ASTRO

ENVELOPE FEEDER

AMC-2000-14

FOR

HEIDELBERG

QUICKMASTER

INSTALLATION AND OPERATING INSTRUCTIONS

INTRODUCTION

Thank you for purchasing the Astro Envelope Feeder. It is fast, efficient, reliable, and is designed to give you many years of trouble free service. Top load bottom vacuum feed provides continuous printing of various sized envelopes, cards, and tags. Uniquely designed conveyor board with its synchronized side guides and push guide provides accurate registration for secondary color operations.

The photoelectric sensor is the key element in the synchronization of the envelope feeder to the duplicator and is designed to give many years of virtually trouble-free operation.

The optional auxiliary installation kit provides compatibility to additional presses or duplicators of the same type.

To double your production needs, and optional dual stream feed kit is available for feeding different size envelopes simultaneously.

Numerous built-in features of the Astro Envelope Feeder combine with state-of-the art technology make this unit superior for a customer such as you.

SPECIFICATIONS*

VOLTAGE REQUIREMENTS:	115 VAC – 60 Hz – 10 A
OPTIONAL AVAILABILITY:	220 VAC – 50 Hz - 5 A
ENVELOPE DIMENSIONS:	3" x 5" Minimum
	11" x 16-1/4" Maximum
MAXIMUM FEEDING SPEED:	Governed by the Press
MACHINE DIMENSIONS:	Width – 20"
	Length – 64"
	Height – 42"
	Weight – 150 lbs.
AVAILABLE OPTIONS:	Conveyor Delivery
	Pulse generator kits
	Dual Stream Feed Kit

* The manufacturer reserves the right to change specifications without written notice.

SAFETY PRECAUTIONS

THIS EQUIPMENT PRESENTS NO PROBLEM WHEN USED PROPERLY, HOWEVER, CERTAIN SAFETY RULES SHOULD BE OBSERVED WHEN OPERATING THE FEEDER.

READ THIS MANUAL CAREFULLY AND FOLLOW THE RECOMMENDED PROCEDURES.

1. KEEP HANDS, HAIR, AND CLOTHING CLEAR OF ROLLERS, TAPES AND OTHER MOVING PARTS.
2. ALWAYS TURN OFF THE MACHINE BEFORE MAKING ADJUSTMENTS OR CLEANING THE MACHINE.
3. DISCONNECT THE POWER CORD WHEN MAKING ANY MACHINE ADJUSTMENTS OR PERFORMING ANY MAINTENANCE NOT COVERED IN THIS MANUAL.

CAUTION

THIS EQUIPMENT MUST BE CONNECTED TO A PROPERLY GROUNDED OUTLET. FAILURE TO DO SO CREATES A POTENTIAL DANGER OF ELECTRICAL SHOCK.

PARTS LIST

The following parts are included with this machine. Please check and identify all parts with those listed below:

A.	ENVELOPE FEEDER	84-000-00
B.	STAND WITH PUMP ASSEMBLY	(See Pages 13 & 14)
C.	FRONT ENVELOPE GUIDE R/H	84-108-15
D.	FRONT ENVELOPE GUIDE L/H	84-108-14
E.	CENTER ENVELOPE GUIDE	71-140-13
F.	REAR ENVELOPE GUIDE	84-108-20
G.	SUPPORT PADS (2)	123-0208
H.	LEVELING KNOB	80-108-22
I.	LOCKING THUMBSCREW (4)	80-108-20
J.	SHEET SEPARATOR (4)	71-109-05
K.	SPRING	71-120-02
L.	SUCTION CUP (4)	71-134-15
M.	ALLEN WRENCH – 1/16”	123-0057
N.	ALLEN WRENCH – 3/32”	123-0058
O.	FUSE, 2 AMP (FAST BLO)	123-0285
P.	FUSE, 10 AMP (SLO BLO)	123-0090
Q.	SUCTION FOOT CAP (4)	123-0415
R.	WHEEL CASTERS (4)	(2) 123-0517, (2) 123-0521

UNPACKING INSTRUCTIONS

1. Unpack the stand and the feeder from their boxes. Check the contents of the box with the Parts List on Page 1.
2. Remove the two screws that mount the Side Plates R/H and L/H to the stand base. Reposition the Side Plates using the two lower holes so that the plates are raised from their packing position. Refer to [Figure 1A]. This is an important step as the feeder can not be leveled to the press unless this is done.
3. Install the four casters to the base of the stand.
4. Place the feeder on top of the stand by locating the two mating points on the bottom of the feeder. [Figure 1B]
5. Match the two mating points with the corresponding holes on the top of the stand and slide into the slots.
6. Locate the two thumbscrew holes at the front of the stand.
7. Install the two (2) ¼-20 x ½ thumbscrews provided in the accessory kit.
8. Secure the feeder by tightening the thumbscrews into the threaded holes.

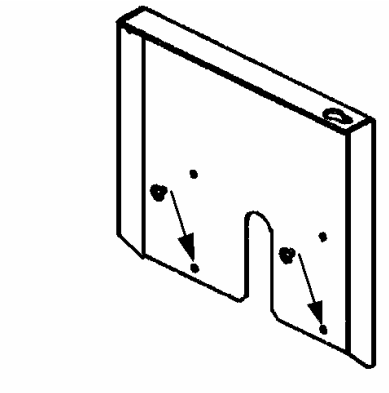


Figure 1A

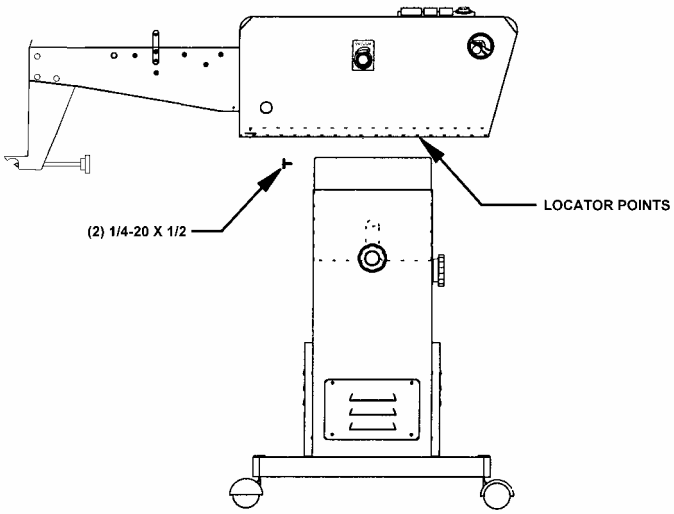


Figure 1B

INSTALLATION INSTRUCTIONS

The AMC-2000-14 Envelope Feeder runs in the manual mode when attached to Heidelberg Quick-Master. To install the feeder on the press and operate it do the following:

1. Bring the paper tray on the duplicator all the way down.
2. Adjust the table height adjustment knob [Fig. 2] on the duplicator by turning it fully clockwise and then 2 ½ full turns counterclockwise.]
3. Adjust the duplicator buckle control knob [Fig. 2] clockwise to full buckle.
4. Adjust the suction control knob [Fig. 2] to maximum.
5. Set the air control knob [Fig. 2] to # 3 on the dial.

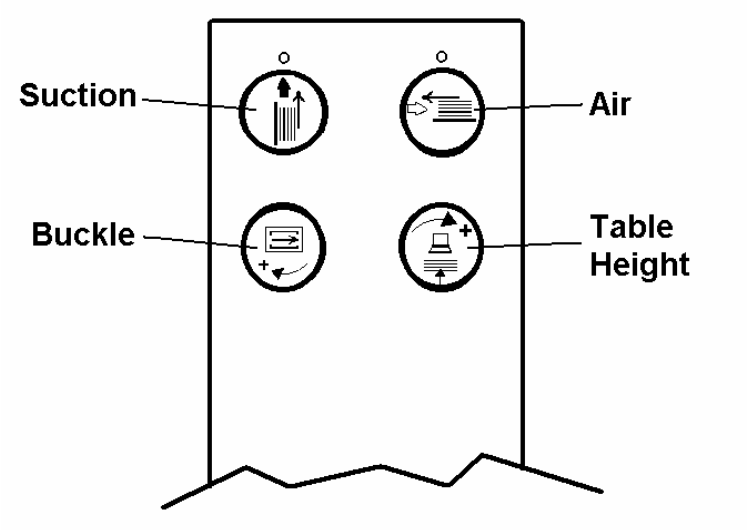


Figure 2

6. Move the paper side guides to their maximum open position.
7. Roll the feeder up to the duplicator and adjust the height to match the mounting clamps on the cross rod on the duplicator. Tighten the thumbscrews on the front feed plate assembly to the cross rod. [Fig.3] Refer to page 5 of this manual for the "Feeder Stand Height Adjustment". Take Care that the feeder is firmly attached to the cross rod on the press.

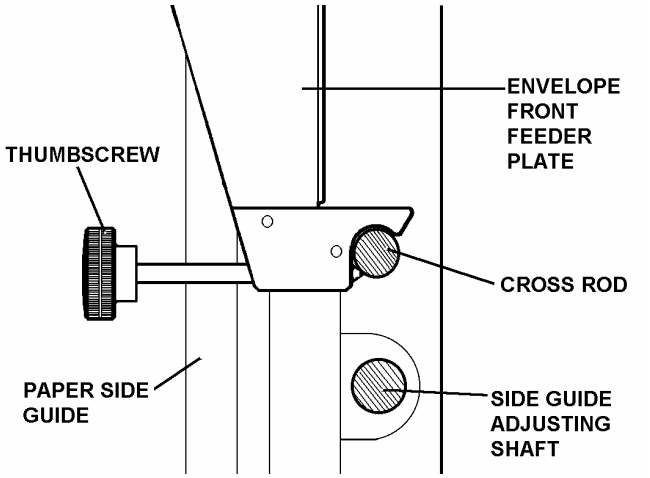


Figure 3

8. Run the duplicator without feeding envelopes. Adjust the height of the feeder while it is attached to the cross rod on the press until the RED table raise indicator warning light on the duplicator control panel [Fig. 4] is **off** and the paper tray is not moving up. When properly adjusted the paper bail bar on the press will contact the top of the envelope feeder at the proper height.

WARNING: THIS IS A CRITICAL ADJUSTMENT. ALLOWING THE PAPER TRAY TO GO UP WILL DAMAGE THE ENVELOPE FEEDER AND THE DUPLICATOR!

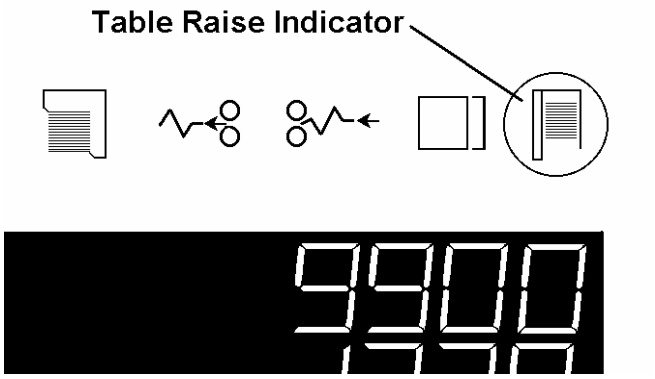


Figure 4

9. Before starting to run the envelope feeder, you must turn off the light in the feeder portion of the duplicator. The light will interfere with the envelope feeder's photoelectric sensor.
10. Place the envelope feeder in the manual mode using the MODE switch on the control panel. Adjust the envelope feeder to the lowest possible speed that allows the feeder to keep up with the duplicator. This will reduce wear and tear on the feeder and prevent envelopes from jumping over the front apron.

FEEDER STAND HEIGHT ADJUSTMENT

1. To adjust the stand height, loosen the two knobs on either side of the stand. Turning these locking knobs counterclockwise unlocks the stand, which allows it to be adjusted. Height adjustment is made by turning the third knob (Adjustment Knob) clockwise to raise the height of the stand, and counterclockwise to lower it.
2. Tighten the locking knobs after the height is adjusted.

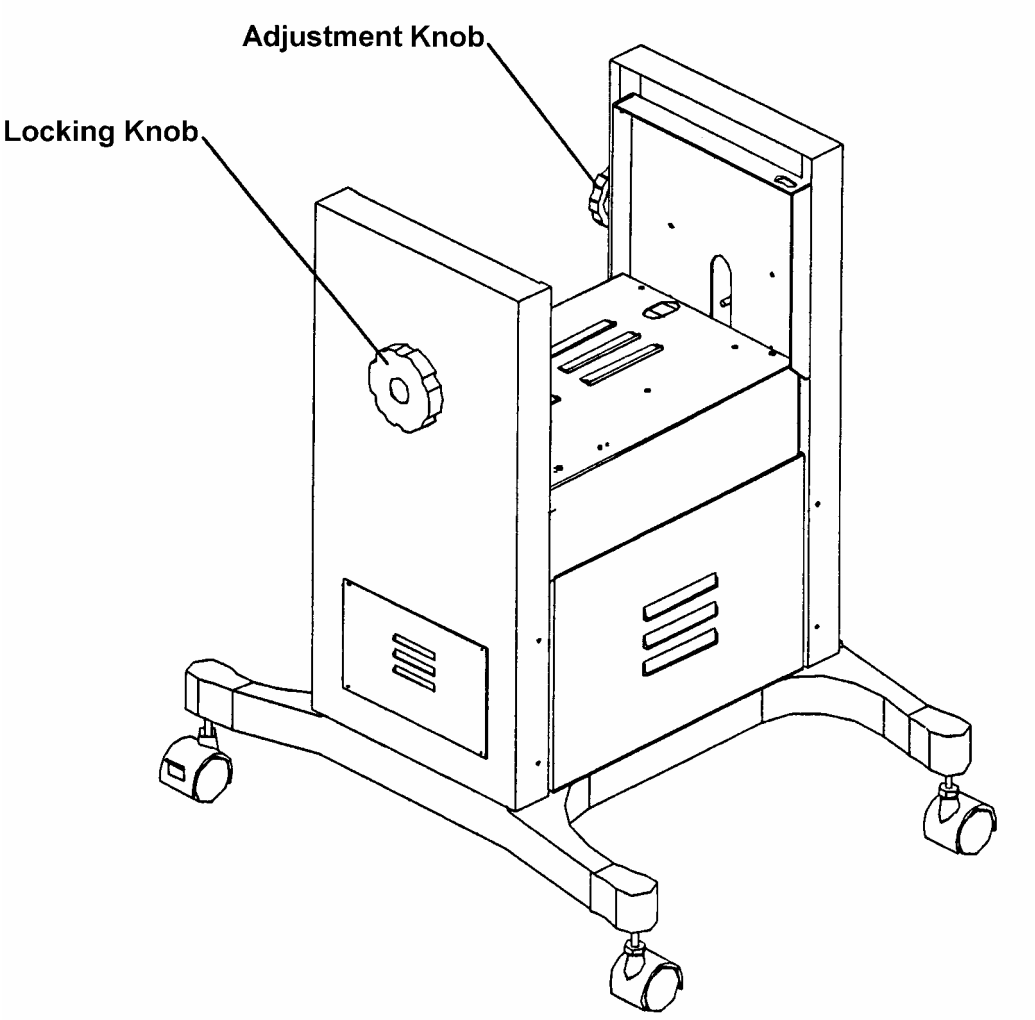


Figure 5

CONTROLS

CONTROL PANEL

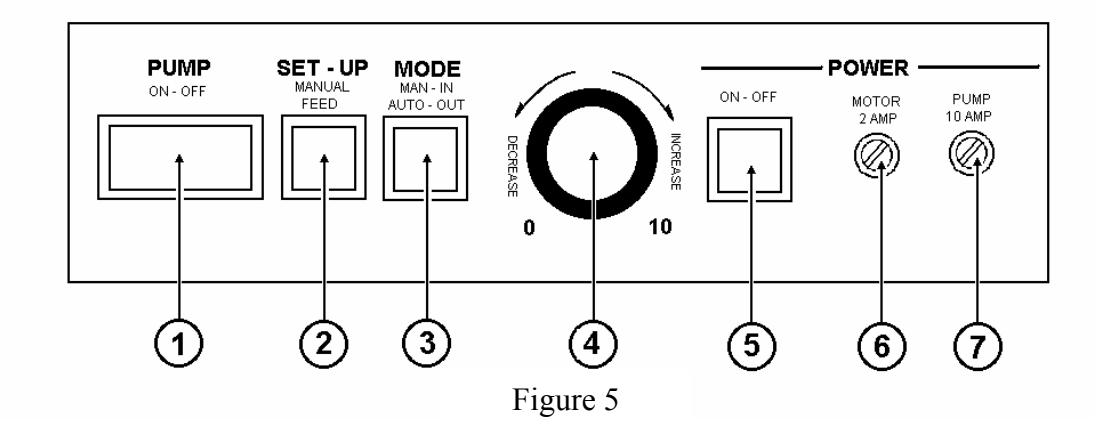


Figure 5

1. PUMP – Turns the feeder pump ON and OFF.
2. SET-UP – Feeder will make a full cycle bringing one envelope to the press. Mode switch #5 must be on manual; pump switch #7 must be ON and drive motor running.
3. MODE SWITCH – When in depressed position activates the speed control #4. When in released position, activates the pulse generator and synchronizes the feeder with the press.

   NOTE: The envelope feeder runs only in the manual mode on the Quick Master.
4. FEEDER SPEED CONTROL – While the Feeder is on MANUAL MODE it enables the operator to adjust the speed of the drive motor during set up.
5. POWER SWITCH – Turns Feeder ON and OFF.
6. FUSE – Drive Motor – 2 AMPS
7. FUSE – Pump – 10 AMPS

VACUUM BLEED VALVE

The vacuum bleed valve is located on the feeder left side frame. Turning it clockwise increases amount of vacuum going into the suction feet. Turning it counterclockwise decreases vacuum.

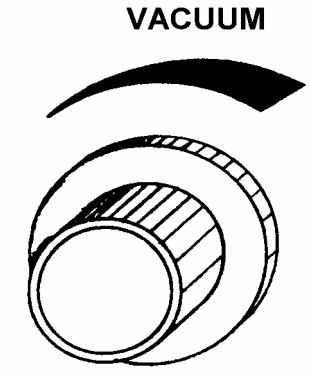


Figure 7

OPERATING INSTRUCTIONS

1. Adjust the envelope feeder stand to the height of the press front feed plate.
2. Hook the front feed plate on the envelope feeder over the bar on the feeder of the press and tighten the clamp screw assembly securely.
3. Plug the pulse generator into the connector provided on the envelope feeder. Plug the pump into the receptacle provided on the envelope feeder.
4. Plug the envelope feeder into the wall receptacle.
5. Attach the front envelope guides [#1, Fig. 8] approximately in the middle of the feeder as shown.
6. Place an envelope in the guides.
7. Attach the rear envelope guide [#2, Fig. 8] using the slot in the feeder floor nearest the rear end of the envelope, then adjust the anti skewing guides to the sides of the envelope [#3, Fig. 8].
8. Adjust the envelope guides so that there is no more than 1/16" (1.6 mm) clearance in all direction.

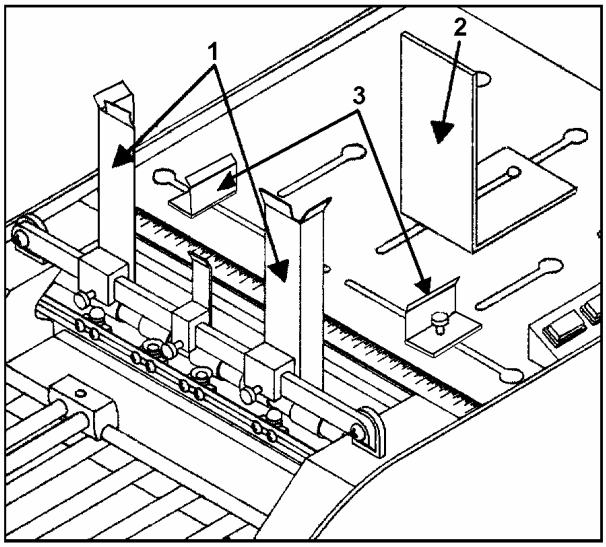


Figure 8

NOTE: EXCESSIVE CLEARANCE WILL RESULT IN MISFEEDING AND IMPROPER PERFORMANCE.

9. Position the suction cups in an evenly distributed fashion with the outside cups approximately ¾" (2 cm) from the ends of the envelope. PLEASE NOTE THAT THE SIZE OF THE ENVELOPE DETERMINES HOW MANY SUCTION CUPS SHOULD BE USED.
10. Place the suction foot vacuum caps (P/N: 123-415) on suction feet not used.
11. Using the scale on the feeder floor and the scale on the conveyor, [#1, Fig. 9], and the scale on the conveyor, [#2, Fig. 9], roughly adjust the stop guide, [#4, Fig. 9] and the push guide, [#3, Fig 9] so that the envelope coming down will clear them.
12. Place a small stack of envelopes in the guides.

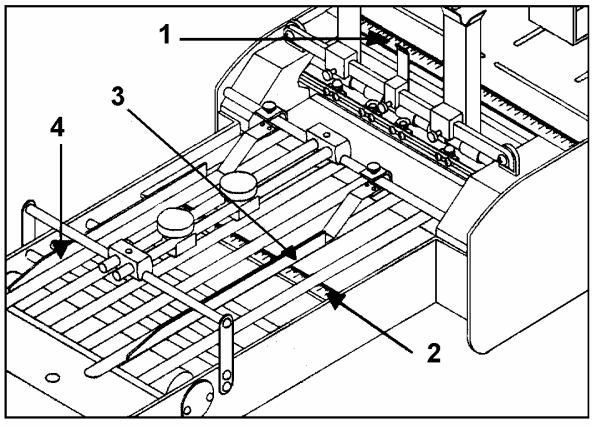


Figure 9

13. Using the adjusting thumbscrew, make sure the right edge of the push guide is perpendicular to the front stop plate for accurate squareness.
14. Turn the feeder "ON", set the mode switch on manual and turn the speed control clockwise so that the tapes on the conveyor are moving slowly.
15. Turn the vacuum switch "ON".
16. Press the SET-UP switch momentarily. This will activate the suction cup bar and bring down an envelope. When the envelope moves down the conveyor to the duplicator, make sure it clears the push guide and does not touch the springs on the stop guide.
17. Turn the VACUUM switch "off" and press the SET-UP switch once again. This will activate the jogging mechanism. Adjust the jogger guide so the envelope just touches the springs on the stop guide.

    NOTE: TOO MUCH JOG CAN AFFECT THE REGISTRATION.
18. Adjust the conveyor tapes by moving the tape guides located under the conveyor portion of the feeder while tapes are running slowly.

EXAMPLE: For No. 10 envelopes, use three (3) tapes. One over the stop guides approx. 3/8" (1 cm) from the springs, one over the push guide approx. ¼" (6 mm) from the right edge and one tape under the skid wheel. For wider envelopes use additional tapes as needed.

19. Adjust the retainer straps [#1, Fig. 10] over the stop and push guide tapes.
20. When the envelope is against the front stop plate, position the front skid wheel [#2, Fig. 10] so it is lightly touching the trailing edge of the envelope.
21. Turn the press pump "ON".
22. Turn "OFF" the press blowers and turn the press vacuum knob to full.
23. Using the press, hand wheel, pass the envelope through the press.

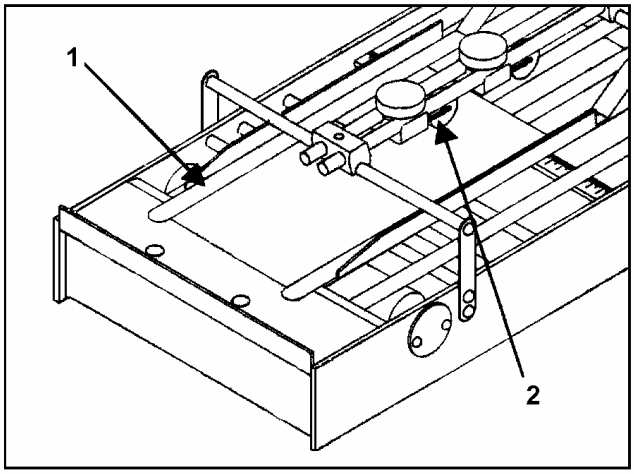


Figure 10

NOTE: MAKE SURE THE ENVELOPE GOES INTO GRIPPERS FIRMLY. ADJUST THE BUCKLE CONTROL ON THE PRESS IF NECESSARY.

24. Set the duplicator on the lowest speed.
25. Set the feeder mode switch to the "AUTO" position.
26. Turn the feeder vacuum "ON".
27. Press the "SET-UP" switch momentarily. This will bring down the envelope.

28. Turn the press vacuum “ON”.

The feeder is equipped with a photoelectric sensor [#1, Fig. 11], which synchronizes the feeder with the press and prevents jam-ups. In case the press does not pick up an envelope, the feeder will not send another envelope. This acts as a built in jam detector. The feeder will remain neutral as long as there is an envelope over the photoelectric sensor. To start feeding again turn off the feeder vacuum, and the drive motor. Correct the problem on the press and/or the feeder. Follow steps 26 – 28 to start feeding again.

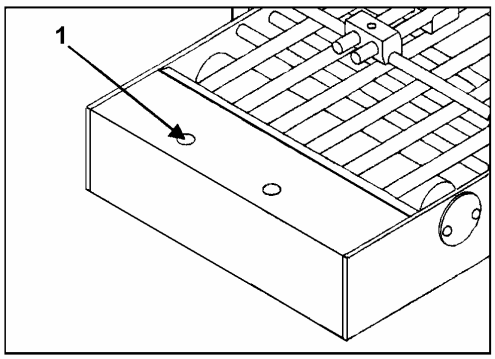


Figure 11

NOTE: MAKE SURE THE FEEDER IS SET UP SO THAT THE ENVELOPES ARE FED OVER THE PHOTOSENSOR. ALSO, MAKE SURE THERE ARE NO FOREIGN OBJECTS e.g. (LINT, PAPER) COVERING THE PHOTOSENSOR. IT IS ESSENTIAL TO THE OPERATION OF THE FEEDER THAT THE PHOTOSENSOR “SEES” AN ENVELOPE.

TO START AND STOP FEEDING, USE THE DUPLICATOR PUMP SWITCH. DO NOT USE THE FEEDER POWER SWITCH FOR THIS PURPOSE. THE POWER SWITCH ON THE FEEDER SHOULD BE TURNED “ON” WHEN THE JOB IS STARTED AND REMAINS ON UNTIL THE JOB IS COMPLETED.

The speed of the press can be changed while the feeder is feeding envelopes. The electronic circuitry of the envelope feeder is designed to respond automatically to the operational commands of the press.

WARNING: ANY SPEED CHANGES TO THE PRESS SHOULD BE DONE GRADUALLY. RAPID CHANGE OF THE SPEED WILL AFFECT REGISTRATION AND MAY CAUSE MISFEEDING.

OPERATING HINTS

A. Do not bend envelopes when setting side guides. Front and rear guides must be snug against the envelopes.

B. Form envelopes as required to maintain flatness to the suction cups to improve feeding consistency.

C. Be sure the bottom envelop in a stack of envelopes or tag stock, rests on the sheet separators.

D. The front side guides contain adjustable sheet separator clips.

The clips project 3/32” (2.4 mm) beyond the face of the guides. Adjustment is seldom required.

1. Misfeeding may occur if the clips extend too far under the envelopes. First increase vacuum and test run;

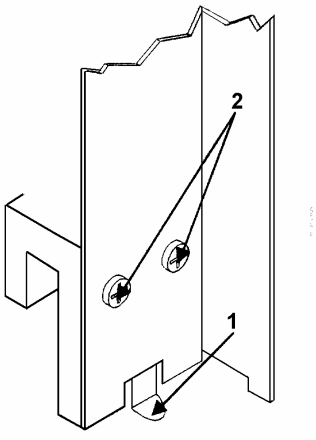


Figure 12

then, if required, move clip [#1, Fig. 12] to the front using set screw behind them.

2. Double feeding may occur if the clips are not under the envelopes far enough. First decrease vacuum and test run; then, if required, move clips to the front.

   The vertical position of the clips is also adjustable. Loosen two screws [#2, Fig. 12] and position the bottom of the clip flush with the bottom of the guide.

LUBRICATION INSTRUCTIONS

WARNING

MACHINE MUST BE UNPLUGGED FROM ITS POWER RECEPTACLE WHILE PERFORMING LUBRICATION, MAINTENANCE, OR CLEANING PROCEDURES.

CAUTION

CARE SHOULD BE TAKEN TO KEEP LUBRICANTS FROM ELECTRICAL TERMINALS, SWITCHES, AS WELL AS ROLLERS, BELTS AND RUBBER PARTS.

When lubricating, pay particular attention to oil holes and all sliding parts.

NOTE: RESIDUE OF PAPER, DUST, INK, AND OTHER FOREIGN MATERIALS SHOULD ALWAYS BE REMOVED FROM GEARS, WORKING LEVERS, SHAFTS, AND MECHANISMS BEFORE NEW LUBRICANTS ARE APPLIED. THIS WILL PREVENT UNDUE WEAR CAUSED BY ABRASIVE ACTION FROM THIS RESIDUE MATERIAL. AREAS AROUND OR ADJACENT TO LUBRICATED PARTS AND SURFACES SHOULD ALSO BE FREE OF DUST AND FOREIGN MATERIAL.

LUBRICATION INTERVALS

Regular lubrication of oil ports (indicated by red) should be performed every 30 days on machines that operate 30-40 hours per week.

LUBRICANTS

OIL: S.A.E. #20 non-detergent engine oil, or equivalent.

GREASE: Commercial lithium grease.

GENERAL LUBRICATION

1. CAMS AND GEARS – Should be cleaned and lightly oiled.
2. SPRINGS AND SPRING LEVERS – Should be greased lightly.

   NOTE: BEFORE GREASING SPRINGS AND SPRING LEVERS, THE EXISTING LUBRICANT MUST BE REMOVED. WHEN APPLYING NEW GREASE, USE IT SPARINGLY ONLY AT THE HOOK ENDS OF THE SPRING, NOT ON THE BODY.
3. CHAIN AND SPROCKETS – Should be lubricated by using a commercial lithium grease.

   NOTE: IN ORDER TO GAIN ACCESS TO MOST LUBRICATING POINTS, THE FRONT COVER ASSEMBLY MUST BE REMOVED.

FRONT COVER ASSEMBLY REMOVAL

1. Turn the power “ON”.
2. Set the “MODE” switch to MANUAL.
3. Turn the speed control know CLOCKWISE so that the conveyor tapes move slowly.
4. Depress the set up switch momentarily.
5. Wait until the upper pull out roller touches the lower pull out roller and turn the power “OFF”.
6. Unplug the feeder.
7. Unscrew the 4 thumbscrews (2 on each side of the feeder) [#1, Fig. 13].
8. Remove the front cover assembly [#2, Fig. 13].

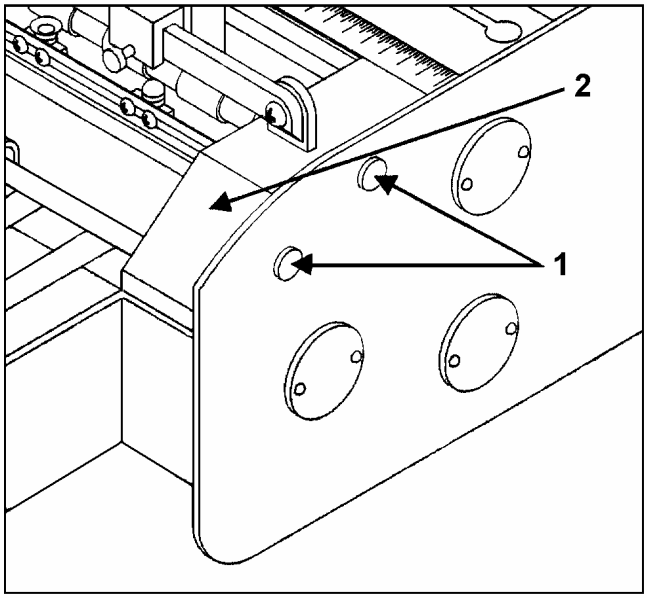
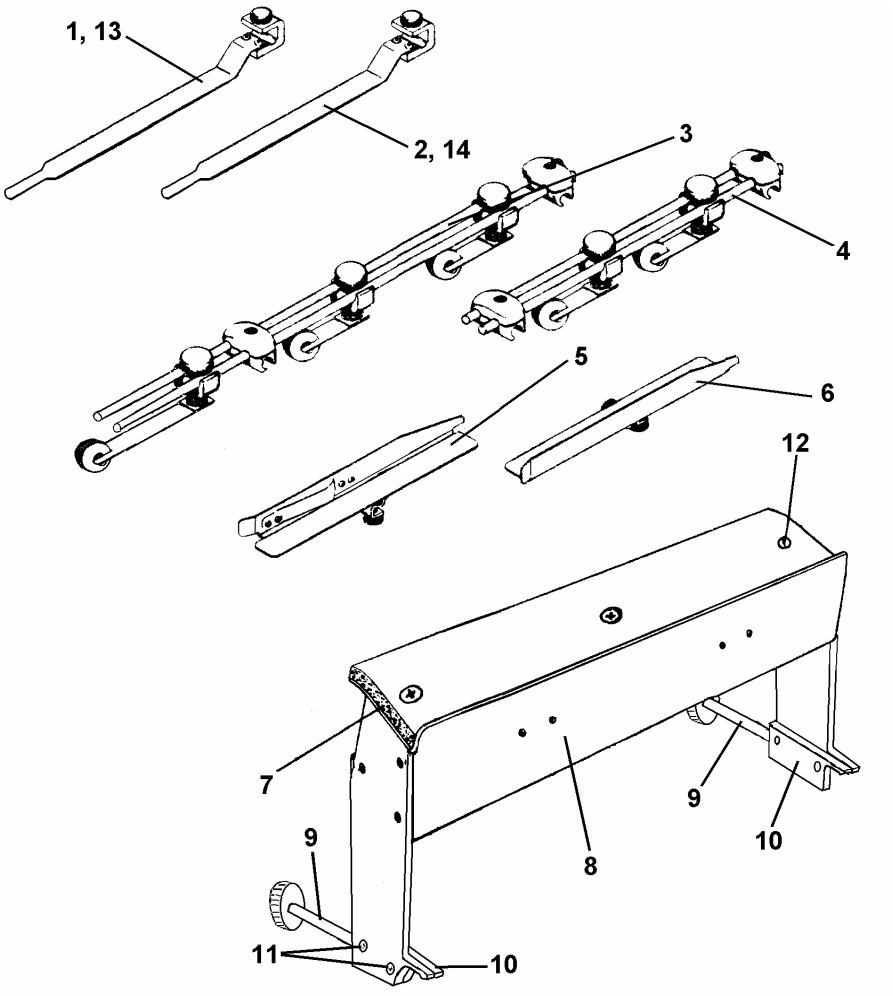


Figure 13

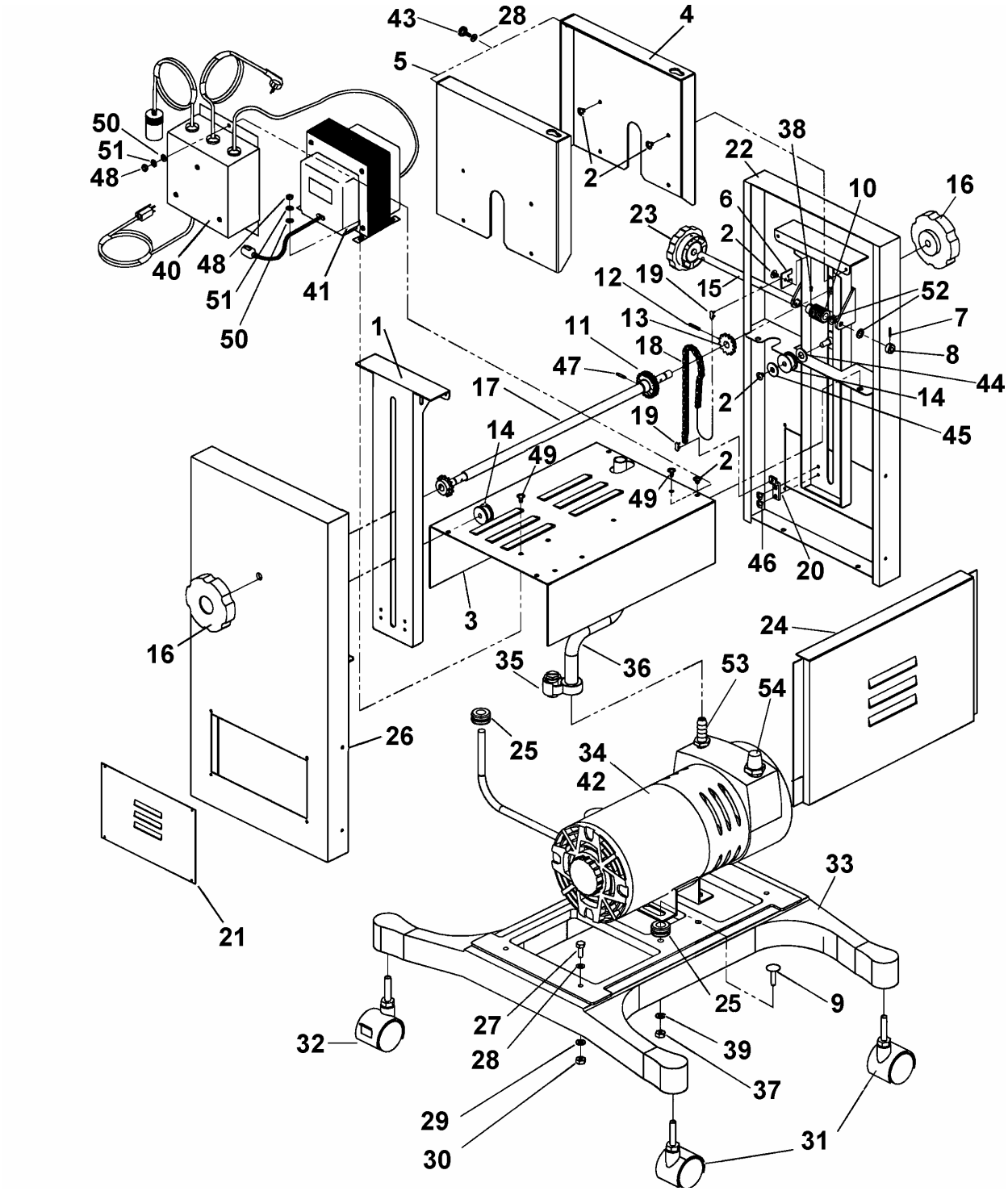
PARTS CATALOG

REPLACEMENT PARTS FOR HEIDELBERG QUICK MASTER

KEY	PART NUMBER	DESCRIPTION	QTY
1.	84-261-106	PAPER RETAINER STRAP ASSEMBLY (HEAVY)	2
2.	84-261-116	PAPER RETAINER STRAP ASSEMBLY (LIGHT)	2
3.	84-130-100	SKID WHEEL ASSEMBLY QM	1
4.	84-130-20	SKID WHEEL ASSEMBLY	1
5.	84-261-38	SIDE GUIDE ASSEMBLY L/H	1
6.	84-261-41	SIDE GUIDE ASSEMBLY R/H	1
7.	84-261-10	PAD, FRONT FEED PLATE	1
8.	84-261-26	FRONT FEED PLATE ASSEMBLY	1
9.	71-125-28	THUMBSCREW	2
10.	84-261-33	GUIDE	2
11.	123-0002	SCREW	4
12.	123-0446	SCREW, 8-32 X 5/16	3
13.	84-261-107	PAPER RETAINER STRAP (HEAVY) QM	2
14.	84-261-117	PAPER RETAINER STRAP (LIGHT) QM	2
	84-261-20	FRAME, CONVEYOR R/H (NOT SHOWN)	1
	84-261-12	FRAME, CONVEYOR L/H (NOT SHOWN)	1



STAND WITH PUMP



GROUP 2

KEY #	PART #	DESCRIPTION	QTY.
1.	156-102-18	ELEVATOR BRACKET (STANDARD)	2
1.	156-103-18	ELEVATOR BRACKET (LONG)	2
2.	123-0017	SCREW, 10-32X1/4 PHLPS TRUSS	32
3.	156-103-05	PANEL – BASE – PUMP COVER	1
4.	156-103-07	SIDE PLATE R/H	1
5.	156-103-06	SIDE PLATE L/H	1
6.	156-103-25	ELEVATOR BRACKET SUPPORT	2
7.	123-0695	SPRING PIN, 3/32 X 1/2	1
8.	156-103-27	COLLAR	1
9.	123-0841	CARRIAGE BOLT, 5/16 – 18 X 1	4
10.	156-103-12	HELIX ANGLE WORM	2
11.	156-103-11	WORM GEAR 20 TEETH	1
12.	123-0018	ROLL PIN 1/8 X 3/4 – BLACK	3
13.	156-103-08	SPROCKET 25B13	2
14.	156-103-09	IDLER PULLEY	2
15.	156-103-21	WORM SHAFT	1
16.	123-0135	KNOB	2
17.	156-103-20	DRIVE SHAFT	1
18.	156-103-26	CHAIN, TRANSMISSION ROLLER	2
19.	123-0200	CONNECTING LINK, CHAIN	4
20.	156-103-23	ELEVATOR BRACKET SUPPORT	2
21.	86-103-04	COVER, SIDE PANEL	2
22.	156-103-03	SIDE PANEL L/H	2
23.	123-0293	KNOB, HEIGHT ADJUSTMENT	1
24.	86-103-06	PUMP COVER, STAND	2
25.	123-0707	RUBBER GROMMET 1/2ID X 3/4OD	1
26.	156-103-04	SIDE PANEL R/H	1
27.	123-0143	SCREW, HEX 1/4-20 X 5/8	4
28.	123-0063	WASHER, 1/4 PLAIN-MOTOR & PUMP	8
29.	123-0064	WASHER, LOCK 1/4	8
30.	123-0054	NUT, HEX 1/4-20	8
31.	123-0517	CASTER, NON LOCKING	2
32.	123-0521	CASTER, LOCKING	2
33.	86-103-31	BASE WELDMENT	1
34.	84-103-07	VACUUM PUMP ASSEMBLY, 115 V	1
35.	123-0131	CLAMP, HOSE	1
36.	84-106-41	HOSE, PUMP	1
37.	123-0051	NUT, 5/16-18 HEX	4
38.	123-0757	SCREW, SET 6-23 X 1/4 STD CUP PT	4
39.	123-0855	WASHER, 5/16 LOCKING	4
* 40.	84-140-78	RELAY BOX 220V / 50 Hz	1
* 41.	123-0436	TRANSFORMER, 220V / 50 Hz	1
* 42.	84-103-10	VACUUM PUMP, 220V / 50 Hz	1
43.	56-108-22	THUMBSCREW	1
44.	123-0096	WASHER, PLASTIC 3/8 X 3/4 X 1/16	2
45.	123-0311	WASHER, 9/32 X 3/4 X 1/16 PLASTIC	2
46.	123-0701	SCREW, 10-32 X 3/16 PH TRUSS HD	4
47.	123-0034	ROLL PIN, 1/8 X 5/8	1
*48.	123-0050	NUT, 10-32 X 5/16 HEX ZINC	6
*49.	123-0024	SCREW, 10-32 X 3/8 PH TRUSS HD MS ZINC	6
*50.	123-0237	WASHER, STAR #10 EXTERNAL	6
*51.	123-0262	WASHER #10 3/16 X 3/8 X .032	6
52.	123-0312	WASHER, 5/16 X 1/2 X .030 PLASTIC	2
53.	123-0145	FITTING	1
54.	AK840A	FILTER/MUFFLER	1
**	K247	SERVICE KIT, OLD STYLE PUMP	
**	K478	SERVICE KIT, NEW STYLE PUMP	
**	AK524	FELT, NEW STYLE PUMP ONLY	

* 220V/0HZ ONLY

**PARTS NOT SHOWN

Elk Grove Village, Illinois 60007
08/10/2004
Part Number: 500-AMC2000-14