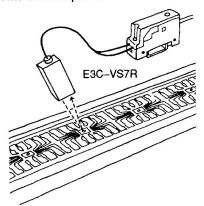


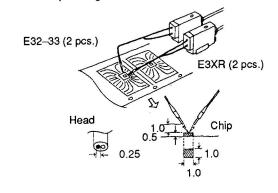
A spotlight of 2 mm dia. can accurately detect the smallest amounts of silver paste.



E3C-VM35R (Amp is E3C-JC4P) E3C-D32 (Fiber Unit) and E39-F3A (Miniature Spot Lens Unit) and E3XR-CE4 (Amp)

### 40 Chip Position Slippage Detection

Uses a 0.25-mm ultra-fine fiber to detect minute chip slippage. By using two sensors, can detect slippage on both sides. Can use either a red or green light source depending on the color of the base.

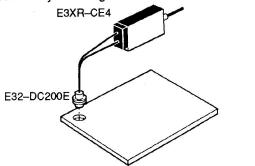


Fiber Optic Photoelectric Switch

E3XR-CE4

## 41 Glass Epoxy Board Positioning

Positions by detecting 1-mm hole on board surface.



Detection Distance: Vertical Type 1 mm Fixed

Type 1mm to 3 mm

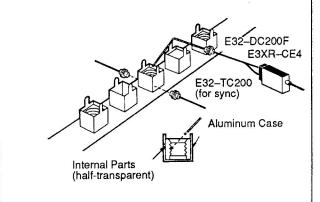
Detection Subject: Glass Epoxy PC Board (Green or Black, with 1 mm dia. holes)

Fiber Unit: E32-DC200E

Amp Unit: E3XR

#### 42 Detection of Part in Metal Case

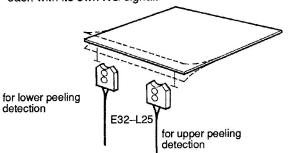
Detects reflected light from the tap on the top of the internal part. Detects the presence of the part.



E32-DC200F Fiber Unit: Amp Unit: E3XR-CE4

### 43 PC Board Peeling Detection

Uses two limited reflective sensors to detect board warpage (peeling) in units as small as 0.5 mm. Upper and lower peeling are detected by separate sensors. each with its own NG signal.



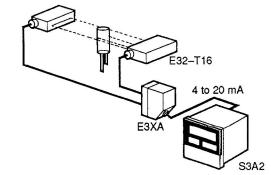
**Detection Subject: PC Board** 

Fiber Unit: Amp Unit:

E32-L25A P95 E3XR-CE4 P95

# 44 Capacitor Type Judgement

Capacitors are categorized by diameter size. The analog figure, when the sync sensor starts, is read to make the judgement.



Detection Subject: Capacitor

Fiber Unit:

E32-T16 P237

Amp Unit: E3XR-CE4 P237