



# maintenance management order

**SUBJECT:** PM Guidelines for Postal Pak Unloader "A"  
(PPUA)

**DATE:** October 30, 1998

**NO:** MMO-136-98

**TO:** Bulk Mail Centers

**FILE CODE:** Y

dewa:MM9603AD

Online Change Record		
Change #	Date	Description of Change
1	4/25/2022	Attachment 2, corrected skill level 4, no longer in use, to level 7.

This Maintenance Management Order (MMO) provides Preventive Maintenance (PM) guidelines for BMC Postal Pak Unloader "A" (PPUA).

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

## WARNING

**Various products which require 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 by all employees. When reordering such a product, it is suggested that a current MSDS be requested.**

The attached master checklist provides tasks to be performed at periodic intervals (as noted in the frequency column), the time required per task, and the minimum skill level for each task.

The workhours represented in this MMO reflect the maximum workhours required to maintain the equipment. Given local conditions, management may modify task frequencies.

For questions or comments concerning this bulletin contact the MTSC HelpDesk, either online at **MTSC>HELPDESK>Create/Update Tickets** or call (800) 366-4123.

Rex M. Gallaher  
Manager  
Maintenance Technical Support Center  
Maintenance Policies and Programs

- Attachments:
1. Summary of Revised Workload Estimate
  2. Postal Pak Unloader "A" Master Checklist



**ATTACHMENT 1****-SUMMARY-****REVISED WORKLOAD ESTIMATE****FOR****POSTAL PAK UNLOADER "A"**

Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time ** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
33.7	10.2	43.9	4.4	48.3

\* Repair estimates based on 30% of servicing.

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

**TIME TOTALS**

Monthly Time Total: 2.4 Hrs. \*\*\*

Quarterly Time Total: 0.4 Hrs. \*\*\*

Annual Time Total: 0.9 Hrs. \*\*\*

**NOTE**

The time shown does not allow for multiple assemblies on any equipment. Should multiple assemblies exist, the time must be modified at the local level to account for those occurrences. Other unique site conditions that require additional time are to be addressed at the local level.

\*\*\* These times are provided for data entry for the MARS System.

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**ATTACHMENT 2****POSTAL PAK UNLOADER "A" (PPUA) MASTER CHECKLIST**

03-CONTU-DA-001-M

The number 03-CONTU-AA-001-M shown above is a generic identification for Postal Pak Unloader "A" and must be adapted to meet the local equipment acronym numbering system.

The "Part or Component" column for each step on the Master Checklist provides a "Frequency Code" designation followed by a letter or series of letters. These letters correspond to the frequency codes as published in MS-63 and specify the frequency for which that instruction (step) must be performed. These frequency codes are in compliance with NMICS superseding route structure. The possible frequencies and their codes are given in the table below:

**Table 2-1. MS-63 (NMICS) Frequency-Codes**

<b><u>CODE</u></b>	<b><u>FREQUENCY</u></b>	<b><u>DESCRIPTION</u></b>
A	ANNUAL	Once every 13 APs.
B	BI-WEEKLY	Once every 2 weeks
C	BI-MONTHLY	Once every 2 APs.
D	DAILY	Once a day; 7 days a week.
E	DAILY	Once a day; 6 days a week.
F	DAILY	Once a day; 5 days a week.
G	DAILY	Once a day; 4 days a week.
H	DAILY	Once a day; 3 days a week.
J	SEMI-WEEKLY	2 days a week.
K	BI-ANNUAL	Once every 2 years.
L	TRI-ANNUAL	Once every 3 years.
M	MONTHLY	Once every AP.
N	QUAD-ANNUAL	Once every 4 years.
P	QUINT-ANNUAL	Once every 5 years.
Q	QUARTERLY	4 times every 13 APs.
S	SEMI-ANNUAL	Twice every 13 AP.
T	TOURLY	3 times a day; 7 days a week.
U	TOURLY	Twice a day; 7 days a week.
V	TOURLY	3 times a day; 6 days a week.
W	WEEKLY	Once a week.
X	TOURLY	Twice a day; 6 days a week.
Y	TOURLY	3 times a day; 5 days a week.
Z	TOURLY	Twice a day; 5 days a week.

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>			Bulletin Filename <b>MM9603AD</b>			Frequency <b>ALL</b>				

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.	<b>COMPLY WITH ALL SAFETY PRECAUTIONS. - Disconnect power and activate lockouts as appropriate while working on this equipment. Where air pressure is required for cleaning, use a low air pressure (30 psi or less) air source. Eye protection (goggles or face shield) must be used when utilizing compressed air for cleaning. Check to ensure all employees are clear of the machine. Report safety deficiencies to your supervisor immediately upon detection.</b>	3 min	All
Frequency Code: --M-Q----A				
Frequency Code: --M-Q---A	2.	<b>CHECK FOR MAIL. - Look for loose while performing all activities.</b>	2.5 min	7
Frequency Code: --M-Q---A				
Frequency Code: --M-Q---A	3.	<b>POWER DOWN AND LOCKOUT POWER. - Power down the equipment and lockout its electrical power as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.</b>	2 min	7
CG-1 CRADLE ASSEMBLY	4.	<b>CHECK LIFTING MECHANISM. - Examine the lifting mechanism to ensure the following:</b>	6 min	7
Frequency Code: --M-Q---A		<ol style="list-style-type: none"> <li>1. All pins are secure with retainers in place.</li> <li>2. All bolts and fasteners are tight.</li> <li>3. The pins and rod end, on the ball end is secure.</li> <li>4. Apply light oil to rod end , and all pivot points.</li> <li>5. Check for broken welds and any abnormal wear on assemblies.</li> </ol>		
Frequency Code: --M-Q---A	5.	<b>CHECK CRADLE WALL. - Check lower inside back wall for any deformities due to fork lift contact.</b>	2 min	7

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	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>				Bulletin Filename <b>MM9603AD</b>		Frequency <b>ALL</b>				

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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CG-1  
CRADLE  
ASSEMBLY  
(Cont.)

6. **CHECK SAFETY GATE (DROP DOWN BAR).** - Check safety gate for secure mounting and proper operation. Ensure all pins are in place.

2 min 7

Frequency Code:  
--M-Q---A

HYDRAULIC SYSTEM

7. **CHECK HOSES.** - Check hoses as follows:

1. Check hoses for scuffs and other damage.
2. Ensure clamps are secure.
3. Check hose fittings for leaks and tightness.

30 min 7

Frequency Code  
--M-Q---A

**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

**WARNING**

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

HYDRAULIC SYSTEM

8. **CHECK HYDRAULIC PUMP AND MOTOR.** - Check hydraulic pump and motor as follows:

1. Check pump and motor for excessive dirt.
2. Check that ventilation openings are kept clear.
3. Check filter visual indicator dial.
4. Replace if necessary.

13 min 7

Frequency Code:  
--M-Q---A-

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>				Bulletin Filename <b>MM9603AD</b>		Frequency <b>ALL</b>				

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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HYDRAULIC SYSTEM (Cont.)  Frequency Code: --M-Q---A-	9.	<b>CHECK HYDRAULIC SYSTEM.</b> - Check hydraulic system as follows:  1. Check fluid level. Fill if necessary with HY-1.  2. Check fluid temperature. Ensure reading on gauge is in the proper operating range. (If gauge is set in degrees ensure reading is at 160 degrees).  3. Check fluid cooling fan and motor for operation and that screen is clear and clean.  4. Replace filter if necessary.  5. Check hydraulic pressure: approximately 1250 PSIG + at approximately 13 GPM.	7 min	7
Frequency Code: -----A	10.	<b>DRAIN HYDRAULIC FLUID.</b> - Drain reservoir and fill to proper level with HY-1.	30 min	7
BUCKET ASSEMBLY  Frequency Code: ---M-Q---A	11.	<b>CHECK HYDRAULIC CYLINDERS.</b> - Check hydraulic cylinders for signs of bearing wear, damaged seals, bent rods, or binding pistons.	5 min	7
Frequency Code: --M-Q---A	12.	<b>CHECK STAGE 1 and 2 HYDRAULIC CYLINDERS.</b> - Check stage 1 and 2 hydraulic cylinders as follows:  1. Check stage 1 and 2 cylinder mounting pins for wear.  2. Check cotter pins, ensure pins are not damaged.  3. Check cylinder mounting bolts for tightness.	6 min	7

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	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>			Bulletin Filename <b>MM9603AD</b>			Frequency <b>ALL</b>				

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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BUCKET ASSEMBLY (Cont.)      13.    **CHECK STAGE 3 HYDRAULIC CYLINDER.** - Check stage 3 hydraulic cylinder as follows:      4 min      7

- Frequency Code: --M-Q---A
1. Check stage 3 cylinder mounting pins for wear.
  2. Check cotter pins, ensure pins are not damaged.
  3. Check cylinder mounting bolts for tightness.

Frequency Code: --M-Q---A      14.    **CHECK STAGE 4 and 5 HYDRAULIC CYLINDERS.** - Check stage 4 and 5 hydraulic cylinders as follows:      6 min      7

1. Check stage 4 and 5 cylinder mounting pins for wear.
2. Check cotter pins, ensure pins are not damaged.
3. Check cylinder mounting bolts for tightness.

GRIPPER ASSEMBLY      15.    **CHECK GRIPPER ASSEMBLIES.** - Check gripper assemblies as follows:      10 min      7

- Frequency Code: ---M-Q---A
1. Check stage 1 and 2 lower and upper gripper assemblies for proper operation.
  2. Check rod end bearings and cylinder mountings for tightness.

STAGE 3 RETAINER ARM ASSEMBLY      16.    **CHECK STAGE 3 RETAINER ARM ASSEMBLIES.** - Check stage 3 retainer arm assemblies as follows:      10 min      7

- Frequency Code: ---M-Q---A
1. Check stage 3 retainer arm for proper operation.
  2. Check rod end bearings and cylinder mountings for tightness.

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	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>				Bulletin Filename <b>MM9603AD</b>		Frequency <b>ALL</b>				

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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- |  |     |  |           |   |
|--|-----|--|-----------|---|
| STAGE 1-5<br>RETAINER<br>ARM<br>ASSEMBLY<br><br>Frequency<br>Code:<br>-----A | 17. | <b>CLEAN AND LUBRICATE STAGE 1 THROUGH 5 RETAINER ARM BEARINGS.</b> - Clean and lubricate stage 1 through 5 retainer arm bearings as follows: <ol style="list-style-type: none"> <li>1. Wipe clean and lubricate all bearings on PPU.</li> <li>2. Clean and lubricate 9 (nine) rod end bearings stages 1 thru 5.</li> <li>3. Clean and lubricate 2 (two) flange bearings on stage 4 shaft.</li> <li>4. Clean and lubricate 2 (two) flange bearings on stage 5 shaft.</li> <li>5. Clean and lubricate 4 (four) pillow block bearings on stage 3 bars.</li> <li>6. Wipe off excess lubricant from all bearings.</li> </ol> | 20<br>min | 7 |
| EC-1<br>ELECTRICAL<br>CONTROLS<br><br>Frequency<br>Code:<br>---M-Q---A       | 18. | <b>CHECK PHOTO SENSORS.</b> - Check photo sensors as follows: <ol style="list-style-type: none"> <li>1. Check that all indicator lamps on all the photo sensors are illuminated, as required</li> <li>2. Check proximity sensors for secure mounting.</li> </ol>   | 5<br>min  | 7 |

**WARNING**

**Eye protection (goggles or face shield) must be worn when using compressed air for cleaning.**

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	Work Code		Equipment Acronym				Class Code		Number		Type	
	0	3	C	O	N	T	U	D	A	0	0	1
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>			Bulletin Filename <b>MM9603AD</b>			Frequency <b>ALL</b>				

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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EC-1 ELECTRICAL CONTROLS (Cont.)  Frequency Code: -----Q---A	19. <b>CHECK AND CLEAN ELECTRICAL PANEL.</b> - Check and clean electrical panel as follows: <ol style="list-style-type: none"> <li>1. Remove dirt and dust from exterior of panel.</li> <li>2. Open panel door, vacuum or blow dirt and dust from interior of panel.</li> <li>3. Look for burnt or damaged components, bare or burnt wiring, damaged insulation.</li> <li>4. Check motor starter contacts for wear or dirt and arcing.</li> <li>5. Check exterior of panel for damage or loose conduit.</li> <li>6. Check interior of panel for loose connections.</li> </ol>	21 min          5
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**WARNING**

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

SYSTEM  Frequency Code: --M-Q---A	20. <b>RESTORE EQUIPMENT TO SERVICE.</b> - Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.	3 min          All
HYDRAULIC SYSTEM  Frequency Code: --M-Q---A	21. <b>CHECK PUMP AND MOTOR.</b> - Check pump and motor for friction and vibration.	2 min          7

U.S. Postal Service		IDENTIFICATION							
<b>Maintenance Checklist</b>		Work Code	Equipment Acronym			Class Code	Number	Type	
		<b>03</b>	<b>C</b>	<b>O</b>	<b>N</b>	<b>T</b>	<b>U</b>	<b>D</b>	<b>A</b>
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>			Bulletin Filename <b>MM9603AD</b>		Frequency <b>ALL</b>		

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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SYSTEM  
Frequency  
Code:  
--M-Q---A

22. **CHECK OPERATION OF PPU.** - Check operation of the PPU as follows:

1. Place a tall empty container into bucket and run one complete cycle.

3 min 7

2. If system does not run a complete cycle without a fault occurring, correct the malfunction before proceeding.

Frequency  
Code:  
--M-Q---A

23. **CHECK GAUGES.** - Check PPU pressure gauges for proper readings as follows:

2 min 7

1. Main pressure approximately 1150 PSIG.

2. Stage 1 approximately 600 PSIG.

3. Stage 2 A and B 900 PSIG.

SYSTEM  
(Cont.)

24. **CHECK STATUS LIGHTS.** - Check status light assembly for proper operational sequence.

1 min 7

Frequency  
Code:  
--M-Q---A

Frequency  
Code:  
--M-Q---A

25. **INDUCE FAULT.** - Induce a fault such as "Unsafe Entry" to make sure the error message display on the A1 panel is working. Then check to make sure the proper message is also displayed on the Supervisory computer, if you have one on the DH+ network.

3 min 7

### WARNING

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

SYSTEM  
Frequency  
Code:  
--M-Q---A-

26. **RESTORE EQUIPMENT TO SERVICE.** - Restore equipment to service as prescribed by the procedures contained in, or locally developed in accordance with, the current Maintenance Management Order (MMO) providing lockout/restore procedures.

3 min All

U.S. Postal Service		IDENTIFICATION							
<b>Maintenance Checklist</b>		Work Code	Equipment Acronym			Class Code	Number		Type
		<b>03</b>	<b>C</b>	<b>O</b>	<b>N</b>	<b>T</b>	<b>U</b>	<b>D</b>	<b>A</b>
Equipment Nomenclature <b>POSTAL PAK UNLOADER "A"</b>		Equipment Model <b>A</b>			Bulletin Filename <b>MM9603AD</b>		Frequency <b>ALL</b>		

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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Frequency Code: --M-Q---A	27.	<b>OPERATIONAL CHECK.</b> - Listen for any unusual noises such as binding sounds.	5 min	7
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CLEAN-UP Frequency Code: --M-Q---A	28.	<b>CLEAN-UP.</b> - Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 min	All
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START-UP Frequency Code: --M-Q---A	29.	<b>START-UP.</b> - Perform normal start-up procedures as follows:  <ol style="list-style-type: none"> <li>1. Start or preset equipment.</li> <li>2. Check for proper operation.</li> </ol>	5 min	All
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Report all deficiencies to your supervisor in order to initiate any necessary work orders to make necessary repairs, or to remove excessive debris.