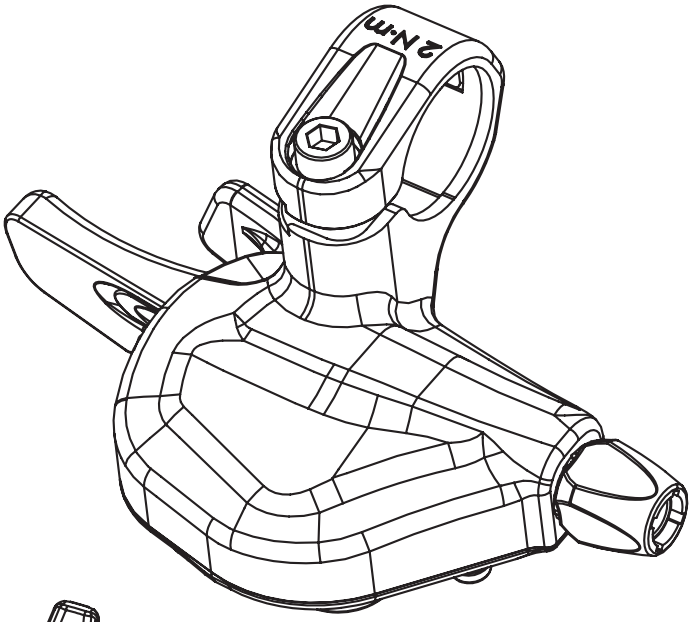
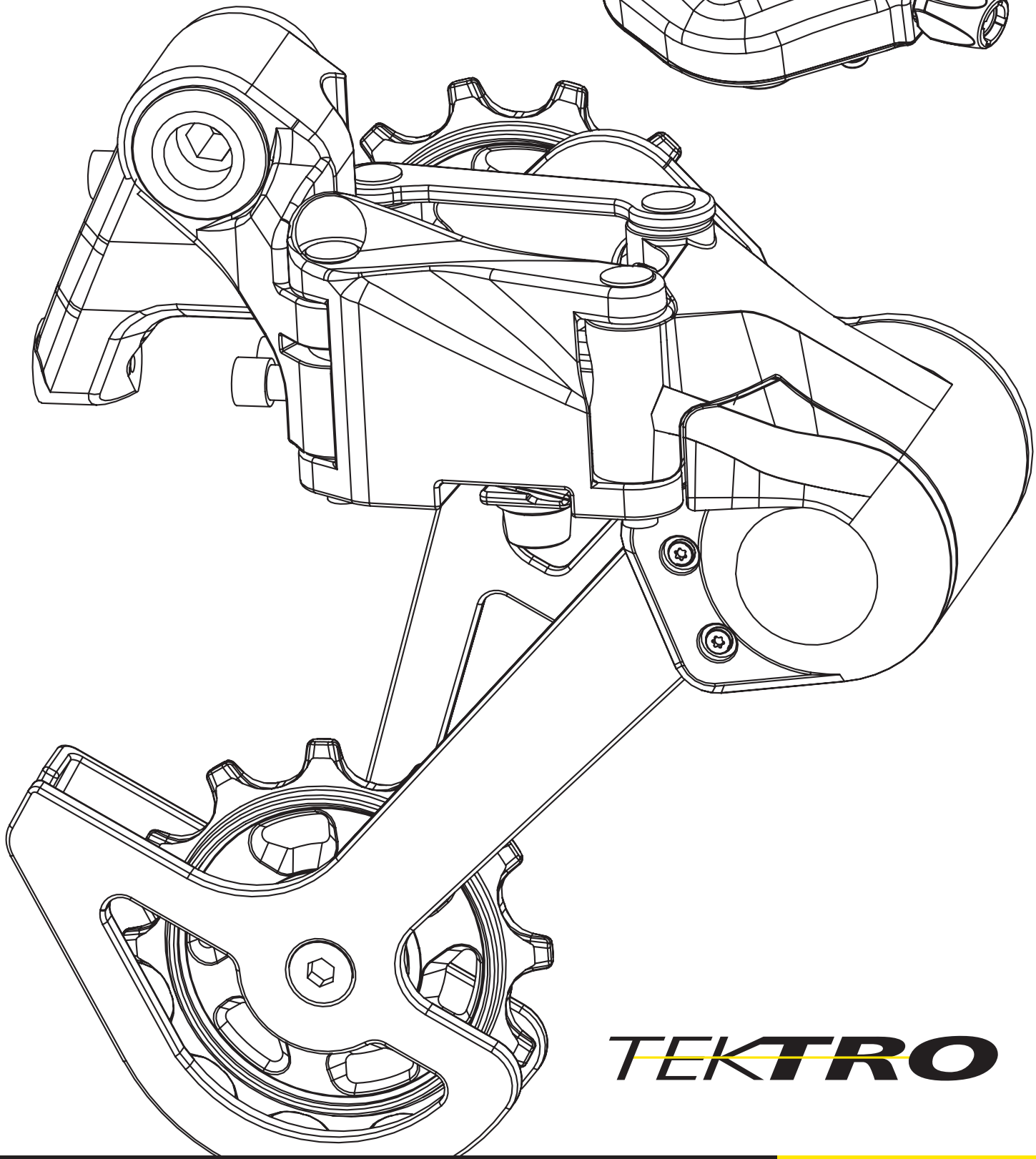
E DRIVE 9

TECH-SERVICE-INFO





TEKTRO

SPECIFICATION

- Durable ratchet clutch
- Robust horizontal parallelogram construction

TEKTRO ED9 Rear Derailleur

Model	RD-M350 and RD-T350
Speed	9
Max Cog	46
Clutch	RD-M350 (YES) / RD-T350 (NO)
Weight	RD-M350 (361g) / RD-T350 (344g)
Pulleys	12T
Cage Material	Steel

- Cleaner cable routing
- Tool-free straight lace cable changes
- Clamp integrated design

TEKTRO ED9 Shifter

Model	SL-M350-9R
Speed	9
Max Multiple Shifts (Advance Lever)	3
Weight	105g
Advance Lever Material	Aluminum

- 1.8mm thickness cogs
- All steel construction
- Wide gear ratio
- First 3 cogs are replaceable design

Cassette

Model	CS-M350-9
Speed	9
Range	11-46T
Cog Material	Steel
Lockring Material	Steel
Combination	11-13-16-20-24-28-34-40-46
Weight	545g

SERVICE INFORMATION

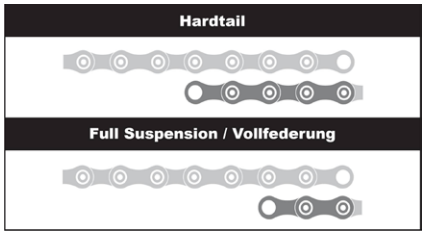
INSTALLATION INSTRUCTIONS: REAR DERAILLEUR & SHIFTER

DERAILLEUR INSTALLATION

With the bike in a work stand, ensure the derailleur hanger is straight using a hanger alignment tool. (Hanger straightness is critical to the performance of the rear derailleur. As such, proper care must be taken to ensure it is within the tolerance specified by the frame manufacturer.)
Mount the derailleur to the hanger using a 5mm allen key. While tightening the main bolt to the hanger, ensure that the b plate is placed firmly up against the hanger. There should be no gap between the b plate and the hanger. Torque the derailleur to 10-12 Nm.

Chain Sizing and Installation

For full suspension bikes, check the length of the chain when the suspension is in its fully extended position (bottom out position). Wrap the chain around the chainring and largest cog of the cassette. Use the chart to determine the proper chain length for your drivetrain. Add the number of inner and outer links as specified from where the chain starts to overlap. Find the two inner links that will be used with the master link and shorten the chain using a chain breaking tool. Shift the chain to the smallest cog and route the chain through the derailleur pulleys. Connect the two ends of the chain using the included mater link. Confirm the chain is not too short by shifting into the largest cog of the cassette and bottoming out the shock.



Derailleur High Limit Adjustment

With the chain on the smallest cog, pedal the bike and turn the H Limit screw clockwise. This will push the chain onto the second smallest cog. After the chain has settled onto the second smallest cog, turn the H Limit screw counter clockwise to allow the chain to fall onto the smallest cog. Ensure there is no noise from the chain rubbing the frame or second smallest cog of the cassette.

SERVICE INFORMATION

Shift Housing Installation
Install shift housing from the handlebars to the rear derailleur following your frame manufacturers routing. (Ensure there is enough housing to allow full rotation of the handlebars without restricting its movement.) Cut housing to the appropriate length and install a shift housing ferrule at each end of the housing.

Cable Routing
Route the shift cable through the shift housing. Ensure the cable head is properly seated in the shifter mechanism and that the shifter is in the lowest gearing possible by pressing the release lever several times. Run the cable through the shifter housing and out to the rear derailleur. Thread the barrel adjuster all the way in and then rotate back two full turns to ensure proper indexing can be achieved.
Loosen the cable pinch bolt to make sure the pinch plate drops down so that the cable passes above the pinch plate. Route the cable through the derailleur and clamp groove. Pull the cable tight and tighten the bolt using 5mm allen wrench to 4-6 Nm. Trim any excess cable to 30-40mm and install a cable crimp end.

Derailleur Low Limit Adjustment
Slowly shift the derailleur into the largest cog and be careful not to overshift. Using a 3mm allen wrench, tighten the L Limit screw until the bolt contacts the derailleur. (This will prevent the derailleur from pushing the chain into the spokes.)

B Gap Adjustment
Adjust the b tension using a 3mm allen wrench. Thread the b tension screw clockwise to increase the gap between the upper pulley and the cassette. Thread the b tension screw counter-clockwise to decrease the gap between the upper pulley and the cassette. Measure the gap between the upper pulley and the largest cog of the cassette while the bike is in sag position.

Largest cog on the cassette	B Adjustment Clearance
42T	13 mm
46T	15 mm

SHIFTER INSTALLATION
Install the shifter on the bar using the supplied clamp and hardware (or the appropriate shifter integration clamp). Using a 4mm allen wrench, tighten the clamp bolt to 2 Nm. (If using carbon handlebars, lightly apply carbon paste to prevent rotation without overtightening.)

Shift Cable Installation
When installing a new cable, remove the cable entry plug from the shifter and thread the cable through the shifter. Ensure the cable head is properly seated in the shifter mechanism. Re-install the cable entry plug.

Shifting Adjustment
With the high and low limits set and the b tension properly adjusted, index the shifter to ensure the derailleur functions properly. If the derailleur hesitates when shifting from the large cogs to the small cogs of the cassette, thread the barrel adjuster clockwise to decrease cable tension. If the derailleur hesitates when shifting from the small cogs to the large cogs of the cassette, thread the barrel adjuster counter-clockwise to increase cable tension. Adjust as needed.

SERVICE INFORMATION

REAR DERAILLEUR – SPARE PARTS KITS INSTALLATION

Replacing the Inner Cage:
Remove the M4 fasteners from the inner cage and the outer cage using a 3mm allen. Remove the inner cage. Install the new inner cage. Install the two M4 fasteners using a 3mm allen wrench. Tighten to 2-3 Nm.

Replacing the Upper and Lower Pulley wheels:
Remove the M4 fasteners from the inner cage and the outer cage using a 3mm allen. Remove the inner cage. Remove the upper and lower pulley wheels and the accompanying bearing spacers. Install the new upper and lower pulley wheels and the accompanying bearing spacers. (Note: Neither pulley wheel is directional.) Replace the inner cage. Install the two M4 fasteners using a 3mm allen wrench. Tighten to 2-3 Nm.

Derailleur Hardware:
B Tension Bolt/ H Limit screw/ L Limit screw – M4X16
Anti-vibration B Plastic Block
Anti-vibration Plastic Block

Cable Anchor Kit:
Cable Anchor Bolt – M6X11.5
Cable Anchor Pinch Plate

SHIFTER – SPARE PARTS KITS INSTALLATION

Replacing the Barrel Adjuster:
Remove the cable from the derailleur and shifter. Remove the shift cable housing from the barrel adjuster. Unthread the barrel adjuster out of the upper housing. Install the new barrel adjuster into the housing. (Note: the spring and bolt go into the collar.) Reinstall the cable and housing. Adjust as needed to set optimal cable tension.

Replacing the Shifter cable:
Remove the cable entry plug. Ensure that the shifter is in the lowest gearing possible by pressing the release lever several times. Remove the cable from the derailleur and shifter. Install the new cable. Reinstall the cable entry plug.

Cable Entry Kit:
Cable Entry Plug

CASSETTE – SPARE PARTS KITS INSTALLATION

Replacing the 11-13-16T cogs
Unscrew the lock ring in counterclockwise direction using a lock ring tool and torque wrench.
Remove first 3 cogs of the cassette. Install the replacement cogs and spacer onto the hub.
Tighten the lock ring to 40Nm using a lock ring tool and torque wrench.

Lock Ring kit:
Steel Lock Ring

SERVICE INFORMATION

COMPATIBILITY:

DRIVETRAIN

Category	EMTB / E-Trekking		E-City / E-Urban	
Dearailleur	RD-M350 w/ clutch derailleur		RD-T350 w/o clutch derailleur	
Shifter	SL-M350-9R	SL-M330-8R	SL-M350-9R	SL-M330-8R
Cassette (Gearing)	CS-M350-9 (11-46)	CS-M330-8 (11-42)	CS-M350-9 (11-46)	CS-M350-9 (11-42)
Chain	9 Speed	8 Speed	9 Speed	8 Speed

REAR DERAILLEUR CAPACITY

Rear Derailleur Model	EMTB / E-Trekking
RD-M350/ RD-T350	46T

CABLE & HOUSING

- 1.1 mm or 1.2 mm diameter inner cables
- Linear stand construction housings
- Metal ferrules are recommended

FREE HUB BODY

Cassette		Free Hub Body	
Gearing	Model	8/9/10 Speed	Road 11 Speed
8 Speed 11-42	CS-M330-8	No Spacers Needed	Needs a 1.85mm Spacer
9 Speed 11-46	CS-M350-9	No Spacers Needed	No Spacers Needed

CHAIN RECOMMENDATION

- KMC X Series (X8 / X9)
- KMC E Series (E8 / E9)

SERVICE INFORMATION

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Correction
Derailleur won't Install/ Uninstall	B Plate is not parallel with Hanger	Check the B Plate and correct as needed
Shifter doesn't move Derailleur	Cable is not routed through shifter properly	Route the cable through the cable carrier in the shifter
	Cable pinch bolt is not sufficiently tight	Torque the cable pinch bolt to 4-6 Nm
Chain jumps from smallest cog to frame dropout	High gear limit screw is not adjusted properly	Turn in high limit screw until the guide pulley is aligned with the outboard edge of the smallest cog
Difficult or impossible to shift chain onto smallest cog	High gear limit screw is not adjusted properly	Unscrew high limit screw until the guide pulley is aligned with the outboard edge of the smallest cog
Chain jumps over largest cog and falls between the spokes and the largest cog, or inner cage plate contacts spokes	Low Gear Limit Screw is not adjusted properly	Turn in low limit screw until the center of the guide pulley is aligned with the center of the largest cog
	Rear derailleur or derailleur hanger is bent	Straighten using a derailleur hanger alignment guide or replace
Difficult or impossible to shift chain onto largest cog	Derailleur cable tension not high enough	Turn out the barrell adjuster
Delayed shifting	Clearance between guide pulley/sprocket is too large	Adjust b-adjust screw by turning it counterclockwise
Rough Shifting behavior	Clearance between guide pulley/sprocket is too small	Adjust b-adjust screw by turning it clockwise
Shifts more gears onto smaller sprockets than intended	Shift cable insufficiently tensioned	Turn barrel adjuster on the shifter counter-clockwise
Delayed shifting onto larger sprocket	Shift cable insufficiently tensioned	Turn barrel adjuster on the shifter counter-clockwise
Delayed shifting onto smaller sprocket	Shift cable is too tight	Turn barrel adjuster on the shifter clockwise
	Excessive cable friction, pinched or poorly routed cable	Lubricate or replace cable and housing. Check for excessive bending of cable housing and ensure cable is seated in pinch groove
Chain gap (clearance from largest cog to upper pulley wheel) is too large or too small	Chain is sized too small or too large	Size the rear chain according to the user manual
	Rear suspension chainstay growth	Check the chain gap clearance when the rear suspension is both fully extended and compressed 30%
Chain falls off of pulleys	Worn or damaged pulleys	Replace pulleys