



## **EAA AeroEducate Key Chain Activity Instruction**

The EAA AeroEducate key chain activity is a great gadget for young EAAer's to assemble, as it provides insight to the concept of building a traditional kit airplane and serves as a useful item for all ages.



## Tools Required for Key Chain Assembly

Modest tools are required to assemble the EAA AeroEducate Key Chain. Due to the need to hold the key chain assembly into place when riveting, it is recommended to mount the rivet squeezer tool onto a substantial surface such as a wood block or in a bench mounted vice.

**Wood Block Mounting Fixture** – 4" x 4" x 12" long wood block

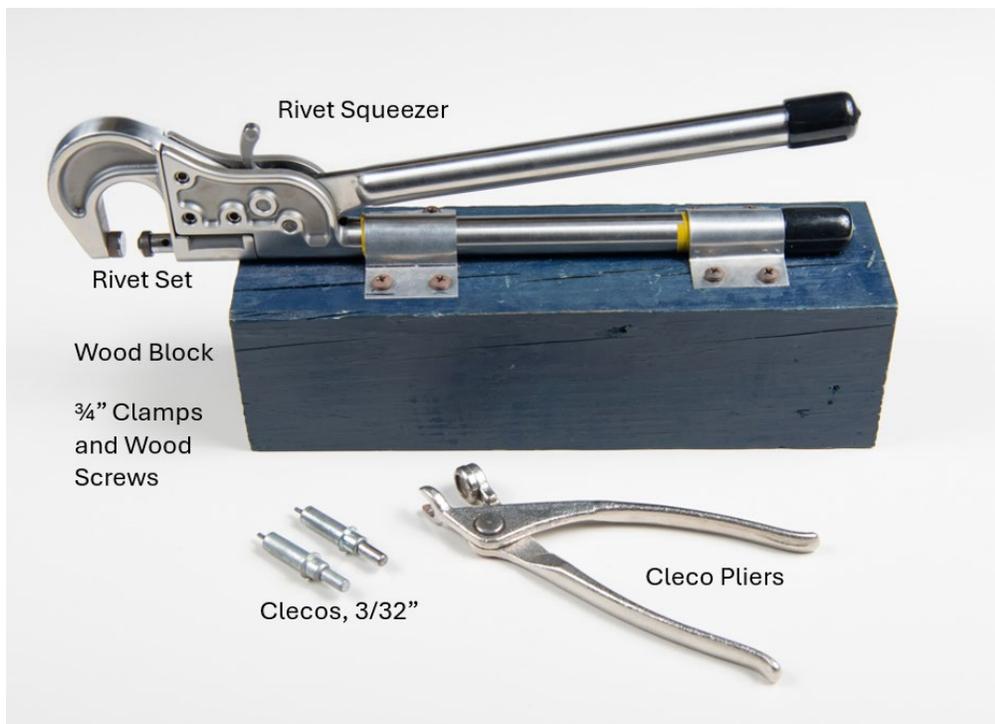
**Mounting Clamps** – ¾ inch diameter pipe clamp (qty 2). Either fabricate or purchase it at a local hardware store. Wood screws are required to hold firmly in place.

**Rivet Squeezer** – Available at Aircraft Spruce and Specialty Part No. 12-01620

**Rivet Set** – Available at Aircraft Spruce and Specialty Part No. 12-01466 & 12-01561

**Cleco Pliers** – Available at Aircraft Spruce and Specialty Part No. 12-01480

**Clecos, 3/32** (qty 2) - Available at Aircraft Spruce and Specialty Part No. 12-01140



## Rivet Squeezer Set-Up

- Insert the Rivet Set pieces into the jaws of the rivet squeezer as seen in photo below.
- While the handles of the rivet squeezer are fully closed together, set the gap between the rivet sets to approximately  $\frac{1}{4}$ " by rotating the threaded jaw as pointed to in the photo below.
- A final and precise jaw adjustment will be required when squeezing the first rivet to ensure ample compression of the rivet, while not crushing the key chain assembly.



## The EAA AeroEducate Key Chain Assembly Process

Each key chain consists of a kit of materials as seen below.



### Key Chain Parts List (for one key chain)

- Bottom Plate (qty 1)
- Top Plate (qty 1)
- Strap (qty 1)
- Clasp (qty 1)
- Solid Rivets (qty 3)

**Step 1** – Secure a cleco into the cleco pliers with the intent to insert a cleco into the key chain combined bottom plate and top plate.



**Step 2** – Squeeze the cleco pliers to enable the cleco to fit into the holes of the key chain parts.



**Step 3a.** – Assemble the top and bottom plates and insert a cleco at a wing tip location for a temporary hold. Insert the cleco from the bottom side of the key chain.



**Step 3b.** – Insert a second cleco at the opposite wing tip to properly align the holes at the nose of the airplane key chain.



**Step 4** – Insert a rivet from the top surface of the key chain through the hole at the nose of the airplane, then set the head of the rivet against the rivet set as shown.



**Step 5** – Fully squeeze the rivet by pressing downward on the rivet squeezer handle to “set the rivet”.



The free end of the rivet will deform to a mushroom shape to permanently secure the assembly.



**Step 6** – Using the cleco pliers, remove one of the two clecos, then insert a second rivet and set the rivet firmly in place.



**Step 7** – Remove the final cleco, insert and squeeze a third rivet on the opposite wing tip.



**Step 8** – Gather the remaining parts (Strap and Clasp) to complete the key chain assembly. Assemble the strap and clasp as shown and press the strap together for permanent assembly.



The completed EAA AeroEducate Key Chain!



END.

