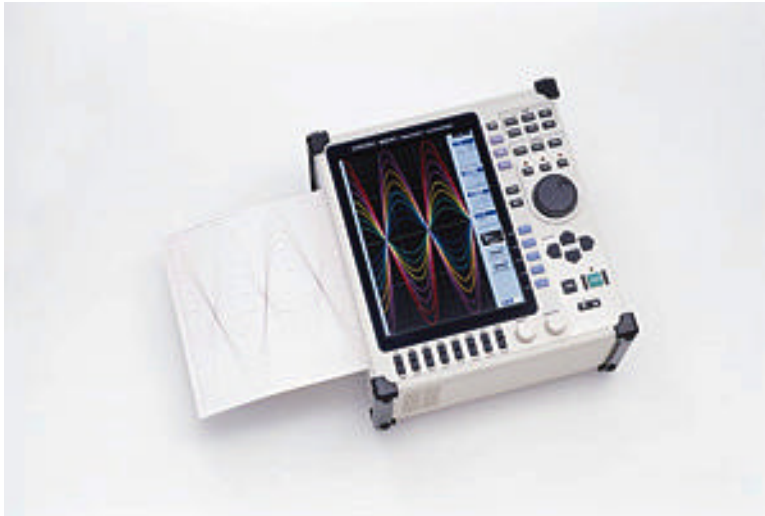


## TECH-RENTALS MODEL SUMMARY

### Hioki 8841 Memory Recorder

TR MODEL CODE HIO,8841



This waveform recorder employs a TFT colour display for greater visibility, it also has a type III PC card slot and floppy disk drive for maximum convenience in transferring data to a PC for further processing. The basic functions allow 8 analog waveform and 16 logic channels to be monitored and recorded simultaneously. Sampling rate is 1MS/s and 12-bit A/D conversion resolution for all channels simultaneously.

#### Features:

- 8 analogue, 16 logic channels
- Simultaneous sampling rate on all channels of up to 1MS/s
- Large capacity internal memory 8 Mwords, if 8 analogue channels selected, then 1Mword per channel
- Bright and clear large TFT colour display
- Support for data transfer to computer via optional Flash card, type III hard disk drive (520MB) and floppy disk.
- Built in help function, with on screen explanation of all key functions
- Wide range of trigger functions, level, window in, window out, voltage dip, cycle or period change, logic switching, AND, OR selection.

Basic Specifications	
Measurement function	Memory recorder, Recorder, Effective value RMS-value recorder
Input type	8936 Analogue, 8938 FFT Anti Aliasing filter
Maximum number of channels	Eight analogue, 16 logic channels
External Storage	Floppy disk drive, Type III PC card slot, Flash or type III hard drive (520MB)
Battery Backup	Clock waveform data settings conditions, battery life at least 10 years

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Basic Specifications	
External control	Terminal block, trigger input/output, external start stop, print input, waveform judgement output, external sampling input
Interface standard	SCSI for external MO drive only, no other functions
Power supply	100-240VAC (50/60Hz)
Power consumption	225VA, approx 95 VA with printer off
Dimensions and mass	Approx 280 W X 300 H X 140 D Approx 8.5kg, 9kg with MO drive fitted
Display and Data Output	
Recorder paper	216mm X 30m thermal paper, HC07
Recorder width	Recorder width 20 divisions full scale, 1DIV = 10mm
Recorder speed	Max 25mm/s
Display method	10.4 inch TFT colour LCD, with English / Japanese selection
Trigger Function	
Trigger source	CH1 to CH8 analogue, CH A to CHD logic (digital), external, timer, manual, logical AND/OR of source
Trigger type (analogue)	<b>Level:</b> Digital setting of voltage, triggered when set value is exceeded in UP or DOWN direction <b>Window:</b> When entering or exiting a level range defined by UPPER or LOWER limit <b>Voltage drop:</b> Only for AC power lines, triggered when the peak voltage falls below setting value <b>Period:</b> When rising or falling edge of set voltage does not fall within cycle range
Trigger type (logic)	Pattern trigger: 1, 0, OR X (disregard) logical product (AND) or logical sum (OR) set for 8 channels
Memory Recorder Function	
Time axis	100µs to 5 minutes/div, 20 settings, External sampling (100 samples/div). Time axis zoom X 2 to X 10, 3 settings, compression ½ to 1/10000, 12 settings
Sampling period	1/100 of time axis ranges (minimum sampling period 1µs)
External sampling	Max, 500kS/s (minimum sampling period 2µs)
Recording length	Setable in 1 div steps, 25 to 40000 divisions, depend on number of channels in use
Pre trigger	Can record data from before the trigger point, 0 to 100% or -95% of recording length, 15 settings
Other functions	Waveform processing, waveform parameter processing waveform averaging, memory segmentation (max 255 segments) logging (numerical printout), X-Y waveform plot, voltage axis zoom X2 to X10, 3 settings compressed ½ zoom, variable display, graph superimposition
Recorder Function	
Time axis	20ms to 1hr/div, 16 settings, 1div = 100 samples, time axis compression ½ to 1/500, 8 settings (20ms to 200ms/div ranges shown on display, printout speed is 20mm/s)
Sampling period	1µs to 100ms, 6 settings (selectable from 1/100 or less time axis)
Recording length	Setable in 1 div steps, 25 to 2000 div, continuous, only continuous for X-Y plotting When time 20ms to 200ms/div and printer is on, continuous is not available
X-Y sampling period	300µs fixed (dot) 300µs to 25 ms (line)
X-Y axis resolution	32 dots/div (display) 80 dots (horizontal) X 80 dots (vertical)/division (printer)
Other Functions	Reprinting of stored data (last 2000div) logging (numerical printout) virtual recording (data is written to internal memory without the use of printer paper), additional recording, recording is resumed without overwriting previous data, voltage axis magnification X2 to X10, 3 settings, compressed ½, 1 setting, variable display

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<b>RMS Recorder Function (for 50/60HZ and DC)</b>	
<b>Time axis</b>	5s to 1h/div, 9 settings, time axis compression ½ to 500, 8 settings
<b>Sampling period</b>	200µs fixed (20 rms data/s)
<b>RMS calculation accuracy</b>	±3% f.s.
<b>Recording length</b>	Settable in 1 – div steps, 25 to 2000 div, continue
<b>Other functions</b>	Reprinting of stored data (last 2000 div) logging (numerical printout), additional recording (recording is resumed without overwriting previous data), voltage axis magnification X2 to X10, 3 settings, compression ½, 1 setting, variable display.
<b>Auxiliary Functions</b>	
<b>General</b>	Printing of settings including input range, trigger time, etc, cursor measurement, scaling, comment input, screen hard copy, start condition retention, auto setup, auto saving, remote control, auto ranging, view function, online help, key lock, list printing, level monitor function
<b>Scaling</b>	Scaling: Translation of amplitude gradation only Variable Arbitrary setting of the upper and lower limit of the waveform display range
<b>Vernier Function</b>	Allows precision adjustment of input voltage
<b>Waveform Judgement Function (Memory Recorder ) (FFT)</b>	Type: Area judgement using reference waveform for time axis waveform, X-Y plot, or FFT display. Parameter judgment for waveform parameter processing. Judgement output: pass/fail output, open collector 5V voltage output
<b>Waveform Parameter Calculation (Memory Recorder)</b>	Maximum possible calculation up to 1000div Four arithmetic operation, absolute value, exponentiation, common logarithm, square root, moving average, differentiation once and twice, integration once and twice, parallel displacement along the time axis
<b>FFT Function</b>	
<b>1 Signal Analysis</b>	Linear spectrum, RMS spectrum, power spectrum, auto-correlation, histogram, octave analysis
<b>2 Signal Analysis</b>	Transfer function, cross-power spectrum, cross-correlation function, impulse response, coherence function
<b>Analysis Channels</b>	1 or 2 selected channels out of all analogue channels
<b>Frequency Range</b>	133mHz to 400kHz, resolution 1/400, 1/800, 1/2000, 1/4000
<b>Number of Sampling Points</b>	1000, 2000, 5000, 10000 points
<b>Window Functions</b>	Rectangular, Hanning, Exponential
<b>8936 Analogue Unit</b>	
<b>Input</b>	Number of channels 2, connector, insulated BNC Input isolated from output, inter channel isolation
<b>Measurement Range</b>	5mV to 20V/div, 12 ranges full scale (f.s.) = 20div, AC voltage for possible measurement/display using the memory function 280Vrms. Low pass filter, 5/500/5k/100kHz, the measurement resolution is 1/80 of range
<b>Maximum Sampling Rate</b>	1MS/s
<b>Accuracy</b>	DC amplitude ±0.4% f.s. zero position ±0.1% f.s.
<b>Zero Position</b>	-50% to 150%, 1% step, with zero-adjustment function
<b>Frequency Characteristics</b>	DC to 400kHz ±3dB, with AC coupling 7Hz to 400kHz ±3dB
<b>Input Resistance and Capacitance</b>	1MΩ, 30pF approx (at C 100kHz)
<b>Input Coupling</b>	DC, GND, AC
<b>Max, allowable input</b>	400V DC
<b>Max, rated voltage to earth</b>	370VAC,DC

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8938 FFT Analogue Unit	
Anti-Aliasing Filter	Cut off frequency 20,40, 80, 200, 400, 800, 2k, 4k, 8k, 20k, 40k auto-select (linked to frequency range)
Other Functions	Same as 8936 Analogue unit (max per recorder 1X plug in module, 2 CH)

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