



## Learn how to effectively use your Cellwatch Battery Monitoring System with our full-day End User Training Class

### Introduction

Cellwatch provides immediate warnings of battery deterioration and imminent battery failure. In this full-day training class you will learn the features of the Cellwatch system, how to manage your batteries effectively and how to make battery replacement decisions based on the battery's condition. After completing this extensive training course you will be able to identify individual batteries that exhibit problems as they begin failing so you can proactively ensure the reliability of your UPS/Generator.

*Fully understanding and using Cellwatch is the key to maintaining healthy batteries and preventing unplanned downtime.*

### Training Agenda

*End user training classes are one day, 8 hour classes. This training class is very interactive, and participants are encouraged to ask questions throughout the training. (Please note class sizes are limited to 10 participants.)*

#### BATTERY BASICS OVERVIEW

High-level review of battery makeup, characteristics of failing cells and how they perform during discharge.

#### CELLWATCH SYSTEM OVERVIEW

Review each of the Cellwatch components and the function it performs.

- IBMU – Intelligent Battery Monitoring Unit
- CU – Control Unit
- CT – Current Transducer
- TP – Temperature Probe
- DCM – Data Collection Module
- Generator Extender Kit
- Accessing the System & Methods of Communication

#### NAVIGATING THE USER INTERFACE

Cellwatch makes it easy to access information about your batteries. In this section, the graphical user interface is reviewed and all key features are explained.

*If Cellwatch is installed at the training site, and/or the instructor has access to the customer's Cellwatch system, then the customer's system configuration and alarm settings will be reviewed. This will provide a clear and complete overview of the customer's actual system. There is no risk that the system performance could be impacted since no changes will be made to any configuration or setting.*

Whether the live Cellwatch system is available or not, the instructor and participants will access and review an actual system to gain familiarity of Cellwatch component installation, battery configurations, and available battery data. Additionally, you will gain an understanding of how configurations are represented in the Cellwatch system and how to properly set alarms. Lastly, you will be able to use Cellwatch to isolate battery failures and determine where to target corrective action.

## **BREAK**

### **HANDS ON TRAINING - USING CELLWATCH**

This section will include, but is not limited to:

- More advanced navigation and information accessed from the Cellwatch system
- Understanding the Configuration Builder feature and how it helps you expand your Cellwatch system and manage battery changes
- Performing voltage and ohmic value scans
- Practice alarm limit setting
- Investigating alarms
- Reading data and using it practically
- Extracting insight from a discharge curve
- How to access and evaluate the historical data

### **TROUBLESHOOTING**

This section is focused on reviewing the most frequently used troubleshooting techniques:

- DCM communication issue isolation
- Pinging a failed jar to find the failed jar in your battery
- Replacing a jar: How to remove and reinstall Cellwatch
- Setting alarm levels for a new string
- Extracting data to send to NDSL or reseller
- Others identified by the instructor as appropriate for the students
- Using the Battery Warranty Report tool to submit a claim
- How to recognize thermal runaway by looking at your data

### **CELLWATCH MAINTENANCE**

We will review guidelines and tips to keep your system running in top condition.

- How Cellwatch addresses battery maintenance

- The battery maintenance actions recommended by IEEE that Cellwatch will not address
- Visual inspections
- Annual discharge test
- Backing up your data
- What to do with Cellwatch during a jar replacement
- Cellwatch component replacement

## RESOURCES

There are many resources available to you to ensure you get the most out of your system. We will review how to find them and how to use them.

- Technical Support
- AppNotes and User Manual
- Cellwatch.com

## INTERACTIVE SKILLS TEST

Our instructors want to make sure all class participants gained the knowledge and understanding they need to successfully operate a Cellwatch system. To make sure we didn't miss anything, there will be an interactive review following the afternoon training session. Students will be able to practice their knowledge and demonstrate they understand how to use the system. This usually inspires questions and identifies areas for further training or review. All students will be given a demo copy of the software for practice and use on their personal computer.

## Q&A / WRAP-UP / SURVEY

At the end of this training session you will be able to:

- Assess the present status of all of your batteries
- Identify poor or failing jars that need attention
- Configure alarm settings based on your battery configuration
- Identify, interpret and respond to Cellwatch alarms
- Analyze data captured during discharge events
- Analyze historical measurements to analyze battery trending
- Take action in response to problems with your battery, and prevent outages.

## CONTACT US

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