

## **Revision History**

Date	Version	vision		
12/16/2019	2.01.01.35R3B2	1. Optimized debounce of the front panel buttons.		
9/10/2019	2.01.01.35R3B1	<ol> <li>Changed the amplitude strategy of AM modulation: The carrier stays fixed at the amplitude, regardless of the modulation setting.</li> </ol>		
		2. Increased the upper limit of Harmonics number from 10 to 16.		
		3. Supported Multi-Device Synchronization.		
		4. Supported Up followed by Down Sweep mode in Linear sweep (no		
		change for Log sweep).		
		5. Added an icon to indicate clock source is internal or external.		
		Internal: External:		
		External and the clock is lost:		
		6. Changed the clock switch strategy: When the clock source is set to		
		External and no actual external clock signal is being received, the		
		clock source will not switch to Internal automatically but the clock		
		icon will indicate that external clock is lost		
		<ol> <li>Supported specifying Arb type by remote control when the modulating waveform is Arb.</li> </ol>		
		8. Optimized the UI of selecting built-in arbs		
		9. Supported changing the unit of amplitude without any amplitude		
		change by long pressing the "Amplitude" softkey.		
		10. Added "User" option under "PowerOn Setting".		
		11. Added "Normal" as a new UI color style.		
		12. Added memory space information in Store/Recall UI.		
		13. Optimized response of the universal knob		
		14. Added indicator for double function of the soft keys		
		Offset     Offset       LowLevel     =>		
		15. Removed the warning message when parameter is set to a value		
		beyond the limit		
		16. Fixed several bugs		
		a) [2017/04/07-92573] Digit changes when setting delay of		
		Pulse by the knob		
		b) Amplitude unit "dBm" is not remembered after a reboot		
2/28/2018	2.01.01.23R8	Optimized calibration and PV process on the production line.		
8/29/2017	2.01.01.23R7	1. Supported system recovery from U-disk.		
		2. Fixed a bug which may cause the generator report a false over		
		voltage alarm when start-up.		
3/23/2017	2.01.01.23R3	1. Allow 0 Hz for CH Frequency In MOD Modes PM, AM,		



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			DSB-AM, ASK, PSK	
		2.	Allow MOD frequency > CH Frequency In MOD Modes PM, DSB	
		2	AM, ASK	
		3.	Allow DSB-AM, AM MOD Modes In TrueArb Mode	
		4.	Up Followed by Down Sweep Mode is Supported in Linear Sweep	
		-	(No Change for Log Sweep)	
		5.	Added ARB waveform name to display, allowing user to know what Arb waveform is loaded	
		6.	Fixed some bugs	
			c) Arb Waveforms In DDS Mode Have One (Small) Glitch Per Cycle	
			<ul> <li>Built in Ramp waveform has a flat spot issue at the rising slope zero crossing right at the SYNC pulse.</li> </ul>	
			e) Power Up Last Does Not Remember SRate/Frequency Setting	
			<ul><li>f) MOD Type = DSB AM Has Amplitude Issues</li></ul>	
9/30/2016	2.01.01.22R5	1.	Permit setting the frequency to 0. 0 Hz would mean that the DDS	
			accumulated phase word would be held/not change with time.	
		2.	Fixed some bugs	
			a) Single Channel AM Modulation Output Amplitude Is 9.3% Low	
			b) Manual trigger can not trigger both channels at the same time	
			c) SW bug regarding the modulation with noise	
			d) Frequency Coupling/Phase Lock Does Not Work in TrueArb	
			e) Instrument Powers Up With Wrong Waveforms	
			f) TrueArb mode CH Coupling Bug When Entering Samples/Sec	
			g) Display graphic error for displayed wave shape	
			h) Can not save the last state after the update	
6/16/2016	2.01.01.21R2	1.	Added Waveform Combination function, to support combining ch1	
			and ch2 from internal to generate complex signals such as sine +	
			noise and two-tone.	
			The set path: Utility   Output Setup   Wave Combine	
		2.	Added mode selection: "Pase-Locked" and "Independent". In	
			"Pase-Locked" mode the generator resets both channels every time	
			the frequency is changed to maintain synchronization	
			automatically. In "Independent" mode the generator will not reset	
			any channel when the frequency is changed; the phase difference	
			between channels is random.	
			The set path: Utility   mode	
		3.	Fixed some bugs	
			i) Can not delete files with illegal characters	
			j) In burst mode, press the soft key for cycles, it changes to	



Date	Version	Revis	ion
			infinite right off the bat
		]	k) External modulation input inverted compared to convention
		]	l) Can not remember the clock source setting
		1	m) Some unexpected glitches when enabling the output or
			change the parameters
1/16/2016	2.01.01.17R5	1	Added statistic function in counter mode
	NOTE: After	2.	Supported using method 2 from our "generating mulitphase
	being updated to	,	waveforms" application note (refer to
	this release, the	]	http://www.siglentamerica.com/prodcut-pxzl.aspx?id=90&tid=16&
	generator cannot		$\underline{T=2}$ ) to synchronize 2 units of SDG2000X
	be backward to	3.	Fixed some bugs
	previous releases	1	n) A bug in file system could cause the generator never
	any more		startup
			b) DHCP does not run at power up
		1	p) Channel lock phase can be wrong in modulation sometimes
			q) Error in calculation of frequency deviation in counter mode
		1	r) Instrument does not allow CH1 and CH2 to both use the
			external input for the modulation source simultaneously in
			tracking mode
		:	s) Downward compatibility of .xml state file
		1	t) Unable to delete files with uncommon character(s) in their
			names
11/30/2015	2.01.01.16R2		Added phase deviation option in channel tracking mode
			Optimized the User Interface, including save/recall, arb, etc.
			Supported long pressing the Output key to switch the load between
			500hm and HiZ
			Supported to autosave the imported binary file (*.bin).
			Fixed some bugs
		:	a) Unexpected change on Phase difference between channels in
			sweep mode when switching the style between linear and log
			b) Channels not aligned when the frequency of one channel is
			integral multiple of another
			<ul> <li>Wrong sweep profile when using manual trigger</li> <li>Users and a set of a</li></ul>
			d) Unexpected reset on output when setting illegal parameters
		(	e) Unstable waveform at the beginning of after enabling the
			<ul><li>output</li><li>f) Display error when switching between TrueArb and DDS in</li></ul>
			Arb mode
		1	g) Frequency deviation display problem in Counter mode
		1	h) Wrong project name in system information
		i	i) When pressing the waveform button, the parameter button
			flashes
			j) Unable to set variable load value without touch screen



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	k) Unexpected digit jumping when setting parameters with the		
	knob		
	l) Set CH2 to invert and then do a system -> default, the option		
	will return to "normal", but the signal will stay inverted.		
2.01.01.15R2	1. Supported adjustable noise bandwidth		
	Supported harmonic		
	3. Added some built-in arbs, so the number of arb types increased to		
	196		
	4. Fixed some bugs		
2.01.01.12R1	The first formal release		
	2.01.01.15R2		



## **Compatibility between Versions**

Source Version	<b>Object Version</b>	Compatibility
2.01.01.35R3B1	2.01.01.35R3B2	Tested.
2.01.01.23R8	2.01.01.35R3B1	Tested.
2.01.01.23R7	2.01.01.35R3B1	Tested.
2.01.01.23R7	2.01.01.23R8	Tested.
2.01.01.23R5	2.01.01.23R8	Tested.
2.01.01.23R3	2.01.01.23R8	Tested.
2.01.01.22R5	2.01.01.23R8	Tested.
2.01.01.21R2	2.01.01.23R8	Tested.
2.01.01.17R5	2.01.01.23R8	Tested.
2.01.01.16R2	2.01.01.23R8	Not compatible. Please update to 2.01.01.17R5 at first
2.01.01.15R2	2.01.01.23R8	Not compatible. Please update to 2.01.01.17R5 at first
2.01.01.12R1	2.01.01.23R8	Not compatible. Please update to 2.01.01.17R5 at first



## **Update Instructions**

## WARNING: DO NOT shut off the instrument until the update is completed.

1. Copy the update file (\*.ads) to a FLASH type U-disk, and then connect the U-disk to the USB host port of the instrument.



2. Press the Utility key on the front panel, and then softkey "System ->Page 1/2 -> Firmware Update", to enter the interface of the file browser.

Addr(C)∥ <b>/L</b>	ocal				
🕮 USB De	evice (0:)				
🗢 Local(C	::)				
File Type					
Data		Browse	Recall	Delete	Cancel

3. Select " USB Device" thru the knob on the front panel, press "Browse", and then select the correct ads file using the knob



Addr(O)  /device/SDG2KX						
🗢 Local(C:)						
🕾 USB Dev	SB Device (0:)					
<mark>℃</mark> <up></up>	<mark>℃</mark> <up></up>					
	SDG2KX					
	SDG2000 V200R001B01D01P12R1.ADS					
SDG2000 V200R001B01D01P05R2.ADS						
SDG2000_V200R001B01D01P17R5.ADS						
SDG2000_V200R001B01D01P15R2.ADS						
SDG2000_V200R001B01D01P16R2.ADS						
File Type Data		Browse	Recall	Delete	Cancel	

4. Press "Recall" to start the update. A progress bar is displayed during the update. After the update is completed, the generator will restart automatically.

WARNING: DO NOT shut off the instrument until the update is completed.