English

ProLINE-RoadRunner™ Operator's Guide

for Siemens SIPLACE X-Series*

Data I/O

PN 096-0440-001A

CONTENTS

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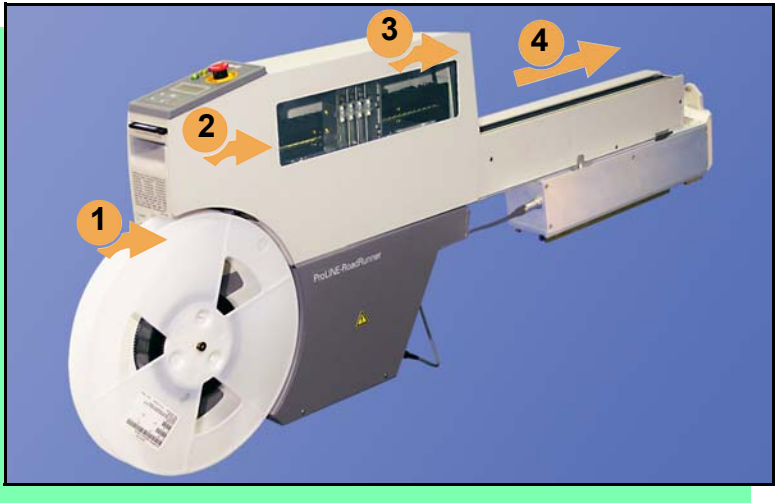
*from front cover: supports some feeder table positions only. See Owner's Manual, or contact Data I/O Customer Support.

The ProLINE-RoadRunner for Siemens X

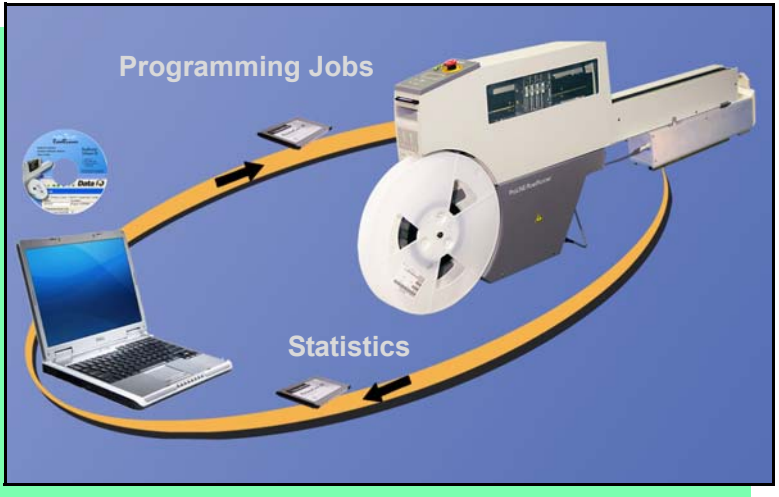


Data I/O is proud to introduce an inline solution for high-volume programming of electronic products.

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



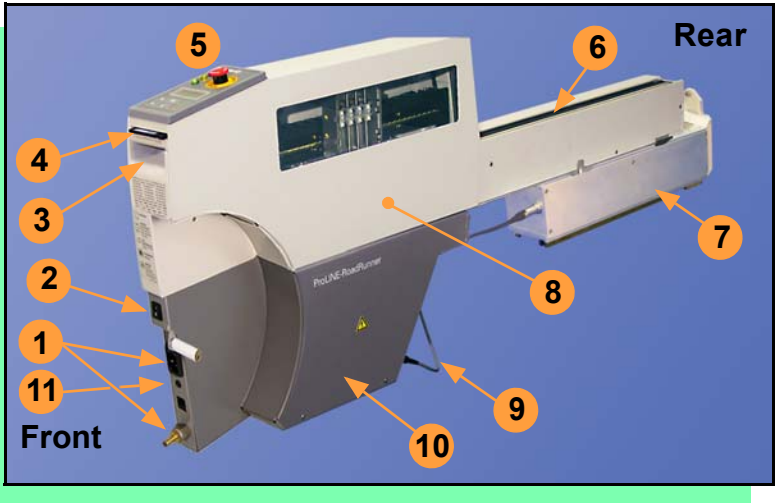
TaskLink™ for Windows® is required to process devices on ProLINE-RoadRunner.

TaskLink allows you to create and manage a job database and analyze job statistics.

PCMCIA cards (PC-Cards) are used to transfer jobs and statistics between TaskLink and RoadRunner. A network connection can also be used.

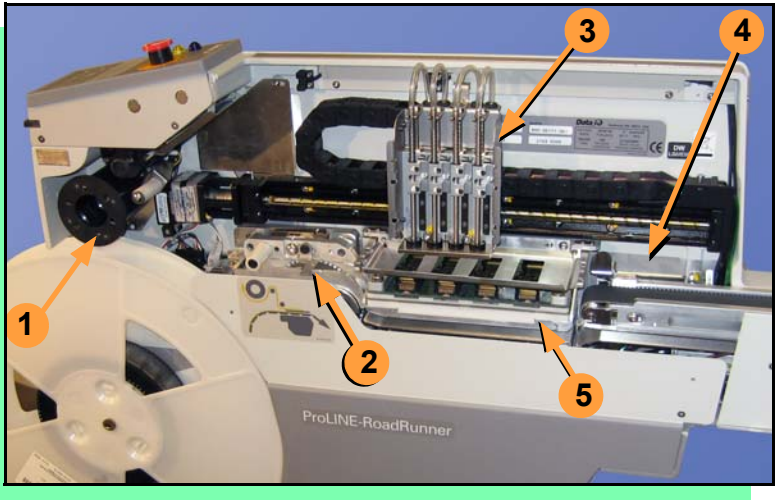
For more information on TaskLink, see the TaskLink Help Menu. ■

External View



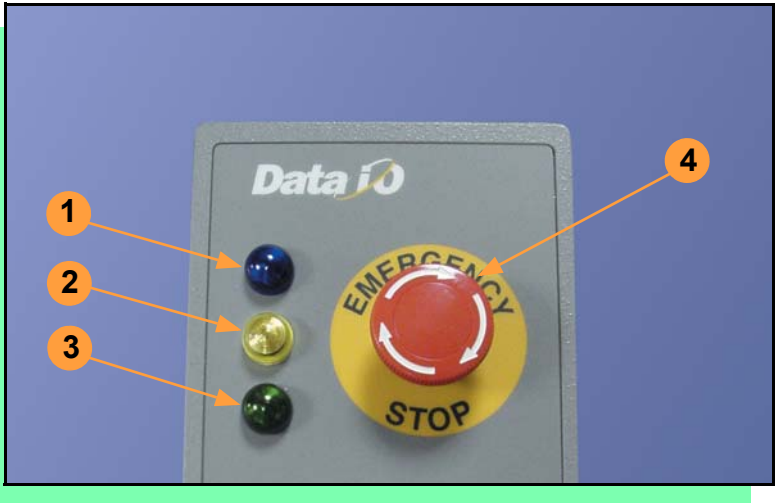
1. Power and Air Connections
2. Power Switch
3. Handhold for lifting
4. PC Card Slot and Eject button
5. Control Panel
6. Conveyor Belt
7. Feeder Bank Adapter to SMT
8. Robotics Cover
9. Communications Cable
10. Electronics Enclosure
11. Ethernet connection ■

Internal Components



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

Control Panel Lamps



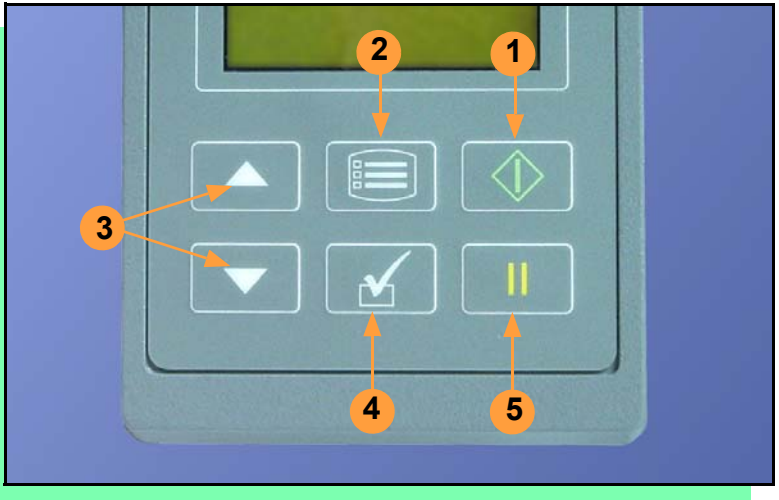
1. **Blue - Stop Indicator.**
   User intervention is required, or the unit is paused.
   — CAUTION — Do not remove the PC-Card unless blue lamp is lit.

2. **Yellow - Caution Indicator.**
   Correct a problem or the RoadRunner will stop. Also, reading or writing to PC-Card.

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 to end a process.**
3. Up and Down Arrows - **scroll through menu items, —ortoggle 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 Encrypted: No
Results	Passed: 992 Failed: 4 System Yld: 98.7 Prgrmr 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

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 05.35.00.C shown, and continued on the next page. ■

Operator Menus, continued

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

- 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: 10/31/05 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: Checksum: 3FC00000 Mfg: INTEL Adapter: PA-G021 Prec: 621-0086-005[1] Act: 644-0016-001 Encrypted: No
Results	Passed: 992 Failed: 4 System Yld: 98.7 Prgrmr Yld: 99.6 Handler Yld: 99.5 Parts/Hour: 255 MCBI: 201[2] Skt 1 Yld: 99.9 Skt 2 Yld: 100 etc. Skt Cycles: 249

[1] Not Required on XLF models.
[2] 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 (administrator) authorization is set in TaskLink. For more information, refer to TaskLink Help.

Version 05.35.00.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]

Operation	
Job	Pick Retries: 2
	Error Retries: 3
	Pocket Pitch: 4
	Pocket Advance: 3
	Save Air: On
	Belt
	Clear Belt: On
	Buffer: 1
	Prefill: Enabled
	Warning Msg: On
Head	Velocity: 250
	Accel: 700
Probes	Puff: 50
	Pick: 200
	Place: 100
	Travel: 250
Teach	Tape: 40.0
	Skt 1: -26.85
	Reject: -166
	Belt: -180
	Restore Defaults

- Light gray shaded fields cannot be changed.

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

System	
Time	Hour: 4 Minute: 55 Month: 9 Day: 23 Year: 2002
Odometer	Hours: 469.92 Devices: 24742 Timekeeping: OFF Erase: 0.0s Blankcheck: 0.0s Program: 0.0s Verify: 0.0s
Update Software	
Network	Network Parm:Card
	NetworkTxt: Delete/Save Status: Enabled PGM: FredsRR2 IP: 888.888.88.888 Prog Port: 7596 SUB: 255.255.248.0 GTW: 139.138.16.1 SNS: 0.0.0.0 SNS Port: 7500

System	
Network (cont.)	HST: rr215.nt.data-io DOM: nt.data-io.com DNS: 888.888.88.888 DTS: 888.888.88.88 EAddr: 0010EC002211 Clear NetParms
Adapter Alarm:	On
Configura-tion	Firmware Version Ver 05.34.02.C Installed Boards Bkpln Brd Id: 2 EP860 80Mhz WFB FCIII Id: 160 Adptr Brd Id: 3 Hardware Config HwCfgIds 1, 3, 4 View Prog Keys Prog Key information Set Prog Key Remove Prog Key Model: [*name*] [-XLF] Feeder Comm:SBelt/FFI Reel Detect: Enable

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
	Repeatability Test
	Start
Sensors	Tape Sprocket: 0
	Tape Broken: 0
	Reject Full: 0
	Reject Bin: 1
	Air: 1
	Interlock: 0
	E-Stop: 0
	+Overtravel: 0
	Home: 1

Robot	Diags
Socket	State: Up
	Actuate: 0
	Act.Dura-tion:150[3]
Probe 1–4	Position: Up
	Vacuum: Enabled
	Puff: Enabled
	Vac Sense: 1
	Speed: 135 ± 5
Head Position	Head: 0

- Light gray shaded fields cannot be changed.

[3] Socket Actuation duration is set by the Socket Adapter in some instances.

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	

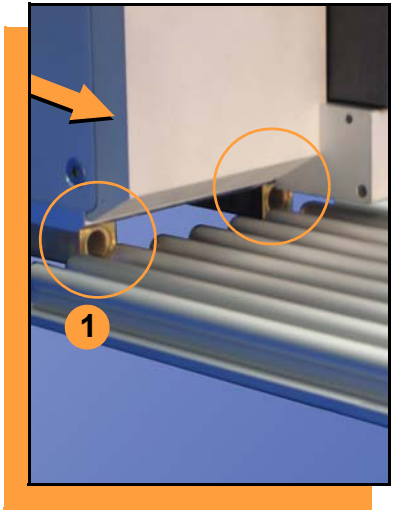
NOTE: Programmer Diags tests are only available with a Diagnostic Adapter Board (not included). Contact Data I/O.

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**	**Disconnect power before removing the electronics cover.**
	**Heavy Object**	**This equipment weighs approximately 15 – 19 kg (33 – 41 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.**

Mounting on the Assembly Machine



To mount RoadRunner (with Feeder Bank Adapter attached) onto a SIPLACE X Assembly Machine:

NOTE: To attach the Adapter, contact Data I/O Support.

1. **Holding RoadRunner level, align the grooves on the Adapter with ribs on the Feeder Bank, and slide RoadRunner as far forward as it will go.**

Warning:

FEEDER CARTS CAN TIP: Remove RoadRunner from the Feeder Cart before pulling the cart away from the SMT machine.

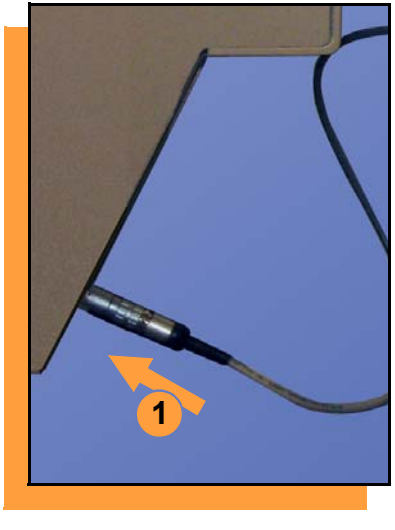
Warning:

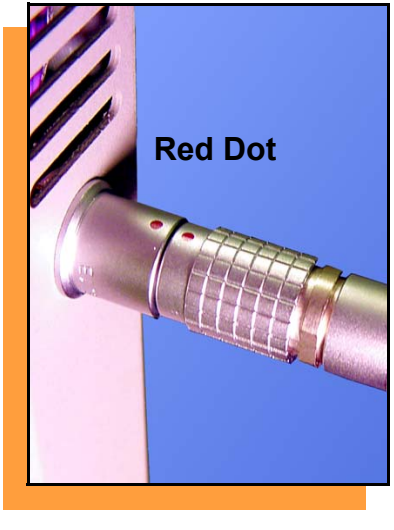
Heavy; 19 kg (41 lbs). Do Not Drop. Mount Only With Approved Hardware.

NOTE: The SMT machine should automatically latch onto it.

2. **Make sure that RoadRunner is secure before letting go. ■**

Connecting the Communications Cable



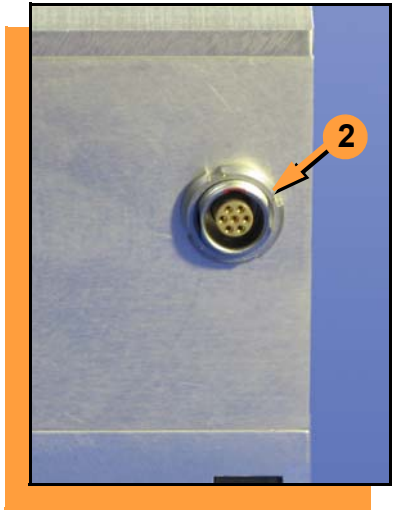


To connect the Communications Cable:

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

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

continued



2. **Orient and plug the other end of the cable into the Feeder Bank Adapter.**

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

Connecting Power and Air

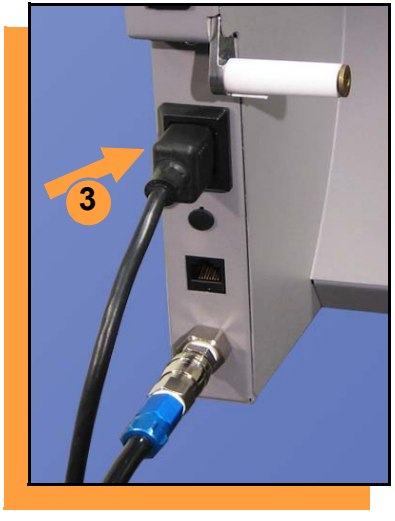
To connect the power and the air:

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^2 (75 psi).

Warning:

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



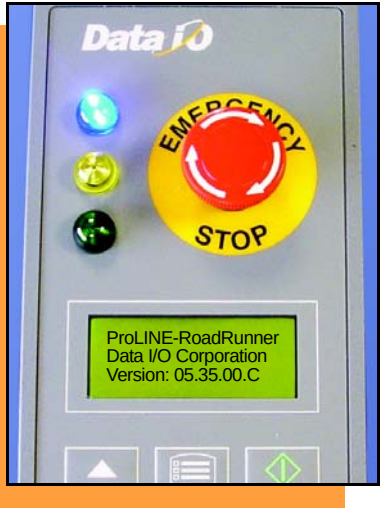
NOTE: The air line is equipped with a "quick connect" that will stop airflow when disconnected.

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

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. ■

Turning the Power On



To turn 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 remains, have the unit serviced.

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

Inserting a Job Card

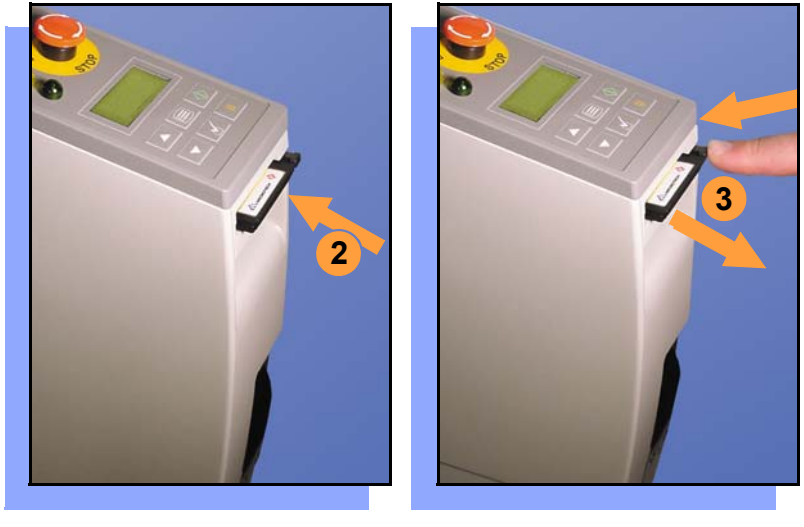
To run a job, insert a TaskLink job card into the PC-Card slot. Use only TYPE I or TYPE II PC-Cards (PCMCIA).

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.



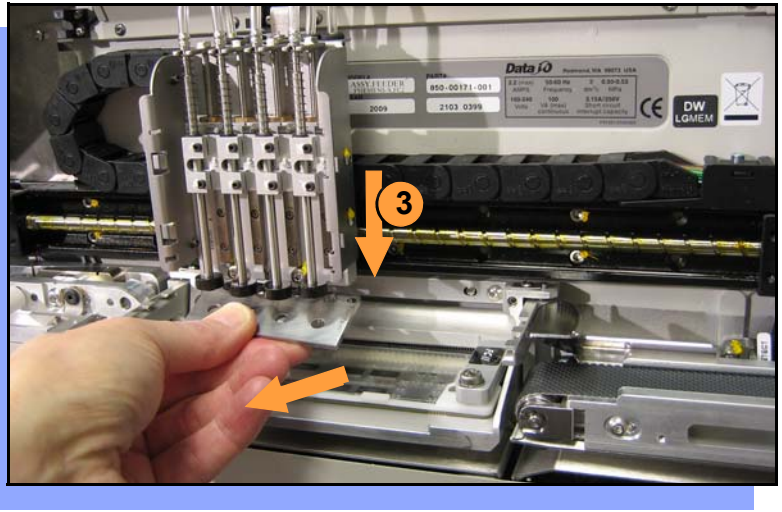
2. **Slide the job card into the PC-Card slot.**

   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.** ■

Changing the Precisor



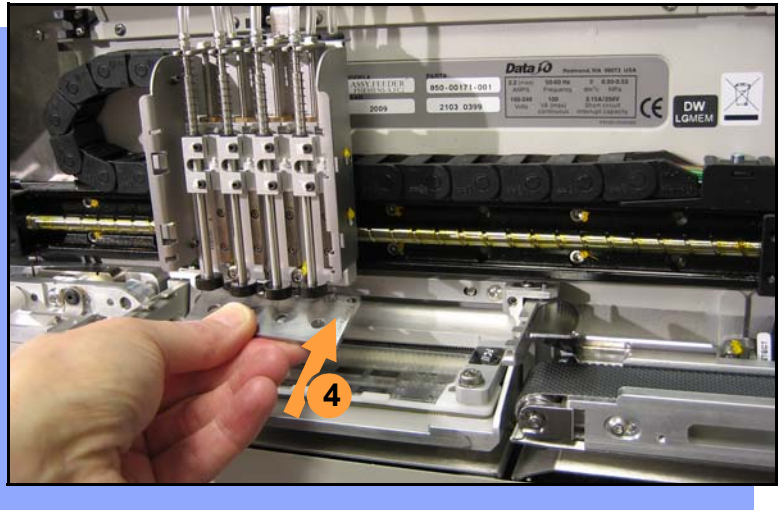
To change the precisor:

1. **Select** Job**, then** End**, wait for the blue lamp to light and turn the power Off (0).**
2. **Lift off the Robotics Cover.**
3. **Starting at one end, pull the precisor down off the magnet.**

   The PNP Head Cover (some models) can be removed for easier access (pull straight out.)

Warning:

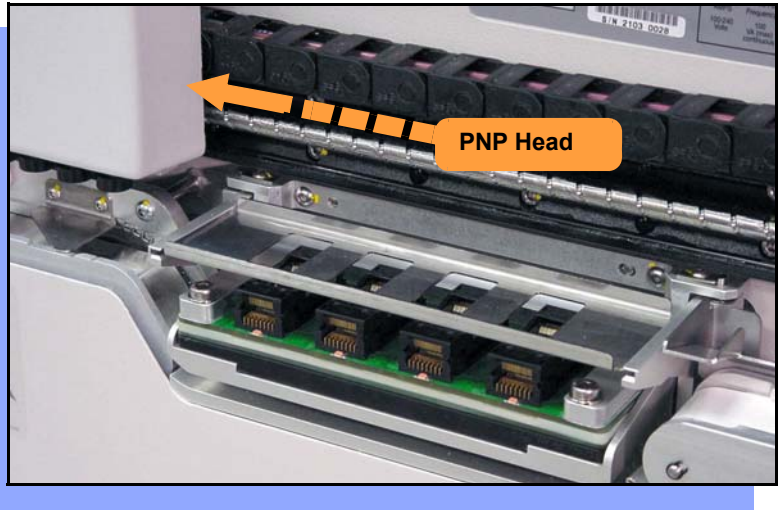
Pinch Warning. Keep Hands Away From Moving Parts.



4. **When inserting the new precisor, make sure that the part number faces up and that the small holes near the precisor edge fit over the dowel pins on the PNP head.**

   There should be no visible gap between the precisor and the head. ■

Changing 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.

Warning:

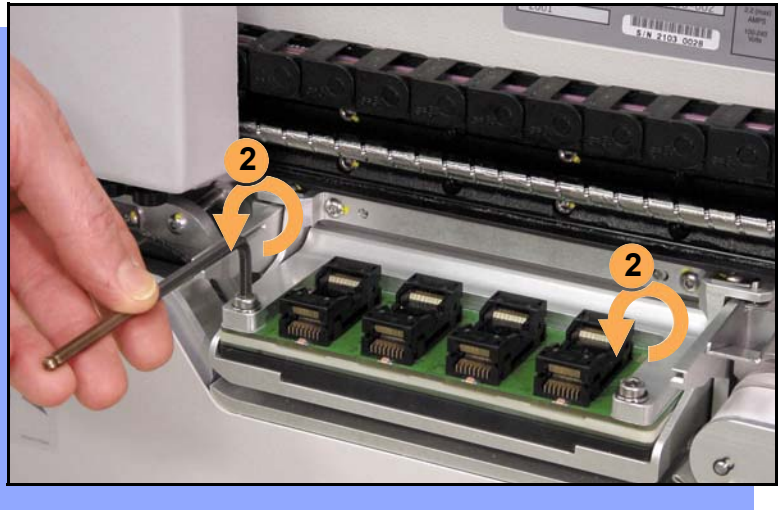
Pinch Warning. Keep Hands Away From Moving Parts.

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

   NOTE: The Actuator Plate must be removed to access or change the Socket Adapter.

To change the Socket Adapter, see the procedure on the following page. ■

Changing the Socket Adapter



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

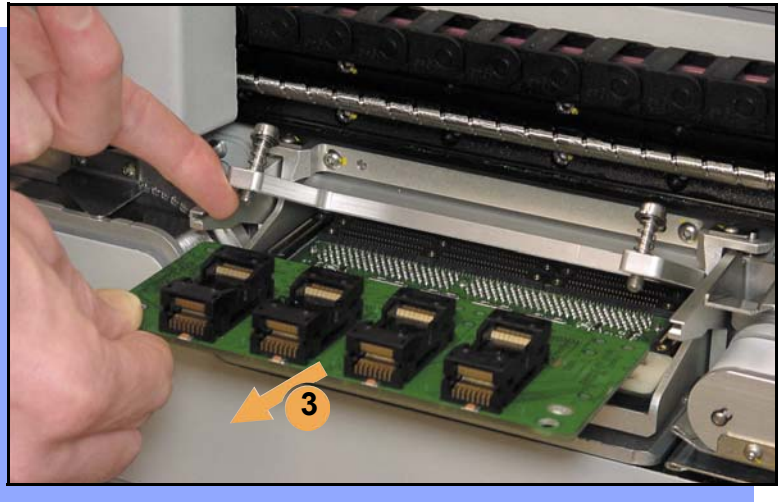
1. **Make sure the power is Off (0).**
2. **Unscrew the two captive screws and lift the adapter bracket.**

Warning:

Pinch Warning. Keep Hands Away From Moving Parts.

Caution:

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

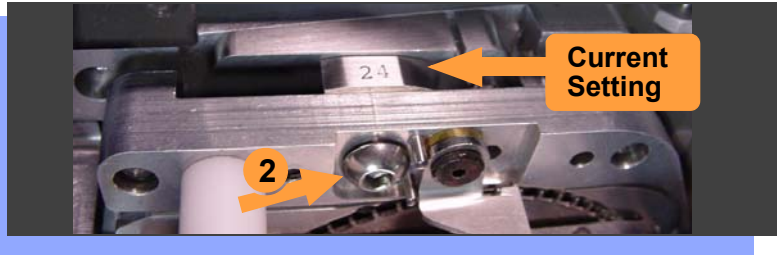


3. **Without touching the gold contact surfaces on the bottom of the adapter, lift the adapter free.**
4. **Insert the correct adapter, making sure that it seats on the dowel pins.**

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

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

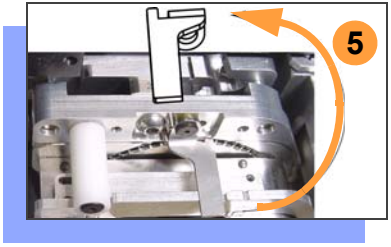
Adjusting the Tape-In Module



If you have an Adjustable Tape-In Module, you may need to adjust it to match your tape width.

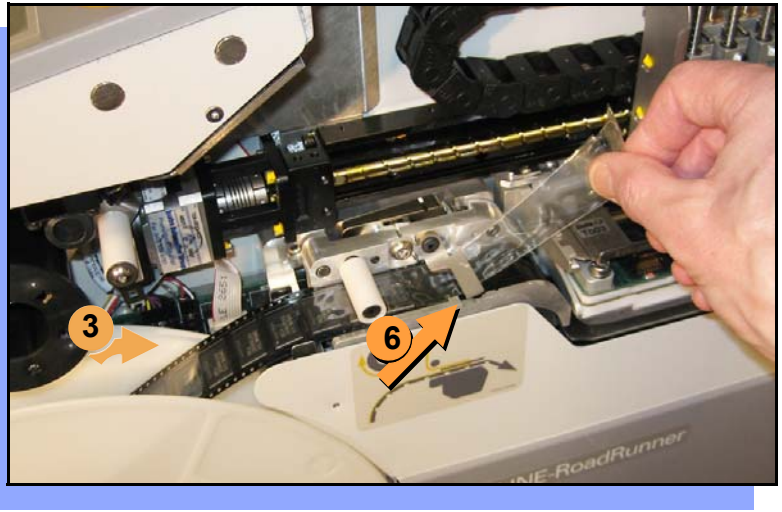
Adjustable Tape-In Module only— If the etched number on the three-position spacer does not match your tape width dimension (mm) then adjust it:

1. **With the power off (0), push the PNP head out of the way.**
2. **Loosen the Position Locking Screw most of the way out using a 4 mm Allen wrench.**



3. **Rotate the three-position spacer with your finger until you read 16, 24 or 32, corresponding to your tape width (rotates one direction except when at 16).**
4. **Retighten the Position Locking Screw.**
5. **Rotate the Peel Bar counter-clockwise 180 degrees to the up position.**
6. **Lift and move the magnetic Front Track to the position that fits your tape width.**
7. **Rotate the Peel Bar back down. ■**

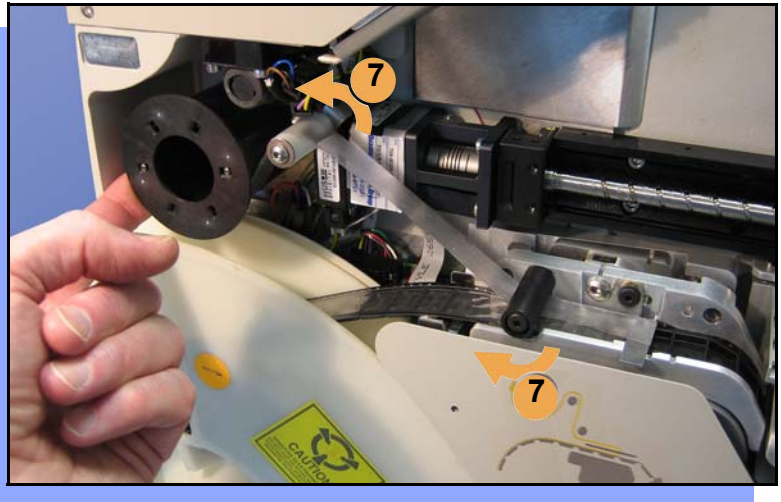
Loading a Reel of Devices



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 the reel in place by rotating the brass button on the spindle end.**
4. **Insert device tape into the Tape-In Module and its 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.*



6. **When the tape is advanced just past the Peel Bar, separate the cover tape from the device tape.**

7. **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.**

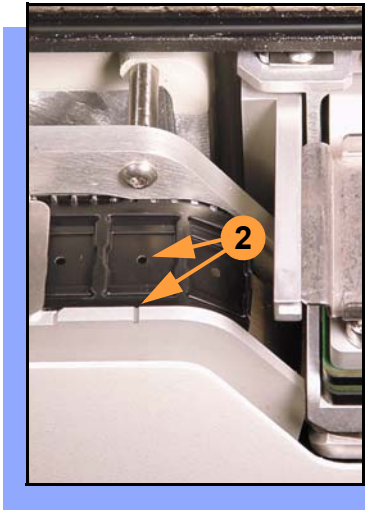
   NOTE: A piece of adhesive tape will help stick the cover tape to the Take-Up Reel.

8. **Wind up slack cover tape.**

9. **Press** Menu **to end the *advancing* procedure.**

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 **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 jam the tape path.**
3. **Press** Menu **to end this process.**

NOTE: Perform this aligning procedure each time power is applied, including after releasing the Emergency Stop. ■

Adding Network Communication

To connect RoadRunner to a network (optional):

1. **Create a Network card at 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** Select **again to edit.**

Network Connection, continued

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 Network Cable, 10BaseT or 100BaseT. Only FC III & later programmers make use of the latter.** ■

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 job 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:

- **Press** Pause **on the Control Panel.**

To instantly stop in an emergency situation:

- **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.

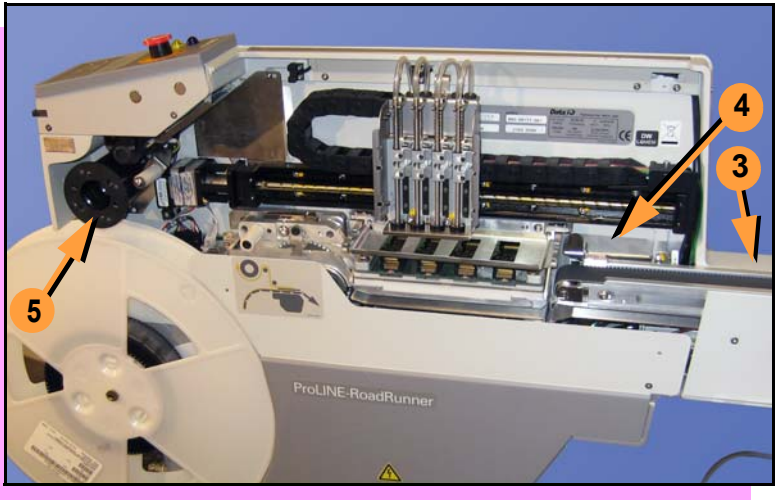
Ending a Job

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

To end the current job:

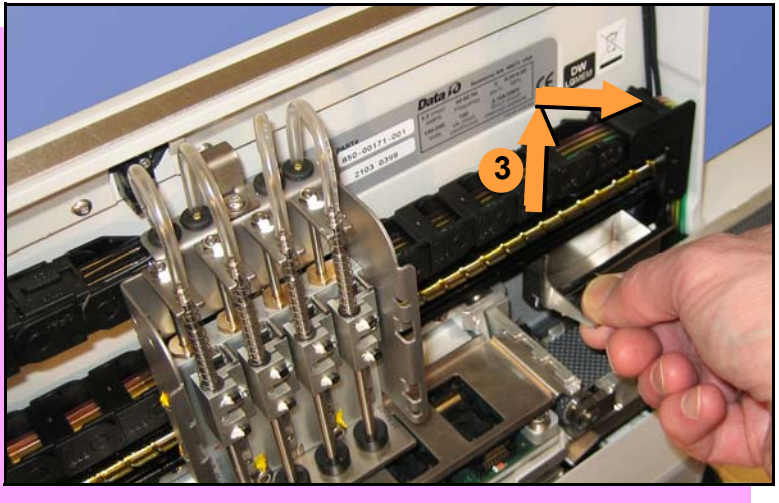
1. **Press the** Pause **button.**
2. **Scroll to and select** End **from the Job Menu. "Job" is in the main menu.**

   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:

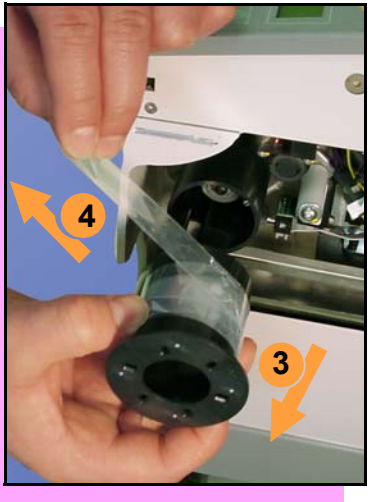
1. **Press the `Pause` button.**
2. **Lift off the Robotics Cover.**
3. **Lift the Reject Bin straight up by the finger tab and then out.**

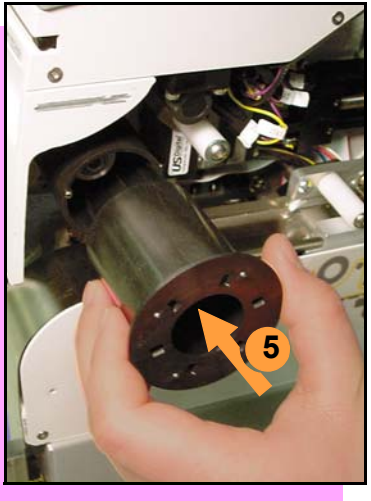
   When reinserting the Reject Bin, be sure the bin is *completely* lowered so that the tab is positioned out of the path of the probes. ■

Warning:

Pinch Warning. Keep Hands Away From Moving Parts.

Emptying Cover Tape





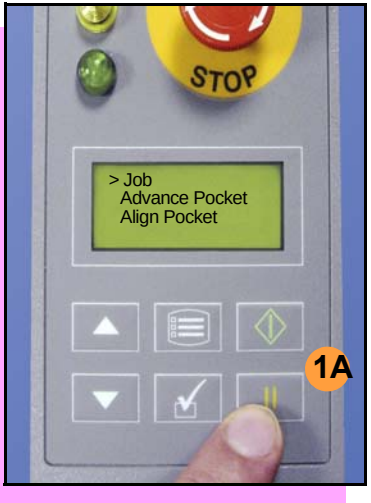
To empty the Cover Tape Take-Up Reel (during a job) when it looks full:

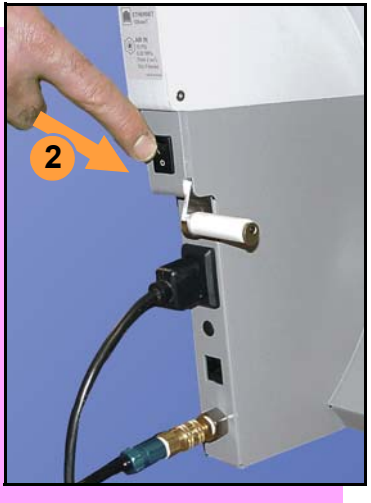
1. **Press** Pause.
2. **Leaving enough slack to re-attach, cut the cover tape.**
3. **Pull the Take-Up Reel straight out and off the hub.**
4. **Unwind the used cover tape and discard it.**
5. **Replace the Take-Up Reel—slide it on and rotate it to line up with the pins, and push.** ■

Warning:

Pinch Warning. Keep Hands Away From Moving Parts.

Shutting Down

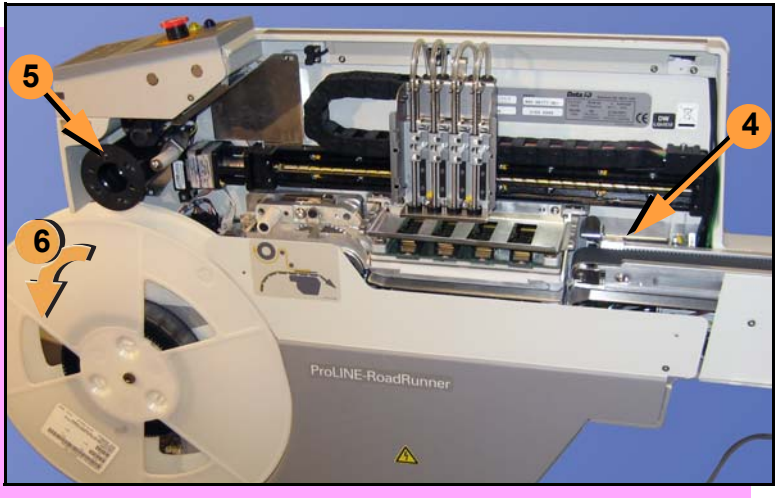




To turn off RoadRunner:

1. **If a job is running:**
   A. Press Pause.
   B. Select End Job **from the Job Menu and wait for all devices to be removed from the sockets.**
2. **Turn the power Off (0).**
3. **Remove devices from the conveyor belt.**

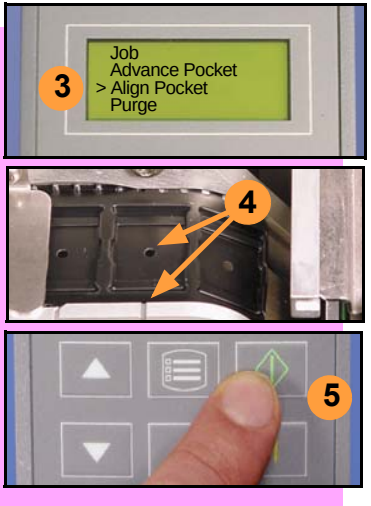
continued



4. **Empty the Reject Bin.**
5. **Empty the Take-Up Reel. (For more, see the previous heading.)**
6. **If removing the reel of devices, cut the empty tape where it exits at the far end of the conveyor, and then wind the reel backwards.**
7. **Turn off the air flow, or remove the air hose.**

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

Restarting a Job

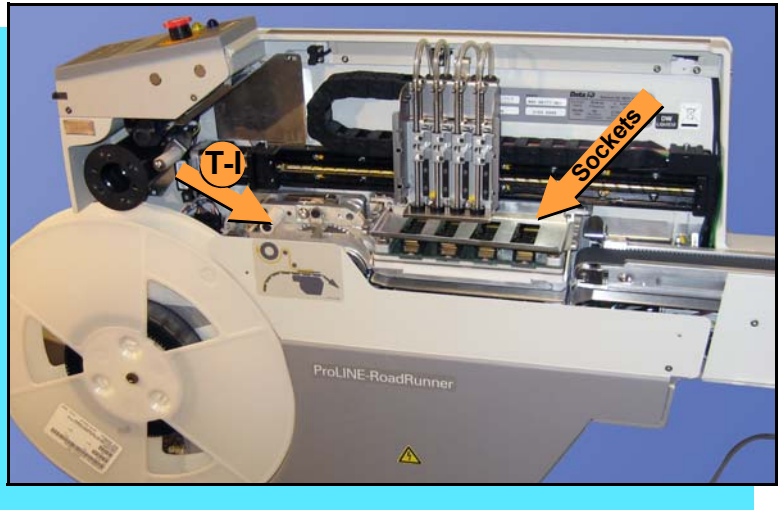


To restart a job after a Pause or an Emergency Stop:

1. **Rotate the** Emergency Stop **button clockwise to release it, if applicable.**
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 (± 3 mm).**
5. **Press** Start.

The job will resume. ■

Cleaning with Air



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

NOTE: Compressed air must be clean and dry. ■

- **Tape-In Module (weekly).**
- **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.** ■

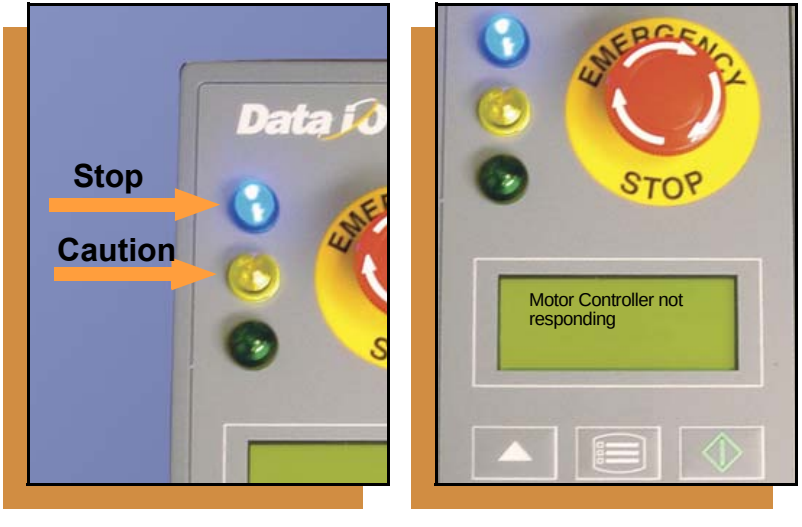
Viewing Errors

To view and correct errors:

1. **Messages will appear in the key-pad display.**
2. **Check the condition—tape path, Reject Bin, etc.—indicated 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.

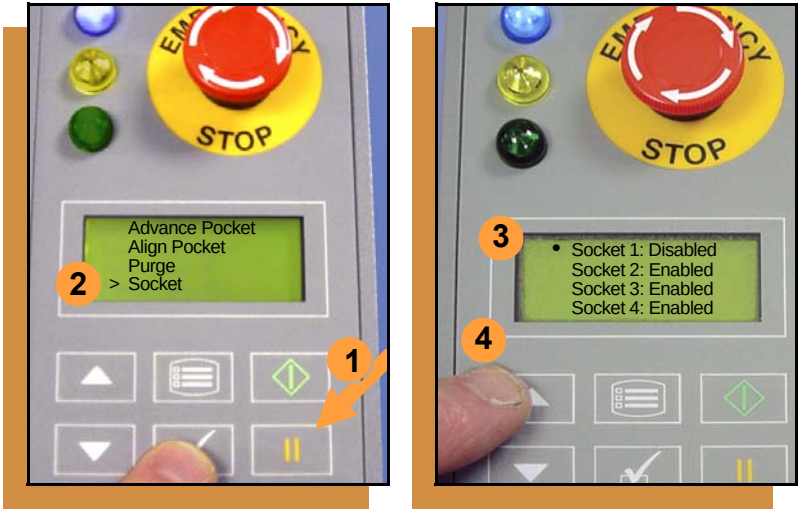


Some common error messages are listed below. For more information see "Troubleshooting" in the *ProLINE-RoadRunner Owner's Manual*.

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[1]
Blue	Motor controller not responding

[1]Twist the Emergency Stop button to release it. ■

Enabling a Socket



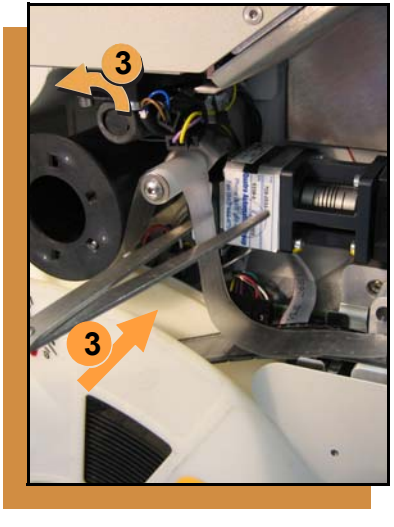
If a socket repeatedly becomes disabled, RoadRunner should be serviced.

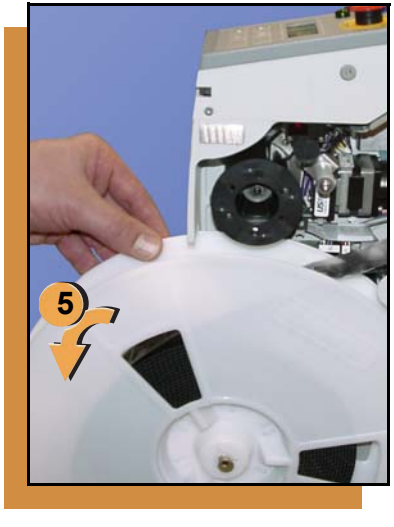
To re-enable a disabled socket:

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.**
5. **Press** Menu **to end the process.**

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

Removing Jammed Device Tape

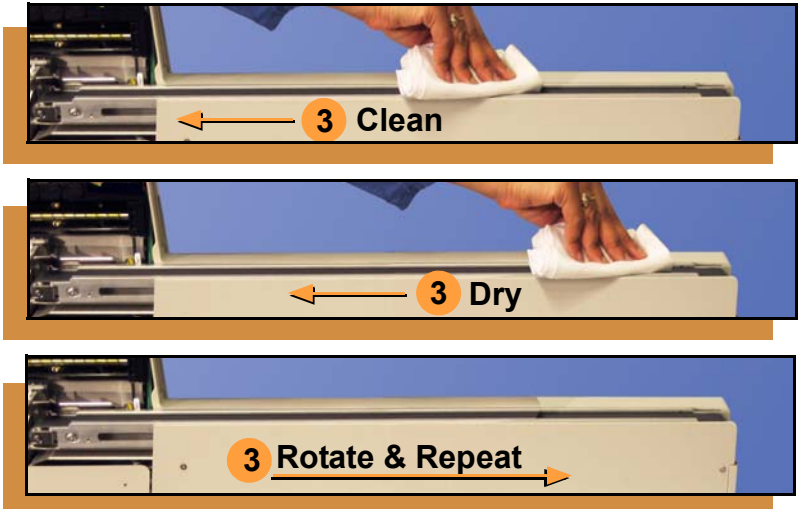




If the tape jams, an error message displays and the blue lamp illuminates. To clear the tape path:

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

Device Rotation



If devices rotate excessively on the conveyor belt:

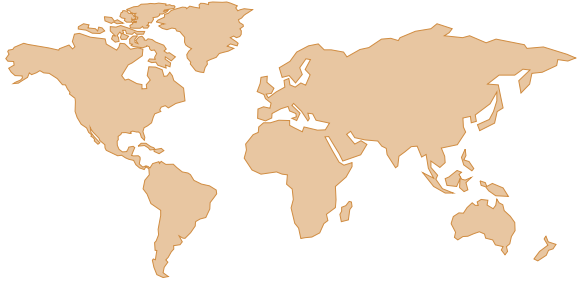
1. **Press** Pause**. Wait for all devices to get picked from the belt.**
2. **Press the** Emergency Stop**.**
3. **Remove the Dust Cover (some models) and clean only the exposed surface of the conveyor belt with isopropyl alcohol on a cloth, *then dry it*. Rotate the belt by hand and repeat until entire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

Index

Technical Support

Contact your local Data I/O representative.

To find your local representative, go to
http://www.dataio.com/contact/repsearch.asp



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Programmable media experts