CE DC Brake Assembly Kit

Flowserve Corporation
Flow Control Division
Automax Valve Automation Systems

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Assembly Procedure

1. Disconnect all power to the actuator.

2. Remove the actuator cover.

3. The accessory mounting bracket will have to be replaced. To replace, remove the bolts that fasten the bracket to the motor and base plate. Remove potentiometer gear (if installed) and any switch wires. Lift the bracket away from the base. Remove any existing items such as a terminal strip, cut-off switch, pop-in shaft bearing, etc.

4. Bolt the new accessory bracket P/N 109469 to the motor mounting plate.

5. Remove any existing fan (pressed in place) from the top of the motor rotor shaft.

6. Attach the fan hub P/N 108534 to the motor rotor shaft using the #10-32 set screw.

7. Place the wave spring P/N 108198 onto the fan hub and the spacer shim P/N 108199 onto the wave spring.

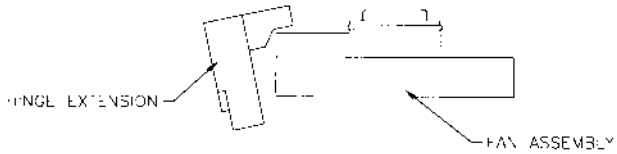
8. Next, place the black plastic fan P/N 107940 onto the hub. Squeeze the fan against the spring. Place the brass washer P/N 108361 and clip the snap ring P/N 106174 onto the groove in the top of the hub.

9. Now place the two bronze spacers P/N 108296 onto the Bracket Spacer P/N 106193 so that the flange is down and the small diameter fits into the mounting feet holes of the hinge. Place two washers P/N 100986 under the bronze bearing on Bracket Spacer(13). This will serve to level the hinge.

10. Place the hinge assembly over the bronze bearings P/N 108296 and bolt to Bracket Spacer (13), and accessory bracket with (2) washers P/N 100986.

11. Insert the spring P/N 103714 into the solenoid (P/N 109479 or 109555) and attach the solenoid, and the Spacer P/N 109468 to the accessory bracket with the two socket head cap screws P/N 102846.

12. The solenoid and hinge extension should be adjusted such that when it is energized, the extension just clears the spinning fan.



13. Re-attach all items removed in step 3 including: terminal strip, cutoff switch, pop-in shaft bearing, etc.

14. Attach the leads of the solenoid as shown in the wiring schematic. The solenoid is not polarity sensitive. Use wire connectors P/N 105453 to connect the solenoid and the motor wires according to the wiring schematic.

Operation

Following are a few key pointers to ensure proper operation:

1. The hinge needs to float freely on the bronze spacers without binding up. Test the freeness of the hinge several times by pulling it back against the spring using your fingers.

2. Be careful to not overtighten the screws holding the hinge on. They may bind up the assembly.

3. Adjust the solenoid as close to the hinge as possible so the assembly just clears the gears of the potentiometer. A shorter pull on the solenoid allows for a stronger release. Be sure to allow the hinge to float against the plunger and not bind up.

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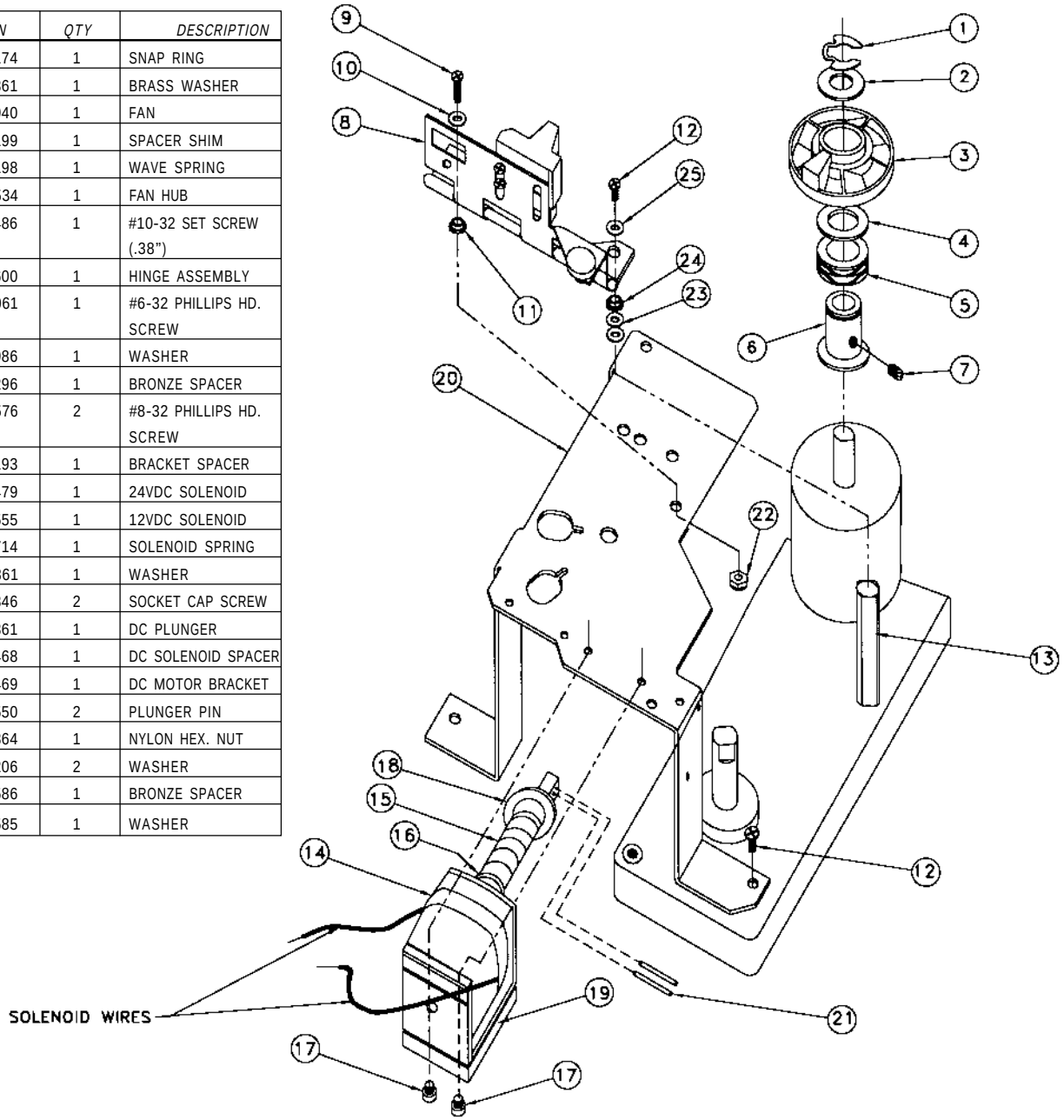
Brake Assembly Kit

#109572=24VDC MOTOR BRAKE KIT
#109573=12VDC MOTOR BRAKE KIT

NO.	P/N	QTY	DESCRIPTION
1	106174	1	SNAP RING
2	108361	1	BRASS WASHER
3	107940	1	FAN
4	108199	1	SPACER SHIM
5	108198	1	WAVE SPRING
6	108534	1	FAN HUB
7	103486	1	#10-32 SET SCREW (.38")
8	108600	1	HINGE ASSEMBLY
9	106061	1	#6-32 PHILLIPS HD. SCREW
10	100986	1	WASHER
11	108296	1	BRONZE SPACER
12	105576	2	#8-32 PHILLIPS HD. SCREW
13	106193	1	BRACKET SPACER
14	109479	1	24VDC SOLENOID
	109555	1	12VDC SOLENOID
15	103714	1	SOLENOID SPRING
16	X00361	1	WASHER
17	102846	2	SOCKET CAP SCREW
18	109361	1	DC PLUNGER
19	109468	1	DC SOLENOID SPACER
20	109469	1	DC MOTOR BRACKET
21	109550	2	PLUNGER PIN
22	105864	1	NYLON HEX. NUT
23	104206	2	WASHER
24	109586	1	BRONZE SPACER
25	109585	1	WASHER



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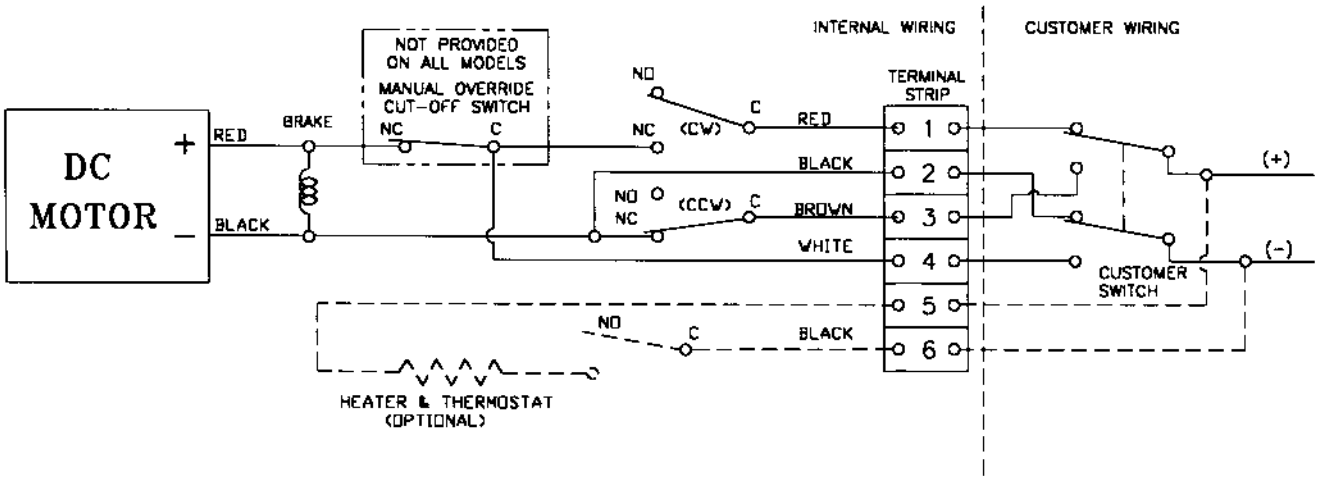
Brake Assembly

#108566=115VAC MOTOR BRAKE KIT
#108567=230VAC MOTOR BRAKE KIT



SYMBOLS & DESCRIPTIONS

1. RED - DC+ (CW)
2. BLACK - DC-(CW)
3. BROWN - DC+ (CCW)
4. WHITE - DC- (CCW)
5. BLACK - Heater Power (Optional)

NO- Normally Open
NC- Normally Closed
C- Common

NOTES:

1. Actuator is shown in the full CW position as viewed from the motor side.
2. Customer Switch is shown for illustration only.
3. Route field wiring away from moving parts.

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