Use of Main W8DYY Station

1. Access shack using combination code open door. Turn on lights alarm panel will be beeping. Immediately enter access code into alarm panel, panel will stoop beeping. Both codes are on your membership card.
2. Assess general condition of the shack anything obviously wrong missing or damage equipment. Report any out of the ordinary conditions to one of the executive board members or the equipment manager.
3. This procedure assumes that the rig to be use is the Kenwood TS-480SATSAT with the CS-7 Drake antenna switch, Mosley beam with rotor, Drake MN-2700 Matching Network, and possible the Drake L-7 Linear Amplifier.
4. Plug in the following unit to 120 Volts AC: Astron power supply, CS-7, Antenna Rotor control. Turn on the power switches on the Astron and CS-7, plug together the rotor control cable. If to be used plug the Drake L-7 Linear power supply to a 240 volt AC outlet.
5. Turn on the power on the Kenwood TS-480SATSAT by pressing and holding the power switch. Turn on the power to the CS-7 antenna switch by pressing its power switch.
6. Rotate the CS-7 “LOCAL” control to the number “1” positon, this connects the TS-480SATAT to the chosen antenna through the MN-2700 Matching Network. Rotate the “REMOTE” control to the number “1” position, this connects in the Mosley Quad Band Yagi.
7. Turn up the volume on the TS-480SAT signals or at least some static should be heard. If not check switch positons on the CS-7 and then all antenna connections finally place the band switch on the MN-2700 in bypass. DO NOT PROCEED WITH TUNING UP UNTILL SIGNALS CAN BE HEARD. If in doubt call for help.
8. On the TS-480SAT select Band and frequency to be used. Set MN-2700 band switch to “Direct” and the antenna switch to “Dummy Load”, note the heard signal will drop off when on dummy load. Press and hold the “ATT” button on the TS-480SAT the radio will now tune it’s internal to the 50 OHM dummy load. The TS-480SAT will complete this operation in 30 second or less.
9. Set the MN-2700 to Antenna position 2 and the band switch to the desired band. Turn the SWR sensitivity full counterclockwise and push in the VSWR button.
10. Check to be sure that the frequency is not in use before tuning. If clear then change the mode to CW by pressing the mode button on the TS480 till the mode says CW. Press the power button on the TS480 turn the power level down to less than 50 Watts.
11. Using the CW “key” key the TS-480SAT the VSWR will read up scale. Vary the resistive setting until the SWR reading dips. If there is not enough tuning range move the slide switch below the tuning knob to the next higher setting.
12. Once the VSWR meter is dipped with the resistive control next repeat with the reactive control until the VSWR meter is dipped.
13. Going back and forth between the resistive and reactive adjustments re-dip the VSWR for minimum reading. If the VSWR reading are so low that it is difficult to find a dip turn the VSWR sensitivity control clockwise until a reading is obtained.
14. Once the VSWR is at a minimum level less than 1.5 to 1 the station is ready for operation as a barefoot 100-watt station.
15. Simply set the mode to the mode desired and increase the power setting on the TS-480SAT up to 100 Watts. Rotate the Mosley to the desired direction.
16. Be sure to use the W8DYY call when using the club station and log any contacts in station log book.

Using Main Station with Linear

1. Set up station as above completing steps 1 through 14.
2. Turn on power on the Drake L-7 Linear set the Mode switch to CW, Meter switch to IG, Band switch to the desired band, note must be same band as the TS-480SAT, Load to Zero, Plate to the arc for the band being used, AGC to fully counterclockwise. STBY switch to operate (out).
3. Set the MN-2700 band switch to direct and antenna switch to Dummy Load, and the wattmeter switch to the 3000 range. NOTE: do not tune up linear on the air.
4. Switch the Mode switch on the TS-480SAT to CW and turn power down to below 25 watts.
5. Key the TS-480SAT observing the plate amperage on the L-7, increase the power on the TS-480SAT till the plate amperage is 0.400
6. Tune the plate control for a dip in plate current.
7. Continue to increase the TS-480SAT power while maintaining a grid current of less than 250 mA by increasing the load control, until a plate current of 0.565 Amperes is reached.
8. Re-dip the plate current with the plate control.
9. While monitoring the watt meter on the MN-2700 for peak wattage key the TS-480SAT for short bursts while making small adjustments of the plate and load control on the L-7. Be sure to maintain the plate at or under 0.565 Amps and the grid current under 250 mA. When no increase is noted the linear is tuned.
10. Place the TS-480SAT back in the mode to be used. Place the MN-2700 band switch back to the band position that was previously tune, and the MN-2700 antenna switch back to the number 2 positon.
11. If Single Sideband is to be used that CW / SSB switch on the L-7 can be placed in the SSB positon but remember use only the amount of power need to assure good communications. Power can be reduced by using the CW setting and further reduced by increasing the AGC control clockwise.
12. Remember that the L-7 Linear and the MN-2700 Antenna Match will need to be retune if changing bands and if the frequency is changed in a band i.e. from 7.271 to 7.180 MHz

Shutting Down the Station

1. Finish Logbook entries if needed.
2. Turn off power to the L-7 Linear unplug power cord.
3. Turn off power to the TS-480SAT and Astron power supply and unplug power cord to the Astron.
4. Rotate beam to face west on the controller. Unplug power to rotor control and unplug rotor control cable.
5. Rotate remote control on CS-7 to the GRND position rotate local control on same to GRND. When only the one pilot light is light on the CS-7 turn it off and unplug power.
6. Verify that the rotor control cable is unplugged, power cords to the CS-7, Astron and the L-7 are unplugged.