Preparation for Flight
1. Remove the supplied FirstFire™ igniter from the cardboard tube and straighten the leads.
2. Strip 1/2”-1” of insulation from the end of the leads.
3. Insert the black-coated end of the igniter through the nozzle opening and push it completely into the motor core, until the coated end is touching the time delay element in the modular bulkhead.
4. Using a hobby knife or scissors, cut a corner off the supplied nozzle cap to produce a vent hole in the cap about 1/16”-1/8” wide.
5. Press the open end of the nozzle cap over the exposed nozzle extension to hold the igniter firmly in place.
6. Install the motor into the rocket’s motor mount tube. Ensure the motor is securely retained in the rocket body using positive mechanical means to prevent it from being ejected during recovery system deployment.
7. Prepare the rocket’s recovery system and then launch the rocket in accordance with the National Association of Rocketry (NAR) and/or Tripoli Rocketry Association (TRA) Safety Codes.

Post-Recovery Cleanup
NOTE: Perform motor clean-up as soon as possible after motor firing. Propellant and smoke charge residues become difficult to remove after 24 hours and can lead to corrosion of the metal parts. Place the spent motor components in the reload kit plastic bag and dispose of properly.
1. After the motor has cooled down, untread and remove the aft and forward closures.
2. Remove the spent components from the casing by pushing on the nozzle end and discarding. Use wet wipes or damp paper towels, wipe the inside of the casing and all surfaces of the aft and forward closures to remove all propellant residue.
3. Apply a light coat of grease to all threads and the inside of the motor case. Reassemble metal parts and store motor in a dry place.

First Aid
Do not ignite an AeroTech motor indoors. Do not breathe fumes from the rocket motor exhaust. For a minor burn, apply a burn ointment. For a severe burn, immerse the burned area in ice water at once and see a physician as quickly as possible. In the unlikely event of oral ingestion of the propellant, induce vomiting and see a physician as quickly as possible. The composite propellant used in AeroTech 54mm kits consists primarily of Ammonium Perchlorate and a rubber-like plastic estameter. Redline™ propellant also contains Strontium Nitrate, and Mojave Green™ propellant contains Barium Nitrate.

Disposal
Pack assembled motor firmly in a hole in the ground so that only the nozzle is exposed, away from people, animals, buildings and flammable materials. Ignite motor electrically from a distance of 30 feet or more. Propellant, delay and ejection charge (if installed) will burn until consumed. Wait until the motor has cooled off before disassembly and cleanup.

Fire Safety
Tests show that the pyrotechnic components of RMS™ reload kits will not explode in fires and normally will not ignite unless subjected to direct flame and then will burn slowly. Use water to fight any fires in which AeroTech RMS™ reload kit pyrotechnic components may become involved. Direct the water at the AeroTech RMS™ reload kit pyrotechnic components to keep them below 550 deg. F autoglow temperature. Foam and carbon dioxide fire extinguishers will NOT extinguish burning propellants of the type used in RMS™ reload kit pyrotechnic components. Keep reload kit pyrotechnic components away from flames, sources of heat and flammable materials.

Warranty
GENERAL: No warranty, either expressed or implied is made regarding AeroTech/RCS products, except for replacement or repair, at RCS’s option. Only those products which are proven to be defective in manufacture within 90 days or one year (applicable as described below), from the date of original purchase qualify. In no case will RCS warranty a product more than five (5) years after the date of manufacture. Incidental or consequential damages are not covered. For repair or replacement under this warranty, please send a copy of your paid invoice or other proof of purchase, the product involved, and a brief letter describing your experience with the reported failure. Freight or other fees incurred to send items to RCS are non- refundable. Note: Your state may provide additional rights not covered by this warranty.

RMS RELOAD KITS: (18-68mm) Covered 1 year from date of purchase. Failure of delay to ignite or to remain lit (i.e., partial remaining unburned delay element), ejection of nozzle insert, missing or defective parts. NOT COVERED: Failure to ignite, any failure of recovery system deployment or not of delay element extinguishment, reload kits not used in accordance with instructions or modified in any way, any reload kit assembled more than twelve hours before flight, any incidental or consequential damage or failure related to use in a cluster or in staged applications.
NOTE: THE DRAWING SHOWN BELOW IS A GENERIC REPRESENTATION OF THE ACTUAL MOTOR. NOZZLE SIZE, NUMBER AND SIZE OF PROPELLANT GRAINS AND LENGTH OF DELAY GRAIN AND DELAY SPACER MAY BE DIFFERENT. IF YOU HAVE A PLUGGED RELOAD, IGNORE INSTRUCTIONS ABOUT DELAY ADJUSTMENT, EJECTION CHARGE AND EJECTION CHARGE CAP.

Assembly Instructions (numbers refer to item numbers on drawing):
1. Lightly grease o-rings (4, 9, 17 & 18) and case & closure threads (6, 2 & 13).
2. Install liner o-ring (18) on flange of nozzle (3).
3. Push nozzle and liner o-ring assembly (3 & 18) into one end of liner (5).
4. Insert propellant grains (7) into liner (5), then push liner assembly into case (6) until liner is recessed equally from both ends of case.
5. Install forward insulator (8) and forward o-ring (9) into the end of case (6) opposite the nozzle (3).
6. Trim time delay grain (11) if desired, using AeroTech 54mm RMS Delay Drilling Tool (54mm RDDT). NOTE: Drilled end of delay grain faces propellant.
7. Assemble time delay components into the forward closure (13) as shown and per the enclosed Complete Reload Delay Kit (CRDK) instructions.
8. Thread the assembled forward closure (13) into the end of the case (6) with the forward insulator (8) and forward o-ring (9) until seated.
9. Install aft o-ring (4), and aft closure (2) into nozzle end of case (6) until seated.
10. If supplied, dispense ejection charge (14) into forward closure (13) and seal end with ejection charge cap (15).

Forward & Aft O-rings (4 & 9) 
2" x 1/8" 224
Delay O-ring (17) 
1.17" x .123" 
AeroTech P/N 00002
Liner O-ring (18) 
2" x 1/16" 032
Forward Insulator (8)
Forward Delay Spacer (16)