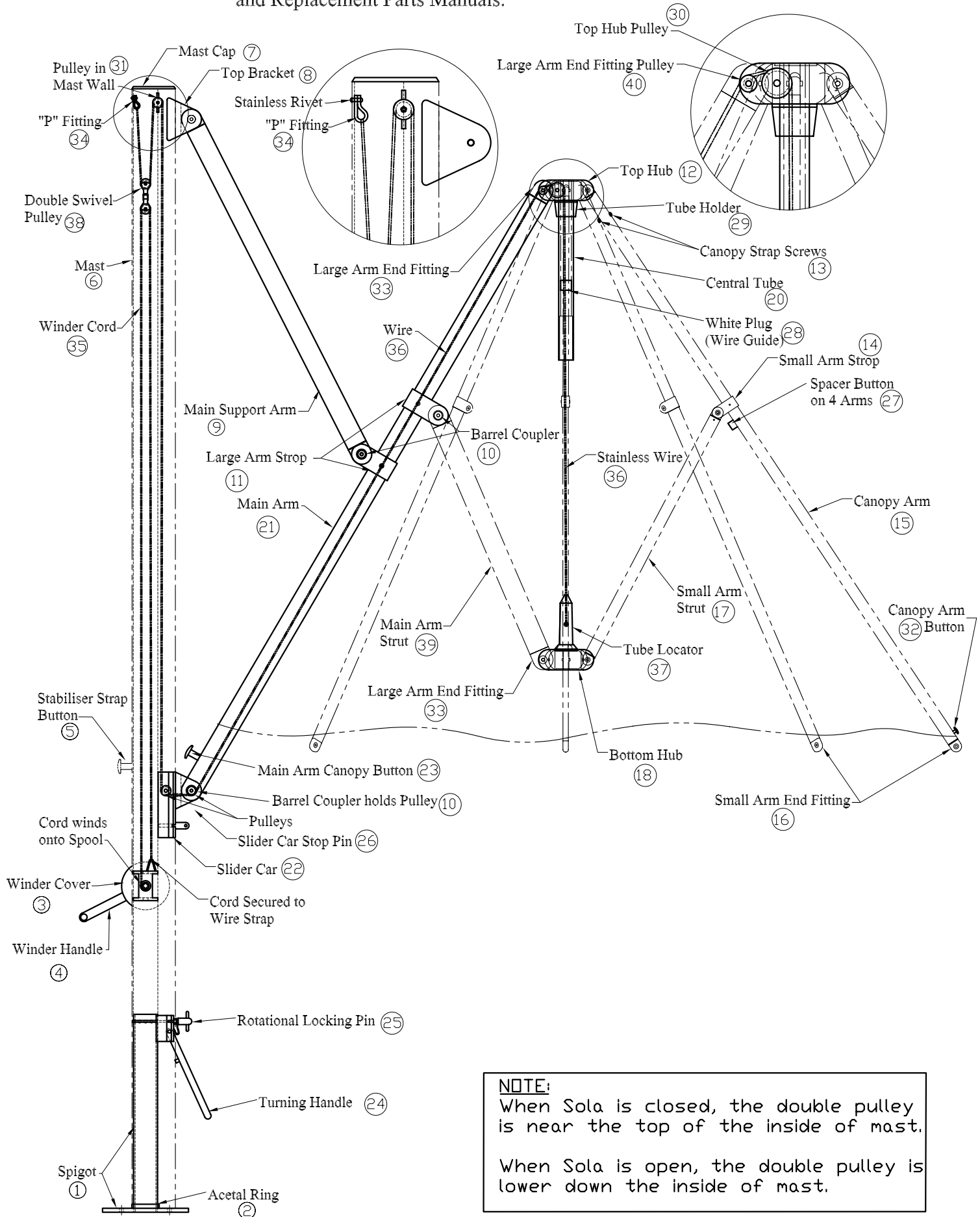


SOLA/ISLA (Internal Mechanism)

Reference numbers relate to Sola/Isla Owners Manuals and Replacement Parts Manuals.



SHADEMAKERS REPAIR CATALOGUE

SOLA and ISLA MODELS

Diagram for parts identification

Manual R 01	Replace small arm end fitting (cap)	Part # 16
Manual R 02	Replace small arm strop	Part # 14
Manual R 03	Replace small arm (canopy arm)	Part # 15
Manual R 04	Replace small arm strut (support arm)	Part # 17
Manual R 05	Replace large arm end fitting	Part # 34
Manual R 06	Replace large arm strop	Part # 11
Manual R 07	Replace main arm	Part # 21
Manual R 08	Replace main strut	Part # 32
Manual R 09	Replace top support arm	Part # 09
Manual R 10	Replace top hub	Part # 12
Manual R 11	Replace bottom hub	Part # 18
Manual R 12	Replace “P” fitting	Part # 35
Manual R 13	Replace stainless wire	Part # 34
Manual R 14	Replace winder cord	Part # 36
Manual R 15	Replace winder cover and or base	Part # 03
Manual R 16	Replace canopy	

Sola / Isla parts number list.

Part # 01	Spigot
Part # 02	Acetal ring
Part # 03	Winder
Part # 04	Winder handle
Part # 05	Stabiliser stay button
Part # 06	Mast
Part # 07	Mast top cap
Part # 08	Top bracket. (Upper end fitting)
Part # 09	Main support arm
Part # 10	Barrel coupler
Part # 11	Large arm strop
Part # 12	Top hub
Part # 13	Canopy strap screw
Part # 14	Small arm strop
Part # 15	Canopy arm
Part # 16	Small arm fitting (cap)
Part # 17	Small arm strut (support)
Part # 18	Bottom hub with decal
Part # 19	-----
Part # 20	Centre tube
Part # 21	Main arm
Part # 22	Slider car
Part # 23	Main arm canopy button
Part # 24	Turning handle
Part # 25	Rotational locking pin
Part # 26	Slider car stop pin
Part # 27	Spacer button on 4 arms
Part # 28	White plug wire guide
Part # 29	Tube holder
Part # 30	Top hub pulley
Part # 31	Pulley in mast wall
Part # 32	Canopy arm button
Part # 33	Large arm end fitting (cap)
Part # 34	“P” fitting
Part # 35	Winder cord
Part # 36	Stainless wire
Part # 37	Tube locator
Part # 38	Double swivel pulley
Part # 39	Main arm strut
Part # 40	Large arm end fitting pulley at top hub.

Sola/Isla Part Replacement Manual:

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 01 **Replace small arm end fitting**.(cap) (In arm or strut)

Parts required: 1 x small end fitting (16)
2 x 5-4 aluminium rivets

Specialist tools required:

- (a) 4.2mm drill bit
- (b) 5.0mm drill bit (step **B**)
- (c) manual or power drill
- (d) hand or air riveter
- (e) 4 and 5mm Allen key

Process:

- (1) Drill out rivet.
- (2) Remove broken end of damaged fitting from arm or strut.
(If necessary leave the broken piece in the arm or strut. No harm will occur.).
- (3) Fit the new small end fitting into the arm or strut.
- (4) Using the original rivet hole in the arm or strut drill into the small end fitting. **Caution:** Do not go right through the fitting and out the other side.
- (5) Rivet the new small end fitting to the arm or strut. Use 1 or 2 rivets

Note: **A** Should the broken small end fitting be attached to the strop (14) on an arm, first remove the M6 x 22mm stainless pin from the strop by tapping it through with a punch. Complete steps (2) to (5) above. Replace the small end fitting in the strop and re-use the stainless pin.

B If the damaged small end fitting is at the end of the arm (15 or 17) complete steps (2) to (5) above having first removed the canopy button (32) from the arm end. Once the small end fitting has been replaced you will need to re-drill the plastic (through the canopy button hole) to accommodate the canopy button. Use 5mm drill bit

C If the small end fitting to be replaced is attached to the top or bottom hub then first remove the broken fitting from the hub by partially releasing the 4 screws in the hub to allow the hub to be prised open sufficiently to pop the broken small end fitting from the hub. **Note:** This step can be conducted without removing the 4 hub screws completely. Should the hub be separated totally, all 8 arms may release from the hub. No problem but it is more difficult to re-fasten the 2 halves of the hub should this occur. Remove the M8 x 22mm stainless pin from the broken small arm end fitting and replace in the new small arm end fitting. Relocate the stainless pin in the hub and clamp the 2 halves of the hub securely by tightening the 4 screws in the top of the hub.

Sola/Isla Part Replacement manual:

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 02 **Replace Small arm strop.** (14) (On small arm)

Parts required:

1 x small strop (14)
2 x 5-4 aluminium rivets.

Specialist tools required:

- (a) 4mm Allen key
- (b) 4.2mm drill bit
- (c) hand riveter

Process:

- (1) Remove small end fitting in the strut from the small strop. The stainless pin may be tapped through using a punch.
- (2) Remove the canopy button on the end of the arm.
- (3) Drill out the rivet from the small arm end fitting at the end of the arm.
Note: This rivet and fitting needs to be removed so that the new strop can be fitted over the end of the arm.
- (4) Remove the small end fitting from the end of the arm. Suggestion: A small screw driver through the hole in the small end fitting will give some leverage.
- (5) Remove the old strop. (Tap it down with a hammer if required)
- (6) Fit the new strop over the arm end and re-position on the arm.
- (7) Fix in place with 1 x 5-4 aluminium rivets.
- (8) Fit the strut into the strop and replace the stainless pin.
- (9) Replace the small arm end fitting into the arm end.
- (10) Fix small arm end fitting in place with the second 5-4 aluminium rivet.
- (11) Replace the canopy and canopy button into the arm end on top.

Sola/Isla Part Replacement Manual:

April 2007

Legend:

See attached diagram for parts identification.

Manual: Sola/Isla R 03

Replace Small Arm (canopy arm) (15)

Parts required:

1 x correct length of Shademaker profile small arm aluminium.(15)
1 x small arm stop. (optional. The old one may be re-used.)
3 x 5-4 aluminium rivets.

Specialist tools required:

- (a) 1 x 4.2mm drill bit
- (b) 2 x 4mm Allen keys
- (c) hand riveter
- (d) punch
- (e) hammer

Process: end.

- (1) Remove the canopy attachment button (32) from the outside arm end.
- (2) Remove the 8 x 22mm stainless pin from the stop on the arm.
- (3) Drill out the rivet from the small arm end fitting where the arm connects to the top hub. Leave the small arm end fitting retained within the top hub. Use 4.2mm drill bit.
- (4) Remove the arm from the umbrella frame.
- (5) Drill out the rivets and remove the small end fitting and the stop from the damaged arm.
- (6) If it is not already fitted to the new arm, slide and tap the small arm stop into position and drill and rivet as necessary.
- (7) Refit the small end fitting (from (5)) into the new arm. Drill and rivet as necessary
- (8) Fit the new arm to the small end fitting attached to the top hub. Use rivet supplied. Drill as required.
- (9) Re-position the small end fitting on the strut into the stop and re-connect using the 8 x 22mm stainless pin.
- (10) Re-fit the canopy attachment button with the canopy .

Note: The position of the stop on the new arm should be the same as for the old arm. on of stop on the new arm..

Sola/Isla Part Replacement Manual

April 2007

Legend: See attached diagram for parts identification.

Manual: **Sola/Isla R 04**

Replace Small Strut (support arm)

Parts required: 1 x correct length Shademaker profile small arm aluminium (17)
2 x 5-4 aluminium rivets.

Specialist tools required:

- (a) 1 x 4.2mm drill bit
- (b) hand riveter
- (c) punch
- (d) hammer

Process: Note: This replacement is best conducted with the canopy open.

- (1) Remove rivet from the small end fitting near the bottom hub. Use a 4.2mm drill bit.
- (2) With a punch tap out the 8 x 22mm stainless pin from the strop on the arm
- (3) Drill out the rivets and remove the small arm end fittings from the damaged or old strut.
- (4) Replace the small arm end fittings in the new strut. Drill and rivet as necessary
- (5) Re-attach one end onto the small arm end fitting which is retained in the bottom hub. Drill and rivet as necessary.
- (6) Re-attach the other end in the small arm strop (14) on the canopy arm

Note: For rivet hole positions use please use other struts on the Shademaker frame as a guide.

Sola/Isla Part Replacement Manual:

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 05 **Replace Large arm end fitting on main arm or strut**

Parts required:

- 1 or 2 Shademaker large end fittings (33)
- 3 x 6-6 Aluminium rivets
- 1 x stainless or monel 6-6 rivet.
- 1 x 3mm crimp

Specialist tools required:

- (a) 1 x 5mm drill bit
- (b) hand riveter
- (c) 2 x 4mm Allen key
- (d) wire cutters
- (e) long handle crimpers or similar
- (f) pliers

General: This is basically a simple replacement except for the fact that the stainless wire passes through the centre of this arm. Under normal circumstances it will be the fitting nearest the mast that needs replacing as a result of exposure to strong winds. The wire needs to be released from the "P" fitting at the top of the mast so that it may be re-threaded through the new large end fitting.

- Process:
- (1) It is advisable to remove the canopy (see Manual R 17) and lie the Sola/Isla on a bench or saw stools with the winder up.
 - (2) Remove the mast cap (7). Observe the "P" fitting which is located on the inside of the mast approx 40mm down from the top.
 - (3) Drill out the rivet that holds the "P" fitting to the mast wall. Use 5mm drill bit.
 - (4) Remove the "P" fitting. You may need to unwind the winder handle (4) anti-clockwise to allow some slack in the winder cord to expose the double swivel pulley (38) Use the pliers to pull the pulleys out of the way to allow more working space.
 - (5) Cut the wire attachment to the "P" fitting. **Important:** Do not shorten the wire more than necessary.
 - (6) Remove the barrel coupler that connects the main arm (21) to the slider car (22) and separate the arm from the slider car. Use 4mm Allen keys.
 - (7) You need now to unthread the wire from the double swivel pulley (38) and the fixed pulley (31) attached in the wall at the top of the mast.
 - (8) Leave the double swivel pulley hanging out the top of the mast.

Caution: Do not allow the pulleys to swivel or twist as this will impede the smooth operation of the winder.

- (9) Drill out the rivets from the broken black plastic large arm end fitting (33) at the end of the main arm (21) using 5mm drill bit.
- (10) Unthread the wire (36) from the slider car (22) pulley and the pulley in the broken large arm end fitting.
- (11) Remove the broken fitting from the main arm.
- (12) Replace the pulley in the new large arm end fitting by re-placing the barrel coupler, thread the wire around the pulley and fit the new large arm end fitting into the main arm. Ensure the wire around the pulley and not under it.
- (13) Rivet the large end fitting to the main arm. **Note:** You will need to drill the new fitting so that it will receive the rivets. **Caution:** Do not catch the wire with the drill bit.
- (14) Thread the wire around the pulley in the slider car (22)
- (15) Pass the wire back around the pulley (31) at the top of the mast.
- (16) Thread the wire through the double swivel pulley (38) which should still be hanging out the top of the mast.
- (17) Re-connect the wire to the “P” fitting using the clamp ferrule.
- (18) Secure the “P” fitting to the top of the mast using the 6-6 rivet supplied.
- (19) Replace the top cap.
- (20) Replace the canopy using earlier removed screws.

Note: Should the wire appear too short to re-connect to the “P” fitting you may need to cause the slider car to travel slightly up the track to give some slack to the wire. Do not waste wire as there is not a lot of excess to play with.

Sola/Isla Part Replacement Manual.

April 2007

Legend: See attached diagram for part identification.

Manual: **Sola/Isla R 06**

Replace large arm strop. (11)

Parts required:

- 1 or 2 x black plastic large strops (11)
- 5 or 6 x 6-6 aluminium rivets
- 1 x 3mm crimp
- 1 x 3mm thimble or re-use old one

Specialist tools required:

- (a) 1 x 5mm drill bit
- (b) hand riveter
- (c) 2 x 4mm Allen keys
- (d) long handle crimpers or similar
- (e) wire cutters
- (f) pliers

Overview: There are 2 x large strops (11) on the main arm (21). These have to be replaced by sliding them over the end of the main arm. To do this the main arm has to be disconnected at either end. In practice these strops very rarely break however it will most likely strop on the lower end of the main support arm (9). Because the stainless wire runs through the main arm the wire has to be disconnected at the "P" fitting (34) at the top of the mast and unthreaded through the slider car (22) so that the new strop can be fitted over the end of the main arm.

Process:

- (1) Undo the canopy button(23) on the lower end of the main arm, undo the Velcro and expose the large main arm strut (39). You may prefer to remove the canopy (see Shademaker Manual R 16)
- (2) Lie the umbrella on a work bench or builders stools with the winder handle uppermost.
- (3) Remove the top cap (7) Lever it with a screw driver.
- (4) Drill out the rivet that connects the "P" fitting to the rear wall of the mast.
- (5) Unwind the winder handle (4) sufficiently to give some slack to the winder cord so as to expose the double swivel pulley (38) out of the top of the mast.
- (6) Cut the stainless wire as close to the "P" fitting (34) as you can.
- (7) Undo the barrel coupler that connects the main arm to the slider car.(22)
- (8) Pull the wire through so that the loose end is now hanging out of the main arm.
- (9) Drill out the rivets that hold the large arm end fitting in place in the main arm and remove. Mind the wire.

- (10) Undo the barrel coupler (10) that connects the main support arm to the damaged large strop(11)
- (11) Drill out the rivets from the broken strop and remove. (5mm drill bit)
- (12) Slide the new large strop fitting over the wire end, over the main arm end and tap it evenly back to the same place as the original. Rivet in place.
- (13) Re-connect the main support arm to the new large strop with the barrel coupler removed in step (10)
- (14) Replace the large end fitting in the main arm and rivet (removed in step (9)).
- (15) Manipulate the wire end into the slider car (22), around the pulley and out the top of the slider car. This can be tricky but it may be simplified by putting a string through first and then attaching the wire to it and pulling the wire through.
- (16) Feed the wire through the pulley (31) in the internal wall of the mast at the top and through the top pulley of the double swivel pulley (38).
- (17) Re-attach the wire to the “P” fitting using the thimble and 3mm crimp.
- (18) Re-rivet the “P” fitting to the original wall position at the top of the mast.
- (19) Refit the top cap (7)
- (20) Stand the umbrella up and refit the canopy as necessary.

Sola/Isla Part Replacement Manual.

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 07 **Replace Main Arm** (21)

Parts required:

- 1 x correct length Shademaker profile large arm aluminium. (21)
- 1 x large strop (spare in case of breakage on removal)
- 9 x 6-6 aluminium rivets.
- 2 x large end fittings. (spares in case of damage)
- 1 x 3mmthimble or re-use old one
- 1 x 3mm crimp.

Specialist tools required:

- (a) 1 x 5mm drill bit
- (b) hand riveter
- (c) 2 x 4mm Allen keys
- (d) wire cutters
- (e) long handle crimpers or similar
- (f) pliers

Overview: This replacement is the most complex for the Shademaker Sola/Isla cantilever umbrella. It involves separating the main arm from the top hub and the slider car and disconnecting the stainless wire from the anchor point at the “P” fitting at the top of the mast.

Process:

- (1) Remove the canopy. (see Shademaker Manual R 16)
- (2) Lie the umbrella on a bench or stools
- (3) Remove the top mast cap (7)
- (4) Remove the barrel couplers (10) from the main support arm (9) and the main strut (39) at the connections with the large arm strops (11) on the main arm (21)
- (5) Drill out the rivets that connect the large arm end fittings to the main arm at the slider car (22) end of the main arm and the top hub (12) connection to the main arm.
- (6) Drill out the rivet that connects the “P” fitting (34) to the top of the mast.
- (7) Unwind the winder handle sufficiently to expose the double swivel pulley (38) out the top of the mast.
- (8) Cut the wire at the “P” fitting. Waste the minimum amount of wire.
- (9) To un-thread and then re-thread the wire after the new main arm is fitted it is good to fit a “mouse” string or retrieval string to the stainless wire.
- (10) The canopy frame can now be separated from the mast by unplugging the main arm from (a)the end fittings at the hub and the slider car and (b) from the main strut and the main support arm from the large strops.

- (11) Un-thread the wire through the pulleys in the double swivel pulley (38), the pulley in the mast wall (30) , the pulley in the slider car and the pulley in the large end fitting attached to the slider car. The wire should now be hanging out of the large end fitting still fixed to the top hub.
- (12) If your replacement main arm does not have the large strops fitted then you will need to remove these from the old main arm and re-fit them on the new main arm. Use the rivets provided in parts required above.
- (13) Ensure that the position of the large strops(11) is identical on the new large arm as they were on the old arm.
- (14) Thread the wire through the new main arm and rivet it to the large end fitting still attached to the top hub. **Note:** Make sure the new main arm is fitted with the correct end uppermost or the Shademaker will not operate.
- (15) Re-connect the main support arm and the main strut with the barrel couplers earlier removed on step (4).
- (16) Using the retrieval string pull the end of the stainless wire through the pulley in the large end fitting at the slider car and also through the pulley in the slider car itself. Ensure the wire is around both pulleys or the mechanism will not operate later.
- (17) Feed the wire around the pulley in the mast wall (31), and the top pulley of the double swivel pulley(38).
- (18) Ensure the wire is not twisted and re-connect the wire to the “P” fitting using the thimble and 3mm crimp supplied.
- (19) Connect the “P” fitting to the mast wall with a 6-6 rivet.
- (20) Stand the Shademaker back on its spigot and ensure the unit opens and shuts correctly
- (21) Re-fit the top mast cap(7)
- (22) Re-fit the canopy. (See Shademaker Manual R16)

Sola/Isla Part Replacement Manual.

April 2007

Legend: See the attached diagram for parts identification.

Manual: Sola/Isla R 08

Replace Main Strut. (39)

Parts required: 1 x correct length Shademaker profile large arm aluminium.(21)
4 x 6-6 aluminium rivets.

Specialist tools required: (a) 1 x 5mm drill bit
(b) hand riveter
(c) 2 x 4mm Allen keys

Process: If your replacement main strut is the correct length and has the large arm end fittings in place:

- (1) Remove the barrel coupler from the connection with the large strop (11)
- (2) Loosen the 4 x cap screws in the bottom hub (18) until you can remove the large arm end fitting from the hub complete with its stainless pin.
- (3) Replace the pin in the new main strut and re-insert in the bottom hub. Tighten the 4 x cap screws.
- (4) At the other end of the new main strut replace the barrel coupler at the union with the large arm strop (11)

If your replacement main strut does not have the large arm end fittings in place:

- (1) Drill out the rivets at either end of the old main arm strut.
- (2) Remove the old main arm strut.
- (3) Fit the new strut onto the large arm end fittings and drill and rivet as necessary.

Sola/Isla Part Replacement Manual:

April 2007

Legend:

See attached diagram for parts identification.

Manual: Sola/Isla R 09

Replace Main Support Arm (09)

Parts required:

1 x correct length of Shademaker profile Main Arm extrusion (09)
2 x large end fittings (optional)
4 x 6-6 aluminium rivets.

Specialist tools required:

- (a) 5 mm drill bit
- (b) hand riveter
- (c) 2 x 4mm Allen keys

Process:

- (1) Undo the barrel coupler that are connects the large end fitting at the top end of the Main Support Arm to the top bracket. **Caution:** When you remove the barrel coupler be ready to support the entire canopy structure as it will want to fall forward and down.
- (2) Remove the barrel coupler from the large arm end fitting at the lower end of the Main Support Arm that is connected to the main arm.
- (3) Fit the new length of Shademakers extrusion Main arm support to the 2 large arm end fittings. (This step is unnecessary if the new length of aluminium has the large end fittings already attached.)
- (4) Rivet as necessary imitating the just removed main support arm's rivet position.
- (5) Replace both barrel couplers.

Sola/Isla Part Replacement Manual.

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 10

Replace Top Hub. (12)

Parts required: 1 x Shademaker top hub (2 x halves) (12)
1 x 3mm crimp

Specialist tools required: (a) 1 x 4.2mm drill bit
(b) crimping tool
(c) 1 x 4 and 5mm Allen key

Overview: The stainless wire needs to be removed by disconnecting it at the bottom hub(18) and withdrawing it from the top hub. The wire goes around 2 pulleys in the top hub. One is in the large end fitting and the other is in the hub itself.

Process:

- (1) Remove canopy (see Sola/Isla R 16 manual)
- (2) Undo the 4 x cap screws in the bottom hub sufficiently to allow the tube locator (37) to be removed. It is best not to undo the hub fully thus keeping the 8 struts retained in the hub. Reveal the wire connection in the tube locator and cut the wire wasting as little as possible.
- (3) Remove the 4 x cap screws in the top hub and prise the hub open. **Caution:** The arms will exit the hub at random. Ensure the stainless 8 x 22mm pins are not lost.
- (4) Remove the wire from the hub and pull it through the large arm end fitting.
- (5) Take the old hub to a bench where the internal pulley can be re-located into the new hub and the large end fitting with its pulley can be positioned.
- (6) As the hub is loosely held together the wire should be threaded through the hub, over the large arm end pulley pulley, over the internal hub pulley and pulled tight. Leave the wire hanging.
- (7) Capture the 7 small arms and the large end fitting in the hub and clamp together.
- (8) Tighten firmly the 4 x cap screws in the top hub ensuring you capture the tube holder (29)
- (9) Re-connect the wire to the tube locator using the thimble and crimp or similar.
- (10) Re-fix the tube locator to the bottom hub and tighten the 4 cap screws.
- (11) Re-fit the canopy. (See Manual R 16)

Sola/Isla Part Replacement Manual

April 2007

Legend: See attached diagram for parts identification.

Manual: **Sola/Isla R 11**

Replace Bottom Hub (18)

Parts required: 1 x Shademaker top hub (2 halves) (18)
1 x Shademaker decal for hub.

Specialist tools required: (a) 1 x 4mm Allen key
(b) 1 x 5mm Allen key

Process:

- (1) This replacement is easiest conducted with the canopy off.
(See Shademaker Manual R16)
- (2) Have Shademaker positioned on its spigot with the frame in a half open position.
- (3) Undo 4 x cap screws on the top side of the bottom hub.
- (4) Allow the tube locator (37) to separate from the hub.
- (5) Prise the 2 halves of the hub open and permit the 8 arms to hang free. **Caution:** The stainless pins should be safe guarded and the arms controlled as pressure may want the arms to close.
- (6) Fit the new hub to the 8 x arms and loosely screw together. (two people will make this step easier to control.)
- (7) Capture the tube locator under the 4 x cap screws and tighten cap screws.
- (8) Fit the new decal
- (9) Replace the canopy.

Sola/Isla Part Replacement Manual:

April 2007

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 12 **Replace “P” fitting (34) or attach wire to “P” fitting**

Parts Required:

- 1 x “P” fitting
- 1 x 6-6 Aluminium or Stainless rivet.
- 1 x 3mm thimble.
- 1 x 3mm crimp

Specialist tools required:

- (a) 1 x 5 mm drill bit
- (b) hand riveter
- (c) crimping tool

Process: **If the “P” fitting has separated from the mast**

- (1) Remove the top cap (7)
- (2) Either by using gravity (turn the umbrella upside down and shake) or using a hook on a pole retrieve the end of the stainless wire with the fitting attached.
- (3) Re-rivet the “P” fitting back to the mast. Stainless rivets are stronger than aluminium.
- (4) Re-place the top cap.

If the stainless wire has separated from the “P” fitting

- (1) Remove the top cap.
- (2) Using a hook on a pole retrieve the loose end of the stainless wire.
- (3) Should the stainless wire have come out of the top section of the double swivel pulley then it will need to be re-threaded through the pulley. To enable the pulley to be exposed at the top of the mast the winder handle will need to be unwound fully (anti-clockwise). There should be enough length on the winder cord to enable the pulley to be exposed.
- (4) Re-fasten the loose end of the stainless wire to the “P” fitting using a 3mm stainless thimble. This step needs a crimping tool. It may be necessary to remove the “P” fitting from the mast to allow the crimpers access. Use the 5mm drill bit to remove the “P” fitting rivet.
- (5) Re-rivet the “P” fitting to the mast using the 6-6 rivet and replace the top cap.

Sola/Isla Part Replacement Manual.

September 2005

Legend: See attached diagram for part identification.

Manual: Sola/Isla R 13

Replace stainless wire. (36)

Parts required:

- 1 x correct length wire 5.5 meter (depending on umbrella size.)
- 2 x 3mm stainless crimp.
- 1 x 3mm thimble
- 1 x 6-6 stainless or monel rivet. Aluminium will suffice)

Specialist tools required:

- (a) crimping tool
- (b) hand riveter
- (c) wire cutters
- (d) insulation tape or similar
- (e) 1 x 5mm drill bit
- (f) 1 x 5mm Allen key

Overview: The stainless wire connects to the bottom hub, travels up through the pulley in the top hub, down the main arm and through the pulley at the base of main arm, through the pulley in the slider car (22), through the pulley set in the internal wall at the top of the mast (31), down through the top pulley in the double swivel pulley (38) and terminates at the "P" fitting at the top of the mast on the rear external wall.

Process:

- (1) Remove the canopy from the frame and lie the umbrella on a bench or saw stools.
- (2) Remove the mast cap (7) and observe the "P" fitting attachment.
- (3) Drill out the rivet from the back of the "P" fitting at the top of the mast (25mm down). Remove the "P" fitting from the exterior mast wall.
- (4) Cut the old wire in a convenient place.
- (5) Expose the double swivel pulley out the top of the mast. You will need to unwind the winder handle (anti-clockwise) to allow this to happen
- (6) Attach the new wire to the old wire to the old wire by splicing approx 100mm (4 inches) together with the insulation tape. One layer is sufficient so as to enable the wire to pass through the pulleys
- (7) Undo the 4 x cap screws from the bottom hub (18) sufficiently to release the tube locator. Free the wire end in the tube locator.

- (8) By a combination of pushing the wire splice into the mast at the top end and by gentle pulling the wire at the tube locator end you will pull the new wire through the various pulleys and top hub and so replace the wire in the frame.
- (9) Undo the splice and re-fit the crimp at the bottom hub end and then pull the wire firmly out the top of the mast.
- (10) Re-tighten the cap screws in the bottom hub having first captured the tube locator (37) with the 4 x cap screws.
- (11) Re-thread the wire through the mast wall pulley (31), the double swivel pulley(38) and re-fasten to the “P” fitting at a minimal distance.
Important: The final length of the wire must not be too long or the winder won’t wind all the cord onto the winder spool. Nor must it be too long. Ensure the canopy is fully closed when you terminate the wire at the “P” fitting. With the canopy arms fully shut the slider car is in its lowest position and will cause the wire to be the correct length.
- (12) Re-fasten the “P” fitting to the wall of the mast. Use the 6-6 rivet.
- (13) Refit the top cap and stand Shademaker back on its spigot.
- (14) Refit the canopy.

Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 14

Replace winder cord. (35)

Parts Required: 1 x 4.2 meter length of suitable cord.
1 x 4mm ferrule.
Alternate: 1 x complete replacement winder mechanism

Specialist tools required: (a) 1 x 3mm Allen key
(b) 1 x 4mm Allen key

Overview: The cord to be replaced originates at the winder strap which is attached to the winder mechanism. It feeds upwards through the bottom half of the double swivel pulley and then downwards onto the winder spool in the winder mechanism. It is attached by a knot in the winder mechanism. To replace the winder cord the winder mechanism needs to come out of the top of the mast.

Process:

- (1) Lie the umbrella, winder up, on a bench or 2 builders saw stools.
- (2) Remove the mast cap (7) at the top of the mast. It pops out with a little pressure.
- (3) Unwind the winder handle anti clockwise so that the double swivel pulley can be exposed at the top of the mast.
- (4) Separate the 2 halves of the double swivel pulley.(Undo the screw)
- (5) Attach a string to the lower half of the pulley so that it can be retrieved later.
- (6) Undo the screw in the centre of the winder cover(M4 Allen key)
- (7) Undo the 2 screws that secure the winder base to the mast. (In some models this may be 3 screws.) Remove the winder base.
- (8) Withdraw the winder shaft from the bottom of the mast.
- (9) With a long stick or similar push the winder mechanism out the bottom of the mast. **Note:** You will need to retract fully the rotational locking pin (25) so that the winder mechanism will pass this position.
- (10) Replace the winder cord or winder mechanism.
- (11) With the string attached in step (5) pull the pulley back to the top of the mast and re-connect the double swivel pulley.
Take care that the winder cord is not twisted.
- (12) Re-align the winder mechanism so the winder shaft can be re-inserted.
- (13) Re-attach the winder base to the mast.
- (14) Re-attach the winder cover to the winder base.

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Legend: See attached diagram for identification.

Manual: Sola/Isla R 15

Replace winder cover (3) and winder base.

Parts required: 1 x winder cover (3)
1 x winder base

Specialist tools required: (a) 1 x 3mm Allen key
(b) 1 x 4mm Allen key

- Process:
- (1) Remove winder cover by undoing the screw in the centre of the winder cover. Use an M4 Allen key.
 - (2) Remove the cog by pulling it off the central spindle.
 - (3) Remove the winder base by undoing the 2 or 3 screws (depending on your model) set in the base of the winder base.
 - (4) Fix the new winder base to the mast using the pre-used screws. Replace the cog on the central spindle.
 - (5) Replace the winder cover.

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Legend: See attached diagram for parts identification.

Manual: Sola/Isla R 16

Replace canopy

Parts required: 1 x replacement canopy
4 x 5-4 rivets (for pre 2006 models)

Specialist tools required: (a) 2 x 4mm Allen keys if you have a non-velcro model
(b) Phillips screw driver if your model has screws
(c) Hand riveter if your model has rivets

Overview: The canopy is held onto the frame by either 4 x rivets or 4 x screws at the top of the arms. These stop the canopy falling to the ground in the closed position when the top hat is not in place (usually in production.) Rivets were used before 2005 when screws were introduced so that the removal of the canopy was simplified. Additionally pre 2005 models did not have a Velcro fitted for easy removal of the canopy. These 2 models have a different replacement process.

Process:

Velcro models:

- (1) With the canopy in the half open position remove all 8 canopy buttons (33) from the end of the arms.
- (2) Separate the Velcro up to the Main support arm.
- (3) Allow the canopy frame to hang in an almost closed position.
- (4) From a stool un-dome the top hat and remove.
- (5) Unscrew the 4 screws in the top of the arms. If rivets are fitted to your Shademaker canopy drill out the rivets.
- (6) Remove the canopy.
- (7) Place the new canopy over the frame.
- (8) Partly open the frame so the canopy does not fall to the ground.
- (9) Screw the canopy buttons through the canopy eyelets and into the arm ends on the 7 small arms.
- (10) On the stool with the canopy almost closed re screw the 4 screws through the tapes and into the holes at the top of the arms.
- (11) Replace the top hat.
- (12) Connect the Velcro on the main arm
- (13) Tension the canopy on the main arm and insert the 8th canopy button.

Non Velcro models:

- (1) As above
- (2) The remaining steps are the same as above except the barrel coupler needs removing from the main support arm and the large strop connection to enable the canopy to be removed. Separate these 2 parts. **Caution: The frame will want to fall forward.** Your new canopy will have Velcro fitted so if you choose to not undo the barrel coupler you may cut the old canopy off.
- (3) Re-connect the main arm support with the large strop by re-fitting the barrel coupler and proceed as above.