

Product:	TS-50S h.f. Transceiver
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It's A Modern The Kenwood TS-50S Comp

Richard Newton G0RSN takes a look at a modern transceiver that's very quickly become a classic. It's also the choice for the International Beacon Project's automatic transmissions where it's used 24 hours a day!

Following in the footsteps of The **Rev. George Dobbs G3RJV** is a daunting prospect! This is just what I had to do when asked to review the Kenwood TS-50S compact h.f. Transceiver. The Kenwood TS-50 was originally reviewed in *PW* back June 1993 by G3RJV when it was introduced and a market leader. Since then it's seen stiff opposition from newer transceivers but is still alive and kicking!

I enjoyed owning an TS-50 myself very much indeed and have always admired it as one of the very first compact h.f. rigs. So, having accepted the commission - I was looking forward to working on this review as it was going to be like revisiting an old friend.

Simple & Comfortable

The simple and uncluttered design of the radio was appealing. Being almost exclusively menu driven and controlled, the transceiver is not dripping with controls.

At first sight the TS-50S has a comfortably unimposing look about it. On closer examination you soon find that the basic-looking exterior belies the truth of a feature-packed interior.

The TS-50S is an 1.8 to 30MHz multi-mode h.f. transceiver measuring 180 x 69 x 270mm (including

protrusions) and weighing in at about 2.9kg (6.4lbs). It also offers general coverage receive from 500kHz to 30MHz.

On the air the TS-50S can be used in c.w., a.m., s.s.b., or narrow band f.m. (n.b.f.m.) modes at power outputs between 10, 50 or 100W. In a.m. the output power choices are 5.5, 17 or 25W.

The size and weight and the fact it runs from 13.8V d.c. makes the TS-50S ideal for mobile or portable work. However, it does not have a detachable control panel; this is a significant hurdle when looking at installing it into some of the more modern automobiles.

Mounted on the front panel there's a large tuning dial that can be friction-braked to suit the operator and operating conditions. I found this particularly useful when operating the radio mobile (which I did a great deal with my own TS-50), allowing tuning but preventing the vibration of the vehicle detuning the radio.

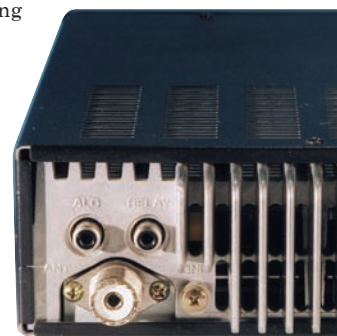
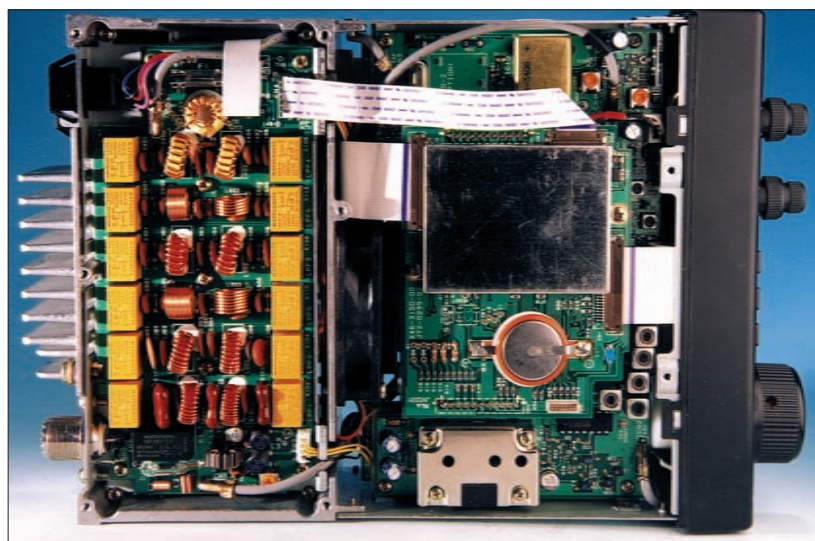
Also on the front panel there's a now somewhat old-fashioned 8-pin microphone connector. However, I still prefer these to the modular type, as it allows for easier home-brewing 'hands free' microphones. This type of plug also provides pin-outs to allow packet and other data modes with the relevant bits of hardware and software such as a Terminal Node Controller (TNC) for packet operations.

The TS-50S microphone itself is of very good quality. It incorporates four user-defined function buttons that can be set up as short cuts to menu features.

The **Volume, Squelch, RIT and IF Shift** controls are also present of course. But I won't list them one after the other... suffice to say that all the front panel controls are relevant and easily accessible!

The main display is large, well set out and

- Richard G0RSN says there's a great number of facilities packed into the TS-50S transceiver.



- Rear panel view of the extremely reliable TS-50S. Richard G0RSN - along with many others - also comments on the transceiver's excellent audio (see text).

Classic! Compact HF Transceiver

pleasantly backlit. There are **Transmit** and **Automatic Tune** indicators should you be using one of the optional automatic antenna tuning units (a.a.t.u.s) units available to match the TS-50S.

One thing that's not available on the front panel that I would have liked to see there was **Output Power** selection. However, this is one of the factory defaults of one of the four programmable function keys on the supplied microphone.

The rear panel houses the SO239 50Ω antenna socket, power connector and grounding terminal. There's also sockets for accessories such as linear amplifiers, a.a.t.u., c.w. key and extension speaker.

Fuzzy Logic

The TS-50 is equipped with what Kenwood term fuzzy logic tuning. This features enables the transceiver to select the tuning steps based on the speed that the operator turns the dial: fast turning provides large steps, and slow tuning invokes small steps.

Other features include **AIP** and **ATT** and these acronyms denote the **Automatic Intercept Point** and **Attenuator**. They can be used independently or even together to help reduce distortion from a very strong signal or interference being suffered from a strong station on an adjacent channel. The two - when used together - are very useful when coping with a busy and noisy band such as the 7MHz band.

Difficult Contact?

The Kenwood TS-50S incorporates several features to help in difficult conditions. The first would be the use of the well known RIT control. The RIT on the TS-50 allows you to go $\pm 1.1\text{kHz}$ in 10Hz steps which can be changed in the menu set-up to provide $\pm 2.2\text{kHz}$ in 20Hz steps.

The most helpful feature is the i.f. shift which functions in s.s.b. or c.w. modes. It allows the operator to shift the i.f. filter pass-band without changing the receive frequency. It's **extremely useful** when a strong signal on an adjacent channel. Used in conjunction with the attenuator and or AIP functions I've found this to be an excellent tool. There's also Noise Blanker, designed to reduce pulse noise such as from car ignition.

As supplied the Kenwood TS-50S uses a 2.4kHz i.f. filter for s.s.b. and c.w. An optional 500Hz filter can be easily installed for c.w. When using a.m. the standard filter bandwidth 6kHz, although the radio



can be set for use the 2.4kHz s.s.b. filter on a.m.

One TS-50S feature deserves a special mention and comes into play when a new mode is selected. For example - on switching from l.s.b. to u.s.b. the first letter of the selected mode is heard in Morse code from the speaker. A Morse L for l.s.b., a U for u.s.b., an A for a.m. and so on. Very helpful!

Transceiver Memories

The transceiver has 100 memories and 99 can be used to store simplex or duplex frequencies. The one memory left can be used to store a simplex frequency or the start and finish frequencies used for the **Programme Scan** feature.

The memories can hold modulation mode, filter bandwidth, AIP and attenuator settings the automatic gain control setting and CTCSS Tone used for access to n.b.f.m. repeaters on the 28MHz band. These memories can be locked out as and when required.

Once a memory is selected the radio gives the flexibility to temporarily change the operating mode, the filter bandwidth or any of the other settings. The operator can even set the transceiver to tune away from the memories frequency.

When that memory is recalled, the original settings will remain unchanged. Memory settings can also be easily transferred to either of the two v.f.o.s provided.

Memories can be scanned as a whole or divided into groups of ten, or the programme scan can be used to scan all frequencies between two preset frequencies. Very useful for 7MHz mobile! The rig can be set to stop on a busy frequency and remain there until the carrier drops or only remain for a short while and then move on.

Early Shift DX!

When I owned a Kenwood TS-50S I was working early shifts and travelled about 30km every day. I has regular mobile contacts with Australia and New Zealand using a mono band mobile whip for 7MHz, what a buzz!

The one thing that struck me about the TS-50S was the wonderful audio both on transmit and receive. It still remains one of the best I have ever heard.

- A modern classic - the Kenwood TS-50S compact h.f. transceiver. Richard GORSN - who owned one himself - says he thoroughly enjoyed using the transceiver again.



It's A Modern Classic!

The Kenwood TS-50S Compact HF Transceiver



Richard Newton (right) chatting to Richard Newton! Richard GORSN shares the fun of operating the TS-50S with Richard G0EWH at the Longleat rally in late June 2001.

(Photo courtesy of Terry Wood G7VJJ).

During my trip down memory lane I remembered my friend **Eddy Meekers G4SNR** who'd bought a TS-50S around the same time as me and to my knowledge still owned it, so I called him on the telephone. Eddy is a great guy and was more than happy to share his now considerable knowledge of the TS-50 with me.

Eddy bought his TS-50 brand new in the early 1990s and used it extensively in his camper van with ProAm mobile whips. More recently he's used a Texas Bug Catcher and was pleased to tell me that the whole set up works "extremely well"!

Over the years Eddy has literally worked the world using his Kenwood TS-50S including South Korea, Australia, Jerusalem, Florida, St Helena and Zimbabwe. He's worked most of his DX on

14MHz and uses 7MHz extensively for inter-G working. He says "The world is your oyster with a TS-50"!and I agree with him.

However, I then asked him that if he were able to change anything on the TS-50S, what would it be? Answering

Eddy told me that he would like to have had a r.f. gain facility. A detachable head would be useful, but Eddy has the quick slide mount for the TS-50 and has never found the lack of a de-mountable head to be a huge disadvantage.

Asked what he considered to be the best on the TS-50S. There was no hesitation in Eddy's reply: "The excellent audio" he said. I agreed, as we discussed how time and time again stations worked complimented us on the audio quality of the transmission.

Eddy concluded by saying the radio is "extremely rugged" and his final tribute was that the TS-50S gives a "Big radio feel on a small radio in size...and it has been well worth the money"!

On Air Trials

For my up-to-date on air trials I decided to do so when caravanning at the radio rally on the Longleat estate in Wiltshire at the end of June. I had help setting up from my father-in-law **Terry Wood G7VJJ** and we strung up our well-used simple 14MHz dipole cut for 14MHz. This was strung between two trees and was almost enveloped

in the branches, hardly ideal but we made the best of it.

Just before we went on air **Richard Newton G0EWH** - another original? - joined us! I had worked him and here he was in person. So both Richard and I put the TS-50S through its paces and Terry took some snaps.

The bands were deadly quiet, we tuned up and down the 14MHz band and nothing was heard until we were knocked off our camping stools by a massive signal, it was **Don Kitson G3TRK** on 14.218MHz operating a Icom IC-706 MkIIIG from Longleat! We had a short chat, what DX...we were only about 150m apart!

We then popped over and had a face-to-face chat with Don, I mention this because he showed us a wonderful h.f. vertical antenna he'd constructed from a ultra light-weight telescopic rod used for flying kites, some wire and a couple of coaxial cable plugs. It was fabulous and had cost less than £20! Don was happy to share his idea, so you never know we might see it in *PW* eventually.

It was then back to work with the Kenwood TS-50S and the bands seemed a little brighter. We worked **Vlad EN1WJP** in Lviv in The Ukraine who was running a Special Event station to mark the Pope's visit. Vlad gave us a 5 and 9 report.

Next contact was with **Mario Bottino I1KUE** in Italy, we had a very pleasant contact with Mario who said, "you have very good modulation" and asked what rig we were using. When we told him...his reply was "Excellent rig"! and complimented us once again on the audio quality of our signal.

Our last contact was with **John Brandhuber G4PDY** who was actually operating **ES/G4PDY/P**. John was on holiday on the Island of Saaremaa just off the Estonian coast, 4km north east of the town of Leisi.

John was using an Alinco DX-70 and gave us a report of 5 and 6 to 5 and 7. We chatted with him until we lost contact with him due to the path gently fading away. Hope you had a great holiday John and thanks for a super contact!

Great Fun!

Richard, Terry and I had great fun with the TS-50S and we all commented on the received audio quality as **it's very good indeed**. I very much enjoyed my trip down memory lane in the company of the Kenwood TS-50S.

Another testimony to the rugged reliability and overall performance of The Kenwood TS-50S is the fact that it's the standard radio used as part of the International Beacon project (details of which can be found in *PW* January 1999). In this application the 18 beacon transmitters operate for 24 hours a day - surely a tribute to a great transceiver!

The Kenwood TS-50S has captured the hearts and earned the respect of many operators worldwide. It's still available new and will offer sterling service as either a mobile or portable rig or as a base station attached to a main station antenna.

In my opinion the Kenwood TS-50S is one of, if not the finest, compact h.f. rigs you can buy. What it loses in the absence of a detachable head and the choice of v.h.f./u.h.f. bands it more than makes up for in sheer quality and reliability of service.



PW

Terry Wood G7VJJ (left) joins son-in-law Richard GORSN with namesake Richard G0EWH under the caravan awning while mother-in-law Barbara takes the photograph!

Summary

The TS-50S oozes professionalism and style, the quality of the audio and general performance is second to none. My thanks go to **Kenwood Electronics UK, Kenwood House, Dwight Road, Watford, Hertfordshire** for the chance to relive my pleasure on the bands with this modern classic transceiver.