

Suggested New Circuit to Give a FT-897 a Separate Receive Port

The FT-897s CAT/LINEAR socket has a pin called 'TX-GND'. On the bench this has been shown to give a signal that is activated 20 msec before transmit power is generated. This applies to all modes except AM, where the delay is 60 msec. The schematic shows an open collector NPN transistor driving this pin and the Operating Manual specifies that the pin can handle 50 V and sink up to 400 mA. The transistor conducts up to when the RF stops. The lead 20 msec gives enough time for a relay to switch over and direct the RF to a transmit only antenna.

Depending on the way the rig is configured, the CAT/LINEAR socket may be occupied by a tuner or computer control plug. To get round this, mount a 8-pin mini DIN socket on the unit's metal box, take a 8-pin mini DIN plug with free ends lead and connect all the wires to the socket within the box. However, pins 1, 2 and 3 must be tapped off for this circuit. Connect the lead's shield to the box.

The connectors specified are all different. This is to help ensure correct installation by anyone in a hurry or who is unfamiliar with the equipment.

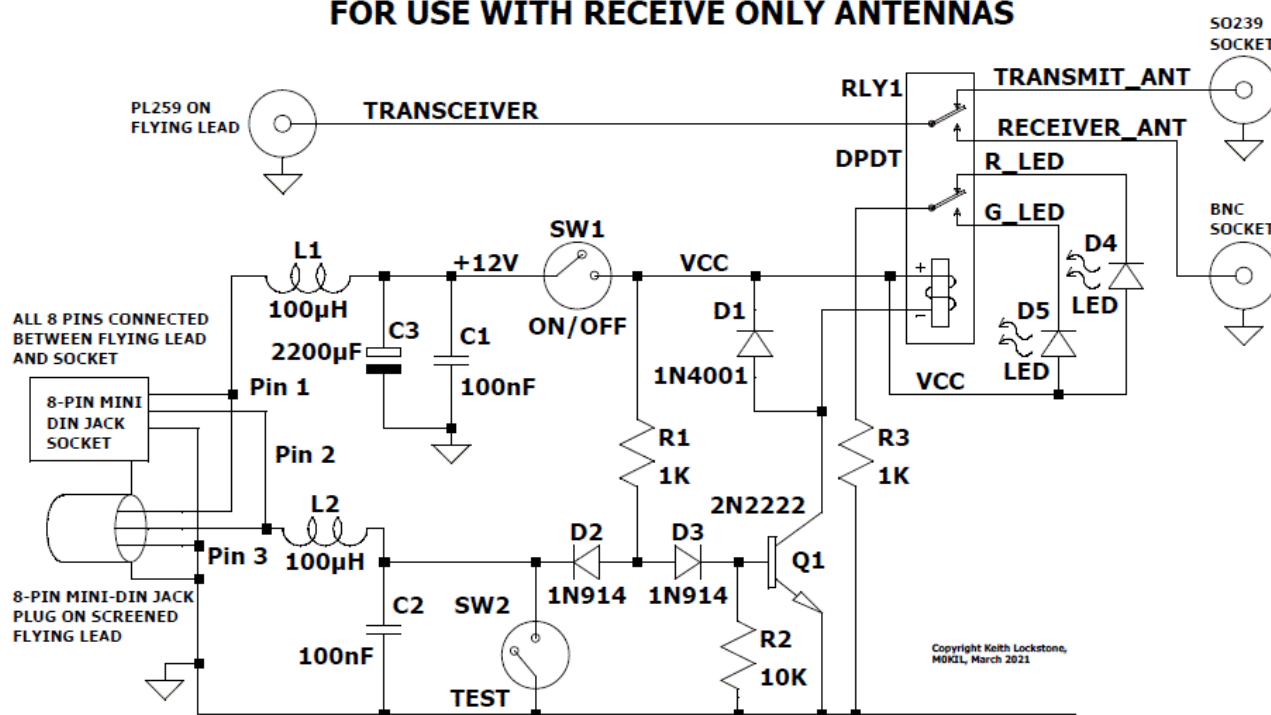
The ON/OFF switch powers down the circuit which ensures the transceiver is connected to the transmit antenna. This also applies if the control cable is disconnected, which is a safety feature.

When OFF, both LEDs are unlit. If ON, the green LED denotes the receive configuration and the red LED, the transmit state. Hence, when ON, the relay is normally energised.

The TEST button has 2 uses:

1. It shows if the relay and its drive transistor is working by going from the receive configuration to the transmit one - which shows on the LEDs.
2. It is a simple way to compare the receive performance of the 2 antennas.

FT-897 TRANSMIT/RECEIVE SWITCH FOR USE WITH RECEIVE ONLY ANTENNAS



Construction/component Notes

8-pin mini DIN panel mounted socket

BKL 0204028 Mini-DIN Socket Panel Mount 8-pole with 100mm Crimped Cable AWG 26
£3.00 +VAT

<https://www.rapidonline.com/bkl-0204028-mini-din-socket-panel-mount-8-pole-with-100mm-crimped-cable-awg-26-54-3320>

DIN AUDIO VIDEO CONN, MINI, JACK, 8POS £6.55 +VAT

<https://uk.farnell.com/amp-te-connectivity/5750338-1/din-audio-video-conn-mini-jack/dp/3437506>

8-pin mini DIN screened cable

8 Pin Mini-DIN (S-VHS) Male to Free Ends Lead, 2m Black - GT801-2MV-R

<https://cpc.farnell.com/unbranded/gt801-2mv/8-way-mini-din-to-free-end-2m/dp/AV00784>