



CE

GALVANIC 6000

USER'S MANUAL



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INTRODUCTION

Thank you for your trust in us and in the device you just acquired. With this device you bring the most **advanced technology** in **electro-aesthetics** into your center and you introduce a tool that will become soon indispensable to obtain good results.

This device provides you with an advanced option of cleansing and facial treatment. User-friendly, this device has been conceived to fully satisfy the requirements of the most demanding users. This device has been subject to technical and application tests to guarantee its quality and results.

Before starting up the device, please **READ CAREFULLY this MANUAL**. Failing to do so could turn out to be dangerous and provoke damage to third parties.

We invite you to contact us or our distributor for any doubt or query. We would be delighted to assist you.

Yours sincerely,

The Management

SAFETY STANDARDS

This device complies with the **safety standards** in force at the time of manufacturing. However, the following safety recommendations should be observed:

1. Before handling the device, read carefully this manual.
2. The client's electrical safety is ensured by a double network insulation. However do not connect to a socket without an earth connection. The device must be connected to an earth plate with an **earth conductor**. Never connect to a system without a differential switch.
3. Do **not** use on customers with a **pacemaker or any other active implant**, because of the risk of interference with this device.
4. This appliance produces direct (galvanic) currents always flowing between the point of application and the metal 'return' electrode. The **heart** should **not** be found on the path of the galvanic current.
5. There should be no **metal elements** (e.g.: osseous prosthesis) and/or cables in the treatment area.
6. Before placing the accessories, set the power button to **zero**.
7. This device must be used following the instructions of **qualified personnel** (for example, graduated beauticians).

GENERAL POINTS

GALVANIC 6000 is a device that uses galvanic and microgalvanic currents. The use of these currents for the penetration of ionic cosmetic substances is traditional in aesthetic devices. Thanks to its compact and multifunctional design, this device allows to perform a wide range of facial treatments inside a booth or at the client's house needing one device only. Because of its small size, it allows you to save space in small beauty booths and to carry it along in a suitcase in case you would like to take it with you.

WARNING:

This device is not a medical or sanitary product and it is not aimed at diagnosing, controlling, monitoring or relieving any disease, injury or deficiency.

Always use cosmetic products complying with the law in force.

In case of doubts concerning the application on a specific client, consult a specialist.

TECHNICAL FEATURES

- This device combines the following functions in one unit: galvanic and microgalvanic currents.
 - Independent voltage control.
 - Galvanic and microgalvanic current indicator.
 - User-friendly.
 - Provided with the necessary accessories for basic functions.
(possibility of adding additional accessories)
-
- Supply voltage: 230 V (110V on request)
 - Input: 125 W
 - Weight: 1,4 Kg
 - Dimensions: 140 x 220 x 75 mm
 - Ground connection: the device has a ground connection through its network cable. Only connect to installation with that kind of connection.
 - Safety: the device remains insulated from the network through a coil transformer.



This symbol aims at dissuading the use of the device by non qualified personnel or newly introduced to its use, warning of the possible adverse effects that an improper use could provoke on the client.



This device provides a special protection rate against electrical discharges, particularly regarding the authorised leakage current and the reliability of the earth connection.



PROTECTION SYSTEM AGAINST CURRENT BREAKS

This device includes a protection system against current breaks. In case of an interruption in the power supply, the device will stop. Once the current has been restored, the protection circuit will be activated. The device will then block the outlets, interrupting the treatment. **When this occurs, pilot light 5 will light up.** In order to continue the treatment, put all power controls to **zero** (**-4--**). Once the protection circuit has been disactivated, the pilot light (**5**) will go out and the green light indicating that the device can function (**5**) will light up again.

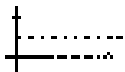


DESCRIPTION OF THE CONTROLS

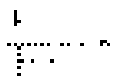


Description of the controls

- 1.- Main on/off **switch**.
2. – **Connection**
- 3.- **Plug**
- 4.- **Potency** control for **galvanic** currents.
- 5.-. **Visual Indicator** of the **galvanic** currents* coming through.



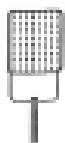
6.- **Positive outlet (red cable)** for galvanic currents



7. - **Negative outlet (black cable)** for galvanic currents.



8.- **Line-reversing switch** for galvanic or microgalvanic current.



9.- **Choice** of galvanic currents:



a. Microgalvanic current



b. Galvanic current







****Indicator** of the irregularities in the operation of the device. The flickering red light shows that the power control has not been set to zero. To carry on with the treatment, the beautician must reset the power button.

ACCESSORIES



ACCESSORIES

<u>REF.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
5111014	Indirect aluminium electrode.....	1
510056	Network cable.....	1
5151060	Red-Black banana cable	1
5112650	Aluminium mushroom electrode for descaling.....	2
5111042	Coil microgalvanic movements	1
5111038	Microgalvanic roller electrode	1

<u>FOTO</u>	<u>REF.</u>	<u>DESCRIPTION</u>	<u>Un.</u>
	5111014	Indirect aluminium electrode	1
	5151060	Red -Black banana cable	1
	5111042	Coil micro-galvanic movements	1
	5111038	Microgalvanic -roller electrode	1
	5112650	Aluminium mushroom electrode for descaling	2
	510056	Network cable	1

APPLICATIONS

These are a few of the many treatments that can be done with the GALVANIC 6000 device:

- Disinfection of the skin with high frequency after the extraction of impurities.
- Reaffirming of a double chin and of the facial muscles with the help of passive gymnastics currents.
- Anti-wrinkle treatments, lifting of eyes, nutrition, hydration, etc., by means of the ionisation of the suitable product and the use of micro galvanic currents.
- Descaling of the fat of problematic skins with the help of micro galvanic currents, thanks to the application of a descaling product and of a metallic electrode in the shape of a mushroom.

1 GALVANIC AND MICROGALVANIC CURRENT



GALVANIC CURRENT

Galvanic current is a type of uninterrupted electrical current.

IONISATION TECHNIQUES

In all ionisation techniques we must always consider the following points:

1. The person that will receive the treatment must remove all metal objects in direct contact with the skin (watches, bracelets, rings, necklaces, etc.) This goes for braces too. The beautician should also verify whether the client carries any metallic contraceptive instrument).
2. If the **skin** to treat is very **greasy**, the grease will have to be removed with a piece of cotton soaked in a neutral soap. This will not be necessary in cases where a previous cleansing of the skin has been carried out, as occurs, for example, in descaling treatments. In these cases an appropriate cleansing milk must be used (oil in water emulsion with few fats and electrolytes).
3. When preparing the ionising product, if it comes in ampoule format, break the two ends and pour the content into an appropriate bowl. Dilute with distilled water.

In case of a gel or an electrolytic solution, use the quantity indicated by the manufacturer. With your fingertips, moisten the areas to be treated with the ionising solution, particularly for facial treatments.

4. If there are injuries, erosions, spots, etc. on the application area, these parts must be covered with little pieces of paraffin paper before placing the electrodes.
5. Place some pieces of double gauze, previously cut according to the shape and size of the active electrodes and soaked in the ionising solution, on the areas to treat. Once the gauze impregnated with the ionising solution are placed, put the active electrodes on top. The electrodes are

to be protected with spongy tissue covers.

6. These active plates covers will have previously been soaked in distilled water. Parasite ions are not introduced with distilled water, so the current intensity will only introduce cosmetological ions soaking the gauze. In addition, since the distilled water is hot, it will favour peripheral blood flow and avoid an unpleasant contact with the skin. On the other hand, the conduction of electricity is favoured precisely by this same water heating.
 7. The sheaths covering the indifferent plates or attracting electrodes have to be soaked with a conducting solution. This solution may be tap water, due to the salts that it contains. However, sometimes because of the chemical treatment that the waters of the network undergo, they can contain ions that are not too convenient and that may produce alterations or allergies in the skin. For this reason it is preferable to use a conductive solution to soak the sponges of these plates or indifferent electrodes, for example, sodium chloride at 9 x 1,000, i.e. a physiological solution, buffered or not, Ringer's solution or, better still, a special solution composed of salts of weak acids and bases, duly buffered.
 8. When placing the plates, active and indifferent electrodes with their corresponding soaked bands must be well fastened over the surface of the skin and in the areas indicated according to the treatment to carry out. For a correct fixing, elastic bands intended for that purpose must be used, perfect adaptation to the relief of the surface of the skin must be ensured, making sure that no metallic part is in contact with the skin and that no corner of the electrodes is folded and that there is no space between the skin and the plate.
 9. Choose a colour of cable for each type of electrode, for example, as is established conventionally, black for the active and red for the indifferent. Before connecting them to the appliance, fix the banana extremity to the metallic or rubber plates.
- Very important:** before connecting the cables to the machine, check that it supports the voltage of the current available (125 or 220 volts) and that the power control is set to the minimum, and to which terminal the positive and negative polarities correspond.
10. Connect the cables to the appliance following the instructions of the corresponding technique and turn on the machine with the operating handle.

11. Slowly turn the control of each outlet to the right until reaching the intensity indicated by the technique.
12. Sometimes a burning or tickling sensation may occur with a moderate intensity, which can be the result of an inadequate moistening of the sheaths, a bad positioning of the plates on the skin or a direct contact between a metallic and the skin.
13. Intermittently, and during the treatment, check the work intensity of the appliance, outlet by outlet, since the resistance that the body to the passage of the current often reduces and the amperage could go up more than is required. This increase in the intensity can also take place after a few minutes of direct current, that is when the cosmetologic ions have begun to orientate themselves and move towards the opposite electrode,

$$I = \frac{V}{R}$$

which facilitates the passing of the current, reducing the resistance and increasing the intensity.

However, the appliances that are available nowadays like GALVANIC 1000 have anticipated this circumstance, in such a way that once the work intensity of each of the outlets has been fixed, a special mechanism prevents the intensity from varying, even though the resistance of the human body decreases.

14. This is due to a possible variation of the tension, and if we remember the formula:

$$I \text{ (intensity)} = \frac{T \text{ (tension)}}{R \text{ (resistance)}}$$

13. We can perfectly check that when the resistance varies, if there is an automatic, compensable variation of the voltage, the intensity can be maintained constant. This, however, is within some limits, and there are some fluctuations of tens of milliamps that can be insignificant. Therefore, in these cases, with these type of appliances, constant watch can now be spread out more.
14. At the end of the session or when the technique indicates that a change of polarity is necessary before cutting the passing of the current or before working the inverter, the intensity of each outlet must be gradually reduced to zero.

15. Once the treatment is over, with the controls to zero, the appliance can be disconnected and the electrodes removed.
16. Once the electrodes have been removed, a slight reddening of the skin may appear in the treated area. This is completely normal and shows that there has been a real ionisation that will disappear after a short time.
17. At the end of the session, wash carefully covers and electrodes with soap and water.

WORK INTENSITY AND DURATION OF THE TREATMENT

The manufacturer of the ionising product must indicate the work intensity and the duration of the treatment. However, here are a few indications.

1. In the first place, the intensity to apply must be calculated according to the surface of the electrodes that we are going to use, and always starting from the basis that *the **minimum** intensity will correspond to 0.02 milliamps per cm² of active electrode and the **maximum** 0.05 milliamps per cm² of active electrode* (so that if an electrode has a surface of 100cm², the minimum work intensity with this electrode will be 0.02 by 100: 2 milliamps, and the maximum 0.05 by 100, 5 milliamps).

These minima and maxima depend on the resistance to the passing of the current, specific to every individual..

2. Another consideration is the following. An ionisation treatment using a current of 1 milliamp for 10 minutes lets penetrate half the number of ions introduced in a 10-minute treatment of 2 milliamps with the same product. Although this seems to indicate that the greater the intensity applied, the easier it will be to ionise the product, we must take into account that there is a limit in the minimum and maximum previously mentioned.
3. When using small electrodes, for example during facial treatments, the current is ten times lower, and minimum intensities will be used in case of descaling and facelift. With this type of electrodes (roller, pencil, ball, etc.) work intensities vary between 1 and 2,5 mA.

4. The treatment does not lose its efficiency if we work at a lower intensity for a longer time, that is to say, if we reduce the flow of ions and leave it applied for longer. A 15-minute treatment with an intensity of 2 milliamps produces the same effect than a 30-minute treatment of 1 milliamp. Logically, it is necessary to take into account that these considerations are different according to each type of ion, since the ionic velocity, characteristic of each ion, plays a very important role.

Safety in the galvanic beauty treatment

Galvanic beauty treatment is very easy to perform, but in the hands of an untrained or incompetent operator, it can cause intolerable and permanent damage to the client. It is very important to take all the precautions for an effective, comfortable and *safe* treatment.

Limits in the current intensity

0,3 milliamperes per square centimetre of contact electrode
(2 milliamperes per square inch).

The *total* of the current for:

Facial treatment must not exceed 3 milliamperes.
Body treatment must not exceed 8 milliamperes.

With the *proper* flow of current the client should feel a tickling sensation under the electrodes. GALVANIC 6000 has an automatic control circuit for the current, limiting it to these values.

Always start a treatment with a current *inferior* to the maximum tolerated, until the resistance of the skin has stabilized by itself. The current is then progressively increased to the *working level*.

Exceeding an excessively high current can result in a *burn*. *Alkaline burns* under the electrodes are very ugly, unpleasant and take a long time to heal. They can leave a mark for life.

Worse still are the *burns* of the *bones*. An excess of current going through the bone can carbonise it. A bone burn is very painful and heals slowly.

At the end of the beauty treatment

As we move towards the end of the treatment, the current must be *gradually reduced* to allow the completion of the chemical effects and prevent any chemical waste from remaining on the skin. Alternatively, reverse the current for the last moments of the treatment to *neutralise* the chemical waste.

Finally, if the client notices that the treatment produces an unbearable irritation in the skin, *stop* the treatment and reverse the current to neutralise the cause of the irritation.

FACIAL DESCALING TREATMENT



We will begin giving specific instructions for a **descaling** facial treatment.

Descaling is advised for excessively greasy skins. Essentially, descaling is an ionisation allowing to get rid of the excess of embedded fat. This deep cleansing of the skin comes from the **saponification** of **fatty acids**, important components of the retained sebum, by means of sodium, magnesium and potassium ions as well as anions, above all carbonic, containing the ionising solution. It also enables to reduce the diameter of excessively dilated pores.

How to proceed

1. Put the ionising solution in an appropriate container.
2. Cover the metallic bar or indifferent electrode with cotton soaked in a conductive solution, drain it and give it to the client who will hold it firmly in his/her hand or place the indifferent plate on the arm with a conducting solution or tap water.
3. Moisten the client's face with cotton soaked in the ionising solution, especially in the areas with a greater quantity of grease and open pores.
4. Dampen the active mobile electrode with the descaling solution. If using the ball electrode, cover it with cotton.
5. Once the appliance has been checked in the way described previously, connect the cable of the indifferent electrode, that is to say the one the client will be holding in his/her hand, to the positive pole of the apparatus and the cable of the active electrode to the negative pole.
6. Place the active electrode on the client's forehead, connect the device and turn the potentiometer control to the right until the milliammeter indicates an intensity included between 1 and 2 milliamps, without any trouble for the client. If the alter tolerates it, it can be raised up to 3 milliamps.

7. Once the circuit is established, move the active electrode consistently and making circles around its axis, following the client's face and the direction of the facial muscles, without separating it from the skin. Do not go near the eyes or the temples. Concentrate on the areas with more dilated pores and an abundance of grease.
8. The session must not last more than three or four minutes.
9. Finally, slowly slide the electrode towards the neck, below the ear, while slowly reducing the intensity of current down to 0 miliamps with the other hand.
10. Afterwards, disconnect GALVANIC 6000 and remove the electrodes.
11. Later, apply the appropriate beauty treatment to reestablish the pH.

Important notes

Do not perform descaling more than once a month. If the cutis is extremely greasy, it can be carried out a maximum of twice a month. More sessions could cause the so-called *reactional fat secretion*: the skin feeling excessively cleaned off its grease, the sebaceous glands will produce a hypersecretion of sebum causing the opposite effect to that desired. Always end descaling with a pH balancer to avoid a reactional fat secretion.

BEAUTY TREATMENT OF BLACKHEADS AND IMPURITIES OF THE SKIN

This trouble of the sebaceous follicles is characterised by a regional eruption in adolescence, possibly caused by a state of sensitivity of the pilosebaceous system due to many possible causes:

- Superficial hyperkeratosis closing the pilosebaceous orifice.
- Hyperplasia of the stratum corneum surrounding the pilosebaceous follicle.
- Inflammatory process originated by the intrinsic composition of the blackhead.
- Excessive production of sebum.
- Presence of impurities.
- Presence of staphylococcus albus.
- Bacterial lipases of the previous microorganisms that develop irritating fatty acids.
- Endocrine factors.

Sick follicles are characterised by:

- Follicular canals dilated and full of keratinolipids and microorganisms.
- Presence of impurities in the skin.
- Presence of hair making the cleansing of the follicle difficult.

In this type of follicles two different forms of blackheads can appear:

- Those that can be expelled to the exterior by mechanical means, due to the fact that the mouth of the follicle is dilated (pimples).
- Those that are contained inside the follicle and can not be expelled to the exterior (sebaceous microcysts).

Although the doctor must be the one to diagnose and treat the imperfections of the skin, especially with respect to the hormonal and antibiotic medication, it is well known that beauticians collaborate very effectively in maintaining the skin clean.

There is a common point between the different cabin treatments: the use of keratolytic substances and/or regulating the sebaceous gland. Among the substances we can mention sulphur, used for centuries. Its drawback is its insolubility in cosmetic solvents and its action is therefore limited to its superficial keratolytic effect.

However, there is a method allowing the passage of the sulphur through the follicular canal up to the altered sebaceous gland.

We will proceed as follows:

1. Clean the skin with a lotion not containing any mineral oil.
2. Apply vapour with antiseptic aromatic substances (rosemary, sage, etc.).
3. Apply ionisation as described for descaling but using an electrolyte solution with a predominance of sodium thiosulphate, since the thiosulphate anion will penetrate through the negative pole, with the client holding the positive pole in his/her hand. The intensity is comprised between 1 and 2 milliamps.
4. Take care not to pass the electrode over the inflamed areas (papules, pustules). The client will notice the characteristic smell of sulphur liberated by ionisation. The session must last from 3 to 5 minutes and should take place twice a month at the most. When treating impurities, ionisation replaces descaling.
5. Afterwards, extraction of blackheads is carried out as is normal. If you

want, and to complete the effect of the sulphur, a face mask can be applied.

6. Finally, disinfect the area and apply a lotion or azulene cream.

LIFTING

Another treatment where facial ionisation can be used is the facelift, cosmetic or electronic. For this type of treatment ionising products will be used for a cosmetic facelift or electrical current for an electronic one.

The electrodes vary also: needle, ball, roller, etc., each one with a specific application.

FACIAL DEHYDRATION TREATMENT

Dehydration process

Someone once said that our ageing is due to the inability of living tissues to retain water.

Indeed, with the passing of time, the water content in our tissues and organs decreases, causing a lack of turgescence and a minor capacity to eliminate toxins and catabolites: this is **ageing**.

Logically, the skin is not excluded from this process and also suffers the consequences of time passing, this circumstance being aggravated by its condition as barrier of separation between our body and the hostile and dehydrating external environment.

However, our skin has certain mechanisms that tend to limit the loss of internal water by evaporation and transpiration, without which the *loss* of water through the skin would be massive and fatal. These mechanisms are various:

- *Cutaneous lipids*. Due to their hydrophobia, they exercise a physical-chemical barrier to the flow of water through the epicutaneous emulsion in both directions.
- *Keratinous layer*. The special disposition of the horn cells and the characteristics of its membranes, as well as the maintenance of the keratin at the most of its isoelectric point, help to maintain a water content of between 12 and 15% in this external epidermic area.
- *Natural hydration factor*. It is formed by a little-known mixture of

various substances produced by the cutaneous biological reactions, whose mission of retaining water is due to its hydrophilia. These substances include amino acids, sugars, organic acids, mineral ions, urea, etc.

- *Fibroblasts*. These cells situated in the dermis make the collagen and the mucopolysaccharides composed by fibres and the fundamental substance of the subcutaneous tissue. For their marked hydrophilia they are an important water reserve with 65 to 70% water.

Natural hydration process

We have seen how the dehydration process of the skin takes place. Now let's see what the natural hydration process of the skin is:

- *Internal factor*. Water continually reaches the epidermis from the deepest layers of the skin.
- *External factor*. A percentage of the water lost by sweating is reabsorbed, the epidermic water with keratinous structures and components of the natural hydration factor.
- Water absorbed by *capillarity* in the keratinous layer microstructure, called imbibition water, that performs a lubricating and plastic role with respect to the keratin, and confers a uniform appearance to the epidermis, smooth and elastic.
- United water remains relatively fixed in the epidermic structures, but the same does not happen with the absorbed water, easily evaporated by action of various external factors.

Factors contributing to dehydration

1. *Climatic*. They are very important, especially the summer dry atmosphere, high mountain, exposure to the sun and wind. The dry environment of houses and offices heated in winter or air-conditioned is also an important factor of cutaneous dehydration.
2. *Chemical*. The skin dries easily with the contact of organic solvents, alkaline soaps and detergents normally used.

- a. The use of inappropriate cosmetics to clean the skin can lead to the elimination of the hydrolipid film, the modification of the permeability of the stratum corneum or the disappearance of natural hydration factors. In this case, elimination of water is accelerated and the epidermis dries.
3. *Age*. With age sebaceous productions decrease, the cutaneous biological reactions slow down, lowering the rate of natural hydrating factors, and the fibroblasts produce less collagen and mucopolysaccharides. In short, the keratinous layer loses its water retention capacity with age, and on the other hand, the water coming from inside becomes less and less because of the degeneration of the water reservoir of the subcutaneous tissue.
4. *Diet*. Due to pathological factors or reductions.

Treatment of dehydrated skins

This type of skin is mainly characterized by a rough aspect, for cracking or scaling easily, for being fragile and/ or irritable, not being very elastic and presenting a sensation of tautness.

As for beauty treatment, it is necessary to differentiate the **preventive** and **repairing dermohydrating** ones.

Preventive treatment.

Apart from avoiding, where possible, very dry environments and excessive exposure to the sun, as well as contact with detergents and cosmetics, the beautician will recommend the use of cosmetic products preventing the lack of water in the skin.

These hydrating cosmetic products can act in different ways.

- **Direct action.** On the superficial layers of the skin by means of hydrating preparations containing hydrophilic substances capable of strenghtening the natural hydration factors: amino acids such as glycine, hydroxyproline, arginine, etc; sugars, sodium salt from carboxylic pyrrolidin acid, sodium or glyceryl lactates, urea, etc.

Hygroscopic or moistening substances are often added, whose role consists in retaining the water in the stratum corneum the longest possible. Many have been tested, but the glycerine has been discarded; the most effective are Sorbital and mucopolysaccharides,

among them hyaluronic acid which, thanks to its ability to retain water and its affinity with cations helps to maintain the water content in the *active principles appropriate for cutaneous dehydration treatment*.

Using zinc and titanium oxyde is also advocated for their covering capacity and protection against solar radiation.

The excipient of these hydrating creams with direct action is generally an emulsion of external aqueous phase, and is applied during the day.

- **Indirect action.** Works on the epidermis, protecting it from evaporation by means of covering or occlusive preparations. They are unctuous like vaseline type onctions or emulsions of external oil phase, with an abundance of non-absorbable mineral oils such as paraffin and lipophilic substances that halt dehydration. Due to its greasiness, it is advised to apply this type of preparation at night, although it is not inconvenient to use it during the day on some extremely dry skins.

Face masks are also mentioned in this chapter, since they form an occlusion over the skin in a way that, by impeding transpiration, the water vapour reverts to the keratinous layer, hydrating it at the expense of the water lost by evaporation. However, this type of cosmetic must not be used for more than 15 days, except if there is a risk of excessive maceration of the horn cells with a loss of the protective capacity of the keratine. Incorporating hydrating substances in these masks is recommended: for example, amino acids, sugars, urea, etc. In a same formula both effects can be obtained, which is why products perfectly adapted to the needs of each type of skin can be obtained.

Although principles with a direct action (such as water and moisturizers) are desirable in every case, it is different with oils and other fat substances of indirect action, more indicated for the treatment of dry skins than of greasy complexions.

Dermohydrating refreshing treatment

When an important dehydration takes place because of the unfavourable factors already mentioned, we have to act in a more vigorous and remedial way. The occlusive and hydrating techniques of the epidermic surface are not enough, we have to act at the level of the water reservoir, that is to say, of subcutaneous tissue.

We have seen how the skin in senescence is poor in collagen, amino acids and

mucopolysaccharides, and particularly in hyaluronic acid. Supplying these elements in depth is made difficult by their molecular complexity; it is then when the ionisation techniques can help us to achieve their penetration.

Indeed, using the technique of marked molecules, it has been shown that, after the ionisation, these elements are found in the depths of the skin, many of them even forming part of complex molecules (collagen fibres and mucopolysaccharides) originated from much simpler elements (hyaluramine amino acids, etc.). Due to their polyanionic nature, many of these molecules, get abundantly hydrated, causing a greater nutrition of the dermis and favouring the elasticity and the young and hydrated aspect of the skin.

Conductive excipients

Once the ionising active principles have been chosen, they must be incorporated to an excipient conducting the electrical current.

- Aqueous solutions.
- Polyethylene glycol creams.
- Carboxymethyl cellulose gels.
- Carbomer gels.
- O/A Emulsions with under 10 % fat.
- Gelicrem (O/A emulsion with a gelified aqueous phase).

GALVANIC 6000: Appropriate device

The unit of galvanic and microgalvanic current of the GALVANIC 1000 is the perfect tool for the beauty professional wanting to carry out a deep facial rehydration treatment:

Technique:

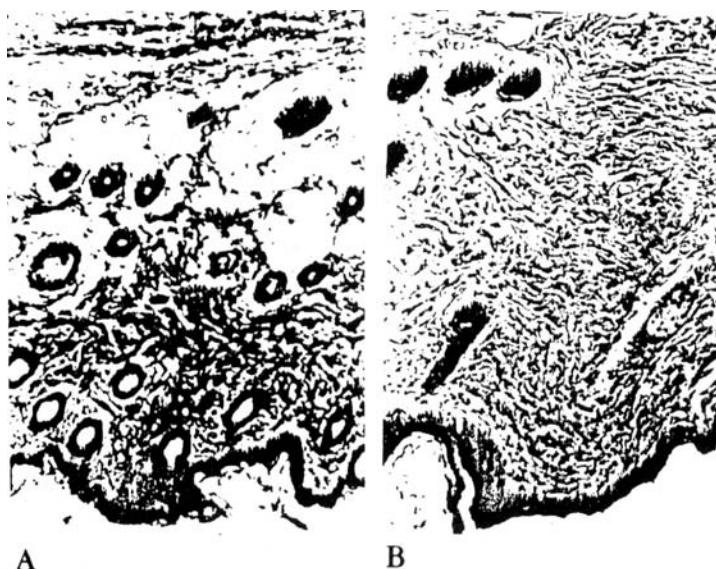
1. Clean the face with a makeup remover low in fats.
2. Apply water vapour with ozone, intermittently for 10 minutes.
3. Perform a soft peeling. If there are any blackheads, extract them a few days preceding the treatment, to avoid irritating the skin.
4. Moisten the skin with an isotonic conducting solution to increase conductivity.
5. Extend the deep hydrating repair cream chosen over the area to treat.
6. Slowly slide the roller electrode, connected to the negative pole, over

the treatment area for 15 to 20 minutes with a work intensity included between 1 and 2 miliamps. If it is necessary to put product over the skin again, stop the supply of the current momentarily.

7. Remove the surplus cosmetological product.
8. Spray a decongestive lotion made from marigold or chamomile, letting it dry over the skin. Massage with essential oils since the massage will facilitate the penetration of ions. The muscular stimulation can also be reached using passive gymnastics current, following the facial muscles.
9. Apply a mask with amino acids for 15 or 20 minutes.
10. Remove the mask with lukewarm water and apply a hydrating cream appropriate to the type of skin being treated.

This dermohydrating repair treatment must follow the following pattern:

- *In cabin.* One session every 5 or 8 days.
 1. Frequency: One or two treatments per year, one of which without fail after the summer.
- *At home.* Maintenance on alternate days, at night, alternating with nutritive creams and without forgetting the day protective hydrating base. With a galvanic pencil 5 minutes of ionization on alternate days will be enough. Apply a mask of amino acids every two weeks.



In animal experimentation with rat skin, the effect of 15 ionisation sessions with a collagen gel, amino acids and mucopolysaccharides can be observed.

Microphoto A: cut of skin of a witness animal without treatment.

Microphoto B: cut of skin of the treated animal. We can observe a better turgescence of the tissues and the formation of new fibres.

CONTRAINDICATIONS

- Pregnancy (even recent).
- Postpartum (quarantine).
- Troubles of the skin.
- Cardiovascular anomalies.
- Mammary pathology.
- Precaution in cases of hepatitis, diabetes, external and internal scars.
- Do not use on people with pacemakers

PRODUCTS

- a. The function of the products used to impregnate the plates in passive gymnastics is to improve the electrical contact plate-client. The product should be in gel format for a more effective transmission of the electrical movement.
- b. The products used in galvanic treatments can have properties applicable in the field of aesthetics. As ionising products, they can be introduced by ionisation through the positive or negative pole, depending on the nature of the product supplied by the manufacturer. To avoid mistakes, always put the product in the positive (red) electrode.

Ionising products through the positive pole



- If the product is ionised through the positive electrode, the inverter (15) must be in the *normal* position (product on the red "active" electrode).

Ionising products through the negative pole



- If the product is ionised through the negative electrode, the inverter (15) must be in the *inverted* position (product on the red "active" electrode).

Product on the “passive” electrode (the electrode without product)

The “passive” electrode is in this case that which is connected to the black cable. There is no need for a treatment product on this electrode, since the surface of the body under this electrode does not receive treatment. Nevertheless, it is necessary to put some solution on this electrode so that the current circulates. NEITHER TAP WATER NOR SALT WATER MUST BE PUT IN THIS ELECTRODE. These options could produce chemical burns.

Unfortunately, distilled water is not a valid option either since it conducts the current poorly. The ideal is to put a chemically neutral aqueous solution remaining neutral even after the current has passed, typically a product that is chemically a BUFFER. This type of product can be found in gel or solutions. Without such products, the passive electrode, the black one, could produce chemical burns.

The use of a buffer solution is unnecessary, logically, when working with bipolar products.

If you do not have the appropriate product for the “passive” electrode, you can work as follows:

- Put active product ON BOTH ELECTRODES.
- CARRY OUT THE TREATMENT AS IF IT WERE A BIPOLAR PRODUCT.

This second option prolongs the time of treatment, but only the parts of the body covered by BOTH plates receive the treatment.

NB. The procedure described is not the only one, but it is the easiest to use and the least prone to mistakes.

Bipolar products

There are products in which both positive and negative ions can be used. In this case, the areas of the body under the positive (red) electrode and the (black) negative electrode receive the effects of the treatment.

The procedure to observe is the following:

- Put product on **both** electrodes.
- Start the first phase of treatment with the inverter on position **normal**.
- Lower the intensity until reaching zero and wait 5 minutes before starting the second phase (*see note*).
- Put the inverter (15) in the **inverted** position.

- Rise the intensity again to the value selected and start the second phase of treatment.

Note. It is recommendable that the second step of the treatment be of the same or less duration than the first. The interval of five minutes between the first step and the second is given as an orientation. Consult the manufacturer of the product for any doubt.

START UP

As prior precautions, the beauty professional must ensure that the intensity controls are on zero and the electrodes are well cleaned and disinfected. Avoid areas of continuity on the client's skin. The treatment must focus on the area to treat, the ionisation substance desired, the polarity to apply (or change of polarity), intensity and time. Prepare the solution before starting the treatment.

1. Check that the device is connected.
2. Activate the on switch (1).
3. Put a gauze, filter paper or sponge or apply the product directly on the skin.
4. Put the static electrode on top or adjust the electrode-holder handles with their corresponding roller accessory if you wish to use the microgalvanic. To this end, the electrode holders must be connected to the relevant outlets (6,7), and the microgalvanic switch (8) must be on.
5. Connect the polarity selected on the relevant switch (9).
6. Turn the intensity control of the galvanic current (4) and increase slowly up to the value chosen. Maintain the same treatment time and change the polarity half way through the treatment if it is convenient.
7. At the end of the treatment, slowly reduce the intensity to zero and turn the switch (4) to its off position. Remove the electrodes and clean them.
8. Turn off the main switch (1).

IMPORTANT

- To avoid mistakes when starting a new session, always make sure that the inverter (8) is always off and on its normal position when finishing a treatment.
- Thoroughly clean all electrodes and covered used in each treatment with soap and water at the end of the session.

- In some cases a certain reddening of the skin can be observed when removing the electrodes. This phenomenon, known as *endosmosis*, is caused by the movement of fluid particles of the tissues that are concentrated in front of the cathode. This reddening is perfectly normal and disappears after a short period of time. Likewise, due to the movement of the ions, the client can feel a sensation of heat in the treated area. We must try to reduce this heat production, using the whole surface of the electrodes. When only a small part of the total surface of the plates is used, the heat generated concentrates in that area and there is a risk of burn. However, when using the whole surface of the electrodes, the heat produced is spread throughout the surface of the skin in contact with the plate. To make sure that this contact is perfect and that the electrical conduction of the current is optimum, the covers and cotton wool that cover and protect the electrodes must always be moistened.
- It has to be mentioned that ionisation produces a certain effect of hardening in areas close to the anode, which is used for firming treatment.
- This phenomenon comes from the change of permeability of the skin as a result of the movement of ions and fluids.
- In the description of descaling and acne treatments the negative ions have been considered as the active ones. If on the other hand the active ions of the product used were the positive ones, the inverter at the front of the device (8) would have to be pressed.

POSSIBLE TECHNICAL PROBLEMS

1. The device is not working. Why?

The cable of the accessories may be cut in one of its points or at the extremity of connexion to the device. For a proper operation of the device, replace the broken part of the cable. The device blocks any current output when it detects a leak. To extend the lifetime of these accessories, it is recommended to place the apparatus at a 90° angle from the working couch, to avoid any unnecessary suffering of the cables.

Also check that the plug is connected properly and that tension reaches the appliance (you can check the presence of current with another device). Verify the rear connector and the reliability of the mains cable, using it to connect another appliance. It thus indicates that the problem does not come from the mains cable. Once these verifications are made, the protection fuse may be examined to see if it has not melted. Finally, make sure that the mains voltage correspond to that of the device.

If the pilot light is on but the device is not working, check with this start up manual that the operation process is the right one. If the problem persists, consult the technical department.

90% OF TECHNICAL PROBLEMS COME FROM A LACK OF ATTENTION WHEN HANDLING THE BUTTONS AND FROM THE NATURAL WEAR OF THE ACCESSORIES. For this reason, please check all these details before contacting your nearest technical service.

2. I discovered that the device does not work properly since yesterday. However, there has been a storm...

Storms and rains can sometimes affect national hydroelectric systems. If you discover problems with your electrical devices after a storm (especially the most sensitive), it is advised to connect a current stabiliser to the device. This electrical device facilitates the apparatus proper operation by purifying the inconstant electrical signal received by the user and creating a continuous, stable signal. Sensitive devices can then work properly since they receive the same amount of mains voltage at all time.

GUARANTEE AND SAFETY

1. The manufacturer is not responsible for an improper use of this device, nor for the consequences derived from it. Any use not included in this instruction manual can be dangerous. We therefore ask you to consult your nearest authorised distribution centre for any doubt.
2. Our wish to include possible improvements in our appliances compel us to reserve the right to modify the characteristics of our devices without prior notice.
3. All devices are provided for a **mains voltage** of 230 volts. If you require a voltage of 125V, notify it to your provider at the time of the order.
4. As MANUFACTURERS we offer a 24-month **guarantee** on our devices against any manufacturing fault.

In order for this guarantee to be efficient, the following technical **specifications** must be taken into account:

4.1. Minimum specifications in the electrical installation:

- The device must always be connected to the electrical current by means of a voltage regulator with ground point, whose output voltage must be included between 110 and 120 volts, in the case of installations with this voltage (particularly in Latin-American countries) or 220 and 230 volts in European countries.
- The socket where the device is connected must be in perfect conditions.

4.2. This guarantee **becomes invalid** if:

- A. The device is used **improperly**.
- B. The electrical installation or the regulator connected to the device are **defective**.
- C. The device is exposed to **overloads**, short-circuits, electrical discharges, floods or other similar unforeseeable circumstances.
- D. The device is **handled** or **repaired** by staff non authorised by EMA.

DECLARACIÓN DE CONFORMIDADDECLARATION OF CONFORMITY
DECLARATION DE CONFORMITÉ89/336/CEE
73/23/CEE**MARZO 2003**
MARCH 2003
MARS 2003

Electroestética & Mobiliario

**Nombre del Fabricante:**

Manufacturer's name:

Nom du fabricant :

BIOINSIDE INVESTIGACIÓN Y TECNOLOGÍA, S.L.**Dirección del Fabricante:**

Manufacturer's address:

Adresse du fabricant :

**Sant Martí de l'Erm, 22
E 08970 – Sant Joan Despí
BARCELONA - SPAIN****Declara que el producto:**

Declares that the product:

Déclare que le produit :

Electrocosmético**Electrocosmetic**

Electro-cosmétique

Nombre del producto:

Name of the product:

Nom du produit :

GALVANIC 6000**Marca:**

Brand:

Marque :

EMA**Cumple con la normativa:**

Complies with the norm:

Est conforme à la norme :

Seguridad Eléctrica:

Electrical Security:

Sécurité électrique :

**CLASE I TIPO BF
UNE EN 60601****Compatibilidad Electromagnética:**

Electromagnetic Compatibility:

Compatibilité électromagnétique :

EN 61000-3-2, EN 61000-3-3, EN 50081-1, EN 55011, EN-5002-1, EN 61000-4-2, EN 61000-4-2, EN 61000-4-3 + ENV 50204, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11.

HOW TO REPORT A BREAKDOWN**At the expense of the CLIENT**

Client.....
Identity card number.....
Street.....n°.....
City..... Tel.
Device:-Serial number:
Date of Purchase Sold by
Breakdown or problem:.....
.....
.....
.....
Date Stamp and Signature
.....

REPAIRS UNDER WARRANTY

1. The costs and risks derived from the transport of the device under warranty are to be assumed by the client.
2. Those accessories subject to wear and tear and affected by lack of maintenance and cleaning (active and passive plates, cables, electrodes, electrode probes, probes, etc.).
3. The device under warranty must be sent in its original packing.
4. If the technician does not find any manufacturing defaults or only natural consequences of wear and tear, the costs derived from the revision run at the buyer's expenses, even though the device is still under warranty.
5. The warranty conditions are fully detailed in this instruction manual.

WARRANTY

1. *The buyer will verify the correct state of the merchandise within 24 hours after reception.*
2. *The warranty does not cover any anomalies and/or damages caused by transport.*
3. *The device remains under warranty until 24 months after purchase.*
4. *Assistance under warranty can be provided from the moment on the manufacturer receives a copies of the installation certificate signed by the client and the salesperson. In lack of this document, all the repairs and interventions, even performed in period of warranty, will run at the client's expenses (they will not be for free).*
5. *Those accessories subject to natural wear and tear (active and passive plates, cables, electrodes, etc.) are not included in the warranty.*
6. *Any defect encountered and reported within 30 days after purchase will automatically lead to the replacement of the defectuous article after the reception of the latter.*
7. *Each repair and/or replacement will require the presentation of the warranty certificate that comes with the device at the moment of purchase.*
8. *The device must be send to the distributor in its original packing.*
9. *The warranty does not cover those parts damaged because of a negligent use or lack of maintenance, consequence of the client's failure to contemplate the instructions. Regardless the fact wether it concerns an incorrect maintenance or other circumstances that are not the consequence of manufacturing defaults.*
10. *The manufacturer declines any responsibility for damages caused directly or indirectly to persons or objects as a consequence of the failure to comply with the prescriptions indicated in the user's manual and in particular, the warnings regarding the use and maintenance of the device. The warranty does never, under no circumstances, cover indemnisations for damages of any nature caused to persons or objects*
11. *The warranty will be nullified and costs derived from assisting the client will be charged to the latter in the following cases:*
 - a) *When the buyer cannot show the certificate of warranty;*
 - b) *When the device has been given other uses than the ones it has been designed for;*
 - c) *When the serial numbers have been whipes out, altered or eroded;*
 - d) *When the device has been tampered with, even when it concerns only a part or component.*
12. *The costs and risks derived from transporting the device are at the buyer's expenses.*
13. *If the technical team does not encounter any manufacturing defaults, all the costs derived from the revision will run at the client's expenses, even in period of warranty.*
14. *The warranty conditions con not be modified by any oral or written agreement.*
15. *Only the manufacturer can perform the assistance under warranty.*
16. *The use of a **tension stabilizer** is compulsory if the tension of the electrical subministration varies +/- 10% from the nominal value. The warranty does not cover alterations suffered by the device because of tension pikes or because of the incorrect state of the electrical installation.*

DEVICE DATA**MODEL:****Date of Manufacturing:****Serial Number:****Verifier:****Date of buying:****Distributor's stamp:**

MANUFACTURER'S NOTE:

Our wish to offer to the aesthetic sector equipments that keep adapting to the requirements of this young profession leads us to conceive new equipments and to try and improve those already existing. For this reason we are compelled to reserve the right to modify these specifications without prior notice.

All equipments are intended for a mains voltage of 230 V. If you require it for a voltage of 125 V, please inform your supplier at the time of order.

The inappropriate use – not included in this instruction manual – from the beauty professional can have undesirable results. The manufacturer is not responsible for the results derived from an improper use of the machine.

SUGGESTIONS:

Your opinion is important to us. You can send your comments and suggestions to get a better service day after day. You can write at the following address:

EMA

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NOTES AND COMMENTS

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