

VideoGamePerfection.com – Nintendo RGB Bypass Amp Model 4.0a (retired March 2018)

The Nintendo RGB Bypass Amp is a professionally made RGB amplifier for Nintendo Super Famicom Junior and SNES Mini consoles. The part is ideal if you want to RGB modify your SNES Mini console. The part also works in 1-chip Super Nintendo/Super Famicom consoles and may give a better, more vibrant picture compared to the stock RGB encoder ([check here](#) if you're unsure about SNES console revisions).

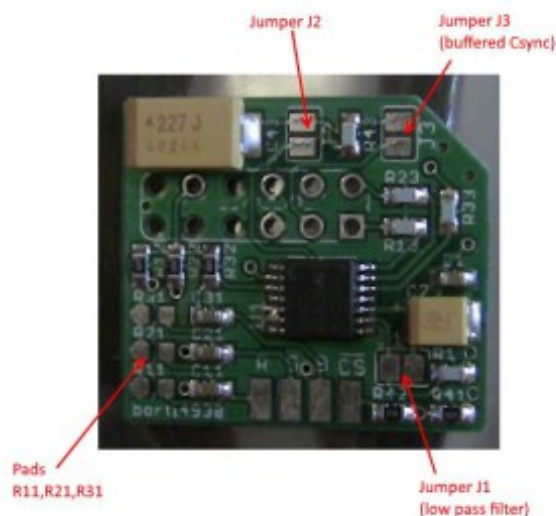
For fitting instructions, [please see this page](#).

Our newest revision of the amp includes several improvements:-

- Uses the THS7374 amplifier, which can generate a sharper image.
- User selectable low-pass filter.
- Optional buffered CSYNC (clean composite sync).

Instructions for use

Please follow the installation guide as provided by Borti4938 [here](#). The guide assumes some familiarity with the internals of the SNES console.



Key points:

1. This amp has been configured for use with an NTSC spec RGB SCART cable. Please use a SCART cable designed for an NTSC Super Nintendo/Super Famicom console, **even if you install the mod in a PAL machine.**
2. Because the amp has been configured for use with an NTSC cable, if you have a PAL console and your RGB cable uses composite video for sync then you will need to select the "I have a PAL SNES" option above and replace R18 on the SNES main board with a 75 ohm 0805 package resistor that will be provided with your order.

3. Brightness fixing – Our old RGB amp produced an excellent picture but one that was slightly too bright. The original design of this new amp included a brightness fix component, however this has been removed from our final version.

For instructions on how to fix the brightness, [see this link](#). Note this fix no longer addresses the ghosting issue too, to fix the ghosting issues, replace capacitor C11 on the SNES mainboard, as per the instructions on Borti's Github.

Pads R11, R21 and R31 have been left on the RGB amp for the old brightness fix if you prefer to use that method. You will need to acquire and then solder 3 x 1.2k ohm 0603 resistors to the pads for the SNES mini/SFJr system or 3 x 750 ohm 0603 resistors to the pads for the NTSC or PAL 1CHIP system.

We're still actively researching which of these fixes is the best overall method and will update this page in 2018 with our findings.

Do NOT install both brightness fixes simultaneously.

4. If you wish to use the buffered Csync on the RGB amp then you will need to solder bridge jumper "J3". You must also ensure that pin 3 of the MultiAV on the SNES is freed before starting the installation. To do this, remove components from the SNES main board as follows.

On PAL SNES systems:

- Remove R28 from the bottom side of the SNES mainboard.
- Optionally also remove D1.

On NTSC SNES systems:

- Remove R11 and R12.
- Optionally remove also Q1, R9 and R10.
- If installing into a 1CHIP-03 system then the above components should not be present anyway.

On SNES mini/SFJr systems

- There is no need to remove anything.

5. If your device doesn't work well with the buffered Csync on the RGB amp then try solder bridging jumper "J2" to bypass C43.

6. This board has been configured with 75 ohm terminated Csync. If your device only accepts TTL Csync then the Csync buffer may not be compatible. If your SNES SCART cable has a resistor on the sync line you can safely remove it when this mod is installed.

If you need a new Csync cable to use with your modified console, you can use the [NTSC SNES PackAPunch cable available here](#). Choose the "CSYNC TTL 2.5 Volt" option when

configuring the cable. Since your console already outputs 75ohm sync you do NOT need a cable that is corrected for this, so the TTL cable is the right one.

7. Jumper "J1" is for the low pass filter.

- Leave J1 open: internal filter of EACH channel is NOT bypassed (low pass filter is ON).
- Close J1: internal filter of EACH channel is bypassed (low pass filter is OFF).

Please note these parts are intricate and require soldering skills to fit. We cannot provide technical support with fitting, if you require a professional fitting service see our [console mods section](#). While we cannot offer technical support for DIY installations/parts, community based support for our mods is available in the [forum here](#).

Based on an open source design by Borti4938. Interested in building your own? Check out the [Github page here](#).