

My RGB wiring harness from the Garmin GVN 53 to the DV-M3 Mazda 3 7" POPUP LCD

Used Components:

A) DV-M3 Mazda 3 7" Popup LCD



B) GVN 53



C) 1:1 DIN 13 PIN Cable



Important: Take care that all 13 pins are connected 1:1

But you may use also just the connector and a own cable:



D) Small "crimb plugs" for the Garmin c

I used the crimb Plugs from a old CDROM audio connector, you sure know this kind of connector from the old soundcards/CDROMs:



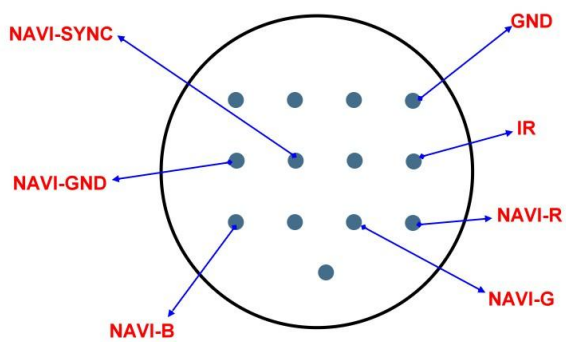
Step 1:

Cut of one end of the DIN 13 pin cable

Step 2:

Select the Pins for RGB:

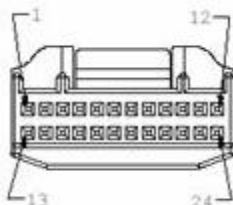
13-Pin RGB Jack On the Back of Pop-Up Monitor



Step 3:

Use the CDROM connector crimps to connect it to the Garmin connector with the follow pin layout:

| Pin | Signal | Function |
|-----|-------------------------------------|--|
| 13 | Composite Video NTSC (PAL optional) | Composite Video Output |
| 1 | Composite Video Ground | Video Ground |
| 14 | RGB Video Ground | Video Ground |
| 2 | Video Blue | Blue color output |
| 15 | Video Green | Green color output |
| 3 | Video Red | Red color output |
| 16 | Serial RX | RX data Data → GVN53 |
| 4 | Video Sync | RGB composite sync |
| 17 | Digital Ground | Digital Ground |
| 5 | Serial TX | TX data GVN53 → Data |
| 18 | IR remote data in | Transceiver NEC data at ~1.4kHz |
| 6 | Audio R | Line level right audio output |
| 19 | Audio Ground | Audio Ground |
| 7 | Audio L | Line level left audio output |
| 20 | Video Active | Signal indicating that GPS needs the display |
| 8 | Mute | Audio mute output |
| 21 | Speaker + | Amplified audio speaker + |
| 9 | Speaker - | Amplified audio speaker - |
| 22 | Not Used | |
| 10 | Park Brake Sensor | Park Brake On/Off |
| 23 | Not Used | |
| 11 | Power Ground | Power Ground |
| 24 | Ignition Accessories Power (ACC) | 12V switched Power |
| 12 | Battery Power | 12V constant power |



My connection:

LCD NAVI SYNC -> Garmin Pin 4 Video Sync (RGB)

LCD Navi GND -> Garmin Pin 14 video ground

LCD NAVI B -> Garmin Pin 2 Video Blue

LCD NAVI R -> Garmin Pin 3 Video Red

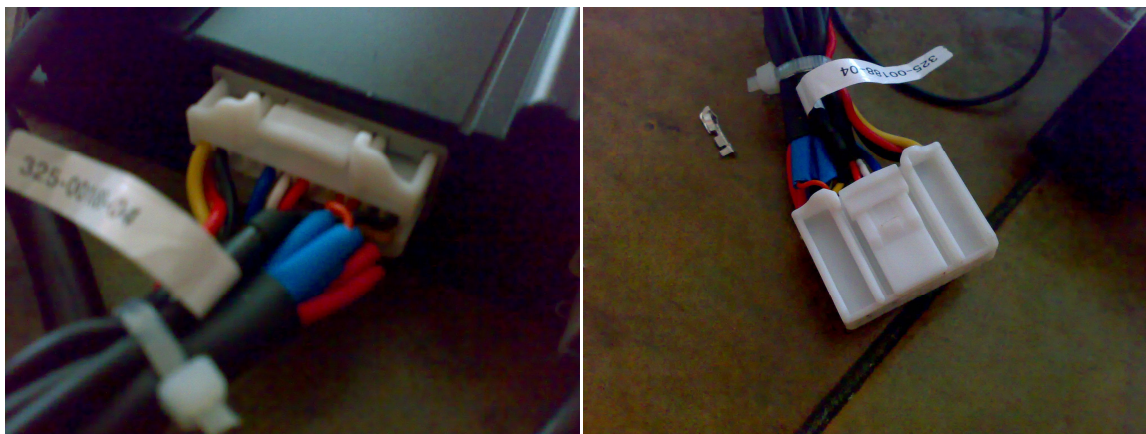
LCD NAVI G -> Garmin Pin 15 Video Green

Optional:

LCD GND -> Garmin Pin 17 digital ground

LCD IR -> Garmin Pin 18 IR

Here some Pictures:



Please tell me if this works with your GNV53 Unit!
Or maybe you have a GNV52 to test it?

Mail me:

email@madxmad.de

My challenge:

I have just the GNV52 but tested this like it would be a GNV53 and get no RGB Video.

Possible Reasons:

- This pinlayouts are wrong and doesn't work for this combination of lcd + garmin GNV?
- This pinlayouts are correct for GNV53 but the GNV 52 has no RGB (my favorite)
I heard from some guys that the 52 (like the kenwood unit, which is based on the 52) has RGB on the motherboard, but I would need here more info to pick it from there, please send me if you found some info for the GNV 52 unit: email@madxmad.de
- I have the correct pin layout but connected something wrong?

Any other idea? Share it with me: email@madxmad.de