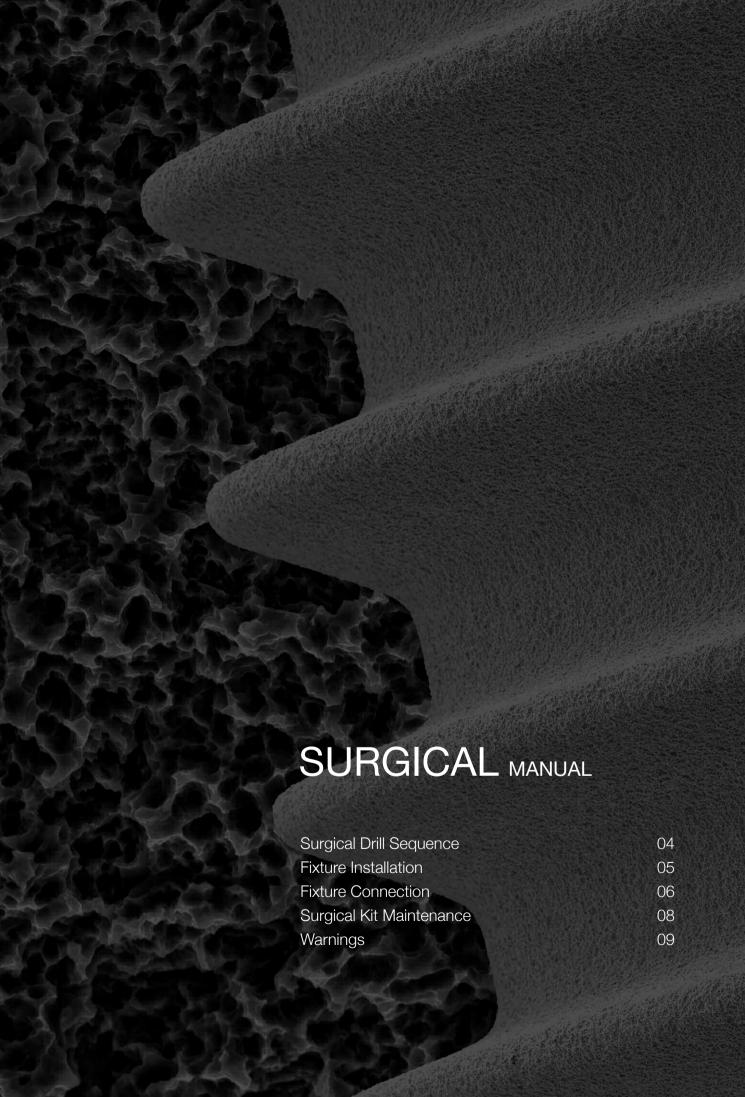




SimpleLine II

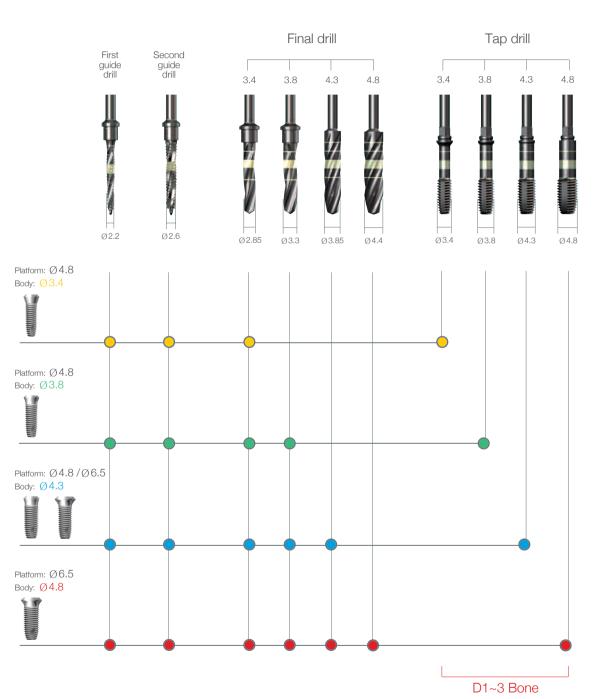
A New Choice

For the Customer



Surgical Drill Sequence



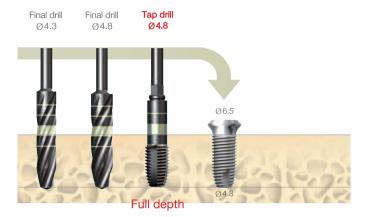


Fixture Installation

- Guide & Final Drill: 800~1,200rpm / 30~45N·cm
- Tap Drill: 20~60rpm / 30~45N·cm

D1 Bone

Platform: Ø 6.5 / Body: Ø 4.8



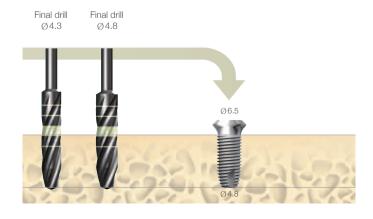
D2, 3 Bone

Platform: Ø 6.5 / Body: Ø 4.8



D4 Bone

Platform: Ø 6.5 / Body: Ø 4.8



Fixture Connection











Caution_ When opening the fixture package, hold it upright to avoid falling out of the fixture. Securely engage the adapter with the fixture.



By hand-piece 20rpm / 35N·cm



By ratchet



firmly connected together.

Directions when Using the Hand-piece / Ratchet Adapter

adapter

adapter





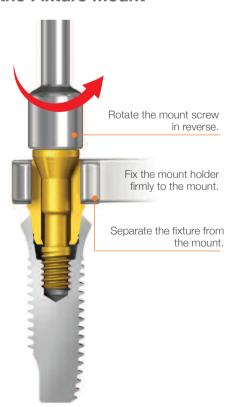
Removal of the Fixture Mount





 $^{^{\}star}$ In case the power of motor is insufficient to rotate the mount in reverse

Removal Mechanism of the Fixture Mount



Surgical Kit Maintenance

Sterilization and Instrument Care Procedures

- Please follow legal regulations, as well as hygienic guidelines to prevent contamination and infection.
- Please remember that you are responsible for the maintenance and sterilization of your medical / dental products/devices. It is important to use and follow proper cleaning, disinfection and sterilization procedures.
- It is also important to follow the manufacture's recommendation on the usage of the drills.. Please keep a log as to the number of times the drills are used.
- Drills are used per implant placed not per patient. Bone density determines the longevity of the drills.
- Replace white and red o-rings on the adapters and the hex drivers, if worn and dried out.
- Drills should be considered for replacement after about 40 uses based on bone density.
- **01** All instruments, immediately after use, must be pre-soaked for a few minutes in a germicidal bath to loosen and prevent debris from attaching to instruments. Do not soak over-night.
- **02** Scrub with a soft brush to remove any debris.
- 03 For internal irrigation drills use a reamer or small gauge needle to cleanout drill internally.
- 04 If using an ultrasonic cleaner, wrap drills in a 2 x 2 gauze to prevent the drills from rubbing against each other.
- 05 Rinse thoroughly under warm water.
- 06 Clean all instrument trays with a germicidal cleaner prior to replacing instruments in kit.
- 07 Dry completely and place back into kit.
- **08** Always check for damage or corrosion after rinsing and drying.
- **09** Seal the tray in a sterilization pouch.
- 10 Sterilize using a steam autoclave at 121°C / 250F for 30 minutes or refer to manufacture's recommendations.
- **11** Store in a dry area at room temperature.

Maintenance Period for Surgical Drills

All surgical drills should be replaced after approximately 40 uses based on bone density



Warnings

Warnings

Dental implant surgery and restoration involve complex dental procedures. Appropriate and adequate training in proper technique is strongly recommended prior to use.

- Improper medical examination and / or treatment plan can result in implant failure and / or loss of supportive bone.
- Improper initial stability and / or excessive occlusal forces during healing period may lead to osseointergration failure.
- Excessive insertion torque may lead to a mechanical failure or a implant biologic failure due to bone compression and necrosis.
- When forces or loads are greater than its design, implant or abutment fracture could occur. Therefore clinicians should make careful decisions in regards to clinical treatment planning to minimize the risk of fracture. Appropriate implant quantity, occlusal interface and a nightguard are essential. Potential excessive loading conditions may include the following:
- 01 Inadequate number of implants are placed
- **02** Implant width and / or length are inappropriate for a treatment site
- 03 Prosthesis which has excessive cantilever length due to inadequate biomechanical design
- 04 Continuous occlusal force may be generated by incomplete connection between implant and abutment and / or abutment screw loosening
- **05** Direct casting abutment angles are greater than 30° from the vertical axis of the implant. Angled abutment is excessively milled.
- 06 Occlusal interferences causing excessive lateral forces
- **07** Patient parafunctions such as bruxism
- 08 Inadequate dental laboratory casting procedures
- 09 Improper prosthesis fit
- 10 Trauma from patient habits or accidents
- 11 Excessive marginal bone loss caused by inadequate bone width and / or advanced periimplantitis



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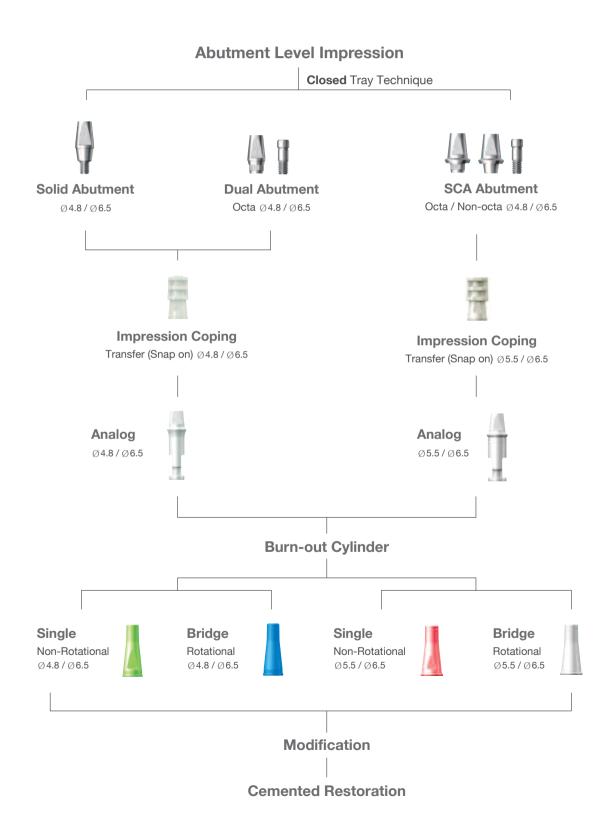
Types of Abutment



Prosthetic Procedure 1

Impression Technique and Restoration Selection

Solid / Dual / SCA Abutment



Abutment Level- Solid / Dual Abutment

[Multiple Units]



Chairside



Fixture installation.



Choose solid abutment or dual abutment.



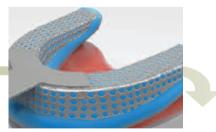
Tighten the abutment with 25~30N·cm and retighten it after 15 minutes.



Affix the impression coping on the abutment.



Apply the impression material.



Take the impression.



Image of the set final impression with impression coping).



Place comfort cap over the abutment.

Abutment Level- Solid / Dual Abutment

[Multiple Units]

Laboratory Procedure



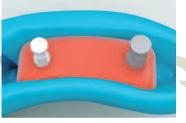
Lab Side



Insert analogs into the embedded impression coping.



Make sure the analogs are securely locked into the impression coping (line up the flat side of analog to the flat side of the coping).



Soft tissue modeling.



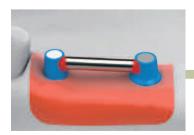
Create the master model.



Snap on the burn-out cylinders securely onto the analogs.



Cut the cylinder after measuring proper height based on the proximity of the opposing teeth.



Prepare for wax-up by affixing the plastic bar.



Completion of wax-up.



Produce the metal framework.

Abutment Level- Solid / Dual Abutment

[Multiple Units]



Shave off the extended margin by using the rubber wheel.



Metal framework and reamer.



Use the reamer to eliminate the "Lip" created by the "snap-on" mechanism.



Metal Framework after the removal of the "Lip".



Metal framework.



Porcelain build-up.

[Only Dual Abutment]

SCRP: Once an access hole has been created, it could be converted to a SCRP (Screw & Cement Retained Prosthesis).



Final prosthesis.



Create an access hole when the burn-out cylinder is used for the wax-up.



Image of the extended margin around the metal framework.



Shave off the extended margin by using the rubber wheel.



Metal framework and reamer.



Use the reamer to eliminate the "Lip" created by the "snap-on" mechanism.



Metal framework after the removal of the "Lip".



Metal framework.



Final prosthesis.

Abutment Level- SCA Abutment

[Multiple Units]



Chairside



Fixture installation.



Choose SCA abutment (Octa / Non-octa).



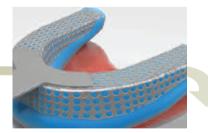
Tighten the abutment with 25~30N·cm and retighten it after 15 minutes.



Affix the impression coping on the abutment.



Apply the impression material.



Take the impression.



Image of the set final impression with impression coping).



Place comfort cap over the abutment.

Abutment Level- SCA Abutment

[Multiple Units]

Laboratory Procedure



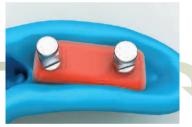
Lab Side



Insert analogs into the embedded impression coping.



Make sure the analogs are securely locked into the impression coping (line up the flat side of analog to the flat side of the coping).



Soft tissue modeling.



Create the master model.



Snap on the burn-out cylinders securely onto the analogs.



Cut the cylinder after measuring proper height based on the proximity of the opposing teeth.



Prepare for wax-up by affixing the plastic bar.



Completion of wax-up.



Produce the metal framework.

Abutment Level- SCA Abutment

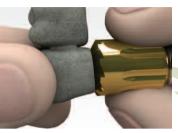
[Multiple Units]



Shave off the extended margin by using the rubber wheel.



Metal framework and reamer.



Use the reamer to eliminate the "Lip" created by the "snap-on" mechanism.



Metal Framework after the removal of the "Lip".



Metal framework.



Porcelain build-up.

SCRP: Once an access hole has been created, it could be converted to a SCRP (Screw & Cemented Retained Prosthesis).



Final prosthesis.



Create an access hole when the burn-out cylinder is used for the wax-up.



Image of the extended margin around the metal framework.



Shave off of the extended margin by using the rubber wheel.



Metal framework and reamer.



Use the reamer to eliminate the "Lip" created by the "snap-on" mechanism.



Metal framework after the removal of the "Lip".



Metal framework.

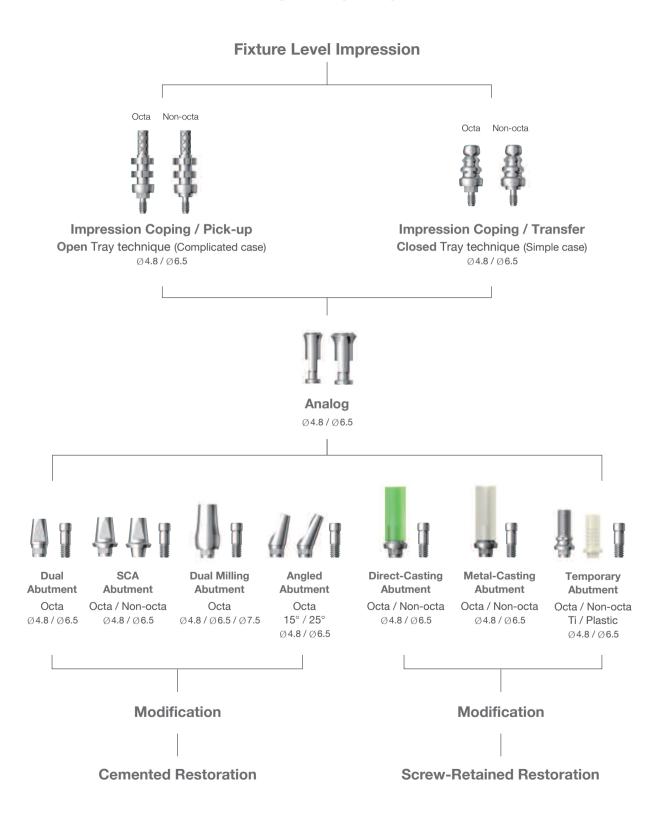


Final prosthesis.

Prosthetic Procedure 2

Impression Technique and Restoration Selection

Dual / SCA / Dual Milling / Angled / Direct-Casting / Metal-Casting / Temporary Abutment



Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]



Chairside





Apply adhesive on the open tray. (Individual tray)



(Octa).

Apply the impression material.





Take the impression.



Remove the screw before removing the impression tray.



Image of the set final impression with impression coping.

Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

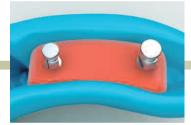
Laboratory Procedure



Lab Side



Connect analogs with the embedded impression coping.



Soft tissue modeling.



Create the master model.



Assemble the dual abutment.



If deemed necessary, abutment milling is possible.



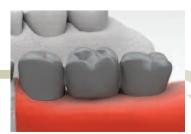
Fabricate the positioning jig



Fabricate the cap with pattern resin.



Completion of wax-up.



Metal framework.

Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]



Final prosthesis.

Chairside



Use positioning jig to transfer the abutment from the model to the intraoral and then tighten it with 25~30N·cm.

Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

SCRP- Lab Side



Create an access hole for pick-up coping screw.



Completion of Wax-up.



Metal framework.



Final prosthesis.

SCRP- Chairside



Use positioning jig to transfer the abutment from the model to the intraoral and tighten with to 25~30N·cm.

Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment.

^{*} In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

Fixture Level [Transfer Type] - Dual Abutment

[Multiple Units]

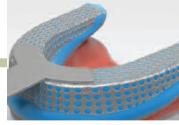
Clinical Procedure







Apply the impression material.



Take the impression.



Image of the set final impression with impression coping.

Fixture Level [Transfer Type] - Dual Abutment

[Multiple Units]

Laboratory Procedure



Lab Side

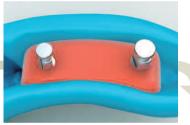


Insert analogs into the set impression.



height adjustment

Make sure the analogs are securely seated in the impression coping (line up the flat side of analog to the flat side of the coping).



Soft tissue modeling.



Create the master model.



Examine the soft tissue condition after the retrieval of the impression coping.



Assemble the dual abutment.



If deemed necessary, abutment milling is possible.



Fabricate the positioning jig.



Fabricate the cap with pattern resin.

Fixture Level [Transfer Type] - Dual Abutment

[Multiple Units]



Completion of wax-up.



Metal framework.



Final prosthesis build-up on the framework with porcelain.

Chairside



Use the positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm.

Re-tighten after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

SCRP- Lab Side



Create an access hole for the pick-up coping screw.



Completion of Wax-up.



Metal framework.



Final prosthesis.

SCRP- Chairside



Use positioning jig to transfer abutment from the model to the intraoral and tighten it with 25~30N·cm.

Re-tighten after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

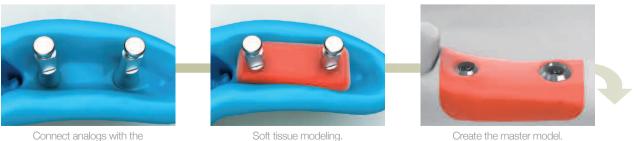
^{*} In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

Fixture Level- SCA Abutment









embedded impression coping.

Soft tissue modeling.

Create the master model.

Fixture Level- SCA Abutment

[Multiple Units]



Assemble the SCA abutment.



If deemed necessary, abutment milling is possible.



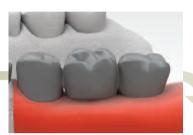
Fabricate the positioning jig



Fabricate the cap with pattern resin



Completion of wax-up.



Metal framework.



Final prosthesis.



Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

SCRP- Lab Side



Create an access hole for pick-up coping screw



Completion of wax-up.



Metal framework.

SCRP-Chairside



Final prosthesis.



Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm.

Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

^{*} In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

Fixture Level- Dual Milling Abutment



Laboratory Procedure







Connect analogs with the set impression material.

Soft tissue modeling.

Create the master model.

Fixture Level- Dual Milling Abutment

[Single Unit]



Assemble the dual milling abutment.



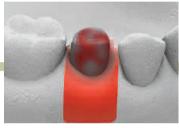
Milled the abutment to an appropriate size.



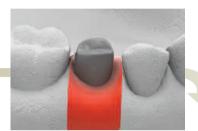
Fabricate the positioning jig



Fabricate the cap with pattern resin.



Completion of wax-up.



Metal framework.



Final prosthesis.

Chairside



Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

^{*} In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

Fixture Level- Angled Abutment



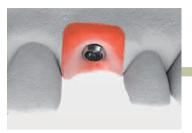
Laboratory Procedure





Fixture Level- Angled Abutment

[Single Unit]



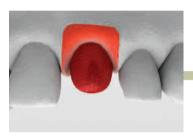
Create the master model.



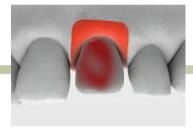
Assemble the angled abutment.



Milled the abutment to an appropriate size and fabricate the positioning jig.



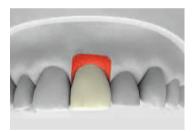
Fabricate the cap with pattern resin.



Completion of wax-up.



Metal framework.



Final prosthesis.

Chairside



Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

Fixture Level- Direct-Casting Abutment



Laboratory Procedure







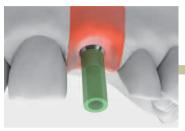
Connect analogs with the set impression material.

Soft tissue modeling.

Unscrew and separate the impression from the model.

Fixture Level- Direct-Casting Abutment

[Single Unit]



Assemble the direct casting abutment.



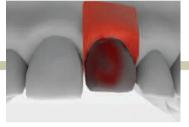
Completed customized abutment.



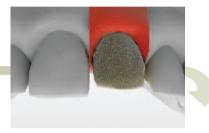
Fabricate the positioning jig.



Fabrication of pattern resin cap



Completion of wax-up.



Metal framework.



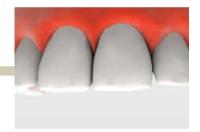
Final prosthesis.

Chairside



Use positioning jig to transfer the abutment from the model to the intraral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.

<Using Ti Abutment>



Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

Fixture Level- Temporary Abutment

[Multiple Units]



Consider the opposing teeth before seating the temporary abutment. Trim off the abutment as needed and complete the temporary abutment prosthesis with direct resin.

<Using Plastic Abutment>

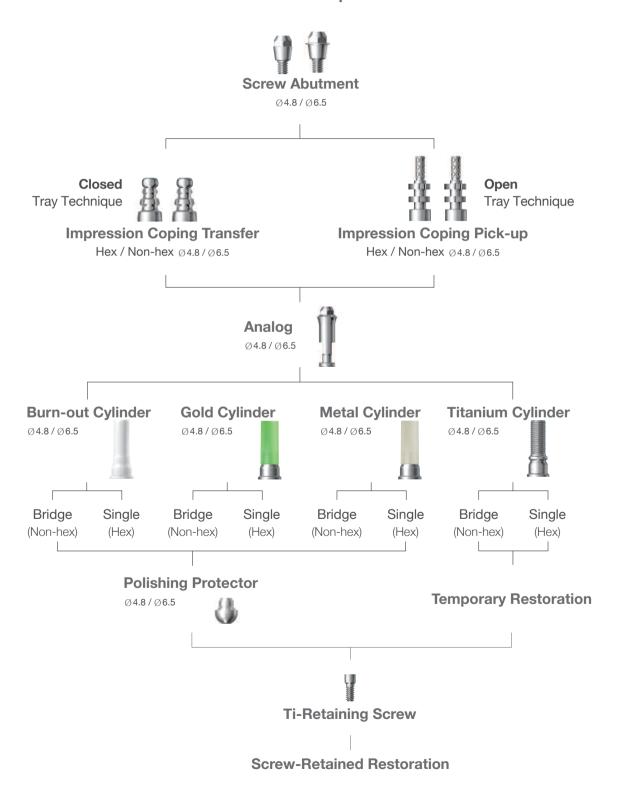


Prosthetic Procedure 3

Impression Technique and Restoration Selection

Screw Abutment

Abutment Level Impression



Abutment Level- Screw Abutment

[Multiple Units]

Clinical Procedure



Chairside



Screw abutment and delivery holder.



Select and seat an appropriate screw abutment with delivery holder.



Tighten it with 25~30N·cm. Re-tighten it after 15 minutes with screw abutment adapter.



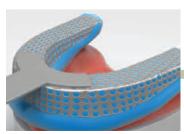
Screw abutment transfer copings (abutment level).



Connect the impression coping for abutment level impression.



Apply the impression material.



Take the impression.



Image of the set final impression with impression coping.



Place comfort cap over the screw abutment.

Abutment Level- Screw Abutment

[Multiple Units]

Laboratory Procedure



Lab Analog Connection



Cylinder Connection



Modification



Crown Wax-up



Final Restoration Screw Retained

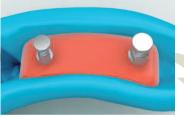
Lab Side



Insert analogs into the set impression.



Make sure the analogs are securely seated in the impression coping (line up the flat side of analog to the flat side of the coping).



Soft tissue modeling.



Create the master model.



Remove the impression coping.



Connect the screw abutment cylinder and tighten it with Ti-retaining screw.



Trim cylinder after measuring proper height based on the proximity of the opposing teeth..



Connect the plastic bar in the middle of trimmed burn-out cylinders to help support the resin pattern. Resin pattern may experience shrinkages.



Completion of wax-up.

Abutment Level- Screw Abutment

[Multiple Units]



Gold framework.



Use the reamer to remove the "Lip" in the interior of the metal framework.



Completion of gold framework.



Final prosthesis.



Insert the final prosthesis and make necessary occlusal adjustments. Tighten it with Ti-retaining screw (10 N·cm).

Cementation Repair Method (SCRP)

[Screw & Cement Retained Prosthesis]

In light of Implant Prosthesis:

- Screw type restoration simplifies prosthetic repair or insertion and removal of the prosthesis to any given situation.
- Cement type restoration tend to have a stable occlusion and may enhance the adaptability. However the weak point is, it cannot be removed after permanent cementation.
- A SCA abutment can be cemented or screw retained.
- Solid abutments are cement retained and no occlusal hole is necessary.

Screw Loosening or Prosthesis Repair



In case of the following: screw loosening or prosthesis repair



In order to unscrew, create access hole on the occlusal surface with a bur.



Unscrew, and remove the prosthesis from the patient's mouth.



Both cemented prosthesis and abutments are removed.



Finish the repair and seat it inside the patient's mouth.



Tighten the prosthesis with 25~30N·cm with a screw driver

* In case of screw abutment connection, Ti-Retain screw has to be tightened with 10N-cm.



Place a small piece of cotton to cover the head of the screw.



Fill the remaining access space with a resin.



Final prosthesis.

Cementation Repair Method (SCRP)

[Screw & Cement Retained Prosthesis]

Separation of Prosthesis with Abutment due to Cement Loss



Remove the screw completely with 25~30N·cm and remove prosthesis from the patient's mouth.



Apply cement to the prosthesis.



Place it back into the patient's mouth.



Unscrew and remove the excessive



Finish the repair and seat it inside the patient's mouth.



Tighten the prosthesis with 25~30N·cm with a screw driver.

Augmenting Interproximal Volume to Repair Prosthesis Loosening



Adding volume to the interproximal surface to repair loosening.



Create access hole on the occlusal surface with a bur.



Unscrew and remove the cemented prosthesis with abutment from the patient's mouth.



Add resin to the prepared space



on the contact surface.



Screw back in the prosthesis and perform light curing. Aftermath, polish the contact surface.



Position the prosthesis in the mouth and tighten the screw with 25~30N·cm. Fill in the access hole.

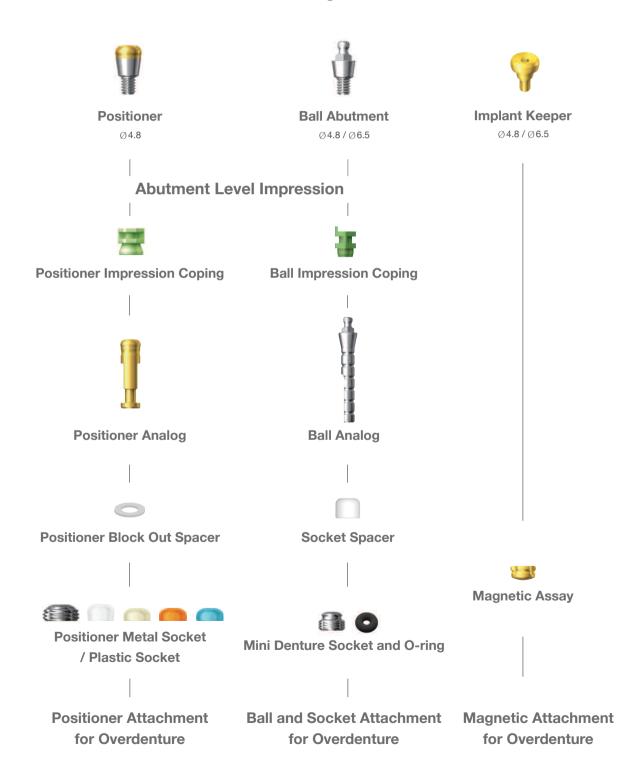


Prosthetic Procedure 4

Impression Technique and Restoration Type

Overdenture Procedure

Positoner / Ball / Magnetic Attachment



Positioner

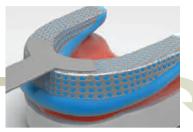
Chairside



Connect the Positioner Abutment onto the fixture.



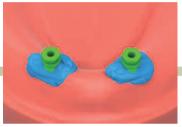
Affix the impression coping on the Positioner Abutment.



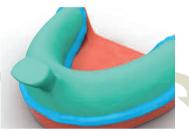
Take impression for the production of the individual tray.



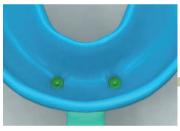
Produce the individual tray for denture impression.



After connecting the Positioner Abutment and the impression coping together, apply the impression material.



Take the final impression with the prepared individual tray.

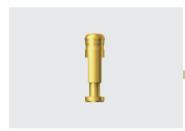


After the impression material is set, discard the individual tray.

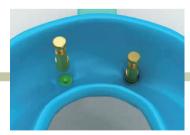


Image of the set final impression (with impression coping).

Lab side



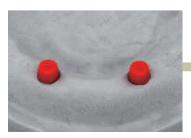
Positioner Analog.



Insert the Positioner Analog into the embedded impression coping.



Create the master model.



"Block out" procedure to achieve the space required for the metal socket.



Fabrication of the denture with conventional method

Positioner

Case 1



Secure spaces for the female sockets.



Apply a small amount of resin into the space created for the metal socket.





Remove the denture after the resin is fully set. Image of the denture with the metal socket.

Positioner Abutment in the patient's mouth.

Place the "block out spacer" on the

Position the denture in the mouth and wait until the resin is completely set.



Remove the block out spacer from the patient's mouth.

Chairside



Connect the metal socket onto the Positioner Abutment.



Remove the white plastic socket (100gf) using the positioner tool and replace with a regular plastic socket of a desired retention force (300, 500 or 1000gf).



Polish and the overdenture is complete.

Case 2



Create holes for the placement of the metal sockets.

Chairside



Place the "block out spacer" on the Positioner Abutment in the intraoral.



Connect the metal socket onto the Positioner Abutment.



Examine for interference between the inner surface of the holes and the female sockets.



until it is completely set.



Remove the white plastic socket (100gf) using the positioner tool and replace with a regular plastic socket of a desired retention force (300, 500 or 1000gf).



Apply additional resin around the metal socket where there is a shortage of



Apply resin around the metal socket.



Polish and the overdenture is complete.

Ball Attachment

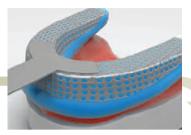
Chairside



Connect the Ball Abutment with the fixture.



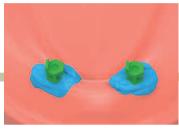
Affix the impression coping on the Ball Abutment.



Take impression for the production of the individual tray.



Produce the individual tray for denture impression.



Apply the impression material.



Take the final impression with the prepared individual tray.



After the impression material is set, discard the individual tray.



Image of the set final impression (with impression coping).

Lab side



Ball Analog.



Insert the analogs into the embedded impression coping.



Create the master model.



Socket spacer.



Fabrication of the denture with conventional method.

Ball Attachment

Case 1



Secure spaces for the female sockets.

Chairside



Connect the female sockets to the Ball Abutment in the intraoral.



Apply small amount of the resin into the secured area.



Position the denture in the mouth and wait until the resin is completely set.



Female sockets are placed in the denture.



Polish and the overdenture is complete.

Case 2



Create holes for the placement of the female sockets.

Chairside



Connect the female sockets to the Ball Abutment in the intraoral.



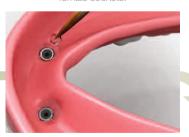
Examine for interference between the inner surface of the holes and the female sockets.



Apply the resin into the holes and wait until it is completely set.



Place the female sockets.



Apply resin around the female sockets.



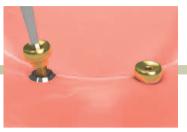
Polish and the overdenture is complete.

Magnetic Attachment

Chairside



Remove the Healing Abutment.



Connect implant keeper with the fixture and tighten it with 25~30 N·cm.



Implant keepers connected with the fixtures.



Position the magnetic assay on the implant keeper.



Secure spaces for the magnetic assays.



Examine for interference between inner divets of the denture and the magnets.

Case 1



Apply resin on the divets of the denture's inner surface.



Position the denture into the mouth and wait until the resin is completely set.



Position the denture into the mouth and wait for initial setting.



Remove the denture and apply resin around the magnets.



After the resin is completely set, remove excess. Polish and the overdenture is complete.

Magnetic Attachment

Case 2



Create holes for the placement of the magnets.



Examine for interference between the inner surface of the holes and the magnets.



.Apply small amount of resin into the



Position the denture in the mouth and wait until the resin is completely set.



After initial setting, remove denture from the mouth.



Add the resin around the magnets.



Polish and the overdenture is complete.



SimpleLine IISurgical / Prosthesis Manual



For Dentists By Dentists

Specifications are subject to change without prior notice.

Some productsthat are to be launched in the market after necessary approvals are also listed in this catalog.