

BMS II

BATTERY MAINTENANCE SYSTEM

NOW WITH
TRICKLE CHARGE
TECHNOLOGY



The new BMS II charging (from L to R): detached battery pack, GilAir-3, GilAir-5, BDx II, GilAir II.

PART NO. 850086

With new trickle charge technology built into the system, the BMS II is an intelligent and safe way to charge, diagnose, and maintain your battery packs.

- **Charges up to 5 battery packs**
- **Automatically recognizes 4 or 5 cell battery packs**
- **Autocharge, Memory Erase, & Capacity Evaluation Modes available**
- **Independent charge cycle for each battery**
- **Full function LCD display**
- **Warning signal of reversed battery connection**
- **Voltage and ampere-hour readings**
- **Programmable microprocessor controlled operation**
- **Outputs are short circuit protected**
- **Charging time adjusts to charge condition**
- **120/230 voltage switchable**

The new BMS II line is the successor to the BMS-200 and BMS-100B (SIRA) Battery Maintenance Systems. Both the standard BMS II and BMS II SIRA versions incorporate automatic trickle charge technology into the system. The BMS II is an ideal charger/diagnostic system for maintaining Gilian battery packs in peak condition.

• **Automatic Recognition of Batteries**

The BMS II microprocessor controlled system automatically recognizes 4 or 5 cell battery pack configurations. The system can charge/maintain up to five battery packs simultaneously, in any combination. Each connection operates independently affording charging cycles for individual battery pack needs.

• **Automatic "Continuous-to-Trickle" Recharging**

The BMS II charges at full rate only until the battery reaches full charge, then automatically switches to a trickle charge to prevent overcharging. (Note: The trickle charge feature is available with the BMS II system only. Call Sensidyne Service for information on upgrading older BMS models.)

• **Battery "Memory" Erase Mode**

When nickel-cadmium batteries are only partially discharged prior to recharging, they can develop a "memory." This "memory effect" prevents the battery from fully discharging, thereby reducing usable capacity and battery life. The Memory-Erase Cycle eliminates battery memory by discharging the battery completely and then fully recharging it. This cycle extends battery life through proper recharging.

• **Capacity Diagnostic Evaluation**

The total capacity of a fully charged battery can vary with age and usage. Total capacity can only be determined by fully discharging the battery and measuring its total ampere-hour output (capacity). An initial discharge/recharge brings the battery to full charge. The unit then repeats this function with the fully charged battery to measure its total ampere-hour capacity. The battery is finally brought back to full charge to complete the cycle.

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SPECIFICATIONS

General

Controls	Channel Buttons (5), Charge Mode Button, Test Mode Button
Display	LCD Type, 0.5" High, 6 characters
Display Indicators	Channel#, Mode, Value, Unit
Features	Programmable microprocessor controlled operation, outputs short circuit protected buzzer warning of reversed battery connection, charging time automatically adjusted to battery charge condition, automatic recognition of connected 4 or 5 cell battery types.
Measurements	Battery Capacity: remaining and/or full Battery Voltage with resistive load and load current approximately 220 mA
Size	4.6" (W) x 2.2" (H) x 10.0" (D) 117 mm (W) x 56 mm (H) x 254 mm (D)
Weight	3.5 lbs. (1.6 kg)

Environmental

Operating Humidity	0–90 %RH
Operating Temperature	10°–40°C (50°–104°F)

Electrical

Input Power Ranges	105–125 VAC, 60 Hz, 50 W 210–250 VAC, 50 Hz, 50 W
Input Power	120 VAC @ 440 mA 230 VAC @ 220 mA
Output Power	7.5 Vdc @ 320 mA (Continuous) [BMS II] 7.5 Vdc @ 230 mA (Continuous) [BMS II SIRA] 7.5 Vdc @ 40 mA (Trickle) [BMS II & BMS II SIRA]
Fuse	250 V 1A slowblow

Performance

Performance Capability	Capable of maintaining 5 different batteries in different modes simultaneously.
Automatic Charge Sequence	Continuous Charge / Trickle
Evaluate Sequence	Discharge / Continuous Charge / Trickle
Double Evaluate Sequence	Discharge / Continuous Charge / Discharge / Continuous Charge / Trickle
Available Measurements	Battery capacity – remaining and/or full Battery voltage with resistive load and load current approx. 220 mA.

The BMS II Battery Maintenance System can Recharge/Diagnose all BDXII and GilAir model sampling pumps, as well as all HFS samplers. Charging older Gilian models or other brand battery packs may require special adapters.

Sensidyne manufactures, supplies and services gas detection systems and air sampling pumps characterized by their ease of use, accuracy, economical cost, and durability.

