

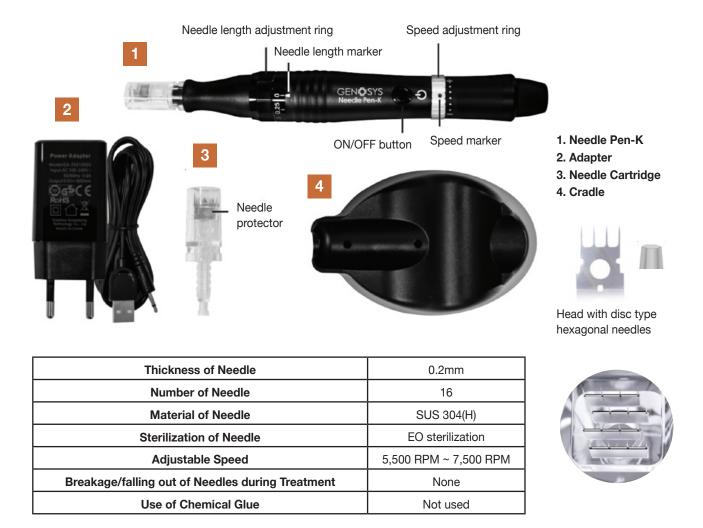






### AUTOMATIC DEVICE FOR MICRONEEDLING THERAPY.

Microneedling treatment is attaining popularity as an alternative to skin resurfacing treatment such as laser or chemical peels for the patients not suitable for laser treatment or wishing to have a less invasive procedure with fewer risks. Genosys offers the NEEDLE PEN-K, a micro tip pen for automated micro needling. Unique in terms of design and manufacturing process, the microtip heads penetrate the skin, opening pathways that facilitate the penetration and absorption of cosmetics. Microneedling treatment is a very well-balanced technique with long-lasting effects. Face Treatment: Reduces deep wrinkles, fine lines, puffiness and dark circles. Lifts and firms. Tones and reshapes the oval of the face. Treats acne and improves skin texture. Reduces acne scars and pigment spots. Promotes the creation of collagen and elastin. Body treatments: Firms, lifts and reduces tissue flaccidity. Reduces stretch marks and scars. Improves skin texture. Increases the results of post-surgical treatment. Hair treatment: Brings nutrition to the hair fiber. Reduces hair loss and promotes regrowth.



Disk type needle: Each metal disk has 4 needles. And four disks compose one needle cartridge. When pricking the skin with the disk needles, the needles do not give severe damage to the skin and can be prevented from being broken. Cutting shape of needle – hexagon: The circumferential surface of the drum is configured to form a polygonal cross-section of at least six sides instead of a circular cross section, so that, when pricking the skin with the needles, the contact surface of each needle relative to the skin can be reduced, thus minimizing the pain. Thickness of needle- 0.20mm: The pricking sensation is minimized. Sterilized needles: hygiene, safety. Adjustable needle length-0.25mm~2.00mm: According to the purpose of treatment, needle length can be adjusted, which allows for more effective and affordable treatment for a patient with a multitude of skin conditions requiring different length needles. Rubber spring of needle cartridge: It prevents fluids from flowing into the device during the treatment.





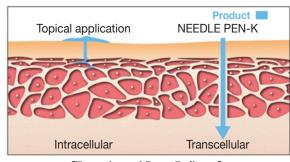
#### MECHANISM

#### [Transdermal Drug Delivery]

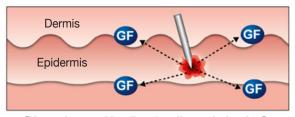
Due to the protective function of skin barrier and the big molecular size of ingredients, about 99.7% of the applied or sprayed nutritive elements cannot pass through the stratum corneum, which is the outermost layer of the skin, but remain on the skin and finally disappear. Only 0.3% of the applied or sprayed nutritive elements can infiltrate into the dermis. To solve this problem and increase penetration, GENOSYS NEEDLE PEN-K is designed to create a physical path- way through the upper epidermis to increase skin permeability. They are applied to the skin surface so that they pierce the upper epidermis to increase skin permeability and allow delivery of active ingredients.

#### [Collagen Induction by Natural Wound Healing Process]

Microneedling results in the natural response to wounding of the skin. When the needle penetrates into the skin, it causes some localized damage and bleeding by rupturing fine blood vessels. Platelets are automatically released and the normal process of inflammation commences. This promotes the normal post-traumatic release of growth factors and infiltration of fibroblasts. This reaction is automatic and produces a surge of activity that inevitably leads to the fibroblasts being "instructed" to produce more collagen and elastin.



[Transdermal Drug Delivery]



[Natural wound healing & collagen induction]



## HOW TO OPERATE

### 1. Preparation

- 1) Open the sterilized pouch of needle cartridge.
- 2) Align the bottom of the needle cartridge with the groove inside the device, and then press the needle protector down.
- 3) Turn the needle cartridge clockwise to fasten it to the device. The needles should not protrude out of the needle protector when the needle cartridge is inserted into the device. If needles protrude out, take out the needle cartridge from the device and reinsert it following the steps described above.
- 4) Choose the proper needle length.
- 5) To remove the needle cartridge, turn it counterclockwise.

#### 2. Power ON/OFF

Press the power button to start or stop the device.

#### 3. Adjustable speed and needle length

## 1) Speed

Adjust the speed of the device by turning it clockwise or counter- clockwise using the speed adjustment ring. The speed varies according to the position of the red dot on the speed control ring. If the red dot is located at '|', it operates at the slowest speed, and if it is located at '+', it operates at the fastest speed.

#### 2) Needle length

Adjust the needle length by turning the needle length adjustment ring clockwise or counterclockwise to position the needle length marker at the desired needle length. Needle length can be adjusted while the device is operating.

#### 4. Automatic pause

If you put the device on the cradle while in use, the device will stop working for a while, and it will start working automatically when you remove it from the cradle. To use the 'automatic pause' function, place the device on the cradle frame as shown on the image.







#### TREATMENT PROCEDURES

#### Step 1. Cleansing

Cleanse the skin thoroughly with a cleanser.

#### Step 2. Application of Anesthetic Cream

- 1) Apply a local anesthetic cream on the treatment area. It is important to read the user's manual of the anesthetic cream before its application.
- 2) After 30-60 minutes (depending on the anesthetic agent and the intensity of the procedure), remove the anesthetic cream. Make sure there is no remnant on the skin.

#### Step 3. Microneedling Treatment

- 1) Choose the proper GENOSYS POWER SOLUTION depending on the skin conditions and apply to the treatment area.
- 2) Choose the proper needle length and speed.
- 3) Stretch the skin with one hand not holding the device.
- 4) Start gliding/stamping from the center of the face to the laterad.

#### > Technique:

- Aesthetic Purpose (0.25~0.5mm): When using the device to increase the skin absorption of active ingredients with rather short needles, one-way gliding technique is recommended. (It may appear that there are scratches on the skin after treatment, but these wounds will be recovered through a normal regeneration process.)
- Medical Purpose (1.0~2.0mm): When using the device to medical treatment such as scar and wrinkle treatment with rather longer needles, stamping technique is recommended.

| TREATMENT AREA          |                    | Needle Length  | Speed |
|-------------------------|--------------------|----------------|-------|
| Forehead                |                    | 0.25mm ~ 0.5mm | 3~4   |
| Glabella                |                    | 0.25mm ~ 0.5mm | 3~4   |
| Around Eyes             |                    | 0.25mm         | 2~3   |
| Nose                    | Ala                | 0.25mm ~ 0.5mm | 1~3   |
|                         | Apex, Nasal Bridge | 0.25mm         | 3~4   |
| Philtrum                |                    | 0.25mm         | 3~4   |
| Cheek Bone              |                    | 0.5mm          | 5~7   |
| Cheek                   |                    | 0.5mm ~ 1.5mm  | 3~7   |
| Scar                    |                    | 1.0mm ~ 1.5mm  | 5~7   |
| Stretch Mark, Cellulite |                    | 1.0mm ~ 1.5mm  | 5~7   |

## Step 4. Moisturizing and Soothing

Apply a soothing and moisturizing product or facial mask on the treatment area.

#### Step 5. Post-operative Treatment

After the treatment, it is recommended to apply a sunscreen product.

Products Recommended to be Used with GENOSYS NEEDLE PEN-K

- \* Do not use the products that are not formulated for microneedling treatment as they can cause skin problems.
- \* Recommended Products:
- a) Cleansing: GENOSYS SNOW 02
- b) Main Treatment: GENOSYS POWER SOLUTIONS
- c) Post-care: GENOSYS SOOTHING REPAIR POSTCREAM / PEPTIDE GEL MASK / MULTI SUN CREAM





#### NOTICE TO PRACTITIONER

#### [Contraindications]

- \* Do not use the product in the following cases.
- a) in case of progressive acnes, eczema or any dermatitis
- b) in case of diabetic complications or any other serious disease c) in case of keloid or metal allergy
- d) on the inflamed area or the area with infection concerns.
- e) on children or animals

#### [Before Treatment]

- \* GENOSYS NEEDLE PEN-K should be used only by qualified and skilled professionals.
- \* Check if there is any damage on the package or the sealing is broken before use.
- \* Do not use the needle cartridge if the date of validity has expired.
- \* Unseal the needle cartridge just before treatment and make sure that it does not touch other objects. (to avoid its infection)
- \* Before use, make sure that the needle cartridge is properly inserted to GENOSYS NEEDLE PEN-K.
- \* Disinfect the skin and use the product after wearing latex gloves.
- \* The patients' skin needs to be thoroughly examined before treatment.
- \* In case of medical-grade length, prior to treatment a topical anesthetic should be applied. And it should be checked if the patient is allergic against certain type of anesthetic product before application.

#### [During Treatment]

- \* Avoid its contact with sensitive areas such as lips and eye contour (eye lids).
- \* The client or patient should close the eyes during the treatment.
- \* When using the product, use the other hand to pull the skin tight. It helps produce even needle holes and prevent scratches.
- \* Zigzag, jumpy and curving technique should be avoided.
- \* Do not switch the direction while gliding.
- \* If the skin bleeds, press slightly with sterilized gauze and remove the blood so that the clot of blood does not interfere the penetration of solutions.
- \* In case of rashes, allergic reactions or any other undesirable effects, stop using the product immediately and ask a medical advice.

#### [After Treatment]

- \* After the procedure, remove the needle cartridge and discard it. Clean the handpiece with alcohol.
- \* Maintenance treatment time can be flexible depending on the condition of patient's skin, practitioner can judge and adjust treatment program.

| Day 0   | Skin can look pink or red / some bruising / feel warm and tight  |  |
|---|--|--|
| Day 1   | Makeup can be applied / Healthy glowing and tighter skin feeling |  |
| Day 2 ~ 2 Years No more redness and discomfort / collagenesis starts and skin condition will keep |  |  |

- \* 4 hours after treatment, face can be washed.
- \* For 1~2 days after treatment, artificial heat (hot bath, sauna etc.) and drinking alcohol should be avoided.
- \* Refrain from swimming for 1~2 days.
- \* Post-care products
- a) Everyday sunscreen product should be used. For around 10 days, application of sunscreen product should be carefully done.
- b) After treatment, due to faster drying up of skin, keratin could be seen peeling. When skin regenerates and as keratin peels off, the skin temporarily gets dry. Therefore, the importance of hydration must be emphasized to patient.
- With 1.5mm~ 2.0mm roller treatment -> during maximum 1 week.
- With 0.5mm~1.0 mm roller treatment -> for 2~4 days.
- c) When using post-care products, tingling sensation can be felt. (for 1~2 days)





#### WARRANTY

We offer free repair of our products when used normally in accordance with GENOSYS NEEDLE PEN-K's published guidelines for a period of 24 months from the date of original purchase by the end-user purchaser («Warranty Period»). We are not responsible for damage arising from failure to following instructions relating to the GENOSYS NEEDLE PEN-K's use.

This Warranty does not apply:

- (a) to damage caused by accident, abuse, misuse, liquid contact, fire, earthquake or other external cause;
- (b) to damage caused by operating the product outside GENOSYS NEEDLE PEN-K's published guidelines;
- (c) to damage caused by service performed by anyone who is not a certified technician of GENOSYS NEEDLE PEN-K;
- (d) to the product that has been modified to alter functionality or capability by user;
- (e) to defects caused by normal wear and tear or otherwise due to the normal aging of the product,
- (f) to damage caused by using accessories or components not appointed by GENOSYS.
- \*In case that the warranty does not apply, customers are in charge of cost for repair.

#### MAINTENANCE

- \* General maintenance:
- Keep it with its power off. Wipe out its surface with a dry cloth.
- Keep it away from direct sunlight, high temperature and humidity.
- Do not leave the measurement, repair or alter of the device to non-professional staff.
- \* Routine inspection:
- Make sure to inspect the device and adapter before use.
- When using the device which has not been used for a long time, make sure to check if it works properly for safety.

# BEFORE / AFTER





