

Quick reference for the UARC HF remotes (Kenwood TS-480)

Operational notes:

- **How to tune to new frequency/band**
 - Set to the frequency of interest.
 - Set the "TX Meter" to "SWR"
 - Click the **Tune** button: Audio will mute briefly as internal tuner works to find a match.
 - Transmit as normal, noting SWR. If above 1.5:1, tuner could not find a match **and you will not be able to transmit on that frequency.**
 - **If the tuner cannot find a match, a brief message will be displayed on the screen by the meter.**

Additional info:

- **Antenna:** Upper-right drop-down selection. Antenna **ONE** is a G5RV usable on 80, 40, 20, 15 and 10 meters. Antenna **TWO** is an end-fed half-wave antenna usable on the lower half of 160 meters, 80, 60 and 40 meters – but probably will not work well on higher bands.
- **Select VFO A/B:** Turn large knob – VFO A is selected, turn small knob – VFO B is selected.
- **Adjust frequency step size:** Lower-right corner drop-down menu: Upper is for VFO A, lower is for VFO B
- **Enable speech processor:** Press **COMP** button for more "punch"
- **Remove CW note from someone tuning up or carrier from broadcast stations:** Press **BC1** or **BC2** button
- **Reduce background noise/buzz:** Press **NB** (noise blanker) and/or **DNL1/2/3** (Digital Noise Limiter).
- **Reduce background "hiss" and other noise:** to activate **NR1** or **NR2** noise filter, adjust **NR Level** slider to set "strength" (*typically 0-3*).
- **Directly enter frequency:** Use **Number Pad** in upper-left corner – push number buttons or enter with keyboard. Button below selects which VFO (*or both*) as destination for frequency.
- If the S-meter is above S1 and is moving around, you probably **do not** need to enable the Pre-Amplifier as this will only boost background noise and not the desired signal.
- If, while you are talking, portions of the moving waveform display at the top of the program changes from black to red, reduce the **MIC** setting where this doesn't (or rarely) happens on voice peaks.
- Neither **RIT** and **XIT** are not available.

CW operation - Same as SSB, except as follows:

- Select **CW** mode, click on the **CW** tab at the extreme bottom-left of the program window and type the text you wish to send where it says "Type a message".
- Use **CW Filter Width** and **FC Shift** to set CW receive bandwidth and center frequency. *Use 0.8 kHz and 1.2 kHz, respectively, as initial values.*
- Turn on **VOX** (*button should be yellow.*) **Radio will not key w/out VOX.**
- Use the **CW Speed** sliders for sending speed adjustment.
- Local use of paddle instead of text input is possible – see the **Options→Control Devices Setup→External CW tab** in RCForb.

Initial settings for SSB:

- **Mode:** For voice, USB for 20 meters and higher, LSB for 40 meters and lower (*Exception: USB is used on 60 meters.*)
- **Power:** 100W (*Approx. 100 watts*)
- **RF Gain:** 100%
- **Mic Gain:** 50%
- **SQL** (squelch): 0
- **FC Shift:** 1.2-1.3 kHz
- **NR1/2** button (DSP Noise reduction): Not selected (not yellow)
- **BC1/2** buttons (DSP automatic Notch Filter): Not selected (not yellow)
- **Comp** (transmit speech compressor): Selected (yellow)
- **Split:** Not selected (not yellow)
- **AGC:** Slow
- **Antennas:** **Leamington:** #1: G5RV, #2:160M End-Fed Half Wave, #3: 20-10 meter Log Periodic beam **WA7X:** #1: Offset dipole, #2: 80M End-Fed Half wave

SSB Transmit Troubleshooting

- **Not transmitting?** (*No power, cannot be heard*)
 - Check **Mode** (LSB/USB according to freq. *Must not be in CW*)
 - Check **RF Power** slider should be higher than zero. (*100%=100 watts*)
 - Check **Mic Gain** on radio slider: Set to 50%
 - Check "**Mic**" at top of program window – increase gain if oscilloscope line is flat/check your computer's mic gain/connection.
 - Check **MIC** setting in RCForb program (top, far left with drop-down selection) to verify correct audio source.
 - Did you transmit for more than **180 seconds/3 minutes** at once and trigger transmit time-out? Switch back to receive and then try not to be so long-winded next time!
 - If you are using RCForb Ver 0.9, MIC audio may not work on some computers – try Ver. 0.8, instead.
 - Use RCForb Mic test: **Options→Audio Device Settings**
 - Is microphone/input configuration on your computer correct?
 - Band may be dead: Listen to yourself on a WebSDR (<http://websdr.org>)

Receive Troubleshooting:

- Nothing heard on receive – not even noise?
 - Check computer speaker volume: Play music or YouTube to verify that you can hear audio from **your** computer.
 - Check **SPKR** setting in program (top, far left with drop-down selection) to verify correct audio output.
 - Check **Vol** setting on program. Test **Options→Audio Device Settings**
 - Check **RF Gain** on radio: **Slider should be at 100%**
 - Check **SQL** on radio: **Slider should be at 0**
 - Make sure you aren't in TX mode (**TX** button is yellow)
 - If you *are* hearing some background noise, but no signals, you may be on a band that is not active.
 - There will be few signals on 160/80 meters in the daytime.
 - Low sunspot activity? 17, 15, 12 and 10 meters may open rarely.