PENDING



INK JET FEEDER

Operation & Maintenance Manual Model: Dynamic Rotation Technology





DIRECT MAIL SOLUTIONS

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VERSION HISTORY

The table below summarizes the history of this document <u>as it is published</u> onto the company website(s). It identifies the version, date of issue and revisions and changes.

VERSION	DATE	CHANGES
1500-IJops	08-17-08	Initial release
1500_IJopsreva	2-13-09	Updated logo,

REVISION CONVENTIONS-DOCUMENT

<u>VERSION:</u> name of document with revision_level of entire documentlevel designates minor changes that do not require revision change

DATE: date of issue for copying and publication of document.

CHANGES: details of document revision_level.

Customer Satisfaction Guarantee



Document Messaging Technologies

Pitney Bowes Document Messaging Technologies Division ("Pitney Bowes DMT") is committed to providing our customers with the finest products backed by the highest quality care and service. Pitney Bowes DMT promises to provide you the following guarantee, while your system is maintained under a DMT equipment maintenance agreement:

Guaranteed Product Performance – For all new products we guarantee performance to our specifications for the initial term of the lease or two years if purchased outright provided that the equipment has been appropriately maintained according to Pitney Bowes DMT specifications. If, during that period, the product does not perform to our specifications, and we cannot repair it, we will replace it with a comparable product. If during the first ninety days after installation of the replacement, the replacement product does not perform as specified, you will be entitled to a prorated equipment refund. Should a malfunction occur due to the use of a non-Pitney Bowes consumable supply or unapproved software/hardware modification, this guarantee will not apply.

Guaranteed Nationwide Equipment Service – Our nationwide service force will respond to service and preventative maintenance requests as part of your equipment maintenance agreement. Your Service Manager will provide you with a formal escalation process, which will be adhered to in the unlikely event that an extended outage occurs.

Operator Productivity and Training Excellence – For all products that we install, our skilled professionals will effectively deliver the agreed upon installation and training services.

At Pitney Bowes, we are committed to maintaining long-term relationships with our customers. If our sales and service support team has been unable to satisfy you, I would like to hear from you. Please call Technical Support at 1-866-877-3683.

We won't be satisfied until you are satisfied.

Leslu di Kum

Leslie Abi-Karam, President Document Messaging Technologies

Revised January 6, 2003

WARRANTY

Pitney Bowes Document Messaging Technologies ("Pitney Bowes") warrants to the Purchaser of Pitney Bowes feeding equipment (the "Equipment") that the Equipment will be free from manufacturing defects in material and workmanship, and that it will perform according to Pitney Bowes published equipment specifications for one (1) year on mechanical and ninety (90) days on electrical commencing immediately upon Installation (as defined below) (the "Equipment Warranty Period"). Installation is defined as, the completion date of on-site assembly and testing by Pitney Bowes, or 15 days after delivery, whichever occurs first.

If you have any material problem with the Equipment involving a manufacturing defect in material or workmanship during the Warranty Period, Pitney Bowes will repair or, at our option, replace the Equipment having such problems. During the Warranty Period, Pitney Bowes will be responsible for the cost of parts and service labor necessary to repair any defect in material or workmanship or, at our option, replacing the Equipment. We do not assume a warranty obligation for consumable parts or supplies such as print heads, and ink, or for parts worn out due to extraordinary use of the Equipment or use inconsistent with manufacturer's published specifications.

Service labor charges for work outside of this Warranty will be at negotiated rates (or, if not determined in advance, at Pitney Bowes standard rates) beginning at time of delivery. "On-site" service is defined as: Pitney Bowes DMT employee(s) contracted (subject to a written Equipment Maintenance Agreement) for on-site maintenance at customer location to perform emergency repair and preventative maintenance for specified hours of coverage.

This Warranty and any Equipment Maintenance Agreement periods shall run concurrently. Equipment Maintenance Agreements shall provide coverage for certain items not included as part of this Warranty, in accordance with the terms and conditions of the Pitney Bowes Equipment Maintenance Agreement.

This Warranty excludes:

(a) Preventative Maintenance, routine service and normal wear.

(b) Pitney Bowes Equipment serviced, repaired, refurbished or otherwise disassembled/reassembled by persons not certified by Pitney Bowes to perform service and repair.

(c) Damage to the Equipment caused by use of spare parts or supplies not supplied by Pitney Bowes.

(d) Damage to the Equipment caused by failure to use Pitney Bowes authorized procedures and processes.
(e)The effects or outcome of integrating or connecting Pitney Bowes Equipment with products or processing equipment of OEM's other than Pitney Bowes or it's wholly owned subsidiaries.

(f) Pitney Bowes will assume the obligations stated in this Agreement only if the product is operated under suitable temperature, humidity, line voltage, and any other manufacturer specified environmental conditions, and only if reasonable care is used in handling, operating, and maintaining the Product, and only if it's use is for the ordinary purpose for which it is designed and in accordance with manufacturer's published specifications for the Equipment.

PITNEY BOWES DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OTHER LIMITATIONS AND EXCLUSIONS MAY APPLY IN ACCORDANCE WITH YOUR PURCHASE, LEASE OR OTHER AGREEMENTS WITH PITNEY BOWES REGARDING THE EQUIPMENT.

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SPECIAL NOTES, DEFINITIONS AND DISCLAIMERS

Special Note:

Some pictures and illustrations may have color, hue and contrast graphically altered for clearity when printing in black and white and may not necessarily reflect the actual color of the product when viewed on compact disk.

1	ON
0	OFF
Ø or PH	PHASE
~	VAC (volts alternating current)
	VDC (volts direct current)
	WARNING or CAUTION
4	HAZARDOUS

DEFINITIONS

Section I

Installation of the **1500-IJ INK JET FEEDER**

Model: Dynamic Rotation Technology



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Section - I

Installation



Figure I-1



Figure I-2



Environment:

The installation of the 1500-IJ FEEDER is intended for operation in a specific environment. See Operating Environment Table below for details.

ITEM		SPECIFICATION
Environmental Conditions	Ambient Operating Temperature	0 to 35° C
	Storage Temperature	-25 to 85° C
	Ambient Operating Humidity	30% to 95% RH (with no condensation)
	Ambient Storage Humidity	5% to 95% RH (with no condensation)
	Pollution Level	Pollution level 2 (conforming to UL/EN60950-1)
	Corrosion Gas	There must be no combustible or corrosive gas.
	Operating Altitude	2,000 m above sea level or lower
Installation	Ground	Ground (earth) connection required
Requirements	Cooling Method	Natural cooling

Installation: Positioning the Components

Once the 1500-IJ FEEDER has been removed from the shipping container, perform the following:

- Inspect the location where the machine is to be set up. (Note: The manufacture recommends that the area be a relatively flat and smooth concrete or hard wood surface, similar substrates are acceptable. The area should be free of holes, divots, loose floorboards, etc. and not subject to retaining moisture from water seepage.) (Warning: In the event the floor does not meet the recommended requirements, seek an alternate location or reschedule the installation after repairs to the floor have been completed.)
- 2. The front and side guides (left and right hand) must be re-attached to the 1500-IJ FEEDER. See later section for details.

Installation: Electrical Setup Connections

- 3. Inspect the line current at the point where the power cable of the machine is to be plugged in. (Note: Conventional wall sockets, ceiling line drops and D-Boxes should be free of cracks, rust, visible signs of heat stress and flash marks.) (Special Note: For installations in Europe check the condition of the voltage converter box or other voltage reducing device that may be in use. In the event of a line voltage inspection failure, report your findings to the person or persons in charge of the building and postpone the installation until corrections are made.)
- 4. Check the line voltage to ensure that the minimum and maximum requirements are present.
- 5. Position the 1500-IJ FEEDER in the designated location.
- 6. Check entire machine for any items that may be obstructing proper operation. This includes packing/shipping components.
- 7. Plug the power cables for the 1500-IJ FEEDER into the proper sized site receptacle.

(Warning: To avoid possible damage to the machine and prevent possible injury, keep the work areas free of all packing material and other debris.)

CONNECTION TO PERIPHERAL EQUIPMENT

8. Plug appropriate feeder cable with 16 pin male connector into proper panel-mounted receptacle located at rear of feeder. Connect 37 pin male connector of cable into appropriate peripheral equipment.

Section II

Safety Features & Warnings



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Section- II

Safety Locks and Warnings:

All feeders have been designed with guards or covers to areas covering moving parts as well as caution or warning labels or stickers to safeguard persons operating and or working on or around this equipment. These are as follows:



Note: This symbol A appears as a visual alert in the text of this manual next to written warnings regarding possible safety issues and or possible machine damage that may occur as a direct result of failure to follow specific instructions as written.

(Note: The safety devices, guards, warning labels and stickers are installed by the manufacturer to safeguard all persons operating and or working on or around the feeder. Removing, altering or disabling any of these items will void any and all warranties, either real or implied, purchased or offered with the feeder. All companies connected with the manufacturing, promotion and sale of the feeder shall be held harmless for any and all injuries and damage in the event the safety devices, door locks, warning labels and stickers are removed, altered or disabled)

In addition to the safety devices and warnings installed on the feeder by the manufacturer, the following recommendations for safe operation and maintenance of the feeder are as follows:



- Any persons designated to operate, work on or near the Feeder must be fully trained by a factory-authorized representative.
- Do not operate or perform any type of maintenance on the Feeder while under the influence of drugs or alcohol.
- Do not operate or perform any type of maintenance on the Feeder in or around freestanding water.
- Do not wear loose fitting shirts, shirts with bellowing sleeves, bracelets, rings, necklaces, neckties or other loose apparel that may come into close proximity with moving parts of the machine.
- Do not place any items near or over the "Emergency Stop Switches" that might inhibit or obstruct line of sight or access to the Emergency Stop Switches. The "Emergency Stop Switches" must be clearly visible and accessible at all times.
- Wear protective safety eyeglasses or goggles and use a particle mask or similar device when cleaning off the Feeder with compressed air. Alert all other persons in the area to stand a minimum of thirty (30) feet from the area where compressed air is put to such use.
- Hearing protection is not required for safe operation of the Feeder. Typically, decibel levels have been found to be less than 85 decibels in machines properly maintained and in good operating condition.
- All persons having hair greater than shoulder length who operate, work on or near the Feeder should keep their hair pulled back in ponytail fashion then pinned up or otherwise contained to the top of their head or confined under the back of their shirt.
- Turn off the main power to the Feeder before opening any of the service doors for general cleaning and or general maintenance. Follow the "Lock Out Procedures" as stated on page 16 for extensive repairs involving disassembly of the machine either in whole or in part or replacing any of the electrical components.

- Any persons working near any of the electrical motors of the Feeder should use caution. Electrical motors give off heat, contact with or exposure to bare skin may result in burns.
- The Feeder was designed to feed and transport paper only. Do not attempt to feed and / or run materials made of or containing glass, metal, wood, liquids, foods, powders, gasses, explosives or toxic and hazardous chemicals on the Feeder. (Note: The manufacture recognizes and acknowledges that the Feeder is capable of successfully running and / or transporting compact disk and audio cassettes inserted into paper envelopes, however the manufacture and other companies connected with the promotion and sale of the Feeder do not assume any responsibility for any damage to the Feeder or product and shall be held harmless for any damages and or injuries resulting in this practice.)

Special Advisement:

The manufacture and other companies connected with the promotion and sale of the Feeder shall be held harmless for any and all injuries sustained to any person or persons as a result of failure to comply with the recommendations for safe operation and maintenance of the Feeder as shown and / or described herein.

The Lithium batteries used in our products may contain Perchlorate Material --- special handling may apply.

See www.disc.ca.gov/hazardouswaste/perchlorate.

If any equipment is provided with a replaceable battery and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

- If the battery is placed in an 'operator access area', there shall be a marking close to the battery or a statement in both the operating and servicing instructions;
- If the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or a statement in the servicing instructions.

This marking or statement shall include the following or similar text:

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

Lock Out Procedure

Before beginning extensive repairs involving disassembly of the machine either in whole or in part, performing general maintenance or replacing any of the electrical components, the machine must be locked out of service to ensure that power will not be restored to the machine while the work is being performed. To lock a machine out of service, perform the following:

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Warning: The following procedure is published herein for the expressed purpose of providing a safe work environment conducive to persons performing repairs and or maintenance and or general cleaning of the Feeder and or any other components connected to or associated with the Feeder. This procedure must be followed without exception to ensure the safety of any person or persons performing the previous stated task.

The manufacture and other companies connected with the promotion and sale of the Feeder shall be held harmless for any and all injuries sustained to any person or persons and or damage to the Feeder and or any other components connected to or associated with the Feeder as a result of failure to comply with the "Lock Out Procedure".

- 1. Turn the main power switch to the off position.
- 2. Disconnect the power cable from its source by performing the following:
 - a. Follow the main power line from the machine back to the receptacle or source of supplied power and disconnect it at the source.
 - b. Place the plug connecter close to the machine in such a position that will remain in your field of vision while repairs or maintenance is being performed.
- 3. Notify all other persons in the area where the work is being performed that the machine will be out of service, especially if the work you are performing requires you to be crouched behind or beside the machine or in some other way obscured from the sight of other persons in the area.
- 4. When the work has been completed reconnect the plug to the power source and then test cycle the machine to ensure that power has properly restored and the machine is fully functional.
- 5. Notify all other persons in the area that the machine is fully operational and that the drive motors will become enabled when the power switch is placed in the on position.

Suggested Lockout Devices

The following are some suggested devices specifically designed to provide a greater degree of safety when locking out the power supply to a machine. These devices can be purchased from most safety equipment suppliers and vendors.







Section III General Set-Up



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Section – III

This 1500-IJ is a feeder that is to be incorporated into a printer system.

1500-IJ FEEDER SET-UP

- A. Center the material in the 1500-IJ Feeder by performing the following:
 - Raise the cross bar with attached separator assembly only if necessary to accommodate thicker products. Loosen all (4) button head screws (2 on each side frame) holding crossbar until the crossbar is free to move vertically, see figure III-1. NOTE: The material side guides should always clear belts during operation. Failure to do so may cause damage to belts or shafts and cause problems in product alignment.



2. Raise the single separator wheel by turning the adjustment knob atop separator assembly in a clockwise direction, see figure III-1.

3. Fold one (1) piece of material in half to establish a center crease. (Note: The crease needs to be made in the direction of travel that the material is to be run in, see figure III-2.)



4. Align the center crease of the set up piece with the separator wheel and back wedge center channel, see figure III-3



 Loosen the ratchet handle and knob on each crossbar clamp to move side guides to outer edges of setup piece plus 1/16" clearance on each edge. Loosen knob on paper slide (wedge) to move paper slide to its rearmost position; see figure III-4. (see later discussion on wedge positioning),



6. Insert the setup piece between the separator wheel and the blue nip roller. While moving the setup piece back and forth beneath the separator wheel, turn the separator adjustment knob counter-clockwise (CCW) until resistance is felt from the separator wheels (see later discussion on fine-tuning of the separator wheel), see figure III-5.



7. Place approximately 3/4" thick stack of production pieces between side guides and against separator wheel allowing pieces to shingle forward, see figure III-6.





- 8. Push the Paper Slide forward (see step 5, figure III-4) to support the rear edge of the stack of production pieces.
- 9. Add enough production pieces to fill approximately to half the height of the side guides.
- 10. Adjust the side guides to form a slight funnel effect (top is wider than bottom) and tighten the ratchet handles and knobs on crossbar clamps to hold the side guides in position, see figure III-4.



(**Caution:** Do no over tighten. Over tightening may result in damage to the clamps and cause scarring to the crossbar.)

11. Loosen the knob on each end of the Elevator Belt Adjusting Shaft and push knobs to bottom of slots to lower the elevator belts beneath the feeder, see figure III-7.



The 1500-IJ Feeder is now setup to begin operation. It is recommended that initially the potentiometer controlling the feeder's speed be set at zero (0) before energizing the power switch. When power has been applied, increase the potentiometer setting to 25% to begin final-tuning of the feeder.

MECHANICAL COMPONENTS SETUP SUMMARY

SIDE GUIDES

Adjust to contain the stack of production pieces without binding: distance between upper ends may have to slightly greater (1/16 to 1/8 inch) than the bottom ends.

SEPARATOR WHEEL

The separator wheel on the 1500-IJ Feeder is located directly inline with nip roller (known as a hard nip). A hard nip setup is typically used for thin pieces or pieces that do not readily separate from each other.

Set the height of the "Separator Wheel" to allow the thickness of one (1) piece of material to pass under it. To do this, turn the adjustment knob clock wise to raise the wheel, counter clock wise to lower the wheel, see figure III-8. Note: There should be some resistance felt when the material is directly under the separator wheel and is pulled by hand. (**Tip:** The thinner the material is, the more critical this setting is).



PAPER SLIDE

Also known as the Back Wedge, this component is positionally adjusted to support the trailing edge of the production piece, see figure III-9.

Normally, there is an inverse positioning relationship between the Paper Slide and the Separator wheel. If the paper slide is moved toward the separator wheel, the entry angle of the production piece is increased. This causes less contact with the feeder friction belts and therefore, the separator wheel may have to be lowered to minimize the creation of doubles. Raise the separator wheel if the slide is moved away from the separator wheel.

The 1500-IJ Feeder comes with a wedge that can be adjusted to support narrow production pieces. Simply slide each wedge as needed along cross shafts into position.





Figure III-9

Back Wedge recommendations for common type paper stocks

For ridged stock, place the lead edge of a single production piece under the separator wheel

at 6 o'clock position then set the lowest point of the back wedge

so that it is just touching the trailing edge.



For flimsy stock, place the lead edge of a single production piece under the separator wheel approximately half an inch beyond the 6 o'clock position then set the back wedge so that the trailing edge is between a half inch to one inch up the incline from the lowest point of the

back wedge.



For stock containing static, place the lead edge of a single under the separator wheel

at the 6 o'clock position then set the back wedge so the trailing edge is mid-way between the lowest and highest point of the back wedge.



Note: These are basic starting points for a set-up. Further adjustments may be required.

ELEVATOR BELTS

This adjustable set of two friction belts are generally used for long and/or heavier production pieces that need a boost to reach conveyed speed. The belts are easily raised or lowered as required. The Paper Slide must be moved back from the separator wheels when the elevator belts are raised.

Set the Elevator Belts by performing the following:

- 1. Loosen the knob found on each side plate of the 1500-IJ Feeder, see Figure III-10.
- 2. Adjust (raise or lower) the elevator belts to the desired height. (Note: Commonly the elevator belts are raised into use for large stock measuring approximately 8' X 10' or larger)
- 3. Tighten the knobs using moderate force to secure the setting.

(Caution: Over tightening the knob may result in damage to the side plate finish and /or the knob.)

Caution Be sure the elevator belts are down when running small material. Setting the Paper Slide into the elevator belts will result in damage to the belts.

Paper Slide



Figure III-10

Control Panel and Switch Operation

1500-IJ Feeder Operator Control Panel and Speed Control-Figures III-11A and B



Figure III-11B

Operating the 1500-IJ FEEDER

Once the basic set up is completed, turn the power switch to the "On" position and initiate the operation of the 1500-IJ Feeder.

Power:

1. Turn power to the machine on by flipping the white power switch, located on the feeder hood, in an upward direction. See figure III-12.



- Feeder motor runs when Low Product switches are closed and a 5-28 VDC RUN signal from the FIT36 base (J2). (Separator motor will run during feeder operation.
- 3. Observe how the 1500-IJ Feeder separates and feeds material. If doubling occurs, advance the back wedge further under the stack of paper, or apply more pressure using the separator wheels.
- 4. By moving the back guide in and out, you will quickly find the position that creates the most consistent shingle effect.
- 5. On models with rear elevator belts, loosen the thumbscrews on the side frames and raise and lower the belts as needed. Longer materials will utilize the raised belts most often.
- 6. One important item to note; There is no substitution for experience. By working with the SE 1500 IJ, notice that the combination of separator setting and the back guide adjustment together will have the greatest effect on separation. Generally, the longer the piece of material, the flatter the material

stack should be. Conversely, the shorter the piece of material, the closer the back guide adjustment should be to the material.

Section IV General Maintenance



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Section IV

1500-IJ Maintenance:

The general maintenance of the 1500-IJ is limited due to the design and materials used in manufacturing. The frequency of general cleaning required for the 1500-IJ is dependent on the amount of running time put on the machine.

General Cleaning:

Removing debris from the machine with compressed air

- 1. Acquire and use eye protection, safety goggles or safety glasses with side guards. Also use respiratory protection, a simple disposable cloth or paper style particle mask is sufficient.
- Alert all other people in the area to stand clear of the work area a minimum of 30 feet, (7.7 meters) where compressed air is being used to blow off machines.
- 3. Turn off the machine and disconnect the power line.

Warning: To prevent accidental injury, refer to "The Lock Out / Tag Out Procedure" in Safety section

- 4. Remove any loose items from the surfaces of the machine, i.e. Ballpoint pens, pencils, tape dispensers, paper clips rubber bands etc.
- 5. Hold the air nozzle firmly at arm's length and clean off the machine beginning with the top surfaces then work your way down.

Warning: Be sure to keep the direction of compressed air blowing away from you.

(**Note:** High volume businesses running three (3) shifts five (5) days a week should plan this function once a week. Businesses producing light to moderate volume should plan this function once a month.)

Cleaning Feeder Belts:

- 1. Acquire and use eye protection, safety goggles or safety glasses with side guards.
- 2. Turn off the machine and disconnect the power lines.
- 3. Clean the following material belts;
 - ✓ Red Feeder Transport and Elevator Belts of the 1500-IJ Feeder

Apply a liberal amount of "Simple Green" general-purpose cleaner or ("Isopropyl Alcohol", 70% by volume see warning below) to a soft cloth and wipe down the belt you wish to clean. Advance the belt being cleaned by hand until the entire belt surface has been cleaned.

(Warning: Do not spray or pour Simple Green general-purpose cleaner or Isopropyl Alcohol directly onto the belts, free flowing liquids may seep into some electronic components and cause damage)

(**Note:** "Simple Green" general-purpose cleaner and / or "Isopropyl Alcohol" can be purchased at most local grocery stores and drug stores.)

Warning: <u>Isopropyl Alcohol</u> is <u>INFLAMMABLE</u> !!! Always unplug the machine before cleaning belts and rollers. DO NOT! use near an open flame, sparks, or any other source of ignition. DO NOT! smoke in the vicinity of the alcohol fumes. Allow used rags to air-dry before throwing them in the trash. Dispose of used rags properly. Other areas of the machine should be wiped clean with a clean dry rag.

Section V

Electrical Components



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HOOD ENCLOSURE COMPONENTS

ltem	Component	Function
1	CKT BRKR, CB1	3A
2	SPEED POTENTIOMETER	Provides input to DC Motor Control, local mode
3	LINE FILTER	Reduces electronic noise from input power
4	POWER ENTRY MODULE	Port for incoming power supply
5	T1,TRANSFORMER	110VAC primary 24VAC secondary, 25VA
6	DC MOTOR CONTROL	Controls speed of Feeder motor
7	POWER RESISTOR	Feeder motor
8	T2, TRANSFORMER	230/115:230/115, 175VA
9	RS1, ROCKER SWITCH	Local/Remote switch
10	LED1	
11	FEEDER MOTOR/CHOKE	Reduces brush noise from feeder motor
12	FEEDER MOTOR	
	K1 relay	DPDT, 30A, 24VAC Feeder motor
	F1A, 1B, 1C Fuse	Provides overload protection-T1 transformer: primary/secondary
	D1 DIODE	LED circuit
	R1 RESISTOR	LED circuit, 1KΩ
	CAPACITOR	Separator motor-60 HZ or 50 HZ
	K2 relay	DPDT, 24VAC Separator motor
	F2A,2B Fuse	T2 transformer secondary

Section VI Electrical Wiring



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Section VII Troubleshooting



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1500 IJ Troubleshooting Guide

Problem	<u>Solution</u>
Feeder will not run.	Check fuse condition.
	Check outlet power source.
	Check power switch.
	Check low material sensors-product level
Feeder runs but no material is	Check material supply.
being dispensed.	Remove all material and follow setup procedure.
	Check rollers and belts for excessive wear or dirt.
Feeder does not create a gap	Lower separator adjustment and observe.
between pieces.	If a gap is not present after this
	adjustment, return separator to original
	position and move the back guide
	forward.
	Lower rear elevator belts slightly.
Thick material does not feed well.	Decrease the height at the back of the material stack.
	Increase the opening at the separation
	device (the thicker the material the less critical the setting is).
Thin material does not feed.	Adjust separation device as described in section III.
	Remove material and fan the stack
	allowing air to separate the pieces.
	Raise the rear of the material stack by
	moving the wedge forward.

Sure-Feed Engineering

1500-IJ FEEDER ASSEMBLY REPLACEMENT SPARE PARTS

ITEM	PART NO.	QTY.	DESCRIPTION
1	10020-282	1	ASSY, FRONT SHAFT
2	10020-498	1	ASSY, NIP SHAFT
3	10020-499	1	ASSY, IDLER SHAFT
4	10020-500	1	ASSEMBLY, MAIN DRIVE SHAFT
5	10020-501	1	ASSEMBLY, JACK SHAFT
6	99000-004	4	RED GUM BELTS
7	99000-005	2	RED TIMING BELTS (ELEVATOR)
8	99000-040	1	TIMING BELT 80XL037
9	99000-003	1	TIMING BELT 120XL037
10	99000-320	1	TIMING BELT 98XL037
11	10014-001	1	SEPARATOR BELT-3" DIA
12	99000-006	1	TIMING BELT 920 MXL-80115
13	18021-066	1	SEPARATOR MOTOR ASSY (24VAC)
14	98004-018	5	FUSE, 3 AMP
15	98004-019	10	FUSE, 0.5 AMP
16	98006-024	1	POWER RESISTOR, 0.1 Ω
17	98008-017	1	TRANSFORMER, 25 VA, 110/24 VAC
18	98004-095	1	CIRCUIT BREAKER
19	98020-092	1	FILTER, AC LINE
20	98002-059	1	RELAY, DPDT, 30A, 24 VAC
21	98002-061	1	RELAY, DPDT, 24VAC
22	98005-022	1	MOTOR CONTROLLER
23	98020-031	1	DIODE
24	98020-032	1	BRUSH NOISE CHOKE
25	98020-029	1	SEPARATOR CAPACITOR,60 HZ (-033: 50 HZ)
26	10019-016	2	CHERRY SWITCH, MODIFIED
27	10018-152	1	TRANSFORMER, 230/115:230/115, 175VA



