



## **ELECTROPHORESIS OBSERVATION DEVICE**

### **RealTime-Page View**

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### **MODEL**

### **RT-PV-051**

## **OPERATION MANUAL**

**– SECOND EDITION –**

- Thank you for purchasing RT-PV-051 Electrophoresis Observation Device.
- To use this unit properly, read this "Instruction Manual" thoroughly before using this unit. Keep this instruction manual around this unit for reference at any time.

**⚠** **WARNING:** Carefully read and thoroughly understand the important warning items described in this manual before using this unit.

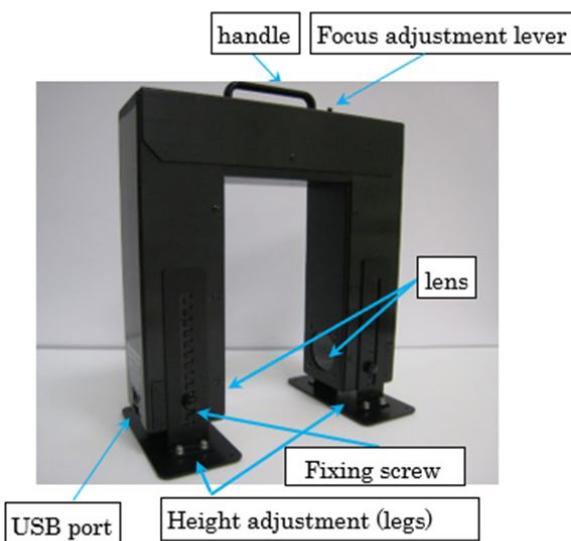
**Yamato Scientific America Inc.  
Santa Clara, CA**

## 1. Features

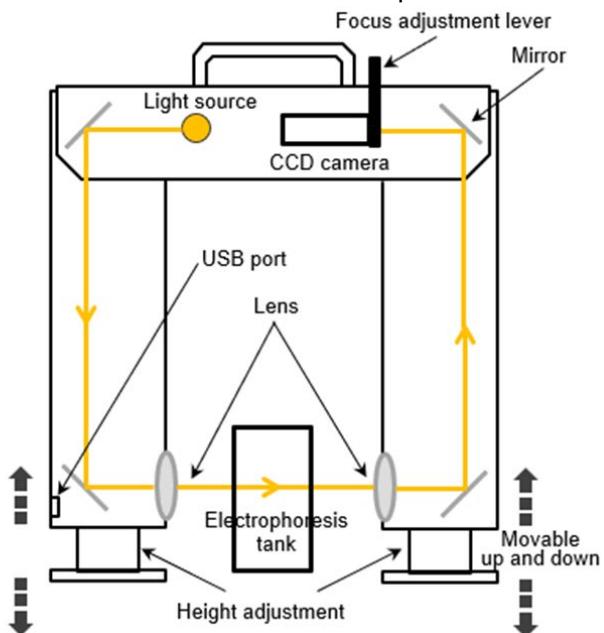
- "RealTime-PAGE view" allows for real-time observation of molecular movement in a transparent gel during electrophoresis, and the simple operation method makes it easy for anyone to use.
- This device enables early confirmation of results through real-time observation, reducing the time required for electrophoresis experiments and making early decisions about the next experiment. In addition, because band positions can be confirmed without staining, the time, cost, and effort required for staining can be reduced.
- Electrophoresis conditions (e.g. migration time) can be determined while observing.
- Lightweight device (can be carried with one hand) can be easily moved, and can be used anywhere because of computer's USB power supply.

## 2. Product Specifications

### 1. Part Names



### 2. Measurement Principle

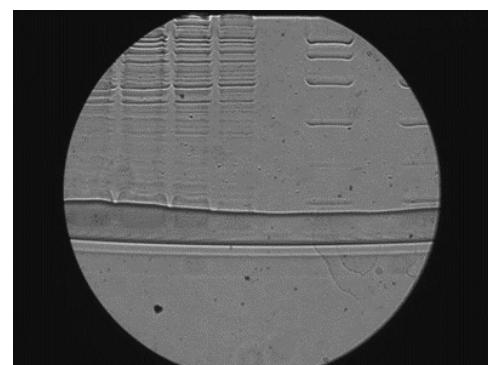


### 3. When in use

Laptop and electrophoresis chamber are operational accessories



### 4. Example of how it looks

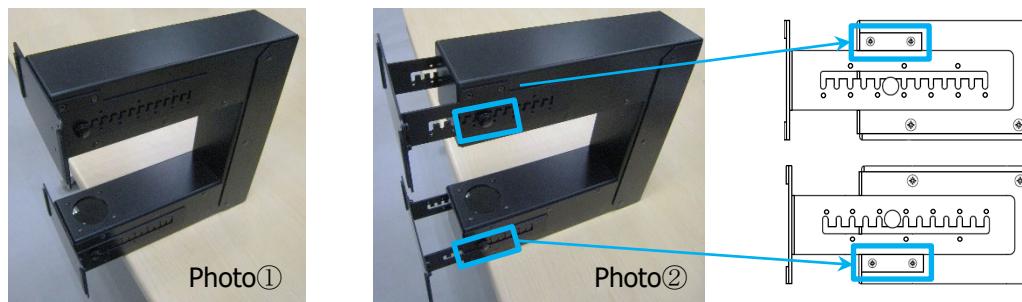


Product name	RealTime-PAGE view
Product number	RT-PV-051
External dimensions	(W)x(D)x(H)mm 300×80×298 ※Excludes legs and protrusions
Weight	2.2 kg
Light source wavelength	645 nm
Field of view	φ 50 mm
Power supply	USB supply (Power always on)

### 3. How to use

**※Please download and install the software before use (see 4. below).**

- 1) Lay the main unit on a desk or other flat surface (Photo ①), loosen the fixing screws and adjust height adjustment (legs) to appropriate height (match the lens position to the height of the subject), then press the height adjustment (legs) against the guide Photo ②  and align it so that it is parallel to the guide, then tighten fixing screws.



- 2) Stand the main unit upright and connect a USB cable to main unit and computer. You can start the camera software. (**A computer that supports USB3.0 is required.**)
- 3) After setting the electrophoresis chamber, start electrophoresis.
- 4) Move the focus adjustment lever left and right to adjust the view.
- 5) When the observation is finished, close the camera software and disconnect the USB cable from the computer and main unit.

### 4. Download and install the software

- 1) Access <https://www.toshiba-teli.co.jp/cgi/ss/en/service.cgi>  
The software download page will open. Click [Proceed to user registration] and complete the user registration.
- 2) Once you have completed your user registration, your user ID and password will be sent to your email address. Please use these to log in.
- 3) Once you log in, the software information page will open. Click [TeliCamSDK] Download - [TeliCamSDK for windows] and download the software to your computer.
- 4) Unzip the downloaded ZIP file and follow the instructions in the folder (file name: TeliCamSDK Start-up Guide Eng.pdf) to install the software.

## 5. How to use the camera software (after completing the installation in step 4 above)

- 1) Connect the device to a computer using a USB cable. (A computer that supports USB 3.0 is required.)
- 2) Go to [Start Menu] → [TOSHIBA TELI] → [TeliViewer] and start the software.  
※For detailed instructions on how to use the software, please refer to the separate printout "How to use the camera software (TeliViewer)."

※This camera software does not have a time-lapse photography function.

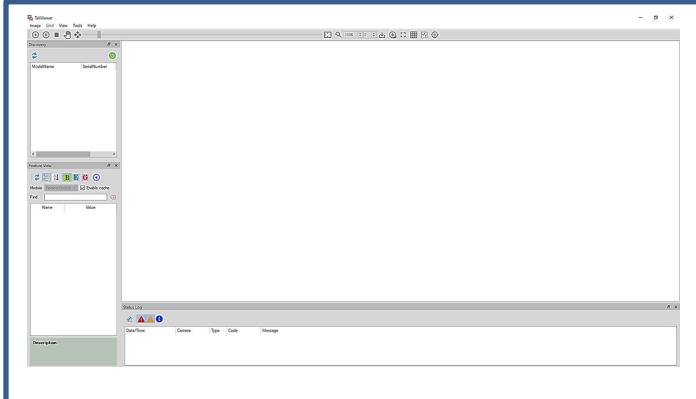
If you would like to use the time-lapse photography function, we recommend the free software "KIOKU." For details, please refer to the separate printout "How to use the free software (KIOKU)."

## 6. Precautions for Use

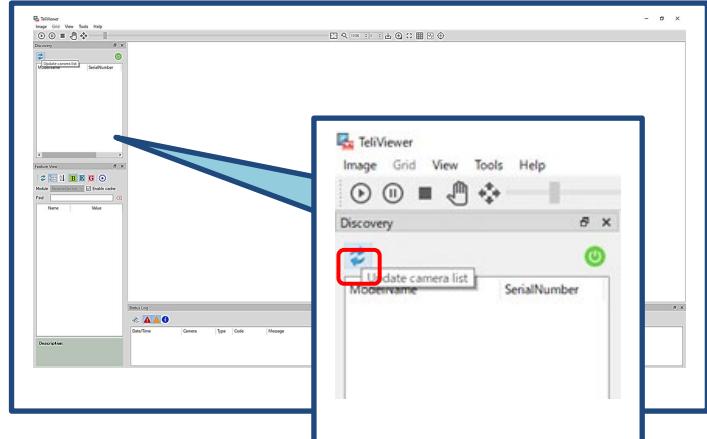
- \*Do not drop this product, subject it to impact or apply excessive force to it.
- \*The product contains precision circuits, so please do not attempt to disassemble it yourself.
- \*Do not use or store the product in humid or dusty places, or in places where it may get hot, such as inside a car under direct sunlight.
- \*Be sure to place this product on a stable surface. If it is placed on an unstable surface, it may fall or tip over, resulting in injury.
- \*The manufacturer's warranty period for this product is one year from the date of purchase. However, if this product is disassembled by the customer, it will not be covered by the warranty.

# How to use the camera software (TeliViewer)

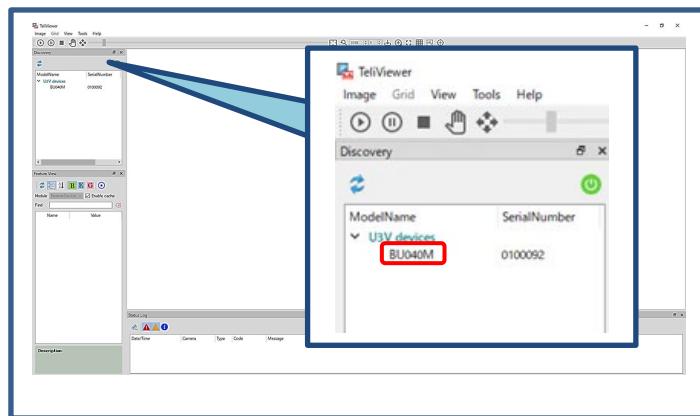
① When you start TeliViewer, the following screen will open.



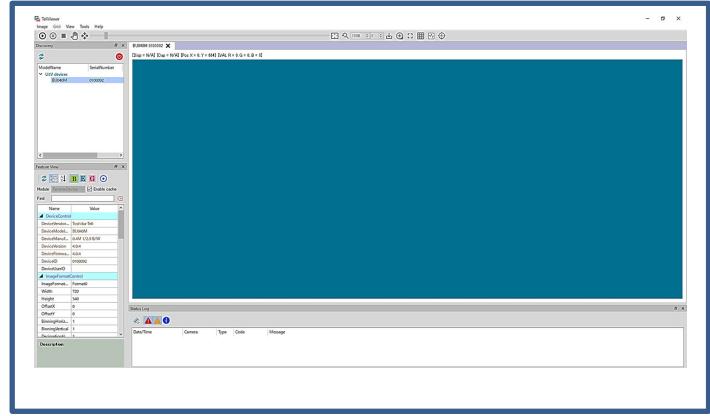
② Click the icon [Update camera list].



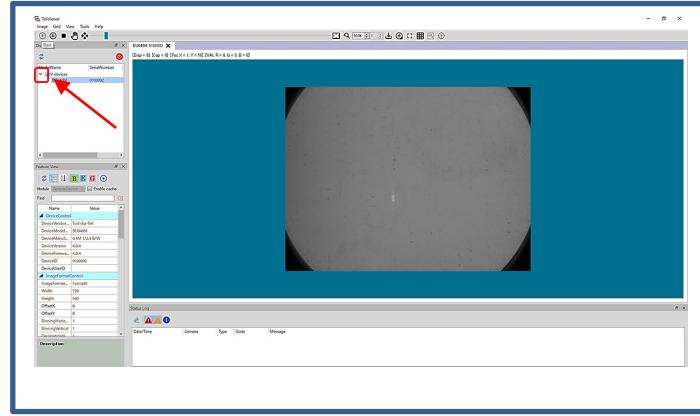
③ A list of cameras will be displayed, select the camera you want to view and double-click it.



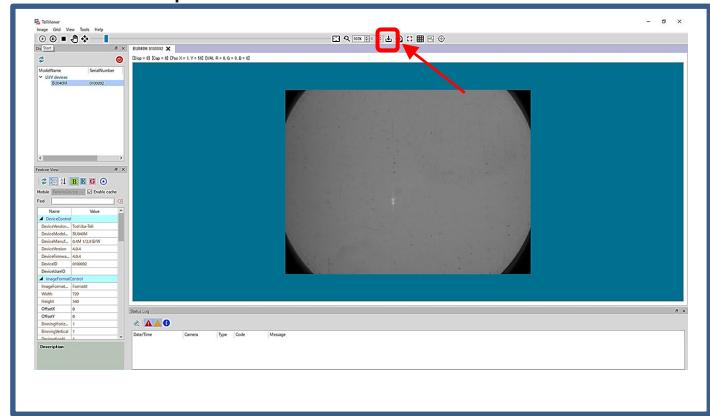
④ A screen like this will open.



⑤ Click the icon [Start] to begin image capture and display the camera image.



⑥ Click the icon [Capture camera as snapshot] to take a picture.



⑦ When the observation is finished, close the camera software and disconnect the USB cable from the computer and main unit.

※ If the software freezes while in use, please restart it.

※ There may be bright spots, unevenness, or dirt in some parts of the image.  
This is not a malfunction or defect.

# AFTER SERVICE AND WARRANTY

Yamato Scientific America warrants, from the date of shipment from warehouse, for a period of one (1) year. All products, parts and materials shall be free of defects in material and workmanship under normal use consistent with the product instructions. This product warranty does not apply to products purchased from unauthorized resellers/distributors.

Yamato reserves the right to inspect the product under claim before having an obligation to repair or replace the defective unit covered by this warranty. All costs of shipping to Yamato for inspection shall be borne solely by the purchaser. Products repaired or replaced under the terms of the warranty may be refurbished or new product will be provided at the discretion of Yamato.

## **Warranty Conditions**

This warranty shall have force and effect only if all items are used with proper circuits, voltages, and frequencies and the operation thereof is in accordance with instructions furnished by the manufacturer.

This warranty shall not extend to such parts as refrigerants, finishes, belts, and dryers.

This warranty shall not extend to ordinary wear and tear, or ordinary refrigeration service and refrigeration adjustments, unless specifically included in the equipment purchase contract.

This warranty does not apply to equipment or parts which fail because of abuse, accident, alteration, misuse, erosion, improper installation, or improper replacement of a repaired item.

The buyer assumes all risks for results obtained from these products, whether used alone or in combination with other items. It is expressly understood that we are not responsible and will not be held liable for damage and/or injury caused using our products.

# AFTER SERVICE AND WARRANTY

## Product Return Policy

If you are not satisfied with your purchase and wish to make a return, contact our customer service to inquire about a Return of Merchandise Authorization Number (RMA). Merchandise returned without an RMA number will not be accepted and will be returned to the sender. Return requests must be made within 15 days of the customer's receipt of the merchandise.

All returns must be unused and in unopened original packaging and include all items and manuals originally shipped.

The purchaser is responsible for the shipping cost of return shipment. Insurance on the return shipment is required. Damage or loss of merchandise during shipping is the responsibility of the sender. Returned shipments that arrive damaged will be returned to the sender, and credit will not be rendered.

All returned products, parts and materials are subject to a 25% restocking fee. Shipping and handling cost are non-refundable. All retrofitted, customized and special order item sales are final and non-returnable.

## In Case of Request for Repair

If the failure occurs, stop the operation, turn OFF the power switch, and unplug the power plug. Please contact the sales agency that this unit was purchased, or Yamato Scientific's sales office.

< Check following items before contact >

- ◆ Model Name of Product
- ◆ Serial Number
- ◆ Purchase Date
- ◆ Issue (as detailed as possible)

## Responsibility

Please follow instructions in this document when using this unit. Yamato Scientific has no responsibility for accidents or breakdown of device due to failure to comply. Never conduct what this document forbids as unexpected accidents or breakdown may result.

### DISTRIBUTOR:

**Yamato Scientific America Inc.**  
925 Walsh Ave, Santa Clara, CA 95050  
Tel: 1-800-292-6286 / 408-235-7725  
[https://www.yamato-usa.com](http://www.yamato-usa.com)

### For customer service:

Email: [customerservice@yamato-usa.com](mailto:customerservice@yamato-usa.com)

### For technical support:

Email: [technical@yamato-usa.com](mailto:technical@yamato-usa.com)

### MANUFACTURER:



**Soshō, Inc.**  
2-1 Yamadaoka, Suita, Osaka 565-0871, Japan  
313 Photonics Center Bldg., Osaka University  
<http://www.so-sho.jp>