

## K157A. ROLLING CODE 2-CHANNEL UHF RC ASSEMBLED

This kit is a 2-channel version of Kit 180, our 4-channel UHF Remote Control kit. We have simply removed two of the 4 channels from Kit 180 and used a 2-button Transmitter unit. It is assembled. **You the buyer** has to **electronically** connect the Tx unit with the Rx board by the procedure outlined in the following paragraph.

Up to 15 Transmitter units can be connected to/learned by one Rx unit. Connect power to the receiver board. Press the **LEARN** tact switch on the main board and then simultaneously press button 1 (the small button) of the Tx unit. You only have to do this briefly for under a second. But note it takes about **15 seconds** for the two units – the TX and the RX - to connect electronically and recognize each other. (During this 15 seconds it seems that one and only one keypress of the Tx unit will be recognised. Just disregard this. Wait the full 15 seconds until the two units have connected. Do not press the LEARN button again. Just wait 15 seconds.) Note the **VALID DATA** LED comes on when you press the tact switch.

Tx units attached to any Rx unit can be unattached by pressing the LEARN button continuously for 8 seconds. The **VALID DATA** LED is on during these 8 seconds. As soon as the LED goes off then you know that all Tx units previously recognized by the Rx unit have now been unattached electronically from the Rx unit.

For the full details about the circuit, a full explanation of rolling code and the schematic download the k180.pdf from <http://www.crowcroft.net/kitsrus/k180.pdf> Remember this kit is 'half' of K180. Two of the 4 relay positions in kit 180 are removed.

### **Check Operation.**

If working properly when you depress the small button 5V will appear at pin 6 counting from the top (non-earth end) of the PCB. Pressing the big button causes an output of 5V at pin 8. When you release the buttons the voltage goes back to zero. This 5V is used by the 4013 for latching and momentary operation. You can trace this thru on the schematic.

If you want more details about the Microchip technology behind these Tx & Rx's then get

<http://www.kitsrus.com/pdf/an662.pdf> and <http://www.kitsrus.com/pdf/an665.pdf>

Technical details about Automicro devices can be got from <http://www.kitsrus.com/pdf/automicro.pdf>

We sell Tx unit (TX-3316RS) and Rx unit (RX-3302D2-15) separately as A17TX and A17RX.

Although these relays are rated 12A/250VAC the PCB tracks will not carry that current. Please do not put more than 2A through these tracks. If you want to switch higher current loads then you must jumper some wire between the terminal block pins and the relay pins.

Email me at [peterhk@kitsrus.com](mailto:peterhk@kitsrus.com) if you have any problems.

Also see our 10-channel UHF Rolling Code Remote Control, Kit 181 . See the documentation at

<http://www.kitsrus.com/pdf/k181.pdf>

Kit 180 is our 4-channel UHF Rolling Code Remote Control with 4 relays on board. See docs at

<http://www.crowcroft.net/kitsrus/k180.pdf>