



# CEN **CT4S** *Super Speed Scooby*

by Kerry Garrison

In today's RC environment, speed is king. You see it on internet forums and call centers every time a new vehicle is announced. The most commonly asked question about any vehicle is "How fast does it go?" Whether it is a monster truck or micro vehicle, today's typical RC enthusiast wants to have the most speed possible. While many vehicles in the past have claimed insanely high speeds, most fail to actually deliver on those promises without optional gear sets, major tweaking, and an airport runway (for enough area to get up to speed). CEN's new CT4S Nitro Sedan is the latest to lay claim to 70+ MPH speeds. But can it really deliver on those claims?

#### FAST FACTS

**MANUFACTURER:** CEN

**VEHICLE:** CT4S

**CLASS:** 1/10 on-road nitro sedan

**DRIVER:** Entry level to pro, especially those looking for a fast, fun car

**SPEED (AS TESTED):** 71.1 mph (tested with Venom Speed Meter)

**PRICE:** \$329.99



## CEN CT4S

### DRIVING IMPRESSIONS

**STARTUP/ENGINE TUNING**—For starters, the tires need to be glued on. The supplied tires are good-quality belted tires designed to handle the speeds for which the CT4S is capable. Be sure to use belted tires if you choose to replace the tires, as non-belted tires will expand too much at high speeds, resulting in lack of control. The CEN .15 Lightning breaks-in very easily and can be ready to run after idling through four or five tanks of fuel. From there, performance tuning is a simple matter of minor tweaking.

I let the engine idle through five tanks of fuel to ensure a good break-in. Although I let the engine cool down between each tank, never once did the engine flame out during the break-in. After a few slow passes to check the setup, it was time to start getting on the throttle. As I would grab the throttle, the engine bogged down heavily, indicating a rich setting. Dialing the high-speed needle 1/8 of a turn clockwise was only necessary for a few adjustments before the car was rocketing down the road.

To achieve optimum performance, a Pro Exotics Micro Temp gun was used to dial in a temperature of around 210 degrees. Trinity nitro fuel was used for the speed tests. To record the speed, a Venom Speed Meter was attached to the front spool, but we'll get to those speeds in a little bit.

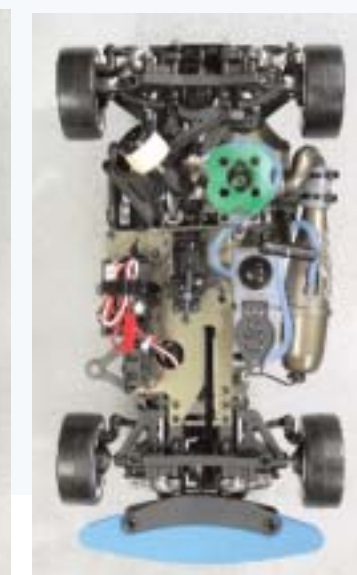
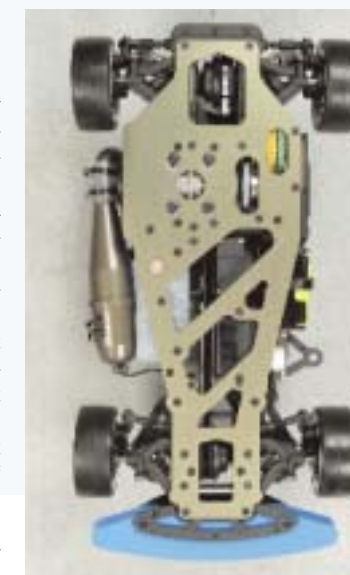
**PAVEMENT**—CEN developed this car with pure speed in mind, but we'll get to that in a little bit: Let's talk handling first. The CT4S, with its slick tires, is at home on a clean, flat asphalt surface. I found that it wanted no part of any dirty asphalt lots, much like any car with slicks. Once I found a clean lot, I quickly determined that the car has a lot of power and can easily overshoot corners if you are overzealous with the throttle or late with the brakes. After establishing the car's driving traits, I found the CT4S to be a blast to drive; you can dive into corners, squeeze the trigger, and come out of the turn carrying a lot of speed. The 2-speed transmission was set perfectly from the facto-



### INFO CENTER

**CHASSIS**—The CT4S features a very lower center of gravity with a low-slung 3mm thick chassis that has hard anodizing to resist scratches. Full countersinking on all screw holes was done to help prevent screws from snagging on the pavement. The top plate is composed of a thick, hard, anodized aluminum and stiffens the chassis while supporting the throttle servo and receiver. The supplied servos are quite capable and the steering servo sits in a lay-down position to help keep the CG as low as possible. A composite brace spans from the rear of the upper deck to the rear bulkheads to complete the bracing on the chassis. A high-impact foam bumper bolts to the front for protection, and a racing style 75cc fuel tank with a built-in stone filter mounts to the lower chassis plate to supply fuel. **SUSPENSION**—As is standard on nitro sedans these days, the CT4S is outfitted with pivot ball suspension for easy adjustments. The suspension is fully adjustable with toe-in, camber, and down-travel adjustments. Front and rear .080 race swaybars are standard equipment to provide improved handling. Adjustable race style oil-filled coil-over shocks are bolted to the rigid shock towers and lower arms, and they offer several mounting options to tune the handling of the car.

**DRIVETRAIN**—A race-proven three-belt drive system has been employed to get power to the front and rear of the CT4S for its 4WD capability. To get the car through the corners quickly, the car has front and rear spider gear differentials that ride on ball bearings, just like the rest of the drive system; 28 precision ball bearings in total. The CT4S has dogbones to deliver power from the front and rear gear diffs and in turn to the belted rubber tires. A fiber brake disc is keyed to the rear layshaft for extremely aggressive braking, while a two-speed centrifugal clutch transmission gets the car moving. **ENGINE AND SUPPORT**—The CEN-manufactured .15 Lightning engine (although not ROAR sanctioned race legal) delivers plenty of power, while the large bore exhaust header breathes into a dual chamber tuned pipe for top performance. Check out the engine's specs: Big Block 2.5, 3-port design, dual precision crank bearings, 35,000 RPM, SG shaft, true ABC construction, rear exhaust, slide carb, and large cooling heat sink. **BODY, WHEELS AND TIRES**—Bolted to all four corners of the car is extremely stiff, lightweight racing BBS style wheels wrapped in belted rubber slick tires. Covering our test car was a pre-painted and pre-decaled Subaru Impreza race body; pretty slick, huh?!



### TECH SPECS

**SCALE:** 1/10  
**WIDTH:** 7.72 in. (196mm)  
**WHEELBASE:** 10.24 in. (260mm)  
**WEIGHT:** 67.8 oz. (1,900g)

#### CHASSIS

The CT4S has a hard anodized double deck aluminum chassis. The bottom is 3mm thick with countersunk holes and the upper deck is 2mm thick.

#### DRIVETRAIN

Getting the car underway is a 3-belt 4WD system with adjustable shift 2-speed tranny, bevel spider gear diffs, and 2-shoe centrifugal clutch with spring.

#### SUSPENSION

Handling is taken care of by a pivot ball suspension arm system with lightweight composite oil-filled shocks and anti-roll bars. Front and rear camber, caster, toe-in and droop are all fully adjustable.

#### ENGINE

CEN's Lightning .15 produces the ponies while exhaust exits an aluminum round port and composite tuned racing pipe.

#### WHEELS AND TIRES

Sturdy white BBS style rims with belted rubber slicks take care of the traction duties.

### RATINGS

#### DURABILITY:

The CT4S earned high marks for durability by actually living through several high-speed rollovers. While the wheels actually were damaged in one incident, no other parts were broken during the entire testing.

#### EASE OF USE:

Again, CEN rates high here as the Lightning .15 motor is exceptionally easy to start, break-in, and tune. In most cases, the engine fired up within a pull or two and never once flamed out during any of our testing.

## CEN CT4S

**ACCESSORIES:** When you open the box, you'll be greeted with a car that is almost ready to run! The car is 99% built with CEN's Mirage III radio system installed. You'll need to install the body posts, antennas, batteries, and fuel up the car and break it in. The whole process shouldn't take more than 20 minutes for the new racer.



### ITEMS USED



Trinity Monster  
Horsepower 20% Fuel—  
MH0020—\$8.99



Venom 2000mAh  
AA batteries—  
1521—\$11.99

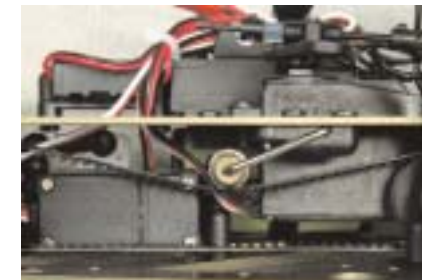
**Additional Items Needed:** Fuel, AA batteries



When a car moves as fast as the CT4S, you want to make certain there are protective services in place, like the servo saver, in case you tag a wall. The servo steers a composite bellcrank system to get the wheels pointed in the right direction.



The triangular aluminum rear brace looks pretty sweet with the CEN logo, but that's not what we really wanted to show you here. What's important is the thick rear swaybar to keep the chassis level in turns, and the adjustable rear toe-rods to alter toe-in or out.



With the fuel tank out of the way, we can get a look at the front belt tensioner. The tensioner arm is fitted with ball bearings to guide the belt and can be adjusted with a long setscrew.



Finned engine heat sinks, sometimes an aftermarket, but standard on the CT4S; these help dissipate engine heat and keep the powerplant cooler. These mounts bolt to a large plate that allows the engine to be removed from the chassis without having to reset gear mesh when the engine is reinstalled.



After removing a few key parts in the rear of the car, the fiber disc brake is unveiled. This disc, along with the steel plates and actuator, can either stop the wheels full-lock or slow the car, depending on your brake input.



The bevel gear differential is filled with grease to alter the differential action. A

fiber gasket helps to seal off the diff, and it keeps the gooey grease inside where it belongs instead of all over the chassis.



The fuel tank comes fitted with a primer bulb to help fuel get into the car. Racers normally don't use the bulb so CEN has included an optional nipple adapter if you wish to swap out the

bulb for a solid pressure feed.



With the steel 2-speed clutch bell off, we can take a peak at the 2-shoe clutch setup. The clutch bell rides on smooth bearings for long parts life.



We took apart the 2-speed transmission to show you how second gear is engaged. CEN spec'd

a centrifugal clutch to get the car in second gear. This type of system is much smoother than other finger-type clutches.



“The CEN CT4-S is a **fast, reliable, and great handling vehicle.**”

**What we liked—**

- ⊙ The Lightning .15 is an extremely powerful yet reliable and easy to tune engine.
- ⊙ Handles well even at top speed
- ⊙ Top quality components and excellent build quality right out of the box
- ⊙ The vehicle actually delivers on performance claims

**What could be improved—**

- ⊙ CEN's manuals could stand improvement to benefit beginners.
- ⊙ We certainly would like to see an FM radio on a 70mph+ vehicle.

**CONCLUSION**

With the CT4S, CEN has delivered a vehicle that is fully race capable while still managing to achieve record-breaking top speeds. With virtually no compromise between power and handling, the CEN CT4S is a fast, reliable, and great handling vehicle. ⊙

**Links**

**CEN/Genka Trading Corp.**, [www.cenracing.com](http://www.cenracing.com), (714) 792-1923.

**Pro Exotics Temp Gun**, [www.tempgun.com](http://www.tempgun.com), (303) 347-0500.

**Trinity Products Inc.**, [www.teamtrinity.com](http://www.teamtrinity.com), (732) 635-1600.

**Venom Racing**, [www.venom-racing.com](http://www.venom-racing.com), (800) 705-0620.

For more information, please see our source guide on pg. 185.

