Chapter 4. Preparation for Flight

4.1. Fig. 12: Insert the black-coated end of the Copperhead igniter through the nozzle throat and into the vent or cone of the propellant grain(s) up to 1/16" against the delay element.

4.2. Fig. 12: Using scissors or a hobby knife, cut a corner off the closed end of the nozzle cap to create a vent hole about 1/16" wide. Push the nozzle cap over the nozzle to hold the igniter in place.

4.3. Install the RMS motor into the rocket's motor mount tube. Ensure that the motor is secured in the rocket by using positive mechanical means to prevent it from being ejected at the time of ejection charge firing. If using a motor hook, be sure to hold the hook away from the motor during insertion into the motor tube to prevent the hook from trapping the motor casing. Position the hook tab into the socket recess in the aft closure.

4.4. Prepare the rocket's recovery system and then launch the rocket in accordance with the National Association of Rocketry (NAR) Safety Code and National Fire Protection Association (NFPA) Code 1122. Note: It is strongly recommended that you use the AeroTech Interlock™ igniter clip with Copperhead igniters. Tests have shown that nearly 100% of ignition reliability is achieved with an interlock clip used in conjunction with a properly installed Copperhead igniter and a fully-charged 12-volt car battery.

4.5. If a mixture occurs and a loaded AeroTech/RCS RMS motor does not ignite for any reason within five seconds of pressing the launch button, release the launch button and remove the safety key from the electrical launch controller. WAIT ONE MINUTE before approaching or allowing anyone else to approach the rocket. Keep your fingers and hands out from underneath the rocket and away from the possible path of the exhaust jet. DO NOT SMOKE ANY PART OF YOUR BODY over the launch pad. Disconnect the clip from the Copperhead igniter. Carefully remove the rocket from the launch pad. Keeping the motor nozzle pointed away from your face and body - and away from any other person's face or body - remove the red plastic nozzle cap and repeat the motor preparation and launching process.

Chapter 5. Post-Recovery Cleanup

Note: Perform RMS motor cleanup as soon as possible after motor firing. Propellant and delay residues become difficult to remove 24 hours after motor firing. These residues can lead to corrosion of metal parts. DO NOT SPILL SPENT MOTOR COMPONENTS PROPERLY.

5.1. After the motor has cooled down, remove the forward and aft closures. Remove and discard the delay resistor and delay o-ring from the forward closure. Using wet wipes or damp paper towels, remove all propellant, delay, and ignition charge residues from the closures. WARNING: FAILURE TO REPEAT THE CLEANUP PROCEDURE MAY CAUSE INJURY TO YOURSELF OR OTHERS.

Chapter 6. First Aid

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 this propellant, induce vomiting and see a physician as quickly as possible. The AeroTech/RCS composite propellant consists primarily of ammonium perchlorate and a rubber-like plastic binder.

Chapter 7. Disposal

Damaged or defective RMS reload kits should be returned to RCS.

Chapter 8. Fire Safety

Tests show that the pyrotechnic components of RMS reload kits will not explode in fires and will not ignite unless subjected to direct flame and then will burn slowly. Use water to fight any fires in which AeroTech/RCS RMS reload kits pyrotechnic components may be involved. Direct the water at the AeroTech/RCS RMS reload kit pyrotechnic components to keep them below their 350 deg. F flashpoint temperature. Foam and carbon dioxide fire extinguishers will NOT extinguish burning propellants of the type used in RMS reload kit pyrotechnic components. Keep reload kits 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 personnel injury or property damage resulting from the handling, storage or use of our product. The buyer assumes all risks and liabilities therefrom 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 or repair at RCS's option, of those products which are proven to be defective in manufacture within a 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-24/60 BLACK MAX™ MOTOR KIT DATA

<table>
<thead>
<tr>
<th>Casing Design</th>
<th>Performance Design</th>
<th>Total Impulse (Typ.)</th>
<th>Propellant WL</th>
<th>Loaded Motor Wt</th>
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</thead>
<tbody>
<tr>
<td>RMS-24/60</td>
<td>F62FJ</td>
<td>47.7 ft·lb</td>
<td>32.2 g (0.070 lb)</td>
<td>87 g (0.191 lb)</td>
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RMS-24/60 HARDWARE DATA

<table>
<thead>
<tr>
<th>Hardware Designation</th>
<th>Motor Diameter</th>
<th>Motor Length</th>
<th>Hardware Weight</th>
<th>Reload Kit Used</th>
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<tbody>
<tr>
<td>RMS-24/60</td>
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<td>3.75&quot;</td>
<td>39.3 g (0.087 lb)</td>
<td>F62FJ</td>
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</tbody>
</table>

Model Rocket RMS™

Reloading Motor System™

DO NOT OPEN RELOAD KIT UNTIL READY TO USE

THIS PACKAGE CONTAINS TWO RMS RELOAD KITS:

F62-10FJ

The reload kit shown above is ONLY for use in AeroTech/RCS RMS-24/60 model rocket motor hardware.

NOTE: SALE TO PERSONS UNDER 18 YEARS OF AGE PROHIBITED BY FEDERAL LAW. WARNING—FLAMMABLE: Read Instructions Before Use. KEEP OUT OF REACH OF CHILDREN. FOR USE ONLY BY INDIVIDUALS 18 YEARS OF AGE OR OLDER. DO NOT SMOKE when loading these motors or use in the vicinity of open flames.
Chapter 1. Forward Closure Assembly

2-1. Fig.-4: Insert the propellant grain(s) into the liner (1 grain if slotted, 2 grains if cored).

2-2. Fig.-5: Insert the liner assembly into the motor case, seated against the liner assembly.

2-3. Fig.-6: Insert the propellant grain(s) and then close the motor case until the large diameter end is seated against the liner tube.

2-4. Fig.-7: Insert the delay charge assembly into the delay cavity, seated against the delay o-ring.

2-5. Fig.-8: Insert the nozzle into the open end of the motor case until it is recessed equally from both ends of the case.

2-6. Fig.-9: Tilt the forward closure to the nozzle-up position, and avoid moving the liner tube.

3-1. Fig.-10: If it becomes necessary to remove the AFT closure, hold the liner assembly in place with your finger.

3-2. Fig.-11: Carefully extract the propellant grain(s) and nozzle.

3-3. Fig.-12: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.

3-4. Fig.-13: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.

3-5. Fig.-14: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.

3-6. Fig.-15: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.

Chapter 2. Case Assembly

2-1. Fig.-4: Insert the delay charge assembly into the delay cavity, seated against the delay o-ring.

2-2. Fig.-5: Insert the nozzle into the open end of the motor case until it is recessed equally from both ends of the case.

2-3. Fig.-6: Insert the propellant grain(s) and then close the motor case until the large diameter end is seated against the liner tube.

2-4. Fig.-7: Insert the propellant grain(s) and then close the motor case until the large diameter end is seated against the liner tube.

2-5. Fig.-8: Insert the propellant grain(s) and then close the motor case until the large diameter end is seated against the liner tube.

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3-5. Fig.-14: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.

3-6. Fig.-15: Tilt the forward closure to the nozzle-down position, and avoid moving the liner tube.