How to use an Android Tablet
# for Back Camera in Volvo with old RTI Ver. 1.0

In this document we will only show you how you can use an Android Tablet for showing "Back Camera" in a Car with automatically get Android to show "Camera" when in Reverse Gear.

This will only work with Tablet's which are with Phone where you have MIC IN on the 3,5mm Jack or with Jack which are with MIC IN.
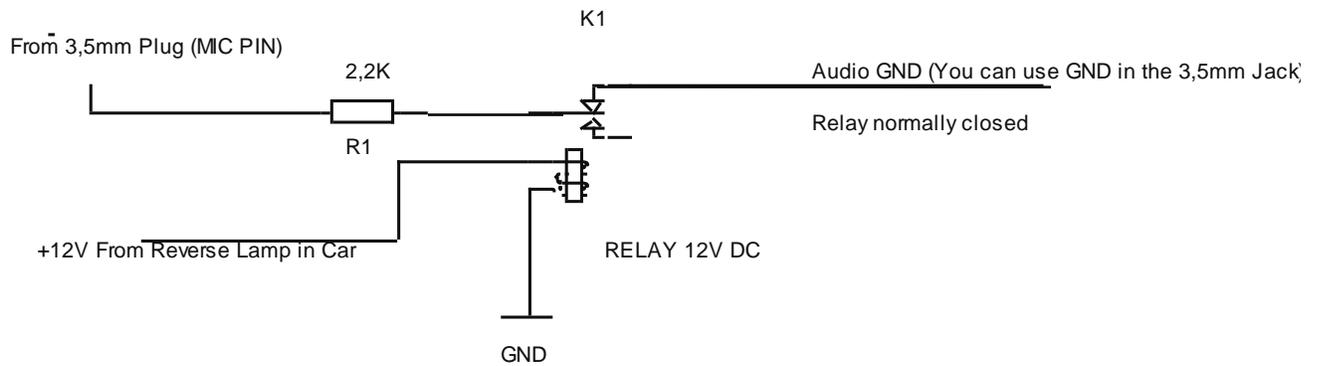
To be able to have your Tablet to operate an USB camera first you need an OTG Cable and also your Tablet has to be able to handle OTG.

NOTE:

As we have been tested this with a normal WebCam Camera to see if we could get our cheap Android Tablet to recognize our WebCam we has discovered that it was not easy, there is a lot of App's but they don't work with our Tablet even if it can be used with OTG Cable and works with mouse and Ex. Keyboard. In some App's there are some people which say it works but only with some Cameras and Tablets therefore we has closed down this project for our Volvo. But for those of you who have the right Tablet and Camera it will work.
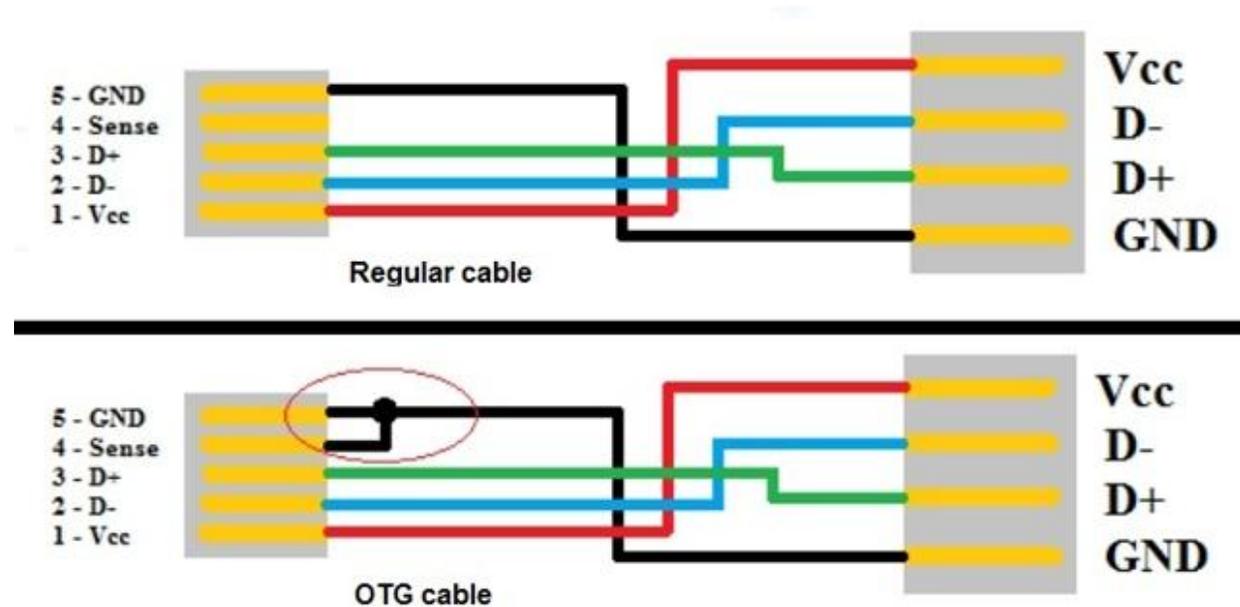
Then you need a Relay connected to one of your Reverse Lamps in the back of the car or any other method to get signal to the Relay when the car are in Reverse Gear.

K1

From 3,5mm Plug (MIC PIN)

2,2K

Audio GND (You can use GND in the 3,5mm Jack)

Relay normally closed

R1

+12V From Reverse Lamp in Car

RELAY 12V DC

GND

+12 V from Reverse Lamp will activate the Relay as long as the Gear is in Reverse. R1 simulates resistance in a MIC.

Schema how to connect an empty 3,5mm Plug without external "Speakers" or "AUX IN" further down in the document.

Then you need to connect a 3,5mm Plug which has a Mic input PIN.

GND

Mic PIN

Audio Right out

Audio Left out

Then you need to download a free App which has no Ads or purchase in it and it is named "Smart Connect tm. " This app you will program different sequences for Start and End of an event.

1. Open the App
2. Go to "Accessories"
3. Choose "Headset"
4. Go to "Event"
5. Set "Start an App" (Here you set the USB Camera App)
6. Set "End Actions" (We used "Here we go")

When the car starts and the 3,5mm Plug are connected to the Android it will start with the "End Action", in our case "Here we go". When you put the Gear in Reverse the Relay will be activated and disconnect the GND to the PIN for Mic in the 3,5mm Plug and the "Start Action" will be activated and it this case the "USB Back Camera", this will also "Mute" the sound out. When the Reverse Gear has been disconnected the Relay will be deactivated and GND to the PIN for MIC will again be connected and the "End Action" will be activated, in our case "Here we go".

Note the Backward sequence in operation, if you set "Start Action" with "Camera" the sequence for GND connected with Mic will "Mute" the sound and you will not be able to listen to any Music, only when the Back Camera is activated.

Schema if you only use a 3,5mm plug without connecting to any Speakers or Aux IN.
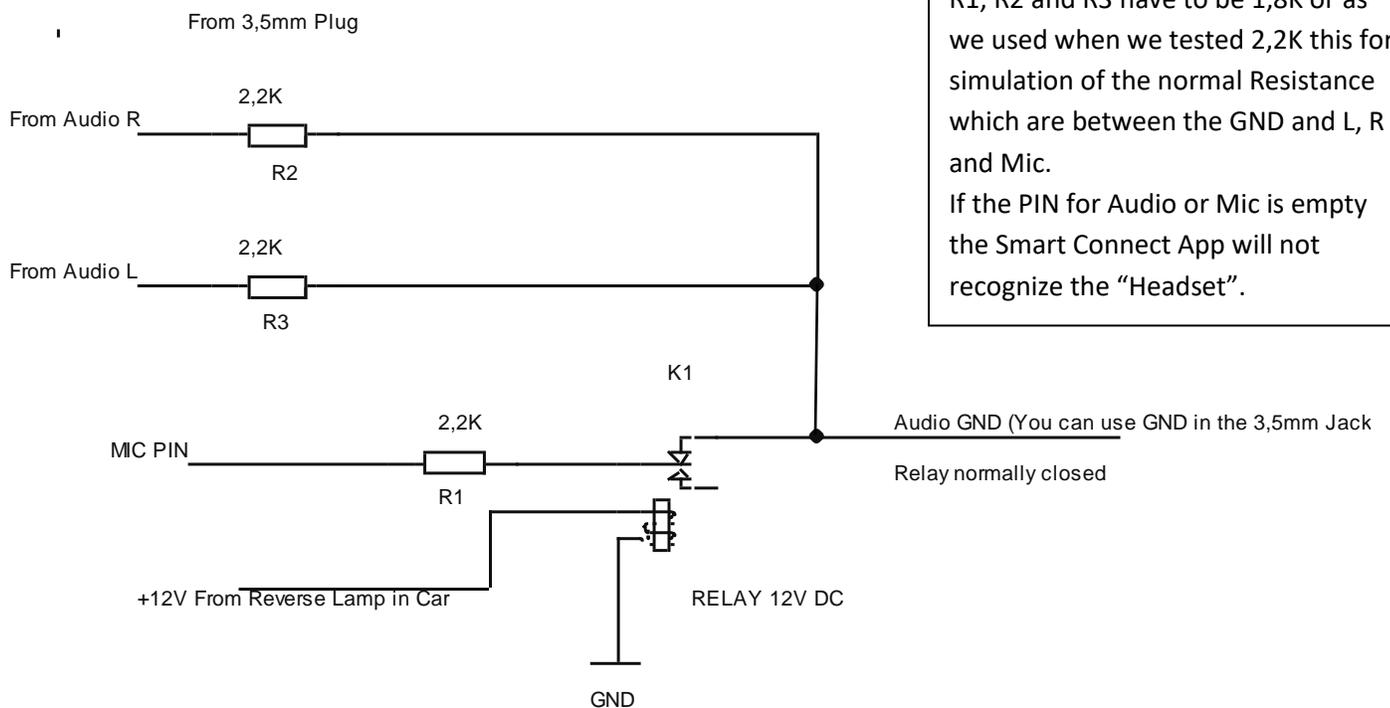
R1, R2 and R3 have to be 1,8K or as we used when we tested 2,2K this for simulation of the normal Resistance which are between the GND and L, R and Mic.
If the PIN for Audio or Mic is empty the Smart Connect App will not recognize the "Headset".

From 3,5mm Plug

From Audio R — 2,2K R2

From Audio L — 2,2K R3

MIC PIN — 2,2K R1

K1

Audio GND (You can use GND in the 3,5mm Jack

Relay normally closed

+12V From Reverse Lamp in Car

RELAY 12V DC

GND

For you who would like to use your Android Tablet just for automatically start "Navigation" when you start the car and let the Android Tablet go to sleep after you close the car you can use the "Smart Connect tm. " and another App named "Screen Off and Lock".

Setup Smart Connect:

1. Open the App
2. Go to "Accessories"
3. Choose "Charger"
4. Go to "Event"
5. Set "Start an App" (Here you set the Navigation App or any app which you want to be started)
6. Set "End Actions"
7. Set start an App (Here you set the "Screen Off" App)

This will start the "Nav" when you start the car and "close down"(sleep) the display when you shut down the car.

In the "Smart Connect" there is a lot of other opportunity to setup.

Rather pity the external camera could not work, as it had been nice to be able to combine Back Camera/Navigation/Internet in the same cheap unit for 35,- Euro and a camera for 5,- Euro. A 2 din radio/Nav unit to replace the Radio would cost 350,- Euro.

We hope this info would help some people and if you wonder something you can always send us an e-mail smed@nasab.com and we will see if we can help you.

Good Luck!