AMETEK®
SOLIDSTATE CONTROLS

PREVENTIVE MAINTENANCE (PM)

AMETEK Solidstate Controls developed a lifetime preventive maintenance schedule based on our testing, field experience and supplier recommendations. Our annual maintenance events provide cleaning, testing, calibration and parts replacement as identified in need or as part of predictive replacement. Performing annual maintenance with our factory trained engineers ensures proper equipment functionality, fixes identified problems before they become emergent and gives peace of mind with 12-month Extended Service Coverage from the date of your completed PM.

We offer three different PM packages based on the age of your equipment: annual (PM1), five year (PM5) and 10 year (PM10). Below is a detailed description of what you receive when trusting AMETEK Solidstate Controls to perform your preventive maintenance.

Pre-Inspection and Post Inspection Interviews

Our engineer will meet with plant personnel to review any observations they have witnessed concerning the system's performance to determine if any abnormal operations or conditions occurred. These will be considered during the inspection and testing. Upon completion, we will review the service results with the client.

Detailed Service Report

The detailed service report will include all recorded voltage, current readings, thermal imaging, pertinent system photos, as well as any issues found with recommended corrective actions.

System Cleaning

The entire system will be cleaned in order to remove dust and other contaminants that may lead to system malfunction, improve heat dissipation to reduce heat related stress, reduce aging and improve system reliability. Cleaning is facilitated with a vacuum cleaner brush attachment and/or dry forced air. We include the full interior of the equipment cabinet and internal components including fans, printed circuit boards, capacitors, transformers and manual switches.

Visual and Thermal Inspections

We visually and thermally inspect the system for evidence of wear, heat related stress, damage, loose or failed components due to aging, vibration or other environmental conditions. We will either correct abnormal conditions during the PM or review them with the client and schedule them for repair.

PROVIDING CONTINUITY OF ELECTRICAL POWER

System Operational and Functional Testing

We measure and record all critical system parameters, including input/output voltages and currents for control circuits, alternate and primary power sources, charger, inverter and static switch output. We will either repair abnormal conditions during the PM or review with the client and schedule for repair.

With the client's permission, the following functional tests will be performed:

▲ **General – Performed at every PM1**

- Have all critical components replaced based on their electronic life cycle
- Be given a full diagnostic reading to ensure all critical system parameters are operating properly
- Have its voltage and current readings calibrated with a True RMS Meter
- Receive verification that all AC Caps are functioning correctly
- Have a ripple current battery test performed to confirm it has less than a 5% amp hour rating
- Go through a Low DC Voltage Disconnect simulation to test proper performance of the Aux Contact and Shunt Trip Circuit in the DC input Breaker
- Be checked for balanced currents flowing into the Charger Bridge
- Have the equipment operate in a simulated power outage to ensure the equipment and batteries function as designed if required to do so in a real unplanned outage

▲ **Battery Chargers** – Float/Equalize functions, load share function and alarm functions

▲ **Inverter/Static Switches** – Static Switch automatic transfer functions, alarm function, manual bypass transfer function and any other functional test deemed necessary by the service engineer to verify proper operation

▲ **Visual Battery Inspection and Cell Voltage Readings** – Comprehensive annual battery inspection and analysis completed in accordance with the battery manufacturer recommendations and applicable ANSI/IEEE standards. All critical parameters are measured, recorded and given in a detailed report

▲ **Battery Continuity Test** – Disconnect the battery charger and allow the battery to discharge into the inverter or site load momentarily

▲ **PM5** – Includes everything in a PM1 and recommended parts replacement as detailed in the Recommended Scheduled Parts Replacement section

▲ **PM10** – Includes everything in a PM1, PM5 and recommended parts replacement as detailed in the Recommended Scheduled Parts Replacement section

- Printed Circuit Board Replacement (PCBR) – Many circuit boards have electrolytic capacitors, which typically begin to break down after 10 years and the board functionality can become unreliable

▲ **Every 15 - 20 Years Optional CVT PM** *(not included in standard PM pricing)* – Excessive noise and heat is a clear indication that the transformer is deteriorating and should be replaced soon. This service is designed to mitigate unplanned outages or downtime due to an unexpected failure by proactively replacing a concerning transformer in conjunction with a planned PM service

AMETEK®
SOLIDSTATE CONTROLS

Battery Offerings

We offer an array of battery services including testing such as capacity testing, acceptance testing and IEEE load testing. We are able to provide battery bank rentals and assist in the sizing, selection and installation of batteries as well as removal and recycling.

Recommended Scheduled Parts Replacement & Software Updates

To assure optimum performance and reliability of the UPS system, we recommend replacement of critical components as indicated in the table below. Operating conditions such as harsh environments may require more frequent maintenance and parts replacement.

PM Parts List and Replacement Cycle

Description	Recommended Replacement Cycle	Included In PM
Critical PC Board Relays	Annually	PM1, PM5, PM10
Pilot Lights Neon/Incandescent	Annually	PM1, PM5, PM10
Pilot Lights/LED	Every 5 Years	PM5, PM10
Fuses	Every 5 Years	PM5, PM10
Fans	Every 5 Years	PM5, PM10
Alarm and System Relays	Every 5 Years	PM5, PM10
Variable Resistors	Every 10 Years	PM10
System Capacitors	Every 10 Years	PM10
Printed Circuit Boards	Every 10 Years	PCBR (Typically performed in conjunction with a PM10)

24/7 Support

Our dedicated, factory-trained technical support team is available 24/7 to provide assistance with the operation or service of your systems. Our emergency phone line rings directly to our engineers and from there they will determine whether they can assist by troubleshooting over the phone or through a screen share. If they deem on-site service is necessary, they will help get you scheduled with a technician.

Comprehensive Service Agreements (CSA)

We offer three levels of multi-year service agreements, which are designed to amortize the expense of preventive maintenance while supporting your PM schedule and ensuring your critical power equipment functions as designed.

Ensure your equipment is functioning to its fullest potential by contacting our team for a free preventive maintenance consultation.

AMETEK®

SOLIDSTATE CONTROLS

THE PURPOSE OF OUR BUSINESS IS TO PROVIDE CONTINUITY OF ELECTRICAL POWER TO KEEP BUSINESSES IN BUSINESS.

WE DO THIS BY HELPING CLIENTS SOLVE THEIR POWER PROBLEMS AND BY CREATING THE MOST ECONOMICAL LONG-TERM RESULTS.

WORLD HEADQUARTERS
875 Dearborn Drive
Columbus, Ohio 43085
Phone: +1-614-846-7500
Toll Free: +1-800-635-7300
Fax: +1-614-885-3990

GLOBAL OFFICES LOCATED IN
Mexico
Asia Pacific
Canada
South America
Middle East
India

WEBSITE
www.solidstatecontrolsinc.com

EMAIL
SCI.sales@AMETEK.com

REV 05/2025