# **IC 7300 Settings for Digital Modes**

This page describes how to adjust the settings on the IC-7300 to use digital modes like FT8, JS8, or Winlink. To make it convenient to switch between digital and voice, we use an SD Card to save the settings and load them up when needed.

Last update: 2020/03/03 07:18

So before doing anything, let's backup the current settings in case something goes wrong:

- Insert an SD Card in the radio.
- Go to MENU → SD Card
- The first time, Format the card. This will erase everything on the card.
- Press Save Setting → New File" → Pick a file name.

Later on, these settings can be applied using the Load Setting option.

### **Connector Settings**

Now that the settings are backed up, lets tweak a few things.

VA7FI has the following settings on his radio. The settings in light grey are there for reference only and can be different, but the settings in black should probably match.

| MENU → SET → Connectors:  ACC/USB Output Select  ACC/USB AF Output Level  ACC/USB AF SQL  ACC/USB AF Beep Speech Output OFF  ACC/USB IF Output level  ACC/USB IF Output level  ACC MOD Level  USB MOD Level  DATA OFF MOD  MIC/ACC  DATA MOD  USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate  CI-V Address  CI-V Transceive  CI-V USB→Remote Tx Address  CI-V USB→Remote Tx Address  CI-V USB Port  Link to [REMOTE]  MENU → SET → Connectors → USB SEND Keying:  USB SEND  USB Keying (CW)  USB Keying (RTTY)  OFF | MENUL CET Connectors                       |                  |  |
|---|--|------------------|--|
| ACC/USB AF Output Level  ACC/USB AF SQL  ACC/USB AF Beep Speech Output OFF  ACC/USB IF Output level  ACC MOD Level  USB MOD Level  DATA OFF MOD  DATA MOD  MIC/ACC  DATA MOD  MENU → SET → Connectors → CI - V:  CI-V Baud Rate  CI-V Address  CI-V Transceive  CI-V USB→Remote Tx Address  CI-V USB→Remote Tx Address  CI-V USB Port  MENU → SET → Connectors:  USB Serial Function  CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND  USB Keying (CW)  OFF  |  | 1                |  |
| ACC/USB AF SQL  ACC/USB AF Beep Speech Output OFF  ACC/USB IF Output level 50%  ACC MOD Level 50%  USB MOD Level 50%  DATA OFF MOD MIC/ACC  DATA MOD USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate Auto  CI-V Address note it  CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW)  |  | AF               |  |
| ACC/USB AF Beep Speech Output  ACC/USB IF Output level  ACC MOD Level  DATA OFF MOD  DATA OFF MOD  DATA MOD  MIC/ACC  DATA MOD  USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate  CI-V Address  CI-V Transceive  CI-V USB→Remote Tx Address  CI-V USB→Remote Tx Address  CI-V USB Port  Link to [REMOTE]  MENU → SET → Connectors → USB SEND Keying:  USB SEND  USB Keying (CW)  OFF  | ACC/USB AF Output Level                    | 42%              |  |
| ACC/USB IF Output level 50%  ACC MOD Level 50%  USB MOD Level 50%  DATA OFF MOD MIC/ACC  DATA MOD USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate Auto  CI-V Address note it  CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF   | ACC/USB AF SQL                             | OFF (Open)       |  |
| ACC MOD Level 50%  USB MOD Level 50%  DATA OFF MOD MIC/ACC  DATA MOD USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate Auto  CI-V Address note it  CI-V Transceive ON  CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF  | ACC/USB AF Beep Speech Output              | OFF              |  |
| USB MOD Level 50%  DATA OFF MOD MIC/ACC  DATA MOD USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate Auto  CI-V Address note it  CI-V Transceive ON  CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF   | ACC/USB IF Output level                    | 50%              |  |
| DATA OFF MOD  DATA MOD  USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate  CI-V Address  CI-V Transceive  ON  CI-V USB→Remote Tx Address  CI-V USB→Remote Tx Address  CI-V USB Port  Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function  CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND  RTS  USB Keying (CW)   | ACC MOD Level                              | 50%              |  |
| DATA MOD USB  MENU → SET → Connectors → CI - V:  CI-V Baud Rate Auto  CI-V Address note it  CI-V Transceive ON  CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF  | USB MOD Level                              | 50%              |  |
| MENU→ SET → Connectors → CI - V:CI-V Baud RateAutoCI-V Addressnote itCI-V TransceiveONCI-V USB→Remote Tx AddressN/ACI-V Output (for ANT)OFFCI-V USB PortLink to [REMOTE]MENU→ SET → Connectors:USB Serial FunctionCI-VMENU→ SET → Connectors → USB SEND Keying:USB SENDRTSUSB Keying (CW)OFF  | DATA OFF MOD                               | MIC/ACC          |  |
| CI-V Baud Rate  CI-V Address  CI-V Transceive  ON  CI-V USB→Remote Tx Address  CI-V Output (for ANT)  CI-V USB Port  MENU → SET → Connectors:  USB Serial Function  MENU → SET → Connectors → USB SEND Keying:  USB SEND  USB Keying (CW)  Auto  ON  CI-V  IIII  CI-V USB Port  CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND  OFF   | DATA MOD                                   | USB              |  |
| CI-V Address note it  CI-V Transceive ON  CI-V USB $\rightarrow$ Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU $\rightarrow$ SET $\rightarrow$ Connectors:  USB Serial Function CI-V  MENU $\rightarrow$ SET $\rightarrow$ Connectors $\rightarrow$ USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF  | MENU → SET → Connectors → CI-V:            |                  |  |
| CI-V Transceive  CI-V USB→Remote Tx Address  CI-V Output (for ANT)  CI-V USB Port  Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function  CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND  RTS  USB Keying (CW)  OFF   | CI-V Baud Rate                             | Auto             |  |
| CI-V USB→Remote Tx Address N/A  CI-V Output (for ANT) OFF  CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF  | CI-V Address                               | note it          |  |
| CI-V Output (for ANT)  CI-V USB Port  MENU → SET → Connectors:  USB Serial Function  MENU → SET → Connectors → USB SEND Keying:  USB SEND  RTS  USB Keying (CW)  OFF  | CI-V Transceive                            | ON               |  |
| CI-V USB Port Link to [REMOTE]  MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF   | CI-V USB→Remote Tx Address                 | N/A              |  |
| MENU → SET → Connectors:  USB Serial Function CI-V  MENU → SET → Connectors → USB SEND Keying:  USB SEND RTS  USB Keying (CW) OFF   | CI-V Output (for ANT)                      | OFF              |  |
| USB Serial Function       CI-V         MENU → SET → Connectors → USB SEND Keying:         USB SEND       RTS         USB Keying (CW)       OFF  | CI-V USB Port                              | Link to [REMOTE] |  |
| MENU → SET → Connectors → USB SEND Keying: USB SEND RTS USB Keying (CW) OFF   | MENU → SET → Connectors:                   |                  |  |
| USB SEND RTS USB Keying (CW) OFF  | USB Serial Function                        | CI-V             |  |
| USB Keying (CW) OFF   | MENU → SET → Connectors → USB SEND Keying: |                  |  |
|   | USB SEND                                   | RTS              |  |
| USB Keying (RTTY) OFF   | USB Keying (CW)                            | OFF              |  |
|   | USB Keying (RTTY)                          | OFF              |  |

#### **Filter Settings**

Next, we adjust the filter width:

• Press the FIL1 (or FIL2 or FIL3) button at the top of the screen (above the frequency) and select FIL1.

Last update: 2020/03/03 07:18

- Press and hold FIL1 (yes, the same button as before).
- Press the BW button and turn the VFO knob until it says "3.6k"
- Then turn the inner and outer TWIN PBT knobs (top left) to adjust the boundaries to 600 and 2600 (even though the picture shows 650 and 3400).<sup>1)</sup>
- Optionally, press FIL1 again to also customize FIL2 and FIL3 in the same fashion.
- When done, press the MENU button and select the screen you usually like to see (SCOPE, METER, etc)



### **Digital and Voice settings**

Let's now set settings that will be specific to the voice and digital modes.

Start by adjusting all the settings in the Voice column:

| Mode                            | Voice        | Digital        |  |
|---------------------------------|--------------|----------------|--|
| Defaut Frequency                | 3.739.00 LSB | 7.078.00 USB-D |  |
| MUTI (select and turn the knob) |              |                |  |
| RF POWER                        | 100%         | 30%            |  |
| MIC GAIN                        | 40%          | 40%            |  |
| COMP                            | ON 4         | N/A            |  |
| MONITOR                         | OFF 100%     | ON 100%        |  |
| FUNCTION                        |              |                |  |
| P.AMP ATT                       | OFF          | OFF            |  |
| AGC                             | SLOW         | MED            |  |
| NOTCH                           | OFF          | OFF            |  |
| NB                              | ON           | OFF            |  |
| NR                              | OFF          | OFF            |  |
| IP+                             | OFF          | OFF            |  |
| VOX                             | OFF          | OFF            |  |
| COMP                            | ON           | N/A            |  |
| 1/4                             | WIDE         | OFF            |  |
| MONI                            | OFF          | ON             |  |

Now save the settings to the SD Card and call the file 1Voice

Before we set the digital settings, move on to the next section and come back here after.

#### **ACG Adjustments**

For digital modes, we don't want any ACG:

- Pick a clear frequency.
- Press FUNCTION button.
- Press and hold the AGC button.
- Select the FAST button and turn the VFO knob until it reads OFF.
- Optionally, set the MID to 0.3s and the SLOW to 2.0s.
- Press <MENU> and select SCOPE, or METER, or ...

Now that the ACG is set, go back to the previous section and apply the settings in the Digital column. When complete, save to the SD card under the name 2Digital.

Last update: 2020/03/03 07:18

## **Loading Settings**

To load the settings:  $\overline{\text{MENU}} \rightarrow \text{SET} \rightarrow \text{SD}$  Card  $\rightarrow \text{Load}$  Setting  $\rightarrow \text{1Voice}$  or  $\text{2Digital} \rightarrow \text{ALL} \rightarrow \text{YES}$  and restart.

# References

- YO3HJV Setting up IC-7300 and Winlink Winmor TNC
- JS8Call Getting Started

1)

The filter boundaries can be tweaked anytime on the fly to filter out unwanted signals at the edge of the band. This is useful if say you've got strong RTTY signals activating your AGC, thus reducing the strength of the signals you're interested in.