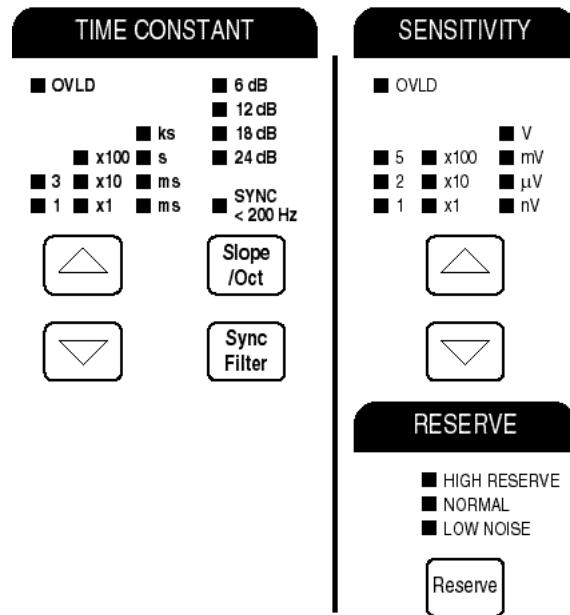


Sensitivity, Reserve and Time Constants



[Sensitivity Up/Dn]

The [Sensitivity Up] and [Sensitivity Down] keys select the full scale sensitivity. The sensitivity is indicated by 1-2-5 times 1, 10 or 100 with the appropriate units.

The full scale sensitivity can range from 2 nV to 1 V (rms) or 2 fA to 1 μA (rms). The sensitivity indication is not changed by the X, Y, or R output expand. The expand functions increase the output scale as well as the display resolution.

Changing the sensitivity may change the dynamic reserve. Sensitivity takes precedence over dynamic reserve. See the next page for more details.

Auto Gain

Pressing the [AUTO GAIN] key will automatically adjust the sensitivity based upon the detected signal magnitude (R). Auto Gain may take a long time if the time constant is very long. If the time constant is greater than 1 second, Auto Gain will abort.

RESERVE OVLD

The OVLD led in the Sensitivity section indicates that the signal amplifier is overloaded. Change the sensitivity or increase the dynamic reserve.

[Reserve]

This key selects the reserve mode, either Low Noise, Normal or High Reserve. The actual reserve (in dB) depends upon the sensitivity. When the reserve is High, the SR830 automatically selects the maximum reserve available at the present full scale sensitivity. When the reserve is Low, the minimum available reserve is selected. Normal is between the maximum and minimum reserve. Changing the sensitivity may change the actual reserve, NOT the reserve mode.