

General Maintenance Photovoltaic Arrays

BauderSOLAR F XL System



General maintenance procedures

BauderSOLAR F XL systems

To ensure optimal performance, longevity, and, above all, safety, the BauderSOLAR PV photovoltaic array must be maintained exclusively by competent professionals. Routine inspections should be conducted at fixed intervals, with a minimum of one comprehensive inspection annually, including cleaning of the modules to preserve system efficiency. Electrical maintenance must be carried out at least once every three years to verify system integrity and compliance with safety standards. In addition to scheduled inspections, PV arrays should be inspected following extreme weather events, including, but not limited to:

- High winds
- Heavy rainfall
- Snowfall

These inspections help identify potential damage or displacement of components and ensure continued safe operation. All maintenance ensures that the PV array continues to perform, and that any potential problems are identified at an early stage. Any failures of the system resulting from a lack of maintenance may not be covered under the guarantee.

- Ensure safe access can be gained to the roof and that relevant Health and Safety procedures are followed.
- Ensure due care and attention is observed during inspection and maintenance of the array to prevent damage to the waterproofing system.

Competency Requirements for Roof Maintenance

While formal training is not a prerequisite, the following competency expectation apply:

- The building owner or assigned maintenance contractor is responsible for assessing and confirming the competence of individuals tasked to perform maintenance activities.
- Competent operatives must be able to understand and interpret the maintenance instructions provided and execute the required tasks thoroughly and in a safe manner, adhering to relevant health and safety protocols.
- Maintenance operatives should be familiar with general building maintenance practices and be capable of identifying potential issues such as membrane damage, drainage blockages, or plant contamination.

Inspection should comprise checking:

- Dirt on the modules, the type and levels of soiling.
- Security of the anchoring system including fixings and safety pins.
- Condition of electrical connections, isolators and inverter.
- Integrity of the waterproofing membrane to prevent water ingress and structural damage.

Module maintenance

Please follow module manufacturer's guidelines for specific maintenance requirements. If you are unsure regarding any aspect of maintenance, please contact the Bauder technical office to discuss requirements.

Module cleaning

Maintaining clean photovoltaic (PV) modules is essential for ensuring optimal energy yield and system performance. Over time, environmental factors such as dust, fallen leaves, bird droppings, and other debris can accumulate on the module surface, leading to partial shading and reduced output. While snow-related losses are typically negligible due to low irradiance during snowfall periods, regular cleaning remains important—particularly in areas with low rainfall where natural cleaning is limited

Recommended cleaning practise:

- Use warm water and non-abrasive materials such as soft foam pads, non-woven fabrics, soft sponges, or soft brushes.
- Do not use abrasive tools, harsh chemicals, or cleaning fluids that may damage the module surface.

Maintenance continued PTO

Maintaining the electrical system

The condition of all electrical connections, isolators, and the inverter must be inspected by a trained and competent person in accordance with current safety regulations and manufacturer guidelines.

Recommended inspection schedule:

- Annually:

- Visual inspection of isolators and inverters.

- Every 2–3 years:

- Full electrical health check, including but not limited to verification of electrical connection integrity, functionality testing of isolators and inverters and measurement of string voltages and current

Maintaining the mounting system

The PV array should only be maintained by trained professionals at fixed intervals. A minimum of every 3 years is recommended. The following points should be checked in the process:

- Security of the anchoring system.
- Integrity of the roof membrane.

Structural and Roof Integrity Checks

All maintenance activities must be carried out by qualified professionals at fixed intervals, with a minimum full inspection every three years. During these inspections, the following must be assessed:

- Security of the anchoring system to ensure modules remain safely fixed
- Integrity of the roof membrane to prevent water ingress and structural damage

Contractors currently recommended to maintain BauderSOLAR systems PTO.

Contractors currently recommended to maintain BauderSOLAR PV systems

Maintenance must be carried out by competent professionals . The following is a non-exhaustive list of recommended contractors:

	Website	Contact	Areas Covered
Carbon3	www.carbon3.co.uk	0300 303 56 88 info@carbon3.co.uk	England & Wales
Envirolec	www.envirolec-ses.co.uk	0208 090 0270 info@envirolec-ses.co.uk	East of England London Midlands South East
Photon Energy	photonenergy.co.uk	0118 997 7470 maintenance@photonenergy.co.uk	Nationwide Scotland Wales
PV Plus	pv-plus.co.uk	02380 170215 info@pv-plus.co.uk	East of England, London South East South West
Sunlite Group Ltd	sun-lite.co.uk	01473 599 300 sales@sun-lite.co.uk	East of England London South East
Surge Electrical Engineering LTD	surge-electrical.co.uk	01656 645266 enquiries@surge-electrical.co.uk	Midlands, South East, South West Wales
Williams Renewables	williamsrenewables.co.uk	020 3542 2315 info@williamsrenewables.com	East of England London Midlands South East
Gensource	gensource.co.uk	0131 210 0392 hello@gensource.co.uk	Scotland North England
Greenbridge Renewables	gb-r.co.uk	01513456739 sales@gb-r.co.uk	Midlands Nationwide (multi-site)
Greenleaf Engineering	greenleafengineering.co.uk	0191 367 0248 info@greenleafengineering.co.uk	North England
Innasol Super Power One	innasol.com	01621 892613	North England
Square 4 Services	q4s.co.uk	0330 383 0351 enquiries@sq4s.co.uk	North England
UCS Renewables	ucs-renewables.co.uk	01642 242567 info@ucs-technologies.com	North East
Versatile Renewable Solutions	versatilesolutionsgroup.co.uk	01236 763300 info@vesol.co.uk	Scotland
Voltaire Energy	voltaireenergy.com	01773 485105 office@voltaireelectrical.co.uk	Scotland