SimpleLine II

A New Choice

For the Customer
Surgical Drill Sequence

First guide drill

Second guide drill

Final drill

Target drill

Platform: Ø 4.8
Body: Ø 3.4

Platform: Ø 4.8
Body: Ø 3.8

Platform: Ø 4.8 / Ø 6.5
Body: Ø 4.3

Platform: Ø 6.5
Body: Ø 4.8

D1~3 Bone
Fixture Installation

D1 Bone
Platform: Ø6.5 / Body: Ø4.8

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

D2, 3 Bone
Platform: Ø6.5 / Body: Ø4.8

D4 Bone
Platform: Ø6.5 / Body: Ø4.8
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.

Directions when Using the Hand-piece / Ratchet Adapter

By hand-piece
20rpm / 35N-cm

By ratchet

The ratchet adapter and the fixture internal octa must be firmly connected together.
Removal of the Fixture Mount

**By handpiece**
- Run the hand-piece in reverse mode.
- Fix the mount holder firmly to the mount.

**By ratchet**
- Use the ratchet to rotate the mount in reverse.
- Fix the mount holder firmly to the mount.

* In case the power of motor is insufficient to rotate the mount in reverse.

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Removal Mechanism of the Fixture Mount

- Rotate the mount screw in reverse.
- Fix the mount holder firmly to the mount.
- Separate the fixture from the mount.
Surgical Kit Maintenance

Sterilization and Instrument Care Procedures

It is important to use protective clothing and face shield while cleaning contaminated instruments. Always wear protective glasses, mask, gloves, etc. for your safety.

01 Rinse instruments immediately after use under running tap water (<40°C) for a minimum of one (1) minute to remove all debris including extraneous body uids, bone debris and tissue.

02 Soak all instruments immediately after rinsing in an enzymatic cleaning solution* for 10 to 20 minutes (Do not soak overnight).
   * Follow manufacturer’s instructions and observe recommended cleaning solution concentrations (enzymatic detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible cleaning solutions to clean instruments.

03 For internal irrigation drills, use a 1mL syringe and a 25 gauge needle to clean the drill irrigation hole with a minimum of 0.2 mL of the prepared cleaning solution. Repeat this step two (2) more times for a total of three (3) rinses.

04 Scrub with a soft brush for a minimum of one (1) minute to remove any debris inside the drill irrigation hole.

05 Rinse the instruments under running tap water (<40°C) for a minimum of 1 minute. Use a 1mL syringe and a 25 gauge needle with a minimum of 0.2 mL of tap water to forcefully flush inside the drill irrigation hole. Repeat flushing of drill irrigation hole two (2) more times for a total of three (3) ushes.

06 Place instruments into an ultrasonic cleaner with neutral detergent**. Keep instruments inside the ultrasonic bath for 15 minutes using a frequency of 25-50 kHz. Ensure multiple instruments placed within the bath remain separated.
   ** Follow manufacturer’s instructions and observe recommended neutral detergent solution concentrations (neutral detergent with a pH level between 7-10 and temperature not to exceed 40°C). Do not use incompatible neutral detergent solutions to clean instruments.

07 Rinse instruments thoroughly with running tap water (<40°C) for a minimum of 1 (one) minute until all traces of neutral detergent solution are removed. Rinse inside drill irrigation hole using a 1mL syringe and a 25 gauge needle with a minimum of 0.2 mL of tap water. Repeat rinsing drill irrigation hole two (2) more times for a total of three (3) rinses.

08 Gently wipe instruments with a soft lint-free cloth or place the instruments in a drying cabinet (60°C for less than 10 hours) until fully dry. Blow residual water from drill irrigation hole using a 1mL syringe and a 25 gauge needle. Visually inspect instruments in a well-lit area to ensure they are clean, dry and free of residue.

09 Clean instrument trays with a germicidal cleaner prior to returning instruments into Kit.

10 Always check for damage or corrosion after rinsing and drying.

Sterilization

Dentium USA recommends either the Pre-vacuum or Gravity autoclave methods for sterilization under the conditions described below. However, autoclave performance can affect the efficacy of this process. Healthcare facilities should validate their sterilization processes employing the actual equipment and operators that routinely sterilize instruments.

All autoclaves/sterilizers should be regularly validated, maintained and checked in accordance with EN 285/EN 13060, EN ISO 17665, ANSI AAMI ST79 to ensure compliance with these and related standards. Make sure packaging is suitable for steam sterilization.

Recommended Sterilization Parameters

<table>
<thead>
<tr>
<th>Method-Moist Heat Sterilization</th>
<th>Pre-vacuum</th>
<th>Gravity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Point Temperature</td>
<td>132 °C</td>
<td>132 °C</td>
</tr>
<tr>
<td>Exposure Time</td>
<td>4 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Drying Time</td>
<td>20 minutes</td>
<td>40 minutes</td>
</tr>
</tbody>
</table>

Maintenance Period for Surgical Drills

All surgical drills shall be replaced after approximately 40 uses based on bone density.
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 osseointegration failure.
- Excessive insertion torque may lead to a mechanical failure or an 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
PROSTHESIS MANUAL

Types of Abutment 11

Prosthetic Procedure 1 12
Abutment Level- Solid / Dual Abutment 13
Abutment Level- SCA Abutment 16

Prosthetic Procedure 2 19
Fixture Level [Pick-up Type]- Dual Abutment 20
Fixture Level [Transfer Type]- Dual Abutment 23
Fixture Level- SCA Abutment 26
Fixture Level- Dual Milling Abutment 28
Fixture Level- Angled Abutment 30
Fixture Level- Direct Casting Abutment 32

Prosthetic Procedure 3 34
Abutment Level- Screw Abutment 35

Cementation Repair Method (SCRP) 38

Prosthetic Procedure 4 40
Positioner 41
Ball Attachment 43
Magnetic Attachment 45
Types of Abutment

One-Piece

| Solid Abutment |

Two-Pieces

| Octa | Dual Abutment |
| Octa | Non-Octa |

| Screw Abutment |
| Octa | Dual Milling Abutment |
| 15° | 25° |
| Octa | Angled Abutment |
| Octa | Non-Octa |
| Octa | Direct-Casting Abutment |
| Octa | Non-Octa |
| Ti | Plastic |
| Octa | Metal-Casting Abutment |
| Octa | Non-Octa |
| Temporal Abutment |

Abutment Level

| Dual Abutment |
| Solid Abutment |
| SCA Abutment |

| Dual Abutment |
| SCA Abutment |
| Dual Milling Abutment |
| Angled Abutment (15° / 25°) |
| Direct-Casting Abutment |
| Metal-Casting Abutment |
| Temporary Abutment |

| Screw Abutment |

| Positioner |
| Ball |
| Magnetic |

Overdenture

Screw retained (Abutment level)

For denture use

Fixture Level

Positioner
Ball
Magnetic
Prosthetic Procedure 1

Impression Technique and Restoration Selection

Solid / Dual / SCA Abutment

Abutment Level Impression
Closed Tray Technique

Solid Abutment
Ø 4.8 / Ø 6.5

Dual Abutment
Octa Ø 4.8 / Ø 6.5

SCA Abutment
Octa / Non-octa Ø 4.8 / Ø 6.5

Impression Coping
Transfer (Snap on) Ø 4.8 / Ø 6.5

Impression Coping
Transfer (Snap on) Ø 5.5 / Ø 6.5

Analog
Ø 4.8 / Ø 6.5

Analog
Ø 5.5 / Ø 6.5

Burn-out Cylinder

Single
Non-rotational Ø 4.8 / Ø 6.5

Bridge
Rotational Ø 4.8 / Ø 6.5

Single
Non-rotational Ø 5.5 / Ø 6.5

Bridge
Rotational Ø 5.5 / Ø 6.5

Modification
Cemented Restoration
Abutment Level- Solid / Dual Abutment

Clinical Procedure

Healing Abutment  Solid Abutment or Dual Abutment  Abutment Level Impression  Provisional Restoration with or without Comfort Cap  Comfort Cap

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**

**Laboratory Procedure**

**Lab Analog Connection**

- Insert analogs into the embedded impression coping.

**Cylinder**

- 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).

**Crown Wax-up**

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

**Final Restoration Cementation Type**

- Soft tissue modeling.

- 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.

**Lab Side**

- 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.

- Soft tissue modeling.
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

Clinical Procedure

1. Fixture installation.
2. Choose SCA abutment (Octa / Non-octa).
3. Affix the impression coping on the abutment.
4. Apply the impression material.
5. Take the impression.
6. Image of the set final impression with impression coping.
7. Place comfort cap over the abutment.
8. Tighten the abutment with 25~30N·cm and retighten it after 15 minutes.

Chairside
**Abutment Level - SCA Abutment**

**Laboratory Procedure**

- **Lab Analog Connection**
- **Cylinder**
- **Crown Wax-up**
- **Final Restoration**
  - **Cementation Type**

- 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

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 Impression

Octa Non-octa

Impression Coping / Pick-up
Open tray technique (Complicated case)
Ø 4.8 / Ø 6.5

Impression Coping / Transfer
Closed tray technique (Simple case)
Ø 4.8 / Ø 6.5

Analog
Ø 4.8 / Ø 6.5

Dual Abutment Octa Ø 4.8 / Ø 6.5
SCA Abutment Octa / Non-octa Ø 4.8 / Ø 6.5
Dual Milling Abutment Octa Ø 4.8 / Ø 6.5 / Ø 7.5
Angled Abutment Octa 15° / 25° Ø 4.8 / Ø 6.5
Direct-Casting Abutment Octa / Non-octa Ø 4.8 / Ø 6.5
Metal-Casting Abutment Octa / Non-octa Ø 4.8 / Ø 6.5
Temporary Abutment Octa / Non-octa Ti / Plastic Ø 4.8 / Ø 6.5

Modification

Cemented Restoration

Modification

Screw-Retained Restoration
Fixture Level [Pick-up Type]- Dual Abutment

Clinical Procedure

Healing Abutment | Impression Coping Pick-up Type | Fixture Level Impression Open Tray

Chairside

Pick-up type impression coping (Octa).

Apply adhesive on the open tray. (Individual tray)

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

Laboratory Procedure

Lab Analog Connection | Assemble the Dual Abutment | Burn-out Cylinder cutting for height adjustment | Crown Wax-up | Final Restoration Cementation Type

Lab Side

Connect analogs with the embedded impression coping.

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]

Chairside

Final prosthesis.

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.

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 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 rebound 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

Clinical Procedure

Healing Abutment | Impression Coping Transfer Type | Fixture Level Impression Closed Tray

Chairside

Transfer type impression coping (Octa).

Apply the impression material.

Take the impression.

Connect the impression coping for fixture level impression.

Image of the set final impression with impression coping.
Laboratory Procedure

**Lab Analog Connection**

Impression coping and analog connection. And insert impression coping into the impression.

**Assemble the Dual Abutment**

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).

**Burn-out Cylinder cutting for height adjustment**

Create the master model.

**Crown Wax-up**

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

**Final Restoration Cementation Type**

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

Complete the 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 intracoral and tighten it with 25–30 N-cm. Re-tighten after 15 minutes.

SCRP- Lab Side

Create an access hole for the pick-up coping screw. Completion of Wax-up. Metal framework.

SCRP- Chairside

Final prosthesis. Use the positioning jig to transfer abutment from the model to the intracoral and tighten it with 25–30 N-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.

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

Clinical Procedure

Healing Abutment

Fixture Level Impression
Pick-up Type
Open Tray

Fixture Level Impression
Transfer Type
Closed Tray

Laboratory Procedure

Lab Analog Connection
Assemble the SCA Abutment
Burn-out Cylinder
cutting for height adjustment
Crown Wax-up
Final Restoration
Cementation Type

Lab Side

Connect analogs with the embedded impression coping.

Soft tissue modeling.

Create the master model.
Fixture Level - SCA Abutment

**SCRP - Lab Side**
- 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.

**SCRP - Chairside**
- Final prosthesis.
- Use positioning jig to transfer the abutment from the model to the intracoral and tighten it with 25–30N-cm.
- Re-tighten it after 15 minutes.
- Create an access hole for pick-up coping screw.
- Completion of wax-up.
- Metal framework.

* 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.

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

Cement the final prosthesis and make occlusal adjustment. Place wax in 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- Dual Milling Abutment

Clinical Procedure

Healing Abutment
Fixture Level Impression
Transfer Type
Closed Tray
Fixture Level Impression
Pick-up Type
Open Tray

Lab Side

Connect analogs with the set impression material.
Soft tissue modeling.
Create the master model.

Laboratory Procedure

Lab Analog Connection
Dual Milling Abutment Connection
 Modification
Crown Wax-up
Final Restoration Cementation Type
**Fixture Level- Dual Milling Abutment**

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. 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 rebound by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10–15 minutes.*
**Fixture Level - Angled Abutment**

### Clinical Procedure

- Healing Abutment
- Fixture Level Impression
  - Pick-up Type
  - Open Tray
- Fixture Level Impression
  - Transfer Type
  - Closed Tray

### Laboratory Procedure

- Lab Analog Connection
- Angled Abutment Connection
- Modification
- Crown Wax-up
- Final Restoration Cementation Type

### Lab Side

- Impression coping with analog connections.
- Soft tissue formation and fabrication of master model.
- Unscrew and separate the impression from the model.
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 or zirconia framework.

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intracoral 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**

**Clinical Procedure**

- Healing Abutment
- Fixture Level Impression (Pick-up Type: Open Tray)
- Fixture Level Impression (Transfer Type: Closed Tray)

**Laboratory Procedure**

- Lab Analog Connection
- Direct-Casting Abutment Connection
- Modification
- Crown Wax-up
- Final Restoration Cementation Type

**Lab Side**

- Impression coping with analog connections.
- Soft tissue formation and fabrication of master model.
- Unscrew and separate the impression from the model.
**Fixture Level- Direct-Casting Abutment**

Assemble the direct casting abutment. Completed customized abutment. Fabricate the positioning jig.

Fabrication of pattern resin cap. Completion of wax-up. Metal or zirconia framework.

--- Final prosthesis. 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.

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**

Consider the opposing teeth before seating the temporary abutment. Trim off the abutment as needed and complete the temporary abutment prosthesis with direct resin.
Prosthetic Procedure 3

Impression Technique and Restoration Selection

**Screw Abutment**

**Abutment Level Impression**

**Closed Tray Technique**

**Impression Coping Transfer**
Hex / Non-hex Ø4.8 / Ø6.5

**Open Tray Technique**

**Impression Coping Pick-up**
Hex / Non-hex Ø4.8 / Ø6.5

**Analog**
Ø4.8 / Ø6.5

**Burn-out Cylinder**
Ø4.8 / Ø6.5
Bridge (Non-hex) Single (Hex)

**Gold Cylinder**
Ø4.8 / Ø6.5
Bridge (Non-hex) Single (Hex)

**Metal Cylinder**
Ø4.8 / Ø6.5
Bridge (Non-hex) Single (Hex)

**Titanium Cylinder**
Ø4.8 / Ø6.5
Bridge (Non-hex) Single (Hex)

**Polishing Protector**
Ø4.8 / Ø6.5

**Temporary Restoration**

**Ti-Retaining Screw**

**Screw-Retained Restoration**
**Abutment Level** - **Screw Abutment**

[Multiple Units]

**Clinical Procedure**

- **Healing Abutment**
- **Screw Abutment**
- **Impression Coping Transfer Type**
- **Abutment Level Impression**

**Chairside**

1. Screw abutment and delivery holder.
2. Select and seat an appropriate screw abutment with delivery holder.
3. Tighten it with 25–30N-cm. Re-tighten it after 15 minutes with screw abutment adapter.
4. Screw abutment transfer copings (abutment level).
5. Connect the impression coping for abutment level impression.
6. Apply the impression material.
7. Take the impression.
8. Image of the set final impression with impression coping.
9. Place comfort cap over the screw abutment.
Abutment Level- Screw Abutment

Laboratory Procedure

Lab Analog Connection  Cylinder Connection  Modification  Crown Wax-up  Final Restoration

Screw Retained  [Multiple Units]

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 wax pattern. Wax pattern may experience shrinkages.

Completion of wax-up.
Abutment Level- Screw Abutment

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.

* It is recommended that the abutment screw is re-tightened after 15 minutes.

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 screw driver 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 cement.
- 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.

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 / Mini Ball / Magnetic Attachment

Positioner Ø 4.8
Abutment Level Impression
Positioner Impression Coping
Positioner Analog
Positioner Block Out Spacer
Positioner Metal Socket / Plastic Socket
Positioner Attachment for Overdenture

Mini Ball Abutment Ø 4.8 / Ø 6.5
Mini Ball Impression Coping
Mini Ball Analog
Socket Spacer
Mini Denture Socket and O-ring
Mini Ball and Socket Attachment for Overdenture

Implant Keeper Ø 4.8 / Ø 6.5

Magnetic Assay

Magnetic Attachment for Overdenture
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.

Case 2

Create holes for the placement of the metal sockets.

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

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

Chairside

Place the “block out spacer” on the Positioner Abutment in the patient’s mouth.

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

Place the “block out spacer” on the Positioner Abutment in the patient’s mouth.

Connect the metal socket onto the Positioner Abutment.

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

Polish and the overdenture is complete.

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.
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.

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

Female sockets are placed in the denture.

Apply small amount of the resin into the secured area.

Polish and the overdenture is complete.

Case 2

Create holes for the placement of the female sockets.

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

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

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 II
Surgical / Prosthesis Manual