

General Information

1.2 SPECIFICATIONS

This paragraph lists the specifications and data pertinent to the Mark 220 Recorder.

a. General

Number of Channels	2 Analog, 2 Event
Channel Width	40 mm, 50 divisions per channel
Trace Presentation	Rectilinear
Trace Width	0.01 inch nominal
Writing Method	Pressurized fluid (U.S. Patent 3,054,109)
Writing Fluid Capacity	1 oz; sufficient for one year of normal recording
Chart Description	4.3 inches wide--two 40mm grids graduated in 50 divisions across span. Graduated 5mm increments on time axis. Right and left event marker channels
Chart Capacity	275 feet - high contrast 400 feet-reproducible
Chart Speeds	1, 5, 25, 125 millimeters per second and STOP
Chart Speed Accuracy	$\pm 0.25\%$
Operating Temperature	0 to + 55°C. Recorder will remain within specification over range of $\pm 10^\circ\text{C}$ from temperature at calibration
Storage Temperature	-40° to $\pm 85^\circ$ centigrade
Principle Dimensions	Refer to Figure 1-2
Weight	25 pounds

b. Electrical

Measurement Range	1 millivolt per chart division to 500 volts D.C. full scale (50 chart divisions)
Input Circuit	Differential, balanced-to-ground
Input Impedance	10 megohms balanced, 5 megohms each terminal to ground

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Signal Input:

In-Phase Rejection	60 db at 60 cps with maximum source unbalance of one kilohm at one MV/DIV sensitivity setting (decreasing on higher sensitivity settings)
Maximum Signal Input	500 volts D.C. or peak-to-peak (either input to ground)
Maximum Common Mode Voltage	10,000 times the VOLTS/DIV sensitivity up to a maximum of 500 volts.
Attenuator Setting	Max. Common-Mode Voltage
1 mV/div	10 VDC
2 mV/div	20 VDC
5 mV/div	50 VDC
10 mV/div	100 VDC
20 mV/div	200 VDC
all others	500 VDC
Non-Linearity	0.5% full scale D.C.
Frequency Response	50 div \pm 1 div., D.C. to 40 cps 10 div \pm 1 div., D.C. to 100 cps 3 db down at 125 cps (Refer to Figure 1-3)
Stability (after 15-minute warm-up and excluding paperdrift):	
Zero with respect to:	Time: \pm 0.1 div for 8 hours Temp: \pm 0.1 div per $^{\circ}$ C, 25° C \pm 10 $^{\circ}$ C Line Voltage: \pm 0.05 div per volt, \pm 10% line variation
Gain with respect to:	Time: \pm 0.1% per 8 hours Temp: \pm 0.05% per $^{\circ}$ C, 25° C \pm 10 $^{\circ}$ C Line Voltage: \pm 0.05% per volt, \pm 10% line variation
Sensitivity	1 mv/div to 10 volts/div
Power Input (A.C.)	115 volts \pm 10%, 60 cps (15-6327-50) 115 volts \pm 10%, 50 cps (15-6327-55) 230 volts \pm 10%, 50 cps (15-6327-56)
Power Consumption	120 watts; 165 volt-amperes at 115 volts (all models)

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NOTE: ALL DIMENSIONS ARE
IN INCHES

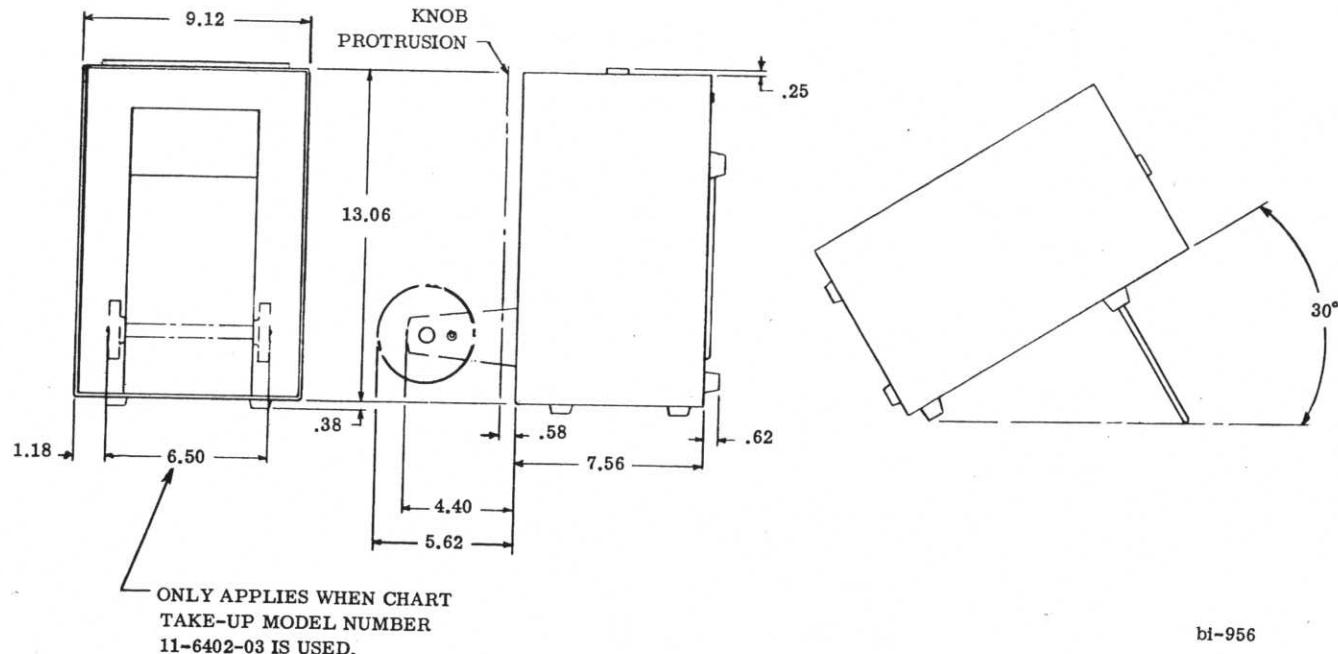


Figure 1-2 Mark 220 Outline Dimensions

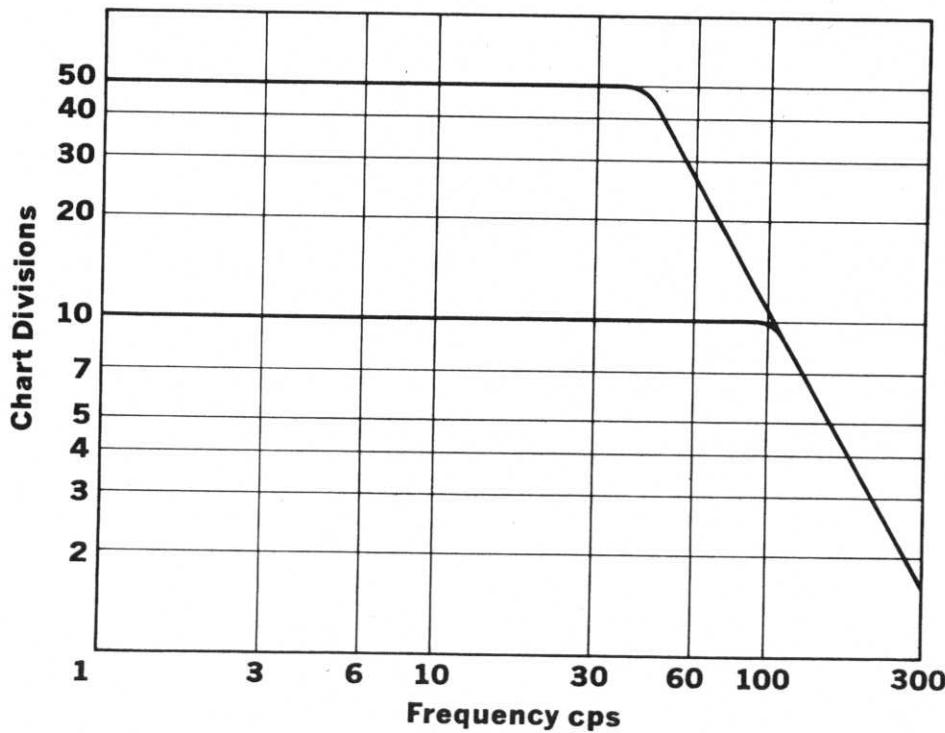


Figure 1-3 Frequency Response Curve