

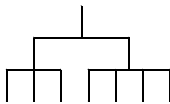
Agilent 33120A

Function / Arbitrary Waveform Generator

Quick Reference Guide

Front-Panel Menu Reference

Use *Recall Menu* as a shortcut to recall the last command executed.



A: MODulation MENU

1: AM SHAPE ⇒ 2: AM SOURCE ⇒ ••• ⇒ 9: FSK RATE ⇒ 10: FSK SRC

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|---------------|--|
| 1: AM SHAPE | Selects the shape of the AM modulating waveform. |
| 2: AM SOURCE | Enables or disables the internal AM modulating source. |
| 3: FM SHAPE | Selects the shape of the FM modulating waveform. |
| 4: BURST CNT | Sets the number of cycles per burst (1 to 50,000 cycles). |
| 5: BURST RATE | Sets the burst rate in Hz for an internal burst source. |
| 6: BURST PHAS | Sets the starting phase angle of a burst (-360 to +360 degrees). |
| 7: BURST SRC | Selects an internal or external gate source for burst modulation. |
| 8: FSK FREQ | Sets the FSK "hop" frequency. |
| 9: FSK RATE | Selects the internal FSK rate between the carrier and FSK frequency. |
| 10: FSK SRC | Selects an internal or external source for the FSK rate. |

B: SWP (Sweep) MENU

1: START F ⇒ 2: STOP F ⇒ 3: SWP TIME ⇒ 4: SWP MODE

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| 1: START F | Sets the start frequency in Hz for sweeping. |
| 2: STOP F | Sets the stop frequency in Hz for sweeping. |
| 3: SWP TIME | Sets the repetition rate in seconds for sweeping. |
| 4: SWP MODE | Selects linear or logarithmic sweeping. |

C: EDIT MENU *

1: NEW ARB ⇒ [2: POINTS] ⇒ ••• ⇒ [6: SAVE AS] ⇒ 7: DELETE

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|-------------------|---|
| 1: NEW ARB | Initiates a new arb waveform or loads the selected arb waveform. |
| [2: POINTS] | Sets the number of points in a new arb waveform (8 to 16,000 points). |
| [3: LINE EDIT] | Performs a linear interpolation between two points in the arb waveform. |
| [4: POINT EDIT] | Edits the individual points of the selected arb waveform. |
| [5: INVERT] | Inverts the selected arb waveform by changing the sign of each point. |
| [6: SAVE AS] | Saves the current arb waveform in non-volatile memory. |
| 7: DELETE | Deletes the selected arb waveform from non-volatile memory. |

* The commands enclosed in square brackets ([]) are "hidden" until you make a selection from the NEW ARB command to initiate a new edit session.

D: SYSTEM MENU

1: OUT TERM ⇒ 2: POWER ON ⇒ ••• ⇒ 5: COMMA ⇒ 6: REVISION

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| 1: OUT TERM | Selects the output termination (50Ω or high impedance). |
| 2: POWER ON | Enables or disables automatic power-up in power-down state "0". |
| 3: ERROR | Retrieves errors from the error queue (up to 20 errors). |
| 4: TEST | Performs a complete self-test. |
| 5: COMMA | Enables or disables a comma separator between digits on the display. |
| 6: REVISION | Displays the function generator's firmware revision codes. |

E: Input / Output MENU

1: HPIB ADDR ⇒ 2: INTERFACE ⇒ 3: BAUD RATE ⇒ 4: PARITY ⇒ 5: LANGUAGE

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|--------------|---|
| 1: HPIB ADDR | Sets the GPIB bus address (0 to 30). |
| 2: INTERFACE | Selects the GPIB or RS-232 interface. |
| 3: BAUD RATE | Selects the baud rate for RS-232 operation. |
| 4: PARITY | Selects even, odd, or no parity for RS-232 operation. |
| 5: LANGUAGE | Verifies the interface language: SCPI. |

F: CALibration MENU *

1: SECURED ⇒ [1: UNSECURED] ⇒ [2: CALIBRATE] ⇒ 3: CAL COUNT ⇒ 4: MESSAGE

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| 1: SECURED | The function generator is secured against calibration; enter code to unsecure. |
| [1: UNSECURED] | The function generator is unsecured for calibration; enter code to secure. |
| [2: CALIBRATE] | Performs individual calibrations; must be UNSECURED. |
| 3: CAL COUNT | Reads the total number of times the function generator has been calibrated. |
| 4: MESSAGE | Reads the calibration string (up to 11 characters) entered from remote. |

* The commands enclosed in square brackets ([]) are "hidden" unless the function generator is UNSECURED for calibration.



Power-On and Reset State

The parameters marked with a bullet (•) are stored in *non-volatile* memory. The factory settings are shown.

Output Configuration

Function	Sine wave
Frequency	1 kHz
Amplitude (into 50 ohms)	100 mV peak-to-peak
Offset	0.00 Vdc
Output Units	Volts peak-to-peak
Output Termination	50 ohms

Modulation

AM Carrier Waveform	1 kHz Sine wave
AM Modulating Waveform	100 Hz Sine wave
AM Depth	100%
FM Carrier Waveform	1 kHz Sine wave
FM Modulating Waveform	10 Hz Sine wave
FM Peak Frequency Deviation	100 Hz
Burst Carrier Frequency	1 kHz Sine wave
Burst Count	1 cycle
Burst Rate	100 Hz
Burst Starting Phase	0 degrees
FSK Carrier Waveform	1 kHz Sine wave
FSK "Hop" Frequency	100 Hz Sine wave
FSK Rate	10 Hz
Modulation State	Off
Sweep Start / Stop Frequency	100 Hz / 1 kHz
Sweep Time	1 second
Sweep Mode	Linear

System-Related Operations

• Power-Down Recall	• Disabled
• Display Mode	• On
• Comma Separators	• On

Triggering Operations

Trigger Source	Power-On/Reset State Internal
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Input/Output Configuration

• GPIB Address	• 10
• Interface	• GPIB (IEEE-488)
• Baud Rate	• 9600 baud
• Parity	• None (8 data bits)

Calibration

Calibration State	Power-On/Reset State Secured
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NOTE: The power-on state will be different if you have enabled the power-down storage mode. See "Power-Down Recall Mode" on page 109 for more information.