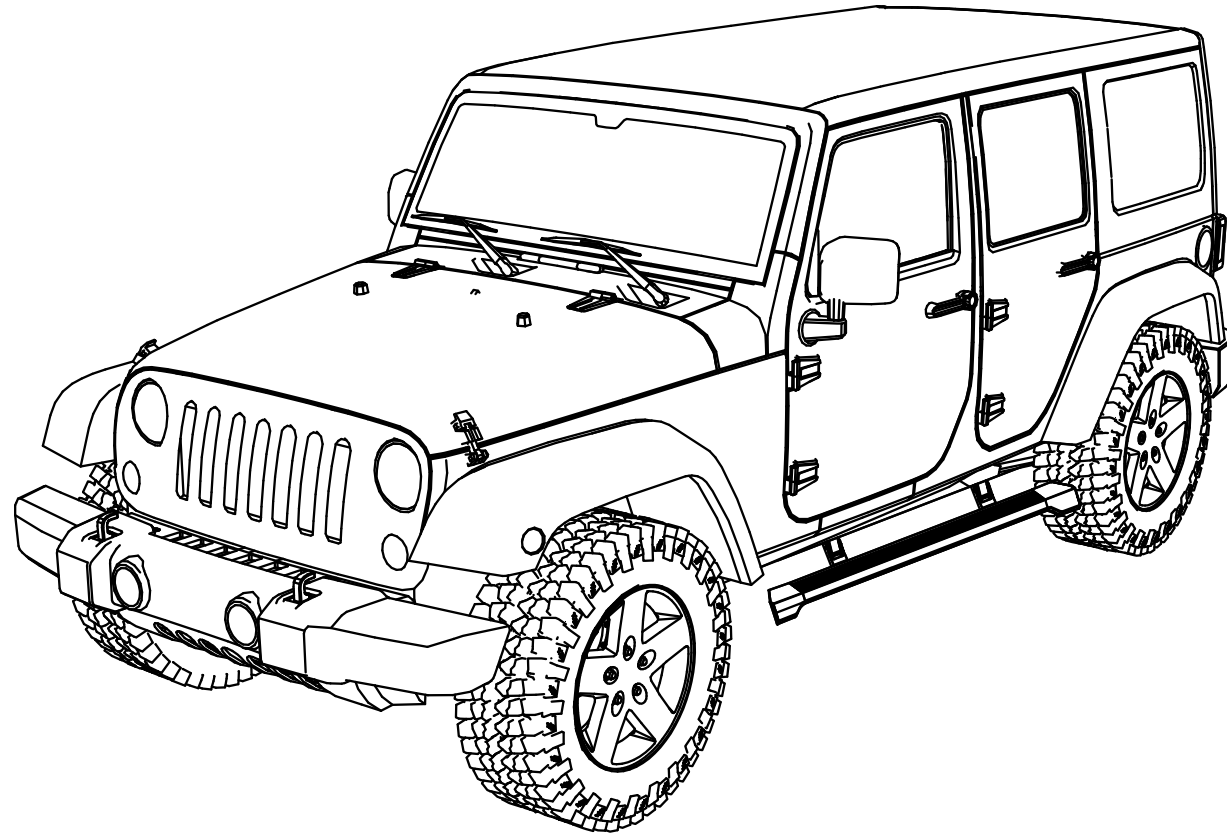


# JEEP WRANGLER POWER BOARD



JEEP WRANGLER  
POWER BOARD

INSTALLATION  
GUIDE

INSTALLATION TIME

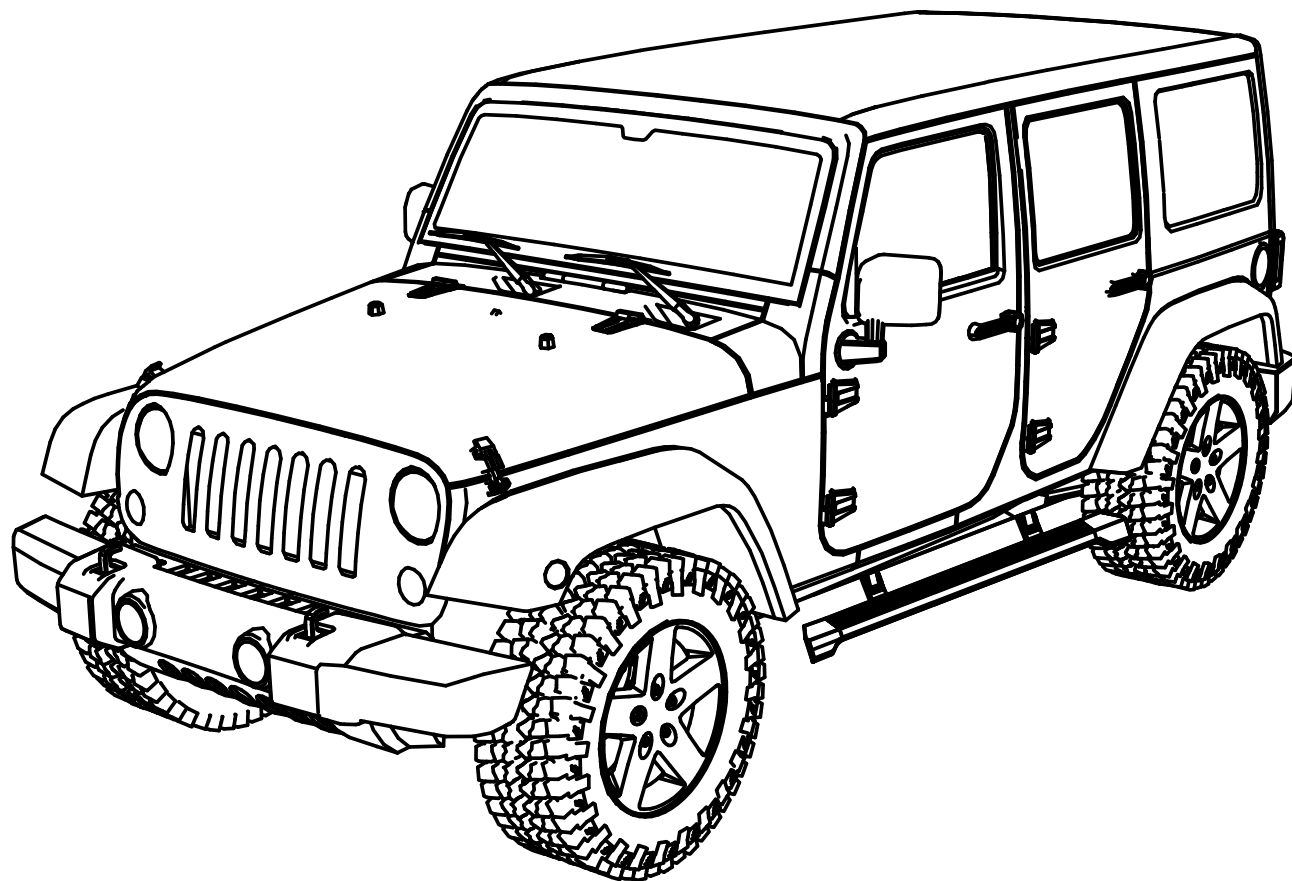
08:00

APPLICATION : 2012-UP

Product Number : PST01-0110/PST01-0130  
PST01-0210/PST01-0230

Tools Required :

- ① 5mm Hex Key Wrench (Allen Wrench)
- ② 13mm Socket Spanner
- ③ 18mm Socket Spanner
- ④ Vinyl Tape
- ⑤ Cable Stripper/Cutter
- ⑥ Scissors
- ⑦ Electric Hand Drill
- ⑧  $\phi 10$  Drilling Bit

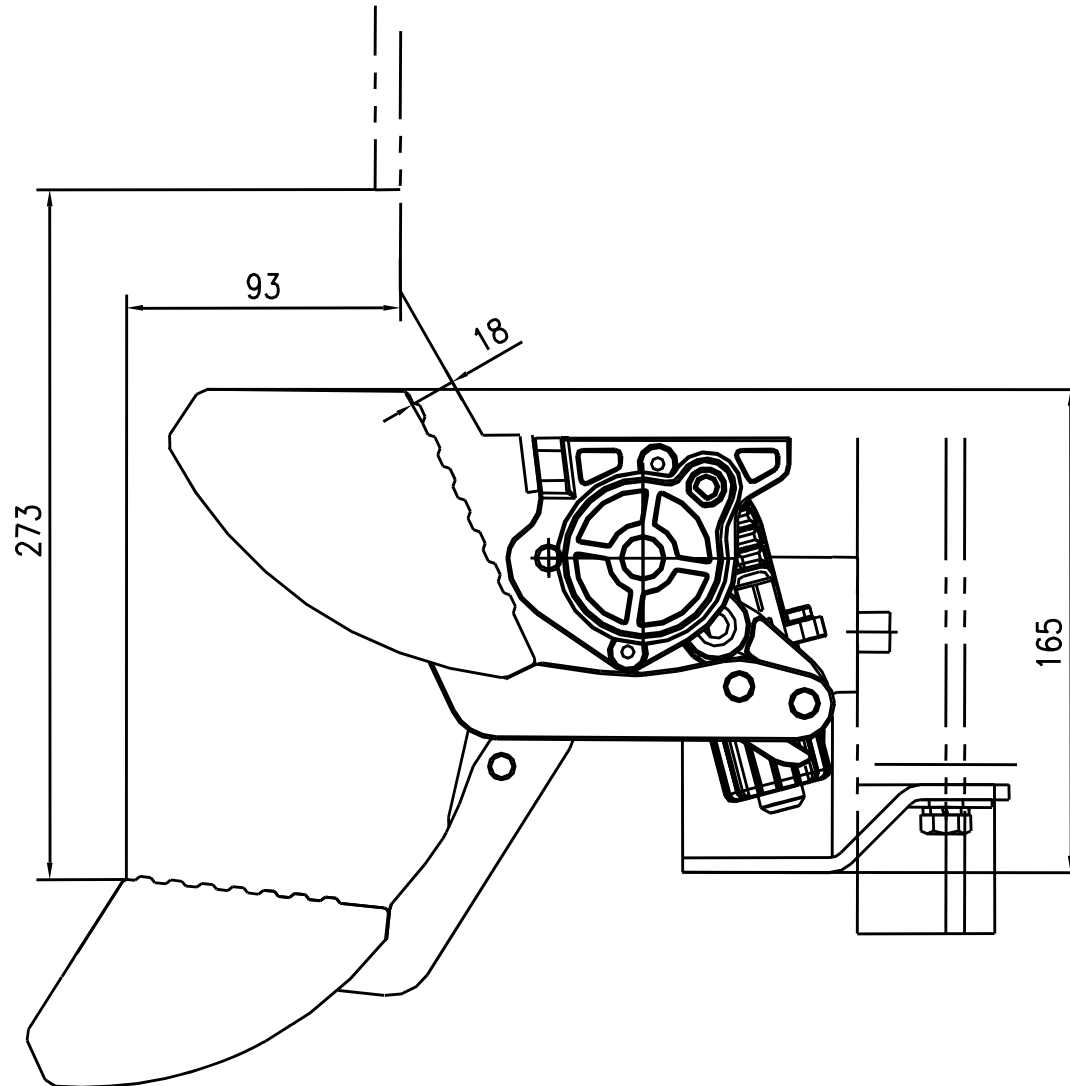


## Contents

Product Technical Specification.....	02
Product Packing List.....	03
Mechanical Installation.....	08
Electrical Installation.....	29
Maintenance.....	30
Warranty Card.....	32

The product is developed and produced by T-MAX, 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:  $\leq 300\text{kg}$

Board Length:

2D Length including end caps: 1.33m, 2D Length without end caps: 1m

4D Length including end caps: 1.86m, 4D Length without end caps: 1.53m

Gross Weight: 20.5kg (2D) / 27kg (4D)

Forward extension size: 93mm

(Horizontal distance between the edge of power board and the vehicle door when the board extends)

Board falling dimension: 273mm

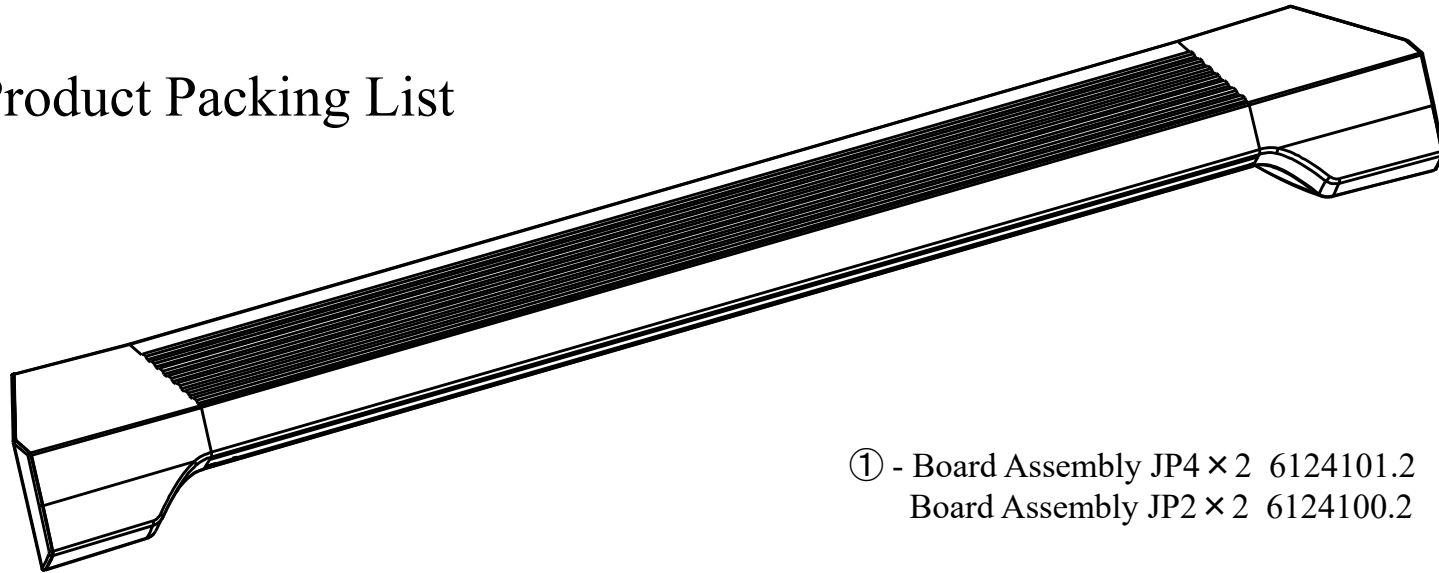
(Vertical height difference between the edge of power board and the vehicle door while board extending.)

(Both dimensions of forward and falling are theoretical, which may vary due to uncertainties such as installation error, manufacturing errors of vehicle bottom and etc.)

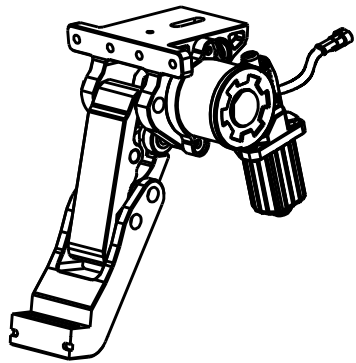
Note: Impact load is not allowed.

Please make sure the children and the aged will keep 20cm safe distance while power board is working to avoid any bump or jam.

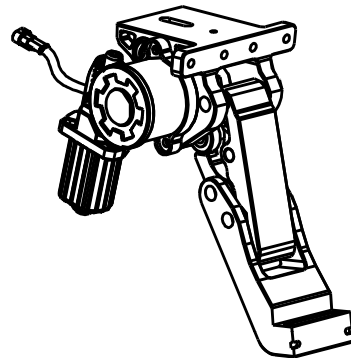
## Product Packing List



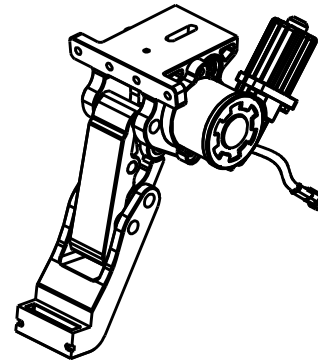
- ① - Board Assembly JP4 × 2 6124101.2  
Board Assembly JP2 × 2 6124100.2



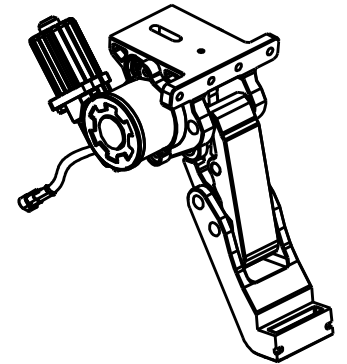
- ② - Front Motor Linkage Left × 1  
6124100.1LF



- ③ - Front Motor Linkage Right × 1  
6124100.1RF

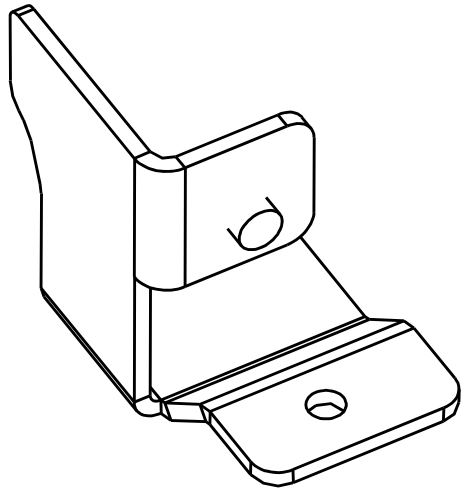


- ④ - Rear Motor Linkage Left 4D × 1  
6124101.1LB  
Rear Motor Linkage Left 2D × 1  
6124100.1LB

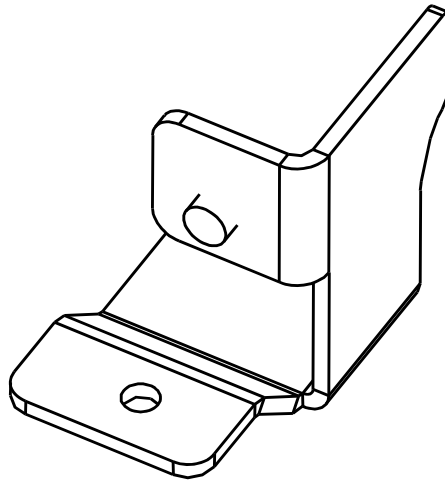


- ⑤ - Rear Motor Linkage Right 4D × 1  
6124101.1RB  
Rear Motor Linkage Right 2D × 1  
6124100.1RB

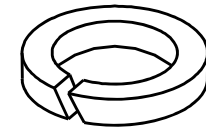
# JEEP WRANGLER



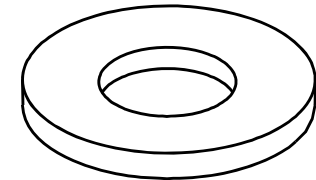
⑥ - Motor Protective Plate Left  
JP-L×1  
6124100.0-2L



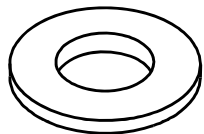
⑦ - Motor Protective Plate Right  
JP-R×1  
6124100.0-2R



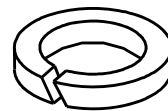
⑧ - Spring Washer×2  
GB/T93-1987 12



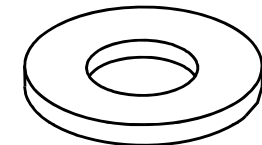
⑨ - Flat Washer Grade A×2  
GB/T96.1-2002 12



⑩ - Flat Washer×2  
GB/T95-1985 8  
(Special for 4D)



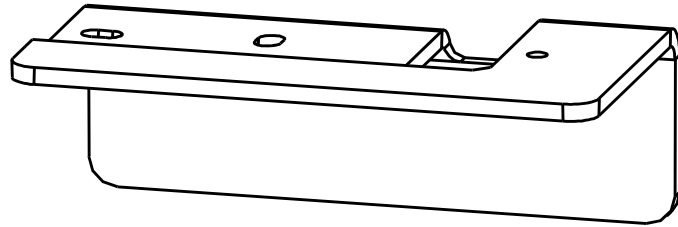
⑪ - Spring Washer  
GB/T93-1987 8  
(2D×18) (4D×16)



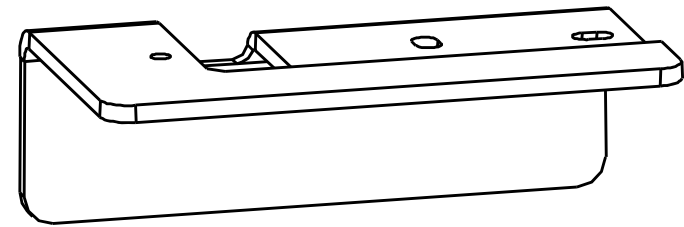
⑫ - Flat Washer Grade A  
GB/T96.1-2002 8  
(2D×18) (4D×14)

# JEEP WRANGLER

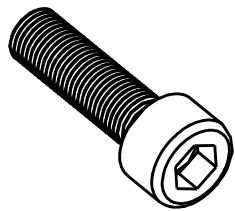
**E-BOARD**



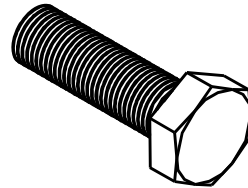
⑬ - Mounting Plate Left JP2-L×1 6124110.0-3L  
(Special for 2D)



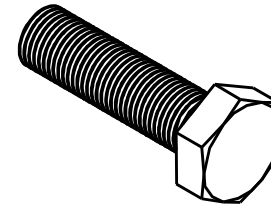
⑭ - Mounting Plate Right JP2-R×1 6124110.0-3R  
(Special for 2D)



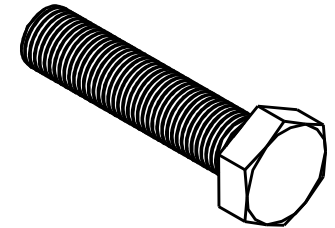
⑮ - Socket Cap Screw ×8  
GB/T70.1-2000 M6×25



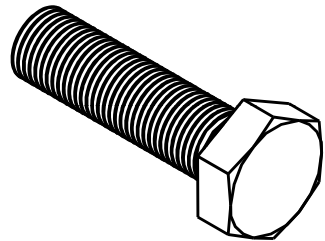
⑯ - Hexagon Head Bolt  
GB/T5781-86 M8×20  
(2D×12) (4D×10)



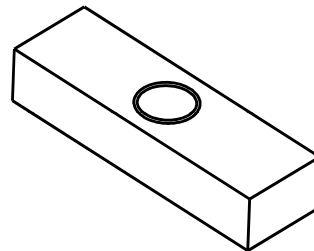
⑰ -Hexagon Head Bolt×2  
GB/T5781-86 M8×25  
(Special for 4D)



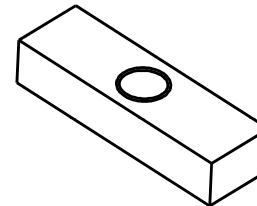
⑱ -Hexagon Head Bolt×4  
GB/T5781-86 M8×35



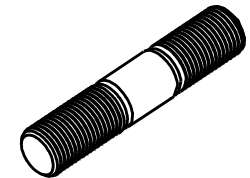
⑲ -Hexagon Head Bolt×2  
GB/T5783-2000 M12×35



⑳ -M12 Tension Block×2  
6124110.0-4



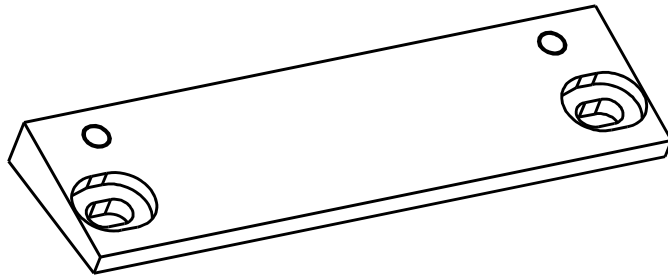
㉑ -M8 Tension Block ×2  
6124110.0-5  
(Special for 2D)



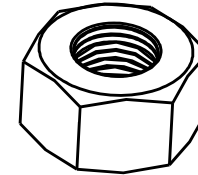
㉒ -Stud Bolt A × 2  
GB/T900-1988 M8×25  
(Special for 2D)

# JEEP WRANGLER

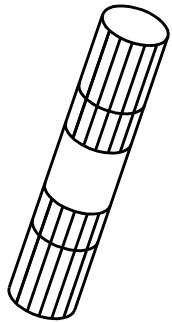
**E-BOARD**



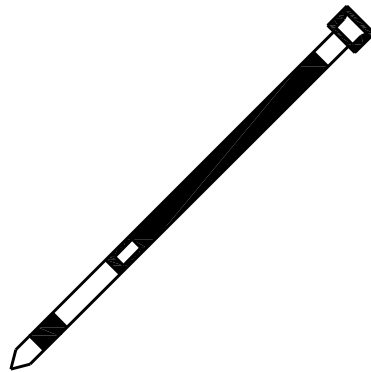
②③ - Mounting Plate JP4×2 6124100.0-1  
(Special for 4D)



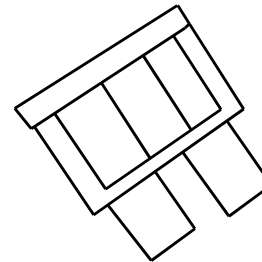
②④ - Hex Nut ×2  
GB/T 6170-2000 M8  
(Special for 2D)



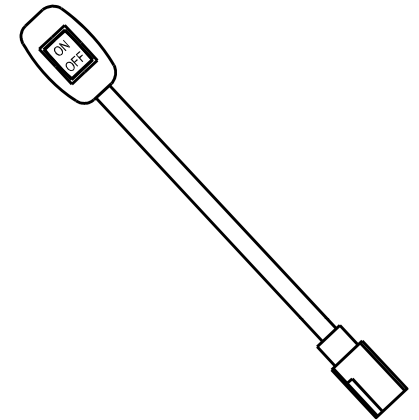
②⑤ - Posi-lock connector  
(For signal cable connection)  
(2D×2) (4D×4)



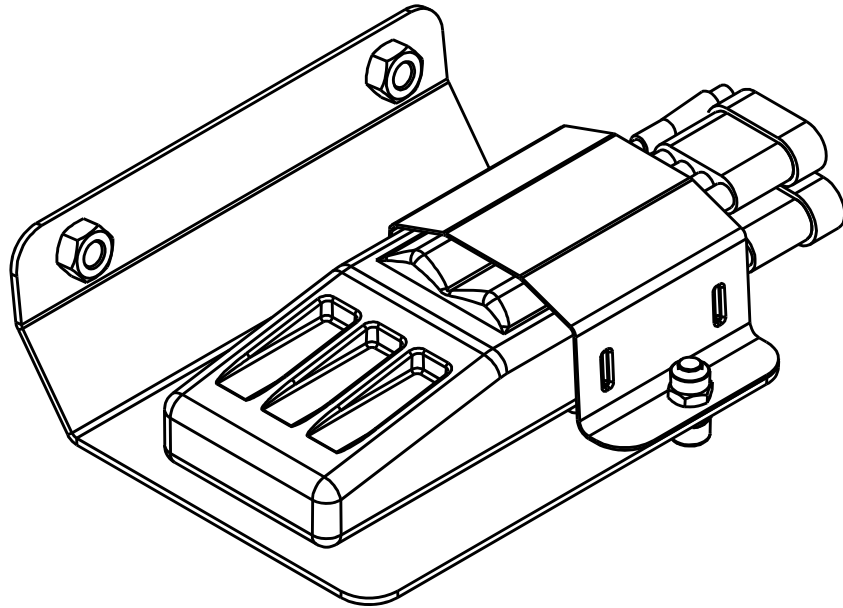
②⑥ - Cable Tie×25  
GB/T22344-2008 5×300



②⑦ - Fuse×2



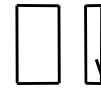
②⑧ - Power Board Switch ×1  
6124151.4.9



②⑨ -Controller Assembly×1  
6124100.4.4ZJ



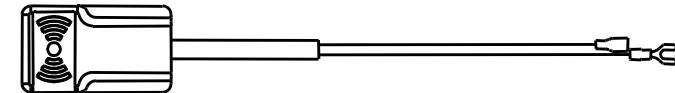
4D



Thick magnet



Magnet



2D

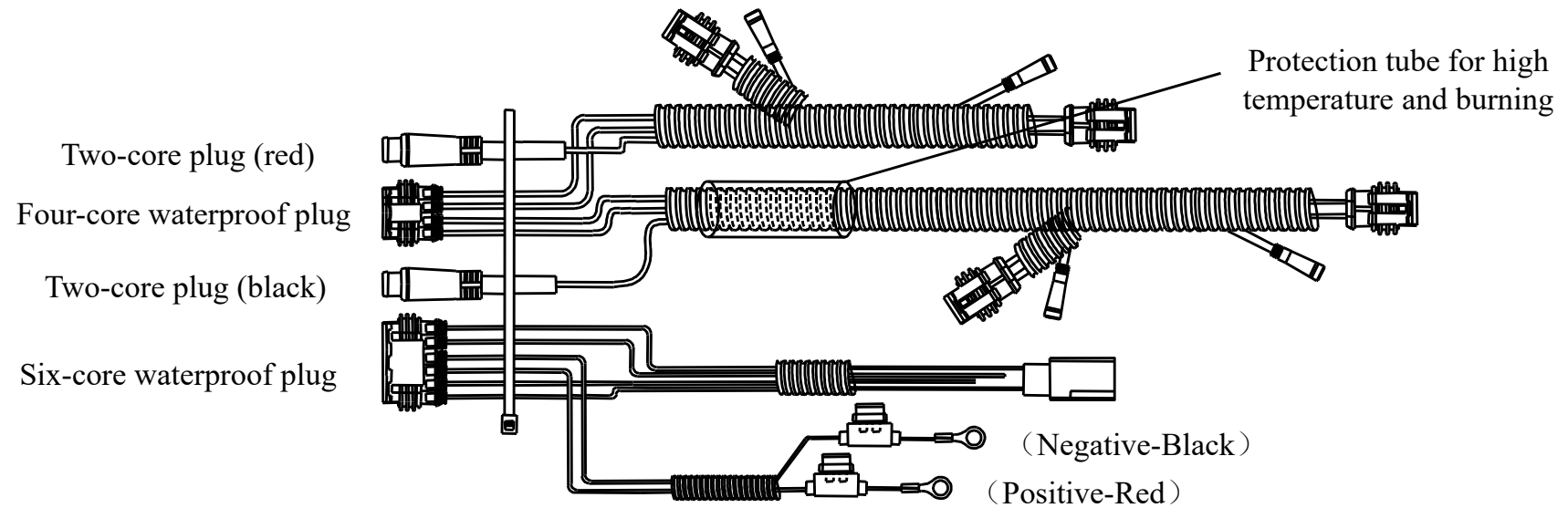


Magnet

③⑩ - Wired Magnetic Induction Module×2  
-Magnet×4 (4D × 4)

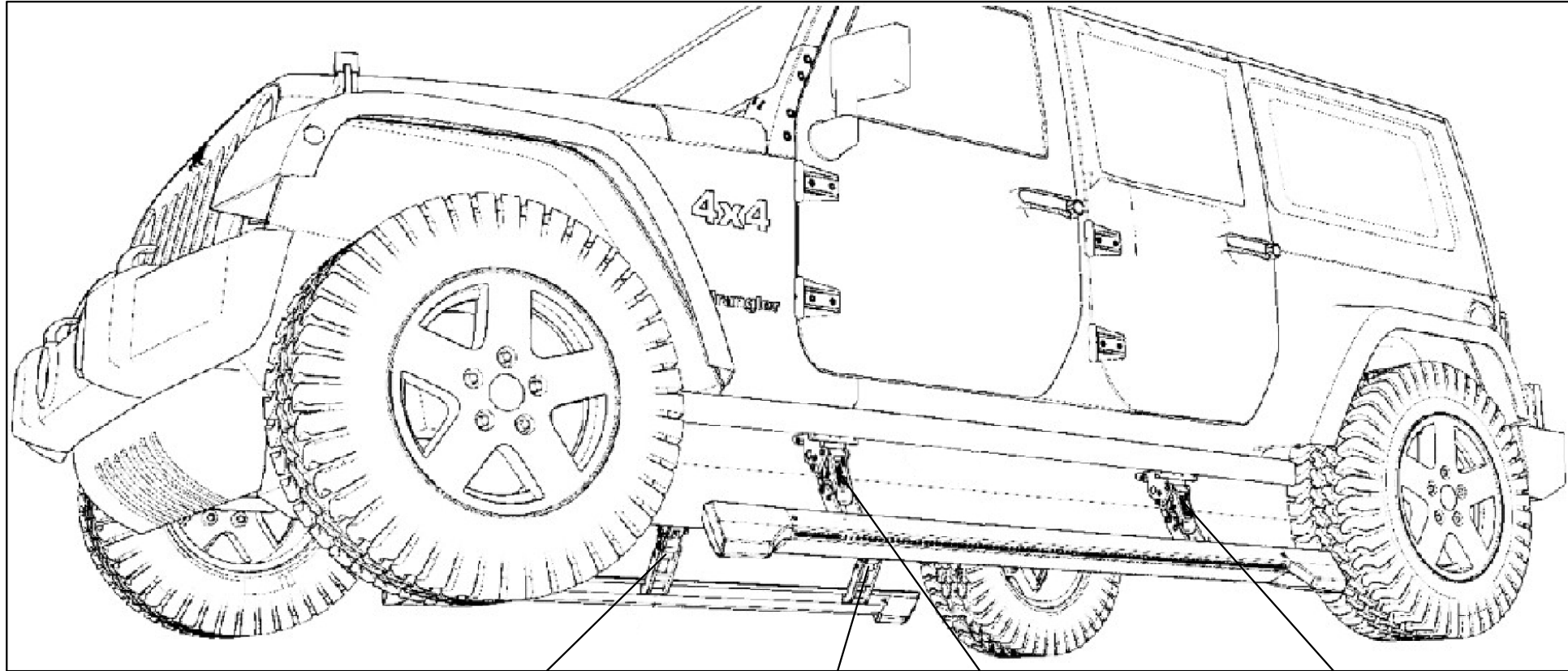
Note: The normal magnets are for the front doors ,and  
the thicker ones are for the rear doors.  
-Magnet×2 (2D × 2)





③1 - Control Input Wire ×1 6124100.4.1

## Mechanical Installation



Front Motor Linkage  
Right JP-RF

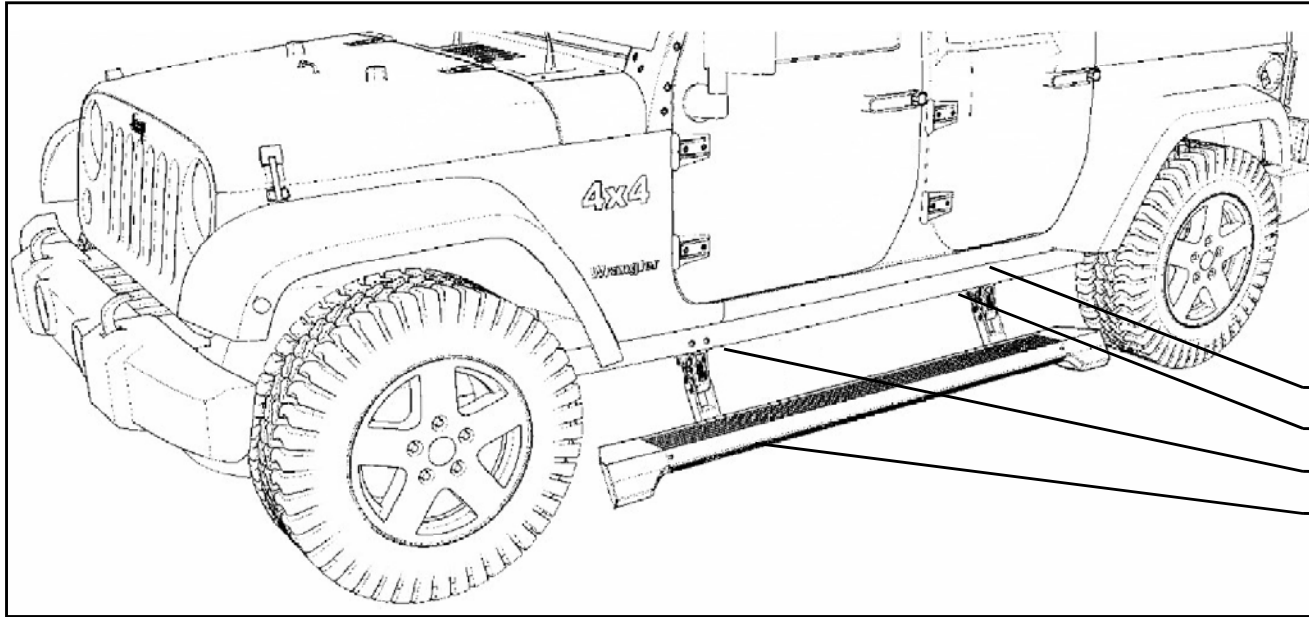
Rear Motor Linkage  
Right JP4/2-RB

Front Motor Linkage  
Left JP-LF

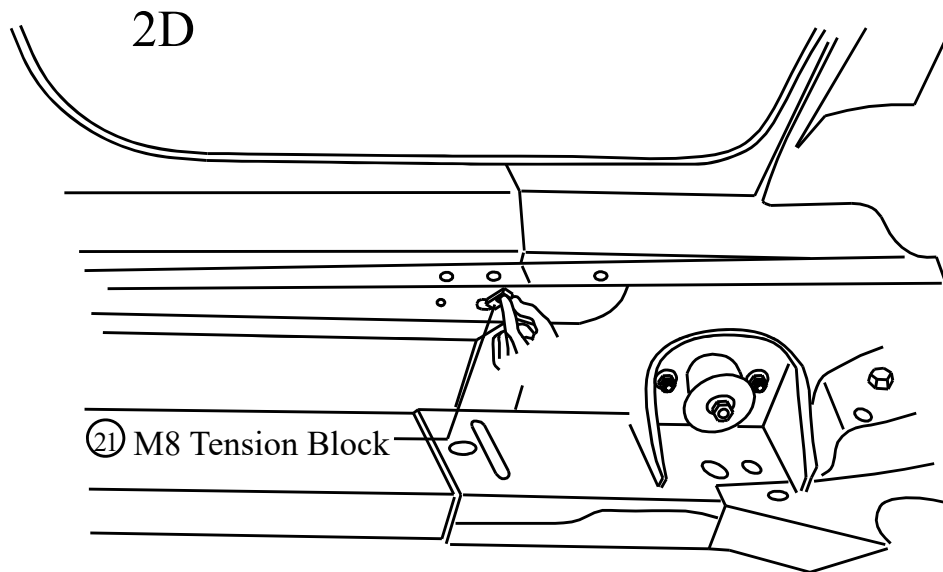
Rear Motor Linkage  
Left JP4/2-LB

## Graph of Motor Linkage

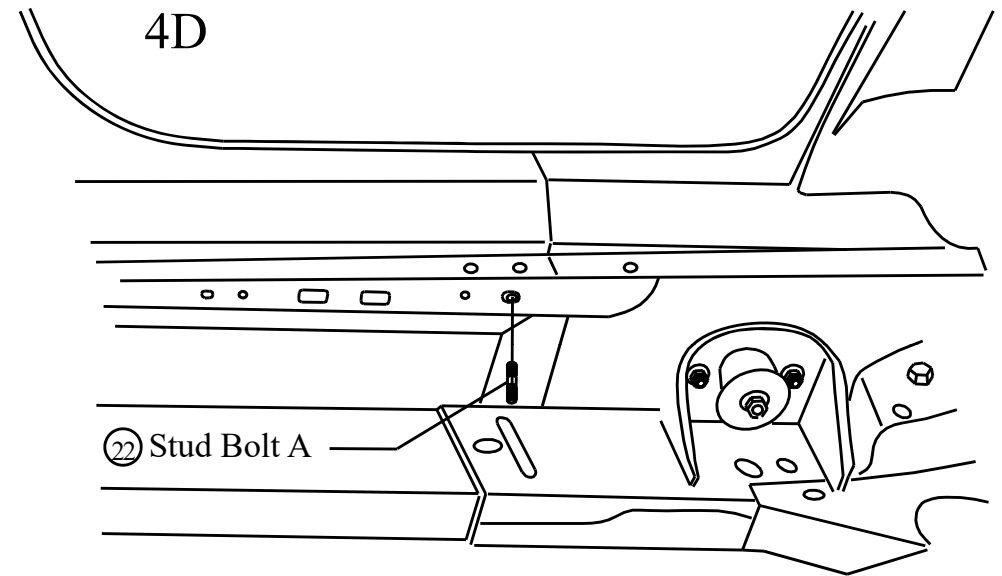
# JEEP WRANGLER



1. Mounting plate installation
2. Tighten bolt for mounting plate
3. Tighten bolt for linkage
4. Board installation

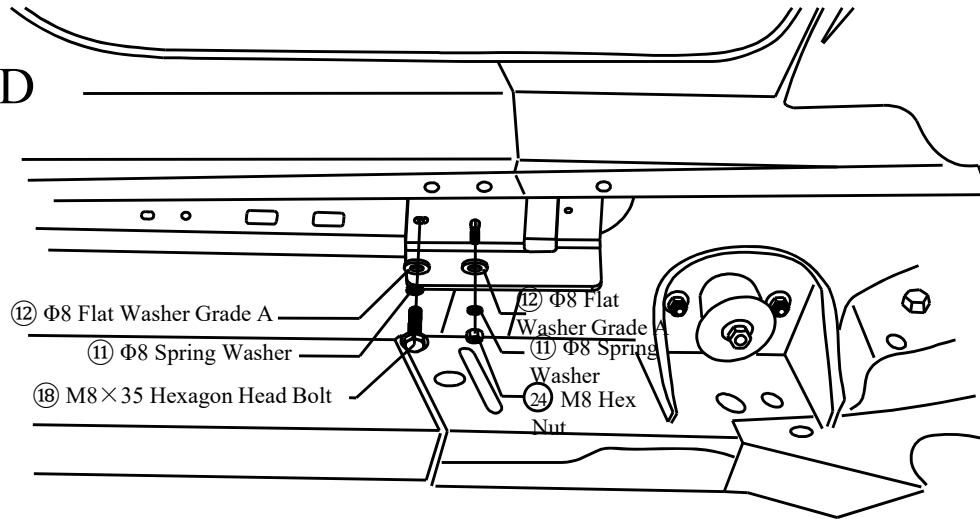


Step 1: Shown as picture, insert the M8 tension block.



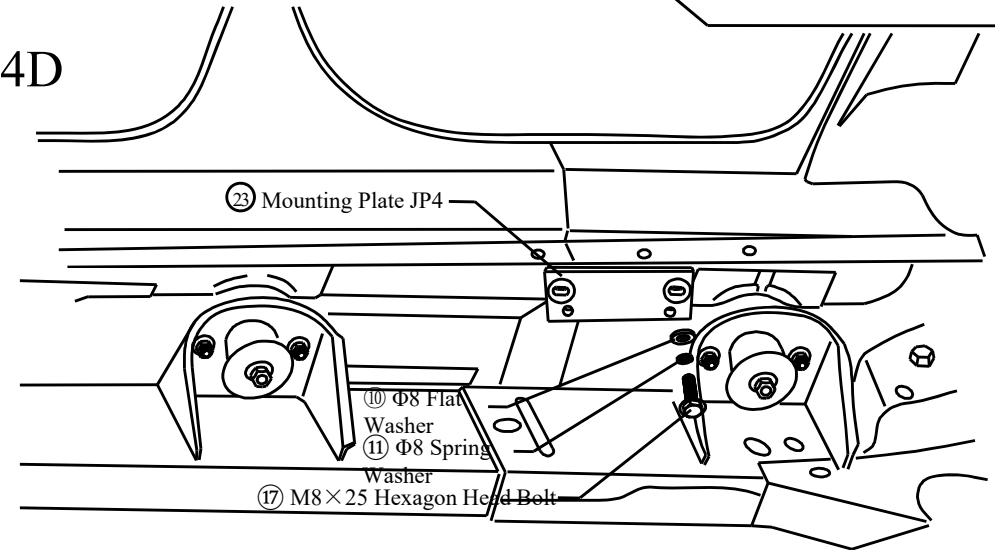
Step 2: Screw the stud bolt A.

2D



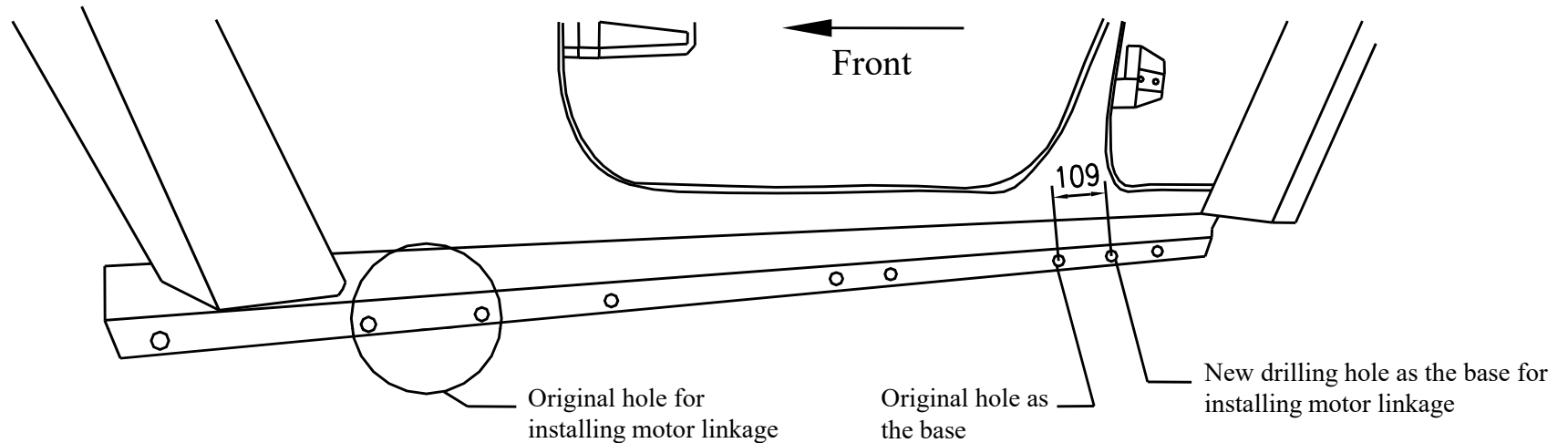
Step 3: Fix the mounting plate by hexagon head bolt and hex nut (With spring washer and flat washer grade A) (Tighten Torque 23Nm) .

4D



Step 4: Install the mounting plate as shown in the picture (Tighten Torque 23Nm) .

Drilling  
Position 4D

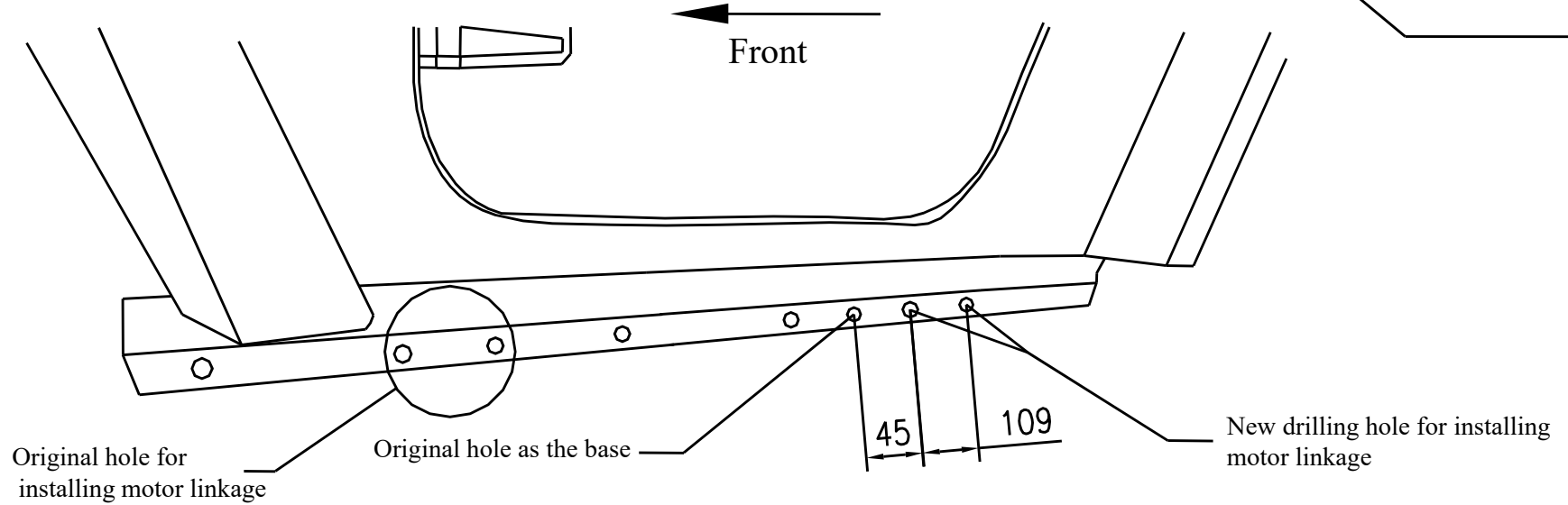


Step 5: As shown in the picture, drill a new hole on the side skirt based on the original hole (Dia of new hole is 6.5mm-8.5mm). Please adjust the hole position due to different vehicles.

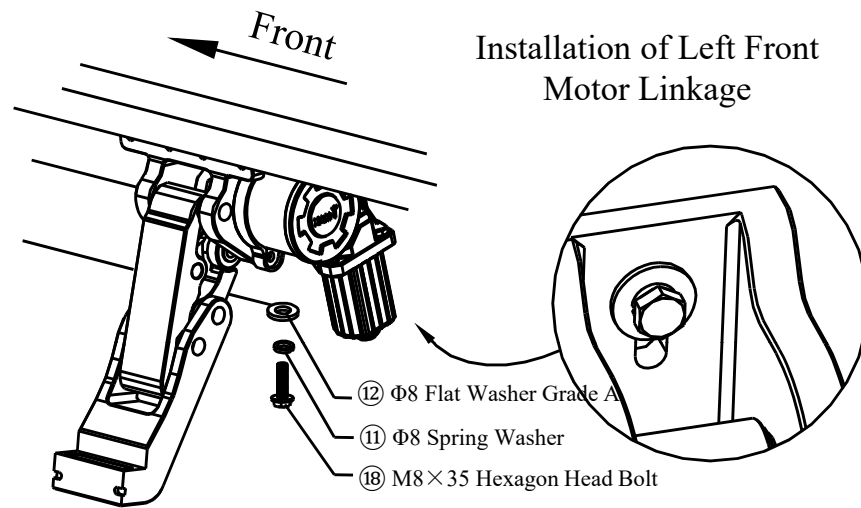
# JEEP WRANGLER

**E-BOARD**

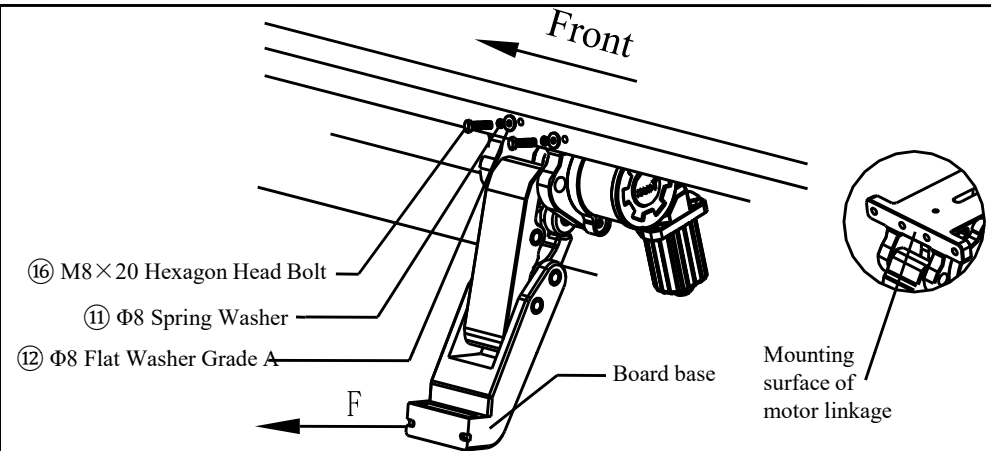
## Drilling Position 2D



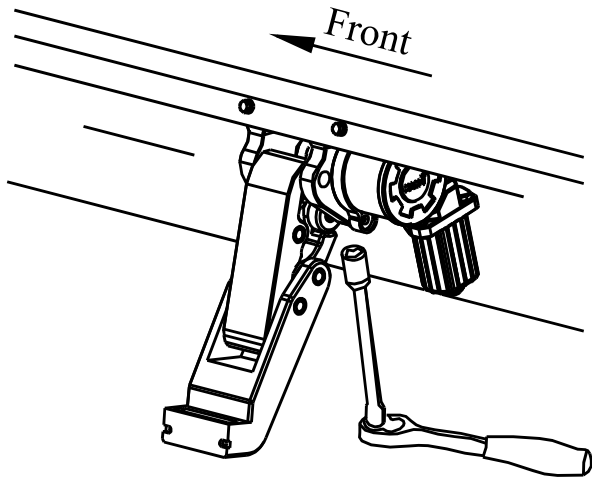
As shown in the picture, drill a new hole on the side skirt based on the original hole (Dia of new hole is 8.5mm-9.5mm). Please adjust the hole position due to different vehicles.



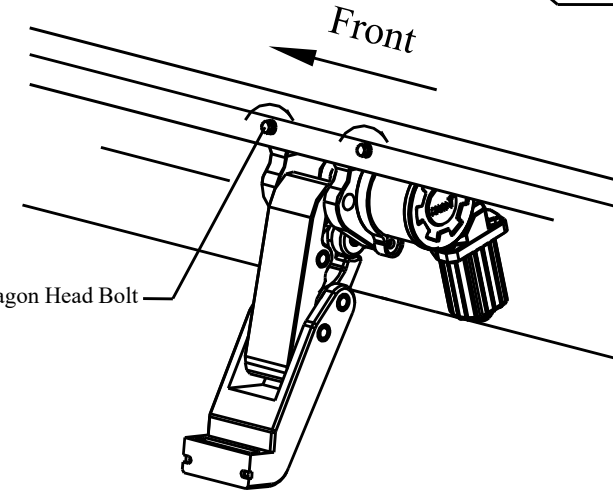
Step 6: As shown in the picture, screw the hexagon head bolt into the thread hole only 3-4 thread to install the motor linkage.



Step 7: As shown in the picture, pull the board base with 30N force to ensure that the hole in the mounting surface is corresponding to the hole in the side skirt, and then screw the bolt and pre-tighten it (Tighten Torque 6Nm).



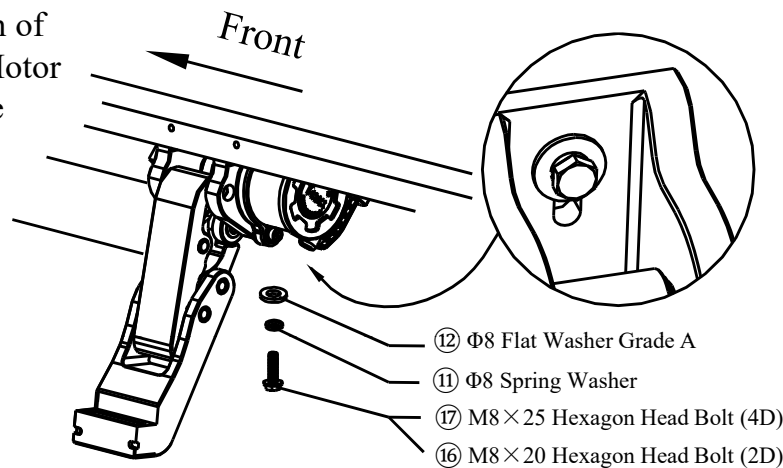
Step 8: As shown in the picture, tighten the hexagon head bolt in the step 6 to install the motor linkage (Tighten Torque 23Nm) .



⑫ M8×20 Hexagon Head Bolt

Step 9: As shown in the picture, tighten the hexagon head bolt (Tighten Torque 23Nm) .

## Installation of Left Rear Motor Linkage



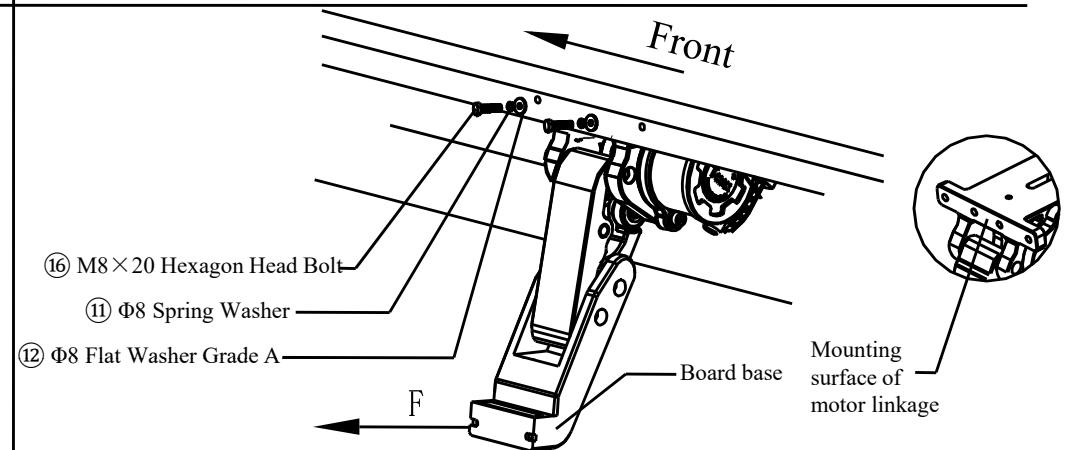
⑫ Φ8 Flat Washer Grade A

⑪ Φ8 Spring Washer

⑰ M8×25 Hexagon Head Bolt (4D)

⑯ M8×20 Hexagon Head Bolt (2D)

Step 10: As shown in the picture, screw hexagon head bolt (4D)/(2D) (with spring washer and flat washer grade A) into the threaded hole 3-4 thread to install the motor linkage.



⑯ M8×20 Hexagon Head Bolt

⑪ Φ8 Spring Washer

⑫ Φ8 Flat Washer Grade A

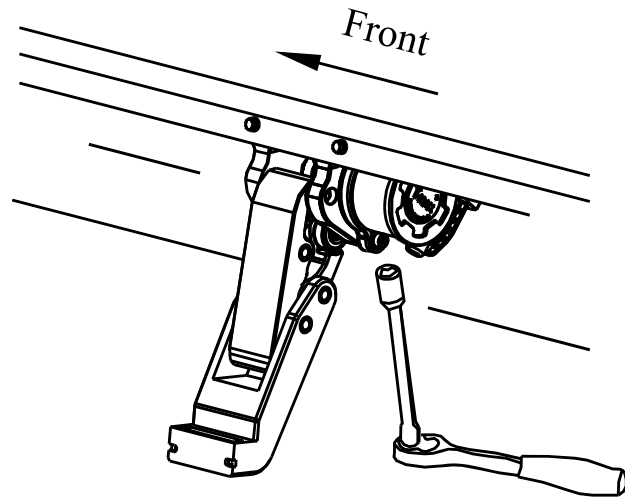
Board base

Mounting surface of motor linkage

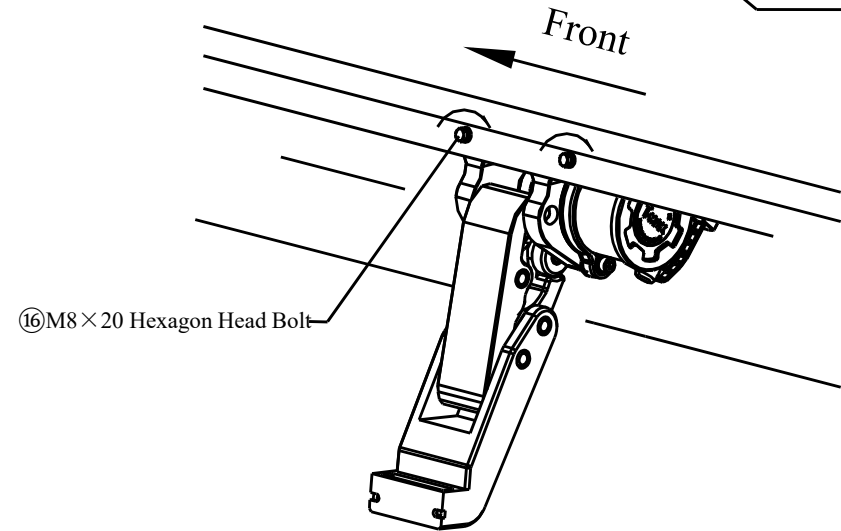
Step 11: As shown in the picture, pull the board base with 30N force to ensure that the hole in the mounting surface is corresponding to the hole in the side skirt, and then screw the bolt and pre-tighten it (Tighten Torque 6Nm) .

# JEEP WRANGLER

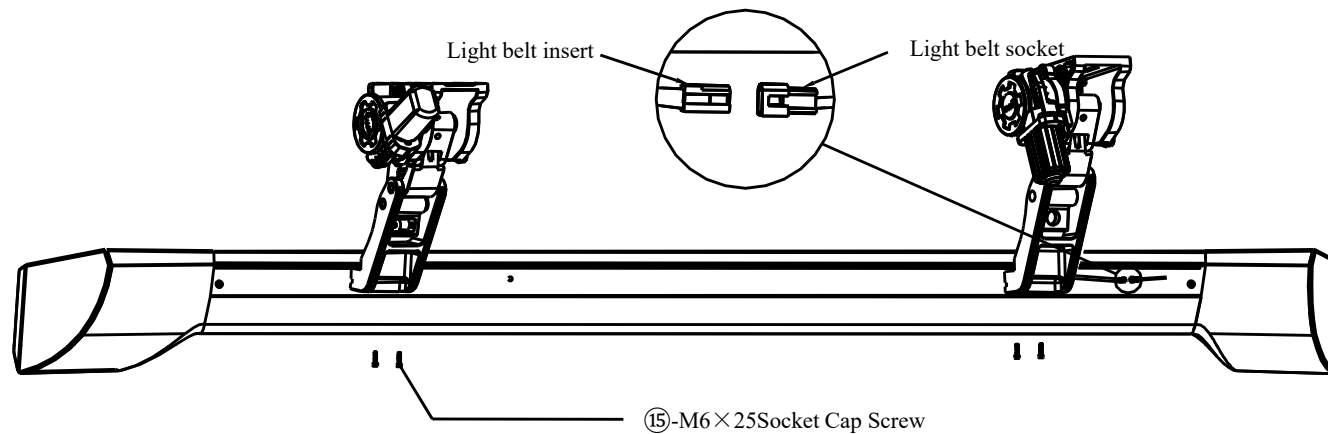
**E-BOARD**



Step 12: As shown in the picture, tighten the hexagon head bolt in the step 10 to install the motor linkage. (Tighten Torque 23Nm)



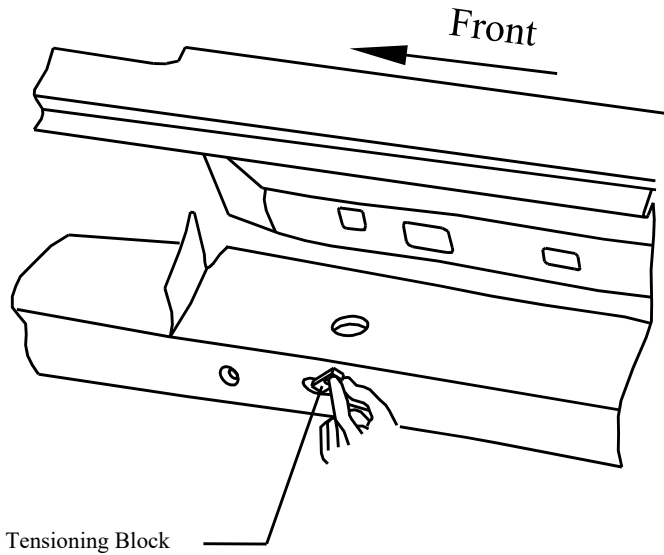
Step 13: As shown in the picture, tighten the hexagon head bolt. (Tighten Torque 23Nm)



Step 14: As shown in the picture, tighten socket cap screw to connect board and motor linkage (Tighten Torque 12Nm). Put the light belt into the groove on the back of board after connecting insert and socket. This installation step is only for glare type.

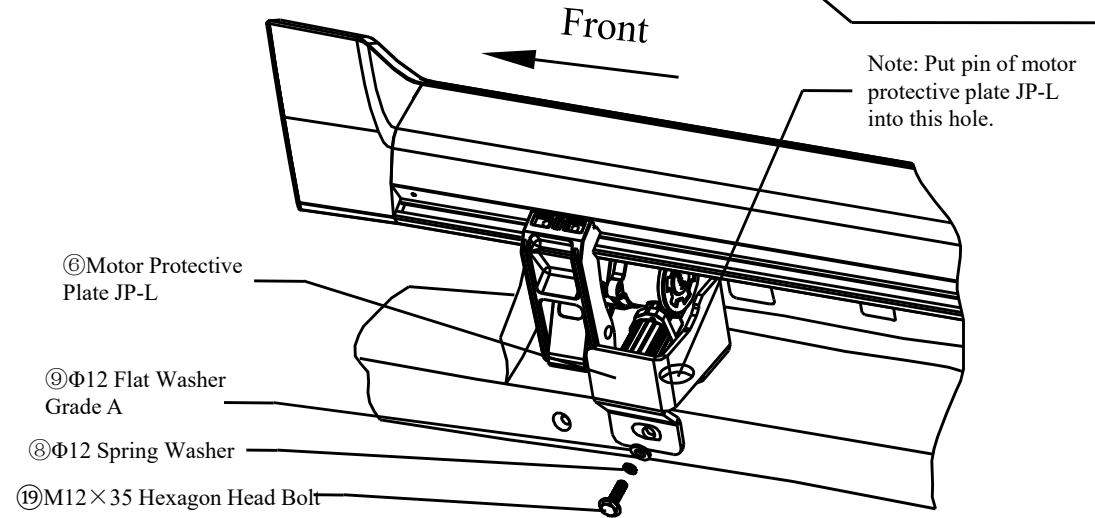
# JEEP WRANGLER

**E-BOARD**



⑳ M12 Tensioning Block

Step 15: As shown in the picture, put in M12 tensioning block.



⑥ Motor Protective Plate JP-L

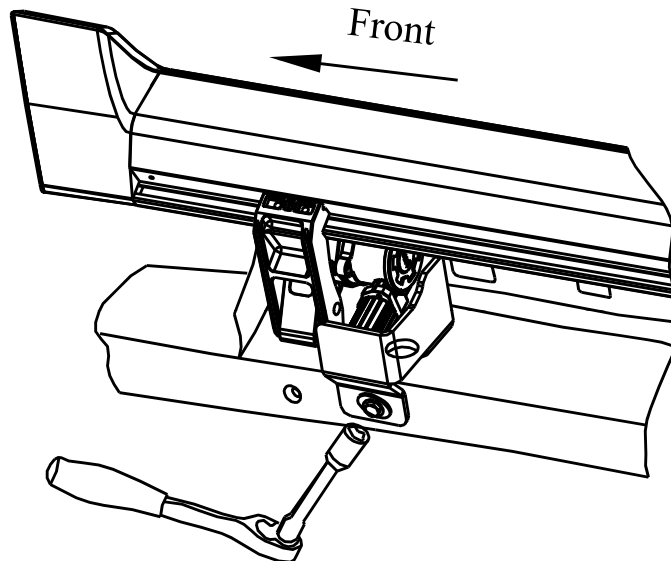
⑨  $\Phi 12$  Flat Washer Grade A

⑧  $\Phi 12$  Spring Washer

⑰ M12  $\times$  35 Hexagon Head Bolt

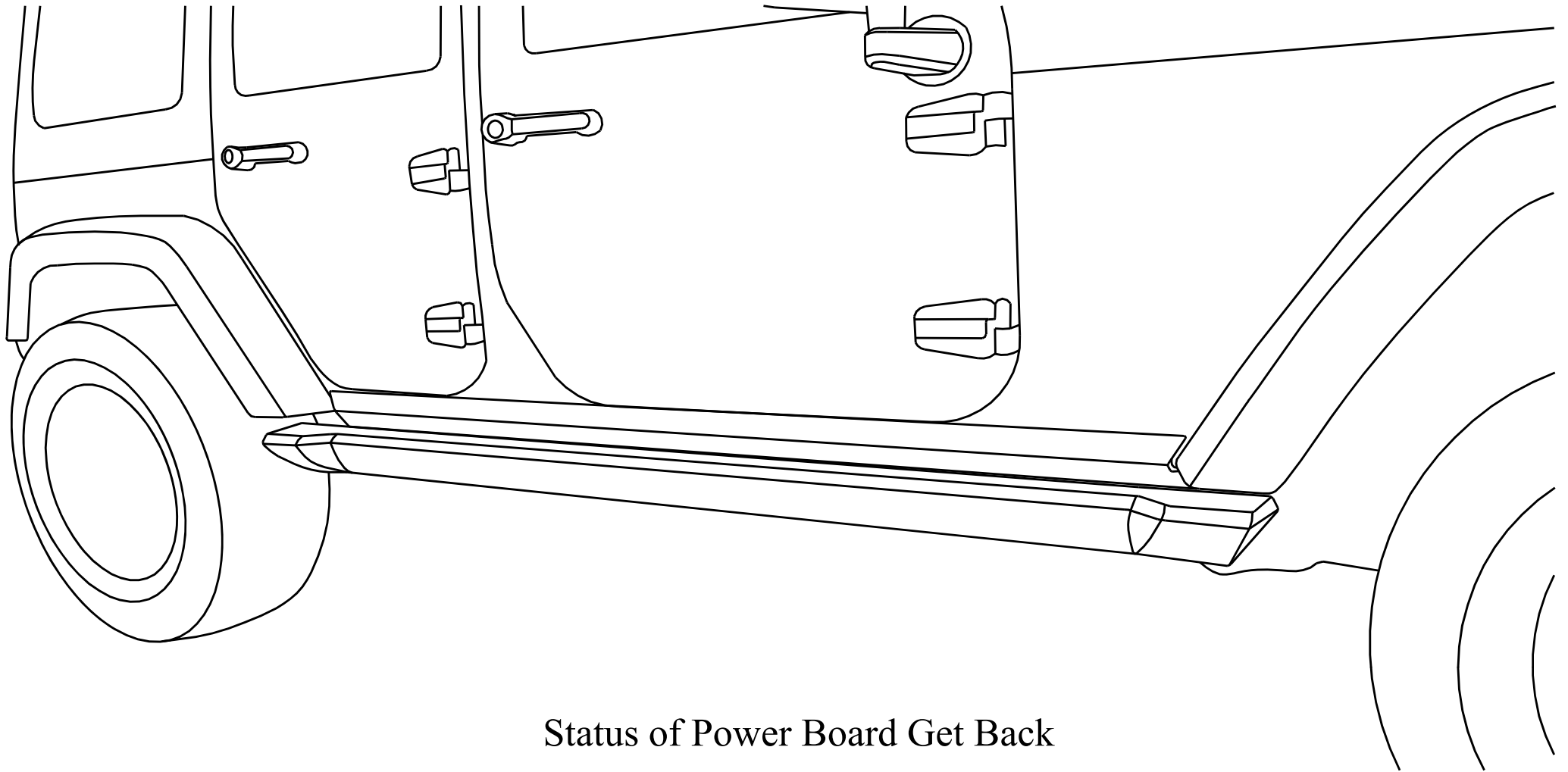
Note: Put pin of motor protective plate JP-L into this hole.

Step 16: Install motor protective plate JP-L according to above picture. Screw hexagon head bolt (with spring washer and flat washer grade A) into the threaded hole 3-4 thread.



Step 17: Make the motor protective plate reach to the vehicle beam and then tighten the ⑰ hexagon head bolt. (Tighten Torque 32Nm)



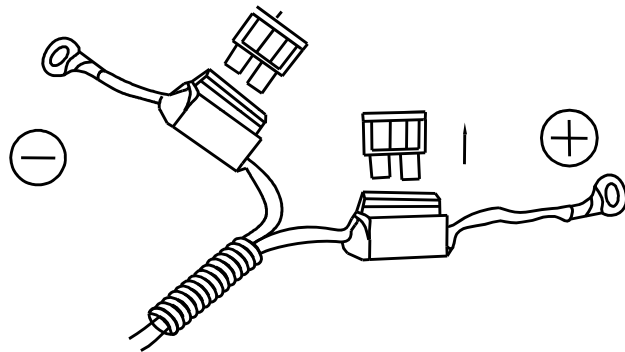
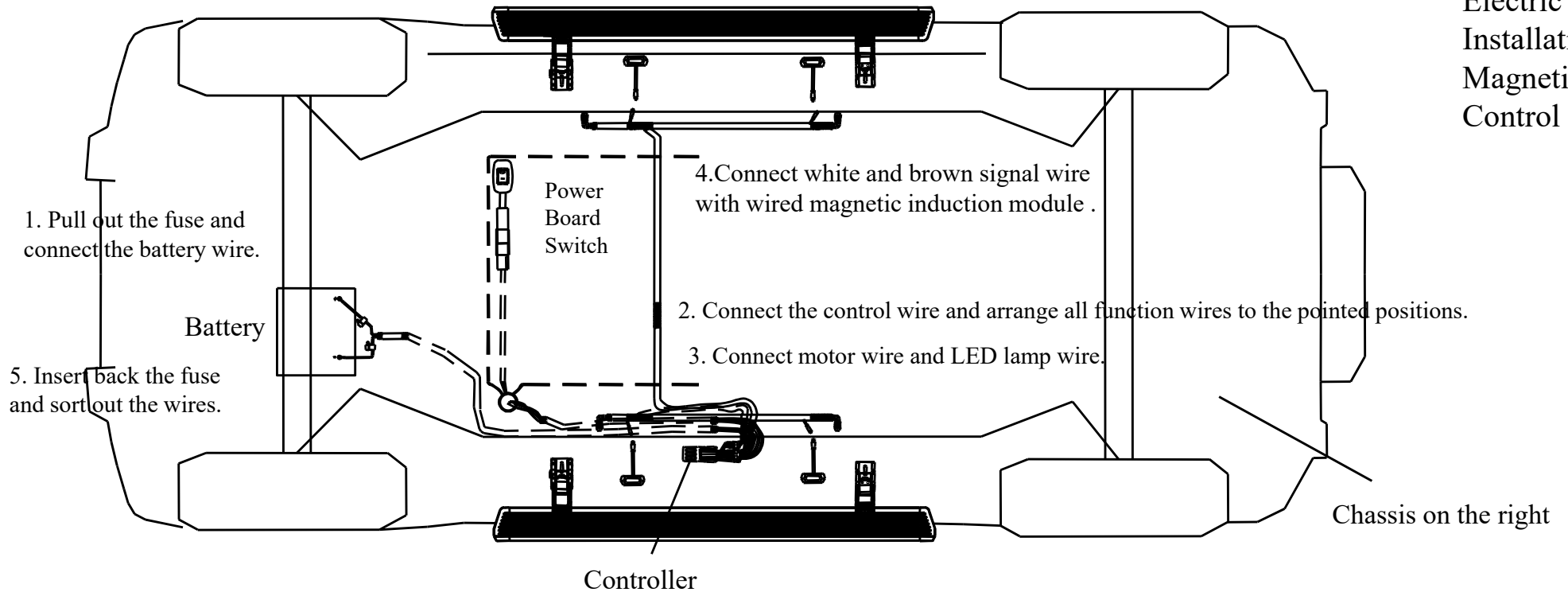


Status of Power Board Get Back

# JEEP WRANGLER

**E-BOARD**

Electric  
Installation of  
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: Battery wire can not be modified privately.**

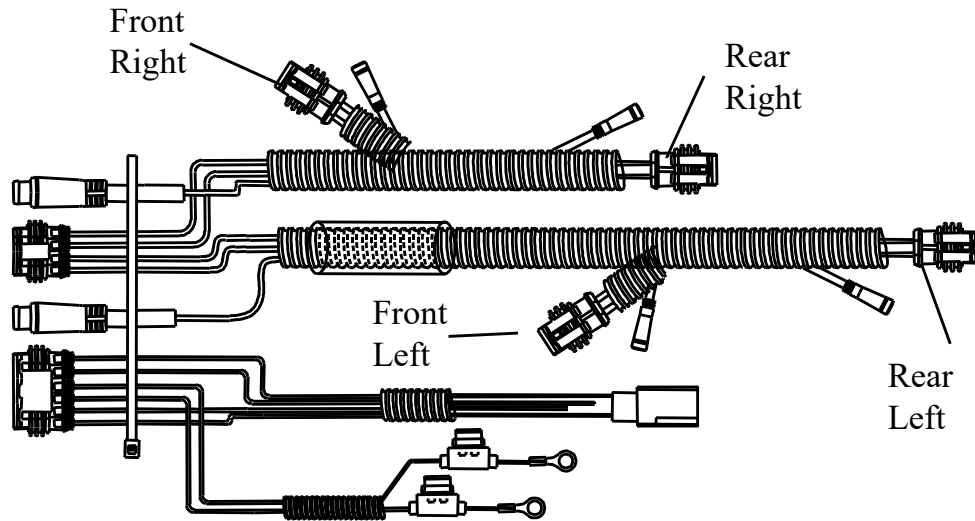


Figure 1

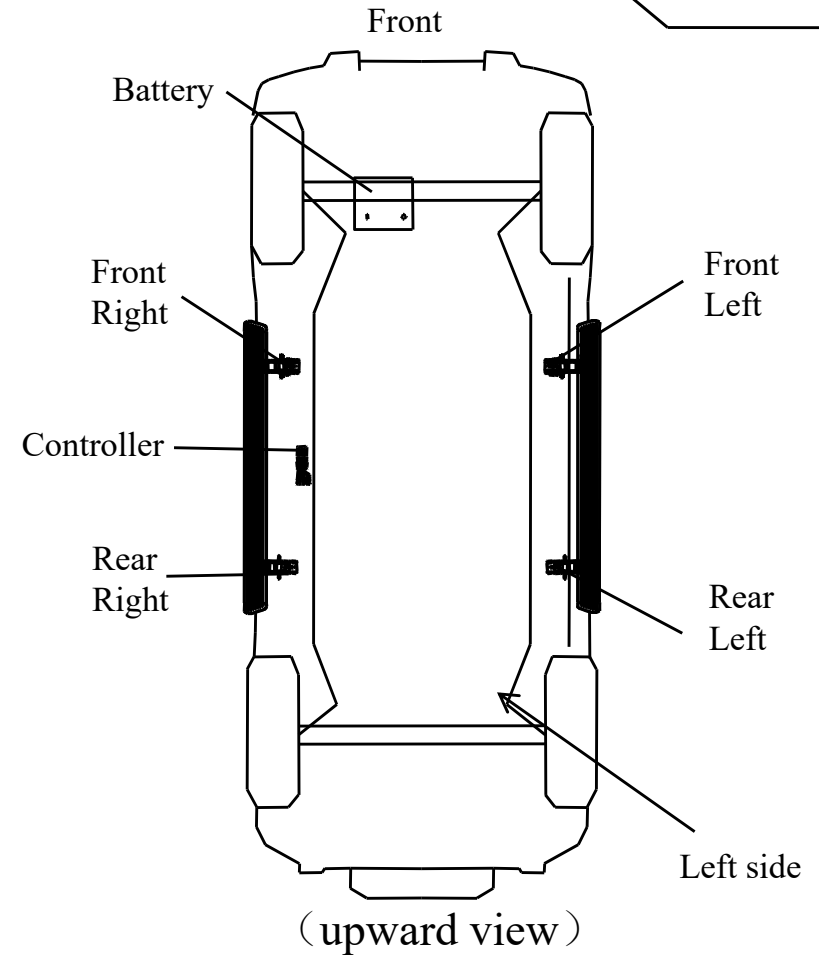
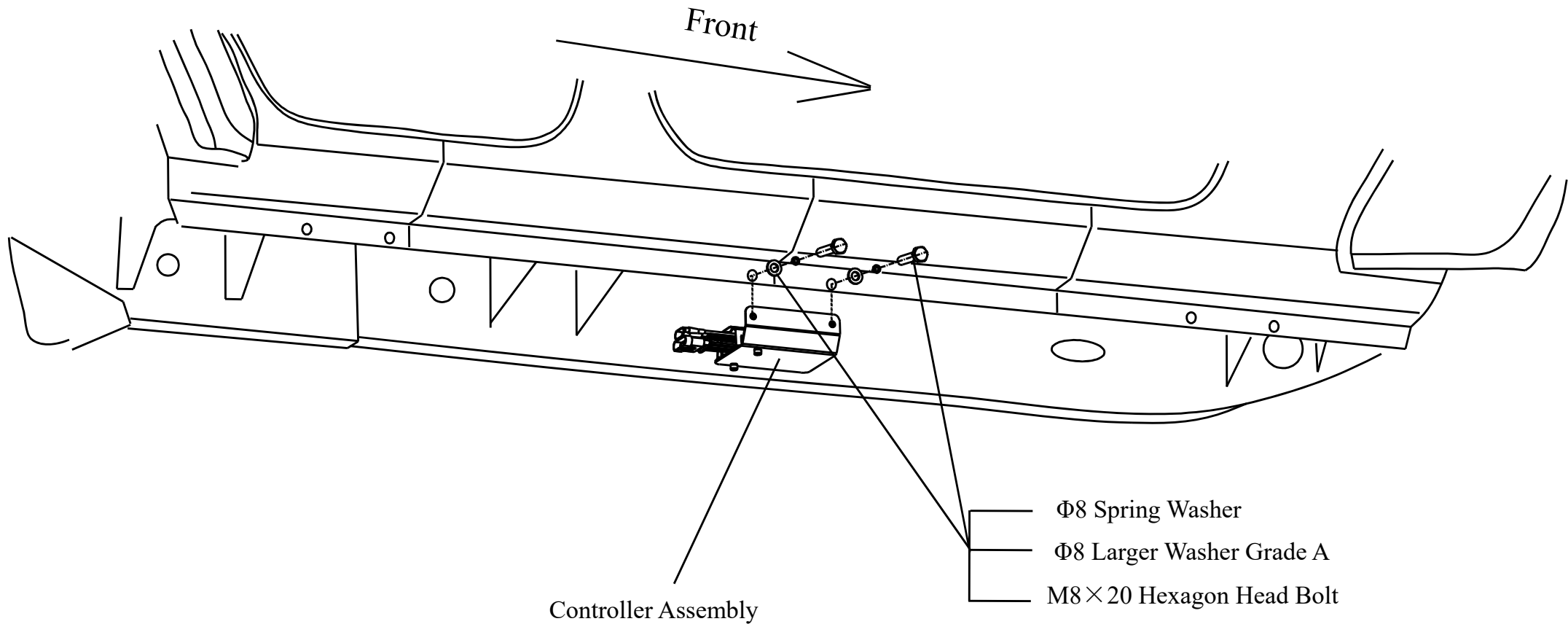


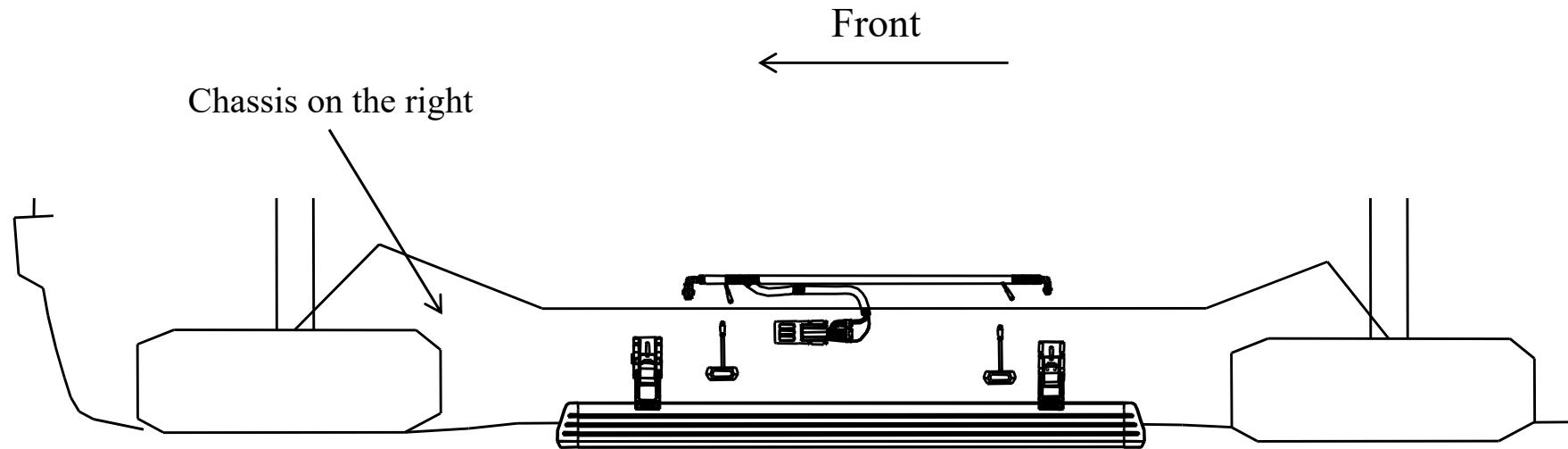
Figure 2

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 left, rear left, front right and rear right”.



Install the controller assembly as shown in the picture, tighten bolts (Tighten torque is 30Nm).

The installation of controller assembly for 2D refers to 4D.



Step 2: 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.

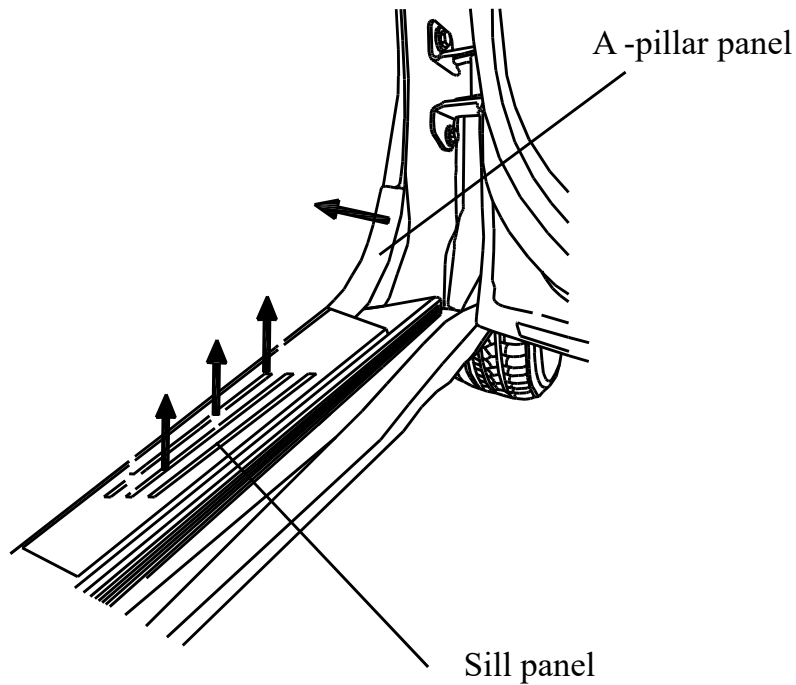


Figure 1

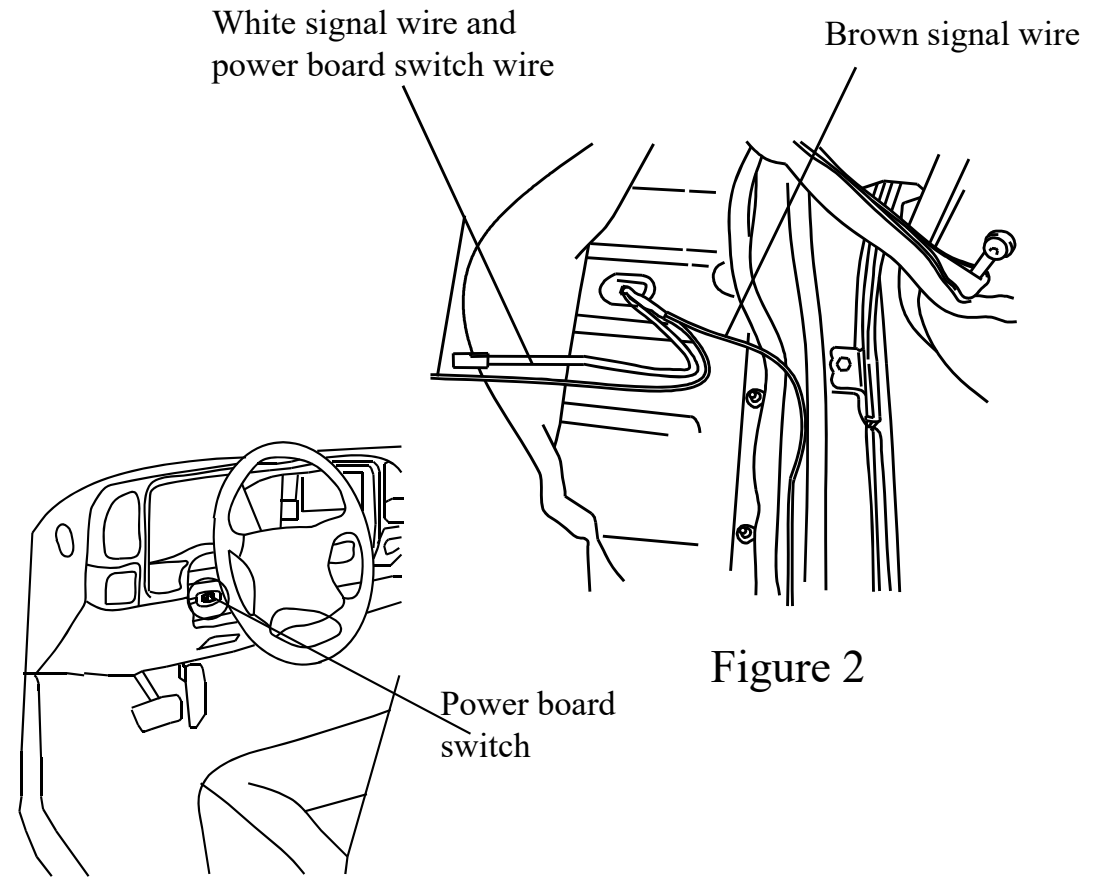
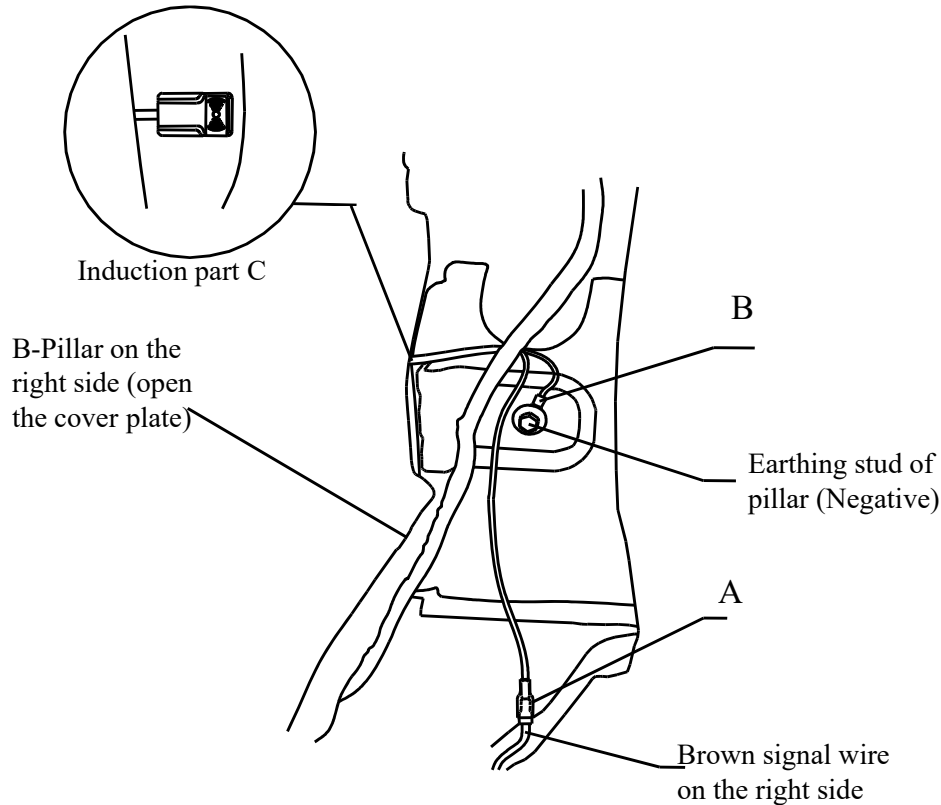


Figure 2

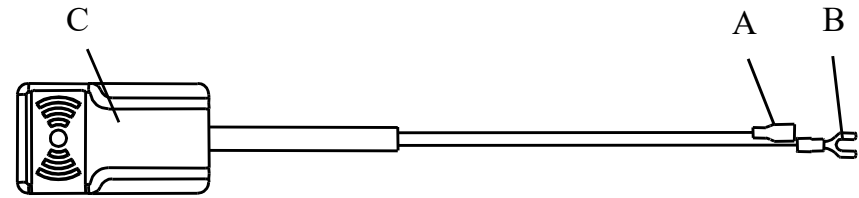
Figure 3

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

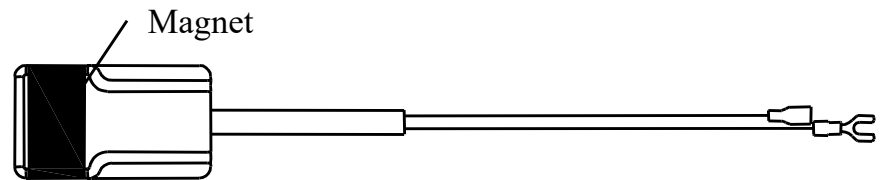
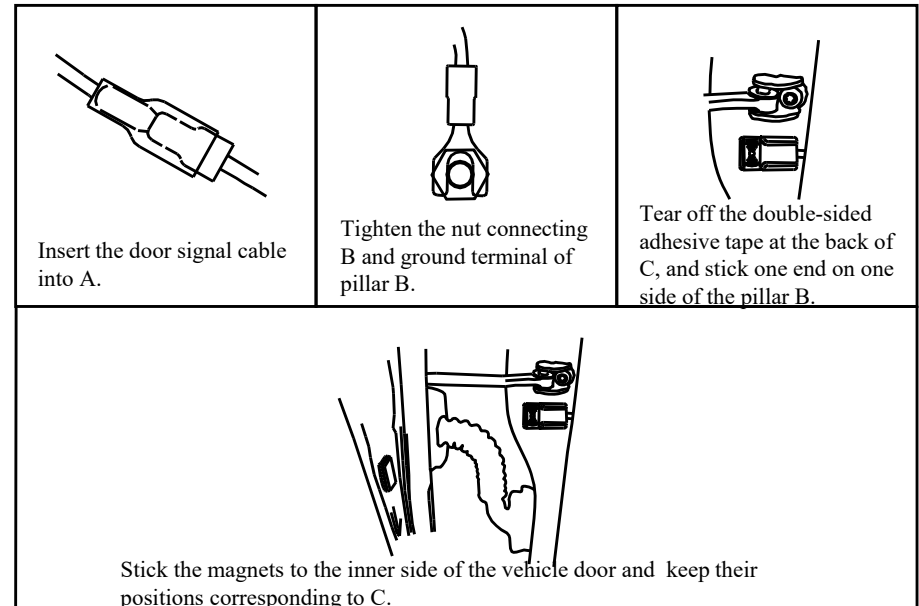
## Magnetic Inductor Installation for 2D Vehicle



Step 4: Open the cover plate of B-pillar on the right side of the vehicle, expose the above part (as shown above), connect the brown signal wire to female insulated terminal A, loosen the earthing stud of B-pillar (ensure there is no oil paint interface of stud and B-pillar), connect fork type terminal B to the earthing stud, and then tighten the earthing stud. Stick the induction part C to the left side of B-pillar, stick the magnet on the inside of vehicle door which is corresponding with induction part. The connection of white signal wire and wire harness induction on the left side are same as the installation of the right side.

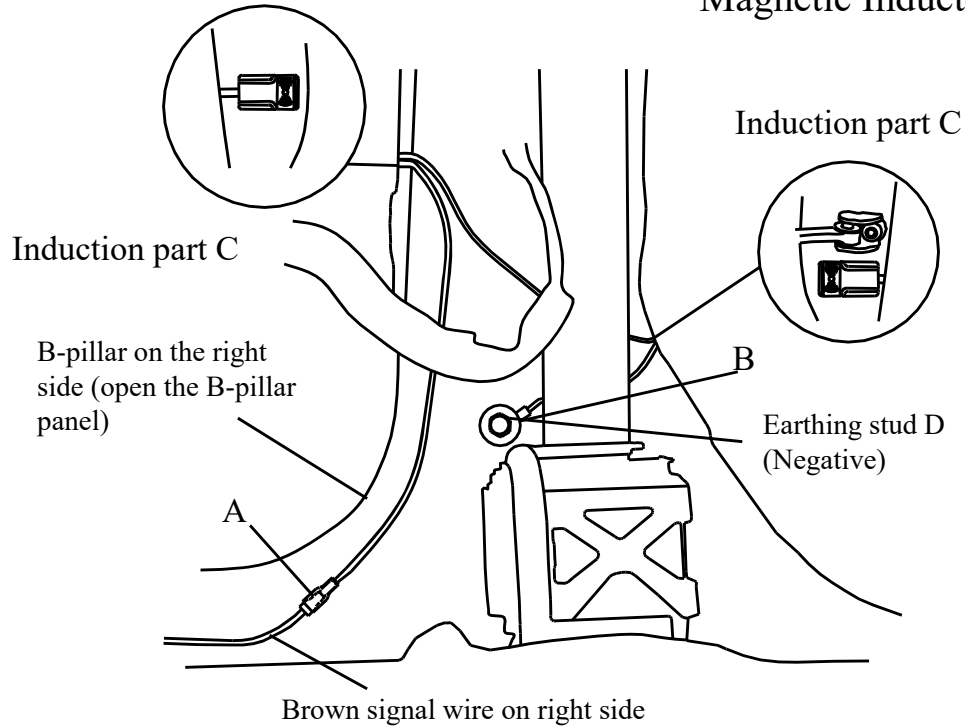


Wire Harness Magnetic Inductor



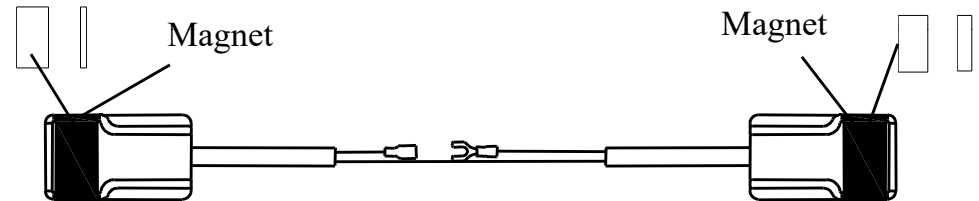
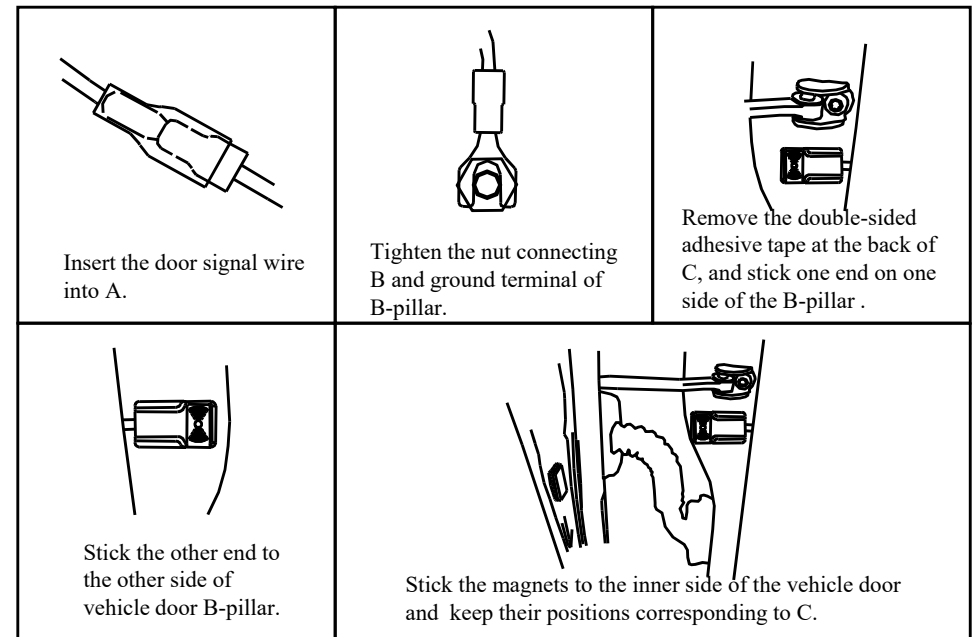
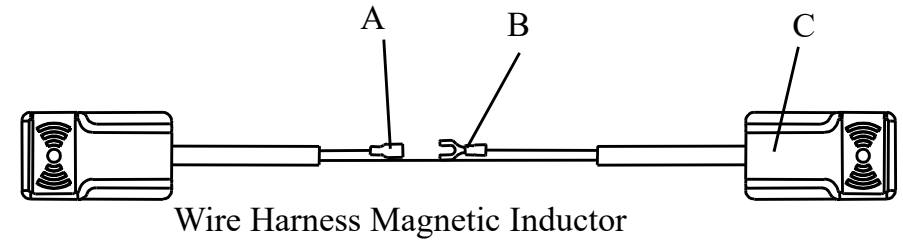
Instruction: The magnet position after closing the door is shown as above picture.

## Magnetic Inductor Installation for 4D Vehicle



Step 5: Open the B-pillar panel on the right side of the vehicle door, expose the above part (as shown above), connect the brown signal wire to female insulated terminal A, loosen the earthing stud D (ensure there is no oil paint interface of stud and B-pillar), connect fork type terminal B 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 C. The connection of white signal cable and cable harness induction on the left side are same as the installation of the right side.

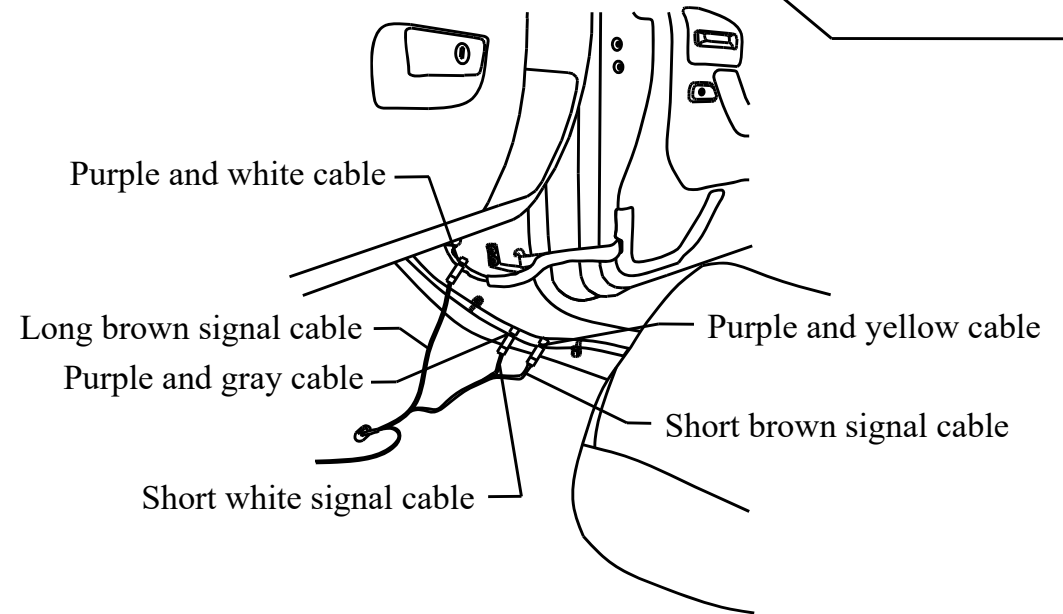
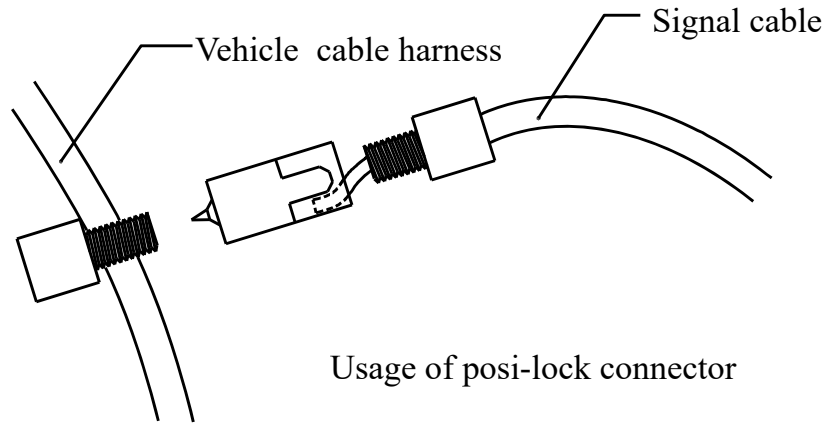
NOTE: The double-sided adhesive tape will be thicker on magnet because of the large gap of rear vehicle door.)



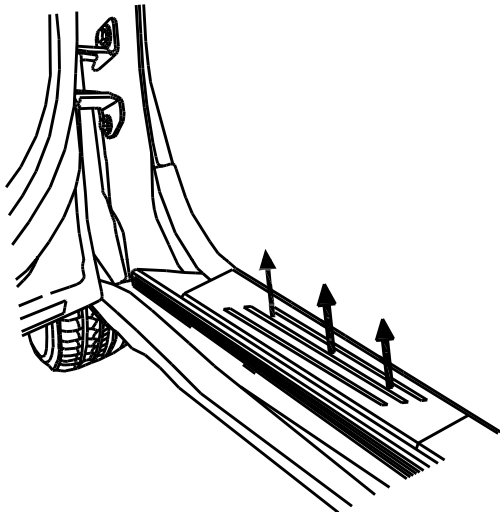
Instruction: The magnet position after closing the door is shown as above picture.  
Note: Rear vehicle door use thick magnet.



## Vehicle Door Signal Cable Installation

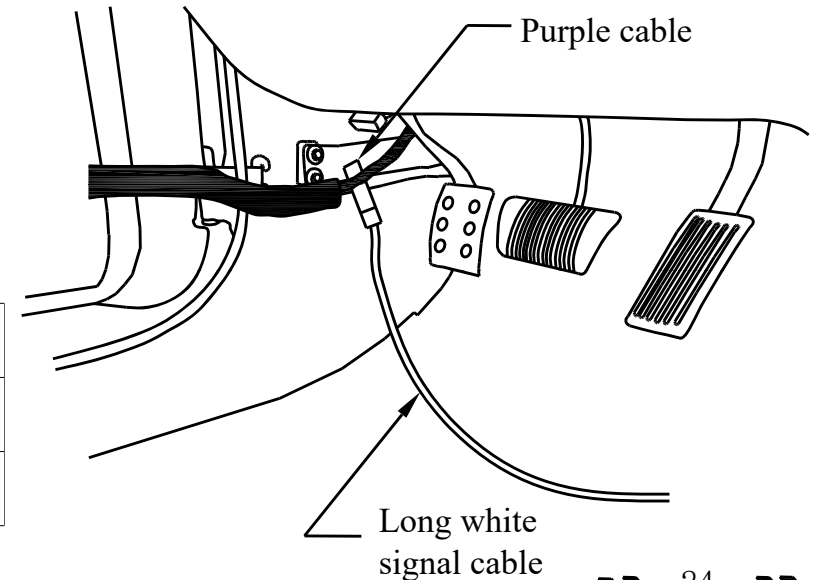


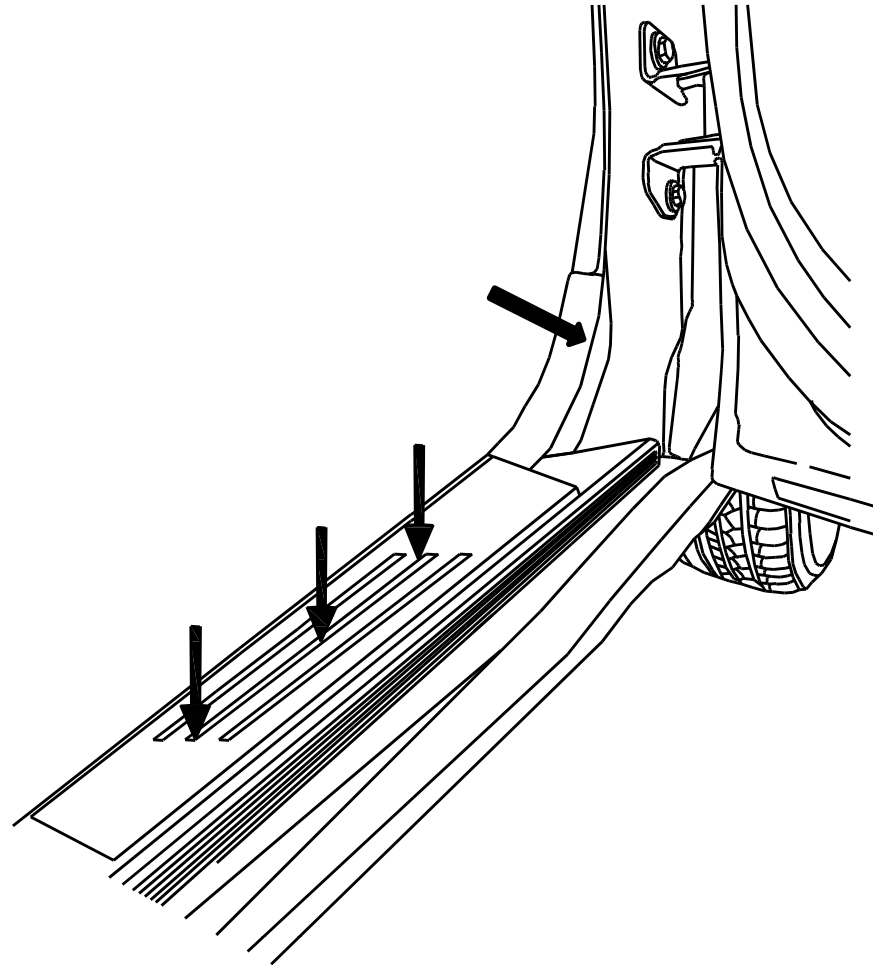
Connect the signal cable by posi-lock connector, shown as right picture, find out the purple and gray cable, and connect to the short white signal cable. Find out the purple and white cable to connect the long brown signal cable, and connect purple and yellow cable with short brown signal cable. Put the long white signal cable on the left vehicle door . (There are only purple and white cable and brown signal cable connection for 2D vehicle. )



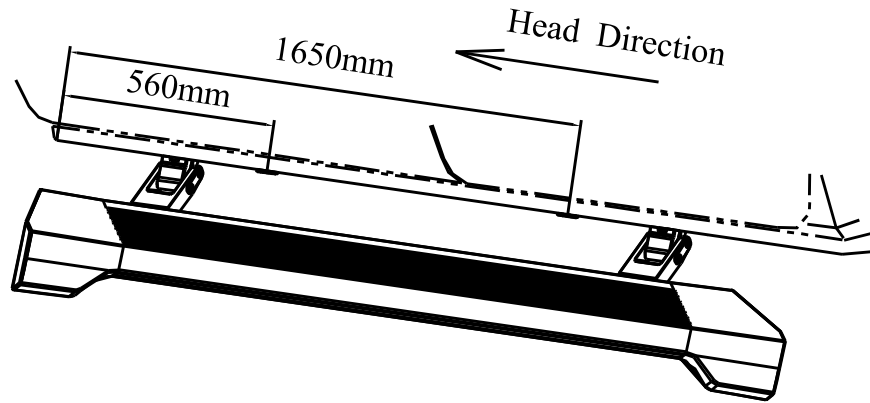
As shown in the picture, open the door on the left side, then open the cover plate . Find out the front vehicle door signal cable (purple), connect it with long white signal cable using posi-lock connector.

Signal cable	Long brown	Short brown	Long white	Short white
	Connect by posi-lock connector			
Vehicle cable harness	Purple and white	Purple and yellow	Purple	Purple and gray

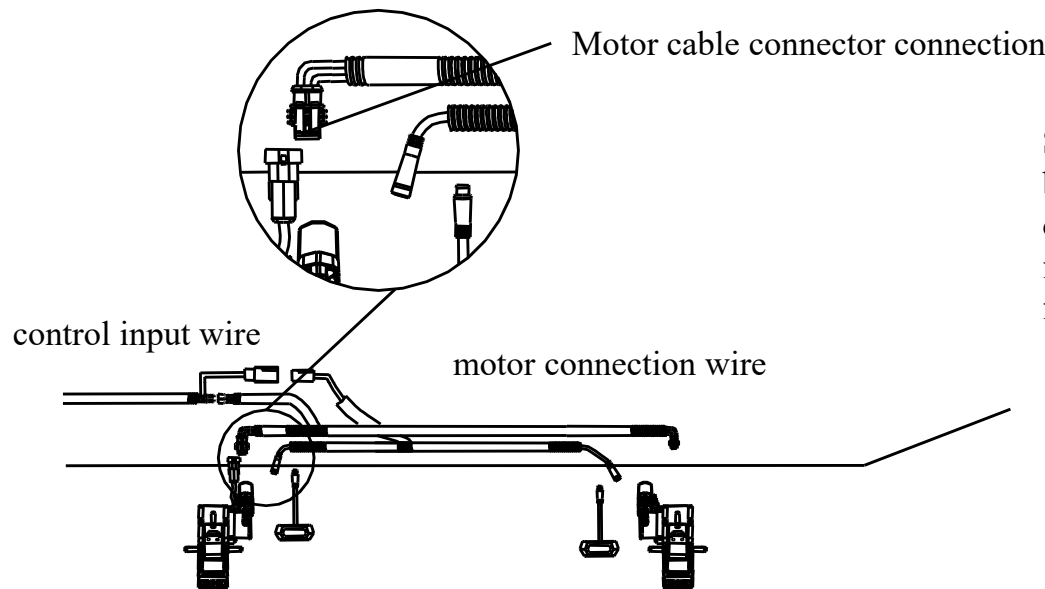




Step 6: Sort out the wire harness and close the panels. The installation of white signal wire on the left side is same with the right side .

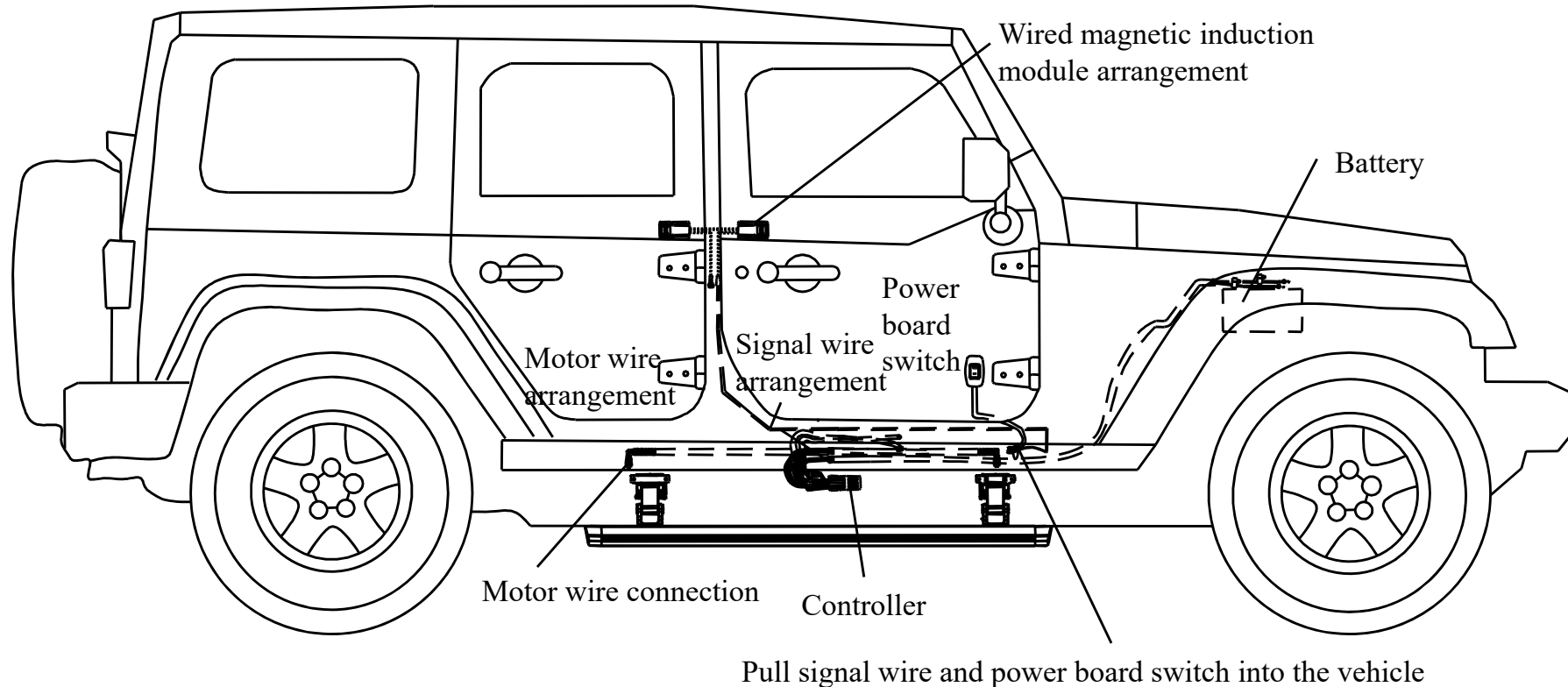


Step 7: Installation of LED lamp : Tear off the double-sided adhesive tape behind the LED lamp and stick it to the thin wall blow the apron. The distance from designated pasting position of front and rear LED lamp to front door line of front door is shown as the picture (The distance of the front lamp is 550mm, and the rear lamp is 1600mm).



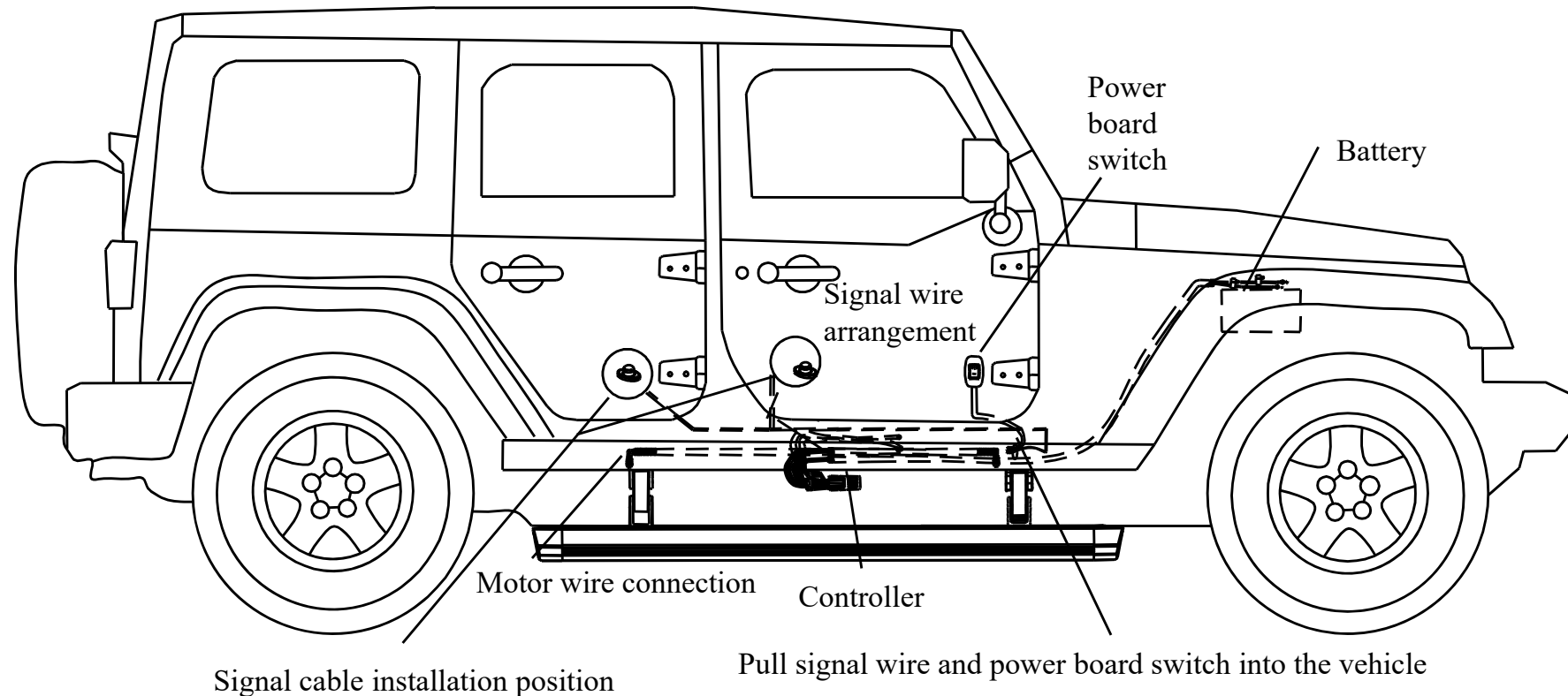
Step 8: Installation of LED lamp : Tear off the double-sided adhesive tape behind the LED lamp and stick it to the thin wall blow the apron. The distance from designated pasting position of front and rear LED lamp to front door line of front door is shown as the picture (The distance of the front lamp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

## Summary of Electric Part



Step9.1: 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.)

## Summary of Electric Part

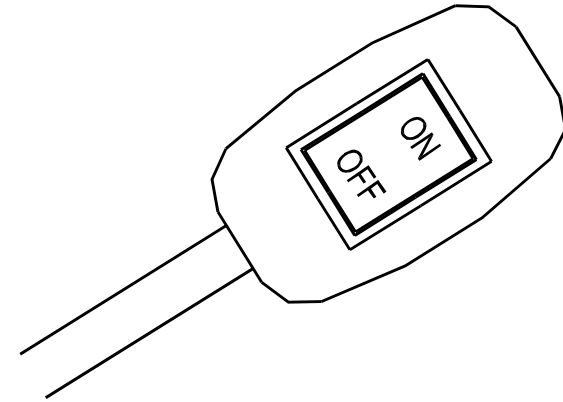
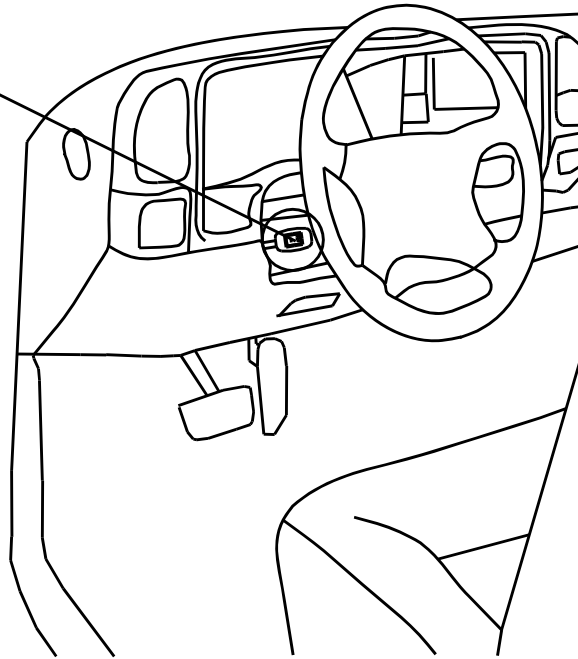


## Vehicle Door Signal Cable Installation

Step9.2: 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.

<b>Maintenance</b>	
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.

<b>Maintenance card</b>		
The power board couldn't work normally when doors open and close	<b>Electrical Malfunction</b>	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 door signal cable: 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.
	<b>Mechanics Malfunction</b>	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!

## T-MAX Product Warranty Instructions

Thank you very much for choosing our product!

### I Maintenance Instruction

- 1、 During warranty period, T-MAX 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, T-MAX provides paid maintenance.
- 2、 T-MAX 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 T-MAX terminal service provider.
- 3、 For all replaced parts, T-MAX ensures to provide maintenance within 12 months after the replacement.
- 4、 The ownership of the old parts from the replacement belongs to T-MAX (Hangzhou) Technology Co., Ltd.
- 5、 Within the limit of law, the interpretation of warranty policy belongs to T-MAX (Hangzhou) Technology Co., Ltd.

### 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 T-MAX 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 T-MAX terminal service branch;



## Warranty card

Product Type		User name	
Product Name		Tel	
Factory number		Address	
Date of purchase			
Shop of purchase			

## Maintenance records

Date	Fault Descriptions	Fault Reasons	Result	Note

- 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 strpping 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 T-MAX 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 T-MAX Terminal Services branch to detect and repair. Pedal when the door is reflected insensitively。

Gate control signal is error. Send to local T-MAX Terminal Services branch to check the wiring according to the control wiring diagram.

**E-BOARD<sup>®</sup>**

**Produced by**  
T-MAX(HANGZHOU)TECHNOLOGY CO.,LTD

[www.tmax.biz](http://www.tmax.biz)