



**KOGANEI**

**Ion Polarity Control Type Ionizer  
Support Software**

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**Instruction Manual** (Ver. 1.0)



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\*For details about the ionizer, refer to the applicable instruction manual for the Ion Polarity Control Type Ionizer (X904284).

# 1. Overview of software

## 1-1 Overview

This software communicates with the Ion Polarity Control Type Ionizer and displays current parameter settings and the charged state.

### ■ Data configuration

Workpiece movement speed, ionizer installation distance, and other parameter data can be input, edited, and saved to a file.

### ■ Correction

Correction ensures optimum static charge removal to match the workpiece being discharged.

### ■ Display

The following information is displayed: charged state obtained from the sensor, current I/O input, and errors.

## 1-2 Operating environment

### ■ Supported Ionizer

DTY-BX01-□-□-□, DTY-BX01-□-N

### ■ Computer operating environment

#### • OS

Windows XP (SP3), Windows Vista, Windows 7, Windows 8

#### • Computer system

##### □Computer:

[Windows XP]

Personal computer with 1 GHz or higher Pentium or equivalent CPU

[Windows Vista, Windows 7, Windows 8]

Personal computer with processor recommended by Microsoft

##### □Memory:

[Windows XP]

Available memory: At least 512 MB

[Windows Vista, Windows 7, Windows 8]

Memory capacity recommended by Microsoft

##### □Free space on hard disk: At least 500 MB

##### □Display: At least 900×600 resolution (at least 1024×768 recommended)

##### □Serial port: RS-232C serial port available

##### □Other: .NET Framework 4.0 installed.

Windows Installer 3.1 or higher installed.

Internet Explorer 5.01 or higher installed.

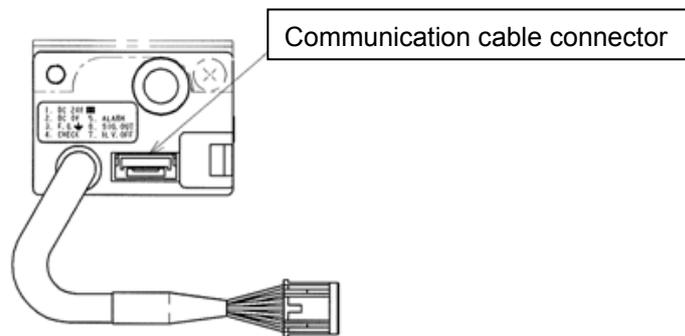
## 2. Preparation for use

### 2-1 Preparing

- This software can be run without installing it on a computer.
- If the computer does not have .NET Framework installed, download the following file from our HP website and install it on your computer: dotNetFx40\_Full\_x86\_x64.exe.

### 2-2 Connecting the ionizer to a computer

- Connect the PC communication cable (DTY-ZTC-BX) to the computer (RS-232C serial port) and to the communication cable connector of the Ion Polarity Control Type Ionizer.



### 3. Basic support software operations

#### 3-1 On-line/off-line operation

Though this support software is mainly intended for on-line use, some functions can also be used while off line.

When started up, the support software is off line.

■ **On line (communication between the support software and ionizer)**

Establishing connection with the ionizer with the connect/disconnect button causes the ionizer type to be obtained automatically.

After that, operations that match the ionizer type are enabled.

If communication with the ionizer is interrupted during on-line use, a message will appear and the support software will go off line.

If a communication error occurs when establishing a connection while on line, check the connectors and the area around the ionizer power supply.

The table below shows whether or not each tab is selectable while on line. Tabs that cannot be operated do not change even when clicked.

Ionizer type	Monitor	Display error history screen	Confirm input/output	Parameter settings	Correction mode
DTY-BX01-□-□-□	Yes	Yes	Yes	Yes	Yes
DTY-BX01-□-□B-□	Yes	Yes	Yes	Yes	No
DTY-BX01-□-N	Yes	Yes	Yes	No	No

■ **Off line (no communication between the support software and ionizer)**

Configuring parameter data setting operations (including Open and Save) are enabled in this state.

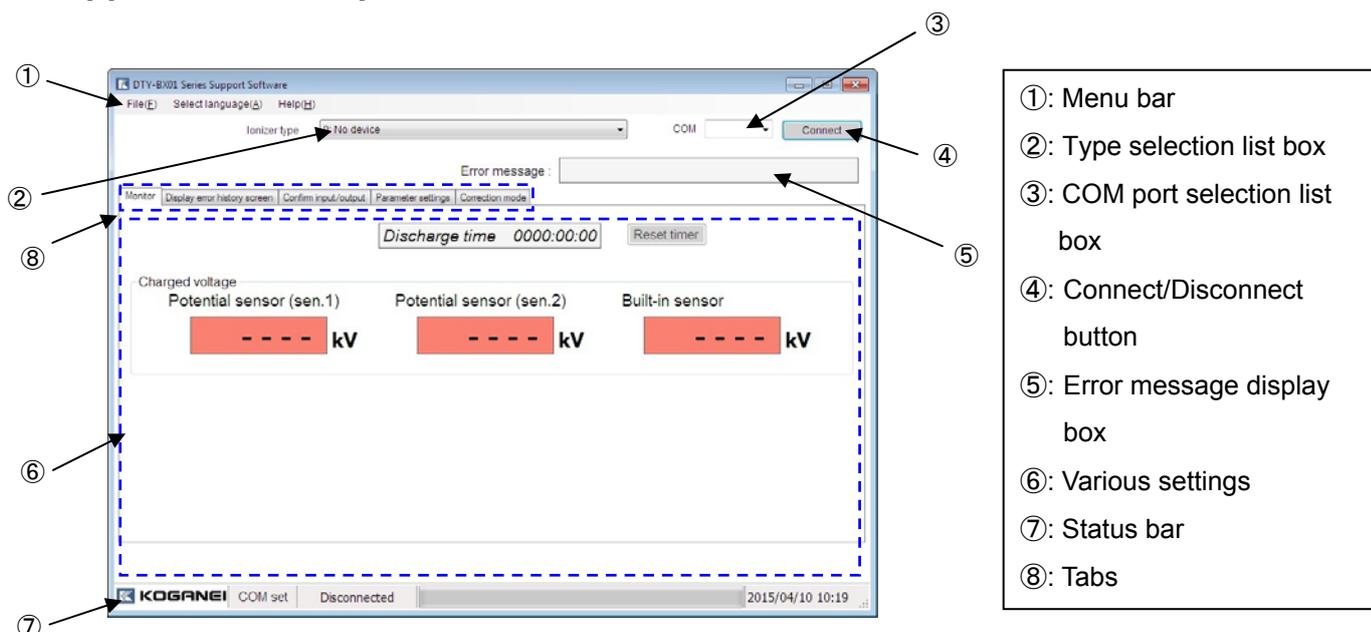
Manually select the ionizer type and configure parameter settings.

The table below shows the tabs that are enabled while off line. Tabs that cannot be operated do not change even when clicked.

Ionizer type	Monitor	Display error history screen	Confirm input/output	Parameter settings	Correction mode
DTY-BX01-□-□-□	Yes*	Yes*	No	Yes	No
DTY-BX01-□-□B-□	Yes*	Yes*	No	Yes	No
DTY-BX01-□-N	Yes*	Yes*	No	No	No

\* Information acquired while on line can be viewed while off line. Data cannot be received while off line.

## 3-2 Support software operation screen



- ①: Menu bar
- ②: Type selection list box
- ③: COM port selection list box
- ④: Connect/Disconnect button
- ⑤: Error message display box
- ⑥: Various settings
- ⑦: Status bar
- ⑧: Tabs

No.	Name	Meaning
①	Menu bar	<p>Displays pulldown menu layer 1. Three pulldown menus for different functions are included on the menu bar.</p> <ul style="list-style-type: none"> <li>■ File <ul style="list-style-type: none"> <li>• New: Deletes the set values from the screen and initializes it.</li> <li>• Open: Reads set values (parameters and correction data) from a file and displays them on the screen.</li> <li>• Save: Saves set values (parameters and correction data).</li> <li>• Close: Exits the program.</li> </ul> </li> <li>■ Help <ul style="list-style-type: none"> <li>• Version: Displays version information (ionizer version, support software version).</li> </ul> </li> </ul>
②	Type selection list box	<ul style="list-style-type: none"> <li>• Changing the type changes the selectable tabs and parameters. Tabs, except those that can be selected, do not change even when clicked.</li> <li>• You cannot change the type while connected to the ionizer.</li> </ul>
③	COM port selection list box	<ul style="list-style-type: none"> <li>• Select the COM port to which the ionizer is connected. (Up to 100 COM ports are included in the list.) If the COM port being used does not appear, check the connection to the computer.</li> </ul>
④	Connect/Disconnect button	<ul style="list-style-type: none"> <li>• Click the [Connect] button while the ionizer is turned on and connected.</li> </ul>
⑤	Error message display box	<ul style="list-style-type: none"> <li>• Displays an error message when an error occurs on the ionizer. If an error is already occurring when you click the [Connect] button to start communication, a message about the error at that time appears immediately when you click the button.</li> </ul>
⑥	Various settings	<ul style="list-style-type: none"> <li>• The content of this area changes in accordance with the currently selected tab. For details, see sections 3-4 through 3-8.</li> </ul>
⑦	Status bar	<ul style="list-style-type: none"> <li>• Connected port name   • Communication connection status   • Date</li> <li>• Time</li> </ul>
⑧	Tabs	<ul style="list-style-type: none"> <li>• For details about each tab, see sections 3-4 through 3-8.</li> <li>• For information about which tabs are selected for each ionizer type, see section 3-1.</li> </ul>

### 3-3 Operation procedures

The operation procedure is shown below.

- 1) In the COM (communication) port selection list box ③, click the [Connect/Disconnect] button ④ and establish communication with the ionizer.
- 2) Select the [Parameter settings] tab ⑧, and then configure parameter usage conditions as required.
- 3) Select the [Transmit parameters] button to transmit parameter data.

The steps below apply for static charge removal on a moving object with DTY-BX01-□-□-□ (excluding DTY-BX01-□-□B-□).

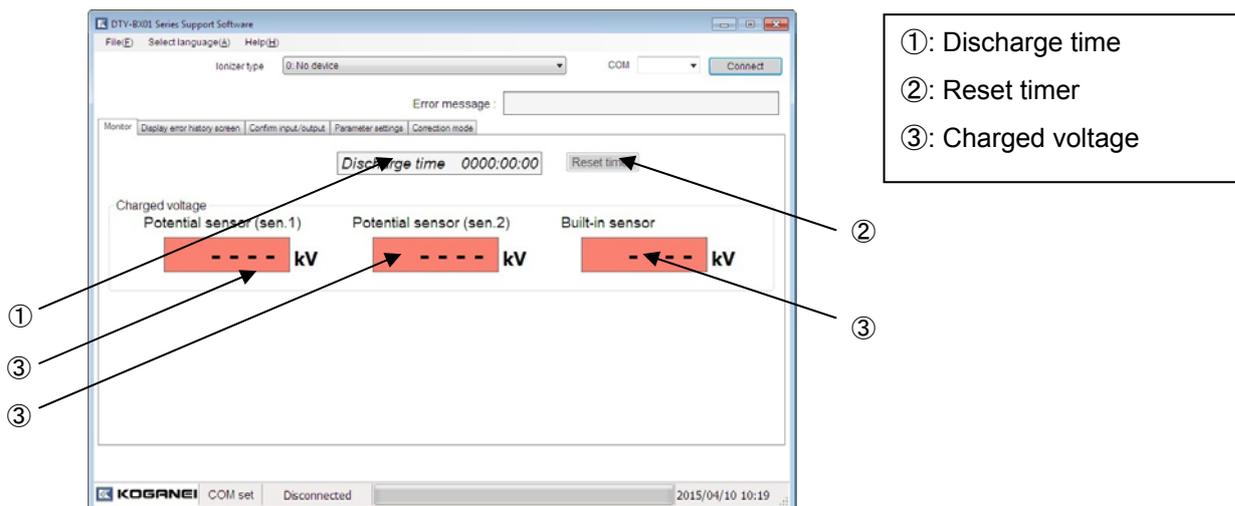
- 4) If correction is required, select the Correction mode tab and perform the correction operation.
- 5) If you want to check the current state, click on the tabs in ⑧, [Monitor], [Display error history screen] or [Confirm input/output].

[Monitor] : Shows the charge potential of the potential sensor.

[Display error history screen]: Shows the past 30 entries in error history.

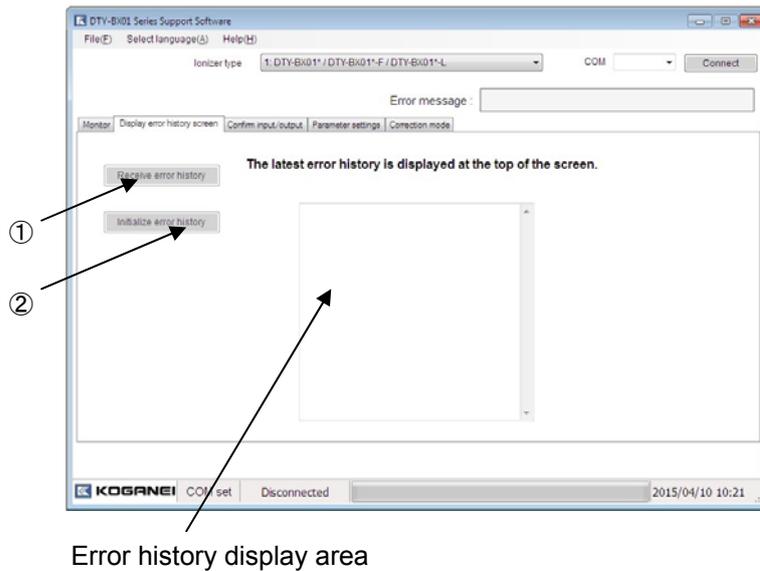
[Confirm input/output] : Shows the ionizer's current switch, LED, and input/output status.

### 3-4 Monitor tab on-screen operations



No.	Name	Operation method	CAUTION
①	Discharge time	<ul style="list-style-type: none"> <li>Shows the discharge time (cleaning timer).</li> </ul>	<ul style="list-style-type: none"> <li>The color inside the frame changes according to the progress of the cleaner timer settings.</li> </ul> <p>Complete: Salmon pink Not complete: Gray</p>
②	Reset timer	<ul style="list-style-type: none"> <li>Clears the discharge time (cleaning timer).</li> </ul>	
③	Charged voltage	<ul style="list-style-type: none"> <li>Shows the current charged voltage of potential sensor (sen.1), potential sensor (sen.2), and the built-in sensor.</li> </ul>	<ul style="list-style-type: none"> <li>The indications below will appear when a potential is outside the measurement range or when a sensor is not connected.</li> </ul> <p>Not connected: ---- + over range: +OVER - over range: -OVER</p>

### 3-5 Display error history screen tab operations

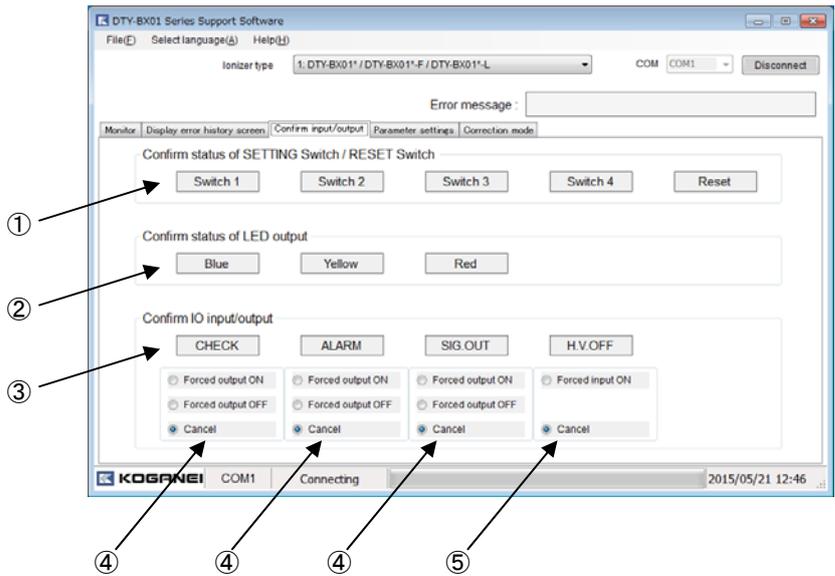


- ①: Receive error history
- ②: Initialize error history

Error history display area

No.	Name	Operation method	CAUTION
①	Receive error history	<ul style="list-style-type: none"> <li>• Receives the entire error history stored in the ionizer unit and displays it in the error history display area.</li> </ul>	<ul style="list-style-type: none"> <li>• Error history shows the past 30 entries. The newest error history entry is at the top.</li> <li>• Nothing will appear in the error history display area if there are no error history entries.</li> </ul>
②	Initialize error history	<ul style="list-style-type: none"> <li>• Initializes error history stored in the ionizer unit.</li> </ul>	<ul style="list-style-type: none"> <li>• The contents of the error history display area are not affected.</li> </ul>

### 3-6 Confirm input/output tab operations

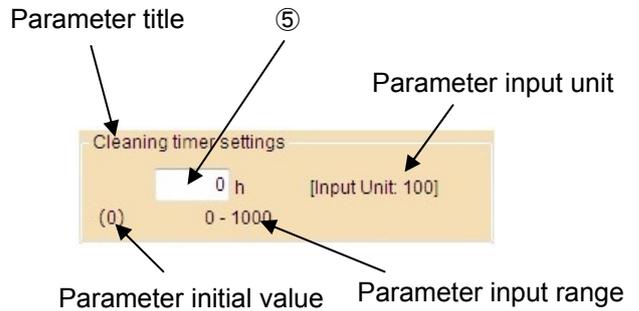
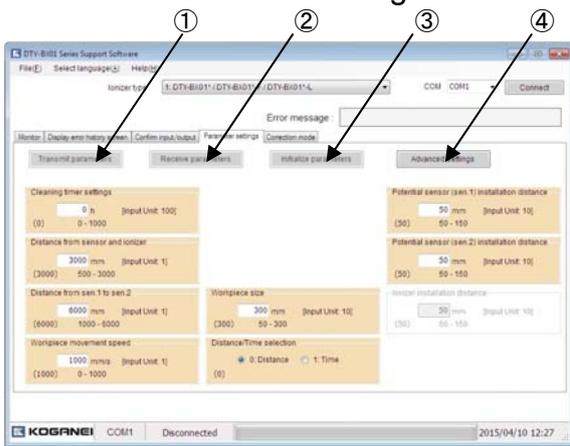


- ①: Confirm status of SETTING Switch/RESET Switch
- ②: Confirm status of LED output
- ③: Confirm IO input/output
- ④: Forced output selection
- ⑤: Forced input selection

No.	Name	Operation method	CAUTION
①	Confirm status of SETTING Switch/RESET Switch	<ul style="list-style-type: none"> <li>You can check the status of SETTING switches and the RESET switch.</li> </ul>	<ul style="list-style-type: none"> <li>The I/O status of switches and LEDs are indicated as shown below. Yellow: ON Gray: OFF</li> <li>Information is updated at regular intervals, so the status is not actually indicated in real time.</li> </ul>
②	Confirm status of LED output	<ul style="list-style-type: none"> <li>You can check the LED output status.</li> </ul>	
③	Confirm IO input/output	<ul style="list-style-type: none"> <li>You can check the IO input status.</li> </ul>	
④	Forced output selection	<ul style="list-style-type: none"> <li>You can use the buttons to select forced output of a CHECK, ALARM, or SIG.OUT signal. Forced output ON: Forces output to on. Forced output OFF: Forces output to off. Cancel: Cancels forced output.</li> </ul>	<ul style="list-style-type: none"> <li>Use only for checking connection with the PLC and other connections.</li> <li>Changing to another tab while a forced input/output operation is in progress will cause the forced input/output to be canceled.</li> <li>Note that if the communication circuit is closed while a forced input/output operation is in progress, the ionizer will remain in forced input/output state. If this happens, you can cancel the ongoing forced input/output operation by turning ionizer unit power off and then back on again.</li> </ul>
⑤	Forced input selection	<ul style="list-style-type: none"> <li>You can use these settings to force input an H.V.OFF signal (forced discharge stop). Forced input ON: Forces discharge to stop. Cancel forced input: Cancels forced discharge.</li> </ul>	

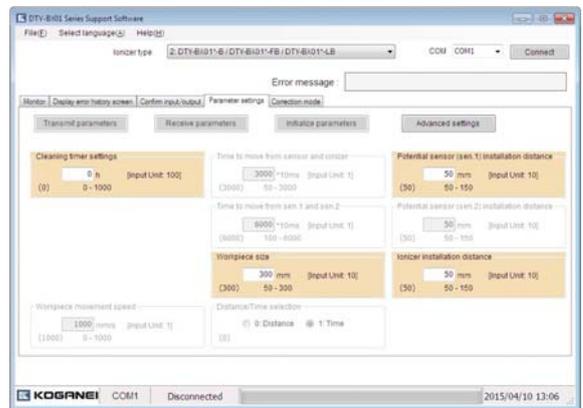
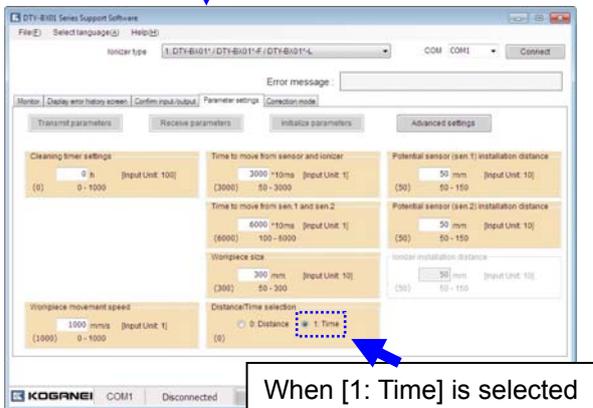
### 3-7 Parameter settings tab screens

<Parameter standard setting screens>



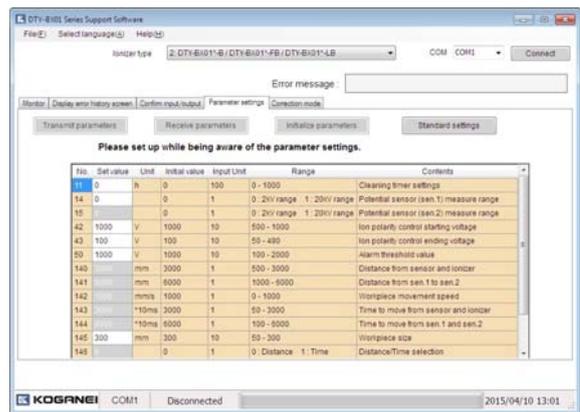
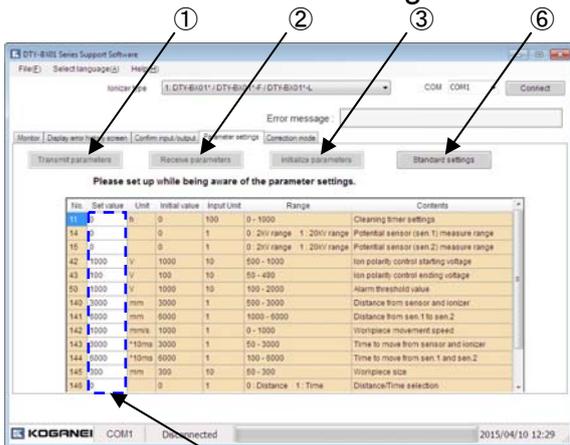
Distance/Time switching

Ionizer type switching



Note: You cannot change the type while connected to the ionizer.

<Parameter advanced setting screens>



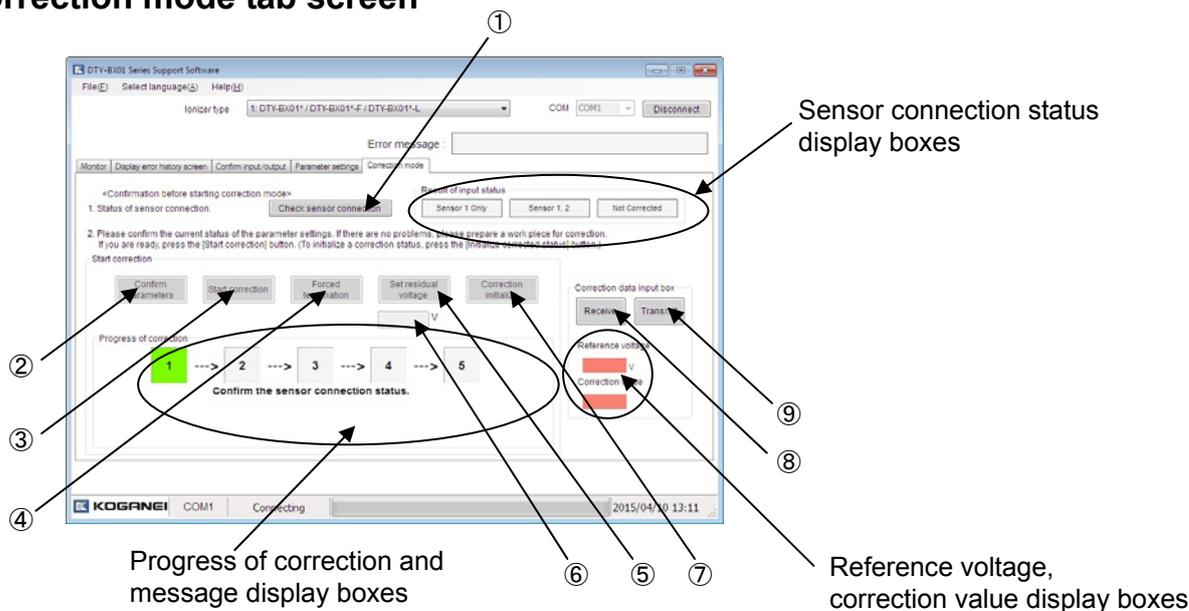
Ionizer type switching

Note: You cannot change the type while connected to the ionizer.

- ①: Transmit parameters button
- ②: Receive parameters button
- ③: Initialize parameters button
- ④: Parameter advanced setting display switching button
- ⑤: Parameter setting values
- ⑥: Parameter standard setting display switching button

No.	Name	Operation method	CAUTION
①	Transmit parameters button	<ul style="list-style-type: none"> <li>Clicking this button transmits parameters.</li> </ul>	<ul style="list-style-type: none"> <li>If the parameter standard setting screen is displayed, only the parameters displayed on the parameter standard setting screen are transmitted.</li> <li>If the parameter advanced setting screen is displayed, the parameters displayed on the parameter advanced setting screen are transmitted.</li> </ul>
②	Receive parameters button	<ul style="list-style-type: none"> <li>Clicking this button receives parameters.</li> </ul>	<ul style="list-style-type: none"> <li>All parameters displayed on the parameter advanced setting screen are received, and the received data is shown on both screens.</li> </ul>
③	Initialize parameters button	<ul style="list-style-type: none"> <li>Initializes parameters.</li> </ul>	
④	Parameter advanced setting display switching button	<ul style="list-style-type: none"> <li>Switches to the parameter advanced setting screen.</li> </ul>	
⑤	Parameter setting values	<ul style="list-style-type: none"> <li>These are the values to be set for the parameters. These boxes are for inputting parameters. To modify, change the parameter value and then send parameters.</li> </ul>	<ul style="list-style-type: none"> <li>Though you can input any value regardless of the input range, an out of range value will cause an error when it is transmitted.</li> <li>Parameter settings of items that are white on the parameter standard setting screen or gray on the parameter advanced setting screen are not required. (Settings of such items cannot be modified.)</li> </ul>
⑥	Parameter standard setting display switching button	<ul style="list-style-type: none"> <li>Switches to the parameter standard setting screen.</li> </ul>	

### 3-8 Correction mode tab screen



- |                                   |                                    |
|-----------------------------------|------------------------------------|
| ①: Check sensor connection button | ⑥: Residual voltage input box      |
| ②: Confirm parameters button      | ⑦: Correction initialize button    |
| ③: Start correction button        | ⑧: Receive correction data button  |
| ④: Forced termination button      | ⑨: Transmit correction data button |
| ⑤: Set residual voltage button    |                                    |

No.	Name	Operation method	CAUTION
①	Check sensor connection button	<ul style="list-style-type: none"> <li>Clicking this button acquires the sensor connection status. Obtained results are displayed in the sensor connection status display boxes.</li> </ul>	
②	Confirm parameters button	<ul style="list-style-type: none"> <li>Clicking this button displays current parameter settings related to corrections.</li> </ul>	
③	Start correction button	<ul style="list-style-type: none"> <li>This starts Correction mode execution.</li> </ul>	
④	Forced termination button	<ul style="list-style-type: none"> <li>This button exits the Correction mode.</li> </ul>	<ul style="list-style-type: none"> <li>Exiting the Correction mode will re-enter the mode from which the Correction mode was entered.</li> </ul>
⑤*	Set residual voltage button	<ul style="list-style-type: none"> <li>Transmits the residual voltage in the residual voltage input box to the ionizer.</li> </ul>	<ul style="list-style-type: none"> <li>Residual voltage is the charged voltage of an object after static charge removal of the object by the ionizer. Following static charge removal, take a reading of the object with a surface potential meter and input the charged voltage in the residual voltage input box.</li> </ul>
⑥*	Residual voltage input box	<ul style="list-style-type: none"> <li>Input the residual voltage to be transmitted to the ionizer.</li> </ul>	
⑦	Correction initialize button	<ul style="list-style-type: none"> <li>Initializes the internal data configured in the Correction mode.</li> </ul>	<ul style="list-style-type: none"> <li>After exiting the Correction mode, always be sure to click the [Correction initialize] button before executing the Correction mode again.</li> </ul>
⑧	Receive correction data button	<ul style="list-style-type: none"> <li>Receives reference voltage and correction values, which are part of the Correction mode internal data.</li> </ul>	<ul style="list-style-type: none"> <li>This data is set automatically when correction is performed. Transmission is not needed to do correction, you can use a copy of the correction data and copy it to another ionizer.</li> </ul>
⑨	Transmit correction data button	<ul style="list-style-type: none"> <li>Transmits reference voltage and correction values, which are part of the Correction mode internal data.</li> </ul>	

\* Used when only potential sensor (sen.1) is connected.

## 4. Correction mode operations

### 4-1 Correction mode

The Correction mode is for adjusting discharge intensity to enable discharging that matches the electric charge and/or electrostatic capacitance of the object while performing static charge removal in the [Moving object ion control] mode.

Because of this, the Correction mode is required only for static charge removal in the [Moving object ion control] mode, when all of the conditions below are satisfied.

- Using a DTY-BX01-□-□-□ (excluding DTY-BX01-□-□B-□) ionizer.
- Potential sensor (sen.1), or both potential sensor (sen.1) and potential sensor (sen.2) connected.
- Setting switch 1 is OFF (Ion control static charge removal mode).
- On the Parameter settings tab, workpiece movement speed parameter is set to 100 mm/s [3.94 in/sec] or higher.

### 4-2 Correction mode preparation

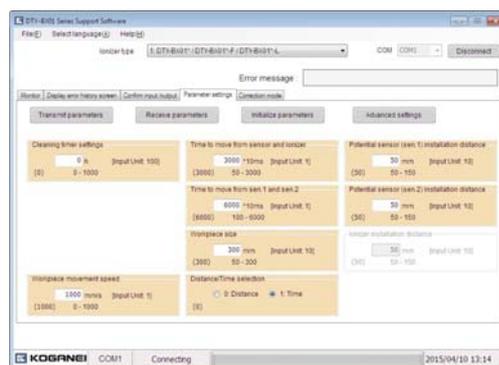
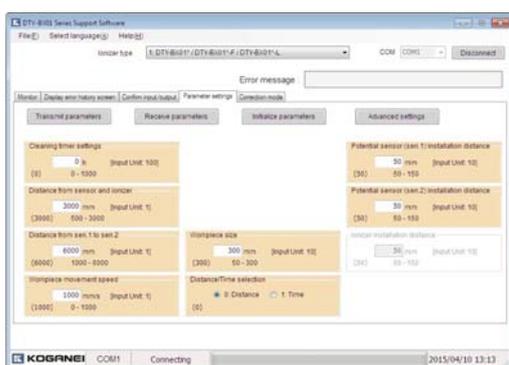
- ① Complete ionizer and potential sensor installation before entering the Correction mode. Also, prepare the static charge removal target workpiece. (In the Correction mode, performs actual static charge removal.)

If potential sensor (sen.2) is not attached, prepare a surface potential meter.

- ② On the parameter setting screen configure all parameter setting except for [Cleaning timer settings], and then click the [Transmit parameters] button to transmit them.

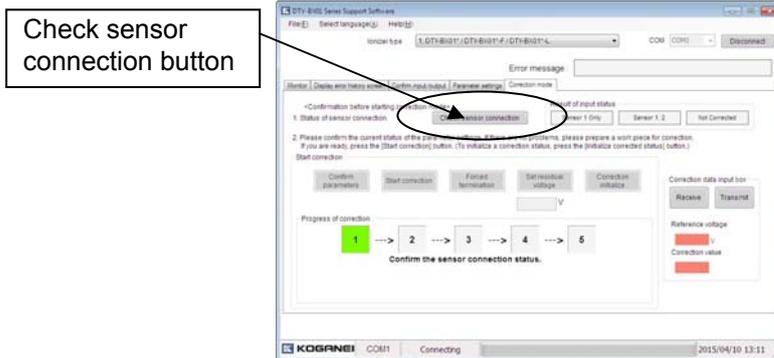
(The parameter setting screen settings items change depending on the selected distance and time.)

For more detailed parameter settings, click the parameter advanced settings button and then configure settings as required.



③ Click the [Check sensor connection] button and obtain the current potential sensor setting status.

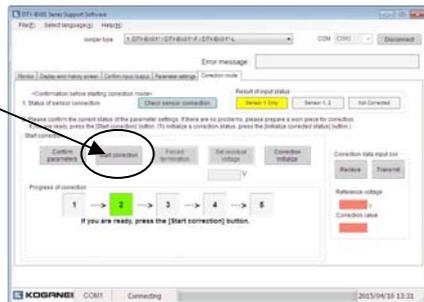
Progress of correction: 1



\* If there is no potential sensor attached, discharge intensity cannot be corrected. Correction is not possible.

### 4-3 Entering the Correction mode

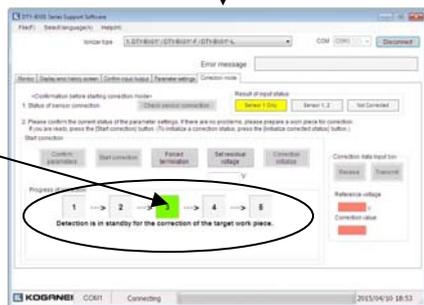
Start correction button



① Click the [Start correction] button.

Progress of correction: 2

Progress of correction



② After confirming that the progress of correction has moved to 3, feed the static charge removal target workpiece along the production line.

③ When the static charge removal target workpiece passes potential sensor (sen.1), the progress of correction will move to 4.

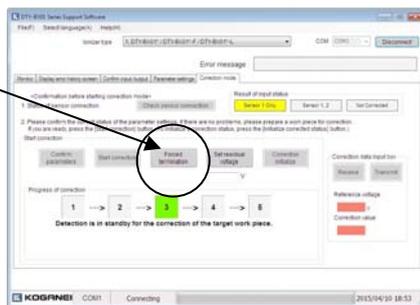
\* If the progress of correction remains at 3 even when the static charge removal target workpiece passes potential sensor (sen.1), it could be due to any of the causes described below. If this happens, click the [Forced termination] button and exit the Correction mode.

Cause 1	Parameter settings are different from the actual installation environment.
Action 1	Check the setting parameters and change them to the correct values.
Cause 2	The charged voltage of the static charge removal target workpiece is low and has not reached the Correction mode start voltage.
Action 2	Measure the charged voltage of the static charge removal target workpiece. <In the case of high voltage> Use the advanced parameter setting items to change the ion polarity control starting voltage value. Change the set value and then re-start from ① again. < In the case of low voltage> Correction is not required. Use the ionizer without doing anything.

When progress of correction moves to 4, if potential sensor (sen.1) only, or if (sen.1) and (sen.2) potential sensors are both connected, progress changes as follows. (P. 16)

P. 16

Forced termination button



To ①

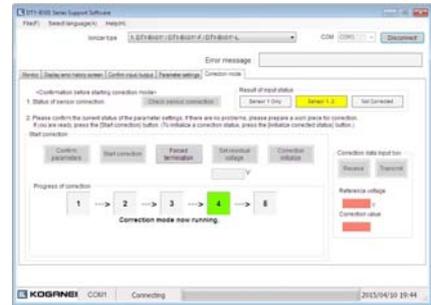
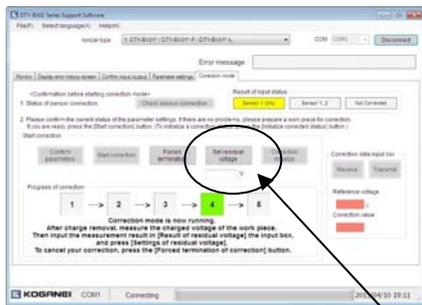
Correction complete

<Potential sensor (sen.1) only>

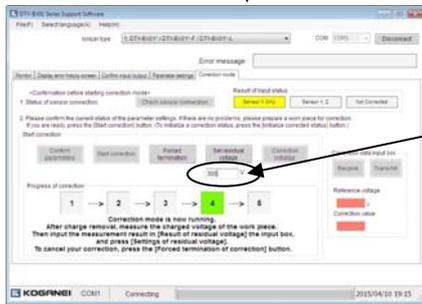
④ After the static charge removal target workpiece passes the ionizer (after static charge removal), use a surface potential meter to measure the charged voltage of the workpiece. Input the measurement result (residual voltage) into the [Residual voltage input box] below, and then click the [Set residual voltage] button.

<Both (sen.1) and (sen.2) potential sensors connected>

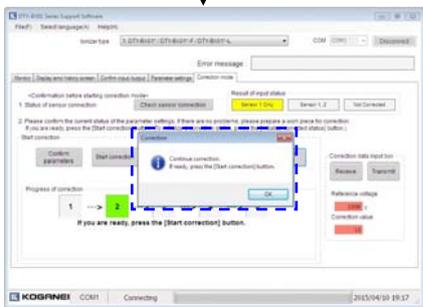
④ The static charge removal target workpiece passes the ionizer. When the charge removed workpiece passes potential sensor (sen.2), the charged voltage (residual voltage) is automatically measured.



[Set residual voltage] button and residual voltage input box



Input example when residual voltage is 300 V



<When a message prompting continued correction appears> (P. 17)



<When the correction complete message appears> (P. 17)

Other messages (See section 4-4)

<When a message prompting continued correction appears>

⑤ If it is decided that voltage removal may not yet be optimal, a message prompting for continued correction appears. Prepare the static charge removal target workpiece using the newly obtained charge state and return to step ① to continue with correction.

To ①

<When the correction complete message appears>

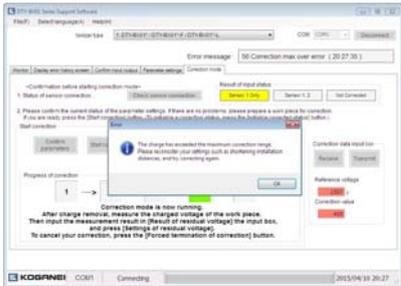
⑤ The correction complete message appears when the residual voltage result is considered to be an optimal voltage removal correction value. Correction is complete so the ionizer can be used under optimal conditions.

Correction complete

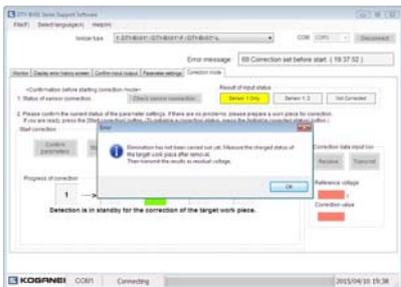
Furthermore, performing correction causes the current correction data to be displayed in the correction data input box. To copy the correction data to a different ionizer, replace the ionizer with the one to which you want to copy the data and then click the correction data input box [Transmit] button.

### 4-4 Errors in correction mode

Certain conditions can cause errors during Correction mode execution.



Problem	Correction max over error
Cause	Even with maximum static charge removal, the charge of the target workpiece cannot be removed sufficiently and correction is not possible.
Action 1	Make the ionizer working distance closer, initialize correction, and restart from step ①.
Action 2	Use the advanced parameter setting items to change the ion polarity control starting voltage value. Modify set values, initialize correction, and restart from step ①.



Problem	Correction set before start
Cause 1	The residual voltage was input before the workpiece targeted for static charge removal passed potential sensor (sen.1).
Action 1	Transmit the residual voltage after the workpiece passes the ionizer.
Cause 2	The charged voltage of the static charge removal target workpiece is low and has not reached the Correction mode start voltage.
Action 2	Measure the charged voltage of the static charge removal target workpiece. < In the case of high voltage> Use the advanced parameter setting items to change the ion polarity control starting voltage value. Change the set value and then re-start from ① again. < In the case of low voltage> Correction is not required. Use the ionizer without doing anything.



Problem	Correction over-range error
Cause	Over-range generated during correction.
Action	Use the advanced parameter setting items to change the potential sensor (sen.1) measuring range. Change the set value and then re-start from ① again.



Problem	Correction mode running
Cause	Residual voltage was input prior to static charge removal of the target workpiece.
Action	Transmit the residual voltage after the workpiece passes the ionizer.



Problem	Correction alarm on
Cause	Ionizer is in alarm state prior to correction.
Action	Turn power off and then back on again, and then perform correction.



Problem	Discharge abnormality
Cause	Abnormal discharge during correction.
Action	Confirm there are no foreign objects in the vicinity of the ionizer. Remove the foreign objects, turn power off and then back on again, and then perform correction.

## 5. Appendix

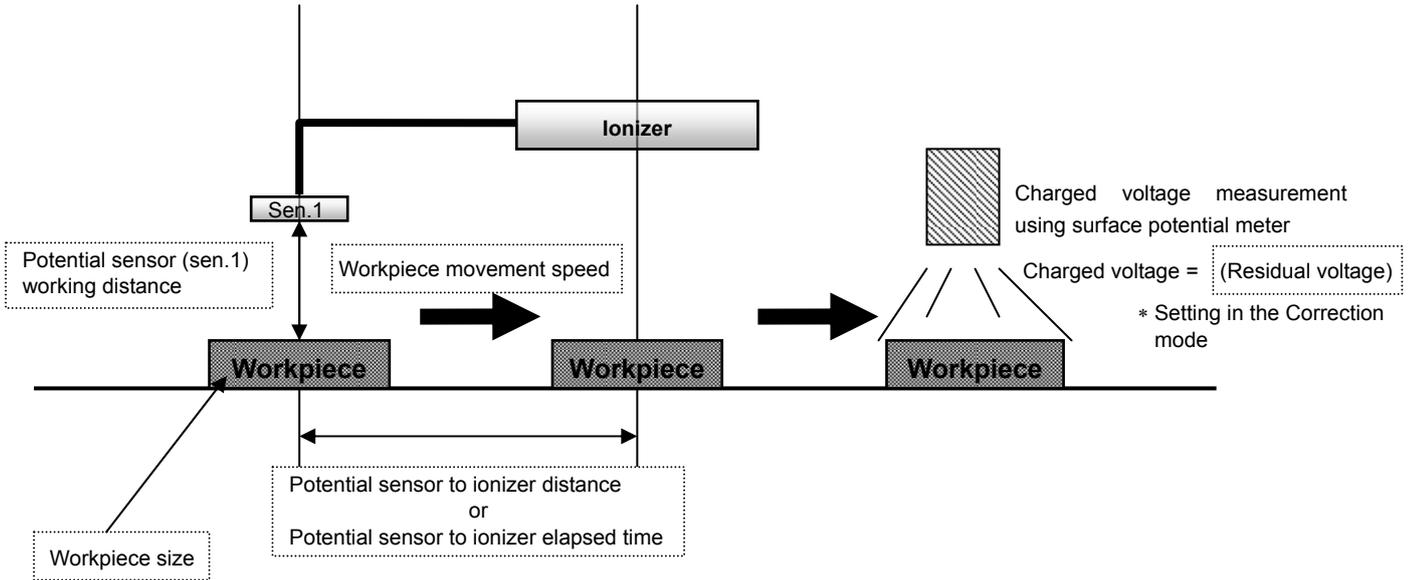
### 5-1 Parameter table

Parameter name	Unit	Initial value	Input unit	Input range	Description
Cleaning timer setting	Hours	0	100	0 to 1000	Cleaning timer elapsed time. 0 specifies no cleaning timer setting.
Potential sensor (sen.1) measure range		0	1	0: 2 kV range 1: 20 kV range	Potential sensor (sen.1) measuring range. Match to the potential sensor (sen.1) setting.
Potential sensor (sen.2) measure range		0	1	0: 2 kV range 1: 20 kV range	Potential sensor (sen.2) measuring range. Match to the potential sensor (sen.2) setting.
Ion polarity control starting voltage	V	1000	10	500 to 1000	Starting voltage of the ion polarity control mode. The ion polarity control mode is entered when voltage rises above this value.
Ion polarity control ending voltage	V	100	10	50 to 490	Ending voltage of the ion polarity control mode. The ion polarity control mode is exited when voltage drops below this value.
Alarm threshold value	V	1000	10	100 to 2000	This is the voltage criteria used to determine the alarm state for the charged voltage detected by the potential sensor for judgment. Note: The potential sensor for judgment depends on the model. • DTY-BX01-□-□-□: (sen.2) • DTY-BX01-□-□B-□: (sen.1)
Potential sensor and ionizer working distance	mm [in]	3000 [118]	1 [0.04]	500 to 3000 [19.69 to 118]	This is the working distance between potential sensor (sen.1) and the ionizer.
Potential sensor (sen.1) and potential sensor (sen.2) working distance	mm [in]	6000 [236]	1 [0.04]	1000 to 6000 [39.4 to 236]	This is the distance between potential sensor (sen.1) and potential sensor (sen.2)
Workpiece movement speed	mm/s [in/s]	1000 [39.4]	1 [0.04]	0 to 1000 [0 to 39.4]	This is the movement speed of the static charge removal target workpiece. 0 specifies no movement.
Potential sensor to ionizer elapsed time	* 10 ms	3000	1	50 to 3000	This is the time the object takes from potential sensor (sen.1) to the ionizer.
Potential sensor (sen.1) to potential sensor (sen.2) elapsed time	* 10 ms	6000	1	100 to 6000	This is the time the object takes from potential sensor (sen.1) to potential sensor (sen.2).
Workpiece size	mm [in]	300 [11.81]	10 [0.39]	50 to 300 [1.97 to 11.81]	This is the size of the static charge removal target workpiece. The size is specified as a diameter.
Distance/Time selection		0	1	0: Distance 1: Time	Selects either "Distance (and speed)" or "Time" for how long it takes for the object to reach the ionizer from potential sensor (sen.1) and to reach the potential sensor (sen.2) from potential sensor (sen.1).
Potential sensor (sen.1) working distance	mm [in]	50 [1.97]	10 [0.39]	50 to 150 [1.97 to 5.91]	This is the distance between potential sensor (sen.1) and the static charge removal target workpiece.
Potential sensor (sen.2) working distance	mm [in]	50 [1.97]	10 [0.39]	50 to 150 [1.97 to 5.91]	This is the distance between potential sensor (sen.2) and the static charge removal target workpiece.
Ionizer working distance	mm [in]	50 [1.97]	10 [0.39]	50 to 150 [1.97 to 5.91]	This is the distance between the ionizer and the static charge removal target workpiece.

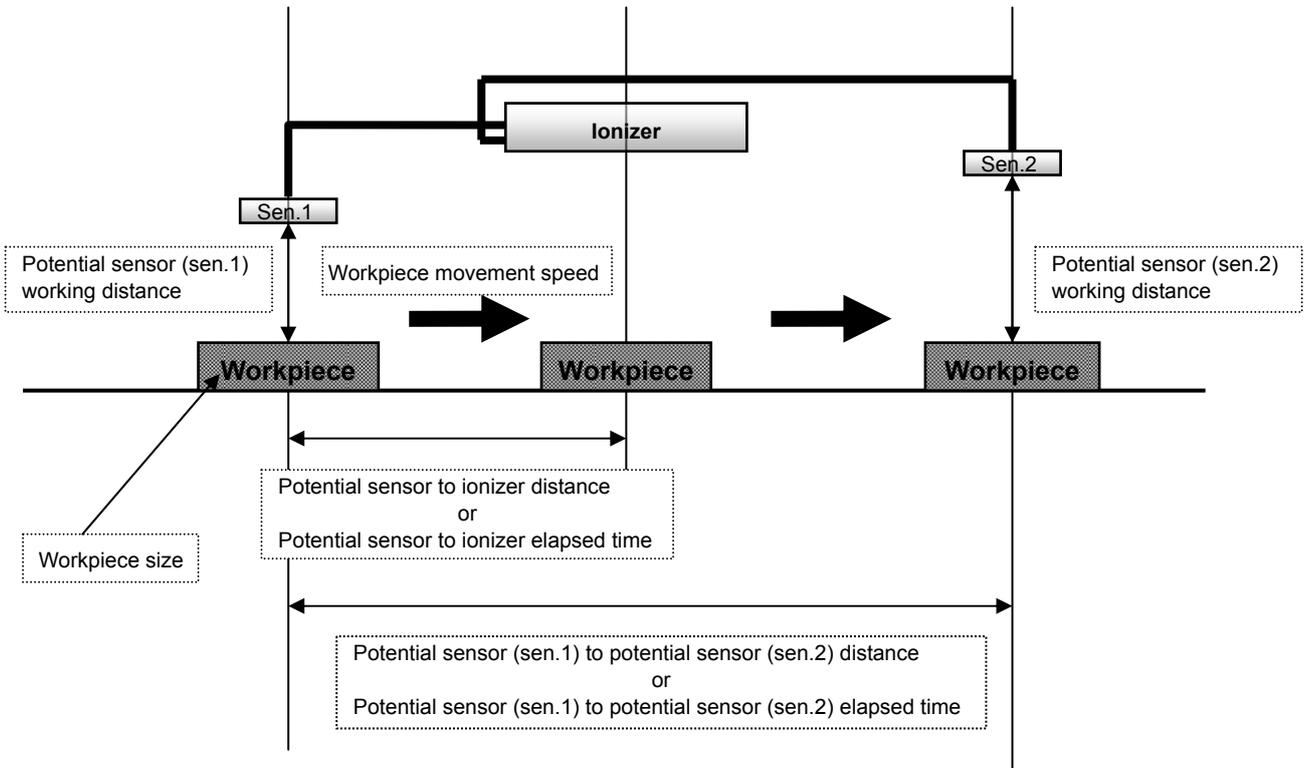
## 5-2 Correction time setting parameters

Configure the settings of the parameters bounded by dotted lines in the diagram below.

### ① When potential sensor (sen.1) only is connected



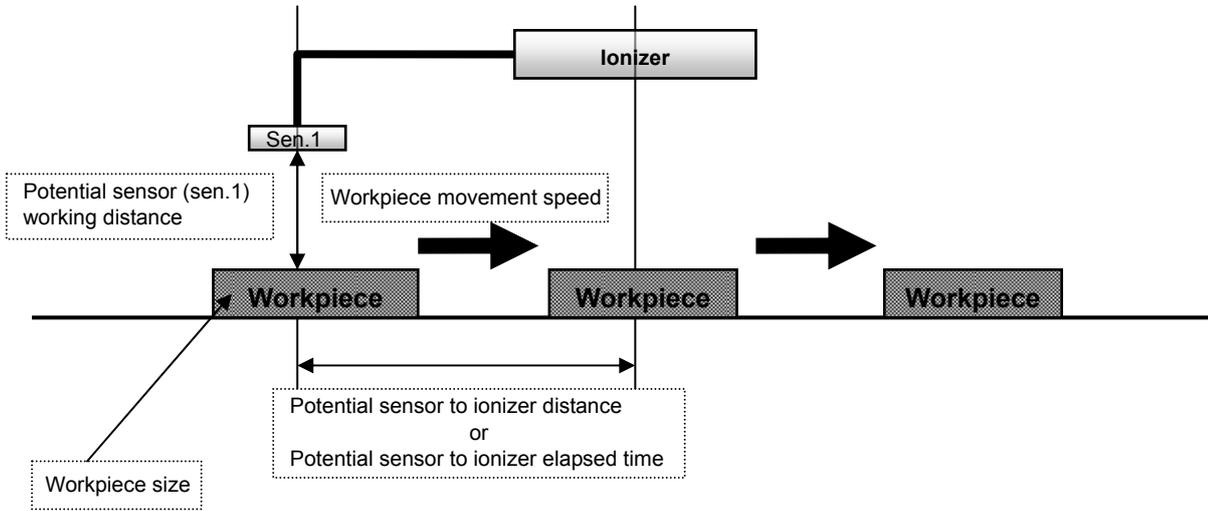
### ② When potential sensors (sen.1) and (sen.2) are connected



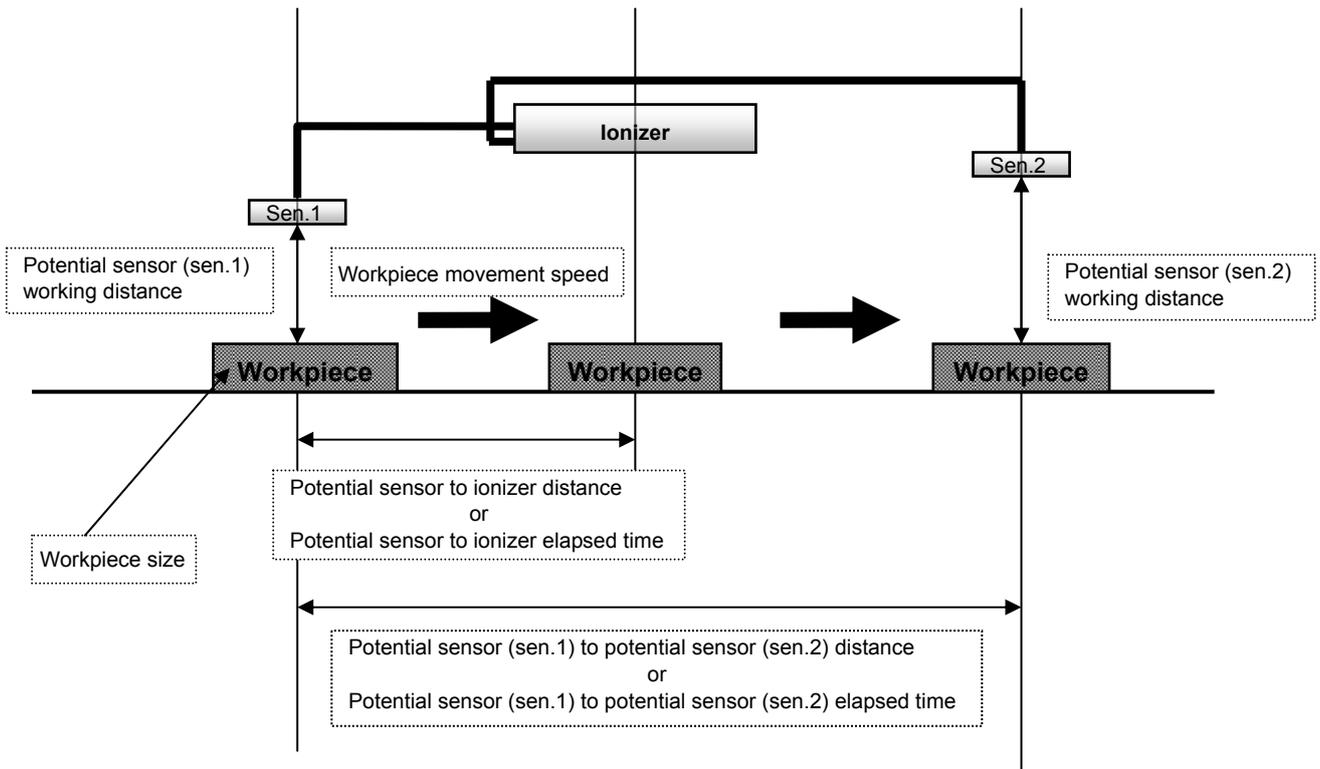
### 5-3 Model-specific required parameter settings

<Using DTY-BX01-□-□-□>

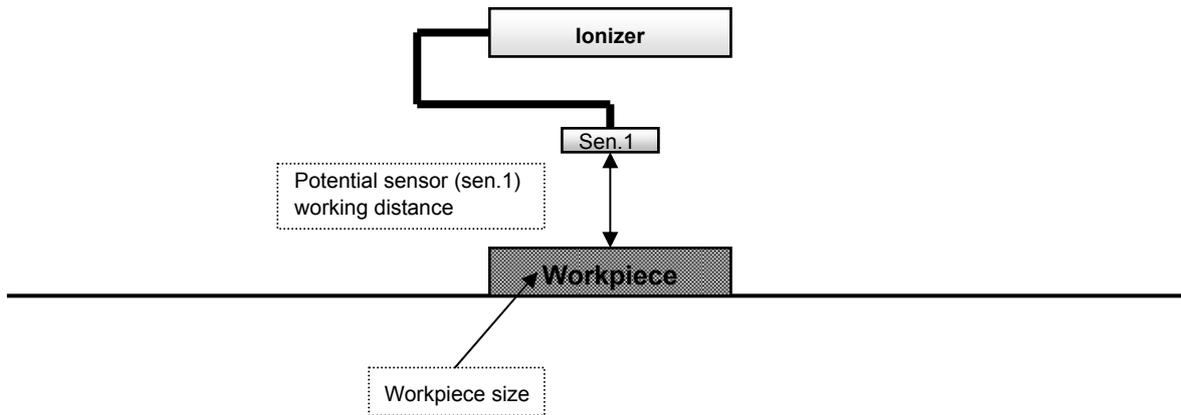
- ① When the movement speed is set to 100 mm/s [3.94 in/sec] or greater, and potential sensor (sen.1) only is connected



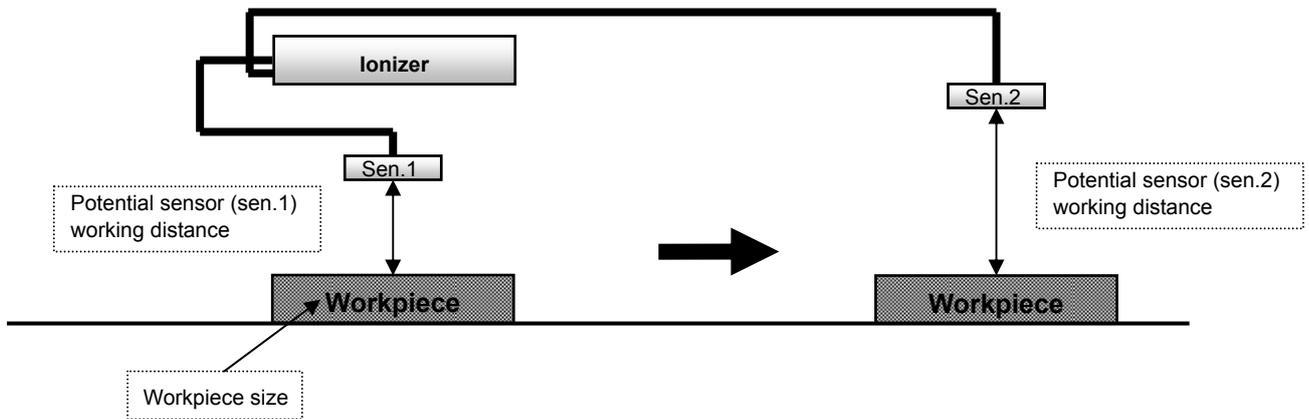
- ② When the movement speed is set to 100 mm/s [3.94 in/sec] or greater, and potential sensors (sen.1) and (sen.2) are connected



- ③ When the movement speed is set to less than 100 mm/s [3.94 in/sec], and potential sensor (sen.1) only is connected



- ④ When the movement speed is set to less than 100 mm/s [3.94 in/sec], and potential sensors (sen.1) and (sen.2) are connected

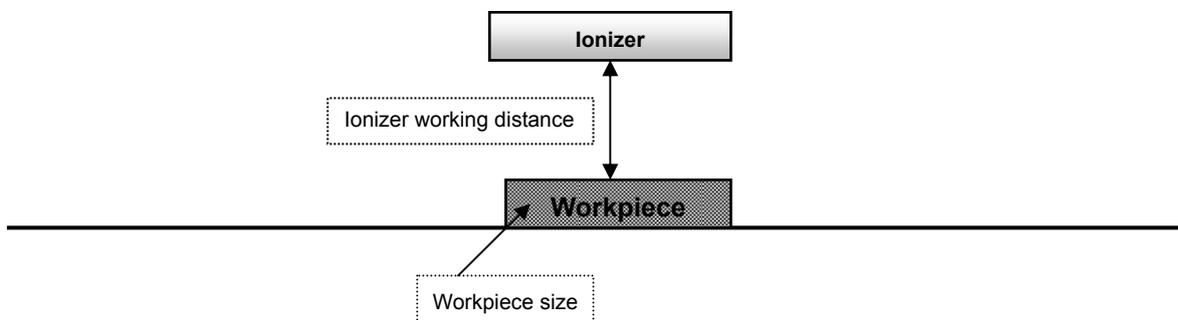


- ⑤ When there is no potential sensor  
No required parameters.

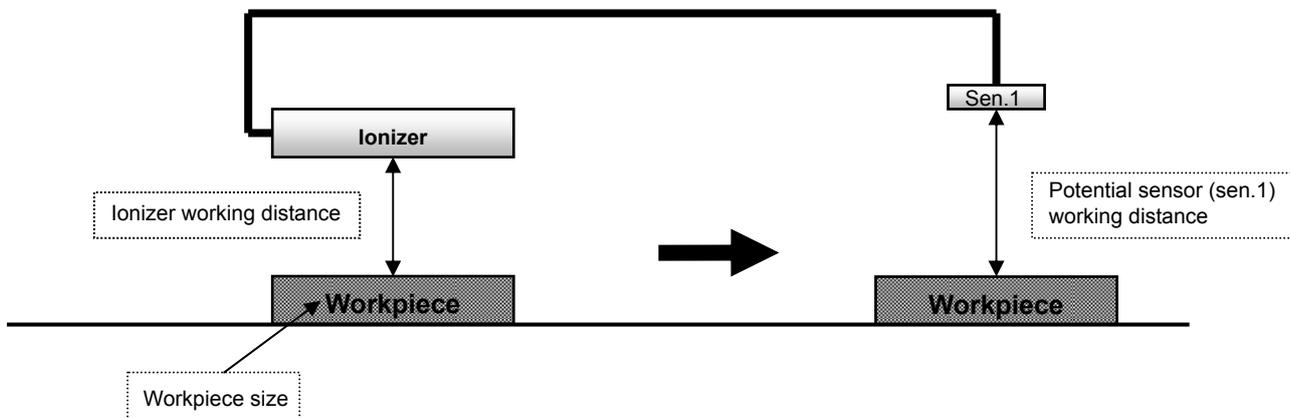
<Using DTY-BX01-□-□B-□>

Configure the settings of the parameters bounded by dotted lines in the diagram below.

① When there is no potential sensor



② When potential sensor (sen.1) is connected



<Using DTY-BX01-□-□-□>

No required parameters.

If you have any problems with the content of this publication or technical questions, please contact the Koganei Overseas Department below.

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