Installation manual

RACETORX®

PERFORMANCE

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RTX506 Brake Junction Valve

This product should be installed by a trained vehicle technician

Important safety information

This product must be installed by a trained vehicle technician.

- Read all of these instructions before starting and keep them for future reference.
- If you are not qualified, have this product fitted by a motorcycle dealer or professional workshop. If you choose to fit this product without the necessary training, you do so at your own risk.
- Check this product is correct for your motorcycle before fitting. Fitment details are on racetorx.co.uk. If in doubt, contact us before starting.
- Check the contents of the kit. Do not fit the product if any part is damaged or missing.
- Use these instructions together with the manufacturer's workshop manual for your motorcycle.
- Tighten all fasteners to the torque values given, using a calibrated torque wrench. Original (OEM) fasteners must be refitted to the manufacturer's specified torque.
- Work with the motorcycle stable and secure on a stand, the engine switched off and cool, and the ignition key removed.
- Wear suitable gloves and eye protection.
- Do not modify, machine or alter this product in any way.
- Inspect the product and check its fasteners after the first ride and at every service.

Brake system warning

Brakes are a safety-critical system. Take care to fit and bleed them correctly, and check they work properly before riding.

- Use only the brake fluid type shown on your master cylinder cap (normally DOT 4). Never mix fluid types.
- Brake fluid damages paint and plastics. Cover nearby surfaces and wash off any spills with water straight away.
- Keep brake fluid away from tyres, discs and pads. If pads have been contaminated, they must be replaced.
- Always use the copper sealing washers supplied with the kit on the banjo bolt, one each side of the banjo.
- After fitting, the brake system must be fully bled.
- **Before riding:** check the lever or pedal is firm with no sponginess, there are no leaks at any joint, and the brake light works.
- Test the brakes at low speed in a safe area before riding normally.

Torque settings

Fastener	Torque	Notes
Junction valve M4 retaining bolts	2.5 Nm	316 stainless into aluminium
Banjo bolt into junction valve (M10)	23 Nm	Use the supplied copper washers

Kit contents

1 1 x RTX506 junction valve

2 O-rings

3 1 x adapter (RTX637)

4 1 x washer (RTX780)

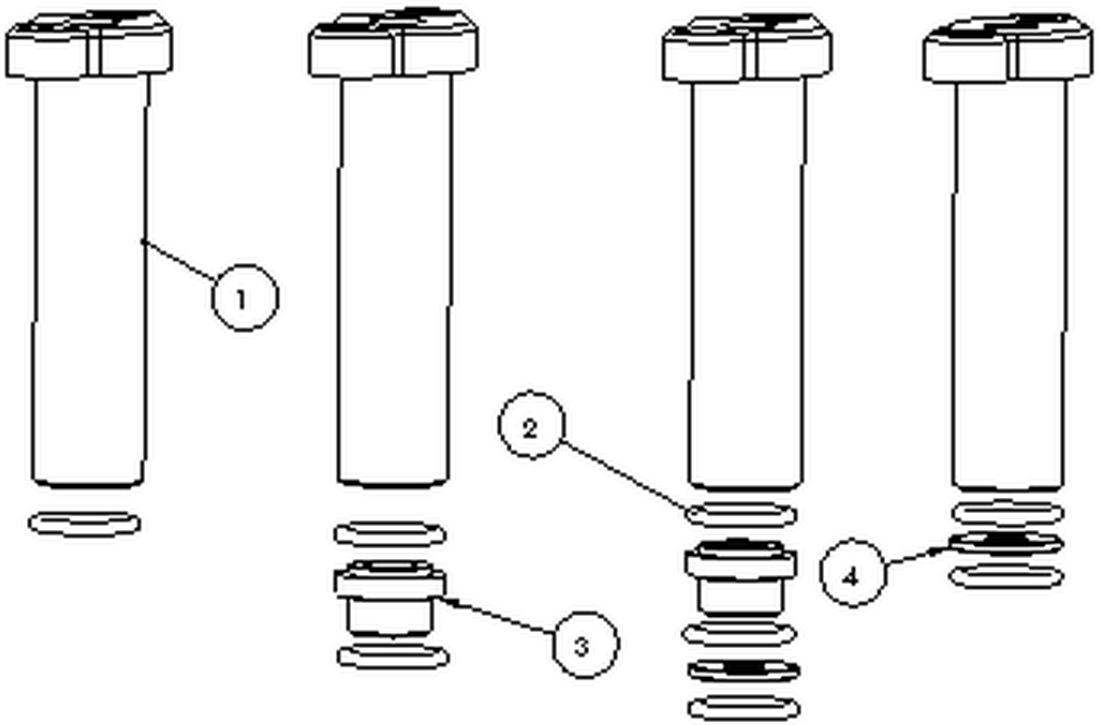
2 x M4 bolts

2 x copper washers for the banjo bolt

Tools and materials

- Calibrated torque wrench
- Brake fluid as shown on your master cylinder cap
- Reverse-bleed kit (we use the Phoenix Systems V5) or a 200 cc syringe
- Clean lint-free cloth or tissue

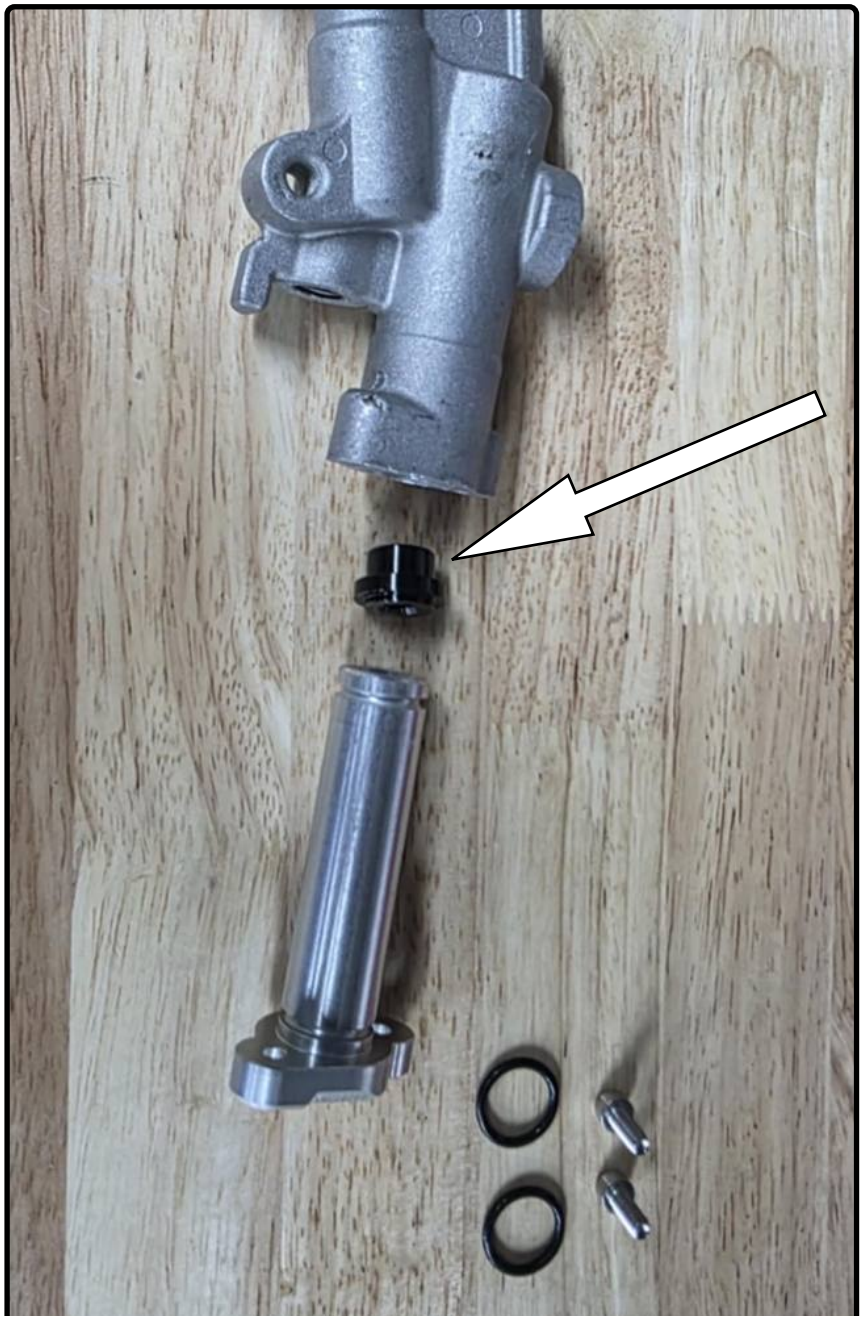
Version 1 Version 2 Version 3 Version 4



Must be installed by a trained vehicle technician.

1. The kit contains the parts shown in the drawing. There are four ways to build up the junction valve to suit the different depths of master cylinder. You will not use every part.

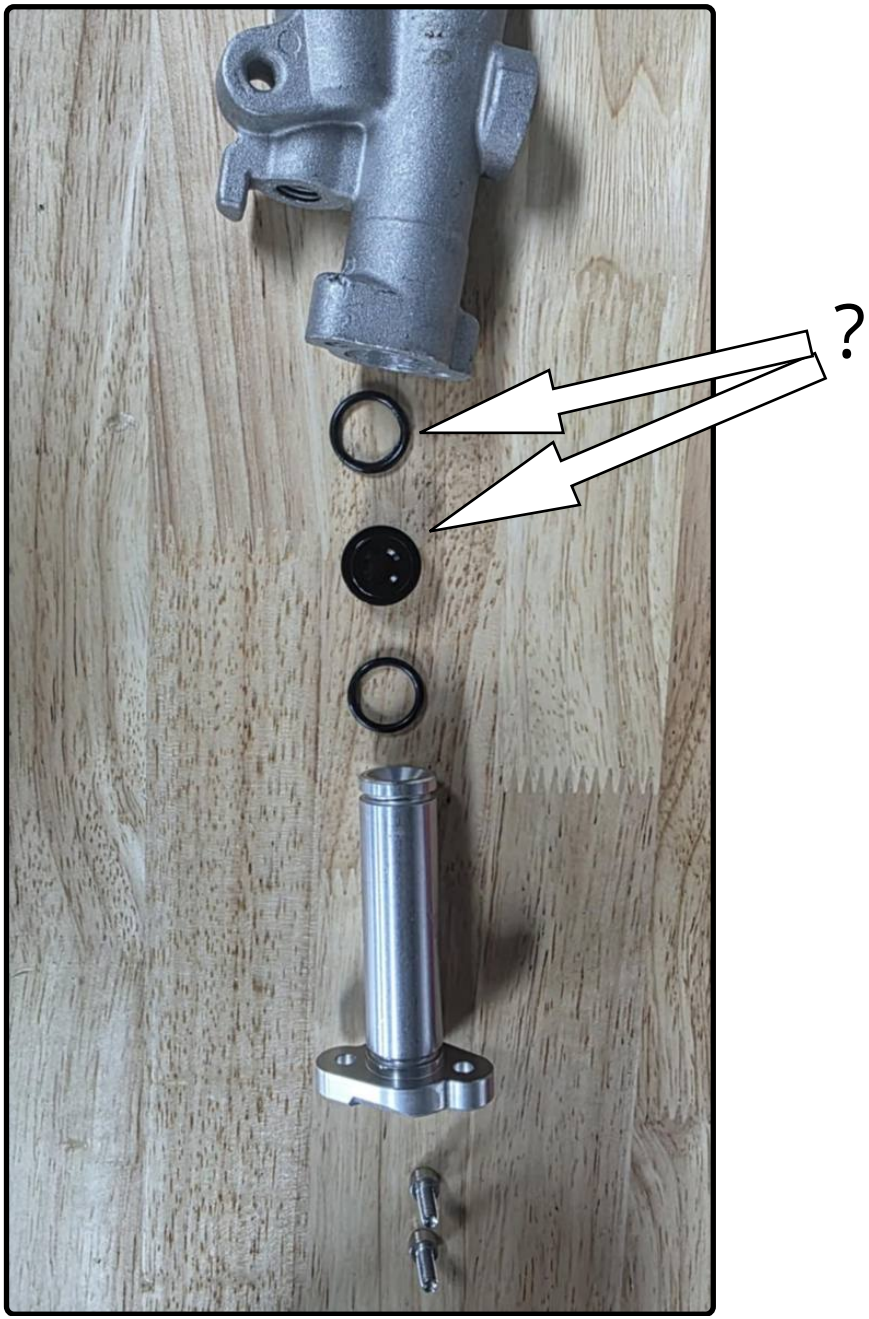
Item	Part
1	RTX506 junction valve
2	O-ring
3	Adapter (RTX637)
4	Washer (RTX780)



2. Start with version 1: fit an O-ring into the bottom of the master cylinder port, then fit the junction valve.

- If there is a **gap** between the junction valve and the master cylinder, this is the correct version.
- If the junction valve sits flush against the master cylinder with no gap, remove it and try version 2, then version 3, then version 4, until there is a gap.

CAUTION: THERE MUST BE A GAP BETWEEN THE JUNCTION VALVE AND MASTER CYLINDER



3. The four versions, fitted from the bottom of the master cylinder port upwards:

- **Version 1:** O-ring, junction valve.
- **Version 2:** O-ring, adapter, O-ring, junction valve.
- **Version 3:** O-ring, washer, O-ring, adapter, O-ring, junction valve.
- **Version 4:** O-ring, washer, O-ring, junction valve.

Note the orientation of the adapter when fitting it.



4. Fit the M4 bolts and tighten to **2.5 Nm**.



5. Fit the brake line to the junction valve with the banjo bolt and the copper washers supplied, one each side of the banjo. Tighten the banjo bolt to **23 Nm**.

6. Bleed the system. Air will be trapped between the rear master cylinder and your thumb brake or hand brake, so a conventional bleed is not recommended. Use a reverse (back) bleed instead.

We use the Phoenix Systems V5 reverse-bleed kit, available on our website. A 200 cc syringe will also do the job.

Check the lever or pedal is firm and there are no leaks before riding.

WARNING: Chinese and unbranded master cylinders are not compatible and are not safe to use with this junction valve.

CAUTION: BANJO 23 Nm, SUPPLIED COPPER WASHERS. BLEED BEFORE RIDING



After installation: final checks

1. The junction valve is built up in the correct version, with a gap between the valve and the master cylinder.

2. The banjo bolt is tightened to 23 Nm with the supplied copper washers.

3. The system has been fully bled. The lever or pedal is firm, with no sponginess.

4. There are no leaks at the junction valve or any other joint.

5. All brake fluid has been cleaned up and none is on the tyres, discs or pads.

6. The brake light works.

7. Test the brakes at low speed in a safe area before riding normally, and re-check after the first ride.

If anything is unclear or does not fit correctly, stop and contact us before riding.

Warranty and liability

Racetorx Ltd accepts no responsibility for damage, loss or injury caused by incorrect installation, misuse, modification of the product, or failure to follow these instructions. Our warranty does not cover damage caused by incorrect fitting.

Contact us

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