



APPLICATION NOTE

#905 Reverberation Unit

General: The #905 Reverberation Unit utilizes a dual spring-type acoustic delay line to produce a succession of decaying echoes of an audio signal. A single panel control determines the ratio between the amounts of reverberated and non-reverberated signals that appear at the output jack. The front panel control does not alter the characteristic decay time of the echoes, since this is a function of the delay line itself.

Instructions for mounting and connecting of power, and input and output characteristics, are the same as those which apply to all "900 series" modules. However, special consideration in mounting the #905 must be observed. First, power supplies, motors, and other devices producing strong magnetic fields should be kept away from this instrument to avoid the pickup of power line frequency hum. Second, the mounting should be rigid to avoid shaking the acoustic delay line, which would result in unwanted output signals. Third, monitor speakers should not be mounted close to the #905, as this would encourage acoustic feedback between speaker and delay line.

Before the #905 is installed, fittings and wrappings restricting the motion of the delay line should be removed. When the #905 is mounted vertically, the delay line bracket will be supported entirely by the suspension springs, and should not touch the chassis frame.

Applications: When a dynamically varying signal is applied to the input of the #905, the output will consist of a series of closely spaced echoes, the subjective effect of which is similar to that of reverberation of sound. If a small amount of "echo signal" is mixed with a larger amount of "direct signal" (Reverberation Control set slightly clockwise), the effect of a typical concert hall is obtained. If the echo signal only is passed (Reverberation Control set fully clockwise), an exaggerated echo suggesting a cave is obtained. The relative amount of echo signal and direct signal can be continuously changed from 100% direct signal to 100% echo signal.

When a static signal is applied to the input of the #905, the output will also be static. There will be no sensation of echo. Rather, the #905 will perform in this application like a formant filter, strongly coloring the timbre of any signal with appreciable harmonic content.

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