This is the first draft for the X108 Owner's Manual translated from a Chinese original.

This manual will be revised & corrected as time permits. Please fee free to forward corrections, embellishments and suggestions to
info@ImportCommunications.com

Revision 1   October 25, 2014

HF TRANSCEIVER
X108
USER'S MANUAL

V1.0

XIEGU TECH
INSIDE

North American Distributor
Import Communications
New London, NC

www.ImportCommunications.com

Important reminder:

Before operating the equipment, please read our operating

manual carefully and keep the manual, so as not to lose.

Features:

- Low noise, single conversion HF

  transceiver . Double balanced diode

  mixer for extended dynamic range.

- 0.2μV receive sensitivity (preamp on).
- Narrow band double tuned bandpass
  filters covering all HF amateur
  frequencies including WARC bands.

- IF channel AGC for constant gain at

  least provides 95db dynamic range.

- High performance narrow band IF

  crystal filter with shape factor up to 1.7
- Optional NB module
- Optional front and rear handles

Security considerations:

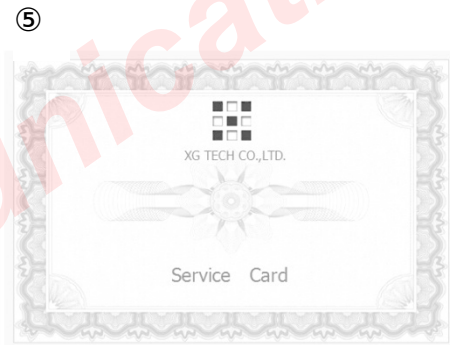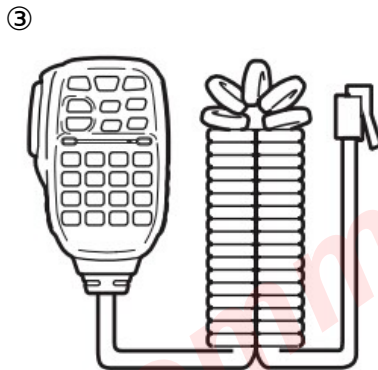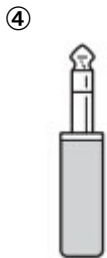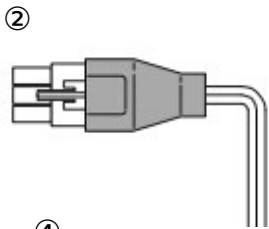Do not use equipment during a lightning storm.

防　潮
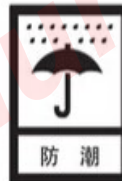
Damp-proof !

Don't illegal operations!

Note RF high-voltage of antenna connector!

Packing list		
No.	**Description**	**Quantity**
1	X108 Xceiver	1
2	Power Cable	1
3	Microphone	1
4	3.5mm Plug	1
5	Service Card	1

①

②

④

③

⑤
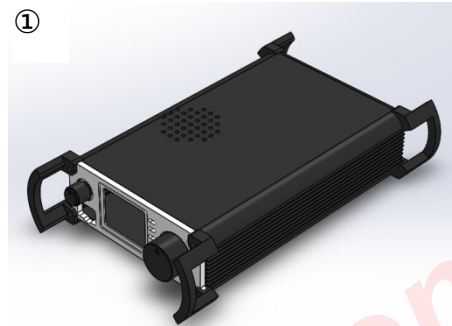
Specifications

Frequency range:	Receive: 0.5 – 30MHz Continuous
	Transmitting: All HF Amateur bands including WARC bands
Operating mode:	SSB J3E
	CW A1A
	AM A3E
Minimum Frequency Step:	1Hz
Antenna impedance:	50Ω
Operating temp. range:	-10℃ - +60℃
Frequency stability:	±1.5ppm [Standard Edition]
	±0.5ppm [with optional TCXO Module]
Operating voltage:	12 - 14.5V DC
Current draw: Receive:	600mA
Transmit:	7.5A Max
Dimensions (mm):	120 x 45 x 180 mm [not inc. front and rear handles and knobs]

Modulation mode:	SSB balanced modulation
	AM Low level modulation

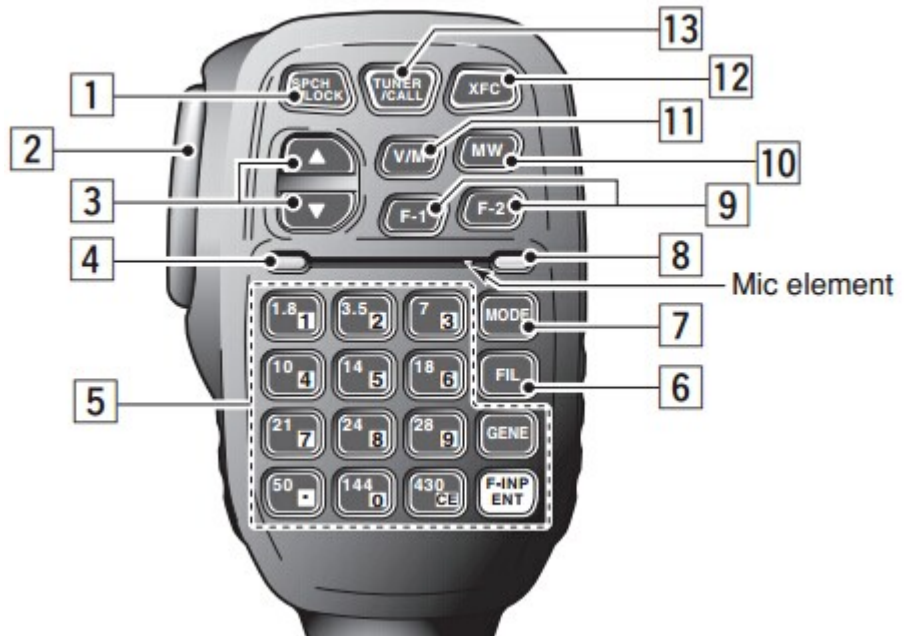|	
Spurious response rejection:	≥40dBc
Carrier suppression:	≥45dBc
IF filter:	SSB 2.4kHz (-6dB)
	CW 500Hz(-6dB)
IF Frequency:	10.7MHz
Receive sensitivity:	0.2uV
Receive Frequency bands:	1.8 - 2.0MHz
	3.5 - 4.0MHz
	5.0 - 5.5MHz
	7.0 - 7.3MHz
	10.0 - 10.2MHz
	14.0 - 14.5MHz
	18.0 - 18.2MHz
	21.0 - 21.6MHz
	24.8 - 25.0MHz
	28.0 - 28.8MHz
	0.5 - 30.0MHz
Dynamic range:	Better than 95db
RIT Frequency control range:	±1kHz
Audio output:	0.5W@8Ω

Front panel Description
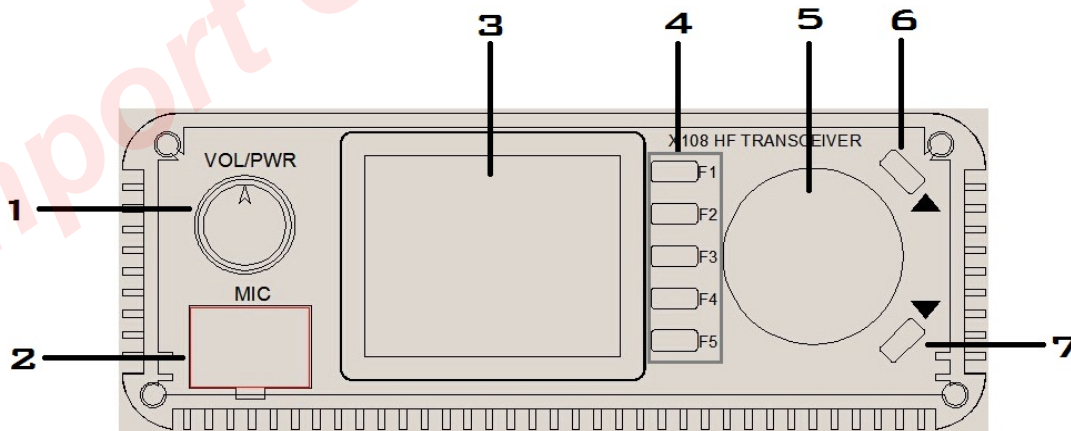
1 – Power switch / Volume knob

2 - Hand microphone socket

3 - Display screen

4 - Multifunction key

5 - Frequency knob

6 - UP key

7 - DOWN key

Rear panel Description
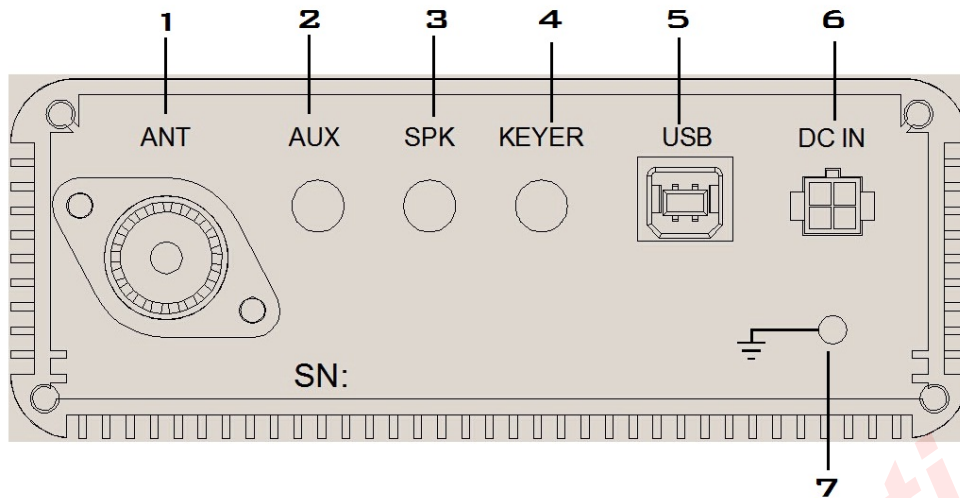
1 – SO-239 Antenna Jack
2 – Audio input / PTT input
3 – Audio output
4 – CW key input
5 – USB port
6 – DC power input
7 – Ground connection

1 - Clock / Lock button
2 - PTT button
3 - Up / Down frequency/channel
4 - Receiving indicator
5 - Multi-function keypad
6 - Filter selection buttons
7 - Mode selection button
8 - Function indicator
9 - Function keys
10 - Memory write button
11 - VFO / Memory button
12 - XFC button
13 - CALL button

Mic element

Description screen display information

1 - Preamplifier / Attenuator current state
2 - Current frequency
3 - Current VFO status, operating mode, filter bandwidth, transmit status (split / not split), Noise Blanker status
4 - CW status (auto-keyer & rate or manual-key)
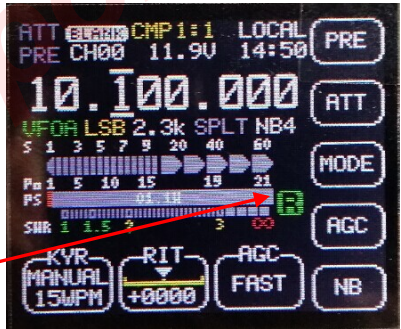

5 - Channel information
6 - Voice compression ratio / input voltage
7 - Local time
8 - Multifunction menu

9 - Signal strength
10 - Power output
11 - the power set value 1415
12 - firing standing table
13 - send and receive status display
14 - frequency tuning display
15 - AGC status display

Multifunction screen menu instructions

[PRE]   preamp on / off

[ATT]   attenuator on / off

[MODE]   work mode selection
                USB, LSB, CW, AM

[AGC]   AGC on / rate selection

[NB]   noise suppressor on &
                control the depth of selection

[A / B]   VFO-A / VFO-B switch

[A = B]   will be set consistent with
               VFO-A equal VFO-B

[SPLT]   split on/off, TX/RX same frequency
               or TX/RX different frequency

[RIT]   frequency tuning on / off

[POW]   transmit power setting

[V / M]   Frequency Mode / Channel mode
              switching
[M> V]   will set the parameters of current
             channel in frequency mode
[MW]   current frequency mode parameters
             are stored to memory
[MC]   clear the current channel settings

[BW]   filter bandwidth selection

[KEY]	select manual or automatic telegraph key mode
[KSPD]	word per minute setting for automatic telegraph key mode
[TIME]	clock settings
[SQL]	squelch settings
[VCMP]	voice compression settings

Functions Operating Instructions

Set the current operating frequency

Method 1: Press the front panel UP / DN button, move to the desired frequency step-bit bit, then rotate the frequency knob to change the current frequency value.

Method 2: On the multifunction digital microphone in hand, press and then enter the frequency directly, such as: 14.27 then press the F-INP ENT button again to complete the frequency settings.

Mode Switching

Method 1: Press the frequency knob to switch the current menu page, then press [MODE]. Press corresponding multifunction button, to complete mode switching.

Method 2: On the multifunction digital microphone in hand, press to complete the mode switching.

Filter Switching

Method 1: Press the frequency knob to switch the current menu page, then press [BW]. Press corresponding multifunction button to complete filter switching.

Method 2: On the multifunction digital microphone in hand, press to complete filter switching.

Preamplifier on/off

Press the frequency knob to switch the current menu page, then press [PRE]. When the preamplifier is on, PRE will be highlighted green. When the preamplifier is off, PRE will appear dark.

Attenuator on/off

  Press the frequency knob to switch the current menu page, then press [ATT].
When the attenuator is on, ATT will be highlighted green. When the attenuator
is off, ATT will appear dark. The attenuator provides 10 dB attenuation.

Automatic Gain Control on/off

  Press the frequency knob to switch the current menu page, then press [AGC].
AGC options are Fast or Slow with the screen showing the current status. Press
[AGC] again to exit.

Noise Blanker on/off (if equipped)

  Press the frequency knob to switch the current menu page, then press [NB]. The
Noise Blanker offers depth of NB1 thru NB4, with the screen showing the current status.

Switching between VFO-A / VFO-B

  Press the frequency knob to switch the current menu page, then press [A/B]. You
can toggle between VFO-A and VFO-B.

Set both VFO's to the same settings

  Press the frequency knob to switch the current menu page, then press [A=B]. The
settings of the current VFO will transfer to the second VFO.

Split frequency operations

  Press the frequency knob to switch the current menu page, then press [SPLIT].
The radio will receive on VFO-A and transmit on VFO-B.

RIT tuning

  Press the frequency knob to switch the current menu page, then press [RIT].
Turning the frequency knob will change the receive frequency but leave the
transmit frequency unchanged. Pressing [RIT] again will exit this mode.

Transmit power setting

  Press the frequency knob to switch the current menu page, then press [POW].
The on-screen power status will be highlighted. Rotate the frequency knob to
select the desired power setting and press [POW] to exit.

Switching between Frequency Mode / Channel Mode

        Press the frequency knob to switch the current menu page, then press [V/M].

        Press this function key to move between frequency mode and channel mode.

Move current channel to VFO

        Press the frequency knob to switch the current menu page, then press [M>V].

        The radio will switch to VFO mode, showing information from the current channel.

Save current settings to Memory

        Press the frequency knob to switch the current menu page, then press [V/M] to choose channel mode. Turn the frequency knob until "BLANK" is highlighted. Press [V/M] to return to frequency mode. Adjust frequency, operating mode and other parameters desired, then press [MW] to write this information to memory.

Delete the current channel

        Press the frequency knob to switch the current menu page, then press [MC] to clear the information stored in the current channel.

Manual / automatic telegraph key

        Press the frequency knob to switch the current menu page, then press [KEY]. Choose Manual Key, Automatic Left Hand telegraph key or Automatic Right Hand telegraph key.

Automatic telegraph key rate

        Press the frequency knob to switch the current menu page, then press [KSPD]. Turn the frequency knob to set the automatic key rate.
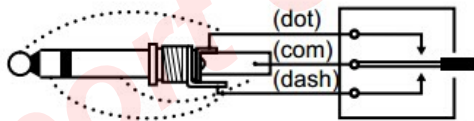

Set the local time

        Press the frequency knob to switch the current menu page, then press [TIME]. Then press the corresponding number keys on the microphone to set the local time.

Setting squelch level

        Press the frequency knob to switch the current menu page, then press [SQL]. Turn the frequency knob to set the squelch depth.   Press [SQL] again to save the squelch setting and exit.

Set voice (speech) compression ratio

>Press the frequency knob to switch the current menu page, then press [VCMP].
>
>Adjust the compression ratio as desired.

Antenna 50 ohms

Auxiliary Audio Input

Speaker or Headphone

Telegraph Key

USB Computer control or firmware update

11-14.5 v DC input

Ground

<div align="center">**Advanced Menu Settings**</div>

CAUTION: THESE SETTINGS ARE DIRECTLY RELATED TO THE CORRECT OPERATION OF THIS RADIO. PLEASE EXERCISE CAUTION. PLEASE RECORD AND SAVE ALL ORIGINAL FACTORY SETTINGS BEFORE MAKING ANY ADJUSTMENTS.

To enter menu setting mode: Power off radio. Press and hold F1 button while powering on.

1. IF SSB: SSB IF
2. IF CW: CW IF
3. BFO LSB: BFO value LSB mode
4. BFO USB: BFO value USB mode
5. BFO CW: BFO value of the CW mode
6. CW Tone: CW side tone pitch frequency adjustment
7. CW TDly: CW launch delay
8. TOT:
9. Britns:
10. Cntrst
11. DDSCLK: System Clock
12. DCLKx6:   DDS multiplier settings

For an exact match, crystal filters for each radio are precisely measured and entered into the system settings to guarantee the filtering properties of each radio is excellent. So Items 1 to 5 can not be freely modified, otherwise it will lead to abnormal operations or may not work at all. Item 6 and 7, CW Side Tone and CW Delay, can be set to the operator's preference.

INSIDE