

**INSTALLERS, SERVICE & LINE MECHANICS:** PLEASE READ THIS MANUAL AND FAMILIARIZE YOURSELF THOROUGHLY BEFORE ATTEMPTING TO INSTALL OR SERVICE THE DALEMARK EQUIPMENT DESCRIBED HEREIN. FOR FURTHER ASSISTANCE, CONSULT OUR FACTORY STAFF.

## **INSTRUCTION AND PARTS MANUAL**

**SERIES 975  
FLAT CARTON DEBOSSER  
MODEL 975-DEX**

**SERIAL NO.** \_\_\_\_\_

When ordering, always provide the following information:

- MODEL NUMBER
- SERIAL NUMBER
- PART DESCRIPTION & PART NUMBER  
AS SHOWN IN PARTS LIST

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KBIC Speed Controls	
Red Lion Counter	
Red Lion Option Cards	
Keyence Photoelectric Sensor	

## Safety Guidelines

1. Make sure machine is grounded. Check electrical code in your state for specific guidelines.
2. When doing adjustments and maintenance on machine, pull out electric plug from socket to ensure your safety.
3. Do not operate machines if you are wearing loose garments such as ties or unbuttoned sleeves. Do not wipe rollers or other parts of machine while it is running. 90% of press room accidents are caused by getting caught in rotating parts of the press.
4. Do not wash down electrical boxes, unless they have a NEMA 4 rating.
5. Do not attempt to pull box out of the press if it jams up before turning motor off.
6. Store solvents and dirty rags in accordance with local fire codes.
7. Disposal of used thinner or solvent should conform to all local, state or federal regulations.
8. Do not smoke when handling thinners or solvents.
9. Material Safety Data Sheets are available, on request, for all inks and thinners.
10. Do not store unused pusher inside of the press.
11. Do not attempt to defeat safety switches and interlocks.
12. Use the opened plastic cover for your type tray if need be.

# Operating Instructions

Remove shipping brackets and place the press on a level surface.

1. **Setting up the Hopper:** This press is designed to feed cards or sheets as thin as .012 of an inch; and most types and shapes of chipboard boxes, including boxes with built in bottoms. Fine printing, can be applied over areas of uneven thickness.

In order to get the most out of this versatile machine follow these general rules:

- A. The side that you want to print must face up.
- B. Never feed a box by pushing on the box flap. Always try to push against the edge that is at right angles to the side with the flaps.
- C. Never feed a box so that the seam can get caught on the bottom of the gate. If the seam must face up, it must face away from the gate so that it cannot get caught on it. See the following page.
- D. Although the press can print over areas of the box that are of uneven thickness, it will print better over areas that are of the same thickness.
- E. Boxes that do not lay flat on the hopper floor, will need a box hold down to press them flat so they can be fed properly. This will be recommended if that box was sent to us for evaluation.
- F. When printing cards, fan them (bend the stack back and forth) to make sure they are not stuck together. Do this before loading them into the hopper.

After you decide which way the box or card will be placed in the hopper, you can adjust the pusher.

2. **Adjusting the Pusher:** If the length of your box or card is less than 8 1/16 inches, use pusher P2 (Drawing #1). If it is longer than 8 1/16 inches, use pusher P3 (Drawing #1). Do not store the unused pusher inside the press.

Move the pusher assembly as far as you can from the print drum by activating the JOG Selector Switch.

Loosen P8 screws on top of the pusher assembly (Drawing #1). Place pusher P2 or P3 in the post. Place the item to be printed in the center of the hopper. Make sure the front (leading edge) of the item is up against the gate.

Move the pusher so that the pusher blade P5 is approximately 1/8 "from the back (trailing edge) of the item to be printed.

Tighten P8 screws on top of the pusher assembly.

Pusher blade P5 should be adjusted so that it is just below the surface of the box or the card you wish to print. This is shown in (Close up View of Pusher). If blade needs adjusting, loosen screws P7 and adjust height by turning set screws P6. Next, adjust gate C7-E so that gap at bottom is small enough so that only one box or card can pass through at a time. Make sure box or card can pass through gap with no restrictions. Sometimes boxes are a little thicker in the center, so take that into account. Adjust gap using handle H1. Lift handle up and turn it to any convenient position without moving the gate. Test the gap by sliding the box or card under the gate by hand. It should slide easily under the gate. Then try sliding two boxes or cards at one time under the gate. If you can, then lower the gate until they can not pass together. After you are finished adjusting the gate, lift handle H1 and place it against the gate.

If the bottom of your box or card has a fine finish that should not be marked, there is a UHMW plastic pusher blade available for this application.

Place sample back in the hopper. Adjust hopper side plates A4 so that there is about 1/32 of an inch clearance between it and the side plates. Then do the same for the hopper back A3. The clearance is necessary to prevent the items from jamming up in the hopper.

- 3. Setting up the Type:** The standard print drum, ND1, is made to hold only Dalemark Indenting Type.

To place the Type in the print drum, first loosen locking ring ND5 using the 5/16 diameter pin drive tool. Place the other pin drive tool in the print drum ND1. After loosening ring, pull back aluminum ring ND3. Rotate print drum so that the 1/8" diameter support pin is at the 2 o'clock, when looking from the control side of the press.

Place Type in print drum so they are resting on the 1/8 pin, with the notch facing the aluminum ring ND3. After all the Type is in place, push the aluminum ring against the Type. The ring should lock the Type in place. (If it doesn't fit, do not force it in using the locking ring ND5.) After the ring is in place, rotate it clockwise until it stops. Then tighten the locking ring NDS.

After the Type is in place, loosen registration clamp ND7 so that the print drum can turn freely. Feed one sample box or card past the gate by activating the JOG and stop before it touches the print drum. Now turn the loosened print drum with your hand so that the Type will meet the box or card in the location you want. After the drum is turned to that approximate location, lock the registration clamp ND7. Later you can adjust the registration using the registration fine adjustment knob.

If you must have the Type in the print drum face the opposite way, the print drum can be removed from the print drum shaft and reversed.

4. **Adjusting the Height of the Print Drum:** The height of the print drum has to be adjusted to the thickness of the box or card you wish to print. If the print drum is not high enough for a given box or card, there might be too much pressure on the item. The indented print will show up on the other side of the item. If the print drum is set too high there might not be enough pressure to give a clear print.

To adjust the height of the print drum, place a strip of writing paper (approximately .002 of an inch thick) on top of the sample item in the area where you will print. Activate the JOG so the box and the strip of paper are under the Type. Now use knobs K1-E and K2-E, on both sides of the press, to adjust the height of the print drum. One-quarter turn of knob K1-E will move print drum .010 of an inch. Adjust the knobs so that there is a slight drag on the strip of paper when you pull on it. When knob K1-E is turned counter-clockwise the drum moves down. Turn both K1-E knobs one-quarter turn counter-clockwise for your first test run.

When indicator lines on top of knobs K1-E are pointing to the same numbers, the print drum is level.

The machine can accommodate boxes of uneven thickness, such as 3 layers of chipboard on one side and 1 layer on the other side. The print drum might have to be tilted in a situation like this. When print drum is put back into the normal position, the threaded rod should be at the same level in both K1-E knobs and the line should be on the same number.

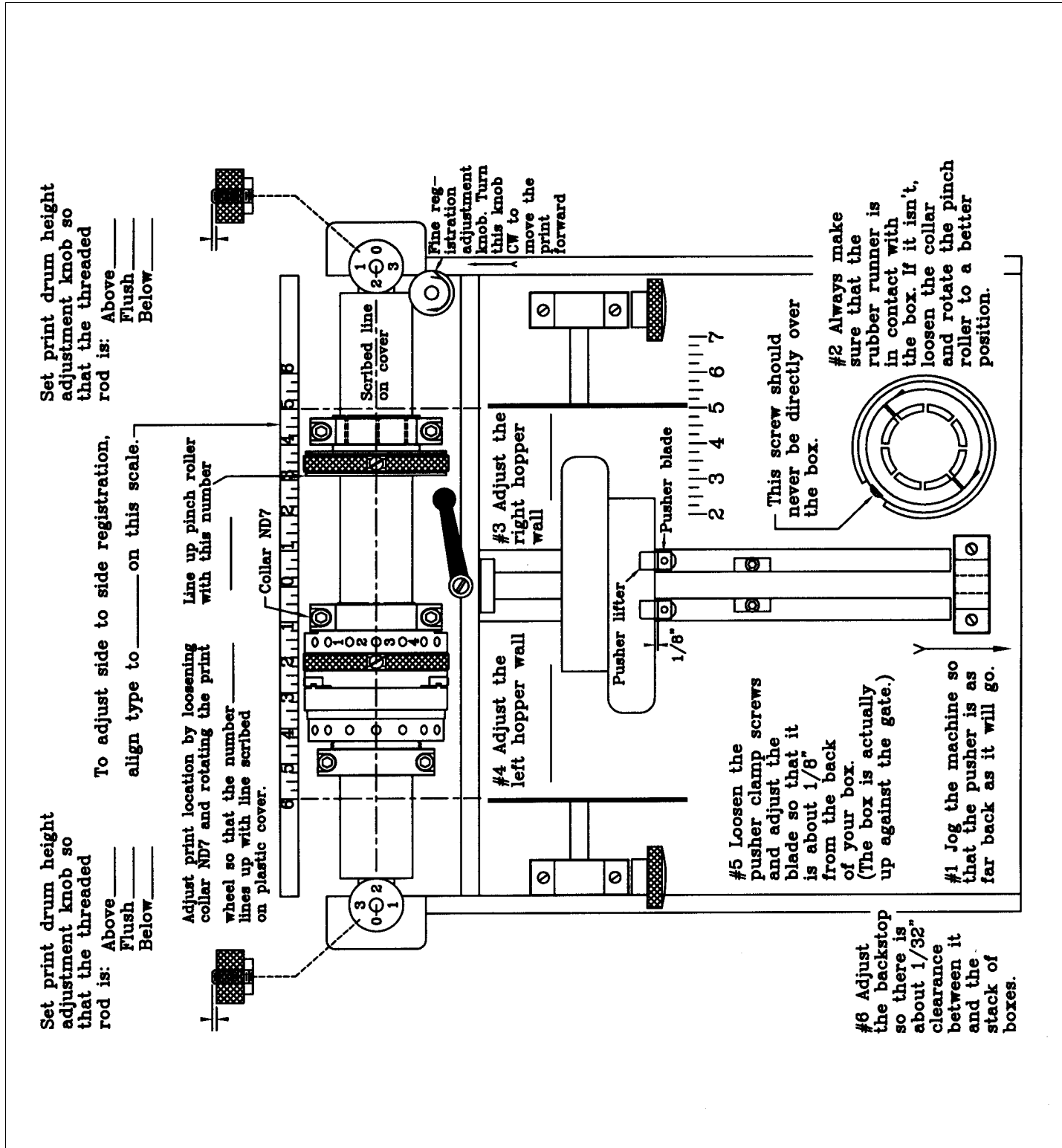
Make sure locking Knobs K2-E are tight before starting the machine.

5. **Test Run:** Fill up the hopper with the boxes or cards that you set up the press for. Turn on the press long enough to print one or two items. Check the position of the printing. If it is off by a lot, loosen registration collar ND7 and adjust the timing of the print drum.

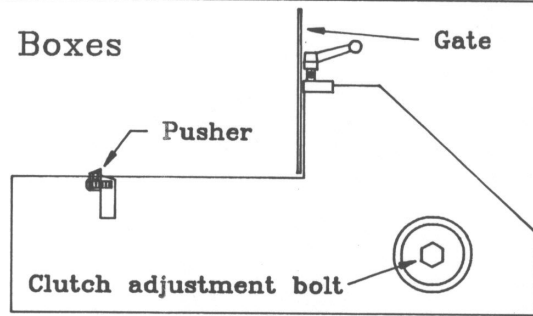
Fine registration adjustments can be made by turning knob K3. One complete turn counterclockwise moves print 1/16 of an inch towards the front (leading edge) of the item. One quarter of a turn moves print 1/64 of an inch.

If the print is to the left or to the right of the place were it is supposed to be, you can loosen the registration collar ND7 and move the print drum to the left or right. Be sure not to rotate it if you do not want to change the print registration the other way. You can also adjust the position of the box or card in the hopper by repositioning the hopper side plates, if that is feasible.

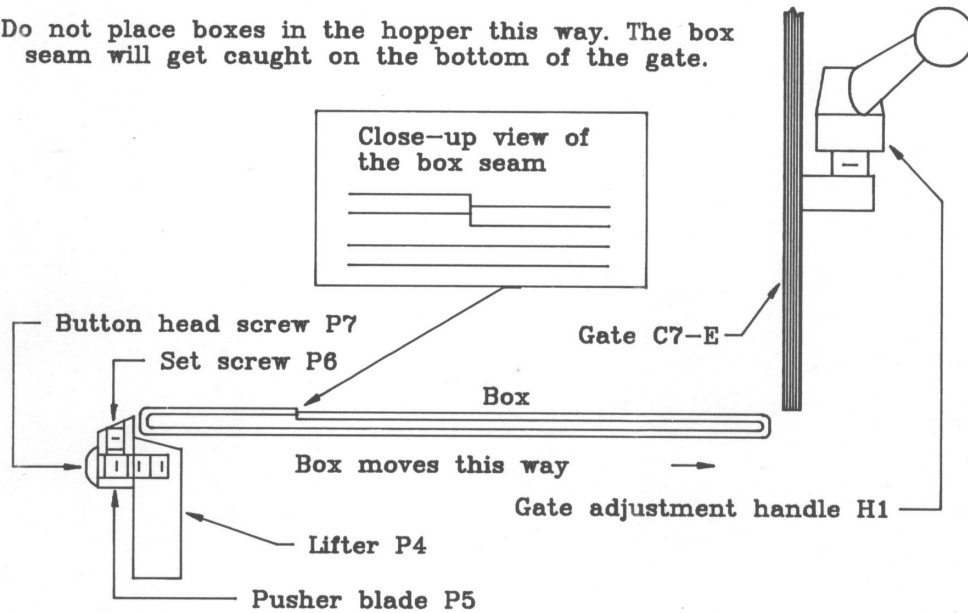
## Setting up Model 975-DEX for your box code



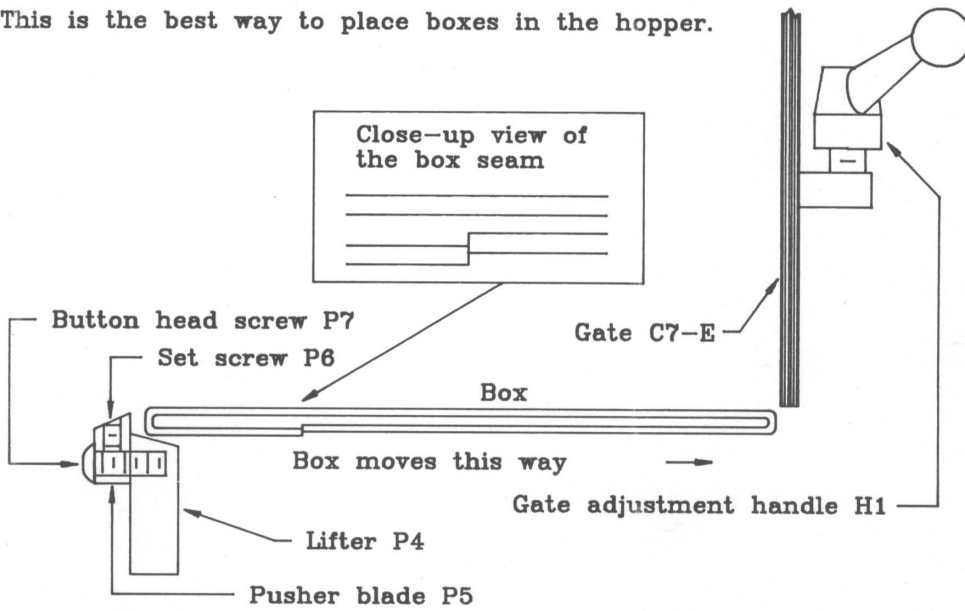
## How to Load Hopper With Boxes



Do not place boxes in the hopper this way. The box seam will get caught on the bottom of the gate.

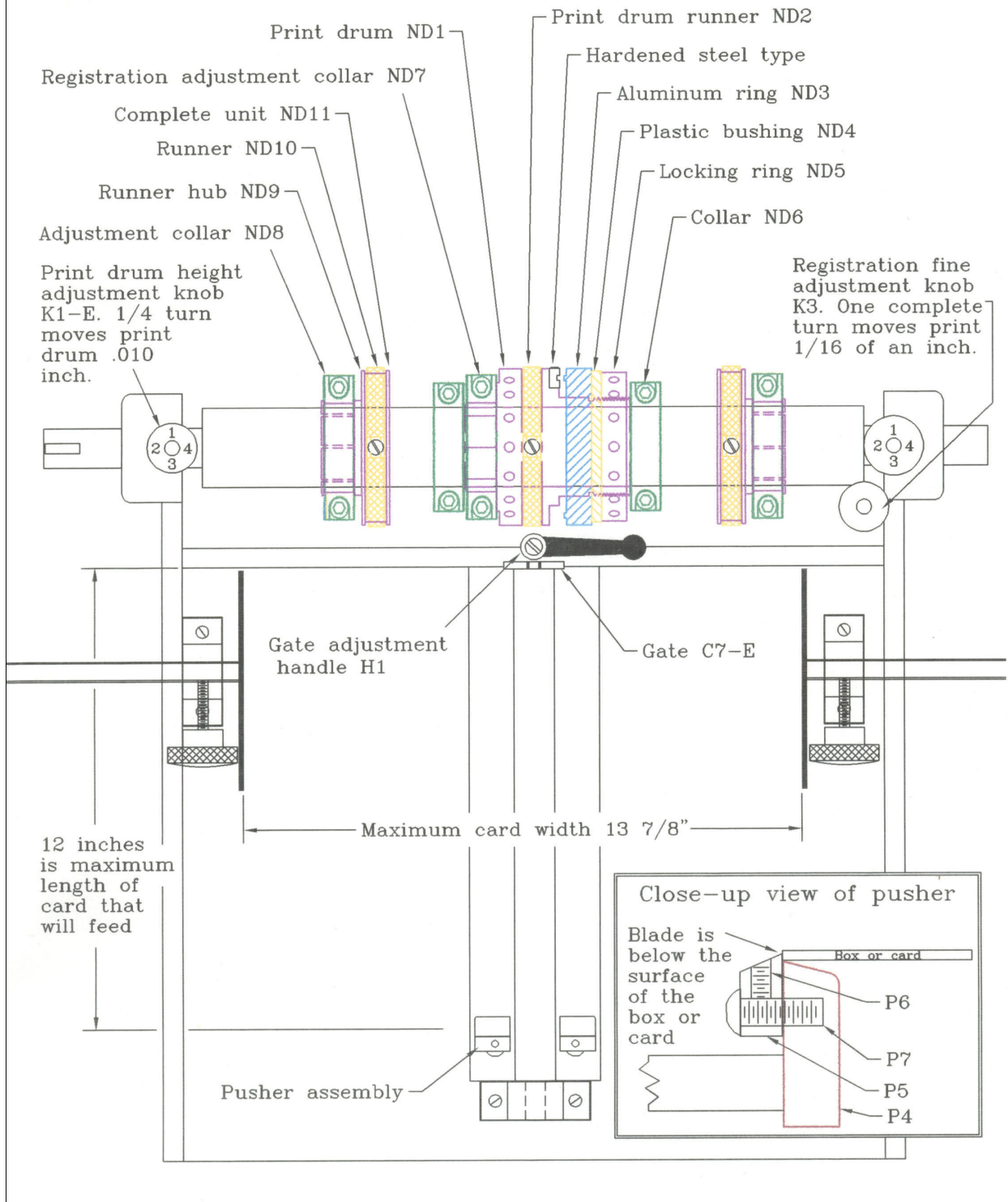


This is the best way to place boxes in the hopper.





Top view of hopper and print drum



## Maintenance

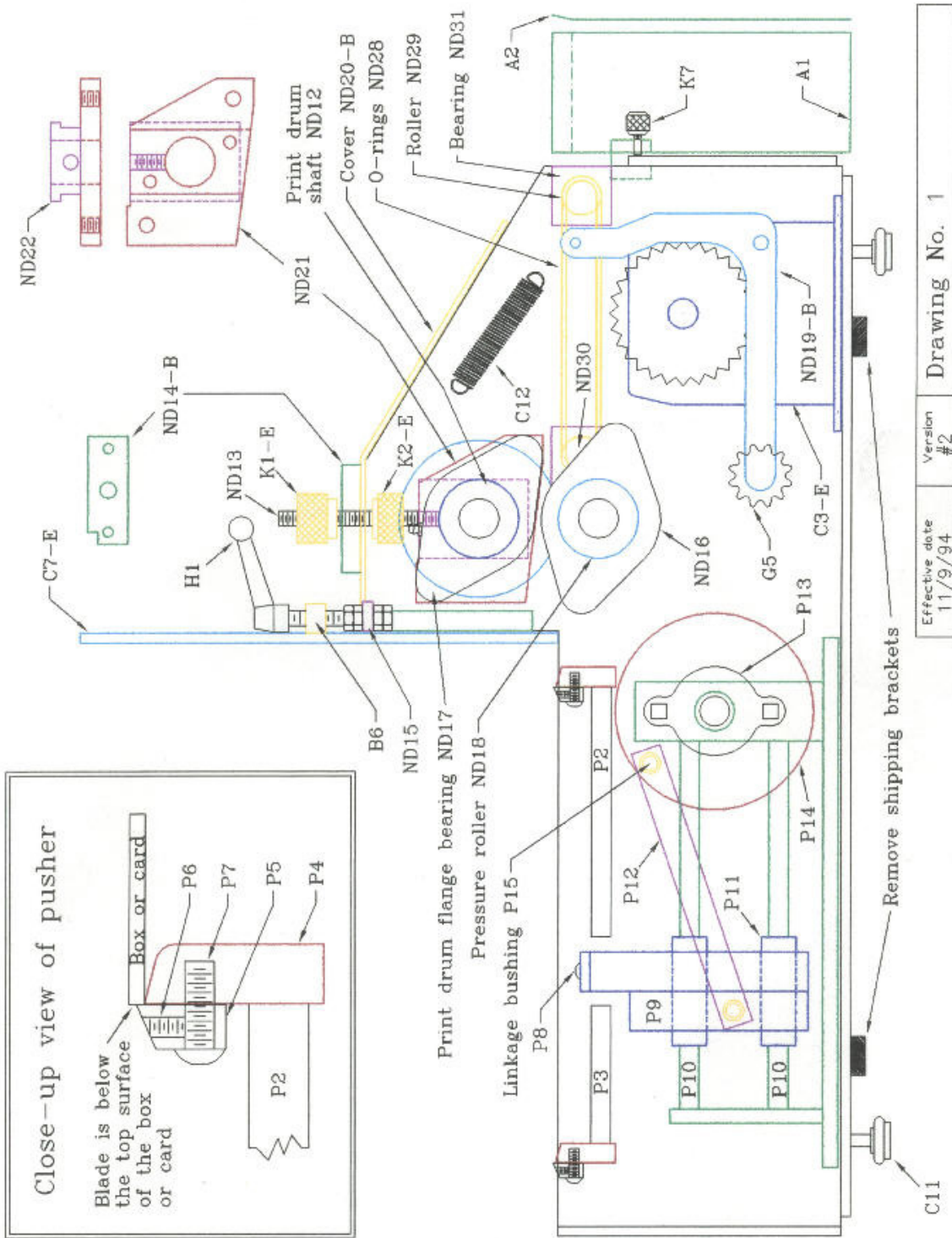
1. Clean dirt build-up from motor. This can cause added motor heating, and therefore, can shorten motor life.
2. Keep pusher guide shafts, P10, free of dirt build-up. Apply a thin coating of Shell Alvania #2 grease or equivalent.
3. Once a week open gearbox and grease gears with Shell Alvania #2 grease or equivalent.
4. Keep roller chains greased with chain grease.
5. If machine slows down or stops under heavy load, you probably have to adjust the slip clutch. If this is so, you may hear the motor turning but the motor sprocket is turning slower than the motor shaft or not turning at all. To adjust, activate JOG Switch accordingly. If this doesn't work, activate JOG Switch again.
6. If your press has a rubber runner on the print drum to help keep registration, clean off any sticky accumulations on its surface with alcohol.

## Parts List

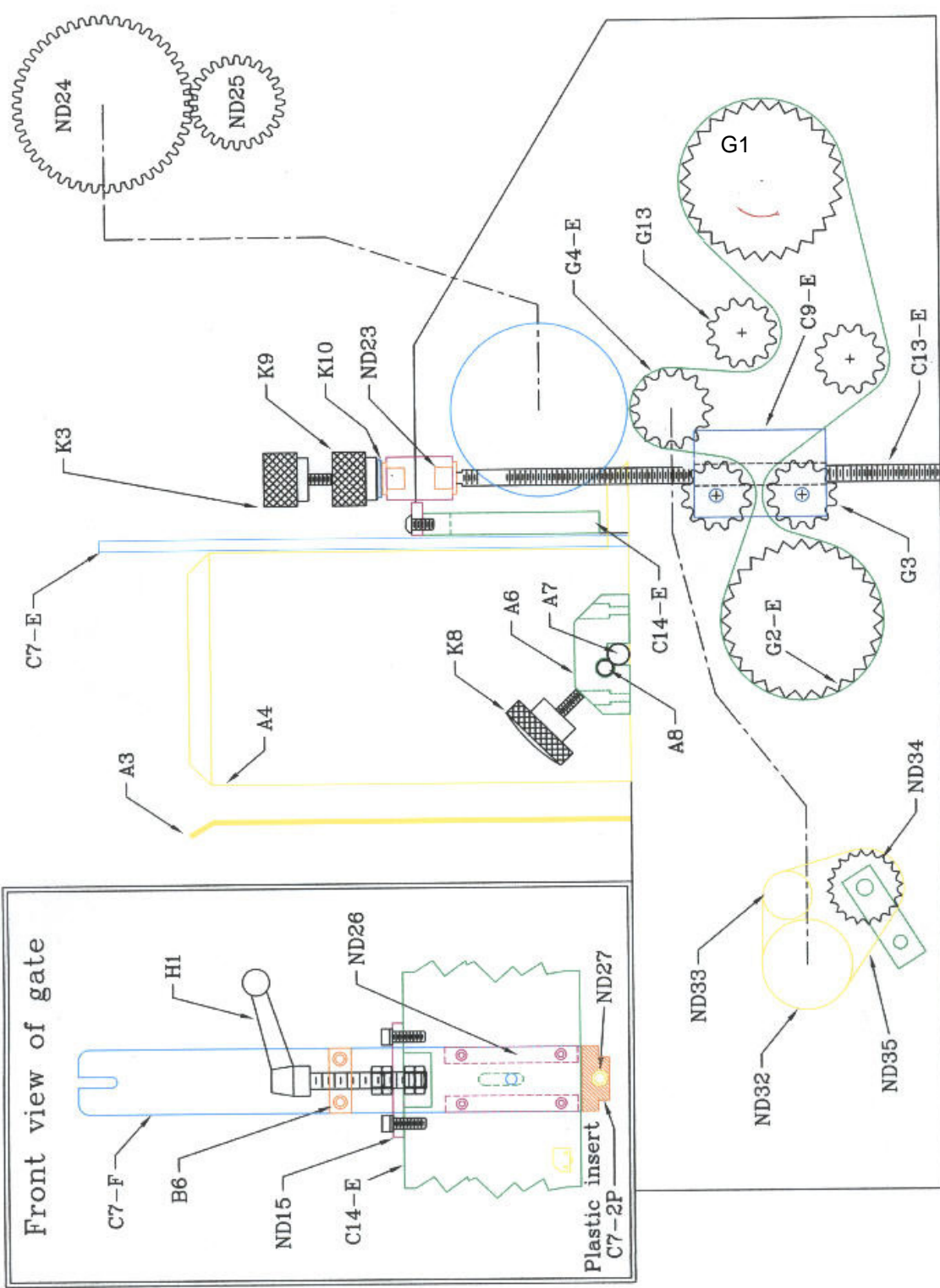
<b>Part No.</b>	<b>Description</b>	<b>Quantity.</b>
A1	Box catcher side plates (Comes in left and right sides)	2
A2	Box catcher back plate	1
A3	Hopper back plate	1
A4	Hopper side plates (Comes in left and right sides)	2
A6	Hopper clamps	3
A7	Hopper rods (Specify left or right)	2
A8	Cam	3
B6	Adjustment block	1
C3-E	1/4 H.P. DC Motor	1
C7-E	Gate	1
C9-E	Registration fine adjust	1
C11	Leveler	5
C12	Idler spring	1
C13-E	Threaded rod	1
C14-E	Gate wall	1
CL1	Slip Clutch	1
CL2	Hex bolt	1
CL3	Spring washer	1
CL5	Set screw	1
CL6	Fiber	1
CL7	Bushing	1
CL8	Sprocket hub	1
CL9	Motor extension shaft	1
CL10	Sprocket	1
CL11	Bushing	1
CL12	Collar	1
G2-E	Sprocket 35B28 3/4" bore	1
G3	Sprocket 35B12 with iolite	2
G4-E	Sprocket 35B 14 1" bore	1
G5	Sprocket 35B 12 with iolite	1
G13	Sprocket 35B12 with iolite	1
H1	Gate adjustment handle	1
K1-E	Print drum height adjustment knob	2
K2-E	Print drum height adjustment locking knob	2
K3	Registration fine adjustment knob	1
K7	Box catcher knobs	2

K8	Hopper clamp knobs	3
K9	Registration fine adjustment locking knob	1
K10	Nylon washer	1
ND 1	Print drum with runner	1
ND2	Runner for print drum	1
ND3	Retaining ring	1
ND4	Plastic bushing	1
ND5	Locking ring	1
ND6	2" I.D. collar	2
ND7	2 1/4" I.D. collar	1
ND8	2 1/4" I.D. collar	2
ND9	Runner hub	2
ND10	Runner	2
ND11	Complete unit	2
ND12	Print drum shaft	1
ND13	3/8-24 threaded rod	2
ND14	Plate	2
ND15	Brass plate	1
ND16	Flange bearings	2
ND17	Print drum flange bearings	2
ND18	Polyurethane pressure roller	1
ND19	Idler arm	1
ND20	Lexan cover	1
ND21	Print drum adjustment plate (Specify left or right)	2
ND22	Print drum adjustment guide (Specify left or right)	2
ND23	3/8" I.D. bushings	2
ND24	Print drum gear CG1248	1
ND25	Pressure roller gear CG1224	1
ND26	Brass guides	2
ND27	Nylon hold-down	1
ND28	"O" rings	7
ND29	Take-off roller	1
ND30	Take-off drive roller	1
ND31	Take-off roller bearings	4
ND32	Sprocket 25B23	1
ND33	Sprocket 25B 11	1
ND34	Idler sprocket	1
ND35	#25 chain	1
ND36	Type control ring	1

<b>Part No.</b>	<b>Description</b>	<b>Quantity.</b>
P1	Pusher assembly frame	1
P2	Pusher, complete	1
P3	Pusher, complete	1
P4	Pusher lifter	2
P5	Pusher blade, steel (Also available in UHMW plastic)	2
P6	Pusher blade screws	4
P7	Pusher blade retaining screw	4
P8	Pusher clamp screw	2
P9	Pusher slide mechanism, complete	1
P10	Pusher rods	2
P11	Linear bearings	4
P12	Flywheel linkage	1
P13	3/4" I.D. flange bearing	1
P14	Flywheel	1
P15	Linkage bushings	2

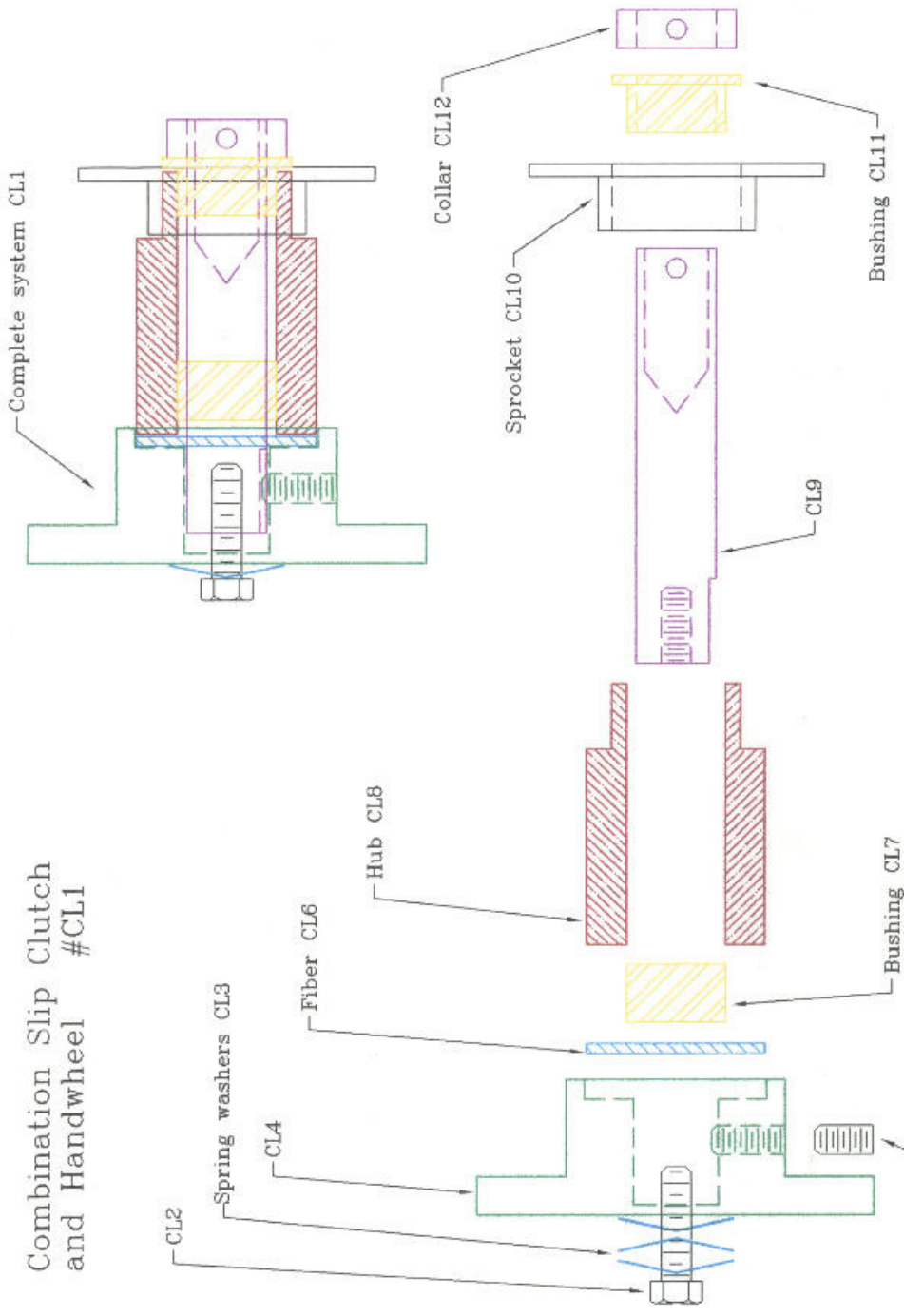


Effective date	Version	Drawing No. 1
11/9/94	#2	



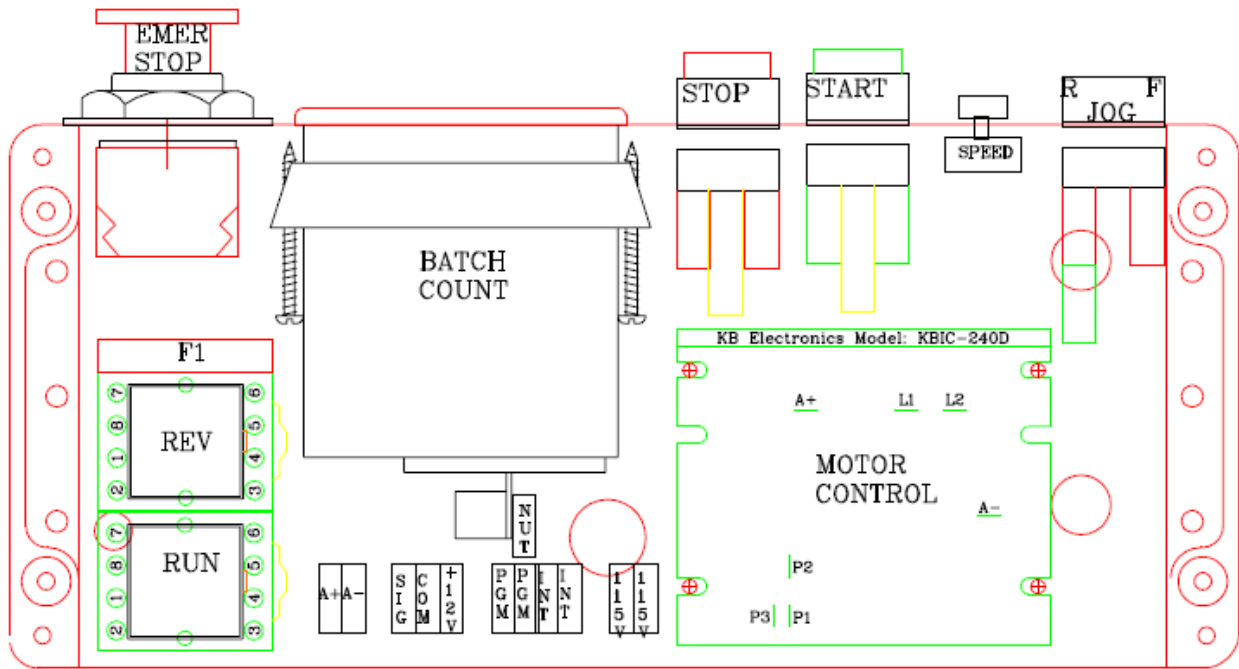
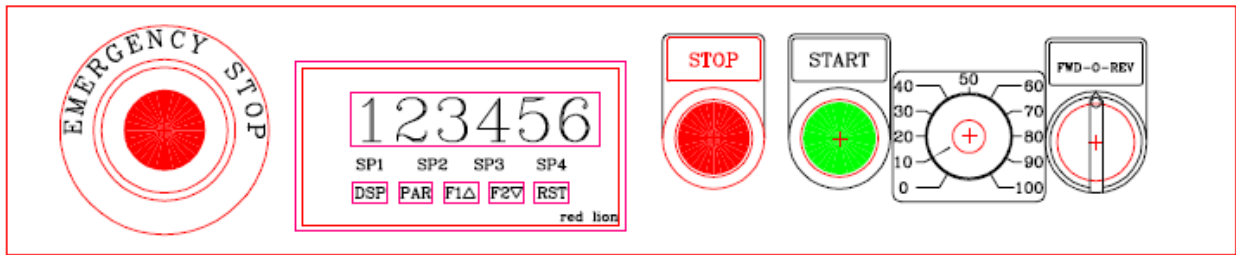
Effective date 10/28/04	Version #3	Drawing No. 2
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# Combination Slip Clutch and Handwheel #CL1

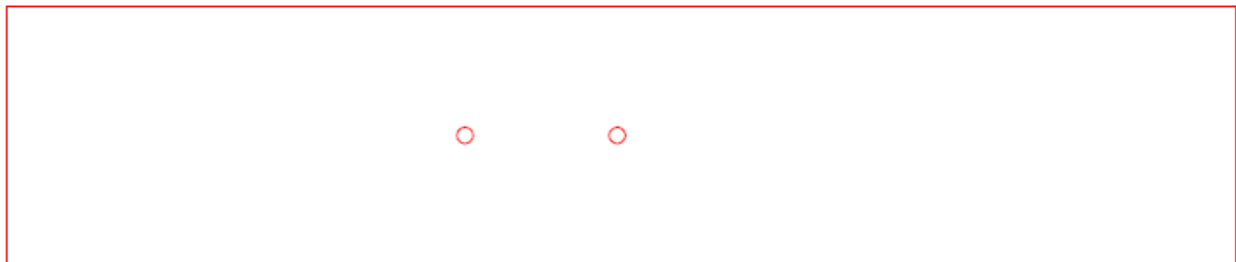


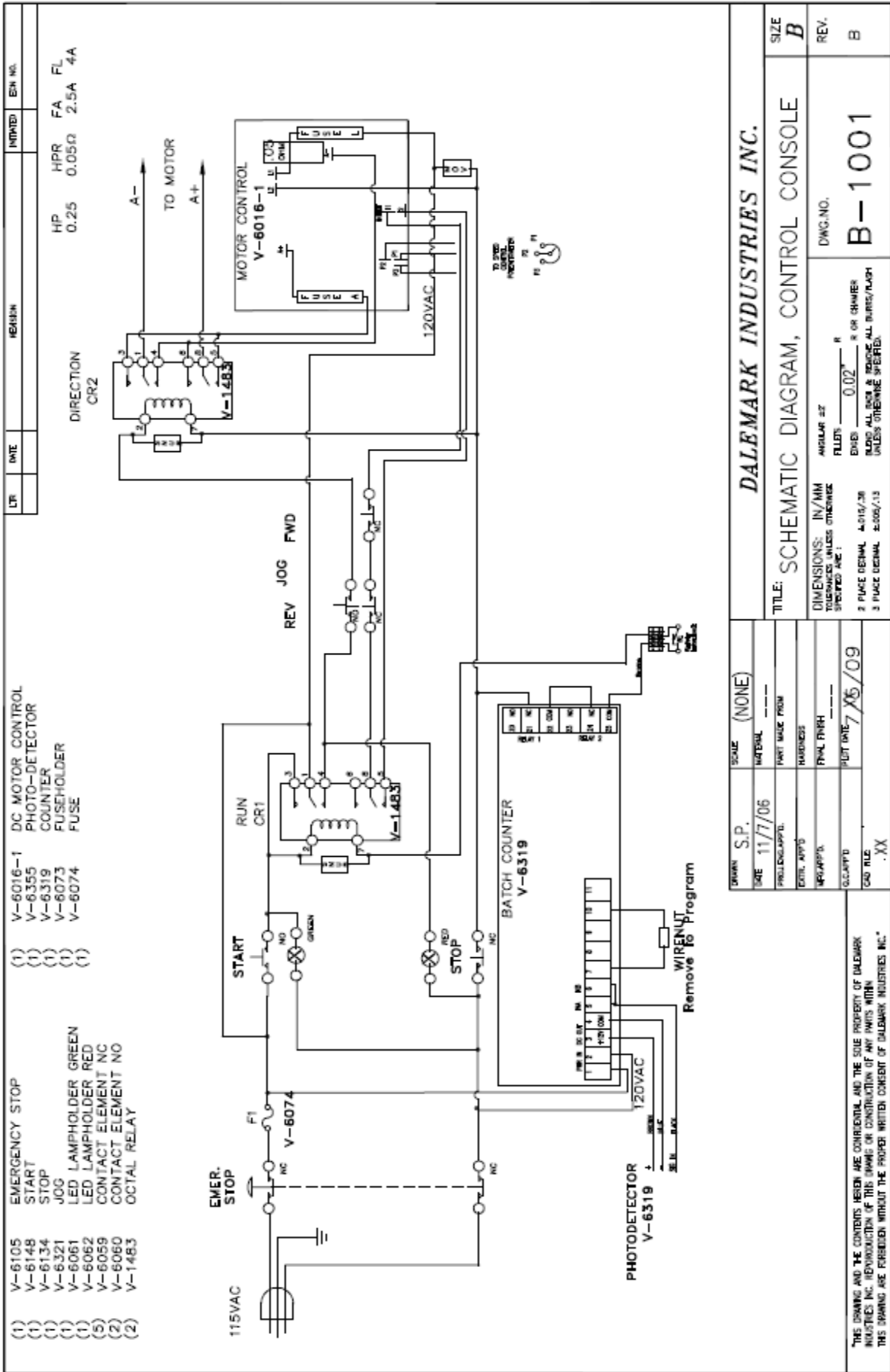
Effective date 5/3/94	Version #1	Drawing No. 3
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MOTOR PHOTO PGM-SAFETY 115VAC

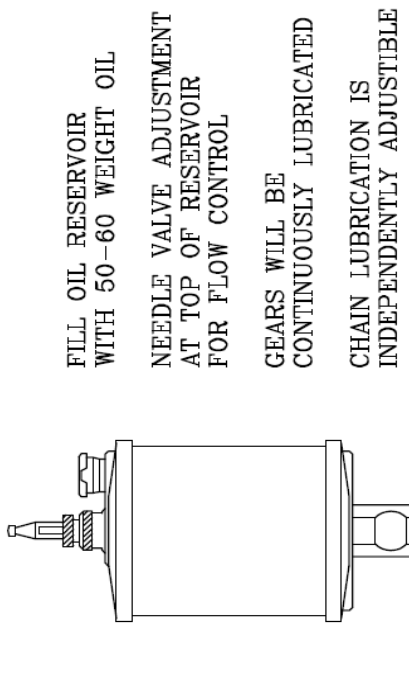




DATE	SCALE	(NONE)
11/7/06	MATERIAL	---
PROLUNGAVAL	PART MADE FROM	---
ENTER APP'D	HARDNESS	---
TRAPPVA	FINL FINISH	---
06.0470	PLT DATE	7/16/09
040 FILE		.XX

DALEMARK INDUSTRIES INC.	
TITLE: SCHEMATIC DIAGRAM, CONTROL CONSOLE	
DIMENSIONS: IN/MM	ANGULAR ±
TOLERANCES UNLESS OTHERWISE SPECIFIED ARE:	FELTS 0.02° ±
2 PLACE DETAIL 4.015/30	EXES 0.02° ± OR CHAMFER
3 PLACE DETAIL 2.005/13	UNLESS OTHERWISE SPECIFIED
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B	B-1001

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FILL OIL RESERVOIR  
WITH 50-60 WEIGHT OIL

NEEDLE VALVE ADJUSTMENT  
AT TOP OF RESERVOIR  
FOR FLOW CONTROL

GEARS WILL BE  
CONTINUOUSLY LUBRICATED

CHAIN LUBRICATION IS  
INDEPENDENTLY ADJUSTIBLE



LAKEWOOD, NJ 08701

OILER With TWO BRUSHES