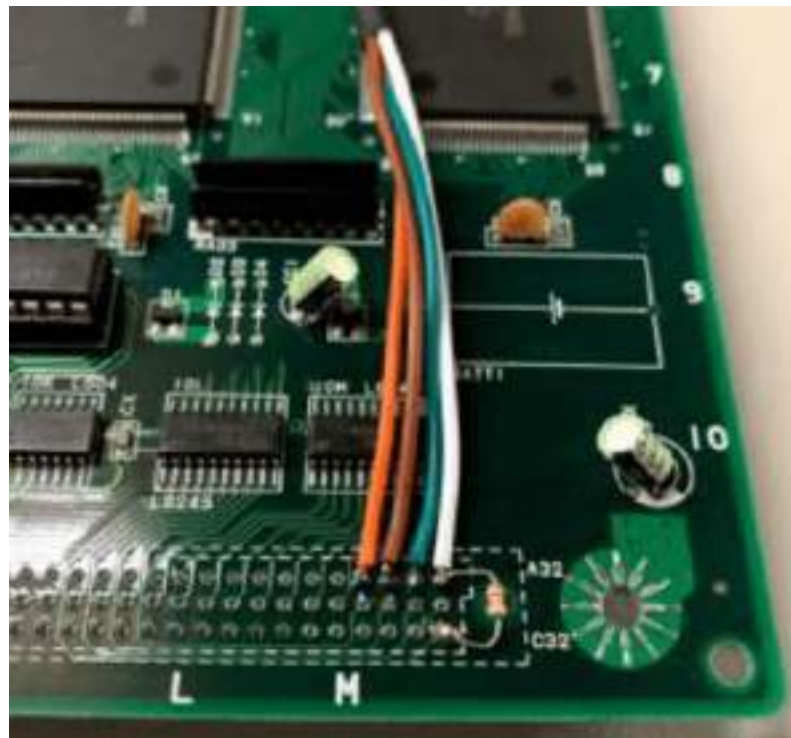
The JST numbering system follows the official pinout on the connector shown below:



For reference, in the photo below JST J18 PIN#5 is white, PIN#4 is brown, PIN#3 is green and PIN#2 is orange.



Also, for reference, in the photo below, CN2 A32 is white, A31 is green, A30 is brown, A29 is orange. If your 'B' board has a resistor between A32GC32, leave it installed.



CPS-2 Multi Troubleshooting Tips - by xodaraP

I have a solid color screen: WHITE

Your kit does not read the main program ROMs at all. Check the following:

- Broken pins on the multi kit
- Interconnect board did not install the correct way
- Broken sockets on your B board
- SD card is bad.

I have a solid color screen: BLUE, GREEN, ETC.

Your kit is attempting to run encrypted code on a suicide board or is not able to read all main program ROMs. Check the following:

- EXC5 may need to be temporarily shorted to remove keys that have not been flushed
- Broken pins on multi kit
- Interconnect board not installed the correct way G Key writing wires are not installed correctly
- Correct firmware has not been installed onto multi kit G Correct ROM pack is not installed on the SD card
- SD card is bad

I have a BLACK screen

Your kit is not able to boot after flashing the encryption keys.

- Key writing wires are installed incorrectly
- Key writing wires have been shorted to another component on the multi kit
Key writing wire pad has been damaged during installation
- Incorrect firmware is loaded onto the multi kit
- Interconnect board is not installed correctly

I have JAILBARS, SPRITE GLITCHES, etc.

- Kit has broken pins
- B board has damaged sockets G Kit is not making good contact
- A and B board are not making good contact

Try reseating the A and B boards and using the clips to hold them together. If you have not yet installed your B board into the shell, do this first. Often the A and B will make much better contact with the shells and clips installed.

If none of these fixes has worked for you, please start a thread and detail exactly what you have done so that we can try to work through it. Should your kit require repair, please visit <http://www.arcade-projects.com> making sure you have set your location in your profile, so we know where you are to help you.

The following people can help if you have broken pins and may be able to help with other issues as well such as lost pads (depending on which pad has been lost) **DO NOT PM** these people until you have made a thread and tried to fix the issue unless you have a broken pin or lost a pad etc. which can't otherwise be fixed.

- **USA/Canada:** @Mitsurugi-w
- **Europe:** @CPZ - SAVEYOURGAMES
- **Australia/New Zealand:** @xodaraP

NOTE: Damaged pins from shipping will be provided and/or replaced for free. If pins are damaged during installation there will be a small fee for replacement.

Document created and last edited by @djsheep on 8-Nov-20.

That's it!

- Double check your work
- Install back in cabinet using pictures you took and any marked connectors.
- Power up the game and enjoy!

If the game does not start, turn power off immediately, double check your work.

Helpful link - <https://www.arcade-projects.com/>