

- **SSEtup**: indicates the setup saving.
- **AMEasure**: indicates all measurement.
- **SRESet**: indicates statistics reset.
- **RECORD**: indicates waveform recording.
- **SSAVe**: indicates saving group.

#### Return Format

The query returns SIM, SWAV, SSET, AME, REC, SSAV, or SRES.

#### Example

```
:QUICK:OPERation SWAVe      /*Sets the type of the shortcut key to
"save waveform".*/
:QUICK:OPERation?           /*The query returns SWAV.*/
```

## 3.19 :RECORD Commands

The **:RECORD** commands are used to set and query the parameters related to the waveform recording mode and frames.

Waveform recording/playing function allows you to record and play the waveforms, enabling you to analyze the waveforms better.

### 3.19.1 :RECORD:WRECORD:ENABLE

#### Syntax

```
:RECORD:WRECORD:ENABLE <bool>
:RECORD:WRECORD:ENABLE?
```

#### Description

Enables or disables the waveform recording function; or queries the on/off status of the waveform recording function.

#### Parameter

Name	Type	Range	Default
<bool>	Bool	{{1 ON}}{0 OFF}}	0 OFF

#### Remarks

N/A

#### Return Format

The query returns 0 or 1.

### Example

```
:RECORD:WRECORD:ENABLE ON      /*Enables the waveform recording  
function.*/  
:RECORD:WRECORD:ENABLE?        /*The query returns 1.*/
```

## 3.19.2 :RECORD:ENABLE

### Syntax

**:RECORD:ENABLE** <bool>

**:RECORD:ENABLE?**

### Description

Enables or disables the waveform recording function; or queries the on/off status of the waveform recording function.

### Parameter

Name	Type	Range	Default
<bool>	Bool	{{1 ON}} {0 OFF}}	0 OFF

### Remarks

This command exists for backwards compatibility. Use the command **:RECORD:WRECORD:ENABLE**.

### Return Format

The query returns 0 or 1.

### Example

```
:RECORD:ENABLE ON      /*Enables the waveform recording function.*/  
:RECORD:ENABLE?        /*The query returns 1.*/
```

## 3.19.3 :RECORD:WRECORD:OPERate

### Syntax

**:RECORD:WRECORD:OPERate** <operate>

**:RECORD:WRECORD:OPERate?**

### Description

Sets to start the waveform recording, or queries whether the waveform recording starts or stops.

**Parameter**

Name	Type	Range	Default
<operate>	Discrete	{RUN STOP}	STOP

**Remarks**

N/A

**Return Format**

The query returns RUN or STOP.

**Example**

```
:RECORD:WRECORD:OPERate RUN      /*Sets to start recording
waveforms.*/
:RECORD:WRECORD:OPERate?          /*The query returns RUN.*/
```

## 3.19.4 :RECORD:START

**Syntax**

```
:RECORD:START <bool>
```

```
:RECORD:START?
```

**Description**

Sets to start the waveform recording, or queries whether the waveform recording starts or stops.

**Parameter**

Name	Type	Range	Default
<bool>	Bool	{{1 ON}} {0 OFF}}	0 OFF

**Remarks**

This command exists for backwards compatibility. Use the command *:RECORD:WRECORD:OPERate*.

**Return Format**

The query returns 1 or 0.

**Example**

```
:RECORD:START ON      /*Sets to start recording the waveforms.*/
:RECORD:START?        /*The query returns 1.*/
```

### 3.19.5 :RECORD:WRECORD:FRAMES

#### Syntax

**:RECORD:WRECORD:FRAMES** <value>

**:RECORD:WRECORD:FRAMES?**

#### Description

Sets or queries the number of frames for waveform recording.

#### Parameter

Name	Type	Range	Default
<value>	Integer	1 to the maximum number of frames that can be recorded currently	1,000

#### Remarks

N/A

#### Return Format

The query returns an integer ranging from 1 to the maximum number of frames that can be recorded currently.

#### Example

```
:RECORD:WRECORD:FRAMES 300    /*Sets the number of recorded frames
to 300.*/
:RECORD:WRECORD:FRAMES?       /*The query returns 300.*/
```

### 3.19.6 :RECORD:FRAMES

#### Syntax

**:RECORD:FRAMES** <value>

**:RECORD:FRAMES?**

#### Description

Sets or queries the number of frames for waveform recording.

#### Parameter

Name	Type	Range	Default
<value>	Integer	1 to the maximum number of frames that can be recorded currently	1,000

**Remarks**

This command exists for backwards compatibility. Use the command `:RECORD:WRECORD:FRAMES`.

**Return Format**

The query returns an integer ranging from 1 to the maximum number of frames that can be recorded currently.

**Example**

```
:RECORD:FRAMES 300 /*Sets the number of recorded frames to 300.*/  
:RECORD:FRAMES? /*The query returns 300.*/
```

### 3.19.7 :RECORD:WRECORD:FRAMES:MAX

**Syntax**

`:RECORD:WRECORD:FRAMES:MAX`

**Description**

Sets the number of recorded frames to the maximum number of frames.

**Parameter**

N/A

**Remarks**

N/A

**Return Format**

N/A

**Example**

```
:RECORD:WRECORD:FRAMES:MAX /*Sets the number of recorded frames  
to the maximum number of frames.*/
```

### 3.19.8 :RECORD:WRECORD: FMAX?

**Syntax**

`:RECORD:WRECORD: FMAX?`

**Description**

Queries the maximum number of frames that can be recorded currently.

**Parameter**

N/A

**Remarks**

N/A

**Return Format**

The query returns an integer. The maximum number of frames that can be recorded currently is determined by the current memory depth.

**Example**

N/A

### 3.19.9 :RECORD:WRECORD:FINTErval

**Syntax**

```
:RECORD:WRECORD:FINTErval <interval>
```

```
:RECORD:WRECORD:FINTErval?
```

**Description**

Sets or queries the time interval between frames in waveform recording.

**Parameter**

Name	Type	Range	Default
<interval>	Real	10 ns to 1 s	10 ns

**Remarks**

N/A

**Return Format**

The query returns the time interval in scientific notation. The unit is s.

**Example**

```
:RECORD:WRECORD:FINTErval 1 /*Sets the time interval between frames
in waveform recording to 1 s.*/
:RECORD:WRECORD:FINTErval? /*The query returns 1.000000E0.*/
```

### 3.19.10 :RECORD:WRECORD:PROMpt

**Syntax**

```
:RECORD:WRECORD:PROMpt <bool>
```

```
:RECORD:WRECORD:PROMpt?
```

**Description**

Sets or queries the on/off status of the beeper when the recording is completed.

**Parameter**

Name	Type	Range	Default
<bool>	Bool	{{1 ON}}{0 OFF}}	1 ON

**Remarks**

N/A

**Return Format**

The query returns 0 or 1.

**Example**

```
:RECORD:WRECORD:PROMPT ON      /*Enables the beeper when the
recording is completed.*/
:RECORD:WRECORD:PROMPT?        /*The query returns 1.*/
```

**3.19.11 :RECORD:WREPLAY:FCURRENT****Syntax**

```
:RECORD:WREPLAY:FCURRENT <value>
```

```
:RECORD:WREPLAY:FCURRENT?
```

**Description**

Sets or queries the current frame in waveform playing.

**Parameter**

Name	Type	Range	Default
<value>	Integer	1 to the maximum number of frames recorded	The maximum number of frames recorded

**Remarks**

N/A

**Return Format**

The query returns an integer.

**Example**

```
:RECORD:WREPLAY:FCURRENT 300    /*Sets the current frame for
waveform playing to 300.*/
:RECORD:WREPLAY:FCURRENT?        /*The query returns 300.*/
```

### 3.19.12 :RECORD:CURRENT

#### Syntax

`:RECORD:CURRENT <value>`

`:RECORD:CURRENT?`

#### Description

Sets or queries the current frame in waveform playing.

#### Parameter

Name	Type	Range	Default
<value>	Integer	1 to the maximum number of frames recorded	The maximum number of frames recorded

#### Remarks

This command exists for backwards compatibility. Use the command `:RECORD:WREPLAY:FCURRENT`.

#### Return Format

The query returns an integer.

#### Example

```
:RECORD:CURRENT 300      /*Sets the current frame for waveform  
playing to 300.*/  
:RECORD:CURRENT?        /*The query returns 300.*/
```

### 3.19.13 :RECORD:WREPLAY:FCURRENT:TIME?

#### Syntax

`:RECORD:WREPLAY:FCURRENT:TIME?`

#### Description

Queries the time stamp of the current frame in waveform playing.

#### Parameter

N/A

#### Remarks

N/A



**Return Format**

Queries the time stamp of the current frame in strings in waveform playing.

**Example**

N/A

**3.19.14 :RECORD:WREPlay:FStart****Syntax**

```
:RECORD:WREPlay:FStart <start>
```

```
:RECORD:WREPlay:FStart?
```

**Description**

Sets or queries the start frame in waveform playback.

**Parameter**

Name	Type	Range	Default
<start>	Integer	1 to the maximum number of frames that can be played back currently	-

**Remarks**

N/A

**Return Format**

The query returns the start frame in integer.

**Example**

```
:RECORD:WREPlay:FStart 10 /*Sets the start frame in waveform
playing to 10.*/
:RECORD:WREPlay:FStart? /*The query returns 10.*/
```

**3.19.15 :RECORD:WREPlay:FEND****Syntax**

```
:RECORD:WREPlay:FEND <end>
```

```
:RECORD:WREPlay:FEND?
```

**Description**

Sets or queries the end frame in waveform playback.

**Parameter**

Name	Type	Range	Default
<end>	Integer	1 to the maximum number of frames recorded	-

**Remarks**

N/A

**Return Format**

The query returns the end frame in integer.

**Example**

```
:RECORD:WREPlay:FEND 346 /*Sets the end frame for waveform
playing to 346.*/
:RECORD:WREPlay:FEND? /*The query returns 346.*/
```

### 3.19.16 :RECORD:WREPlay:FMAX?

**Syntax**

```
:RECORD:WREPlay:FMAX?
```

**Description**

Queries the maximum number of frames that can be played back currently.

**Parameter**

N/A

**Remarks**

N/A

**Return Format**

The query returns an integer ranging from 0 to the number of frames that have been recorded currently.

**Example**

N/A

### 3.19.17 :RECORD:WREPlay:FINTerval

**Syntax**

```
:RECORD:WREPlay:FINTerval <interval>
```

```
:RECORD:WREPlay:FINTerval?
```

**Description**

Sets or queries the time interval between frames in waveform playback.

**Parameter**

Name	Type	Range	Default
<interval>	Real	1 ms to 1 s	-

**Remarks**

N/A

**Return Format**

The query returns the time interval in scientific notation. The unit is s.

**Example**

```
:RECORD WREPlay:FINTerval 1 /*Sets the time interval between frames  
in waveform playback to 1 s.*/  
:RECORD:WREPlay:FINTerval? /*The query returns 1.000000E0.*/
```

### 3.19.18 :RECORD:WREPlay:MODE

**Syntax**

```
:RECORD:WREPlay:MODE <mode>
```

```
:RECORD:WREPlay:MODE?
```

**Description**

Sets the waveform playback mode to Repeat or Single; queries the waveform playback mode.

**Parameter**

Name	Type	Range	Default
<mode>	Discrete	{REPeat SINGle}	SINGle

**Remarks**

N/A

**Return Format**

The query returns REP or SING.

**Example**

```
:RECORD:WREPlay:MODE REP /*Sets the playback mode to REP.*/  
:RECORD:WREPlay:MODE? /*The query returns REP.*/
```

### 3.19.19 :RECORD:WREPLAY:DIRECTION

#### Syntax

`:RECORD:WREPLAY:DIRECTION <direction>`

`:RECORD:WREPLAY:DIRECTION?`

#### Description

Sets or queries the playback direction in waveform playing.

#### Parameter

Name	Type	Range	Default
<direction>	Discrete	{FORWARD BACKWARD}	FORWARD

#### Remarks

N/A

#### Return Format

The query returns FORW or BACK.

#### Example

```
:RECORD:WREPLAY:DIRECTION BACK /*Sets the direction of waveform
playback to BACK.*/
:RECORD:WREPLAY:DIRECTION? /*The query returns BACK.*/
```

### 3.19.20 :RECORD:WREPLAY:OPERATE

#### Syntax

`:RECORD:WREPLAY:OPERATE <operate>`

`:RECORD:WREPLAY:OPERATE?`

#### Description

Enables or disables the waveform playing function; or queries the on/off status of the waveform playing function.

#### Parameter

Name	Type	Range	Default
<operate>	Discrete	{RUN STOP}	STOP

#### Remarks

N/A

**Return Format**

The query returns RUN or STOP.

**Example**

```
:RECORD:WREPlay:OPERate RUN      /*Sets to play the waveforms.*/
:RECORD:WREPlay:OPERate?          /*The query returns RUN.*/
```

**3.19.21 :RECORD:PLAY****Syntax**

```
:RECORD:PLAY <bool>
```

```
:RECORD:PLAY?
```

**Description**

Enables or disables the waveform playing function; or queries the on/off status of the waveform playing function.

**Parameter**

Name	Type	Range	Default
<bool>	Bool	{{1 ON}}{0 OFF}}	0 OFF

**Remarks**

This command exists for backwards compatibility. Use the command *:RECORD:WREPlay:OPERate*.

**Return Format**

The query returns 1 or 0.

**Example**

```
:RECORD:PLAY ON      /*Sets to play the waveforms.*/
:RECORD:PLAY?         /*The query returns 1.*/
```

**3.19.22 :RECORD:WREPlay:BACK****Syntax**

```
:RECORD:WREPlay:BACK
```

**Description**

Plays back the previous frame of waveforms manually.

**Parameter**

N/A

**Remarks**

N/A

**Return Format**

N/A

**Example**

```
:RECORD:WREPLAY:BACK /*Plays back the previous frame of waveforms manually.*/
```

### 3.19.23 :RECORD:WREPLAY:NEXT

**Syntax**

```
:RECORD:WREPLAY:NEXT
```

**Description**

Plays back the next frame of waveforms manually.

**Parameter**

N/A

**Remarks**

N/A

**Return Format**

N/A

**Example**

```
:RECORD:WREPLAY:NEXT /*Plays back the next frame of waveforms manually.*/
```

### 3.19.24 :RECORD:WREPLAY:PLAY

**Syntax**

```
:RECORD:WREPLAY:PLAY <val>
```

**Description**

Sets to play from the start frame or end frame manually.

**Parameter**

Name	Type	Range	Default
<val>	Discrete	{FFIRst FEND}	FFIRst