

## TURBO

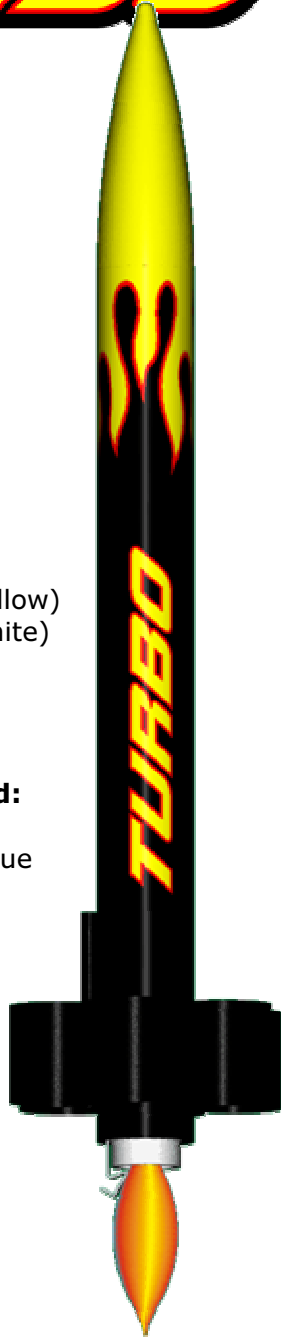
### Assembly Instructions

#### Parts Included:

- 1 Nose Cone
- 1 Body Tube
- 6 Fin Tubes
- 1 Thrust Ring
- 2 Centering Rings
- 1 Motor Tube
- 1 Motor Hook
- 1 Launch Lug
- 1 Kevlar Shock Cord (yellow)
- 1 Elastic Shock Cord (white)
- 1 Streamer
- 2 Tape Discs
- 1 Decal Sheet

#### Materials Not Included:

- Paint
- Yellow Wood or White Glue

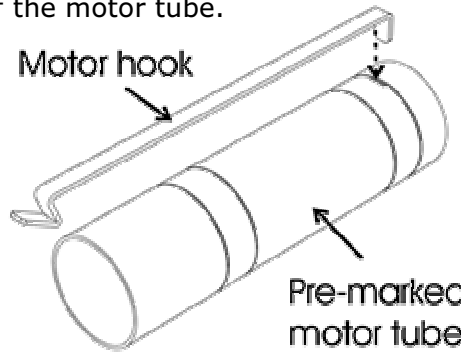


### Motor Mount and Shock Cord Assembly

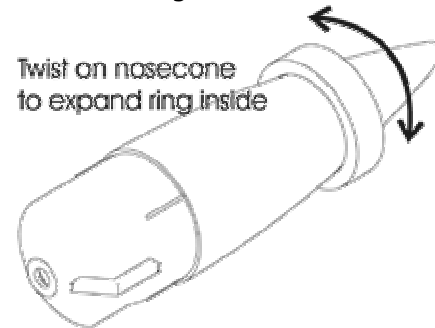
**Step 1** – Tie a single knot at the end of the yellow kevlar shock cord.



**Step 2** – Insert the flat end of the metal motor hook into the pre-cut slot 1/4" from the end of the motor tube.

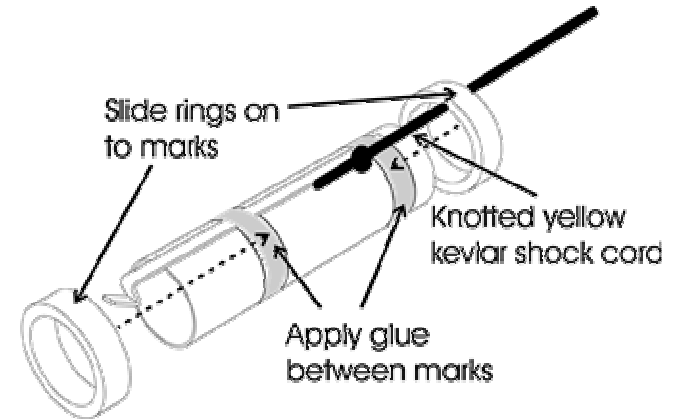


**Step 3** – Slightly expand the inside of the 2 larger centering rings by twisting on the end of the nose cone. **Important:** Don't expand the smaller trust ring.

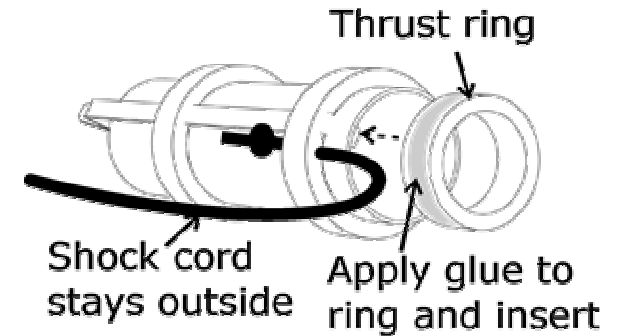


**Step 4** – While holding the motor hook in the slot, apply glue around the motor tube between the marks. Push the expanded end of the centering rings over the motor hook with the knotted end of the kevlar shock cord

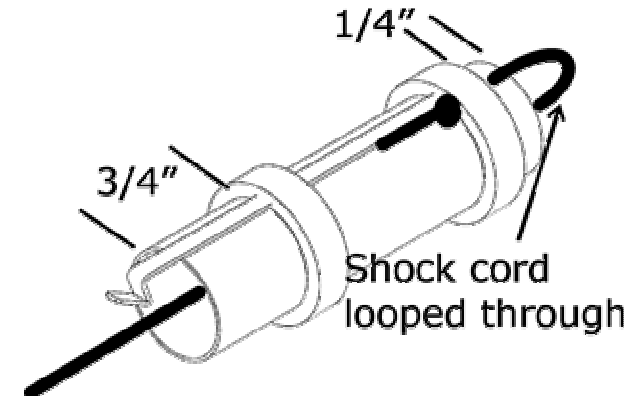
through the rear centering ring until the rings are between the marks on the motor tube.



**Step 5** – Apply glue around the outside of the thrust ring and insert into the motor tube at the end where the motor hook is inserted. Push in until against the motor hook and flush with the end of the motor tube.

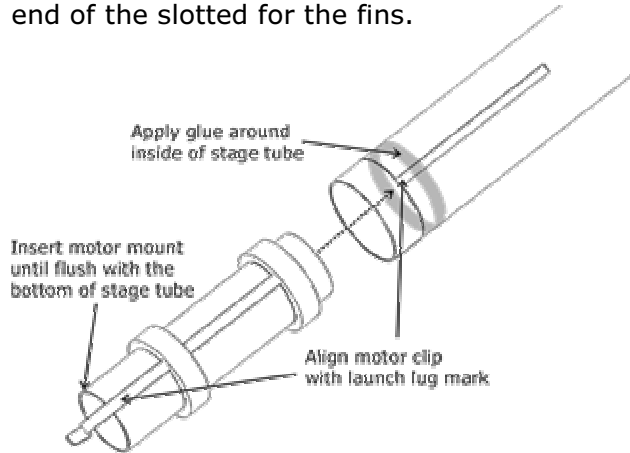


**Step 6** – Loop the yellow kevlar shock cord through the thrust ring end of the motor tube. The rings should be positioned as shown.



## Inserting and Attaching the Motor Mount

**Step 1** – Refer to the drawing below to locate the bottom of the stage tube by the 1 1/8" fin slot distance. Using a Q-tip or your little finger apply glue liberally around the inside end of the lower body tube 1/2" in at the end of the slotted for the fins.

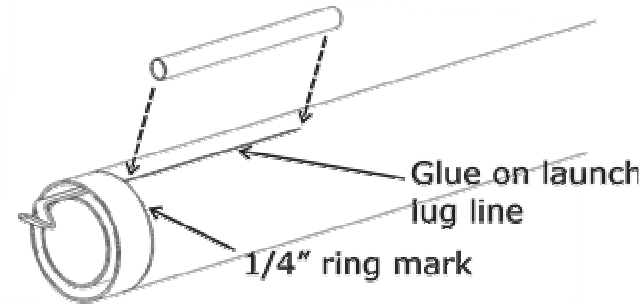


**Important:** Do the following motor mount insertion in one move. Do not stop until the motor mount is in the correct position.

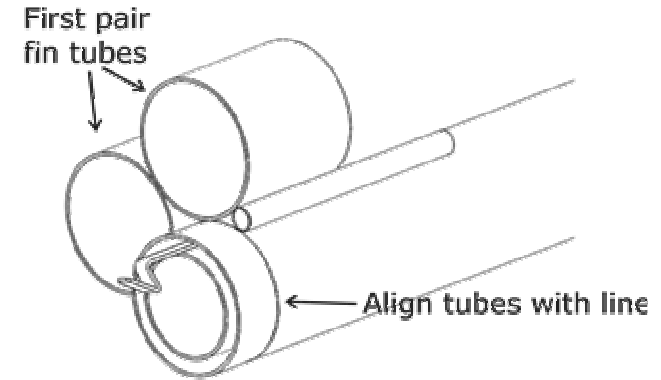
**Step 2** – Insert the motor mount and push in until the bottom of the motor tube is flush with the bottom on the lower body tube. Set aside to dry.

## Attaching the Launch Lug and Fins

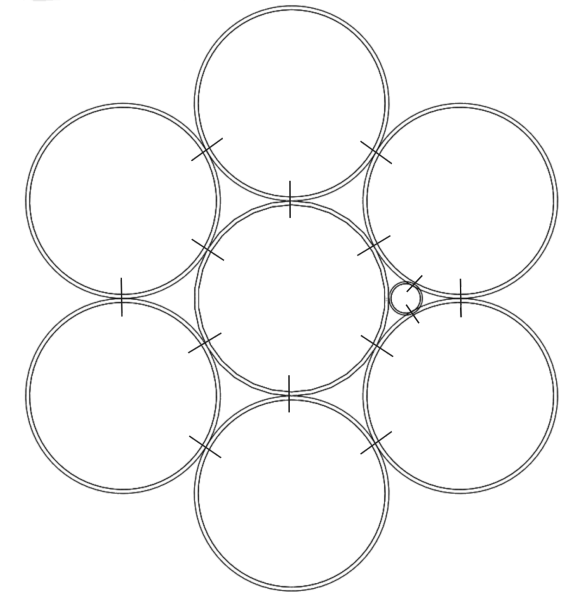
**Step 1** – Apply a thin line of glue to the launch lug and attach where marked on the lower body tube and set aside to dry for a few minutes.



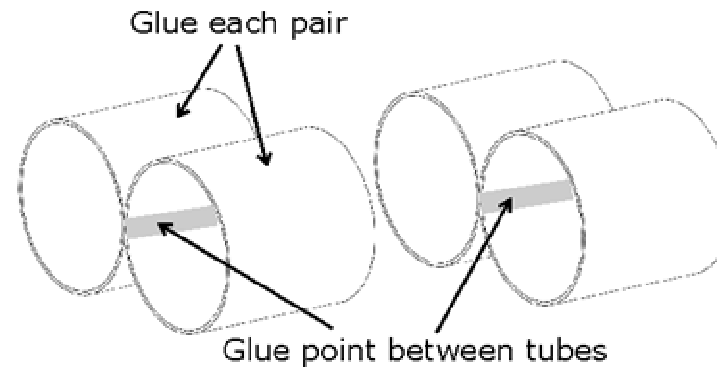
**Step 3** – Apply glue in a thin line along the length of the first fin tube pair in 2 places and the launch lug. Refer to the fin tube layout guide on this page for glue locations between the lower body tube, fin tubes, and the launch lug. Attach the first fin tube pair to lower body tube and launch lug while aligning with the line around the tube as shown.



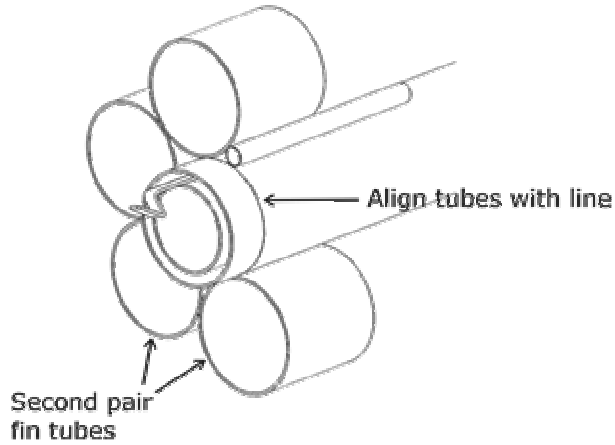
Fin Tube Layout Guide



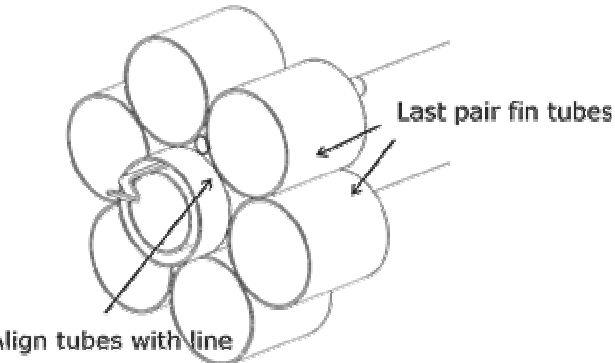
**Step 2** – Apply a thin line of glue to the outside of one of the fin tubes along the length. Attach 2 fin tubes together and set aside to dry for a few minutes on a flat surface to keep them aligned parallel to each other. Do this for 3 pairs of fin tubes.



**Step 4** – Apply glue in a thin line along the length of the second fin tube pair in 3 places. Refer to the fin tube layout guide on this page for glue locations between the lower body tube and the fin tubes. Attach second fin tube pair to the lower body tube and first fin tube pair while aligning with the line around the tube as shown.



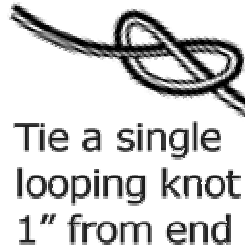
**Step 5** – Apply glue in a thin line along the length of the last fin tube pair in 2 places and the launch lug. Refer to the fin tube layout guide on this page for glue locations between the lower body tube, fin tubes, and the launch lug. Attach the last fin tube pair to the body tube, second tube pair, and launch lug while aligning with the line around the tube as shown. Set aside the whole assembly to dry for a few minutes.



## Attaching the Streamer and Nose Cone

**Step 1** – Feed the yellow kevlar shock cord through the bottom of the lower body tube and pull out through the top.

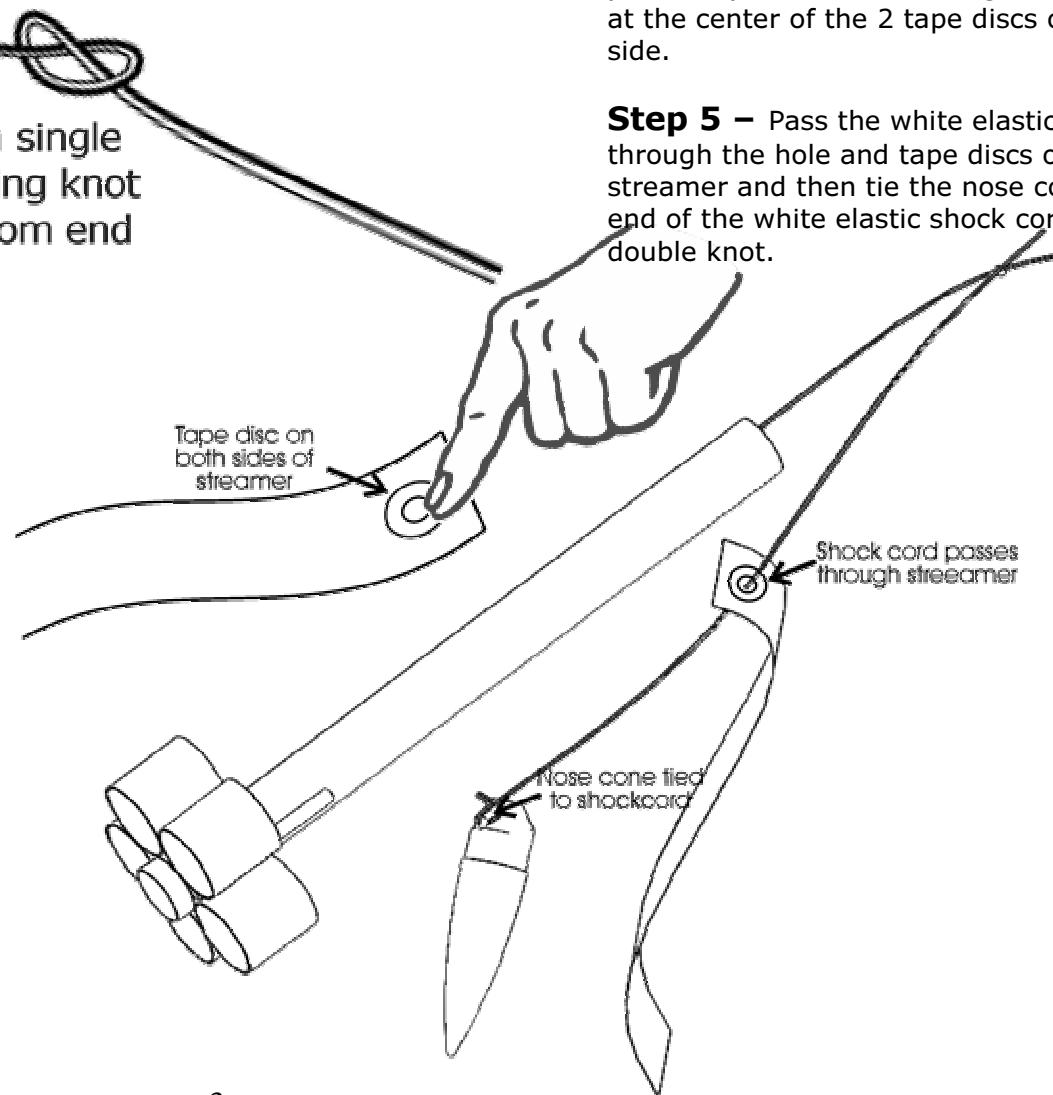
**Step 2** – Tie both the white elastic shock cord and the yellow kevlar shock cord together with a single looping knot and pull both shock cords apart to tighten the knot.



**Step 3** – Remove 1 of the 2 tape discs from the backing sheet and press firmly onto the streamer at about 1/2" from the end. If a hole is already punched in the end of the streamer, align the tape disc with the hole instead. Turn over the streamer, then remove the second tape disc and press firmly onto the other side of the streamer with the holes of both tape discs aligned to each other.

**Step 4** – If there is no hole already punched through the streamer, take a tooth pick and punch a hole through the streamer at the center of the 2 tape discs on either side.

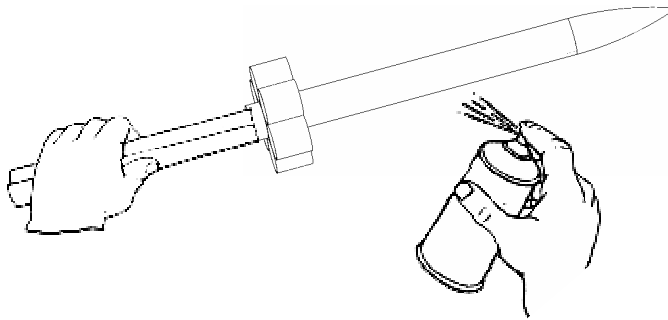
**Step 5** – Pass the white elastic shock cord through the hole and tape discs on the streamer and then tie the nose cone to the end of the white elastic shock cord with a double knot.



## Finishing Your Rocket (Optional)

**Step 1** - Sand the nose cone with #240 grit sandpaper to allow paint to stick.

**Step 2** – Roll up a sheet of paper and insert into the bottom of the rocket body tube to hold your rocket, apply a thin coat of flat white or gray primer spray enamel to the whole rocket using even back and forth movements. Let the primer dry and sand using #240 grit sandpaper. Re-coat and sand as necessary.



**Step 3** – Apply a first thin color coat of gloss spray enamel to the whole rocket using even back and forth movements. Let the first coat tack up for a few minutes. Then follow up with a heavier coat. Do not coat too heavily or the paint will sag. The best results are obtained when the color coat is just thick enough to gloss. If additional coats are needed to cover the primer with full color, re-apply after the color coat has tacked up within the first hour or wait 24 hours until the color coat is completely dry. Let the final coat dry for 24 hours.

**Step 4** – Remove the pressure sensitive decals from the backing paper and apply to the fins and body tube. Use the picture on the cover of this manual for a guide to decal placement.

## Flying Your Rocket

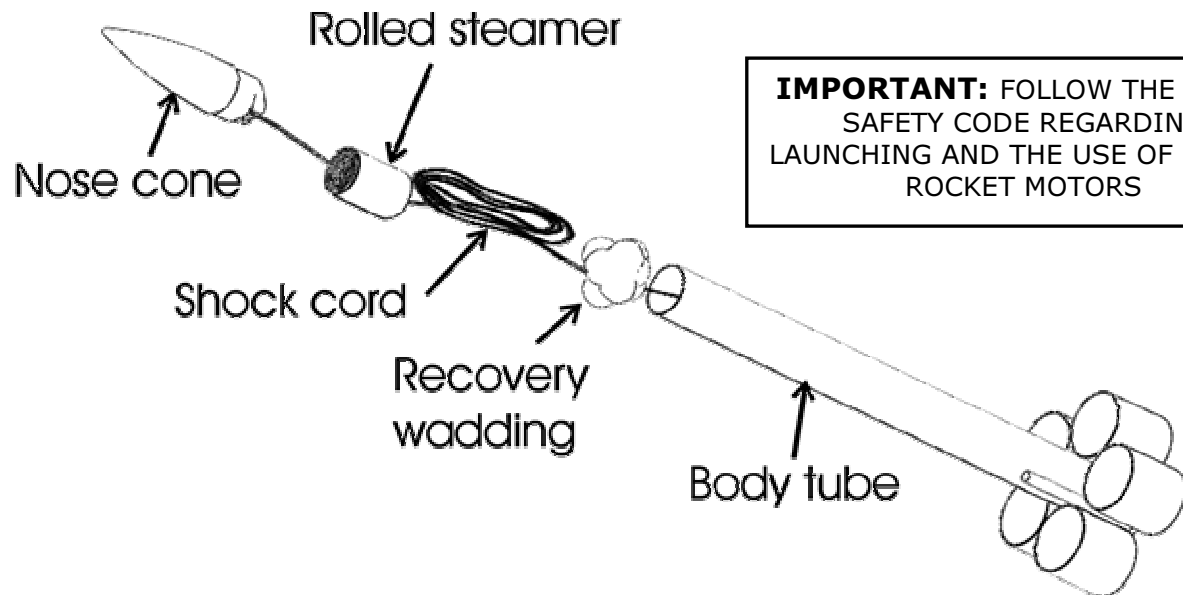
### Flight checklist:

- Model Rocket
- Launch Pad & Controller w/Batteries
- Recovery Wadding
- Model Rocket Motors and Igniters

Recommended Motors for the Turbo rocket are B4-4, B6-4, C6-3 & C6-5

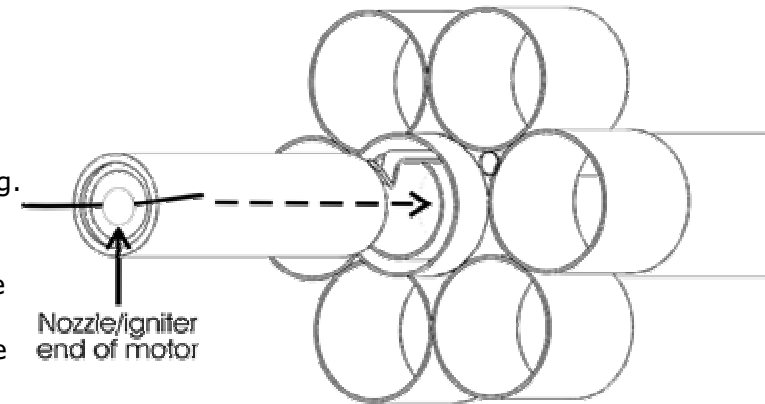
**Step 1** – Insert 2 crumpled recovery wadding sheets into the body tube and the folded shock cord after the recovery wadding.

**Step 2** – Fold the parachute and roll up small enough to fit into the rocket body tube and insert into the rocket body tube, then insert the payload section into the body tube to complete the recovery assembly.



**Step 3** – Install model rocket motor igniter according manufacturers recommended procedure.

**Step 4** – Insert the rocket motor with the nozzle/igniter end facing the rear of the rocket. The motor should clip into place with the motor hook retaining the motor. If the rocket motor is too tight, you can remove a thin layer of the paper or the motor label.



**IMPORTANT:** FOLLOW THE N.A.R. SAFETY CODE REGARDING LAUNCHING AND THE USE OF MODEL ROCKET MOTORS