heatmap.2 plot can be controlled using the lmat, lhei and lwid parameters. These are passed by heatmap.2 to the layout command as:

layout(mat = lmat, widths = lwid, heights = lhei)

lmat is a matrix describing how the screen is to be broken up. By default, heatmap.2 divides the screen into a four element grid, so lmat is a 2x2 matrix. The number in each element of the matrix describes what order to plot the next four plots in. Heatmap.2 plots its elements in the following order:

1. Heatmap,
2. Row dendrogram,
3. Column dendrogram,
4. Key

so the default lmat is:

> rbind(4:3,2:1)

[,1] [,2]

[1,] 4 3

[2,] 2 1

If for example, you want to put the key underneath the heatmap you would specify:

> lmat = rbind(c(0,3),c(2,1),c(0,4))

> lmat

[,1] [,2]

[1,] 0 3

[2,] 2 1

[3,] 0 4

lwid and lhei are vectors that specify the height and width of each row and column. The default is c(1.5,4) for both. If you change lmat you'll either have to or probably want to change these as well. For the above example, if we want to keep all the other elements the same size, but want a thin color key at the bottom, we might set

>lwid = c(1.5,4)

>lhei = c(1.5,4,1)

We are then ready to plot the heatmap:

>heatmap.2(x,...,lmat = lmat, lwid = lwid, lhei = lhei)

This will plot a heatmap with the column dendrogram above the heatmap, the row dendrogram to the left, and the key underneath. Unfortunately the headings and the labels for the key are hard coded.

see ?layout for more details on how layout works.