Panasonic

Laser Marker
Selection Guide

LARGE SELECTION

LASER MARKER

FAYb
LASER MARKER

LP-M/MA SERIES

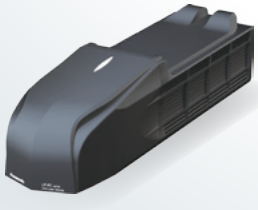
LP-Z SERIES

LP-S/SW SERIES

LP-RF SERIES

LP-V SERIES

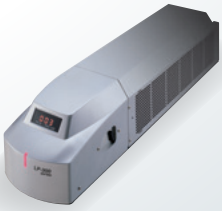
CO_2
LASER MARKER



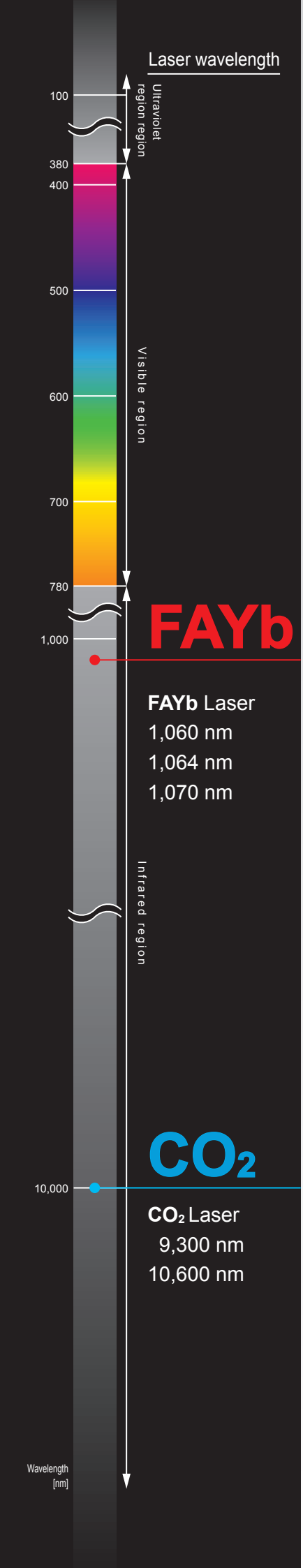
LP-RC SERIES

LP-400 SERIES

LP-GS SERIES



LP-300 SERIES



FAYb LASER MARKER

High-power Output and 3D-control Laser Marker

LP-M/MA SERIES

16w 40w 80w IP64 3D

120 220 330 SAFER

This high-end model features a head with an IP64 rating and is capable of 3D marking.
The laser interception mechanism and interlock are redundantly equipped.
This model realizes high productivity and safety.
*The **LP-MA** series is introduced to only limited countries.

3D-control FAYb Laser Marker

LP-Z SERIES

13w 25w 3D

120 330

This all-round laser marker features 3D marking capability and wide 300 x 300 mm (11.811 x 11.811 in) marking area.

High-power Output FAYb Laser Marker

LP-S/SW SERIES

17w 42w IP67G Removable

90 160

The head features an IP67G rating.
This model can be used for a marking operation under a harsh condition such as an environment containing oil mist.
The head is removable.

FAYb Laser Marker

LP-RF SERIES

17w 90 IP64 Removable

SMART

Reliable hard design such as high noise resistance controller and IP64 rating head. Simple and easy operation.

High-definition Laser Marker

LP-V SERIES

12w

90 160

This short pulse laser marker is suitable for high contrast marking on resin surfaces.

CO_2 LASER MARKER

High-performance Laser Marker

LP-400 SERIES

10w 20w 30w 9.3 μm

55 110 160

Performance, functionality, quality, operability. The high-grade **LP-400** CO_2 laser marker delivers, meeting needs ranging from marking to processing.

Compact CO_2 Laser Marker

LP-GS SERIES

5w ABC Small

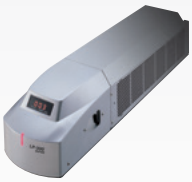
Minimized head size contributes to floor space c ost reduction.
Corresponding to the small size characters and 2D code.

High-speed Marking Type CO_2 Laser Marker

LP-RC SERIES

35w 85 IP54

Shorter marking times with speeds 1.4 times faster than before.
Corresponding to the high-speed line.



Entry-Level Model CO_2 Laser Marker

LP-300 SERIES

10w 50

Entry-level model for laser marking
Cost-effective lasar marker

Laser Marking Applications

FAYb Laser Marker

POWER


Engine block

Engine part

Cam shaft

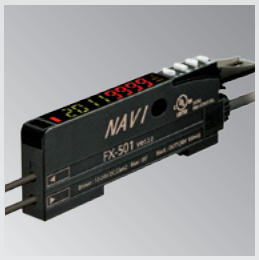

Cast


Medical instruments


Battery housing

Laser diode

Bearing



Sensor

IC

Molded resin part


Molded resin part

CO_2 Laser Marker

POWER

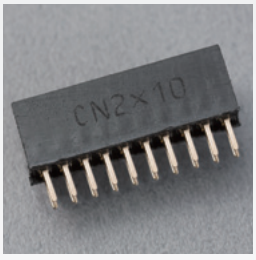

PET bottle

Outer box(GS1datamatrix)

Coaster

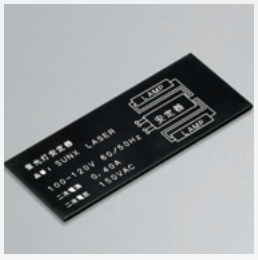
Laser label (marking + half-cut)

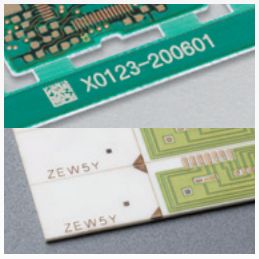
Ceramic capacitors



Connector

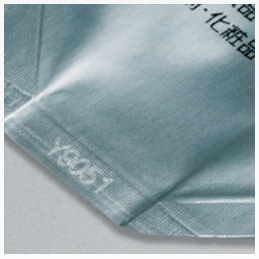

CD•DVD


Nameplate



Printed circuit boards

Silicone tubing

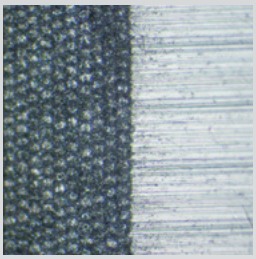


Retortable pouches

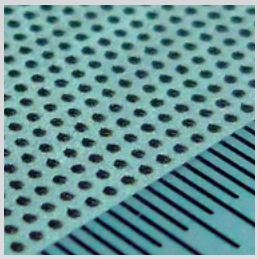
lens

Laser Processing Applications

FAYb Laser Marker



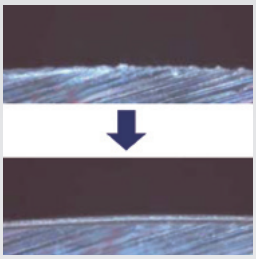
Processing of bearing surface



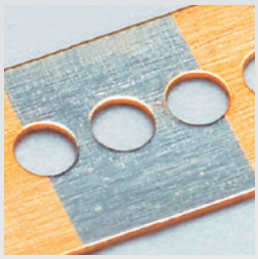
Depression processing on metal

Removal of coating film from gasket

Engraving on die

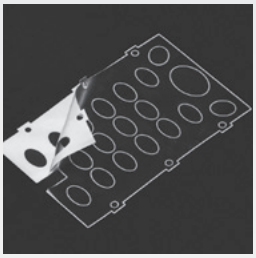


Deburring of metal parts



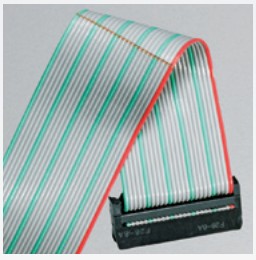
Removal of gold plating from electronic parts

CO_2 Laser Marker



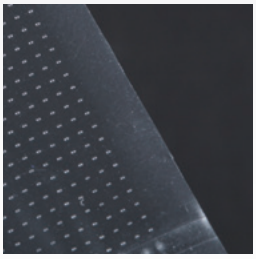
Film cutting

Resin gate cut

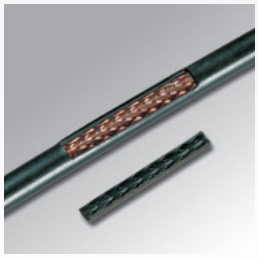


Removal of ribbon cable insulation

Rubber gaskets cutting

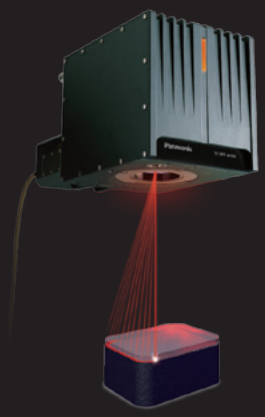


Film driling



Insulation removal

Laser Plastic Welding



Galvano Scanning System
Scanning Laser Processing Machine

VL-W1 SERIES

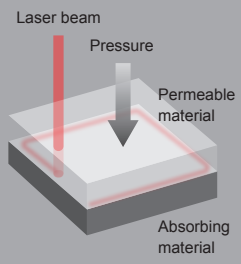
50w 100w IP54 Removable

200 400

* The **VL-W1** series is introduced to only limited countries.

What is laser Welding?

Laser welding is a bonding method that uses a laser beam to generate heat between adherends. For laser welding, a transparent resin (permeable material) and light absorbing resin (absorbing material) must be combined. Generally, to achieve a secure bond, pressure between the materials is required when lasing.



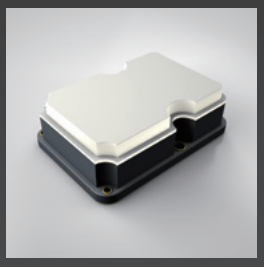
Plastic Welding Applications

Safty light curtain: Case and front panel

Sensor: Case and Window for communication signals

Automotive sensor: Welding case

Microfluidic device: Welding flow path



ECU: Welding cover

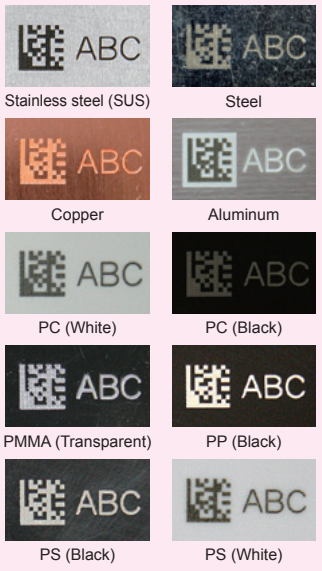
Display: Welding water proof panel

Material compatibility chart

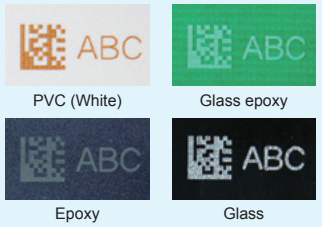
●=Good ○=Usable △=Incompatible ×=Non-usable

Material		FAYb laser marker **LP-M** series **LP-Z** series **LP-S** series **LP-V** series **LP-RF** series	CO_2 laser marker **LP-RC** series **LP-GS** series **LP-400** series **LP-300** 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	●	●

■ FAYb laser marker



■ CO_2 laser marker



* 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.

Laser marker installation process flow

1 Consultation

We suggest the best model based on your requirements.

2 Testing and reporting of test results

We report the test results by providing a test marking report and marked samples after testing with the actual laser marker.

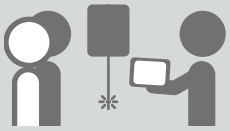
3 Demonstration using actual equipment

We provide a demonstration to check that the marking quality and operation are in accordance with your request.

4 Discussion with the customer

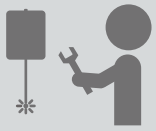
We hold a meeting to discuss integration specifications and the communication between the laser marker and PLC.

5 Attendance during commissioning, explanation of operating procedures



In accordance with your request, we provide support to install machines and operate laser markers.

6 After-sales service



In accordance with your request, we offer on-site maintenance service and appropriate inspection service after your unit is swapped with a replacement unit.

Precautions for Proper Use

Laser safety

- This product is classified as a Class 4 Laser Product in IEC/JIS/FDA regulations 21 CFR 1040.10 and 1040.11. Never look at or touch the direct laser beam and its reflection.
- Handle the product according to the instruction given on the warning labels.(Warning labels are not shown in the product photographs in this catalog.)
- The laser used by this product generates infrared light that is invisible to the human eye. Use particular caution when the laser is operating.

Maintenance

- **Air filter**: Regularly clean the air filter attached to the Laser Marker to maintain cooling effects.
- **Laser pointer emission port**: Dust or chips adhering to the laser pointer emission port may affect the printing quality or seriously damage the laser marker. Clean the laser pointer emission port regularly.

Recommended use of a dust collector

- Depending on the object being marked, harmful gasses or smoke that have a detrimental effect on the human body or the laser marker may be generating during marking. If your application falls under this description, use a dust collector.

*For more information, contact your sales representative.

Disclaimer

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Panasonic Corporation
Industrial Device Business Division
■ 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8506, Japan
industrial.panasonic.com/ac/e/

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