

OUTBRAKER



Expert Installation Manual

ROAD-Caliper Type

MTB-Caliper Type

MTB-Lever Type

HS CO.,LTD.

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경기도 가평군 가평읍 진동안길 41-33

WWW.OUTBRAKER.COM

For safety, be sure to read this dealer's manual thoroughly before use, and follow it for correct use.

The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings. The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.



DANGER

The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly. Failure to follow the instructions will result in death or serious injury.



WARNING

Failure to follow the instructions could result in death or serious injury.



CAUTION

Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.

SAFETY FIRST!

We care about YOU. Please, always wear your safety glasses and protective gloves when installing OutBraker products. Protect yourself! Wear your safety gear!

DANGER

Please make sure to keep your fingers away from the rotating disc brake rotor. The disc brake rotor is sharp enough to inflict severe injury to your fingers if caught in the openings of the disc brake rotor while it is moving.

The calipers and disc brake rotor will become hot when the brakes are operated; do not touch them while riding or immediately after dismounting from the bicycle. Otherwise you may get burned.



NOTICE!

DO NOT Allow Brake Fluid to come into contact with brake pads or rotors

IMPORTANT NOTICE

- This manual is intended primarily for use by professional bicycle mechanics.
- Users who are not professionally trained for bicycle assembly should not attempt to install the components themselves using the manual. If any part of the information on the manual is unclear to you, do not proceed with the installation. Instead, contact your place of purchase or a local bicycle dealer for their assistance.
- Make sure to read all instruction manuals included with the product.
- Do not disassemble or modify the product other than as stated in the information contained in this manual.
- All our manuals and instruction manuals can be viewed on-line on our website (<http://www.outbraker.com>)
- Be cautious when setting the braking strength to too short of distance you can achieve lock up on the brake which can cause flip over.

Pre-Installation NOTICE

1. The product is only compatible for hydraulic disc brake.
 2. When supplementing brake oil, please check the kinds of master cylinder oil (DOT4, DOT5.1, mineral oil).
 3. Be cautious not to contaminate disc rotor, caliper and brake pad before installation due to leakage of brake oil.
- A brake is a device that shifts kinetic energy into thermal energy. Be cautious when descending from a high hill. Do not use full brake constantly. This may cause overheating in the disc and the caliper may cause vapor lock. Please note that this product setting value should be changed in accordance with the road surface friction coefficient such conditions as road with snow, rain, sand and etc.
- The OutBraker is a device to assist safe riding. It is not a device that prevents accidents but it helps to reduce accidents and damage.
- The best way of preventing accident is safe driving.

OUTBRAKER 3YEARS WARRANTY

Every OutBraker comes with 3years warranty program.

We provide a warranty for every original retail purchaser regarding to defects on materials and workmanship as indicated below.

This Warranty does not cover:

- Wear and damage due to non-usage of the supplied wrench
- Incorrect assembly
- Inadequate follow-up maintenance
- Inappropriate usage of oil such like using a wrong oil for master cylinder
- Damage or failure due to accident, misuse, abuse, or neglect
- Labor cost for replacement or change

This warranty is void in cases of any modification of the component for second hand or refurbished product.

This warranty is effective as of the date of purchase, only being available to the original purchaser, and is not transferable.

This warranty applies only to products purchased through an authorized dealer or distributor.















Any claim against this warranty must be made through an authorized dealer or distributor. Proof of purchase is required.

If the claim is made outside of the country of purchase, fees and additional restrictions may follow.

Warranty detail may differ by country to country. This warranty does not affect your statutory rights.

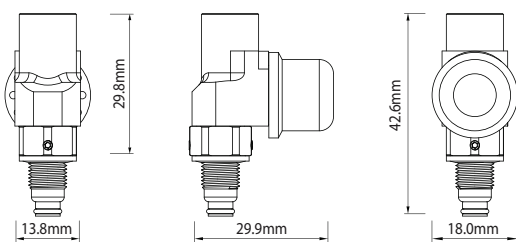
LIST OF TOOLS TO BE USED

The following tools are needed for installation, adjustment, and maintenance purposes.

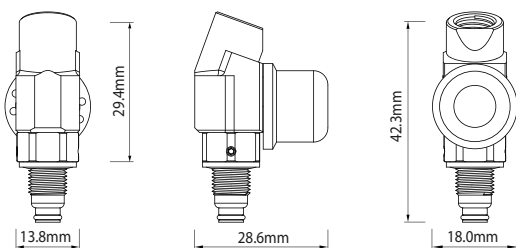
Tool		Tool		Tool	
	2 mm hexagon wrench		8 mm spanner		Oil funnel and oil stopper
	2.5 mm hexagon wrench		12 mm spanner		Funnel adapter (for Road Bike Brakes)
	4 mm hexagon wrench		Adjustable wrench		T10 Torx Wrench for Sram Brake Bleeding
	5 mm hexagon wrench		7 mm socket wrench		T15 Torx Wrench for Tektro Brake Bleeding
	0.9mm hexagon wrench (Included in the Package)		T25 Torx Wrench for Magura Brake Bleeding		

SPECIFICATION

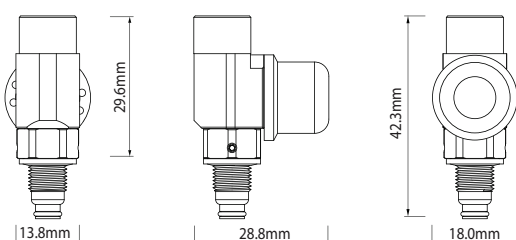
MTB-Lever Type



ROAD



MTB-Caliper Type



360°/ 24Clicks of Adjustment

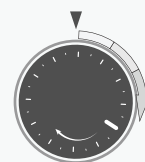
Freely adjust your brake performance with the dial.
There are 24 clicks to modulate the brake power.

By Turning **Clockwise**

Increase Braking force
For Shorter Stopping Distance



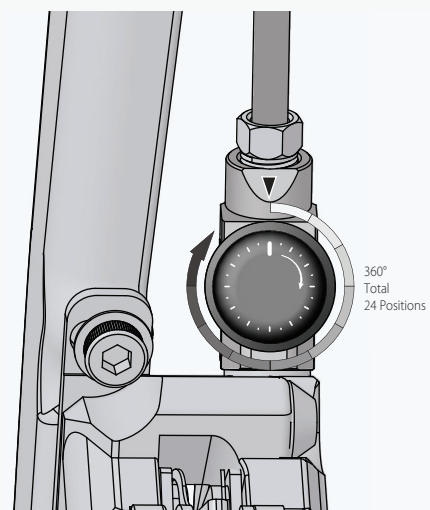
0/24 Click
(Default)



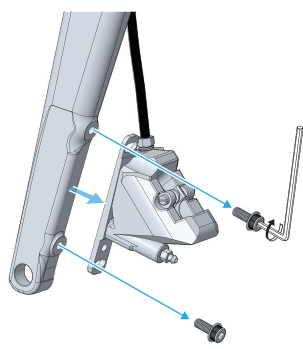
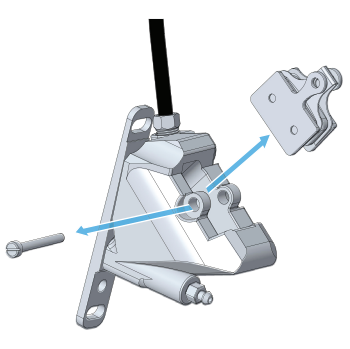


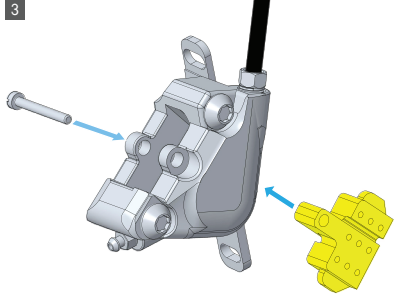
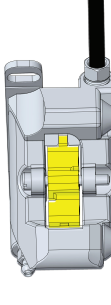

8/24 Clicks

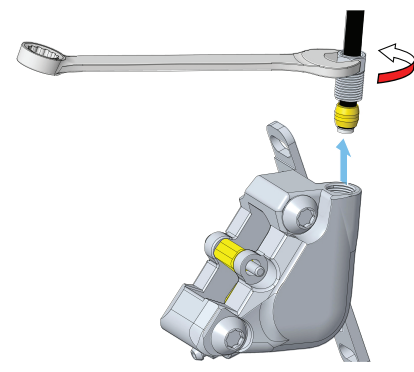



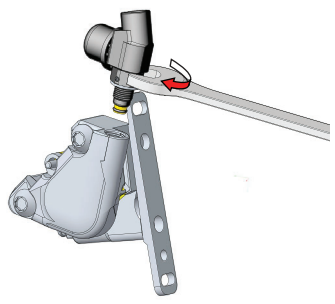

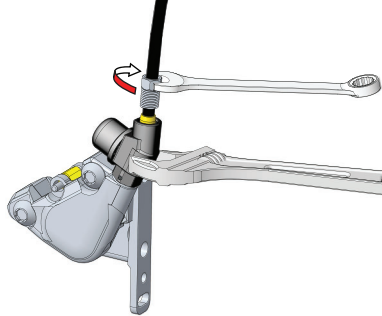






16/24 Clicks



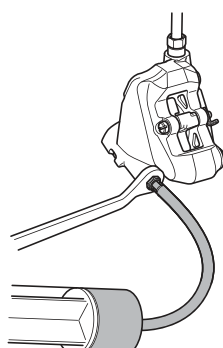
ROAD / MTB-Caliper Type Installation

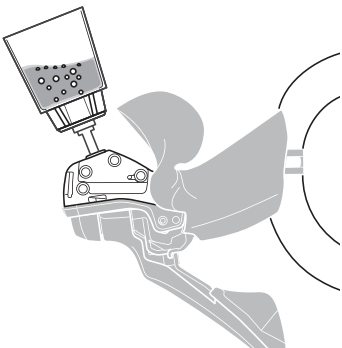
<p>1</p> 	<p>2</p> 	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">   </div> <div> <p>Disassemble the brake caliper from the fork(Suspension) Remove the brake pad and install bleed spacer in the caliper.</p> </div> </div>
<p>3</p> 	<p>4</p> 	<div style="background-color: yellow; padding: 5px; text-align: center;"> CAUTION </div> <p>Brake pad spacer is not recommended cause the brake pad can be contaminated while installation or air bleeding.</p> <div style="text-align: center;">  </div>





<p>2</p> 	<div style="text-align: center;">  </div> <p>Remove the brake hose from the caliper using 8mm spanner.</p>
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<p>3</p> <p>1</p>  <div style="background-color: #333; color: white; padding: 5px; text-align: center;">  Tightening torque 5 - 7 N·m </div>	<p>2</p>  <div style="background-color: #333; color: white; padding: 5px; text-align: center;">  Tightening torque 7 - 9 N·m </div>	<div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 10px;">    </div> <div> <p>1 Join Outbraker onto the brake caliper using 12mm spanner.</p> <p>2 Tighten the connecting bolt while pushing on the brake hose using 8mm spanner.</p> </div> </div> <div style="background-color: #444; color: white; padding: 5px; text-align: center;">  TECH TIPS </div> <div style="margin-top: 10px;">  <p>Grip OutBraker body using adjustable wrench spanner when tightening connecting bolt.</p> </div>
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4





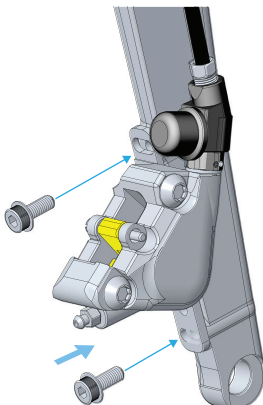





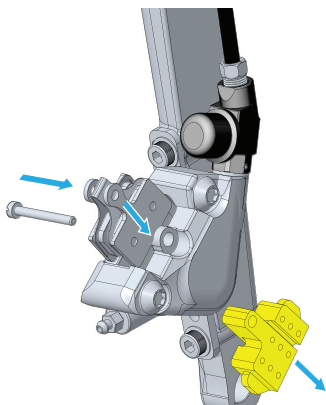
Air bleeding and brake oil supplement.


NOTE

Air-bleeding and oil supplement following your brake manufacturer's bleeding manual.

5








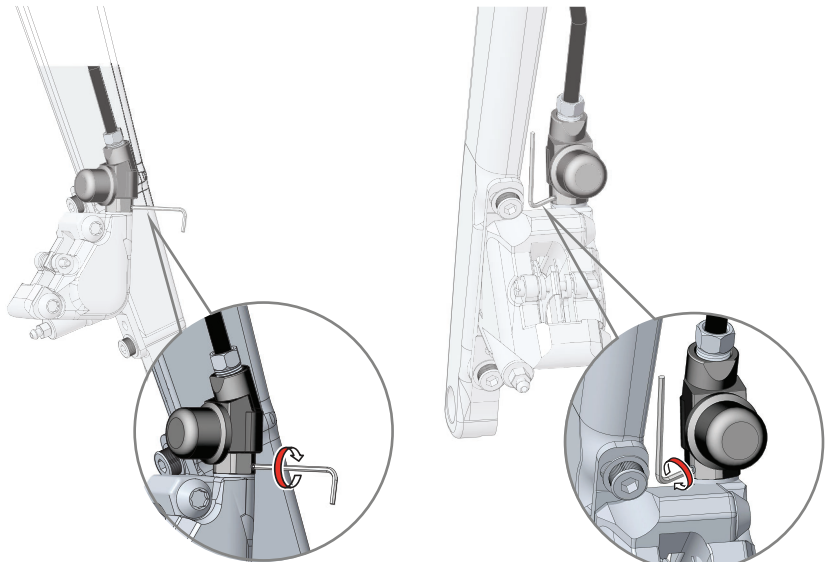
- 1 Assemble the caliper onto the fork(suspension) again.
- 2 Remove the bleed spacer and set the brake pads again in the caliper

Tightening torque




6 - 8 N·m

6



Fix the angle using the hexagonal wrench included.



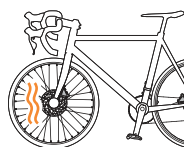
Tightening torque



1 - 2 N·m

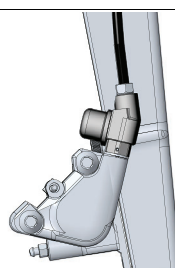
⚠ DANGER

DO NOT PLACE THE ADJUSTMENT DIAL TOWARDS WHEEL SPOKE. It may cause damage wheel spokes and serious injury and physical damage

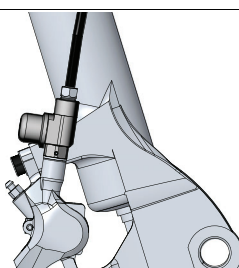




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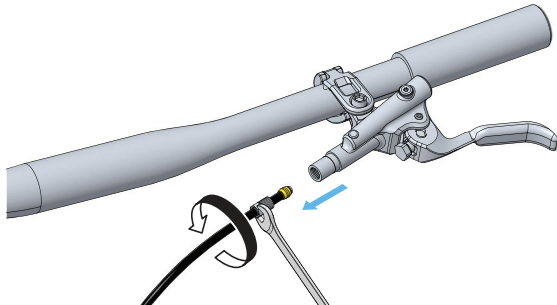

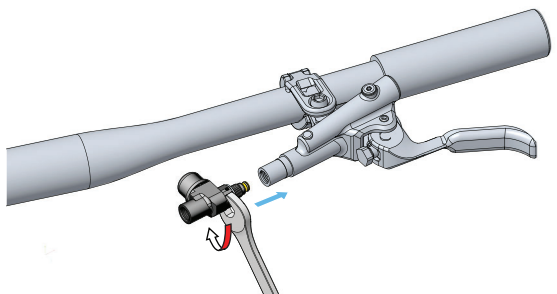




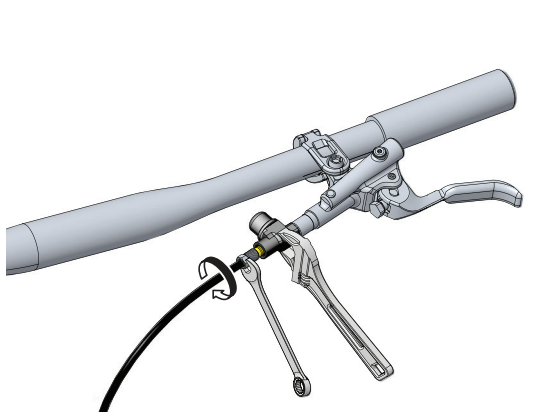







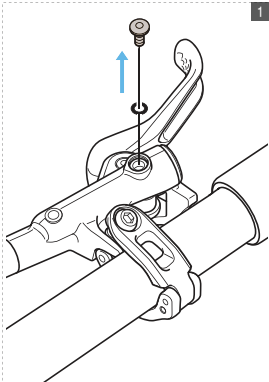
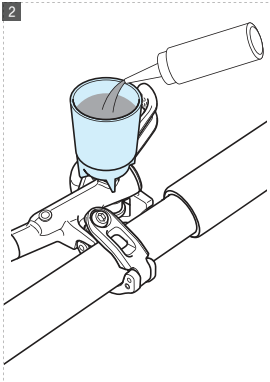
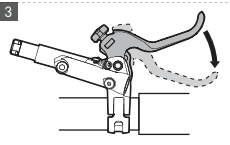
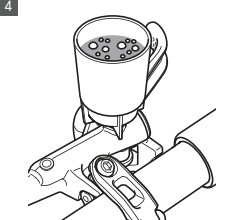





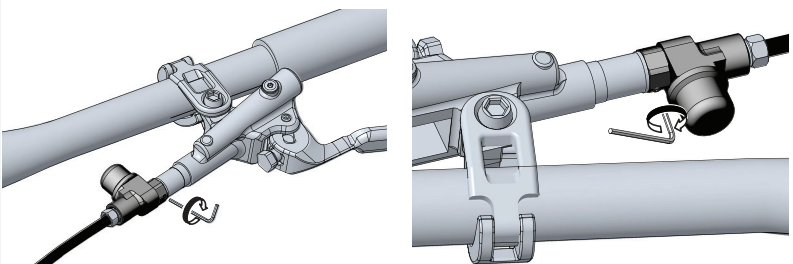




ROAD



MTB-Caliper Type



MTB-Lever Type Installation

1		 <p>Remove the brake hose from the lever using 8mm spanner.</p> <p>CAUTION</p> <p>Be cautious not to contaminate disc rotor and brake pad due to leakage of brake oil.</p>				
2		 <p>Install Outbraker onto the brake lever(front) using 12mm spanner.</p> <table><tr><th colspan="2">Tightening torque</th></tr><tr><td></td><td>5 - 7 N·m</td></tr></table>	Tightening torque			5 - 7 N·m
Tightening torque						
	5 - 7 N·m					
3	 <div></div>	<p>Tighten connecting bolt using 8mm spanner while pushing the brake hose into OutBraker body.</p> <table><tr><th colspan="2">Tightening torque</th></tr><tr><td></td><td>7 - 9 N·m</td></tr></table> <p> TECH TIPS</p> <p> Grip OutBraker body using adjustable wrench spanner when tightening connecting bolt.</p>	Tightening torque			7 - 9 N·m
Tightening torque						
	7 - 9 N·m					
4	<div><div></div><div></div><div></div><div></div></div>	<div></div> <p>Air bleeding and brake oil supplement.</p> <p>NOTE</p> <p>Air-bleeding and oil supplement following your brake manufacturer's bleeding manual.</p>				
5		 <p>Fix the angle using the hexagonal wrench included.</p> <table><tr><th colspan="2">Tightening torque</th></tr><tr><td></td><td>1 - 2 N·m</td></tr></table>	Tightening torque			1 - 2 N·m
Tightening torque						
	1 - 2 N·m					