THE NEXT GENERATION
OF HANDHELD CODE READERS

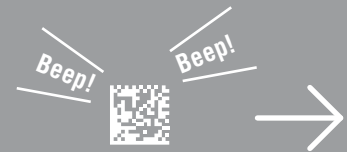# COMMON CHALLENGES FACED BY HANDHELD DPM CODE READERS

SLOW

Reading takes time, which causes operations to fall behind and leads to downed production lines
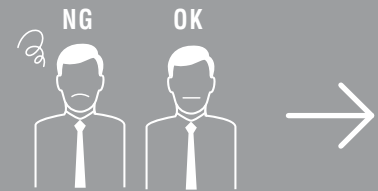
UNSTABLE

Because reading time is inconsistent, mistakes such as duplicated or skipped reads may occur

VARIABLE

Readings differ from person to person due to varying levels of understanding

DIFFICULT

Figuring out the best settings takes a long time or can sometimes even be impossible

THESE ISSUES AREN'T A PROBLEM FOR THE SR-G100

HIGH-SPEED READING

STABLE READING

EASY OPERATION

EASY CONFIGURATION

NEW

Handheld DPM Code Reader
SR-G100
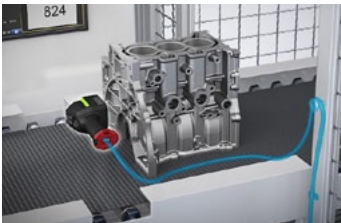
HIGH-SPEED READING
REGARDLESS OF OPERATOR

WIRELESS COMMUNICATION IMPROVES FLEXIBILITY

Not only does being wireless improve the SR-G100's general flexibility, it also solves various problems that would otherwise be impossible to overcome.

No need to spend time on wiring

No interference from cables

No need to worry about damaged cables

30 mm
1.2 inch

USER TEST TUNE SCAN

4

BUILT-IN FUNCTION BUTTON
EASILY CUSTOMIZABLE SETTINGS

Automatic tuning is done simply by pushing the function button and reading a code. Use the device on site without the need to carry around a PC.

PRESS

Assess stability of reading and communication
• Reading rate testing
• Radio wave testing

ERGONOMIC SHAPE THAT REINFORCES OPTIMAL POSITIONING
CENTER-OF-GRAVITY DESIGN

By naturally inducing a flat position, the SR-G100 reduces the impact of variations between users as well as variations in code marking styles. This makes it possible for anyone to read codes consistently and stably.

90°

MULTI-LIGHTING CONTROL FUNCTION
AUTOMATIC SELECTION OF OPTIMAL LIGHTING
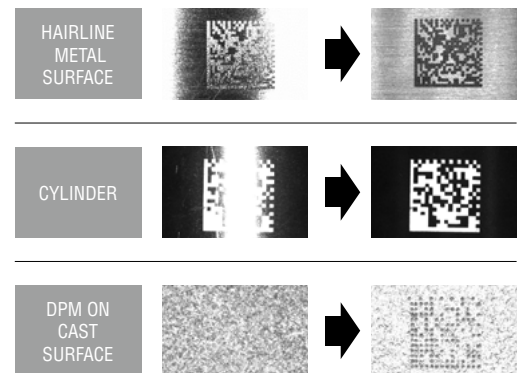
Polarizing illumination

Removes glare from metal, black resin, etc.

Multi-angle lights + partial lighting

Reads DPM codes on metals including cylinders and cast surfaces

HAIRLINE METAL SURFACE

CYLINDER

DPM ON CAST SURFACE

CAPABLE OF HANDLING CHALLENGING CODES

Code correction algorithms, developed for the SR-1000 Series of fixed mount code readers, have been optimized specifically for use with handheld code readers. This allows an ideal balance between reading consistency and speed.
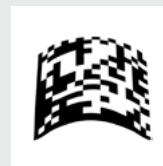
Distorted codes on curved surfaces

Codes marked on machined surfaces

Codes marked on surfaces with projections and depressions

COMPATIBLE WITH VARIOUS COMMUNICATION PROTOCOLS

Support for EtherNet/IP™, PROFINET, and PLC link improves PLC compatibility. This allows for interaction with fixed mount code readers installed on equipment or on production lines. In addition, the OUT signal (OK, ERROR, BUSY, etc.) from the communication unit (SR-LR1) makes synchronization with the PLC even easier.

EtherNet/IP

PROFINET

Verification and tracking of main and sub parts

SR-G100

SR-LR1

Out signal (OK, ERROR, BUSY, etc.)

PLC

Sub parts

Main parts

SR-1000 Series
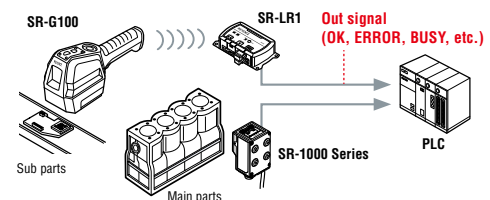
CUSTOMIZABLE SETTINGS USING EASY CONFIGURATION SOFTWARE

AutoID Network Navigator SR-H6W NEW

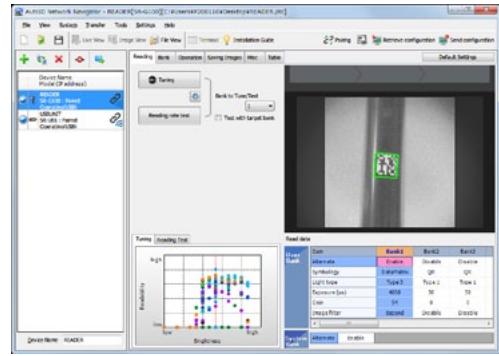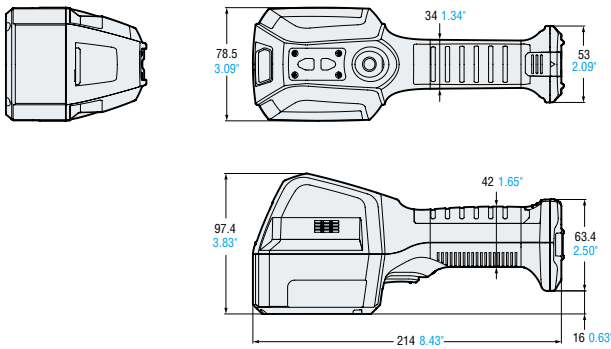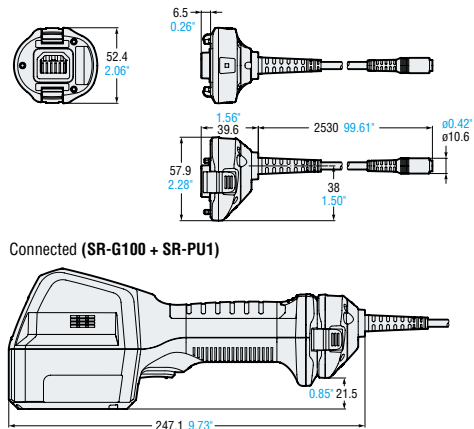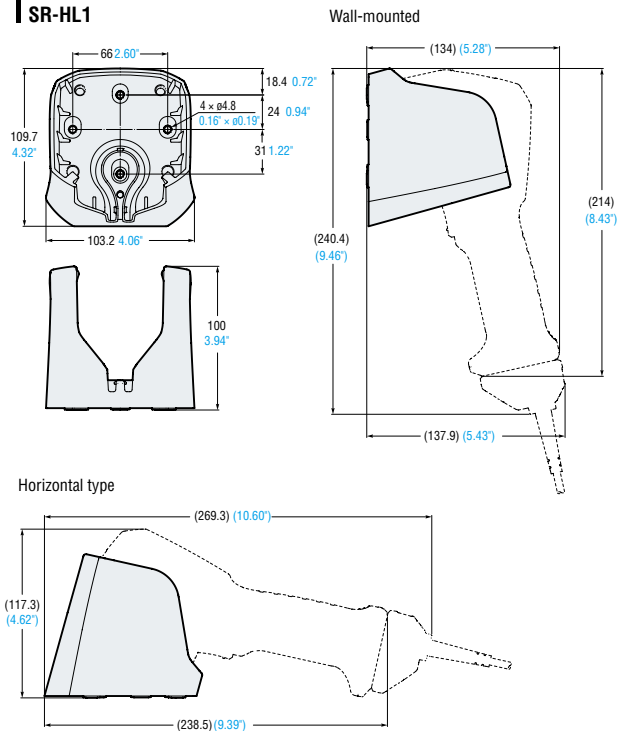|	
Easy connection via USB	Automatic tuning at the push of a button
Up to 12 different groups of settings can be stored	Real-time reading confirmation using Live View

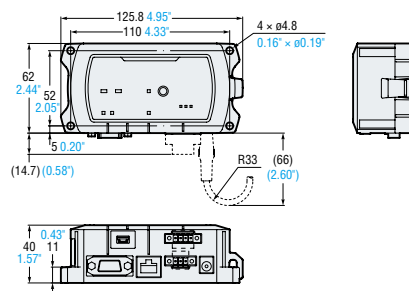## DIMENSIONS

Unit: mm

Handheld DPM Code Reader SR-G100

34 1.34"
78.5 3.09"
53 2.09"
42 1.65"
97.4 3.83"
63.4 2.50"
214 8.43"
16 0.63"

Holder SR-HL1

Wall-mounted

66 2.60"
18.4 0.72"
4 × ø4.8 0.16" × ø0.19"
24 0.94"
31 1.22"
109.7 4.32"
103.2 4.06"
100 3.94"

(134) (5.28")
(214) (8.43")
(240.4) (9.46")
(137.9) (5.43")

Horizontal type

(269.3) (10.60")
(117.3) (4.62")
(238.5) (9.39")

SR-G100 Cable SR-PU1

6.5 0.26"
52.4 2.06"
1.56" 39.6
2530 99.61"
ø0.42" ø10.6
57.9 2.28"
38 1.50"

Connected **(SR-G100 + SR-PU1)**

0.85" 21.5
247.1 9.73"

Communication unit (Ethernet & RS-232C) SR-LR1

125.8 4.95"
110 4.33"
4 × ø4.8 0.16" × ø0.19"
62 2.44"
52 2.05"
5 0.20"
(14.7) (0.58")
R33
(66) (2.60")
40 11
0.43" 1.57"

4-in-line charging unit SR-CG14

162 6.38"
1.93" 49
0.04" 1.1
1.58" 40.2
107.8 4.24"
129 5.08"
0.79" 20
158 6.22"
0.79" 20
0.04" 1.1
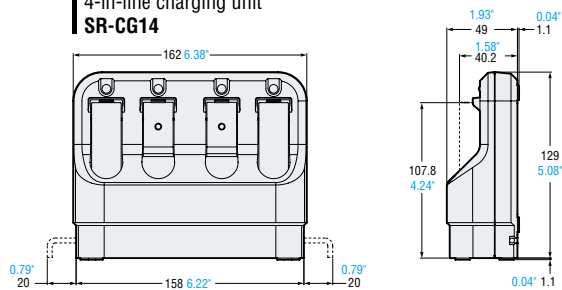
FIELD OF VIEW FOR READING (TYPICAL)

2D code
Unit: mm inch

Distance	Minimum resolution	Horizontal	Vertical
30 1.18"	0.127 0.005"	45 1.77"	45 2.56"
70 2.76"	0.25 0.009"	65 2.56"	65 2.56"
110 4.33"	0.5 0.020"	85 3.35"	85 3.35"

Barcode
Unit: mm inch

Distance	Minimum resolution	Horizontal	Vertical
80 3.15"	0.25 0.010"	99 3.90"	70 2.76"
120 4.72"	0.5 0.020"	127 5.00"	90 3.54"
200 7.87"	1 0.039"	184 7.24"	129 5.08"

QUICK SETUP CODE

Settings on the main unit can be changed using codes created through the setup software.

(Ex.: Initialization code)

SYSTEM CONFIGURATION GUIDE

STEP 1   **SELECT A CONNECTION INTERFACE**

USB CONNECTION

Handheld DPM Code Reader
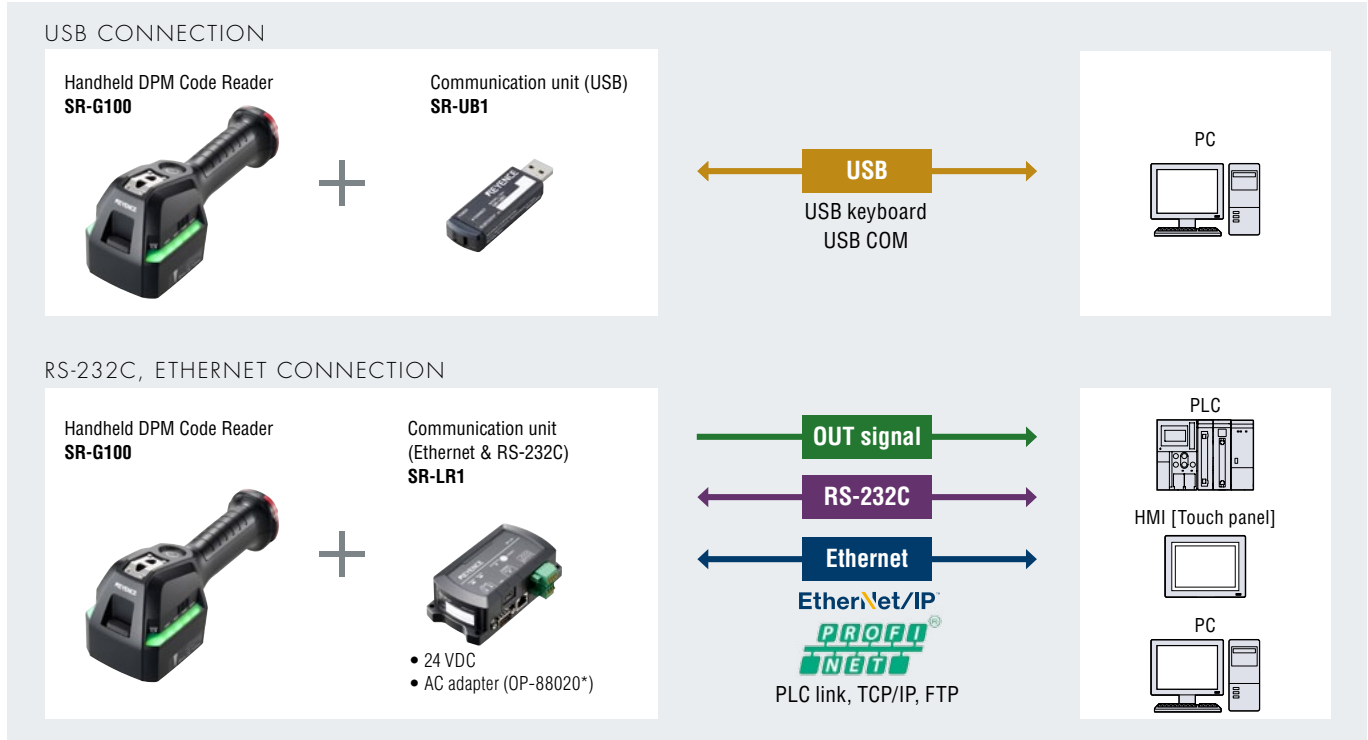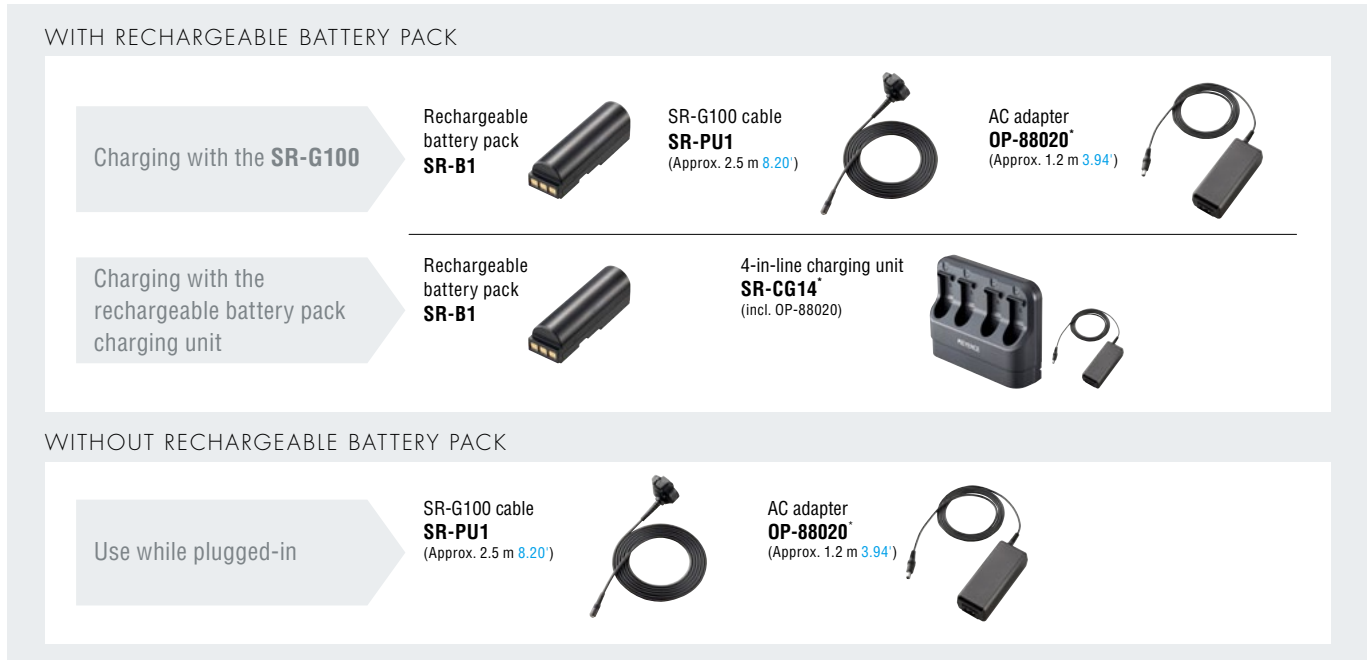**SR-G100**

Communication unit (USB)
SR-UB1

+

USB
USB keyboard
USB COM

PC

RS-232C, ETHERNET CONNECTION

Handheld DPM Code Reader
SR-G100

Communication unit
(Ethernet & RS-232C)
SR-LR1

+

- 24 VDC
- AC adapter (OP-88020*)

OUT signal
RS-232C
Ethernet
Ether**N**et/IP
PROFI NET®
PLC link, TCP/IP, FTP

PLC

HMI [Touch panel]

PC

STEP 2   **SELECT A CHARGING/POWER METHOD**

WITH RECHARGEABLE BATTERY PACK

Charging with the **SR-G100**

Rechargeable battery pack
SR-B1

SR-G100 cable
SR-PU1
(Approx. 2.5 m 8.20')

AC adapter
OP-88020*
(Approx. 1.2 m 3.94')

Charging with the rechargeable battery pack charging unit

Rechargeable battery pack
SR-B1

4-in-line charging unit
SR-CG14*
(incl. OP-88020)

WITHOUT RECHARGEABLE BATTERY PACK

Use while plugged-in

SR-G100 cable
SR-PU1
(Approx. 2.5 m 8.20')

AC adapter
OP-88020*
(Approx. 1.2 m 3.94')

* A separate AC cable is required with OP-88020 and SR-CG14 products.

AC CABLE LIST

OP-99022 (USA, Canada)   **OP-99102** (Mexico)   **OP-99062** (UK)   **OP-99032** (Germany, France, Italy, Belgium)
OP-99042 (China)   **OP-99112** (Thailand)   **OP-99012** (Japan)

(Approx. 2 m 6.56')

OTHER OPTIONAL ACCESSORIES
AND SETUP SOFTWARE

Holder
SR-HL1
Supports both flat and
wall-mounted positions

USB cable
OP-51580
SR-G100/SR-LR1
for setup

Setup software
SR-H6W

SPECIFICATIONS

Handheld DPM Code Reader

Model			SR-G100
Receiver	Sensor		CMOS image sensor
	Number of pixels		900 × 900 pixels (2D code), 1280 × 900 pixels (Barcode)
Light emitter	Illumination light source		High-intensity red LED, High intensity blue LED
Reading specifications	Supported symbol	2D code	QR, MicroQR, DataMatrix (ECC200), GS1 DataMatrix, PDF417, MicroPDF417, GS1 Composite (CC-A/CC-B/CC-C)
		Barcode	CODE39, ITF, 2of5(Industrial 2of5), COOP 2of5, NW-7 (Codabar), CODE128, GS1-128, GS1 DataBar, CODE93, JAN/EAN/UPC, Trioptic CODE39, CODE39 Full ASCII, Pharmacode
	Minimum resolution	2D code	0.127 mm 0.005"
		Barcode	0.1 mm 0.004"
	Focal distance		30 mm 1.18"
Communication specifications	Wireless communication		Bluetooth Ver. 2.1 + EDR Class 2
	Wireless communication distance		Approx. 10 m 32.81' (line-of-sight)
	Setup communication		USB 2.0 Full Speed
Environmental resistance	Enclosure rating		IP54
	Ambient temperature		0 to +45°C 32 to +113°F/ When charging: 0 to +40°C 32 to +104°F
	Ambient storage temperature		-10 to +50°C 14 to +122°F
	Relative humidity		35 to 95% RH (No condensation)
	Ambient storage humidity		35 to 95% RH (No condensation)
	Ambient light		Sunlight: 10000 lux, Incandescent lamp: 6000 lux, Fluorescent lamp: 2000 lux
	Operating environment		No dust or corrosive gas present
	Drop resistance*		2.0 m 6.56', 50 times
Rating	Power consumption		Approx. 8.5 W
Dimensions			214 × 78.5 × 97.4 mm 8.43" × 3.09" × 3.83"
Weight			Approx. 375 g (incl. rechargeable battery pack)
Continuous usage time (Central value)			Approx. 10 hours (reading count: 10000)
Charging time			Approx. 4.5 hours

• This is a test value and is not guaranteed.

Communication unit (USB)

Model		SR-UB1
Communication specifications	Wireless communication	Bluetooth Ver. 2.1 + EDR Class 2
	Wireless communication distance	Approx. 10 m 32.81' (line-of-sight)
	USB communication	USB 2.0 Full Speed
	Interface	USB-COM, USB keyboard
Environmental resistance	Ambient temperature	0 to +45°C 32 to +113°F
	Ambient storage temperature	-10 to +50°C 14 to +122°F
	Relative humidity	35 to 95% RH (No condensation)
	Ambient storage humidity	35 to 95% RH (No condensation)
Rating	Current consumption	Approx. 80 mA
Dimensions		20.6 × 11.2 × 65.4 mm 0.81" × 0.44" × 2.57"
Weight		Approx. 15 g
Supported OS		Microsoft Windows 8 Professional or later 32bit/64bit (Except for Windows RT), Microsoft Windows 7 Professional or later 32bit/64bit

Communication unit (Ethernet & RS-232C)

Model		SR-LR1
Communication specifications	Wireless communication	Bluetooth Ver. 2.1 + EDR Class 2
	Wireless communication distance	Approx. 10 m 32.81' (line-of-sight)
	RS-232C	9600, 19200, 38400, 57600, 115200 bps
		No-protocol, MC protocol, SYSWAY, KV STUDIO
	Ethernet	IEEE 802.3, 10BASE-T / 100BASE-TX
		TCP/IP, FTP, MC protocol, Omron PLC link, KV STUDIO, EtherNet/IP™, PROFINET
Control output	Number of points	3
	Output format	Photo MOS relay
	Maximum rating	30 VDC, 100 mA
	Leakage current when OFF	0.1 mA or less
	Residual voltage when ON	1 V or less
Environmental resistance	Ambient temperature	0 to +45°C 32 to +113°F
	Ambient storage temperature	-10 to +50°C 14 to +122°F
	Relative humidity	35 to 95% RH (No condensation)
	Ambient storage humidity	35 to 95% RH (No condensation)
Rating	Power voltage / current consumption	24 VDC ±10% / Approx. 120 mA, or use dedicated AC adapter (12 VDC) / Approx. 230 mA
Dimensions		62 × 125.8 × 40 mm 2.44" × 4.95" × 1.57"
Weight		Approx. 160 g

AC adapter

Model	OP-88020
Rated input	100 to 240 VAC, 50/60 Hz
Rated output	12 VDC, 1.5 A max.
Dimensions	104 × 43 × 31 mm 4.09" × 1.69" × 1.22" (excl. cable area)
Weight	Approx. 125 g

• Using SR-PU1 or SR-LR1. AC cable required separately.

Setup software (AutoID Network Navigator)

Model	SR-H6W
Supported OS	Windows 10 Professional or later, 32 bit/64 bit Windows 8 Professional or later, 32 bit/64 bit (Except for Windows RT) Windows 7 Professional or later, 32 bit/64 bit Windows Vista Business/Ultimate SP2 or later, 32 bit*
Running environment	Processor: 2.0 GHz or better, Memory: 1 GB (32 bit)/2 GB (64 bit), DVD-ROM drive (during installation), Screen resolution: 1024 × 768 or better

* SR-2000/G100 products do not support Windows Vista.
• .NET Framework 3.5 SP1 or later installed • Internet connectivity for Windows 8/10 machines with .NET 3.5 installed • Control panel operability for Windows 8/10 machines with .NET 3.5 installed

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