

4-Channel Electrotherapy Unit

ES-5400

OPERATION MANUAL

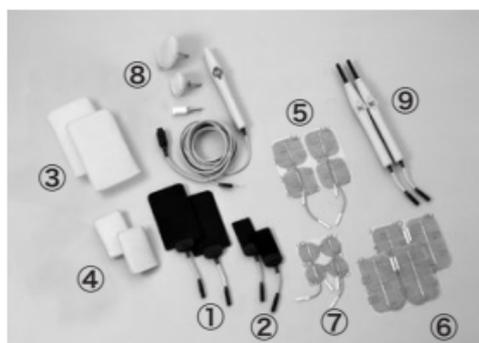


To ensure correct use, please read this manual carefully before operating the unit. After reading, store the manual in a safe place for future reference.



Device Configuration

●Optional accessories



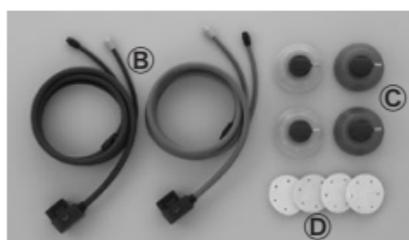
- ① 011152 Rubber Electrode (L), 100×60 mm, 2pcs/pack 【ESE004】
- ② 011150 Rubber Electrode (S), 50×30 mm, 2pcs/pack 【ESE006】
- ③ 011149 Electrode Sponge A (L), 120×80 mm, 2pcs/pack 【ESE010】*
- ④ 011147 Electrode Sponge A (S), 70×45 mm, 2pcs/pack 【ESE012】*
- ⑤ B010306 Self-adhesive Electrode, 49×49 mm, 4pcs/pack *
- ⑥ B010747 Self-adhesive Electrode, 89×51 mm, 4pcs/pack *
- ⑦ B010886 Self-adhesive Electrode, Ø32, 4pcs/pack *
- ⑧ 011356 HV/DC Probe 【ESE015】*
- ⑨ 011172 MCR (Microcurrent) Probe, 2pcs/pack 【ESE013】



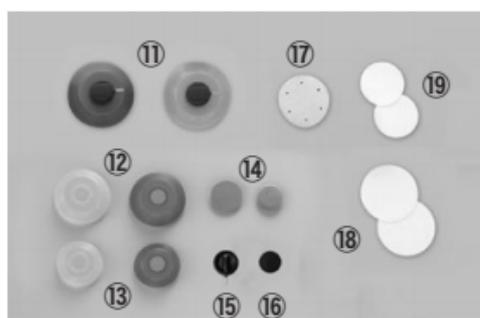
⑩
A

⑩ Vacuum Unit SU-540

[Standard accessories]



- A — Vacuum Unit
- B 011771 Electrode Hose (Blue), 2× 【ESC008】
- 011772 Electrode Hose (Gray), 2×
- C 012399 Vacuum Electrode B (S), Ø80 (Gray), 4× 【ESE016】
- 012400 Vacuum Electrode B (S), Ø80 (Blue), 4×
- D 011276 Electrode Sponge B (S), Ø70, 4pcs/pack, 4× 【ESE018】*
- B180562 Power Supply Cord (220–240 V, Type F) or
- B180559 Power Supply Cord (110–120 V, Type A)



[Optional accessories]

- ⑪ 012401 Vacuum Electrode B (L), Ø100 (Gray) 【ESE017】
- 012402 Vacuum Electrode B (L), Ø100 (Blue)
- ⑫ B120974 Suction Cup (L), Ø100 (Gray) (cup only)
- B120975 Suction Cup (L), Ø100 (Blue) (cup only)
- ⑬ B120976 Suction Cup (S), Ø80 (Gray) (cup only)
- B120977 Suction Cup (S), Ø80 (Blue) (cup only)
- ⑭ B151157 Suction Steel Plate (L), Ø55
- B151083 Suction Steel Plate (S), Ø45
- ⑮ 012403 Suction Head
- ⑯ 012404 Suction Head Cup
- ⑰ 011277 Electrode Sponge B (L), Ø90, 4pcs/pack 【ESE019】*
- ⑱ 220278 Paper Disk (L), Ø90, 100pcs/pack *
- 220279 Paper Disk (S), Ø70, 100pcs/pack *

*: APPLIED PARTS

Specifications

●Main unit specifications

Power supply	AC100–240 V, 50/60 Hz			
Power consumption	150 VA			
Output current	Max. 600 mA \pm 15% peak (500 Ω load), Max. 70 mArms \pm 15% (500 Ω load)			
Output voltage	Max. 300 V \pm 15% peak (500 Ω load)			
Output frequency	Max. 10 kHz \pm 5%			
Timer	Max. 60 min. \pm 5%			
Safety class according to IEC 60601-1	Class I, Type BF 			
Dimensions	345 (W) x 270 (D) x 145 (H) mm			
Weight	Approx. 2.5 kg			
Environmental conditions		Temperature	Humidity	Pressure
	In use	10–40°C	30–75%	800–1060 hPa
	Storage	-10–60°C	30–95%	700–1060 hPa
	Transportation	-10–60°C	30–95%	700–1060 hPa

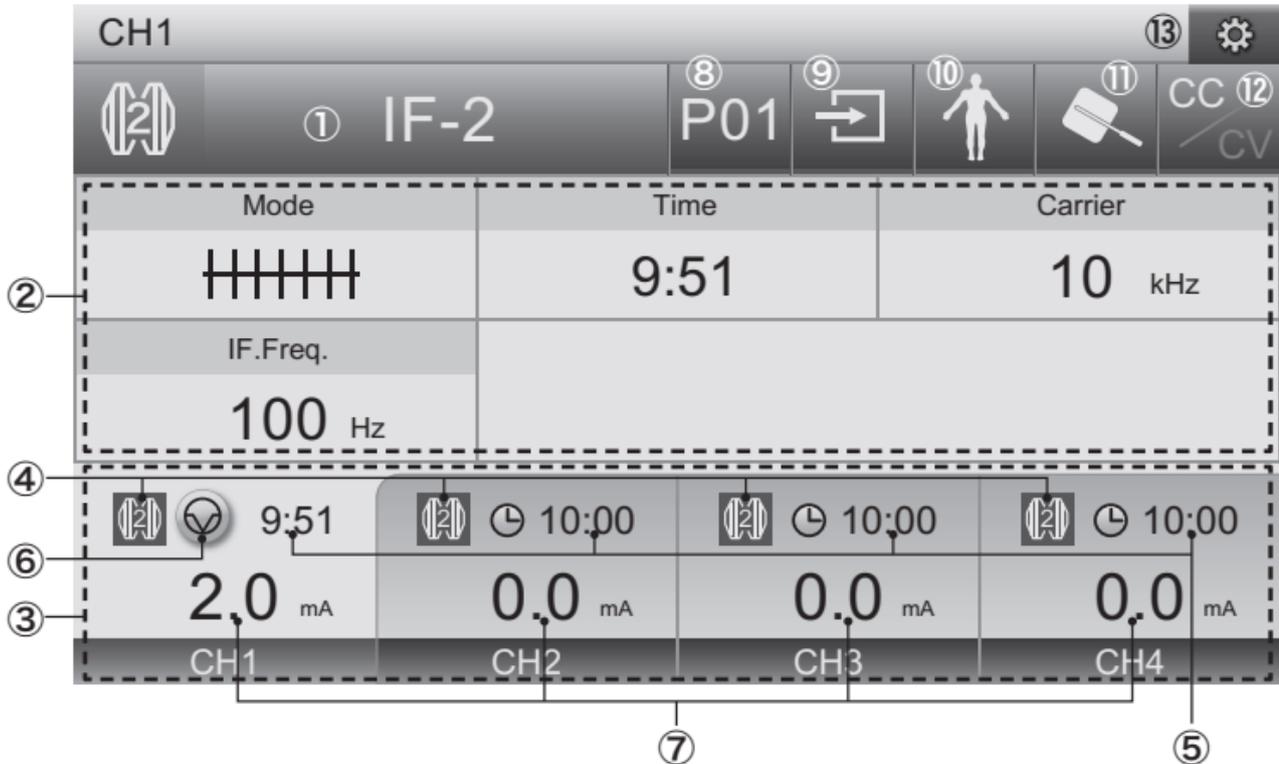
●Vacuum unit specifications (optional)

Power supply	AC100–240 V, 50/60 Hz		
Power consumption	150 VA		
1.1.9. Suction pressure	0 to -100 mmHg \pm 30%		
Dimensions	345 (W) x 315 (D) x 115 (H) mm		
Weight	Approx. 8.5 kg		

Display of Electrotherapy Screen

Treatment screen

1.1.5.



① Treatment mode selection button

This button is used to select electrotherapy mode or measurement mode.
Touch the button to display the sub-window for selecting treatment mode.

② Parameter setting buttons

These buttons are used to set treatment parameters.
The parameters that can be set vary depending on the treatment mode.

* For information on setting parameters for each treatment mode, see pages 29 to 65.

③ Channel selection buttons

These buttons are used to select the channel for which treatment parameters are to be set.
The channel selection buttons show the treatment mode, remaining time, pause button (only during output operation), and output level of each channel.

④ Treatment mode icons

These icons indicate the treatment modes of individual channels.

⑤ Remaining time display

The remaining treatment time of each channel is shown.

⑥ Pause button

This button appears only for the channel in output operation. It is used to pause, resume, or stop the output from each channel.

When the pause button is touched, the output from the corresponding channel pauses.

When the button is touched again, the output resumes.

When the pause button is pressed and held, the output from the corresponding channel stops and the treatment ends.

⑦ Output level display

The output level of each channel is shown.

The unit displayed will automatically switch according to the current output control.

CC: mA, μ A CV: V

⑧ Program load button

This button is used to change the display to the load screen.

* The button is inoperable for the channel in output operation.

* For information on loading a program, see pages 80 to 81.

⑨ Program save button

This button is used to change the display to the save screen.

* The button is inoperable for the channel in output operation.

* For information on saving a program, see pages 78 to 79.

⑩ Clinical program button

This button is used to change the display to the clinical program screen.

* The button is inoperable for the channel in output operation.

* For details of clinical programs, see pages 74 to 77.

⑪ Electrode selection button

The type of connected electrodes is indicated with an icon.

When the Vacuum Unit is connected, this button is used to switch between the electrodes connected to the Main Unit and Vacuum Electrodes.

* The button is inoperable for the channel in output operation.

⑫ CC/CV selection button

This button is used to change the current output control system.

CC: Constant current system CV: Constant voltage system

* The button is inoperable for the channel during output operation.

* The button can't be selected according to the treatment mode or electrode connected to the device.
For details refer to the page of each treatment mode.

⑬ Config button

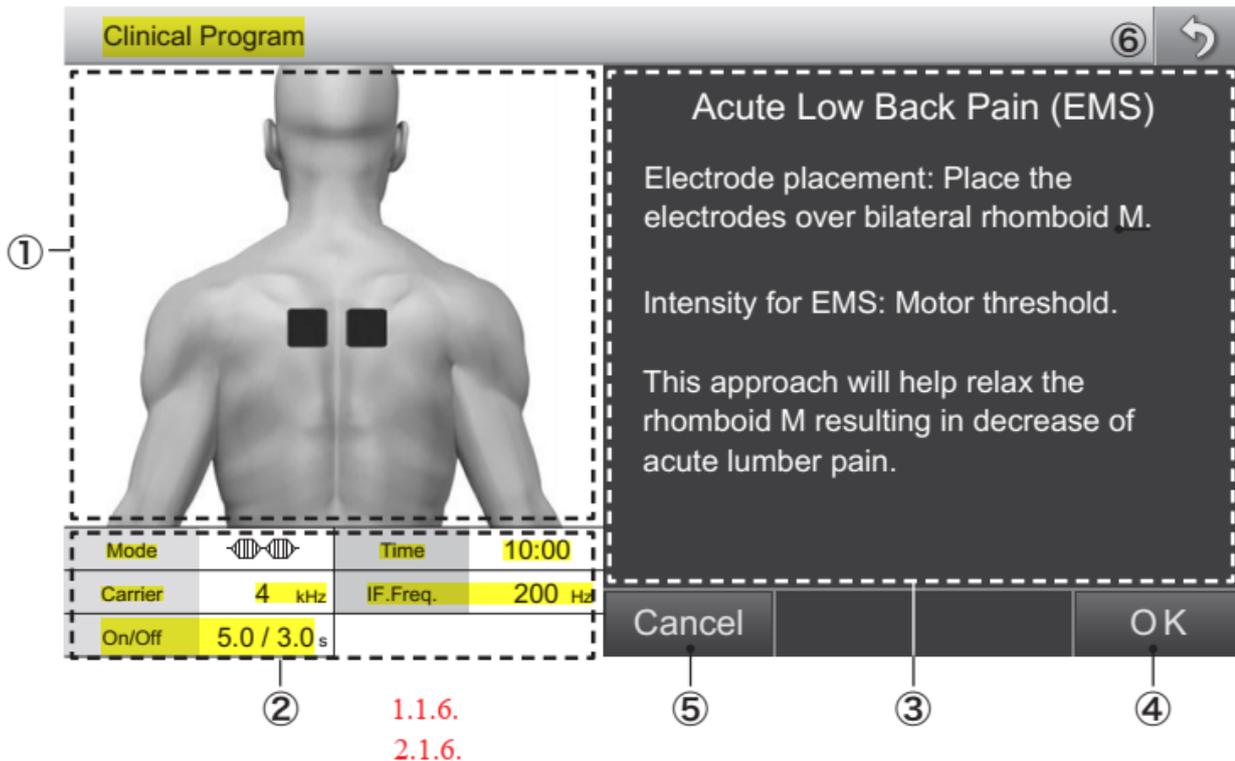
This button is used to change the display to the setting screen.

* This button is inoperable during output operation.

* For details of the setting screen, see pages 82 to 83.

Treatment guidance screen

1.1.5. 2.1.5.



① Treatment area display

This screen area shows treatment areas.

Blue or green square: This indicates the electrode attachment position for electrotherapy.

If the polarity is set, a "+" or "-" sign is also indicated.

When two channels are used, the squares are displayed in different colors to make it possible to distinguish channels.

② Parameter display

This screen area shows the parameters of the treatment program.

③ Treatment guidance

This screen area displays information on the treatment program.

④ OK button

This button is used to confirm the selection of the treatment program.

Touch this button to change the display to the treatment program.

⑤ Cancel button

This button returns the display to the clinical program selection screen.

⑥ Back button

This button returns the display to the treatment screen.

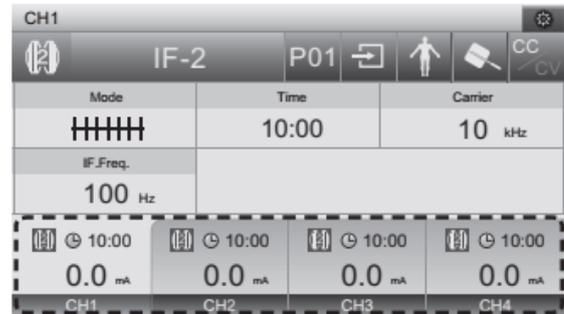
Saving Programs

1.1.8. 2.1.8.

Up to 10 programs can be saved for each treatment mode (except for I/T Measurement mode and AQ Measurement mode).

1 Select a channel.

Touch the channel selection button to display the channel for which the parameters to be saved are set.



2 Display the save screen.

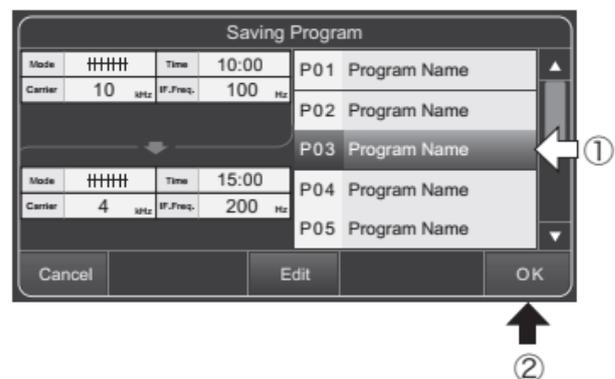
Touch the program save button to display the sub-window.



3 Select the program number for the program to be saved.

In the program list on the right side of the screen, touch the program number for the program to be saved.

Confirm the parameters and touch the OK button to save the program.



* The upper side of the screen on the left side shows the parameters to be saved. The lower side displays the parameters currently saved in the selected program number.

* To stop saving the program, touch the cancel button.