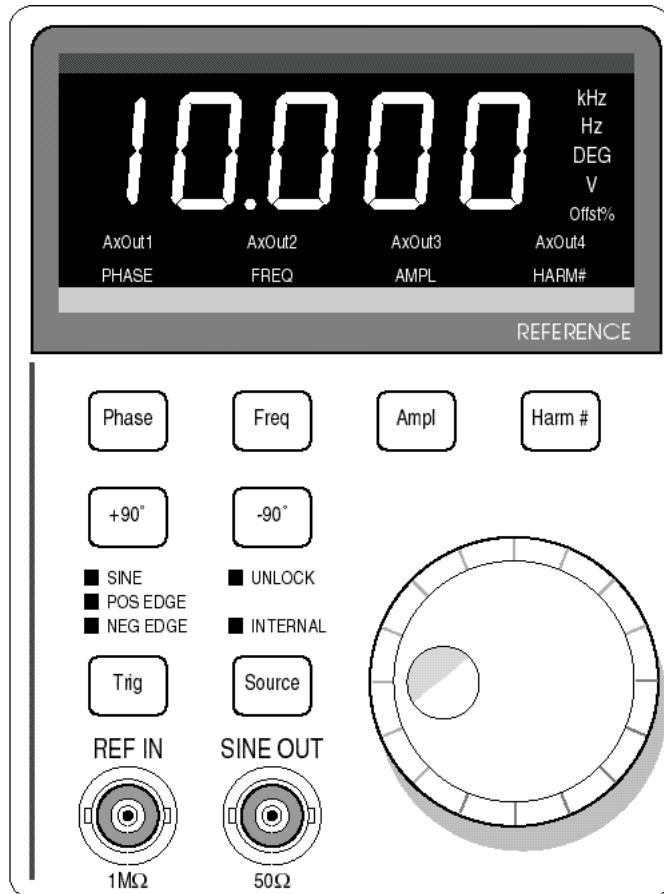


Reference



[Phase]

Pressing this key displays the reference phase shift in the Reference display. The knob may be used to adjust the phase. The phase shift ranges from -180° to $+180^\circ$ with 0.01° resolution.

When using an external reference, the reference phase shift is the phase between the external reference and the digital sine wave which is multiplying the signal in the PSD. This is also the phase between the sine output and the digital sine wave used by the PSD in either internal or external reference mode. Changing this phase shift only shifts internal sine waves. The effect of this phase shift can only be seen at the lock-in outputs X, Y and θ . R is phase independent.

Auto Phase

Pressing [AUTO PHASE] will adjust the reference phase shift so that the measured signal phase is 0° . This is done by subtracting the present measured value of θ from the reference phase shift. It will take several time constants for the outputs to reach their new values. Auto Phase may not result in a zero phase if the measurement is noisy or changing. If θ is not stable, Auto Phase will abort.