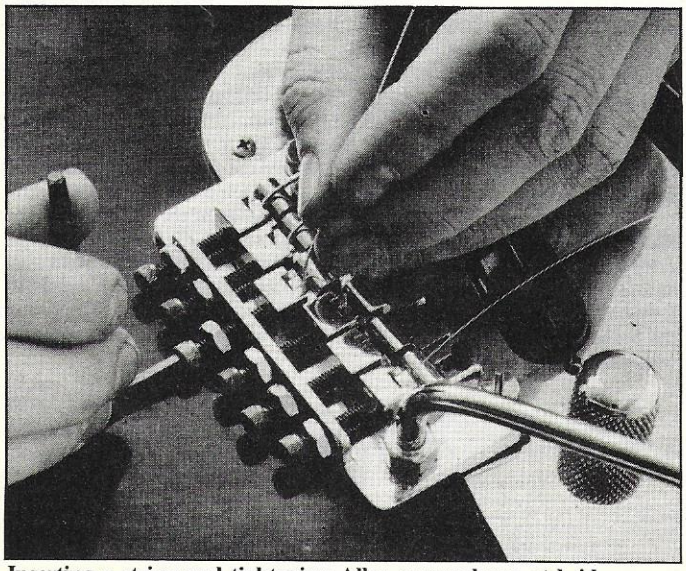
TOM MULHERN
QUESTIONS

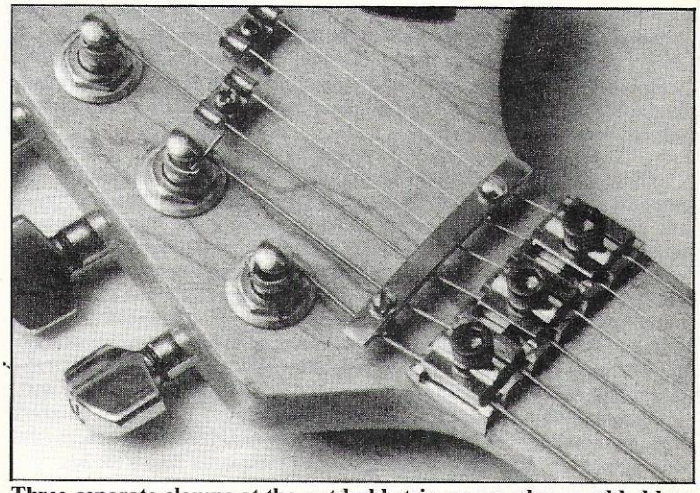
Send To: Guitar Player, 20605 Lazaneo, Cupertino, CA 95014

In various interviews I've seen references to a tremolo made by Floyd Rose that's supposed to keep Strats in tune. How does it work?

The Floyd Rose Tremolo System, devised by Floyd Rose [2727 N.E. 145th St., Seattle, WA 98155] for his own use about six years ago, consists of clamping mechanisms at the bridge and the nut. Rose explains that installation of the chrome- or gold-plated, case-hardened steel vibrato unit requires a bit of extra routing in the body and two extra holes for the unit's locking screws. At the nut, a flat spot has to be milled, because the retrofit nut is about 1/2" wide. Two holes have to be drilled through the neck at that point; these accommodate a pair of screws that hold the nut firmly in place. To install a string with the tremolo system, one must first cut the ball end off. Next, the end of the string is slipped into the vise-like end of the saddle. An Allen screw is tightened, and the string is clamped in place. Intonation of the individual saddles is accomplished through the use of other Allen screws and locking nuts. After a string is secured at the bridge, it is passed through the nut (which has three clamps—each accommodates two strings). The string is tuned, and an Allen screw is tightened at the nut, clamping the string, and effectively holding the tuning. A 1/4" stainless steel vibrato arm is employed. Rose says that four different nuts are available, making his $275.00 system compatible with practically any kind of guitar. He sells the units for retrofitting by others, and adds that his installation charges range from $50.00 to $100.00, depending on whether a cavity is already routed in the instrument.



Inserting a string and tightening Allen-screw clamp at bridge.



Three separate clamps at the nut hold strings securely; an added bar makes the strings pass through the nut at the proper angle.

Why does my electric guitar's tone change when I turn the volume down?

According to Jim Demeter of Carruthers Guitars [1528 Cloverfield Ave., Santa Monica, CA 90404], a pickup's coil is as an inductor and therefore has different impedances at different frequencies. As frequency rises, so does the impedance. The volume pot (potentiometer) is connected to the pickup, ground, and the output, and provides a load for the pickup. As the load impedance changes, so does the frequency response of the pickup. Jim suggests a few remedies. One is to replace a standard 250k or 500k pot with a much higher value, such as 1 Megohm. Since this maintains more highs, you'll maximize the effect of the change by using a low-capacitance cable between the guitar and amp (capacitance acts to filter out highs). Another approach requires the addition of a capacitor (about .001μF) between the center lug of the pot and ground. While this helps to minimize the treble loss problem, it also has some effect on the overall tone. Jim's final suggestion is to use a buffer circuit (either in the guitar or as close to the guitar as possible), which ensures a constant impedance load on the pickup regardless of the volume settings.

[*Ed. Note: Rickenbacker company historian Charles Malyszka pointed out an error in the Aug. '82 Questions. He says that although many Rickenbacker instruments built during the '60s were equipped with Rick-O-Sound stereo output jacks, the model 325 was not one of them. In fact, the 320 and 325 have always been monaural instruments with single output jacks.*]