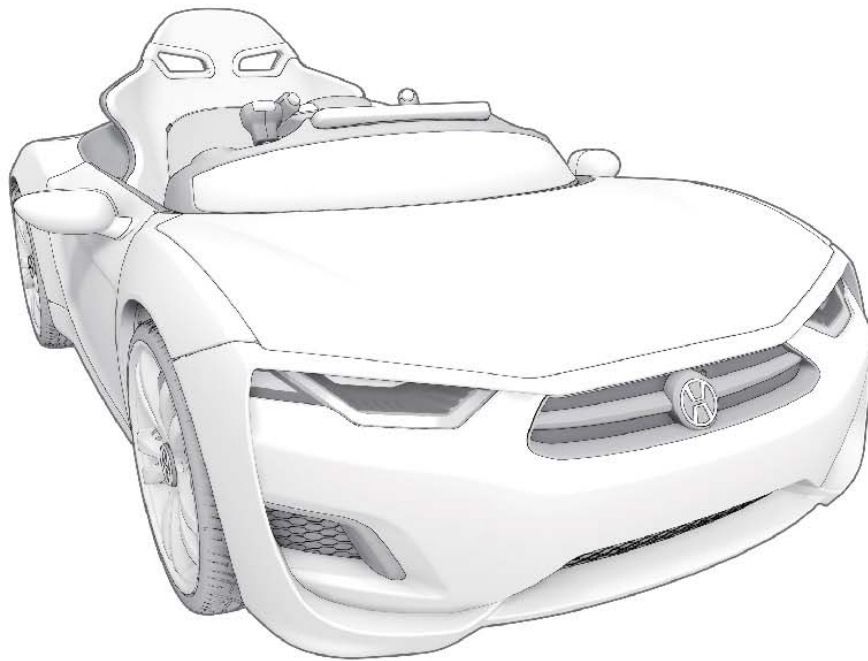




BROON F8

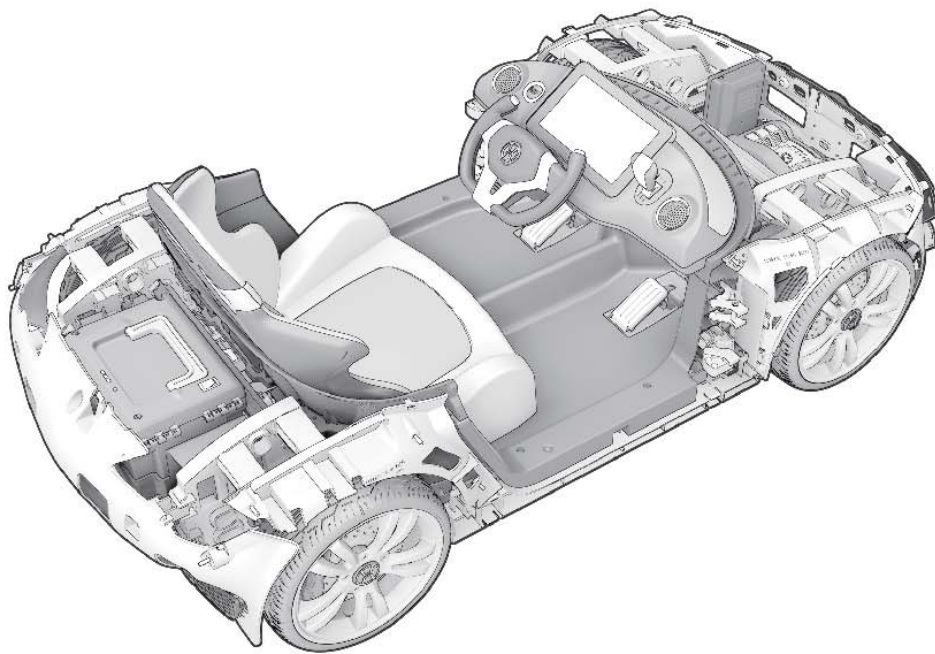
The Instructions Manual



Please make sure to read the instruction manual thoroughly before use.
Some changes can be made for improvement without notice.
Specifics could vary by different versions of the product.



Please read carefully the pre-inspection requirements before use.



- The content of this instruction manual could change for improvements without notice.
- For any difficulties or discomfort in using the product, please contact us via calling your near service center or the store of purchase. You can also contact us via our website at www.broon.co.kr.

Dear valued customers

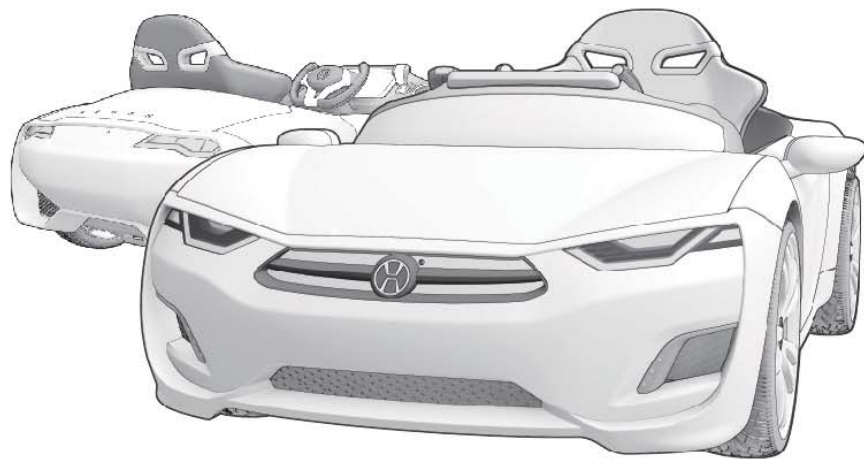
We are pleased to welcome you as new family members of HENES CO., LTD.

As a miniature electric motor vehicle designed for kids,
our product is equipped with various extra functions by the very best research and
production team of HENES CO., LTD., providing safer and more comfortable electric
vehicle for kids and the whole family with greater fun.

We do our best to give your beloved sons and daughters the first-in-lifetime experience
of driving the vehicle which will be shared and talked forever.

Again thank you for choosing BROON F8 Series, an unforgettable experience.

BROON F8 Series



Contents

| | |
|--|--------|
| 1. Precautions | |
| ▷ Instructions / Cautions for Safety | (p.01) |
| 2. Components | |
| ▷ Component images | (p.02) |
| 3. Product Exploded View | |
| ▷ External exploded view and part names | (p.03) |
| ▷ Internal exploded and part name_ F810 / F830 | (p.04) |
| ▷ Internal exploded and part name_ F850 | (p.05) |
| ▷ Internal exploded and part name_ F870 | (p.06) |
| 4. Product assembly instruction | |
| ▷ Tire set | (p.07) |
| ▷ Seat assembly and separation | (p.08) |
| ▷ Instrument panel assembly and removal | (p.09) |
| ▷ Hood / Trunk | (p.10) |
| 5. Battery | |
| ▷ Charging and replacing the battery | (p.11) |
| ▷ Charging Precautions | (p.12) |
| ▷ Handling Precautions | (p.13) |
| 6. Driver's Seat | |
| ▷ Part names and functions | (p.14) |
| 7. Tablet PC manual | |
| ▷ Names and functions of the main screen | (p.15) |
| ▷ Lock function and operation method | (p.16) |
| ▷ Speed limit change / Driving mode change / Control mode change / Braking mode change | (p.17) |
| ▷ Light control / Lock settings / MP3 playback / Language settings | (p.18) |
| ▷ Setting- vehicle information display | (p.19) |
| (Fine-tuning steering / System Temperature / Voltage, Battery remains / Total Driving , Remaining Distance) | |

Contents

| | |
|---|--------|
| ▷ Setting-General (voice instruction/ start settings / update) add-ons..... | (p.20) |
| ▷ Auto-Diagnostics | (p.21) |
| ▷ Precise-Diagnostics..... | (p.22) |
| ▷ Warning Message Description..... | (p.23) |
| (Over-Heat, Over-Current, Low Battery, Remote Control Communication, , Emergency Stop) | |
| 8. Touch pad instructions | |
| ▷ Main screen functions and descriptions, locking, driving modes..... | (p.24) |
| 9. Audio System / Update | |
| ▷ Audio features and updates related..... | (p.25) |
| 10. Vehicle Operation Method | |
| ▷ Turning ON battery / Dashboard Power Switch / Lock setting and operation | (p.26) |
| 11. Remote control | |
| ▷ Product Components / Description / Specification..... | (p.27) |
| ▷ Product Description..... | (p.28) |
| ▷ Batteries Insertion methods..... | (p.29) |
| ▷ Product Function..... | (p.30) |
| ▷ Precautions..... | (p.32) |
| 12. Useful Tips | |
| ▷ When the vehicle is not moving / when unchangeable / when you feel reduced mileage..... | (p.33) |
| ▷ When the battery makes noise / Battery heats when charging..... | (p.34) |
| 13. Product Specifications | |
| ▷ Specification | (p.35) |

1. Precautions

◆ Before reading this manual,

- Please review the user manual thoroughly before the use of product.
- After reviewing, please put the manual at reachable place for further need.
- Some described items, components or functions can differ or may not be provided per options.
- The images in the user manual are for instructive purposes thus can be differ from the actual products
- Functions and performances of product and user manual can be modified for quality issues without notice.

Cautions

2) Cautions for safety

◆ To prevent any accident

- Do not leave the child alone when in use. Adult supervision is mandatory.
- Always operate under parental supervision.
- Never operate on hazardous places such as driveways, near vehicle, slopes, swimming pool or near water.
- Children must wear shoes at all times.
- The supervisors must be aware of possible remote controller interference with other devices.
- Children must remain seated while driving.
- The product is designed for children at ages of 3~8 years, and maximum loading weight cannot exceed over 30kg.
- Please dispose the plastic packaging away from children's reach.
- Plastic packaging could cause suffocation when reached by children.
- Remote controller should be used over 15 years old and keep out of children's reach.
- Parent or guardians should keep eyes on door hinge when opening because childrens can be injured from the gap.
- Bonnet and trunk are used only for maintenance purpose.
- Please Keep bonnet(trunk)opener away from children and be careful of lost.

◆ Rules for safe driving

- ▶ Please be aware of the following rules and make sure the driver and other children around understand completely.
- ▶ Children shall operate only under adult supervision.
- ▶ Children must wear safety equipment such as a helmet when driving.
- ▶ Operate only in safe area.
- ▶ Never operate near driveways, cars, grass, slopes, stairs, swimming pool or water.
- ▶ Operate only in daytime with clear visibility.
- ▶ Do not operate on wet road or slopes higher than 10 degrees.
- ▶ Do not operate outside when snowing or raining.
- ▶ Forward/reverse mode change must be done after complete stop.
- ▶ Age target and weight capacity must be followed.
- ▶ Do not modify any electric circuits nor install other electric devices.
- ▶ Check connections for the circuits and connectors occasionally.
- ▶ Check product safety before boarding to prevent any accident.
- ▶ Never let children touch the wheels or running vehicle.
- ▶ Please be familiar with how to manage the adjustable seat belt of the product.
- ▶ Please have the seatbelt on at all times.

2. Components



F8 body



Tire X 4



Seat(with seatbelt included)



Instrument panel
(Tablet PC/Touch Pad, Handle)



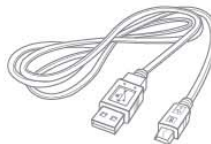
Remote controller



Wheel Binding bolts X 20 &
hexagon wrench



Charger

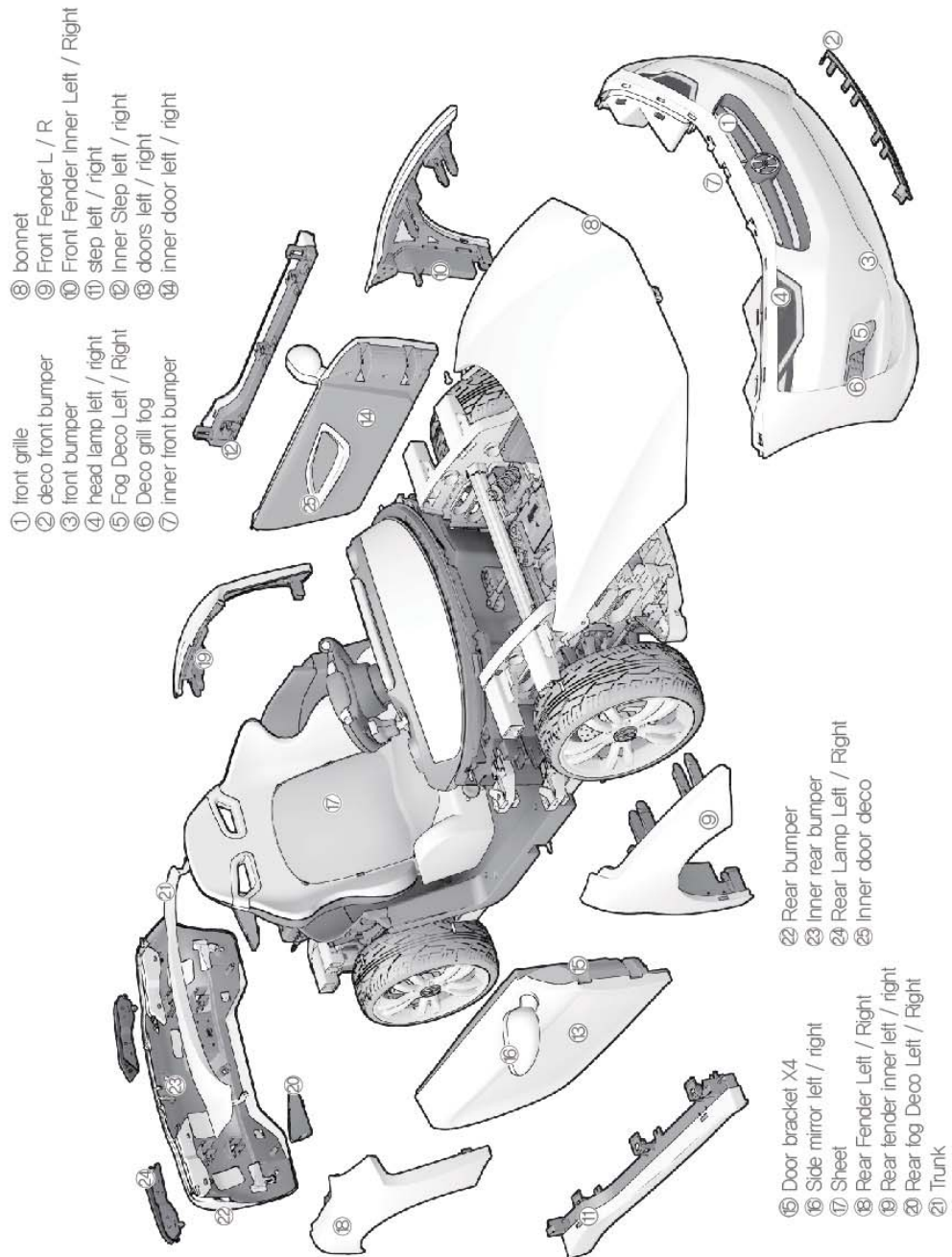


Data cable

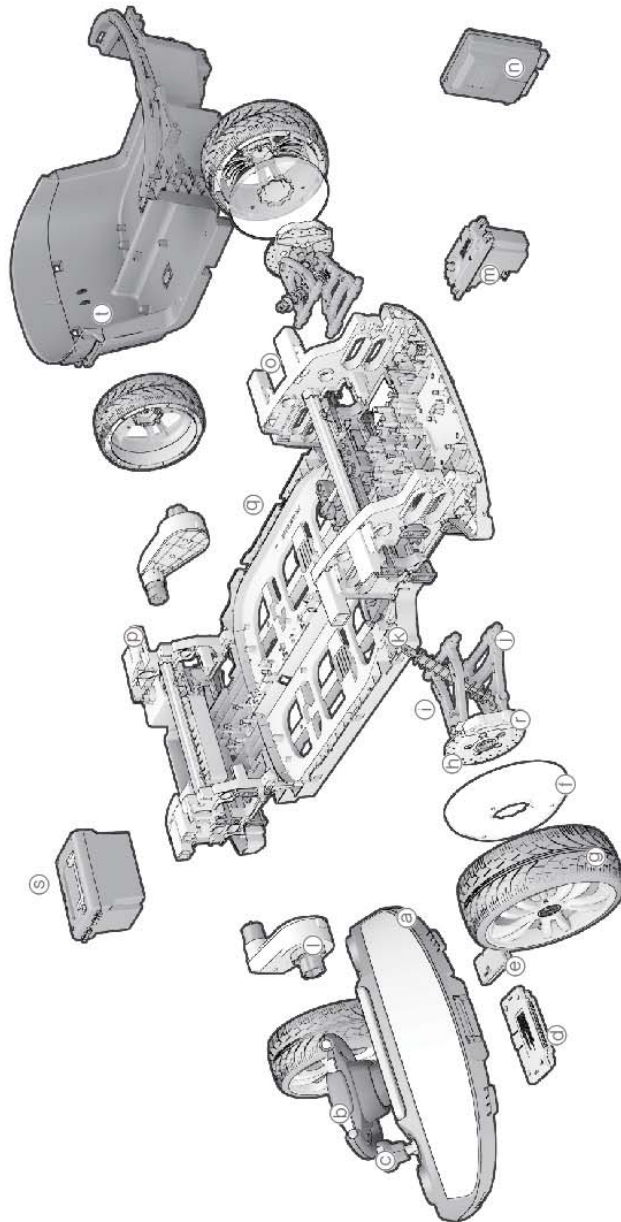


Instruction manual

3. Product Exploded View_External view and part names



3. Product Exploded View_Internal view and part name F810/F830



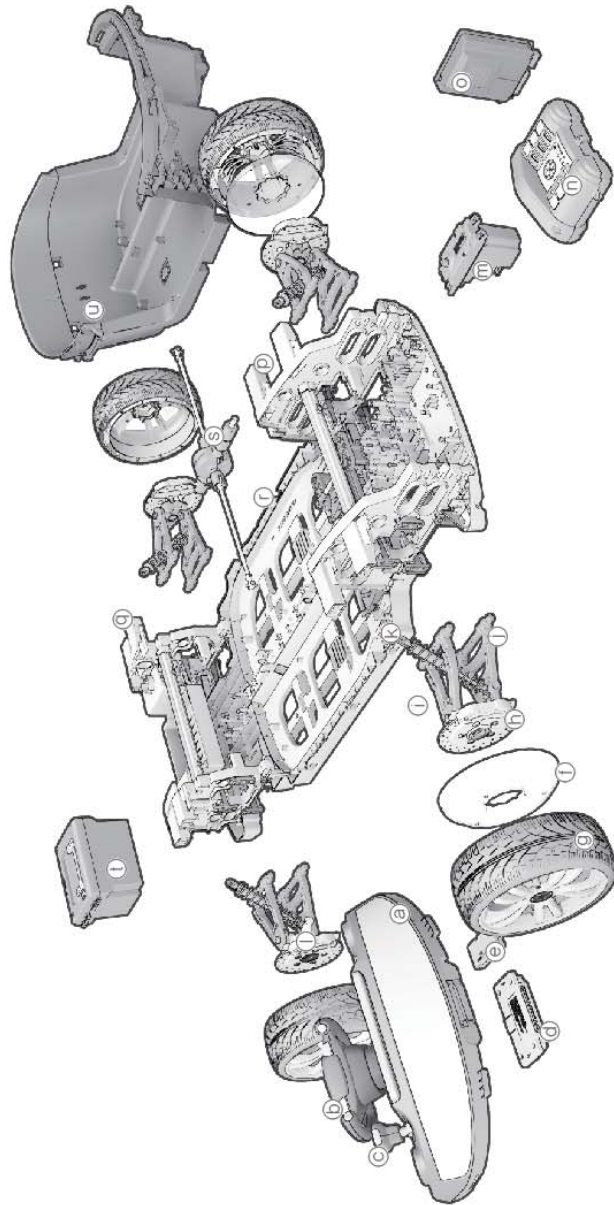
s Battery case
1 Mainframe

m Steering box
n Power Pack
o Front main bracket X 2
p Rear main bracket X 2
q Platform
r Calliper x 4

g Tire X 4
h Disk X 4
i Upper arm X 2
j Lower arm X 2
k Damper X 2
l Motor case X 2

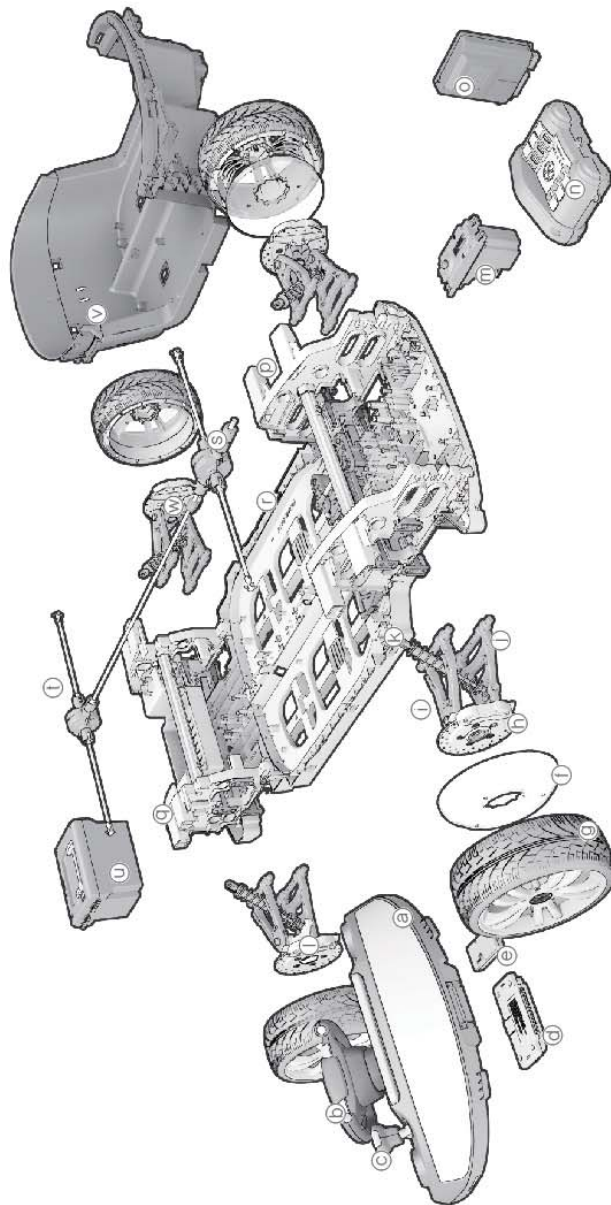
a Dashboard
b Handle
c Forward-Reverse lever
d Main board
e The remote control Receiver module
f Acrylic cap X 4

3. Product Exploded View_Internal view and part name F850



- (A) Dashboard
- (B) Handle
- (C) Forward-reverse lever
- (D) Main board
- (E) The remote control receiver module
- (F) Acrylic cap X 4
- (G) Tire X 4
- (H) Calliper X 4
- (I) Upper arm X 4
- (J) Lower arm X 4
- (K) Damper X 4
- (L) Disk X 4
- (M) Steering box
- (L) Drive box
- (O) Power Pack
- (P) Front main bracket X 2
- (Q) Rear main bracket X 2
- (T) Platform
- (S) Front differential
- (U) Battery case
- (U) Mainframe

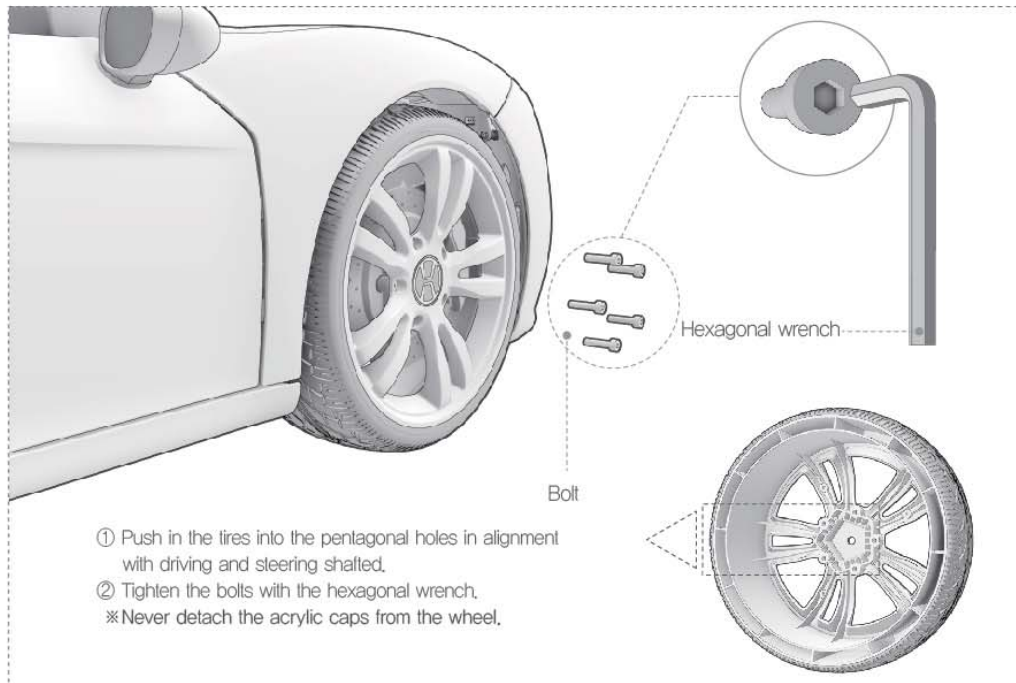
3. Product Exploded View_Internal view and part name **F870**



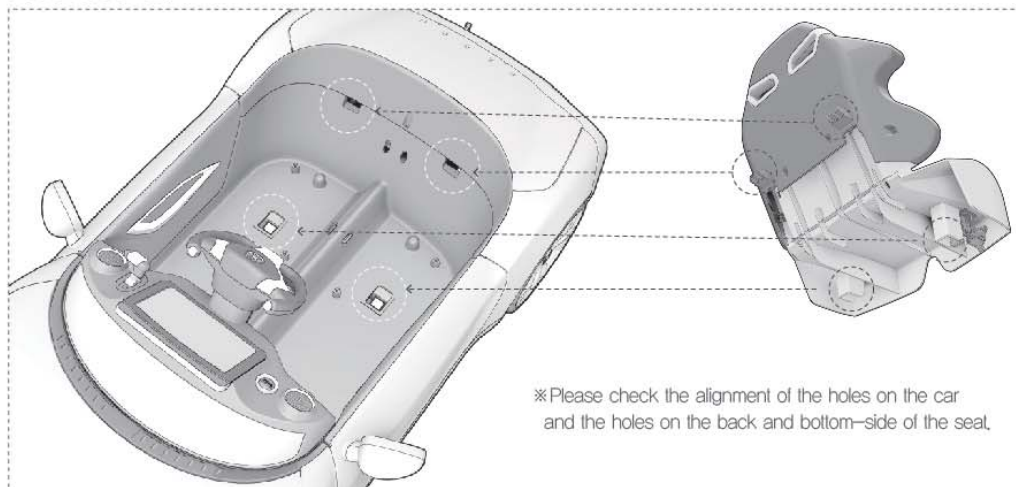
- Ⓐ Dashboard
- Ⓑ Handle
- Ⓒ Forward-reverse lever
- Ⓓ Main board
- Ⓔ The remote control receiver module
- Ⓚ Acrylic cap X 4
- Ⓛ Tire X 4
- Ⓜ Calliper X 4
- Ⓝ Upper arm X 4
- Ⓟ Lower arm X 4
- Ⓠ Damper X 4
- Ⓡ Disk X 4
- Ⓢ Steering box
- Ⓣ Drive box
- Ⓤ Power Pack
- Ⓡ Front main bracket X 2
- Ⓢ Near main bracket X 2
- Ⓣ Platform
- Ⓣ Front differential
- Ⓛ Rear differential
- Ⓤ Battery case
- Ⓡ Mainframe
- Ⓢ Viscous coupling

4. Product assembly instruction

| Tire-set assembly



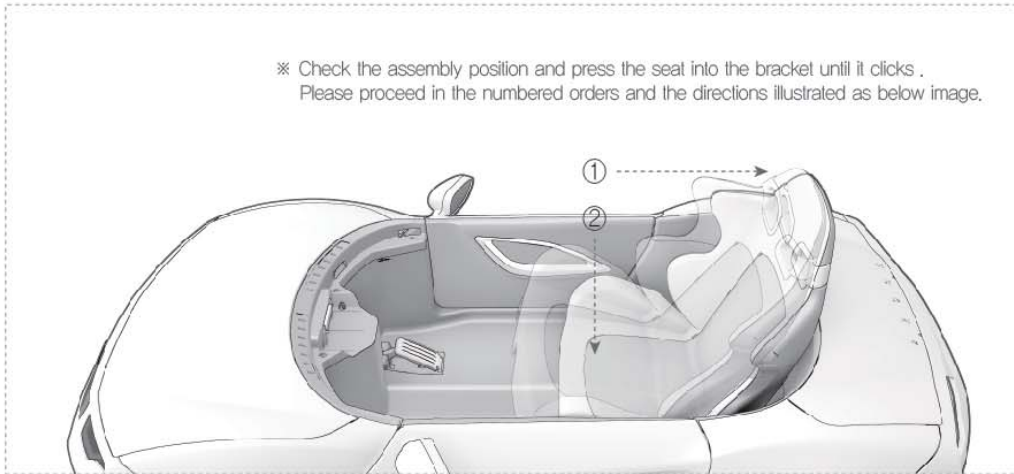
| Seat assembly



4. Product assembly instruction

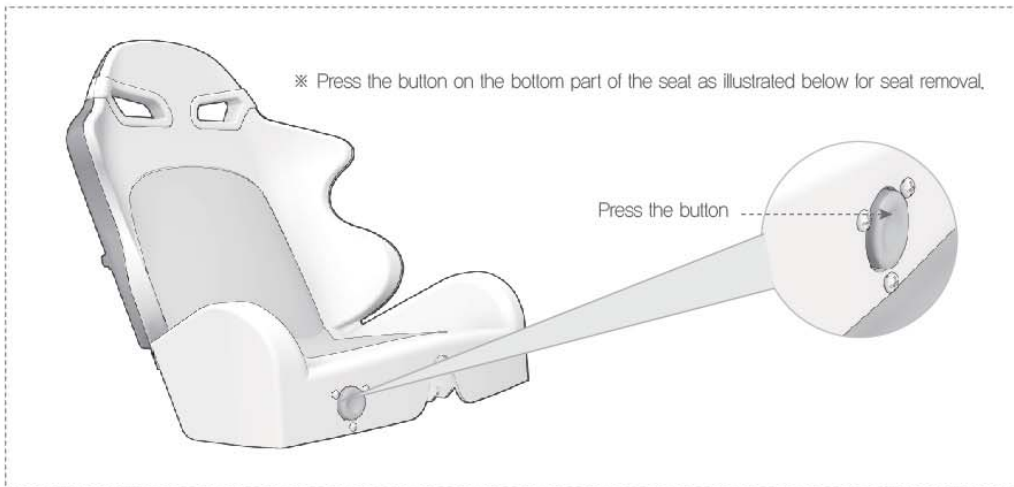
| Seat assembly

※ Check the assembly position and press the seat into the bracket until it clicks .
Please proceed in the numbered orders and the directions illustrated as below image.



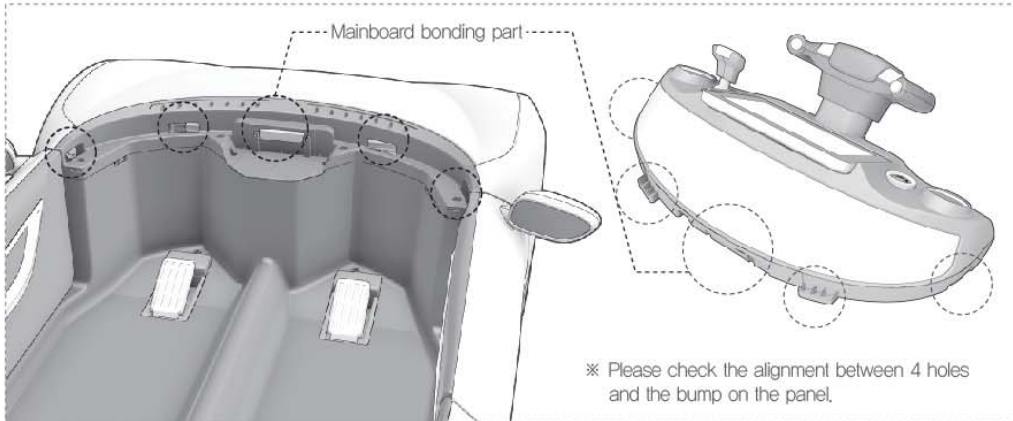
| Seat separation

※ Press the button on the bottom part of the seat as illustrated below for seat removal.

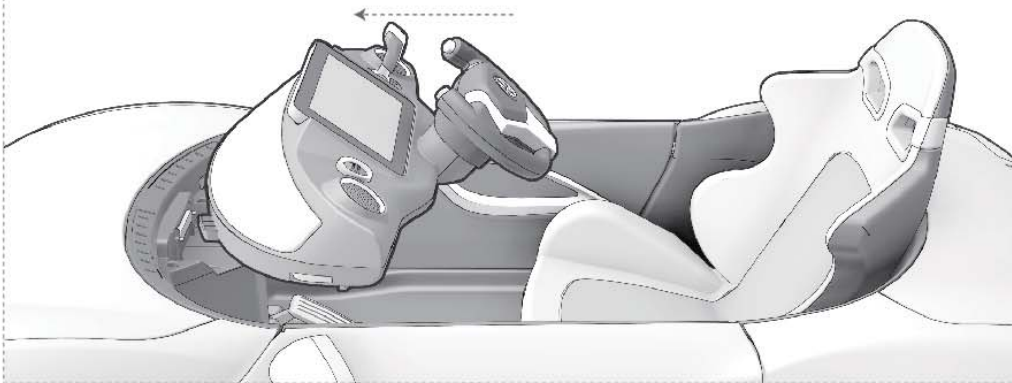


4. Product assembly instruction

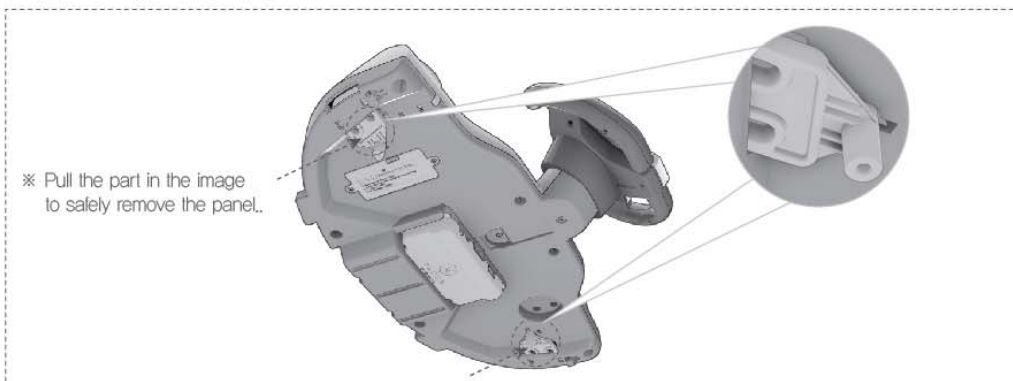
| Instrument panel assembly



※ Push in the panel in the direction illustrated below.

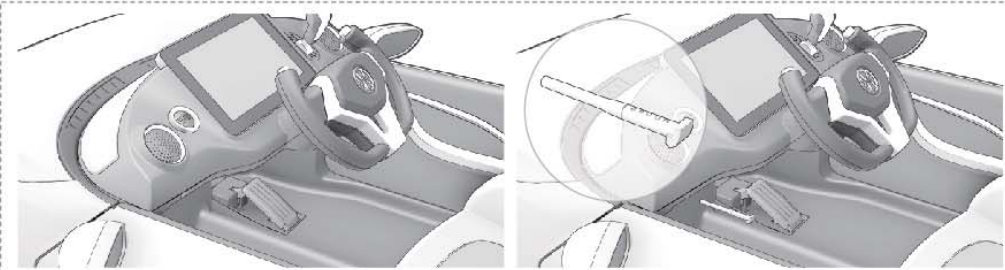


| Instrument panel removal

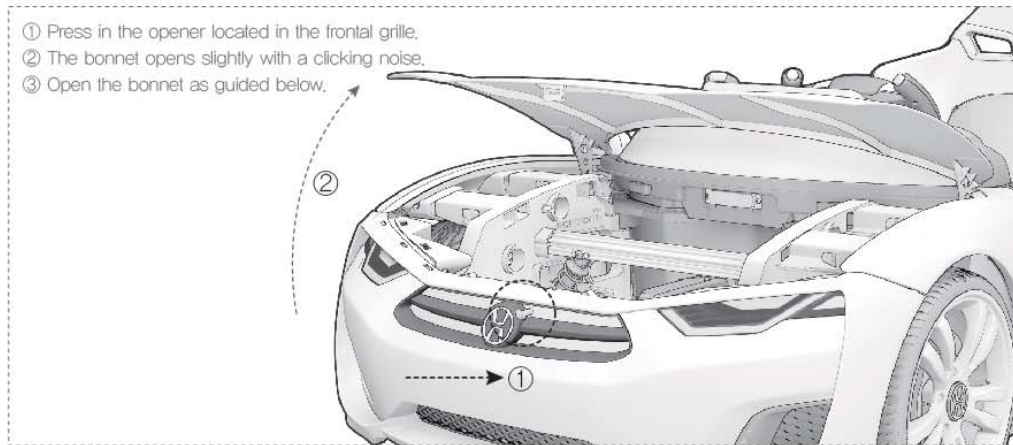


4. Product assembly instruction

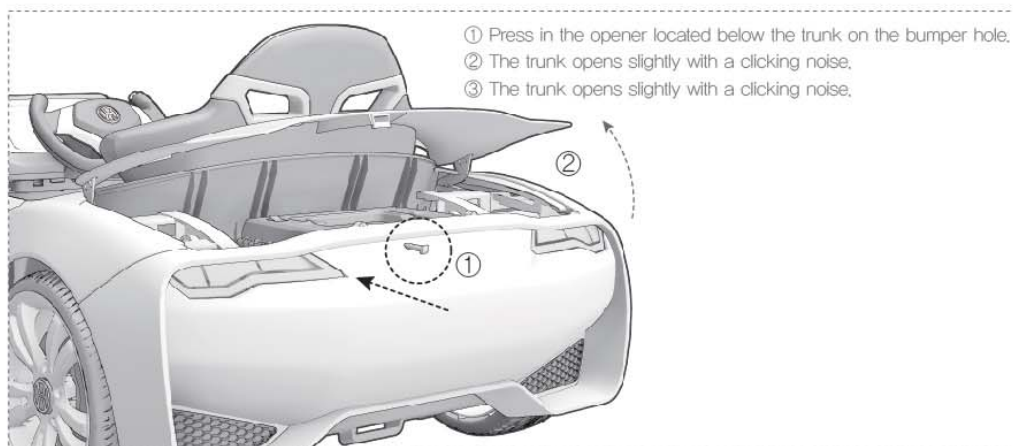
| Opening the Hood / Trunk



- ※ In order to open the trunk/bonnet, the opening key located below the dashboard need to be separated.
Pull off the opening key in the direct illustrated as above.
- ※ Please do not lose the opening key. Please keep the opening key away from your child for safety.



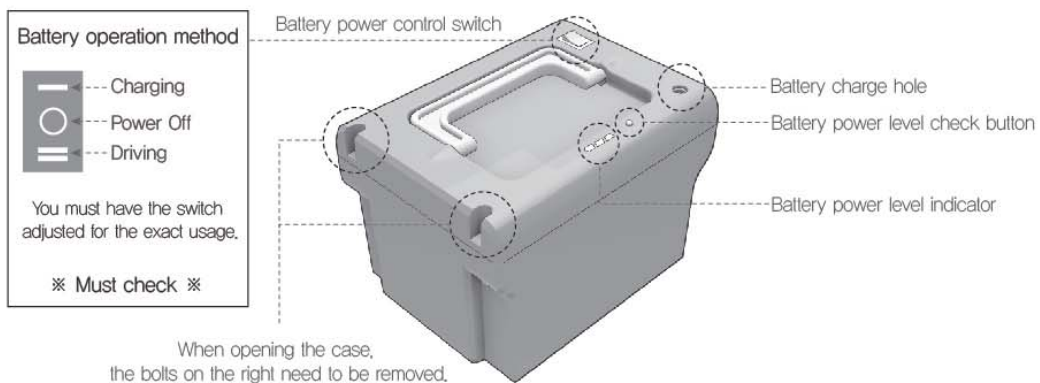
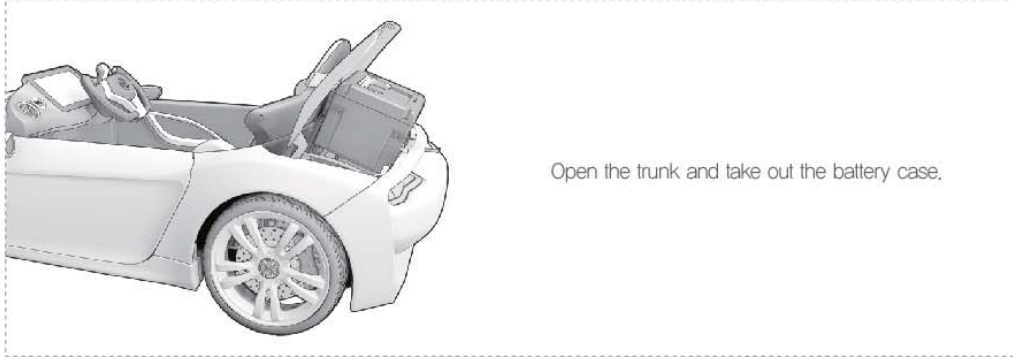
- ① Press in the opener located in the frontal grille.
- ② The bonnet opens slightly with a clicking noise.
- ③ Open the bonnet as guided below.



- ① Press in the opener located below the trunk on the bumper hole.
- ② The trunk opens slightly with a clicking noise.
- ③ The trunk opens slightly with a clicking noise.

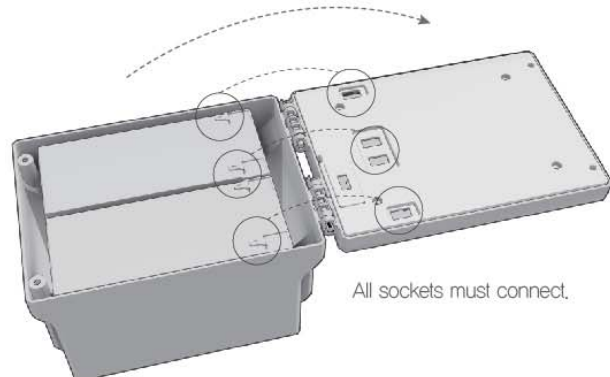
5. Battery _ charging and replacing the battery

| charging and replacing



Battery replacing method ※ The direction of the battery must match the picture below ※

Unscrew the bolts on the battery case and open the case cover.
Have the batteries replaced as below and close the cover with the bolts re-screwed.



※ The quantity of the battery packs may vary by different versions.

5. Battery _ charging precautions

※Recharging the battery should only be handled by adults.※

WARNING

To prevent fire and electrical shock

- ▶ Always use only the recharger provided with the product and rechargeable battery.
- ▶ NEVER use non-rechargeable battery or recharger provided by different product.
- ▶ Use of wrong battery or recharger may cause fire or explosion.
- ▶ Do NOT use the battery and recharger onto the other products. Overheat, fire, explosion may occur.
- ▶ NEVER modify the electronic circuits, arbitrary modification of the electronic circuits may cause shocks, fire, explosion and product damage.
- ▶ NEVER connect two sockets from the battery. It may cause fire or explosion.
- ▶ Because during recharging some flammable gas can emerge, do NOT recharge near heat source or fire. Recharge only in area with enough ventilation.
- ▶ Do NOT lift the battery with circuits or the recharger. The battery can be damaged or cause fire. Hold the battery case when lifting the battery.

Recharge method

- ▶ Battery recharging socket is located at the bottom of the LCD on driver's left
- ▶ The power switch must be OFF during recharging.
- ▶ When recharging please leave the battery charged for about 6~7 hours. Do NOT recharge the battery more than 10 hours to prevent overheating.
- ▶ Please recharge the battery if running vehicle slows down.

Battery recharging and running duration (Measures using brand new batteries)

| Battery 7,2Ah X 2 (Dual) | |
|--------------------------|-----------|
| Charging Time | 6~7 hours |
| Running Time | 1~2 hours |

- ▶ Battery is an expandable supply whose life shortens over time. Please purchase a new battery when the life becomes less than half.
- ▶ Do NOT operate the car while recharging.
- ▶ Recharging time was measured by our genuine recharger from HENES co., Ltd.
- ▶ Battery's recharging time and duration can differ by recharging condition and environment, so please use the time table only for reference.

※ Only the original charger and battery are recommended for use.

5. Battery _ Handling Precautions

- ① Please separate the battery when storing.
- ② Charge at least once a month for longer battery life expectancy.
- ③ Battery is an expandable supply and will not be covered by the warranty.
Please replace the battery with a new one when it is completely discharged.

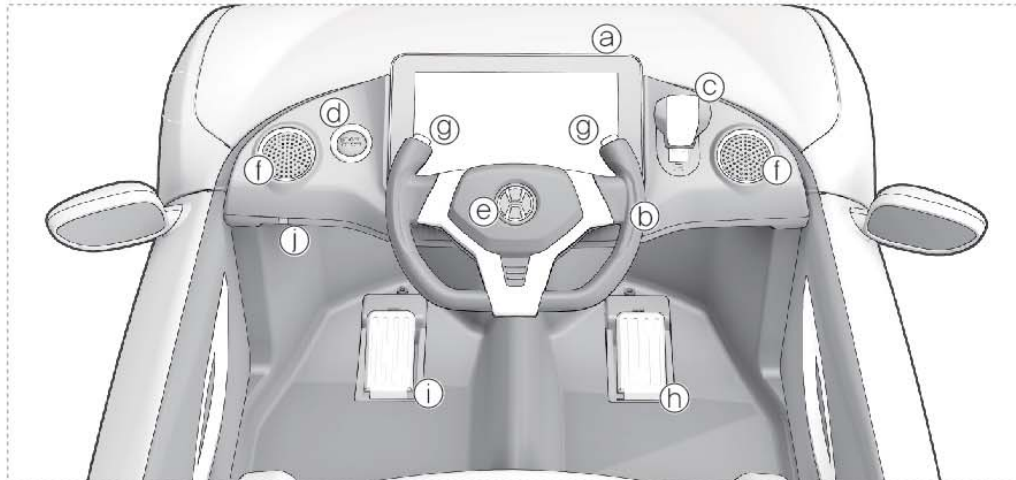
WARNING

If not connected properly it may become fire hazardous
so please refer to the user manual for proper connections.

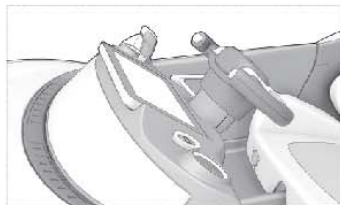
- ▶ Do not open the battery.
Battery contains toxic and corrosive materials such as plumbic acid.
- ▶ Do not open the charger. Electronic shocks can occur from exposed lines and circuits.
- ▶ Battery must be handled and recharged by adult. Do not let the child touch nor have it recharging. Not only it is heavy but it contains plumbic acid(electrolyte)
- ▶ Do not drop the battery as it may cause permanent damage and further serious damages.
- ▶ Before recharging the battery please check for any damages over the battery, charger, lines and connectors. Do not recharge the battery if any of the parts is damaged.
- ▶ Do not fully discharge the battery. Recharge the battery after use.
And even if not in use please recharge it at least once a month.
- ▶ Do not leave the battery upside down.
- ▶ Fasten the battery safely using the battery cover.
- ▶ The battery must be recharged by adults.
- ▶ Please refer to the battery power level indicator to prevent over charge accidents.
- ▶ Never use cross use the battery with old and new battery or different types of batteries.
- ▶ Please beware of the battery circuit output. It may cause severe damage to the product, if the battery circuit output(+/-) is not connected properly.

6. Driver's Seat

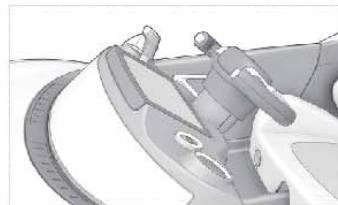
| Part names and functions



- Ⓐ Tablet PC / Touch pad : The vehicle's operation and information display
- Ⓑ Handle: vehicle steering
- Ⓒ Forward–reverse lever : the vehicle runs forward, and backward (D–forward / R–Reverse)
- Ⓓ Start and stop button : Vehicle Power ON / OFF (give about 2 ~ 3 seconds)
- Ⓔ Horn button : Car alarm activation button
- Ⓛ Car speaker : Music and audio playback
- Ⓜ Turn signal buttons : left, right lamp ON / OFF function
- Ⓨ Accelerator pedal : pedal controls the speed of the vehicle
- Ⓩ Brake pedal : the vehicle's brake pedal (manual control mode only)
- Ⓟ Opener Key : opens the hood / trunk



Tablet PC

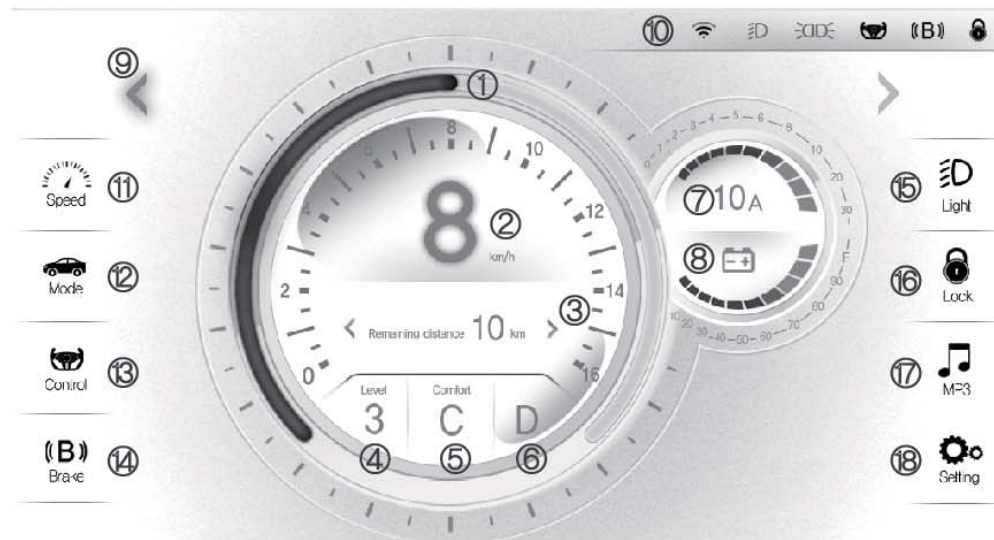


Touch Pad

7. Tablet PC manual _ Names and functions of the main screen

Dashboard screen


- ① Speed gauge bar: bar indicates the speed of the vehicle through the display.
- ② Vehicle speed: indicates the current speed of the vehicle.
- ③ Total distance / remaining Mileage: The mileage is indicated by the arrow.
- ④ Speed Level: Displays the current speed level of the vehicle.
- ⑤ Driving mode: Displays the current running mode of the vehicle.
- ⑥ Shift Status: Current status of the vehicle transmission.
- ⑦ Voltage Status: The current voltage status of the vehicle in real time.
- ⑧ Check the battery power level: Displays the current battery power level of the vehicle.
- ⑨ Direction indicator: Displays the status of the turn signal.
- ⑩ Status window: Wi-Fi, the light control mode, braking mode, the lock status.



Dashboard menu


- ⑪ Speed : Opens the speed level window.
- ⑫ Mode : Opens the driving mode change window.
- ⑬ Control : Opens the Control Mode change window.
- ⑭ Brake : Opens the Brake mode change window.
- ⑮ Light : Opens the Light control window.
- ⑯ Lock : Opens the Tablet PC lock control window
- ⑰ Mp3 : Opens the Mp3 player window.
- ⑱ Setting : Opens the vehicle information and settings window.

7. Tablet PC manual _ Lock function and operation method



Screen Lock setting

Screen lock can be turned on/off by pattern.

 Lock icon appears on screen
- Unlock is required for selecting modes and other functions.

※ Change settings when system is locked.

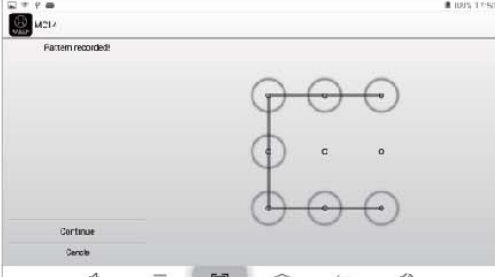
When lock feature is turned off, the vehicle is not operable. Please have the lock feature turned ON before running the vehicle.

- ① Touch the lock icon on the main screen.
- ② Input the unlock pattern when the input window comes up.
- ③ Go to menu on the right side of the screen to change the mode and settings.
- ④ After all settings are done, touch the screen lock icon.
- ⑤ Lock confirmation window pops up → Click OK.

Settings adjustable at all times.

- Light
- Lock
- MP3
- Setting

| Setting Lock Menu



Setting lock menu

Able to register or change the pattern.

- ①Setting > Lock > Generate pattern input window.
- ②Input the desired pattern > Select Continue (or Cancel)
- ③Continue > Input the pattern once (input the same pattern again)
- ④After the pattern is input twice, touch confirm button to save the pattern.

※ In case for forgotten patterns

If you don't remember the pattern when the main screen lock setting is turned on,

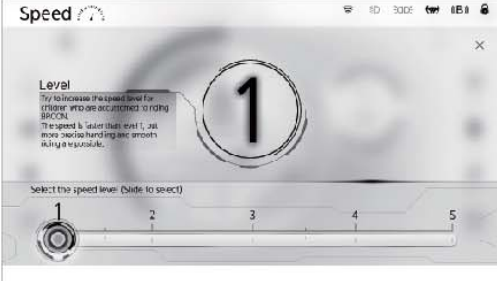
Setting > Select lock icon and register a new pattern.

When new pattern is registered, the lock status gets turned off and the application goes back to factory setting.

※ You can always cancel your initial input and insert a new pattern by clicking the lock icon on the screen.

7. Tablet PC manual _ Speed / Mode / Control / Brake

※ Unlock before making adjustments



Speed limit Adjustments – SPEED

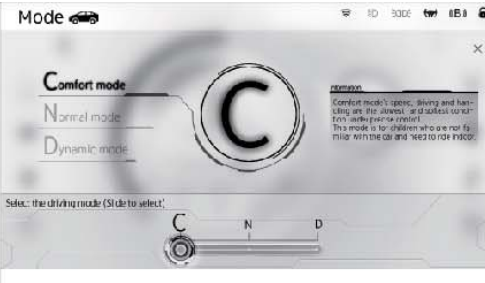
You can change the maximum speed limit among 5 different levels.

- Level1 : The slowest but allows precise driving.
- Level2 : Speed limit for children who are used to driving.
- Level3 : Moderate level of speed which allow exceptional driving and response.
- Level4 : Strong driving experience but needs extra care for safety.
- Level5 : Maximum speed which requires both the parent and driver extra training.

Driving Mode Adjustments – Mode

Adjusts the driving mode of the vehicle.

- Comfort Mode : Slower speed but allow smooth and accurate control.
- Normal Mode : Normal driving mode
- Dynamic Mode : Maximum performance. Handling this mode will require extra training.





Control Mode Adjustments – Control

It allows you to choose the operation settings.

- Manual mode: Driver has the control.
- Remote Control Mode: Remote control has the control.
- Smart Device Mode: Smart device has the control.

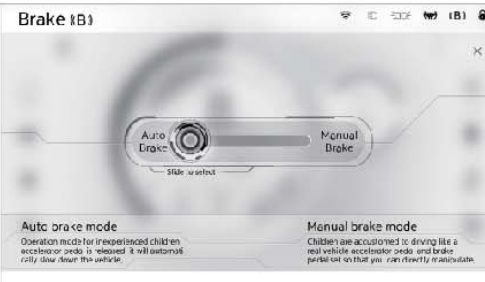
※ Smart Device mode is currently not supported.

Braking Mode Adjustments – Brake

You can change the braking mode settings.

- Auto Brake: The vehicle stops when the accelerator pedal is released.
- Manual Brake: The vehicle stops when the brake pedal is pressed.

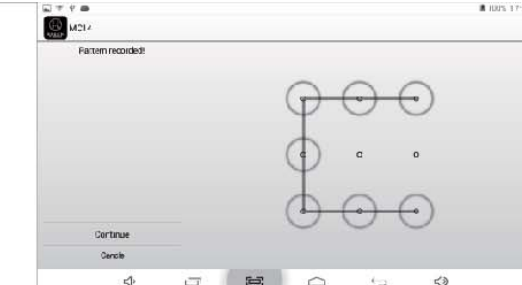
※ Using the manual brake mode requires extra training. Please use this mode when your child is properly trained.




7. Tablet PC _ Light control / Lock settings / MP3 playback / Language settings

※ All-time adjustable menu

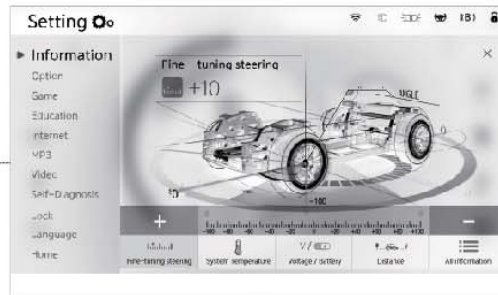
| | |
|---|---|
|  | <p> Light Control - Light</p> <p>The lights on the vehicle can be turned ON/OFF.</p> <p>Headlight : Headlight LED ON / OFF Day Light : Daylight LED ON / OFF</p> |
|---|---|

| | |
|---|---|
| <p> Screen Lock Setting - Lock</p> <p>The lock prevents malfunctions caused by accidental touching of the screen. The screen can be locked / unlocked by pattern input. ※Please refer to P. 16 for more details.</p> |  |
|---|---|

| | |
|---|--|
|  | <p> MP3 Playback - MP3</p> <p>Tablet PC is integrated with MP3 player.</p> <p>Store and Play your favorite music on the tablet PC. Uploading procedure is found on P. 25.</p> |
|---|--|

| | |
|---|--|
| <p> Language Setting - Setting</p> <p>The language displayed on the app can be adjusted.</p> <p>※ The language changes only apply to the App, not the tablet PC.</p> |  |
|---|--|

7. Tablet PC _ Setting_vehicle information display



| Setting _ Vehicle Status

It displays the vehicles current settings overall in brief.

Fine tuning the steering

It shows the current alignment of your wheels which can be adjusted by +, - buttons.
(+ : Right, - : Left)

System Temperature

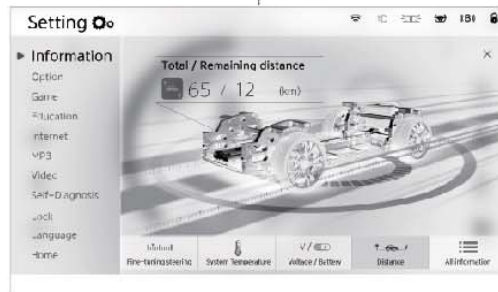
It measures and displays the current temperature (internal).
It should be checked when the vehicle is used longer period of time.

Voltage / Battery Remains

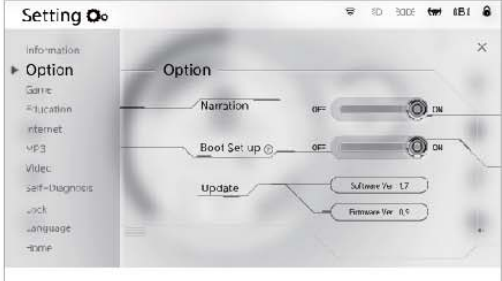
It displays current status of the battery.
Check the battery level regularly and charge the battery before use to keep the vehicle operational at all times.
If the battery level becomes low, a warning message appears. When it is completely discharged, the vehicle operation automatically stops for safety.

Total Driving Distance / Remaining Distance

It displays the total driven distance, and the remaining distance.



7. Tablet PC _ Setting-General (voice/start settings/update) add-ons



| Setting - General

- Voice Instructions : Activate / Deactivate
- Start Setting : Tablet PC Booting Activate / Deactivate

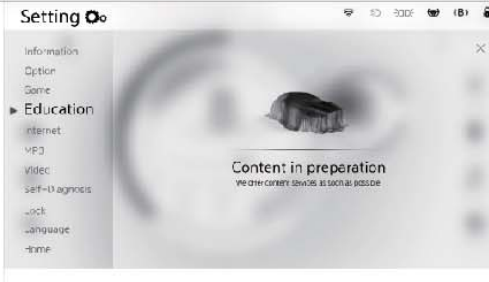
If turned ON : The vehicle is controllable when the PC is still in booting process.

If Turned OFF : The vehicle is not operable until the PC is fully booted.

| Setting - Game, Education, Movies

The menu is currently not supported.

The Gallery app in the tablet PC home menu will allow video playbacks and you can also download movie apps on Google Play.





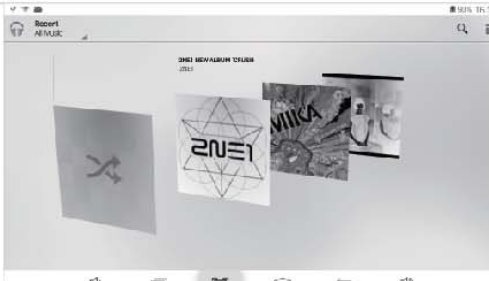
| Setting - Internet

It takes you to Android Internet Service (Wi-Fi connection is required)

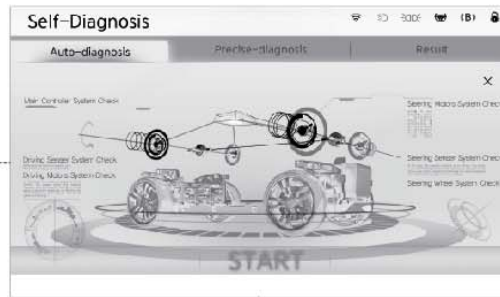
Please run the internet browser application on your tablet PC. You can choose between the basic browser and Chrome in your first run, and you could download another browser and delete existing browsers.

| Setting - Music

It takes you to the tablet PC MP3 Player.



7. Tablet PC _ Auto-Diagnosis



| Self-Diagnosis _ Auto-diagnosis

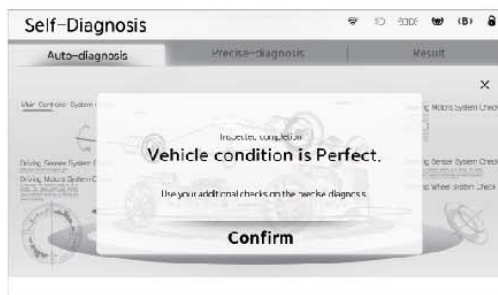
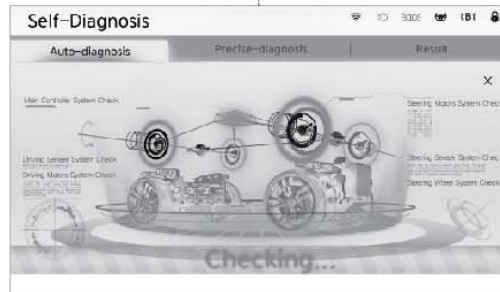
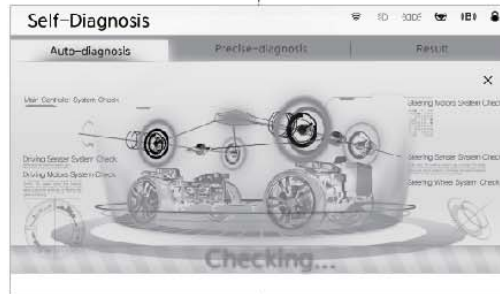
The auto-diagnosis menu checks the current status of the vehicle automatically. When testing, the vehicle runs automatically. So please keep distance from the vehicle 2 meters radius. Please do not have your child on board while testing. When ready, press the OK button and close the warning message.

The auto-diagnosis checks and tests the current status of the vehicle.

Test includes

- 1) Checks front/rear motors, sensors (Forward, reverse)
- 2) Left, Right motors, Sensors (Left, Right turns)
- 3) LED lights (Head, day, turn, reverse, brake lights)

※ The light signal can be detected with the auto-diagnosis but physical defects of LED light should be checked physically.

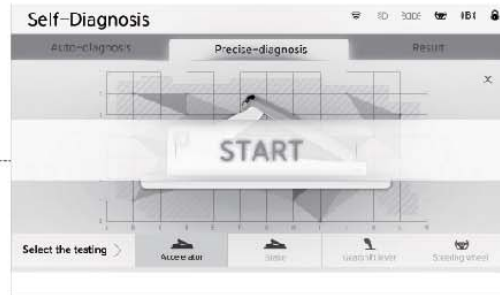


| If the test results comes out to be Normal



| If any problem is detected (It can be found at the results tab)

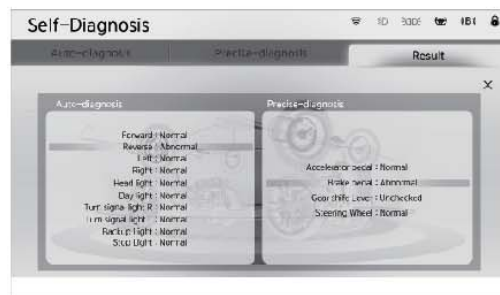
7. Tablet PC _ Precise-Diagnosis



Self-Diagnosis _ Precise-Diagnosis

When selected, instruction message and the start menu appears. Precise diagnosis should be processed by the user strictly following the instructions.

Begin diagnosis : Voice instructions will be given.
 Testing aspects : Accelerator
 Brake
 Forward/Reverse Lever
 Handle



If the signal is weak, or before the test begins, a window appears as above.

* Other results window is displayed in the same way as the automatic diagnosis.

The final results window can be found at the results tab.

7. Tablet PC _ Warning message descriptions



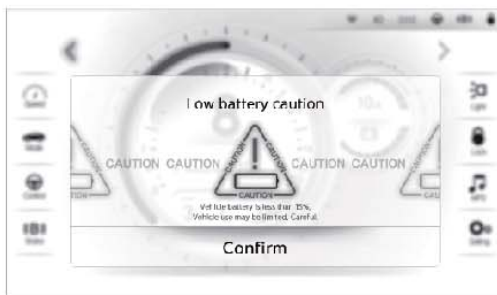
| Over-heat Warning

- It appears when the temperature of the vehicle exceeds 65°C. Please rest the vehicle to cool-down for safety.



| Over-current warning

- It appears when over-voltage is detected to ensure safety. When the running environment is improved, the window disappears and the vehicle is fully operational.



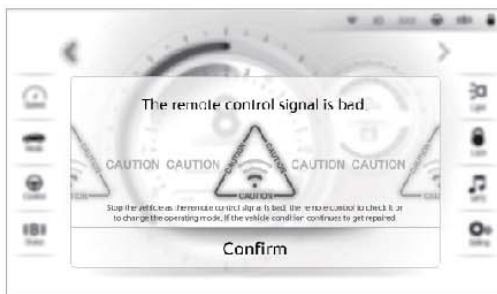
| Low battery caution

- This message appears when the battery level is low. Please have the vehicle recharged



| Low battery warning

- It appears when the battery is fully discharged and the vehicle stops for safety. Must recharge the battery to run vehicle.



| Remote Control Communication Error

- It appears when the connectivity between the vehicle and remote control is not normal or too weak. The operation of the vehicle stops for safety. Please check the remote control status and its control mode. When the communication is adequately reestablished, the warning message disappears and the vehicle becomes operational.



| Emergency Stop

- It appears when the emergency stop button on the remote is pressed. When it is stopped, check the status of the vehicle and press the button again to operate the vehicle again.

8. Touch pad instructions

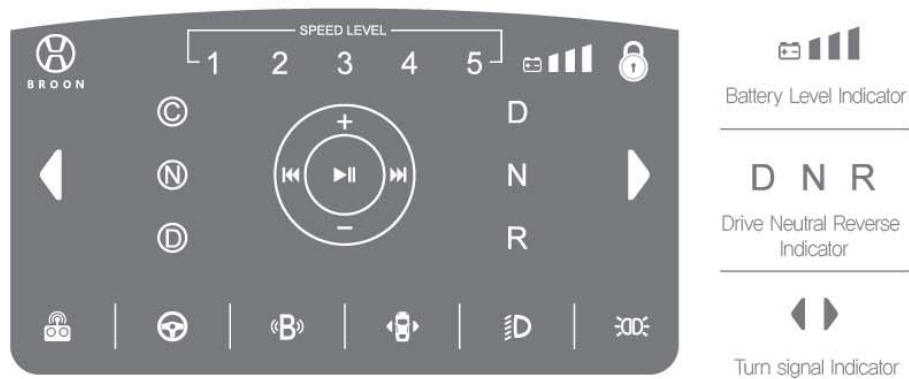
Main screen functions and descriptions, lock settings, driving methods

※ Activating the touch Pad operation ※

- ① Before activation, press the Lock icon for 3 seconds to unlock the feature.
- ② Select the desired mode and settings.
- ③ When finished, press the lock icon once to lock the feature.
- ④ Run the vehicle.

※The vehicle does not run for safety when the setting is unlocked.

※Other settings (Lamps, emergency lights) are not affected by the lock status.



Settings Icon Descriptions



Lock Icon



Comfort Mode



Normal Mode



Dynamic Mode



MP3 Player remote



Speed level setting :
It limits the maximum speed of the vehicle.



Remote Control Mode



Manual Mode



Auto, Manual Braking mode



Emergency Light On/Off



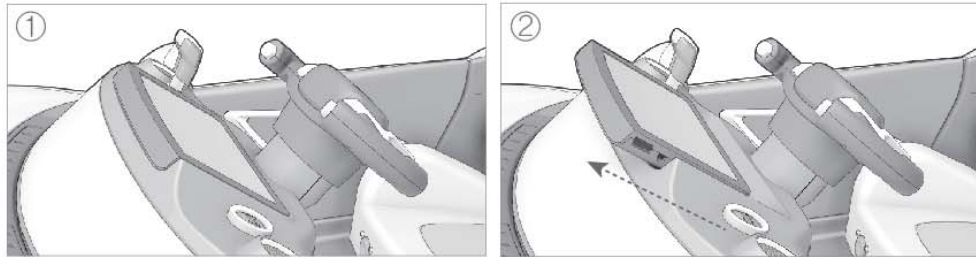
Head Lamp On/Off



Position Lamp On/Off

9. Audio System / System Updates

| Touch Pad Audio feature

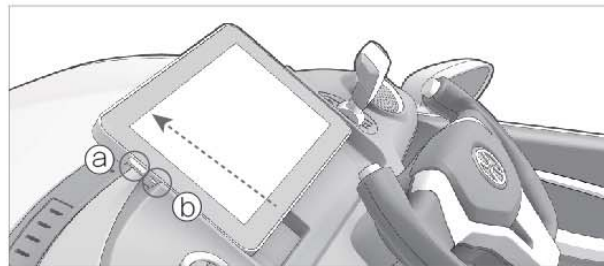


Move the touch pad illustrated as above to gain access to the USB and AUX ports.
Connect the device you wish to use and open the MP3 feature on the touch pad to operate.

| Updating the tablet PC System

- Push the tablet PC upward as illustrated in the image.
- a HDMI Port(Tablet and external screen connection)
- b System Update Port. It is also used to upload video and music files.

※For more information regarding system updates, please visit our Broon homepage (www.boon.co.kr).



| Updating the mainboard

The mainboard can be located as illustrated below.

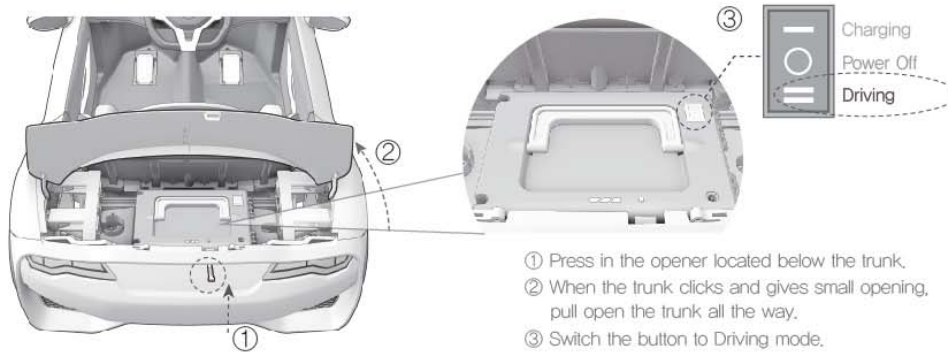


※For more information regarding system updates, please visit our Broon homepage (www.boon.co.kr)

10. Vehicle Operation Method

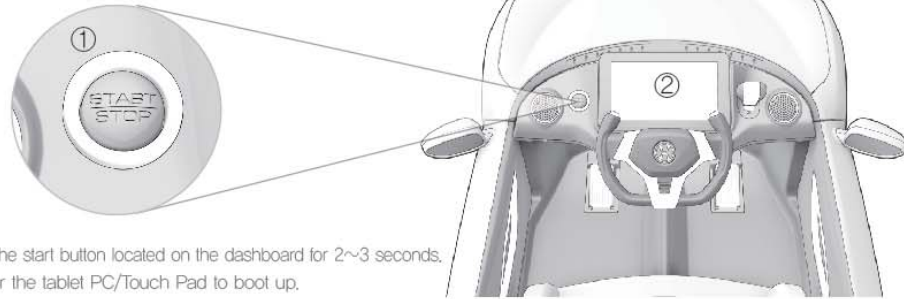
| Turning ON the battery.

※In order to open the trunk, the key located below the dashboard must be removed. (Please see Pg. 10)



- ① Press in the opener located below the trunk.
- ② When the trunk clicks and gives small opening, pull open the trunk all the way.
- ③ Switch the button to Driving mode.

| Turning on the dashboard Power Switch

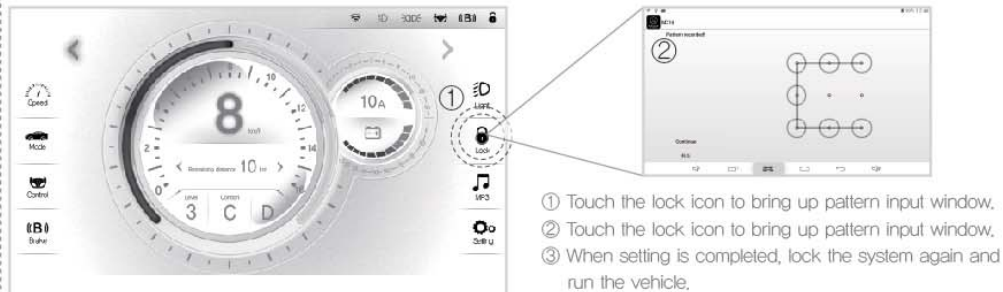


- ① Press the start button located on the dashboard for 2~3 seconds.
- ② Wait for the tablet PC/Touch Pad to boot up.

※After use, the vehicle must be turned off by using the start button. Turning off by using the battery switch may damage the system.

| Lock setting and operation

※Unlock the screen and select Driving mode then lock the screen again to run the vehicle. (Please see Pg.16)



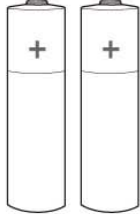


- ① Touch the lock icon to bring up pattern input window.
 - ② Touch the lock icon to bring up pattern input window.
 - ③ When setting is completed, lock the system again and run the vehicle.
- ※If it is a touch pad, please refer to Pg. 24.

11. Remote control _ Product Components / Description / Specification

| Product Components / Description / Specification

| Optional Items

| | | |
|---|---|---|
|  |  |  |
| Remote control | Remote Receiver | AAA 1,5V X 2 |

※ Batteries are sold separately.

| Product Description

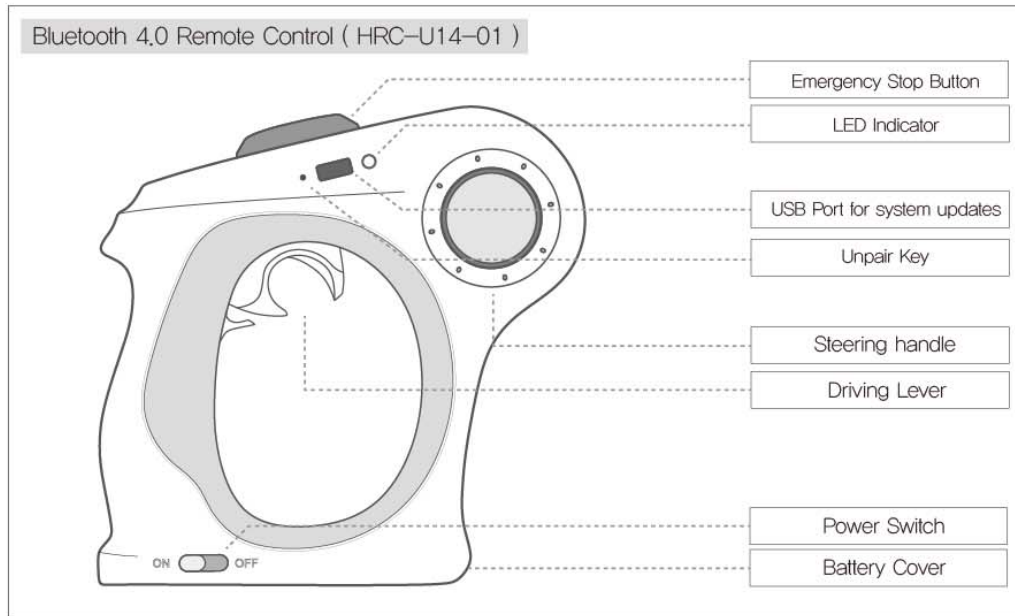
| Description | Details |
|------------------|--|
| Model Number | HRC-U14-01 (Bluetooth 4.0 Remote Control) HRC-V14-01 (Bluetooth 4.0 Receiver) |
| Featured Buttons | Power Switch Steering Handle Forward/Reverse Handle Emergency Stop button |

| Product Specification

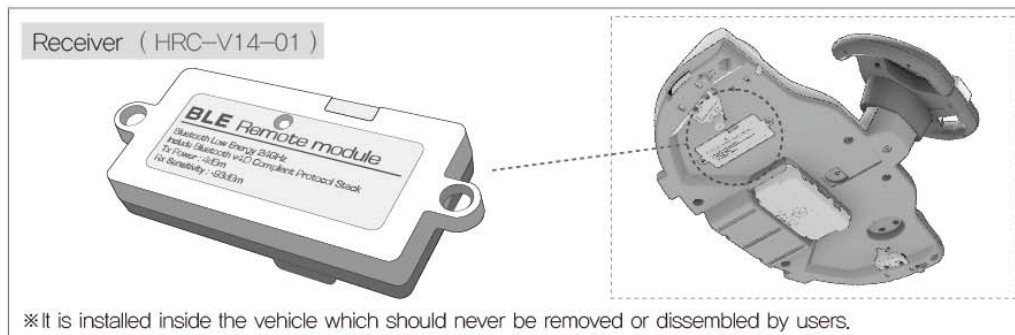
| | |
|-----------------------------------|--|
| Version | Bluetooth 4.0 Version LE (Low energy consumption) |
| Frequency | 2.4 GHz |
| Transmit Power | 4dBm |
| Receive Sensitivity | -93dBm |
| Power | 3V DC (AAA 1.5V x 2 battery) |
| Indicator | It indicates signal strength and battery level. |
| Transmission / reception distance | 40 ± 5M (It varies by circumstances) Keep a safe distance for child safety. |
| Etc., | Emergency stop function |

11. Remote control _ Product Description

| Names and Description

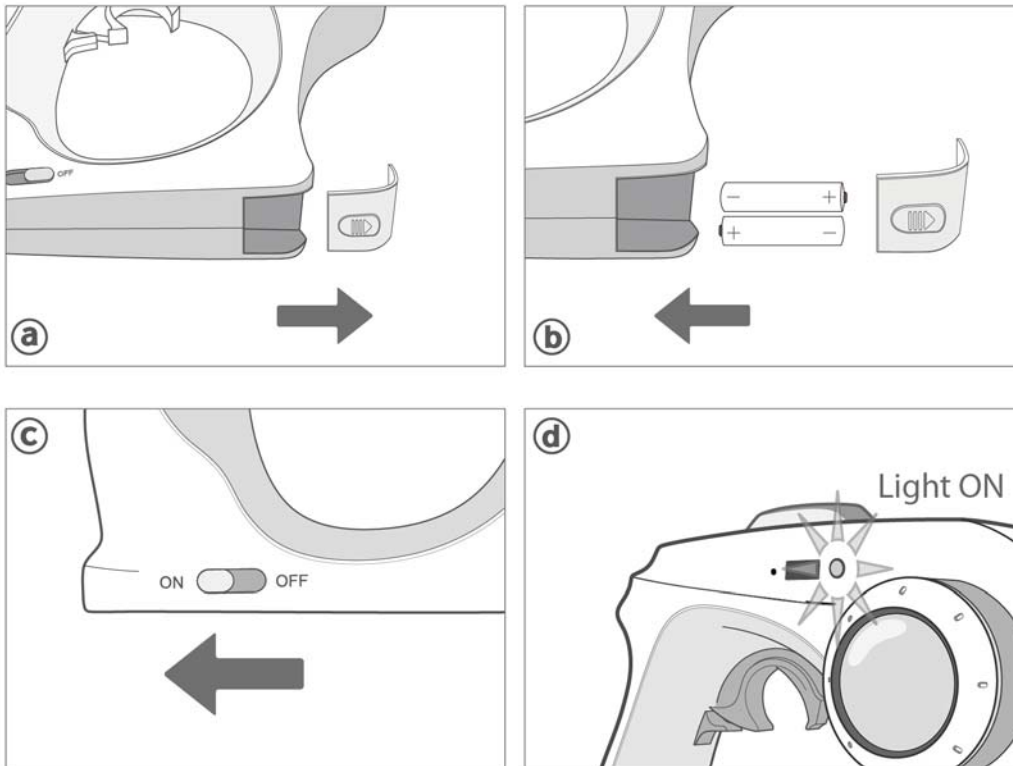


- **Power Switch** : Turns the power On/Off.
- **Emergency Stop Button** : Press once to stop the vehicle, press again to drive.
- **LED Indicator** : It indicates the current status of the remote control, (Please refer to P. 31 for details of the LED indicator)
- **Steering handle** : It turns the direction of the vehicle.
- **Driving Lever** : It accelerates forward/reverse.
- **Unpair Key** : It is used to pair the receiver equipped in the vehicle and the remote control.
 ※ Do not use the button unless otherwise directed by our service center.
- **USB Port for system updates** : It is used for updating the software.
 ※ It is not meant to be used for other USB devices.
 Please do not plug other USB devices because it may damage the internal software.



11. Remote control _ Battery Insertion Methods

| Battery insertion methods.



※ Batteries are sold separately. It requires 2 X AAA 1.5V batteries.

- ① Open the battery cover located at the bottom part of the remote control (a), and insert the batteries in right direction (b)
- ② Turn on the power switch located at the bottom, (c)
- ③ If the LED flashes green light, it means the connection is established successfully. (d)
 - ※ If the vehicle is not powered on, it blinks orange lights. (Connection in progress)
 - ※ Toy using replaceable batteries shall mark with: (According to clause 6.5)
 - Do not mix old and new batteries
 - Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries



Please note that the remote control signal can be interfered which affects the control stability.
So please keep a safe distance from the vehicle to maintain stable connection.

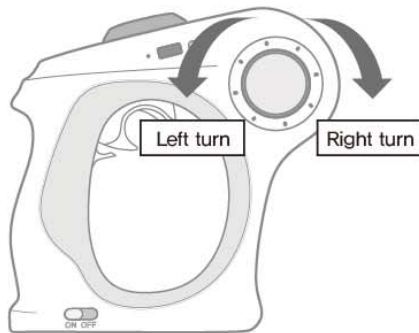
11. Remote control _ Product function

| Product Function

Please unlock the tablet PC (touch pad) and change the system to remote control mode before using the remote control function.

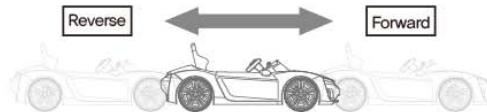
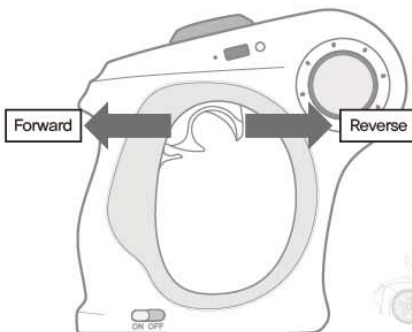
Steering Handle

- Right turn: twist the handle clockwise.
- Left turn: Twist the handle counter-clockwise.



Driving Lever

- Forward : Pull the lever backwards
- Reverse : Push the lever forward



11. Remote control _ Product function

Emergency Stop Function

- Press the emergency stop button to activate/deactivate emergency stop mode.
(Press once for emergency stop, press once more to re-operate.)
- When it is in emergency stop mode, acceleration/steering is disabled.

Emergency Stop Button



※When in emergency stop mode, the LED indicator blinks green and red.

Vibration

- When the remote connection gets weaker, the vibrator activates.
- When the remote connection is strong enough, the vibrator deactivates



※The connection strength varies by circumstances, so please keep a safe distance to maintain a strong connection to ensure your child' s safety.

LED indicator

- Connection Established : Green LED blinks in 1,0 second interval.
- Connection in progress : Green and Red LED blink in 1,0 second interval.
- Emergency stop mode : Green and red LED blink in 0,1 second interval.
- Low battery : Red LED blinks in 1,0 second interval.

11. Remote control _ Precautions

Precautions

- ◆ Malfunctions due to radio interference may occur.
 - If infant is onboard, please keep a safe distance to have full control of the vehicle.
- ◆ When storing for longer than 3 months, please separate the batteries.
 - To prevent battery leakage and bad connectivity.
- ◆ Please do not drop or disassemble the controller.
 - It can cause function failures.
- ◆ Do not use sharp objects to operate the pair key.
 - It can impair its functionality and cause bad connection which can cause malfunctions of the vehicle.
 - ※ ※ For Pair key adjustments, please contact our service center.
- ◆ Please use the original cable when using the Update port.
 - The Update port should only be used for system upgrades. Using for other purposes may damage the port and cause malfunctions.
- ◆ Please do not use rechargeable batteries.
 - 2 X AAA 1,5V Batteries must be used.
 - Rechargeable batteries could release higher voltage which can damage the device.
- ◆ Please use the steering handle and forward/reverse lever in a gentle manner.
Do not over press or pull the trigger.
 - It can damage the spring inside.
- ◆ Please keep away from children. It should only be operated by adults.
 - Poor maneuver / hard-handed use / violating the instruction warnings can lead to malfunctions and accidents.
- ◆ In case of emergency, please keep a safe proximity when operating the remote control.
 - The environment and the vehicle status can cause malfunction. Please always use in a safe environment.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

12. Useful Tips – 1

Q : The vehicle is not moving.

Check point 1.▶ When in operation at stop (automatic shut off safety system)

A : If the vehicle experiences steeper slopes or overloads with extra weight or receive heavy damage, the vehicle will be shut down after LCD display and voice message. Leave the vehicle off for a while and restart under correct circumstances.

Check point 2.▶ Check for low voltage of battery

A : After use or even not in use the battery needs to be recharged for once or more a month. Do not recharge the battery for more than ten hours .

Check point 3.▶ Check for battery' s connectors.

A : Check the connection between battery connector and circuit connector.

Check point 4.▶ Check whether the battery is fully discharged or not.

A : If maintained poorly without following the instruction in the manual or the battery is too old, the battery can be fully discharged and cannot be used again. In such cases please replace with a new battery.

Check point 5.▶ Check for electronic system damage.

A : Please check if the electrical parts were exposed to water, dirt, and etc.

Check point 6.▶ Check for motor damage.

A : If the motor is damaged, please contact the service center or the place of purchase.

12. Useful Tips – 2

Q : When the recharging is not working properly

Check point 1.▶ Battery and charger' s connector check

A : Check the battery and charger once again and plug them.

Check point 2.▶ Power cord connection check

A : Please check for the firm connection of the power cable.

Check point 3.▶ Please check for the firm connection of the power cable.

A : If the recharger does not get warmer during recharging the charger must be replaced. Please contact the vendor or customer service.

Q : Running distance reduced dramatically

Check point 1.▶ Check if the battery is properly charged

A : The Battery may not be charged enough after the use and even when not in use, the batteries need to be charged for more than once a month or removed of the connectors.

Check point 2.▶ Battery life check

A : The battery was purchased for more than 6 months before or it is worn out from usage. Replace the battery with a new one

Q : Why is there noise from the battery during recharging?

A :If the surroundings are quiet enough such noise can be heard, however it is normal.

Q : Why the battery warms up while recharging?

A : It is normal that the charger warms up during recharging. It is not a breakdown

13. SPECIFICATION

| BROON F8 series

| | Type | 810 | 830 | 850 | 870 |
|----------------|-------------------------|---|---|--|-----------------------------------|
| Capability | Motor | Dual 12V 15,000RPM 5 series DC MOTOR | | Dual 24V 12,000RPM 7 series DC MOTOR | |
| | Power | Rated 70W (Max. 300W) | | Rated 240W (Max. 600W) | |
| | Battery | 12V 7Ah Lead Acid | 12V 14Ah Lead Acid | 24V 7Ah Lead Acid | |
| | Max speed | 8km/h | | 16km/h (8km/h Speed Limit) | |
| | Driving Mileage | 10 ~ 15 km/h | | 20~30km (Depending on driving conditions) | |
| | Seat Capacity | 35kg | | | |
| Platform | Drive Wheels | Rear wheel drive (2WD) | | Front wheel drive (2WD) | Four wheel drive (4WD) |
| | Suspension | Front : Gas shock absorber (Double wishbone) Rear : Coil spring suspension | | Four wheel-independent gas shock absorber Suspension (Double wishbone) | |
| | Dashboard | Automatic slide-in docking connection | | | |
| | Instrument panel | LED Touch switch panel (7inch Tablet PC Smart system option) | | | |
| | Electric steering wheel | 120 phase angle detection – electronic steering wheel (self centered) | | | |
| | Transmission | Electronic transmission (Electronic automatic control device-5 levels) | | | |
| | Power button | Power-off protection and auto-save function | | | |
| | Driving gear reducer | Plastic gear box (Built-in rotation sensing hall-sensor) | | Hi-performance Low-noise metal gear box (Equipped with rotation sensing encoder) | |
| | Braking system | Electronic control gear reducer brake system | | Electronic control real disk brake system (Equipped with brake motor) | |
| | Steering gear reducer | - | | | |
| | Steering module | Multi-link system (Connected with ball joint and universal joint) | | | |
| | Differential | - | - | Single aluminium alloy differential | Dual aluminium alloy differential |
| | Accelerator pedal | Electronic ratio control | | | |
| | Brake pedal | Electronic ratio control | | | |
| | Battery pack | Rechargeable battery pack separable from vehicle (Battery indicator) | | | |
| | Seat | Bucket type plastic seat | Ergonomically designed leather Bucket seat with urethane cushion (Detachable from vehicle using one-touch button) | | |
| | Seat belt | 4-points supporting seat belt | | | |
| Controller | Processor | ARM Cortex-M3 32bit | | | |
| | PWM switching | MOS FET X 12 | | | |
| | Heat sink | Aluminium | | | |
| | Cooling type | Air cooled | | | |
| | Cooling fan | Automatic low noise cooling fans with built-in temperature sensor | | | |
| | Temperature sensor | Electronic temperature sensor | | | |
| | Rotation sensor | Hall sensor (rotation counter/detector) | | Encoder (rotation counter and reverse rotation sensor) | |
| | Steering sensor | Location sensor(Variable resistance type) | | | |
| | Voltage measurement | Built in electronic voltage measuring device | | | |
| | Current measurement | Built in electronic voltage measuring device | | | |
| Remote Control | Chipset | Built in electronic voltage measuring device | | | |
| | Frequency | 2.4GHz | | | |
| | Protocol | Bluetooth low energy (BLE) Bluetooth 4.0 | | | |

13. SPECIFICATION

| BROON F8 series

| Type | | 810 | 830 | 850 | 870 |
|-----------------------|---|---|---|-----|-----|
| Remote Control | Core | 8051 | | | |
| | OS | Osai of TI (Texas Instruments) | | | |
| | MAC address | BLE chip Contains a Unique 48-bit IEEE Address. | | | |
| | RF Performance | Receiver Sensitivity(Rx) : -93dBm, Output Power(Tx) : 4dBm | | | |
| Exterior | Door | Platform based detachable module Door with hinge (open/close) | | | |
| | Hood | Block type detachable module based on platform (open/close) | | | |
| | Trunk | Block type detachable module based on platform (open/close) | | | |
| | Bumper | Block type detachable module based on platform | | | |
| | Fender | Block type detachable module based on platform | | | |
| | Head light | - | High-brightness LED lamp (electronic on/off) | | |
| | Day light | - | High-brightness LED lamp (electronic on/off) | | |
| | Turn indicator | - | High-brightness LED lamp (Interlocking handle button and curve) | | |
| | Tail light | - | High-brightness LED lamp (electronic on/off) | | |
| | Reversing light | - | High-brightness LED lamp (Interlocking reverse) | | |
| | Brake light | - | High-brightness LED lamp (Interlocking brake) | | |
| | Wheel | Spoke type-wheel (Bearing built in) | | | |
| Tire | High-density polyurethane foam tire | | | | |
| Safety | ASDC system | Active Safety Driving Control | | | |
| | Speed Sensitive Steering | Automatically adjusts steering motor speed and sensitivity by the speed of vehicle. | | | |
| | Driving mode select system | Comfort/Normal/Dynamic 3 levels of electronic driving modes selector | | | |
| | Braking mode selection | Auto/Manual braking mode selection depending on the use of brake | | | |
| | Intelligent electric brake | Electronic control system which automatically detects speed, terrain, and inclination | | | |
| Auto diagnosis system | Real-time auto diagnosis for malfunction and emergency drive during operation | | | | |
| Convenience | Display guidance system | LED Display | | | |
| | Driving information | LED Display | | | |
| | Stereo speaker | 2 channels stereo-sound quality speaker | | | |
| | Audio system | MP3 player connected with a vehicle | | | |
| | Battery Management system | Intelligent BMS using accumulated driving data | | | |

※ Option (810/830/850/870)

| | | | | | |
|------------------------------|---------------------------|--|--|--|--|
| 7inch Tablet PC Smart System | Operating System | Android 4.2.2 | | | |
| | CPU | Dual-Core 1.2Ghz | | | |
| | Memory | Internal(Flash) 1GB, Internal SD Card 1GB | | | |
| | Display | 7inch Wide LCD (1024x600), TFT 256K | | | |
| | Wireless LANsystem | 802.11 b/g/n | | | |
| | Bluetooth | Bluetooth 3.0 | | | |
| | Touch screen | Capacity type, 5 Point | | | |
| | I/O PORT | HDMI / AUDIO / USB / SD Card | | | |
| | Audio guidance system | Voice guidance for occurrence situation | | | |
| | Display guidance system | Video guidance for occurrence situation | | | |
| | Driving information | Various driving information guidance | | | |
| | Stereo speaker | 2 channels stereo-sound quality speaker | | | |
| | Audio system | Multimedia system (7inch tablet PC) | | | |
| | Battery Management system | Intelligent BMS using accumulated driving data | | | |