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Telephone: STillwell 5-0296

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BOONTON RADIO CORPORATION  
50 Intervale Road  
Telephone: DEerfield 4-3200

**BOSTON, Massachusetts**

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Telephone: AXminster 9-3594

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**INDIANAPOLIS, Indiana**

CROSSLEY ASSOCIATES, INC.  
5420 North College Avenue  
Telephone: CLifford 1-9255

**LOS ANGELES, California**

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Woodland Hills, California  
Telephone: DIamond 0-3131

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Telephone: CHerry 1-1091

**PHOENIX, Arizona**

GENE FRENCH COMPANY  
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BIVINS & CALDWELL, INC.  
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**ROCHESTER, New York**

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Telephone: LUdlow 6-4940

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VAN GROOS COMPANY  
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**OTTAWA, Ontario, Canada**

BAYLY ENGINEERING, LTD.  
48 Sparks Street  
Telephone: CEntral 2-9821

**TORONTO, Ontario, Canada**

BAYLY ENGINEERING, LTD.  
48 Hunt St., Ajax, Ontario, Canada  
AJax 118; (Toronto) EMpire 2-3741

# SHORT FORM CATALOG



# PRECISION TEST EQUIPMENT

## BOONTON RADIO CORPORATION BOONTON • NEW JERSEY • U. S. A.

Telephone: DEerfield 4-3200

25<sup>th</sup>  
ANNIVERSARY

**FOREIGN COUNTRIES—**

**AUSTRIA**

SCHNEIDER, HENLEY & Gmbh  
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London S.W. 1, England

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Paris, 10, France

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Oslo, Norway

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ELEKTRONIKBOLAGET, AB  
Barnangsgatan 30  
Stockholm So., Sweden

**SWITZERLAND**

JACQUES BAERLOCHER  
Nuschelerstrasse 31  
Zurich 1/39, Switzerland

# BRO PRECISION ELECTRONIC

Measures Q and Reactance  
of Networks

## 190-A Q METER

RF Range: 20 to 260 Mc  $\pm$  1%

Q Range: 5 to 1200

Q Accuracy:  $\pm$  7%\* 20 to 100 Mc  
 $\pm$  15%\* 100 to 260 Mc

\*For circuit Q of 400 read directly on indicating Meter

Capacitor Range: 7.5 to 100  $\mu$ f

Capacitor Accuracy:  $\pm$  0.2  $\mu$ f      7.5 to 20  $\mu$ f  
 $\pm$  0.3  $\mu$ f                      20 to 50  $\mu$ f  
 $\pm$  0.5  $\mu$ f                      50 to 100  $\mu$ f

Power Requirements: 190-A: 90-130 Volts, 60 Cps, 55 watts  
190-AP: 90-130 Volts, 50 Cps, 55 watts



Price: \$875.00

Measures Q and  
Reactance of Networks

## 260-A Q METER



RF Range: 50 Kc to 50 Mc  $\pm$  1% approx.

Q Range: 10 to 625

Q Accuracy:  $\pm$  5%\* 50 Kc to 30 Mc  
 $\pm$  10%\* 30 Mc to 50 Mc

\*For circuit Q of 250 read directly on  
indicating Meter

Main Capacitor Range: 30 to 460  $\mu$ f

Main Capacitor Accuracy:  $\pm$  1% or 1  $\mu$ f which-  
ever is greater

Vernier Capacitor Range: -3.0 to +3.0  $\mu$ f

Vernier Capacitor Accuracy:  $\pm$  0.1  $\mu$ f

Power Requirements: 260-A: 90-130 Volts, 60 Cps,  
65 watts  
260-AP: 90-130 Volts, 50 Cps,  
65 watts

Price: \$850.00

Measures Resistance and  
Reactance of Networks

## 250-A RX METER



RF Range: 500 Kc to 250 Mc  $\pm$  1%

Resistance Range: 15 to 100,000 $\Omega$

Resistance Accuracy:

$$\pm \left[ 2 + \frac{F^*}{200} + \frac{R^*}{5000} + \frac{Q^*}{20} \right] \% \pm 0.2\Omega$$

\*F = frequency (Mc);

R = RX Meter  $R_p$  reading ( $\Omega$ );

Q =  $\omega RC \times 10^{-12}$ , where C =

RX Meter  $C_p$  reading ( $\mu$ f)

Capacitance Range: -100 to 20  $\mu$ f

Capacitance Accuracy:

$$\pm (0.5 + 0.5 F^2 C^* \times 10^{-5}) \% \pm 0.15 \mu\text{f}$$

\*F = frequency (Mc);

C = RX Meter  $C_p$  reading ( $\mu$ f)

Power Requirements: 105 to 125 volts, 50-60 cps,  
60 watts

Price: \$1525.00

## Calibrates Band - Pass Circuits 240-A SWEEP SIGNAL GENERATOR

**RF Range:** 4.5 to 120 Mc  $\pm$  1%

**RF Output:** 1  $\mu$ v to 0.3 Volts\* (sweep)  
1  $\mu$ v to 0.1 Volts\* (CW & AM)  
\*Across external 50 ohm load

**Price:**  
**\$1820.00**

**Sweep Range:**  $\pm$  1% to  $\pm$  15 Mc or  $\pm$  30% of center frequency, whichever is smaller

**Sweep Linearity:**  $\pm$  10% over central  $\pm$  80% of Sweep excursion  
 $\pm$  20% over outer 20% of sweep excursion

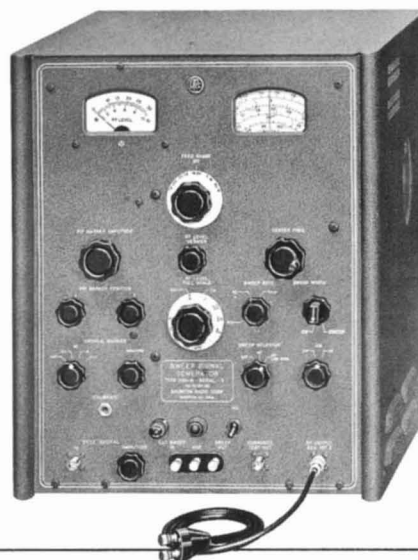
**Output Flatness:** Flat within  $<$  7%

**Crystal Birdie Markers:** 0.1, 0.5 and 2.5 Mc  $\pm$  0.005%

**Pip Markers:** 2 Markers continuously adjustable to any position on sweep excursion

**AM Level:** Approximately 30% from internal 1000 Cps Oscillator

**Power Requirements:** 240-A: 105-125 Volts, 60 Cps, 280 watts  
240-AP: 105-125 Volts, 50 Cps, 280 watts



## Extends Frequency Range of 240-A 203-B UNIVERTER

**RF Range:** 100 Kc to 25 Mc\*  
\*With 70 to 95 Mc input from 240-A

**RF Output:** (A) 1  $\mu$ v to 0.1 Volts\*  
\*Across external 50 ohm load  
(B) 2 Volts approximately

**Modulation:** Duplicate AM and sweep modulation of 240-A

**Power Requirements:** 105-125 Volts, 50-60 Cps, 50 watts

**Price: \$420.00**



## Calibrates Receivers and Associated Circuits

### 225-A SIGNAL GENERATOR



**Price: \$945.00**

**RF Range:** 10 to 500 Mc  $\pm$  0.5%

**RF Output:** 0.1  $\mu$ v to 0.1 Volts\*  
\*Across external 50 ohm load

**AM Range:** 0 to 30%

**AM Distortion:** 5% 10 to 250 Mc, 7% 250 to 500 Mc

**FM Range:** 0 to between 5 Kc and 60 Kc, depending upon frequency in the range 130 to 500 Mc

**PM Rise Time:** 5  $\mu$  sec 10 to 40 Mc  
3  $\mu$  sec 40 to 80 Mc  
2  $\mu$  sec 80 to 500 Mc

**PM Overshoot:** 10% 10 to 100 Mc  
25% 100 to 500 Mc

**Mod. Osc. Frequency:** 400 and 1000 Cps  $\pm$  10%

**Power Requirements:** 225-A: 105-125 Volts,  
60 Cps, 80 watts  
225-AP: 105-125 Volts,  
50 Cps, 80 watts

**ORDERING INFORMATION** / FOB: All prices are quoted F.O.B. Boonton, N. J.  
TERMS: Net 30 days (domestic commercial orders)

PRECISION

TEST EQUIPMENT



## Calibrates FM, TV, and Mobile Receivers



### 202-E SIGNAL GENERATOR

RF Range: 54 to 216 Mc  $\pm$  0.5%

RF Output: 0.1  $\mu$ v to 0.2 Volts\*

\*Across external 50 ohm load

AM Range: 0 to 50%

AM Distortion: < 5% at 30%  
< 8% at 50%

FM Range: 0 to 240 Kc

FM Distortion: < 2% at 75 Kc  
< 10% at 240 Kc

PM Rise Time: < 0.25  $\mu$  sec

PM Decay Time: < 0.8  $\mu$  sec

Mod. Osc. Frequency: 50 Cps, 100 Cps, 400 Cps, 1000 Cps,  
5 Kc, 7.5 Kc, 10 Kc, 60 Kc

Power Requirements: 105-125 Volts, 50-60 Cps, 65 watts

**Price:**

**\$1125.00**

## Extends Frequency Range of 202-E

### 207-E UNIVERTER

RF Range: 100 Kc to 55 Mc\*

\*With 150 to 205 Mc input from 202-E

RF Output: (A) 1  $\mu$ v to 0.1 Volts\*

\*Across external 50 ohm load  
(B) 1.5 Volts approximately

Modulation: Duplicates FM and AM modulation of 202-E

Power Requirements: 207-E: 95-130 Volts,  
60 Cps, 45 watts

207-EP: 95-130 Volts,  
50 Cps, 45 watts



**Price: \$430.00**

## Calibrates Telemetering Receivers

### 202-G SIGNAL GENERATOR

RF Range: 195 to 270 Mc  $\pm$  0.5%

RF Output: 0.1  $\mu$ v to 0.2 Volts\*

\*Across external 50 ohm load

AM Range: 0 to 100%

AM Distortion: < 5% at 30%  
< 8% at 50%  
< 20% at 100%

FM Range: 0 to 240 Kc

FM Distortion: < 2% at 75 Kc  
< 10% at 240 Kc

PM Rise Time: < 0.25  $\mu$  sec.

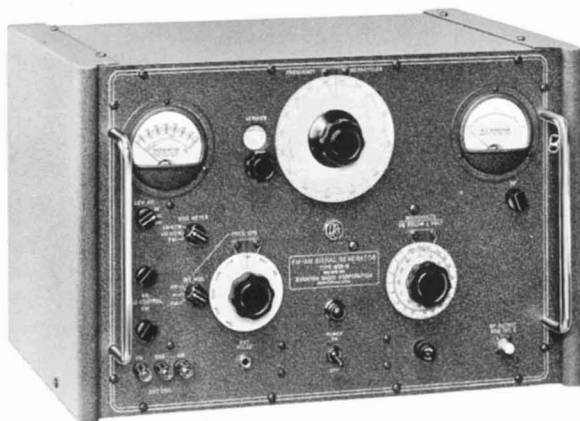
PM Decay Time: < 0.8  $\mu$  sec

Mod. Osc. Frequency: 50 Cps, 400 Cps, 730 Cps, 1700 Cps,  
3.9 Kc, 10.5 Kc, 30 Kc, 70 Kc

Power Requirements: 105-125 Volts, 50-60 Cps, 65 watts

**Price:**

**\$1100.00**





# INSTRUMENTS SINCE 1934

Checks Q and Reactance of Networks

## 265-A Q COMPARATOR

RF Range: 200 Kc to 70 Mc\*

\*Through use of eight type 520A Oscillator Inductors

Q Range: 30 to 500

%Q Range:  $\pm 25\%$  of Standard

%Q Accuracy:  $\pm 5\%$  on 25% range

L Range: 0.15  $\mu\text{h}$  to 15 mh

C Range: 5  $\mu\text{f}$  to 0.01  $\mu\text{f}$

R Range: 500  $\Omega$  to 20 meg  $\Omega$

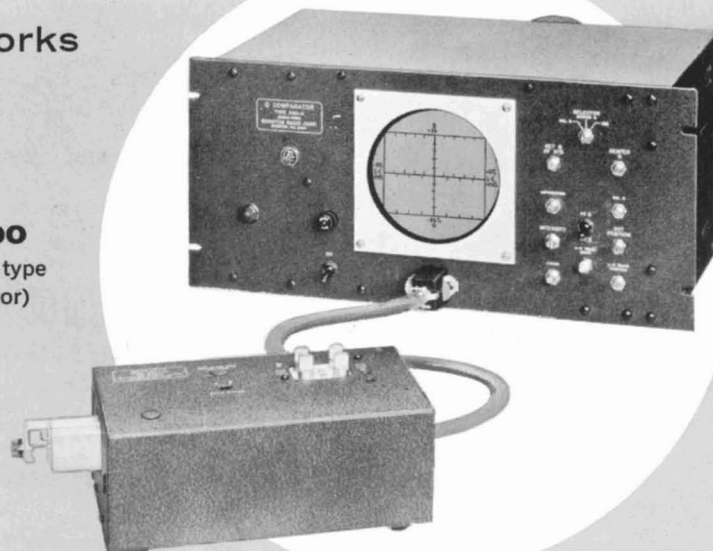
% L-C Range:  $\pm 5\%$  or  $\pm 20\%$  of standard, full scale

% L-C Accuracy: Direct reading to  $\pm 20\%$  of % L-C range  
Comparison to  $\pm 10\%$  of limit standards

Power Requirements: 265-A: 105-125 Volts, 60 Cps, 115 watts  
265-AP: 105-125 Volts, 50 Cps, 115 watts

**Price: \$795.00**

(including choice of one type 520A Oscillator Inductor)



## 245-C SIGNAL GENERATOR CALIBRATOR



RF Range: 500 Kc to 1000 Mc

RF Voltage Measurement Levels

Input: 0.025, 0.05, 0.1 Volts

Output: 5, 10, 20  $\mu\text{v}$

RF Voltage Accuracy

Input:  $\pm 10\%$  500 Kc to 500 Mc\*

$\pm 15\%$  500 Mc to 1000 Mc\*

\*When supplied from a 50 ohm nominal source, with a VSWR  $< 2$ .

Output:  $\pm 10\%$  500 Kc to 500 Mc

$\pm 20\%$  500 Mc to 1000 Mc

AM Range: 10 to 100%

AM Accuracy:  $\pm 10\%$  30 Cps to 15 Kc\*

$\pm 15\%$  20 Cps to 20 Kc\*

\*Modulating frequency

Power Requirements: No external requirements; all necessary power furnished by internal mercury batteries

**Price: \$390.00**

## 245-D SIGNAL GENERATOR CALIBRATOR



RF Range: 500 Kc to 1000 Mc

RF Voltage Measurement Levels

Input: 0.025, 0.05, 0.1 Volts

Output: 0.5, 1, 2  $\mu\text{v}$

RF Voltage Accuracy

Input:  $\pm 10\%$  500 Kc to 500 Mc\*

$\pm 15\%$  500 Mc to 1000 Mc\*

\*When supplied from a 50 ohm nominal source, with a VSWR  $< 2$ .

Output:  $\pm 10\%$  500 Kc to 500 Mc

$\pm 20\%$  500 Mc to 1000 Mc

AM Range: 10 to 100%

AM Accuracy:  $\pm 10\%$  30 Cps to 15 Kc\*

$\pm 15\%$  20 Cps to 20 Kc\*

\*Modulating frequency

Power Requirements: No external requirements; all necessary power furnished by internal mercury batteries

**Price: \$385.00**

# BOONTON RADIO CORPORATION

BOONTON, NEW JERSEY, U.S.A.



Telephone: DEERFIELD 4-3200

Calibrates VOR/ILS Receivers  
**211-A SIGNAL GENERATOR**



**Price: \$1890.00**

**RF Range:** 88 to 140 Mc (master oscillator)  
 110.1 and 114.9 Mc (crystal oscillator)

**RF Output:** 0.1  $\mu$ v to 0.2 Volts\*  
 \*Across external 50  $\Omega$  load

**AM Range:** 0 to 100%

**AM Distortion:** < 5% at 90% AM

**AM Fidelity:**  $\pm$  0.5 db 30 Cps to 11 Kc  
 $\pm$  0.1 db 90 Cps to 150 Cps  
 $\pm$  0.1 db 9.5 Kc to 10.5 Kc  
 < 0.25° phase shift at 30 Cps  
 10° phase shift approx. at 11 Kc

**Mod. Osc. Frequency:** 400 and 1000 Cps

**Power Requirements:** 105-125 Volts,  
 50-60 Cps, 150 watts

Calibrates Glide Slope  
 Receivers

**232-A SIGNAL GENERATOR**



**RF Range:** (A) 329.3 to 335.0 Mc  $\pm$  0.0065% in  
 increments of 0.3 Mc  
 (B) 20.7 Mc  $\pm$  0.0065%

**RF Output:** 1  $\mu$ v to 0.2 Volts\*  
 \*Across external 50 ohm load

**AM Range:** 0 to 100%

**Mod. Osc. Freq.** (A) 1000 Cps  
 (B) 90/150 Cps in the following tone  
 ratios:  
 0 db  $\pm$  2.0 db  
 $\pm$  0.5 db  $\pm$  3.3 db  
 $\pm$  1.0 db  $\pm$  infinite db (calibrate)

**Power Requirements:** 105-125 Volts, 60  $\pm$  1 Cps,  
 150 watts

**Price: \$1990.00**

Calibrates Phase Shift  
 in 211-A

**213-A PHASE TEST SET**



**30 Cps Bridge Operation:** Phase shift of 1° produces  
 at least 2" Oscilloscope deflection for 30% or  
 greater AM on 211-A. Calibration error < 0.1°  
 in 1° Bridge Calib position

**Direct Measurement Range:** 20 to 11,000 Cps

**Power Requirements:** No external power required

**Price: \$215.00**

25<sup>th</sup>  
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**BOONTON RADIO CORPORATION**

BOONTON, NEW JERSEY, U.S.A.

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