

MAINTENANCE TECHNICAL SUPPORT CENTER  
HEADQUARTERS MAINTENANCE OPERATIONS  
UNITED STATES POSTAL SERVICE



# Maintenance Management Order

**SUBJECT:** Preventive Maintenance Guidelines for Tray  
Induction Distribution and Routing (TDR)

**DATE:** August 27, 2014

**NO:** MMO-092-14

**TO:** Maintenance Managers, All TDR Sites

**FILE CODE:** F20

dste:mm13116af

**Daily Checklist, Item 6, substep 11 & 12 and Item 7, substep 5 & 6  
have added information for checking the D&R label and Scale check.**

This Maintenance Management Order (MMO) provides Operational and Preventive Maintenance (PM) Guidelines for the Tray Induction Distribution and Routing (TDR) machine. This bulletin applies to Acronym TDR, Class Code AA.

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

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.

## **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.**

## **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 Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE 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.



Robert E. Albert  
Manager  
Maintenance Technical Support Center  
HQ Maintenance Operations

- Attachments
1. Summary Workload Estimate for Tray Induction Distribution and Routing
  2. Tray Induction Distribution and Routing Daily Master Checklist 03-TDR-AA-001-M
  3. Tray Induction Distribution and Routing Weekly Master Checklist 03-TDR-AA-002-M
  4. Tray Induction Distribution and Routing Monthly Master Checklist 03-TDR-AA-003-M
  5. Tray Induction Distribution and Routing Quarterly Master Checklist 03-TDR-AA-004-M

**ATTACHMENT 1**

**SUMMARY**

**WORKLOAD ESTIMATE**

**FOR TRAY INDUCTION DISTRIBUTION AND ROUTING SYSTEM**

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**SUMMARY  
WORKLOAD ESTIMATE  
TRAY INDUCTION DISTRIBUTION AND ROUTING 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) XX	2 Tours (hrs/yr) XX	3 Tours (hrs/yr) XX
5	137.12	41.14	178.25	17.83	196.08	196.08	196.08	196.08
6	158.13	47.44	205.57	20.56	226.13	226.13	226.13	226.13
7	179.15	53.75	232.90	23.29	256.19	256.19	256.19	256.19

**NOTES:**

\*Repair estimates based on 30% of servicing.

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

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**ATTACHMENT 2**

**TRAY INDUCTION DISTRIBUTION AND ROUTING DAILY MASTER CHECKLIST**

**03-TDR-AA-001-M**

Time Total: 24.25 minutes

Refer to MS-242 and vendor provided machine specific information  
if additional information is required.

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	1
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Daily</b>			

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><b>COMPLY WITH ALL SAFETY PRECAUTIONS -</b>                      Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout 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.</p> <p><b>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED -</b></p> <p>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><b>WARNING FOR EWP/PPE:</b></p> <p>Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.</p>	5 Min	All			
		<div style="border: 1px solid black; padding: 2px; display: inline-block;"><b>WARNING</b></div> Before performing the following steps you must don the appropriate PPE as required by the current Electrical Work Plan (EWP) MMO.					
Machine	2.	<p><b>POWER DOWN AND LOCK OUT POWER -</b>                      Power down the machine and lock out its electrical power as prescribed by the current local lockout instructions providing lockout/restore procedures.</p>	3 Min	All			
Scanners	3.	<p><b>CLEAN THE THREE SCANNER WINDOWS –</b>                      Spray a lint free cloth with glass cleaner and gently wipe the scanner window.</p>	1.25 Min	7			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	1
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Daily</b>			

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.

Machine	4.	<b>CLEANING AND MAIL SEARCH -</b> Vacuum each module of the TDR. Complete a mail search and return any found mail to the appropriate mail stream.	5.25 Min	7			
		<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p>					
	5.	<b>RESTORE EQUIPMENT TO SERVICE -</b> Restore equipment to service as prescribed by current local procedure providing lockout/restore procedures.	3 Min	7			
Printer Applicator	6.	<b>TEST PRINTER LABEL APPLICATOR -</b> 1. Power off the printer. 2. Press and hold the Feed/Pause pushbutton while turning the printer on. 3. Continue holding the Feed/Pause pushbutton until the Alert LED turns off (approximately 5 seconds). 4. Press the Apply pushbutton. A blank label will fall off the applicator arm as the printer tries to apply the label. 5. Press the Apply pushbutton again. A 4420 Hardware Configuration label will fall off the applicator arm as the printer tries to apply the label. 6. Inspect the ten lines running horizontally across the label for any white gaps. 7. Report all deficiencies to your supervisor. 8. Cycle the printer power. 9. Wait five seconds and press the Apply pushbutton to remove any labels on the applicator arm. 10. Press the Online pushbutton.  <p style="text-align: center;"><b>NOTE</b></p> If discrepancies are found place the equipment out of service.	1.75 Min	9			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R			A	A	0	0	1	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Daily</b>			

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.

		11. Place a calibrated known weight on the scale. 12. Ensure the scale is reading the correct weight ± .05 pounds of calibrated weight.					
Machine	7.	<b>START TDR AND VERIFY OPERATION-</b> 1. Start the TDR by pressing the Start System pushbutton. 2. Check system for unusual noises and vibrations. Verify that system startup warning lamps and horns are functioning. 3. Verify the startup amber lamp turns off and the green lamp turns on. 4. Run a few trays or tubs to verify system operation.  <p style="text-align: center;"><b>NOTE</b></p> If discrepancies are found place the equipment out of service.  5. Print a test label. 6. Check the label quality to ensure it does not have any defects as described in MMO-012-09.	2 Min	9			
	8.	<b>CLEAN-UP –</b>  <p style="text-align: center;"><b>NOTE</b></p> If problems are found and can be corrected on this tour generate a Reactive workorder and correct the problem. If the problem cannot be corrected on this tour generate a Corrective workorder so that the work can be scheduled.  Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.	3 Min	All			

**ATTACHMENT 3**

**TRAY INDUCTION DISTRIBUTION AND ROUTING WEEKLY MASTER CHECKLIST**

03-TDR-AA-002-M

Time Totals: 28.25 minutes

Refer to MS-242 and vendor provided machine specific information  
if additional information is required.

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	2
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Weekly</b>			

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><b>COMPLY WITH ALL SAFETY PRECAUTIONS -</b></p> <p><b>Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout 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.</b></p> <p><b>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED -</b></p> <p><b>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.</b></p> <p><b>WARNING FOR EWP/PPE:</b></p> <p><b>Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.</b></p>	5 Min	All			
		<div style="border: 1px solid black; padding: 2px; display: inline-block;"><b>WARNING</b></div> <p><b>Before performing the following steps you must don the appropriate PPE as required by the current Electrical Work Plan (EWP) MMO.</b></p>					
Machine	2.	<p><b>POWER DOWN AND LOCK OUT POWER.</b></p> <p>Power down the machine and lock out its electrical power source as prescribed by the current local lockout/restore procedures.</p>	3 Min	All			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R			A	A	0	0	2	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Weekly</b>			

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.

Printer Applicator	3.	<p><b>CLEAN PRINTHEAD AND LABEL MARK SENSOR.</b></p> <p>A cleaning kit is available. For more information refer to MMO-004-03 or the most current MMO for cleaning kits for the thermo printers.</p> <ol style="list-style-type: none"> <li>1. Rotate the printhead lever clockwise (CW) until the printhead releases.</li> <li>2. Remove label stock.</li> <li>3. Remove dirt, adhesive, or debris from the bottom printhead print surface with a cotton swab and appropriate solution.</li> <li>4. Moisten a lint free cloth with an approved cleaning solution and clean roller surface to remove any adhesive and/or debris.</li> <li>5. Moisten a cotton swab with appropriate cleaning solution and clean the Label Mark Sensor.</li> </ol>	2.75 Min	7			
Printer Applicator	4.	<p><b>CLEAN PRINTER LABEL PATH AND LABEL GAP SENSOR.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>The lower label guide is spring loaded and must be held open during cleaning process. Pull down lower label guide to access label path.</p> <ol style="list-style-type: none"> <li>1. Pull down lower label guide to access label gap sensor.</li> <li>2. Moisten a cotton swab with an appropriate cleaning solution and clean label gap sensor.</li> <li>3. Moisten a lint free cloth with appropriate cleaning solution. Clean lower label path.</li> <li>4. Remove all traces of dust, paper, and adhesive from the material path with a soft bristle brush or vacuum cleaner.</li> <li>5. Moisten a lint free cloth with appropriate cleaner and clean all flat surfaces in the label path, including the edge guide.</li> <li>6. Release the lower label guide.</li> <li>7. Reinstall the labels.</li> </ol>	3.75 Min	7			

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R			A	A	0	0	2	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Weekly</b>			

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.

		8. Rotate printhead lever counterclockwise (CCW) until it locks in place.					
		<div style="border: 1px solid black; padding: 2px; display: inline-block;"><b>WARNING</b></div> <b>Be cautious when working around or on equipment when power has been applied.</b>					
Machine	5.	<b>RESTORE EQUIPMENT TO SERVICE.</b> Restore equipment to service as prescribed by current local procedure providing lockout/restore procedures.	2 Min	7			
Printer Applicator	6.	<b>TEST PRINTER LABEL APPLICATOR.</b> 1. Power off the printer. 2. Press and Hold the Feed/Pause pushbutton while turning the printer on. 3. Continue holding the Feed/Pause pushbutton until the Alert LED turns off approximately 5 seconds. 4. Press the Apply pushbutton. A blank label will fall off the applicator arm as the printer tries to apply the label. 5. Press the Apply pushbutton again. A 4420 Hardware Configuration label will fall off the applicator arm as the printer tries to apply the label. 6. Inspect the ten lines running horizontally across the label for any white gaps. 7. Report all deficiencies to your supervisor. 8. Cycle the printer power. 9. Wait five seconds and press the Apply pushbutton to remove any labels on the applicator arm. 10. Press the Online pushbutton.	1 Min	9			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM				CLASS CODE		NUMBER		TYPE	
	0	3	T	D	R		A	A	0	0	2	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA				Bulletin Filename mm13116		Occurrence <b>Weekly</b>				

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.

Machine	7.	<b>CHECK E-STOP.</b> 1. Press the Start System pushbutton. 2. Run a few trays. 3. While the trays are processing, stop the system by pressing the E-Stop above the 30-inch straight conveyor zone. 4. Verify the red stack lamp illuminates. 5. Verify an E-Stop message displays on the LCD and the system stops immediately. 6. Press the Start button. Verify the machine does not start. 7. Reset E-Stop.	2.25 Min	7			
	8.	<b>CHECK E-STOP AT INPUT.</b> Repeat Step 7 for the E-Stop located at the input of the machine.	2.25 Min	7			
	9.	<b>START TDR AND VERIFY OPERATION.</b> 1. Start the TDR by pressing the Start System pushbutton. 2. Check system for unusual noises and vibrations. Verify that system startup warning lamps and horns are functioning. 3. Verify the startup amber lamp turns off and the green lamp turns on. 4. Run a few trays or tubs to verify system operation.	2 Min	9			
	10.	<b>VERIFY SYSTEM DATE AND TIME IS CORRECT.</b> Check system date and time displayed in lower left corner of operator screen. Ensure date and time is correct.	1.25 Min	7			
	11.	<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			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	2
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Weekly</b>			

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.

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**ATTACHMENT 4**

**TRAY INDUCTION DISTRIBUTION AND ROUTING MONTHLY MASTER CHECKLIST**

03-TDR-AA-003-M

Time Totals: 25.5 minutes

Refer to MS-242 and vendor provided machine specific information  
if additional information is required.

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	3
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Monthly</b>			

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><b>COMPLY WITH ALL SAFETY PRECAUTIONS.</b></p> <p>Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout 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.</p> <p><b>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</b></p> <p>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><b>WARNING FOR EWP/PPE.</b></p> <p>Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.</p>	5 Min	All			
		<div style="border: 1px solid black; padding: 2px; display: inline-block;"><b>WARNING</b></div> <p>Before performing the following steps you must don the appropriate PPE as required by the current Electrical Work Plan (EWP) MMO.</p>					
Machine	2.	<p><b>POWER DOWN AND LOCK OUT POWER.</b></p> <p>Power down the machine and lock out its electrical power as prescribed by the current local lockout instructions providing lockout/restore procedures.</p>	3 Min	All			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	3	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA						Bulletin Filename mm13116			Occurrence <b>Monthly</b>			

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	3.	<b>CLEAN ROLLER AND O-RINGS.</b> Moisten a lint free cloth with appropriate cleaning solution and clean conveyor O-rings, rollers, and photo sensors. Visually check all rollers, belts, and photo sensors for worn or defective parts.	5.25 Min	9			
		<div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>WARNING</b></div> <b>Be cautious when working around or on equipment when power has been applied.</b>					
Machine	4.	<b>RESTORE EQUIPMENT TO SERVICE.</b> Restore equipment to service as prescribed by current local procedure providing lockout/restore procedures.	2.75 Min	7			
Scale	5.	<b>CHECK SCALE.</b> 1. Press an E-Stop to prevent the conveyors from starting. 2. Change user to Maintenance and select Devices. 3. Place the 50 pound weight in the center of the scale. 4. Press get weight and record weight. 5. Place the weight at each corner of the scale above the load cells. 6. Press get weight and record the weight at each corner. 7. Verify weight recordings are 50 pounds ± 0.05. 8. If the weights are not within ± 0.05, inform Supervisor. 9. Reset E-Stop and change user to Operator.	4.5 Min	9			

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R			A	A	0	0	3	M
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Monthly</b>			

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.

Machine	6.	<p><b>START TDR AND VERIFY OPERATION.</b></p> <ol style="list-style-type: none"> <li>1. Start the TDR by pressing the Start System pushbutton.</li> <li>2. Check system for unusual noises and vibrations. Verify that system startup warning lamps and horns are functioning.</li> <li>3. Verify the startup amber lamp turns off and the green lamp turns on.</li> <li>4. Run a few trays or tubs to verify system operation.</li> </ol>	2 Min	9			
	7.	<p><b>CLEAN-UP.</b></p> <p>Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to your supervisor.</p>	3 Min	All			

**ATTACHMENT 5**

**TRAY INDUCTION DISTRIBUTION AND ROUTING QUARTERLY MASTER CHECKLIST**

03-TDR-AA-004-M

Time Totals: 36.75 minutes

Refer to MS-242 and vendor provided machine specific information  
if additional information is required.

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION														
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE	
	0	3	T	D	R				A	A	0	0	4	M	
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA						Bulletin Filename mm13116			Occurrence <b>Quarterly</b>				

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><b>COMPLY WITH ALL SAFETY PRECAUTIONS.</b></p> <p>Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shutdown and lockout 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.</p> <p><b>THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED.</b></p> <p>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><b>WARNING FOR EWP/PPE.</b></p> <p>Steps contained in this bulletin may require the use of Personal Protective Equipment (PPE). Refer to the current Electrical Work Plan (EWP) MMO for appropriate PPE requirements.</p>	5 Min	All			
		<div style="border: 1px solid black; padding: 2px; display: inline-block;"><b>WARNING</b></div> <p>Before performing the following steps, you must don the appropriate PPE as required by the current Electrical Work Plan (EWP) MMO.</p>					
Machine	2.	<p><b>POWER DOWN AND LOCK OUT POWER</b></p> <p>Power down the machine and lock out its electrical power as prescribed by the current local lockout instructions providing lockout/restore procedures.</p>	3 Min	All			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION														
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE	
	0	3	T	D	R				A	A	0	0	4	M	
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA						Bulletin Filename mm13116			Occurrence <b>Quarterly</b>				

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.

Printer Applicator	3.	<b>CLEAN INSIDE PRINTER APPLICATOR HOUSING.</b> 1. Loosen latches on back panel and open panel. 2. Clean all dust and debris using a soft bristle brush and vacuum cleaner. 3. Close back panel and latch.	2.5 Min	7			
Machine	4.	<b>CLEAN INSIDE MACHINE CABINETS.</b> Open Main Power Cabinet and Computer cabinet. Clean all dust and debris using a soft bristle brush and vacuum cleaner. Close Main Power Cabinet and Computer Cabinet.	4.75 Min	9			
Machine	5.	<b>CLEAN COMPUTER CABINET FILTER.</b> 1. Remove metal filter screen from side of computer cabinet. 2. Wash metal filter screen with soap and water. 3. Gently shake excess water from metal filter screen. 4. Install metal filter screen on side of computer cabinet.	5 Min	9			
		<div style="border: 1px solid black; padding: 5px; display: inline-block;"><b>WARNING</b></div>  <b>Be cautious when working around or on equipment when power has been applied.</b>					
	6.	<b>RESTORE EQUIPMENT TO SERVICE</b> Restore equipment to service as prescribed by current local procedure providing lockout/restore procedures.	3 Min	7			
Conveyors	7.	<b>CHECK CONVEYORS' SPEEDS -</b> 1. Log on as Maintenance. 2. Lock out the Input conveyor to the TDR. 3. From Main screen select: CONVEYOR for the scale, staging, and processing zones and CROSS TRANSFER for the transfer zone.	8.5 Min	9			

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	T	D	R				A	A	0	0	4
Equipment Nomenclature Tray Induction Distribution and Routing		Equipment Model TDR_AA					Bulletin Filename mm13116			Occurrence <b>Quarterly</b>			

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.

		4. From CONVEYOR or CROSS TRANSFER press run to start conveyor to be checked. 5. Measure roller speed by placing the tachometer wheel firmly against the roller near the center of the conveyor zone to be measured. 6. Verify the roller speed is 150 FPM ± 5 FPM. 7. Select STOP from the CONVEYOR or CROSS TRANSFER screen to stop the conveyors. 8. Measure each zone and verify roller speeds are 150 FPM ± 5 FPM for every zone. 9. Return the TDR to normal operating condition.					
Machine	8.	<b>START TDR AND VERIFY OPERATION.</b> 1. Start TDR by pressing Start System pushbutton. 2. Check system for unusual noises and vibrations. Verify that system startup warning lamps and horns are functioning. 3. Verify the startup amber lamp turns off and the green lamp turns on. 4. Run a few trays or tubs to verify system operation.	2 Min	9			
	9.	<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			