Maintenance Management Order

UNITED STATES POSTAL SERVICE™

SUBJECT: Preventive Maintenance Guidelines for Flats Remote Encoding System (FRES) for Automated Flats Sorting Machine 100 (AFSM100)

TO: All AFSM100 Sites

DATE: July15, 2024

PUB NO: MMO-010-24
FILE CODE: H11
FILE ID: mm24010
REV LEVEL: ag

This Maintenance Management Order (MMO) **supersedes MMO-126-12** and provides Operational and Preventive Maintenance Guidelines for the Flats Remote Encoding System (FRES). This bulletin applies to Acronym FRES Class Code AA.

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

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

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

2

WARNING

The use of compressed or blown air is prohibited. An alternative cleaning method such as a HEPA filtered vacuum cleaner, a damp rag, lint-free cloth, or brush must be used in place of compressed or blown air.

WARNING

Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.

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

Frederick L. Jackson III
Executive Manager
Maintenance Technical Support Center
Asset Maintenance Planning, Performance, and Support

Attachments   1.   Summary of Workload Estimate for FRES System
2.   FRES Preventive Maintenance (PM) Weekly Master Checklist
3.   FRES Preventive Maintenance (PM) Monthly Master Checklist

ATTACHMENT 1

SUMMARY WORKLOAD ESTIMATE

FOR FRES SYSTEM

Days	Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Total Servicing & Repair Time (hrs/yr)	Nonproductive Time** (hrs/yr)	Total Servicing Per Machine (hrs/yr)
5 Day	22.75	6.83	29.58	2.96	32.53
6 Day	22.75	6.83	29.58	2.96	32.53
7 Day	22.75	6.83	29.58	2.96	32.53

THIS PAGE BLANK

ATTACHMENT 2

FRES PREVENTIVE MAINTENANCE (PM)

WEEKLY MASTER CHECKLIST

Time Total: 20 Minutes

U.S. Postal Service	IDENTIFICATION												
Maintenance Checklist	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER		TYPE
	0	3	F	R	E	S			A	A	0	0	1	M

Equipment Nomenclature	Equipment Model	Bulletin Filename	Occurrence
Flats Remote Encoding System		mm247010	Weekly

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**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. 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 cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
FRES SERVER	2	**End Tour AFSM100 FRES**. 1. Select dVCC1 on KVM switch. 2. Verify AFSM VCS UI window is present with no error messages. 3. Select dVCC2 on KVM switch. 4. Verify AFSM VCS UI window is present with no error messages. 5. Select File > Set User Level > Login. 6. Enter NGC in Employee ID field and enter Password. Click Login. 7. Select Commands > End Tour. 8. Select user in Supervisor drop down menu and click End Tour. 9. Click Yes on confirmation window.	1	10			
CABINET	3	**Clean FRES cabinet filter.** **CAUTION: All AFSM100 machines must have VCS disabled if they are to run while performing the following procedure.** 1. Shutdown FRES per MS-268, Vol A. 2. Clean the cabinet filter. Using MS-268 Volume A section 8.2.1. 3. Restart FRES per MS-268, Vol A.	15	10			
DIRECTORY SERVER	4	**Clean Directory Server filter.** 1. Open cabinet assembly front door. 2. Vacuum Directory Server filter. Replace filter when impacted dirt and debris cannot be removed by vacuuming. **3.** Close cabinet assembly front door.	1	10			
DIRECTORY SERVER	5	**Verify Directory Server Start Up.** 1. Select Directory Server on KVM switch. 2. Verify Download Address Directories indicates connection to broker is established.	1	10			
CLEANUP	6	**Clean Up** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Report all deficiencies to supervisor.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

ATTACHMENT 3

FRES PREVENTIVE MAINTENANCE (PM)

MONTHLY MASTER CHECKLIST

Time Total: 25 Minutes

U.S. Postal Service	IDENTIFICATION												
Maintenance Checklist	WORK CODE	EQUIPMENT ACRONYM							CLASS CODE		NUMBER		TYPE
	0 3	F	R	E	S				A	A	0 0	2	M
Equipment Nomenclature Flats Remote Encoding System	Equipment Model					Bulletin Filename mm24010				Occurrence Monthly			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**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. 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 cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
DIRECTORY SERVER	2	**Login as Maintenance Directory Server.** 1. Select **Directory Server** on KVM switch. 2. Select **System > Logoff.** 3. Select **maintenance** from Logoff & Login drop-down menu and enter password. 4. Click **Yes** on Confirmation window.	1	10			
FRES SERVER	3	**Start Disk Defragment AFSM100 FRES dVCCs.** **CAUTION: All AFSM100 machines must have VCS disabled if they are to run while performing the following procedures.** **NOTE:** The disk defragmenter is an unassisted process once it has been manually started. Therefore, it is only necessary to return after approximately 30 minutes to close the defragmenter. At each AFSM100 FRES Server, use **Windows** Disk Defragmenter by performing the following: 1. Select dVCC1 on KVM switch. 2. Click on the Windows **Start** button. 3. Select **Log Off Cool**. dVCC1 and 2 will log off. 4. If there are additional dVCCs, log off each in the same manner. 5. Select dVCC1 on KVM switch. 6. When log in screen is displayed, login as **administrator**. 7. Right Click on **My Computer** icon and select **Open**. 8. Right Click on **FRES14_Old (C:)** and Select Properties. 9. Select Tools tab. 10. Select **Defragment Now.** 11. Select the **Defragment** button to start disk defragmenter. 12. Repeat steps 5 through 11 for each remaining dVCC.	5	10			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
FRES SERVER	4	**End Disk Defrag AFSM100 FRES dVCCs.** **CAUTION: All AFSM100 machines must have VCS disabled if they are run while performing the following procedure.** 1. Select dVCC1 on KVM switch. 2. When the Disk Defragmenter complete message box is displayed, click **Close**. 3. Close Disk Defragmenter window by selecting **File > Exit**. 4. Close FRES14_old (C:) Properties box by clicking **Cancel** button. 5. Close My Computer window by selecting **File > Close**. Repeat 1 through 5 for all remaining dVCCs.	2	10			
DIRECTORY SERVER	5	**Start Disk Defragment Directory Server.** 1. Select dVCC1 on KVM switch. 2. On Download Address Directories window select **System** > **Stop**. 3. End Download Address Directories application by clicking on the **X** in the upper right corner of the window. 4. Close all other windows by right clicking on the task in the Windows taskbar and selecting **Close**. 5. Double click on the **Diskeeper Lite** icon. 6. If the Diskeeper Lite for Windows window is displayed click on **Close** in the lower right corner. 7. Select (**D**:) in the Diskeeper Lite Drive selection window. 8. Click on **Defragment Now** button.	1	10			
DIRECTORY SERVER	6	**End Disk Defrag Directory Server.** 1. When the Defragmentation Completed message box is displayed, click **OK**. 2. Close Diskeeper Lite by clicking on the X in the upper right corner.	1	10			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
FRES SERVER	7	**Restart AFSM100 FRES.** 1. Select dVCC1 on KVM switch. 2. Click on the Windows **Start** button. 3. Select **Shutdown.** 4. Select **Restart.** 5. Wait for dVCC1 to fully initialize indicated by Video Coding System window displays with Entire System status State: OK. 6. Select dVCC2 on KVM switch. 7. Click on the Windows **Start** button. 8. Select **Shutdown.** 9. Select **Restart**. 10. Wait for dVCC2 to fully initialize indicated by Video Coding System window displays with Entire System status State: OK. 11. Restart all other dVCCs in the same manner. 12. Select dVCC2 on KVM switch. 13. Verify AFSM VCS UI window is present with no error messages. 14. Verify all dVCCs show Ready in the Subsystems section of the Video Coding System window.	9	10			
DIRECTORY SERVER	8	**Restart Directory Server.** 1. Select **Directory Server** on KVM switch. 2. Click on the Windows Start button and Select **Shutdown**. 3. Select **Restart the Compute**r? 4. Click **Yes**. 5. Verify Download Address Directories indicates connection is established.	4	10			
CLEANUP	9	**Clean Up** 1. Ensure all tools, lubricants, rags, etc, are removed from the work area. 2. Report all deficiencies to supervisor.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.