

### First, some background information.

Sail numbers and the “L14” insignia are cut from a special cloth, commonly called “insignia cloth”, that has an adhesive backing – just like a decal. This cloth is also used to create patches for the sails wherever extra wear and tear may occur. DoubleWave normally stocks pre-cut numbers and the Lido 14 “L14” insignia.

For you history buffs, the sail numbers and insignia on very old Lido 14 sails (i.e. from the 1960s) were stitched onto the sail.

Why would you need to change the sail numbers and insignia? First, and foremost, is the requirement (in racing) that the sail number match the hull number. So anyone buying 2<sup>nd</sup> hand sails for the purpose of racing with them will need to ensure that the sail numbers are revised. This memo is primarily for that audience. In addition, the “L14” insignia may need to be changed, again because of the racing rules. If you look carefully, you may realize that there are gold, silver, red, green, and black insignia on certain Lido 14s. These are very special honor awards that sailors have earned the right to carry due to winning a championship of one sort or another. The highest honor is that of Class Champion and they get to carry a gold Lido 14 for their success. These honor awards generally last a lifetime and cannot be used by anyone else except in very special cases (i.e. the champion co-owns the boat with someone). So any time an honoree sells a sail with an honor award, that award is to be replaced with the appropriate color. The default (non honor) color is blue. So either the honoree or the new owner will end up changing the insignia. Of course, you can have a professional – such as a sail maker or DoubleWave – replace them but if you are far away or more of a Do-It-Yourself person, we will show you how to do it on your own.

Note that DoubleWave or any sail maker building Lido 14 Class Association compliant sails will sell you an insignia set.

With Lido 14s lasting many decades, it is increasingly common to find boats that don't have sails or have been sold with sails with incorrect numbers. The following explains how to find your Lido 14's serial number so you can buy the right sail numbers.

For very early model Lido 14s (i.e. late 1950s), the hull serial number was either made from permanent ink or a set of number decals embedded into the cockpit floor - aft of the centerboard trunk. For the period (roughly) 1960 thru the early 1970s, the serial number was written in black paint or black decals embedded into the cockpit side of the transom just below the tiller opening.

In either case, the numbers were covered with fiberglass that served as a “window” over the number. This window is frequently painted over or the fiberglass has aged and become opaque. The only way to prove the hull serial number is to remove the paint and perhaps the fiberglass to see the underlying information.

For boats built since the early 1970's, the serial number of the hull is embedded into the gel coat on the transom (usually upper right hand side) as part of the Hull Identification Number (HIN). The HIN is typically of the form WDSHXXXXYYYY or WDSHXXXXYYYY-L14 where XXXX is the hull serial number and YYYY is a code indicating the date the boat was built.

### Removing Old Numbers and Insignia

If you are only replacing numbers, start by making a few pencil marks to indicate the lower and aft most (towards the back end of the sails) edges of the numbers. You will use the marks to aid in placing new numbers so don't scrub them off in. If you are replacing an insignia, mark the locations of the pointy ends of the cursive “L” as well as the locations of the “14” digits. Again, use pencil - ink will bleed and run if it comes in contact with a solvent – which will be used liberally later on.

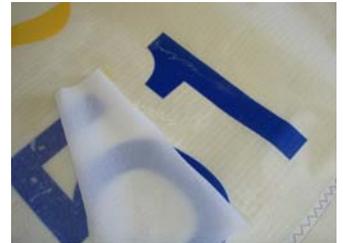
There are several basic steps to removing the numbers and insignia. The first, and optional, step is to manually pull the insignia cloth away from the sail. The second



step is to remove any fragments of cloth by applying a solvent to dissolve the adhesive backing, and the third step is to thoroughly remove adhesive residue left behind on the sail. If you want to limit the amount of solvent used, use all three steps. If you aren't concerned about how much solvent you use, skip the first step.

You should use acetone solvent. Acetone has a very low toxicity and can be used liberally without concern of damage to the sail or to you. Acetone will dissolve the adhesive into gelatinous goo that is very sticky so it is highly recommended that you use disposable gloves. Nitrile examination gloves are affordable, are readily available, and hold up reasonably well to acetone however be prepared to use several pair to complete the work.

- Step one. Spread the sail out onto a flat surface that is tolerant of acetone in an area that fumes will not gather. A clean garage floor or driveway is a good place. Be sure to place an acetone resistant layer underneath the sail so as to avoid getting dirt onto the sail, etc. A white bath towel (not a good one from the bathroom!), a white bed sheet, Mylar plastic, a smooth piece of plywood, or even an old sail, will work well.
- Step two (optional). Mechanically remove the old number or insignia. Start by peeling up an edge of a number. Though the actual sail cloth is strong, you want to avoid unnecessary stretching or wrinkling so I suggest placing one hand near the starting point and perhaps a knee or foot (clean, of course) on the other side of the number being pulled up. Pull vigorously – just like you do when you rip the duct tape away from your skipper's mouth after racing! If you are very lucky, the cloth will come away from the sail leaving little residue.
- Step three: Liberally soak the area of each digit with acetone. To help keep the acetone from evaporating too quickly, place a paper towel over the soaked area. Let the acetone dissolve the backing adhesive and pull the cloth away from the sail. This could be your first step of the whole process if you don't mind using more acetone.
- Step four: Remove the remaining adhesive residue is the worst part of the process. You want to remove 100% of the residue as any residue left exposed after you've installed new number or insignia will collect dirt and dust, leading to an ugly sail. Try to observe the different stages the residue goes thru as it absorbs the acetone. For instance, there is a point where it becomes sort of tacky (like rubber cement) that you can dab the residue with a dry paper towel and it might come up and away. There is another point where it is very gelatinous and you can effectively scrape and/or push it around. The process of removing the adhesive residue is one of applying liberal amounts of acetone solvent, waiting for the residue to get to the stage you want (to either move around or to wipe up), and working quickly before the goo transitions to another stage. Repeat until all is removed. There are a couple of tricks. Again, applying a paper towel over the area helps. Soaking the paper towel in acetone helps too. Using a plastic scraper (see photo) – available in paint supply departments - or perhaps an old plastic spatula to scrape the goo into piles will make it easier to get the goo up and off the sail with a clean piece of paper towel. Looks can be deceiving when trying to judge if you've removed all the residue so check by touching the sail with clean fingers to see if there is any stickiness. If there is, you have residue to remove.



I recommend removing and installing the numbers and insignia one side at a time – it alleviates having to flip and roll the sail.

### Installing Numbers

- The sail number is typically applied so that the number on the starboard side of the sail is higher in altitude than the number on the port side of the sail (see picture). The starboard number is most often placed in the space between the upper and middle battens. The port number is most often placed in the space between the middle and lower battens. See photo.
- Lightly draw a pencil line along the bottom edge of where you will be attaching the new numbers.

- Start with the aft most number. Peel back a corner of that number's backing material and align the bottom edge of the number with the light pencil line and the aft most mark you had previously made. If you've lost the aft most mark, position the number so that it just a few inches away from the aft edge of the sail. Press the exposed adhesive down very lightly onto the sail and carefully, using both hands, pull away the backing material with one hand and smoothing the number onto the sail with the other hand. Digits with openings in the middle (e.g. 0, 4, 6, 8, 9) will be harder to work with because you need to smooth out and press down equally around each side of the opening in the middle to get the number to be wrinkle free. As long as you press lightly, you have a chance of pulling the number back up (using fairly quick jerks) to try a second time to get the number down without wrinkles. Mind you, each time you yank upwards, you will be stretching the number cloth so it just may make matters worse.
- The gap between digits is approximately 1.5" to 2". You should take care to keep the digits parallel to each other and with equal gaps between each digit.
- Once all the numbers are down, take a piece of the backing paper and use the slick side to rub down hard onto the number cloth to ensure good adhesion. You can check the quality of the adhesion by looking at the numbers from the other side of the sail. From that point of view, you can see where the digit isn't thoroughly stuck to the sail.
- If you create an air bubble and are unable to work it out with your fingers, take a pin and poke a hole in the digit to allow the air to escape – and then work the bubble down onto the sail.
- Wrinkles can occasionally be removed by pushing them around with your fingers.
- Apply a very modest amount of baby powder (talc) to any sticky areas you discover after having installed the numbers.



### Installing Insignia

- Much the same as installing a sail number except that you aren't using a straight line.
- Use the marks you make prior to removing the old insignia to locate the new insignia. Start at one of the pointy ends and carefully lay down the insignia – always using the two handed method described above.
- The placement of the "14" digits is not so critical – it's more about placing them in a pleasing-to-the-eye location near the lower "swoosh" of the "L".
- Note that "L" is naturally at an angle – so drawing a horizontal reference line will be of little use.

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### About DoubleWave and John Papadopoulos

DoubleWave, the leading independent supplier of parts and service in the Lido 14 community, is owned and operated by John Papadopoulos.

DoubleWave is an authorized dealer for W.D. Schock Corp., the builder of the Lido 14, but extends its service and parts offerings well beyond those of a traditional boat dealer. In many cases, DoubleWave innovates solutions to problems in both the classic and 6000 series boats and has, in several cases, become a preferred supplier of parts and technology to W.D. Schock Corporation.

Outside of DoubleWave, John is very active in many dimensions of the sport of sailboat racing – from organizing local racing to serving as an International Measurer at world championships to writing on various topics of one-design sailing.

To learn more about DoubleWave, please visit [www.doublewave.com](http://www.doublewave.com)