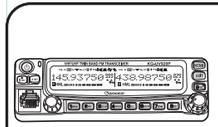
Contents

Checking the equipment

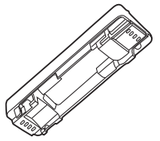
Carefully unpack the transceiver. We recommend that you identify the items in the following table before discarding the packing material.

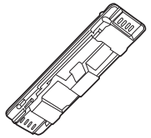
If any item is missing or has been damaged during shipment, please notify your wouxun dealer.

Standard Accessories

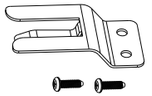

Mobile/Base Transceiver

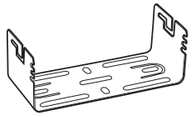

Hand Microphone

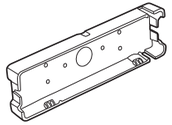

Inclined Switchboard Panel (Already Installed on Mobile Transceiver)


Flat Switchboard Panel

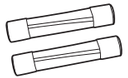

Screw Sets

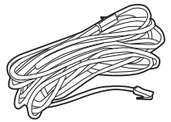

Hand Microphone Hook


Mobile Mounting Bracket


Remote Front Panel Bracket


Mobile Power Cord


Fuse


Extension Cable


User's manual

Description of functions

1. **Frequency Range Suitable for any Region of any Country:**
   (RX / TX) 136-174MHz & 400-470MHz
   136-174MHz & 400-480MHz
   136-174MHz & 216-280MHz
   136-174MHz & 420-520MHz
   144-146MHz & 430-440MHz
   144-148MHz & 222-225MHz
   144-148MHz & 420-450MHz
   (RX) FM: 65MHz~108MHz (100K Frequency Spacing)
2. **Band can be Set Freely**
   V/U U/V V/V U/U
3. **Dual Reception**
   Twin Band Simultaneous Reception
4. **Dual Display**
   Large LCD Dual Frequency Display,
   Two Completely Independent Operating Systems
5. **Over 999 Memory Channels**
   Area Scanning Management Capability
6. **Remote-head Mounting Capability**
   Multiple Installation Types, Convenient Usage
7. **Full Duplex Cross-Band**
   Offset Frequency & Frequency Shift Direction Programmable
   UHF / VHF or VHF / UHF Cross-band Repeater Function
8. **Both Stations can Form Combined Same Band or Different Band Repeat**
9. **High Output Power (VHF:50W / UHF:40W)**
10. **CTCSS / DCS Encode / Decode**
11. **Multiple Speaker Channel Settings**
12. **DTMF Hand Microphone**
    with Speaker, TX / RX Indicator and Volume Controller
13. **Incoming Message Display**
    Caller ID display
14. **DTMF Encoding and Decoding**
15. **Group Calls, All Calls and Selective Calls**
16. **8 Group Scrambler**
17. **Priority Channel Scanning**
18. **APO Power Management**
19. **English Voice Guide**
20. **Minimum Operating Voltage Alarm**
21. **Stun and Kill Function**
22. **Single Tone Pulse Frequency**
    2100Hz / 1750Hz / 1450Hz / 1000Hz
    (Used when Activating Repeater Signal)
23. **Selectable Three Color Backlight**
24. **Reduced Noise Settings**
25. **Remote Control Setting**
26. **Frequency / Channel Scanning with CTCSS / DCS Detection**
27. **Multiple Cooling Paths Fan**

Technical specifications

General	
Frequency Range	Frequency Range Suitable for any Region of any Country: (RX / TX) 136-174MHz & 400-470MHz 136-174MHz & 400-480MHz 136-174MHz & 216-280MHz 136-174MHz & 420-520MHz 144-146MHz & 430-440MHz 144-148MHz & 222-225MHz 144-148MHz & 420-450MHz 66-88MHz & 136-174MHz 66-88MHz & 400-480MHz (RX) FM: 65MHz~108MHz (100K Frequency Spacing)
Step Frequency	5KHz / 6.25KHz / 10KHz / 12.5KHz / 20KHz / 25KHz / 30KHz / 50KHz / 100KHz
Memory Channels	999
Work Mode	F2D / F3E
Operating Temperature	-20℃~+60℃
Antenna Impedance	50Ω
Power Requirement	13.8VDC ± 15% (Negative Grounded)
Weight	1437.8g (including microphone)
Dimensions	140 x 44 x 207 (mm)

Receiver	Wide bandwidth	Narrow bandwidth
Adjacent Channel Selectivity	⩽70dB	⩽60dB
Intermodulation	⩽65dB	⩽60dB
Spurious Response	⩽70dB	⩽70dB
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)
Signal to Noise Ratio	⩾45dB	⩾40dB
Audio Distortion	⩽5%	
Audio Power	Transceiver⩽3W Hand Microphone⩽1W	
Audio distortion	Transceiver⩽3W Hand Microphone⩽1W	
Sensitivity	UHF/VHF:0.25μV	

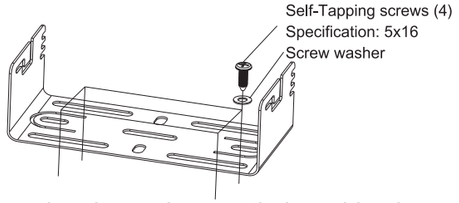
Transmitter	Wide bandwidth	Narrow bandwidth	Transmitter	Wide bandwidth	Narrow bandwidth
Type of Modulation	16K F3E	11K F3E	Max. Frequency Deviation	± 5KHz	± 2.5KHz
Adjacent Channel Power	⩾70dB	⩾60dB	Frequency Stability	± 2.5ppm	
Signal to Noise Ratio	⩾40dB	⩾36dB	Audio Distortion	⩽5%	
Spurious	⩾60dB	⩾60dB	Output Power	50W/20W/10W/5W(VHF)	
Audio Response	+1~-3dB(0.3~3KHz)	+1~-3dB(0.3~2.55KHz)		40W/20W/10W/5W(UHF)	

Pre-use installation

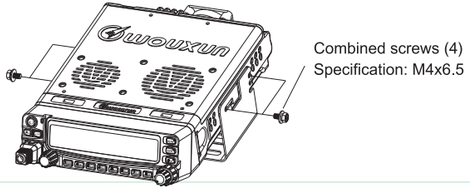
Transceiver installation

Choose a safe place inside your vehicle, one which would to the greatest extent reduce possible harm to passengers inside the car while the car is moving. It is recommended to install the transceiver on the lower part of the front meter gauge, it will prevent the transceiver from colliding with the driver in the instance of emergency or sudden braking. Install the transceiver in an area with good ventilation and avoid installing in a place with direct contact with the sun.

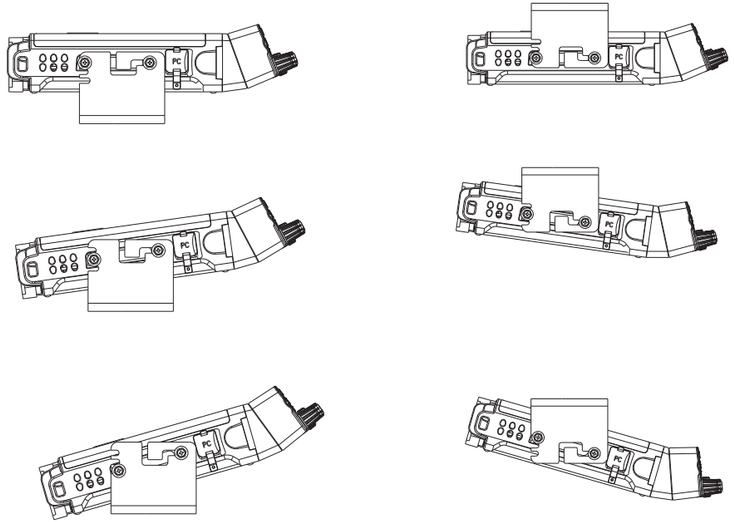
1. Use the supplied self-tapping screws to install the support bracket to the vehicle.



2. Set the transceiver in the bracket, then insert the supplied combined screws and tighten, insure that the screws are fastened tightly. This will insure the support bracket and the transceiver do not get bumped lose when the vehicle hits bumps or shakes.

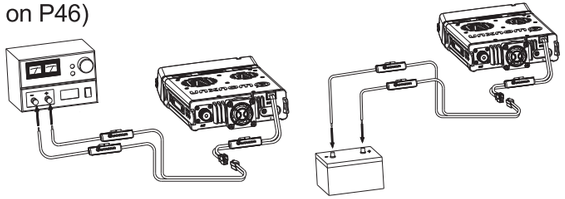


3. Use every screw slot along the side of the support bracket, you can set the transceiver to be installed at a different angle.



Connecting power source

The transceiver power source usage ranges from 13.8V±15%. When your power source (or vehicle power source) reaches levels up to 16V, TX will be forbidden, however RX will operate as normal. When your power source (or vehicle power source) reaches levels as low as 11.5V, the transceiver will automatically shut off. So the transceiver does not exhaust the vehicles battery and affect the vehicles normal operation. (This feature is set by the Menu 38, see instruction on P46)



Special Reminder ⚠

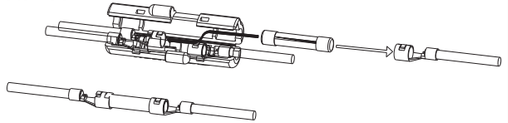
» This transceiver's working voltage is 13.8V±15% DC.

■ Replacing the fuse

In the instance that the transceiver blows a fuse, first find out the reason, then solve the malfunction. If after installing the new fuse it once again blows a fuse, please sever the power source and immediately contact a local authorized wouxun dealer or service center for assistance.

The specified fuse current is 15A, The specified power source current is 20A and above.

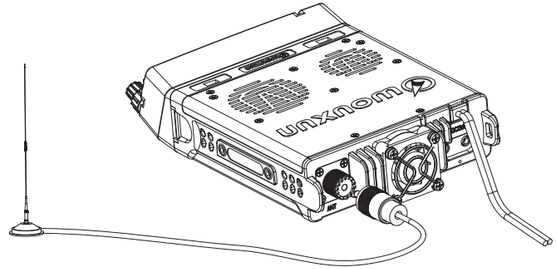
See the Fuse installation diagram on the right, after installation the fuse should be firmly secured to the copper set!



Antenna connection

Before operation, you must effectively install and adjust the antenna, installation success depends upon the type of antenna and whether or not the antenna is set up correctly. If you use the most suitable antenna and the antenna is installed correctly, the transceiver will attain the greatest results.

The transceiver antenna's impedance is 50 ohms, if the impedance is not at 50 ohms it will reduce the performance of the transceiver and possibly interfere with nearby broadcasting stations as well as other antenna's receivers, it could even harm the transceiver.

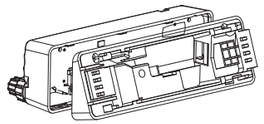


Front panel installation

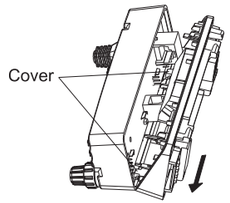
The transceiver is supplied with two kinds of switchboard panels：Inclined switchboard panel and a flat switchboard panel.

■ Install inclined switchboard panel

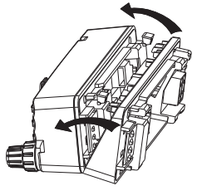
（1）Lower alignmen



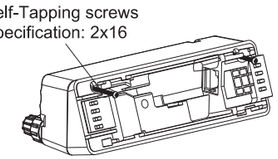
（2）Cover alignment



（3）Close in the direction shown by the arrows

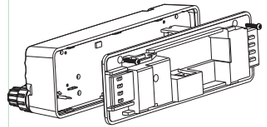


（4）Use the supplied screws to fasten

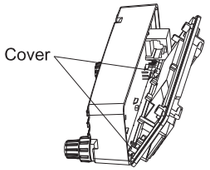


■ Install flat switchboard panel

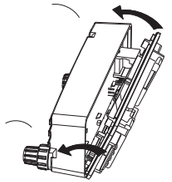
（1）Lower alignment



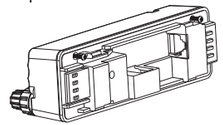
（2）Cover alignment



（3）Close in the direction shown by arrows

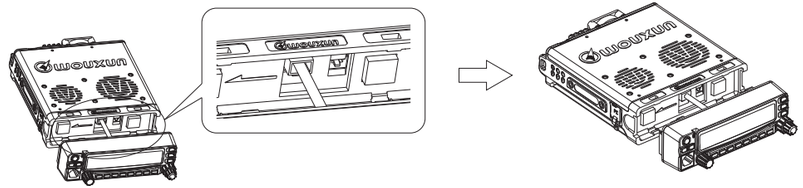


（4）Use the supplied screws to fasten



■ Front panel and main station installation

（1）Connect the cable to the transceiver' s 8 point socket.



（2）Proceed according the the arrow shown.

Front panel installation

Connection method for transceiver station to operating front panel:

The vehicle transceiver connection line uses 8 facets and 8 lead conducting wires (diagram 1),

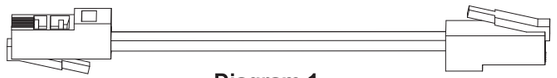
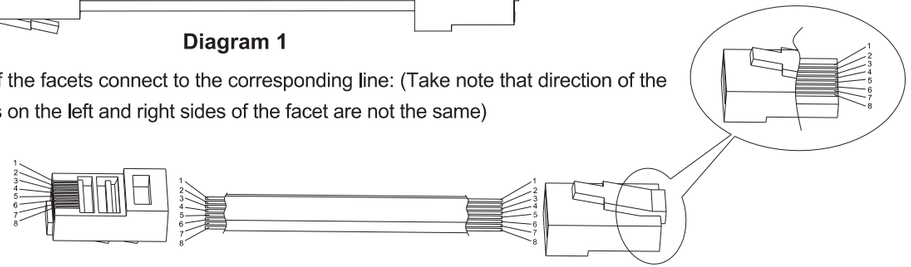


Diagram 1

The two ends of the facets connect to the corresponding line: (Take note that direction of the connection lines on the left and right sides of the facet are not the same)



Left facet connection point 1	Connect through the conducting wire to right facet 1
Left facet connection point 2	Connect through the conducting wire to right facet 4
Left facet connection point 3	Connect through the conducting wire to right facet 3
Left facet connection point 4	Connect through the conducting wire to right facet 2
Left facet connection point 5	Connect through the conducting wire to right facet 5
Left facet connection point 6	Connect through the conducting wire to right facet 6
Left facet connection point 7	Connect through the conducting wire to right facet 7
Left facet connection point 8	Connect through the conducting wire to right facet 8

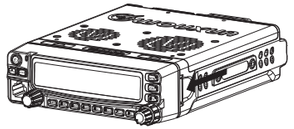
Therefore the conducting wires connection to the left facet is corresponding and the connection to the right facets 2 and 4 are swapped.

Special Reminder ⚠

» If the connection wires are not WOUXUN Company supplied or dealer approved, WOUXUN Company does not guarantee its safety and operational effectiveness!

■ Dismantling the front panel and transceiver

(1) Disconnect cover in the direction of the arrow

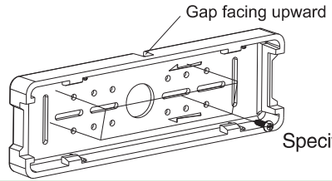


(2) Remove in the direction shown by the arrow

■ Installation of front panel support bracket

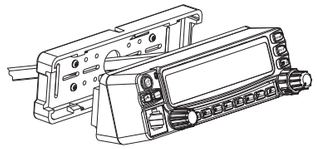
When the transceivers front panel is installed separately from the main platform, there is a supplied front panel support bracket designed especially for installation.

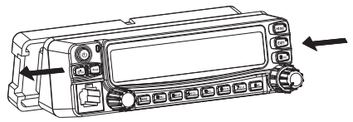
(1) First secure the support bracket with the supplied screws



Specification: 2.3X8 (4pcs)

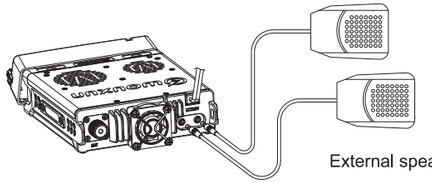
（2）First string the connection line through opening in the center of the support bracket，then close the bracket cover directly as shown by the arrows.





■ Outer speakers

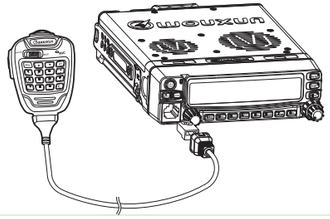
The external speaker jacks can be connected to a 3.5mm single outlet. There are two speaker outlets located on the back of the transceiver.



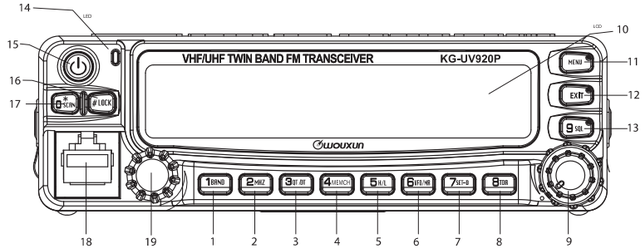
External speaker

■ Hand microphone installation

The transceiver comes supplied with two different types of hand microphone：
Encoded hand microphone and unencoded hand microphone. Plug the connection cable into the 8 point socket located on the front panel.



Front panel



1 Master frequency set up hot key (See hot key operation 1)
／Single–tone pulse key (see Menu 36)
2 Frequency or channel selection. (See hot key operation 2)
3 CTCSS / DCS encoding and decoding set up, CTCSS / DCS scanning (see hot key operation 3)
4 Save channel hot key (see hot key operation 4)
5 Power output settings hot key
6 VFO/MR switch over hot key (see hot key operation 6)
7 Frequency shift direction hot key (See hot key operation 7)
8 TDR Single and dual display switch hot key
(See hot key operation 8)
9 Volume control (See volume control)
10 LCD
11 Function keys / enters keys
12 Exit / Cancel keys
13 Squelch level adjustment hot key (See hot key operations 9)
14 Status indicator light
Orange standby indicator light
Green RX indicator light
Red TX indicator light
15 Power switch button
16 Keyboard lock key (See keyboard lock)
17 Scanning key (See scanner function)
18 Hand microphone outlet
19 Channel knob