

TRANSCEIVER QRP

OMEGA 900



INSTRUCTION MANUAL

www.omega-radio.eu

SPECIFICATION

Frequency coverage (Mhz)

RX: 0.100 - 30.000

TX:

1.800 - 2.000
3.500 - 3.800
5.100 - 5.500
7.000 - 7.300
10.100 - 10.150
14.000 - 14.350
18.069 - 18.168
21.000 - 21.450
24.890 - 24.990
28.000 - 30.000

Mode: USB / LSB / CWU / CWL

Antenna conector: SO-239

Power supply requirement: 11-14V DC

Power consumption: Tx max power: 3A; Rx 0,28A

Dimensions (WxHxD): 120x40x160 mm

Weight (approx): 800g

Temp. range: -10°C to +50°C

Output power: >10W

Sensitivity: 0.16µV

AF output power: 0,7W with an 8Ω load

Ground: negative ground

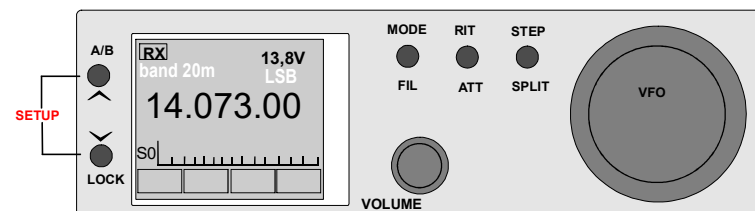
Supplied accesories: hand microphone, DC power cable








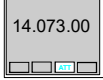
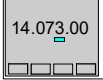
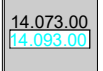
Available models:

Duobander (50/70 MHz)

10 bands (all HF bands)

FRONT PANEL

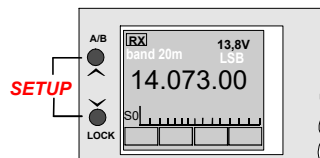


-  press to select frequency band up
-  press to select frequency band down
-  **A/B** press and hold to select either VFO A or VFO B
-  **LOCK** press and hold to lock all buttons and vfo knob
-  **MODE** press to select LSB, USB, CWL or CWU mode
-  **FIL** press to turn the audio narrow filter ON or OFF
-  **RIT** press to turn the RIT (Receive Incremental Tuning) function ON or OFF
-  **ATT** press and hold to turn the -20dB receiver attenuator ON or OFF. Using this option is recommended on low frequency band (160m/80m/60m/40m)
-  **STEP** press to select 10Hz, 100Hz, 1kHz or 10kHz tuning step
-  **SPLIT** press and hold to enter split-frequency operation, allowing you to use different transmission and reception frequencies

SETUP

to enter SETUP press simultaneously \wedge and \vee buttons and hold 3 seconds.

In SETUP mode: to select option turn vfo knob, to enter option press \vee and hold \vee , to save changes press and hold \wedge .



1. EXIT SETUP – enter to exit setup

- Return setup
- Exit setup – exit without saving changes
- Save and exit – save changes and exit

2. Si XTAL MODE – enter to select quartz resonator type

- 25MHz / 8pF
- 25MHz / 10pF
- 27MHz / 8pF
- 27MHz / 10pF

3. Si I2C adr. – enter to select I2C address

- 0x60h
- 0x62h

4. Si correct. – enter to set frequency correction [Hz]

5. BFO USB freq – enter to set BFO USB frequency

6. BFO LSB freq – enter to set BFO LSB frequency

7. CW release – enter to set CW relay release time [ms]

8. CW speed – enter to set CW speed

9. CW shift – enter to set shift in CW mode [Hz]

10. Band COUNTIN – enter to turn the band continuous mode ON or OFF

11. Band 160m – enter to turn the 160m band ON or OFF

12. Band 80m – enter to turn the 80m band ON or OFF

13. Band 60m – enter to turn the 60m band ON or OFF

14. Band 40m – enter to turn the 40m band ON or OFF

15. Band 30m – enter to turn the 30m band ON or OFF

16. Band 20m – enter to turn the 20m band ON or OFF

17. Band 17m – enter to turn the 17m band ON or OFF

18. Band 15m – enter to turn the 15m band ON or OFF

19. Band 12m – enter to turn the 12m band ON or OFF

20. Band 10m – enter to turn the 10m band ON or OFF

21. Band 6m – enter to turn the 6m band ON or OFF

22. Band 4m – enter to turn the 4m band ON or OFF

23. Band 2m – enter to turn the 2m band ON or OFF

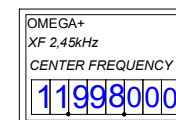
24. COLORS - enter to select display colour

25. key/paddle - ONLY STRAIGHT KEY

SETTING BFO

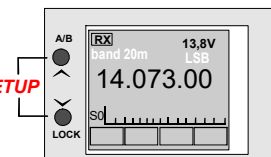
to enter SETUP press simultaneously \wedge and \vee buttons and hold 5 seconds.

In SETUP mode: to select option turn vfo knob, to enter option press and hold \vee , to save changes press and hold \wedge .



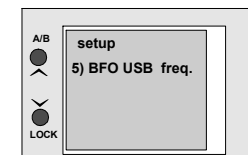
USB +1,5kHz

LSB - 1,5kHz



5.BFO USB freq

-- pressButton \vee and hold 1 second



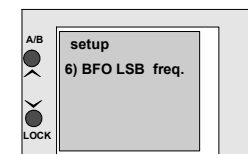
-- turn VFO knob
center freq.
quarz filter + 1,5kHz

-- pressbutton \wedge and hold 1 second



6.BFO LSB freq

-- press button \vee and hold 1 second



-- turn VFO knob
center freq.
quarz filter - 1,5kHz

-- pressbutton \wedge and hold 1 second



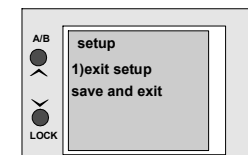
1.exit setup

-- press button \vee and hold 1 second



-- turn VFO knob
save and exit

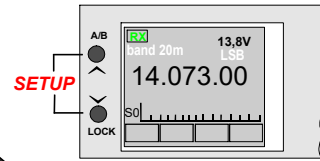
-- pressbutton \wedge and hold 1 second



SETTING CW

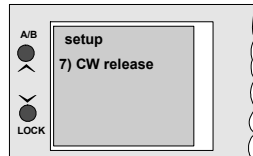
to enter SETUP press simultaneously and buttons and hold 5 seconds.

In SETUP mode: to select option turn vfo knob, to enter option press and hold , to save changes press and hold .

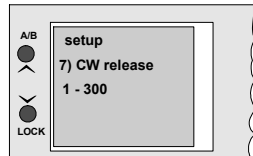


7. CW release

-- press button and hold 1 second



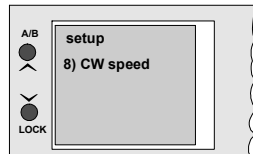
-- turn VFO knob



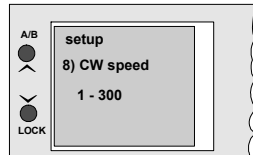
-- press button and hold 1 second

8 CW speed

-- press button and hold 1 second



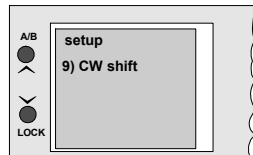
-- turn VFO knob



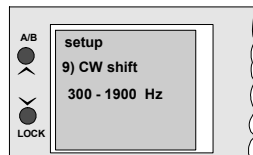
-- press button and hold 1 second

9 CW shift

-- press button and hold 1 second

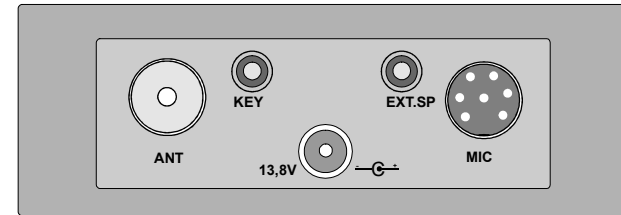


-- turn VFO knob

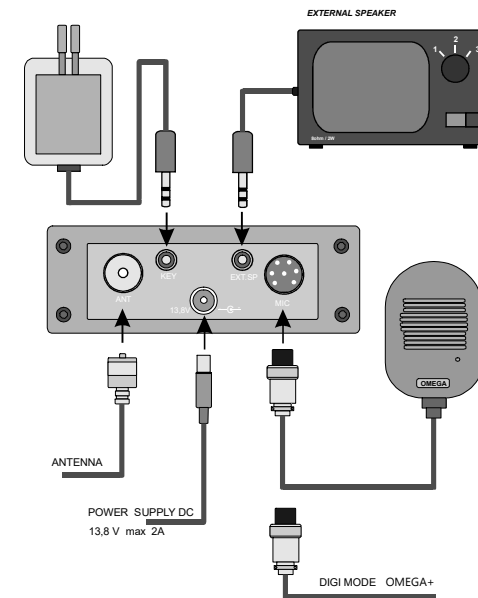


-- press button and hold 1 second

REAR PANEL

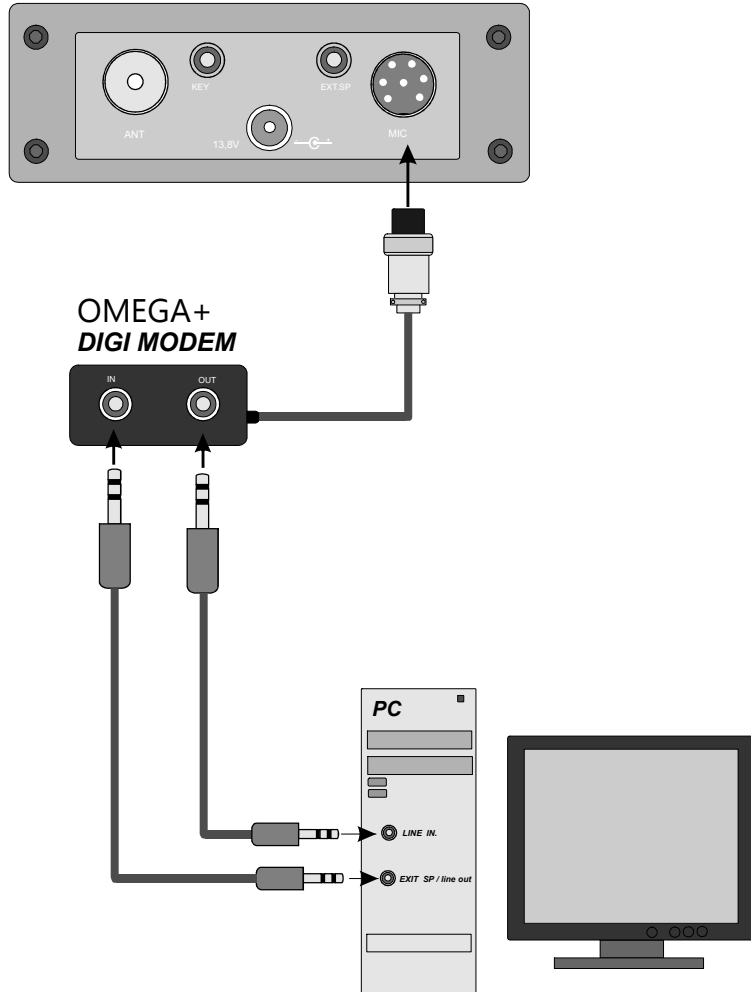


1. ANT - connect the HF/50MHz/70MHz antenna
2. KEY - 3,5" 3 pole conector plug for connecting stright key or paddle for CW operation
3. 13,8V - connect a regulated 13,8V DC power source
4. EXT-SP- connect the external speaker, use special adapter
5. MIC - connect the microphone, or digi mode



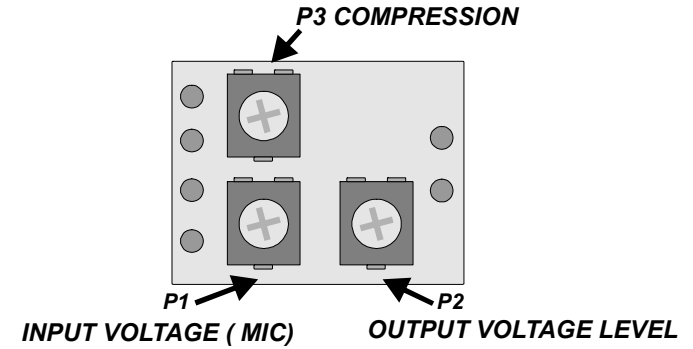
DIGI MODEM

Use the microphone connector to connect OMEGA+ DIGI MODEM.
Connect the DIGI MODEM IN socket to speaker Jack socket in computer.
Connect the DIGI MODEM OUT socket to line-in Jack socket in computer.



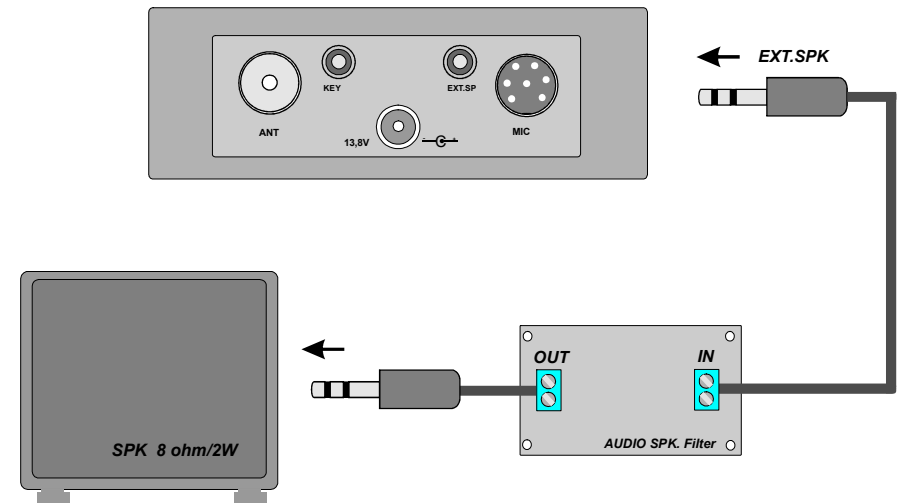
PROCESSOR

Install the microphone processor unit to level out large fluctuations in your voice while you speak.
Use P1 to set input signal level.
Use P2 to set output signal level.
Use P3 to set compression level.

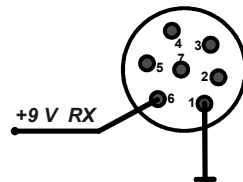
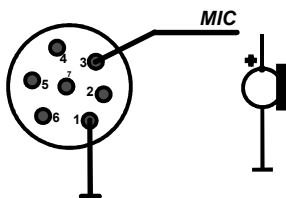
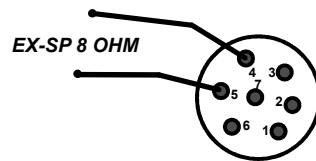
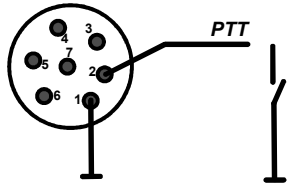
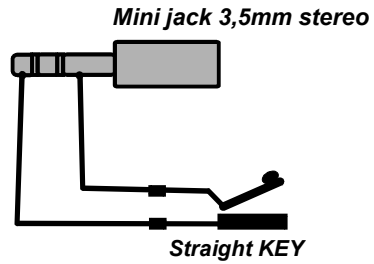
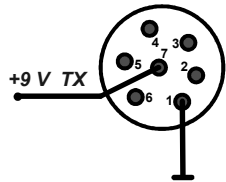
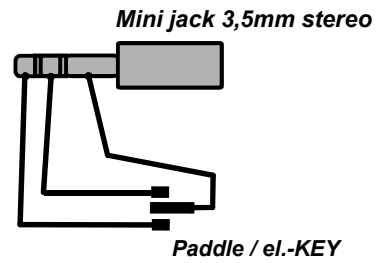
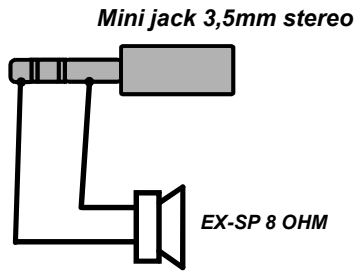


SPEAKER FILTER

Use the external speaker filter to selectively cut high frequencies of AF output signal.
Connect the SPEAKER FILTER IN socket to speaker Jack socket in the radio.
Connect the speaker to SPEAKER FILTER OUT socket.



CONNECTING PERIPHERAL EQUIPMENT



note