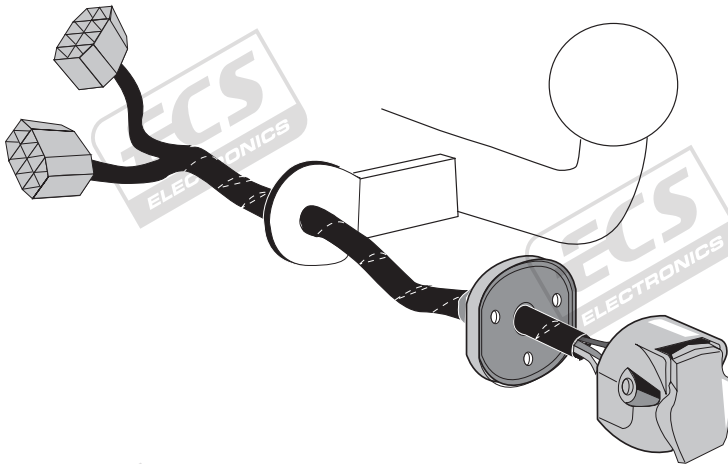


KIA

Karens 2013 >>

Part No: KI-068-DHU

Electric wiring kit for towbars / 13-pin / 12 Volt / ISO 11446 Fitting instructions



IMPORTANT!

This electric kit has to be installed by a professional workshop or a suitable qualified person.

The installation instructions must have been read and fully understood before the start of any installation. Please contact your wiring kit provider or the hotline shown in the footer should you need assistance!

Make sure the vehicle is approved/homologated by the manufacturer to tow a trailer!

Also please check that there is a definite compatibility between this vehicle and the electric kit!

Following the installation of the electric kit, the fitting instructions should be kept together with the vehicle service document and vehicle handbook. The fitting instructions contain important information relating to the use and function of the towing kit as well as for any diagnostic or activation process, that might have to be repeated in the future (e.g. after the performance of a vehicle software update).

All warranty claims will be forfeited if the electric kit or components contained therein are used incorrectly or modified. If a towing socket adaptor has been used to connect to the trailer or bike rack, this must be removed from the trailer socket once the trailer or bike rack has been disconnected.

If the trailer or bike rack is not equipped with a rear fog lamp, depending on the towing vehicle type, the correct function of the towing kit cannot be guaranteed. In such cases, a rear fog lamp should be retro fitted.

This towing electric kit will not be covered under warranty if any technical or electrical modifications or software updates have been performed by the vehicle manufacturer after the initial commissioning of the kit. That applies especially to modifications or updates which may cause malfunctions in the trailer socket or any other part of the trailer electrical equipment!

Depending on the type of trailer module used in this electric kit, diagnostic interrogation with the vehicle's electrical system may be limited or will not function. The error memory inside the trailer module may not be able to be accessed by vehicle manufacturers diagnostic system.

Error logs relating to the trailer electrical equipment, that may be generated in the vehicle manufacturers diagnostic system as a result of a test procedure, may be due to the incorrect installation of the towing electric kit or the false activation of the trailer module.

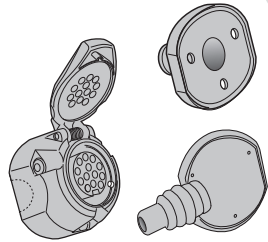
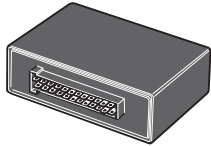
We always recommend whenever possible, the following troubleshooting process:

- An analysis of the vehicle's error memory and possibly clearing of all faults before the start of the installation!
- Try disconnecting the trailer module from the towing harness and re-start the fault clearing process!
- If in doubt, limit the time for troubleshooting to a max of 0,5 hours and call our Technical Support Team!

Please follow our instructions carefully and always test the towing electrics using a true lighting board or a specifically designed bulb tester. If an LED tester is used, ensure it is equipped with correct load resistors or malfunctions will occur!

This instruction is subject to changes and we reserve the right to make changes to design, colour etc.

All of the data and illustrations may not be an exact representation but the text contained in this instruction must be observed!



* OPTION P.D.C.

UU1

+30

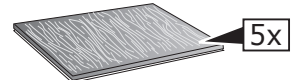
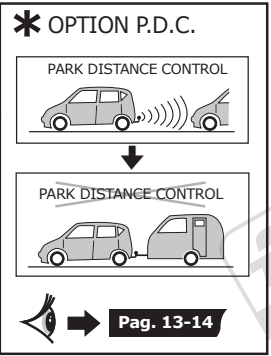
UU2

UU3

+30

U2

U3



L2

UU1

L1

R1

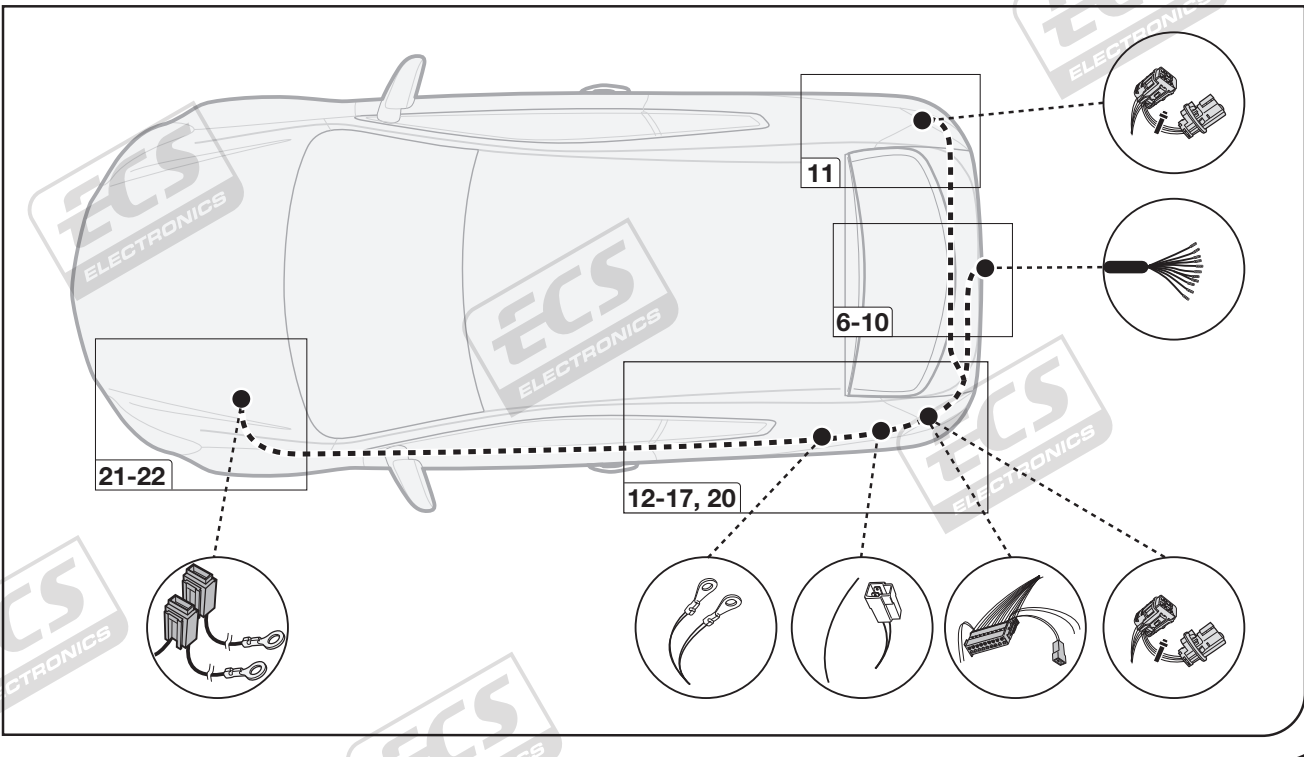
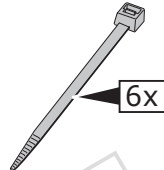
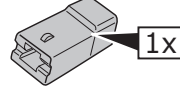
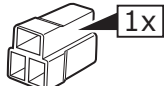
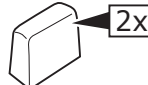
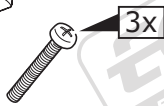
X

L3

M

U1

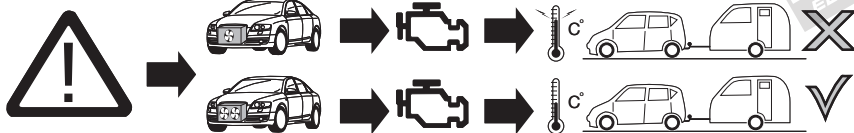
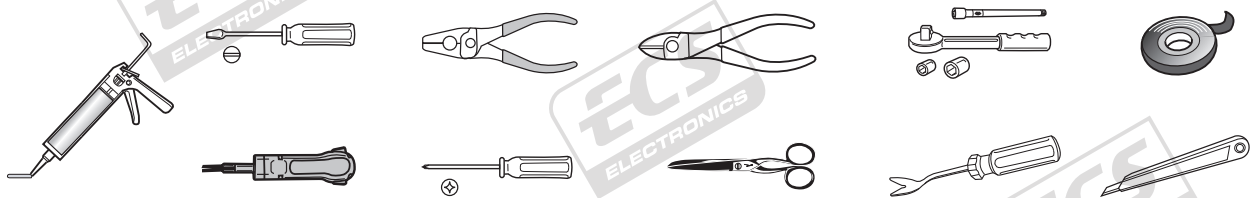
30x



SYMBOL EXPLANATION

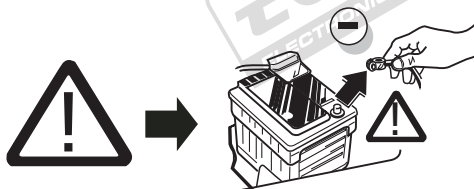
	Left (58-L) respectively Right (58-R) tail light		Cigarette lighter / accessory socket
54	Stop light (54) / high mounted, third stop light (54)		Loudspeaker / buzzer
	Turn signal indicator left		Park Distance Control
	Turn signal indicator right		Switch / source of function
	Rear fog light(s)		Connect together
	Reversing light(s)		Disconnect
	Permanent power supply / 13pin socket, chamber 9		Look at / See further information
	Charging wire for trailer battery / 13pin socket, chamber 10		Look carefully at selected area
	Trailer / trailer recognition		Present / Occupied / OK
B+ / 30	Permanent current power supply		Not present / Not occupied / Not OK
	Ground or Earth (31)		Acoustic indication
	Ground connection battery terminal lug		Attention / important advice
	Positive connection battery terminal lug		Fuse / fuse capacity 20 Ampère

TOOLS



ATTENTION!

The vehicle's cooling capacity may have to be increased when retrofitting a trailer coupling!
You must observe the manufacturer's instructions!!



Note: It may be necessary to check if this vehicle has a stored radio code before disconnecting the battery!



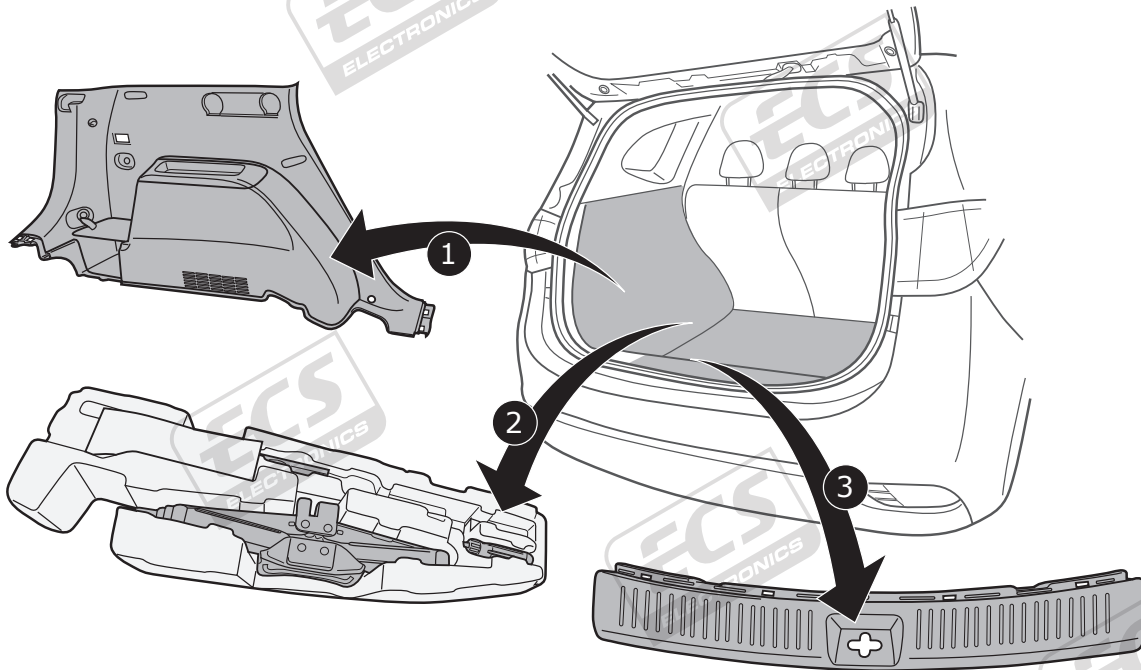
ATTENTION!

In order to avoid mal-functions and damage to the vehicle's electrical system the earth terminal **must be disconnected** from the vehicle's battery **before starting work!**

Both the trailer module and the vehicle's control unit for the electrical system can be damaged during work on the data bus connections if the battery is not disconnected!

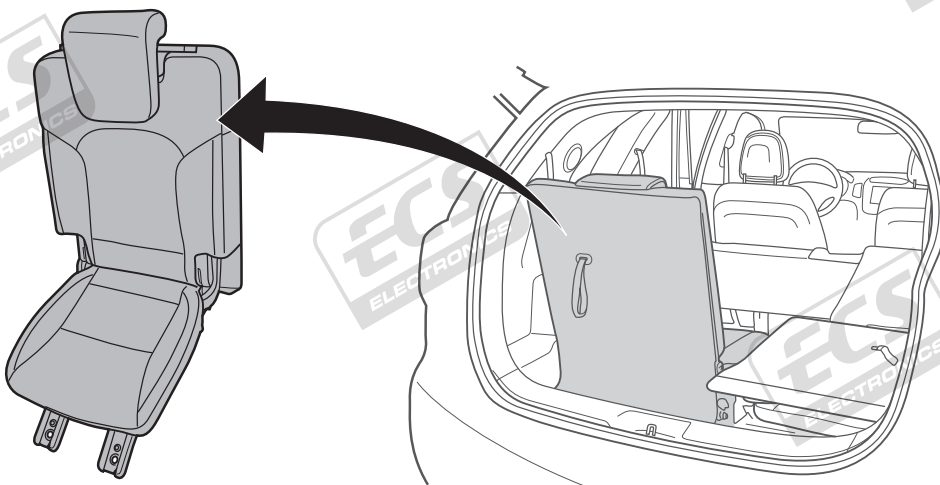
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Please pay attention to the manufacturer's instructions when disconnecting and reconnecting the vehicle's battery!

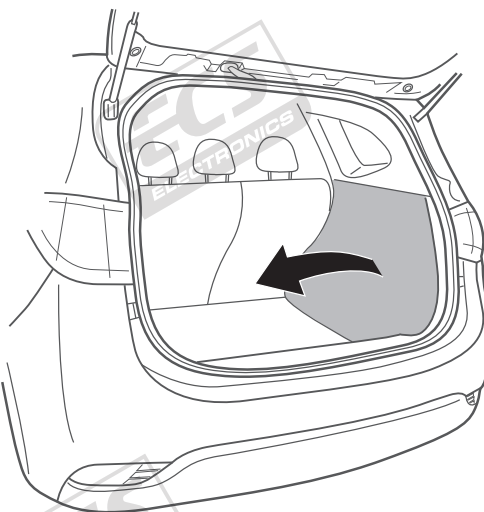


2

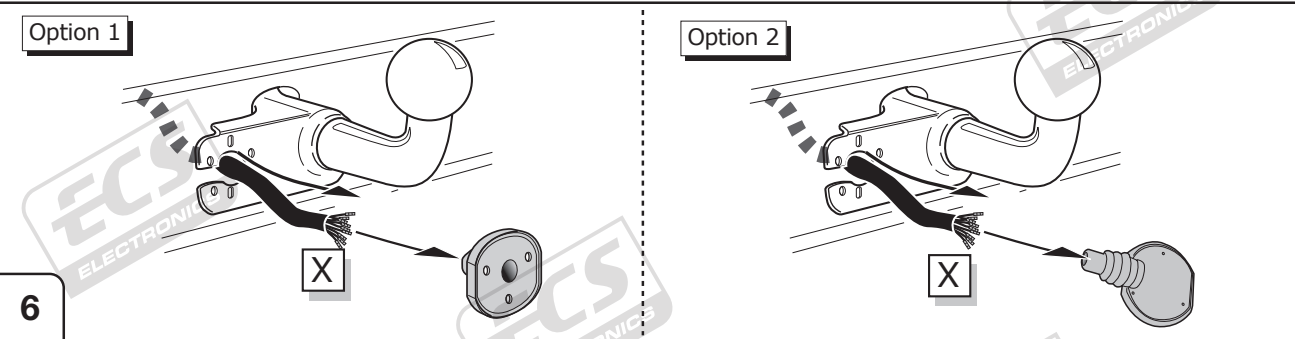
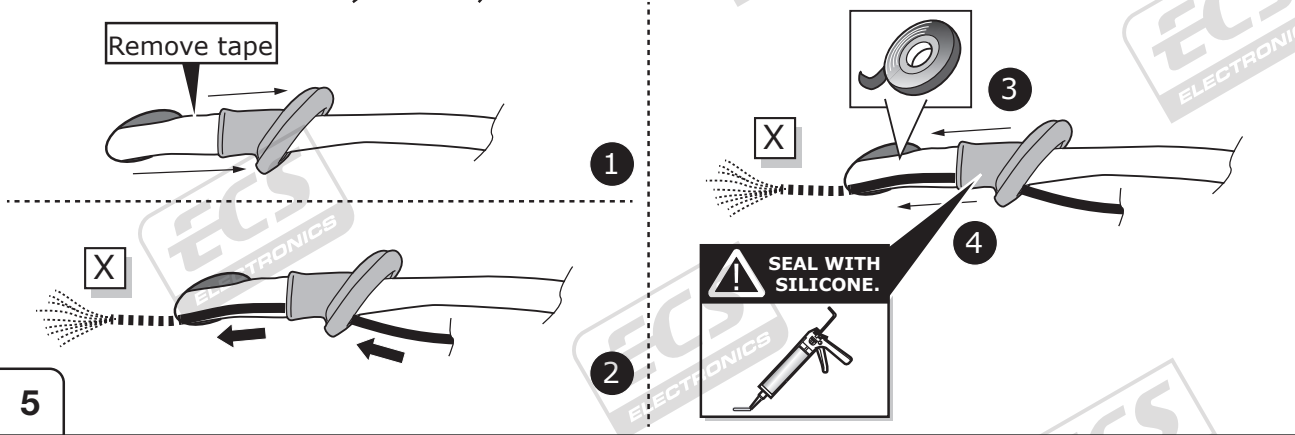
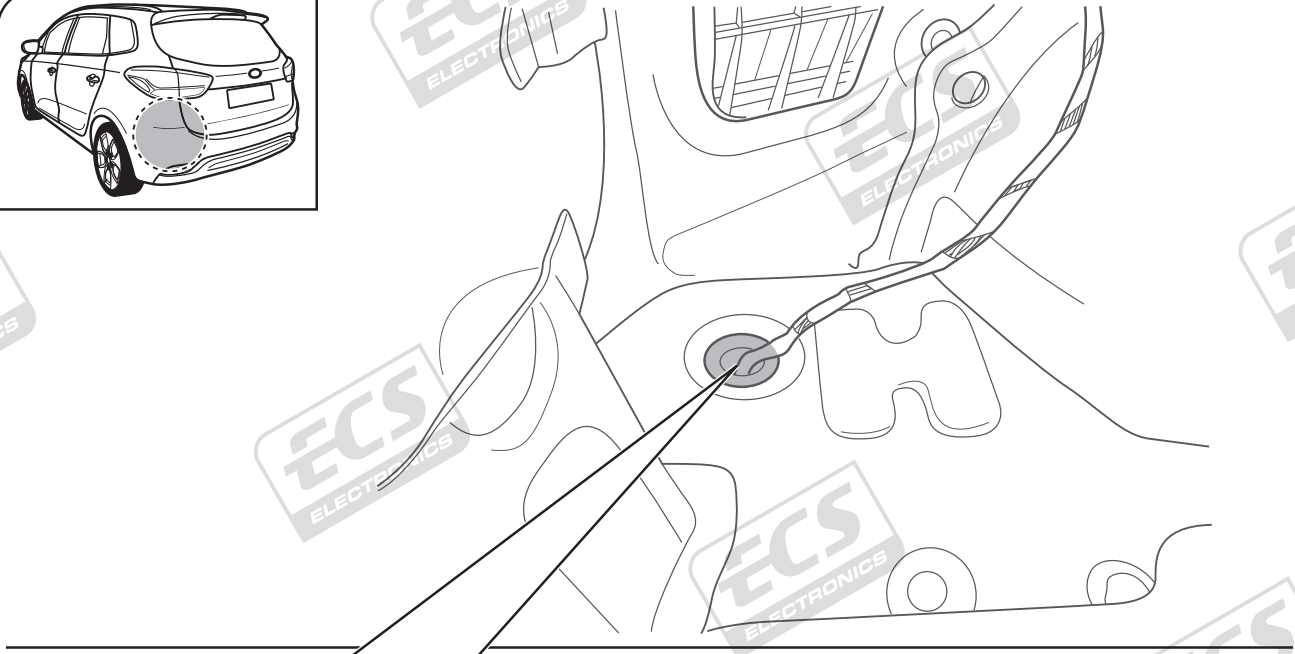
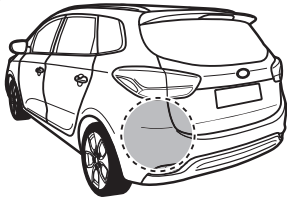
7 Seats



3



4

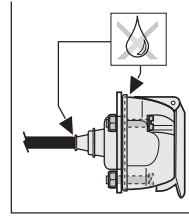
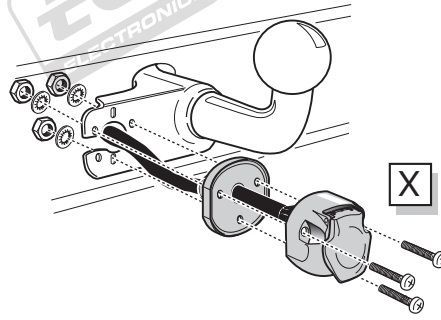


SOCKET CONNECTION

DIN/ISO 11446	← L	⊕	⊖ 1-8	R →	☀	STOP	☀	Reverse 0	30+	15+	⊖ 10	—	⊖ 9
	1/L	2	3/31	4/R	5/58-R	6/54	7/58-L	8	9	10	11	12	13
Pmax	21W	2x21W		21W	52W	3x21W	52W	2x21W	180W	180W			
Colour	Yellow	Blue	White	Green	Brown	Red	Black	Black/Red	Brown/White	Red	White	-	White

7

Option 1

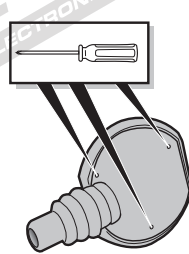


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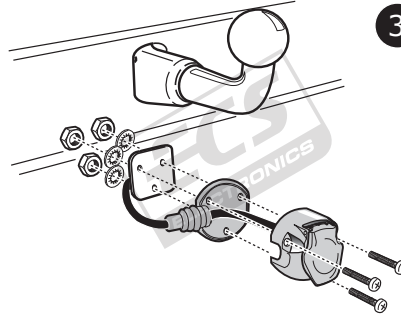
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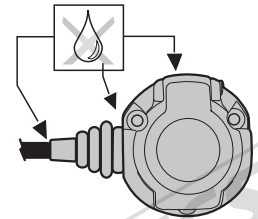
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2



3

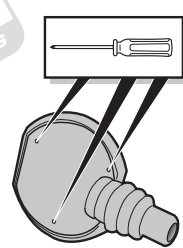


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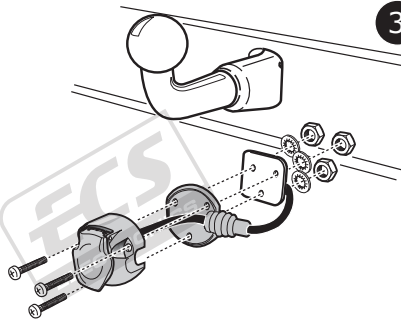
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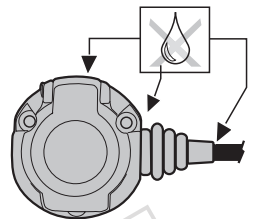
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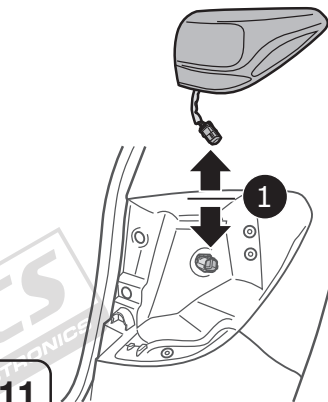
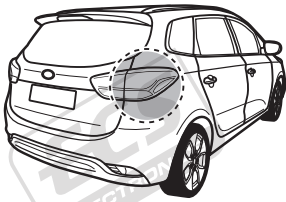
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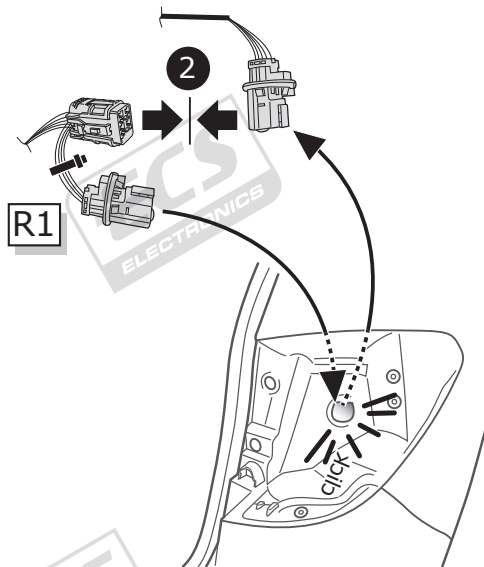


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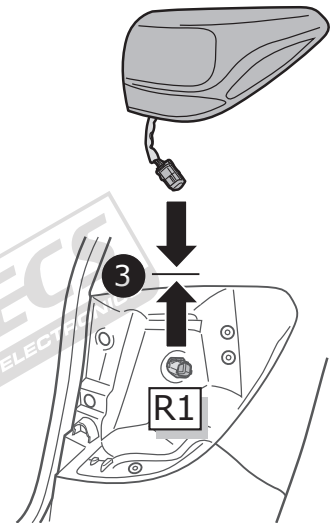
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11



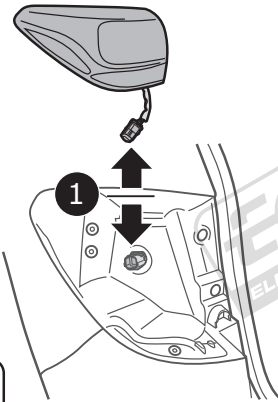
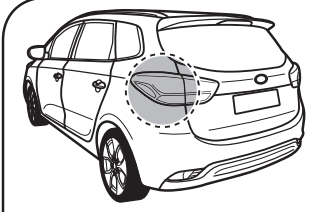
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R1

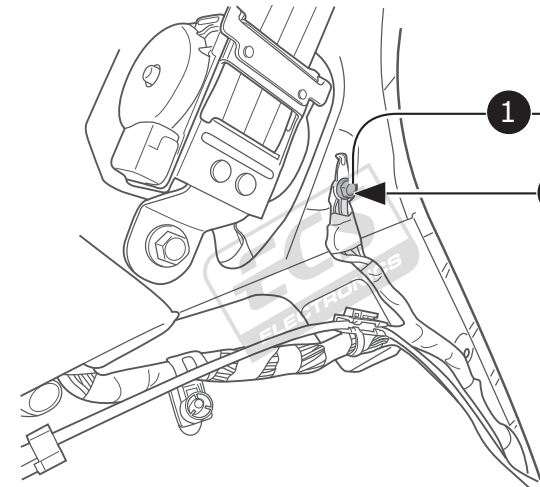
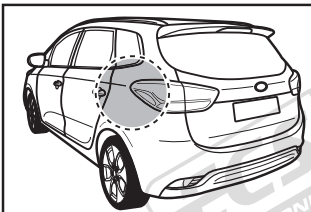
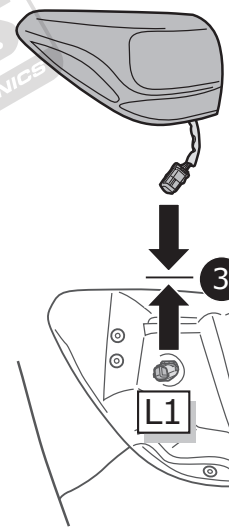
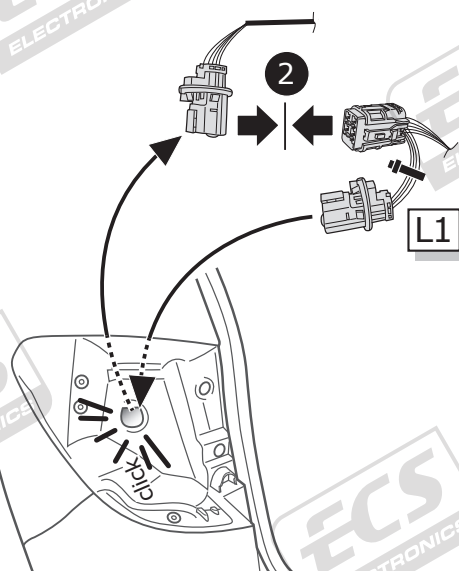


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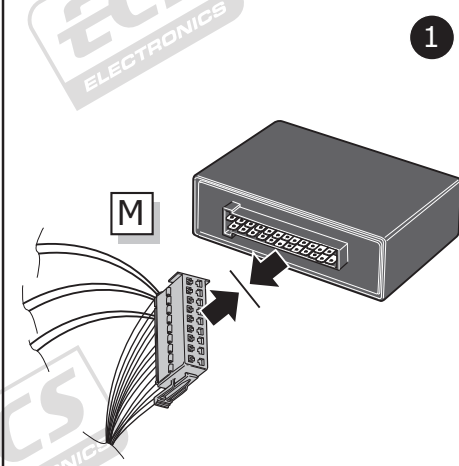
R1



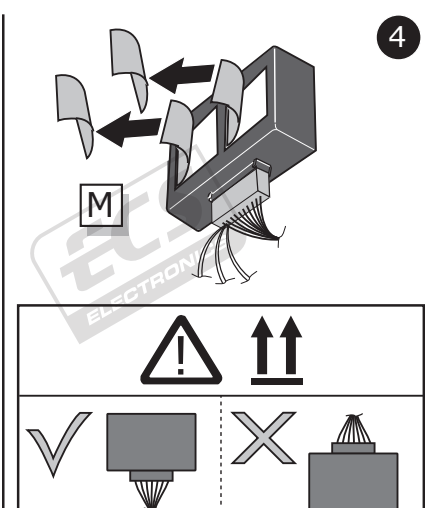
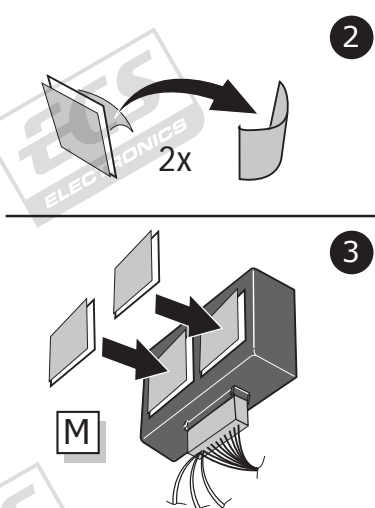
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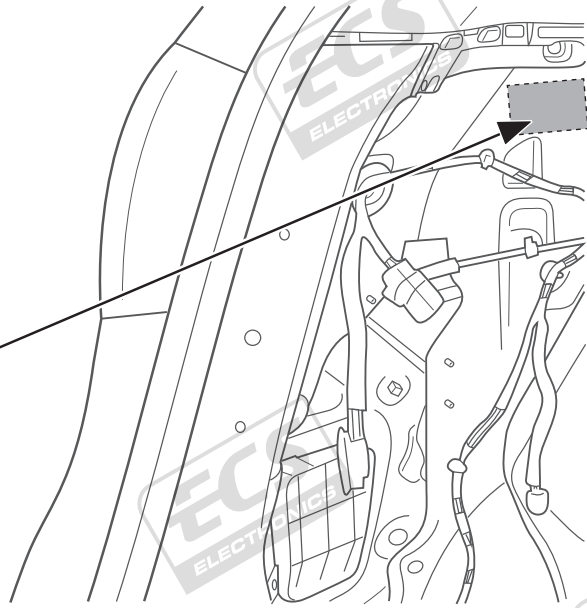
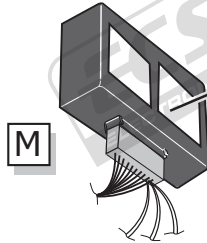
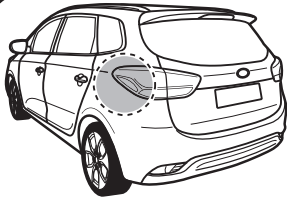


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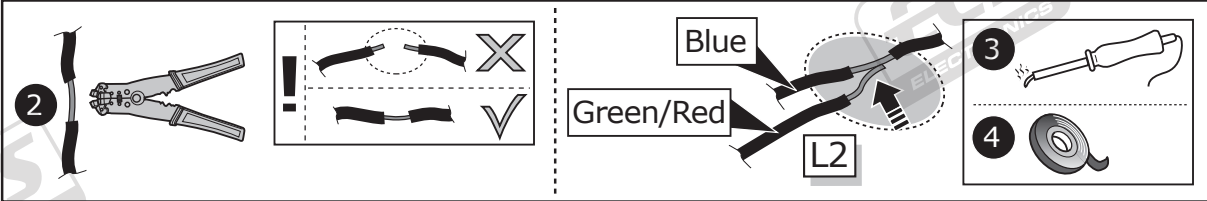
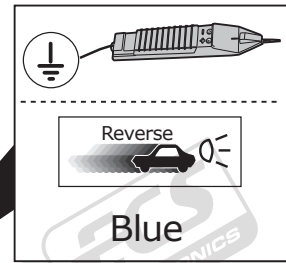
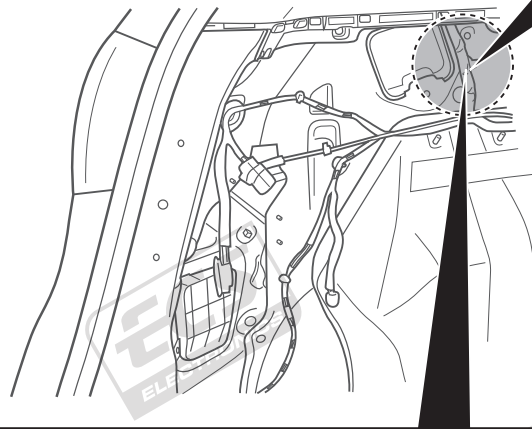
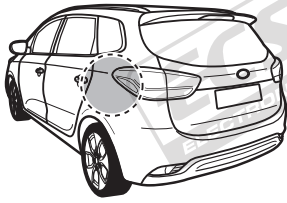


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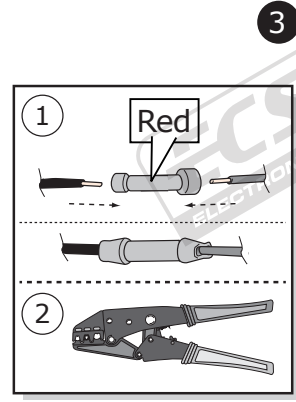
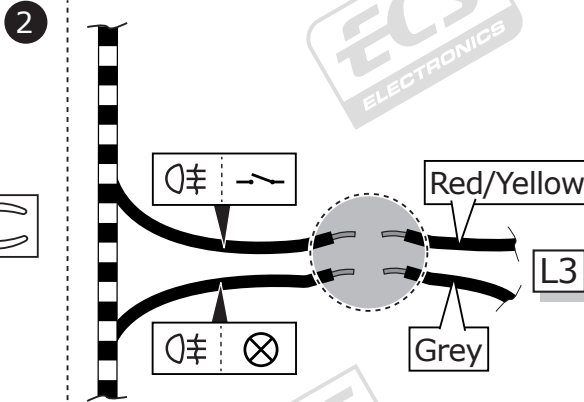
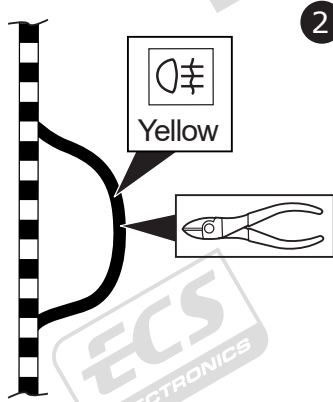
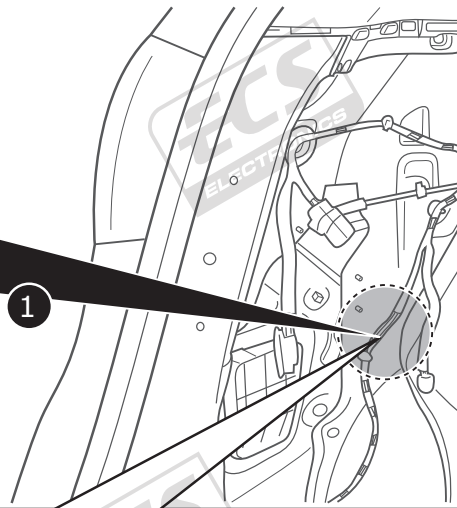
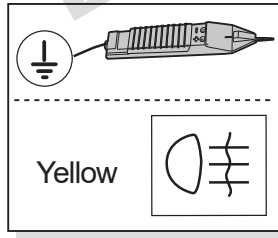
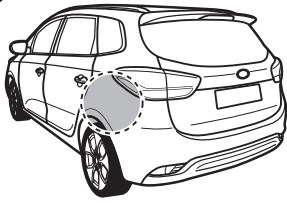




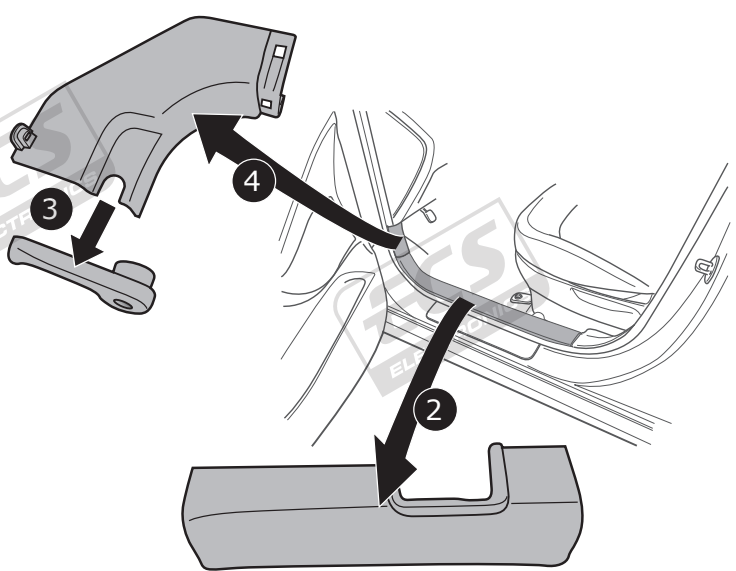
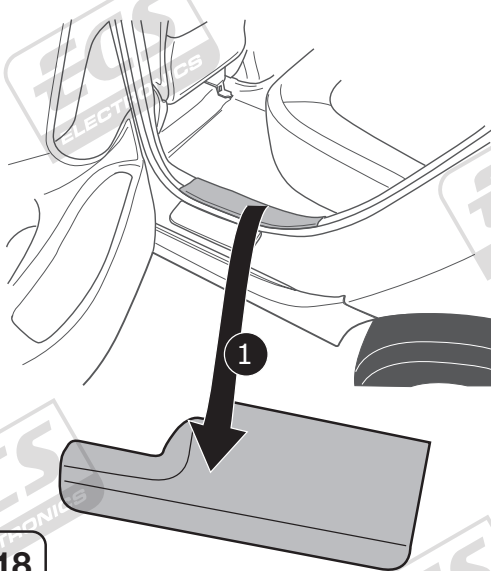
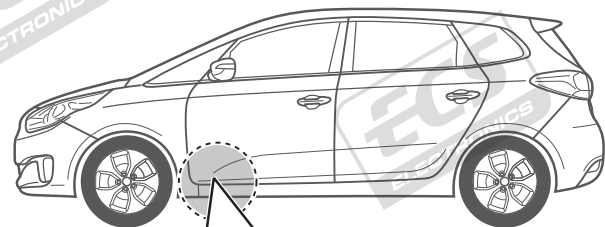
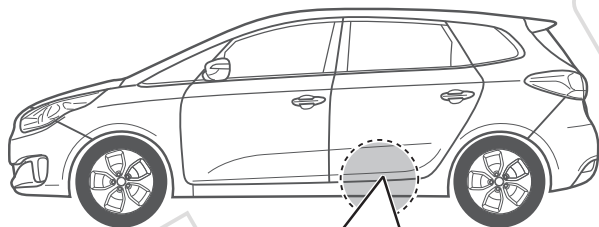
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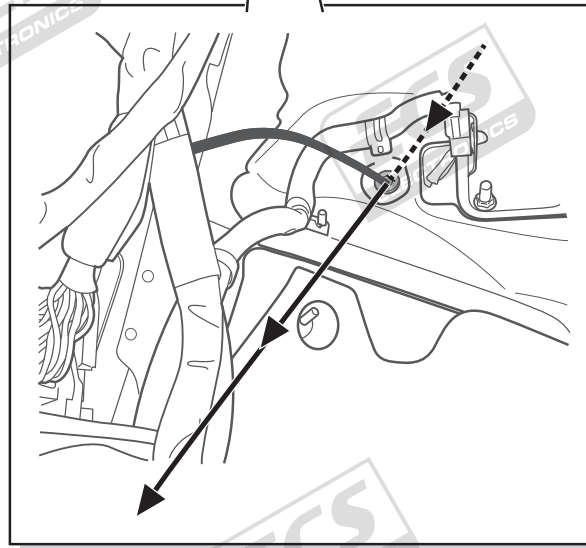
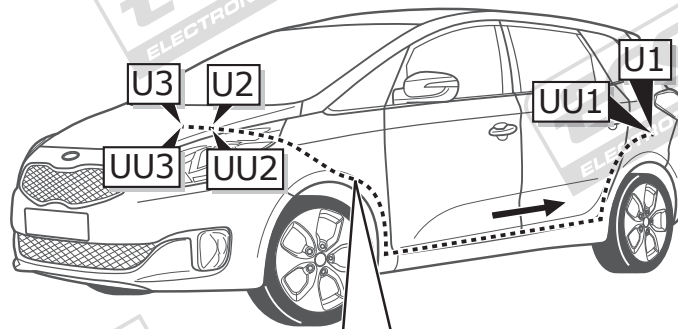
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17

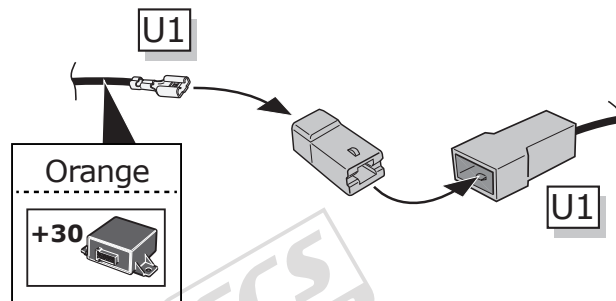


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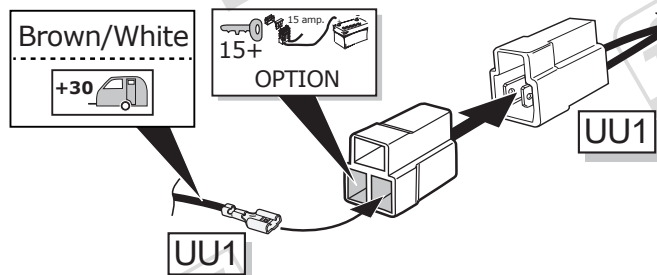


19

1



2

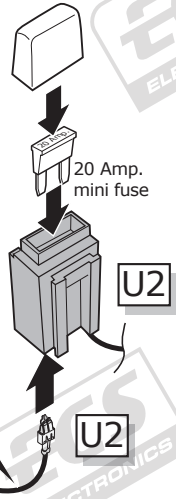


20

1

Orange

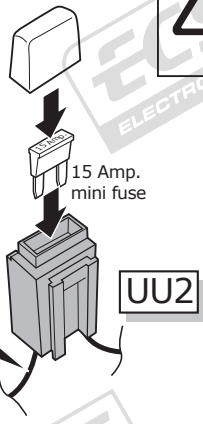
+30



2

Brown/White

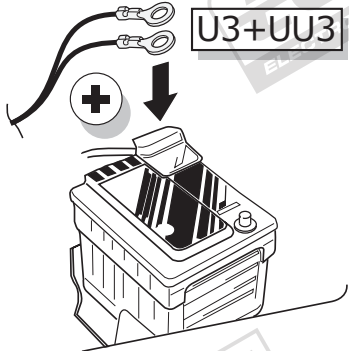
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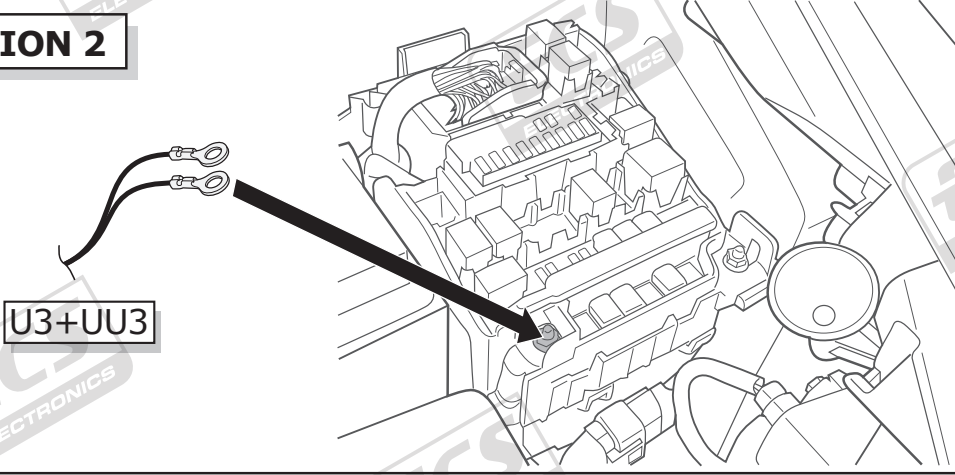
	20 Amp. mini fuse		15 Amp. mini fuse
	Orange		Brown/White

21

OPTION 1

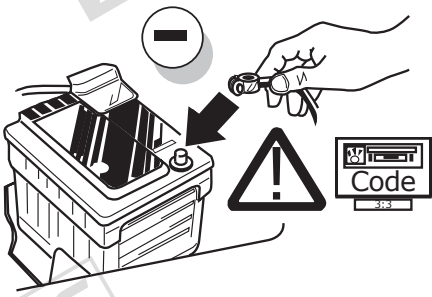


OPTION 2



22

23



Optional



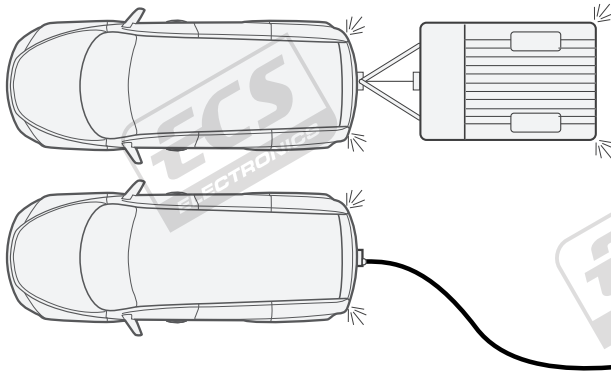
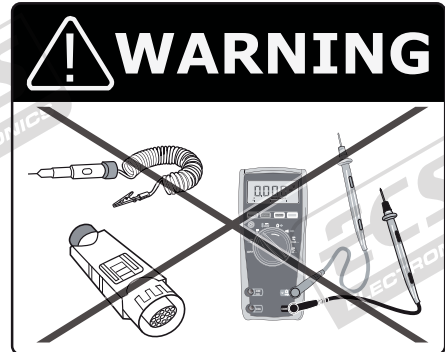
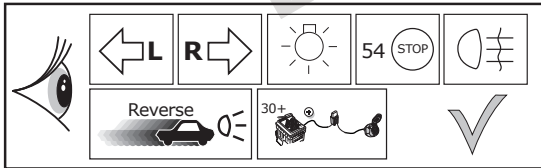
Consult your supplier.



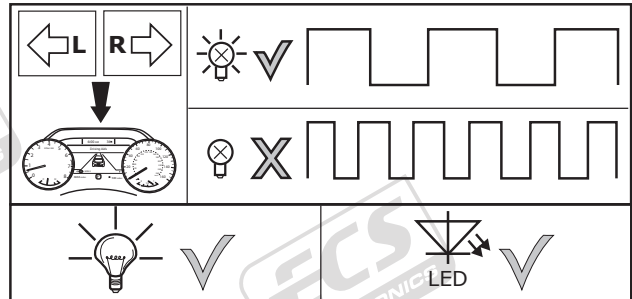
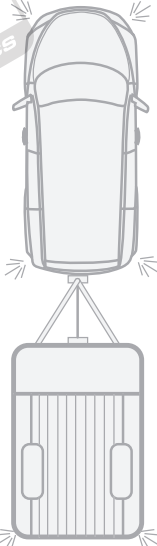
Trailer Simulator for 7- and 13-pin Sockets

24

Functional test



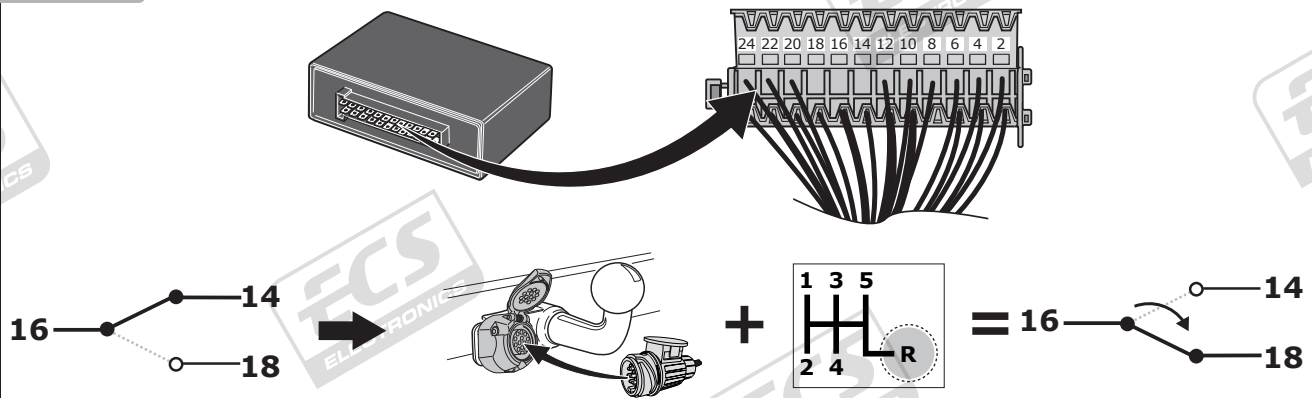
25



26

AUTO PARK-SENSOR SWITCH-OFF FUNCTION WITH THE 5C040 and 5C046 ECU.

FUNCTION



INFO



Lokaliseer de computer van het parkeersensoren-systeem (PDC) in the auto.

OPTIE 1 Onderbreek de draad op één van de locaties A t/m G en controleer na het onderbreken van de draad of het geen storingsmeldingen geeft aan het PDC-systeem of de auto. Indien het een storing veroorzaakt kies dan voor een andere locatie. Sluit de ECS trekhaak-bekabeling-set aan zoals aangegeven bij optie 1. Bij deze aansluiting zal het ECS systeem de betreffende draad onderbreken indien het PDC-systeem uitschakelt moet worden, en doorverbonden zijn indien het PDC systeem gewoon moet werken. Indien het gemonteerde PDC-systeem ook parkeersensoren aan de voorkant van het voertuig heeft, kies dan alleen locatie F of G, zodat de sensoren aan de voorkant niet uitgeschakeld worden.

OPTIE 2 Het PDC-systeem heeft een specifieke signaaldraad (**MUTE**): Controleer in de handleiding van het PDC-systeem wat voor signaal het PDC-systeem nodig heeft om deze uit te schakelen. Sluit de MUTE-draad aan op positie 16 van de stekker van de ECS set en verbind pen 14 en 18 overeenkomstig het benodigd signaal als aangegeven in de handleiding van het PDC-systeem. **Wees voorzichtig**, een verkeerde aansluiting kan ernstige schade aanbrengen aan het PDC-systeem

Controleer altijd vooraf en na het aansluiten de juiste werking van het PDC systeem en het voertuig op foutmeldingen.

Locate the **PDC** (Parking Sensor) Module in the Vehicle.

OPTION 1 When the PDC-system has no specific **MUTE** wire: Locate and cut the wire at **ONE** of the locations A-G and connect to the **ECS Towbar Wiring Kit** as shown in Option 1. Always check if cutting the wire at the selected location does not create any errors in the PDC-system or the vehicle, if so, then select another location. In this case the cut wire is connected and the system operates normally. When the trailer is connected. This wire becomes disconnected by the Trailer Module. If the same module also controls the Front Sensors then use only locations F or G to prevent the front sensors switching off.

OPTION 2 When the PDC-system has a specific **MUTE** wire: Check in the manual of the PDC-system which input the PDC module requires to switch off the system (+12v or Earth trigger). Then connect the Trigger wire of the PDC system to pin 16 of the ECS connector, and connect the required feed (+12v or Earth) to pin 14 and 18.

Be careful as connecting the wrong feed can cause damage to the PDC-system.

Always check Before and After installation the PDC System is working correctly, and where possible any error codes

Localiser l'ordinateur du radar de recul (**PDC**) dans le vehicule.

OPTION 1 Interrompre l'un des fils située sur la prise de A jusqu'à /y compris G et contrôlé après avoir interrompu le fil si aucun défaut n'apparaît sur le système de radar de recul ou sur le véhicule. Si un défaut apparaît choisissez une autre position. Brancher le faisceau de câblages ECS comme indiqué avec l'option 1. Avec ce branchement ECS, va être interrompu le fil concernant si le système du radar de recul doit être désactiver, et connecter si le système de feu de recul doit simplement fonctionner. Si le système de feu de recul est aussi monter à l'avant du véhicule, choisir alors seulement les localisations F et G, de sorte que le radar à l'avant ne soit pas désactiver.

OPTION 2 Si le radar de recul (**PDC**) a un fil spécifique (**MUTE**): Contrôler dans le mode d'emploi du système de feu de recul (PDC) quel signal est nécessaire pour désactiver celui-ci. Brancher le fil **MUTE** sur la position 16 de la prise du set ECS et connecter branchement 14 avec 18 selon le signal indiqué dans le mode d'emploi du système de radar de recul. **Soyez prudent**, un mauvais branchement peut détériorer le système de feu de recul.

Contrôler toujours après le bon fonctionnement du système de feu de recul et si aucun défaut apparaît sur le véhicule.

Suchen Sie im Auto das Steuergerät der Einparkhilfe (EPH).

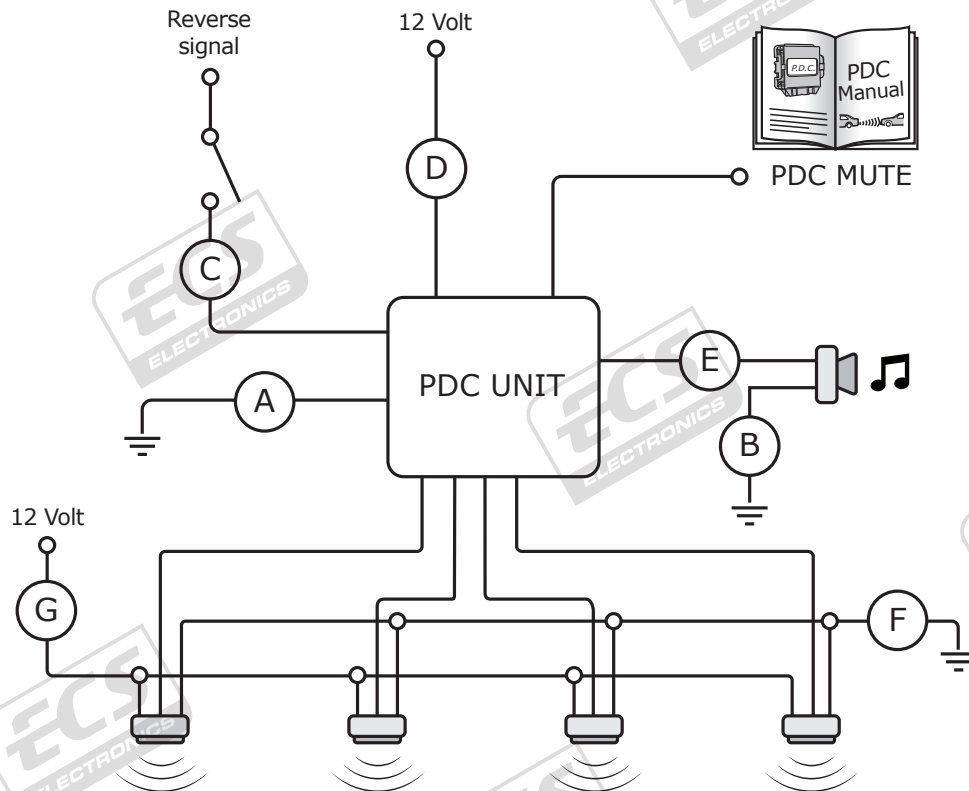
OPTION 1 Durchtrennen Sie den Draht an einer der Stellen von A bis G und schließen Sie den **ECS-Elektrosatz** wie in Option 1 angegeben an. Falls Sie eine Fehlermeldung erhalten, wählen Sie eine andere Position. Bei dieser Einstellung wird das ECS-System den betreffenden Draht unterbrechen, wenn das EPH abgeschaltet werden muss. Falls das montierte EPH-System auch Parksensoren an der Vorderseite des Fahrzeugs hat, wählen Sie Position F oder G, damit die Sensoren an der Vorderseite nicht abgeschaltet werden.

OPTION 2 Das EPH hat einen eindeutigen Signaldraht (**MUTE**). Prüfen Sie in der Montageanleitung des EPH-Systems, welches Signal benötigt wird um es abzuschalten. Schließen Sie den **MUTE**-Draht an die offene Position 16 des ECS-Steckers an und verbinden Sie Pin 14 und 18 mit dem geforderten Signal aus der EPH-Montageanleitung. **Vorsicht**, ein falscher Anschluss kann ernste Beschädigungen am EPH-System verursachen.

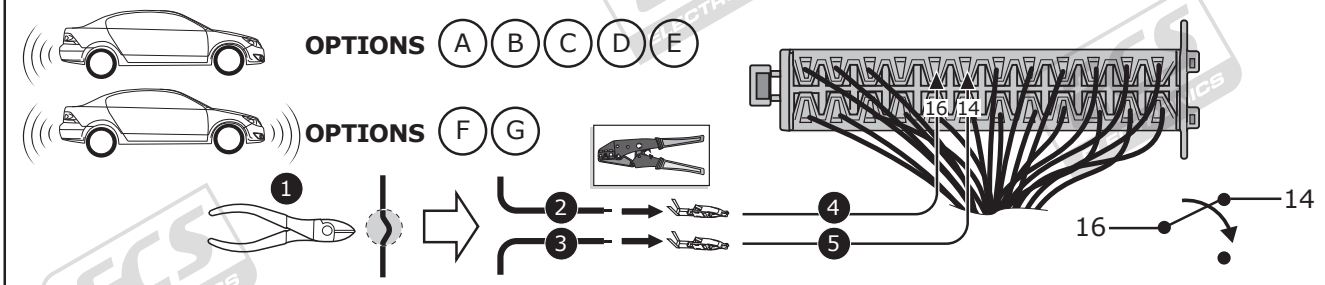
Prüfen Sie nach der Montage die korrekte Funktion des EPH-Systems und das Fahrzeug auf Fehlermeldungen.

AUTO PARK-SENSOR SWITCH-OFF FUNCTION WITH THE 5C040 and 5C046 ECU.

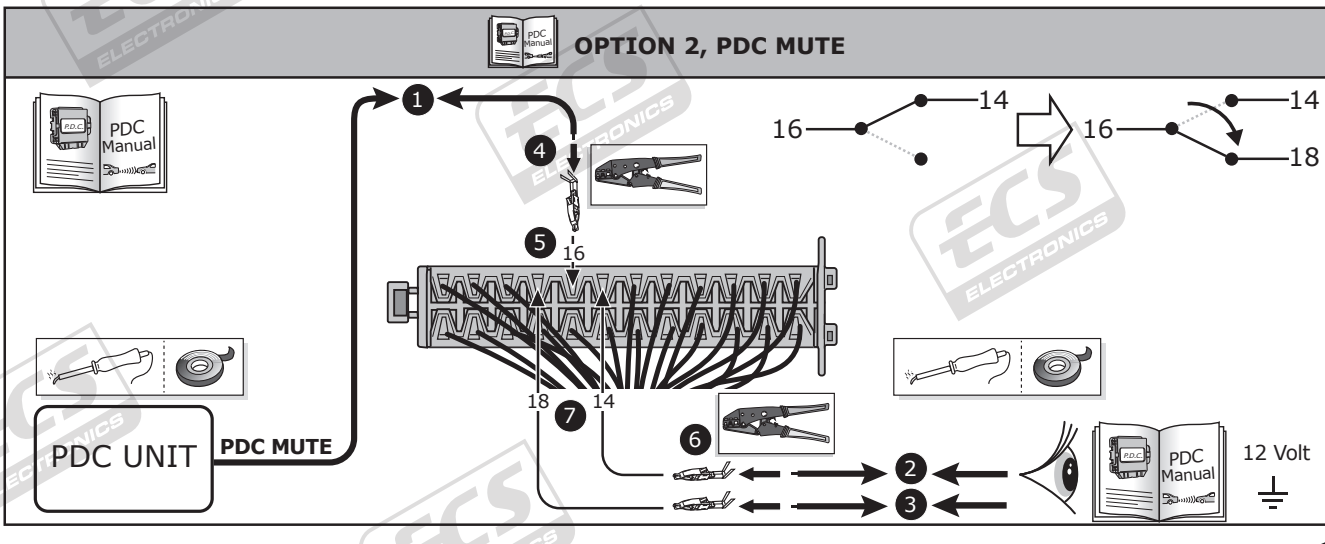
AFTER MARKET / NON-OE PARKSENSOR-SYSTEM



OPTION 1, NO PDC MUTE

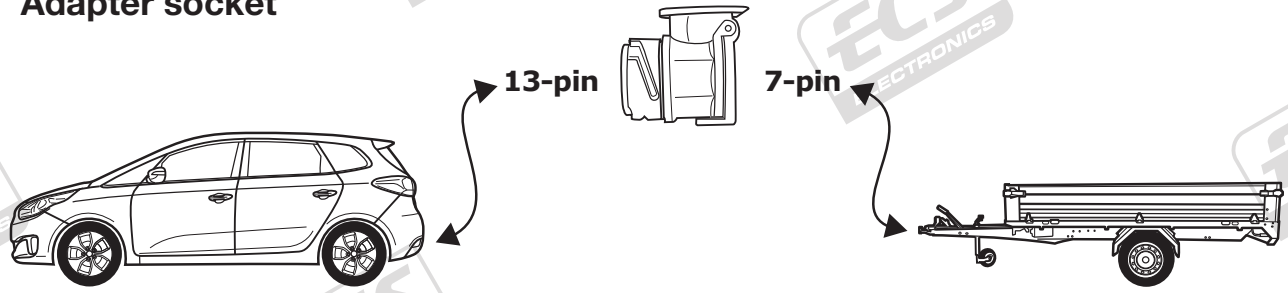


OPTION 2, PDC MUTE

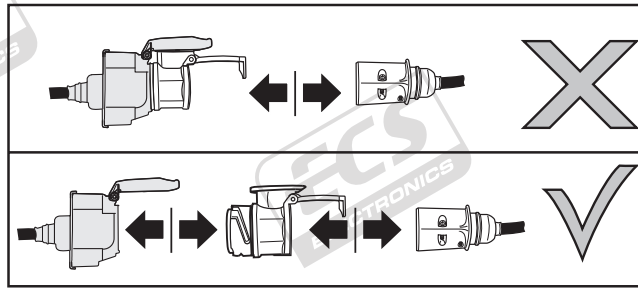
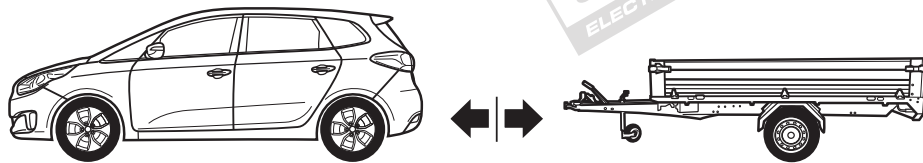


Optional

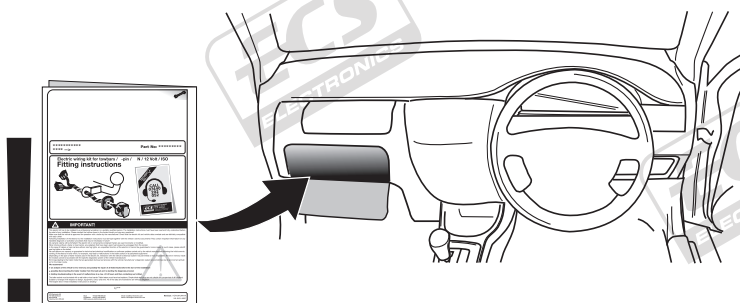
Adapter socket



27



28



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