

Laser Marker Selection Guide

FAYb
LASER MARKER



NEW LP-ZV SERIES



LP-RV SERIES



LP-RF SERIES

CO₂
LASER MARKER



NEW LP-RH SERIES

FAYb LASER MARKER

Laser wavelength

100
380
400

Ultraviolet
region

500
600
700
780
1,000

Visible region

FAYb

FAYb Laser

1,064 nm

1,070 nm

Infrared region

CO₂

CO₂ Laser

9,300 nm

10,600 nm

Wavelength
[nm]

NEW

3D FAYb Laser Marker

LP-ZV SERIES



17W	42W	IP64	3D	125	220	330
Removable	SMART	Removable	Removable	Removable	Removable	Removable

* Average output for marking

The built-in camera helps achieve higher productivity. Thanks to the 1-ns short-pulse laser's superb marking expressivity combined with the 3D control, this series is suitable for high-output metal marking as well as for high contrast marking and extra small character marking on resins.

FAYb Laser Marker **Short Pulse**

LP-RV SERIES



17W	90	IP64	SMART	Removable
Removable	Removable	Removable	Removable	Removable

Equipped with a short-pulse laser, this series achieves excellent high contrast marking on resins and enables engraving of very small characters.

FAYb Laser Marker

LP-RF SERIES



17W	90	IP64	SMART	Removable
Removable	Removable	Removable	Removable	Removable

The head is durable with an IP64 ingress protection rating. This entry laser marker series features excellent basic functions.








CO₂ LASER MARKER

NEW

CO₂ Laser Marker

LP-RH SERIES



10W	10.6 μm			
20W	9.3 μm			
30W	10.6 μm			 

*Average oscillator output

General-purpose CO₂ laser marker suitable for marking on resin. Vertical and horizontal head models available for flexible installation on various equipment.

Laser marker product information (our company's website)

• Detailed product information



Laser Marking Applications

FAYb Laser Marker



Engine block



Engine part



Cam shaft



Cast



Medical instruments



Battery housing



Laser diode



Bearing



Sensor



IC



Molded resin part



Molded resin part

CO₂ Laser Marker



PET bottle



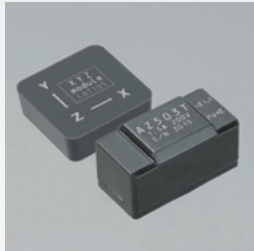
Outer box (GS1 DataMatrix)



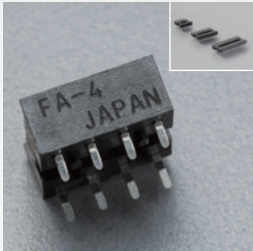
Aluminum packaging material



Retort pouch



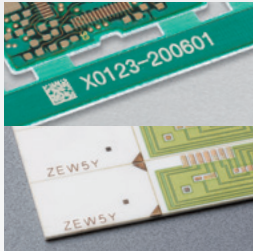
Molded resin parts



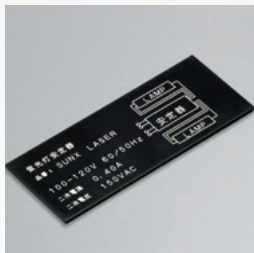
Connectors



Electronic parts



Circuit boards



Alumite nameplate



Laser labels (marking + half-cutting)



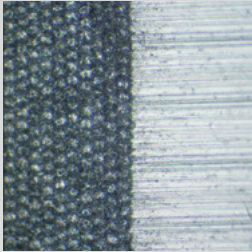
Silicone tube



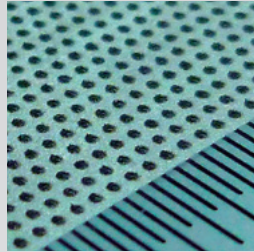
Lens

Laser Processing Applications

FAYb Laser Marker



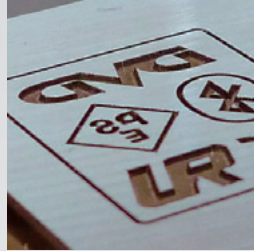
Processing of bearing surface



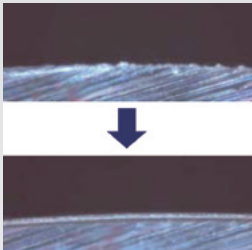
Depression processing on metal



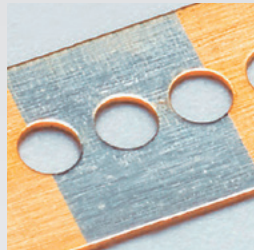
Removal of coating film from gasket



Engraving on die

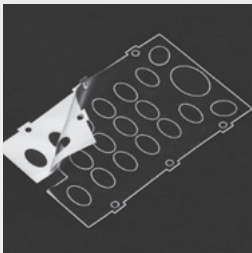


Deburring of metal parts



Removal of gold plating from electronic parts

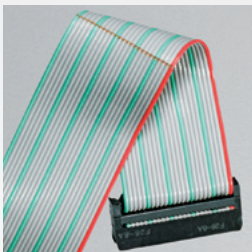
CO₂ Laser Marker



Film cutting



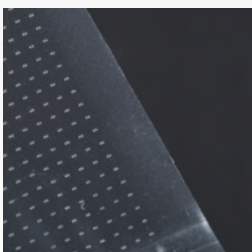
Resin gate cut



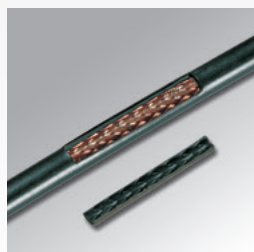
Removal of ribbon cable insulation



Rubber gaskets cutting



Film drilling



Insulation removal

New application suggestion

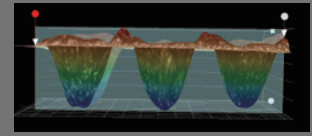
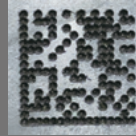
Deep engraving using high-output laser marker

Traceability ensured even after shot blasting

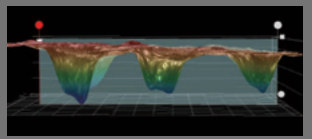
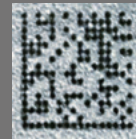
Aluminum casted part



Before shot blasting



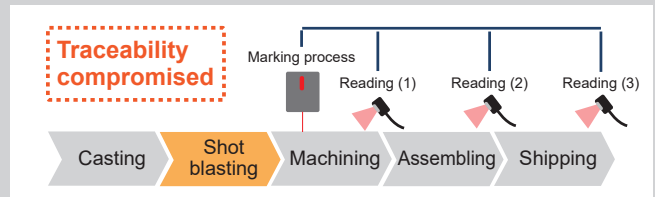
After shot blasting



Surface layer is removed by shot blasting.

Previous issues

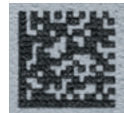
- Marking removed by shot blasting, so traceability is compromised.



Shot blasting process



Before shot blasting



After shot blasting

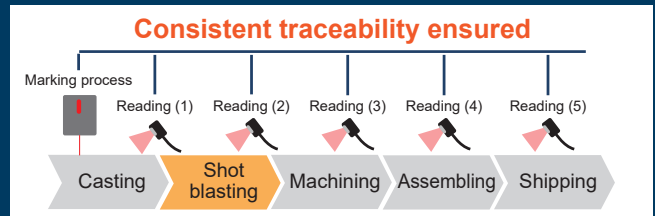


Marking removed!!

* Above images are for illustrative purposes.

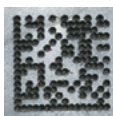
After using the LP-ZV

- Deep-engraved marking remains even after shot blasting to ensure consistent traceability!!

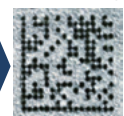


With 42-W high-power laser...

Before shot blasting



After shot blasting



Readable even after shot blasting!!

* Removal of 120 μm of surface layer by laser blasting

Material compatibility chart

●=Good
○=Usable
△=Incompatible
×=Non-usable

Material		FAYb laser marker	CO ₂ laser marker
		LP-ZV series LP-RV series LP-RF series	LP-RH series
Metal	Iron	●	×
	Carbon steel	●	×
	Alloy steel	●	×
	Copper, brass	●	×
	Aluminum alloys	●	×
	Magnesium alloys	●	×
	Titanium alloys	●	×
	Nickel alloys	●	×
	Gold, silver	○	×
Resin	ABS (Acrylonitrile butadiene styrene)	●	●
	EP (Epoxy)	●	●
	PA (Polyamide / nylon)	●	○
	PBT (Polybutylene terephthalate)	●	○
	PC (Polycarbonate)	●	○
	PE (Polyethylene)	○	○
	PET (Polyethylene terephthalate)	○	●
	PF (Phenol)	●	●
	PMMA (Acrylic)	●	○
	POM (Polyacetal)	●	○
	PP (Polypropylene)	●	○
	PS (Polystyrene)	●	○
	PU (Polyurethane)	●	○
	PVC (Polyvinyl chloride)	○	●
	UF (Urea)	●	●
Others	Silicone resin	○	○
	Ceramics	○	○
	Wood	△	●
	Paper	△	●
	Glass	×	●
	Rubber	●	●

* The above shows typical judgment results. Judgment results may differ when used on customers' workpieces.

* We can check marking results using actual workpieces provided by your company. For details, please contact our sales office nearest you.

FAYb laser marker

Stainless steel (SUS)

Steel

Copper

Aluminum

PC (White)

PC (Black)

PMMA (Transparent)

PP (Black)

PS (Black)

PS (White)

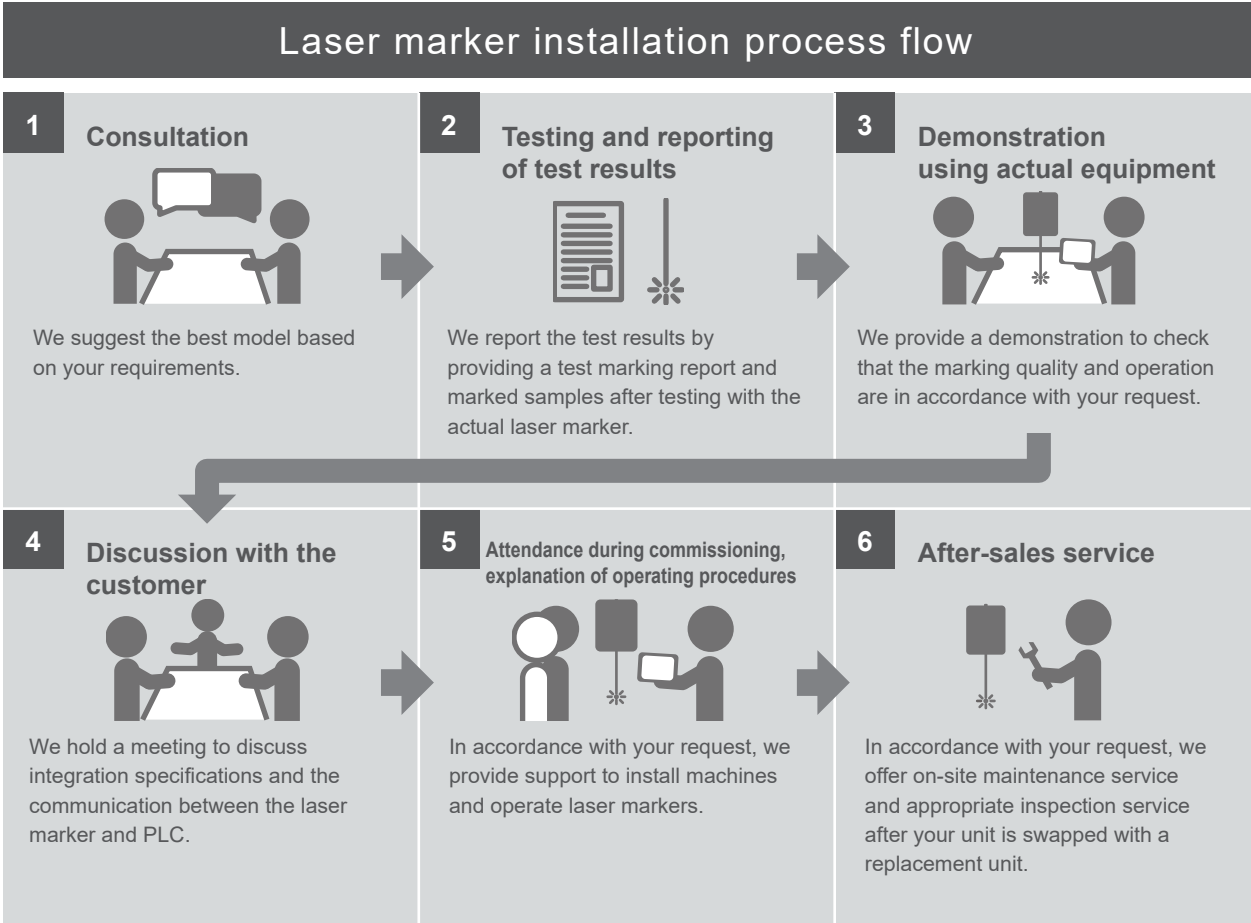
CO₂ laser marker

PVC (White)

Glass epoxy

Epoxy

Glass



Disclaimer

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Panasonic
INDUSTRY

Panasonic Industry Co., Ltd.

Industrial Device Business Division

7-1-1, Morofuku, Daito-shi, Osaka 574-0044, Japan

industrial.panasonic.com/ac/e/