Scanning reflective covers

Scanning beautifully looking covers with reflective parts or steelbooks can cause some problems because normally your scanner can not handle reflective surfaces very well. The light directly gets reflected back at the scanner, giving a blackened result instead of a silvery appearance that one would expect.

This is how the cover looks to the normal eye or a camera:
To get better results from your scanner you need a way to avoid reflecting the light from the scanner directly back at the sensor. You need something that does just a little amount of scattering of the light.

The easiest way to achieve this is using a laminator pouch. These pouches are made to seal in documents into clear plastic to make the more durable. They are transparent and have a coating that when heated up melts with the coating of the opposite side sealing in what is between those layers. The coating also has the characteristic to scatter light in a tiny amount which makes it the ideal tool for scanning a reflective surface.

The pouch has some minor drawbacks for scanning. The refractive coating is by definition refracting light so the wanted effect of scattering the light from the scanner also leads to the fact that your scan-results may end up more blurred than you are used to from your scanner. So if it is to blurry, using a sharpening-function in a paint-application may be useful.

The thickness of the foil itself keeps your cover a little further away from the scanners surface, resulting in the fact that it might be a little out of focus also resulting in some blurring.

The biggest drawback is that the coating of the pouch will attract LOTS of tiny dust-particles and hair that will show up in the end-result. So you will have to do some mayor cleaning-up in a paint-application.
To reduce the negative effects of the pouch to a minimum, just use one segment of the pouch. Either position the pouch on your scanner so that the second part will not interfere with your scan or just rip it off.

Place the remaining part with the coated side downwards, so that the coated side will be hit by the light from the scanner first. If you do it the other way round, the light from the scanner will hit the clear (more reflective) side of the pouch first resulting again in portions of your scan getting too dark because of too much light thrown back at the sensor.
After that, remove the cover you want to scan from the box and try to get it as clean as you possibly can, removing all of the dust-particles, hair and especially finger-prints from the reflective portions since every distortion you have there will show up more clearly on your scanned result and will have to be removed manually in a paint-application.

Put the cover on your scanner and do your scan.

When you have scanned your cover, you have to start adjusting the color-space and clean up your picture. What you get as a first result already should look better than what you got with scanning without the pouch. The reflective parts of your cover should have a more silvery-grey look than just simply being black. However scanning through the pouch with it somewhat milky quality has lightened up your result. The reflective parts also may be still too dark.

You need to adjust the levels of the picture. The level-function should be available in most paint-applications. Do not confuse it with the gamma-function. Gamma only allows you to make the whole image darker or lighter. With levels, you can make dark colors darker while making light colors and middle-tones lighter.

As a rule of thumb with reflective covers it is always a good idea getting the dark tones a little darker to get rid of the lightening effects from the pouch and getting light and middle-tones lighter. Just play around with the parameters until you are satisfied with the result. The values can change drastically depending on the scanned cover.
This is what we start with:
And this is what we end up with:

You now have a cover that has the reflective lettering well readable and the rest of the cover has moved into a color-space that is pretty close to the original.

As one can see even in these small previews, there is still quite a lot of dust and white pixels distorting the image. This will have to be manually removed.

The tool of choice here is the clone-stamp. This tool lets you choose some pixels on your picture and puts them where you click your mouse or put your pen when you are using a graphics-tablet. The most effective stamp-size for small areas has turned out to be 7 pixels in my experience. When you want to clean up bigger areas that consist of only one color, you can use a bigger stamp of course to speed things up.

before cleaning:
after cleaning:
The cleaning can take a few hours, but is quite necessary with this technique since the pouch draws dust like a vacuum-cleaner.

As mentioned before, a setting of 7 pixels for the stamp-tool is a good size. If you use too big a size, your repair-work will not be smooth enough.

However the results look way better than scanning normally:

scanned without pouch

scanned with pouch