



# Laser Marker Product Range



# LP-300 Series

## CO<sub>2</sub> LASER TYPE



Entry-level model with a full range of basic functions

## LP-300 SERIES

### Highlights:

#### Superb ease of operation

Thorough attention has been given to ease of operation to make this series a laser marker that is as easy to use as a printer. Data such as the characters to be marked and their sizes can be set using a computer and then sent to the laser marker. The laser marker can store up to 120 types of marking settings (files). These settings can be read and marked when required.

#### Accurate and distinct marking

Allows distinct characters to be positioned accurately with no missing characters or rough or blurred characters.

#### Compact, lightweight, and easy to set up

Because it has a compact size with the controller integrated in the main unit, it can be mounted vertically and at an angle as well as horizontally. This makes it easier to change from previous marking devices.



### Applications:



Cable



IC package



Switch (resin part)



Terminal block (resin)



Label



Connector



CD



Printed circuit board

# Specifications LP-300 Series

Item	Designation	CO <sub>2</sub> laser marker entry-level model	
	Type	FDA regulations conforming type	CE marking conforming type
Set Model No.		<b>LP-310-A</b>	<b>LP-310-C</b>
Work distance (Note 1)		145mm	
Scanning method		Galvano-scanning method	
Marking laser		CO <sub>2</sub> Laser Class 4 (Laser oscillator output: Average 12W · Max. 40W, Peak emission wavelength: 10.6μm)	
Marking range		50x50mm	
Basic dimensions of characters (Note 2)		Height and width: 0.2 to 50mm, Interval / position of marked characters: settable at 0.01mm interval	
Scanning speed		2,000mm/sec. max.	
Array of characters		Straight line, fan-like, tilted straight-line, mirror-reflection	
Marking condition		Stationary	
Type of characters		English capital and small characters, Symbols, Katakana, Hiragana, Kanji (JIS first level) Characters, User-defined characters (up to 50 types)	English capital and small characters, Symbols, user-defined characters (up to 50 types)
Marking setting	Number of files	120 files max.	
	Setting condition	30 types	
I/O terminal	Input	Laser radiation stop, file No., trigger, counter reset, external interlock (Power supply box)	
	Output	Alarm, marking ready, counter end	
External communication port	RS-232C	For external devices only	
	USB Ver. 1.1	For setup software only	
Setting software		Windows® XP / 2000, Screen resolution: 800 x 600 or more	
Cable length		5m (between head and power supply box)	
Installation direction		Omnidirectional	
Cooling method		Forced-air cooling (Head and power supply box)	
Supply voltage		90 to 132VAC or 180 to 264VAC (auto-changing) 50 / 60Hz	
Power consumption		700VA or less	
Functions		<ul style="list-style-type: none"> <li style="width: 25%;">• Lot marking</li> <li style="width: 25%;">• Current date / time marking</li> <li style="width: 25%;">• Expiration date / time marking</li> <li style="width: 25%;">• Counter marking</li> <li style="width: 25%;">• CAD marking</li> <li style="width: 25%;">• Correction of intersection</li> <li style="width: 25%;">• Guide laser</li> <li style="width: 25%;">• Bold character marking</li> <li style="width: 25%;">• Marking image display</li> <li style="width: 25%;">• Saved file list</li> <li style="width: 25%;">• Test marking</li> <li style="width: 25%;">• File transfer / File reading</li> <li style="width: 25%;">• Error history display</li> </ul>	
Ambient temperature		0 to + 40°C (No condensation or frost), Storage: -10 to + 50°C	
Ambient humidity		35 to 85% RH, Storage: 35 to 85% RH	
Weight		Head: 13kg approx., Power supply box: 5kg approx.	

Note 1) The work distance has an individual error of 2mm from product to product.

Note 2) The actual character size varies depending on the work.

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## Legend:



Marking of moving objects



High speed marking



Guide light



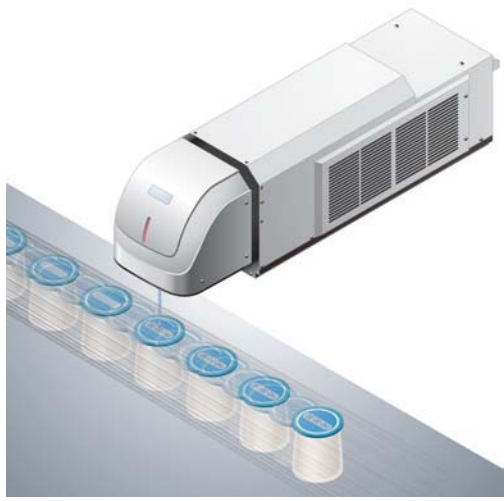
Color marking of resin



Focus adjustment



# LP-400 Series



## CO<sub>2</sub> LASER TYPE



High functionality, high-grade model

## LP-400 SERIES



### Highlights:

#### Super-high-speed marking

Compatible with high-speed 240m/min lines. Inline marking can be carried out for articles such as packing boxes, PET bottles, and cables. Laser markers from the LP-400 Series are equipped with an ultra-fast galvanometer scanner which makes it possible to print 700 characters in 0.99 seconds.

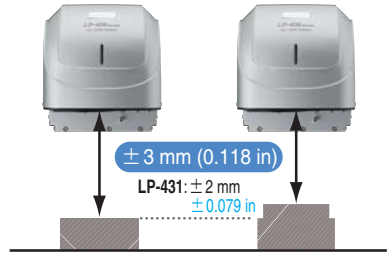
#### High power and high stability

The 30W CO<sub>2</sub> laser ensures stable marking from low power to high power.

#### Easy setup

The unique head rotation mechanism allows the user to set the head at any angle, making setup very easy. In addition the lasermarker has an automatic focus adjustment and a dual pointer.

#### Focus adjustment function



#### Head rotation mechanism



### Applications:

#### Marking Applications



Rice cracker



Stainless steel



Oil filter



Connector



Aluminium plate (ALUMA Mark)



PET bottle

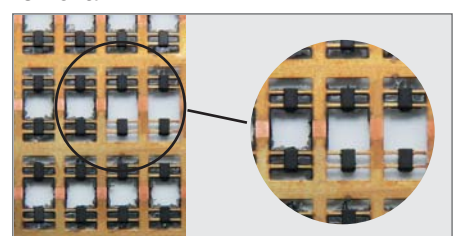
#### Processing Applications



Insulation removal



Keypad cutting



IC burring

# Specifications LP-400 Series

Product name		General-purpose type	Small spot type
Items	Model	LP-430	LP-431
Work distance		185mm (Note 1)	111mm (Note 1)
Marking method		Galvanometer scanning method	
Marking laser		CO2 laser $\lambda=10.6\mu\text{m}$ Class 4 laser product	
	Ave. output	30W	
	Max. output	75W (Note 2)	
	Output	+/-3% (Note 3)	
Guide laser, pointer		Semiconductor laser $\lambda=650\text{nm}$ Class 2 laser product	
Marking range		110mm x 110mm	55mm x 55mm
Scanning speed		Max. 12,000mm/s	
Flying speed		240m/min or less (Note 4)	
Character size (height & width)		0.2 to 110mm (adjustable in increments of 0.001mm)	0.2 to 55mm (adjustable in increments of 0.001mm)
Marking spacing (spacing & pitch)		0 to 110mm (adjustable in increments of 0.001mm) +/-180° on fan-like (adjustable in increments of 0.01°)	0 to 55mm (adjustable in increments of 0.001mm) +/-180° on fan-like (adjustable in increments of 0.01°)
Character array		Straight line, proportional, typewriter fonts, fan-like	
Installation direction		All directions	
Character type		English capital & small characters, Figures, Katakana, Hiragana, Kanji (JIS level-1 & level-2), Symbols, User defined characters (up to 50 types)	
Logo/shape		BMP / DXF / HPGL / JPEG	
Cooling method		Forced-aired cooling	
Power voltage supply		90V to 132VAC, 180V to 264VAC, 50/60Hz	
Power consumption		800VA or less	
Input		Remote, Trigger, Encoder (A), Encoder (B), Shutter control, Laser pumping, Alarm reset, Emergency stop, Laser stop, Confirmation end, Number, Timehold	
Output		Power supply (+12V), Remote, Marking ready, Marking, Marking finish, Laser pumping, Warning, Alarm, Confirmation end, Counter finish	
Marking condition		Stationary, moving	
Functions		<ul style="list-style-type: none"> <li>• Intersection offset</li> <li>• Logo data marking</li> <li>• Guide laser</li> <li>• Marking of moving objects</li> <li>• Marking image display</li> <li>• Power speed setting per line/ logo file</li> <li>• Time delay</li> <li>• Barcode (CODE39, CODE128, ITF, NW-7, JAN, EAN, UPC, QR, Micro QR, Data matrix)</li> <li>• Counter marking</li> <li>• Font creation/edition</li> <li>• Dual pointer</li> <li>• Marking time measurement</li> <li>• Step &amp; Repeat</li> <li>• Current date marking</li> <li>• Fixed spacing location</li> <li>• Focus adjustment</li> <li>• Font select</li> <li>• Operator adjustment</li> <li>• Error history display</li> <li>• Expiry date marking</li> <li>• System offset</li> <li>• Multi-layer marking</li> <li>• Bold marking</li> <li>• Rank marking</li> <li>• I/O check monitor</li> <li>• Lot marking</li> <li>• Common setting</li> <li>• Backup</li> <li>• Proportional marking</li> <li>• Work image display</li> <li>• Rank marking</li> <li>• Offset marking</li> </ul>	
Emergency stop switch		Provided on the controller	
Ambient temperature		0 to + 40°C (-10 to +60°C at storage) (No condensation or frost)	
Ambient humidity		35 to 85% (No condensation or frost)	
Weight		Head: Approx. 20kg Controller: Approx. 11kg	

(Note 1): Work distance has an individual error of approx. +/-2mm per product.  
 (Note 2): Max. output represents the maximum value that laser transmitter outputs laser beam.  
 (Note 3): Value of product 20% or larger, and at 10 min. passed after starting-up.  
 (Note 4): The line speed varies depending on the workpiece to be marked.



# LP-V10 Series



## FAYb LASER TYPE



New FAYb laser marker

## LP-V10 SERIES



### Highlights:

#### High speed and high precision

SUNX developed a galvanometer scanner with a response time two times faster than previous models, which reduces the cycle time.

#### Improvement of productivity

With their super-high-speed marking laser markers from the LP-V10 series contribute greatly to an increase in productivity. Printing 700 characters in 0.99 seconds shortens the cycle time significantly.

#### Deep marking

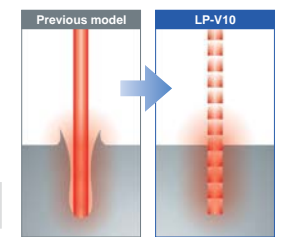
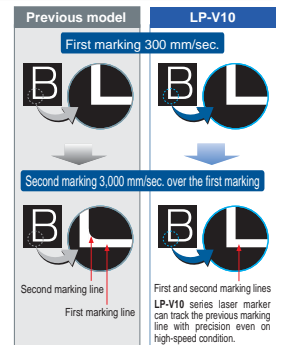
The short pulse FAYb laser has a low-heat-effect on objects, making it possible to deep-mark metals. The LP-V10 series laser marker is the ideal replacement for engraving machines.

#### Brings out the capability to perform deep marking

The short pulse type FAYb laser is excellent for deep marking on metals. Please adopt the LP-V10 series laser marker when replacing an engraving machine.

#### Improved Handling

- Focus adjustment function
- Dual pointer



### Applications:



Terminal block (resin)



USB connector



Tweezers



Blister package



Button cell



Battery pack



Bearing



IC package



Cylinder head



Golf club

# Specifications LP-V10 Series

Product name	FAYb laser marker			
Item	Model	LP-V10		
Work interval	190mm (Note 1)			
Marking method	Galvanometer scanning method			
Marking laser	Fiber laser $\rightarrow$ 1.06 $\mu$ m Class 4 laser product			
	Ave. output	12W		
	Max. output	15W (Note 2)		
Guide laser, pointer	Laser diode $\rightarrow$ 655nm Class 2 laser product			
	Max. output	1mW		
Marking range	90mm x 90mm			
Scanning speed	Max. 12,000mm/s			
Line speed	240m/min or less (Note 3)			
Character setting (height & width)	0.2 to 90mm (adjustable in increments of 0.001mm)			
Marking spacing (spacing & pitch)	0 to 90mm (adjustable in increments of 0.001mm) arc: +/-180°(adjustable in increments of 0.01°)			
Character array	Straight line, fan-like, proportional and typewriter fonts			
Character type	English capital & small characters, Figures, Katakana, Hiragana, Kanji (JIS level-1 & level-2), Symbols, User defined characters (up to 50 types)			
Logo/shape	BMP / DXF / HPGL / JPEG			
Cooling method	Forced-aired cooling			
Power voltage	90 to 132VAC or 180 to 264VAC (automatic switching), 50/60Hz			
Consumption power	390VA or less (at 100VAC)			
Input	Remote, Trigger, Encoder (A), Encoder (B), Shutter control, Laser pumping, Alarm reset, Emergency stop, Laser stop, Confirmation end, Number, Timehold			
Output	Power supply (+12V), Remote, Marking ready, Marking, Marking finish, Laser pumping, Warning, Alarm, Confirmation end, Counter finish			
Marking state	Stationary, moving			
Functions	<ul style="list-style-type: none"> <li>•Marking order optimizing</li> <li>•Lot marking</li> <li>•Operation screen updating display</li> <li>•Dual pointer</li> <li>•Font selection</li> <li>•Marking image display</li> <li>•Power speed setting per line/logo file</li> <li>•Time delay</li> <li>•Error history</li> <li>•Barcode (CODE39, CODE128, ITF, NW-7, JAN, EAN, UPC, RSS14, RSS Limited, RSS Expanded, QR, Micro QR, Data matrix)</li> <li>•Intersection offset</li> <li>•Logo data marking</li> <li>•Focus adjustment</li> <li>•Bold marking</li> <li>•Marking time measurement</li> <li>•Operator adjustment</li> <li>•Step &amp; Repeat</li> <li>•Serial data marking</li> <li>•Counter making</li> <li>•Font creation/edition</li> <li>•System offset</li> <li>•Overwriting marking</li> <li>•Proportional marking</li> <li>•Current date marking</li> <li>•Fixed spacing location</li> <li>•Common setting</li> <li>•Backup</li> <li>•Work image display</li> <li>•Rank marking</li> <li>•Logo data USB transfer</li> <li>•Power check correction</li> <li>•Expiry date marking</li> <li>•Guide laser</li> <li>•Offset marking</li> <li>•I/O check monitor</li> <li>•I/O simulate</li> </ul>			
Emergency stop switch	Provided on the controller			
Ambient temperature	0 to +40°C (-10 to 60°C at storage) (No condensation or frost)			
Ambient humidity	35 to 85%RH (No condensation or frost)			
Weight	Head section: Approx. 9kg Controller section: Approx. 22kg			

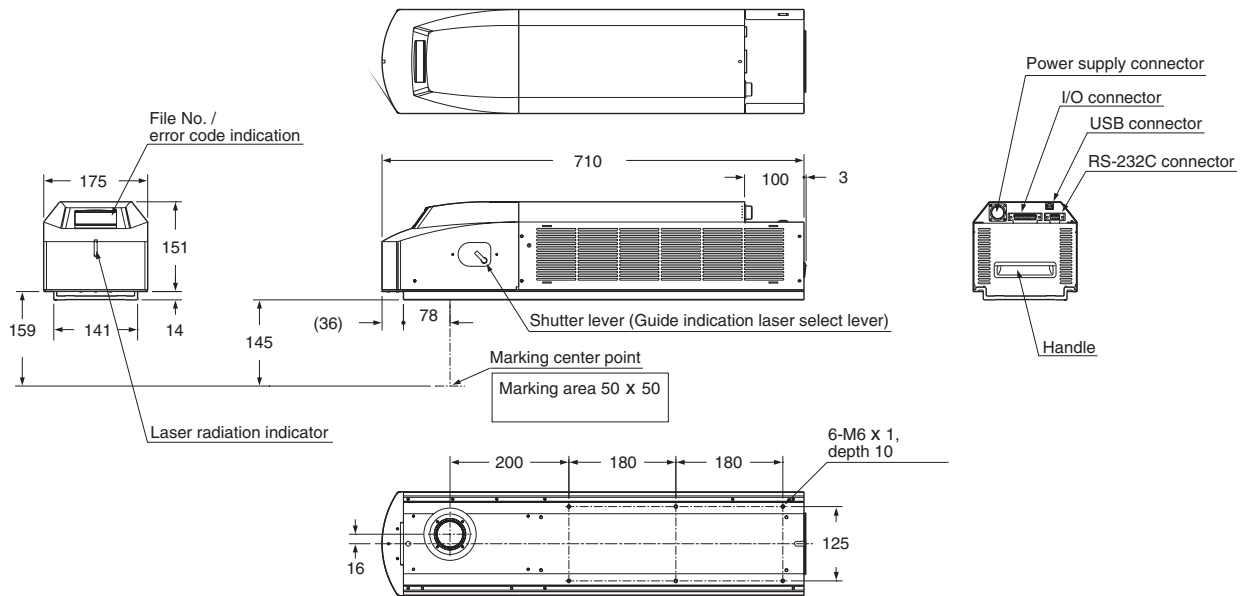
(Note 1): Work distance has an individual error of approx. +/-2mm per product.

(Note 2): Max. output represents the maximum value that laser transmitter outputs laser beam.

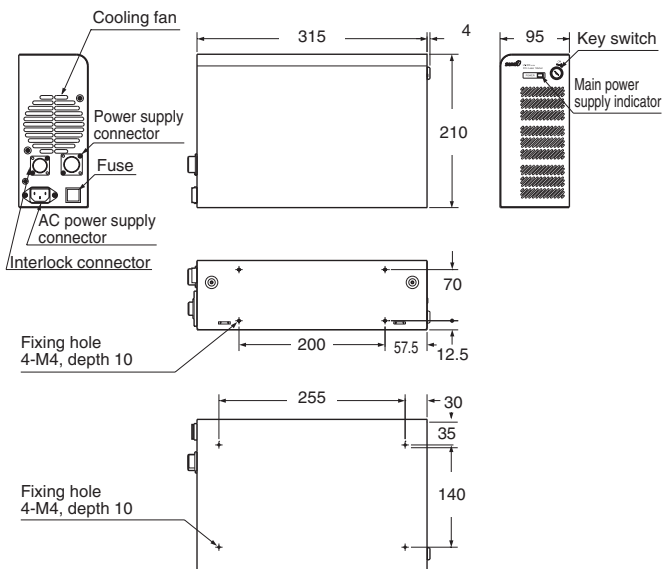
(Note 3): The line speed varies depending on the workpiece to be marked.

# Dimensions LP-300 Series

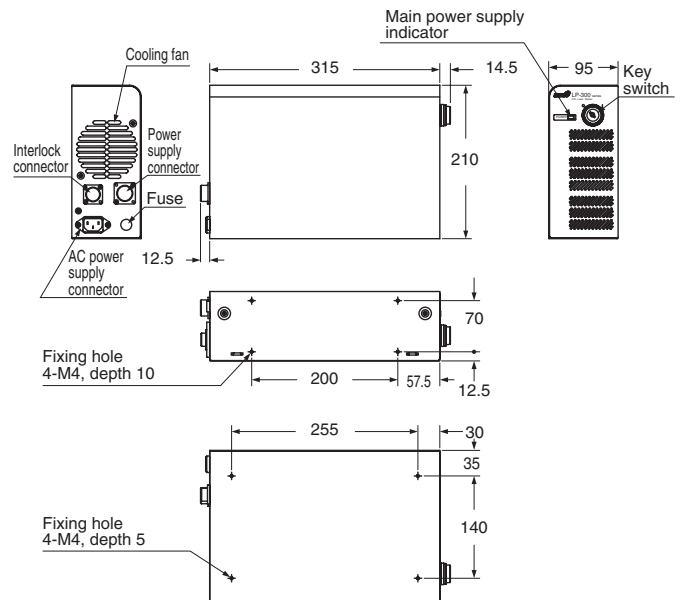
## LP-310-A LP-310-C Head



## LP-310-A Power supply box



## LP-310-C Power supply box

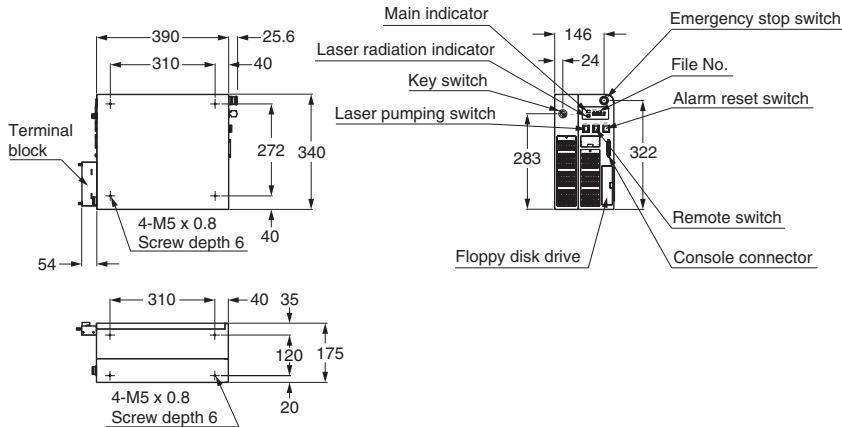


All dimensions are in mm.

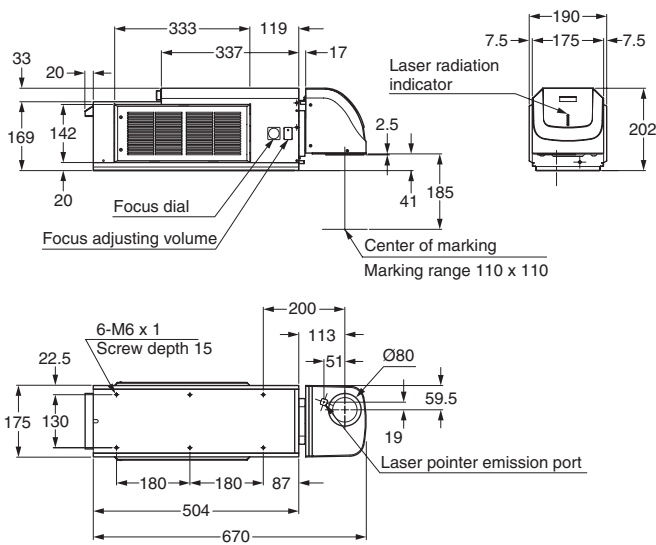
# Dimensions LP-400 Series

## LP-430

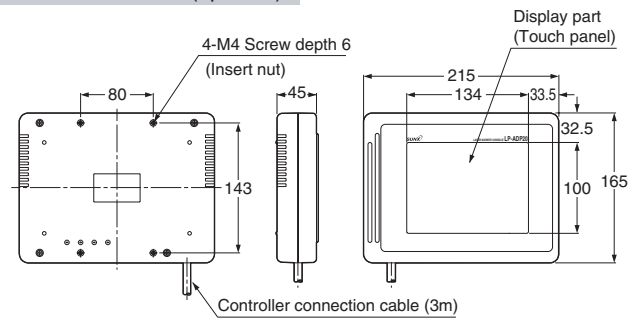
### Controller



### Head



### Console LP-ADP20 (optional)



All dimensions are in mm.

