

SFG-20X Series

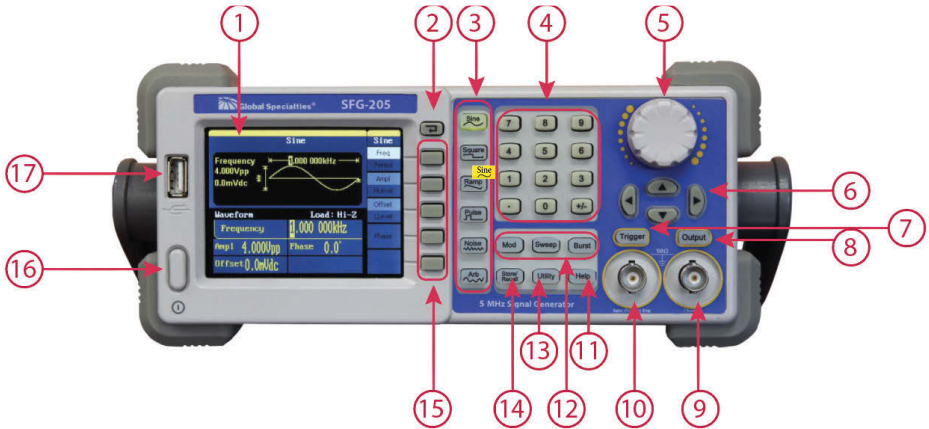
Arbitrary/Function Waveform Generator

Quick Start Guide



Test Equipment Depot - 800.517.8431 - 99 Washington Street Melrose, MA 02176
TestEquipmentDepot.com

Front Panel



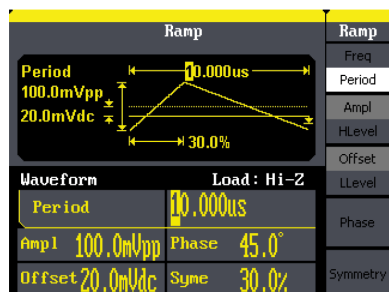
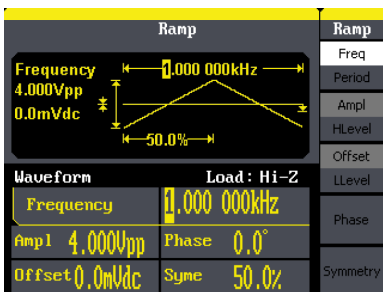
Lighted keys indicate active keys and functions
(for example *Sine* above)

1. Display
2. Return Key
3. Waveform Selection Keys
4. Number Keypad
5. Knob
6. Cursor Keys
7. Manual Trigger Key (Sweep and Burst only)
8. Output Enable Key
9. Output BNC Connector
10. Sync BNC Connector
11. Help Menu Key

12. Modulation/Sweep/Burst Keys
13. Utility Menu Key
14. State Storage Menu Key
15. Menu Operation Softkeys
16. On/Off Switch
17. USB Connector

Helpful Hints

1. Lighted keys indicate active keys or functions such as the currently active waveform (for example, **Sine**). Most keys toggle on (lighted) or off.
2. Push the **Help** key for a list of 10 helpful topics such as how to generate a DC signal.
3. No signal is output unless the **Output** key is lighted.
4. The five Menu Operation Softkeys allow you to select parameters and functions as shown in the softkey menu on the right side of the display. Some softkeys toggle between related parameters. For example, the top softkey will toggle between **Freq** and **Period** as shown below:



5. You can specify a signal by its amplitude and offset, or by setting its **HLevel** (maximum) and **LLevel** (minimum) values.
6. The modulation, sweep, or burst feature can be used in conjunction with several waveform types. For example, press **Square** and **Sweep** for a swept square wave. Both keys remain lighted, while the last key pressed determines

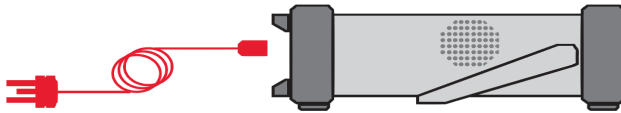
which menu is displayed.

7. The SFG-20X offers USB connection to your PC.
8. If you have the included EasyWave software installed, you can create arbitrary waveforms on your PC and download them to your SFG-20X.

GETTING STARTED

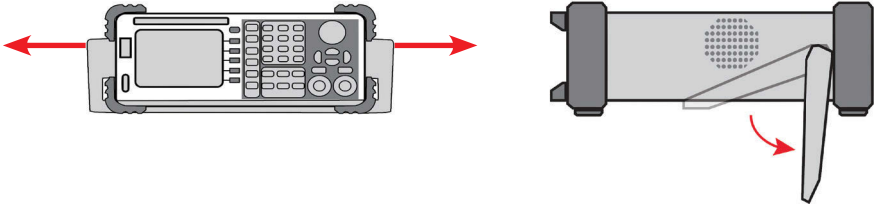
1 Preparing the Unit for Use

- a. Connect the power cord and then plug in the instrument.

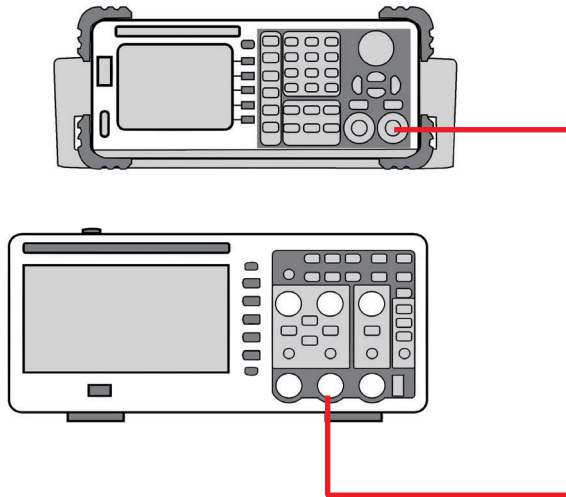


No worries! Just plug it in!
The Global Specialties SFG-20X automatically senses standard power line voltages. There are no switches to set or fuses to change.

- b. Grasp the handle by the sides and pull outward. Then adjust the handle to the desired position:



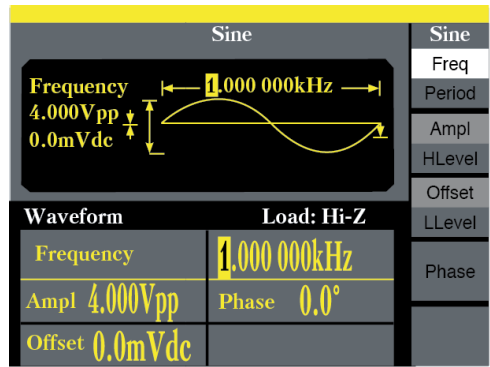
- c. Connect a BNC cable to the Output BNC Connector. Then connect the cable to your test system or oscilloscope:



2 Turn On

Press the On/Off Switch. 

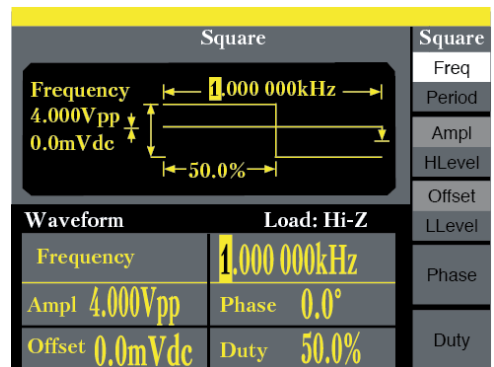
The self test takes a few seconds, and then the instrument defaults to the **Sine** Wave function with **Freq** selected:



To protect your equipment, no signal is output until the Output Enable Key is pressed (lighted.)

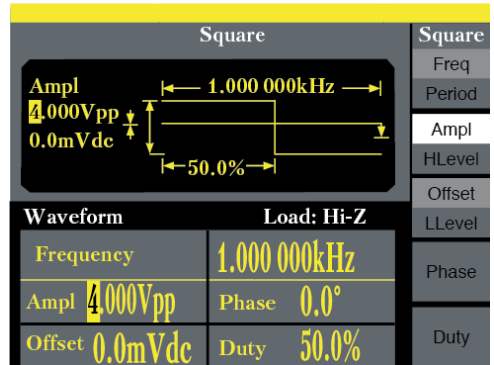
3 Select a Waveform

Press the desired Waveform Selection Key. Press the **Square** key to select a square wave. The square wave menu is displayed:

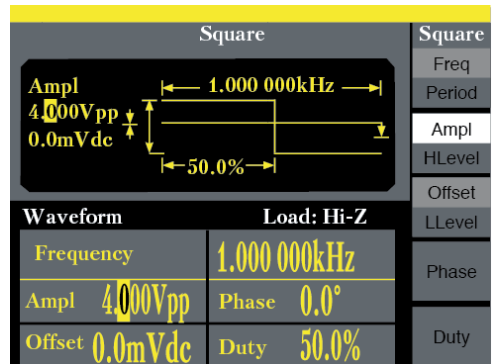


4 Change Waveform Parameters Using Cursor Keys & Knob

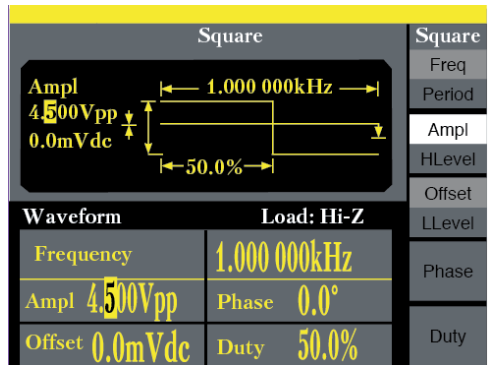
- a. Use the five softkeys to select parameters. Note, some softkeys toggle between related parameters (i.e. **Freq** and **Period**). Press the **Ampl** softkey to select amplitude:



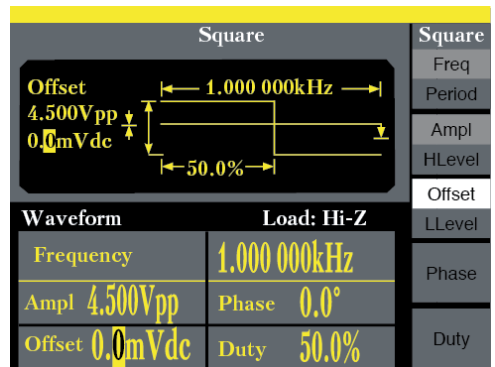
- b. Use the cursor keys to select digits in the amplitude value. Move the highlighted cursor to the 2nd digit.



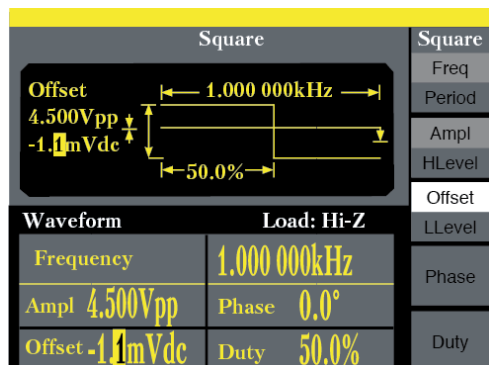
- c. Now, use the knob to change the value (turn clockwise to increase and counter-clockwise to decrease). Set to 4.500 Vpp:



- d. Press **Offset** to select that parameter:



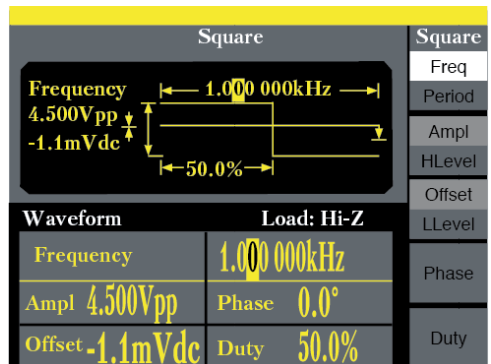
- e. Use the knob to set the offset to -1.1 mVdc. Turn past zero to obtain a negative number. Use the cursor keys to select digits:



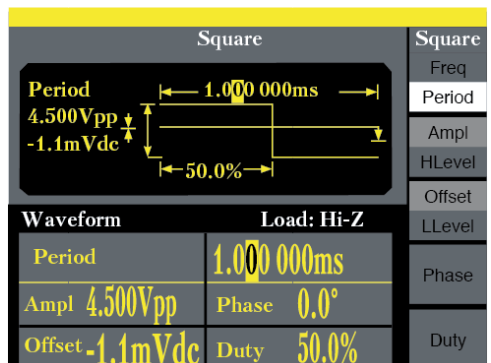
You can also specify a signal by setting its HLevel (maximum) and LLevel (minimum) values. (See the User Manual).

5 Change Waveform Parameters Using Cursor Keys and Keypad

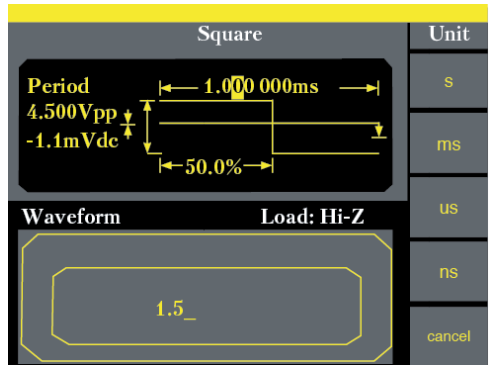
- a. Use the numeric keypad to set the **Period**. Press the left softkey once to select **Freq**:



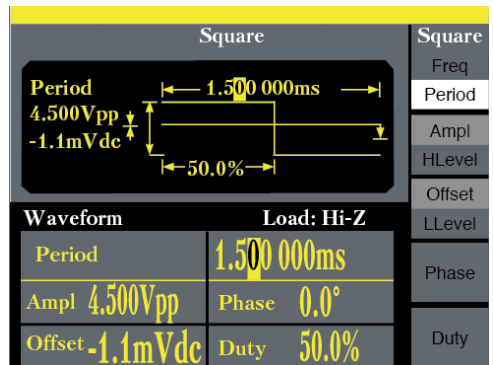
- b. Press it again to select **Period**. The display will now show **Period** with the cursor highlighted on the period value.



- c. Key in a value on the keypad. Enter 1.5. The display changes. Press the softkey for the desired unit. Press **ms**:

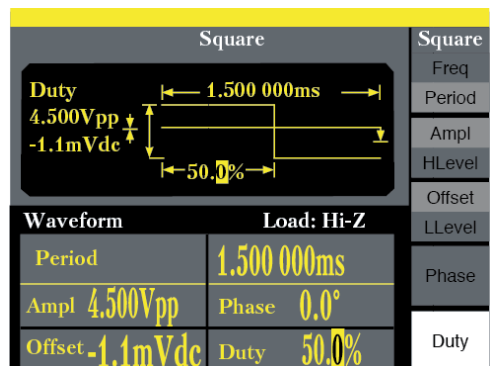


- d. The display will now show 1.500000 ms.

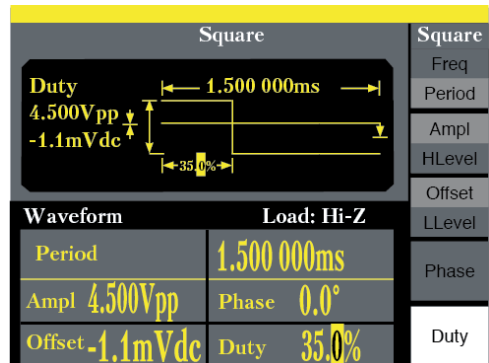


6 Duty Cycle

- a. Adjust the duty cycle. Press the **Duty** softkey:

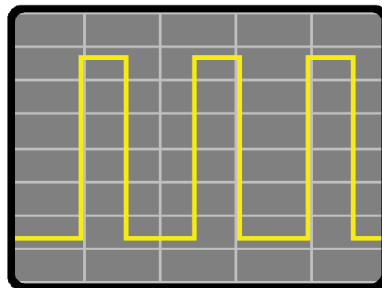


- b. Use either the knob or the keypad to change the value to 35%:



7 Output the Waveform

You can view the waveform at any time on an oscilloscope if one is connected. Press **Output** to activate the Output Connector:



8 Further Information

For more information or help, download the complete User Manual at: www.testequipmentdepot.com/



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