

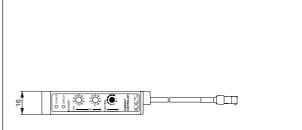
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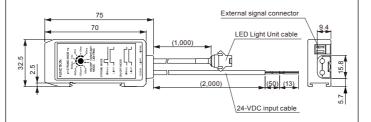


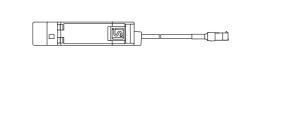
Specifications

Product name	Compact Controller for LED Light Units (Strobe Light Type)
Model	CC-ST-1024
Direct number	2000654
Drive method	Constant-voltage system
Light control method	PWM control, lighting time control
Applicable Light Units (rating)	24 V, 10 W
PWM frequency	100 KHz
Input overcurrent protection	A fuse cuts the circuit to protect the Controller from overcurrent.
Input voltage	24 VDC ±10%
Power consumption (typ.)	11.0 W (10-W LED Light Unit at maximum light intensity)
Output voltage (rating)	24 VDC
Output current (rating)	0.42 A
Operating environment (indoors only)	Temperature: 0 to 40°C, Humidity: 20% to 85% RH (no condensation)
Storage environment	Temperature: -20 to 60°C, Humidity: 20% to 85% RH (no condensation)
Vibration resistance	Acceleration: 19.6 m/s ² , frequency: 10 to 55 Hz, cycles: 3 minutes, for 1 hour each in X, Y, and Z directions
Impact resistance	Acceleration: 49.0 m/s ² , operation time: 30 ms, number of times: 3 times each in 6 directions
Cooling method	Natural air cooling
CE marking	Conforms to EMC standard EN 61326, Class A.
Environmental regulations	RoHS compliant
Materials	ABS
Weight	80 g
Accessories	Flat-blade screwdriver

Dimensional Diagram (mm)









Compact Controller CC-ST-1024 **NEW**

A Compact, Lightweight Controller for LED Light Units

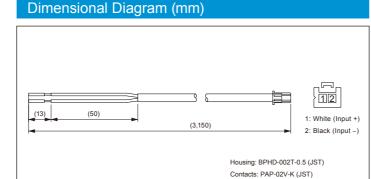


Option: NFCB2-CC-3

• External Signal Cable (3 m)



This cable is for external signals. Use it to input external signals into the Controller.



CE

Precautions

To ensure safety, always read the Instruction Guide before attempting to use the Controller. In the interest of product improvement, specifications and designs are subject to change without notice.



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■ 東京営業所 / テスティングルーム

〒141-0022 東京都品川区東五反田4-6-6 高輪台グリーンビル9F TEL:03-5475-3681 FAX:03-5475-3682

■ 名古屋営業所/テスティングルーム 〒450-0002 愛知県名古屋市中村区名駅4-6-23 第三堀内ビルディング6F TEL:052-541-6550 FAX:052-541-6050

■ 仙台テスティングルーム 〒980-0014 宮城県仙台市青葉区本町1-1-1 三井生命仙台本町ビル13F TEL:022-224-9101 FAX:022-224-9102

URL:http://www.ccs-inc.co.jp E-mail:sales@ccs-inc.co.jp

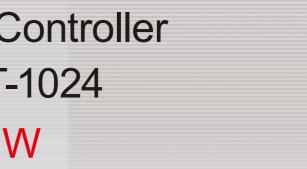
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An LED Light Unit Controller That's the Size of a **Sensor Amplifier**

Weight:

80 g

A 2-m, 24-VDC

nput cab

32.5 mm

O

16 mm

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Front

To the LED

jght Unit

′A 1-m LED light

cable is

COMPACT CONTROLLER

CC-ST-1024

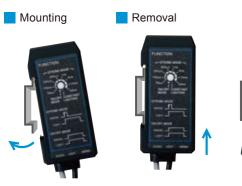
Supports a Wide Range of Application Sites.



Compact Design



With DIN rail mounting and 24-VDC input, this Controller is ideal for all types of onsite environments.





1. Press.

CC-ST-1024 Features

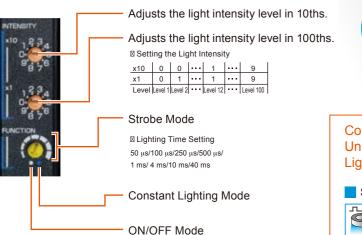


1. Lift up.





Just set the three switches to easily control the LED Light Unit.





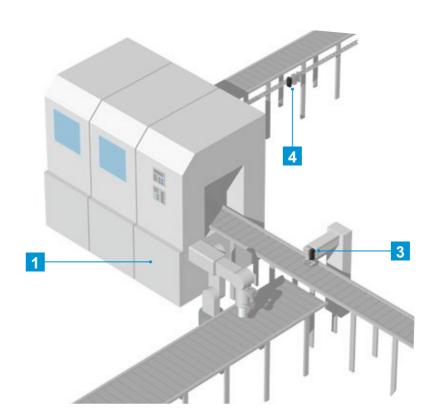
Connect the blue wire

9

to ground.

GND

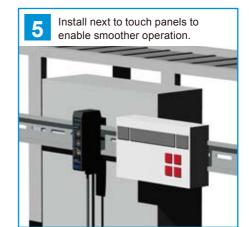
+24 V





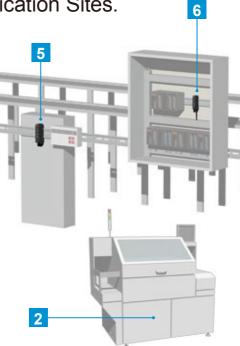






Note: These application examples are only conceptual. Actual application will depend on the installation environment.

Installation Examples



e Equipment:	
le equipment or	
s.	

Install next to the camera or near 3 the Light Unit for compact installation.

CC-ST-1024

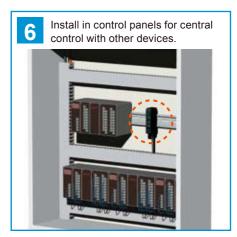
80 g

Applicable Light Units 24 V/10 W

Dimensions

Weight

16 × 32.5 × 70 mm (W×D×H)

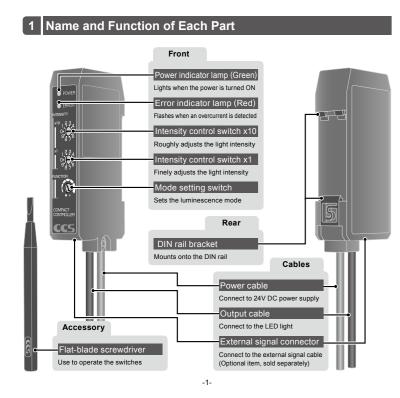


Compact Controller for LED Lights

CC-ST-1024

Instruction Guide CE

Thank you for purchasing a CCS product. To ensure proper use of the product, please read this instruction guide before use and keep it for your future reference.



2 Important Information for Equipment Safety - Read Before Use -

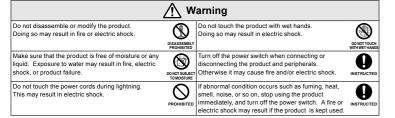
Incorrect usage of the product may result in fire, electric shock, or other serious damages. Please ensure to follow the conditions below

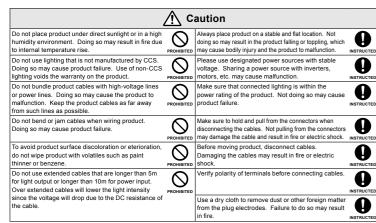
The following symbols are used in this instruction guide to indicate and classify the relative importance of warnings and cautions.



The following symbols in the instruction guide indicate and classify the precautions







-2-

3 Installation on to DIN Rail

How to mount Hook the tips located on the upper part of the main body to the DIN rail. While pushing down the main body in the direction of arrow (1), push it in the direction of arrow (2).

4 Wire Connection

1 Connect the LED light to the output

Output cable

Pin assignment 1: Output+ (+24V), 2: N.C, 3: Output-

Power cable

2 Connect the 24V DC power supply to

3 To take in external signal to the product.

External signal cable

connect the external signal cable

External signal cable model: NFCB2-CC-3

(Optional item, sold separately)

the power cable of the product

AWG23, 2-wire, L=1m, Black

SMP-03V-B (JST)

AWG23, 2-wire, L=2m, Gray

Brown: +24V, Blue: GND

AWG25, 2-wire, L=3m, Navy

White: Input +, Black: Input-

-3-

ptional cable extension up to 5m)

connector of the product

Cable

Connector

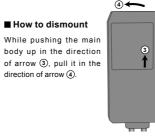
Cable

Wiring

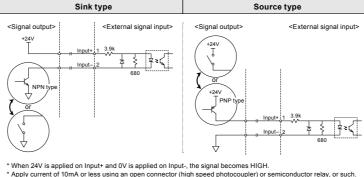
Cable

Wiring

Warning Before connection, make sure that the power is turned OFF. Making connections with the power ON may result in a fire or electric shock



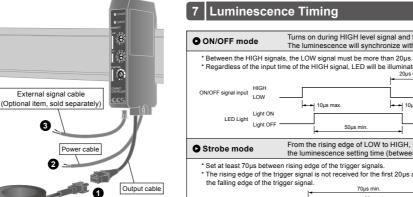
6 Examples of External Signal Connection



Apply current of 10mA or less using an open connector (high speed photocoupler) or semiconductor relay, or such. Pulse-width of 10µs or higher is needed. (Applied voltage 24V ±10%) When using the product at an environment where noise often occurs, insulating the product from the drive unit with

photocoupler or semiconductor relay is recommended.

Turns on during HIGH level signal and turns off out during LOW level signal The luminescence will synchronize with the HIGH signal.



LED light

* Regardless of the input time of the HIGH signal, LED will be illuminated for at least 50µs 20µs mir ON/OFF signal input 10us may - +I 10us ma Light ON LED Light Light OFF 50us mir From the rising edge of LOW to HIGH, LED will be illuminated according to Strobe mode the luminesc nce setting time (between 50µs and 40ms) Set at least 70µs between rising edge of the trigger signals * The rising edge of the trigger signal is not received for the first 20µs afte the falling edge of the trigger signal





Operate the rotary switch using the flat-blade screwdriver included in the package. The value becomes inconsistent when the rotary switch is positioned in between the scale. Make sure that the arrow of rotary switch is aligned with the scale.

Turn ON the power

Turn ON the power. The power lamp is lit while the power is ON.

2 Select the luminescence mode

Using the mode setting switch, select the luminescence mode from the following: Constant ON mode, ON/OFF mode, Strobe mode. Constant lighting

To continuously keep the light emission on, adjust the mode

setting switch to the (1) position as shown on the right. ON/OFF mode

To light in ON/OFF mode, adjust the mode setting switch to the 1 position as shown on the right. The luminescence will synchronize with the HIGH external signal.

Strobe mode

To light in strobe mode, select and adjust the mode setting switch between positions (2) to (9) as shown on the right (Luminescence time: 50μ s to 40ms). The LED will be illuminated according to the time selected by the mode setting switch after the external trigger signal input.

Mode setting switch	0	1	2	3	4	5	6	7	8	9			
Status	Constant	ON/OFF	Strobe mode										
Status	lighting	mode	50µs	100µs	250µs	500µs	1ms	4ms	10ms	40ms			

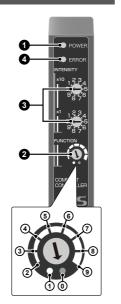
3 Setting the light intensity

Adjust the light intensity using the intensity control switch. Total of 100 levels of light intensity adjustments is possible (intensity control switch x10 adjusts the light intensity at every 10th level while the intensity control

omion xi aaja	010 111	g					u									.,				a.a
Intensity	x10	0	0	0	0	•••	4	4	4	4	4	5	5	5	5	•••	9	9	9	9
control switch	x1	0	1	2	3	••••	5	6	7	8	9	0	1	2	3	••••	6	7	8	9
Light intensity	level	1	2	3	4	•••	46	47	48	49	50	51	52	53	54	• • •	97	98	99	100
		- Da		-		_		_				_						4	> (Dr	ight

4 Errors and solutions

When the consumption current exceeds the maximum allowable output current more than 110%, the overcurrent protection is activated and the output is forcibly stopped. The error indicator lamp (red) will flash as well. To cancel the output stop, remove the cause of overcurrent and then turn ON the power supply again or change setting of the mode setting switch. Finally, return the setting back to the original state



(50) (13) 9 Main Specifications mpact Controller for LED Lights (Strobe light type CC-ST-1024 Model Drive method Constant-voltage system Light control met PWM control, lighting time control

NFCB2-CC-3 (Optional item, sold separately)

8 Dimensional Diagrams (mm)

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70

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CC-ST-1024

Applicable illuminators (rating)	24V, 10W
PWM frequency	100KHz
nput overcurrent protection	The fuse cuts off to protect from overcurrent
nput voltage	24V DC ±10%
Power consumption (typ.)	11.0W (10W LED light, at maximum light intensity)
Output voltage (rating)	24V DC
Output current (rating)	0.42A
Operating temperature and humidity	Temperature: 0 to 40°C, Humidity: 20 to 85%RH (No condensation)
Storage temperature and humidity	Temperature: -20 to 60°C, Humidity: 20 to 85%RH (No condensation)
/ibration resistance	Acceleration: 19.6 m/s ² , frequency: 10 to 55 Hz, cycles: 3 minutes, for 1 hour each in X, Y, and Z directions
mpact	Acceleration: 49.0 m/sec2, Operation time: 30 msec, Number of times: 3 times per each 6 directions
Cooling method	Natural air cooling
CE marking	EMC standard conform to EN 61326, Class A
Environmental Regulation	RoHS compliant
Material	ABS
Weight	80g
Accessories	Instruction guide x1, Flat-blade screwdriver

EU RoHS Directive

EU RoHS Directive

The RoHS Directive is short for the "restriction of use of certain hazardous substances in electrical and electronic equipment." As a directive, it restricts the use of specific hazardous substances for new electrical and electronic equipment marketed in the EU on or after July 1, 2006, and restricts the use of six substances, which are (1) lead, (2) mercury, (3) cadmium, (4) hexavalent chromium, (5) polybrominated biphenyl (PBB), and (6) polybrominated diphenyl ether (PBDE)

*Standards for "RoHS Directive-Compliant Products"										
Lead Mercury Cadmium Hexavalent chromium PBB PBDE										
1000ppm Min	1000ppm Min	100ppm Min	1000ppm Min	1000ppm Min	1000ppm Min					

(Items that are exempted in the RoHS Directive are excluded from these standards.)

China RoHS Directive

China RoHS Directive is formally known as "Management Methods for Controlling Pollution by Electronic Information Products", which was implemented on March 1, 2007 in China. Same as EU RoHS Directive, this regulation restricts the usage of six substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), and polybrominated diphenyl ether (PBDE). This regulation requires electronic information products which are manufactured or imported, and sold in China, to clearly disclose contents of the 6 restricted substances listed below

Name and amount of toxic and hazardous substances or elements, which products contain

Usage Deadline for Environmental Protection	Product name	Toxic or Hazardous Substances and Elements										
		Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	PBB	PBDE					
1	Power supply for LED Lights	×	0	×	0	0	0					

. Indicates that this toxic or hazardous substance contained in all the homogeneous materials for this part, according to SJ/T11363-2006 is over the limit requirement.

*Lead and cadmium are excluded in EU RoHS

Jsage deadline for environmental protection

The number used in this logo is based on "Management Methods for Controlling Pollution by Electronic Information Products" an related regulations from People's Republic of China. It shows the product usage duration in years for environmental protection. After finishing a product usage, the product need to be re-used or discard appropriately following local law and regulations, complying will safety and usage caution.

产品中有毒有害物质或元素的名称及含量 有盡有害物质或元素 环保使用期限 产品 铅 (Pb) 汞 (Hg) 镉 (Cd) 六价铬 (Cr (VI)) 多溴联苯 (PBB) 多溴二苯醚 (PBDE 1 LED 照明专用电源 Х 0 Х 0 0 0 :表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下. :表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求 注)铅和镉中的"×",因欧洲 RoHS 没限定,故用"〇"表示。 环保使用期限

15.8

12

1: White (Input +) 2: Black (Input -)

(50) (13)

Housing: BPHD-002T-0.5 (JST)

Contact: PAP-02V-K (JST)

遭守产品的安全和使用上的注意,在产品使用后采取适当的方法根据各地法律,规定,回收再利用或进行废弃处理。

-7-

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WARRANTY PERIOD: TWO YEARS, STARTING FROM CCS Inc. SHIPPING DATE

CCS Inc. WILL REPAIR OR REPLACE THE PRODUCT FREE OF CHARGE IF IT SHOULD FAIL TO FUNCTION WITHIN THE SPECIFIED WARRANTY PERIOD. IF EITHER OF THESE CONDITIONS OCCURS, PLEASE TAKE THE PRODUCT TO YOUR CCS SALES REPRESENTATIVE.

WARRANTY TERMS

- CCS Inc. WILL REPAIR OR REPLACE THE PRODUCT FREE OF CHARGE IF IT SHOULD FAIL TO FUNCTION UNDER USE ON OUR SPECIFIED CONDITION IN ACCORDANCE WITH THE INSTRUCTION GUIDE AND OTHER WRITTEN CAUTIONS DURIN THE INDICATED WARRANTY PERIOD OF TWO YEARS.
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 IF DAMAGE TO THE PRODUCT RESULTS FROM EXTERNAL CAUSES INCLUDING ACCIDENTS, FIRE, POLLUTION, RIOTS, COMMUNICATION FAILURES, EARTHQUAKES, THUNDERSTORMS, WIND AND FLOOD DAMAGE, OR ANY OTHER ACT OF PROVIDENCE, OR FROM ANY EXTRAORDINARY CONDITIONS SUCH AS ELECTRICAL SURGES, WATER LEAKAGE, CONDENSATION, OR THE USE OF CHEMICALS.
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- Under conditions or in an environment not described in this instruction quide
- In nuclear energy control systems, railroad systems, aviation systems, vehicles, combustion equipment,
- medical equipment, amusement machines, or safety equipment.
- . In applications involving serious risk to life or property, particularly applications demanding a high level of safety

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