CAPACITOR USE IN ELECTRIC GUITAR AND BASS INSTRUMENTS

Here is information that all guitar players *(and builders)* will find helpful.

What Are Capacitors?

Capacitors are electrical components designed to behave in a specific way, and that predictable behavior is described in its specification. This component is frequently used in electric guitar and bass instruments as a way to "bleed" off treble *(i.e., high frequency)* sounding tones via an RC *(i.e., resistance/capacitance)* circuit. This gives the musician a way to use a "tone" control to reduce the treble intensity of their instrument's pickup output by diverting some of the brilliant tones to ground before the signal is sent to the amplifier input.

The tone control in an electric guitar or bass is really a poor substitute for the superior circuitry that a quality amplifier already provides. Based on their characteristics, capacitors *(regardless of the type)* are *"commodities"*. This means that a 2-cent .05 MFD mylar capacitor will provide the exact same result as a $10 orange drop .05 MFD capacitor in any simple RC circuit. So why would someone purchase the $10 cap over the 2-cent cap? It is because some of these manufacturers have *misled* customers into believing that there is some "benefit" to using only their product. The reality is that no capacitor manufacturer can offer up any evidence as to the benefit of their product over a less expensive one.

Does it make sense to pay more for identical performance? Would you be willing to pay $3.00 MORE per gallon for "Chrysler" gas instead of the lower priced generic gas? Most people would not. In fact, there are many of you that will drive several miles to get gas that is just a few cents cheaper because... *gas is gas*. Likewise, MFD is MFD *(by the way; MFD is an appreviation for "microfarad", one of the several terms used to describe a capacitor characteristic)*.

The 2-cent .05 MFD mylar capacitor is going to behave in the EXACT same way as that $10 orange drop .05 MFD capacitor, especially in a simple RC "tone bleeding" circuit that contains almost no voltage or current. So the next time you have an instrument project that needs tone control work, buy yourself a 2-cent capacitor and take the other $9.98 and reward yourself for being so practical with a six pack of quality craft beer that you have never tried. You may learn two new things as a result.