Retransmit Recorded Receive Audio on Kenwood TS-990S Transceiver

The TS-990S has extensive audio recording and playback capability built-in, but lacks the ability to transmit audio that has just been recorded from one of the receivers. It is not hard to add this function: the concept is to loop back one of the receive audio outputs to one of the transmit inputs (optical or accessory jacks as easiest), and then use one the voice memories as a "scratchpad" memory to record and play. With the appropriate choice of audio source for the voice memory recorder you're in business!

A trip to Radio Shack or other electronics store will provide a TOSlink (also known as S/PDIF) cable which can be used to loop the digital audio optical output jack back to the optical input jack.

Another approach is to loop back the main or sub receiver analog output to the "data" audio input on the ACC2 port. A jumper between pins 3 and 11 would route the main receiver audio in for recording, or connect pin 1 to pin 11 to use the sub receiver audio.

I wanted to retain the capability to use the ACC2 audio outputs and inputs for future purposes, so I brought the connections out to RCA phono plugs and jacks. I soldered shielded cables with male RCA phono plugs to the two audio output lines on the ACC2 connector, and one with a female RCA jack onto the "data" audio input line.

Then I plugged the "Main" receiver audio output into the audio input jack, and the loopback needed for recording and playing back audio on the air was achieved.

The pins involved are as follows:

ACC2 connector
Main rx audio out Pin 3
Sub rx audio out Pin 1
Data audio input Pin 11.

Ground is available on pins 4, 8, and 12. I used 12 for the three shields in my case.

Heat shrink tubing is a good idea - these pins are quite close together on the DIN plug.

The audio input is described as being for data but it can be selected for the other purposes such as being the voice message recorder audio source.

My rig already had the ACC2 audio in and out selected on the Voice Message system, so no changes were needed. I hadn't messed with these settings before so perhaps that's the default choice. The audio levels were also fine as-is - no adjustments needed.

So for a dollar's worth of cable and connectors, plus the 12-pin DIN that came with the rig, I've added a very useful feature. And no need to disturb my existing use of the optical input for high-fidelity transmit audio from my external audio processing rack.

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