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Eagle AMS Orientation

The Eagle AMS Print Head was designed with a completely automated cleaning feature that can be setup to perform at times that have been predetermined by the operator. This system has a Purge Bottle built in the main cabinet as well as Flush and Ink bottles. There is also an automatic wiper and capping station built into the Eagle AMS Print Head.

Operator, or Service interaction will be required to change out the Ink and Flush solution when empty and also to empty the Purge bottle when full. All of these containers have automated detectors on them so the system will alert the Operator when needed.



Capping Station Detail





Section One



Section One

Setting Time Defaults

The Raptor AMS or " \underline{A} utomated \underline{M} aintenance \underline{S} ystem" is by design a self-cleaning and self-maintaining system as the name implies. The Ink bottle, Flush bottle and Purge bottle are all in line and active inside the system control cabinet.

The Print Head Purging or "Cleaning" as it is referred to on this system will occur automatically at timed intervals you set and save to the system default. From that point on the system will automatically clean the Pens at the predetermined times. This system also allows you to manually interact and initiate a clean cycle at any time then automatically return to the beginning of the default time cycle.

To set the defaults you want your system to have, perform the following:

Step 1

Run the Raptor 6 Software and set the purge time by performing the following:

- A. Bring the Raptor 6 Software on line. (Auto Clean Time can be set in the "Eagle AMS Pen Maintenance Menu")
- B. In the Main Menu press File > System Setup, to open the System Setup Menu see image 1-1
- C. In the "Maintenance" section of the System Setup Menu, Select "Eagle AMS" see image 1-1
- D. Press "Pen Maintenance" to open the maintenance menu shown in image 1-2

Stop Printing Security		Idle 	1000 752 -						
New Job Ctu	4	🖗 System Set	up		υ.	00		*	×
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Save Job		Printer Modulo	Distance	Distance From	"More" for n Printer	Module Size	Resolution	Setup	Eagle heads - Enabled Eagle AMS heads - Enabled Falcon heads - Enabled
Save Job As			6.00"	0.00"	Eagle	4.25"	150 x 600	5	PDF - Enabled
Data File Ontions		2	10.00"	4.50"	Osprey	2.56"	600 x 400	7	TCP/IP interface - Enabled
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					Cap Mainter	nance			
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					Auto Mid-jo	b Quick Clean Timeout			
					0	Elapsed minutes since when not capped and	last Quick Clean to perform the transport is stopped.	na Quick Clean (0 = OFF)	
						I	Dane		

E. Set Quick Clean time in Minutes, the Default range is 10 to 600 minutes. In most cases a setting of 60 to 120 minutes is optimal. To set the time simply click on the "Auto Mid-job Quick Clean Timeout" box and type in the number of minutes you what the Clean cycle set, then press "enter" on the key board or the "Done" button on the Eagle AMS Pen Maintenance menu, see image 1-3. The system will not initiate a Quick Clean while printing, however once the time cycle has been met or exceeded the first time the systems stops printing a "Quick Clean" cycle will automatically begin.

	Printer Module	Distance From Sensor	Distance From Top Of Piece	Printer Type	Module Size	Resolution Se		
	0	6.00"	0.00"	Eagle	4.25"	150 × 600 5	In all cases the task must be completed before this dialog	can be clos
	2	10.00"	4.50"	Osprey	2.56"	600 × 400 7	Do not power down the System or this PC until any comm	and that is
	3	10.00"	7.25"	Falcon	2.00"	600 × 600 1	started has completed.	
							Purge Going Into Print Mode	
	I Contractor						C Use Less Ink Normal C Use More Ink	
	Add Mod	Ule Delete M	odule				Purge or Prime	
	Idle Time In	Print Mode Before	10 1	Time In Stor	ped Mode 15		C Use Less Ink	
	Going To	Stop Mode (mins): nce	10 1	Before Capp	ning (mins): 15		"PRIME" Performs an automatic printhead prime for the duration chosen in the radio buttons. This uses more ink as it	PRIME
	#5 = Eag Pen Ma	gle I Aqueous aintenanceInk	▼ Supply Maintena	nce		Encoder Translation box with translation :	PLEASURGET performs an automatic printhead purge for the duration chosen in the radio buttons. This uses less ink as it is only forcing ink through the nozzles.	PURGE
							Prepare to Ship or Store or Get Ready to Use	
							"SHIP" Prepares the printhead to get ready to be shipped.	SHIP
Jsing th	e mo	use, clic	k here				"STORE" Prepares the printhead for long term storage.	STORE
o set th he key	ie Tim boarc	ne value I for the	with Quick				TREADY FOR USE" prepares the printhead to enable printing. After a SHIP or STORE are performed this MUST be used before the printhead can be used.	EADY FOR USE
Clean tii	neou	t. then i	oress				Cap Maintenance	
he "Do	ne" b	utton in	the				"UNCAP" Moves the the cap to allow the plastic cap including the wiper to be removed for cleaning or replacement.	UNCAP
000110	the f	"ontor"	kov on				Auto Mid-job Quick Clean Timeout	
our kev	/ boai	rd	кеу оп				Elapsed minutes since last Quick Clean to perform a Qui when not capped and the transport is stopped. (0 = O	ick Clean IFF)

Section Two

Setting Ink Volume Used for Quick Cleaning

Section Two

Setting Ink Volume

The amount of ink used in each Quick Clean Cycle can be selected from three (3) preset defaults found in the Eagle AMS Pen Maintenance menu. The climate and altitude your system is operating in should be considered when making this selection. To choose between the three (3) presets found in the Eagle Pen Maintenance Menu for the automated quick clean cycle go to the "Purge Going into Print Mode" section, place the cursor over the selected default you wish to choose and left click on it. To set the ink amount used for manual Purges and Primes go to the "Purge / Prime" section , place the cursor over the selected default you wish to choose and left click on it. To set the selected default you wish to choose and left click on it. Prime Y Prime" section , place the cursor over the selected default you wish to choose and left click on it. Prime Y Prime Y

all cases the task must be completed before this dialog can b at ted has complete 1.	Set Ink Volume for Automatic Purge going into Print Mode
Urge or Prime Use Less Ink Normal Use More Ink PLIME [®] Performs an altomatic printhead or he for the dration chosen in the yadio buttons. This uses more ink as it perfaction circle in the rem. PURCE [®] performs an automatic printhead purge for the duration chosen in the radio buttons. This uses less ink as it purk through the roughts.	 Set Ink Volume for Operator manual Prime or Purge
repare to Ship or Store or Get Ready to Use SHIP" Prepares the printhead to get ready to be shipped. STORE" Prepares the printhead for long term storage. STOR READY FOR USE" prepares the printhead to enable printing. After a SHIP or STORE are performed this MUST be used READY FI	P IE DR USE
ap Maintenance UNCAP [*] Moves the the cap to allow the plastic cap including UNCAP [*] Moves the the cap to allow the plastic cap including UNC	AP
uto Mid-job Quick Clean Timeout Bapsed minutes since last Quick Clean to perform a Quick Clea when not capped and the transport is stopped. (0 = OFF)	n
Done	

Section Three

Cap Setting & Maintenance

Section Three

Cap Setting & Maintenance

The Pen Cap of the Eagle AMS operates automatically for wiping the pens after purging or priming as well as capping the pens when printing has stopped. The actual time delay for when the pens are automatically capped depends on the default setting you enter.

First a time setting to automatically recognize "Idle" time in Print Mode must be established before the system will go into "Stop Mode". Then an elapse time for the duration of Stop Mode must be entered before the automatic quick clean cycle will begin.

To enter these times perform the following:

Step 1

Run the Raptor 6 Software and set the Cap time by:

A. Bring the Raptor 6 Software on line. (Idle Time and Cap Time can be set for best performance in the

"Eagle AMS System Menu")

- B. In the Main Menu press File > System Setup, to open the System Setup Menu see image 3-1
- C. In the "Idle Time In Print Mode" section of the System Setup Menu, set the time in minutes by pressing the Up / Down arrow buttons, see image 3-1
- D. In the "Time In Stopped Mode" section of the System Setup Menu, set the time in minutes by pressing the Up / Down arrow buttons, see image 3-1 (Note: The factory set default time of 15 minutes for "Idle" time and 15 minutes for "Stopped" time is ideal for normal operation in most climates.)

ecurity	Idle 1005 Party: enau. 5005 -					
lew Job Ctrl	🐨 System Setup	0.	00		*	×
Open Job Y Sten 1	-B	by clicking on fields	adula datala			System Authorization
ave Job	Printer Distance [Module From Sensor	Distance From Printer	Module Size	Resolution	Setup	Eagle AMS heads - Enabled Eagle AMS heads - Enabled Falcon heads - Enabled
ave Job As	6.00	Eagle	4.25"	150 x 600	5	PDF - Enabled
ata File Ontions	2	Osprey	2.56"	600 x 400	7	TCP/IP interface - Enabled
	3 Step 1	-C Falcon	2.00"	600 x 600	1	PPMC · Enabled
rint Setup ysteri Setup uudit Report lecent File	Going To Stop Mode (mins): 10 Maintenance #1=Eagle AMS Pen Maintenance Ink Su	Before Capp		Encoder Trans box with transk	lation: Length of a ation set to 10.00".	printed 10.00" 10.00"
xit	Light Tree Setup		Jie			
	OK Apply					Cancel
a7.41					5	. NUM

When it becomes apparent, by diminished print quality, that the Capping Station needs to be replaced perform the following:

Step 1

- A. Run the Raptor 6 Software and open the Eagle AMS Pen Maintenance menu as discussed in Section One, Step 1 B through D.
- B. Press the "Uncap" button in the Pen Maintenance menu, see image 3-2. This will move the Capping Station to the far right.



(A caution: As a safety precaution, ware latex gloves at this time)

C. Pull the lock out until it clears the collar and turn it counter clockwise to unlock the cap from the sled,

see image 3-3.

- D. Gently lift the capping station out of the sled just enough to gain access to the hose connection see image 3-4.
- E. Disconnect the "Purge" hose by turning the fitting counter clockwise while supporting the elbow side of the connection on the cap, see image 3-5
- F. Once the old capping station is removed the excess ink can be cleaned out of the sled using Isopropyl Alcohol or Denatured Alcohol, see image 3-6.







Hold and support the fitting on the "Elbow" side of the connection



Turn the lock side of the Purge hose fitting counter clockwise and pull the connection gently to disconnect it.

(**Note**: Wipe any access ink off the Pure hose fitting in preparation for installing the new Capping Station)

Image 3-5



Image 3-6

Clean out old ink from the fitting to ensure a good seal to the new Capping Station

Install the new Capping Station in the reverse order the old one was removed.

- A. Connect the Capping Station Purge Fitting the Purge Hose Fitting. Make sure the hose is routed under the screw rod and pressed firmly into the relief in the sled, see image 3-7.
- B. Press the new Capping Station into the sled and turn the locking handle clockwise to secure it, see image 3-8.





Section Four



Section Four

Eagle AMS Status Notification

The Eagle AMS Print System will present different notifications indicating the print head status while in Quick Clean Mode as well as warnings. These are as follows:

Image 4-1 depicts an error warning box indicating to "Stop Printing" before Exiting Software

Ich AMER		-Priving Piece II
Value Amos Malibox Stock: Letter (8.5 x 11 in)	Printing	10
Start Fiece # 10	Pinter errors.	
Stop Piece II: 1 📫 🔽 🏳 Pirz 1 📩 test pattern(s) first	Company (in June 1	Pieces Per Hour
Reprint (0 records selected)		
Quick clean Stop Printing Cap	Max: 33.33 at 600 X 600 dpi	Time Remaining
	/ Data (Log)	
MCS Rap	tor	<u></u>
		Job Piece Rate
4	Please stop printing before exiting.	L
	ок	Need ink? Call Think Ink
		877-857-2459
		MCS
		MCS On-Line Connection
ob Template	· · · · · · · · · · · · · · · · · · ·	henri
dv		NUM

Image 4-2 depicts Cleaning for an Operator Initiated Quick Clean command.

	The W 1900 - 1 200 A& W // N N	
		Poster Presed #
b: 1_Eagle Resolution: 150×600		Printing Record #
Ax Sequential Stock: Letter (8.5 x 11 in)	CLEANING	
Shat Bacout 1	Pierose writer	L
	r errer setter but	Discas Dar Mour
Stop Record: 27 🔄 🛙 🖓 Print 1 🛬 test pattern(s) first	- Concerns for Asian 1	T Rever t of trylat
Reprint (0 records selected)		
Luck clean Stop Printing Cap	Max: 200 at 150×600 dpi	Time Remaining
ck clean performed by operator 4/14/2015 10:19:35 AM	/ Data V	Log
		Job Piece Bate
		Need ink? Call Think Ink
		8/7-857-2459
		- Ctrink ink.
		MCS
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		MCS On-Line Connection
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s.(Templata 7 •		MCS On Line Connection
		MCS On Line Connection

Image 4-3 depicts the Eagle AMS is actively Capping the print head and warns "Do Not Turn Off Power"

🖗 AMSSmallBox.pjt - MCS R	aptor 6	
File Edit New Data V	+ ■ 🗄 🗑 📓 📷 10 + ♀ 🗟 X 100% 🖃 🗰 A K	× × × ×
Job: AMSSmallBox Data:	Resolution: (500 × 500 Stock: Letter (8.5 x 11 in)	Plinting Piece #
Start Piece #: 10 🚊	Print each record Terre(s) Printer errors	
Stop Piece #: 1 Benefat (Barcourts select)	Print 1 💼 test pattern(s) first	Heces Her Hour
Quick clean	Print Cap (in 15 min) Max: 33.33 at 6000×600 dpi	Time Remaining
#		Deta Log
	Capping Eagle AMS DO NOT TURN OFF P	OWER!
		MCS On-Line Connection
∖Job <u>(Template</u> 7 • Ready		, NUM
mage 4-3		

Image 4-4 depicts the Eagle AMS print head is actively Capping

Job: 1_Eagle Resolution: 150×600		Printing Record #
Data: Sequential Stock Detertors in Fig.	CAPPING	<u>i</u>
Start Record: 1	Plinter entire	Disease Day Mana
Stop Record: [27	Conveyor (in /sec.)	Pibliss For Hour
	0.00	
Quick clean Print Cap	Max: 200 at 150× 600 dpi	Time Remaining
rinting stopped. 4/14/2015 10:20:30 AM	/ 088 / 09	
		Job Piece Rate
		877-857-2459
		-2think ink
		MCS
		MCS On-Line Connection
lob / Template 7 +	*	
adv		

Image 4-5 depicts an operator initiated "Quick Clean" command while a piece was under the print head

	6		
ile Edit New Data View I	telp	V 1000 44 1/ // ·	N N
		A 100% Y 888 998 K %	
Job: AMSSmallBox	Resolution: 600 X 600	Drinting	
Data:	Store Date (COXTEN)	Finang	iLi
Stat Piece #: 10 🕂	Print each record 1+ time(s)	Printer errors	
Stop Rece II	Pint 1 - hest nationals first		Pieces Per Hour
	, <u> </u>	Conveyor (in./sec.)	
 Tradition for second second (0.00	
Quick clean St	op Printing Cap		
	м	lax: 33.33 at 600 × 600 dpi	a (Log)
			^
	QuickClean Warning	×	
			Job Piece Rate
	QuickClean requested v	while a piece is under the head being printing.	Π
	Do you want to continu	ue and peform the QuickClean anyway?	
		10 - Vi- 11	
		Yes No	Need ink? Call Think Ink
	L		0//-85/-2459
			MCS
			MCS On-Line Connection
Job / Tempiate 7 . 4			•
Job (Template) <			v ,
Job (Torplans)			*
ady nage 4-5			-] NUM

Section Five

Installing Ink & Flush Bottles

Section Five

Installing Ink & Flush Bottle

The system will indicate the level of ink in the main screen as shown in image 5-1. The system well also indicate when it's time to replace the Flush Bottle

ob: 1_Eagle Resolution: 150×600		Ink Level	Pinking Record II	
Stock: Letter (8.5 x 11 in)	INK LOW	752.		Replace the Ink Bottle
Start Record 1	Printer errors	50%	Deverballe	
Stop Record 27 🔄 🗆 Print 1 📩 test pattern(s) first	Conveyor (in /sec.)	25% -	- Percent Per Hous	
repart to record precised		01: 		indicated here
Quick clean Print Cap (in 13 min	Max: 200 at 150 × 600 dpi		Time Remaining	
		/ Uata / Log (
			Job Piece Rate	
			Need ink? Call Think Ink 877-857-2459	
			-2think ink	
			<i>(</i>	
			MCS Ond ine Connection	
		-		
o /, Template / + ly				

🔊 11_Eagle.pjr - MCS Raptor 60.00.126-8	
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Job 1_Eagle Resolution (1902.600 FLUSH LOW	
Star Recold 1	he Flush bottle
Stop Record [27 3] Pink [1 3] test patter(i) first	USH LOW" is
Outle clean Pier Cap (n 13 and)	here.
- Mo Rea Rea	
877-857-2559	
MCS On-Line Connection	
kdo / Template / ·	
Ready	
Image 5-2	

To replace the ink bottle and / or Flush bottle when indicated by the system perform the following:

Step 1

- A. With the system in "Idle" mode open the door to the Main Control cabinet.
- B. Press the retaining lock at the pump coupling, see image 5-3.
- C. While the retaining lock is pressed lift up the empty bottle and remove it from the cabinet.
 (A Caution: Do not squeeze the empty bottle while removing it. Small amounts of fluid may still be present at the nozzle that could drip out into the cabinet.)







Emptying the Waste Bottle

Section Six

Emptying the Waste Bottle

The Waste Bottle is monitored by sensors. The Eagle AMS system will display an indication on the main screen when the container is full, see image 6-1



To empty the Waste Bottle perform the following:

Step 1

- A. With the machine in "Idle" mode, open the door of the Control Cabinet.
- B. Disconnect the drain hose by pressing the retaining lock to release the hose fitting, see image 6-2. (Note: Fitting style may vary from straight to right angle. Both styles are shown in this publication)
- C. Position the drain hose out of the way. (Note: Place a Kimwipe around the fitting once removed to contain any drips that may occur)
- D. Lift the Waste Bottle out of the cabinet and empty it.





Once the Waste bottle is out of the cabinet, the sensor, depicted in image 6-3 will no longer detect the waste bottle. The Missing Waste Bottle status will appear on the Main screen as shown in image 6-4.

Stop Record 27 Pert 1 2 het paterci () fort Congrege (n / loc) Dack deen Pert Cep (n 13 mid) Max: 200 at 150 X 800 dpi Congrege (n / loc) Max: 200 at 150 X 800 d		X [100% ▼] == M K ≪ ≫ X WASTE BOTTLE MISSING Perter errors.	Piring Record 8
y con y con y I do Prece Rate I do Pr	Step Record 27 🔆 Fint 1 🔂 test patter(s) first F Repirt (0 records selected) Quick clean Print Cap (in 13 min)	Conveyor (n./sec) 502- 552- 02 m1 Mace 200 of 1500 X600 dpt Chem VII	Screen indicating the missing Waste Bottle
\ob /Template +			Abb Floos Rule
	aob A Tempiate 7 (*) eady		

Once the Waste Bottle has been emptied and returned to the carriage in the control cabinet, the sensor will once again detect the presence of the Waste Bottle and the status display will return to "Idle"

