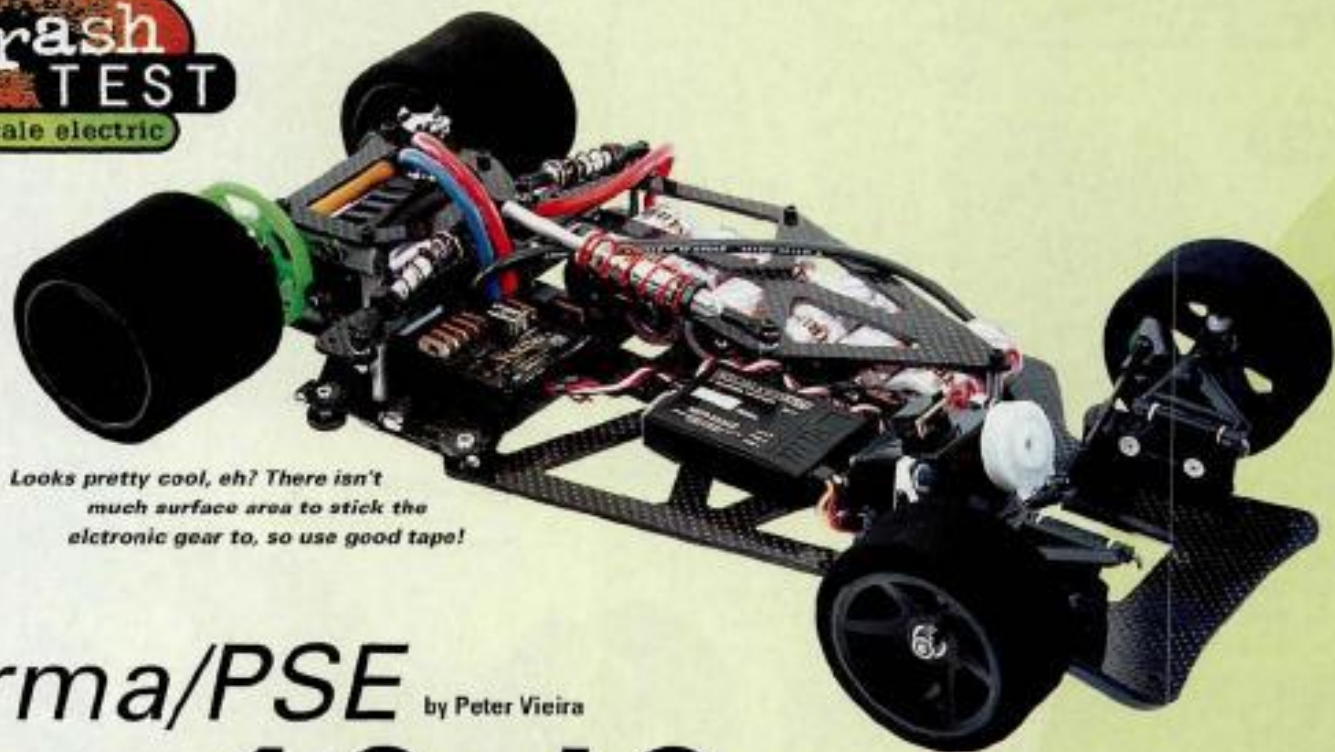


**thrash**  
**TEST**

1/10 scale electric



*Looks pretty cool, eh? There isn't much surface area to stick the electronic gear to, so use good tape!*

# Parma/PSE by Peter Vieira Phaze 1 Oval Car

## s p e c s

SCALE 1/10  
LIST PRICE \$425

DIMENSIONS (chassis only)  
Length overall 13.5 in.  
Wheelbase 10.5 in.  
Width (F/R) 7.25/7.75 in.

WEIGHT  
Gross, RTR 2 lb., 9 oz.

CHASSIS  
Type Pan  
Material Carbon fiber

DRIVETRAIN  
Type Direct drive  
Primary Pinion/spur  
Transmission Solid axle  
Differential(s) Ball  
Bearings/bushings Bearings

SUSPENSION  
Front—type Associated  
Dynamic/coil spring  
—damping Friction  
Rear—type Delta shock  
—damping Oil

WHEELS  
Front/rear PSE Velocity

TIRES  
Front/rear Blue-compound foam

ELECTRICS (not included)  
Motor Trinity Midnight 2  
Battery Trinity VIS-2000  
ESC Tekin G-9



# Testing the **LATEST** left-turn **CONTENDER**

**U**nlike off-road racing, in which the effects of minor changes to the vehicles are diluted by the terrain, oval racing is a game of subtleties: every element of vehicle design and equipment selection has a measurable effect on a machine's lap times. With that in mind, few cars remain "stock" in the world of oval racing; modifications and upgrades rule the day.

Parma/PSE's\* new machine, however, looks ready to win right out of the box and has many popular aftermarket choices included as stock equipment. Of course, there's more to this car than nice goodies. The crew at PSE have delivered a thoughtful design that seems to have been created with an eye on convenience as well as on adjustability and performance. Interested? Let's hit the carpet with the Parma/PSE Phaze 1.



*Few R/C machines look as potent as an oval car. The Phaze 1 is no exception; it was designed to go fast, and it shows.*

## **KIT FEATURES**

- **Chassis.** The Phaze 1 makes liberal use of 3/32-inch carbon-fiber plate, in particular for the main chassis, battery brace, motor pod top and bottom plates and damper support. These pieces are exceptionally well finished and have a high gloss and perfect cuts—no stray fibers here.

To save weight, the main chassis has been liberated of much unnecessary material, but not so

much that strength is compromised. If anything, the Phaze 1 is one of the more solid-looking cars out there. The Phaze 1's visual trademark is its wide battery brace, which uses three screws to hold the cells tightly against the chassis' extra-wide battery slots. The seven slots permit fore and aft pack positioning, but if the pack is fully aft, it must also be fully outboard in the slots (the rear-most slot is not as wide as the others because of the space needed for the motor pod's main pivot).

• **Front end.** PSE chose to equip the Phaze 1 with what must be the most ubiquitous front-suspension system for pan cars: Associated's Dynamic unit. No matter where you race, you'll find parts for this front end on the hobby-shop wall. PSE includes the latest fiber-reinforced Associated parts, and—not content to leave well enough alone—has also added extra-long kingpins and front-suspension springs from Wolfe Motorsports. The resulting long-travel setup is remarkably plush and should deliver gobs of traction without soft tires. Harder tires offer less rolling resistance, and that means faster laps—at least on paper.

Conspicuously absent from the front end is the aluminum cross-brace typically

*Associated's tried-and-true Dynamic front end keeps the Phaze 1 heading in the right direction controlled by Hitec's potent 235AG miniservo. The Wolfe Progressive front-suspension springs and kingpins are just visible inside the rim.*

couldn't use the piece because the Phaze 1 offers only two holes for each arm, not the usual three-hole pattern used on cars with Associated front ends. Will any of this matter? The track will tell the tale.

• **Rear suspension.** The Phaze 1's rear sports three Delta shocks. An oversize center unit handles fore-and-aft damping and controls ride height, while two smaller lateral units adjust tweak and roll damping. This system eliminates the need for a T-plate and substitutes a central pivot ball and a single turnbuckle linkage on the right side of the chassis to articulate the motor pod. The oversize titanium turnbuckle permits roll-steer (axle angle) to be adjusted, but it's best to start with the rear axle perpendicular to the chassis' centerline.

• **Drive train.** The motor pod itself uses the familiar aluminum motor plate and plastic left

that trick yellow axle with a setscrew?).

The polished, machined diff hub is a work of art, and diff-pinning material to mate with the pre-drilled hole for the diff pin is included. Oddly enough, the diff rings are not notched, so I'll have to pick up some rings and pin the diff at the track.

• **Wheels, tires and body.** The Phaze 1 is fully equipped with PSE's Velocity wheels and green-dot foam tires. This is purely subjective, but I think the svelte, 6-spoke look of the Velocity hoops makes them the most attractive pan-car wheels going. (Yes, it's performance that counts; these wheels are plenty stiff and roll true, thanks.)

The PSE body is a nicely molded Pontiac Grand Prix. Ordinarily, I'd farm the body out to Motion Graphics, Bich'n Bodies, or our own Greg Vogel, but they were all tied up. The paint job shown on these pages is straight from a few cans of Pactra paint.

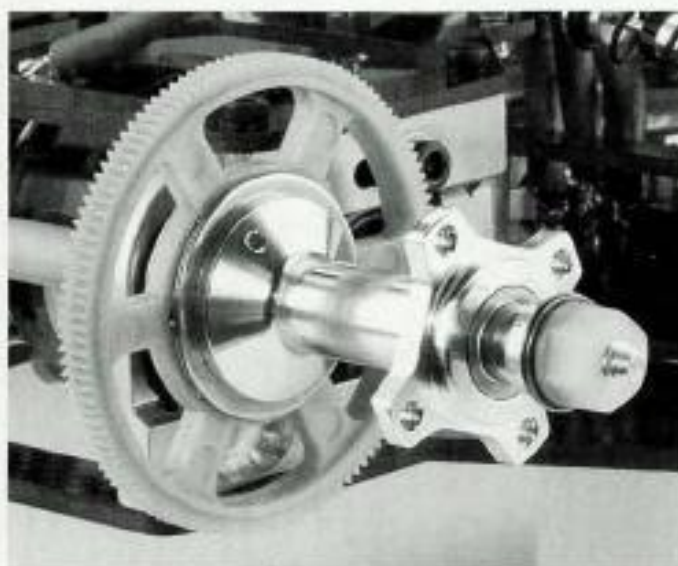
## TEST GEAR

Since I planned to test the Phaze 1 by racing it in the stock class at SK Hobbies in Rhode Island, I outfitted it with the hottest stocker in the *R/C Car Action* arsenal: a Trinity\* Midnight 2 Pro. A set of Trinity's VIS-matched 2000 cells was a natural for go-power, and Tekin's\* stalwart G-9 ESC was assigned to keep the juice under control. Hitec's\* powerful, fast HS-235AG miniservo got the nod for steering control.

Finally, a JR\* NER-233XZ PCM receiver was taped in to match my oldie but goodie JR 756 radio. That takes care of the in-car gear, but everybody knows that you don't race on carpet with car and radio alone; you have to have traction compound! I boosted a can of David Spashett's\* Tangerine Tyre Tack from Chris Chianelli's "Inside Scoop" bin, loaded my bag and hit the track (OK; I hit the track three hours later; it's a long drive).

## PERFORMANCE AND SETUP

If you're ever in Johnston, RI, be sure to have your oval car with you. SK Hobbies indoor banked oval is a fast piece of carpet with a good bunch of guys who like to go fast and have fun—highly recom-



*The IRS differential and axle assembly combined with PSE's bearing-supported Rocket Sprocket spur gear (included) make for a smooth, true drive train.*

## COMPETITION

	Motorsports Head Hunter	Hyperdrive/PTI SSE	Trinity Switchblade 10SS	Associated RC10L20	Parma/PSE Phaze 1
Wheelbase	10.1 to 10.5 in.	10.25 in.	10.5 in.	10.5 in.	10.5 in.
Width (F/R)	7.25/7.75 in.	7.2 in./7.85 in.	7.25 in./7.75 in.	8 in.	7.25/7.75 in.
Weight	2 lb., 6.7 oz.	2 lb., 10.5 oz.	2 lb., 10 oz.	2 lb., 13 oz.	2 lb., 9 oz.
Diff type	Ball	Ball	Ball	Ball	Ball
Chassis	Graphite	Graphite	Graphite	Graphite	Carbon fiber
List price	\$399.95	\$285.95	\$299.99	\$260	\$425
Available at	NA	NA	\$189.99	\$139.99	\$280
Reviewed in	6/98	-	7/97	7/97	-

\*Prices vary with location.

used with the Dynamic front end, although the necessary mounting holes are molded into the upper arm mounts. Foregoing the aluminum brace, I thought a second-best solution would be to install the carbon-fiber strap brace included with the Associated front end (but not mentioned in the PSE instructions). This brace ties the two suspension arms together at the riser blocks, and it would have helped stiffen the front of the chassis, but I

bulkhead from Associated's original RC10L series sandwiched between carbon-fiber top and bottom plates. The usual offset-hole ride-height adjusters are in place, but the axle that rides in them is not the typical stick o' graphite. Instead, PSE supplies a top-quality Irgang Racing Service (IRS) unit. The fiberglass axle is incredibly true to ensure a wobble-free ride, and the left hub is a two-screw clamping unit (who could bear to gouge

## PARMA/PSE PHAZE 1 OVAL CAR

*The Midnight 2 Pro's cooling slots are visible through the pod's top plate. Also visible are the lateral Delta shocks and IRS axle—good stuff.*



mended. With that plug, let's get down to business ....

I unpacked my gear, and the Phaze 1 started to get some curious looks. Everyone liked the no-tape battery setup, and the IRS axle and diff were instantly recognized as top-notch stuff. The number-one question was, "Have you run it yet?" and I hadn't. No one was shy with setup advice, however, and the fun began. Here's how the night went:



*This beefy battery brace grips the cells tenaciously but allows quick access. Note that the damper shares its mounting screw with the brace.*

Even before I put the car on the track, I swapped the right front green-compound tire for a blue-orange. I set the left front wheel with about 2 degrees of positive camber and the right front with 2 degrees negative (I say "about" because I left the ole RPM camber gauge at home. It's always something ...). The car felt OK, but not "locked in." I tried the tires down until I had 1/8 inch of rubber on each hoop. The car felt better, but too slow. I didn't gear up to compensate for the smaller tire diameter; I went back to the pits and replaced the 25-tooth Robinson pinion with a 27, then I finished off the pack.

I tried a blue left front tire just to see whether the car would get through the corners faster, but after a couple of laps, it was hooking badly, even though it should have had less steering. I took the car back to the bench and found the source of the trouble: the standoffs that support the rear brace and pod pivot had loosened, allowing the pod to swing from left to right a degree or so. I tightened the screws and added a drop of

thread-lock for good measure.

When the A-main was in the record books, I caught up with Nick Deoche, the winner and new track record holder. I wanted to take my driving skills out of the equation and have Nick run a pack through the car. Nick had been turning 3.5-second laps with his usual car, but he was a couple of tenths off the pace with the Phaze 1. "It's not set up right; this track is tough to dial-in for," he pronounced.

I asked Nick whether he would like to keep the car for a while and race it, and he jumped at the chance. I think Nick's willingness to shelve the car that just set the track record in favor of running the Phaze 1 shows his confidence in the car. I'll have Nick's setup and plenty more races under my belt by the time this hits the newsstand; email me at



*The hottest chassis in the world is of no help if your electronics cheese out, so reliability is a must. My trusty JR-756 PCM radio gear and Tekin's bombproof G9 have yet to fail me.*

### likes

- Wolfe springs and kingpins, IRS diff and axle, PSE body, PSE Velocity wheels and Kimbrough servo-saver—all included.
- Unique design with well-crafted carbon-fiber components.
- Easy to adjust and work on.

- Front-end brace not included.

### dislikes

peterv@airage.com for an update and setup tips.

## THE FINAL ANALYSIS

Given Nick's performance with the Phaze 1 and his faith in it, it's clear that this car is a contender. No problems ever materialized as a result of the un-braced front

## BUILDING & SETUP TIPS

Although the most complex oval car is still much simpler than any off-road racer, most oval drivers spend more time building their cars than off-roaders do; there is much to be gained by careful setup and much to be lost if the job is rushed. Take the time to build the Phaze 1 right!

■ **Step 9:** when cutting down the pivot-ball sockets, mount the sockets on the pivot-ball brace, then use a grinder or a rotary tool to remove the material until it is flush with the brace's flat edge. This will prevent you from removing more material than you need to.

■ The 4-40 swivel ball end that joins the center shock to the battery brace is a bit long; with the pod at level ride height, there was scarcely 2mm of travel left in the shock. I trimmed about 5mm off the swivel to shorten the shock's overall length, and this fixed the problem.

■ Make certain the bearing that is pressed into the spur gear is centered within the gear's width, or the diff will bind. When pinning the diff, be sure the pin does not extend past the diff ring and interfere with the spur gear.

■ The chassis is not pre-drilled for the servo mounts. Before you drill, take your time and mark the holes' positions carefully! I opted to use low-profile button-head screws to secure the mounts, as I do not have the correct bit to countersink the holes for pan-head screws. If you can't live without a perfectly smooth chassis, buy the necessary NiteTech\* tool.

## YOU'LL NEED

- 2-channel radio with ESC.
- 6-cell pack (LTO configuration).
- Stock or modified motor, depending on class.
- Pirion gear (64 pitch).
- Shock oil (30WT and 40WT).
- Battery charger.
- Polycarbonate-compatible paint.

end, and the car ran well out of the box, and any driver will appreciate the Phaze 1's ease of adjustment off the track.

Battery changes are quick, no-tape affairs, and the cells are held securely; you don't even need to Shoe-Goo the cells together.

The triple shocks' threaded bodies make adjustments to tweak and ride height simple. And of course, the Associated front end is easily adjusted for camber and caster.

The car is easy to build, the upgrade parts you might wish to buy with another car are already included, and the kit parts are very high quality. If you want to go fast on an oval, the Phaze 1 offers a good way to do it.

\*Addresses are listed alphabetically in the Index of Manufacturers on page 217. ■