



**EP-10**  
Electrophoresis  
System

**EPS-300**  
Power Supply

Choice for safe and accurate electrophoresis

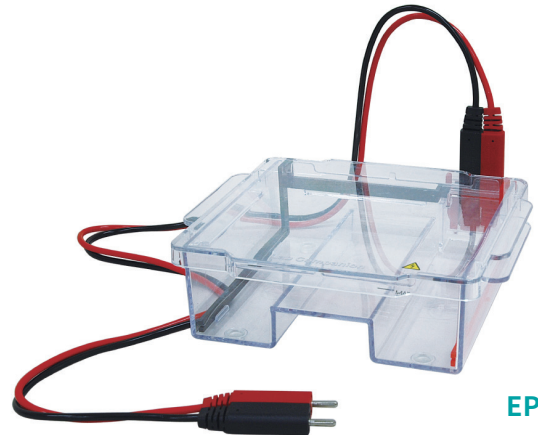
# Electrophoresis System & Power Supply

# Electrophoresis System



## Electrophoresis system with differentiated ease of use

- Faster and easier electrophoresis experiment
- Minimized individual experiment variation
- Excellent structure for maintenance
- Safety features to reduce mistakes
- Multiple (up to 6 kind \* 2ea) double-sided combs offered (EP-10, EP-18 models)



EP-10

### Experiment faster and easier!

- It is equipped with 31 well combs and 16 well combs, which have the same spacing as the multichannel pipettes, so that a large quantity of samples can be loaded quickly (EP-10, EP-18 models).
- Convenient movement without gel separation of tray when observing UV transilluminator by applying a UV-transmitting gel tray.



Observe the gel conveniently without separating it from tray



Multichannel pipettes can be used (31, 16 well combs)

### Easy use even for beginners to minimize experiment variation!

- Level marker is engraved on the gel tray to make it easy to make gel of constant thickness.
- A spirit level can be applied to the gel caster to find the location where the gel hardens flat (EP-10, EP-18 models).



Easy to measure the thickness of gel due to engraved level marker



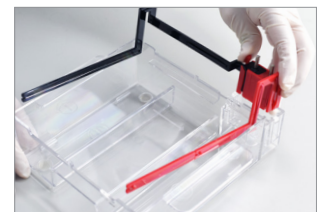
Equipped with a spirit level (EP-10, EP-18 models)

### Neat experiment and cleaning! Excellent maintenance

- A structure that can connect the (+)/(-) power cords to the power supply all together for easy to connect and neat organization of cords.
- Convenient to clean after experiment and maintain due to easy electrode separation.



Neat cords structure that can connect (+) and (-) power cords to each other



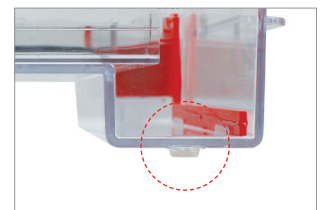
Easy electrode removal

### Safety features to reduce mistakes during experiment

- You can check the process direction of the sample at a glance with the (+), (-), and direction arrows imprinted on the bottom of the tank.
- Equipped with rubber feet to prevent slipping, so shock is relieved even when accidentally touching the tank during sample loading or electrophoresis.

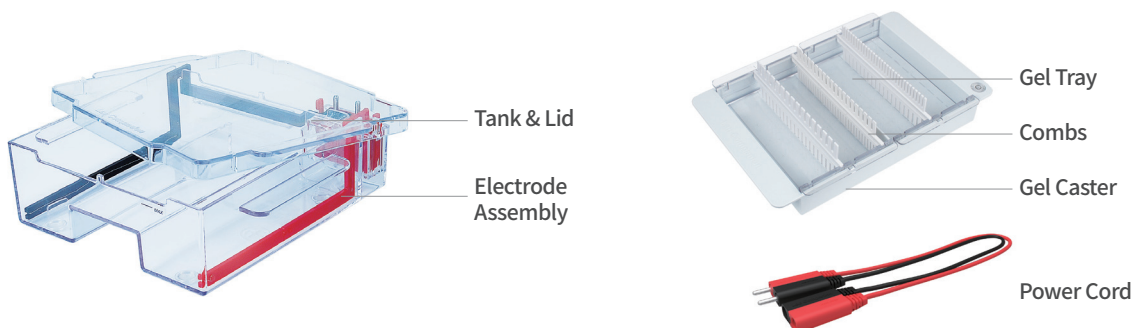


Direction of progress is clearly observed



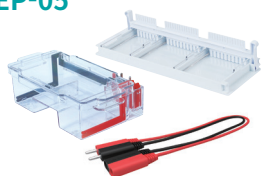
Anti-slip rubber feet

## ▣ Name of each part



## ▣ Product composition

### EP-05



### EP-10



### EP-18



| Model  | EP-05  | EP-10  | EP-18  |
|--|--|--|--|
| <b>Electrophoresis Unit (Tank &amp; Lid, Electrode, Power Cord)</b>  | 1 set  | 1 set  | 1 set  |
| <b>Gel Caster</b>  | 1 ea   | 1 ea   | 1 ea   |
| <b>Gel Tray</b>  | 3 ea   | 2 ea (Up to 2 combs can be installed per tray)   | 1 ea (Up to 6 combs can be installed on tray)  |
| <b>Max. Sample Throughput</b>  | 39 ea (Marker 1 ea)  | 132 ea (Marker 4 ea)   | 198 ea (Marker 6 ea)   |
| <b>Double-sided Comb<br/>Number of upper well /<br/>Number of lower well<br/>(thickness x quantity provided)</b> | 27/40 well* (1.0 mm x 1ea)<br>(40 well: 15 + 15 + 10<br>27 well: 10 + 10 + 7<br>See the image on the bottom) | 20/31 well* (1.0 mm) x 2ea<br>20/31 well* (1.5 mm) x 2ea<br>16/20 well* (1.0 mm) x 2ea<br>16/20 well* (1.5 mm) x 2ea<br>25/34 well* (1.0 mm) x 2ea<br>25/34 well* (1.5 mm) x 2ea | 20/31 well* (1.0 mm) x 2ea<br>20/31 well* (1.5 mm) x 2ea<br>16/20 well* (1.0 mm) x 2ea<br>16/20 well* (1.5 mm) x 2ea<br>25/34 well* (1.0 mm) x 2ea<br>25/34 well* (1.5 mm) x 2ea |
|  |  |  |  |

\* Number of wells depending on the direction of use.

## Comb specification

| Comb                            | 27/40 well |            | 20/31 well |            | 16/20 well |            | 25/34 well |            |
|---------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Well (ea)</b>                | 27         | 40         | 20         | 31*        | 16*        | 20         | 25         | 34         |
| <b>Well width (mm / inch)</b>   | 4.8 / 0.19 | 3.0 / 0.11 | 4.8 / 0.19 | 3.0 / 0.11 | 6.0 / 0.24 | 4.8 / 0.19 | 4.5 / 0.18 | 3.0 / 0.11 |
| <b>Max. loading volume (μl)</b> | 30         | 20         | 48 / 72**  | 30 / 45**  | 60 / 90**  | 48 / 72**  | 45 / 68**  | 30 / 45**  |

\* Equal spacing with multichannel pipettes makes it convenient for loading large quantities of samples.

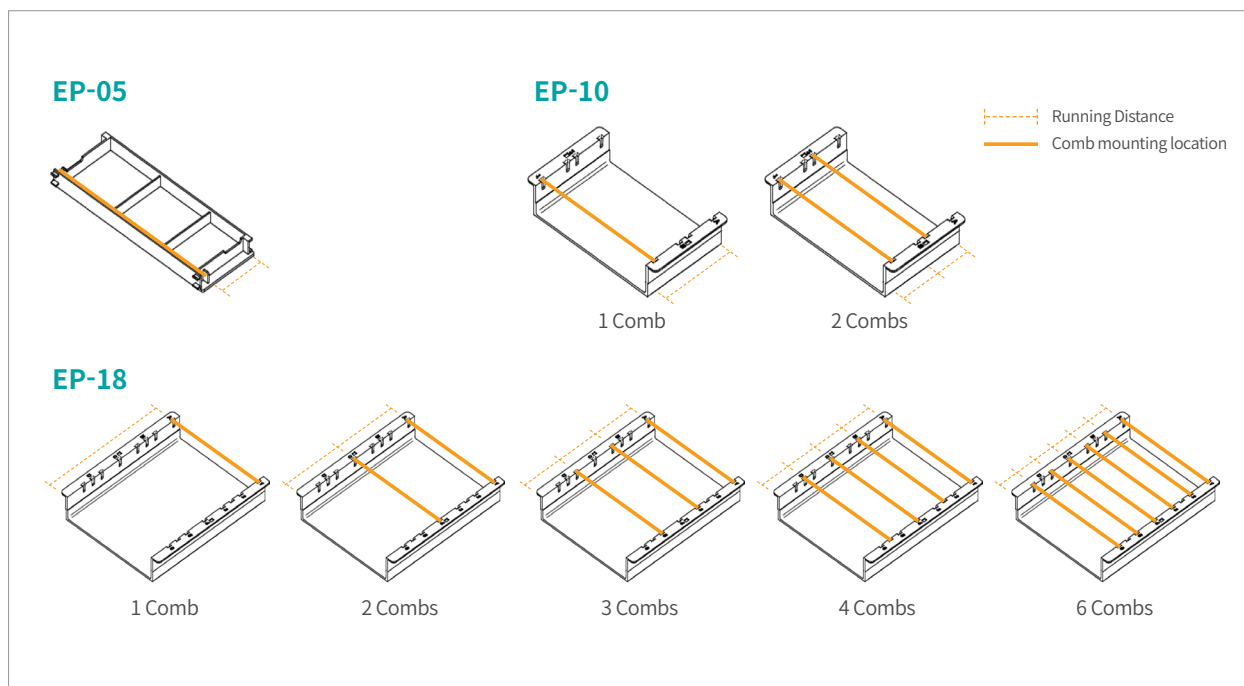
\*\* Volume per well is 1.0mm/1.5mm depending on the thickness of the comb

## Specification

| Model                                    |  | EP-05  | EP-10                                   | EP-18                                   |
|--|--|--|---|---|
| <b>Buffer capacity (L / cu ft)</b>       |  | 0.5 / 0.017  | 1 / 0.035                               | 1.8 / 0.063                             |
| <b>Material</b>                          | Electrophoresis tank, Lid              | PC (Polycarbonate)   |   |   |
|  | Electrodes                             | Platinum wire  |   |   |
| <b>Dimensions (W x D x H, mm / inch)</b> | Electrophoresis tank                   | 219 x 134 x 71<br>/ 8.62 x 5.27 x 2.79                                 | 219 x 214 x 71<br>/ 8.62 x 8.42 x 2.79  | 387 x 214 x 71<br>/ 15.24 x 8.42 x 2.79 |
|  | Gel caster                             | 254 x 87 x 18<br>/ 10 x 3.42 x 0.79                                    | 167 x 264 x 30<br>/ 6.57 x 10.39 x 1.18 | 167 x 264 x 30<br>/ 6.57 x 10.39 x 1.18 |
|  | Gel tray                               | 81 x 82 x 17 / 3.19 x 3.23 x 0.67<br>58 x 82 x 17 / 2.28 x 3.23 x 0.67 | 181 x 103 x 30<br>/ 7.12 x 4.05 x 1.18  | 181 x 206 x 30<br>/ 7.12 x 8.11 x 1.18  |
|  | Comb                                   | 225 x 45 / 8.86 x 1.77   | 158 x 46 / 6.22 x 1.81                  | 158 x 46 / 6.22 x 1.81                  |
|  | Electrophoresis unit weight (kg / lbs) | 0.39 / 0.86  | 0.6 / 1.32                              | 0.93 / 2.05                             |
| <b>Cat. No.</b>                          |  | <b>AAAJ6011</b>  | <b>AAAJ6021</b>                         | <b>AAAJ6031</b>                         |

## Various double-sided combs depending on sample volume and quantity

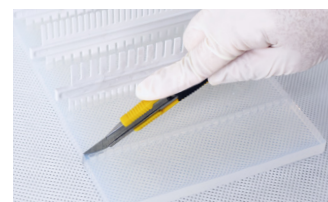
There are 3 types of Lab Companion electrophoresis system. The tray width is 82/103/206mm depending on the model. The experimenter creates gel by installing a suitable comb considering the number of samples that can be tested at one time and the running distance. When multiple combs are installed, it is convenient to cut them with a knife and soak in a buffer for the next experiment.



\* Comb mounting location and running distance display

| Model                               | EP-05     |           | EP-10     |            | EP-18     |           |           |           |
|-------------------------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|
| <b>Installable comb amount</b>      | 1         | 1         | 2         | 1          | 2         | 3         | 4         | 6         |
| <b>Max. sample throughput</b>       | 10        | 34        | 68        | 34         | 68        | 102       | 136       | 204       |
| <b>Running distance (mm / inch)</b> | 77 / 3.03 | 90 / 3.54 | 45 / 1.77 | 192 / 7.55 | 96 / 3.77 | 64 / 2.51 | 45 / 1.77 | 32 / 1.25 |

Running distance per quantity of comb used and maximum number of samples that can be loaded



Cutting the gel to use according to the number of experimental samples



# Power Supply for Electrophoresis System



Multipurpose power supply can be used for horizontal agarose gel, vertical polyacrylamide gel running, various blotting experiments, etc.

## Structural functional features

- Power supply optimized for electrophoresis system.
- It consists of four sets of output terminals, so four electrophoresis devices can be used at the same time.
- Space-efficient use with stackable design.
- Folding legs on the lower part make it convenient to operate and check the status.
- Constant voltage and constant current, convenient use as two operation modes provided.
- PC communication via RS-232 Port.



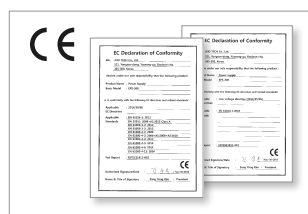
EPS-300

## Use convenience features

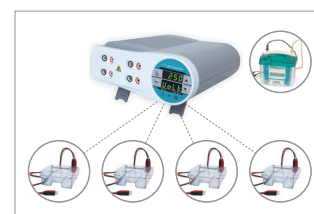
- Accurate current and voltage by microprocessor.
- Pause and restart functions available.
- Count-down timer. (up to 99 hours and 59 minutes)
- Displaying the operation time.
- Safety function that cuts off the electric output when no load or sudden change of load is detected.
- Possible to monitor experimental conditions such as Voltage, current value, change the setting value, stopping and reactivating. (when purchased LC GreenBox)

## Outstanding safety

- Rapid resistance change detection and detection of current leakage to prevent accidents by cutting power.
- Protection against over-current/over-voltage/over-power.
- Over-temperature protection.
- Safer to fire due to the exterior made of flame-retardant plastic.



Safe use with CE certification for electrical safety



Compatible with other companies' products and can be connected to up to 4 devices at the same time



Efficient time management with a mobile monitoring system (optional)



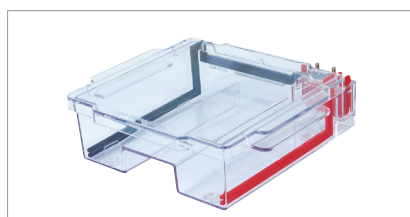
Space efficient due to a structure that can be stacked in two or more layers without slipping

## Accessories

| Cat. No. | Description | Dimension (W x D x H, mm / inch)  |
|----------|-------------|-----------------------------------|
| AAAQ1011 | LC GreenBox | 156 x 94 x 34 / 6.14 x 3.7 x 1.34 |

## Specification

| Model                             | EPS-300   |
|-----------------------------------|---|
| Output range                      | 5~250V, in 1V increments<br>10mA~3000mA, in 10mA increments (Max. 300W) |
| Type of output                    | Constant voltage mode, constant current mode                            |
| Output terminals                  | 4 pair recessed banana jack in parallel                                 |
| Timer                             | 1min to 99hr 59min  |
| Pause/restart function            | Yes   |
| Display                           | 7-segment 4 digit LED, 2 line   |
| Operating conditions              | 0 ~40°C, 0~80% RH   |
| Dimensions (W x D x H, mm / inch) | 240 x 310 x 100 / 9.45 x 12.2 x 3.94                                    |
| Net weight (kg /lbs)              | 2.5 / 5.51  |
| Electrical requirement            | 100-240VAC, 50/60Hz   |
| Current consumption (A)           | 3.6/1.5   |
| Cat. No.                          | AAAJ6541  |



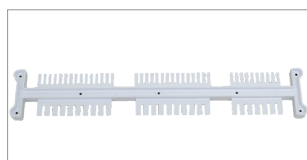
Electrophoresis Unit



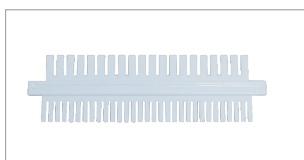
Gel Caster Unit



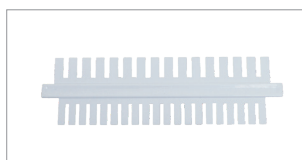
Electrode Assembly



Comb 27/40 well



Comb 20/31 well



Comb 16/20 well



Comb 25/34 well

| Cat. No. | Description  | Model    |
|----------|--|----------|
| AAAJ6501 | Electrophoresis unit (tank, lid, electrode assembly) | EP-05    |
| AAAJ6502 | Electrophoresis unit (tank, lid, electrode assembly) | EP-10    |
| AAAJ6503 | Electrophoresis unit (tank, lid, electrode assembly) | EP-18    |
| AAAJ6511 | Gel caster unit (gel caster, gel tray)               | EP-05    |
| AAAJ6512 | Gel caster unit (gel caster, gel tray)               | EP-10    |
| AAAJ6513 | Gel caster unit (gel caster, gel tray)               | EP-18    |
| AAAJ6521 | Electrode assembly                                   | EP-05    |
| AAAJ6522 | Electrode assembly                                   | EP-10    |
| AAAJ6523 | Electrode assembly                                   | EP-18    |
| AAAJ6531 | Comb 27/40 well, thickness 1 mm - (5ea)              | EP-05    |
| AAAJ6532 | Comb 20/31 well, thickness 1 mm - (5ea)              | EP-10/18 |
| AAAJ6533 | Comb 20/31 well, thickness 1.5 mm - (5ea)            | EP-10/18 |
| AAAJ6534 | Comb 16/20 well, thickness 1 mm - (5ea)              | EP-10/18 |
| AAAJ6535 | Comb 16/20 well, thickness 1.5 mm - (5ea)            | EP-10/18 |
| AAAJ6536 | Comb 25/34 well, thickness 1 mm - (5ea)              | EP-10/18 |
| AAAJ6537 | Comb 25/34 well, thickness 1.5 mm - (5ea)            | EP-10/18 |

## Lab Companion Korea

### Head office & factory

Add. 153, Techno 2-ro, Yuseong-gu, Daejeon, 34025, South Korea

### International sales office

Add. 10F-1005, 219, Gasandigital 1-ro, Geumcheon-gu, Seoul, 08501, South Korea

Tel. +82 2 2627 3816

Fax +82 2 3143 1824

E-mail [overseas@jeiotech.com](mailto:overseas@jeiotech.com)

### Lab Companion U.S.A. - Jeio Tech, Inc.

Add. 19 Alexander Road, Ste. 7, Billerica, MA 01821-5094, U.S.A.

Tel. +1 781 376 0700 Fax +1 781 376 0704

E-mail [info@jeiotech.com](mailto:info@jeiotech.com)

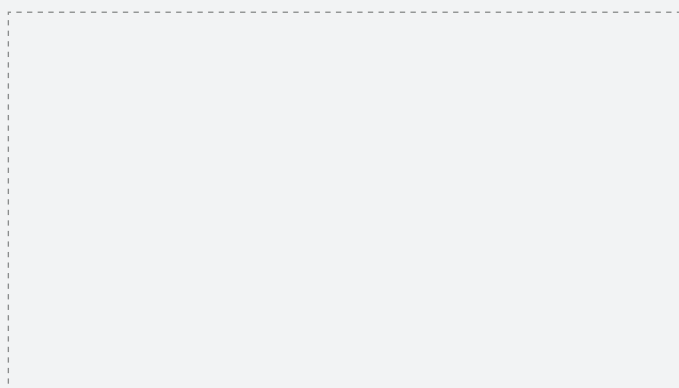
### Lab Companion CHINA

Add. B-705, Jingting Bldg. No.1000 Hongquan Rd, Minhang district, Shanghai, P.R. 201103 China

Tel. +86 21 5108 9161 Fax +86 21 5168 5414

E-mail [jack@jeiotech.com](mailto:jack@jeiotech.com)

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