

# Quick installation guide Opel Insignia /Astra J



April 2016, Insignia / Astra J  
Retrofitting Fog lights Ver 1.2

# HAPPYFOG

Opel Astra J, Opel Insignia, Chevrolet Cruze  
Chevrolet Orlando, Saab 9.5 +++++

Nebelscheinwerfer seriennah Nachrüsten  
Kurvenlicht zu und abschaltbar

No car programming is necessary !

Plug and Play

# HappyFog Module - Conditions

1. Original fog lights are installed in the vehicle
2. If desired replace your Lightswitch with the original one that has a front foglight button.

You will need a HappyFog Module with our wiring harness.

Now the installation can start.

# HappyFog Module - engine compartment harness fitting

1. Remove the battery and loosen Cooling water tank.
2. The two wires can now be placed in the interior.
3. The common minus of the Foglights can be mounted at the battery minus.  
**If you have LEDs be aware of the correct polarity !**
4. Fasten Cable with cable ties.



# HappyFog Module - Interior 1

## Proposal:

Check if the Foglights are connected correctly.



1. Strip both black wires a little bit.
2. If you touch Pin 16 of the diagnostic link connector with the wire the corresponding Fog light should be on. See illustration.
3. This way you can check if both Fog lights are connected properly.

If Fog light don't turn on please check the ground connection and the fuse of the Diagnostic Link Connector.

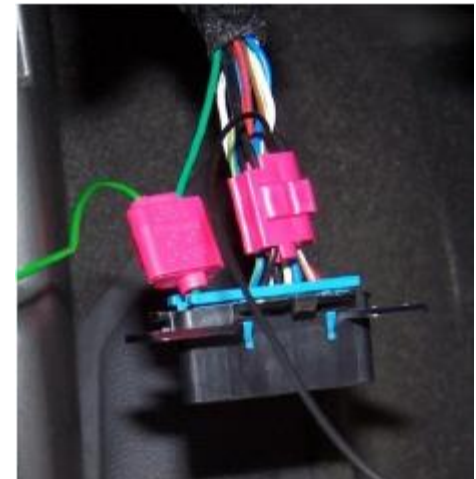
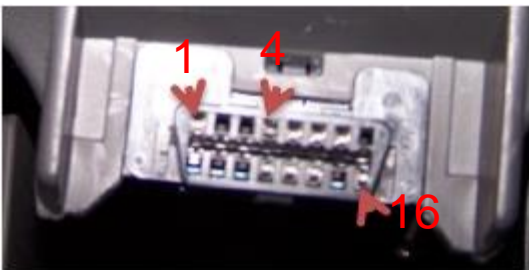
If only one Fog Light turns on then check connector and Lamp.

# HappyFog Module - Interior 2

## Connecting the required cables behind the diagnostic connector

Connect our wiring harness with the delivered Scotchlok connectors to the car, as you see it in the illustration below. Unclip the Diagnostic link connector and strip the wires around 10cm.

1. Green (our connector Pin 8) with Green at the diagnostic connector (Pin 1)
2. Black (our connector Pin 5) with Black at the diagnostic connector (Pin 4 or 5)
3. Put in Minifuse (Security branche – clamp 30 Appendix 6)



# HappyFog Module - Interior 3

## **Connect Fog Lights with the HappyFog Module:**

Connect the fog lights with the Scotchlok connectors to our wiring harness.

1. Black / Yellow (our Connector Pin 10) with the left fog light.
2. Black / Red (our Connector Pin 2) with the right fog light.

Now the minimal installation is done !

You decide now how you would like to switch your fog lights.



**There are two possibilities to switch the fog lights**

# HappyFog Module – Switching Fog Lights Version 1

Only with the switch for the Rear Fog Light ( DIP Switch 2 down/off )



| Switch<br>Rear Fog Light | Rear Fog Light | Front Fog Light |
|--------------------------|----------------|-----------------|
| 1. Touch                 | On             | Off             |
| 2. Touch                 | Off            | On              |
| 3. Touch                 | On             | On              |
| 4. Touch                 | Off            | Off             |

When the Fog lights are switched on you will see the telltale in your Instrument.  
If not you will have to program the Instrument (IPC) in a Opel/Vauxhall dealership.

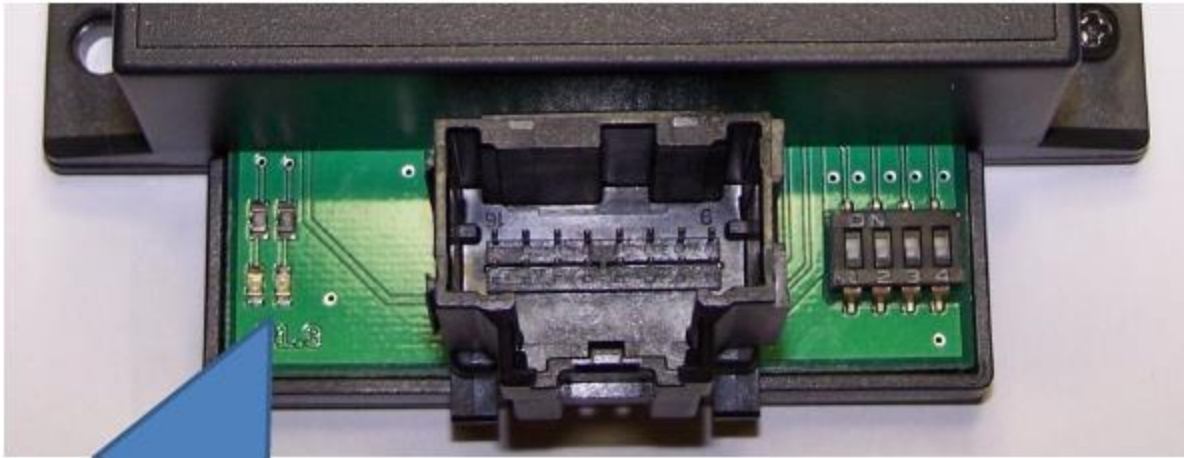


# HappyFog Module – Switching Fog Lights Version 2

Replace your Lightswitch with the original one that has a front fog light button. Put Dip Switch 2 to up / on. Now you have to connect the white/brown wire of the lightswitch with blue/white (Pin 7) wire of the HappyFog harness.



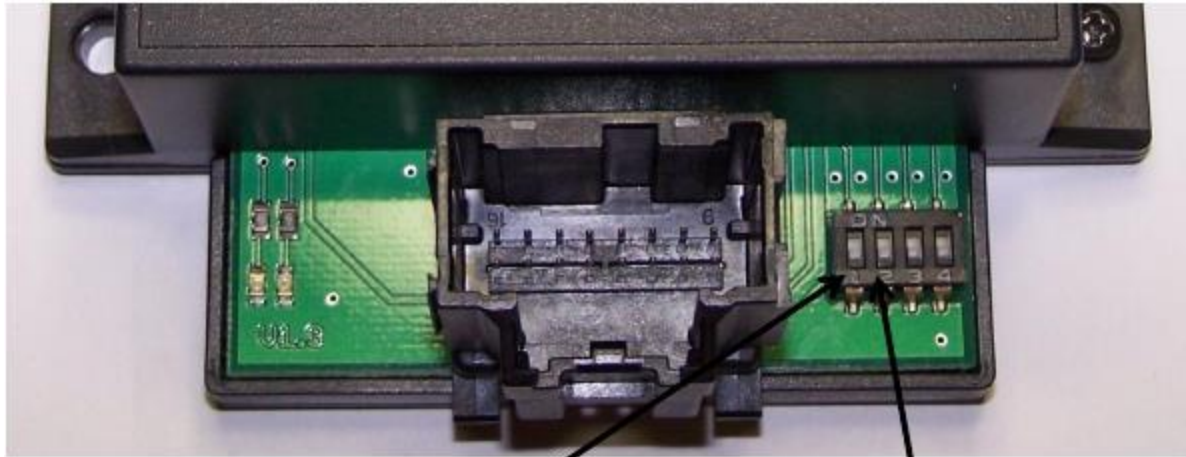
## Appendix 1 – Understanding the LEDs



Green on / an -> Modul on / an  
Green off / aus -> Modul off / aus

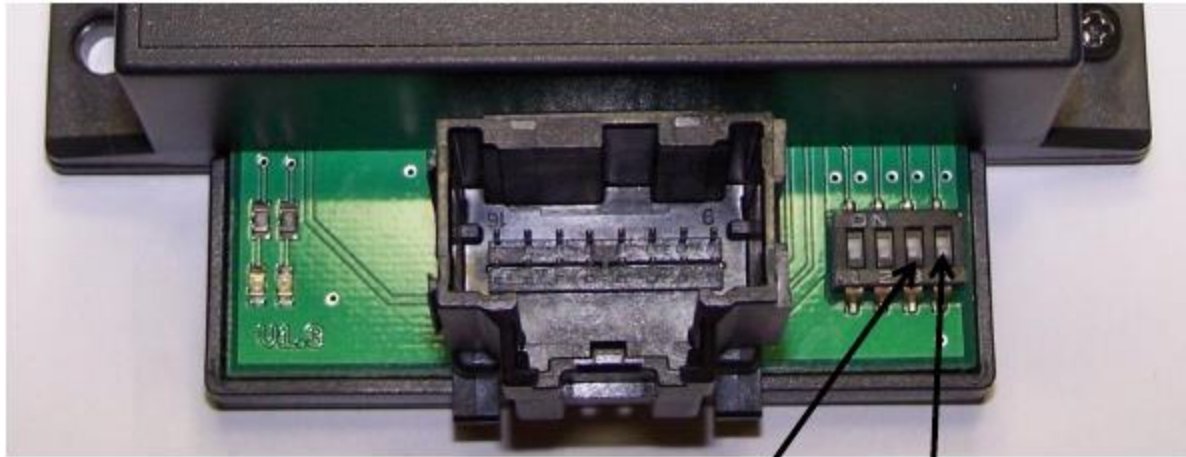
Red toggles when Bus Connection is OK

## Appendix 2 – Settings with DIP switch



|          | S1                  | S2                         |
|----------|---------------------|----------------------------|
| Up/on    | Fog and Curve Light | Regular GM switch with fog |
| Down/off | Only Fog light      | Special action             |

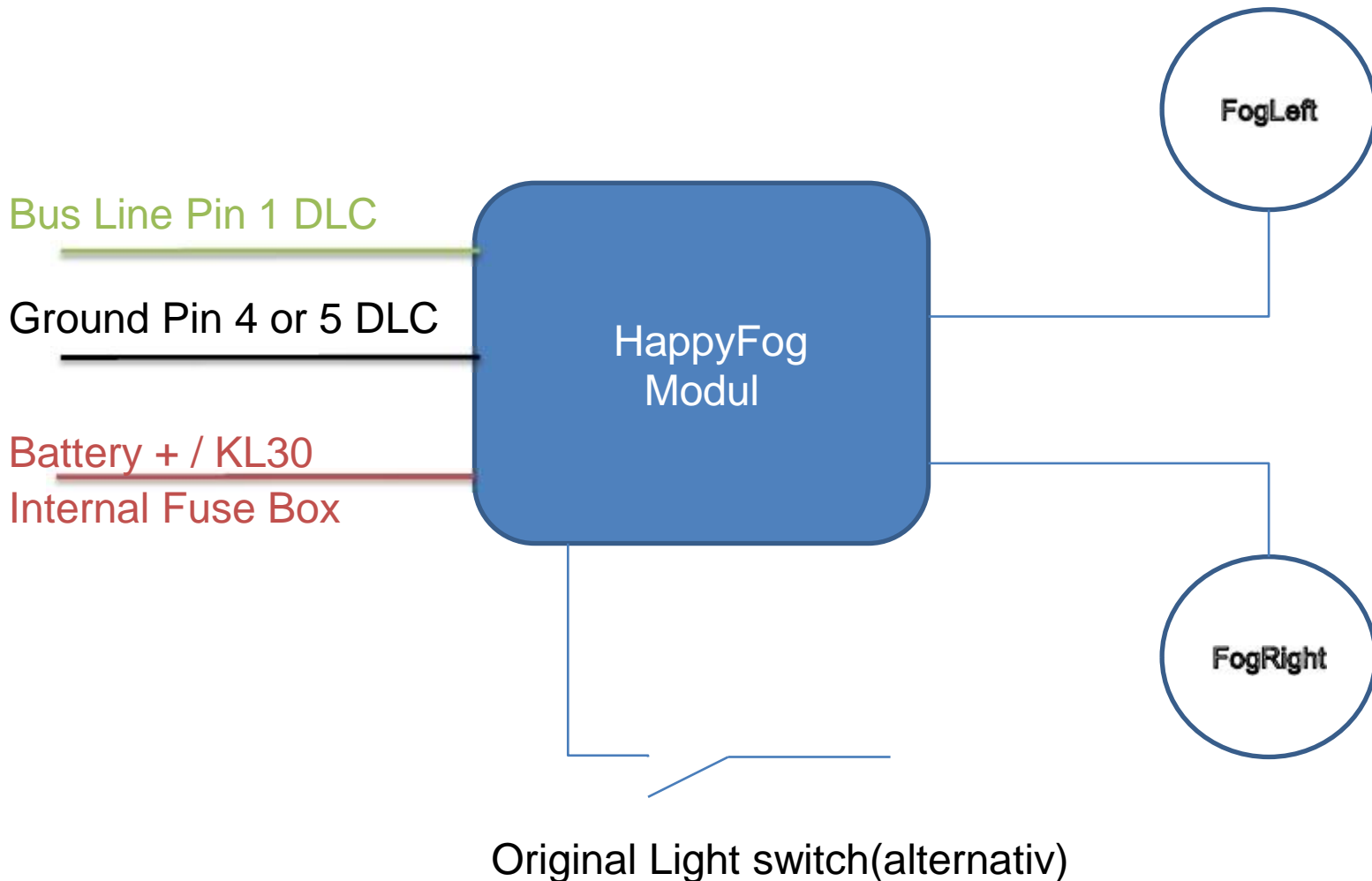
## Appendix 3 - DIP Switch - WTTC



**WTTC** means – Welcome To The Car & Follow me Home (Ambient Light) Fog lights will be switched on for the selected time when the car is being opened or closed twice with the remote key. (10s, 20s or 30s)

| S3       | S4       | WTTC |
|----------|----------|------|
| Down/off | Down/off | off  |
| Down/off | Up/on    | 10s  |
| Up/on    | Down/off | 20s  |
| Up/on    | Up/on    | 30s  |

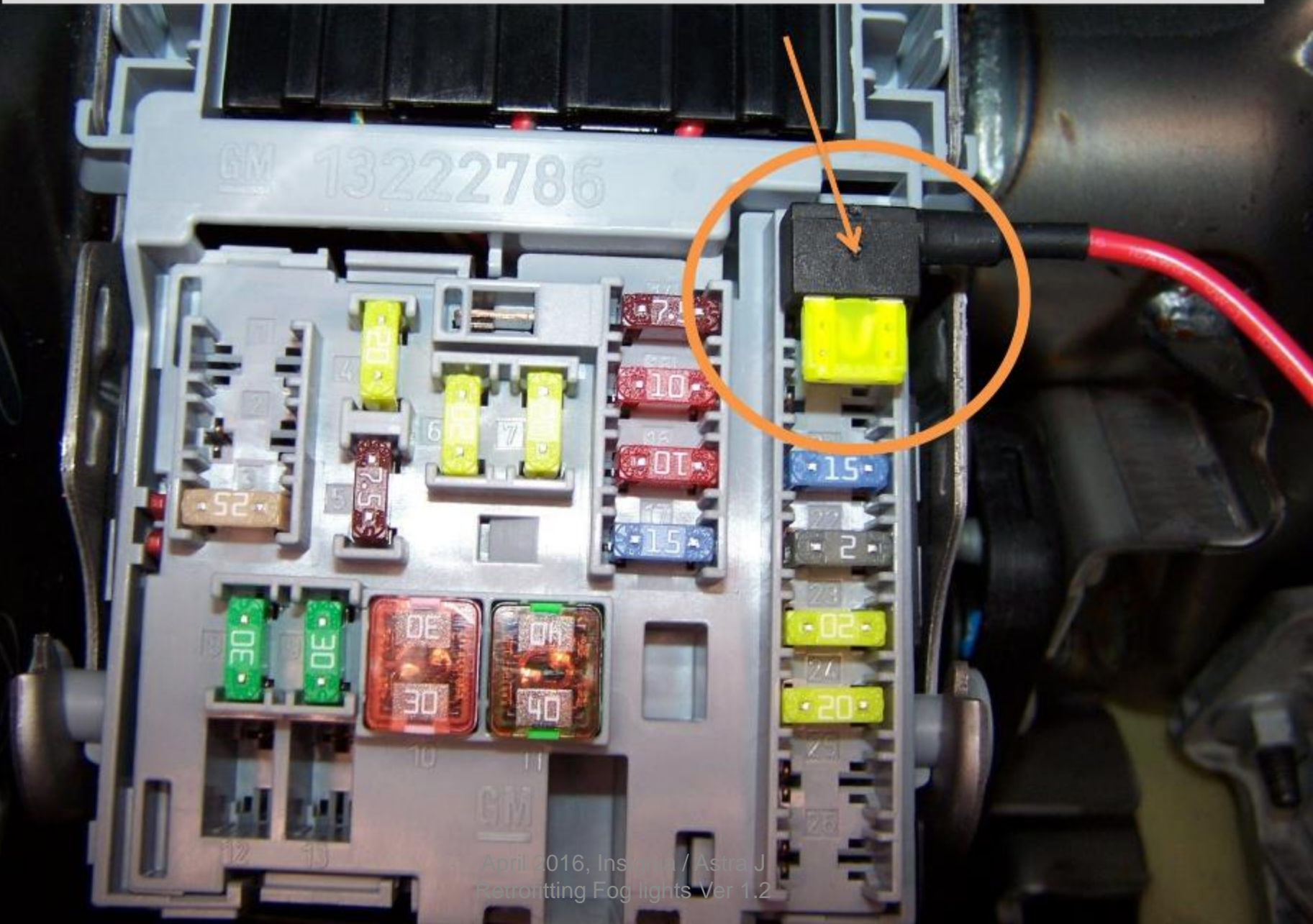
# Appendix 4 – Block Diagram



# Appendix 5 – Pin Assignment

|         |                   |       |
|---------|-------------------|-------|
| Pin 1:  |                   |       |
| Pin 2:  | Right Fog Light   |       |
| Pin 3:  |                   |       |
| Pin 4:  |                   |       |
| Pin 5:  |                   |       |
| Pin 6:  | Battery           | KL 30 |
| Pin 7:  | Input Lightswitch |       |
| Pin 8:  | LS-CAN (Bus Line) |       |
| Pin 9:  |                   |       |
| Pin 10: | Left Fog Light    |       |
| Pin 11: |                   |       |
| Pin 12: |                   |       |
| Pin 13: | Ground            | KL 31 |
| Pin 14: | Battery           | KL 30 |
| Pin 15: |                   |       |
| Pin 16: |                   |       |

# Appendix 6 – Battery Connection 30



# Appendix 7 – Fix Module

