ZL MICRODENT

ATTACHMENTS

Contents

DUOLOCK

INDICATION
This version of the DUOLOCK is indicated for free-end and bounded saddle partial dentures as well as removable bridges in patients with a non-atrophied or minimally atrophied alveolar ridge.

PRODUCT DESCRIPTION
The DUOLOCK is a rigid intracoronal attachment with a precisely adjustable activation screw in the patrix.
The extracoronal screw retention of the patrix with the threaded cap allows easy exchange of the patrix without damaging the acrylic saddle.
The DUOLOCK consists of a matrix, an exchangeable patrix and a threaded cap for holding the patrix.
Different matrices and threaded caps are available depending on the technique used.

INSTRUMENTS AND ACCESSORIES FOR ATTACHMENTS
An effective prosthetic restoration depends primarily on using a precise technique with ZL attachments. Always use original ZL instruments, tools and accessories to ensure that the precision of the attachments is maintained right through to completion of the restoration. This also applies when making adjustments to a finished denture.

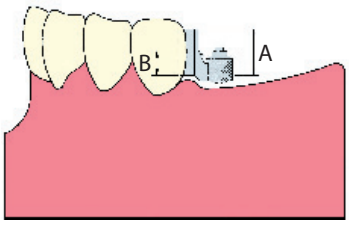
Contents of Starter Kit No. 3680
2 Retention screws No. 146
1 Paralleling mandrel No. 354
1 Exchange instrument/ Activator No. 373
1 Manual cutter No. 383
2 Activation screws No. 386
2 Patrix retention screws No. 387

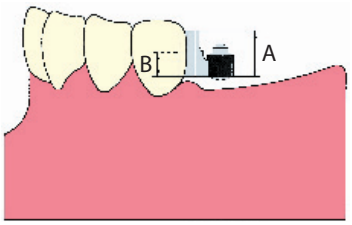
DUOLOCK Prospektiv

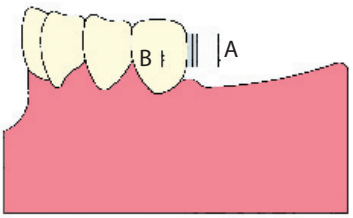
The DUOLOCK prospektiv T attachment is a rigid intracoronal attachment. The special construction of this attachment based on the proven DUOLOCK range allows the intraoral primary units to be incorporated in the design of a fixed/removable restoration as a base and retentive unit if there is a risk of abutment tooth loss.

DIMENSIONS FOR PLANNING
The DUOLOCK attachment is also indicated with very difficult occlusal relationships because it can be shortened. The internal thread of the patrix holder also provides additional height and allows the attachment to be shortened without loss of retention.

A = Overall height as supplied = 5.4 mm
B = Overall height after max. reduction = 2.9 mm







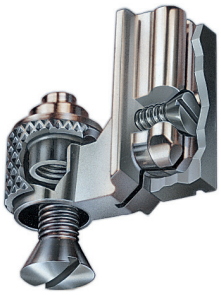
DUOLOCK Titan

Extended indications require innovative ideas. The DUOLOCK Titan attachment, which was specially developed for use with hypersensitive patients, is based on the DUOLOCK precision attachment. The use of high-strength pure titanium provides increased biocompatibility with the same standard of precision. Systematic application of proven techniques during fabrication and easy handling for the patient extend the range of options for the dentist and laboratory in critical cases.

NOTES ON INDICATION
A stress-breaker with a milled interlock must be incorporated when using the DUOLOCK T attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth.
When working with ZL attachments, it is essential to note and adhere to the sections marked in red in the instructions for use.

5-YEAR GUARANTEE ON ALL DUOLOCK ATTACHMENTS
The period of the 5-year guarantee begins from the fabrication date filled in on the guarantee card by the laboratory. We will replace any parts free of charge due to defects in the attachment, which occur during the period of the guarantee and are the result of faults in the material or fabrication. When making a claim, send us the completed guarantee card and the defective attachment component. We will immediately send you a free replacement. The guarantee is void if the attachment has not been prepared according to our instructions for use, i.e. any faults are due to incorrect processing or preparation. The instructions for use are available free of charge on request. Further claims are excluded.

DUOLOCK 30°



FRICTION PROVIDED BY AN INDIVIDUALLY ADJUSTABLE ACTIVATION SCREW IN THE PATRIX. EASILY EXCHANGEABLE PATRIX

INDICATION
This version of the DUOLOCK is indicated for use with free-end and bounded saddle partial dentures as well as removable bridges.

When working with ZL products, it is essential to note and adhere to the sections marked in red in the instructions for use.

MATRICES (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys. The plastic sleeve casting aid burns out without residue.

MATRICES (Pt/Au)
made from a platinum-gold alloy can only be soldered onto precious, Pd-based and non-precious metal alloys.

PATRICES (Ti)
made from resilient titanium are screw-retained in the threaded cap with the patrix retention screws and are therefore easily exchanged.

THREADED CAPS (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys.

THREADED CAPS (Pd/Ag)
made from a resilient palladium-silver alloy can be soldered onto precious, Pd-based and non-precious metal alloys. The threaded cap can be used with the adhesive technique.

THREADED CAPS (Ti)
made from resilient titanium can be used with the adhesive technique or laser welded.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 1.

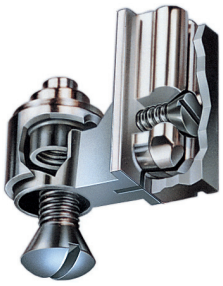
3600T	Attachment Order No.	3601T
Component No. (Duplicating aid)		Component No.
No. 389	Threaded cap (Pt/Ir) Threaded cap (Pd/Ag)	No. 384
No. 379T	Patrix (Ti), exchangeable, individual activation	No. 379T
No. 382	Matrix (Pt/Ir)	No. 382

3602T	Attachment Order No.	3603T
Component No.		Component No.
No. 364	Threaded cap (Pd/Ag) Threaded cap (Ti)	No. 363
No. 379T	Patrix (Ti), exchangeable, individual activation	No. 379T
No. 382	Matrix (Pt/Ir)	No. 382

3610T	Attachment Order No.	3611T
Component No. (Duplicating aid)		Component No.
No. 389	Threaded cap (Pt/Ir) Threaded cap (Pd/Ag)	No. 384
No. 379T	Patrix (Ti), exchangeable, individual activation	No. 379T
No. 380	Matrix (Pt/Au), high-fusing alloy	No. 380

3612T	Attachment Order No.	3613T
Component No.		Component No.
No. 364	Threaded cap (Pd/Ag) Threaded cap (Ti)	No. 363
No. 379T	Patrix (Ti), exchangeable, individual activation	No. 379T
No. 380	Matrix (Pt/Au), high-fusing alloy	No. 380

DUOLOCK 90°



THE PROVEN DUOLOCK T ATTACHMENT FOR PATIENTS WITH A NON-ATROPHIED OR MINIMALLY ATROPHIED ALVEOLAR RIDGE

INDICATION
This version of the DUOLOCK is indicated for use with free-end and bounded saddle partial dentures as well as removable bridges for patients with a non-atrophied or minimally atrophied alveolar ridge.

When working with ZL products, it is essential to note and adhere to the sections marked in red in the instructions for use.

MATRICES (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys. The plastic sleeve casting aid burns out without residue.

MATRICES (Pt/Au)
made from a platinum-gold alloy can only be soldered onto precious, Pd-based and non-precious metal alloys.

PATRICES (Ti)
made from resilient titanium are screw-retained in the threaded cap with the patrix retention screws and are therefore easily exchanged.

THREADED CAPS (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys.

THREADED CAPS (Pd/Ag)
made from a resilient palladium-silver alloy can be soldered onto precious, Pd-based and non-precious metal alloys. The threaded cap can be used with the adhesive technique.

THREADED CAPS (Ti)
made from resilient titanium can be used with the adhesive technique or laser welded.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 1.

3620T	Attachment Order No.	3621T
Component No. (Duplicating aid)		Component No.
No. 389	Threaded cap (Pt/Ir) Threaded cap (Pd/Ag)	No. 384
No. 378T	Patrix (Ti), exchangeable, individual activation	No. 378T
No. 382	Matrix (Pt/Ir)	No. 382

3622T	Attachment Order No.	3623T
Component No.		Component No.
No. 364	Threaded cap (Pd/Ag) Threaded cap (Ti)	No. 363
No. 378T	Patrix (Ti), exchangeable, individual activation	No. 378T
No. 382	Matrix (Pt/Ir)	No. 382

3630T	Attachment Order No.	3631T
Component No. (Duplicating aid)		Component No.
No. 389	Threaded cap (Pt/Ir) Threaded cap (Pd/Ag)	No. 384
No. 378T	Patrix (Ti), exchangeable, individual activatio	No. 378T
No. 380	Matrix (Pt/Au), high-fusing alloy	No. 380

3632T	Attachment Order No.	3633T
Component No.		Component No.
No. 364	Threaded cap (Pd/Ag) Threaded cap (Ti)	No. 363
No. 378T	Patrix (Ti), exchangeable, individual activation	No. 378T
No. 380	Matrix (Pt/Au), high-fusing alloy	No. 380

DUOLOCK Titan

FRICTION PROVIDED BY A PRECISELY ADJUSTABLE ACTIVATION SCREW IN THE PATRIX. EASILY EXCHANGEABLE PATRIX

3671T	Attachment Order No	3672T
Component No.		Component No.
No. 363 	Threaded cap (Ti)	 No. 363
No. 379T 	Patrix (Ti), exchangeable, individual activation	 No. 379T
No. 360 	Matrix (Ti), Matrix (Plastic/ Ceramic)	 No. 358

DUOLOCK TITAN

is made entirely from pure titanium, from the matrix and patrix through to the threaded caps and screws. It is part of the proven DUOLOCK range and was developed specially for use with the new titanium casting and milling techniques in dental technology. The DUOLOCK TITAN also has the advantage that the patrix can be activated and exchanged.

MATRICES (Plastic/Ceramic)
The plastic sleeve casting aid burns out without residue.

MATRICES and THREADED CAPS (Ti)
made from resilient titanium can be used with the laser welding and adhesive techniques.

PATRICES (Ti)
made from resilient titanium are screw-retained in the threaded cap with the patrix retention screws and are therefore easily exchanged.

When working with ZL products, it is essential to note and adhere to the sections marked in red in the instructions for use.

Starter Kit No. 3680
contains all the ZL instruments and accessories required for DUOLOCK attachments.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 1.

DUOLOCK Prospektiv

Attachment Order No. 3695		
Component No.		
No. 362		Retention screw (Ti)
No. 368		Patrix (Pt/Ir)
No. 361		Matrix (Pt/Au) high-fusing alloy

The DUOLOCK prospektiv T attachment is a rigid intracoronal attachment. The special construction of this attachment based on the proven DUOLOCK range allows the intraoral primary units to be incorporated in the design of a fixed/removable restoration as a base and retentive unit if there is a risk of abutment tooth loss. The DUOLOCK prospektiv is suitable for all technique options due to the possible combinations of matrices and patrices.

MATRIX (Pt/Au), high-fusing alloy, cast on with precious metal alloys and solderable onto precious, Pd-based and non-precious metal alloys.

PATRIX (Pt/Ir), (Pt/Ir), cast on with precious, Pd-based and non-precious metal alloys (one-piece casting).

The required instruments and accessories are contained in the Starter-Kit No. 3681.

Contents of Starter Kit No. 3681
1 Paralleling mandrel No. 354
1 Screwdriver No. 572
1 Thread tap No. 501
1 Retention screw No. 362

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 1.

VENTRALOCK

FRICTION PROVIDED BY A PRECISELY ADJUSTABLE ACTIVATION SCREW IN THE PATRIX. EASILY EXCHANGEABLE PATRIX

3830	Attachment Order No.	3831
Component No.		Component No.
No. 343	Threaded cap (Ti) Threaded cap (Pd/Ag)	No. 335
No. 349	Patrix (Ti) exchangeable, individual activation	No. 349
No. 302	Matrix (Pt/Ir)	No. 302

VENTRALOCK

is an extremely compact precision attachment with a precisely adjustable withdrawal force developed specifically for use in the anterior region.

PRODUCT DESCRIPTION

VENTRALOCK is a rigid intracoronal attachment for the anterior region with a precisely adjustable activation screw in the patrix. The extracoronal screw-retention of the patrix with the threaded cap allows easy exchange of the patrix without damaging the acrylic saddle.

MATRICES (Pt/Ir)

made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys.

PATRICES (Ti)

made from resilient titanium are screw-retained in the threaded cap with the patrix retention screws and are therefore easily exchanged.

THREADED CAPS (Ti)

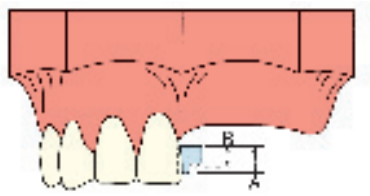
made from resilient titanium can be laser welded or used with the adhesive technique.

THREADED CAPS (Pd/Ag)

made from a resilient palladium-silver alloy can be soldered onto precious, Pd-based and non-precious metal alloys. The threaded cap can be used with the adhesive technique.

DIMENSIONS FOR PLANNING

The VENTRALOCK attachment is designed specifically for use in the anterior region and its shape ensures an easy, aesthetically perfect technique even with difficult occlusal relationships. Another practical feature is that it can be considerably shortened without loss of friction.



A = Overall height as supplied
= 4 mm

B = Overall height after max. reduction
= 2.9 mm

The required instruments and accessories are contained in the Starter Kit No. 3881.

Contents of Starter Kit No. 3881
1 Paralleling mandrel No. 530
1 Exchange instrument/Activator No. 573
2 Retention screws No. 145
2 Activation screws No. 341
2 Patrix retention screws No. 342
1 Thread adhesive No. 391

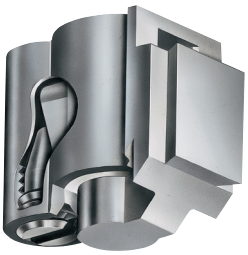
NOTES ON INDICATION

A stress-breaker with a milled interlock must be incorporated when using the VENTRALOCK attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth. When working with the VENTRALOCK attachment, it is essential to note and adhere to the sections marked in red in the instructions for use.

NOTES ON TECHNIQUE

are included in the Instructions For Use No. 2.

CENTRALOCK II



FRICTION PROVIDED BY A PRECISELY ADJUSTABLE ACTIVATION SCREW IN THE PATRIX. EASILY EXCHANGEABLE PATRIX

4312	Attachment Order No.			4313
Component No.				Component No.
No. 729		Friction insert (Plastic)		No. 729
No. 721		Matrix complete (Ti)		No. 721
No. 711		Patrix (Pt/Ir) Patrix (Plastic)		No. 713

CENTRALOCK II

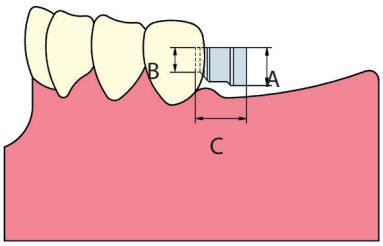
is a rigid, extracoronal attachment for free-end and bounded saddle partial dentures. The matrix incorporates a plastic insert, which can be precisely activated, ensuring smooth insertion of the denture over the patrix. The patrix is made from Pt/Ir and can be cast on with all dental alloys. The pure titanium matrix is designed for use with the adhesive and laser welding techniques.

PATRICES (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on or soldered with all types of non-precious, Pd-based and precious metal dental alloys.

PATRICES (Plastic)
can be cast with all non-precious, Pd-based and precious metal dental alloys.

MATRICES (Ti)
made from resilient titanium can be used with the laser welding and adhesive techniques.

DIMENSIONS FOR PLANNING
A = Overall height as supplied
= 4.0 mm
B = Overall height after max. reduction
= 2.9 mm
C = Length = 4.3 mm
D = Width = 2.9 mm



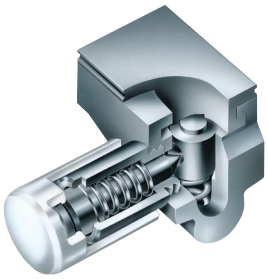
The required instruments and accessories are contained in the Starter-Kit No. 4380.

Contents of Starter Kit No. 4380
1 Paralleling mandrel No. 750
1 Screwdriver No. 572
2 Activation screws No. 726
2 Friction inserts No. 729

NOTES ON INDICATION
A stress-breaker with a milled interlock must be incorporated when using the CENTRALOCK II attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth. When working with the CENTRALOCK II attachment, it is essential to note and adhere to the sections marked in red in the instructions for use.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 3.

ROBOLOCK



UNIVERSAL USE DUE TO THE SCREW-ON PRESS-FIT LOCK IN THE MATRIX

4911	Attachment Order No.	4912
Component No.		Component No.
No. 610	Patrix (Pt/Ir)	No. 610
No. 620	Matrix (Pd/Ag)	No. 620
No. 630	Cap (Plastic)	No. 631
No. 633	Press-fit lock (Pd/Ag/1.4310)	No. 633
No. 628	Closure screw (Ti)	No. 628

ROBOLOCK

is a rigid, extracoronal lock attachment that can be used in all four quadrants because it has a screw-on press-fit lock, which can be fitted buccally or lingually. The ROBOLOCK consists of a patrix, matrix, press-fit lock, bolt, spring and closure screw.

INDICATION
The universal ROBOLOCK is indicated for use in the treatment of unilateral and bilateral free-end and bounded saddle partial dentures, removable bridges and also fixed/removable dentures.

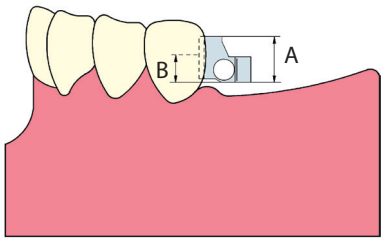
PATRICES (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on or soldered with all types of non-precious, Pd-based and precious metal dental alloys.

MATRICES (Pd/Ag)
made from a resilient palladium-silver alloy can be soldered onto non-precious, Pd-based and precious metal alloys. The adhesive technique is recommended with these matrices.

PRESS-FIT LOCK (Pd/Ag/1.4310)
also made from a resilient palladium-silver alloy can be screwed onto either side of the matrix.

BOLT (Pd/Ag)
SPRING (1.4310)
are easily exchanged.

DIMENSIONS FOR PLANNING
A = Overall height as supplied = 5.5 mm
B = Overall height after max. reduction = 3.0 mm
C = Width of the matrix and patrix = 3.5 mm
D = Overall width of the matrix with release mechanism = 6.3 mm



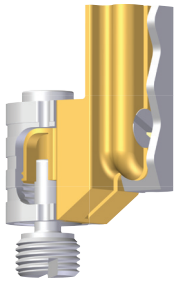
The required instruments and accessories are contained in the Starter-Kit No. 4980.

Starter-Kit No.4980
1 Thread adhesive No. 391
1 Paralleling mandrel No. 640
1 Lock exchange instrument No. 643
1 Assembly instrument No. 642

NOTES ON INDICATION
A stress-breaker with a milled interlock must be incorporated when using the ROBOLOCK attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth. When working with the ROBOLOCK, it is essential to note and adhere to the sections marked in red in the instructions for use.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 4.

LOGA®



FRICTION PROVIDED BY A PRECISELY ADJUSTABLE ACTIVATION SCREW IN THE PATRIX. EASILY EXCHANGEABLE PATRIX

5120 30°	Attachment Order No.	5130 90°
Component No.		Component No.
No. 512 	Threaded cap (Pt/Ir)	 No. 512
No. 511 	Patrix (Au/Pt)	 No. 526
No. 515 	Matrix (Pt/Ir)	 No. 515

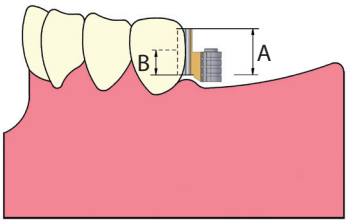
PRODUCT DESCRIPTION
LOGA is a rigid intracoronal attachment with a precisely adjustable activation screw in the patrix. The extracoronal screw-retention of the patrix with the threaded cap allows easy exchange of the patrix without damaging the acrylic saddle.

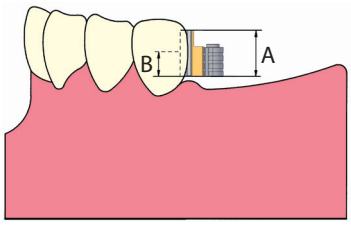
MATRICES (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be cast on with non-precious, Pd-based and precious metal alloys.

PATRICES (Au/Pt)
made from gold-platinum alloy are screw-retained in the threaded cap with the patrix retention screws and are therefore easily exchanged.

THREADED CAPS (Pt/Ir)
made from a highly abrasion-resistant platinum-iridium alloy can be soldered onto precious, Pd-based and non-precious metal alloys. The threaded cap can be used with the adhesive technique.,

DIMENSIONS FOR PLANNING





A = Overall height as supplied
= 6,6 mm
B = Overall height after max. reduction
= 2,9 mm

The required instruments and accessories are contained in the Starter-Kit No. 5180.

Starter-Kit Nr.5180
1 Paralleling mandrel No. 527
1 Screwdriver No. 573
2 Patrix retention screws No. 520
2 Activation screws No. 521

NOTES ON INDICATION
A stress-breaker with a milled interlock must be incorporated when using the LOGA attachment with free-end restorations. As a precaution, a stress-breaker should also be included with bounded saddles. This allows the primary situation of the denture to be integrated in the new design without any alteration after loss of the distal abutment tooth. When working with the LOGA, it is essential to note and adhere to the sections marked in red in the instructions for use.

NOTES ON TECHNIQUE
are included in the Instructions For Use No. 1.

ACRYLOCK

AcryLock is a plastic slide attachment that can be connected to a double-channel stress-breaker. The size of the non-residual burnout patrix is 0.04 mm to ensure a defined dimension for the plastic matrix after preparation and polishing. The matrices are available in three different sizes for setting different withdrawal forces.

Green matrix:	normal friction
Yellow matrix:	medium friction
Red matrix:	high friction

The new matrix design with a single retention point allows the matrix to be easily exchanged without time-consuming reduction and fitting of the friction insert. Only alloys with a 0.2 proof stress of over 500 N/mm2 should be used to ensure stability.
The Starter Kit No. 4382 is required to ensure a reliable technique.

NOTES ON TECHNIQUE
can be found at www.zl-microdent.de

ACRYLOCK – AN ALTERNATIVE FOR DIFFICULT CASES

Order No. 4314

Contents:

10 Integrated stress-breaker units
10 Patrices
10 Matrices, green, normal friction
6 Matrices, yellow, medium friction
6 Matrices, red, high friction

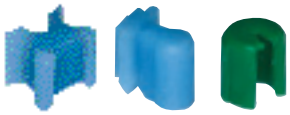
Order No. 4315

Contents:

10 Patrices
10 Matrices, green, normal friction

Order No. 4316

Contents:



10 Integrated stress-breaker units
10 Patrices
10 Matrices, green, normal friction

Order No. 4317

Contents:

6 Matrices, green, normal friction

Order No. 4318

Contents:

6 Matrices, yellow, medium friction

Order No. 4319

Contents:

6 Matrices, red, high friction

Order No. 4382

Contents:

1 Paralleling mandrel No. 750

1 Insertion pin No. 709

THE ZL ANCHOR SYSTEM. EXTRACORONAL ATTACHMENTS FOR RELIABLE PARTIAL PROSTHETIC RESTORATIONS

ZL anchors are rigid extracoronal attachments that provide reliable retention for removable dentures on the residual dentition.
The ZL anchor system with its exchangeable, activatable patrix offers interesting planning options and designs for prosthetic restoration of bilateral free-end and bounded saddles with partial dentures as well as removable bridges.
Laboratory technicians will appreciate the simple, precise technique.
The slightly conical shape of the patrix makes it easier for the patient to fit the denture and promotes regular hygiene.

CLOSE-UP OF A FREE-END RESTORATION
Close-up of a bilateral free-end denture. In this case the ZL patrix is a retentive unit. The mesial stress-breaker is integrated in the design to provide support. The rounded, conical patrix lamellae ensure that the denture is easy to fit.

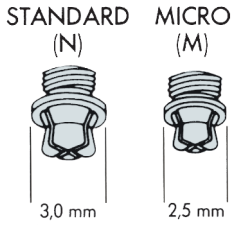
DEACTIVATING THE PATRIX
The withdrawal force of the patrix can be reduced or the patrix can be made inactive by inserting the ZL deactivator which presses the lamellae of the patrix together due to its inner conical shape.

ACTIVATING THE PATRIX
The lamellae can be easily widened if necessary with the activator to reactivate the patrix.

EXCHANGING THE PATRIX
The ZL patrix is quickly and easily exchanged using the ZL exchange instrument.

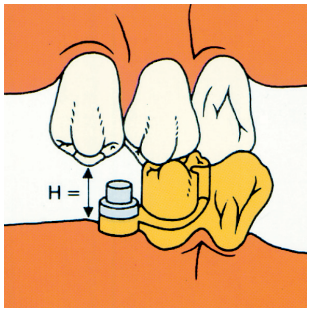
PLANNING GUIDELINES FOR THE ZL ANCHOR SYSTEM

There is a choice of patrix when planning depending on the occlusal relationship:
"N" (Standard)
"M" (Micro).



SIZE SELECTION AND SPACE AVAILABILITY
The type and size of patrix selected always depends on the intraoral space available.

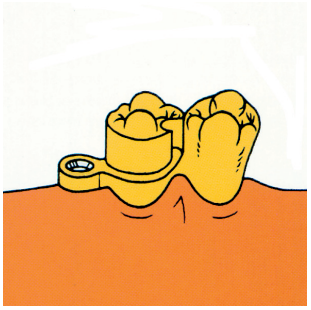
STANDARD VERSION "N"
For normal to difficult occlusal relationships.
Space required for the matrix and patrix:
Height 3.75 mm, Ø 3.80 mm.



MICRO VERSION "M"
For very difficult occlusal relationships.
Space required for the matrix and patrix:
Height 3.10 mm, Ø 3.80 mm.

The "N" design generally requires an available space (H) of 4.5 mm between the opposing dentition and alveolar ridge.
With the "M" design a space of (H) of 3.8 mm is adequate. If there is inadequate space, a metal occlusal is required. In this situation the cast on threaded cap (Pt/Ir) is ideal as a patrix holder, which can be cast on with CrCo and precious metal frameworks.

CONNECTION OF CROWN AND ANCHOR MATRIX
ZI anchor matrices should always be placed directly over the gingiva (0.5-1.0mm) and close to the crown.



To improve distribution of tensile and compressive stresses, a minimum of two teeth should be crowned and splinted together.
A milled brace support for fitting a stress-breaking arm should be fabricated on the splinted crowns to ensure the required stability for a durable free-end restoration

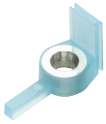
A stress-breaker is essential in free-end situations for stabilizing the denture.

SELECTION CRITERIA FOR ZL ANCHOR MATRICES AND BARS

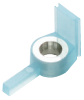
MATRICES AND BARS (Pt/Ir)
with a plastic sleeve casting aid. Cast on with non-precious, Pd-based and precious metal alloys.

MATRICES(Pt/Ir)
The matrices are made from a highly abrasion-resistant platinum-iridium alloy surrounded by a non-residual burnout plastic sleeve casting aid.

Standard
-N-



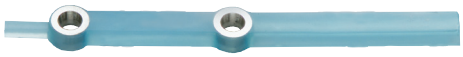
Micro
-M-



The large patrix support surfaces must not be prepared after casting so that the precision of the prosthetic framework is maintained right through to completion of the restoration. The parallel-walled vertical backplate provides surface area contact between the crown and denture.

COMBI-BAR WITH CUSTOMIZABLE BAR LENGTH, INTEGRATED
MATRICES (Pt/Ir)
The integrated matrices are made from a highly abrasion-resistant platinum-iridium alloy surrounded by a non-residual burnout plastic sleeve casting aid.

Standard –N-



Micro –M-

The Combi-Bar is ideal for restorations with variable bounded saddles because the length of the bar can be customized. Innovative design options are possible if the bars are used in conjunction with the above matrices (blue).
The large patrix support surfaces of these matrices should also be maintained to ensure the precision of the prosthetic framework right through to completion of the restoration.

MATRICES AND BARS (Pt/Au),
high-fusing alloy
with a plastic sleeve casting aid. Can only be cast on with precious metal alloys.

MATRICES (Pt/Au),high-fusing alloy
The matrices are made from an abrasion-resistant platinum-gold alloy surrounded by a non-residual burnout plastic sleeve casting aid.

Standard
-N-

Micro
-M-

The large patrix support surfaces must not be prepared after casting so that the precision of the prosthetic framework is maintained right through to completion of the restoration. The parallel-walled vertical backplate provides surface area contact between the crown and denture.

COMBI-BAR WITH CUSTOMIZABLE BAR LENGTH, INTEGRATED
MATRICES (Pt/Au),high-fusing alloy
The integrated matrices are made from an abrasion-resistant platinum-gold alloy surrounded by a non-residual burnout plastic sleeve casting aid.

Standard –N-

Micro –M-

The Combi-Bar is ideal for restorations with variable bounded saddles because the length of the bar can be customized. Innovative design options are possible if the bars are used in conjunction with the above matrices (red).
The large patrix support surfaces of these matrices should also be maintained to ensure the precision of the prosthetic framework right through to completion of the restoration.

SELECTION CRITERIA AND AREAS OF APPLICTION FOR SCREW RETENTION WITH THE ZL ANCHOR SYSTEM

Retention for the patrix holder always depends on the planning and design of the denture and is classified according to the technique:

1.Casting on threaded caps (Pt/Ir) with CrCo or precious metal frameworks

2. Solderingthreaded caps (Pd/Ag) onto CrCo or precious metal frameworks

3. Retention caps for polymerizing into acrylic

4. Screw retention of the anchor with a retention nut for a solder-free connection

THREADED CAPS (Pt/Ir)
FOR DIRECT CASTING ON WITH CrCo OR PRECIOUS METAL DENTURE FRAMEWORKS
The cast on threaded cap (Pt/Ir) is the ideal form of screw retention with difficult occlusal relationships due to its compact dimensions and is ideal for incorporation in a metal occlusal. Direct casting on with denture frameworks eliminates crevice corrosion.

Duplicating / Positioning cap (Technique accessory)

Threaded cap (Pt/Ir) for direct casting on

Positioning screw for securing the threaded cap in the duplicate model

The threaded caps guarantee an extremely accurate fit of the casting if the duplicating aids are used correctly.

Technique accessories*
Laboratory patrix
(Order No. 131 -N-/ 231 -M-)
Duplicating patrix
(Order No. 137 -N-/ 237 -M-)

THREADED CAPS (Pd/Ag)
FOR SOLDERING ONTO CrCo OR PRECIOUS METAL DENTURE FRAMEWORKS
Solderable threaded caps (Pd/Ag) are incorporated in the framework if a solder connection is preferred.

Threaded cap (Pd/Ag) for soldering onto the denture framework

They are also suitable for integration in a finished restoration, e.g. when repairing a damaged threaded unit.

Technique accessories*
Positioning patrix
(Order No. 130 -N-/ 230 -M-)
Laboratory patrix
(Order No. 131 -N-/ 231 -M-)

THREADED CAPS (Pd/Ag)
FOR ADHESIVE BONDING INTO CrCo OR PRECIOUS METAL DENTURE FRAMEWORKS
Threaded caps (Pd/Ag) for the adhesive technique are incorporated in the framework if an adhesive connection is preferred.

Threaded cap (Pd/Ag) for adhesive bonding into the denture framework

They are also suitable for integration in a finished restoration, e.g. when repairing a damaged threaded unit.

Technique accessories*
Laboratory patrix
(Order No. 131 -N-/ 231 -M-)
Duplicating patrix
(Order No. 133 -N-/ 233 -M-)

* All instruments, tools and accessories are included in the overview on Page 23.

RETENTION CAPS (Ti)
FOR POLYMERIZATION INTO THE DENTURE
These threaded caps are used for restorations in which a metal-free connection between the denture framework and patrix holder is required.

Retention cap (Ti)

They are particularly suitable for retention of exchangeable patrices in acrylic and duplicate dentures and are ideal caps for repairing damaged threaded units.

Technique accessories*
Laboratory patrix
(Order No. 131 -N-/ 231 -M-)

RETENTION NUTS (Pd/Ag) or (Ti)
FOR SOLDER-FREE SCREW RETENTION
Retention nuts (Pd/Ag) or (Ti) are used if a solder-free connection between the anchor holder and denture framework is required.

Retention nut (Pd/Ag)

Retention nut (Titanium)

Spacer (Plastic)

They are particularly suitable for retention of exchangeable patrices in acrylic and duplicate dentures and provide ideal retention for repairing damaged threaded units.

Technique accessories*
Laboratory patrix
(Order No. 131 -N-/ 231 -M-)
Duplicating patrix
(Order No. 132 -N-/ 232 -M-)

STANDARD AND MICRO INSERTION BAR COMBINATIONS

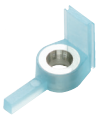
The MATRICES (platinum-iridium) can be cast on with non-precious, Pd-based and precious metal alloys. The plastic sleeve casting aid burns out without residue. Three connector bars are available for each of the combinations listed here.

Size selection
Information on dimensions and planning is included on page 11 of this product overview.

Retention to the patrix holder
Selection criteria for retention are described in detail on page 13 of this product overview.

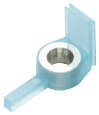
Technique
Instructions on technique are included in the Instructions For Use No. 5.

COMBINATIONS WITH RETENTION CAPS FOR POLYMERIZING INTO THE ACRYLIC

1173 - N -	Attachment Order No.	2273 - M -
Component No.		Component No.
No. 143		No. 243
No. 100		No. 200
No. 175		No. 275

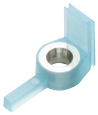
Attachment Order No. contains:
2 Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Retention Caps (Ti)

COMBINATIONS WITH CAST ON THREADED CAPS

1179 - N -	Attachment Order No.	2279 - M -
Component No.		Component No.
No. 149	 (Duplicating aid)	No. 249
No. 100		No. 200
No. 175		No. 275

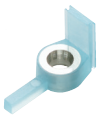
Attachment Order No. contains:
2 Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Threaded Caps (Pt/Ir), incl. duplicating aids

COMBINATIONS WITH RETENTION NUTS (Pd/Ag) FOR SOLDER-FREE SCREW RETENTION

1171 - N -	Attachment Order No.	2271 - M -
Component No.		Component No.
No. 141		No. 141
No. 142		No. 142
No. 100		No. 200
No. 175		No. 275

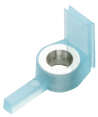
Attachment Order No. contains:
2 Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Retention Nuts (Pd/Ag), 2 Plastic Spacers

COMBINATIONS WITH SOLDERABLE THREADED CAPS

1174 - N -	Attachment Order No.	2274 - M -
Component No.		Component No.
No. 144		No. 244
No. 100		No. 200
N. 175		No. 275

Attachment Order No. contains:
2 Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Threaded Caps (Pd/Ag)

COMBINATIONS WITH RETENTION NUTS (Ti) FOR SOLDER-FREE SCREW RETENTION

1170 - N -	Attachment Order No.	2270 - M -
Component No.		Component No.
Nr. 140		No. 140
Nr. 142		No. 142
Nr. 100		No. 200
Nr. 175		No. 275

Attachment Order No. contains:
2 Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Retention Nuts (Ti), 2 Plastic Spacers

STANDARD AND MICRO INSERTION BAR COMBINATIONS

The MATRICES (platinum-gold), high-fusing alloy, can only be cast on with precious metal alloys. The plastic sleeve casting aid burns out without residue. Three connector bars are available for each of the combinations listed here.

Size selection
Information on dimensions and planning is included on page 11 of this product overview.

Retention to the patrix holder
Selection criteria for retention are described in detail on page 13 of this product overview.

Technique
Instructions on technique are included in the Instructions For Use No. 5.

COMBINATIONS WITH RETENTION CAPS FOR POLYMERIZING INTO THE ACRYLIC

1183 - N -	Attachment Order No.	2283 - M -
Component No.		Component No.
No. 143		No. 243
No. 100		No. 200
No. 174		No. 274

Attachment Order No. contains:
2 Matrices (Pt/Au), 2 Patrices (Pd/Ag),
2 Retention Caps (Ti)

COMBINATIONS WITH CAST ON THREADED CAPS

1189 - N -	Attachment Order No.	2289 - M -
Component No.		Component No.
No. 149	 (Duplicating aid)	No. 249
No. 100		No. 200
No. 174		No. 274

Attachment Order No. contains:
2 Matrices (Pt/Au), 2 Patrices (Pd/Ag),
2 Threaded Caps (Pt/Ir), incl. duplicating aids

COMBINATIONS WITH RETENTION NUTS (Pd/Ag) FOR SOLDER-FREE SCREW RETENTION

1181 - N -	Attachment Order No.	2281 - M -
Component No.		Component No.
No. 141		No. 141
No. 142		No. 142
No. 100		No. 200
No. 174		No. 274

Attachment Order No. contains:
2 Matrices (Pt/Au), 2 Patrices (Pd/Ag),
2 Retention Nuts (Pd/Ag), 2 Plastic Spacers

COMBINATIONS WITH SOLDERABLE THREADED CAPS

1184 - N -	Attachment Order No.	2284 - M -
Component No.		Component No.
No. 144		No. 244
No. 100		No. 200
No. 174		No. 274

Attachment Order No. contains:
2 Matrices (Pt/Au), 2 Patrices (Pd/Ag),
2 Threaded Caps (Pd/Ag)

COMBINATIONS WITH RETENTION NUTS (Ti) FOR SOLDER-FREE SCREW RETENTION

1180 - N -	Attachment Order No.	2280 - M -
Component No.		Component No.
No. 140		No. 140
No. 142		No. 142
No. 100		No. 200
No. 174		No. 274

Attachment Order No. contains:
2 Matrices (Pt/Au), 2 Patrices (Pd/Ag),
2 Retention Nuts (Ti), 2 Plastic Spacers

STANDARD AND MICRO TWO-BAR COMBINATIONS

The MATRICES (platinum-iridium) can be cast on with non-precious, Pd-based and precious metal alloys. The plastic sleeve casting aid burns out without residue.

Size selection
Information on dimensions and planning is included on page 11 of this product overview.

Retention to the patrix holder
Selection criteria for retention are described in detail on page 13 of this product overview.

Technique
Instructions on technique are included in the Instructions For Use No. 5.

COMBINATIONS WITH RETENTION CAPS FOR POLYMERIZING INTO THE ACRYLIC

1153 - N -	Attachment Order No.	2253 - M -
Component No.		Component No.
No. 143		No. 243
No. 100		No. 200
No. 176		No. 276

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Ir),
2 Patrices (Pd/Ag), 2 Retention Caps (Ti)

COMBINATIONS WITH CAST ON THREADED CAPS

1159 - N -	Attachment Order No.	2259 - M -
Component No.	(Duplicating aid)	Component No.
No. 149		No. 249
No. 100		No. 200
No. 176		No. 276

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Threaded Caps (Pt/Ir), incl. duplicating aids

COMBINATIONS WITH RETENTION NUTS (Pd/Ag) FOR SOLDER-FREE SCREW RETENTION

1151 - N -	Attachment Order No.	2251 - M -
Component No.		Component No.
No. 141		Nr. 141
No. 142		No. 142
Nr. 100		No. 200
No. 176		No. 276

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Retention Nuts (Pd/Ag), 2 Plastic Spacers

COMBINATIONS WITH SOLDERABLE THREADED CAPS

1154 - N -	Attachment Order No.	2254 - M -
Component No.		Component No.
No. 144		No. 244
No. 100		No. 200
No. 176		No. 276

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Ir),
2 Patrices (Pd/Ag), 2 Threaded Caps (Pd/Ag)

COMBINATIONS WITH RETENTION NUTS (Ti) FOR SOLDER-FREE SCREW RETENTION

1150 - N -	Attachment Order No.	2250 - M -
Component No.		Component No.
No. 140		No. 140
No. 142		No. 142
No. 100		No. 200
No. 176		No. 276

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Ir), 2 Patrices (Pd/Ag),
2 Retention Nuts (Ti), 2 Plastic Spacers

STANDARD AND MICRO TWO-BAR COMBINATIONS

The MATRICES (platinum-gold), high-fusing alloy, can only be cast on with precious metal alloys. The plastic sleeve casting aid burns out without residue.

Size selection
Information on dimensions and planning is included on page 11 of this product overview.

Retention to the patrix holder
Selection criteria for retention are described in detail on Page 13 of this product overview.

Technique
Instructions on technique are included in the Instructions For Use No. 5.

COMBINATIONS WITH RETENTION CAPS FOR POLYMERIZING INTO THE ACRYLIC

1133 - N -	Attachment Order No.	2233 - M -

Component No. . | Component No.

No. 143  No. 243

No. 100  No. 200

No. 177  No. 277

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Au), 2 Patrices (Pd/Ag), 2 Retention Caps (Ti)

COMBINATIONS WITH CAST ON THREADED CAPS

1139 - N -	Attachment Order No.	2239 - M -

Component No. | Component No.

(Duplicating aid)

No. 149  No. 249

No. 100  No. 200

No. 177  No. 277

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Au), 2 Patrices (Pd/Ag), 2 Threaded Caps (Pt/Ir), incl. duplicating aids

COMBINATIONS WITH RETENTION NUTS (Pd/Ag) FOR SOLDER-FREE SCREW RETENTION

1131 - N -	Attachment Order No.	2231 - M -

Component No. . | Component No.

No. 141  No. 141

No. 142  No. 142

No. 100  No. 200

No. 177  No. 277

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Au), 2 Patrices (Pd/Ag), 2 Retention Nuts (Pd/Ag), 2 Plastic Spacers

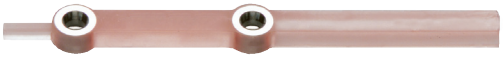
COMBINATIONS WITH SOLDERABLE THREADED CAPS

1134 - N -	Attachment Order No.	2234 - M -

Component No. | Component No.

No. 144  No. 244

No. 100  No. 200

No. 177  No. 277

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Au), 2 Patrices (Pd/Ag), 2 Threaded Caps (Pd/Ag)

COMBINATIONS WITH RETENTION NUTS (Ti) FOR SOLDER-FREE SCREW RETENTION

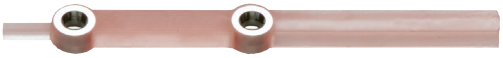
1130 - N -	Attachment Order No.	2230 - M -

Component No. | Component No.

No. 140  No. 140

No. 142  No. 142

No. 100  No. 200

No. 177  No. 277

Attachment Order No. contains:
1 Combi-Bar with 2 integrated Matrices (Pt/Au), 2 Patrices (Pd/Ag), 2 Retention Nuts (Ti), 2 Plastic Spacers

RESILIENT ROOT CAP ATTACHMENT 4000

INDICATION
For retention and stabilization of tissue-borne overdentures with minimum residual abutments (min. number 2).

PRODUCT DESCRIPTION
The ZL root cap attachment 4000 consists of a radicular threaded cap, an activatable and exchangeable patrix and a matrix for integration in the denture base. The withdrawal force of the denture can be adjusted by activating or deactivating the patrix.

THREADED CAP (Pt/Au), high-fusing alloy. The platinum-gold, high-fusing alloy threaded cap for holding the exchangeable and activatable root cap patrix can only be cast on with precious metal alloys and soldered onto precious and non-precious metal alloys.

PATRIX (Pd/Ag)
The patrix, the resilient root cap anchor, is made from an abrasion-resistant, resilient palladium-silver alloy and is exchangeable and activatable.

MATRIX (Pd/Ag)
The matrix for retention of the ball-shaped root cap patrix is also made from an abrasion-resistant, resilient palladium-silver alloy and can be soldered to the denture framework (precious or non-precious) or polymerized into the denture.

Attachment Order No. 4000

Component No.		
No. 401		Matrix (Pd/Ag)
No. 402		Patrix (Pd/Ag)
No. 404		Threaded cap (Pt/Au)
No. 405		Spacer (Sn)
No. 413		Laboratory patrix (Brass)

INSTRUMENTS AND ACCESSORIES FOR FABRICATION AND SERVICING
An effective prosthetic restoration depends primarily on using a precise technique.
Only original ZL instruments, tools and accessories maintain the precision of ZL attachments right through to completion of the denture.
All the instruments required for the procedure and servicing with the ZL root cap attachment 4000 are contained in the Instrument Set Order No. 4080.

NOTES ON TECHNIQUE
can be found at www.zl-microdent.de

SPHÄROLOCK FOR HIGH-PRECISION OVERDENTURE PROSTHETICS

INDICATION
For retention and stabilization of tissue-borne overdentures with minimum residual abutments (min. number 2).

PRODUCT DESCRIPTION
The Sphärolock consists of a radicular patrix and an activatable and exchangeable matrix for integration in the denture base. The withdrawal force of the denture can be adjusted by activating or deactivating the matrix.

PATRIX (Pt/Au)
The patrix is made from a platinum-gold high-fusing alloy. It can only be cast on with precious metal alloys or soldered onto precious and non-precious metal alloys.

PATRIX (Plastic)
The patrix is made from burnout plastic. It can be cast in all dental alloys with a 0.2% proof stress over 500 N/mm2.

MATRIX ((Ti)
The matrix for retention of the ball-shaped Sphärolock patrix is made of titanium and has an activatable and exchangeable plastic insert.

4001 Attachment Order No. 4002

Component No.				Component No.
No. 422		Matrix (Ti)		No. 422
No. 142		Spacer (Plastic)		No. 142
No. 420		Patrix (Pt/Au)	Patrix (Plastic) 	No. 421

Attachment Order No. contains:
2 Patrices (Pt/Au), 2 Matrices (Ti),
4 Plastic Spacers

Attachment Order No. contains:
2 Patrices (Plastic), 2 Matrices (Ti),
4 Plastic Spacers

INSTRUMENTS AND ACCESSORIES FOR FABRICATION AND SERVICING
An effective prosthetic restoration depends primarily on using a precise technique.
Only original ZL instruments, tools and accessories maintain the precision of ZL attachments right through to completion of the denture.
All the instruments required for the procedure and servicing with the Sphärolock attachment are contained in the Instrument Set Order No. 4081

NOTES ON TECHNIQUE
can be found at www.zl-microdent.de

BALL ATTACHMENTS

IINDICATION
For retention and stabilization of tissue-borne overdentures with minimum residual abutments (min. number 2).

PRODUCT DESCRIPTION
The Sferalock, Eccolock and Timalock root cap attachments consist of a radicular patrix and activatable or exchangeable matrices for integration in the denture base. The withdrawal force of the denture can be adjusted by activating or deactivating the matrix lamellae or by use of friction units or annular springs in the matrices.

PATRIX (Pt/Au), high-fusing alloy
The patrix is made from a platinum-gold high-fusing alloy. It can only be cast on with precious metal alloys or soldered onto precious and non-precious metal alloys.

PATRIX (Au/Pt)
The patrix is made from gold-platinum and can only be soldered onto precious and non-precious metal alloys.

PATRIX (Plastic)
The patrix is made from burnout plastic. It can be cast in all dental alloys with a 0.2% proof stress over 500 N/mm2.

MATRIX (Au/Pt) (Sferalock)
The matrix is made from an abrasion-resistant, resilient gold-platinum alloy with activatable lamellae for retention of the root cap ball attachment.

MATRIX (Ti/Plastic) (Eccolock)
The matrix is made from titanium with exchangeable friction inserts for retention of the root cap ball attachment.

MATRIX (Ti/Steel) (Timalock)
The matrix is made from titanium with exchangeable annular springs for retention of the root cap ball attachment.

INSTRUMENTS AND ACCESSORIES
FOR FABRICATION AND SERVICING

An effective prosthetic restoration depends primarily on using a precise technique.
Only original ZL instruments, tools and accessories maintain the precision of ZL attachments right through to completion of the denture.

SFERALOCK

Attachment Order No. 4020

Component No.		
No. 427		Matrix (Au/Pt)
No. 430		Patrix solderable (Au/Pt)
No. 429		Spacer

Attachment Order No. 4021

Component No.		
No. 427		Matrix (Au/Pt)
No. 431		Patrix castable (Plastic)
No. 429		Spacer

Attachment Order No. 4022

Component No.		
No. 427		Matrix (Au/Pt)
No. 445		Patrix cast on (Pt/Au)
No. 429		Spacer

SFERALOCK INSTRUMENTS AND ACCESSORIES

Component No.		
No. 428		Space maintainer (Plastic)
No. 429		Spacer (Sn)
No. 434		Model analogue (Brass)
No. 444		Matrix ring (Plastic)
No. 461		Deactivator (V4A)
No. 462		Paralleling mandrel (V4A)

BALL ATTACHMENTS

ECCOLOCK

Attachment Order No. 4030

Component No.		
No. 447		Matrix complete (Ti/Plastic)
No. 430		Patrix solderable (Au/Pt)

Attachment Order No. 4031

Component No.		
No. 447		Matrix complete (Ti/Plastic)
No. 431		Patrix castable (Plastic)

Attachment Order No. 4032

Component No.		
No. 447		Matrix complete (Ti/Plastic)
No. 445		Patrix cast on (Pt/Au)

TIMALOCK

Attachment Order No. 4010

Component No.		
No. 437		Matrix complete (Ti/Steel)
No. 430		Patrix solderable (Au/Pt)

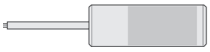
Attachment Order No. 4011

Component No.		
No. 437		Matrix complete (Ti/Steel)
No. 431		Patrix castable (Plastic)

Attachment Order No. 4012

Component No.		
No. 437		Matrix complete (Ti/Steel)
No. 445		Patrix cast on (Pt/Au)

ECCOLOCK INSTRUMENTS AND ACCESSORIES

Component No.		
No. 434		Model analogue (Brass)
No. 438		Space maintainer (Plastic)
Nr. 439		Inner matrix assembly (V4A/Plastic)
No. 462		Paralleling mandrel (V4A)
No. 464		Torque screwdriver (V4A)

TIMALOCK INSTRUMENTS AND ACCESSORIES

Component No.		
No. 434		Model analogue (Brass)
No. 435		Space maintainer (Plastic)
No. 436		Thread ring assembly (Plastic)
No. 462		Paralleling mandrel (V4A)
No. 463		Screwdriver (V4A)

PONTILOCK

UNIVERSAL SCREW RETENTION SYSTEM WITH SELF-LOCKING SCREWS

3710 - M -		Attachment Order No.		3711 - M -
Component No.				Component No.
No. 394		Countersunk collar (Pt/Ir)		No. 594
No. 396		Screw (Pd/Ag)		No. 596
No. 395		Thread sleeve (Pt/Ir)		No. 595
No. 397		Positioning pin (V4A)		No. 597

INDICATION
Sectioning bridges, retention of operator-removable restorations and screw-retention of implant-borne restoration superstructures.

PRODUCT DESCRIPTION
The PONTILOCK is a screw retention system that can be cast on or soldered with all types of dental alloys. An additional thread in the countersunk collar prevents the screw falling out.

COUNTERSUNK COLLAR (Pt/Ir)
The countersunk collar is made from a highly abrasion-resistant platinum-iridium alloy and can be cast on or soldered with all non-precious, Pd-based and precious metal alloys.

THREAD SLEEVE (Pt/Ir)
The thread sleeve is made from a highly abrasion-resistant platinum iridium alloy and can be cast on or soldered with all non-precious, Pd-based and precious metal alloys.

SCREW (Pt/Ir)
The screw is made from palladium silver and comprises a threaded and non-threaded section. This design prevents the screw falling out.

DIMENSIONS OF THE PONTILOCK SCREW No. 3710
Height: 5 mm
Diameter: 2.0 mm

DIMENSIONS OF THE PONTILOCK SCREW No 3711
Height: 3,5 mm
Diameter: 1,6 mm

Attachment Order No. 3710 and 3711 comprise 1 screw attachment. Pack contents 2 screws.

INSTRUMENTS FOR FABRICATION AND SERVICING
An effective prosthetic restoration depends primarily on using a precise technique.
Only original ZL instruments, tools and accessories maintain the precision of ZL attachments right through to completion of the denture.
All the instruments required for the procedure and servicing with the PONTILOCK screws are contained in the Instrument Sets Order No. 3781 and 3782.

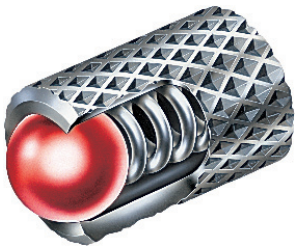
Contents of Starter Kit No. 3781 Ø 2 mm
1 Laboratory screwdriver No. 398
1 Practice screwdriver No. 399
1 Removal instrument No. 400
1 Safety ring No. 650
1 Safety cord No. 651

Contents of Starter Kit No. 3782 Ø 1.6 mm
1 Laboratory screwdriver No. 398
1 Practice screwdriver No. 399
1 Removal instrument No. 500
1 Safety ring No. 650
1 Safety cord No. 651

NOTES ON TECHNIQUE
can be found at www.zl-microdent.de

SECURALOCK

RETENTIVE UNIT FOR TELESCOPE CROWNS WITH LOSS OF FRICTION



Attachment Order No. 3720		
Component No.		
No. 660		Securalock complete

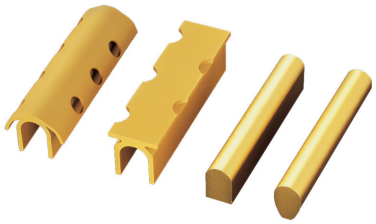
As a manufacturer of prefabricated attachments for partial dentures, our customers often enquire about the options for repairing telescope crowns.
Despite the highly precise fabrication of telescope crowns, problems with friction can often occur after a relatively short time in situ due to the different surface properties of the inner and outer telescope crowns. Familiar methods of increasing friction are generally considered to be inadequate.

The problem is basically that a satisfactory, durable repair is not possible.
For these problem cases ZL MICRODENT developed the SECURALOCK© attachment, which is relatively easily integrated into the denture by the dentist and dental technician and which at least postpones additional costs to the patient incurred by a complete remake of the prosthetic restoration.

We would like to emphasise that this type of repair should only be carried out if there is adequate crown wall thickness. If there is uncertainty about the available material thickness, it is not possible to repair the friction by incorporating a spring retentive unit that requires an indentation to be prepared in the primary crown.
Finally we would again like to emphasise that this retentive unit can only be used as a temporary measure.

NOTES ON TECHNIQUE
can be found at www.zl-microdent.de

UNOR® BAR ATTACHMENTS AND RESILIENT BARS



Bar Attachments Standard

Component No.	
No. 671	Bar, parallel, 50 mm (Au/Pt)
No. 672	Bar, parallel, 80 mm (Plastic) 10 x
No. 673	Bar, parallel, 50 mm (Ti)
No. 675	Sleeve, milled, 50 mm (Au/Pt)
No. 676	Sleeve, milled, 50 mm (Ti)
No. 677	Sleeve, retention holes, 50 mm (Au/Pt)

Bar Attachments Micro

Component No.	
No. 661	Bar, parallel, 50 mm (Au/Pt)
No. 662	Bar, parallel, 80 mm (Plastic) 10 x
No. 663	Bar, parallel, 50 mm (Ti)
No. 665	Sleeve, milled, 50 mm (Au/Pt)
No. 666	Sleeve, milled, 50 mm (Ti)
No. 664	Sleeve, retention holes, 50 mm (Au/Pt)

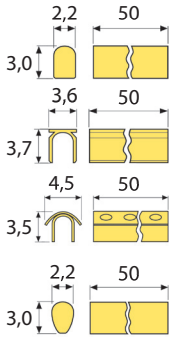
Resilient Bar Standard

Component No.	
No. 691	Bar, oval, 50 mm (Au/Pt)
No. 692	Bar, oval, 80 mm (Plastic) 10 x
No. 693	Bar, oval, 50 mm (Ti)
No. 677	Sleeve, retention holes, 50 mm (Au/Pt)

Resilient Bar Micro

Component No.	
No. 681	Bar, oval, 50 mm (Au/Pt)
No. 682	Bar, oval, 80 mm (Plastic) 10 x
No. 683	Bar, oval, 50 mm (Ti)
No. 664	Sleeve, retention holes, 50 mm (Au/Pt)

Dimensions Standard



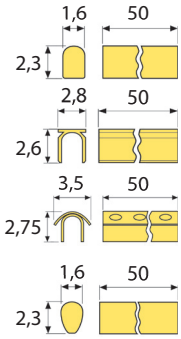
Bar, parallel, N

Sleeve, milled, N

Sleeve, retention holes, N

Bar, oval, N

Dimensions Micro



Bar, parallel, M

Sleeve, milled, M

Sleeve, retention holes, M

Bar, oval, M

Order No. 1600

ZL-DuroBond

The adhesive technique is a practical addition to the existing techniques for connecting prefabricated secondary units with the removable restoration.
An excellent working time and simple technique are guaranteed by the new composite formula. ZL DuroBond is a self-curing composite. The integrated photoinitiators provide the added option of light curing.

Area of application:
Composite for retaining prefabricated attachments in the removable unit of fixed/ removable restorations.

Technique:
The adhesive gap should not exceed 0.2 mm. Ensure when blocking out and preparing for duplication that the sections to be bonded are surrounded circumferentially and that there is no wax on these sections.

Thoroughly sandblast the external surfaces of the units to be bonded, e.g. external surface of the threaded cap and the surfaces of the metal denture base, with 250 µm aluminium oxide.

Clean the sections to be bonded carefully with a steam cleaner or acetone. These prepared surfaces should only be handled with tweezers. Assemble as demonstrated in the ZL instructions for use. Seal the activation slot and moving parts on attachments with a suitable blockout wax.

Dispense equal lengths of base and catalyst paste and mix together. Avoid air bubbles. The amount mixed depends on the size of the unit to be bonded.
Apply the mixed composite to the prepared, cleaned sections.
Put the removable denture unit onto the crowns with the attachments in place and fit in its final position

Curing:
When curing with a light-curing unit, the recommended curing time is 3 minutes.
The curing time is 20 minutes if DuroBond is self cured.
Allow 12 hours before fitting the denture so that ZL DuroBond has attained its full final hardness.

Preparation:
Excess material is easily removed after curing using standard tungsten carbide cutters.

Note:
ZL DuroBond cures anaerobically, i.e. in the adhesive gap.
The dispersion layer remaining on the surface of the adhesive site can easily be removed by steam cleaning or washing off.

Storage:
ZL DuroBond should be stored away from light in a refrigerator at approx. 8-15°C. It has a shelf life of 2 years. After removing the material from the refrigerator, allow half-an-hour for the material to reach room temperature.

Supplied as:
ZL-DuroBond
2.5 g each of base and catalyst paste in syringes

Coding:

Catalyst:	red
Base paste:	white

1 Mixing pad
1 Mixing spatula

Components:
Base paste:

Bis-GMA	4%
Urethane dimethacrylate	15%
Hexanediol ethane acrylate	14%
Bisphenol A Dimethacrylate	5%
Ethoxylated BIS-GMA	10%
Sinter gel	51%
Catalysts, stabilizers, pigments	1%

Catalyst paste:

Polymethacrylic polycarbonic acid	4%
Bis-GMA	22%
Triethylene glycol dimethacrylate	22%
Silicon dioxide	47%
Catalysts	5%

Technique data:

Light curing	180 Sek.
Self curing	20 Min.
Working time from start of mixing	2 Min.

Final hardness is attained after 12 hours.

OTHER ZL ATTACHMENTS

Order No.		Order No.	
3000	Anchor attachment	8001	MEGALOCK T attachment
3010	Anchor attachment	8010	MEGALOCK IS
3210	CYLINDRICAL T attachment	9010	CENTRALOCK MI (friction-retained)
3690	DUORELOCK T attachment	9011	CENTRALOCK MI lock (small)
3691	DUORELOCK T attachment	9012	CENTRALOCK MI lock (large)
3692	DUORELOCK T attachment	9095	CENTRALOCK MI screw-retained
3693	DUORELOCK T attachment		
3700	CONOLOCK sectional attachment		NOTES ON TECHNIQUE can be found at www.zl-microdent.de
3730	MULTILOCK retentive unit		
3800	COMBILOCK (friction-retained)		
3810	COMBILOCK (retentive)		
3820	COMBILOCK (screw-retained)		
4111	ANTERIOLOCK anterior attachment		

OVERVIEW OF ZL ATTACHMENT COMPONENTS

Order No.	ZL Patrix M (anchor attachment) (Pd/Ag)	Order No.	VENTRALOCK activation screw (Ti)
200		341	
301	Anchor attachment matrix (Pt/Au) high-fusing alloy 	342	VENTRALOCK retention screw (Ti) 
302	VENTRALOCK matrix (Pt/Ir) 	343	VENTRALOCK threaded cap (Ti) 
303	Anchor attachment matrix (Pt/Ir) 	346	DUOLOCK Titan activation screw (Ti) 
307	Anchor attachment patrix (Pd/Ag) 	347	DUOLOCK Titan retention screw (Ti) 
316	INTRALOCK II patrix (Pd/Ag) 	349	VENTRALOCK patrix (Ti) 
317	Conical T attachment patrix (Pt/Au) high-fusing alloy 	358	DUOLOCK matrix (Plastic/Ceramic) 
318	INTRALOCK I patrix (Ti) 	359	DUOLOCK Titan patrix (Ti) 
321	Cylindrical T attachment matrix (Pt/Au) high-fusing alloy 	360	DUOLOCK Titan matrix (Ti) 
327	Cylindrical T attachment patrix (Pt/Au) high-fusing alloy 	361	DUOLOCK prospektiv matrix (Pt/Au) high-fusing alloy 
330	SNAPLOCK attachment matrix (Pt/Au) high-fusing alloy 	362	DUOLOCK prospektiv retention screw (Ti) 
331	SNAPLOCK attachment patrix (Pd/Ag) 	363	DUOLOCK threaded cap (Ti) 
335	VENTRALOCK threaded cap (Pd/Ag) 	364	DUOLOCK threaded cap (Pd/Ag) 

OVERVIEW OF ZL ATTACHMENT COMPONENTS

Order No.		Order No.	
366	DUORELOCK activation screw (Au/Pt)	387	DUOLOCK patrix retention screw (Ti)
367	DUORELOCK retention screw (Au/Pt)	389	DUOLOCK threaded cap, cast on (Pt/Ir)
368	DUOLOCK prospektiv patrix (Pt/Ir)	392	CONOLOCK patrix (Pt/Ir)
369	DUORELOCK patrix 30° (Au/Pt)	393	CONOLOCK matrix (Pt/Ir)
374	DUOLOCK patrix 30° (Ti) large version 2.11 mm	511	LOGA patrix 30° (Au/Pt)
375	DUOLOCK patrix 30° (Ti) large version 2.18 mm	512	LOGA threaded cap (Pt/Ir)
376	DUOLOCK patrix 30° (Ti) large version 2.25 mm	515	LOGA matrix (Pt/Ir)
378T	DUOLOCK patrix 90° (Ti)	520	LOGA retention screw (Pd/Ag)
379T	DUOLOCK patrix 30° (Ti)	521	LOGA activation screw (Pd/Ag)
380	DUOLOCK matrix (Pt/Au), high-fusing alloy	526	LOGA patrix 90° (Au/Pt)
382	DUOLOCK matrix (Pt/Ir)	574	DUOLOCK patrix 90° (Ti) large version 2.11 mm
384	DUOLOCK threaded cap (solder/adhesive) (Pd/Ag)	575	DUOLOCK patrix 90° (Ti) large version 2.18 mm
386	DUOLOCK patrix activation screw (Ti)	576	DUOLOCK patrix 90° (Ti) large version 2.25 mm

OVERVIEW OF ZL ATTACHMENT COMPONENTS

Order No		Order No	
579	ANTERIOLOCK patrix (Pd/Ag)	631	ROBOLOCK cap, large (Plastic)
580	ANTERIOLOCK matrix (Pt/Ir)	633	ROBOLOCK press-fit lock (Pd/Ag/1.4310)
584	ANTERIOLOCK threaded cap (solder/adhesive) (Pd/Ag)	660	SECURALOCK complete (Ti, Al203, 1.4310)
586	ANTERIOLOCK patrix activation screw (Ti)	711	CENTRALOCK II patrix (Pt/Ir)
587	ANTERIOLOCK patrix retention screw (Ti)	713	CENTRALOCK II patrix (Plastic)
610	ROBOLOCK patrix (Pt/Ir)	721	CENTRALOCK II matrix complete (Ti)
620	ROBOLOCK matrix complete (Pd/Ag/1.4310)	726	CENTRALOCK II activation screw (Ti)
624	ROBOLOCK matrix (Pd/Ag)	727	CENTRALOCK friction insert (Plastic)
625	ROBOLOCK bolt (Pd/Ag)	728	CENTRALOCK II friction insert (Plastic), high friction
626	ROBOLOCK spring (1.4310)	729	CENTRALOCK II friction insert (Plastic)
627	ROBOLOCK bolt and spring (Pd/Ag/1.4310)	730	MULTILOCK thread sleeve (Ti)
628	ROBOLOCK closure screw (Pd/Ag)	731	MULTILOCK activation insert (Silicone)
630	ROBOLOCK cap, small (Plastic)	732	MULTILOCK activation screw (Ti)

OVERVIEW OF ZL ATTACHMENT COMPONENTS

Order No.	MEGALOCK patrix (Ti)	Order No.-Nr.	CENTRALOCK MI press-fit lock (Pd/Ag)
879		933	
880	MEGALOCK matrix (Pt/Ir)	962	CENTRALOCK MI transversal screw (Ti)
884	MEGALOCK patrix holder cap (Pd/Ag)	963	CENTRALOCK MI plug (Plastic)
886	MEGALOCK combi-screw (Pd/Ag)	968	CENTRALOCK MI matrix screw-retained complete (Pt/Au)
887	MEGALOCK activation screw (Ti)		
911	CENTRALOCK MI patrix (Pt/Ir)		
920	CENTRALOCK MI matrix lock-retained complete (Pt/Au)		
921	CENTRALOCK MI matrix friction-retained complete (Pt/Au)		
924	CENTRALOCK MI matrix (Pt/Au)		
927	CENTRALOCK MI retention screw (Ti)		
928	CENTRALOCK MI closure screw (Pt/Au)		
929	CENTRALOCK MI guide sleeve (Ti)		
930	CENTRALOCK MI cover cap (ABS)		

INSTRUMENTS, TOOLS AND ACCESSORIES FOR ZL ATTACHMENTS

Order No.		Order No.	
145	VENTRALOCK threaded cap positioning screw	337	DUOLOCK impression cap screw
146	DUOLOCK threaded cap positioning screw	338	DUOLOCK impression cap
147	ANCHOR ATTACHMENT patrix positioning screw	339	DUOLOCK laboratory matrix
151	ANCHOR ATTACHMENT M patrix exchange instrument	340	ANCHOR ATTACHMENT paralleling mandrel
154	ROBOLOCK thread tap	354	DUOLOCK matrix paralleling mandrel
155	DUOLOCK thread tap for threaded caps	355	DUOLOCK patrix paralleling mandrel
157	ANCHOR ATTACHMENT M patrix thread holder	356	CONOLOCK paralleling mandrel
158	ANCHOR ATTACHMENT M patrix activator	373	DUOLOCK exchange instrument and activator
230	ANCHOR ATTACHMENT laboratory positioning patrix	383	DUOLOCK manual cutter for cleaning thread caps
231	ANCHOR ATTACHMENT laboratory patrix	390	DUOLOCK adhesion/ soldering aid
252	ANCHOR ATTACHMENT M patrix deactivator	391	Thread adhesive for anchors and patrices
333	DUOLOCK Titan adhesion aid	398	MEGALOCK combi-screwdriver
334	VENTRALOCK adhesion aid	501	DUOLOCK activation thread tap

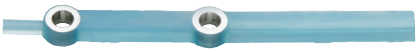
INSTRUMENTS, TOOLS AND ACCESSORIES FOR ZL ATTACHMENTS

Order No.		Order No.	
502	VENTRALOCK thread tap for threaded caps	645	ROBOLOCK duplicating screw, large
527	LOGA paralleling mandrel	646	ROBOLOCK duplicating screw, small
530	VENTRALOCK paralleling mandrel	722	CENTRALOCK II duplicating aid
570	ANTERIOLOCK paralleling mandrel	733	MULTILOCK waxing up aid
572	CENTRALOCK II/ ANTERIOLOCK activator	735	MULTILOCK paralleling mandrel
573	VENTRALOCK / LOGA combi-instrument	750	CENTRALOCK II paralleling mandrel
581	ANTERIOLOCK threaded cap positioning screw	831	MEGALOCK duplicating patrix
590	ANTERIOLOCK adhesion/ soldering aid	841	MEGALOCK polymerization screw
640	ROBOLOCK paralleling mandrel	843	MEGALOCK patrix holder
641	ROBOLOCK polymerization pin, small	854	MEGALOCK paralleling mandrel incl. brass patrix
642	ROBOLOCK assembly instrument	890	MEGALOCK duplicating aid
643	ROBOLOCK lock exchange instrument	939	CENTRALOCK MI laboratory patrix
644	ROBOLOCK polymerization pin, large	940	CENTRALOCK MI thread tap

INSTRUMENTS, TOOLS AND ACCESSORIES FOR ZL ATTACHMENTS

Order No			
941	CENTRALOCK MI polymerization pin, small 		
942	CENTRALOCK MI hex screwdriver 		
943	CENTRALOCK MI lock exchange instrument 		
944	CENTRALOCK MI polymerization pin, large 		
945	CENTRALOCK MI duplicating aid, large 		
946	CENTRALOCK MI duplicating aid, small 		

OVERVIEW OF ZL ANCHOR SYSTEM COMPONENTS

Order No.			Order No.		SPECIAL SIZES OF ZL PATRICES
100	200	Patrix (Pd/Ag), exchangeable and activatable 			
110	210	Patrix (Au/Pt), exchangeable and activatable 	102	202	Patrix, large version Head Ø = -N-/1.86 mm, -M-/1.76 mm 
140	140	Retention nut (Ti) 	103	203	Patrix with 2.6 mm thread length 
141	141	Retention nut (Pd/Ag) 	104		Patrix, large version Head Ø = 1.8 mm, Plate Ø =3.0 mm, functional dimensions head-plate 2.3 mm
142	142	Plastic space maintainer for retention nuts 	107		Patrix, large version Head Ø = 1.93 mm
143	243	Retention cap (Ti) 			
144	244	Threaded cap (Pd/Ag), solderable 			
148	248	Threaded cap (Pt/Ir), cast on with non-precious,Pd based and precious metal alloys, no duplicating/ positioning aid 			
149	249	Threaded cap (Pt/Ir), cast on with non-precious,Pd-based and precious metal alloys, fully assembled 			
174	274	Matrix with backplate (Pt/Au), high-fusing alloy, cast on with precious metal alloys 			
175	275	Matrix with backplate (Pt/Ir), cast on with non-precious, Pd-based and precious metal alloys 			
176	276	Combi-Bar with 2 integrated matrices (Pt/Ir), cast on with non-precious,Pd-based and precious metal alloys 			
177	277	Combi-Bar with 2 integrated matrices (Pt/Au), high-fusing alloy,cast on with precious metal alloys 			

INSTRUMENTS, TOOLS AND ACCESSORIES FOR ZL ANCHOR ATTACHMENTS

Order No.			Order No.	
130	230	Laboratory patrix (V4A) for positioning threaded caps (-N- No. 144/-M- No. 244) 	156	Screwdriver for retention nuts 
131	231	Laboratory patrix (Brass) for try-in and finishing the denture 	157	ZL patrix thread holder 
132	232	Laboratory patrix (Brass) for duplicating when using retention nuts (No. 140/141) 	158	ZL patrix activator 
133	233	ZL patrix adhesion/ soldering aid (-N- No. 133/-M- No. 233) 	159	Tungsten carbide cutter, shank Ø 2.35 mm, head Ø 3.0 mm 
135	235	Spacers (Stainless steel) for adjusting the snap-on point of a ZL patrix 	391	ZL patrix thread adhesive 
137	237	Laboratory patrix (Brass) for duplicating with cast on threaded caps (-N- No. 149/-M- No. 249) 		
138	238	Laboratory patrix (Brass) for impression taking and repairs to damaged threaded caps 		
139	239	Laboratory matrix (V4A) for positioning ZL patrices in the stone model 		
147		Positioning screw for securing solderable threaded caps (-N- No. 144/-M- No. 244) in the soldering model 		
150	250	ZL anchor matrix paralleling mandrel 		
151		ZL patrix exchange instrument 		
152	252	ZL patrix deactivator 		
153		Thread tap for retention caps 		

OVERVIEW OF COMBILOCK, PONTILOCK, ROOT CAP ATTACHMENT AND SPHÄROLOCK COMPONENTS

Order No.		Order No.	
394	PONTILOCK N countersunk collar (Pt/Ir)	451	COMBILOCK 3810 patrix (Pd/Ag), exchangeable and activatable
395	PONTILOCK N thread sleeve (Pt/Ir)	452	COMBILOCK 3820 patrix (Pd/Ag), exchangeable and activatable
396	PONTILOCK N screw (Pd/Ag)	458	Activation screw (Pd/Ag), for patrix No. 450
397	PONTILOCK N positioning pin (V4A)	459	Activation screw (Pd/Ag), for patrix No. 452
401	ZL ROOT CAP ATTACHMENT matrix (Pd/Ag), solderable	460	COMBILOCK universal matrix (Pt/Ir), cast on
402	ZL ROOT CAP ATTACHMENT resilient patrix (Pd/Ag), exchangeable and activatable	488	COMBILOCK No. 3820 threaded cap (Pt/Ir), cast on
404	ZL ROOT CAP ATTACHMENT threaded cap (Pt/Au), high-fusing alloy, cast on or solderable	489	COMBILOCK No. 3800 and 3810 threaded cap (Pt/Ir), cast on
420	SPHÄROLOCK patrix (Pt/Au)	594	PONTILOCK M countersunk collar (Pt/Ir)
421	SPHÄROLOCK patrix (Plastic)	595	PONTILOCK M thread sleeve (Pt/Ir)
422	SPHÄROLOCK matrix complete (Ti)	596	PONTILOCK M screw (Pd/Ag)
425	SPHÄROLOCK plastic insert	597	PONTILOCK M positioning pin (V4A)
426	SPHÄROLOCK activation screw (Ti)		
450	COMBILOCK 3800 patrix (Pd/Ag), exchangeable and infinitely adjustable		

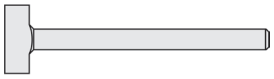
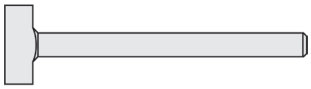
INSTRUMENTS, TOOLS AND ACCESSORIES FOR COMBILOCK, PONTILOCK, ROOT CAP ATTACHMENT AND SPHÄROLOCK

Order No.		Order No.	
154	ROOT CAP ATTACHMENT thread tap 	471	COMBILOCK exchange instrument 
398	PONTILOCK laboratory screwdriver 	475	COMBILOCK screwdriver 
399	PONTILOCK practice screwdriver 	476	COMBILOCK thread tap 
400	PONTILOCK N removal instrument 	490	COMBILOCK duplicating cap (Brass) 
405	ROOT CAP ATTACHMENT space maintainer (Sn) 	492	COMBILOCK positioning screw (V4A) 
410	ROOT CAP ATTACHMENT paralleling mandrel 	493	COMBILOCK laboratory patrix (Brass) 
413	ROOT CAP ATTACHMENT laboratory patrix (Brass) 	494	COMBILOCK positioning patrix (ARC) 
414	ROOT CAP ATTACHMENT soldering aid 	495	COMBILOCK transfer patrix (Brass) 
415	ROOT CAP ATTACHMENT exchange instrument 	496	COMBILOCK positioning cap (Brass) 
416	ROOT CAP ATTACHMENT deactivator 	500	PONTILOCK M removal instrument 
417	SPHÄROLOCK activator 		
418	SPHÄROLOCK paralleling mandrel 		
470	COMBILOCK paralleling mandrel 		

COMPONENTS, INSTRUMENTS, TOOLS AND ACCESSORIES FOR BALL ATTACHMENTS

Order No.		Order No.	
427	SFERALOCK matrix (Au/Pt)	440	ECCOLOCK inner matrix (Au/Pt)
428	SFERALOCK space maintainer (Plastic)	441	ECCOLOCK inner matrix, standard-friction (Ti/Plastic)
429	SFERALOCK spacer (Sn)	442	ECCOLOCK inner matrix low-friction (Ti/Plastic)
430	SFERA/ ECCO/ TIMALOCK patrix (Au/Pt)	443	ECCOLOCK inner matrix high-friction (Ti/Plastic)
431	SFERA/ ECCO/ TIMALOCK patrix (Plastic)	444	SFERALOCK matrix ring (Plastic)
432	TIMALOCK annular spring standard-friction (V4A)	445	SFERA/ ECCO/ TIMALOCK patrix (Pt/Au)
433	TIMALOCK annular spring high-friction (V4A)	446	TIMALOCK thread ring (Ti)
434	SFERA/ ECCO/ TIMALOCK model analogue (Brass)	447	ECCOLOCK matrix complete (Ti/Plastic)
435	TIMALOCK space maintainer (Plastic)	461	SFERALOCK deactivator
436	TIMALOCK thread ring assembly (Plastic)	462	SFERA/ ECCO/ TIMALOCK paralleling mandrel
437	TIMALOCK matrix complete (Ti/Plastic)	463	TIMALOCK screwdriver (V4A)
438	ECCOLOCK space maintainer (Plastic)	464	ECCOLOCK torque screwdriver (V4A)
439	ECCOLOCK inner matrix assembly (V4A/Plastic)	465	TIMALOCK annular spring, low-friction (V4A)

INSTRUMENTS, TOOLS AND ACCESSORIES FOR BARS

Order No.			
667	Micro bar paralleling mandrel 		
668	Micro bar model analogue (Brass) 		
669	Micro bar relief rod (Brass)		
678	Standard bar model analogue (Brass) 		
679	Standard bar relief rod (Brass)		
680	Bar activator narrow 		
684	Bar activator narrow 		
685	Standard bar paralleling mandrel 		
686	Bar activator wide 		

TECHNICAL DATA OF THE ALLOYS

Alloy	Palladium-Silver (Pd/Ag)	Platinum-Gold (Pt/Au)	Gold-Platinum (Au/Pt)	Platinum-Iridium (Pt/Ir)	MainBond EH (Au/Pt)	Titanium (Ti)
Colour	white	white	yellow	white	yellow	white
Melting range (°C)	1170 - 1240	1360 - 1460	900 - 930	1830 - 1855	895 - 1010	1610
Vickers hardness VH tempered	245	250	250	225	295	270
0.2% Proof stress (daN/mm^2) tempered	60	78	67	55	60	25
Tensile strength (daN/mm^2) tempered	80	82	82	72	76	54
Elongation at rupture (%) tempered	18	15	20	18	21	22
Tempering	0-500°C, allow to cool slowly for 10 min.	0-700°C, allow to cool slowly for 30 min.	0-350°C, allow to cool slowly for 15 min.	0-700°C,allow to cool slowly for 30 min.	0-450°C, allow to cool slowly for 15 min.	

Titanium retentive units must not be subjected to procedures involving heat, e.g. soldering.

Plastic components burn out without residue.

Information on our products and techniques is based on ongoing technical development and monitoring.

This does not release the user from the obligation of checking our instructions and recommendations before use to ensure their fitness for the intended purpose.

If modifications are made to our products in the course of ongoing technical development, we reserve the right to supply the modified version.

Our technical advisory service is a voluntary customer service, which is offered without liability on our part.

Claims for compensation are limited to claims under guarantee and to the contractual terms of our general conditions of sale and delivery.

We reserve the right to make technical changes.

ALLOY COMPOSITION OF ZL ATTACHMENTS

Alloy abbreviation	Name of alloy	Au %	Ag %	Pt %	Pd %	Cu %	Ir %	Rh %	Zn %
Pd/Ag	Alba O	2,0	37,0	8,0	40,0	13,0	-	-	-
Pt/Au (high-fusing alloy)	HeraPlat	61,0	-	23,8	15,0	-	-	0,2	-
Au/Pt[1]	MainGold O	70,0	12,5	7,0	0,4	10	0,1	-	-
Au/Pt[2]	MainBond EH	70,0	13,4	8,5	-	7,5	0,1	-	0,5
Pt/Ir	Platinum/Iridium	-	-	80,0	-	-	20,0	-	-

Ti[1] Titanium 99,7% = Ti 7065 Grade 2
Ti[2] Titanium 90% Al 6% V 4%
1.4305 X 10 CrNi S 18 9
1.4310 X 12 CrNi 17 7

Refer to the number code for the material used in the attachment components listed:

1	=	Pt/Ir
2	=	Pd/Ag
3	=	Pt/Au
4	=	Au/Pt[1]
5	=	Au/Pt[2]
6	=	Ti[1]
7	=	Ti[2]
8	=	1.4305
9	=	1.4510
10	=	Silicone Si O
11	=	PTFE polytetrafluorethylene
12	=	POM polyoxymethylene

LIST OF COMPONENTS AND CORRESPONDING ALLOYS

100 -2	271 -2	349 -6	402 -2	489 -1	633 -2-8	727 -11
102 -2	274 -3	360 -6	404 -3	511 -5	660 -6-8	728 -11
103 -2	275 -1	361 -3	420 -3	512 -1	661 -4	729 -11
104 -2	276 -1	362 -6	422 -6	515 -1	663 -6	730 -6
107 -2	277 -3	363 -6	425 -12	520 -2	664 -4	731 -10
110 -4	301 -3	364 -2	426 -6	521 -2	665 -4	732 -6
135 -8	302 -1	366 -5	427 -4	526 -5	666 -6	760 -6-8
140 -6	303 -1	368 -1	430 -5	574 -6	667 -4	879 -6
141 -2	307 -2	369 -5	432 -8	575 -6	671 -4	880 -1
143 -6	308 -2	374 -6	433 -8	576 -6	673 -6	884 -2
144 -2	316 -2	375 -6	437 -6	579 -2	675 -4	886 -2
148 -1	317 -3	376 -6	440 -4	580 -1	676 -6	887 -6
149 -1	318 -6	378T -6	441 -6	584 -2	677 -4	911 -1
171 -2	319 -3	379T -6	442 -6	586 -6	681 -4	920 -3
174 -3	321 -3	380 -3	443 -6	587 -6	683 -6	921 -3
175 -1	327 -3	382 -1	444 -10	594 -1	691 -4	924 -3
176 -1	329 -3	384 -2	445 -3	595 -1	693 -6	927 -6
177 -3	330 -3	386 -2	446 -6	596 -2	710 -1	928 -3
200 -2	331 -2	387 -2	447 -7	610 -1	711 -1	929 -6
202 -2	335 -2	388 -1	450 -2	620 -2	715 -12	930 -11
203 -2	341 -6	389 -1	451 -2	624 -2	716 -12	933 -2-8
210 -4	342 -6	392 -1	452 -2	625 -2	717 -12	962 -6
235 -8	343 -6	393 -1	458 -2	626 -8	720 -6	963 -12
243 -6	344 -2	394 -1	459 -6	627 -2-8	721 -6	968 -3
244 -2	346 -6	395 -1	460 -1	628 -2	724 -6	
248 -1	347 -6	396 -2	465 -8	630 -11	725 -6	
249 -1	348 -2	401 -2	488 -1	631 -11	726 -6	

5-YEAR GUARANTEE

As a German manufacturer of precision attachments for partial denture prosthetics, we provide a comprehensive guarantee on our DUOLOCK attachments. The DUOLOCK was developed on the basis of the experience gained by our employees in the fabrication of attachments and their acknowledged expertise in the field of dental technology.

•Patrices easily exchanged
•Friction infinitely adjustable
•Platinum-iridium alloy for cast on matrices and threaded caps
•Patrices and screws made from precious metal and titanium (Pd/Ag) + (Ti)

Based on our experience since the introduction of these attachments, we can provide this guarantee with full confidence.

5-YEAR GUARANTEE ON ALL DUOLOCK ATTACHMENTS.

The period of the 5-year guarantee begins from the fabrication date filled in on the guarantee card by the laboratory.

We will replace any parts free of charge due to defects in the attachment, which occur during the period of the guarantee and are the result of faults in the material or fabrication. When making a claim, send us the completed guarantee card and the defective attachment component. We will immediately send you a free replacement.

The guarantee is void if the attachment has not been prepared according to our instructions for use, i.e. any faults are due to incorrect processing or preparation.

Instructions for use are available free of charge on request. Further claims are excluded.

Our 5-year guarantee on ZL DUOLOCK precision attachments is only applicable if the technique used with the attachment complies with the DUOLOCK instructions for use.

In particular the following aspects should be noted:

An effective milled channel-shoulder interlock should be integrated.

Retention screws should be secured with ZL thread adhesive No. 391.

The attachment should only be shortened to the dimensions given in the instructions for use.

The denture should be relined as and when required.

INSTRUCTIONS FOR USE

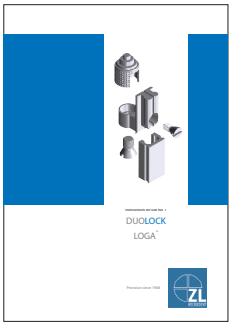
Clear product information is the basis for the success of a prosthetic restoration. We therefore provide free instructions for use for ZL products.

DUOLOCK	Instructions For Use No. 1
VENTRALOCK	Instructions For Use No. 2
CENTRALOCK II	Instructions For Use No. 3
ROBOLOCK	Instructions For Use No. 4
ZL ANCHOR	Instructions For Use No. 5

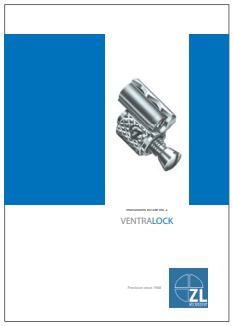
ZL MICRODENT technical advisors are also available during office hours, Monday to Friday 8 – 18 hrs, to provide technical support and advice on the direct line

+49 (0) 2338 / 801-55

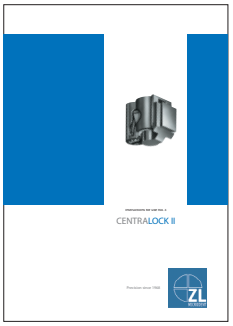
Precision since 1968



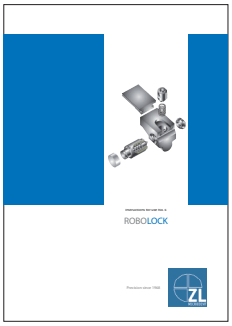
Instructions for use No.1
DUOLOCK / LOGA



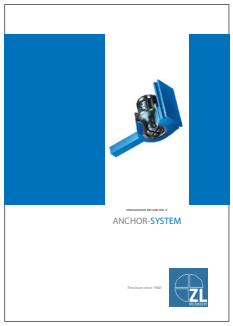
Instructions for use No. 2
VENTRALOCK



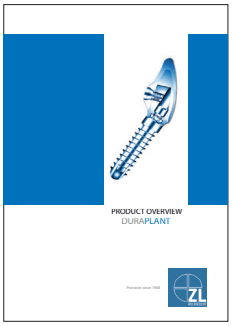
Instructions for use No. 3
CENTRALOCK



Instructions for use No. 4
ROBOLOCK



Instructions for use No. 5
ANCHOR-SYSTEM



Product Overview
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