

MODEL ROCKET LAUNCHER

LIA-50



- STURDY LAUNCHER BASE
 - STEEL EXHAUST DEFLECTOR
 - TEMPERED STEEL LAUNCH ROD
 - COMPLETE OPERATING INSTRUCTIONS
 - EASY TO STORE
- ◆ ◆ ◆

Only
\$2.50

LAUNCHING SETUP

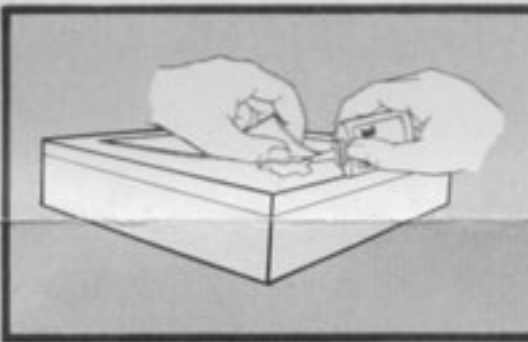
INTRODUCTION

The Launcher Assembly #LIA-50 is designed to carry electrical current to the rocket engine igniter and to guide your model rocket into a straight flight trajectory. Its compact styling permits fast assembly and breakdown for ease of transportation and storage.

The LIA-50 can be used with Centuri's Lectra-Line Ignition Device EFC-1, with the EP-612 Firing Panel, or the Ignition Control Panel EFC-2. The combination of this Launcher and any of these ignition devices make the perfect ignition and launching system for most model rockets.

NOTE!!

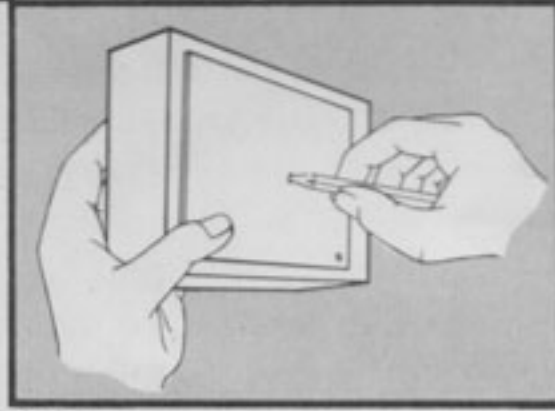
Do not attempt to launch any model rockets on this launcher weighing over 5 ounces or powered by E or F type engines.



DETAIL A

REPLACEMENT PARTS LIST		
Catalog No.	Part Name	Replacement Price
LB-50	Launcher Base	1.20
ID-50	Steel Deflector	.55
ECA-50	Igniter Clip-Lead (Set of 2)	.60
LR-50	Two-Piece Launch Rod	.35
PA-50	Asbestos Pad	.20
HW-50	Hardware Set (8 pieces)	.35

DETAIL B

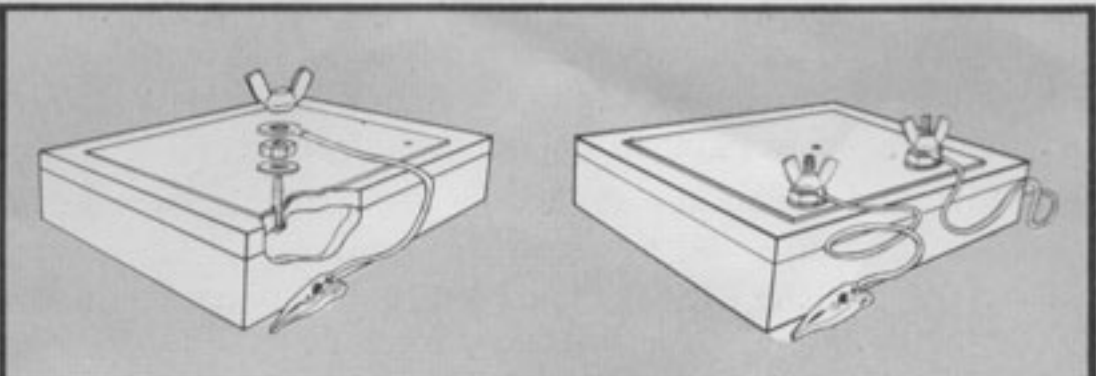


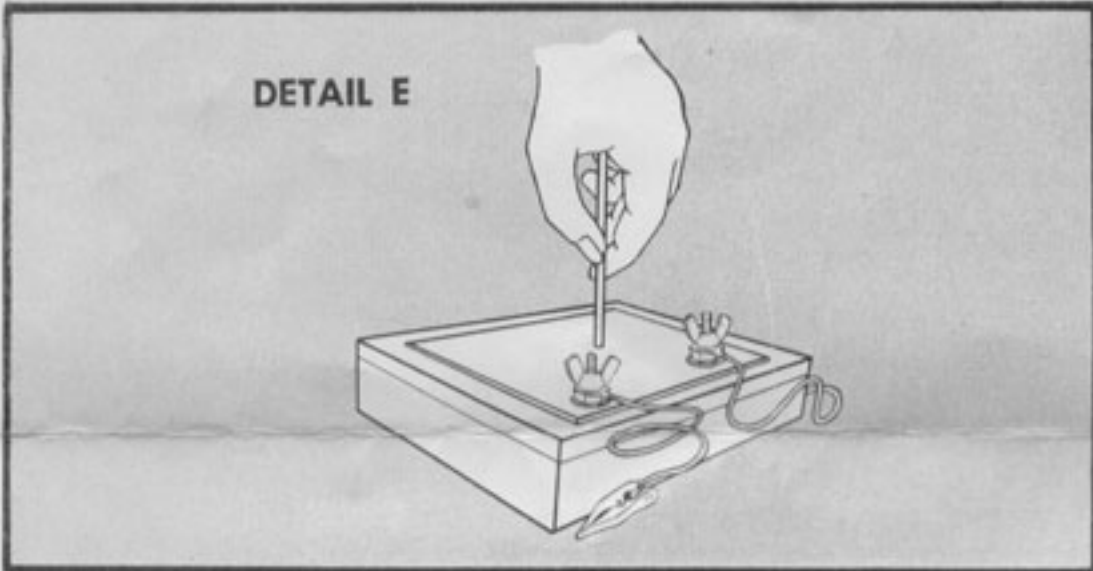
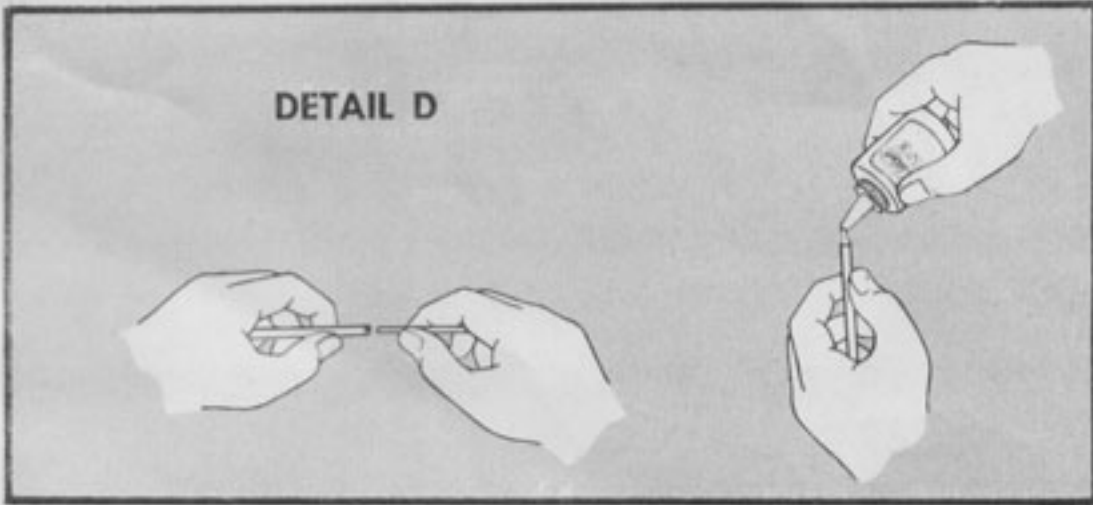
DETAIL C

ASSEMBLY DIRECTIONS

STEP 1

Using ordinary white glue, glue the asbestos sheet to the top of the launcher base. With a pencil or other pointed object, locate the three holes in the launcher base and





punch through the asbestos sheet as shown in Detail A & B.

STEP 2

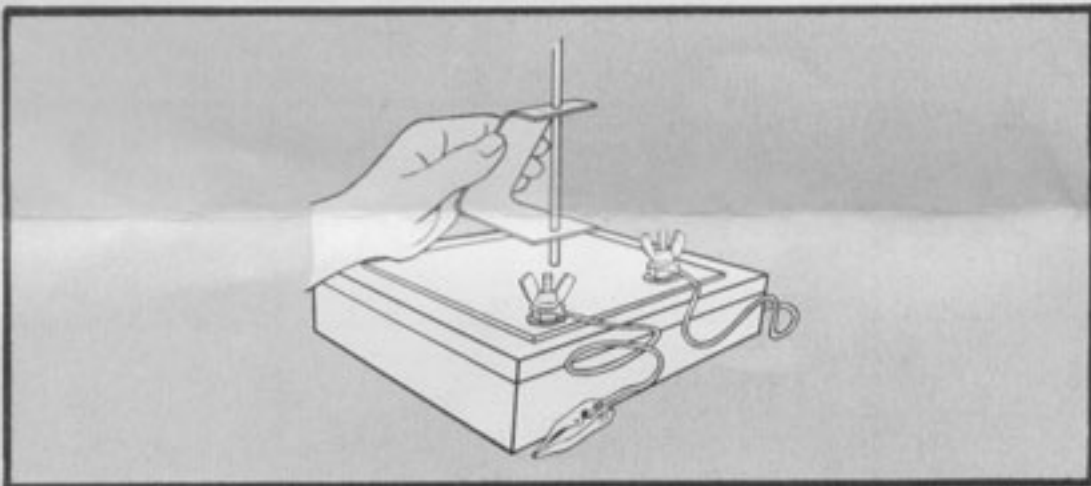
Assemble the hardware and attach the ignition clip-lead terminals tightly to the binder posts as shown in Detail C.

STEP 3

Connect the two-piece launching rod and insert the larger diameter rod end into the center hole of the launcher base as shown in Detail.

Now slide the metal deflector over the launch rod until it rests on the launcher base. Point the face of the deflector away from the binder posts.

To make rods fit together more tightly, squirt a drop of glue into the hollow end of the large diameter rod and fit the two rods together again.



CONNECTING UP THE ELECTRICAL IGNITION SYSTEM

Many different electrical ignition circuits can be used with the LIA-50 Launcher, however, since this launcher is most commonly used with Centuri's Lectra-Line (EFC-1) Ignition Device, we have shown the recommended circuit for this combination.

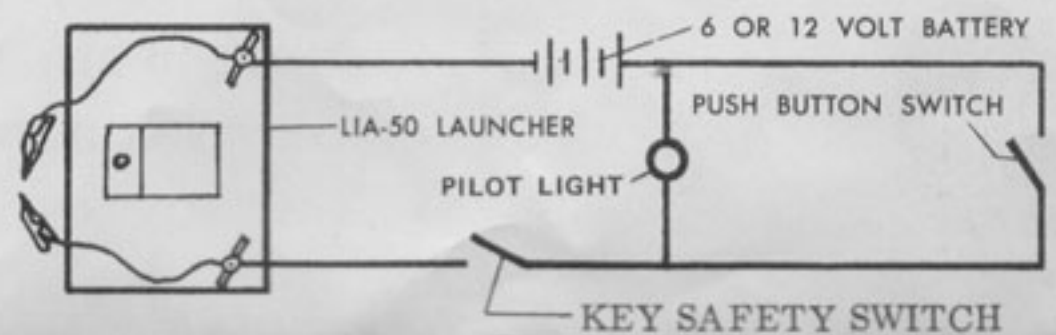
This is the same wiring hook-up as shown in the main illustration on Page 1.

IGNITION SETUP



This circuit contains a "continuity check" as shown below:

IGNITION SETUP



This particular circuit contains a continuity check which tells you (by glowing Pilot Light) if the entire circuit is complete and all connections are good. If the pilot light fails to light up when you turn on the key switch, this means there is either a loose connection in the circuit or one of the micro-clips is not properly attached to the igniter wire.

RECOMMENDED BATTERIES

6V Eveready #731 Lantern	12V Eveready #732 Lantern
6V Eveready #520 Lantern	12V Eveready #1463 Hot Shot
6V Eveready #1461 Hot Shot	12V Marathon #926 or 904
6V Eveready #1462 Hot Shot	12V Ray-O-Vac #904 or 922
6V Eveready #706 Emerg.	12V Mallory M904
6V Ray-O-Vac #641 or #918	12V Bright Star #164 or #187
6V Ray-O-Vac #902 or #903	12V Burgess TW2 or S461
6V Mallory #M904 or #M903	12V Burgess 4F6H or 2G8H
6V Burgess 4F4H or 4F5H	Any 12 Volt Car Battery

OPERATING INSTRUCTIONS

Clear a level launch area about 10 feet in diameter, free from dry grass or brush and set the launcher in the center. Install the igniter in the rocket motor as outlined in Centuri's Engine Operating Instructions, then set the rocket on the launcher, with the engine directly over the slanted side of the deflector. Connect up your firing circuit output leads to the binder post (wing nuts) and connect the clip leads to the engine igniter. The system is now ready for action.

PLEASE NOTE!! It is extremely important that the micro-clips be clamped firmly to the igniter wire as close up to the rocket engine as possible. Do not let the clips touch each other or the metal deflector.

CAUTION!! To avoid injury to the eyes (from the tip of the launch rod) avoid leaning directly over the launch rod. For safety sake, spray the top 4 inches of the rod with a bright fluorescent paint to improve visibility.

For further information regarding rocket engines, rocket kits, ignition devices, or igniters, write to:

CENTURI ENGINEERING COMPANY Department Q
P. O. Box 1988 Phoenix, Arizona 85001