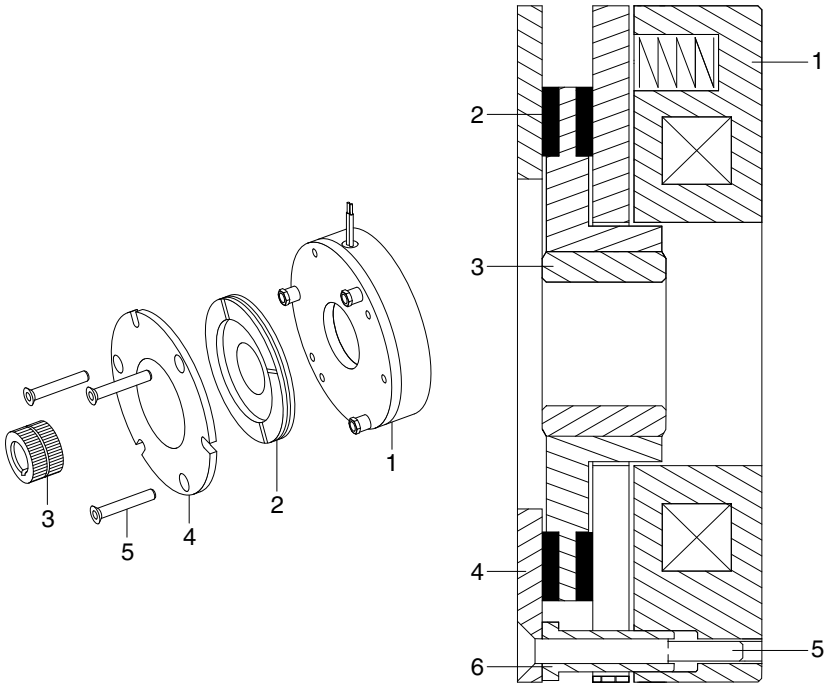
SECTION 4 BRAKE SYSTEM

GROUP 1 STRUCTURE AND FUNCTION

1. STRUCTURE



14BRJ9SM128

1	Inductor	4	Flange
2	Friction disc	5	Assembly screws
3	Hub	6	Adjusting screws

2. SPECIFICATION

Item	Specification
Nominal torque (std versions)	120 Nm
Nominal airgap	0.3 mm
Maximum ratation speed	5000 rpm

3. PRECAUTIONS AND RESTRICTIONS ON USE

1) Restrictions on use

(1) The equipment is designed for dry running. Friction faces must be kept completely clean of any oil, grease or abrasive dust.
(2) Exceeding the maximum rotation speeds stated in the catalogue invalidates the warranty.
(3) The equipment can be fitted either horizontally or vertically.
(4) This equipment is designed for an ambient temperature of 40° maximum (155°C insulation class).

2) Precautions and safety measures

⚠ During maintenance, ensure that the Mechanism to be braked by the equipment is at rest and that there is no risk of accidental start-up. All interventions have to be made by qualified personnel owning this manual.

⚠ Any modification made to the brake without the express authorisation of a representative of Warner Electric, in the same way than any use out of the contractual specifications accepted by Warner Electric Europe, will result in the warranty being invalidated and Warner Electric will no longer be liable in any way with regard to conformity.

4. INSTALLATION

1) Transport / storage

These units are delivered in packaging that guarantees a 6 months storage period whether transported by land, by air, or by sea to any destination excepting tropical countries.
(For tropical destinations please consult Warner Electric technical services).

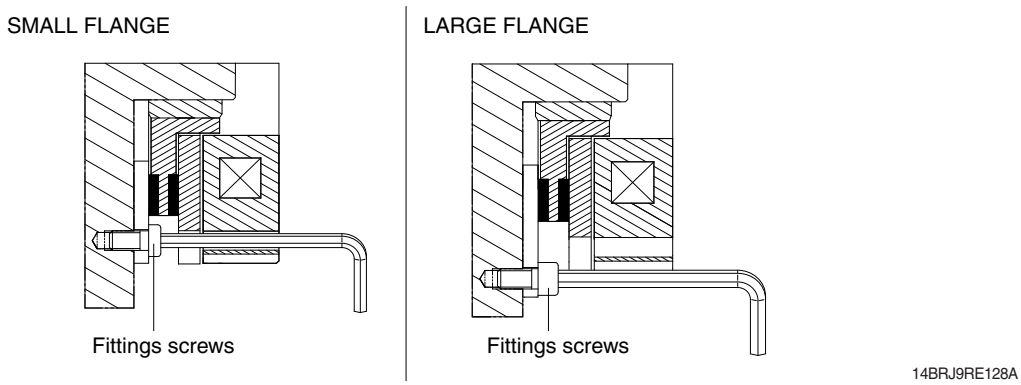
2) Handling

(1) Avoid any impacts on the equipment so as not to alter their performance.
(2) Never carry the equipment by the electrical supply cable.

3) Installing

※ This brakes are delivered completely assembled, the airgap is adjusted in our workshop.
- Put the key into the shaft then slide the hub (3) onto the shaft and secure it axially by suitable means
- Slide the brake onto the hub (3), taking care not to damage the splines of the disc (2). Make sure that the disk locates properly on the splines of the hub
- Secure the brake in position using suitable screws, (see below figure and specification). Secure the fitting screws using a Loctite 270 type thermoplastic liquid
- Switch the equipment on and confirm that the friction disc rotates freely
- Make several motor manoeuvres stationary and check the value of the airgap

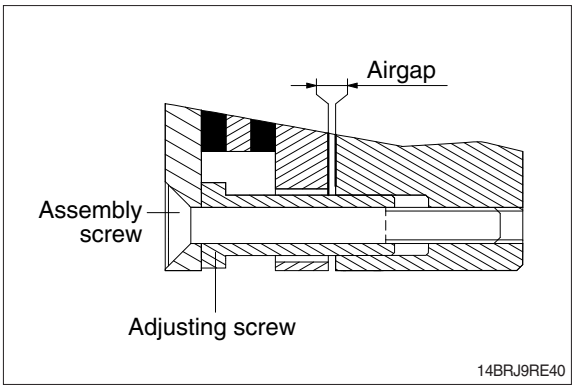
※ Do not grease the guiding splines (friction disc / hub). It will change the brake's performances.
※ Respect obligatory the direction of the hub when mounting (see the brake drawing).



5. MAINTENANCE

1) Adjusting the airgap

To adjust the airgap (right figure), undo the fitting screws then take off the brake. Undo the assembly screws (5) and adjust the screws (6) in order to get the necessary value (see specification). Check the value of the airgap at several points. Make several motor manoeuvres, then check the value of the airgap again. Assembly screws must be tightened with a torque of 22 Nm.



2) Spare parts

After several adjustments, it is necessary to replace the friction disc.

To replace the friction disc (2), undo the fitting screws then take off the brake.

Undo the assembly screws (5) then take out the friction disc (2).

Put the new friction disc into position and secure assembly screws (5) with Loctite 221 or similar. Then adjust the airgap (see above 1)).

6. ELECTRICAL CONNECTION

This brakes have to be supplied with direct current. The polarity does not affect operation, except special versions.

1) Important recommendations

⚠ All works on the electrical connections have to be made with power off.

※ Ensure compliance with the nominal supply voltage (inadequate supply causes a reduction in the starting distance).

※ The connecting wires should be of sufficient diameter to prevent voltage drops between the source and equipment supplied.

I(A) / L (m)	0 ~ 10 m	10 ~ 20 m
0~3 (A)	1.5 mm^2	1.5 mm^2
3~6 (A)	1.5 mm^2	2.5 mm^2

※ Tolerance for the supply voltage to the brake terminals +5% / -10% (NF C 79-300).

7. TROUBLESHOOTING AND FAULT ELIMINATION

Fault	Cause	Remedy
Brake does not release	· Power supply is too low · Power supply is interrupted · Airgap too large · Worn disc · Coil is damaged · Airgap too small	· Adjust power supply · Reconnect power supply · Re-adjust the airgap · Change disc and readjust the airgap (PK 60) · Replace the brake · Re-adjust the airgap
Brake does not brake	· Voltage present at switch off position · Grease on friction faces	· Check the customer's power supply · Change the disc and re-adjust the airgap
Nuisance braking	· Power supply is too low	· Adjust power supply