Installing Tuning Machines

Roller spacing: Make sure that the roller spacing of the new tuners is the same as the old. The easiest way to measure the distance on the old set is to take a digital caliper or ruler and measure the center-to-center distance of adjacent gears (i.e. from the very middle of the gears). On greater than 95% of contemporary guitars, the distance is 35 mm. Vintage guitars may have distances of 36 or 37 mm, but this is rare.

Mounting screws and holes: The best situation is when the new holes do not align or even come close to the old holes. In this case, the procedure is:

1. Insert the new machine head with the gears facing toward the nut. Hopefully, the plate will cover all the old holes, in which case you need not fill the unused holes.
2. Punch starting divots with an awl.
3. Drill 1/16" pilot holes only as deep as the screws.
4. Mount the screws with a small screwdriver.

The most challenging situation is when an old hole is close, but does not perfectly align with the new. In that case the old hole will pull the screw sideways, which is not acceptable. You must first fill the old hole with a small dowel such as a toothpick sanded to the same diameter as the old hole. Once glued in the hole with woodworker’s or super glue and carefully leveled with a chisel or razor blade, drill a new pilot hole and install the screw.

If the old hole is too large in diameter, you must also fill and re-drill as above.