

PN 096-0260-001

English



ProLINE-RoadRunner XLF™

Operator's Guide

for Siemens 80F4, 80F5,  
S, HS Series, D Series

**Data iO**

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**Chapter 1**



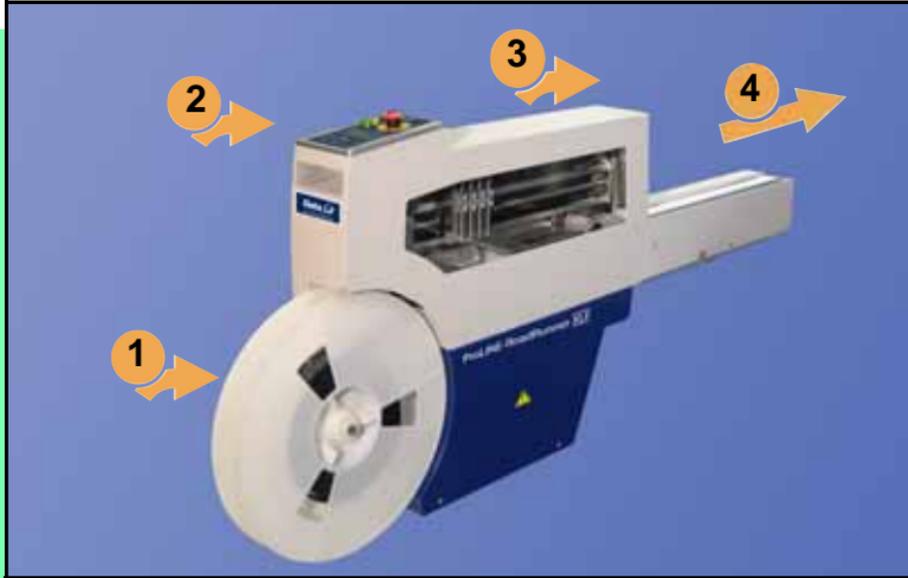
# Overview

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## ProLINE-RoadRunner XLF for Siemens



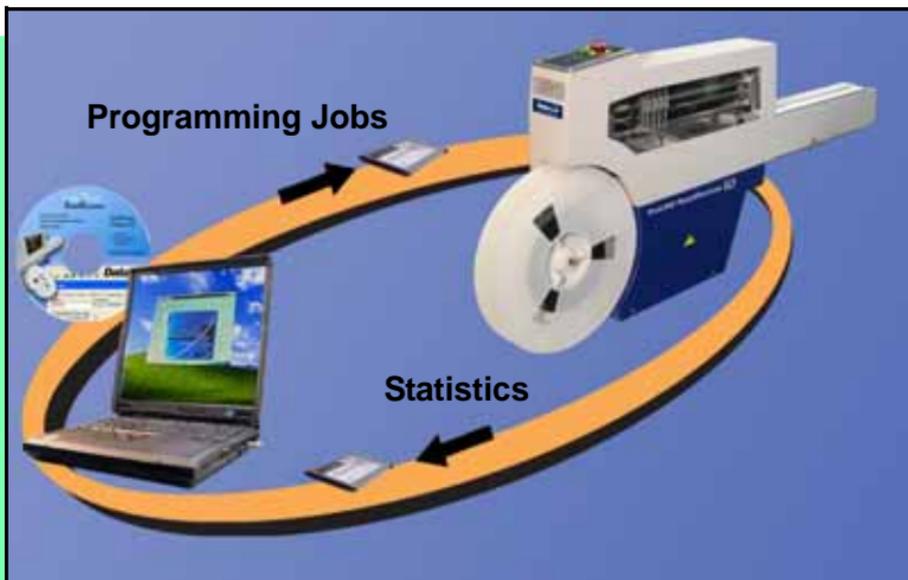
Data I/O is proud to introduce an inline solution for programming extra-large devices.

The XLF version of ProLINE-RoadRunner:

1. Takes programmable devices from a reel...
2. Places them in sockets and programs them with your data...
3. Places them on a conveyor belt...
4. Delivers them to the pick point of your assembly machine. ■



## Jobs and Statistics



**TaskLink™ for Windows® is required to process devices on ProLINE-RoadRunner.**

**TaskLink allows you to create and manage a job database and it analyzes job statistics.**

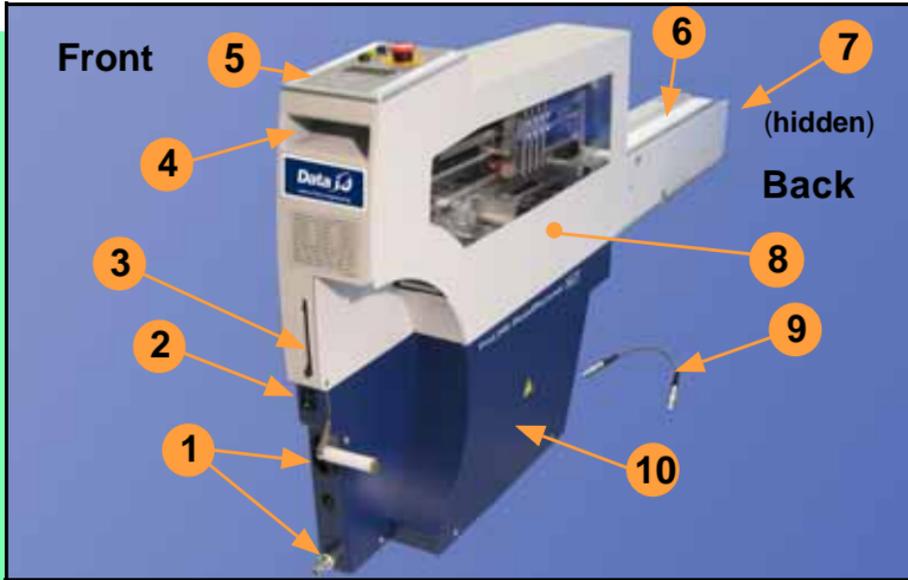
**PCMCIA cards (PC cards) are used to transfer jobs and statistics between TaskLink and RoadRunner.**

**For more information on TaskLink, see the TaskLink Help Menu. ■**





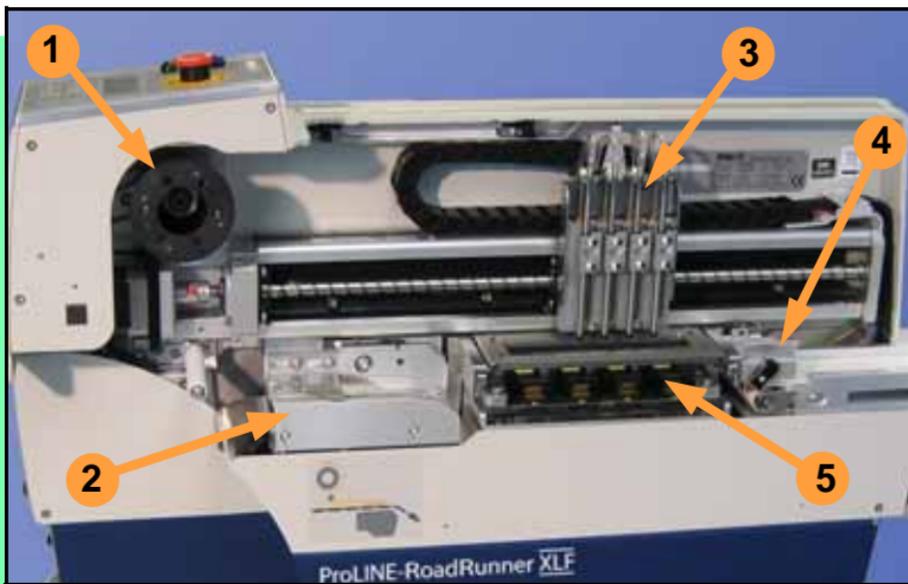
## External View



1. Power and Air Connections
2. Power Switch
3. PCMCIA Card Slot and Eject button
4. Handhold for lifting
5. Control Panel
6. Conveyor Belt with Dust Cover
7. Mechanical Interface to Assembly Machine
8. Robotics Cover
9. Communications Cable
10. Electronics Enclosure ■



## Internal Components



1. Cover Tape Take-Up Reel
2. Tape-In Module
3. PNP Head and Probes
4. Reject Bin
5. Socket Adapter, Actuator Plate, and Programmer ■





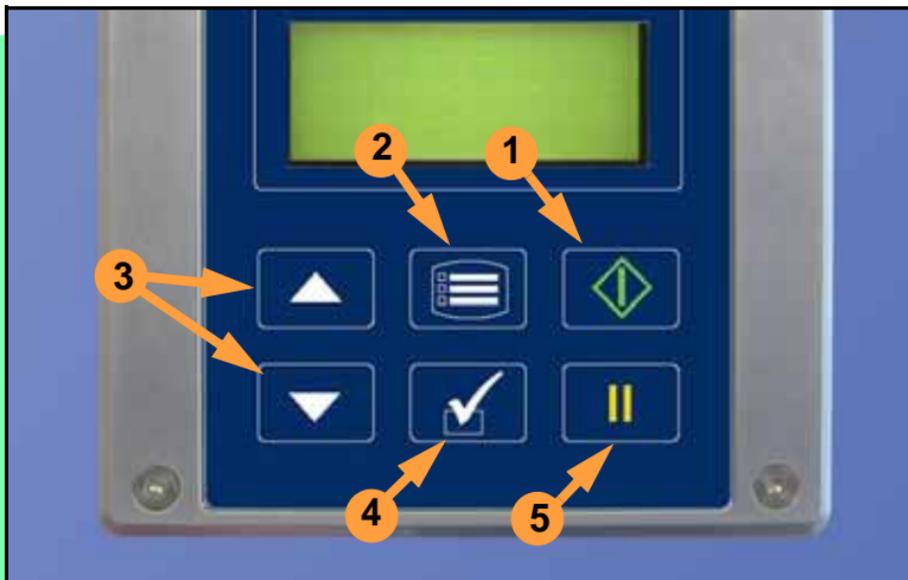
## Control Panel Lights



1. **Blue** - Stop Indicator.  
User intervention is required, or the unit is paused.  
**— CAUTION —** Do not remove the PC card unless blue lamp is lit.
2. **Yellow** - Caution Indicator.  
Correct a problem or the machine will stop.
3. **Green** - Run Indicator.  
**Lit:** A job is running.  
**Blinking:** Programmed devices are not yet at the SMT pick point.
4. **Emergency Stop** - Press to stop the robot motors in an emergency. To resume motion, rotate the button and press Start. ■



## Control Panel Buttons



1. Start - start or resume the chosen job.
2. Menu - exit to the previous menu, —or show the next message (deleting the current one), —or deselect an item.
3. Up and Down Arrows - scroll through menu items, —or toggle selections, —or advance the device tape.
4. Select - select menu items. In this guide, *Select Job* means to scroll to *Job* and press *Select*.
5. Pause - interrupt the job without cancelling it. ■





## Operator Menus

Main Menu
Job
Advance Pocket
Align Pocket
Purge
Socket

- Light gray shaded fields cannot be changed.
- For *Advance Pocket*, *Align Pocket*, and *Purge*, see Chapter 3 in the Owner's Manual.

Job	
View	Job Name Device: E28F320 Checksum: 3FC00000 Mfg: INTEL Adapter: PA-G021 Prec: 621-0086-005 Act: 644-0016-001
Results	Passed: 992 Failed: 4 System Yld: 98.7 Prgmr Yld: 99.6 Handler Yld: 99.5 Parts/Hour: 255 MCBI: 201 Skt 1 Yld: 99.9 Skt 2 Yld: 100 Skt 3 Yld: 100 Skt 4 Yld: 100 Skt Cycles: 249

Continued

Operator Menus are visible on the Control Panel, and can be navigated by using the Up Arrow and Down Arrow buttons.

Pressing the Menu button displays the next higher menu (one level up). If you are at the main menu, pressing Menu will have no effect. Job is the first item in the main menu.

Operator Menus, Version 05.21.01.C shown, continue on the next page. ■



## Operator Menus, continued

2

Job continued	
End Remaining Devices	Remaining: 144
	+1
	+10
	+100
	+1000
	+10000

3

- Light gray shaded fields cannot be changed.

Socket	
Socket 1: Enabled	
Socket 2: Enabled	
Socket 3: Enabled	
Socket 4: Enabled	
Adapter Statistics	Reset Clean Count
	Clean Count
	Clean Alert: 3500
	No: 22113204
	Mfg: 09/23/02
	Actuations:1055
	Adptr. Life: 10000
	Insertions: 4220
	Pass: 4202
	Fail: 16
	Yld: 99.5
Socket 1	
	Insertions: 1055
	Pass: 1053
	Fail: 2
	Yield: 99.8
Socket 2 [Same as 1]	
Socket 3 [Same as 1]	
Socket 4 [Same as 1]	

## Changing the Pass Limit

To change the Pass Limit:

1. Select Job.
2. Select Remaining Devices.
3. Scroll to and Select an increment for adjustment.
4. Press the Up or Down Arrow buttons as necessary.

Press Menu. Repeat steps 3 & 4 if needed for another increment. ■





# Supervisor Menus

Main Menu
Job
Advance Pocket
Align Pocket
Purge
Socket*
Home
Operation†
System‡
Robot Diagnostics^
Programmer Diags^
Event Log^

\* See next page  
 † See 2 pages ahead  
 ^ See 3 pages ahead

- HOME sends the PNP Head to the Home position.
- Light gray shaded fields cannot be changed.

Job	
View	Job Name
	Device:
Results	Checksum: 3FC00000
	Mfg: INTEL
	Adapter: PA-G021
	Prec: 621-0086-005 <sup>1</sup>
	Act: 644-0016-001
	Passed: 992
	Failed: 4
	System Yld: 98.7
	Prgmr Yld: 99.6
	Handler Yld: 99.5
	Parts/Hour: 255
	MCBI: 201 <sup>2</sup>
Skt 1 Yld: 99.9	
Skt 2 Yld: 100	
etc.	
Skt Cycles: 249	

<sup>1</sup> Not Required on XLF models.  
<sup>2</sup> Mean Cycles Between Interrupts.  
 Part numbers shown here are for example, only.

Job	cont.
End	
Select	▶ Job 1 ● Job 2 End of List
Remaining Devices	Remaining: 151 +-1 +-10 +-100 +-1000 +-10000

View the Supervisor Menus by inserting a PC card with supervisor authority.  
 (The Supervisor menus are also on the next three pages.)

Supervisor authorization is set in TaskLink. For more information, refer to TaskLink Help.

Version 05.21.01.C menus shown.

A (●) indicates the currently selected item.

A (▶) indicates the current cursor position.



## Supervisor Menus, continued

Socket	
Socket 1: Enabled	
Socket 2: Enabled	
Socket 3: Enabled	
Socket 4: Enabled	
Adapter Statistics	Reset Clean Count
	Clean Count
	Clean Alert: 3500
	No: 22113204
	Mfg: 09/23/02
	Actuations:1055
	Adptr. Life: 10000
	Insertions: 4220
	Pass: 4202
	Fail: 16
	Yld: 99.5
	Socket 1
	Insertions: 1055
	Pass: 1053
	Fail: 2
	Yield: 99.8
	Socket 2 [Same as 1]
	Socket 3 [Same as 1]
	Socket 4 [Same as 1]

Refer to the previous page for the main menu.

***NOTE: Many of the values shown, such as the Teach and Network menus, are for illustration only.***

**To change languages press Menu while pressing the Select button. Arrow Down to the desired language and press Menu twice.**





## Supervisor Menus, continued

Operation		System		System		
Job	Pick Retries: 2	Time	Hour: 4	Network (cont.)	SNS: 0.0.0.0	
	Error Retries: 3		Minute: 55		SNS Port: 7500	
	Pocket Pitch: 4		Month: 9		HST: rr215.nt.data-io	
	Pocket Advance: 3		Day: 23		DOM: nt.data-io.com	
Save Air: On	Year: 2002	Year: 2002	DNS: 888.888.88.888	DTS: 888.888.88.88	EAddr: 0010EC002211	
Belt	Clear Belt: On	Odome- ter	Hours: 469.92	Adapter Alarm:	On	
Buffer: 1	Buffer: 1		Devices: 24742		Configu- ration	Firmware Version
Pre-fill: On	Pre-fill: On		Timekeeping: OFF			Ver 05.17.00.C
Head	Velocity: 600		Erase: 0.0s			Installed Boards
Probes	Accel: 1700	Blankcheck: 0.0s	Bkpln Brd Id: 2			
Puff: 50	Puff: 50	Program: 0.0s	Cntrl Brd Id: 1	Wvfrm Brd Id: 1	Adptr Brd Id: 3	
Pick: 200	Pick: 200	Verify: 0.0s	Update Software	Hardware Config	HwCfgIds 1, 3, 4	
Place: 100	Place: 100	Network	Network	Model: <i>name</i> (-XLF)	Feeder Comm:SBelt/FFI	
Travel: 250	Travel: 250	Network Parm:Card	Network	NetworkTxt: Delete		
Tape: 69.0	Tape: 69.0	Status: Enabled	Network	Status: Enabled		
Skt 1: -26.85	Skt 1: -26.85	PGM: FredsRR2	Network	PGM: FredsRR2		
Reject:-175.5	Reject:-175.5	IP: 888.888.88.888	Network	IP: 888.888.88.888		
Belt: -210	Belt: -210	Prog Port: 7596	Network	Prog Port: 7596		
Restore Defaults	Restore Defaults	SUB: 255.255.248.0	Network	SUB: 255.255.248.0		
		GTW: 139.138.16.1	Network	GTW: 139.138.16.1		

- Light gray shaded fields cannot be changed.

Refer to the main Supervisor Menu for orientation (2 pages back).



## Supervisor Menus, continued

Robot Diags	
Robot:	Enabled
Run Mode:	Job/Dry Run
Belt	Move:Fwd/Bkw
	Pick Sensor: 0
	Speed: 400 ± 10
	Measure Device
	Offset: 0.00
Sensors	Tape Sprocket: 0
	Tape Broken: 0
	Reject Full: 0
	Reject Bin: 1
	Air: 1
	Interlock: 0
	E-Stop: 0
	+Overtravel: 0
	Home: 1
Socket	State: Up
	Actuate: 0
	Act.Duration:150 <sup>3</sup>
Probe 1-4	Position: Up
	Vacuum: Enabled
	Puff: Enabled
	Vac Sense: 1
	Speed: 135 ± 5

Programmer Diags	
Programr:	Enabled
Exercise Display	
Test Cycles:	3
Test All:	PASS
Bus Test:	PASS
Adtr ID Test:	PASS
LED Dvr Test:	PASS
G Node Test:	PASS
Vcc OC Test:	PASS
Vpp OC Test:	PASS
I2C Bus Test:	PASS
DAC Ref Test:	PASS
GSlew Test:	PASS
High RAM Test:	
Continuity Loop:	3

Programmer Diagnostic tests require a Diagnostic Adapter Board for all items below this line.

Event Log	
View	
Clear	

• Light gray shaded fields cannot be changed.

<sup>3</sup> Socket Actuation duration is set by the Socket Adapter in some instances.

**NOTE:** Programmer Diags are only available with a Diagnostic Adapter Board.

For more information about menu commands, see Chapter 3 of the *ProLINE-RoadRunner Owner's Manual*. ■





## Warnings and Cautions



**Compressed Air**

Point air hoses away from body. Always wear approved eye protection.



**Loud Noise**

Sound pressure levels may exceed 85 db. Hearing protection is recommended for prolonged exposure at this level.



**High Voltage**

Turn power off before removing electronics cover.



**Heavy Object**

This equipment weighs approximately 21 kg (45 lbs). Do not drop. Mount only with approved hardware.



**Moving Parts**

Pinch warning. Keep hands away from moving parts.



**Electrostatic Discharge**

Electrostatic Discharge (ESD) may cause damage. Discharge static against a common ground.



**Chapter 2**



# Installation

- Mounting on the Assembly Machine..... 16**
- Connecting Power and Air ..... 18**
- Connecting the Communications Cable (optional).....20**
- Switching the Power On ..... 22**





## Mounting on the Assembly Machine



To mount RoadRunner on an assembly machine:

1. With the feeder table pulled out, slide the supplied hook around a pin on the assembly machine feeder table.
2. Secure the hook to the table by tightening the socket screw.

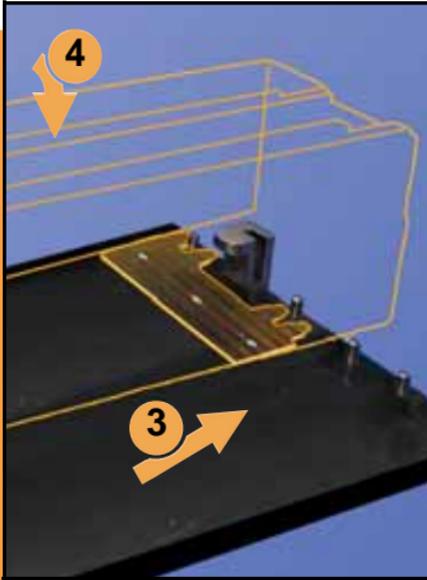
***NOTE: The hook must be tightened to secure RoadRunner to the assembly machine.***



**Warning:**



Heavy; 21 kg (45 lbs). Do Not Drop.  
Mount Only With Approved Hardware.



3. Slide RoadRunner under the hook so that its centering teeth engage the pins next to the hook.
4. Lower RoadRunner so that the feeder table dowels mate up with the bushings in the RoadRunner housing.
5. Verify that RoadRunner is secure before moving the feeder table back into the SMT machine. ■





## Connecting Power and Air



To connect the power and the air:

1. Turn the RoadRunner power switch to the Off (0) position.
2. Grasp the air hose *behind* the “quick connect” collar and push it firmly onto the male fitting. The collar must be allowed to move back as it goes onto the fitting.

**NOTE:** Compressed air must be clean and dry at approximately 5.25 kgf/cm<sup>2</sup> (75 psi).



**Warning:**

Point Air Hoses Away From Body.  
Wear Approved Eye Protection.



3. Connect to a grounded power source using a cable with a standard IEC 320 plug.

RoadRunner accepts power between 100 and 240 VAC, 50/60 Hz.

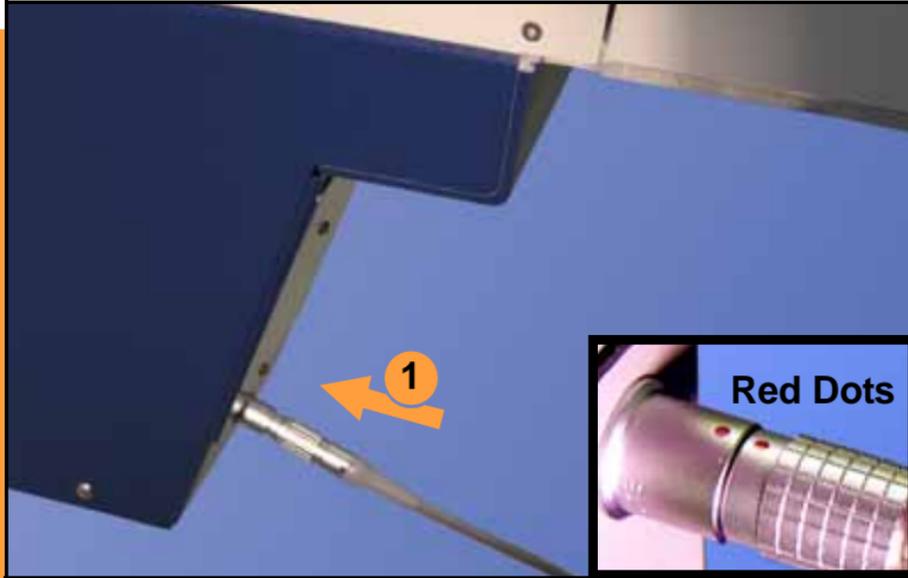
***NOTE: The air line is equipped with a “quick connect” that will stop airflow when disconnected.***

***To disconnect the air hose, grasp the collar on the connector and pull back. ■***





## Connecting the Communications Cable



To connect the Communications Cable:

1. Correctly orient the connector (the red dot will be on top) and plug it into RoadRunner.

The socket is located on the back side—facing the SMT feeder table.



2. Similarly orient and plug the other end of the cable into the SMT feeder table. Use the socket that corresponds with the track that RoadRunner is mounted on.

To unplug the cable, pull back on the connector collar. ■





## Switching the Power On



To switch the power on:

1. Push the power rocker switch to On (I).

All the Control Panel indicator lamps light up. A Self-test runs. Then only the blue lamp will remain on and the version number will display.

If all the indicator lamps start blinking, a serious error has occurred. Turn the unit off then on again. If the error continues, have the unit serviced.

2. If no errors display, RoadRunner is operation ready. ■



## Chapter 3



# Job Setup

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## Inserting a Job Card



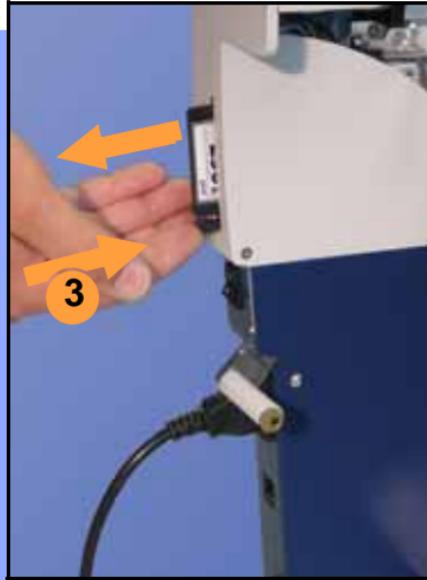
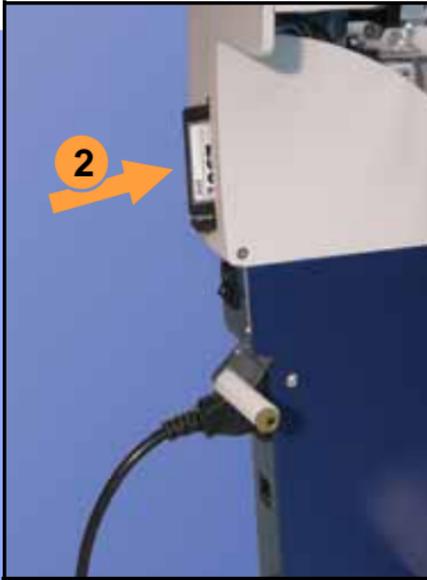
To run a job, insert a TaskLink job card into the PC card slot. Use only TYPE I or TYPE II PC cards (PCMCIA).

To insert a job card:

1. If the power is on, make sure the blue lamp is lit.

 **Caution:**  
Electrostatic Discharge May Cause Damage.  
Discharge Static Against Common Ground  
Prior to Inserting Job Card.





2. Slide the job card into the PC card slot.

**NOTE:** When fully inserted, the job card extends slightly from the PC card slot.

**NOTE:** Do not eject the card unless the blue lamp is lit (or the power is off).

3. The Card Eject button can be pushed to remove the card when the blue lamp is lit. ■

## Removing the Actuator Plate



To change the Actuator Plate:

1. Select Job, then End, wait for the blue lamp to light and turn the power Off (0).

2. Lift off the Robotics Cover.

Once power is off, the PNP Head can be moved by hand to allow access to the Actuator Plate.

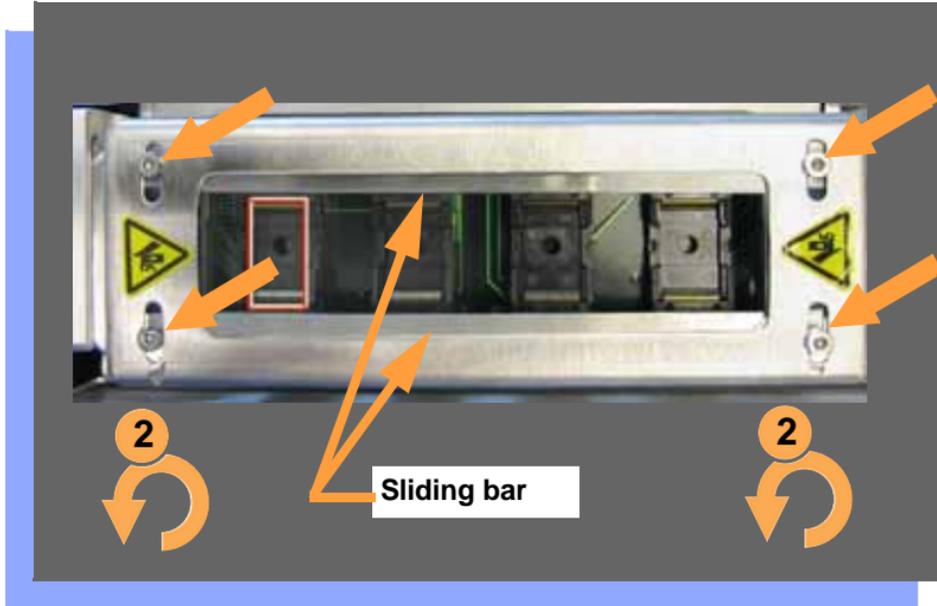
3. Pull the Actuator Plate to slide it out of the grooved brackets. ■

 **Warning:**

 Pinch Warning. Keep Hands Away From Moving Parts.



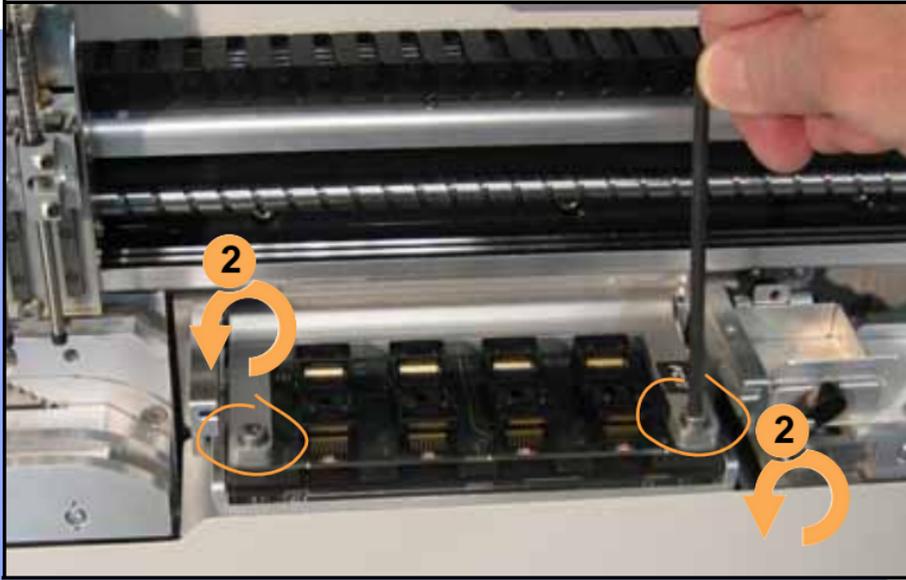
## Installing an Actuator Plate



After changing the Socket Adapter (see next page) the Actuator Plate must be replaced and re-adjusted.

1. Slide the new Actuator Plate in slowly until it snaps into place.
2. With a 2 mm Allen Wrench, loosen both screws for one sliding bar and slide it inboard (toward center) as far as it goes.
3. Slide the bar outboard just far enough to allow a device to pass through.
4. Tighten the two screws for that bar.  
Repeat for the other bar. ■

## Changing the Socket Adapter



To change the Socket Adapter (with the Actuator Plate removed):

1. Make sure the power is Off (0).
2. Unscrew the two captive screws and lift the adapter bracket.



### Caution:



Electrostatic Discharge May Cause Damage.  
Discharge Static Against Common Ground.

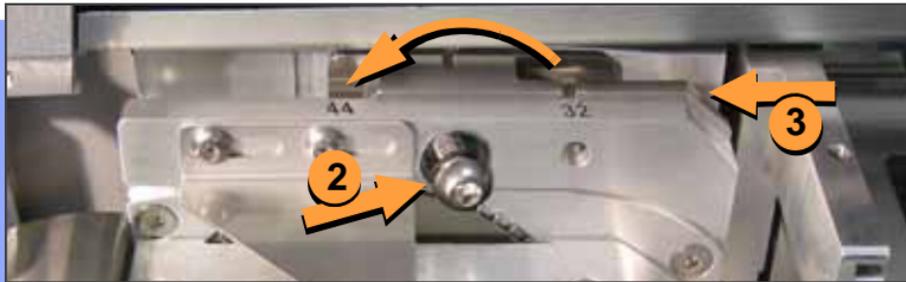


3. Without touching the gold contact surfaces on the bottom of the adapter, lift the adapter free.
4. Insert the correct adapter, making sure that it seats on the dowel pins.

*NOTE: Each type of device may have its own Socket Adapter.*

5. Tighten the screws.
6. Install and (if necessary) adjust the Actuator Plate. ■

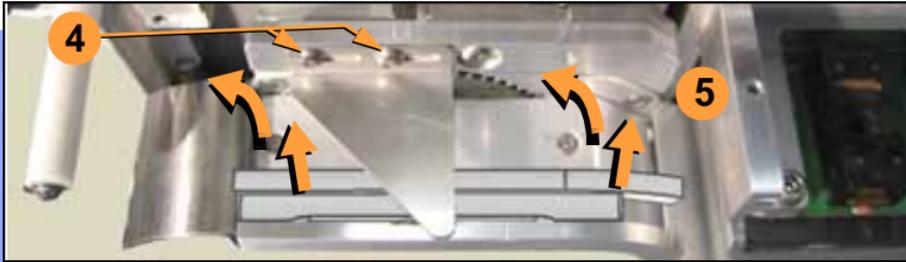
## Adjusting the Tape-In Module



RoadRunner XLF comes with an Adjustable Tape-In Module for 32 mm and 44 mm device tape. A notch points to an etched number indicating the current setting.

To adjust the Tape-In Module for 44 mm tape width:

1. With the E-Stop pushed, moved the PNP Head out of the way.
2. Unscrew the Position Locking Screw most the way out using a 4 mm Allen wrench.
3. Slide the Selector Plate so the notch points to 44 and tighten the Locking Screw.



4. Remove the magnetic Front Track for 32 mm (if it is installed) by first, loosening the two Peel Bar screws.
5. Then lift the 32 mm Track slightly to clear the locating pins and tip it back 90° (away from you). Slide it out to the left.
6. Retighten the Peel Bar screws.

**NOTE:** For 32 mm device tape, install the Front Track in the reverse order as removal.

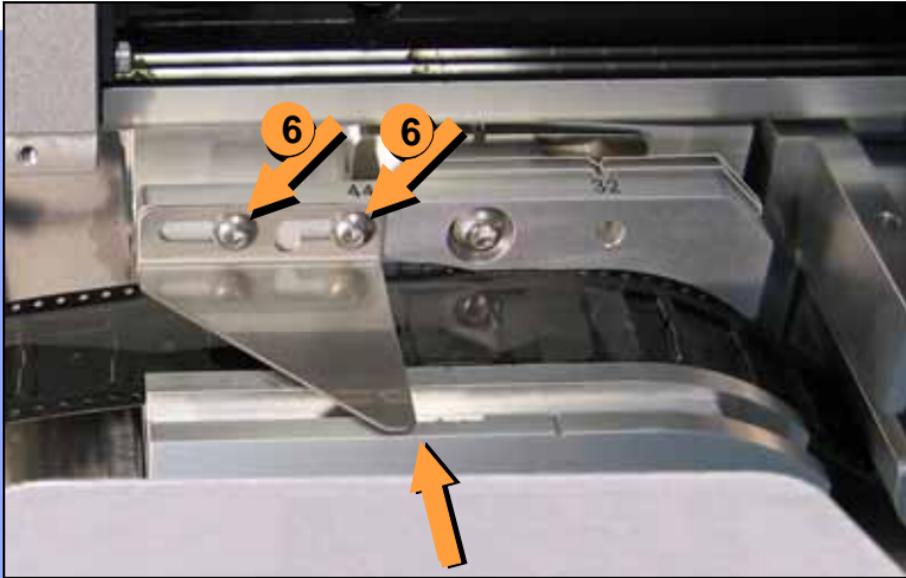
**NOTE:** If the Tape-In Module has just been installed, see the *ProLINE-RoadRunner Service Manual -002* or higher for tape centering procedure. ■

## Loading a Reel of Devices



To load and thread device tape:

1. Ensure you have the correct Tape-In Module / adjustment for your tape (tape fits in track).
2. Place a reel onto the RoadRunner spindle.
3. Lock in the reel by rotating the brass button on the spindle end.
4. Insert the device tape into the Tape-In Module and onto the sprocket.



5. With power on, select Advance Pocket from the menu, then press the Up Arrow button.

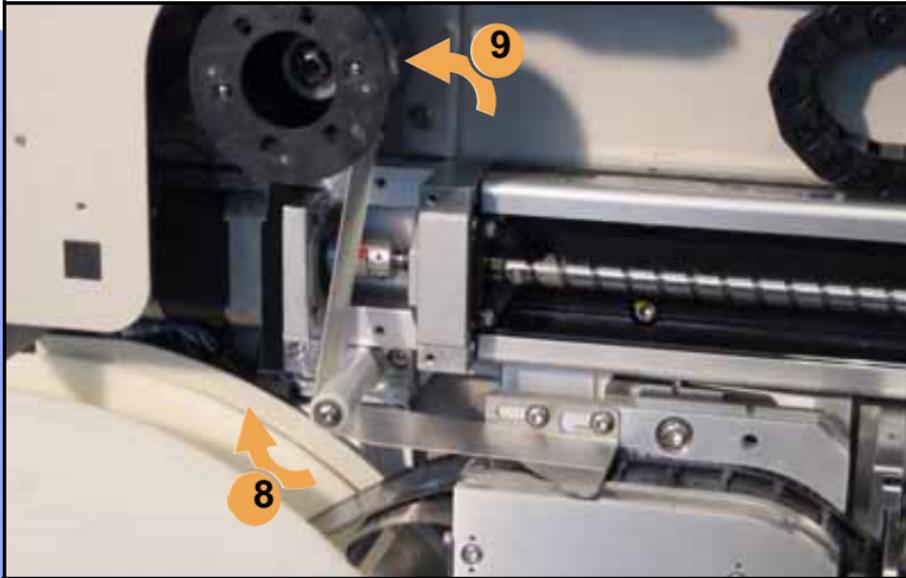
**— CAUTION —** Do not advance devices past the pick point. They may fall and jam the tape path.

6. When the tape is advanced just past the Peel Bar, adjust the Peel Bar by loosening the two 2.5 mm screws, and sliding it so the straight edge lines up between two pockets. Then retighten the screws.



7. Separate the cover tape from the device tape.
8. Thread the cover tape up through the cover tape path (see label on machine) and attach it to the Cover Tape Take-Up Reel. Advance the tape as necessary.

***NOTE: A small piece of adhesive tape may be needed to stick the cover tape to the Take-Up Reel.***



9. Turn the Take-Up Reel to take up slack cover tape.
10. Align the tape pockets as described in the following procedure. ■

## Aligning the Tape Pockets



To align the tape pockets:

1. Select Align Pocket from the Menu.
2. Press the Up Arrow button to advance the tape until the next tape pocket center hole is approximately centered at the pick point alignment mark. *Do not* advance devices past the pick point. They may fall and jam the tape path. *Do not use the* Down Arrow *to align.*

**NOTE:** This aligning procedure must be performed each time power is applied, such as after releasing the Emergency Stop. ■



## Adding Network Communication



To connect RoadRunner to a network (optional):

1. **Create a Network card in a PC with TaskLink. See TaskLink's online Help.** (Help > Help Topics > Using Networked RoadRunners > How to Configure RoadRunner)
2. **Insert the Network card into RoadRunner.**
3. **On the RoadRunner Control Panel, scroll to and select System > Network.**
4. **Press the Select again to edit.**



5. Using the arrow buttons, toggle Network to Card.
6. Press the Menu button to save your changes.
7. Cycle the power off and then on.

***NOTE: The network configuration file is deleted from the PC Card at the end of the process. This prevents accidentally configuring two RoadRunners with the same network settings.***

8. Plug in a 10BaseT Network Cable.



## Chapter 4



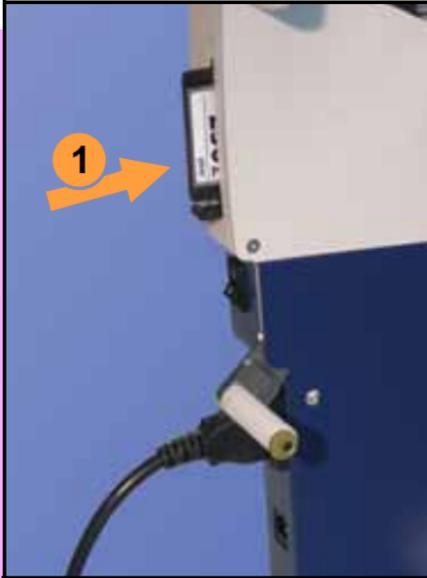
# Operation

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## Running a Job



To run a job:

1. Insert a job card into the PC card slot.
2. Clear the conveyor belt of any unneeded devices.

**NOTE:** If the PC card has *Supervisor authority*, ensure the *correct job is selected*. See *Supervisor Menu*.

3. Press Start. The green lamp will start blinking.

When the programmed devices reach the assembly machine pick point, the belt will pause and the green lamp will stay lit without blinking. ■



## Pausing or Stopping a Job



To pause at the end of the current operation:

1. Press Pause on the control panel.

To instantly stop in an emergency situation:

2. Press the Emergency Stop (E-Stop) button.

The E-Stop does not stop the Assembly machine. ■

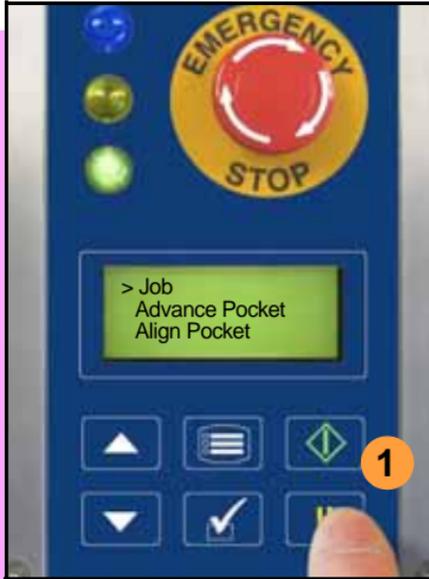
**Warning**

Electrical shock hazard. The E-Stop does not stop electricity to RoadRunner.





## Ending a Job

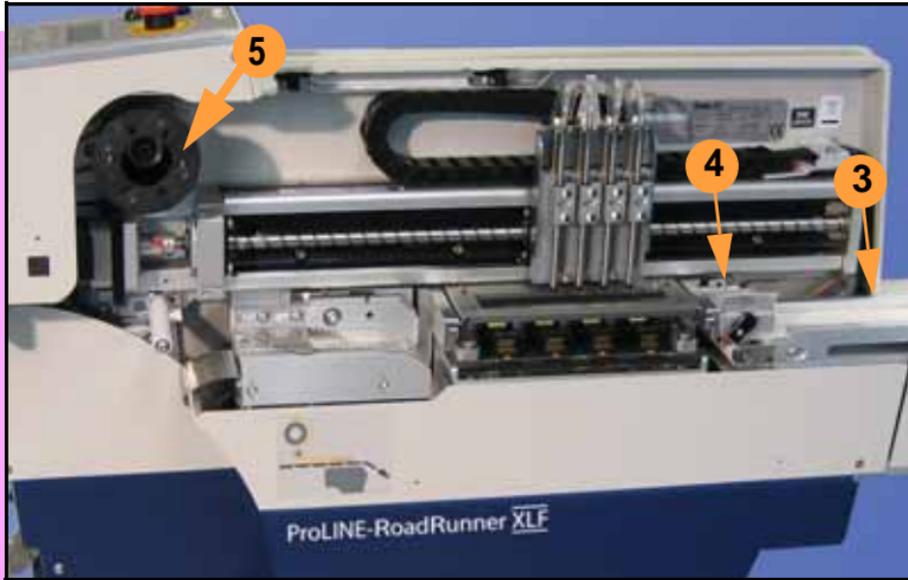


Whenever you want to change job cards, you must first end the current job.

To end the current job:

1. Press the Pause button.
2. Scroll to and select End from the Job Menu. "Job" is in the main menu.

The system will finish processing devices and place the devices on the belt, but no additional devices will get picked from the tape.



3. Clear away excess devices from the conveyor belt.
4. Empty the Reject Bin. (See next heading.)
5. Empty the Cover Tape Take-Up Reel. (See “Emptying Cover Tape” ahead several pages.) ■





## Emptying the Reject Bin



To empty the Reject Bin:

1. Press the Pause button.
2. Lift the Reject Bin straight up by the finger tab and then out.

When reinserting the Reject Bin, be sure the bin is *completely* lowered so that the tab is positioned out of the path of the probes. ■



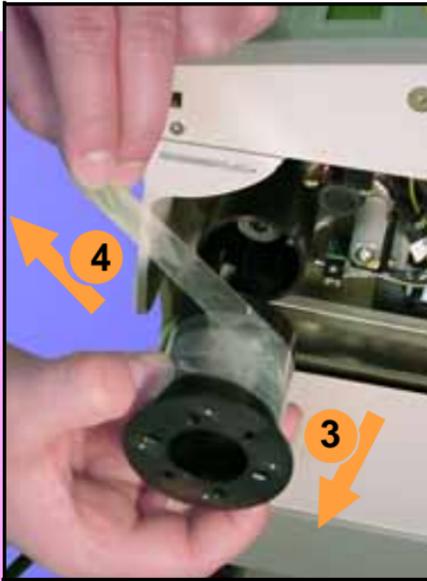
**Warning:**



Pinch Warning. Keep Hands  
Away From Moving Parts.



## Emptying Cover Tape



To empty the Cover Tape Take-Up Reel:

1. Press Pause.
2. Cut the cover tape, leaving enough slack to re-attach.
3. Pull the Take-Up Reel straight out and off the hub.
4. Unwind the used cover tape and discard it.
5. Replace the Take-Up Reel—slide it on and rotate it to line up with the pins, and push. ■



**Warning:**



Pinch Warning. Keep Hands  
Away From Moving Parts.





## Shutting Down



To switch off RoadRunner:

1. Press Pause.
2. Select End Job from the Job Menu and wait for all devices to be removed from the sockets.
3. Switch the power Off (0).
4. Remove devices from the conveyor belt.



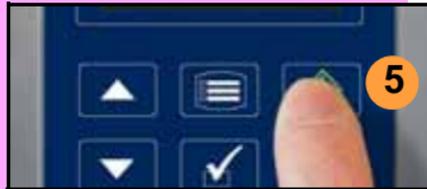
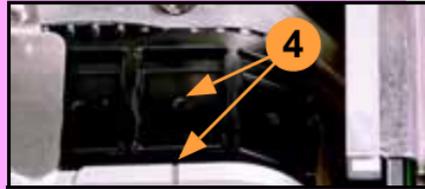
5. Empty the Reject Bin.
6. Empty the Take-Up Reel. (For more, see the previous heading.)
7. Remove the air hose, or switch off the air flow.

**NOTE:** When disconnecting the air hose, pull the connector collar back as you pull the connector off. ■





## Restarting a Job



To restart RoadRunner after a pause or an emergency stop:

1. Rotate the Emergency Stop button clockwise to release it, if needed.
2. Press Menu until the main level menu is displayed
3. Select Align Pocket.
4. Press the Up Arrow to advance the device tape until the *next* pocket center hole lines up with the alignment mark.
5. Press Start.

The job will resume. ■



**Chapter 5**



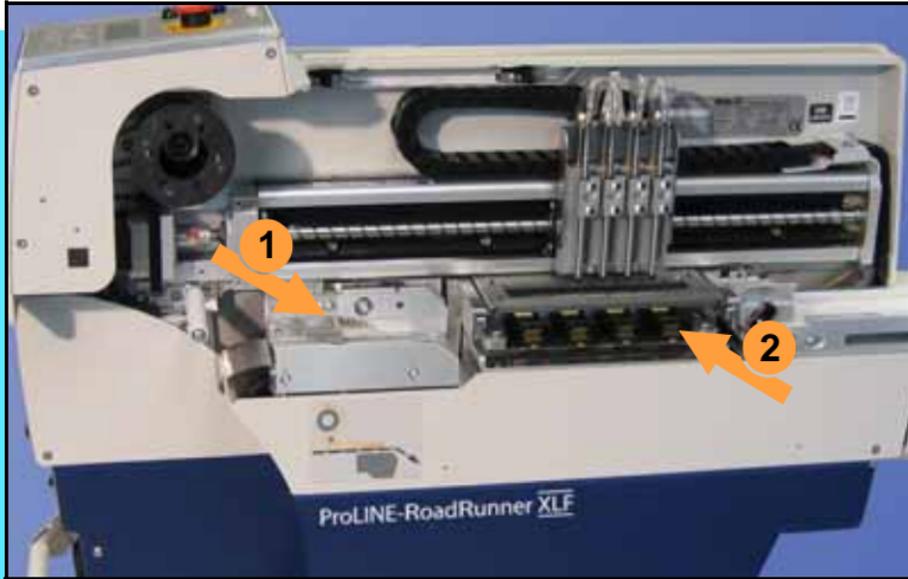
# Maintenance

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## Cleaning with Air



To prevent dust accumulation, inject compressed air into the following component areas:

**NOTE: Compressed air must be clean and dry. ■**

1. Tape-In Module (weekly).
2. Sockets (daily). Sockets should be opened and closed by hand while air is injected.



### Warning:

Point Air Hoses Away From Body.  
Wear Approved Eye Protection.



## Cleaning with Alcohol



To prevent dust and oil accumulations, clean the following component areas with isopropyl alcohol on a lint-free cloth.

- Chassis and Covers (every 3 months).
- Conveyor belt (daily). See “Device Rotation” in the Troubleshooting chapter.

***NOTE: Dry the conveyor belt before rotating it.***

These intervals are based on running 40,000 devices weekly. ■





## Running the Self-Test



Run the Self-test procedure approximately once a week.

To run the Self-test procedure:

1. Press Pause or end a job if running.
2. Clear all devices from the sockets and from the conveyor belt.
3. Toggle the power switch off and then back on.

The Self-test will run, checking the condition of the components.

4. Check the display for system errors. ■



**Chapter 6**



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## Viewing Errors



To view and correct errors:

1. Messages will appear in the keypad display.
2. Check the condition—tape path, Reject Bin, etc.—implied by the message.

If you cannot correct the error condition, contact a service technician.

3. Press Menu to remove the message.

If there are other error messages the next one will appear.



Some common error messages are listed below. For more information see “Troubleshooting” in the *ProLINE-RoadRunner Owner’s Manual*.

Lamp Color	Error Message
No change in lamps	Card not present
Yellow	Reject Bin needs to be emptied
Blue	Cover tape broken
Blue	Emergency Stop is activated <sup>1</sup>
Blue	Motor controller not responding

<sup>1</sup>Twist the Emergency Stop button to release it. ■





## Enabling a Socket



If a socket repeatedly becomes disabled, RoadRunner should be serviced.

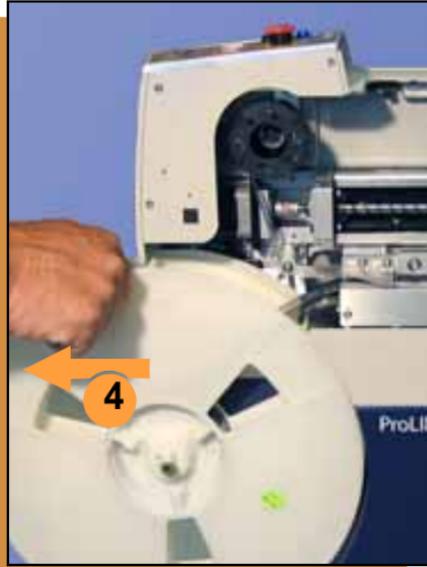
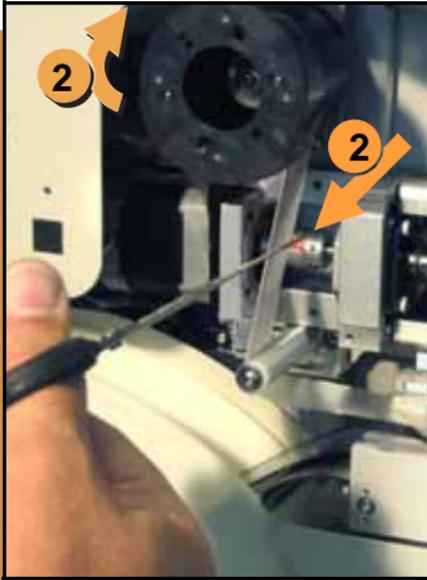
To re-enable a disabled socket:

1. Press Pause if a job is running.
2. Select Socket from the top level menu.
3. Scroll to and select the disabled socket from the Socket menu. (A dot appears.)
4. Press the Up Arrow button to re-enable the socket.

**NOTE:** To disable a probe, disable the probe's corresponding socket. ■



## Clearing Jammed Tape



If the tape jams, an error message displays and the blue lamp illuminates. To clear the tape path:

1. Press the Emergency Stop button (to continue the job later) or select Job, then End. Then switch the power off.
2. Unroll one turn of cover tape and cut it near the Take-Up Reel.
3. Cut the device tape where it exits the conveyor front.
4. At the tape reel, pull the tape out backwards until the end is free from the tape path.
5. Trim away any flaws before reloading. ■





## Device Rotation



If devices rotate excessively on the conveyor belt:

1. Press Pause. Wait for all the devices to get picked from the belt.
2. Press the Emergency Stop.
3. Remove the Dust Cover and clean only the exposed surface of the conveyor belt with isopropyl alcohol on a lint-free cloth, *then dry it*. Rotate the belt by hand and repeat until clean.
4. To continue, replace the Conveyor Dust Cover, and release the Emergency Stop button. Align the tape pockets (Chapter 3), then press Start. ■

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## Technical Support

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