SlowJec plus

[DSD-PLA-0100]

User Manual | OS-UM-C020 | 2021.03.12 / Ver. 1.0

IMPORTANT NOTES

For correct use of the device, make sure to read the user manual thoroughly before use.

SlowJec plus [DSD-PLA-0100]
User Manual | User Manual | 2021.03.12, Ver. 1.0

Dear SlowJec plus customers,
Thank you very much for using our product, SlowJec plus. For correct use and maintenance of the product, make sure to read the user manual thoroughly before use and also store the Product Warranty document in a safe location.

Table of Contents

01. Overview
02. Product Features
03. Part Names and Functions
04. How to Use
05. Finished Use and Product Separation
06. How to Store and Manage the Product after Use
07. Safety System
08. Troubleshooting
09. Product Disposal
10. Labels
11. Product Warranty

01. Overview

1. Purpose of Use
   The product is a cordless anesthesia device that can be used to inject anesthetic at constant speed by controlling the motor while anesthetizing the oral cavity.

2. Users
   A dental clinic worker with a dental treatment license at hospitals, dental clinics and so on.

3. Prohibition
   Do not use the product's main body, cartridge, cradle, or AC adapter for other purposes than the intended purpose of use.

4. Precautions
   Prior to use, carefully read the safety precautions.
   The following items are used to prevent risk factors that can harm users and to guarantee safe use of the product. So, be fully familiarized with them before use.

Classification	Level of risk, damage or severity
DANGER	Likely to cause fatal damages.
WARNING	Likely to cause physical injuries or device malfunctions.
CAUTION	Likely to cause slight physical injuries or device malfunctions.
NOTICE	Items that a user must comply with for safety reasons.

CLASSIFIED C UL US E482378	MEDICAL - GENERAL MEDICAL EQUIPMENT AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH "ANSI/AAMI ES 60601-1 (2005) + AMD (2012)" "CAN/CSA-C22.2 No. 6060-1 (2008) + (2014)"

℞ ONLY	Caution : Federal law restricts this device to sale by or on the order of a dentist. Attention : La loi fédérale limite la vente de cet appareil par ou sur l'ordre d'un dentiste.

Symbol marks	Descriptions
	Disposal of electrical medical devices: Once the product reaches its end of life, make sure to recycle it or separate it for safe disposal; this is to prevent environmental pollution and conserve resources.
	Read the user manual.
	Manufacturer information: This symbol is followed by the name and address of the device manufacturer
	Temperature limits
	Relative humidity limits
	Atmospheric pressure limits
	Keep it dry
	Cautions for handling.
	IEC 60601-1. Specific degree of electrical-shock protection against leakage current and protective earth. B-type equipment.

※DANGER

Only use a dedicated Lithium polymer battery for the product. Other types of battery cannot be used.

※ DANGER

Utilisez uniquement une batterie lithium-polymère dédiée au produit. Les autres types de batterie ne peuvent pas être utilisés.

※WARNING

-When injecting anesthetic into a patient by using the product, make sure to properly adjust the amount of injection depending on whether a patient is a pregnant woman, breast feeding woman, woman at childbearing age, infant, kid or elder.

-Connect the authentic cartridge included in the package only.

-After use, the cartridge is likely to cause infection if used again. So, do not reuse it without sterilizing it.

-Needle is for single-use only. Do not reuse it.

-Do not touch the AC adapter, cradle or product with wet hands. It can cause electrical shocks.

-To prevent electrical shocks, you must connect the device to a power supply with protection ground only.

-Do not leak water or chemicals onto the top of the main body or cradle. It can cause electrical shocks or damages to the electrical circuits.

-Do not place it near the highly explosive or flammable materials.

-Do not disassemble or deform the product.

- Be careful not to drop this product.

-Before charging the product, make sure to correctly mount the main body in the cradle slot and when it is correctly mounted, check if the cradle lamp is lit in orange.

-If there is leakage inside the main body, it can cause malfunctions to the main body, so stop using it immediately and ask the manufacturer to repair it.

-If the battery fluid gets into your eyes, there is a risk of blindness. Seek medical attention immediately.

-If the main body has not been used for a long time, check all the above items one more time before starting to use it again.

-Keep your mobile phone or wireless RF communication device as far away from the device as possible since they can affect operation of the medical electronic devices.

-When charging the main body, you can only use the dedicated cradle for the product. You cannot use other similar types of chargers.

-On the charging terminal of the main body and the cradle, do not place any other objects (ex. Metal, coin, wire, plastic and so on).

※ ATTENTION

- Lors de l'injection d'anesthésique à un patient en utilisant le produit, assurez-vous d'ajuster correctement la quantité d'injection selon que le patient est une femme enceinte, une femme qui allaite, une femme en âge de procréer, un nourrisson, un enfant ou une personne âgée.
- Connectez la cartouche authentique incluse dans l'emballage uniquement.
- Après utilisation, la cartouche est susceptible de provoquer une infection si elle est réutilisée. Donc, ne le réutilisez pas sans le stériliser.
- L'aiguille est à usage unique. Ne le réutilisez pas.
- Ne touchez pas l'adaptateur secteur, la station d'accueil ou le produit avec les mains mouillées. Cela peut provoquer des chocs électriques.
- Pour éviter les chocs électriques, vous devez connecter l'appareil à une alimentation avec une terre de protection uniquement.
- Ne laissez pas couler d'eau ou de produits chimiques sur le dessus du corps principal ou du berceau. Cela peut provoquer des chocs électriques ou endommager les circuits électriques.
- Ne le placez pas à proximité de matériaux hautement explosifs ou inflammables.
- Ne pas démonter ou déformer le produit.
- Attention à ne pas faire tomber ce produit.
- Avant de charger le produit, assurez-vous de monter correctement le corps principal dans la fente du socle et lorsqu'il est correctement monté, vérifiez si le voyant du socle est allumé en rouge.
- S'il y a une fuite à l'intérieur du corps principal, cela peut provoquer des dysfonctionnements du corps principal, alors arrêtez de l'utiliser immédiatement et demandez au fabricant de le réparer.
- Si le liquide de la batterie entre en contact avec vos yeux, il existe un risque de cécité. Consultez immédiatement un médecin.
- Si le corps principal n'a pas été utilisé pendant une longue période, vérifiez encore une fois tous les éléments ci-dessus avant de recommencer à l'utiliser.
- Gardez votre téléphone portable ou votre appareil de communication RF sans fil aussi loin que possible de l'appareil car ils peuvent affecter le fonctionnement des appareils électroniques médicaux.
- Lorsque vous chargez le corps principal, vous ne pouvez utiliser que le socle dédié au produit. Vous ne pouvez pas utiliser d'autres types de chargeurs similaires.
- Sur la borne de charge du corps principal et du socle, ne placez aucun autre objet (ex. métal, pièce de monnaie, fil, plastique, etc.).

※CAUTION

-Do not use or place the product in the environment with direct sunlight, inside the car under the bright sun, near the fireplace, or source of fire where the temperature is very high.

-Before replacing the ample or cartridge, make sure to power off the main body. If you replace it

when the power is on, it can cause malfunctions.
-Charge the battery if the battery level is low before use.
-If chemical, solvent, or detergent comes in contact with the main body, it can cause decolorization or deformation, so please wipe it off immediately.
-The product can be used indoors only.

※ AVERTIR
- N'utilisez pas ou ne placez pas le produit dans un environnement exposé à la lumière directe du soleil, à l'intérieur de la voiture sous un soleil éclatant, près de la cheminée ou d'une source d'incendie où la température est très élevée.
- Avant de remplacer l'ample ou la cartouche, assurez-vous d'éteindre le corps principal. Si vous le remplacez lorsque l'appareil est sous tension, cela peut provoquer des dysfonctionnements.
- Chargez la batterie si le niveau de la batterie est faible avant utilisation.
- Si un produit chimique, un solvant ou un détergent entre en contact avec le corps principal, cela peut provoquer une décoloration ou une déformation, veuillez donc l'essuyer immédiatement.
- Le produit ne peut être utilisé qu'à l'intérieur.

※NOTICE
-There is no need for additional training before using the device.
-The product can be used regardless of a patient's age, gender, nationality or weight.
-A user is responsible for controlling, maintaining and inspecting the product.

※ AVIS
- Aucune formation supplémentaire n'est nécessaire avant d'utiliser l'appareil.
- Le produit peut être utilisé quel que soit l'âge, le sexe, la nationalité ou le poids du patient.
- Un utilisateur est responsable du contrôle, de l'entretien et de l'inspection du produit.

02. Product Features

(1) There are a total of 4 buttons (an inject button, a stop button, a decelerate button, and a power button).
(2) You can switch between manual and auto modes.
(3) You can accelerate or decelerate the speed in manual mode. (Level 1 → level 2 → level 3 → level 2 → level 1)
(4) You can switch from auto mode to manual mode.
(5) You can adjust the voice volume. (0~3 levels)
(6) The LED displays the amount of ample injection and the ample injection pressure during injection.
    A. Injection level: 25%, 50%, 75%, 100% (LED with step of 25%)
    B. Injection pressure: Level 1 Level 2, Level 3, Level 4 (LED with step of 1 level)

(8) Pay attention to the following requirements for the environment and conditions of use.

A. Environment: Do not use it in a place with high humidity such as a bathroom.

B. Environment of use

- Room temperature: 10℃ ~ 35℃
- Relative humidity: 10% ~ 75%
- Air pressure: 700hPa ~ 1060hPa

C. Transportation/Storage environment

- Recommended to transport/store the product within -10℃ ~ 50℃.
- Relative humidity: 10% ~ 80%
- Air pressure: 500hPa ~ 1060hPa

03. Part Names and Functions

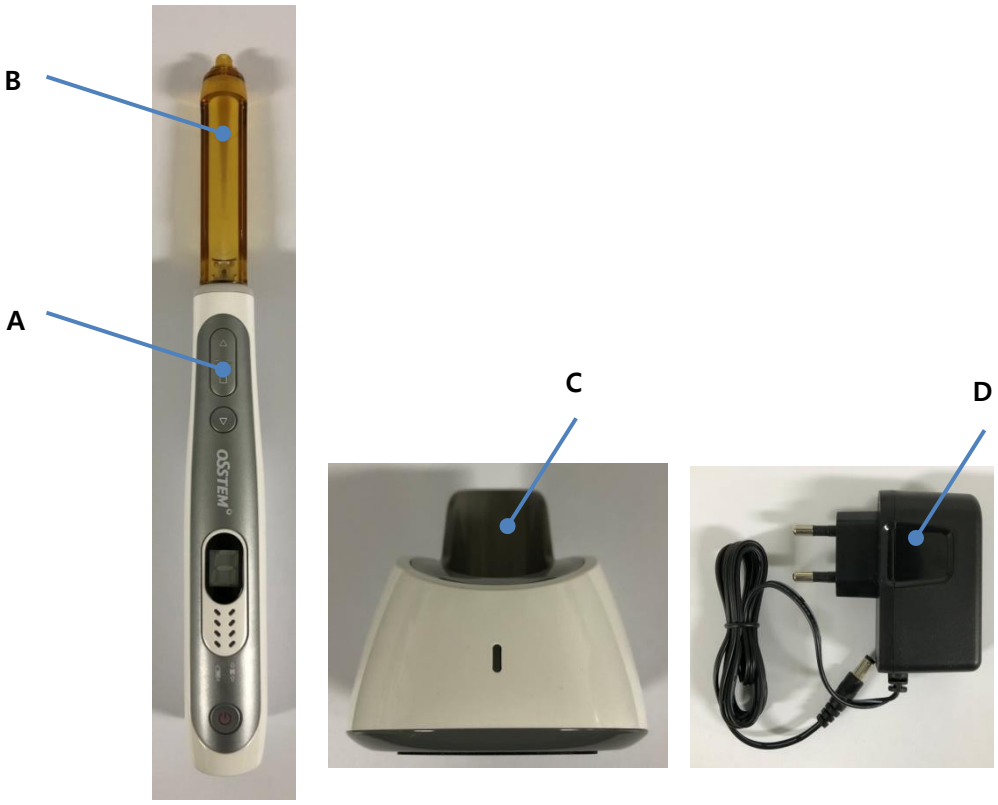
1. Product Package

A. Main body: Mount the cartridge and inject anesthetic.

B. Cartridge: Mount the needle and the anesthetic ample.

C. Cradle: Hold the main body safely and allow the battery to be charged.

D. AC adapter: Supply power to the main body and charge the battery.



2. Descriptions of the exterior of the main body

A. Cartridge Assembly

-Area where the cartridge is assembled

B. Inject button

-Press the button to start injection or change the injection speed.

-Long press (for more than 1 sec) the button in initial condition to remove bubbles.

C. Stop button

-Press the button to stop injection.

-Long press the button in initial condition to switch between manual and auto modes.

D. Decelerate button

-Press the button to reduce the injection speed.

-Long press the button while stopped to return to the initial condition.

-Long press the button in initial condition to set the voice volume.

E. Display

-Area to display the injection speed and the status information.

F. LED

-Area to display the amount of injection and the injection pressure.

G. Power button

-Press the button to turn On/Off the power.

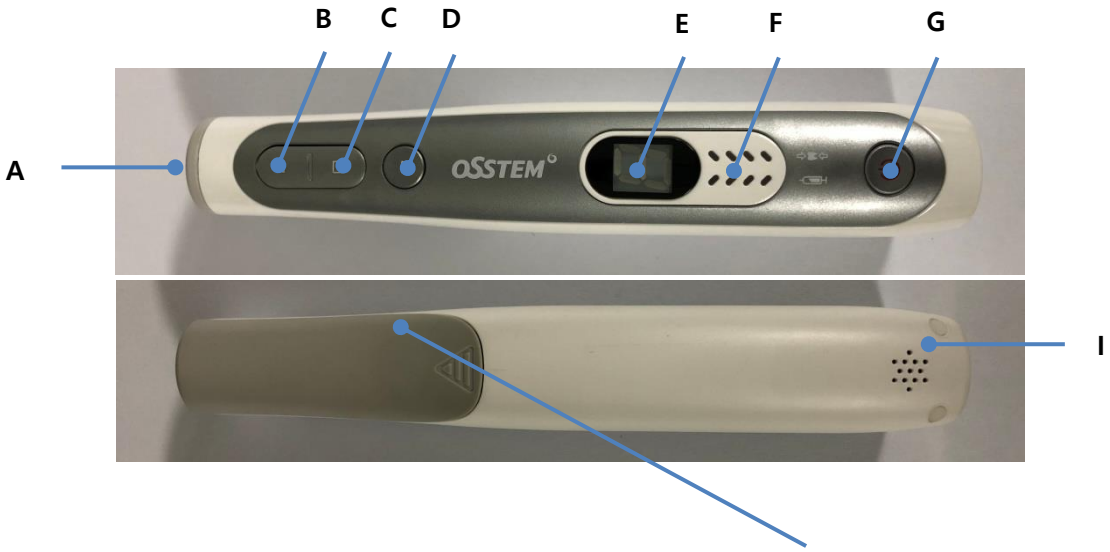
-Short press (for less than 1 sec) the button while stopped or in initial condition to check the battery level.

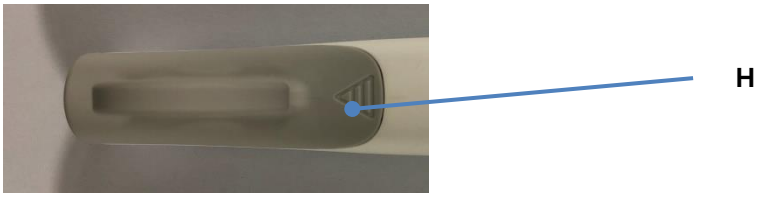
H. Grip Cove

-Two types of grips for users' convenience

I. Speaker

-Speaker to output voices





3. Descriptions of the exterior of the cradle
   A. Complete charging LED (Green lamp)
      -Lit in green if the charging is completed.
   B. Charging LED (Orange lamp)
      -Lit in orange if the charging is still in progress.
   C. AC adapter connector
      -5V/2A adapter connector
   D. Holder
      -Place the main body in here.

4. LCD screen

Display unit	Mode	Descriptions
P	Power On	Displayed when power is On.
8	Power Off	Displayed when power is Off.
H	Manual mode selection	Displayed when in manual mode.
A	Auto mode selection	Displayed when in auto mode.
U	Voice setting	Displayed when entering the setting menu.
0 ~ 3	Volume control	Displays the current volume.

	Bubble removal	Displayed when bubbles are being removed.
	Low speed (Level 1)	Displays the speed for manual mode injection.
	Mid speed (Level 2)	Displays the speed for manual mode injection.
	High speed (Level 3)	Displays the speed for manual mode injection.
	Auto	Displayed when for auto mode injection.
	Initialization	Displayed when initialization is in progress.
	Complete injection	Displayed when injection is complete.
	Operation error	Displayed when an error occurs.
	Battery check	Displayed when checking the battery.

04. How to Use

1. Cautions before use
   A. Be fully familiarized with how to use the device and check if the product is powered up with no problem.
   B. Check if the battery level is high enough. If not, you can fully charge the battery for use.
   C. To prevent infection, you must sterilize the cartridge in a high pressure vapor sterilizer before use or reuse. (But the detailed setting of sterilization is based on the information provided by the sterilizer manufacturer)
   D. You can only use a single-use, local anesthetic ample for dental clinics.

2. Cautions for Use
   A. Only a qualified dentist or dental worker can use the product.
   B. After purchasing the product for the first time, use the cradle to charge it sufficiently for at least 8 hours.
   C. Do not use the device for any other purposes than the intended purpose of use.
   D. Use a single-use needle only.
   E. Make sure to dispose the needle after use.
   F. Do not use a non-standard needle.
   G. Make sure to use the AC power cord with shielding.
   H. Use the AC adapter provided by the manufacturer only.
   I. Do not let the device come into direct contact with water. Do not use it in a location full of dusts.
   J. Do not use the device in a location with flammable gas.

K. Since it can cause harms to the device or users, users or unqualified technicians are never allowed to disassemble or assemble the device.
L. For electrical safety, do not place a heavy object on top of the charging power cable or place the device near the source of fire at high temperature.
M. If the device is operating abnormally, then stop using it immediately and turn off the power.

3. Charging
   A. Insert the AC adapter cable into the back of cradle.
   B. Insert the AC adapter into the electrical outlet with proper voltage level.
   C. Insert the main body into the correct terminal of cradle.
   D. When charging starts, the orange LED of cradle is lit.
   E. When charging is completed, the cradle LED switches from orange to green.

※WARNING
-Do not use the cradle of the product to charge other product's battery
-Do not touch the product with wet hands

※ ATTENTION
- N'utilisez pas le socle du produit pour charger la batterie d'un autre produit
- Ne touchez pas le produit avec les mains mouillées

※CAUTION
-Place the main body in the cradle in such a way that the LCD window is displayed at the front.
- When charging for a short period of time, then the battery unit can be little too hot. You are recommended to charge it over a long period of time if possible.
-Use and store the charger in a location with relatively less temperature change and no direct sunlight.
-Do not use it in an environment with too high or low temperature. (1 ~ 35℃)

※ AVERTIR
- Placez le corps principal dans le berceau de manière à ce que la fenêtre LCD s'affiche à l'avant.
- Lors de la charge pendant une courte période, l'unité de batterie peut être un peu trop chaude. Il est recommandé de le charger sur une longue période de temps si possible.
- Utilisez et stockez le chargeur dans un endroit avec relativement moins de changement de température et sans lumière directe du soleil.
- Ne l'utilisez pas dans un environnement à température trop élevée ou trop basse. (1 ~ 35℃)

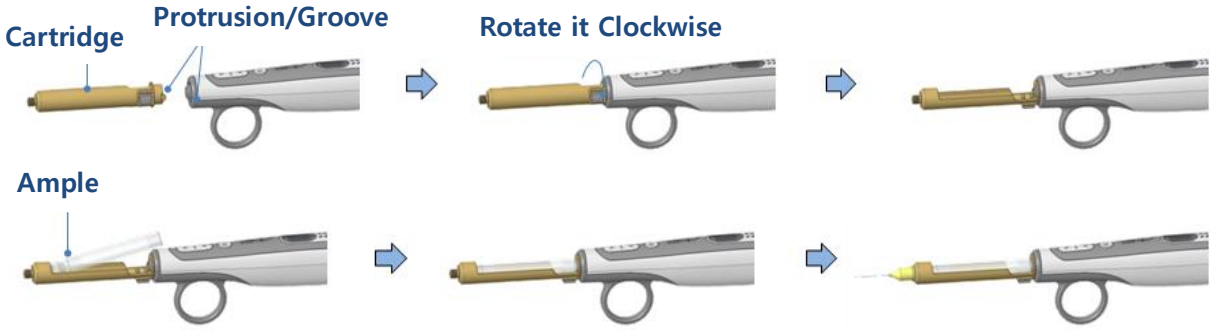
※NOTICE

-If the LED is not lit while the battery is charging, then it means that there is a problem in the internal circuit, so ask the seller to repair it for you

※ AVIS

- Si la LED ne s'allume pas pendant la charge de la batterie, cela signifie qu'il y a un problème dans le circuit interne, alors demandez au vendeur de le réparer pour vous

4. How to mount the cartridge
   A. Insert the cartridge correctly into the front groove of the main body.
   B. After inserting the cartridge into the main body, turn it Clockwise by 90 degrees to securely fix it.
   C. Insert the ample from the front of the inside of the cartridge while keeping it tilted.
   D. Rotate the needle at the front of cartridge Clockwise to securely fix it.



※WARNING

- Make sure to use a single-use needle for mounting in the device.

※ ATTENTION

- Assurez-vous d'utiliser une aiguille à usage unique pour le montage dans l'appareil.

※CAUTION

-Make sure to turn off the power before mounting the cartridge.

-Do not remove the needle protection cap until the surgery.

※AVERTIR

- Assurez-vous de couper l'alimentation avant de monter la cartouche.

- Ne retirez pas le capuchon de protection de l'aiguille avant la chirurgie.

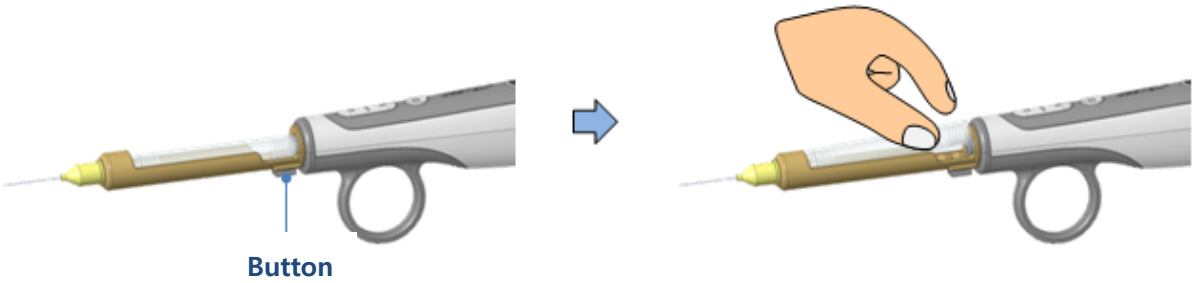
※NOTICE

-Refer to the user manual for more about how to use a single-use needle.

※ AVIS

- Reportez-vous au manuel d'utilisation pour en savoir plus sur l'utilisation d'une aiguille à usage unique.

5. How to dismount the cartridge
   A. Press the button at the bottom of cartridge.
   B. When the ample pops up, separate it with hands.
   C. You can disassemble the cartridge in the reverse order of assembly.



※CAUTION

-Make sure to turn off the power before dismounting the cartridge.

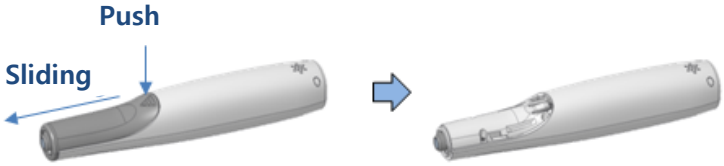
※ AVERTIR

- Assurez-vous de couper l'alimentation avant de démonter la cartouche.

6. How to fix the cover grip
   A. Mount the cover grip (Standard type/Ring type) in the back of the main body.
   B. After mounting it, slide it until you hear the clicking sound.

7. How to separate the cover grip

A. Press the " " part of the cover grip (Standard type/Ring type) and slide it to separate it.



8. Control (Operation)
   A. If you press the Power button, you can hear the voice guide and see "p" on the display.
   B. Short press (for less than 1 sec) the Power button once to display the battery level.
   C. Long press (for more than 1 sec) the Decelerate button once in Standby mode to hear the voice guide. You can press the Inject or Decelerate button to set the voice volume (Level 0 to 3) and deactivate the voice.
   D. Press the Stop button to finish setting.
   E. Long press the Stop button in initial condition once to switch between manual and auto modes.
   F. Long press the inject button once in initial condition to remove bubbles from the needle and enter standby mode.
   G. After finishing injection, initialization will be in progress automatically.
   H. Press the Stop button during injection to stop injection.

※NOTICE
-You can set the voice after initialization only.
-It is not possible to remove bubbles completely from the ample depending on the manufacturer. So, press the Inject button to visually check if bubbles are completely removed at level 1 speed.

※ AVIS
- Vous ne pouvez régler la voix qu'après l'initialisation.
- Il n'est pas possible d'éliminer complètement les bulles de l'ample selon le fabricant. Alors, appuyez sur le bouton Injecter pour vérifier visuellement si les bulles sont complètement éliminées à la vitesse de niveau 1.

9. Manual mode
   A. After removing bubbles, short press the Inject button in Standby mode. Injection will

start at level 1 speed and the speed will go up gradually if you repeat the step.

B. When injection is complete, initialization will take place automatically after 3 seconds.

C. Short press the Decelerate button during injection for gradual deceleration. (Ex: Level 3 → Level 2 → Level 1)

D. Short press the Stop button during injection to stop injection. When stopped, short press the Inject button to resume injection at level 1 speed.

10. Auto mode

A. After removing bubbles, short press the Inject button in Standby mode to proceed with auto injection.

B. Injection will proceed at level 1 (Low speed) for 20 seconds and then at level 2 (Mid speed) for 10 seconds. Finally, the remaining amount of ample will be injected at level 3 (High speed) for 40 seconds.

C. When injection is complete, initialization will take place automatically after 3 seconds.

D. Short press the Inject or Decelerate button during injection to switch to manual mode temporarily. The speed during auto injection will go up or down by one level and once initialization is done, it will switch to automatic mode.

E. Short press the Stop button during injection to stop injection. When stopped, short press the Inject button to resume injection at the level that it was previously stopped.

11. Auto power off

A. If you don't operate it for 5 minutes, then the power will be automatically turned off to prevent energy wastes or inadequate malfunctions.

12. Amount of injection and injection pressure displays

A. The LED displays the amount of injection and the injection pressure.

B. The amount of injection is displayed in 4 levels. (One step of LED is 25%) Each time it is increased, one more LED level will be lit and you will hear the beeping sound.

C. Injection pressure is displayed in 4 levels. (One step of LED is one level). Each time it is increased, one more LED level will be lit.

05. Finished Use and Product Separation

1. Power off

-After using the device, long press the Power button to turn off the power.

2. Cartridge separation

-Separate the ample and the needle. Separate the cartridge from the main body and wash the cartridge. .

06. How to Store and Manage the Product after Use

1. Storage
   A. Make sure to charge it in the cradle after use.
   B. When you don't charge or use the cartridge, keep it in a separate location.
   C. Store it at the room temperature with no direct sunlight.
   D. If it is left dormant for a long time, then remove the cradle plug and store it in a cool and dry place with no direct sunlight.

2. Washing
   A. Spray microorganism infection prevention detergent or ethanol based solution to clean and soft patch but do not apply excessive force or use a sharp edged object.
   B. Do not let alien substance such as detergent or water enter the inside.
   C. Make sure to sterilize the cartridge before use.

   ※WARNING
   -Do not ever wipe off the main body with solvent such as strong acid or benzene.
   -Do not operate the main body with wet hands or polluted hands.
   ※ ATTENTION
   - N'essuyez jamais le corps principal avec un solvant tel qu'un acide fort ou du benzène.
   - N'utilisez pas le corps principal avec les mains mouillées ou polluées.

   ※CAUTION
   -Refrain yourself from wiping off the main body with wet cotton or cloth because it can cause electrical leakages.

   ※ AVERTIR
   - Évitez d'essuyer le corps principal avec du coton ou un chiffon humide car cela peut provoquer des fuites électriques.

3. Sterilization method
   A. Sterilization item: Cartridge only.
   B. You are recommended to use the high pressure vapor based autoclaving sterilization.

   ※WARNING
   -Do not perform autoclaving on the main body or cradle.
   -Do not ever wipe off the main body with solvent such as strong acid or benzene.
   -If you perform autoclaving with the device where liquid is contained, then it can decolorize the surface or affect the internal parts. Make sure that liquid does not enter

the autoclave equipment.

※ ATTENTION

- N'effectuez pas d'autoclavage sur le corps principal ou le berceau.
- N'essuyez jamais le corps principal avec un solvant tel qu'un acide fort ou du benzène.
- Si vous effectuez un autoclavage avec l'appareil contenant du liquide, cela peut décolorer la surface ou affecter les pièces internes. Assurez-vous que le liquide ne pénètre pas dans l'équipement de l'autoclave.

※CAUTION

-Make sure to store it in a location with no adversarial effects of air pressure, temperature, humidity, air circulation, sunlight, dust, salt or sulfurs and so on.

-Be careful when you touch it right after sterilization because it is very hot.

※ AVERTIR

- Assurez-vous de le stocker dans un endroit sans effets néfastes de la pression atmosphérique, de la température, de l'humidité, de la circulation de l'air, de la lumière du soleil, de la poussière, du sel ou des soufres, etc.
- Soyez prudent lorsque vous le touchez juste après la stérilisation car il est très chaud.

4. Repair and Inspection
   A. To guarantee accurate functionalities, you are recommended to inspect the device at least once a year.
   B. Ask the seller to inspect it.

07. Safety System

If excessive current is consumed during anesthetic injection, the power will be turned off to prevent shutting down of the battery. Make sure to fully charge the battery for use. But if the safety system continues to show the same problem repeatedly, then it means that the main body circuit or battery has a problem, so ask your seller to repair it.

08. Troubleshooting

1. If the main body is not powered up even after you press the power on/off switch
   A. If the battery is discharged or if the main body is left unused for a long time without charging

   → Charge the battery for use and if the power supply is still failed, then replace the battery.

   B. If the internal fuse is burned out

   → Ask the seller to repair it.

2. If the battery does not get charged

A. If the battery temperature is high or low

→ If the battery temperature is lower than 0℃ or higher than 40℃, charging can fail. Right after the charging is complete, the temperature of battery might rise little bit, but if it is overheated then contact your seller.

B. If the main body is not correctly mounted in the cradle

→ Insert the main body correctly into the cradle slot.

C. If the AC adaptor mounted in the cradle is not the one provided in the package

→ Internal fuse might be blown up, so ask the seller for help. In this case, you need to replace internal parts. So, please be careful.

3. If it is powered off during operation

A. If the battery is discharged

→ Use it after the battery is fully charged.

B. If it is overloaded

→ In case of overload, the power will be automatically turned off. Long press the Power button to turn on the power of the main body for use.

09. Product Disposal

Please, discard it according to the laws and regulation of your country. If there is some uncertainty, ask the seller.

Guides and declaration by the manufacturer - Electromagnetic field emission		
The product is guaranteed to operate in the following electromagnetic field environment.		
Emission test	Conformity	Electromagnetic field environment - guide
RF emission CISPR11	Group 1	The product generates RF energy only for its internal function. Therefore, RF emission level is low and it does not cause any interferences with the neighboring electronic devices.
RF emission CISPR11	Class B	The product is suitable for use in a facility that is directly connected to the low voltage power supply network that supplies power to household facilities or household buildings.
Harmonics emission IEC61000-3-2	Not applicable	-
Voltage change/flicker emission IEC61000-3-3	Not applicable	-

Guides and declaration by the manufacturer - Electromagnetic field immunity			
The product is guaranteed to operate in the following electromagnetic field environment.			
Immunity level	IEC60601 test level	Conformity level	Electromagnetic field environment - guide
Electrostatic discharge(ESD) IEC61000-4-2	±(2,4,6) 8kV contact ±(2,4,8) 15kV air	±(2,4,6) 8kV contact ±(2,4,8)15kV air	The floor should be made of wood, concrete or ceramic tile. If the floor is covered with synthetic materials, then relative humidity should be at least 30%.
Quick instantaneous transient effect/burst IEC61000-4-4	For ±2kV power cables For ±1kV input/output power cables	For ±2kV power cables For ±1kV input/output power cables	Power quality should be ideally at the level of commercial use or hospital.
Surge IEC61000-4-5	±1kV line-to-line ±2kV line-to-ground	±1kV line-to-line ±2kV line-to-ground	
Power supply frequency's magnetic field IEC61000-4-8	30A/m	30A/m	Magnetic field of the power supply frequency should be ideally at the level of typical commercial use or hospital.
Voltage drop and instantaneous blackout and voltage change IEC61000-4-11	<5% Ut with 0.5 cycles (Ut voltage dropped to >95%) <40% Ut 5 cycles (Ut voltage dropped to >60%) <70% Ut 25 cycles (Ut voltage dropped to >30%) <5% Ut with 5 seconds (Ut voltage dropped to >95%)	<5% Ut 0.5 cycles (Ut voltage dropped to >95%) <40% Ut 5 cycles (Ut voltage dropped to >60%) <70% Ut 25 cycles (Ut voltage dropped to >30%) <5% Ut with 5 seconds (Ut voltage dropped to >95%)	Power quality should be ideally at the level of commercial use or hospital. If a user needs continuous power supply in case of blackout, then use of UPS or battery is recommended.
Conductive RF	3Vrms	3Vrms	If you use a mobile or

electromagnetic field IEC61000-4-6 Radiative RF electromagnetic field IEC61000-4-3	150kHz to 80MHz 3V/m 80MHz to 2.7GHz	3V/m	portable RF wireless communication device, then make sure to maintain the separation greater than the recommended separation calculated based on the transmission frequency applied at every part of the product including the cable. $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P}$ 80MHz to 800MHz $d = 2.3\sqrt{P}$ 800MHz to 2.5GHz P stands for the max rated output power of transmitter (W), which is designated by the transmitter manufacturer, d is the recommended separation expressed in the unit of meter (m). The electromagnetic field strength for a fixed RF transmitter is determined by the on-site investigations of the electromagnetic fields, but with regard to Remark 3.1, it should be ideally below the level set in each frequency band.

			There can be some interference near a device that emits non-ionizing electromagnetic radiation (IEC60417-1:2002 5140).
Remark 1 : Ut is the AC voltage before the test level is applied.			
Remark 2 : A higher frequency range is applied in the frequency bands of 80MHz and 800MHz.			
Remark 2.1 : The actual strength of the electromagnetic field for fixed transmitters such as cell phones, amateur radio (HAM), AM and FM radio broadcasting, TV broadcasting and so on cannot be theoretically predicted with high accuracy. Before you can evaluate the EMI environment due to fixed RF transmitters, you must consider the possibility for on-site investigation of EMI. If the equipment's magnetic field strength measured at the location of equipment exceeds the above RF conformity level, then check if the equipment operates properly. If the sign of abnormality is observed, then additional actions can be required such as change of the direction or re-positioning.			
Remark 2.2 : In the frequency bands of 150kHz - 80MHz, the field strength should be less than or equal to 3V/m.			

Guides and declaration by the manufacturer – Recommended separation of a mobile or portable RF wireless devices.			
A user can prevent EMI by maintaining the minimum separation from the equipment to a portable or mobile RF communication device based on its max output power.			
Max rated output power of transmitter	Separation by transmitter frequency (m)		
	150kHz to 80MHz $d = 1.2\ \sqrt{P}$	80MHz to 800MHz $d = 1.2\ \sqrt{P}$	800MHz to 2.5GHz $d = 2.3\ \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
If the transmitter exceeds the max output power not shown above, then the recommended separation, d(m) can be estimated based on the equation for transmitter's frequency. Where P stands for the max rated output power for a transmitter in the unit of Watt according to the transmitter manufacturer.			
A higher frequency range is applied in the frequency bands of 80MHz and 800MHz.			
The guide is not applicable to all the situations. EMI is affected by absorption or reflection by structures, objects or humans.			

10. Etc.

1. Manufacturer : OSSTEM IMPLANT CO,. LTD. Chair Business
2. Address : 192, Haebong-ro, Danwon-gu, Ansan-si, Gyeonggi-do, 15428, Korea
3. Applied part
    a. Needle
    b. Ample
4. Battery : 3.7V 500mAh, Li-polymer
5. Adapter
    a. Rated input voltage: 100 – 240V AC, 1A, 50/60Hz
    b. Rated output voltage: 5V DC 2A
6. Steam Sterilization
    a. Type : Pre-vacuum
    b. Temperature : 121℃
    c. Time : 15 min
    d. Limit of number : 100 cycle

11. Product Warranty

Product name		SlowJec plus
Warranty period		1 year from the date of purchasing the main body (except for consumables)
Date of purchase		Month Date , 20( )
Model name		DSD-PLA-0100
Manufacturing number		
Item license number		Marked after registration is granted.
Customer	Name	
	Telephone number	
	Address	
Seller		

※ If the malfunction is caused by the negligence of a user, then they will be charged for the repair service.

- If the malfunction is due to careless handling, arbitrary repair or remodeling
- If the device malfunction or damage occurs because it was dropped during the movement after installation
- If the malfunction is due to use for other purposes than the intended purpose of use

FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.