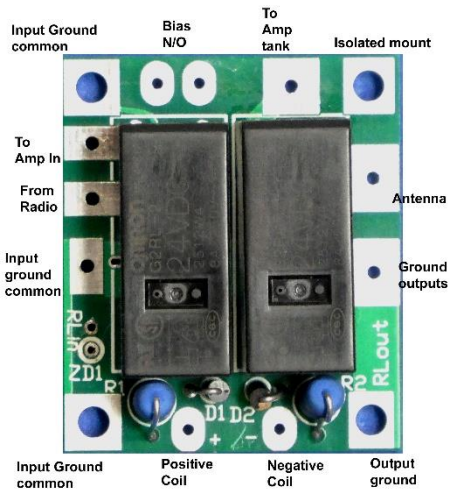
RL3pDT120dc 120Vdc Relay Installation for SB200, SB220, SB230

The patent pending RL3pDT120dc is a superior replacement for the Heathkit K1 69-55 relay, Heathkit 69-5 relay, and similar 110 or 120Vdc antenna relays.



1)Three input grounds are common. Either or both can be shield connection points for input cable shields. At least one should be grounded to chassis
2)Bias is a normally open relay contact. Not normally used in the SB200
3)Amp Tank is the coax center or wire lead from the amplifier tank output
4)Isolated mount is a floating mounting pad, it has no connection
5)Antenna is the center conductor to the antenna or amplifier output connector
6) Ground outputs should be the shield of output coaxes and should have a mounting screw or wire direct to the chassis from Output Ground
7) Negative Coil always has to go to the most negative coil connection. This would be the negative relay power supply in the SB200
8)Positive Coil always must go to the more positive relay coil connection. This is the bias power supply in the SB220 series
9)Input Ground commons are the input relay lead shields or chassis ground. To avoid ground loops this should not share a common point with the chassis

SB200 Installation

While most components are readily available, we recommend the full SB200RLY kit:

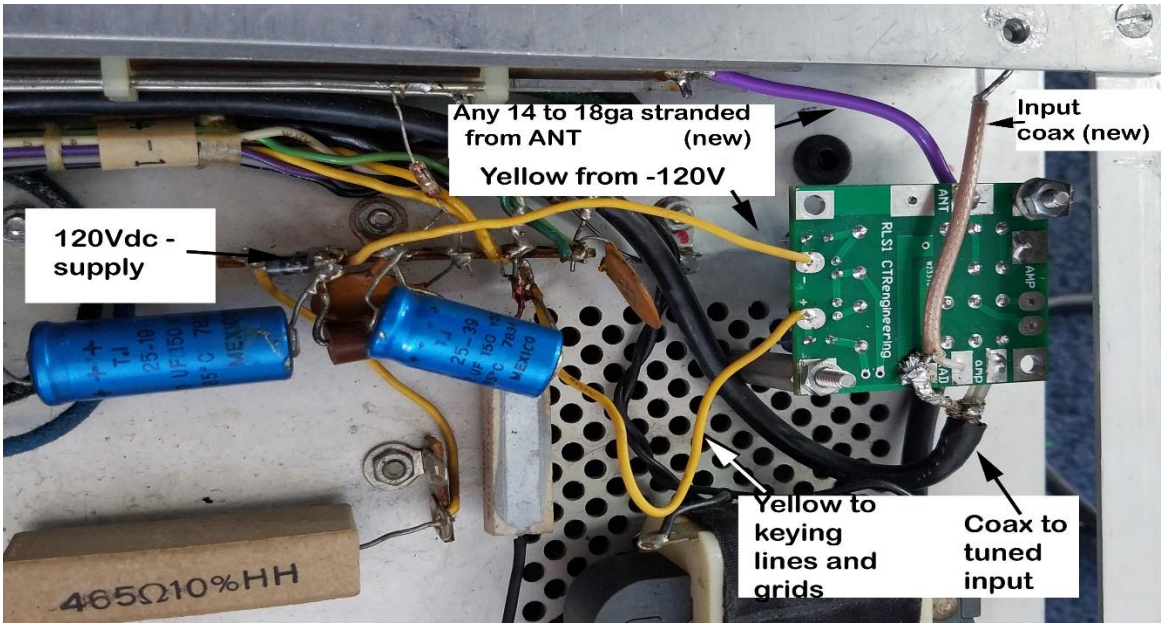
SB200RLY Kit contents:
(1) 4” length Teflon coax stripped and tinned for the input jack connection

(2) 1” tall metal spacers and hardware

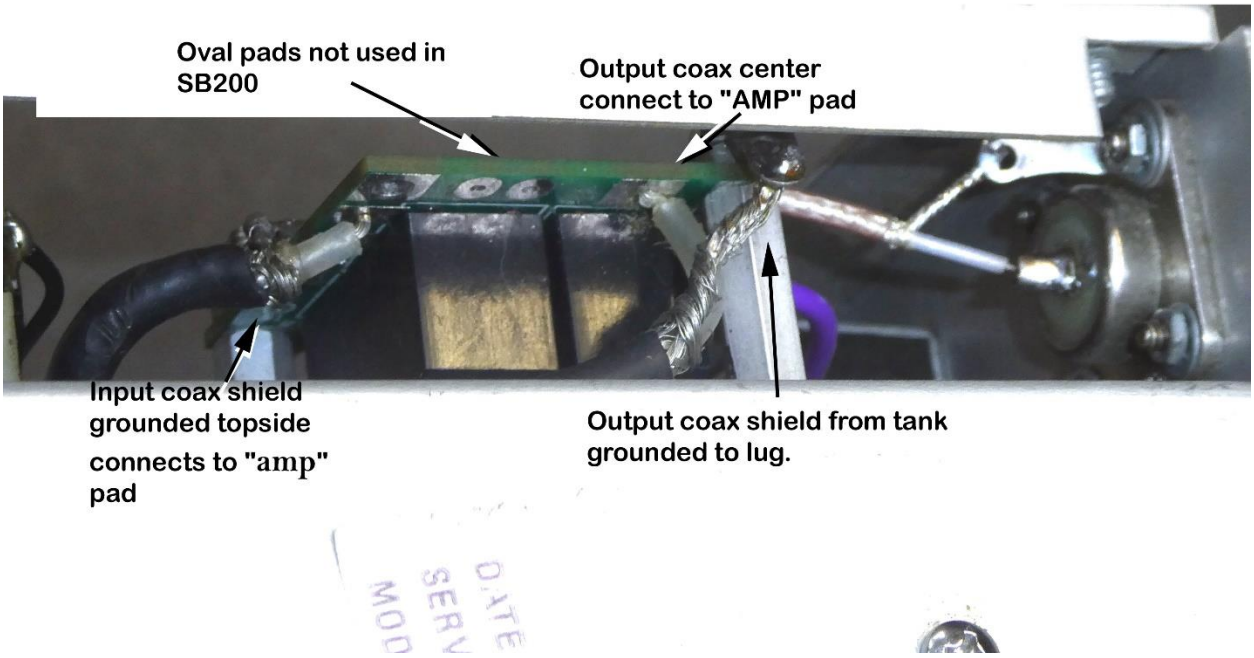
(1) wire 2-1/2” #16 PTFE

(1) Assembled 120Vdc sequenced PCB board

Mounting in SB200 should look like this:



SB200 Bottom:



SB220 Installation

While most components are readily available, we recommend the full SB220RLY kit.

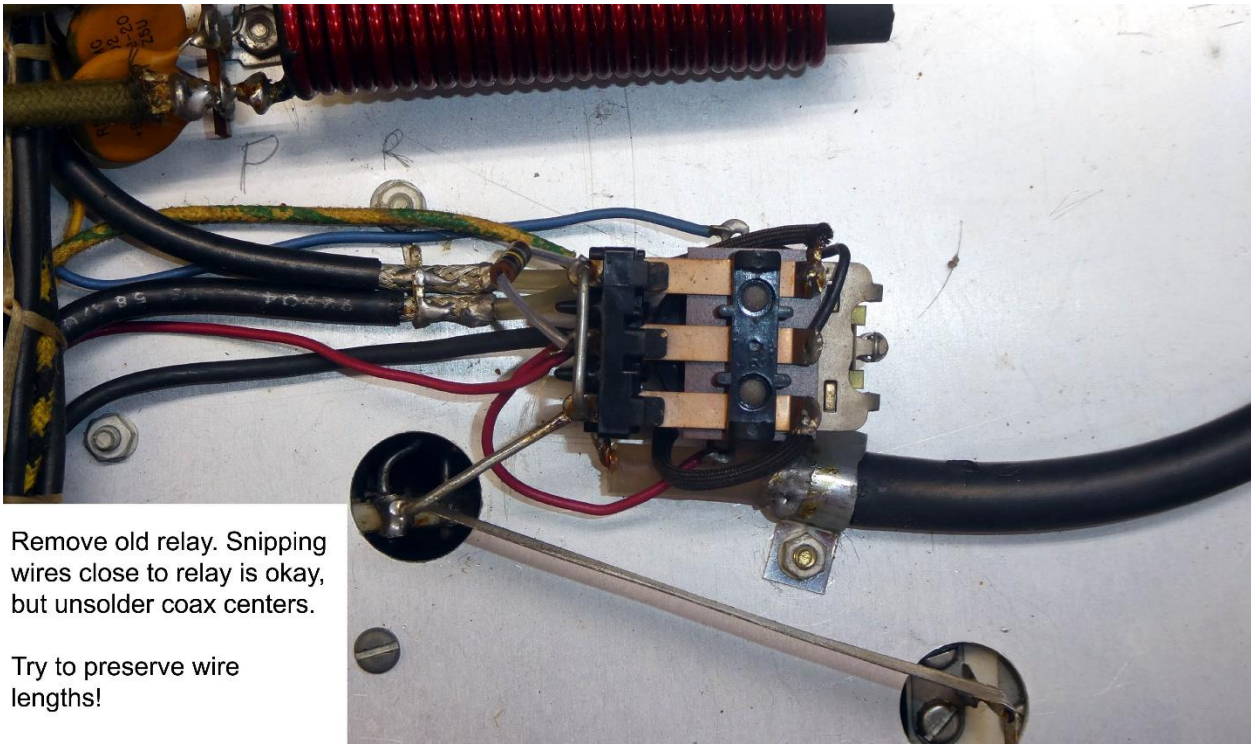
SB220RLY Kit contents:
(1) 3” length back silicone insulated wire #20 AWG for grounding

(1) 2” square mounting tape

(1) 100K bias resistor

(1) Assembled 120Vdc PCB board

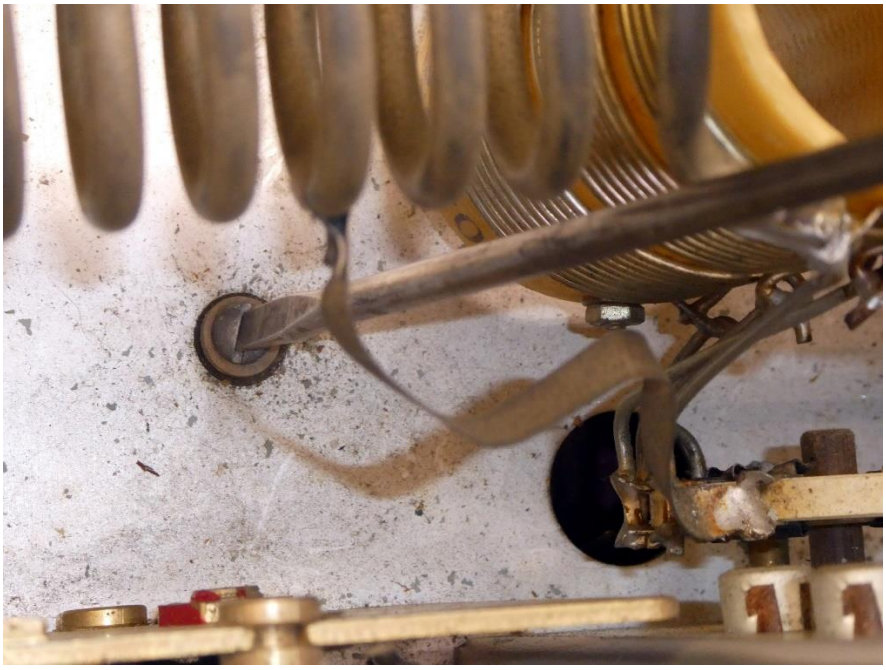
These pictures are of an early SB220 model installation. The later units follow the same general method:



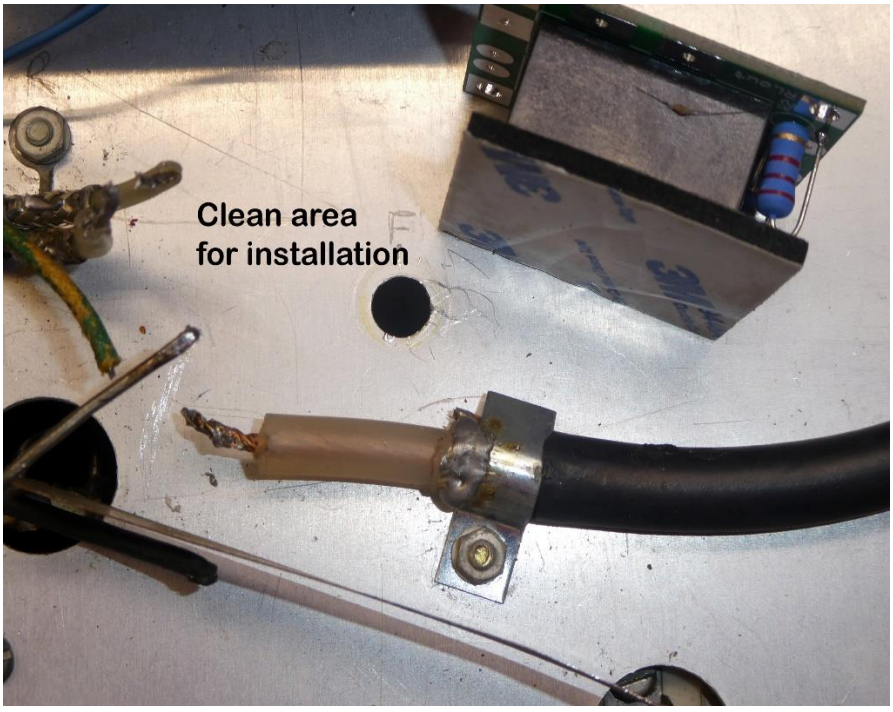
Remove old relay. Snipping wires close to relay is okay, but unsolder coax centers.

Try to preserve wire lengths!

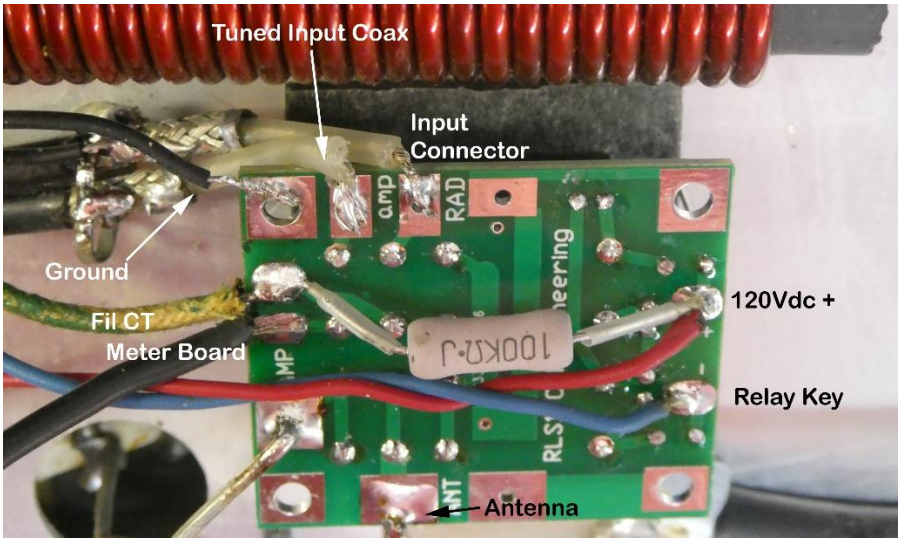
Remove relay mounting screw and grommet:



Clean relay area:



Install board:



Final view: