

# RATT works

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L-600, M-900 Assembly Instructions



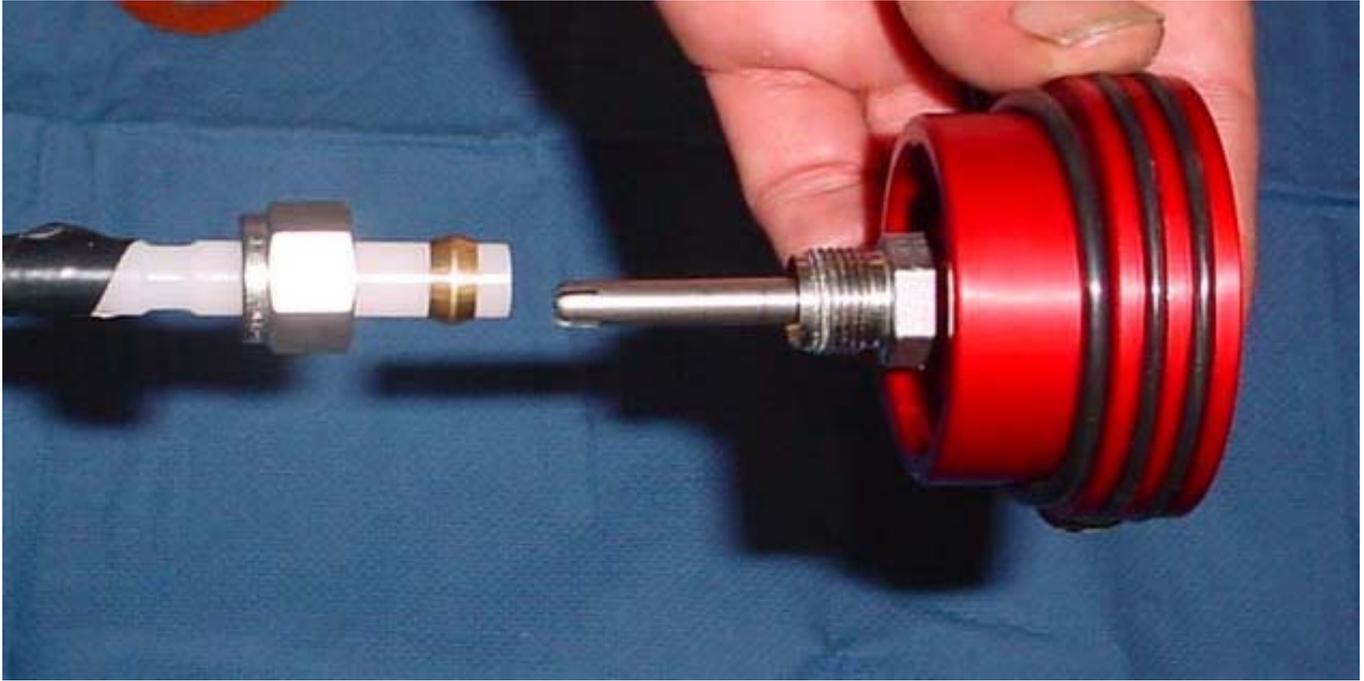
## Items necessary to assemble motor (not supplied)

1. Preheater grain 54mm 'White lightning 1/2" to 3/4" long, 7/8" ID
2. Quick burst igniter, or similar
3. 11/16" Open end wrench
4. 3/8" Allen wrench
5. Black electrical tape
6. Masking tape
7. Krytox



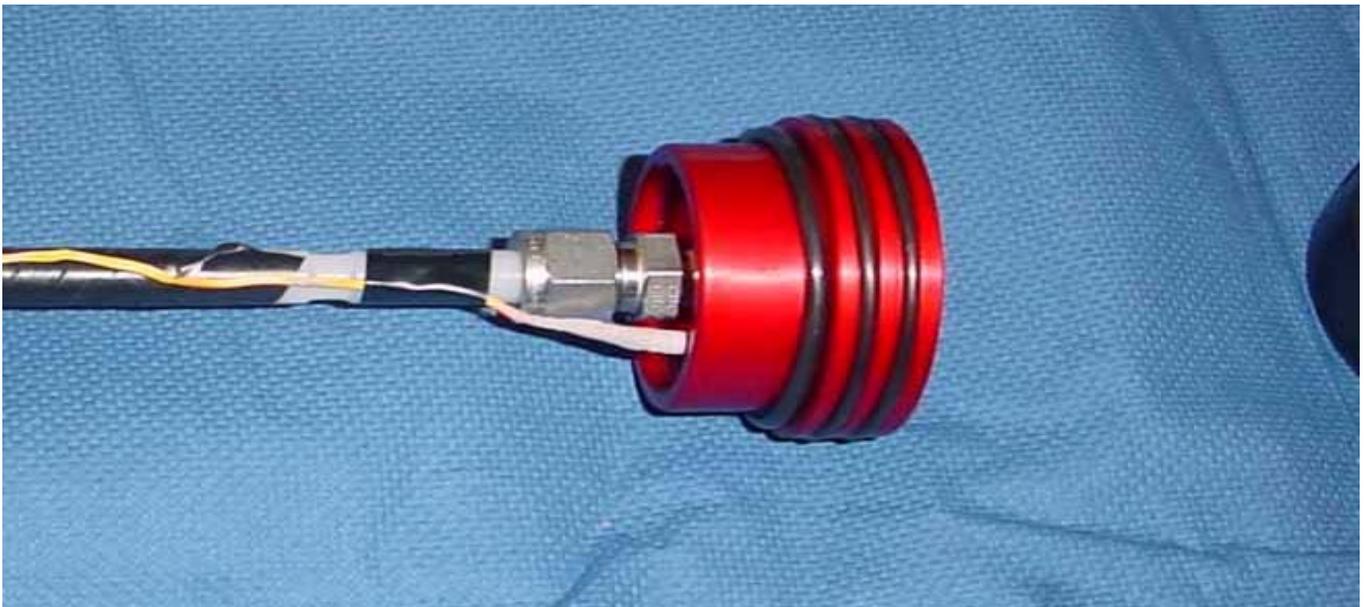
### **Items supplied with reload**

1. M-900 or L-600 polypropylene grain
2. 2 phenolic grain insulators tubes
3. 1 phenolic nozzle insulator ring
4. 1 #223 silicon o-ring
5. 3 #225 buna o-rings
6. 1 brass compression sleeve
7. 1 nylon 3/8" fill tube



### Step 1

Add 3/8" compression fitting nut brass sleeve onto 3/8" nylon fill tube (Note, groove in fill tube location) Add 1 #225 buna o-ring to injector bulkhead.



### Step 3

Place igniter on fill tube as shown, secure with black electrical tape. Note: do not cover groove.



### Step 4

Place 2 #225 buna o-rings on both ends of grain as shown, no lubricant required then place 1 #223 silicon o-ring on nozzle, lube silicon o-ring with soap.



### Step 5

Place phenolic sleeves on fuel grain as shown.



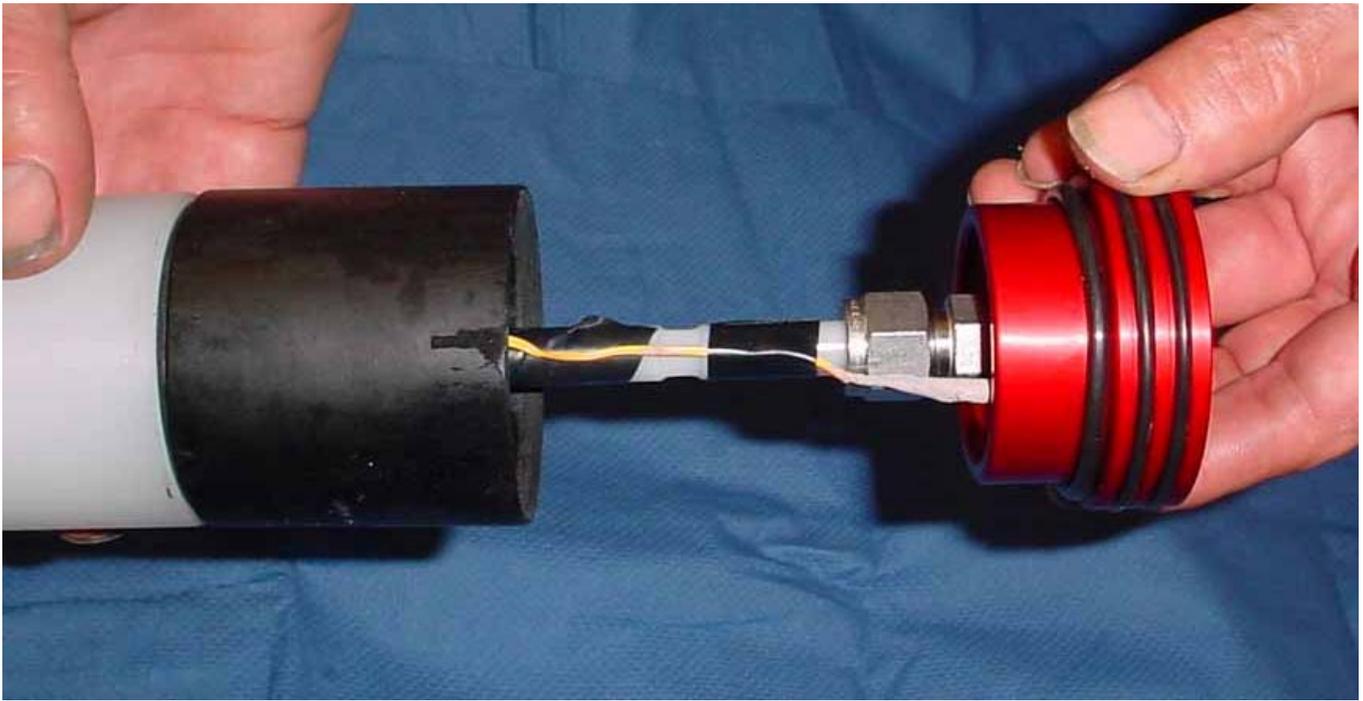
## **Step 6**

Insert nozzle flush with phenolic sleeve.



## Step 7

Wrap masking tape around pre-heater grain to increase diameter for a slightly snug fit then, push grain in until it seats as shown.



### **Step 8**

Insert injector assembly into fuel grain.



### **Step 9**

Assembled fuel grain should look as shown.



### Step 10

Add a good size bead of Krytox to inside motor tube as shown.



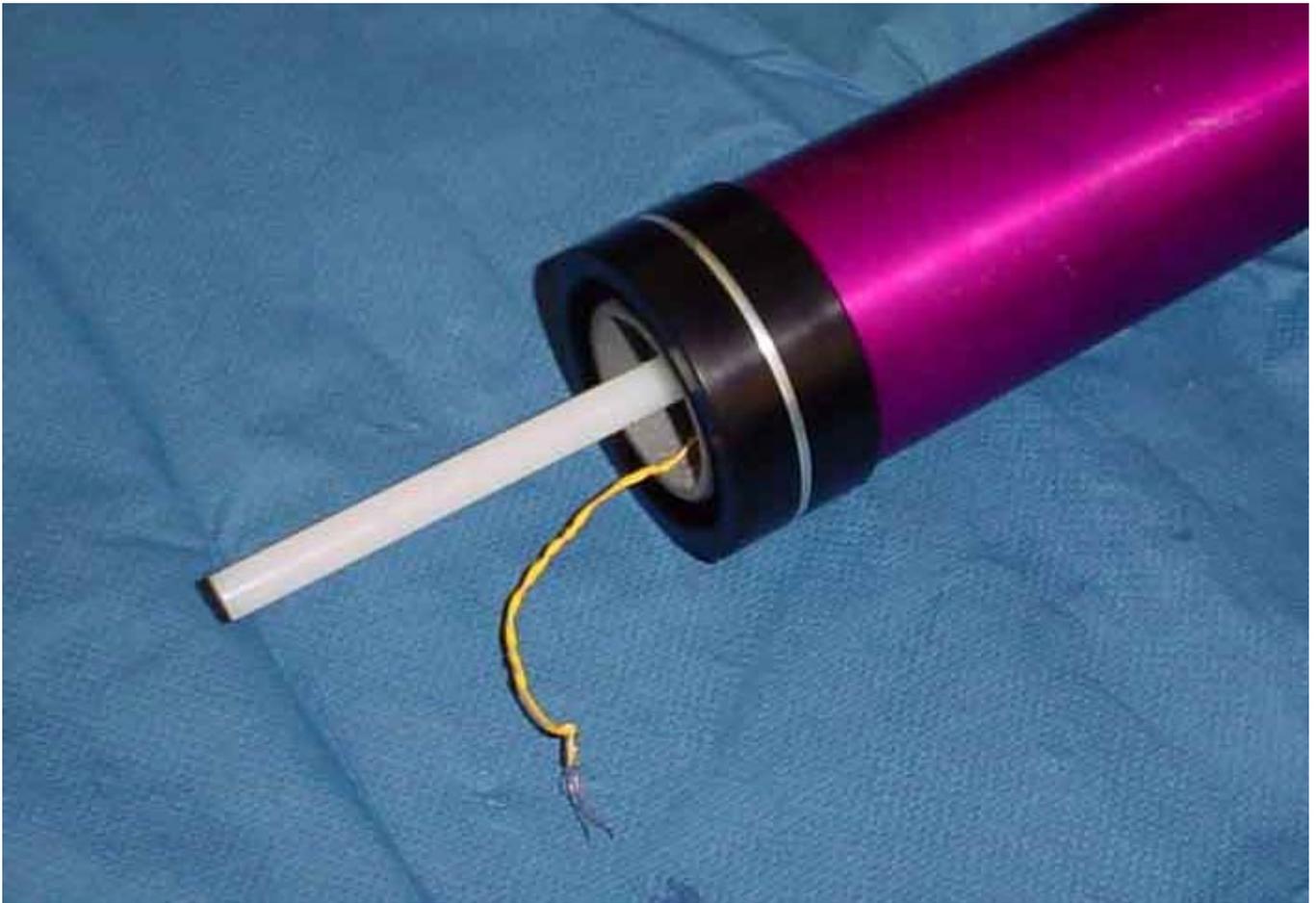
### Step 11

Slide fuel grain assembly into motor tube until flush as shown.



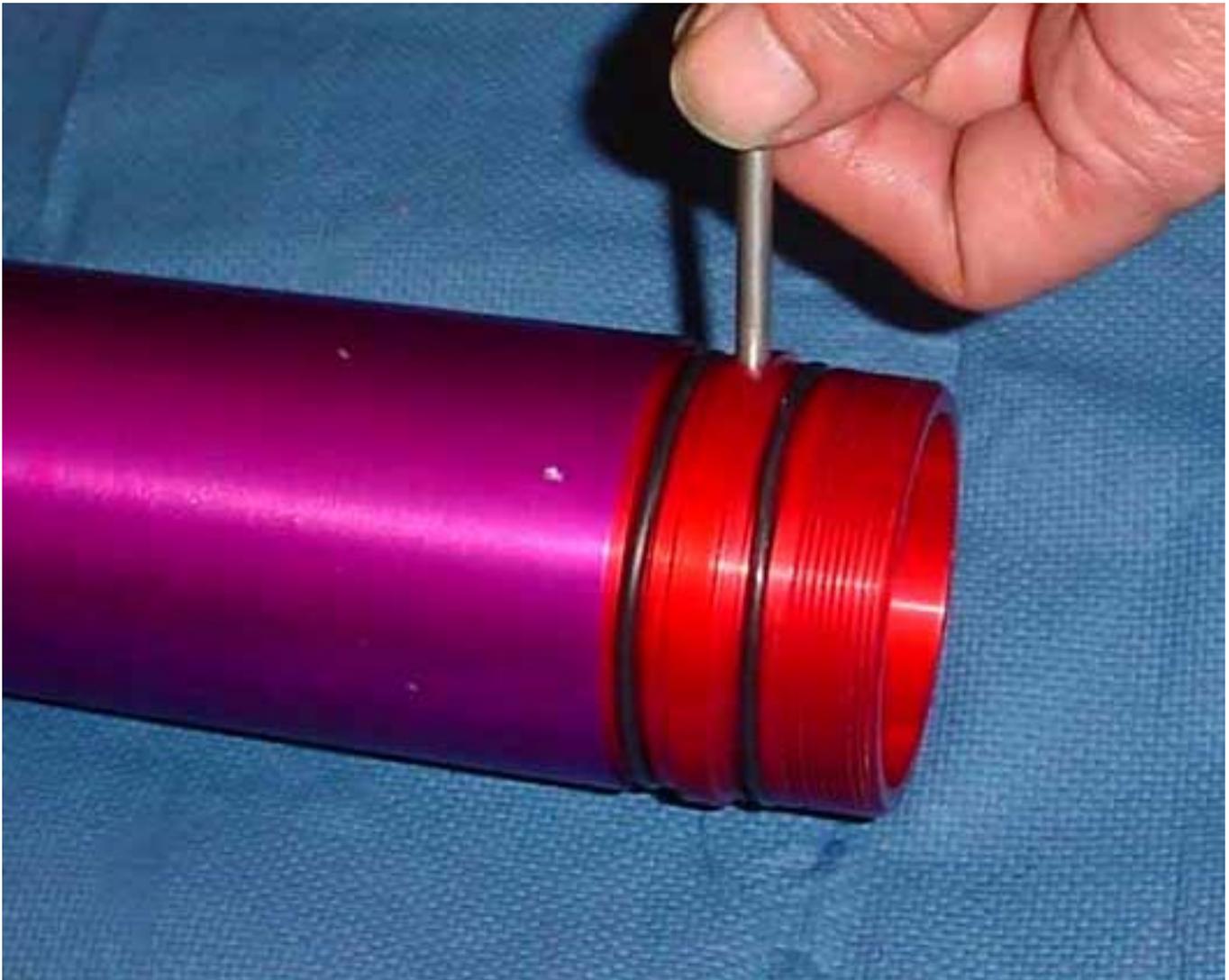
## **Step 12**

Place phenolic insulator ring into rear closure as shown.



### **Step 13**

Place rear closure on motor tube as shown, hand tight.



### **Step 14**

Add a little Krytox to the 2 o-rings on the tank connector, thread into motor tube until fully seated. Use a 3/16" or 10-32 2" long cap screw to assist in tightening. Note, if your assembling a L-600 skip steps 14 and 15 and go directly to step 16.



## **Step 15**

Thread M-900 30" tank extension onto tank coupler, hand tight.



## Step 16

Add a little Krytox to the o-ring on upper closure, thread into motor casing, use a 1/4" -20 to assist in tightening. Your motor should be complete and ready to launch.