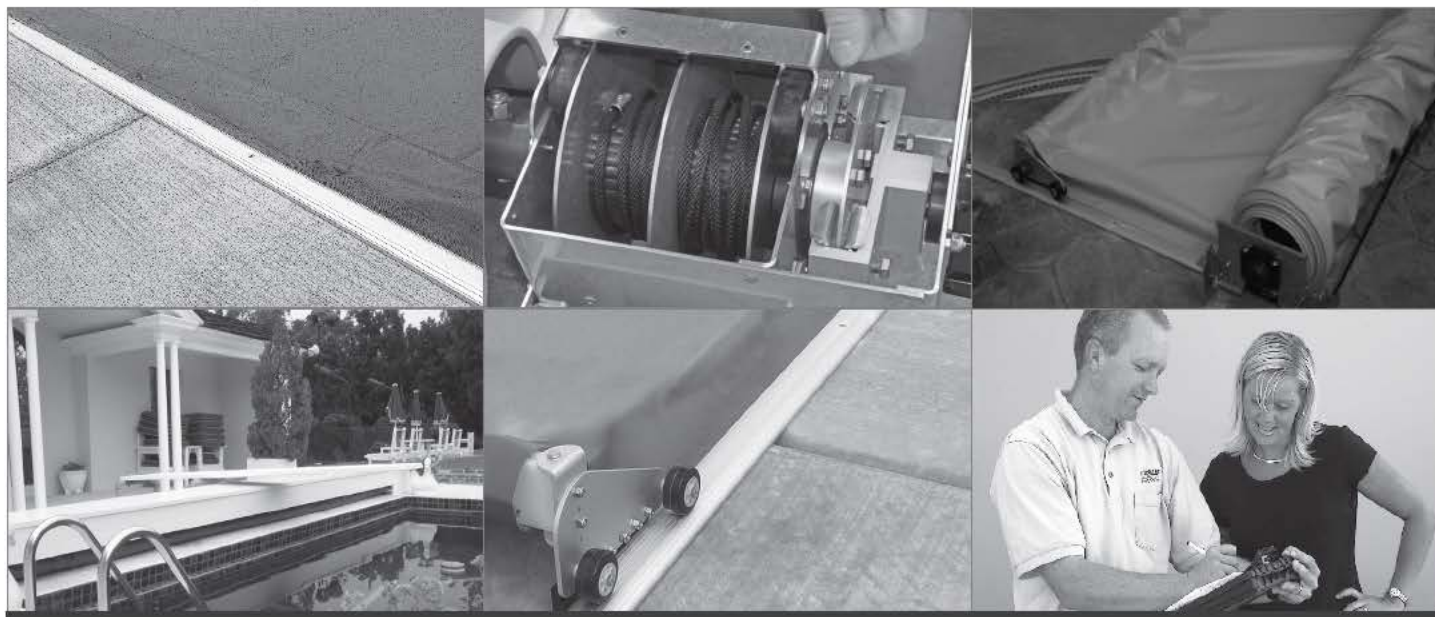




THE ECLIPSE™ SAFETY POOL COVER
DECKMOUNT SYSTEM

INSTALLATION GUIDE



SECTIONS

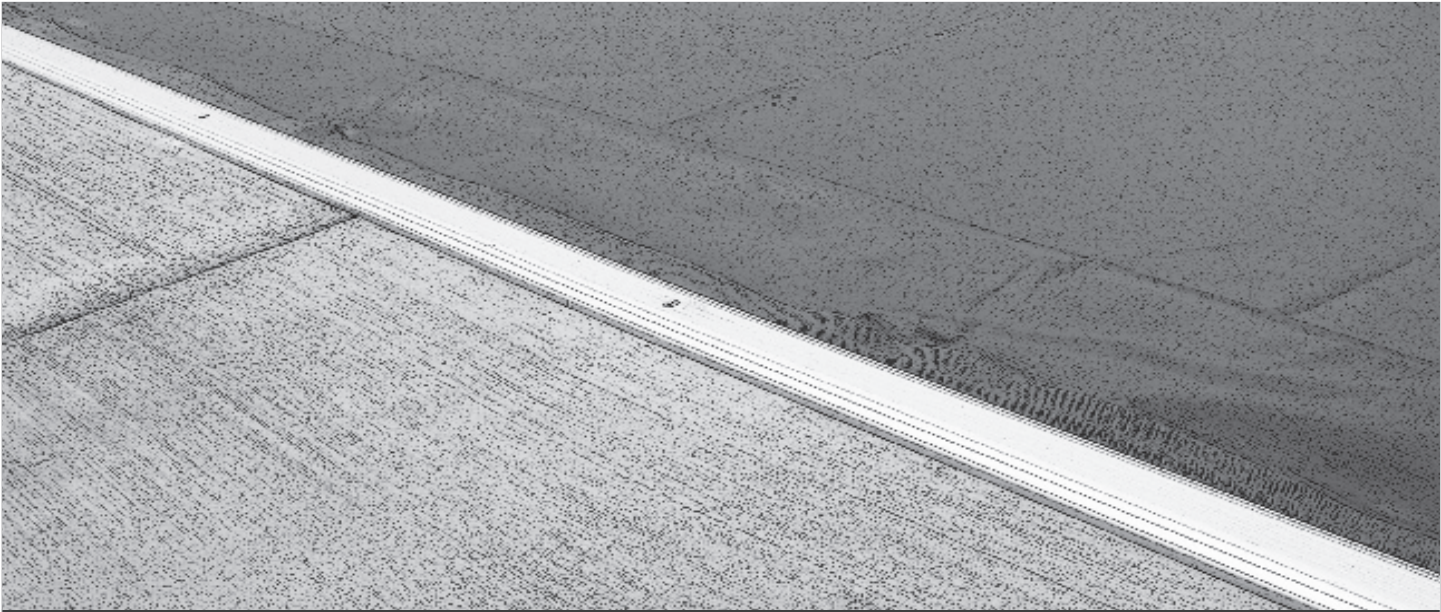
Standard Topguide	3-5
Roll-up Mechanism	6-9
Cover Fabric	10-15
Home Owner & Builder Installation Checklists	16-17
System Parts Reference	18

Tools Required

- | | |
|---|---|
| 1. Hammer drill or rotary hammer | 18. Crescent wrench |
| 2. Masonry drill bit 1/4" x 6" (1/4" x 12" bit) | 19. 100 ft. tape & 25 ft. measure |
| 3. Extension cords | 20. Chalk line (use white chalk) |
| 4. #2 and #3 Phillips & standard screw drivers | 21. Nut drivers - 5/16", 3/8", 7/16", 1/2" |
| 5. Ratchet with 5/16" - 3/4" sockets | 22. Chisel (wood & concrete) |
| 6. Hacksaw | 23. Scissors |
| 7. String line | 24. Wire strippers |
| 8. Utility knife | 25. Set of box/open end wrenches - 5/16" - 3/4" |
| 9. Broom | 26. 6" level |
| 10. Hammer & rubber mallet | 27. Set of allen wrenches |
| 11. Pliers - standard, needle nose & channel lock | 28. Wire |
| 12. Files - round, triangular & flat | 29. Electrical tape |
| 13. Matches or cigarette lighter | 30. Small sledge hammer |
| 14. Carpenter's square | 31. Vice grips |
| 15. 5/16 hex head driver bit with 12" extension | 32. #2 #3 Phillips drill bits |
| 16. Drill (cordless or corded) | 33. Pencil or marker |
| 17. Set of drill bits (1/4" down to 1/16") | 34. 6 - 8 clamps |

Optional Power tools

Skill saw with carbide tipped blade
Sawzall, Grinder.



STANDARD TOPGUIDE

Step By Step Instructions	Page/Step
Laying out the cover guides	4/1
Splicing the guides together.....	4/3
Cutting the guides to length	4/8
Checking for square.....	5/11
Attaching the guides to the deck.....	5/13

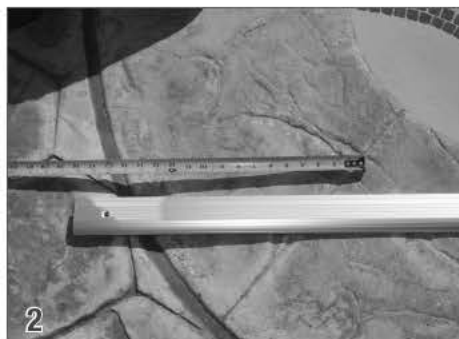
Step By Step Instructions

(Numbers in parenthesis refer to hardware on page #18)



Laying Out The Cover Guides

Lay the cover guides on the deck on both sides of the pool. When positioning the guides, there needs to be at least 6" of clearance from the top of the finished deck to the bottom side of slides and hand rails for the wheel assemblies and leading edge to pass under without damaging the cover system.



Extend the guides 18" past waterline min. Center the pool shape between the pool guides where possible. Measure and mark the guide length on the deck.



Splicing The Guides Together

Before splicing the sections of guide together, file all guide ends thoroughly, rounding all edges and removing all burrs. **This step is extremely important. The cover can be damaged very easily by metal burrs and this damage is not covered by the warranty.**



Tap the spring pin (31) into the round splice channel. Slide the center splice (30) into the center channel.



Join the guide sections together by hand.



At one end, use a rubber mallet to tap the guide sections together.



The two sections of guide should be tight together.



Cutting The Guides To Length

With guides extended 18" min past the waterline at the opposite end of the pool, cut the guides so they extend 18" past the waterline at the mechanism end.



Cut the guide to the proper length on both sides of the pool. Note: Always wear safety goggles when using powered equipment.

Step By Step Instructions

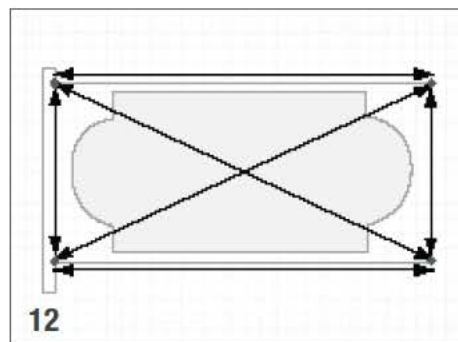


File the guide ends on both sides of the pool making sure to round all edges and remove all burrs. **This step is extremely important. The cover can be damaged very easily by metal burrs and this damage is not covered by the warranty.**



Checking For Square

Measure the guide space, guide length and diagonals to make sure the tracks form a perfect square.



Lengths, widths and diagonal dimensions **must** be equal to each other or the system will not operate properly.



Attaching The Guides To The Deck

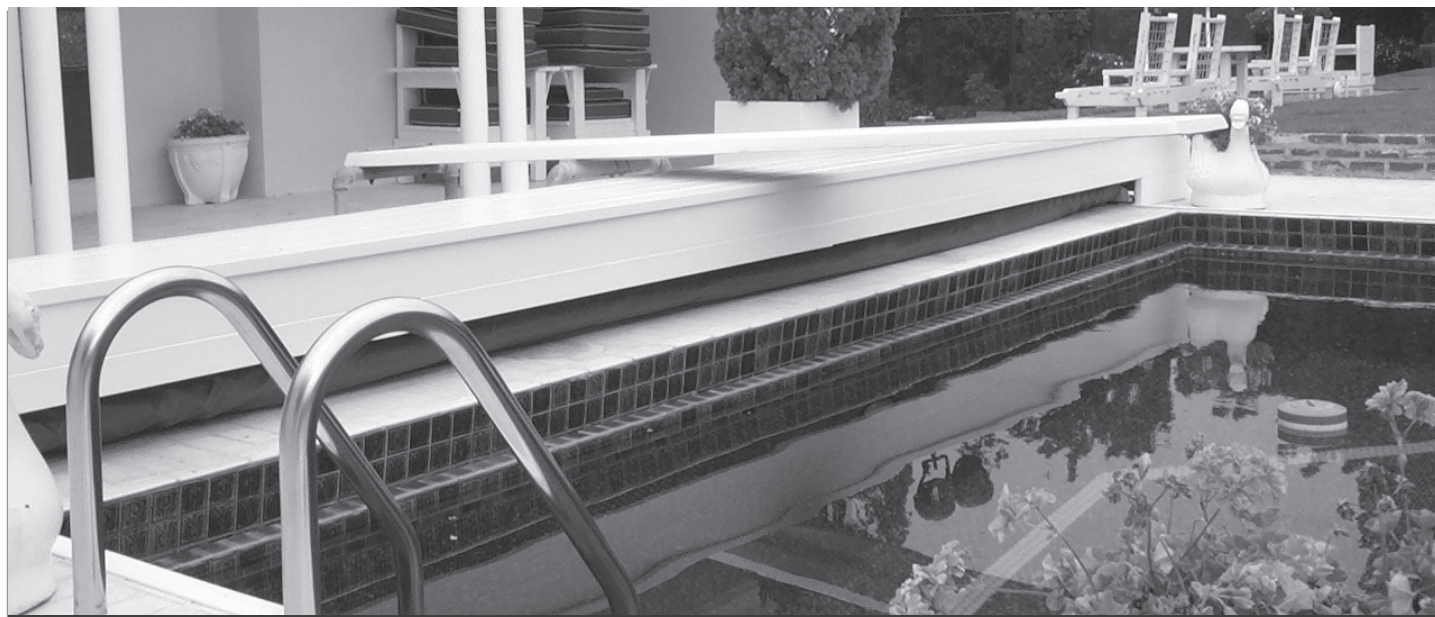
Place the guides into position on the deck in the marked positions. Make sure that the guides run completely straight on both sides of the pool. Drill through the pre-drilled guide holes into the deck. Drill at least 3" deep.



Move the tracks to the side to expose the holes in the deck. Tap the plastic anchors (25) into each hole.



Place the track back over the holes in the deck. Fasten the guide screws (15) halfway through the guides into the plastic anchors. The screws will be fastened completely later in the installation.

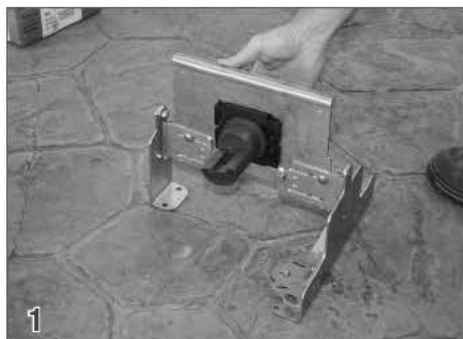


ROLL-UP MECHANISM

Step By Step Instructions

Page/Step

Attaching the roll-up tube	7/2
Positioning the roll-up tube/mechanism	7/5
Extending the Pulley brackets	7/6
Anchoring the mechanism	8/13
Wiring the electrical switch	8/15

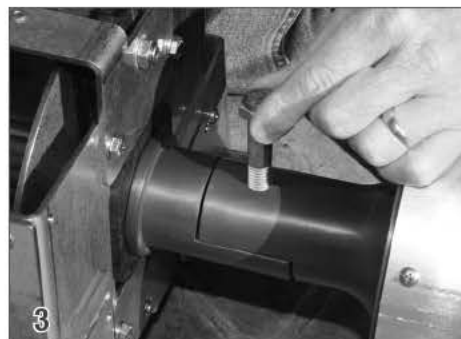


Position the motor and non motor end so the pulleys are near the pool deck.



Attaching the Roll-up tube

To attach the roll-up tube to the motor and non motor ends of the mechanism, place the isolation bushing (37) between the cones on the mechanism and roll up tube. Insert a 1/2 inch x 2 3/4 inch SS bolt (28) through the cones and secure it using the 1/2 inch SS nylock nut (23).



Insert the half inch bolt (28) through the split cone on the motor side and fasten with a nylock nut (23) on the bottom. Tighten the nut and bolt firmly.



Make the same attachment by inserting a half inch bolt (28) through the hole in the split cone on the non-motor side. Secure with a nylock nut (23). Now the mechanism is assembled and ready to be positioned near the pool.



Positioning the Mechanism

Place the mechanism on the pool deck roughly in the position that it will be anchored.



Extend the Pulley Brackets

Use a 7/16" wrench to loosen the nylock nuts on the adjustable brackets of the mechanism.



Adjust the position of the pulley brackets to raise the roll up tube to prevent the cover from rubbing on the deck.



Adjust the position of the pulley brackets to spread the brackets wider to stabilize the system.



With the mechanism and tube assembled, check the roll-up tube for level. **This is crucial for a properly operating cover.** Adjust the non motor end as needed to level the roll-up tube.

Step By Step Instructions

(Numbers in parenthesis refer to hardware on page #18)



Use a 7/16" wrench to tighten the nylock nuts. Additional carriage bolts (27) and nylock nuts (29) are provided and can be used as reinforcement for the pulley brackets if needed.



Align the mechanism on the motor side first by using a piece of rope. Extend it from the outside channel of the guide to the pulley to make sure the rope will feed directly into the pulley.



Go to the non-motor end and make sure the rope will come straight back from the rope channel of the guide to the pulley. If the ropes do not come straight back, the mechanism should be moved to balance the rope angle on both sides. Only a 1/2" variance from straight is allowed on either side.



Anchoring The Mechanism

Use a 1/4" bit and hammer drill to drill through the mounting holes in the mechanism into the deck.



Use the 1 1/2 hex head screws (26) and anchors (25) provided to secure the motor end and non motor end to the deck.



Wiring The Electrical Switch

Connect the electric switch by wiring the neutral wire from the power supply, the white wire from the motor and one of the wires from the indicator light together using a wire nut. Note: Switch must be mounted in a position with a full view of the pool.



Connect the ground wires from the power supply and the motor together using a wire nut. Run a pig tail from this wire nut to the grounding lug on the switch.



Insert the hot wire from the power supply into terminal L1 on the back of the switch and tighten the screw. **Do not loosen the screws too much or the internal switch connections will be permanently lost.**

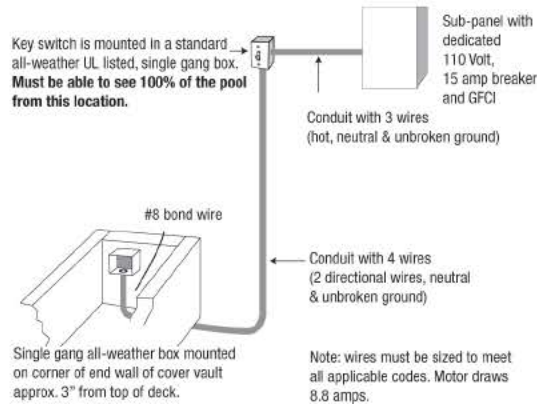


Attach the other leg from the indicator light and the **BLUE DIRECTIONAL WIRE** into terminal A1, and tighten the screw.

Step By Step Instructions



Insert the **RED DIRECTIONAL WIRE** into terminal B1, and tighten the screw. Note: Reverse directional wires if the cover runs opposite to the direction indicated on the switch.



Ground Fault Circuit Interrupter

A GFCI must be used in the electrical supply line for the motor. This should be on a separate dedicated circuit only for the pool cover.

Running Wires

Bring 110 V to the key switch. From the panel to the key switch, run 3 wires (hot, neutral & unbroken ground). From the key switch to the motor end of the housing, run 4 wires (2 directional, a neutral and an unbroken ground). Terminate the wires in a weather tight "J" box. The motor is 110 V, 3/4 HP with full load amperage of 8.8 amps. Follow all applicable codes regarding wire size, grounding, connections, etc.

Key Switches

Mount a standard, single gang, all-weather junction box for the key switch at a point where 100% of the pool is visible. This is a mandatory requirement to meet ASTM safety standards. The key switch should not be placed in the mechanism box. This does **not** meet UL code.

Options

Coverstar has several different wiring options that include limit switches wireless remote control, water feature shutoffs, etc. See your Coverstar distributor for details.

Electrical Wiring & Bonding

The system must be bonded to meet the National Electrical Code. Bond both guides to the mechanism by attaching a bonding lug to the guidefeed screw and running a #8 solid copper bond wire to the mechanism. Bond the lid to the mechanism by drilling a hole in the lid at either end of the lid and attaching a bonding lug in each position and bonding it to the mechanism. All brackets and any other metal over 4" long should likewise be bonded to the mechanism. There should be a bond wire from the equipment pad inside the housing. Attach this bond wire to the mechanism to complete the bonding requirement. Note: Builder is responsible to bring proper electrical lines, conduit and bonding to the mechanism. Electrical wiring diagram and details are shown above with instructions on the right.



COVER FABRIC

Step by Step Instructions	Page/Step
Opening the cover package.....	11/1
Unrolling the cover.....	11/2
Running ropes through the guides	11/3
Routing the ropes	11/9
Attaching the cover leading edge	12/15
Attaching the ropes to the rope reel	13/27
Running the cover over the pool.....	14/29
Attaching the cover and bonding wire	14/30
Adjusting the torque limiter	15/37
Adjusting the brakes	15/40



Opening The Cover

Open the cover wrap using scissors. NEVER USE A UTILITY KNIFE! It could easily damage the cover inside. This kind of damage is not covered under the fabric warranty.



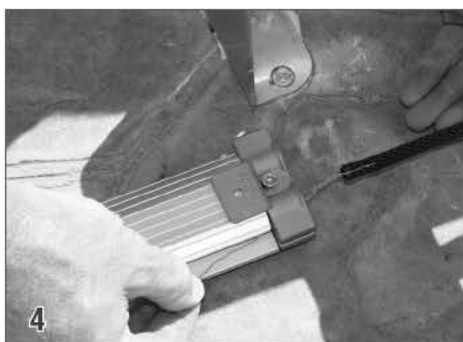
Unrolling The Cover

Standing behind the housing looking over the pool, un-roll the cover from left to right.



Running Ropes Through The Guides

The preferred method of running the rope is to pierce the rope with a 1' length of wire and use it as a handle to feed the rope through the guide.



Feed the rope into the water side channel of the track with the wire extending out the side of the track. Use the wire to pull the rope down the length of the guide towards the end of the pool.



Feed the rope through the pulley assembly (17) and insert the pulley housing into the end of the guide.



Feed the rope into the back channel then pull the rope down the back side of the guide toward the cover housing.



Pull all excess rope through the cover guide.



Complete the fastening of all guide screws flush to the top of the guide. Clean concrete dust from guides and pulley endcap. Make sure ALL screws are flush with the top of the guides.

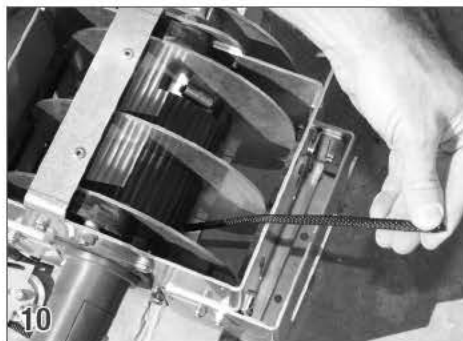


Routing the Ropes

Begin with the rope on the motor end. Feed the wire that is attached to the rope around the first and second pulleys.

Step By Step Instructions

(Numbers in parenthesis refer to hardware on page #18)



Direct this rope under the rope reel, over the rope containment bracket and out of the mechanism.



On the non-motor end, feed the wire that is attached to the rope around the pulley and out the back channel of the pulley assembly. Pull this rope to the motor end pulley assembly.



Insert the wire that is attached to the rope into the channel behind the first pulley. Continue to push the wire until it comes out of the channel behind the third pulley.



Bend a curve into the end of the wire and pull it back just until it is in the middle of the pulley. Now push the wire back until it comes out the side of the third pulley.



Pull the rope under the rope reel, over the rope containment bracket and out of the mechanism.



Attaching The Cover Leading Edge

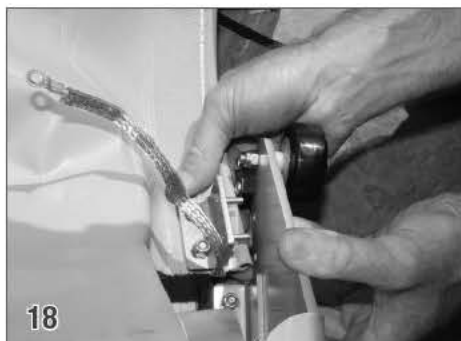
Lay the front of the cover in front of the mechanism. Slide the leading edge through the loop on the front of the cover.



Attach the detachable rope tab to the three hole plate on the wheel assembly.



Place the nylon leading edge inserts into the ends of the leading edge tube. Make sure they can slide freely inside the leading edge tube.



Connect the two hole bracket that is attached to the front corners of the cover to the wheel assemblies.

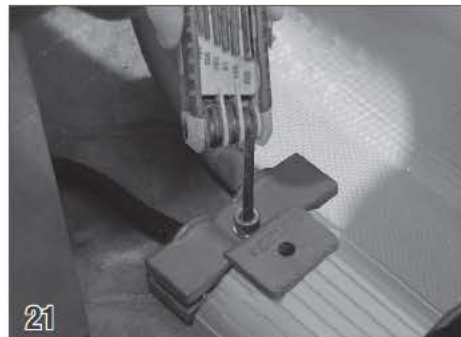
Step By Step Instructions



Feed the wheel assembly and cover into the guide.



Place a guide feed (14) over the end of the guide and drill 3/16 hole through the hole in the guide feed and through the track.



Use a 5/32 allen wrench to tighten the screw that connects the two sections of guide feed together.



Place a bonding lug (16) on top of the guide feed. Insert a 10-32 x 1 5/8 screw (34) through the lug, guide feed, and track. Install a 10-32 nylock nut (21) and tighten with a 3/8" wrench.



Connect the bonding wire that is attached to the front corner of the cover to the leading edge bar using a tek screw. Be sure the screw doesn't interfere with the leading edge insert.



Position the fabric on the leading edge so it is in line with the leading edge support bracket. Secure with a tek screw (24) on the back side of the leading edge. Be sure the screw does not interfere with the leading edge insert.



Pull the cover back until the cover is in the guides equally on both sides. Pull the ropes tight as they come off the pulleys on the mechanism to eliminate the slack in the rope.



Pull both ropes until the leading edge just moves on each side, cut the longer rope to the same length as the shorter rope while tight. These ropes should be at least 8ft long. Use a lighter or torch to burn the ends of the rope. In most cases you will only need to cut one rope.



Attaching The Ropes to the Rope Reel

Loosen the set screw and remove plastic plug from the rope holder tube. Bring the ropes back to the mechanism. Attach the ropes to the rope reel by inserting the ropes through the center of the rope holding tube and tighten the set screws firmly into the ropes. Some prefer to tie a knot at the end of the rope.

Step By Step Instructions

(Numbers in parenthesis refer to hardware on page #18)



While holding the ropes over the mechanism, run the key switch in the cover position. The excess rope will be wrapped around the rope reel.



Running The Cover Over The Pool

Run the cover over the pool being careful to prevent it from binding in the guide feeds by lifting the cover and helping it into each guide the first time.



Attaching The Cover & Bonding Wire

At the motor end, attach the tail of the cover and the bonding wire to the roll-up tube using 1/2" tek screws (24). Make sure the webbing continues straight as it travels from the guide to the roll-up tube. Attach the cover and bonding wire to the roll-up tube on the non-motor end in the same manner. Webbing should roll up completely off the tube.



The first two screws need to be 3" from the end of the tube. Distribute the slack of the cover evenly across the length of the tube. Secure the cover to the roll-up tube using tek screws every 2-3ft. When attaching the cover to the tube, **do not use folds or pleats.**

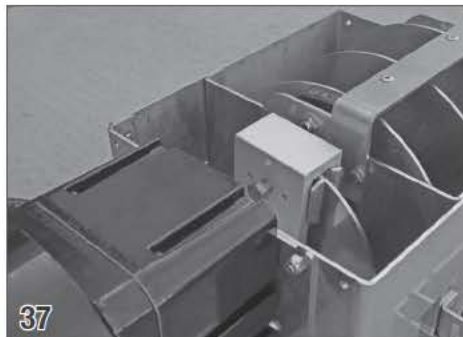


Install a guide stop on the end of the guide near the mechanism to keep the cover from retracting too far. Secure the stop to the deck using the screws (15) and anchors (25) provided. Run the key switch in the uncover position to roll the cover up on the roll-up tube. Check the cover to be sure it rolls up evenly.



To help the cover roll up evenly, install a cover roller 2-3 inches behind the guide feed. Secure the cover roller to the deck using the screws (15) and anchors (25) provided.

Step By Step Instructions



Adjusting The Torque Limiter

The Eclipse Automatic Cover System is equipped with a torque limiter that helps prevent damage to the mechanism. Only if the motorized mechanism does not extend or retract the cover will you need to adjust the torque limiter.



To adjust the torque limiter, use the provided 9/16" wrench attached to the mechanism to tighten the first brake bolt 1/2 turn. Run the cover.



If further adjustment is needed, rotate the torque limiter brake arm to position the second brake bolt and tighten the second brake bolt 1/2 turn.



Adjusting The Brakes

There is a brake at the motor and non-motor end of the mechanism. The brakes are preset at the factory and should work properly. If they do not, they should be tightened enough to prevent the rope from spooling off the reel as the cover is opening. There should only be enough drag to keep the reel from free spinning.



If you need to adjust the brakes, first loosen the jamb nut on the side of the rope reel mechanism.



To tighten the brake, use an allen wrench to turn the set screw inside the jam nut in the clockwise direction.



To loosen the brake, use an allen wrench to turn the set screw inside the jam nut in the counter clockwise direction.



After adjusting the set screw, retighten the jamb nut while holding the set screw with an allen wrench. There's a corresponding brake on the opposite side of the rope reel. Adjust both brakes equally.



The non-motor brake should be tight enough to prevent the cover from rolling off the tube faster than it is being pulled into the guide. To adjust this brake, use two 7/16" wrenches and tightening or loosening the thru bolts in the brake block.

Installation Guide



HOME OWNER CHECKLIST

After the cover system is installed, it is **critically important to instruct the home owner on how to operate the cover system safely and do routine maintenance.** Use the following check list and the ECLIPSE Use & Care Guide as your primary instruction source.



Use & Care Guide Page

- ☐ How to use the cover pump 4
- ☐ How to uncover and cover the pool 6-7
- ☐ Warn about standing water on the cover 4
- ☐ Who is authorized to operate the cover system 6
- ☐ Pool chemicals and cover life 8
- ☐ Proper maintenance and care of the cover system ... 8-9
- ☐ Inform the customer on pool safety Back cover

Guides

- **All guide ends filed. This is extremely important**
- Cover goes through the guide joints smoothly.
- All guide screws are tight and flush.
- Pulleys are flush against the end of the guide.
- The guidefeeds are snug against the guide
- Guidefeeds bolted in and are tight.
- Stops installed.
- Alignment pins and splices used when joining the guides, even in encapsulation.

Mechanism

- Mechanism installed level in the box.
- Tube level in housing.
- Tube centered between the guides.
- Enough clearance top, bottom, sides for the fabric. No rubbing of webbing on sides or bottom of box.
- Tube at the right height? The ideal location is to install the cover in the box so that the cover is coming off at as small an angle as possible. This reduces stress on the mechanism and reduces wear on cover guides at the end of the track.
- Tube either centered in the box or positioned slightly more towards the back of the box, so that the cover is unlikely to rub on the front of the box.
- System mounted at right angle to the track.
- Ropes coming back straight out of the track. An excessive angle will cause wear on the cover guides at the end of the track.
- Ropes are not rubbing on any brackets or the deck.
- Ropes are run correctly (see page 15, steps 11-18).
- 8 feet of rope left on rope reel.
- System bonded according to electrical code. Cover bonded to leading edge and roll-up tube.
- Torque limiter adjusted for the pool (see page 18, steps 37-40). If mechanism is hydraulic, are both bypass valves set slightly higher than necessary to run the cover?
- Rope loops installed on each lid bracket so rope cannot droop and snag on cover or lid brackets (see page 20, step 3)
- Make sure the system is electrically bonded to meet the National Electrical Code.

Cover

- Fabric pinned to the take-up tube without pinned folds.
- Cover is bolted to the wheel assembly.
- Cover runs smoothly.
- Cover properly aligned when it closes or retracts. Note: An inch or two out of square is not uncommon and is not a concern as it will not effect the operation of the cover. Because of the size of the fabric roll, and changes in operating conditions the cover may vary slightly in alignment as it is run.
- The leading edge inserts move in and out freely the whole length of the pool.
- Fabric is pinned to the leading edge flush with the ends of the tube.

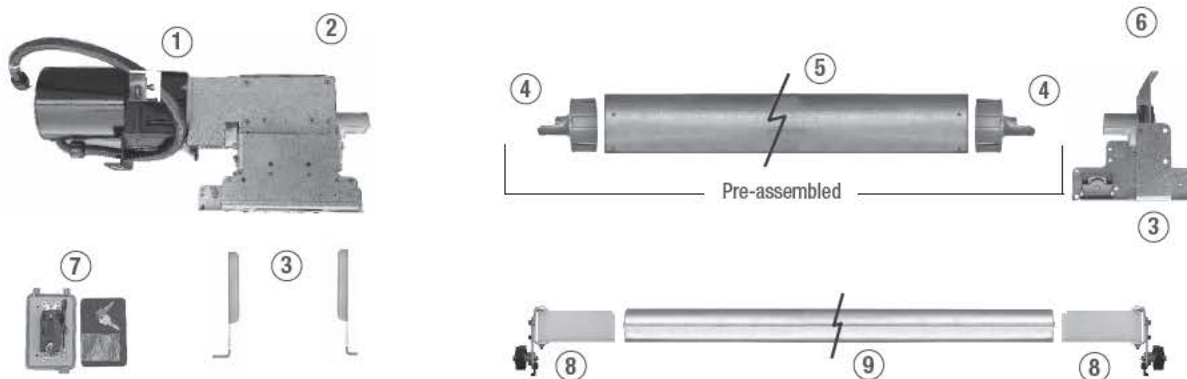
Cover Lid

- All sharp edges have been filed
- All areas where the lid is not flat on the deck been screwed down to eliminate any potential hazards
- There is enough clearance between the lid brackets and the cover to avoid rubbing

Misc.

- Key switch is in full view of the pool
- Cover pump tested by putting it in the water and operate it in front of homeowner
- The cover box is clean and clear of debris so that the drains are not easily clogged
- Pool area cleaned up
- Homeowner has been instructed (see page 21)

Mechanism Components



Cover Fabric



Cover Guide Types



Cover Pump



Guide Feeds



Guide Rollers



Misc. Hardware

Item #	Part #	Description
1	A0610	Motor & housing, standard 3 wire Blison motor
2	A1590	Mechanism Eclipse Deck Left
	A1591	Mechanism Eclipse Deck Right
3	M4661	Deckmount system mounting foot (Eclipse)
4	A2374	Tube Insert/Cone for Eclipse 6 inch tube Die Cast
5	X0001	Tube 6 aluminum STD per ft.
6	A0049	Non Motor end assembly Deck Left
	A0048	Non Motor end assembly Deck Right
7	A0605	Key Switch - Leveton assembly complete with light
8	A1565	Wheel assembly 805 TG Set
9	X0021	Tube 3 in LE 20 ft. STD
10		Cover Fabric
11		PowerFlex Rope - Lengths will vary with cover length
12	X0656	Guide TG 403 for detachable rope 22 ft. STD
13	A0338	Rule cover pump and instructions
14	A1071	Guide feed 2 piece SS TG 403 & pre 403
15	H0334	Screw PFSM 12 x 1-3/4
16	E1086	Bonding Lug Copper
17	A2423	Pulley endcap TG SS ASSEMBLY
18	E1098	Solid coper #8 bonding wire 4ft. long
19	H0152	Screw PPMS 10-32 x 1/2
20	H0150	Screw PPMS 10-32 x 5/8
21	H0176	Nut Nylock 10-32
22	H0075	Rope loop black plastic
23	H0092	Nut Nylock 1/2-13 SS
24	H0313	Screw HHW tek #10 x 1/2 SS
25	H0324	Anchor plastic STD #12
26	H0331	Srew HHWSM 12 x 1-1/2 with slot
27	H9711	Carriage bolt 1/4-20 x 5/8 SS
28	H9770	Bolt HH 1/2-13 x 2 3/4 18-8 SS
29	H0276	Nut Nylock 1/4-20
30	M0105	Guide splice TG 403 3/8 x 3/8 x 3 in STD
31	H9630	Spring Pin for guide alignment SS /8 in x 1 in
32	H9705	Bolt HH 1/4-20 x 1/2 in SS
33	H9763	Screw #12 x 1 Hex Wsh Tek
34	H1101	Screw PPMS 10-32 x 1 3/8
35	H0001	Washer split lock 1/4 in
36	A1972	Electrical junction box with threaded adapters
37	M4551	Detachable cones isolated bushing ABS

The parts list at above is typical for most pools up to 20' x 40' and includes all parts necessary to install the Coverstar ECLIPSE system, however, parts will vary for longer or wider pools and according to your specific order.



QUESTIONS?

For questions about this installation guide,
contact your independent Coverstar distributor.



COVERSTAR, INC, 1795 West 200 North Lindon, UT 84042

© 2007 Coverstar, Inc.
Date: 3/1/07 Ver: 3.1

