

MAINTENANCE TECHNICAL SUPPORT CENTER  
HEADQUARTERS MAINTENANCE OPERATIONS  
UNITED STATES POSTAL SERVICE



# Maintenance Management Order

**SUBJECT:** Update Operational, Predictive, & Preventive Maintenance Guidelines for Delivery Bar Code Sorter Output Sub System (DBCS/OSS) using eCBM

**DATE:** February 1, 2013

**NO:** MMO-017-13

**FILE CODE:** 2DA

**TO:** Maintenance Managers DBCS/OSS Offices

wbro:mm12078ad

Online Change Record		
Change #	Date	Description of Change
2	05/22/2020	Added the Infrared Thermography information after the online change record.
1	02/18/2019	Item 36 has additional information in the <b>NOTE</b> and steps 5 and 6. Item 40 Step7 has a reference update.

This Maintenance Management Order (MMO) provides Preventive, Predictive, and Operational Maintenance Guidelines for the Delivery Bar Code Sorter Output Sub System and supersedes MMO-138-11. The acronym is DBCS/OSS and the class code is CI.

The workhours indicated in the workload estimate (Attachment 1) reflect the *maximum* annual workhours required to maintain each system. Actual workhour requirements and the frequency of tasks are dependent on pieces processed. Therefore, PM workhour requirements will vary day-to-day based on site specific machine utilization. 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.

Preventive Maintenance (PM) guidelines provide maintenance employees with the recommended task based maintenance activities. The Electronic Conditioned Based Maintenance (eCBM) is an abbreviated task list that represents a portion of the PM checklist. The complete master PM checklist must be accessible to all maintenance employees when performing PM and eCBM task based maintenance activities.

## 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.**

**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.

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 of Workload Estimate for DBCS/OSS
2. Master Checklist: 03-DBCS-CI-001-M: Power Off and Power On Tasks
3. Master Checklist: 09-DBCS-CI-001-M: Operational Maintenance

**ATTACHMENT 1**

**SUMMARY**

**WORKLOAD ESTIMATE**

**FOR**

**DBCS/OSS**

**SUMMARY  
WORKLOAD ESTIMATE  
FOR  
DBCS/OSS**

		<b>SUMMARY WORK LOAD ESTIMATES FOR DBCS/OSS</b>						
<b>Number of mail pieces Processed for 1 Year &gt;</b>		<b>58,000,000</b>		<b>High end estimate</b>			<b>For a 110 Stacker Machine</b>	
Operation Days	Routine Servicing per Machine (Hrs/Yr)	Repair Time per Machine (Hrs/yr) *	Routine Servicing + Repair Time (Hrs/Yr)	Non-Productive Time per Machine (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 Days	638.92	191.68	830.60	83.06	913.66	1,138.99	1,364.33	1,589.66
6 Days	731.65	219.50	951.15	95.11	1046.26	1,316.67	1,587.07	1,857.47
7 Days	824.38	247.31	1071.69	107.17	1178.86	1,494.33	1,809.79	2,125.26
* <b>Repair maintenance estimates based on 30% of preventive maintenance. Based on 10% of total PM and repair.</b>								
						<b>OPERATIONAL MAINTENANCE 52 MIN. PER DAY PER MACHINE</b>		
						One Tour	Two Tours	Three Tours
5 Day						225.33	450.67	676.00
6 Day						270.40	540.80	811.20
7 Day						315.47	630.93	946.40

Machine Operating 5 Days/Week						Operational Maintenance + Total Servicing		
# of Stackers	Routine Servicing per Machine (Hrs/Yr)	Repair Time per Machine (Hrs/yr) *	Routine Servicing + Repair Time (Hrs/Yr)	Non-Productive Time per Machine (Hrs/yr) **	Total Servicing per Machine (Hrs/Yr)	1 Tour Hrs/Yr OpM x 1	2 Tours Hrs/Yr OpM x 2	3 Tours Hrs/Yr OpM x 3
	110	638.92	191.68	830.60	83.06	913.66	1138.99	1364.33
126	643.85	193.16	837.01	83.70	920.71	1146.04	1371.38	1596.71
142	659.51	197.85	857.36	85.74	943.10	1168.43	1393.77	1619.10
158	675.22	202.57	877.79	87.78	965.57	1190.90	1416.24	1641.57
174	690.87	207.26	898.14	89.81	987.95	1213.28	1438.62	1663.95
190	710.93	213.28	924.21	92.42	1016.63	1241.96	1467.30	1692.63
206	726.58	217.98	944.56	94.46	1039.02	1264.35	1489.69	1715.02
222	742.29	222.69	964.97	96.50	1061.47	1286.80	1512.14	1737.47
238	757.94	227.38	985.32	98.53	1083.85	1309.18	1534.52	1759.85
254	778.00	233.40	1011.40	101.14	1112.54	1337.87	1563.21	1788.54
270	793.64	238.09	1031.73	103.17	1134.90	1360.23	1585.57	1810.90
286	809.36	242.81	1052.17	105.22	1157.39	1382.72	1608.06	1833.39
302	825.02	247.51	1072.53	107.25	1179.78	1405.11	1630.45	1855.78

Machine Operating 6 Days/Week						Operational Maintenance + Total Servicing		
# of Stackers	Routine Servicing per Machine (Hrs/Yr)	Repair Time per Machine (Hrs/yr) *	Routine Servicing + Repair Time (Hrs/Yr)	Non-Productive Time per Machine (Hrs/yr) **	Total Servicing per Machine (Hrs/Yr)	1 Tour Hrs/Yr OpM x 1	2 Tours Hrs/Yr OpM x 2	3 Tours Hrs/Yr OpM x 3
	110	731.65	219.50	951.15	95.12	1046.27	1316.67	1587.07
126	738.32	221.50	959.82	95.98	1055.80	1326.20	1596.60	1867.00
142	754.84	226.45	981.29	98.13	1079.42	1349.82	1620.22	1890.62
158	771.42	231.43	1002.85	100.29	1103.14	1373.54	1643.94	1914.34
174	787.94	236.38	1024.32	102.43	1126.75	1397.15	1667.55	1937.95
190	809.73	242.92	1052.65	105.27	1157.92	1428.32	1698.72	1969.12
206	826.25	247.88	1074.13	107.41	1181.54	1451.94	1722.34	1992.74
222	842.82	252.85	1095.67	109.57	1205.24	1475.64	1746.04	2016.44
238	859.34	257.80	1117.14	111.71	1228.85	1499.25	1769.65	2040.05
254	881.13	264.34	1145.47	114.55	1260.02	1530.42	1800.82	2071.22
270	897.64	269.29	1166.93	116.69	1283.62	1554.02	1824.42	2094.82
286	914.23	274.27	1188.50	118.85	1307.35	1577.75	1848.15	2118.55
302	930.75	279.23	1209.98	121.00	1330.98	1601.38	1871.78	2142.18

**Machine Operating 7 Days/Week**

# of Stackers	Routine Servicing per Machine (Hrs/Yr)	Repair Time per Machine (Hrs/yr) *	Routine Servicing + Repair Time (Hrs/Yr)	Non-Productive Time per Machine (Hrs/yr) **	Total Servicing per Machine (Hrs/Yr)	Operational Maintenance + Total Servicing		
						1 Tour	2 Tours	3 Tours
						Hrs/Yr OpM x 1	Hrs/Yr OpM x 2	Hrs/Yr OpM x 3
110	824.38	247.31	1071.69	107.17	1178.86	1494.33	1809.79	2125.26
126	832.79	249.84	1082.62	108.26	1190.88	1506.35	1821.82	2137.28
142	850.17	255.05	1105.23	110.52	1215.75	1531.22	1846.69	2162.15
158	867.62	260.29	1127.91	112.79	1240.70	1556.17	1871.63	2187.10
174	885.01	265.50	1150.51	115.05	1265.56	1581.03	1896.49	2211.96
190	908.53	272.56	1181.09	118.11	1299.20	1614.67	1930.13	2245.60
206	925.92	277.78	1203.69	120.37	1324.06	1639.53	1954.99	2270.46
222	943.35	283.01	1226.36	122.64	1349.00	1664.46	1979.93	2295.40
238	960.74	288.22	1248.96	124.90	1373.86	1689.32	2004.79	2320.26
254	984.26	295.28	1279.54	127.95	1407.49	1722.96	2038.43	2353.89
270	1001.64	300.49	1302.13	130.21	1432.34	1747.81	2063.28	2378.74
286	1019.10	305.73	1324.83	132.48	1457.31	1772.78	2088.25	2403.71
302	1036.48	310.94	1347.42	134.74	1482.16	1797.63	2113.10	2428.56

<b>Repair maintenance estimates based on</b>	<b>30.00%</b>	<b>of preventive maintenance.</b>
<b>Based on</b>	<b>10.00%</b>	<b>of total PM and repair.</b>

Power Off Tasks							
	Threshold ->	3K	1.1 M	1.1M	4.4M	4.4 M	57.2M
	Item # ->	5	8	9	10	23	24
# Stackers	110	9	35	37	139	21	70
	126	1	5	3	10	3	10
	142	2	10	6	20	6	20
	158	3	15	9	30	9	30
	174	4	20	12	40	12	40
	190	5	25	15	50	15	50
	206	6	30	18	60	18	60
	222	7	35	21	70	21	70
	238	8	40	24	80	24	80
	254	9	45	27	90	27	90
	270	10	50	30	100	30	100
	286	11	55	33	110	33	110
302	12	60	36	120	36	120	

Minutes

Power On Tasks							
	Threshold ->	1 Month	1K	1.1M	14.3M	14.3	20M
	Item # ->	28	25	34	35	36	29
# Stackers	110	18	5	7	14	20	219
	126	2	1	1	2	2	10
	142	4	1	2	2	4	20
	158	6	1	3	3	6	30
	174	8	1	4	3	8	40
	190	10	2	5	4	10	52
	206	12	2	6	4	12	62
	222	14	2	7	5	14	72
	238	16	2	8	5	16	82
	254	18	3	9	6	18	90
	270	20	3	10	6	20	100
	286	22	3	11	7	22	110
302	24	3	12	7	24	120	

Minutes

Power Off Tasks							
	Threshold ->	3K	1.1 M	1.1M	4.4M	4.4 M	57.2M
	Item # ->	5	8	9	10	23	24
# Stackers	110	9	35	37	139	21	70
	126	1	5	3	10	3	10
	142	2	10	6	20	6	20
	158	3	15	9	30	9	30
	174	4	20	12	40	12	40
	190	5	25	15	50	15	50
	206	6	30	18	60	18	60
	222	7	35	21	70	21	70

Minutes

	238	8	40	24	80	24	80
	254	9	45	27	90	27	90
	270	10	50	30	100	30	100
	286	11	55	33	110	33	110
	302	12	60	36	120	36	120

Power On Tasks							
	Threshold ->	1 Month	1K	1.1M	14.3M	14.3	20M
	Item # ->	28	25	34	35	36	29
# Stackers	110	18	5	7	14	20	219
	126	2	1	1	2	2	10
	142	4	1	2	2	4	20
	158	6	1	3	3	6	30
	174	8	1	4	3	8	40
	190	10	2	5	4	10	52
	206	12	2	6	4	12	62
	222	14	2	7	5	14	72
	238	16	2	8	5	16	82
	254	18	3	9	6	18	90
	270	20	3	10	6	20	100
	286	22	3	11	7	22	110
302	24	3	12	7	24	120	

Power Off Tasks							
	Threshold ->	3K	1.1M	1.1M	4.4M	4.4M	57.2M
	Item # ->	5	8	9	10	23	24
# Stackers	110	9	35	37	139	21	70
	126	1	5	3	10	3	10
	142	2	10	6	20	6	20
	158	3	15	9	30	9	30
	174	4	20	12	40	12	40
	190	5	25	15	50	15	50
	206	6	30	18	60	18	60
	222	7	35	21	70	21	70
	238	8	40	24	80	24	80
	254	9	45	27	90	27	90
	270	10	50	30	100	30	100
	286	11	55	33	110	33	110
302	12	60	36	120	36	120	

Power On Tasks							
	Threshold ->	1 Month	1K	1.1M	14.3M	14.3	20M
	Item # ->	28	25	34	35	36	29
# Stackers	110	18	5	7	14	20	219

126	2	1	1	2	2	10
142	4	1	2	2	4	20
158	6	1	3	3	6	30
174	8	1	4	3	8	40
190	10	2	5	4	10	52
206	12	2	6	4	12	62
222	14	2	7	5	14	72
238	16	2	8	5	16	82
254	18	3	9	6	18	90
270	20	3	10	6	20	100
286	22	3	11	7	22	110
302	24	3	12	7	24	120

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**ATTACHMENT 2**

**MASTER CHECKLIST**

03-DBCS-CI-001-M

POWER OFF AND POWER ON TASKS

Time Total: See roll-ups in Attachment 1.

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE	EQUIPMENT ACRONYM					CLASS CODE	NUMBER	TYPE			
	0 3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter	Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM				

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. 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.</b></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>	1	All			
DBCS/OSS SYSTEM: REPORT ANALYSIS	2.	<p><b>Generate, print, or view End of Day and Tracking Report.</b></p> <p>Prior to performing the power down lockout procedures, analyze data provided on these reports to determine if any areas of machine are degraded or in need of attention.</p>	4	10		1	
DBCS/OSS SYSTEM: SHUTDOWN PRINTER	3.	<p><b>Shut down the DBCS/OSS System in accordance with the procedure in the most recent documentation; presently the MS-235.</b></p> <p>As of this writing the detailed steps to properly shut down the system are in MS Handbook MS-235, Volume B, Section 5.2.4.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>If any problems are encountered while performing these procedures report them to your supervisor.</p>	4	9		1	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad				Occurrence ECBM				

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.

DBCS/OSS SYSTEM: POWER DOWN	4.	<p><b>Power down and lock out power.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><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> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p>Electrical power will always be present at the input of the disconnect device unless the circuit is disabled at the facility power distribution panel located at _____.</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>	1	ALL		1	
DBCS/OSS SYSTEM: MAIL SEARCH	5.	<p><b>Mail search.</b></p> <ol style="list-style-type: none"> <li>1. Remove all machine panels, except for diverter plate cover assemblies (Wimpy panels), stacker lower front panel assemblies, and Main Power Distribution panel.</li> <li>2. Ensure each cover's gas spring and retaining clip is able to hold cover in uppermost position. Report defective components to supervisor or perform work order.</li> <li>3. Search all base plate areas and module interiors for mail.</li> <li>4. Remove any mail pieces found.</li> <li>5. Remove any large amounts of debris while doing this mail search to prevent clogging of the vacuum when doing vacuuming tasks.</li> <li>6. Follow local procedures for returning mail to operations for processing.</li> </ol>	9	7		3	
DBCS/OSS SYSTEM: VACUUM/CLEAN 1	6.	<p><b>Vacuum/clean machine.</b></p>	30	7		60	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		<p style="text-align: center;"><b>WARNING</b></p> <p>Edges of spiral stacking auger may be sharp. Use extreme caution when working near spiral-stacking auger.</p> <p style="text-align: center;"><b>WARNING</b></p> <p>Use extreme caution in area of pocket assembly wear plate. On some machines, wear plate extends past edge of its base and into stacker area, exposing sharp edges.</p> <p style="text-align: center;"><b>WARNING</b></p> <p>Discard solvent soaked materials according to local procedures to prevent pollution or spontaneous combustion.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>While performing this task, check for loose, cracked, or damaged hinges in Reader Module. Notify supervisor if problem found. Refer to the most recent MMO, currently MMO-077-03, dealing with this problem. <a href="http://mtsc.usps.gov/bulletins.cfm">http://mtsc.usps.gov/bulletins.cfm</a></p> <p>Vacuum and clean internal and base-plate areas of the machine starting at the front of stacker module #1, and proceed toward the feeder and around the machine to end up and include the rear of stacker module #1. In the process of doing this, ensure the following areas are cleaned:</p> <ol style="list-style-type: none"> <li>1. The P-SEN10 and P-LED10 assemblies</li> <li>2. Feeder section, two power supplies (exterior cage)</li> <li>3. Outside surfaces of jogger assembly</li> <li>4. Exterior of monitor, keyboard, printer, and printer stand</li> </ol>					
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U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE	
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM				

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.

		5. Ensure laser printer has an adequate amount of paper for three tours of operation; add paper, if necessary, by following instructions in most current MS-254. <a href="http://mtsc.usps.gov/msbooks/">http://mtsc.usps.gov/msbooks/</a> a. Open paper tray. b. Fill paper tray with paper. c. Close paper tray. 6. Reader Module 5V power supply and light barriers 7. Exterior of the System Computer and the WFOV Processor 8. Tray label printers cleaning and label stock loading a. Clean/Vacuum interior and exterior of label printers, located on first and eighth stacker modules. b. Ensure label printers are loaded with a sufficient supply of label material to support three tours of operation. If required, load the label printer: 1) Insert label stock between guides into back of label printer. 2) Place wide end of label stock into label printer first, face down. 3) Push print head lever back. 4) Push label stock through until it comes out front of label printer.					
DBCS/OSS SYSTEM: VACUUM/CLEAN 2	7.	<b>Clean and/or vacuum the following areas of the machine:</b>  <div style="border: 1px solid black; padding: 5px; text-align: center;"><b>WARNING</b></div> <b>Discard solvent soaked materials according to local procedures to prevent pollution or spontaneous combustion.</b>	8	7		173	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		1. Clean ICS-3 system electronic enclosure. Clean interior of ICS-3 electronic enclosure and electronic enclosure filters.  2. Clean ICS-3 system read head as follows: a. Clean ICS-3 read head. Recommended cleaner is Riptide, NSN 6850-01-394-0164. b. Clean read head reflector. Recommended cleaner is Riptide.  3. Clean WFOV assembly.  <div style="border: 1px solid black; padding: 2px; text-align: center; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>Use extreme caution when working around the WFOV aperture. The edges of the aperture may become extremely sharp during use of the DBCS.</b></p> a. Following safety precautions, remove the Aperture/Illumination assembly. Loosen the thumbscrew on top and pull straight up to remove. Check the aperture plates and sapphire glass for foreign objects. b. Remove dust buildup on exterior of camera sapphire glass using dry cotton swabs. If adhesive buildup appears on the sapphire glass, use a swab or soft cloth wetted with an acceptable site approved cleaner. c. If dust is found inside Aperture/Illumination assembly, refer to most current documentation, currently MS-212, Appendix A for detailed cleaning instructions. d. Replace Aperture/Illumination assembly. Slide assembly straight down on front of camera head assembly and tighten thumbscrew.					
DBCS/OSS SYSTEM: VACUUM/CLEAN 3 STACKERS	8.	<b>Clean stacker modules 2 through to the end module by vacuuming; remove dust and debris as follows:</b>	35	7		1100	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM				

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.

		<p style="text-align: center;"><b>WARNING</b></p> <p>Edges of spiral stacking auger may be sharp. Use extreme caution when working near spiral stacking auger.</p> <p style="text-align: center;"><b>WARNING</b></p> <p>Use extreme caution in area of pocket assembly wear plate. On some machines, wear plate extends past edge of its base and into stacker area, exposing sharp edges.</p> <p style="text-align: center;"><b>WARNING</b></p> <p>Discard solvent soaked materials according to local procedures to prevent pollution or spontaneous combustion.</p> <ol style="list-style-type: none"> <li>Clean stacker modules #2 through the end of the machine, transport area, interior, and pocket assemblies, including light barriers. This does not include the Wimpy Panels.</li> <li>Ensure light barriers are clean.</li> </ol>					
DBCS/OSS SYSTEM: BELTS, ROLLERS AND HARDWARE	9.	<p><b>Check belts and rollers.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p>Discard solvent soaked materials according to local procedures to prevent pollution or spontaneous combustion.</p> <p>Starting at the front of stacker module #1, proceed toward feeder and around the machine to end up and include the rear of stacker module #1. Then proceed down the back of the stacker modules and around the front of the stacker modules to end at the front of stacker #2.</p> <ol style="list-style-type: none"> <li>Check all belts (drive and letter transport) for indications of excessive wear, deformity, splits, or torn belts.</li> <li>Write work orders as needed for replacement of belts and/or gates.</li> </ol>	37	9		1100	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		3. Check all rollers/sprockets (drive and idler) for proper adjustment and indications of wear and/or dirt buildup. Clean or replace rollers as necessary.  4. In the Reader Module, clean the motor power unit filter.  5. Write work orders as needed for adjustments, cleaning, and/or replacement of rollers.					
DBCS/OSS SYSTEM: VACUUM/CLEAN 4	10.	<p><b>Perform the following steps to ensure all areas of the machine not covered in previous tasks are properly vacuumed and cleaned.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Edges of spiral stacking auger may be sharp. Use extreme caution when working near spiral stacking auger.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Use extreme caution in area of pocket assembly wear plate. On some machines, wear plate extends past edge of its base and into stacker area, exposing sharp edges.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Discard solvent soaked materials according to local procedures to prevent pollution or spontaneous combustion.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>While performing following tasks, do a visual check of wiring harnesses, cabling, and connectors for wear, loose connections, etc., and if any problems are found, write a work order to do corrective maintenance. Open any additional doors including the plate cover assemblies (Wimpy Panels) in order to perform the following cleaning steps.</p> <p>1. Clean Feeder Module. Clean/vacuum all plates, covers, doors, framework, etc.,</p>	116	7		4400	

U.S. Postal Service <b>Maintenance Checklist</b>		IDENTIFICATION													
		WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
		0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence ECBM				

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.

		<p>including the vibrator assembly. Verify vibrator motor power cord is not rubbing against frame.</p> <p>2. Clean Transport Module.</p> <p>a. Clean all plates, covers, doors, and framework.</p> <p>b. Remove and clean the two filters located in the knob of the air compressor, after cleaning reinstall.</p> <p>3. Tag Scanner Module - Clean/vacuum all plates, covers, doors, framework, and top of module.</p> <p>4. IJP Module - Clean/vacuum all plates, covers, doors, framework, and top of module.</p> <p>5. Clean the light barriers adjacent to the barcode printer print head by wiping away ink buildup from the light barrier lens using a cotton swab and Videojet makeup or cleaning solution.</p> <p>6. Drying Line Module - Clean/vacuum all plates, covers, doors, framework, and top of module.</p> <p>7. Reader Module - Clean/vacuum all plates, covers, doors, and framework.</p> <div style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"> <b>CAUTION</b> </div> <p><b>Extreme care should be taken that rules regarding electro-static-discharge (ESD) are strictly followed when handling all printed circuit boards, including those in logic racks, system computers, etc. This includes the use of wrist straps and ESD pads.</b></p> <p>8. Using the Dust Containment Unit (NSN 4460-06-000-8366) or an ESD compatible vacuum (eBuy #58656), clean/vacuum System Computer and WFOV Computer. Remove covers from system computer and WFOV processor and clean. Re-install covers.</p> <p>9. Clean stacker modules. Clean/vacuum all plates, covers, doors, framework, diverter</p>				
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
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	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		plate cover assemblies (Wimpy Panels), stacker display panels back and front side.					
DBCS/OSS SYSTEM: VACUUM/CLEAN 4	10.5.	<b>Vacuum/clean top of Reader and Stacker Module.</b>	23	7			Month
DBCS/OSS SYSTEM: SAFETY WARNING LABELS	11.	<p><b>Verification of safety warning labels.</b></p> <p><b>NOTE</b></p> <p>Refer to the most recent MMO dealing with safety warning labels; currently, this is MMO-056-09, for label locations and part numbers. <a href="http://mtsc.usps.gov/bulletins.cfm">http://mtsc.usps.gov/bulletins.cfm</a></p> <ol style="list-style-type: none"> <li>1. Verify feeder modules have safety warning labels present, correctly located, and in good condition.</li> <li>2. Verify stacker modules have safety warning labels present, correctly located, and in good condition.</li> <li>3. Notify supervisor of missing or worn feeder/stacker safety warning labels and initiate a work order to replace or remove and replace as necessary.</li> </ol>	2	7		4400	
DBCS/OSS SYSTEM: ENCODERS	12.	<p><b>Replace Encoder (Tachometer) Tube Coupler and Hose Clamp.</b></p> <ol style="list-style-type: none"> <li>1. Remove and replace the Encoder Tube Coupler (NSN 4720-02-000-4060) and Hose Clamp (NSN 4730-01-336-5495) located on the Reader Module Plate and in the IJP Module.</li> <li>2. If problems occur while doing these procedures notify your supervisor, and if needed, generate a work order to resolve those problems.</li> </ol>	20	9		14300	
DBCS/OSS SYSTEM: UNDER MACHINE CLEAN/CHECK	13.	<p><b>Clean and check for mail under machine.</b></p> <ol style="list-style-type: none"> <li>1. Remove foam strips from back side of machine and outer side of Feeder and Transport section.</li> <li>2. Using a flashlight, start at Transport and look for mail pieces under machine, proceed to</li> </ol>	58	7		57200	

U.S. Postal Service <b>Maintenance Checklist</b>		IDENTIFICATION													
		WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
		0	3	D	B	C	S					C	I	0	0
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad				Occurrence ECBM			

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.

		<p>check for mail to last stacker.</p> <p>3. Remove any mail pieces found.</p> <p>4. Follow local procedures for returning mail to operations for processing.</p> <p>5. Starting at the backside of the last stacker, work toward the Transport and Feeder sections, clean and vacuum any dust and debris found from under the machine.</p> <p>6. Reinstall foam strips to backside of machine.</p>					
FEEDER MODULE HARDWARE	14.	<p><b>Check feeder wear and items as follows:</b></p> <p>1. Teflon strip</p> <p>2. Rubber strippers</p> <p>3. Pick-off belts</p> <p>4. Compensator levers</p> <p>5. Check for recommended gap setting of 5.</p> <p>6. Generate a Work Order to replace as required. Refer to the most recent Maintenance Management Order covering feeder alignment and performance adjustments.</p>	1	9		173	
FEEDER MODULE: ALIGNMENT CHECK	15.	<p><b>Check feeder alignment.</b></p> <p>Check feeder alignment (those steps that do not require power) using template, NSN 5220-04-000-5005, and in accordance with the most recent Maintenance Management Order covering feeder alignment and performance adjustments.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>If any discrepancies are found write a work order to do a full feeder alignment in accordance with the most recent MMO covering feeder alignment and performance adjustments.</p>	15	7		1100	
FEEDER MODULE: MAIL TRANSPORT HARDWARE	16.	<p><b>Check feeder transport for wear.</b></p> <p>1. Remove bottom feeder panel (clean). Check transport belt for splits, tears, and deformity. Check drive chain for stretch, sprockets for broken teeth and sprocket teeth wear. If chain needs lubrication, refer to DBCS maintenance handbook at completion of this</p>	5	9		1100	

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	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		route. 2. Check transport blade, transport blade mounting bracket, and sliding bearing block for loose bolts. 3. Check transport blade assembly for bearing wear. Ensure transport assembly moves smoothly along guide rod. 4. Check pawl for wear.					
IJP MODULE: POSTNET BAR CODE PRINTER	17.	<p><b>Clean POSTNET bar code printer print head and guide plate (fence) and replenish ink.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>When disposing of ink or ink-saturated waste, refer to procedures outlined in Material Safety Data Sheets (MSDS). Eye protection (goggles or face shield) must be worn when flushing away contaminants using make-up ink.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Inkjet printer (IJP) print head must be dried as part of its service. Do not use compressed or blown air. Appropriate, alternate means of drying head must be implemented and may include use of paper towels or use of vacuum suction. Other, equally effective methods may be determined locally.</b></p> <p style="text-align: center;"><b>CAUTION</b></p> <p><b>During print head check and cleaning, use extreme care in charge tunnel area. Do not touch or bump charge tunnel.</b></p> 1. Clean POSTNET print head and guide plate. <ol style="list-style-type: none"> <li>a. Lift fence off its mounting studs.</li> <li>b. Remove print head from deck plate mount.</li> <li>c. Install print head onto service mount, and place service tray directly below it.</li> <li>d. Clean base plate of any ink, using towel and cleaning solution or make-up ink</li> </ol>	14	7		173	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
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	0	3	D	B	C	S			C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		fluid. e. Clean fence using a towel and cleaning solution or make-up ink fluid. f. Clean up any spilled or splattered ink. g. Remove print head cover, and check print head assembly for traces of ink. h. Clean print head as required. i. Replace print head cover, and re-install print head onto deck plate mount. j. Re-install fence on mounting studs. 2. Inkjet printer fluid replenishment. a. Check and replenish POSTNET printer fluid bottles. <p style="text-align: center;"><b>NOTE</b></p> Do not use expired ink. b. Recommend removal and discarding of ink bottles if ink level is below 25%. c. Insert new bottle and replace cap. d. Clean up any spilled or splattered ink.					
IJP MODULE: POSTNET BAR CODE PRINTER	18.	<p><b>Replace vacuum, make-up, and replenishment filters on the PC-70/80 (steps A1-3), and if using the 37PC, replace the vacuum filter (step B1-7).</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>When disposing of ink or ink saturated waste, refer to procedures outlined in current Material Safety Data Sheets (MSDS).</b></p> <p style="text-align: center;"><b>NOTE</b></p> Procedures for filter replacements on the PC-70/80 are contained below in steps A1 through 3, and the procedure to replace the vacuum filter on the 37PC is contained in steps B1 through 7 below. <p><b>A Procedure for the PC-70/80</b></p> 1. Replace both POSTNET printer vacuum	14	9		4400	

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	0	3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		filters:  a. Disconnect two tubes on right side of filter. b. Disconnect filter from elbow fitting. c. Remove filter from mounting bracket. d. Install new filter in mounting bracket. e. Connect filter elbow fitting. f. Connect two tubes to right side of filter.  2. Replace both POSTNET printer make-up ink filters. a. Remove clamps at both ends of filter. b. Remove make-up ink tubes from both ends of filter. c. Connect make-up ink tubes to each end of replacement filter. d. Replace clamps on each end of filter.  3. Replace both POSTNET printer replenishment ink filters. a. Remove clamps at both ends of filter. b. Remove ink tubes from both ends of filter. c. Connect ink tubes to each end of replacement filter. d. Replace clamps on each end of filter.  <b>B Procedure for replacing the vacuum filter on both 37PC IJPs</b>  <p style="text-align: center;"><b>NOTE</b></p> For more detailed information and illustration refer the most current 37PC manual found on the MTSC web page. <a href="http://mtsc.usps.gov/Equip_Details.cfm?Pr of1_ID=30&amp;Prof2_ID=1&amp;Cat1_ID=16">http://mtsc.usps.gov/Equip_Details.cfm?Pr of1_ID=30&amp;Prof2_ID=1&amp;Cat1_ID=16</a>  1. Turn the fitting located on top of the vacuum filter counterclockwise one turn, and remove the fitting from the filter.  2. Pull the vacuum tube (attached to the top of				
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S			C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		<p>the vacuum filter) off of the barbed fitting located behind the vacuum filter.</p> <p>3. Remove the vacuum filter from the top of the ink module by turning the filter counterclockwise until it becomes loose.</p> <p>4. Discard the old vacuum filter and attached tubing.</p> <p>5. Make certain that the O-ring is in place on the filter, then thread the new vacuum filter into the top of the ink module until it is finger tight, do not over tighten.</p> <p>6. Push the tube (supplied with the filter) onto the stem on top of the vacuum filter, and insert the opposite end of the tube onto the barbed fitting located behind the vacuum filter.</p> <p>7. Install the fitting removed in step #1 into the top of the new vacuum filter.</p>					
IJP MODULE: POSTNET BAR CODE PRINTER	19.	<p><b>On the PC-70/80, clean bar code printer cap and stem assembly stainless steel vacuum tube.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>When disposing of ink or ink saturated waste, refer to procedures outlined in current Material Safety Data Sheet (MSDS).</b></p> <p>Clean bar code printer cap and stem assembly stainless steel vacuum tube as follows:</p> <ol style="list-style-type: none"> <li>1. Locate stainless steel vacuum tube mounted in cap and stem assembly at left-hand top of ink module.</li> <li>2. Remove clear plastic vacuum tube from stainless vacuum tube.</li> <li>3. Using long nose pliers, gently work stainless steel tube back and forth, and pull it out of cap and stem assembly.</li> <li>4. Using cotton swab and Videojet cleaning solution, clean ink build up from interior of stainless steel tube.</li> </ol>	10	10		4400	

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Equipment Nomenclature Delivery Bar Code Sorter	Equipment Model DBCS/OSS					Bulletin Filename mm12078ad		Occurrence ECBM				

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.

		5. Dry tube. 6. Using long nose pliers, gently work stainless steel tube back and forth into cap and stem assembly. 7. Attach clear plastic tube to stainless steel vacuum tube.					
IJP MODULE: POSTNET BAR CODE PRINTER	20.	<p><b>Replace POSTNET printer (PC-70/80) final ink filter, replace mufflers. If using a 37PC IJP, replace the Filter Tube Assembly, Primary Ink Filter, and check the Input Air Filter. Clean POSTNET Printer cabinets on all models PC-70/80/37.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>When disposing of ink or ink saturated waste, refer to procedures outlined in current Material Safety Data Sheets (MSDS).</b></p> <p><b>A Procedures for the PC-70/80:</b></p> <ol style="list-style-type: none"> <li>1. Replace trail and lead printer final ink filter at top of ink cylinder as follows:                             <ol style="list-style-type: none"> <li>a. Open doors on the POSTNET printer cabinet.</li> <li>b. Place absorbent towels in area beneath ink module.</li> <li>c. Remove ink line and filter from ink cylinder.</li> <li>d. Install new filter.</li> <li>e. Secure snugly, but do not over-tighten. Reattach ink line.</li> <li>f. Close doors on the POSTNET printer cabinet.</li> <li>g. Replace Lead printer final ink filter at top of ink cylinder by repeating steps a through f above, but for the Lead printer.</li> </ol> </li> <li>2. Clean POSTNET printer cabinets (lead and trail):                             <ol style="list-style-type: none"> <li>a. Open doors on both POSTNET printer cabinets.</li> </ol> </li> </ol>	43	10		28600	

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	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence ECBM			

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					Run Hours	Pieces Fed (000)	Freq.

		<p>b. Vacuum clean electronics side.</p> <p>c. Clean ink side using lint free rags and appropriate solvent.</p> <p>d. Close doors on both POSTNET Printer cabinets.</p> <p>3. Replace inkjet printer muffler (lead and trail) as follows:</p> <p>a. Remove muffler from bottom of IJP cabinet.</p> <p>b. Install new muffler.</p> <p>4. Close printer doors.</p> <p><b>B Procedures for the 37PC printers:</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>For more detailed information and illustration refer to the most current MS Manual found on the MTSC web page. <a href="http://mtsc.usps.gov/Equip_Details.cfm?Pr of1_ID=30&amp;Prof2_ID=1&amp;Cat1_ID=16">http://mtsc.usps.gov/Equip_Details.cfm?Pr of1_ID=30&amp;Prof2_ID=1&amp;Cat1_ID=16</a></p> <p>1. Replace primary ink filter (lead and trail).</p> <p>a. Place absorbent towels below the ink module to catch any ink that may spill when removing the primary ink filter.</p> <p>b. Remove the fitting from the bottom of the primary ink filter by turning with a 7/16 inch wrench.</p> <p>c. Unscrew the primary ink filter from the bottom of the ink module.</p> <p>d. Wipe excess ink from the bottom of the ink module mounting hole.</p> <p>e. Discard the old primary ink filter.</p> <p>f. Install the new primary ink filter into the bottom of the ink module until finger tight. Do not over tighten. Hand-tighten only.</p> <p>g. Install the fitting into the bottom of the primary ink filter.</p>				
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	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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		<p>2. Complete the following steps to check and/or replace the input air filter:</p> <ol style="list-style-type: none"> <li>a. Use a wrench to loosen the black nut at the top of the elbow fitting.</li> <li>b. Use a dull, pointed instrument to pull the input air filter out of the bottom of the air manifold.</li> <li>c. Check the input air filter for dirt and damage. Replace the input air filter if necessary. If questionable, replace the filter to ensure proper printer operation.</li> <li>d. Install the new or existing input air filter into the bottom of the air manifold.</li> <li>e. Thread the elbow fitting back into the bottom of the air manifold, and tighten the nut to secure the fitting. Do not over-tighten.</li> </ol>					
IJP MODULE: POSTNET BAR CODE PRINTER BOTTLE FILTER	21.	<p><b>Replace Bottle Filter Assemblies in both IJP ink bottles.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>When disposing of ink or ink saturated waste, refer to procedures outlined in current Material Safety Data Sheets (MSDS).</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>This procedure is applicable to Ink Bottle Filters on the PC 70/80 and PC 37 Ink Jet Printers.</p> <ol style="list-style-type: none"> <li>1. Pull the bottle (ink or make-up), in which the filter tube assembly is being replaced, away from the fluid pan.</li> <li>2. Pull the cap off the bottle, and slide the attached bottle filter tube assembly out of the bottle. Place the bottle aside.</li> <li>3. Remove the fitting from the top of the cap by turning counterclockwise one full turn.</li> </ol>	2	9			60 Wks

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		WORK CODE		EQUIPMENT ACRONYM				CLASS CODE		NUMBER			TYPE	
		0	3	D	B	C	S				C	I	0	0
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad				Occurrence ECBM				

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		4. Pull the line with attached rubber tube off the cap top. 5. Discard the old filter tube assembly. 6. Install the fitting on the top of the cap on the new bottle filter tube assembly. 7. Install the line with attached rubber tube (removed in step 4) on the top of the cap on the new bottle filter tube assembly. 8. Insert the bottle filter tube assembly into the bottle, and push the cap down to secure the assembly. Place the bottle into the fluid pan. 9. Repeat steps 1-8 to replace the filter tube assembly in the other bottle.					
READER MODULE: WFOV FOAM ROLLER	22.	<b>WFOV foam roller check.</b> Check WFOV foam roller in Reader module. Replace roller if necessary.	1	9		4400	
STACKER MODULES: POWER SUPPLIES	23.	<b>Clean/vacuum power supplies.</b> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <b>Use non-metallic ends on the vacuum while cleaning the power supplies.</b> 1. Remove each cover on stacker module 5/24/42 VDC power supplies. 2. Verify power supply has two fuse blocks (MSB-022-98). 3. Using an approved vacuum cleaner, clean inside of each power supply assembly. 4. Replace covers.	21	9		4400	
STACKER MODULES: FOAM PADS	24.	<b>Check the Foam Pads located on every Guard Finger of the Stacker Fence Assembly in each Stacker Pocket area all Tiers.</b> <div style="text-align: center; margin: 10px 0;"><b>NOTE</b></div> For a location reference use MS-229, Vol. E, Figure 11-10, Tier 1 Fence Assembly, Index Number 38. This reference was valid as of the date of this writing, as always use the most recent documentation available.	70	9		57200	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE	EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE	
	0 3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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"> <li>1. Check the Foam Pads (NSN 9320-03-000-0023) to see if they are missing, damaged, and/or degraded in any way.</li> <li>2. Make a list of the Foam Pads needing replacement and their locations.</li> <li>3. Generate a Work Order to replace the Foam Pads found and recorded in Steps 1 and 2 of this instruction.</li> </ol>					
DBCS/OSS SYSTEM: MACHINE PREP	25.	<p><b>Prepare machine for power up.</b></p> <ol style="list-style-type: none"> <li>1. Ensure tools and materials are removed from work area.</li> <li>2. Replace all machine panels.</li> <li>3. Close all machine doors and covers.</li> </ol>	5	7		1	
DBCS/OSS SYSTEM: POWER UP	26.	<p><b>Restore power to the equipment using the following reference.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>For detailed steps to properly power up the system refer to MS Handbook MS-235, Volume B, Section 5.2.5. Also ensure all local Lockout procedures are adhered to.</p>	3	7		1	
DBCS/OSS SYSTEM: POWER UP IJP	27.	<p><b>Power up the inkjet printer.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>Perform normal power On of inkjet printers in accordance with the most recent documentation for the PC-70/80 and/or 37PC.</p>	2	7		1	
DBCS/OSS SYSTEM: INTERLOCKS AND E-STOPS	28.	<p><b>Check all system interlocks and emergency stop switches.</b></p> <p style="text-align: center;"><b>WARNING</b></p>	18	7			M

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S			C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad				Occurrence ECBM				

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.

		<p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>When performing this step, check only one interlock switch and one emergency stop switch with machine running. Check all other interlock and E-Stop switches while machine is stopped.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>This task requires two people. Time is doubled for staffing purposes. Verify light conditions and warning sounds for each E-Stop and interlock.</p> <ol style="list-style-type: none"> <li>1. Start machine. Verify that when START switch is pressed, start-up warning indicators around sorter flash amber. At same time, start-up warning horns sound. The horns sound for 5 seconds and go off, while warning indicators flash for a total of 10 seconds. Machine runs.</li> <li>2. Press EMERG STOP mushroom switch on feeder control panel assembly and note that following occurs:             <ol style="list-style-type: none"> <li>a. Machine stops immediately.</li> <li>b. Lamp lights in EMERG STOP switch.</li> <li>c. Red EMERG STOP indicator lights on appropriate system control panel column.</li> <li>d. READY lamp goes out on system control panel.</li> <li>e. Pressing Start pushbutton does not start machine.</li> </ol> </li> <li>3. Reset EMERG STOP mushroom switch and note that following occurs:             <ol style="list-style-type: none"> <li>a. System READY lamp illuminates on system control panel.</li> </ol> </li> </ol>				
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U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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		<p>b. Red EMERG STOP indicator goes out on appropriate system control panel column.</p> <p>c. Lamp goes out in module control panel EMERG STOP switch.</p> <p>d. Machine can now be started.</p> <p>e. Start machine. Verify that when START switch is pressed, start-up warning indicators around sorter flash amber. At same time, start-up warning horns sound. The horns sound for 5 seconds and go off, while warning indicators flash for a total of 10 seconds. Machine runs.</p> <p>f. Open Reader Module front panel door and note that the following occurs:</p> <ol style="list-style-type: none"> <li>1) Machine stops immediately.</li> <li>2) Red EMERG STOP indicator lights on appropriate system control panel column.</li> <li>3) READY lamp goes out on system control panel.</li> <li>4) Pressing Start pushbutton does not start machine.</li> </ol> <p>g. Close Reader Module front panel door and note that the following occurs:</p> <ol style="list-style-type: none"> <li>1) System READY lamp illuminates on system control panel.</li> <li>2) Red EMERG STOP indicator goes out on appropriate system control panel column.</li> </ol> <p>h. Machine can now be started.</p> <p>4. Without starting and stopping machine, check all remaining EMERG STOP mushroom switches one at time to ensure that each one causes actions as described in items 2-b, c, and d above to occur when pressed and actions described in items 3-a, b, and c above to occur when they are reset.</p> <div style="border: 1px solid black; padding: 2px; text-align: center; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>Before performing the following steps you must don the appropriate PPE as</b></p>				
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad				Occurrence ECBM			

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.

		<p><b>required by the current Electrical Work Plan (EWP) MMO.</b></p> <p>5. Without starting and stopping machine, check interlocks one at a time, by opening panel or door, to ensure that each one causes actions described in items 2-c and d above to occur when opened and actions described in items 3-a and c occur when panel or door closed. When an interlock is activated in stacker there will be an indication on stacker display panel. Red full bin lights will flash on top row of panel. When interlock is deactivated, lights will go out.</p> <p>6. If any problems are found, notify supervisor.</p>					
DBCS/OSS SYSTEM: PREDICTIVE MAINTENANCE	29.	<p><b>Perform predictive maintenance tasks and procedures.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p style="text-align: center;"><b>WARNING</b></p> <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> <p style="text-align: center;"><b>NOTE</b></p> <p>While performing all of the PdM tasks, make a note of any area where excessive vibration, noise, and/or heat are detected. Initiate a work order to cover any annotated area that requires additional investigation.</p> <p>1. <b>Prepare machine.</b></p> <p>a. Shut down the DBCS/OSS System in accordance with the following reference:</p> <p>1) For detailed steps to properly shut</p>	219	9		20000	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
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		<p>down the system refer to MS Handbook MS-235, Volume B, Section 5.2.4.</p> <p>2) Power down the machine as prescribed by the current local lockout instructions providing lockout/restore procedures.</p> <p style="text-align: center;"><b>WARNING</b></p> <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> <p>b. Open covers and remove panels. Open all machine doors including Main AC Power Panel, Feeder Distribution Panel, and Motor Distribution Panel. Open or remove all machine panels, this includes diverter plate cover assemblies (Wimpy panels). Override interlock switches. Rear Main Power Unit must by-pass magnetic contacts for DBCS/OSS to run.</p> <p style="text-align: center;"><b>WARNING</b></p> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>Rear Main Power Unit must by-pass the magnetic contacts for DBCS to run.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>Do not power up inkjet printers at this time.</p> <p>c. Except for the IJP, restore power to equipment as prescribed by the current local procedure providing lockout/restore procedures.</p> <p>d. Start the DBCS/OSS machine.</p>				
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U.S. Postal Service		IDENTIFICATION													
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		0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence ECBM				

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.

		<p style="text-align: center;"><b>NOTE</b></p> <p>Machine must have been running for a minimum of 15 minutes prior to doing the ultrasonic and infrared scans.</p> <p>2. <b>Ultrasonic scans.</b></p> <p style="text-align: center;"><b>NOTE</b></p> <p>Use the Long Range Module (cone) on the Ultra-Probe when doing the ultrasonic scans.</p> <ol style="list-style-type: none"> <li>a. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the Feeder, for excessive vibration and noise.</li> <li>b. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the Transport, for excessive vibration and noise.</li> <li>c. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the Tag/Scanner module, for excessive vibration and noise.</li> <li>d. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the IJP Printer module, for excessive vibration and noise.</li> <li>e. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the Drying Line module, for excessive vibration and noise.</li> <li>f. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of the Reader module, for excessive vibration and noise.</li> <li>g. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of Motor Power Distribution, for excessive vibration and noise.</li> <li>h. Use ultrasonic detector to monitor all bearing assemblies, top and bottom of</li> </ol>					
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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		<p>Tiers 1-4 of the Stacker modules, for excessive vibration and noise.</p> <p><b>3. Infrared scans.</b></p> <ul style="list-style-type: none"> <li>a. Use non-contact infrared to scan Main Power Unit front and rear (magnetic interlock on panel), scan all terminal connections and connector plugs.</li> <li>b. Use non-contact infrared to monitor all motors, terminal connections, and connector plugs in the Feeder for abnormal temperature.</li> <li>c. Use non-contact infrared to monitor all terminal connections and connection plugs in the Feeder Distribution Panel for abnormal temperature.</li> <li>d. Use non-contact infrared to monitor all motors, terminal connections, and connector plugs in the Transport for abnormal temperature.</li> <li>e. Use non-contact infrared to monitor all terminal connections and connection plugs in the Tag/Scanner module for abnormal temperature.</li> <li>f. Use non-contact infrared to monitor all terminal connections and connection plugs in the IJP module for abnormal temperature.</li> <li>g. Use non-contact infrared to monitor all terminal connections and connection plugs in the Drying Line module for abnormal temperature.</li> <li>h. Use non-contact infrared to monitor to scan all terminal connections and connection plugs in the Drying Transport module for abnormal temperature.</li> <li>i. Use non-contact infrared to monitor all terminal connections and connection plugs in Reader module for abnormal temperature.</li> <li>j. Use non-contact infrared to monitor all terminal connections and connector plugs in the Motor Distribution Panel for</li> </ul>					
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	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad				Occurrence ECBM			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
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		<p>abnormal temperature.</p> <p>k. Use non-contact infrared to monitor all terminal connections and connector plugs in the Stacker Modules, Tiers 1-4 for abnormal temperature.</p> <p>4. <b>Restore equipment to ready status.</b></p> <p>a. Shut down the DBCS/OSS System in accordance with the following references:</p> <ol style="list-style-type: none"> <li>1) Refer to MS Handbook MS-235, Volume B, Section 5.2.4 for detailed steps to properly shut down the system.</li> <li>2) Power down the machine as prescribed by the current local lockout instructions providing lockout/restore procedures.</li> </ol> <div style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"><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> <p>b. Replace all panels and doors. Ensure tools and materials are removed from work area. Replace all machine panels. Close all machine doors and covers.</p> <div style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>c. Restore power to equipment as prescribed by the current local procedure providing lockout/restore procedure.</p> <p>d. Power on computer systems using current local computer restore procedures.</p> <p>e. Perform normal power on of inkjet printers in accordance with the most recent documentation for the PC-70/80</p>					
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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		and/or 37PC.					
FEEDER MODULE: ALIGNMENT CHECK	30.	<p><b>Check feeder alignment.</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>Check feeder alignment (Power On steps) using template NSN 5220-04-000-5005 and in accordance with the most recent Maintenance Management Order covering feeder alignment and performance adjustments.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>If any discrepancies are found, write a work order to do a full feeder alignment in accordance with the most recent MMO covering feeder alignment and performance adjustments.</p>	15	7		1100	
TAG SCANNER MODULE: ID TAG READER	31.	<p><b>ID Tag Reader System electrical enclosure inspection.</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><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> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>Use the most recent Maintenance Management Order, currently MM0-113-08, covering ICS ID-Tag reader system electrical enclosure inspection to perform procedures on the ICS reader in order to locate enclosures with defective power supplies, switches not configured properly, incorrect lamps, and lamps not installed properly. <a href="http://mtsc.usps.gov/bulletins.cfm">http://mtsc.usps.gov/bulletins.cfm</a></p>	10	10		4400	
READER MODULE: WFOV	32.	<p><b>Perform the following on the WFOV Read Head Assembly on the DBCS.</b></p>	8	10		4400	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S			C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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.

ALIGNMENT		<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"><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> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <ol style="list-style-type: none"> <li>1. The WFOV Read Head Assembly (RHA) is position-mounted on a spacer plate. On the DBCS, DIOSS, and CIOSS the spacer plate is secured to a mounting plate. Ensure the Spacer Plate is properly aligned in accordance with the most recent documentation covering this procedure, currently this will be MS-212, Section 5.2.1.</li> <li>2. Perform the WFOV Installation Alignment in accordance with the most recent documentation covering this procedure, currently this will be MS-212, Section 5.2.2.1.</li> <li>3. If any problems arise necessitating corrective actions, write a work order to document the time and events associated with those problems.</li> </ol>					
READER MODULE: POWER SUPPLY	33.	<b>Power supply PS1 (5VDC Reader) adjustment.</b> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"><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> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 10px auto;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been</b></p>	5	9		4400	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE	EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE	
	0 3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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		<p><b>applied.</b></p> <ol style="list-style-type: none"> <li>Open Reader lower left door.</li> <li>Place multimeter leads with clips on connectors J14 and J15 of Reader Card Cage backplane.</li> <li>A reading of 5.1 VDC should be present, if not adjust, 5 VDC power supply potentiometer to obtain a reading of +5.0 VDC (+0.1/-0.0 VDC).</li> <li>Close door.</li> </ol>					
STACKER MODULES: BIN SWITCH TEST	34.	<p><b>Stacker bin-full switch checks.</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <ol style="list-style-type: none"> <li>Pull each stacker blade to its 3/4 full position and note that its associated red indicator on stacker module display panel flashes and stacker module horn beeps. Note defective stacker switches.</li> <li>Pull each stacker blade to its full position and note that its associated red indicator on stacker module display panel is illuminated and stacker module horn beeps. Note defective stacker switches.</li> <li>Verify stacker blade rides smoothly on the guide rod.</li> <li>Notify supervisor of defective stacker switches and/or blades and initiate a work order to repair or replace as necessary.</li> </ol>	7	7		1100	
STACKER MODULES: POWER SUPPLY	35.	<p><b>Power supply adjust PS1 - 5 volts (stackers).</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 10px 0;"><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>	14	9		14300	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad				Occurrence ECBM			

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.

		<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> 1. Place multimeter leads with clips on connectors J10 and J11 of the stacker backplane. 2. A reading of 5.1 VDC should be present, if not adjust the power supply potentiometer to obtain a reading of +5.0 VDC (+0.1/-0.0 VDC).					
STACKER MODULES: GATE SOLENOID PUSHERS	36.	<b>Gate and solenoid pusher assembly test.</b> <div style="text-align: center;"> <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> </div> 1. Main Menu, select following maintenance test: Maintenance-Systems Tests-Stacker Module Test- <u>G</u> ate Activation Test. 2. At the Gate Activation Test screen select the following: Select Stackers- <u>A</u> ll, Select Gates- <u>A</u> ll, and Select Action- <u>S</u> equence. <div style="text-align: center;"><b>NOTE</b></div> On machines with the solenoid pusher assemblies activated identify visually inoperative solenoid pusher assemblies and gates by viewing each stacker module one by one.  On machines with the solenoid pusher assemblies de-activated per MMO-035-04, ensure the solenoid pusher assemblies do not activate during this test sequence.	20	9		14300	
		3. One stacker module will be tested at a time, energizing every gate and solenoid pusher assembly sequentially, repeatedly. By responding to the testing screen on the DBCS monitor and answering <u>Y</u> es or <u>N</u> o,					

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER		TYPE
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
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		<p>the test will move to the next stacker module. The testing will be identical for each stacker module.</p> <p>4. Type T to begin-Start Test.</p> <p>5. Verify gate and pusher solenoids are firing in each stacker where the pusher assemblies are activated. On machines with the solenoid pusher assemblies de-activated, ensure the gate is operating properly and the solenoid is not activating. At this time, verify driver module LEDs are operating for each gate and pusher that is activated. Green LED is for power and amber LED blinks when a solenoid is to be energized. Generate a work order to repair any problems identified during this test.</p> <p>6. Refer to safety bulletin MMO-035-04 for corrective procedures and additional information on machines that have the pusher assemblies deactivated.</p> <p>7. Exit maintenance menu.</p>					
DBCS/OSS VALIDATION: MACHINE VALIDATION	37.	<p><b>Perform the mail path validation by checking basic machine functions as follows:</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p>1. Turn Maintenance Mode key switch on operator control panel to MAINT position.</p> <p>2. Start machine. Verify when START switch is pressed, start-up warning indicators around sorter flash amber. At same time, start-up warning horns sound. Horns sound for 5 seconds and go off, while warning indicators continue to flash for a total of 10 seconds.</p> <p>3. Do a visual and audible check of machine to verify there are no problems with belt tracking, bearing noise, inappropriate bin gate activity, or any indications of impending</p>	4	9		3	

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION												
	WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S			C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		<p>or existing machine problems.</p> <p>4. Proceed to end stacker and press Emergency Stop button. Verify machine stops.</p> <p>5. If machine fails to stop, notify supervisor. Refer to the most recent Maintenance Management Order, currently MMO-002-03, concerning failure to stop. <a href="http://www.mtsc.usps.gov/pdf/mmo/2003/mmo00203.pdf">www.mtsc.usps.gov/pdf/mmo/2003/mmo00203.pdf</a></p> <p>6. De-activate E-Stop and turn Maintenance Mode switch back to NORMAL on operator control panel.</p>					
DBCS/OSS VALIDATION: LABEL PRINTER	38.	<p><b>Check label printer. Verify label quality.</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied.</b></p> <p>1. On label printer, press LINE FEED button one time. Label printer will print out test label.</p> <p>2. Verify test label has good quality print (not blurred) and is readable to human eye.</p> <p>3. If the quality of the print is unacceptable, write a work order to troubleshoot and/or clean the thermal head using cleaning kit (NSN 7930-07-000-1593).</p>	2	7		3	
DBCS/OSS VALIDATION: WFOV TEST DECK	39.	<p><b>Run WFOV test deck (NSN 3915-06-000-8292) as follows:</b></p> <div style="border: 1px solid black; padding: 2px; text-align: center;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p>1. Set up machine in DBCS Mode.</p>	9	9		3	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION											
	WORK CODE		EQUIPMENT ACRONYM				CLASS CODE		NUMBER		TYPE	
	0	3	D	B	C	S		C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		2. Load Run information. 3. Enter Operation number (750). 4. Select F2 to accept. 5. Load sort plan WFOV_TDK.EBF 6. Select "Start Mail Processing". 7. Select Display ZIP/Pkts and On Line Display. 8. Start machine and process WFOV test deck. Ensure WFOV has a GAR that equals 99% or greater. If the GAR is lower than 99%, check read reject bins for any test cards that may have unreadable bar codes. If necessary, perform a WFOV auto-calibration. 9. Verify the Certified Mail portion of the test deck sorts properly. 10. If any additional time is needed to correct ZIP result discrepancies and/or GAR issues, including auto-calibration, initiate a work order.					
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DBCS/OSS VALIDATION: ICS STRESS DECK	40.	<p><b>ICS Reader validation.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p>Verify the ICS-3 Reader as follows:</p> <ol style="list-style-type: none"> <li>Set machine up to run in DBCS mode, use sort plan ICSTSTI.ebf.</li> <li>From ON LINE MAIL PROCESSING screen, select Display ZIPs/Pkts.</li> <li>From Select Display Option screen, select On-Line Display.</li> <li>Start machine and run the stress deck, NSN 3915-10-000-6361.</li> <li>At on line display screen, verify that ICS-3</li> </ol>	5	9		3	
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U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	3	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence ECBM			

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.

		<p>Reader detected all ID Tags present and they read same.</p> <p>6. Stop machine.</p> <p>7. Retrieve and verify cards sorted correctly. Refer to the most recent MMO, currently, MMO-144-15, dealing with sorting problems. <a href="http://mtsc.usps.gov/bulletins.cfm">http://mtsc.usps.gov/bulletins.cfm</a></p> <p>8. Notify supervisor of any problems found.</p>					
DBCS/OSS VALIDATION: IJP	41.	<p><b>IJP Test.</b></p> <p>1. From Main Menu select &lt;Maintenance&gt;, then &lt;System Tests&gt;, and then &lt;Ink Jet Printer Test&gt;.</p> <p>2. Spray five blank cards (NSN 5220-03-000-5975) with an A-field bar code.</p> <p>3. Check the bar codes for location and quality.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>Right edge of letter to left framing bar should be 4 1/8" to 4 1/4". Bottom of bars should be even and 1/4" ± 1/16" above bottom edge.</p> <p>4. Write a work order if adjustments are needed.</p>	3	10		3	
DBCS/OSS VALIDATION: UAA INTERCEPT BARCODE	42.	<p><b>Verify that the OCR engine in the DBCS mode can intercept UAA mail.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p><b>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</b></p> <p>Using the Xanadu Test Deck, NSN 9310-08-000-3864, P/N 66.1026.034-00, do the following from the Main Menu:</p> <p>1. Select Mode Select.</p> <p>2. Select DBCS.</p>	9	9		1100	

U.S. Postal Service  <b>Maintenance Checklist</b>	IDENTIFICATION												
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	0	3	D	B	C	S		C	I	0	0	1	M
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS				Bulletin Filename mm12078ad			Occurrence ECBM				

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.

		3. Load Run Information. 4. Enter Operation Number (750). 5. Select F2 to accept. 6. Load a sortplan that has a confirmed UAA pocket assigned (ParsSpecial Pockets.ebf assigns pocket 39 for UAA). 7. Start mail processing and run UAA test deck. 8. Print or view the End of Run report. 9. Calculate the intercept rate (# confirmed UAA test pieces divided by the total # of test pieces fed, multiplied by 100). 10. Verify that at least 90% of the UAA test deck was intercepted. 11. Log off the system computer.					
FINAL CLEAN UP	43.	<b>Clean up.</b> Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	ALL			

**ATTACHMENT 3**

**MASTER CHECKLIST**

09-DBCS-CI-001-M

Operational Maintenance

Time Total: 52 minutes

Task Item Number	Basic Task Time Min.	Times Done During Tour	Total Time per Tour Min.
1	1	1	1
2	1	1	1
3	1	3	3
4	1	3	3
5	1	3	3
6	1	3	3
7	1	3	3
8	2	3	6
9	1	3	3
10	2	3	6
11	1	3	3
12	5	3	15
13	2	1	2
		Total OPM Time	52

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	9	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence Tourly			

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. 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>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> 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>	1	All			T
DBCS/OSS OPM: MACHINE LOGBOOK	2.	<p>At the beginning of the operation examine machine log.</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;"><b>WARNING</b></div> <p>Be cautious when working around or on equipment when power has been applied. This task requires that the machine be running. Take precautions to prevent hair, clothing, jewelry, tools, and test equipment from being caught in moving parts.</p> <p style="text-align: center;"><b>NOTE</b></p> <p>While performing listed operational maintenance tasks, be alert for unusual sounds, odors, or other indications of potential failure conditions in the machine.</p>	1	9			T

U.S. Postal Service  <b>Maintenance Checklist</b>		IDENTIFICATION													
		WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
		0	9	D	B	C	S					C	I	0	0
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS						Bulletin Filename mm12078ad			Occurrence Tourly				

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.

		Examine log and document any unresolved problems from the previous tour.  <p style="text-align: center;"><b>NOTE</b></p> Operational checks must be made with machine processing mail in a normal operating mode.					
DBCS/OSS OPM: MACHINE SAFETY	3.	<b>Every two hours observe warning horn and beacons.</b>  Watch for proper operation of warning horn and beacons on machine start-ups.	1	9			T
DBCS/OSS OPM: MACHINE INDICATOR LAMPS	4.	<b>Every two hours check lamps.</b>  Watch for proper functionality of indicator lamps used during normal machine operations. Correct deficiencies as soon as practical.	1	9			T
DBCS/OSS OPM: OPERATORS	5.	<b>Every two hours observe feeder and check with Operator.</b>  Observe the Feeder operation and inquire if operators are having excessive processing problems. Investigate as necessary. Initiate corrective action as appropriate.	1	9			T
DBCS/OSS OPM: VIDEO DISPLAY TERMINAL WFOV	6.	<b>Every two hours check mail processing screen.</b>  1. Check current Accept Rate Value on the GUI to ensure the sort plan, operating mode, and Accept Rate is correct for the mail being processed in accordance with the following: <ul style="list-style-type: none"> <li>a. Operation 918 and 919 - 99.1% GAR</li> <li>b. All other Operations 98.8% GAR</li> </ul> 2. If MAR or GAR is below acceptable values: <ul style="list-style-type: none"> <li>a. Check for degraded image and/or dust/debris accumulations on WFOV faceplate by observing the thumbnail image on the upper left on the GUI.</li> <li>b. If the image is degraded or if problems are noted take appropriate corrective action.</li> </ul>	1	9			T

U.S. Postal Service		IDENTIFICATION												
<b>Maintenance Checklist</b>		WORK CODE		EQUIPMENT ACRONYM					CLASS CODE		NUMBER			TYPE
		0	9	D	B	C	S				C	I	0	0
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad			Occurrence Tourly				

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.

DBCS/OSS OPM: INK JET PRINTER	7.	<b>Every two hours check for dirt/ink accumulations.</b>  Check POSTNET ink jet printer to ensure there is no build-up of foreign material or accumulation of ink at print head. If it appears cleaning is necessary, generate a work order, and ensure all EWP/PPE policies are adhered to before starting that task.	1	9			T
DBCS/OSS OPM: OVERFLOW STACKER	8.	<b>Every two hours check mail in the Overflow/Reject Stacker.</b>  Check type of mail present in overflow stacker to determine which area(s) of the machine might be malfunctioning. Check for indications of double feeds, one particular code, a single gate, or mail path blockage problem. Document any problems found and if needed write a work order.	2	9			T
DBCS/OSS OPM: REJECT STACKER(S)	9.	<b>Every two hours check reject stacker for:</b>  Check for print quality of POSTNET and ID Tag bar codes as well as quality of address in the address block. Are bar codes smudged or out of tolerance? Generate a work order to correct any abnormalities found and ensure all EWP/PPE policies are adhered to before starting that task.	1	9			T
DBCS/OSS OPM: SORTING STACKERS	10.	<b>Every two hours check for missorts.</b>  Take a sample from at least 5 stackers and verify the address block matches the scheme for that pocket. Verify mail pieces enter stacker in a uniform manner. Document any problems found and if needed write a work order.	2	9			T
DBCS/OSS OPM: READER, ICS-3	11.	<b>Every two hours examine the Message Relay Log by pressing "alt-tab" on the host VDT GUI for excessive ID TAG ERROR messages and if needed do the following:</b>  1. Check ICS-3 ID tag reader exterior for accumulated dust, dirt and debris or loose/worn belts, paying particular attention to the aperture and to the raised portion of the faceplate.  2. Document any problems found and if needed write a work order.	1	9			T

U.S. Postal Service <b>Maintenance Checklist</b>	IDENTIFICATION													
	WORK CODE		EQUIPMENT ACRONYM						CLASS CODE		NUMBER			TYPE
	0	9	D	B	C	S				C	I	0	0	1
Equipment Nomenclature Delivery Bar Code Sorter		Equipment Model DBCS/OSS					Bulletin Filename mm12078ad				Occurrence Tourly			

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.

DBCS/OSS OPM: ACE/MKAT LAPTOP COMPUTER	12.	<p><b>Every 2 hours check all performance indicators displayed on the MPEWatch Realtime Maintenance View Screen including the following items:</b></p> <ol style="list-style-type: none"> <li>Key Performance Indicators (KPI) report.</li> </ol> <p style="text-align: center;"><b>NOTE</b></p> <p>Access to KPI can be done by clicking on the hyperlink located in the column titled "KPI%".</p> <ol style="list-style-type: none"> <li>Unplanned Events.</li> <li>DPS Information.</li> <li>Take appropriate action to investigate and correct any abnormalities detected in viewing MPEWatch. Generate a work order for further maintenance actions if required.</li> </ol>	5	9			T
DBCS/OSS OPM: ADMINISTRATIVE	13.	<p><b>At the end of the operation tour, compile the following information:</b></p> <ol style="list-style-type: none"> <li>Route sheet information.</li> <li>Any work orders generated.</li> <li>Make entries in Machine Logbook of any discrepancies found during the mail run.</li> <li>Turn this information into Maintenance Supervision. Brief personnel coming on duty.</li> </ol>	2	9			T