



INH305 Tire Hold Hitch Instruction Manual



Thank you for purchasing the INNO product.

Be sure to read this instruction manual thoroughly before using this product.
 Keep this manual in a safe place where anyone using this product can use for reference.
 If you give or lend this product to someone else, make sure that they also keep this manual.
 If any sections of this manual are unclear or difficult to understand, contact our service center listed in this manual.

Following legends are used throughout this manual for your attention.

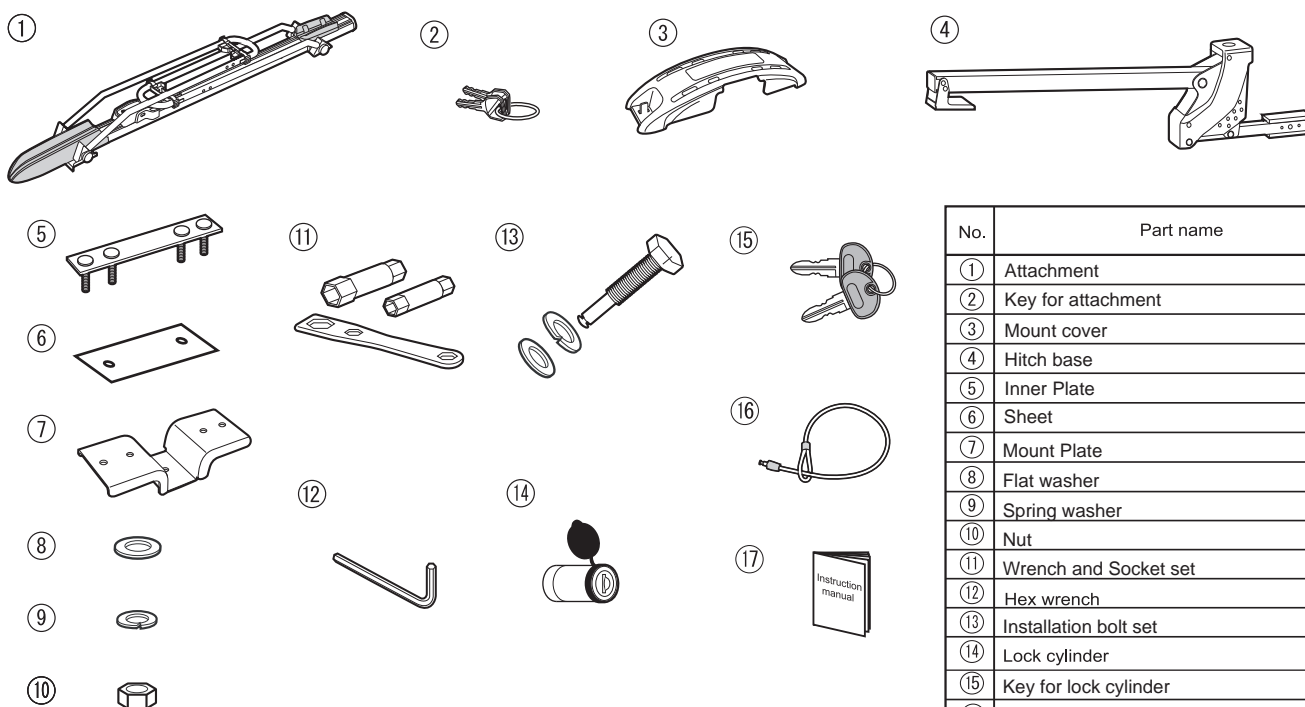
- Warning** Failing to observe these warnings may lead to accidents that may cause death or serious injury.
- Caution** Failing to observe these cautions may lead to injuries or damage to the product, vehicle, and the load.
- Note** These notes explain points you should know about when using this product.

Warning

- Make sure to attach the 2-inch (1-1/4 inch) hitch receiver on your vehicle before installation.
- Confirm the stability and strength of the hitch receiver onto which this product is to be installed, and attach it securely.
- If you suspect that the hitch receiver does not have enough strength, discontinue the installation.
- Maximum load of INH305 is 2 bikes, or 114 lbs (52kg) and 3 bikes, or 132 lbs (60kg) with INH306.
- Maximum load per attachment is 57 lbs (26kg).
- Make sure that the total weight of loaded bikes do not exceed the maximum loading capacity of the vehicle.
- Maximum attachment capacity of the Class 1 hitch is up to 2 bikes.
- Do not install this product on trailers and other towing vehicles.
- Do not load tandems or recumbents.
- Do not load any other objects except bikes.
- Do not load bikes in bags or covered with tarpaulins.
- Do not alter this product.
- Check all bolts and nuts periodically to see that they are securely tightened.
- Make sure to use the wire lock at all times while bikes are loaded.
- Cable lock is not anti-theft tool for bikes.
- Obey all posted speed limits, and reduce driving speed in strong winds. (Do not exceed 75 mph <120 km/h>)
- This product is not for off-road use.
- Do not leave the product for a long period of time with bikes still loaded.
- Keep bike away from hot exhaust.
- Remove this product if you do not intend to use it for a long period of time.
- Installing this product makes the length of your vehicle longer. Check the length before driving.
- Remove this product before using an automatic car wash.

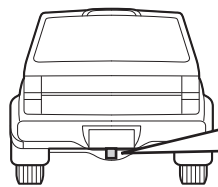
Product contents

This product contains the following parts.
 Make sure that you have all the parts listed. If any part is missing, contact our service center listed in this manual.



No.	Part name	Quantity
①	Attachment	2
②	Key for attachment	2
③	Mount cover	2
④	Hitch base	1
⑤	Inner Plate	2
⑥	Sheet	2
⑦	Mount Plate	2
⑧	Flat washer	8
⑨	Spring washer	8
⑩	Nut	8
⑪	Wrench and Socket set	1
⑫	Hex wrench	1
⑬	Installation bolt set	1
⑭	Lock cylinder	1
⑮	Key for lock cylinder	2
⑯	Wire cable	1
⑰	Instruction manual (This manual)	1

Loading conditions

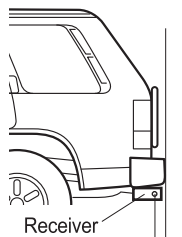


Receiver dimensions

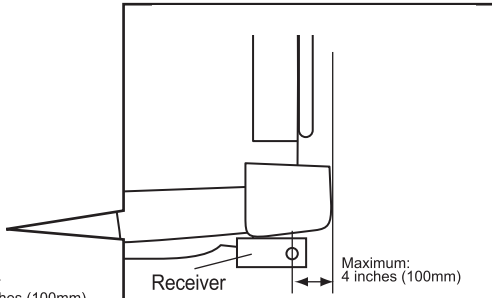
Receiver must have sufficient strength.

1 1/4 inch
2 inch (With Adaptor)

Possible installation size



Maximum : 4 inches (100mm)



Maximum:
4 inches (100mm)

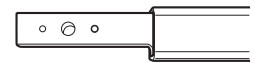
Remove adaptor

Receiver size
2 inch



Remove adaptor to use.

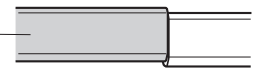
Receiver size
1 1/4 inch



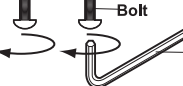
Remove 2 bolts by hex wrench first and then 2 inch adaptor will be the next.

*Installation method will be opposite procedure.

Adaptor



Flat washer
Spring washer



Hex wrench

Possible carrying bikes

Suitable bicycle



Tire size: 20 inches - 29 inches

Wheel base :

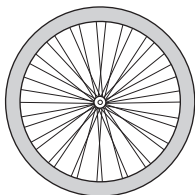
33.5 inches - 47.2 inches

(85cm - 120cm)

Tire width : 1.8c - 2.7"

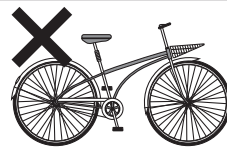
Bikes with disk wheels may be affected by strong air resistance (20 mph), do not use under the situation.

Tire size check

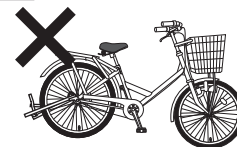


Tire

Not suitable bicycle

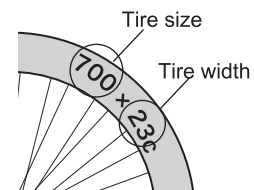
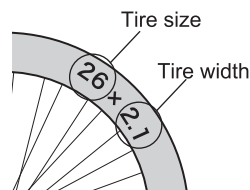


City cycle



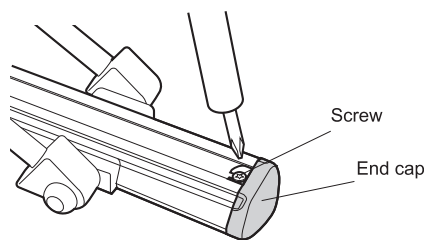
Rear kickstand

- Bicycle with fenders closely attached to tires
- Bicycle with rear kickstand
- Each bicycle weighing more than 57 lb (26 kg) per attachment



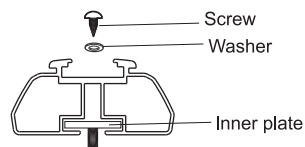
Tire sizes are written on the side of tire

Assembly preparation



Screw

End cap



Screw

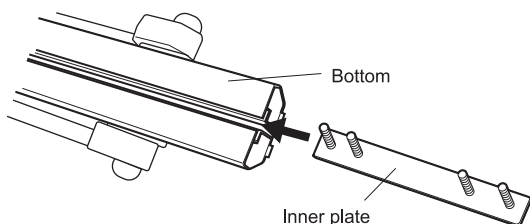
Washer

Inner plate

- 1 Turn the screw a couple of times at the end of bike attachment frame and take off the cap.

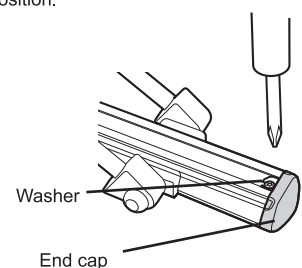
- 2 Insert the inner plate into the bottom of the bike attachment frame.

- 3 Place back the end cap and tighten the screw. Make sure the washer is in right position.



Bottom

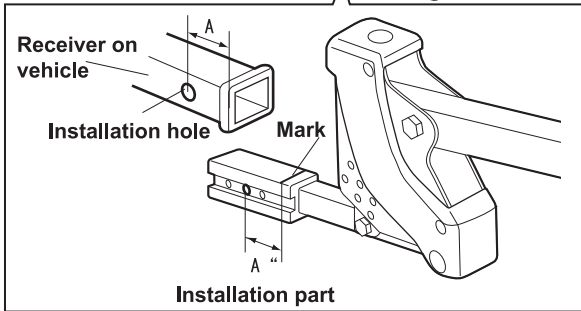
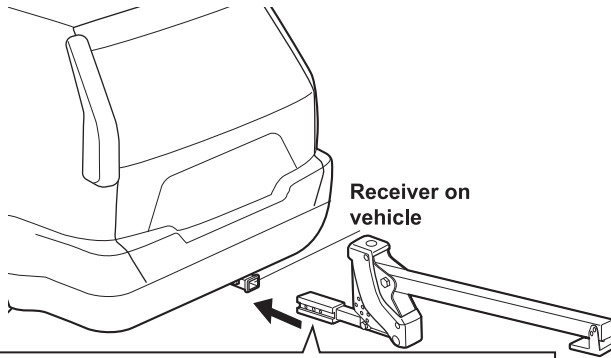
Inner plate



Washer

End cap

Installation to vehicle



⚠ Caution

Make sure to apply the parking brake on the vehicle before installing.

- 1 Insert the installation position of the hitch into the receiver on a vehicle. Make fixation hole of the receiver and the installation hole of the hitch align, and then insert the installation bolt with a large spring washer and a large flat washer.

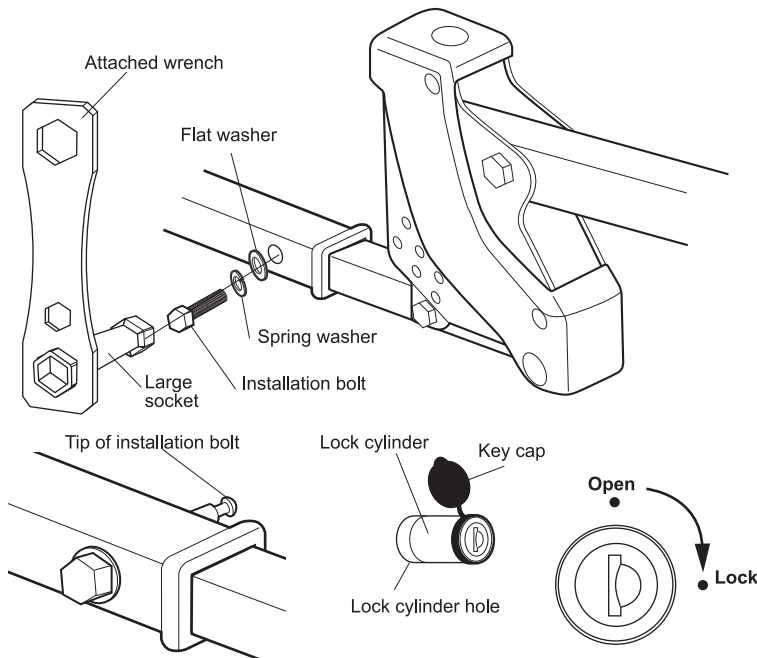
📖 Note

If it is hard to align the installation holes, then measure from the receiver installation hole to the edge, and then put a mark on the installation part.

- 2 Using attached wrench with the large socket, tighten the installation bolts to secure the product.

📖 Note

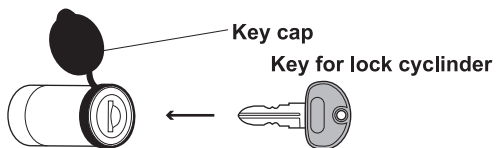
- If you can not tighten the bolts with the attached wrench, use a regular 19mm (3/4 inch) wrench instead.
- Pull up the hitch a little and tighten the bolt by hand, and then use the attached wrench to tighten it more. Installation time will be reduced.



- 3 Insert the tip of installation bolt into the hole of lock cylinder and turn to the lock position.

Disengage lock cylinder

Take off the cap, turn and remove the key.

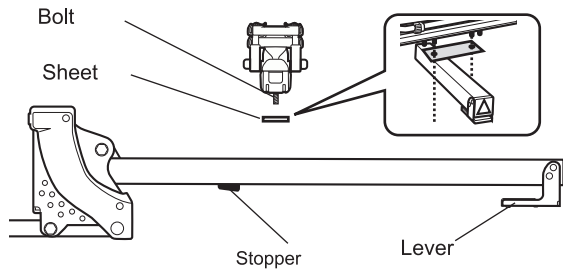


Installing the attachment

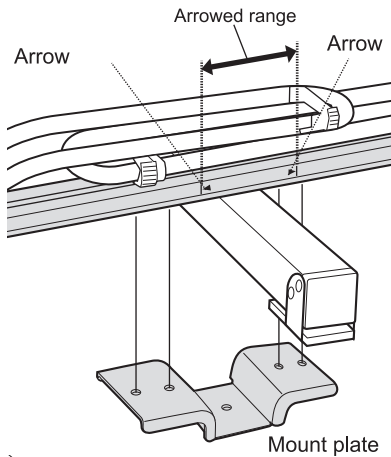


⚠ Caution

Using Non-attached Wrench may cause damage to bolt, because Non-attached Wrench may overtighten with excessive force.



- 1 Decide position of attachment on Hitch Base. Make sure that attachment is between lever and stopper.



- 2 Before installing, place sheet at bottom of attachment. Holes of sheet must fit center to Inner Plate Bolts of attachment. Use mount plate to install attachment onto Hitch Base. And the center of the hitch base must be within the arrowed range.

⚠ Caution

Do not fix the attachment past offset the arrow mark on the side of the attachment.

- 3 Attach the Nut with Flat Washer and Spring Washer to each of two outer bolts, then tighten them with Attached Hex Wrench. Outer bolts must tighten first.

⚠ Caution

Nut has two sides. Make sure nut is in correct position. (Nylon side of nut must be your near side.)

- 4 Tighten the nut securely until Mount Plate touches Attachment Frame, then continue to tighten extra 1/4 turn. (Approx 10N · m)

⚠ Caution

Exceeding force for tightening may cause damage to bolt.

- 5 Attach the Nut with Flat Washer and Spring Washer to each of two inner bolts, then tighten them with Attached Hex Wrench.

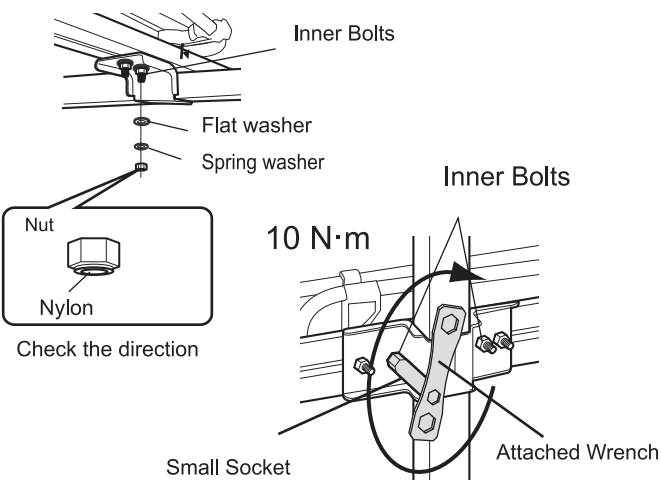
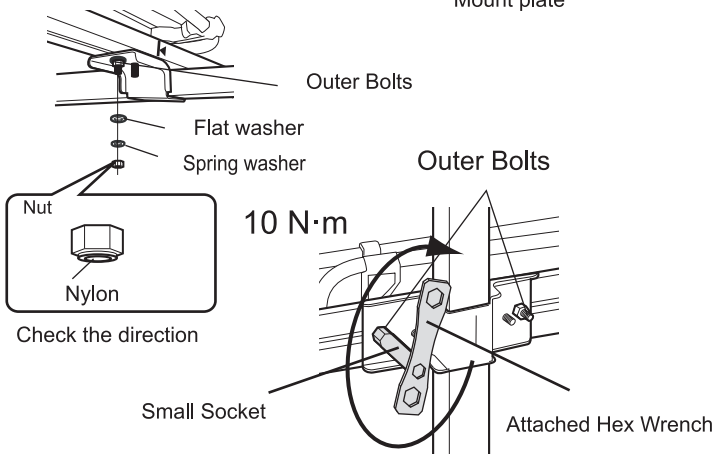
⚠ Caution

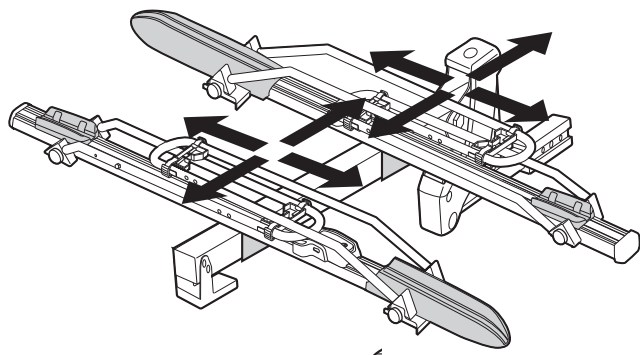
Nut has two sides. Make sure nut is in correct position. (Nylon side of nut must be your near side.)

- 6 Tighten the nut securely until Mount Plate touches Attachment Frame, then continue to tighten extra 1/4 turn. (Approx 10N · m)

⚠ Caution

Exceeding force for tightening may cause damage to bolt.

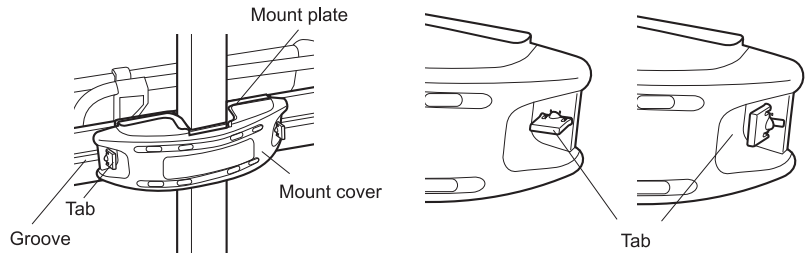
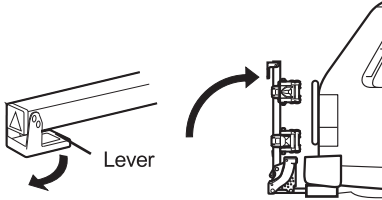




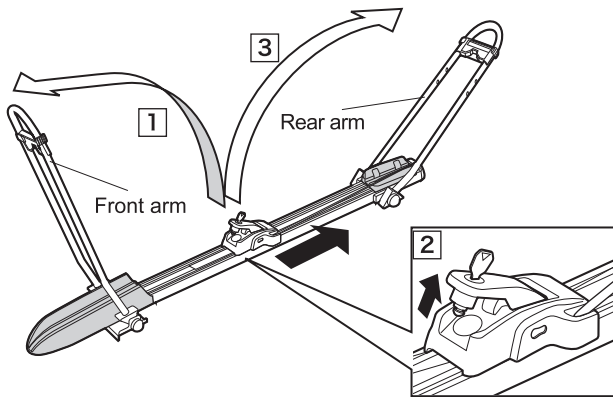
7 Intall the other attachment on the hitch base in opposite direction in order not to hit the bikes each other.

8 When not in use, pull down on lever and lift the base up for storage.

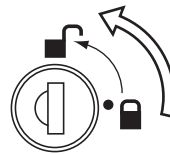
9 Attach the mount cover to the mount plate.
 - Square the tab and slot into the groove
 - Turn the tab and fix



Attaching a Bicycle

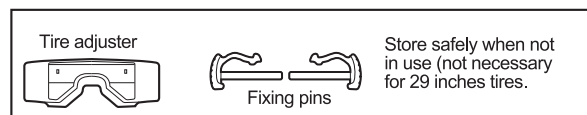
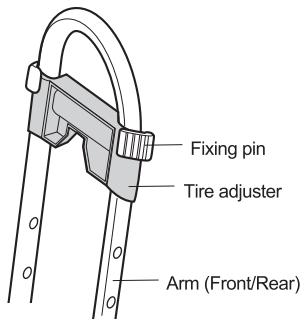


- 1 Open the front arm
- 2 Turn the key to open, unlock the lock.



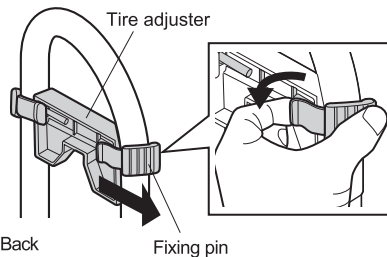
- 3 Lift the lock lever, then open the rear arm.

- 4 Set tire adjuster for the bicycle to mount.
 Set both tire adjusters of the front arm and the rear arm.
 Do not use the tire adjuster for bicycle with a 29 inch tire.

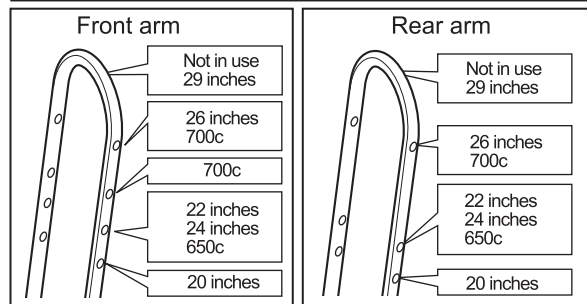
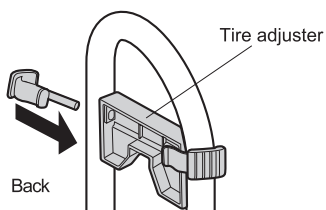


Remove and attach the tire adjuster

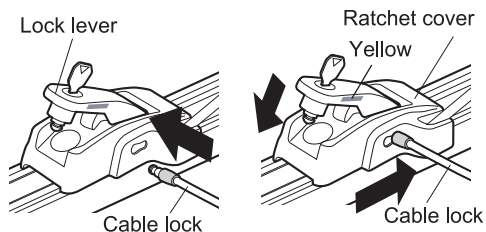
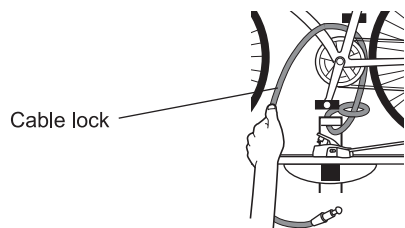
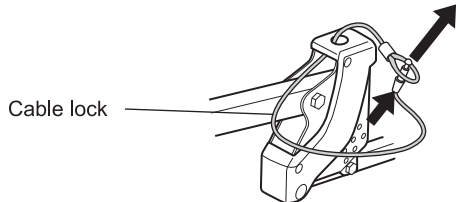
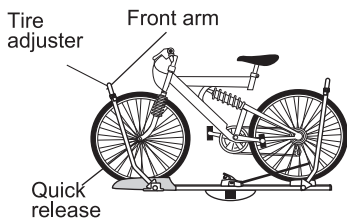
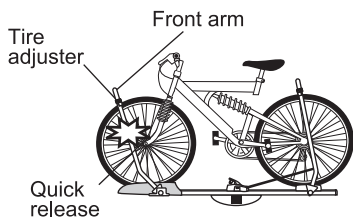
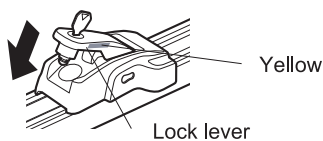
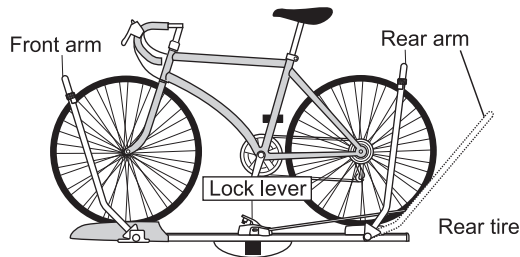
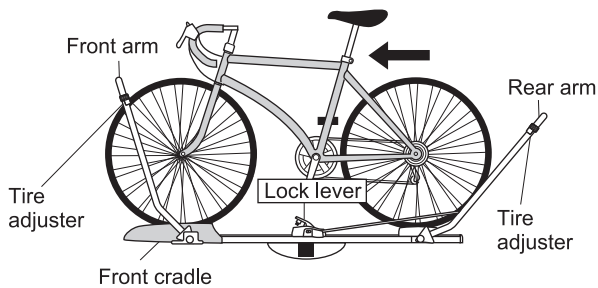
Remove



Attach



Tire size 700c can use 26 inch position as well.



- 5 Place the front tire of the bicycle into the front arm. Make sure that the rear tire is placed on center of the rear cradle.
- 6 Close the rear arm to hold the rear tire.
- 7 Hold down the lock lever to fix the tires securely. If the lever is too tight or too loose, adjust the lever position and the rear arm to fix the bicycle securely.
- 8 Remove key to close lock lever, then lock.

Check after attaching
Shake the attached bicycle to make sure that there is no rattling or loose and that the bicycle is securely fixed on the vehicle.

Warning

Confirm that the yellow marks on both sides of the lock lever are completely hidden after closing the lock lever.

Warning

Check the tire pressure. The product may not fix the bicycle securely if the tire pressure is low.

Caution

If the quick release lever or fork end of the attached bicycle is touching the front arm, reset the tire adjuster down for a smaller tire size.

Caution

Mount bicycle in first attachment nearest to the vehicle. When you load two bikes, mount heavier bicycle should be in nearest to the vehicle.

Caution

Make sure either the loaded bicycle and the attachment do not protrude from the width of vehicle.

- 9 Wrap the cable around the loop at the hitch base, then pass the end of the cable through the loop of the cable lock.

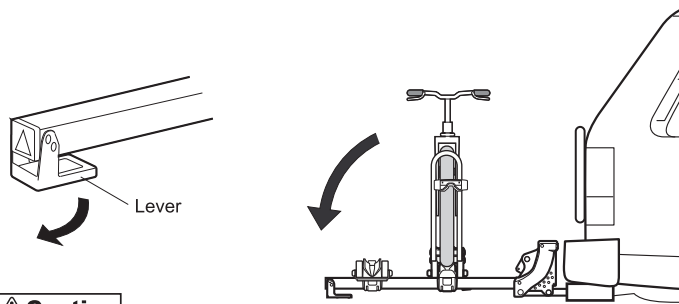
- 10 Pass the cable through the bike frame.

- 11 Open the lock lever to insert the end of the cable lock all the way in the socket of the ratchet cover. Close the lock lever and lock.

Warning

Confirm that the yellow marks on both sides of the lock lever are completely hidden after closing the lock lever.

Folding for accessing the tail gate



Caution

Do not drive in pulling down position.

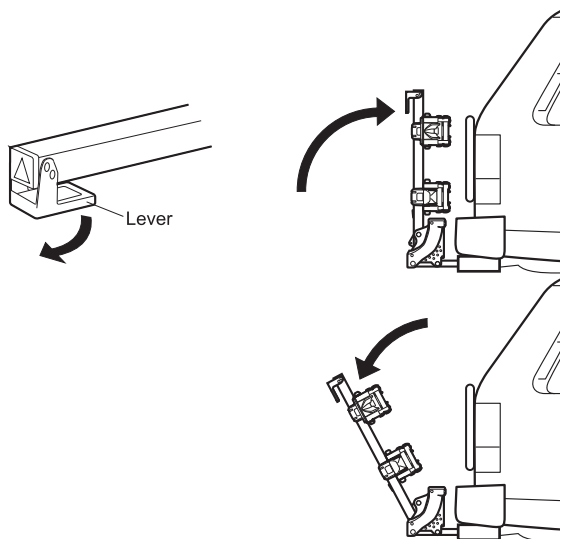
- 1 If the hitch interferes with rear hatch or trunk when opening and closing them, pull down the lever at the end of hitch base and lean the base down.

Caution

While leaning the base, make sure there is no objects or people around.

- 2 Pull back the base until you hear a clicking sound and it is on the horizontal level. Make sure it's locked.

Folding for storage



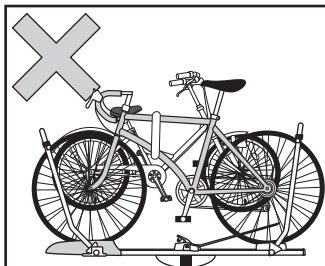
- 1 When not in use, pull down on lever and lift the base up for storage.

- 2 While in storage position and need to access the tail gate, pull down the lever and fold down one step lower.

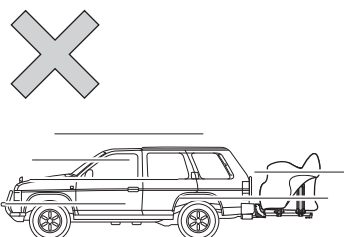
Caution

Do not drive in this position.

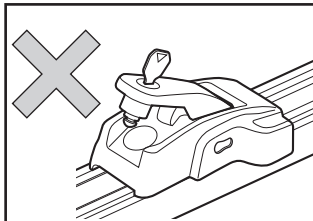
WARNING



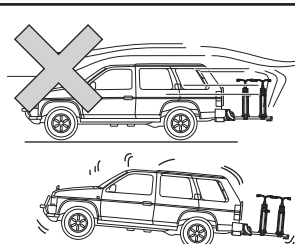
Do not attach anything other than a bicycle, and do not attach more than 2 bicycles to one attachment.
Attaching objects other than bicycles, or attaching bicycles that do not match the described conditions may cause the object, bicycle or attachment to fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



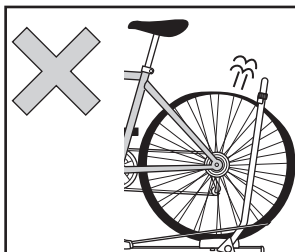
Do not use bicycle storage cases or waterproof sheets when your bicycles are attached to the lock.
If you use such bicycle storage cases or waterproof sheets, the increased air pressure when driving may cause the bicycle or attachment to fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



Always lock with the key before driving.
If you do not lock the key, external forces (wind etc) may cause the lock cover to break off and fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



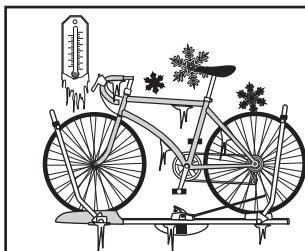
Never exceed the speed limit, and reduce your speed further if there are strong winds or if the road conditions are bad.
Driving continuously at high speeds above the speed limit, driving continuously in high winds, or driving on bad roads will cause the knob nut or bolts to loosen causing the bicycle or attachment to fall, which may lead to a serious accident involving nearby pedestrians or vehicles.



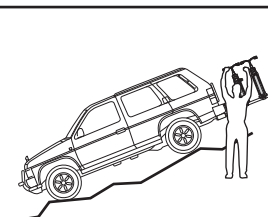
Tire pressure check
The product cannot fix a flat tire securely, please use this product for the tires with adequate air pressure. If you use the product for a flat tire, drive slower and do not drive on the bad road. Set the tire adjuster for a size smaller for the flat tire (e.g., set the adjuster to 24 inch for a 26 inch tire).



Remove the attachment and carrier before using a car wash.
If you do use a car wash with the attachment or carrier attached by mistake, always check the attachment condition of the attachment and carrier afterwards. Using a car wash with the attachment or carrier attached may cause damage to the attachment, carrier, and vehicle.

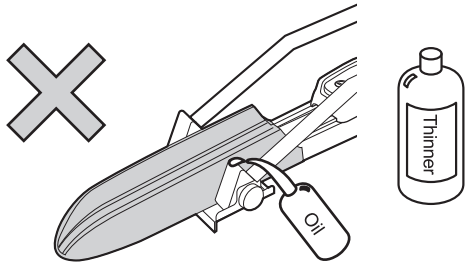


Do not use the product below freezing, the ratchet may not work accurately with temperature below freezing point.



Attach/load a bicycle to the attachment on a flat surface. Working on a rough surface or slope might result falling off the bicycle to cause injuries or damages to the bicycle.

Daily Maintenance



Wash off dirt and mud with water.

Wipe off dirt with a well wrung-out wet towel.

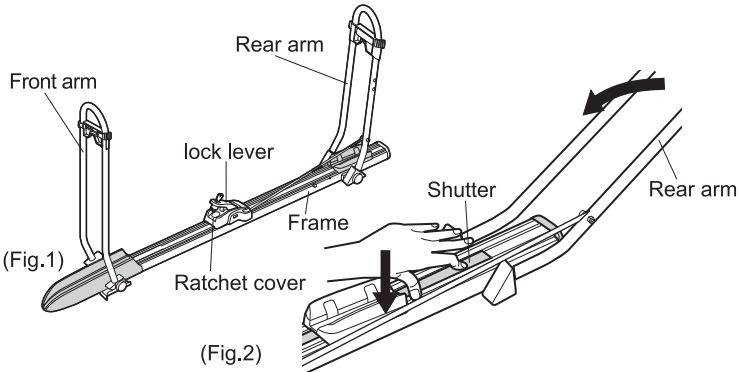
Allow it to dry in the shade.

CAUTION

- DO NOT lubricate Key and Bolts.
- DO NOT apply thinner and/or solvent as they may damage plastics.

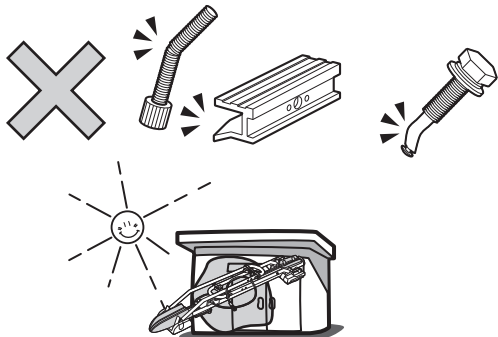
Ratchet Rail Maintenance

This product has the corrugated rail for the the lock lever to fasten the arm. The structure of the product is designed to prevent dirt or mud, but make sure the rail is free of cloggings after leaving the product in a muddy or sandy place for long time.



- 1 Lift the lock lever, then open both front arm and rear arm. (Fig.1)
- 2 Hold the rear edge of the shutter to close the rear arm, then pull out the shutter from the ratchet cover. (Fig.2)
- 3 Slide out the ratchet rail.
- 4 Make sure the ratchet rail is free of dirt or mud.
- 5 Repeat the reverse process to set the shutter in the ratchet cover. (Fig.3)

Care and storage



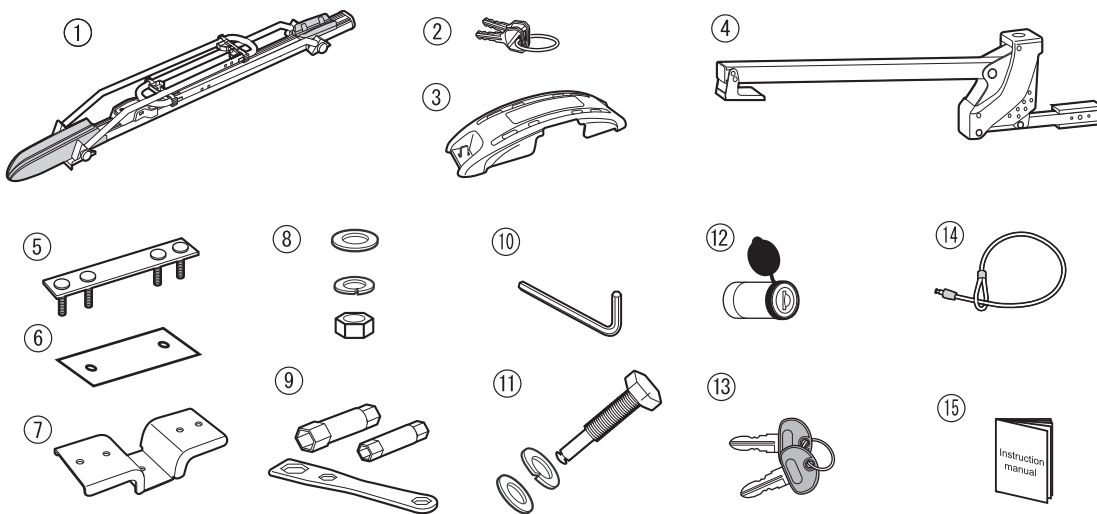
Inspecting the parts

Clean the parts, and inspect each of the parts for abnormalities. If you discover any bent or damaged parts, discontinue use immediately and replace the parts.

Storage

Store in a covered, dry location away from sunlight.

Spare Part Information



No.	Part name
①	Attachment
②	Key for attachment
③	Mount cover
④	Hitch base
⑤	Inner Plate
⑥	Sheet
⑦	Mount Plate
⑧	Nut set
⑨	Wrench and Socket set
⑩	Hex wrench
⑪	Installation bolt set
⑫	Lock cylinder
⑬	Key for lock cylinder
⑭	Wire cable
⑮	Instruction manual (This manual)

Contact Information

If you have any complaints, requests or comments, please contact us at the service center listed below. Car Mate USA shall not be held liable for any accidents or incidental losses arising from improper installation or use, nor for those arising from installation or use after the customer has made any modifications to the system's original configuration or specifications.



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