



**Wealtec Corp.**

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**Electrophoresis GES Family  
GES and mini-GES Cell system**

**Installation and Operation Instruction Manual**

Item # 01010

**Version 2.0**

*\*This instrument is intended for laboratory use only*

## Packing list

**GES**     **mini GES**

\_\_\_\_\_ 1 unit (buffer reservoir and safety-lid assembly)

\_\_\_\_\_ 2 dams-claw

\_\_\_\_\_ 1 \_\_\_\_\_ cm UV –transparent tray

\_\_\_\_\_ 1 instrument manual

\_\_\_\_\_ 2 adapter (black & red)

\_\_\_\_\_ 1 leveling bubble

\_\_\_\_\_ 2 1.0mm comb     10-teeth     15-teeth     20-teeth

\_\_\_\_\_ 1 warranty card



### **Wealtec Corp.**

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## **A. Important Notice**

The instrument is designed for laboratory usage only.

Before setting up and operating GES and mini-GES electrophoresis system, please carefully read these instructions to get familiarized with product's installation and operation process. Instructions shall be read by well-trained individuals or by technical people from Wealtec Corp. before operating the instruments.

Any improper usage of the instruments may cause damage, please refer to the safety notice.

The instrument shall not be modified or altered in any way. Any modification or alteration will void the warranty, void the regulatory certifications and create potential safety hazard. Wealtec is not responsible for any injury or damage caused by using the instrument for any non-intended purpose or by modifying the instrument by any person who is not authorized by Wealtec Corp.

### **Warranty**

GES and mini-GES electrophoresis system is warranted to be free from defects in materials and workmanship for a period of one year from the original invoice date under normal usage. Any defects to occur during warranty period, Wealtec Corp. will repair or replace defective products or parts without charge unless the defects arise from below conditions. The defects described below are specially excluded from Wealtec warranty policy.

1. Improper operation of the instrument
2. Repair or modification by any person who is not authorized by Wealtec Corp.
3. Damage caused by any (in)-direct accident, neglect or misuse.
4. Damage caused by disaster.
5. Damage caused by any improper solvents or samples

### **Technical and Service contact**

Most of the operation details are described in the instruction manual. Operator can find the possible solution according to the instructions. For any other technical/ service questions, please contact your local representative or contact Wealtec world-wide service center by E-mail: [support@wealtec.com](mailto:support@wealtec.com)

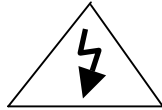
### **Safety notice**

#### **Certification**

Wealtec GES and mini-GES cell are designed to meet the international electrical safety standard EN61010 and LVD regulations. These products are with CE marking. Operation according to the guidance of instruction manual is certificated safe. Any modification or alteration will void the warranty, void the regulatory certifications and create potential safety hazard.



## Caution Information



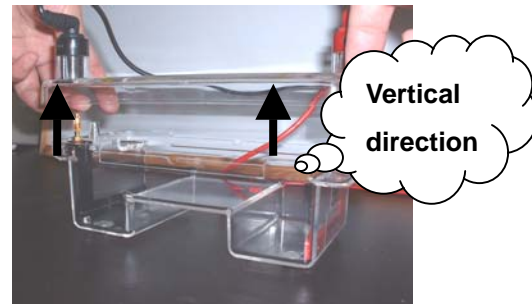
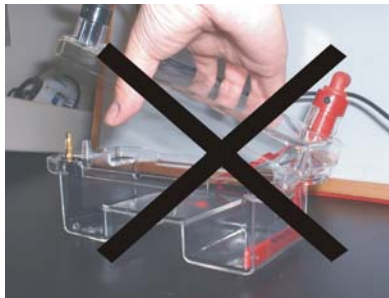
Caution, risk of electric shock



Caution

1. Do not apply electricity to the GES and mini-GES without attached safety-lid cover. Risk of electric shock to the operator might occur without safety-lid cover protection.
2. Abrasive or high alkaline cleaners may destroy the surface protection coating of GES and mini-GES cell.
3. Do not autoclave the GES and mini-GES cell.
4. Expose the unit to organic solvent like alcohol, chlorinated hydrocarbons and aromatic hydrocarbons will cause damage to the acrylic material of GES and mini-GES cell.
5. The GES and mini-GES units may be damaged when exposed to temperature  $> 60^{\circ}\text{C}$ .
6. It's not recommended to remove the replaceable L-form electrode with banana plug frequently. This frequent action may cause damage to the L-form holder slot of the reservoir.
7. Improper operation when remove the safety-lid cover of GES and mini-GES cell can

damage the L-form electrode with banana plug and its holder slots of the reservoir. With help of the uni-directional pegs, operator shall remove the safety-lid cover in vertical direction without curved angel. Improper operation can break both holding parts of the L-form electrode. Refer to the pictures below to identify the incorrect (Left) and correct (Right) operation.



## **B. Introduction**

The GES systems (Gel Electrophoresis System), GES and mini-GES cell, are a horizontal electrophoresis apparatus, in which the whole gel is submerged in buffer during electrophoresis, known as 'submarine' or 'submerged' gel system. Ability to support weak, diluted gels and excellent performance, these systems are ideal for high resolution of all sizes of DNA and RNA separation. Wealtec ELITE Power Supplies are recommended for GES and mini-GES cell.

### Specifications

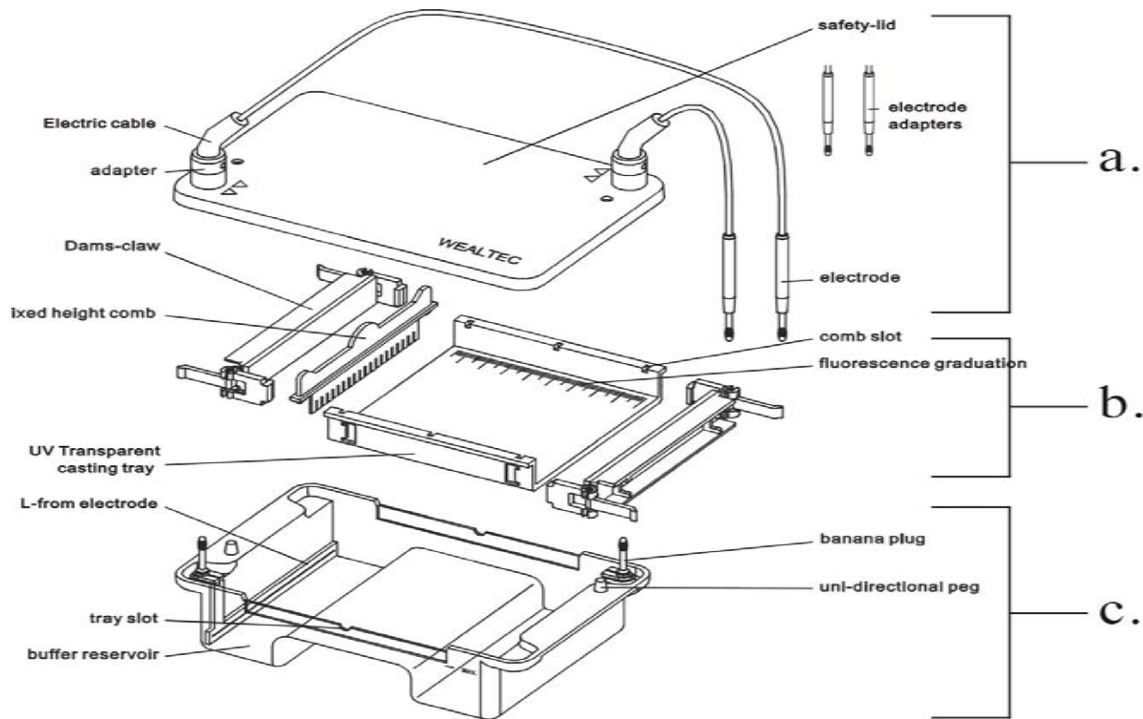
	GES cell	Mini-GES cell
Gel size (L x W)	7 x 15; 10 x 15; 15 x 15 cm	6.5 x 7; 10 x 7 cm
Tray slot number	3 (two end-side and middle)	1 ( 6.5 x 7 cm tray), 2 ( 10 x 7 cm tray )
Applicable sample numbers	15-40	10-30
Minimum buffer volume*	650 mL	200 mL
Maximum buffer volume*	1,000 mL	270 mL
Exterior Dimensions (L x W x H)	27 x 17.5 x 10 cm	20 x 9.5 x 8.5 cm
Casting module	Dams-Claw for GES	Dams-Claw for mini-GES
Selectable comb teeth	15, 20	10, 15
Comb thickness	0.75, 1.0, 1.5 mm	
Florescence ruler	Labeled on the gel tray	
UV transmittable	Whole unit including gel tray	
Coverlid and reservoir material	Acrylic Injection mold	
Warranty	1 year	
Certification	CE	
Operating condition	Temperature: 0-40°C Humidity: 10% to 90% R.H. Non-condensing	
Recommend power supply	Elite 200, Elite 300 & 300 Plus and mini-Elite Power Supply	

\* Buffer volume measured from the reservoir without gel and tray.



## Product Description

Wealtec GES Family is designed for general applications of horizontal Nucleic Acid Gel Electrophoresis. The GES and mini-GES cells are useful for fast running and screening of nucleic acid samples in the agarose gel matrix. The high quality designs enable electrophoresis high resolution and reproducibility results.



### Individual functional descriptions ---

- a. **Upper lid** --- Including acrylic safety-lid cover, red & black electric cables with electrodes and a pair of electrode adapters. The safety-lid design prevent operator from risk of electric shock and the samples can easily be visualized through the clear transparent acrylic material during electrophoresis. Safety-lid's standard electrodes and the pair of electrode adapters of the GES and mini-GES cells are suitable for various kinds of power supplies.
- b. **Casting tray with accessory parts** --- Patented Dams-claw casting gates are suitable for different length of Wealtec's standard casting tray. Casting tray is fully UV-transparent with pre-labeled fluorescence graduation. The fixed fluorescence graduation provides a more precise measurement of the sample mobility. The comb slots on dammed- tray helps position the combs. GES casting trays have three comb slots for convenience. Mini-GES cell casting trays have one (6.5 x 7 cm) or two (7 x 10 cm) comb slots. Standard package of GES and mini-GES cell system comes with two 1.0 mm thick fixed-height combs 15 & 20 teeth and 10 & 15 teeth respectively.
- c. **Buffer reservoir with L-form electrode** --- The buffer reservoir is also injected by acrylic material with full UV-transparent ability. This helps operator directly monitor the running of the agarose gel when put on the UV transilluminator. The simple replaceable L-form electrode design helps operators exchange the electrode by themselves. The uni-directional pegs prevent operator mistaken the assembly direction when attach the upper safety-lid. The - **MAX** label aside the buffer reservoir indicate the maximum buffer level after gel with casting tray put in.

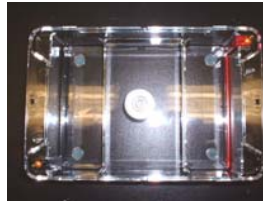
## **C. Installation & Standard Operation**

### **Package list:**

	<b>GES / Mini-GES</b>
<b>Item</b>	<b>Quantity</b>
Buffer reservoir	1
Safety-lid (with electric cables electrodes)	1
Electrode adapters	One pair
L-form electrode with banana plug (Red and Black)	One pair
UV-transparent casting tray	1
Dams-claw	One pair
Fixed-height comb	2
Leveling bubble	1
Warranty card	1
Instruction manual	1

## Installation & Standard Operation:

1. Unpack the package and take the GES/ mini-GES cell out of the box. Remove the plastic protection outside the cell
2. Place the GES/ mini-GES on a stable, flat surface and proper environment for operation. Place the leveling bubble on the tray position of the cell to check for horizontal level of the cell.



3. Casting the Gel: Bend the claws of the Dams-claw, place the Dams-claw's long silicon rubber side towards tray side and attach claws to gel tray's anchor points ( Fig A to C ) . Be sure to attach claws to both sides of the gel tray's anchor points using your fingers as picture shown below (Fig D). Use both thumbs simultaneously to press down the two lock plates in direction towards Dam-claw long side until locked into place ( Fig E to F ) . Repeat above steps to block the other side of the gel tray as (Fig G). Place the assembled gel tray on a flat surface and check the horizontal level with leveling bubble ( Fig H ) . If available, we recommend casting the gel on a leveling desk. Gently pour the agarose solution\* ( $< 60^{\circ}\text{C}$ ) into the gel tray without bubbles and place the comb in the gel tray slot ( Fig I to J ) . Gel solidification takes around 30-60 minutes after which it becomes transparent white ( Fig K ) .

\* Please refer to the below descriptions in “DNA electrophoresis experiments” section to know more about the preparation of agarose gel solution.



4. Position the ready-to-run gel with gel tray: Carefully remove the dam-claws from the gel tray. Place the gel tray with agarose gel at the middle of the gel reservoir where the slots anchors the tray.

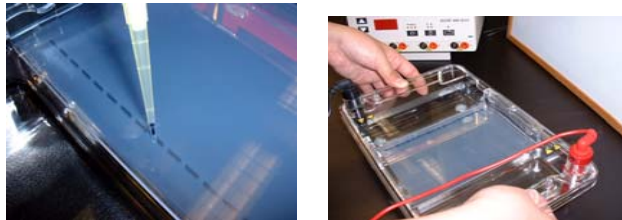
**Note:** The direction of gel electrophoresis shall run from minus - (black cathode electrode) to plus+(red anode electrode). Gently pour the running buffer to submerge the gel.

**Note:** Do not exceed the –MAX label level, too much buffer may cause buffer leakage.



5. Sample loading: Load the samples with loading dye with aid of micropipette. Gently but firmly attach the safety-lid cover.

**Note:** Make sure safety-lid cover is in place and properly attached to buffer reservoir and banana electrodes.



6. Running the gel: Plug the cable electrodes to Elite Power Supply, turn on the power and set the desired values for gel electrophoresis. When electrophoresis starts, operator can visualize the bubbles generated from the L-form electrodes platinum wires and tracking dyes mobility by the electro-flow.



7. Stop running: When electrophoresis completed, turn off the power supply and remove the electrode cables from the output of the power supply for safety. Remove safety-lid cover in vertical direction without curved angel. Refer to pictures under “Caution Information” section above to identify the incorrect (Left) and correct (Right) operation. Thereafter carefully take out the gel tray with agarose gel for further gel staining and visualization procedures.

## **D. DNA Electrophoresis Experiments**

1. Dissolve the appropriate weight of agarose in the chosen electrophoresis buffer to give the desired final concentration in a beaker that is 4 times the volume of the solution (Table 1 to 3). Cover the beaker and leave a small hole for ventilation.

**Table 1. Gel concentration vs. DNA separation**

Gel concentration (%)	DNA size (Kb)
0.5	1-30
1.0	0.5-10
1.5	0.2-3
2.0	0.01-0.5

**Table 2. Electrophoresis buffer**

Buffer	Final concentration	Stock solution/ liter	Comments
TBE (Tris-borate-EDTA)	0.5x or 1x	<b><u>5x</u></b> Tris base 54g Boric acid 27.5 g 20 ml 0.5 M EDTA (pH 8.0)	High buffering capacity High ionic strength Good resolution for small DNA (< 1 kb)
TAE (Tris-acetate-EDTA)	1x	<b><u>50x</u></b> Tris base 242 g Glacial acetic acid 57.1 ml 100 ml 0.5 M EDTA (pH 8.0)	Low buffering capacity Low ionic strength Good resolution for large DNA (12 kb)



**Table 3. Tray volume**

Tray					
Model	GES			Mini-GES	
Tray size (cm)	7 x 15	10 x 15	15 x 15	6.5 x 7	10 x 7
Volume (ml) <sup>**</sup>	105	150	225	45.5	70
Routine use volume (ml)	50	80	100	20	30

<sup>\*\*</sup> Indicate the volume under 1 cm of gel thickness.

2. Heat the solution to completely dissolve the agarose as below:

- a) In a magnetic hot plate with stirrer function. Or
- b) In a microwave oven. Remember after the first heating or re-heating, gently swirl the beaker to resuspend the agarose solution.

3. Allow the solution to cool to 50°C before pour it all into the casting tray. Do not use ice-cold water.

**Note:** In order to extend the lifetime of the GES system tray, avoid pouring hot agarose solution on it (>60°C).

4. Optional: Add appropriate Ethidium bromide.

**Note:** Electrophoresis carried out in the presence of Ethidium bromide will alter the running properties of DNA and may alter the order of linear and supercoiled bands along the gel.

5. Pour the agarose gel solution to the gel tray assembled with dam-claws and position the ready-to-run gel as described above in “Installation & Standard Operation” section, point 3 & 4.
6. Pour electrophoresis buffer (the same buffer as for agarose melting) into the buffer reservoir until its level is about 5 mm above the agarose gel (lower than –MAX label). Recommended buffer listed in Table 4.

**Table 4. Buffer reservoir volume**

<b>Buffer reservoir</b>		
<b>Model</b>	<b>GES</b>	<b>Mini-GES</b>
Buffer volume (ml)	750	240

7. Gently remove the comb vertically and load the samples. To each sample add 0.1 times its volume of loading buffer to increase their densities. Optional: Add appropriate Ethidium bromide into the samples. Samples are loaded into the wells with aid of micropipette (maximum loading volume see Table 5).

**Table 5. Well volume**

Comb				
Model	GES		Mini GES	
Teeth number	15	20	10	15
Wide (mm)	Volume (ul) *			
1.5	89	73	---	---
1.0	59	49	44	29
0.75	44	36	33	22

\* Indicates the volume under 1 cm of gel thickness per well.

7. When all samples are loaded, attach safety-lid cover with orientation help from reservoir's uni-directional pegs.
8. Connect the cable electrodes to an appropriate power supply and start the run. Wealtec ELITE power supplies are recommended. For most purposes, run agarose gels at 5 to 8 V/cm (the distance between the L-format electrode).
9. The running time depends on the size range of DNA to be resolved. Migration can be tracked by Bromophenol blue and Xylene cyanol FF in the loading buffer.

**Note:** To monitor the movements of the bands stained with EtBr during electrophoresis, place the unit on an UV transilluminator or utilize a portable UV light.

**Table 6. Dye migration (bp)**

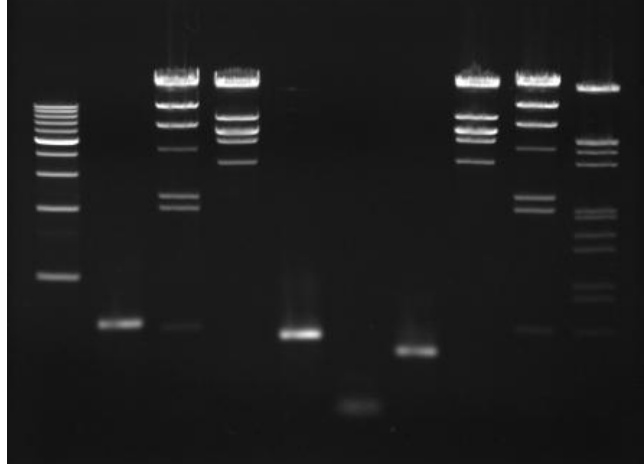
Gel concentration (%)	Bromophenol blue		Xylene cyanol	
	1x TAE	1x TBE	1x TAE	1x TBE
0.5	~1,000	~400	~11,000	~6,000
1.0	~350	~180	~2,300	~1,600
1.5	~150	~70	~1,000	~700
2.0	~60	~30	~500	~400

10. Nucleic acids visualization:

- a. Turn off and disconnect the cable electrodes from power supply, open the safety-lid cover and remove the tray from the buffer reservoir.
- b. Ethidium bromide ( EtBr ) staining: Remove the agarose gel carefully from the tray and submerge the gel for 10 minutes in 5 ug/ml of EtBr in water. Replace EtBr solution by deionized water and submerge the gel for 30 minutes.

**Note:** For faster destaining process, replace deionized water 2-3 times every 5-10 minutes.

- c. Carefully take the gel out of the staining box and place it on Wealtec UV-transilluminator or Dolphin-Doc gel image UV-box to visualize the experiment result.



**DNA EtBr staining gel electrophoresis result : 1% agarose in 1x TAE buffer running at 72V for 1 hr by mini-GES cell (6.5x7 cm) with Elite power supply.**

## **E. RNA electrophoresis Experiments**

- ※ All water and working solution should be treated with 0.1% DEPC.
- ※ Always wear gloves
- ※ Reagents used in RNA electrophoresis application may damage the acrylic material of gel tray and buffer reservoir. Operator shall not expose the cell to reagents for too long period of time.

1. Dissolve the appropriate weight of agarose in sterilized water in a beaker that is 4 times the volume of the solution to give the desired final concentration (1.5% suitable for 0.5–8.0 kb size range). Cover the beaker and leave a small hole for ventilation.

**Table 7. Electrophoresis buffer**

Buffer	Final concentration	Stock solution	Comments
MOPS buffer	1x	<u>10x</u> MOPS 0.2 M Sodium acetate 20 mM EDTA (pH 8.0) 10 mM	Do not autoclave and exposure to light

2. Heat the solution in a microwave oven to completely dissolve the agarose. Remember after the first heating or re-heating, gently swirl the beaker to resuspend the agarose solution.
3. Allow the solution to cool to 50°C before pour it into the casting tray. Do not use ice-cold water.

**Note:** In order to extend the lifetime of the GES system tray, avoid pouring hot agarose solution on it (>60°C).

4. Add 1x electrophoresis buffer and 18% deionized formaldehyde. Optional: Add appropriate EtBr.

5. Pre-treat the gel tray and buffer reservoir as to procedures below to ensure free of RNase contamination.
  - a. Place the tray (UV-transparent casting tray) on a fume hood and check horizontal level with help of leveling bubble.
  - b. Assemble the tray with dams-claws as described above in “Installation & Standard Operation” section, point 3 & 4.
  - c. Clean the tray and comb with detergent solution, rinse in deionized water, dry with ethanol and add a solution of 2% H<sub>2</sub>O<sub>2</sub>. Rinse with deionized water after 10 minutes.
6. Pour the agarose gel solution to the gel tray assembled with dam-claws and position the ready-to-run gel as described above in “Installation & Standard Operation” section, point 3 & 4.
7. Pour electrophoresis buffer (the same buffer as for agarose melting) into the buffer reservoir until its level is about 5 mm above the agarose gel (lower than –MAX label). Recommended buffer listed in Table 7.
8. Gently remove the comb vertically and load the samples. To each sample add 1x electrophoresis buffer, 20% formaldehyde and 50% formamide. Optional: Add appropriate Ethidium bromide into the samples. Heat the sample for 60 minutes at 55°C and cool the sample on ice bath for 10 minutes. Before loading, add and mix 1x loading buffer to the bottom of the tubes with the samples and centrifuge for 5 seconds. Place the tube in ice bath

before loading. Samples are loaded into the wells with aid of micropipette (maximum loading volume see Table 5).

**Table 8. Loading buffer**

Buffer	Final concentration	Stock solution
Loading buffer	1x	<u>10x</u> Glycerol 50% (treat with DEPC water) EDTA (pH 8.0) 10 mM 0.20% Bromophenol blue 0.20% Xylene cyanol FF

9. When all samples are loaded, attach safety-lid cover with orientation help from reservoir's uni-directional pegs.
10. Connect the cables electrodes to an appropriate power supply and start the run. Wealtec ELITE Power Supplies are recommended. For most purposes, run agarose gels at 5 to 8 V/cm (the distance between the L-format assembly).
11. The running time depends on the size range of RNA to be resolved. Migration can be tracked by bromophenol blue and xylene cyanol FF in the loading buffer.

**Note:** To monitor the movements of the bands during electrophoresis, place the unit on an UV transilluminator or utilize a portable UV light when the samples or gel containing EtBr.



## 12. Nucleic acids visualization:

- a. Turn off and disconnect the cables electrodes from power supply, open the safety-lid cover and remove the tray from the buffer reservoir.
- b. Ethidium bromide ( EtBr ) staining: Remove the agarose gel carefully from the tray and submerge the gel for 10 minutes in 5 ug/ml of EtBr in water. Replace EtBr solution by deionized water and submerge the gel for 30 minutes.

**Note:** For faster destaining process, replace deionized water 2-3 times every 5-10 minutes.

- c. Carefully take the gel out of the staining box and place it on Wealtec UV transilluminator or Dolphin-Doc gel image UV-box to visualize the experiment result.

## F. Care and maintenance

1. GES and mini-GES cells shall be washed after every run by clean water flow. Do not use hard tissue to scrape the surface. If necessary, soft sponge is applicable to clean the buffer reservoir and gel tray. Rinse with the deionized water to ensure no ionic material remained.



2. L-form electrode's platinum wire will decay after numerous running. Operator can replace the L-form electrodes without service engineer. Wealtec service bulletin No.03-01 is available for detail replacement process with guideline pictures. Please contact Wealtec or local representative to access the information.

## **G. Order Information**

<b>Item #</b>	<b>Description</b>
<b><u>Electrophoresis System*</u></b>	
1011000	Mini GES Cell complete system, mini GES-cell accompanied with a 10x7 cm tray, a 1.0 mm 10 teeth and a 1.0 mm 15 teeth fixed-height comb.
1011001	Mini GES Cell complete system, mini GES-cell accompanied with a 6.5x7 cm tray, a 1.0 mm 10 teeth and a 1.0 mm 15 teeth fixed-height comb.
1011002	GES Cell complete system, GES-cell accompanies with a 10x15 cm tray, a 1.0mm 15 teeth and a 1.0 mm 20 teeth fixed –height comb.
1011003	GES Cell complete system, GES-cell accompanies with a 7x15 cm tray, a 1.0mm 15 teeth and a 1.0 mm 20 teeth fixed-height comb.
1011004	GES Cell complete system, GES-cell accompanies with a 15x15 cm tray, a 1.0mm 15 teeth and a 1.0 mm 20 teeth fixed-height comb.

\* The complete system contents Buffer reservoir, Safety lid (with 2 adapters and electrical cables), one pair of L-form electrode (red and black), UV-transparent casting tray, one pair of Dams-claw, 2 different teeth fixed-height comb, Leveling bubble, Warranty card, Instruction manual

### **Electrophoresis System with power supply\*\***

1011011	Mini GES Cell ELITE 300 Power Supply System (6.5*7cm Tray), 110V
1011012	Mini GES Cell ELITE 300 Power Supply System (6.5*7cm Tray), 220V
1011013	Mini GES Cell ELITE 300 Power Supply System (10*7cm Tray), 110V
1011014	Mini GES Cell ELITE 300 Power Supply System (10*7cm Tray), 220V
1011015	Mini GES Cell ELITE 300 Plus Power Supply System (6.5*7cm Tray), 110V
1011016	Mini GES Cell ELITE 300 Plus Power Supply System (6.5*7cm Tray), 220V
1011017	Mini GES Cell ELITE 300 Plus Power Supply System (10*7cm Tray), 110V
1011018	Mini GES Cell ELITE 300 Plus Power Supply System (10*7cm Tray), 220V
1011019	GES Cell ELITE 300 Power Supply System (7*15cm Tray), 110V
1011020	GES Cell ELITE 300 Power Supply System (7*15cm Tray), 220V
1011021	GES Cell ELITE 300 Power Supply System (10*15cm Tray), 110V
1011022	GES Cell ELITE 300 Power Supply System (10*15cm Tray), 220V
1011023	GES Cell ELITE 300 Power Supply System (15*15cm Tray), 110V
1011024	GES Cell ELITE 300 Power Supply System (15*15cm Tray), 220V
1011025	GES Cell ELITE 300 Plus Power Supply System (7*15cm Tray), 110V
1011026	GES Cell ELITE 300 Plus Power Supply System (7*15cm Tray), 220V
1011027	GES Cell ELITE 300 Plus Power Supply System (10*15cm Tray), 110V
1011028	GES Cell ELITE 300 Plus Power Supply System (10*15cm Tray), 220V
1011029	GES Cell ELITE 300 Plus Power Supply System (15*15cm Tray), 110V
1011030	GES Cell ELITE 300 Plus Power Supply System (15*15cm Tray), 220V

\*\* The complete system contents power supply standard package with electrophoresis cell standard package

### **Accessories**

1012101	UV-transparent tray 6.5 x 7 cm, for mini-GES Cell
1012102	UV-transparent tray 10 x 7 cm, for mini-GES Cell
1012103	UV-transparent tray 7 x 15 cm, for GES Cell

- 1012104 UV-transparent tray 10 x 15 cm, for GES Cell
- 1012105 UV-transparent tray 15 x 15 cm, for GES Cell
- 1012201 10 teeth fixed height comb, 0.75 mm thick, for mini-GES Cell
- 1012202 10 teeth fixed height comb, 1.0 mm thick, for mini-GES Cell
- 1012203 10 teeth fixed height comb, 1.5 mm thick, for mini-GES Cell
- 1012204 15 teeth fixed height comb, 0.75 mm thick, for mini-GES Cell
- 1012205 15 teeth fixed height comb, 1.0 mm thick, for mini-GES Cell
- 1012206 15 teeth fixed height comb, 1.5 mm thick, for mini-GES Cell
- 1012207 15 teeth fixed height comb, 0.75 mm thick, for GES Cell
- 1012208 15 teeth fixed height comb, 1.0 mm thick, for GES Cell
- 1012209 15 teeth fixed height comb, 1.5 mm thick, for GES Cell
- 1012210 20 teeth fixed height comb, 0.75 mm thick, for GES Cell
- 1012211 20 teeth fixed height comb, 1.0 mm thick, for GES Cell
- 1012212 20 teeth fixed height comb, 1.5 mm thick, for GES Cell
- 1012213 Custom-Built Comb, for mini-GES cell\*
- 1012214 Custom-Built Comb for GES cell\*

\* Minimum purchase quantity 10 pieces, product delivery 30 days.

- 1012403 Black L-form electrode with banana plug for GES
  - 1012404 Red L-form electrode with banana plug for GES
  - 1012405 Black L-form electrode with banana plug for mini GES
  - 1012406 Red L-form electrode with banana plug for mini GES
  - 1012301 A pair of Dams-Claw for GES
  - 1012302 A pair of Dams-Claw for mini GES
  - 1012303 Two pieces of silicon rubber for Dams-Claw of GES
  - 1012304 Two pieces of silicon rubber for Dams-Claw of mini GES
-





# Warranty Card

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**THANK YOU FOR ORDERING A WEALTEC PRODUCT.**

Wealtec Corp. warrants all Wealtec instruments to be free from defects in design, workmanship, and material under normal use for a period of one year from the date of initial shipment.

This warranty covers all parts and components of the instrument except those normally requiring frequent replacement, such as tubing, gasket, O-rings, etc. Wealtec will not be liable for any personal injury, bodily injury, misuse, improper maintenance, negligence or accident.

This warranty is in lieu of all other warranties, expressed or implied, but not limited to, the implied warranties of merchantability or fitness for a particular purpose.

**PLEASE KEEP THE WARRANTY CARD FOR FUTURE USE.**

Instrument Model :  GES  Mini-GES

Item Number :

Serial Number :

Initial Shipping:

Packager  
Identification

---

**01010** Printed in Taiwan

**Wealtec Corp.**

1885 Meadowvale Way Sparks, NV 89431 Tel: (775) 351-2066 Fax: (775) 351-2077

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