

Charlestown Amateur Radio Club

December 12, 2023 Meeting

Ham Radio Office – Operational!



Single Point Ground



Antenna Switches & Icom IC-718



Coax and Ground
Conduit Exit



HRO - Remaining Tasks

- Follow up with Don Grove re:visit
- Install Ed Wallace's new VHF/UHF radio
- Icom 718 – donated by Loyd Smith
 - Has power supply
 - Will need antenna tuner
- Club station license

Club Station License – What We Need

- Application can be submitted through ARRL
- ARRL Form 605-C club application
- Constitution
- Minutes of the meeting where Constitution was adopted and officers were elected
- Minutes of the meeting where the club license trustee was approved by the membership – need to adopt a motion for trustee at this meeting
- \$35 application fee paid to the FCC

Radio Equipment Familiarization

Station Overview

Two transceivers and power supplies

End fed half wave wire antenna for 80 through 10 meter amateur bands

VHF/UHF vertical for 2 meter and 440 MHz bands

Antennas fed with LMR-600 low loss coax cable – Thanks Barb Nixon!

Antenna switches for both antennas – Thanks Tony Matesi!

Single point ground for lightning and RF feedback protection

Single point ground connected to steel floor truss in ceiling above with #4 copper wire



Antenna Switches

For HF, switch on left, select either FTDX-10 or FT-991A

For VHF/UHF, switch on right, currently only FT-991A connected; Once Ed's new transceiver is installed, select between the new transceiver or FT-991A



Power Supplies

Both Yaesu transceivers have their own Yaesu FP-1030A linear power supplies

To power up, click power button to the on position

Green light should illuminate and voltage meter should show about 14 volts



Yaesu FT-991A

HF-6 meter-2 meter-440 MHz all mode transceiver

HF-6 meters – 100 watts

2 meters-440 MHz – 50 watts

21 local repeaters and US 60 meter channels saved in memory

To use, ensure correct antenna connected with antenna switch and power supply is powered up

Push on/off switch in upper left of front panel

Audio volume is controlled by audio gain knob right bottom of front panel

To switch memory channels, rotate knob at bottom center of front panel



Yaesu FT-991A

To switch from memory to VFO, push the V/M button to right of large tuning knob



Yaesu FT-991A

To change bands, click on the band button in center of front panel, then touch desired band on screen

Tune within band using the large tuning knob on the front panel



Yaesu FT-991A

To change modes, click mode button in center of front panel, then touch desired mode



Yaesu FT-991A

When working HF, ensure acceptable SWR before transmitting

Auto tuner is on when using VFO; you will see the red tuner illumination on the screen

Press and hold tune button to left of large tuning knob until radio starts tuning cycle (a series of rapid clicking sounds); Tuning will also be indicated on touch screen

Transmit once tuning cycle (i.e. tuning no longer indicated) is completed

Discontinue transmitting if the red HIGH SWR message appears on the screen



Yaesu FTDX-10

HF-6 meter all mode transceiver

HF-6 meters – 100 watts

Only US 60 meter CW and USB channels saved in memory

To use, ensure correct antenna connected with antenna switch and power supply is powered up

Push on/off switch in upper left of front panel

Audio volume is controlled by audio gain knob bottom center of front panel

To switch from VFO to memory, push the V/M button, second to left, top row of buttons

To switch memory channels, rotate function knob at top center of front panel

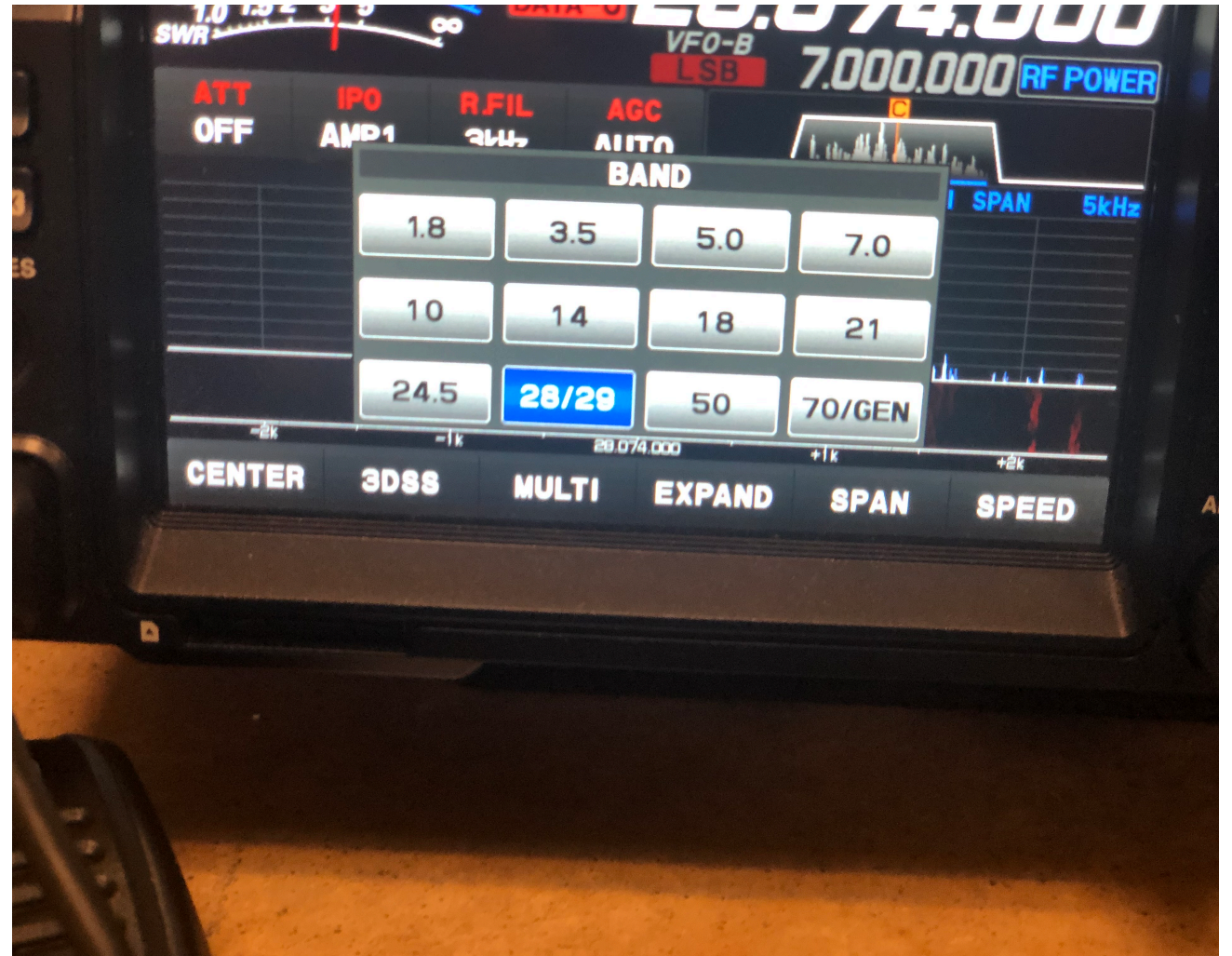


Yaesu FTDX-10

To change bands, click on the band button at 10 o'clock position from large tuning knob, then touch desired band on screen

Or you can touch the frequency on the touch screen then the desired band

Tune within band using the large tuning knob on the front panel



Yaesu FTDX-10

To change modes, click mode button at 2 o'clock position from large tuning knob, then touch desired mode

Or touch the mode on touch screen, then touch desired mode

To use SSB, select LSB or USB as appropriate for band

For data modes other than FT8, select Data-U

For FT8, select Data-U and Preset



Yaesu FTDX-10

Ensure acceptable SWR before transmitting

Auto tuner is on when using VFO; you will see the red tuner illumination on the screen

Press and hold tune button to below on/off switch until radio starts tuning cycle (a series of rapid clicking sounds); tuning will also be indicated on touch screen

Transmit once tuning cycle (i.e. tuning no longer indicated on touch screen) is completed

Discontinue transmitting if the red HIGH SWR message appears on the screen



Yaseu FTDX-10

If using FT8 or other full duty cycle modes, please reduce power to 50 watts

Rotate the function knob at top center of front panel

Power level will appear on screen, rotate power to desired wattage



Digital Operations

- Either Yaesu radio can be used to run digital modes
- Both radios have internal sound cards so no external sound card is required
- Need a laptop with Yaesu virtual comport drivers installed (Windows or Mac - Raspberry Pi also feasible)
- USB cable – one already installed on FTDX-10, one in bin on shelf above can be used on FT-991A if desired

Additional Information

- Manuals for both transceivers are located on shelf above radio desk which provide greater detail on radio features; also have pdf versions
- FCC required RF Exposure forms have been completed for each band and mode (SSB-100W, FM and full duty cycle digital-50W)
- Radio log is provided; please at minimum complete date, time, operator and which radio was used
- Copy of US amateur band plan is provided; please make sure you operate within band and within the privileges of your license class
- Individual, hands-on orientation available/recommended

Happy Holidays!

- Next meeting – Tuesday, January 9, 2024 3-4 PM – In the Ham Radio Office