Super XP

Veterinary Energy Surgical Platform

Operation Guide

Scissor-type

Cutting/Sealing head length:16.5mm

- Suitable for open surgeries.
- The operation time is short and easy to operate with one hand.
- Soaking cleaning and disinfection is inconvenient.

Clamp-type

Cutting/Sealing head length:36mm

- Suitable for open surgeries.
- The jaws are large and long, meeting the needs of large tissue fuse and cutting, can be operated with single hand.
- Soaking cleaning and disinfection is convenient.

Gun-type

Cutting/Sealing head length:18.5mm

- Suitable for laparoscopic surgery.
- The size of the jaw is moderate, it can also use for open surgeries, it's inconvenient to operate with single hand.
- Soaking cleaning and disinfection is convenient.

Section 1: understand the Jaw

About Seal & Cut Zone

Find the two mark lines on the forcep (like the picture shows).

The zone between the two mark lines are that the blade can move.

When we need cut the tissue, please make sure the tissue within the zone.

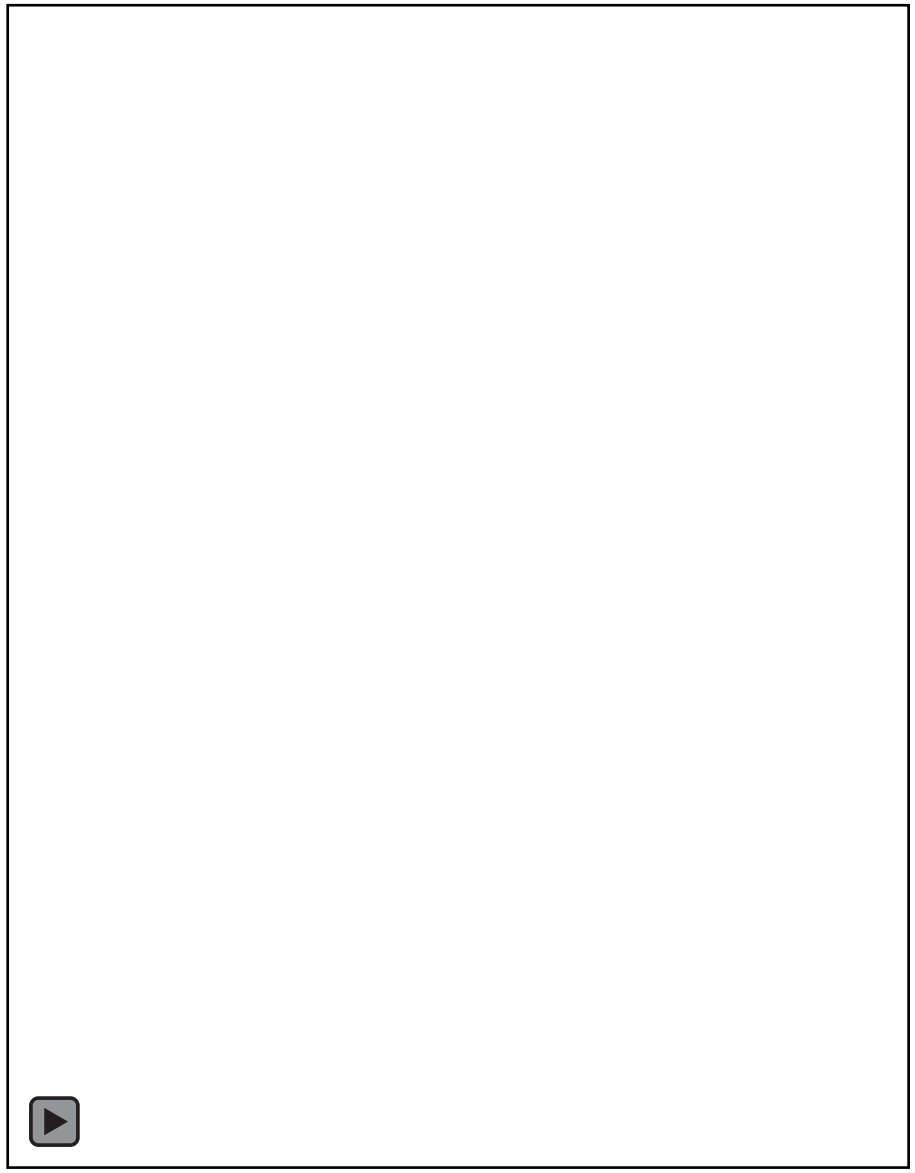
Attention:
If the clamping tissue exceed the back line, it will easily block the blade. In this case, if we push the blade, it will get stuck. Pushing too hard may cause damage to the forcep.

About Seal & Cut Zone

A video case:

As you can see in this video, the vet clamps too far back and exceeds the back line:

The first time it was too far back, the blood did not actually seal well. The second time, the vet adjusted the position and clamped it forward a little, and then it seal well, then cut it off.

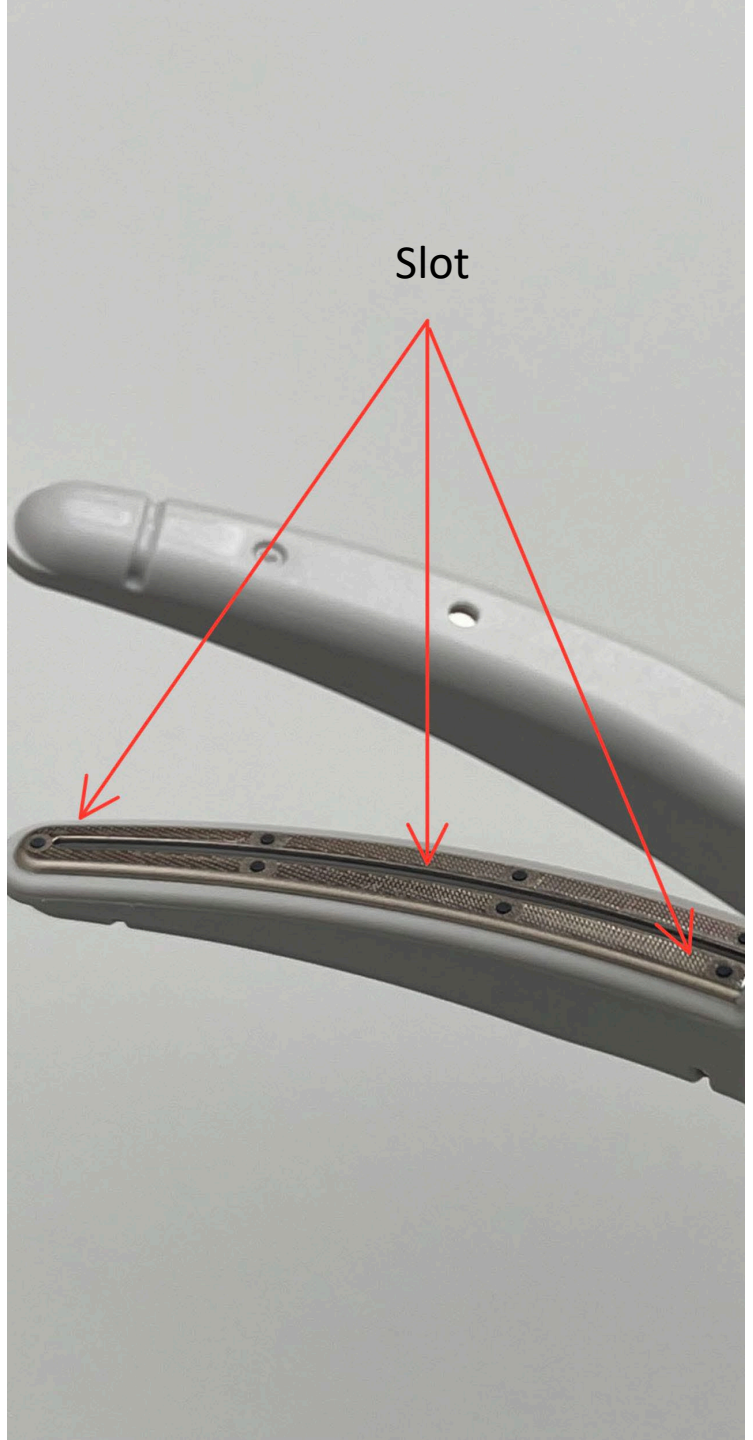


About the Slot

See the picture, slot is where the blade runs.

You can clamp tissue when beyond the front end of the slot, but that part can't be cut.

Need special attention to the **back end of the slot**, better not clamp the tissue. If there is excessive tissue being grasped (beyond the line), and you push the blade, there is a high risk of the blade getting stuck and causing damage.



Attention:

1) Always **close the jaws before** pushing the blade to avoid any damage.
2) If you encounter some resistance while pushing the blade, **please clean the slot first** and avoid forcing it.

Important: Insulating Pads

See the small dots in the jaws, they are the insulating pads (refer to the picture).

Insulation pads determine its lifespan. If any of the insulation pad is scraped off or ground flat, then the instrument is no use any more. So be careful not to wear the insulating pad when cleaning.

1) **Don’t use a brush to brush it**
2) **Wipe with a soft cloth. Do not use gauze, because it is too rough.**
3) **You can rinse it under the faucet, while using the soft cloth to clean**
4) **If the slot is dirty, you can use needle, but only scrape the slot, do not scrape the metal surface around**

Section 2: Cleaning and Disinfection

Cleaning and Disinfection

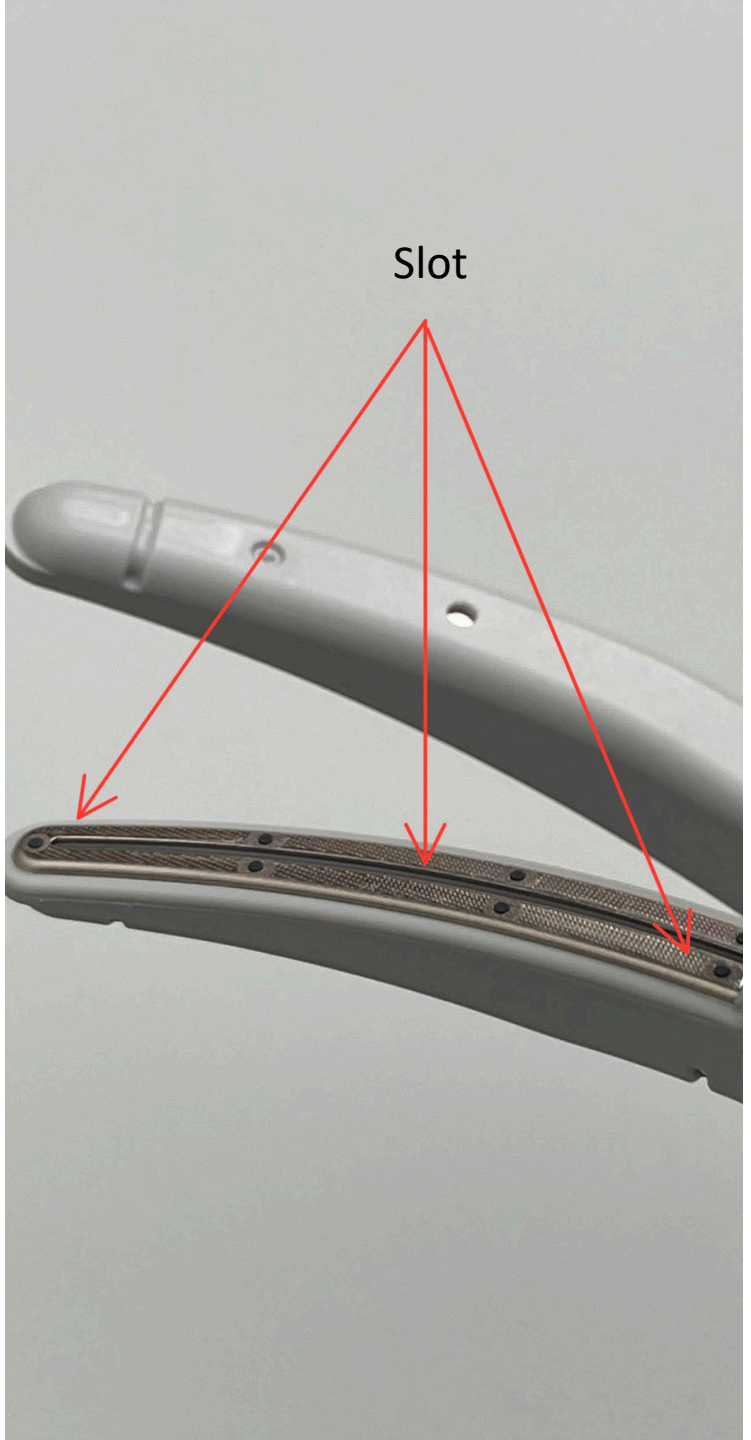
Follow one principle:

Clean first ➡ **Disinfect next** ➡ **Rinse with Saline last**

Recommend:
Clean immediately after operation, disinfect before next surgery.

Please clean the slot in time!!
The slot is usually very dirty with some tissue stuffed in it after surgery. If this slot is blocked, it will be difficult to push the knife and easy to cause damage.

With good maintenance, you can use this forcep for a long time!



Clean in Time.

During the procedure:
If you encounter blood or dirt, it is essential to clean the jaw promptly. Rinse and clean with a soft cloth before use, so to avoid crust formation that could damage the jaw.

After the procedure:
1) Soak the head in multi-enzyme cleanser for about 15 minutes.
2) Rinse it under the tap and clean with a soft cloth

Note:
Only soak the head, not other part.

Clean the slot in time after procedure

How to know whether clean well or not?

- You can try to push the blade (with jaw under occlusion status), if it feels very smooth, then means clean. Open it and observe whether the slot is clean and free of residue.

If the slot has dried out and difficult to simply clean it?

- You can also use a needle. Like the picture shows, scrape away the dry residue in the slot.

Note:

--Do not use a toothbrush, which will damage the Insulating pads.

--Only scrape the slot, do not scrape the metal surface outside the slot.

Disinfection

It is recommended to use **phthalaldehyde disinfectant** only, no other things like alcohol, iodophor, etc.

Same to soak the head for about 15 minutes, then rinse it with saline or under tap.

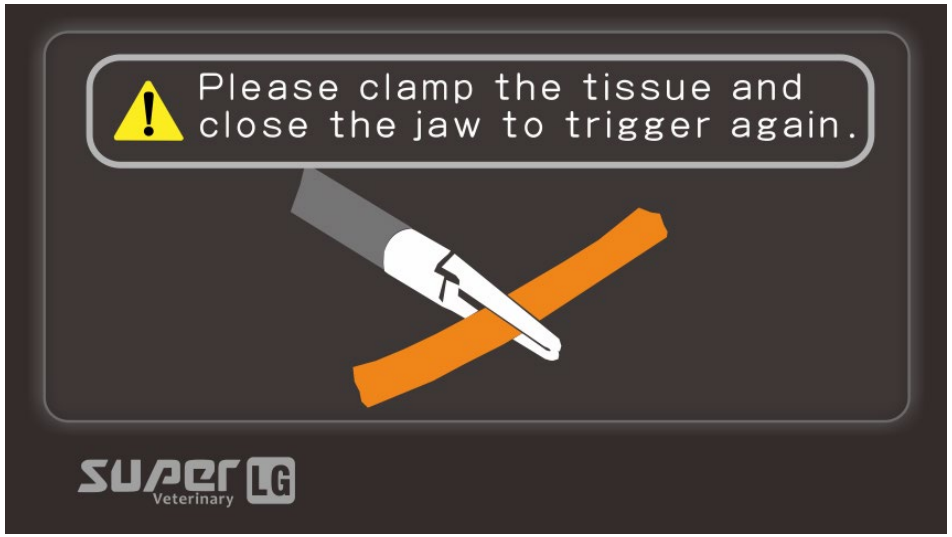
Note:
Only soak the head, not other part.

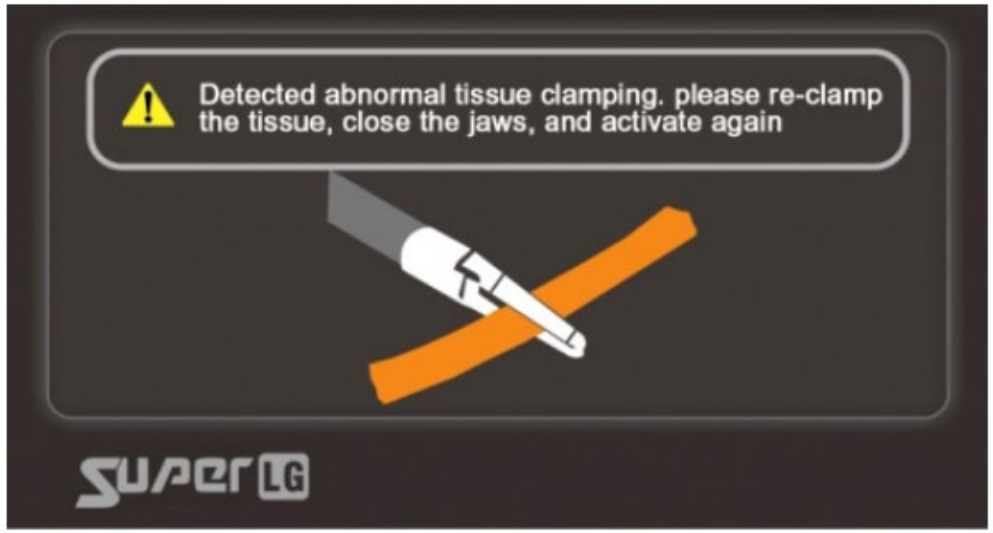
* For other part, most vet hospital do not have sterile condition, in this case, we suggest you can use disposable sterile covers (similar to endoscope).

Section 3: Alarm Alerts and Handling

About Alarms

When alarms happen, it does not mean there is a malfunction. Rather, it **reminds the current operation** or environment, and you can continue after proper adjustment.





When alarms message occurs during usage, it is mostly a normal prompt and can be **caused by the following situations:**

1) No tissue be clamped
2) Too little tissue be clamped
3) Abnormal tissue clamping detected

Handling method:
Release the jaws, reposition, and grasp proper tissue. If necessary, clean the jaws before activation.

If the same alarm message persists even after multiple attempts to reposition and grasp the tissue, and the jaws have been cleaned, **it indicates a tool malfunction.**

1) Check whether the instrument and generator connected properly
2) Check whether the cable of the instrument is damaged or not
3) Replace a new instrument for double confirmation

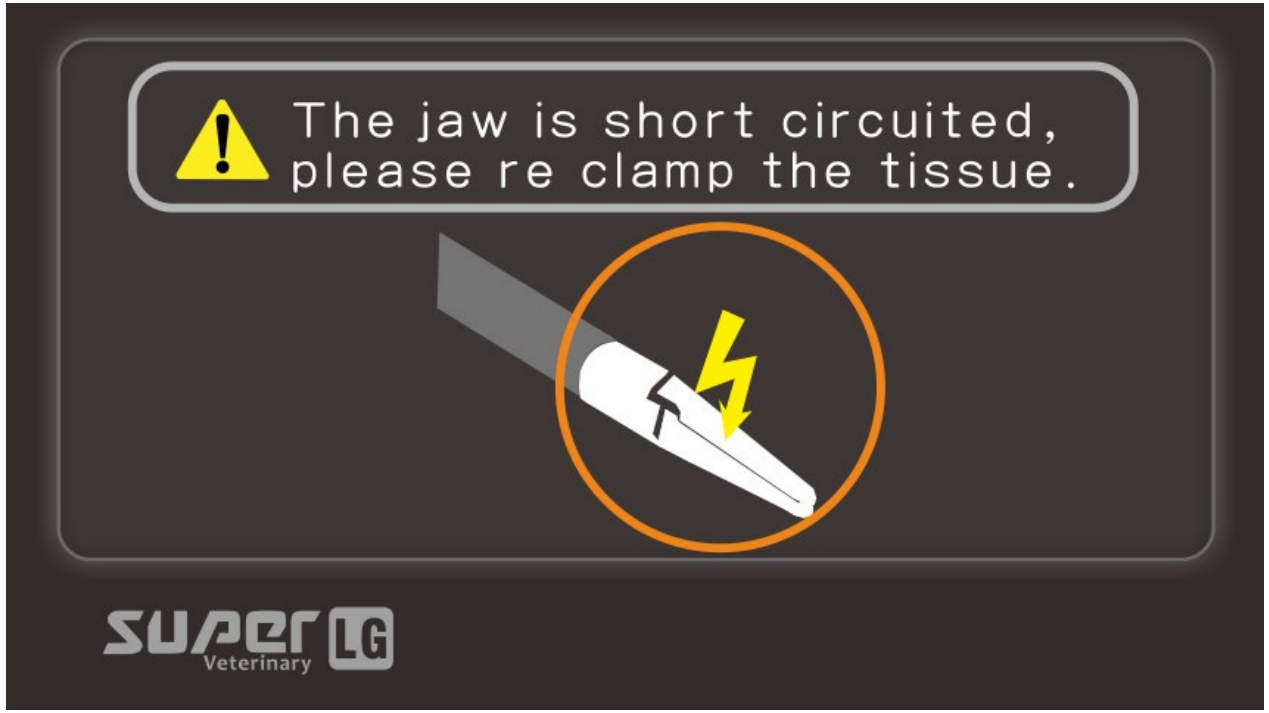
“Lighting” shape short circuited alarms

“Lighting” shape alarm means two situations:

1) A real short circuit, the metal nearby directly connects the upper and lower jaw.

2) Having risk of short circuit, which is often caused by too much blood, too much tissue fluid, or the blade being too dirty.

At this time, you must clean it first, and avoid scab formation. Using it after the scab has formed will cause substantial damage to the tool.



Alarms

1) If there is a lot mucus in the tissue to seal, it may cause excessive fluid in the jaws and cause a alarm----wipe clean the jaws and tissue surface with sterile gauze, and try again.

2) If alarm occur when seal a very **thinner** tissue----first wipe and clean the jaws with sterile gauze, then take **contact clamping** to carry out seal.

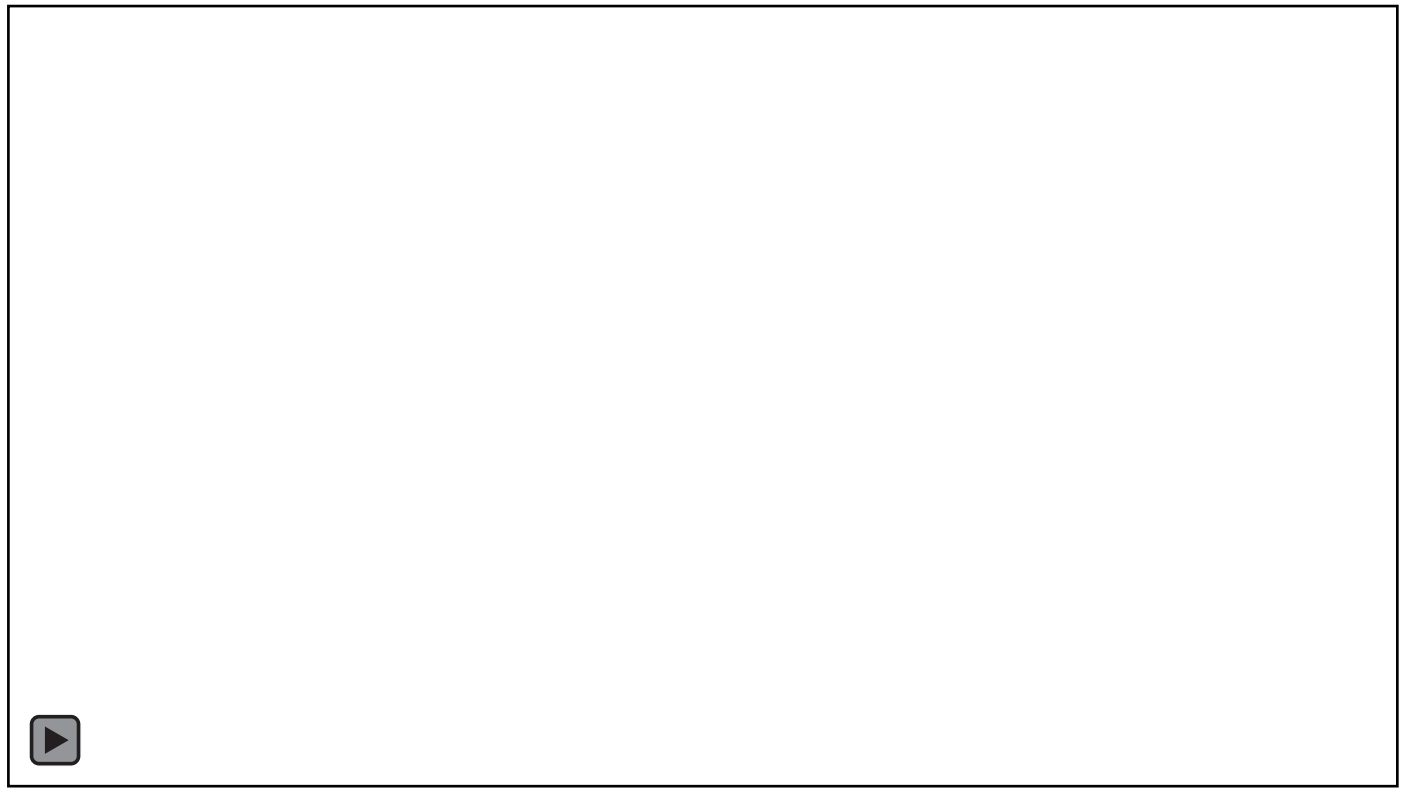
3) If alarm occur when the blood vessel is too thick and the blood vesse wall is too thin, and it has obvious bleeding----first clean the jaw with sterile gauze, then use hemostatic forceps to clamp and reduce blood pressure at the proximal and distal ends, then use **contact clamping** to coagulate on non-bleeding part.

What is "contact clamping"? See next page.

**What is “contact clamping”:

When the tissue is too thin, we should not apply excessive pressure and flatten it, otherwise the instrument may lose its sensing ability. In such situation, you should avoid applying excessive pressure. Instead, the jaw just contact the tissue with little pressure, and then press the button to seal.

This video will help you understand better:



“Lighting” shape alarms

If the alarm still occur after above adjustment, then we consider tool failure:

1)Check whether the jaw has bumps or burrs
2)Check whether the jaw has obvious defects or damage
3) Replace a new instrument for confirmation.

Section 4: other things need attention

Points to note during use

1) Do not touch metal, mainly avoid touching hemostats.
2) Do not use it when blood is surging, and try to keep the contact surface free of bleeding.
3) During use, pay attention to see if there is any sticky tissue on the blade. If so, wipe it with a damp soft cloth, so to avoid repeated condensation of tissue on the blade surface to form scabs and cause short circuits.

ATTENTION:

- Keep the jaws clean during the procedure can greatly enhance the lifespan of the instruments.

- On the contrary, using the instrument in the presence of blood or scabs will significantly reduce its lifespan.

Video case:
the first thing the operator tells his assistant is**: Wipe off the blood!**

Precautions in use

During use, the jaws should be kept clean. Tissue adhesion or char buildup may reduce closure or cutting effectiveness and cause generator alarms (Do not clean instrument jaws with hard rags or other abrasive materials, use sterile gauze pads soaked in water (do not use alcohol) as needed Clean jaws.

If there is a lot of fat in the tissue and no blood vessel in the fat, can use scissors to separate the fat firstly, and then perform tissue sealing cutting. In order to prolong the service life of the jaw/forcep, it should be avoided (not recommended) to cut the tissue directly which the tissue without sealing.

During in operation, the forceps/jaws should be placed in normal saline to cool down every 10-15 minutes, so as not to form scabs at high temperature and affect performance.
Observe the usage : if the cutting tissue is sticky, exudate more, should immediately clean, cool the jaw/forcep, to avoid sticking;
If eschar condensation is found, the jaws/forcep should be cleaned immediately. Do not continue to use, to avoid performance decline affecting surgery and tool damage