

TEK DSA 600
SERIES

070-8183-00
Product Group 47

**THE
& DSA 601A
DSA 602A**
DIGITIZING SIGNAL
ANALYZERS

**Quick
Reference**

*Please check for CHANGE INFORMATION
at the rear of this manual.*

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COMMITTED TO EXCELLENCE

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Contents

Task Reference 1

Command Reference 19

Alphabetic Command Summary (foldout)

Functional Command Summary (foldout)

Change Information

Escape Character Set inside back cover

ASCII & GPIB Code Chart back cover

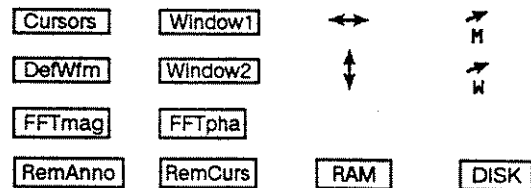
Task Reference

This section of the Quick Reference lists common tasks you can perform using the DSA 601A and DSA 602A Digitizing Signal Analyzers, and the steps to take to execute each task. Tasks are sorted into groups.

Key to symbols used in this reference:

-  a button on the front panel
-  a selection from the major menu area
-  a selection from a pop-up menu
-  an adjustment performed using the knobs

Icons that appear on the display:



Contents

Basics	4
Clearing All Settings	4
Checking the ROM Version	4
Engaging Enhanced Accuracy	4
Initializing the Scope	4
Removing Pop-Up Menus	4
Setting the Time and Date	4
Turning On the Scope	4
Acquiring Waveforms	5
Acquiring with Autoset	5
Applying Math Functions to a Waveform ..	5
Creating a New Waveform	5
Setting Record Length	5
Repetitive Single-Shot	5
Displaying Waveforms	6
Creating a Waveform	6
Changing Vertical Controls	6
Changing Horizontal Controls	6
Using Pan and Zoom	6
Changing Trigger Settings	6
Window Operations	7
Creating a Window	7
Removing a Window	7
Removing a Waveform	7
FFT Displays	8
Defining an FFT	8
Frequency Span/div	8
Frequency Resolution	8
FFT Magnitude Format (Scaling)	8
FFT Window	8
FFT Measurements	8
Changing the Display	9
Display Colors	9
Display Intensity (overall)	9
Graticules	9
Changing Persistence Mode	9
Changing Persistence Time	10
Clearing Waveforms	10
Labeling Waveforms and Settings	10
Creating a Label	10

Changing or Deleting the Label	10
Positioning the Label	10
Storing Waveforms and Settings	11
Waveforms	11
Settings	11
Recalling Waveforms and Settings	11
Waveforms	11
Settings	11
Measurement Functions	12
Taking Measurements	12
Adjusting Measurement Limits	12
Using Histograms	12
Making a Hardcopy	13
Setting Hardcopy Parameters	13
Initiating a Hardcopy	13
Aborting a Hardcopy	13
Setting GPIB Parameters	14
Mode	14
Address	14
Terminator	14
Debug	14
Setting RS-232-C Parameters	15
Baud Rate	15
Echo	15
Stop Bits	15
Parity	15
Flagging	15
Delay	15
EOL String	15
Verbose Mode	15
Debug Mode	15
Disk Drive Operations	16
Formatting a Disk	16
Checking a Disk	16
Labeling a Disk	16
File Copy	16
Create a Directory	16
Remove a Directory	16
Change Directory	16
Using Diagnostics	17
Self-Test Diagnostics	17
Extended Diagnostics	17

Basics

Clearing All Settings

 UTILITY,  Initialize,  Initialize

Checking the ROM Version

  UTILITY,  Ident, *Read firmware versions in the pop-up menu under ROM.*

Engaging Enhanced Accuracy

  ENHANCED ACCURACY

Initializing the Scope

 UTILITY,  Initialize,  Initialize

Removing Pop-Up Menus

Touch anywhere in graticule outside pop-up menu. Alternate:  touch highlighted selector that displayed pop-up. Alternate:  press any menu button

Setting the Time and Date

 UTILITY,  Time & Date,  select item to change,  adjust using knobs

Turning On the Scope

*Set rear panel Principal Power Switch to ON,
Set  Standby to ON*

Acquiring Waveforms

Acquiring with Autoset

 AUTOSSET button. Alternate: Probe ID button, if set

Undoing an Autoset

 UTILITY,  Modes,  Undo Last Autoset

Setting the Autoset Mode

 UTILITY,  Modes,  Vertical (for Pk-Pk, TTL, ECL, or Off) or Horizontal (for Period, Pulse, Edge, or Off).

Applying Math Functions to a Waveform

 WAVEFORM,  Vertical Desc,  as needed then Enter Desc

Creating a New Waveform

 DefWfm and  as needed (all waveforms). Alternate:  Input channel (single-channel waveforms only)

Setting Record Length

 WAVEFORM,  Horizontal Desc,  Main Record Length or Window Record Length,  Left knob for main time base record length or  Right knob for window

Repetitive Single-Shot

Starting Repetitive Acquisition

 WAVEFORM,  Acquire Desc,  Rep Trig Complete,  DIGITIZER

Setting the Number of Acquisitions

 WAVEFORM,  Acquire Desc,  Set Rep Trigger N,  either knob

Displaying Waveforms

Creating a Waveform

Defining a Single-Channel Waveform

 *Input channel*

Defining a Complex Waveform

 and  as needed (all waveforms)

Changing Vertical Controls

Volts/Div (Vertical Size)

Select waveform, ,  Left knob

Vertical Position (Offset)

Select waveform, ,  Right knob

Changing Horizontal Controls

Horizontal Position (Main Position)

Select waveform, ,  Right knob

Time/Div (Main Size)

Select waveform, ,  Left knob

Using Pan and Zoom

Select waveform, ,  Pan/Zoom to On,
 Left knob for magnification, Right knob for
position

Changing Trigger Settings

Trigger Coupling

 TRIGGER,  Trigger Select (Main or Win-
dow) then Coupling,  select coupling
method

Trigger Level

 or ,  Left knob. Alternate:  TRIGGER,  Level,  Left knob

Trigger Holdoff

 or ,  Right knob. Alternate:  TRIGGER,  Time Holdoff,  Right knob

Trigger Source

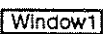
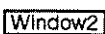
 TRIGGER,  Trigger Select (Main or Window) then Source Desc,  type description then Enter Desc

Trigger Slope

 TRIGGER,  Trigger Select (Main or Window) then Slope

Window Operations

Creating a Window

Select source waveform,  Window1 or  Window2

Removing a Window

Select window waveform to delete,  Rem Wfm #,  Remove Wfm #

Removing a Waveform

Select waveform to delete,  Rem Wfm #,  Remove Wfm #

FFT Displays

Defining an FFT

, Waveform Functions, Page↓ ,
FFTmag(or FFTphase(, select the channel,
) then Enter Desc. Alternate: Select the de-
sired waveform, then

Frequency Span/div

, Left knob

Frequency Resolution

, Right knob

FFT Magnitude Format (Scaling)

WAVEFORM, FFT Control, select
format

FFT Window

WAVEFORM, FFT Control, select win-
dowing function

FFT Measurements

Spectral Magnitude

MEASURE, Measurements, Spectral
Mag

Spectral Frequency

MEASURE, Measurements, Spectral
Freq

THD

MEASURE, Measurements, THD

Changing the Display

Display Colors

 UTILITY,  Color,  select color to be set from top of pop-up, then use Hue, Lightness, and Saturation with  knobs. Select next color and continue. Previous Colors resets all colors to what they were when the pop-up was first displayed.

Assigning Colors to Waveforms

Select waveform,  UTILITY,  Color,  Selected Wfm Color repeatedly until set to desired color. Window waveforms cannot be re-assigned

Resetting Colors

 UTILITY,  Color,  Default Color

Display Intensity (overall)

 UTILITY,  Color,  Display Intensity,  either knob

Graticules

Creating a Second Graticule

 WAVEFORM,  Graticules,  Create Second Graticule

Moving Waveforms Between Graticules

Select waveform,  WAVEFORM,  Lower Graticule or Upper Graticule,  Move Waveform to Other Graticule

Removing the Second Graticule

 WAVEFORM,  Lower Graticule or Upper Graticule,  Reduce to Single Graticule

Changing Persistence Mode

 WAVEFORM,  Horizontal Desc,  Normal, Infinite, or Variable

Changing Persistence Time

 WAVEFORM,  Horizontal Desc,  Persist Time,  Either knob

Clearing Waveforms

Select waveform,  Rem Wfm #,  Clear Wfm #

Labeling Waveforms and Settings

Creating a Label

 UTILITY,  Label,  select entity to display (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphics, Greek, or Other). Back Space to correct errors or Erase to delete text. Touch Display to display label. Exit

Changing or Deleting the Label

 UTILITY,  Label,  select entity to change or delete (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphics, Greek, , or Other). Back Space to correct errors or Erase to delete text. Exit

Positioning the Label

Select waveform,  UTILITY,  Label  Displayed Waveforms then Position,  to move

Storing Waveforms and Settings

Waveforms

 STORE/RECALL,  Store Waveform,  or ,  select waveform or Store All

Settings

 STORE/RECALL,  Store Setting,  or ,  select associated menu at bottom of pop-up menu, then Set Next FPS and  either knob, then  Store Next FPS

Recalling Waveforms and Settings

Waveforms

 STORE/RECALL,  Recall Waveform,  or ,  select waveform

Stored Waveform Scan

  STORE/RECALL,  Scan/Stopped (use other  to set scan parameters)

Settings

 STORE/RECALL,  Recall Setting,  or ,  select setting

Measurement Functions

Taking Measurements

 MEASURE,  Measurements,  select measurement

Adjusting Measurement Limits

 MEASURE,  select measurement from major menu,  select parameters and  adjust as necessary.

Adjusting Default Limits

  MEASURE,  Compare & Defaults,  Default Parameters,  select parameters and  adjust as necessary.

Using Histograms

Turning Histograms On/Off

  MEASURE,  Histograms,  Vertical Histogram or Horizontal Histogram

Changing the Size of the Histogram Box

  MEASURE,  Histograms,  Vertical Limits or Horizontal Limits,  Left or right knob as needed

Changing Histogram Scaling

  MEASURE,  Histograms,  Histogram Scaling

Limiting Acquisitions

  MEASURE,  Histograms,  Set N Waveform or Set N Samples,  Adjust either knob,  Stop N Waveform or Stop N Samples

Making a Hardcopy

Setting Hardcopy Parameters

  UTILITY,  Hardcopy,  as necessary

Interfacing

See also Setting GPIB Parameters, Setting RS-232-C Parameters

Hardcopy to Disk

  UTILITY,  Hardcopy,  Output Port to Disk;  UTILITY,  File Ops,  File Type to hardcopy

Initiating a Hardcopy

 HARDCOPY

Aborting a Hardcopy

  UTILITY,  Hardcopy,  Hardcopy Abort

Setting GPIB Parameters

Mode

  UTILITY,  GPIB,  Mode as necessary

Address

  UTILITY,  GPIB,  Address  to desired address

Terminator

  UTILITY,  GPIB,  Terminator as necessary

Debug

  UTILITY,  GPIB,  Debug as necessary

Setting RS-232-C Parameters

Baud Rate

  UTILITY,  RS-232-C,  Right knob

Echo

  UTILITY,  RS-232-C,  Echo, as necessary

Stop Bits

  UTILITY,  RS-232-C,  Stop Bits, as necessary

Parity

  UTILITY,  RS-232-C,  Parity, as necessary

Flagging

  UTILITY,  RS-232-C,  Flagging, as necessary

Delay

  UTILITY,  RS-232-C,  Delay,  Left knob

EOL String

  UTILITY,  RS-232-C,  EOL String, as necessary

Verbose Mode

  UTILITY,  RS-232-C,  Verbose

Debug Mode

  UTILITY,  RS-232-C,  Debug

Disk Drive Operations

Formatting a Disk

   UTILITY,  Disk Ops,  format, A:, Enter

Checking a Disk

   UTILITY,  Disk Ops,  chkdsk, A:, Enter

Labeling a Disk

   UTILITY,  Disk Ops,  label, A:, Use keypad to type in label, Enter

File Copy

   UTILITY,  File Ops,  copy, use keypad to enter existing file pathname, Space, use keypad to enter new file pathname.

Create a Directory

   UTILITY,  Directory Ops,  mkdir, use keypad to enter directory name.

Remove a Directory

   UTILITY,  Directory Ops,  rmdir, use keypad to enter directory name.

Change Directory

   UTILITY,  Directory Ops,  chdir, use keypad to enter pathname of directory.

Using Diagnostics

Self-Test Diagnostics

  UTILITY,  Self Test

Extended Diagnostics

  UTILITY,  Extended Diagnostic,
 Extended Diagnostic *then run desired tests,*
then Exit

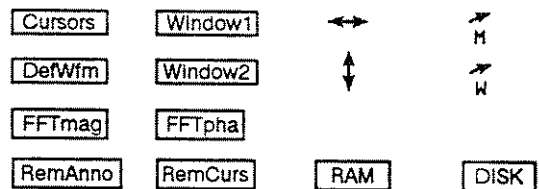
Command Reference

This section of the quick reference lists the functions you can perform using the DSA 601A and DSA 602A Digitizing Signal Analyzers, and the steps to take to execute each function. Functions are listed in alphabetical order.

Key to symbols used in this reference:

-  a button on the front panel
-  a selection from the major menu area
-  a selection from a pop-up menu
-  an adjustment performed using the knobs

Icons that appear on the display:



A to B, intensified zone
see Window

Abort Hardcopy

  UTILITY,  Hardcopy,  Hardcopy
Abort

AC Coupling, trigger

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling,  AC

AC Coupling, vertical channel

 WAVEFORM,  Input Parameters, *select channel then*  AC

Acquiring Time Base Main or Window

 WAVEFORM,  observe Horizontal Desc
status area

Acquisition, on/off

 DIGITIZER *Run/Armed / Stop*

Act on Delta, set parameters

 WAVEFORM,  Act on Delta,  *define delta description and select delta actions*
See also Autostore Parameters

Act on Delta, start acquisition

 WAVEFORM,  Acquire Desc,  Delta,
 DIGITIZER

Add Waveform

 *and*  *as needed (all waveforms), then*
Enter Desc. Alternate:  *Input channel (single-channel waveforms only)*

Address, GPIB

  UTILITY,  GPIB,  Address

Annotation, Measurement

 MEASURE,  *selector displaying measurement value*

Annotation, Measurement – removing



Area, measurements

 MEASURE,  Measurements,  Area + or Area-

Audio Feedback, on/off

 UTILITY,  Modes,  Audio Feedback

Auto Level Trigger Mode

 TRIGGER,  Trigger Select (Main or Window) *then* Mode,  Auto Level

Auto Trigger Mode

 TRIGGER,  Trigger Select (Main or Window) *then* Mode,  Auto

Autoset

 AUTOSSET *button. Alternate: Probe ID button, if set*

Autoset, set probe ID button

 UTILITY,  Probes,  Select /New & Autoset

Autoset, undo

 UTILITY,  Modes,  Undo Last Autoset

Autoset Options, configuring

 UTILITY,  Modes,  Vertical *and* Horizontal

Autostore Parameters, setting

 WAVEFORM,  Acquire Desc,  Page To Autostore Parameters Menu,  as needed

Average, on/off

 WAVEFORM,  Acquire Desc,  Average N

Average, set N

 WAVEFORM,  Acquire Desc,  Set AvgN,  Left knob

Averaging Type

 UTILITY,  Modes,  Averaging Type

Axis

see Graticule

B Sweep

see Window

Bandwidth Limit

WAVEFORM, Input Parameters, select channel then select limit

Baseline, default measurement parameter

MEASURE, Compare & Defaults, Default Parameters then Baseline then Right knob

Baud Rate, RS-232-C

UTILITY, RS-232-C, Baud Rate, Right knob

Beeping, on/off

UTILITY, Modes, Audio Feedback

Brightness

see Intensity

Calculations, waveform

WAVEFORM, Vertical Desc, as needed then Enter Desc

Calibrate (internal), oscilloscope

ENHANCED ACCURACY

Calibrate, probes

UTILITY, Probes, connect probe or input to calibrator and select channel

Calibrator, set frequency, amplitude, impedance

UTILITY Calibrator, and as needed

Channel Select

Input channel. Alternate: DeWfm, as needed

Clear, delete displayed or stored waveform

STORE/RECALL, Delete Waveform, select individual waveform(s) or All Waveforms, Delete Selected Waveforms

Clear, waveform data points

Select waveform, Rem Wfm #, Clear Wfm #

Coarse, knob resolution

 Knob label,  Coarse. Alternate:  Fine until Fine label is not lighted.

Coarse Dots Mode, cursors

 Cursors,  Cursor Type,  Coarse Dots Mode

Color, change waveform assignment

Select waveform,  UTILITY,  Color,  Selected Wfm Color repeatedly until set to desired color. Window waveforms cannot be reassigned

Color, default all

 UTILITY,  Color,  Default Color

Color, default one

 UTILITY,  Color,  select color to be reset from top of pop-up, then Default Color

Color, set one or more

 UTILITY,  Color,  select color to be set from top of pop-up, then use Hue, Lightness, and Saturation with  knobs. Select next color and continue. Previous Colors resets all colors to what they were when the pop-up was first displayed.

Communication parameters

  UTILITY,  RS-232-C or GPIB,  as needed

Compare, measurement on/off

  MEASURE,  Compare & Defaults,  Compare Options then Compare (on/off)

Compare, set measurement reference value

  MEASURE,  Compare & Defaults,  Compare Options then Save Current Meas Values as References or adjust by touching a measurement reference selector in "Adjust References" section, use  either knob

Compensation, probe

 UTILITY,  Probes, connect probe or input to calibrator and  select channel

Conditional Acquisition

WAVEFORM, Acquire Desc, %Fill Complete or Single Trigger or Single Sequence or Rep Trig Complete or Delta or Continuous or Average Complete or Envelope Complete or Both Avg & Env

Contrast, overall

UTILITY, Color, Display Intensity,
 either knob

Copy

see Hardcopy

Coupling, trigger

TRIGGER, Trigger Select (Main or Window) then Coupling, as needed

Coupling, vertical channel

WAVEFORM, Input Parameters, select channel then select coupling

Create New Waveform

DefWfm and as needed (all waveforms). Alternate: Input channel (single-channel waveforms only)

Cross, measurement

MEASURE, Measurements, Cross

Cursors, across two waveforms

Select first waveform, Cursors, Cursor Type, Split Dots then selector for second waveform

Cursors, auto measurement area

see Annotation, measurement

Cursors, coarse dots mode

Cursors, Cursor Type, Coarse Dots Mode

Cursors, default type

UTILITY, Modes, Default Cursor

Cursors, hold mode

UTILITY, Modes, Cursor Hold

Cursors, setting type

Select waveform, ☐ Cursors, ☐ Cursor Type,
☐ select type

Cursors, turning off

☐ RemCurs. Alternate: ☐ Page to Previous Menu.
Alternate: ☐ WAVEFORM

Cursors, turning on

Select waveform, ☐ Cursors

Data Interval, default measurement parameter

☐ ☐ MEASURE, ☐ Compare & Defaults,
☐ Default Parameters then Data Interval

Date, set

☐ UTILITY, ☐ Time & Date, ☐ select item to
change, ☐ knob

DC Coupling, trigger

☐ TRIGGER, ☐ Trigger Select (Main or Win-
dow) then Coupling, ☐ DC

DC Coupling, vertical channel

☐ WAVEFORM, ☐ Input Paramters, ☐ select
channel then DC

Debug Mode, programming

☐ ☐ UTILITY, ☐ RS-232-C or GPIB, ☐ De-
bug

Default, measurement parameter

☐ ☐ MEASURE, ☐ Compare & Defaults,
☐ Default Parameters then select parameter,
☐ knob

Define, new waveform

☐ DefWfm and ☐ as needed (all waveforms). Al-
ternate: ☐ Input channel (single-channel
waveforms only)

Delay by Events or Time

see Holdoff

Delay, RS-232-C

☐ ☐ UTILITY, ☐ RS-232-C, ☐ Delay,
☐ Left knob

Delay, timing measurement

MEASURE, Measurements, Delay

Delayed Sweep

see Window

Delete, displayed or stored waveform

STORE/RECALL, Delete Waveform,
 select individual waveform(s) or All Wave-
forms, Delete Selected Waveforms

Delete, displayed waveform

Select waveform to delete, Rem Wfm #,
 Remove Wfm #

Delete, stored setting

STORE/RECALL, RAM or DISK, De-
lete Setting, *select individual settings or All*
Settings, Delete Selected Settings

Delta Description, set

WAVEFORM, Act on Delta, *select*
from Delta Description portion of menu

Deskew, probe

UTILITY, Probes, *connect probe or input*
to calibrator and *select channel*

Diagnostics, extended

UTILITY, Extended Diagnostic,
 Extended Diagnostic then run desired tests
then Exit

Diagnostics, self test

UTILITY, Self Test

Disk Drive, check floppy disk

UTILITY, Disk Ops, chkdsk, A:,
Enter

Disk Drive, copy file

UTILITY, File Ops, copy type
existing file name, Space, new file name, then
Enter

Disk Drive, create directory

UTILITY, Directory Ops, mkdir,
type directory name then Enter

Disk Drive, delete file

   UTILITY,  File Ops,  delete type
file name then Enter

Disk Drive, filename prefix

   UTILITY,  File Ops,  prefix type
prefix then Enter

Disk Drive, file type

   UTILITY,  File Ops,  File Type

Disk Drive, file data format

   UTILITY,  File Ops,  File Data
Format

Disk Drive, format floppy disk

   UTILITY,  Disk Ops,  format, A:;
Enter

Disk Drive, label floppy disk

   UTILITY,  Disk Ops,  label, A:;
type label then Enter

Disk Drive, list directory

   UTILITY,  Directory Ops,  dir,
Enter. Alternate:    UTILITY,  Directory
Ops,  File List

Disk Drive, read/write permissions

   UTILITY,  File Ops,  attrib, type
path name for file then Enter

Disk Drive, remove directory

   UTILITY,  Directory Ops,  rmdir,
type existing directory name, Enter

Disk Drive, rename directory

   UTILITY,  Directory Ops,  renmdir,
type existing directory name, Space, new direc-
tory name, then Enter

Disk Drive, rename file

   UTILITY,  File Ops,  rename type
existing file name, Space, new file name, then
Enter

Display Intensity, adjustment

 UTILITY,  Color,  Display Intensity,
⊙ *either knob*

Display Mode, vector on/off

 UTILITY,  Modes,  Vectorized Waveforms

Distal, default measurement parameter

 MEASURE,  Compare & Defaults,  Default Parameters *then Distal then* ⊙ *Left knob*

Dot Cursors

Select waveform,  Cursors,  Cursor Type,
 Paired Dots

Echo, RS-232-C

  UTILITY,  RS-232-C,  Echo

ECL, Autoset mode

 UTILITY,  Modes,  Vertical

Edge, Autoset mode

 UTILITY,  Modes,  Horizontal

Energy, measurement

 MEASURE,  Measurements,  Energy

Enhanced Accuracy, set auto or manual

 UTILITY,  Modes,  Enhanced Accuracy Mode

Enhanced Accuracy, execute

  ENHANCED ACCURACY

Envelope, on/off

 WAVEFORM,  Acquire Desc,  Envelope N

Envelope, set N

 WAVEFORM,  Acquire Desc,  Set EnvN, ⊙ *Right knob*

EOL String, RS-232-C

  UTILITY,  RS-232-C,  EOL String

Events, delay window trigger by
see *Holdoff*

Extended Diagnostics

  UTILITY,  Extended Diagnostic,
 Extended Diagnostic *then run desired tests then Exit*

Fall Time, timing measurement

 MEASURE,  Measurements,  Fall

Fast (definition)

Integer waveform computations. See Forced to force High Prec floating-point computations.

FFT, magnitude display

 DefWfm,  Waveform Functions, FFTmag(, *select channel*,), Enter Desc. *Alternate: Select waveform*,  FFTmag

FFT, magnitude format (scaling)

 WAVEFORM,  FFT Control,  *select format*

FFT, phase display

 DefWfm,  Waveform Functions, FFTphase(, *select channel*,), Enter Desc. *Alternate: Select waveform*,  FFTmag,  FFTpha

FFT, window

 WAVEFORM,  FFT Control,  *select window type*

Filter, digitizer

 WAVEFORM,  Input Parameters,  100 MHz (*under Digitizer Filter label*)

Filter, function

 DefWfm,  Waveform Functions, Filter(, *enter waveform description then*), Enter Desc

Filter, trigger coupling

 TRIGGER,  Trigger Select (Main or Window) *then Coupling*,  *select desired coupling*

Fine, knob resolution

 FINE. *Alternate:  Knob label,  Fine*

Flagging, RS-232-C

  UTILITY,  RS-232-C,  Flagging

Forced, high-precision waveform scaling

 UTILITY,  Modes,  Waveform Scaling to Forced (*all new waveforms will be High Prec*). See *High Prec*

Frequency, timing measurement

 MEASURE,  Measurements,  Frequency

Front-Panel Setting

see Setting

Functions, waveform

 WAVEFORM,  Vertical Desc,  as needed then Enter Desc

Gain, amplitude measurement

 MEASURE,  Measurements,  Gain

GPIO Parameters

  UTILITY,  GPIO,  as needed

Graticule, create second

 WAVEFORM,  Graticules,  Create Second Graticule

Hardcopy, abort

  UTILITY,  Hardcopy,  Hardcopy Abort

Hardcopy, make

 HARDCOPY

Hardcopy, set mode

  UTILITY,  Hardcopy,  as necessary

High Pass Filter, trigger coupling

 TRIGGER,  Trigger Select (Main or Window) then Coupling,  select coupling

High Prec (definition)

Floating-point waveform computations. All waveforms using multiplication, division, or certain functions will always be High Prec. Other waveforms can be High Prec — see Forced

Histograms, adjusting limits

  MEASURE,  Histograms,  Vertical Limits or Horizontal Limits,  either knob as appropriate

Histograms, on/off

  MEASURE,  Histograms,  Vertical Histogram or Horizontal Histogram

Holdoff, main trigger, adjusting

  Right knob

Holdoff window trigger by events, establishing

 TRIGGER,  Trigger Select (Window),  Source Desc  Window Holdoff By Events

Holdoff window trigger by time, establishing

 TRIGGER,  Trigger Select (Window),  Source Desc  Window Holdoff By Time

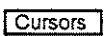
Holdoff window trigger by time or events, adjusting

  Right knob. Alternate:  TRIGGER,  Time Holdoff or Events Holdoff,  Right knob

Holdoff, window trigger, removing

 TRIGGER,  Trigger Select (Window),  Source Desc  Window Triggered From Main

Horizontal Bar Cursors

Select waveform,  Cursors,  Cursor Type,  Horizontal Bars

Horizontal Histograms, on/off

  MEASURE,  Histograms,  Horizontal Histogram

Horizontal Magnify

Select waveform,  Pan/Zoom to On,  Left knob for magnification,  Right knob for position

Horizontal Position

Select waveform,  Pan/Zoom to On,  Right knob

Horizontal Size

Select waveform, $\leftrightarrow$,  Left knob

Impedance, Signal

 WAVEFORM,  Input Parameters,  select channel then select impedance

Infinite Persistence, on/off

 WAVEFORM,  Horizontal Desc,  Infinite

Initialize, all default measurement parameters

  MEASURE,  Compare & Defaults,  Default Parameters, then Initialize Defaults

Initialize oscilloscope

 UTILITY,  Initialize,  Initialize

Intensified Zone

see Window

Intensity, overall display

 UTILITY,  Color,  Display Intensity,  either knob

Interpolation, pan/zoom – set type

 UTILITY,  Modes,  Zoom Intp

Inverted Waveform

,  –, then source description then Enter Desc

Keypad, numeric

 Knob label,  enter number, magnitude (m for milli, etc.) then Enter

Knob Resolution

 FINE. Alternate:  Knob label,  Coarse or Medium or Fine

Label, define and display

 UTILITY,  Label,  select entity to display (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphic, Greek, or Other). Back Space to correct errors or Erase to delete, then Display, Exit

Label, change or delete

 UTILITY,  Label,  select entity to change or delete (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphics, Greek, or Other). Back Space to correct errors or Erase to delete text. Exit

Label, move

Select waveform,  UTILITY,  Label  Displayed Waveforms then Position,  to move

Label, on/off

 UTILITY,  Label  Displayed Waveforms then Display, then Exit

Label, stored waveform time/date format

 UTILITY,  Modes,  Stored Wfm Time Fmt (shows time/date stamp on menu selectors for stored waveforms with date or with hundredths of seconds)

Left Limit, default measurement parameter

  MEASURE,  Compare & Defaults,  Default Parameters then Left Limit,  Left knob

Level, trigger

 or  ,  Left knob. Alternate:  TRIGGER,  Level,  Left knob

Level Mode, default measurement parameter

  MEASURE,  Compare & Defaults,  Default Parameters then Level Mode

Line Trigger

 TRIGGER,  Trigger Select (Main or Window) then Source Desc,  Line, Enter Desc

Low Pass Filter, trigger coupling

 TRIGGER,  Trigger Select (Main or Window) then Coupling,  select coupling

Main Position

Select waveform,  ,  Right knob

Main Size

Select waveform, ,  Left knob

Main→Win Trigger, timing measurement

 MEASURE,  Measurements,
 Main→Win Trig Time

Main, record length

 WAVEFORM,  Horizontal Desc,  Main
Record Length,  Left knob

Max, amplitude measurement

 MEASURE,  Measurements,  Max

Mean, amplitude measurement

 MEASURE,  Measurements,  Mean

Measurement, to remove all

 MEASURE,  Measurements,  Delete
All

Measurement, to select

 MEASURE,  Measurements,  select
up to six

Measurement Compare, on/off

  MEASURE,  Compare & Defaults,
 Compare Options *then* Compare (on/off)

Measurement Compare, set compare value

  MEASURE,  Compare & Defaults,
 Compare Options *then* Save Current Meas
Values as References *or adjust by touching a*
measurement reference selector in "Adjust Ref-
erences" section, use  either knob

Measurement Statistics, on/off

  MEASURE,  Statistics,  Live Wfm
Statistics *or* Stored Wfm Statistics,  Statistics
Note: Main→Win Trig Time measurement has
its own statistics control:  Main→Win Trig
Time,  "Statistics" section

Measurement Statistics, restart logging

  MEASURE,  Statistics,  Reset

Measurement Statistics, set N

  MEASURE,  Statistics,  Statistics N,  either knob

Medium, knob resolution

 Knob label,  Medium

Memory Wrap, set autostore parameter

 WAVEFORM,  Acquire Desc,  Page To Autostore Parameters Menu,  Wraparound

Menu, remove pop-up

Touch anywhere in graticule outside pop-up menu. Alternate:  touch highlighted selector that displayed pop-up. Alternate:  press any menu button

Mesial, default measurement parameter

 MEASURE,  Stats Comp Test & Def,  Default Parameters then Mesial,  Left knob

Mid, amplitude measurement

 MEASURE,  Measurements,  Mid

Min, amplitude measurement

 MEASURE,  Measurements,  Min

Mode, GPIB

  UTILITY,  GPIB,  Mode

Move Waveform to Other Graticule

Select waveform to move,  WAVEFORM,  Upper Graticule or Lower Graticule,  Move Waveform to Other Graticule

New Waveform

 DeWfm and  as needed (all waveforms). Alternate:  Input channel (single-channel waveforms only)

Noise Filter, trigger coupling

 TRIGGER,  Trigger Select (Main or Window) then Coupling,  select coupling

Normal Trigger Mode

 TRIGGER,  Trigger Select (Main or Window) then Mode,  Normal

Numeric Keypad

 Knob label,  enter number, magnitude (m for milli, etc.) then Enter

Offset, vertical position

Select waveform, ,  Right knob

Optional, fast or high-precision waveform scaling

 UTILITY,  Modes,  Waveform Scaling to Optional (new waveforms will be Fast or High Prec depending on calculations invoked.)

Overshoot, amplitude measurement

 MEASURE,  Measurements,  Over-Shoot

Pan and Zoom, set interpolation type

 UTILITY,  Modes,  Zoom Intp

Pan and Zoom, multiple waveforms

 UTILITY,  Modes,  Multitrace Pan/Zoom, then use Pan/Zoom as with single waveforms

Pan and Zoom, set pivot (center of magnification)

 UTILITY,  Modes,  Pan/Zoom Pivot

Pan and Zoom, using

Select waveform, ,  Pan/Zoom to On,  Left knob for magnification, Right knob for position

Parity, RS-232-C

  UTILITY,  RS-232-C,  Parity

Peak to Peak, amplitude measurement

 MEASURE,  Measurements,  Peak-Peak

Peak to Peak, Pk-Pk Autoset mode

 UTILITY,  Modes,  Vertical

Period, Autoset mode

 UTILITY,  Modes,  Horizontal

Period, timing measurement

 MEASURE,  Measurements,  Period

Persistence Mode, on/off

 WAVEFORM,  Horizontal Desc,  Infinite or Variable to turn on or Normal to turn off.

Phase, timing measurement

 MEASURE,  Measurements,  Phase

Pop-Up Menu, remove

Touch anywhere in graticule outside pop-up menu. Alternate:  touch highlighted selector that displayed pop-up. Alternate:  press any menu button

Position, horizontal

Select waveform, ,  Right knob

Position, vertical (offset)

Select waveform, ,  Right knob

Pre-Trigger View

Select waveform, ,  Right knob

Probe ID Button, set function

 UTILITY,  Probes,  Wfm Select / New Wfm or Select / New & Autoset or Sequence Settings or Store Waveforms

Probes, calibrate (deskew, compensate)

 UTILITY,  Probes, *connect probe or input to calibrator and  select channel*

Propagation Delay, timing measurement

 MEASURE,  Measurements,  PropDelay,  PropDelay,  select delayed waveform from top of menu

Proximal, default measurement parameter

  MEASURE,  Compare & Defaults,  Default Parameters *then Proximal then*  Right knob

Pulse, Autoset mode

 UTILITY,  Modes,  Horizontal

Pulse Width, timing measurement

 MEASURE,  Measurements,  Width

Recall, stored setting

STORE/RECALL, Recall Setting, RAM or DISK, select setting

Recall, stored waveform

STORE/RECALL, Recall Waveform, RAM or DISK, select waveform

Record Length, main

WAVEFORM, Horizontal Desc, Main Record Length, Left knob

Record Length, window

WAVEFORM, Horizontal Desc, Window Record Length, Right knob

Reference Level, default measurement parameter

MEASURE, Compare & Defaults, Default Parameters *then* Reference Level *then* either knob

Reference Value, for measurement compare

MEASURE, Compare & Defaults, Compare Options *then* Save Current Meas Values as References or *adjust by touching a measurement reference selector in "Adjust References" section, use* either knob

Remove Waveform

Select waveform to delete, Rem Wfm #, Remove Wfm #

Remove Window

Select window waveform to delete, Rem Wfm #, Remove Wfm #

Remove, pop-up menu

Touch anywhere in graticule outside pop-up menu. Alternate: touch highlighted selector *that displayed pop-up. Alternate:* press any menu button

Repetitive Single Trigger, set parameters

WAVEFORM, Acquire Desc, Trigger Select Main or Trigger Select Window, Set Rep Trigger N and either knob; Page To Auto-store Parameters Menu and as needed

Repetitive Single Trigger, start acquisition

 WAVEFORM,  Acquire Desc,  Rep Trig Complete,  DIGITIZER

Reset Oscilloscope

 UTILITY,  Initialize,  Initialize

Reset, all default measurement parameters

  MEASURE,  Compare & Defaults,  Default Parameters *then* Initialize Defaults

Reset, waveform measurement parameters to defaults

Select waveform,   MEASURE,  Compare & Defaults,  Default Parameters *then* Copy Defaults to Sel Wfm

Right Limit, default measurement parameter

  MEASURE,  Compare & Defaults,  Default Parameters *then* Right Limit,  Right knob

Rise Time, timing measurement

 MEASURE,  Measurements,  Rise

RMS, amplitude measurement

 MEASURE,  Measurements,  RMS

RS-232-C Parameters

  UTILITY,  RS-232-C,  as needed

Runs After Delay

 TRIGGER,  Trigger Select (Window),  Source Desc,  Window Triggered From Main

Sample Interval, display

 WAVEFORM,  Horizontal Desc,  read out at top of pop-up menu

Save Current Measurement Values as Compare Reference

  MEASURE,  Compare & Defaults,  Compare Options *then* Save Current Meas Values as References

Save Setting

STORE/RECALL, Store Setting, RAM or DISK, select associated menu at bottom of pop-up menu, then Set Next FPS and either knob, then Store Next FPS

Save Waveform

STORE/RECALL, Store Waveform, RAM or DISK, Set Next STO Index and either knob, select waveform or Store All

Scaling, waveform

UTILITY, Modes, Waveform Scaling. See also *Fast* and *High Prec*

Scan Stored Waveforms, initiate scan

STORE/RECALL, Scan/Stopped

Scan Stored Waveforms, select scan set

STORE/RECALL, Scan Using, select base label or All Stored Waveforms

Scan Stored Waveforms, set scan range

STORE/RECALL, Scan, Left knob to set beginning of range, Right knob for end

Scan Stored Waveforms, set scan rate

STORE/RECALL, Scan Rate, either knob

Scan Stored Waveforms, single step

STORE/RECALL, Next or Previous

Secure, hardcopy mode

UTILITY, Hardcopy, Security Option

Select Waveform

Touch waveform on display. Alternate:
 WAVEFORM, Page to All Wfms Status then select waveform in major menu area

Self Test

UTILITY, Self Test, Self Test

Self Test, extended diagnostics

UTILITY, Extended Diagnostic,
 Extended Diagnostic *then run desired tests then Exit*

Setting, recall front panel setup

STORE/RECALL, Recall Setting, RAM
 or DISK, select setting

Setting, sequence to next

STORE/RECALL, Recall Setting, Sequencing (set to On) *then Next Setting.*
Alternate: press probe button if ID function is set to sequence setting (see Probe ID Button)

Setting, store front panel setup

STORE/RECALL, Store Setting, RAM
 or DISK, select menu to be stored with setting at bottom of pop-up menu, *then Set Next FPS and either knob, then Store Next FPS*

Signal Source

DefWfm and as needed (all waveforms). *Alternate: Input channel (single-channel waveforms only)*

Signal/Noise Ratio, default measurement parameter

MEASURE, Compare & Defaults,
 Default Parameters *then S/N Ratio, Right knob*

Size, adjust horizontal

Select waveform, , Left knob

Size, adjust vertical

Select waveform, , Left knob

Skew, timing measurement

MEASURE, Measurements, Skew

Slope, default measurement parameter

MEASURE, Compare & Defaults,
 Default Parameters *then Slope*

Slope, trigger

TRIGGER, Trigger Select (Main or Window) *then Slope*

Sound, on/off

 UTILITY,  Modes,  Audio Feedback

Source, signal

 and  as needed (all waveforms). Alternate:  Input channel (single-channel waveforms only)

Source, trigger

 TRIGGER,  Trigger Select (Main or Window) then Source Desc,  type description then Enter Desc

Spectral Frequency, frequency domain measurement

 MEASURE,  Measurements,  Spectral Freq

Spectral Magnitude, frequency domain measurement

 MEASURE,  Measurements,  Spectral Mag

Split Dot Cursors

Select first waveform, , ,  Split Dots then touch selector for second waveform

Statistics, on/off

  MEASURE,  Statistics,  Statistics
Note: Main→Win Trig Time measurement has its own statistics control:  Main→Win Trig Time,  "Statistics" section

Statistics, restart logging

  MEASURE,  Statistics,  Reset

Statistics, set N

  MEASURE,  Statistics,  Statistics N,  either knob

Status, waveform

 WAVEFORM,  Vertical Desc selector shows some status. Alternate:   WAVEFORM,  Show Full Waveform Desc

Stop Bits, RS-232-C

  UTILITY,  RS-232-C,  Stop Bits

Store Setting

☐ STORE/RECALL, ☐ Store Setting, ☐ RAM or ☐ DISK, ☐ select associated menu at bottom of pop-up menu, then Set Next FPS and ☐ either knob, then ☐ Store Next FPS

Store Waveform

☐ STORE/RECALL, ☐ Store Waveform, ☐ RAM or ☐ DISK, ☐ Set Next STO Index, ☐ either knob, select waveform or Store All

Stored Waveform, recall

☐ STORE/RECALL, ☐ Recall Waveform, ☐ RAM or ☐ DISK, ☐ select waveform

Stored Waveform, time/date label format

☐ UTILITY, ☐ Modes, ☐ Stored Wfm Time Fmt (shows time/date stamp on menu selectors for stored waveforms with date or with hundredths of seconds)

Teksecure, erase memory

☐ ☐ UTILITY, ☐ Teksecure Erase Mem, ☐ Teksecure Erase Mem

Terminator, GPIB

☐ ☐ UTILITY, ☐ GPIB, ☐ Terminator

Text display on screen – define

☐ UTILITY, ☐ Label, ☐ Text, then type text (from key list of Upper Case, Lower Case, or Numbers). Back Space or Erase to correct errors. Exit
See also Label.

THD, frequency domain measurement

☐ MEASURE, ☐ Measurements, ☐ THD

Time, delay window trigger by
see Holdoff**Time, set**

☐ UTILITY, ☐ Time & Date, ☐ select item to change, ☐ adjust using knobs

Time A→B, timing measurement

☐ MEASURE, ☐ Measurements, ☐ Main→Win Trig Time

Time/Div

Select waveform, $\leftrightarrow$, $\odot$ Left knob

Time Base Position

Select waveform, $\leftrightarrow$, $\odot$ Right knob

Time Base Size

Select waveform, $\leftrightarrow$, $\odot$ Left knob

Time Mode, default measurement parameter

$\square$ $\square$ MEASURE, $\equiv$ Compare & Defaults,
 $\equiv$ Default Parameters *then* Time Mode

Topline, default measurement parameter

$\square$ $\square$ MEASURE, $\equiv$ Compare & Defaults,
 $\equiv$ Default Parameters *then* Topline *then*
 $\odot$ Right knob

Touch Panel, on/off

$\square$ TOUCH PANEL

Tracking, default measurement parameter

$\square$ $\square$ MEASURE, $\equiv$ Compare & Defaults,
 $\equiv$ Default Parameters *then* Tracking

Trig After Delay

$\square$ TRIGGER, $\equiv$ Trigger Select (Win-
 dow, Source Desc $\equiv$ Window Holdoff By Time

Trigger Time Delay, timing measurement

$\square$ MEASURE, $\equiv$ Measurements,
 $\equiv$ Main $\rightarrow$ Win Trig Time

Trigger, AC coupling

$\square$ TRIGGER, $\equiv$ Trigger Select (Main or Win-
 dow) *then* Coupling, $\equiv$ AC

Trigger, auto level mode

$\square$ TRIGGER, $\equiv$ Trigger Select (Main or Win-
 dow) *then* Mode, $\equiv$ Auto Level

Trigger, auto mode

$\square$ TRIGGER, $\equiv$ Trigger Select (Main or Win-
 dow) *then* Mode, $\equiv$ Auto

Trigger, DC coupling

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling,  DC

Trigger, high pass filter coupling

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling,  select

Trigger holdoff window by events, establishing

 TRIGGER,  Trigger Select (Window), Source Desc,  Window Holdoff By Events

Trigger holdoff window by time, establishing

 TRIGGER,  Trigger Select (Window) Source Desc,  Window Holdoff By Time

Trigger holdoff window by time or events, adjusting

 ,  Right knob. Alternate:  TRIGGER,  Time Holdoff or Events Holdoff,  Right knob

Trigger, holdoff window, removing

 TRIGGER,  Trigger Select (Window), Source Desc,  Window Triggered From Main

Trigger, level

 or ,  Left knob. Alternate:  TRIGGER,  Level,  Left knob

Trigger, line

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling,  Line

Trigger, low pass filter coupling

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling,  select coupling

Trigger, noise filter coupling

 TRIGGER,  Trigger Select (Main or Window) *then* Coupling , select coupling

Trigger, normal mode

 TRIGGER,  Trigger Select (Main or Window) *then* Mode,  Normal

Trigger, repetitive — set parameters

 WAVEFORM,  Acquire Desc,  Trigger Select Main or Trigger Select Window, Set Rep Trigger N and  either knob;  Page To Auto-store Parameters Menu and  as needed

Trigger, repetitive — start acquisition

 WAVEFORM,  Acquire Desc,  Rep Trig Complete,  DIGITIZER

Trigger, single sequence

 WAVEFORM,  Acquire Desc,  Single Sequence (press  DIGITIZER for each successive acquisition)

Trigger, single shot

 WAVEFORM,  Acquire Desc,  Single Trigger (press  DIGITIZER for each successive acquisition)

Trigger, slope

 TRIGGER,  Trigger Select (Main or Window) then Slope

Trigger, source

 TRIGGER,  Trigger Select (Main or Window) then Source Desc,  type description then Enter Desc

Trigger window holdoff by events, establishing

 TRIGGER,  Trigger Select (Window), Source Desc,  Window Triggered By Events

Trigger window holdoff by time, establishing

 TRIGGER,  Trigger Select (Window), Source Desc,  Window Holdoff By Time

Trigger window holdoff by time or events, adjusting

,  Right knob. Alternate:  TRIGGER,  Time Holdoff or Events Holdoff,  Right knob

Trigger, window holdoff, removing

 TRIGGER,  Trigger Select (Window), Source Desc,  Window Triggered From Main

TTL, Autoset mode

 UTILITY,  Modes,  Vertical

Undershoot, amplitude measurement

☐ MEASURE, ☐ Measurements, ☐ Under-Shoot

Variable Persistence, on/off

☐ WAVEFORM, ☐ Horizontal Desc, Variable Persist.

Vector Mode, display mode on/off

☐ UTILITY, ☐ Modes, ☐ Vektored Waveforms

Verbose, RS-232-C

☐ ☐ UTILITY, ☐ RS-232-C, ☐ Verbose

Vertical Bar Cursors

Select waveform, ☐ Cursors, ☐ Cursor Type, ☐ Vertical Bars

Vertical Offset

Select waveform, ☐ ☐ Right knob

Vertical Size

Select waveform, ☐ ☐ Left knob

Volts/Div

Select waveform, ☐ ☐ Left knob

Waveform, calculations and functions

☐ WAVEFORM, ☐ Vertical Desc, ☐ as needed then Enter Desc

Waveform, clear data points

Select waveform, Rem Wfm #, Clear Wfm #

Waveform, create new

☐ DefWfm and ☐ as needed (all waveforms). Alternate: ☐ Input channel (single-channel waveforms only)

Waveform, move to other graticule

Select waveform to move, ☐ WAVEFORM, ☐ Upper Graticule or Lower Graticule, ☐ Move Waveform to Other Graticule

Waveform, recall stored

☐ STORE/RECALL, ☐ Recall Waveform, ☐ RAM or ☐ DISK, ☐ select waveform

Waveform, remove

Select waveform to delete, Rem Wfm #,
 Remove Wfm #

Waveform, scaling

UTILITY, Modes, Waveform Scaling.
See also Fast and High Prec

Waveform, select

Touch waveform on display. Alternate: WA-
VEFORM, Page to All Wfms Status then
select waveform in major menu area

Waveform, status

WAVEFORM, Vertical Desc selector
shows some status. Alternate: WAVE-
FORM, Show Full Wfm Desc

Waveform, store

STORE/RECALL, Store Waveform,
 RAM or DISK, Set Next Sto Index, ei-
ther knob, select waveform or Store All

Waveform, vertical description

WAVEFORM, Vertical Desc (shows some
status), extend or modify as needed then
Enter Desc

Waveform, XY from two live waveforms

Create and select Y waveform, WAVEFORM,
 Horizontal Desc, select X waveform

Waveform, XY from two stored waveforms

Create and select stored Y waveform, WA-
VEFORM, Horizontal Desc, select X
stored waveform

Waveform Color, change assignment

Select waveform, UTILITY, Color, Se-
lected Wfm Color repeatedly until set to desired
color. Window waveforms cannot be reas-
signed. Note: see Color for more color control

Waveform Label, define

 UTILITY,  Label,  select entity to display (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphics, Greek, or Other). Back Space to correct errors or Erase to delete. Exit

Waveform Label, change or delete

 UTILITY,  Label,  select entity to change or delete (first Displayed Waveforms, Stored Waveforms, or Stored Settings, then the entity from the list below), then type label (from key list of Upper Case, Lower Case, Numbers, Graphics, Greek, or Other). Back Space to correct errors or Erase to delete text. Exit

Waveform Label, move

Select waveform,  UTILITY,  Label  Displayed Waveforms then Position, then Exit,  to move

Waveform Label, on/off

 UTILITY,  Label  Displayed Waveforms then Display

Waveform Label, stored waveform time/date format

 UTILITY,  Modes,  Stored Wfm Time Fmt (shows time/date stamp on menu selectors for stored waveforms with date or with hundredths of seconds)

Window Position

Select waveform, ,  Right knob

Window Size

Select waveform, ,  Left knob

Window, create new waveform

Select source waveform,  Window1 or  Window2

Window, record length

 WAVEFORM,  Horizontal Desc,  Window Record Length,  Right knob

Window, remove

Select window waveform to delete,  Rem
Wfm #,  Remove Wfm #

Window, trigger holdoff by events, establishing

 TRIGGER,  Trigger Select (Window),
Source Desc,  Window Holdoff By Events

Window, trigger holdoff by time, establishing

 TRIGGER,  Trigger Select (Window),
Source Desc,  Window Holdoff By Time

Window, trigger holdoff by time or events, adjusting

 ,  Right knob. Alternate:  TRIGGER,
 Time Holdoff or Events Holdoff,  Right
knob

Window, trigger holdoff, removing

 TRIGGER,  Trigger Select (Window),
Source Desc,  Window Triggered From Main

XY Waveform, from two live waveforms

Create and select Y waveform,  WAVEFORM,
 Horizontal Desc,  select X waveform

XY Waveform, from two stored waveforms

Create and select stored Y waveform,
 WAVEFORM,  Horizontal Desc,  select
X stored waveform

Zoom Interpolation, set type

 UTILITY,  Modes,  Zoom Intp

FROM: <ui>
(Set-only)

```

STATUS (ON OFF)
STATUS: (ACTIONS NUMRe)
TO repeat a command
DIGITIZE (ARMED RUN STOP)
ENEMY (ON OFF)
EFFECT <link> : <arg>
AVG: (ON OFF)
BOSUP: (ON OFF)
FORMAL: (BORN BLINKER TYPEAL DSBPeak) VMMS:
PHASE: (JMWARP) WRA1 (Dorsal)
WINDOW: (BLACKHOLE) BLURBS (HAMMING) HANMING)
RECTangular TRIANGular)
FILTER (ENABLE DISABLE)
INCACQ (ENABLE DISABLE)
INTERleave (ENABLE DISABLE)
NANAV <NR>
NENY <NR>
NNHISJIC <NR>
NNREPPING <NR>
NNVAWinn <NR>

```

```

SET?
WAVIN? (= WFMAP? CURVE?)
WFA? <NR> (= WFMAP? <NR> <NR>)
ACSLAP: (=ENHANCED|NEUNHANCED)
? BIT/IR: (<IR>|6)
? BN: int. (N)
? BYT/IR: (1|2)
? BYT or (LSB|MSB)
? CHVONK: (=OHMS|NONE|NUL)
DATE: (= <string>
? ENCDQ: (=ASCII|BINARY)
LABEL: (= <string>
NH: int. <NR>
PName: (=V|T|X?)
TName: (= <string>
TS: int. <NR>
? WFER: STD <id> | TRACES <id> )
WVIR: (= <NR>
? XMDU: (<NR> <NR> <NR>)
XUNH: (=APS|DVS|HEMZ|OHMS|SECONDS|VOLTS|
WAVE)
XZER: <NR>
YVIR: (= <NR>
YVIR: (=APS|DBI|DEG|eels|DVS|OHMS|VOLTS|
WAVE)
XZER: <NR>

```

FULL: <slot> <ui>
SHORT: <slot> <ui>

```

CALTEmpdata?
CALTEmpdata?
CCACoinstants <u>: <NR> >
CHSKey?
CACoinstants <u>: <NR> >
MCACoinstants <u>: <NR> >
RCACoinstants <u>: <NR> >
CClock [ENABLOCK]
SELFcl [link >] -arg>
Force
MODE: [AUTO|MANual]

```

(Set only)

```
XCoord: <NPrx>
XDiv: <NPrx>
```

[illegible]

BYT/NR {1|2}

```
ENCODG <link> <arg>
HISTOGRAM: {ASC||BINARY}
MEAS: {ASC||BINARY}
SET: {ASC||BINARY}
WALNAME: {ASC||BINARY}
INPUT {STO<ui>|<gstring>}
OUTPUT {STO<ui>|TRACE<ui>|<gstring>}
```

DATE: <qsing>

```

Diag?
TES1 [XTM4]

Diagnostic Commands

Disk Commands
ATTRIBU? <string>, <string>
BASENAME [FPS] [KOP] [STO]: <string>
CD <string>

XNUM: [AMPS] [DVS] [HERZ] [OHMS] [SECONDS] [VOLTS]
WATT(s)
XZERR: <NR>
TNUM: <NR>
YNUM: [AMPS] [BD] [DEGees] [DVS] [OHMS] [VOLTS]
YZERR: <NR>

[Set-only]

```

```
DCOPY <link>; <arg>
```

STO. <st> ; <gating>	(Query-only)
<gating> ; {FPS <st> } {STO <st> }	
<gating> <gating>	
DIR?	
FORMAT <gating> [<gating>]	
MKOH <gating>	(Set-only)
REName <gating> <gating>	(Set-only)
REND: <gating> , <gating>	
RMDH <gating>	(Set-only)
SETDEV	
FPS. {DISK:RAM}	
STO. {DISK:RAM}	

DATACompress: {ON|OFF}
DATAFormat: {Binary|BinHex}

FORMAT {DITHERED|DRAW|HIRES|REDUCED|SCREEN}
 PORT {CENTRONICS|DISK|GPIB|RS232}

```
copy|<link>:|<arg>
{ABORT|START}
```

```

Printer: {TEK6692 | BITMap | HPGL | PIN3 | PIN24 |
          | LK6692 | LK6566 | LK6697}
2 STATUS: {ABORTING | Idle | Spooling | PRINTING}
DEBUG: <link> =: <arg>
GPID: {ON | OFF}
RS323: {ON | OFF}
HPGL: <link> =: <arg>
COLOR: <link> =: <link>
COLOR: DEF:aut
COLOR: DEF:aut | CMYK | RGB | Screen
GRAM: {CROSSHatch | Full}
PORT: {CENTronics | Disk | Gpib | RS232}
SECURE: {ON | OFF}
PIN3: <link> =: <arg>
FORMAT: {DRBit | Hites | Reduced}
PORT: {CENTronics | Disk | Gpib | RS232}
SECURE: {ON | OFF}
PIN24: <link> =: <arg>
FORMAT: {DRBit | Hites | Reduced}
PORT: {CENTronics | Disk | Gpib | RS232}
SECURE: {ON | OFF}

```

Summary

Escape Character Set

Bits								
B8	1	1	1	1	1	1	1	1
B7	0	0	0	0	0	0	0	0
B6	0	0	0	0	0	0	0	0
B5	0	0	0	0	0	0	0	0
B4	0	0	0	0	0	0	0	0
B3	0	0	0	0	0	0	0	0
B2	0	0	0	0	0	0	0	0
B1	0	0	0	0	0	0	0	0
	0	1	2	3	4	5	6	7
	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23
	24	25	26	27	28	29	30	31
	32	33	34	35	36	37	38	39
	40	41	42	43	44	45	46	47
	48	49	50	51	52	53	54	55
	56	57	58	59	60	61	62	63
	64	65	66	67	68	69	70	71
	72	73	74	75	76	77	78	79
	80	81	82	83	84	85	86	87
	88	89	90	91	92	93	94	95
	96	97	98	99	100	101	102	103
	104	105	106	107	108	109	110	111
	112	113	114	115	116	117	118	119
	120	121	122	123	124	125	126	127

Key

Octal	17	β	Escape character
Hex	F	15	Decimal

DSA 601A & DSA 602A
DIGITIZING SIGNAL ANALYZERS

070-8183-00



Data Services

ASCII CODE CHART

BT BPS 52 BT	CONTROLS	NUMBERS SYMBOLS	UPPER CASE	LOWER CASE
0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24
25	26	27	28	29
30	31	32	33	34
35	36	37	38	39
40	41	42	43	44
45	46	47	48	49
50	51	52	53	54
55	56	57	58	59
60	61	62	63	64
65	66	67	68	69
70	71	72	73	74
75	76	77	78	79
80	81	82	83	84
85	86	87	88	89
90	91	92	93	94
95	96	97	98	99
100	101	102	103	104
105	106	107	108	109
110	111	112	113	114
115	116	117	118	119
120	121	122	123	124
125	126	127	128	129
130	131	132	133	134
135	136	137	138	139
140	141	142	143	144
145	146	147	148	149
150	151	152	153	154
155	156	157	158	159
160	161	162	163	164
165	166	167	168	169
170	171	172	173	174
175	176	177	178	179
180	181	182	183	184
185	186	187	188	189
190	191	192	193	194
195	196	197	198	199
200	201	202	203	204
205	206	207	208	209
210	211	212	213	214
215	216	217	218	219
220	221	222	223	224
225	226	227	228	229
230	231	232	233	234
235	236	237	238	239
240	241	242	243	244
245	246	247	248	249
250	251	252	253	254
255	256	257	258	259
260	261	262	263	264
265	266	267	268	269
270	271	272	273	274
275	276	277	278	279
280	281	282	283	284
285	286	287	288	289
290	291	292	293	294
295	296	297	298	299
300	301	302	303	304
305	306	307	308	309
310	311	312	313	314
315	316	317	318	319
320	321	322	323	324
325	326	327	328	329
330	331	332	333	334
335	336	337	338	339
340	341	342	343	344
345	346	347	348	349
350	351	352	353	354
355	356	357	358	359
360	361	362	363	364
365	366	367	368	369
370	371	372	373	374
375	376	377	378	379
380	381	382	383	384
385	386	387	388	389
390	391	392	393	394
395	396	397	398	399
400	401	402	403	404
405	406	407	408	409
410	411	412	413	414
415	416	417	418	419
420	421	422	423	424
425	426	427	428	429
430	431	432	433	434
435	436	437	438	439
440	441	442	443	444
445	446	447	448	449
450	451	452	453	454
455	456	457	458	459
460	461	462	463	464
465	466	467	468	469
470	471	472	473	474
475	476	477	478	479
480	481	482	483	484
485	486	487	488	489
490	491	492	493	494
495	496	497	498	499
500	501	502	503	504
505	506	507	508	509
510	511	512	513	514
515	516	517	518	519
520	521	522	523	524
525	526	527	528	529
530	531	532	533	534
535	536	537	538	539
540	541	542	543	544
545	546	547	548	549
550	551	552	553	554
555	556	557	558	559
560	561	562	563	564
565	566	567	568	569
570	571	572	573	574
575	576	577	578	579
580	581	582	583	584
585	586	587	588	589
590	591	592	593	594
595	596	597	598	599
600	601	602	603	604
605	606	607	608	609
610	611	612	613	614
615	616	617	618	619
620	621	622	623	624
625	626	627	628	629
630	631	632	633	634
635	636	637	638	639
640	641	642	643	644
645	646	647	648	649
650	651	652	653	654
655	656	657	658	659
660	661	662	663	664
665	666	667	668	669
670	671	672	673	674
675	676	677	678	679
680	681	682	683	684
685	686	687	688	689
690	691	692	693	694
695	696	697	698	699
700	701	702	703	704
705	706	707	708	709
710	711	712	713	714
715	716	717	718	719
720	721	722	723	724
725	726	727	728	729
730	731	732	733	734
735	736	737	738	739
740	741	742	743	744
745	746	747	748	749
750	751	752	753	754
755	756	757	758	759
760	761	762	763	764
765	766	767	768	769
770	771	772	773	774
775	776	777	778	779
780	781	782	783	784
785	786	787	788	789
790	791	792	793	794
795	796	797	798	799
800	801	802	803	804
805	806	807	808	809
810	811	812	813	814
815	816	817	818	819
820	821	822	823	824
825	826	827	828	829
830	831	832	833	834
835	836	837	838	839
840	841	842	843	844
845	846	847	848	849
850	851	852	853	854
855	856	857	858	859
860	861	862	863	864
865	866	867	868	869
870	871	872	873	874
875	876	877	878	879
880	881	882	883	884
885	886	887	888	889
890	891	892	893	894
895	896	897	898	899
900	901	902	903	904
905	906	907	908	909
910	911	912	913	914
915	916	917	918	919
920	921	922	923	924
925	926	927	928	929
930	931	932	933	934
935	936	937	938	939
940	941	942	943	944
945	946	947	948	949
950	951	952	953	954
955	956	957	958	959
960	961	962	963	964
965	966	967	968	969
970	971	972	973	974
975	976	977	978	979
980	981	982	983	984
985	986	987	988	989
990	991	992	993	994
995	996	997	998	999

PRINCIPLES

MANUAL CHANGE INFORMATION

At Tektronix, we continually strive to keep up with the latest electronic developments by adding circuit and component improvements to our instruments as soon as they are developed and tested.

Sometimes, due to printing and shipping requirements, we can't get these changes immediately into printed manuals. Hence, your manual may contain new change information on the following pages.

A single change may affect several sections. Since the change information sheets are carried in the manual until all changes are permanently entered, some duplication may occur. If no such change pages appear following this page, your manual is correct as printed.

