Frequency/Markers Controls

Moves marker to highest on screen signal.

Press once for center measure (counts signal)
Press twice for signal track mode.
Press again for tracking off.

Depending upon mode, FREQ/MKRS knob changes:
- Center or start freq
- Marker position
- TG tracking (opt. 04)
- Video line number for triggering (opt. 10)
Knob also selects letters for titles and labels.

Press once for single marker.
Press twice for two markers.
Press again for markers off.

FREQUENCY + Numeric keys + Terminator key for direct entry.
FREQ ↓ or ↑ for incremental steps.
[MKR/FREQ][9][0] to select center or start freq.

Moves markers left or right to next on-screen signal above threshold.
Fundamental Controls

Selects frequency, span/div, or ref level for immediate entry. Enter value from keypad and end entry with terminator key [W], [X], [Y], or [Z].

Decrease (↓) or increase (↑) frequency by one division in auto tuning mode or by the designated increment in other modes. ALWAYS ACTIVE.

Decrease (↓) or increase (↑) span/div in 1-2-5 sequence. ALWAYS ACTIVE.

Decrease (↓) or increase (↑) ref level in 1 dB or 10 dB steps. ALWAYS ACTIVE.

Toggles ref level step size between 1 dB (FINE LED on) and 10 dB (FINE LED off).

Press once for zero span mode (time domain); second press restores previous span/div.

Press once for zero span mode (180 MHz/div); second press restores previous span/div.

Choose REF LEVEL units: [INPUT][3][0-5]

[REF LVL STEP] toggles step size (LED lit for 1 dB steps)

Select fixed RF Atten value in 2 dB increments or AUTO Atten: [INPUT][5]
Numeric Keypad

Numeric Keys 0-9
- Enter numeric values
- Make menu selections

Terminator Keys W, X, Y, Z
- Signify end of entry
- Select required units

Dot Key
- Decimal in numeric entries
- Period in text entries

Backspace Key (BKSP)
- Backup one menu level
- Erase last character in data entry
Vertical Scale, Demodulator, TG, and Display Controls

- Initiates screen plot
- Toggles vertical scale between LIL and LOG modes.
- Press repeatedly to select LOG vertical scales in 10-5-1 dB sequence.
- Controls volume of AM or FM demodulators.
- Inner knob controls:
  - "Oscilloscope" trigger modes
  - Sweep position (manual scan mode)
  - TG variable level (when activated)
  - Picture framing (video monitor mode).
- Toggles on-screen readouts on and off.
- Toggles power on (LED lit) and off.
- Tracking generator output connector and indicator (Option 04 only). LED is lit when tracking generator is on.

Varies CRT brightness.
Display Storage Controls

Activates MAX HOLD mode. In MAX HOLD mode the A & B registers (if active) retain the largest signals observed.

Press to arm SAVE ENABLE, then press register A, B, or C to save or clear (unsave).

Toggles the indicated register (A, B, C, D) on or off, and saves (or clears) the display in the selected register when SAVE ENABLE is armed. Individual waveforms cannot be saved in the D register.

Green LEDs light when A, B, or C register contains a saved waveform, whether displayed or not.

To enter waterfall mode:
- First clear the A, B, and C registers
- Press [SAVE ENABLE][D]
To exit, press [SAVE ENABLE][D]
Resolution BW and Sweep Controls

Decrease (↓) or increase (↑) the RBW filter bandwidth (or just the EMC filters in QP mode).

Selects AUTO sweep rate mode (LED lit).

Press once to select single sweep mode. Press again to arm sweep. Sweep begins following next trigger signal.

Selects AUTO sweep rate mode (LED lit).

RF input signal connector. Observe maximum input ratings.

Activates the user-selectable video filter (LED lit).

Select fixed Video Filter value or AUTO: [UTIL][2][5]

Cancel single sweep mode: [AUTO]

Select HORIZ TV Line (video monitor option): [SWP/TRIG][9]
TRIGGER Menu
0 FREE RUN
1 INTERNAL
2 EXTERNAL
3 LINE
4 TV LINE
5 TV LINE

SWEEP Menu
6 SWEEP RATE
7 MANUAL SCAN POSITION
8 SYNC POLARITY
9 SETUP TABLE
  Configures HORIZONTAL TV LINE
  Triggering (Video monitor option only)
  0 Continuous
  1 Knob selectable
  2 Keypad entered line
  3 Keypad entry
  4 TV line standard

UTIL Menu
0 INITIALIZE INSTR SETTINGS
1 STORED SETTINGs 0 Last power-down
1 Factory default power-up
2 User defined power-up
3-39 Stored setting/display registers
2 KEYPAD ENTERED SETTINGS
3 NORMALIZATIONS
4 SYSTEM CONFIGURATION
  0, 1, 2 Comm port, screen plot, and printer config
  3 Instrument config
  4 Real-time clock setup
  5 Stored settings protect
  6, 7 File system
  8 Installed options
5 INST DIAGNOSTICS/ADJUSTMENTS
  [UTIL][5][2][2] for screen alignment pattern
  6 SERVICE REQUEST
  9 MORE
  Print readouts (RS-232 option only)
MKR/FREQ Menu
0 THRESHOLD
1 PROGRMD TUNING INC
0 Center freq
1 Marker freq
2 Keypad entered inc
3 Keypad entry
4 Return to auto
2 KNOB FUNCTION
3 MARKER TO REFERENCE LEVEL
4 MOVE MARKER TO NEXT PEAK
5 TRANPOSE MARKERS
6 MARKER START/STOP
7 FREQUENCY START/STOP
8 TUNING INCREMENT
  Auto, progrmd, or tabular
9 SETUP TABLE
  0 Center/start freq
  1 Counter resoln
  2 Tabular tuning tables
  3 Freq offset
  4 Freq offset mode

APPL Menu
0 BANDWIDTH MODE
1 CARRIER TO NOISE
2 NOISE NORM'D
3 SIGNAL SEARCH MENU
4 OCCUPIED BW
7 FM DEVIATION MODE
9 SETUP TABLE
  0 db down for BW mode
  1 Norm BW for c/n
  2 Noise norm'd BW
  3 Percent occupied BW

DEMOD/TG Menu
0 OFF
1 AM DEMODULATOR
2 FM DEMODULATOR
3 BROADCAST (AM) VIDEO/SATELLITE (FM) VIDEO SELECTION MENU
  (Video monitor option only)
4, 5, 6, 7, 8 TRACKING GENERATOR CONTROLS
  (Tracking generator option only)
9 VIDEO MONITOR SETUP
  (Video monitor option only)
DSPL Menu
0 DIGITAL/ANALOG
1 ENSEMBLE AVERAGING
  1 Initiate averaging
  2 Terminate averaging
  3, 4, 5, 6 Max, Mean, Min, and Min/Max
  7 Number of averages
  8 Save results in display (A, B, C)
2 B, C MINUS A
3 B, C MINUS A OFFSET TO (Center or Top)
4 ACQUISITION MODE (Peak or Max/Min)
5 TITLE MODE
6 GRATICULE ILLUMINATION
7 DISPLAY SOURCE (Internal (AM) or External)
8 DISPLAY LINE
  1 On/off
  2 Value entry
  3 Display line to marker
  4 Limit detector
9 MIN HOLD

USER DEF Menu
0-8 USER DEFINED PROGRAMS
9 USER DEF PROG
UTILITIES
  0 Acquire key strokes
  1 Title edit
  2 Wait for end of sweep
  3 Display message
  4 Pause for "USER DEF" key
  5 Continuous execution
  6 Store
  7 Delete
  8 Protect

INPUT Menu
1 PREAMP
2 50 OHM DBM/75 OHM DBMV
3 REF LEVEL
  UNIT (dBm, dBmV, dBV, dBA, dBAW, or dBAW/meter)
4 1ST MXR INPUT LVL (~20dBm to ~50dBm, ~30dBm nominal)
5 RF ATTENUATION
6 EXTERNAL ATTEN/AMPL
9 CAL SIGNAL @ 100MHZ ~30DBM

2712 Pocket Reference
Control Ranges

Frequency range: 9 kHz to 1.8 GHz
Span/div range: 1 kHz to 180 MHz plus zero span
Ref level range: +20 dBm to −70 dBm or equivalent
RES BW filters: 300 Hz, 3 kHz, 30 kHz, 300 kHz, and 5 MHz

All RES BW filters are 6 dB width, ≤7:1 shape factor

Option 12 replaces 300 Hz filter with 200 Hz filter and adds 1 kHz, 9 kHz, 120 kHz, and 1 MHz

Option 14 adds 1 kHz, 10 kHz, 100 kHz, and 1 MHz
RF attenuation range: 0 dB to 50 dB in 2 dB steps
Vertical scale: 10/5/1 dB per division plus linear
Video filters: 1/100 of the RES BW in AUTO mode, or 3 Hz to 300 kHz plus WIDE in 1-3 sequence

Sweep rate: 1 µsec/div to 2 sec/div
=settings ≤ 100 µsec/div require an analog display

Trigger modes: Free run, Internal, External, AC line, TV line, TV field, Single sweep (option 10 required for selectable TV line triggering)
Tracking generator (option 04):
Frequency: 100 kHz to 1.8 GHz
Level: −48 dBm to 0 dBm in 0.1 dB increments and variable control