

DIGITAL SETUPS FOR POPULAR RADIOS

For use with Winlink, JS8Call, FLDigi and VarAC

YAESU 991A

Windows:

- Download the USB virtual port driver available from Yaesu.com at:
<https://www.yaesu.com/product-detail.aspx?Model=FT991A&CatName=HF%20Transceivers/Amplifiers>
- Install the USB port driver.
- Connect Yaesu 991A to computer and then power radio on. Make sure the virtual com port parity and baud rates found in device manager match the radio and the installed software settings.
- The USB codecs should now appear in Sound settings. Ensure that the computer's internal sound card is selected or remains as the default device in Sound settings in Windows.

Radio Menu Settings:

- 31 CAT Rate = 9600 or 19200 (this should match the comm port and TNC software settings)
- 32 CAT TOT = 100 • 33 CAT RTS = DISABLE
- 60 PC KEYING = RTS
- 62 DATA MODE = OTHERS
- 64 OTHER DISP (SSB) = 1500
- 65 OTHER SHIFT (SSB) = 1500
- 66 DATA LCUT FREQ = OFF
- 68 DATA HCUT FREQ = OFF
- 70 DATA IN SELECT = REAR
- 71 DATA PTT SELECT = DAKY
- 72 DATA PORT SELECT = USB
- 74 FM MIKE SELECT = REAR (VaraFM ONLY)
- 76 FM PKT PTT SELECT = DAKY • 77 FM PKT PORT SELECT = USB

106 SSB MIKE SELECT = REAR • 109 SSB PORT SELECT = USB

Radio Panel Settings:

- SET MODE = USB
- SET SPLIT = NO SPLIT (Button on front panel)
- SET V/M = VFO A = Red and Green LEDs lighted (Button on front panel)
- ADJUST RF GAIN as necessary

F-List

- SET MONITOR = 25 (Adjust monitor volume while transmitting to suit) • METER ALC
- DT GAIN = 11 to 50 (Increase setting if power out is insufficient)
- WIDTH = 3200
- NAR/WIDE = WIDE 3K
- NB = OFF
- AGC = AUTO
- ATT = OFF
- IPO = AMP 1
- VOX = OFF
- NOTCH, CONT, DNR, DNE MOX = ALL SET TO OFF

Radio Mode Settings:

- USB-DATA

Software Settings (without FLRig):

- Radio Model = Set to Yaesu 991a or 991
- Mode = USB-DIGITAL
- Radio Control Port = Set to Appropriate Enhanced Port, Baud Rate and with RTS and DTR checked in Winlink only.
- PTT Port (optional) = Set to Yaesu 991a with nothing checked.

VaraHF Sound Card Settings:

- Input/Output = USB Codec device for the radio.
- Channels L+R selected.

XIEGU G90 utilizing DigiRig Hardware and FLRig Software for JS8Call

A DigiRig is a physical device which combines a sound card with a serial port to do analog/digital conversion if the radio is not equipped with its own internal sound card. FLRig acts as the intermediary software to send computer commands to the radio via the serial port.

Windows:

Windows Computer Settings:

- DigiRig uses a native Windows driver for the soundcard but a driver is needed for the serial port and can be found here: <https://www.silabs.com/software-and-tools/usb-touart-bridge-vcp-drivers?tab=downloads> Install the Windows port driver.
- Connect DigiRig device to radio and computer and then power radio on.
- The USB codecs should now appear in Sound settings. Ensure that the computer's internal sound card is selected or remains as the default device in Sound settings in Windows.
- Levels = 50 for Speakers and "O" for Microphone in Device Properties with all enhancements selected off.
- Levels = 50 in Recording Properties and AGC should be unchecked.

Radio Menu Settings:

- Function>PWR>Mic Input set to "Line"
- Function>AGC>RF Level set to 60 - 75%
- AGC - (OFF)
- #5 Set to "10"
- #6 Set to "15"
- Mode = "U-D"
- Antenna Tuner = Use as appropriate and the G90 seems sensitive to proper tuning for max receive volume.

FLRig

On the Xiegu G90, FLRig should be started and set up as follows:

FLRig Settings:

- Rig = Xiegu G90

- Comm Port = Enhanced Comm Port # as indicated in Windows Device Manager.
- Baud Rate and Stop Bit = Comm Port baud and bit settings matching those in Windows Device Manager for the enhanced comm port. Baud of 19,200 is default for G90.
- DTR + 12v = Checked
- All other default settings are valid.

Software Settings:

- CAT Control = FLRig FLRig
- Rig Options = CAT
- Mode = Data/Pkt
- Split Operation = Fake It

Audio:

- Input/Output = USB Codec device for the radio.
- Channel = "L"

Winlink doesn't support the Xiegu G90 or FLRig natively and uses the Icom 7200 rig setup instead. Configure it as below.

Winlink Software Settings for Xiegu G90:

- Rig = Icom 7200
- Icom Address = "94"
- Mode = USB-Digital
- Radio Control Port = Enhanced Comm Port # and Baud in Device Manager, Baud = 19,200
- PTT Port (optional) = Icom 7200

VaraHF Sound Card Settings:

- Input/Output = USB Codec device for the radio.
- Channel = "L"
- Tune = Adjust and monitor ALC on device for full power indication.

ICOM 7300

Windows:

- Download the USB virtual port driver:
https://www.icomamerica.com/support/firmware_driver/1974/ •
- Install the USB virtual port driver.
- Connect Yaesu 991A to computer and then power radio on.
- Make sure the virtual com port parity and baud rates found in Device Manager match the radio and the installed software settings.
- The USB codecs should now appear in Sound settings. Ensure that the computer's internal sound card is selected or remains as the default device in Sound settings in Windows.

Radio Menu Settings:

- Menu>Connections>CI-V: Baud Rate = Auto, Address = 94h, Transceiver = On
- Menu>Connections>CI-V: USB CI-V Port = Link To [Remote]
- Menu>Connections>USB Serial Function = CI-V

Radio Function Settings:

- Notch, NR and NB = Off

Radio Mode Settings:

- USB = DATA

Software Settings if not using FLRig:

- Rig = Icom 7300
- Icom Address = "94"
- USB-Data
- Radio Control Port = Set to Appropriate Enhanced Port, Baud Rate (RTS and DTR checked in Winlink only if available).
- PTT Control Port (optional) = Icom 7300 and nothing checked.

VaraHF Sound Card Settings:

- USB Codec Sound Devices for both transmit and receive.

- Channels L+R selected.

YAESU FT-891 DIGITAL SETTINGS

ITEM	NAME	DEFAULT	SELECTED	NOTES
05-06	CAT RATE	4800 bps	19,200 bps	
05-07	CAT TOT	10 MS	100 MS	
05-08	CAT RTS	ENABLED	DISABLED	
05-14	TX TOT	OFF	3 MIN	
07-12	PC KEYING	OFF	OFF	
08-01	DATA MODE	PSK	OTHERS	
08-03	OTHER DISP	0	1500 HZ	
08-04	OTHER SHIFT	0	1500 HZ	
08-05	DATA LCUT FREQ	300 HZ	OFF	
08-07	DATA I-ICUT FREQ	3000 HZ	OFF	
08-09	DATA IN SELECT	REAR	REAR	
08-10	DATA PTT SELECT	DAKY	DAKY	
08-11	DATA OUT LEVEL	50	50	
08-12	DATA BFO	LSB	USB	
11-07	SSB BFO	AUTO	AUTO	
16-03	HF POWER	50	50	
WDH	WIDTH	500	3000	F MENU FUNCTION