## Obturation System

## \$USERS GUIDE \$

C-Fill
$\beta$ back

## Safety Caution

## A CAUTION: <br> Please read all instructions provided for this device before using it.

- This product is only available for use by dental professionals.
- The temperature of needle is very high during the surgery, in order to prevent from being burned, please avoid it directly contact to the oral soft tissue
- To reduce the risk of explosion, do not use in the presence of flammable
anesthetics or in areas where there's a risk of explosion.
- Protect the instrument from ambient electromagntic interference, when there is a patient who is using the cardiac pacemaker, or there is an electronic operation, please dont't put the machine around.
- Use of any other tips or accessories may cause damage, injuries or loss of performance and will void warranty.


## Standard Configuration

## Obtruation Gun

Adapter1Charging Base ..... 1
Multi-tool ..... 1
Handpiece prop ..... 1
Needles ..... 4
Thermal Protector ..... 2
Prevent overflow ring ..... 10
Plunger ..... 1
Cleaning Brush ..... 1

## Warranty

The warranty of obtruation gun and charing baset is 24 months, adaptor and battery are 6 months, other accessories are not included in the warranty.

## Technical Specifications

| Adaptor: | input: $100 \sim 240 \mathrm{~V} / 50 \sim 60 \mathrm{~Hz}$ <br> output:DC $5 \mathrm{~V}, 1.5 \mathrm{~A}$ |
| :--- | :--- |
| Battery: | $\mathrm{DC} 3.7 \mathrm{~V} / 2200 \mathrm{mAh}$ |
| Operating Temperature: | $0 \sim 45^{\circ} \mathrm{C}$ |
| Humidity: | $10 \% \mathrm{R} \sim 85 \% \mathrm{RH}$ |
| Atmospheric pressure: | $50 \% \mathrm{RH} \sim 106 \% \mathrm{RH}$ |

## Symbol Definition

## 2.Internal cleaning of handpiece:

(1)Remove the thermal Protector.

(3)Set the temperature to $160^{\circ} \mathrm{C}$.

(5)Use alcohol soaked the brush.

(2)Remove the Needle and plunger.

(4) Use the provided brush by pushing in the back of the gun and through the exit at the tip (where the plunger first enters the gun) to clean it as necessary.

(6) Wipe off the plunger using rubbing alcohol and gauze to remove any visible residual material.

## $\triangle$ catrios:

Do not put any cleaner or chemicals on the cleaning brush before inserting it into the chamber.

## Cleaning and Sterilization

-Surfaces can be cleaned with soft towel and a mild detergent or rubbing alcohol.
-It is recommended that the needle be changed after each patient and when damage is detected or suspected. Discard used needles in biohazard container.
-The needle and the thermal protector must be sterilized before first use and between patients, autoclave at $121^{\circ} \mathrm{C}$ for 15 minutes or $135^{\circ} \mathrm{C}$ for 4 minutes.

## Storage and Transportation

-Storage temperature: $-10^{\circ} \mathrm{C} \sim+55^{\circ} \mathrm{C}$
-Humidity: $10 \%$ RH $\sim 85 \%$ RH
-Atmospheric pressure : $86 \mathrm{kPa} \sim 106 \mathrm{kPa}$


## Intended Use

Obturation Gun is intended for injection of Gutta-Percha into a prepared root canal for obturation. This product is only available for use by dental professionas.

## Product Description



(1) Plunger: The stainless steel plunger can be reused many times, however eventually twill need to be replaced. Call authorized dealer to purchase replacements.Prevent overflow ring: Prevent the gutta-percha overflow.Charging connector: Connect the Obturation Gun and Charging Base
(4) Reset switch: Press and release to reset the device. Use in case of device malfunction or error.Trigger: Pull repeatedly to extrude the gutta-percha pellet.
(6) Thermal Protector: Simply grab and swivel to 360. The Thermal Protector proteccts the patient form harmful amount of heat
(7) Power / Temperature adjustment button: Press and hold to turn on and off. Press to switch different temperature settings : $160^{\circ} \mathrm{C} / 180^{\circ} \mathrm{C} / 200^{\circ} \mathrm{C} / 230^{\circ} \mathrm{C}$.
(8) Needle: The melted gutta percha is extruded at the end of the needle.
(9) Pellet loading slot: Insert a gutta-percha pellet into the pellet loading slot.
(10) Temperature display window.

## Troubleshooting

## 1. Gun does not power on when Power Switch is pressed.

-Check that the battery is charged. Recharge as needed.
-Check if that the reset switch is pressed, release it.

## 2. Plunger cannot be retracted.

-If the plunger cannot be retracted, it is most likely due to cooling and firming of material in the chamber with the Plunger left in.
-To remove Plunger, turn on the Gun and set temperature at $200^{\circ} \mathrm{C}$. Wait for Gun to reach selected temperature and then retract the plunger.
-If the Plunger will still not retract, allow the Gun to cool and remove the needle
With the needle removed, pull the Gun's trigger several times to advance the
Plunger tip out the front of the Gun. Clean excess material off the tip of the Plunger then the Plunger should be easy to retract.

## 3. Material does not flow from the needle.

-When Blocking occurs, do not force pulling the trigger, you can press the plunger slowly
-If still not solve, allow the Gun to cool and remove the needle. With the needle removed, pull the Gun's trigger several times to advance the Plunger tip out the front of the Gun.
-Check the Prevent overflow ring. If worn or damaged, replace it.

## 4.Display"Err"

-Slightly turn the gun head, device will return to normal.

## Product Maintenance

## 1. Changing the Battery:

-When changing the battery, unscrew the screw to remove the battery cover from the handle;
-Pull the connector and pick out the battery;
-Replace the new battery, Connect the connector;
-Install the battery cover.

## Acaution:

Please use the original batteries, to avoid damage to the device.
15.Reset function :

Press and release to reset the device. Use in case of device malfunction or error. The device will not operate when the switch is pressed. Release it to turn on the power.

16. Charging :

- Insert the Handpiece prop to the Charging Base;
- Connect the Charging Base to the provided power cord and plug cord into a standard electrical outlet.


## ! CAUTION:

Fully charge battery immediately upon receipt of this device and prior to first use.
17. Place the device in the Charging Base so that the connector on the bottom of the Gun engages securely with the connector in the Charging Base. The Gun is properly connected when the LEDs illuminate. If no light on the Gun is visible, check all connections. The device is fully charged when the green charging indicator lights are displayed

## Clinical Use



1. Using the gun's needle, make contact with the upper part of filled master cone in the canal, transfer heat for 3 to 5 seconds

2. Continue flowing while withe drawing the needle from the canal.

3. Folw the melted Gutta-percha obturator to the root canal.

4. Now the entire root canal is fully obtruatesd

## Installation and Use

## Caution:To reduce the risk of burn, make sure the gun has been off

 for a minimum of five (5) minutes and the nose is cool to the touch before changing the needle or protector.1. Select desired needle, assemble it

2. Use the needle bender/wrench to secure the needle while turning it in a clockwise direction.

## ! Caution: <br> Do not over-tighten!

3. Install the thermal protector

4. Use needle bender to bend needle as desired.
5. Install the prevent overflow ring.


## \} - Caution:

-Prevent overflow ring is Wearing part, worn or damaged would cause blocking or Backflow, Always check whether it is intact. -Do not tighten the plunger screw too hard. it will shrink and permanently damage the ring.
6. To insert the pellet into the Beta, pull the plunger back (but not out of the Gun) to clear the loading slot.
7. Tilt the front of Gun down so that the needle is pointing at an angle towards the floor. Place the pellect inside the loading slot

## $\triangle_{\text {cantom: }}$

Only insert one pellet at a time, gutta percha pellet melting point must below than $200^{\circ} \mathrm{C}$
8. Use the plunger to push the pellet forward until it enters the heating chamber.
Advance the plunger to push the pellet
fully into the heating chamber up to a point
approximately as shown fig

## ! Caution:

Failure to fully insert the Plunger will result in the
trigger-advance mechanism not operating properly.
9. Turn on the Power Switch. The temperature will automatically default to the previous temperature setting used before the Beta was turned off

10. To change the desired temperature, continue pressing the power/temperature adjustment button until the desired temperature is displayed. Each press will incrementally change the temperature display as follows: $160^{\circ} \mathrm{C} \rightarrow$ $180^{\circ} \mathrm{C} \rightarrow 200^{\circ} \mathrm{C} \rightarrow 230^{\circ} \mathrm{C}$ and then back to $160^{\circ} \mathrm{C}$ (recommended temperature setting is 160 or $180^{\circ} \mathrm{C}$ )

11. After selecting the desired temperature, the temperature display will begin to show the actual temperature, which will continue to change until it reaches the desired temperature. Pump the trigger to further advance the Plunger until a small amount of material extrudes from the needle tip.


## \} Caution:

- With the Plunger inside the Gun, do not push or pull the Plunger forcefully. Once the pellet material has been warmed up to the desire temperature, the Plunger should advance by pumping the trigger several times. If not, try advancing the Plunger manually with light pressure and try again.
- To empty the Gun of all remaining material, remove the needle and express any residual material by pumping the trigger to push the plunger out the front of heated gun.
- Be careful not to touch the front nose and plunger until it has been givena chance to cool.
- When prevent overflow ring is worn or damaged,replace in time, the thermal protector must be sterilized before first use and between patients.

12. Load another pellet only once the Gun has had time to cool and when all material from the previous pellet has been extruded through the needle.
13.The device automatically turns off its heating element after 15 minutes of non-use.
13. when the temperature window displays "LO" and "bibi" alarms, indicates battery level is critical, please charge.
