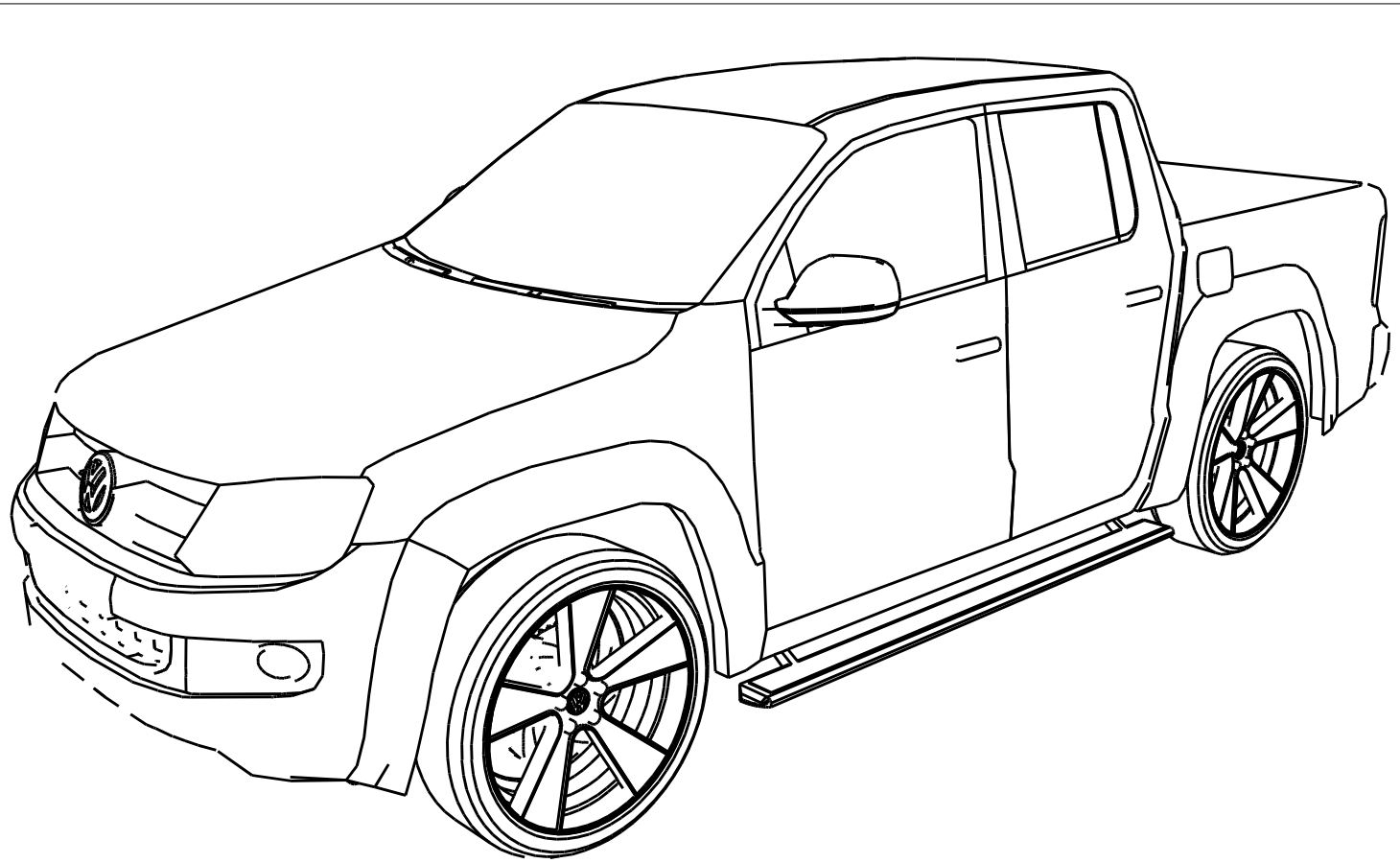
Volkswagen Amarok POWER BOARD

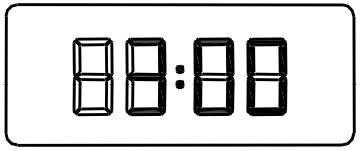


APPLICATION： Volkswagen Amarok 2009-UP

Volkswagen Amarok POWER BOARD

INSTALLATION GUIDE

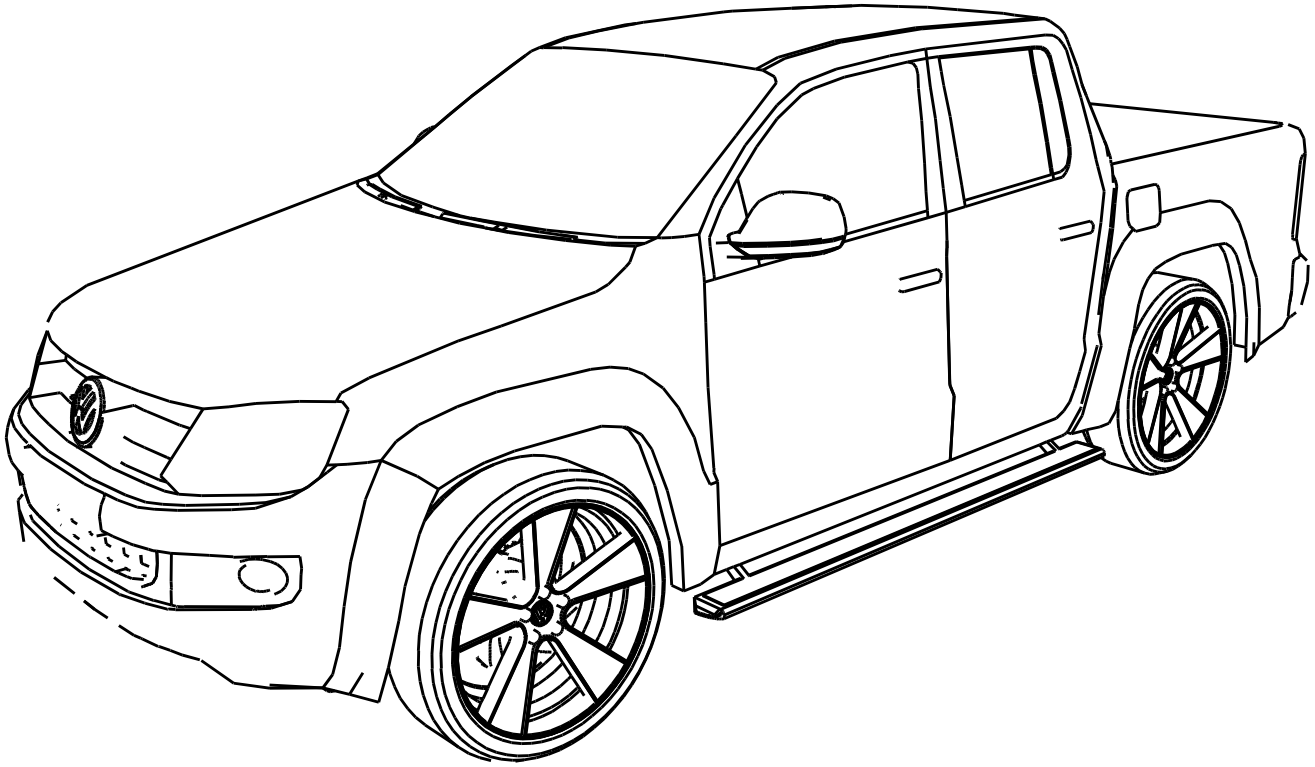
INSTALLATION TIME



Product Number： PST05-2210
PST05-2230

Tools Required:

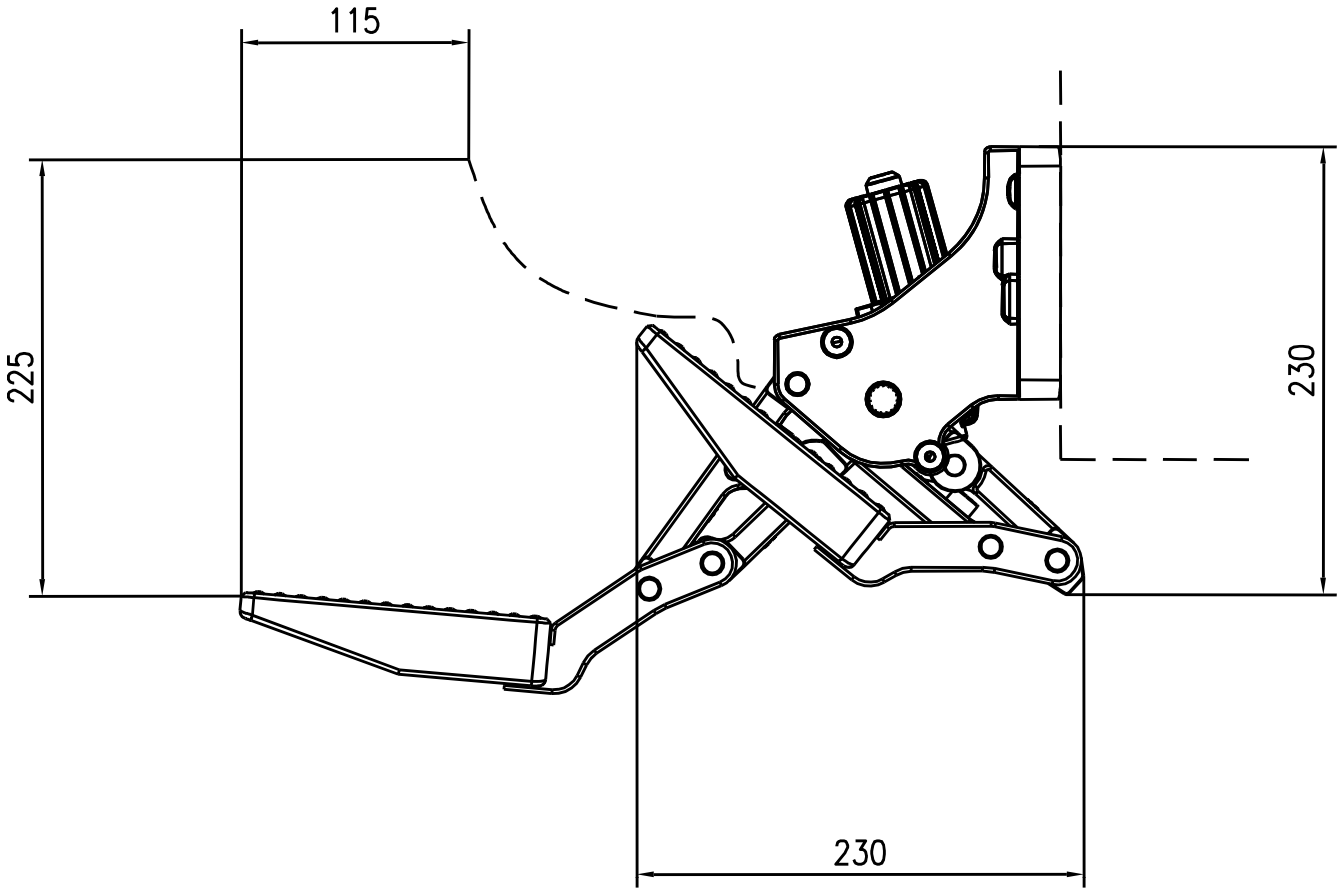
① 5mm Hex Key Wrench (Allen Wrench)
② 12mm Socket Spanner
③ 13mm Socket Spanner
④ 12mm Open Spanner
⑤ Pry Card
⑥ Cable Stripper/Cutter
⑦ Electrical Tap
⑧ Screw Driver



Contents

The product is developed and produced by Go Rhino, and the related patents are blow. Patents:US8,469,380;US9,656,609;US9,308,870;US9,688,205;US9,669,766

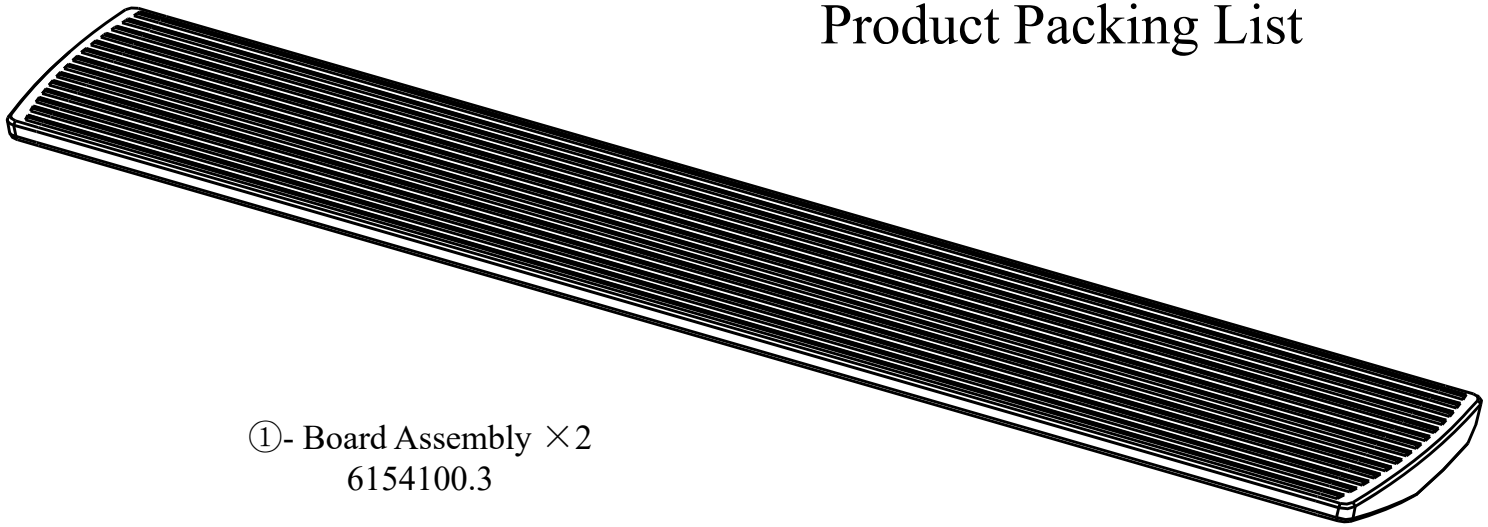
Product Technical Specification



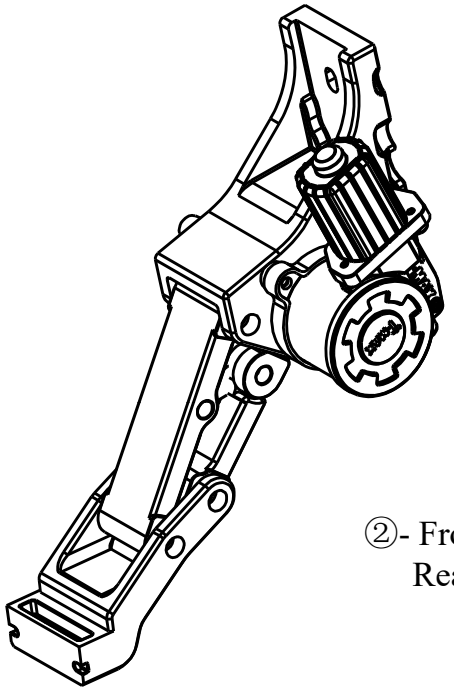
Rated Voltage: 12V
Specified Load: ≤300kg
Gross Weight: 24kg
Forward Extension Length: 115mm
(Horizontal distance between the edge of power board and the vehicle door when the board extends)
Board falling dimension : 225mm
(Vertical height difference between the edge of power board and the vehicle door while board extending).
(Both dimensions of forward and falling are theoretical, which may vary due to uncertainties such as installation errors, manufacturing errors of vehicle bottom and etc.,)

Note：Impact load is not allowed.
Please make sure the children and the aged will keep 20cm safe distance while power board is working to avoid any bump or jam.

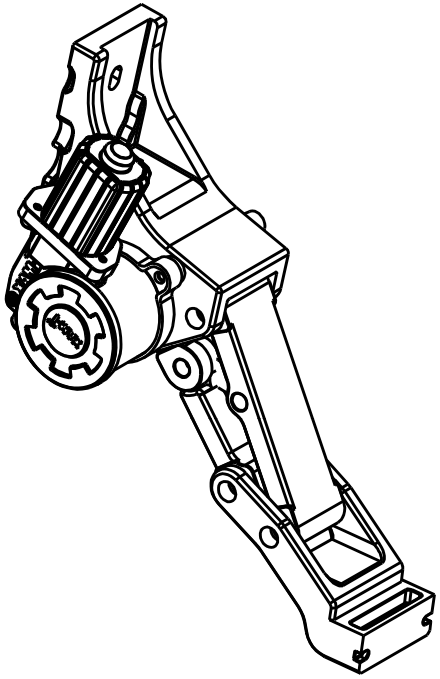
Product Packing List



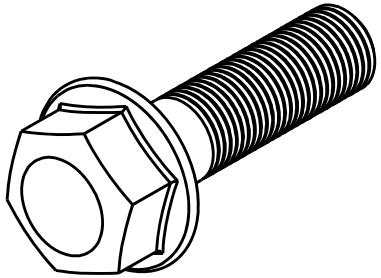
①- Board Assembly ×2
6154100.3



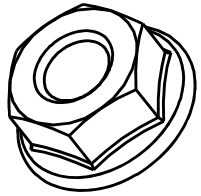
②- Front Motor Linkage Left ×1
Rear Motor Linkage Right×1
6154100.1L



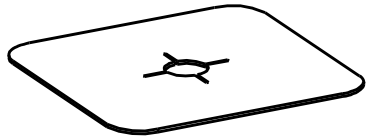
③- Rear Motor Linkage Left ×1
Front Motor Linkage Right×1
6154100.1R



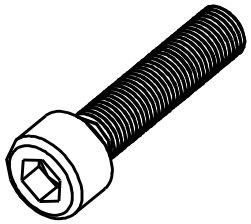
④- Hexagon Flange Bolt ×8
QC/T340-1999 M8×25



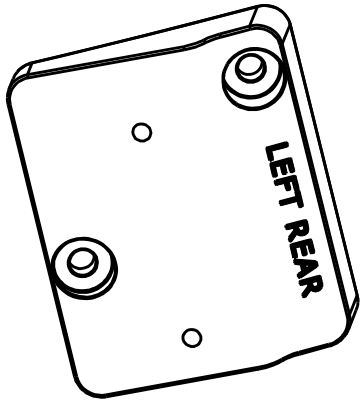
⑤- Hexagon Flange Nut ×10
GBT 6177.1-2000 M8



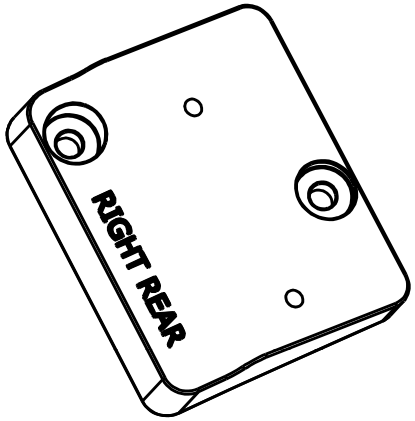
⑥-M8 Lock Washer×10
6154100.0-3



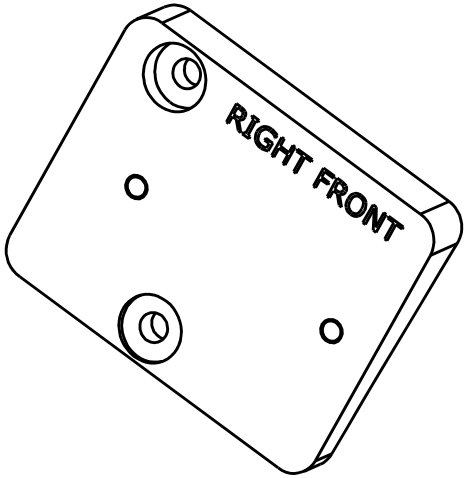
⑦- Socket Cap Screw ×8
GB/T70.1-2000 M6×25



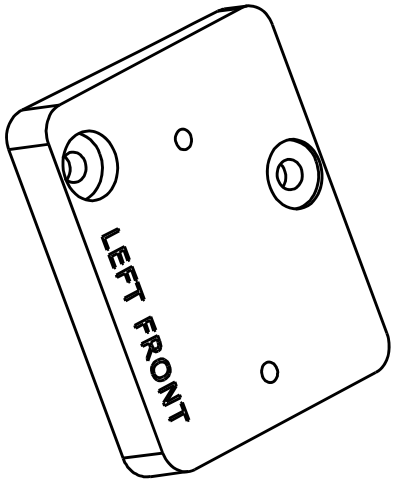
⑧- Rear Mounting Plate L×1
6154100.0-4L



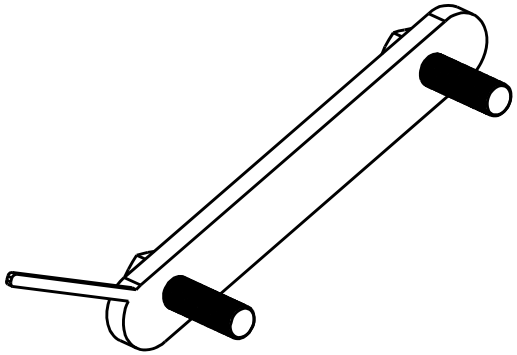
⑨- Rear Mounting Plate R×1
6154100.0-4R



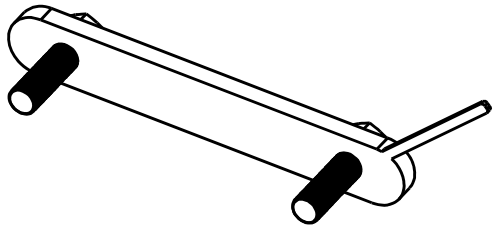
⑩-Mounting Plate 2-L×1
6154100.0-5L



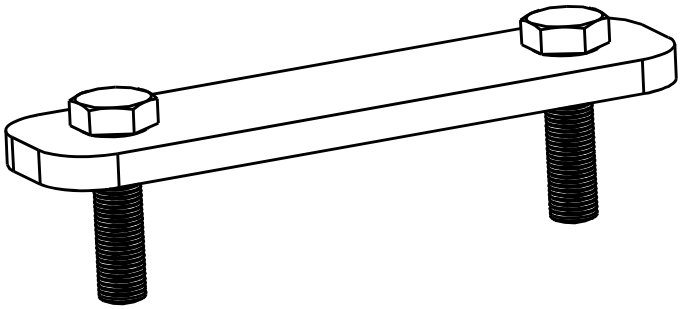
⑪ - Mounting Plate 2-R×1
6154100.0-5R



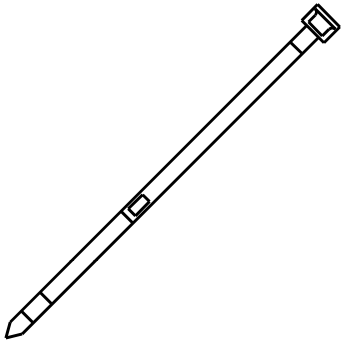
⑫ - Front Mounting Nut 54L×1
6154100.0-1L



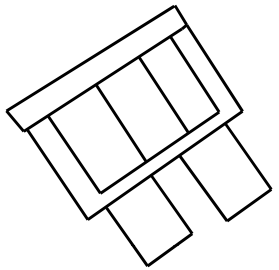
⑬ - Front Mounting Nut 54R×1
6154100.0-1R



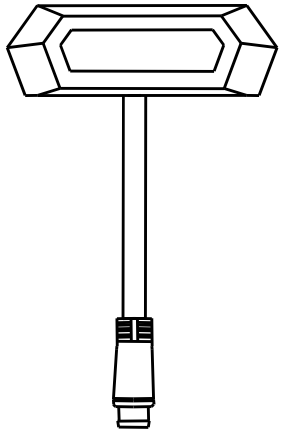
⑭ - Rear Mounting Nut 54×2
6154100.0-2



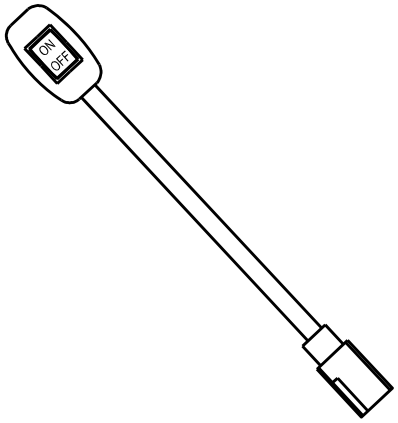
⑮ - Cable Tie ×25
GB/T22344-2008 5×300



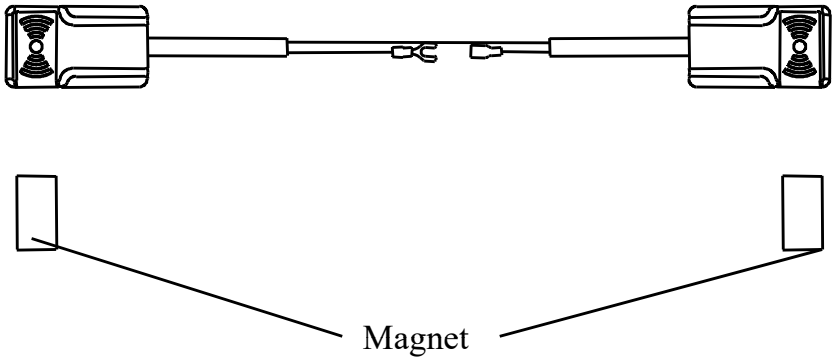
⑯ - Fuse ×2



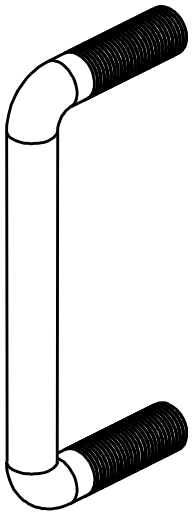
⑰ - LED Light Belt Module ×4
6161100.4.8
（Optional）



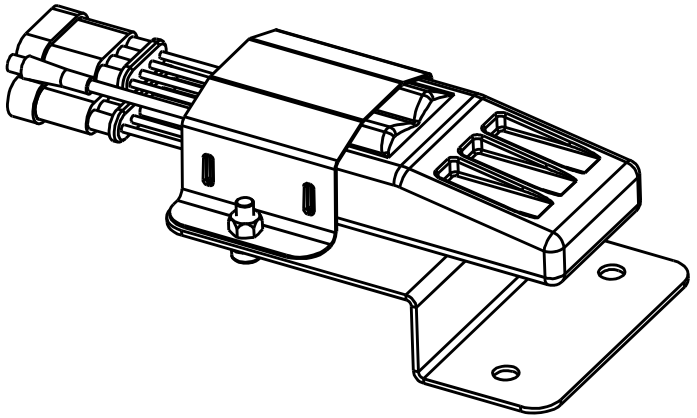
⑱ - Power Board Switch ×1
6124151.4.9



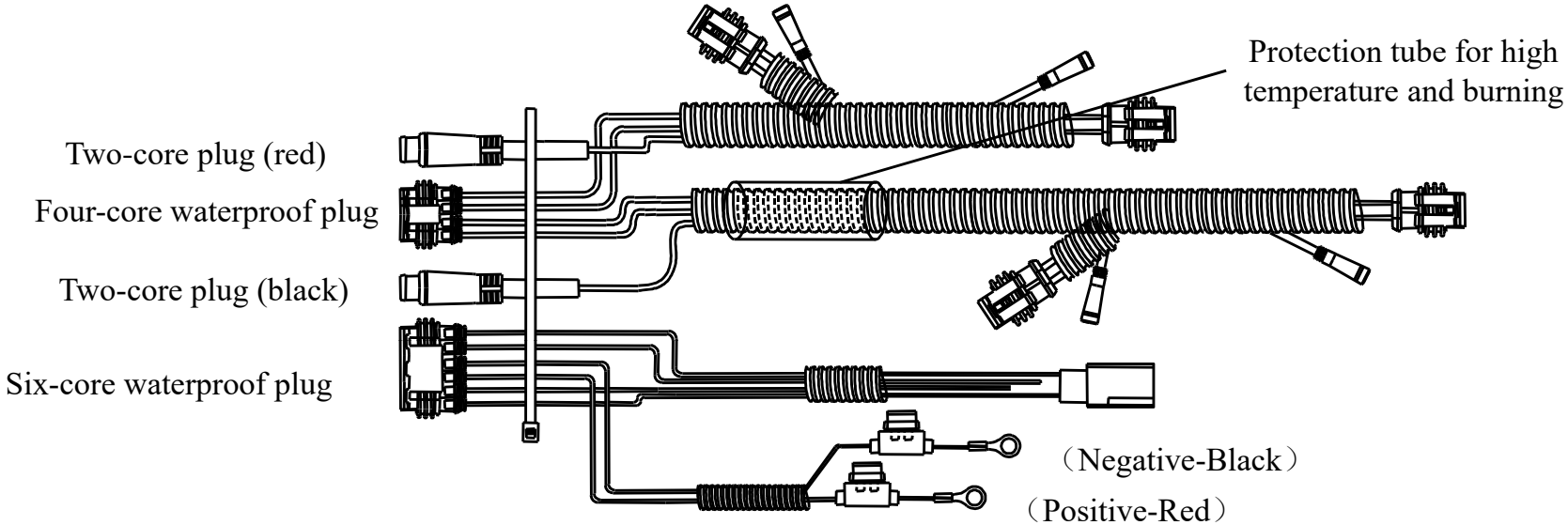
⑲ - Wired Magnetic Induction
Module ×2
- Magnet ×4



⑳ −Front U- Screw 61×1
6161100.0-1

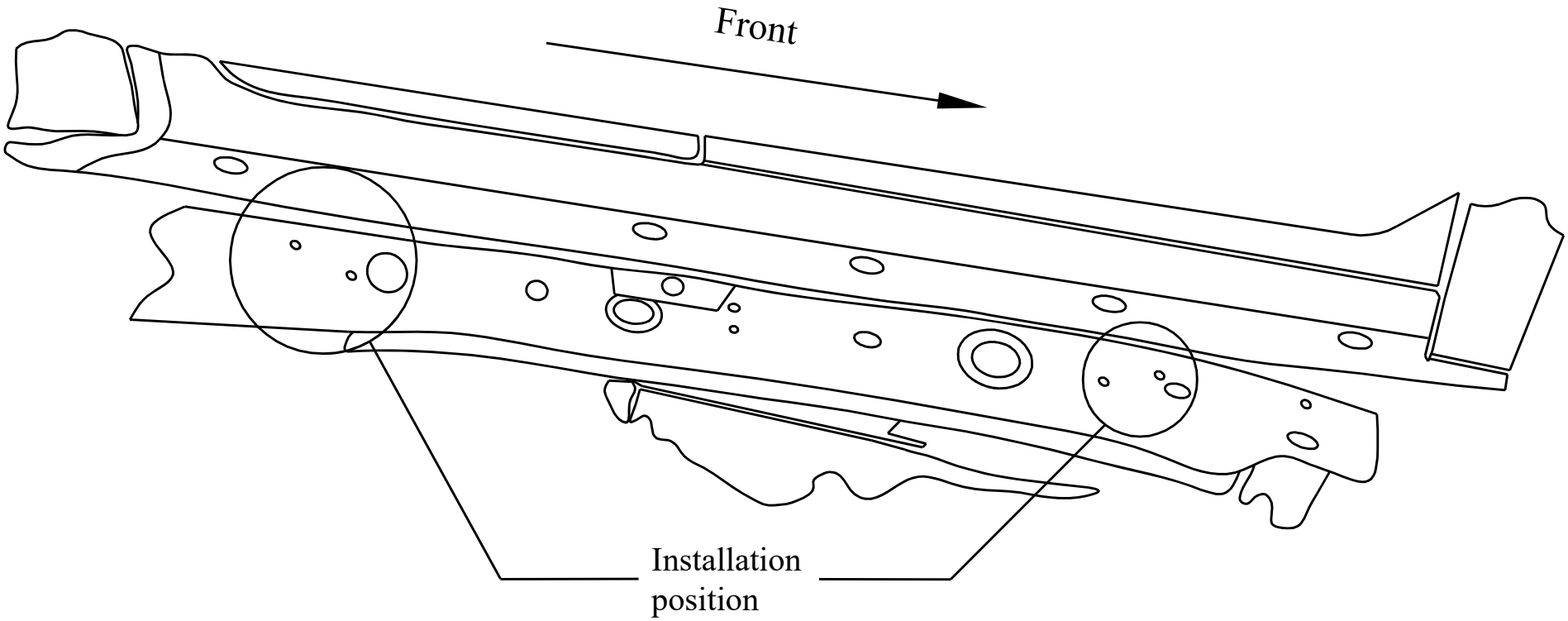


㉑ - Controller Assembly
6154100.4.4ZJ



㉒ - Control Input Wire ×1 6154100.4.1

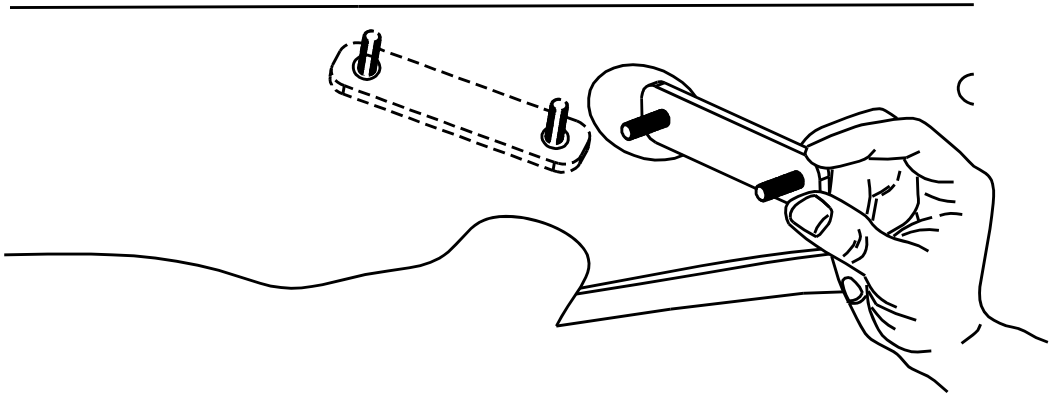
Mechanical Installation



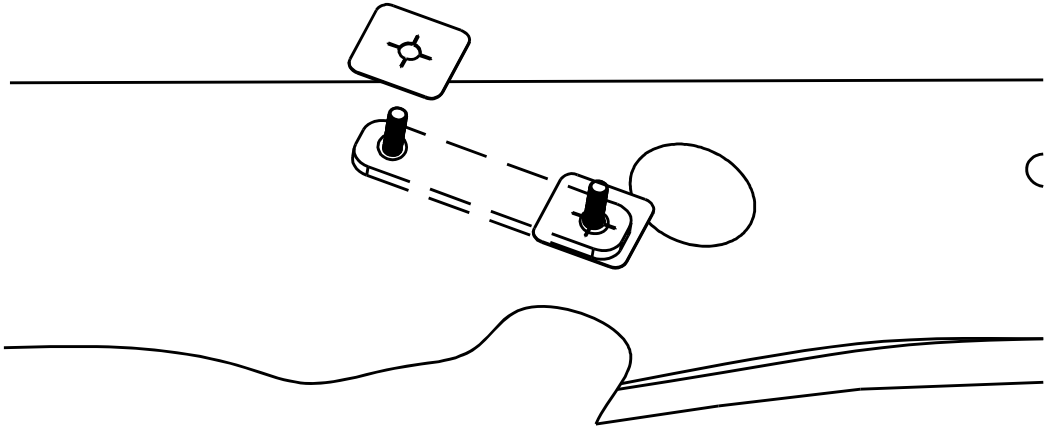
Installation Position On the Right Side

As shown in the picture, these are the two installation positions on the right side of the vehicle, and the installation mode of the front and rear linkage are similar .

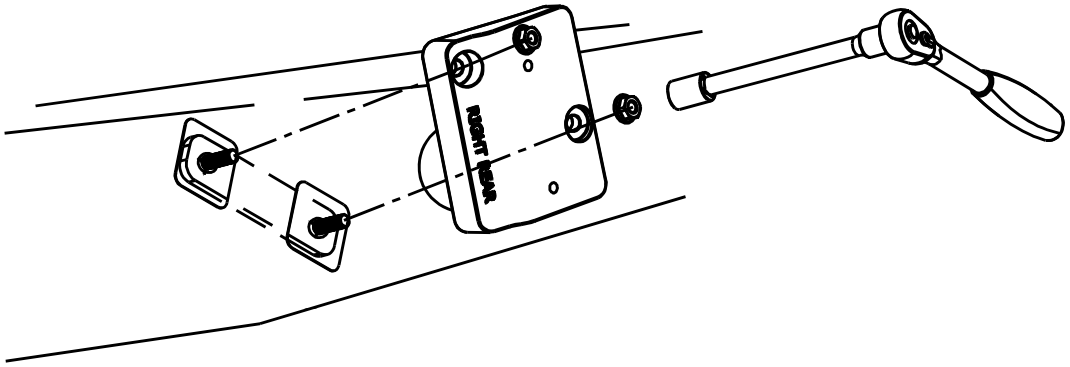
Right Rear Motor Linkage Installation



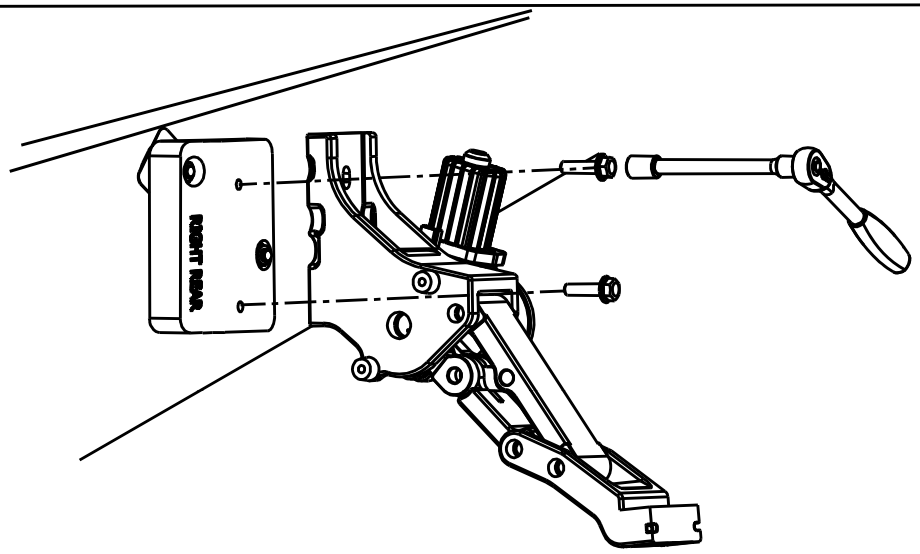
Step 1: Put in the rear mounting nut 54 through the hole in the beam, then get the bolts through the two holes which are corresponding to the beam.



Step 2: Put the M8 lock washers on the two bolts.

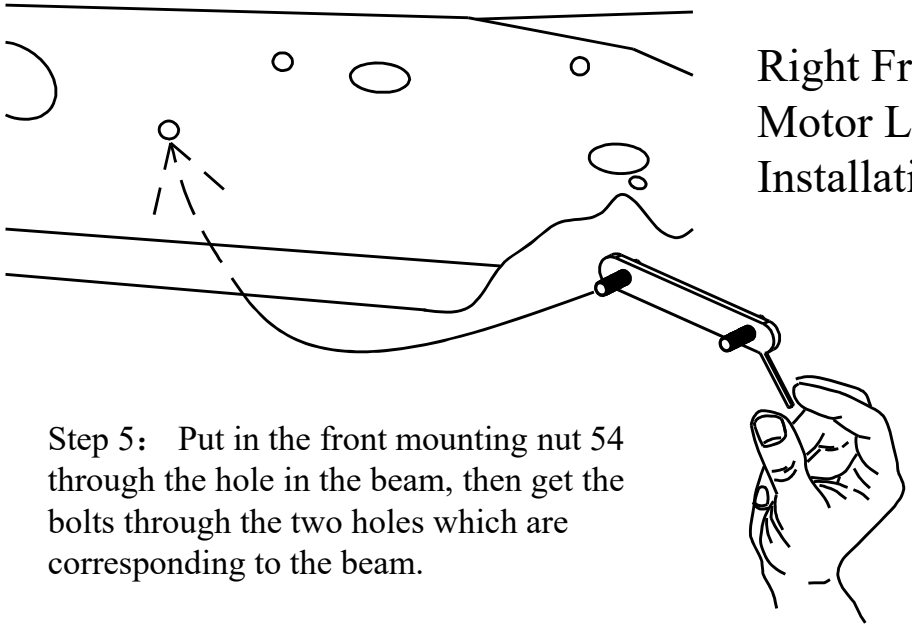


Step 3: Install the rear mounting plate R, then screw hexagon flange nut and tighten it (Tighten Torque 30 Nm).

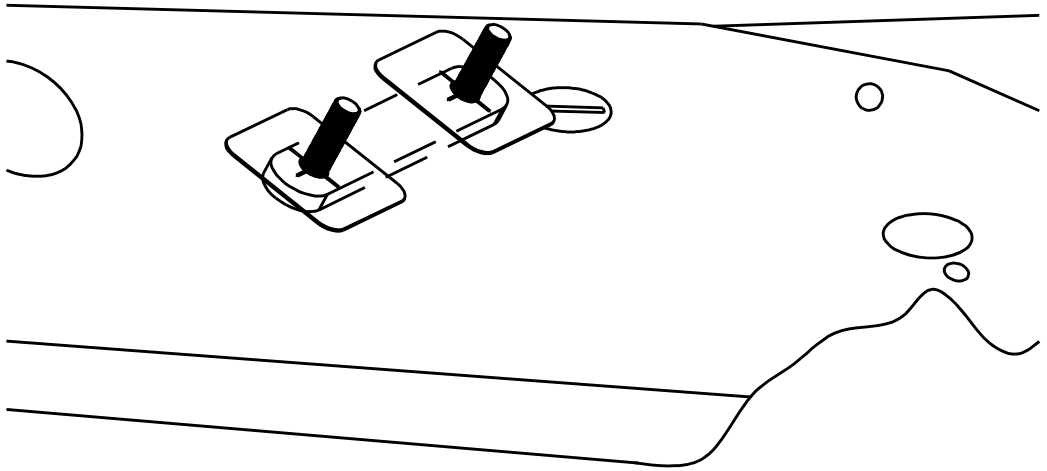


Step 4: Install the motor linkage ,then screw hexagon flange bolt and tighten it (Tighten Torque 30 Nm).

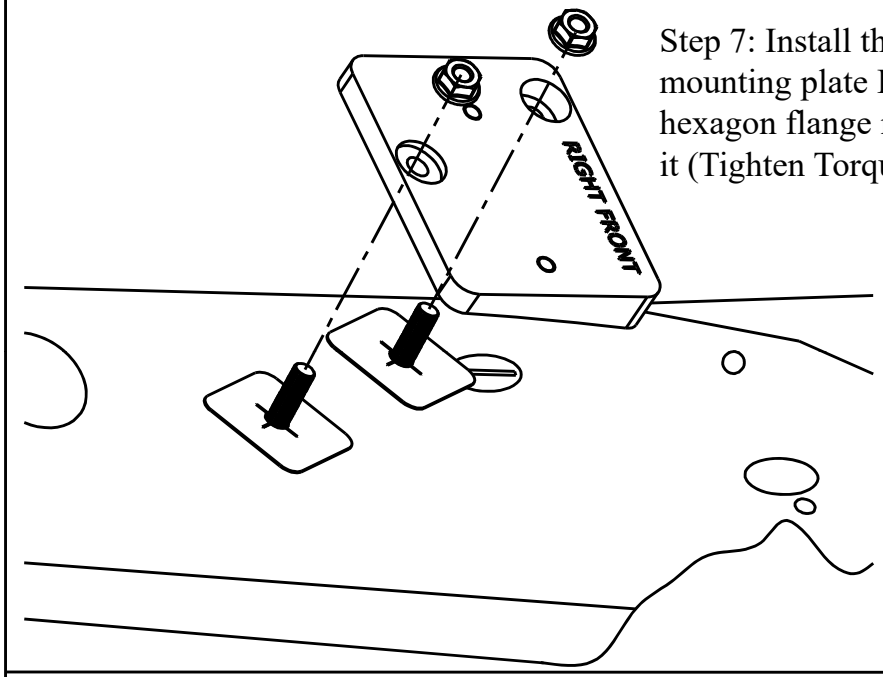
Right Front Motor Linkage Installation



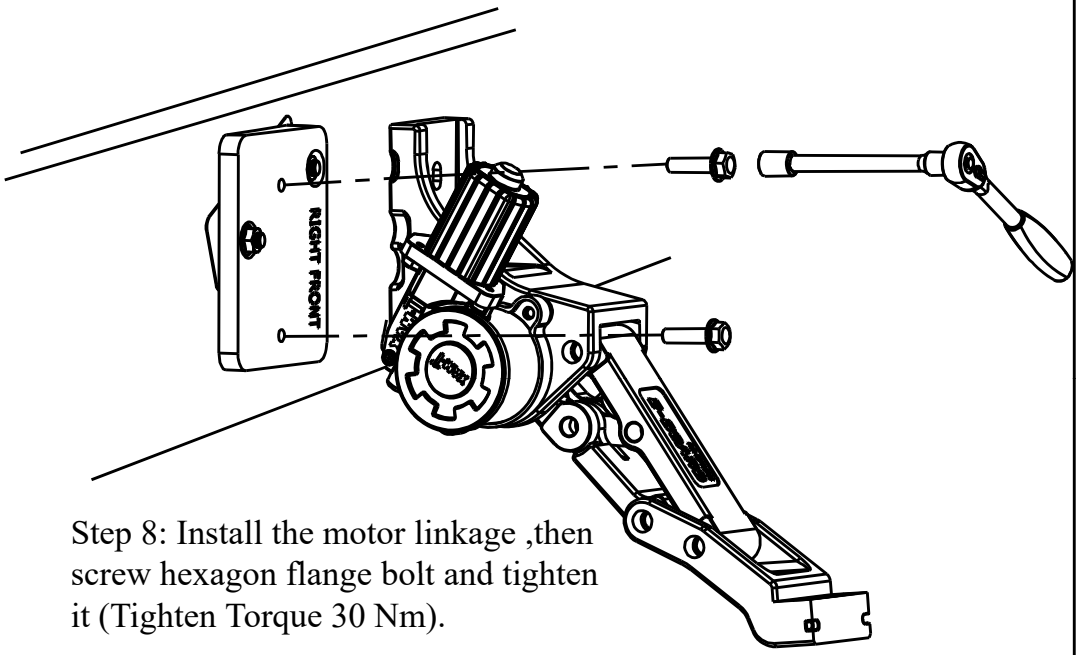
Step 5： Put in the front mounting nut 54 through the hole in the beam, then get the bolts through the two holes which are corresponding to the beam.



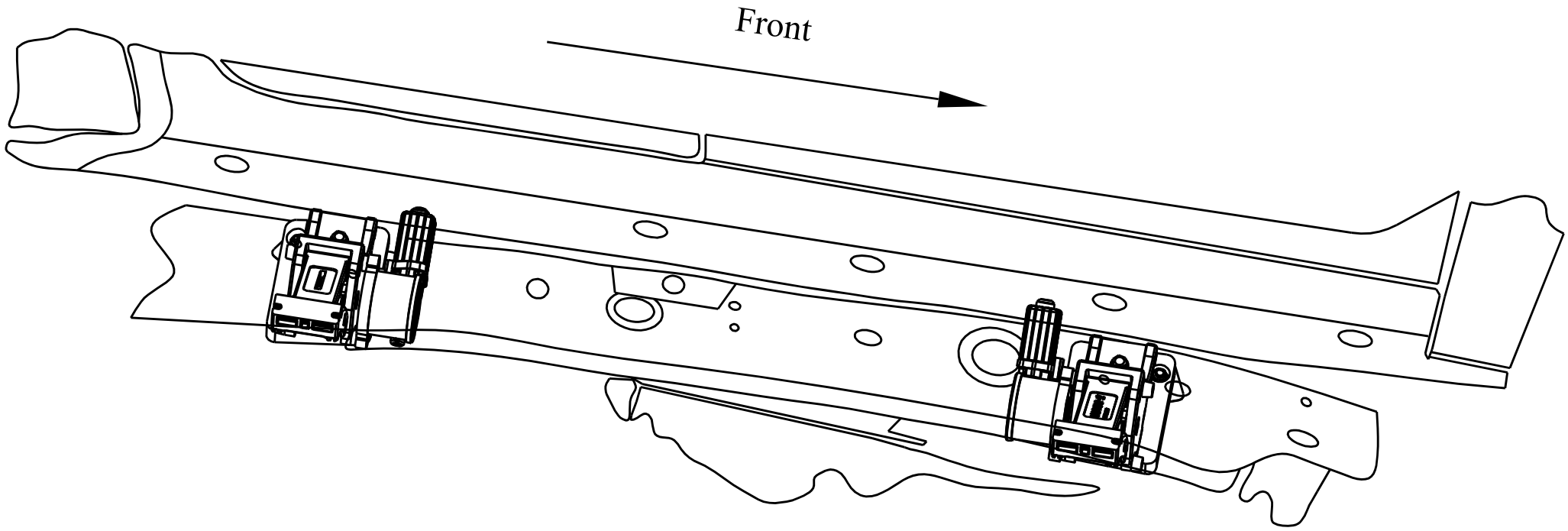
Step 6: Put the M8 lock washers on the two bolts.



Step 7: Install the front mounting plate R, then screw hexagon flange nut and tighten it (Tighten Torque 30 Nm).

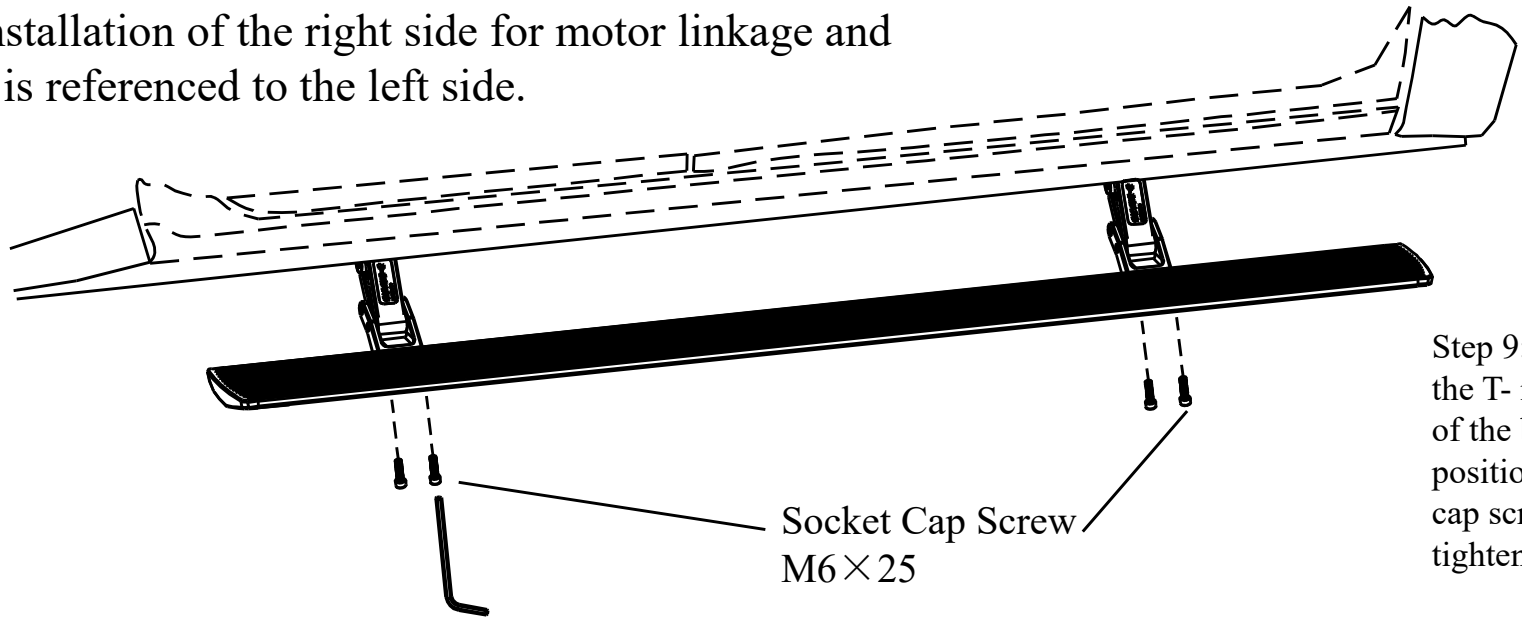


Step 8: Install the motor linkage ,then screw hexagon flange bolt and tighten it (Tighten Torque 30 Nm).

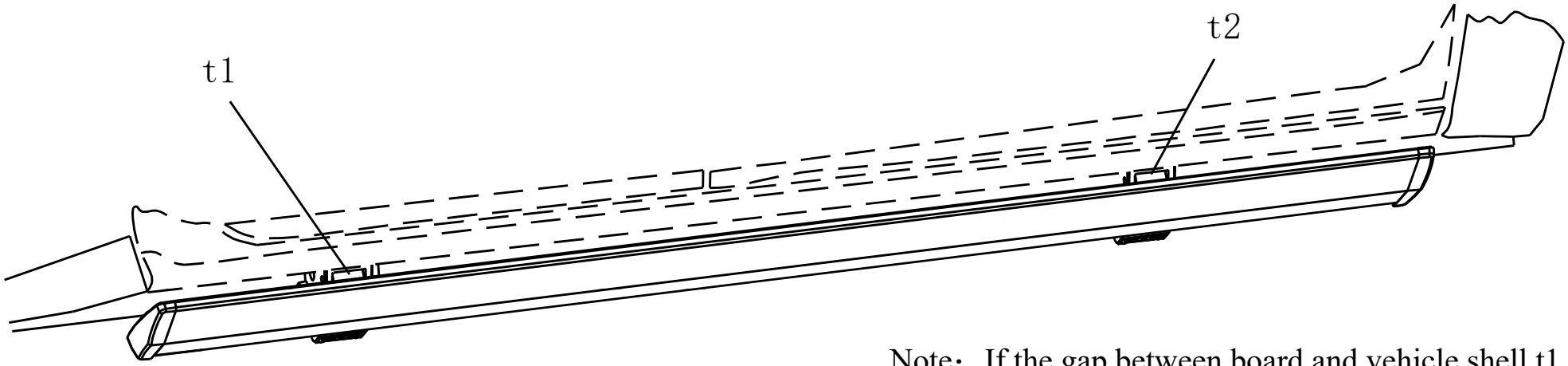


As shown in the picture ,it’s the status of motor linkage installing completely on the right side of the vehicle.

The installation of the right side for motor linkage and board is referenced to the left side.

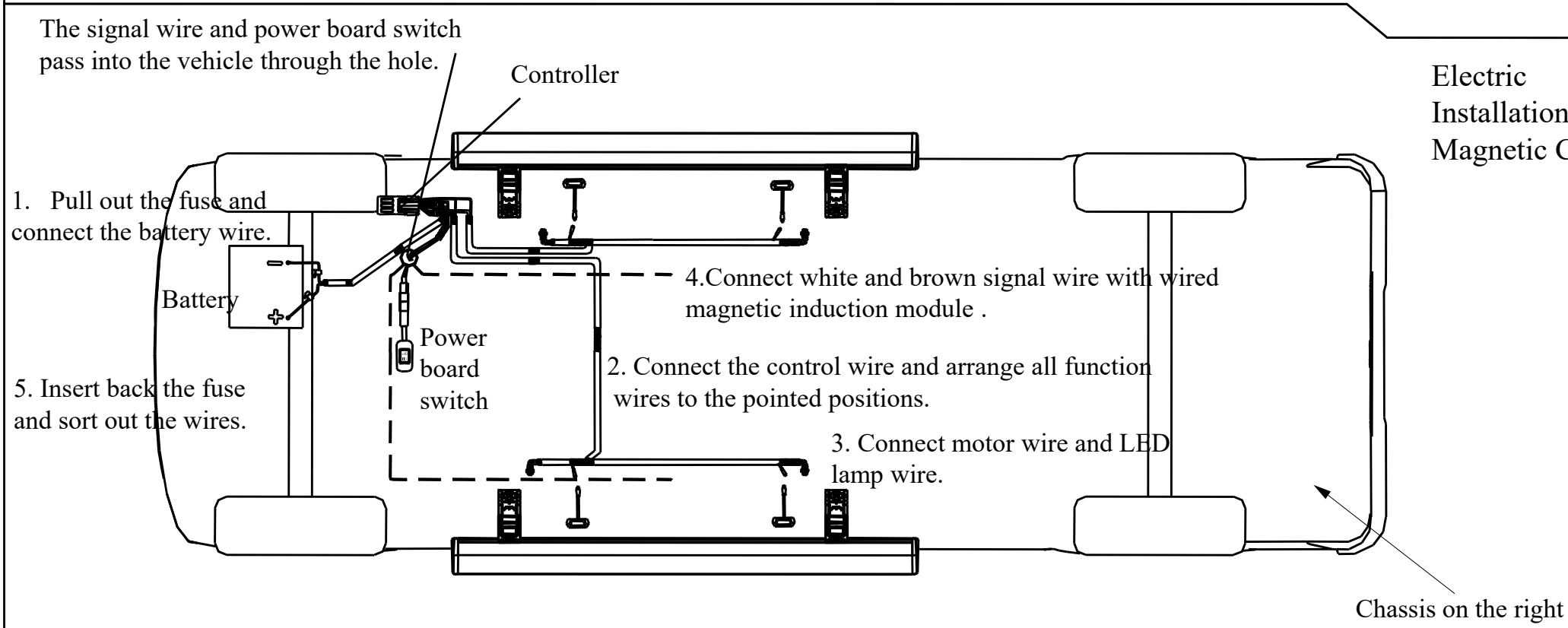


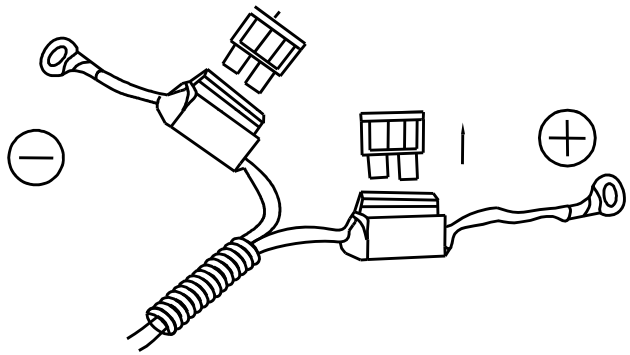
Step 9: Install the board and adjust the T- nut to make the two end faces of the board reach to an appropriate position. Then use M6×25 socket cap screws for connecting and tightening (Tighten torque 12Nm).



Note：If the gap between board and vehicle shell t1 is close to t2 at the status of getting back, and the gap is not more than 13mm, then the board is installed successfully.

Electric Installation by Magnetic Control





Step 1: Find out the control input wire and pull out the fuse (ensuring circuit safety during installation) and connect the positive and negative pole of wire harness to vehicle battery respectively.
Note: Control wire can not be modified privately.

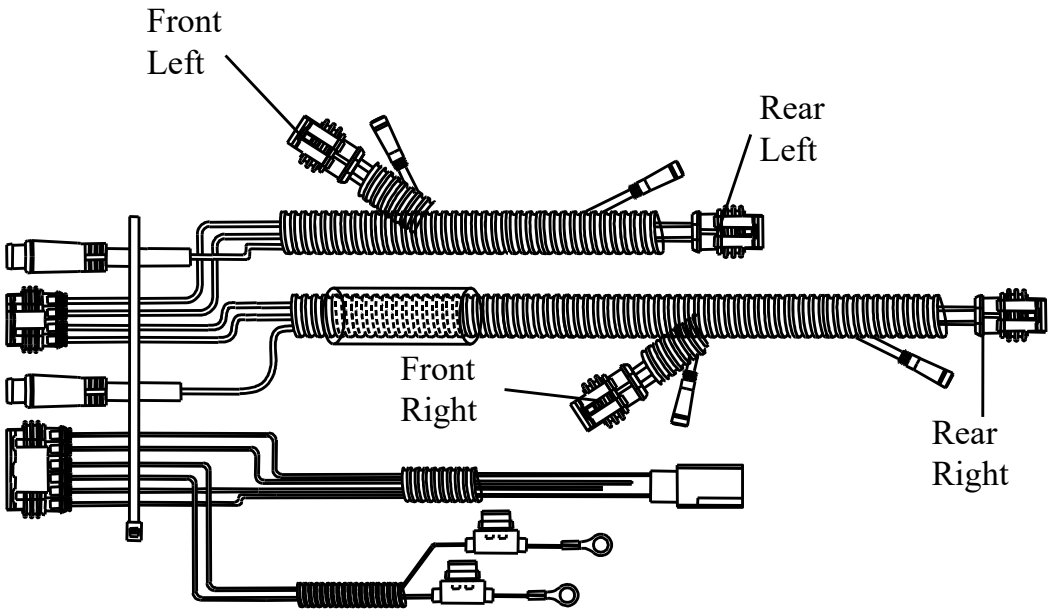
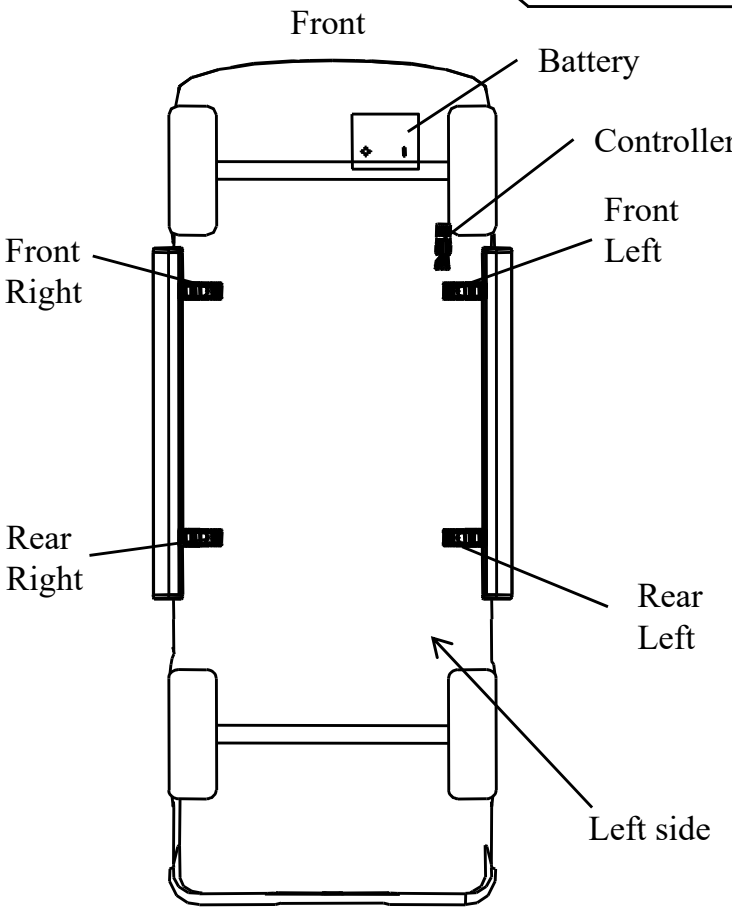


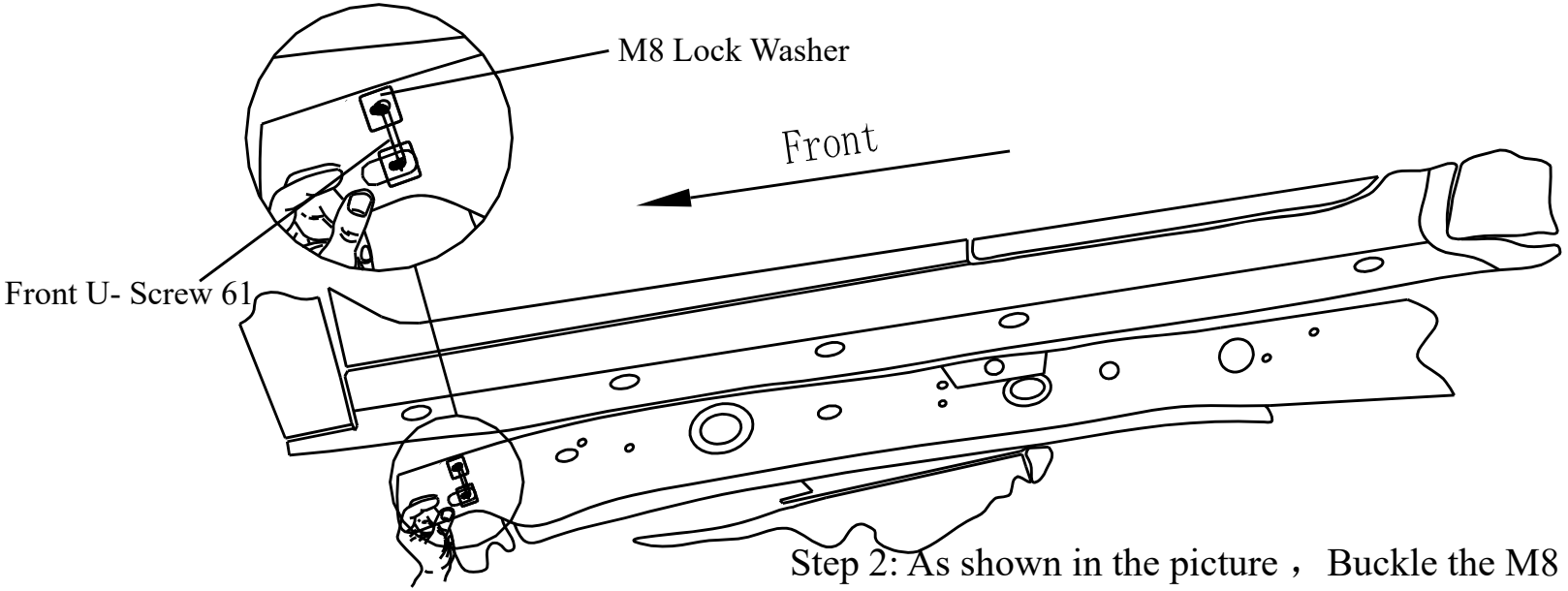
Figure 1



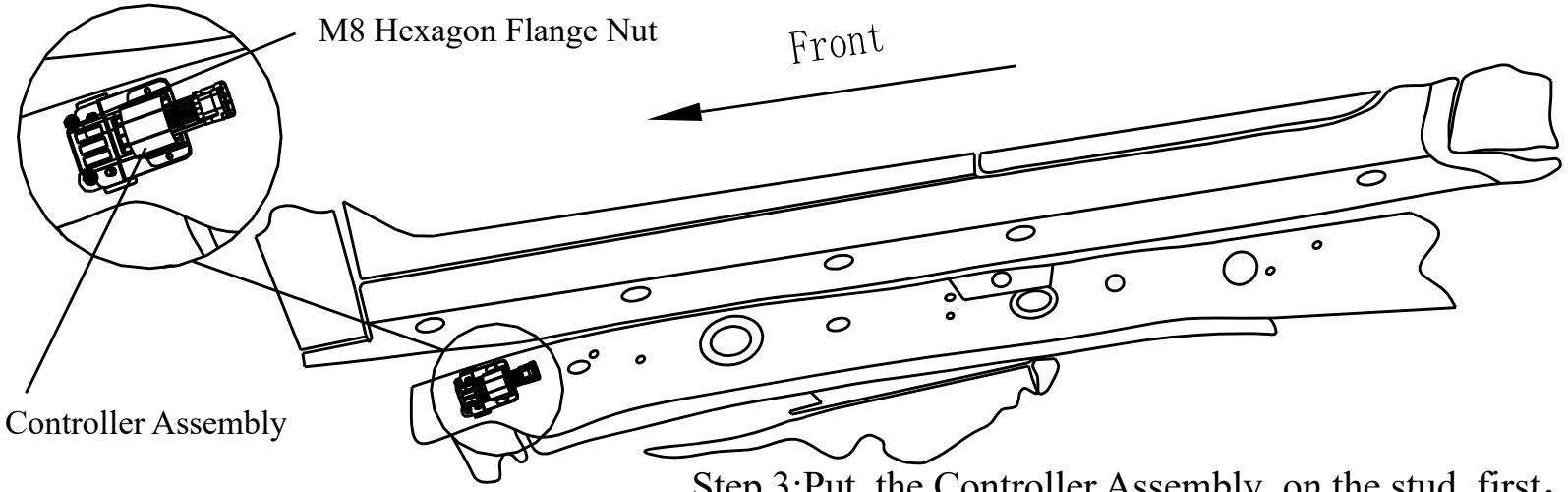
（upward view）

Figure 2

Figure 1 is the wire harness diagram and figure 2 is the installation diagram.
When install the wire harness, make sure the four connectors are connected with the four motor linkages by “front right, rear right, front left and rear left”.

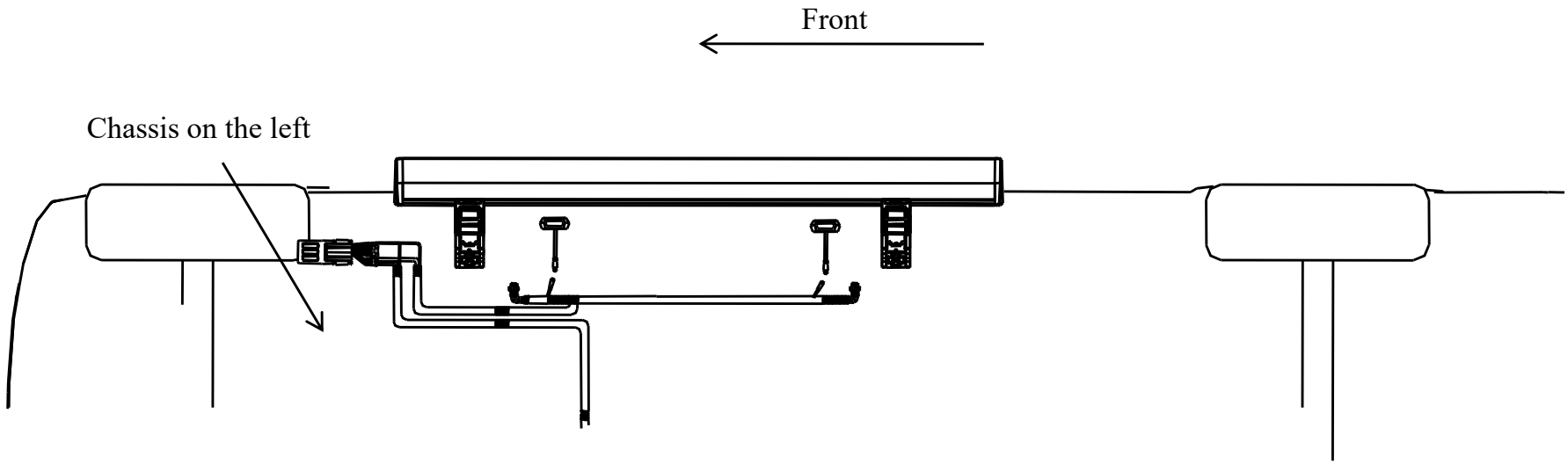


Step 2: As shown in the picture， Buckle the M8 Lock Washer on the Front U-Screw 61， Then as shown in the picture ,insert from a hole ,from one more hole.



Step 3:Put the Controller Assembly on the stud first， Then screw the Hexagon flange nut onto the stud， And tighten up(Tighten torque is 30Nm).

Installation Position On the Left Side



Step4：The arrangement of motor wire and LED lamp wire: Arrange the motor connection wire along the beam as shown in the picture, the motor wire plug extends to motors of linkage. At least , adjust the wire harness to make sure it is tidy and beautiful.
The other side uses the same way for installation.

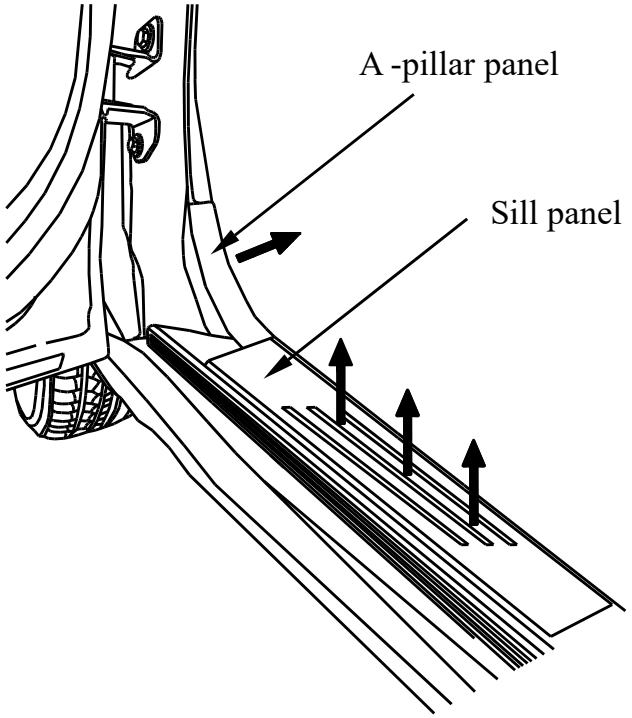


Figure 1

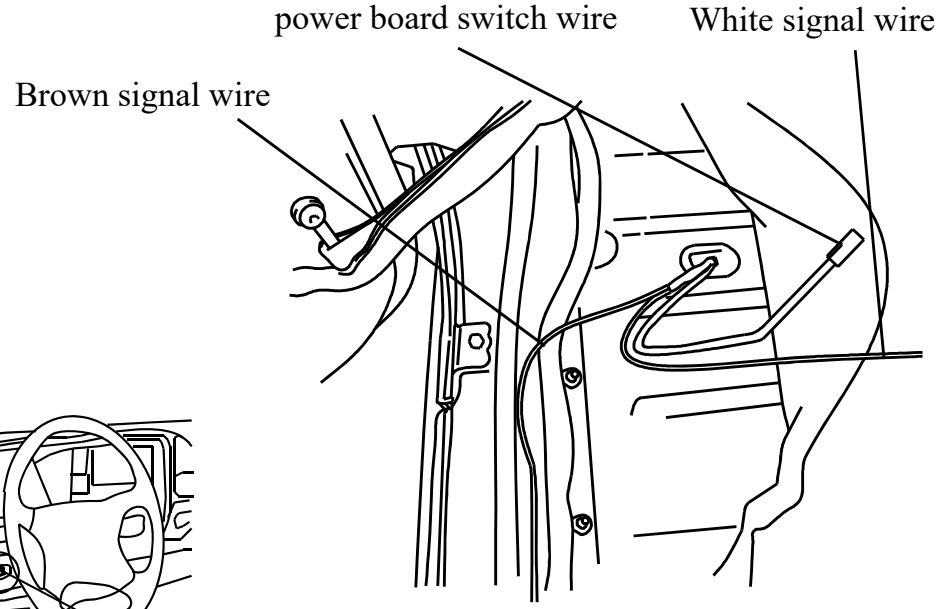


Figure 2

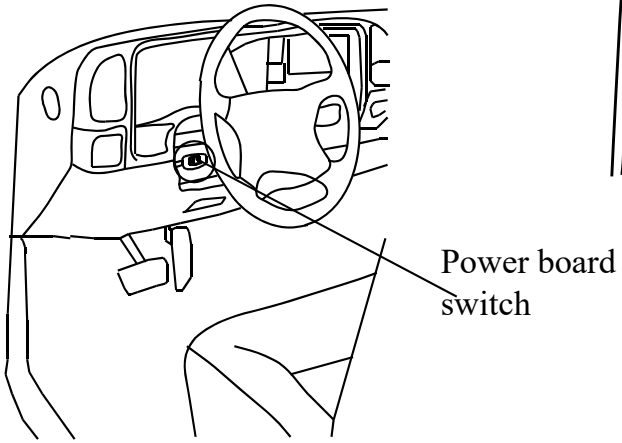
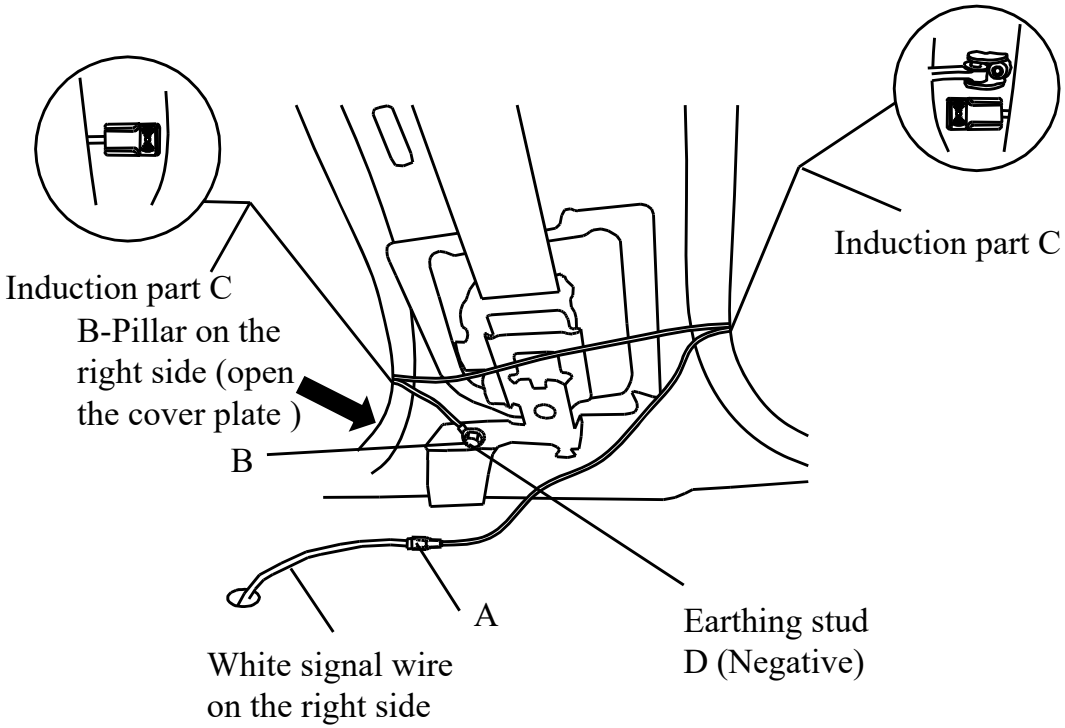


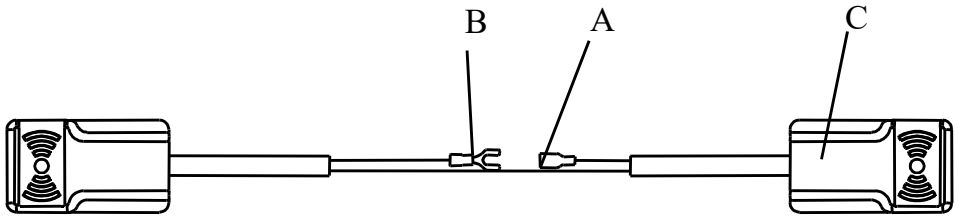
Figure 3

Step5: Connection of signal wire: Pry the sill panel and A-pillar panel on the left above in figure 1. Pull the white signal wire , brown signal wire and power board switch wire into the vehicle through the rubber grommet on the left side of the vehicle in figure 2 . Then the white signal wire extends to the right side of the vehicle under the carpet, and stick the power board switch to the left side under the steering wheel in figure 3.

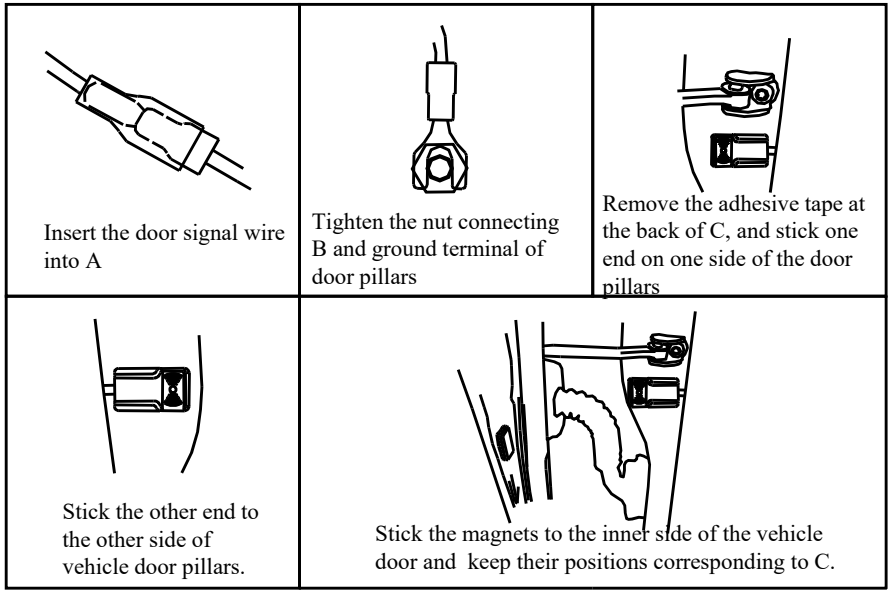
Magnetic Inductor Installation

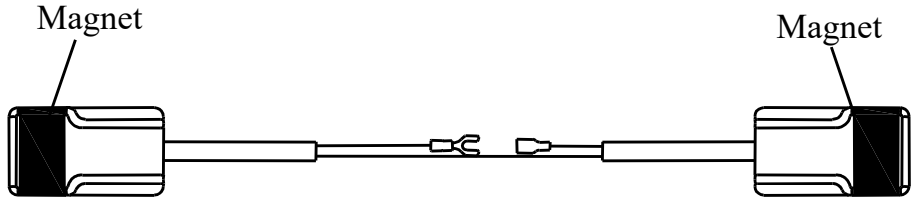


Step 6:Open the cover plate of pillar B on the right side of the vehicle , expose the above part (as shown above), connect the white signal wire to terminal A of magnetic inductor, loosen the earthing stud D ,connect fork type B-terminal to the earthing stud , and then tighten the earthing stud. Stick the induction part C to the both side of B-pillar, stick the magnet on the inside of vehicle door which is corresponding with induction part. The connection of brown signal wire and wire harness induction on the left side are same with the installation of the right side.

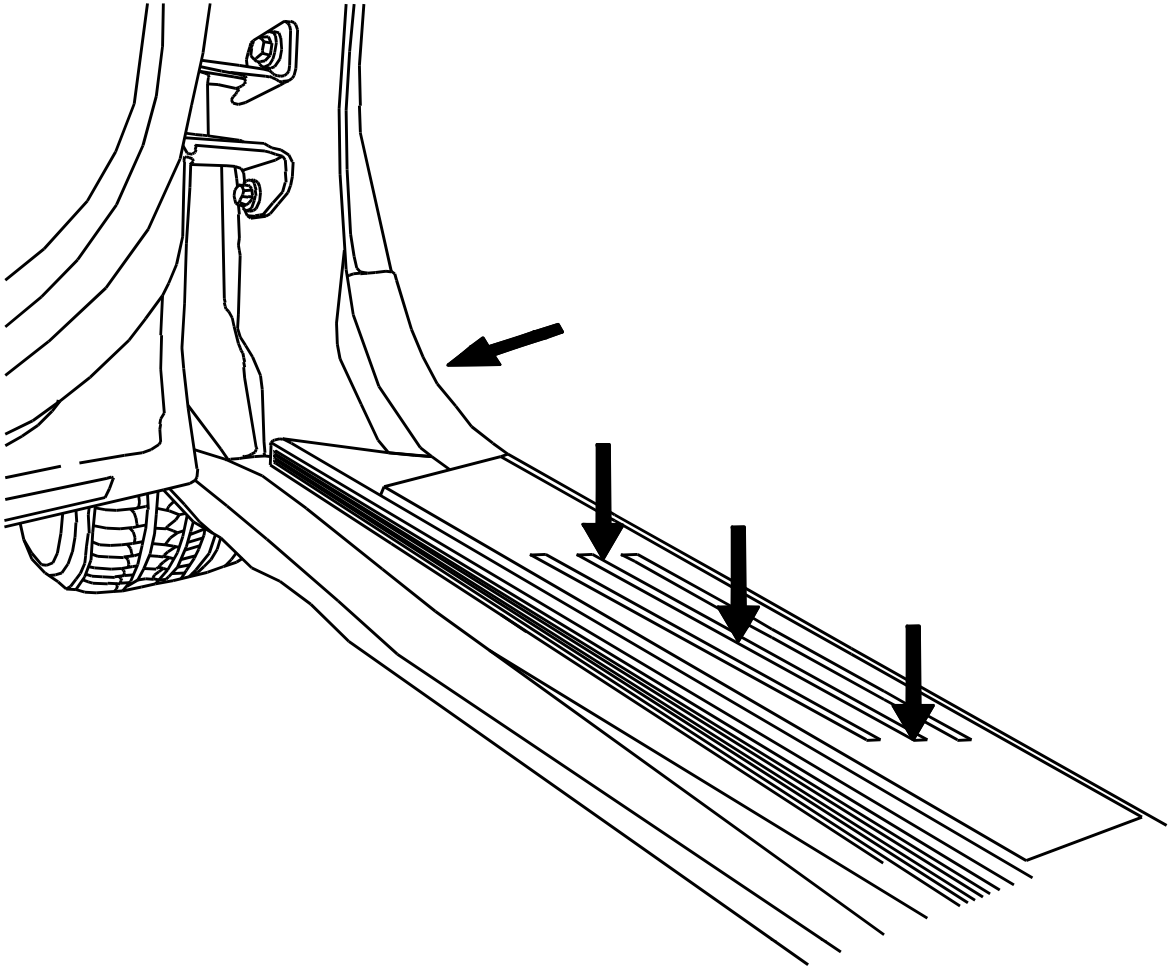


Wire Harness Magnetic Inductor

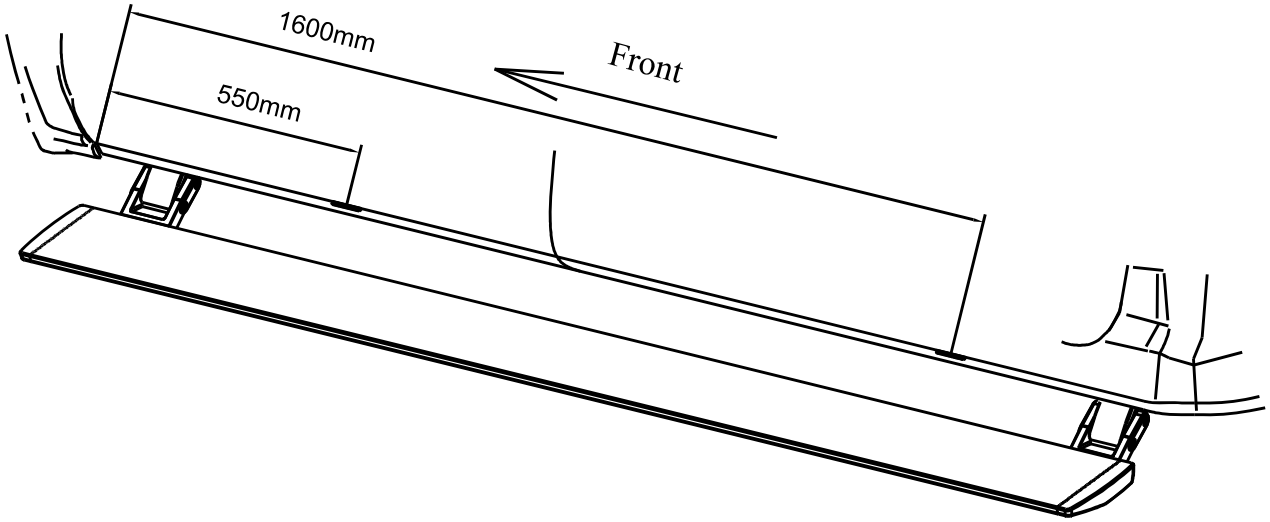




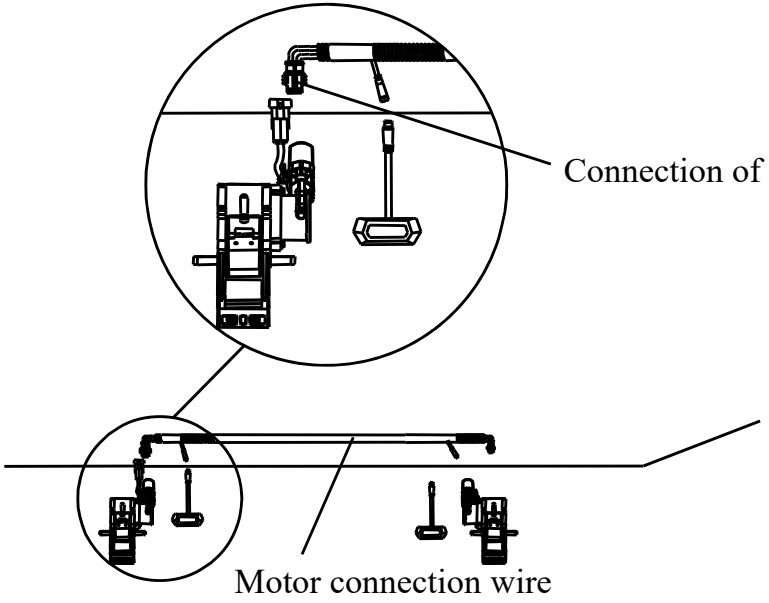
Instruction: The magnet position after closing the door is shown as above picture.



Step7：Sort out the wire harness and close the panels.

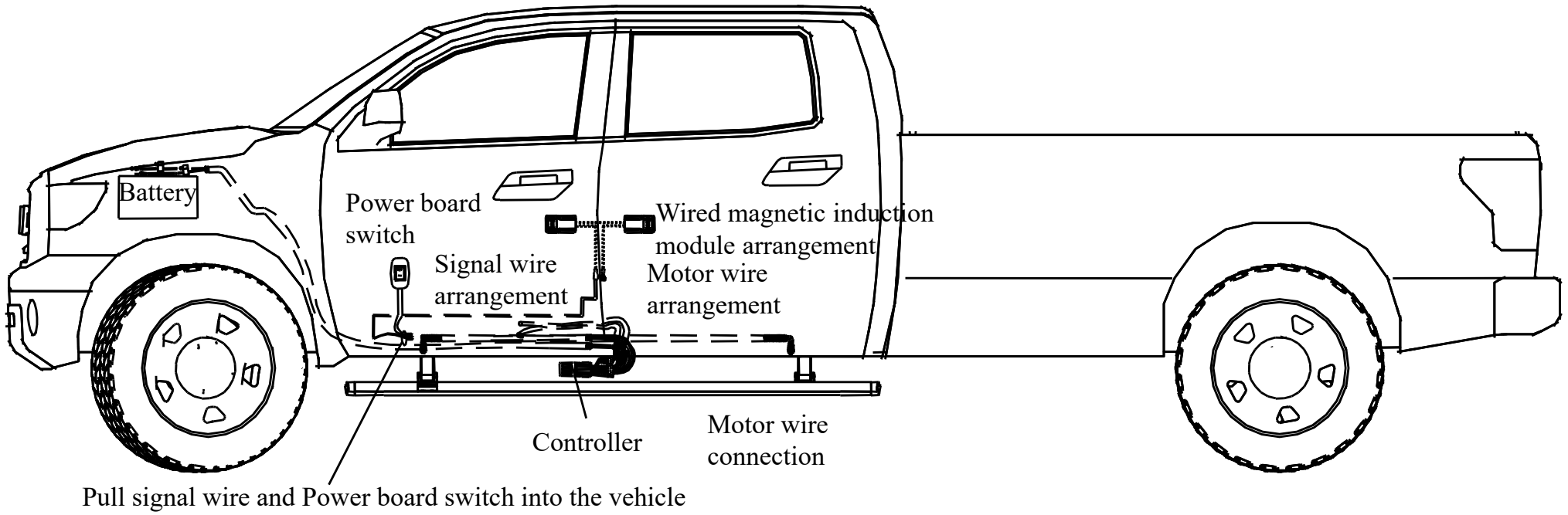


Step 8: Installation of LED lamp : Tear off the double-sided adhesive tape behind the LED lamp and stick it to the thin wall blow the apron. The distance from designated pasting position of front and rear LED lamp (Wipe the pasting position clean with a rag.) to front door line of front door is shown as the picture (The distance of the front lamp is 550mm, and the rear lamp is 1600mm).



Step 9: Installation of motor wire: Connect the connector of motor connection wire with control input wire and arrange the wire harness along with the vehicle beam . Connect motor connector with the connector of motor connection wire. Then fasten the wire harness on the vehicle beam by cable tie to make the wire harness neat. Same wire installation is for the other side.

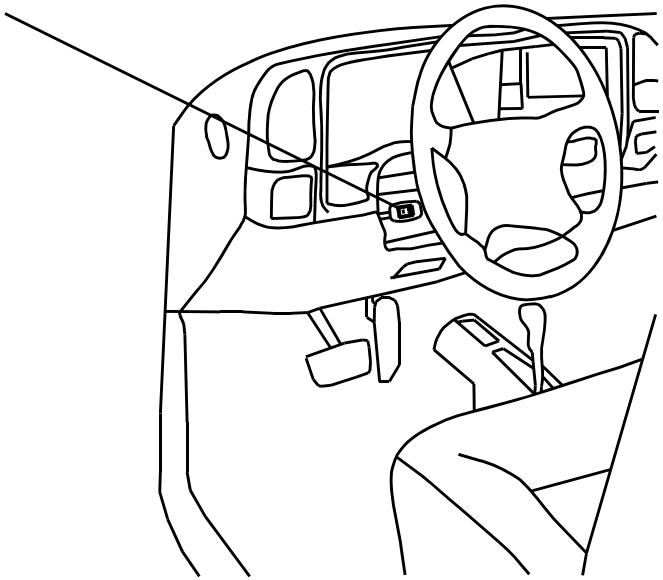
Summary of Electric Part

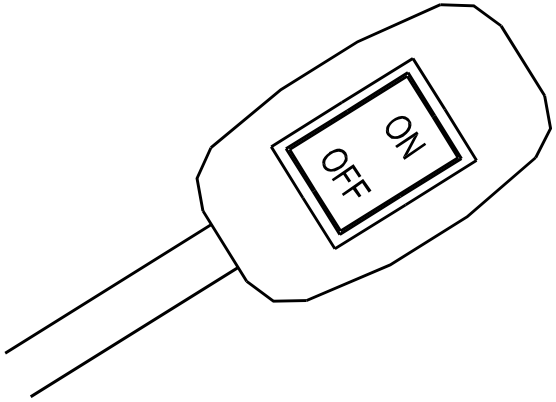


Step 10 : Check out the Power board switch of controller to make sure it is off. Insert back the fuse , arrange the wire harness in order. Check if all the wires are connected well and test if the power board can work normally . If it can work normally ,the board installation is completed. (If it can not work normally , please check the completeness of installation of each part.)

Instructions of Power Board Switch

Stick the power board switch with 3M tape under the left side of steering wheel.





I. Function of power board switch

Turn off the switch when no need of power board or inconvenience of power board , then the power board will automatically get back and stop working to avoid any impact when use the vehicle .

II. Power board switch using method:

1. Press power board switch button to set “ON”.And at the same time, the power board will return to its normal working status.

2. Press the power board switch button to set “OFF”. And at the same time, the steps will automatically go back and stop working.

Maintenance		
3 months Periodical Inspection	Inspect the normal operation of the mechanism.	
	Inspect damage for each cable connection and the bare part outside of the vehicle beam.	
	Inspect screw's looseness of motor and power board.	
Special Case Inspection	Clean the sediment on time for power board and the linkages.	
	Clean the ice on time for power board and the linkages.	

Maintenance card

The power board couldn't work normally when doors open and close	Electrical Malfunction	Fault connection of battery cable: recheck if you swap the battery's poles over, and if the fuse burns out.
		Fault connection of motor cable: recheck if all plugs are connected well.
		Fault connection of vehicle door control signal: recheck the connection of cables according to the diagram.
		Fault of controller: if there is no problem for all cables, please contact with our after sale service center.
	Mechanics Malfunction	An object is blocking the board.
		The two installation surfaces are not at the same level.

Note: In the using process , you may meet some other unknown trouble. Please contact us timely to feedback the problems , we will solve them for you as soon as possible. Thank you!

Go Rhino Product Warranty Instructions

Thank you very much for choosing our product!

I Maintenance Instruction

1、During warranty period, Go Rhino provides free maintenance for any malfunction related to the manufacturer. Warranty period lasts 24 months or 50 thousand kilometers in 2 years after sale. For individual related faults, Go Rhino provides paid maintenance.

2、Go Rhino promises to provide lifetime maintenance for Way Past Warranty and only charges for necessary material and labor. The charging standard refers to the ATM fee scale of local Go Rhino terminal service provider.

3、For all replaced parts, Go Rhino ensures to provide maintenance within 12 months after the replacement.

4、The ownership of the old parts from the replacement belongs to Go Rhino

5、Within the limit of law, the interpretation of warranty policy belongs to Go Rhino

II Situations below will not offer free warranty:

1、No warranty certificate；

2、Fault caused by customer's misusing or Incorrect installation

3、Fault caused by none professional maintenance staff's disassembly

4、Fault caused by force majeure.

5、Fault, scratch and torn due to movement or falling

6、Fault caused by improper maintenance or misusing

III Precautions：

1、In the case of extreme off-road，electric pedal is not recommended to avoid the damage of the pedal;

2、After extreme off-road，start maintenance for electric pedal to protect the performance and the longevity of the pedal; 3、Electrical parts: Check the control lines in Go Rhino Terminal Services branch regularly;

4、Mechanical parts: Pedal and pedal components should be cleaned up promptly when sediment appears;

5、Power board should be using frequently. The idle time should not exceed three months;

6、Power board need maintenance regularly in Go Rhino terminal service branch;

7、Forbidding high temperature when using the power board;
8、The heads of both sides of the single pedal are made of plastic. They are pedal's exterior decorating parts. Do not board;
9、Do not put thick mats or other debris on power board to avoid the danger of wrong stripping on the pedal;
10、After initial installation, please pay attention to check for looseness. Tighten screws if necessary. Usually after 3-5 times retractable rear door switch pedal in place, the power board could be fixed finally and checked regularly;
11、How to exclude unexpected failures of power board?
The board couldn't activate when doors open and close
① Electrical fault: the connection point and line failure, the gate control trigger line failure, controller failure, the electrical motor cable failure, motor failure; send to local Go Rhino Terminal Services branch to detect and repair.
② Mechanical faults: a foreign object obstruction pedal movement, the installation of two pedal mounting surfaces is not at the same level; send to local Go Rhino Terminal Services branch to detect and repair. Pedal when the door is reflected insensitively。
Gate control signal is error. Send to local Go Rhino Terminal Services branch to check the wiring
according to the control wiring diagram.

Warranty card

Product Type		**User Name**	
Product Name		**Tel**	
Factory Number		**Address**	
Date of Purchase			
Purchase Shop			

Maintenance records

Date	Fault Description	Fault Reasons	Result	Note

Produced by
Go Rhino