Thank you for purchasing the Ti-SG25L, contra angle handpiece for implant surgery. Read this operation manual carefully before use for safety and keep this within user's reach.

**Caution**
- When operating the handpiece always consider the safety of the patient.
- The handpiece is designed only for dental clinical use.
- Do not attempt to disassemble the handpiece nor tamper with the mechanism.
- Please be sure to have an extra handpiece ready in case of unexpected malfunction during operation.
- Sterilization in an autoclave is recommended before each patient.
- Check the vibration, noise and overheating outside the patient's oral cavity before use. If any abnormalities are found, stop using immediately and contact your dealer.
- Should the handpiece function abnormally, cease operation immediately and return the handpiece to the dealer for repair.
- Depressing the push-button while handpiece bur is in rotation will result in OVERHEATING of the handpiece head. Special caution must be exercised during use to keep cheek tissue AWAY from the push-button of the handpiece. Contact with cheek tissue may cause the push-button to depress and injury to the patient may occur.
- Do not allow any impact on the sheath. Do not drop the handpiece.
- Do not use bent, damaged, or sub-standard burs. The shank could be bent or broken even within the recommended speed.
- Always keep the bur shank clean. Entry of debris into the chuck could cause bur run-out, looseness and the bur could not be mounted immost.
- Do not exceed the drive motor speed recommended by the bur manufacturers.
- Do not operate the handpiece without the bur.
- Do not connect or disconnect the handpiece until the drive motor has completely stopped.
- Immediately after use, the handpiece should be cleaned, lubricated and sterilized before blood, etc. dry inside the handpiece.
- Do not wipe with, or clean or immerse in, high acid water or sterilizing solutions.

### 1. Specifications and Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Ti-SG25L</th>
<th>Ti-SG25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear Ratio</td>
<td>1 : 1 Drive</td>
<td></td>
</tr>
<tr>
<td>Allowable Max. Speed</td>
<td>40,000 min⁻¹ (rpm)</td>
<td></td>
</tr>
<tr>
<td>Chuck Type</td>
<td>Ultra Push</td>
<td></td>
</tr>
<tr>
<td>Bur Size</td>
<td>ø2.35 Latch Type Burs, Surgical Drill</td>
<td></td>
</tr>
<tr>
<td>Optics</td>
<td>Glass Rod Optic –</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>66g – 63g</td>
<td></td>
</tr>
</tbody>
</table>

### 2. Mounting and Removing Bur

**Caution**

- Do not connect or disconnect the handpiece until the drive motor has completely stopped.

1. **Mounting**
   - Mount the handpiece to the Motor.
   - Insert the tool into the head. Lightly turn the bur until it engages with the latch mechanism. (Fig. 1) Push it inward to click. (Fig. 2)

2. **Removal**
   - Push the push button with a thumb, and the bur is removed. (Fig. 4)
3. Irrigation Nozzle

When irrigation is required please connect the irrigation tube to the irrigation nozzle.

4. Lubrication

Supply PANA SPRAY Plus after each use and/or before each autoclaving.

1. Push E-type spray nozzle attachment over the PANA SPRAY Plus nozzle until it firmly seats.
2. Shake the can 3-4 times to well mix lubricant and propellant.
3. Insert the E-type spray nozzle in the rear of the handpiece and spray the lubricant into the handpiece 2-3 times for 2-3 seconds each time. Repeat this lubrication until you see no foreign articles such as blood penetrated into the handpiece comes out.

- Be sure to hold the handpiece firmly to prevent the handpiece from slipping out of hand by the spray pressure when lubricating.
- Hold the PANA SPRAY Plus can upright.

5. Cleaning and Sterilization

This handpiece can be washed via Thermo Disinfector.

Steam autoclave is recommended.

Sterilization required after each patient as noted below.

Autoclave Procedure:

1. Scrub dirt and debris from the handpiece, and wipe clean with alcohol-immersed cotton swab or cloth. Do not use a wire brush.
2. Lubricate with PANA SPRAY Plus. Refer to 4. Lubrication.
3. Insert into an autoclave pouch. Seal the pouch.
4. Autoclavable up to a max. 135°C. (ex.) Autoclave for 20 min. at 121°C, or 15 min. at 132°C.
5. Keep the handpiece in the autoclave pouch to keep it clean until you use it.
6. Sterilization at 121°C for more than 15 minutes is recommended by EN13060 or EN554.
7. Performing sterilization according to our instruction has minimal effect on the instruments. Life span is generally determined by wear and damage due to use.

- In case the sterilizer chamber temperature could exceed 135°C during the dry cycle, skip the dry cycle.
- Always place the handpiece in the center or upper shelf of the chamber, as the local temperature at the bottom of chamber could rise beyond the set value.
- Do not wipe with, or clean or immerse in, high acid water or sterilizing solutions.

6. Cleaning the Glass Rod Optic (Ti-SG25L)

Clean the glass rod optic with cotton swab soaked in alcohol.

- Do not use a sharp tool to clean the glass rod optic. It could damage the glass rod optic and decrease the light transmission. If it becomes dim, contact your dealer.