



INSTALLATION MANUAL

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LOKBOX CONTACT INFORMATION

TECHNICAL QUESTIONS

Jim Robertson: Jim@lokboxfins.com
Kasey Curtis: KC@lokboxfins.com
 (949) 293-8770

ORDERING

USA: BLOCKSURF

e-mail: blocksurf@aol.com
Phone: (805) 583-0057
Fax: (805) 526-3680

EUROPE: CLASSIC SURF SUPPLY

www.lokboxfins.eu
e-mail: classic@tiscali.co.uk
44.1825.721117

VACUUM JIG INSTALLATION INSTRUCTIONS

Included with your vacuum jig kit you will find the following items:

1. Jig including ellipse and cavity plates
2. 10.5-inch longboard plate
3. Centering target (locator)
4. Plunge router
5. Dummy fins
6. Angle thickness guide

STEP #1

Install air line with appropriate female disconnect onto the jigs male fitting and position the jig so it is fairly centered over the rear fin area.

STEP #2

Place the plastic centering “site” into the opening on the jig and position it so the rear fin mark is on the cross-hair (+) with the word LOKBOX next to it and centered using the center mark (see Illustration A). Note – on tri fins always rout the rear fin box first. Position the front of the jig so that the center mark is centered on the stringer. Turn both valves to the on position (blue levers facing forward). If the jig does not attach itself immediately, apply pressure to the face of the jig which will help it conform to the bottom of the board.

STEP #3

Double check to be sure that the jig is firmly attached, then remove the centering “site” and insert the ellipse template onto the three pins on the jig.

STEP #4

Set the router on the jig approximately in the center of the hole and zero the router by bringing the bit down until it contacts the surface of the board, then set the cut depth to 3/16-inch (4.7 mm) cut. Some boards with deeper concaves may require a slightly deeper cut. An extra 1/32-inch (0.7 mm) should do the job, you will know when you dry-fit the LOKBOX.

STEP #5

You are now ready to rout hole. Plunge the router into the board at the rear of the hole, drilling the stringer out, then raise the router, move to the front of the hole and plunge the router down again, locking it in the down

position, then pull the router straight back removing the stringer completely. From here, you can now push the router around in a clockwise circle until all material is removed. Raise the router bit up, lock the router in the up position, and remove the router.

STEP #6

Remove the eclipse template from the jig and install the cavity template. Remember that the screw on the LOKBOX always faces to the left on the rear box and towards the stringer on the front box so be sure to set up the cavity template accordingly, Set the router on top of the cavity template and move it to the front of the hole.

STEP #7

Hold the locking lever in the unlocked position and use a drilling motion (pushing straight down on the router), to remove the stringer. Moving the router back about 1/4-inch (6.0 mm) on each plunge makes it easy and fast to remove the entire stringer. Once the entire stringer is removed, go around with the router one more time to be sure that all the material has been completely removed. **IMPORTANT** – Be sure to always dry-fit the LOKBOX by using a box with an installation fin in it before removing the jig. The ideal depth is where the box fits flush or just slightly below the surface of the board. Remove router and jig from the board.

STEP #8

Place the jig over the side fin and position centering “site” into jig. You will notice that the centering “site” has three parallel lines just in front and behind the handle of the centering “site”. These are for off-setting the LOKBOX to its proper position. Line up the jig using the cross-hair (+) with the word LOKBOX next to it and the inside mark on both the front and back of the centering “site” (see Illustration A). Turn only the inside lever to the on position (facing forward) and leave the outer lever in the off position (to the side). Double check to be sure that the jig is attached before routing.

STEP #9

Set the router on the jig and set the depth to 3/16-inch (4.7 mm) cut. Remember you might have to increase cut depth just a fraction for deeper concaves. Starting slightly back from the front of the hole, plunge the router all the way in and go around the template in a clockwise circle until all material is removed. Switch to the cavity template and removal all material. Remember to dry-fit the box to insure proper rout depth before removing the jig. **NOTE** – If you increase the rout depth slightly the LOKBOX becomes adjustable about two to four degrees, side to side, but

it will then require a “cheater coat” of laminating resin to fill up low spots created by adjusting the box. Remove router and jig.

STEP #10

Position the jig over the other side fin and repeat steps 8 and 9, but be sure to reverse the cavity template so the screw will be on the stringer side of the box. Remove all material. Remove router and jig from the board. You are now ready to install the boxes.

VACUUMLESS JIG INSTALLATION INSTRUCTIONS

Included with your vacuumless jig kit you will find the following items:

1. Jig including ellipse and cavity plates
2. Centering target (locator)
3. Laminate trimmer style router
4. Dummy fins
5. Angle thickness guide

STEP #1 POSITIONING THE JIG (THRUSTER CENTER FIN)

Start by positioning the jig over the rear fin. On the target you will see 3 vertical lines, and one horizontal line that says "Lokbox". Position the jig so that the horizontal line is lined up with the shapers rear mark, and the center vertical line is centered on the stringer. Once the jig is in position, remove the target and place the ellipse template onto the jig.

STEP #2 ZEROING THE ROUTER AND ROUTING THE ELLIPSE TEMPLATE

Place the router on top of the ellipse template. Next you'll need to zero the router by loosening it and pushing it down until the router bit is just contacting the surface of the board. Take note of the adjustment line on the router. These are small hash marks on the body of the router. At this point we recommend keeping the router adjustment loosened so you can take small passes on the stringer until you have routed 3/16ths, or 3 hash marks deeper than the position where the router was zeroed. Once you have the stringer removed to 3/16ths depth you can lock the router adjustment screw to avoid accidentally routing deeper than you need to while routing the remaining portion of the ellipse pattern. Continue routing in a clockwise pattern until all material is removed.

STEP #3 ROUTING THE CAVITY TEMPLATE

Switch to the cavity template. The cavity template can be placed on the jig with the notch going in either direction. For thruster center fins place the cavity template on the jig with the notch to your left. You'll notice that the ellipse template has a wood spacer attached to the underside and the cavity template does not. This automatically adjusts the router for your second (deeper) cut. You will now need to remove another half inch of stringer, and to avoid laboring the router or having it jump around on you we suggest keeping the router loosened and like the first cut, take small passes until you have dropped the router down to you original depth line or hash mark. One you have reached that depth, lock the router adjustment screw and continue routing the entire cavity template. When finished remove the cavity template. Using a Lokbox and an installation fin

pressed together, dry fit the box to check for adequate depth. Do not remove the jig until you have dry fit a box and adequate rout depth has been achieved. *Note* installing a Lokbox perfectly flush does not allow for any cant adjustment. By routing the hole slightly deeper (1/32nd) you will have about 2 to 4 degrees of cant adjustment either direction when you resin in the boxes. *Lokboxes must be installed flush or slightly below flush. They cannot be protruding at all*

STEP #4 POSITIONING THE JIG (SIDE THRUSTER AND QUAD FIN)

Note On quads we recommend routing the front holes first, then the rear holes.

Position the jig over the fin area, and offset it by using the two outside vertical lines on the target. *All side fins get offset outwards towards the rails* .

When standing at the back of the board with the bottom up, go to the right fin first, then to the left. When doing the right side fin(s) you will use the vertical line on the left, and the horizontal line that says Lokbox. Line up the front shapers dot with the vertical line on the left. When doing the left side fin(s) you will use the vertical line on the right.

STEP #5 ROUTING THE ELLIPSE TEMPLATE FOR SIDE FIN

Position the router onto the jig and zero the router as mentioned in step #1.

* If you are routing a board with parabolic stringers, use step #2 for the routing process*

If you are doing a board with a center stringer you will not be routing through wood on the side cuts. You can zero the router then increase the depth by three hash marks on the router body (3/16ths). At this point you can lock the router adjustment screw and roll the router into the glass or foam carefully as to not nick the templates on the way in. Once you've routed the ellipse template completely in a clockwise pattern, you can then move to the cavity template and repeat the same steps.

STEP #6 ROUTING THE CAVITY TEMPLATE FOR SIDE FIN

Remove the ellipse template and place the cavity template onto the jig with notch facing inwards or (towards the stringer). Carefully roll the router into the template without hitting the sides with the spinning bit. Once you've got the router in continue around the cavity template in a clockwise pattern until all material is removed. Dry fit a box with installation fin and check to make sure you have adequate depth. If so you can remove the jig and prepare to install the boxes.

INSTALLATION INSTRUCTIONS FOR INSTALLING BOXES / LAMINATED BOTTOM

STEP #1

Install plastic fin jigs into the boxes with the proper fin in each box. Example: left fin – left side box, right fin – right side box, and center fin in the center box.

STEP #2

Mix 2.5 ounces (71 grams) of clear laminating resin per board. We suggest doing no more than 2 to 3 boards in one mixing unless you are experienced and fast. **IMPORTANT** – use the proper amount of catalyst for the weather conditions and the number of boards that you are doing. If you are fast, pressing the boxes, setting the angles, and cleaning up the area around the boxes takes about 5 minutes. 5cc of catalyst for 3 ounces (85 grams) of resin gives you around 8 minutes @ 75 degrees F. If you are not that quick and especially if you have hot and/or humid conditions, give yourself more time. If the resin gels before you finish you will have a mess on your hands.

STEP #3

Pour approximately 2/3 of an ounce (19 grams) of resin into each hole and spread it around with a small brush. Be sure to coat the walls of the hole thoroughly. Try to keep the resin in the hole.

STEP #4

Holding the plastic installation fin, with the box attached, press the boxes into the holes using a slow even pressure. Resin should squeeze out all the way around the box, but if it does not, you need more resin.

STEP #5

Set the front fins to the desired angle using an angle jig and center the back fin by eye.

STEP #6

Using a small brush, carefully spread the resin over the surface of the box leaving only a light coating of resin on the box (try not to leave any puddles of resin on the box or de-lamination could occur).

STEP #7

Using a small squeegee, remove as much of the resin as you can from around the boxes. Do not squeegee off the resin that is on the box, try to go around the boxes. Let the resin gel completely.

STEP #8

Remove plastic installation fins and apply the pre-cut stickers over the cavity of the boxes.

STEP #9

Lay fiberglass patches over the boxes and wet them with a small brush using a second batch of clear laminating resin. Using a dabbing motion with the tip of the brush, chase out any bubbles around the resin barrier. Patches should be cut in an oval shape and should be a minimum of 1-inch larger than the box all the way around. NOTE – LOKBOX's must be glassed over or failure of the box will most likely occur (see Illustration B for patch cutting instructions).

STEP #10

Using the small squeegee, flatten out the patches and remove excess resin. It is not necessary to squeegee over the box itself, just the area around the boxes. Let resin gel completely. At this point you may apply a cheater coat of laminating resin if desired, but it is not required. The board is now ready for the hot coater.

INSTALLATION INSTRUCTIONS FOR INSTALLING BOXES INTO FOAM BLANKS

NOTE: If you have never used a router on a raw surfboard blank, you might want to give us a call for some tips.

Set up your rack with some type of spongy foam or other soft padding to avoid damage to the blank.

You must have a Plunge Router

STEP #1

Routing instructions for blanks are the same as the laminated bottom method with the exception of being a little more careful with everything you do. Examples: blow off the blank thoroughly before setting the jig on it. Also check the foam tape on the bottom of the jig to be sure that there are no debris stuck to it.

STEP #2

Be sure that the tail of the board is supported when routing the rear fin or you could snap the tail completely off.

STEP #3

Follow steps 1 through 10 of the instruction manual for the Vacuum Jig Installation.

STEP #4

Follow steps 1 through 8 of the instruction manual for "Installing Boxes / Laminated Bottom".

STEP #5

Apply fiberglass patches over the boxes and trim off the "ears" that hang over the rails (see enclosed illustration B for patch cutting instructions).

STEP #6

You are now ready to cut cloth and laminate the board as you normally would.

STEP #7

While laminating, work around the fin boxes and concentrate on getting the entire board finished and your lap wrapped. Then come back to the fin

boxes and chase out any bubbles using a small brush and/or squeegee. You are now ready to laminate the deck.

STEP #8

Before hot coating, you can apply a cheater coat of laminating resin over the fin boxes if there are any low spots around them.

FIN FITTING INSTRUCTIONS

STEP #1

Remove screw and plate assembly from LOKBOX's – do not disassemble.

STEP #2

Holding the fin like the handle of a gun, insert the metal plate into the slot on the base of the fin.

STEP #3

Using your fingertip, press downward on the screw and guide the fin into the cavity of the LOKBOX. Be careful to line up the metal plate before pressing the fin completely in so the screw can drop into position and the threads can be started.

STEP #4

Using the proper sized screwdriver, turn the screw approximately 1 to 2 complete turns. Pull upwards on fin to adjust it to the desired position, then press downward to completely seat the fin into the LOKBOX.

STEP #5

Tighten the screw completely. If the fin rocks forward or back in the box then the screw is not completely tight.

Note: Applying just a little dishwashing soap, shampoo, or conditioner will help the fin adjust as well as seat completely. HOWEVER – DO NOT use solvents of any kind and do not alter the fin base.

FIN REMOVAL INSTRUCTIONS

Using the proper size screwdriver, back the screw out slowly – about 2 complete turns. Using the palm of your hand, tap upwards on the underside of the fin tip until the fin pops up and becomes loose in the cavity. Now loosen the screw until the fin and screw can be completely removed from the board. Re-install screws in to the boxes and tighten slightly.

IMPORTANT

When installing the screws, if any tightness or binding occurs, STOP. Do not force the screw. Remove the screw and apply a lubricant such as WD40 directly onto the screw and plate, then try moving the screw back and forth to see if the screw can be removed. If the screw gets completely frozen then STOP and contact LOKBOX or the local LOKBOX dealer.

ILLUSTRATION A

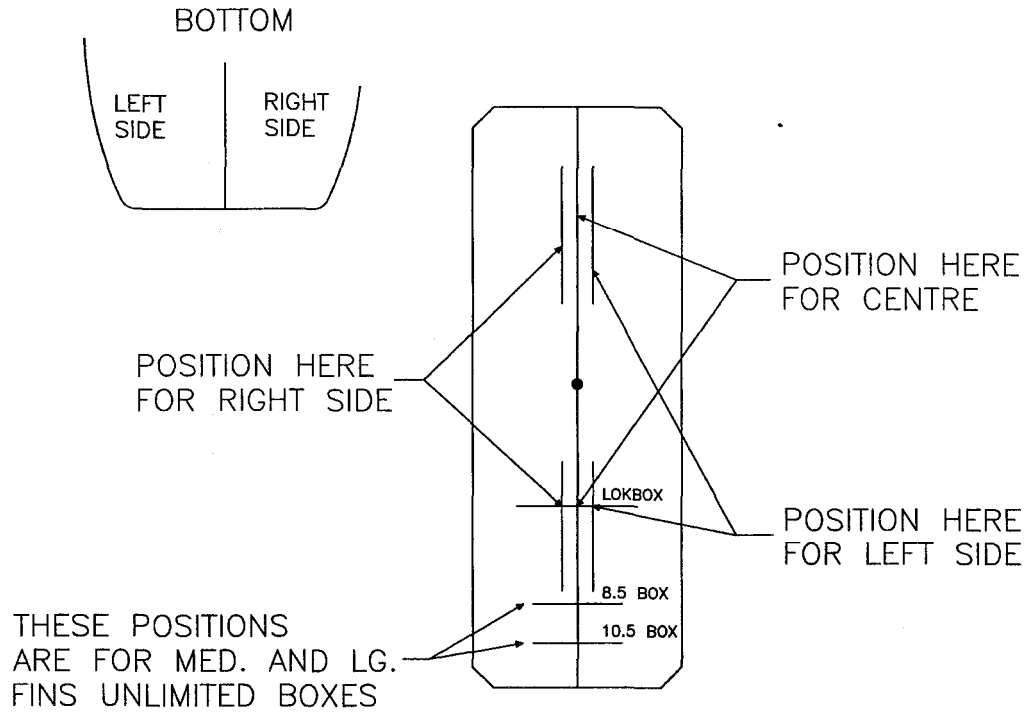
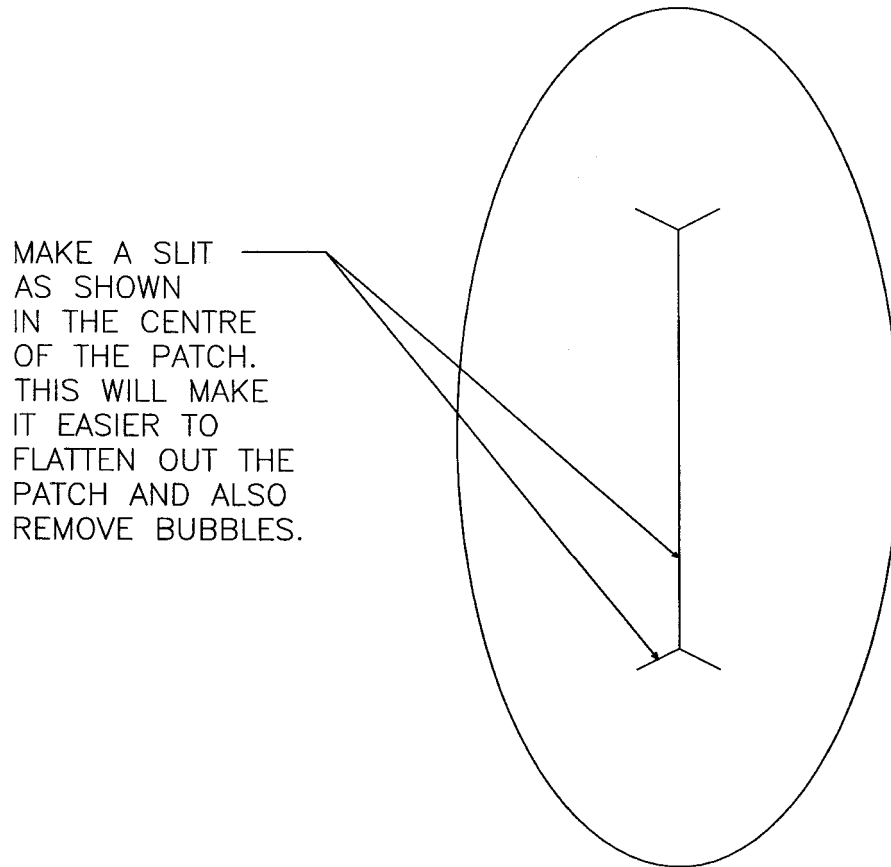


ILLUSTRATION B

PATCH CUTTING DIAGRAM
60Z. CLOTH CAN BE USED
FOR ADDED STRENGTH



Note: This drawing is not to scale. Patch size should be bigger than the box.