

TRAILBOSS

Towbar Fitting Instructions
To Suit KIA RIO 5 DR HATCH 11 / 2011 On
Part Number KM18L
Rating 1150 kg

INSTALLATION INSTRUCTIONS

PLEASE ENSURE THAT INSTRUCTIONS ARE UNDERSTOOD PRIOR TO FITMENT



Installation Time: Approx 90 Mins

Towbar Installation Instructions

Towbar capacity

KIA RIO 5 DR HATCH 11 / 2011 On

Part Number KM18L

Max Towing Braked 1150kg

Max Static Ball Load 50kg

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Warning:

Do not, drill, cut, weld or otherwise modify the towbar.

If you are using electric welding on a motor vehicle, **always** check that the vehicle is not equipped with electronic engine or instrument management equipment. Failure to do so could **destroy** any onboard computers. If in doubt, check with the vehicle's manufacturer.

1. **General:** Ensure all hardware items have been included refer to assembly diagram.
2. It is recommended that the instructions are read through and completely understood before making any attempt to fit this product.
3. Be wary of any changes to vehicle designs or other accessories that may conflict with the installation of this product.
4. Before drilling ensure that the area is clear of fuel, electrical & other components.
5. All holes drilled into the body panels shall have all burrs & swarf removed then coated with a suitable rust preventative paint.
6. The high tensile fasteners supplied with this product were used to achieve the specified rating. If replacement is required ensure that fasteners of the same rating & quality are used. Contact an authorised **Trailboss** dealer if further information is required.
7. Ensure that all hardware is fastened to torque list below check fasteners on regular basis.
8. Towbar load rating sticker provided with this product shall be conspicuously located on inside rear end of the driver's door. **(See diagram below).**
9. Trailboss recommends that you check your tow ball to ensure that it complies with the Australian standards **AS 4177.2**.
10. **PLEASE NOTE:** It is advised to remove your lug or tbn when not actually towing so as to produce a clear view of the vehicles registration plate if obscured, and to also provide maximum available departure angle.

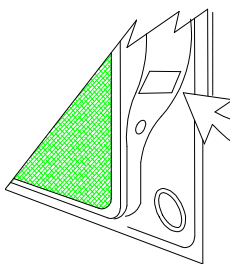
Tow bar Maintenance and Care.

Trailboss recommends that bolt torque's, as listed below, are routinely and regularly inspected and checked for correct tension. Replace any worn or defective parts.

We recommended to remove Tow Ball Mounts (TBM's, tongues or lugs) when not being used for any considerable length of time.

So as to avoid injury, when not towing it is suggested that the tongue, Pull Pin and R-clip are removed then stored in a safe, clean and dry place, away from excessive moisture.

Hitch Pull Pins and spring "R" clips are regularly checked for proper installation. Replace any worn or defective parts.



**Place load rating sticker
inside driver's door here**

RECOMMENDED ASSEMBLY

TORQUE LISTING

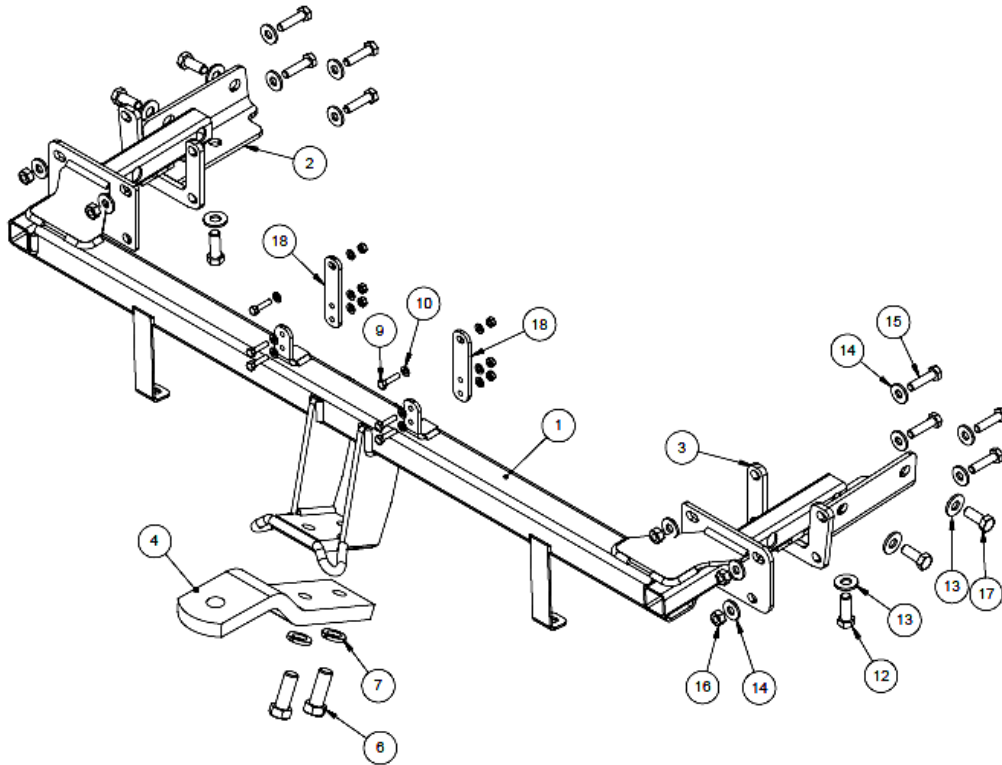
<u>Diameter</u>	<u>Grade 8.8 Bolt</u>	
M6		9.5 Nm
M8		21.7 Nm
M10		43.4 Nm
M12		77.3 Nm
M14		146 Nm
M16		189.8 Nm

FOR TOWING PURPOSES ONLY

For towing capacity details please refer to vehicle owner's manual or to the manufacturer. Overloading can void your warranties.

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QTY.	DESCRIPTION	ITEM NO.
1	KIA RIO 5 DR HATCH 11/2011-	1
1	CHASSIS RAIL ASSY. LEFT	2
1	CHASSIS RAIL ASSY. RIGHT	3
1	LUG - 7637	4
2	M16 x 45 2.0P BOLT	6
2	M16 X 5 X 3.5 SPRING WASHER	7
1	BOLT PACK ASSY	8
6	Bolt M6 x 25 GR 8.8 z/p	9
12	M6 X 12.5 X 1.2 Z/P BRT FT WASHER	10
6	NYLOC NUT M6-1.00 Z/P	11
2	M12 x 35 1.75P BOLT Gr 8.8	12
6	WASHER M12x28.8x3mm	13
16	WSHR FT M10 X 25.4 X 3	14
8	BOLT M10 - 1.5 x 40mm GR 8.8	15
8	M10x1.5 HEX NUT PC8	16
4	M12 x 30 x 1.25p	17
2	UPPER BUMPER SUPPORT BRACKET	18





Towbar Fitting Instructions
To Suit **KIA RIO 5 DR HATCH 11 / 2011 On**
Part Number **KM18L**
Rating **1150 kg**

1. Remove four screws and two large screws from the tail light assemblies. (Both LH & RH sides)
2. (a) Remove tail light assemblies from housing. Disconnect the tail light globe assemblies.
(b) Remove the tail light assemblies, place to side.
3. Remove two screws and four scrivenets from the tail light cavities.
4. Remove eight screws from the wheel arches. (four each side)
5. Remove three nuts from under tray. Remove three scrivenets from under tray.
6. Remove two scrivenets from the underside of bumper. (Both LH & RH sides)
7. Remove six bolts from underneath the rear of the vehicle. (Both LH & RH sides)
Remove two plug (grommets) from underneath the rear of the vehicle and discard.
8. Disconnect the wiring connector

Place rear bumper bar assembly on a stand, in a safe place.

If vehicle is fitted with rear sensors, follow the removal steps from the Reverse Parking Sensor fitting instructions.
9. Disconnect the harness from the clips, on the reinforce beam

Remove two screws from the bumper reinforce.

Remove wiring connector from the bumper reinforce, disconnect wiring connector.

Remove and discard clip from bumper reinforce.

Remove and set aside bumper reinforce.

Remove four scrivenets from the reinforce beam.

Remove and discard the reinforce beam.

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Rating 1150 kg

Chassis Support Bracket Fitment :

10. Insert towbar into opening of chassis rail, up against rear panel.

Loosely fit LH & RH chassis support brackets, up against underside chassis, secure with M12 x 30 bolts and washers

Towbar fitment :

11. Loosely insert four M10 x 40 bolts and washers through chassis support brackets and towbar, secure with washer and nuts supplied.. (Repeat for Left hand Side)

Tighten all fasteners to torque specifications.

Bumper Cut-Out :

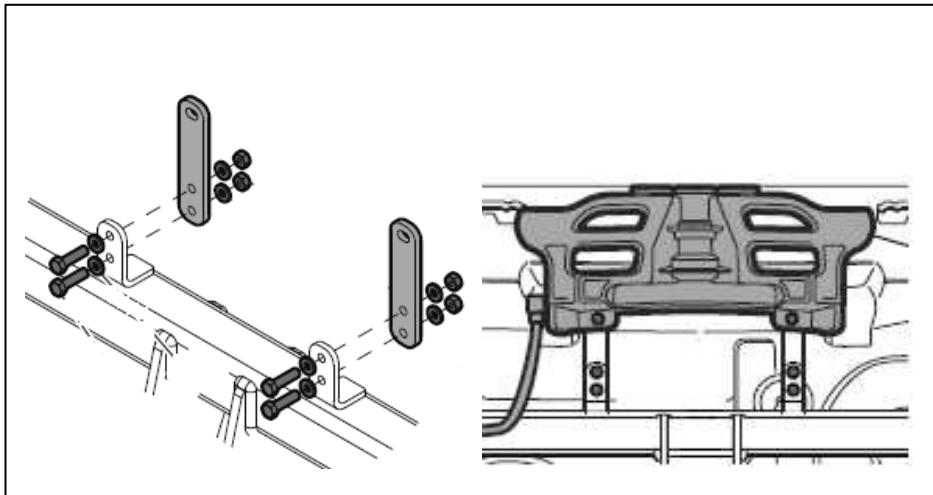
12. Using masking or similar tape, cover bumper skin area to cut.

Find centre line of bumper, mark out from bottom edge to a height of 70mm

From centre line measure 50mm each side, to an overall width of 100mm..

Cut out area using suitable saw device.

13. Fit bumper support brackets as per diagram below.



14. Refit bumper in **reverse** steps 1 – 8.



Wiring Loom Fitting Instructions
To Suit Kia UB Rio
Part Number 100729-WL

Wiring Loom Installation Instructions

Kia UB Rio
Part No: 100729-WL
ECU: 04826

Tail Harness Length Required: 1200mm
RPA Override Switch Part No: 04848 (If Fitted)

Wiring Loom Installation Time: Approx 40 Mins

Note: If factory OEM RPA is fitted, the Trouble Code will be logged if disabled.



Wiring Loom Fitting Instructions
To Suit Kia UB Rio
Part Number 100729-WL

1. In the luggage compartment, remove the floor cover carpet and the parcel shelf.
2. Remove the rear trim by pulling in an upwards direction.
3. From the inside of the vehicle, on the RHS rear passenger's side, remove the backrest by first removing the two 14mm bolts.
4. Dislodge the LHS luggage compartment trim by first releasing the three screws.
5. Carefully fold the LHS luggage compartment trim and move towards the centre.

Repeat for the RHS.

Please Note: Take caution, ensuring not to crease the trim.

6. From the inside of the vehicle, remove the rear seat base by first removing the one bolt located on the centre of the rear back passenger's seats on the vehicle sheet metal.
7. Remove the RHS rear door sill trim by first removing the two screws.
8. On the RHS of the driver's side, remove the door sill.
9. Underneath the driver's lower dash, remove the kick panel trim by first removing the one screw securing the bonnet handle.
10. On the driver's side, underneath the lower dash, remove the fuse panel cover.
11. On the RHS rear quarter of the vehicle, remove the existing grommet and drill out a hole to $\varnothing 30\text{mm}$.
12. In the LHS of the luggage compartment, disconnect the tail light connectors and connect the 6-way trailer patch (P/No: 100729-WL) in between.
13. In the LHS of the luggage compartment, following the table below, connect the ezy-tap to the vehicle 'BLUE' reverse wire, then connect the trailer patch terminal to the ezy-tap.
14. Connect the trailer patch ground ring terminal to the vehicle grounding point.

Function	Trailer Patch	Vehicle Connector
REVERSE	BLACK / WHITE	BLUE

15. Apply double sided tape to the ECU and adhere it to the vehicle sheet metal on the LHS of the luggage compartment.
16. Connect the trailer patch 12-way connector to the ECU.
17. Route the trailer patch along the rear trim, from the LHS towards the RHS of the vehicle.



Wiring Loom Fitting Instructions
To Suit Kia UB Rio
Part Number 100729-WL

18. In the RHS of the luggage compartment, disconnect the tail light connectors and connect the 6-way trailer patch in between.
19. Route the power patch 'ORANGE' wire along the RHS of the rear passenger side and towards the front of the vehicle.
20. Continue to route the power patch along the RHS of the driver's side, towards the fuse panel.
21. Inside the fuse panel, locate the 15-amp fuse and remove.
22. Insert the supplied 20-amp fuse into the upper slot of the add-a-fuse and insert the previously removed 15-amp fuse into the bottom slot of the add-a-fuse.
23. Plug the add-a-fuse into the previously removed 15-amp fuse slot.
24. Connect the power patch 1-way connector into the add-a-fuse harness mating connector.
25. Mount the trailer socket to the tow bar mounting bracket using M4 fasteners (not supplied).
26. Route the tail harness across the tow bar towards the RHS of the vehicle and up through the previously drilled out hole.
27. Ensure that tail harness grommet is seated correctly and secure in place using a cable tie (not supplied).
28. Connect the tail harness (tail length 1200mm) 8-way connector to the trailer patch mating 8-way connector.
29. Test the trailer patch function using a light board or multi meter.
30. Secure all harnesses using cable ties (not supplied).
31. Re-fit all removed parts and secure all fasteners, ensuring there are no squeaks or rattles.
32. Place the fitting instructions in the glove box after fitment.