BLOWER INSTRUCTIONS

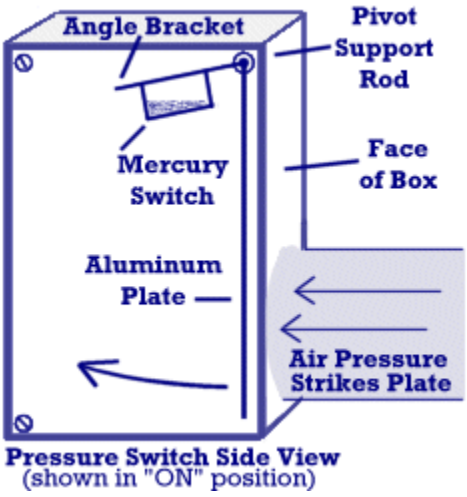
Your blower will either be a metal housing style blower with the support legs pre-mounted, or a blower housed in a polyethylene housing. Both styles of the blower will have a plywood, "Dog House" shipped with them and it is mandatory that this cover be assembled and placed over the unit. We recommend that 1" galvanized nails and carpenter's glue be used to assemble this wood housing. Refer to the attached drawing for assembly.

The metal housing style blower will need to have the air duct affixed to it. Lay the air duct flat so that the hole cut into the end faces upward and stretch the open end of the air duct over the mouth of the blower to lock the air duct into place. The air duct will be pre-mounted on the polyethylene style blower.

Next, insert the sheet metal "sleeve" through the hole and into the air duct so that the end of the sheet metal sleeve is approx. 15" beyond the hole toward the blower. Properly set up, the air from the blower will be directed upward and away from the swimmers, and the air duct will collapse when the blower is not running thus preventing the air from feeding back through the blower system. THIS DECREASES RUNNING TIME ON THE BLOWER, DECREASES AIR AND HEAT LOSS AND INCREASE SAVINGS. Proper blower and switch set up is essential.

Position the blower so that the sheet metal sleeve protrudes at least 4" beyond the cable so that the cable comes up over the sheet metal sleeve and airflow is not choked off. In the case of a water tube dome, the sheet metal sleeve should be centered under the tube. The air duct should be lying straight and flat. In the case of the cable anchoring system, cut a slit in the flap, the width of the air duct and approx. 4 to 6 inches from the edge of the flap and feed the air duct through the slit. See enclosed drawing. This will allow both the vinyl duct and the air lock flap to collapse when the blower is in the "off" cycle thus preventing excessive air from back-feeding out of the dome through the blower.

Insert the plastic pipe into the protrusion on the pressure switch and slide the plastic pipe under the cable and air seal flap or water tube exposing the open end of the pipe to the inside dome. Air must be able to pass through the pipe to the switch in order for the switch to operate. The switch itself sits outside the dome and about one inch away from the dome. The switch must be set up as LEVEL AS POSSIBLE. Do not set the blower system up in an area where the deck slopes radically. Please refer to the enclosed instruction sheet pertaining to the pressure switch for additional information.



Please Note that there are no mechanical components to this switch. As long as you can manually move the aluminum plate back and forth freely and cause the blower to turn on and off, the switch is operable. It can be adjusted to work properly. The switch is initially calibrated to work on a five degree slope (away from the pool), and pressure range is adjustable by opening or closing the window at the back of the switch. The further you close the window the higher the pressure inside the dome. Since the slopes of pool decks may vary, minor adjustments sometimes have to be made. Please go through the General Check Out first. If the switch still fails to operate properly, then proceed to the next steps.

Remember, field conditions vary so sometimes some "trial and error" adjustments are necessary.

Thank you

GENERAL CHECK OUT: Slide the back off of the switch by slightly compressing the side panels inward. Check to see that the small aluminum spacers at each end of the support rod are positioned between the aluminum plate and the inside edge of the box. These spacers keep the aluminum plate from making contact with the side of the box and sticking. Check for any debris inside the box. If debris is present, wipe out with a paper towel. Adjust if necessary. Check to see that aluminum plate has clearance at the bottom. Hold the switch in the air (with blower plugged in) and tilt the switch back and forth, causing the mercury to flow from one end of the glass encasement to the other. If the blower turns on and off, the switch is operable. If the blower fails to turn on and off, the mercury switch is broken and switch replacement is necessary. If the mercury switch operates, slide the back of the switch onto the front, making sure the four corner tabs are aligned with each other. These tabs should almost "snap" into position. If the tabs do not align properly, remove the back portion of the switch and slightly compress the top and bottom of the housing for a tighter fit, then reassemble. Repeat the tilting of the switch in the air while simultaneously looking through the hole in the back of the switch. The aluminum plate should have approx. 1/8 " clearance from the sides of the box when the box is assembled.

Once the above steps have been completed, re-position the switch to the dome, plug in the blower and inflate the dome. Make sure the bottom of the switch is flush with the decking. If the switch still fails to operate properly, please continue to the next step(s).

BLOWER STICKS IN THE "OFF" POSITION

Without touching the switch bend down and look through the window in the back of the switch. If the aluminum plate is positioned toward the rear of the box, that means that something is restricting its travel. Go through the GENERAL CHECK OUT PROCEDURE. If the aluminum plate is toward the front of the box, the blower is not running, gently "tap" the switch housing with your index finger. The blower will most likely start running. This would indicate that an adjustment needs to be made in the angle bracket to which the mercury switch is mounted. First, check to see that the four tabs in the switch housing are aligned and that the switch is sitting flush with the deck. If not, correct this situation and see if the blower cycles correctly. If the blower continues to stick in the "off" position, unplug the blower, remove the back of the switch, hold the switch upside down and place your left hand between the face of the box and the aluminum plate. Using your right hand, gently bend the angle bracket downward, very slightly (see diagram) to alter the pitch of the mercury switch. This will increase the pitch of the mercury switch, causing the mercury to flow toward the rear of the glass encasement when the aluminum plate is in its vertical position thereby establishing contact and causing the blower to turn on. Replace the back of the switch, re-position the switch to the dome, plug in the blower and test. Repeat if necessary, but remember to bend the angle bracket only slightly each time!!!!!!!! DO NOT bend the support rod and check to see that the aluminum plate is in its proper position on the support rod before re-assembling.

BLOWER STICKS IN THE "ON" POSITION

Go through the GENERAL CHECK OUT procedure and set the switch up on the dome with the bottom of the switch flush with the deck. If the switch continues to stick in the "on" position, repeat the procedure outlined in the preceding paragraph, but this time, bend the angle bracket upward slightly. This will decrease the amount of travel that the aluminum plate has to make before the mercury flows to the opposite end of the glass encasement and thereby cause the blower to turn off with less air pressure. DO NOT perform this procedure unless the aluminum plate is moving freely as pressure increases. Instead, look for the reason that the aluminum plate is sticking. PLEASE NOTE THAT the terms "UP" and "DOWN" are used relative to the switch being in the position on the drawing.

Again, if the mercury portion of the switch is functional, and the box itself and the support rod have not been distorted, the switch can be adjusted to meet the field conditions. DO NOT use WD-40 or any other oil as lubricant! Oil attracts dirt and the switch will ultimately cease to operate if the inside becomes dirty. Spray inside of switch with silicone spray and "pat" dry with a paper towel to clean.

When the aluminum plate is in its vertical position, a vacuum can be formed between the aluminum plate and the face of the box, causing the blower to sick in the “on” position. A very slight twisting of the tab at the bottom of the aluminum plate (with needle nose pliers) will create more distance between the face of the box and the aluminum plate and eliminate the vacuum from forming. Try this only if the switch is sticking in the “on” position. Bending this tab too far toward the front of the switch can excessively reduce the travel of the aluminum plate and potentially cause the blower to stay in the "off" position. Any adjustment to this tab or the angle bracket supporting the mercury switch should be very slight and done gently.