Assembly and User Manual
v1.0 27-Nov-2023
VGA OUTPUT KIT FOR ATARI LYNX

Add VGA output to your Atari Lynx!
(Requires a BennVenn IPS screen kit)

SKU: VGA-MAG-KIT

Product link: https://k-retro.com/atari-lynx-consolizer-kits/36-vga-output-kit-for-atari-lynx.html

We sell kits, replacement parts, tools and soldering consumables at our online store at k-retro.com

Kit Contents

- Magnetic (lock-in) connector
- 6-wire cable with magnetic (lock-in) connector
- VGA connector and sleeve
- 6-wire set for internal wiring (20cm each)

Required Tools and Consumables

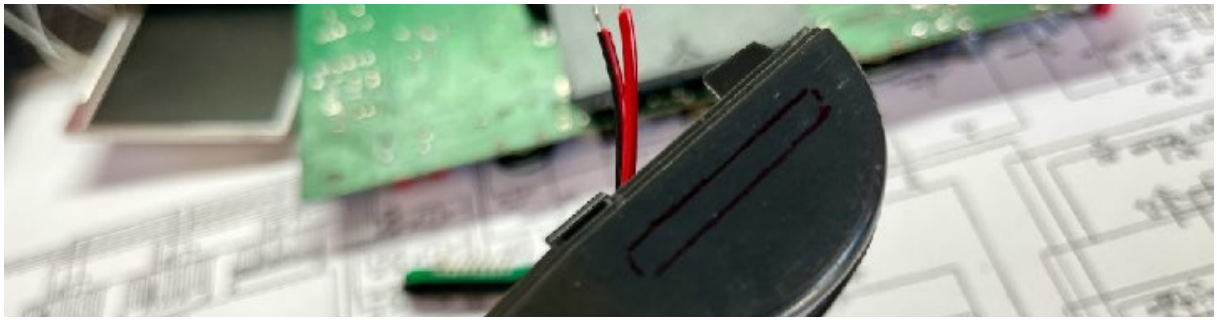
Permanent Marker, Drill, Drill Bit ~5mm, Scalpel or sharp Utility Knife, Soldering Iron, Side Cutters, Hot Glue Gun

Assembly Instructions

1. This manual assumes you followed our disassembly guide and your Lynx 2 is already taken apart. It also assumes that you have a BennVenn IPS screen kit installed. This manual covers just the steps necessary to add a VGA output port on your Lynx.

The magnetic connector will be installed on the right side of the Lynx, into the back part of the Lynx shell.

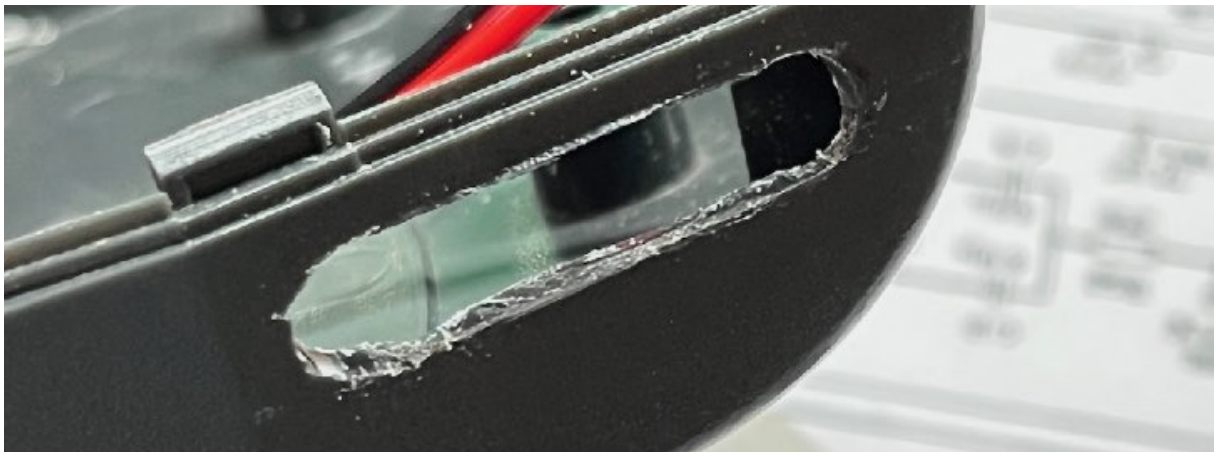
2. Take the magnetic connector that has pins sticking out of its back and place it face first (not the pins but the pads side) against the back part of the Lynx shell where it will be installed eventually. Mark an outline of the connect on the Lynx using a permanent marker. The outline should be 1-2mm narrower on each edge than the connector itself.

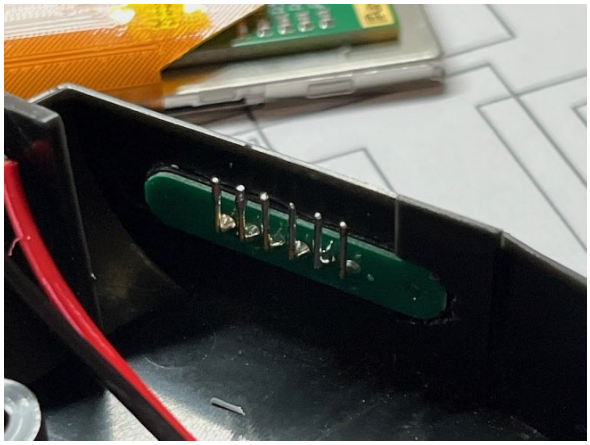


3. Drill a hole at one edge of the connector outline you drew. Continue to drill more holes to cover the whole outline, leaving about 1mm between the hole edges. The drill bit size you use doesn't matter so much, as long as it's narrower than the outline.

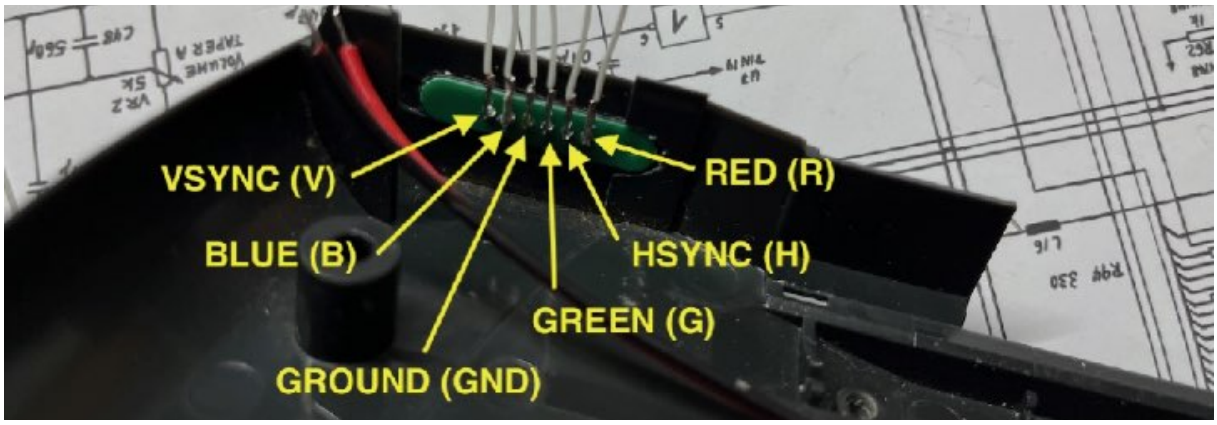
4. Using a scalpel or utility knife, cut the narrow bits of plastic between the drilled holes, then you can make additional cuts to remove small sections of plastic until you've cut the whole outline out.

It doesn't have to be perfect, as long as the magnetic connector doesn't fall through it. You will need to expand the hole past the outline until the magnetic connector fits snugly in.

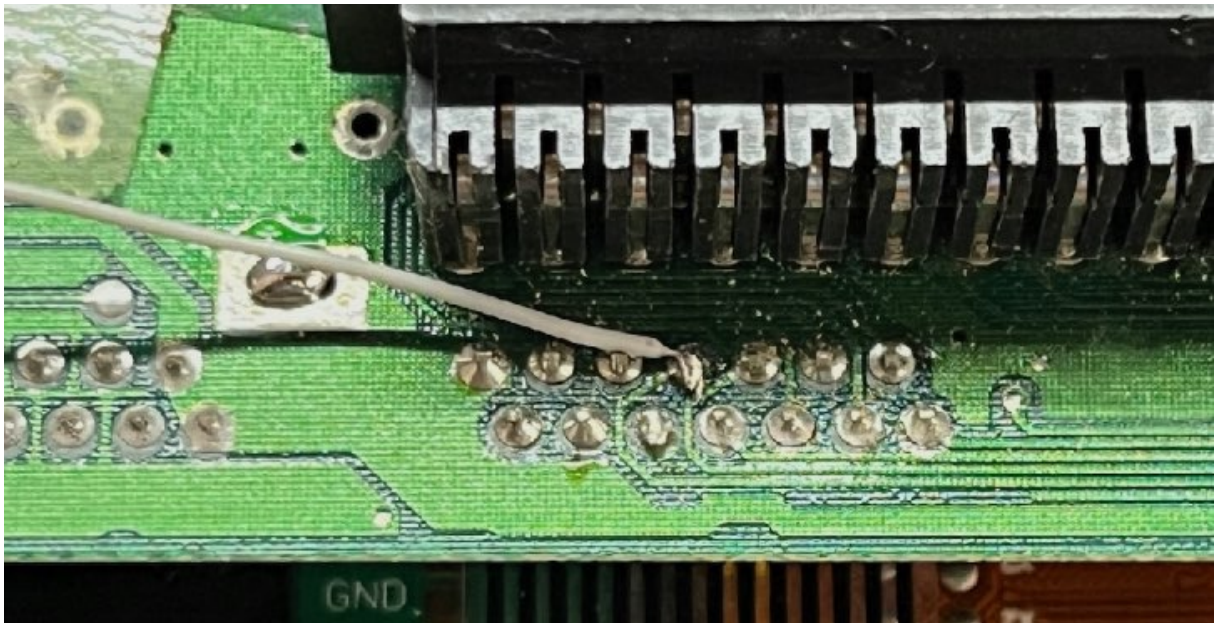




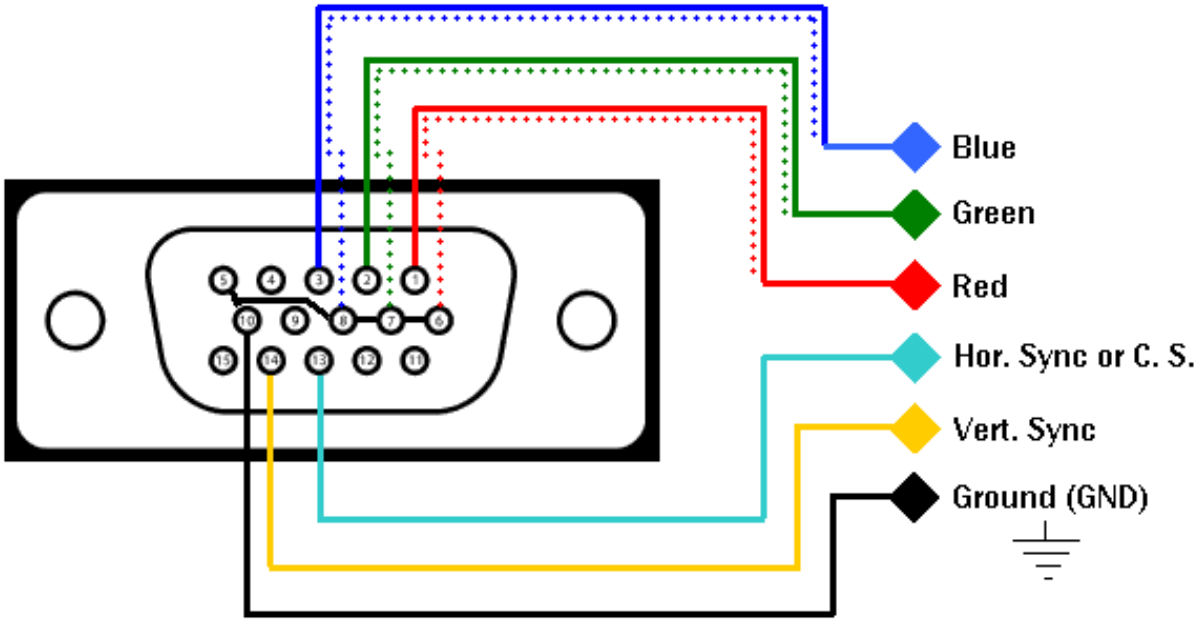
5. Tin the pins on the magnet connector and solder internal wiring onto each of its pins. Then tin the pads on the BennVenn IPS PCB and solder wires from the connector to the pads indicated in brackets in the image below.



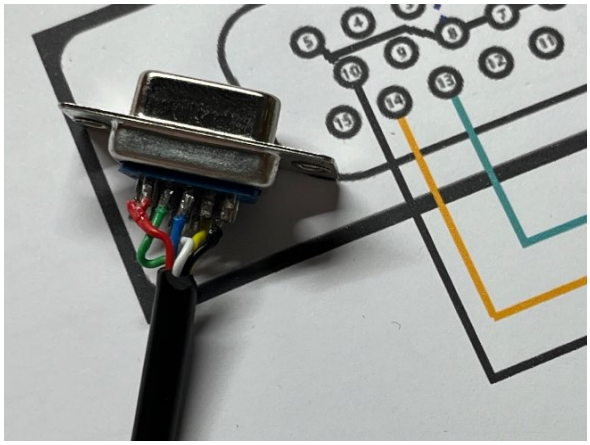
6. Don’t forget that to enable VGA output, the SCANLINE pad on the IPS PCB must be connected to the 4th pin under the Lynx cartridge connector.

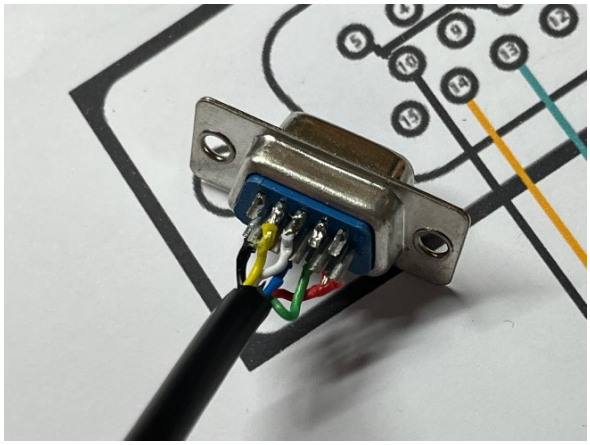


7. The following pinout diagram shows what the VGA connector wiring is. There is no cyan wire in the magnetic connector lead, instead the white wire is used.

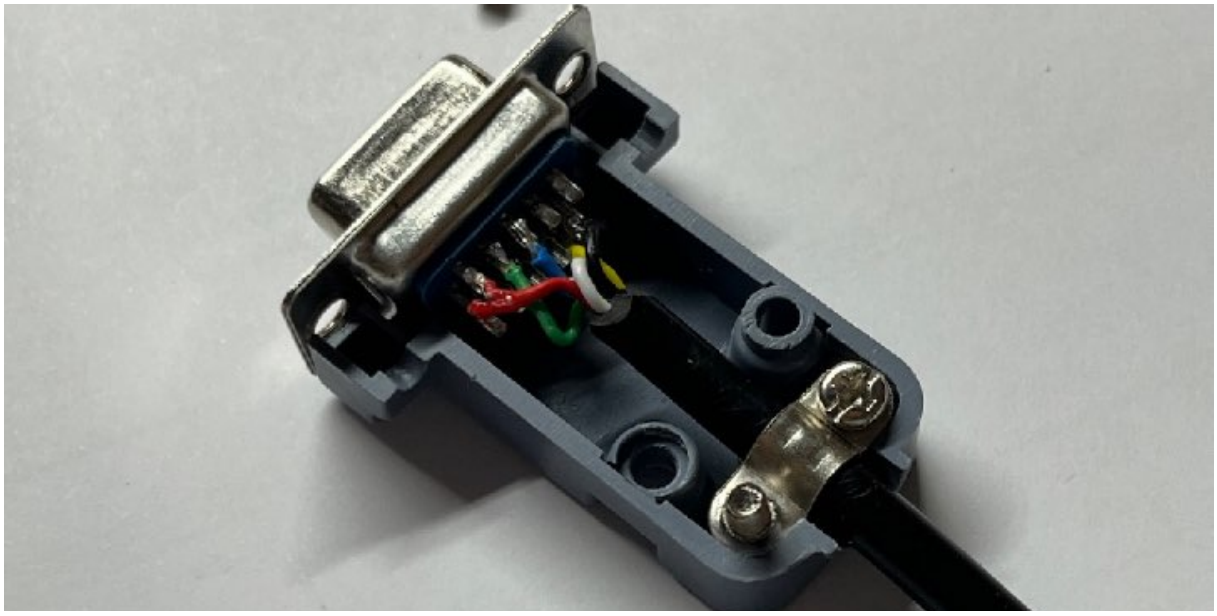


Tin the appropriate pins on the VGA connector and solder wires as per their colour codes. Images below show the top and bottom rows soldered up. For best compatibility and least noise in the output image, it is recommended to solder all of the Ground pins (5, 10, 8, 7, 6) together with some cut off component legs or wire.





8. The plastic sleeve can be fitted to the VGA connector now. Make sure you position and and tighten the metal clamp around the cable so that it fits snug against the inside of the connector. This clamp prevents your soldered joints from being ripped out when un-plugging the cable.



It’s advised to test that VGA output is working before you put the Lynx back together. The Backlight button will cycle through scan-line options, then will switch the BennVenn PCB to VGA output. It takes 3 presses to enable VGA output.

9. Once you’ve confirmed that VGA output is working, using a hot glue gun to secure the magnetic connector inside the Lynx before you reassemble everything.