

ROAD RUNNER ROCKETRY, INC.

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www.RoadrunnerRocketry.com

December 16, 2009

Dear TARC Sponsor:

With TARC signup underway, I am writing to introduce you to Roadrunner's line of model rocket motors. TARC teams, mentors and sponsors have told me that Roadrunner's motors are a great fit for the TARC competition, and I am offering them directly to TARC teams at special prices.

Did you know that over 80% of the TARC finalists in each of the last two years used composite propellant motors, predominantly in the F or G impulse classification?

Roadrunner offers TARC teams three motors in the E and F impulse class (G motors are not allowed in this year's competition). All are 29mm single use motors and are approved for use in the TARC competition. Since Roadrunner's introduction in mid 2006, the motors have proven to be reliable and easily ignited with the included two-wire igniter.

Attached is a document that should answer most questions you may have. It is VERY important you read completely the attached documents. Due to the large number of TARC teams, Roadrunner may not be able to personally answer every question you may have, so has attached answers to most questions you may have.

I hope you will consider using Roadrunner motors in TARC competition, and I wish your team good luck.

Sincerely,

Bob Korman

Frequently Asked Questions

Are thrust curves and simulation files available so that teams can simulate performance? Absolutely, both are available on the Roadrunner website, www.RoadrunnerRocketry.com. Downloadable files are available so that simulations can be run in wRasp, Rocksim and SpaceCad, the most popular rocket flight simulation programs.

Why should a team use single use motors when reloads are less expensive? Single use motors eliminate user assembly error, allow more flights as students do not have to spend time building and cleaning motors, and keep students from handling propellant and black powder ejection charges. While reloads appear to be cheaper, they do require expensive hardware. Whether reloads end up being cheaper or not depends on how many flights are accomplished before the hardware is damaged or lost.

Where can I buy Roadrunner motors? Roadrunners can be purchased direct or from a Roadrunner dealer at your local rocket club's launches

Can you bill me for the motors? No. Roadrunner requires advance payment.

I need less than 10 F60s – why can't I buy only a few? Hazmat shipping is expensive due to the hazmat charges levied by FedEx and the specialized packaging and labeling requirements for hazmat shipments. The \$14 shipping charge does not come close to covering the actual shipping cost; accordingly it is not economical for Roadrunner to sell less than 10.

Why don't you offer the F60-4 and E25-4? The best way to achieve a consistent desired altitude is to let the rocket coast all the way to apogee before the ejection charge fires, deploying the recovery system. Simulations and experience indicate that rockets designed to meet this year's TARC goals are unlikely to achieve apogee before a 4 second delay fires.

I need motors now. Do you have them in stock? Roadrunner strives to maintain inventories of all its motors. However **TARC teams should order early and order all the motors they may need for the competition at one time to preclude supply issues.** With a large number of TARC teams, a limited time period in which most teams order, and demand concentrated in just a few skus, it is possible that a rush of orders may make a sku or skus unavailable in the time period needed.

How do you ship motors, and how long does it take to get them? Orders containing only the E25s and F45s can be shipped by US Postal Service ground. Such shipping, while inexpensive, does not have scheduled delivery times.

Generally they are received within one week of shipment, but can take longer and are not tracked. Orders that include the Roadrunner F60 must be shipped by FedEx Ground. FedEx Ground shipments will generally be received within seven days of shipment.

FedEx Ground shipments must be signed for or they will be returned to Roadrunner and shipping charges will not be refunded. Reshipment will cost an additional \$40. Accordingly if you get a delivery attempt notice, call FedEx immediately to arrange for pickup. Also be aware that orders shipped FedEx ground will have a large orange "Explosive" sticker on them, so make sure that will not cause any problems where the motors are being shipped.

Can I get Roadrunner motors at the finals? Absolutely. For those teams that need motors delivered to the finals, Roadrunner will ship motors directly to the competition as explained in the TARC handbook. This shipment will be roughly three weeks before the competition (in order to allow time for another shipment to arrive timely should the initial shipment get lost in transit).

Teams that need Roadrunner motors delivered to the finals should contact Roadrunner directly, and as soon as possible once their participation in the finals is confirmed, The official onsite motor vendor at the TARC finals does not carry Roadrunner motors.

Thanks for taking the time to read this. I hope it has been helpful.