

Installation Guide

Hawk Kite Visual Bird Scarer



Caution:

- If winds get stronger than Force 5-6, the system should be tied off to prevent damage or loss of the kite.
- The fiberglass pole can break if you leave the system operating in strong winds!
- Do not crush the fiberglass pole with clamp fixings other than those specified by the manufacturer.
- Do not fit screws/nails through the fiberglass pole
- Hawk Kite is not a set-and-forget system. Hawk Kite requires continual inspection and maintenance to ensure optimal performance.
- Visually inspect the Hawk Kite System daily for signs of entanglement, damage, wear or tear.

Before you start:

1. Select a suitable location for mounting VD351- Hawk Kite Kit

1.1 It is desirable to angle the Hawk Kite systems pole 10-15 degrees off vertical, pointing away from the prevailing winds i.e. if prevailing wind is South Westerly then angle the mount pointing to the North East. The purpose of this is to prevent the kite from tangling around the pole when there is insufficient wind to launch the kite. By doing this the amount of maintenance intervention will be kept to a minimum. This factor should be brought into consideration when selecting an appropriate mounting location for the VD351 - Hawk Kite Kit.

1.2 The kite must be located in the centre of a 10m square area that is free from any obstructions that the kite would otherwise strike and become damaged. Pay particular attention to any overhead cables and position the kite well away from any overhead obstructions.

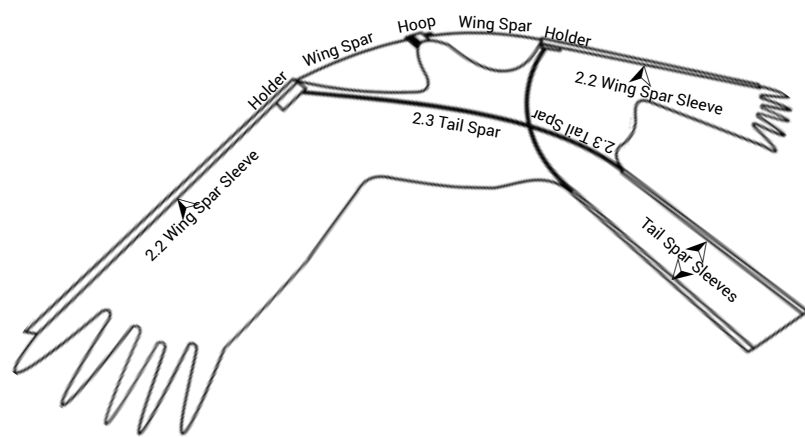
- ✓ **Do:** Move your Hawk Kite regularly to prevent birds getting used to it.
- ✓ **Do:** Tie the kite to the cleat on the telescopic pole if excessively strong winds are forecast.
- ✓ **Do:** Shorten the line on the kite by a maximum of 1-metre, to avoid obstructions. Hawk Kite should hang approximately 1-metre above surface to be protected.
- ✓ **Do:** Inspect the kite at regular intervals and check for signs of tangling, release tangles immediately to maintain effectiveness and prolong service life.
- ✗ **Don't:** Fly your Hawk Kite: under or near power cables, near public byways, footpaths, bridle paths, roads or anywhere that use of the kite may cause a risk to others.
- ✗ **Don't:** Crush the Hawk Kite pole with clamp fixings other than those specified by the manufacturer.
- ✗ **Don't:** Secure the Hawk Kite pole any higher than top of the lowest telescopic section, to avoid over-stressing the pole, which could lead to premature failure.
- ✗ **Danger:** If your Hawk Kite gets caught in overhead cables: **DO NOT** touch the kite, line or pole. **DO NOT** attempt to retrieve it. Keep people and animals away. Inform the emergency services **IMMEDIATELY**.

PestFix / Owl Pest Control will not be held responsible for any accident, loss, damage or injury to any persons/animals or equipment however caused.

2. How to assemble the Hawk Kite, Pole and Tether

Before commencing work please check the contents of your kit, you should have:

- 1 x Hawk Kite sail
- 4 x Carbon fibre spars (2 x wing & 2 x tail)
- 1 x Tether line with in-built swivel
- 1 x Anchorage line
- 1 x 7-section Hawk Kite pole
- 1 X Ground Stake



- 2.1 Lay Hawk Kite face down on a flat surface.
- 2.2 Connect the two front edge WING SPARS using the metal tube ensuring that the metal tube is threaded through the fabric hoop attached to the head of the hawk outline.
- 2.3 Connect the two TAIL SPARS to the opposite top edge of the wings using the sockets provided, ensuring that the poles are crossed half way along to provide rigidity to the kite frame.
- 2.4 The Hawk Kite is now ready to be clipped to the tether line and should be kept secure until you are ready, to prevent it catching the wind.
- 2.5 Take the rubber cap off the top of the telescopic pole and extend the pole to its full length, pulling each section (seven in total) firmly into the next with a slight twist to lock in place. If the Hawk Kite pole is to be left in-situ permanently we recommend that you tape each pole section joint with electrical tape, to prevent any potential slippage. This is not necessary if the pole is only being used on an occasional basis.
- 2.7 Tie the swivel end of the line (the red coloured end of the line) onto the METAL EYE at the top of the telescopic pole, using a Bowline knot.
- 2.8 The other end is then attached to the pre made loop on the feet of the Hawk Kite, using the in-built wire clip. The kite should hang 1-metre above the surface to be protected.

- 2.9 Coil and tie the two-metre anchor line to the cleat at the base of the pole, ready for use if strong winds are forecast.
- 2.10 Anchor the kite to the base of the telescopic pole in excessively strong winds, to comply with terms and conditions. To do this simply hold the kite against the pole with one hand and wrap the anchor line around both the kite line (above the kite) and the pole twice and then tie the line under tension to the cleat.

Your Hawk Kite Kit is now assembled and ready for use. You now have four options available to you in terms of selecting how to mount your Hawk Kite.

- Soft Ground Stake (included in kit)
- **VD362 - Hawk Kite Free Standing Mount** (sold separately)
- **VD385 - Hawk Kite Non-Piercing Ridge Mount** (sold separately)
- **VD369 - Hawk Kite Timber & Masonry Fixing Kit** (sold separately)

3. Using Hawk Kite with Soft Ground Stake

- 3.1 Drive the solid synthetic ground post, included in the kit, into the soil by 300mm, approximately 10-15 degrees off vertical, pointing away from the prevailing winds. In soft or wet ground drive the post a further 100mm down to give extra stability.



- 3.2 Remove the rubber end cap and slide the Hawk Kite Pole over the ground stake, so the bottom of the Hawk Kite Pole sits on the ground.



- 3.3 When you are ready to fly release the anchorage line from the kite and pole cleat, the kite will self-launch.



4. Using VD362 Hawk Kite Free Standing Mount

- 4.1 The purpose of this kit is to provide a non-penetrating method of mounting the **VD351-Hawk Kite Kit** on flat surfaces including roofs, paved areas, grassed areas or any flat surface where the kite is required but penetrating fixings are not possible.

Before you start work check the contents of each Hawk Kite Free Standing Mount Kit.

Each kit is supplied with:

- 2 x 2-slab Base Tray
- 1 x T-shaped Centre Pole 1m
- 2 x M10 X 75mm Bolts
- 2 x M10 Nuts
- 4 x M10 x 20mm O.D. x 2mm plain washers



In addition to the kit you will also need:

- 1 x **VD351 -Hawk Kite Kit**
- 2 x 17mm spanners
- 4 x (450mm x 450mm) paving slabs.



- 4.2 Prior to assembly ensure that the roof area where the kite is to be placed is free from all foreign objects, to prevent the mount forcing such items through the roof membrane if it were to be placed on top of said debris. A protective rubber mat is also available to afford protection to sensitive roof surfaces (**NF310 - Non-Piercing Roof Mount Protective Mat 140cm x 140cm**).

- 4.3 Place the box section end of the T-bar pole alongside the edge of the first base tray that has the holes in it. Align the holes in the tray wall with the holes in the T-Bar.



- 4.4 Slide one plain washer over each of the M10 75mm bolts and then insert the bolts through the holes in the tray wall and through the box section T-bar so that the threads protrude the other side.
- 4.5 Offer-up the second tray and feed the protruding bolts from the T-bar through the bolt holes in the second tray side wall.

- 4.6 Slide one washer over the end of each of the two bolts that are now protruding through the second tray wall, followed



- by the M10 nut and tighten until there is no movement between the T-bar and the base tray.
- 4.7 Prior to inserting the paving slabs, place the mount in the desired position on the roof, this will be a lot easier without the weight of the paving slabs! The kite must be located in the centre of a 10m square area that is free from any obstructions that the kite would otherwise strike and become damaged. Pay particular attention to any overhead cables and position the kite well away from any overhead obstructions. Once in position place one paving slab in each of the four recessed areas of the base trays.

- 4.8 Ensure that the paving slabs sit flat in the bottom of the trays. If the bolt head or nut does not allow this, take a notch out of the paving slab.



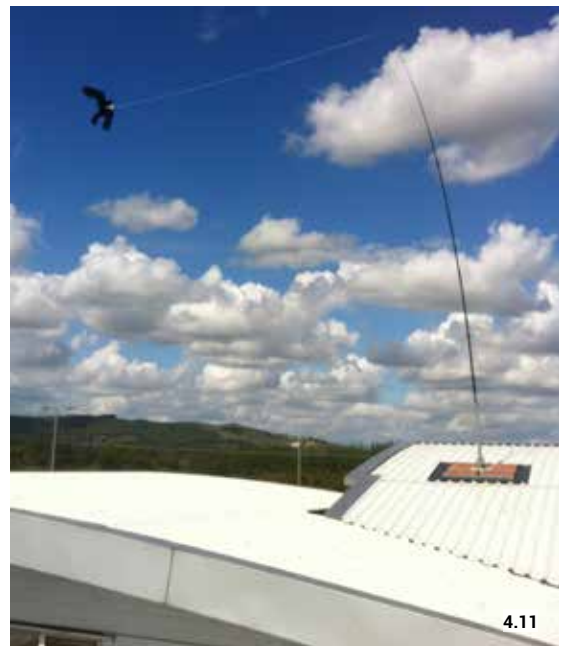
- 4.9 It is desirable to angle the Hawk Kite system's pole 10-15 degrees off vertical, pointing away from the prevailing winds i.e. if prevailing wind is South Westerly then angle the mount pointing to the North East.

The purpose of this is to prevent the kite from tangling around the pole when there is insufficient wind to launch the kite. By doing this the amount of maintenance intervention will be kept to a minimum. This can be achieved by raising one edge of the mount onto bricks or blocks.

Ensure that the mount is stable and will not rock under load from the kite, or if the roof has a shallow pitch to it then this will naturally incline the pole. Ensure that mount is secure when using this method and will not slide on the pitched roof surface. Recommended max pitch 10-15 degrees.



- 4.10 Assemble the **VD351 - Hawk Kite Kit** as per section 2 of this installation guide. Use the anchorage line to secure the kite to the pole cleat. Do not launch the kite until you are ready to mate the kite to the free-standing mount kit.
- 4.11 Slide the Hawk Kite Pole down inside the hollow upright pole of the Hawk Kit free standing mount. The kite will launch immediately the anchorage line is released.



5. Using VD385 - Hawk Kite Non-Piercing Ridge Mount



The purpose of this kit is to provide a non-penetrating method of mounting the **VD351 - Hawk Kite Kit** on the apex or ridge line of a pitched roof when penetrating fixings are not possible. Often the ridge line of a pitched roof is the highest point of a structure and Hawk Kite will give its maximum performance when located on the highest point of the building (when safe to do so).

This mount can be used on steel sheet, asbestos sheet, single membrane, lead and tiled roofs.

- 5.1 Before you start work check the contents of each Hawk Kite Free Standing Mount Kit.

Each kit comes with:

- 2 x 2-slab Base tray with cranked arms
- 1 x T-shaped centre pole 1m
- 2 x M10 x 100mm bolts
- 2 x M10 x 45mm bolts
- 4 x M10 Nuts
- 4 x M10 x 20mm O.D. Plain Washers
- 4 x M10 x 30mm O.D. Plain Washers
- 2 x Locking bars
- 2 x Cotter pins

In addition to the kit you will also need

1 x **VD351 - Hawk Kite Kit**

2 x 17mm spanners

4 x (450mm x 450mm) paving slabs

- 5.2 Prior to assembly ensure that the roof area where the kite is to be placed is free from all foreign objects, to prevent the mount forcing such items through the roof membrane, if it were to be placed on top of said debris.

A protective rubber mat is also available to afford protection to sensitive roof surfaces (**NF310 - Non-Piercing Roof Mount Protective Mat** 140cm x 140cm).



- 5.3 Slide the left side of the T-bar box section between the cranked arms of the righthand tray. Using a 100mm M10 bolt and 20mm washer connect the left hole in the T-bar box section to the top of the right-hand tray arms as shown.



- 5.4 Slide one 20mm washer over the protruding threaded end of the M10 bolt and then secure finger-tight using an M10 nut.
- 5.5 Offer-up the second tray and feed the cranked arms through the arms of the first tray to create an "X" shape (see fig. 5.5 overleaf).
- 5.6 Slide a 20mm washer onto the other M10 100mm bolt and then use this to secure the right side of the T-bar box section to the top of the arms of the left-hand tray.
- 5.7 Slide one 20mm washer over the protruding threaded end of the M10 bolt and then secure finger-tight using an M10 nut.
- 5.8 Prior to inserting the paving slabs, with the help of an assistant place the mount in the desired position on the roof. This will be a lot easier without the weight of the paving slabs! The kite must be located in the centre of a 10m square area that is free from any obstructions that the kite would otherwise strike and become damaged. Pay particular attention to any overhead cables and position the kite well away from any overhead obstructions.

At the point where the two pairs of cranked arms intersect you will note some long slots in the arms (see fig. 5.5 overleaf). Using the two 45mm M10 bolts and 30mm plain washers, secure each pair of arms together so the nut is on the outside of each pair of arms. Secure in place finger-tight using the last two M10 nuts.



- 5.9 Once in position ensure that the two trays both sit flat against the roof sheet before tightening the nuts and bolts that secure the T-bar to the arms and the arms to each other, checking at all times that the centre pole remains vertical during the tightening process, tighten all 4 pairs of nuts and bolts to 50Nm.

Once tightened check the following prior to installing the paving slabs

- Both trays are sitting flush to the roof sheet.
- The ridge does not foul the cranked arms.
- The mount is stable and will not rock
- The centre pole is vertical.

- 5.10 Insert the 4# 450mm x 450mm paving slabs into the two trays. Ensure that the paving slabs sit flat in the bottom of the trays.



Slide the two locking bars through the four locating holes in the tray above the slabs and secure using a cotter pin through the eyelet in the end of the locking bar.

- 5.11 Assemble the **VD351 - Hawk Kite Kit** as per instructions in Section 2 and lay flat on the floor. Use the anchorage line to secure the kite to the pole cleat to prevent it launching until you are ready to mate the Kite Kit to the Free-Standing Mount Kit.



- 5.12 Leaving the bottom rubber end cap on the Hawk Kite pole, slide the Hawk Kite Pole down inside the hollow centre pole of the Hawk Kite Non-Piercing Ridge Mount so the rubber cap sits on the T-bar at the bottom of the centre pole. The kite is now ready for use and will launch immediately the anchorage line is released.



6. Using Hawk Kite Screw-In Fixing Kit for Timber and Masonry– VD369

This kit is available in:

- Grade 304 Stainless Steel – **VD369 - PRO**
- Bright Zinc Plated Steel – **VD369 - STD**

The purpose of this kit is to provide a secure and professional method of mounting the **VD351 – Hawk Kite Kit** to either masonry or timber substrates i.e. walls or fence posts without causing damage to the fiberglass Hawk Kite pole.

6.1 Before you start work check the contents of each Hawk Kite Screw-In Fixing Kit:

Each kit comes with:

- 2 x Pole clamps with female threaded sockets
- 2 x Double thread screws
- 2 x Masonry plugs



6.1

In addition to the kit you will also need:

1 x **VD351 - Hawk Kite Kit**

Masonry drill with 10mm masonry drill bit
(for fixing to masonry)

Drill/driver with a 5mm timber drill bit
(for fixing to timber)

1 x 6mm spanner

1 x 10mm spanner

1 x 13mm spanner

or

2 x adjustable spanners

1 x Philips head screwdriver or flat head screwdriver

6.2 Fixing Hawk Kite to Timber

- Angle the pole 10-15 degrees and mark the position of the two fixings on the timber 920mm apart.
- Drill a 5mm diameter pilot hole 50mm deep on each of the marks in the timber.
- Using a 6mm spanner wind the double threaded shaft into the timber using the course thread.
- As an alternative to a 6mm spanner a torx-head driver may be inserted into the end of the shaft for driving it.
- See section 6.4 for final assembly.



6.2

How to tie a bowline knot...

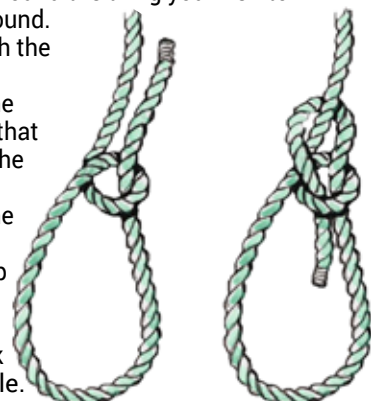
Step 1. Run your rope around the thing you wish to tie your knot around.

Step 2. Form a loop with the running end.

Step 3. Pull the tip of the running end so that it goes around the standing end.

Step 4. Pull the tip of the running end up through the loop you made previously.

Step 5. Pull the tip back through the hole.



6.3 Fixing Hawk Kite to Masonry

- Angle the pole 10-15 degrees and mark the position of the two fixings on the wall 920mm apart.
- Drill a 10mm diameter hole, 50mm deep on each of the marks in the masonry.
- Clear masonry hole of any debris using a hole brush or blow out pump.
- Insert masonry plug and gently tap home if necessary.
- Using a 6mm spanner wind the double threaded shaft into the plug using the course thread. As an alternative to a 6mm spanner a torx head driver may be inserted into the end of the shaft for driving it.
- See section 6.4 for final assembly



6.4 Final assembly for both substrates

- Wind the clamp fitting onto the fine threaded end of the double threaded shaft and lock in position using the 6mm spanner on the shaft and a 13mm spanner on the clamp fitting.
- Place the pole into the clamp fitting and hand tighten the two 10mm bolts either side evenly using a screwdriver.
- Finally tighten the clamp screws using a 10mm spanner being careful not to over tighten them as the fibreglass pole could become damaged through excessive force.

6.5 Dealing with obstructions

- It is likely that you have mounted the **VD351 - Hawk Kite Kit** to either a fence line or wall. If this is the case there is a danger that the kite will strike this obstruction in strong winds, as the pole will bend over to the point where the kite will sweep low to the ground in high winds.
- To avoid this we recommend shortening the tether line connecting the kite to the pole by no more than 1m. Any greater shortening length will adversely affect the performance of the kite.
- If you have secured the kite pole to a simple vertical object with no protruding obstructions i.e. a solitary fence post or brick pier then no shortening of the tether line will be necessary. We strongly recommend leaving the tether line at its intended full length for maximum performance of the kite.