

# **Linux Mint OS WSJT-X Icom 7300 Setup**

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# Why Linux Mint OS?

**Why Would you want to run Linux Mint?**

**You might not want to upgrade to Windows 11. Perhaps you have an old windows 7 class machine and want to avoid poor performance issues. Perhaps your computer is not windows 11 comparable**

**Perhaps you are building a computer and don't want to pay the "Windows Tax" (\$150 per copy).**

**Perhaps you want the stability of a Linux operating system.**

# Linux Mint Operating System

## What is Linux Mint?

Linux Mint is an operating system for desktop and laptop computers. It is designed to work 'out of the box' and comes fully equipped with the apps most people need.

<https://linuxmint.com/>



This operating system is free to use however, donations are accepted.

# Installation instructions

Linux Mint provides easy to follow instructions to set up the operations System. I recommend the Cinnamon Desktop,

Linux Mint Installation Guide  
latest

Search docs

**DOWNLOAD**

- Choose the right edition
- Verify your ISO image

**LIVE BOOT**

- Create the bootable media
- Boot Linux Mint

**INSTALLATION**

- Install Linux Mint

**POST-INSTALLATION**

- Hardware drivers
- Multimedia codecs
- Language support
- System snapshots

**TROUBLESHOOTING**

- EFI
- Boot options

**FREQUENTLY ASKED QUESTIONS**

- Multi-boot
- Partitioning
- Pre-installing Linux Mint (OEM Installation)
- Where to find help


Read the Docs v: latest

Docs » Linux Mint Installation Guide Edit on GitLab

## Linux Mint Installation Guide

Linux Mint comes in the form of an ISO image (an .iso file) which can be used to make a bootable DVD or a bootable USB stick.

This guide will help you download the right ISO image, create your bootable media and install Linux Mint on your computer.



### Download

- Choose the right edition
- Verify your ISO image

### Live Boot

- Create the bootable media
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### Installation

- Install Linux Mint

### Post-installation

- Hardware drivers
- Multimedia codecs
- Language support
- System snapshots

### Troubleshooting

- EFI
- Boot options

### Frequently Asked Questions

- Multi-boot
- Partitioning
- Pre-installing Linux Mint (OEM Installation)
- Where to find help

Next

<https://linuxmint-installation-guide.readthedocs.io/en/latest/>

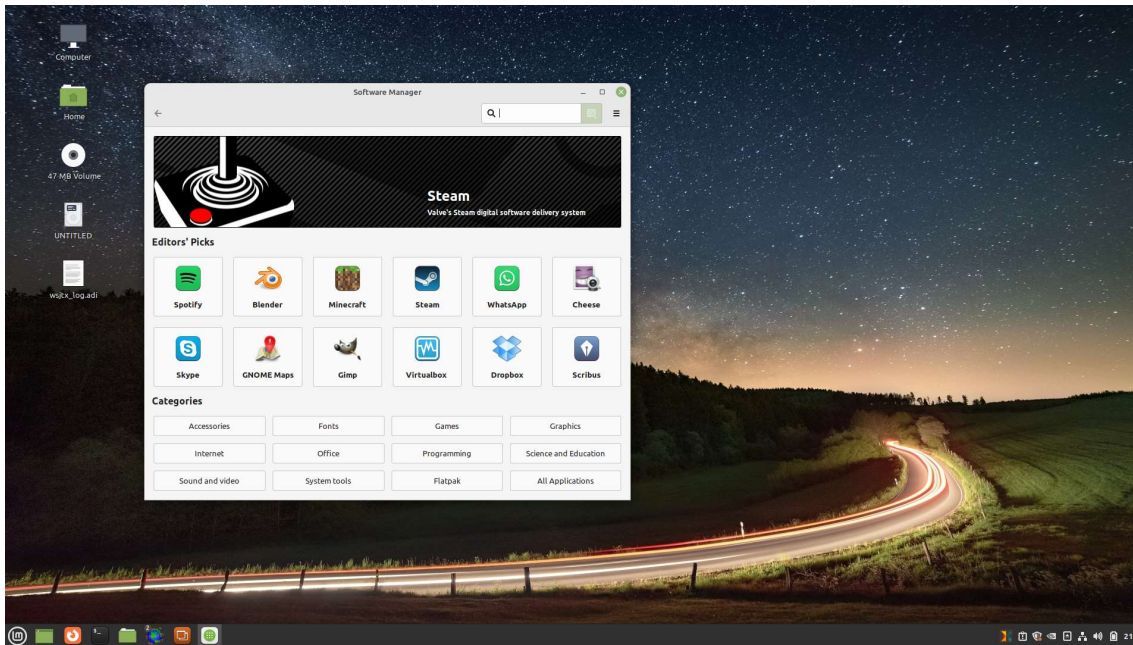
# Linux Mint Cinnamon Desktop

Linux Mint Cinnamon Desktop is Window like and very intuitive to navigate.

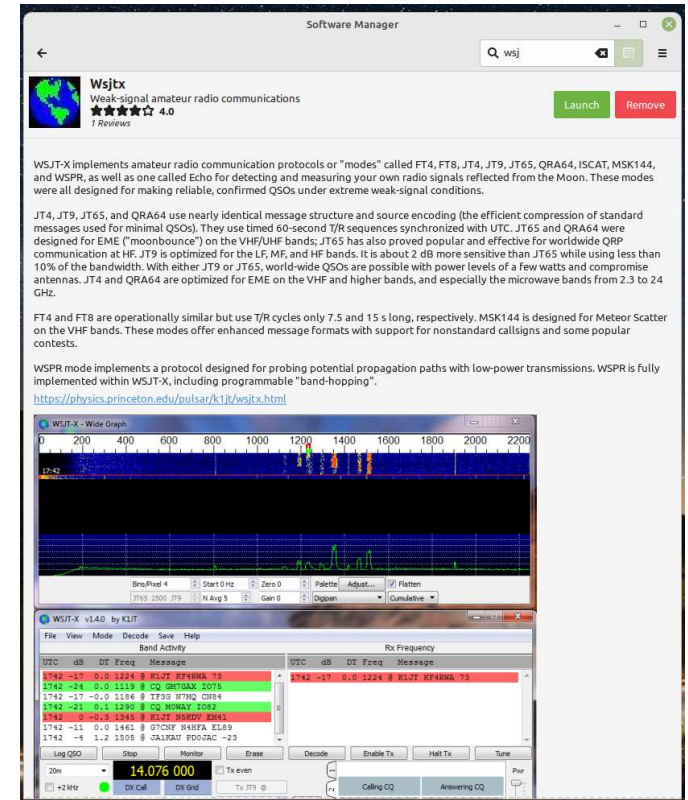




# Install WSJT-X From Software Manager



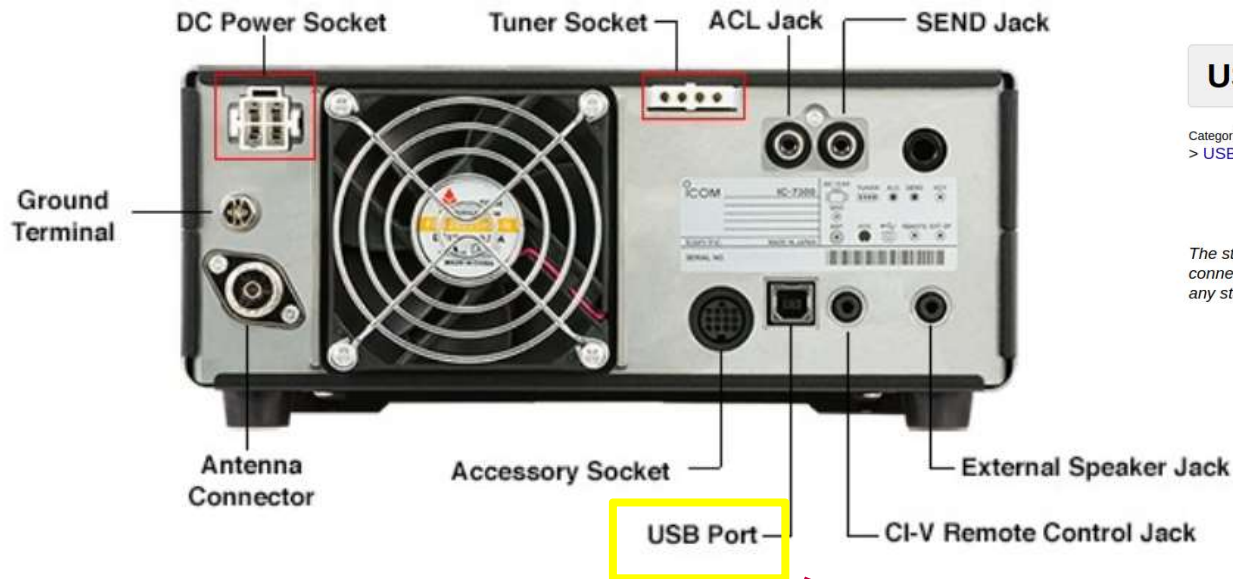
Open Software Manager. It's like google play store.



Search for WSJT-X and install

# Icom IC-7300 To Computer

IC-7300 rear panel :



ICOM IC-7300 rear panel view

## USB 2.0 A-to-B Device Cable

Categories:  
> USB 2.0 Cables

The staple of any USB connection, the DataPro USB A to B cable connects any standard host device (computer, hub, or controller) to any standard peripheral (printer, scanner, external drive).

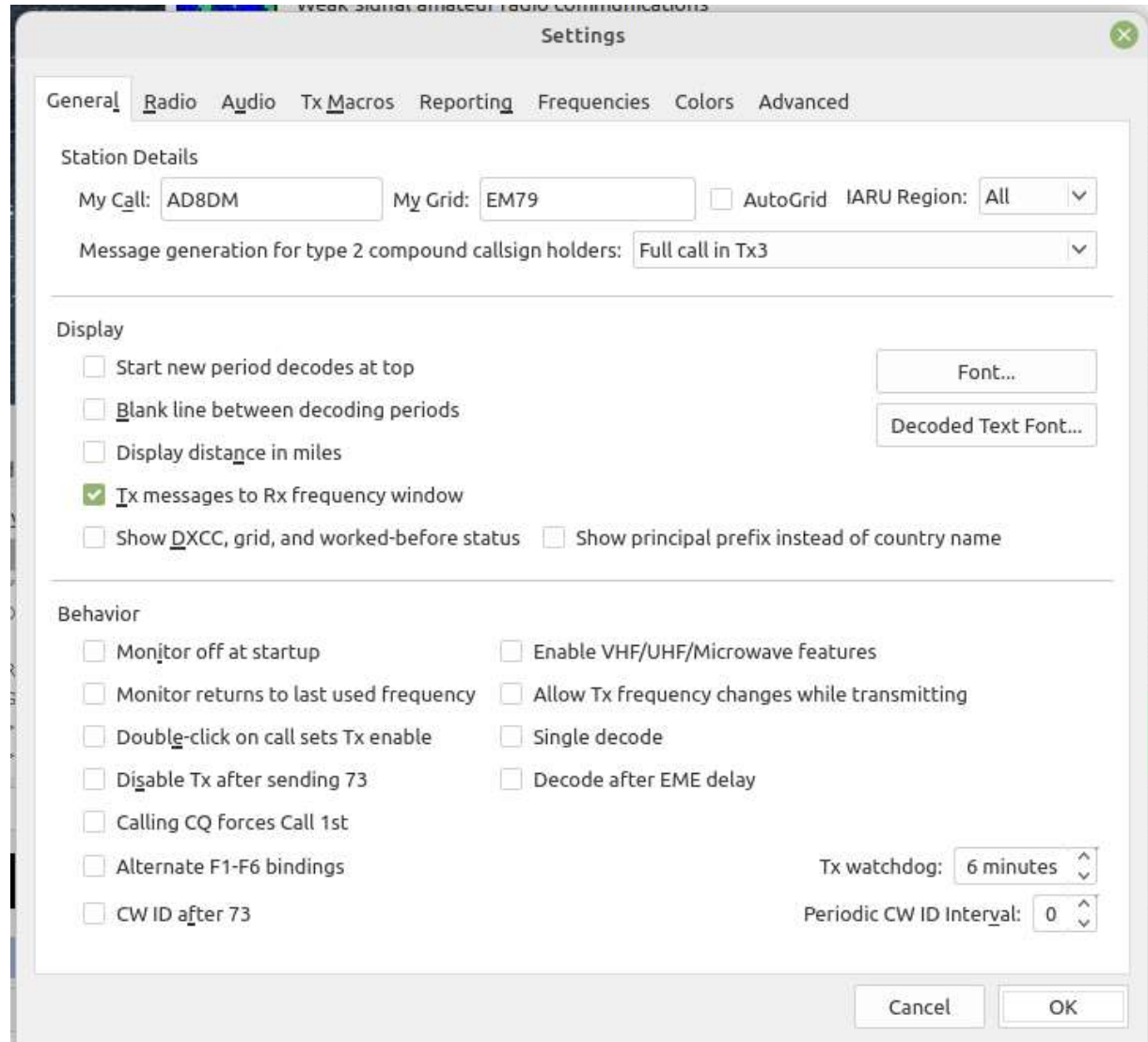


**Connect Radio to Computer with a USB A to B Cable**

<https://www.datapro.net/products/usb-2-0-a-to-b-device-cable.html>

# Settings General Tab

Start WSJT-X software...  
Open Settings.





# Settings Radio Tab

Settings

General **Radio** Audio Tx Macros Reporting Frequencies Colors Advanced

Rig: Icom IC-7300 Poll Interval: 1 s

**CAT Control**  
Serial Port: /dev/ttyUSB0

**Serial Port Parameters**  
Baud Rate: 19200

**Data Bits**  
 Default  Seven  Eight

**Stop Bits**  
 Default  One  Two

**Handshake**  
 Default  None  
 XON/XOFF  Hardware

**Force Control Lines**  
DTR:  RTS:

**PTT Method**  
 VOX  DTR  
 CAT  RTS  
Port: /dev/ttyUSB0

**Transmit Audio Source**  
 Rear/Data  Front/Mic

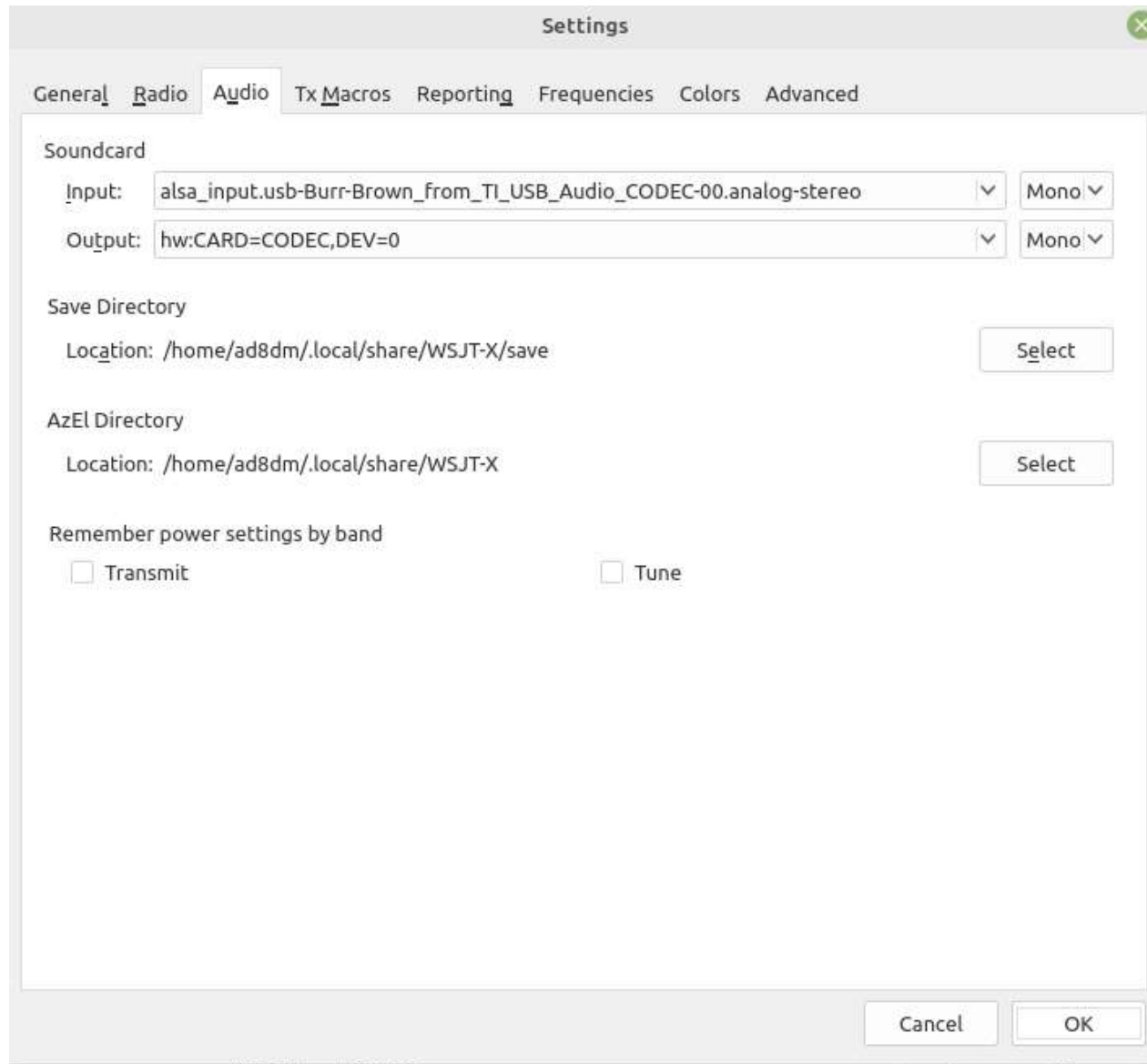
**Mode**  
 None  USB  Data/Pkt

**Split Operation**  
 None  Rig  Fake It

Test CAT Test PTT

Cancel OK

# Settings Audio Tab



The screenshot shows a window titled "Settings" with a close button in the top right corner. The "Audio" tab is selected, and the window contains the following settings:

- Soundcard**
  - Input:** `alsa_input.usb-Burr-Brown_from_TI_USB_Audio_CODEC-00.analog-stereo` (dropdown menu) **Mono** (dropdown menu)
  - Output:** `hw:CARD=CODEC,DEV=0` (dropdown menu) **Mono** (dropdown menu)
- Save Directory**
  - Location:** `/home/ad8dm/.local/share/WSJT-X/save` **Select** button
- AzEl Directory**
  - Location:** `/home/ad8dm/.local/share/WSJT-X` **Select** button
- Remember power settings by band**
  - Transmit**
  - Tune**

At the bottom right of the window are **Cancel** and **OK** buttons.

# Settings Reporting Tab

Settings

General Radio Audio Tx Macros **Reporting** Frequencies Colors Advanced

Logging

Prompt me to log QSO Op Call:

Log automatically (contesting only)

Convert mode to RTTY

dB reports to comments

Clear DX call and grid after logging

Network Services

Enable PSK Reporter Spotting

UDP Server

UDP Server:   Accept UDP requests

UDP Server port number:   Notify on accepted UDP request

Accepted UDP request restores window

Secondary UDP Server (deprecated)

Enable logged contact ADIF broadcast

Server name or IP address:

Server port number:

Cancel OK

# The Leap of Faith - Permission to Dialout

Open the terminal and run these scripts.



```
ad8dm@ad8dm-Z87X-UD3H: ~
File Edit View Search Terminal Help
ad8dm@ad8dm-Z87X-UD3H:~$
```

Type this command  
Note: \$USER is your user name

`sudo usermod -a -G dialout $USER`

```
ad8dm@ad8dm-Z87X-UD3H: ~
File Edit View Search Terminal Help
ad8dm@ad8dm-Z87X-UD3H:~$ ls /dev/ttyUSB*
/dev/ttyUSB0 /dev/ttyUSB1 /dev/ttyUSB2
ad8dm@ad8dm-Z87X-UD3H:~$
```

Check that You have dialout as group for ttyUSB0

`ls /dev/ttyUSB*`

Note: This is the tricky bit that is not well documented on the internet.  
Once this is done all your other digital software will operate.

**Don't Forget to Reboot!**

# Icom IC-7300 Radio Settings

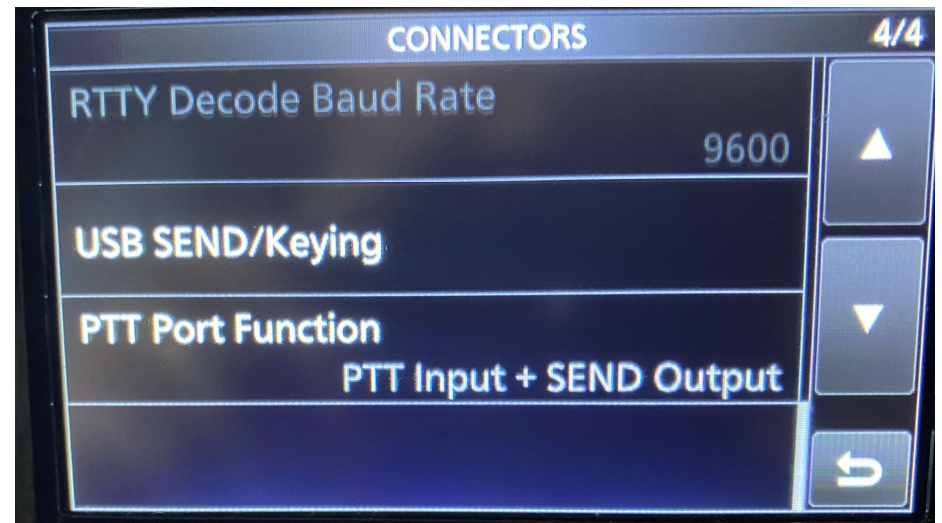
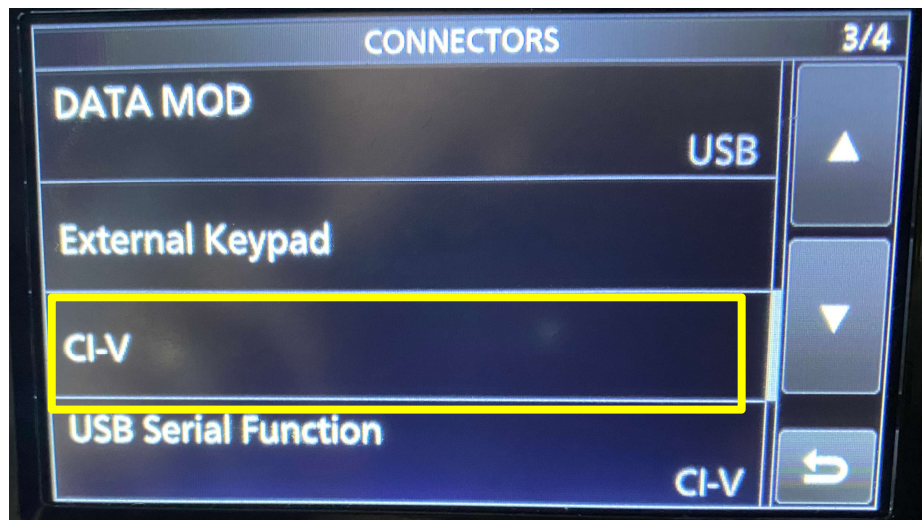
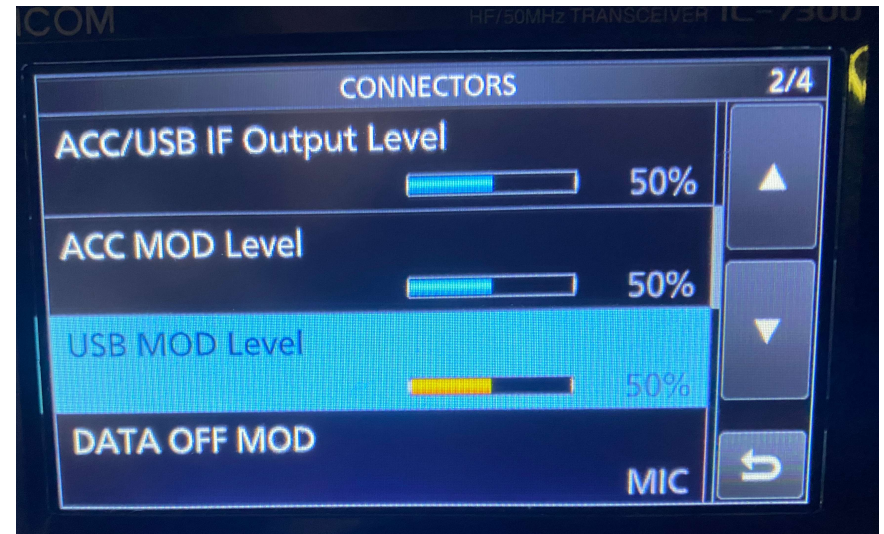


From the Menu button select the “Set” button





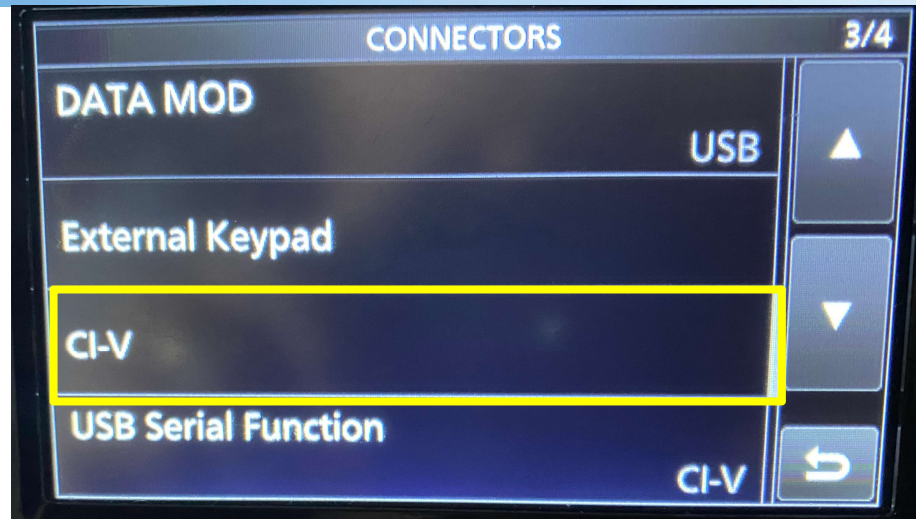
# IC-7300 Connector Settings



Use these settings



# Connectors CL-V Settings



**Use these settings**

# WSJT-X In Operation

The screenshot displays the WSJT-X v2.1.2 interface. At the top is a wideband waterfall plot titled "WSJT-X - Wide Graph" with a frequency axis from 200 to 2200 kHz. Below the plot are various control sliders and buttons. The main interface is divided into several sections:

- Band Activity:** A table showing received signals with columns for UTC, dB, DT, Freq, and Message. The selected signal is CQ YO6BHN KN25 at 1957 kHz.
- Rx Frequency:** A table showing received signals with columns for UTC, dB, DT, Freq, and Message. The selected signal is CQ XE2J DL96 at 1620 kHz.
- Control Panels:** Includes buttons for "Log QSO", "Monitor", "Erase", "Decode", "Enable Tx", "Halt Tx", and "Tune". It also features a frequency display showing 7.074 000 MHz and a "Generate Std Msgs" panel with a list of messages like "N7MLR AD8DM EM79".
- Status Bar:** Shows "Receiving", "FT8", "Last Tx: CQ AD8DM EM79", "3/15", and "WD:6m".

Enjoy your Digital QSOs

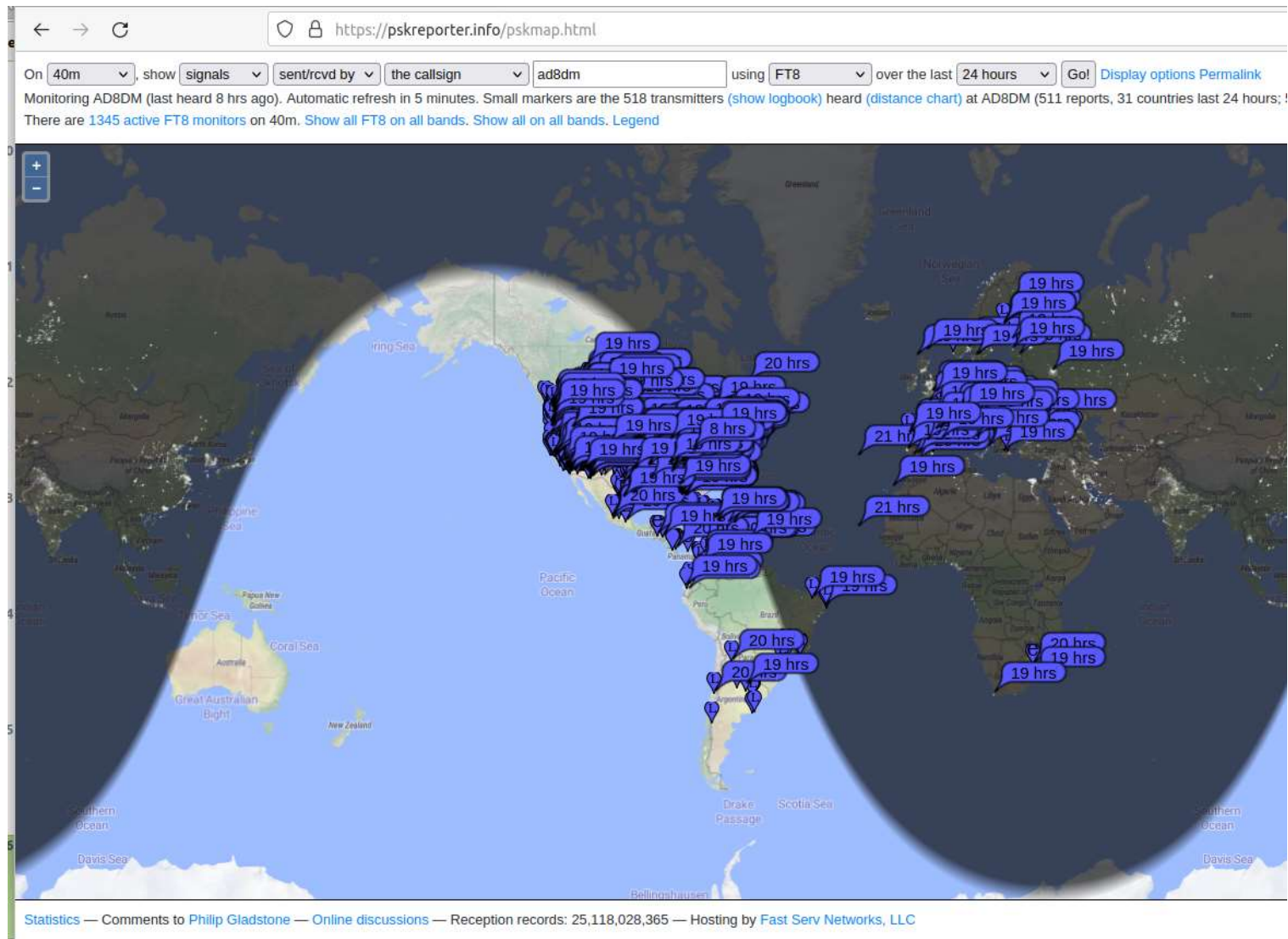


# WSJT-X Successful Test Run

Enter Call... <span style="color: green;">Add QSO</span> QSOs: <span style="color: blue;">2531</span> Confirmed: <span style="color: blue;">1544</span> Countries: <span style="color: blue;">98</span>												
<span>&lt;</span> <span>&lt;</span> 1 <span>&gt;</span> <span>&gt;</span> of 51 <span style="margin-left: 20px;">Search...</span> <span style="margin-left: 20px;">Filter: All QSOs</span>												
#	Date	Time	RX Call	TX Band	TX Freq	RX Mode	RX Grid	RX Country	RX Operator Name	Comments	☆	☐
1	2022-01-20	01:55	N7MLR	40m	7.076	FT8	EL09	United States	EDWIN H MALING	FT8 Sent: -17 Rcvd: ...	★	☐
2	2022-01-20	01:53	KB1DET	40m	7.076	FT8	EL87qt	United States	RUSSELL R SAVELA	FT8 Sent: -07 Rcvd: ...	☆	☐
3	2022-01-20	01:50	W1DOH	40m	7.076	FT8	EL89sc	United States	Charles A Lukas, Jr	FT8 Sent: -06 Rcvd: ...	☆	☐
4	2022-01-20	01:39	N6RNJ	40m	7.076	FT8	DM04qe	United States	ROBERT E CROMAR	FT8 Sent: -13 Rcvd: ...	★	☐
5	2022-01-20	01:35	KG4ASZ	40m	7.076	FT8	EL98	United States	ROBERT S KERSHAW	FT8 Sent: +12 Rcvd: ...	★	☐
6	2022-01-20	01:31	KN4SWS	40m	7.076	FT8	EL96ee	United States	John R Martin	FT8 Sent: -18 Rcvd: ...	★	☐
7	2022-01-20	01:30	K7DOD	40m	7.076	FT8	DN40bo	United States	FRED DOEHRING	FT8 Sent: -07 Rcvd: ...	★	☐
8	2022-01-20	01:27	KI5QMY	40m	7.076	FT8	EM20	United States	John R Green	FT8 Sent: +03 Rcvd: ...	★	☐
9	2022-01-20	01:23	KB1SEQ	40m	7.076	FT8	FN42	United States	James T Orsborn	FT8 Sent: -11 Rcvd: ...	☆	☐
10	2022-01-20	01:18	KB1SEQ	40m	7.076	FT8	FN42	United States	James T Orsborn	FT8 Sent: -04 Rcvd: ...	☆	☐
11	2022-01-20	01:14	XE2J	40m	7.076	FT8	DL96	Mexico	HIRAM OVIDIO GUERRA CAZARES	FT8 Sent: -13 Rcvd: ...	★	☐
12	2022-01-20	01:12	XE2J	40m	7.076	FT8	DL96	Mexico	HIRAM OVIDIO GUERRA CAZARES	FT8 Sent: -10 Rcvd: ...	★	☐
13	2022-01-20	00:58	KP4MAQ	40m	7.075	FT8	FK78	Puerto Rico	SAMUEL AQUINO	FT8 Sent: -01 Rcvd: ...	☆	☐
14	2022-01-20	00:55	W4JOV	40m	7.076	FT8	EM60	United States	Raymond D Sturch	FT8 Sent: +04 Rcvd: ...	☆	☐
15	2022-01-20	00:52	K5RMD	40m	7.076	FT8	EM50	United States	ROY M DAVIS, JR	FT8 Sent: -10 Rcvd: ...	☆	☐
16	2022-01-20	00:46	W7SE	40m	7.076	FT8	DM33	United States	Christopher S WHITE	FT8 Sent: -18 Rcvd: ...	★	☐
17	2022-01-20	00:45	N0VB	40m	7.075	FT8	EL98	United States	GLENN T VAN BENSCHOTEN	FT8 Sent: -09 Rcvd: ...	☆	☐
18	2022-01-20	00:41	KC1HXR	40m	7.075	FT8	FN42	United States	Merrill B Clark	FT8 Sent: +06 Rcvd: ...	★	☐
19	2022-01-20	00:38	AK1VT	40m	7.075	FT8	FN33	United States	DAVID M BENOIT	FT8 Sent: +13 Rcvd: ...	☆	☐

Enjoy your Digital QSOs

# Psk Reporter



<https://pskreporter.info/pskmap.html>