Neo FR Kit  Fixture Remover Kit

Introduction
Advantage of FR Kit
FR Kit Composition
Component(Fixture Remover)
Component(Hex driver)
Component(Fixture Remover Screw)
Component(Torque Ratchet)
User Guide
Case Report
Case Report in implant Journal
Introduction

As the product is a tool for removing stopped implant caused by excessive torque during insertion or implant in lost bone easily, it’s designed for inserting new implant with the same diameter after removing implant.

Advantages of Neo FR Kit

1. No need to decontaminate the implant
2. No need to use a trephine drill
3. Minimally Invasive Removing Technique
4. Can preserve the cortical bone thread
5. Can place the same diameter of an implant
6. Ensure to get sufficient initial stability
7. Easy to do GBR
8. Can do Immediate Loading
FR Kit Composition

- Fixture Remover
- Hex driver
- Fixture Remover screw
- Torque Wrench

Introduction

Characteristic

Composition

Fixture Remover

Hex driver

FR Screw

Ratchet

User Guide.

Case 01

Case 02

Go to Main
# Neo FR (fixture remover) Kit components

## 1. Fixture Remover

This tool is to remove an implant and apply a direct removing torque with remover screw.

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Diameter (Φ)</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>15.0</td>
<td>FR 315</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>FR 320</td>
</tr>
<tr>
<td>4.0</td>
<td>15.0</td>
<td>FR 415</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>FR 420</td>
</tr>
<tr>
<td>5.0</td>
<td>15.0</td>
<td>FR 515</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>FR 520</td>
</tr>
<tr>
<td>6.0</td>
<td>15.0</td>
<td>FR 615</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>FR 620</td>
</tr>
</tbody>
</table>

## 2. Hex Driver

This tool is to mount fixture remover screw on fixture.

<table>
<thead>
<tr>
<th>Length (mm)</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0</td>
<td>HDF 1607</td>
</tr>
<tr>
<td>12.0</td>
<td>HDF 1612</td>
</tr>
<tr>
<td>17.0</td>
<td>HDF 1617</td>
</tr>
</tbody>
</table>

## 3. Fixture Remover Screw

It is used to mount Fixture remover on fixture screw hole.

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1.4</td>
<td>FRS 14</td>
</tr>
<tr>
<td>M1.6</td>
<td>FRS 16</td>
</tr>
<tr>
<td>M1.8</td>
<td>FRS 18</td>
</tr>
<tr>
<td>No 1-72 UNF</td>
<td>FRS 172</td>
</tr>
<tr>
<td>M2.0</td>
<td>FRS 20</td>
</tr>
<tr>
<td>M2.5</td>
<td>FRS 25</td>
</tr>
</tbody>
</table>

## 4. Torque Ratchet Wrench

It is to measure exact torque with Wrench tool.

<table>
<thead>
<tr>
<th>Type</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratchet</td>
<td>FRCHT</td>
</tr>
<tr>
<td>Torque control Device</td>
<td>TW 80400</td>
</tr>
</tbody>
</table>
1. Sterilize each Kit component.
2. Remove prosthesis of implant want to remove completely.
3. Tighten Remover Screw fitted to inner hole of implant using Hex Driver with proper torque around 40-50N/cm. Recommended torque and standard of Remover Screw for each size of implant are as follows.

<table>
<thead>
<tr>
<th>Screw</th>
<th>Spec.</th>
<th>Recommended Torque(Ncm)</th>
<th>Maximum Torque(Ncm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRS 14</td>
<td>M1.4</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>FRS 16</td>
<td>M1.6</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>FRS 18</td>
<td>M1.8</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>FRS 172</td>
<td>No 1-72 UNF</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>FRS 20</td>
<td>M2.0</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>FRS 25</td>
<td>M2.5</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

4. After inserting Fixture Remove with counterclockwise to fixed screw, rotate it until implant rotates with the same direction (the direction for removing implant) using Torque Wrench.
User Guide

5. If implant don’t get out in spite of excess of maximum torque, remove the Fixture Remover and remove minimum bone around implant using Round Bur. Then retry “No.4” process.

6. After equipping removed implant to vise and rotating Remover Head with clockwise using Torque Wrench from implant, separate Remover Screw fixed in Fixture using Hex Driver with counterclockwise.

* WARNING

1. You have to use the tool with full knowledge about the way of using.

2. If you insert Remover Screw to Fixture without recommended torque, Remover Screw could be broken or get bent. Also, it could spin between Fixture and Fixture Remover.

3. Remover screw is recommended single use.
   If the torque is applied lower than 100Ncm, 3 times of use is maximum.
   But If over torque(over than 100Ncm) is applied, do not reuse it, because Remover Screw could break or bent.

4. If you apply over than the maximum torque to Fixture Remover, damage on the tool, breaking and bending of implant, and fracture can be occurred. So do not apply over than maximum torque.

5. You need enough irrigation to the implant with over 60Ncm torque during removing implant for preventing the heat.

6. If there are uncompleted coupling among inner Hex of Remover Screw Head, Hex Driver, Fixture Remover Head, and Torque Wrench. The product can be damaged and tool performance can be dropped so you have to use it after applying exact way.

7. In case of applying Regular size implant, if over torque than 400Ncm is applied, the Apex of implant can be fractured.
User Guide

Removing the failed implant without surgery
Case reports

Case 01.

1. The picture of the implant which needs to be removed because of bone loss, but it is hard to be removed because of Osseointegration.

2. Connection remover screw of Neo FR kit with implant with the force up to “S” of torque wrench.

3. Easily removed by 400Ncm implant without bone damage by fixture remover of Neo FR kit.

4. The picture shows the thread of implant still exists owing to no bone damage.

5. After removing the old implant clean the infection area and install the new implant. (Same size)
Case reports

Case report in Journal

Abstract

Achieving appropriate esthetic results for natural and implant dentition mandates careful evaluation of several factors. A newly modified soft tissue graft decision tree was developed to guide clinicians in selecting the most appropriate treatment modality in natural dentition. Several new materials have been developed in accomplishing these goals. An "esthetic triangle" is developed to address the foundations that are essential for maintaining/creating implant papilla. Techniques and materials available for horizontal and vertical bone augmentation such as guided bone regeneration (e.g., sandwich bone augmentation or GBR using the titanium mesh or PTFE membrane), monocortical only graft (either auto- or allogenic), and ridge split/expansion will be demonstrated. A "decision tree" of how to choose the most predictable procedure for horizontal bone augmentation will also be provided and discussed. This lecture will also address common implant complications, both biologic and biomechanical aspect as well as the approaches to avoid these problems before they occur. A decision tree of how to manage these complications will be presented. The pros and cons of techniques used to treat implant diseases/complications such as chemotherapeutic agents, apically positioned flap, implant surface detoxification, implantoplasty, guided bone regeneration, soft tissue grafts, implant removal as well as re-implantation will be discussed.

Implant Soft Tissue Management

Implant Removal

Horizontal Bone Augmentation

Vertical Bone Augmentation

Implant Complication

3 months after implant placement