

# AWLCRAFT® SE REPAIR MANUAL

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**Awlcraft SE** is a revolutionary basecoat designed to deliver special effect finishes (metallics, pearls and solid), with a fast drying, high opacity formulation. **Awlcraft SE** basecoat must be clear coated with **Awlcraft 2000 Clear (F3029)** or **Awlgrip HDT Clear (C0300)** to provide not only a high gloss, robust topcoat system but also a repairable and buffable system.



Should the need arise to repair your **Awlcraft SE** Basecoat/Clearcoat system, from the smallest scratch through to a large scale repair, the following manual will take you step-by-step through the preparation, application and finishing of the coating system greatly aiding in the outcome of a successful repair.

It is important that the steps in the process are followed as described or the resultant repair will be visible and require repeating.

**Note:** Some colors may be harder to repair than others, and some can be classed as difficult to almost impossible to repair (for example 3 stage pearl colors). The following instructions and application procedures require a degree of application skill and previous spray application experience.

1

## PREPARATION



As with any application or repair, preparation is a key stage in the process. The area to be repaired, and a large section of area around it, should be thoroughly cleaned and degreased. Be sure all detergent residue is rinsed from the surface. Use **Awlgrip Wipe-Down Solvent (NA/AP: Awlprep 400 T0170; EU: Surface Cleaner T0340)** as a final wipe down of the surface using the Two Cloth Method.

2

## SANDING REPAIR AND SURROUNDING AREA



Sand the repair area, and the surrounding area. For small repairs (<6"/15cm) sand approximately 5 times the size of the damaged area. For larger repairs sand 12-36" (30-92cm) beyond the edge of the damaged area to allow room for the subsequent coats in the remaining steps.

**Note:** If repairing a metallic system, allow a minimum of 8 times the size of the damaged area for the full repair; if repairing a pearlescent system allow a minimum of 10 times the size of the damaged area for the full repair.

Sand the repair area using 400 grit paper, work a second area beyond the 400 with 800 grit, and sand beyond the 800 with 1500 grit out on to the undamaged paint area. Blow off the surface with clean, dry compressed air while dry wiping with clean rags to remove sanding dust and residue. Following removal of the dust and residue, wipe the surface with **Awlgrip Wipe-Down Solvent (NA/AP: Awlprep 400 T0170; EU: Surface Cleaner T0340)** using the Two Cloth Method.

**Note:** Care must be taken not to cut through the top coat or other high spots. Hold the DA flat, turn down the air pressure (slow to medium speed), and sand using very light pressure.

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## APPLICATION OF AWLGRIP REPAIR BASECOAT FOUNDATION COAT (E3001)



Apply **Awlgrip Repair Basecoat Foundation Coat (E3001)** over the repair area and to approximately 90-95% of the size of the total sanded area.

**Note:** The basecoat foundation coat does **not** need to be mixed with reducer or converter prior to application.

It is recommended to use a gravity gun setup [Tip size: 0.047-051"(1.2-1.3mm) to apply the basecoat foundation coat and a lower atomizing pressure than would be used for applying the standard **Awlcraft SE** mix.



### TIP:

Using disposable spray pots, with all the necessary mixed products already pre-filled into them, will make the job easier and faster. Simply switch between the disposable pots as necessary at each step of the repair.

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## APPLICATION OF AWLCRAFT SE BASECOAT (STANDARD PRODUCT)



Once the **Awlgrip Repair basecoat foundation coat** has dried, mix standard **Awlcraft SE Basecoat** as per product datasheet. Apply **Awlcraft SE Basecoat** over the damaged area **only** as per normal **Awlcraft SE** application techniques.



### IMPORTANT:

Full coverage and hide of the damaged area with the **Awlcraft SE Basecoat** needs to be achieved before proceeding to step 5.



### IMPORTANT:

When applying the **Awlcraft SE Basecoat** care should be taken to apply a fully coalesced film, but not over-apply. Always spray perpendicular to the substrate except when coming to the outer edge of the area being coated at which point the spray gun should be slowly pivoted away from the substrate to "fade-out" the **Awlcraft SE Basecoat**.



### IMPORTANT:

This is one of the crucial steps in the whole repair process and is vital for obtaining an invisible repair. Care must be taken during the application process.



5A



MIXING OF AWLCRAFT SE BASECOAT WITH AWLGRIP REPAIR BASECOAT BLENDER (T0190) OR AWLCRAFT SE BASECOAT WITH AWLCRAFT SE PEARL MID-COAT

**Choose ONE of the following options:**

**Note:** Not all colors will require the following steps.

**TWO STAGE REPAIR - FOR MOST METALLIC SYSTEMS:**

Firstly, prepare a normal mix of standard **Awcraft SE Basecoat** as per product datasheet, but instead use a slower solvent than what would typically be selected for **Awcraft SE Basecoat** applications. For example, if the typical choice is **T0001 Fast Spray Solvent**, then instead select **T0003 Standard Spray Reducer** for the mix reducers for your application conditions. Once ready, mix 50:50 by volume with **Awlgrip Repair Basecoat Blender (T0190)**.

**THREE STAGE REPAIR - FOR PEARL SYSTEMS ONLY:**

**Awcraft SE Basecoat** (mixed as per datasheet) with **Awcraft SE Pearl Mid-coat** (mixed as per datasheet) allows for easier blending of the base repairs.

Mix 100:50 by volume, or when the base becomes translucent on a 3 second run off on a mixing stick, of **Awcraft SE Basecoat** mix with **Awcraft SE Pearl Mid-coat** mix.

**Note:** Both products are reduced and catalyzed before mixing the two to get the blend coat.

5B



APPLICATION OF AWLCRAFT SE BASECOAT BLENDED WITH AWLGRIP REPAIR BASECOAT BLENDER (T0190) OR AWLCRAFT SE BASECOAT WITH AWLCRAFT SE PEARL MID-COAT.

Once the **Awcraft SE Basecoat** has flashed off, apply the mixed **Awcraft SE Basecoat/Awlgrip Repair Basecoat Blender (T0190)** over the previously applied area (step 4) and slightly further out. Care should be taken to not apply the mix over the whole of the previously applied **Awlgrip Repair Basecoat Foundation Coat**. Depending on size of the damaged area, apply the mix from between 50-90% of the basecoat foundation coat area. Apply the blend as per normal **Awcraft SE** application techniques taking care to apply a fully coalesced film, but do not over-apply. Always spray perpendicular to the substrate, except when coming to the outer edge of the area being coated at which point the spray gun should be pivoted away from the substrate to "fade-out" the blended **Awcraft SE Basecoat**.

**Note:** The application of the blended **Awcraft SE Basecoat/Awlgrip Repair Basecoat Blender** **MUST NOT** extend beyond the area coated with E3001 Basecoat Foundation coat.



**IMPORTANT:**

If you are working on a **Two Stage Repair**, skip step 6 (related to applying Pearl Systems) and proceed to step 7.



**TIP:**

For best results, we strongly suggest the use of **Let Down Panels** prior to step 6.

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APPLICATION OF PEARL COATS

1. Apply the first coat to the entire repair area to the outermost edges of your repair but still well within the E3001 Basecoat Foundation coat.
2. Apply the second coat of pearl to approximately **50%** of the first coat of pearl.
3. Apply the third coat of pearl to approximately **75%** of the first coat (in between coats 1 and 2).
4. Depending on the effect desired, apply the fourth coat of pearl to approximately **90%** of the first coat applied (between the 1st and 3rd coat).



**IMPORTANT:**

It is critical that once the basecoat has thoroughly dried that the entire repair area is wiped with a tack cloth. Avoid tacking the unsanded paint adjacent to your repair area.

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APPLICATION OF BLENDED CLEARCOAT - AWLCRAFT 2000 CLEAR (F3029) OR AWLGRIP HDT CLEAR (C0300)

1. Prepare a standard mix of Clearcoat. Apply the first coat of clear over the entire E3001 Awlgrip Repair Basecoat Foundation coat applied in step 3 (where the E3001 meets the 800 grit sand scratch).
2. Apply the second coat of clear over the entire first coat and out to where the 800 grit meets the 1500 grit. Apply the **Awcraft 2000 Clearcoat** or **Awlgrip HDT Clearcoat** as per datasheet taking care to apply a full film.



**IMPORTANT:**

Step 8 must be carried out immediately while your second coat of clear applied in step 7 is still wet.

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MIXING OF AWLCRAFT 2000 OR AWLGRIP HDT CLEARCOAT AND AWLGRIP REPAIR TOPCOAT BLENDER (T0195)

Take your standard mix Awcraft 2000 or Awlgrip HDT Clear and mix 50:50 by volume with **Awlgrip Repair Topcoat Blender (T0195)**.

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APPLICATION OF BLENDED AWLCRAFT 2000 OR AWLGRIP HDT CLEARCOAT/AWLGRIP REPAIR TOPCOAT BLENDER

The 50:50 blend is only intended to be applied to the 1500 grit area therefore, be prepared to do this while your coat of clear is still wet. Overlap into your coat of clear just enough for full melt in. It is vital that all of the 1500 grit scratch is coated with the 50:50 blend.



**IMPORTANT:**

This is also a crucial step in the repair process and is vital for obtaining an invisible repair. Care must be taken to not over apply the 50:50 blend onto the unsanded surface.

However, it is critical that all 1500 grit scratch is coated with the 50:50 mix. If this occurs the whole repair process will need to be repeated.



**IMPORTANT:**

Carry out step 10 immediately.



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## BLENDING OF AWLCRAFT 2000 OR AWLGRIP HDT CLEARCOAT WITH EXISTING FINISH



While the previous coat is still wet, apply straight (neat) **Awlgrip Repair Topcoat Blender (T0195)** starting ~2-3" (5-8cm) in from the outer edge of the **Awlcraft 2000** or **Awlgrip HDT Clearcoat Blend** (step 9) continuing to apply right over the edge of the clear and to the edge of the sanded area in order to blend the clear into the existing coating.



### IMPORTANT:

Using the same tip and aircap as for all previous applications, reduce air pressure and fluid feed for the application of the pure **Awlgrip Repair Topcoat Blender**.

As this step involves applying straight solvent take care to not over-apply or have excessive volumes of solvent on the surface as this could result in defects from the solvent flowing unevenly across the repair area. The product needs to be applied wet, thus also make sure it's not applied too dry for the blending to work. It's about finding the right balance. If necessary, multiple coats of T0195 can be applied to aid in melting in the edge of the repair. However, time must be given (approximately 15-20 seconds at 77F or 25C) in between coats of T0195 to avoid over application.

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## FINAL STEPS



The above 10 steps should result in a near-invisible repair that may not require buffing. However, once cured the **Awlcraft 2000** or **Awlgrip HDT Clearcoat** can be buffed to further blend in the repair.

**Note:** Wet sanding is usually not required and whenever possible should be avoided.



## COLOR MATCHING TIPS -

### Using test panels for color matching

#### TWO STAGE REPAIR:

Spray a panel same as how you would be doing the boat originally, except add more coats of metallic covering each coat as you go along, then unmask and clear the whole panel.

By comparing the panel to the original paint job, it will give you a good idea of how many coats of metallic it will require. For example, if two coats were originally used on the boat, it may take three to get a match, which you would not know without a step panel.

#### THREE STAGE REPAIR:

##### Technical Basics: Let Down Panels

"Let Down" Panels can be utilized as an aid to determine the approximate number of mid-coat layers needed to achieve a color match when matching three stage paints. By comparing the various layers of mid-coat on the let down panel to an adjacent panel on the boat, a guide for the mid-coat application can be determined.



### IMPORTANT:

Air pressure and fluid feed will affect the final color thus need to be controlled and fine tuned before application.

#### Panel Preparation

1. Apply basecoat foundation color to hiding, then let flash/dry
2. Mask off panel in approximately six equal segments to illustrate film build variations
3. Apply one single coat of mid-coat
4. Remove the 1st section of masking paper, then:
5. Apply another single coat of mid-coat
6. Repeat above steps until complete panel has been sprayed with the pearl/mid-coat
7. Flash/dry for 20 minutes, mask off 1/2 of panel length-wise and apply F3029 or C0300 Clearcoat over unmasked side of panel.
8. Lastly, compare the different shades on the let down panel to the finish and use the appropriate number of pearl coats to reach the desired color.



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