



COWELL® EXPERTS INSTRUMENTS | InnoGenic™ GBR Kit 004

#### 005 InnoGenic™ GBR Kit | COWELL® EXPERTS INSTRUMENTS

#### Screw Kit KIGICS00

- Used without removing the Screw Kit from the inside of the kit tray (Remove to use if necessary only).
- Made of special material for autoclaving.
- \* Rotate the upper lid to take out the selected product.





#### Composition

Classification	Product	Code		Quantity
		Didd-	KIGFS03	5
	Fixing Screw (Fixing)	THINK.	KIGFS05	5
	(Fixing)	<b>311111111111</b>	KIGFS07	5
Bone			KIGTS07	4
Done	Tenting Screw		KIGTS10	4
	(Tenting)		KIGTS13	4
			KIGTS15	4
	Tenting Cap (T/Cap)		KIGTC32	3
Fixture	Fix Connector (F/Connector)		KIGFC4505	2
			KIGFC4510	2
			KIGFC4515	2
			KIGFC4520	2
	Cover Cap (C/Cap)		KIGCC45	2
			KIGHC453	2
	Healing Cap		KIGHC454	2
	(H/Cap)	<b>-</b>	KIGHC553	2
		-	KIGHC554	2

Empty Screw Kit KIGICS

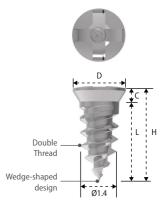


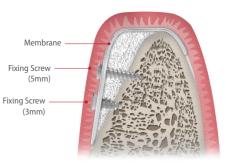


## Fixing Screw (Fixing)

- Used to fix the membrane to the bone.
- Place slowly using the Fixing Driver (Machine/Handle).
- 3, 5 and 7mm length can be selected according to the bone quality. In hard bone, use after forming a basic drill hole using the Fixing Screw Drill.
- •The wedge-shaped design is advantageous for self-tapping, allowing it to be fixed without drilling in normal bone.
- •The double thread shortens the placement time.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
		3.0	3.6	KIGFS03
2.0 0.6	5.0	5.6	KIGFS05	
		7.0	7.6	KIGFS07

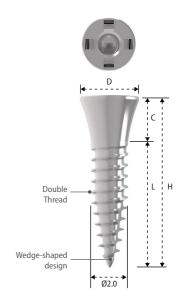


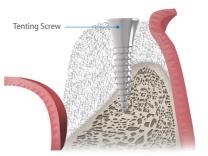


## Tenting Screw (Tenting)

- Used when a large area of vertical / horizontal GBR is required. Leave space for bone grafts.
- Place slowly using the Tenting Screw Driver (Machine/Handle).
- Recommended placement depth: Hard bone-3mm, Normal bone-5mm, Soft bone-more than 5mm.
- Initial fixation of at least 15~25Ncm is required. Tightening more than 35Ncm may cause fracture of the Tenting Screw so it must be fixed below
- In normal bone, it is recommended to form a hole at least 3mm deep using the Tenting Screw Drill before placing the Tenting Screw.
- The wedge-shaped design is advantageous for self tapping, allowing it to be used without drilling in normal bone.
- •The double thread shortens the placement time.
- Use the Tenting Cap if necessary

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
		7.0	9.5	KIGTS07
3.2	2.5	10.0	12.5	KIGTS10
	2.3	13.0	15.5	KIGTS13
		15.0	17.5	KIGTS15



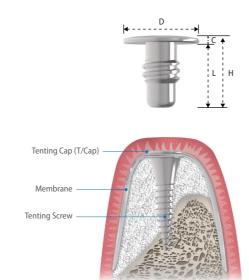


#### Bone

## Tenting Cap (T/Cap)

- Used to fix membrane on the Tenting Screw.
- Tightened with the 0.9 Hex Driver.
- Recommended tightening torque force : 5~8Ncm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
3.2	0.3	2.8	3.1	KIGTC32

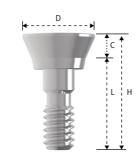


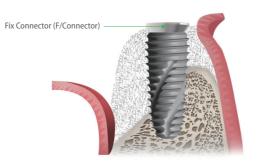
#### **Fixture**

## Fix Connector (F/Connector)

- Used to fix the membrane along with the Cover Cap or Healing Cap after connecting to the fixture.
- Tightened with the 0.9 Hex Driver.
- Recommended tightening torque force: 12~15Ncm.
- Available for the INNO Submerged, Submerged Short Fixtures and other fixtures compatible with them only.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
4.5	0.5	5.7	6.2	KIGFC4505
	1.0		6.7	KIGFC4510
	1.5		7.2	KIGFC4515
	2.0		7.7	KIGFC4520



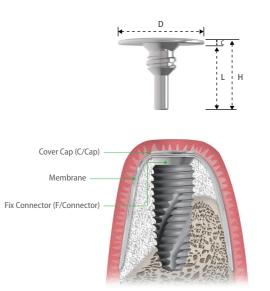


#### Fixture

## Cover Cap (C/Cap)

- Used to fix membrane over the Fix Connector.
- For submerged surgery in case of sufficient soft tissue.
- Recommended tightened with the 0.9 Hex Driver.
- Recommended tightening torque force: 5~8Ncm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
4.5	0.3	3.4	3.7	KIGCC45

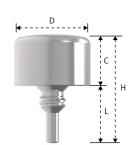


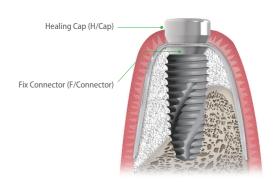
#### **Fixture**

## Healing Cap (H/Cap)

- Used to fix membrane over the Fix Connector.
- For non-submerged surgery in case of insufficient soft tissue.
- Connect by using the 0.9 Hex Driver
- Recommended tightening torque force: 5~8Ncm.

D(Ø,mm)	C(mm)	L(mm)	H(mm)	Code
4.5	3.0		6.4	KIGHC453
4.3	4.0	3.4	7.4	KIGHC454
5.5	3.0	3.1	6.4	KIGHC553
5.5	4.0		7.4	KIGHC554





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## Fixing Screw Drill & Tenting Screw Drill

- Used to place the Fixing Screw / Tenting Screw mainly in hard bone.
- Also used to perforate cortical bone when blood supply is required.
- For normal bone, drill only 3mm deep if necessary.
- Drill before placing the Fixing Screw / Tenting Screw.
- Laser-marked at 3,5 and 7mm long from the tip of the drill and the length can be controllable using the Drill Stoppers.
- Color-banded for distinction (Red : Fixing Screw Drill, Blue : Tenting Screw Drill).
- Recommended drilling speed: 1000~1200rpm.

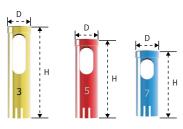
Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Drill	1.0	10	31.5	KTSD10
Tenting Screw Drill	1.4	10		KTSD14



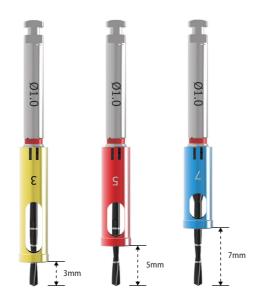


## **Drill Stopper**

- $\bullet$  Used by connecting to the Fixing Screw Drill / Tenting Screw Drill.
- 3mm : Yellow, 5mm : Red, 7mm : Blue



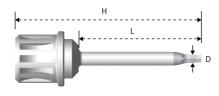
Classification	D(Ø,mm)	H(mm)	Code
3mm		13.5	KIGDS03
5mm	3.5	11.5	KIGDS05
7mm		9.5	KIGDS07



#### 0.9 Hex Driver (Ratchet)

• Used to install the Tenting Cap, Fix Connector, Cover Cap and Healing Cap.

D(Ø,mm)	i,mm) L(mm) H(mm)		Code
	8	15	*KHD0915
1.2	14	21	KHD0921
	20	27	*KHD0927



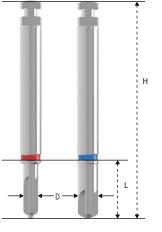
\* Optional

## Fixing Screw Driver & Tenting Screw Driver (Machine)

- Used to place the Fixing Screw / Tenting Screw using Contra-angle.
- Color-banded for distinction (Red : Fixing Screw Driver, Blue : Tenting Screw Driver).

Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Driver	1.6	6.0	24.0	KFSMD24
Tenting Screw Driver	2.2	6.0	2-1.0	KTSMD24





### Fixing Screw Driver & Tenting Screw Driver (Handle)

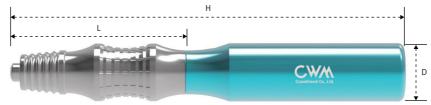
- Used to place the Fixing Screw / Tenting Screw using the Driver Handle.
- Color-banded for distinction (Red : Fixing Screw Driver, Blue : Tenting Screw Driver).



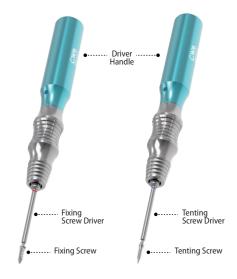
Classification	D(Ø,mm)	L(mm)	H(mm)	Code
Fixing Screw Driver	1.6	6.0	70.0	KFSHD70
Tenting Screw Driver	2.2	6.0	70.0	KTSHD70

#### Driver Handle

• Used to place and remove the Fixing Screw / Tenting Screw by connecting the Handle Driver.



D(Ø,mm)	L(mm)	H(mm)	Code
19.8	75	135.0	KIGH

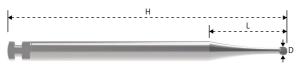


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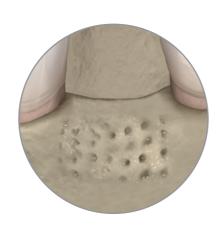
#### **Round Bur**

• Used to perforate cortical bone when blood supply is required.

• Recommended drilling speed: 1200~1500rpm.

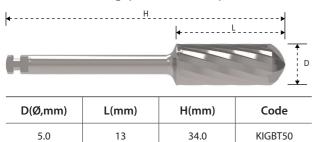


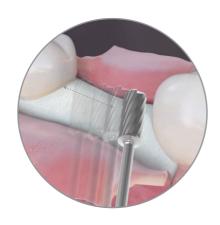
D(Ø,mm)	L(mm)	H(mm)	Code
1.0	9.5	34.0	KIGRB10



#### **Bone Trimmer**

- Used to perform osteoplasty on the outer wall of remaining bone all during GBR and to flat the bone surface for improving the fit of membrane.
- Used to remove remaining granulation tissue of bone defect part (use instead of surgical curette).
- Recommended drilling speed: 1200~1500rpm.





## Harvesting Drill & Drill Stopper

- Drill for convenient harvesting of autogenous bone in the form of bone chip in a short period of time.
- The Silicon Shield of the Ø3.5 Harvesting Drill makes sure with no bone chip loss while drilling (Bone chip can be collected at implant site).
- 6 Silicon Shields are included in the Kit (1 is assembled with the Ø3.5 Harvesting Drill and 5 are packed in the lower tray).
- •The maximum drilling depth of the Ø3.5 Harvesting Drill is 12mm, so it needs to be drilled slowly.

14.3

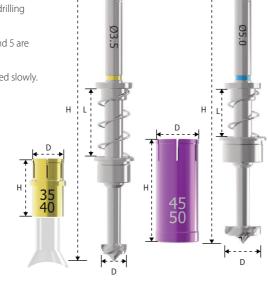
KBHD4550

• Remove while rotating the drill.

Stopper

• Recommended drilling speed: 300~500rpm.

D(Ø,mm)	L(mm)	H(mm)	Code
3.5	9.5	39.2	KBH35
5.0	6.5	36.5	KBH50
	D(Ø,mm)	H(mm)	Code
Drill	5.6	9	KBHD3540



\* Refer to the Innogenic™ Autobone Harverst Kit Catalog for details.

## **CLINICAL CASE**

#### Fixing Screw Bone



Buccal view of the bone defect.



14mm high defective part from the gingiva. 7mm high defective part from the gingiva.





Drilling using the Fixing Screw Drill with 1.0mm in diameter.



A Fixing Screw with 5mm in length was connected to the Fixing Screw Driver coupled to the Driver Handle.



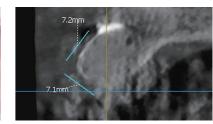
The Fixing Screw was fixed to the bone through the Wifi-Mesh after placing the Wifi-Mesh.



Bone graft with the INNO-CaP.



Primary closure.



CT scan image showed that the vertical augmentation with the Fixing Screw was successfully done.

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## Tenting Screw / Tenting Cap Bone





Buccal view after extraction of #36 showed severe vertical defect.



A Tenting Screw with 10mm in length was fixed instead of an implant for socket preservation at the site of #36.



The INNO-CaP was grafted up to the top of the Tenting Screw.



After forming a hole on the Wifi-Mesh and applying the Wifi-Mesh, the Tenting Screw Cap was fixed to the Tenting Screw through the hole the Wifi-Mesh.



Mattress key suture was carried out in order to decrease the possibility of exposures.

# THE

Panoramic view showed that the vertical augmentation with the Tenting Screw was successfully done.

## Fix Connector / Cover Cap Fixture



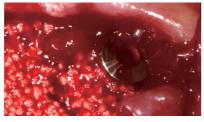
Super-hydrophilised (SLA-SH®) surface treated INNO Sub. Ø4.5x12mm Fixture was placed at the site of #37 with 3mm high buccal bone defect around.



A hole for the Cover Cap fixation was formed in the centre of the Wifi-Mesh.

The Cover Cap and the Wifi-Mesh were installed on the Fix Connector using the 0.9

Hex Driver.

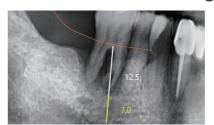


Bone graft with the INNO-CaP.



Postoperative radiographic view of #37.

#### Fix Connector / Healing Cap Fixture



Buccal defect.



Defect height from gingival crest to buccal wall was checked.



Super-hydrophilised (SLA-SH®) surface treated INNO Sub. Ø5.0x12mm Fixture.



A Fix Connector with 1mm in cuff was installed on the INNO Sub. Fixture.



The Fix Connector was placed in the INNO Sub. Fixture.



The INNO-CaP was grafted up to the top of the Fix Connector.



A hole for the Healing Cap fixation was formed in the centre of the Wifi-Mesh.



The Healing CaP with 5.5mm in diameter and 3mm in cuff.



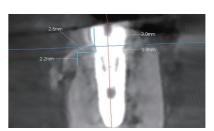




Installation of the Healing CaP and the Wifi-Mesh using the 0.9 Hex Driver on the Fix Connector placed in the INNO Sub. Fixture.



Suture.



Dimension of the graft with 2.2mm in height and 2.6mm in width.

#### **COWELL® EXPERTS INSTRUMENTS**

# InnoGenic™ GBR Kit

An all-in-one solution for various types of GBR procedures

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