

# SUSPENSION FORK GLOSSARY

V.3.0\_07-2022



# **GLOSSARY SUSPENSION FORK**

# **OVERVIEW**



T

# EQ EQUALIZER SYSTEM

# FOR PRECISE & EFFORTLESS AIR SPRING TUNING





# 01 Positive air chamber

- **02** Transfer port **03** Negative air
- Chamber
- 04 Positive air pressure
- 05 Negative air pressure





#### SET YOUR SAG AND THE EQUALIZER (EQ) AIR NEGATIVE SPRING SYSTEM WILL BALANCE IT FOR YOU.

Our tradition of product evolution brings our forks into a brand new era with our allnew air EQ system. The EQ system perfectly equalizes the rider's weight to the spring curve which results in the exact positioning and support you need. This results in a customized feel for each individual rider optimizing sag and volume control. Pairing the EQ system with the external damping adjustments of our PCS cartridges results is a supple coil spring feel in a lightweight, progressive and easy to adjust air spring package. You can set your sag according to your intended riding style and the EQ system will automatically balance it with the right amount of negative spring force helping you to create a precise and effortless tune. The EQ system will improve fork sensitivity of small repetitive bumps while providing plenty of mid-stroke support for those bigger hits resulting in enhanced comfort and performance when riding any kind of terrain.

#### **FUNCTIONAL FEATURES**

- Greater, automatic spring adjustability based on the riding style and weight of the rider
- Improved fork sensitivity for those small but fast repetitive bumps
- Super consistent damping performance in tandem with the PCS system

I.

# **PCS – PISTON COMPENSATOR SYSTEM**

# MORE TRACTION, CONTROL AND CONSISTENCY





- 01 Low speed compression
- 02 High speed compression

#### **03** Air

- 04 PCS avoids vacuum effect
- 05 Oil (Red and blue marked area)
- 06 Piston management of high / low speed compression



#### PERFORMANCE

Performance thru Controlled Speeed. We believe we have developed a refined damper platform that can perform at any riding level, functions simply and follows our QSP philosophy.

#### CONTROL

PCS is 17 years of constant refinement within our cartridge science program. PCS is a simple and repeatable way, to reduce cavitation (air and oil mixing, creating pressure, building bubbles) inside the cartridge. This separation significantly reduces cavitation, which provides consistent and predictable damping performance at a WC DH level as well as throughout an entire season of ambitious riding.



#### LONGEVITY

Performance to us needs to be proven in the long run. Single cartridges with more than 200,000 cycles on our testing machines and countless hours with our WERX team have proven that our PCS is built to ride more hours and spend less time in a stand. But when the time comes for some fork care, service must be possible, quick and easy. All parts can be disassembled and the system can be bled and re-assembled again without the use of special tools. Quick Service Product (QSP) is our approach to apply simplicity to our designs.



# **PCS CARTRIDGES**

## R2C2-PCS

# RC2-PCS



#### HIGH AND LOW SPEED COMPRESSION ADJUST REBOUND ADJUST

PCS SYSTEM (PISTON COMPENSATOR SYSTEM)

Race proven WERX cartridge with new PCS (Piston Compensator system) floating piston provides consistent damping in all conditions, eliminating cavitation

- New high speed compression piston provides a larger adjustable range
- Updated internal seals greatly improved durability for Trail, Enduro and DH riding
- Forged alloy adjust knobs with integrated design
- Light "Click" index feeling for easy and sure operation





## **RC-PCS**

## R-3CR-PCS / R-2CR-PCS

### 3CR-PCS / 2CR-PCS





#### 3 OR 2 POSITIONS OF COMPRESSION ADJUST LOW SPEED REBOUND ADJUST PCS SYSTEM (PISTON COMPENSATOR SYSTEM)

- 2CR with low speed compression at firm setting and open setting. Low speed rebound damping.
- 3CR with low speed compression at firm setting, medium setting and open setting. Low speed rebound damping.
- Forged alloy adjust knobs with integrated design
- Light "Click" index feeling for easy and sure operation





Т

# RLRC-PCS

LOW SPEED COMPRESSION

**REBOUND ADJUST** 

**REMOTE SPEED LOCK** 

**PCS SYSTEM (PISTON** 

**COMPENSATOR SYSTEM**)

• 3-in-1 Lock out + low speed

efficiency & its adjustability

• Forged alloy adjust knobs

easy and sure operation

• New ergonomic design remote lock lever for faster and easier operation

with integrated design

compression & rebound

adjust in one cartridge

ADJUST

# LORC-PCS







## DAMPING ADJUSTMENT



R2C2-PCS

High & low speed compression and High & low speed rebound damping adjusts with blow-off feature along with PCS system.



RC2-PCS

High & low speed compression and low speed rebound damping adjusts with blow-off feature along with PCS system.



RC-PCS Low speed compression and low speed rebound damping adjusts with blow-off feature along with PCS system.



#### **R-3CR-PCS**

Remote Lockout with 3 positions of compression (firm setting, medium setting and open setting) with low speed rebound adjust along with PCS system.



**R-2CR-PCS** Remote Lockout with 2 positions of compression (firm setting and open setting) with low speed rebound adjust along with PCS system.



**3CR-PCS** 3 positions of compression (firm setting, medium setting and open setting) with low speed rebound adjust along with PCS system.



**2CR-PCS** 2 positions of compression (firm setting and open setting) with low speed rebound adjust along with PCS system.



RLRC-PCS Hydraulic Remote Lockout with low speed compression and low speed rebound damping adjusts with blow-off feature along with PCS system.



LORC-PCS

NAME

3CR

2CR

R-3CR

R-2CR

R2C2

RC2

RLRC

LORC

RLR

1

Hydraulic Lockout with low speed compression and low speed rebound damping adjusts with blow-off feature along with PCS system.

3 positions of compression & Low Speed Rebound

2 positions of compression & Low Speed Rebound

3 positions of compression & Low Speed Rebound w/remote lever

2 positions of compression & Low Speed Rebound w/remote lever

Low Speed Rebound & Low Speed Compression w/Remote Lock Out

High/Low Speed Rebound & High/Low Speed Compression

Low Speed Rebound & Low Speed Compression w/Lock Out

Low Speed Rebound & High/Low Speed Compression

Low Speed Rebound w/Remote Lock Out

FUNCTION



RC2

High & low speed compression and low speed rebound damping adjusts with blow-off feature.



Low speed compression and low speed rebound damping adjusts with blow-off feature.



2 positions of compression (firm setting and open setting) with low speed rebound adjust.

NAME	FUNCTION					
LOR	Low Speed Rebound w/Lock Out					
RC	Low Speed Rebound & Low Speed Compression					
RL	Remote Lock Out w/Fixed Rebound					
LO	Lock Out with Fixed Rebound & Blow-Off Feature					
LOR8	Low Speed Rebound with Lock Out 80%					
NLO	Hydraulic Lock Out w/Fixed Rebound					
HL0	Hydraulic Lock Out w/o Rebound					
R	Low Speed Rebound					
PCS	Piston Compensator System					



#### RLRC

Hydraulic Remote Lockout with adjustable rebound and compression damping with blow-off feature.



LORC Hydraulic Lockout with adjustable rebound and compression

damping with blow-off feature.



RLR Hydraulic Remote Lockout with adjustable rebound damping with blow-off feature.



LOR

Hydraulic Lockout with adjustable rebound damping with blow-off feature.



Hydraulic Remote Lockout with fixed rebound damping with blow-off feature.



LO Hydraulic Lockout with fixed rebound damping with blow-off feature.



NLO Hydraulic Lockout with fixed rebound damping.



Hydraulic Lockout without rebound damping.

APPLICATION TABLE	R2C2	RC2	3CR	2CR	RC	R-3CR	R-2CR	RLRC	LORC	RLR	LOR	RL	LO	HLO	NLO
RUX	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-
DUROLUX	•	•	-	-	•	-	-	-	-	-	-	-	-	-	-
AION	-	-	•	-	•	•	•	•	•	-	-	-	-	-	-
ZERON35	-	-	•	•	•	-	•	-	-	•	•	-	-	-	-
AXON	-	-	-	-	-	-	-	••	••	-	-	-	-	-	-
RAIDON	-	-	-	•	-	-	٠	-	-	•	•	-	-	-	-
XCR	-	-	-	•	-	-	٠	-	-	•	•	•	٠	-	-
X1	-	-	-	-	-	-	-	-	-	•	•	•	•	-	-
XCM	-	-	-	-	-	-	-	-	-	-	٠	•	٠	•	٠
XCT	-	-	-	-	-	-	-	-	-	-	-	-	-	٠	•
MOBIE35	-	-	•	•	-	-	-	-	-	-	-	-	-	-	-
MOBIE34	-	-	٠	••	-	-	٠	-	-	-	-	-	-	-	-
MOBIE34 CGO	-	-	-	-	-	-	-	-	-	-	-	-	٠	-	-
MOBIE25	-	-	-	-	-	-	-	-	-	٠	٠	-	-	-	-
MOBIEA32	-	-	-	-	-	-	-	-	-	-	-	•	٠	-	٠
GVX	-	-	-	-	-	-	-	-	-	٠	٠	-	-	-	-
NRX	-	-	-	-	-	-	-	-	-	٠	٠	•	٠	-	-
NCX32/NCX	-	-	-	-	-	-	-	-	-	-	-	•	٠	٠	-
NX1/TR-HSI	-	-	-	-	-	-	-	-	-	-	-	•	•	٠	-
NVX	-	-	-	-	-			-	-	-	-	•	-	-	٠
NEX	-	-	-	-	-			-	-	-	-	•	-	٠	•
CR85	-	-	-	-	-			-	-	-	-	-	٠	-	-



# SPRING SYSTEM



**AIR EQ** Dual air spring system



**AIR** Standard air spring



**COIL ADJUSTABLE** Coil spring with adjustable preload



**COIL** Coil spring

APPLICATION TABLE	AIR EQ	AIR	COIL ADJUSTABLE	COIL
RUX	٠	٠	-	-
DUROLUX	٠	-	-	-
AION	٠	-	-	-
ZERON35	•	-	٠	-
AXON	٠	٠	-	-
RAIDON	٠	٠	-	-
XCR	-	•	•	-
X1	-	-	•	-
XCM	-	٠	•	-
XCT	-	٠	•	-
XCE	-	-	•	-
M3010	-	-	•	•
M0BIE34/25	•	٠	•	-
MOBIE35	•	-	-	-
MOBIEA32	-	-	٠	-
GVX	-	٠	-	-
NRX	-	٠	•	-
NCX32/NCX	-	٠	•	-
NX1/TR-HSI	-	-	•	-
NVX	-	-	•	-
NEX	-	-	•	-
CR85	-	-	•	-

# ADJUSTABLE AIR CHAMBER VOLUME



<b>55-65 Kg</b> 55 PSI	<b>65-75 Kg</b> 65 PSI	<b>75-85 Kg</b> 75 PSI
No Spacer	•	
	55 PSI	55 PSI 65 PSI

#### EXAMPLE SPRING CHARACTERISITIC: DUROLUX EQ 29, 160mm travel



TRAVEL (mm)

L

# STANCHION



HARD ANODIZED BLACK A7 / A6000 series aluminum







**CR-PLATING** STKM



HARD ANODIZED GOLD A7 / A6000 series



NI-PLATING STKM



# **BOTTOM CASE COLORS**



MATT BLACK Color code YS727

**GLOSS BLACK** Color code YS728





**GLOSS WHITE** Color code YS701

# DECALS



COMPANY COLOR Black



COMPANY COLOR White



**TEAM GRAY** Gray



**STEALTH** with glossy decal



**STEALTH** with matt decal

# **Q-LOC AND THRU AXLE SYSTEMS**



Q-LOC is a patented quick release system for thru axles fully deserving of the name "quick". Q-LOC 2 is the logical evolutionary step, guaranteeing 100% compatibility with all kinds of hub axle designs. A simple push and a little twist of the nut enables a quick removal of the axle. Exchanging the axle is as fast as extracting the axle thanks to the patented expander design which smoothly passes the thru axle and latches safely with a reassuring click sound. Safety and speed is crucial when it comes to pressurised wheel changes during a race. Q-LOC2 offers both in a super lightweight axle (Q-LOC2-Ti 70g).



**20QLC2** Ø20mm, O.L.D.: 110mm Weight: 140g



**20LH-110** Ø20mm, O.L.D.: 110mm Weight: 96g



**150LC2TI / 150LC2TI-110** Ø15mm, O.L.D.: 100mm / 110mm Weight: 68g / 71g



**150LC2 / 150LC2-110** Ø15mm, O.L.D.: 100mm Weight: 112g



**15QLC32 / 15QLC32-110** Ø15mm, O.L.D.: 100mm/110mm Weight: 118g/122g



**150LC32S** Ø15mm, O.L.D.: 100mm Weight: 108g



**15AH2 / 15AH2-110 (TOOL TYPE)** Ø15mm, O.L.D.: 100mm / 110mm Weight: 50g



**15LH / 15LH-110** Ø15mm, O.L.D.: 100mm (15LH), 110mm (15LH-110) Weight: 88g (15LH), 91g (15LH-110)



12AH2 (TOOL TYPE) Ø12mm, O.L.D.: 100mm



**QR (TOOL FREE)** Ø20mm, O.L.D.: 110mm Weight: 120g



**T (TOOL TYPE)** Ø20mm, O.L.D.: 110mm Weight: 120g



WATCH THE Video Tutorial!

APPLICATION TABLE	т	QR	15AH2	15LH / 15LH-110	12AH	15AH2-110	20QLC2	20QLC2-110	20LH-110	15QLC2	15QLC2-110	15QLC32	15QLC32-110	15QLC2TI	15QLC2TI-110	150LC32S
RUX	•	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DUROLUX38	-	-	-	•	-	-	-	-	0	-	-	-	-	-	-	-
DUROLUX36	-	-	-	-	-	-	-	-	-	-	-	-	٠	-	٠	-
AION	-	-	-	•	-	-	-	-	-	-	-	-	-	-	-	-
ZERON35	-	-	-	•	-	-	-	-	-	-	-	-	٠	-	-	-
AXON34 WERX/ELITE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•	-
AX0N34/32	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
RAIDON	-	-	-	•	-	-	-	-	-	-	-	٠	٠	-	-	-
XCR	-	-	-	•	-	-	-	-	-	-	-	٠	•	-	-	-
ХСМ	-	-	•	-	-	٠	-	-	-	-	-	-	0	-	-	-
MOBIE35	-	-	-	•	-	-	-	-	-	-	-	-	-	-	-	-
MOBIE34/25	-	-	-	•	-	٠	-	-	-	-	-	٠	-	-	-	-
MOBIEA32	-	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-
GVX	-	-	•	-	0	-	-	-	-	-	-	-	-	-	-	-
NRX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•
NCX	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•
NEX-E25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•

• standard O optional

FEATURE	15QLC2Ti / 15QLC2Ti-110	15QLC2 / 15QLC2-110	15QLC32 / 15QLC32-110	150LC32S	15LH / 15LH-110	20QLC	20LH-110	15AH2 / 15AH2-110 (TOOL TYPE)
ONE TOUCH RELEASE DESIGN	Yes	Yes	Yes	Yes	No	Yes	No	No
QUICK LEVER	Alloy with CNC machined hole	Alloy with print	Alloy with print	Alloy with print	Alloy with print	Alloy with print	Alloy with print	-
COMPATIBLE O.L.D.	100mm / 110mm	100mm / 110mm	100mm / 110mm	100mm	100m / 110mm	110mm	110mm	100mm / 110mm
THROUGH AXLE DIAMETER	15mm	15mm	15mm	15mm	15mm	20mm	20mm	15mm
THROUGH AXLE MATERIAL	Alloy (A7075)	Alloy	Cr-mo	Alloy	Alloy	Cr-mo	Alloy	Alloy
QUICK AXLE MATERIAL	Titanium	Cr-mo	Cr-mo	Cr-mo	Cr-mo	Cr-mo	Cr-mo	-
WEIGHT	70g / 72g	112g / 116g	118g / 122g	108g	88g / 91g	140g	96g	NA
PART CODE	FKA069-15	FKA069-05	FKA069-25/26	FKA097-25/26	FKA116-12/02	FKA068-05	FKA123-00	FKA117-02

# LIGHTWEIGHT HOLLOW CROWN





HOLLOW CROWN TECHNOLOGY Lightweight forged Hollow Crown Technology



# CAREON

CARBON CROWN TECHNOLOGY Ultra-Lightweight Carbon Crown

# STEERER TUBE



**1.5"-1 1/8" TAPER** CTS (Conical Tapered Steerer) Upper 1-1/8", Lower 1.5" Material: Alloy / Carbon / STKM



1.8"-1 1/8" TAPER CTS (Conical Tapered Steerer) Upper 1-1/8", Lower 1.8" Materal: Alloy

**1.8" TAPER** CTS (Conical Tapered Steerer) only C74 (74mm crown size)



**1-1/8"** TS: Upper 1-1/8" Material: Alloy / cr-mo / STKM

# **STANCHION DIAMETER**



# WHEEL SIZE



**38** mm

## BRAKE TYPE







**DS** POSTMOUNT DISC BRAKE TYPE



**FDS** FLAT MOUNT DISC BRAKE TYPE

# ABS MOUNT





ABS system are improving safety aspects while braking.

#### WITH ABS-WSS (WHEEL SPEED SENSOR) MOUNTING POINTS AS STANDARD FEATURE WE ARE SUPPORTING ABS SYSTEMS WITH THE FOLLOWING MODELS:

DUROLUX38 29"/27.5", AION36 29"/27.5" MOBIE35, ZERON35 29"/27.5", MOBIE34 29"/27.5" MOBIE34 CARGO 24"/20"

# THE NEW BOSCH ABS GENERATION 2 WE SPECIFICALLY SUPPORT WITH OPTIONAL ABS DIRECT MOUNTS FOR THE FOLLOWING MODELS:

DUROLUX38 29"/27.5", AION36 29"/27.5", MOBIE35, ZERON35 29"/27.5", MOBIE34 29"/27.5"

For MOBIE34 Cargo forks 24" and 20" ABS systems need to be positioned on the frame of the bike.

For detailed information regarding ABS systems and brake options, please rely on the information provided by the related ABS or brake systems manufacturers.

# HEAD LAMP MOUNT





INTEGRATED TYPE ON FORK CROWN With smooth cable rooting

**INTEGRATED TYPE ON FORK BRACE** 



UNIVERSAL MOUNT Bolt-on

# SHORT FENDER



**SHORT FENDER MOUNT** Detachable integrated short fender

# FENDER MOUNTS



LONG FENDER TYPE Disc brake type

# CABLE GUIDE



APPLICATION TABLE	ON FORK CROWN	ON FORK BRACE	UNIVERSAL MOUNT	CABLE GUIDE HUB Dynamo
XCR32-ATB	•	-	-	-
XCM32-ATB	•	-	-	-
ХСТ	-	-	•	-
XCE	-	-	•	-
M3010	-	-	•	•
MOBIE35/34/25/A32	•	-	-	-
NCX	-	•	-	•
NCX32	٠	-	-	-
TR-HSI	-	-	•	-
NVX	•	-	-	-
NEX-E25-C	•	-	-	•
NEX-E25	-	•	-	•
NEX	-	٠	-	•
CR85-25	-	•	•	•

HUB DYNAMO CABLE GUIDE w/screws \*Option



**LONG FENDER TYPE** V-brake

APPLICATION TABLE	SHORT FENDER TYPE	LONG FENDER TYPE DISC BRAKE	LONG FENDER TYPE V-BRAKE
RUX BOOST	٠	-	-
DUROLUX BOOST	٠	•	-
AION BOOST	•	•	-
ZERON36/35 B00ST	•	•	-
AXON34 WERX/ELITE BOOST	•	-	-
AX0N34/32 B00ST	•	•	-
RAIDON34/32 BOOST	•	•	-
RAIDON	-	•	-
XCR34/32 BOOST	•	•	-
XCR	-	•	-
XCR32-ATB	-	•	-
X1-B00ST	•	•	-
XCM32	-	•	-
XCM32-ATB	-	•	-
M3010	-	-	•
MOBIE35/34 BOOST	•	•	-
MOBIE34/25/A32	-	•	-
GVX	•	•	-
NRX	-	•	-
NCX	-	•	-
NCX32	-	•	-
NVX	-	•	-
NEX	-	•	•
CR85-25	-	•	•