

Using an old iron for a Morse Key Base

by Patrick, KM5L - Dallas, TX

Credit goes to Buddy with "The Radio Shop", located here:

<https://www.youtube.com/c/TheRadioShop/featured>

Background:

Like me, if you still use a straight-key (morse code) every now and then, it's much easier to send code when you don't need your 2nd hand to stabilize the key. Even the fancy keys with heavy chrome bases are still not heavy enough to keep the key from moving. One day while I was watching one of Buddy's videos (Love that guy), I spotted the base of a key made out of a repurposed base of an old and heavy iron. I was really intrigued by that so I decided to modify one of my old spare keys for that base.

The first thing to remember is that most keys are mounted on non-conductive material. But, I didn't want to "ugly up" the key with unnecessary parts like a plastic or even a bakelite base. Therefore I decided to buy some inexpensive nylon screws. Also, since I didn't want to have to use nuts under the base I decided to tap each hole with the appropriate sized threads. The following pics are fairly self-explanatory.

Note the hammer (the part the handle comes down on) comes into contact with an metal acorn nut. I picked the acorn for good continuity and precision on the action. As I also tap'd that hole and used a nylon screw I had to figure out a way to transition to a metal acorn nut, but without shorting out on the iron base. The solution was to fit a rubber gasket into the key base.

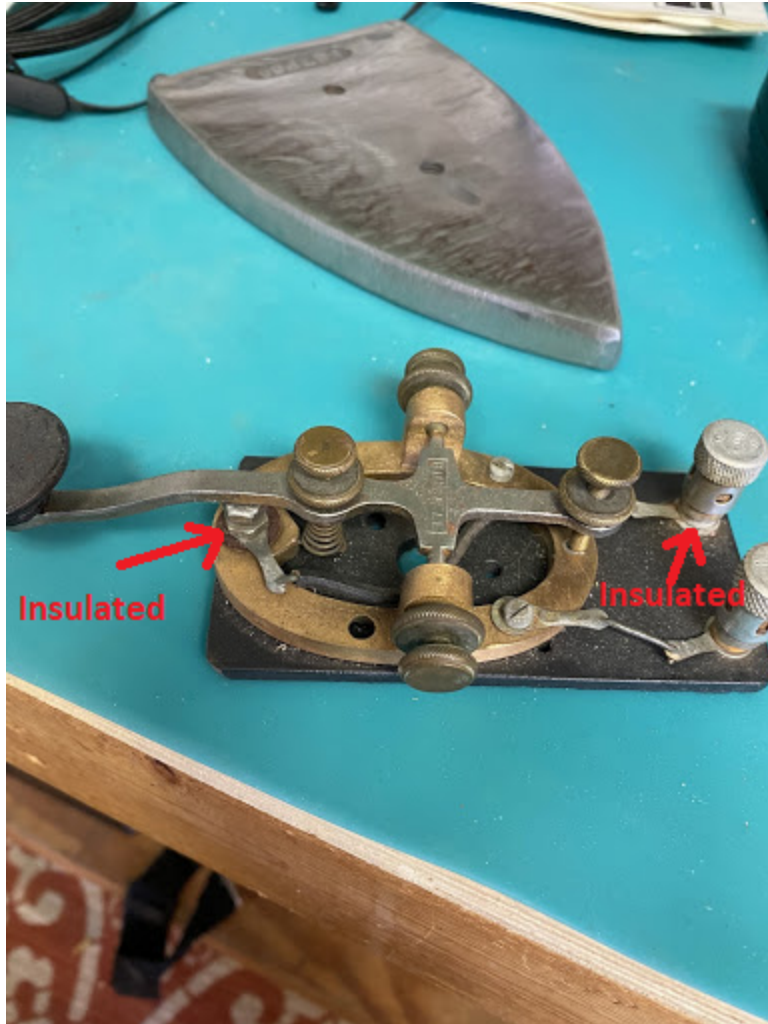
Selecting the iron

Get an OLD/Vintage iron. Anything else won't have the weight you need. Ebay is a great place for this.

Here's the one I bought on Ebay:



As you can see it's "pretty vintage", and plenty heavy. All that was needed to do was remove the handle mounting screws and the base comes apart easily. Once you obtain the iron, time to prep it. I just took a grinder and grinded the iron all over - removed all the rusty grungy parts and arrived at a shiny surface.



You see above the key I started with. Notice it's mounted on bakelite, so, that means when remounting on a metal base you have to make modifications for the metal connectivity. Note the arrows where insulation is necessary. So, you can handle this in a few different ways, but I chose to purchase fairly inexpensive nylon screws to attach those particular spots to the iron base.

Drill the holes, tap the holes

Center the key on the iron base, mark all the holes with a pencil. Drill the hole with a drill bit appropriate for the size of the tap.



There's an easy way to google the bit size for the tap you want. Example - I used #6 and #8 screws - so that requires a drill bit of sizes (about) 27 (.1440 decimal) and 18 (.1695 decimal). Here's a site for that conversion chart: <https://littlemachineshop.com/reference/tapdrill.php>

If you've never tap'd a hole before, don't worry, it's really easy and fun. All you're doing is drilling a hole a little smaller than the size of the screw or bolt, then using a tap tool to cut in the threads. See below:

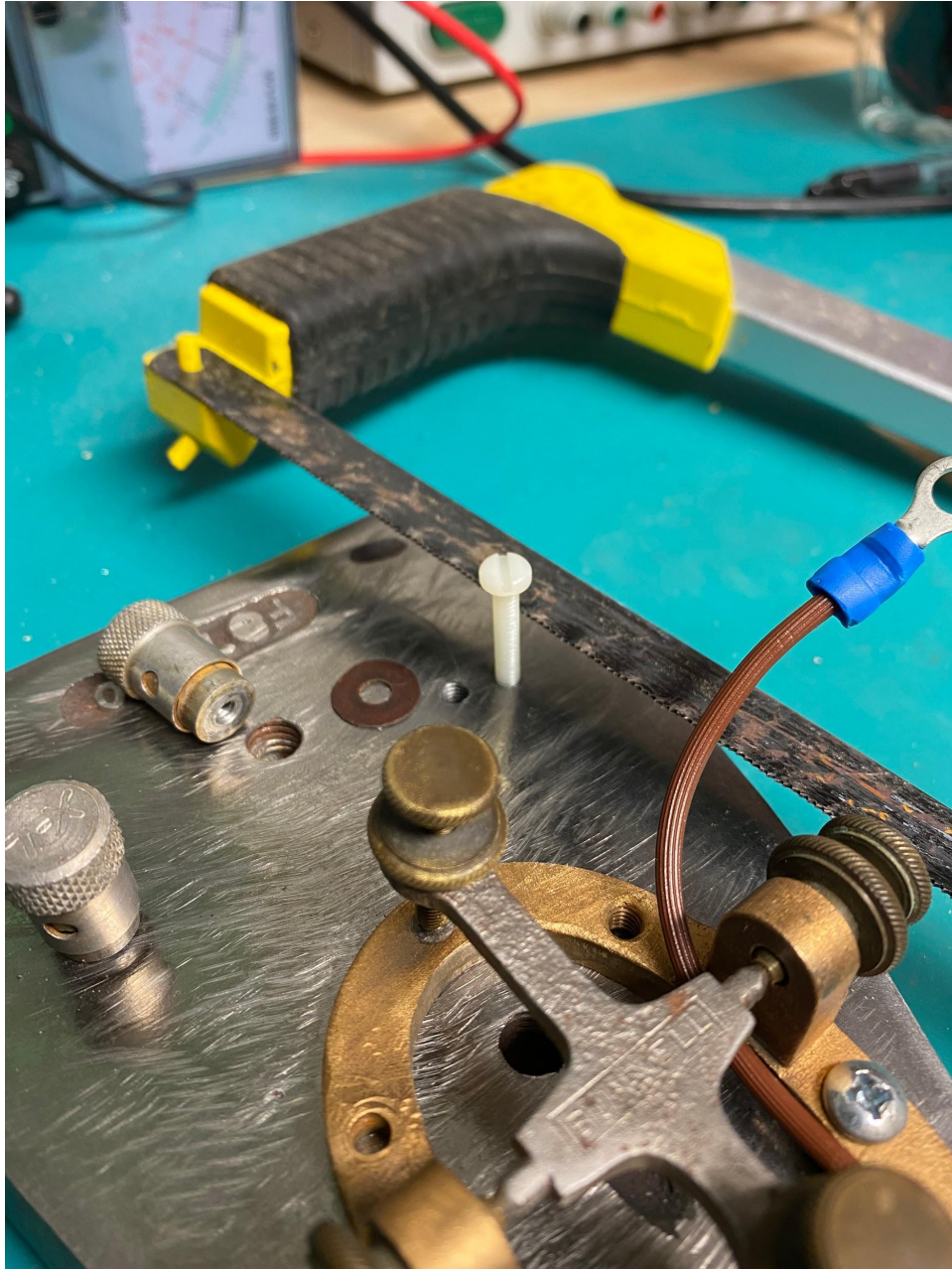


Basically, simply put a little oil on on the tap bit and very carefully, and straight up and down start turning the tap tool with downward pressure.

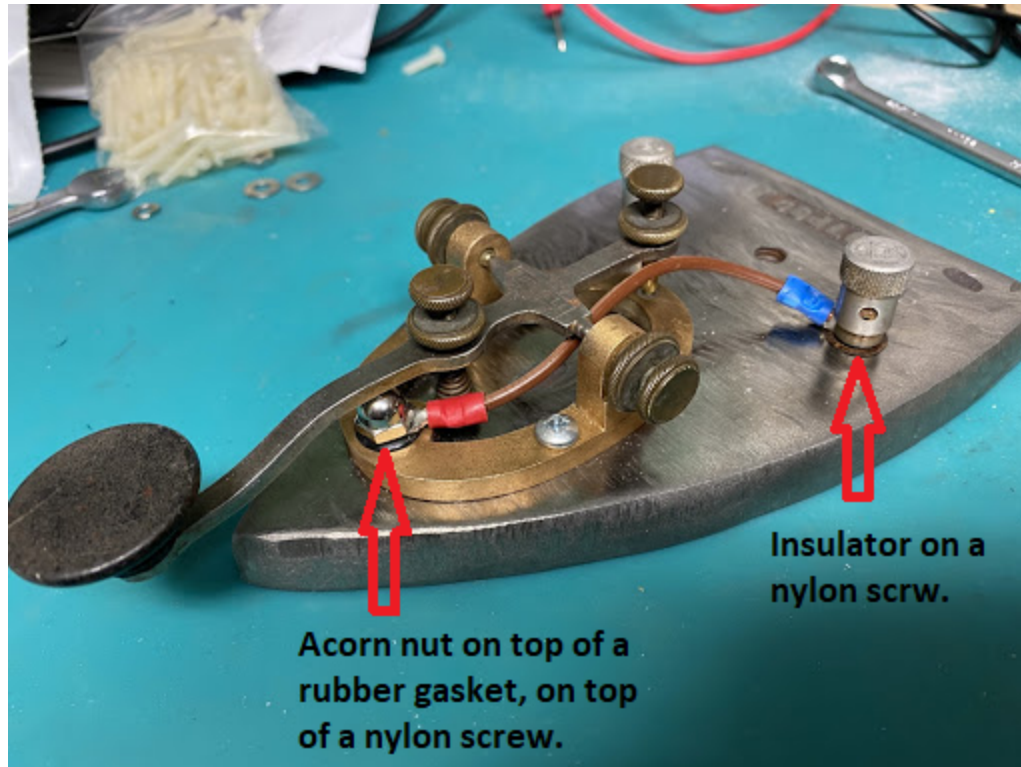


Every time you turn a whole turn or so reverse direction for a quarter turn. The reversal is to cut the metal shaving free so that the shaving doesn't interfere with the remainder. Keep turning until you get to the bottom of the hole. Once complete, you're good to go! Try the nylon screw, or metal screw depending. Take care in this process, if you make the drill bit too large you can't undue that mistake and will have to make a new hole - and depending on the rest of the surface that might not be possible. Don't get in a hurry.





Just showing here that I'm cutting a black/nylon screw's head off. However, honestly I found the easiest way is to keep the head on, screw it in and then cut the head off.



Ultimately I found that the acorn nut that has a point at the top was the right choice for the key as it focuses the pressure exactly where you want it.

That's it. My first contact was on 12/30/2020 - I found using the key was incredibly simple, all one hand with no left hand stabilization needed, awesome!

73, Patrick KM5L