

# Automated Programming System

Overseas installation service is available.

Our overseas offices support installation 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 1m<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.



#### 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.



#### Traceability

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

#### Stamp marking (option)

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



#### Barcode reader (option)

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

#### 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<br>TEH2730C: AG9730C(2 units)/up to 32 devices<br>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)<br>For device pick-up correction (2MP)<br>For marking and inspection (5MP) | 4 units for socket position detection / device pick-up correction (2MP)<br>2units for marking and inspection (5MP)<br>For 3D inspection (4MP) | 2 units (0.3MP)<br>· For socket position detection<br>· For device pick-up position correction   |
| Device position correction                       | Position correction using a CCD camera   | Position correction using a CCD camera  | 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<br>· 2D lead inspection<br>· Barcode reader · Single-phase support                     | · Marking inspection<br>· Lead inspection<br>· Barcode reader · Single-phase support  | · 2D marking inspection · 2D lead inspection<br>· Stamp marking · Barcode reader<br>· 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.