The CS300HD Auto Spa cover is a system that can be installed in housings that have a width between 10 - 14 inches, including our polymer housing. It also offers lower offsets than its predecessor, the Eclipse. It can be used in Underguide, Deckmount, or Recessed-Topguide applications. Be sure to read through all of the system requirements in regards to the pool construction, housing, drainage, and electrical BEFORE you install this system.

**SECTIONS**

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- Mechanism ........................................................................................................................................ 5
- Cover Fabric ....................................................................................................................................... 8
- Home Owner Check List ............................................................................................................ 13

**Tools Required**

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

**Optional Power tools**

Skill saw with carbide tipped blade
Sawzall, Grinder, Angle drill
### STANDARD UNDERGUIDE

**Step By Step Instructions**

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To determine the correct guide space for the cover system, measure the length of the roll up tube. The guide space should be three inches longer than the roll up tube length.
(For example, the roll up tube shown above measures 9 ft 9 inches. The correct guide space is 10 ft.)

Cut the guide (14) so it will extend from the front edge of the coping at the far end of the pool to 1” past the inside of the housing if no encapsulation is being used. When encapsulation is used, it will extend one inch past the inside of the housing, with the guide extending one inch past the end of the encapsulation.

Before splicing the sections of guide together, file all guide ends thoroughly, rounding all edges and removing all burrs. This step is extremely important!

Tap the splice pins (39) into one end of the guide and slide the center splice (24) into the center channel.

Lay the sections of guide on the deck and tap them together using a rubber mallet so the center splice and splice pins interlock with each section of guide. It’s important that, the splice is tight together so there is not a gap from one guide to the next. Slide pulley end cap (15) into the end of the guide at that is at the opposite end of the pool from the mechanism.

Standard Underguide
Clamp the guide with pulley to underside of the coping flush with the coping face. (If water is in the pool, place the hammer drill with a 1/4” masonry (carbide-tipped) bit into a large bucket) Drill holes approx. 3” deep on a slight angle toward the pool wall. Remove clamps and guides, then drive plastic anchors (33) into each hole. Finally, fasten the guides to the underside of the coping with #12 screws (26).

Encapsulated Underguide (optional)
If encapsulation is being used, the guide is normally installed during the cover installation. (See cover installation section page 10, step 9).

Using a 5/32” allen wrench, loosen the screw on the top of the guide feed (16). Insert the guide feed on the end of the guide that will extend into the housing.

Holding the guide feed firmly, use a 6 inch 3/16”bit to drill through the hole in the guide feed and through the guide. Remove the guide feed. Do this for the guide on both sides of the pool.
MECHANISM

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Assembling the mechanism.

Turn the motor and non-motor end upside down. This is done to appropriately attach the roll up tube and the mechanism mounting feet.

Attach the roll up tube to the non motor end of the mechanism using the 3/8” x 1 1/4” bolts (36) and lock washers (37) provided.

To attach the feet, first measure the distance from the bottom of the housing to the top of the track/encapsulation. (This will determine the height of the mechanism.)

Attach the mechanism feet to the mechanism approximately 1 inch less than the distance from the bottom of the housing to the top of the track/encapsulation. Use a 7/16 inch ratchet to tighten bolts.

Tip: The roll up tube should be set as high as possible without allowing the cover rub on the lid brackets.

Installing the mechanism in the housing.

Line up the mechanism with the track so the rope will come straight out and around the motor end the pulley.

Tip: To help determine this, the water side bracket should measure 1 inch away from the outside of the track.

Center the tube in the housing. Tip: If the pool is not square, square up the mechanism with the track.

Attach the mechanism feet to the floor of the housing. Use the mounting hardware provided.

Raise the pulley brackets and the water side brackets level with the top of the encapsulation. Tighten the bolts for the brackets.
Attach the pulley brackets and water side brackets to the walls of the housing. Use the mounting hardware provided. Secure the cross braces together using the screws (27) and nylon nuts (29) provided.

Wiring the Touch Pad Control Switch
The touch pad control switch will come with pigtail already inserted into the wire connections on the back of the touch pad. Note: Switch must be mounted in a position with a full view of the pool.

Connect the ground wires from the power supply, the motor and the ground wire from the touch pad together using a wire nut.

Connect the touch pad by wiring the neutral wire from the power supply, the white wire from the motor and the neutral wire that is connected to the touch pad using a wire nut.

Continue connecting the power and directional wires to the pigtail on the controller using wire nuts.

After wiring the control switch, if the cover is moving in the opposite direction than the button that is pressed, undo the wire nuts to the directional wires and reverse them.

16 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 guide feed 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 requirements. 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

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Using the switch and operating
the cover to open........................................12/33
Installing The Cover
Unroll the cover behind the housing from left to right. Unravel ropes to ensure there are no knots while running the rope.

1. Wedge the rope into the inside rope channel of the track.

2. Pull the rope along the water side of the track towards the pulley end cap. Tip: Sometimes a guide feed can be put on to help feed the rope.

3. Feed the rope around the pulley end cap.

4. Wedge the rope into the back side of the track and pull through towards the housing. Insert the pulley end cap into the track. Repeat this on the other side of the cover.

5. Install the track into the encapsulation with the slider channel facing inside toward the pool.

6. Install the spacer underneath the track to lock the track into the encapsulation.

7. Running the rope through the mechanism
On the motor end, feed the rope around the first and second horizontal pulleys on the back wall of the housing.

8. Pull the rope around the vertical pulley on the front wall of the housing.
Step By Step Instructions

On the non-motor end, feed the rope around the pulley of the non-motor end pulley bracket. Pull the rope through to the motor end.

Note: The cross brace for the non motor end is positioned close to the pulley to add support. It is normal for this to be on a slight angle.

Feed one side of the cover and slider into the track.

Pull the cover into the track so the leading edge loop is over the water.

Insert the leading edge tube into the loop of the cover. Install the other side of the cover and slider.

Insert the leading edge inserts into the leading edge tube.

Attach the leading edge insert to the slider by inserting the a screw (41) from the bottom of the slider. The screw will go through a punched hole in the cover, then into the leading edge insert. Secure using a 10-32 Nylock Nut. (29)

Install the black cap (10) over the top of the leading edge support bracket. Secure it in place by tightening the screws on the back side of the cap.
Step By Step Instructions

Attaching the guide feed
Using an allen wrench, loosen the allen bolt on the guide feed. Turn the top of the guide feed halfway to open. Install the guide feed around the rope and the webbing. Turn guide feed back to closed over the rope and webbing then tighten the allen bolt. Slide the guide feed onto the track with the flange inserted in the slider channel.

Attaching the guide feed
Using an allen wrench, loosen the allen bolt on the guide feed. Turn the top of the guide feed halfway to open. Install the guide feed around the rope and the webbing.

Drill a hole through the guide feed into the track for the attachment bolt.

Guide Retainer Method
When using encapsulation on the pool, extend it one inch into the cover housing. When cutting the cover guide to length, extend it one inch past the encapsulation. (If the encapsulation was cut flush to the inside of the housing, secure the track using a guide retainer bracket (23)).

Pull the cover all the way open until the sliders stop against the guide feeds.

Attach the bonding wire to the leading edge bar using a self tapping screw (32).

Leaving an extra 6-8 feet of extra rope length, pull on the ropes until the leading edge begins to move forward equally on both sides. Burn or wrap the rope with tape and cut to length.
Step By Step Instructions

Attaching the Ropes to the Rope Reel

Attach the rope to the rope reel. Guide the ropes onto the rope reel while operating the keyswitch in the “Closed” position.

Tip: The rope for the non-motor side should be attached approximately 1-2 inches further down than the motor side rope depending on the width of the pool. Use the switch and operate the cover in the "Closed" position to cover the pool.

Pinning the cover to the roll-up tube

Using a self tapping screw (32), line the cover up straight as it comes out of the track and pin the cover to the roll up tube on both sides. Find the center of the slack and pin directly to the tube (DO NOT FOLD THE SLACK). Repeat this step several times along the tube.

Tip: Use the weld line on the tube to help pin the cover straight on the tube.

Using the switch and operating the cover to open

Make sure that the cover and the webbing roll up nice and even around the roll up tube. Operate the cover several times to and make any adjustments to the rope reel brake and roll up tube brake if necessary.

The CS300 installation is complete.
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 maintainence. Use the following check list and the Coverluxe 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 89
- Inform the customer on pool safety .... Back cover
Installation Checklist

Guides
- **Does the guide space measurement match how the cover system was ordered?**
- **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.
- **Make sure there is adequate drainage from the housing.**

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 not rubbing in the housing as it rolls up.

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)
The parts list at above is typical for most pools up to 20' x 40' and includes all parts necessary to install the Coverluxe 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 distributor.