

FAYb laser markers: LP-S series

To improve deep marking on metal, the output power has been increased from 12W for the current model to 42W. Now deep marking and black marking can be performed on precision metal parts such as bearings and tools at high speed. A robust body, superior mechanical design and high-quality components provide an IP67G degree of protection, which makes the LP-S series attractive and practical for automotive and metal applications. Moreover, the connector is water-, dust-, and oilproof, and the lens is equipped with protective glass. Also, the unique design allows you to remove the fiber-optic cable from the laser head, simplifying integration and service.

FDA
Conforming to
FDA regulations

CE
Conforming to Low Voltage
and EMC Directive



Panasonic

LP-S series
FAYb LASER MARKER



High power and environmentally resistant LP-S series FAYb laser marker designed for metal high-speed marking and deep engraving.



Tools (carbide)



Cylinder blocks



Connecting rods



Crank shafts



Drills



Medical instruments



Engine valves

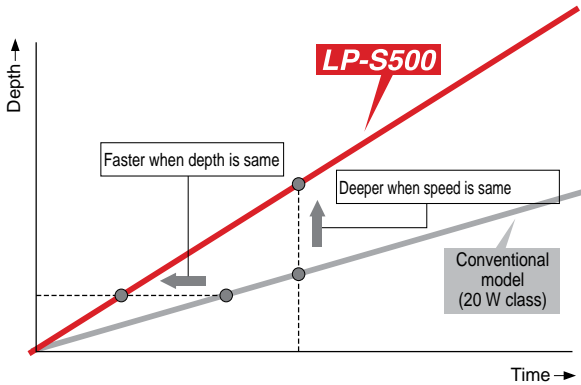


Chains

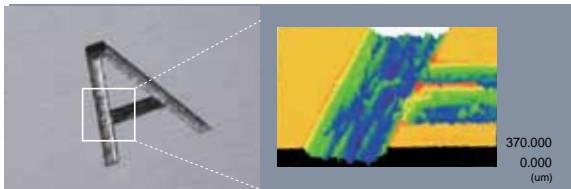


Bearings

Simulated characteristics of high-speed deep engraving



Conventional model (20W class)



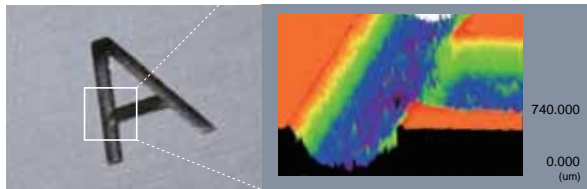
High output power

High output for superior deep engraving performance and high-speed productivity

The 42W high-power output enables high-speed deep engraving and black marking on metal workpieces. This allows quick and accurate marks to be performed on precision metal parts, such as bearings and tools. Faster and deeper marking or processing is possible as more energy is applied to the workpiece. The LP-S500 is equipped with a high-output laser unit. This shortens the marking time, greatly improving productivity.

The LP-S series can internally monitor its own laser power. If the laser power deviates from the value specified, the alarm output is set and marking stopped. This preventative function ensures consistent marking quality no matter when marking takes place.

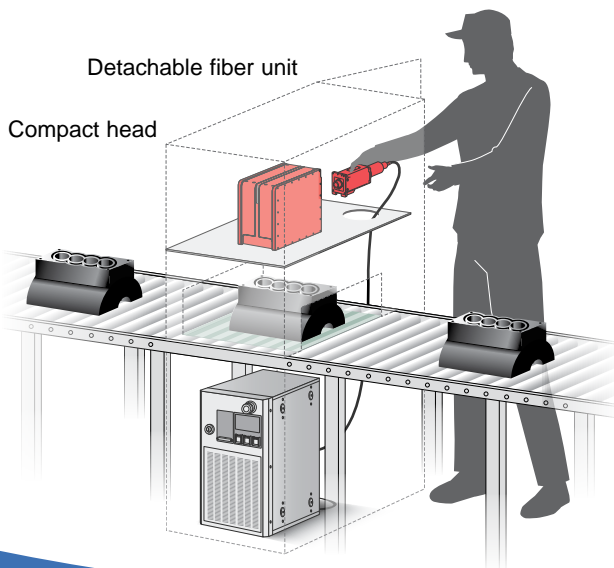
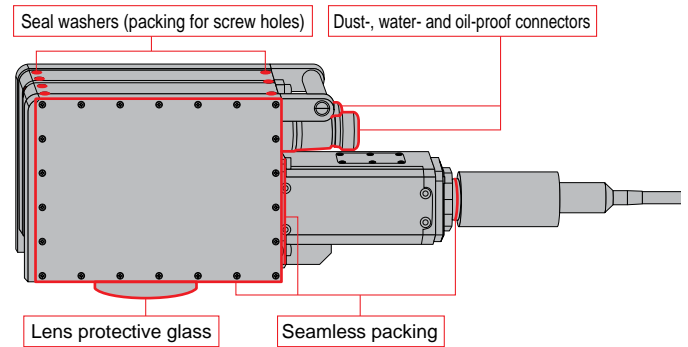
LP-S500: Almost double the depth with the same marking time



Sealed, IP67G rated head

Superior design and high quality protection parts.

The LP-S series features minimum frame seams. Minor seams and screw holes are completely sealed, producing high sealing performance. Maximum cooling efficiency is also achieved, allowing the use of a **fanless head** for thorough cooling. Seamless sealing materials are used that have low water absorption and excellent oil resistance properties. Connectors are dust-, water-, and oil-proof.



Enhanced flexibility of equipment design

Revolutionary fiber unit release mechanism

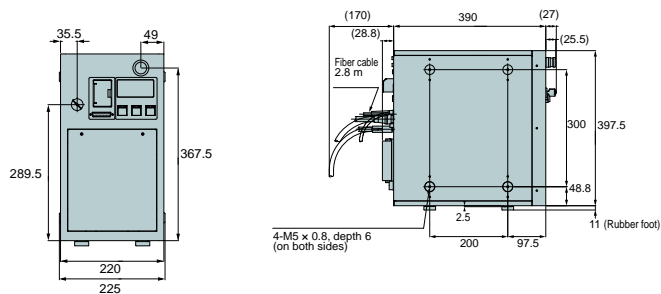
Panasonic's revolutionary laser head design allows the fiber unit to be easily removed from the scanner unit. Because the fiber unit is removable, it can be easily incorporated into equipment for easy installation and enhanced flexibility of equipment design.

Type	Small spot	Standard	Wide area	Small spot	Standard	Wide area
Item	LP-S202	LP-S200	LP-S205	LP-S502	LP-S500	LP-S505
Work distance (manually adjustable)	130mm (± 3mm)	190mm (± 7mm)	350mm (± 24mm)	130mm (± 3mm)	190mm (± 7mm)	350mm (± 24mm)
Marking field	55mm x 55mm	90mm x 90mm	160mm x 160mm	55mm x 55mm	90mm x 90mm	160mm x 160mm
Scanning speed max.	6000mm/s	12,000mm/s		6000mm/s	12,000mm/s	
Line speed max.	120m/min	240m/min		120m/min	240m/min	
Average output	17W			42W		
Ambient temperature	0 to +40°C (no condensation or frost), storage: -10 to 60°C					
Ambient humidity	35 to 85% RH (no condensation or frost)					
Marking method	Galvanometer scanning method					
Marking laser	FAYb $\lambda = 1.06\mu\text{m}$, laser class 4					
Guide laser	Semiconductor $\lambda = 655\text{nm}$, laser class 2; 1mW					
Array of character	Straight line, proportional/typewriter, arced, tilted					
Type of characters	Capital & small characters, numerals, katakana, hiragana, kanji (JIS level 1 & level 2), symbols, user-defined characters (up to 50 types)					
Bar codes/2D codes	CODE39, CODE128, ITF2/5, NW-7, JAN/UPC/EAN, RSS 14, RSS limited, RSS expanded (GS1 Databar), GS1 Data Matrix, QR, Micro QR, Data Matrix (ECC200), etc.					
Logos/Graphics	VEC, DXF, BMP, HPGL, JPEG, AI*, EPS*					
Cooling method	Head: natural air cooling; Controller: forced-air cooling					
Supply voltage	90 to 132VAC or 180 to 264VAC (auto-changing), 50/60Hz					
Power consumption	330W or less (at 100VAC); 450W or less (at 200VAC)			530W or less (at 100W); 650W or less (at 200VAC)		
Inputs	Remote, trigger, encoder (A), encoder (B), shutter control, laser pumping, alarm reset, emergency stop, laser stop, etc.					
Outputs	Power supply (+24V), remote, marking ready, marking, marking finished, laser pumping, warning, alarm, confirmation end, counter finish					
Marking condition	Static and marking on the fly					
Functions	<ul style="list-style-type: none"> marking order optimizing correction of intersection counter marking current date/time marking expiry date marking lot marking logos/pictures marking bold marking logo data USB transfer 	<ul style="list-style-type: none"> I/O monitor system offset common character setting font selection proportional marking marking image display operator adjustment error log display work image display 	<ul style="list-style-type: none"> guide laser power speed setting per line/logo file step & repeat time delay serial data processing & marking multilayered marking backup 	<ul style="list-style-type: none"> various processing functions dual pointer marking time measurement font/logo creation/editing power check/correction I/O simulation focus adjustment marking on moving objects power loop control 		
Weight of head	7.5kg		8kg	7.5kg		8kg
Weight of controller	24kg			25kg		

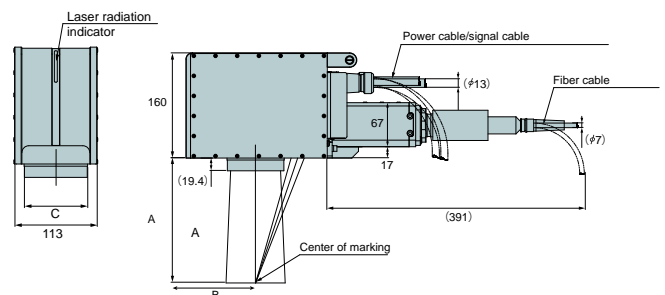
* Adobe Illustrator® is necessary

Dimensions

LP-S controller



LP-S head



Type	Marking distance A (mm)	Marking area B (mm)	Lens diameter C (mm)
LP-SXX2	130	55 x 55	92
LP-SXX0	190	90 x 90	87
LP-SXX5	350	160 x 160	106