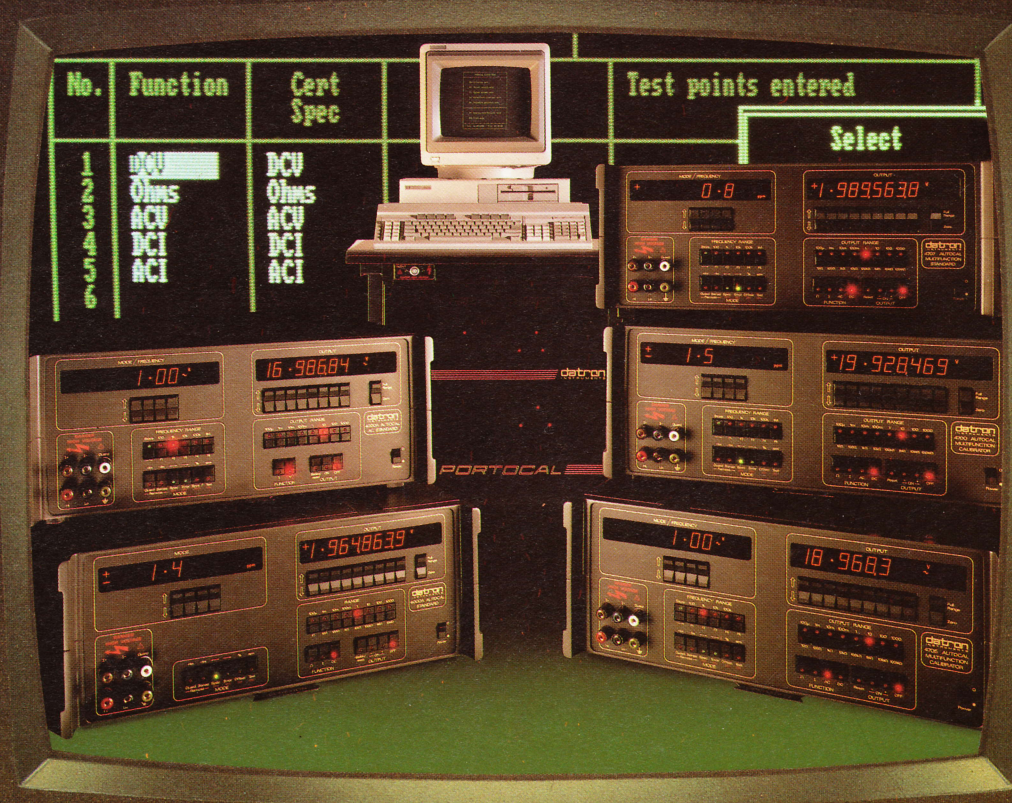




THE AUTO CAL  
RANGE OF CALIBRATORS



4	7	0	7	4	7	0	0	
	4	7	0	5				
4	0	0	0	4	0	0	0	A
4	2	0	0	A	4	1	0	0



---

## THE WORLD'S FINEST RANGE OF PROGRAMMABLE CALIBRATORS

---

The Datron Instruments Autocal family of calibrators and automated calibration systems leads the world in innovative calibration technology, providing an unparalleled choice of functional capability and performance. Together with Datron's calibration software, controllers and accessories, the Autocal range offers a selection of high quality instruments and systems with a variety of different specifications and costs. From this range, the optimum solutions can be found to most Digital Multimeter (DMM) calibration, DC to Low Frequency Standards, and high-accuracy system-source applications.

Datron calibrator performances vary from the Standards Laboratory accuracy of a multifunction calibrator capable of calibrating today's highly accurate  $7\frac{1}{2}$  &  $8\frac{1}{2}$  digit DMMs, to one similar in appearance and functionality, but with a performance and price which is ideally suited for handheld and  $3\frac{1}{2}$  &  $4\frac{1}{2}$  digit DMM calibration requirements. Functionally, the number of options within the complete calibrator range is virtually limitless,

varying from dedicated DCV-only or ACV-only units, suitable for standards laboratory or systems use, to calibrators which are fully multifunctional: single instruments with all the flexibility of functions and the breadth of range in both amplitude and frequency to fulfil the ever more stringent demands of the modern calibration facility. Practical and straightforward to use on the bench, all Datron Autocal calibrators are fully programmable via the IEEE-488 interface, making them perfect sources for automated calibration systems. In addition, the wide temperature tolerance of these instruments extends their usefulness to many A.T.E. or systems applications outside the calibration laboratory, on the production floor or in the factory test bay. Datron Calibration Software is available to enhance these features, offering a range of fully integrated, menu driven, automated multimeter calibration systems either for use in traditional calibration environments, or for more demanding mobile calibration roles.

---

# datron

INSTRUMENTS

DISPLAY FOR FREQUENCY, ERROR, OFFSET AND SPEC. MODES.

FULL FRONT PANEL CALIBRATION WITH AUTOCAL.

FREQUENCY RANGE SELECTION WITH AUTORANGE SWEEP FACILITY. 5 FREQUENCIES CAN BE STORED AND RECALLED.

UP/DOWN KEYS ADJUST FREQUENCY SETTING OR ADJUST OUTPUT IN ERROR AND OFFSET MODES.

FULLY FLOATING AND GUARDED OUTPUT, GUARD-GROUND 650V RMS. (2.5kV FLASH TEST).

LOW THERMAL SAFETY OUTPUT TERMINALS OF GOLD PLATED COPPER. OPTIONAL REAR FITTING.

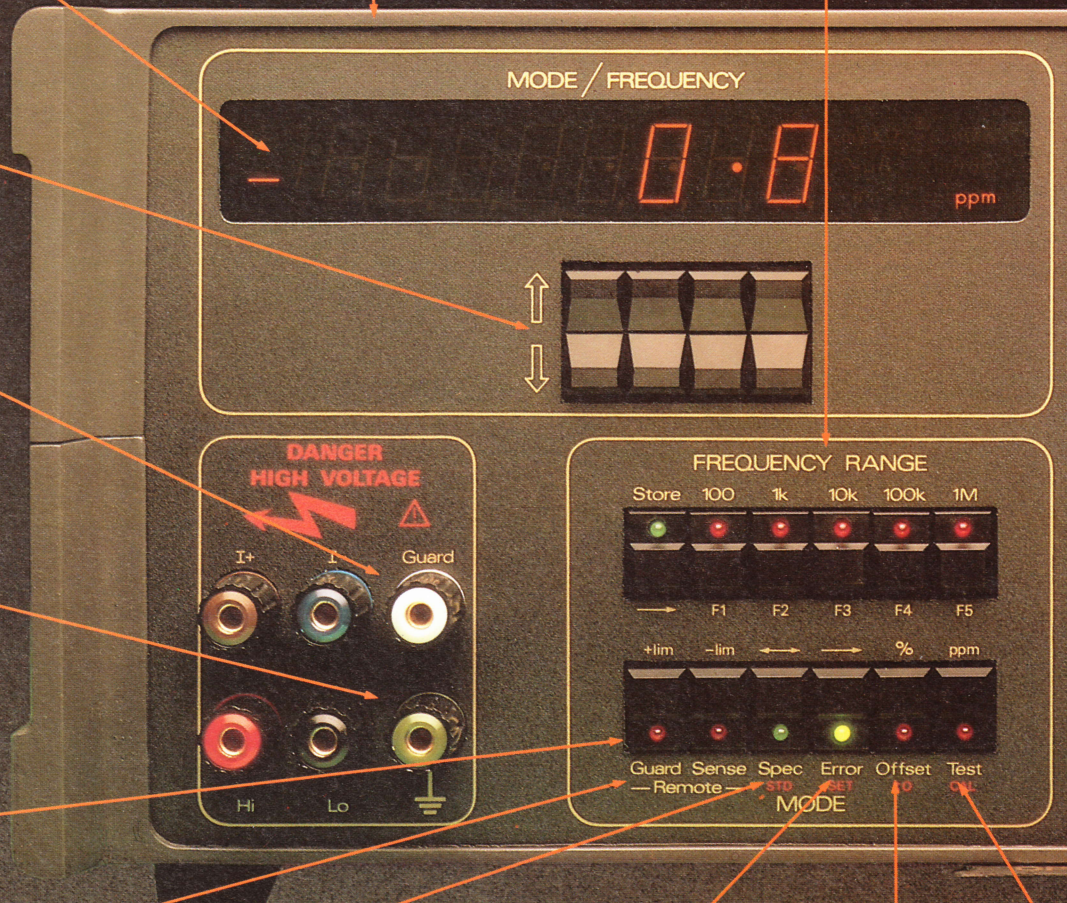
SELECTION OF LOCAL OR REMOTE GUARD.

CHOICE OF 2 OR 4 WIRE SENSE.

INSTANT READ-OUT OF LIMITS OF UNCERTAINTY TAKING ACCOUNT OF FUNCTION, RANGE, SETTING AND FULL SCALE. PERIOD SINCE CALIBRATION SET ON REAR PANEL. DISPLAYS IN ppm, % OR ABSOLUTE VALUE.

ERROR DEVIATION WITH  $\pm 10\%$  ADJUSTMENT FOR DIRECT DISPLAY OF ACCURACY OF UNIT BEING CALIBRATED.

OFFSET DEVIATION OF UP TO 2% OF RANGE ADJUSTS FOR ZERO OFFSET OF THE UNIT BEING CALIBRATED.



# THE AUTOLOCAL RANGE OF CALIBRATORS

UP/DOWN KEYS ADJUST OUTPUT SETTING WITH EITHER ONE-STEP OR RAPID 'ROLLING' CONTROL.

HIGH BRIGHTNESS PLASMA DISPLAY WITH FLOATING DECIMAL POINT, COMMAS AND FULL ANNUNCIATION FOR EASE OF READING.

SELECTS FULL RANGE OUTPUT FOR WHATEVER RANGE IS SELECTED.

SELECTS ZERO OUTPUT.

8 RANGE KEYS ALLOW SIMPLE, DIRECT, DECADE SELECTION.

LINE VOLTAGE SELECTABLE ON REAR PANEL.

OUTPUT OFF DISCONNECTS OUTPUT FROM TERMINALS.

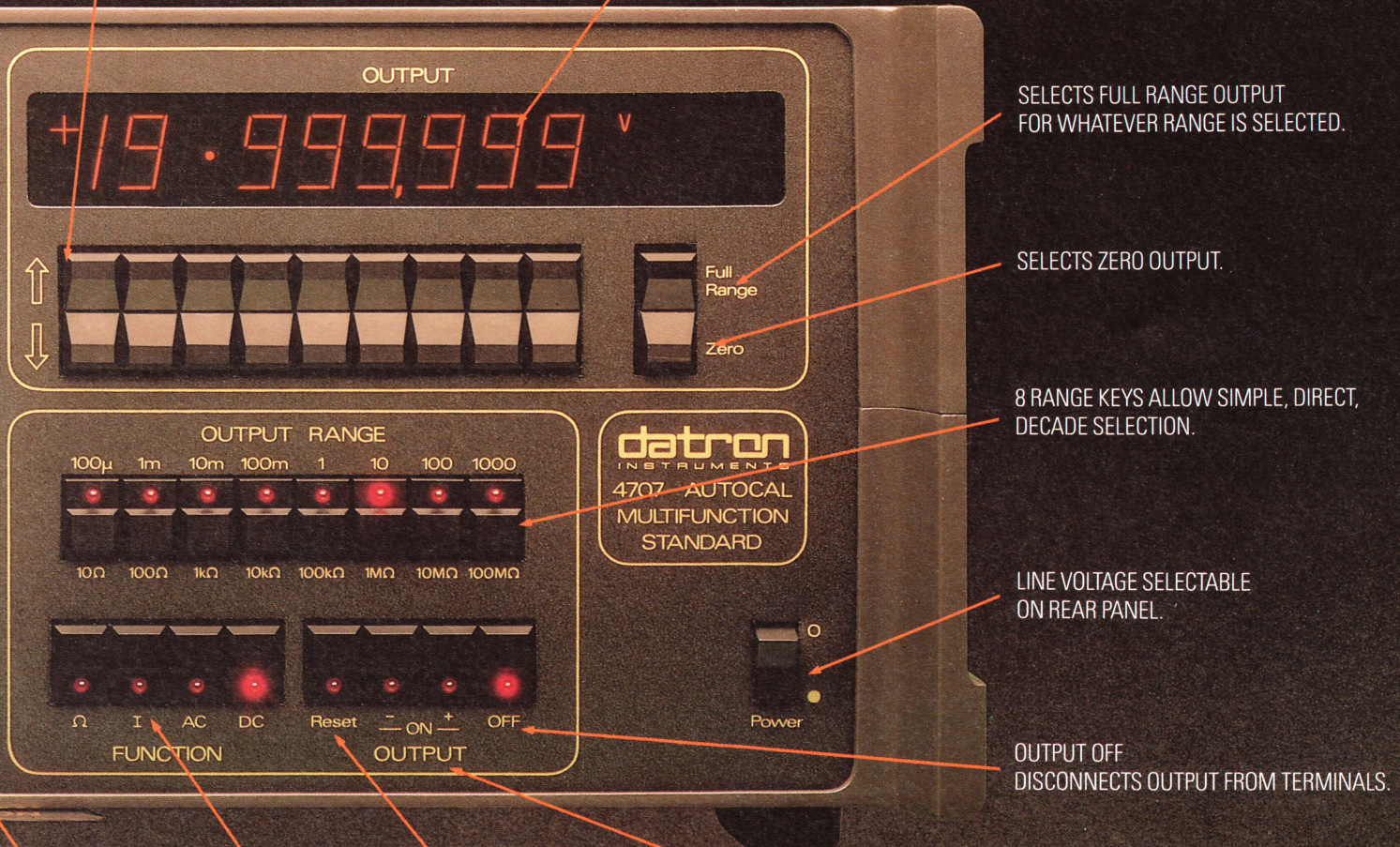
OPERATING INSTRUCTIONS ON A PULL-OUT CARD.

FUNCTION SELECTION.

SELF-TEST DIAGNOSTICS WITH DISPLAYED ERROR CODES.

RESET TO NORMAL OPERATION FOLLOWING EXTERNAL OVERLOAD.

OUTPUT ON APPLIES SELECTED OUTPUT TO TERMINALS. ABOVE 110V (DC) OR 75V(AC), LED FLASHES AND AUDIO WARNING SIGNAL SOUNDS.



MODEL NUMBER	BASIC FUNCTIONS	OPTIONAL FUNCTIONS	DISPLAY RESOLUTION	RANGES	BASIC 90 DAY ACCURACY $\pm(\text{ppmR} + \text{ppmFS})$ $23^{\circ}\text{C} \pm 1^{\circ}\text{C}$	FREQUENCY SPAN	COMMENTS
4707	DCV, ACV (to 200V) IEEE-488	1000V DC & AC range DCI, ACI, $\Omega$	7½/6½ digits	DCV: 100 $\mu$ V-1000V ACV: 1mV-1000V DCI: 100 $\mu$ A-1A ACI: 100 $\mu$ A-1A $\Omega$ : 10 $\Omega$ -100M $\Omega$	2 + 0.25 70 + 10 20 + 5 220 + 50 3	10Hz-1MHz 10Hz-5kHz	For the calibration of DMMs up to high accuracy 8½ digit models. 4101B Compatible.
4700	DCV, ACV (to 200V) IEEE-488	1000V DC & AC range DCI, ACI, $\Omega$	7½/6½ digits	DCV: 100 $\mu$ V-1000V ACV: 1mV-1000V DCI: 100 $\mu$ A-1A ACI: 100 $\mu$ A-1A $\Omega$ : 10 $\Omega$ -100M $\Omega$	4 + 0.5 120 + 20 40 + 7 220 + 80 6	10Hz-1MHz 10Hz-5kHz	For the calibration of DMMs up to medium performance 6½ digit models. 4101B Compatible.
4705	DCV, ACV, DCI, ACI, $\Omega$ IEEE-488		6½/5½ digits	DCV: 100 $\mu$ V-1000V ACV: 1mV-1000V DCI: 100 $\mu$ A-1A ACI: 100 $\mu$ A-1A $\Omega$ : 10 $\Omega$ -100M $\Omega$	15 + 1 250 + 50 50 + 15 220 + 80 6	10Hz-100kHz 10Hz-5kHz	For the calibration of DMMs up to 5½ digit models. 4101B Compatible.
4000A	DCV IEEE-488	DCI, $\Omega$	7½/6½ digits	DCV: 100 $\mu$ V-1000V DCI: 100 $\mu$ A-1A $\Omega$ : 1 $\Omega$ -10M $\Omega$	2 + 0.25 20 + 5 3		For the calibration of DMMs up to high accuracy 8½ digit models. 4101B Compatible.
4000	DCV IEEE-488	DCI, $\Omega$	7½/6½ digits	DCV: 100 $\mu$ V-1000V DCI: 100 $\mu$ A-1A $\Omega$ : 1 $\Omega$ -10M $\Omega$	3 + 0.5 20 + 5 3		For the calibration of DMMs up to high accuracy 8½ digit models. 4101B Compatible.
4200A	ACV (to 200V) IEEE-488	1000V range ACI	6½ digits	ACV: 1mV-1000V ACI: 100 $\mu$ A-1A	40 120	10Hz-1MHz 10Hz-5kHz	For the calibration of high accuracy AC DMMs. Spot Frequency. 4101B Compatible.
4100	DCV, ACV, DCI, ACI, $\Omega$ IEEE-488	Range of Automated Multimeter Calibration Systems using any Datron Autocal Calibrators. Includes 4101B menu-driven software – compatible with IBM-XT, HP Vectra, and Compaq controllers.					

FOR MORE DETAILED MODEL SPECIFICATIONS CONTACT YOUR LOCAL AGENT/REPRESENTATIVE.



## THE DATRON CALIBRATION & MEASUREMENT RANGE

**D**atron Instruments leads the world in the design and manufacture of programmable calibrators, automated calibration systems and digital multimeters. Complementing the Datron Instruments range, other divisions within the Group are also engaged in the production of some of the world's finest test instruments. To assist you, data sheets are available with more detailed product information and full specifications. Contact us now and we will be pleased to send you the information you require.

### UNITED KINGDOM

#### *DATRON INSTRUMENTS LIMITED*

Hurricane Way Norwich Airport NR6 6JB England  
Telephone: (0603) 404824 Fax: (0603) 483670 Telex: 975173

### ASIA, PACIFIC & S. AMERICA

#### *WAVETEK CORPORATION*

9191 Towne Centre Drive, Suite 450  
San Diego, California 92122  
P.O. Box 85434, San Diego  
California 92138  
Telephone: (619) 450-9971  
Fax: (619) 450-0325  
Telex: 756953 + WVTKC UD

### EUROPE

#### *WAVETEK ELECTRONICS GmbH*

Hans-Pinsel-Strasse 9-10  
D-8013 Haar bei München  
West Germany  
Telephone (089) 46109-0  
Fax: (089) 463223 Telex: 5212996

### NORTH AMERICA

#### *WAVETEK*

#### *CENTRAL AREA SALES*

5808 Churchman  
Beech Grove,  
Indiana 46107  
Telephone: (317) 787-3915  
Fax: (317) 788-5999  
TWX: (810) 341-3226

#### *WAVETEK*

#### *SOUTHEAST AREA SALES*

2085 US 19 North, Suite 102  
Clearwater, Florida 33575  
Telephone: (813) 797-1792  
Fax: (813) 791-0779

#### *WAVETEK*

#### *WESTERN AREA SALES*

9045 Balboa Avenue  
San Diego, California 92123  
Telephone: (619) 565-9234  
Fax: (619) 565-9558  
TWX: (910) 335-2007

#### *WAVETEK*

#### *NORTHEAST AREA SALES*

1 Executive Blvd. Suite 206  
Suffern, New York 10901  
Telephone: (914) 357-5544  
Fax: (914) 357-5609

YOUR LOCAL AGENT/REPRESENTATIVE