

SR Kit-II Kit

User Guide



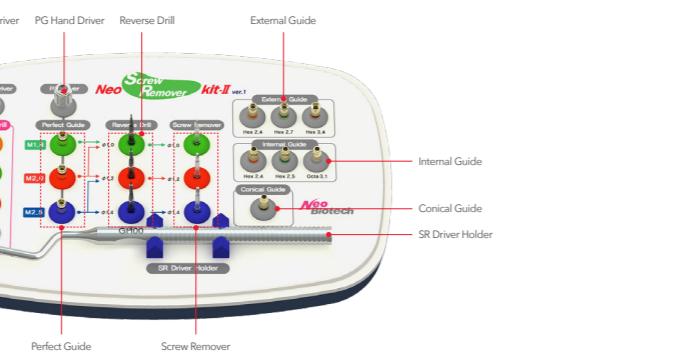
**Neo
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Satisfaction to Dentists

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I Product description

This product is a screw remover kit consisting of dental implant surgical tools (drill, surgical tools, and drivers) made from medical grade materials, such as stainless steel.



I Intended use

This product is a surgical tool developed in order safely and quickly to remove screws that have become fractured inside an implanted fixture for various reasons. After removing the screw, a new abutment may be connected to the fixture.

I Preservation

Hermetically sealed packages should be stored in a dry location away from direct light at ambient temperature. (1~30°C)

I How to Prepare Before Use

- Prior to using this product, the clinician must completely understand the condition, performance, and function of the product.
- Use only after raising any doubts and verifying any issues with the manufacturer.
- For the procedure, a plan must be first established, based on checking the patient's oral condition and accurate judgments.
- After taking into consideration the condition of the patient, tools appropriate for the procedure must be prepared.

I Components

① Claw

This is a surgical tool that removes a screw that has become fractured inside the fixture. After selecting the size that is appropriate for the size of the screw that is to be removed, it must be used by connecting a guide to the fixture (Conical/Internal/External Guide). Then it is connected to the shank driver, and the fractured screw can be removed by rotating by hand in the reverse direction. If the fractured screw cannot be removed using the Claw, it must be removed using the Reverse Drill and the Screw Remover.

② Reverse Drill

- This is a tool that creates a hole on the fractured face of the screw that will be used by the Screw Remover. After selecting the appropriate Reverse Drill for the size of the screw that needs to be removed, it must be used by connecting a guide for the fixture (Perfect/Conical/Internal/External Guide). The depth of the drill can be adjusted from 1 mm to 3 mm, because the drill body has markings.
 - For M1.6 Size Screw, use the claw drill for removal
/2,000 rpm
- | Product Name | Diameter(Ø) | Fractured Screw size |
|--------------|-------------|----------------------|
| RCD10 | Ø1.0 | M1.8 |
| RCD12 | Ø1.2 | M2.0 |
| RCD14 | Ø1.4 | M2.5 |

③ Screw remover

- The removal of an M1.6 size screw should utilize the Claw drill.
- Although different manufacturers produce different sizes of abutment screws, except in rare cases, typically they utilize screws of size M1.6, M1.8, M2.0, or M2.5. ('M' stands for a metric screw. The number indicates the external size of the screw. For example, "M1.6 Screw" indicates that it is a metric screw the external diameter of which is 1.6 mm).
- Screw remover This is a device that removes a fractured screw. Insert a Screw Remover that is appropriate for the size of the hole that has been formed using the Reverse Drill and rotate at a low speed (at or below 80 rpm) in the reverse direction. The screw remover was designed in a tapered shape so as to increase, as it turns, the amount of friction, which is necessary to loosen the screw.

④ At or below 80 rpm

Product Name	Diameter(Ø)	Fractured Screw size
SR10	Ø1.0	M1.8
SR12	Ø1.2	M2.0
SR14	Ø1.4	M2.5

[Figure 3]

⑤ Shank driver

This is a surgical tool that was designed to be connected to the Screw Remover to allow the use of the hand, torque wrench, or ratchet.

⑥ Drill stopper

The Perfect Guide acts as a guide for the Reverse Drill. It is used when the screw is fractured at the lower part of the female screw inside the fixture. It is connected to PG Hand driver and is directly applied to the fixture female screw. The Perfect Guide can be safely used because it has a stop structure inside that prevents the Reverse Drill from drilling more than 2 mm.

<Perfect Guide>

Product Name	Diameter(Ø)	Screw size	Applicable reverse drill
PG1018	1 Ø1.0	M1.8	RCD10
PG1220	2 Ø1.2	M1.8 M2.0	RCD10 RCD12
PG1425	3 Ø1.4	M2.0 M2.5	RCD12 RCD14

[Figure 5]

<PG Hand Driver>

Product Name	Spec	Applicable Products
PGHD2555	1.2.5 Hex	Perfect Guide (PG1018, PG1220, PG1425)

The Perfect Guide that is appropriate for the size of the screw to be removed must be selected.

[Figure 6]

⑦ Conical, Internal, External Guide

- They act as the guide when using the Reverse Drill. They are used when the Perfect Guide cannot be used, or if the screw was fractured at a location deeper than 2 mm into the lower part of the female screw inside the fixture.
- The guide appropriate for connecting to the fixture must be select.

<Conical Guide>

Product Name	Spec	Applicable fixture
CG00	11° / 8°	Having 11°/ 8° internal fixture RCD14

[Figure 7]

<Internal Guide>

Product Name	Spec	Applicable fixture
IHG24	2.4 Hex	Having 2.4 Hex Internal connection fixture
IHG25	2.5 Hex	Having 2.5 Hex Internal connection fixture
IOG31	3.1 Octa	Having 3.1 Octa Internal connection fixture

[Figure 8]

<External Guide>

Product Name	Spec	Applicable fixture
EHG24	2.4 Hex	Having 2.4 Hex External connection fixture
EHG27	2.7 Hex	Having 2.7 Hex External connection fixture
EHG34	3.4 Hex	Having 3.4 Hex External connection fixture

[Figure 9]

⑧ SR Driver holder

This can be easily affixed to the fixture by connecting it to the 3.5 double hex part of the Conical, Internal, or External Guide.

⑨ SR Driver holder

It can be easily affixed to the fixture by connecting it to the 3.5 double hex part of the Conical, Internal, or External Guide.

⑩ SR Driver holder (3.5 Double Hex)

Product Name	Spec	Applicable Guide
GH00	3.5 Double HEX	Conical Guide : CG00

[Figure 10]

② Instruction for use

1. Disinfection

Before using the surgical tools, the components should be sterilized and disinfected, based on our recommended steam sterilization conditions.

2. Verifying the Size of the Fixture and the Screw (Figure 11)

In order to select the appropriate tool for removing the screw, verify the connection to the fixture and the size of the screw to be removed, or the size of the female screw inside the fixture. (If the above information is unknown, the size must be verified by asking the manufacturer or the seller, then the appropriate tool selected, based on the verification.)

4. Use of Reverse Drill (Figure 17)

Select the Reverse Drill appropriate for the size of the screw to be removed and connect to the contra angle of the surgical engine. Then insert into the guide attached to the fixture and drill in the reverse direction at approximately 2000 rpm to form a hole that is approximately 1 to 2 mm large in the face of the fractured screw. While verifying the marking lines on the drill body (lines are 1 mm apart), carry out the drilling with adequate irrigation.



[Figure 17]

5. Use of Screw Remover (Figure 18)

A After selecting the Guide connected to the fixture, select the Screw Remover that is appropriate for the hole created with the Reverse Drill. Connect to the contra angle of the surgical engine and apply a proper amount of pressure and drill in the reverse direction at a low speed (80 rpm or less), in order to loosen the fractured screw. Connecting the shank driver to the Screw Remover enables the user to loosen by hand, torque wrench, or ratchet. In particular, if the screw cannot be removed because the surgical engine torque is too weak, the screw can be removed by using a ratchet.

[Figure 18]

6. If the Screw Hex of the Abutment Screw Has Been Damaged (Figure 19)

The hex part of the screw head can be damaged if over-torque is applied when connecting the fixture and the abutment, or when the screw is tightened without the hex driver being firmly connected. In these situations, the Reverse Drill and the Screw Remover can be used to loosen the screw.

[Figure 19]

<How to Use Based on the Size of the Screw to be Removed> [Figure 14]

Fractured Screw size	M1.8 Screw	M2.0 Screw	M2.5 Screw	Tool
Step 1	Perfect Guide selection	PG1018	PG1220	PG1425
Step 2	Reverse Drill	RCD10	RCD10 RCD12 RCD12 RCD14	RCD10 RCD12 RCD12 RCD14
Step 3	Screw Remover	SR10 SR10 SR12 SR12 SR14	SHD00	SHD00

1) Use of Reverse Drill

Insert the Ø 1.4 Reverse Drill (Model: RCD14) into the damaged area of the hex and drill in the reverse direction at 2,000 rpm to form a hole that is approximately 1 to 1.5 mm deep. (Depending on the situation, the screw may be loosened simply by using the Reverse Drill.)

2) Use of Screw Remover

Insert the Ø 1.4 Screw Remover (Model: SR14) into the hole created using the Reverse Drill and drill in the reverse direction at or below 80 rpm in order to loosen the screw.

I Precaution for use

- The product may be used only after the user completely understands the proper methods of use.
- If screw removal fails after trying the method 1 sequence, a second attempt can be made using method 2.
- If the size of the female screw inside the fixture is unknown, try to connect the largest size Perfect Guide (model name: PG1425). If a connection cannot be established, go down to the next smaller size until the correct size is found (PG1220 PG1018).

• If a Conical, Internal, or External Guide Is Used (Figure 15)

They can be used if the Perfect Guide cannot be used, or if the screw was fractured at a location deeper than 2 mm into the lower part of the female screw inside the fixture. Select an appropriate guide based on the connection to the fixture and connect to the fixture after attaching.

[Figure 15]

<How to Use Based on the Size of the Screw to be Removed> [Figure 16]

Fractured Screw size	M1.8 Screw	M2.0 Screw	M2.5 Screw	Tool
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