

TR-25 Preliminary Operating Instructions



Refer to the front panel for the location of the switches and controls. The four rotary controls are pretty much self-explanatory. There is a keyer speed control (5-35 WPM) on the left, then the TX Power (0-5W) adjust pot, an RF Gain control, and a Volume control. The Power on-off switch is at the upper left, and the Band selector and RIT switch is to the right. This is a 3-position spring return toggle switch. To change bands, momentarily flip this switch upward and allow it to return to the center off position. Do this quickly, and the unit will switch from one band to the other. If you flip the switch up and hold it up for a short while, the frequency will be stored in a semi-permanent memory. The display will momentarily switch to a reverse optical mode showing that the current frequency has been stored. There is a separate memory for each band. To recall this memory, 2 quick successive upward clicks are required. To engage the RIT function with this switch, a quick downward push and release of the toggle is needed. The orange RIT warning LED will come on, and the display will read out the offset with 10 Hz resolution as you tune. Another quick downward toggle will dis-engage the RIT function. The knob to the right of the blue OLED display is the tuning encoder. The frequency will change in 10 Hz, 100 HZ or 1KHz steps. The

standard encoder will tune at 20 steps per revolution, allowing tuning rates of 200, 2k, or 20k Hz per revolution. If you chose the optional precision optical encoder, you can tune at 64 steps per revolution. The tuning step resolution is selected by a momentary switch attached internally to the tuning encoder. Short pushes on the tuning knob will alternate between 10 and 100 Hz tuning steps. A long press will enable 1 KHz steps. The frequency readout on the display will show the tuning resolution selected with an underline bar beneath the digit selected. The blue LED Signal indicator can be used to judge the strength of the received signal. A bright blue LED would indicate a strong signal. The red LED is the battery low-level warning indicator. It will blink when the battery voltage drops below a preset level. The warning level is internally adjustable from 9 to 11.5 volts. An external speaker or headphones must be connected to the "Phones" jack on the right side. There is more than ample audio available. Power is connected to the DC input connector on the left side. The voltage should be between 9 and 14 volts. The center pin polarity is positive, and the pin size is 2.1mm. The key jack and keyer paddle jack are on the left side. Both may be connected and used randomly as you desire. This way, you are always ready for a new "SKCC" contact, as there is no need to reboot the transceiver in order to change from the keyer using paddles to a straight key. The transmitter output power is adjustable from a few milliwatts to 5 watts or more depending on the power supply. It should be possible to achieve the "1000 Miles per Watt" award with a station a few miles away by turning the power output down to a few milliwatts while maintaining contact! With a 10 volt supply, the output is at least 5 watts into a 50 ohm load. The final TO-220 RF transistor is rugged, and has survived delivering 5 watts continuous key down of periods of more than 5 minutes. This is of course not recommended, but illustrates the ruggedness of the transmitter design. The side-tone that is heard while transmitting is the actual transmitted signal being heard by the receiver. If you match the audio tone of the received signal to the tone of the side-tone, you are guaranteed to be at zero beat with the station you are communicating with.