

The model 6471 is a realistically priced, automatic, microprocessor controlled LCR bridge with a basic accuracy of 0.1%. It offers four measurement frequencies, of which the highest is 100 kHz. This higher frequency, the accuracy of measurement and the optional IEEE-488/RS232 interface make this instrument ideally suitable for almost any application.

- Measures R, L, C, Q, D automatically.
- 0.1% of reading basic accuracy.
- Twelve decades of LCR measurements.
- 4 selectable measurement frequencies:- 100/120* Hz, 1 kHz, 10 kHz, 100 kHz. (0.01% frequency accuracy)
- 5-digit LED display with automatic decimal point position.
- User prompt facility for best accuracy.
- Selectable series or parallel measurement modes.
- Automatic indication for overrange or underrange.
- Easy operation by means of only 8 keys.
- Full auto ranging and automatic component identification. The bridge itself distinguishes between L, C or R when the component is connected. A manual override enables the minor term to be displayed.
- Trim function for R, L and C allows compensation for component, fixtures or leads.
- Percentage deviation of a component from a nominal value can be displayed.
- Validity of measurement after 1 second maximum.
- 2 measurements per second.
- Alternatively to the usual repetitive measurement operation, a single measurement can be made each time a button is pressed.
- Actual measured value can be frozen on the display with the HOLD function.
- Integral 4-terminal test fixture.
- An adaptor for axial components is provided with the unit.
- Selectable internal 2V bias voltage for measurement of electrolytic capacitors.
- External bias voltage up to 50 V possible.
- Input protection against charged capacitors up to 10mF and 50V.
- Model 6473 is equipped with an interface for the limits comparator model 6472. Test limits can be defined in either of two ways. In the first of these, the upper and lower acceptable values are set in the two banks of thumbwheel switches. Alternatively the PASS band can be determined using a nominal value and upper and lower percentage tolerance. Three indicators are available to show where the measured value lies with respect to the upper and lower pass band limit. The same information is also available at 3 floating relay contacts of the comparator 6472.
- Detailed operation manual.

*120 Hz measurement frequency available as factory-fitted option.

Specifications	
Basic Accuracy	100/120Hz*: 0.15% of reading, ± 1 digit, 1kHz: 0.1% ± 1 digit, 10kHz: 0.45% ± 1 digit, 100kHz: 0.25% ± 1 digit

R	Measurement Range	0.1m Ω - 990M Ω
	Ultimate Resolution	0.1m Ω
	Conditions for Basic Accuracy	100 Hz/120Hz*:- 2 Ω - 1M Ω , 1 kHz:- 2 Ω -500k Ω , 10kHz:- 2 Ω - 100k Ω , 100kHz:- 2 Ω - 50k Ω
L	Measurement Range	0.001 μ H -9900H
	Ultimate Resolution	0.001 μ H
	Conditions for Basic Accuracy	100/120Hz*:- 4mH - 2000H, 1kHz:- 400 μ H - 200H, 10kHz:- 40 μ H - 10H, 100kHz:- 10 μ H - 10mH
C	Measurement Range	0.001pF -99mF
	Ultimate Resolution	0.001pF
	Conditions for Basic Accuracy	100Hz/120Hz*:- 4nF - 2000 μ F, 1kHz:- 400pF - 200 μ F, 10kHz:- 40pf - 10 μ F, 100kHz:- 40pf - 0.1 μ F
Q	Measurement Range	0.001- 999
	Ultimate Resolution	0.001
	Conditions for Basic Accuracy	0.25 - 4
D	Measurement Range	0.001- 999
	Ultimate Resolution	0.001
	Conditions for Basic Accuracy	0.25 - 4
Maximal Voltage on Component		0.3V rms
DC-Bias Voltage		2V internal (selectable) or up to 50V external
Measurement Modes		Series or parallel equivalent circuit
Measurement Update Rate		2 per second
Temperature Range		0 $^{\circ}$ C - 50 $^{\circ}$ C
Power		95V to 125V or 195V to 255V, 48 - 63Hz
Dimensions		445 x 260 x 100 mm
Weight		6.5 kg



Model 6471 with 6452 interface and 6453

Software



Model 6471 with 6424 Interface and 6472

Comparator

Ordering Information	
Model	Description
6471	Automatic 0.1% LCR Databridge with 100 kHz
6472	Limits Comparator for 6473 (or can be used on 6451/6424 or 6401/6403)
6473	6471 with Comparator Interface fitted
6475	6471 with IEEE/232 Interface fitted
Accessories	
<u>Adaptor 6601, 6602, 6603, 6604, 6613</u>	
<u>Application software package 6453</u>	
<u>Calibration unit 6615 and 6616 to 6623</u>	