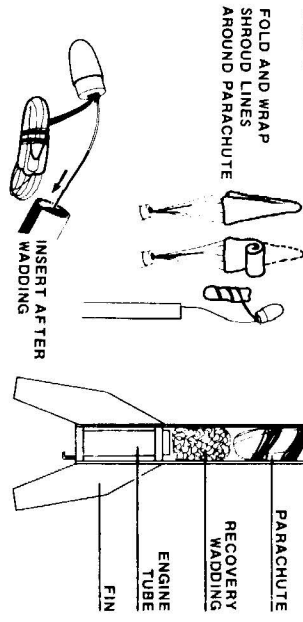




COUNTDOWN CHECKLIST

12 Pack two squares of loosely crumpled Estes RP-1/A recovery wadding into body tube. Fold the parachute into a triangular shape. Roll chute tightly as shown and wrap shroud lines around it. If chute is too large, unroll and repack until it slides easily into the rocket. A very tight fit may prevent parachute from ejecting properly.

Pack shock cord neatly into rocket and slide nose cone into place. NOTE: DO NOT pack parachute until you are actually ready to launch. For maximum parachute reliability, lightly dust the chute with ordinary talcum powder before each flight, especially in colder weather.



11 Select an engine and install an igniter as directed in the engine instructions. Insert engine into rocket. Make sure the engine hook latches securely over the engine.

10 Disarm the launch panel.

9 Lower the rocket into position on the launch rod or rail. Clean the micro clips, then clip one to each lead of the igniter. The clips must not touch each other and the igniter leads must not cross. The rocket may be supported with a scrap of wood or an empty engine casing to make it easier to attach the clips and to keep the clips from touching the blast deflector plate and short circuiting.

8 Clear the launch area, alert recovery crew and trackers.

7 Check for low flying aircraft and unauthorized persons into recovery area.

6 Arm the launch panel.

-5 -4 -3 -2 -1 LAUNCH!!

MISFIRE PROCEDURE

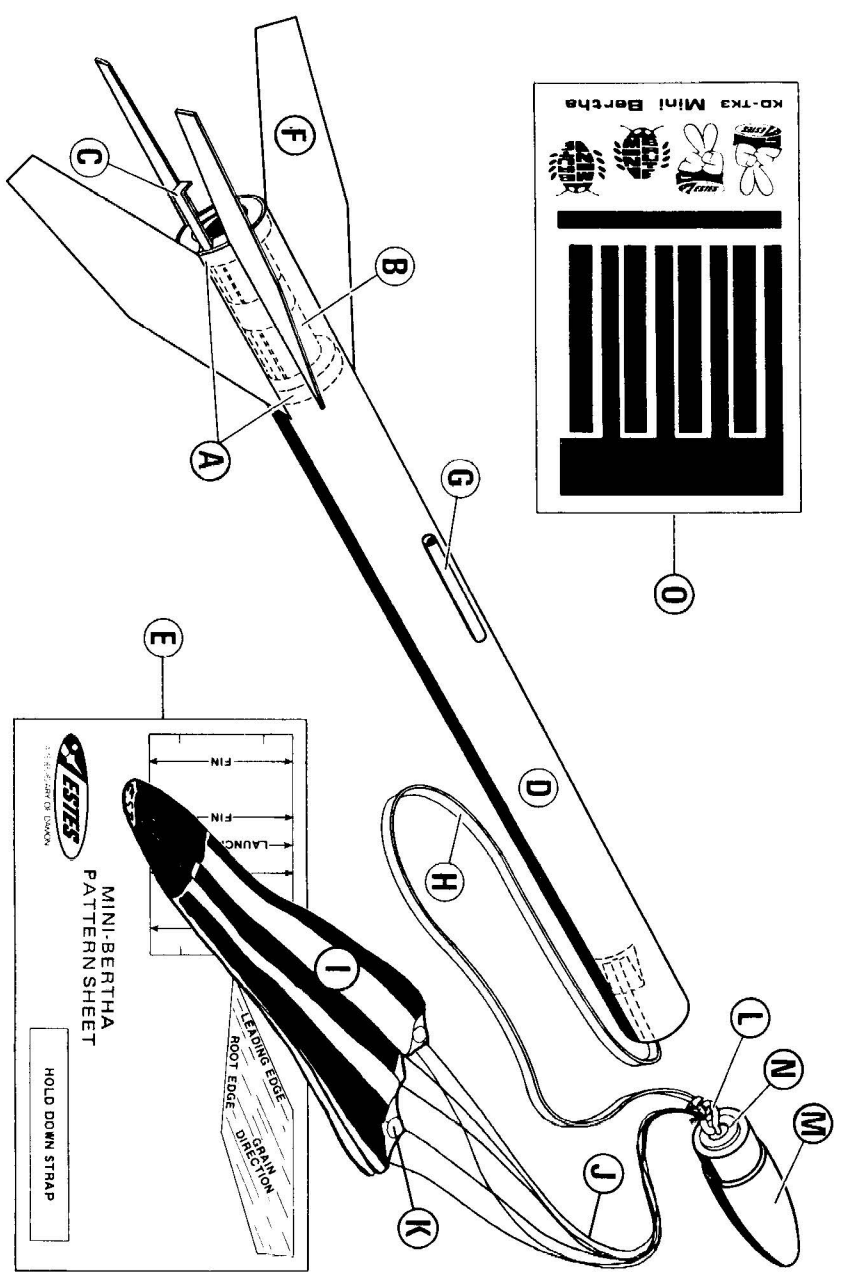
Occasionally the igniter will heat and burn in two without igniting the engine. This is almost always caused by a failure to install it correctly. Disarm the launch panel, remove the model, clean the igniter residue from the nozzle, and install a new igniter. Follow the launching procedure again.

82215B



MINI BERTHA

KIT NO. 0803



PARTS LIST

A	2	Adapter Rings (type AR-520)	30162
B	1	Engine Mount Tube (type BT-5T)	30308
C	1	Engine Hook (type EH-3)	35026
D	1	Body Tube (type BT-20B)	30320
E	1	Parachute	82217
F	1	Balsa Fin Stock (type BFS-20E)	75004
G	1	Launch Lug (type LL-2A)	38175
H	1	Shock Cord (type SC-1)	85730
I	1	Parachute 10" (type PK-10A)	85562
J	1	Shroud Line (type SLT-7Z)	38237
K	1	Strip of 6 Tape Discs (type TD-3F)	38406
L	1	Screw Eye (type SE-2A)	38252
M	1	Nose Cone (type BNC-20L)	70234
N	1	Nose Cone Weight (type NCW-4)	38289
O	1	Decal (type KD-TK3)	37302
P	1	Shock Cord Mount (type SCM-30)	84442 (Not shown)

ADDITIONAL

In addition to the parts included in this kit you will need scissors, white glue, a sharp model knife (or single edge razor blade), masking tape and paint or dope.

MATERIALS

Check to be sure your kit is complete, then read the entire instructions before beginning to assemble your rocket. Check off each step as you complete it.

ESTES INDUSTRIES

PENROSE, COLO. 81240

Be sure to follow the *H1AA-NAR Model Rocketry Safety Code when carrying out your model rocket activities.
*H1AA-NAR - Hobby Industry Association of America
- National Association of Rocketry

ASSEMBLY INSTRUCTIONS

1 Cut a 1/8" wide gap in one of the adapter rings. Glue the split ring on one end of the engine mount tube. Glue the remaining ring on the other end as shown.

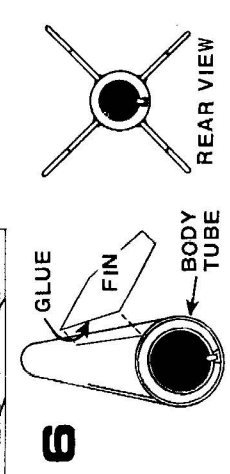
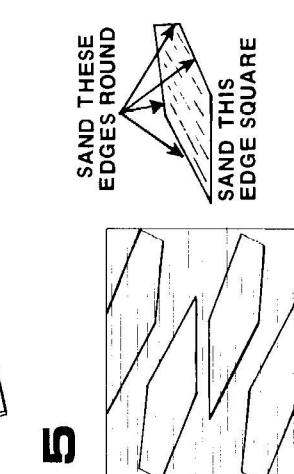
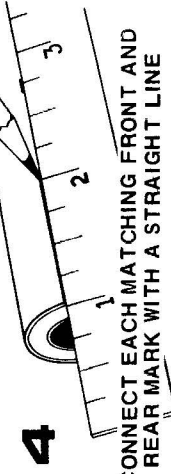
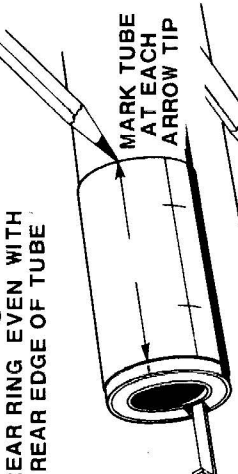
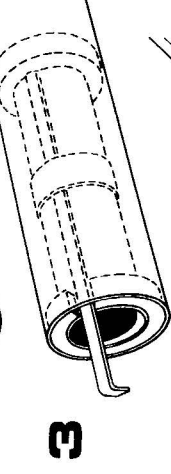
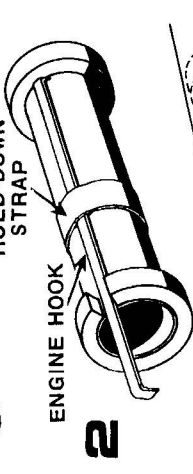
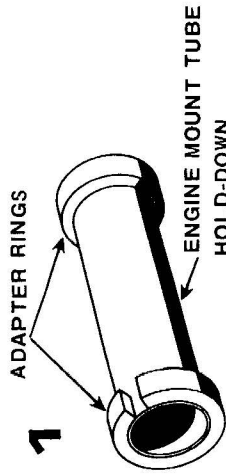
2 Make a 1/8" wide slit in the engine mount tube directly in line with the gap in the split ring and against the other ring. Insert one end of the engine hook into the slit. Lay the hook along the tube so it passes through the gap in the split ring. Cut out the hold-down strap from the pattern sheet, apply glue to one side, and wrap it tightly around the middle of the tube and hook as shown.

3 Smear glue around the inside of the body tube about 3/4" from one end. Immediately slide the engine mount unit into place so the end of the engine mount tube is even with the rear of the body and the engine hook projects from the tube. Do not pause during this operation or the glue may stick with the mount in the wrong place.

4 Cut out the body tube marking guide. Wrap it around the rear of the body so the ends of the guide are in line with the engine hook. Mark the tube at each arrow point. Remove the guide and draw a straight line connecting each matching front and rear mark. Draw the launch lug line so it reaches about four inches from the end of the tube.

5 Cut out the fin pattern. Trace four outlines on the balsa sheet as shown. Cut out the fins carefully and sand the edges as illustrated.

6 Rub a priming coat of glue into the root edge of each fin and allow to set. Glue the fins directly on the alignment lines at the rear of the tube. Align straight away from the tube and allow to set. Apply a glue fillet to both sides of each fin joint after the glue is completely dry.



7 Glue the launch lug to the body on the lug alignment line as shown, 2-1/2" from the rear of the tube. Make sure the lug is perfectly straight on the body.

8 Cut out the shock cord mount. Pre-fold it on the dotted lines. Apply glue to section 1 and lay the shock cord end into the glue. Fold this first section over. Spread glue over the back of the first section and the exposed part of section 2. Lay the shock cord as shown and fold over again. Clamp the unit together with your fingers until the glue sets.

9 Apply glue to the inside of the body tube at the front over an area about 1" to 1-3/4" from the end. The glued area should be the same size as the shock cord mount. Press the mount into the glue and hold it until the glue sets.

10 Insert the screw eye into the base of the nose cone. Remove and squirt a small amount of glue into the hole. Slip the nose cone weight onto the shaft of the screw eye and re-insert it into the hole.

The nose cone should separate easily from rocket body tube, but not be extremely loose. If fit is too tight, sand inside of body tube end and shoulder of nose cone with fine sandpaper.

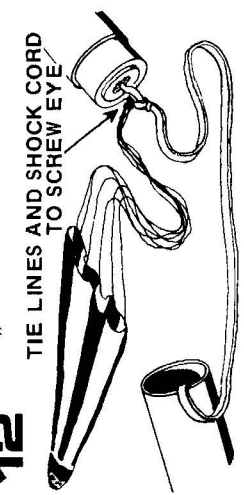
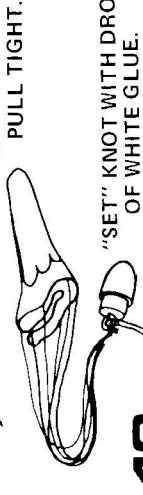
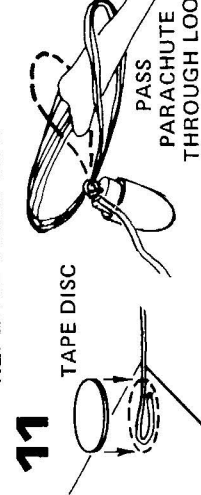
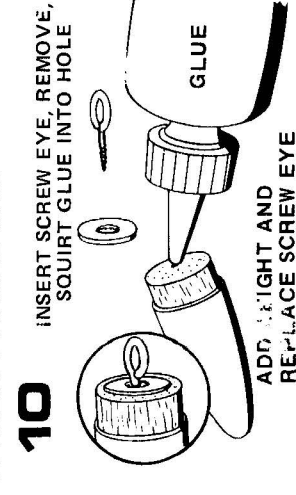
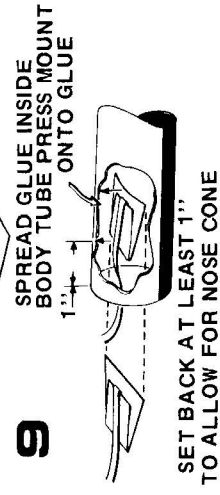
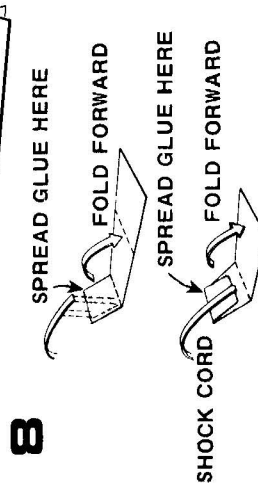
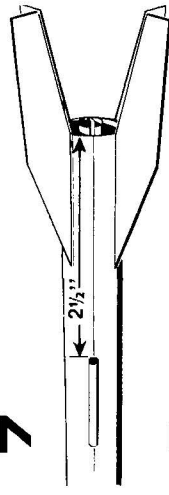
If nose cone is too loose add a wrapping of transparent tape or masking tape to the shoulder of the nose cone.

11 Cut out the plastic parachute on its edge lines. Cut three 20 inch lengths of shroud line thread. Attach line ends to the top (printed side) of the parachute with tape discs as illustrated. Be sure to rub disc firmly into place over the shroud line.

Pass the shroud line loops through the screw eye at the rear of the nose cone. Pass the chute through the loop ends as shown and draw the lines tight against the screw eye. "Set" the knot with a drop of white glue.

12 Tie the free end of the shock cord and the shroud lines to the screw eye.

13 Apply two or more coats of sanding sealer to all balsa surfaces. Sand lightly with extra fine sandpaper between coats. Repeat until all pores are filled and the surfaces smooth. Give the rocket a spray base coat of white and follow with your choice of colors.



1 Inch

1 Inch

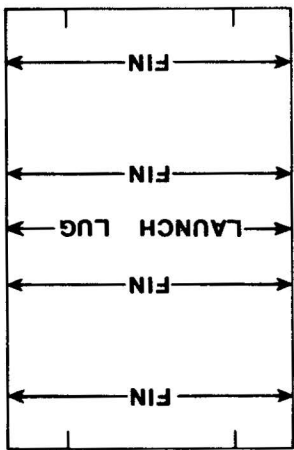
1 Inch

1 Inch

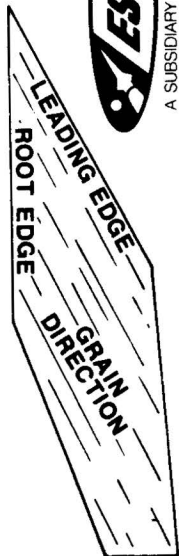
SHOCK CORD
MOUNT
SCM-30



HOLD DOWN STRAP



SP-TK3



A SUBSIDIARY OF DAMON

82,218

1 Inch

1 Inch

1 Inch

1 Inch



PN 37302

MINI BERTHA

1 Inch

1 Inch

1 Inch

1 Inch



PN 37302

MINI BERTHA

1 Inch

1 Inch

1 Inch

1 Inch

THE DADIA MINI-BERTHA



- SUPER FUN MODEL
- EASY TO BUILD
- TWO COLOR DECAL

BUILD LEVEL 1

1-Beginner 2-Intermediate 3-Craftsman 4-Advanced 5-Expert

SPECIFICATIONS

Length 11.85" (29.94cm.)

Weight 9.495 oz. (267.71g.)

Body Dia. 0.718" (18.24mm.)

Parachute Recovery

RECOMMENDED EQUIPMENT

1-243-2T 43-2T

Engines and Launcher not included.

TR-5
#0000

ENTER MAILING LIST
NAME, ADDRESS