

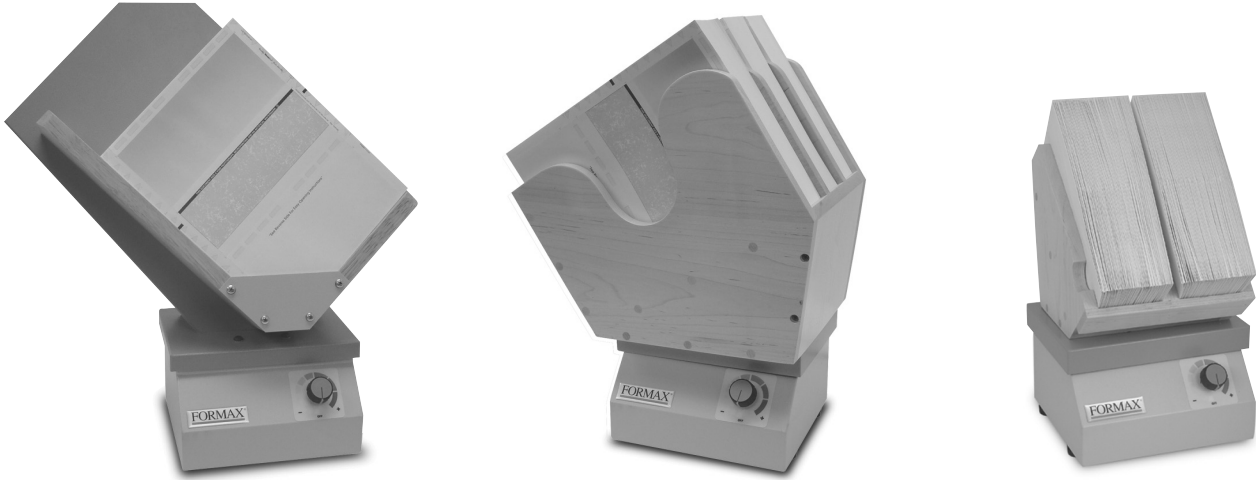
# FORMAX<sup>®</sup>

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## 402 Series Joggers



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# INTRODUCTION

The Formax 402 Series Joggers are used for aligning paper and dissipating static electricity. An electromagnetic assembly produces a vibrating action, which is transmitted to the deck and rack through a system of flex plates.

The control assembly consists of a solid-state on-off knob which also serves to control the vibration intensity, up to 4,000 vibrations per minute.

Refer to this Maintenance Manual prior to adjusting or performing service on the jogger.

**WARNING:** Failure to follow these instructions could result in unsatisfactory jogger performance, machine damage or shortened service life, or personal injury.



**FD 402P1**



**FD 402P3**



**FD 402E2**

	FD 402P1	FD 402P3	FD 402E2
Bin Capacity:	Up to 800 sheets of 20# paper	Up to 1,700 sheets 20#	Up to 1,750 sheets 20#
Bin Size:	3.5" D x 8.75" W x 15.5" L	2.5" D x 3.5" W x 10" L each	7" D x 2.25" W x 11.25" L each
Media Size:	Up to 11" W x 17" L	Up to 8.5" W x 14" L	Up to 4" W x 8" L
Dimensions:	7.75" W x 19" L x 21" H	9.75" W x 14" L x 17.75" H	8.125" W x 8.125" L x 13.125" H
Weight:	28 lbs.	29 lbs.	28 lbs.
Variable Speed:	Up to 4,000 vibrations/minute		
Voltage:	115 Volts (50/60 Hz) / Export 230 Volts (50/60 Hz)		
Safety Certifications:	TUV & CE applied for		

# INSTALLATION

Inspect the jogger for damage which may have occurred during shipment. If any damage is found, immediately notify the shipping carrier and your authorized Formax dealer.

Each jogger weighs approximately 30 pounds. Lift the jogger only by the base. Lifting by the bin or top cover may cause damage or injury.

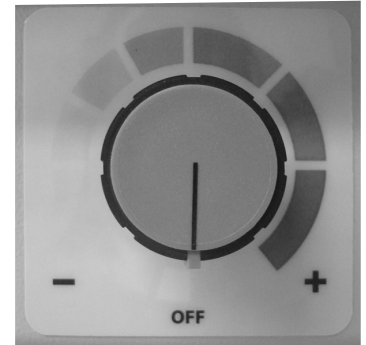
**WARNING:** The voltage and frequency of the power supply must be as specified on the nameplate. A power supply of another rating may cause damage to the unit.

Locate the jogger on a solid support surface. The support must not vibrate while the jogger is operating. The bin or top cover must not be in contact with any rigid object or adjacent surface; it must be free to vibrate.

# OPERATION

Place the jogger in its operating location and plug it into a self-governing electrical receptacle.

Place paper, envelopes or checks in the jogger bin(s) and turn the power/vibration control knob clockwise to turn the jogger on and adjust vibration. The vibration amplitude is changed by turning this knob. To turn the jogger off, turn control knob all the way to counter clockwise until it clicks off. **Note:** FE models with serial # ending in "F" have an on/off switch, the control knob only adjusts the vibration intensity



For best results, documents should be jogged for at least 15 to 30 seconds. For maximum efficiency, Formax recommends a maximum load of 10 pounds for each of the 402 Series models.

# TROUBLESHOOTING

PROBLEM:	POSSIBLE CAUSE:	SOLUTION:
Unit does not operate	Defective control knob	Replace control knob
	Shorted wiring, loose connection, no power to unit	Repair
Unit has power but will not vibrate	Unit in contact with rigid object or adjacent surface	Isolate unit
	Defective controller	Replace controller
	Defective flex plates	Replace flex plates
Excessive noise when operating	Armature and core assemblies making contact	Air gap spacers may need to be replaced or adjusted

# ADJUSTING THE AIR GAP

For joggers with serial # that ends with "F"

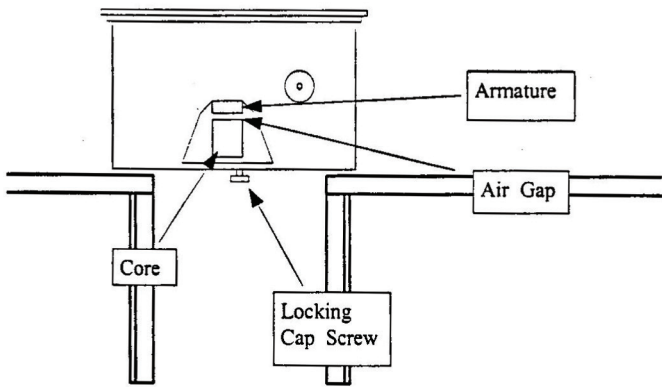
**WARNING:** The air gap must be adjusted while the jogger is in operation. Exercise caution to prevent electrical shock to personnel or damage to the jogger.

A striking condition (indicated by a loud rapping noise) is caused by an air gap that is too small.

An excessive current draw (indicated by excessive heat) is caused by an air gap that is too large.

**CAUTION:** Do not operate the jogger when either condition exists. An adjustment of the air gap is required.

1. Place the jogger in a position to gain access to the adjustment screw on the bottom. As shown in the diagram on page 3, place the jogger between two tables. The unit must be supported by the rubber feet. Supporting the jogger by the bin or top cover, or hand-holding the jogger will affect the adjustment of the air gap.



2. Plug the electrical cord into an appropriate receptacle and operate the jogger at the highest speed setting.

3. On the bottom of the jogger, loosen the socket head cap screw which locks the core in position. Adjust the air gap using a screwdriver in the slot adjacent to the locking cap screw. NOTE: Turning the screwdriver clockwise will decrease the air gap (to decrease the current draw). Turning the screwdriver counterclockwise will increase the air gap (increasing the current draw).

4. To adjust the air gap to a proper setting, turn the control knob to the highest speed setting. Then turn the screwdriver clockwise until a striking condition exists, then immediately turn the screwdriver counterclockwise, just until the striking stops.

5. Check the current draw of the jogger with an AC ammeter. If a clamp-on type ammeter is used, the reading must be multiplied by 1.7. Do not exceed a current draw of 1.0 amps.

6. When the proper air gap has been achieved (indicated by the current draw), lock the core in place by turning the socket head cap screw on the bottom of the jogger. After being moved to a stable location, the jogger is now ready for operation.

## CENTER STUD ADJUSTMENT

1. Place jogger on its back, to access the underside. Be sure the jogger is powered off and unplugged. (Fig. 1)

2. Remove the button head screw, star washer and flat washer. (Fig. 2)

3. Use needle nose or snap ring pliers to adjust the center stud. (Fig. 3) Make small 1/4 turn adjustments only between testing.

4. Reinstall flat washer, star washer, and button head screw. Tighten securely.



Fig. 1



Fig. 2

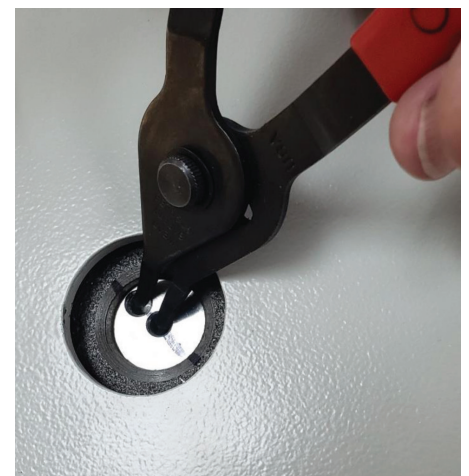
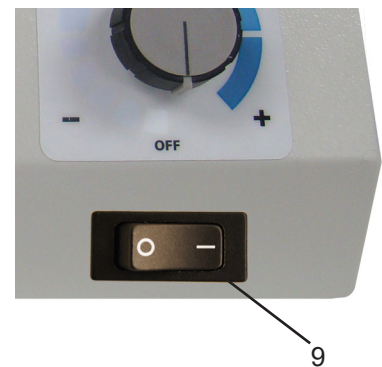
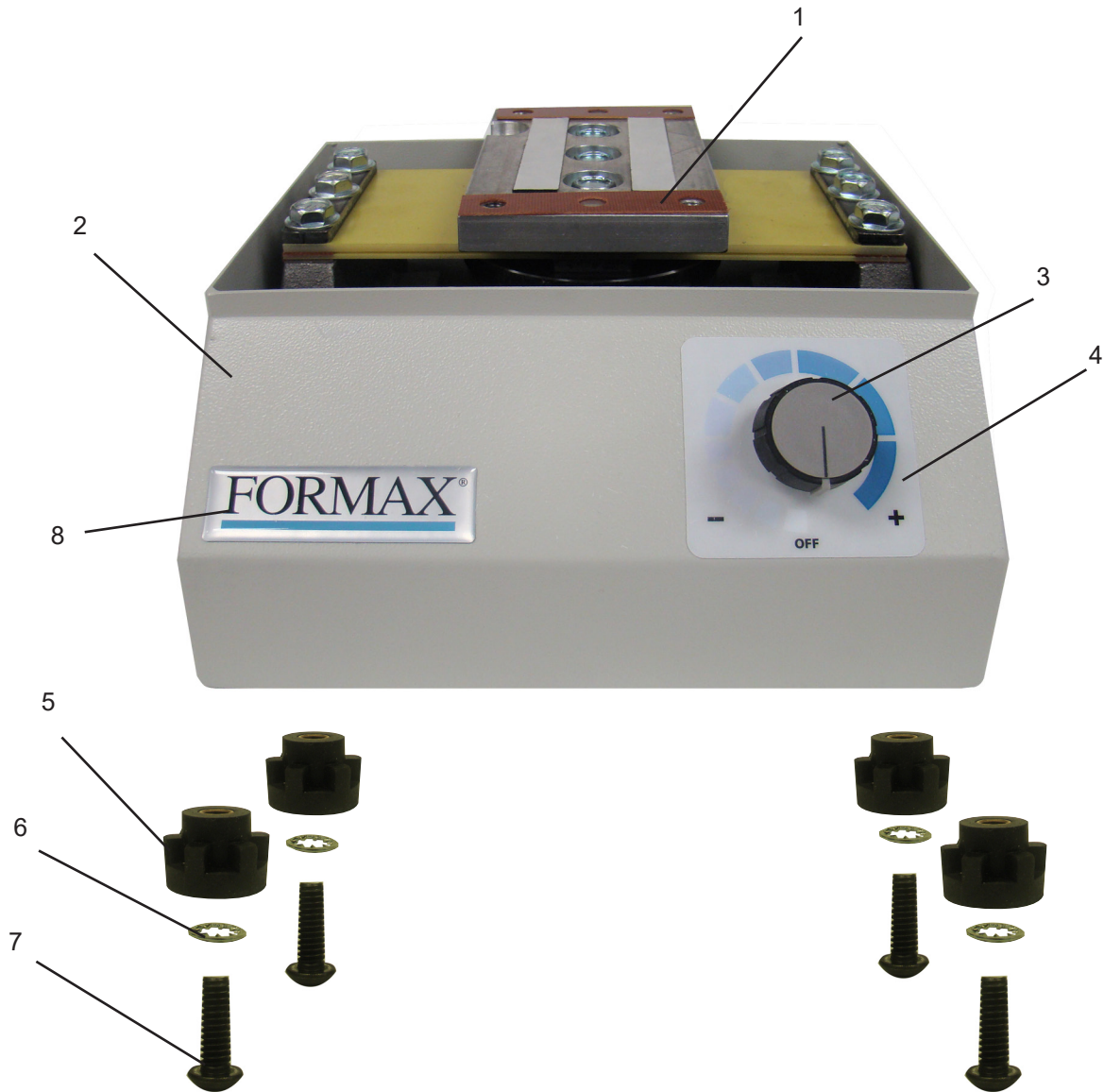


Fig. 3

# PARTS LIST - BASE - ALL MODELS



Item #	Part #	Description	Qty
1	321-0115	SPACER	2
2	360-2374	JOGGER BASE	1
3	372-0061	CONTROL KNOB	1
4a	325-0577	ON/OFF VIBRATION CONTROL INLAY	1
4b	325-0598	INLAY JOGGER 230V (Serial # ending w/ "F")	1
5	372-0116	RUBBER FOOT	4
6	377-0082	1/4 INTERNAL STAR WASHER	4
7	375-0145	1/4-20X3/4 BUTTON HEAD CAP SCREW	4
8	325-0494	FORMAX LOGO	1
9	311-0087	POWER SWITCH 230V MODELS ONLY (Serial # ending w/ "F")	

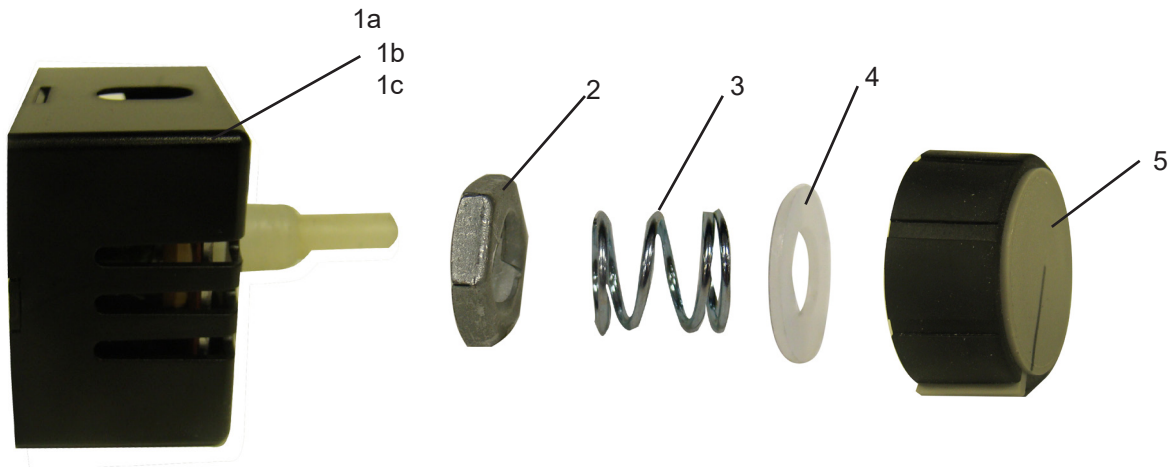


## PARTS LIST - BASE - ALL MODELS



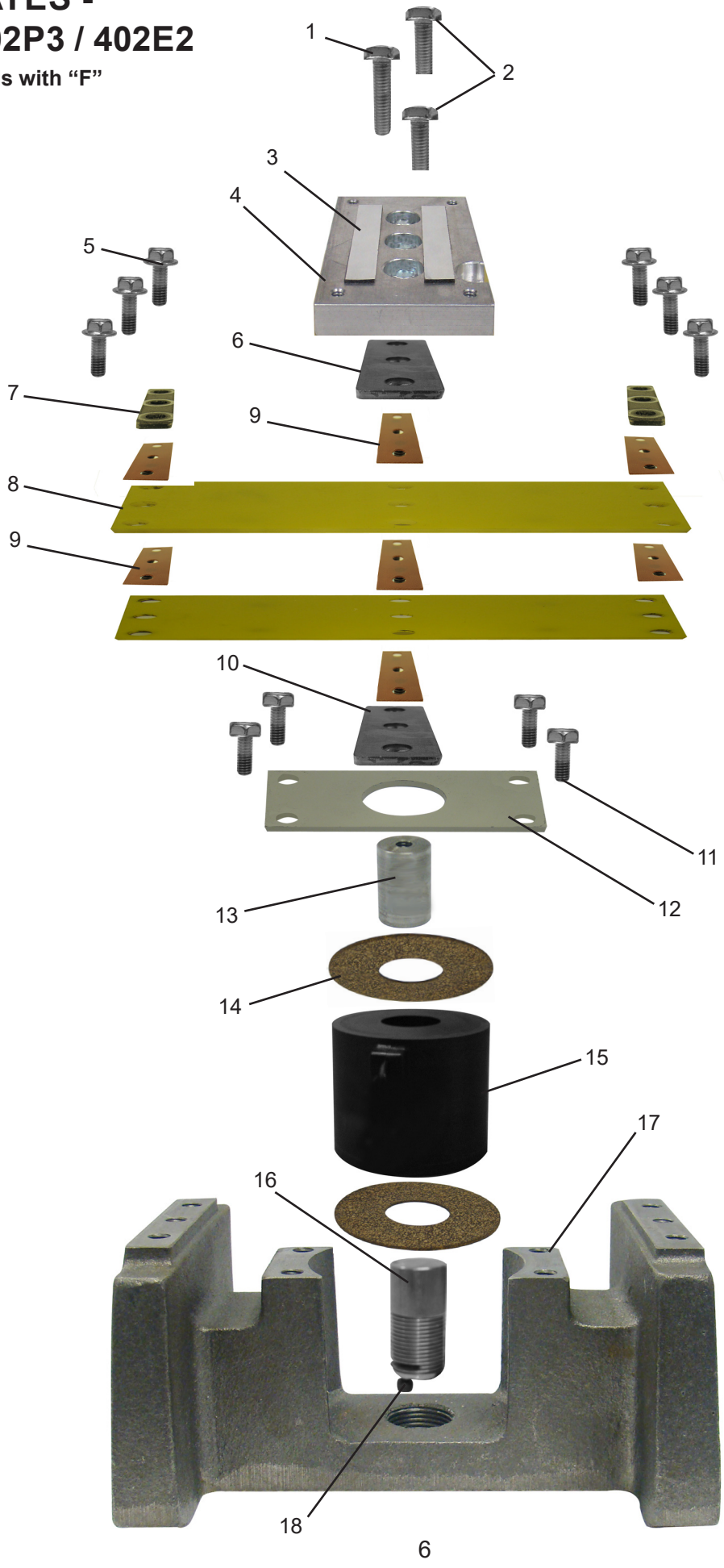
Item #	Part #	Description	Qty
1a	317-0013	115Volt, 1.5A FUSE	1
1b	317-5183	230Volt, 1A FUSE	1
2	317-0053	FUSE HOLDER	1
3a	395-1225	115V INSTR. JOGGER POWER CORD	1
3b	395-1226	230V INSTR. JOGGER POWER CORD	1
4	325-0041	MAINTENANCE DECAL W/FRENCH	1

## CONTROL KNOB - ALL MODELS



Item #	Part #	Description	Qty
1a	395-1126	115 VAC VIBRATION CONTROL ASSY	1
1b	395-1127	230 VAC VIBRATION CONTROL ASSY	1
1c	395-1224	230 VAC VIBRATION CONTROL ASSY (Serial # ending w/ "F")	1
2	378-0004	#10 KEP NUT	1
3	342-0106	COMPRESSION SPRING	1
4	377-6639	NYLON WASHER	1
5	372-0061	CONTROL KNOB	1

**COIL/PLATES -**  
**402P1 / 402P3 / 402E2**  
Serial # that ends with "F"



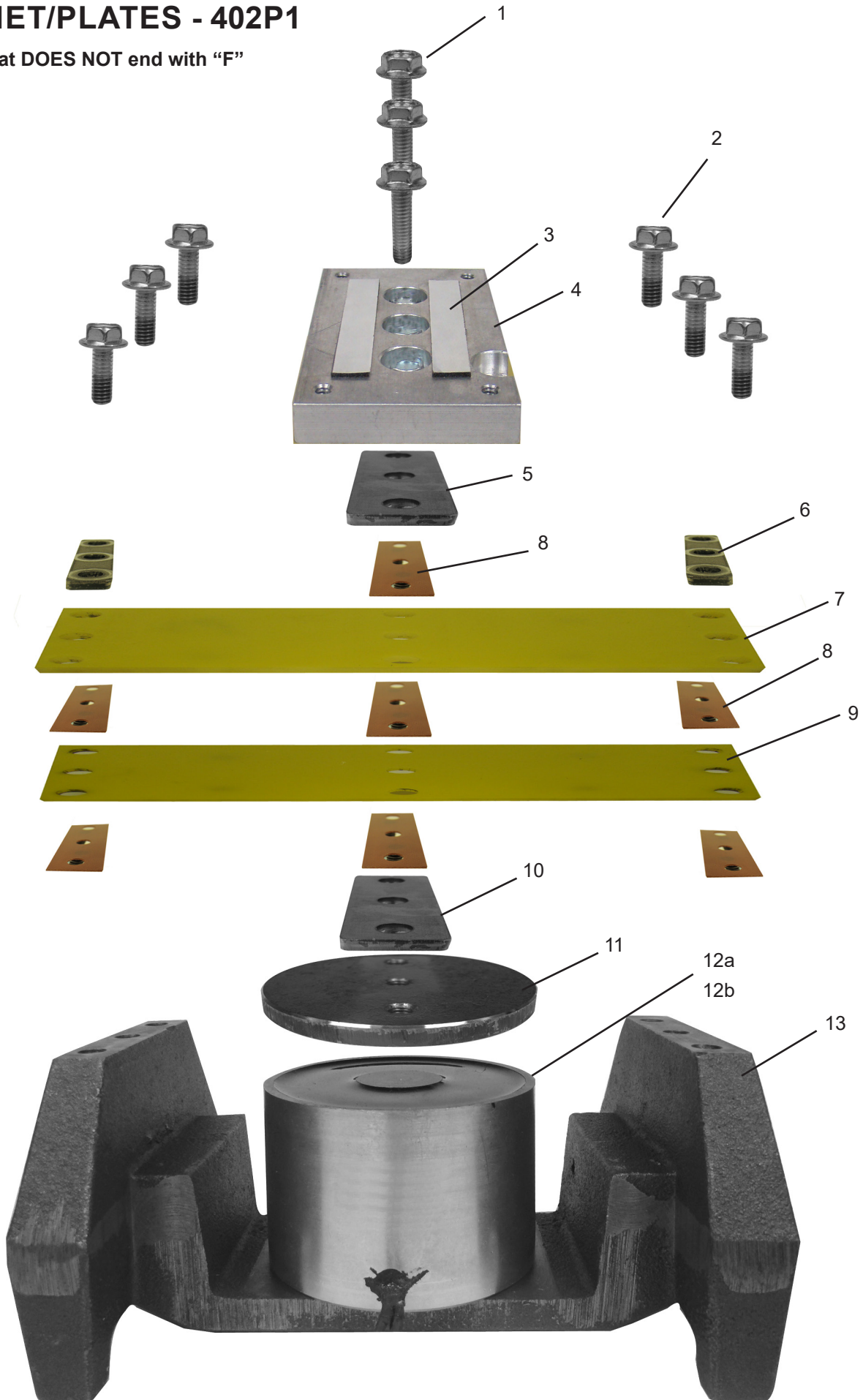
**COIL/PLATES -  
402P1 / 402P3 / 402E2**

Serial # that ends with "F"

Item #	Part #	Description	Qty
1	375-0143	5/16-18 x 1 1/4 HEXHD SERRATED FLANGE SCREW	1
2	375-0147	5/16-18 x 1" SERRATED FLANGE SCREW	2
3	305-8441	FOAM TAPE 1/2" WIDE	1
4	334-0395	HOPPER MOUNT, JOGGER	1
5	375-0142	5/16-18 x 7/8 HEXHD SERRATED FLANGE SCREW	6
6	360-2375	CENTER STRIP BRACER	1
7	360-2377	HOLD DOWN STRIP	2
8	321-0114	FLEX PLATE 1/8" THK, JOGGER	2
9	321-0115	SPACER	7
10	360-2628	LOWER THREADED PLATE	1
11	375-0145	1/4-20 x 3/4 BTHD CAP SCREW	4
12	360-2629	HOLD DOWN PLATE, COIL	1
13	334-0417	PLUNGER	1
14	377-0090	PORON WASHER	2
15a	395-1222	ENCAPSULATED COIL ASSY, 120V	1
15b	395-1223	ENCAPSULATED COIL ASSY, 220V	1
16	334-0416	CENTER STUD, ADJUSTABLE	1
17	334-0415	MACHINED CAST IRON BASE	1
18	374-2810	1/4-20 x 5/8" LONG SCREW	1

# MAGNET/PLATES - 402P1

Serial # that DOES NOT end with "F"

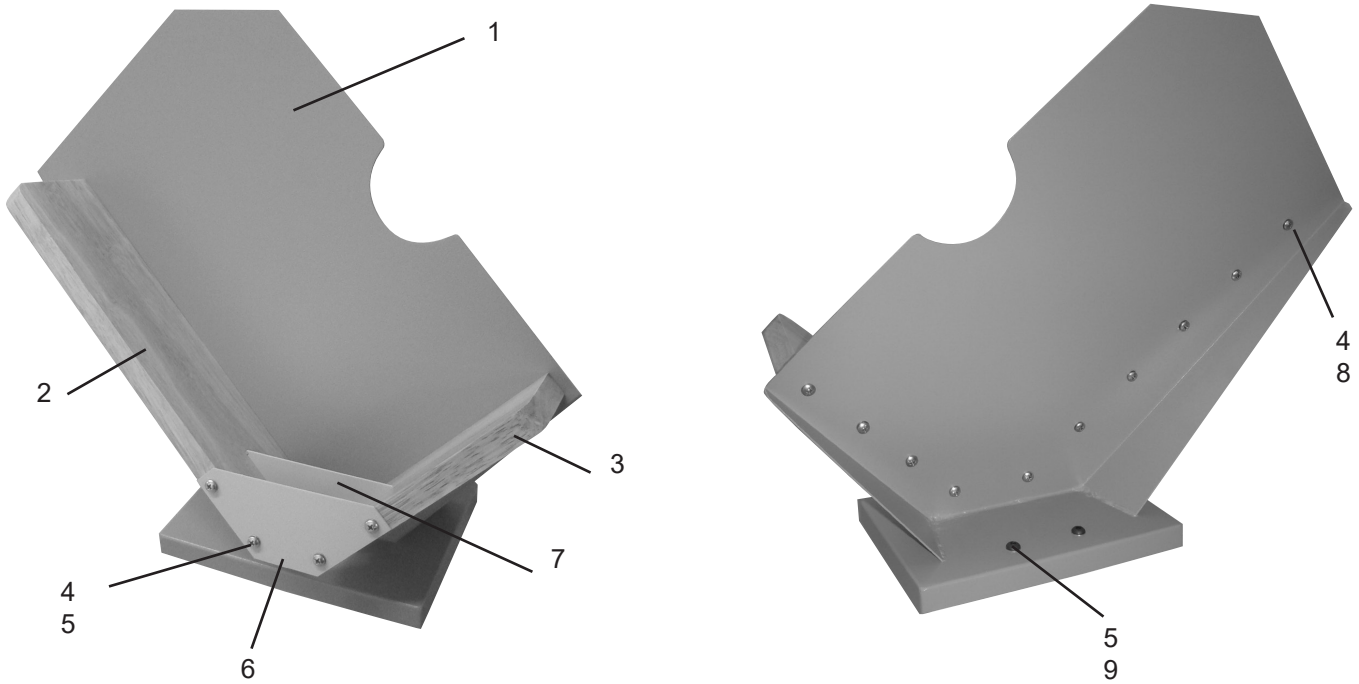


# MAGNET/PLATES - FD 402P1

Serial # that DOES NOT end with "F"

Item #	Part #	Description	Qty
1	375-0143	HEXHD SERRATED FLANGE SCREW 5/16 - 18 X 1 1/4	3
2	375-0142	HEXHD SERRATED FLANGE SCREW 5/16 - 18 X 7/8	6
3	305-8441	FOAM TAPE 1/2" WIDE X .6 FT	2
4	334-0395	HOPPER MOUNT	1
5	360-2376	CENTER BOLT STRIP	1
6	360-2377	HOLD DOWN STRIP	2
7	321-0114	1/8" THICK FLEX PLATE	1
8	321-0115	SPACER	9
9	321-0116	1/16" THICK FLEX PLATE	1
10	360-2375	CENTER STRIP SPACER	1
11	334-0396	ARMATURE, JOGGER	1
12a	395-1119	115 VAC MAGNET ASSY	1
12b	395-1120	230 VAC MAGNET ASSY	1
13	334-0397	BASE, JOGGER	1

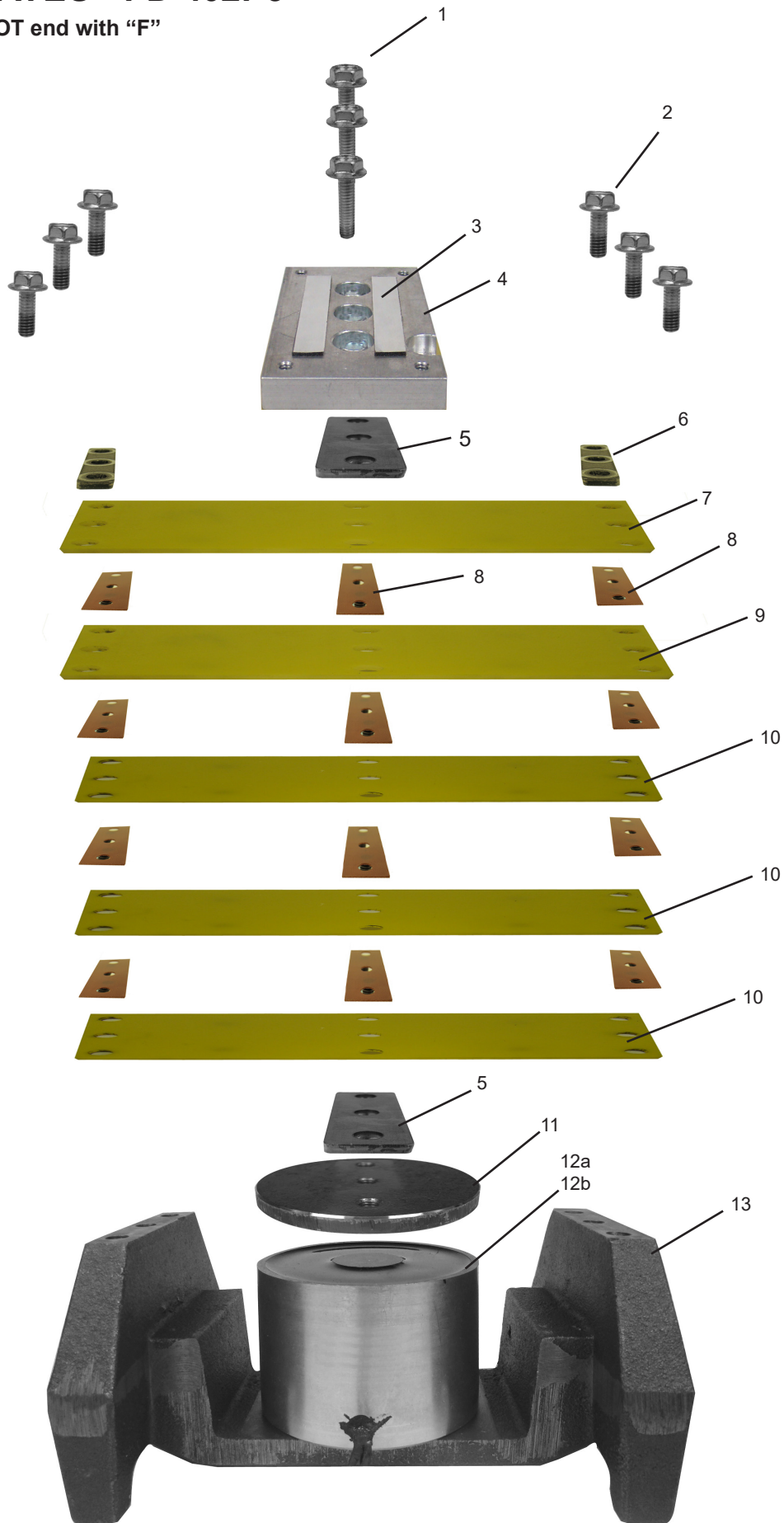
# JOGGING BIN - FD 402P1



Item #	Part #	Description	Qty
1	360-2378	PAPER HOPPER	1
2	324-0001	HOPPER WOOD, LONG	1
3	324-0002	HOPPER WOOD, SHORT	1
4	373-0139	#10 SELF DRILLING 10 X 3/4 PH SCREW	14
5	377-0082	1/4 INTERNAL STAR WASHER	4
6	360-2379	WOOD BRACE	1
7	360-2372	DIVIDER, HOPPER	1
8	377-0083	#8 INTERNAL STAR WASHER	14
9	375-5297	1/4 - 2- X 1" SCREW	4

# MAGNET/PLATES - FD 402P3

Serial # that DOES NOT end with "F"



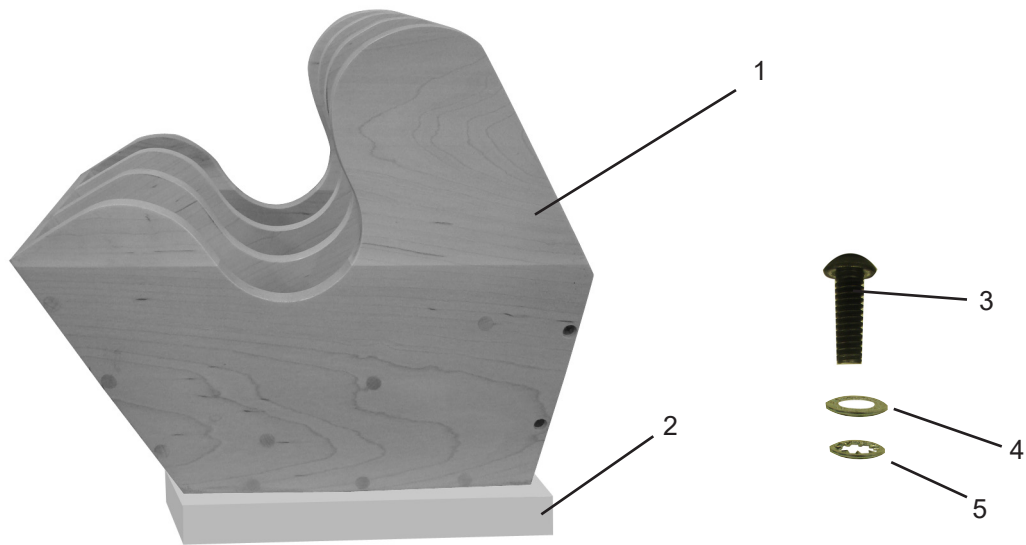
# MAGNET/PLATES - FD 402P3

Serial # that DOES NOT end with "F"

Item #	Part #	Description	Qty
1	375-0143	HEXHD SERRATED FLANGE SCREW 5/16 - 18 X 1 1/4	3
2	375-0142	HEXHD SERRATED FLANGE SCREW 5/16 - 18 X 7/8	6
3	305-8441	FOAM TAPE 1/2" WIDE X .6 FT	2
4	334-0395	HOPPER MOUNT	1
5	360-2376	CENTER BOLT STRIP .188 THICKNESS	2
6	360-2377	HOLD DOWN STRIP	2
7	321-0114	1/8" THICK FLEX PLATE	1
8	321-0115	SPACER	12
9	321-0116	1/16" THICK FLEX PLATE	1
10	321-0117	1/32" THICK FLEX PLATE	3
11	334-0396	ARMATURE, JOGGER	1
12a	395-1119	115 VAC MAGNET ASSY	1
12b	395-1120	230 VAC MAGNET ASSY	1
13	334-0397	BASE, JOGGER	1

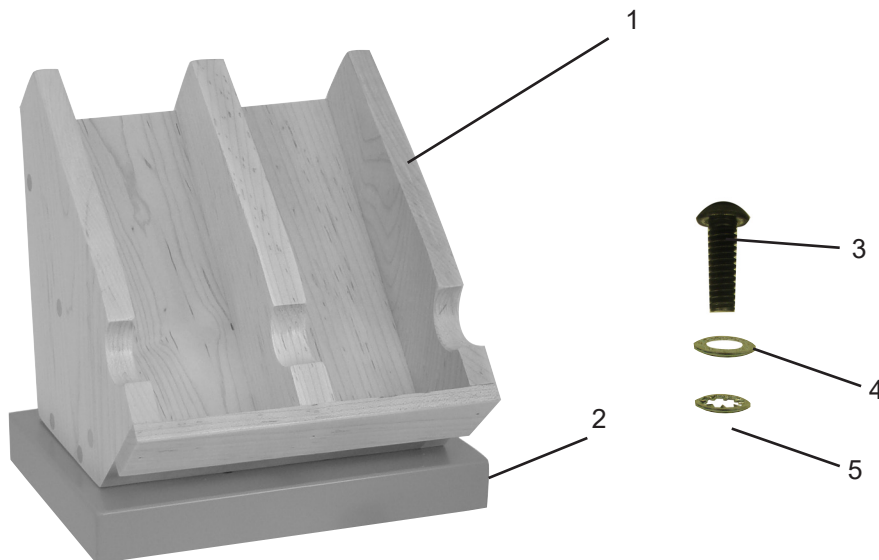


## JOGGING BIN - FD 402P3



Item #	Part #	Description	Qty
1	324-0003	PAPER HOPPER, 402P3	1
2	360-2387	HOPPER BASE	1
3	375-5297	BOLT	4
4	377-1808	FLAT WASHER	4
5	377-5860	STAR WASHER	4

## JOGGING BIN - FD 402E2



Item #	Part #	Description	Qty
1	324-0004	PAPER HOPPER, 402E2	1
2	360-2387	HOPPER BASE	1
3	375-5297	BOLT	4
4	377-1808	FLAT WASHER	4
5	377-5860	STAR WASHER	4

