



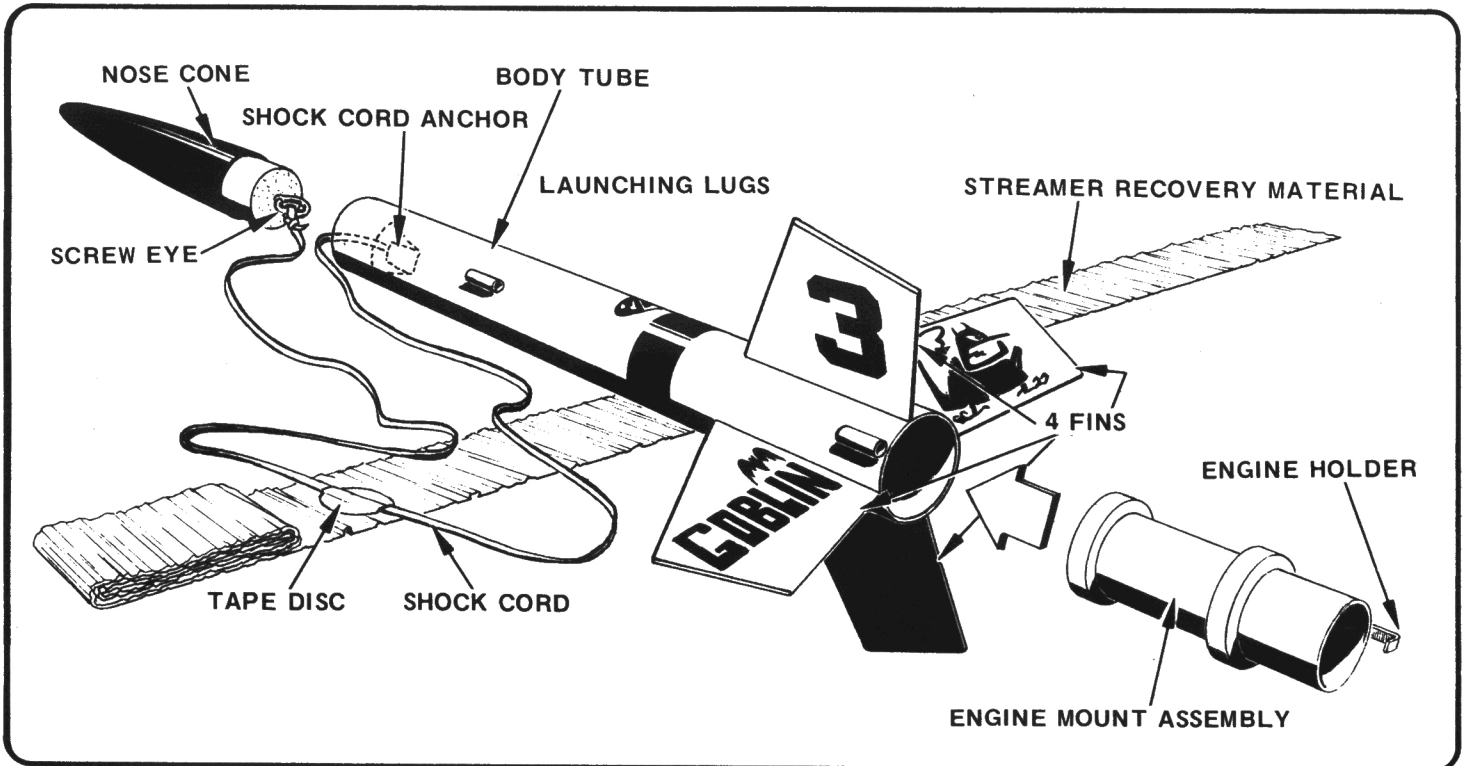


Goblin

ASSEMBLY INSTRUCTIONS

K-55

Designed by the Estes R and D staff

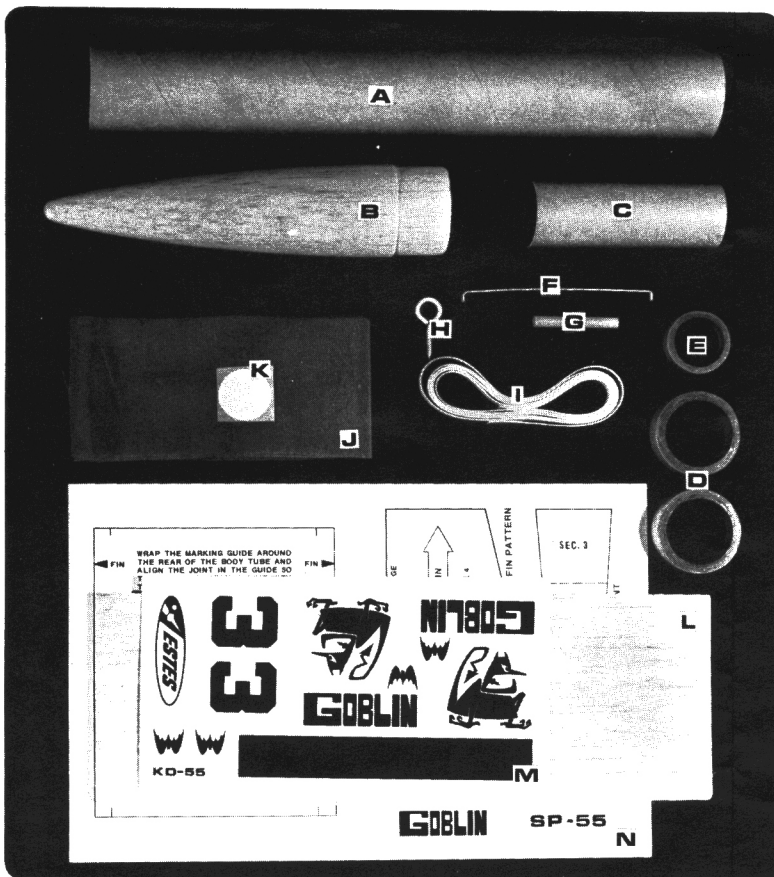


Check to be sure your kit is complete. Read all of the instruction steps, then begin assembly of your rocket. Check off each step as you complete it.

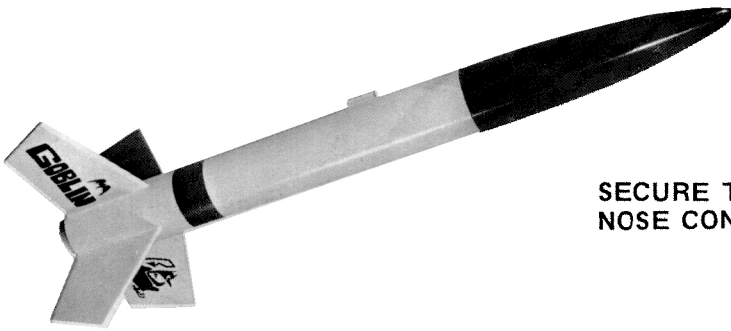
PARTS LIST

A	1	Body Tube	BT-55IJ
B	1	Nose Cone	BNC-55AO
C	1	Engine Holder Tube	BT-50J
D	2	Centering Rings	AR-5055
E	1	Engine Block	AR-2050
F	1	Engine Holder	EH-2
G	1	Launch Lug	LL-2A
H	1	Screw Eye	SE-1
I	1	Shock Cord	SC-3
J	1	Streamer	SM-2C
K	1	Tape Disc	TD-1A
L	1	Balsa Fin Stock	BFS-40
M	1	Decal Sheet	KD-55
N	1	Pattern Sheet	SP-55

In addition to the parts above, you will need white glue, a sharp pencil, a ruler, medium and fine sandpaper, balsa filler and paint or butyrate dope.



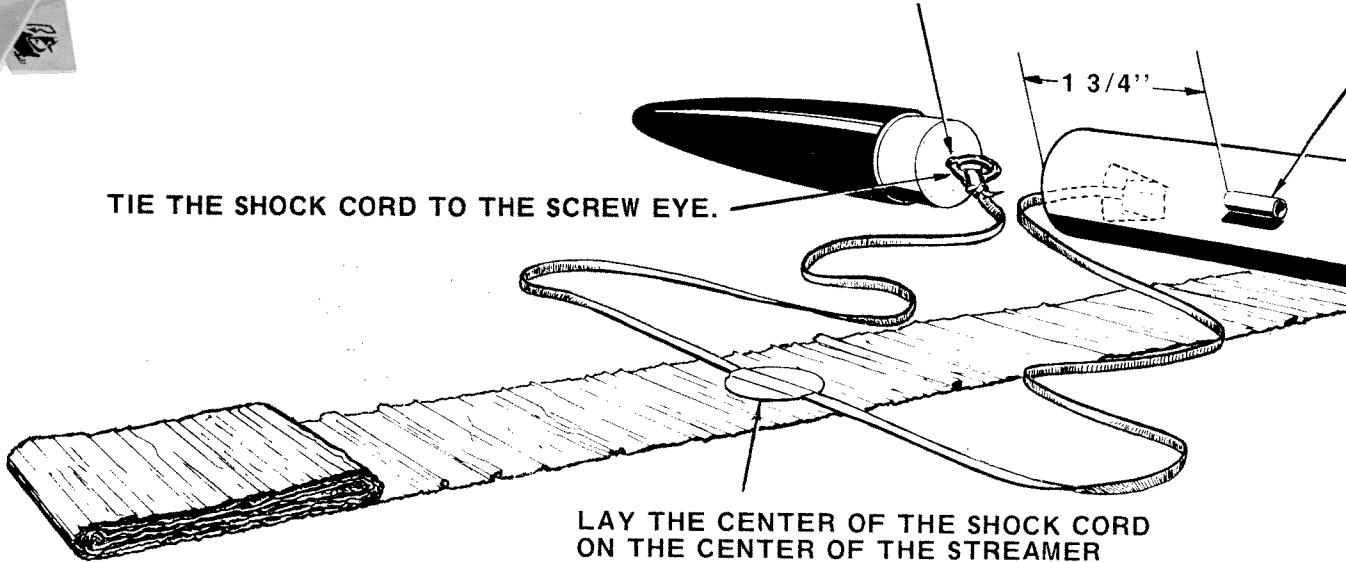
NEVER FLY THE GOBLIN WITH THE CENTER OF GRAVITY (BALANCE POINT) LESS THAN 3-5/8" FROM THE REAR OF THE BODY TUBE.



SECURE THE SCREW EYE IN THE NOSE CONE USING WHITE GLUE

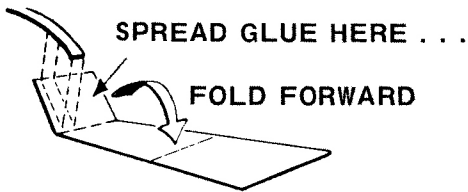
CUT T

TIE THE SHOCK CORD TO THE SCREW EYE.

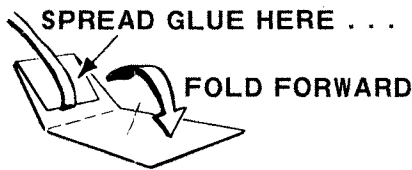


LAY THE CENTER OF THE SHOCK CORD ON THE CENTER OF THE STREAMER AND SECURE WITH THE TAPE DISC.

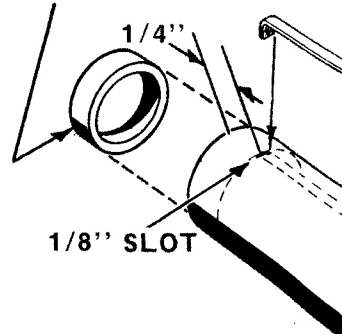
A



B

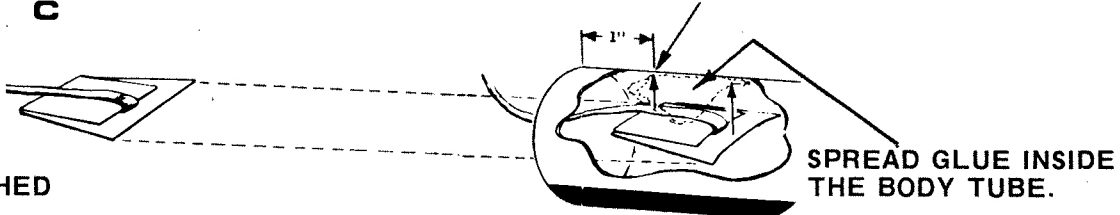


GLUE BLOCK INTO TUBE END AGAINST THE HOOK.



C

SET BACK AT LEAST 1" TO ALLOW FOR BASE OF NOSE CONE.



FINISHED

MARK THE BODY TUBE FOR FINS AS DIRECTED ON THE MARKING GUIDE.

THE LAUNCH LUG IN TWO—GLUE AS SHOWN.

CUT OUT THE FINS. SAND THE LEADING AND TRAILING EDGES ROUND. GLUE TO THE BODY TUBE NEXT TO THE ALIGNMENT LINES.

GLUE THE ENGINE MOUNT INTO THE BODY TUBE SO THAT THE ENDS OF BOTH TUBES ARE EVEN.

APPLY GENEROUS GLUE FILLETS.

POSITION THE RINGS AS SHOWN AND APPLY A GENEROUS GLUE FILLET TO EACH SIDE.

CUT NOTCH

3/4"



K-55

The logo for the Goblin rocket, featuring a stylized bat-like creature above the word "GOBLIN" in a large, bold, blocky font.

GOBLIN

The Astron Goblin is a highly "spirited" D powered model rocket designed by the Estes R & D staff for sport flying. Its clean appearance and outstanding performance are a product of simple construction and up to date techniques. Generally, flights will reach an altitude of about 1700 feet. The streamer is sized to bring the model safely down from this altitude, yet quickly enough to minimize risk of loss.

Remember the Goblin is "D" engine powered. Take special care to align the fins and securely glue them and the engine mount in place.

The suggested color scheme for the Goblin is yellow on three fins and the body tube, with the remaining fin and the nose cone black. The decals are applied as shown in the illustration.

USE D13-5 ENGINE ONLY

NEVER FLY THE GOBLIN WITH THE CENTER OF GRAVITY (BALANCE POINT) LESS THAN 3-5/8" FROM THE REAR OF THE BODY TUBE.

MARK THE BODY TUBE FOR FINS AS DIRECTED ON THE MARKING GUIDE.

CUT OUT THE FINS. SAND THE LEADING AND TRAILING EDGES ROUND. GLUE TO THE BODY TUBE NEXT TO THE ALIGNMENT LINES.

CUT THE LAUNCH LUG IN TWO—GLUE AS SHOWN.

SECURE THE SCREW EYE IN THE NOSE CONE USING WHITE GLUE

TIE THE SHOCK CORD TO THE SCREW EYE.

GLUE THE ENGINE MOUNT INTO THE BODY TUBE SO THAT THE ENDS OF BOTH TUBES ARE EVEN.

LAY THE CENTER OF THE SHOCK CORD ON THE CENTER OF THE STREAMER AND SECURE WITH THE TAPE DISC.

APPLY GENEROUS GLUE FILLETS.

POSITION THE RINGS AS SHOWN AND APPLY A GENEROUS GLUE FILLET TO EACH SIDE.

GLUE BLOCK INTO TUBE END AGAINST THE HOOK.

A
SPREAD GLUE HERE . . .
FOLD FORWARD

B
SPREAD GLUE HERE . . .
FOLD FORWARD

C
SET BACK AT LEAST 1" TO ALLOW FOR BASE OF NOSE CONE.

SPREAD GLUE INSIDE THE BODY TUBE.

FINISHED



K-55



The Astron Goblin is a highly "spirited" D powered model rocket designed by the Estes R & D staff for sport flying. Its clean appearance and outstanding performance are a product of simple construction and up to date techniques. Generally, flights will reach an altitude of about 1700 feet. The streamer is sized to bring the model safely down from this altitude, yet quickly enough to minimize risk of loss.

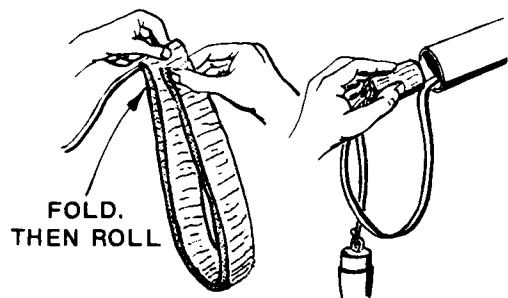
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The suggested color scheme for the Goblin is yellow on three fins and the body tube, with the remaining fin and the nose cone black. The decals are applied as shown in the illustration.

USE D13-5 ENGINE ONLY

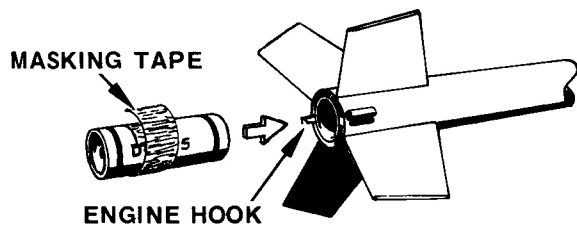
COUNTDOWN CHECKLIST

- 13** Pack 6 or 7 squares of flameproof wadding into the body tube from the top. Fold the streamer in half lengthwise from where it is attached to the shock cord. Roll the streamer



compactly enough to enter the body tube easily. Push the rolled streamer down into the body tube on top of the wadding. Pack the shock cord neatly into the tube and slide the nose cone into place.

- 12** Install an electrical igniter in the engine as directed in the instructions which came with the engine.



- 11** Insert the engine into the engine holder tube until it is locked in place by the engine hook.

- 10** Remove the safety interlock or key from the launch control panel. (If a simple spring switch is used, install the protector on the switch to separate the contacts.) Carry the key or interlock on the person of the launch control officer.

- 9** Place the rocket on the launcher. Check to be sure that the panel is disarmed. Clean the micro-clips and attach them to the igniter.

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

- 7** Check for low flying aircraft and unauthorized persons in the recovery area.

- 6** Arm the launch panel.

- 5 4 3 2 1** LAUNCH.

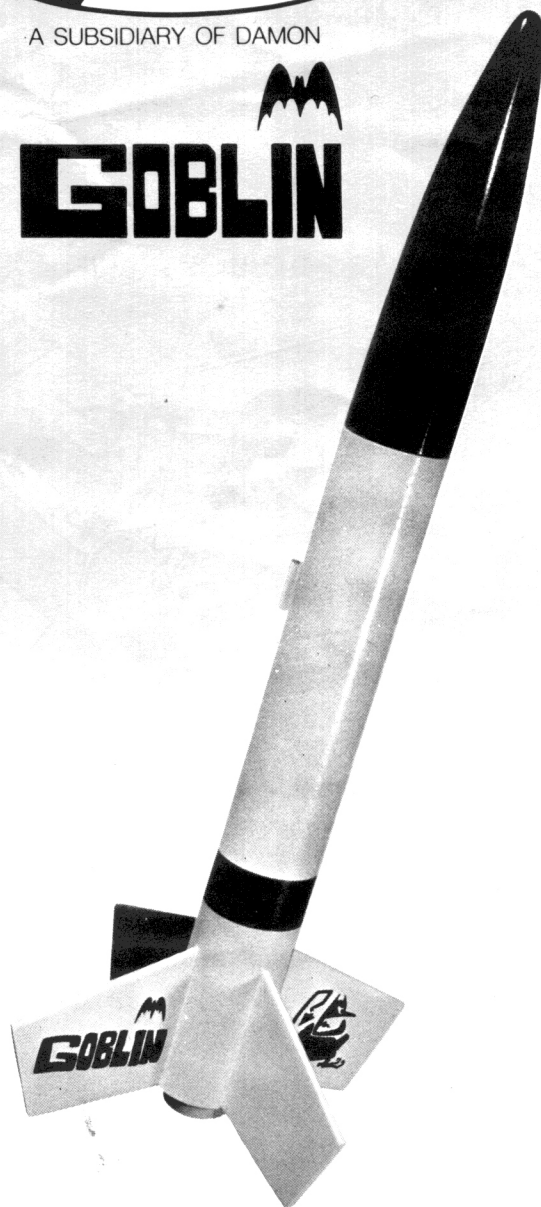
GENERAL INFORMATION

Your Astron Goblin is an extremely high-flying sport model. Because it can reach altitudes of over 1700 feet, launch the Goblin on calm, clear days to avoid losing it. The primary engine to use in this model is the D13-5. With an EM-2050 engine mount adapter the Goblin can also be flown with C6-5, B6-4, and A8-3 engines.

ESTES

A SUBSIDIARY OF DAMON

GOBLIN



**BONUS
KIT**

GOBLIN

KIT NO. K-55

SPECIFICATIONS

**RECOMMENDED
ENGINES**

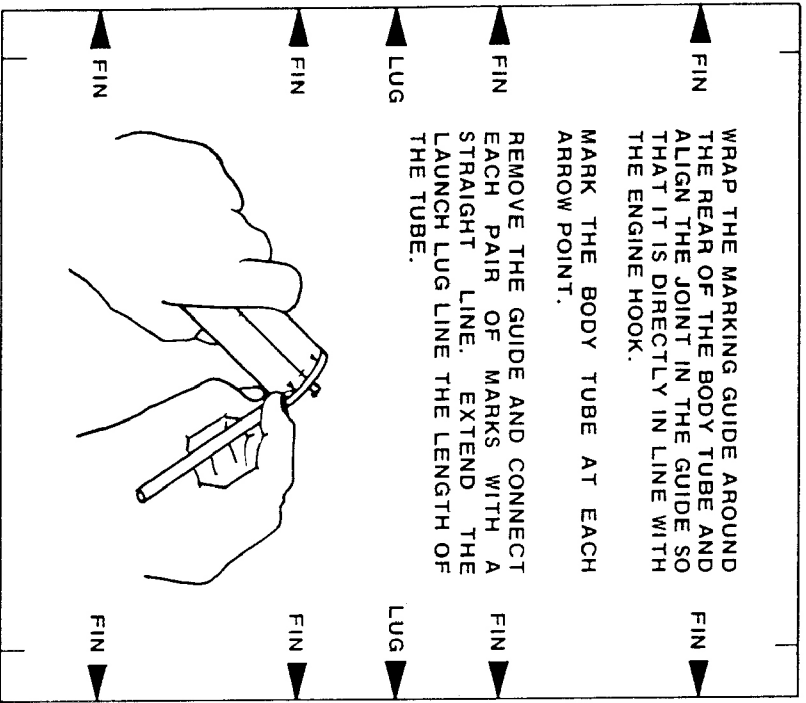
Length: 14.35 in.

D13-5

Body Dia. 1.325 in.

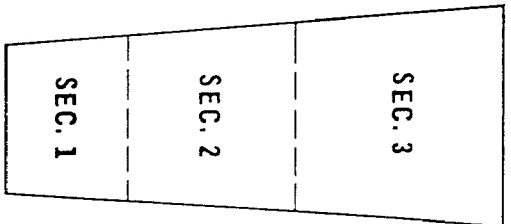
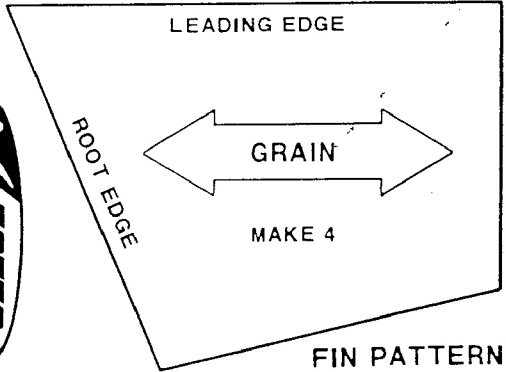
(or C6-5, B6-4 and A8-3
with adapter EM-2050)

Weight: 12.0 oz.



FIN MARKING GUIDE

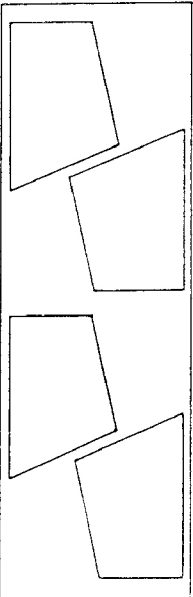
This wrap fits around a BT-55 body tube. Since BT-55 is 1.325 diameter we can calculate the scale of this scan by multiplying by Pi. $1.325 * 3.1416 = 4.16262$ (4.2") So when printed, this wrap should be 4.2" from edge to edge and the fin pattern will be correctly scaled.



A SUBSIDIARY OF DAKOTA

ESTES INDUSTRIES
 BOX 227, PERMORSE, COLO. 80440

BALSA FIN PATTERN LAYOUT



GOBLIN

SP-55



33



GOBLIN



GOBLIN



PN37054
KD-55

STARTER

BY THE COMPANY THAT BROUGHT YOU THE

A

GOBLIN



GOBLIN

KIT NO. 9-52

Approximate Weight

Approximate Length

Launch 10-15 ft.
Max. Alt. 70-80 ft.
Range 100 ft.

Price
Kit \$12.95
Kit \$14.95
Kit \$16.95