

TOOLS AND WORKING FACILITIES

Workshop set-up	10	Torque	20
Your tool wall	13	Handling fixings correctly	21
		Torque settings	24
Tools and equipment	15		
Basic equipment	16	Bearing and assembly grease	26
Standard equipment	16	Lubricating and greasing correctly	28
Additional equipment	18	Using carbon assembly paste correctly	30
		Where bearing grease is required	31

BIKE SET-UP

Position yourself!	32		
Finding the right position	33	Seat posts featuring partly covered	
Handlebar facts	34	yoke clamps	41
Fitting the seat post	36	Adjusting the saddle position	42
Seat posts featuring single		Fitting the handlebar stem	43
saddle-clamp bolt	38	Fitting brake lever hoods/grips	45
Seat posts featuring two saddle-		Adjusting the handlebar angle	49
clamp bolts	39	Fitting shoe cleats	52
Seat posts featuring yoke-type		Speedplay cleats	55
clamp	40		

WHEELS AND TYRES

Tyres, tubes and valves	57	Puncture repair tricks	84
Layering information	57	Repairing an inner tube	85
Have you practised yet?	58		
Removing and refitting a wheel	59	Wheels	89
Front wheel	60	Checking play	91
Rear wheel (front-facing dropouts)	61	Adjusting the hub bearings	92
Rear wheel (rear-facing dropouts)	62	Hub bearings on Mavic hubs	94
Removing the tyre and inner tube	63	Hub bearings on system wheels	95
Fitting a new inner tube	64	Hub bearings on DT Swiss hubs	96
Fitting the tyre	65		
Useful tips for tubeless tyres	67	Build your own wheel	99
Gluing on tubular tyres – preparation	69	Planning and choosing spokes	101
Gluing on the tyre	72	Measuring and checking	104
Valves	76	Fitting and tensioning spokes	105
Checking rim tape	80	Truing the wheel	111
Checking new rims	81		
Continuous rim tape	82		
Glued-on rim tape	83		

DRIVETRAIN AND BRAKES

Gearshift mechanism	118	Rim brakes	146
Adjusting the rear derailleur	120	Checking the brakes	148
Adjusting the front derailleur	124	Adjusting the lever reach: Shimano	149
Special features of Campagnolo rear derailleurs	126	Adjusting the lever reach: SRAM	150
Special features of SRAM derailleurs	127	Replacing the pads	151
Special features of Shimano Dura-Ace 7900 derailleurs (1)	128	Special features of Campagnolo brakes	153
Special features of Shimano Dura-Ace 7900 derailleurs (2)	129	Cantilever ('cross') brakes – general	154
		Cantilever brakes – lever adjustment	155
		Cantilever brakes – pad position adjustment	156
		Cantilever brakes – adjusting the cable yoke	157
Shimano Di2 groupsets	130	Disc brakes	158
Fitting wiring looms	132	Readjusting and pad replacement (Shimano mechanical disc brakes)	160
Battery check	133	Assembly (Shimano mechanical disc brakes)	161
Switching mechanism and front derailleur	134		
Synchronisation	135		
		Cables	164
Off-topic: Gearing for steep gradients	136	Fitting gear and brake cables	166
		Frame-tube interior-mounted cables	172
Chains	140	Replacing the cables when the cable outer does not run through the frame tubes	173
Shimano chains	141	Replacing the cables when a continuous cable outer is present	174
11-speed chains by Campagnolo	142	Fitting cables for the first time	175
SRAM Red chains	144		

Contents

BOTTOM BRACKET AND HEADSET

Bottom bracket	176	Headset	194
The dimensions at a glance	176	Ahead technology	195
Introduction (all bottom brackets)	178	Checking the headset	197
Fitting Shimano Dura-Ace or Ultegra bearings	179	Adjusting the headset	198
Campagnolo Ultra Torque system	181	Choosing the right stem for carbon steerer tubes	202
Fitting BB30 bearings	185	Fitting the stem	204
Removing BB30 bearings	188	Replacing the classic headset	207
Fitting Pressfit BB86 bearings	190		
Removing Pressfit BB86 bearings	191		
Fitting conventional cartridge bearings	192		

THE COCKPIT

Handlebar tape	210	Bike computers	217
Applying handlebar tape	211	Fitting the magnet	218
Double-Tap levers	216		

MAINTENANCE AND REPAIRS

Maintenance intervals	222	Getting rid of noises	242
Paint care	224	Systematic investigation	244
Drying after rain or washing	226	Handlebars	245
Cleaning and greasing properly	227	Saddle and seat post	246
Protection against scratches	228	Derailleur hanger	248
Care of anodised surfaces	230	Pedals	249
Restoring powder-coated paint	231	Front derailleur clamp	250
Chrome parts	232	Chainrings and clamps	252
Repairing minor damage to the paintwork	233	Bottom bracket	255
Repairing major damage to the paintwork	234	Miscellaneous causes of noises	257
Polishing out scratches	236	Frames	258
Repairing varnished surfaces on carbon frames	240	How do you identify the fault?	258
Repairing varnished surfaces on plastic parts	241	Who can repair what?	259
		Derailleur hanger	261
		Loose bottle-cage rivnut	262
		Damaged rivnit thread	263
		Drain holes in the frame	266
		Drain holes in the wheels	269

TIPS FOR TRAVELLING, PRE-COMPETITION CHECKS AND WINTER

Travelling	270	Pre-competition checks	284
Parking – not like this...	272	Two rides before the competition	285
Parking – how to do it correctly	273	One week before the competition	286
Storing a bike	274	Two training rides before the competition	288
Transporting and packing – in the car	275	Just before the start of the competition	289
Using a bike case for transporting	276		
Emergency repairs to gear cables	280		
Freeing stiff chain links	281	Winter training bike	292
Mending broken chains	282	The dedicated winter bike	294
Damage to the tyre	283	Fitting a hub dynamo	299

THE AUTHORS

303