



# 897 Sound Dosimeter System

## SMS-2 Universal Sound Dosimeter Kit

The SMS-2 contains everything necessary to perform accurate surveys for OSHA and IEC requirements, along with the performance and reliability Simpson's test instruments have to offer.

Kit includes:

- A. Rugged Carrying Case
- B. AC Adapter (110, 120, 220, 240)
- C. RS-232 Serial Cable and Parallel Printer Cable
- D. Multi-Spline Wrench
- E. Calibration Screwdriver
- F. Microphone Clip
- G. Wind Screen
- H. 897 Dosimeter
- I. 9V Battery
- J. 887-2 Calibrator
- K. Nose Cone



## 887-2 Calibrator

The model 887-2 calibrator is selectable for either 94 dB or 114 dB sound pressure level at 1 KHz. The calibrator, immune to a wide range of temperature and humidity conditions, is compatible with 1/2" microphone. Operational readiness is indicated by the low battery red LED.



## STANDARD REPORT OUTPUT

| SIMPSON 897 DOSIMETER<br>SOUND ANALYSIS REPORT<br>TYPE 2A |               |       |       |         |      |     |     |     |     |
|-----------------------------------------------------------|---------------|-------|-------|---------|------|-----|-----|-----|-----|
| CRITERION = 90 DB                                         |               |       |       |         |      |     |     |     |     |
| THERSHOLD = 80 DB                                         |               |       |       |         |      |     |     |     |     |
| EXCHANGE RATE = 3 DB                                      |               |       |       |         |      |     |     |     |     |
| UNIT IDENTIFICATION # 25                                  |               |       |       |         |      |     |     |     |     |
| JOB                                                       |               |       |       |         |      |     |     |     |     |
| NAME                                                      |               |       |       |         |      |     |     |     |     |
| LOCATION                                                  |               |       |       |         |      |     |     |     |     |
| START DATE: 21/FEB/95                                     |               |       |       |         |      |     |     |     |     |
| START TIME: 14:24                                         |               |       |       |         |      |     |     |     |     |
| CALIBRATION: 94.8 DBA 14:24 21/FEB/95 RANGE: 50/100 DB    |               |       |       |         |      |     |     |     |     |
| CALIBRATION: 113.9 DBA 14:24 21/FEB/95 RANGE: 80/100 DB   |               |       |       |         |      |     |     |     |     |
| MEASUREMENT SUMMARY:                                      |               |       |       |         |      |     |     |     |     |
| RUN TIME = 00:15                                          |               |       |       |         |      |     |     |     |     |
| HOLD TIME = 00:02                                         |               |       |       |         |      |     |     |     |     |
| L EQ = 87.2 DBA                                           |               |       |       |         |      |     |     |     |     |
| SPL MAX = 87.2 DBA                                        |               |       |       |         |      |     |     |     |     |
| DOSE = 1.5%                                               |               |       |       |         |      |     |     |     |     |
| 140 DB PEAKS = 0                                          |               |       |       |         |      |     |     |     |     |
| HISOTGRAM                                                 |               |       |       |         |      |     |     |     |     |
| HRS:MIN                                                   | 50            | 60    | 70    | 80      | 90   | 100 | 110 | 120 | 130 |
| 14:25                                                     | +             | +     | +     | +       | +    | +   | +   | +   | +   |
| 14:230                                                    | ===== 88      |       |       |         |      |     |     |     |     |
| 14:35                                                     | ===== 76 HOLD |       |       |         |      |     |     |     |     |
| HRS:MIN                                                   | +             | +     | +     | +       | +    | +   | +   | +   | +   |
| HRS:MIN                                                   | LAVG          | LMAX  | PEAKS | RANGE   |      |     |     |     |     |
| 14:25                                                     | 86.9          | 95.6  | 0     | CHANGED |      |     |     |     |     |
| 14:26                                                     | 93.2          | 106.9 | 0     | 80/130  |      |     |     |     |     |
| 14:27                                                     | 87.9          | 92.5  | 0     | 80/130  |      |     |     |     |     |
| 14:28                                                     | 87.3          | 97.3  | 0     | 80/130  |      |     |     |     |     |
| 14:29                                                     | 86.4          | 86.6  | 0     | 80/130  |      |     |     |     |     |
| 14:30                                                     | 86.5          | 93.0  | 0     | 80/130  |      |     |     |     |     |
| 14:31                                                     | 87.2          | 90.0  | 0     | 80/130  |      |     |     |     |     |
| 14:32                                                     | 87.2          | 91.2  | 0     | 80/130  |      |     |     |     |     |
| 14:33                                                     | 84.9          | 92.1  | 0     | 80/130  |      |     |     |     |     |
| 14:34                                                     | 85.4          | 85.6  | 0     | 80/130  |      |     |     |     |     |
| 14:35                                                     | 86.2          | 86.6  | 0     | CHANGED |      |     |     |     |     |
| 14:36                                                     | 86.5          | 86.6  | 0     | 50/100  | HOLD |     |     |     |     |
| 14:37                                                     | 60.9          | 71.5  | 0     | 50/100  | HOLD |     |     |     |     |
| 14:38                                                     | 85.1          | 101.6 | 0     | 50/100  |      |     |     |     |     |
| 14:39                                                     | 64.6          | 78.4  | 0     | 50/100  |      |     |     |     |     |
| END OF REPORT                                             |               |       |       |         |      |     |     |     |     |

## Ordering Information

| SOUND DOSIMETRY SYSTEM              | Catalog No. | SOUND DOSIMETRY SYSTEM | Catalog No. | ACCESSORIES                    | Catalog No. |
|-------------------------------------|-------------|------------------------|-------------|--------------------------------|-------------|
| 897 Universal Noise Dosimeter       | 12645       | 887-2 Calibrator       | 12648       | RS-232 Serial Cable for 897    | 02233       |
| SMS-2 Universal Noise Dosimeter Kit | 12646       |                        |             | Parallel Printer Cable for 897 | 02234       |
|                                     |             |                        |             | Case, Molded Plastic           | 45021       |

## Specifications

### GENERAL

**Battery:** One 9-volt battery, NEDA 1604A

**Battery Life:** Approximately 35 hours for 2 hours per day operation, with 9V alkaline battery

**Mechanical Construction:** Aluminum case includes acoustic cavity and provides shielding

**Weight:** 13.5oz (.35kg) - 897, 5.9 lbs. (2.68 Kg) SMS-2 Kit

**Dimensions:** 5 1/4" long, 2" diameter (131 mm long, 50mm diameter)

### ACOUSTIC OUTPUT

**Microphone:** 0.52" inch diameter

**Frequency:** 1000Hz  $\pm$ 1%

**Sound Pressure:** Selectable at 94 or 114 dB

**Reference Level:** 0dB = 20 $\mu$ . Pascal's

**Accuracy:**  $\pm$ 0.5dB at reference conditions

**Distortion:** Less than 1%

### ENVIRONMENTAL

**Operating Temperature:** 0° to 50°C

**Storage Temperature:** -40 to +60°C, battery removed

**Temperature Coefficient:** Less than  $\pm$ 0.05 dB/°C

**Operating Relative Humidity:** 0 to 90%, non-condensing

**Reference Conditions:** 23°C, 760mm Hg

**Relative Humidity:** 30 to 60%

Specifications subject to change without notice.