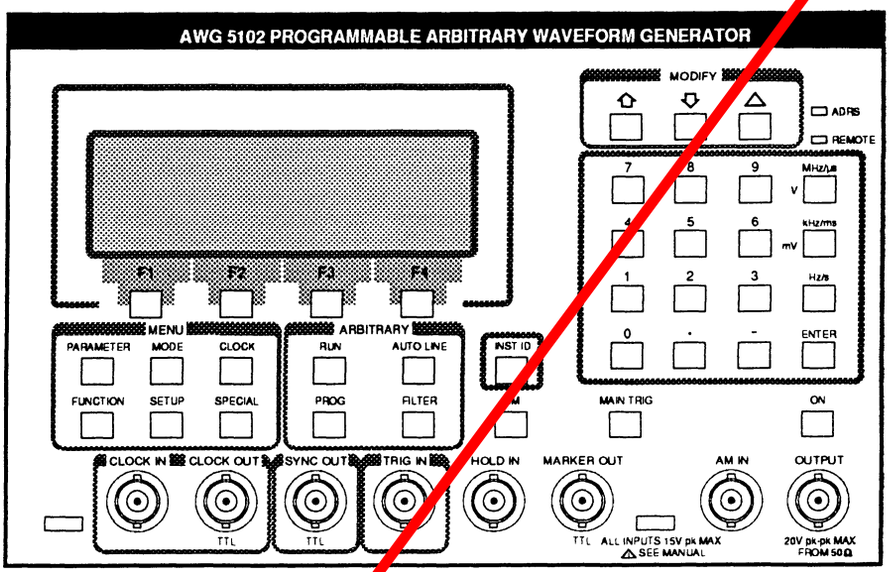
AWG 5102/5502 Instrument Interfacing Guide



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070-8456-00
First Printing JAN 1992

Tektronix

Table 2
AWG 5102/5502 Programming Command Set (cont.)

Header	Argument	Description
RATE	<num>[:<units>]	Sets the arbitrary waveform execution point rate. When executing this rate, the waveform generator uses s (seconds) or Hz (Hertz). The rate range is 50 ns to 99.99 seconds or 0.01 Hz to 20 MHz. Power-on setting is 10 ms.
RATE?		Returns the arbitrary waveform execution point rate setting, in s (seconds) or Hz (Hertz).
RECall	<buffer num>	Changes the front-panel settings to those recalled from the settings buffer specified in <buffer num>. Buffer 0 is a read-only buffer that contains the power-on settings. Buffer 99 is a read-only buffer that contains the settings at last power off. The buffer number range is 0 to 99.
RQS	ON | OFF	ON enables the service request operation. Errors are reported at the end of command execution. OFF disables all service requests. Errors are queued until an error query is sent or RQS is turned ON.
SET?		Returns all settings that can be set and queried, except stored settings and data in arbitrary waveform memory. You can resend the response to this query as setting commands.
STOB?	<buffer num>[,<buffer num>]...	Returns the contents of the stored settings buffers specified in the argument.
	ALL	Returns the contents of all 98 settings buffers (excluding buffer 0 and buffer 99). The settings data are sent in binary block format.
STORe	<buffer num>[:<binblk> [,<buffer num>:<binblk>]]...	Saves the front-panel settings into the settings buffer specified in <buffer num>. Optionally stores the settings data defined in the <binblk> argument instead of storing the front-panel settings. The buffer number range is 1 to 98. Multiple arguments are allowed if connected by a comma. If the optional <binblk> argument is included, the data in the argument are stored in the settings buffer instead of the front-panel settings. However, an error is returned if the <buffer num> is out of range, if <binblk> is longer or shorter than required, or if <binblk> contains a bad checksum byte.
	ALL:<binblk>...<binblk>	Sequentially stores each front-panel setup defined in <binblk> into a settings buffer, beginning with buffer 1.

```
280 Return
290 Lockout:    wbyte llo  !  Send Local Lockout
300 Return
310 GTlocal:    wbyte gtl(pri_addr),atn(unl)
320 ! Send MLA, Go to Local, UNL Trigger, UNL
330 Return
340 Trigger:    wbyte get  (pri_addr)
350 !  Send MLA GET, UNL
360 Return
370 Loclstat:   wbyte ren(0),ren(1)
380 ! Pulse unassert REN line
390 Return
```

- **DCL and SDC.** Clear the I/O buffer and any unexecuted setting commands in its Pending Settings Buffer, along with any errors or events waiting to be reported (except power on).
- **GET.** Executes previously received settings or triggers output in TRIGGER, GATE, or BURST modes (the waveform generator must be listen-addressed). GET is used after the DT command has been sent.
- **LLO.** Locks out the operator from restoring local (front panel) control when the arbitrary waveform generator is under remote control.
- **GTL.** Restores local control if the arbitrary waveform generator receives the message while listen addressed.

See the AWG 5102/5502 Instruction Manual for a full discussion of how the waveform generator responds to interface messages.

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