1. Make sure you can see the Info palette and that it is displaying K (grayscale) and RGB values. If not use the pullout menu on the Info palette to change the Info Options (see example).

2. Select the eyedropper tool from the Toolbar. In the options bar, under sample size, choose 3 x 3 average.

3. Make a Levels or Curves Adjustment Layer by one of three ways:
   1) Under Layer Menu > New Adjustment Layer
   2) In Adjustment Layer Palette
   3) Clicking on icon at bottom of Layer Palette

4. If possible, find the lightest neutral area with detail in your image. Neutral meaning a light area that in real life doesn't have any kind of hue (white paper, t-shirt, highlight on concrete, etc). Do this by holding down the option key and moving the highlight (right) slider to the left. The image will go into threshold mode. Watch for the area where pure white spots begin to show first. (Make sure they are not specular highlights.) In some cases only the specular highlights will be white and you will have to use the next lightest bit of color. In either case, this serves as the lightest part of the image. Move the slider back to its original point. Move the eyedropper around in the area you were looking at and refer to the Info palette to find the lightest area with detail. Shift-click to make Color Sampler #1, which shows up in the Info palette. This is your highlight sampler.

5. Now, if possible, find the darkest neutral area with detail, not pure black. Do this by holding down the option key and moving the shadow (left) slider to the right. Watch for the area where actual black spots show up. Move the slider back to its original point. Move the eyedropper around in the area you were looking at and refer to the Info palette to find the darkest area with detail. Shift-click to make Color Sampler #2. This is your shadow reading.

6. Setting targets for the white and black points. In the Levels dialog box, go to the three eyedroppers at the left. Double-Click the white point eyedropper (on the very right). Another dialog box appears as shown at bottom right. In the RGB section (circled) enter 242 in each field. This is the equivalent of 5% ink, allowing brightness with detail. Click OK. Now double-click on the Black Point eyedropper. The same Color Picker appears. This time enter 14 in each of the RGB fields. This is equivalent to 95% ink; allowing shadow with some detail. Click OK. The gray point eyedropper shouldn’t need adjustment. RGB values at 128.

7. Setting the white and black points. Start with the White Point eyedropper. Click once on it. Press the CapsLock key on. Your cursor will change to a cross hair. Move the cross hair over the Highlight Sampler (#1) you created earlier. When they align exactly, click once to set the white point. Note the before and after numbers in the Info Palette. The second set should show equal values of Red, Green and Blue.
Choose the Black Point eyedropper and do the same for the Shadow Sampler (#2) created earlier. By now your image should have better contrast and be rid of any major color casts. To deselect any of the eyedroppers, simply click again on the icon.

8. To correct the midtones, it can be done in the same adjustment layer, or to have maximum flexibility, it can be in a separate adjustment layer.

Find the midtones in your image. If you are lucky there will be something in your image that should be a neutral gray like a rock, asphalt, gray hair or the shadowy area of something white. If not, often just the highlight and shadow correction will fix the whole image. Look for a value roughly around 50% K. Make Color Sampler #3 for that area when you find it. Note if the RGB values are similar or not.

At this point, see what correction the gray point eyedropper makes by selecting it and clicking on your Midtone Sampler (#3).

9. If need be, go back to the overall RGB histogram and adjust the overall midtones (and contrast) to your liking by moving the midtone slider or points on the curve. Again, it is possible to separate out such an overall contrast adjustment on a separate curves or levels adjustment layer.

Additional tips:
To move the samplers around hold down the Shift Key and the mouse.
To get rid of one, hold down Shift + Option and a scissors icon appears. Click and the sampler will disappear.

Idealistic target values (your images will vary)
Highlights w/detail: 5–10% or 230–242
Midtones: 40–60% or 102–153
Shadows: 90–95% or 14–27