



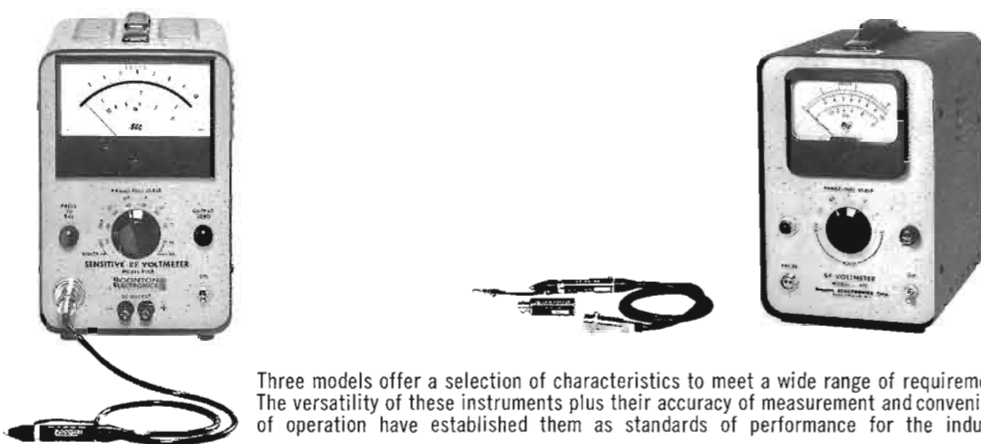
**BOONTON**  
**ELECTRONICS**  
CORPORATION

CONDENSED CATALOG CC-8

*ELECTRONIC INSTRUMENTS for LABORATORY and PRODUCTION*

Sensitive RF Voltmeters ■ Sensitive DC Voltmeters & Null Detectors ■ RF Admittance Bridges  
Capacitance & Inductance Bridges ■ RF Distortion Meters ■ Automatic Test Equipment

## Sensitive Broad-Band RF Voltmeters



Three models offer a selection of characteristics to meet a wide range of requirements. The versatility of these instruments plus their accuracy of measurement and convenience of operation have established them as standards of performance for the industry.

	Model 91DA	Model 91H	Model 91C
Voltage Range:	300 $\mu$ V to 300 V*	100 $\mu$ V to 300 V*	1 mV to 300 V*
Frequency Range:	20 Kc/s to 1200 Mc/s*, with uncalibrated response for relative measurements to beyond 4000 Mc/s		
Basic Accuracy:	$\pm 2\%$ fs	$\pm 3\%$ fs	$\pm 5\%$ fs
VSWR:	Less than 1.2 up to 1200 Mc/s for all models		
dB Range:	80	80	70
Waveform Response:	True rms up to 0.03 V (to 3 V with accessory 100:1 Voltage Divider) gradually approaching peak reading (calibrated in rms) above this level		
Power Sensitivity:	0.0018 $\mu$ watt (50 $\Omega$ )	0.0002 $\mu$ watt (50 $\Omega$ )	0.02 $\mu$ watt (50 $\Omega$ )
Linear DC Output:	yes	yes	no
Price:	\$650.00	\$550.00	\$450.00

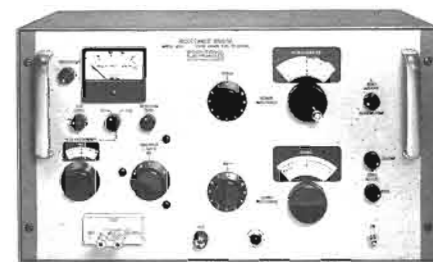
(Rack mounted versions of all RF Voltmeters \$25.00 extra)

\*Using appropriate accessory

## Accessories for RF Voltmeters

91-4C	1 Kc/s to 250 Mc/s Probe for 91C, 91H	\$60	91-12E†	20 Kc/s to 1200 Mc/s Probe for 91C, H	\$45
91-6C	Unterminated BNC Adapter	\$15	91-13B**	RF Probe Tip	\$ 3
91-7C	100:1 Voltage Divider (50 Kc/s to 700 Mc/s)	\$30	91-14A	Type N "Tee" Adapter (20 Kc/s to 1200 Mc/s)	\$25
91-8B†	50 $\Omega$ BNC Adapter (other impedances available)	\$20	91-15A	50 $\Omega$ Type N Termination (20 Kc/s to 1200 Mc/s)	\$25
91-12D*	20 Kc/s to 1200 Mc/s Probe for 91DA	\$50	91-17D	1 Kc/s to 250 Mc/s Probe for 91DA	\$60

\*Supplied with Model 91DA, and included in price. †Supplied with Models 91C, 91H, and included in price.



## Inductance Bridges Models 63H, 63L, and 63M

Maxwell type bridges provide direct reading measurements of inductance and series resistance. All three completely self-contained, including test signal oscillator and detector. Exceptional stability. Measure inductance and Q over wide ranges and down to extremely low values. Particularly well suited for determination of temperature coefficient, and for measuring permeability and loss of magnetic materials.

### Model 63H

**Inductance Measurement:** 0.0002  $\mu$ H to 110 mH; accuracy,  $\pm 0.25\%$ ; resolution, 0.01  $\mu$ H  
**Series Resistance Measurement:** 0.0002  $\Omega$  to 11,000  $\Omega$ ; accuracy,  $\pm 3\%$   
**Test Signal:** Internal oscillator-detector continuously adjustable from 5 Kc/s to 500 Kc/s; max. open-circuit level, 3 V

### Model 63L

**Inductance Measurement:** 0.02  $\mu$ H to 11 H; accuracy,  $\pm 0.25\%$ ; resolution, 0.01  $\mu$ H  
**Series Resistance Measurement:** 0.002  $\Omega$  to 110,000  $\Omega$ ; accuracy,  $\pm 3\%$   
**Test Signal:** Internal oscillator-detector continuously adjustable from 400 c/s to 20 Kc/s; max. open-circuit level 5.5 V

### Model 63M

**Inductance Measurement:** 0.002  $\mu$ H to 1.1 H; accuracy,  $\pm 0.25\%$ ; resolution, 0.01  $\mu$ H  
**Series Resistance Measurement:** 0.002  $\Omega$  to 110,000  $\Omega$ ; accuracy,  $\pm 3\%$   
**Test Signal:** Internal oscillator-detector continuously adjustable from 1 Kc/s to 100 Kc/s; max. open-circuit level 5.5 V  
**Prices:** Models 63H, 63L, and 63M, \$1,850.00

## Precision Impedance Instrumentation



### 1 Mc/s Capacitance/Inductance Meter Model 71A

Quick, convenient, direct reading, 3-terminal (direct) measurements of capacitance and 2-terminal (grounded) measurements of inductance. Internally supplied 1 Mc/s test signal. Operates with low test signal level for semiconductor measurements. Linear meter scales. Linear dc output proportional to capacitance or inductance reading for digital display, data logging, or for actuation of materials handling equipment. Extremely valuable for go/no-go capacitance or inductance testing.

**Capacitance Measurements:** 0 to 1000 pF in 7 ranges; accuracy,  $\pm 1\%$  fs; Resolution, 0.01 pF  
**Inductance Measurement:** 0 to 1000  $\mu$ H in 7 ranges; accuracy,  $\pm 1\%$  fs; Resolution, 0.01  $\mu$ H

**Test Signal:** Frequency, 1 Mc/s, crystal controlled; level: 15 mV for capacitance measurements; less than 1 mV for inductance measurements

**Q Range:** Specified accuracies apply for test specimens having Q's of 3 or more; slightly reduced accuracy for Q's of lower value  
**DC Output Voltage:** 0 to 100 mV or 0 to 300 mV, depending on numerics of full scale. Also 1 V fs for loads  $> 10 M\Omega$   
**Price:** \$675.00



### 100 Kc/s Capacitance Bridge Model 74D

Completely self-contained 3-terminal bridge for precision measurement of capacitance and conductance over very broad ranges; excellent stability with negligible warm-up drift. "Linear" mode for limit operation for go/no-go testing. Provision for use as comparison bridge. Test signal level adjustable to low values for semiconductor testing. 3-terminal arrangement permits use of remote test jig without lead capacitance problems; 2-terminal operation also provided. Balancing simple and convenient, with no false or sliding nulls. Internally supplied dc bias. Vernier capacitance dial provides scale effectively 15 feet long.

**Capacitance Measurement:** 0.0002 pF to 110,000 pF; accuracy,  $\pm 0.1\%$ ; resolution, 0.0002 pF  
**Conductance Measurement:** 0.001  $\mu$ mho to 1000  $\mu$ mhos; accuracy,  $\pm 5\%$ ;

**Test Signal:** Internally supplied; 100 Kc/s; level continuously adjustable from 1 mV to 4 V

**DC Bias:** Internal,  $-5$  V to  $+110$  V; External, up to  $\pm 400$  V

**Price:** \$1,350.00



### 1 Mc/s Capacitance Bridges Models 75A and 75B

These precision capacitance bridges having test frequency of 1 Mc/s as required by many MIL SPECS have become the standard of the semiconductor and capacitor industries. 3-terminal (direct) arrangement eliminates errors resulting from lead capacitance to ground. High stability permits differential capacitance measurements. Main C balance control is zero-back lash vernier providing scale effectively 15 feet long. DC bias supply available in —S8 versions.

#### Model 75A

**Capacitance Measurement:** 0.0002 pF to 1000 pF; accuracy,  $\pm 0.25\%$ ; resolution, 0.0002 pF  
**Conductance Measurement:** 0.01  $\mu$ mho to 1000  $\mu$ mhos; accuracy,  $\pm 5\%$

**Operating Mode:** 3-terminal (direct), or 2-terminal (grounded)

**Test Signal:** Built-in 1 Mc/s test oscillator-detector; level adjustable from 20 mV to 3 V  
**DC Bias:** (—S8 version only); internal, continuously adjustable from  $-5$  to  $+125$  V; external, to  $\pm 400$  V, 100 mA, max.

**Prices:** Model 75A, \$1,250.00. Model 75A-S8, \$1,325.00

#### Model 75B

**Capacitance Measurement:** 0.00002 pF to 1000 pF; accuracy,  $\pm 0.25\%$ ; resolution, 0.00002 pF  
**Conductance Measurement:** 0.01  $\mu$ mho to 1000  $\mu$ mhos; accuracy,  $\pm 5\%$

**Operating Mode:** 3-terminal (direct) only

**Test Signal:** Built-in 1 Mc/s test oscillator-detector; level adjustable from 1 mV to 3 V  
**DC Bias:** (—S8 version only); internal, continuously adjustable from  $-5$  to  $+125$  V; external, to  $\pm 400$  V, 100 mA, max.

**Price:** Model 75B, \$1,500.00. Model 75B-S8, \$1,575.00



### Variable Frequency Capacitance Bridge Model 75C

Versatile 3-terminal bridge having test frequency continuously adjustable from 5 Kc/s to 500 Kc/s. Permits determination of effects of frequency upon test. Includes built-in dc bias supply. Provides performance characteristics and convenience of operation similar to Model 75A 1 Mc/s bridge (see above).

**Capacitance Measurement:** 0.0002 pF to 1000 pF; accuracy,  $\pm 0.25\%$ ; resolution, 0.0002 pF  
**Conductance Measurement:** 0.001  $\mu$ mho to 1000  $\mu$ mhos; accuracy,  $\pm 5\%$ ;

**Test Signal:** Internally supplied; continuously adjustable in frequency from 5 Kc/s to 500 Kc/s; level adjustable from below 1 mV to 3 V

**DC Bias:** Internal only; continuously adjustable from  $-5$  V to  $+100$  V

**Price:** \$1,900.00



### 1 Mc/s Capacitance Limit Bridge Model 77B

True dual-limit capacitance tests over a wide range of nominal values and tolerances. Issues test decision outputs visually as well as in form for actuation of materials handling equipment or data logging. With tolerance limits adjusted to  $\pm 0\%$ , Model 77B is useful as extremely high resolution laboratory type capacitance bridge. Inductance measurements also possible. 3-terminal (direct) operation. Built-in dc bias supply.

**Capacitance Measurement:** 0.0001 pF to 1000 pF (1200 pF with max. limit); accuracy,  $\pm 0.25\%$ ; resolution, 0.0001 pF

**Conductance Measurement:** Manual only; range, 0 to 1000  $\mu$ mhos; accuracy,  $\pm 5\%$

**Tolerance Range:** Continuously adjustable from  $\pm 0.0005$  pF to  $\pm 200$  pF; limit resolution, 1% of setting.

**Test Signal:** Internally supplied; 1 Mc/s, crystal controlled; level adjustable from 1 mV to 250 mV

**Test Time:** Approximately 0.05 second.

**Decision Output:** Green, red, and amber panel lamps indicating "Go", "High", and "Low", respectively; continuity contacts at rear panel in conformance with test decisions; sample of indicator-lamp filament voltages at rear panel

**DC Bias:** Internal, continuously adjustable from  $-5$  V to  $+125$  V; external, to  $\pm 400$  V, 100 mA max.

**Price:** \$2,000.00



### RF Admittance Bridge Model 33A

Precise, high resolution measurement of capacitance and loss at high frequencies and with low test signal levels. Shunt inductance, series and shunt resistance, dissipation factor, and Q may also be readily determined. Built-in dc bias supply with provision for external bias. Particularly useful for semiconductors and integrated circuits.

**Capacitance Measurement:** 0 to 150 pF; to 30 pF at 100 Mc/s; accuracy,  $\pm 1\%$ ; resolution, 0.02 pF  
**Conductance Measurement:** 0 to 25,000  $\mu$ mhos; accuracy,  $\pm 2\%$ ; resolution, 0.5  $\mu$ mho

**Test Signal:** 7 internally supplied crystal controlled frequencies of 1, 5, 10, 20, 30, 50, and 100 Mc/s; level continuously adjustable from 0.1 V down to as low as 1 mV

**DC Bias:** Internal, continuously adjustable from  $-5$  to  $+100$  V; external, to  $\pm 250$  V

**Price:** \$2,000.00

### Ultra High Resolution RF Admittance Bridge Model 33A-S7

Capacitance measurements with resolution of 0.002 pF over capacitance range of 0 to 15 pF for applications where the utmost resolution of small values of capacitance is required. Otherwise identical to Model 33A.

**Price:** \$2,134.00

## Sensitive DC Instruments



### Sensitive DC Null Detector Model 56A

Electronic galvanometer providing exceptionally high sensitivity and high input impedance. Especially valuable as indicator in conjunction with Wheatstone Bridge. Zero center scale. 60 dB scale compression in HUNT mode virtually eliminates range switching when measuring specimens of unknown value. Provision for remote mode switching. Amplifier output available at front panel terminals. Either floating or grounded operation.

**Voltage Sensitivity:** 1  $\mu$ V to 100 V in 8 ranges  
**Current Sensitivity:** 0.1 pA to 10  $\mu$ A

**Input Resistance:** 10 meg  $\Omega$ , all ranges

**Operating Modes:** HUNT (60 dB meter scale compression); CALIBRATE (linear meter scale)

**Amplifier Output Capability:**  $\pm 1$  mA into 1000  $\Omega$

**Amplifier Gain:**  $-40$  to  $+100$  dB

**Price:** \$450.00 (rack mounted Model 56AR, \$475.00)



### Sensitive DC Microvolt/Microammeter Model 95A

Unusually broad range of dc voltage and current measurements covered in 42 ranges. Front panel range and function switching uniquely simple and convenient. Zero center meter. Fast response. Amplifier output available at front panel. Amplifier output gain and reference level adjustable without interaction with meter. Either floating or grounded operation.

**Voltage Measurements:** 10  $\mu$ V to 1000 V fs; Accuracy,  $\pm 3\%$

**Current Measurements:** 1 pA to 1 A fs; Accuracy,  $\pm 4\%$

**Voltmeter Input Resistance:** 10 meg  $\Omega$ , all ranges

**Amplifier Output:** 1 V (fs) across 1000  $\Omega$

**Amplifier Gain:** 100,000, max.

**Price:** \$550.00 (rack mounted Model 95A-R, \$575.00)

**Want more information?** Full technical details on any of these instruments are available on request. For your convenience, postage-free request cards are attached at right. If you would like our Sales Engineering Representative to call please check box on reply card.



### DC Voltmeter/Amplifier Model 97A

Versatile, general purpose dc voltmeter providing high input impedance, good sensitivity, and high stability at moderate cost. Zero center meter. Amplifier output available at front panel and usable simultaneously with meter without interaction.

**Voltage Measurement:** 300  $\mu$ V to 1000 V fs in 14 ranges; accuracy,  $\pm 3\%$

**Input Resistance:** 10 meg  $\Omega$  to 100 meg  $\Omega$ , depending on range

**Amplifier Output:**  $\pm 0.5$  mA into 1500  $\Omega$ , or  $\pm 1$  V, unloaded

**Amplifier Gain:** 70 dB

**Price:** \$375.00 (rack mounted Model 97A-R, \$400.00)



### Differential DC Voltmeter/Amplifier Model 98A

A 3-terminal dc voltmeter capable of many measurements impossible with 2-terminal instruments, including measuring small differences between relatively large dc voltages, comparing a voltage to a known source such as a standard cell, or where grounding problems exist. Also usable in 2-terminal mode. Amplifier output available at front panel and usable simultaneously with meter without interaction.

**Voltage Measurement:** 300  $\mu$ V to 1000 V fs in 14 ranges; accuracy  $\pm 3\%$

**Input Resistance:** 10 meg  $\Omega$  to 100 meg  $\Omega$ , depending on range

**DC Common Mode Rejection:** Greater than 80 dB

**Amplifier Output Capability:** 0.5 mA into 1500  $\Omega$ , or 1.5 V, unloaded

**Amplifier Gain:** 70 dB

**Price:** \$450.00 (rack mounted Model 98A-R, \$475.00)

CG-8

CG-8

Gentlemen:  Please send me technical information on: \_\_\_\_\_

I have a current need for equipment of this type  Probable future need

General interest only

Please have your Sales Engineering Representative phone for an appointment.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_ Zip code \_\_\_\_\_

Phone: \_\_\_\_\_ Ext.: \_\_\_\_\_

If we can assist you in any other way, please indicate how we may be of service:

Gentlemen:  Please send me technical information on: \_\_\_\_\_

I have a current need for equipment of this type  Probable future need

General interest only

Please have your Sales Engineering Representative phone for an appointment.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_ Zip code \_\_\_\_\_

Phone: \_\_\_\_\_ Ext.: \_\_\_\_\_

If we can assist you in any other way, please indicate how we may be of service:

FIRST CLASS  
Permit No.  
59  
Parsippany  
N. J.

BUSINESS REPLY MAIL  
No Postage Stamp Necessary If Mailed in the United States

Postage Will be Paid by

**BOONTON**  
**ELECTRONICS**  
CORPORATION  
ROUTE 287 AT SMITH ROAD  
PARSIPPANY, N. J. 07054



### RF Distortion Meters Models 85B and 85C

Convenient, simple means for measuring total harmonic content of rf signals. Particularly valuable in development and production testing of rf signal generators, oscillators, amplifiers, etc. Also usable as sensitive rf voltmeter, providing same characteristics as the Model 91C. Models 85B and 85C are identical except for fundamental frequency ranges.

**Fundamental Frequency Range:** 85B, 1 Mc/s to 100 Mc/s; 85C, 0.1 Mc/s to 6 Mc/s

**Distortion Measurements:** Sensitivity, 60 dB below 1 V; frequency range to approximately 300 Mc/s; Accuracy,  $\pm 2$  dB

**Input Impedance:** Approximately 50  $\Omega$

**RF Voltmeter Characteristics:** Identical to those of 91C

**Included Accessories:** 91-12E RF Probe; 91-13B Probe Tip; 91-8B 50  $\Omega$  Adapter

**Price:** \$825.00



### UHF Grid Dip Meter Model 101B

A compact, versatile instrument for a broad range of uhf measurements, including determining resonant frequencies of passive networks or oscillators and making relative power level or field strength measurements. Also useful as a calibrated variable uhf signal source with either modulated or cw output.

**Frequency Range:** 300 Mc/s to 1000 Mc/s

**Frequency Accuracy:**  $\pm 2\%$ ; scale hand calibrated

**Modulation:** Internally supplied 120 c/s am to approximately 30%; or external

**Output Capability:** At least 0.5 V into 50  $\Omega$  over entire range

**Price:** \$350.00

### Automation Products

In addition to the laboratory instruments shown here, Boonton Electronics Corporation also produces a line of instruments for automatic measurement and control functions in high speed production.

For information on "Automation Products", please use the attached postage-free reply card.

## SALES ENGINEERING REPRESENTATIVES

**1 Airep Engineering Company**  
P.O. Box 9555  
Dallas, Texas 75214  
Phone: 214-824-3800

P.O. Box 36211  
Houston, Texas 77036  
Phone: 713-494-2260

**2 Arthur Engineering Sales Co.**  
3264 N. Victoria Avenue  
St. Paul, Minn. 55112  
Phone: 612-484-3277  
TWX: 612-361-7901

11216 W. Mallory Avenue  
Hales Corners, Wisc. 53130  
Phone: 414-425-5919  
TWX: 414-721-5802

**3 Canadian Marconi Company**  
Marine & Land Communications Div.  
2442 Trenton Avenue  
Montreal 16, Quebec

**4 Engineering Services Company**  
6717 Vernon Avenue  
St. Louis, Mo. 63130  
Phone: 314-726-2233  
TWX: 314-556-0173

7546 Troost  
Kansas City, Mo. 64131  
Phone: 816-363-6000  
TWX: 816-556-2347

**5 George Gregory Associates**  
7 Erie Drive  
Natick, Mass., 01762  
Phone: 617-655-1330

9 S. Main Street  
Cheshire, Conn., 06410  
Phone: 203-272-5040

**6 James L. Highsmith & Company**  
3733 Monroe Road, P.O. Box 9367  
Charlotte, N. C. 28205  
Phone: 704-333-7743  
TWX: 810-621-0455

Suite 86, Holiday Office Center  
3322 S. Memorial Pkwy.,  
Huntsville, Alabama 35805  
Phone: 205-881-3294  
TWX: 510-579-2210

5003 Brook Road, P.O. Box 9225  
Richmond, Va. 23227  
Phone: 703-266-2060  
TWX: 710-956-0075

2543 Industrial Blvd., P.O. Box 7835  
Orlando, Fla. 32804  
Phone: 305-293-5202  
TWX: 305-275-0501

**7 Harry Levinson Company**  
1211 E. Denny Way  
Seattle, Washington 98122  
Phone: 206-323-5100  
TWX: 206-998-1047

**8 A. V. Marano & Company, Inc.**  
276 Fifth Avenue  
New York 1, New York  
Phone: 212-686-5577

**9 Kenneth W. Meyers Company**  
7256 W. Touhy Avenue  
Chicago, Ill., 60648  
Phone: 312-774-6440  
TWX: 312-265-1119

**10 NLR Associates**  
643 Eagle Rock Avenue  
West Orange, N.J. 07052  
Phone: 201-731-0774

529 Shoemaker Road  
Philadelphia, Penn. 19117  
Phone: 215-224-1663

**11 O'Halloran Associates**  
10700 Ventura Blvd.  
N. Hollywood, Cal. 91604  
Phone: 213-877-0173  
TWX: 910-499-2190

3921 E. Bayshore  
Palo Alto, Cal. 94303  
Phone: 415-326-1493  
TWX: 415-969-9144

3268 Rosecrans Street  
San Diego, Cal. 92106  
Phone: 714-224-2824

Tucson & Phoenix, Arizona  
Phone: ENterprise 1200

**12 Paddock-Joslow Company**  
721 Ellsworth Drive, P.O. Box 192  
Silver Spring, Md. 20907  
Phone: 301-589-6554 &  
301-588-7866

**13 Price-Parrish Electronics, Inc.**  
2130 S. Albion  
Denver, Colorado 80222  
Phone: 303-756-9455  
TWX: 303-292-3273

16 E. Stratford Avenue  
Salt Lake City, Utah 84115  
Phone: 801-487-7847  
TWX: 801-521-2402

507 Wyoming Blvd., N.E.  
Albuquerque, New Mex. 87112  
Phone: 505-268-6791  
TWX: 505-243-8353

**14 SBM Associates**  
1700 University Avenue  
Rochester, N.Y. 14610  
Phone: 716-271-7430  
TWX: 716-235-6898

139 E. Main Street  
Elmsford, N.Y. 10523  
Phone: 914-592-8850  
TWX: 914-592-8672

138 Pickard Building  
5858 E. Molloy Road  
Syracuse, N.Y. 13211  
Phone: 315-454-9377

**15 Home Office**  
Boonton Electronics Corp.  
Parsippany, N.J. 07054  
(phone or TWX collect)  
Phone: 201-887-5110  
TWX: 510-235-6747

For skilled consultation on instrumentation, call your nearest Boonton Electronics Sales Engineering Representative (see addresses at left).

Alabama #6

Alaska #15

Arizona #11

Arkansas #1

California #11

Connecticut #5

Delaware #12

District of Columbia #12

Florida #6

Georgia #6

Hawaii #15

Idaho #13

Illinois #9

Indiana #9

Iowa #2

Kansas #4

Kentucky #15

Louisiana #1

Maine #5

Maryland #12

Massachusetts #5

Michigan #15

Minnesota #2

Mississippi #6

Missouri #4

Montana #15

Nebraska #4

Nevada #11

New Hampshire #5

New Jersey #10

New Mexico #13

New York

All EXCEPT New York City,  
Long Island, counties of  
Rockland, Putnam and  
Westchester, #14

New York City, Long Island,  
counties of Rockland, Putnam,  
and Westchester, #10

North Carolina #6

North Dakota #15

Ohio #15

Oklahoma #1

Oregon #7

Pennsylvania

East of (and including)  
counties of Potter, Clinton,  
Centre, Huntington, and  
Fulton, #10

West of (but NOT including)  
the above counties, #15

Rhode Island #5

South Carolina #6

South Dakota #15

Tennessee #6

Texas #1

Utah #13

Vermont #5

Virginia

All EXCEPT counties of  
Loudoun and Fairfax, #6

For Fairfax and Loudoun  
counties only, #12

Washington #7

West Virginia #15

Wisconsin #2

Wyoming #15

Canada #3

Export (Except Canada) #8

FIRST CLASS  
Permit No.  
59  
Parsippany  
N. J.

BUSINESS REPLY MAIL  
No Postage Stamp Necessary If Mailed in the United States

Postage Will be Paid by

**BOONTON**  
**ELECTRONICS**  
CORPORATION  
ROUTE 287 AT SMITH ROAD  
PARSIPPANY, N. J. 07054

**BOONTON**  
**ELECTRONICS**  
CORPORATION

TELEPHONE: 201-887-5110

TWX: 510-235-6747

ROUTE 287 AT SMITH ROAD, PARSEPPANY, N. J. — 07054