

# Sundance® Spas

## Installation Instructions For Preplumbed Spa Shell

This Sundance spa shell is designed to provide years of trouble-free use when properly installed. **Read and follow all installation instructions to ensure satisfactory performance.** Failure to follow these guidelines may void the warranty on this product.

Before installing the spa, check with local building department officials to determine what requirements must be met in order to conform to local building codes.

# Planning the Installation

## Location of Spa and Equipment

In planning the installation of this Sundance spa, it is crucial to keep the distance between the shell and the Sundance equipment system to a maximum of approximately 30 to 35 feet. This distance is dictated by the length of the control panel cable, *which cannot be extended*. (The distance the cable must travel—from the panel, down into the trench and back up to the load box—cannot exceed 40 running feet.)

## Installing the Spa Shell

### The Foundation

The Sundance spa shell is designed to be totally self-supporting. Therefore, it must rest on a surface which is smooth, flat and capable of uniformly supporting the weight of the spa, water and users, without shifting or settling, for the entire time the spa is in place. We recommend a poured, reinforced concrete slab at least four inches thick. This foundation need only be as large as the area under the seats, lounge and footwell of the spa to accommodate the support points. (**IMPORTANT:** The entire weight of the shell, water and users must be supported by the foundation. The spa's lip is not intended to support this weight.)

### The Excavation

If any part of the spa shell is to be below grade, an excavation slightly larger than the exterior part of the spa, which will be below the grade, is required. This excavation should be deep enough to allow for concrete to be poured in the bottom for the foundation.

**IMPORTANT:** If any part of the spa shell is to be below grade, instruct spa owner to avoid draining the spa when ground water of any type may be present.

### Trenching for Pipes

If the spa equipment is to be located away from the spa, a trench should be dug to accommodate the piping and conduits. This trench should be deep and wide enough to allow all pipes to be buried below the frost line and should be in as straight a line from the spa to the equipment as possible. Check local code requirements for underground pipes.

## Connecting Pipes Between Spa & Equipment

There are five 2-inch pipes stubbed out of the foam insulation of the Sundance preplumbed spa shell. A color code identifies the function of each pipe as follows:

RED-----Suction From Filter Area to Dual-Speed Pump  
BLUE-----To Jets From Dual-Speed Pump  
GREEN-----To Air Injectors From Air Blower  
ORANGE---Suction From Lower Suction Fittings to Single-Speed Pump  
YELLOW---To Jets From Single-Speed Pump

Connect 2-inch piping from these pipes to the equipment pack components using appropriate primp and glue and following proper solvent welding procedures. To minimize flow restrictions, avoid the use of 90 degree elbow fittings whenever possible and keep the of 45 degree fittings to a minimum. Instead, use flex hose to make smooth, sweeping turns. (**Caution:** Take extreme care to keep debris, which could clog jets from entering the pipes during installation.

## Cable Conduits

Two separate one-inch pipes should also be run to serve as conduits. These conduits should include only smooth, gradual bends and turns to facilitate pulling cables through them. (Use electrical-conduit "sweeps" instead of standard plumbing elbows.)

One end of each conduit should terminate under the control panel. The other conduit should terminate at the equipment. Care should be taken to install so as to prevent water from entering to open ends of these conduits.

One conduit should be used to run the control panel cable. The other conduit should be used for the temperature sensor cable and the spa light cable. This will protect the cables from damage and make it easy to pull and re-install these cables should the need arise.

## Venturi Air Supply

For installations in which the spa is to be totally backfilled to the lip (e.g. for a masonry deck), the conduits can also serve to provide air supply to the venturi air controls. This can be accomplished by terminating the conduit in a "box" under the lip of the spa in the area where the controls are located. Take care to ensure that all of the clear plastic tubes that supply air to the air controls terminate inside the box.

## **Ozone Supply Tube**

One of the 3/8" clear plastic tubes stubbed out of the foam has a white plug at its end. This tubing is designed to deliver ozone to the air supply side of the small jet in the sidewall of the footwell.

The Sundance equipment system includes a length of this tubing as well as a check valve, a hose barb and hose clamps.

Running this tube through 1/2" or larger conduit to protect it, connect one end to the tubing at the spa and the other end to the ozone generator. A check valve, a barbed fitting and hose clamps are provided for this. The check valve should be installed in a serviceable location as near to the spa as possible. If the area where the spa's pipes are stubbed out of the foam will be accessible, install the check valve there. If not, install it at the equipment. Use the barbed fitting for the other connection. (IMPORTANT: To provide an extra margin of safety, if the water level is higher than the equipment system, loop the tubing above the spas water level securing it to the underside of the spa lip.

## **Spa Light**

This Sundance spa shell is equipped with a 12-volt spa light, which is designed for use with the Sentry control system included with the Sundance equipment pack. Approximately 45 feet of cable is provided for connecting the light to the controls. This cable can be run in the conduit, if used.

Note: A special tool, marked "O'Ryan," is included with the spa shell. Use this tool to ensure that the light lens has not loosened during shipment. Make certain to leave this tool with the spa owner.

## **Installing the Spa Side Controls**

To install the control panel, feed the cable through the opening provided in the lip of the spa. Using fish tape or similar means, carefully pull the cable through the conduit. Insert the cable's plug into the appropriate place on the circuit board as described in the Equipment Pack Installation Instructions. Peel the backing from the adhesive on the back of the control panel, align the panel in the position desired and press firmly.

## Testing

After the spa is set and the pipes are connected to the equipment, we strongly recommend filling the spa and operating it for a minimum of 48 hours before filling trenches, backfilling or decking. This provides an opportunity to discover and repair any problems before they become hidden or difficult to access. A little bit of delay at this point can eliminate the potential for a large inconvenience later.

Proper testing involves filling the spa to an identifiable level and covering the spa to avoid water loss due to evaporation. For one 24-hour period, the spa should be operated continuously, occasionally switching to high speed, to test the pressure-side pipes. For the other 24-hour period, the spa should be completely inactive to test the suction and venturi lines. If the water level has not changed after either of these tests, you are ready to complete the installation.

## Backfill Considerations

Sundance Spas' unique self-supporting design, in conjunction with a proper foundation, eliminates the need for backfilling. However, backfill may be desirable in certain installations for aesthetic and/or functional reasons (e.g. for installation of a masonry deck). This should be decided by the installer and homeowner. (**Caution:** Removal of any of the foam from the shell is done at your own risk. Extreme care should be taken not to expose or damage any of the plumbing.)

Backfilling should *not* be viewed as an acceptable substitute for a proper foundation. Failure to provide a foundation as specified could result in damage to the spa shell if the backfill settles or the foam insulation compresses or deteriorates. Shell damage caused by any of these situations is not covered under warranty.

# **Attention Installer**

## **Prevent Inground Shells From Floating**

**If this spa shell will be installed in the ground or partially in the ground, precautions must be taken to prevent it from floating out of place. Please heed the following:**

### **Proper Installation Design**

- Do not construct a “sealed vault” around the shell from which casual water cannot escape. (I.e. rain water, water from sprinklers, etc.)
- If the soil has a high clay content, provide an escape path for casual water to drain away from the excavation.
- If you are in doubt about how swiftly water will drain from the excavation, install the spa so that the lip is at least eight to ten inches above ground level. \*

### **Extremely Important:**

#### **Owner Instruction**

- Carefully instruct the spa owner as follows:
  - Drain the spa only when certain that the excavation around the shell is free of standing water.
  - Never leave the spa empty beyond the time required for cleaning, before refilling.

\* To provide an extra margin of safety for inground installations, it is possible to anchor the Sundance shell to a permanent foundation utilizing “pick hooks” fibreglassed onto the bottom of the seats. It is usually easier to install eyebolts to the blocks fibreglassed under the lip of the shell and anchor from there. Contact Sundance Technical support for detailed instructions.