



ORIGINAL INSTRUCTIONS

## Instruction Manual

### Ionizer - Separate Controller type

### IO-Link Compatible

### Series IZT40 / 41(-L) / 42(-L) / 43(-L)

#### IO-Link



The intended use of this product is to neutralize charged objects.

## 1 Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)<sup>(1)</sup>, and other safety regulations.

<sup>(1)</sup> ISO 4414: Pneumatic fluid power - General rules relating to systems.  
ISO 4413: Hydraulic fluid power - General rules relating to systems.  
IEC 60204-1: Safety of machinery - Electrical equipment of machines. (Part 1: General requirements)  
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots.

- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
- Keep this manual in a safe place for future reference.

	<b>Caution</b>	Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
	<b>Warning</b>	Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
	<b>Danger</b>	Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

### Warning

- Always ensure compliance with relevant safety laws and standards.**
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

## 2 Specifications

### 2.1 IZT40 / 41(-L) / 42(-L) / 43(-L) specifications

Ionizer type <sup>Note 1)</sup>		IZT40	IZT41(-L)	IZT42(-L)	IZT43(-L)
Ion generation method		Corona discharge type			
Method of applying voltage		AC, DC <sup>Note 2)</sup>	Dual AC	AC, DC <sup>Note 2)</sup>	
Applied voltage		±7,000 V	±6,000 V	±6,000 V	
Offset voltage <sup>Note 3)</sup>		Within ±30 V			
Air purge	Fluid	Air (Clean dry air)			
	Operating pressure	0.5 MPa or less			0.7 MPa or less
	Connecting tube size (one side can be plugged)	φ 4, φ 6, φ 8, φ 10, φ 3/16", φ 1/4", φ 5/16", φ 3/8"		φ 4, φ 3/16"	
Current consumption (maximum) <sup>Note 4)</sup>		0.7 A	0.8 A	1.4 A	0.4 A
Power supply voltage <sup>Note 4)</sup>		24 VDC ±10%			
Input Signal <sup>Note 5)</sup>	NPN	Connected to DC (-) Voltage range: 5 VDC or less Current consumption: 5 mA or less			
	PNP	Connected to DC (+) Voltage range: 19 VDC to power supply voltage Current consumption: 5 mA or less			
Output Signal <sup>Note 5)</sup>	NPN	Max. load current: 100 mA Residual voltage: 1 V or less (Load current at 100 mA) Max. applied voltage: 26.4 VDC			
	PNP	Max. load current: 100 mA Residual voltage: 1 V or less (Load current at 100 mA)			
IO-Link device <sup>Note 6)</sup>		-			
Function		High voltage abnormality detection	Auto balance, Maintenance detection, High voltage abnormality detection, and Ion generation stop input		
Effective static neutralization distance		50 to 2000 mm			
Ambient and fluid temperatures	Controller, High voltage power supply module	0 to 40°C			
	Bar / Nozzle	0 to 50°C		0 to 40°C	
Ambient humidity (no condensation)		35 to 80% RH		35 to 65% RH	
Material	Controller (IZTC40/41)	Cover: ABS, Aluminium, Switch: Silicone rubber			
	Controller (IZTC41-L)	Cover: ABS, Aluminium,			
	High voltage power supply module	Cover: ABS, Aluminium			
Bar / Nozzle		IZTB40/42 Cover: ABS, IZTN43 Housing: PBT, Stainless steel, Emitter cartridge: PBT, Emitter: Tungsten or Single crystal silicon, High voltage cable: Silicone rubber, PVC, Stainless steel			

Note 1) -L series is IO-Link compatibles.

Note 2) Apply cathode or anode to DC.

Note 3) When the air purge is performed between a charged object and an ionizer at a distance of 300 mm.

Note 4) For Power supply connector.

Note 5) Transistor input / output type.

Note 6) IO-Link compatible, for the Communication connector.

### Warning

Special products (-X) might have specifications different from those shown in this section. Contact SMC for specific drawings.

## 3 Installation

### 3.1 Installation

#### Warning

- Do not install the product unless the safety instructions have been read and understood.
- Reserve enough space for maintenance, piping and wiring. Please take into consideration that the one-touch fittings for supplying air need enough space for the air tubing to be easily attached / detached.

To avoid unreasonable stress applied to the connector and one-touch fitting, bending of the cable or air tubing should be more than the minimum bending radius.

If the cable is bent in an acute angle or load is applied to the electrical cable repeatedly, it may cause malfunction, wire damage or fire.

## 3 Installation - continued

Minimum bending radius: Power supply cable: 40 mm  
Power supply cable (for IZT4\*-L): 48 mm  
Communication cable: 40 mm  
Separate cable (optional): 40 mm  
High voltage cable: 30 mm

NOTE: This is an allowable bend radius at 20°C. Bend radius should be larger at lower temperatures than 20°C.

Regarding the minimum bending radius of the air tubing, refer to the operation manual or catalogue for the tubing.

- Use the specified cable holder (IZT40-E1 or IZT40-E2) for installing high voltage cables.

Follow the items below when installing high voltage cables. If the items below are not followed, insulation performance of high voltage cable decreases, causing the failure of this product, leading to electrical shock or fire.

- Do not cut the cable.
- Keep the minimum bend radius of the cable.
- Do not tighten the cable too much by tying band. Do not deform the cable by placing object on the cable.
- Avoid the factor of cable runaway such as cable duct.
- Do not twist or damage the cable. If the cable is damaged, it should be replaced.

- Fix the high voltage cable connector using 2 screws included in accessory.

Fix the connector using 2 cross recessed round head screws (M4 x10L) referring to the operation manual for this product.

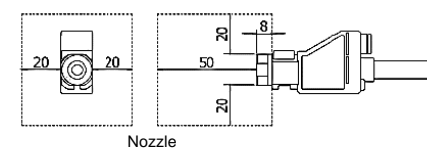
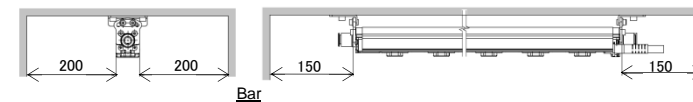
- Mount to a flat surface and do not apply impact load or excessive external force. Mounting on an uneven surface will apply excessive force to the housing and bracket, which may lead to damage or failure.
- Do not drop or apply excessive shock. Otherwise, damage or an accident may occur.
- Install the product so that the bar does not have an excessive deflection. For a bar length of 820mm or longer, support the bar at both ends and in the middle by using brackets (IZT40-BM1 or IZT40-BM2). If the bar is held only at the both ends, self-weight of the bar causes deflection,

resulting in damage or deformation to the bar.

- Avoid using in a place where noise (electromagnetic wave and surge) is generated.

### Caution

- When the IZT40/41(-L)/42(-L)/43(-L) series is installed, keep space below free from structures or components. If there are electrically conductive objects such as walls or structures close to the bar/nozzle, generated ions may not reach the target object effectively or product failure or electric shock can result due to dielectric or short-circuit.



- After installation, verify the performance of this product. The performance of the product varies depending on the surrounding installation and operating conditions. After installation, verify the performance of this product.

## 3 Installation - continued

- When installing an Ionizer which operate in DC mode (one polarity, positive or negative) with IZT41(-L), IZT42(-L) or IZT43(-L) close together, they should be positioned at least two meters away from each other.

When IZT41(-L), IZT42(-L) or IZT43(-L) which operates in AC close to the ionizer which operates in DC mode, separate them by at least two meters. The offset voltage (ion balance) may not be adjusted by the built-in sensor due to the ions discharged from the ionizer which operates in DC mode.

- Be sure to use the specified end bracket to prevent malfunction.

### 3.2 Environment

#### Warning

- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- Do not use in an explosive atmosphere.
- Do not expose to direct sunlight. Use a suitable protective cover.
- Do not install in a location subject to vibration or impact in excess of the product's specifications.
- Do not mount in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.
- Do not use this product in an enclosed space. This product utilizes the corona discharge phenomenon. Do not use the product in an enclosed space as ozone and nitrogen oxides exist, even though in marginal quantities.
- Environments to avoid. Never use or store under the following conditions. These may cause an electric shock, fire, etc.
  - Use in an environment which ambient temperature is outside of the product specification.
  - Use in an environment which ambient humidity is outside of the product specification.
  - Environment where abrupt temperature changes may cause condensation.
  - Environment where corrosive gas, flammable gas or other volatile flammable substances are stored.

- Environment where the product may be exposed to conductive powder such as iron powder or dust, oil mist, salt, organic solvent, machining chips, particles or cutting oil (including water and any liquids), etc.
- Paths of direct air flow, such as air conditioners.
- Enclosed or poorly ventilated environment
- Locations which are exposed to direct sunlight or heat radiation.
- Areas where strong electromagnetic noise is generated, such as strong electrical and magnetic fields or supply voltage spikes.
- Environment where static electricity is generated to the product.
- Locations where strong high frequency is generated.
- Locations which are subject to potential lightning strikes.
- In an area where the product may receive direct impact or vibration.
- Areas where the product may be subjected to forces or weight that could cause physical deformation.

- Do not use air containing mist and/or dust. Air containing mist and/or dust may deteriorate performance and reduce the maintenance cycle.

Install a dryer (IDF series), air filter (AF/AFF series), and/or mist separator (AFM/AM series) to obtain clean compressed air (air quality of Class 2.4.3, 2.5.3, 2.6.3 or higher according to ISO 8573-1: 2010 (JIS B8392-1:2012) is recommended for operation.

- Controller, high voltage power supply module, bar/nozzle and AC adapter are not resistant to lightning surge.
- Effects on implantable medical devices.

The electromagnetic waves emitted from this product may interfere with implantable medical devices such as cardiac pacemakers and cardioverter defibrillators, resulting in the malfunction of the medical device or other adverse effects.

Please use extreme caution when operating equipment which may have an adverse effect on your implantable medical device. Be sure to thoroughly read the precautions stated in the catalog, operation manual, etc., of your implantable medical device, or contact the manufacturer directly for further details on what types of equipment need to be avoided.

### 3 Installation - continued

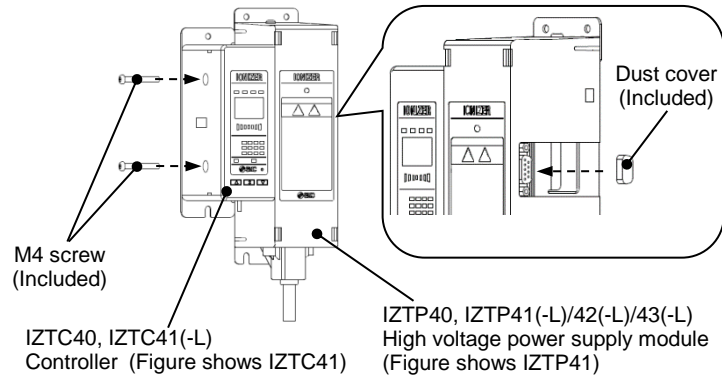
#### 3.3 Piping

##### Caution

- Before connecting piping make sure to clean up chips, cutting oil, dust etc.
- When installing piping or fittings, ensure sealant material does not enter inside the port. When using seal tape, leave 1 thread exposed on the end of the pipe/fitting.
- Tighten fittings to the specified tightening torque.

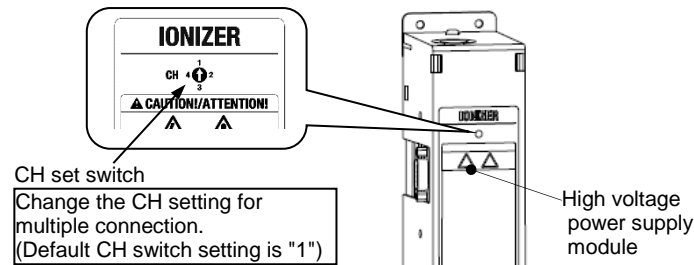
#### 3.4 Connecting the controller and High voltage power supply

- Remove the protection film on the controller before use.
  - The product is used by connecting the controller and high voltage power supply module. They can be connected either directly or separately. For separate connection, an optional separate cable is required.
  - Mount a dust cover on the D-sub connector when not using the directly mounted high voltage power supply module.
  - Fix the controller and high voltage power supply module using cross recessed round head screw (M4x30L).
- Tightening Torque: 0.22 to 0.24 N·m



#### 3.5 Installing the controller and high voltage power supply

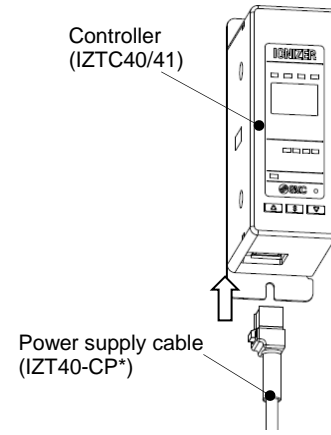
- Set the CH number so that it does not duplicate the set number of other channels



### 3 Installation - continued

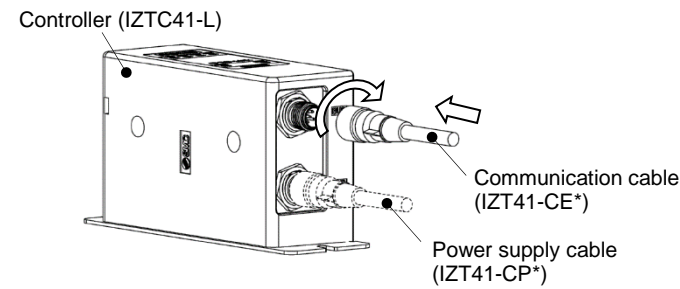
#### 3.6 Routing of cables

- Do not apply excessive stress to the connector mounting parts.
  - When the cable is bent, maintain the minimum bend radius.
- 1) Power supply cable for IZTC40/41
- This cable supplies power to the product and external equipment used to control this product.
  - When connecting the controller to the power supply cable, insert it until it makes a click sound.
  - When removing the power supply cable, press the plug claw to release the lock and pull it out straight. If mounted or removed in an inappropriate direction, the connector may be damaged and cause operation failure.
  - Fix the cable around the connecting part so that stress is not applied to the plug.
  - Connect the lead wires according to the wiring diagram. Unused wires should be cut short or insulated using insulation tape.
  - To satisfy the current capacity, make sure to wire 2 brown cables in which a voltage of 24 VDC is supplied and 2 blue cables in which 0V is connected.



2) Power supply cable and Communication cable for IZTC41-L

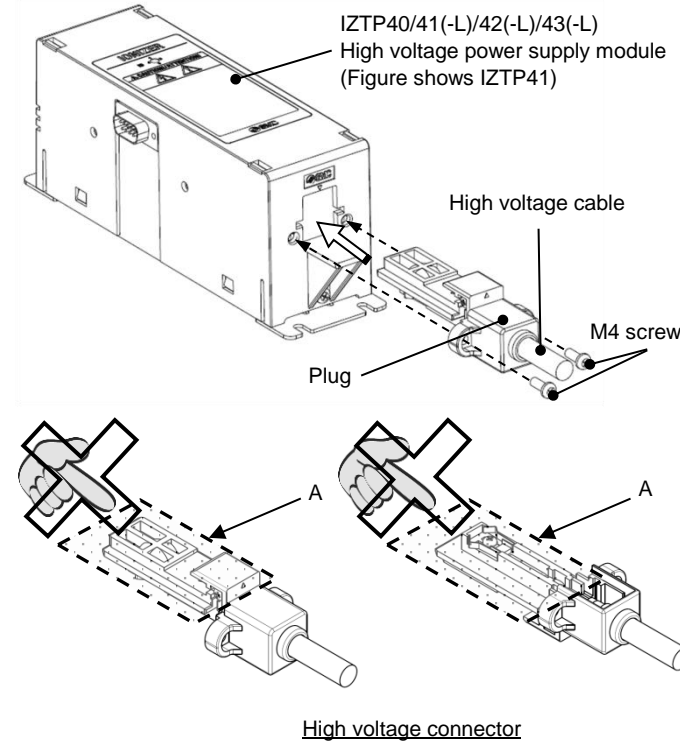
- Connect the power supply cable and communication cable to the IZTC41-L.
- The power cable supplies voltage to the High voltage supply module.
- The communication cable is connected for IO-Link communication.
- Each key type is different, so be careful when installing.
- Fix the cable around the connecting part so that stress is not applied to the plug.
- To satisfy the current capacity, make sure to wire 2 brown cables of the Power supply cable in which a voltage of 24 VDC is supplied and 2 blue cables in which 0V is connected.



### 3 Installation - continued

3) High voltage cable

- Connect the high voltage cable at the bar/nozzle end to the high voltage power supply module.
  - When connecting and disconnecting the high voltage cable, hold the plugs together with the plug bodies, and insert or pull out straight. If mounted or removed in an inappropriate direction, the mounting part of the modular jack may be damaged and cause operation failure.
  - Do not touch part A when handling the plug. Be careful so that moisture oil or foreign matter does not adhere to the plug. Adhesion of moisture, oil or foreign matter on part A may cause high voltage electric leakage. If moisture, oil, or foreign matter adheres to part A, clean it with ethanol.
  - After connecting the high voltage cable to the high voltage power supply module, fix the cable using 2 cross recessed round head screws (M4x10L) included with the product.
- Tightening Torque: 0.49 to 0.53 N·m



### 4 Wiring

Wire cables according to the circuit and wiring diagram.

##### Warning

- Before wiring, ensure that the power supply capacity meets the specification and that the voltage is within the specification. Product damage or malfunction can result.
- To maintain product performance, the power supply should be UL Class 2 certified by National Electric Code (NEC) or evaluated as a limited power source according to UL60950.
- To maintain the product performance, ground the product with the F.G. cable with a resistance of 100 Ω or less. If the product is not grounded, it is not possible to secure the performance and may lead to product failure or malfunction.
- Wiring (including insertion and removal of the power supply connector) should never be carried out with the power supply ON. Otherwise, an electrical shock or accident may occur.
- Use specified cable for connecting the ionizer controller, high voltage power supply module and bar/nozzle. Do not disassemble or retrofit them. Disassembling or modifying the product may cause product, electric shock or fire. The product will not be guaranteed if it is disassembled and/or modified.
- Ensure the safety of wiring and surrounding conditions before supplying power.
- Do not connect or disconnect the connectors (including power source) while the power is supplied. Failure to follow this procedure may cause product malfunction.

### 4 Wiring - continued

- If the power and high voltage cables are routed together, the product may malfunction due to noise. Route the Ionizer wires separately.
- Confirm that the wiring is correct before operation. Incorrect wiring will lead to product damage or malfunction.

#### 4.1.1 Connect the F.G. cable to Ground

- Make sure to ground the F.G. cable with a ground resistance of 100 Ω or less.
- The F.G. cable is used as a reference electric potential for static neutralization (Functional earth). If the F.G. cable is not grounded, an optimal offset voltage (ion balance) cannot be obtained, and it may damage this product and power supply

#### 4.1.2 Connection Circuit

- Do not apply excess stress to the mounting part of the controller connector.
- When the power supply cable is bent, maintain the minimum bend radius.
- Connect the lead wires according to the wiring diagram.
- Unused wires should be cut short or insulated using insulation tape.
- To satisfy the current capacity, make sure to wire 2 brown cables in which a voltage of 24 VDC is supplied and 2 blue cables in which 0V is connected.

Power supply cable for IZTC40/41

Cable color	Signal name	Signal direction	Description	Applicable Model
Brown	DC(+)	IN	Connect power supply to operate the ionizer.	IZTC40/41
Blue	DC(-)	IN		
Green	F.G.	-	Make sure to ground with a resistance of 100 Ω or less to use it as a reference electric potential for ionizer.	IZTC41
Pink	Ion discharge stop signal CH1	IN	Signal input to turn ON/OFF ion generation of each bar/nozzle (CH1 to 4).	
Gray	Ion discharge stop signal CH2	IN	NPN specification: Ion generation is stopped by connecting to 0 V.	
Yellow	Ion discharge stop signal CH3	IN	PNP specification: Ion generation is stopped by connecting to 24 VDC.	
Purple	Ion discharge stop signal CH4	IN		
White	Maintenance detection signal	OUT (Contact point A)	Turns ON when emitter needs cleaning.	
Black	Error signal	OUT (Contact point B)	It turns off when there is some kind of failure. (The signal is ON when there is no problem.)	
Orange	Unused	-	-	-

Power supply cable for IZTC41-L

Connector	Pin No.	Cable colour	Signal name
	1	Brown	DC(+)
	2	Brown	
	3	Blue	DC(-)
	4	Blue	
	5	Green	F.G.

Communication cable for IZTC41-L

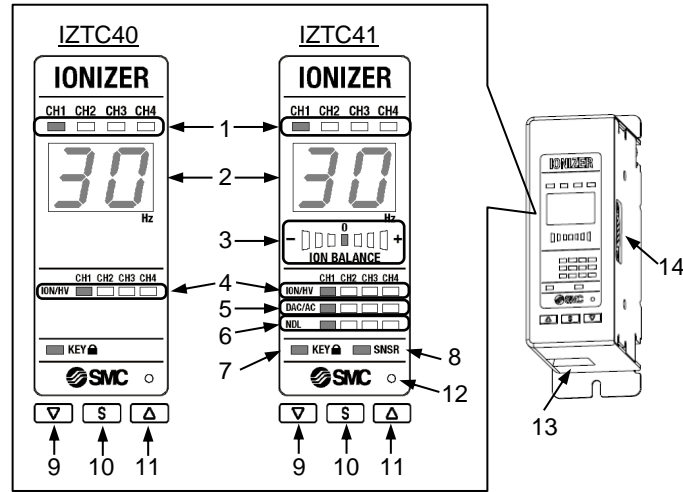
Connector	Pin No.	Cable colour	Signal name
	1	Brown	L+
	2	-	-
	3	Blue	L-
	4	Black	C/Q
	5	-	-



**5 Names of Individual parts**

**5.1 Controller**

**1) IZTC40/41**

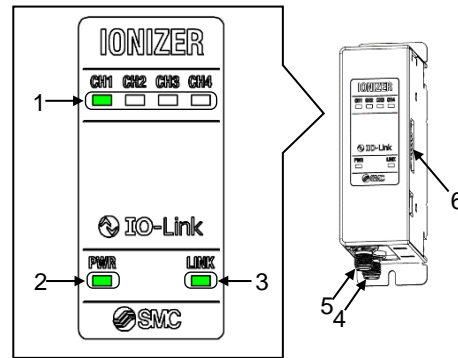


Name of parts

No	Name	Panel indication	Type	Description
1	CH display	CH*	LED (Green)	The CH LED of the connected High voltage power module turns ON. LED of the CH displaying the status flashes.
2	Frequency display	Hz	LED (Green)	ON during operation. LED flashes during setting or when a failure exists.
3	Ion balance display	ION BALANCE	LED (Green / Orange)	LED (Green) is ON during operation. LED (Green) flashes during offset voltage adjustment. LED is off when a failure exists. LED (Orange) flashes when ion balance is at its maximum or minimum during offset adjustment.
4	Ion emission / high voltage display	ION / HV	LED (Green / Red)	LED (Green) is ON during static neutralization. LED (Red) is ON when high voltage abnormality exists. LED flashes (red) when other failure exists.
5	Connected mode	DAC / AC	LED (Green/ Blue)	LED (Green) is ON when connected to the IZTP40/41/43. LED (Blue) is ON when connected to the IZTP42.
6	Maintenance display	NDL	LED (Green)	LED is ON when emitter contamination is detected.
7	Key lock display	KEY	LED (Green)	LED is ON when Key lock ON.
8	Sensor LED	SNSR	LED (Green)	LED is ON during Auto balance function ON.
9	▼ DOWN button	-	Press button	Decreases the set value.
10	SET button	-	Press button	Change the mode and set a set value.
11	▲ UP button	-	Press button	Increases the set value.
12	Reset button	-	Press button	Return the setting values of each mode to the default condition.
13	Power supply connector	-	Connector	Connector to supply the ionizer power supply and grounding.
14	High voltage power supply module connector	-	D-sub connector (socket)	Connect High voltage power supply module or separate cable.

**5 Names of Individual parts - continued**

**2) IZTC41-L (IO-Link Compatible)**

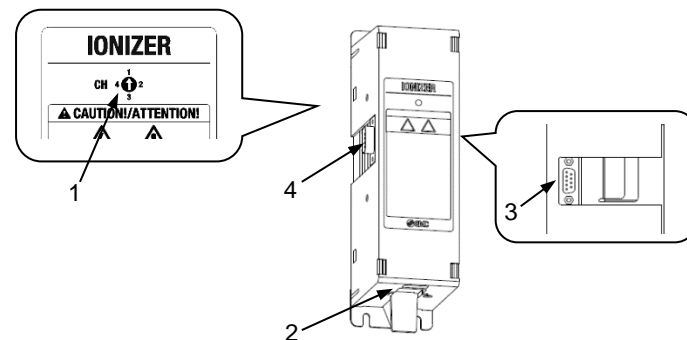


Name of parts

No	Name	Panel indication	Type	Description
1	CH display	CH*	LED (Green / Red)	The CH LED (Green) set for the connected high voltage power supply module turns ON. LED (Green) flashes during initial setting or when emitter contamination is detected. LED (Red) ON when a failure exists.
2	Power status display	PWR	LED (Green)	LED ON during operation. LED flashes when a power supply abnormality exists.
3	Communication status display	Link	LED (Green)	LED flashes when communication is established. LED ON when communication is not established or a communication abnormality exists.
4	Power supply connector	PWR	M12 Connector	Supply power to the High voltage power supply module
5	Communication connector	BUS	M12 Connector	Supply power to the Controller. Communicate with IO-Link.
6	High voltage power supply module connector	-	D-sub connector (socket)	Connect high voltage power supply module or separate cable.

**5.2 High voltage power supply module**

**1) IZTP40, IZTP41(-L), IZTP43(-L)**

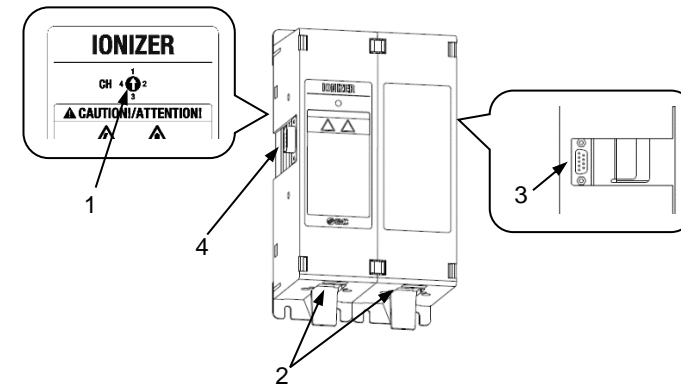


Name of parts

No.	Name	Panel indication	Type	Description
1	CH number set switch	CH	Rotary switch	High voltage power supply module CH number setting.
2	High voltage cable connector	-	Connector	Connect with the high voltage cable of the bar / nozzle.
3	High voltage power supply module connector	-	D-sub Connector (socket)	Connect high voltage power supply module or separate cable.
4	Controller/ High voltage power supply module connector	-	D-sub connector (plug)	Connect the controller, high voltage power supply module or separate cable.

**5 Names of Individual parts - continued**

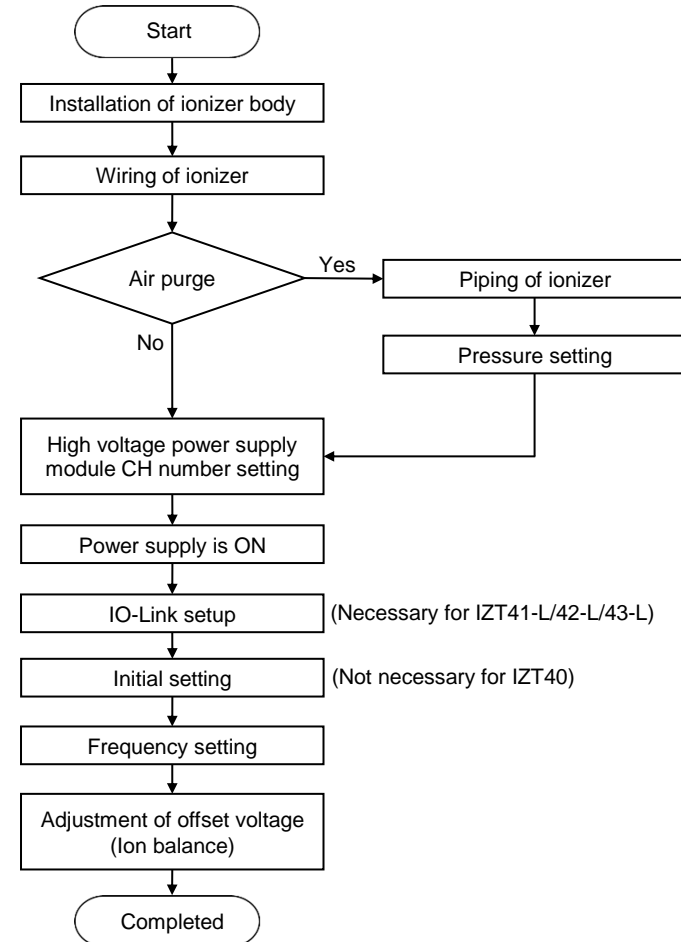
**2) IZTP42(-L)**



Name of parts

No.	Name	Panel indication	Type	Description
1	CH number set switch	CH	Rotary switch	High voltage power supply module CH number setting.
2	High voltage cable connector	-	Connector	There are two connectors. Connect two high voltage cables of the bar IZTB42.
3	High voltage power supply module connector	-	D-sub Connector (socket)	Connect high voltage power supply module or separate cable.
4	Controller/ High voltage power supply module connector	-	D-sub connector (plug)	Connect the controller, high voltage power supply module or separate cable.

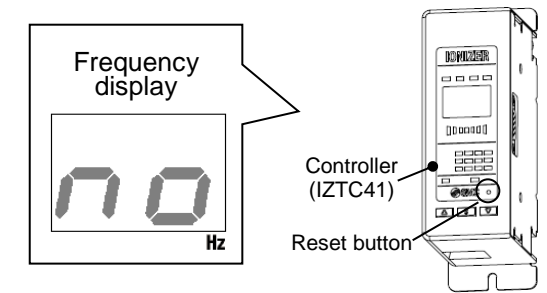
**5.3 Operation Flow chart**



**6 Settings**

**6.1 Initial setting of IZT41/42/43**

- Initial setting is necessary for emitter contamination detection.
- In the default setting "no" is displayed for the frequency display.
- The Initial setting is started by pressing the S button for 3 seconds or longer while "no" is displayed. To revert to the default setting press the reset button during use.
- Connect and install the bar/nozzle to be used before setting.
- When multiple bars/nozzles are connected, assign the channel for which initial setting is necessary.
- Do not disconnect the power supply during setting (Initial setting is completed within 60 seconds).



**6.2 Setting of IZT41-L / 42-L / 43-L**

**6.2.1 IO-Link setup**

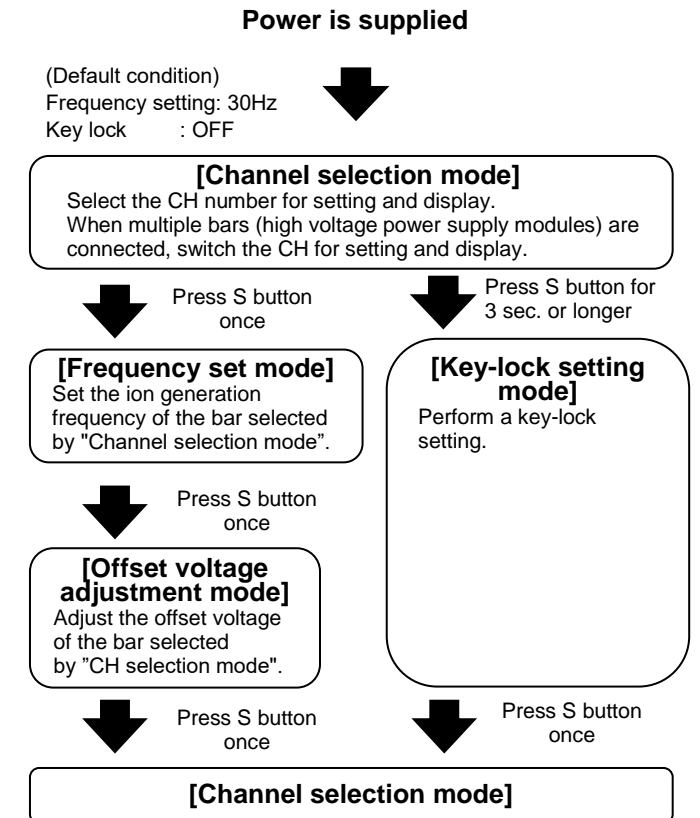
- Install the product IODD file in the IO-Link master configuration tool.
- Upload all parameters from the controller to the IO-Link master configuration tool.
- The IODD file for this product can be downloaded from the SMC website (URL: <https://www.smcworld.com>).

**6.2.2 Initial setting**

- Initial setting is necessary for emitter contamination detection.
- Use IO-Link setting software. Send a system command of Initial Setting CH □ to IZTC41-L.

**6.3 Controller setting**

**6.3.1 IZTC40/41**



Note) For other settings of IZTC41, refer to the operation manual on the SMC website (URL: <https://www.smcworld.com>).

## 6 Settings - continued

### 6.3.2 IZTC41-L

- Each parameter can be set via IO-Link.
- Please refer to the relevant manual for details on IO-Link operation, programming and addressing.

## 7 How to Order

Refer to the catalogue or drawings on the SMC website (URL: <https://www.smcworld.com>) for the 'How to Order' information.

## 8 Outline Dimensions

Refer to the catalogue or drawings on the SMC website (URL: <https://www.smcworld.com>) for 'Outline dimensions'.

## 9 Maintenance

### 9.1 General maintenance

#### ⚠ Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous.
- Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- If any electrical connections are disturbed during maintenance, ensure they are reconnected correctly and safety checks are carried out as required to ensure continued compliance with applicable national regulations.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions.

### 9.2 Specific maintenance

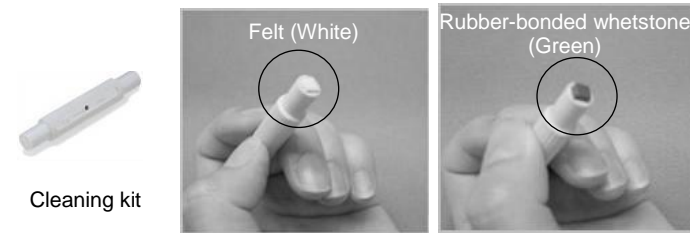
#### ⚠ Warning

- A high voltage generating circuit is used in this product. Verify that the power supply is OFF when performing maintenance.
- When compressed air is supplied to the product, disconnect the air supply before performing any maintenance operation.
- Never disassemble or modify the product, as this can cause loss of product functionality and a risk of electric shock and earth leakage.
- Do not touch the end of the emitters. They have a sharp end and touching them directly with your fingers may cause injury.
- Only people who have sufficient knowledge and experience are allowed to clean the emitters.
- If this product is used for an extended period of time, contamination such as dust will stick to the emitters, reducing the static neutralization performance.
- The Emitter contamination detection function is available for the IZT41(-L), IZT42(-L) and IZT43(-L). When the emitter contamination is detected, clean the emitter.
- In cases where the emitter contamination detection function is not used on the IZT40, IZT41(-L), IZT42(-L) or IZT43(-L) is used, perform neutralizing performance test and set a maintenance cycle for periodic cleaning.
- Emitter contamination level is different depending on the installation environment and supply pressure.
- If the maintenance signal is output upon completion of cleaning the emitter, it may not have been cleaned sufficiently or it may be worn or damaged. If the emitters are worn out or damaged, replace the emitter cartridge.
- If the emitter is worn out or damaged, the static electricity elimination performance will decrease.

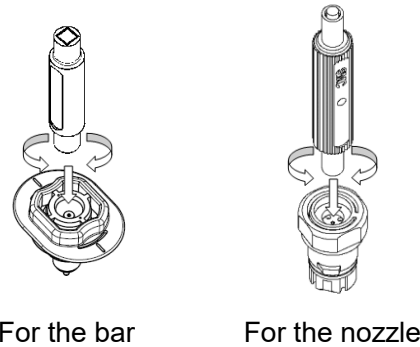
## 9 Maintenance - continued

### 9.3 Emitter cleaning procedure

- It is highly recommended that the emitter cleaning kit (IZS30-M2, IZT43-M2) is used to clean the emitter needles.



- Saturate the felt end of the emitter cleaning tool with alcohol and insert it into the back of the emitter cartridge. Turn the tool for several rotations to thoroughly remove dirt.
- If it is not possible to thoroughly remove the dirt using the felt end of the cleaning tool, the rubber-bonded whetstone should be used in the same
- The alcohol used should be reagent ethanol class1 99.5 vol% or more.



## 10 Limitations of Use

### 10.1 Limited warranty and disclaimer/compliance requirements

Refer to Handling Precautions for SMC Products.

## 11 Product Disposal

This product shall not be disposed of as municipal waste. Check your local regulations and guidelines to dispose of this product correctly, in order to reduce the impact on human health and the environment.

## 12 Contacts

Refer to [www.smcworld.com](https://www.smcworld.com) or [www.smc.eu](https://www.smc.eu) for your local distributor/importer.

## SMC Corporation

URL : <https://www.smcworld.com> (Global) <https://www.smc.eu> (Europe)  
 SMC Corporation, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021, Japan  
 Specifications are subject to change without prior notice from the manufacturer.  
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