

Zirol D-17 Beech Staggerwing

Parts List

Vacuform Parts:

- 1 Four Side Panels
- 2 Lower Dash - Back Dash
- 3 Dash
- 4 Dash Hood
- 5 Two Front Seat Bottoms
- 6 Two front Seat Backs
- 7 Two 4x6 Pieces of .030 Plastic
- 8 Rear Bench Seat Bottom
- 9 Rear Bench Seat Back
- 10 Rudder Pedal Kick Plate
- 11 Rear Seat Kick Panel

Resin Pieces:

- 1 Ash Tray
- 2 Lighter
- 3 Control Stick
- 4 Control Wheel
- 5 3/8" Knurled Rod for Trim
- 6 Two Resin Knobs for Fuel Control
- 7 1/2" Fuel Filler Elbow

Miscellaneous Pieces

- 1 3/16" Tube, 2" Long
- 2 Felt, 12x24
- 3 Cordury 12x24
- 4 Aluminum for Door Trim
- 5 Four 2x12 Pieces of Mahogany stained Wood 3/32 ply
- 6 Eight Large pins
- 7 5 Extra Large Pins
- 8 Two 8" pcs of 1/8" aluminum Rod
- 9 Fourteen Brass Nails
- 10 Neoprene Rubber, 1/4" Tubing, 12" Lg
- 11 Seat Frames (2) Brass
- 12 1/16" aluminum Tube, 6" Long
- 13 Computer Disc
- 14 Two 1/4" Dowels, 12" Long

Rudder Pedal Assembly

- 1 Four Vacuform Rudder Pedals
- 2 Two Resin Rudder Pedals
- 3 Four Alum. Tubing Pedal Arms
- 4 1/4" Balsa, 3 1/2 x 8"

Instructions

Thank you for purchasing this Dynamic Balsa Interior kit. The floor in this kit goes on top of the crutch or 5 1/2" down from the window sill or at the bottom of the door. I have included some detail for the door frame if you decide to make an opening door. There is a book called the "Staggerwing Story" by Edward H. Phillips and it will help you with your airplane and interior. I have done this in a civilian scheme and have provided felt for the carpeting but if you are doing this for a military plane some had just a painted plywood floor and I am sure some of the trim was not mahogany. The back seat should be high enough to go over the control servos if you want to put them in the place on the plans. Just reinforce the seat with balsa and screw it or velco it down.

Floor - The floor goes on top of the crutch or at the bottom of the door. You can make this out of light ply and paint or stain it or you can use balsa or light ply and cut a piece of felt from the miscellaneous pack and paint it to the color you want and install this as carpeting.

Side Walls- ou will want to sheet all of the interior sidewalls that you are going to cover and some are going to be covered with plastic to simulate a pleated leather and then use the courdory cloth on the upper half above the side panels and around the door posts. You can paint this courdory cloth to the color of your interior and you can also paint the plastic. When you do the side walls you should leave about 1/4" of an inch on the top lip to glue onto the window sill and cut the bottom off where it meets the floor. On the right side you will have to seam the two pieces. There was no side wall material in the rear as that was only cloth. Once you have cut and painted the side walls and checked for fit glue them in place and then glue the cloth onto the walls above the side walls and onto the back wall.

Cordury Cloth- This cloth was used on the rear wall and on the area above the sidewalls. You can paint this cloth a color to match your interior and glue in place.

Floor Rudder Pedal Kick Plate- Cut this out 1/4" outside of the front and rear rivets and cut the ends so that they meet the sidewalls. This goes on the floor so that the center dash is approx. 1/4 to 3/8 in front of the slot for the control stick. Cut off the bottom of all the slots and paint this kick panel to match your floor and then cut out holes in the floor to match the slots in this kick panel. Use the piece of 1/4" balsa provided as a back up under the floor to glue the rudder pedals and stick into. Use the kick plate as a template and drill the holes in the balsa then first glue the kick plate into the floor and then glue the balsa under the floor, you should touch up any bare wood showing with black marker or black paint.

Rudder Pedals- Depending on which version you are doing some had four rudder pedals and some had two rudder pedals and two T-bar rudder pedals. There are enough parts to build this any way you want. Cut around the vacuform pedal and glue the bent aluminum tubing in the center of the back. Next paint the pedals silver and the tube black. For the right side if you are using the T-bar sand off any flashing and paint these black. Then you can glue the pedals into the floor.

Lower Dash - Back Dash- Cut the top of this dash round to match the fuse and cut the bottom off so that it will just touch the floor. There is a line in the plastic just above the buttons on this dash and that is the bottom of the main dash. You will need to test fit the main dash to determine where to trim this exactly. The sides should meet the sidewalls below the dash former. Cut off the back of the holes where the guages go and paint this semi flat black. Then cut out a piece of the clear plastic and tape this onto the back of the dash then cut out the guages and tape them onto the clear plastic then using a low temp hot melt glue gun glue a piece of 1/16" balsa over the back of the dash and down the center console. You may have to angle the dash where the

center console meets the bottom so that the center console is vertical and meets the floor where you want to glue it. After you have this built and you have painted the buttons put in the knobs which are the large headed pins which you will need to paint white or red and slide a piece of 1/16 aluminum tube 1/4" long over the pin and push into the dash where they go then glue this onto the dash panel and paint the sides black to match this dash panel if there is any wood showing.

Main Dash- Cut around the edge of this dash and cut the back off of the holes and install the gauges like in the above dash and then put a backer in of 1/16 balsa and hot glue around the edges. Sand the back of this smooth and glue into place.

Control Stick- Sand around the control wheel and control stick and drill a 3/16" hole in the back of the wheel and a 3/16" hole in the control column. Using a piece of the 3/16" aluminum tubing make the shaft for the wheel and leave a 1/4" inch space between the two. Paint the wheel black and you can paint the control column either black or a color to match your interior. Paint the 3/8" knurled knob black and this goes on the right side of the control column on the top. This is used as a trim wheel. Next glue this into the hole in the floor for the control column with the center line of the wheel even with the window sill. Some I looked at were a little taller and some were a little shorter.

Wood Trim- Using the three pieces of stained wood cut these so that they fit each of the three window sills and the door sill. Then using the nails provided drill holes after the wood is glued in place and glue the nails in to simulate screws that hold down the wood. They had three screws in each piece of wood.

Dash Hood- There are several different dash hoods but I use this one and it seems to work fine. Line up the row of rivets where the dash would go and you can leave it over hang 1/2" or you can cut it back or you can curve it. After you cut it out the way you want you will need to cut out the front side of the dash hood so it is just inside the windshield. Then slice the black tubing provided and glue onto the edge of the dash hood and glue in place. Then paint this semi flat black and glue in place above the dash.

Front Seats- Cut around the edge so these are about 7/8" thick and then glue the bottom to the back. Next glue some pieces of balsa inside the back and leave flush with the edge or leave it hang over a little bit and sand til flush. Then glue on the piece of 4x6 .030 plastic over the back and trim to the edge and sand smooth. You can now paint these seats any way you want. After the seat is painted you can sand and paint the seat base and glue this inside the front seat bottom. You can glue these seats into the airplane.

Rear Seat- Cut around the edges so they are about 1" thick and glue the bottom to the back. Then on the front edge of the bottom glue on the rear seat kick panel so that the front edge is about 2" tall. Use some balsa blocks to put under the rear seat to support it when you glue it down. If you have servos under the rear seat you can use either velco or screw the seat down. You can now paint the seat to match the front seat.

Fuel Filler Tube- Paint this to match the interior and it should be approx. 1" to 1 1/4" tall and it goes just inside the front edge of the door. After it is painted you can glue it in place.

Lighter and Ash Tray- Paint these pieces silver and glue onto the wood trim at the front of the rear right window.

Four Crank Handles- Bend the 1/8" aluminum rod so that one end is 1" long and the other end 1/2" long. Drill a hole in the end of the 1" long piece and glue the extra large pin into the hole and cut off the wire on the back side and sand a bevel on the back side. Build all four of these the same and then drill a 1/8" hole in the sidewall to glue these in. look at your documentation or look at my pictures to find a location.

Aluminum Door Trim- This trim goes 2" up on the front for the doorway across the bottom and on the angled part. For the front and the bottom cut the aluminum to fit and glue in place and for the angled part bend a 1/4" lip on the inside to cover the sidewall and then trim the outside edge next to the fuse and then glue this into place.

Fuel Control - Glue the two decals onto each sidewall on the lower front and then paint the two knobs white and glue onto the decal.

Dash Brace Rods- These Two 1/4" Diameter Rods go from the top inside corner of each dash to the center above the pilots head. You can paint these black or the interior color.

Tips for a Better Cockpit Interior

- 1 Before cutting your pieces out of plastic you should cut a sample piece out of heavy paper or plastic maybe even cutting several pieces and taping them together to form the layout then put this over your piece, mark it and cut it out.
- 2 Before gluing any plastic make sure your glue is compatible with the plastic by testing it on a sample piece.
- 3 If there are resin molded pieces in your cockpit interior you can lighten them up by drilling them full of holes before you glue them in place.
- 4 For knobs and levers you can use various pins from your local sewing shop. Using different style pins for the levers you can also cover the pins with paper or wood to simulate the real levers.
- 5 Before starting any cockpit interior you should purchase literature on the airplane and study the interior so you know which colors to paint and where the various switches and levers are and also what kinds of switches and levers there are.
- 6 If your kit has aluminum pieces in it that you have to cut you should insert a piece of wood inside before you cut or back it up with a piece of wood.
- 7 When you are putting an interior into a flying plane you need to make sure that it is braced and glued securely so that the vibration will not brack it apart. You may even consider using a flexible glue such as silicone.
- 8 When you are doing an interior and you cannot put the floor in a scale location put the floor as low as you can and then cut off the bottom so the side walls and such to still give it a scale appearance.

Instructions on Installing a Dash

Cut out around the edge of this dash and cut the back off of the gauge holes leaving about 1/16" of an inch. Next paint this dash semi flat black. After this dries take the plastic and cut out a piece to cut over all of the holes and tack glue in place with a low temperature hot glue gun. Next cut out around all of the gauges and place behind the plastic, center the gauges and tack glue the gauges in place. Remember that you do not have to cut the gauges apart. Next cut a piece of scrap 1/16" balsa to fit inside this and tack glue this behind the paper gauges to make a sandwich. You may need to glue a couple of pieces of balsa onto the back of the dash to make it as thick as it needs to be. Now you can finish the front such as adding knobs, painting buttons white etc.

Note- Instead of tack gluing the gauges and plastic in place you can use clear plastic tape and then hot glue the balsa onto the back.

Installing the Cockpit pieces into the Airplane

Floor- Remember to put sheeting on the floor if you are going to have a pilot and other pieces sitting on the floor. You can also put extra bracing under the floor where the pilot's seat goes.

Side Walls- You should glue balsa to the back side of the molded side walls to have a solid surface to mount on.

Dash and Gunsight- Make sure the dash is securely glued in place and if you can put extra bracing where the gunsight goes. You can also put an extra dowel thru the dash and into the gunsight to help support it.

Glueing Pieces In- Make sure your glue is compatible with the plastic and if you can you should use a glue with some flexibility such as silicone or rubber based thick CA. Also remember to remove any paint where you are glueing pieces together.

Seats- If you are using a pilot you will want to put balsa under the seat so the seat is not supporting all the weight of the pilot. You can also stick a dowel up thru the balsa and thru the seat to help secure the pilot.

After the pieces are installed you can weather the interior by rubbing small amounts of silver paint on wear areas also smearing black marker or charcoal as to where greasy areas would be.

After your cockpit is done please email us some pictures of your finished work. Our email is dynamic1@lmtc.net If you have any questions you can call us at 815-856-2271.

