

# 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** 

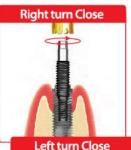
**Case Report** 

**Case Report in implant Journal** 

## Introduction

neo **Fixture kit** As the product is tool for removing stopped implant caused by excessive torqueduring 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

IF you use FR(fixture remover) 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



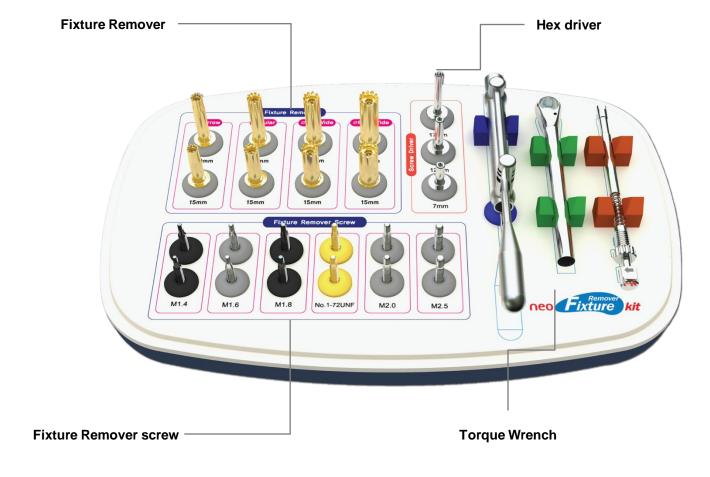
7. Easy to do GBR



8. Can do Immediate Loading



# **FR Kit Composition**





## 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.



Length(mm)	Diameter(Φ)	product Name
3.5	15.0	FR 315
3.0	20.0	FR 320
4.0	15.0	FR 415
4.0	20.0	FR 420
5.0	15.0	FR 515
5.0	20.0	FR 520
6.0	15.0	FR 615
6.0	20.0	FR 620

#### 2. Hex Driver

This tool is to mount fixture remover screw on fixture.



Length(mm))	product Name
7.0	HDF 1607
12.0	HDF 1612
17.0	HDF 1617

#### 3. Fixture Remover Screw

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

Screw Size))	product Name
M1.4	FRS 14
M1.6	FRS 16
M1.8	FRS 18
No 1-72 UNF	FRS 172
M2.0	FRS 20
M2.5	FRS 25



## 4. Torque Ratchet Wrench

It is to measure exact torque with Wrench tool.

Туре	product Name
Ratchet	FRCHT
Torque control Device	TW 80400





## **User Guide**

- 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.





Mounting torque of Removing Screw

Screw	Spec.	Recommended Torque(Ncm)	Maximum Torque(Ncm)
FRS 14	M1.4	50	60
FRS 16	M1.6	60	80
FRS 18	M1.8	60	100
FRS 172	No 1-72 UNF	60	100
FRS 20	M2.0	60	100
FRS 25	M2.5	60	100

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.





#### Removal torque Following the removal tool combination

Fixture size	Remover	Screw	Recommended Removing Torque(Ncm)	Maximum Removing Torque(Ncm)
		FRS 14	200	250
None	ED 045 ED 000	FRS 16	250	300
Narrow	FR 315 or FR 320	FRS 18/FRS 172	300	350
	FRS 20	350	400	
ED. (	ED 245 or ED 220	FRS 18/FRS 172	300	350
Denotes	FR 315 or FR 320 FRS 20	350	400	
Regular FR	ED 445 ED 400	FRS 18/FRS 172	300	350
	FR 415 or FR 420	FRS 20	350	400
	ED 445 ED 400	FRS 20	350	400
5.0 wide	FR 415 or FR 420 FRS 25	FRS 25	400	450
5.0 wide	ED 545 ED 500	FRS 20	350	400
FR 515 or	FR 515 or FR 520	FRS 25	400	450
_	ED 545 or ED 500	FRS 20	350	400
6~8 wide	FR 515 or FR 520	FRS 25	400 4	450
o~o wide	FR 615 or FR 620	FRS 20	350	400
		FRS 25	400	450



## **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..





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









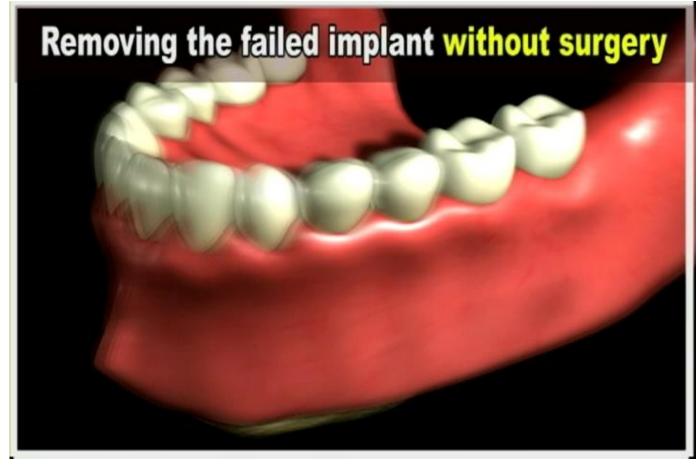
#### \* WARNING

- 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.
- 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 appling Regular size implant, if over torque than 400Ncm is applied, the Apex of implant can be fractured.





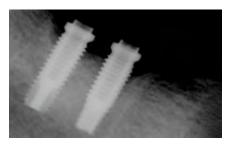
**User Guide** 





## **Case reports**

## Case 01.





1. The picture of the implant which needs to be removed becourse of bone loss, but it is hard to be removed becourse 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 inplant 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 allo-genic), 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 Complication
5 months after implant placement



Implant Soft Tissue Management







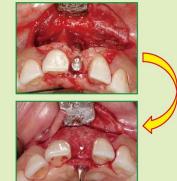


Implant Removal





**Horizontal Bone Augmentation** 







Vertical Bone Augmentation





