Before You Begin
- Do not modify the motor in any way, except as described herein.
- If any parts are missing or damaged, call AeroTech at 435-866-7100.
- Use only AeroTech RMS reload kits to refurbish an RMS motor.
- Do not interchange parts from different reload kits.
- Do not reuse any parts of the RMS reload kit.
- Save the reload kit plastic bag for the used reload kit parts. Dispose of bag and parts properly.

Package Contents
RMS-EZ reload kit components
Igniter & ejection charge kit

Hardware and Supplies Required
RMS 38mm aft closure
RMS 38mm case (see RMS-EZ package label for size)
RMS 38mm retaining ring (from 38mm reload adapter system)
RMS 38mm forward seal disk
38mm reload adapter system case spacers (if needed; refer to RAS instructions)
Universal™ delay drilling tool
Sync™ Super Lube™ or other grease
Hobby knife or scissors
Wet wipes or damp paper towels

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 that the motor is securely retained in the rocket by 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 (cont’d)
2. Remove the spent components from the casing by pushing on the nozzle end and discarding. Using wet wipes or damp paper towels, wipe the inside of the casing and all surfaces of the aft closure, retaining ring and forward seal disk to remove all propellant residue. DO NOT DISCARD THE FORWARD SEAL DISK!
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 breath 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 reload kits consists primarily of Ammonium Perchlorate and a rubber-like plastic elastomer. 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.

Fire Safety
Tests show that the pyrotechnic components of RMS™ reload kits will 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 their 550 deg. F autoignition 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.

Disclaimer and Warranty
NOTICE: As we cannot control the storage and use of our products, once sold we cannot assume any responsibility for product storage, transportation or usage. RCS shall not be held responsible for any personal injury or property damage resulting from the handling, storage or use of our product. The buyer assumes all risks and liabilities therefore and accepts and uses AeroTech/RCS products on these conditions. No warranty either expressed or implied is made regarding AeroTech/RCS products, except for replacement motor repair, at RCS’s option, of those products which are proven to be defective in manufacture within one year from the date of original purchase. For repair or replacement under this warranty, please contact RCS. Proof of purchase will be required. Note: Your state may provide additional rights not covered by this warranty.

RMS-EZ™ HIGH-POWER
Reloadable Motor System™
Rocket Motor Reload Kit With Modular Bulkhead Assembly & Operation Instructions
For RMS-38/480-1320 Motor Hardware

WARNING: Do not use the longest (as-supplied) time delay, do not use the delay drilling tool and instead proceed with general motor assembly (inside pages).

1. WARNING: Do not smoke and ensure that there are no open flames or heat sources nearby when setting the time delay. Assemble the AeroTech Universal delay drilling tool with the desired amount of delay time removal (i.e., the - 4 or - 8 seconds removal marked on the tool label) facing the exposed drill bit and modular bulkhead ejection well.

2. Optional: Place the washer between the drill knob and the tool if you want to remove 2 seconds less than the value printed on the tool (i.e., - 2 or - 6 seconds removal).

3. Place the open end of the tool over the motor bulkhead, hold the tool and motor firmly against each other and turn the drill knob several times clockwise until the drill knob sits flush against the drill tool body.

4. Remove the tool and shake out the shavings from the tool and motor bulkhead. Dispose of the shavings by burning with a safe method and in a safe location.

Certified by the Tripoli Rocketry Association
Instructions 21053 Rev. 6/27/13
Made in U.S.A.
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General Assembly Instructions (numbers refer to item numbers on drawing):
1. Lightly grease o-rings (4, 10 & 15) and case & closure threads (2, 7 & 12).
2. Install forward seal disk o-ring (15) into groove on forward seal disk (9).
3. Install forward seal disk assembly (15 & 9) into one end of liner (6).
4. Insert propellant grains (8) into liner (6), then push liner assembly into case (7) until recessed equally from ends of case.
5. Install forward o-ring (10) into the end of case (7) with the forward seal disk (9).
6. Trim time delay of modular bulkhead (11) if desired, using AeroTech Universal™ delay drilling tool.
7. Push modular bulkhead (11) into the end of the case (7) with the forward seal disk (9) and forward o-ring (10) until seated.
8. Thread retaining ring (12) into the end of the case (7) with the modular bulkhead (11) until seated against the case (7).
9. Install aft insulator (5), aft o-ring (4), nozzle (3) and aft closure (2) into open end of case (7) until seated.
10. Dispense ejection charge (13) into modular bulkhead (11) and seal end with ejection charge cap (14).