Panasonic

High-speed Marking Type
CO$_2$ Laser Marker
LP-RC350S

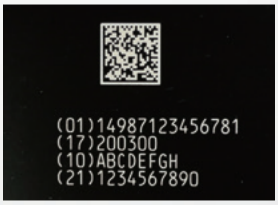
FDA Conforming to FDA regulations	CE	GB Conforming to GB standards	KC

Shorter marking times with speeds

1.4 times faster* than before

Panasonic
LP-RC series
CO2 Laser Marker

GS1 DataMatrix

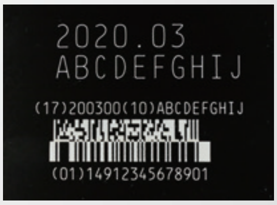


(01)14987123456781
(17)200300
(10)ABCDEFGH
(21)1234567890

Actual size
(Cell size: 0.3 mm 0.012 in)

Marking time	Verifier machine Grade
0.31 sec.	A

GS1 DataBar



2020.03
ABCDEFGHIJ
(17)200300(10)ABCDEFGHIJ
(01)14912345678901

Actual size
(Module width: 0.25 mm 0.010 in)

Marking time	Verifier machine Grade
0.31 sec.	A

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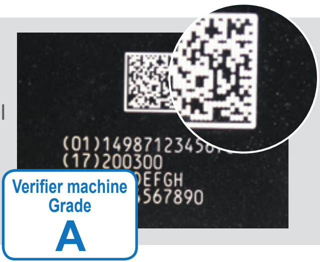
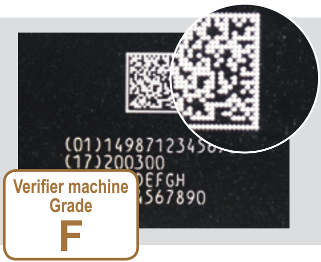
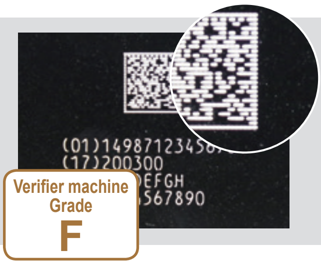
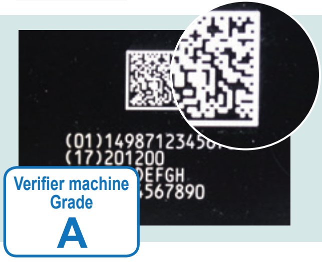
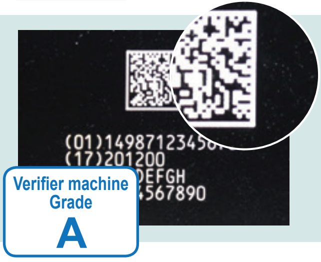
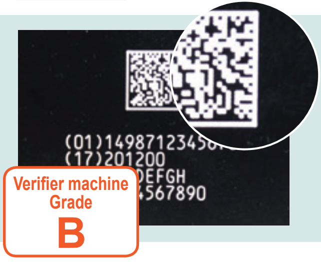
*Compared to the **LP-430U** when marking a GS1 DataMatrix with a cell size of 0.3 mm 0.012 in

2017.04 | panasonic.net/id/pidsx/global

Greater Speed and Accuracy

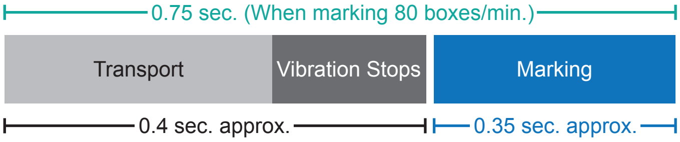
Since traceability management operations were implemented for the pharmaceuticals industry, we have worked in earnest together with numerous manufacturers of pharmaceuticals, verifier machines, packaging, and related equipment to improve and add functions to our laser markers.
Throughout these collaborations, we heard from many customers that they required faster marking processes in order to improve pre-process productivity and to fulfill changes to requirements for GS1 DataMatrix marking.
In response to these customer needs, we developed the **LP-RC350S** high-speed marking type CO_2 laser marker.

1.4 times faster. High-quality marking even at 80 boxes/min*.

Cell size 0.3 mm 0.012 in	Production rate **60** boxes/min. Marking time **0.45** sec.	Production rate **80** boxes/min. Marking time **0.31** sec.	Production rate **90** boxes/min. Marking time **0.25** sec.
Conventional model **LP-430U**	 Verifier machine Grade **A**	 Verifier machine Grade **F**	 Verifier machine Grade **F**
NEW **LP-RC350S**	 Verifier machine Grade **A**	 Verifier machine Grade **A**	 Verifier machine Grade **B**

The quality of GS1 DataMatrix markings is greatly affected by conveyor vibrations and changes in speed, the angles of boxes, and other factors. This is why marking in a static state becomes necessary. Increased production speeds depend on how fast transportation and marking of boxes can be completed. Galvano scanners of conventional models could not operate well at high speeds, forcing equipment operators to choose between speed or quality.

We set forth to develop the **LP-RC350S** to mark at speeds 1.4 times faster than conventional models with no loss in quality. In this way, we were able to realize a device that could output high-quality markings at high speeds.



*When marking a GS1 DataMatrix with a cell size of 0.3 mm 0.012 in
*Pre-existing printing on boxes and facility specifications may affect marking results. Always perform marking tests before full operation.

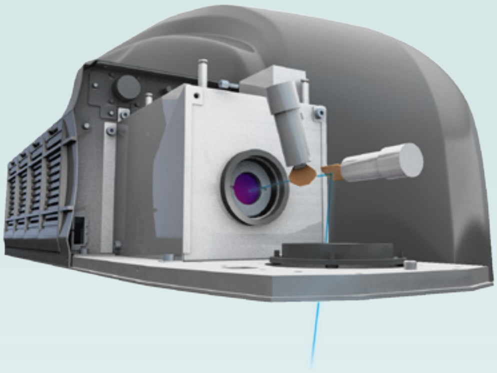
Innovative technologies for realizing high-speed marking 1.4 times faster than before

128%

Faster*

High-speed galvano control system

We rebalanced the design elements, combining a high-speed, accurate galvano scanner with a lightweight galvano mirror that fully covers the size of the marking area. We improved our control technology to synchronize oscillator output with the X- and Y- axes at high speeds to allow high-speed galvano control.



Panasonic
USB
POWER

107%

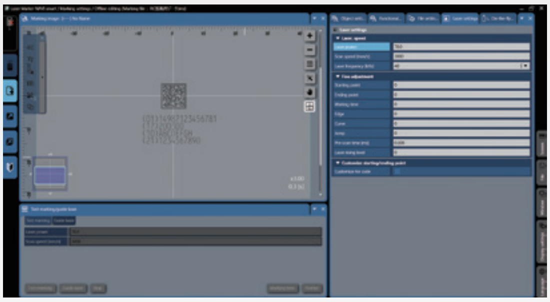
Faster*

Vector Processing Engine

High-speed Vector Processing Engine

We developed a new, proprietary Vector Processing Engine for generating marking vector data. This specialized hardware rapidly converts scanning vector data generated from marking data into coordinates for marking. We were able to greatly reduce process times with this new technology.

*When marking a GS1 DataBar module with a width of 0.25 mm 0.010 in



Laser marker setting software (included software)

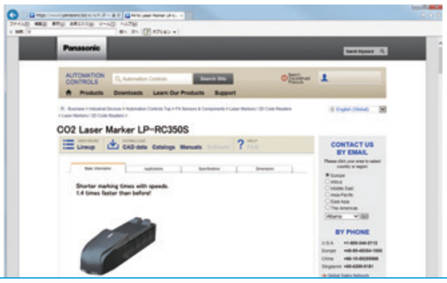
Laser Marker NAVI smart

We have improved the setting software interface from that used with the **LP-400** series of models. Automatically generate a GS1 DataMatrix with a single click.
Use intuitive operations to set up markings on your PC, from marking position adjustments to laser settings.

Setting sample data download service

Sample data can be downloaded from our website with setting parameters such as laser power and scanning speeds optimized for GS1 DataMatrix marking. More details can be found on our website.

*Downloading requires registration as an Panasonic Automation Controls Web Member.



CO2 Laser Marker LP-RC350S

Shorter marking times with speeds 1.4 times faster than before!

SPECIFICATIONS

Item / Model No.	LP-RC350S
Marking laser	CO_2 laser (Wavelength: 10.6 µm 0.417 mil), Class 4 laser
Average output for processing (Note 1)	33 W (±2 W)
Guide laser / pointer	Semiconductor laser (Wavelength: 655 nm 0.026 mil), Class 2 laser, Maximum output: 1 mW or less
Marking field	85 × 85 mm 3.346 × 3.346 in
Work distance (Note 2)	103 mm 4.055 in
Scan speed	Maximum 12,000 mm/sec. 472.441 in/sec.
Line speed	Maximum 240 m/min. 787.402 ft/min.
Barcodes	Code 39, Code 128 (GS1-128), ITF, NW-7, EAN / UPC / JAN GS1 DataBar Limited, GS1 DataBar Stacked, GS1 DataBar Limited CC-A, GS1 DataBar Stacked CC-A
2D codes	QR code, Micro QR code, iQR code, DataMatrix, GS1 DataMatrix, PDF417
I/O ports	I/O terminal (40-pin), I/O connector (40-pin)
Interface	EIA-RS-232C, Ethernet
Power supply	190 to 252 V AC (includes ±5 % voltage fluctuation), frequency 50 / 60 Hz
Power consumption (Note 3)	1,080 VA or less (5.7 A or less)
Ambient temperature (Note 4)	0 to +40 °C +32 to +104 °F
Ambient humidity	35 to 85 % RH
Weight	Head: 15 kg approx. Controller: 32 kg approx.
Applicable standards	FDA regulations, CE Marking (Note 5), GB Standards, KC Mark
Supported OS (Note 6)	Windows® 10 Pro (32 bit / 64 bit) / Windows® 8 Pro (32 bit / 64 bit) Windows® 7 Professional (32 bit / 64 bit) SP1

Notes: 1) Average output power from the laser marker with the maximum laser power setting. (At time of shipping)
2) There is an approx. ±0.5 mm 0.020 in individual difference in work distance center position.
3) The typical value of the inrush current at startup is as follows: (Duration time is 10 ms or less.) At 220 V AC: 100 A
4) For both controller and head. There should be no condensation or icing.
5) Applicable CE marking directives : Low Voltage Directive, EMC Directive, RoHS Directive
6) Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

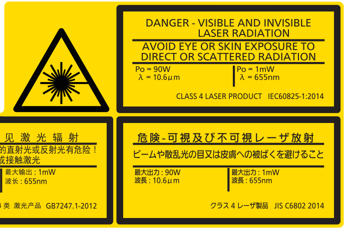
[Precautions for Proper Use]

Laser safety

- This device 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. Take safety measures to satisfy requirements of regulations.
- This device has the warning labels shown below applied. (Warning labels are not shown in Laser Marker photographs in this catalog.)
- The laser beam is infrared light that is invisible to the human eye. Use particular caution when the laser is operating.

Recommend to install a dust collector

- Depending on the material of the marking objects, dust and/or smoke harmful to the human body and the Laser Marker may be generated. In such situations, installation of a dust collector is recommended. For more information, contact your sales representative.


DANGER - VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
Po = 90W λ = 10.6μm
Po = 1mW λ = 655nm
CLASS 4 LASER PRODUCT IEC60825-1:2014
可见及不可见激光辐射
目视或皮肤直接接触激光的直射光或反射光有危险！不要目视或接触激光
最大输出：90W 波长：10.6μm
最大输出：1mW 波长：655nm
4类 激光产品 GB7247.1-2012
危険-可視及び不可視レーザ放射
ビームや散乱光の目又は皮膚への被ばくを避けること
最大出力：90W 波長：10.6μm
最大出力：1mW 波長：655nm
クラス4レーザ製品 JIS C6802 2014

[Requests to Customers]

Maintenance

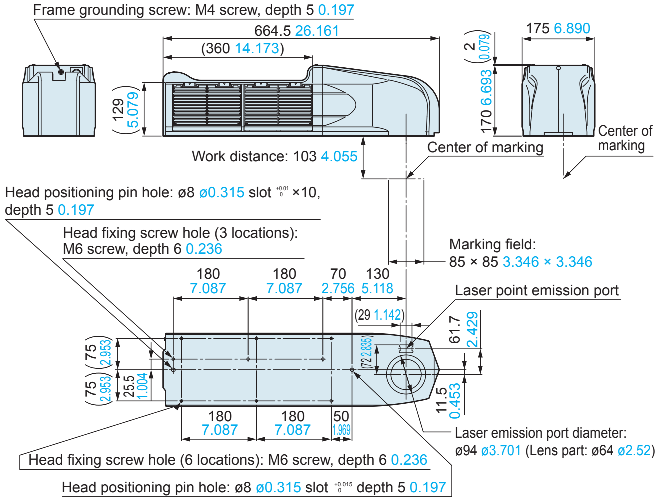
- **Air filter:** Regularly replace the air filter attached to this Laser Marker to maintain cooling effects.

- **Laser emission port:** Dust or contamination adhering to the laser emission port may affect the marking quality or seriously damage the Laser Marker. Clean the laser emission port regularly.

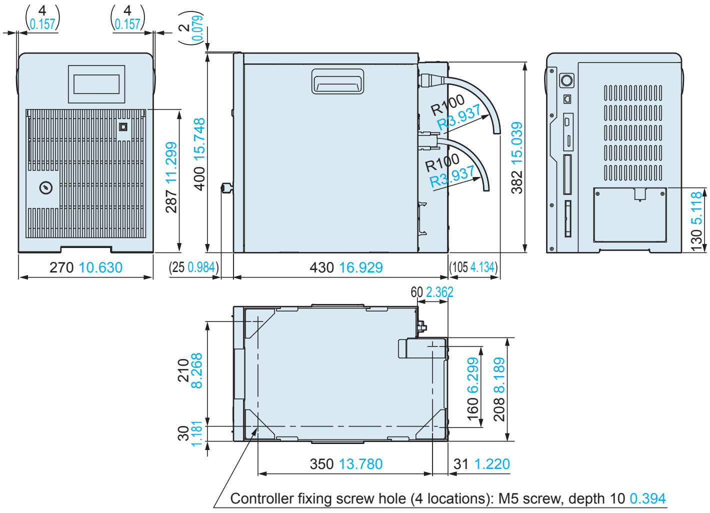
DIMENSIONS [Unit: mm in]

* The CAD data can be downloaded from our website.

Head


Frame grounding screw: M4 screw, depth 5 0.197
664.5 26.161
(360 14.173)
129 5.079
2 0.079
170 6.693
175 6.890
Work distance: 103 4.055
Center of marking
Center of marking
Head positioning pin hole: ø8 ø0.315 slot +0.01 0 ×10, depth 5 0.197
Head fixing screw hole (3 locations): M6 screw, depth 6 0.236
Marking field: 85 × 85 3.346 × 3.346
180 7.087
180 7.087
70 2.756
130 5.118
Laser point emission port
(29 1.142)
72 2.835
61.7 2.429
75 2.953
75 2.953
25.5 1.004
11.5 0.453
180 7.087
180 7.087
50 1.969
Laser emission port diameter: ø94 ø3.701 (Lens part: ø64 ø2.52)
Head fixing screw hole (6 locations): M6 screw, depth 6 0.236
Head positioning pin hole: ø8 ø0.315 slot +0.015 0 depth 5 0.197

Controller


4 0.157
4 0.157
2 0.079
287 11.299
400 15.748
R100 R3.937
R100 R3.937
382 15.039
130 5.118
270 10.630
(25 0.984)
430 16.929
(105 4.134)
60 2.362
210 8.268
30 1.181
160 6.299
208 8.189
350 13.780
31 1.220
Controller fixing screw hole (4 locations): M5 screw, depth 10 0.394

2017.04 panasonic.net/id/pidsx/global

Panasonic Industrial Devices SUNX Co., Ltd.
Global Sales Department
2431-1 Ushiyama-cho, Kasugai-shi, Aichi, 486-0901, Japan
■Telephone: +81-568-33-7861 ■Facsimile: +81-568-33-8591

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