ProLINE-RoadRunner
InLine Programming Solutions for Fuji NXT / AIM Placement Machines

THE WORLD'S ONLY JUST-IN-TIME AUTOMATED DEVICE PROGRAMMING SYSTEM – DELIVERING THE HIGHEST QUALITY AT THE LOWEST COST PER DEVICE

Benefits of moving from outsourcing to in-line device programming, using the ProLINE-RoadRunner:
Simplified inventory management
Less material handling
Just-in-time programming
Supply chain efficiencies
Lean Manufacturing
Improved time-to-market
Immediate response to code changes
Higher manufacturing profits

Benefits of moving from programming-at-test to programming-at-placement, using the ProLINE-RoadRunner:
Reduced programmer/test time
Optimize in-circuit test
Reduced number of testers
Optimal utilization of floor space
Balance the production line
Place only verified devices
Reduced board scrap costs
High throughput at lower cost
Faster code changes using TaskLink for Windows™
Higher manufacturing profits

The ProLine-Roadrunner is a high-speed, in-line Flash memory and microcontroller programming system that mounts directly onto the feeder banks of Fuji NXT OR aim SMT placement machines without consuming any additional floor space or altering the production line.

Networked Connection – the RoadRunner can be operated both locally and by way of the network interface. Design changes can be made as needed and downloaded directly to the RoadRunner's own IP address.

Accelerated NPI - Data I/O's Connected Programming Solutions allows ProLINE-RoadRunner users to link their programming processes with TL-WIN™ to quickly communicate firmware changes around the globe. With software changes communications from engineering to production, time and errors are dramatically reduced.

Built-in Diagnostics/Job Statistics
Are written to the RoadRunner's PCMCIA card at the end of the programming task. Statistics are saved back to TaskLink (TLWIN) for analyzing production yields and throughput. Using the Remote Monitoring software, system managers can observe the operations of their RoadRunners anywhere in the world on the same network.

Fuji NXT Placement System

SPECIFICATIONS
SMT Platforms Supported

- *Fuji*
     NXT or AIM
- **Fuji (MFU) also available**
     MFU, IP3E, QP242E, QP351E

Typical Product Dimensions
- Length: 990mm (39 in.)
- Width: 78.5mm (3.1 in.)
- Height: 483mm (19.02 in.)
- Protrusion distance from machine
     L700mm (27.6 in.)
- Net weight: approx 16kg (35.2lbs.)

Device Support
The ProLINE RoadRunner supports a wide range of microcontroller, memory and NAND Flash devices in package geometries up to 21.65mm wide, 15mm long, and 3mm high.

Annual Programmer Support (APS)
The first year of support is included in the system purchase price which can be extended via annual support agreement renewal. The APS support program covers both hardware and system software (consumables are not included)

High Insertion Count (HIC) adapters
Using HIC socket adapter modules, the RoadRunner produces the highest first-pass yields and lowest cost per programmed device available

Changeover Time (New Job Set-up)
< 15 minutes
- Change reel (13 inch reel diameter)
- Empty cover tape take-up reel
- Change socket adapter
- Insert new job card
- Insert carrier tape and align pocket
Includes tape reconfiguration using adjustable tape-in module
Changeover Time (consumables)
< 1 minute
- Replace PNP nozzle tips
- Replace socket adapters

- Leaded-device co-planarity
  alteration 1 mil
Tape-In Options
Adjustable tape-in module
          supports 16mm, 24mm, and
          32mm devices
- Reel size:
  32mm tape x 13 inch diameter
  max
Operating Temperature Range
- +15º to +40ºC (+60ºF to +104ºF)
- Temperature stabilization time
  > 8 hours
- Operating humidity, non-
          condensing:
  20 to 80%
Regulatory Compliance
CE, OSHA

REQUIREMENTS
Fuji
- Direct mount, no additional
  parts required
  Supports both NXT and AIM)
  Simple conversion to both
          placement systems

Power Requirements
- AC Input: 110/240 Vac, 50/60 HZ (single phase)
- AC Input Power: 100W
Air Requirements
- Regulated Air to RoadRunner Unit:
  75PSI +/-5 PSI @ 4 SCFM
Personal Computer
- PC with PCMCIA card drive running Microsoft Windows 95, Windows 98 or Windows NT, XP (Windows NT may require purchase of additional software drivers or a card drive)
- Hard disk space: 25MB minimum for TaskLink files
- CD ROM drive
- Serial or bus mouse
- Memory card drive
- VGA monitor with 640 x 480 (minimum resolution)

Socketing Technology
Standard burn-in sockets (5,000 – 10,000 insertions per socket)

High Performance Sockets (HPS) for .8mm BGA footprint (30,000-40,000 insertions per socket)

High Insertion Count (HIC) For BGA, TSOP, QFP (250,000 insertions per socket)