

Dimensions Table

Model	Static Torque lb-in (Nm)	A: OD in (mm)	B: Mtg Hole in (mm)	G,H in (mm)	L in (mm)	M in (mm)	N in (mm)	S in (mm)	X deg.	a: Air Gap in (mm)
PMB-30	45 (5)	3.307 (84)	2.835 (72)	0.197 (5)	1.614 (41)	0.701 (17.8)	0.157 (4)	0.236 (6)	10	0.006 (0.15)
PMB-40	70 (8)	4.016 (102)	3.543 (90)	0.217 (5.5)	2.048 (52)	0.787 (20)	0.374 (9.5)	0.276 (7)	8	0.008 (0.2)
PMB-50	142 (16)	5.000 (127)	4.409 (112)	0.256 (6.5)	2.244 (57)	0.787 (20)	0.453 (11.5)	0.346 (8.8)	7	0.009 (0.25)
PMB-60	283 (32)	5.787 (147)	5.197 (132)	0.256 (6.5)	2.598 (66)	0.984 (25)	0.472 (12)	0.354 (9)	8	0.012 (0.3)
PMB-65	530 (60)	6.378 (162)	5.709 (145)	0.354 (9)	2.992 (76)	1.181 (30)	0.551 (14)	0.433 (11)	8	0.012 (0.3)
PMB-75	708 (80)	7.402 (188)	6.693 (170)	0.354 (9)	3.367 (85.5)	1.181 (30)	0.551 (14)	0.433 (11)	8	0.012 (0.3)
PMB-85	1505 (170)	8.465 (215)	7.717 (196)	0.354 (9)	3.780 (96)	1.378 (35)	0.591 (15)	0.433 (11)	12	0.016 (0.4)
PMB-100	2655 (300)	10.000 (254)	9.055 (230)	0.433 (11)	4.252 (108)	1.575 (40)	0.689 (17.5)	0.433 (11)	12	0.016 (0.4)
PMB-120	4250 (480)	11.890 (302)	10.945 (278)	0.433 (11)	4.685 (119)	1.969 (50)	0.689 (17.5)	0.492 (12.5)	12	0.020 (0.5)

General Notes

- The perpendicularity of the Shaft and Mounting Surface are important for proper brake function. The Mounting Surface and Shaft should not exceed .005 inch (0.127 mm) TIR at the diameter equal to the brake body outside diameter (out of perpendicularity). The mounting holes of the brake should be concentric and in true position of the Shaft within .010 inch (0.254 mm) max.
- PMB Series complies with RoHS - EU Directive 2002/95/EC.

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# Power-Off Brake

## PMB Series

Installation and Mounting Instructions  
07/2007

Keep all product manuals as a product component during the life span of the product.  
Pass all product manuals to future users/owners of the product.

**Installation and Mounting - Tools Required**

The following tools are required for the installation and mounting of a PMB Series brake.

- Hexagon Wrench
- Feeler Gauge
- Open-End Wrench

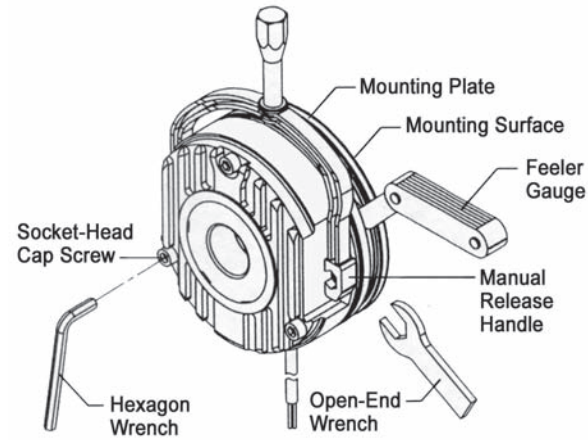


Fig. 1

**Installation and Mounting - Instructions**

Install Hub as shown on the Shaft in Fig. 2. Use dimension "N" from the Dimensions Table on page 5. Use the proper key (that fits keyway in hub). Be sure the Hub will have full engagement in the Rotor when mounted to the Shaft. (Tighten Set Screw if applicable). The Hub must be securely attached to the Shaft with no movement.

1. Remove the Dust Cover (if applicable). Disassemble brake by loosening the three Socket Head Cap Screws as shown. (The Case Assembly and Armature Plate will be held together by the Manual Release Handle Screws).

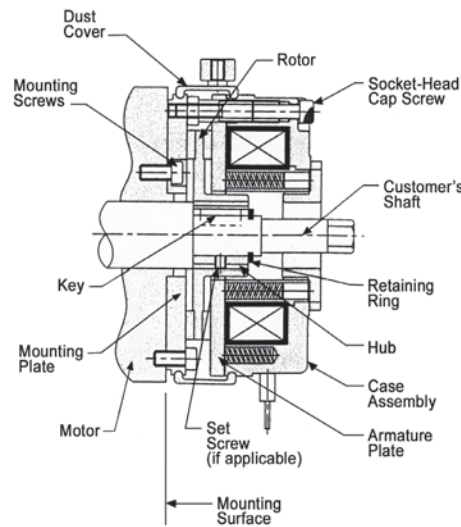


Fig. 2

2. Assemble the Mounting Plate to the end bell of the Motor (or Mounting Surface). There are two mounting bolt patterns available (3ØH or 3ØG). See the Dimensions Table. The Mounting Surface or Motor should be threaded to allow the proper screw to be used.
3. Air Gap Adjustment - Reassemble the brake using the three Socket Head Cap Screws (Mounting Plate now assembled to the Motor or Mounting Surface). Adjust Air Gap per Dimensions Table using an Open End Wrench and the Hexagon (Allen) Wrench and the Socket Head Cap Screws. The Air Gap measurement is between the Armature Plate and the Case Assembly (use Feeler Gauge), (See Figs. 1 and 3). Measure and set the Air Gap in at least three locations (120 Deg. intervals) around the periphery of the brake. The Air Gap should not vary more than +/- 0.002" (0.050 mm) at any location.

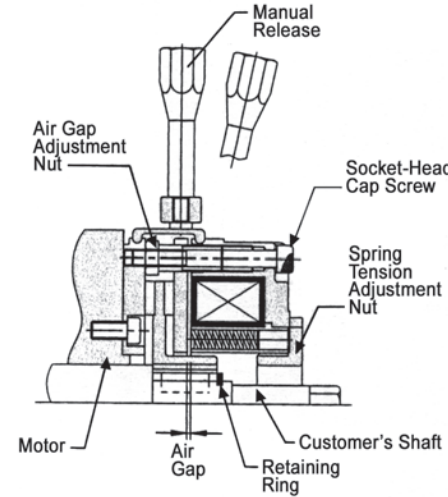
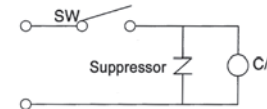


Fig. 3

4. Be sure all fasteners are tight.
5. Replace the Dust Cover (if applicable). The Dust Cover should be used to keep contaminants away from the braking surfaces.
6. Hook up the leads to the correct power source. The voltage to be applied is determined by the model selected. The unit is marked with the operating voltage (label). When the power is turned on to the brake, the Shaft should rotate freely.
7. When the power is turned off to the brake, a negative voltage spike will occur at the switch. The supplied surge suppressor (blue electronic device supplied with unit) may be used to provide switch protection and improve response time (power off). See Schematic at above.



8. Torque Adjustment - (See Fig. 3) The brake is supplied with a Torque Adjustment Nut (Spring Tension Adjustment Nut). Brakes are set at the minimum torque rating shown in the Dimensions Table. The torque may be adjusted down as much as 50% by turning the Torque Adjustment Nut CCW. This allows the spring tension to be relieved which causes the holding torque to be lower.

**Maintenance**

1. The brake surface must be kept free from debris, oil, water, contaminants.
2. The Air Gap may require readjustment at certain intervals depending on the application. Thus the Air Gap should be checked and adjusted to the listed specifications. Repeat step 4 (Air Gap Adjustment) as necessary once the Air Gap increases (wears) to the following:
  - PMB-30..... over .012" (0.30 mm)
  - PMB-40, 50, 60 & 65 ..... over .020" (0.50 mm)
  - PMB-75..... over .030" (0.76 mm)
  - PMB85, 100 & 120..... over 0.034 (0.86 mm)
3. The Manual Release provides a means of releasing the brake by hand (normally done with the application of power or voltage). The Manual Release is attached to the Case and the Armature Plate. Excessive wear may make it necessary to readjust the Manual Release Screws to allow the proper function. The Rotor and Shaft will rotate freely with a movement of 8-10° of the Manual Release (See Fig. 2). Adjust the two Manual Release Screws and Hex Nuts as necessary.
4. It is normal for brakes to get hot to the touch. The insulation rating of the brake is 155°C (311°F).