Once you have completed your quilt top and decided which stencils or patterns you will use to quilt your quilt, marking the designs should be the easy part. But, finding the right marker to use is easier said than done. I discovered just how frustrating when marking a small white quilt top during a class. After quilting the piece, and washing the quilt in the washing machine, I was stunned to see the marks did not come out. This is what started my interest in testing marking products manufactured for quilters.

When we use a marking product on our quilt that advertises it is easy to remove, our expectation is just that. How often do we read the directions or more likely – can even find them after opening the package (especially a couple weeks or months later!). I decided first to mark the quilt with each marker, quilt it as usual, then tossed it in the washer with regular detergent. When I removed the test from the washer I was shocked by how many products did not come out. Over the next several months I spoke with vendors at shows, and other quilters that use the products. I was frequently told to use water – not detergent when I laundered the quilt. So, I repeated the test with some of the markers that failed the first time around and ran them through a complete machine cycle with NO detergent. I will share with you the results and any marketing information on each product provided by the manufacturer. I will also share with you tips I have learned as I have continued my search for the "perfect marker".

My goal is to find a marker that 1: is easy to see (if you cannot see it – why bother)2: the line is fine enough (not thick) to avoid distortion in the shape when you sew, 3: It is easily removed and 4: does not return or cause discoloration on your quilt down the road.

When choosing a marker an important factor to consider is ARE YOU WILLING TO WASH YOUR QUILT? If you use starch, sizing, markers, glue, etc you definitely should be planning to wash the quilt when done. But remember, if you are not planning to wash your quilt, then be very careful what you mark with.

The good news – every white, (chalk or chemical), I have tested washed out with water in the washing machine. Even the brands that their counter part on white did not. So at this time my focus is on the markers made for lighter or white fabrics.

On light fabrics, many marking products fail. Many that specify they come out with water didn't, and worse, the special instructions for removal were labor intensive. (such as erasing them with a special eraser, imagine doing that on a queen size quilt)

If you are not planning to wash your quilt, the best products I have found are Air Erasable and Miracle Chalk. The Miracle Chalk comes in 3 ways, a powder, chubby crayon or soap slivers. I find I use the soap slivers a lot to mark vines for feathers etc. To remove these marks you just need steam. So I hold the iron above the quilt (NOT TOUCH IT) and spray steam, the marks then disappear. The powder is great for stencils, but don't pounce. I prefer to put the chalk in a plastic container and use a childrens paintbrush to apply. Otherwise you have too much and the chalk bounces around while you quilt. AIR ERASABLE markers (come primarily in purple) also work well, and I use them a lot to mark registration lines and

small motifs. One word of warning, the lines do disappear, sometimes quicker than you would like. I use these markers a lot when I work on customer quilts – because I have no idea if you plan to wash them.

If you are planning to wash your quilt, your options improve. Every blue watersoluble marker I tested came out when washed. The good news here, is that the line is easy to mark, easy to see, comes in a fine point, and doesn't disappear before you are ready for it to. The key to removal is a thorough rinsing in the washing machine with NO laundry detergent. (some detergents have a chemical that can cause the brown horror spots we have all heard of.) Once it is rinsed, you can wash with detergent if needed. The negative – DO NOT have your quilt near any heat source. WINDOW, IRON,CAR, etc. Heat will make the marks permanent. I use the watersoluble markers most of the time on my own quilts, but remember – I wash all my quilts and block them.

What if you already marked your quilt with one of the markers that didn't come out? After being asked this question, I did some additional testing with a product designed to help marks come out. I used MPR – Marking-Pencil Remover. It is a liquid made by Quilter's Rule Int'l Inc. I took the markers that did not come out in my original test and tried the MPR to see if there was any improvement. The complete success was the Clover Mechanical Marking pencil in the graphite and pink. This was the marker that started it all for me when it didn't come out. The other markers I tested – Roxanne's, Fons and Porter watersoluble graphite, Fons and porter Blue marker and Generals Blue Chalk. All of these markers significantly lightened, but did not completely disappear. The fading was enough to call it successful if you were faced with the disaster of not getting the marks out at all. The Generals Blue chalk left the most visible line of the group so was less successful.

The only disadvantage of using this product, is if your project is large, it is a lot of surface area to pump spray (a bit rough on the hands after a while). However, if you have marks you need out – I may consider it worth it. I still do not plan on using these markers if I have a suitable alternative that comes out with less difficulty.

So far most other markers made specifically for quilters have failed to come out. As I find new markers I test them. On my website, I have more detailed information you can refer to about the markers tested as well as instructions on their removal if you have already used them.

I hope you find this information helpful. I will continue to add information as manufacturers give me new information regarding their products, new products come on the market, or a tip comes my way that is helpful. If you have heard of something you would like checked out, just let me know. I am not affiliated with any manufacturer or sell any marking products.

Each product tested will be listed separately. The following information is based on my testing and information gathered from the packages of the markers (or the manufacturers website)

MARKING ON WHITE/LIGHT FABRIC TEST

1. ULTIMATE MARKING PENCIL. – Advertising on the mechanical pencil states "always sharpwashes out –thread covers pencil line". This pencil uses .5mm thin lead, and also comes in other colors (red, blue and yellow). This marker draws a wonderful thin line. However the pencil line did not come out in my original test in the washing machine. Then I read the directions: "the marks will NOT wash out in the washing machine (so much for my idea). Two methods are given for removal. Method #1: Fill a jar with a mixture of warm water and a small amount of a clear detergent. Using a toothbrush (like an eraser), go over the lines to be removed. If this isn't enough, add rubbing alcohol to the mixture. It is not necessary to rinse. Method #2: Soak for 30 minutes in lukewarm water and a small amount of laundry detergent. Then gently rub the marks until removed.

My thoughts: I was so disappointed because I loved the ease of marking and the fine line created. The line was easy to see and follow while quilting which was important to me. However, rubbing the quilt, especially a large one, with a toothbrush is not appealing to me. I would use the product when a fine line is needed for marking on the wrong side of the fabric or where it does not need to be removed. I did not retest this marker in the rinse only sample since the directions indicate that would not be effective. I also have not tested the Ultimate Marking pencil in the other available colors (although I do own them). The directions are the same as for the regular lead.

- 2. ROXANNE'S QUILTERS CHOICE (SILVER): The statement provided by the manufacturer in advertisements "this pencil is pure chalk and 100% water soluble. It contains no waxes, dyes or chemicals". This pencil is not as brittle when sharpening or marking. This is one of my favorites for marking the fabric for it glides easily on the fabric with little drag. The lines are easy to see when quilting. When washed in the first test with detergent in the washer, the lines did not come out, although they did fade. I retested in the rinse only quilt, to find the same results. I do not know how many times I would need to run it through before all the lines were removed, but since I do not plan to put my quilts through that much wear and tear when they are new, I didn't continue to wash.
- 3. FONS AND PORTER WATER SOLUBLE GRAPHITE PENCIL (black): Product description and instructions state: "for marking quilting lines. Remove marks by rubbing gently with fabric eraser or washing gently with plain water. Heavy marks may require mild soap." When marking the fabric, the pencil drew a light very fine line. The tip of the pencil did create some drag on the fabric making it difficult to draw a flowing line. The lines were easy to see and follow when quilting. When rinsed in clear water, the marks did not come out, or even seem to fade. Adding soap did not remove the lines either. I did not attempt to use the fabric eraser since the purpose of this study was to find products that did not require intensive work to remove. I did try using Marking-Pencil Removal(MPR) from Quilters Rule to see if there was any improvement in the removal of the marks. The marks did lighten significantly but did not disappear. This is a

- possible solution to minimizing the marks if you have already used the product on a quilt and need to get them out.
- 4. FONS AND PORTER CHALK PENCILS (Blue and Grey were tested). Product Description:" Quality chalk pencils designed for use on washable fabrics when marking quilting lines, seam allowances and placement lines. Sharpen carefully with hand held sharpener. Mark very lightly to ensure easy removal of chalk. Marks can be removed by rubbing lightly with a damp cloth." These chalk pencils were easy to use, created very little drag and drew a clear visible line. The line is a little thicker than the finer pencil line of the Graphite or the Ultimate marking pencil. When washed, these chalk lines remained on the fabric. I also tested the MPR on this pencil and the remaining marks did lighten but did not erase. Again a possible solution to minimizing the marks if the marker is already on your quilt.
- 5. BLUE WATER SOLUBLE MARKING PENS. Several manufacturers make this product: Clover, EZ, Collins, IBC, etc. I tested several and results were the same for all. When marking, the line is clearly visible (unless you are low on ink). The width of the line is satisfactory and if you desire a thinner, finer line, some brands carry a finer tip. The line stays there and is easy to see when quilting. Now there are important facts you need to know before you use this product. HEAT IS AN ENEMY! This means all heat. Do not put your project in a car or trunk for any extended period of time. Don't leave it near a window where sunlight can settle on it. And NEVER use an iron until after the project is thoroughly washed. Heat will make the marks permanent. Another important fact – you cannot just dampen the quilt or spot it with water to remove the marks. They must be thoroughly washed out. AND... NO LAUNDRY DETERGENT on the first washing. Some laundry products contain a high enough percentage of Sodium hydroxide or Sodium Carbonate which can cause the lines to turn a brownish color. If your quilt is dirty and needs washing – be sure to rinse first, then wash the quilt with detergent if necessary. Since I wash my quilts when finished, I use these markers, particularly on white areas that have detail. If you do not plan to wash your quilt (by that I mean thoroughly immerse in water), choose another marking product. I use water only – however I recently received a newsletter from the International Machine Quilters Assoc. that gave a tip "add 1 tsp of baking soda to 20oz of water and spritz the blue markers for removal". I have not found a reason to do this, but I looked up the properties of Baking Soda to see if this indication was useful. My primary source of information is from Wikipedia.org. Bicarbonate is a chemical (although not as harsh as most, it works by reacting with other chemicals, like in baking). It is most useful as a neutralizer for acids and bases. In cleaning it indicates that when added to the rinse cycles of washing machines (together with detergent) baking soda is a replacement for softener and also will remove odors. The only indication to removal of stains is coffee and tea stains from cups when diluted with warm water(not fabric). I know there are many uses being discovered for baking soda, but in this case, I do not find sufficient evidence to find this necessary. Plain water works, so why add another chemical. I do not need to remove odors. I may consider trying this to gently rinse an antique quilt that needs odors removed, then air dry. But for removal of the blue markers water works for me.

- 6. AIR ERASABLE MARKERS (most common purple). These are also made by a variety of manufacturers. The markers produce a purple line which is clearly visible (for a SHORT time). The negative to this method is you cannot mark much at a time. The marks last anywhere from minutes to hours, depending on the amount of ink in the marker (how new the marker is). I have heard of one product which will remain for up to 2 days, but I have not had an opportunity to find and test it yet. I use this marker when identifying registration points, boundaries and small designs in one spot. It is not practical to mark large areas. These marks can also be removed with water should you need to correct your marks or remove them quicker than they already go. I find this product useful in my own quilts for spot marking guidelines, but mostly I use this product when quilting for others. In most cases, I do not know if the quilt will be washed by the owner, ruling out most marking options.
- 7. DRITZ WATER SOLUBLE MARKING PENCIL (blue) The product states:" Use to mark darts, pleats, buttonholes. Marks can be removed with a damp cloth. Mark lightly on the wrong side of the fabric. Do not make dark, heavy marks. Remove with a damp cloth." First of all, when do we mark on the wrong side of the fabric, and second you need to be able to see the marks well enough to quilt on the surface. When sharpening, the tip broke. It took 3 sharpening attempts to mark the sample. This blue pencil also specifies it is for marking dark fabrics. I found it difficult to see on most prints, but on a very dark, particularly solid fabric the line was visible. It was easily visible on white fabric. The results: in spite of the breaking tip, and packing information that indicated to me it may not be useful, the lines came out easily. Although this may not be my first choice in a marker, it does work. Its stated purpose is more for dressmaking than quilting, but it can be used without fear.
- 8. CLOVER MARKING PENCIL (comes in pink, yellow, graphite) The packaging specifies removing marks with a Clover pencil fabric eraser. This PINK marker is what started it all. I tested both the pink and the gray, and in both cases, the marks remained after washing. The pencil was easy to use, drew a nice fine line (like the ultimate marking pencil did). However, I am not willing to spend hours using an eraser to remove the marks (think about that task on a large quilt!). If it is necessary for the marks to be removed find another option. If you have already used this marker, I have found another solution for removal. Marking-Pencil Remover (MPR) by Quilters Rule did work to remove the marks made by both the graphite and pink (the only two I tested). I am not a fan of slowly spraying a large quilt, so I would use another marker that is easier to remove, but they will come out with this extra effort.
- 9. GENERALS MULTI PASTEL CHALKS (comes in several colors). Testing of this product has been consistently disappointing. In both of my tests, the blue was significantly present when completed. And since the blue is so prominent (bright), it is obvious. I would never use this on a quilt given so many other options. I also tried the Marking-Pencil Remover (MPR) by Quilters Rule on the Generals Chalks, and of all the markers I tested, this one (although it did lighten) was the most visible of the group. It is possible with several applications you could get this to remove, but I only ran one test per marker that did not remove in the initial test. However, if you have already used this marker, this is an alternative I would try to lighten, and possibly remove most of the marks with repetitive use.

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