



INA450 Kayak Attachment 2

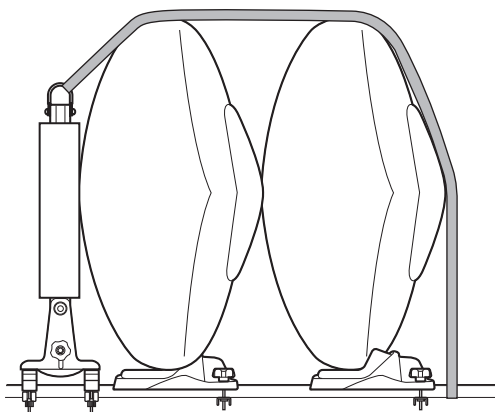
Instruction Manual

US

Thank you for purchasing the INNO Kayak Attachment 2. This product is an attachment for INNO System Carrier to attach baggage on the vehicle roof. This instruction manual explains how to mount and use the Kayak Attachment 2.

Please read through this manual thoroughly before use, and make sure that you follow all of the instructions carefully. Keep this instruction manual in a safe and accessible place so that you can refer to it when necessary.

If you give this product to a third person, provide this manual to ensure safe installation and usage.



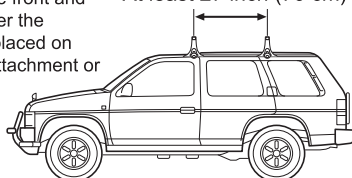
- Warning** Failing to observe these cautions may lead to accidents that may cause death or serious injury.
- Caution** Failing to observe these attentions may lead to injuries, or damages to the product, vehicle, and loaded items.
- Reference** These notes explain points that you should know about when using the product.

Warning

The space between the front and rear bars must be greater than 27 inch (70 cm).

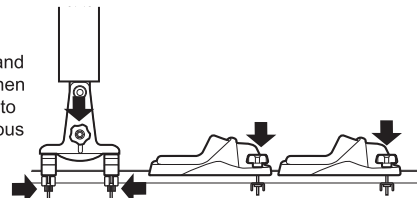
If the attachment is installed when the front and rear spaces of the carrier are narrower the correct range, unnecessary force is placed on the attachment that may cause the attachment or kayak to fall, which may lead to a serious accident involving nearby vehicles or pedestrians.

At least 27 inch (70 cm)



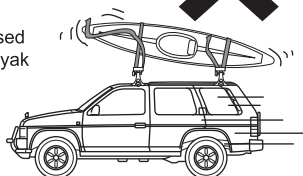
To use it safely, always inspect the knobs (5 locations for each one of the support poles and 2 locations for every cradle) before driving, and if any of them are loose, re-tighten them.

If knobs are loose, vibration and the increased air pressure when driving may cause the kayak to fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



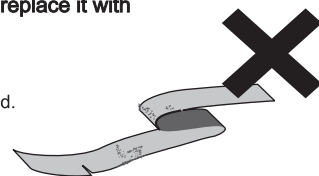
Before driving, check that the kayak does not move backwards and forwards or left and right, and that the belt is tightened securely. If it is loose, re-tighten it.

If the belt is loose, vibration and the increased air pressure when driving may cause the kayak to fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



Belt is a consumable part. After each use, be sure to check front and back of the belt. If you discover any of the following conditions, discontinue use immediately and replace it with a new part.

1. The belt surface is fuzzy.
2. The belt is damaged.
3. The color of the belt is partially faded.
4. Stitches are torn or cut.
5. The belt exhibits traces of heat or chemical damage.



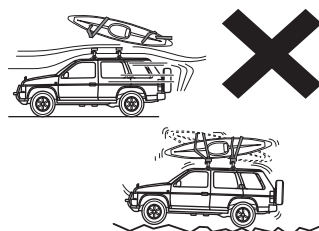
Do not attach objects other than kayak. Do not also attach the following kayak below.

1. Falboat (folding kayak)
2. Inflatable boat
3. Wooden kayak
4. The kayak that weighs 32 kg (70 lbs.) or more.
5. The kayak whose rigidity is not high enough and deformed by tightening the belt.



Do not exceed a speed of 80 mph (130 km/h) when carrying kayak.

Every time you drive highway, rough and uneven road, always check the carrier and loaded items for the attachment condition.

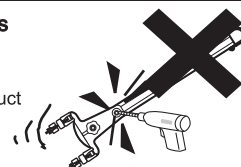


Check that the carrier / crossbar to which this product is installed has the strength, and the attachment is mounted securely.

The kayak may be deformed when attached. The kayak may not return to its original shape, depending on the material it is made of.

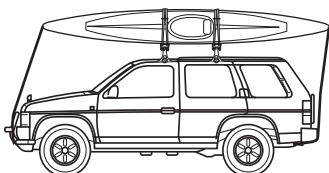
Do not install this product to the carrier that is not compatible with it or do not attempt to change or alter this product in any way.

Check that the carrier / crossbar to which this product is installed has the strength, and the attachment is mounted securely.



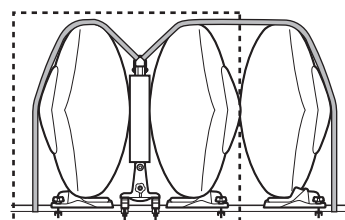
Additional parts (sold separately) are required for the cases below.

If you drive under any of the following conditions, be sure to fix the front and rear ends of the kayak to the tow hook using the belt (IN-718) sold separately.



1. The overall length of kayak is longer than six times the space between the front and rear carrier. (at least 4.2m (13.7ft))
2. Wind speed is faster than 32.8 ft/s (10 m/s).
3. Driving faster than 49.7 mph (80 km/h).

Attaching 3 or 4 kayaks.



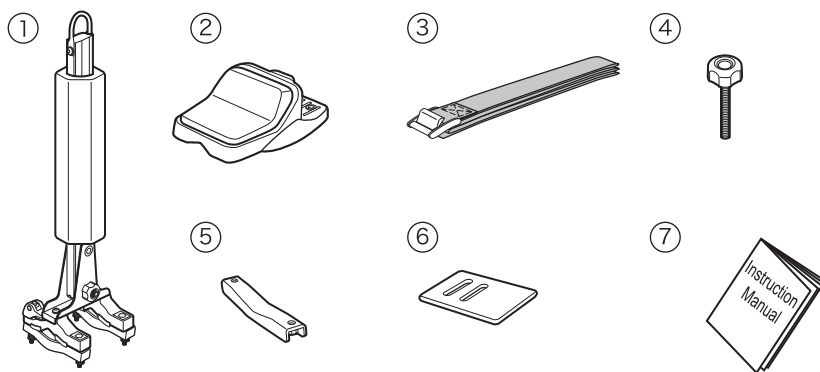
INNA451 (1 set of cradle) is required for every kayak to be added. When 2 kayakers are attached on both sides of the support pole, a belt (IN-717) and buckle pads are required.

Caution

Maximum loading capacity varies depending on vehicle type.

1 PARTS INCLUDED

This product contains the following parts. Verify that all parts are included.



No.	Part	Qty
①	Support pole assembly	2
②	Cradle	4
③	Belt (4 m) (13 ft.)	2
④	Knob bolt	8
⑤	Plate	4
⑥	Buckle pad	2
⑦	Instruction Manual	1

2 Install the base carrier

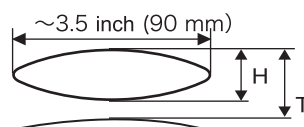
Mount the INNO Basic Carrier / the factory carrier / crossbars securely to the vehicle.

This attachment can be installed to the INNO Basic Carrier as well as the factory and aftermarket carrier/crossbars (*1).

*1 : Some sizes of crossbar require the ISF711 and ISF716 long bolt (sold separately).

*2 : Mounting the attachment to a round bar requires the ISF715 round bar adaptor (sold separately).

■ Suitable Crossbar Size



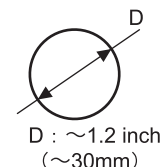
H: ~1.0 inch *(~2.5 mm) [Without option]

1.0 inch – 2.0 inch (25~50 mm) [with optional accessories]

T: Distance to Roof : Min 2.0 inch (50 mm)

*ISF711 and ISF 716 (1 set for 1 kayak) may be required, depending on the shape of crossbars.

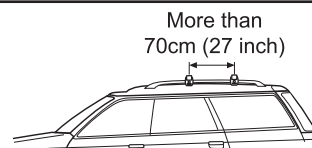
■ Suitable Round Bar Size



D : ~1.2 inch (~30mm)

⚠ Warning

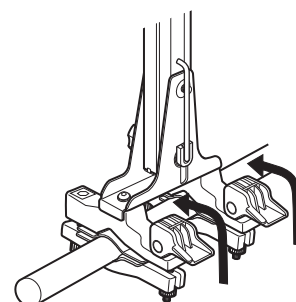
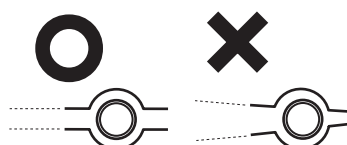
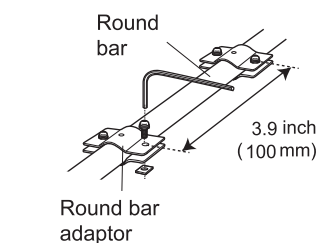
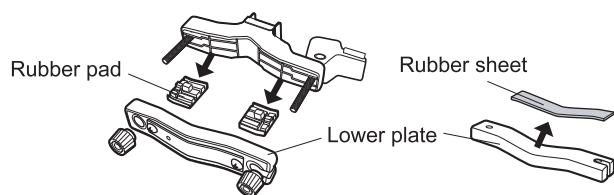
- Check the instruction manual of either the carrier or the vehicle to ensure that the carrier / crossbar to which the attachment is installed has enough strength. If for any reason the carrier does not have enough strength, do not install it.
- The space between the front and rear carriers must be greater than 27 inch (70 cm).
If you are able to adjust the front and rear spaces, adjust them as wide as possible to make it more stable.



3 Installing Carrier on Aftermarket Round Bars

Round bar adaptor (ISF715) is sold separately.

- ① Remove the rubber pads from the top half of the clamps.
- ② Remove the rubber sheet from the lower plate.
- ③ Mount round bar adaptors with a distance of 3.9 inch (100 mm) between adaptors; make sure they are parallel to the ground.
- ④ Put the support pole assembly over the round bar adaptor.

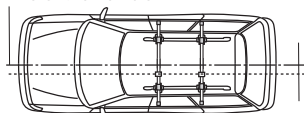


4 Fixing the support poles

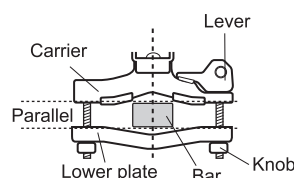
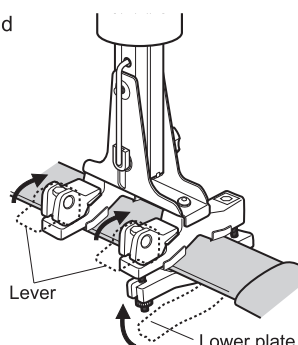
Fix the front and rear support poles to the carrier bars, so that they become parallel to the traveling direction of the vehicle.

- ① Loosen both knobs on the rear plate, and place the carrier on the base carrier / crossbar.
- ② Hook the knob on the lower plate, and tighten it moderately.
- ③ Return the lever, and fix it firmly.

Center line of the vehicle

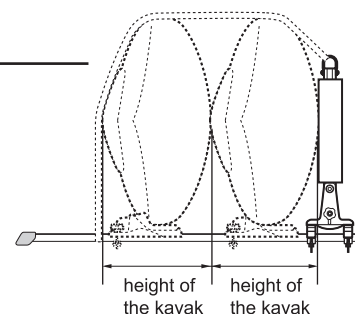


Center line of the front and rear support poles



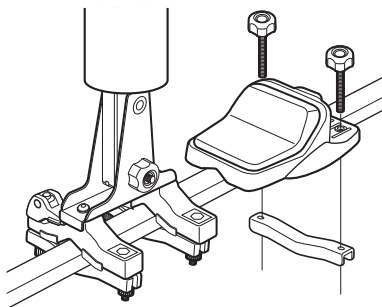
Reference

Fix the support poles to the position where plenty enough space for height of the kayak can be ensured (double the space when two kayaks are attached).



5 Temporarily fix the cradles

Temporarily fix front and rear cradles according to the shape and the number of kayak. Tighten the cradles after loading the kayak.

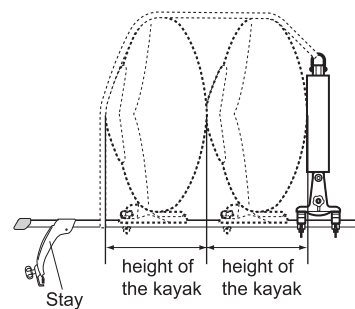


Warning

Mount the cradle inside stays.

Reference

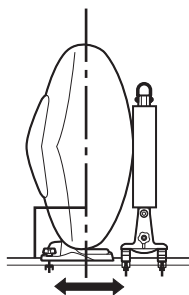
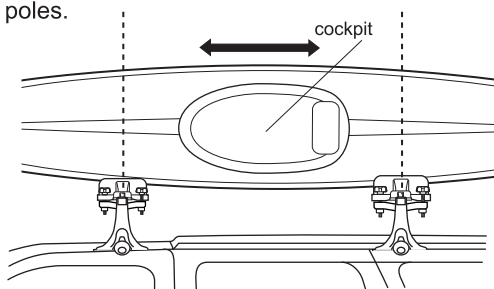
Positions of the cradles may change, depending on thickness of the kayak. Temporarily fix the cradles to the positions so that the space for one kayak can be assured.



6 Attaching the kayak

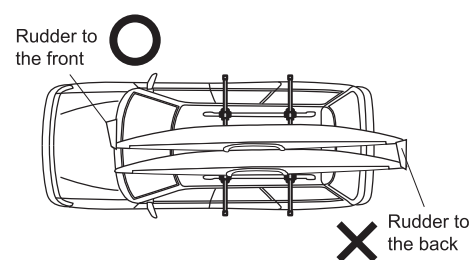
Adjust the position of the kayak back and forth to make its cockpit at the center of the front and rear support poles.

Set the kayak so that it is vertical, and push it against both front and rear support poles.



Caution

When loading kayak with a rudder such as sea kayak, the rudder must be placed to the front of the vehicle.

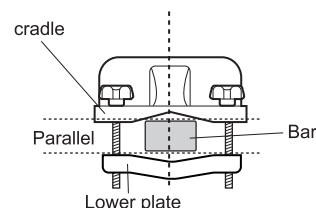
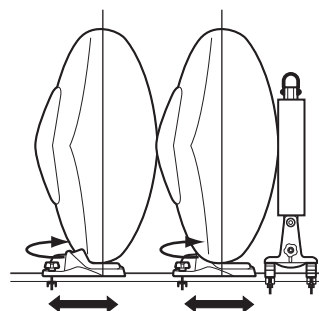
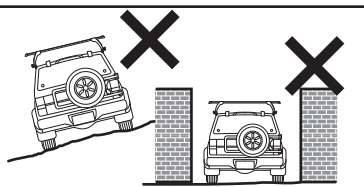


7 Fixing the cradle

Adjust the cradle so that the kayak becomes vertical.

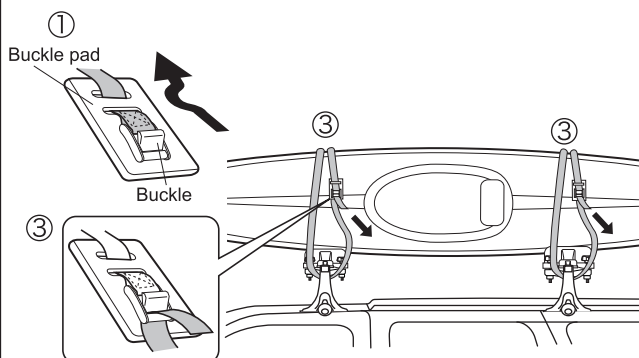
Caution

Load and unload kayak in a flat and large space.



8 Fixing the kayak

- 1 Pass the belt through the slits of buckle pad, and then place the buckle on the buckle pad
- 2 Pass the belt through the loop on the edge of the support pole, without twisting it.
- 3 Pass the belt below the outer portions of the carrier that is outside cradles, and buckle it.
- 4 Tighten the belt vertically to fix the kayak so that the kayak is vertical.

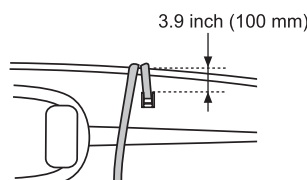
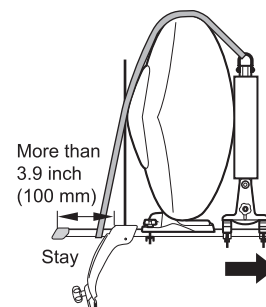


Reference

If the belt contacts angular areas on the kayak, or if vibration or friction may damage the kayak, use fabrics or the protection pads (IN-409, 2 pcs for one set) sold separately.

Warning

- If the belt interferes with the stay,
- A if there is 3.9 inch (100 mm) or longer remaining outside the stay, hang the belt outside the stay and tighten it.
 - B If the remaining of the outer stay is shorter than 3.9 inch (100mm), move the support poles and cradles inward.

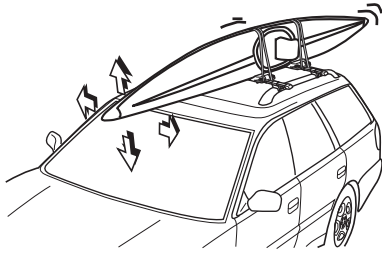


Reference

It is easier to buckle the belt when the position of buckle is about 3.9 inch (100 mm) below the upper edge of the kayak.

9 Double check

For security, it, check the kayak for looseness. If it is loose, re-tighten knobs and the belt.



Reference

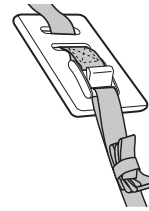
If the kayak won't be fixed securely by re-tightening the belt, go back to the **6 Attaching the kayak** step and redo the procedures.

Check the kayak for bend or deformation when re-tightening the belt.

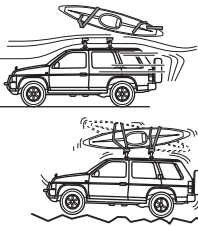
Excessive deformation/bend may not recover.

Reference

Do not leave a belt margin hanging down. Roll it up to avoid the belt from flopping.



10 Driving



Every time you drive highway, rough and uneven road, always check the carrier and loaded items for the attachment condition.

Warning

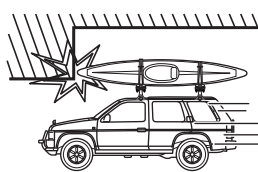
- Check the instruction manual of either the carrier or the vehicle to ensure that the carrier / crossbar to which the attachment is installed has enough strength. If for any reason the carrier does not have enough strength, do not install it.
- The space between front and rear carriers must be greater than 27 inch (70 cm). If you are able to adjust the front and rear spaces, adjust them as wide as possible to make it more stable.



Warning

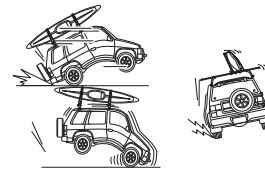
If you drive under any of the following conditions, be sure to fix the front and rear ends of the kayak to the tow hook using the belt (IN-718) sold separately.

1. The overall length of kayak is longer than six times the space between the front and rear carrier. <at least 4.2m (13.7ft)>
2. Wind speed is faster than 32.8 ft/s (10 m/s).
3. Driving faster than 49.7 mph (80 km/h).



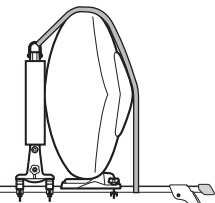
Caution

Watch for objects above, front, and rear of the vehicle while driving. If you accidentally hit the kayak, be sure to check the carrier and the kayak for the attachment condition.



Caution

Avoid sudden start, abrupt steering, and sudden brake. If you could not avoid unsafe driving, always check the carrier and loaded items for the attachment condition.



Caution

Do not leave the kayak tightened with belt for extended period. Tightening the kayak with the belt causes deformation. Do not attach the kayak if the deformation does not recover.

11 Taking down the kayak

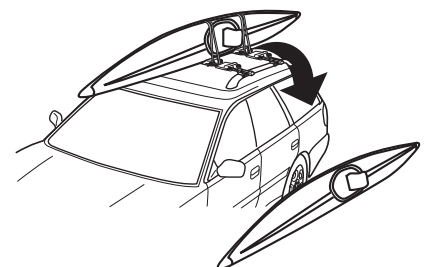
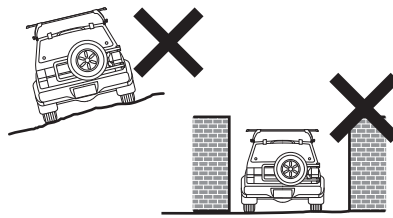
- ① If extra belts are used to tighten front and rear of the kayak while driving, take them off before unloading the kayak.
- ② Loosen the fixing belt, and make sure the kayak won't fall.
- ③ Remove the fixing belt.
- ④ Take down the kayak.

Reference

When two kayaks are attached, be sure that the second kayak won't fall after taking down the first one.

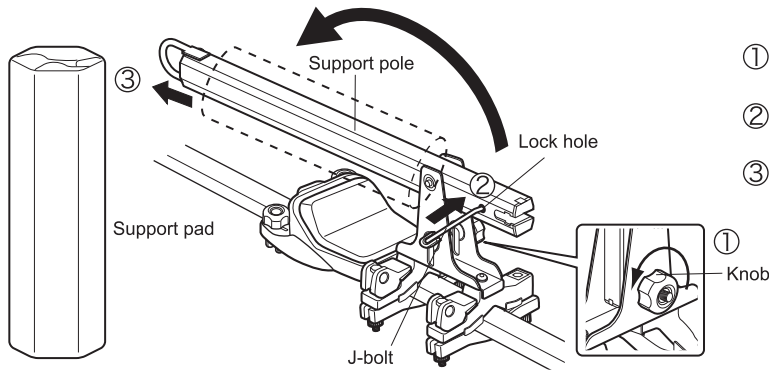
Caution

Load and unload kayak in a flat and large space.



12 Folding the support poles

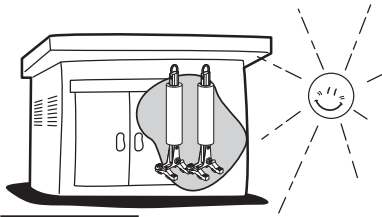
Push the support pole down, and remove the support pad when kayak is not attached.



- ① Loosen the knob, and by pushing the knob in, remove the J-bolt which locks the support pole.
- ② Push down the support pole, insert the J-bolt into the lock hole, and tighten the knob.
- ③ Remove the support pad.

13 Maintenance and storage

Store the attachment in a dry place indoors, out of direct sunlight.



Reference

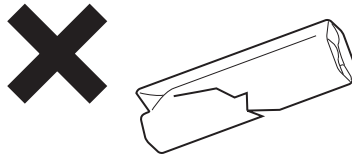
When not in use, remove the carrier from the vehicle and store it to protect it from rust or deterioration caused by rain or UV rays.

Reference

Put small parts such as knobs together in a plastic bag and store them along with the attachment.

Caution

Support pad is a consumable part. When not in use, remove the support pad from the carrier. If you discover any deep damage or breakage on the support pad, replace it with new one. If the support pad is not used, it may cause damage to the attached items.



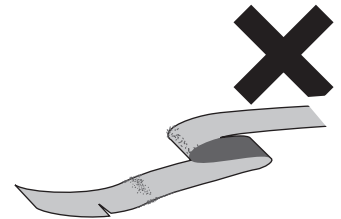
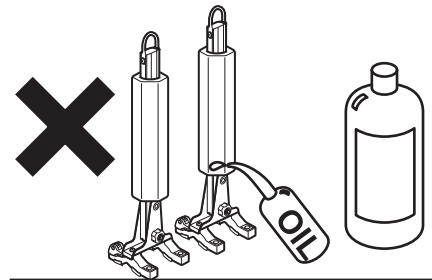
Warning

Belt is a consumable part. After each use, be sure to check the front and back of the belt. If you discover any of the following conditions, discontinue use immediately and replace it with a new part.

1. The belt surface is fuzzy.
2. The belt is damaged.
3. The color of the belt is partially faded.
4. Stitches are torn or cut.
5. The belt exhibits traces of heat or chemical damage.

Warning

- Do not lubricate keys or bolts.
- Do not use solvents such as thinner etc.



Spare Part Information

The following genuine spare parts are available for this product. If you require spare parts, take the part to the dealer where you bought the attachment, or order the necessary part using the part name listed below.

Reference

The specifications or external appearance of this product or any of the genuine spare parts may be changed for improvement without prior notification.

