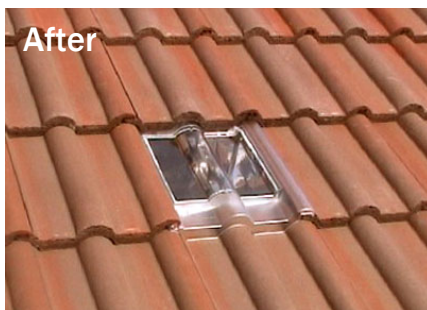


Single Suntile Installation instructions



As long as you follow our simple instructions, fitting a Suntile is simple and straight forward. The instructions might look lengthy and daunting, don't be put off, it's just plenty of detail with explanatory photos to make sure you know what we're talking about.

1 Decide the position of your Suntile on the roof, making sure that the lens area falls between any roof rafters etc. This is best done from inside the roof if possible. Use your hand to feel the batten positions through the felt between the roof joists. Once you have decided a suitable position, use a long screw driver to push through the felt just above the batten below where the Suntile is going to come through the roof. Push the screw driver through, raising the bottom edge of your chosen tile as shown.



2 Mark your chosen replacement tile. Roof tiles are traditionally only fixed to the battens every third or fourth course. You need to slide three tiles up & away on the third course directly above your chosen replacement tile's position. We find using the handle of a rubber handled hammer best. Then you can easily start to remove three tiles on the second course, as shown.



3 Remove the necessary tiles from the 2nd & 1st courses & then the proposed replacement tile & the tile to its immediate left.



4 Position the Suntile to the "x" tile's position and mark the felt around the square box flange. Then remove the Suntile



5 Using a sharp bladed knife, cut through the felt from corner to corner in an x shape creating an aperture to fit the Suntile's flange.



6 Return the Suntile to it's position checking that the square box flange easily pushes through the cut felt square.

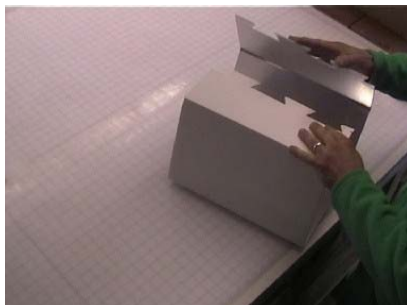
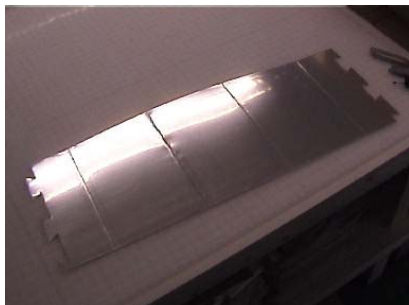


Now assemble the ducting.

Suntile Mirrored Ducting Assembly

7 To assemble the mirrored ducting lay it down flat on a smooth surface with the mirror side facing up. Bend the sides up along the creases into a box tube shape - you can 'over bend' each crease to make assembly easier. Bring the two jigsaw type ends together, fitting them as you would a jigsaw making sure they fit flush with each other and do not overlap.

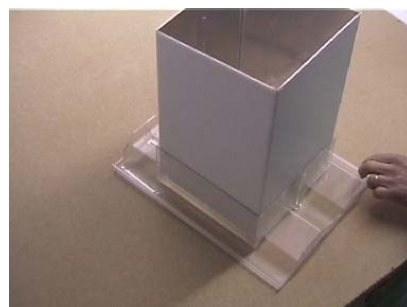
Please note: the mirror has a clear protective film that we recommend you leave in place until final stages of assembly.



8 Cut the Silver Tape to the length of the joint, remove the backing tape and stick over the jigsaw joint. Smooth the tape down on the top surface and then flip the duct over and push firmly down from the inside along the jigsaw edge to make sure the edges are all in firm contact with the tape.



9 Take the assembled ducting and push down inside the Suntile's square box flange. Do not tape into position at this stage.



10 Return the Suntile and its ducting to the roof. Push the ducting through the cuts in the felt until it touches the plaster board ceiling below. Check the Suntile is above its final planned fitted position. Holding the ducting in place, pull the Suntile off the ducting leaving the ducting in position. Now either tuck the four triangles of felt under or cut them off to create the square.



11 Carefully mark the plasterboard around the inside of the ducting, Remove the ducting, take a bradawl and push a hole through the plasterboard ceiling in the top right hand corner.



12 Return to the inside of the property. Take the ceiling template provided and push the bradawl though the top left hand corner at the mark "Suntile Basic Kit Ceiling Holes". Push the bradawl through the hole made in the plasterboard earlier and pivot the template until perpendicular. Hold the ceiling template firmly in position and draw around the template's outside edges.



13 With a sharp knife or grip blade cut along your drawn lines and remove the square of plasterboard.



14 Return the ducting to the inside of the Suntile's square box flange, make sure the ducting slides down to touch the clear surface. Using the silver tape cover the joint where the ducting meets the flange in one continuous length, smoothing the tape firmly into the joint and the corners, finally cutting the tape to allow an overlapping joint. We recommend that a second and third wrap of silver tape should be carried out overlapping the first taping top and bottom.
Please note: do not cover the four small air holes in the crease of the flange where it meets the clear Suntile surface.



15 Take the white sheet 'gasket' and stretch the square hole over the ducting. You will see that the square hole isn't in the centre of the gasket. It is important to make sure that the longest length of the gasket material is running *up* the roof when fitted. Stretch the gasket right down and over the taped area between the ducting and the Suntile's square box flange. Again: **do not cover the four small air holes in the crease of the flange where it meets the clear Suntile surface.** Use the silver tape to cover the join where the gasket meets the Suntile's square box flange.



16 Return to the roof and remove the remaining tiles, which are the tile to the right of the replacement tile and three tiles on the course below.



17 Return the Suntile assembly to the roof. Push the Ducting through the felt and the hole in the plasterboard. Spread the gasket out flat and if possible tuck the top edge under a joint line in the existing felt.



18 Replace the original roof tiles working from left to right, bottom to top. Make sure the gasket remains as flat as possible underneath the tiles as shown.



19 We recommend you screw the course of tiles inline with, and including the Suntile to the batten. We provide a suitable screw with the Suntile.



20 Continue to replace all the original tiles above the Suntile



21 After all the tiles are in place slide the third course back over the course below, check all the tiles are sitting correctly and that there are no noticeable gaps. The external part of the Suntile installation is now complete.



22 Back inside the ducting now needs to be trimmed to take the ceiling diffuser assembly. Use a 6mm thick piece of flat material as a spacer to mark a 6mm offset line around the outside of the ducting parallel to the ceiling. We used a small piece of 6mm thick cardboard.



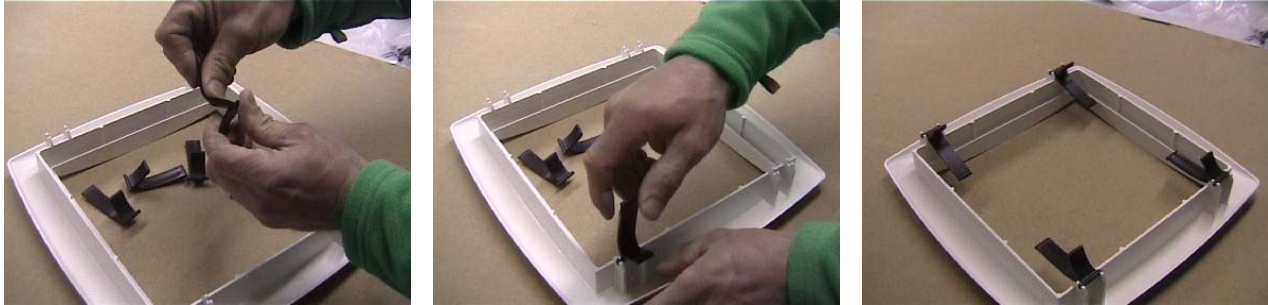
23 Cut all around the ducting using a sharp blade along the offset line, remove the waste.



24 Extra security can be achieved by fixing a screw through the ducting from the inside into the bottom tile batten.



25 Assemble the ceiling diffuser frame and retaining clips. First, 'over-bend' each of the clips to pre-stress them before fitting to the ceiling. Push firmly down into the clips with the long leg vertical and curved outwards.

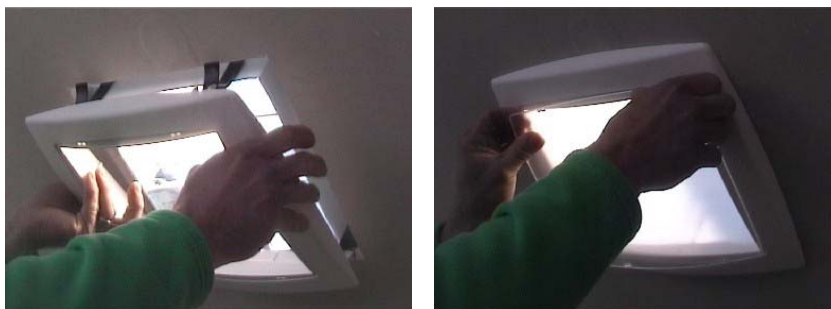


26 Remove the ducting's protective film, exposing the highly reflective mirrored surface.



27 Fit the ceiling diffuser frame. It is fitted in the same way as a standard ceiling light fitting. Position the long legs of each retaining clip between the ducting and the square hole cut in the ceiling. Make sure the short legs do not go into the same gap. As you push the ceiling diffuser frame toward the ceiling, the clips will rotate with the short legs sliding across the ceiling surface before snapping into final position. As you push the frame into position make sure that the leading edge of the ducting fits into the channel on the back of the frame.

To remove the frame, simply reverse the procedure pulling the frame away from the ceiling. It is not recommended that you repeatedly take the frame in and out as the cut surface of the plasterboard will start to break up. Once the frame is in position, line up the lens with the four lugs and push fit it together.



28 Sit back and enjoy your new light filled space before clearing away your tools and putting the kettle on.