



Maintenance Management Order

SUBJECT: PM Guidelines for Letter Mail Labeler Machine
(LMLM) Model 400C

DATE: June 21, 2008

NO: MMO-062-08

TO: 1. LMLM 400C Offices
2. Managers, In Plant Support, Area Offices

FILE CODE: K2

crat:mm08002ac

MAINTENANCE MANAGEMENT ORDER

MAINTENANCE MANAGEMENT ORDER

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) Guidelines for the Letter Mail Labeler Machine (LMLM) with the linerless label modification (LLA), referred to as Model 400C. This MMO supersedes MMO-070-01, Letter Mail Label Machine (LMLM) PM Guidelines, and MMO-106-01, Letter Mail Labeling Machine (LMLM) Model 400C Maintenance Criteria Amendment to MMO-070-01.

CC has been assigned as the eMARS class code for the LMLM 400C with the linerless label modification.

The workhours indicated in the workload estimate (Attachment 1) are based on a 20-hour operations window and reflect the *maximum* annual workhours required to maintain each system. Management may modify task frequencies to address local conditions.

The minimum maintenance skill level required to perform each task is included in the Minimum Skill Level column of each checklist. This does not preclude higher level employees from performing any of this work.

Maintenance Managers are to use these preventive maintenance guidelines when preparing the route sheets for local maintenance personnel. It is the responsibility of each Maintenance Manager to ensure all WARNINGS, CAUTIONS, and NOTES are included with each applicable task as part of the preparation of any local route sheets.

WARNING

Various products requiring Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current MSDS be requested. Refer to MSDS for appropriate personal protective equipment.

Web Access: <http://mtsc.usps.gov/pdf/mmo/2008/mmo06208.doc>

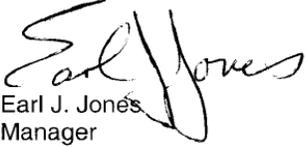
WARNING

The use of compressed or blown air is prohibited. When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used only on optical equipment when other cleaning methods can not be used.

Direct any questions or comments concerning this bulletin to the Maintenance Technical Support Center, P.O. Box 1600, Norman OK 73070-1600; telephone FTS 2000 (405) 573-2123 or toll free (800) 366-4123.

MAINTENANCE MANAGEMENT ORDER

MAINTENANCE MANAGEMENT ORDER



Earl J. Jones
Manager
Maintenance Technical Support Center
Maintenance Policies and Programs

- Attachments:
1. Workload Estimate
 2. LMLM 400C Master Checklist: 03-LMLM-CC-001-M: Daily
 3. LMLM 400C Master Checklist: 03-LMLM-CC-002-M: Weekly
 4. LMLM 400C Master Checklist: 03-LMLM-CC-003-M: Monthly
 5. LMLM 400C Master Checklist: 03-LMLM-CC-004-M: Quarterly: Tape Drive

ATTACHMENT 1

SUMMARY

WORKLOAD ESTIMATE

FOR

LETTER MAIL LABELER MACHINE MODEL 400C

MAINTENANCE MANAGEMENT ORDER

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**SUMMARY WORKLOAD ESTIMATE
LETTER MAIL LABELER MACHINE MODEL 400C**

Service Condition	Routine Servicing (hr/yr)	Repair* (hr/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time** (hr/yr)	Total Servicing Per Machine (hr/yr)
5 Days/Wk	362.4	108.7	471.1	47.1	518.2
6 Days/Wk	422.2	126.7	548.9	54.9	603.8
7 Days/Wk	482.0	144.6	626.6	62.7	689.3

* Repair estimates based on 30% of servicing.

** Based on 10% of total servicing and repair.

PM CHECKLIST SUMMARY

CHECKLIST	TIME PER YEAR
Daily	17940 min 5 day
	21528 min 6 day
	25116 min 7 day
Weekly	1820 min
Monthly	1944 min
Quarterly	40 min

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ATTACHMENT 2

LMLM 400C MASTER CHECKLIST

03-LMLM-CC-001-M

DAILY

Time Total: 69 Minutes

MAINTENANCE MANAGEMENT ORDER

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	1
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SAFETY STATEMENT

- COMPLY WITH ALL SAFETY PRECAUTIONS. Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Open equipment and inspect dust conditions. Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment.**

3 MIN All

THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.

When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods can not be used. Report safety deficiencies to your supervisor immediately upon detection.

Comment [MTSC1]: Current Postal Policy

WARNING

Be cautious when working around or on equipment when power has been applied.

EDGER/ JOGGER SECTION

- Clean edger/jogger drive chains.** Clean and remove any accumulation of dust and debris using a vacuum on the edger/jogger drive chains as follows:

3 MIN 7

- Clean the edger/jogger exposed finger drive chains (2 each).
- After cleaning the portion of the finger drive chains currently exposed, press the MAGAZINE FEED switch to advance the chains one complete length of the edger/jogger section.
- Repeat this until the entire length of the finger drive chains has been cleaned.
- After the edger/jogger finger drive chains have been cleaned, press the STOP switch.

Comment [MTSC2]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

CAUTION

To prevent damage to computer files, always complete an orderly computer shutdown prior to powering down the system computer.

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	1
Equipment Nomenclature Letter Mail LabelerMachine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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MAINTENANCE MANAGEMENT ORDER

MAINTENANCE MANAGEMENT ORDER

- | | | | | |
|----------------------|----|---|----------|-----|
| LMLM | 3. | Power down and lock out power. Power down the machine (including the computer) and lock out power as prescribed by the current local lockout/restore procedures. | 4
MIN | All |
| | 4. | Clean LMLM exterior. Clean LMLM exterior as follows:
1. Open top covers to access top deck of machine.
2. Clean and remove any accumulation of dust and debris using a vacuum on the LMLM exterior.
3. Ensure that debris from corners and edges is removed.
4. Remove all stray mail and place in a tray.
5. Close the top covers.
6. Clean and remove any accumulation of dust and debris using a vacuum on the exterior surfaces of the top covers. | 5
MIN | 7 |
| EDGER/
JOGGER | 5. | Clean edger/jogger interior. Clean the edger/jogger interior as follows:
1. Open the door under the edger/jogger.
2. Clean and remove any accumulation of dust and debris using a vacuum on the edger/jogger interior.
3. Remove all stray mail and place in a tray.
4. Close the door. | 7
MIN | 7 |
| STACKER
SECTIONS | 6. | Clean interior of stacker sections. Clean interior of stacker sections as follows:
1. Open the doors under the stacker sections.
2. Clean and remove any accumulation of dust and debris using a vacuum on the interior of the stacker sections.
3. Remove any stray mail and place in a tray.
4. Close the doors. | 7
MIN | 7 |
| TURNSTILE
SECTION | 7. | Remove separator assembly. Stand near the control station on operator side of the LMLM and remove separator assembly as follows: | 1
MIN | 7 |

Comment [MTSC3]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

Comment [MTSC4]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

Comment [MTSC5]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

Comment [MTSC6]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	1
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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1. Pull back on black-knobbed lever on top of separator assembly.
2. Pull out holding pin on the side of mounting bracket (not on top).
3. Lift separator shoe assembly out of mounting bracket.
8. **Check and clean separator shoes.** Check and clean separator shoes as follows:

3	7
MIN	

 1. Check separator shoes for damage or for thickness less than 3/16-inch.
 2. Replace any shoes that are damaged or are thinner than 3/16-inch by following steps outlined in MS-154, Volume B, Section 7.4.1.3.

CAUTION

Using too much of a non-toxic gum removing agent to clean separator shoes will create problems feeding the mail.

Comment [MTSC7]: Current Postal recommendations

3. If any of the shoes have a gummy or sticky layer, clean them lightly with a non-toxic gum removing agent prescribed by local policy.

Comment [MTSC8]: Current Postal recommendations

TURNSTILE SECTION
(Cont.)

9. **Move each separator shoe.** Try to move each separator shoe individually. Each should move freely. If each separator shoe does not move freely, clean linkage as required, or adjust in accordance with MS-154, Volume B, Section 6.4.1, steps 2 through 6.

1	7
MIN	
10. **Check picker belts.** Stand on the operator side of the LMLM and check each picker belt as follows:

2	7
MIN	

 1. Check for damage, any grooves in the belts, or other signs of improper wear.
 2. Check belts for thickness less than 1/8-inch.
 3. If any of the belts are damaged, grooved, show improper wear, or are less than 1/8-inch thick, replace all five belts in accordance with MS-154, Volume B, Section 7.4.1.7.

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U.S. Postal Service Maintenance Checklist	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	L	M	L	M	C	C	0	0	1	M
Equipment Nomenclature Letter Mail LabelerMachine			Equipment Model 400C			Bulletin Filename MM08002AC			Frequency Daily			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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CAUTION

Using too much of a non-toxic gum removing agent to clean the picker belts will create problems feeding the mail.

Comment [MTSC9]: Current Postal recommendations

4. If any of the picker belts have a gummy or sticky layer, clean them lightly with a non-toxic gum removing agent prescribed by local policy.

Comment [MTSC10]: Current Postal recommendations

MAINTENANCE MANAGEMENT ORDER

MAINTENANCE MANAGEMENT ORDER

TURNSTILE SECTION
(Cont.)

- | | | | |
|-----|---|-----|---|
| 11. | Reinstall separator assembly. Reinstall separator assembly as follows: | 1 | 7 |
| | | MIN | |
1. Hold out holding pin on side of separator assembly mounting bracket and the spring pin on top of separator assembly.
 2. Pull black-knobbed lever to the right as far as it will go. This opens the separator assembly.
 3. Replace separator assembly by inserting it into the mounting bracket and fitting two holes in the separator assembly bracket to two screws on mounting bracket.
 4. Mount separator assembly in place and push it down.
 5. Release holding pin and push it in to secure the assembly.
 6. Lift release pin.

LABELER SECTION

- | | | | |
|-----|--|-----|---|
| 12. | Clean vacuum generator filters. | 5 | 7 |
| | | MIN | |
1. Open panel directly below Linerless Label Applicator (LLA) to expose the pneumatic plate.
 2. Locate air supply shut-off valve on left hand side of pneumatic control panel.
 3. Turn off air by turning supply valve 1/4 turn in a counterclockwise direction.
 4. Remove two filter covers by turning in a counter clockwise direction. Clean and remove any accumulation of dust and debris using a vacuum.
 5. Remove two filters. Vacuum/wipe filters.
 6. Re-install two filters by placing narrow filter end into housing.

Comment [MTSC11]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

Comment [MTSC12]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	1
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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7. Replace filter covers by turning clockwise until finger tight.

13. **Clean cutter assembly.** 15 7
MIN

1. Lift cutter assembly access hole cover on LLA. Flip manifold latch up and open manifold.
2. Remove any label supply threaded under plate. Use a clean dry rag and wipe face of label guide sensor pair 36.
3. Place small amount of a non-toxic gum removing agent, prescribed by local policy, on cleaning rag and clean manifold face, paying particular attention to the top edge and vacuum holes.
4. Use a clean rag and a non-toxic gum removing agent, prescribed by local policy, to clean surface of white label advance roller that protrudes through manifold.

CAUTION

Stationary blade has a spring. Do not allow it to snap back down. Damage may occur to the blades.

5. Lift stationary blade up. Remove lubrication wick from stripper, wipe off with a clean rag, and set aside.
6. Use a clean rag to wipe the stationary blade, moveable blade, and stripper. Ensure all adhesive and label residue is removed.
7. Place lubrication wick back into stripper. Use an eyedropper to place 3-5 drops of silicone fluid on wick. Carefully put stationary blade back down.
8. With a non-toxic gum removing agent, prescribed by local policy, and a cleaning rag, clean any label and/or adhesive residue from face of paddle assembly.
9. Check paddle assembly for looseness. Tighten hold down screw, if required.
10. From non-operator side of machine, locate white label advance rollers below label supply wheel. With a non-toxic gum removing agent, prescribed by local

Comment [MTSC13]: Current Postal recommendations

Comment [MTSC14]: Current Postal recommendations

Comment [MTSC15]: To remove build up of oil and dirt

Comment [MTSC16]: Current Postal recommendations

Comment [MTSC17]: Current Postal recommendations

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	1
Equipment Nomenclature Letter Mail LabelerMachine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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policy, and a cleaning rag, wipe rollers clean.

- 11. Reload label supply according to procedure.
- 12. From machine operator side, restore air supply by rotating air supply valve 1/4 turn clockwise. Close and secure panel.
- 13. Close cutter assembly access hole cover. Close LLA cover.

CLEAN UP	14.	Clean up. Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2 MIN	All
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WARNING

Be cautious when working around or on equipment when power has been applied.

LMLM	15.	Restore equipment to service. Restore equipment to service as prescribed by the current local lockout/restore procedures.	5 MIN	All
	16.	Run machine. Run 50-100 mailpieces through the LMLM and verify the machine is operating normally.	5 MIN	9

Comment [MTSC18]: Recommended sample size

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U.S. Postal Service		IDENTIFICATION											
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		0	3	L	M	L	M	C	C	0	0	1	M
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC			Frequency Daily				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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ATTACHMENT 3

LMLM 400C MASTER CHECKLIST

03-LMLM-CC-002-M

WEEKLY

Time Total: 35 Minutes

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	2
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Weekly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SAFETY STATEMENT

- COMPLY WITH ALL SAFETY PRECAUTIONS. Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Open equipment and inspect dust conditions. Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment.**

3 MIN All

THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.

When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods can not be used. Report safety deficiencies to your supervisor immediately upon detection.

Comment [MTSC19]: Current Postal Policy

CAUTION

To prevent damage to computer files, always complete an orderly computer shutdown prior to powering down the system computer.

LMLM

- Power down and lock out power.** Power down the machine (including the computer) and lock out power as prescribed by the current local lockout/restore procedures.

4 MIN All

TRANSPORT SECTION

- Check particle filter for water.** Check particle filter for water as follows:
 - Open the left door underneath the labeler on the operator side of the LMLM.
 - Place a towel under the particle filter.
 - Move black petcock on bottom of particle filter to the side. If there is any water in the filter, it will spray out of the bottom of the filter.
 - Hold petcock to the side until the water stops spraying. Release petcock.
 - Remove towel and close the door.

3 MIN 7

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MAINTENANCE MANAGEMENT ORDER

U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	2
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Weekly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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|------|----|---|-----------|---|
| LMLM | 4. | Clean slide bars for magazine and edger/jogger helping hands, and stacker paddles. Check for paper dust build-up on the metal slide bars for the magazine helping hand, the edger/jogger helping hand, and the stacker paddles. Clean off any dust build-up using a soft, dry cloth. | 3
MIN | 7 |
| | 5. | Clean stacker guides, stacker augers, and edger/jogger bars. Clean the surfaces of the stacker guides, stacker augers, and the edger/jogger bars that contact the mailpieces. | 10
MIN | 7 |

CAUTION

If a non-toxic gum removing agent, prescribed by local policy, is used for cleaning purposes, DO NOT allow it to come in contact with the rollers on the back-up roller assembly.

CAUTION

Do not use any type of liquid cleaning solution to clean the sensors.

Comment [MTSC20]: Current Postal recommendations

- | | | | | |
|----------|----|---|----------|-----|
| LABELER | 6. | Service labeler. | 5
MIN | 7 |
| | | 1. Place a new lubrication wick (P/N 09.05844) into stripper. Use an eyedropper to place 8 to 10 drops of silicone based oil on wick. | | |
| | | 2. Clean sensors. Open top covers and wipe the face of each sensor using a soft cloth. The position of each sensor is shown in MS-154, Volume A, Section 3.2.4.2, Figure 3-3. | | |
| | | 3. Close the top covers. | | |
| CLEAN UP | 7. | Clean up. Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor. | 2
MIN | All |

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	2
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Weekly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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WARNING

Be cautious when working around or on equipment when power has been applied.

LMLM	8.	Restore equipment to service. Restore equipment to service as prescribed by the current local lockout/restore procedures.	5 MIN	All
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ATTACHMENT 4

LMLM 400C MASTER CHECKLIST

03-LMLM-CC-003-M

MONTHLY

Time Total: 162 Minutes

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U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	3
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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SAFETY STATEMENT	1.	COMPLY WITH ALL SAFETY PRECAUTIONS.	3	All
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Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Open equipment and inspect dust conditions. Check for suspicious dust or unusual debris. If any unusual substance is found notify supervisor prior to proceeding with any further action on the equipment.

THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.

When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods can not be used. Report safety deficiencies to your supervisor immediately upon detection.

CAUTION

To prevent damage to computer files, ensure an orderly computer shutdown has been performed prior to powering down the system computer.

LMLM	2.	Power down and lock out power. Power down the machine (including the computer) and lock out power as prescribed by the current local lockout/restore procedures.	4 MIN	All
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TRANSPORT SECTION	3.	Check and clean particle filter element. Check and clean the particle filter by performing the following:	5 MIN	7
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1. Place a towel under the particle filter.
2. Push black petcock on bottom of particle filter to the side to allow any water inside plastic bowl to drain out and to remove the air pressure.
3. Push down on black latch located at top of metal guard. Rotate guard counterclockwise and remove it.
4. Pull plastic bowl down and off.
5. Check bowl for cracks. Replace bowl if cracked. If bowl is not cracked, clean with a damp rag.

Comment [MTSC21]: Current Postal Policy

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U.S. Postal Service Maintenance Checklist	IDENTIFICATION										
	Work Code		Equipment Acronym				Class Code		Number		Type
	0	3	L	M	L	M	C	C	0	0	3
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Monthly			

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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6. Unscrew particle filter element to remove and check it. Clean particle filter element by gently tapping it on a surface and then vacuum to clean it. Replace particle filter element if it is not intact or cannot be cleaned.
7. Reinstall particle filter element by screwing it back into bottom of filter.
8. Place metal guard over plastic bowl. Replace plastic bowl by pushing it up until the gasket seats.
9. Fasten metal guard in place by pushing it up over the plastic bowl and rotating guard clockwise.

Comment [MTSC22]: Current Postal Cleaning method - Compressed or Blown Air Prohibited

MAINTENANCE MANAGEMENT ORDER

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TRANSPORT SECTION (Cont.)

- | | | | |
|----|--|----------|---|
| 4. | Check coalescing filter. Check coalescing filter by performing the following: <ol style="list-style-type: none"> 1. Push down black latch located at top of metal guard. Rotate guard counterclockwise and remove it. 2. Pull plastic bowl down and off. 3. Remove drain float by unscrewing locking nut on bottom of bowl. 4. Check bowl for cracks. Replace bowl if cracked. If bowl is not cracked, clean with a damp rag. 5. Install drain float in plastic bowl. Replace locking nut on bottom of bowl. 6. Unscrew particle filter element to remove it and check for oil stains. If oil stains cover only the bottom fifth of filter element, do not change element. If stains cover more than the bottom fifth of filter element, replace element. 7. Reinstall filter element by screwing it back into the bottom of filter. 8. Place metal guard over plastic bowl. Replace plastic bowl by pushing it up until gasket seats. 9. Fasten metal guard in place by pushing it up over plastic bowl and rotating guard clockwise. | 5
MIN | 7 |
|----|--|----------|---|

U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	3
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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WARNING

The following procedure requires that the air pressure be restored. Be cautious working with restored air pressure.

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10. Remove lockout device from air line and restore air pressure.
11. Turn Pneumatic System air line valve to ON position. Listen for leaks. If a leak is heard, check the plastic bowls on the filters to determine if they are properly seated.
12. Close both doors underneath labeler on operator side of LMLM.

TRANSPORT SECTION

5. **Check air pressure.** Check the air pressure for vacuum generators as follows: 25 MIN 7

1. The correct air pressure range for each of the three regulators when the solenoids are actuated is:

<u>Valve/Regulator</u>	<u>Air Pressure Range</u>
Interposer	20 - 25 psi
Manifold Vacuum	70 psi
Paddle Vacuum	70 psi
Paddle Solenoid Air	60 psi
Cutter Solenoid Air	60 psi

2. If required, adjust the appropriate air pressure regulator(s) by using a slotted screwdriver and turning the gold stem screw on top of the regulator. (Refer to Figure 6-57 in MS-154, Volume B, Section 6.5.3.)

To decrease air pressure, turn screw counterclockwise. To increase air pressure, turn screw clockwise.

3. Verify the adjustment by pressing the manual fire solenoid button on the solenoid valve. Refer to Figure 6-57 in MS-154 Volume B, Section 6.5.3. After manually actuating the solenoid, check the air

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Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	3
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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pressure on the regulator adjusted. If it is not in the correct range, readjust the regulator and verify the adjustment.

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Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
LABELER	6.	Vacuum generator filters. 1. Locate two vacuum generators on right-hand side of pneumatic control panel. 2. Turn vacuum filter covers counterclockwise. Remove filters and discard. 3. Replace filters (P/N PPSF.375-X10), by placing narrow end of filter into filter holder. 4. Replace filter covers by turning clockwise until finger tight.	10 MIN	7
	7.	Cutter assembly. 1. Remove cutter assembly. (Refer to MS-154 Supplement, PSIN 0250225, Section 5.5.) 2. Check all air fittings, screws, nuts, bolts, etc. to ensure they are properly tightened. 3. Check two external stop bumper pads for wear. Replace, if necessary, with two new bumper pads. (Pad Mount P/N 53.05810, & Cutter Stop Pad P/N 03.05827) 4. Replace cutter assembly. (Refer to MS-154 Supplement, PSIN 0250225, Section 5.5.)	35 MIN	7
STACKERS	8.	Stacker diverter coupling pads. Check wear on all 5 stacker diverter coupling pads as follows: Check each diverter to verify it is between 1/32 inch and 1/16 inch from the nearest transport belt. If the distance is not between 1/32 inch and 1/16 inch, adjust the stacker diverter gap according to the MS-154, Volume B, Section 6.6.3. 1. Rotate stacker diverter towards the non-operator side of machine. If movement is 0 inch to 3/16 inch, the coupling disc is OK. 2. If movement is greater than 3/16 inch, replace the coupling disc (P/N 5P15-3325) according to procedures in MS-154, Volume B, Section 7.6.4.5,	3 MIN	7

Comment [MTSC23]: Location of Cutter Procedure in Manual Supplement

Comment [MTSC24]: The two external bumper pads

Comment [MTSC25]: Location of Cutter Procedure in Manual Supplement

U.S. Postal Service		IDENTIFICATION											
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number			Type
		0	3	L	M	L	M	C	C	0	0	3	M
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC			Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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steps 3 through 6 of the removal procedure and steps 1 through 6 of the replacement procedure.

Adjust diverter solenoid in accordance with MS-154, Volume B, Section 6.6.3.

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STACKERS (cont.)	9.	Stacker diverter 2nd auger assemblies. Check the second auger assembly auger spiral for excessive sharpness or damage in each stacker. Refer to MS-154, Volume B, Section 7.6.4.9, Figure 7-77.	5 MIN	9
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Perform the following:

1. Rotate pulley 1 in the second auger assembly at least 360 degrees while visually checking the auger spiral for excessive sharpness or damage. Refer to MS-154, Volume B, Section 7.6.4.10, Figure 7-78.
2. If the fine pitch auger is sharp, worn, or damaged, remove the second auger assembly using MS-154, Volume B, Section 7.6.4.9, steps 3 through 11 of the removal procedure.
3. Remove and replace the fine pitch auger.
4. Reinstall the second auger assembly using MS-154, Volume B, Section 7.6.4.9, steps 1 through 9 of the replacement procedure.

NOTE

Do not lubricate the two edger/jogger finger drive chains which control the movement of the edger/jogger fingers. These chains are located directly underneath the edger/jogger fingers.

EDGER/ JOGGER	10.	Lubricate edger bar drive chain. Lubricate edger bar drive chain by performing the following:	5 MIN	7
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WARNING

Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.

1. Stand on the operator side of the transport next to the control station. Remove the three screws

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Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	3
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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securing the cover over the edger bar drive chain and remove the cover.

2. Pour a small amount of silicon based oil on a clean rag and lightly wipe the chain. Refer to MS-154, Volume B, Section 6.3.8, Figure 6-16.
3. Manually turn the edger bar to access the entire chain.
4. Replace the cover over the chain and tighten the screws that secure it.

LMLM	11.	Close all top covers, the labeler head, and all machine doors. Close all top covers and machine doors, and close and lock the labeler head previously opened.	8 MIN	7
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CAUTION

Do not let any liquid get inside the control panel, the keyboard, or the monitor. Wring the cloth well before using it.

	12.	Clean and dust control panel, keyboard, and monitor. Use a soft, lint-free cloth to clean the exterior of the LMLM control panel (ensure each switch and indicator is cleaned), the LMLM system keyboard, and monitor. Lightly use a non-toxic gum removing agent, prescribed by local policy, if required to remove dirt.	4 MIN	7
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Comment [MTSC26]: Current Postal recommendations

PRINTER	13.	Clean printer. Clean printer as follows:	3 MIN	7
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1. Open printer access cover.

CAUTION

In the following step, use a non-conductive nozzle to vacuum to prevent equipment damage.

2. Use a vacuum or a small brush to clean the areas around the carriage shaft and platen. Remove any loose particles of paper.
3. Close printer access cover.

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Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number			Type
		0	3	L	M	L	M	C	C	0	0	3	M
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC			Frequency Monthly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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CAUTION

In the following step, do not use solvents or strong detergents on the printer exterior.

- Use a soft, lint-free cloth to clean the printer exterior.

CLEAN-UP	14.	Clean up. Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2 MIN	All
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WARNING

Be cautious when working around or on equipment when power has been applied.

LMLM	15.	Restore equipment to service. Restore equipment to service as prescribed by the current local lockout/restore procedures.	5 MIN	All
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SWITCHES, WARNING DEVICES	16.	Emergency stop, interlock, and warning devices. Check emergency stop, interlock, and warning devices for proper operation as follows:	40 MIN	7
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- Start system.
- Press closest emergency stop switch. System should stop, associated lamp should light, and control panel display should indicate EMERGENCY STOP.

Check all emergency stop switches and interlock switches in same manner. The locations of emergency stop switches and the interlock switches are shown in MS-154, Volume A, Section 4.5.1, Figure 4-8, and Section 4.5.2, Figure 4-9. Report all deficiencies to supervisor and initiate appropriate work order.

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ATTACHMENT 5

LMLM 400C MASTER CHECKLIST

03-LMLM-CC-004-M

QUARTERLY

TAPE DRIVE

Time Total: 10 Minutes

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Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	4
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Quarterly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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WARNING

Be cautious when working around or on equipment when power has been applied.

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TAPE DRIVE	1.	<p>Clean tape drive. The tape drive is used only for loading of data at time of installation, occasional system backups, or after corrective maintenance to the computer or hard disk drive. Only quarterly cleaning is recommended.</p> <ol style="list-style-type: none"> 1. Open the machine doors underneath the Turnstile and Settling Sections on the non-operator side of the LMLM-400. Place the MECHANICAL STOP SWITCH to the OFF position. 2. Open both doors underneath the Labeler on the operator side of the LMLM-400. Use a head cleaning cartridge such as: <ul style="list-style-type: none"> Perfect Data Corporation, P/N 104755-1 Or Dartek Computer Supplies, P/N 91322 3. Clean the heads of the system computer's tape drive. 4. Remove the head-cleaning cartridge. Close both doors underneath the labeler on the operator side of the LMLM-400. Place the MECHANICAL STOP SWITCH to the ON position. Close the machine doors underneath the Turnstile and Settling Sections on the no-operator side of the LMLM-400. 	5 MIN	10
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NOTE

Time allotted for making software backup is only actual time required to initiate and complete backup process. Time required for system to copy software to tape is not included. It is expected that other duties will be performed during this period.

U.S. Postal Service		IDENTIFICATION										
Maintenance Checklist		Work Code		Equipment Acronym				Class Code		Number		Type
		0	3	L	M	L	M	C	C	0	0	4
Equipment Nomenclature Letter Mail Labeler Machine		Equipment Model 400C				Bulletin Filename MM08002AC		Frequency Quarterly				

Part or Component	Item No.	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req'd	Min. Skill Level
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LMLM	2.	Back up local machine parameters and system statistical files. Perform the following actions:	5	10
		<ol style="list-style-type: none"> 1. From Main Menu, select System Control. 2. From System Control Menu, select System Mode Control. 3. From System Mode Control Menu, select Set Maintenance Mode. 4. From Main Menu, select System Maintenance. 5. From System Maintenance Menu, select "Option 6 - File System Backup/Restore". 6. Insert previous day's backup tape in tape drive and close latch. 7. From the File System Backup/Restore menu, select "Option 3 - Backup Local Machine Parameters and System Statistical Files". 8. Remove backup tape from tape drive after all files have been backed up. 	MIN	

MAINTENANCE MANAGEMENT ORDER

MAINTENANCE MANAGEMENT ORDER