

CABLE ROUTING SYSTEM 2025



CABLE ROUTING SYSTEM

A L W A Y S A H E A D

FSA is proud to present new cable routing systems for road, aero and mtb bikes. This innovative patented system, unique to FSA and VISION, is a combination of our knowledge bases in both headset and cockpit development and manufacturing, plus our history in aerodynamic development and design. The result is a clean, integrated and aerodynamic cable routing solution for frame and bicycle brands.

CABLE ROUTING SYSTEM CHART

SPECIFIC FRAME AND ACR HS REQUIRED		SPECIFIC FRAME* AND ACR HS REQUIRED	SUITABLE TO ALL FRAME*
ACR	ICR	SMR	SRS
FSA & VISION	FSA	FSA & VISION	FSA
DESIGN FOR OEM	DESIGN FOR OEM	DESIGN FOR OEM & AFTERMARKET	DESIGNED FOR OEM & AFTERMARKET

* Fork steerer requires 7mm cable hole

ACR SYSTEM - CR II Middle



The evolution of our ACR System, the CR II Middle, takes internal cable routing to the next level. Utilizing an integrated compression cone spacer and designed around a single front entrance point, the system installation and adjustment is simpler, the increased surface area makes for a secure and safe contact point between the compression cone spacer and steering tube and the system is suitable for e-bike. Incorporating a flexible rubber seal, the system allows for more headtube depth tolerance while the seal covers the gap between compression cone spacer and the headtube, eliminating the need for a microspacer. The result is a clean, integrated and internal cable routing solution for frame and bicycle brands.

Designed for OEM (Original Equipment Manufacturer) Requires specific frame and headset.

Fully Hidden

The cable runs internally from HB, through Stem and then into frame and is completely hidden.

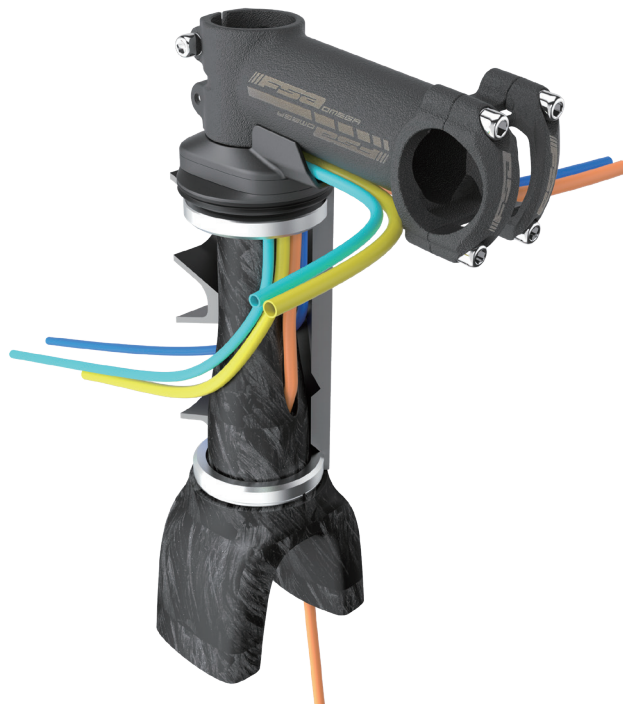
w/ 5D ACR EVO



Semi Hidden

Cable and housing route externally underneath the stem before being guided through an integrated top cover and through the integrated compression cone spacer and into the frame.

w/ OS-168



> Integrated Compression Cone Spacer CR II Middle NEW

NO.80/56/CR II Middle

FEATURES

- Integrated design, no need of extra male / female pin to make correct position. Ease of installation.
- More contact area between **compression cone spacer** and steering tube makes steering tube safer. Suitable for E-bike.

Flexible rubber seal

- Allow more headtube depth tolerance. The seal can cover the gap between **compression cone spacer** and headtube.
- Eliminate the use of microspacer. Especially when internal cable routing.
- Recommended gap between **compression cone spacer** and headtube is micro movement.

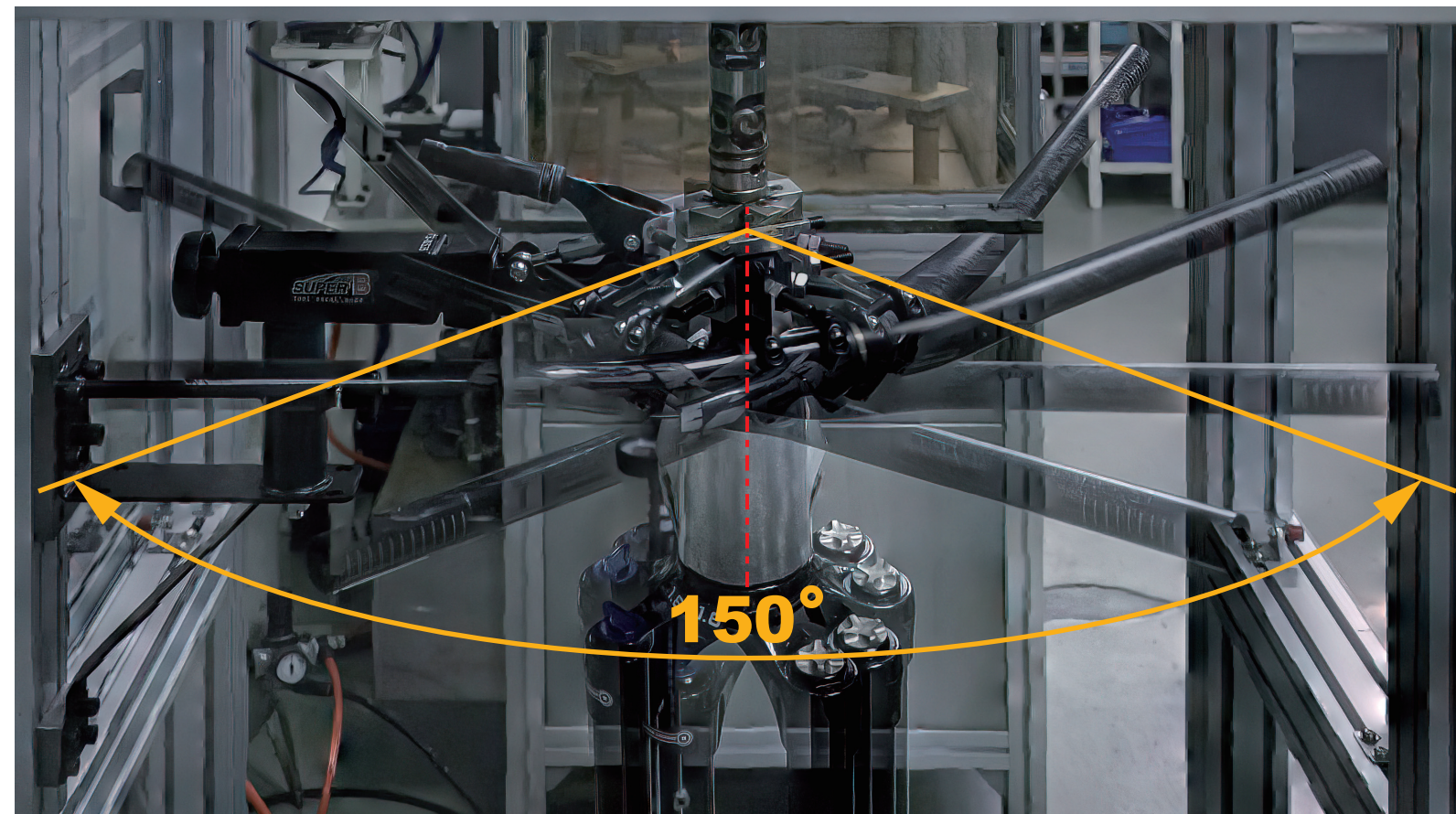
Flexible rubber seal



> FSA created Headset test standard for internal cable routing

Headset - Inner cable wear testing conditions :

- Angle : 150 ° (Left - Right rotation)
- Frequency : 40 rpm
- Cycles : 300,000



ACR SYSTEM



ACR System, a fully integrated Aerodynamic Cable Routing solution that routes all cables, wires and hoses internally, is available for FSA and Vision's top-of-the-line handlebars.

This innovative patent-pending system is unique to FSA and Vision, and is a combination of our knowledge bases in both headset and cockpit development and manufacturing, plus our history in aerodynamic development and design. The result is a clean, integrated and aerodynamic cable routing solution for frame and bicycle brands.

Designed for OEM (Original Equipment Manufacturer) Requires specific frame and ACR headset.

Fully Hidden - Integrated Handlebar

The cable runs internally from HB, through Stem and then into frame and is completely hidden.



Aerodynamic Cable Routing



> Introduction

This innovative system is a combination of our core knowledge bases in both headset development and manufacturing and our history in aerodynamic development and design. The result is a clean, integrated and aerodynamic cable routing solution for frame and bicycle brands.

> Outline

Built around a patent-pending headset and integrated cockpit (or stems) the system easily allows brands a "plug-in" solution for clean and simple cable routing. Additionally, brands have the flexibility to utilize a single frame design at a variety of spec levels simply by adjusting cockpit and headset selection. Offered in the following options:

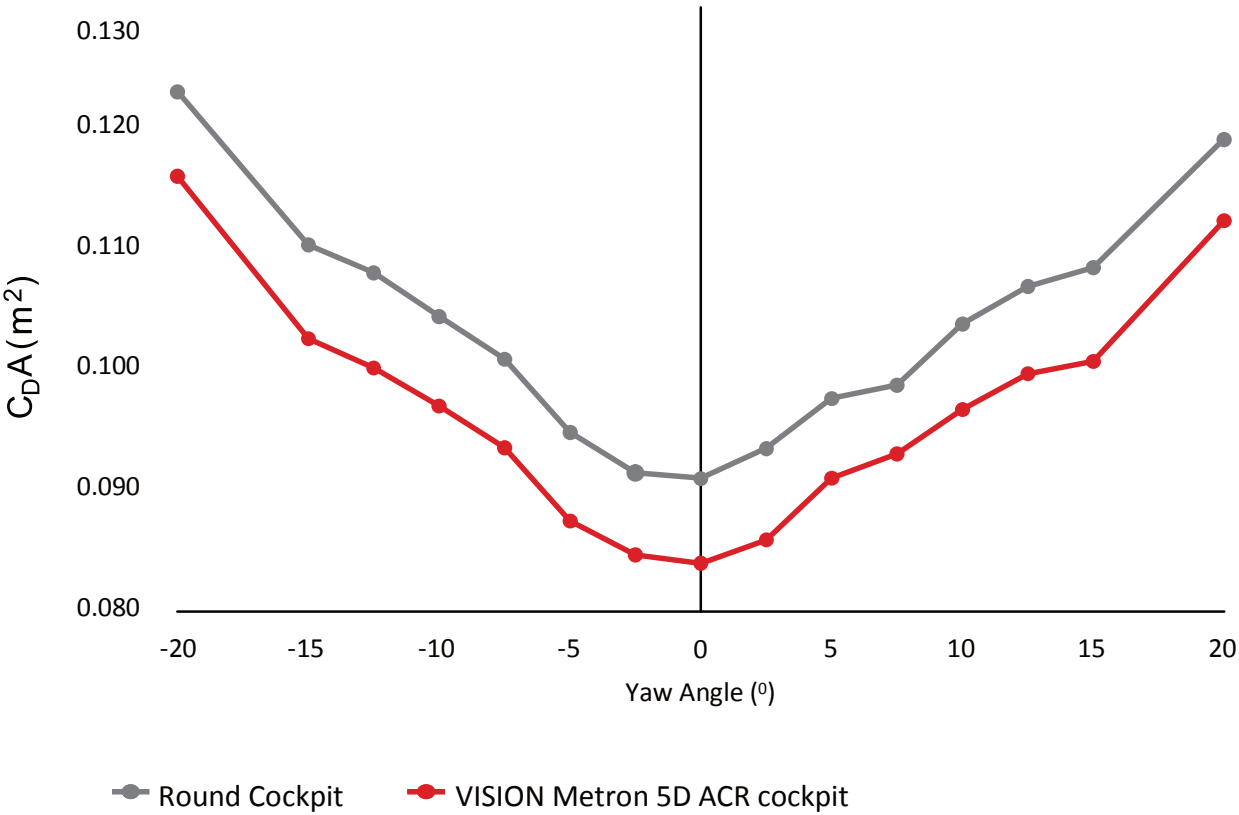
- Metron 5D Handlebar ACR Kit
- ACR Headset – Integrated (For frame used with Metron and TriMax carbon aero handlebar and stems)
- ACR Headset – Non-integrated (For frame used with standard – non-ACR – stems and handlebars)

> Features

- Aerodynamic Cable Routing solution for bike manufacturers
- Allows electronic shift and hydraulic brake routing to be completely hidden
- Mechanical shift and brake can be partially hidden (depending on brake spec) Includes proprietary headset and compression plug
- Shaped and split headset spacers allow for stack height adjustment without need for un-cabling
- Customization option for cone spacer to smooth transition from cockpit to frame headtube
- No increase in cockpit or system weight
- Shaped/Drilled steerer tube not required
- CFD developed cockpit and spacers based upon Vision Metron 5D ACR
- Computer mount kit included
- Available in multiple spec configurations (size, widths and lengths)



AERODYNAMIC INFO



Frame	C _D A*	Δ C _D A*
Round Cockpit	0.0975	
Metron 5D ACR cockpit	0.0905	-0.0070

VISION Metron 5D ACR cockpit saves

8.3W @ 45 km/h / ~37sec faster over 45km

Compared to FSA Energy round cockpit and stem

(Aerodynamic power)

Aerodynamic Cable Routing

Metron 5D ACR EVO Integrated SB-K0-i330S/Di2

- FEATURES**
- Metron 5D ACR EVO integrated handlebar is the stiffest and most aero integrated handlebar and stem system. The wing-like shape of the bar top aids aerodynamics
 - The 10° forward angle ensures a more natural position of the wrists and a wider position of the elbows, which facilitates breathing
 - 5mm offset drops providing wider, more stable sprinting platform and allowing faster transitions from hoods to drops

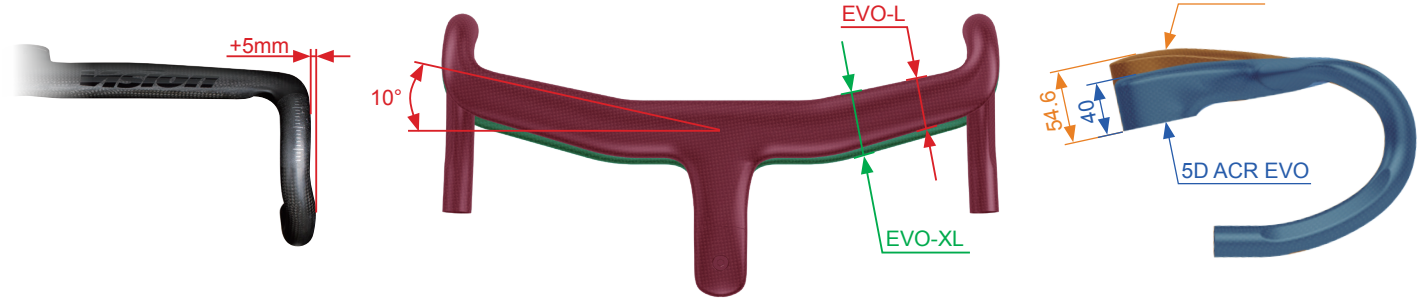
- SPECIFICATIONS**
- Compact 125mm drop, 80mm reach

- EVO-XL**
- 6° x L110 x W440mm (c-c)
 - 6° x L120 x W420, 440mm (c-c)
 - 6° x L130 x W420, 440mm (c-c)
 - 6° x L140 x W420mm (c-c)

- FINISH**
- 3K carbon finish

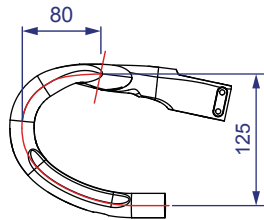


- EVO-L**
- 6° x L80 x W360, 380mm (c-c)
 - 6° x L90 x W380, 400mm (c-c)
 - 6° x L100 x W380, 400, 420mm (c-c)
 - 6° x L110 x W380, 400, 420mm (c-c)
 - 6° x L120 x W380, 400mm (c-c)
 - 6° x L130 x W380, 400mm (c-c)
 - 6° x L140 x W380, 400mm (c-c)



Garmin / Wahoo

WEIGHT(g)
320
(EVO-L, L110 x W420mm)



Metron 5D ACR Integrated SB-K0-i320S/Di2

- FEATURES**
- Metron 5D ACR integrated handlebar is the stiffest and most aero integrated handlebar and stem system. The wing-like shape of the bar top aids aerodynamics
 - The 10° forward angle ensures a more natural position of the wrists and a wider position of the elbows, which facilitates breathing
 - 5mm offset drops providing wider, more stable sprinting platform and allowing faster transitions from hoods to drops

- SPECIFICATIONS**
- 6° x L90 x W380mm (c-c)
 - 6° x L100 x W400, 420mm (c-c)
 - 6° x L110 x W400, 420, 440mm (c-c)
 - 6° x L120 x W400, 420mm (c-c)
 - 6° x L130 x W400, 420, 440mm (c-c)
 - 6° x L140 x W400, 420mm (c-c)
 - Compact 125mm drop, 80mm reach

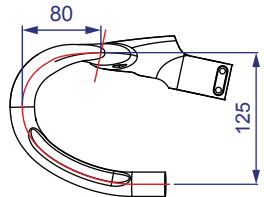
- FINISH**
- 3K carbon finish

- WEIGHT**
- 346 grams (L90 x W380mm)
 - 350 grams (L100 x W400mm)
 - 355 grams (L100 x W420mm)
 - 355 grams (L110 x W400mm)
 - 360 grams (L110 x W420mm)
 - 368 grams (L110 x W440mm)
 - 360 grams (L120 x W400mm)
 - 365 grams (L90 x W380mm)
 - 365 grams (L130 x W400mm)
 - 369 grams (L130 x W420mm)
 - 374 grams (L130 x W440mm)
 - 368 grams (L140 x W400mm)
 - 373 grams (L140 x W420mm)



Garmin / Wahoo

WEIGHT(g)
360
(L110 x W420mm)



ICR SYSTEM



ICR System, an Integrated Cable Routing system, is a combination of our core knowledge bases in both headset development and manufacturing, and our history in development and design for integration.

Uniquely designed, this system allows for up to 5 cables or hoses to run internally resulting in a clean, Integrated Cable Routing solution for frame and bicycle brands.

Designed for OEM (Original Equipment Manufacturer) Requires specific frame and ICR headset.

Fully Hidden - Integrated Handlebar

The cable runs internally from HB, through Stem and then into frame and is completely hidden.



Integrated Cable Routing

> KFX SIC Integrated SB-MK-i261

FEATURES

- Stable Integrated Cockpit (SIC)
- Integrated Cable Routing (ICR)
- Lightweight integrated carbon fiber handlebar and stem design with internal routing
- Fixed geometry to maximize stiffness and light weight

SPECIFICATIONS

- Width: 780mm
- Effective Stem Length: 65, 85, 105mm
- Effective Stem Angle: -12°
- 9° back Sweep
- 5° up Sweep
- Effective Handlebar Rise: 5mm
- Headtube Angle 69°

FINISH

- UD carbon finish
- Color graphics

WEIGHT

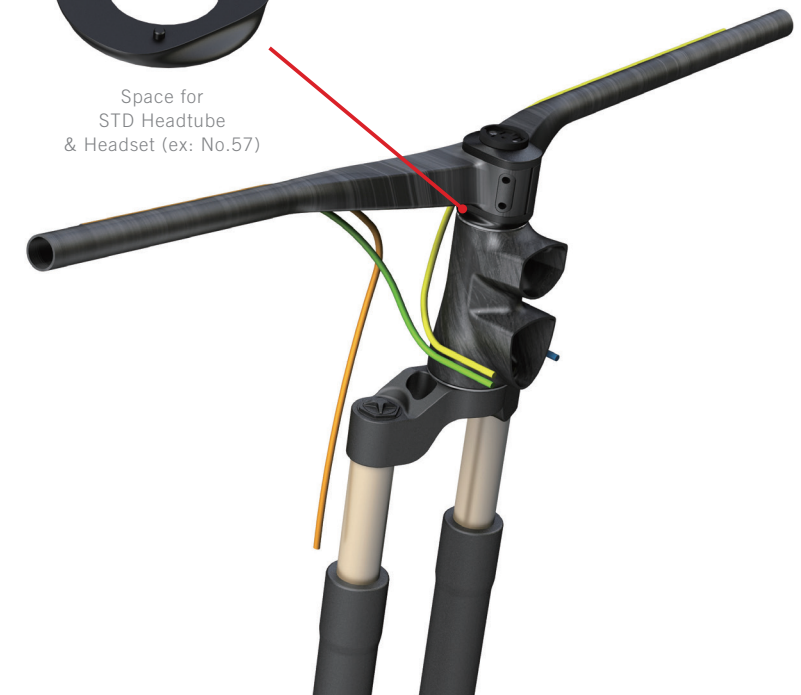
- 265 grams (L65mm)
- 305 grams (L85mm)
- 315 grams (L105mm)



> Optional - External Cable Routing

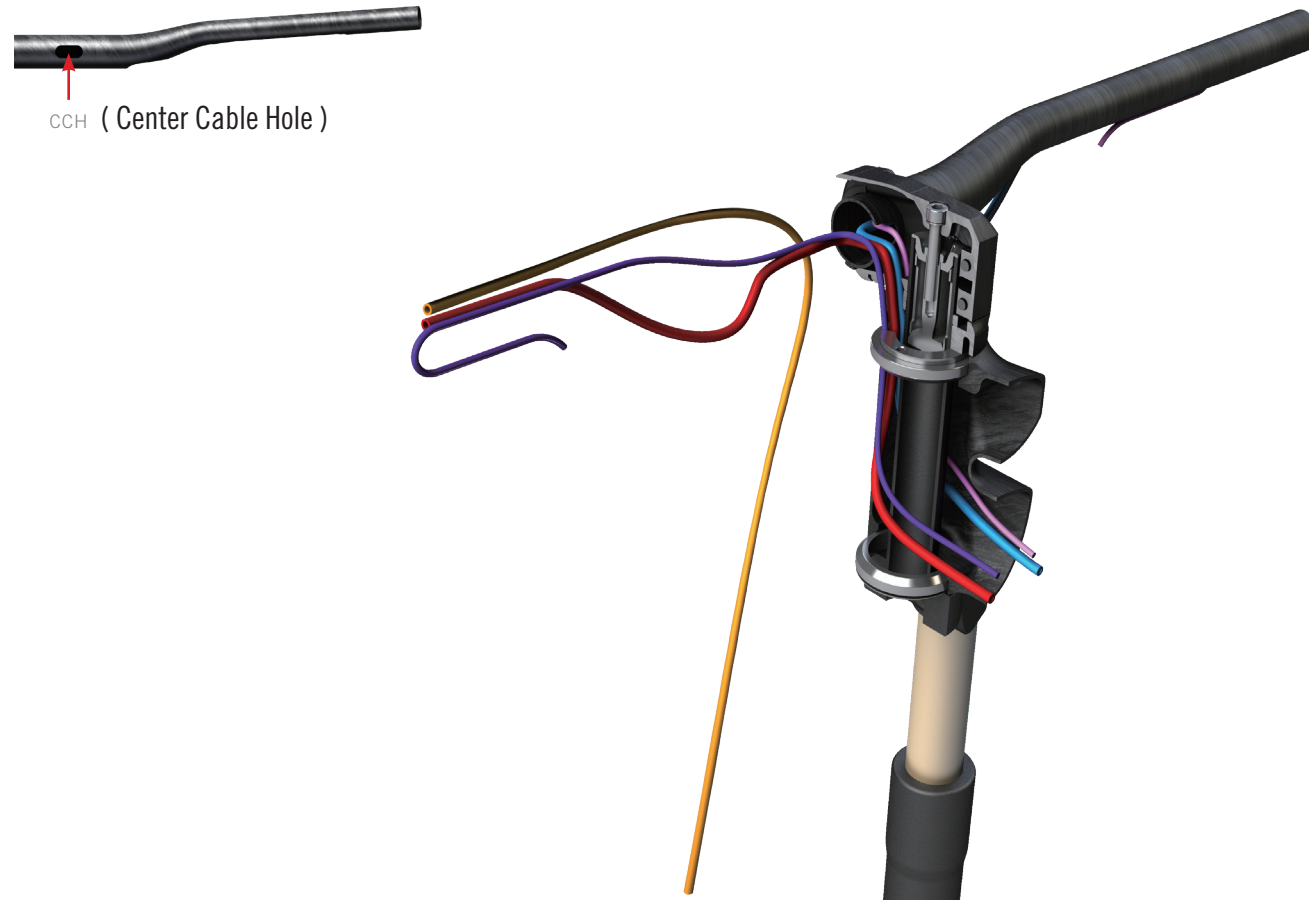


Space for
STD Headtube
& Headset (ex: No.57)



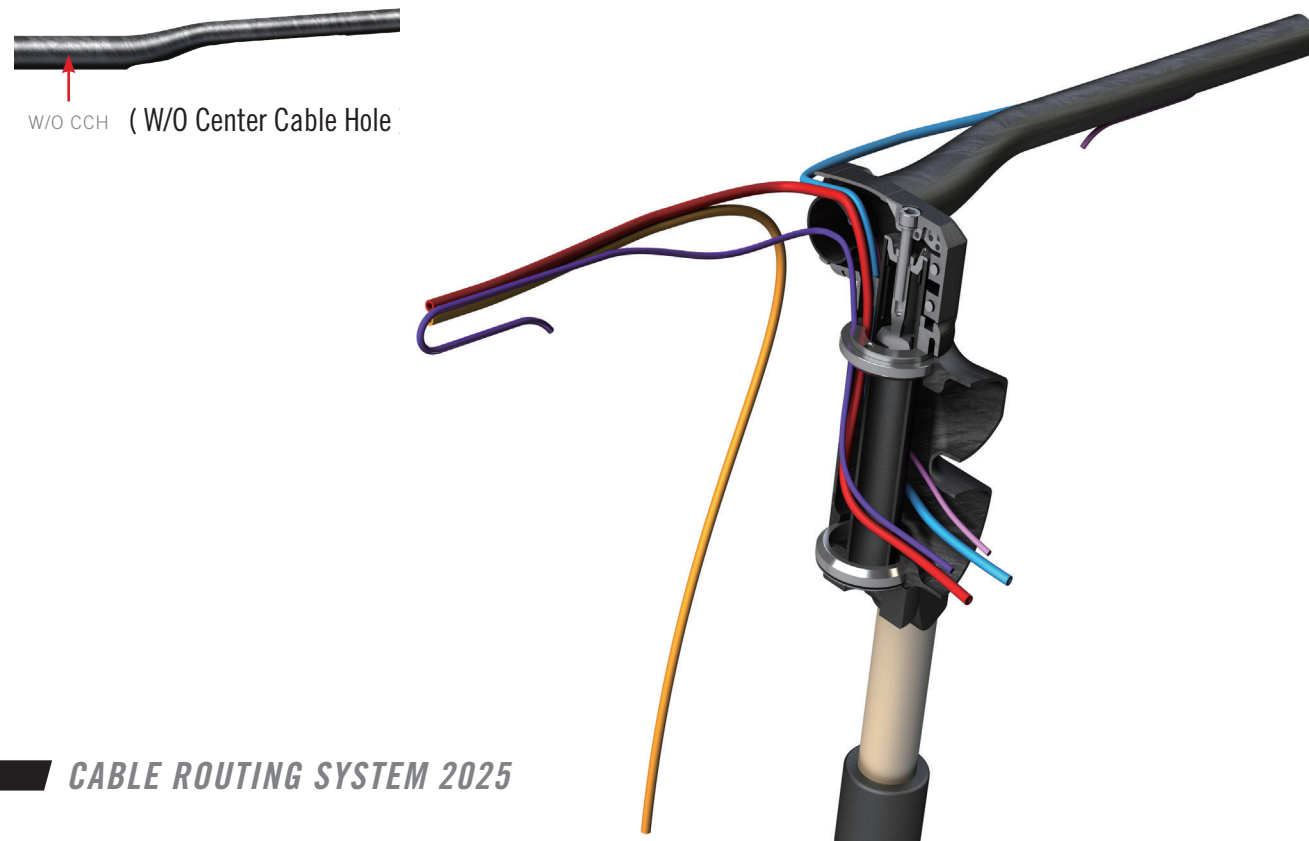
Fully Hidden - Stem + Handlebar

The cable runs internally from HB, through Stem and then into frame and is completely hidden.



Semi Hidden - Stem + Handlebar

The cable runs internally through HB but exits the HB to enter the Stem. The cable then runs through the Stem into the frame. The cable is visible where it exits HB and enters Stem.



> NS ICR

ST-0S-180

FEATURES

- Integrated Cable Routing (ICR)
- Uniquely designed, this system allows for up to 5 cables or hoses to run internally resulting in a clean.
- NS ICR stem is a combination of our core knowledge bases in both headset development and manufacturing, and our history in development and design for integration.
- 2D Forged and CNC machined AL6061
- Chromoly hardware

SPECIFICATIONS

- -10°x L50, 70mm
- Ø31.8mm handlebar clamp diameter
- Ø28.6mm fork clamp diameter
- 45mm fork clamp stack height

FINISH

- Bead blasted black with polished anodized black

WEIGHT

- 210 grams (L50mm)
- 230 grams (L70mm)



> MW675 ICR adapter for Fully Hidden



SMR-II SYSTEM

The FSA SMR-II System – Smart Cable Routing-II – is designed around a versatile stem and headset combination that allows for a variety of both integrated and semi-integrated cable routing. Utilizing FSA's core knowledge base of both headset and cockpit components, the SMR-II system provides a “plug-in” solution for bike brands looking to internally route cables, wires and hoses from the cockpit into the frame. Compatible with electronic and mechanical shifting plus hydraulic and mechanical braking the SMR-II system truly is the most versatile and adaptable cable routing solution available on the market.

Fully Hidden



Semi Hidden



BENEFITS

The SMR-II System not only provides a clean modern aesthetic but, by hiding cable, wires and hoses, also creates an aerodynamic advantage. Additionally, with both the integrated or semi-integrated pathways the frame wear and tear is minimized due to removing external cable contact.

THE CORE

The SMR-II stem is adaptable for both full internal wiring from handlebar through the stem and headset into the frame or in a semi-integrated path with cables, wires and hoses routing underneath the stem and held by the SMR-II cover. While providing a sleek and aerodynamic shield, the length adjustable cover also allows for routing without stem removal provides a base for a variety of handlebar choices.

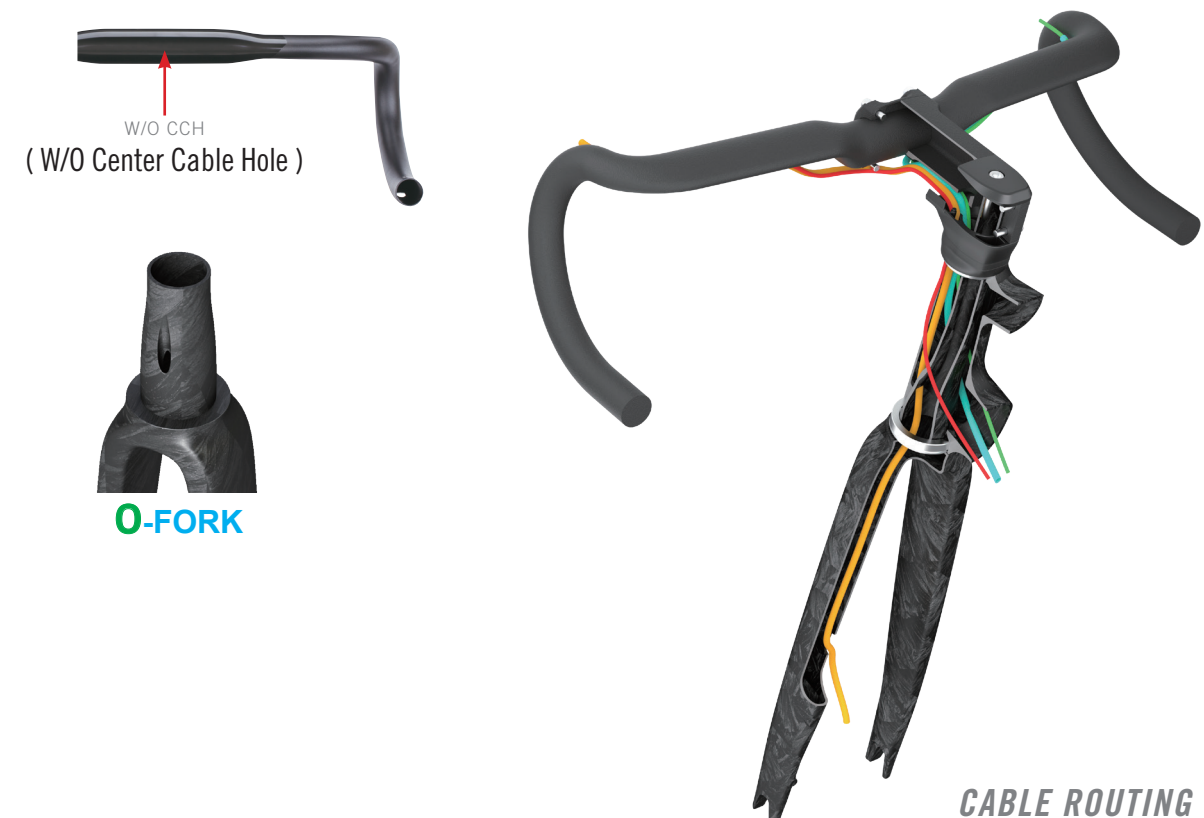
O-FORK Fully Hidden - Stem + Handlebar





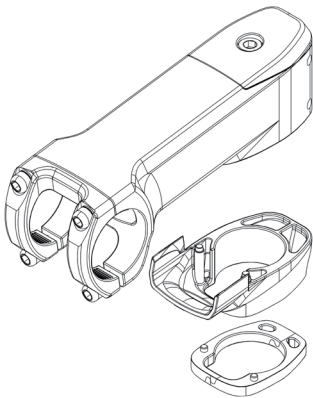
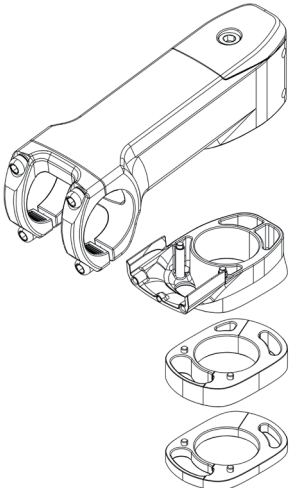
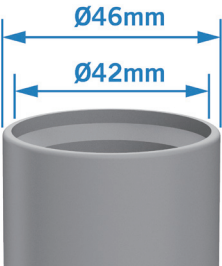
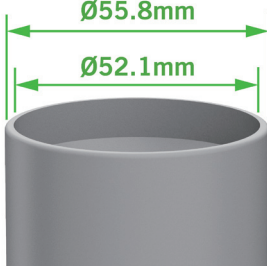
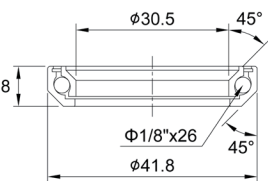
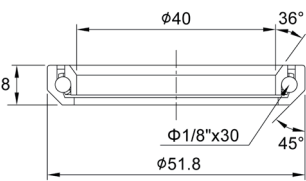
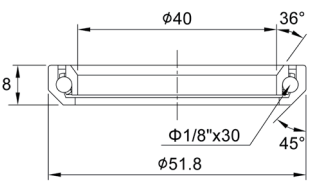



The cable runs internally from HB, through Stem and then into frame and is completely hidden.



O-FORK Semi Hidden - Stem + Handlebar

The cable runs internally through HB but exits the HB to enter the Stem. The cable then runs through the Stem into the frame. The cable is visible where it exits HB and enters Stem.



	D-FORK		O-FORK	
Fork	1-1/8"		1-1/8"	
				
Stem	FSA : ST-OS-177/SMR-II-10° Vision : ST-RO-178/SMR-II-10° 		FSA : ST-OS-174/SMR-II-10° Vision : ST-RO-175/SMR-II-10° 	
				
Upper Headtube OD				
Headset ACB	Upper	Lower	Upper / Lower	
				
Headset	NO.42/ACB/SMR-II 		NO.80/56/CR II Middle 	NO.55R 1.5"/CR/LS 

NS SMR-II

ST-OS-177/SMR-II-10° (D-FORK)
ST-OS-174/SMR-II-10° (O-FORK)

FEATURES

- 3D forged and CNC machined from AL6061
- AL6061 cold forged front clamp

SPECIFICATIONS

- Fork size Ø28.6 : -10° x L60, 70, 80, 90, 100, 110, 120, 130mm
- Ø31.8mm handlebar clamp diameter
- 34mm fork clamp stack height

FINISH

- Bead blasted anodized black
- Color graphics

WEIGHT

- 190 grams



MW742 SMR-II adapter for Fully Hidden

NS SMR-II

ST-RO-178/SMR-II-10° (D-FORK)
ST-RO-175/SMR-II-10° (O-FORK)

FEATURES

- 3D forged and CNC machined from AL6061
- AL6061 cold forged front clamp

SPECIFICATIONS

- Fork size Ø28.6 : -10° x L60, 70, 80, 90, 100, 110, 120, 130mm
- Ø31.8mm handlebar clamp diameter
- 34mm fork clamp stack height

FINISH

- Bead blasted anodized black
- Color graphics

WEIGHT

- 190 grams



MW742 SMR-II adapter for Fully Hidden

	1-1/8"	
	With Cable Cover	Without Cable Cover
FSA	ST-OS-177/SMR-II-10° (D-FORK) ST-OS-174/SMR-II-10° (O-FORK)	
		
Vision	ST-RO-178/SMR-II-10° (D-FORK) ST-RO-175/SMR-II-10° (O-FORK)	
		

SMR SYSTEM

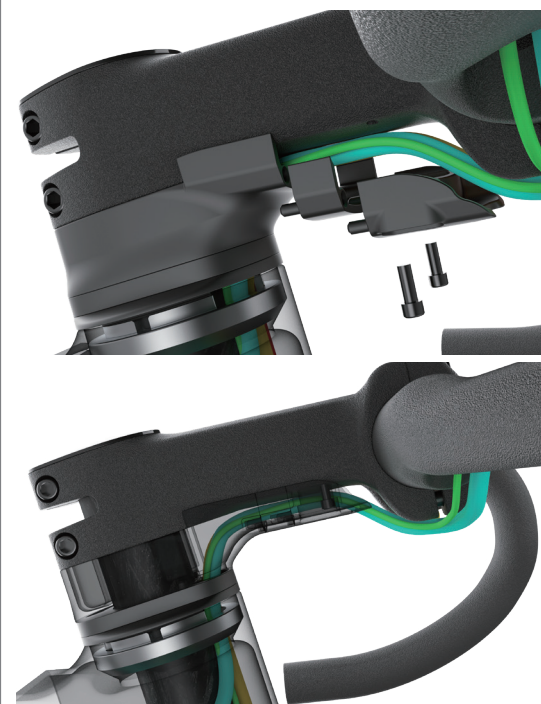


The FSA SMR System – Smart Cable Routing – is designed around a versatile stem and headset combination that allows for a variety of both integrated and semi-integrated cable routing. Utilizing FSA's core knowledge base of both headset and cockpit components, the SMR system provides a “plug-in” solution for bike brands looking to internally route cables, wires and hoses from the cockpit into the frame. Compatible with electronic and mechanical shifting plus hydraulic and mechanical braking the SMR system truly is the most versatile and adaptable cable routing solution available on the market.

Fully Hidden



Semi Hidden



BENEFITS

The SMR System not only provides a clean modern aesthetic but, by hiding cable, wires and hoses, also creates an aerodynamic advantage. Additionally, with both the integrated or semi-integrated pathways the frame wear and tear is minimized due to removing external cable contact.

THE CORE

The SMR stem is adaptable for both full internal wiring from handlebar through the stem and headset into the frame or in a semi-integrated path with cables, wires and hoses routing underneath the stem and held by the SMR cover. While providing a sleek and aerodynamic shield, the length adjustable cover also allows for routing without stem removal provides a base for a variety of handlebar choices.

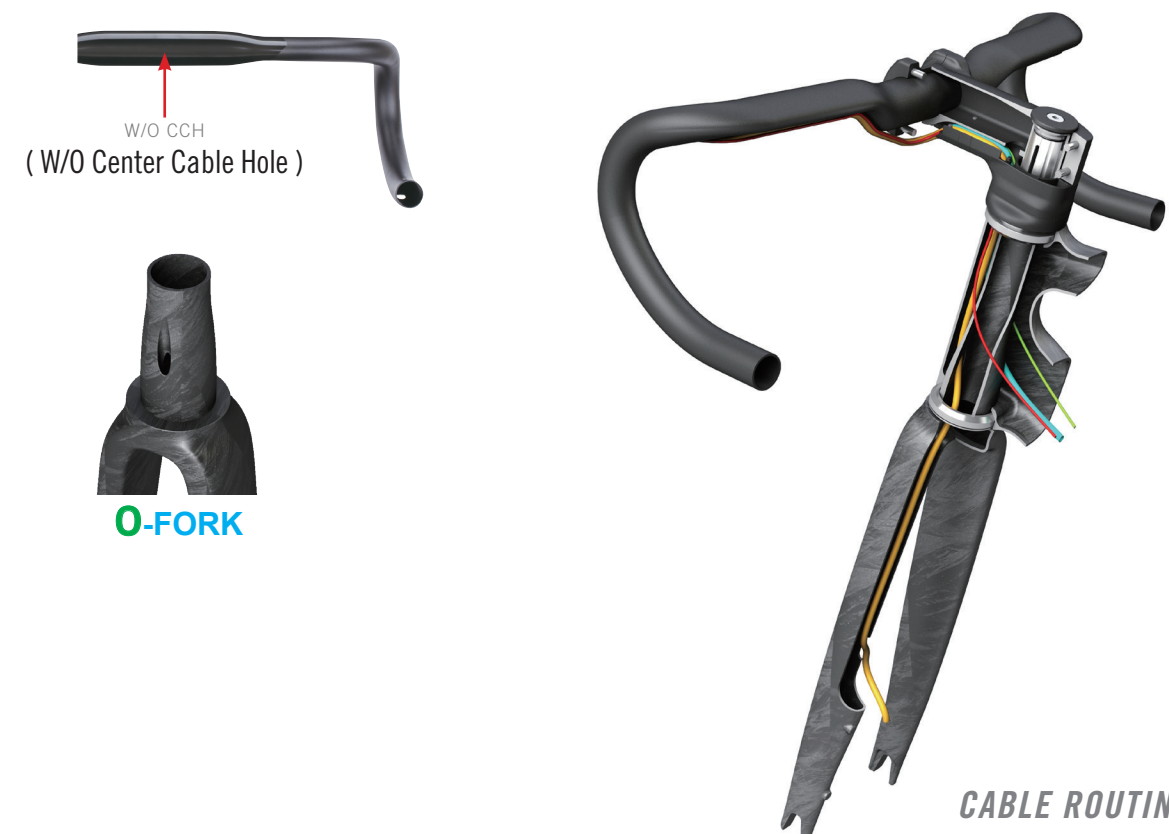
O-FORK Fully Hidden - Stem + Handlebar


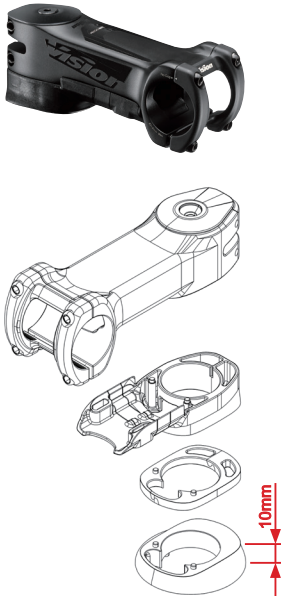
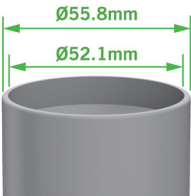

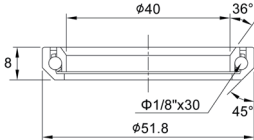
The cable runs internally from HB, through Stem and then into frame and is completely hidden.



O-FORK Semi Hidden - Stem + Handlebar

The cable runs internally through HB but exits the HB to enter the Stem. The cable then runs through the Stem into the frame. The cable is visible where it exits HB and enters Stem.



O-FORK	1-1/8"	Fork	Stem	Upper Headtube OD	Headset
					
				Headset ACB	
				Upper / Lower	
					

> NS SMR

ST-OS-185/SMR-6°

- FEATURES**
- The SMR System not only provides a clean modern aesthetic but, by hiding cable, wires and hoses, also creates an aerodynamic advantage
 - With both the integrated or semi-integrated pathways the frame wear and tear is minimized due to removing external cable contact
 - Smart Cable Routing (SMR)
 - 3D forged and CNC machined AL6061
 - Alloy faceplate
 - Chromoly hardware
- SPECIFICATIONS**
- Fork size Ø28.6: -6° x L70, 80, 90, 100, 110, 120mm
 - Ø31.8mm handlebar clamp diameter
 - 33.5mm fork clamp stack height
- FINISH**
- Bead blasted anodized black
 - Color graphics
- WEIGHT**
- 268 grams (L100mm)

SMR



> MW742 SMR adapter for Fully Hidden

-6°



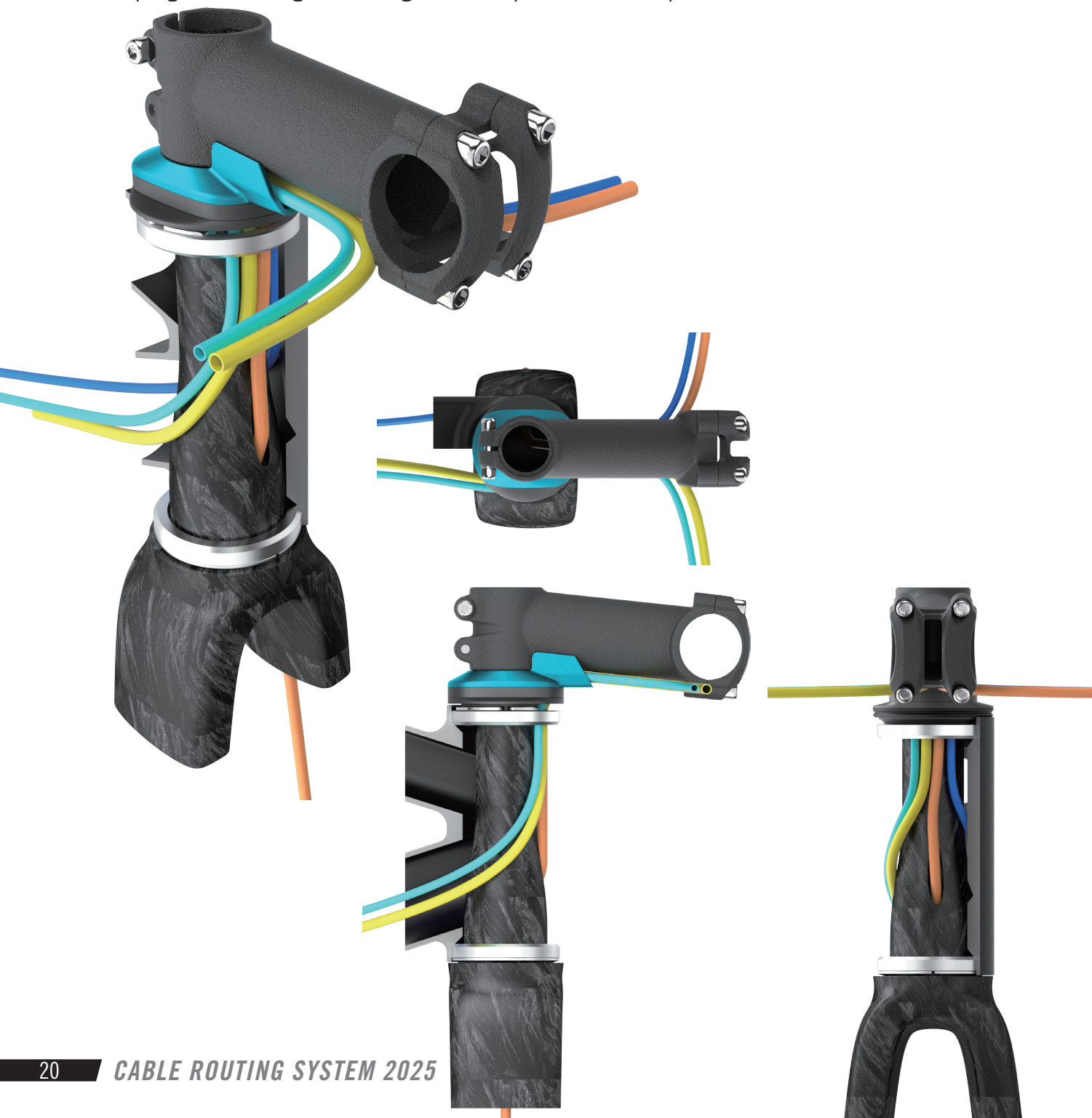
SMR kit SYSTEM



- The SMR kit provides a clean economical solution to simply route cable, wires and hoses with a traditional stem.
- With semi-integrated cable pathways, stem changes or adjustments are easily done without re-cabling.
- Versatile, adaptable and easy-to-use Smart Cable Routing (SMR).
- Injected composite cone spacer/cable guide.

Semi Hidden

Cable and housing route externally on each side of the stem before being guided through a flexible cable plugs and through the integrated compression cone spacer and into the frame.



> **OS-99 CSI**
ST-OS-98/CSI



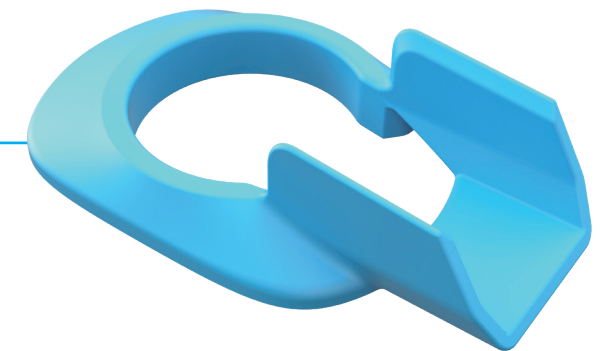
> **Energy SCR**
ST-OS-93/PSH



> **Gossamer**
ST-OS-149



> **Omega Pro**
ST-OS-167



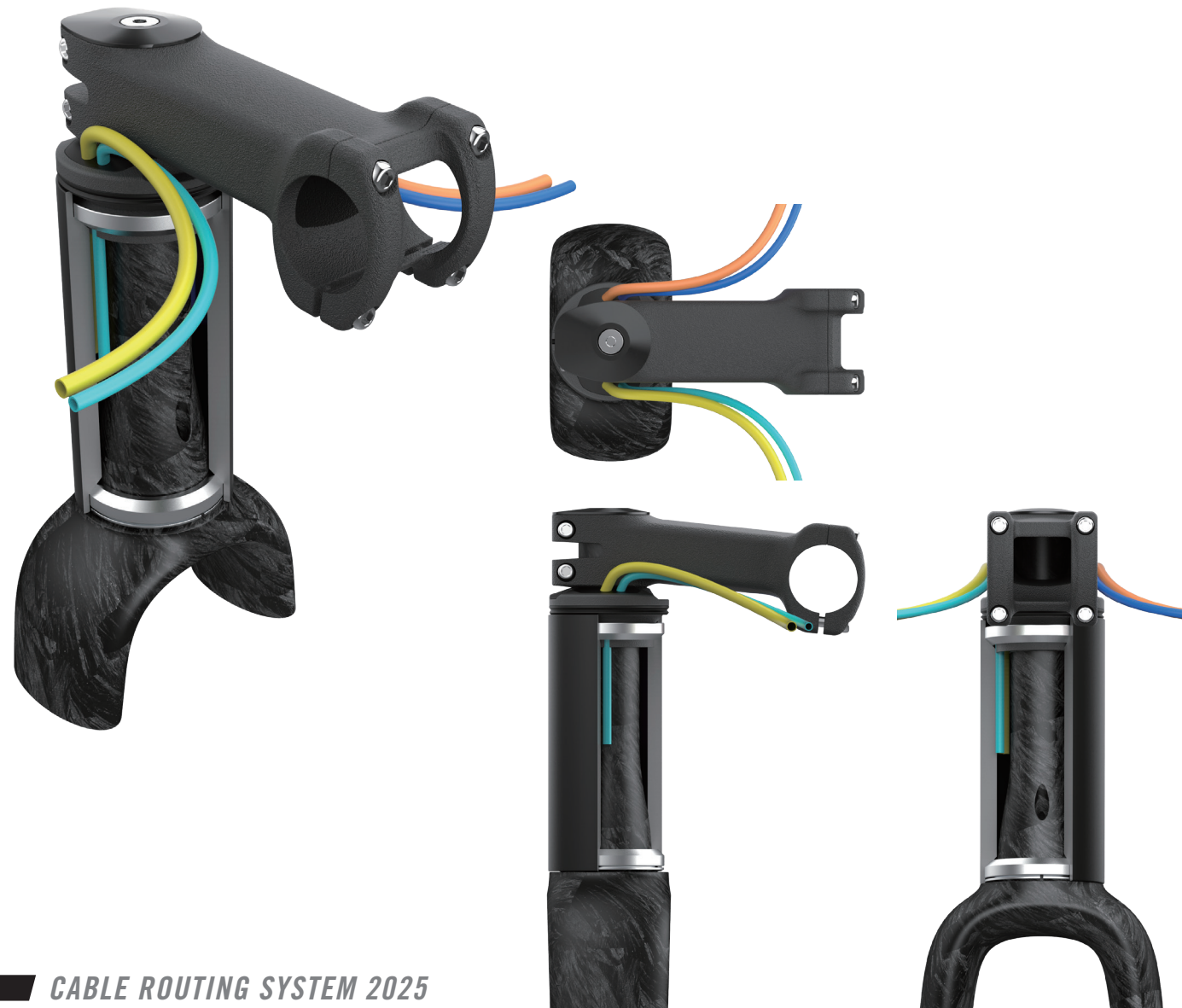
SRS SYSTEM - CR II Dual

The evolution of our SRS System, the CR II Dual, takes internal cable routing to the next level. Utilizing an integrated compression cone spacer and designed around two side entrance points, the system installation and adjustment is simpler and the increased surface area makes for a secure and safe contact point between the compression cone spacer and steering tube. Combined with flexible and adaptable cable plugs the system is also suitable for e-bike. Incorporating a flexible rubber seal, the system allows for more headtube depth tolerance while the seal covers the gap between compression cone spacer and the headtube, eliminating the need for a microspacer. The result is a clean, integrated and internal cable routing solution for frame and bicycle brands.

Designed for OEM (Original Equipment Manufacturer) Requires specific frame and headset.

Semi Hidden

Cable and housing route externally on each side of the stem before being guided through a flexible cable plugs and through the integrated compression cone spacer and into the frame.



Cable Routing II

> Integrated Compression Cone Spacer CR II Dual **NEW**

N0.80/56/CR II Dual
N0.80/62/cup/CR II Dual

FEATURES

- Integrated design, no need of extra male / female pins for correct positioning. Ease of installation.
- More contact area between compression cone spacer and steering tube creates a safer system. Suitable for E-bike.

Flexible rubber seal

- Allows for more headtube depth tolerance. The seal can cover the gap between compression cone spacer and headtube.
- Eliminates the need for microspacer especially with internal cable routing.
- Recommended gap between compression cone spacer and headtube allows for micro movement.

Flexible rubber seal



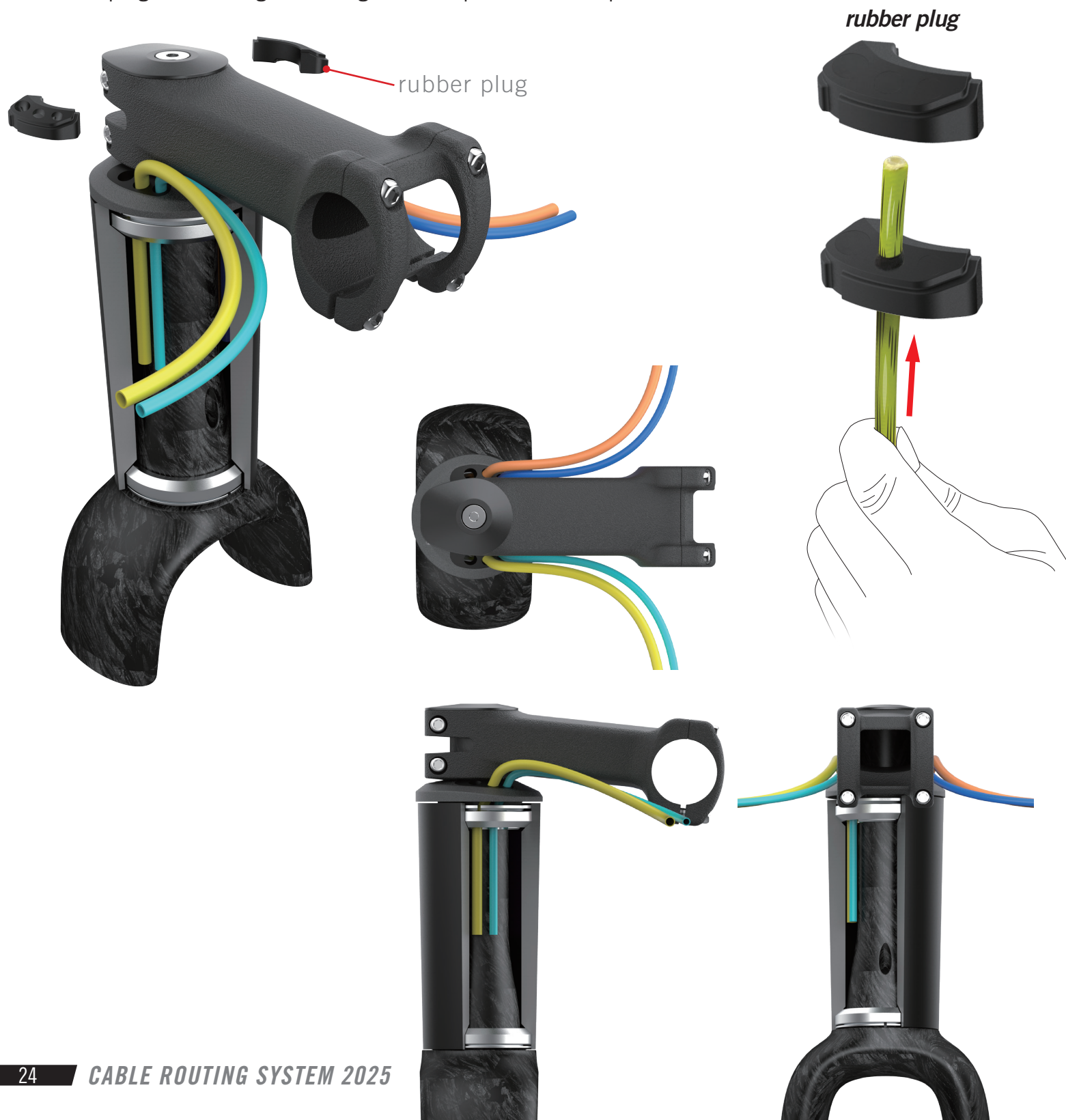
SRS SYSTEM - Dual



FSA offers economic cable routing solutions for any frame with 1.5 inch (upper and lower) headtube. Using two conveniently positioned cable ports, the Dual SR (Simple Routing) headset system allows all 1.5 inch headtubes to share the advantages of internal cable routing.

Semi Hidden

Cable and housing route externally on each side of the stem before being guided through a flexible cable plugs and through the integrated compression cone spacer and into the frame.



> NO.69/62/SRS/Dual/Cup



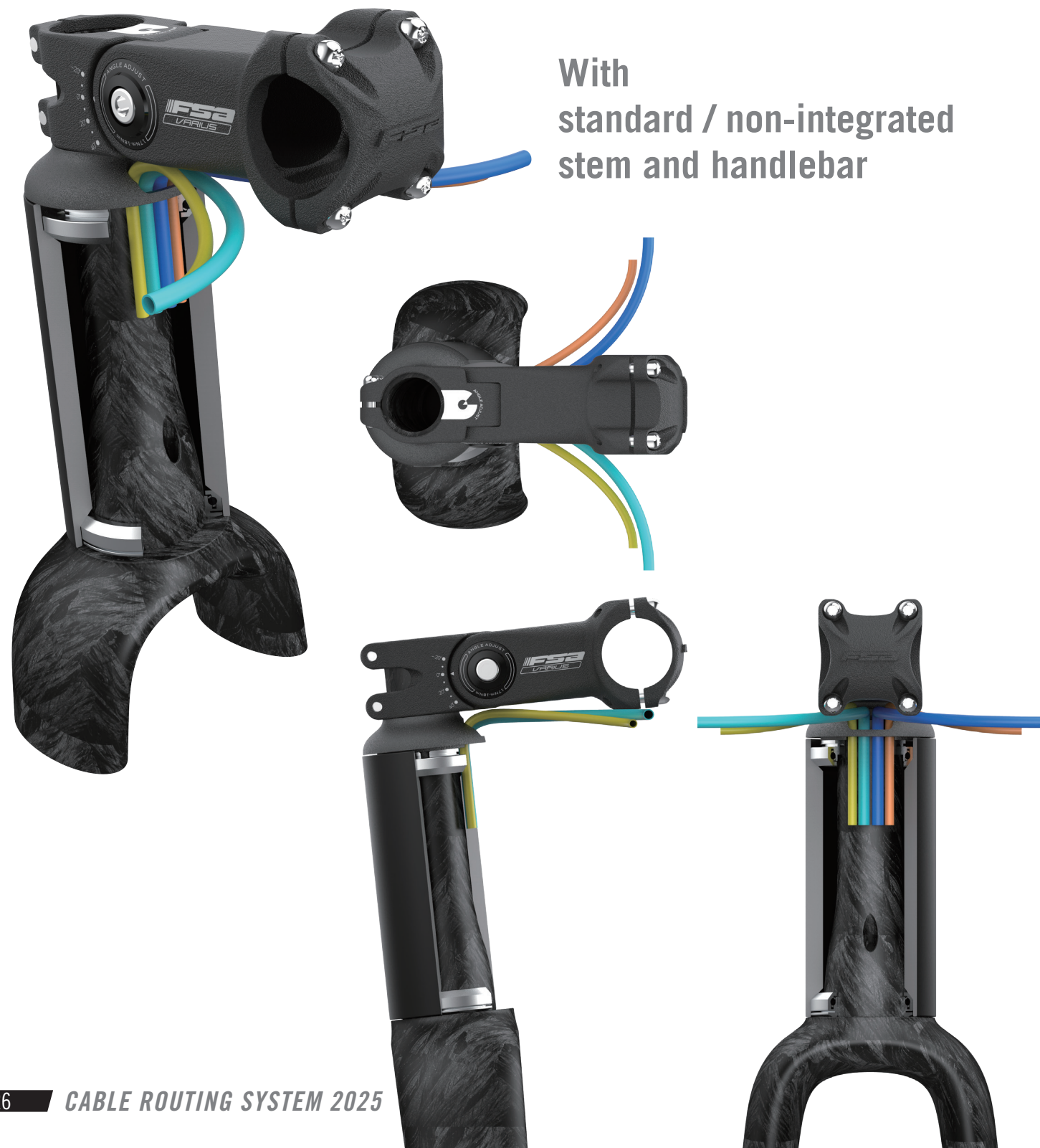
SRS SYSTEM - Middle



FSA offers economic cable routing solutions for any frame with 1.5 inch (upper and lower) headtube. Besides ACR and SMR, SR (Simple Routing) headset system allows all 1.5 inch headtubes to share the advantages of internal cable routing.

Semi Hidden

Cable and housing route externally on each side of the stem before being guided through a flexible cable plugs and through the integrated compression cone spacer and into the frame.



Simple Routing - Middle

> NO.69/62/SRS/Middle/Cup



CR Project

Designed to create a seamless cycling experience, FSA has collaborated with stem manufacturers to bring our precision engineered internal routing headset solutions to bike brands looking to link unique stem designs with internal cable routing. The CR Project uses collaborative design language and stem-specific adaptors to allow brands to select from several FSA headsets and pair with offerings from well-respected stem manufacturers. The resulting system creates a clean, integrated and internal cable routing solution for frame and bicycle brands.

Designed for OEM (Original Equipment Manufacturer) Requires specific frame and headset.

Semi Hidden

> HS-HL-01



> HS-HL-01

Compatible w/ Satori

The headset is designed to work perfectly with Satori stems (models: Python, Catamaran, EZ-X) and Zoom stem model D651.



Satori - PYTHON



Satori - CATAMARAN



Satori - EZ-X



Zoom - D651

> NO.69/56/SRS/Center/HL-Delta

The headset is designed to work perfectly with Satori stems (models: Viper 0, Viper 0 35, Fastback 20, Fastback 35)



Compatible w/ Satori



Satori - Viper 0



Satori - Viper 0 35

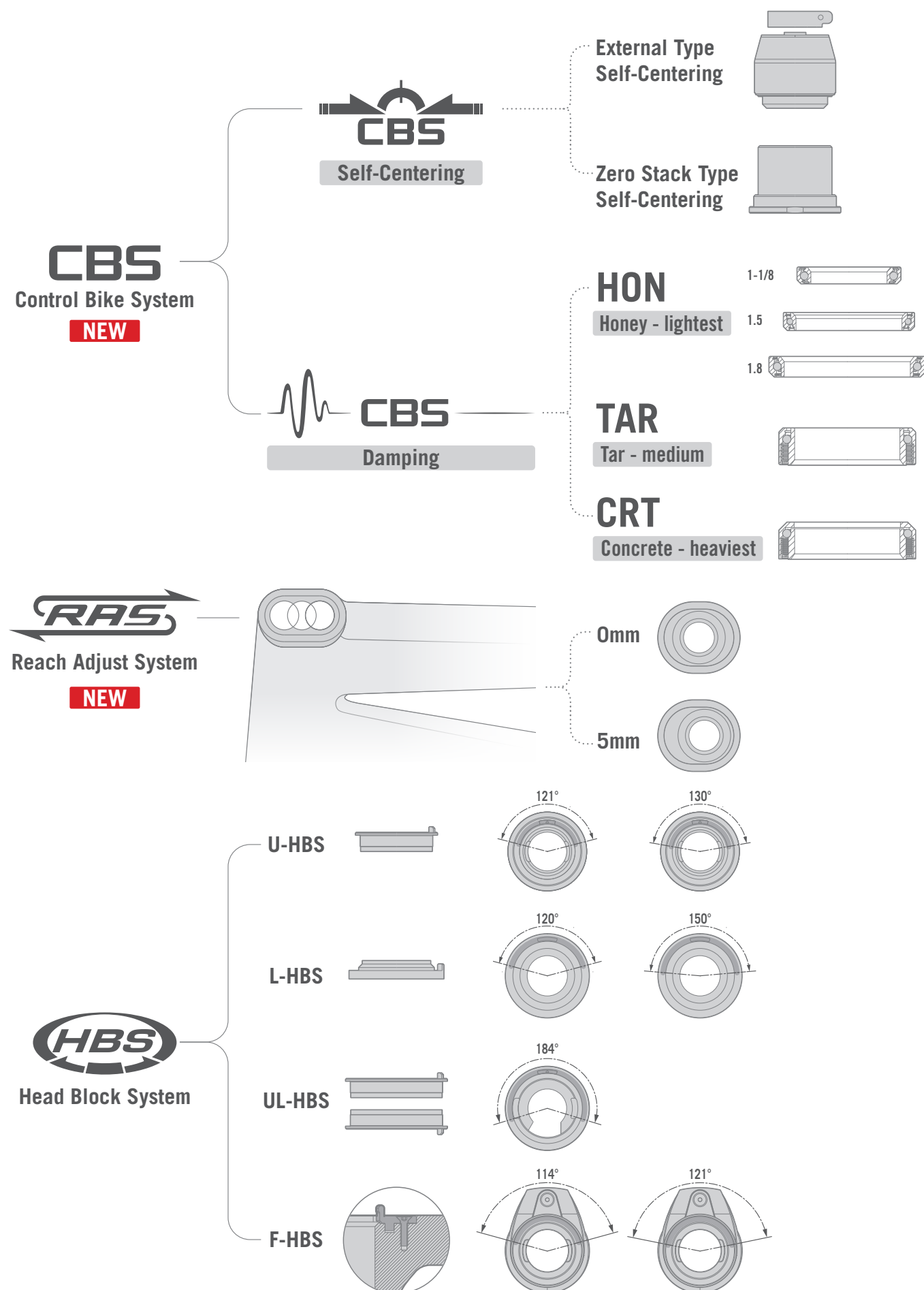


Satori - Fastback 20

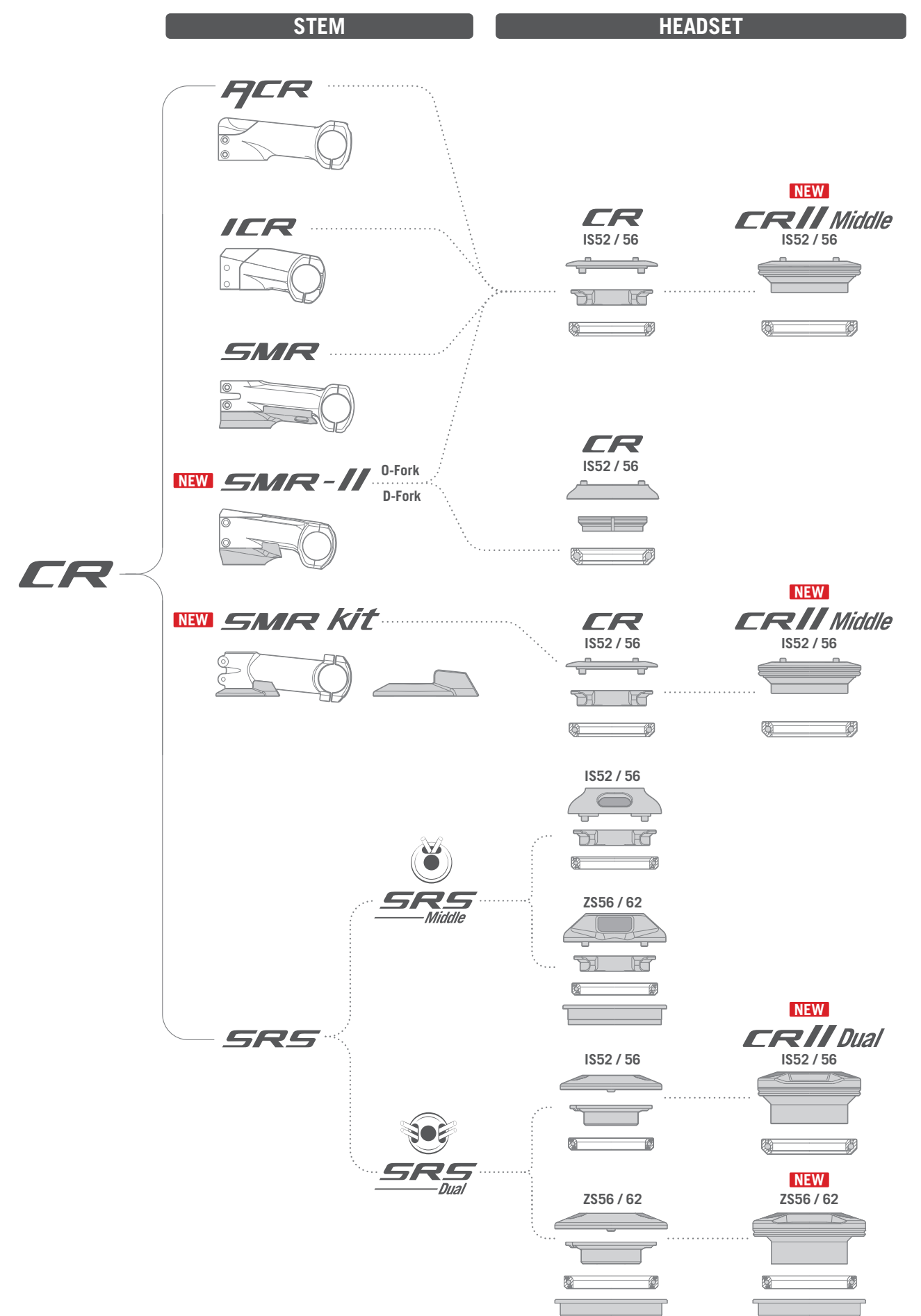


Satori - Fastback 35

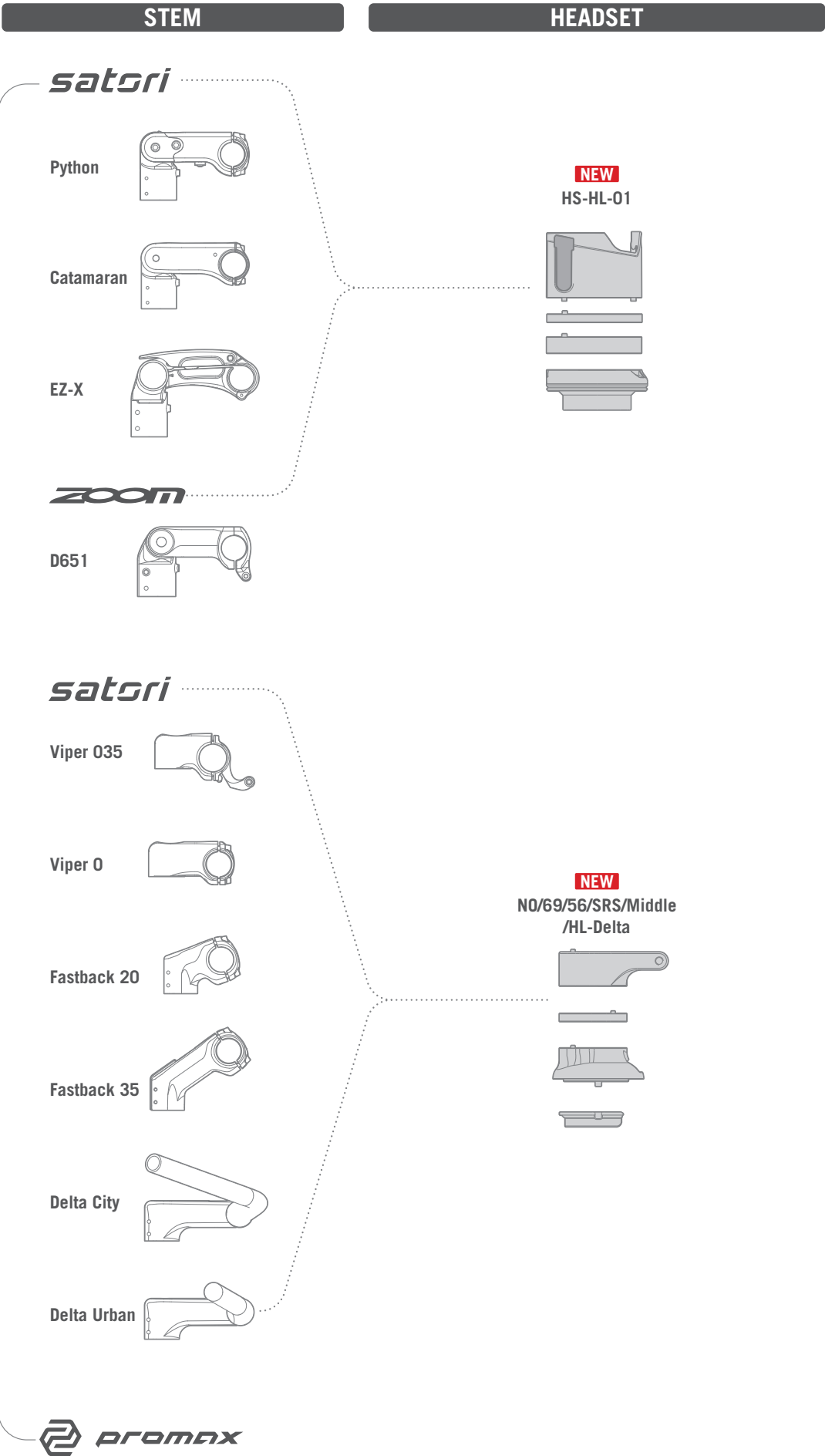
Utility Function Headset



Internal Cable Routing (for Road, Gravel and MTB)



Internal Cable Routing (for Trekking)



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