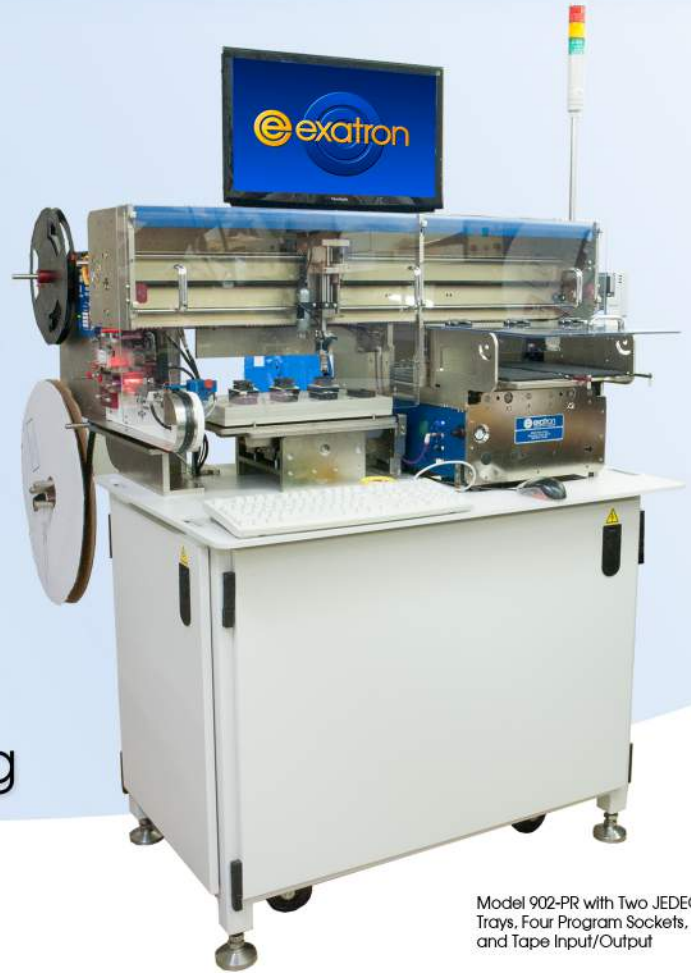


# exatron MODEL 902-PR

THE WORLD'S MOST COST EFFECTIVE AUTOMATED PROGRAMMING SYSTEM

*Up to 4,000 UPH*  
(units per hour)  
*depending on options*

Add your choice of programmer to **Exatron** automation and create the **fastest**, most efficient programming system **in the world**.



Model 902-PR with Two JEDEC Trays, Four Program Sockets, and Tape Input/Output

## FAST

- 1,000 UPH with 10 sec program time (as shown).
  - Special versions can exceed 4,000 UPH with additional test sites.
- All sockets individually aligned under software control.
- Camera-aided socket alignment optional.
- Sockets are opened/closed by Z plunger, no additional processes necessary.

## EFFICIENT

- Virtually "kit-less."
  - Quick and easy changeover of socket adapters and pickup heads.
- No mechanical or electrical calibrations after initial setup.
- Handles all package sizes 1.6 mm x 2.00mm - 75mm x 75mm.
- Easy to self-service. Unbeatable, long-term support.



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# exatron MODEL 902-PR

## SPECIFICATIONS, FEATURES, AND OPTIONS

### 902-PR Features:

- 1,000 UPH (units per hour) with 10 sec program time.
  - Special versions exceed 4,000 UPH with additional test sites.
- Virtually “kit-less.”
  - Quick and easy changeover of socket adapters and pickup heads.
- 4 program sockets (as shown).
  - Can fit up to 16 sockets.
- All sockets are individually aligned under software control.
- Moves 1 device at a time (as shown).
  - Additional Z plunger available, move up to 16 devices at once.
- Z plunger opens/closes standard open top sockets.
- Interfaces with 3rd party programmer of your choice.  
(See insert.)
- Handles device sizes 1.6mm x 2.0mm - 75mm x 75mm.
- 1 input and 1 output JEDEC tray (up to 6 trays available).
- Multiple additional input/output, vision, and laser options.  
(See next page.)
- Fully enclosed on all sides, doors electrically and mechanically locked.
- Heavy duty welded steel frame.
- CE marked. RoHS compliant. Meets all ESD requirements.

### Specifications:

**Size:** 1.2m W x 1.23m H x 1.4m D (46" W x 48.5" H x 57" D)  
(with taper as shown)

1.2m W x 1.23m H x .87m D (46" W x 48.5" H x 34.25" D)  
(without taper)

**Weight:** Approx. 320kg (700 lbs)

**Power:** 100-240 VAC 50/60 Hz @ 240 Watts

**Air:** 5.9 bar (85 PSI) @ 3 CFM clean, dry air

**Operational Temperature:** 13-32° C (55-90° F)

**Humidity:** 35-90 % RH non-condensing

### Positioning System:

**X-Y Drive System:** Servo motor-driven lead screws

**X-Y Axis Resolution:** 0.1mm (0.003")

**X-Y Axis Max. Velocity:** 122cm/s (48"/s)

**Z Plunger:** Servo motor-driven lead screws

- Fits 1-2 Z plungers, up to 16 pickup tips.

**Z Axis Resolution:** +/- 0.1mm (0.003")

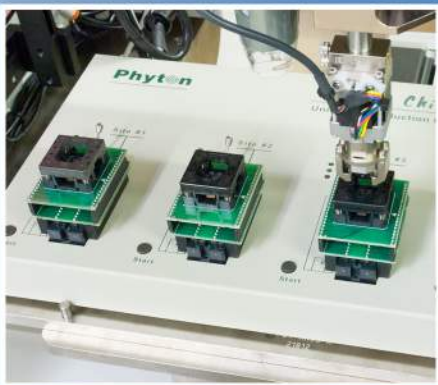
**Z Axis Repeatability:** +/- 0.1mm (0.003")

**Placement Force:** Up to 10kg (20 lbs) force with standard pickup heads

**Theta Drive System:** Precision stepper motors

**Theta Axis Resolution:** 0.1°

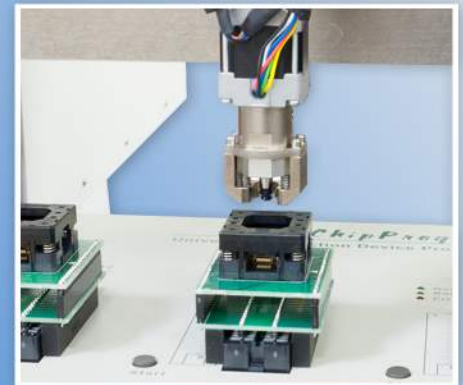
**Theta Axis Repeatability:** +/- 0.1mm (0.003")



Pickup Head Closes Programmer Sockets



Input/Output JEDEC Trays



Pickup Head at Socket



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# exatron MODEL 902-PR

## SPECIFICATIONS, FEATURES, AND OPTIONS

### Input Tape Option:

- Based on standard Hover-Davis feeders.
- Snaps on/off. Easy loading, no tools required.

### Output Tape Option (Model 202 Tape and Reel):

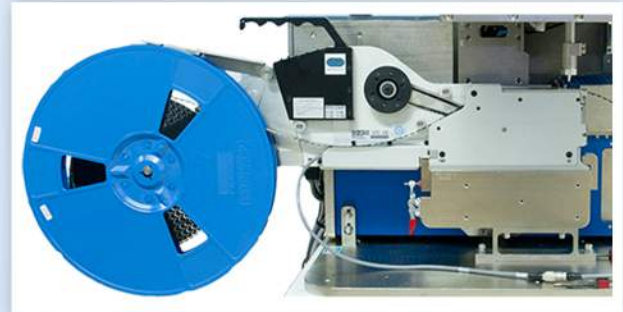
- Built by Exatron. Not a third party design.
- **Tape width:** 8mm-72mm.
- **Tape pitch:** 2mm-72mm.
- **Output reel size:** 18cm, 33cm, or 56cm (7", 13", or 22").
- PSA and thermal sealing.
- Handles all carrier tape types.
- Built-in vision standard:
  - Pin1 orientation.
  - Out of pocket, upside down, empty pocket.
- PC-controlled parameters:
  - Total filled pocket count.
  - Seal method, timing, and tape speed.
  - Leader/trailer pocket count.
  - Automatic tape alignment.
  - +/- 2° C seal temperature control.
- Powered takeup reel with slack/tension switch.
- Innovative carrier tape guide block aligns cover and carrier tape. Perfect seal every time, guaranteed.

### Laser Marking Option:

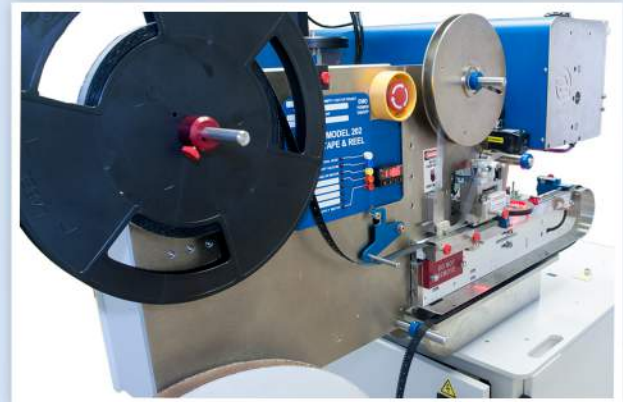
- Laser mark options must be upgraded at time of order.
- Mark in tray, no additional tooling required, no UPH hit.
- CDRH Class 1 enclosures.
- "Add a Mark" Vision upgrade aligns new marks to existing marks on each individual device.
- Easily integrate a wide range of OEM laser markers.
  - CO<sub>2</sub>, 1064nm, 532nm.

### Input/Output Tube Option:

Many options available for devices in tubes.  
Contact Exatron for details.



Input Tape



Output Tape



Laser Marking



Input Tube



# exatron MODEL 902-PR

## SPECIFICATIONS, FEATURES, AND OPTIONS

### Machine Vision Options:

Vision options must be upgraded at time of order.

- **Bottom-side Vision:**
  - Precision BGA, QFN, and leaded 3D inspections.
  - Economical 2D inspection.
- **Top-side Vision:**
  - 1D or 2D barcode scanning on device and/or JEDEC trays.
  - Optical Character Verification.
  - Optical Character Recognition.
  - Socket alignment.

### Software Features:

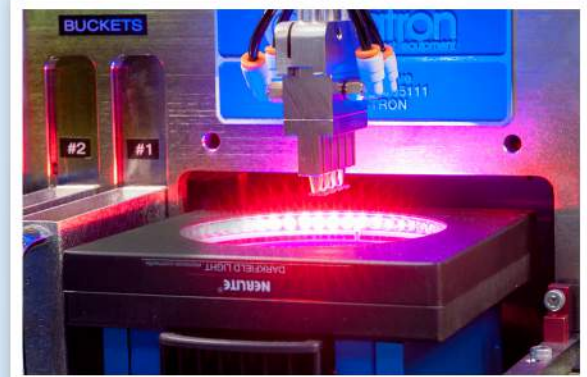
- Windows 7 operator GUI.
- Extensive built-in diagnostic software.
- Job data logs come standard.
- All software generated in-house at Exatron.

### Software Options:

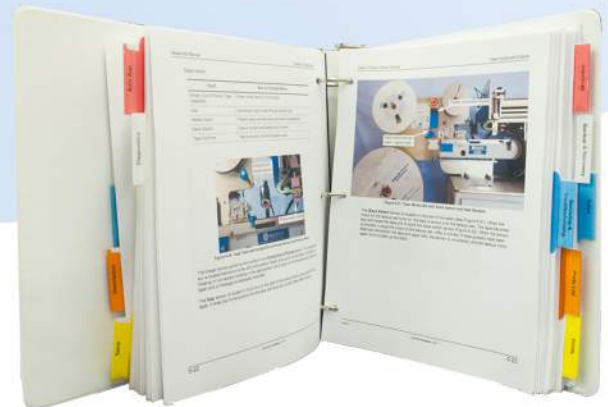
- Exatron "Smart Queue" upgrade:  
Smart Queue software guarantees 100% perfect serialized order at output tape, remakes failed devices on the fly with no UPH hit, and ensures the correct external laser mark and internal serial number. Absolutely no missing, out of order, or duplicate numbers.

### Ongoing Support:

- World's easiest handler to self-service.
- Handler self-calibrates on power up. No mechanical or electrical calibrations needed.
- Remote service, training, and software updates available via Internet.
- Error messages in plain English, no error codes.
  - Ask about messages in language of choice.
- Spare parts typically shipped within 24 hours ARO.
- Excellent, full-color documentation and extensive diagnostics provided.
- Worldwide on-site service available.



Optional Bottom-side Vision



Excellent Documentation



Since 1974



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