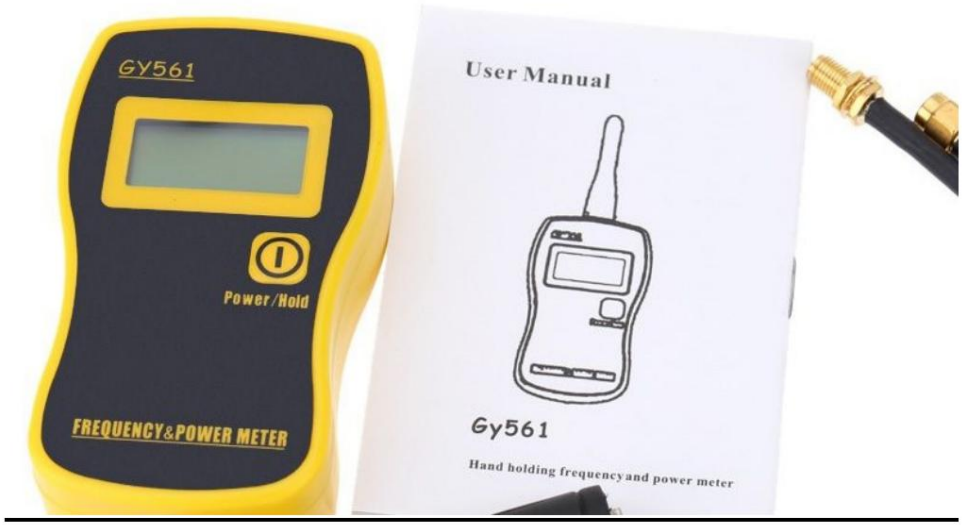
GY-561



Purpose:

Gy561 is a frequency and power meter with LCD screen designed for measuring frequency and power emitted by transmitting devices. Thanks to the built-in load equivalent, the device has become more reliable in design and easier to transport. You can select the correct frequency or RF power measurement mode by disconnecting or connecting to the transmitter for measurement.

Possibilities:

1. Screen:

Monochrome LCD display, minimum frequency level 0.001 MHz (1 kHz), minimum level power 0.1 W.

2. Frequency range and RF power:

The specified device will display "00.0W" when the frequency is more than 500 MHz. And the testimony devices will not be accurate when the frequency is less than 1 MHz.

3. Adjustment and calibration

You will see 2 controls when you open the top shell of the case. One is located below and to the left for frequency adjustment, it can be changed when you have more professional devices. Another located at the bottom and in the middle - to adjust the RF power and it is installed after manufacture (5.000V), do not change it. (For RF power calibration please refer to the "User Mode" manual)

4. Frequency range: 1 MHz – 2400 MHz.

5: RF power range: 0.1W - 50W.

6. Input impedance: 50 ohms.

7. Accuracy: +/-10% when frequency 140MHz ~ 170MHz, 400MHz ~ 470MHz.

8. Reaction time: 0.2s.

9. Operating temperature: 0~40°C 10. Battery:

1.5V (AAA) x 3pcs 11. Current

consumption: 100 mA.

12. Auto shutdown time: 80 sec.

13. Contents: adapter, antenna, user manual.

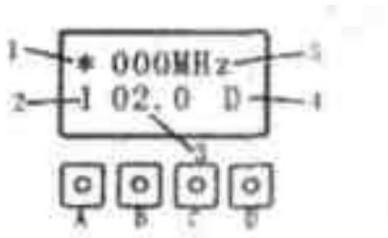
General operations

465.000 ---------- frequency (MHz)
04.0W ---------- RF Power

1. Power on: press. Press the "Power" button for a few seconds, the specified device will
on when you release the button.
2. Frequency measurement (using antenna): Place the antenna close to the radio station that is
transmitting, and you will be able to read the frequency from the screen. The power on the screen is not the exact power
through the antenna.
3. Frequency and power measurement (via adapter): connect the antenna of your
radio and meter using the adapter/cable/adapter and then turn on the power. When
you press the PTT key, the meter screen will show the frequency and RF power value. 4. To lock the screen:
press the "Power" button, the frequency will be stable. Pressing this button again will start the measurement
process again. The auto power off feature does not work when the screen is
blocked.
5. Power off: press the “Power” button for 2 seconds and the specified devices will be turned off.

User Mode:

If desired, the user can calibrate the meter using more accurate instruments.



1: The screen shows "*", the sign disappears after measurement.
2: There are 5 levels (from 1~5), they show the stored RF power code.
3: RF power value is displayed.
4: state indices:
D -- default power value
C -- custom power setting
S – power value input mode.
5: User can set 5 power values, ranging from 0~500MHz. In 5 MHz steps.

Calibration operation:

1. Remove the top shell of the indicated device, there are 4 buttons: A, B, C, D.
2. Press button A and then press button D. Release button D first and then release button A -
You have entered user mode. The screen displays "000Mhz".
3. Using buttons B and C, you can decrease or increase the value of the displayed frequency that you need
for calibration.
4. Enter the frequency, press button A, you will enter the power test mode. In this mode, pressing
button A will lead to a power test. Button B is for reset, button C is for checking
other cells, button D to exit power test mode.
5. Prepare the signal source and make sure it has a good connection (for example, you have a radio station with
frequency known to you, which was measured by another frequency meter). Select a memory cell for
saving a certain frequency (for example - 1). Press PTT and press A button, the screen will show "*".

After the sign "" disappears release PTT. Now the screen shows "00.0" (RF power), Index status shows "S". In this mode, you are allowed to enter the exact RF power data that emitted by the device, measured by a more accurate power meter.

In this power value input mode, button A is “+ 0.1”, button B is “+ 1”, button C is “+ 10” (watts). If the value entered is more than 60.0, the meter will be reset, you can enter it again.

The user can return to the power setting mode by pressing the D button and the screen will show the index "C" (“custom power setting”). If the screen shows “00.0”, it means it failed save power value. You can repeat your entry.

6. Press button B if you need to reinstall the device, the screen will show “D”. Settings default: 2W, 5W, 10W, 20W, 40W.

7. After setting, press the "D" button to return to the presets before turning off the power.

Questions and answers (FAQ):

Question: Why does the screen become darker and the power value is not accurate?

Answer: The batteries are low, replace them.

Question: Why is the screen data unstable when there is no signal? Answer: This is normal, the data on the screen will be stable when measured.

Question: Why does the back of the case get hot when measuring RF power?

Answer: It is normal to generate heat when the device measures RF power, please turn off device if the temperature at the back of the case is too high. The user can turn on the device after cooling. Reduce transmission time when measuring with high RF power to 2 seconds, this can help protect the built-in equivalent load.

Question: how to solve problems such as a messy code on the screen that does not respond to any pressing buttons can't be disabled?

Answer: reset the device (remove the batteries (one is enough) and reboot it),

Question: What is the user theory of power measurement definition?

Answer: To measure RF power, the RF power is determined by the user. To calibrate the current RF power and display it, there are 5 memory cells with RF corrections power to ensure that the actual RF power is in the vicinity of the 5 given points, which can increase the accuracy of RF power determination. (oil oil): Question: RF power values are not accurate.

Answer: The RF power measurement accuracy of the meter becomes less when the actual RF power higher than 50W. Shorten the RF cable - you will get more accurate power values. The longer RF cable, the more power dissipation at high RF power.

Question: These frequencies are not accurate.

Answer: In case the user has an accurate oscillator, he can calibrate the frequency meter using a tuning capacitor located below and to the left (during production sufficiently precise adjustment has been made).

Question: The frequency data is shown twice for the actual frequency.

Answer: In case of overload of RF input power or high level of harmonics.

Question: The specified device cannot pick up the frequency over a long distance.

Answer: The user can use long antennas designed for this frequency band such as a telescopic antenna to catch a weak signal.

Question: How to remove the top cover from the meter?

Answer: carefully lift the lid from the sides from below and you can remove it.