CURNESS Contraction of Microbiology	Policy # MI_SM_WASP	Page 1 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	
Prepared by QA Committee		
Issued by: Laboratory Manager	Revision Date: 11/24/2023	
Approved by Laboratory Director:	Next Review Date: 11/24/2025	
Microbiologist-in-Chief		

#### **Uncontrolled When Printed**

# **WASP®** Operations

# **Table of Contents**

This section describes the normal operation of the WASP® instrument. The following topics are discussed in this section of the manual:

Running the Cycle Overview
Accessing WASP Instrument
Turning on the Instrument
Starting up the WASPCore Software
Instrument Mode Selection
Giving Power to the Instrument7
Preparing the Instrument
Machine Reset
Printer Preparation 10
Starting a Run
PAUSE State: RE-START or STOP the Cycle 11
Shutdown Procedure 12
Maintenance
Daily Maintenance
Docking Station Area16
Streaking Station
Vortex
Universal Decapper
Jane (Robot) and Loops
Running a Loop Washing Cycle
Tarzan (Robot)
Wipe Down
Weekly Maintenance
Monthly Maintenance
Pre-run Operations
Loading Media Plates into the Carousel 34
Specimen Labeling and Preparation
Loading Pallets
Loading Broths

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Research and Constraint Single And Cons	Policy # MI_SM_WASP	Page 2 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

Post-run Operations	
Unloading Pallets	
Unloading Streaked Plates	
Unloading Broths	
Managing Specimen Rejections	
Inadequate liquid in Specimen Container	
Failed Initial Barcode Scan	
Alarm Causing Specimen to be partially processed	
Changing Printer Label Roll	
Changing Printer Ribbon	
Troubleshooting	
Daily Quality Control	
Record of Edited Revisions	

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CURN Rest and Mount Shoil Moun	Policy # MI_SM_WASP	Page 3 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

### **Running the Cycle Overview**

### Accessing WASP Instrument

- The WASP® instrument is a single flexible automated processing platform that automatically: de-caps, plants, streaks, and re-caps all specimen types like swabs, urines, faeces, sputum, body fluids and pre-enrichment broths (Figure 1).
- The WASP® provides a comprehensive system which encompasses all aspects of automated specimen processing that includes plate planting and streaking, Gram slide preparation, antibiotic disk dispenser and enrichment broth inoculation.



UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 4 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure.2 WASP Main Components

- 1. Operator workstation
- 2. Media Carousel
- 3. Streaking Station Jane Incinerator
- 4. Decapper and Docking Station
- 5. Tarzan Vortex Centrifuge
- 6. Printer
- 7. Disk and Broth Carousel (optional)
- 8. Slide Prep (optional)

In case the Pipettor Module is present it will be located on the left side of the WASP. If the Slide Prep Module is also present it will be located on the left side of the Pipettor Module.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 5 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

The standard WASP instrument includes the following components:

Pallet Loading Area, Unloading Area (plate and pallet), Barcode Readers, Stacker, Decapper, Docking Station, Streaking Station, Incinerator, Loop Camera, Tarzan Robot, Jane Robot, Vortex, Centrifuge, Disk and Broth Carousel, Operator Station (Touch Screen monitor, PC, Keyboard and Mouse), Sort Out Carousel, Media Plate Carousel, Lid Remover, Printer, Label Arm, Rejection Bin and Automatic Loop Change Station.

# **Turning on the Instrument**

- If the instrument is completely shut down, turn the red main power switch a quarter turn clockwise to pass from position **O** to position **I** (Figure 3).
- Turning on the Main Power Switch in the back will send power to the whole machine and start up the whole machine including the PC.



Figure 3 Red main power switch

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN Engine Mount Sinal Mognitud	Policy # MI_SM_WASP	Page 6 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

### Starting up the WASPCore Software

- Select the WASPCore Icon from the Desktop or from the Toolbar
- Use the dropdown menu from the Login WASP® screen to choose the appropriate user (User, Admin, or Engineer) (Figure 4).
- Under password, type in the correct password for the user chosen.
- Then press OK



Figure 4 WASPCore login screen

### **Instrument Mode Selection**

- The WASP® can process specimens in several different modes, as chosen by the user. The mode can be selected after the WASPCore Software login.
- In the Mode Selection Screen (Figure 5), select the appropriate mode by clicking on the corresponding icon most often this will be "LIS".
- For operation of other modes see in lab manual for WASP operations.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY



CURNING WALL AND A Department of Microbiology	Policy # MI_SM_WASP	Page 7 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



# **Giving Power to the Instrument**

- Release the red emergency button located under the PC monitor (Figure 6) by rotating it clockwise and releasing it (1).
- Press the blue power button, next to the emergency button, to transfer power to the electrically powered components. The power button should light up (2).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN English Contraction Contr	Policy # MI_SM_WASP	Page 8 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 6 Emergency and power supply buttons

### **Preparing the Instrument**

- Perform daily maintenance, and weekly and monthly maintenance as scheduled.
- Reset the machine to reach the READY state.
- Load the correct Carousel Configuration.
- Load the media in the Carousel.
- Load the broths for enrichment in the Disk/Broth Table.
- Load the slides in the Slide Prep Module as needed.
- Check that the machine is properly set for the type of samples to process, or pallets.
- Load the samples in the pallets and place the pallet in the Specimen Feeder Conveyor Belt.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 9 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

#### **Machine Reset**

- When the machine is powered on, a reset operation is necessary in order to achieve the **READY** state.
- In the main screen (WASPCore action window), press the reset button (Figure 7). During the reset, the system automatically checks that all the starting conditions for the proper working of the machine are satisfied.
- Any event preventing the reset of machine operation from being performed will be shown in the black **TEXT WINDOW** (Next Step to Do Window) at the top left of the main screen and visible in the Alarms section.
- The reset is necessary to pass from the **STOP** state of the machine to the **READY** state, and now the instrument is ready for operation.



Figure 7 WASPCore action window

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN The first the Mount Sinal Mospital	Policy # MI_SM_WASP	Page 10 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

### **Printer Preparation**

- After the first reset, the machine requires performing the "Printer Maintenance", which requires removing a label ejected by the printer at the start-up of the machine.
- Move the printer outwards by pulling the handle (as in Figure 8), to have access to the printer front part.



Figure 8 Printer sliding back



UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN The first the Mount Sinal Mospital	Policy # MI_SM_WASP	Page 11 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

#### **Starting a Run**

• Touch **START** from the Main Screen of the WASPCore software (Figure 7).

# **PAUSE State: RE-START or STOP the Cycle**

- When all the specimens have been processed, after few seconds the machine will reach the **PAUSE** state (Figure 11). In this state the machine is waiting for a command from the user.
- To process new samples click on the **START** button in the main menu, a window will open, to run the sample with the last configuration (container and protocol) press on **OK**, automatically the cycle will be run; to change container type or protocol press on CANCEL, select the new configurations and press OK.
- While by clicking on the **STOP** button the machine will reach the **STOP** state. •
- When the machine is in **STOP** it is possible to modify the settings (only a user with Administrator privileges is authorized).
- To process new samples the machine has to be in the **READY** state. When the machine is ٠ in STOP state, it is necessary to RESET.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN Hand Kan Mount Sinal Mospital Mosp	Policy # MI_SM_WASP	Page 12 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 11 The pause state in the main menu screen

### **Shutdown Procedure**

- Stop the cycle as described in the previous section.
- Unload the processed plates from the Sort Out Carousel, the processed broths from the Disk/Broth Table, and the processed slides from the Slide Prep Module, if present.
- Eventually remove samples from the rejection bin.
- Once the instrument is empty, close the WASPCore software by pressing **CLOSE** (1) icon from the Main Screen (Figure 12).
- Press the corresponding **CLOSE** (2) button.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 13 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 12 Shutdown icon and menu screen

• When the WASPCore software is completely closed, shutdown the PC by pressing the **Shutdown** key in the operating system desktop, and selecting **Shutdown** from the menu (Figure 13).



Figure 13 PC Shutdown

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

<b>CUHN</b>	Policy # MI_SM_WASP	Page 14 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Wait until the PC monitor is powered off.
- Turn off the main power of the instrument by turning off the red power switch located in the back of the instrument to position **O** (Figure 2).

#### Maintenance

• The WASP® instrument requires minimal maintenance from the user to assure reliable performance. Other than daily maintenance in the following section, all other maintenance mentioned is suggested on a "weekly" or "monthly" basis.



• Enter all maintenance tasks completed in SOFT Total QC

unch Bar 💶 📮	Equipment Mai	intenance 🔞												
	Equipment reco	ord number: 83927				Functional	aroun: Microbiology							
RBS							g. c.p							-
ventory	Equipment ID:	M_MIAUM6-5	N.	Name: Wasp	#3									
Lot Records	Location: LAB		W.	Department:	MICB	(M)	Workstation:			M	Status: Act	ive		
Lot Actions	Manufacturer:	COPAN	.W.	Model: WASF	1		Serial #:				Facility Inve	ntory:		-
Open Lot						-					,		_	
Close Lot Decoortibute Lot	Registration da	te: 2023/03/08		Registration ti	me: 10:49	(Ŷ)	Registration tech:	MIGWC						_
Remove from Inventory	Purchase date:			Received date	: 2023/03/06		Implementation date	: 2023/0	03/08		Retired date	2		
Return to Inventory														
Reconcile Lot	Maintenance L	.og Reagents Parameters	QC Orders											
Batch Receiving	Active lot	Testing lot												
Reports	Select	QC Parameter	Name	Type	Keypad	Expected Re	esult	SD	QC Method	From	To	Frequency		Acti
Inventory Report		M_WASP_CLNDOCKSTN	Clean Docking Station	Check box								M_NSHIFT		6
Inventory Workload		M_WASP_CLNSTRKSTN	Clean Streaking Station	Check box								M_NSHIFT		E
Lot Parameter Report		M_WASP_CLNVORTEX	Clean Vortex	Check box								M_NSHIFT		
Parameter Modification R		M_WASP_CLNDECAPPER	Clean Universal Decapper	Check box								M_NSHIFT		
ders 🔺		M_WASP_CLNTARZAN	Clean Tarzan (Big Robot Arm)	Check box								M_NSHIFT		ł
Order Entry		M_WASP_CLNJANE	Clean Jane (Small Robot Arm)	Check box								M_NSHIFT		1
order Lifely		M_WASP_GRAMPREP	Gram slide Prep (instructions under Prep	Check box								M_NSHIFT		6
ults 🔺		M_WASP_LABELPREP	Open Waspcore, powerup, reset, calibrate	Check box								M_NSHIFT		6
Result Entry		M_WASP_LOOPCLEAN	Do daily loop clean function	Check box								M_NSHIFT		ē
Resulting Worklist		M_WASP_INSCLEAN	Perform Weekly Instrument Cleaning	Check box								M_WEEKLY_MON_NIGHT		6
inment Maintenance		M_WASP_SENSORCLEAN	Perform Sensor Cleaning	Check box								M_WEEKLY_MON_NIGHT		6
		M_WASP_CLNPALLETS	Wash specimen pallets	Check box								M_Monthly		E
Mainténance Records	> 🔤	M_WASP_MNTHINSCLN	Perform Monthly Instrument Cleaning	Check box								M_Monthly		
Reports		cord 13 of 13 🕨 🗰 🕂 🕇	- + + + - 1 = <											
Maintenance Record Report														

#### UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 15 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Any maintenance not mentioned in this section should only be performed by an individual appointed by Copan.

Note: For cleaning of any parts of the instrument only 70% Alcohol or a solution approved by a Copan Wasp Designee should be used.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN Restart Wound Single Mount	Policy # MI_SM_WASP	Page 16 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

# **Daily Maintenance**

### **Docking Station Area**

### (a) Removing and Replacing Protective Padding

• Open the door on the left side of the front of instrument, and get access to Docking Station Area (Figure 14).



Figure 14 Docking Station Area

- Inspect daily the docking station pad (1) and the Drip Tray (2) close to the Decapper Station, remove and replace them with new ones at least weekly or daily if contaminated.
- Remove each part of the docking station pad from the two round pin, rotate the pad  $90^{\circ}$  to remove it from the rectangular pin (Figure 16).
- Replace the docking station pad and the Drip Tray after the maintenance of Universal Docking Station.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 17 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 15 Docking Station pad.



Figure 16 Position of pad when removing from the docking station

# (b) Removing the Docking Station

• Open the door on the left side of the front of the instrument. The docking station is made of two identical, individual pieces (Figure 17)

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

<b>CUEN English</b> Known Sinal Mount Sinal Mou	Policy # MI_SM_WASP	Page 18 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 17 Docking Station is composed of two parts

• Located at the front and back of the docking station pieces are black locking tabs. Pull each tab and rotate them a quarter turn in either direction to release the Docking Station (Figure 18).



Figure 18 Docking station as placed in the support

• Pull up on the metal of the docking station to remove it for inspection (Figure 19).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CURNER Mount Sinel Month Sinel	Policy # MI_SM_WASP	Page 19 of 78
Quality Manual	Version: 2.0 CURRENT	-
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 19 Docking station removal from the support

- Wash the universal docking station each day. Docking stations may be soaked **10-15 minutes** using an **everyday detergent and hot water**. Allow to dry before replacing.
- Wipe underneath and around the docking station area.

### (c) Replacing the Docking Station

- To replace the docking station, align the front and back of the docking station so the pieces fit into the correct locations.
- Slide the docking station down into position so that it is sitting level with the top of the metal piece that holds the docking station (Figure 20).
- Lock the black tabs in the front and back of the docking station back into place by rotating until it "pops" back into the grooves located at the side.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 20 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 20 Docking station positioning in the support

# **Streaking Station**

- Wipe around the streaking area of the media plate (Figure 21).
- Wipe down the red rubber part that uses suction to maneuver the plate lid.
- Wipe down the camera protective door.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 21 of 78
Quality Manual	Version: 2.0 CURRENT	-
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 21 Streaking area and lid remover in the streaking station

### Vortex

• Wipe underneath the vortex inside the instrument.

### **Universal Decapper**

- The Universal Decapping system automatically adjusts to different container types and their caps based on the container selected at the Start-up of the WASP (Figure 22).
- The system uses three tongs to grip the cap and a quick, strong rotation to remove and then recap the specimen.
- For the Universal Decapper, there is no need for the operator to make any adjustments on the system as it is all automatic.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 22 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- The Decapper only requires maintenance of the tongs.
- Clean each of the three tongs making sure no labels or plastic pieces from caps are stuck in the tong.



Figure 22 Universal Decapper system

### Jane (Robot) and Loops

- Inspect loops daily at start of each shift and perform loop wash on all loops at the beginning of the day.
- Loops should be checked for alignment using the Loop Adjustment Guide Tool provided with the instrument. Make sure each loop is straight and not bent. (Should be performed at least once a shift then automatic check loop cycle is set up)

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 23 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

# (a) Removing a Loop

• Loops are held with a metal brace that contains two metal supports and a central hole with a magnet as shown below (Figure 23).



Figure 23 Loop holding support

- Remove the loop by gently gripping the plastic of the loop only and pulling the loop towards you until it comes off of the Robot.
- To remove a loop, grab only the plastic piece of the loop (never the metal part of the loop). Rotate the loop counterclockwise until it is no longer touching the two metal supports (1) and then pull the loop away from the side of the WASP so it is free (2) (Figure 24).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 24 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 24 Movement to unlock the loop from the holder

# (b) Replacing a Loop

- When replacing a loop, be sure to put it in the same spot as where it was taken, or if adding a new loop be sure to put the same size loop in the location where the loop was removed (Ex: If you remove a 30 microliter loop from position 3, make sure to add only a 30 microliter back to this position)
- Place the loop into the hole of the metal support by placing the longer solid (i.e. not hollow) plastic side of the loop inside the hole; this way the hollow end of the loop is visible and can fit in the Jane's holding support during the loop switch (Figure 25).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 25 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 25 Loop part to be inserted in the holder hole

• Slightly rotate the loop (Figure 26).



Figure 26 Loop insertion in the holder hole UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN English Contraction Contr	Policy # MI_SM_WASP	Page 26 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Push the loop end into the metal hole so that is tight against the metal brace and then rotate the loop clockwise the plastic ends of the loops so that the two metal supports can hold the loop firmly (Figure 27).



Figure 27 Correct loop positioning in the holder

### (c) Removing a Loop from Jane

• It may be necessary to remove the loop from Robot Jane in order to straighten the loop or replace the loop.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 27 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• To remove the loop from Jane, first press **OPERATIONS** on the Main Screen on the WASPCore software (Figure 28).



Figure 28 **OPERATIONS** option in the main screen

- In the Operations Screen press **LOOP CHANGE** to prompt the instrument to present the loop to the streaking station door of the WASP instrument for easy removal (Figure 29).
- Press the emergency button to unlock the doors, go to the front-left side of the machine and open the door (Figure 30).
- Remove the loop by gently gripping the plastic of the loop (not the metal part) and pulling the loop towards you until it comes off of the Robot.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En Street Constant Sinal Mount Sinal	Policy # MI_SM_WASP	Page 28 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 29 LOOP CHANGE option in the OPERATIONS menu screen



Figure 30 Jane in loop change position

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 29 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

### (d) Replacing the Loop on Jane

• Align circle end of the loop so that it fits inside the hole on Jane and rotate and gently push the loop until it snaps back into the Robot.

### **Running a Loop Washing Cycle**

- Loop wash is performed daily on each loop at the beginning of the day then loop washes are programmed to occur automatically during the rest of the day.
- Make sure a tube of the cleaning solution is placed in the back of the instrument inside the metal, hollow tube (Figure 31). The tube of the solution must have the cap off.



Figure 31 Tube positioning in the cleansing solution holder

- Reset the Machine.
- Press the **OPERATIONS** menu at the bottom of the main menu screen.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 30 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• In the **OPERATIONS** menu screen press the **WASH LOOP** icon to enter in the loop washing menu (Figure 32).



Figure 32 Wash Loop icon in the **OPERATIONS** menu

• Select the loop to be washed clicking on the icon and press OK (Figure 33).



Figure 33 Loop selection in the washing loop menu screen

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 31 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

# Tarzan (Robot)

• Use an alcohol swab to wipe off Calipers (located at the front of Tarzan) and Plate Gripping fingers (located at the back of Tarzan).

# Wipe Down

• Wipe down the general inside of the Wasp, particularly where media coloring has come off inside the machine.

# Weekly Maintenance

The activities described in this list should be performed on a weekly base.

#### (a) General Machine

• All the internal part of the machine should be wiped down. Use an absorbent single cloth/tissue (NOT ABRASIVE) and avoid recycling. Use isopropyl alcohol at 70%.

### (b) Operator Station

- Inspect and clean the Rejection Bin located by the printer on the outside of the WASP® instrument. The Rejection Bin Pad should be removed and replaced with a new one.
- Wipe underneath the printer and the rejection bin area.
- The Media Carousel should be wiped down. Use an absorbent single cloth/tissue (NOT ABRASIVE) and 70% alcohol, and avoid recycling.

### (c) TARZAN (ROBOT)

• The Calipers and the Plate Gripping fingers located on the Tarzan Robot should be wiped off by using an alcohol swab.

### (d) Computer

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

<b>CUEN English</b> Known Sinal Mount Sinal Mou	Policy # MI_SM_WASP	Page 32 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• The computer should be restarted at least once in a week in case it's switched on 24h/24 and 7d/7.

#### (e) Camera

• Clean the camera protective glass and the camera background using a NONABRASIVE dry cotton swab or a paper tissue.

### **Monthly Maintenance**

#### (a) Sensors and Barcode reader

- Sensors and barcode reader(s) should be cleaned using a dry cotton swab or a Kim Wipe only. If sensor has foreign material on it water can be used, but no chemical agent should be used on the sensors or reflectors. Make sure to clean the following sensors and their reflectors:
- Barcode Reader-Gate (1) Figure 34 (front of the instrument).
- Bar code checker (2) (located at the front of the instrument in the middle).
- Incoming pallet Sensor and Reflector.
- Docking station sensors and Reflector.
- Printer Sensor and Reflector (located in on the WASP platform between the printer and smoke colored plexi-glass of the WASP Cover.
- Stacker Sensor and Reflector (Located on the left (3L) and right side (3R)of the media stacker inside the instrument).
- Carousel Sensor and Reflector (located at the top of the carousel inside the machine where the plates come from the carousel to the streaking station).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN The first the Mount Sinal Mospital	Policy # MI_SM_WASP	Page 33 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 34 Barcode Readers and Stacker Sensor

# (b) Pallets and Broth Pallets

• Pallets should be soaked for 10 minutes in warm water and an everyday detergent. They should then be rinsed and wiped off or allowed to air dry.

### (c) Touch Screen Monitor

• Clean the touch screen monitor with regular PC screen cleaner.

# (d) Specimen Exit Aisle

• Wipe down the specimen exit aisle

# (e) Conveyor Belts

• Wipe down the Feeder conveyor belt and the Inoculated Media Exit conveyor belt (both located at the front of the instrument).

# (f) Computer Keyboard and Mouse

• Using an air gun, clean out the dust in the keyboard and mouse.

# (g) General Wiping of Instrument

• Wipe down the outside of the instrument.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN In the Avenue of Microbiology	Policy # MI_SM_WASP	Page 34 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

# **Pre-run Operations**

### Loading Media Plates into the Carousel

- It is possible to load the media plates into the carousel when the machine is in **READY** or in **CYCLE** state.
- Select the **CAROUSEL** icon in the main screen, and open the media plate loading menu (Figure 35).



Figure 35 Carousel menu icon in the main menu screen

- Select the silo to be loaded by touching the silo number from the left side of the screen. This will prompt the carousel to rotate so that the silo you selected is in the front loading position. The silos in red mean they are empty, if they are in green it means the silo could contain plates. This will also unlock the carousel repair.
- The right side of the screen will list the media type configured for each silo. Be sure to load the correct media type in each silo.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN In the Avenue of Microbiology	Policy # MI_SM_WASP	Page 35 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 36 Selection of silo number in the media plates loading carousel screen

• Load the appropriate media into the silo **lid-side up** (Figure 37). And press again the silo to load (the ball becomes green)



Figure 37 Load the media into the carousel

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 36 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Select another silo by touching its number on the software screen, or if done loading the carousel, close the carousel door (Figure 38). Select the **OK** button in the middle to close the screen (Figure 36).



Figure 38 Close the carousel door

# Specimen Labeling and Preparation

- Wipe any soiled specimens before putting on the machine.
- Make sure that each specimen being placed into the instrument has a barcode present.
- Each barcode should be complete and undamaged, so the barcode reader(s) on the instrument can read the individual barcode on each specimen.
- Each specimen container type (ESwab, Vacutainer, ETM, and UriSwab) is placed into a Delrin® pallet that matches the specimen type.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\
CUHN En fan A Mount Sinal Mospital Mosp	Policy # MI_SM_WASP	Page 37 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Specimens should be placed loosely in each hole of the pallet and they must sit all the way down in each hole of the pallet.
- Check for liquid level and duplicate swabs.
- Make sure caps are placed correctly on each container to ensure proper de-capping and recapping by the instrument.

Note: It is not necessary to place a specimen into each hole of a pallet because the instrument simply skips spaces that do not contain a specimen and continues to the next specimen or pallet

Figure 39 Delrin® pallets with specimen containers

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 38 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

## **Loading Pallets**

- Special Delrin® pallets have been designed to hold the specimen containers (Figure 40). A code present on the pallet helps for the identification of the suited pallet for the defined specimen container.
- Be sure to use the proper pallet per container type in order to avoid an inadequate specimen container handling.
- Make sure only appropriately capped/screwed containers are placed on pallets for proper decapping and recapping by the instrument. Not fully or wrong closed containers may create problems during the capture by the Tarzan robot; a container wrongly manipulated by the robot can crash and collide during the movement inside the machine.



Figure 40 Example of containers located in the corresponding pallet

- Place the pallets with the samples onto the Specimen Feeder Conveyor Belt. Each pallet must fit onto the Specimen Feeder Conveyor Belt so that the sides of the pallet are within the metal guides on each side of the conveyor belt (Figure 40 & 41).
- The Specimen Feeder Conveyor Belt will move to transfer automatically any pallet to the loading position in order to be processed by the instrument.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN The first the Mount Sinal Mospital	Policy # MI_SM_WASP	Page 39 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 41 Pallet positioning in the specimen feeder conveyor belt

• Pallets are processed in the following order (Figure 42). Every time the instrument will check all the pallet positions and will process only the available samples.



Figure 42 Container processing order inside the pallet

# **Loading Broths**

• The WASP® instrument can be used for broth enrichment from a primary specimen. Broths are placed in semi-circle Delrin® pallets placed in the Broth Disk carousel located at the back of the instrument (Figure 43).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN THE REAL PRODUCT Single And	Policy # MI_SM_WASP	Page 40 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 43 Broth carousel

• To load broths into the semi-circle pallets first select **Disk & Broth Carousel** from the main screen of the WASPCore Software (Figure 44).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUHN En the Mount Sinal Mount	Policy # MI_SM_WASP	Page 41 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 44 DISK & BROTH CAROUSEL menu in the MAIN screen

- In the Disk Broth menu, the current configuration for the Disk Broth Carousel is shown (Figure 45).
- On the screen, each quarter of the semi-circle has been marked by an identifier A1, A2, B1, B2. The same identifier is reported on the correspondent Delrin® pallet. On each identified quarter is reported the name of the broth as configured. The image shows the actual positioning of the table.
- Only the sectors present in the back external part of the carousel can be loaded at a given time. If the sector you want to load is internal, first press the **ROTATION** button to physically rotate the Disk Broth carousel so you have the correct sector on the outer side of the instrument.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN English Contraction Contr	Policy # MI_SM_WASP	Page 42 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 45 Broth load/unload menu screen

• When the sector to be loaded is on the back side of the instrument, press the **UNLOCK** button at the bottom of the screen to unlock the door of the carousel so that the door can be opened (Figure 46).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 43 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 46 Unlocked button in the load/unload broth menu screen

- Move to the rear of the instrument and pull the door to open it.
- The semi-circle pallets are removable for cleaning purposes. To remove the pallet, pull the piece towards you. To replace the pallet, line it up with the metal guides and push it toward the instrument direction (Figure 47).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 44 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 47 Delrin® broth pallet positioning

• If present, remove the already inoculated broths from the pallet you want to load. The already inoculated broths can be easily identified as they are automatically labelled by the WASP. Then take the unlabelled broth tubes and place them in the holes of the correct quadrant according to the Current Configuration.

Note 1: The Operator MUST be sure to place the correct broths in the correct location. Note 2: the machine may still be in cycle, but you are safe to load the broths as you are not inside of the machine where the moving mechanical pieces are located. Note 3: If the machine is processing broths, the carousel rotation shall be disabled until the broth enrichment process has been completed.

- After finishing loading the broths for each designated quadrant, touch that quadrant identifier (A1, A2, B1, and B2) in the WASPCore software to teach it you have added broths. If the circle is red, because the sector was empty, the circle will turn to green showing it has been loaded (Figure 48).
- If you need to load the other side of the carousel (semi-circle currently inside the machine), close the door and press the **ROTATION** button to rotate it. Follow the same steps for loading the broths.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 45 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Press **CLOSE** to close the window when you are done loading the broths.



Figure 48 Broth loading confirmation

• The containers on each pallet are processed following the order shown in Figure 49

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN Restance Mount Sinal Mospital Mosp	Policy # MI_SM_WASP	Page 46 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 49 Broth processing order

#### **Post-run Operations**

#### **Unloading Pallets**

#### (a) Automatic Unloading

- Once the pallet processing has been completed, it will be automatically pushed onto the Processed Specimen Exit Aisle (Figure 50).
- The Processed Specimen Exit Aisle can hold 6 pallets. The system will automatically alert when the aisle is full. If the exit aisle is filled with pallets, the WASP will stop processing specimens until the pallets are removed and there is room for more pallets.
- Once a pallet has been processed and unloaded, place the specimens in the appropriate storage containers as defined in the laboratory procedures.
- The pallet(s) may then be refilled with specimen containers to be processed and placed back onto the specimen **Feeder Conveyor Belt**.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 47 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 50 Processed specimen exit aisle

## (b) Manual Unloading

- To manually unload a pallet from the instrument, it is necessary to stop the cycle. If the machine is in **CYCLE** or in **PAUSE**, click on STOP in the main screen.
- Press **OPERATIONS** (1) menu from the Main Screen of the WASP® software and select **PALLET UNLOAD** (2) (Figure 51).
- The pallet present in the loading area will be pushed out into the pallet unload area.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN In the Avenue of Microbiology	Policy # MI_SM_WASP	Page 48 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 51 Pallet unload in the operation screen

#### **Unloading Streaked Plates**

#### (a) Automatic Unloading

- When the pre-selected number of plates per pile is reached, the plates are automatically unloaded from the Sort-Out Carousel (if available) onto the Plate Conveyor Belt, through the Stacker component.
- According to the defined protocol, the machine will automatically select the correct silo for the streaked plate stacking.
- After the unloading in the Plate Conveyor Belt, the plate stacks may be removed and handled as defined in the laboratory procedures.

#### (b) Manual Unloading

• A manual operation can force the plates present in the stacker or into the Sort-Out carousel to be unloaded on the conveyor belt.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 49 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- If the machine is in **CYCLE** or in **PAUSE**, it is necessary to **STOP** the cycle by pressing the **STOP** button on the main screen.
- Select **OPERATIONS** (1) from the Main Screen of the software (Figure 52).
- Select the UNLOAD SORT OUT CAROUSEL operation (2).

Figure 52 Unload sort out carousel option in the Operation menu screen

- In the unload sort out carousel screen, a green profile will correlate with the plates currently present on the stacker with the corresponding sort out silo (3) (Figure 53).
- To unload plates from a defined sort out silo, press on the corresponding unload button (4).
- If the unload all button is pressed, the machine will sequentially unload plates from all the sort out silos (5).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN In the Avenue of Microbiology	Policy # MI_SM_WASP	Page 50 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Press OK to exit the screen when finished.
- The plates may be removed from the conveyor belt and placed into an incubator

**Note:** If the stacks of plates reach the end of the conveyor belt, the WASP may stop processing specimens until the last stack is removed to make room for new processed plates.



Figure 53 Unload Sort out carousel menu view

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Restance Wound Single Mount Single Moun	Policy # MI_SM_WASP	Page 51 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

### **Unloading Broths**

- Broths can be unloaded while the instrument is in cycle. To unload broths first press DISK & BROTH CAROUSEL from the Main Screen of the Software (Figure 44)
- In the Disk Broth carousel screen, if the sector you want to unload is internal, first press the **ROTATION** button to physically rotate the Disk/Broth carousel so to have the correct sector in the outside part of the instrument (Figure 45).
- When the sector to be unloaded is in the back part of the instrument, press the **UNLOCK** button at the bottom of the screen to unlock the door of the carousel so that the door can be opened (Figure 46).
- Move to the back part of the instrument and pull the door to open it.
- Remove the broths directly from the Delrin® pallet, or remove the entire Delrin® piece by sliding it back and towards you.

**Note:** If you remove the whole piece, remember to replace the piece when finished removing the broths.

• When you are finished with the Carousel close the door. Then press OK in the Disk Broth screen of the software.

#### **Managing Specimen Rejections:**

• All specimens that are not processed or fully processed by the instrument will be placed into the rejection bin located by the printer. All specimens that are rejected by the instrument must either be hand planted by a technologist or placed through the instrument again.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Residence Advant Single Mount Single Mo	Policy # MI_SM_WASP	Page 52 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

#### IC Swabs - WASP Rejection Guideline

When Scanning in SoftLab	Swab Appearance	Entry in SoftLab	Reason	Action
N/A	Low media volume (or none)	Received only	Insufficient quantity	If low volume: plant manually (use the WASP Manual Station to print label and load in WASP incubator) If completely dry: reject
UHN swab – order not found	N/A	N/A	Not interfaced from EPIC	Accession order in EPIC
UHN swab – order not found	N/A	N/A	Order cancelled in EPIC	Search in EPIC specimen inquiry to see who cancelled the order. Call ward to confirm
Cannot scan	Barcode cut off or not printed properly	Not received or plated	WASP cannot read barcode	Print new label, load back onto WASP
Scans properly	Label very high	Not received or plated	WASP cannot read barcode (most common on WASP2)	Print new label, attach lower on tube, load back onto WASP
UHN swab – one EPIC number, two SoftLab orders	N/A	Not received or plated	Duplicate order created when order interfaced from EPIC to SoftLab	Print the MSH label for one SoftLab order, reject + finalize the second Softlab order as a duplicate order
Scans properly	Nothing out of the ordinary	Not received or plated	Variable reasons. Most likely nothing wrong but in reject bucket after machine reset due to	Load back onto WASP. Mark in case swab is rejected again. Recommended: if unable

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Mount	Policy # MI_SM_WASP	Page 53 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

			WASP mechanical error, OR: SEE BELOW	to determine why swab was rejected load again and check WASP Info tab to see provided error message
Scans properly	Nothing out of the ordinary	Not received or plated	Test is for Serratia, Candida, etc. (check media). WASP carousal set to configuration that does not include those tests.	Change to correct configuration or plate manually (Serratia is manual for now)
Scans properly	N/A	Order cancelled	MSH sometimes cancels orders for varying reasons e.g.: Emergency Department (ED) orders will automatically cancel if specimen is not processed before patient is discharged	If ward is MSH ED: add new order. Copy all relevant information from previous order. If ward is MSH but not ED: call ward and ask if they still want test done. Sometimes nurse made a duplicate order and cancelled the wrong order
Scans properly	N/A	Received and plated	Specimen was reloaded onto WASP after it was already plated	Check in WASPLAB to see if plate is in incubator (request MLT to check in Plate Browser if unfamilar). If it is not in the system, manually plant a back-up plate. NOTE: only applies if system is online. Also, check to see if there are plates stuck on the line before making a new plate

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 54 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

Listed in this section are several reasons why specimens may be rejected by the instrument.

## Inadequate liquid in Specimen Container

• To collect the sample the loop dips down a certain depth into the container. The depth is defined by the dipping quota parameter that is set for each container type (Figure 54).



Figure 54 Loop insertion in the tube for the specimen pick up

• After the loop has been dipped in the specimen container, the Jane robot moves the loop in front of the camera system for the meniscus check. The camera, that is located behind the streaking station, will take a picture of the loop to verify if the sample is present in the loop (Figure 55).

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUHN Entry Known Sind Mount Sind	Policy # MI_SM_WASP	Page 55 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• If the camera does not detect a droplet of the specimen in the loop after three consecutive attempts, the system will re-cap the specimen and place it into the rejection bin. At each attempt to collect specimen the loop will be inserted deeper into the container as defined in the dipping quota options.



Figure 55 Camera system for the loop check

- The media plate located within the streak area will be picked up by Tarzan and have a label printed that has an "X" through the data on the label. This plate will be placed on the stacker and at some point will need to be removed by a technologist from the stack.
- Specimens with insufficient liquid sample will need to be planted by hand as the instrument will continually reject the specimen if placed back in a pallet to be run again.

# **Rejection Bin**

Empty rejection bin regularly. Process rejects in next available load – do not batch for the end of the shift. If the WASP is reset due to a mechanical issue it will deposit swabs that have no issues into the rejection bin. It is easier to load the swab directly back into a pallet if it does not need to be picked out from swabs with actual problems.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

<b>CUHN</b>	Policy # MI_SM_WASP	Page 56 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- 1. Check the tests on the swab before loading into pallet. Common issue is accidentally loading a vaginal swab WASP will make gram slide but not wet mount and will not reject swab.
- 2. After a certain time during evening shift PMH will start sending porters with specimens across the bridge between buildings. None of the specimens are accessioned. Recommended: Accession in EPIC before loading.

## Failed Initial Barcode Scan

- Specimens may be rejected by the instrument at the initial barcode scan
- No plates will be present for the specimen as it is rejected immediately after being taken from the pallet or conveyor belt
- Specimens should be inspected to make sure a barcode is present on the container
- Specimens should be inspected for damaged barcodes or the presence of more than one barcode on the specimen tube (more than one barcode results in a rejection of the specimen) NOTE: A barcode filter can be set up by Copan WASP Team for this situation as long as the different barcodes have some differentiating factor between them
- If an active LIS is being used on the instrument, a technologist should be sure to check that the specimen has been received and has data from the LIS to support the instrument in processing it.
- Specimens rejected at initial barcode scan can be hand planted or relabeled and placed through the instrument to try again

#### Alarm Causing Specimen to be partially processed

• If an alarm occurs that requires the user to press the emergency, any specimen present in the docking station or vortex has not been processed or completely processed by the instrument.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

<b>CUHN</b>	Policy # MI_SM_WASP	Page 57 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Specimens present in the docking station should be left in the docking station. When • resetting the instrument, Tarzan will remove the re-capped specimen and place it into the rejection bin.
- This specimen may then be re-run through the instrument once the alarm has been • resolved.
- Specimens in the vortex have not been processed by the instrument past the initial • barcode scan.
- Specimens in the vortex should not be removed as Tarzan will collect the specimen and • place it into the rejection bin where it can be rerun.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN In the State of Mount Single Mount Sing	Policy # MI_SM_WASP	Page 58 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

## **Changing Printer Label Roll**

• Move the printer outwards by pulling the handle, to have access to the printer front-part (Figure 56).



Figure 56 Printer sliding back

• Press the line button to set the printer **OFFLINE** (Figure 57).



Figure 57 Printer Offline

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN In the Avenue of Microbiology	Policy # MI_SM_WASP	Page 59 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Open the printer top cover (Figure 58).



Figure 58 Open the printer top cover

• Turn the head lock lever clockwise to unlock the **print head** (Figure 59).



Figure 59 Unlock the print head

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 60 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Press the tab at the front of the printer to open the **dispenser unit** (Figure 60).



Figure 60 Open the dispenser unit

• Pull out the **roll holder guide** and remove the finished label roll (Figure 61).



Figure 61 Remove the old label roll

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CURNER Month Sinel Month Sinel	Policy # MI_SM_WASP	Page 61 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Take a new label roll and remove about 80 cm of labels (Figure 62).



Figure 62 New label roll

- Load the label roll to the roll holder, roll it all the way in and push the **label roll holder guide** (1) against the roll (Figure 63).
- Pass the label roll in the middle of the **roll sensor** (2).



Figure 63 Label roll loading

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CURNER Mount Sinel Montholic Microbiology	Policy # MI_SM_WASP	Page 62 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Pass below the **roll damper** (3) and the **roll sensor guide** (4) (Figure 64).



Figure 64 Label roll loading

• Pass the roll through the gap of the dispenser unit to the inside of the printer (1) then adjust the dispenser roller to the center of the label (2) (Figure 65).



Figure 65 Load the label roll

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUHN En for Mount Single Mount	Policy # MI_SM_WASP	Page 63 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Pass the roll under the label sensor as in Figure 66.



Figure 66 Label roll sensor

- Pass the roll below the **roll rewinder** then attach with the clip (Figure 67).
- Turn the **roll rewinder** counter clockwise with hand to wind the roll, until the first label is in correspondence of the dispenser unit.



Figure 67 Fix the label roll to the roll rewinder

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUHN HAR AND MOUNT Single Mount	Policy # MI_SM_WASP	Page 64 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Close the **dispenser unit** (Figure 68).



Figure 68 Close the dispenser unit

- Press the **print head** down until the **head lock lever** is locked (Figure 69).
- Close the **top cover**.



Figure 69 Lock the head lock lever

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN En Star Contraction Sinol Mount Sinol	Policy # MI_SM_WASP	Page 65 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Press **FEED** to check that the labels are correctly ejected, remove the labels.
- Set the printer **ONLINE** (Be sure that the printer is **ONLINE** before starting the WASP®.) (Figure 70).



Figure 70 Set the printer online

• Put the printer back in the operating position.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 66 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

## **Changing Printer Ribbon**

- Make sure the instrument is completely stopped.
- Move the printer outwards by pulling the handle, to have access to the printer front-part (Figure 71).



Figure 71 Printer sliding back

• Press the line button to set the printer **OFFLINE** (Figure 72).



Figure 72 Printer Offline

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN The first the Mount Sinal Mospital	Policy # MI_SM_WASP	Page 67 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Open the printer **top cover** (Figure 73).



Figure 73 Open the printer top cover

- Turn the **head lock lever** clockwise to unlock the **print head** (1) (Figure 74).
- Press the tab on the tip of the **ribbon rewind spindle** to pull out the **ribbon rewind spindle** (2).



Figure 74 Unlock the print head UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUHN En the Mount Sinal Hospital Mount Sinal Hospit	Policy # MI_SM_WASP	Page 68 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Pull to remove the ribbon from the **ribbon rewind spindle**.
- Push the **ribbon rewind spindle** all the way in.
- Load the ribbon to the **ribbon supply spindle** (Figure 75).



Figure 75 Load the ink ribbon

• From the **ribbon supply spindle** pass the ribbon below the **print head** (Figure 76).



Figure 76 Load the ink ribbon

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 69 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

• Wind the ribbon counter clockwise to the **ribbon rewind spindle** and **grip sheet** (Figure 77).



Figure 77 Fix the ribbon to the ribbon rewind spindle

• Press the **print head** down until the **head lock lever** is locked (Figure 78).



Figure 78 Lock the head lock lever

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Restance Wound Single Mound Single Moun	Policy # MI_SM_WASP	Page 70 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- Close the **top cover**.
- Set the printer **ONLINE** (Figure 79).

IMPORTANT: Be sure that the printer is ONLINE before starting the WASP®.

• Place the printer back in the operating position.



Figure 79 Set the printer Online

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

CUEN En fan Konst Sinal Hospital Monte Sinal Hospit	Policy # MI_SM_WASP	Page 71 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

#### Troubleshooting

- If the WASP® system malfunctions or operates in an unusual way, you should attempt to solve the problem by following the steps listed in this section of the manual. Attempts to service the instrument in ways that are not listed in this section are strongly discouraged.
- If you cannot repair the malfunction of the instrument by following the listed suggestions, • please call the WASP® helpline immediately toll free: 1-877-WASP-HLP.
- There are two types of system malfunctions discussed in this section:

Alarm Messages — appear on the Main Screen and under the "Alarms" button. They occur when the system has encountered a known problem. Messages and corrective actions are listed on the following pages of this section.

**Start Condition Messages** — appear under the "Info" button on the Main Screen of the WASP® software. They occur when there are specific circumstances that prevent the WASP® from starting a protocol. Messages and corrective actions are listed on the following pages of this section.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

CUEN Rest and Mount Sinal Mospital Mosp	Policy # MI_SM_WASP	Page 72 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

#### **Alarm Messages**

- When the system encounters an error in the functioning of the instrument, the instrument will pause and an alarm will occur.
- The presence of the alarm is indicated to the user by a Visual and/or Audible system and by a description on the software main screen (Figure 80).



Figure 80 Visual alarm indicator system and the 3 visual indications

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.
<b>CUHN</b>	Policy # MI_SM_WASP	Page 73 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

- The visual indicator is located on top of the media plate carousel as a column lamp with three different colors: green, yellow and red.
- When the machine is running: The green color is lighted on the visual indicator.
- When an alarm is present, two possible situations may occur:

**Green/yellow colors are both lighted:** an alert is present on the machine. The cycle is stopped because an operation is required from the user in order to continue the cycle. This eventuality occurs in four situations:

- a. The pallet unload area is full
- b. The processed plate exit conveyor is full
- c. The media plate carousel column is empty
- d. The broth/ATB table is empty
- e. The rejection bin is not in the correct position

**Red/yellow/green colors are lighted:** an alarm status is present on the machine. The cycle is stopped because a problem has occurred which prevents the cycle from continuing; the operator shall press the Emergency button in order to solve the problem and eventually access the inside of the machine.

- The description of the Alarm message is visualized in the black **Next to Do** window (1) on the Main menu screen (Figure 81). The alarm description is also available in the Alarms menu (2).
- In the **Next to do** window the alarms are evidenced in three different colors: **Red:** all the alarm status that require an Emergency stop to access the inside of the machine.

**Yellow:** all the alert status that require an operation from the user. **Orange:** all the pre-alert status.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures

CUHN Hand Kan Mount Sinal Mospital Mosp	Policy # MI_SM_WASP	Page 74 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 81 Alarms icon and Next to do section in the Main menu screen

- In the main screen, press **SILENCE ALARM** (3) button to turn off the Audible, Visual, or both alarms.
- When an alarm occurs, the alarm description is reported in the main screen and the **ALARMS** icon in the Main menu screen is flashing.
- To visualize the alarm description, click on the Alarms icon and enter in the menu.
- In the Alarms screen top window all the instrument components are listed, the one(s) involved in the trouble are highlighted with a small red circle that indicates the number of errors related to that component (Figure 82).
- To display the alarm description(s) related to the component, click on the corresponding icon that appears underlined (1). On the bottom part of the screen, the code and the description of the alarm will appear (2).
- Take note of both code and description to get proper assistance from the WASP® system helpline.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 75 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	



Figure 82 Alarms menu screen

• A list of the most recent alarms on the instrument may be available in the LAST ALARMS (Figure 83) section of the STATUS menu screen. Click on the STATUS (1) icon in the Main menu screen and select the Last Alarms tab (2) to see all the listed latest alarms in the upper space (3). The latest alarms will be visualized by date and hour, code and description.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed. Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use. Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN Engine Mount Sinal Mospital Mospit	Policy # MI_SM_WASP	Page 76 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

Protocol in u	ISO:	Protocol Selection mode:		Status:		Incinerator's temperature:	
		TECHNOLOGIST				v	7
Container:		Carousel configuration:		KENUA			
		- TEMP-					
Code			Description				
1674.2	Reset Machine						
1670.3	Tarzan not Power On						
1672.10	Loading belt not moving		(3)				
1670.4	Jane not Power On						
1670.8	Loop rotation motor: incorrect start u	ip position					
	TARZAN: 9(2)				188		
			//2020/02/08/08/09/09/08/08				
Robot F	Position JANE:						

Figure 83 Last alarms screen in the status menu

- In the case of alarm, it is necessary to reset the machine. First press the emergency red capped button just below the PC monitor. This operation allows the opening of the machine for intervention.
- Areas that must be cleared when an alarm occurs are: the streaking station, the Plate Grippers of Tarzan and the label present in the printer peel off zone.
- IMPORTANT: DO NOT REMOVE ANY SPECIMEN CONTAINER PRESENT IN THE DOCKING STATION, VORTEX, CENTRIFUGE, OR IN THE TARZAN GRIPPERS.

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUEN Reaction of Microbiology	Policy # MI_SM_WASP	Page 77 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

## **Daily Quality Control**

Quality Control must be done performed daily and document results in SOFTLab Total QC Complete Forms for DAILY MONITORING – MAIN LAB RM 1470 (WASP)

Sterility Check Schedule				
Pseudo check #1	12AM - 8AM	8AM - 4PM	4PM- 12AM	
Sterility check #1	12AM - 8AM	8AM - 4PM	4PM- 12AM	
Pseudo check #2	12AM - 8AM	8AM - 4PM	4PM- 12AM	
Sterility check #2	12AM - 8AM	8AM - 4PM	4PM- 12AM	

Settle Plates Schedule						
Vortex	12AM- 4AM	4AM-8AM	8AM-12PM	12PM-4PM	4PM-8PM	8PM-12AM
Platform	12AM- 4AM	4AM-8AM	8AM-12PM	12PM-4PM	4PM-8PM	8PM-12AM
External	12AM- 4AM	4AM-8AM	8AM-12PM	12PM-4PM	4PM-8PM	8PM-12AM

For all out-of-range QC results, document findings clearly in QC log or TQC and inform Charge Technologist or QA Technologist immediately.

For settle plates, any number of staphylococcus, enterococcus, and coliform are to be noted. Inform charge if **Coliforms are seen and no swabs were dropped**.

## **Record of Edited Revisions**

Manual Section Name: WASP Operations Manual

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\

CUHN English Konstant	Policy # MI_SM_WASP	Page 78 of 78
Quality Manual	Version: 2.0 CURRENT	
Section: Specimen Processing Procedures	Subject Title: WASP User Manual	

Page Number / Item	Date of Revision	Signature of
		Approval
Annual Review	May 09, 2014	Dr. T. Mazzulli
Annual Review	May 09, 2015	Dr. T. Mazzulli
Annual Review	May 09, 2016	Dr. T. Mazzulli
Updated UHN/MSH logo in header		
Annual Review	May 09, 2017	Dr. T. Mazzulli
Update and clarification to maintenance procedures	November 6, 2017	Dr. T. Mazzulli
Annual Review	May 09, 2018	Dr. T. Mazzulli
Annual Review	May 09, 2019	Dr. T. Mazzulli
Annual Review	May 09, 2020	Dr. T. Mazzulli

Full document review included in all updates. Bi-annual review conducted when no revision had been made within 2 years.

Page Number / Item	Date of Revision	Edited By
Minor formatting changes	April 11, 2021	Jessica Bourke
Updated procedures to new WASP model.	October 10, 2023	Mildred Choy

UNIVERSITY HEALTH NETWORK/MOUNT SINAI HOSPITAL, DEPARTMENT OF MICROBIOLOGY

NOTE: This document is Uncontrolled When Printed.

Any documents appearing in paper form that do not state "CONTROLLED COPY" in red print are not controlled and should be checked against the document (titled as above) on the server prior to use.

Management System\UHN\_Mount Sinai Hospital Microbiology\Standard Operating Procedures\Specimen Processing Procedures\