



LARSON-DAVIS GSA Net Price List Amendment

N-96-01
II-A-798

Prepared for
General Services Administration
Office of Federal Supply and Services
Scientific Equipment Division

Authorized Federal Supply Schedule Price List
for
Instruments and Laboratory Equipment
FCS Group 66, Part 11, Section J
Class 6625

Contract Number: GS-00F-2385A
Contract Period: June 1, 1990 through May 31, 1993
Contractor: LARSON-DAVIS
1681 W 820 North
Provo, Utah 84601
(801) 375-0177

Business Size: Small Business

Amendment:

6. Discount From List GSA Pricing discount is 6.5% from the published LARSON-DAVIS U.S. commercial price list dated March 15th 1992.

LARSON-DAVIS GSA Net Price List

Contract GS - OOF - 2385A

Information Sheet

- | | | |
|-------------------------------------|--|------------------------|
| 1. Special Item Nos. | 596-10 | Signal Analyzers |
| | 596-10a | Accessories |
| | 596-100 | Meters and Multimeters |
| | 596-100a | Accessories |
| | 596-100a | Accessories |
| 2. Maximum Order Limitations | 596-10 | \$200,000.00 |
| | 596-10a | 20,000.00 |
| | 596-100 | 100,000.00 |
| | 596-100a | 20,000.00 |
| | 596-100a | 20,000.00 |
| 3. Minimum Order | \$10.00 per purchase order | |
| 4. Geographic Coverage for Delivery | 48 contiguous States, the District of Columbia, Alaska, Hawaii, and the Commonwealth of Puerto Rico | |
| 5. Production Point | Provo
Utah County
Utah, U.S.A. | |
| 6. Discount From List | Prices shown include GSA discount. | |
| 7. Prompt Payment Terms | None offered. All payments net 30 days. | |
| 8. Time of Delivery | No longer than 60 days after receipt of order | |
| 9. F.O.B. | Destination (includes Alaska, Hawaii, and Puerto Rico) | |
| 10. Ordering Address | LARSON-DAVIS
1681 W 820 North
Provo, Utah 84601 | |
| 11. Payment Address | LARSON-DAVIS
1681 W 820 North
Provo, Utah 84601 | |
| 12. Warranty | LARSON-DAVIS warrants this product to be free from defects in material and workmanship for two years from the date of original purchase. | |
| | LARSON-DAVIS will repair or, at its option, replace any defective component(s) without charge for parts and labor if the unit is returned, freight prepaid, to an authorized service center. The product will be returned freight prepaid. | |
| | Product defects caused by misuse, accidents, or user modification are not covered by this warranty. No other warranties are expressed or implied. LARSON-DAVIS is not responsible for consequential damages. | |
| | Note: All OEM (non LARSON-DAVIS) products bear the warranties of the manufacturer. No other warranties are expressed or implied. | |
| 13. Export Packaging Charges | No additional charge | |

U.S.A. Product Price List (prices in U.S. dollars)

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U.S.A. Price List

Model 705 NOISEBADGE™		1			
705 NOISEBADGE™		1	700-C04	\$40	3
705	\$750	1	700-C06	\$25	3
705-PK1	\$3,640	1	700-C10	\$175	3
705-PK2	\$4,270	1	700/710 Accessories		4
705-PK3	\$7,200	1	AD080	\$150	4
705-PK4	\$7,900	1	700-CP1	\$20	4
705-PK5	\$4,490	1	700-CP2	\$45	4
705 NOISEBADGE™ Options		1	WS-2	\$5	4
705-OPT 01	\$100	1	700-PS1	\$45	4
705 NOISEBADGE™			700-PS2	\$55	4
Microphones/Preamp		1	Model 800B Series		5
M2	\$75	1	800B Series		5
M3	\$175	1	800B-10	\$3,000	5
786	\$150	1	800B-15	\$3,100	5
705 NOISEBADGE™			800B-20	\$3,000	5
Acoustic Callibrator		1	800B-25	\$3,000	5
CA250	\$525	1	800B Options		5
AD108	\$35	1	800B-OPT 30	\$1,500	5
705 NOISEBADGE™			800B-OPT 50	\$800	5
Cables/Accessories		1	800B-OPT 65	\$200	5
705-C01	\$50	1	800B-OPT 160	\$300	5
AD080	\$150	1	800B Accessories		5
WS-2	\$5	1	8268	\$500	5
Models 700/710		2	800B Cables		5
700 Series		2	800-C02	\$50	5
700	\$1,520	2	800B Systems		5
700-PK1	\$7,420	2	800B-SYS2	\$5,950	5
700-PK2	\$7,920	2	800B-SYS5	\$7,180	5
700-PK5	\$8,595	2	800B-SYS7	\$5,920	6
710 Series		2	800B Software		6
710	\$975	2	800B-SW7	\$300	6
710-PK1	\$4,800	2	800B-SWB	\$450	6
710-PK2	\$5,300	2	Model 810		7
710-PK4	\$5,975	2	Model 810 Sound Level Meter		7
710-PK5	\$6,500	2	810	\$1,975	7
Intrinsically Safe Options		3	810-01	\$2,400	7
700-OPT 18	\$150	3	810 Software		7
700-OPT 20	\$350	3	710-SW1	\$250	7
700/710 Microphones/Preamps		3	710-SW2	\$150	7
M1	\$75	3	810 Cables/Accessories		7
782	\$150	3	700-C01	\$45	7
700/710 Acoustic Callibrator		3	700-C02	\$40	7
CA250	\$525	3	700-C04	\$40	7
AD108	\$35	3	700-C06	\$25	7
700/710 Software		3	700-C10	\$175	7
700-SW2	\$400	3	700-PS1	\$45	7
710-SW1	\$250	3	700-PS2	\$55	7
710-SW2	\$150	3	Model 820		8
700/710 Cables		3	Model 820 Sound Level Meter		8
700-C01	\$45	3	820	\$3,600	8
700-C02	\$40	3			

U.S.A. Product Price List (prices in U.S. dollars)

820-01	\$4,280	8	2171	\$400	12
820-02	\$3,500	8	Environmental Power		
820 Microphones/Preamps		8	Supplies		12
2542	\$660	8	2175-115V	\$500	12
2561	\$660	8	2175-220V	\$600	12
827	\$550	8	2176	\$1000	12
820 Options		8	2176-1	\$800	12
820-OPT 50	\$195	8	2176-2	\$150	12
820-OPT51	\$450	8	2176-3	\$280	12
820-OPT 55	\$100	8	2176-4	\$100	13
820 Software		8	2176-5	\$80	13
820-SW1	\$1,000	8	2176-6	\$230	13
820-ACS	\$1,000	8	2176-7	\$150	13
820 Cables		9	2100 Outdoor Preamplifiers		13
700-C01	\$45	9	2100S	\$5,300	13
700-C04	\$40	9	2100K	\$3,600	13
700-C06	\$25	9	2100	\$2,990	13
700-C10	\$175	9	2100 Accessories		13
820-C01	\$50	9	2120	\$240	13
Model 870		10	2120-1	\$50	13
870 Noise and Vibration Monitor		10	2100-DSC	\$12	13
870	\$6,800	10	2100 Cables		13
870M	\$4,800	10	2100-C01	\$120	13
875 Real-time Analyzer		10	2100-C02	\$130	13
875	\$6,800	10	2100-C03	\$145	13
870 Options and Accessories		10	2105 Environmental Shroud		13
870-OPT 23	\$960	10	2105	\$950	13
870-OPT 24	\$1450	10	2105-10	\$1000	13
870-OPT 50	\$400	10	2105-20	\$1200	13
870-OPT 51	\$720	10	2105-30	\$1250	13
870-OPT 52	\$1,400	10	2105 Accessories		13
870-OPT 55	\$150	10	2105-1	\$50	13
870 Cables		10	2105-DSC	\$16	13
870-C01	\$70	10	2105-OR	\$15	13
870-C02	\$70	10	Model 2800/2900		14
870-C04	\$50	10	2800 Real-time SLM		14
870-C05	\$45	10	2800	\$7,600	14
870-C06	\$40	10	2900 Portable Dual Channel Analyzer		14
870-C10	\$50	10	2900	\$9,800	14
870-RS1	\$150	10	2800/2900 Enhancement Modules		14
870 Software		11	2510	\$600	14
870-SW1	\$1,000	11	2800-OPT 10	\$500	14
870-SW2	\$2,000	11	2800-OPT 90	\$1,000	14
870-SW3	\$6,000	11	2800-OPT 91	Call factory	14
Environmental Systems		12	2800-OPT 215	\$1,500	14
Weather Sensors		12	2900-OPT 80	\$2,000	14
2130	\$500	12	2900 Accessories		14
2140	\$900	12	2800-S	\$60	14
2141	\$400	12	AC/DC-6	\$45	14
2142	\$1,500	12	AC/DC-7	call factory	14
Environmental Towers and Housings		12	AD045	\$80	14
2150	\$900	12	960	\$225	14
2151	\$120	12	2500 Color Video Adapter		14
2152-10	\$800	12	2500	\$2,500	14
2152-20	\$900	12	2500-OPT 01	\$2,000	14
2153	\$150	12			
2170	\$700	12			

U.S.A. Product Price List (prices in U.S. dollars)

T100 Tachometer		15	3200 Rack Mount		20
T100	\$1,400	15	3200-OPT 180	\$160	20
T100-I	\$100	15	3200 Cables		20
T100-P	\$150	15	3200-C02	\$50	20
T100-O	\$250	15	3200-C03	\$50	20
Model 3200		16	3200-C04	\$60	20
3200 Mainframes		18	3200-C05	\$60	20
3200 Mainframe Configurations		18	3200-C06	\$10	20
3200L	\$7,500	16	3200 Carrying Cases		20
3200S	\$7,500	16	CC007	\$250	20
3200 Signal Analysis Modules		18	CC008	\$900	20
3200-OPT 30	\$3,900	16	Microphone Products		21
3200-OPT 41	\$7,100	16	Microphones		21
3200-OPT 42	\$5,100	16	2520	\$750	21
3200-OPT 43	\$25,200	17	2520PM	\$2,000	21
3200-OPT 44	\$12,100	17	2530	\$750	21
3200-OPT 05	\$20,900	17	2540	\$660	21
3200 Enhancement Modules		17	2540PM	\$1,800	21
3200-OPT 80	\$2,000	17	2541	\$660	21
3200-OPT 118	\$600	17	2542	\$660	21
3200-OPT 120	\$600	17	2559	\$660	21
3200-OPT 190	\$1,000	17	2560	\$660	21
3200-OPT 191	\$2,500	17	2561	\$660	21
3200-OPT 215	\$1,500	17	2570	\$850	21
2500 Color Video Adapter	\$2,500	17	2575	\$850	21
2500-OPT 01 Color Video Adapter	\$2,000	17	Microphone Power Supplies		21
3200 Signal Input Modules		17	2200C	\$1,700	21
3200-OPT 140	\$1,500	17	2200C-OPT 05	\$300	21
3200-OPT 142	\$1,500	17	2200C-OPT 10	\$150	21
3200-OPT 143	\$2,400	17	2212B	\$8,400	21
3200-OPT 144	\$1,500	17	2212B-OPT 01	\$10,500	21
3200-OPT 145	\$1,500	17	Microphone/Vibration Preampifiers/Probe		21
3200-OPT 146	\$1,500	17	826B	\$500	21
3200-OPT 147	\$1,500	17	900B	\$495	21
3200-OPT 148	\$1,500	17	910B	\$750	21
3200-OPT 149	\$1,500	17	950B	\$280	22
3200 Memory			960	\$225	22
Expansion Modules		19	2100 Outdoor Preampifiers		22
3200-OPT 90	\$1,700	19	2100S	\$5,300	22
3200-OPT 95A	\$1,000	19	2100K	\$3,600	22
3200-OPT 95B	\$1,720	19	2100	\$2,990	22
3200-OPT 95C	\$2,440	19	2100 Accessories		22
3200-OPT 95D	\$3,160	19	2120	\$240	22
3200-OPT 95E	\$3,880	19	2120-1	\$50	22
3200-OPT 95F	\$4,600	19	2100-DSC	\$12	22
3200 Power Supply Modules		19	2100 Cables		22
3200-OPT 100	add \$600	19	2100-C01	\$120	22
3200-OPT 102	\$500	19	2100-C02	\$130	22
3200-OPT 107	add \$425	19	2100-C03	\$145	22
3200 Computer			2105 Environmental Shroud		22
Interface Modules		19	2105	\$950	22
3200-OPT 112	\$500	19	2105-10	\$1000	22
3200-OPT 114	\$800	19	2105-20	\$1200	22
T100 Tachometer		19	2105-30	\$1250	22
T100	\$1,400	19	2105 Accessories		22
T100-I	\$100	19	2105-1	\$50	22
T100-P	\$150	19	2105-DSC	\$16	22
T100-O	\$250	20	2105-OR	\$15	22

U.S.A. Product Price List (prices in U.S. dollars)

Microphone Intensity Probes/Accessories		22				
2250-10	\$5,100	22	TM1	\$250	25	
2250-20	\$5,300	22	TM1-C01	\$60	25	
2250-30	\$6,580	23	TM1-C02	\$60	25	
2250-C01	\$100	23	Printers/Accessories		26	
2250-C02	\$120	23	Printers		26	
2250-CXXX	\$150+\$2/ft.	23	PR3	\$595	26	
MS-20	\$30	23	PR4	\$595	26	
MS-40	\$30	23	PR5	\$450	26	
Microphone Calibrators/Adapters		23	AC/DC Voltage Adapters		26	
CA250	\$525	23	AC/DC-1	\$35	26	
AE100	\$875	23	AC/DC-2	\$45	26	
AD107	\$35	23	AC/DC-3	\$65	26	
AD108	\$35	23	AC/DC-4	\$40	26	
AD109	\$35	23	AC/DC-5	\$50	26	
AD111	\$60	23	AC/DC-6	\$45	26	
Microphone Adapters/Accessories		23	AC/DC-7	call factory	26	
AD002	\$150	23	Carrying Cases		26	
AD005	\$100	23	CC001	\$200	26	
AD010	\$100	23	CC002	\$120	26	
AD015	\$145	23	CC003	\$50	26	
AD020	\$30	23	CC005	\$80	26	
AD025	\$24	23	CC006	\$80	26	
AD030	\$35	23	CC007	\$250	26	
AD040	\$446	23	CC008	\$900	26	
AD045	\$80	23	Calibration Certification Services		27	
AD050	\$350	23	Calibration Cost		27	
AD051	\$550	23	C-700	\$200	27	
AD060	\$80	23	C-705	\$175	27	
AD080	\$150	23	C-710	\$175	27	
Microphone Accessory Cables		23	C-800B	\$200	27	
ECXXX	\$120 + \$1/ft.	23	C-800-30	\$160	27	
Microphone Windscreens/Accessories		24	C-810	\$200	27	
WS-1	\$15	24	C-820	\$250	27	
WS-2	\$5	24	C-870	\$450	27	
WS-3	\$35	24	C-875	\$450	27	
2120	\$240	24	C-900B	\$45	27	
2120-1	\$50	24	C-910B	\$45	27	
2105-1	\$50	24	C-2100K	\$280	27	
Microphone System Tripods		24	C-2200B	\$150	27	
TP001	\$100	24	C-2200C	\$180	27	
TP002	\$325	24	C-2212	\$450	27	
TP003	\$250	24	C-2250	\$330	27	
TP004	\$300	24	C-2800	\$480	27	
2152-10	\$800	24	C-2900	\$520	27	
2152-20	\$900	24	C-3100	\$520	27	
Tachometer/Modems		25	C-3100-X	\$150	27	
Tachometer		25	C-3200	\$520	27	
T100	\$1,400	25	C-3200-X	\$150	27	
T100-I	\$100	25	C-CA250	\$100	27	
T100-P	\$150	25	C-MIC	\$110	27	
T100-O	\$250	25	C-PMIC	\$300	27	
Modems and Accessories		25	C-T100 & Sensors	\$200	27	
2400 Acoustic Monitor Interlink	\$1,400	25	Model 710/810 Customer Specified Parameters		28	
2400-OPT 10	\$100	25				
2400-OPT 20	\$120	25				
TH1	\$80	25				

Model 705 NOISEBADGETM

Integrating Noise Dosimeter

705 NOISEBADGETM

705 \$750

- 70 dB dynamic range, Type 2
- 32 KB memory
- PC compatible software
- RS-232 interface and cable with 9 to 25 pin adapter
- 3/8 in. microphone and preamp
- Real-time clock/calendar/timer
- Statistical, Ln table
- Leq, peak and max hold history
- Fast, slow detectors
- A- and C-weighting
- C-weighted and unweighted peak
- Dose calculated for any selection of parameters
- Time weighted averages
- Accessories
 - Windscreen (WS-2)
 - Mic clip
 - Calibration adapter for 1 in. opening

705-PK1 \$3,640

- Five Model 705 NOISEBADGETM with software and one cable

705-PK2 \$4,270

- Five Model 705 NOISEBADGETM with software and one cable
- Carrying case CC002
- CA250 calibrator

705-PK3 \$7,200

- Ten Model 705 NOISEBADGETM with software and one cable

705-PK4 \$7,900

- Ten Model 705 NOISEBADGETM with software and one cable
- Carrying case CC001
- CA250 calibrator

705-PK5 \$4,490

- Four Model 705 NOISEBADGETM with software and one cable.
- One Model 710
- Carrying Case CC002
- CA250 Calibrator

705 NOISEBADGETM Options

705-OPT 01 \$100

- Type 1 precision accuracy option for the 705
- Includes Type 1 microphone and internal filter modification (factory installed at time of purchase, credit for standard mic. included)

705 NOISEBADGETM Microphones/Preamp

M2 \$75

- 3/8 in. pre-polarized (electret) random incidence microphone (Type 2)
- Sensitivity 10 to 13 mV/Pa
- Frequency 10 Hz to 8 kHz
- Comes standard with the 705

M3 \$175

- 3/8 in. pre-polarized (electret) random incidence microphone (Type 1)

786 \$150

- 3/8 in. standard preamp
- Delivered with 3 1/2 ft. cable

705 NOISEBADGETM Acoustic Calibrator

CA250 \$525

- Precision microphone calibrator
- Constant SPL from -2,000 to 50,000 ft. altitude.
- Output 114.0 dB at 250 Hz.
- Includes 1/2 in. microphone adapter, traceability certificate, case.

AD108 \$35

- 3/8 in. microphone adapter for 1 in. opening in Larson-Davis and B&K calibrators.

705 NOISEBADGETM Cables/Accessories

705-C01 \$50

- Connects 705 to computer RS-232 port, includes 9 to 25 pin adaptor

AD080 \$150

- Electrical adapter provides electrical input to meter through BNC connector
- Replaces 3/8 in. microphone

WS-2 \$5

- 3/8 in. diameter mini windscreen for M2 or M3 microphone

Models 700/710

Integrating Sound Level Meter/Noise Dosimeter

700 Series

700 <ul style="list-style-type: none"> • 110 dB dynamic range, Type 2 • 8 KB memory • RS-232 interface/direct printer output • 3/8 in. microphone and preamp • Real-time clock/calendar/timer • Four histories <ul style="list-style-type: none"> • Statistical, Ln • Simple rms and peak • Detailed intervals • Exceedance or event history • Fast, slow and impulse detectors • A- and C-weighting • Peak and unweighted peak • Dose and projected dose • Time weighted averages • Keypad lock feature • Accessories <ul style="list-style-type: none"> • Windscreen (WS-2) • Mic clip • Hand strap • Nose cone • Vinyl case • Calibration adjustment tool • Calibration adapter for 1 in. opening • Screwdriver 	\$1,520
700-PK1 <ul style="list-style-type: none"> • Five Model 700 units • Carrying case CC002 	\$7,420
700-PK2 <ul style="list-style-type: none"> • Five Model 700 units • Carrying case CC002 • CA250 calibrator 	\$7,920
700-PKS <ul style="list-style-type: none"> • Five Model 700 units • Carrying case CC001 • CA250 calibrator • Inkjet PR3 printer/cable 	\$8,595

710 Series

Note: Model 710 parameters must be specified when ordering. Please complete and return parameter sheet at end of this price list.

710 <ul style="list-style-type: none"> • 110 dB dynamic range, Type 2 • 8 KB memory • RS-232 interface/direct printer output • Slow detector • A-weighting 	\$975
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- Leq, SEL
- Two doses and two projected doses
- Keypad selected dose parameters
- Three different time-weighted averages
- Unweighted peak
- Maximum and minimum
- Peak and rms histograms and time histories
- Keypad lock feature
- Accessories
 - Windscreen (WS-2)
 - Mic clip
 - Hand strap
 - Nose cone
 - Vinyl case
 - Calibration adjustment tool
 - Calibration adapter for 1 in. opening
 - Screwdriver

710-PK1 **\$4,800**

- Five Model 710 units
- Carrying case CC002

710-PK2 **\$5,300**

- Five Model 710 units
- Carrying case CC002
- CA250 calibrator

710-PK4 **\$5,975**

- Five Model 710 units
- Carrying case CC001
- CA250 calibrator
- Inkjet PR3 printer

710-PK5 **\$6,500**

- One 700 unit
- Four Model 710 units
- Carrying case CC001
- CA250 calibrator
- Inkjet PR3 printer

Intrinsically Safe Options

These options are available for Type 2 units only.

700-OPT 18 \$150

- UL Intrinsically Safe
- This modification permits use of the 700/710 in hazardous locations. Intrinsically safe according to Underwriters Laboratory for use in the following environments:
Class I, Groups A, B, C, & D
Class II, Groups E, F, & G
Class III, Temp. Code T3C

700-OPT 20 \$350

- British Intrinsically Safe
- This modification permits the 700/710 to meet the British Intrinsic Safe Standards listed below for use in mines and petrochemical/chemical plants. These British Approvals are also valid in all EC countries.
- HSE (M): Satisfies EN50 014 with Amendments 1 to 4 and EN50 020 with Amendments 1 to Code EEx ia I according to the British Health and Safety Executive Approval Number HSE (M) 897373.
- BASEEFA: Satisfies EN 50 014 (1977) with Amendments 1 to 5 and EN50 020 (1977) with Amendments 1 and 2 to Code EEx ia IIC TS according to the British Health and Safety Executive Approval Number BAS Ex 89C2372.
- This price includes label, leather case for using dosimeter or sound level meter, and an intrinsically safe RS-232 interface cable. In cases where only internal electrical modifications are required, the price is \$150.

700/710 Microphones/Preamps

M1 \$75

- 3/8 in. pre-polarized (electret) random incidence microphone (Type 2)
- Sensitivity 10 to 13 mV/Pa
- Frequency 10 Hz to 8 kHz
- Comes standard with the 700/710

782 \$150

- 3/8 in. standard preamp
- Delivered with 3 1/2 ft. cable

700/710 Acoustic Callibrator

CA250 \$525

- Precision microphone calibrator
- Constant SPL from -2,000 to 50,000 ft. altitude.
- Output 114.0 dB at 250 Hz.
- Includes 1/2 in. microphone adapter, traceability certificate, case.

AD108 \$35

- 3/8 in. microphone adapter for 1 in. opening in Larson-Davis and B&K calibrators.

700/710 Software

• Specify floppy disk format when ordering software. The software must be used with the 700-C10 interface cable.

700-SW2 \$400

- For programming and data logging using IBM computers and clones
- Setup of 700 using stored macros
- LDL or ASCII format storage of all data to disk files
- Graphs time and interval histories
- Provides comparison graphs for two history measurements
- Calculates Ldn and CNEL from hourly intervals

710-SW1 \$250

- For data logging using IBM computers and clones
- Graphs time histories and distributions
- Saves all data to disk files

710-SW2 \$150

- Development communications software for rapid binary data download to PC. Allows user to set 710 parameters (including time history duration).

700/710 Cables

700-C01 \$45

- Connects 700/710 and Epson or Inkjet PR3 serial printer

700-C02 \$40

- Connects 700 and a computer cassette recorder (Model 700 only)

700-C04 \$40

- Connects 700/710 and unwired cable end

700-C06 \$25

- Connects 700/710 and alligator clips. For customer supplied battery

700-C10 \$175

- Intelligent interface level converter with 9-pin female "D" connector (25-pin adapter included)
- For IBM computers and compatibles using 9-pin or 25-pin RS-232 connectors.

Models 700/710

U.S.A. Product Price List (prices in U.S. dollars)

700/710 Accessories

AD080	\$150
<ul style="list-style-type: none">• Electrical adapter provides electrical input to meter through BNC connector• Replaces 3/8 in. microphone	
700-CP1	\$20
<ul style="list-style-type: none">• Vinyl carrying pouch• Comes standard with 710/700	
700-CP2	\$45
<ul style="list-style-type: none">• Leather carrying pouch• Heavy duty	
WS-2	\$5
<ul style="list-style-type: none">• 3/8 in. diameter mini windscreen for M1, M2 or M3 microphone• Used with 705/700/710	
700-PS1	\$45
<ul style="list-style-type: none">• AC/DC power adapter for the 700/710/B10/B20• 115 Vac to 9 Vdc, 50-60 Hz	
700-PS2	\$55
<ul style="list-style-type: none">• AC/DC power adapter for the 700/710/B10/B20• 220 Vac to 9 Vdc, 50-60 Hz	

Note: Special microphone options and weather tight enclosures are available. Call for information.

Model 800B Series

Precision Integrating Type 1 Sound Level Meters

800B Series

800B-10 \$3,000

- Measures proj dose, dose, RT60, SISI, delay time, THD, rise time, fall time, pulse period, pulse width, overshoot, linearity, period, frequency
- 1/2 in. random incidence microphone (Model 2559)
- Preamp (Model 826B)
- Linear, A- and C-weighting
- Slow, fast, peak, and impulse detectors
- Integration with 3, 4, 5 dB exchange rates
- Ranges

80 to 140 dB
50 to 110 dB
30 to 90 dB
10 to 70 dB
-10 to 50 dB

- Linear frequency response 0.8 Hz to 33 kHz
- Accessories
 - 3 1/2 in. windscreen (WS-1)
 - 1/8 in. phone plug (1)
 - Calibration tool
 - Hand strap
 - Four C-cells
 - Operator's manual
 - Power input connector
 - AC to 9 Vdc adapter (AC/DC-1)

800B-15 \$3,100

- Same as the 800B-10 but with 1 in. pressure microphone (Model 2575) and AD020 adapter.

800B-20 \$3,000

- Same as the 800B-10 but with a 1/2 in. free-field microphone (Model 2540)

800B-25 \$3,000

- Same as the 800B-10 but with a 1/2 in. high sensitivity free-field microphone (Model 2541)

800B Options

Note: All options are internal and factory installed.

800B-OPT 30 \$1,500

- Filter bank option with forty-four overlapping 1/1 octave filters and forty-four 1/3 octave band filters covering 1 Hz to 20 kHz

800B-OPT 50 \$800

- RS-232 controller interface option
- Includes 800-C02 cable

800B-OPT 65 \$200

- Frequency range of the linear weighting extended to 65 kHz.

800B-OPT 160 \$300

- Alternative ranges for high intensity measurements.
 - 100 to 160 dB
 - 70 to 130 dB
 - 50 to 110 dB
 - 30 to 90 dB
 - 10 to 70 dB

800B Accessories

826B \$500

- 1/2 in. preamplifier for Model 800B

800B Cables

800-C02 \$50

- Connects 800B and IBM compatibles
- Includes 9 to 25 pin adapter
- Model 800B must have OPT 50.

800B Systems

800B-SYS2 \$5,950

- Audiometric calibration package
- Includes the following
 - 800B-15
 - OPT 30
 - CA250
 - AE100
 - AD010
 - AD030
 - CC001

800B-SYS5 \$7,180

- Automated audiometric calibration system for IBM and compatibles
- Includes the following
 - 800B-SYS2
 - OPT 50
 - 800B-SWB

Model 800B Series

U.S.A. Product Price List (prices in U.S. dollars)

800B-SYS7 \$5,920

- Automated acoustics system for IBM and compatibles
- Includes the following
 - 800B-10
 - OPT 30
 - OPT 50
 - CC001
 - 800B-SW7

800B Software

Specify floppy disk format desired.

800B-SW7 \$300

- Written for IBM and compatibles, this software provides automatic scanning of 1/1 or 1/3 octave bands for selectable lengths of time or constant confidence measurements. The number of scans is also selectable.
- Routines are provided for NC (Noise Criteria) analysis and a time history plot of Leq values.
- An environmental analysis module measures Leq in increments of 20 sec. to 1 hour and provides Ln statistics (L10, L20, ...etc.), exceedance reports and a cumulative statistics report.
- Instrument setup options are displayed in a single menu for user selection.
- 800B-OPT 50 is required.
- For frequency analysis 800B-OPT 30 is required.

800B-SWB \$450

- Software for use with IBM and compatible computers. Provides tests required by ANSI for the calibration of audiometers. Tests include linearity, pulse, harmonic distortion, frequency, etc. All corrections are made automatically. Multiple tests can be run and stored.
- Full printouts summarizing all tests are available, including notation of all measurements that were out of specification.
- The 800B must be equipped with 800B-OPT 30 and 50.

Model 810

Precision Integrating Type 1 Sound Level Meter

Model 810 Sound Level Meter

Note: Model 810 parameters must be specified when ordering. Please complete and return parameter sheet at end of this price list.

810 \$1,975

- 110 dB dynamic range, typically 30-140 dBA
- 1/2 in. microphone and preamp included
- 8 KB memory
- RS-232 Interface/direct printer output
- Slow detector
- A-weighting
- Leq, SEL
- Peak and RMS histograms
- One-minute time history storage
- Two doses and projected doses
- Keypad selected dose parameters
- Three different time-weighted averages
- Unweighted peak
- Maximum and minimum
- Keypad lock feature
- Accessories
 - Windscreen (WS-1)
 - Hand strap

810-01 \$2,400

- This is a modified version of the Model 810 which includes a high sensitivity electret microphone for applications where a lower noise floor, approximately 18 dBA, is required.

810 Software

* Specify floppy disk format when ordering software. Must be used with the 700-C10 interface cable.

710-SW1 \$250

- For data logging using IBM computers and clones
- Graphs time histories and distributions
- Saves all data to disk files

710-SW2 \$150

- Development communications software for rapid binary data download to PC. Allows user to set 810 parameters (including time history duration).

810 Cables/Accessories

700-C01 \$45

- Connects 700/710 and Epson or Inkjet PR3 serial printer

700-C02 \$40

- Connects 700 and a computer cassette recorder (Model 700 only)

700-C04 \$40

- Connects 700/710 and unwired cable end

700-C06 \$25

- Connects 700/710 and alligator clips. For customer supplied battery

700-C10 \$175

- Intelligent interface level converter with 9-pin female "D" connector (25-pin adapter included)
- For IBM computers and compatibles using 9-pin or 25-pin RS-232 connectors.

700-PS1 \$45

- AC/DC power adapter for the 700/710/810/820
- 115 Vac to 9 Vdc, 50-60 Hz

700-PS2 \$55

- AC/DC power adapter for the 700/710/810/820
- 220 Vac to 9 Vdc, 50-60 Hz

Note: Special microphone options and weather tight enclosures are available. Call for information.

Model 820

Precision Integrating Sound Level Meter Environmental Noise Analyzer/Data Logger

Model 820 Sound Level Meter

- 820** **\$3,600**
- 110 dB dynamic range, typically 30-140 dBA
 - 1/2 in. microphone and preamp included. Specify mic. model when ordering (see below).
 - Type 1: ANSI S1.4, IEC 651, IEC 804
 - RMS Weighting: A and C
 - Unweighted Peak
 - 256 KB CMOS memory
 - Intervals: Leq, TWA, Lmax, Lmin, SEL, Peak, 6 Ln Levels
 - Time History: Leq and Peak as fast as 32 samples/second
 - Exceedance Data: Date, Time, Duration, Leq, Lmax, Lpeak, Lpeak (unweighted), SEL, Time History, Event Discrimination
 - Noise Level Histograms
 - Daily Noise Reports
 - Automatic Start/Stop
 - RS-232 Interface/direct printouts
 - Multi-tasking processor
 - Network addressing
 - Accessories
 - Windscreen (WS-1)
 - Hand strap

- 820-01** **\$4,280**
- This is a modified version of the Model 820 which includes a high sensitivity electret microphone for applications where a lower noise floor, approximately 18 dBA, is required.

- 820-02** **\$3,500**
- Same as 820-01, delivered without the microphone.

820 Microphones/Preamps

- 2542** **\$660**
- 1/2 in.
 - Precision free field response
 - 55 V polarization for use with the Model 820 only
- 2561** **\$660**
- 1/2 in.
 - Precision random incidence response
 - 55 V polarization for use with the Model 820 only

- 827** **\$550**
- 1/2 in. diameter and microphone thread
 - Ultra low noise, precision microphone preamp
 - Internal mic. polarization for use with the Model 820 only
 - Use ECXXX cable for remote operation

820 Options

- 820-OPT 50** **\$195**
- Weatherproof fiberglass case (CC002) with custom-cut foam interior and desiccant. Sealed signal cable feedthrough. Features lock hasp, can be chained through handle for security.
- 820-OPT51** **\$450**
- Same as 820-OPT 50 with 10 Ah, 12 V rechargeable battery (1 week operation in normal conditions), 820-C01 and a battery charger (120 VAC, 1.25 A).
- 820-OPT 55** **\$100**
- Upgrade OPT 51 to 220 V charger

Custom environmental enclosures and tripods are available. Refer to the price list or call factory for details.

820 Software

Specify floppy disk format when ordering.

- 820-SW1** **\$1,000**
- Environmental noise monitor software
 - Written for the IBM and compatibles, this software allows control and retrieval of data from the Model 820 via RS-232 interface.
 - History, interval and exceedance data, RMS and peak histograms, HNL, Lns, and other 820 data.
 - Setup items can be selected, stored as macros, and transferred to the 820. Data is viewed and printed graphically. Saves data files to disk.
 - Includes pull-down menus and can be mouse-driven.
- 820-ACS** **\$1,000**
- Acoustic Counter Software for IBM and compatibles. Performs noise exceedance analysis and determination of aircraft activity vs. community noise.
 - 640K RAM and floppy drive required. Hard disk and mouse strongly recommended.

820 Cables

- | | |
|---|-------|
| 700-C01 | \$45 |
| • Connects 820 and Epson or Inkjet PR3 serial printer | |
| 700-C04 | \$40 |
| • Connects 820 and unwired cable end | |
| 700-C06 | \$25 |
| • Connects 820 and alligator clips. For customer supplied battery | |
| 700-C10 | \$175 |
| • Intelligent interface level converter with 9-pin female "D" connector (25-pin adapter included). For IBM computers and compatibles using 9-pin or 25-pin RS-232 connectors. | |
| 820-C01 | \$50 |
| • Connects 820 to battery (spade lugs). 9 pin connector allows RS-232 communications with most laptop computers. | |

Model 870

Airport and Environmental Noise Monitor

870 Noise and Vibration Monitor

870 **\$6,800**

- Hand held, Type 0 or Type 1, airport and environmental noise and vibration data monitor.
- 115 dB dynamic range
- 256KB data storage (expandable)
- Dual RS-232 interfaces.
- Frequency range 1 Hz to 35 kHz (70 kHz BW available with a 3 to 4 dB higher noise floor at no extra charge)
- High and low pass filters.
- Accessories
 - 1/8 in. phone plug (2)
 - Calibration tool
 - Operator's manual
 - Preamp input connector
 - AC to 9 Vdc adapter (AC/DC-1)
 - Soft-shell carry case (CC006)
 - Battery holder (2)
 - Six AA cells
 - 15 pin male "D" connector and hood
- Designed for use with Model 900B/910B preamps, Model 2100 outdoor microphone system, and AD045 for direct input (none included). Preamp must be remote for Type 0 or 1 operation (use ECXXX cable).

870M **\$4,800**

- A version of the Model 870 without keypad or display screen. Intended for use in systems where all control and data readout operations are performed over the RS-232 interfaces. A software program for IBM and compatibles is supplied to permit simulation of the keypad.

875 Real-time Analyzer

875 **\$6,800**

- All digital 1/3 octave band real-time spectrum analyzer with intelligent interface to the Model 870. Provides automatic spectrum signature for noise events. 870 must have 870-OPT 23 or -OPT 24.

870 Options and Accessories

870-OPT 23 **\$960**

- Memory expansion of 512 KB.

870-OPT 24 **\$1450**

- Memory expansion of 1 MB.

870-OPT 50 **\$480**

- Custom airtight and watertight plastic case with dimensions of 14.5 x 10 x 10 in. Custom cut foam pockets for the 870 and battery (not included).

870-OPT 51 **\$720**

- Same as OPT 50 with a 24 Ah, 12 V rechargeable battery and 2.5 A, 120 Vac charger

870-OPT 52 **\$1,400**

- Same as 870-OPT 51 with Model 2130 weather interface and three weather-tight ports for connection to Larson-Davis 2140, 2141, or 2142 weather sensors (not included).

870-OPT 55 **\$150**

- Upgrade OPT 51 and 52 to 220 V charger

870 Cables

870-C01 **\$70**

- Connects 870 and IBM-XT
- With Extend connector for 870 Daisy Chain Network

870-C02 **\$70**

- Connects 870 and IBM-AT
- With Extend connector for 870 Daisy Chain Network

- Do not mix 870-C01 and 870-C02 cables:

870-C04 **\$50**

- Connects 870 and IBM compatibles
- Includes 9-pin to 25-pin adapter

870-C05 **\$45**

- Connects 870 and Epson or PR3 serial printers

870-C06 **\$40**

- Connects 870 and an audio cassette recorder

870-C10 **\$50**

- Automobile power cable
- Connects 870 to an automobile cigarette lighter

870-RS1 **\$150**

- Remote control switch
- This consists of a remote switch, two logic output indicators, and three analog-to-digital adjustments. It is used to demonstrate the use of the A/D inputs and remote run/stop feature of the 870.

870 Software

Specify disk format when ordering.

870-SW1 **\$1,000**

- Environmental noise monitor software
- IBM compatible software allows control and retrieval of data from the Model 870 via RS-232 interface.
- History, interval and exceedance data, RMS and peak histograms, HNL, Lns, and other 870 data available.
- Setup items can be selected, stored as macros, and transferred to the 870. Data is viewed and printed graphically. Saves data files to disk.
- Includes pull-down menus and can be mouse-driven.
- 640K RAM and floppy drive required. Hard disk and mouse strongly recommended.

870-SW2 **\$2,000**

- Remote monitor software
- Same as 870-SW1 software but can contact remote monitor via telephone modem. Provides real-time display of level and exceedances, as well as electrostatic actuator calibration and noise floor check of Model 2100K outdoor preamplifier and microphone.
- 640K RAM and floppy drive required. Hard disk and mouse strongly recommended.

870-SW3 **\$6,000**

- Airport and perimeter noise monitoring system software
- Written for the IBM compatibles. Includes all the features of 870-SW1 and 870-SW2. Allows automatic connection to array of up to 100 monitors. Status screen showing monitor information: memory status, result of last connection, calibration, etc.
- Automatic calibration check and data retrieval to disk file. Current display of exceedance time history. Automatic separation of noise events between possible aircraft vs. community using operator selected weighted sum of four noise parameters and wind speed.
- Requests operator password for critical system functions. User-tailored printouts of all events or aircraft events only.
- 640K RAM and hard disk drive required. Mouse strongly recommended.

CUSTOM SOFTWARE: Contact Larson • Davis Laboratories for information on custom design of environmental or airport software with aircraft flight information data bases.

Environmental Systems

Weather Sensors

2130	\$500
<ul style="list-style-type: none"> • Weather sensor interface • Interfaces the 2140, 2141, and 2142 to the Model 870 • Scaling and offset adjustment for up to 3 sensors 	
2140	\$900
<ul style="list-style-type: none"> • Wind monitor • Measures wind speed and direction 	
2141	\$400
<ul style="list-style-type: none"> • Temperature sensor 	
2142	\$1,500
<ul style="list-style-type: none"> • Humidity and temperature sensor, 12 plate radiation shield 	

Environmental Towers and Housings

The following are for permanent/semi-permanent monitoring. See Model 2105 for portable systems.

2150	\$900
<ul style="list-style-type: none"> • Steel 17 ft. tilt-down tower • Used to support the 2100 • 20 ft. microphone height • Comes ready to mount the 2170 or 2171 housing 	
2151	\$120
<ul style="list-style-type: none"> • Tower mount for sensors • For 2140 series weather sensors • Bolts to side of the 2150 pole 	
2152-10	\$800
<ul style="list-style-type: none"> • Portable tripod tower for 2100 • Collapsible tripod base, radius 9 in. to 6 ft. • 1 1/2 in. aluminum section mast ready for mounting 2170 or 2171. • Leg base plates can be staked. • Provides 10 ft. microphone height. 	
2152-20	\$900
<ul style="list-style-type: none"> • Same as 2152-10, provides 20 ft. microphone height. Additional collar for optional guy-wires. 	
2153	\$150
<ul style="list-style-type: none"> • Portable tower support arm • Allows for mounting weather equipment such as the 2140, 2141, and 2142. 	
2170	\$700
<ul style="list-style-type: none"> • NEMA 4X stainless steel enclosure • For the Model 870 and peripheral equipment • Space for two batteries, weather sensor interface (2130), modem, phone, etc. 	

- Mounts to the 2150 or 2152 tower
- Requires 2175 power supply and panel

2171	\$400
<ul style="list-style-type: none"> • NEMA 4 steel enclosure, custom painted gray • For the Model 870 and peripheral equipment • Space for two batteries, weather sensor interface (2130), modem, phone, etc. • Mounts to the 2150 pole • Requires 2175 power supply and panel 	

Environmental Power Supplies

2175-115V	\$500
<ul style="list-style-type: none"> • 115 V power supply and mounting panel • 115 Vac mains with battery backup • Provides power to the Model 870, 2100, and peripheral equipment • Includes 12 V, 26 Ah battery and charger for 1 week of operation without AC power 	
2175-220V	\$600
<ul style="list-style-type: none"> • 220 V power supply and mounting panel • 220 Vac mains with battery backup • Provides power to the Model 870, 2100, and peripheral equipment • Includes 12 V, 24 Ah battery and 220 Vac charger for 1 week of operation without AC power 	
2176	\$1000
<ul style="list-style-type: none"> • Solar battery power supply and panel • Provides power for the Model 870, 2100, and peripheral equipment • Includes 47 W solar panel and mounting hardware. Batteries are not included. Order one or two 2176-2s or one 2176-3 as indicated by site solar survey (call Larson•Davis for details). • Several battery and solar panel configurations can be provided. 	
2176-1	\$800
<ul style="list-style-type: none"> • Additional 47 W solar panel • Includes mounting hardware • For use with the 2176 	
2176-2	\$150
<ul style="list-style-type: none"> • 26 Ah battery • Sealed battery for use with 2176 • H 13 cm x W 18 cm x D 16 cm (5 x 7 x 6.5 in.) • Weight 8.9 kg (19.6 lb.) 	
2176-3	\$280
<ul style="list-style-type: none"> • 100 Ah battery • Sealed battery for use with 2176 • Required when 2176-1 is added • Includes underground enclosure and cable to 2176 power supply 	

2176-4	\$100
<ul style="list-style-type: none"> • 10 Ah battery • Sealed battery for use with the 700, 710, 870, and 2200C. • H 12 cm x W 20 cm x D 6 cm (6 x 8 x 3 in.) • Weight: 4 kg (8.7 lb.) 	
2176-5	\$80
<ul style="list-style-type: none"> • 8 Ah battery • Sealed battery for use with the 700, 710, 820, 870, T100 and 2200C. • H 12 cm x W 20 cm x D 6 cm (5 x 8 x 3 in.) • Weight: 3 kg (6.7 lb.) 	
2176-6	\$230
<ul style="list-style-type: none"> • 100 Ah battery • Sealed battery for use with 2176 • Required when 2176-1 is added • H 20 cm x W 30 cm x D 17 cm (8 x 12 x 7 in.) • Weight: 26 kg (56 lb.) 	
2176-7	\$150
<ul style="list-style-type: none"> • 17 Ah battery • Sealed battery for use with the 700, 710, 820, 870, T100 and 2200C. 	

2100 Outdoor Preamplifiers

2100S	\$5,300
<ul style="list-style-type: none"> • System with power supply • Requires 1/2 in. microphone and 2100 cables • Includes the following <ul style="list-style-type: none"> 2200C power supply & amplifier 2100 preamplifier/heater/desiccant 2110 rainhat with electrostatic actuator 2120 windscreen with birdspikes 	
2100K	\$3,600
<ul style="list-style-type: none"> • System w/o power supply • Requires 1/2 in. microphone and 2100 cables • Includes the following <ul style="list-style-type: none"> 2100 preamplifier/heater/desiccant 2110 rainhat with electrostatic actuator 2120 windscreen with birdspikes 	
2100	\$2,990
<ul style="list-style-type: none"> • 2100 preamplifier/heater/desiccant • Requires 1/2 in. microphone and 2100 cables • Requires 2110 and 2120 	

2100 Accessories

2120	\$240
<ul style="list-style-type: none"> • Windscreen with birdspikes 	
2120-1	\$50
<ul style="list-style-type: none"> • Replacement foam windscreen insert 	
2100-DSC	\$12
<ul style="list-style-type: none"> • 6 desiccant replacement cartridges 	

2100 Cables

2100-C01	\$120
<ul style="list-style-type: none"> • Preamp signal cable • Interconnects 2100 to Model 870/2800/2900/3200 • 20 ft. 	
2100-C02	\$130
<ul style="list-style-type: none"> • Control cable for heater and electrostatic actuator • Interconnects the 2100 with the Model 870 and 2170 series power supplies • 20 ft. 	
2100-C03	\$145
<ul style="list-style-type: none"> • Control cable with weather interface • Interconnects the 2100 with the Model 870, the 2130 weather interface, and the 2170 series power supplies • 20 ft. 	

2105 Environmental Shroud

Also see Model 2100 Outdoor Preamplifiers on page 21.

2105	\$950
<ul style="list-style-type: none"> • Environmental protective shroud for the 827, 900B preamps and 1/2 in. microphones used with ECXXX extension cable (none included) • Microphone O-ring • Clear lexan™ shell with desiccant cartridges • rain repellant windscreen with birdspikes • 3/4 in. standard thread base mount 	
2105-10	\$1000
<ul style="list-style-type: none"> • Same as 2105 with 90 degree PVC pipe and coupling to hard shell case (case not included) • Includes EC003 (3 foot extension cable) 	
2105-20	\$1200
<ul style="list-style-type: none"> • Same as 2105 with short black aluminum tripod • Microphone height approximately 18 in. 	
2105-30	\$1250
<ul style="list-style-type: none"> • Same as 2105 with quick-adjust black aluminum tripod • Microphone height variable from 5 to 7 ft. 	

2105 Accessories

2105-1	\$50
<ul style="list-style-type: none"> • Replacement 2105 foam windscreen insert 	
2105-DSC	\$16
<ul style="list-style-type: none"> • 10 replacement desiccant cartridges 	
2105-OR	\$15
<ul style="list-style-type: none"> • Replacement O-ring for 1/2 in. preamplifier/microphone (set of 3) 	

Model 2800/2900

Sound Level Meter / Real-time Analyzers

2800 Real-time SLM

2800 \$7,600

Precision sound level meter Type 1, single channel analyzer providing:

- 1/1 and 1/3 octave digital filters
Frequency range: 0.5 Hz - 20 kHz in real-time
- 100, 200, 400, 800 line FFT
Frequency range: 0.5 Hz - 20 kHz in real-time
- RS-232 Interface
- Centronics printer port
- 256 KB CMOS RAM (expandable)

2900 Portable Dual Channel Analyzer

2900 \$9,800

Dual channel version of 2800 offering all the same features plus:

- Cross-channel measurements (cross-spectra, transfer function, coherence, coherent output power, impulse response, autocorrelation, cross correlation).
- Tachometer input for use with external transducer providing pulse train signal.
- 2900 displays scaled RPM value and can perform vsRPM autostore of spectra.
- Real-time rate is 20 kHz/no. of channels

2800/2900 Enhancement Modules

2510 \$600

- External 3 1/2 in. DOS compatible floppy disk drive powered from 2800/2900 for use with low and high density format disks.
- Includes ASCII data translation routines.

2800-OPT 10 \$500

- Internal noise generator providing white and pink noise.
- Synchronized with the signal processing for automatic measurement of RT60 decay time in rooms. For use with both 2800 and 2900.

2800-OPT 90 \$1,000

- 1 MB CMOS RAM expansion module for use with 2800 and 2900.

2800-OPT 91 Call factory

- 4 MB CMOS RAM expansion module for use with 2800 and 2900.

2800-OPT 215 \$1,500

- 1/1 and 1/3 octave Ln and statistics module. For use with both 2800 and 2900.

2900-OPT 80 \$2,000

- Adds the capability to measure acoustic intensity in 1/1 and 1/3 octave and FFT bandwidths to the Model 2900. Acoustic intensity probe is also required.

2800 Accessories

2800-S \$60

- Easel Stand for 2800, 2900.

AC/DC-6 \$45

- 115 Vac to 9 Vdc
- 50 - 60 Hz
- For 2800, 2900

AC/DC-7 call factory

- 220 Vac to 9 Vdc
- 50-60 Hz
- For use with 2800, 2900.

AD045 \$80

- BNC to 5 pin adapter for direct input to microphone input

960 \$225

- Oscilloscope Probe
- 100 KOhm; X1/X10 probe for use with 2800/2900 and 3200.
- has BNC connector
- requires AD045 adapter for use with microphone input connectors
- Includes 3.5 foot cable

2500 Color Video Adapter

2500 \$2,500

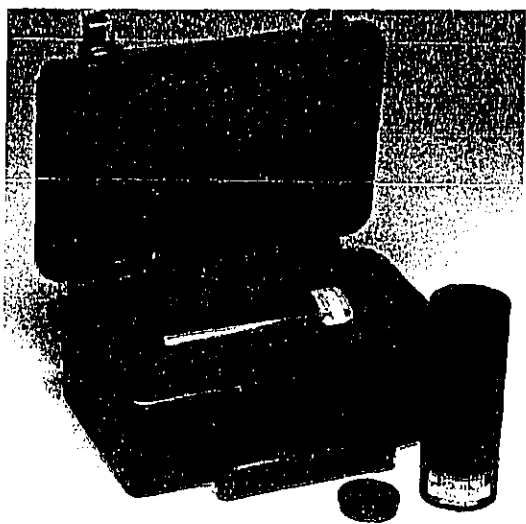
- Generates multi-window color data displays on an EGA, VGA or Super VGA monitor. Also permits control of 2800/2900 using 3 button mouse.
- Includes Super VGA Monitor and 3 button mouse (monitor is 120 Vac only).

2500-OPT 01 \$2,000

- Same as 2500 above, but without the color monitor.
- Use with own monitor for 220 Vac.



Model CA250 Precision Calibrator



The LARSON•DAVIS Model CA250 is an ultraprecise microphone calibrator delivering a full 114.0 dB level output signal. Its accuracy has been verified against the reference issued by the National Institute of Standards and Technology (formerly National Bureau of Standards).

Outstanding Features

- Special adapters make possible the use of $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, and 1 in microphones.
- Automatic compensation sensors provide accurate calibrations in extreme environments:
 - Noisy industrial environments ≤ 95 dBA
 - Temperature changes of 0 to 50 °C (32 to 122 °F)
 - Barometric pressure changes of 400 to 1100 mbar
- An effective volume of > 100 cm³ (6 in³) ensures an accurate calibration, even if the microphone and microphone adapter are not fully seated.
- An accurate tone is maintained even with a weakened battery.

Using the Calibrator

1. Insert the proper microphone adapter fully into the calibrator. Be sure it fits snugly.
2. Insert the proper microphone fully into the adapter. Be sure it fits snugly.
3. With the microphone connected to the instrument being calibrated, press the CA250's ON button. With a fresh battery, the calibrator will issue a tone for more than 60 s before automatically shutting off.
4. Make a reading. If the reading is not within tolerance, refer to the instrument's manual for instructions on how to adjust the instrument.

Note 1: When making a sequence of measurements, a calibration check and an adjustment (if necessary) of the instrument should be made at the beginning. At the end of the measurements, calibration should be checked again. The inaccuracy of the measurements will be at least the difference between the beginning and ending calibration values.

Note 2: The CA250 provides a nominal tone of 250 Hz at 114 dB ± 0.1 dB. If the device being calibrated has only A-weighting, it should be calibrated to read 105.4 dB.

5. Keep a Calibration History of all adjustments.

Calibration History keeping can be minimized if adjustments to the instrument are made only when the tolerance is exceeded. This is a user decision, but reasonable values might be ± 0.2 , ± 0.5 , or ± 1.0 dB for Type 1 measurements and ± 0.5 , ± 1.0 , or ± 1.5 dB for Type 2 measurements.

Calibration History

LARSON•DAVIS strongly recommends that a history of each calibration adjustment be kept for each piece of equipment. Normally, most modern equipment requires little or no adjustment once the initial calibration is performed. But systematic drifts are possible, and these should be recorded for corrective action.

The Model 870 automatically keeps a calibration history that can be printed out before an overall reset. The Models 700 and 710 provide in the printout off-

set values that directly relate to the gain in decibels needed to keep these instruments in calibration, and these offsets can serve as a calibration history.

Battery Replacement

One 9 V battery will last for approximately 70 hr and will provide approximately 4200 calibrations. As the battery becomes weaker, the calibration tone will not deteriorate, but the operating time will decrease until the time is too short to accomplish an adequate calibration. At this time, the battery should be replaced.

The battery compartment is accessed by unscrewing the bottom cover. Replace the used battery with a fresh 9 V alkaline battery.

Environmental Precautions

While the CA250 will perform normally under a variety of gradually changing environmental conditions, some precautions should be taken when sudden changes occur:

1. The temperature of the CA250 should be stable. If the temperature changes suddenly, provide a stabilization time of 15 min. This will ensure that the temperature compensation sensors are at the same temperature as the rest of the unit.
2. While humidity will not affect the CA250, avoid condensing moisture. Also avoid environments over 90% relative humidity because the microphone may be affected. If this is not possible, calibration should be rechecked in better conditions.
3. The CA250 is insensitive to magnetic fields; however, the instrument being tested may not be. Therefore, calibration should not be done near motors, dynamos, high voltage wires, or other sources of electromagnetic fields.

Calibrator Calibration

The American National Standards Institute says, "An acoustical calibrator should be recalibrated at least annually by the instrument manufacturer or an acoustical test laboratory qualified to perform calibration." (American National Standards Institute. Specifications for Acoustical Calibrators. ANSI S1.40, 1984, par. 5.2.)

LARSON•DAVIS believes the frequency of recalibration depends on the number of calibrators being used and the number of instruments being calibrated. With this in mind, the following guidelines are presented for your consideration:

1. For one calibrator and one measurement instrument, the CA250 should be certified at least

yearly, and even more often would not be unreasonable.

If a systematic drift of several dB occurs, there is no reliable way to verify which instrument is at fault, even though it is more likely to be the measurement instrument. We recommend that at a minimum, the CA250 be checked against another calibrator at this time. Sending the calibrator back to the factory might be the inexpensive approach as recertification is only \$60.

2. For one calibrator and several measurement instruments, one calibration a year is recommended. But if no systematic drift occurs, every two years might be satisfactory.

If the CA250 is being used to calibrate several instruments, then the history of calibration adjustments can usually pinpoint which instrument is drifting. If all the measurement instruments are drifting in the same direction by an amount you consider significant, the CA250 should be recertified.

3. For several calibrators and several instruments, one calibration a year is recommended.

If several instruments and several calibrators are in use, then the history of calibration adjustments would precisely pinpoint any problem pieces of equipment. Furthermore, it is probably satisfactory to recalibrate only one of the calibrators each year.

SPECIFICATIONS

Sound Pressure Level	114.0 dB (ref. 20 μ Pa)
Frequency	250 Hz \pm 0.5 Hz
Accuracy	\pm 0.2 dB, 25 $^{\circ}$ C (77 $^{\circ}$ F), 1013 mbar \pm 0.3 dB, 0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ F)
Distortion	< 1%
Stability	\pm 0.1 dB/yr
Effect of Barometric Pressure	\pm 0.03 dB/100 mbar (400 to 1100 mbar)
Microphone Compatibility	$\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, and 1 in (with adapters)
Battery	9 V NEDA 1604 (70 hr)
Dimensions	Length 120 mm (4.8 in) Diameter 44 mm (1.75 in)
Weight	255 gm (9 oz)
Accessories	$\frac{1}{2}$ in mic adapter ($\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$ in optional) Storage case 9 V battery NIST conformance certificate

T100 Tachometer

- T100** **\$1,400**
- Tachometer provides a TTL output for use with the tachometer input of the Model 2900/3200. Digital display of RPM, RS-232 interface, storage of up to 20,480 RPM values as a time history in internal memory.
 - Accessories
 - AC to 9 Vdc adapter (AC/DC-1 or AC/DC-2 on request)
 - Four C-cells
 - Works with the following probes (not included).
- T100-I** **\$100**
- Inductive probe clamps around spark plug wire of gasoline engines.
- T100-P** **\$150**
- Piezoelectric probe, clamps around the fuel line of diesel engines.
- T100-O** **\$250**
- Optical probe typically used with rotating shafts. Reflective tape attached to shaft results in pulse/rev signal to tachometer.

Model 3200

Modular Real-time Analyzer

3200 Mainframes

The Model 3200 family of modular real-time analyzers represents a significant advancement in analyzer design wherein the same mainframe structure can be equipped with a wide range of internal hardware and software modules to provide a variety of signal analysis capabilities. Two sizes of mainframes are available: the 3200L having space for ten internal circuit boards, and the 3200S with space for two. This means that, at the present time, only the 3200 OPT 30 analysis module can be used with the 3200S, but it will handle 1 or 2 channels. Both mainframes can be configured for portable operation using internal batteries. AC operation is standard. A rackmount system is also available.

To configure a particular system, the user begins by selecting which of the analysis options, OPTs 30, 41, 42, 43 or 44 will satisfy the measurement requirements, and which additional memory options (if any) are required. At this point the number of internal board slots is defined, and the user can determine which frame is appropriate. The mainframe has 7 backpanel slots which can contain input modules, multiplexers, computer interfaces, tachometer and order tracking modules. The user can now select the type and number of input modules which will meet his requirements without exceeding the total number of available backpanel slots.

3200 Mainframe Configurations

The 3200 Mainframe includes the following:

- AC power supply module (OPT 102)
- Centronics parallel printer port
- Pink/white noise generator
- Floppy disk drive module
- 3 1/2 in. DOS compatible
- CPU with 1 MB RAM memory (battery backed)
- Operator's manual
- 12 foot cable for I/O port

3200L **\$7,500**

- Dimensions: H 14 cm x W 41 cm x D 41 cm (5.5 x 16.25 x 16.25 in.)
- Space for 10 internal circuit boards

3200S **\$7,500**

- Dimensions: H 14 cm x W 41 cm x D 31 cm (5.5 x 16.25 x 12.5 in.)
- Space for 2 internal circuit boards

Note: The 3200 mainframes do not include signal analysis modules or input modules. Battery power is optional (OPT 100)

3200 Signal Analysis Modules

Digital Signal Analysis Modules

3200-OPT 30 **\$3,900**

OPT 30 provides 1/1, 1/3, 1/12, 1/24 octave digital filtering and 100, 200, 400, and 800 line FFT analysis for use with mainframes having 1, 2, 3, 4, 5, 6, 7, or 8 input channels. OPT 30 does not provide cross-channel analysis capability. One OPT 30 is required for EACH input channel. OPT 30 requires one internal circuit board per channel.

Analysis Capability:

- 1/1, 1/3, 1/12, 1/24 Octave Digital Filters meet ANSI S1.11-1986 specifications for Type 0-AA and Type 1-D (user-selectable) operating in real-time over the frequency range 1 Hz-20kHz
- FFT analysis in real-time over the frequency range 1 Hz to 25 kHz, independent of the number of input channels
- Maximum bandwidth: 25 kHz
- Real-time zoom to X512

3200-OPT 41 **\$7,100**

OPT 41 provides 1/1, 1/3, 1/12 Octave Digital Filters and 100, 200, 400, and 800 line FFT Analysis for use with mainframes having 1, 2, or 4 input channels. With multichannel mainframes, OPT 41 provides cross-channel analysis between channel 1 and the other channels, and may be used with the 3200-OPT 80 Acoustic Intensity Module. One OPT 41 is used per mainframe. OPT 41 requires 2 boards plus 1 board per input channel.

Analysis Capability:

- 1/1, 1/3, 1/12 Octave Filters meeting the requirements of ANSI S1.11-1986 Type 0-AA and Type 1-D (user-selectable) and FFT Analysis, operating in real-time over the following frequency ranges:
 - 1 Hz - 20 kHz, 1 channel analysis
 - 1 Hz - 10 kHz, 2 channel analysis
 - 1 Hz - 5 kHz, 4 channel analysis
- Maximum FFT frequency: 100 kHz; 1, 2, or 4 channel analysis
- Maximum fractional octave frequency: same as real-time maximum

3200-OPT 42 **\$5,100**

The 3200-OPT 42 has the same technical specifications as the OPT 41, with the exception that the maximum FFT frequency is 20 kHz. Required for order tracking analysis.

3200-OPT 43 \$25,200

3200-OPT 43 provides 1/1 and 1/3 octave digital filtering with real-time frequency of 80 kHz in a 2 channel mainframe. This option includes a dual channel phase-matched direct input module, so no additional input modules are required. The 3200-OPT 80 Acoustic Intensity Module can be used with 3200-OPT 43. It is possible to place two 3200-OPT 43 modules in a single 3200L mainframe. This gives a 2 X 2 configuration, where cross-channel and intensity measurements are between channels 1/2 and 3/4.

Analysis Capability:

- 1/1 and 1/3 Octave digital filtering, meeting ANSI S1.11-1986 specifications for Type 1-D, operating in real-time over the frequency range 1.0 Hz - 80 kHz.

3200-OPT 44 \$12,100

Option 44 is a single channel version of 3200-OPT 43.

Analog Filter Modules

3200-OPT 05 \$20,900

- 6.3 Hz to 160 kHz
- Real-time 160 kHz
- 1/1 and 1/3 octave bands
- Up to 110 dB dynamic range

3200 Enhancement Modules

3200-OPT 80 \$2,000

The 3200-OPT 80 adds Acoustic Intensity measurement capability to 2 and 4 channel mainframes equipped with analysis options OPT 41, OPT 42, or OPT 43. With OPTs 41 and 42, acoustic intensity spectra may be measured using either fractional octave or FFT filtering. Extensive intensity spectra summation capabilities are included for the evaluation of sound power measured over user-defined surfaces. A Model 2250 Acoustic Intensity Probe is required for intensity measurements.

3200-OPT 118 \$600

- 3 1/2 in. DOS floppy disk drive with low density (720 KB) and high density (1.44 MB) storage capability.

3200-OPT 120 \$600

- Composite video monitor driver module

3200-OPT 190 \$1,000

- Tachometer input board and supporting software

3200-OPT 191 \$2,500

- Order tracking board and software
- 1 Hz - 20 kHz frequency range

3200-OPT 215 \$1,500

- 1/1 and 1/3 octave Ln and statistics module

2500 Color Video Adapter \$2,500

- This external hardware module permits communication between the Model 3200/2800/2900 and an EGA, VGA, or Super VGA color

monitor via the Centronics parallel printer port. Provides multi-window display of data and complete instrument control using a 3 button mouse.

- Includes a Super VGA monitor and 3 button bus mouse (monitor is 120 Vac only).

2500-OPT 01 Color Video Adapter \$2,000

- This is the same as above, but without monitor
- Use with own monitor for 220 Vac.

3200 Signal Input Modules

These modules require one backpanel slot, with the exception of the 3200-OPT 143 multiplexer (MUX), which requires two slots. See p. 17 for specifications.

3200-OPT 140 \$1,500

- 1-channel microphone/BNC

3200-OPT 142 \$1,500

- 4-channel microphone MUX*

3200-OPT 143 \$2,400

- 8-channel microphone MUX*

3200-OPT 144 \$1,500

- 2-channel microphone module

3200-OPT 145 \$1,500

- 1-channel accelerometer/BNC

3200-OPT 146 \$1,500

- 4-channel accelerometer MUX*

3200-OPT 147 \$1,500

- 4-channel microphone module

3200-OPT 148 \$1,500

- 4-channel ICP accelerometer module

3200-OPT 149 \$1,500

- 2-channel ICP accelerometer module

*Requires OPT 140 or 145 single-channel input module. Can be combined for greater number of channels.

3200 Input Modules

Six different types of main input modules are available for the Model 3200. Each occupies one backpanel slot. Essentially, as more channels are added to an input module design, there are fewer features such as A- and C-weighting, selectable highpass filtering, and a square wave analog output capability. All have independent gain control per channel and individual overload indication per channel.

Option Number	Number of Spectra Stored		
	Microphone ^a	Accelerometer	Direct ^b
OPT 140	1	0	1
OPT 145	0	1 ^c	1
OPT 144	2	0	0
OPT 149	0	2 ^d	0
OPT 147	4	0	0
OPT 148	0	4 ^d	0

^a 0-28-200 Vdc polarization voltages available, switch selectable; all inputs use the same voltage value. Microphone preamplifier connector is used. For direct input of voltage signals through the microphone connector use the AD045.

^b User selects Direct or alternate input connector (microphone or accelerometer), BNC connector.

^c Voltage, Charge Coupled, and ICP inputs, switch selectable for each channel, BNC connector.

^d Voltage and ICP inputs, switch selectable for each channel, BNC connector.

Option Number	Analog Filtering Available			Analog Output of Input Signal or Square Wave
	A- & C-weighting and Single/Double Analog Integration	Selectable Highpass	Selectable Lowpass ^a	
OPT 140	Both	Yes ^b	Yes	Yes, 1 kHz
OPT 145	Both	Yes ^b	Yes	Yes, 100 Hz
OPT 144	No integration	Yes ^b	Yes	No
OPT 149	No integration	Yes ^b	Yes	No
OPT 147	Neither	Yes ^c	No	No
OPT 148	Neither	Yes ^c	No	No

^a 1, 3.15, 10, 31.5, 100 kHz

^b 1, 5, 10, 20, 50, 100 Hz

^c 1, 5, 20, 100 Hz

Note that only OPTs 140 and 145 single channel input modules can be used with OPTs 142, 143, and 146 microphone and accelerometer multiplexers.

3200 Memory Expansion Modules

The number of spectra which can be stored is a function of the filter bandwidth, number of filter bands, number of channels used for the analysis and whether or not the instrument setup has been changed since the last spectrum storage.

The table below gives some approximate values for the number of single channel spectra which can be stored using the standard 1 MB memory. When the instrument setup is changed between storages, additional memory overhead is used. Since autostored spectra all have the same instrument setup, this normally requires much less memory overhead than when the instrument is in standard spectral storage mode.

Bandwidth	Number of Spectra Stored	
	Standard	Autostore
1/1 octave	3,906	16,983
1/3 octave	1,953	9,527
1/12 octave	1,953	3,100
100-line FFT	1,953	3,551
200-line FFT	1,302	2,170
400-line FFT	976	1,149
800-line FFT	558	500

3200-OPT 90 **\$1,700**
 • 1 MB CMOS RAM with battery backup

The Model 3200 can also be delivered with dynamic RAM, which loses its memory when the power is turned off. Up to 12 MB can be placed on a single memory board, each taking up a single internal circuit board slot in the mainframe. Dynamic RAM and non-volatile RAM cannot be mixed in one 3200.

- 3200-OPT 95A **\$1,000**
 • 2 MB dynamic RAM (no battery backup)
- 3200-OPT 95B **\$1,720**
 • 4 MB dynamic RAM (no battery backup)
- 3200-OPT 95C **\$2,440**
 • 6 MB dynamic RAM (no battery backup)
- 3200-OPT 95D **\$3,160**
 • 8 MB dynamic RAM (no battery backup)
- 3200-OPT 95E **\$3,880**
 • 10 MB dynamic RAM (no battery backup)

3200-OPT 95F **\$4,600**
 • 12 MB dynamic RAM (no battery backup)
 • The 3200 can support two OPT 95F modules.

3200 Power Supply Modules

3200-OPT 100 **add \$600**
 • Internal 7 Ah rechargeable battery (nonremovable)
 • Recharger/AC adapter module 115/220 Vac, 50-60 Hz
 • Factory installed substitute for OPT 102

3200-OPT 102 **\$500**
 • Standard AC power module
 • 115/220 Vac, 50-60 Hz
 • Standard with 3200 mainframe

3200-OPT 107 **add \$425**
 • AC power module
 • 115/220 Vac, 50-60 Hz
 • Cooling fan
 • Substitute for OPT 102
 • Required for units with three or more OPT 30s or analog filters

3200 Computer Interface Modules

Each computer interface module requires one back-panel slot. Proper connection cable is included.

3200-OPT 112 **\$500**
 • RS-232 computer interface module

3200-OPT 114 **\$800**
 • IEEE-488 computer interface module

T100 Tachometer

T100 **\$1,400**
 • Tachometer provides a TTL output for use with the tachometer input of the Model 2900/3200. Digital display of RPM, RS-232 interface, storage of up to 20,480 RPM values as a time history in internal memory.
 • Accessories
 AC to 9 Vdc adapter (AC/DC-1 or AC/DC-2 on request)
 Four C-cells
 • Works with the following probes (not included).

T100-I **\$100**
 • Inductive probe clamps around spark plug wire of gasoline engines.

T100-P **\$150**
 • Piezoelectric probe, clamps around the fuel line of diesel engines.

Model 3200

U.S.A. Product Price List (prices in U.S. dollars)

- T100-O** **\$250**
• Optical probe typically used with rotating shafts.
Reflective tape attached to shaft results in pulse/rev signal to tachometer.

3200 Rack Mount

- 3200-OPT 180** **\$160**
• 19 in. rack mount kit

3200 Cables

- 3200-C02** **\$50**
• Connects 3200 RS-232 to IBM compatibles
• 9-pin 'D' connector, 8 ft.
• Includes 9-pin to 25-pin adapter
- 3200-C03** **\$50**
• 3200 powered from automobile cigarette lighter
• Used with OPT 100 power module
- 3200-C04** **\$60**
• 3200 powered and charged from automobile cigarette lighter
• Used with OPT 100 charger
- 3200-C05** **\$60**
• I/O interface connector cable with unwired end
• 12 ft.
- 3200-C06** **\$10**
• AC power cable, North American 120 V/ISA

3200 Carrying Cases

- CC007** **\$250**
• Soft shell with shoulder strap
• 22 x 18 x 9 in.
- CC008** **\$900**
• Hard shell shipping case with wheels
• 28 x 20 x 13 in.

Microphone Products

Microphones		Microphone Power Supplies	
2520	\$750	2200C	\$1,700
<ul style="list-style-type: none"> • 1/4 in. • Precision free field • Substitute for B&K 4135 		<ul style="list-style-type: none"> • Dual channel microphone power supply • Independent channels each with: • Selectable bias (0, 28, 100, 200 Vdc) • Adjustable gain from -30 to +40 dB in 10 dB steps • Vernier attenuation of -10.4 to 0 dB relative to the GAIN allows fine adjustments from -40 to +40 dB • Second output switchable A- or C-weighting • Use with 900B, 910B, 950B and 2100 preamps • Accessories: <ul style="list-style-type: none"> CB001 cable for direct input. AC to 9 Vdc adapter (AC/DC-1 or AC/DC-2 on request) Four C-cells 	
2520PM	\$2,000	2200C-OPT 05	\$300
<ul style="list-style-type: none"> • Pair of phase/amplitude matched 2520 microphones • See MS-20 for spacer. 		<ul style="list-style-type: none"> • Latching overload indicator with reset button 	
2530	\$750	2200C-OPT 10	\$150
<ul style="list-style-type: none"> • 1/4 in. • Precision random incidence response • Substitute for B&K 4136 		<ul style="list-style-type: none"> • 19 in. rack mount holds up to three Model 2200Cs 	
2540	\$660	2212B	\$8,400
<ul style="list-style-type: none"> • 1/2 in. • Precision free field • Substitute for B&K 4133 		<ul style="list-style-type: none"> • 12-channel microphone power supply • BNC output connectors • Rack mountable 	
2540PM	\$1,800	2212B-OPT 01	\$10,500
<ul style="list-style-type: none"> • Pair of phase/amplitude matched 2540 microphones • See MS-40 for spacer. 		<ul style="list-style-type: none"> • 12-channel microphone power supply • Isolated amphenol outputs • Rack mountable 	
2541	\$660	Microphone/Vibration Preamplifiers/ Probe	
<ul style="list-style-type: none"> • 1/2 in. • Precision free field, high sensitivity • Substitute for B&K 4165 		826B	\$500
2542	\$660	<ul style="list-style-type: none"> • 1/2 in. diameter and microphone thread • Ultra low noise, precision microphone preamp • Use with Model 800B only 	
<ul style="list-style-type: none"> • 1/2 in. • Precision free field • 55 V polarization for use with Model 820/810 		900B	\$495
2559	\$660	<ul style="list-style-type: none"> • 1/2 in. diameter and microphone thread • Ultra low noise, precision microphone preamp • Use with Model 2200C, 2212, 2800, 2900, 3200, and 870 • Use with AD020 for 1 in. microphones • Use with AD040 or AD050 for 1/4 in. microphones • Use with AD015 for charge accelerometers • Remote with ECXXX extension cable 	
<ul style="list-style-type: none"> • 1/2 in. • Precision random incidence response • Substitute for B&K 4134 		910B	\$750
2560	\$660	<ul style="list-style-type: none"> • 1/4 in. microphone thread, integral 6 ft. cable • Ultra low noise, precision microphone preamp • Use with Model(s) 2200C, 2212, 2800, 2900, 3200, and 870 	
<ul style="list-style-type: none"> • 1/2 in. • Precision random incidence, high sensitivity • Substitute for B&K 4166 			
2561	\$660		
<ul style="list-style-type: none"> • 1/2 in. • Precision random incidence response • 55 V polarization for use with Model 820/810 			
2570	\$850		
<ul style="list-style-type: none"> • 1 in. • Precision free field • Substitute for B&K 4145 			
2575	\$850		
<ul style="list-style-type: none"> • 1 in. • Precision pressure response • Substitute for B&K 4144 			

Microphone Products

U.S.A. Product Price List (prices in U.S. dollars)

950B \$280
 • ICP accelerometer preamp
 • Microdot connector/6 ft. cable
 • Use with Model 2200C, 2212, 2800, 2900 and 3200 and 870

960 \$225
 • Oscilloscope Probe
 • 100 KOhm; X1/X10 probe for use with 2800/2900 and 3200.
 • BNC connector.
 • Requires AD045 for use with microphone connectors.
 • Includes 3.5 foot cable.

2100 Outdoor Preamplifiers

2100S \$5,300
 • System with power supply
 • Requires 1/2 in. microphone and 2100 cables
 • Includes the following
 2200C power supply & amplifier
 2100 preamplifier/heater/desiccant
 2110 rainhat with electrostatic actuator
 2120 windscreen with birdspikes

2100K \$3,600
 • System w/o power supply
 • Requires 1/2 in. microphone and 2100 cables
 • Includes the following
 2100 preamplifier/heater/desiccant
 2110 rainhat with electrostatic actuator
 2120 windscreen with birdspikes

2100 \$2,990
 • 2100 preamplifier/heater/desiccant
 • Requires 1/2 in. microphone and 2100 cables
 • Requires 2110 and 2120

2100 Accessories

2120 \$240
 • Windscreen with birdspikes

2120-1 \$50
 • Replacement foam windscreen insert

2100-DSC \$12
 • 6 desiccant replacement cartridges

2100 Cables

2100-C01 \$120
 • Preamp signal cable
 • Interconnects 2100 to Model 870/2800/2900/3200
 • 20 ft.

2100-C02 \$130
 • Control cable for heater and electrostatic actuator
 • Interconnects the 2100 with the Model 870 and 2170 series power supplies
 • 20 ft.

2100-C03 \$145
 • Control cable with weather interface
 • Interconnects the 2100 with the Model 870, the 2130 weather interface, and the 2170 series power supplies
 • 20 ft.

2105 Environmental Shroud

Also see Model 2100 Outdoor Preamplifiers on page 21.

2105 \$950
 • Environmental protective shroud for the 827, 900B preamps and 1/2 in. microphones used with ECXXX extension cable (none included)
 • Microphone O-ring
 • Clear lexan™ shell with desiccant cartridges
 • rain repellant windscreen with birdspikes
 • 3/4 in. standard thread base mount

2105-10 \$1000
 • Same as 2105 with 90 degree PVC pipe and coupling to hard shell case (case not included)
 • Includes EC003 (3 foot extension cable)

2105-20 \$1200
 • Same as 2105 with short black aluminum tripod
 • Microphone height approximately 18 in.

2105-30 \$1250
 • Same as 2105 with quick-adjust black aluminum tripod
 • Microphone height variable from 5 to 7 ft.

2105 Accessories

2105-1 \$50
 • Replacement 2105 foam windscreen insert

2105-DSC \$16
 • 10 replacement desiccant cartridges

2105-OR \$15
 • Replacement O-ring for 1/2 in. preamplifier/microphone (set of 3)

Microphone Intensity Probes/Accessories

2250-10 \$5,100
 • Acoustic Intensity probe with a pair of phase/amplitude matched 2540 microphones (2540PM)
 • Includes a custom carrying case, windscreen, cable, and spacers

2250-20 \$5,300
 • Acoustic Intensity probe with a pair of phase/amplitude matched 2520 microphones (2520PM)
 • Includes a custom carrying case, windscreen, cable, and spacers

2250-30	\$6,580
<ul style="list-style-type: none"> • Acoustic intensity probe with two pairs of phase/amplitude matched microphones (2540PM,2520PM) • Includes a custom carrying case, windscreen, cable, and spacers 	
2250-C01	\$100
<ul style="list-style-type: none"> • 12 ft. cable from intensity probe to any analyzer • 2 BNC at one end and a probe connector at the other 	
2250-C02	\$120
<ul style="list-style-type: none"> • 12 ft. cable from intensity probe to Model 3200 analyzer • 2 BNC and a 3200 control connector at one end and probe connector at the other 	
2250-CXXX	\$150+\$2/ft.
<ul style="list-style-type: none"> • Custom length cable from probe to Model 3200 analyzer (maximum 50 ft.) • 2 BNC analyzer connectors and a 3200 control connector at one end and probe connector at the other. Specify length in feet in place of "XXX" 	
MS-20	\$30
<ul style="list-style-type: none"> • 1/4 in. microphone spacer set for intensity probe • 6 mm and 12 mm 	
MS-40	\$30
<ul style="list-style-type: none"> • 1/2 in. microphone spacer set for intensity probe • 12 mm and 50 mm 	

Microphone Calibrators/Adapters

CA250	\$525
<ul style="list-style-type: none"> • Type 1 precision microphone calibrator • Constant SPL from -2,000 to 50,000 ft. altitude. • Output 114.0 dB at 250 Hz. • Includes 1/2 in. microphone adapter, traceability certificate, case. 	
AE100	\$875
<ul style="list-style-type: none"> • Artificial ear and weight • 6 cc coupler • 10 ft. extension cable 	
AD107	\$35
<ul style="list-style-type: none"> • 1/2 in. microphone adapter for 1 in. opening in Larson•Davis and B&K calibrators. 	
AD108	\$35
<ul style="list-style-type: none"> • 3/8 in. microphone adapter for 1 in. opening in Larson•Davis and B&K calibrators. 	
AD109	\$35
<ul style="list-style-type: none"> • 1/4 in. microphone adapter for 1 in. opening in Larson•Davis and B&K calibrators. 	
AD111	\$60
<ul style="list-style-type: none"> • 1/8 in. microphone adapter for 1 in. opening in Larson•Davis and B&K calibrators. 	

Microphone Adapters/Accessories

AD002	\$150
<ul style="list-style-type: none"> • BNC to 1/4 in. microphone thread adapter • Capacitance 6.8pF • Includes shorting cap for use as microphone dummy load 	
AD005	\$100
<ul style="list-style-type: none"> • BNC to 1/2 in. microphone thread adapter • Capacitance 18 pF • Includes shorting cap for use as microphone dummy load 	
AD010	\$100
<ul style="list-style-type: none"> • BNC to 1/2 in. microphone thread adapter • Capacitance 47 pF • Includes shorting cap for use as microphone dummy load 	
AD015	\$145
<ul style="list-style-type: none"> • Microdot to 1/2 in. preamp adapter 	
AD020	\$30
<ul style="list-style-type: none"> • 1 in. microphone to 1/2 in. preamp adapter 	
AD025	\$24
<ul style="list-style-type: none"> • 1/2 in. microphone to 1/4 in. preamp adapter 	
AD030	\$35
<ul style="list-style-type: none"> • Audiometer earphone testing adapter 	
AD040	\$446
<ul style="list-style-type: none"> • 1/4 in. microphone to 1/2 in. preamp adapter 	
AD045	\$80
<ul style="list-style-type: none"> • BNC to 5 pin adapter for direct input to microphone input 	
AD050	\$350
<ul style="list-style-type: none"> • Right angle microphone adapter for 1/4 in. and 1/2 in. microphones • Use with 1/2 in. preamp 	
AD051	\$550
<ul style="list-style-type: none"> • Right angle microphone adapter for 1/4 in. and 1/2 in. microphones with flush mounting kit • Use with 1/2 in. preamp 	
AD060	\$80
<ul style="list-style-type: none"> • Microphone cable "T" • Allows signal to be taken directly from the microphone preamplifier • Requires at least one ECXXX cable, but two are recommended 	
AD080	\$150
<ul style="list-style-type: none"> • Electrical adapter provides electrical input to 700/705/710 meter through BNC connector • Replaces 3/8 in. microphone 	

Microphone Accessory Cables

ECXXX	\$120 + \$1/ft.
<ul style="list-style-type: none"> • Microphone extension cable • Specify length in feet XXX 	

**Microphone Windscreens/
Accessories**

WS-1	\$15
• 3 1/2 in. diameter windscreen for 1/2 in. microphone	
WS-2	\$5
• 3/8 in. diameter mini windscreen for M1, M2 or M3 microphone	
WS-3	\$35
• 3 1/2 in. diameter oblong windscreen for Model 2250 Intensity probe	
2120	\$240
• Windscreen with birdspikes for Model 2100 outdoor microphone	
2120-1	\$50
• Replacement foam windscreen insert for above	
2105-1	\$50
• Replacement foam windscreen insert for 2105	

Microphone System Tripods

TP001	\$100
• Instrumentation tripod	
TP002	\$325
• Microphone boom with low acoustic shadow	
• Quick adjustable height and boom angle	
TP003	\$250
• Short upright microphone tripod	
• Microphone height approximately 18 in.	
• Use with Model 2105 Environmental Shroud	
TP004	\$300
• Quick-adjustable microphone tripod	
• Microphone height variable from 5 to 7 ft.	
• Use with Model 2105 Environmental Shroud	
2152-10	\$800
• Portable tripod tower for 2100	
• Collapsible tripod base, radius 9 in. to 6 ft.	
• 1 1/2 in. aluminum section mast ready for mounting 2170 or 2171.	
• Leg base plates can be staked.	
• Provides 10 ft. microphone height.	
2152-20	\$900
• Same as 2152-10, provides 20 ft. microphone height. Additional collar for optional guy-wires.	

Tachometer/Modems

Tachometer

T100 **\$1,400**

- Tachometer provides a TTL output for use with the tachometer input of the Model 2900/3200. Digital display of RPM, RS-232 interface, storage of up to 20,480 RPM values as a time history in internal memory.
- Accessories
 - AC to 9 Vdc adapter (AC/DC-1 or AC/DC-2 on request)
 - Four C-cells
- Works with the following probes (not included).

T100-I **\$100**

- Inductive probe clamps around spark plug wire of gasoline engines.

T100-P **\$150**

- Piezoelectric probe clamps around the fuel line of diesel engines.

T100-O **\$250**

- Optical probe typically used with rotating shafts. Reflective tape attached to shaft results in pulse/rev signal to tachometer.

Modems and Accessories

2400 Acoustic Monitor Interlink **\$1,400**

- 2400 baud telephone modem with error correction
- Remote selection of digital data or audio from noise monitor
- Audio compression/expansion circuitry
- Accessories:
 - Manual
 - External power plug

2400-OPT 10 **\$100**

- Model 2400 accessory kit for polling computer site
- Accessories
 - AC to 12 Vdc adapter
 - 4 conductor phone cord
 - Audio signal cable
 - RS-232 cable with 9-25 pin adapter

2400-OPT 20 **\$120**

- Model 2400 accessory kit for remote monitoring site
- Accessories
 - Cable to Model 2175 power supply
 - Two coiled 4 conductor phone cords
 - Audio signal cable
 - 2400-C02 cable to Model 870 interface

TH1 **\$80**

- Touch tone handset telephone
- For voice communications over modem phone line
- Mounting provided in 2170 and 2171 housings

TM1 **\$250**

- 2400 baud telephone modem
- Connects the Model 870 or 820 to a central computer via a dial-up or direct telephone line
- Auto-answer and auto-dial capabilities

TM1-C01 **\$60**

- TM1 Telephone modem to Model 870 cable

TM1-C02 **\$60**

- TM1 Telephone modem to Model 820 cable

Printers/Accessories

Printers	Carrying Cases
PR3 \$595 • Kodak Diconix Inkjet printer • Cable and serial interface • Rechargeable batteries and adapter	Specify foam cut pattern if not standard. CC001 \$200 • Hard shell custom case • 18 1/2 x 15 1/4 x 6 7/8 in. • Airtight, watertight
PR4 \$595 • Kodak Diconix Inkjet printer • Cable and parallel interface • Rechargeable batteries and adapter	CC002 \$120 • Hard shell custom case • 13 1/2 x 12 7/8 x 6 in. • Airtight, watertight
PR5 \$450 • Epson printer • Cable and serial interface	CC003 \$50 • Hard shell custom case • 8 1/2 x 6 1/2 x 3 1/2 in. • Airtight, watertight
AC/DC Voltage Adapters	CC005 \$80 • Soft shell case • 12 1/2 x 10 x 3 1/2 in. • For PR3 or PR4 Kodak Diconix Printer
AC/DC-1 \$35 • 115 Vac to 9 Vdc • 50 - 60 Hz • For Models 800B, 2200C, T100, and 870	CC006 \$80 • Soft shell case • 10 1/2 x 10 1/2 x 3 1/2 in. • For Model 870
AC/DC-2 \$45 • 220 Vac to 9 Vdc • 50 - 60 Hz • For Models 800B, 2200C, T100, and 870	CC007 \$250 • Soft shell case • 22 x 18 x 9 in. • For Model 3200
AC/DC-3 \$65 • 220 Vac to 9 Vdc • 50 - 60 Hz • For Diconix printers PR3 and PR4	CC008 \$900 • Hard shell shipping case with wheels • 28 x 20 x 13 in. • For Model 3200
AC/DC-4 \$40 • 220 Vac to 9 Vdc • 50 - 60 Hz • For 820-S10	Contact Larson • Davis for information on sealed feedthrough ports or battery options.
AC/DC-5 \$50 • 115 Vac to 9 Vdc • 50 - 60 Hz • For Diconix printers PR3 and PR4	
AC/DC-6 \$45 • 115 Vac to 9 Vdc • 50 - 60 Hz • For 2800, 2900	
AC/DC -7 call factory • 220 Vac to 9 Vdc • 50-60 Hz • For use with 2800, 2900.	

Calibration Certification Services

Complete calibration and certification of performance services are provided by Larson • Davis. Certificates stating NIST (National Institute of Standards and Technology) traceability and compliance to MIL Standard 45662A are provided with the calibration, along with test results.

The recommended factory calibration/certification interval is one year. Calibration/certification seals expire after that interval.

Traceability certificates are available for newly purchased instruments at a reduced cost if ordered within 60 days after delivery.

Note: Price does not include repairs, insurance, or freight costs.

Calibration Cost

C-700	\$200
• Includes microphone	
C-705	\$175
• Includes microphone	
C-710	\$175
• Includes microphone	
C-800B	\$200
• Without microphone	
C-800-30	\$160
• 1/1 and 1/3 octave filters	
C-810	\$200
• Without microphone	
C-820	\$250
• Without microphone	
C-870	\$450
C-875	\$450
C-900B	\$45
C-910B	\$45
C-2100K	\$280
• Without microphone	
C-2200B	\$150
C-2200C	\$180
C-2212	\$450
C-2250	\$330
• Without microphones	

C-2800	\$480
C-2900	\$520
C-3100	\$520
• 1 or 2 channel	
C-3100-X	\$150
• For each additional channel	
C-3200	\$520
• 1 or 2 channel	
C-3200-X	\$150
• For each additional channel	
C-CA250	\$100
C-MIC	\$110
• L•D precision microphone	
C-PMIC	\$300
• L•D precision phase-matched microphone pair	
C-T100 & Sensors	\$200

Certification services including temperature, humidity, and electromagnetic susceptibility testing are also available. Contact Larson • Davis for information.

