

## Brake system – Description of how it is made

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**Responsible partner company:** UK MoD /U8025

**Originator:** UK MoD /U8025

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**Applicability:** serialNo: 0001~0008 and model: BR01

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0001~0008 and model: BR01

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Authority exceptions:  
Authority notes:

**Brex data module reference:** [S1000DBIKE-AAA-D00-00-00-00AA-022A-D](#)

**QA:** First verification Cleared Table Top

**System breakdown code:** BY13

**Skill level:** Basic

## Brake system

### *Description of how it is made*

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### **References**

Table 1 References

Data module / Technical publication	Title
None	

### **Description**

#### **1 Brake system**

The most important part of the bicycle is the brake system. Only a minimum maintenance of the brake system is necessary. But, when a problem does occur, make sure you to do the necessary maintenance as quickly as possible. If you do not do this the bicycle will be dangerous to use.

There are nine different types of brake systems. The one found on most bicycles is the cantilever brake (refer to [Para 1.1](#)).

#### **1.1 Cantilever brake**

The brake system (refer to [Fig 1](#)) has these primary components:

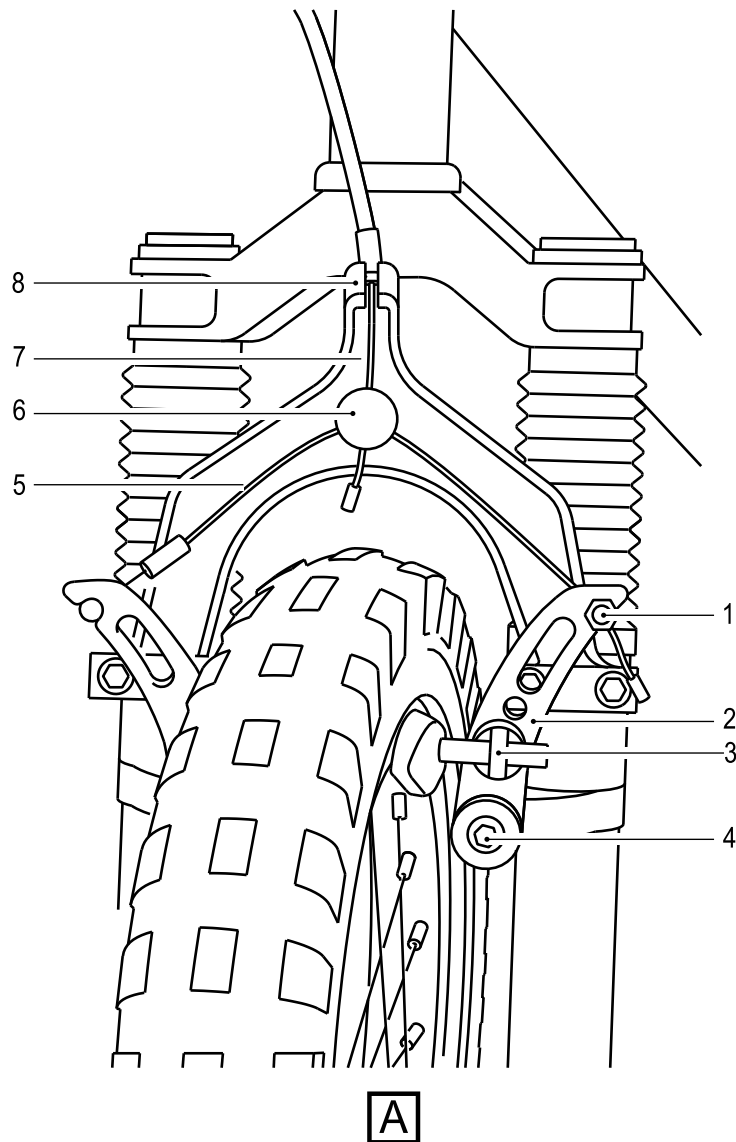
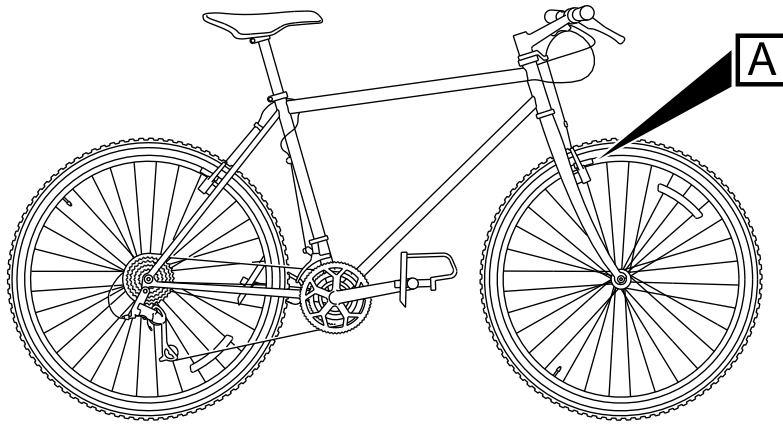
- the brake lever (refer to [Para 1.3](#))
- the brake cable

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the brake arm  
the brake clamp (also known as callipers)  
the brake pads (refer to [Para 1.2](#))



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Fig 1 Cantilever brake with straddle cable

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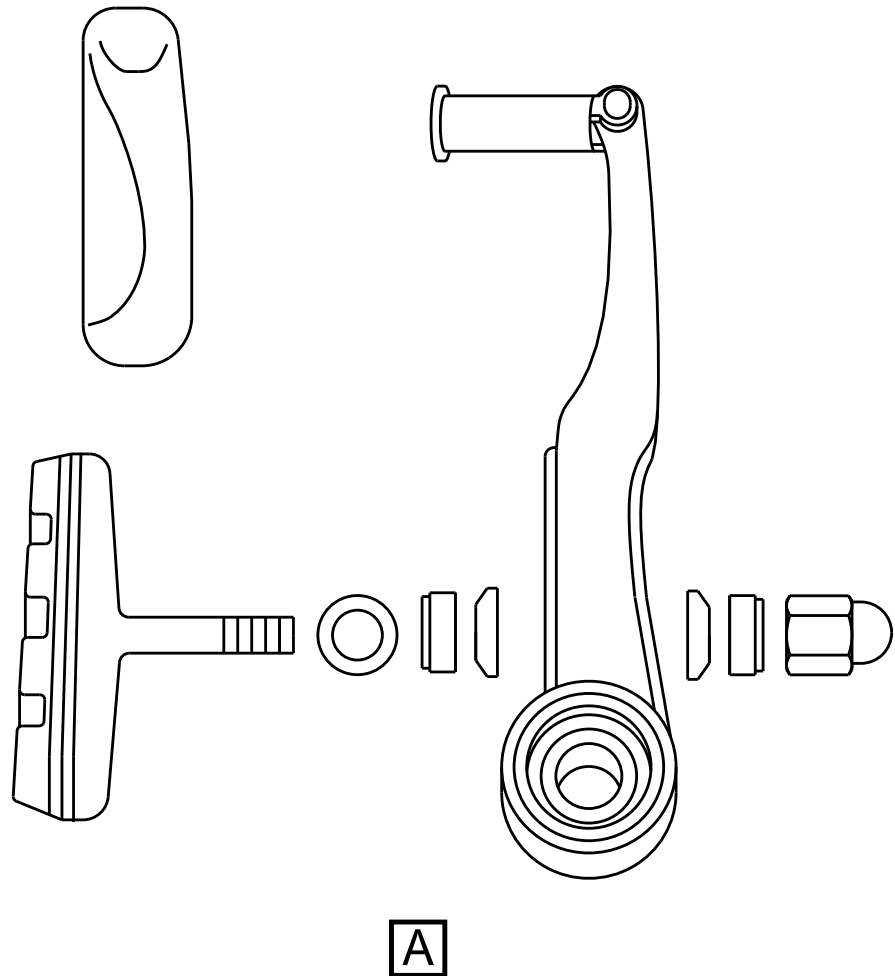
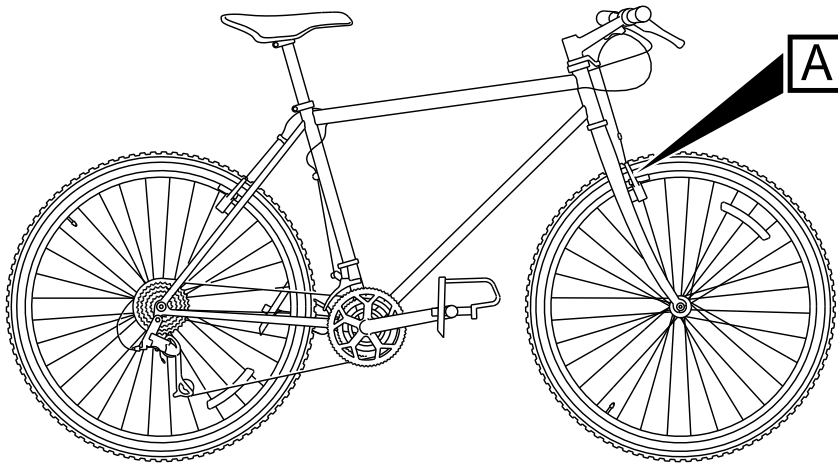
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A cable that goes from the brake levers on the handlebars pulls the two levers on the brakes together. This presses the brake pads against the outer rim of the wheel, which decreases the speed of the bicycle.

## 1.2

### Brake pads

There are four brake pads (refer to [Fig 2](#)) on the bicycle. Two are found on the front wheel and two on the rear wheel. The brake pads are made out of hard wearing rubber. The pads press against the rim of the wheel to cause friction when the you operate the brake levers.



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Fig 2 Exploded diagram of a brake

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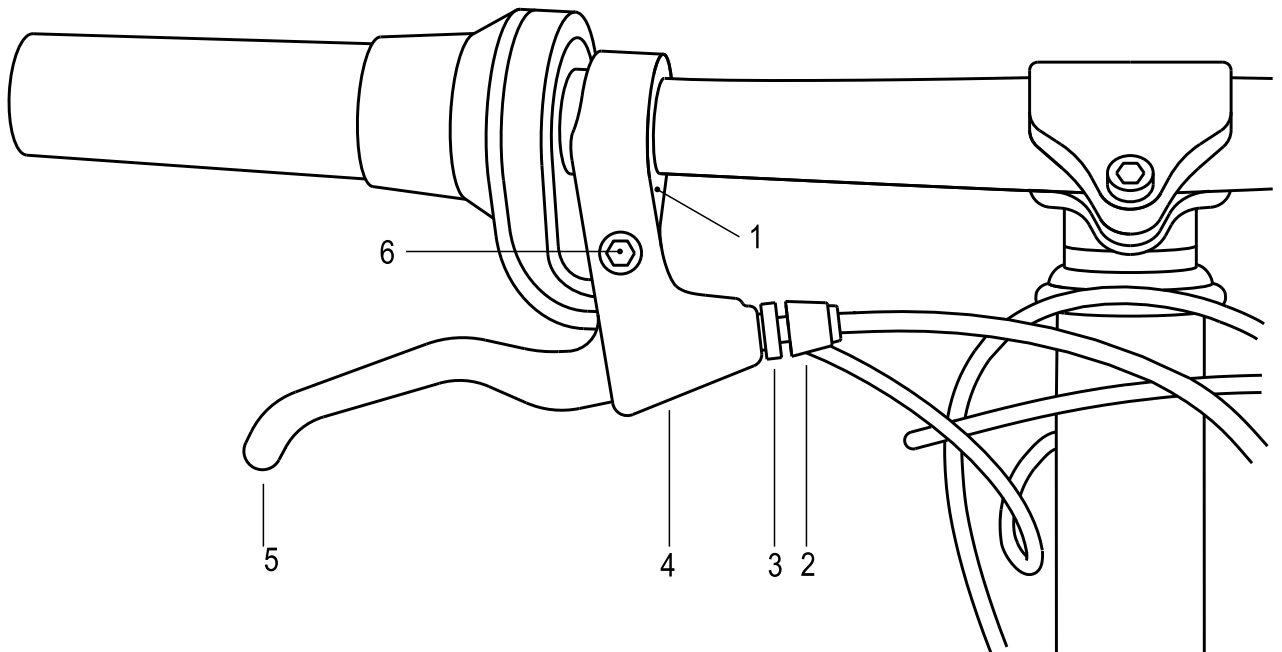
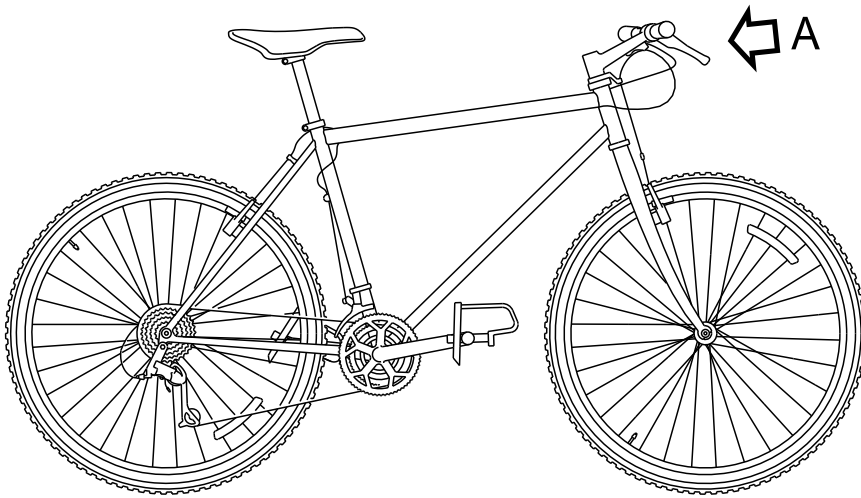
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## 1.3 Brake lever

The brake levers (refer to [Fig 3](#)) are easily damaged. The lever is installed in the mount. A clamp bolt holds the mount. This bolt is not visible because it is found in the mount. The lever turns on a lever pivot bolt. The adjuster lock nut holds the brake cable. This lock nut adjusts the tension of the cable.





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Fig 3 Typical components of a mountain bicycle lever

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The left brake lever holds the brake pads on the front wheel and the right brake pads hold the brakes on the rear wheel.