

REPAIRING DISCONNECTED SUPPORT ARMS

If your umbrella arm has lost its bolt and nut the following parts can be sourced to replace them.

Metal thread screw M5x30 Pan x1R



M5 ST/ST Nut (Nylon locking nut)



Place the “rib” of the umbrella (the support arm) inside the black “knuckle” of the arm lining up the holes.



Insert the bolt so that it passes through the black plastic, the rib and then out the other side of the black knuckle.



*If available apply a drop of **Loctite** to the nut before securing it in place to ensure a more durable bond. The nuts do have a nylon plastic locking mechanism but the **Loctite** just adds to the strength yet allows it to be undone if needed. Tighten the bolt so that one or two turns protrude from the nut as pictured.*

REPAIRING DETACHED KNUCKLES

If your umbrella arm has detached from the knuckle various procedures can be undertaken depending on the severity of the break.

Tools that you may need:



Repair using rivets

- Remove the roof and lay the umbrella down either on the ground or to make it easier between two “saw horses” or chairs. Remove the arm or open it upwards to free it from the rest of the umbrella so that you can work on it freely.
- Inspect the holes that have been left in the arm. Using the drill or centre punch remove any broken rivets being careful not to enlarge the holes too much.



- If the holes are raised in the shape of a volcano place the arm on a flat hard surface and lightly tap with the hammer so that the holes edges become flat again.
- Check to see if the rivet fits in the hole, it should be quite a close fit for the rivet to work effectively.
- Place the knuckle over the holes comparing the positioning to the other arms of the umbrella, NB it only works one way, the side with the raised spacer in the middle aligned towards the bottom of the arm.



- If you find that the rivet head is too small for the hole in the knuckle you can place a washer in-between the two to extend the rivets diameter. Attach the rivet with the rivet gun pressing firmly on the rivet to ensure a tight connection between the arm and knuckle.

Repair using self tapping screw

The benefit of this type of screw is its ease of use. All you need is the screw itself and a drill equipped with a Phillips head bit. The screw will cut its own hole and fasten securely, but on the downside it leaves you with an unattractive ragged hole where the original rivet was. This procedure may also be needed when the hole in the arm becomes too big or the old broken rivet will not come out without further damaging the arm.

Follow the first steps of the procedure above but instead of riveting the knuckle onto the arm use a small self tapping screw drilling a new hole just to the side of the existing one. Not too close, start about the center of the circle that is pictured just to the side of the original rivet hole.



Once the repair is complete you can reattach the rib and replace the roof. If you require new arms or any other parts or advice you can contact us using the details below.