Model 3390 Arbitrary Waveform Generator

Version 1.07 Firmware Release Notes

Keithley Instruments
28775 Aurora Road
Cleveland, Ohio 44139
1-800-935-5595
tek.com/keithley

CONTENTS

GENERAL INFORMATION

SUPPORTED MODELS

This release note applies to the Keithley Instruments 3390 Arbitrary Waveform Generator.

FIRMWARE UPGRADE AND DOWNGRADE INSTRUCTIONS

Detailed instructions are included in the *Model 3390 User's Manual* (document number: 3390-900-01). The manual is available on the Product Information CD that ships with the Model 3390 Arbitrary Waveform Generator and is also available for download from the Keithley website at tek.com/keithley > SUPPORT > FIND SOFTWARE, MANUALS, FAQS BY MODEL. Alternatively, Keithley factory upgrades can be arranged by calling your local Keithley support office.

VERSION 1.07 RELEASE NOTES

RESOLVED ISSUES

Issue Number:	PR61616
Symptom:	When you upgrade the instrument with the Firmware Update Utility, the utility tells you when the update is complete. The 3390 screen shows the USB string and the words `writer program`. You must manually power cycle the instrument for the update to be complete.
Resolution:	Firmware Update Utility now prompts you with `Upgrade complete, power cycle the instrument`.
Issue Number:	PR61616
Symptom:	The help button on the Firmware Update Utility does not work.
Resolution:	Pressing the help button now opens the help menu.
Issue Number:	PR61616
Symptom:	Pressing the close button of the Firmware Update Utility in version 1.04 while the instrument is updating causes the utility to become unresponsive. The update utility does not close for a while.
Resolution:	The Close button is now disabled during the update process.

Issue Number:	PR61616
Symptom:	When you press the ID button on the 3390 web page, it always takes you to the Welcome page. To see this, go to the IP configuration page and press the ID button. The web page returns to the welcome page instead of staying on the IP configuration page.
Resolution:	The web page now stays on whatever page it is on when you press the ID button.
Issue Number:	PR61616
Symptom:	When you are using the web control page with the 3390 with either Microsoft® Internet Explorer® 11 or Microsoft Edge®, the screen of the instrument on the web control page does not update properly. For example, if you press the help button on the web control page, the web control page screen does not update to show the help screen. The instrument updates properly, but the screen shown on the web page does not.
Resolution:	The screen shown on the web page now updates properly.
Issue Number:	PR61616
Symptom:	The first time you try to update the 3390 using version 1.04 of the Firmware Update Utility, the update fails with the error code `0x10004`.
Resolution:	The update no longer fails with error code `0x10004` the first time you try to update the 3390.

ENHANCEMENTS

There are no enhancements in this release

VERSION 1.06 RELEASE NOTES

RESOLVED ISSUES

Issue Number:	PR-39952
Symptom:	Sending the `*RST` command does not reset critical settings to default states. To demonstrate this, set the polarity of the waveform to `INVERT`. When you send a `*RST` command, the waveform is still inverted, even though the front display shows the setting as `NORMAL`. Also, the waveform polarity setting is not stored and recalled properly when using saved setups.
Resolution:	Sending the `*RST` command now correctly returns critical settings such as the waveform polarity back to default states. Waveform polarity is now stored and recalled correctly when using saved setups.
Issue Number:	N/A
Symptom:	When using an Internet Explorer browser page to operate the 3390 webpage, if you press any function key multiple times, the webpage may stop responding. The instrument remains functional.
Resolution:	The 3390 webpage now operates correctly if you press any function key multiple times when using an Internet Explorer browser.
Issue Number:	N/A
Symptom:	When the 3390 is set to Manual Trigger, a frequency sweep starts before being triggered if the sweep time is greater than 100 s. Also, the start frequency is a value different than what was set by the user. The sweep executes correctly when the next trigger is received.
Resolution:	In Manual Trigger mode, if the sweep time is greater than 100 s, the sweep does not start until you trigger the instrument. The starting frequency is now correct and based on the settings you specified.
Issue Number:	N/A
Symptom:	When you modulate the rate of the frequency shifting key (FSK), the output may have no signal.
Resolution:	When the you change the rate of the FSK, the output has a signal at all times.

Issue Number:	N/A
Symptom:	When using USBTMC connections, the trigger was not functioning correctly. Also RL1 support needs some improvements.
Resolution:	USBTMC trigger now functions correctly. Improvements have been made to RL1 support.
Issue Number:	N/A
Symptom:	There were several issues with VXI-11 when the device is locked. The following commands are not operating correctly: `device_lock`, `device_write`, `device_read`, `device_trigger`, `device_readstb`, and `device_clear`.
Resolution:	Upgrades to the VXI-11 behavior corrected issues with the `device_lock`, `device_write`, `device_read`, `device_trigger`, `device_readstb`, and `device_clear` commands.

ENHANCEMENTS

There are no enhancements in this release

VERSION 1.05 RELEASE NOTES

RESOLVED ISSUES

Issue Number:	N/A
Symptom:	If you set up a Half Arbitrary Waveform on the 3390 and then adjust the High or Low Level, the 3390 crashes.
Resolution:	The 3390 no longer crashes when you select a Half Arbitrary Waveform and adjust the High or Low Level.
Issue Number:	N/A
Symptom:	When the amplitude is set to 0 dBm and you switch to Graph mode, the 3390 crashes.
Resolution:	The 3390 no longer crashes when you switch to Graph mode when the amplitude is set to 0 dBm.
Issue Number:	N/A
Symptom:	The High and Low Level values are not updated when you input new waveform data into the 3390.
Resolution:	The High and Low Level values are now correctly updated when you input new waveform data.
Issue Number:	N/A
Symptom:	You cannot use a waveform name that is the same as a command. Examples include SIN, DC, and RAMP.
Resolution:	You can now use waveform names that are the same as commands.
Issue Number:	N/A
Symptom:	If the Amplitude units are set to dBm, the Graph mode scale displays incorrectly when the Amplitude, Vos, Hi Levels, or Low Level settings are adjusted.
Resolution:	The Graph mode scale now displays correctly when Amplitude units are in dBm and the Amplitude, Vos, Hi Levels, or Low Level settings are adjusted.

Issue Number:	N/A
Symptom:	Several issues exist regarding memory state locations. Memory State Locations are not being limited to proper values, and the default state location does not match what the documentation states (0). Also, the number of memory states is reported incorrectly. You are unable to recall a default memory state remotely if data is not saved in the other memory states.
Resolution:	The default memory state location is now `0`. The state locations are also limited to proper values. The number of memory states is now properly returned as `4`. You can successfully recall the default state remotely now. Also, the memory state recall auto value is always set to `0` or `OFF` if this option is not available on the 3390.
Issue Number:	N/A
Symptom:	When using a web browser other than Internet Explorer, the 3390 INSTR TCPIP interface can hang after buttons on the webpage are continuously pressed. Also, in the `Web Control page`, pressing the Function button for help information does not bring up the correct introduction.
Resolution:	Browsers other than Internet Explorer no longer cause the 3390 INSTR TCPIP to hang when buttons are continuously pressed on the webpage. The Help Introduction now correctly opens when help information is requested with the Function button.
Issue Number:	N/A
Symptom:	The pattern mode does not turn off when sending the following command: `DIGital:PATTern[:STATe] {OFF}`
Resolution:	The pattern mode correctly turns off when sending the command.
Issue Number:	N/A
Symptom:	When using Burst mode, the wrong signal output is generated when the number of cycles is increased using the control knob.
Resolution:	The output is correct during Burst Mode when the number of cycles is increased using the control knob.

Issue Number:	N/A
Symptom:	When the amplitude units are set to dBm, the front-panel setting is not limited to two decimal places as expected.
Resolution:	The amplitude in dBm is now limited to two decimal places on the front-panel display.

Issue Number:	N/A
Symptom:	The Pattern Output function does not properly export a waveform that is over 128,000 points.
Resolution:	The Pattern Output function now properly exports waveforms that are over 128,000 points.

Issue Number:	N/A
Symptom:	When Trigger mode is on, the LED light of the Trigger button is not illuminating at the appropriate times when the button is pushed repeatedly.
Resolution:	The LED light of the Trigger button is correctly illuminated when the button is pushed repeatedly when Trigger mode is on.

ENHANCEMENTS

Issue Number:	N/A
Symptom:	The following SCPI commands have been added to allow you to turn INTERPOLATION ON or OFF: `DATA:LINE {OFF	ON}`  `DATA:LINE?`

Issue Number:	N/A
Enhancement:	An option was added for ARB for the sweep type and spacing. The following SCPI command has been modified: `[SOURce:]SWEep:SPACing {LINear	LOGarithmic	USER}` The front panel also provides the new option. You can select ARB from the Sweep Type menu.