

Installation guidelines for Nokia Display Car Kit CK-600

NOKIA

Contents

Purpose of these guidelines	03
Product overview	04

Installation guidelines

Sales package content	06
Connectors	08
Hints	09
Options of installation, I	10
Options of installation, II	12
Options of installation, III	14
Sound connectivity – solution overview for aftermarket car radios	16
Usage of the motion sensor	18
Recommended placement of components	20
Installing the microphone close to the rear mirror	22
Alternatives	23
Setup and check	24

Troubleshooting

Sound	26
Bluetooth connection	27
Contact list	27

Appendix

Power supply 1	30
Power supply 2	31

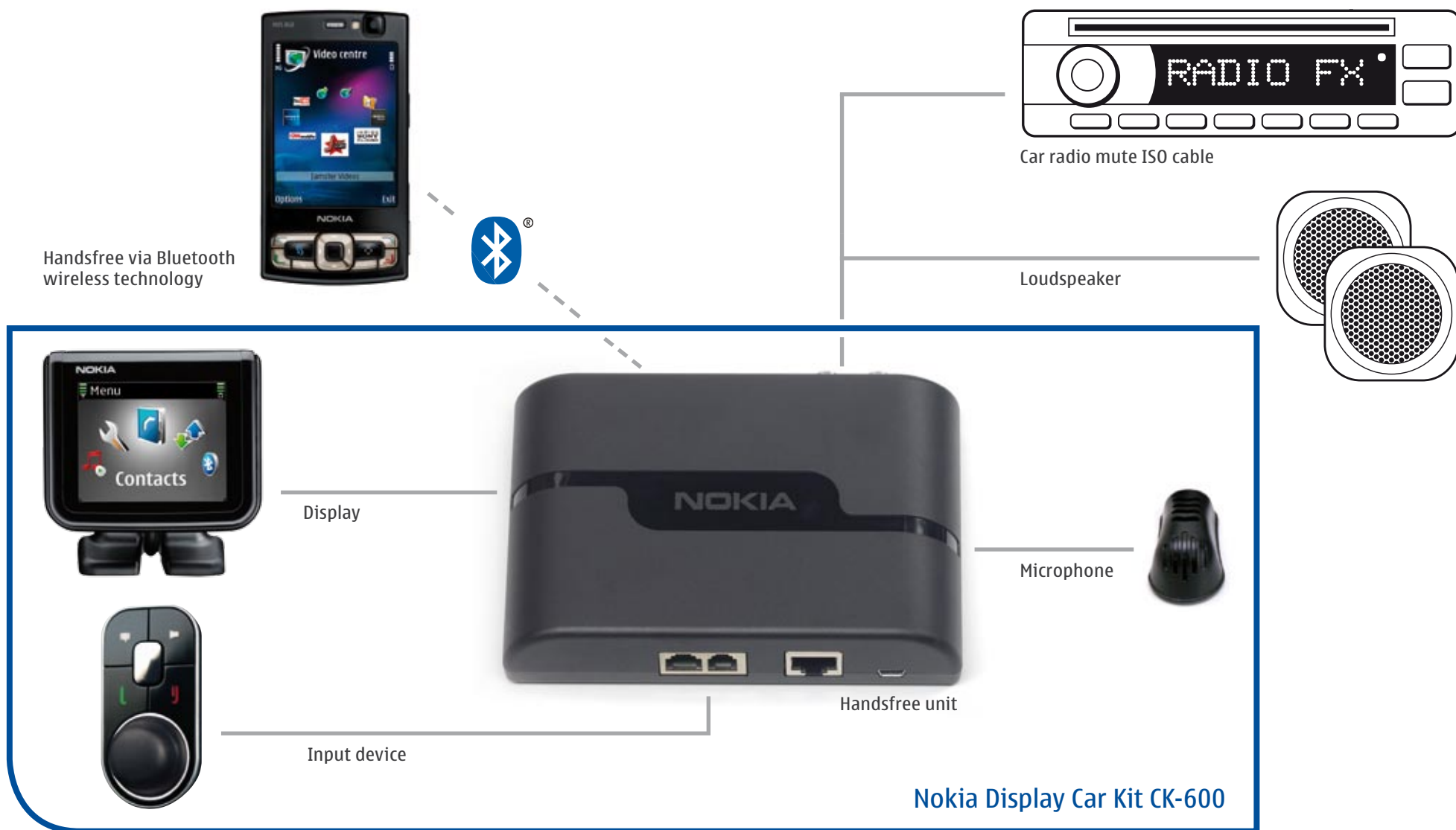
Purpose of these guidelines

To provide the technical background information needed for carrying out professional installation.

Only a qualified service technician should install or service the car kit using the approved original Nokia parts supplied in the sales package. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the car kit. End-users should remember that the car kit comprises complex technical equipment that requires professional installation using special tools and expert know-how.

Instructions given in this guide are general guidelines which apply for the installation of the car kit in an automobile. However, due to the wide variety of car types and models available on the market, this guide cannot consider the individual technical requirements relevant for any particular vehicle. Contact the vehicle manufacturer for detailed information about the vehicle in question.

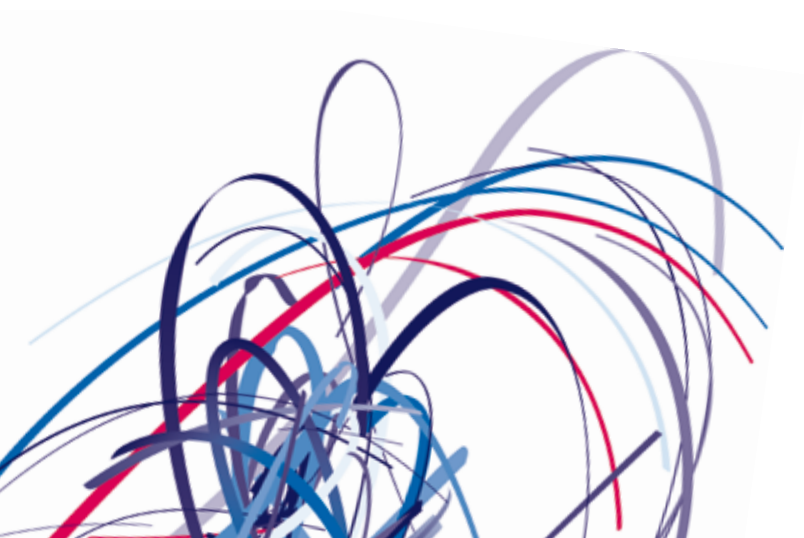




06 Sales package content

1. Input device CU-10
2. Handsfree unit HF-23
3. Microphone MP-2
4. Display SU-34
5. ISO power cable CA-152*
6. Charging cable CA-134
7. Loudspeaker SP-3*
8. Pouch CP-335
9. Display stand HH-18
10. Display plate HH-19

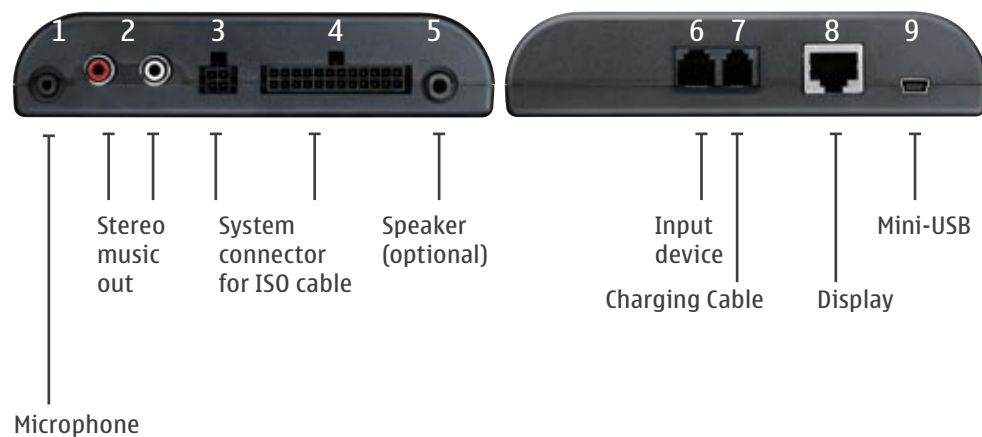
* Depends on sales package variant



Connectors

Connectors for:

1. Microphone MP-2
2. RCA (phono, Cinch) cable
3. ISO power cable CA-152
4. ISO power cable CA-152
5. Loudspeaker SP-3
6. Input device CU-10
7. Charging cable CA-134
8. Display unit SU-34
9. Mini-USB cables



Hints

General

Cables in the sales package are coded and therefore cannot be mixed up. Do not force connectors into other slots.

Mini-USB

Use this connector to flash the latest software into the hands-free unit; remove cable after flashing.

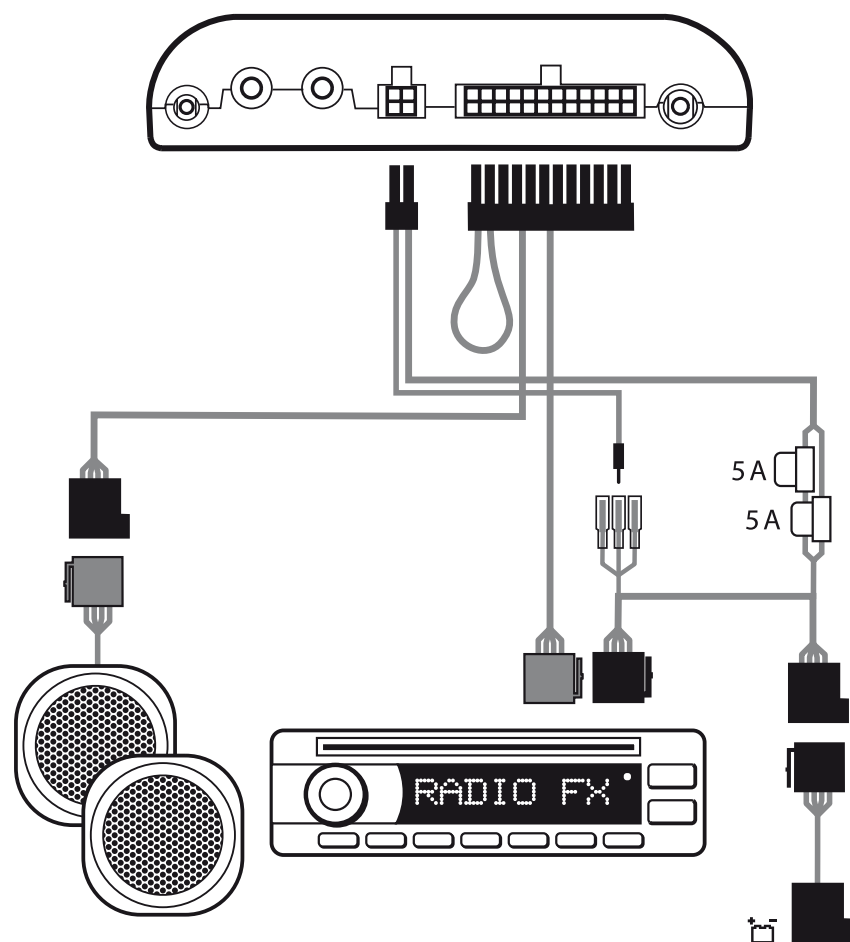
Type label

The type label on the back of the hands-free unit shows the pinning of the system connector.



Options of installation, I

Usage of the car loudspeakers for telephony and music

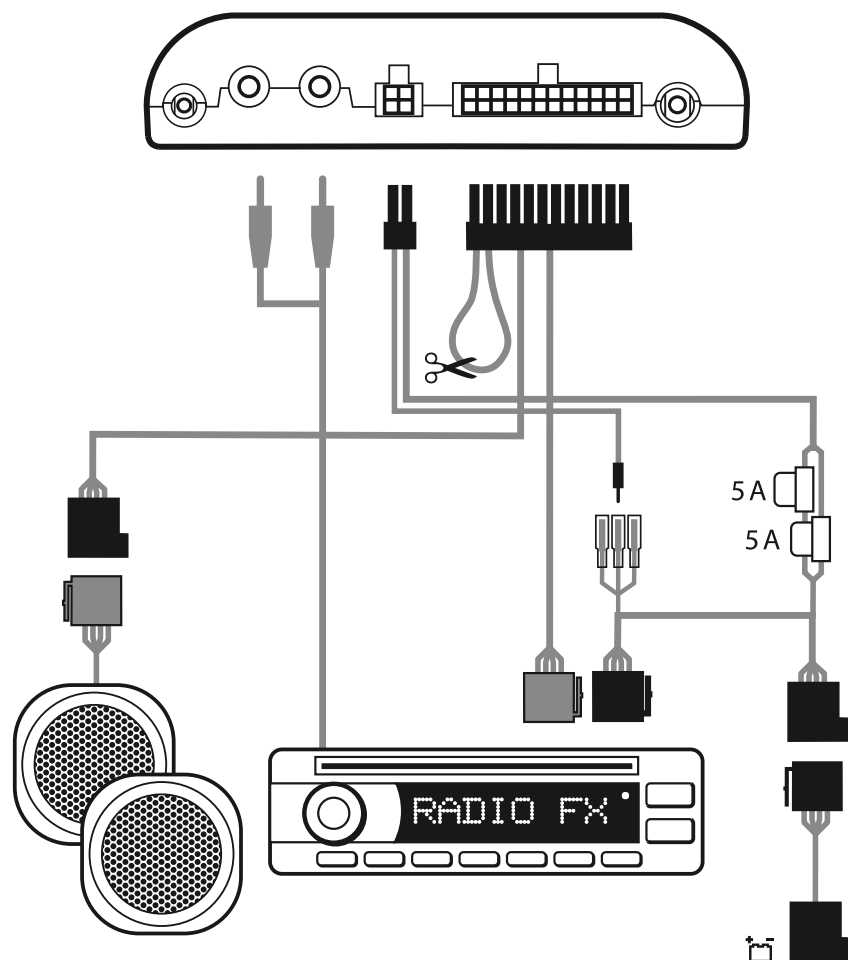


1. To connect the ISO cable to the car radio:
 - Unplug the appropriate cables from the car radio, and insert the ISO cable plug instead. Connect the open ends of the cables to the car radio speakers.
 - Connect one of the wires labelled Mute 1, Mute 2, or Mute 3 on the car radio to the ISO cable. Leave the other mute wires connected as they are.
 - Insert the power cable plug of the ISO cable to the respective connector on the hands-free unit.
 - Check the +12-V power pin and the ignition pin on the car radio and the respective pins of the ISO cable. If necessary, swap the pins on the fuses of the ISO cable. Plug the ISO cable to the two open ISO connectors.
2. Plug the ISO cable to the respective connector on the hands-free unit.
3. Connect the external input device CU-10 and the microphone MP-2 to the respective connectors on the hands-free unit.
4. To charge a compatible Nokia mobile phone through the car kit, connect one end of the supplied charging cable CA-134 to the hands-free unit and the other end to the 2.0 mm (0.08 inch) charging connector of the phone.
5. Switch on the car kit, press the wheel in the standby mode, and select *Settings > Audio > Music output > System connector*.

To connect the ISO cable to the car radio adaptor cables might be needed.

Options of installation, II

Usage of the car loudspeakers for telephony and the car stereo system for music

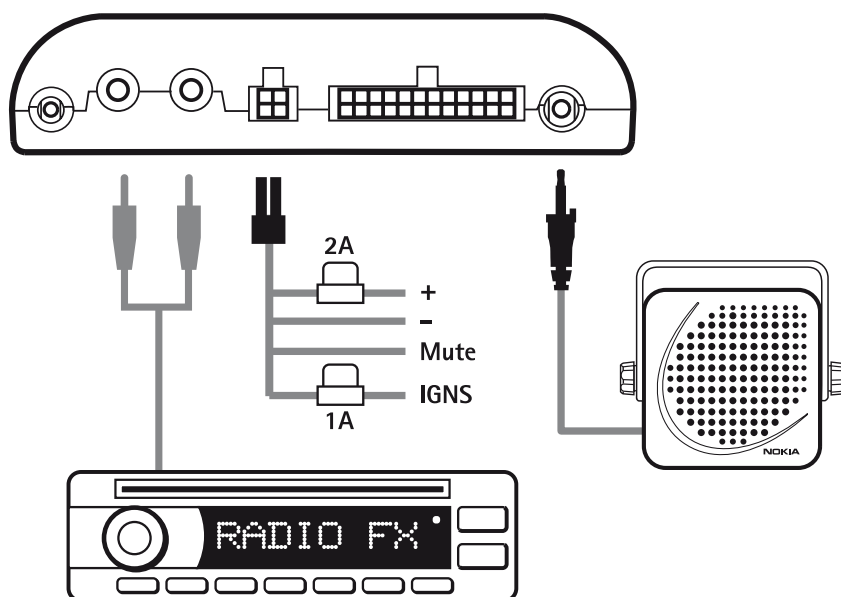


1. To connect the ISO cable to the car radio:
 - Unplug the appropriate cables from the car radio, and insert the ISO cable plug instead. Connect the open ends of the cables to the car radio speakers.
 - Connect one of the wires labelled Mute 1, Mute 2, or Mute 3 on the car radio to the ISO cable. Leave the other mute wires connected as they are.
 - Insert the power cable plug of the ISO cable to the respective connector on the hands-free unit.
 - Check the +12-V power pin and the ignition pin on the car radio and the respective pins of the ISO cable. If necessary, swap the pins on the fuses of the ISO cable. Plug the ISO cable to the two open ISO connectors.
2. Plug the ISO cable to the respective connector on the hands-free unit.
3. Cut the loop indicated with scissors in the figure.
4. Connect the stereo outputs of the hands-free unit to the AUX input of the car radio. Use an appropriate cable specific to your car radio (this cable is not supplied with the car kit).
5. Connect the external input device CU-10 and the microphone MP-2 to the respective connectors on the hands-free unit.
6. To charge a compatible Nokia mobile phone through the car kit, connect one end of the supplied charging cable CA-134 to the hands-free unit and the other end to the 2.0 mm (0.08 inch) charging connector of the phone.
7. Switch on the car kit, press the wheel in the standby mode, and select *Settings > Audio > Music output > Automatic detection*.

For connection of the line-out of the hands-free unit to the line-in of the radio a radio-specific cable is needed. To connect the ISO cable to the car radio adaptor cables might be needed.

Options of installation, III





Usage of an external loudspeaker for telephony and the car stereo system for music



1. Connect the respective wires of the power cable CA-153P to the car battery and ignition sense (if available). Connect the car radio mute wire (if available) to the car radio.
2. Plug the power cable to the respective connector on the hands-free unit.
3. Connect the loudspeaker SP-3 to the respective connector on the hands-free unit.
4. Connect the stereo outputs of the hands-free unit to the AUX input of the car radio. Use an appropriate cable specific to your car radio (this cable is not supplied with the car kit).
5. Connect the external input device CU-10 and the microphone MP-2 to the respective connectors on the hands-free unit.
6. To charge a compatible Nokia mobile phone through the car kit, connect one end of the supplied charging cable CA-134 to the hands-free unit and the other end to the 2.0 mm (0.08 inch) charging connector of the phone.
7. Switch on the car kit, press the wheel in the standby mode, and select [Settings > Audio > Music output > Automatic detection](#). Alternatively, if the music is to be played back through an external loudspeaker (such as the SP-3), select [Mono speaker instead of Automatic detection](#).

For connection of the line-out of the hands-free unit to the line-in of the radio a radio-specific cable is needed.

Sound connectivity – solution overview for aftermarket car radios

Radio vendor	Music	Telephony	Comment
Alpine	<ul style="list-style-type: none"> • KCA-121B plus phono male to phono female adaptor 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Phono male to phono female adaptors can be purchased from many electronics mass market stores
Blaupunkt	<ul style="list-style-type: none"> • ISO-to-3.5 mm-cable plus a standard 3.5 mm-to-phono-cable 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm-to-phono-cable can be purchased from many electronics mass market stores
JVC	<ul style="list-style-type: none"> • KS-U57 plus phono male to phono female adaptor 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm/3.5 mm cable can be purchased from all electronics mass market stores
Kenwood	<ul style="list-style-type: none"> • CA-C1AX (AUX adaptor cable/ phono connector plus phono male to phono female adaptor) 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Phono male to phono female adaptors can be purchased from many electronics mass market stores


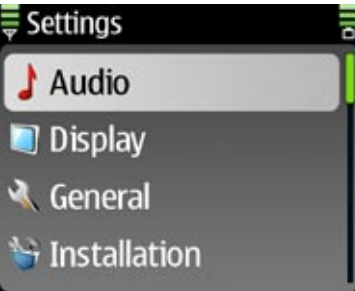
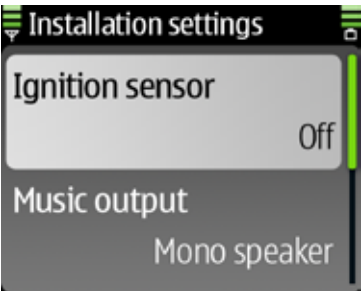
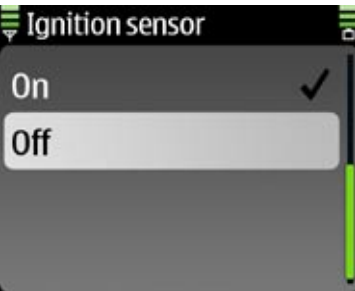
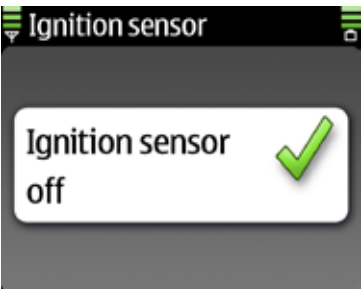
This overview is provided for your convenience and information only. It has been compiled from external sources and is subject to change. Nokia does not guarantee the compatibility of Nokia Display Car Kit CK-600 and non-Nokia products. Nokia warranty and support apply only to products that are sold under the Nokia trademark. References to third-party products do not constitute any endorsement of or warranty as to such products. Further information may be obtained from each radio manufacturer's website.

Radio vendor	Music	Telephony	Comment
Panasonic	<ul style="list-style-type: none"> • Standard 3.5 mm-to-phono-cable connected to the front panel 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm-to-phono-cable can be purchased from many electronics mass market stores
Pioneer	<ul style="list-style-type: none"> • Standard 3.5 mm-to-phono-cable connected to the front panel 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm-to-phono-cable can be purchased from many electronics mass market stores
Siemens VDO	<ul style="list-style-type: none"> • Standard 3.5 mm-to-phono-cable connected to the front panel 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm-to-phono-cable can be purchased from many electronics mass market stores
Sony	<ul style="list-style-type: none"> • Standard 3.5 mm-to-phono-cable connected to the front or back panel 	<ul style="list-style-type: none"> • Nokia ISO cable and adaptor cables from e.g. • Kram • Elan Europe • Autoleads 	Standard 3.5 mm-to-phono-cable can be purchased from many electronics mass market stores

Bullet points describe possible options. They depend on the specific car radio model.

Usage of the motion sensor

In case no ignition signal can be access the internal motion sensor can be used to switch on the car kit automatically when the user enters the car: turn off the ignition sensor to switch on the internal motion sensor.

- Screenshot 1: The 'Menu' screen displays various application icons. The 'Settings' icon, which includes a wrench and a screwdriver, is highlighted.
- Screenshot 2: The 'Settings' screen is shown with the 'Audio' option selected and highlighted in grey.
- Screenshot 3: The 'Installation settings' screen is displayed. The 'Ignition sensor' option is set to 'Off', and the 'Music output' is set to 'Mono speaker'.
- Screenshot 4: The 'Ignition sensor' screen shows the 'Off' option selected with a checkmark.
- Screenshot 5: A confirmation screen titled 'Ignition sensor' showing 'Ignition sensor off' with a large green checkmark.



Recommended placement of components



Microphone

Best place is near the rear mirror pointing to the driver's mouth



Handsfree unit

Control unit should be secured behind interior panel



Input device

Best place is on the centre console within reach



Display

Best places are either mounted onto the dashboard using the display stand or mounted flat to the board using the display plate. It should be mounted in eye-sight.



Installing the microphone close to the rear mirror

- Best place for installation is near the rear mirror
- Use the Velcro tape to properly fix the microphone
- Optimum performance is gained when the microphone points to the driver's mouth



Alternatives


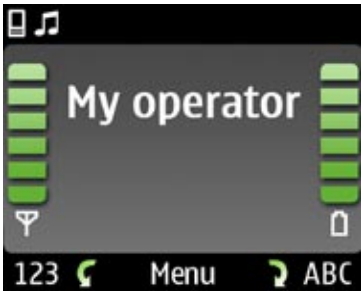


- Best place for installation is close to the rear mirror
- It is also possible to install the microphone at the A-pillar (when driving with open window, noise might disturb the phone conversation at the other side)

- In both situations best performance is reached when the microphone points to the speaker's mouth
- To avoid echoes microphone should point in a different direction rather than to the loudspeaker

Setup and check

After installation go through the list below to check all functions.

Functions to check	How to check?
Power	If the ignition sense wire is connected, turn on the car ignition. When the car kit is switched on, the display and the indicator light of the input device turn on. If the ignition sense wire is not connected, press and hold  for about 5 seconds. Alternatively, turn on the ignition, start driving, and wait until the built-in motion sensor switches the car kit on automatically (if the motion sensor is turned on).
Input device	Switch on the car kit: the buttons of the input device should be illuminated after the car kit has initialized.
Display	Switch on the car kit: the display should switch on as well.
Bluetooth connection to the phone	Check from your phone whether the car kit has been connected. If a mobile phone is connected a phone symbol appears in the upper left corner of the car kit display. If a mobile music player is connected a music symbol appears in the upper left corner of the car kit display. 

Functions to check	How to check?
Car radio mute	Place a call while the car radio is switched on and plays back music. Check whether the music is muted during the call.
Phone calls	Place a call while the car radio is switched on and plays back music. Check whether the music is muted during the call.
Mobile music	Connect a mobile music player and start playing back the music from the mobile player. Check the sound inside the car.
Microphone	Make a phone call from the car and listen to the speech at the other end.

Sound

- In case echoes can be heard at the far end, tune speaker volume down
 - Check that distance between microphone and speakers is as great as it could be
 - Check that the microphone is not directly pointing to the speaker
 - Check to ensure that phone is connected to car kit using Bluetooth technology
- For phone-in, check that mute signal is connected properly
- Check that the loudspeaker is not muted
- Check that the car kit microphone is not muted
- Determine whether the phone model is included in the compatibility list in the support area for the car kit at www.nokia.com/ck-600

Bluetooth connection

- Ensure that phone's Bluetooth feature is activated
- Make sure no other phone is connected to the car kit
- Ensure that phone is set to connect to the car kit automatically when the car kit is switched on



Contact list

- In case that the contact list has to be downloaded again after the ignition has been switched off and on check the connection of the power plus lead (red cable) and the IGNS lead (blue cable)





Power supply 1*

Power cable

Identify the terminals for connecting the four wires that make up the cable harness of the car kit

Main supply (red) wire:

The main supply wire must be connected to a main supply terminal. To do so, locate a main supply terminal/wire with a constant +12 V power supply. These are available at the:

- car battery
- fuse box
- car sound system

Ignition-sensing (blue) wire:

To activate the ignition-sensing functionality, the ignition-sensing wire must be connected to either of the following:

- the ignition-sensing wire/terminal in the fuse box
- the sound system position-sensing terminal/wire located behind the sound system

Some vehicles do not come equipped with an IGNS connection. This connection is not necessary for operation of the Nokia Display Car Kit CK-600. The blue wire can be left unconnected.



*** Please note:** This information is valid only for the variant with the use of the power cable PCU-4 together with the speaker or phone-in. When using the ISO cable variant this whole page can be ignored.

Power supply 2

Power cable

Identify the terminals for connecting the four wires that make up the cable harness of the car kit

Ground (black) wire

The system must be connected to a ground point on the chassis of the car. Generally, a ground point can be found:

- near the battery
- near the fuse box
- under the glove compartment

Sound system mute (yellow) wire:

Nokia Car Kits offer a feature that mutes the car sound system automatically during phone calls. To activate this feature, connect the mute wire to the mute terminal on the car sound system, if available.

If the radio does not support the mute feature, use a relay to provide the feature (with the customer's consent). Read the car sound system manual before touching any wires behind the unit.



© 2008 Nokia Corporation. All rights reserved. Reproduction, transfer, distribution or storage of part or all of the contents in this document in any form without the prior written permission of Nokia is prohibited. Nokia, Nokia Connecting People, Nokia Original Accessories logo and Navi are registered trademarks of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners. Bluetooth is a registered trademark of Bluetooth SIG, Inc. Nokia operates a policy of continuous development. Nokia reserves the right to make changes and improvements to any of the products described in this document without prior notice. The contents of this document are provided "as is". Except as required by applicable law, no warranties of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, are made in relation to the accuracy, reliability or contents of this document. Nokia reserves the right to revise this document or withdraw it at any time without prior notice. The availability of particular products and services may vary by region. Please check with the Nokia dealer nearest you. Many jurisdictions have laws regarding the use of a phone in a vehicle environment. Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety. The Nokia Display Car Kit CK-600 should be installed by a qualified professional.

www.nokia.com/ck-600

NOKIA
Connecting People