

Instruction Manual

SUNJE

SHV-P

Eng

This product is an Ionizer for electrostatic remove. It is recommended that only persons who have sufficient knowledge and experience such as system designers and responsible persons deal with this product after carefully reading the product manual.

1 The matters of safety

WARNING

- * Do not fabricate or do maintenance by yourself. Malfunction, Electric shock, and fire danger are considered. Contact us directly if you need the item to be repaired. <A/S is not possible in case of arbitrary disassembly>
- * Do not let the water touch the product. It may cause electric shock or fire due to malfunction.
- * When you check or maintain the product, make it sure you turn off the power. It may cause electric shock or fire due to malfunction.
- * The item should be fixed to the target tightly. Electric discharging or breakage might happen.
- * This device is made only for industrial uses. You need to ground the device beforehand. Otherwise, there are in case of malfunction, electric shock, or fire damage.

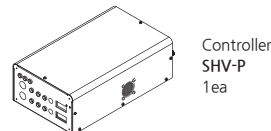
CAUTION

- * Do not disconnect the output cable with power applied. There is a possibility of electric shock or malfunction.
- * Connect wires referring to the product manual. Wrong connection can cause failures.
- * For your proper cable connection, take a look at the manual 'Installation & Connection' for references. Any disordered connection is detected, the malfunction might arise.
- * All cables should be connected all the time. Please careful of cable disconnections. If power or communication cables got damaged, replace them immediately. Malfunction and fire danger may happen.
- * Do not install the device where the vibration can be detected. Any minor impact or vibration on the device, the malfunction or danger of accident might happen.
- * Do not use the item off the range of usage(Electrostatic elimination). Malfunction or danger of accident may occur.

2 Check the package contents

Product compositions

The package includes the following products composition.



* High Voltage Cable
SHC-HV-1-001
10m / 1 ~ 2ea



* D-Sub Cable
SDC-VC-1-001
25Pin- Open, 5m
/ 1ea



* Terminal Block
STB-BT-1-001
(2ESDVM-02P)
1ea

Option

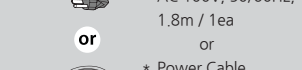
If you require extra functions with the basic accessories we provided, you need to purchase optional items in below for further assistant.

<Ground>



* Ground Cable
SGC-MT-6-001
Ø6-Ø4, 1m / 1 ~ 2ea

<Adapter & Power Cable>



* Adapter
(KS65DU-2400250)
SAD-MT-3-003
DC 24V / 2.5A
(Connector Processing)
/ 1ea

<RMS>



* UTP Cable
SUC-B3-1-001
5m

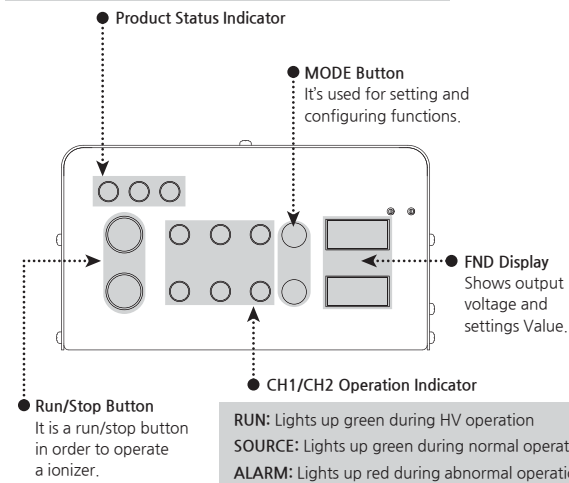


* Signal Cable
SUC-MT-2-001
5m

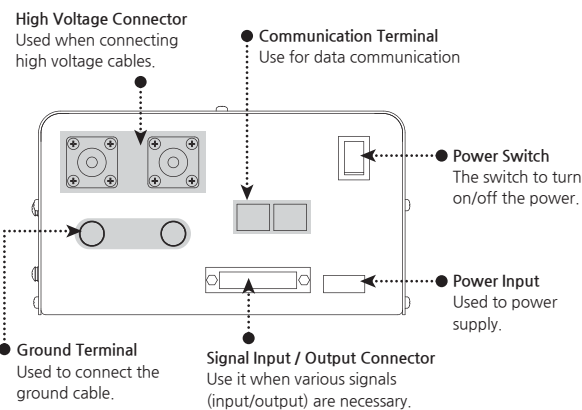
3 Nomenclatures of parts

Front

PWR ON: Lights up green when +24VDC is input correctly
REMOTE: Lights up green during REMOTE control
INT: Lights up orange when INTERLOCK is connected



Rear

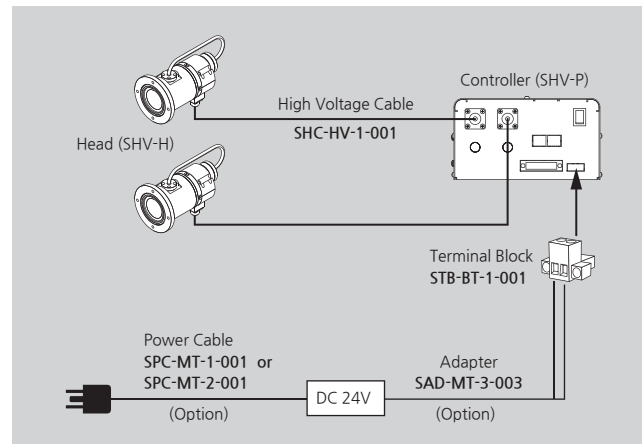


4 Installation and connection

How to connect

Connecting Power with the Head

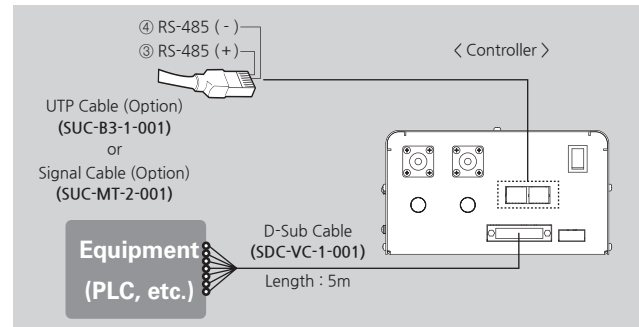
Using the provided Head cable and Adapter (Option), connecting as below.



* Attaching and detaching the cable while the controller is operating may cause damage to the product, so be sure to connect the cable while the power is off.

Connecting the Input & Output Signal

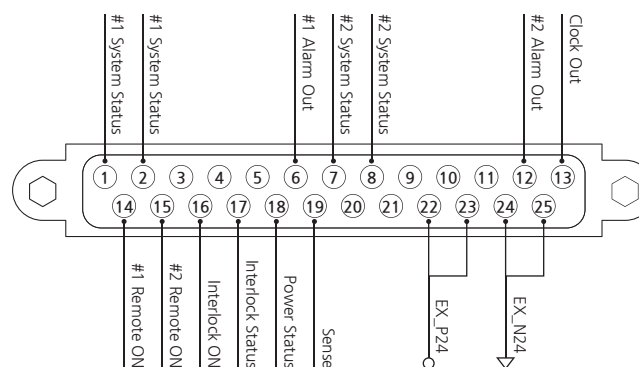
Please connect the controller and external machinery equipment with supported "D-Sub Cable".



Connecting the Interface

Use the Signal Cable as chart below.

D-Sub 25PIN

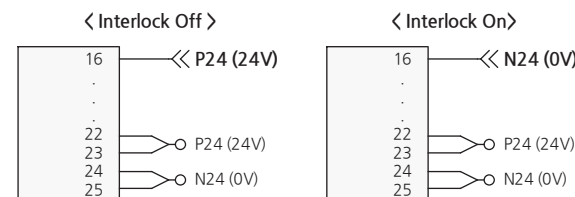


Pin No.	Function	Input/Output	Action
1	#1 System Status	Output	When #1 is operating, 0V output
2	#1 System Status	Output	When #1 is operating, 0V output
3		Reserve	
4		Reserve	
5		Reserve	
6	#1 Alarm Out	Output	When #1 Alarm occurs, 0V output
7	#2 System Status	Output	When #2 is operating, 0V output
8	#2 System Status	Output	When #2 is operating, 0V output
9		Reserve	
10		Reserve	
11		Reserve	
12	#2 Alarm Out	0V Output	When #2 Alarm occurs, 0V output
13	Clock Out	Output	Operates properly, Clock on (1Hz)
14	#1 Remote On	0V Input	#1 Remote On Input (0V)
15	#2 Remote On	0V Input	#2 Remote On Input (0V)
16	Interlock On	0V Input	Interlock Input (0V)
17	Interlock Status	0V Output	When Interlock On 0V output
18	Power Status	24V Output	When Power On, 24V output
19	Sense	0V Input	Input 0V, #1, #2 On
20		Reserve	
21		Reserve	
22	External Power +24V	EX_P24V	External Power (P24) Input
23	External Power +24V	EX_P24V	External Power (P24) Input
24	External Power 0V	EX_N24V	Using External Power GND
25	External Power 0V	EX_N24V	Using External Power GND

* External power connection is required when using the interface

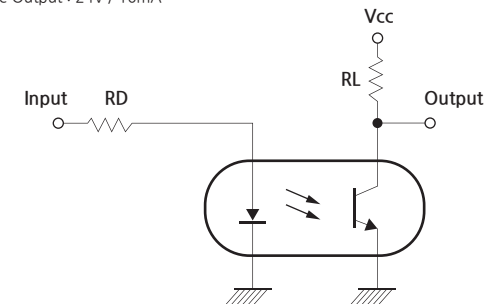
- Required
- No. 22, 23 : P24 input (24V)
 - No. 24, 25 : N24 input (0V)

Configuration Example)



Output circuit diagram

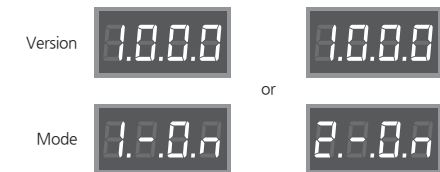
Interface Output : 24V / 10mA



5 How to operate SHV-P

Operates when power is on

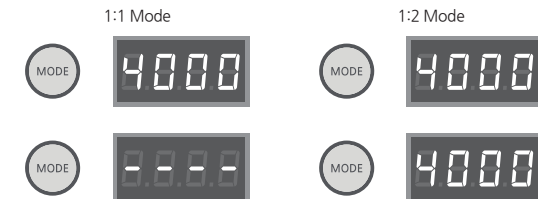
After displaying 1111 → 2222 → 3333 → 4444 → 8888, the version information and product mode are shown



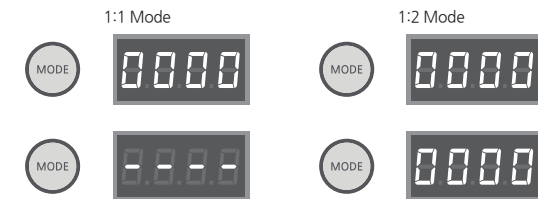
Main Screen

Steady State

Head Run



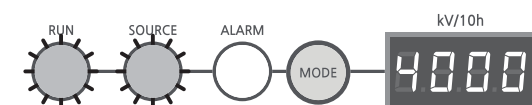
Head Stop



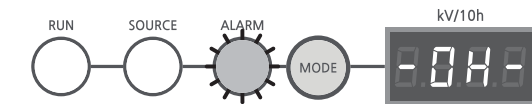
- Check the Setting Voltage / Run Time information using the MODE button.

Alarm State

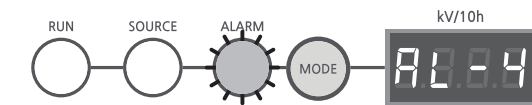
Normal operation



High-temperature alarm



HV Alarm



► Menu

Press and hold the CH1 MODE button and the CH2 MODE button simultaneously for 3 seconds to enter the Menu.
Use the CH1 MODE button to enter the Address setting menu.
Use the CH2 MODE button to enter the Sense Mode Stop Time, Run Time setting menu.

MODE

Addr

Enter the Address settings menu

MODE

S-00

Enter the Sense Mode Stop Time / Run Time settings menu
- Sense Mode On : S-ON
- Sense Mode Off : S-OFF

- Automatically saves and returns to the main screen if no button is pressed for 3 seconds.

Address Settings Menu

MODE

Addr

When the CH1 MODE button is pressed, the value increases.

MODE

-01-

When the CH2 MODE button is pressed, the value decreases.

- Automatically saves and returns to the main screen if no button is pressed for 3 seconds.

- Setting range: 01 ~ 16

Sensor Control setting

"Sensor Control Delay / Run Time Setting.

MODE

St0P

Set the Delay Time using the CH1 MODE button

MODE

Run

Set the Delay Time using the CH2 MODE button

- Automatically saves and returns to the main screen if no button is pressed for 3 seconds.

■ How to Set

MODE

St0P

When the CH1 MODE button is pressed, the time increases.

MODE

-05-

When the CH2 MODE button is pressed, the time decreases.

- Automatically saves and returns to the main screen if no button is pressed for 3 seconds.

- Setting range: 0s ~ 99s

※ What is sensor mode?
This function operates during the run time after the delay time set in the controller when a sensor signal is input. When using sensor mode, control commands other than those from sensors are ignored.

Sensor Mode	Remote	RS-485	Switch
On	X	X	X
Off	1	2	3

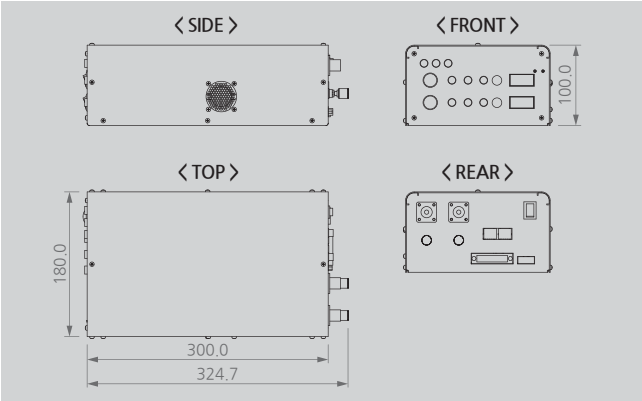
Operating mode Setting

Set the Controller operating mode

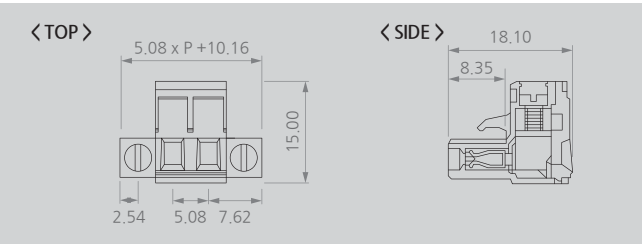
Press and hold the CH1 MODE button for 3 seconds to turn on Sensor Mode.
Press and hold the CH2 MODE button for 3 seconds to turn off Sensor Mode.
→ A beep occurs once when Sensor Mode is On.
→ A beep occurs twice when Sensor Mode is Off.
※ No beep if already set.

6 Dimensions

► SHV-P



► Terminal Block



7 Problem solving

► Checklist before called

Problem	Identifying Problem	Solution
Not Operating	Is your power cable still plugged in?	Please re-plug the power cable and then turn the device on again.
	Was the proper voltage level applied for this set-up?	Please use the proper level of power input for the device. (AC 100~240V, 50/60Hz)
	Is there a lot of dust on the cooling fan filter?	Please remove the dust periodically.
No Signal	Have you followed the proper procedure for Input/output signal cable(s)?	Check whether the cable connection is properly done.
Decreased Performance	Any damages or cut on the cables?	You need to replace the cables if it gets cut or damaged.

8 Specification

Parameter	Description / Value
Input Power	24Vdc / 2.5A
Output Power	1~5kVdc (Max 2mA)
Consumption Current	Max 2.0A(48W)
Operation Circumstance	0℃ - +50℃(32℉ - 122℉), 35% - 85% RH
Connection	1:1 Type / 1:2 Type
Interface	Alarm, Interlock, Remote, Status, RS485
Material	EGI (Power Coating)
Adaptor	Input : 100-240VAC, 50/60Hz 2.0A / Output : 24VDC, 2.5A
Indoor or Outdoor use	Indoor use only
Altitude	Less than 2 000 m
Weight	2.8kg
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

9 Modbus Mapping Table (V1.0.0.0)

Baud rate : 9600
Parity : None
Data Bit : 8
Stop Bit : 1

Memory Address	Distinction	Data Address		Start Address		Comment	Range	Default		Function Code (Hex)	Read / Write	
		Dec	Hex	Dec	Hex			DEC	HEX			
Coil (1 bit)	Run Control	1	1	0	0	Operation Control	0 : Stop 1 : Run	0	0	Read Coils (0x01) Write Single Coil (0x05)	Read-write	
	Reserved											
	Head1 Run Control	129	81	128	80	Head1 Operation Control	0 : Stop 1 : Run	0	0			
	Head2 Run Control	130	82	129	81	Head2 Operation Control	0 : Stop 1 : Run	0	0			
	Head Sensor Control 1	131	83	130	82	Operates for the time set in the sequence(Head1,2 control)	0 : Stop 1 : Run	0	0			
Discrete input (1 bit)	Head1 Run Control Status	10129	2791	128	80	Head1 Run/Stop Control Status	0 : Stop Control 1 : Run Control	0	0	Read Discrete Input (0x02)	Read-only	
	Head1 Run Status	10130	2792	129	81	Head1 Light on Status	0 : Stop 1 : Run	0	0			
	Reserved											
	Head2 Run Control Status	10145	27A1	144	90	Head2 Run/Stop Control Status	0 : Stop Control 1 : Run Control	0	0			
	Head2 Run Status	10146	27A2	145	91	Head2 Light on Status	0 : Stop 1 : Run	0	0			
	Reserved											
	Interlock Status	10161	27B1	160	A0	Interlock Status	0 : Off 1 : On	0	0			
Input register (16 bits)	제품군	30001	7531	0	0	Products	G	71	47	Read Input Registers (0x04)	Read-only	
	모델	30002	7532	1	1	Model	2	50	32			
	펌웨어_버전_HIGH	30003	7533	2	2	Firmware Version	0 ~ 99	10	A			
	펌웨어_버전_LOW	30004	7534	3	3		0 ~ 99	0	0			
	Slave Address	30005	7535	4	4	Slave Address	1 ~ 16	1	1			
	Reserved											
	Head1 Use Time	30129	75B1	128	80	Head1 Use Time	0 ~ 9,999 hour	0	0			
	Head2 Use Time	30130	75B2	129	81	Head2 Use Time	0 ~ 9,999 hour	0	0			
	Lamp1 Run State	30131	75B3	130	82	Lamp1 operation status	0 : Stop 1 : Run	-	-			
	Lamp1 Source State	30132	75B4	131	83	Lamp1 illumination status	0 : Off 1 : On	-	-			
	Lamp1 Time Warning	30133	75B5	132	84	Lamp1 Time Warning	0 or 1	-	-			
	Lamp1 Alarm State	30134	75B6	133	85	Lamp1 Alarm Status	0 : Normal 2 : HV AL	-	-			
	Lamp2 Run State	30135	75B7	134	86	Lamp2 operation status	0 : Stop 1 : Run	-	-			
	Lamp2 Source State	30136	75B8	135	87	Lamp2 lighting status	0 : Off 1 : On	-	-			
	Lamp2 Time Warning	30137	75B9	136	88	Lamp2 Time Warning	0 or 1	-	-			
	Lamp2 Alarm State	30138	75BA	137	89	Lamp2 Alarm Status	0 : Normal 2 : HV AL	-	-			
	Holding register (16 bits)	Sensor Control 1 Delay Time	40129	9CC1	128	80	Sequence1 Dleay Time setting	Min. : 1 (1 Sec) Max. : 99 (99Sec)	1			1
Sensor Control 1 Run Time		40130	9CC2	129	81	Sequence1 Run Time setting	Min. : 1 (1 Sec) Max. : 99 (99Sec)	1	1			

► Explanation of symbols used

- ⚠ Warning / Caution
- CE CE Marking
- ⚡ Caution to electric shock through the High Voltage.
- ⊗ Do not make arbitrary corrections the product.
- ⚡ Certainly needed grounding.

SUNJE Hi-Tek Co., Ltd.

www.sunstat.com

Head Office & Factory (Busan)
8 Cheonggwang-gil, Ilgwang-eup,
Gijang-Gun, Busan, Korea
T) +82-51-720-7500 F) +82-51-720-7501

Sunje (SHANGHAI) Trading Co.,Ltd.
205B, Building A, No.1018 Mingzhu Road,
Qingpu District, Shanghai, China
T) +86-21-5433-9761 F) +86-21-5433-9762

Sales Headquarter (Osan)
3rd floor, 129-20, Gyeonggi-daero 632
beon-gil, Osan-si, Gyeonggi-do, Korea
T) +82-31-203-9034 F) +82-31-202-9034

Sunje Technology Co., Ltd.
2F, No.6, Lane.102, Sinhe Rd, Sinfong
Township, Hsinchu County, Taiwan 30472
T) +886-3-568-7891 F) +886-3-568-7950

Product & Quotation Inquiries
+82-51-720-7529

Technical Support & A/S
+82-51-720-7519

Copyright 2025. SUNJE Hi-Tek Co., Ltd. All Rights Reserved.