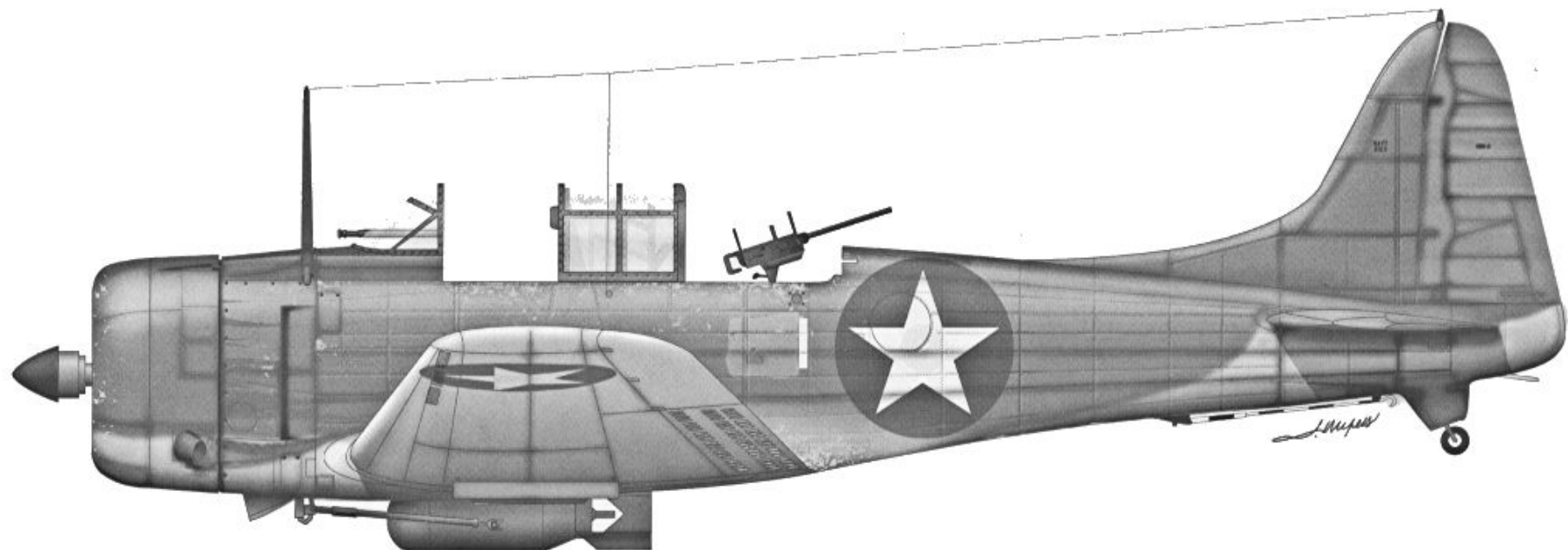


480310

SBD-2 DAUNTLESS



ACCURATE[®]
MINIATURES



SBD-2

INSTRUCTIONS

The final 87 aircraft of the original run of SBDs were delivered as SBD-2s, with the principle change from the -1 being fuel capacity. The total fuel capacity was increased from 210 US gallons to 310 US gallons by replacing the two 15 US gallon wing tanks with 65 US gallon tanks in the outer wing sections, while keeping the center 90 US gallon tank. This change increased the overall combat radius to 1470 nautical miles. These changes came with a price, however, and the added weight adversely affected overall performance to the extent that one of the fuselage-mounted .50 cal machine gun, along with its ammunition belt was usually removed.

The SBD-2 was also fitted with one of the first autopilot systems available, which made possible extended over-water flights. The most notable visible change was the re-designed, smaller carburetor intake scoop on the cowl.

SBD-2s first saw carrier action aboard the USS Lexington (CV-2) VB-2 and VS-2. The USS Enterprise (CV-6) received her SBD-2s a short time later, assigning them to VS-6 and VB-6. The First Japanese combat vessel sunk by Americans in WWII was the Imperial Japanese Submarine I-70, by Lt. C.E. Dickson of VS-6 on 10 December 1941. Lt. Dickson was flying an SBD-2 Dauntless.

SBD-2s were active during the "revenge raids" of early 1942: The Gilbert Islands, The Marshall Islands, Wake and New Guinea. By the time of The Battle of the Coral Sea, the -2s had been replaced by the newer SBD-3.

This kit represents the SBD-2 Dauntless so gallantly flown by the Marines of VMSB-241, from Midway Island, on the morning of 4 June 1942. Decals are provided to make any one of the 16 planes participating in the first Marine action of the Battle of Midway.

RECOMMENDED PAINTS:

In order to help you paint your model correctly, we have included a list of color recommendations. These colors are cross-referenced to the Federal Standard (FS) numbers wherever possible. Many model paint companies match their products to this system, and you may choose to match your favorite paint to these numbers. Your local hobby retailer can be of assistance in helping you select the proper paint for this kit, or you may consult the listing of paints on the painting guide.

Model Paint Reference Chart*

	Federal Standard	Model Master	Humbrol	Gunze Sangyo Aqueous	Gunze Sangyo Mr. Color	Polly S	Floquil Classic Military
Aluminum	17178	1781	11	8	218	1995	303121
Blue Gray	35189	-	-	-	-	-	303178
Burnt Metal	-	1415	-	76	61	1997	-
Flat Black	37038	1749	33	12	33	10	303010
Flat White	37875	1768	34	11	62	11	303011
Gloss Black	17038	2721	21	2	2	-	-
Gloss Green	14187	-	2	26	66	-	-
Gloss Orange	12197	2731	18	14	85	-	-
Gloss Red	11136	2718	19	3	3	-	-
Interior Green	34151	1715	151	58	-	821	303187
Light Gray	36440	1730	129	325	325	825	303331

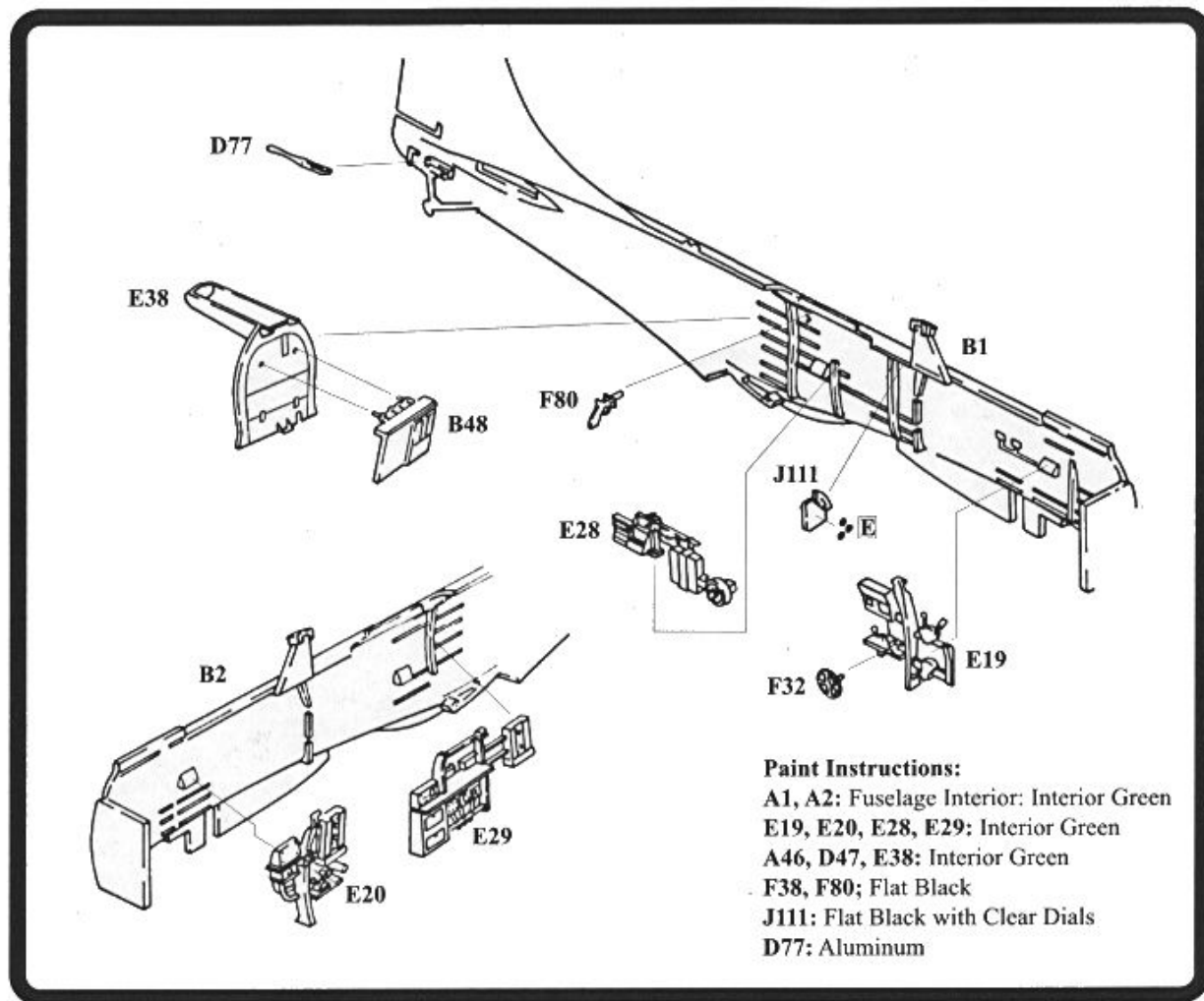
*This chart is provided only as an aid to the modeler and is the closest match possible from each paint manufacturer at the time of printing.

STEP 1 - FUSELAGE AND SIDE CONTROLS

- ▲ Begin by painting the interiors of the fuselage halves.
- ▲ Carefully remove the overflow plugs from the gunner's left console (E28) pilot's right console (E20) and the gunner's right console (There are no such plugs on the pilot's left console).
- ▲ After painting these parts, glue them to the fuselage halves as indicated.
Glue the trim wheel (F32) to the pilot's left console.
Glue the flare pistol (F80) to the hole in the left fuselage in the gunner's compartment.
- After carefully painting the gunner's instrument cluster (J111) add decal (E) to the rear surface and glue the panel to the left fuselage half as indicated.
Glue the catapult tie down (D77) to the slot in the rear of the fuselage half. Remove the overflow.

▲ We recommend that you assemble the rear gunner's bulkhead at this time, which will make it easier to install. It can also be put in place after the fuselage halves are glued together, which will make it easier to locate properly.

- ▲ Glue the ammo canister (B48) into the lower holes in the rear gunner's bulkhead (E38).
- ▲ Glue the .30 caliber ammo tray (A46) onto the area of the bulkhead designated by the dotted rectangle in the illustration. The tray should be oriented as shown, with the molded holes on the top surface and the boxes projecting forward. If you decide to install the bulkhead at this time, glue it in place now. The forward face of the bulkhead assembly will rest against the rearmost surfaces of the fuselage stringers on both fuselage halves. Finally, test fit and glue the fuselage halves together. Set this assembly aside and let it dry thoroughly.



STEP 2a - COCKPIT AND GUNNERS FLOOR

This assembly contains many small pieces and will present the greatest challenge to build. You must be patient. These pieces fit together in a straight and logical manner. You will be rewarded with a very realistic cockpit assembly. The handiest tool for this assembly will be tweezers. Nobody has fingers nimble enough to assemble the rudders!

- ▲ Begin by sliding the gunner's rudder pedals (E-31) into the heel troughs on the interior floor (D24) and pushing them all the way to the rear. The two small protuberances on the rudder pedals should point forward.
- ▲ Before beginning the instrument panel assembly, it should be noted that a separate map table (J110) has been included in this kit. It may be glued in to closed or extended position. *To allow for ease of access to other parts, it should not be glued into position until later in the assembly process (STEP 11).* If you choose to place the table in the extended position, you may also elect to Navigation Calculator decal (A) onto the table. This table provided a workspace for the pilot, who was also responsible for the navigation chores.
- ▲ After carefully painting the instrument panel (J109), apply decal B to the back. Carefully align the dials so that they may be seen from the front of the panel. For an extra kick, lightly dry brush the raised detail of the front of the panel with silver paint.
- ▲ On completion, glue the panel to the floor. The two locator pins on the bottom of the rudder pedals fit into the holes on the raised part of the pilot's cockpit. Make sure that the panel is perpendicular to the floor. Set the assembly aside to dry thoroughly.

Paint Instructions:

E31, D24, E33, E36: Interior Green

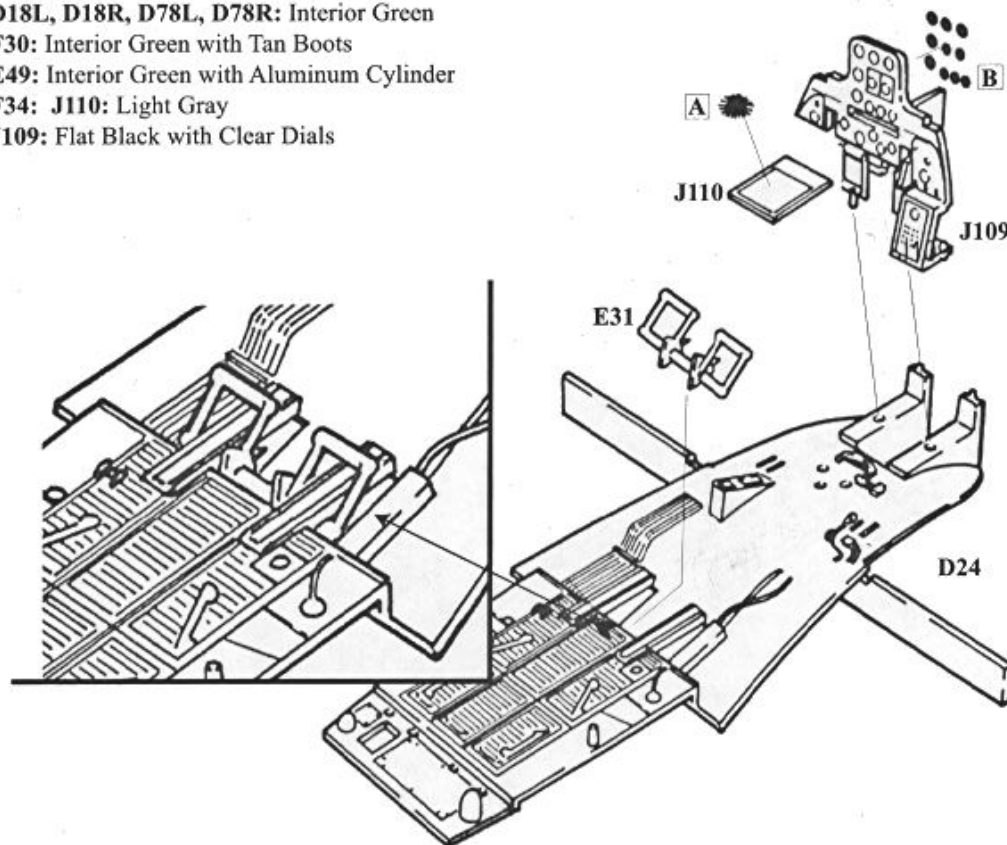
D18L, D18R, D78L, D78R: Interior Green

F30: Interior Green with Tan Boots

E49: Interior Green with Aluminum Cylinder

F34: J110: Light Gray

J109: Flat Black with Clear Dials



STEP 2b - COCKPIT AND GUNNERS FLOOR (con't)

- ▲ Now carefully slide the pilot's left foot rail (D18L) forward through the opening and glue it to the tab on the very front of the floor. The flat surface of the foot rail should be parallel to the surface of the floor.

Now repeat this operation using the pilot's right foot rail (D18R). When this piece is properly in place, the horizontal bar should rest on the bottom right of the instrument panel electrical box.

- ▲ the instrument panel electrical box.

Glue the left rudder control link (D87L) and the right rudder control link (D87R) to the appropriate sides of the rudder pedals on the instrument panel,

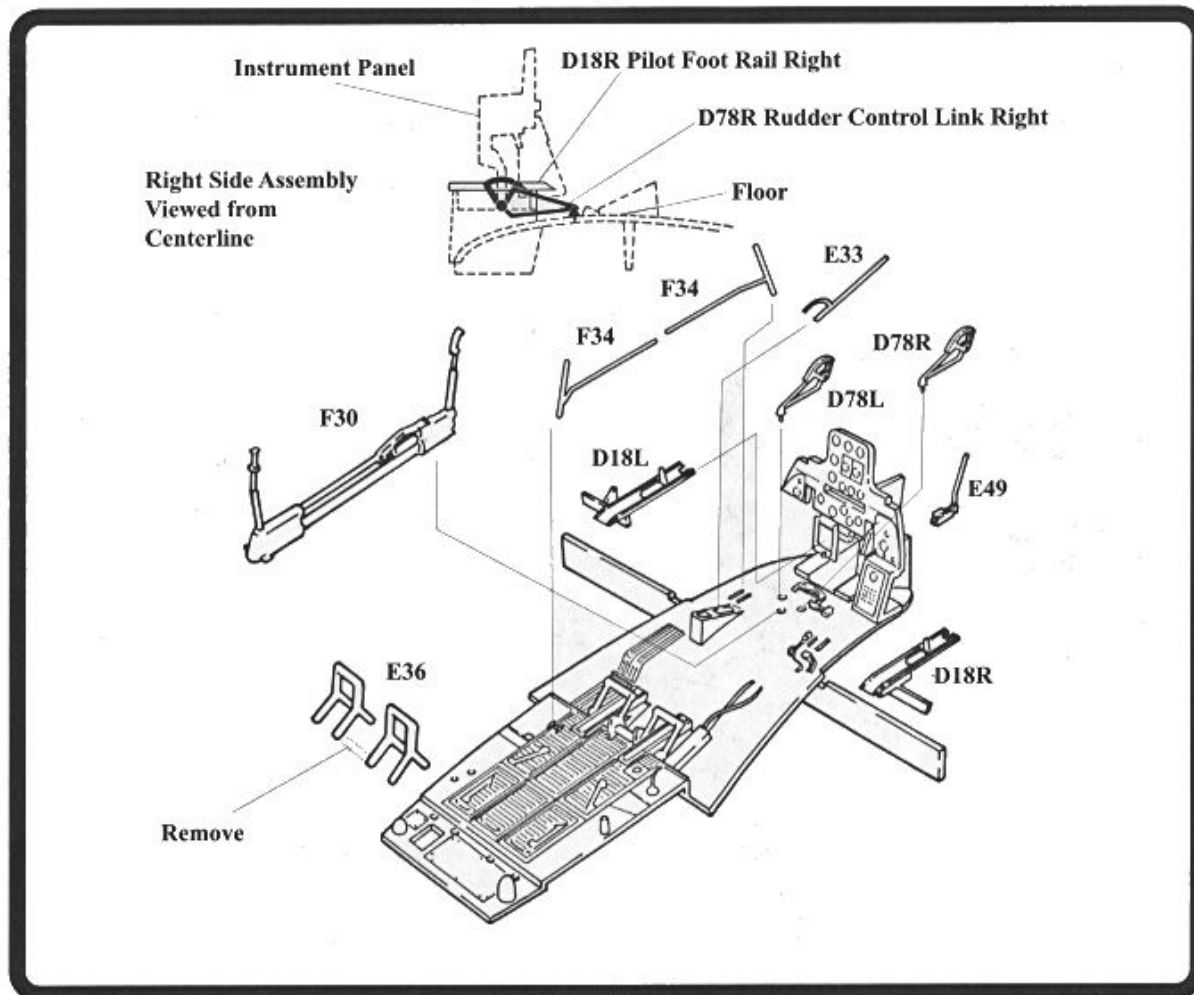
- ▲ and to the two locating holes on the cockpit floor. Before gluing the pilot/gunner control column (F30) to the cockpit floor, you will find it easier to paint the horseshoe-shaped device located just ahead of the pilot's column insignia red. This was a gust lock and was used to hold the column and control surfaces in place when the aircraft was parked.

After the control column is glued in place, locate and cement the dive flap actuator (E49) to the right side of the cockpit floor. This locates between the slightly raised details just to the right of the pilot's relief tube. Glue the arresting hook lever (E33) into

- ▲ the raised locator to the left of the pilot's cockpit. The two wobble pump handles (F34) are now glued to the raised locators in the pilot's cockpit and the gunner's cockpit on the left side. The two long horizontal portions of these parts should point toward each other and slightly overlap. Glue the horizontal portions together, keeping them parallel

- ▲ to the floor. Carefully remove the horizontal bar connecting the gunner's foot rests (E36, miss-numbered as 39) Now glue the foot rests to the four indentations on the rearmost position of the floor.

Set the assembly aside for later installation in Step Five.



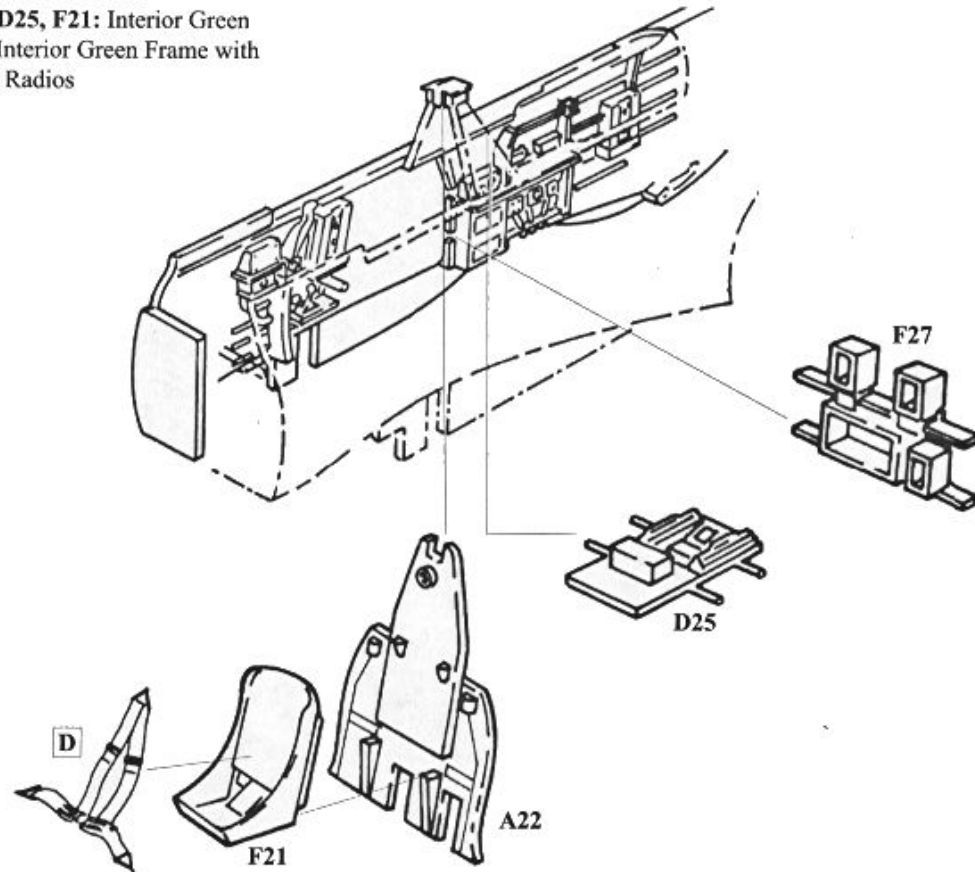
STEP 3 - INTERIOR COMPONENTS

- ▲ After painting the pilot's seat (F21) you may elect to apply the pilot's seat decal (D), or you can use your favorite technique.
- ▲ Glue the pilot's seat bulkhead (A22). The bottom of the seat rests on the two small raised ledges on the bottom of the bulkhead.
- ▲ Test fit, and then glue the bulkhead into the fuselage from the bottom until it rests against the forward portion of the fuselage rollover frame.
- ▲ Working from the bottom of the fuselage, glue the cockpit shelf (D25) into the fuselage and forward until it rests against the rear surface of the pilot's bulkhead.
- ▲ Locate and test fit the gunner's radio equipment (F27) up into the fuselage. This piece locates into the notches in the fuselage sides and against the forward surface of the right gunner's console.

Paint Instructions:

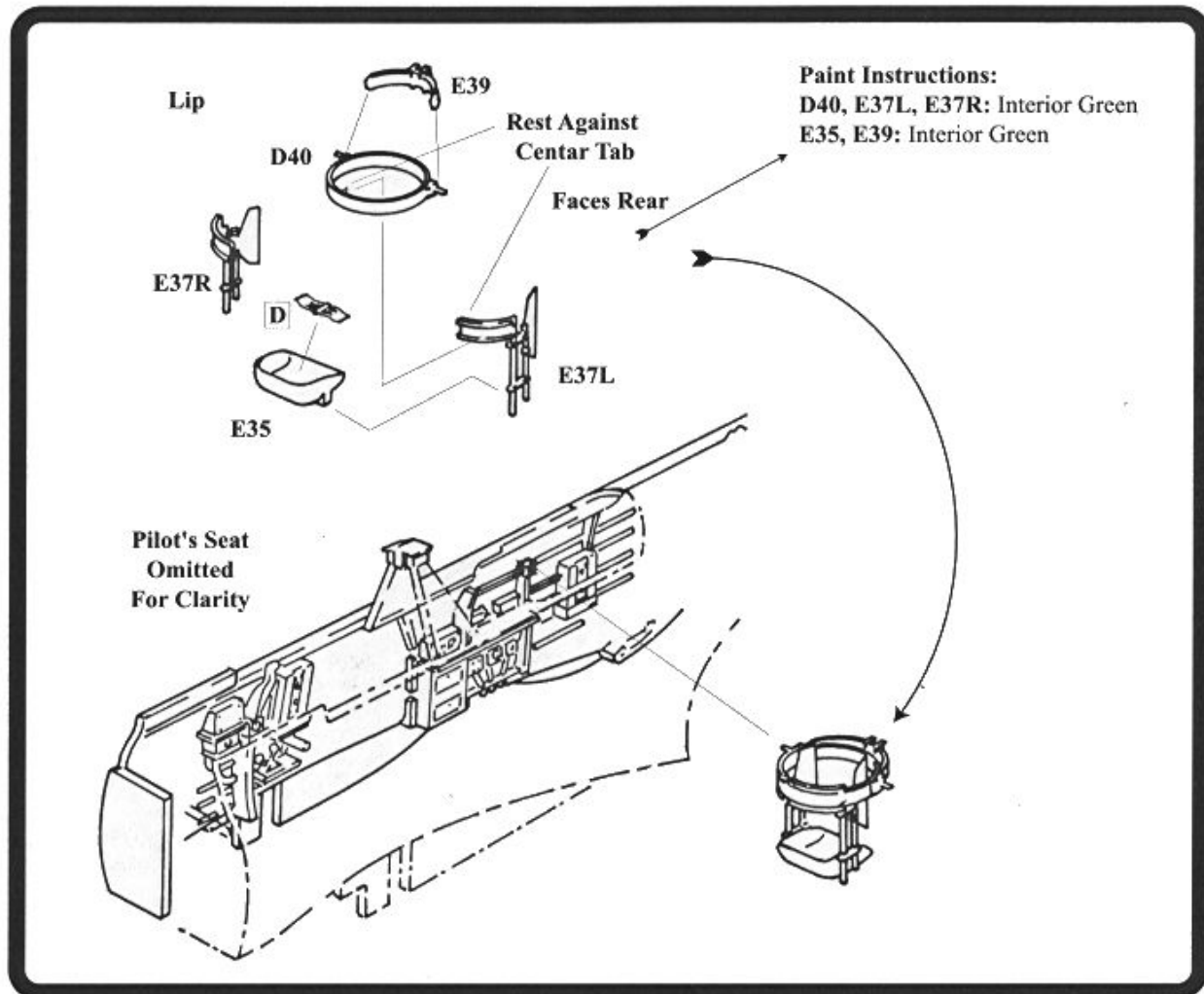
A22, D25, F21: Interior Green

F27: Interior Green Frame with
Black Radios



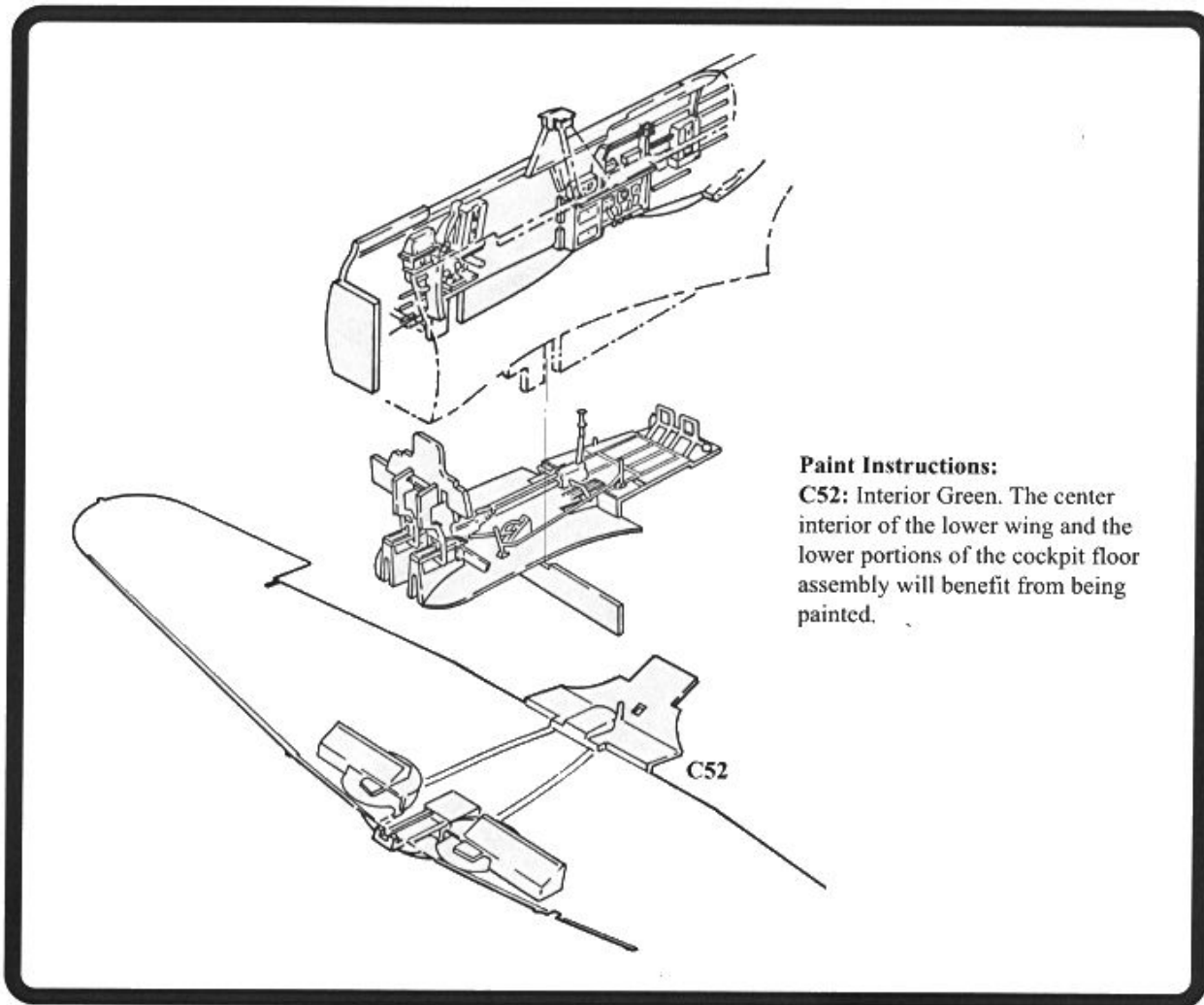
STEP 4 - TURRET RING

- ▲ The components that make up the turret ring, seat and gun are delicate and molded to precise scale. They should be handled with extreme care. Take your time, and allow plenty of drying time. The machine gun is best assembled and installed toward the end of the kit's assembly so as to avoid breakage (see step 13).
- ▲ Carefully remove the turret ring (D40) from the sprue. With the lip of the turret ring on top, glue the right gunner's seat frame (E37R) and the left gunner's seat frame to the inside of the ring. These pieces should be perpendicular to the ring. Allow this assembly to dry thoroughly.
- ▲ Apply the gunner's seat belt (F), to the gunner's seat (E35) or use your favorite technique to make the seat belt.
- ▲ Carefully glue the gun mount (E39) to the gunner's ring. This piece should be parallel to the gunner's ring when viewed from the side. As mentioned in step two, there are two parts numbered 39, so be careful here.
- ▲ When you are satisfied that all of these parts are properly aligned and thoroughly dry, carefully locate the gunner's ring into the fuselage. The two locating pins on the sides of the gunner's ring are placed into the slots on the left and right gunner's side consoles. The gunner's seat assembly may be placed into position from the opening in the bottom of the fuselage, or from above.
- ▲ Glue the seat assembly into place and allow to dry.



STEP 5a - FLOOR AND WINGS

- ▲ After test fitting, glue the completed floor assembly from step two into the fuselage. If you have not already done so, paint the underside of the floor, as it will be seen through some of the openings in the bottom of the wing.
- ▲ Locate and cement the wing bottom (C52) to the fuselage.

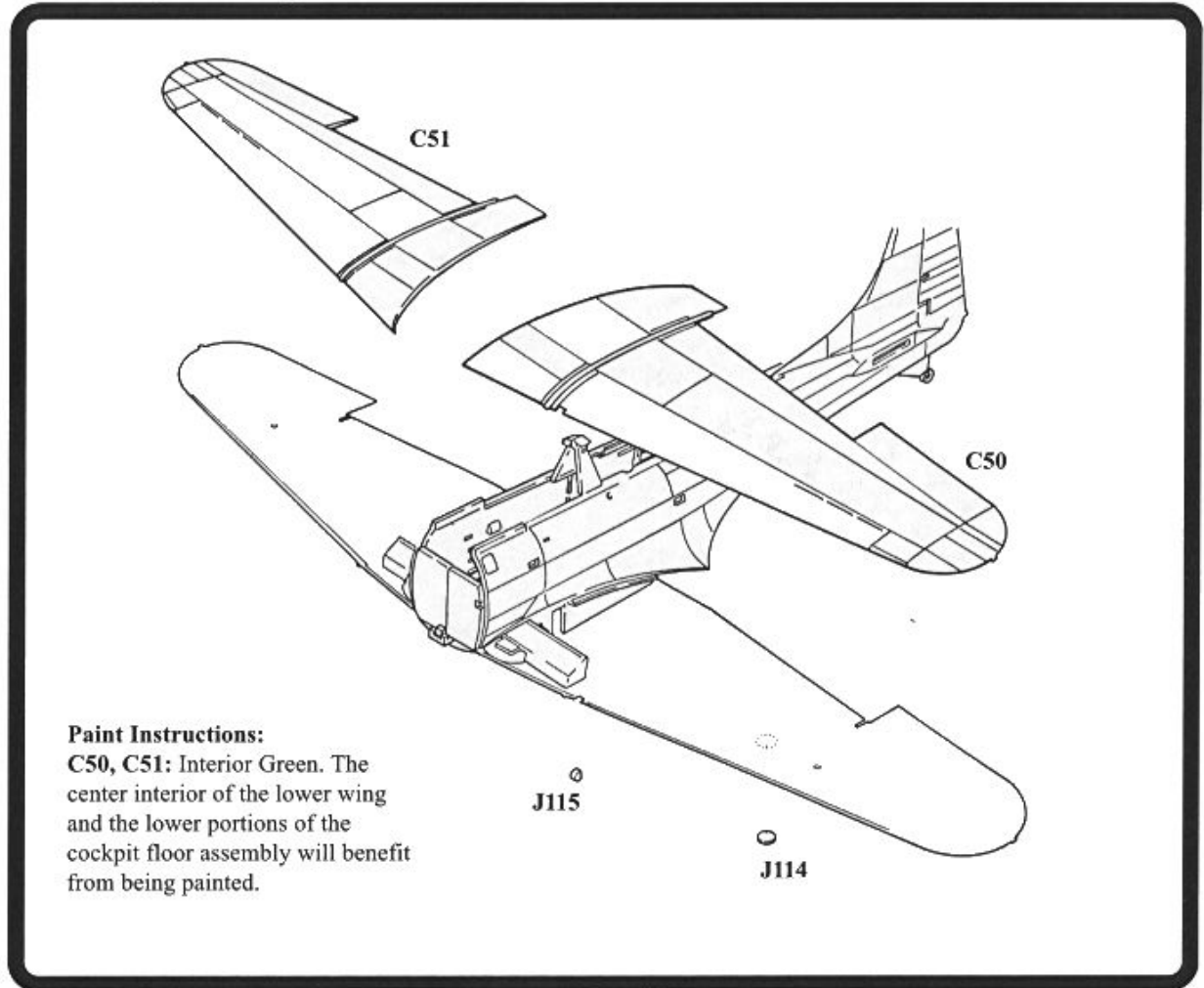


Paint Instructions:

C52: Interior Green. The center interior of the lower wing and the lower portions of the cockpit floor assembly will benefit from being painted.

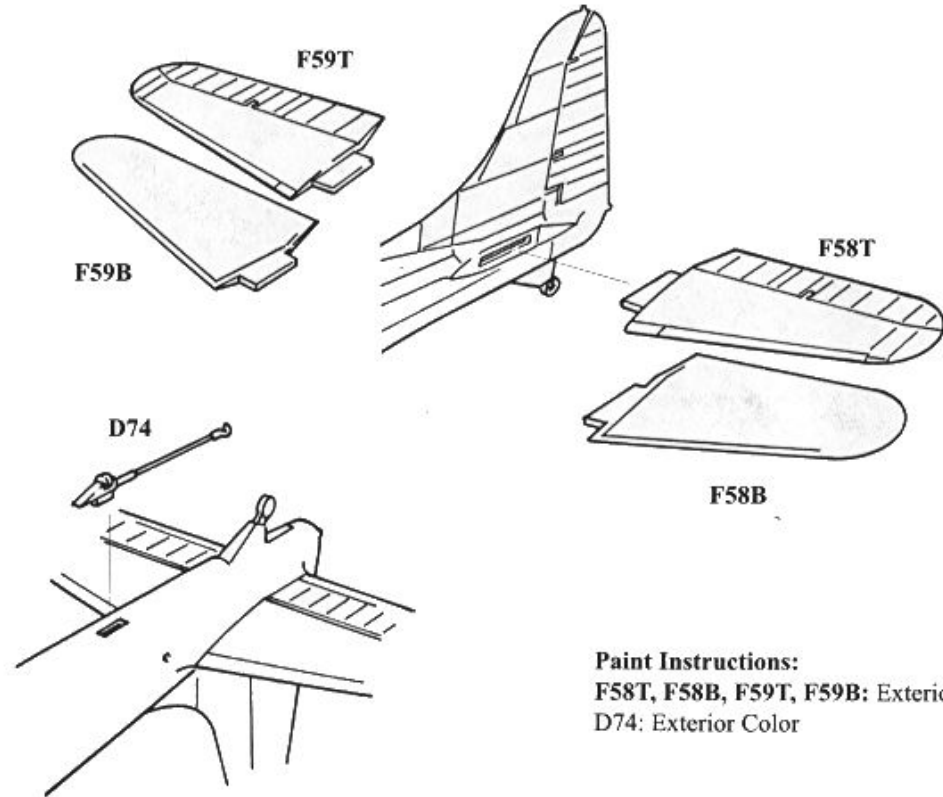
STEP 5b - FLOOR AND WINGS (con't)

- ▲ When the bottom is dry, glue the top left wing (C50) and the right top wing (C51) to the bottom wing and the fuselage wing root. It is recommended that you glue the wing tops to the wing root first, gluing outward toward the wingtips to ensure the best fit.
- ▲ After cleaning up the glue joint, paint the area behind the approach light (J115) on the left wing leading edge bright silver, and glue the light in place. We recommend that you use white glue or clear gloss acrylic to secure the clear pieces to avoid crazing.
- ▲ Repeat the painting procedure for the landing light (J114) on the left wing bottom. Glue the landing light in place.



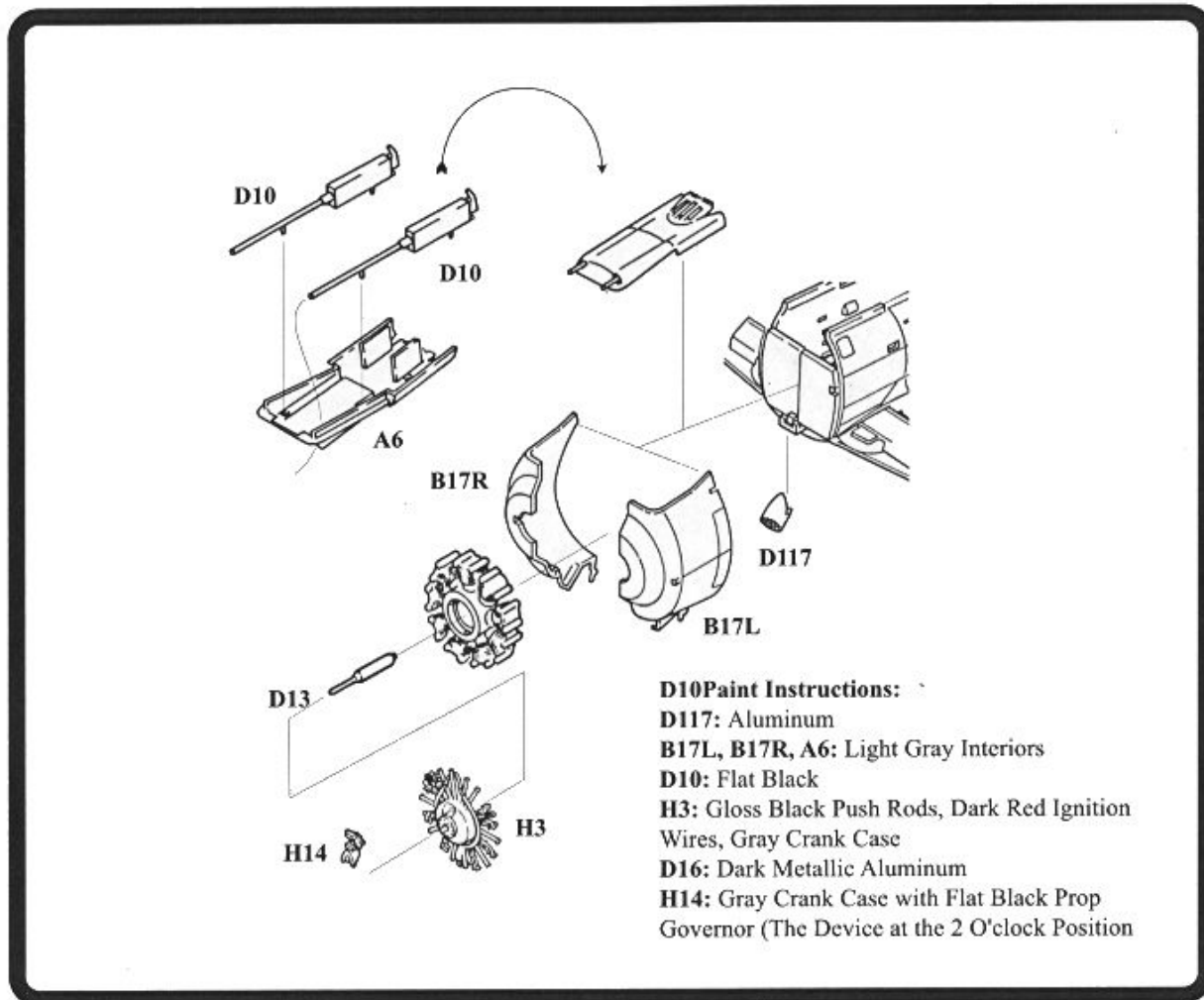
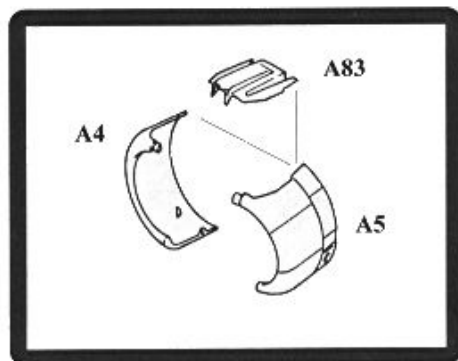
STEP 6 - STABILIZERS

- ▲ Glue the left stabilizer top (F58T) to the left stabilizer bottom (F58B).
- ▲ Glue the right stabilizer top (F59T) to the right stabilizer bottom (F59B).
- ▲ Now glue the left and right stabilizers to the fuselage. Make sure that you keep these assemblies level to the ground.
- ▲ Finally, glue the arresting hook (D74) to the bottom rear of the fuselage.



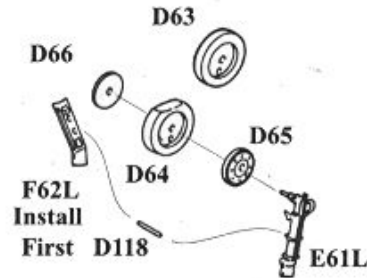
STEP 7 - NOSE AND ENGINE

- ▲ Glue the oil cooler (D117) to the lower front center of the fuselage/wing assembly. The screen should point forward and downward, and the longer side of the v-notch should be oriented vertically as shown.
- ▲ Glue the left intermediate cowl (B17L) to the right intermediate cowl (B17R). Glue this assembly to the fuselage.
- ▲ Glue the nose machine guns (D10) to the underside of the nose gun cover (B6). The barrel tips should protrude through the two holes.
- ▲ Now glue the nose gun assembly to the top of the intermediate cowl.
- ▲ Glue the prop governor (G15) to the pushrod/wiring harness (G3). Glue the pushrod/wiring harness to the engine (D16), trapping the propeller shaft (D13) between these two pieces. Do not allow glue to come into contact with the propeller shaft.
- ▲ Now glue the completed engine assembly to the front of the intermediate cowl.
- ▲ Glue the left cowl half (B4) to the right cowl half (B5).
- ▲ Glue the cowl top (B82) to the cowl assembly. The cowl assembly may be added to the intermediate at this time, or after painting and weathering.

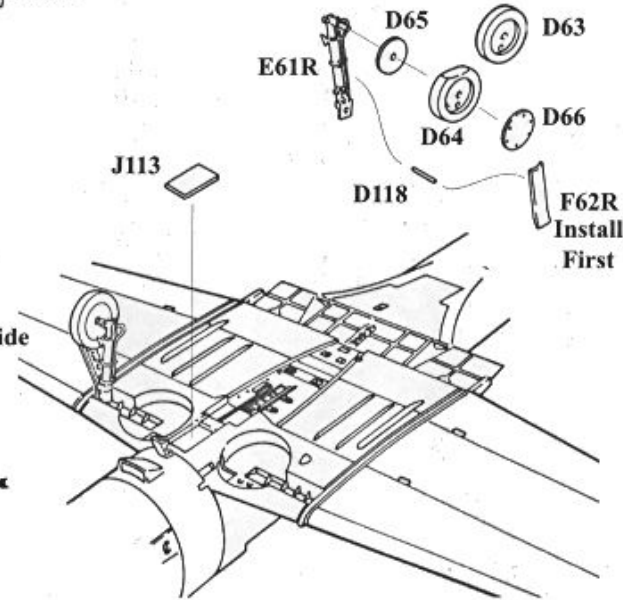
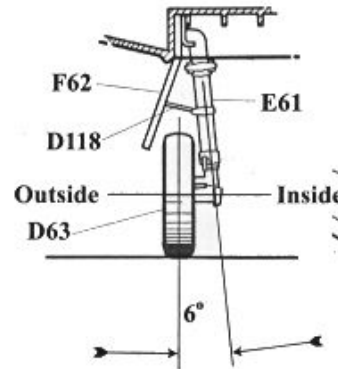


STEP 8 - LANDING GEAR

- ▲ The locating area in the wheel wells is designed to force the landing gear strut cover and the strut to have a precise relationship to one another. As a result, the landing gear assembly on this kit will self align if you follow this sequence of assembly. Difficulty with alignment can occur if you alter the sequence.
- ▲ Glue the left strut cover (F62L) and the right strut cover (F62R) into the left and right wheel wells, respectively. The doors should point outward and forward.
- ▲ Now glue the left landing gear strut (E61L) and the right landing gear strut (E61R) into the wheel wells and up against the strut covers. These parts should have their axles parallel to the ground when viewed from the front. The gear legs should have a 6 degree inward angle when viewed from the front.
- ▲ After these parts have dried, carefully glue two strut cover arms (D118) between the landing gear struts and the strut covers.
- ▲ You have a choice of either weighted (D63) or unweighted (D64) tires. Select the ones you wish to choose and glue the brake drums (D65) and wheel cover (D66) into the center of your selected tires. The wheels have been molded separately to facilitate easier painting.
- Glue the tire/wheel assemblies onto the axles, ensuring that the flat spot of the weighted tire sits level on the ground when viewed from all angles.
- ▲ Glue the pilot's bomb release window (J113) into the opening on the wing bottom.

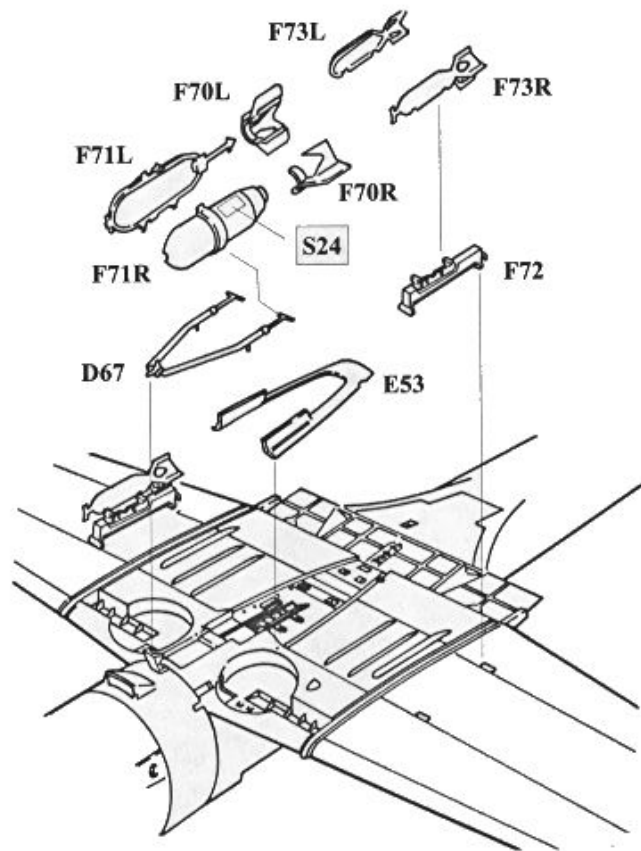


Paint Instructions:
 F62L, F62R: Interior Surface: Light Gray
 E61L, E61R: Light Gray
 D118: Aluminum
 D63, D64: Tire Black
 D65: Aluminum
 D66: Light Gray



STEP 9 - 1000LB AND 100LB BOMBS

- ▲ Glue the centerline bomb fairing (E53) to the center of the wing bottom.
- ▲ Glue the left 1000lb. bomb half (F71L) to the right 1000lb. bomb half (F71R).
- ▲ Glue the left bomb fin (F70L) to the right bomb fin (F70R). After painting, apply the stencils (S23 and S24) to the bomb body.
- ▲ Line up the locating tabs and glue the fin assembly to the bomb. The fins must be parallel to the wing bottom.
- ▲ Glue the bomb trapeze (D67) to the sides of the bomb. Before the glue sets firmly, glue the bomb trapeze into the hinge mechanism on the bottom of the intermediate cowl. The two small pins on the trapeze arms should point toward the bottom of the airplane. The bomb trapeze allowed the bomb to swing free of the propeller arc.
Now glue the two 100lb. Bomb racks (F72) to the bottom of the wings.
- ▲ Now glue the left 100lb. Bomb half (F73R) to the right 100lb bomb half (F73L). Make two sets. Ignore the fact that "L" and "R" are mislabeled. The pointy end goes forward.
- ▲ Glue the 100lb. Bombs to the wing racks.



Paint Instructions:

E53: Exterior Color

F70L, F70R, F71L, F71R: Olive Drab with Aluminum Fuses

D67: Steel

F72: Aluminum

F73L, F73R: Olive Drab

Landing Gear
Omitted
For Clarity

STEP 10 - DIVE FLAPS

▲ *Due to a numbering error, the upper dive flaps have the "L" and "R" designations reversed. Since these parts work only one way, this should present only a minor inconvenience.*

▲ **Closed Position:** Dive flap actuators (E56, E57L and E57R) are not used for the closed position. Glue the center dive flap (E54) to the center wing bottom.

▲ Glue the upper dive flaps (E81) to the wing top in the closed position.

▲ Glue the lower dive flaps (E55L and E55R) to the wing bottoms in the closed position.

▲ **Full open position:** Glue the center dive flap actuator (E56) to the center wing bottom. The center actuator should have the two long parallel rods placed in a horizontal position against the bottom surface of the wing.

▲ Glue the left dive flap actuator (E57L) to the left wing, and the right dive flap actuator (E57R) to the right wing. The left and right dive brake actuators have longer "fingers" that should point toward the bottom and center of the model.

▲ Glue the center dive flap (E54) to the center wing bottom and actuator.

▲ Glue the lower dive flaps (E55L and E55R) to the wing bottoms and to the actuators.

▲ Glue the upper dive flaps (E81) to the respective wing top and to the actuators.

▲ **Landing position:** Glue the upper dive flaps (E81) to the wing top in the closed position.

▲ Glue the center dive flap actuator (E56) to the center wing bottom. The center actuator should have the two long parallel rods placed in a horizontal position against the bottom surface of the wing.

▲ Glue the left dive flap actuator (E57L) to the left wing, and the right dive flap actuator (E57R) to the right wing. The left and right dive brake actuators have longer "fingers" that should point toward the bottom and center of the model.

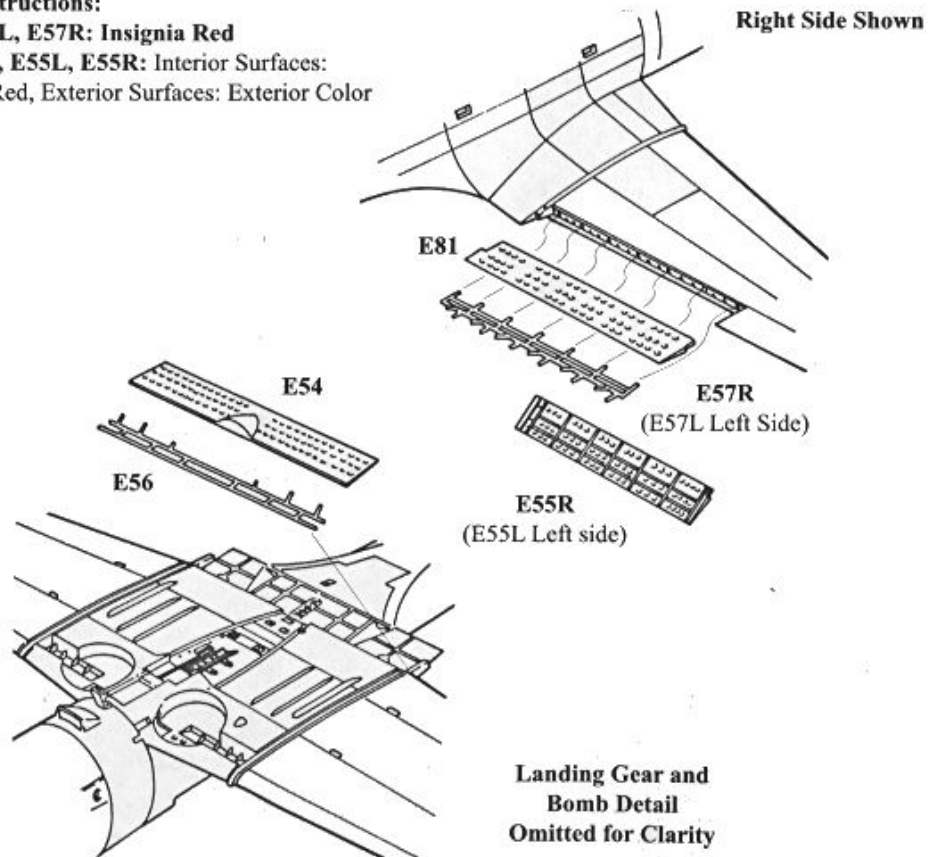
Glue the lower dive flaps (E55L and E55R) to the wing bottoms and to the actuators.

Paint Instructions:

E56, E57L, E57R: Insignia Red

E54, E81, E55L, E55R: Interior Surfaces:

Insignia Red, Exterior Surfaces: Exterior Color



STEP 11 - COCKPIT DETAILS

- ▲ Carefully remove the hoisting cable (D79) from the sprue and locate it onto the two raised clevises on the sides of the pilot's cockpit. The cable rests behind the pilot's seat. On real aircraft, this cable was used to hoist the plane from dockside to the carrier deck. It was also used to suspend the plane from the ceiling when space was at a premium on the hangar deck.
- ▲ Glue the radio direction finder loop (A26) onto the mid-fuselage half.
- ▲ Carefully locate and glue the telescopic bomb/ gun sight (H9) to the upper cowl.
- ▲ Finally, glue the pilot's headrest (D23) to the pilot's bulkhead. This part was adjustable on the real aircraft, and the mounting pin will need to be trimmed to your desired length before gluing.
- ▲ Install the map table (J110) from step two at this time.

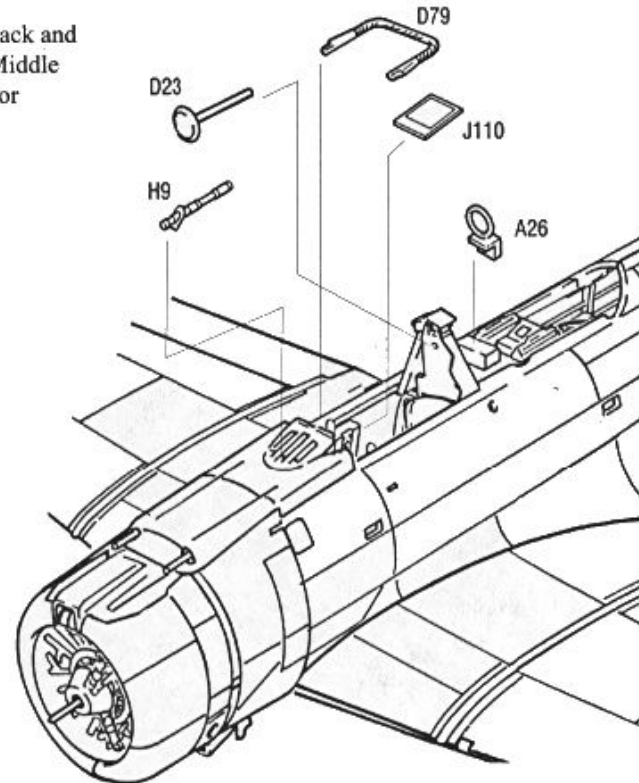
Paint Instructions:

D79: Aluminum

H9: Flat Black

A26: Flat Black Base with Flat Black and Flat White Loop Split Down the Middle

D23: Leather Headrest with Interior Green Shaft.

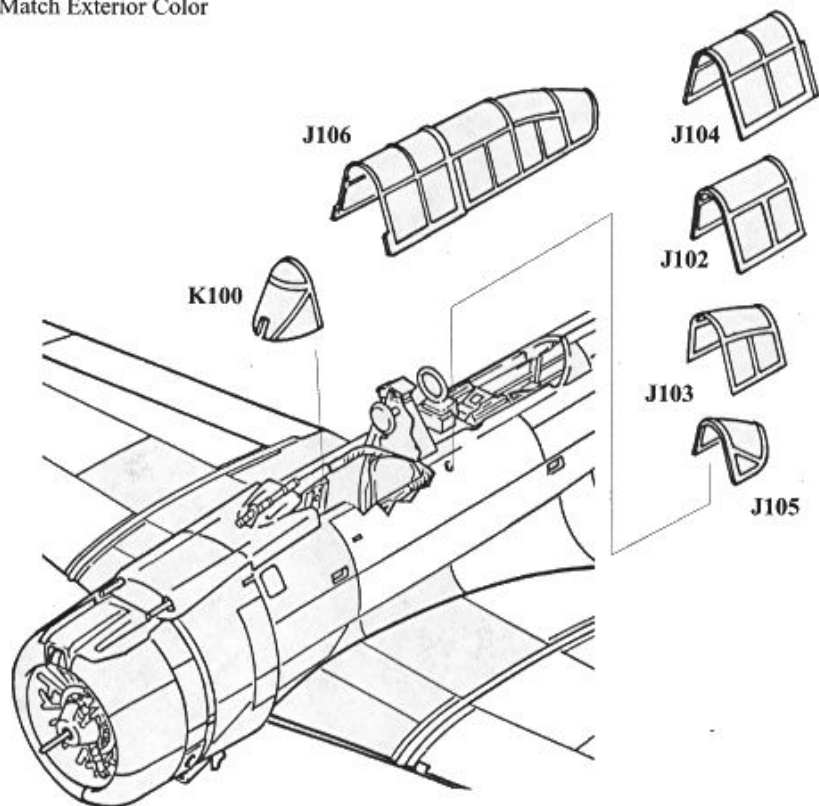


STEP 12 - CANOPIES

- ▲ The canopies may be installed in the open or closed (stacked) position.
- ▲ Begin the installation of the clear parts by gluing the pilot's windscreen (L101) onto the cowl. Remember to use non-crazing adhesive.
- ▲ *Closed position:*
 - ▲ If you are building the closed version, the gunner's machine gun will need to be stored under the turtle deck or removed (see step 13).
 - ▲ For the closed version, simply glue the closed canopy (J106) onto the fuselage.
- ▲ *Open position:*
 - ▲ If you are building the open version, it is very important to follow the assembly sequence exactly.
 - ▲ Begin by gluing the rear canopy (J105) over the radar unit and onto the top of the fuselage deck. This canopy was frequently removed from the aircraft, so it may be left off to expose more detail on your kit.
 - ▲ While the rear canopy is drying, glue the gunner's canopy (J103) onto the rear deck.
 - ▲ Now glue the fixed canopy (J102) over the gunner's canopy.
 - ▲ The pilot's canopy (J104) may be positioned open or closed or any placed in between.

Paint Instructions:

Canopy Color to Match Exterior Color
(See Step 12)

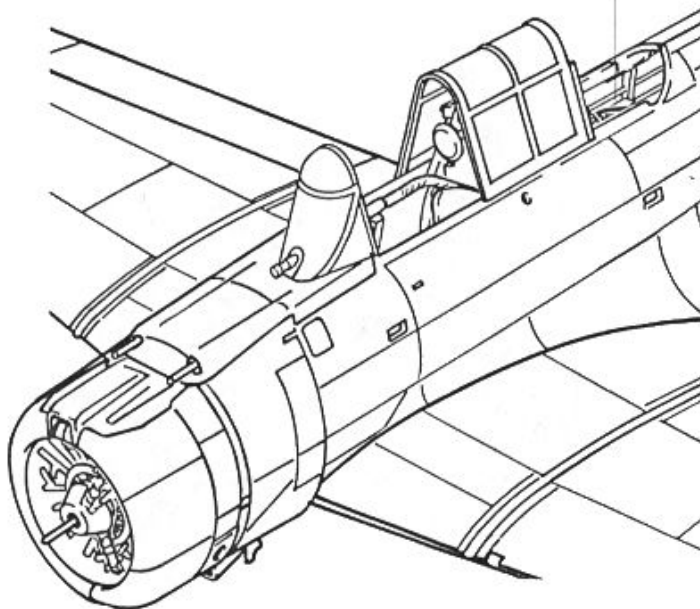
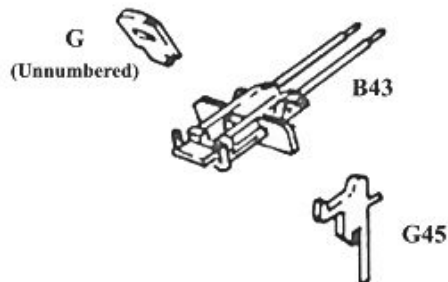


STEP 13 - REAR GUN

- ▲ The machine gun parts are very delicate. Use extra care in handling and installation.
- ▲ Glue the .30 cal ammo box (A42) to the .30 cal machine gun (A41).
- ▲ The machine gun may now be glued to the gun ring.
- ▲ If you are building your kit with the canopy in the closed position, position the gun in the trough behind the gunner's position, or you may leave the gun out altogether.

Paint Instructions:

A41, A42: Flat Black with Aluminum Ammo Box

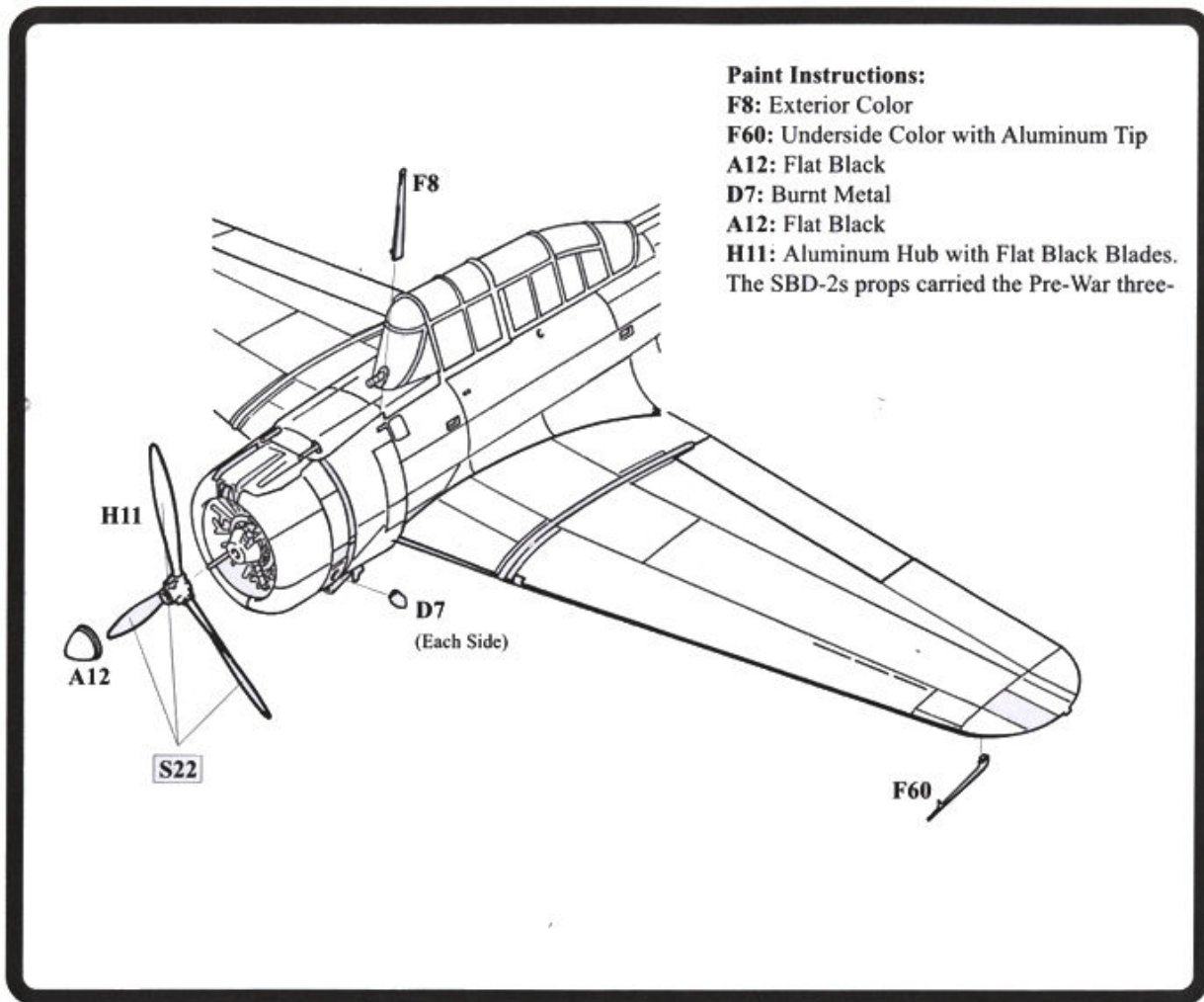


STEP 14 - FINAL DETAILS

- ▲ Glue the radio mast (F8) to the left side of the fuselage. An antenna may be added from this mast to the top of the tail, as a final step after the mast is thoroughly dry.
 - ▲ Glue the two exhausts (D7) in place on the cowl.
 - ▲ Glue the pitot tube (F60) to the bottom of the left wingtip.
 - ▲ Apply stencils (S22) to the front of the propeller (H11). Carefully push the propeller onto the propeller shaft. Glue the spinner cap onto the propeller.
- ▲ Your SBD-2 is now complete.

Accurate Miniatures would like to thank the following organizations and individuals for their generous help in the preparation of this kit:

Dale Caldwell
Clark Macomber
Larry Fuller
Rich Faulkner
US Naval Museum and Hill Goodspeed
US Navy Office and Steve Hill
Jim Sawruk
John Elliot
Thomas E. Doll
Bob Willis and the staff of the Kalamazoo Air Museum
Lawrence D. Webster, Aero Historian



STEP 15 - DECAL PLACEMENT AND FINISHING

▲ This kit contains decals sufficient to model any of the sixteen SBD-2 Dauntless Dive Bombers flown by VMSB-241 from Midway Island on the morning of 4 June 1942. These planes had been delivered to the Marines on 25 May, and had originally been assigned to VB-2 (USS Lexington, CV-2). The red and white stripes on the rudder panel, as well as the red "meatball" in the center of the insignia had been hastily painted over prior to the battle, but evidence of those markings were still evident though the thin layer of blue paint which was used to over paint those areas. The decals in this kit are our best guess as to how those markings may have appeared at the time.

▲ The VB-2 markings were also partially covered, leaving only the white numeral designation of the aircraft. To effectively re-create this over-painting in scale, you will need to paint a ¼ inch square just in front of the white numeral, using Intermediate Blue which has been lightened by about 20-25% with either white or light gray. Refer to the illustration on the box tray for clarification.

▲ NOTE: The Bureau Numbers and Side Numbers have been arranged on the decal sheet in sets. The BuNo for White 1 is located between the White 1 decals, and so on.

▲ For more information on VMSB-241 at the Battle of Midway, please visit our web site at:
<http://www.accurate-miniatures.com>

