

# IGNI-BOX

## FOR THE PROFESSIONAL INSTALLER

### Troubleshooting Guide

**Carkit does not start up.** Start the engine and let it run for one minute then check if there is 12V between the black and the red wire and also between the black and blue wire, in the carkit connector. If there is not 12v on both wires please check the following:

1. If there is supply on the red constant 12v wire but not on the blue ignition wire please re-check connection of Constant 12v and ground see installation point 2.
2. Please check that the blue wire from the 8 pin connector in the IGNI-BOX is connected to the ignition input of the carkit. See installation step 1.
3. Check that the bullets on the supply wires are properly connected. The supply wires are the red, blue and black wires.
4. Check for a blown fuse on the cable-set and cars fuse-box.

**The carkit does not turn off.** The IGNI-BOX LED and Ignition output should switch off a maximum of 4 minutes after the key is removed, extended to 9 minutes when the orange loop wire is cut. Please remove the key from the ignition barrel and wait 4/9 minutes. If it does not turn off. Then please check the following:

1. Please check that the blue wire from the 8 pin connector in the IGNI-BOX is connected to the ignition input of the carkit. See installation step 1.
2. Please check if a yellow mute wire is connected to the 6 pin connector in the IGNI-BOX. The IGNI-BOX will not switch off as long as the mute input is active. The mute input is active when pulled to ground.

**Radio will not turn on or not working properly after installation.**

1. Please check for a blown fuse at the back of the radio or in the car fuse-box.
2. Please check that all connector are properly connected and that there are no bend or damaged pins.
3. Remove the Cable-set and connect the radio to the original car connector. If the radio is now working replace the Cable-set.



### Connector configurations

#### Input connector



+12v		1
GND	Mute	2

#### Output connector



1	IGN	Loop	+12v
2	Mute	Loop	GND

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### Product Description

IGNI-BOX with software version 6.x

**The IGNI-BOX** makes the need for an ignition wire, when installing aftermarket car accessories, redundant.

Many new cars do not have an easy accessible switched ignition wire due to the use of Bus based vehicle control networks such as CAN-bus. This has spawned the need for a fast and versatile Ignition wire substitute.

For this reason we have invented the IGNI-BOX. This small microprocessor controlled unit makes an artificial switched Ignition based on the voltage and noise levels on the constant 12v wire. To make the needed calculations the IGNI-BOX makes up to 4000 measurements pr. second.

The IGNI-BOX will switch on the ignition signal when it senses that the engine is running. That way being very similar to the normal ignition functionality in older cars.

A normal IGNI-BOX item number consists of two items. The 1st item is the IGNI-BOX and the 2nd item is the IGNI-BOX adaptor. The IGNI-BOX adaptor makes the installation plug and play when installing a Kram Telecom cable set. Some IGNI-BOX adaptors even exists for OEM Carkit cable sets. But all the IGNI-BOX really needs in order to generate an artificial ignition signal is a connection to the constant 12v and the ground wire. The installation is that simple.

#### Software Version 6.x release notes:

- Simpler installation as programming during installation is no longer required.
- Will now work on most cars with automatic engine start/stop.
- User selectable switch-off delay for use on cars with automatic engine start/stop.
- Possible to use IGNI-BOX on cars where 12v supply is broken during parking.
- Improved stability.
- Improved battery discharge protection.

The software version is indicated on the IGNI-BOX label see picture below:



"SW: 6.x" indicates software version

### Technical Specifications

#### Description:

**Voltage supply range:**

CE approved, 3G IGNI-BOX with Protected FET output.  
10-16V DC. Protected against reversed power supply.  
Value below are based on a 12V DC

**Max current supplied by ignition:**

1A. Overload protected. Active when High.

**Load dump protection:**

Load dump protected according to ISO7637-2:1990 Pulse 5

**Current consumption :**

<1mA (passive) / 2mA-3mA (active)

**Mute input Activation voltage**

Active : < +1,1VDC      Passive : > +1,1VDC

**Max current supplied to Mute-input:**

3,2 mA. Active when grounded.

**Measurements pr. Second:**

>3500

**Maximum Fuse size:**

5 Amp for constant supply.

**IP class:**

IP51

**Size L x W x H:**

75 x 20 x 14 mm

**EN953-V04**

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### Installation description

#### IGNI-BOX and IGNI-BOX adaptor.

##### Needed items:

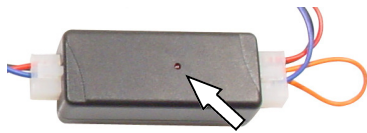
A. Cable set.      B. IGNI-BOX adaptor.      C. IGNI-BOX.

**Note:** The LED on the IGNI-BOX indicates if the Ignition output is On or Off.

##### Installation:

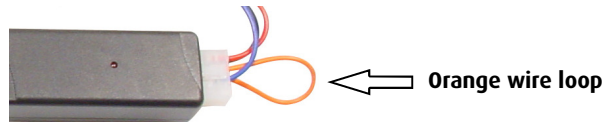
Installation steps 1 to 4 must be followed as described to ensure correct function of the IGNI-BOX.

- 1. Connect the IGNI-BOX adaptor.** Install the cable set **A** according to the instruction delivered with the cable. Install the IGNI-BOX adaptor. Specific instructions for the different adaptors types can be found on the opposite page.
- 2. Check configuration of Constant 12V and Ground.**  
The Red wire in the 6 pin connector should be connected to a 12V constant.  
The Black wire in the 6 pin connector should be connected to ground.
- 3. Connect the IGNI-BOX** to the IGNI-BOX adaptor by connecting the 6 & 8 pin connectors to the box.
- 4. Make a function check.** The red diode of the IGNI-BOX should turn on within 5-30 sec. after the engine is started and should turn off 0-4 minutes after the engine is turned off. Extended to 5-9 minutes if the Orange wire lope is cut see step 5. If the IGNI-BOX does not work as described please recheck connection of Constant 12v and ground see point 2.



LED lights up when ignition is ON

- 5. Choose switch off delay.** The ignition switch off delay can be extended by cutting the Orange wire loop. An extended switch off delay are used for cars with automatic engine start/stop system to avoid the IGNI-BOX turning off the ignition source when the cars is stopped at the red light with the engine turned off. When the orange wire loop is cut the turn off delay is extended by 5 minutes.



See our complete Radio Mute program on our website [www.kram.dk](http://www.kram.dk)

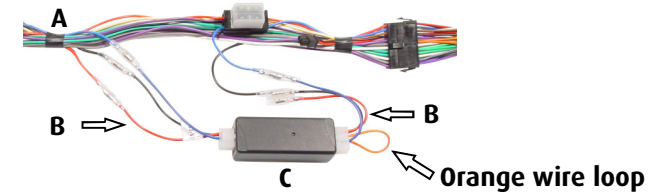
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### How to connect the specific IGNI-BOX adaptors:

#### Item Number: "1" for Audio2Car, 3G Drive & Talk & 3G interface Leads

Disconnect the supply bullet connectors beside the fuses on the Cable set **A**. Connect the IGNI-BOX adaptors **B** to the bullet connectors. **Note:** Some Audio2Car cables may not have a blue wire to connect to the input-side or the red wire on the output side of the IGNI-BOX. For these cables please just leave these wires from the IGNI-BOX adaptor unconnected.



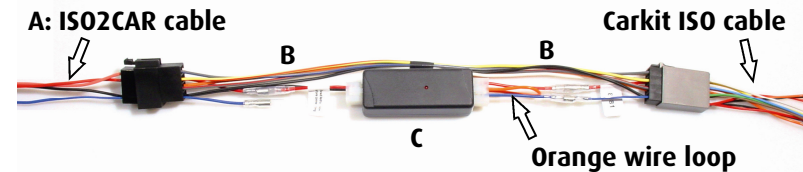
#### Item number: 69615 for ISO2CAR or aftermarket radios.

The IGNI-BOX **C** with IGNI-BOX adaptor **B** is to be inserted between the power ISO connectors. Please check that the red wire in the 6 pin connector is connected to the 12v constant. If there is no 12v constant on the red wire please switch the blue and red wire using the bullet connectors.

**Important:** If the red and blue wire needs to be switched they should be switched on both sides of the IGNI-BOX.

When used with ISO2CAR cables:

The male ISO connector is connected to the carkit ISO cable and the female end is connected to the ISO2CAR cable **A**.



When used for aftermarket radios:

The male ISO connector is connected to the radio and the female end is connected to the ISO connectors from the car.

#### Item number: 69601 for 3G Drive & Talk and 3G interface Leads

Connect the IGNI-BOX **C** to the IGNI-BOX adaptor **B**.

Insert the IGNI-BOX and IGNI-BOX adaptor between the cable set **A** and carkit adaptor **D**.

