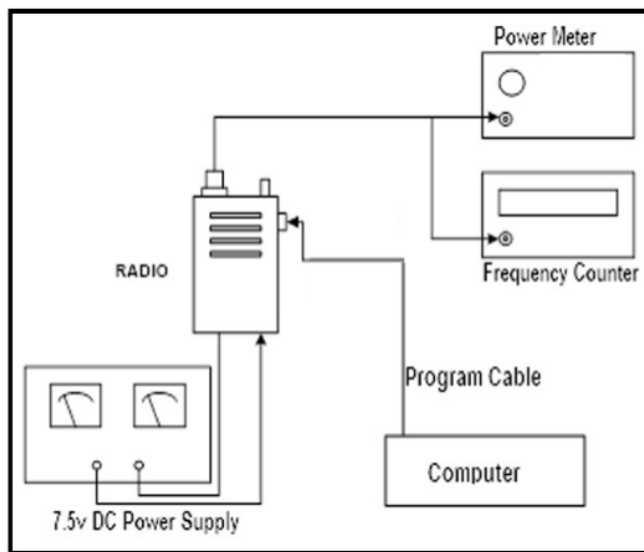# Tuner Setup and Instructions
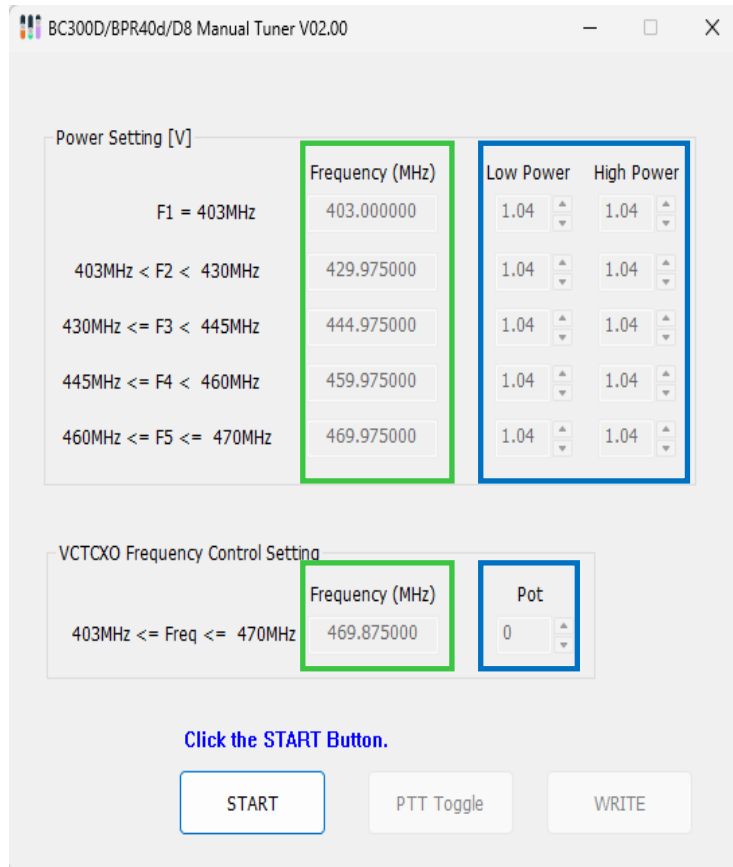
# Motorola BC300D / BPR40d / D8 model Radios

Setup:



1. Install the Tuner software on latest Windows computer
2. Connect the test radio to the Computer via Programming cable
3. Power On the test radio

Instructions:

1. Run the Tuner program (Turn on the radio)

All control boxes are disabled except the "START" button.

BC300D/BPR40d/D8 Manual Tuner V02.00  — □ X

Power Setting [V]

| | Frequency (MHz) | Low Power | | High Power | |
|---|---|---|---|---|---|
| F1 = 403MHz | 403.000000 | 1.04 | ▲▼ | 1.04 | ▲▼ |
| 403MHz < F2 < 430MHz | 429.975000 | 1.04 | ▲▼ | 1.04 | ▲▼ |
| 430MHz <= F3 < 445MHz | 444.975000 | 1.04 | ▲▼ | 1.04 | ▲▼ |
| 445MHz <= F4 < 460MHz | 459.975000 | 1.04 | ▲▼ | 1.04 | ▲▼ |
| 460MHz <= F5 <= 470MHz | 469.975000 | 1.04 | ▲▼ | 1.04 | ▲▼ |

VCTCXO Frequency Control Setting

| | Frequency (MHz) | Pot |
|---|---|---|
| 403MHz <= Freq <= 470MHz | 469.875000 | 0 ▲▼ |

Click the START Button.

[ START ]    PTT Toggle    WRITE

1) **Frequency Point Indicator (Green box)**

The frequency point indicator shows the tuning frequency point.

To select any frequency point, press the Frequency edit box.

Enter the desired frequency within the frequency range.

2) Adjustable Values (Blue box)

Pots are adjustable tuning values stored in the radio's codeplug, which reflect the tuning parameters of a radio.

The Pot edit box displays the pot value which corresponds to the current tuning measurements observed on the tuning equipment. This pot value can be increased/decreased by the user.
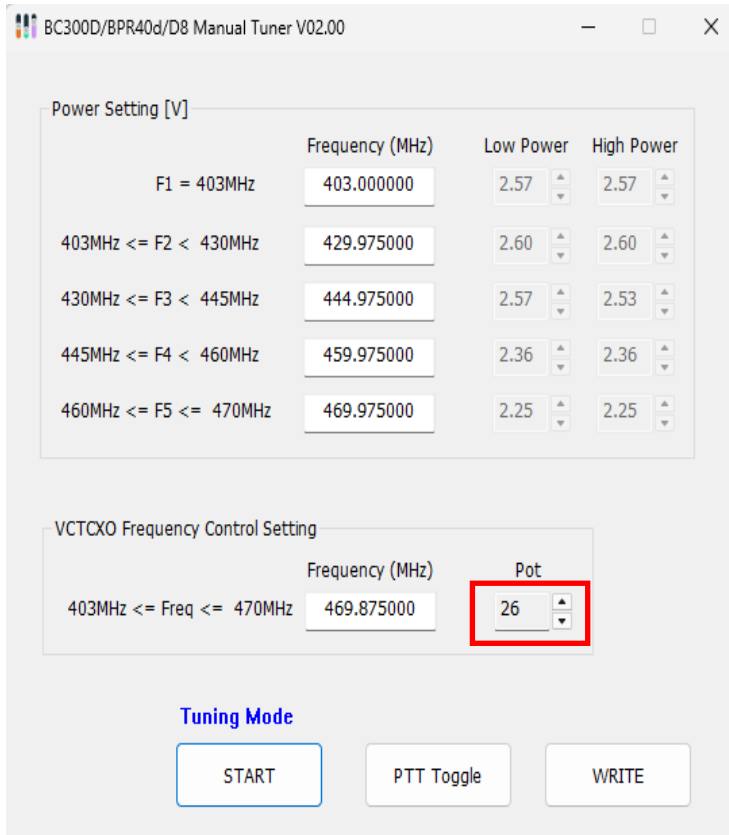
3) Write Button

The Write button commits all pot values in the current tuning window into the radio's codeplug.

2. Press the "START" Button

Read the power and frequency offset value from the radio, and the radio enters into Tuning mode.

When the radio is in tuning mode, the adjustable spin control box is enabled as shown in the red box below:

## 3. Frequency offset adjustment

a.) Click the edit box of the VCTCXO frequency point for frequency offset adjustment
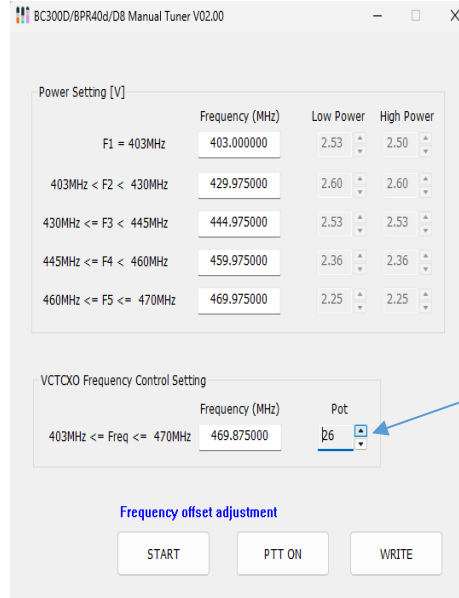
b.) Press Up/Down button for adjusting the value



used for tuning value

c.) Pressing PTT ON toggles the TX of the radio.
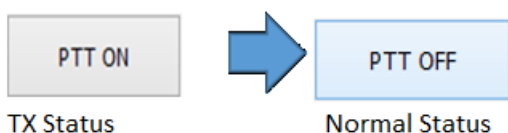


PTT ON
TX Status

PTT OFF
Normal Status

4. Power adjustment

The power level of the enabled frequency pot can be adjusted with up/down arrows similarly.

The picture below shows adjusting the power level of F1 (Low Frequency). Power settings for other frequencies can be achieved similarly.
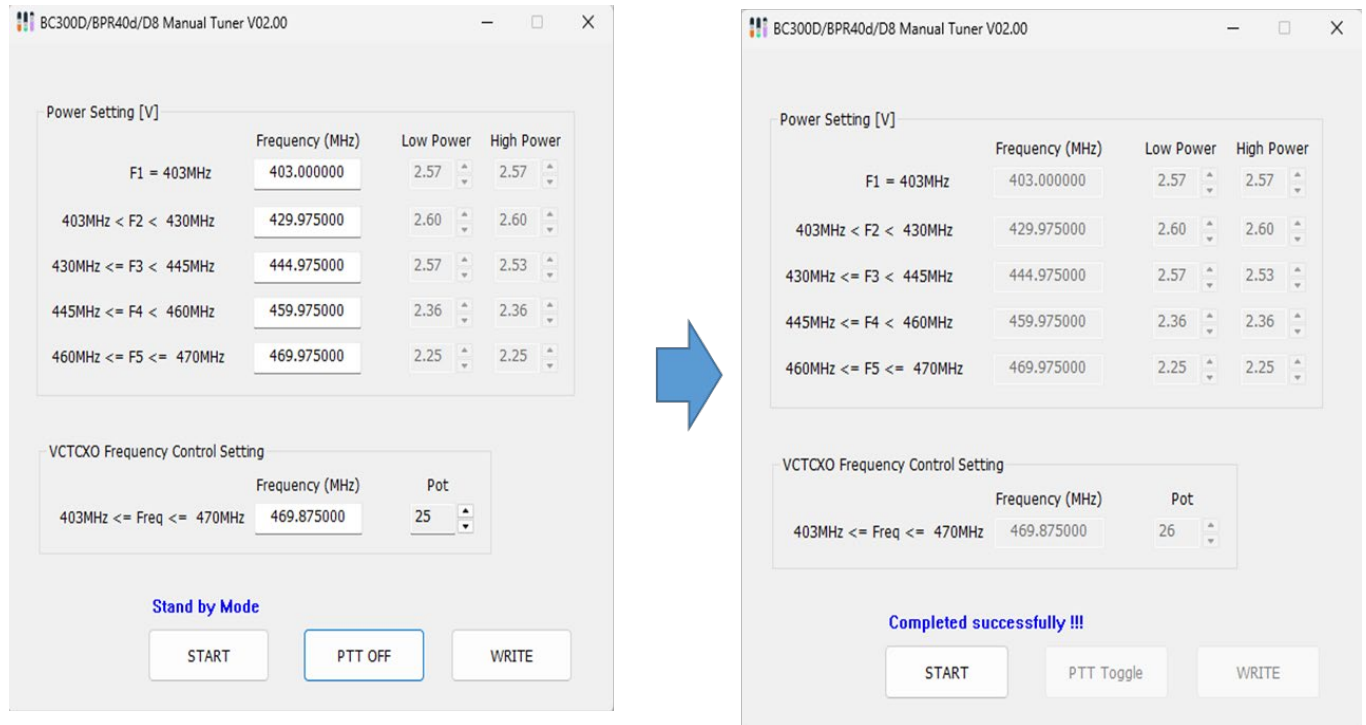


used for tuning value
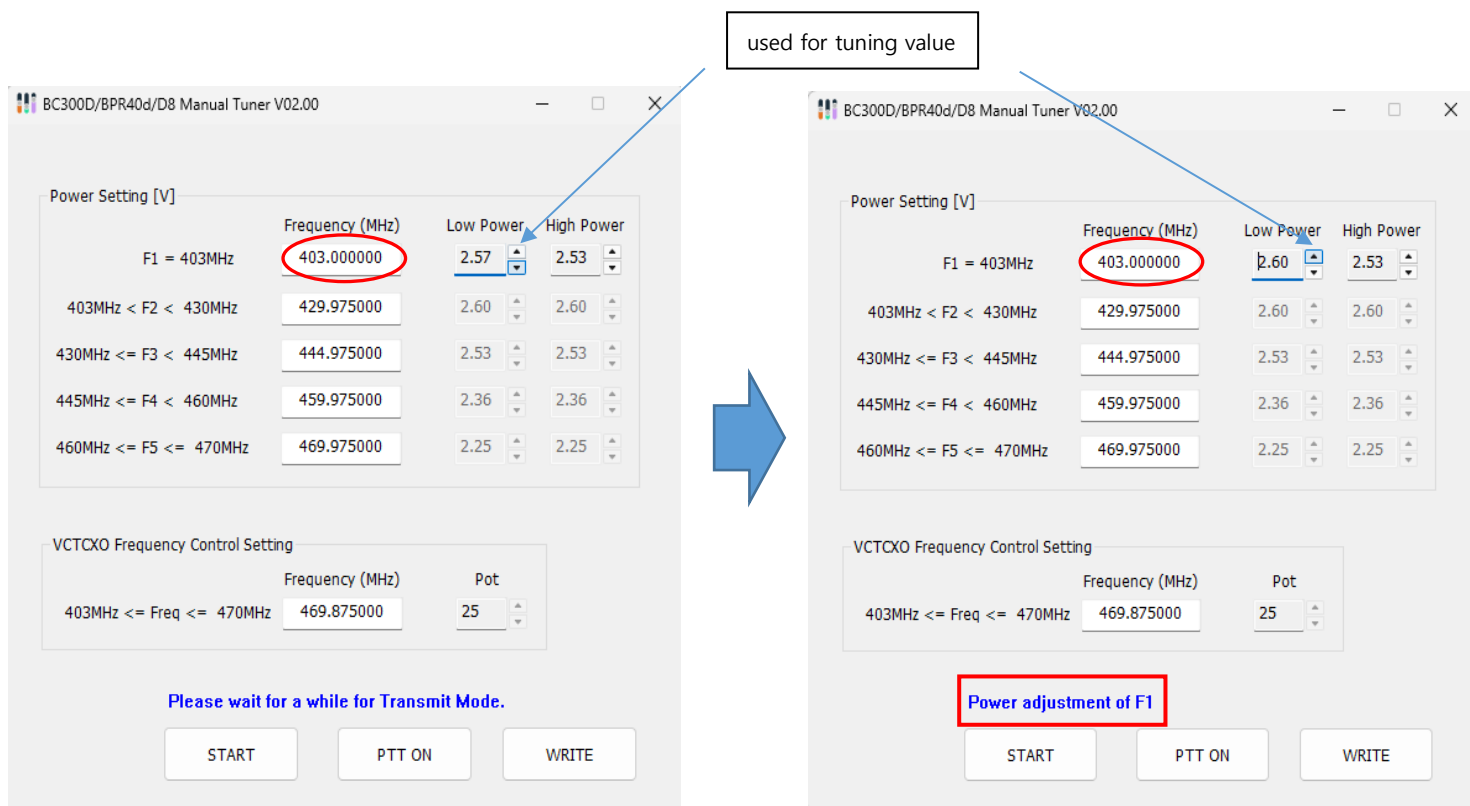
Pressing PTT ON toggles the TX of the radio.

5) Press the WRITE Button

The adjusted power (and/or frequency offset) value is programmed to the radio and the radio exits from uning mode.



When the update is successfully completed, "Completed successfully!!!" message will appear and the radio restarts automatically.

**Please note:**

        Do not power radio when in programming mode

        Do not remove programming cable when in programming mode