

Decimal Point Guide for Heathkit IM-1103 Frequency Counters

Many IM-1103 counters have developed a fault due to insulation breakdown on the Switch Circuit Board, where the paper insulator no longer prevents undesired current flow between certain circuit board foils (some of which are part of the 'switch logic' that controls the energizing of decimal points) and the switch assembly's metal frame. This can result in the proper decimal point not illuminating, or a false decimal point appearing, or multiple decimal points appearing at the same time. Because it is difficult for the user to know which decimal point is supposed to be on for a given particular combination of Timebase and Frequency Multiplier pushbutton switches, the instrument becomes useless as a means to readily and reliably measure an unknown frequency.

This document is intended to assist in advising the user in knowing which decimal point should be illuminated for each permutation of pressed/selected pushbuttons. The accompanying 'label strip' may be affixed to the bezel in front of the display, just below the five right-most display (Nixie) tubes, thereby correlating the chart below to the physical display.

For the label strip, cut it out from this sheet and apply adhesive to the back side of the strip, then turn the counter on so the positions of the display tubes can be seen, and affix the strip to the sloping edge of the bezel just below the display window so that the pointers align with the decimal points of the five right-most (least significant) display tubes.

For the chart card, optionally affix it to the meter in an appropriate location visible to the user, or leave it loose nearby for ready reference.

Chart Card

TIME BASE	MULTIPLIER	RANGE LAMP	D.P. POSITION
1 mSEC	X 1	MHz	4
1 mSEC	X 10	MHz	5
1 mSEC	X 100	kHz	3
1 mSEC	X 1000	Hz	1
100 mSEC	X 1	kHz	3
100 mSEC	X 10	kHz	4
100 mSEC	X 100	kHz	5
100 mSEC	X 1000	Hz	3
1 SEC	X 1	Hz	1
1 SEC	X 10	Hz	2
1 SEC	X 100	Hz	3
1 SEC	X 1000	Hz	4

Label Strip

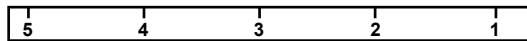


Chart Card - example location on case top



Label Strip - intended location on bezel

