

## FreeDV Configuration for IC-7300

### PC:

**OS:** W10 Pro

**FreeDV Audio Sample Rate:** Must be the same throughout Config. Example 44100.

**Headset:** USB is Preferred.

Microphone (#- USB Audio Device)

Speaker (#-USB Audio Device).

### CODEC:

Speakers #- (# - USB Audio CODEC)

Microphone (# - USB Audio CODEC)

**For more information:** <http://rowetel.com/downloads/freedv/>

**FreeDV reporter** <https://freedv-reporter.k6aq.net/>

## **IC 7300 Configuration**

**1) Depress Function Button:**

- a. P.AMP/ATT OFF
- b. AGC Fast
- c. NOTCH OFF
- d. NB OFF
- e. NR OFF
- f. IP+ OFF
- g. VOX OFF
- h. COMP OFF
- i. ¼ OFF
- j. MON1 OFF

**2) Use Icom Presets to select FreeDV or other Digital Modes**

**3) Hit MENU Button (Bottom Left)**

**4) Select “2”**

**5) Select FT8 PRESET**

**6) Select 3 to configure a new Preset for FreeDV. See settings below. Make sure to follow the last step and select YES to save.**

## IC-7300 Preset 3 Configuration

-----PRESET (3)----- 1/8

| <b>Preset Name</b>                            | <b>FreeDV DigiVoice</b> |
|---|-------------------------|
| <input checked="" type="checkbox"/> Mode      | USB-D                   |
| <input checked="" type="checkbox"/> Filter    | FIL2                    |
| <input checked="" type="checkbox"/> Filter BW | 1.1K                    |

-----PRESET (3)----- 2/8

|   |       |
|---|-------|
| <input checked="" type="checkbox"/> Filter Type (HF)        | SHARP |
| <input checked="" type="checkbox"/> Filter Type (50M-)      | SHARP |
| <input checked="" type="checkbox"/> ACC/USB Output Select   | AF    |
| <input checked="" type="checkbox"/> ACC/USB AF Output Level | 50%   |

-----PRESET (3)----- 3/8

- ACC/USB AF SQL OFF (Open)
- ACC/USB IF Output Level 50%
- USB MOD Level 50%
- DATA MOD USB

-----PRESET (3)----- 4/8

- SSB-D TX Bandwidth 500-2500
- DATA OFF MOD MIC,ACC
- COMP OFF
- SSB TBW NAR

-----PRESET (3)----- 5/8

- |                                     |                   |          |
|-------------------------------------|-------------------|----------|
| <input checked="" type="checkbox"/> | SSB TX Bandwidth  | 100-2900 |
| <input checked="" type="checkbox"/> | USB SEND          | OFF      |
| <input checked="" type="checkbox"/> | USB Keying (CW)   | OFF      |
| <input checked="" type="checkbox"/> | USB Keying (RTTY) | OFF      |

-----PRESET (3)----- 6/8

- |                                     |                                 |       |
|-------------------------------------|---------------------------------|-------|
| <input checked="" type="checkbox"/> | Inhibit Timer at USB Connection | ON    |
| <input checked="" type="checkbox"/> | CI-V Baud Rate                  | 19200 |
| <input checked="" type="checkbox"/> | CI-V Baud Address               | 94h   |
| <input checked="" type="checkbox"/> | CI-V Tranceive                  | OFF   |

-----PRESET (3)----- 7/8



USB Serial Function

CI-V



CI-V USB Port

Unlink from [REMOTE]



CI-V USB Baud Rate

115200 or Auto



CI-V USB Echo Back

ON

-----PRESET (3)----- 8/8

<<Write>>

Write?

YES

NO

**Run Preset**      Depress IC-7300 Menu Button    Select “2”; Select **FT8 PRESET**; Select **Preset 3**;    Load preset memory? **Select YES**



**Radio File: Save your radio configuration. Example: FDV20200307\_01**

**Radio Settings**      **Mode: Manually change Mode from USB-D to LSB-D for 160, 80 and 40 meters.**

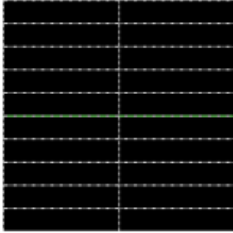
**RF Power: 100%** (Most recommend a power level of 30 watts, but I have found that ICOM engineers limit the power in the IC-7300 in DATA mode to between 30 & 40 watts to prevent damage to the finals.)

# FreeDV – Audio Configuration

Audio Config ×

- Input To Computer From Radio

| Device                          | ID | API | Default Sample Rate |
|---------------------------------|----|-----|---------------------|
| Microsoft Sound Mapper - Input  | 0  | MME | 44100               |
| Microphone (5- USB Audio CODEC) | 1  | MME | 44100               |
| Microphone (USB Audio Device)   | 2  | MME | 44100               |
| Digital Audio (S/PDIF) (High De | 3  | MME | 44100               |
| none                            |    |     |                     |

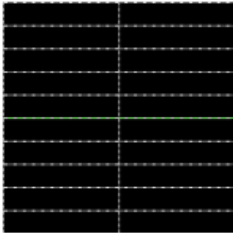


Rec 2s

Device: Microphone (5- USB Audio CODEC) (1)      Sample Rate: 44100

- Output From Computer To Speaker/Headphones

| Device                          | ID | API | Default Sample Rate |
|---------------------------------|----|-----|---------------------|
| Microsoft Sound Mapper - Output | 4  | MME | 44100               |
| Speakers (5- USB Audio CODEC )  | 5  | MME | 44100               |
| Speakers (USB Audio Device)     | 6  | MME | 44100               |
| VX2376 Series-1 (NVIDIA High De | 7  | MME | 44100               |
| MP59HT-0 (2- NVIDIA High Defini | 8  | MME | 44100               |
| Digital Audio (S/PDIF) (High De | 9  | MME | 44100               |
| none                            |    |     |                     |



Play 2s

Device: Speakers (USB Audio Device) (6)      Sample Rate: 44100

Receive   Transmit   API Info

Refresh      OK      Cancel      Apply

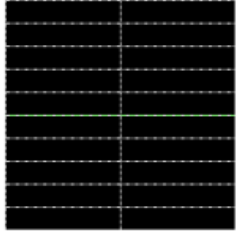


Audio Config X

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Input From Microphone To Computer

| Device                          | ID | API | Default Sample Rate |
|---------------------------------|----|-----|---------------------|
| Microsoft Sound Mapper - Input  | 0  | MME | 44100               |
| Microphone (5- USB Audio CODEC) | 1  | MME | 44100               |
| Microphone (USB Audio Device)   | 2  | MME | 44100               |
| Digital Audio (S/PDIF) (High De | 3  | MME | 44100               |
| none                            |    |     |                     |



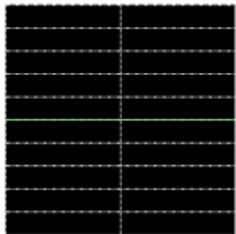
Rec 2s

Device: Microphone (USB Audio Device) (2)      Sample Rate: 44100

---

Output From Computer To Radio

| Device                          | ID | API | Default Sample Rate |
|---------------------------------|----|-----|---------------------|
| Microsoft Sound Mapper - Output | 4  | MME | 44100               |
| Speakers (5- USB Audio CODEC )  | 5  | MME | 44100               |
| Speakers (USB Audio Device)     | 6  | MME | 44100               |
| VX2376 Series-1 (NVIDIA High De | 7  | MME | 44100               |
| MP59HT-0 (2- NVIDIA High Defini | 8  | MME | 44100               |
| Digital Audio (S/PDIF) (High De | 9  | MME | 44100               |
| none                            |    |     |                     |



Play 2s

Device: Speakers (5- USB Audio CODEC ) (5)      Sample Rate: 44100

---

Receive **Transmit** API Info

Refresh      OK      Cancel      Apply

## FreeDV-Options

Transmits Text Msg over the air along with voice

Options

Reporting | Display | Voice Keyer | Modem | Simulation | UDP | Debugging

Txt Msg

WA2TOP Mike - Missouri City, Texas EL29fm WA2TOP

PSK Reporter

Enable Reporting Callsign: WA2TOP Grid Square: EL29fm

OK Cancel Apply

**OR**

- 1) Sends your info to PSK Reporter or FreeDV Reporter
- 2) Transmits Voice and Call Sign Only over the air as TEXT

Options

Reporting | Display | Voice Keyer | Modem | Simulation | UDP | Debugging

Txt Msg

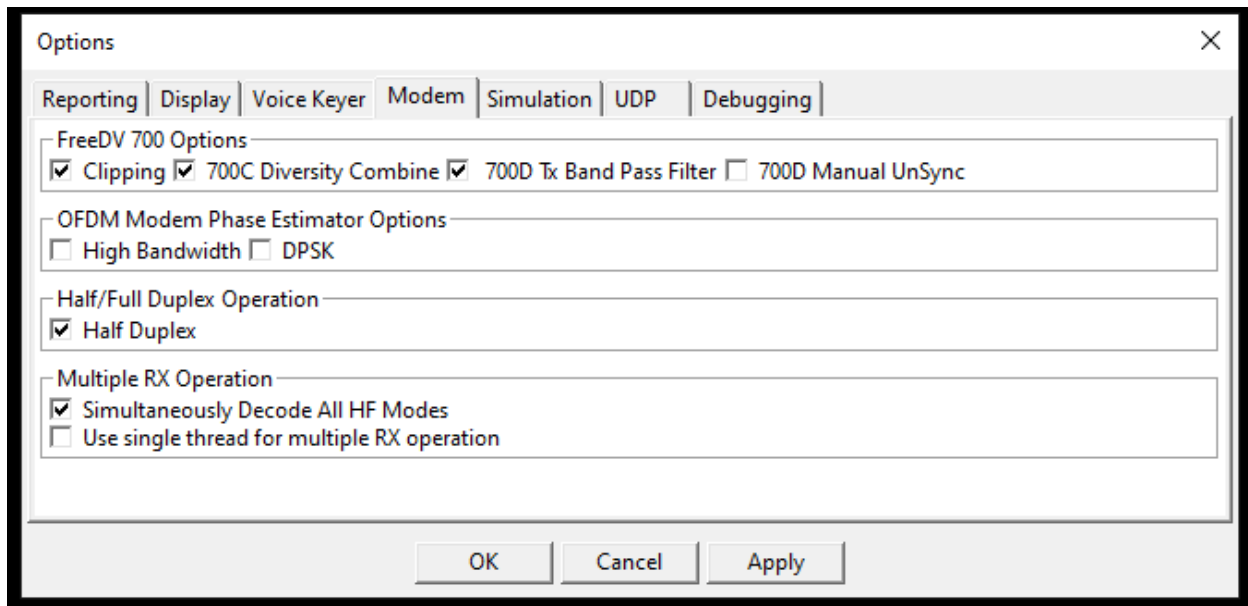
WA2TOP-Texas

PSK Reporter

Enable Reporting Callsign: WA2TOP Grid Square: EL29FM

OK Cancel Apply

## Check the following boxes



## Check the following boxes

PTT Config ✕

VOX PTT Settings

Left Channel Vox Tone

Hamlib Settings

Use Hamlib PTT

Rig Model: Icom IC-7300

Serial Device (or hostname:port): COM7

Radio Address: 94

Serial Rate: 115200

Serial Params:

Serial Port Settings

PTT Port

Use Serial Port PTT

Serial Device:

Use DTR  DTR = +V

Use RTS  RTS = +V

PTT In

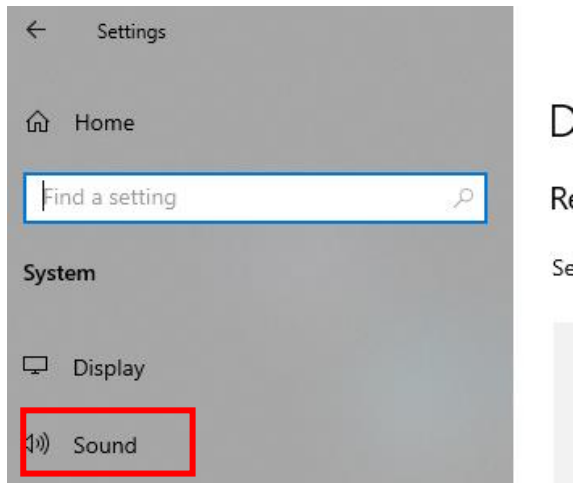
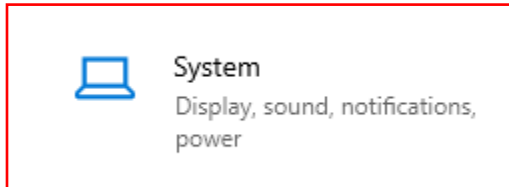
Enable PTT Input

Serial Device:

CTS = +V

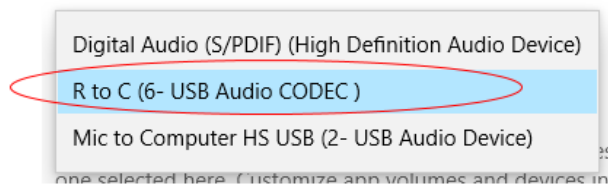
## Windows 10 configuration:

Start\Settings\System\Sound Use the drop downs to "Choose your Output and Input devices"

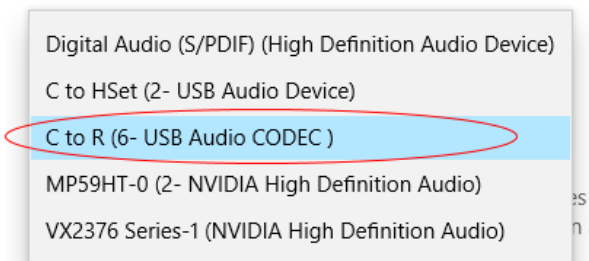


### PC Config

#### Input



#### Sound




## Sound Output Headphones (Speakers)

### Sound

#### Output

Choose your output device


Headset Earphone (Jabra EVOLVE LI... 

Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

[Device properties](#)

Master volume



 Troubleshoot

[Manage sound devices](#)


**Set level to 50%**

## Sound Output CODEC

### Sound

#### Output

Choose your output device


Speakers (3- USB Audio CODEC ) 

Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

[Device properties](#)

Master volume




 Troubleshoot

[Manage sound devices](#)

**Set level to 50%**

-SNR-



-5.0 dB  
 Slow

Sync

Modem  
Mode: 2020

ReSync

Audio

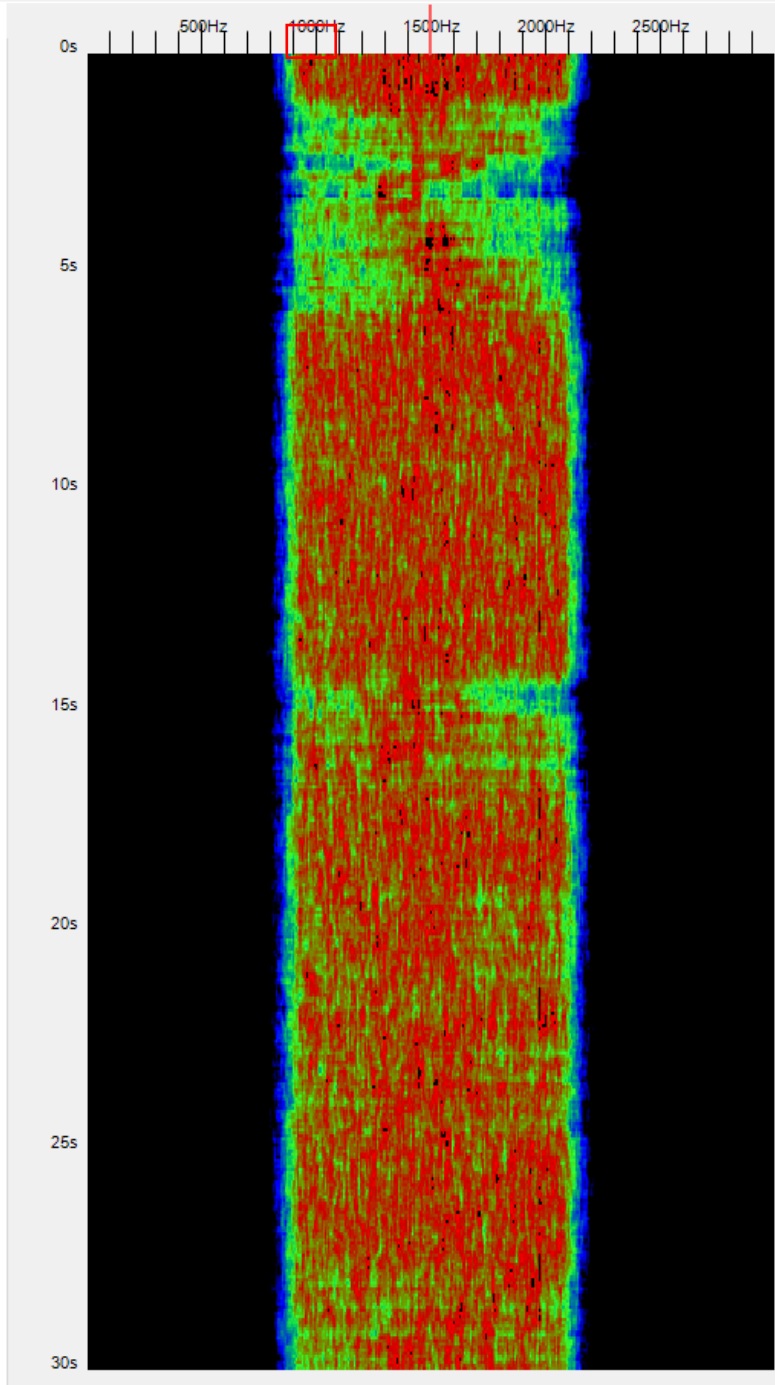

Record

Stats


Reset

Bits: 19830  
Errs: 9964  
BER: 0.502  
Resynchs: 15725  
ClkOff: +0  
FrqOff: 37.0  
Sync: 0.29  
Var: 0.0

Level




Squelch



-2.5 dB

TX Attenuation



-12.2 dB

Mode

700D  
 700E  
 1600

Others:

**Adjust TX Attenuation for 1 – 2 Bars of ALC on the IC 7300**

Control

Stop  
Analog  
Voice Keyer  
PTT

Report Frequency

14236.0 kHz

## Sound Microphone (3-USB Audio Device)

### Input

Choose your input device


Headset Microphone (Jabra EVOLVE... ▾)

Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

[Device properties](#)

Test your microphone



 Troubleshoot

[Manage sound devices](#)

## Device Properties for Microphone (3-USB Audio Device)

### 🏠 Device properties



Headset Microphone

Rename



Disable

### Volume



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Start test



## Sound Microphone (3-USB Audio CODEC)

### Input

Choose your input device

Microphone (3- USB Audio CODEC ) 

Certain apps may be set up to use different sound devices than the one selected here. Customize app volumes and devices in advanced sound options.

[Device properties](#)

Test your microphone



Troubleshoot

[Manage sound devices](#)

## Device Properties for Microphone (3-USB Audio CODEC)

### Device properties



Microphone

Rename



Disable

### Volume

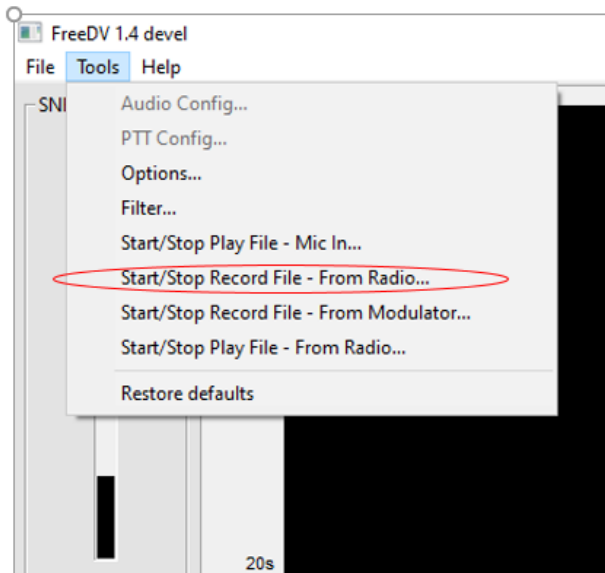


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Start test

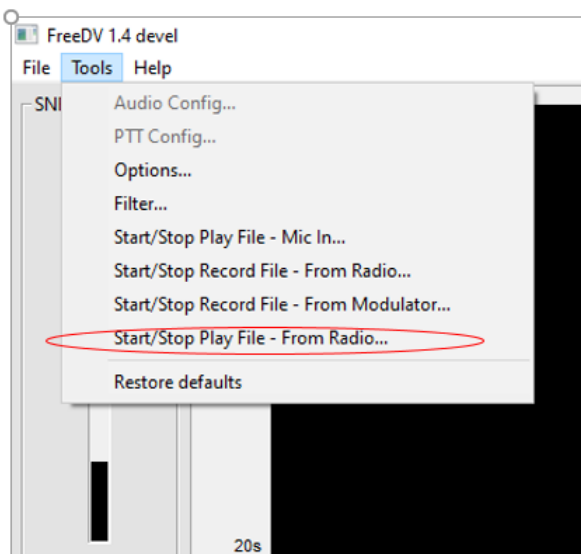
## Start/Stop/Record File – From Radio

Use this file to make a FreeDV or Analog recording for the station you are receiving.



## Start/Stop/Play File – From Radio

Use this option to play a previously recorded file. For example, a recording of one of your transmissions sent to you by another station via email. Format - \*.wav or \*.raw



## Start/Stop/Record File – From Radio

Use this file to make a FreeDV or Analog recording for the station you are receiving.

