



Directions for mounting SOLVENT FIX decals

SSSink produces three styles of solvent fix decals:

Blue keyline: LTCCSolFIX / low-temp. clearcoatable (160F to 180F degree bake)

Green keyline: HTCCSolFIX / hi-temp. clearcoatable (400F degree bake)

Red keyline: TMSolFIX / Top mount non clearcoatable

SOLUTION: The truth about them!

Most decal companies try to sell you their special secret mounting solutions as part of the overall decal system. We also will be willing to sell you mounting solution, but you can save a lot of money by buying the raw solvents and mixing it your self. Another mis-representation passed on to you the customer is that the solvent solution activates a special secret adhesive which bonds the decal to the frame. Actually what you are doing is a controlled re-melting of our final printed coat of clear. We do modify that clear to make it re-wet and bond better, but we feel that you need to know the truth about what makes these decals work so that you can better understand and have less problems in the decal decoration process.

Almost any glycol ester will work to re-wet the decal but the three solvents which we recommend are:

1....Butyl Cellusolve (generic name / ethylene glycol monobutyl ether) CAS# 111-76-02

2....Butyl Carbitol (generic name / diethylene glycol monobutyl ether) CAS#

3....Glycol Ether PNP (generic name / N-Propoxy Propanol) CAS# 1569-01-3

The first two solvents listed are fairly common and available from most chemical companies or local screen printing supply companies. The third solvent is more unique but available. We will help any of our customers find local sources for these solvents.

MIXING YOUR OWN: Raw mixes before the water is added. Two more chemicals needed to make the above listed solvents work better are:

4....Isopropanol (generic name / Isopropyl Alcohol) CAS# 67-63-0 Used to speed up the drying of the mounted decal. Glycol ester solvents are very slow drying, as a matter-o-fact we use them as retarders in the inks that we print these decals with.

5....a surfactant (generic name / Alkyl aryl popyoxyethylene glycols) you can also use the cleaner "409". This "soapy" chemical, also known as "a wetting agent" is used to break up the surface tension of the solvent so that it better mixes in with the water and doesn't leave hot spots in the dip tank.

Mix #1....Using solvent #1/ Butyl Cellusolve, mix to make one cup(250 ml. / 8oz.). Add 2 drops surfactant or 4 drops of "409"(it's watered down) to one cup of Butyl Cellusolve.

MIX #2....Using solvent #2/Butyl Carbitol, mix to make one cup(250 ml. / 8 oz.). Mix 85% (212.5 ml. / 6 3/4 oz. by volume) Butyl Carbitol with 15% (37.5ml. / 1 1/4oz. by volume) Isopropanol and add 2 drops of surfactant or 4 drops of "409"(it's watered down).

MIX #3....Using solvent #3/Glycol Ether PNP, mix to make one cup(250 ml. / 8 oz.). Mix 85% (212.5 ml. / 6 3/4 oz. by volume) Glycol Ether PNP with 15% (37.5ml. / 1 1/4oz. by volume) Isopropanol and 2 drops surfactant, or 4 drops of "409"(it's watered down).

DIP TANK METHOD

MATERIALS REQUIRED:

1. Solution
2. Dip tank large enough to hold largest decal (we recommend a rubbermaid or tupperware container with a snap on lid.)
3. Flexible squeegees
4. Clean water container.
5. Soft towels or tissues
6. Sponges
7. Gloves(thin laytex or rubber)

PREPARATION: Mix one part solution with eight parts warm water. This proportion is quite flexible. If you get to much bond add more water (1 to 10). If you need more bond add more solution (1 to 6). Increasing the temperature of the solution or frame also helps bonding. Thoroughly wash hands and prepare a clean working area free of dust or any oils. We also recommend that you wear gloves to avoid dermal ingestion of the glycol compounds.

- 1) Remove needed decals in bags to prevent plasticizer loss in the decals. Apply decal to paint which is at least "thumbnail hard". Solvents may stain soft paint.
- 2) Dip one decal in solution. The paper will curl immediately. After 6-10 seconds the paper will begin to flatten back out. At this point remove the decal from the dip tank and quickly position on the frame. Speed is very important at this point as the decal will soon release from the stock. Rub down with you finger.
- 3) Using a squeegee, squeegee the decal down using medium pressure. It's best to work the squeegee on a edge rather than on the side. Work the decal down from the center to the edges, to avoid trapping air bubbles.
- 4) Allow the decal to set on the frame for about 30 seconds, then wet the paper with plain water on a sponge and re-squeegee the decal. Lift a corner of the paper to see if the decal has taken a bond. If it has, gently slide the paper off the decal. **DO NOT LIFT THE PAPER OFF!**
- 5) Using a clean wet towel wash down the decal to remove any remaining dextrose gum for the decal paper.
- 6) Some wrinkles and bubbles may remain at this point. Using the squeegee gently work these flaws out. If the decal has a good bond, it will take quite a bit abuse of this point. Very fine wrinkles and small bubbles will stretch themselves out as the decal dries. Experience will teach you what size flaws need to be worked on.
- 7) Re-wash with clean water, buff down with a dry rag and allow to dry. Depending on temperature and humidity this is normally somewhere between 10 minutes and 24 hours.
To speed up the removal of the excess moisture it is suggested that you bake the decals at 160 to 180 degrees Fahrenheit for 30 minutes. If you are using our hi-temp decals we suggest that you bake the decal up to at least 250 degrees Fahrenheit for twenty minutes. The decal is then ready to be clear-coated.

COTTON BALL METHOD

MATERIALS REQUIRED:

1. Water
2. Cotton balls
3. Towels or tissues
4. Mounting solution
5. 2 small bowls
6. Flexible squeegee
7. Gloves

Preparation: Mix one part solution with eight parts warm water. Thoroughly wash hands and prepare a clean working area free of dust and any oils. It is highly recommended that you wear gloves during

the application process to prevent dermal ingestion of the glycol compounds.

1) Remove needed decals from protective bags. Using cotton ball apply mixed solution to frame where the decal is to be mounted, then wipe printed area of transfer with solution.

Do not spend too much time rubbing the solution on the decal.

2) Position decals on frame and apply more solution over the entire decal stock surface.

3) You can now slide the decals into position, using the printed keylines as a reference, if you work quickly, and without pressing the decal down to the frame, the decal will slide on the thin film of solution for a short time if moved smoothly.

4) Use the squeegee to firmly press the decal to frame and work excess solvent from between decal and frame. Take care to not move the decal at this point.

5) Apply clean water to the decal paper with clean cotton balls. The paper will become semi-transparent after about 30 seconds, make sure the entire paper is uniform transparency, at this point you can re-squeegee the decal if needed, then apply more water.

6) Carefully lift a corner of the paper to see if the decal has taken a bond. If it has, gently slide the paper off the decal. **DO NOT LIFT THE PAPER OFF!**

7) Using a clean wet towel or tissue wash down the decal to remove any remaining dextrose gum from the decal.

8) Some wrinkles and bubbles may remain at this point. Using the squeegee gently work these flaws out. If the decal has a good bond, it will take quite a bit of abuse at this point. Very fine wrinkles and small bubbles will stretch themselves out as the decal dries. Experience will teach you what size flaws need to be worked on.

9) Re-wash with clean water, buff down with a dry rag and allow to dry. Depending on temperature and humidity this is normally somewhere between 10 minutes and 24 hours.

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