

TESORO AMIGO II SENSITIVITY CONTROL MOD

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Jan. 2013



Here's a mod that will increase or reduce depth by having an external sensitivity adjustment control. Most owners resort to taking the control box apart to access the trimmer pot on the circuit board to make the adjustment. Or drill a hole in the cover to be able slip a small screwdriver down to the trimmer pot for adjustment. Both methods are a pain, The excess hole and screwdriver hole method could be worse. It is very hard to get the screwdriver tip to mate up with the trimpot slot. If you slip, you risk damaging the small parts on the board.

For best performance, Amigo owners like to adjust the sensitivity to the point the detector just starts to chatter.

Now to the modification.

Do not attempt to do this unless you are very certain you will not damage any parts.

The parts in the Amigo are very very small. The trimpots are of SMD type, about 1/3 the size of regular size trimpots.

Parts needed

28 guage wire (from radio control hobby shop)
10k linear taper potentiometer, the smaller the better

Tools needed

Small wrench
Needle nose pliers
Wire snipper
Fine tip forceps
Very fine tip soldering iron,
62/63/02 0.6mm Silver bearing solder

Instructions

Carefully remove the control box from the handle. Remove battery cover, remove battery. Remove all screws from top (3) and bottom (3). Gently separate the control box halves.... revealing the circuit board. Now you need to remove the board from the back cover half. Slip a small wrench onto the nylon holdown pin nuts, remove the two back cover screws.

**Panel Bushing Mount Pot
10k Ohm**

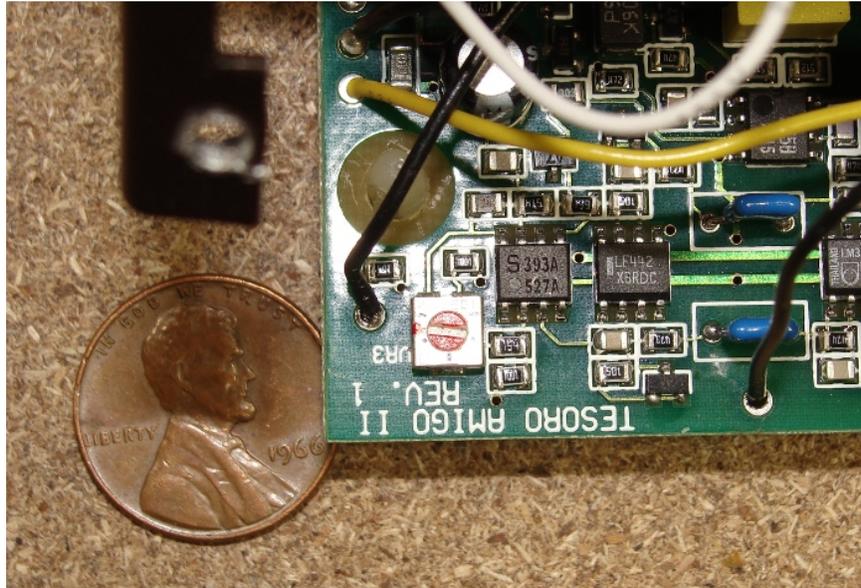


(RCV) 777913-7

Panel bushing mount pot. 10k ohm, RV6 style. 1/8" x 5/16"L shaft. 0.5" diameter body. Made by Allen Bradley. Type L.

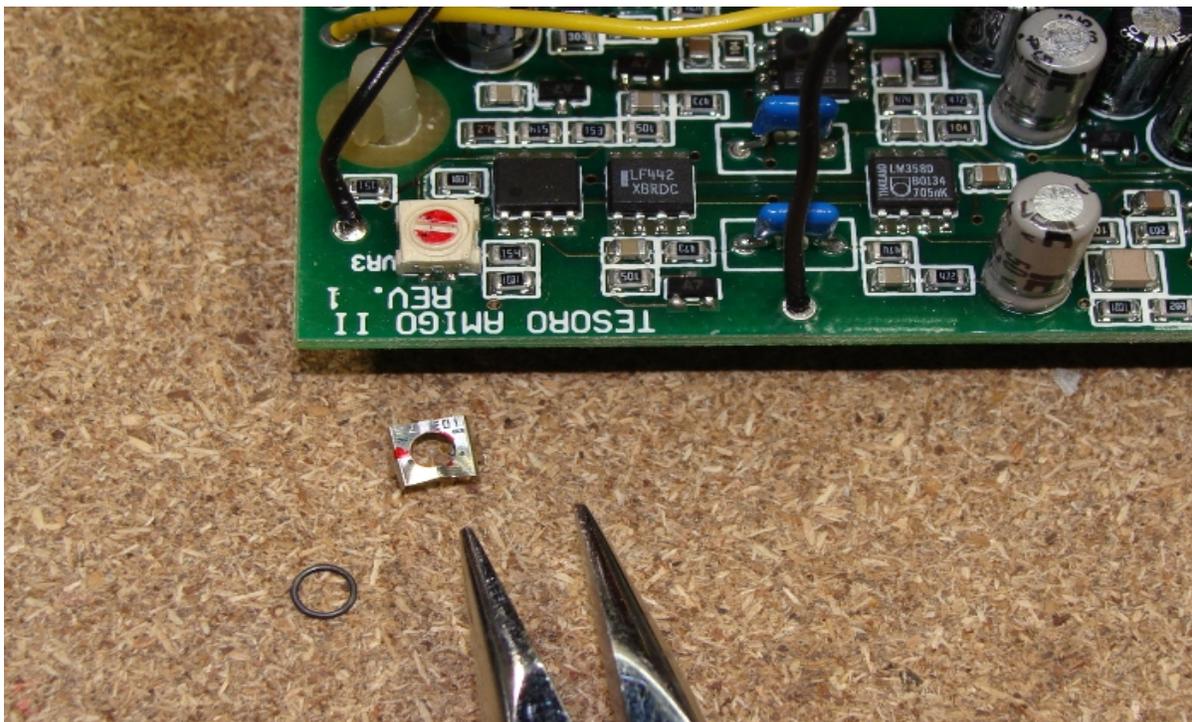
Your now in ready for some disection.

Look for the sensitivity trimpot. I have it marked in red in the picture. This trimpot is small!! You need to be very careful thru the next steps. Take your time. Even if you don't have fumbling hands and fingers.



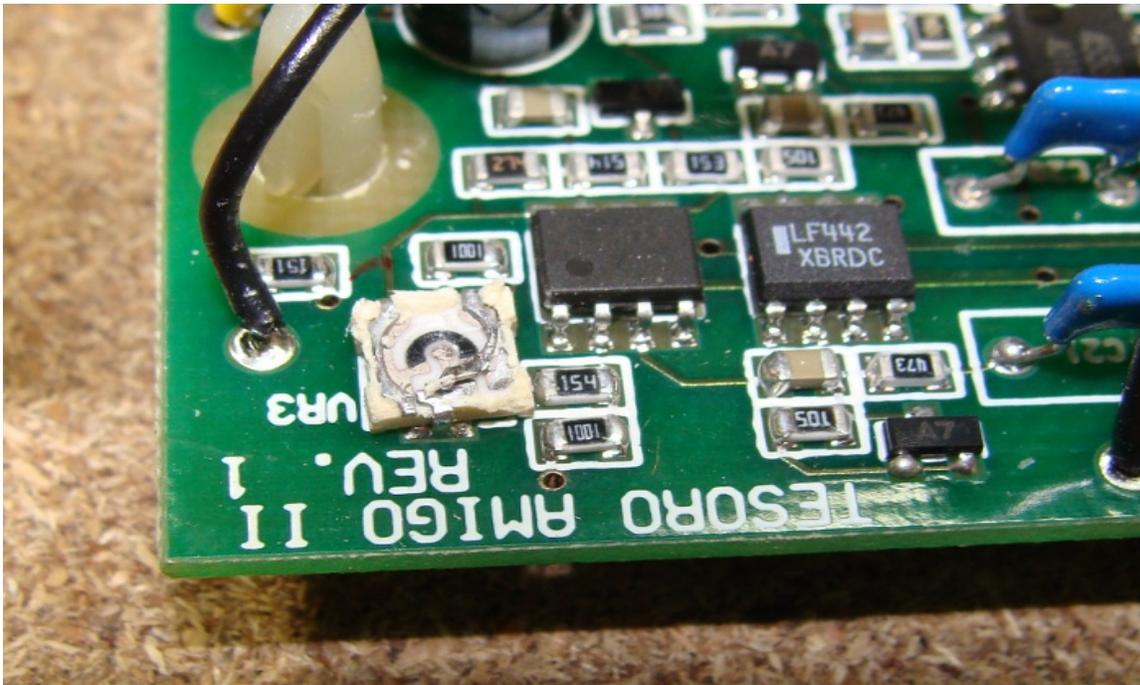
Step 1

Take your needle nose pliers and gently squeeze the sides of the metal trimpot frame. The frame will lift off. Remove the o-ring.



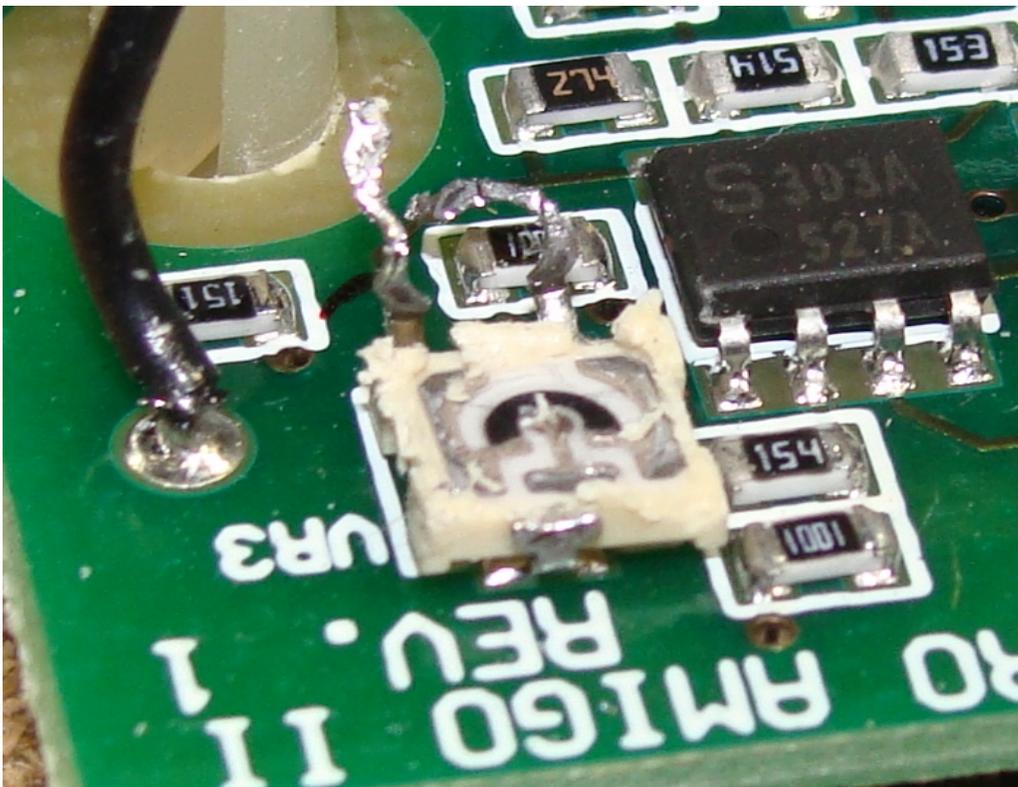
Step 2

Again, stressing, very carefully breakaway the top of the trimpot, it will reveal 3 metal trace leads.



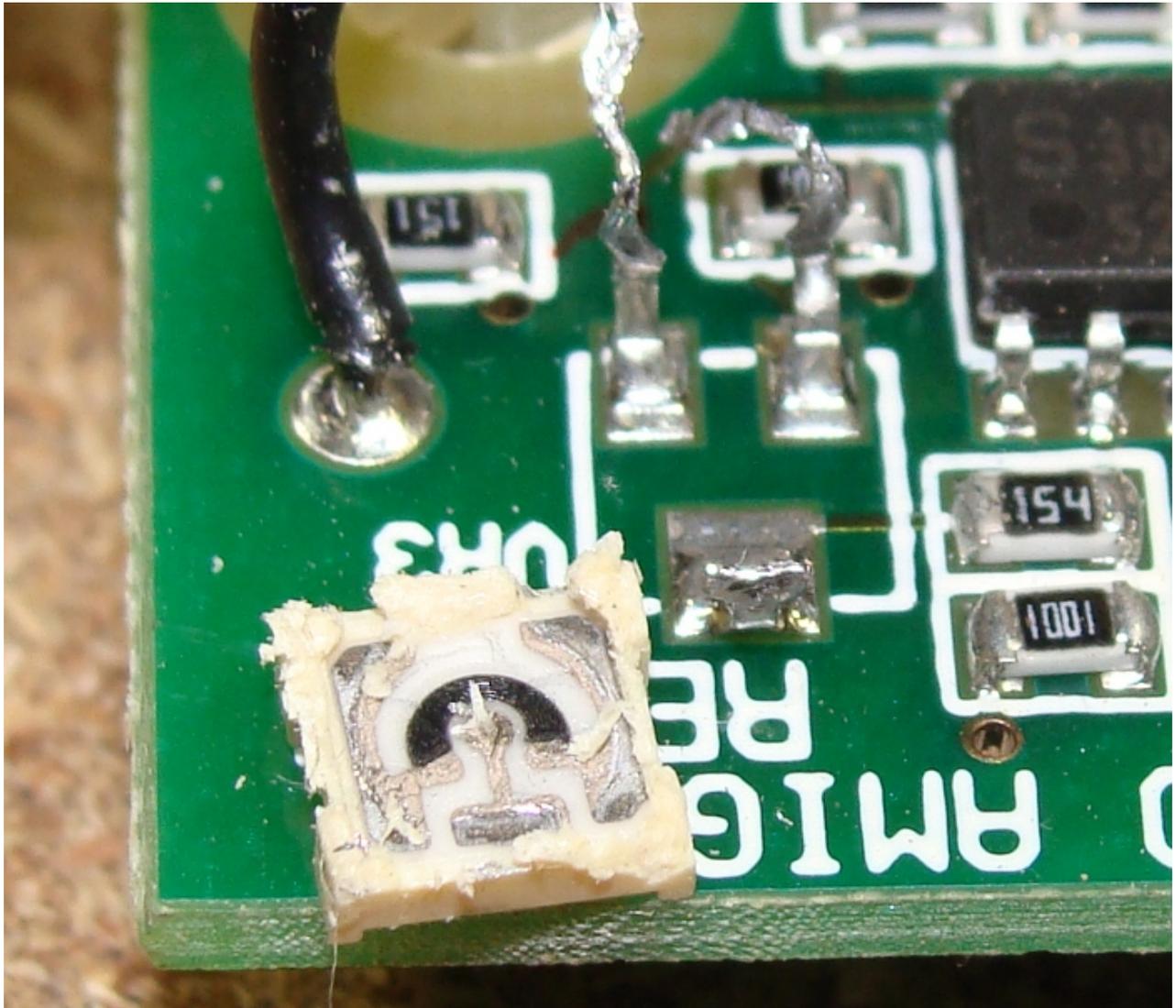
Step 3

Work the lead traces loose with your forceps and bend each one upward away from the trimpot.



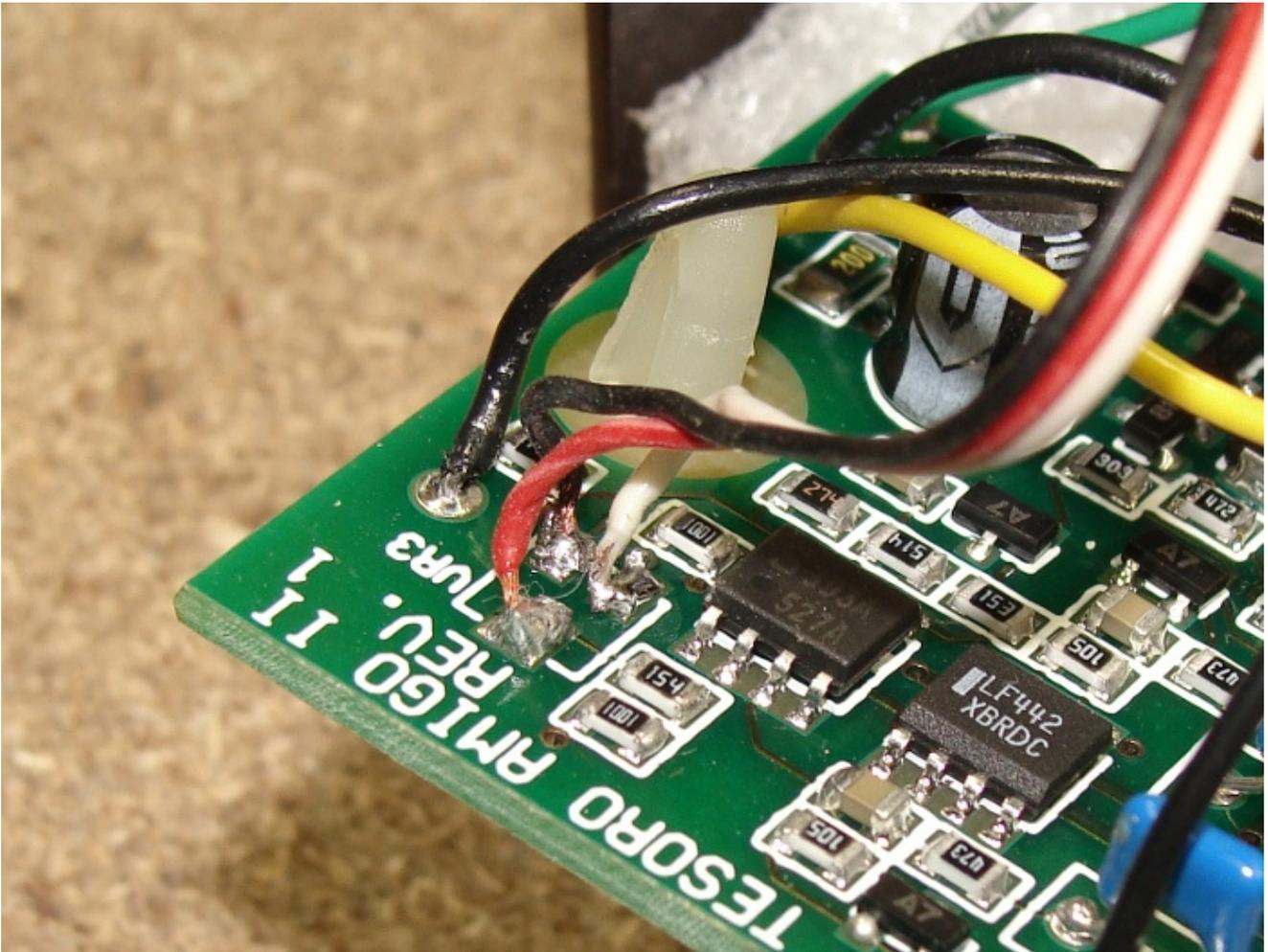
Step 4

The trimpot can now be lifted out and tossed into the trash can. The three trimpot soldering pads can be seen.



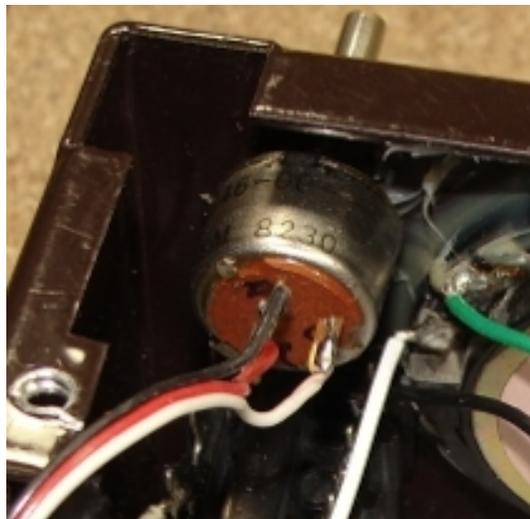
Step 5

Snip the leads close to the circuit board. Solder a length of 28 guage wire to each pad. You need to do this quick so not to heat up any surrounding parts and damage them.



Step 6

Solder the other end of those wires to your external control pot.



Step 7

Attach your 9 volt battery, turn on your detector.

If you didn't fry any parts during soldering, it should be fully operational.

Step 8

Drill a hole in the faceplate for your pot. Be careful with the drilling chips, make sure they don't get into the electronic parts. Work clean!! You can start with a smaller drill bit and then go larger to the dia. needed for the pot. The decal will have a tendency to lift and some drilling chips may get behind it. Tweezers will remove them. Again make sure no drilling chips are anywhere inside, use a paintbrush, computer keyboard vacuum etc. Keep it clean.



Step 9

Attach your external pot, and carefully reassemble the box in reverse order. Add a knob to the pot, and off you go.



I now have my Amigo II mounted on a straight shaft handle made of from rod parts in my parts box. A bike handlebar extension and foam bike handlebar grip. And rear mounted the control box. Balances perfectly, light as a feather.



AMIGO II

The Amigo II is the friendly detector that brings fun to your family's outdoor activities. It can be operated effortlessly by every member of the family, even if they have never used a metal detector before. Simply put, the Amigo II is *fun for everyone*.

- *Designed For All Ages*
- *VLF 10 kHz Frequency*
- *Attachable Speed Handle*
- *Silent Search All Metal and Discriminate Modes*
- *Single Knob Simplicity*
- *Built-in Mineral Rejection*
- *Ultra-lightweight Design*
- *Lifetime Warranty*



Can be used with or without "Speed Handle."



The Amigo II is so simple to operate that anyone can have fun with it. One control knob with easy-to-understand labels make this a true turn-on-and-go machine. The detector features a true All Metal mode. It is sensitive, has a fast recovery and features Discrimination that Tesoro is famous for. Compare the Amigo II to any detector in its class and you'll find the overall performance is outstanding. The unique pole and handle design accommodates all sizes and ages, even as young as 4!

\$189⁰⁰
with 7" Concentric coil