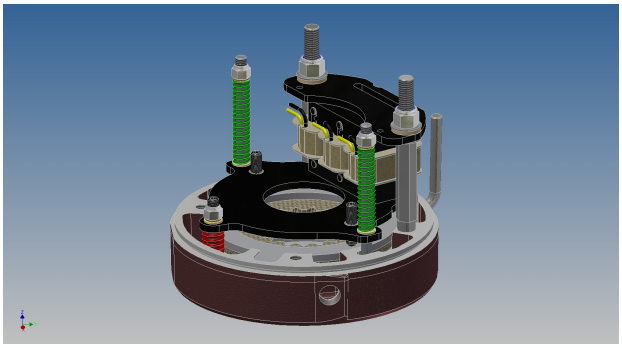
Dings DYNAMICS GROUP

A Venturedyne, Ltd. Company



Bulletin No. BK4772S-1 (02/2016)

70 Series 8700 End-Mount 1 Phase Brake Instructions

IP43 (NEMA 2) Housing

Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

DESCRIPTION

These magnetic disc brakes mount directly onto NEMA182C, 213TC, and 256TC frame motors, on the end opposite the drive shaft. The brake is direct acting, electro-magnetically released, and spring set. It uses rotating friction and stationary disc contact to supply positive braking action. It retains quick release and setting capabilities at all times.

WARNING: Do not install or use these brakes in an explosive atmosphere.

WARNING: Brake performance and features must be carefully matched to the requirements of the application. Consideration must be given to torque requirements, especially where an overhauling condition exists, as well as thermal capacity, ambient temperature, atmospheric explosion hazards, type of enclosure and any other unusual conditions. Improper selection and installation of a brake and/or lack of maintenance may cause brake failure which could result in damage to property and/or injury to personnel. If injury to personnel could be caused by brake failure, additional means must be provided to insure safety of personnel.

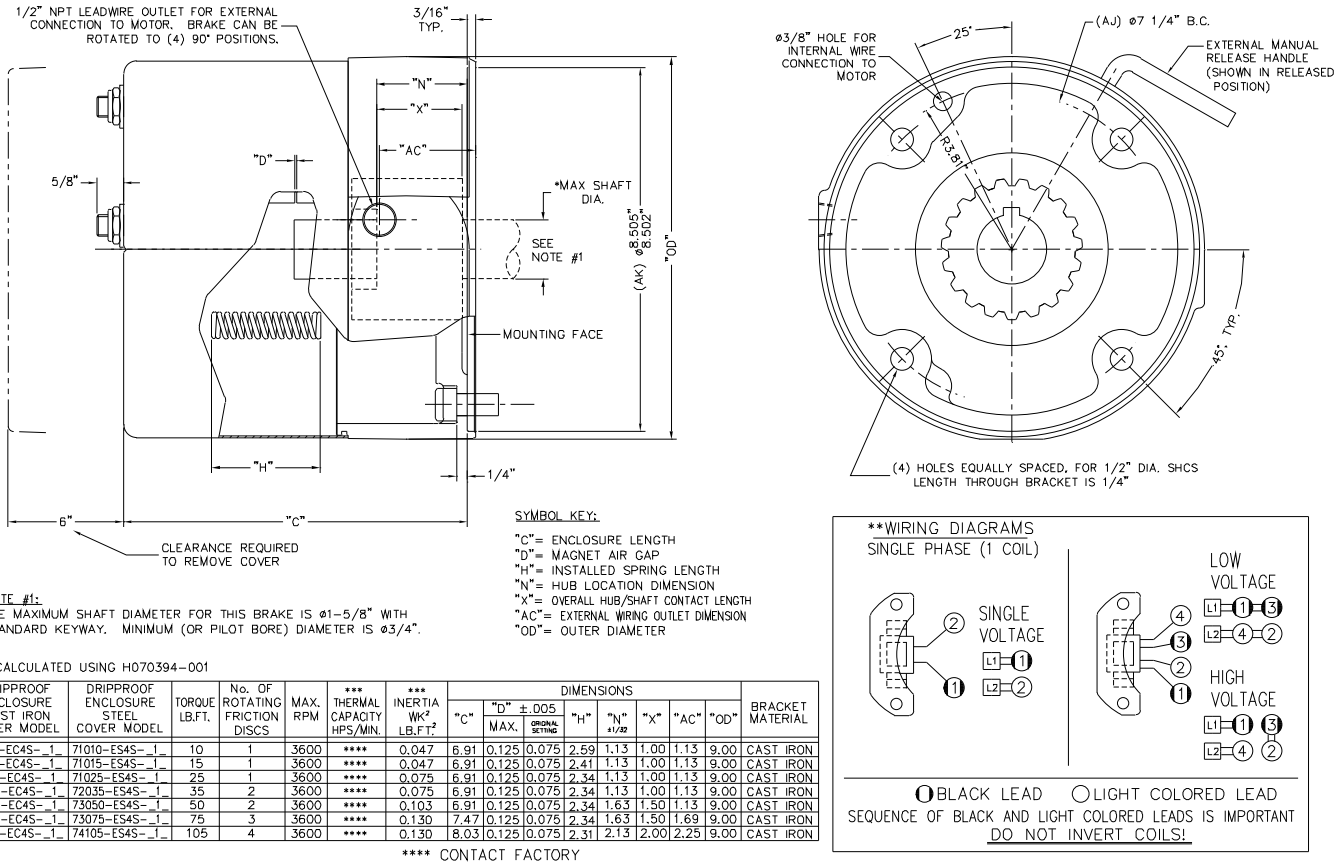
UNPACKING

When unpacking the brake, inspect it carefully for damage that may have occurred during transit. Do not activate the manual release without the hub inserted in the discs as doing so may result in loss of disc spline alignment.

GENERAL SAFETY INFORMATION

NOTE: These brakes are not intended for accurate positioning applications. They are designed for applications that require rapid stopping and holding power, such as on conveyors, door openers, etc.

1. For applications with high inertia-type loads or rapid cycling, the thermal capacity of the brake must be considered.
2. Observe all local electrical and safety codes, as well as the National Electrical Code (NEC) & the Occupational Safety and Health Act (OSHA).
3. Brake motors & brake gearmotors must be securely & adequately grounded. This can be accomplished by wiring with a grounded metal-clad raceway system, by using a separate ground wire connected to the bare metal of the motor frame, or other suitable means. Refer to NEC Article 250 (Grounding) for additional information. All wiring should be done by a qualified electrician.
4. Always disconnect power before working on or near a brake motor, a brake gearmotor, or its connected load. If the power disconnect point is out of sight, lock it in the open position and tag it to prevent unexpected application of power.
5. When working on the brake, be sure the load is completely removed, secured or blocked to prevent injury or property damage.
6. Provide guarding for all moving parts.
7. Be careful when touching the exterior of an operating motor, gearmotor or brake. It may be hot enough to cause injury or to be painful. This condition is normal for modern motors, which operate at higher temperatures when running at rated load & voltage.
8. Protect all electrical lead wires & power cables against contact with sharp objects or moving parts.
9. Do not kink electrical lead wires & power cables, and never allow them to touch oil, grease, hot surfaces, or chemicals.



*** CALCULATED USING H070394-001

DRIPPROOF ENCLOSURE CAST IRON COVER MODEL	DRIPPROOF ENCLOSURE STEEL COVER MODEL	TORQUE LB.FT.	No. OF ROTATING FRICTION DISCS	MAX. RPM	*** THERMAL CAPACITY HPS/MIN.	*** INERTIA WK² LB.FT.²	DIMENSIONS								BRACKET MATERIAL
							"C"	"D" ±.005 MAX.	"D" ±.005 ORIGINAL SETTING	"H"	"N" ±1/32	"X"	"AC"	"OD"	
71010-EC4S-_1_	71010-ES4S-_1_	10	1	3600	****	0.047	6.91	0.125	0.075	2.59	1.13	1.00	1.13	9.00	CAST IRON
71015-EC4S-_1_	71015-ES4S-_1_	15	1	3600	****	0.047	6.91	0.125	0.075	2.41	1.13	1.00	1.13	9.00	CAST IRON
71025-EC4S-_1_	71025-ES4S-_1_	25	1	3600	****	0.075	6.91	0.125	0.075	2.34	1.13	1.00	1.13	9.00	CAST IRON
72035-EC4S-_1_	72035-ES4S-_1_	35	2	3600	****	0.075	6.91	0.125	0.075	2.34	1.13	1.00	1.13	9.00	CAST IRON
72050-EC4S-_1_	73050-ES4S-_1_	50	2	3600	****	0.103	6.91	0.125	0.075	2.34	1.63	1.50	1.13	9.00	CAST IRON
73075-EC4S-_1_	73075-ES4S-_1_	75	3	3600	****	0.130	7.47	0.125	0.075	2.34	1.63	1.50	1.69	9.00	CAST IRON
74105-EC4S-_1_	74105-ES4S-_1_	105	4	3600	****	0.130	8.03	0.125	0.075	2.31	2.13	2.00	2.25	9.00	CAST IRON

**** CONTACT FACTORY

Figure 1 - Brake Outline

RECOMMENDED TOOLS AND HARDWARE

NOTE: The following tools and hardware are required for installing the brake onto a motor or mounting bracket. Use proper torque when required to ensure fasteners do not loosen during operation.

- 3/4 INCH HEX WRENCH OR RATCHET/SOCKET
- 3/16 HEX BIT SOCKET (OR KEY)
- TORQUE WRENCH
- QUANTITY (4), 1/2 diameter SHCS, MINIMUM 1" LONG (see installation note #5 below)
- 3/8 HEX BIT SOCKET (OR KEY)

INSTALLATION

(See Figures 1, & 2, Table 1)

1. Remove hub (99) from brake and position on motor shaft with key according to dimension "N" per figure 1. Stamped part number on hub should face away from motor. Tighten hub set screws with 18 lb.ft. torque.
2. Remove temporary cover nut and cover (67). Set cover aside. Discard temporary nut.
3. Place brake on motor, guiding discs on hub.
4. Bolt brake to motor "C" face with four socket head cap screws. See Figure 1 to help in determining proper bolt length. Final bolt thread pitch, length and mounting torque is dependent on the material and depth of the threaded holes in the mounting face.
5. Connect coil leads per appropriate wiring diagram in Figure 1 and replace cover (67).
6. Use provided nylon locking nuts (71) to secure cover (67).

REPLACEMENT PARTS LIST

(See Figure 2)

ITEM NO.	DESCRIPTION	MODEL														PART NO.
		Cast Iron Cover Endmount							Steel Cover Endmount							
		71010-EC4S	71015-EC4S	71025-EC4S	72035-EC4S	72050-EC4S	73075-EC4S	74105-EC4S	71010-ES4S	71015-ES4S	71025-ES4S	72035-ES4S	72050-ES4S	73075-ES4S	74105-ES4S	
1	Bracket assembly, 1&2 disc	1	1	1	1	1			1	1	1	1	1			K070579-XXX
1	Bracket assembly, 3 disc						1							1		K070580-XXX
1	Bracket assembly, 4 disc							1							1	K070581-XXX
7	Handle, manual release	1	1	1	1	1	1	1	1	1	1	1	1	1	1	H070422-001
11	Spring, return manual release	1	1	1	1	1	1	1	1	1	1	1	1	1	1	G070846-001
12	Cam, manual release	1	1	1	1	1	1	1	1	1	1	1	1	1	1	H070393-001
13	Screw, retaining, cam	1	1	1	1	1	1	1	1	1	1	1	1	1	1	W001045-043
17	Post, pivot	1	1	1	1	1	1	1	1	1	1	1	1	1	1	W002005-168
19	Stud post, magnet assembly/cover	2	2	2	2	2	2	2	2	2	2	2	2	2	2	H070395-001
25	Disc, rotating friction	1	1	1	2	2	3	4	1	1	1	2	2	3	4	H070394-001
26	Disc, stationary	1	1	1	2	2	3	4	1	1	1	2	2	3	4	K070560-001
27	Spring, pivot	1	1	1	1	1	1	1	1	1	1	1	1	1	1	G070847-001
28	Bolt, torque spring	2	2	2	2	2	2	2	2	2	2	2	2	2	2	W001007-069
32	Pressure plate assembly, single phase	1	1	1	1	1	1	1	1	1	1	1	1	1	1	H070424-001
37	Bushing, flanged	3	3	3	3	3	3	3	3	3	3	3	3	3	3	W013007-061
42	Spring, torque, silver			2		2	2	2			2		2	2	2	G070848-001
42	Spring, torque, gold	2	2		2				2	2		2				G070849-001
43	Washer, flat	3	3	3	3	3	3	3	3	3	3	3	3	3	3	W004002-008
44	Nut, adjustment	3	3	3	3	3	3	3	3	3	3	3	3	3	3	W003013-005
46	Washer, magnet assembly base	2	2	2	2	2	2	2	2	2	2	2	2	2	2	W004004-018
50A	Magnet Assembly, single phase	1	1	1	1	1	1	1	1	1	1	1	1	1	1	H070405-XXX
50	Magnet frame, single phase	1	1	1	1	1	1	1	1	1	1	1	1	1	1	K070569-001
51	Coil, Magnet, single phase	1	1	1	1	1	1	1	1	1	1	1	1	1	1	H070013-XXX
54	Clamp, cable	1	1	1	1	1	1	1	1	1	1	1	1	1	1	W021008-005
55	Screw, cable clamp	1	1	1	1	1	1	1	1	1	1	1	1	1	1	W001038-143
59	Washer, shock absorber	2	2	2	2	2	2	2	2	2	2	2	2	2	2	G070850-001
60	Washer, capture	2	2	2	2	2	2	2	2	2	2	2	2	2	2	W004004-017
61	Nut, nylock magnet assembly	2	2	2	2	2	2	2	2	2	2	2	2	2	2	W003001-20
67	Cover, cast iron	1	1	1	1	1	1	1								K070554-001
67	Cover, steel								1	1	1	1	1	1	1	K070545-002
71	Nut, cover	2	2	2	2	2	2	2	2	2	2	2	2	2	2	W003001-020
84	Nameplate, mylar								1	1	1	1	1	1	1	K060407-001
84	Nameplate, metal	1	1	1	1	1	1	1								K070574-001
85	Drive screw															W001012-048
86	Release label	1	1	1	1	1	1	1	1	1	1	1	1	1	1	G070852-001
87	Capplug, 1/2 NPT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	W008003-001
99	Hub assembly 1 disc	1	1	1					1	1	1					H070409-XXX
99	Hub assembly 2 disc (35lb-ft)				1							1				H070412-XXX
99	Hub assembly 2 disc (50lb-ft)					1							1			H070414-XXX
99	Hub assembly 3 disc						1							1		H070417-XXX
99	Hub assembly 4 disc							1							1	H070420-XXX

XXX-Figure per model number

Table 1 - Parts List

EXPLODED VIEW

(See Table 1)

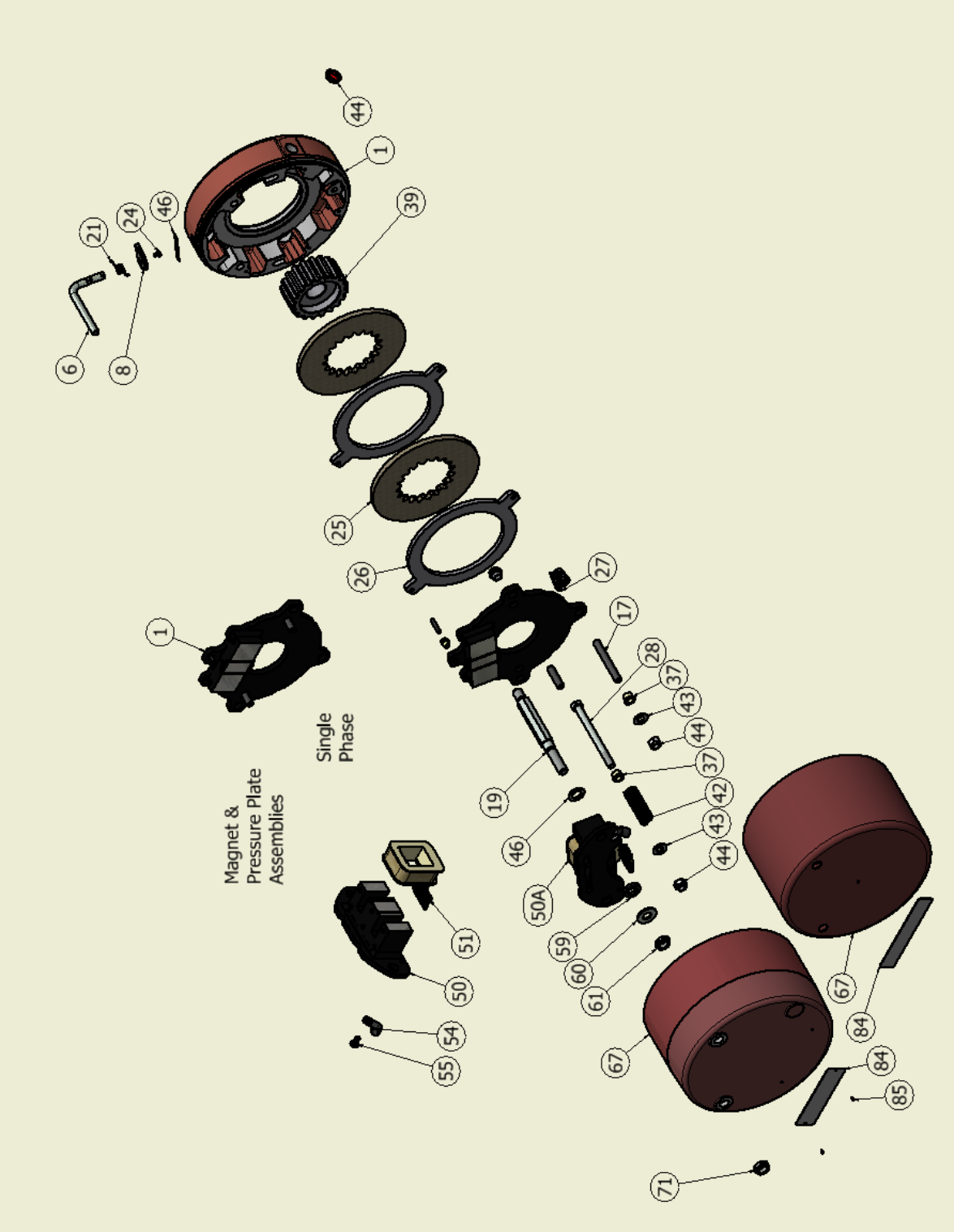


Figure 2 - Exploded View of Brake