



EXX/FXX Navi/NiVi/KAFAS activator

Map based SLI Adapter

Software Version 4.07.00.

User and installation manual

Revision 11 11/2015



READ THIS INSTALLTION MANUAL CAREFULLY BEFORE YOU START!

It is strongly recommended to perform this installation by using services of installer with appropriate knowledge and experience in automotive electronics. Installation should be performed with disconnected battery due to safety reasons.

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Designation

EXX/FXX Navi/NiVi/KAFAS activator Map based SLI Adapter has several switchable functions:

- **navigation activation in BMW cars with HU CIC (Exx, F30), with HU NBT (all Fxx)** (when replacing HU)
- **video in motion in BMW cars with HU CIC (Exx, F30), with HU NBT (all Fxx)**
- **BMW Night Vision module (NiVi) activation in BMW Exx an Fxx cars** (when replacing NiVi or installing in other car)
- **KAFAS1/KAFAS2 module activation in BMW Exx an Fxx cars** (when replacing or installing in other car)
- **protocol matching for correct functioning of Sport Displays in BMW Fxx cars with NU NBT** (when installing HU NBT on pre facelifted car)
- **gyro sensor protocol matching for correct functioning of navigation system in HU NBT** (when installing HU NBT on pre facelifted car)
- **KAFAS1 emulation for display Speed Limit Info (SLI) on BMW Exx and Fxx cars**
- **KAFAS1 and HU NBT protocol matching** (when installing HU NBT on car with KAFAS1)
- **KAFAS1 and BMW Exx/Fxx HU CIC protocol matching for removing the restriction of SLI function in some countries.**

Technical description

«EXX/FXX Navi/NiVi/KAFAS activator Map based SLI Adapter»

Adapter contains 8 switches for configuring its options. Designation of the switches is in Table 1.

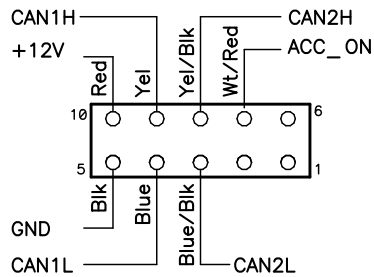


Fig 1 Pinout

Table 1. Switches designation

State	SW0	SW1	SW2	SW3	SW4	SW5	SW6*	SW7*
Set (ON)	CIC/NBT Navi Activation On	CIC/NBT Video In Motion On	NiVi Activation On	NBT Sport Indicators Protocol Conversion On	KAFAS1/K AFAS2 activation On	NBT Gyro Packets conversion On	Map based Speed limit info On	NBT/CIC to KAFAS1 protocol conversion On
Removed (OFF)	CIC/NBT Navi Activation Off	CIC/NBT Video In Motion Off	NiVi Activation Off	NBT Sport Indicators Protocol Conversion Off	KAFAS1/K AFAS2 activation Off	NBT Gyro Packets conversion Off	Map based Speed limit info Off	NBT/CIC to KAFAS1 protocol conversion Off

* only one of this switches can be set

Connection

For adapter installation necessary CAN bus should be cutted. CAN pair from side of NiVi ECU (HU CIC, HU NBT, KAFAS ECU) must be connected to CAN2 pair of the adapter (CANH – yellow/black, CANL – blue/black). Second pair – to CAN1 pair of the module (CANH - yellow, CANL - blue). If there is no KAFAS in car for activation of “Map based SLI” function, CAN2 pair of the module (CANH – yellow/black, CANL – blue/black) must be unconnected.

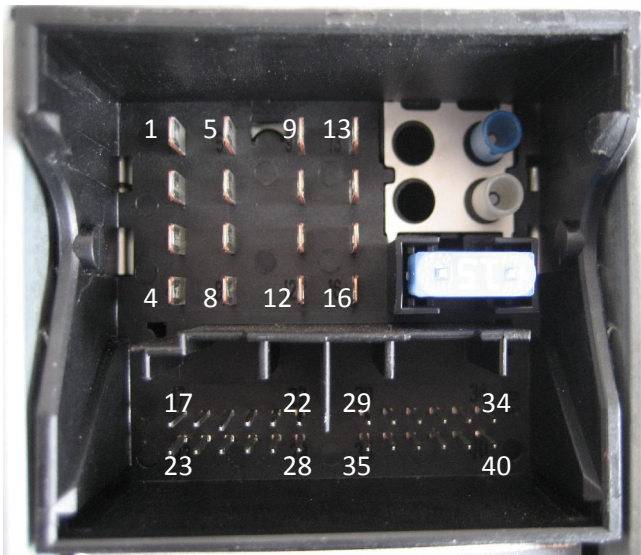
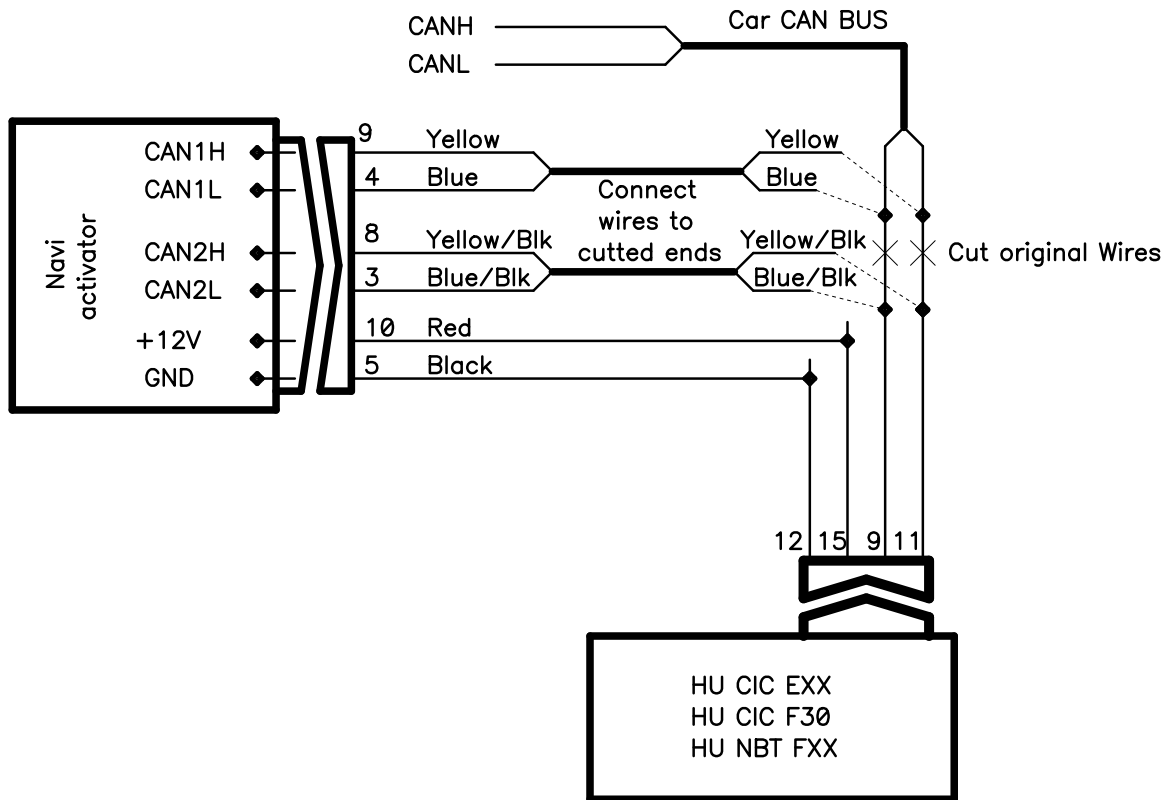
Adapter powered from **constant** +12V supply. +12V – red wire, GND – black wire.

All possible ways of installing are shown on Fig2..Fig6

Table 2

Place \ Function	CIC/NBT Navi Activation	CIC/NBT Video In Motion	NiVi Activation	NBT Sport Indicators Protocol Conversion	KAFAS1/KAFAS2 activation	NBT Gyro Packets conversion	Map based Speed limit info*	NBT/CIC to KAFAS1 protocol conversion*
In series with HU CIC on K-CAN EXX (fig.2)	+	+	-	-	-	-	+	+
In series with ECU NiVi on K-CAN EXX (fig.3)	-	-	+	-	-	-	+	-
In series with ECU KAFAS1 on PT-CAN EXX (fig.5)	-	-	-	-	+	-	-	+
In series with HU CIC on K-CAN2 F30 (fig.2)	+	+	-	-	-	-	-	+
In series with HU NBT on K-CAN2 FXX (fig.2)	+	+	-	+	-	+	-	+
In series with ECU NiVi on PT-CAN FXX (fig.4)	-	-	+	-	-	-	+	-
In series with ECU KAFAS1/KAFAS2 on PT-CAN FXX (fig.5)	-	-	-	-	+	-	-	+
On PT-CAN (FXX car without ECU KAFAS) (fig. 6)	-	-	-	-	-	-	+	-

* only one of this functions can be activated



9 - CANL
11 - CANH

Fig 2 CIC/NBT HU Socket pinout

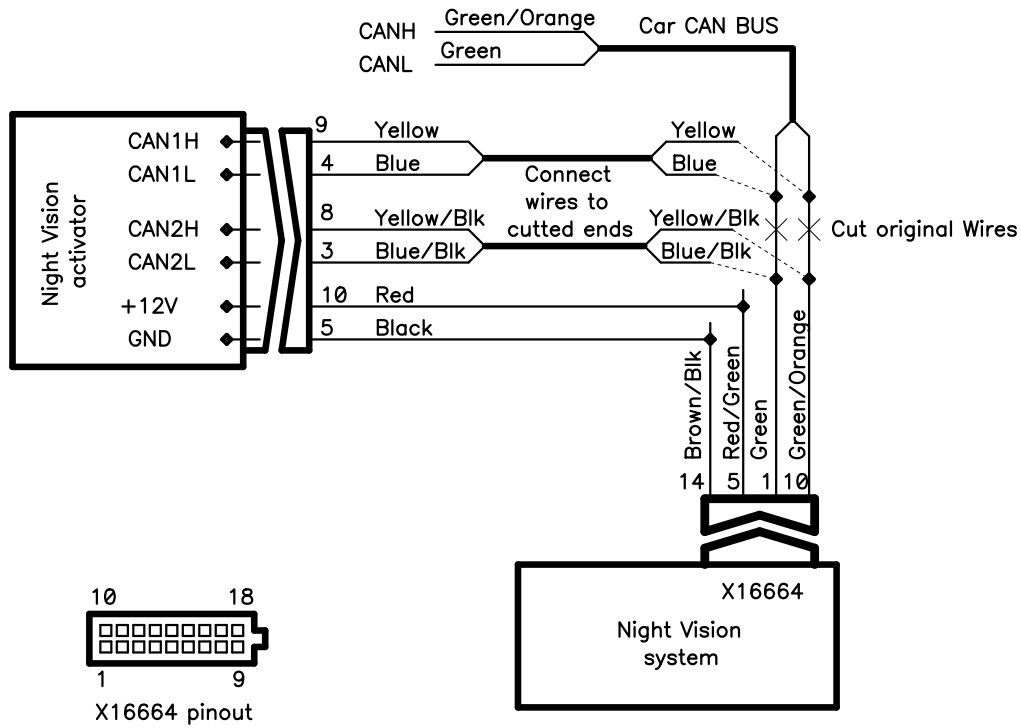


Fig 3. EXX NiVi activation connections schematic

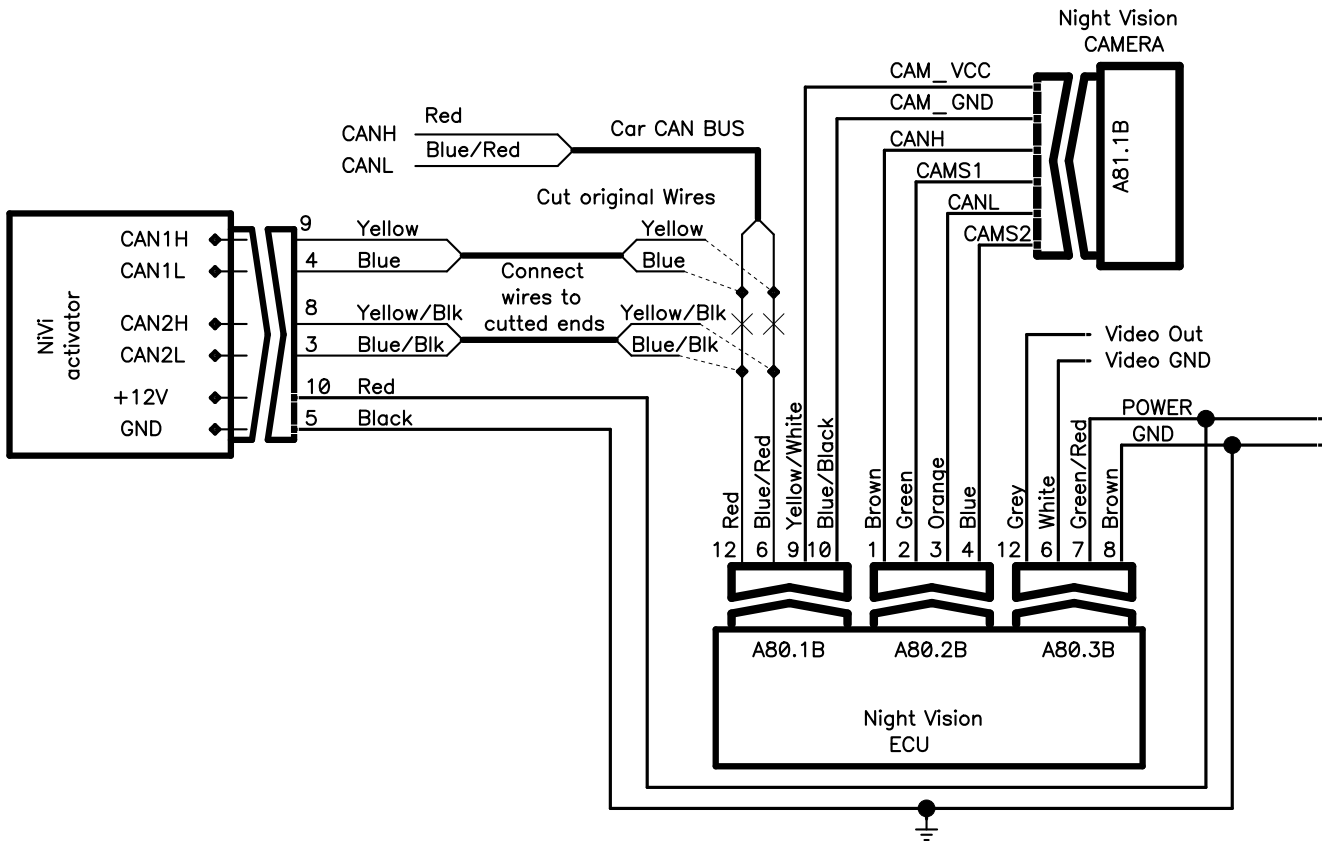


Fig 4. FXX NiVi Activation connections schematic

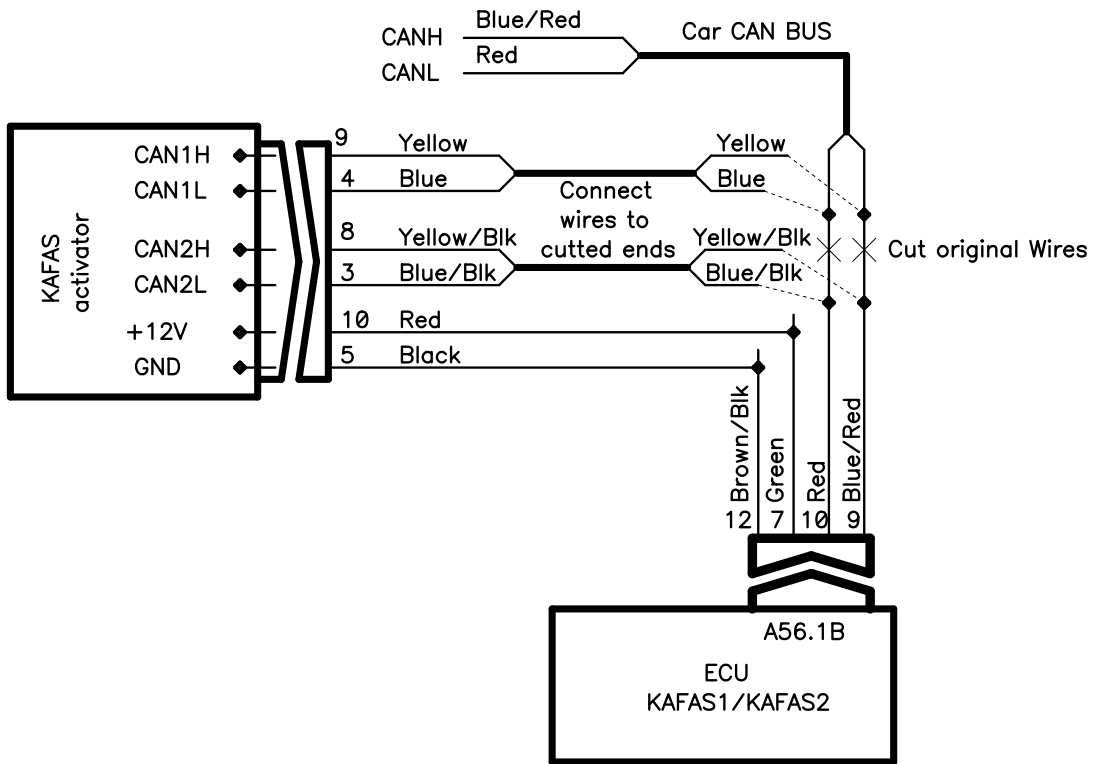


Fig 5. EXX/FXX KAFAS1/KAFAS2 activation connections schematic

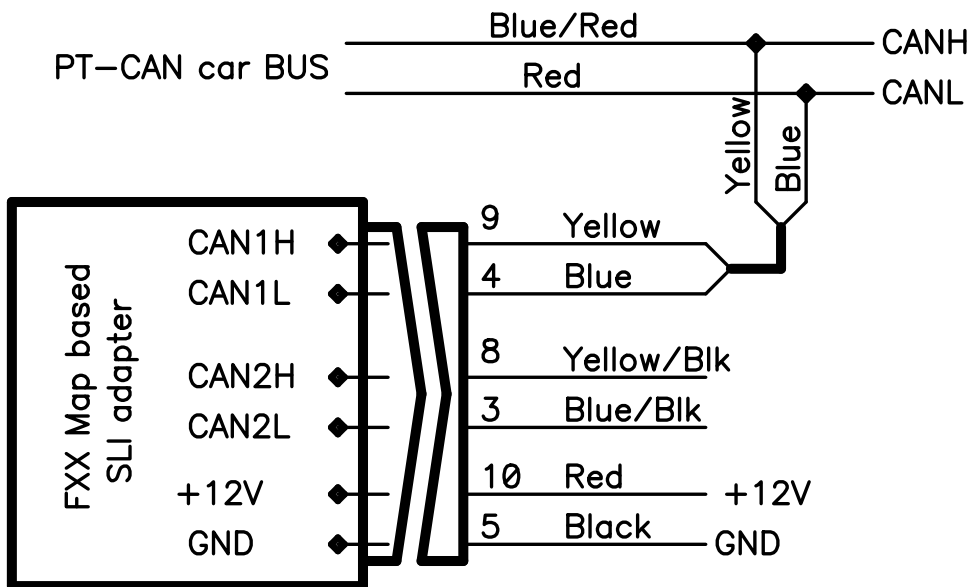


Fig 6. FXX map based SLI adapter connection schematic