

### Solar Panel Bird Exclusion System

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#### MR – Manufacturer

Enviroguard bird proofing kits are manufactured from hot-dipped galvanised steel wire and ultra-violet stabilised plastics to ensure a lengthy installation.

#### PR-Product Presentation

Our Solar Panel Bird Exclusion System is used worldwide to deter feral pigeons (*Columba Livia*) and larger birds from roosting and nesting in the void area between PV solar panels and pitched roofs. The system features a unique, patented solar exclusion mesh clip manufactured from ultra-violet stabilised plastic and high quality 12.5mm X 25mm galvanised steel mesh.

#### Non-Penetrating Design

The advantages of the Solar Panel Bird Exclusion System include its non-invasive installation method that neither pierces the solar panel nor the roof covering, thus preserving manufacturers' warranties and the fact that it is extremely hard to see, even close up.

#### Reduced Maintenance & Increased Performance

By excluding unwanted birds from beneath solar panel arrays the Solar Panel Bird Exclusion System significantly reduces cleaning

and maintenance requirements that would otherwise negate the economic advantages of solar energy. Pest bird infestations that remain unchecked will cause significant damage to the solar panel, roof covering and rainwater drainage system as well as drastically reducing the solar panel output as a result of obliteration from pigeon faecal matter. Culminating in reduced revenues and increased MRO costs.

#### Safer Working Environment

It is the responsibility of building owners / occupiers to maintain / provide a safe working environment for building users and contractors. Working amongst bird droppings whilst maintaining and overhauling PV solar panels presents significant disease transfer risks from over thirty known zoonoses (diseases that can transfer between animals and humans). By installing preventative and/or curative measures to prevent bird infestation, such as Solar Panel Bird Exclusion Systems the building owner / occupier helps to fulfil their obligations to building users and contractors.

#### UA – Uses & Applications

Solar panel must have a minimum 20mm return lip on the underside of the frame. It is strongly advised that this is verified in advance of purchase / installation.

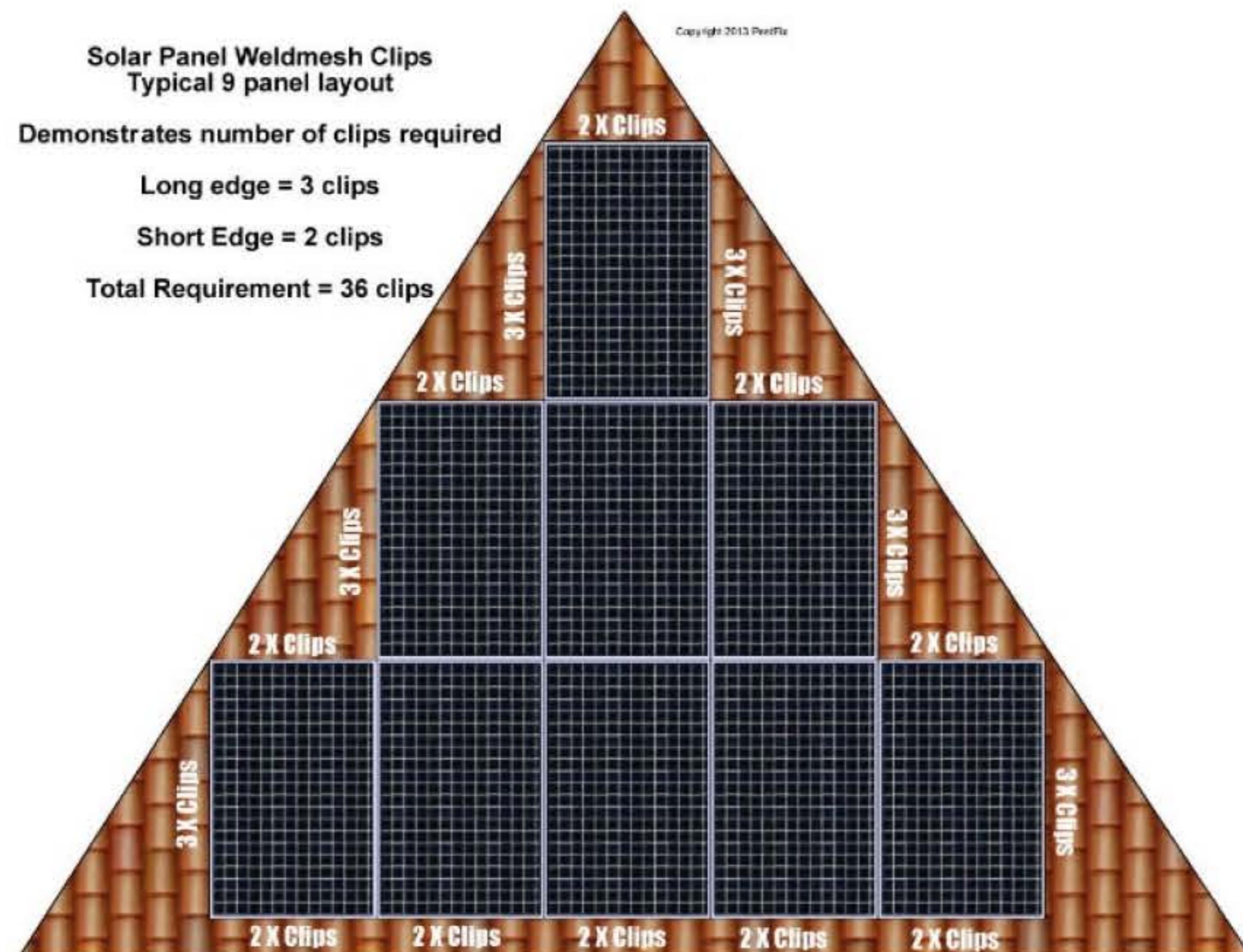
Solar Panel Bird Exclusion System is specifically designed and intended for use in excluding all species of birds from roosting and nesting beneath PV solar panel arrays on pitched domestic and commercial roofs without penetrating the solar panel frame or roof membrane in its installation.

It is the only truly infallible method of bird exclusion on solar panels that does not negate the manufacturer's warranty on the solar panels or the roof membrane or builder's guarantee.

#### AI – Assembly, Installation

A typical solar panel is approximately 1.6m tall and 1m wide, on a typical panel one should use

3 clips on each long edge and 2 clips on each short edge. See diagram.



This non-penetrating system is fast and easy to install, and can be removed for service. Replacement Solar Exclusion Clips will be required for reinstatement after service.

### MF –Materials, Finishes

Solar Exclusion Clip – UV stabilised black plastic with a matt finish

Solar Panel Mesh - 18 gauge / 1.05 mm diameter post-galvanised hot dipped zinc-coated steel wire.

### TS – Technical Support

We have a team of BPCA & RSPH qualified Customer Support Technicians available to assist in any aspect of evaluation, product recommendation and even local certified installation.  
Free literature, job evaluation and installation information is available.

### SPECIFICATION GUIDELINES

#### General

##### 1.1 Description

1.1.1 Install the Solar Panel Bird Exclusion System to any solar panel array on a pitched

roof to either prevent or cure nesting or roosting problems.

### 1.2 Quality Assurance

- 1.2.1 Obtain technical literature from manufacturer or distributor, telephone consultation and plan/photograph evaluation.
- 1.2.2 Only employ certified installation companies in your area who are fully skilled with our products, and carry the proper insurance coverage.
- 1.2.3 Only utilise labour recommended by us for especially challenging applications.

### 1.3 Submittals

- 1.3.1 Submit manufacturer's samples, catalogue cuts, shop sketches and other descriptive material.

### 1.4 Product Handling

- 1.4.1 Protect the Solar Panel Bird Exclusion System components from damage before, during and after installation.
- 1.4.2 If damage occurs to the Solar Panel Bird Exclusion System components make all replacements immediately using approved spare parts.

### Products

#### 2.1 Acceptable Manufacturer

2.1.1 PestFix, Unit 1d Littlehampton Marina, Ferry Road, West Sussex, BN17 5DS, United Kingdom Tel: 01903 538 488 Fax 01903 539 331 Email: sales@pestfix.co.uk

#### 2.1 Model Designation

- 2.1.1 Solar Panel Bird Exclusion Clip & Disc WM132
- 2.1.2 Solar Panel Bird Exclusion Mesh WM134
- 2.1.3 Solar Panel Bird Exclusion Corner Tie NF148
- 2.1.4 Spring-Action Wire Side Cutters NT120

#### 2.1 Mounting Systems

- 2.1.1 Solar Panel: by sliding Solar Panel Bird Exclusion Clip over return lip on the underside of the frame

### WM132-SOLAR PANEL MESH CLIP



2.2.2 Roof covering: Kink the wire mesh as per installation instructions prior to offering up to solar panel frame. Then slide over sliding Solar Panel Bird Exclusion Clip and lock in position using non-return disc. No mechanical fixings will be necessary

2.2.3 Close internal and external corners using zip ties included in kit and

#### Execution

##### 3.1 Examination

- 3.1.1 Examine installation area. Notify architect of detrimental work conditions.
- 3.1.2 Do not proceed until conditions are corrected

##### 3.2 Surface Preparation

- 3.2.1 Underside of solar panels and surrounding roof covering must be cleared of bird nests and eggs in accordance with local wildlife legislation.
- 3.2.2 Ensure area has been disinfected using a proprietary avian disinfectant such as PX Ornikill GC079 to create a safe working environment

##### 3.3 Installation

- 3.3.1: Install Solar Panel Bird Exclusion System as recommended in the installation instructions, which are supplied by the manufacturer.
- 3.3.2: Place clips every 450mm / 18 inches along outer edge of PV array. Slide the clip onto

the underside edge of the panel support bracket. Slide as far outward as possible so the clip is all the way on the lip of the panel.

3.3.3: Set the wire mesh screen in place. Make sure the fastener rod comes through the screen at an upward angle as to keep downward pressure on the screen, pushing it towards the roof.

3.3.4: Slide the retaining one-way disc onto and along the shaft of the clip assembly until snug against the mesh. Make adjustments to the screen as necessary. Tighten one-way disc to panel edge.

3.3.5: Include a 75mm (3inch) overlap of the mesh when installing the next section.

3.3.6: Cut off any excess mesh screen sticking over the top edge of the solar panel array. Cut of the clip assembly rod flush with the exterior of the retaining disc. Use either our budget or professional wire cutters NT119 or NT120 respectively.

#### 3.4 Inspection

- 3.4.1 Visually inspect the Solar Panel Bird Exclusion System for any gaps greater than 25mm or for loose clips or mesh panels or other problem related to poor installation.
- 3.4.2 Ensure that cables running from solar panels are have not been crushed, strained or in any way damaged during the installation
- 3.4.3 Repair as necessary immediately.

#### OM-Operation, Maintenance

If the Solar Panel Bird Exclusion System is installed per our specifications, the product should be virtually maintenance free.

Annual visual inspection is recommended to check for any signs of damage or dilapidation.

