# **Lab Companion**



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)



### 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



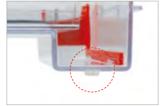
Easy electrode removal

# 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.

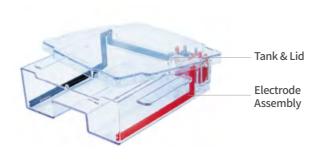


Direction of progress is clearly observed



Anti-slip rubber feet

### ✓ Name of each part





### Product composition







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

<sup>\*</sup> Number of wells depending on the direction of use.

### **Comb specification**

•								
Comb	27/40	) well	20/3	1 well	16/20	) well	25/34	l well
Well (ea)	27	40	20	31*	16*	20	25	34
Well width (mm / inch)	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
Max. loading volume (μl)	30	20	48 / 72**	30 / 45**	60 / 90**	48 / 72**	45 / 68**	30 / 45**

<sup>\*</sup> 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

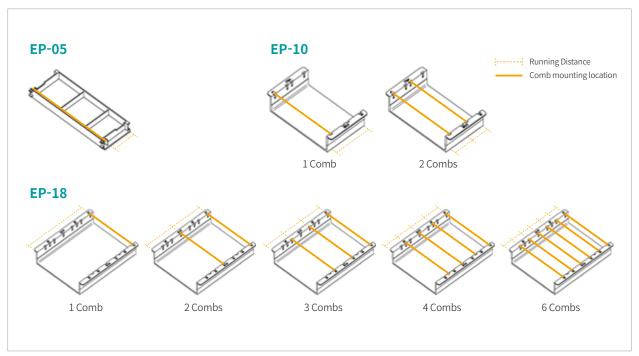


### **Specification**

Model		EP-05	EP-10	EP-18			
Buffer capacity (L / cu ft)		0.5 / 0.017 1 / 0.035		1.8 / 0.063			
Material Electrophoresis tank, Lid		PC (Polycarbonate)					
Material	Electrodes	Platinum wire	Platinum wire				
	Electrophoresis tank	219 x 134 x 71 / 8.62 x 5.27 x 2.79	219 x 214 x 71 / 8.62 x 8.42 x 2.79	387 x 214 x 71 / 15.24 x 8.42 x 2.79			
Dimensions (W x D x H, mm / inch)  Gel caste	Gel caster	254 x 87 x 18 / 10 x 3.42 x 0.79	167 x 264 x 30 / 6.57 x 10.39 x 1.18	167 x 264 x 30 / 6.57 x 10.39 x 1.18			
	Gel tray	81 x 82 x 17 / 3.19 x 3.23 x 0.67 58 x 82 x 17/ 2.28 x 3.23 x 0.67	181 x 103 x 30 / 7.12 x 4.05 x 1.18	181 x 206 x 30 / 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			
Cat. No.		AAAJ6011	AAAJ6021	AAAJ6031			

### 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.



 $<sup>^{\</sup>star}$  Comb mounting location and running distance display

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



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.

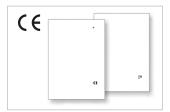
### Use convenience features

- 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 flameretardant 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 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

### **Lab Companion**







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

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