SOLO®
PRIMA
Automatic Wrapper
User's Guide

©Mettler-Toledo, Inc. 2001

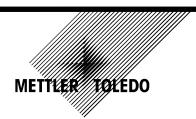
No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose without the express written permission of Mettler-Toledo, Inc.

U.S. Government Restricted Rights: This documentation is furnished with Restricted Rights.

METTLER TOLEDO®

Customer Feedback

If you have a problem with one of our products or publications, or just a suggestion on how we can serve you better, please fill out this form and send it to the address on the opposite side of this page (U.S. postage paid), or fax it to us at (614) 438-4355. Your feedback will help us to improve product performance, quality, and service.



Attention: Retail Quality Manager - MTWR

Part / Product Name:		
Part / Model Number:		Date:
Provided By:		
Customer Name:		
Address:		
Phone Number:	Fax Number:	
Your comments:		
Do not write in space below. For METTLER TOLEDO use only. Respon	nse (if appropriate) and corrective action taken.
SOLO® PRIMA User's Guide 16134000A 5/01		

METTLER TOLEDO 1900 Polaris Parkway Columbus, Ohio 43240

METTLER TOLEDO @ is a registered trademark of Mettler-Toledo, Inc.

©2001 Mettler-Toledo, Inc.

FOLD THIS FLAP FIRST



NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS

PERMIT NO. 414

COLUMBUS, OH

POSTAGE WILL BE PAID BY ADDRESSEE

Mettler-Toledo, Inc. Retail Quality Manager - MTWR P.O. Box 1705 Columbus, OH 43216 USA



FCC Notice

This device complies with Part 15 of the FCC Rules and the Radio Interference Requirements of the Canadian Department of Communications. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

PRECAUTIONS

READ this manual BEFORE operating or servicing this equipment.

FOLLOW these instructions carefully.

SAVE this manual for future reference.

DO NOT allow untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

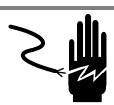
ALWAYS DISCONNECT this equipment from the power source before cleaning or performing maintenance.

CALL METTLER TOLEDO for parts, information, and service.





FOR CONTINUED PROTECTION AGAINST SHOCK HAZARD CONNECT TO PROPERLY GROUNDED OUTLET ONLY. DO NOT REMOVE THE GROUND PRONG.





DISCONNECT ALL POWER TO THIS UNIT BEFORE REMOVING THE FUSE OR SERVICING.

CONTENTS

Introduction	1-1
Major Components	1-2
Control Panel	
General Specifications	1-4
Dimensions	1-5
Trays	1-6
Safety Information	2 -1
Stopping the Machine	
Covers	
Safety Guidelines	
Before Cleaning	
Film	9 1
Film Specifications	
Loading Film	
Remove Empty Roll	
Operating Instructions	4-1
Starting the Machine	4-1
Wrapping and Weighing Programs	
Efficient Sequence of Operation in Weighing and Labeling Mode	
Sealing Belt Temperature	
Loading Trays	
Tray Reference	
Package Wrapping Check	
Machine Idle Time	
Machine Stop Due to Error	4-7
Cleaning and Maintenance	5-1
•	
Daily Cleaning	
Weekly Cleaning and Maintenance	
Lubrication	5-4

1

Introduction

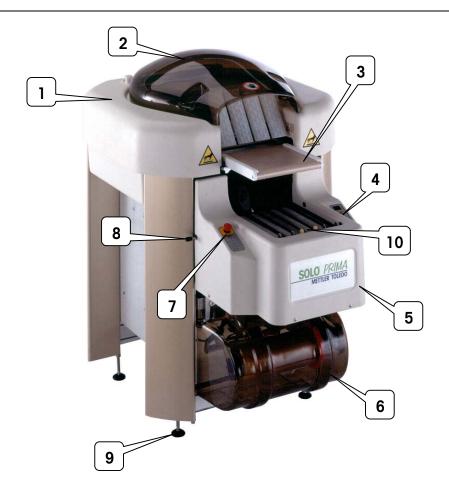
The **METTLER TOLEDO®** SOLO® Prima Automatic Wrapper has been designed to wrap a variety of products using a single size of stretch film. You will find the wrapper is versatile, easy to use, and will optimize your production time and material usage.

The Prima wrapper is designed to wrap tray-contained products with stretch film. The Prima is not designed to wrap loose or liquid products. The Prima wrapper is designed for use in prepackaging backroom environments. It is not intended for washdown or hazardous area operation or for operation in environments of extreme dust, heat, or humidity.



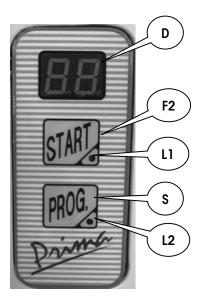
SOLO® *PRIMA*(Shown with Model 8461 Scale Controller)

Major Components



1	Cover
2	Top Cover
3	Sealing Belt
4	Control Panel
5	Front Cover
6	Film Supply
7	Emergency Stop Button
8	Infeed Cover Release Lever1
9	Leveling Foot (4)
10	Infeed Safety Interlock

Control Panel

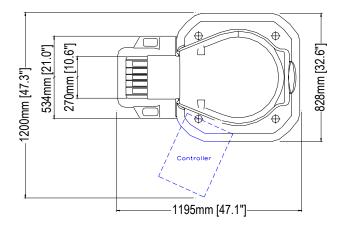


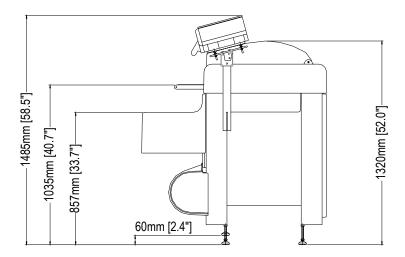
D	Display for Wrapping Program and Error Codes
F2	Start Button
S	Wrapping Program Select Button
L1	Low Voltage Indicator LED
L2	Program Change Mode Indicator LED

General Specifications

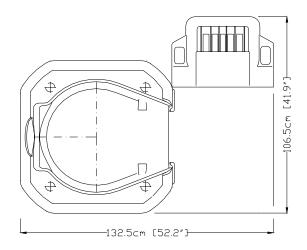
Shipping Weight	ka	155
Shipping Weight	kg 	
	lb	341
Speed	Packs/minute	12
Voltage	Volts	115 VAC/11.2 A, Single Phase
		208 VAC/6.2 A/50-60 Hz, Single Phase
		230 VAC/5.6 A/50-60 Hz, Single Phase
Power Consumption	VA	1288
Recommended	°F	+40°F to +95°F
Operating Temperature	°C	+5°C to +35°C
Range		
Humidity	%	5% to 95% Non-condensing
Agency Approvals		ETL Approval
		Conforms to UL 763 and CSA C22.2
Noise Level	db	Equivalent continuous weighted sound pressure
Specifications		level at the workstation is 75 dB. Tests
		performed in conformance with EN ISO 11202
Film Specifications	11" stretch	Film is available through Mettler Toledo
	film	Aftermarket. Contact your METTLER TOLEDO®
		representative for recommendations for other
		films that will work on the wrapper.

Dimensions





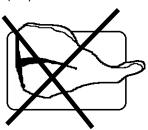
Prima Dimensions (Shown with Model 8461 Scale Controller)



Prima Film Loading Clearance Requirements (shown with front cover open)

Trays

All products must be completely contained in the trays. The trays must be stiff enough to support the product properly.



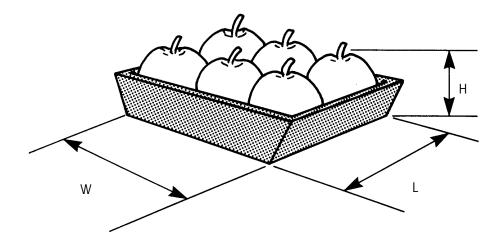


NOTE

The dimensions of the trays must fall within the following limits.

PRIMA tray specifications:

	Minimum (mm)	Minimum (Inches)	Maximum (mm)	Maximum (Inches)
L	120	4.7	300	11.8
W	100	3.9	230	9.1
Н	10	0.4	160	6.2

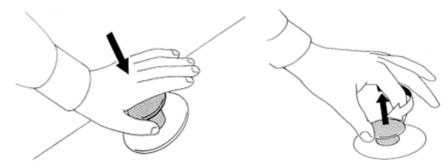


2

Safety Information

Stopping the Machine

The SOLO® Prima is equipped with an Emergency Stop Button located on the left of the front cover, as shown below.



To stop the machine, push the Stop Button.

To restart the machine, turn the Stop Button and pull it back out, then press the START button.

The possible ways of stopping the machine are:

- Pushing the Stop Button.
- Opening the Top Cover.
- Opening the Front Cover.
- Engaging the Infeed Safety Interlock

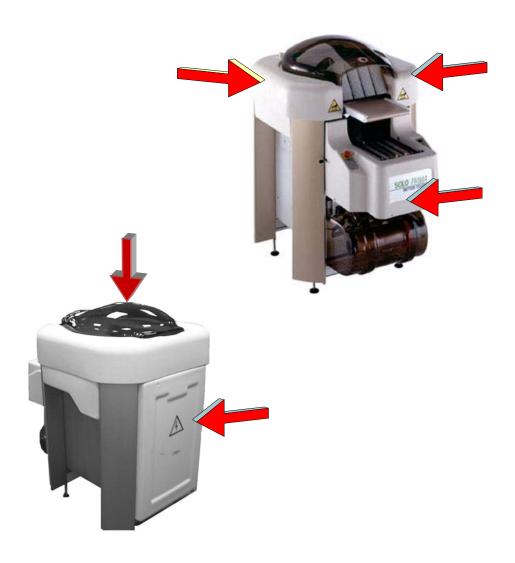


Covers

Do not run the machine with any of the covers removed. Always replace all covers after checking the machine, clearing packages, or performing cleaning or maintenance.

Some of the covers have safety interlock switches that stop the machine when it is running if a cover is removed, or they will prevent the machine from accidentally starting when a cover is removed.

Do not tamper or bypass these important safety interlock switches.



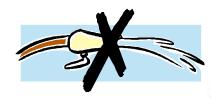
Safety Guidelines

Avoid loose fitting clothing or accessories that could get caught in the machine.





Only a qualified trained technician must perform maintenance and repairs. Contact your dealer for information.



Do not spray the machine with water or steam.

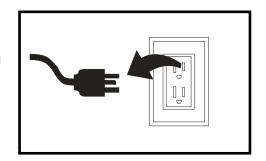


Do not set or store liquids on the machine, especially near the electronics and the sealing belt.

> Do not leave objects, cleaning rags or materials inside or on the machine.

Before Cleaning

Always disconnect power to the machine before performing cleaning and maintenance. Remove the power cord from the power receptacle.



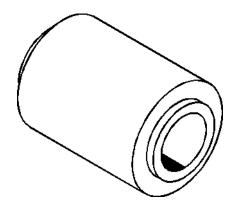
Allow the sealing belt to cool before cleaning.



3 Film

Film Specifications

A high quality stretch film, designed to work on the SOLO® PRIMA wrapper is available through Mettler Toledo, Inc. Aftermarket services. Contact your local **METTLER TOLEDO®** representative for more information on this film and recommendations for other films that will work on the PRIMA wrappers. The PRIMA uses one roll of 11″ film with the following specifications.



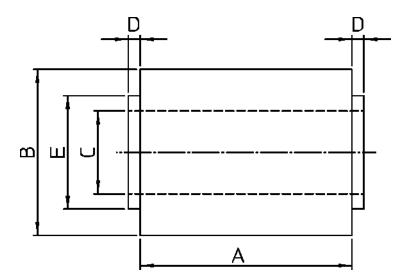
A = 280mm (11.0")

B = Outer diameter of the reel max 220mm (8.66")

C = Inner diameter 75mm (3")

D = Less or equal to 16mm (0.63")

E = Less than 92mm (3.6")



Loading Film

Remove Empty Roll

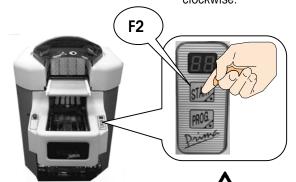
To remove an empty roll from the wrapper



Push the Stop Button.

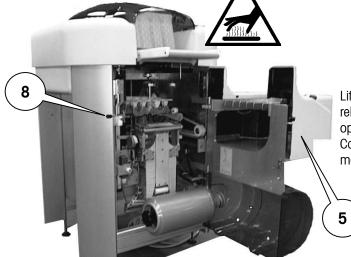


Release the Stop button by lifting and twisting the button clockwise.

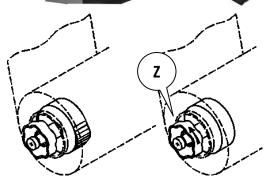


Press and hold the START button (F2) until the machine starts, then release the button.

Wait until the infeed is in the start position, then press the Stop button again.



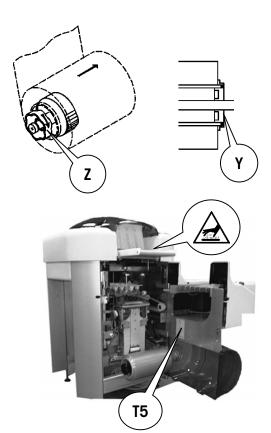
Lift the Infeed cover release lever (8) and open the infeed cover (5). Caution! The sealing belt may be hot!



Hold the shaft and rotate knob (Z) counterclockwise to release the roll. Slide the empty film roll out.

Install New Roll

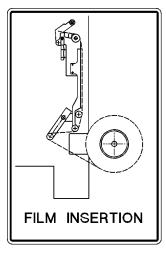
Important! The film must be centered on the machine for proper operation.

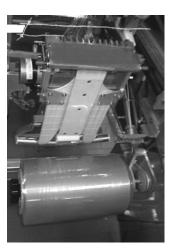


Slide the new film roll on the shaft until the edge contacts the stop disk (Y).

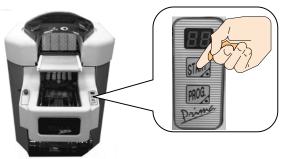
Turn the knob (Z) clockwise to the limit stop to secure the roll.

Insert the film as shown by the threading diagram (T5) on the infeed cover. Caution! The sealing belt may be hot!

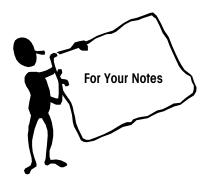




Pull the film out past the distributor comb and cut the film at about 2 inches/50mm over the distributor comb. Fold the film back on the comb.



Close the infeed cover and press the START button. You are now ready to wrap.



4

Operating Instructions

Starting the Machine





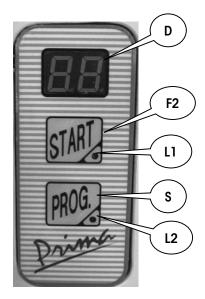
WARNING

Keep hands clear of the machine during power up. When the START button is pressed the wrapper will perform a retiming cycle. During the self-test and retiming cycle, Infeed Belts are in motion and other motors are running. Do not place materials on the belts during this test. Keep hands clear of the machine during the test and while the machines are running.

Power to the PRIMA is ON when the power cord is connected to an AC outlet. When the wrapper is powering up, it will display "87", waiting for the START button (F2) to be pressed.

Release the Stop Button at the left of the infeed by rotating and pulling the button. Allow the sealing belt to warm up to operating temperature before starting to wrap packages.

When the Start Button (F2) is pressed, the machine will perform a timing cycle and display the selected program. At the end of the timing cycle, the machine will cycle to the start position and is then ready for use. The wrapper will now start when a package is placed on the infeed.



Control	Function	
D	Display for Wrapping	
	Program and Error Codes	
F2	Start Button	
S	Wrapping Program Select	
	Button	
L1	Low Voltage Indicator LED	
L2	Program Change Mode	
	Indicator LED	

Wrapping and **Weighing Programs**

The PROG button (S) is used to select the package-wrapping program. Press the button to toggle through the selections. The Program Number will either be solid or blinking indicating a weigh only, wrap only, or weigh and wrap mode as shown in the table below.

PROGRAM NUMBER	WEIGHING/WRAPPING TYPE	TRAY TYPE	
-\00- \1\ Zeros blinking	Weigh and Label Only		
01	Wrapping Only Standard wrapping with maximum film stretch.	Rigid trays with stable products	
-\01'- 01 \\ 01 blinking	Weigh, Wrap, & Label Standard wrapping with maximum film stretch.	Ingla IIays will slable products	
03	Wrapping Only Wrapping with medium film stretch.	Rigid trays with stable products,	
-\03\- 03 blinking	Weigh, Wrap, & Label Wrapping with medium film stretch.	and bones exposed with sharp edges.	
05	Wrapping Only Wrapping with minimum film stretch.	Rigid trays with stable products, and bones exposed with sharp edges.	
-\05 05 blinking	Weigh, Wrap, & Label Wrapping with minimum film stretch.		
07	Wrapping Only Standard wrapping for round trays.	Pound trave	
-\07/- 07 blinking	Weigh, Wrap, & Label Standard wrapping for round trays.	Round trays.	

Efficient Sequence of Operation in Weighing and Labeling Mode

Once an appropriate "flashing" weigh/wrap program has been selected, you may proceed to weigh and label with the Prima's integrated scale and printer system. Proceed as follows:

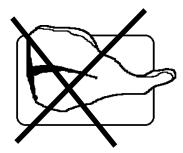
- Choose appropriate PLU on the scale controller.
- 2. Place the first package in the center of the Prima infeed, keeping the rear of the package close to the beginning edge of the infeed. The scale and controller will weigh the package and print a label.
- 3. Once the label is printed, the Prima will start and move the package in to be wrapped.
- 4. Next, place the second package on the infeed to be weighed.
- Remove the first label in preparation for first package to exit the Prima on the sealing belt. Note – The second package WILL NOT proceed into the machine until the first label has been removed from printer.
- 6. Once the first package moved onto the sealing belt, apply the label and move package back a forth a few times while it is on the sealing belt to ensure the film seals across the bottom especially on the rear of the package. Remove the package from the belt and set aside.
- 7. Repeat this procedure, starting at Step 4 for the third and subsequent packages to ensure a smooth and constant package flow.

Sealing Belt Temperature

The sealing belt temperature is preset by the service technician at installation. Call for service if the temperature needs adjustment.

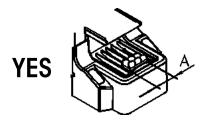
Loading Trays

All products must be completely contained in the trays. The trays must be stiff enough to support the product properly.



The machine detects the tray when it is placed on the infeed using photoeyes. The tray must be set against, and aligned with, the infeed guide, as shown below.

If the dimensions of the tray exceed the maximum allowed by the machine, the machine will stop in emergency mode and reject the tray.



Place the trays on the center of the infeed and against the rear stop.



Up to a width "A" of 230/9.0 mm/in, the trays can be placed with the widest side against the stop, allowing reduced film consumption by taking the most advantage of the film stretch.

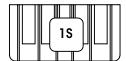


When the dimension "A" of the tray exceeds 230/9.0 mm/in, or in some cases, higher than 3", place the tray with its longest side in the feeding direction (narrow side against the stop).

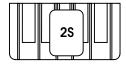
Refer to the tray feeding reference on the next page.

If the tray is too large or incorrectly placed, the machine will stop.

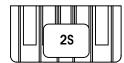
Tray Reference



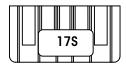
If tray height is greater than 3"

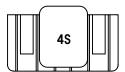


If tray height is less than 3"

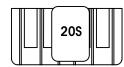


If tray height is greater than 3"

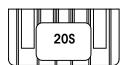


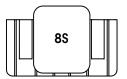


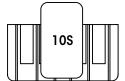
If tray height is greater than 3"

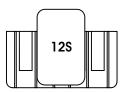


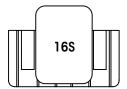
If tray height is less than 3"











Package Wrapping Check

When starting a run, check some of the trays coming out the machine to determine the wrapping quality. The trays should be checked for proper amount of film overlap and sealing.

Remove the wrapped tray from the sealing belt with a light downward pressure of the hand and pull the package toward you up to the belt edge.

If the seal is inadequate or excessive, adjust the time the tray is left on the sealing belt or have the service technician increase the belt temperature.





Machine Idle Time

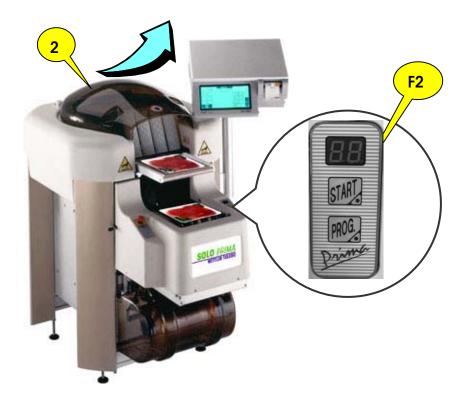
During normal use, leave the wrapper plugged in to maintain the sealing belt temperature.

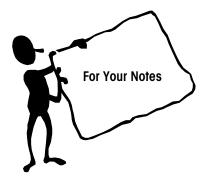
If you will not be using the machine for an extended time, disconnect the power cord from the AC outlet.

Machine Stop Due to Error

If the machine stops and displays an error code:

- Open the top cover (2)
- Solve the error problem.
- Close the top cover.
- Press the Start button F2.





5

Cleaning and Maintenance



WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

Before cleaning, disconnect the power cord from the AC outlet.

Do not spray water or steam onto the machine or inside the machine.



Do not spray the machine with water or steam.



Daily Cleaning



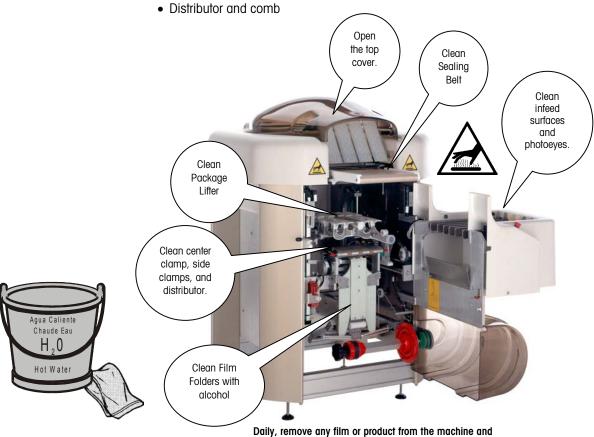
⚠ WARNING

DISCONNECT ALL POWER TO THIS UNIT BEFORE INSTALLING, SERVICING, CLEANING, OR REMOVING THE FUSE. FAILURE TO DO SO COULD RESULT IN BODILY HARM AND/OR PROPERTY DAMAGE.

Always disconnect the AC power cord from the AC outlet before cleaning or performing maintenance on the machine.

Open the top cover (2). Using handle (H), lift the sealing belt to the raised position for cleaning. Daily, remove any film or product from the following locations and clean with a soft cloth and hot water:

- Infeed grate and surfaces
- · Infeed photoeyes
- Package lifter
- Center clamp
- Side clamps
- · Film folders
- Sealing belt



clean these locations with a soft cloth and hot water.

5-2

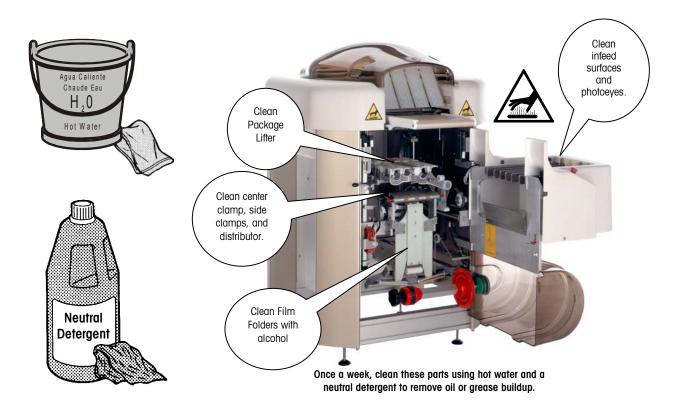
Weekly Cleaning and Maintenance

√

NOTE

ONCE A WEEK clean the following areas using a cloth dampened with hot water and a neutral detergent on the parts detailed in this section.

Do not use solvents or abrasives for cleaning the following parts.



Lubrication

No regular lubrication by the operator is required. Lubrication of the machine is needed occasionally and must be performed by a trained service technician.



Only a qualified trained technician must perform maintenance and repairs. Contact your dealer for information.

6

Troubleshooting

Before You Call For Service

Important Note

For cleaning instructions, refer to Chapter 5 Maintenance before attempting to clean any of the wrapper components.

Before you call for service, cycle the power on the unit. If the problem persists after you take the indicated steps, contact your service agent. Listed below are some common symptoms that could be encountered.

SYMPTOMS	CAUSE	SOLUTION
Film Tearing or Film Tracking Poorly	Bad Roll of Film.	Replace Film with New Roll.
Trays Left Open Poor Overwrap No Overwrap Not Picking Film	 End of film roll. Film Pulling Out of Center Clamp. Film pulling out of side clamps. Film Not Loaded Properly. Center clamp dirty. Film wrapped around distributor film roller. 	 Replace roll of film. Clean Center Clamp and allow drying thoroughly. Clean side clamp gripper pads and allow to dry. Re-load the Film. Clean Center Clamp and allow to dry. Remove any debris. Remove any film or debris from distributor film roller.
No Power	Circuit breaker tripped.Inadequate wiring.Blown Fuse	 Check store circuit breaker, call for service. Call for service Call for service
Irregular package wrapping	 Film roll out of position Film clamp grasp insufficient Side Clamps film gripping insufficient Film Folder dirty Film loading incorrect 	 Arrange the film roll in the correct position. Check and clean Center Clamp and allow to dry. Check and clean the side clamps and allow to dry. Clean the Film Folder. Reload the film.

SOLO® PRIMA User's Guide

SYMPTOMS	CAUSE	SOLUTION
Package	Film roll out of position	Arrange the film roll in the
wrapping with irregular film tension	Center Clamp grasp insufficient	correct position.Check and clean the film
	Side clamp grasp insufficient	 clamp. Check and clean the side
	Film Folder dirty	clamps.
	Film loading incorrect	Clean the Film Folder.
	,g	Reload the film.
Package wrapping with	Work program incorrect	Check the work program setting.
irregular film tension		Enter the proper work program.
Poor package sealing	Sealing belt temperature incorrect	Call service to adjust belt temperature
	Down pressure not applied to package	Push down on the package as it is removed from the sealing belt.

Error Codes and Messages

Machine Operation Codes

If the SOLO® PRIMA detects a problem, the following message codes will blink on the console. These codes will not stop the machine operation.

CODE	DESCRIPTION	Solution
64	Photoeye error	Clean the photoeyes.
blink.		If the error persists, call for service
80	Waiting for weigh complete signal	Check that the label has printed.
blink.		Recycle power.
		If the error persists, call for service.
81	Waiting on label taken signal	Check printer.
blink.		Cycle power.
		If the error persists, call for service.
99	One or more infeed photoeyes have	Clean and check photoeyes
blink.	been disabled.	If the error persists, call for service.

Machine Fault Codes

When these codes are displayed on the console, the machine will stop. The condition must be corrected before restarting the machine.

CODE	DESCRIPTION
00	The machine is weigh-only mode.
11	The Emergency Stop button has been pressed
	- Release the emergency push-button, press the Start button
12	A cover is open or the infeed safety interlock is engaged.
	- Close the cover guard or clear interlock and press the Start button
13	Infeed Safety Photoeye Blocked.
	Remove the item blocking photoeye.
	Press the Start button.
	If the error persists, call for service.
17	Photoeye grid obscured by mistake
	Press the Start button
	If the error persists, call for service.
20	Lifter sensors activated
	Press the Start button
	If the error persists, call for service.
21	The lifter loading sensor is defective
	Press the Start button
	If the error persists, call for service.
22	The lifter has not arrived at the loading sensor Press the Start button
22	If the error persists, call for service. The lifter has not come out of up sensor
23	Press the Start button
	If the error persists, call for service.
24	The lifter has not arrived at the lifter up sensor
24	Press the Start button
	If the error persists, call for service.
25	The lifter has not come out of the forward sensor
	Press the Start button
	If the error persists, call for service.
26	The lifter has not arrived at the forward sensor
	Press the Start button
	If the error persists, call for service.
31	The folder has not come out of the rest sensor
	Press the Start button
	If the error persists, call for service.
32	The folder has not arrived at the rest sensor
	Press the Start button
	If the error persists, call for service.
33	The folder film grasp sensor not activated
	Press the Start button
24	If the error persists, call for service. Folder position error during unwinding
34	Press the Start button
	If the error persists, call for service.
36	The folder has not come out of the film grasp sensor
30	Press the Start button
	If the error persists, call for service.
L	The the error pereione, can fee convice.

	Error Codes and Messages
CODE	DESCRIPTION
37	Folder position error during ejection
	Press the Start button
	If the error persists, call for service.
39	The three retiming sensors of the folder are defective
	Press the Start button
	If the error persists, call for service.
41	The clamp opening cam has not come out of the sensor
	Press the Start button
	If the error persists, call for service.
42	The clamp opening cam has arrived at the open sensor
	Press the Start button
	If the error persists, call for service.
50	The distributor has not arrived at the down sensor
	Press the Start button
	If the error persists, call for service.
51	The distributor is not in the unwinding position
	Press the Start button
	If the error persists, call for service.
52	Distributor down sensor activated by mistake
	Press the Start button
	If the error persists, call for service.
53	The distributor sensors activated at the same time
	Press the Start button
- 4	If the error persists, call for service.
54	The distributor has not arrived at the up sensor
	Press the Start button
F7	If the error persists, call for service. The distributor has not come out of film lifting sensor
57	Press the Start button
	If the error persists, call for service.
61	Tray too big
01	Remove tray or foreign matter.
	Clean the photocells
62	Tray too small
02	Remove tray or foreign matter.
	Clean the photocells
63	Distributor lift action blacked by the tray
00	Remove tray or foreign matter.
	Clean the photocells
64	The test for calculating the photocell threshold has failed
<u> </u>	Remove the tray and press the Start button
65	The tray has not arrived at the machine photocells
	Remove tray or foreign matter.
	Clean the photocells
66	Photoeye vertical barrier obscured too soon
	Take tray or foreign matter away
	Clean the photocells
67	The tray has been moved backwards
	Remove tray and place it correctly
69	The tray has not been centered
	Remove tray and place it correctly
75	The side clamps have not arrived at the sensor
	Press the Start button
	If the error persists, call for service.
·	

0005	DECORIDATION						
CODE	DESCRIPTION						
76	The side clamps have not come out of the stretching sensor						
	Press the Start button						
	If the error persists, call for service.						
80	Wrap-only program, and manual scale mode on conflict.						
	Change the program or scale mode.						
	Press the Start button						
	If the error persists, call for service.						
82	Battery backed RAM has lost memory						
	If the error persists, call for service.						
83	Battery backed RAM error						
	If the error persists, call for service.						
85	Remove the tray by hand						
	Open the cover guard, take the tray away, press the Start button						
86	Test not present						
	-						
87	Program Starting, the machine has been switched on						
	Press the Start button						
88	Press Start						
	-						
89	Scale error. Check scale.						
	Press the Start button						
	If the error persists, call for service.						
91	The first cutting phase is ended						
	Insert the film and press the Start button						
92	CPU program reset						
<u> </u>	Press the Start button						
	If the error persists, call for service.						
95	The tray has been placed too far forward on the lifter						
	Take the tray away and place it correctly						
99	Vertical or grid photocells have been blocked after the tray has entered						
	the machine.						
	Take tray or foreign matter away						
	Clean the photocells						

METTLER TOLEDO

1900 Polaris Parkway Columbus, Ohio 43240 www.mt.com

P/N: 16134000A

(5/01).01

METTLER TOLEDO® is a registered trademark of Mettler-Toledo, Inc. ©2001 Mettler-Toledo, Inc. Printed in USA

