

Scanner Power Supply Unit

CL-P115A/P148A 

OPERATION MANUAL



About This Documentation

Thank you for purchasing our CL-P115A/P148A Scanner Power Supply Unit.



Please read this manual carefully to ensure correct use of the product. Keep the manual handy after reading for future reference.

This document for the CL-P115A/P148A Scanner Power Supply Unit describes installation and system specifications.

1. Note

- Company and product names in this manual are trademarks or registered trademarks of their respective owners.
- Unauthorized reproduction of this manual in whole or part is prohibited.
- The contents of this manual are subject to change without notice.
- Every effort has been made to ensure the accuracy of this information. If you come across oversights or errors, please notify your dealer.
- Be sure to read the user's manuals for any equipment used in conjunction with the system (e.g., documentation for computer systems).

2. Symbols Used in this Manual

 CAUTION	Indicates instructions that must be followed to prevent hardware or software damage or operating errors.
 ATTENTION	Indicates additional information on a particular topic.

Menus, icons, buttons, windows, tabs	Enclosed in brackets. Example: Click the [OK] button.
Keyboard keys	Enclosed in angle brackets. Example: Press the <Tab> key.
References	Enclosed in quotes. Example: Refer to "Chapter 8-3.2 Changing Passwords" (page 5).

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Chapter 1




Special Precautions

1. Safety Precautions

Read these Safety Precautions thoroughly before use to ensure correct use of the system.

- The precaution points indicated here are intended to ensure safe operation of the system and prevent hazards or injury to users and other personnel.
They are important details relating to safety and must be read carefully.
- The indications have the following meanings.

 DANGER	Indicates that incorrect operation risks death or serious injury to personnel.
 WARNING	Indicates that incorrect operation may result in death or serious injury to personnel.
 CAUTION	Indicates that incorrect operation may result in injury to personnel or damage to property.

Indicates prohibited actions and warns of actions not covered by the product warranty.	
	
Indicates actions that must be performed by users.	
	
The triangular symbol indicates details that supplement DANGER, WARNING, or CAUTION points.	
	

⚠ DANGER



Never dismantle, repair, or modify the system. Doing so may result in electric shock or fire.

Otherwise there is a risk of electric shock or fire. Do not attempt maintenance other than that described in the Operation Manual.



Never burn, destroy, cut, crush or chemically decompose the system.

This product incorporates parts containing gallium arsenide (GaAs).

⚠ WARNING



Do not damage power or connector cables.

Do not crush, twist, or pull cables. Damaged cables may result in electric shock, short-circuiting, or fire.

Contact your dealer or us, if repair or replacement is necessary.



Connect securely using the specified cables.

Using cables with inadequate capacity or improper connections may result in fire or electric shock.



Ground the Unit.

If the Unit is not grounded, you may get an electric shock when there is trouble or electricity leaks.



Connect optical fibers securely.

Improper connection may result in burn injuries or fire.



Stop using the system if a problem arises.









If a problem occurs such as a burning smell, abnormal noise, overheating, or smoke emission, continuing to use the system may result in electric shock or fire.

Contact your dealer or us immediately.



Wear protective work clothing.

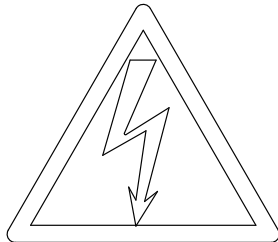
Wear protective clothing such as gloves, long-sleeved clothing, and a leather apron. Spatter will cause burn injuries if it lands on the skin.

 CAUTION	
	<p>Keep away from water. Subjecting electrical components to water may result in electric shock or short-circuiting.</p>
	<p>Install in a firm location. Otherwise there is a risk of injury if the system topples or falls from the installation location.</p>
	<p>Provide fire extinguishers. Fire extinguishers must be provided in the welding work area in case of fire.</p>
	<p>Inspect and maintain the system periodically. Inspect and maintain the system periodically, repairing damaged parts and components before use.</p>
	<p>Keep connector plugs clean and insert fully. There is a risk of overheating and fire if dust is allowed to accumulate or if plugs are not fully inserted.</p>
	<p>Hold the plug body when inserting or removing. There is a risk of damage to the cable and electric shock or fire if the cable is pulled to unplug.</p>
	<p>Do not cover with blankets or sheets. Do not cover the system with blankets or sheets while in use. Otherwise there is a risk of over-heating and fire.</p>

2. Operating Precautions

- (1) The system should be used in an ambient temperature range of 5°C to 40°C and humidity 20% to 85% RH with no sudden temperature fluctuations. Avoid using the system in the following locations.
 - Locations with dust or oil mist present
 - Locations subject to vibration or impact
 - Locations in which chemicals are used
 - Locations subject to high noise
 - Locations susceptible to condensation
 - Locations with high concentrations of CO₂, NO_x, or SO_x
- (2) The exterior of the system should be wiped clean using a soft or moist cloth. If the exterior is particularly dirty, wipe clean using diluted detergent or alcohol.
- (3) Do not drop foreign objects such as screws inside the system, as this may result in failure of the system.
- (4) Operate the system as described in the attached Operation Manual.

[Warning/Caution label details]



Warning label of the charging unit

Location:
Near the power supply connector on the rear surface

3. For Disposal

This product incorporates parts containing gallium arsenide (GaAs). At the time of disposal, separate it from general industrial waste or domestic waste and carry out the disposal in accordance with applicable laws and regulations.

The scanner power supply unit CL-P115A/P148A is the power supply unit for the laser control unit CL-E100A series.

The CL-P115A supplies power to the laser control unit CL-E100A and the scanner head unit CL-H201A.

The CL-P148A supplies power to the laser control unit CL-E100A and the scanner head unit CL-H601A.

The CL-P115A/P148A has the following features.

- Compact body corresponding to 19-inch 1U rack

The outline is 482.6 x 547 x 320 (mm) and the weight is 5 kg. The CL-P115A/P148A is 19-inch 1U rack size and can be installed anywhere.

- Applicable power supplies

The CL-P115A/P148A can be used with single-phase 200-240 V AC (50/60 Hz) power supply.

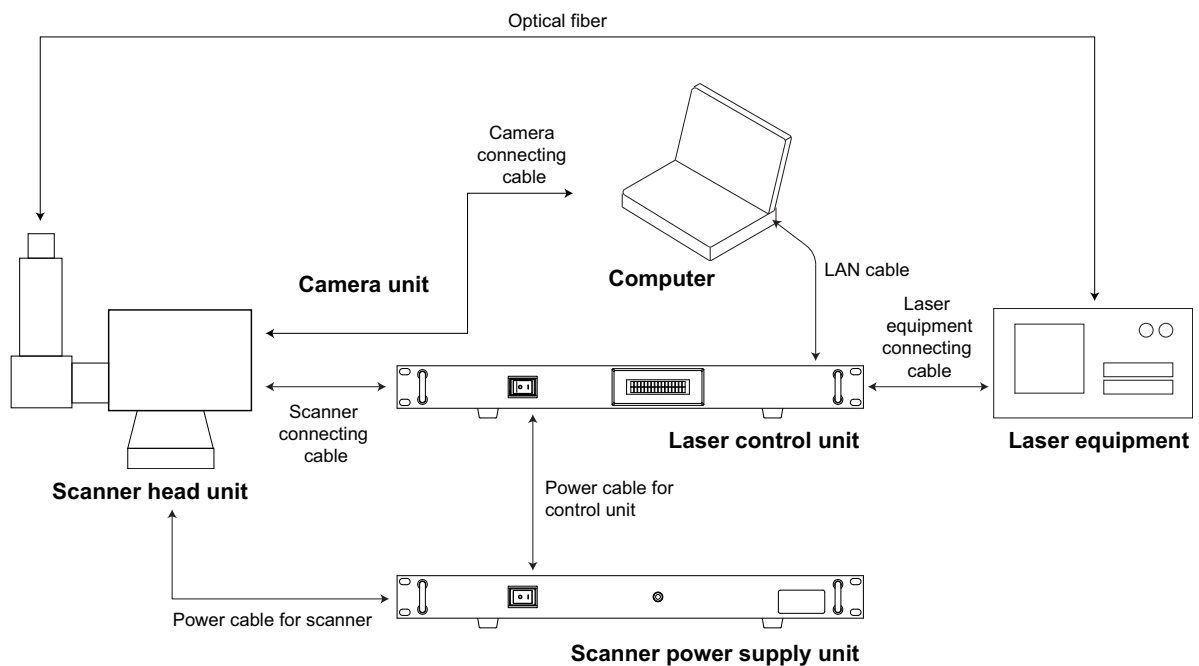
- Applicable to ± 15 V DC or 48 V DC scanner

The CL-P115A can be used with the scanner of ± 15 V DC input. The CL-P148A can be used with the scanner of 48 V DC input.

Chapter 3

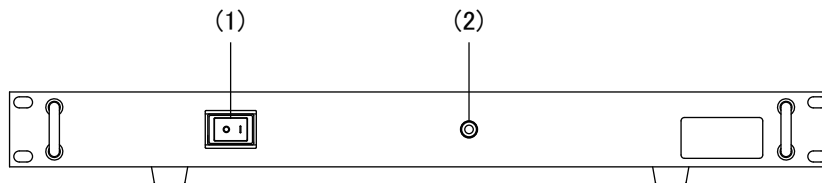
System Configuration

1. Overall Configuration



2. Name and Functions of Each Section

2.1. Front




(1) Power switch

Turn ON/OFF the power supply.

(2) POWER indicator (LED)

Lights up when the power to the equipment is ON.

Does not light up when the power to the equipment is OFF.

 CAUTION	<p>The POWER indicator lights up for a while even when the power switch is turned off. Do not connect or disconnect the cable while the POWER indicator is lit since the inside of the unit is in a charging state.</p>
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2.2. Rear



(1) Scanner power supply connector (screw diameter #4-40)

Connector of the power supply for the scanner head unit. The D-sub 15 pins female is connected in the CL-P115A, and the D-Sub 3W3 type female is connected in the CL-P148A.

(2) UNIT1 to 2 connectors (1829358/Phoenix Contact*)

Connects the laser control unit CL-E100A with the attached power cable for control unit. Connect using 3.81-mm pitch 3-pole terminal block plug.

* The model number of connector is subject to change without notice. Depending on the part to be changed, the mounting screw shape may change and a necessary tool may be different. For the latest parts information, contact a nearest sales office.

(3) Power supply connector



IEC standard C14 type inlet. Connects the attached AC cord. A come-off prevention part of the AC power (ACCD86AS) is equipped.

Chapter 4

Installation

1. Unpacking

1.1. Lifting and Transporting Container

 CAUTION		When moving the container, use a cart or ensure at least two people carry it.
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	Dimension	Mass (including contents)
Container for scanner power supply unit and accessories	Approx. 520 (H) x 650 (W) x 575 (D) mm	Approx. 17 kg

1.2. Checking the Contents of Container

Verify that contents of the container agree with the following list.

Component	Quantity
Scanner power supply unit	1
Power cable for scanner	1
Power cable for control unit	1
AC cord	1
Operation manual	1

2. Installation

2.1. Installation Requirements


The system should be used in an ambient temperature range of 5°C to 40°C and humidity 20% to 85% RH with no sudden temperature fluctuations. Avoid using the system in the following locations.

- Locations with dust or oil mist present
- Locations subject to vibration or impact
- Locations in which chemicals are used
- Locations subject to high noise
- Locations susceptible to condensation
- Locations with high concentrations of CO₂, NO_x, or SO_x

Also, this unit is a 1U product of the EIA standard. When storing it in a rack, remove the rubber feet at the bottom of the unit.


2.2. Connections

See "Chapter 3-1. Overall Configuration" (page 8) to connect the CL-P115A/P148A and peripheral devices.

 CAUTION	When the applicable power supply of the scanner head unit is ± 15 V DC, the CL-P115A is required. When 48 V DC, the CL-P148A is required.
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2.3. Ground Connection

Be sure to ground the power cable.

 CAUTION	For the ground to connect to, perform class D grounding work (Ministry of Economy, Trade and Industry "Technical Standards for Electric Equipment").
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Chapter 5

Specifications

1. Basic Specifications

Item		CL-P115A	CL-P148A
Output	Rated voltage	+24 V DC ×2 (80 W in total), ±15 V DC ×1 (160 W)	+24 V DC ×2 (80 W in total), +48 V DC ×1 (200 W)
	Maximum output current	5 A in total (24 V DC x2), 7 A (±15 V x1)	5 A in total (24 V DC x2), 4.4 A (48 V)
Input	Voltage tolerance	Single-phase, 200 to 240 V AC (180 to 250 V AC) (50/60 Hz)	
Maximum power consumption		360 W	330 W
Ambient temperature		5°C to 40°C Note: Contact us when using in ambient temperature below 5°C.	
Ambient humidity		20% to 85% RH (with no condensation or freeze)	
Temperature during storage		-10°C to 60°C (with no condensation or freeze)	
Humidity during storage		10% to 85% RH (with no condensation or freeze)	
Vibration during transport (with packaged)		ASTM D 4728 Level2	
Impact during transport (with packaged)		ASTM D 4169-05 Level2	
Protective class		IP32	
Electromagnetic compatibility standards	Immunity	Complied with the following: IEC61000-4-2 (Electro-static immunity) IEC61000-4-3 (Radiated field) IEC61000-4-4 (Fast transient burst noise) IEC61000-4-5 (Lightning surge) IEC61000-4-6 (Conducted immunity) IEC61000-4-8 (Magnetic field immunity) IEC61000-4-11 (Dips/Interrupts)	
	Emission	Complied with the following: EN55011 (Radiated disturbance) EN55011 (Conducted disturbance)	
Frequency variation		±3 Hz	
External dimensions		430(W) mm × 320(D) mm × 44(H) mm (Not including projections)	
Mass		Approx. 5 kg	
Altitude		2000 m or lower	

2. Accessories

Item	Model No.	Quantity
Power cable for control unit	AS1203962	1
AC cord	AS1207613	1
Operation manual	AS1203808(OM1203803,OM1203804)	1

Chapter 6

Outline Drawing

Dimensions in mm

