
TY91 VHF RADIO - PRODUCT REVIEW



CHOOSING THE RIGHT VHF RADIO

For those looking to buy a VHF radio there's an old French saying, *"Too poor to buy cheap."* In aviation buying a cheap VHF radio might seem like a bargain. However, you can potentially save money in the long run by buying a quality certified VHF Comm, whilst also enjoying a much better user experience.

This review looks at the merits of the **Trig TY91** VHF Comm Compact radio. This is a 6-Watt certified radio made by Trig Avionics Limited and is used by the T-28 Texas flight demonstration team the Trojan Phlyers.

THE BENEFITS OF MODERN DESIGN

Most pilots would agree that an aviation VHF radio is one of the most heavily used, and important pieces of avionics that you will buy.

If your radio's performance is poor, and it is confusing to use then this can become really irritating. What might have been a cost saving, can become a curse.

In contrast to conventional single box radios, the TY91 is a modern digital radio design. It comes in two parts, with a controller and back box. Being certified, the radio complies with stringent technical and performance standards. Does this really matter?

Well yes, the accuracy and precision in design results in clean and crisp voice transmissions with validated power and range. The TY91 suffers no interference or 'bleed over' from adjacent frequencies, which can occur in older designs. All this results in transmissions that are easy to hear and comprehend, so flying is more relaxed and stress free.



SPACE SAVER

The two-part design of the TY91 provides clever options, for installation. The controller takes minimal depth in the panel and comes with blanks to fit in a conventional two and a quarter inch round hole, or a space-saving compact mount (shown below). The radio can be mounted at the edge of a panel, freeing up valuable space for other avionics.

The TY91 hardware back box can be installed away from the panel, for example, behind the pilot seat. This location reduces the cable length to the antenna, resulting in superior output performance at the



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antenna. Weighing less than a 1lb, the TY91 saves weight too. No cooling or fans are required, and the TY91 is highly energy efficient. Using a battery to drive a TY91 is commonplace in the sailplane community.



BETTER BY DESIGN

Trig Avionics make the claim that their products are 'Better by Design'. They say this makes their avionics more innovative and easier to use. So aside from quality, what features does it offer?

- Superior User Interface / flip flop
- Dual watch - monitor two frequencies
- Push Step - for faster tuning
- Crisp display - full daylight & backlit
- Nine channel memories
- In built two place Intercom
- Audio Input (mono)
- In built speaker amplifier

Having flown with the TY91 the Dual Watch function is genuinely impressive. It allows the pilot to listen to ATIS on the secondary frequency. At the same time, the primary frequency can be tuned to the tower, if the tower calls you will immediately hear their transmission. There are lots of situations where being

able to monitor two frequencies is helpful - for both experienced and low hours pilots.

Making quick frequency selections is simple on the TY91 controller. 'Push Step' allows you to move through the bandwidth in 50 kHz spacing and make fast adjustments in 25 kHz steps, simply by pushing the Push Step to toggle between. This is smart and well executed. Having nine channel memories is sufficient, but the TY91 can also be wired to a compatible GPS. As you fly the magenta line, frequencies load, with identifiers, automatically into the radio secondary channel. Pressing the flip-flop button then makes this primary, in an instant. Finally, the built-in two place intercom saves additional weight and cost. Trig has made a high quality set up which is ideal for a two-place aircraft.

MONEY MATTERS

The TY91 is a high-quality product that looks great in the panel and you will enjoy using for many years to come. Trig has made a high-quality unit that is supported via Mid Continent Instrument and Avionics, Kansas. The TY91 comes with a two-year warranty, from the date of installation and costs \$ 1,802 (list price excluding tax). A 16-Watt version, the TY92 is also available for high performance aircraft.

Find out more at www.trig-avionics.com

