

## Brake system – Description of how it is made

**DMC:** BRAKE-AAA-DA1-00-00-00AA-041A-A  
**Language:** en/US  
**Issue No.:** 001-01  
**Issue Date:** 2012-12-31  
**Title:** Brake system – Description of how it is made  
**Security Classification:** UNCLASSIFIED

### Data Restrictions

**Distribution:** To be made available to all S1000D users.  
**Export Control:** Export of this data module to all countries that are the residence of organizations that are users of S1000D is permitted. Storage of this data module is to be at the discretion of the organization.  
**Handling:** There are no specific handling instructions for this data module.  
**Destruction:** Users may destroy this data module in accordance with their own local procedures.  
**Disclosure:** There are no dissemination limitations that apply to this data module.  
**Copyright:** **Copyright (C) 2013** by each of the following organizations:

- AeroSpace and Defence Industries Associations of Europe - ASD.
- Ministries of Defence of the member countries of ASD.

### Limitations of Liability:

- This material is provided "As Is" and neither ASD nor any person who has contributed to the creation, revision or maintenance of the material makes any representations or warranties, express or implied, including but not limited to, warranties of merchantability or fitness for any particular purpose.
- Neither ASD nor any person who has contributed to the creation, revision or maintenance of this material shall be liable for any direct, indirect, special or consequential damages or any other liability arising from any use of this material.
- Revisions to this document may occur after its issuance. The user is responsible for determining if revisions to the material contained in this document have occurred and are applicable.

**Policy reference:** TPSMG TOR 001

**Conditions:** There are no known conditions that would change the data restrictions for, or security classification of, this data module.

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

**Originator:** UK MoD /U8025

**Applicability cross-reference table reference:** [BRAKE-AAA-D00-00-00-00AA-00WA-D](#)

**Applicable to: serialNo:**  
0001~0008 and model: BR01

**BRAKE-AAA-DA1-00-00-00AA-041A-A**

---

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

**Technical standard:** **Authority information:** 20010131

**Authority baseline:** Bike book

**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*

#### Table of contents

	Page
Description of how it is made .....	1
References .....	1
Description .....	1
1 Brake system .....	1
1.1 Cantilever brake .....	1
1.2 Brake pads .....	4
1.3 Brake lever .....	6

#### List of tables

1	References .....	1
---	------------------	---

#### List of figures

1	Cantilever brake with straddle cable .....	3
2	Exploded diagram of a brake .....	5
3	Typical components of a mountain bicycle lever .....	7

### **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](#)).

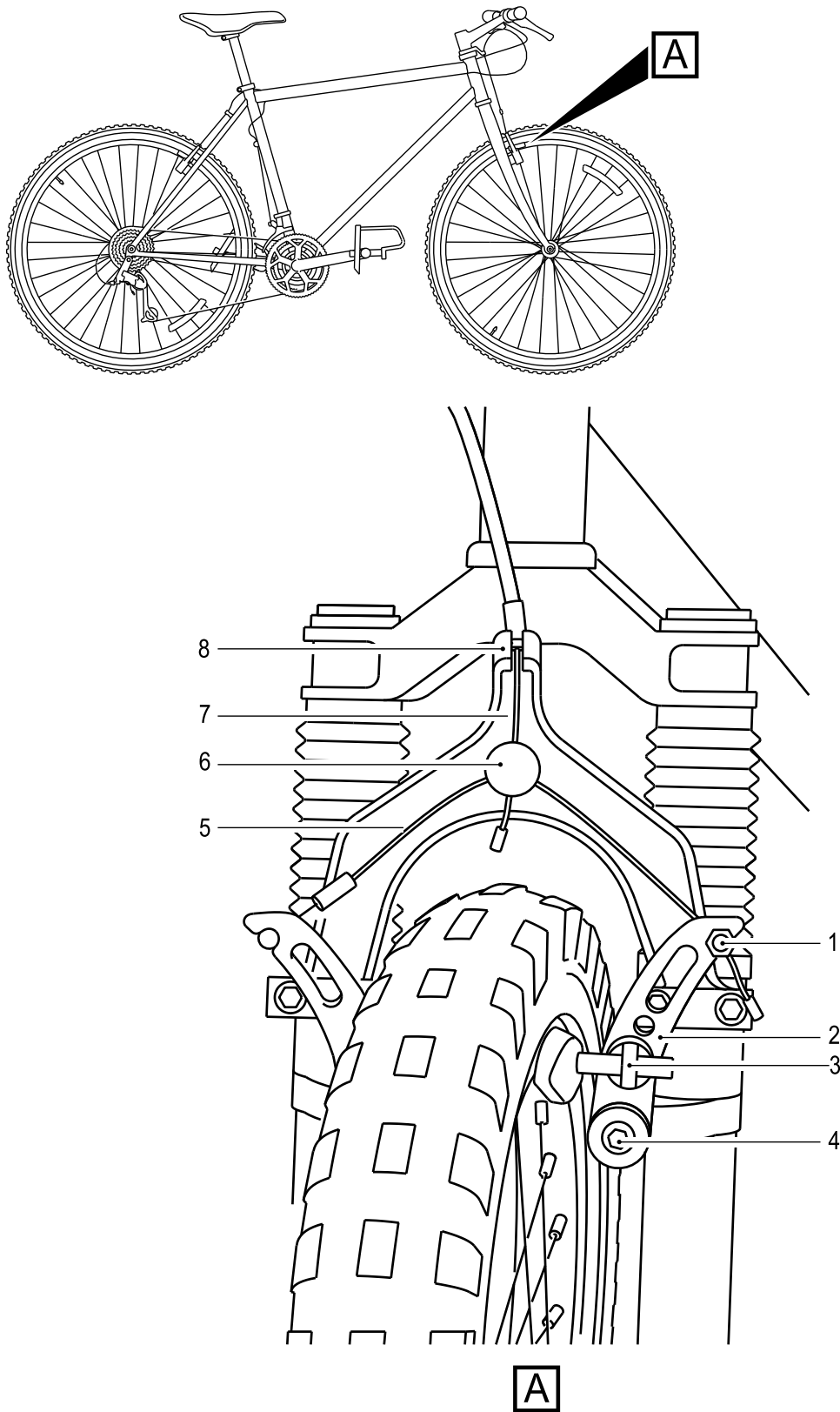
#### **1.1 Cantilever brake**

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

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

---

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



This is a draft copy of issue 001-01  
Printed 2021-08-12 12:44

Produced by Docuneering Ltd using the Oxygen XML Editor

ICN-S1000DBIKE-AAA-DA10000-0-U8025-00512-A-04-1

Fig 1 Cantilever brake with straddle cable

Applicable to: serialNo:  
0001~0008 and model: BR01

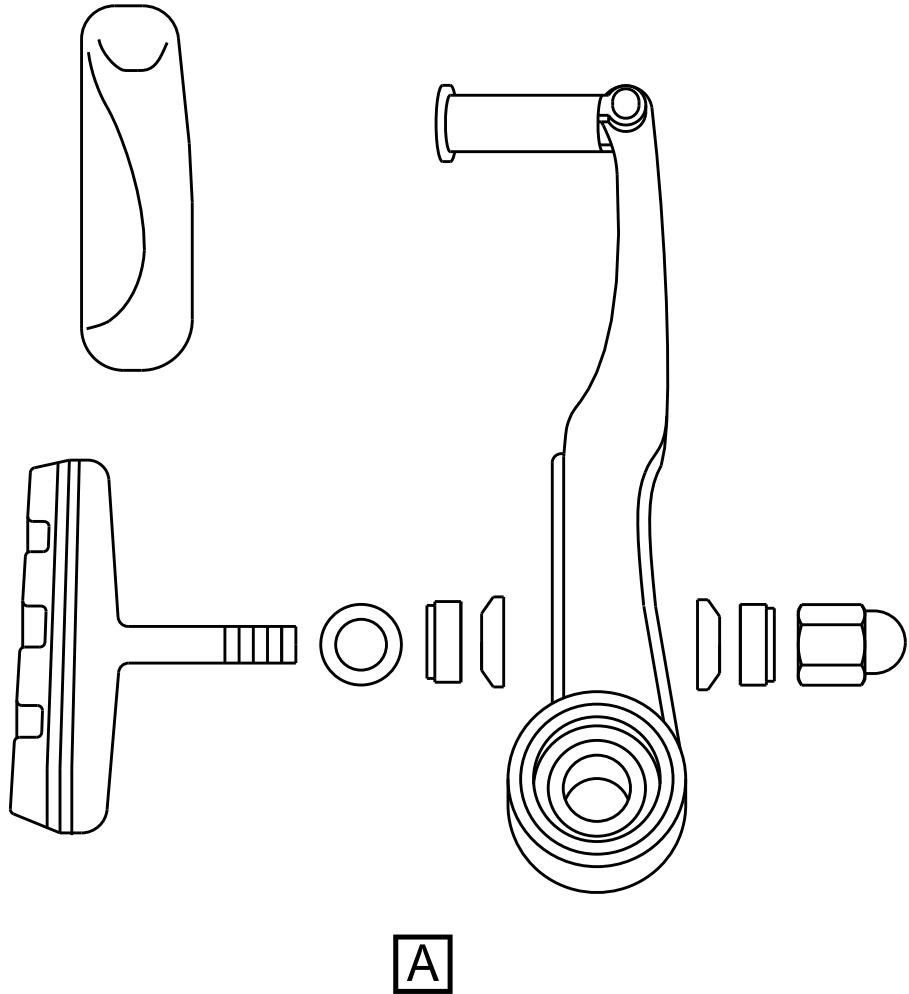
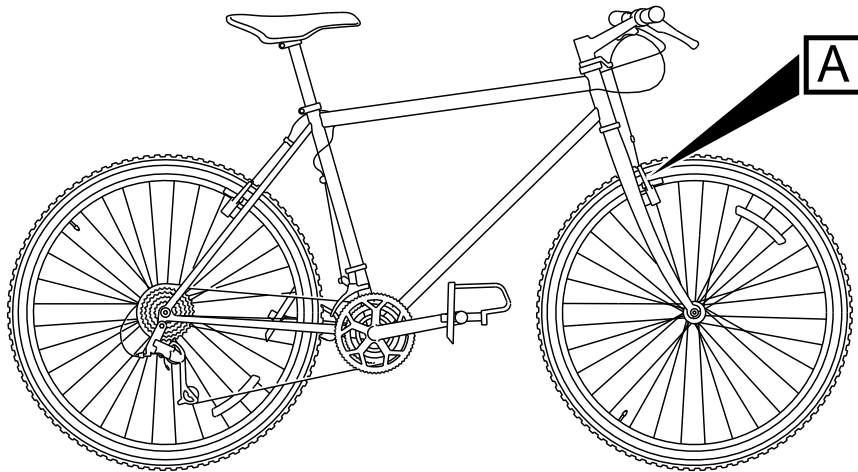
**BRAKE-AAA-DA1-00-00-00AA-041A-A**

---

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.



ICN-S1000DBIKE-AAA-DA10000-0-U8025-00513-A-04-1

Fig 2 Exploded diagram of a brake

This is a draft copy of issue 001-01  
Printed 2021-08-12 12:44

Produced by Docuneering Ltd using the Oxygen XML Editor

Applicable to: serialNo:  
0001~0008 and model: BR01

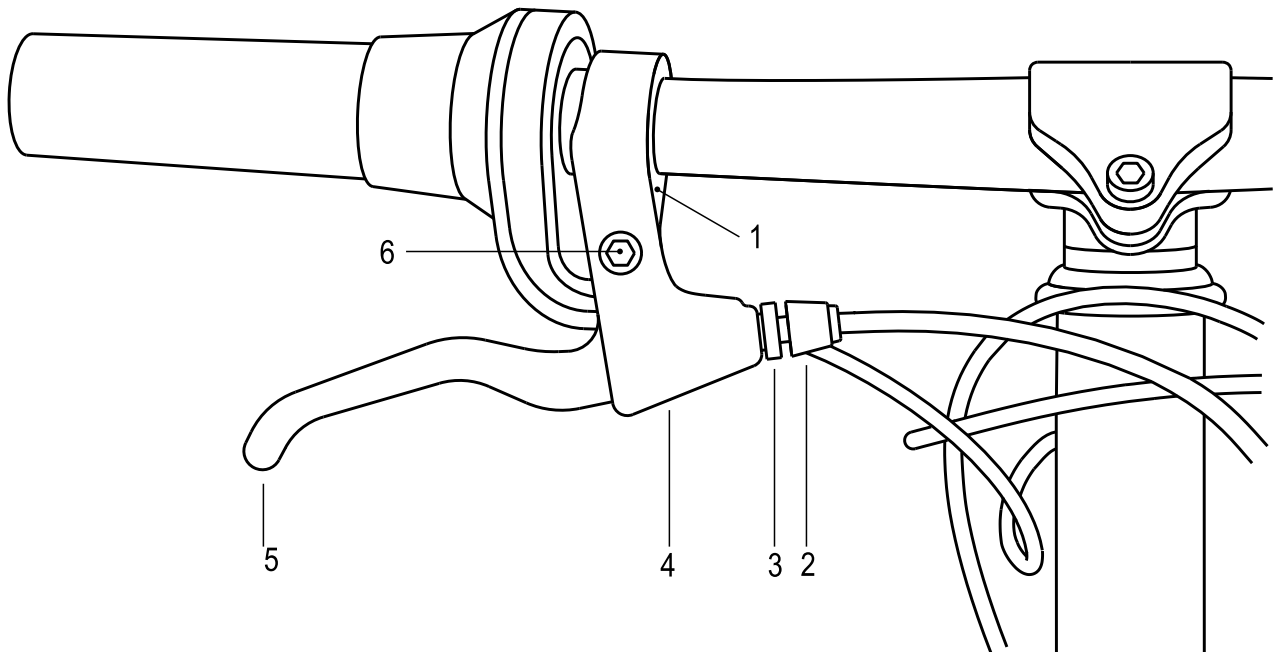
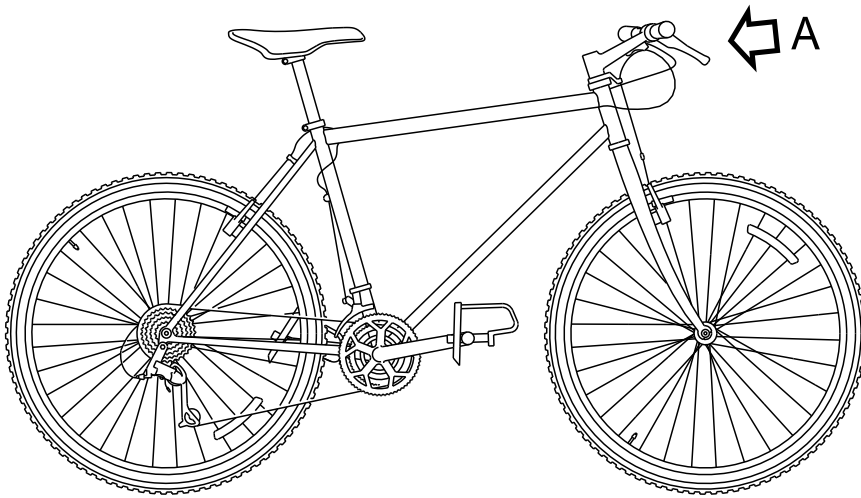
**BRAKE-AAA-DA1-00-00-00AA-041A-A**

---

## 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.





ICN-S1000DBIKE-AAA-DA10000-0-U8025-00514-A-04-1

Fig 3 Typical components of a mountain bicycle lever

This is a draft copy of Issue 001-01  
Printed 2021-08-12 12:44

Produced by Docuneering Ltd using the Oxygen XML Editor

---

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