

# Automated Programming System



Our overseas offices support installment and maintenance of our products. Engineers with expertise are always prepared to rapidly handle unexpected problems.

**Quick & Flexible**

**New!** Programming Laser marking 2D appearance check\*

## High-quality all-in-one model has debuted!

### TEH2724LS

#### Productivity

- Programming, marking and inspection are parallelly performed to output up to **1,000 pcs/hour** (program + mark + inspection)
- 20 tray stacking possible for a long hour unmanned operation

#### Traceability

- Laser marking standard
- Marking of product information, a serial number, destination
- Supports QR codes and extremely small letters

#### High quality

- Prevents bent pins by processing images with a correction device
- Performs lead inspection and marking inspection (option)



TEH2724LS  
Introduction movie  
<https://youtu.be/ojLF1nQcFpk>

**New!** Programming Laser marking 3D appearance check\*

## Performs 3D appearance check parallelly

### TEH2724-2LSC

- High-quality 4-head robot enables output of up to **1,440 pcs/hour** (program + mark + inspection)

- Laser marking standard
- 3D inspection detects bent leads and checks for coplanarity of leads and balls.



Programming Dot marking\* 2D appearance check\*

## Highly productive, space-saving model

### TEH2724/30C/50

- Compact body with a footprint of 1 m<sup>2</sup> or less and a height of 1.4m
- Device transport 3.6 sec/device, max. 1,000 pcs/hour
- Realizes both high performance and low price



TEH2724  
Introduction movie  
<https://youtu.be/MUkR89k9FWU>

## Laser marking system

### TEH2500

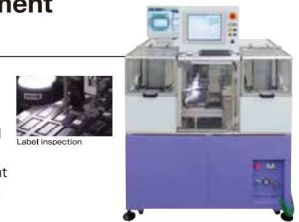
- 20 trays stacked for large-volume continuous operation
- Processes images to detect devices and start marking



## Label attachment system

### TEH1600

- Up to 40 trays
- Supports label designed by customers
- Precise label attachment using image recognition



## Features of our programming systems

#### Tray stacking

Automatic transportation of stacked supply trays enables unmanned operation for long hours. FAIL items are moved to the FAIL tray and not mixed with OK items.



#### Traceability

The PC-based system enables monitoring of the operation status, tracing of the operation history, and data analysis.

#### Barcode reader (option)

Using a barcode (QR code) reader prevents human error and saves time for settings. Useful in high-mix low-volume production.

#### CCD camera reducing adjustment work

The camera with an X-Y-Z robot detects socket positions (automatic teaching) and the position correction camera detects positions of devices picked up by transport heads. This enables devices to be attached to sockets with no damage to leads.



High-performance CCD camera

#### Stamp marking (option)

Dot/alphanumeric marking using dedicated stamps enables classification of designations and specifications. (TEH2724/30C/50)



#### Wearable terminal (option)

A watch-type wireless receiver for information of equipment failure or completion of operation. Useful when the plant has a loud noise or notification using sounds or displays is difficult.



## Product specifications

	TEH2724LS	TEH2724-2LSC	TEH2724/30C/50
Incorporated programmer / Concurrent programming	AF9724 (1 unit)/up to 16 devices	AF9724 (2 units)/ up to 32 devices	TEH2724: AF9724 (1 unit)/up to 16 devices TEH2730C: AG9730C (2 units)/up to 32 devices TEH2750: AF9750 (2 units)/up to 40 devices
Tray stage	4 trays		
Tray loader	20 trays		
Device IC socket	Open-top type		
Transporting capacity per device	3.6 sec	2.5 sec	3.6 sec
Device pick-up head	2 heads transporting 2 devices at once	4 heads for 4 devices at once	1 head for mounting and 1 head for ejecting
CCD camera	For socket position detection (2MP) For device pick-up correction (2MP) For marking and inspection (5MP)	4 units for socket position detection / device pick-up correction (2MP) 2 units for marking and inspection (5MP) For 3D inspection (4MP)	2 units (0.3MP) For socket position detection For device pick-up position correction
Device position correction	Position correction using a CCD camera		
Size (W×D×H mm) *excluding protrusions	1340×1110×1400	2300×1170×1420	990×990×1400
Weight *excluding accessories	Approx. 650kg	Approx. 1600kg	Approx. 450kg
Air	0.5MPa 250 l /min(ANR)	0.39MPa 800l/min(ANR)	0.5MPa 200l/min(ANR)
Power supply	AC200V ±10% 50/60Hz 7.7kVA three-phase	AC200V ±10% 50/60Hz 50A three-phase	AC200V ±10% 50/60Hz 20A three-phase
Options	· 2D marking inspection · 2D lead inspection · Barcode reader · Single-phase support	· Marking inspection · Lead inspection · Barcode reader · Single-phase support	· 2D marking inspection · 2D lead inspection · Stamp marking · Barcode reader · 2 million pixels CCD camera · Single-phase support
Remarks	Laser marking and an ionizer as a standard		Ionizer as a standard

Functions with \* are options.