

DRIVEN REVIEW

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CEN

MATRIX

Entry-level fun with a competitive edge



FAST FACTS

MANUFACTURER: CEN
VEHICLE: Matrix
CLASS: 1/8 Buggy
DRIVER: Entry-level to pro racer
PRICE: \$450.00
SPEED (AS TESTED): 43.37 mph

I've got an inside tip for you: CEN is on the move. This company started off making after-market car parts, broke into the full car kit scene with some fun entry-level sedans like the GX1 and SP1, then into off-road with the Fun Factor series that allowed you to convert a single platform into four different vehicles. Then to maintain momentum, they released a massive monster truck called the Genesis right around the same time as the CT4's - cars that are geared for the enthusiast who wants to have fun and potentially take the vehicle racing. The entry-level friendliness and hints of racing capability were brought into CEN's latest release, the Matrix 1/8 off-road nitro buggy. This RTR machine allows a driver to get into buggies easily, yet has some great racing features that will allow that same driver to hit the track and be competitive.



DRIVING IMPRESSIONS

PERFORMANCE

HANDLING—The Matrix got its first taste of dirt at the local BMX track where many RC enthusiasts love to send their vehicles flying through the air. The buggy soaks up rough terrain while keeping the chassis level and under control. In the air, the buggy flies level and rights itself if it falls to the ground off balance. There were only a few instances where we sent the buggy tumbling after a jump, but after the flipping frenzy was over, it amazingly always landed on its wheels.

For track testing, we hit the tight course at Xtreme RC in New Milford, CT. Small bumps and jumps didn't upset the Matrix, nor did they kick the rear end out like with some other buggies. The low squatting stance not only looks impressive but also provides stable control. Over the quad jump on the track, I could just attack the first set, letting off as I hit the face, and the buggy would land on the second jump's backside, grab speed, and hit the second set in the same fashion carrying a ton of speed into the corner.

RATING-9

ON AND OFF-POWER STEERING—The stock tires worked great in the grass; the buggy corners hard off-power and pushes slightly with on-power cornering. It was a ton of fun ripping through baseball fields, across the dirt, and around the bases.

At the track, the tires didn't hook up as good as they did in the grass and dirt fields. There was a lot of wheel spin, and the wheels broke free when grabbing more power coming out of the corners. The wheel spin coupled with the slower stock steering servo caused the car to push wider through the corners than I would have liked, but I was able to get around the track successfully without putting it in the pipes. With some Panther Komodo Dragon tires and a good after-market high-torque servo, you can really get the Matrix to tighten up and take the corners carrying a lot of speed.

RATING-8

ACCELERATION AND BRAKING—The Matrix and its .26 engine surprised me; it has a nice powerband that worked well on the track and was a blast speeding across the baseball field. The composite 3-shoe clutch grabs hard and spins the wheels from a standing start and doesn't lose its grip even after a 45-minute run. The brakes too, grabbed just as consistently from minute one to minute 45 of our on-track test. I had a little more rear brake bias set into the buggy, so I could really get the buggy loose by tapping the rear brake in the corners and power out carrying speed. This buggy has great potential for enthusiasts to grow into it.

RATING-9



INFO CENTER

CHASSIS—Serving as the platform for the Matrix is a 3mm thick 7075 aluminum chassis plate with kick-up and flared edges to increase the stiffness of the plate. Little bulges on the bottom of the chassis indicate that the diffs sit low in their cases. Cast aluminum chassis braces are located in the front and rear, and the aluminum servo tray houses the laydown steering servo and throttle servo. The center diff support and bellcrank support are also aluminum. **SUSPENSION**—Hinge-pin-type suspension arms are used in the front and rear of the buggy. The lower and upper arms are long and bulky, and the aluminum adjustable tie-rods are thick with massive ball ends. The aluminum shock towers are 4mm thick and support the massive aluminum body, oil-filled, coil-over shocks. The Matrix offers a lot of tuning adjustments to turn this entry-level RTR buggy into a racer. **DRIVETRAIN**—Starting with the diffs, CEN stuffed 6-gear diffs into the buggy with thick oil for lubrication and gaskets to prevent them from leaking. Steel universal



axles transfer power to the standard-size wheel hexes, which means you can use any buggy rim on the Matrix. Quad brake discs slow the buggy. **STEERING**—A dual bellcrank steering setup with aluminum drag link and servo saver get the buggy pointed in the right direction; the drag link pushes adjustable tie-rods and cast steering knuckles. **ENGINE AND ACCESSORIES**— Bolted to the Matrix's chassis is CEN's .26 engine with blue aluminum heat sink head and composite 2-needle slide carb. Air flows into the engine through a sponge and screen-type air filter, and exhaust flows out the wraparound header, rubber coupler and aluminum tuned pipe. **BODY AND WHEELS**—The Matrix has a cool race look with a low slung body that hugs the chassis. The rear flexible plastic dual-level wing is mounted to adjustable wing mounts. The rollers are soft rubber tires with inserts mounted on dish-style rims. **ASSEMBLY**—Matrix is ready to run with an Airtronics MX3 radio system installed; all you need to do is add batteries and fuel, and then break it in.

DID YOU KNOW?

Andy Scmolnick placed 6th in the A Main in the 15th Kyosho Challenge and 7th in the A Main in the Mugen Manufacturer's Challenge with the Matrix Prototype buggy.



CEN went with a C-hub front suspension setup with 22° caster blocks and large oil-filled shocks with 3.5mm shock shafts, all of which lets this buggy handle bumps with ease.



I don't know about you, but I can't get over the size of the tie-rods; they're like telephone poles, er, well you get my drift. Swaybars are included to keep the chassis flat during cornering, and there are a lot of mounting positions to tune the shock angle.



Here is a nice feature on the Matrix: the included fuel filter that attaches to the splash guard that keeps spilt fuel from contaminating the brakes.



To keep the CG low, the steering servo lies down and bolts up under the aluminum servo tray. Fitted to the radio tray is a transponder mount for regular transponders. Another feature to note is the narrow mudguards that give the buggy its narrow stance.



A 3-shoe composite clutch and aluminum flywheel transfer power to the drivetrain.



The main bellcrank houses a servo saver with an aluminum drag link to connect to the other crank. Several holes on the drag link allow you to move the steering links and alter its action.



The diff is made up of a composite center case, aluminum endcap, and bevel gear on the other end. Inside are six hardened bevel gears and oil for lubrication and to control the differential action.



Normally you only see two to three holes to adjust a rear wing, but the Matrix has six different positions. The supports are farther apart for better stability and have aluminum braces.

Two cast aluminum braces are used in the center of the chassis to prevent the unwanted taco-ing in a hard crash or flexing under hard driving.



◎ **CEN MATRIX**



What We Liked—

- ◎ Lots of beefy parts like tie-rods, shocks and braces
- ◎ Large bearings used in the drivetrain
- ◎ Quad brake discs
- ◎ Heavy-duty differentials

What could be improved—

- ◎ A more race-oriented body style

This buggy has great potential for enthusiasts to grow into it.

TECH SPECS

SCALE: 1/8	ENGINE: .26
DRIVE: 4WD	FUEL TANK: 125cc
LENGTH: 19 in. (485mm)	TIRES: X /— pattern
WIDTH: 7.4 lbs. (3357g)	WHEELS: White dish
WEIGHT: 4 lbs.	SUSPENSION TRAVEL: .96 in. (24mm) front; 1.4 in. (35mm) rear
WHEELBASE: 13 in. (330- 336mm)	ACCELERATION: 0-10 mph: .58 sec., 0-20 mph: .99 sec., 0-30 mph: 1.54 sec., 0-40 mph: 2.98 sec.; 6.34 sec. @ 43.37 mph in 318.36 ft.
TRACK: 10 in. (254mm)	
PINION/SPUR: 15 /46	
GROUND CLEARANCE: .87 in. (22mm)	

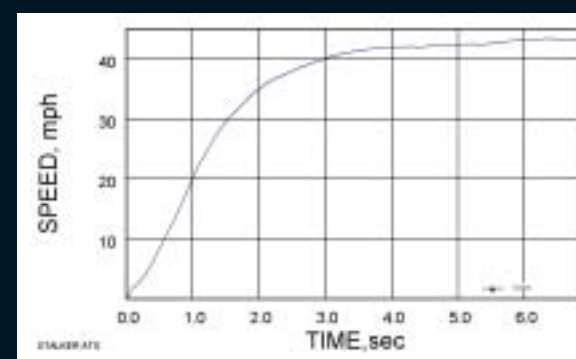
HELPFUL HINTS

GOT TO GET: Fuel, glow starter

COMPETITORS INCLUDE:

Kyosho MP 7.5 Sports, OFNA Ultra MBX Pro, OFNA Ultra LX Comp, OFNA Hyper 7 PCR, OFNA Hyper 7, OFNA Hyper 7 PBS, OFNA 9.5 Hot Bodies Lightning 2RR

RADAR DATA





CEN MATRIX

CONCLUSION

I was tricked! When I was eyeing down the Matrix buggy on the workbench, I was impressed with its features: hardened diff gears, quad brakes, large shocks and universal axles. I thought, wow, this is going to be a great buggy to beat with in the backyard. But then when I took it to the track, it handled great and seemed to flow smoothly over jumps and moguls. Even with the tires not suited for our test track, I still got the buggy around the course with some great lap times. CEN gets high marks in my book for their first-ever release into the buggy category. The fact that it comes with an Airtronics MX3 radio system takes the buggy from high marks to an all-around impressive first buggy for anyone looking to get into this class. ☺

Links

CEN/Genka Trading Corp., www.cenracing.com, (714) 792-1923

White Lightning, distributed by Horizon Hobby, www.horizonhobby.com, (800) 338-4639

For more information, please see our source guide on pg. 193.



AUTHOR'S OPINIONS AND RATINGS

■ **CHASSIS**—The shiny gray anodizing gives the chassis a good look, and the large chassis braces really keep the platform rigid.

RATING-9

■ **DRIVETRAIN**—Pre-oiled, 6-gear diffs are a hit feature on this car; also among the impressive features are the large bearings and a steel main gear—nice!

RATING-9

■ **STEERING**—The steering cranks are strong and have a good throw that results in good steering; the only blip here is the sluggish steering servo.

RATING-8

■ **SUSPENSION**—The shocks are massive and aluminum with a plush feel. The arms are bulky and swing freely when the shock is removed—good stuff.

RATING-9

■ **BODY AND WHEELS**—The dish wheels give that race look, which is cool, but the low profile X /— pattern tires didn't want to grip the test track's surface but fared fine on grass and pavement.

RATING-8

■ **DURABILITY**—Huge tie-rods, large shocks, massive bearings, cast chassis braces are all signs of a heavy-duty buggy ready for abuse; we beat the Matrix up and don't have a single broken part to report about.

RATING-9

■ **EASE OF USE**—When the engine fires from the first pull, it's a good sign that the car will run great. All you need to do is add fuel and batteries, and the buggy is ready to rock. It's that easy.

RATING-9

ITEM USED

White
Lightning
20% Fuel

