

Kit No. CBMD-004 Construction Detail

Part 3 of 3

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WING DIHED

ASSEMBLY

SMALL SEG

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Use the fin projections on either end of the stab layout to set the fin position for assembly. Note the 1/16 scrap balsa under the angle being used to set the stab perpendicular to the fin. The edge of the angle is on the line representing the lower edge of the stab. Suggestion-use clear packing tape over any contact surfaces as glue squeeze out can inadvertently bond the stab/fin to the reference tools. Also, it is suggested not to shrink the stab tissue covering until the fins have been attached to prevent the end ribs from bowing under the covering tension.

Use a pin to punch a bunch of holes in the stab contact area on the fin before gluing. Cellulose or aliphatic glue is recommended to allow positioning. The second tool is being used to hold the stab against the angle on the far side-held simply by it's own weight until the glue has started to grip then can be removed. Repeat the setup for the opposite side.

METRIC

ROCK ASSEMBLY

SCRAP 1/16 DE



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At the wing center, slit the tissue covering to allow installation of the wing D/T hook WH-1

Installation of WH-1 with cellulose glue is recommended. Make sure the open end is facing forward.



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At the wing center leading edge, make a slit in the covering to install the wing D/T hook WH-2

Installed hook-this one is too far aft-should be against the back surface of the leading edge per drawing. It still works even if installed out of position to the drawing.



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Stab part SK-1 is now installed over the slot used to center the incidence screw. SK-1 provides the floor for the screw adjustment of the stab incidence for flight trimming. DTP-1 is shown-make a slit in the tissue to install at the plan location. Use cellulose glue to install.



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Remove covering at stab key slot locations

One of the basswood stab keys installed-do not omit the keys as the fins on the stab make it critical for repeatable location each flight.

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Pre-thread the viscous timer mount TM-1 before installing on the model. Run the screws in and out several times to break in the holes and ease the screw installation. Warninghard pushing to install the screws once the timer mount is installed can result in damage to the model as there is no backup for this pressure on the fuselage framework.

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Install the pre-threaded timer mount with cellulose cement-cut out the covering membrane in the hole to allow the timer body to pass through.



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Install the D/T trip wire assembly and fillers per drawing location

Make a radiused end stacked assembly from two pieces of  $1/32 \times 3/32$  basswood strip. Minimize the overlap to prevent the end of the D/T spring from getting trapped by it during release. This blank gets cut down and installed on the model after.



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Make the wing D/T lanyard fairlead eyes from a built up assembly using scrap 1/32 balsa. Create a square hole using a piece of .047 diameter wire.

Add the cover sheet to complete the stacked assembly.

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Sand the blank to the shape shown on the drawing

Slice off several pieces of the blank to create the individual fairleads installed just aft of the last forward wing dowel hole. These keep the D/T lanyard from coming completely off and allowing the wing to come free should the lanyard jump the ends of the wing dowels during deployment. Tip-harden the fairleads with thin CA before installing on the fuselage.

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D/T fairlead installed-position hole to be tangent to the lower edge of the wing dowel hole to minimize side loading with the D/T lanyard under tension for flight.

The wing D/T lanyard turnaround installed after cutting blank to length and tapering per drawing.



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The D/T tripwire fillers have been shaved down for weight reduction and some streamlining.

Viscous timer installed, fairlead detail

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Forward wing dowel installed with small pieces of flexible plastic tubing collars. These can be removed if needed to allow the dowel to be removed in the event a wing position shift needs to occur. The collars help trap the D/T lanyard onto the dowels during deployment.

Opposite side of the fuselage showing the 3/32 tube used to trap the end of the D/T lanyard for tension adjustment.

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Make a loop of the D/T lanyard thread approximately as shown for dimension. Apply a drop of thin CA at the knot, and cut off the excess.

Attach the loop onto one end of the D/T spring and secure with a drop of thin CA. Attach the remaining thread onto the other end of the spring, secured with a drop of thin CA. Pass the lanyard through the fairleads and through the 3/32 tube on the far side to start the D/T set up for the wing.



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Tension the wing D/T lanyard slightly to start with the course of the lanyard as set for flight; less the pass through on wing hook WH-2 at the leading edge.

> Use a cut off toothpick end as a plug to pinch the D/T line against the aluminum tube after setting the initial tensioning on the system.

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Release the tension in the lanyard and install the wing after slipping the lanyard through WH-2. The back release wire stop is shown-this keeps the slack line from releasing the hook during D/T landings. The wing will dip down when the model hits the ground and this can cause the D/T line to release, which allows the wing to snap backwards and release from the fuselage. If you don't like chasing your loose wing with thermal activity it's best to deploy the backstop wire!

Wing installation for flight. Use of (2) 5/8 medium pull dental bands is recommended at WH-2

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Stab D/T lanyard installed-form a loop large enough to fit over DTP-1. Two 5/8 diameter medium pull dental bands are good for the stab hold down against the stab platform.

D/T lanyard passing through the slot in SK-1 which acts as a guide to help re-seat the stab slot to the nylon screw end.



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Stab in D/T position-aluminum stop tube shown against the underside of the basswood insert.

With the stab down in flight position, set the loop for the dental band tensioner that is stretched onto the D/T tripwire end. Tie around a tube or dowel and pull forward until the loop will be positioned approximately as show on the plan. Relax the tension and tighten the knot. Remove the tool and apply thin CA to harden the formed loop.

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Pass the 5/8 diameter dental band through the formed loop and back through itself to set up the tensioning in the tail D/T lanyard.

D/T lanyard applied to the tripwire end.