The ON-LINE MONITORING INC. Battery Monitoring System has been developed to provide unequalled REAL-TIME on-line battery monitoring for the mission critical batteries that are used in today’s power utility facilities.

The Monitoring System will give the user the ability to schedule battery tests based on need and not on calendar. The system will issue alarms when any monitored parameter goes outside the preprogrammed levels. The system will perform a measurement cycle on the monitored battery and send the data to the remote monitoring center for analysis and trending purposes. During the auto-measurement cycle the system performs an accurate AC Impedance Measurement on each cell that will identify any problems starting to develop internal to the cell, or external to the connections. The system becomes your 24 x 7 on-site battery expert.

The system consists of battery “BRICKS” that connect to four individual battery cells or multiple cell jars. The “bricks” can be connected to other “bricks” by utilizing a “daisy-chain” CAT5 style connection scheme. This offers quick and easy installation for every battery application. The “bricks” then connect back to a System Controller.

Each “brick” utilizes a color-coded method of easily identifying the cell that a wire is connected to and uses a quick-connect on both ends of the wire for connecting to the “brick” and the cell. The connection to a cell post is via a quick-connect TVF Module. The TVF Module incorporates the interface quick-connect for the wires from the “brick” and also features a digital temperature sensor for monitoring the temperature of the cell that it is connected to. The TVF Module also has internal auto-reset fuses for safety.

Additional features offered in the “brick” include tri-mode LED’s that are associated with the cell that it is connected to. The LED will automatically change color based on the present state of alarm that the cell may be in. The LED colors are GREEN for in parameters; AMBER for measurements that are outside the minor alarm limit and RED for measurements exceeding the critical alarm parameters.

**SYSTEM FEATURES:**

- Completely Modular in Design and Format
- Each “Brick” Monitors 4 Cells or Jars
- Battery “At-A-Glance” Health Indication
- Easy and Quick Installation Utilizing a “Daisy-Chain” Type of Connection Scheme
- Selectable Frequency for Impedance Measurement Cycles
- AC or DC Powered
- Accurately Monitors the Temperature, Voltage and Impedance of Each Cell or Jar
- Monitors Total System Voltage During Float, Charge and Discharge
- Monitors Individual Cell/Jar Voltage During Float, Charge and Discharge
- Monitors Ambient Temperature
- Watches Individual Cell/Jar Temperatures
- Monitors Average Impedance per String
- Monitors Individual String Current During Float, Charge and Discharge
- Monitors Total Bus Current
- Monitors Interconnect Resistance
- Remote/Local Automatic Test and Data Acquisition
- REAL-TIME Site Viewing and Data Capture
- Battery Discharge Data Logging and Alarms
- Will Monitor up to 192 Cells and 4 Parallel Strings
- Programmable Test Intervals and Measurement Setup Parameters
- Remote monitoring service available.

The Modular Approach to Power Utility Battery Monitoring
ON-LINE BVM SOFTWARE:

The BVM (Battery Validation Manager) data acquisition software provides both real-time site viewing and automatic polling that captures all the data during a measurement cycle. The data is archived, reported and can be viewed in both text and graphical format. This data provides a very precise and predictive evaluation of the health of the monitored battery site that will effectively prevent any power outages due to serious battery problems. The data also provides information for scheduling timely maintenance.

The BVM Software provides user programmable measurement limits with on-line help screens that will guide a user through setting up and operating the LVIRA system. A major feature of the software is the ability to view and record battery performance during a power outage in real-time. This feature also allows using the monitor to record battery data during a planned discharge. Another feature includes the ability to develop a battery room bitmap that can be imported into the software for viewing the physical configuration of the battery and alarm status.

The BVM data acquisition and reporting software operates under all Windows® Operating Systems.

SYSTEM OPTIONS:

Communication options include Internal 28.8 Telephone Modem; Internal Ethernet Interface or Direct Connect Short-Haul Modem pairs. RS232 Serial Port comes as standard for direct connection with an external computer and/or laptop computer for data transmission.

Each system comes complete with one (1) NO/NC Dry Relay Contact Output as standard. Five (5) additional relay outputs are available.

ORDERING INFORMATION

OB048—Station Battery Monitoring System for 48 volt DC system
OB120—Station Battery Monitoring System for 120 volt DC system
OB240—Station Battery Monitoring System for 240 volt DC system