

Merits

S131/S141 series *Service Manual*

Nov.1.2006 V1

Index

1. Introduction.....	P1
2. Service Guide.....	P1
2.1. How to replace or repair the Seat Assembly(S131/S141 Series)	P3
2.1.1. To remove seat body assembly	P3
2.1.2. To replace the seat base plate	P3
2.1.3. To replace the slide	P4
2.1.4. To disassemble seat body	P4
2.1.5. To replace the arm pat	P5
2.1.6. To replace the seat post.....	P6
2.2. How to replace or repair the Rear section of Main Frame Assembly (S131/S141 Series).....	P7
2.2.1. To replace rear shroud assembly	P7
2.2.2. To replace the driving wheel assembly	P7
2.2.3. To replace the control panel assembly	P8
2.2.4. To replace the controller panel	P9
2.2.5. To replace the controller mounting plate and controller	P10
2.2.6. To replace the rear bumper and anti-tipper assembly	P10
2.2.7. To replace the transaxle assembly.....	P10
2.3. How to replace or repair the Front section of Main Frame Assembly (S131 Series).....	P11
2.3.1. To replace the tiller assembly.....	P12
2.3.2. To replace the front wheel with fork assembly	P12
2.3.3. To replace the front bumper assembly	P13
2.3.4. To replace the front fork set	P13
2.3.5. To replace the front wheel assembly.....	P14
2.4. How to replace or repair the Front section of Main Frame Assembly (S141 Series)	P15
2.4.1. To replace the tiller assembly.....	P15
2.4.2. To replace the front wheel assembly.....	P15
2.4.3. To replace the front Bumper	P16
2.4.4. To replace the tire of wheel assembly	P16
2.4.5. To replace the steering mechanism.....	P17
2.4.6. To replace the ball joint and rod (A/B)	P18

2.4.7. To replace the front suspension arm assembly.....	P19
2.5. How to replace or repair the Tiller Assembly(S1313/S1413 Series)	P20
2.5.1. To replace the tiller assembly.....	P20
2.5.2. To replace the rear shroud of tiller	P20
2.5.3. To replace the front shroud of tiller	P21
2.5.4. To replace the regulation cylinder.....	P21
2.5.5. To replace the dashed board assembly	P22
2.5.6. To replace the throttle lever assembly	P23
2.5.7. To replace the electric components mounted on dashed board assembly.....	P24
2.6. How to replace or repair the Tiller Assembly(S131/S1312/S141/S1412 Series)	P25
2.6.1. To replace the tiller assembly.....	P25
2.6.2. To replace the side cover of tiller and ratchet post	P26
2.6.3. To replace the lower shroud of tiller	P26
2.6.4. To replace the dashed board assembly	P27
2.6.5. To replace the throttle lever assembly	P28
2.5.7. To replace the electric components mounted on dashed board assembly.....	P29

The numbers shown in this service manual is just for reference. The part numbers should be in accordance with current exploded drawing

1. Introduction

The purpose of this manual is to provide dealers and/or distributors with the product information and instructions that are required for servicing the [S131/S1312/S1313/S141/S1412/S1413 scooter](#).

2. Service Guide

The [S131/S1312/S1313/S141/S1412/S1413 scooter](#) consists of three main parts:

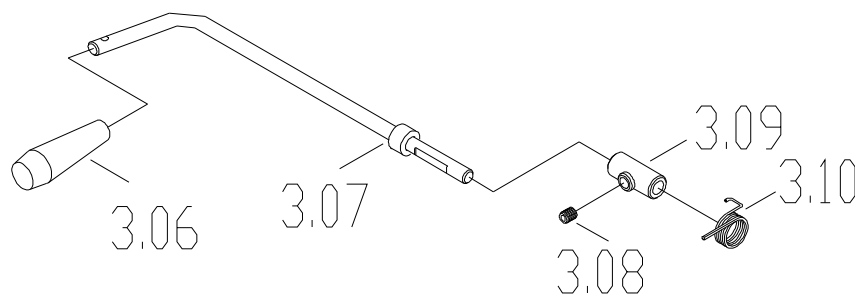
- Seat Assembly
- Main Frame Assembly
- Tiller Assembly

2.1. How to replace or repair the Seat Assembly

The Seat assembly includes seat body, seat base plate, slide and left / right armrests.

2.1.1. To remove seat body assembly

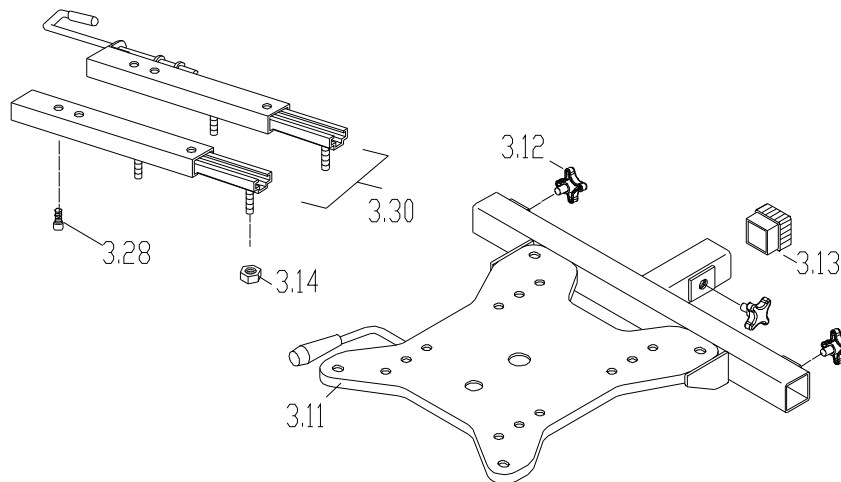
Pull the end (3.02) of the swivel lever (3.03) under the seat till unlock it and rotate the seat a little bit to the position where you can feel the seat rotate freely then lift up the seat body assembly.



2.1.2. To replace the seat base plate

- ◆ When should you replace the seat base plate?
 - ◇ If the seat base plate is deformation.
 - ◇ If the seat base plate out of shape due to an accident.
- ◆ How to replace the seat base plate?
 - ◇ Please proceeding steps as follows if it has to replace.

Use ratchet & socket to loosen four screws (3.40) and spring washers (3.41) from the bottom of the seat body assembly, then remove the seat base plate.



2.1.3. To replace the slide

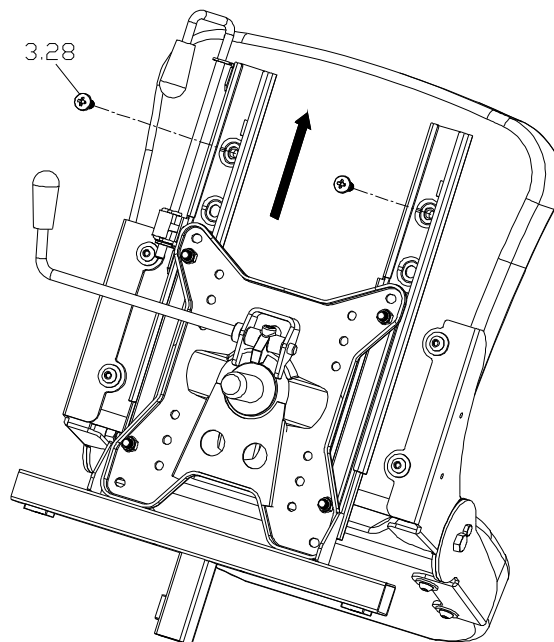
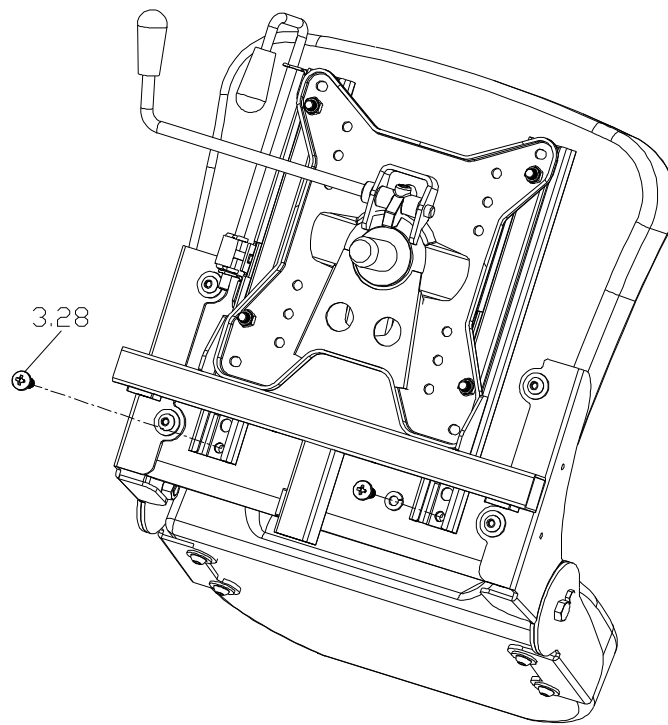
- ◆ When should you replace the slide?
- ◇ If the seat base plate is deformation.
- ◇ If the seat base plate out of shape due to an accident.
- ◆ How to replace the slide?
- ◇ Please proceeding steps as follows if it has to replace.

Use hex. tools to loosen four screws (3.14) from the bottom of the seat body assembly, then remove the slide (3.12).

2.1.4. To disassemble seat body

- ◆ When should you replace the seat body?
- ◇ If the seat body is worn out.
- ◇ If the seat body is pierced or scratched by something.
- ◇ If the scooter crashed cause the seat body out of shape.
- ◆ How to replace the seat body?
- ◇ Please proceeding steps as follows if it has to replace.

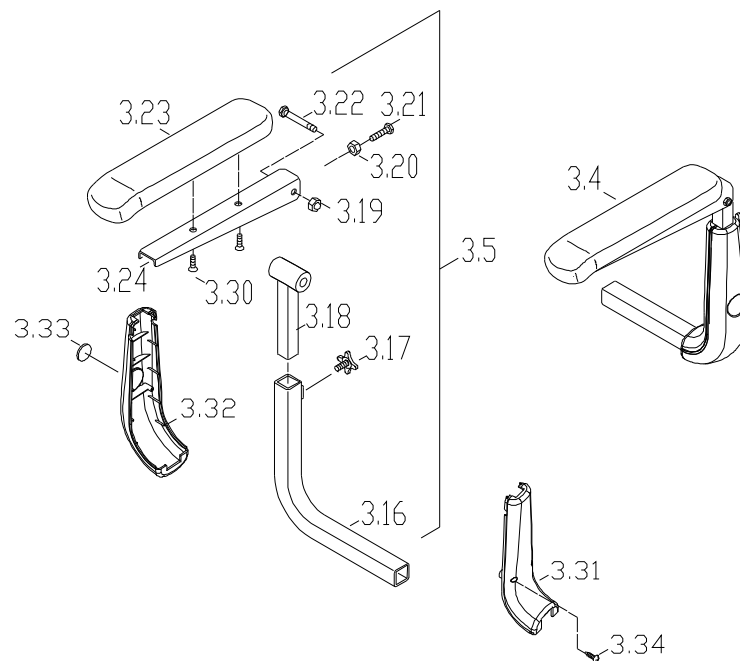
Follow the following step to disassemble seat body. a) Remove seat body assembly (see section 2.1.1). b) Use ratchet & socket to loosen rear two screws (3.14) fixed the slide rails. c) Pull the slide swivel lever up, then slide the seat body forward to limit. d) Use hex. tools to loosen the other screws (3.14) fixed the slide rails.



2.1.5. To replace the arm pad

- ◆ When should you replace the arm pad?
- ◇ If the arm pad is worn out.
- ◇ If the arm pad is pierced or scratched by something.
- ◇ If the scooter crashed cause the arm pad out of shape.
- ◆ How to replace the arm pad?
- ◇ Please proceeding steps as follows if it has to replace.

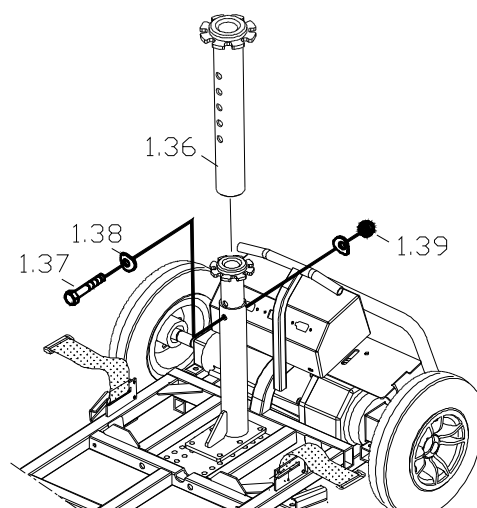
Revolve the knob (3.35) and pull the armrest assembly outside. If the arm-pad (3.28) is broken, use the screw driver to loosen two screws (3.30) and replace it.



2.1.6. To replace the seat post

- ◆ When should you replace the seat post?
- ◇ If the seat post is deformation.
- ◇ If the seat post out of shape due to an accident.
- ◆ How to replace the seat post?
- ◇ Please proceeding steps as follows if it has to replace.

Use two open-end wrenches to loosen hexagon fixed bolt (1.63) and screw (1.65). Adjust the seat height based (1.62) to the demanded position (there are 5 holes on the tube for adjusting the seat height). Then insert and tighten the bolt.



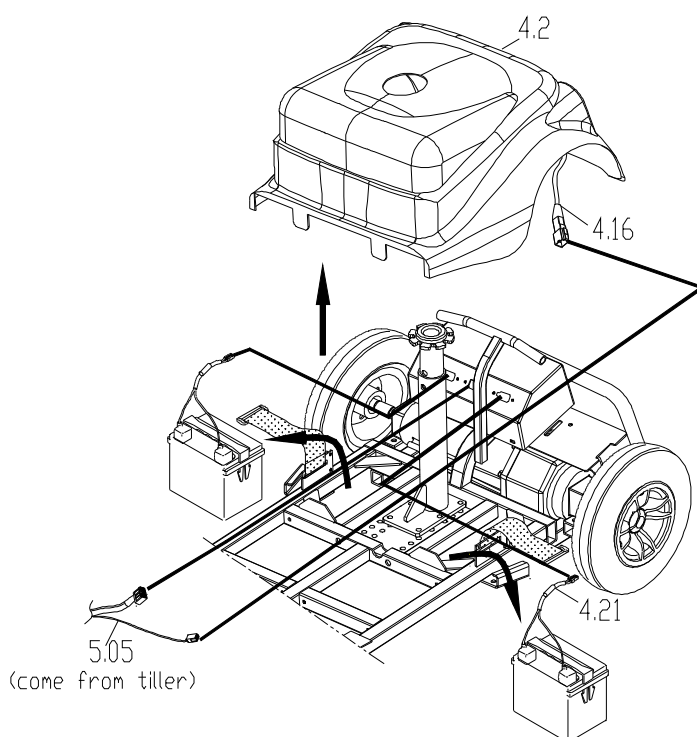
2.2. How to replace or repair Rear section of Main Frame Assembly(S131/S141 Series)

The suspension frame assembly includes suspension frame, driven tire assembly, transmission assembly, absorber, anti-tipper and rear bumper.

2.2.1. To remove Rear shroud assembly

- ◆ When should you replace the rear shroud?
- ◇ If your scooter can not avoid knocked or bumped cause the shroud broken.
- ◆ How to replace the rear shroud?
- ◇ Please proceeding steps as follows if it has to replace.

1. Remove the seat body assembly first (see section 2.1.1),then pull up rear shroud assembly (4.2) from chassis, and unplug the connector of cable loom (indicator & rear light) (4.16) which connect with main cable loom(5.05)
2. Untie the battery strap and unplug the connector of battery harness from controller panel(2.56),then remove the battery

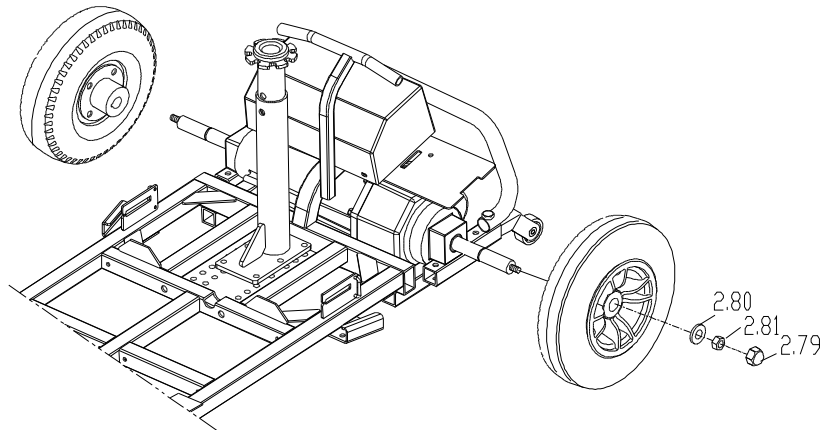


2.2.2. To remove the driving wheel assembly

- ◆ When should you replace the driven wheel assembly?
- ◇ If your driven wheel assembly is deformation.
- ◇ If the driven wheel assembly out of shape due to an accident.
- ◇ If the driven wheel assembly is worn out.

- ◇ If the driven wheel assembly is pierced by something.
- ◆ How to replace the driven wheel assembly?
- ◇ Please proceeding steps as follows if it has to replace.

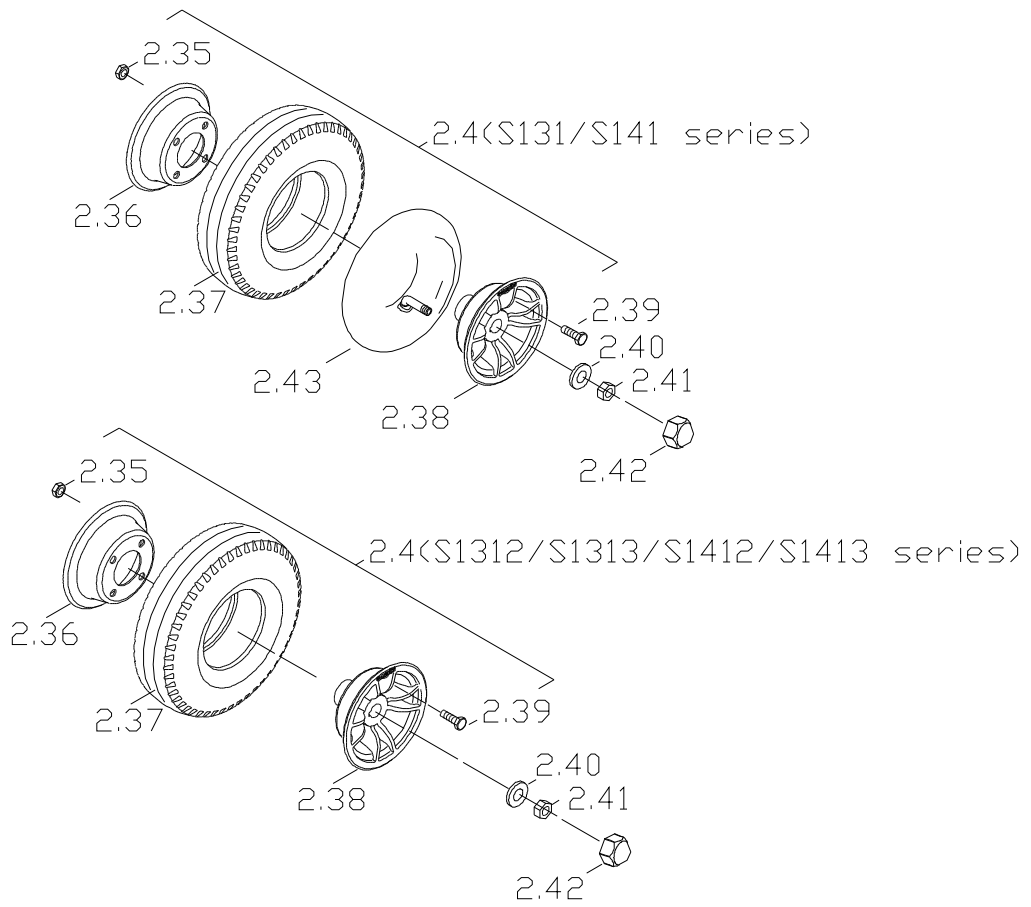
1. Pull out the screw cover (2.79) by hand.
2. Loosen the nylon nut (2.81) by hex. tool and take it out.
3. Along the output shaft axial to take the driven wheel assembly out.
4. The other side follow the step above.(1 ~ 3)



2.2.3. To replace the tire of wheel assembly

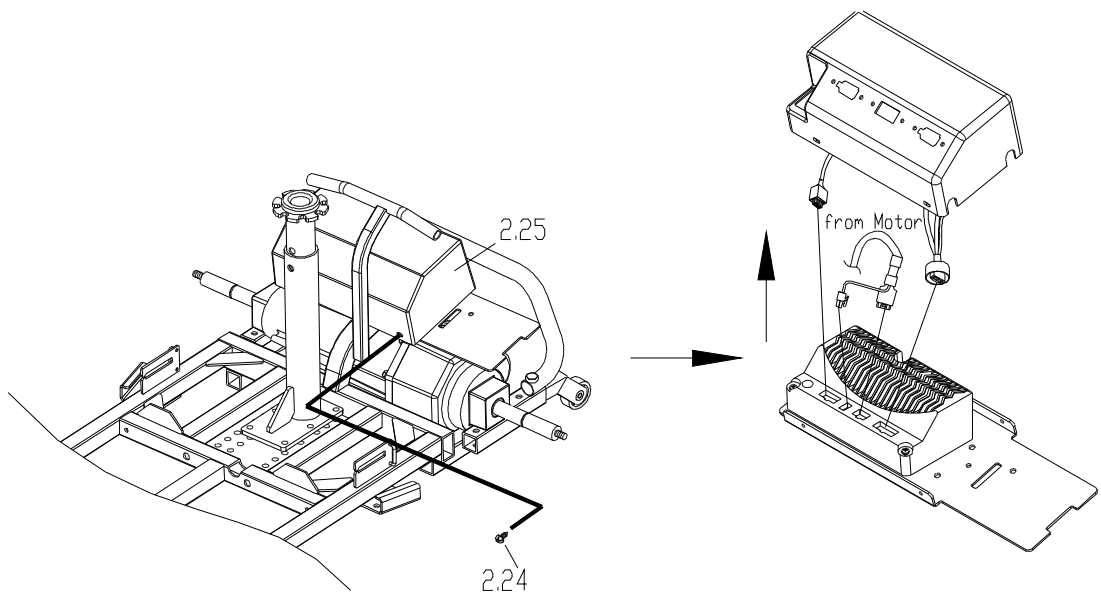
- ◆ When should you replace the front wheel with fork assembly?
- ◇ If your front wheel is deformation.
- ◇ If the front wheel out of shape due to an accident.
- ◇ If the front wheel is worn out.
- ◇ If the front wheel is pierced by something.
- ◆ How to replace the front wheel?
- ◇ Please proceeding steps as follows if it has to replace.

1. Release the air from valve of inner tire (2.43) -- < for pneumatic tires only>, then loosen the screw (2.39) and nylon nut (2.35) by wrench.
2. Take out the rim (2.36/2.38) to replace the tire (2.37)



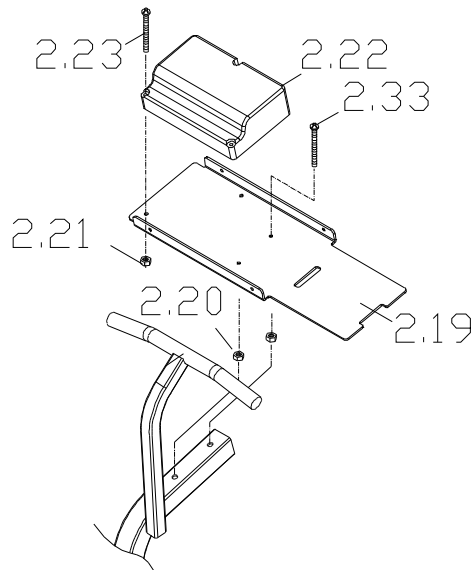
2.2.4. To remove the controller panel assembly

1. Loosen the screw (2.24)* 4 pcs. by (+) screw driver, then pull up the controller panel(2.25).
2. Unplug 4 connectors from controller



2.2.5. To remove the controller mounting plate and controller

1. Loosen the screw (2.33) and nylon nut (2.20) by hex. tools and wrench.
2. Take away the controller mounting plate (2.19) and controller (2.22) from the frame.
3. Loosen the screw (2.23) and nylon nut (2.21) by (+) screw driver and wrench ,then separate the mounting plate and controller.



2.2.6. To remove the rear bumper and anti-tipper assembly

- ◆ When should you replace the rear bumper/rear anti-tipper assembly?
- ◇ If the rear bumper/rear anti-tipper assembly out of shape due to an accident.
- ◇ If rear bumper/the rear anti-tipper assembly is deformation.
- ◆ How to replace rear bumper/the rear anti-tipper assembly?
- ◇ Please proceeding steps as follows if it has to replace.

1. Loosen the screw (1.60/1.59) and nylon nut (1.57) two sides by wrench to take out the rear bumper (1.62).
2. At the same time, pull out the anti-tipper assembly L/R (1.4) from the main frame (2.01).
3. Loosen the screw (1.68) and nylon nut (1.65) by (+) screw driver and wrench to take out the anti-tipper wheel (1.66)

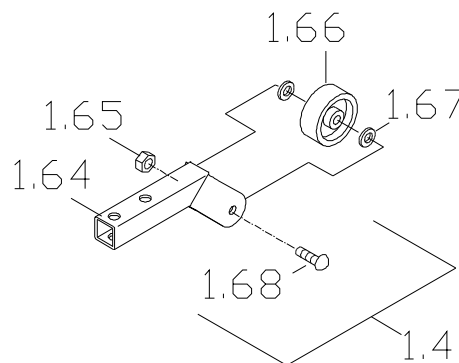
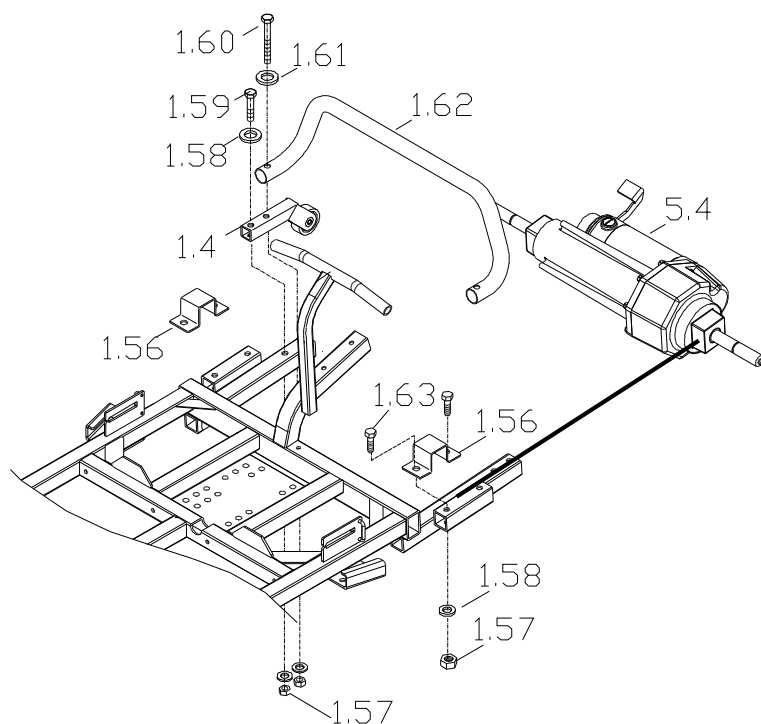
2.2.7. To replace the transaxle assembly

- ◆ When should you replace the transaxle assembly and the suspension frame?
- ◇ If the transaxle assembly has noise.
- ◇ If the transaxle assembly can't drive the scooter.

- ◇ If the transaxle assembly out of shape due to an accident.
- ◇ If the transaxle assembly is deformation.
- ◇ If your suspension frame is deformation.

- ◇ If the suspension frame out of shape due to an accident.
- ◆ How to replace the transaxle assembly and the suspension frame?
- ◇ Please proceeding steps as follows if it has to replace.

1. Loosen the screw (1.63) and nylon nut (1.57) by wrench , then take the bracket (1.56) away from the main frame.
2. Take off the transaxle assembly (5.5) from main frame.

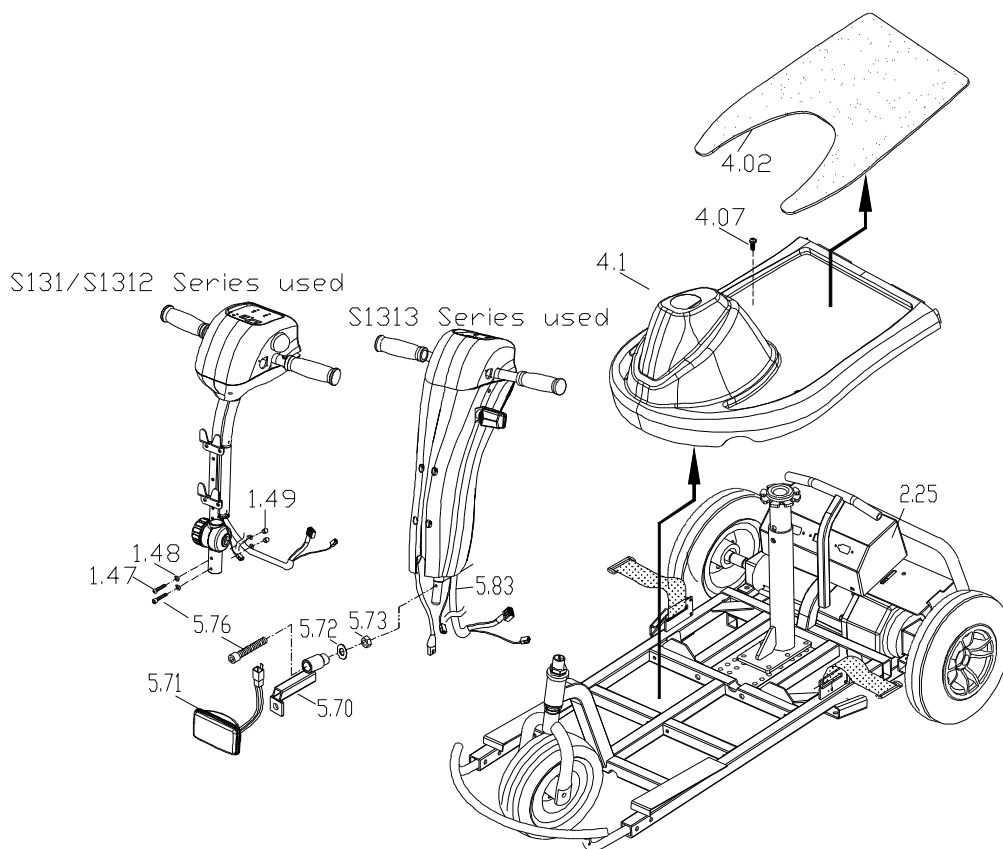


2.3 How to replace or repair Front section of Main Frame Assembly (S131 Series)

The front section assembly includes front frame, front shroud, front wheel assembly and mat.

2.3.1. To replace the tiller assembly

1. Repeat step 2.2.1.
2. Separate the mat (4.02) from the shroud (4.1) by hand directly, then loosen the screw (4.07) 4pcs by (+) screwdriver to make shroud come off the chassis.
3. Pull out the connectors from tiller main cable loom (5.83) which connect to controller panel (2.25) and head light (5.71).
4. Loosen the screw (5.76) and nylon nut (5.73) by hex. tools and wrench (S131/S1312/S1313 series) and loosen the screw (1.47) and nut (1.49) by wrench (S131/S1312 series).
5. Pull out the tiller assembly from fork stem, and you can take out the shroud assembly at the same time.



2.3.2. To replace the front wheel with fork assembly

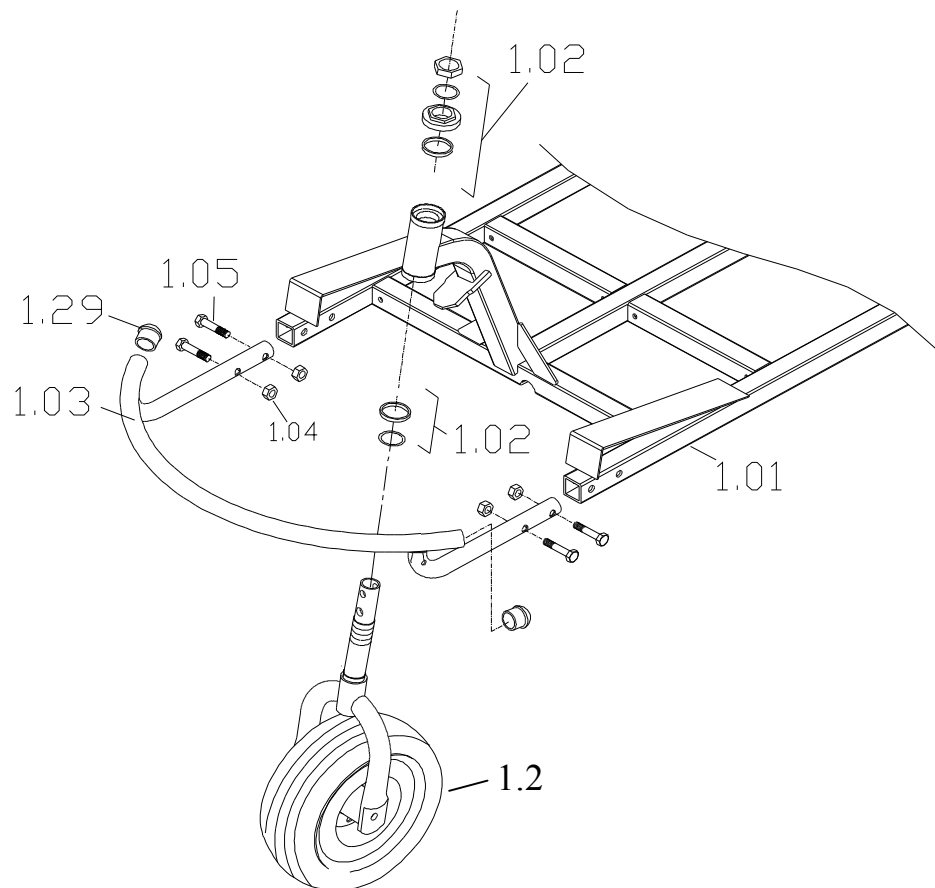
- ◆ When should you replace the front wheel with fork assembly?
- ◇ If your front wheel with fork assembly is deformation.
- ◇ If the front wheel with fork assembly out of shape due to an accident.
- ◇ If the front wheel with fork assembly is worn out.
- ◆ How to replace the front wheel with fork assembly?
- ◇ Please proceeding steps as follows if it has to replace.

Loosen the headset bearing (1.02) by wrench, and take out the front wheel with fork assembly (1.2) from front frame.

2.3.3. To replace the front bumper assembly

- ◆ When should you replace the front bumper assembly?
- ◇ If the front bumper assembly out of shape due to an accident.
- ◇ If front bumper assembly is deformation.
- ◆ How to replace front bumper assembly?
- ◇ Please proceeding steps as follows if it has to replace.

Loosen the screw (1.05) and nylon nut (1.04) both side by wrench. Then you can take out the front bumper.



2.3.4. To replace the front fork set

- ◆ When should you replace the front fork set?
- ◇ If your front fork set is deformation.
- ◇ If the front fork set out of shape due to an accident.
- ◇ If the front fork set is worn out.
- ◆ How to replace the front fork set?
- ◇ Please proceeding steps as follows if it has to replace.

1. Loosen the screw (1.08) by wrench both side then take out the front wheel assembly (1.2) from the front fork (1.06).

2.3.5. To replace the front wheel assembly

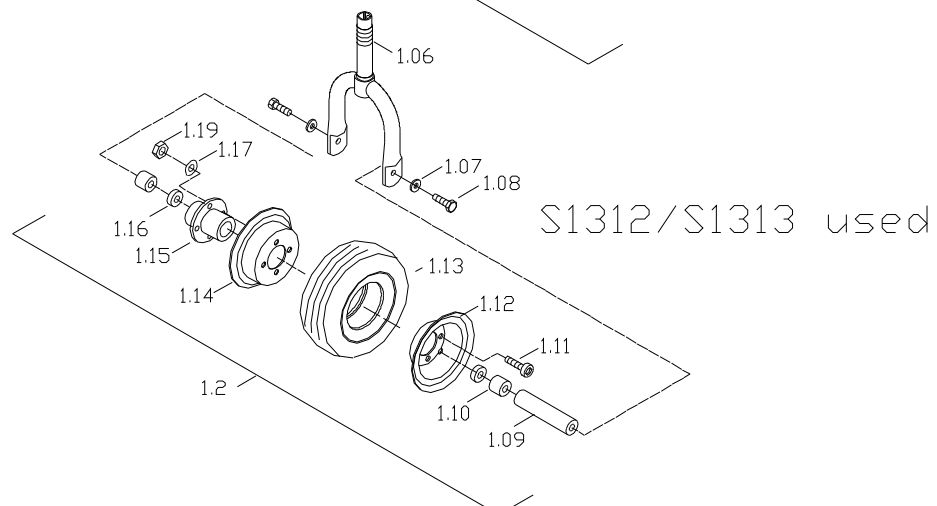
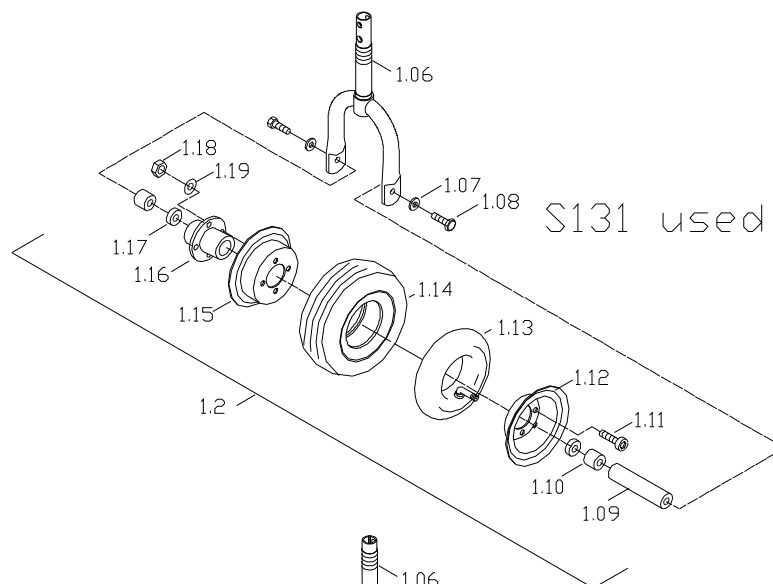
◆ When should you replace the front wheel assembly?

- ◇ If your front wheel is deformation.
- ◇ If the front wheel out of shape due to an accident.
- ◇ If the front wheel is worn out.
- ◇ If the front wheel is pierced by something.

◆ How to replace the front wheel?

Please proceeding steps as follows if it has to replace.

1. When the front wheel assembly separate from front fork, take off the spacer (1.09) and axle bushing (1.10*2pcs) by hand directly.
2. Release the air from valve of inner tire (1.13) -- < for pneumatic tires only>, then loosen the screw (1.11) and nylon nut (1.18) by wrench.
4. Take out the hub (1.15) and rim (1.13/1.14) to replace the tire.



2.4 How to replace or repair Front section of Main Frame Assembly (S141 Series)

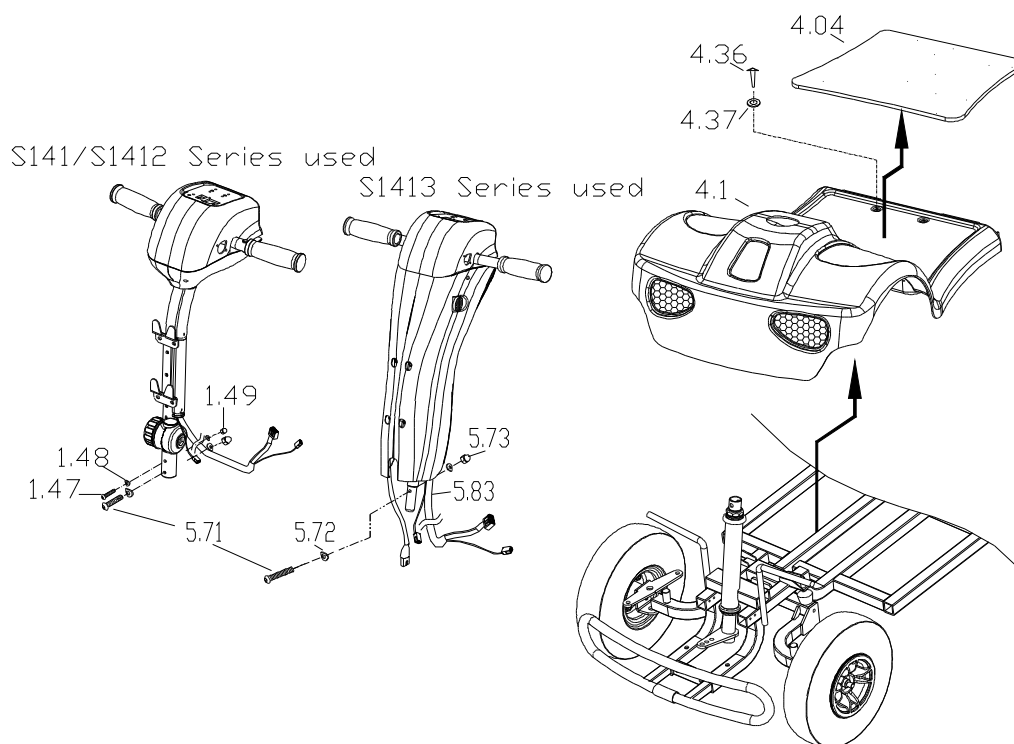
The front section assembly includes front frame, front shroud, front wheel assembly and mat.

2.4.1. To remove the tiller assembly

Repeat the item 2.3.1. step 1~5.

Note: 1. Separate the mat (4.04) from the shroud (4.1) by hand directly, then loosen the screw (4.36) 4pcs by screwdriver to make shroud come off the chassis. (the same as item 2.3.1. step 2)

2. The tiller assembly of S14X series is only one different point from S13X series above, that is, no head light and indicator on it, they are mounted on front shroud.



2.4.2. To replace the front wheel assembly.

- ◆ When you should replace the front wheel assembly?
- ◇ If your front wheel assembly is deformation.
- ◇ If the front wheel assembly out of shape due to an accident.
- ◇ If the front wheel assembly is worn out.
- ◇ If the front wheel assembly is pierced by something.

◆ How to replace the front wheel assembly?

◇ Please proceeding steps as follows if it has to replace.

1. Pull out the screw cover (1.52) by hand.
2. Loosen the screw (1.35) by hex. tool and take it out.
3. Along the shaft axial to take out the driving wheel assembly, the parts 1.34 will come out with wheel assembly.
4. The other side follow the step above. (1 ~ 3)

2.4.3. To replace the front bumper

◆ When should you replace the front bumper?

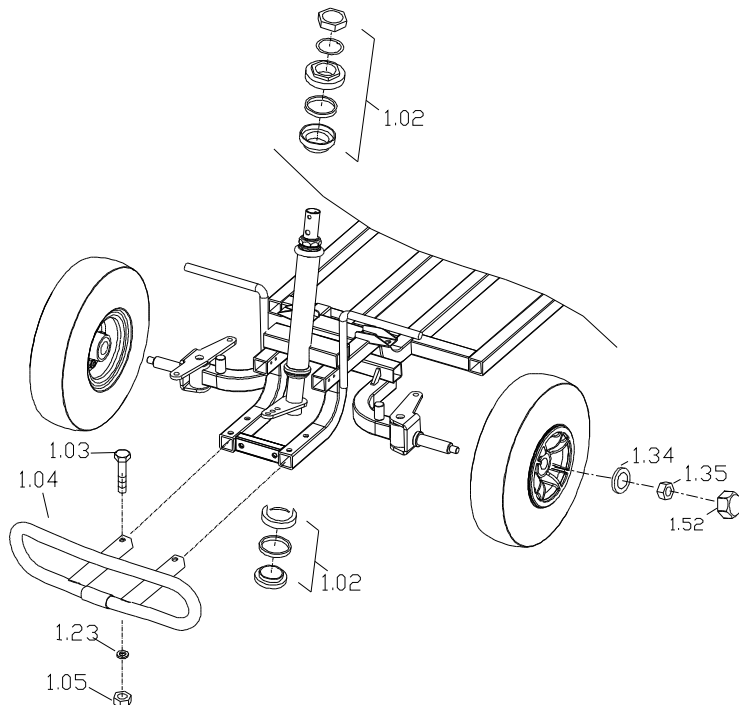
◇ If the front bumper out of shape due to an accident.

◇ If the front bumper is deformation.

◆ How to replace rear bumper/the rear anti-tipper assembly?

◇ Please proceeding steps as follows if it has to replace.

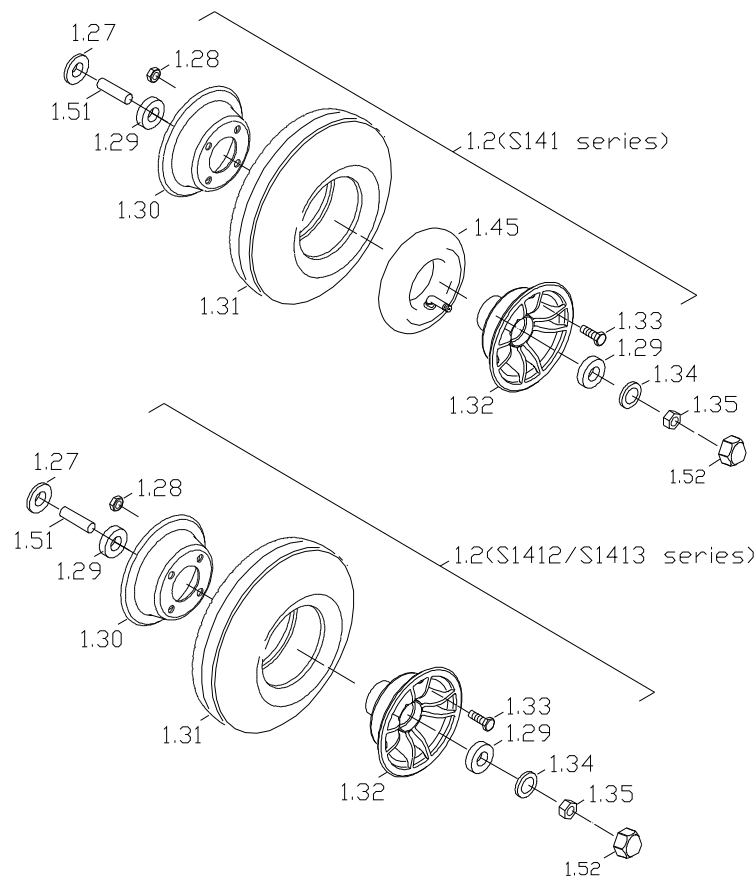
1. Loosen the screw (1.03) and nylon nut (1.05) by hex. tools and wrench .
2. Pull out the front bumper (1.04) from main frame.



2.4.4. To replace the tire of wheel assembly

- ◆ When should you replace the front wheel with fork assembly?
- ◇ If your front wheel is deformation.
- ◇ If the front wheel out of shape due to an accident.
- ◇ If the front wheel is worn out.
- ◇ If the front wheel is pierced by something.
- ◆ How to replace the front wheel?
- ◇ Please proceeding steps as follows if it has to replace.

1. Release the air from valve of inner tire (1.45) -- < for pneumatic tires only>, then loosen the screw (1.33) and nylon nut (1.28) by wrench.
2. Take out the rim (1.30/1.32) to replace the tire (1.31).

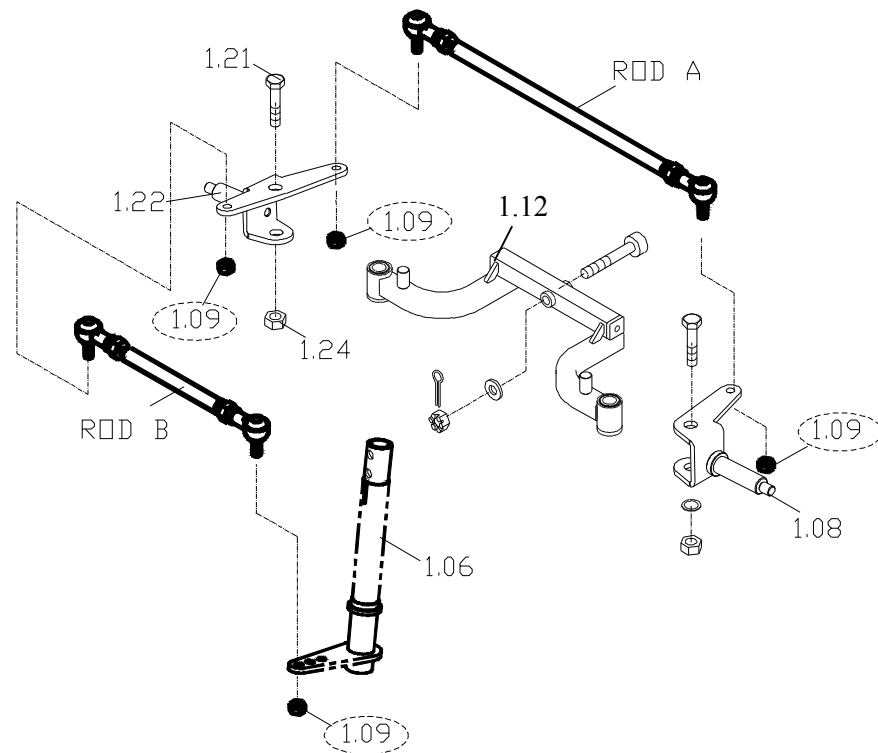


2.4.5. To replace steering mechanism

- ◆ When should you replace the steering mechanism?
- ◇ If the steering mechanism out of shape due to an accident.
- ◇ If the steering mechanism is deformation.
- ◇ If the steering mechanism has noise.
- ◇ If the steering mechanism is hard to steer.
- ◆ How to replace rear bumper/the rear anti-tipper assembly?

◇ Please proceeding steps as follows if it has to replace.

1. Loosen the nut (1.09)*4pcs by wrench to remove Rod A and Rod B.
2. Loosen the headset bearing (1.02)—see fig. 2.4.3. by wrench, then can take out the steering tube (1.06) from front frame.
3. Loosen the screw (1.21) and nylon nut (1.24) both side, then can take out the front axle set LH (1.08) and front axle set RH (1.22) from the front suspension arm (1.12).

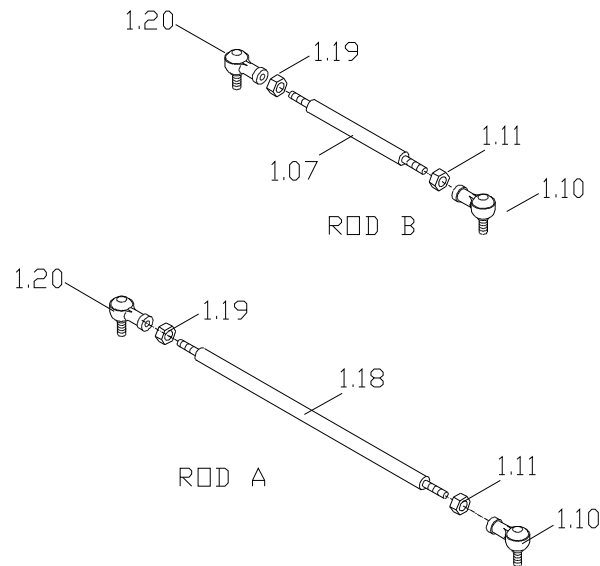


2.4.6. To replace the ball joint and rod (A/B)

- ◆ When should you replace the ball joint and rod?
 - ◇ If the ball joint and rod out of shape due to an accident.
 - ◇ If the ball joint and rod is deformation.
 - ◇ If the ball joint and rod has noise.
 - ◇ If the ball joint and rod is hard to steer.
- ◆ How to replace ball joint and rod?
 - ◇ Please proceeding steps as follows if it has to replace.

1. Loosen the nut RH (1.19), then can take out the ball joint RH (1.20)
2. At the other side, loosen the nut LH (1.11), then can take out the ball joint LH (1.10)

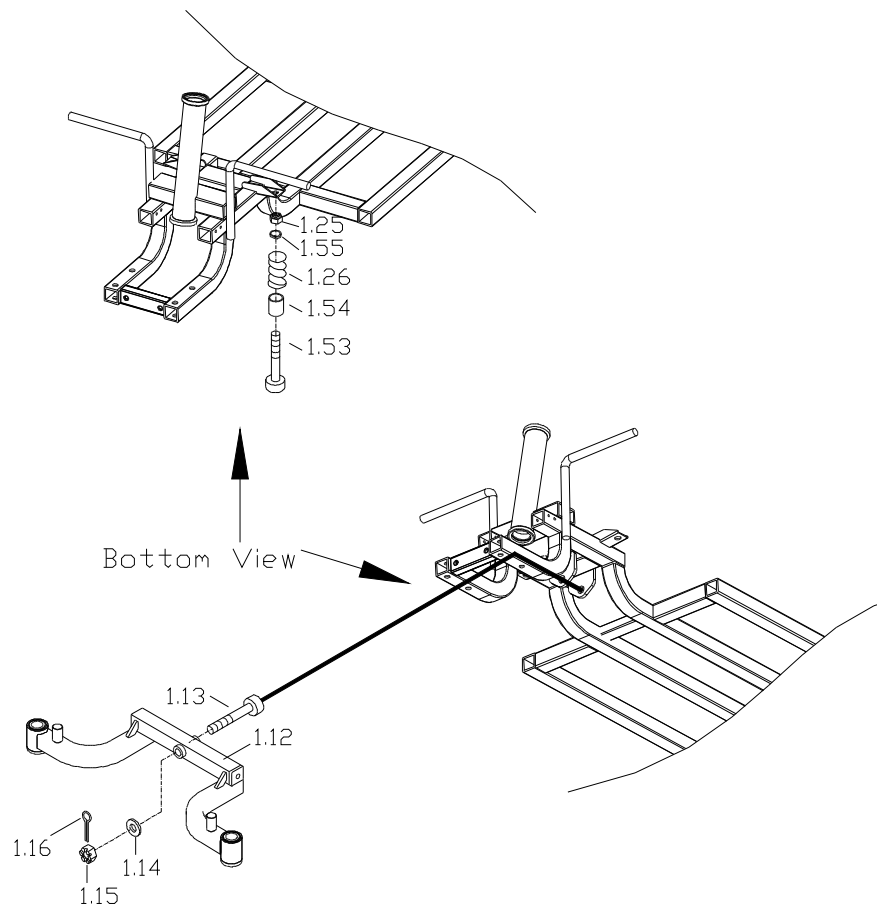
Note: When you replace the new ball joint or new connecting rod (1.07/1.18), one thing is important, the center distance between two ball joint (1.10 and 1.20) must be the same as before, then can assure the parallelism of two front wheel is consistency.



2.4.7. To replace front suspension arm assembly

- ◆ When should you replace the suspension arm assembly?
- ◇ If the suspension arm assembly out of shape due to an accident.
- ◇ If the suspension arm assembly is deformation.
- ◇ If the suspension arm assembly has noise when drive.
- ◆ How to replace rear bumper/the rear anti-tipper assembly?
- ◇ Please proceeding steps as follows if it has to replace.

1. Remove the cotter pin (1.16) by pliers, then loosen the screw (1.13) and nut (1.15) by hex. tools and wrench.
2. Take out the suspension arm assembly (1.12) from main frame.
3. At the same time, the spring (1.26) will come off with suspension arm assembly, pick them up and keep.
4. Loosen the screw (1.53) and nylon nut (1.25) by hex. tools and wrench, then the other parts (1.54/1.55) will come off.



2.5 How to replace or repair Tiller Assembly(S1313/S1413 Series)

The Tiller assembly includes tiller frame, control units, main harness, shroud, adjustable component.

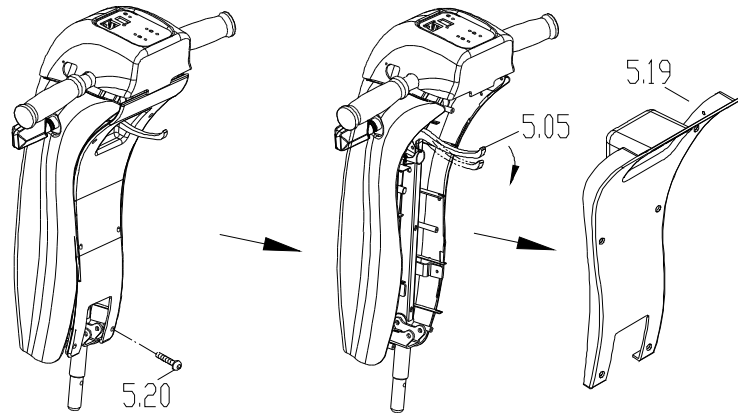
2.5.1. To replace the tiller assembly

To remove the tiller assembly from vehicle please refer to the item 2.3.1. step 1~5.

2.5.2. To replace the rear shroud of tiller

1. Loosen the screw (5.20)*6pcs by screw driver
2. Press the lever (5.05) down then take out the rear shroud (5.19).

- ◆ When should you replace the rear shroud of tiller?
- ◇ If the rear shroud of tiller out of shape due to an accident.
- ◇ If the rear shroud of tiller is deformation.
- ◆ How to replace the rear shroud of tiller?
- ◇ Please proceeding steps as follows if it has to replace.

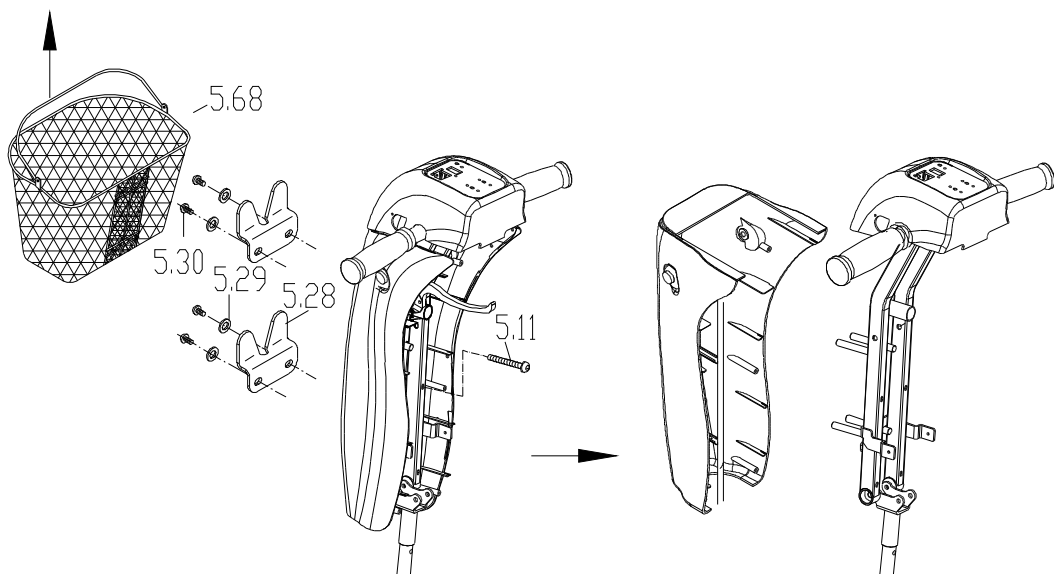


2.5.3. To remove the front shroud of tiller

- ◆ When should you replace the front shroud of tiller?
- ◇ If the front shroud of tiller out of shape due to an accident.
- ◇ If the front shroud of tiller is deformation.
- ◆ How to replace the front shroud of tiller?
- ◇ Please proceeding steps as follows if it has to replace.

1. Pull up the basket (5.68) by hand directly.
2. Loosen the screw (5.30)*4pcs by hex. tools and take out the basket bracket (5.28).
3. Loosen the screw (5.11)*4pcs by screw driver, then can take out the front cover.

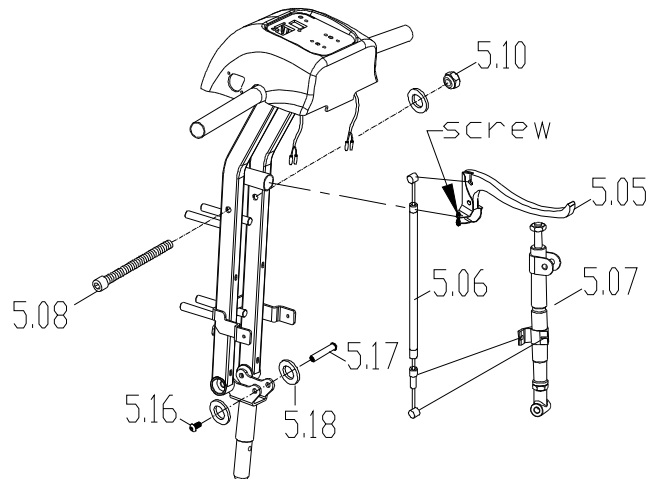
Note: Regarding to step 4 above: Remove the grip, because of there is viscose inside the grip, when you take out the grip, the best way is



2.5.4. To replace the regulation cylinder

- ◆ When should you replace the regulation cylinder?
- ◇ If the regulation cylinder out of shape due to an accident.
- ◇ If the regulation cylinder is deformation.
- ◇ If the clearance is too much to cause the tiller assembly shake.
- ◆ How to replace the regulation cylinder?
- ◇ Please proceeding steps as follows if it has to replace.

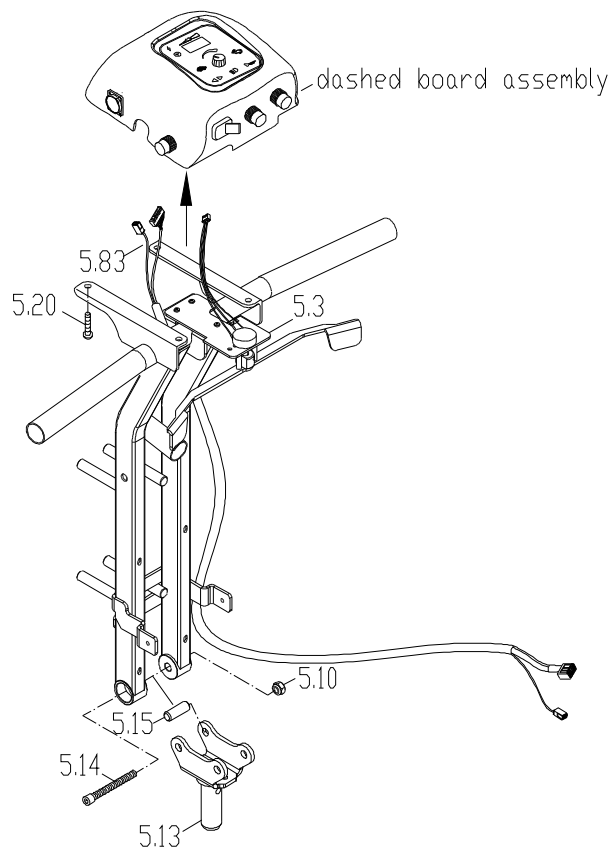
1. Loosen the screw and nut which mounted on the lever. (5.05)
2. Take out the lever (5.05) with cable/wire (5.06) from tiller frame.
3. Loosen the screw (5.08) and nut (5.10) by hex. tools and wrench then loosen the screw (5.16) (5.17) by hex. tools only.
4. Take out the regulation cylinder (5.07) 、 cable/wire (5.06) and lever (5.05) from the tiller frame together.



2.5.5. To replace the dashed board assembly

- ◆ When should you replace the dashed board assembly?
- ◇ If your dashed board assembly is deformation.
- ◇ If the dashed board assembly out of shape due to an accident.
- ◇ If your control units & harness is deformation.
- ◆ How to replace the dashed board assembly?
- ◇ Please proceeding steps as follows if it has to remove.

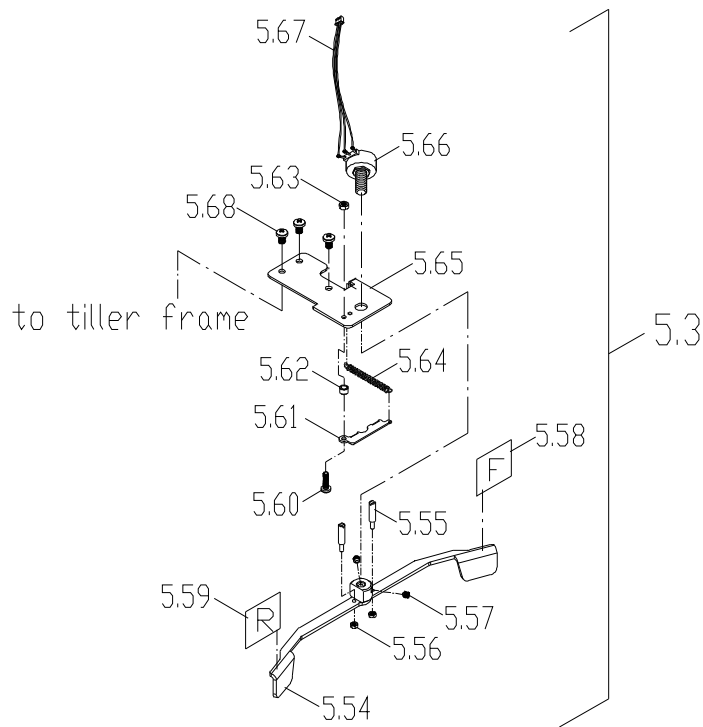
1. Loosen the screw (5.20)*4pcs by screw driver.
2. Unplug the 3 connectors which from the throttle lever assy' (5.3) and main cable loom (5.83).
3. Take out the dashed board assembly from frame.



2.5.6. To replace the throttle lever assembly

- ◆ When should you replace the throttle lever assembly?
 - ◇ If your throttle lever assembly is deformation.
 - ◇ If the throttle lever assembly out of shape due to an accident.
 - ◇ If your throttle lever assembly caused error code happen continuously.
- ◆ How to replace the throttle lever assembly?
 - ◇ Please proceeding steps as follows if it has to remove.

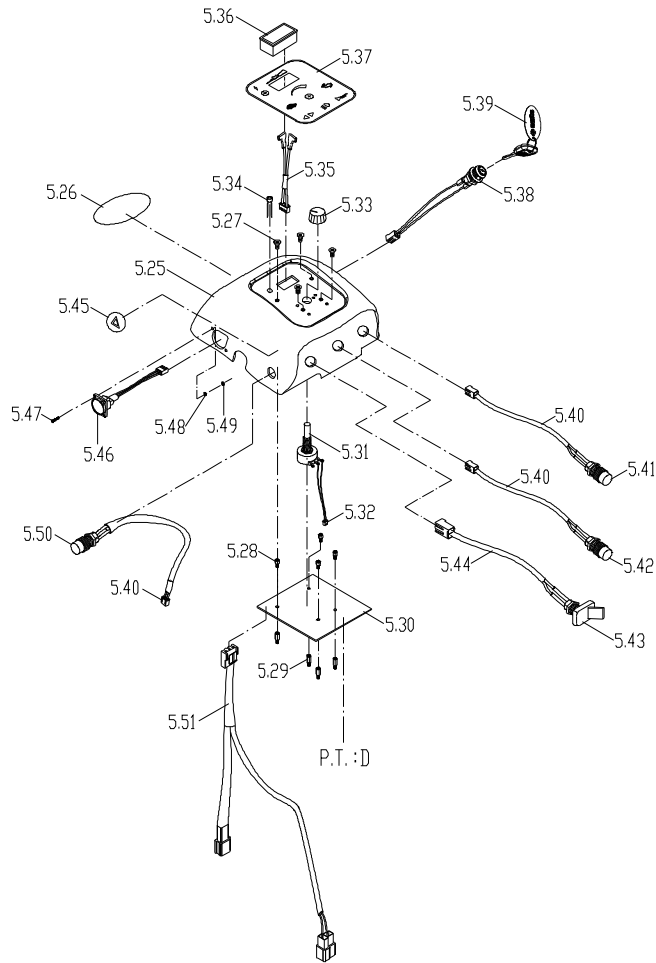
1. Loosen the screw (5.68)*3pcs by screw driver and take out the throttle lever assembly (5.3) from frame.
2. Loosen the set screw (5.57)*2pcs by hex. tools then take out the throttle lever set (5.54) with steel pin (5.55)*2pcs from the potentiometer (5.66).
3. Loosen the nut (5.56)*2pcs by wrench and screw driver can take out the steel pin from throttle lever set (5.54).
4. Take out the spring (5.64) by hand and loosen the screw (5.60) and nut (5.63) by screw driver and wrench to take out the setting plate (5.61) and spacer (5.62).
5. Use the wrench to loosen the nut (attached to potentiometer) then separate potentiometer (5.66) and base plate (5.65).



2.5.7. To replace the electric components mounted on dashed board assembly

- ◆ When should you replace the related electric components?
- ◇ If the electric components are deformation.
- ◇ If the electric components out of shape due to an accident.
- ◇ If the electric components are difficult to operate or can't work.
- ◆ How to replace the related electric components?
- ◇ Please proceeding steps as follows if it has to remove.

1. Unplug all connectors which connect to PCB (5.30), the connectors including the charger socket assy (5.46) 、 head light button wire (5.40)*3sets 、 indicator switch wire (5.44) 、 key switch wire (5.38) 、 speed pot. Wire (5.32) 、 power cord (5.35) and power indicator (5.34)
2. Loosen the brass stud (5.29)*4pcs and take out the PCB from upper cover (5.25).
3. Each button 、 switch and electric component which mounted on upper cover all coating the polyester to avoid loosing, so if you want to take out the component which you want, you must clean it away by knife and alcohol to assist.
4. Loosen the set screw which mounted to the side of speed knob (5.33) by (-) screw driver then can take it out from potentiometer (5.31).
5. Use the wrench to loosen the nut (attached to potentiometer) then separate potentiometer (5.31) and upper cover (5.25).
6. To remove the fuel gauge (5.36) from upper cover : use the (-) screw driver to press the salient on the side of fuel gauge and push it to come off.



2.6 How to replace or repair Tiller Assembly (S131/S1312/S141/S1412 Series)

The Tiller assembly includes tiller frame, control units, main harness, shroud, adjustable component.

2.6.1. To replace the tiller assembly

To remove the tiller assembly from vehicle, please refer to the item 2.3.1. step 1~5.

2.6.2. To replace the side cover of tiller and ratchet post

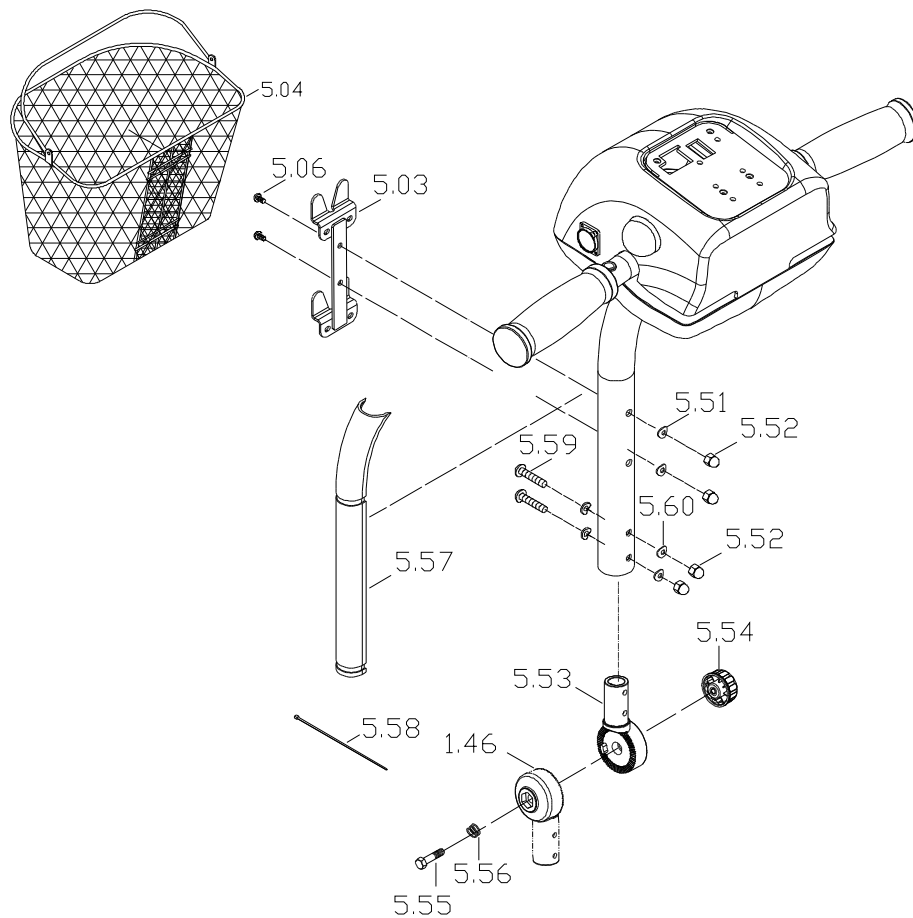
- ◆ When should you replace the side cover of tiller and ratchet post?
- ◇ If the side cover of tiller and ratchet post out of shape due to an accident.
- ◇ If the side cover of tiller and ratchet post is deformation.
- ◆ How to replace the side cover of tiller and ratchet post?
- ◇ Please proceeding steps as follows if it has to replace.

1. Pull up the basket (5.04) by hand directly.
2. Remove the side cover (5.57) by scissors or knife to cut off the nylon

tie (5.58)*2pcs.

3. Loosen the screw (5.06)*2pcs and nylon nut (5.52) by hex. tools and wrench then take out the basket bracket (5.03)
4. Loosen the screw (5.59)*2pcs and nylon nut (5.52) by hex. tools and wrench then take out the upper ratchet post from the tiller frame.
5. Loosen the knob (5.54) wholly, then can separate the upper ratchet post (5.53) and lower ratchet post (1.46).

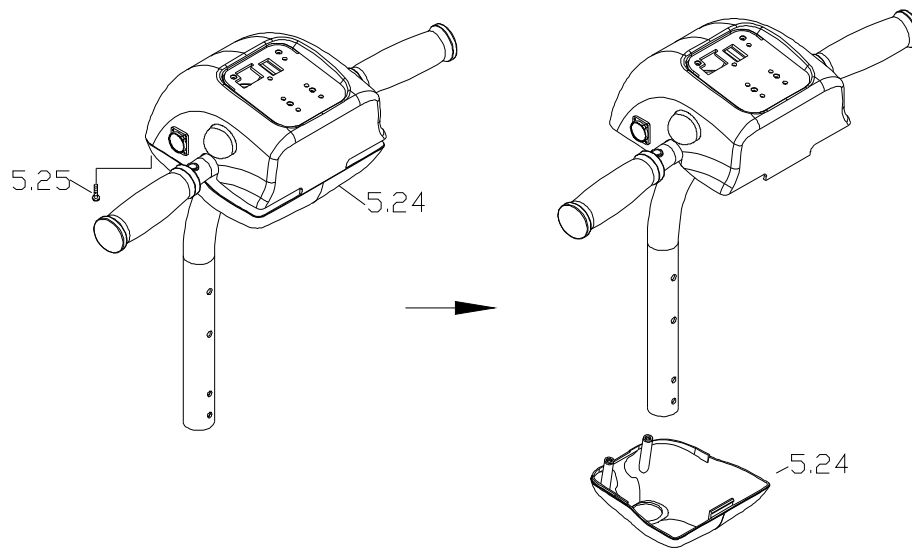
Note: If it is necessary to remove the grip, because of there is viscose inside the grip, when you take out the grip, the best way is using air gun and air compressor to assist.



2.6.3. To replace the lower dashed board of tiller

- ◆ When should you replace the lower dashed board of tiller?
- ◇ If the lower dashed board of tiller out of shape due to an accident.
- ◇ If the lower dashed board of tiller is deformation.
- ◆ How to replace the lower dashed board of tiller?
- ◇ Please proceeding steps as follows if it has to replace.

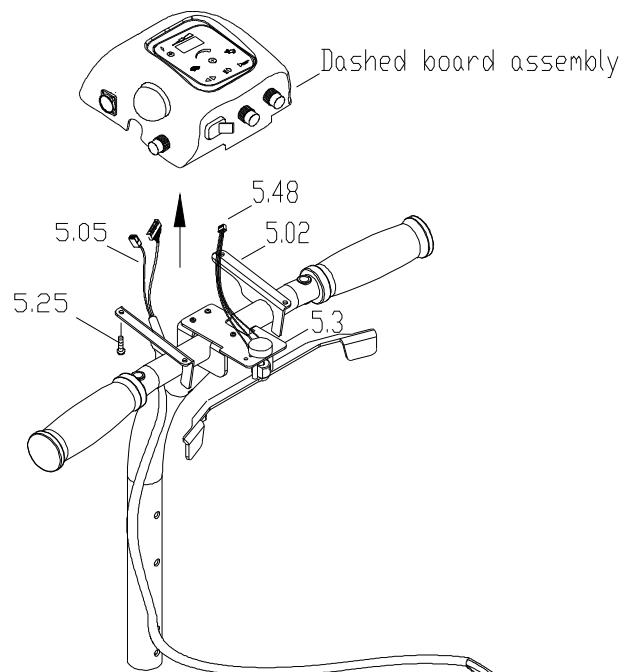
1. Loosen the screw (5.25)*2pcs by (+) screw driver.
2. Along the tiller pipe to take out the lower dashed board (5.24).



2.6.4. To replace the dashed board assembly

- ◆ When should you replace the dashed board assembly?
 - ◇ If your dashed board assembly is deformation.
 - ◇ If the dashed board assembly out of shape due to an accident.
 - ◇ If your control units & harness is deformation.
- ◆ How to replace the dashed board assembly?
 - ◇ Please proceeding steps as follows if it has to remove.

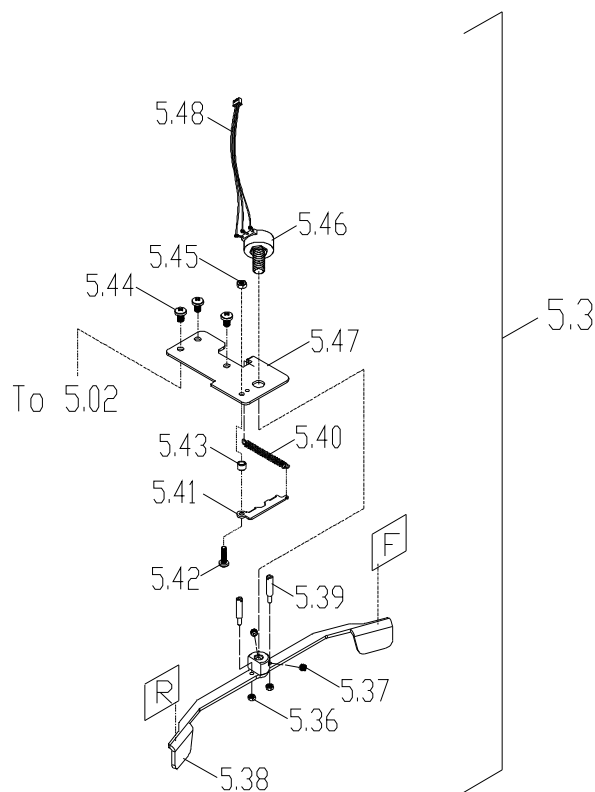
1. Loosen the screw (5.25)*4pcs by screw driver.
2. Unplug the 3 connectors which from the throttle lever assy' (5.3/5.48) and main cable loom (5.05).
3. Take out the dashed board assembly from frame.



2.6.5. To replace the throttle lever assembly

- ◆ When should you replace the throttle lever assembly?
 - ◇ If your throttle lever assembly is deformation.
 - ◇ If the throttle lever assembly out of shape due to an accident.
 - ◇ If your throttle lever assembly caused error code happen continuously.
- ◆ How to replace the throttle lever assembly?
 - ◇ Please proceeding steps as follows if it has to remove.

1. Loosen the screw (5.44)*3pcs by screw driver and take out the throttle lever assembly (5.3) from frame.
2. Loosen the set screw (5.37)*2pcs by hex. tools then take out the throttle lever set (5.38) with steel pin (5.39)*2pcs from the potentiometer (5.46).
3. Loosen the nut (5.36)*2pcs by wrench and screw driver can take out the steel pin from throttle lever set (5.38).
4. Take out the spring (5.40) by hand and loosen the screw (5.42) and nut (5.45) by screw driver and wrench to take out the setting plate (5.41) and spacer (5.43).
5. Use the wrench to loosen the nut (attached to potentiometer) then separate potentiometer (5.46) and base plate (5.47).



2.6.6. To replace the electric components mounted on dashed board assembly

- ◆ When should you replace the related electric components?
 - ◇ If the electric components are deformation.
 - ◇ If the electric components out of shape due to an accident.
 - ◇ If the electric components are difficult to operate or can't work.
- ◆ How to replace the related electric components?
 - ◇ Please proceeding steps as follows if it has to remove.

1. Unplug all connectors which connect to PCB (5.20), the connectors including the charger socket assy (5.13) 、 head light button wire (5.29)*3sets 、 indicator switch wire (5.31) 、 key switch wire (5.07) 、 speed pot. Wire (5.61) 、 power cord (5.21) 、 indicator (5.62)*2sets and power indicator (5.27)
2. Loosen the brass stud (5.43)*4pcs and take out the PCB (5.20) from upper cover (5.11).
3. Each button 、 switch and electric component which mounted on upper cover all coating the polyester to avoid loosing, so if you want to take out the component which you want, you must clean it away by knife and alcohol to assist.
4. Loosen the set screw which mounted to the side of speed knob (5.28) by (-) screw driver then can take it out from potentiometer (5.23).
5. Use the wrench to loosen the nut (attached to potentiometer) then separate potentiometer (5.23) and upper cover (5.11).
6. To remove the fuel gauge (5.26) from upper cover : use the (-) screw driver to press the salient on the side of fuel gauge and push it to come off.

