



KIA MOTORS

Kia cee'd Reversing Aid (EA09409001)

Vehicle Specific Installation Instruction Kia cee'd.



Vehicle manufacturer: Kia

Vehicle model: cee'd 07MY on

Model code: (ED)

Engine type: All

Engine code: All

Issue Date: 17/02/07

Rev Number: 01

Important Notes:

These instructions are specific for Kia cee'd 2007 model year.

Before commencing the installation it is advisable to carry out a pre-installation inspection of exterior/interior condition and electrical ancillary equipment operation.

Battery disconnection is recommended prior to commencement of installation; note audio codes if applicable.

It is recommended that these instructions are used in conjunction with the appropriate workshop manuals and that all manufacturers recommendations are followed.

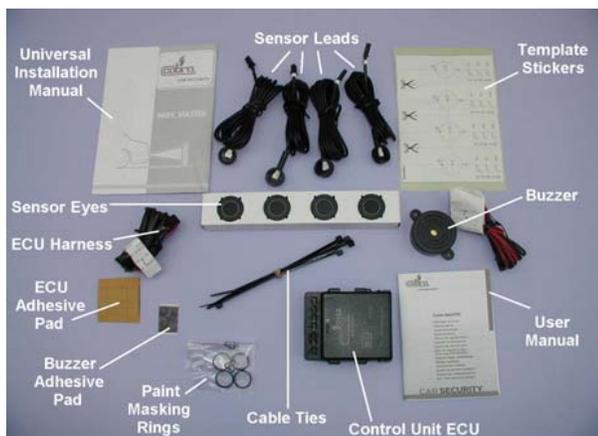
Please ensure all appropriate safety precautions are taken when installing this product.

Technical Help Line: 01932 732331

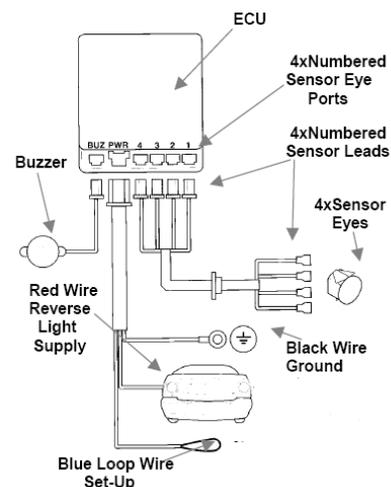
Fax: 01932 732337

Email: technical@vestatec.co.uk

Installation Kit Contents



Rear Parking Aid Wiring





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Key points of Installation:

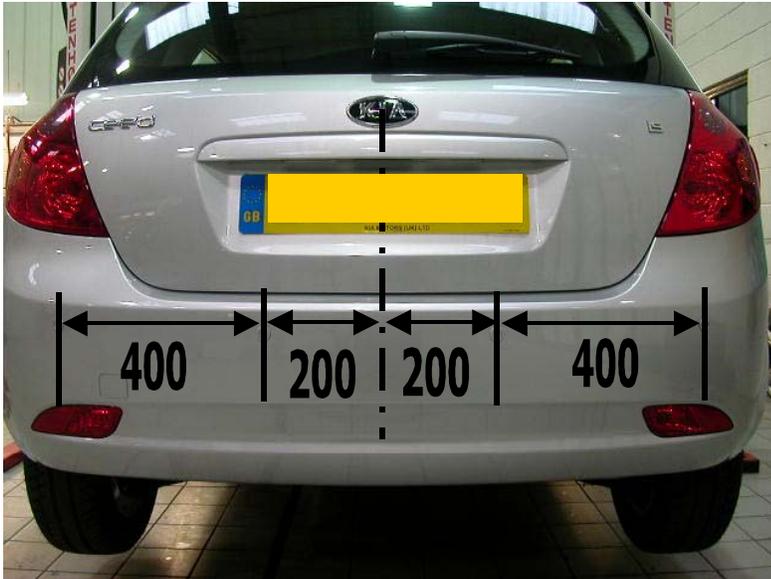
- A. Prior to routing the sensor leads ensure the white 'identification collar tabs' are secured in position with insulation tape. This will prevent the collars being trapped behind grommets etc. during routing. Each lead is numbered and will require identification when connecting to the ECU.
- B. The two INNER SENSOR LEADS (2 & 3) are 2.0 metres in length and the two OUTER SENSOR LEADS (1 & 4) are 2.5 metres in length.
- C. The leads to each sensor eye must be run in numerical order 1,2,3 and 4 across the bumper from left to right. Each lead must then be connected to the appropriate numbered port on the ECU.
- D. Ensure that the small dot on the front of each sensor eye is located at the top when inserting the sensor eyes into position.
- E. Do not apply tension to the leads during routing as this may result in disengagement and possible damage to the sensor eye.
- F. Should the sensor eyes require painting to match the body colour please refer to the section 'Spraying The Sensor Eyes' in the Kia Rear Obstacle Detection System Universal Installation Instructions.
- G. Ensure that the holes drilled to accommodate the sensor eyes are correct.
- H. If a single intermittent tone is emitted within 100 seconds during system set-up this is indicating that the set-up has been unsuccessful. Ensure that when you are setting the system you avoid walls with features (drainpipes etc.), as this will adversely affect set-up and operation.
- I. If no tone at all is emitted during the 100-second set-up procedure this indicates that one or more of the sensor eyes are disconnected.
- J. Cars fitted with a towbar must be calibrated measuring 50cm from the tow ball if this is the rear-most part of the car.
- K. Following set-up insulate the ends of the blue wire and position in an accessible area for ease of access should you need to re-calibrate the system in the future.



KIA MOTORS

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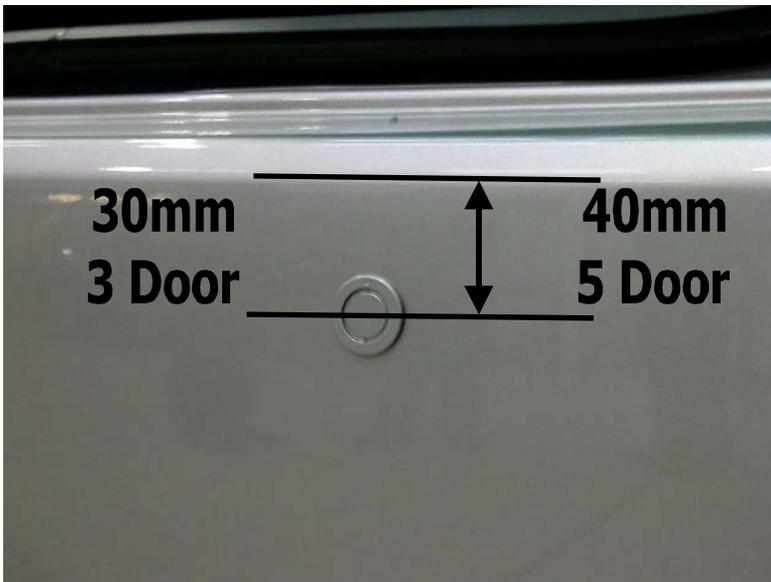
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Hatchback & SW Models

Mark the bumper with a non-permanent marker.

Mark the centre line and carefully measure out and mark points at 200mm each way from the centre line. Measure and mark points 400mm out from inner marks you have just made. This will give you the correct horizontal spacing for the sensor eyes.



5 Dr Hatchback Model Only

Mark points 40mm down from the centre of the bumper radius.

Use this method to mark out all four sensor eye positions.

3 Dr Hatchback Model Only

Mark points 30mm down from the centre of the bumper radius.

Use this method to mark out all four sensor eye positions.



KIA MOTORS

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SW Model

Mark points 20mm down from the bumper moulding as shown.

Use this method for both inner sensors.



SW Model

Mark points 210mm down from the lower edge of the rear lamp.

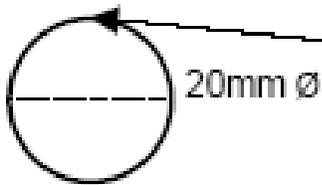
Use this method to mark out both outer sensor eye positions.



KIA MOTORS

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Cut a small keyway with a triangular file

All sensor holes must be drilled, firstly with a pilot drill (2mm) and then enlarged to 20mm diameter. We recommend you use a 20mm hole saw and arbour to enlarge the sensor holes.

Once the holes are drilled make a 1mm keyway at the top of the holes to accommodate the locating tab at the top of each sensor.



Hatchback Model

Connect the sensor leads to the sensors and fit the sensors into the bumper ensuring that they run in numerical order (1,2,3,4) starting from left to right.

Bring all the sensor leads up behind the left rear lamp. Pass the sensor leads through the grommet shown and connect them to the correct numbered ports on the ECU. Seal the grommet with a suitable sealant and ensure the leads are securely mounted under the bumper.



KIA MOTORS

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Vehicle Specific Installation Instruction Kia cee'd.



Hatchback Model

Using the self-adhesive pad provided, mount the ECU on to the panel behind the left boot trim.

Connect the power lead to the ECU port marked PWR.



Hatchback Model

Mount the Buzzer in the position shown using the self-adhesive pad.

Connect the buzzer to the ECU port marked 'BUZ'



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SW Model

Connect the sensor leads to the sensors and fit the sensors into the bumper ensuring that they run in numerical order (1,2,3,4) starting from left to right.

Bring all the sensor leads up behind the left rear lamp. Pass the sensor leads through the grommet shown and connect them to the correct numbered ports on the ECU. Seal the grommet with a suitable sealant and ensure the leads are securely mounted under the bumper.



SW Model

Using the self-adhesive pad provided, mount the ECU on to the panel behind the left boot trim.

Connect the power lead to the ECU port marked PWR.

Mount the Buzzer in the position shown using the self-adhesive pad.

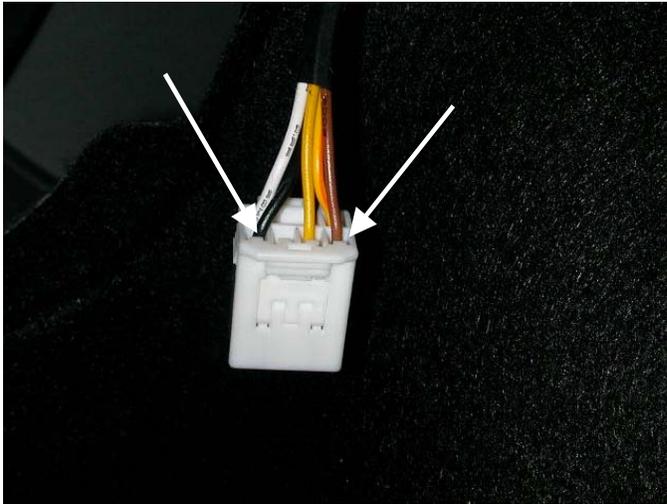
Connect the buzzer to the ECU port marked 'BUZ'



KIA MOTORS

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Locate the harness going to the left rear lamp.

Splice and solder the ECU Red wire to the Brown reverse light feed wire and the Black ECU Earth wire to the Black wire.

Ensure the Blue set-up wire is cut, insulated and left in an accessible location.

Set-up Procedure

The set-up procedure is not required on this application unless additional accessories are installed that may effect the operation of the parking aids i.e. towbar.

Confirm all electrical connections are correct prior to reconnecting the battery.

Position the vehicle with the rear of the vehicle 50cm away from a wall and exactly parallel to the wall.

Turn the ignition on and select reverse gear.

A **double tone** will be emitted followed by a **single constant tone** (within 100 seconds).

Note: If a single intermittent tone or no tone at all is emitted at this point, the set-up has been unsuccessful. Please refer to the notes on page 1.

After you hear the single constant tone turn the ignition off. Cut the Blue wire on the ECU harness and insulate the ends.

Customer Handover

Ensure a member of staff fully explains the operation of the 'Kia Reversing Aid' to the customer and provides the customer with the User Card.



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System Set-up Failure: Fault Diagnosis

Two possible scenarios may occur during set-up, an intermittent tone or no tone at all.

Fault:

Intermittent tone during set-up

Following the double tone if the system emits an intermittent tone within the 100-second set-up time and not the correct constant tone this is indicating a failure to calibrate. This is generally due to one of the following:

POSSIBLE FAULT/ERROR	ACTION/CHECK
<ul style="list-style-type: none">The small spot on the front of each sensor eye may not be at the top.	Ensure the small spot on the front of each sensor is located at the top.
<ul style="list-style-type: none">The numbered sensor leads are run to the incorrect sensor eye.	It is essential each numbered sensor lead, (determined by numbered tags) are run to the correct sensor eye, i.e. 1,2,3 & 4 from left to right across the bumper.
<ul style="list-style-type: none">The sensor eyes and leads are connected into the incorrect ports of the ECU.	Ensure the correct sensor eyes and leads are connected into the correct ports marked 1,2,3, & 4 on the ECU.
<ul style="list-style-type: none">The vehicle is not parallel with the wall.	Ensure the vehicle is parallel with the wall.
<ul style="list-style-type: none">Drainpipes or other surface objects may adversely influenced set-up.	Ensure a flat vertical surface behind the vehicle during the set-up.
<ul style="list-style-type: none">The vehicle is not exactly 50cm from the wall during set-up.	Ensure the vehicle is exactly 50cm from the wall during set-up.
<ul style="list-style-type: none">The sensor eyes are not installed within the recommended dimensions (See diagrams 1-8).	Always install the sensor eyes within the parameters detailed in diagrams 1-8.
<ul style="list-style-type: none">Two of the four sensor eyes are pointing in different directions.	Ensure all the sensor eyes maintain the same angle to the ground.

Fault:

No tone during set-up

Following the double tone if the system emits no tone at all during the 100-second set-up time and not the correct constant tone this indicates failure to calibrate. This is normally due to one of the following:

POSSIBLE FAULT/ERROR	ACTION/CHECK
<ul style="list-style-type: none">One or more of the sensor eyes are not connected to the ECU or sensor eye.	Ensure the sensor terminal connectors are firmly located in position to both the ECU & sensor eyes.
<ul style="list-style-type: none">One or more of the sensor leads are shorting to ground.	Using a multi-meter, ensure none of the sensor leads are shorting to ground.
<ul style="list-style-type: none">One or more of the sensor leads are split or open circuit.	Examine each lead for lacerations, if no open circuits are found, remove the first sensor eye and loosely run a new sensor lead to the ECU port 1, ENSURE THE EYE IS REPLACED prior to testing , repeat for each sensor eye.



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System Operational Failure: Fault Diagnosis

Note: If any of the sensor eyes of the ECU are replaced carry out the system set-up again.

Fault:

The system operation appears erratic, when reversing the buzzer sounds intermittently with no obstacles behind the vehicle.

POSSIBLE FAULT/ERROR	ACTION/CHECK
<ul style="list-style-type: none">The small spot on the front of each sensor eye may not be at the top.	Ensure the small spot on the front of each sensor is located at the top.
<ul style="list-style-type: none">The sensor eyes may be pointing down and picking up undulations in the ground.	The system may be suffering from "Ground Effect" refer to diagram 8.
<ul style="list-style-type: none">The sensor eyes may be dirty or have ice on the surface.	Ensure the sensor eyes are clean.
<ul style="list-style-type: none">One of the sensor eyes may be too tight or pressing against an object to its rear.	Ensure at least 23mm depth to accommodate the sensor eye.

Fault:

The system buzzer emits a constant pulsating beep when reversing.

POSSIBLE FAULT/ERROR	ACTION/CHECK
<ul style="list-style-type: none">The small spot on the front of each sensor eye may not be at the top.	Ensure the small spot on the front of each sensor is located at the top.
<ul style="list-style-type: none">The sensor eyes may be dirty or have ice on the surface.	Ensure the sensor eyes are clean.
<ul style="list-style-type: none">One of the sensor leads has become dislodged from the back of the sensor eye or ECU	Check each sensor lead connection and ensure the sensor terminal connectors are firmly re-located in position to both the ECU & sensor eyes.
<ul style="list-style-type: none">One or more of the sensor leads are split or open circuit.	Examine each lead for lacerations, if no open circuits are found, remove the first sensor eye and loosely run a new sensor lead to the ECU port 1, ENSURE THE EYE IS REPLACED prior to testing , repeat for each sensor eye.
<ul style="list-style-type: none">One of the sensor eyes are inoperative.	Replace the sensor eye & carry out the set-up procedure on Pg 5.

Fault:

The system is inoperative.

POSSIBLE FAULT/ERROR	ACTION/CHECK
<ul style="list-style-type: none">No reverse light live feed to the ECU.	Using a multi-meter test and ensure the Red wire to the ECU is connected to the Live reverse light wire.
<ul style="list-style-type: none">No Ground wire to the ECU.	Using a multi-meter test and ensure the Black wire from the ECU is connected to ground.
<ul style="list-style-type: none">Buzzer Inoperative.	Change the buzzer.
<ul style="list-style-type: none">ECU inoperative.	Change the ECU.