

MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE



Maintenance Management Order

SUBJECT: Operational & Preventive Maintenance
Guidelines for Low-Cost Tray Sorter (LCTS)

DATE: November 14, 2023

TO: All LCTS Sites

PUB NO: MMO-019-22

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This Maintenance Management Order (MMO) **supersedes MMO-077-15** and provides Operational and Preventive Maintenance Guidelines for the Low-Cost Tray Sorter (LCTS) system.

This bulletin applies to Acronym LCTS, Class Codes AA, BA, and CA.

The work hours indicated in the workload estimate (Attachment 1) reflect the maximum annual work hours required to maintain each system.

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.

These Preventive Maintenance (PM) guidelines are provided based on a typical LCTS configuration and may not be applicable to all systems. The steps and procedures may be locally modified based on manufacturer's recommendations.

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.

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.



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- Attachments
1. Summary of Workload Estimate For LCTS System
 2. Master Checklist 03-LCTS-AA-001-M – LCTS Preventive Maintenance (PM)
 3. Master Checklist 09-LCTS-AA-001-M – LCTS Operational Maintenance (OM)

ATTACHMENT 1

SUMMARY WORKLOAD ESTIMATE

FOR LCTS SYSTEM

Operation	Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Routine Servicing + Repair Time (hrs/yr)	Non-productive Time** (hrs/yr)	Total Servicing Per Machine (hrs/yr)	Operational Maintenance + Total Servicing		
						1 Tour (hrs/yr) OpM x 1	2 Tours (hrs/yr) OpM x 2	3 Tours (hrs/yr) OpM x 3
5 Day	279.17	83.75	362.92	36.29	399.21	689.55	979.88	1,270.21
6 Day	299.97	89.99	389.96	39.00	428.96	777.36	1,125.76	1,474.16
7 Day	320.77	96.23	417.00	41.70	458.70	865.17	1,271.63	1,678.10

NOTES:

*Repair estimates based on 30% of servicing.

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

	* -- The tasks marked with one asterisk are per unit tasks				
	** -- The tasks marked with two asterisks are critical tasks				
	Frequency Codes (1 AP = 4 Weeks)				
Code	Frequency	Description	Code	Frequency	Description
A	ANNUAL	Once every 13 APs	B	BI-WEEKLY	Once every half AP
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 26 APs
L	TRI-ANNUAL	Once every 39 APs	M	MONTHLY	Once every AP
N	QUAD-ANNUAL	Once every 52 APs	P	QUINT-ANNUAL	Once every 65 APs
Q	QUARTERLY	4 times every 13 Aps	S	SEMI-ANNUAL	Twice every 13 APs
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 1/4 AP (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			
WI(*)	WEEKS INTERVAL	Perform a task once every # weeks e.g. WI(60) = Once every 60 weeks			
		# = number of weeks			

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ATTACHMENT 2**LCTS MASTER CHECKLIST****03-LCTS-**-001-M****PREVENTIVE MAINTENANCE (PM)****Time Total: (1169) minutes**

U.S. Postal Service Maintenance Checklist	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	L	C	T	S				*	*	0	0	1
Equipment Nomenclature Low Cost Tray Sorter	Equipment Model						Bulletin Filename mm22019				Occurrence			

** = AA, BA, CA

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	<p>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.</p> <p>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.</p> <p>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.</p> <p>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, request the current SDS. Refer to SDS for appropriate personal protective equipment.</p>	1	All			

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.
POWER DOWN	2	Power Down and Lock Out Power. (Power Off) Power down the machine and lock out its power and compressed air as prescribed by the current local lockout instructions providing lockout/restore procedures that should be located at the graphics computer.	3	All			D
MAIL SEARCH	3	Mail Search (Power Off) 1. Perform a loose mail search throughout the entire system paying special attention to transitions between conveyors and beneath conveyor line. 2. Return mail to proper path. Follow local procedures for returning mail to operations for processing. 3. Starting at the end of the machine work toward the front of the machine clean and sweep, any dust and debris found from under the machine.	20	All			D
SYSTEM	4	Inspect System Covers. Ensure all of the side covers of the system are installed and are protecting the cabling and components to minimize damage and unnecessary downtime.	10	9			M
CONVEYORS	5	Inspect Power Rollers. 1. Verify shaft bracket for tightness. 2. The shaft should not rotate or vibrate in the bracket or frame. 3. Verify all attachment nuts & bolts are tight. 4. Loose mounting can lead to wiring problems. Inspect cabling for twisting, fraying, or any unusual appearance of the cable's physical integrity.	30	9			W
PHOTO EYES	6	Clean and Inspect Emitters, Receivers, and Reflectors. 1. Using a dry lint-free cloth, remove all dust and debris. 2. Visually inspect for any defects.	21	9			W
CONVEYORS	7	Check Guide Rails. Verify all bracket fasteners are tight.	12	7			Q

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.
CONVEYORS	8	Belting (PVC Belt, if equipped). <ol style="list-style-type: none"> Look and feel for damage to the belt cover and carcass (inner layer). Examine top and bottom covers for excessive wear, scuffs, gouging, stripping, cracking, swells, and ply separation. Look for excessive wear or tears along belt edges. Look for accumulation of dirt or foreign materials on top and bottom surfaces. 	14	9			M
CONVEYORS	9	Belt Fasteners (if equipped). <ol style="list-style-type: none"> Examine all fasteners used in splicing or repairing the belt. Look for wear or damage to fasteners. Ensure they are secure in belt. Examine belt for transverse breaks or ply separations. 	3	9			M
CONVEYORS	10	Clean Belting (if equipped). Brush belt or wash with a solution of mild detergent and water to remove accumulated dust and foreign material from pulley contact side of accessible belt areas. Do not permit moisture to enter roller or pulley bearings.	30	7			M
CONVEYORS	11	Check O-Rings. Check for missing, cracked, broken, or elongation occurring in the bands between rollers.	60	7			W
LCTS COMPUTER	12	CPU. (Exclude Industrial PCs) Open case and remove dust and debris.	20	10			Q
PUSHERS	13	Inspect & Verify Pneumatic Pusher Diverters. <ol style="list-style-type: none"> Verify photo sensor flag is vertical. Verify locking collar is tight. Verify photo sensor mount is securely fastened. Verify air cylinder end cushions are adjusted properly to eliminate slamming at end of stroke when actuated. Inspect all components for wear and proper alignment Remove accumulated dust and debris. Alternate: Inspect & Verify Motor Driven Electric Pusher Diverters using Manufacturer Recommendations. <ol style="list-style-type: none"> Verify Home Proximity sensor to flag gap should be ¼" minimum. 	25*	9			M

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.
		<ol style="list-style-type: none"> Verify side-to-side gap of approximately 1/16" gap on both sides. Inspect all components for wear and proper alignment. Remove accumulated dust and debris. <p>Alternate: Inspect & Verify Servo Driven Electric Pusher Diverters using Manufacturer Recommendations.</p> <p>WARNING: A person can receive an electric shock if the shaft grounding ring is worn or missing and the person completes the circuit to earth ground. This is a potential electric shock hazard.</p> <ol style="list-style-type: none"> Remove the electric diverter cover. With an ohmmeter, check between earth ground and the diverter push arm for ohms. Ideally, the reading should be zero ohms. If the shaft grounding ring is missing or damaged or if the ohm meter reads more than zero ohms, in the extended or home position or anywhere along the length of travel of the diverter push arm, replace the shaft grounding ring, Part # SGR-36.6-1 Inspect all components for wear and proper alignment. Remove accumulated dust and debris. Re-install the electric diverter cover. <p>Alternate: Inspect & Verify Turntable Diverters using Manufacturer Recommendations.</p> <ol style="list-style-type: none"> Look for unusual wear or damage to turntable assembly. Remove dirt or foreign material by wiping with a damp cloth as necessary. Visually inspect bolted/screwed areas for looseness or wearing. Check motorized roller assembly wiring harness for damage or fraying. Check connector assemblies for security and serviceability. Check motorized roller assembly bracket for tightness so no movement is possible. Check that the connector is securely plugged into the 9-Pin Circuit Board Junction. Check the polyurethane Sleeve on each roller for damage or excessive wear. Check that all wires are secure to the Drive Card terminals. Clean the 24VDC gearmotor to prevent dirt and dust from clogging moving parts. 					

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.
		10. Check that the holding brake is free of dirt and dust to prevent the clogging of moving parts. 11. Check that the wires are secure to the holding brake terminals. 12. Check for excessive temperature. 13. Check that holding brake is holding firmly. 14. Check and clean any dust or dirt that may be on or around timing belt and around Taper-Lock sprockets. 15. Check for any cracks or fraying on the O-rings. 16. Ensure the O-rings are not too loose or tight around the rollers. O-rings specified by the manufacturer are 85A durometer HT (high tensile elastomeric). 17. Ensure rollers are parallel with each other. 18. Check rubber covered (sleeve) rollers to ensure rubber is not torn or missing. Alternate: Inspect & Verify Cross Transfer Diverters using Manufacturer Recommendations. 1. Clean the enclosure with a damp cloth. 2. Remove any debris or dirt that may have invaded the enclosure. 3. Check connections for loose wires or fittings. 4. Check the actuator arm connection to the motor shaft. 5. Check the wiring for damage and tightness and ensure the proximity sensors are free of dust and debris.					
CONVEYORS	14	Inspection. 1. Examine conveyor for worn or loose parts. 2. Check for accumulated dust or other foreign materials. 3. Check for loose or damaged conduit and wiring.	35	9			Q
CONVEYORS	15	Motorized Pulleys. 1. Ensure shafts at connection end and drive end are free from dirt accumulation. 2. Examine flanges at both ends of pulley for oil leakage. 3. Rotate pulley until embossed arrow on end flange of electrical terminal box is in true vertical position, then remove oil filler plug and check oil level.	22	9			M
SCREW TAKE-UP	16	Inspect Assembly.	4	9			Q

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.
		<ol style="list-style-type: none"> 1. Ensure that take-up frame is securely mounted. 2. Ensure adequate take-up travel is provided to allow for adjustment as needed before next inspection. 					
CONVEYORS	17	Structural Parts. <ol style="list-style-type: none"> 1. Check conveyor for damage such as loosened connecting bolts, side panels misaligned, loose hanger rods, belt wipers, and supports. 2. Check structure for cracked or broken welds. 3. Examine all floor mounted or low clearance conveyor support structures, ladders, walkways, handrails, guards, bracing or any other structural members that might be exposed to or subject to being struck by any Powered Industrial Vehicles (Forklifts, Pallet Jacks, Tow Motors, etc.). 4. Look for damage such as fractured or deformed parts, broken bolts, loose anchor bolts, cracked welds, or loose connections. 	30	7			Q
CONVEYORS	18	Clean and Check. <ol style="list-style-type: none"> 1. Remove dust and accumulated foreign material from conveyor parts by wiping and brushing. 2. Check all mounting bolts for tightness. 3. Pillow/Flange block bearings are sealed for life and require no lubrication. 	30	7			Q
CONVEYORS	19	Clean and Inspect Screw Take-Up. <ol style="list-style-type: none"> 1. Brush and wipe accumulated dust and foreign material from take-up adjusting screws, carriage frame, and other take-up assembly parts. 2. Wrench-test adjusting nuts and frame mounting bolts. Inspect belt for evidence of improper tension. 3. Lubricate take-up screw with SAE 30-W oil. 	8	9			Q
CONVEYORS	20**	Inspect Taper-Lock Pulley Hubs. <ol style="list-style-type: none"> 1. Wrench-test hub mounting screws. 2. Look for damage to hubs and shafts, and for broken or missing screws. 	6	9			Q
CONVEYORS	21	Clean & Inspect Bearing Blocks. <ol style="list-style-type: none"> 1. Wrench-test bearing block mounting bolts. Tighten as required. 2. Wrench-test all setscrews in bearing collars for tightness on pulley shaft. Tighten as required. 3. Wipe off exterior of sealed bearings. 	18	9			Q

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.
CONVEYORS	22	Clean & Inspect Gear Reducer. 1. Remove accumulated dust and foreign material from housing. 2. Inspect for oil leakage. 3. Wrench-test all mounting bolts.	5	9			Q
CONVEYORS	23	Clean & Inspect V-Belt Drive. 1. Remove guard. 2. Remove accumulated dust and foreign material from belt & sheaves and inspect for wear. 3. Check belt for proper tension. 4. Wrench-test sheave setscrews, feel keys and sheaves for tightness on shaft.	5	9			M
CONVEYORS	24	Lubricate Chain, Roller. WARNING: Discard or dispose of chemical soaked materials according to SDS and in accordance with local procedures. Brush chain oil along the length of the chain. Chain oils should be formulated with a tacky agent. (Exxon Mobil FEBIS K68, Mobil Vactra #2, Chevron Way Oil Vistac ISO 68, or equivalent oils are recommended due to tackiness agents.).	15	7			M
POWER SUPPLY	25**	Clean Power Supply Enclosures (All). 1. Using a dry lint-free cloth and vacuum, remove any dirt or debris from the enclosure. 2. Repeat task on all remaining power supply enclosures.	28	7			S
POWER SUPPLY	26	Tighten Power Supply Connections (All). 1. Check for loose wires or fittings, tighten as necessary. 2. Repeat task on all remaining power supplies.	35	9			S
SORTER NETWORK	27	Clean and Inspect Cards and Modules. 1. Using a dry lint-free cloth and vacuum, remove any dirt or debris from the System Controls components such as I/O cards, boards, drives and modules. 2. Inspect wires and connectors for defects and tightness.	173	10			S

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.
CONVEYORS	28	Motorized Pulley – Oil Change. <ol style="list-style-type: none"> 1. Disconnect the motor leads from the terminal board. 2. Loosen the setscrews and remove the junction box. 3. Relieve screw take-up to loosen belt and remove pulley from conveyor mountings. 4. Remove drain plug and seal washer. Remove oil with suction pump. 5. With pulley in the horizontal level position, rotate the pulley until the embossed arrow on the drive end is pointing up. 6. Refill with oil in accordance with manufacturer's recommendation. Do not overfill. 7. Re-install fill-hole plug with a new copper seal washer and re-install pulley on conveyor. 	40	7			K
RESTORE POWER AND COMPRESSED AIR	29	Restore Power and Compressed Air (if equipped) to System. <p>WARNING: Be cautious when working around or on equipment when power is applied. Take precautions to prevent hair, clothing, tools, and test equipment from being caught in moving parts.</p> <ol style="list-style-type: none"> 1. Power up preparation. <ol style="list-style-type: none"> a. Ensure tools and materials are removed from work area. b. Replace all machine panels. c. Close all machine doors and covers. 2. Restore power and compressed air to equipment as prescribed by current local procedure providing lockout/ restore procedures. <p>Restart System in accordance with manufacturer's guidelines.</p>	7	7			M
CONVEYORS	30	Inspect Rollers. <p>With the system operating, visually check to verify all drive and driven rollers are turning.</p>	2	9			M
PHOTO EYES	31	Sensor Alignment. <ol style="list-style-type: none"> 1. Inspect sensor alignment to ensure proper operation. 2. Inspect LED to ensure proper operation. 3. Inspect cabling and connectors for tightness. 4. Repeat for remaining sensors. 	24	9			M

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.
LCTS COMPUTER	32	UPS Test performance of backup battery by pressing the test button (normally the "ON" button)	2	9			Q
LCTS COMPUTER	33	System Backups. Backup all files in accordance with manufacturer's procedures.	15	10			M
LCTS COMPUTER	34	Backup System, Image HDD. 1. Using the instructions applicable to the installed backup software (i.e., Symantec Ghost 2003, Acronis or EaseUs); create an image of the system hard drive. 2. Store system image disk for disaster recovery in accordance with local policy.	120	10			Q
LCTS COMPUTER	35	Spare Computer. Perform an operational test on the spare LCTS computer in accordance with local procedures.	120	10			Q
LCTS COMPUTER	36	Printer in Computer Cabinet Print a test page to test the performance of the printer and clean as needed.	1	9			M
SORTER NETWORK	37**	Inspect and Test LEDs. Using information from the manufacturer's instructions, check or test the LEDs for proper operation on the I/O cards, adapters, VFDs, or any other sorter network device.	148	10			A
PUSHERS	38	Inspect Pneumatic Pusher Diverters (if equipped). 1. Verify air pressure is between 35 and 45 PSI. 2. Adjust as necessary.	5*	9			M
POWER SUPPLY	39	Check Power Supplies Using the Manufacturer's Instructions and Procedures. 1. Don required EWP PPE. Refer to current EWP MMO for appropriate EWP PPE requirements. 2. Verify the output voltage. 3. Verify the input voltage. 4. Doff EWP PPE.	20*	10			S
FINAL-CLEANUP	40	Clean Up 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor.	2	7			W

The tasks marked with one asterisk *, after the time required, are per unit tasks.

The tasks marked with two asterisks **, after the item number, are critical tasks.

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ATTACHMENT 3**LCTS MASTER CHECKLIST****09-LCTS-**-001-M****OPERATIONAL MAINTENANCE (OM)****Time Total: (67) minutes**

U.S. Postal Service Maintenance Checklist	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	9	L	C	T	S				*	*	0	0	1
Equipment Nomenclature Low Cost Tray Sorter		Equipment Model						Bulletin Filename mm22019				Occurrence Tourly		

*** = AA, BA, CA

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	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	1	All			

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.
LCTS COMPUTER	2	CPU Fan. Visually check the LCTS computer to ensure the cooling fan is operating	1	9			
CONVEYORS	3	Motors. 1. With equipment running, observe motor housing to detect any excessive shock or vibration transmitted by conveyor. 2. Listen for evidence of wear or damage to bearings, pulleys, or shafts.	8	9			
CONVEYORS	4	Idler Rollers. 1. With equipment operating, listen for abnormal noise from load and return rollers. 2. Check for sluggish or frozen rollers. 3. Look for eccentricity or other evidence of a bent shaft.	6	9			
CONVEYORS	5	Belting (PVC Belt). 1. With equipment operating, observe belt (under load if possible), to determine if tension is properly adjusted. 2. Look and listen for evidence of belt slippage on Motorized drive pulley. 3. Look for excessive belt sag between idler rolls. 4. Observe tracking of belt over tail, head, and take-up pulleys. 5. Look for belt run-out along carrying and return runs of conveyor.	3	9			
SYSTEM	6	Check System Operation. 1. With the sorter operating and sort plan loaded, run one tray or scan a tray label. 2. Verify that the camera reads the barcode. 3. Check ULX Transmission in MPEWatch. a. On any ACE computer log into MPEWatch. b. Select MPEwatch Site List. c. Select your facility from the list of sites. d. Select mhe monitor from the menu options at the top of the screen. e. Find the LCTS in the chart at the bottom of the page. f. Ensure it has "OK" under ULX Details. g. Review all other information on this report and notify supervisor of any problems. h. Print a DNR test label. Check the label quality to ensure it does not have any defects as described in MMO-012-09.	15	9			

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.
PUSHERS	7	Observe Operation of Pushers (Pneumatic or Electric). <ol style="list-style-type: none"> 1. Ensure pushers are contacting the trays or tubs on center. 2. Ensure the pusher fully extends and retracts each cycle. 3. Listen/watch for excessive noise or vibration during pusher cycle. 	10	9			
INDUCTION LANE	8	Observe Induction Lane. <ol style="list-style-type: none"> 1. Ensure all conveyors are functioning properly. 2. Ensure scanned or keyed parcels are being properly inducted onto the sorter. 	3	9			
SYSTEM	9	Non-Recirculating Machines (Straight or "L" Configurations). <ol style="list-style-type: none"> 1. Inspect the contents of the end bin. 2. If multiple pieces normally sorted to the same lane are found in the end bin, determine if the pieces failed to sort due to the lane being full or equipment problems. Recirculating Machines (Oval Configuration). <ol style="list-style-type: none"> 1. Observe the Lighted Lane Full indicators, ensure no lane full conditions exist. 2. Observe the mail on the sorter, ensure there are no pieces recirculating due to system errors. 	5	9			
FINAL-CLEANUP	10	Clean Up <ol style="list-style-type: none"> 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor. 	15	All			

The tasks marked with one asterisk *, after the time required, are per unit tasks.

The tasks marked with two asterisks **, after the item number, are critical tasks.