**Congratulations!** You have purchased a Fabrico Sun Dome enclosure for your above ground pool. This enclosure will lengthen your swimming season and keep your pool cleaner from harmful air-borne debris and pollutants. If you follow the steps on these succeeding pages, you will be able to enjoy your new Sun Dome for many years.

## FOLLOW THESE IMPORTANT NOTICES AND SAFETY RULES:

- READ THE ENTIRE INSTRUCTION BEFORE YOU BEGIN INSTALLATION!
- READ AND OBSERVE ALL SAFETY WARNINGS AND PRECAUTIONS!
- THE FABRICO SUN DOME IS NOT A WINTER COVER! It extends your swimming season! Fabrico Mfg. Corp. Will not be responsible for failures or damage due to snow load.

## **▲ WARNING!!!**▲

- AVOID ELECTRICAL POWER LINES!!! Do not assemble or install the rafters
  anywhere near overhead power lines. Failure to observe this precaution could result in
  serious injury or electrocution!!!!
- TAKE CARE THAT POWER TOOLS DO NOT COME IN CONTACT WITH POOL WATER OR GROUND WATER. This warning applies to all power tools that operate on 115v house power, such as an electric drill. We strongly suggest that cordless power tools be used if at all possible to prevent any injuries.
- DO NOT ALLOW ANYONE IN THE POOL while you are installing the Sun Dome. The entire installation can be accomplished from the outside of your pool.

## Caution!!!

- NEVER ATTEMPT TO INSTALL THE DOME IN WINDY WEATHER. The Fabrico Sun Dome should be installed on a calm, sunny day for the best results.
- If extreme winds are predicted (35 -40 MPH), remove the vinyl cover from the rafters. DO NOT ATTEMPT TO REMOVE THE DOME IN WINDY WEATHER UNLESS YOU HAVE AT LEAST FOUR (4) ADULTS TO HELP.

# GENERAL GUIDELINES FOR INSTALLING YOUR SUN DOME

- You will need at least two (2) people to install the Sun Dome. On larger pools, (24' - 28'), you may need more help to install the rafters and the vinyl dome.
- The Sun Dome is meant to be installed on a pool with a ledge four (4") inches wide or wider. See Figure 1.

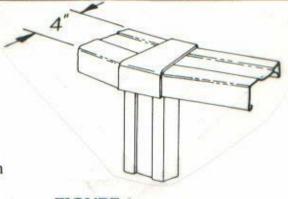


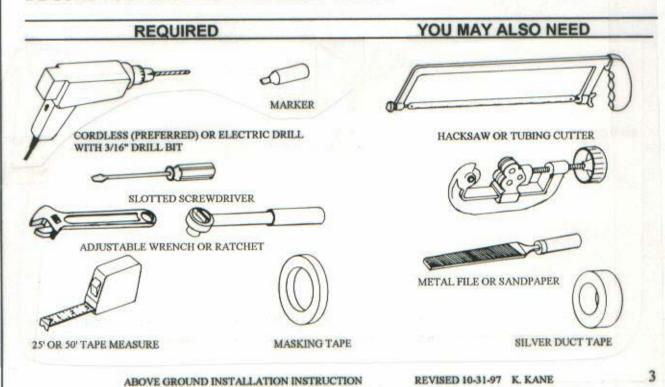
FIGURE 1

- If your pool has a railing or deck around it, installing the Sun Dome will be difficult. There MUST be space between the top ledge of the pool and the deck to install the vinyl cover and to tie down the dome properly.
- IMPORTANT! Install the Sun Dome on a day when there are no gusty winds, preferably a day that is sunny and calm.

BE SURE YOU HAVE ALL THE PARTS!! An illustrated parts list is packed in the #1 frame carton. Before drilling any holes in your pool ledge, check this list for the specific parts of the frame and their quantities.

Note: Fabrico Sun Dome come in many sizes, both round and oval shapes, to fit most pools, so the number of parts may vary.

#### BE SURE YOU HAVE THE NECESSARY TOOLS:



## PREPARATION FOR THE INSTALLATION OF YOUR SUN DOME

## STEP 1: MEASURE YOUR POOL TO CHECK FOR VARIATIONS

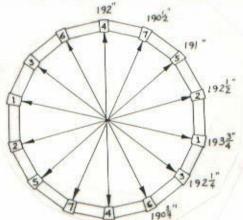
IMPORTANT:

Your pool may not be exactly round or in the case of an oval pool may be bowed out on one or both sides. You may need to trim or extend the opposite rafters to be sure that they fit together equally from side to side.

- A. In order to determine whether or not your pool is "out-of-round" you must measure your pool. Use your tape measure (25' or 50' depending on the size of your pool) to measure across the pool, the distance from the edge of each vertical support opposite (or near opposite) each other. Be sure to place the tape on the center edge of the top cap on each vertical support. See Figure 2 below.
- B. Use an indelible marker to write each measurement on masking tape or on the vertical support cap and on your pool diagram. You will need to save these measurements for future installtions of your Sun Dome. A blank sample pool diagram has been provided for you on the next page to mark down all of your measurements. See Figure 2 below.
- C. When you have measured all the way around the pool, number the measurements from the longest distance to the shortest distance, starting with number 1. Mark these numbers, starting with 1, on masking tape or on the vertical support cap and also on your pool diagram. See Figure 2 below.

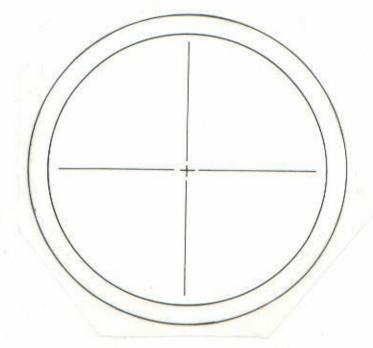
**Note:** For Oval pools, the most critical and variable measurements will be on the sides of the pool, not the curved ends. These are the measurements you will need to compare to determine whether or not your pool is "out-of-round".

D. Subtract the shortest distance measured from the longest distance measured, if the difference is more than two (2") inches your pool is "out-of-round" and you will need to adjust the length of some of the rafters to allow the frame to properly fit the top of your pool. We recommend trimming rafters down on opposites to get the proper fit rather than extending opposites with the spacers provided. Trimming is preferable and easier.



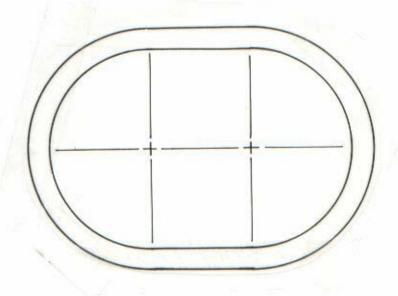
## POOL MEASUREMENT DIAGRAMS -(SAVE FOR FUTURE USE)

## FOR ROUND POOLS



\_\_\_\_LONGEST DISTANCE
SHORTEST DISTANCE

## FOR OVAL POOLS



\_\_\_\_LONGEST DISTANCE

# STEP 2: INSTALL THE MOUNTING BRACKETS (RESIN CAPPED AND RESIN TOP RAIL POOLS, PLEASE SEE NEXT PAGE)

A. Attach the mounting brackets as shown in Figure 3 on the top cap of each vertical support. The mounting bracket should be located near the outside edge of the top cap, centered on the cap, but not extending past the outside edge. Mark on the top cap, with the indelible marker, the location of the two outer holes on the mounting bracket, leave the center hole open. See Figure 3.

## ▲ WARNING!!!▲

FOLLOW MANUFACTURER'S SAFETY RULES WHEN USING YOUR ELECTRIC DRILL NEAR WATER.

B. Drill your holes with the 3/16" drill bit. DO NOT LET THE METAL SHAVINGS FALL INTO THE POOL WHILE DRILLING. It is best to have a vacuum ready and running while you drill to take away the shavings. See Figure 3.

C. Attach each screw with a ratchet wrench and a 3/8" socket or slotted screwdriver. See Figure 4.

D. Install all of the remaining brackets in the same way.

E. Place a vinyl bracket jacket (found in the vinyl cover carton) over each bracket as shown in Figure 5. It needs to cover the connection with the universal rafter to prevent scratching of the vinyl Sun Dome cover.

F. Fold back the bracket jackets so that you can easily insert the rafters. See Figure 6. Go to page 9.



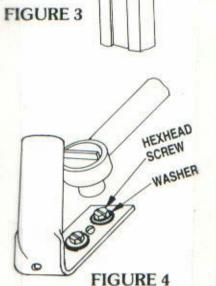


FIGURE 5

#### **RESIN CAPPED AND RESIN TOP RAIL POOLS**

The new resin capped and resin top railed pools that have come into the market place cause no problem for the installation of the universal brackets. They can be installed just as easily as pools with metal caps and rails. There are a few minors changes that must be done. Especially those newer top rails that are wider than 6".

- The slotted hex washer screw #14 x 1" (supplied with your frame) will not be long enough to attach to the metal plate at the top of your vertical support. You will have to replace them with a like type screw, but a minimum of 2 ½" long. Check your pool set up for correct length needed.
- In some cases, there is no metal plate at the top of the vertical support. A different type of anchoring system must be used. Drive Wall anchors for hollow walls work the best. Instructions for installation ARE on each package of anchors. See figure below.



This type of anchor allows you to remove your bracket, but still have your anchor in place for the next season. Size and length depends on your application. These are readily purchased at your local hardware or home improvement center.

When installing these anchors, make sure the anchor goes through both, the top cap and the top rail!

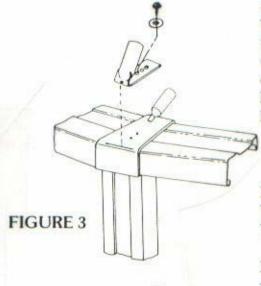
If the underneath of your pool top rail is accessible, you can also use a bolt, nut and lockwasher arrangement.

If neither of these applications will work on your pool, please contact:

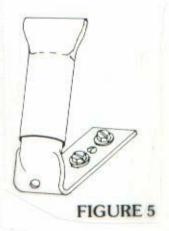
SUN DOME INC 3641 S WASHTENAW AVE CHICAGO, IL 60632 phone 773-890-5350 fax 773-890-4669

 The "J-hooks" can be installed on the resin vertical supports, using standard conical plastic anchors and combo pan head screws. These are also readlily purchased at your local hardware or home improvement center.

## STEP 2: INSTALLING THE MOUNTING BRACKETS ON YOUR RESIN CAP AND RESIN TOP RAIL POOL







A. Attach the mounting brackets as shown in Figure 3 on the top cap of each vertical support. The mounting bracket should be located near the outside edge of the top cap, centered on the cap, but not extending past the outside edge. Mark on the top cap, with an indelible marker, the location of the two outer holes on the mounting bracket, leave the center hole open. See Figure 3.

## ▲ WARNING!!!▲

FOLLOW MANUFACTURER'S SAFETY RULES WHEN USING YOUR ELECTRIC DRILL NEAR WATER.

B. You must drill through the top cap and the rail to reach the metal plate on the top of your vertical support. Drill your holes with the 3/16" drill bit. (Or the appropriate bit for the anchor being used!) DO NOT LET THE SHAVINGS FALL INTO THE POOL WHILE DRILLING. It is best to have a vacuum ready and running while you drill to take away the shavings. See Figure 3.

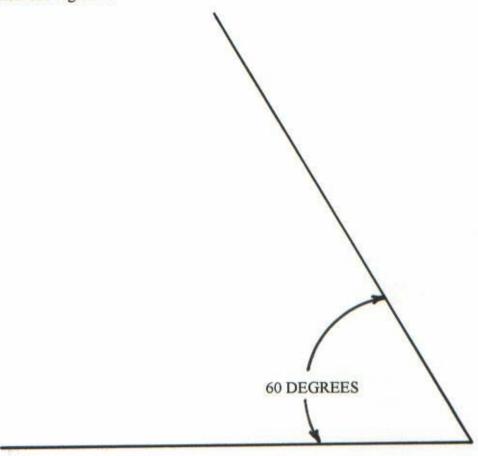
C. Attach each screw with a ratchet wrench and a 3/8" socket or slotted screwdriver. (If you are using the Drive Wall anchors, they normally require a phillips head screwdriver) See Figure 4.

D. Install all of the remaining brackets in the same way.

E. Place a vinyl bracket jacket (found in the vinyl cover carton) over each bracket as shown in Figure 5. It needs to cover the connection with the universal rafter to prevent scratching of the vinyl Sun Dome cover.

F. Fold back the bracket jackets so that you can easily insert the rafters. See Figure 6.

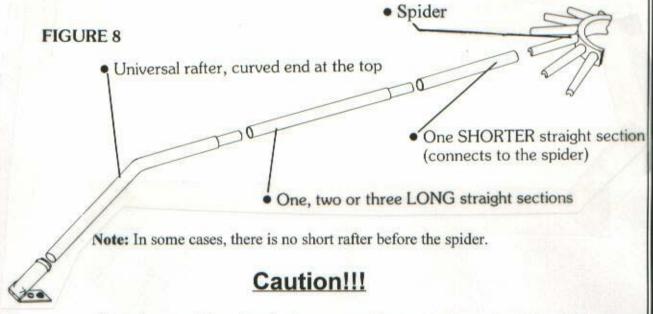
- G. Take one of the universal rafters (40 1/4 inch with bend) and test fit all of the brackets. The rafter should fit down in the bracket a minimum of 2 1/2 inches.
- H. Each bracket should have angle of 60 degrees. The angle can be corrected, if needed, by inserting a rafter and bending the bracket up or down, as needed.
- I. A sample of a 60 degree angle is below. Cut out and tape to a piece of cardboard, then trim the cardboard to the angle. You can then place the 60 degree angle next to each bracket. See Figure 7.



CUT OUT AND TAPE TO CARDBOARD

## STEP 3: ASSEMBLE AND INSTALL THE RAFTERS (ROUND POOLS)

A. On the ground next to the pool, assemble all rafters. (Refer to the illustrated parts list for an example of your dome) Most assemblies will resemble the example shown in Figure 8.



Check the top of the spider for burrs or rough spots on the casting. If you find any, file or sand them smooth with a file or sandpaper. Rough spots or burrs can damage the vinyl cover.

- B. Before installing any rafters, you must now refer back to the measurements that you took across the pool. Find your longest distance across the pool from vertical support to vertical support. This is where you will put up your first set of rafters.
- C. Place two rafter asemblies opposite each other on the spider.

Helpful tip: Tape the first set of rafters on to the spider with silver duet tape to prevent them from turning or falling out while you are putting them up.

D. With one person holding each rafter end and pushing towards the spider, carefully lift and walk the assembly over the pool at the longest measurement. Place the rafters in the mounting brackets. See Figure 9.

Helpful tip: Taping each joining point of the rafter set, with silver duct tape, will make it much easier to install.

E. Install the remaining rafters. If the difference in your longest measurement across the pool to the shortest measurement is less than two (2") you will not have to adjust any rafter lengths. With one person steadying the two rafters, the other person places one rafter set on the next longest measurement on one side. Then places one rafter set on the opposite side of that same measurement. With four rafters set in place, the frame will now stay steady. If you do have to adjust rafters go to Item G.

Note: The rafter does not have to be fully against the center ring of the spider to hold.

F. Finish installing all rafter sets. See Figure 10.



## Then go on to STEP 4: INSTALLING THE VINYL DOME

G. If the difference in your longest measurement across the pool to the shortest measurement is more than two (2") you will have to adjust rafter lengths. To trim accurately, you must figure the difference between the longest measurement and the shorter measurement of the rafter sets you are installing.

**Remember:** You have already written down all of your measurements and the longest measurement is your standard. Go to your numbering of the vertical supports. #1 is the longest, #2 is the next, #3 the next and so on.

Going to the sample measurements given on page 4, we have the following:

#1 measurement is 193 3/4"

#2 is 192 1/2"

#3 is 192 1/4"

#4 is 192"

#4 is 192" #5 is 191" #6 is 190 3/4" #7 is 190 1/2"

Rafter sets for the vertical supports across the pool at points #2, #3 and # 4 are not more than two (2") inches difference from vertical support #1. They will not have to be trimmed and can be taped together and installed as in Item E above.

Rafter sets for the vertical supports across the pool at points #5, # 6 and #7 will have to be trimmed down.

Subtract the shorter measurement from the longest measurement (point #1) and then divide by 2. This measurement is the amount of rafter that will be cut off each sides of the rafter set. See Figure 11.

Example: Point #5 is 191"

Point #1 - 193 3/4" Point #5 - 191"

Difference:  $2 \frac{3}{4}$ "  $\div 2 = 1 \frac{3}{8}$ "

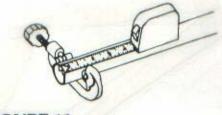


FIGURE 11

1 3/8" must be cut off the rafter closest to the spider on each side of the rafter set.

Point #1 - 193 3/4"

Point #6 - 190 3/4"

Difference:  $3" \div 2 = 1 \frac{1}{2}$  to be cut from the rafter closest to the spider on each side of that rafter set.

Point #1 - 193 3/4"

Point #7 - 190 1/2"

Difference:  $3 \frac{1}{4}$ " ÷  $2 = 1 \frac{5}{8}$ " to be cut from the rafter closest to the spider on each side of that rafter set.

Be sure to deburr inside of the rafters after they have been cut.

## Caution!!!

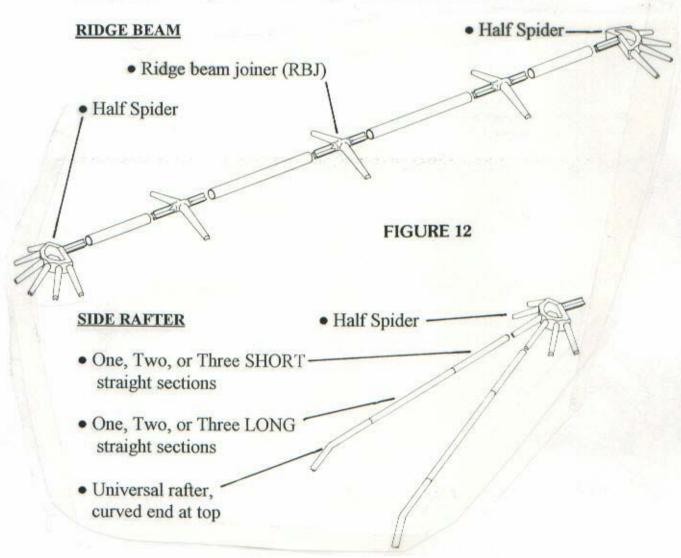
If you do trim rafters, each rafter MUST BE MARKED with the vertical support number according to your pool measurement diagram on page 5, so that you will remember where each rafter set goes for future installations.

H. Finish installing all adjusted rafter sets. See Figure 10, page 11.

Then go on to STEP 4: INSTALLING THE VINYL DOME

## STEP 3: ASSEMBLE AND INSTALL THE RAFTERS (OVAL POOLS)

A. On the ground next to the pool, assemble all rafters and Ridge Beam. (Refer to the illustrated parts list for an example of your dome) Most assemblies will resemble the example shown in Figure 12 for the Ridge Beam and Side Rafter assemblies.



Note: In some cases, there is no short rafter before the spider.

## Caution!!!

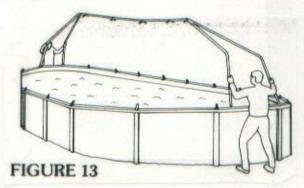
Check the top of the spider and ridge beam joiner for burrs or rough spots on the casting. If you find any, file or sand them smooth with a file or sandpaper. Rough spots or burrs can damage the vinyl cover.

Note: The rafter tubing comes in matched sets. The Ridge Beam tubing should be what is left after you have put together all of the rafter sets. Check your illustrated parts list packed in frame carton #1 for quantities and measurements. For example, you will have only two short lengths of rafter tubing to attach to the two half spiders, plus any number of long lengths to fit between the Ridge Beam Joiners (RBJ), depending on the length of your pool.

B. At each short-tube end of the Ridge Beam, insert the single prong side of the half spider. Then insert two complete rafter assemblies on the two center spokes of the curved side of the half spiders on each end.

Helpful tip: Taping each joining point of the rafter set and where the tubing joins to the castings, with silver duct tape, will make it much easier to install and prevent the assembly from twisting or coming apart while you install them.

C. With one person holding each rafter end and pushing towards the spider, carefully lift and walk the Ridge Beam assembly over the pool at the longest measurement. Place the rafters in the mounting brackets. See Figure 13.



Note: The rafter does not have to be fully against the center ring of the spider or RBJ to hold.

- D. Once the four rafters have been placed into the mounting brackets, the Ridge assembly will stand by itself. The sag in the middle will disappear as you install the remaining rafters.
- E. Install the remaining rafters. If the difference in your longest measurement across the sides of your oval pool to the shortest measurement is less than two (2") you will not have to adjust any rafter lengths. If you do have to adjust rafters go to Item G.

F. Finish installing the remaining rafters

#### Then go on to STEP 4: INSTALLING THE VINYL DOME

G. If the difference in your longest measurement across the side of your oval pool to the shortest measurement is more than two (2") you will have to adjust rafter lengths. To trim accurately, you must figure the difference between the longest measurement and the shorter measurement of the rafter sets you are installing.

**Remember:** You have already written down all of your measurements and the longest measurement is your standard. Go to your numbering of the vertical supports. #1 is the longest, #2 is the next, #3 the next and so on.

Subtract the shorter measurement from the longest measurement (point #1) and then divide by 2. This measurement is the amount of rafter that will be cut off each side of the rafter set. See Figure 11, page 10.

Example: Let's say your longest measurement, Point #1 is 193". The next point, Point #2 is 190".

Point #1 - 193" Point #2 - 190"

Difference:  $3'' \div 2 = 1 \frac{1}{2}''$ 

1 1/2" must be cut off of the rafter closest to the RBJ on each side of the rafter set.

Point #1 - 193"

Point #3 - 190 1/2"

Difference:  $3 \frac{1}{2}$ "  $\div 2 = 1 \frac{3}{4}$ " to be cut from the rafter closest to the RBJ on each side of that rafter set.

And so on.

Be sure to deburr inside of the rafters after they have been cut.

## Caution!!!

If you do trim rafters, each rafter MUST BE MARKED with the vertical support number according to your pool measurement diagram on page 5, so that you will remember where each rafter set goes for future installations.

H. Finish installing all adjusted rafter sets. See Figure 10, page 11.

Then go on to STEP 4: INSTALLING THE VINYL DOME

#### STEP 4: INSTALLING THE VINYL DOME (ROUND POOL)

- A. If you have the space, spread out the vinyl dome on the ground near the pool and allow the sun the warm the vinyl dome. When you are ready to put the vinyl dome up on the frame, position the vinyl dome so that the door is close to where it will be located on the frame and the window zippers are to the outside of the cover.
- B. Thread the 3/16" polypropylene line through two or three grommets in the outer seam of the vinyl dome on the side opposite the doorway and knot it securely.
- C. Walk the other end of the 3/16" polypropylene line around to the other side of the pool and over the center spider. Slowly pull the vinyl dome up to the center spider and then have someone "fluff" the remaining portion of the cover, as you would a bed sheet, while continuing to slowly pull the cover over the top. Additional persons should be located around the pool to assist in lifting and feeding the vinyl from one side to the other. See Figure 14.

## Caution!!!

TAKE CARE THAT THE VINYL COVER DOES NOT CATCH ON THE RAFTERS. IF IT DOES, GENTLY LIFT IT OFF BEFORE CONTINUING.

- D. Once the vinyl dome has been pulled over the rafters, adjust the dome so that the seams of the vinyl are as near as possible to the rafters. You can have someone "fluff" the remaining portion of the cover, as you would a bed sheet to ease in the adjustment of the cover on the rafters.
- E. Gently pull the vinyl dome down over the pool ledge all around the pool.



## STEP 4: INSTALLING THE VINYL DOME (OVAL POOL)

- A. If you have the space, spread out the vinyl dome on the ground near the pool and allow the sun to warm the vinyl dome. When you are ready to put the vinyl dome up on the frame, position the vinyl dome along the length of the pool, with the door on the end where it will be located on the frame and the window zippers are to the outside of the cover. You will need additional help, one or two more persons depending on the length of your pool, to help pull the vinyl dome onto and over the rafters.
- B. Thread the 3/16" polypropylene line through two or three grommets in the center of the outer seam of the vinyl dome on one side and knot it securely. Make sure the window zippers are to the outside of the cover or you will put it on upside down.
- C. Walk the other end of the 3/16" polypropylene line around to the other side of the pool and over the center of the Ridge Beam. Slowly pull the vinyl dome up to the center of the Ridge Beam. You will need to locate people at each curved point on the side of the pool where the cover is located. They will assist in raising the vinyl cover up onto the rafters equally all along the length. Then have someone "fluff" the remaining portion of the cover, as you would a bed sheet, while continuing to slowly pull the cover over the top. Additional people should be located around the opposite side of the pool to assist in lifting and feeding the vinyl down the other side. See Figure 14, page 16.

## Caution!!!

TAKE CARE THAT THE VINYL COVER DOES NOT CATCH ON THE RAFTERS. IF IT DOES, GENTLY LIFT IT OFF BEFORE CONTINUING.

- D. Once the vinyl dome has been pulled over the rafters, adjust the dome so that the seams of the vinyl are as near as possible to the rafters. You can have someone "fluff" the remaining portion of the cover, as you would a bed sheet to ease in the adjustment of the cover on the rafters.
- E. Gently pull the vinyl dome down over the pool ledge all around the pool.

Go on to Step 5.

#### STEP 5: TIE DOWN THE SUN DOME

- A. Located in the vinyl dome carton are the neoprene cords used in the tie down of the dome.
- B. Tie a knot 1 to 2 inches from one of the ends of the cord.
- C. Thread the untied end of the cord through one side of the two grommets located on the hem just below each mounting bracket and then tie a knot in the untied end. See Figure 15.

FIGURE 15

- D. Repeat at each rafter location around the pool.
- E. Place a tiedown hook over the neoprene cord at one of the rafter locations. Pull the hook down to at least 3" of tension and mark for holes to be drilled on the vertical support to mount the tiedown hook. See Figure 16.

FIGURE 16

F. Using an electric or cordless drill, drill your 3/16" holes. Fasten the tiedown hooks with slotted hex head screws, as shown in Figure 17. Pull the neoprene cord under the hook. There should be firm tension on each cord. You can get additional tension by re-knotting one end of the cord. See Figure 17.

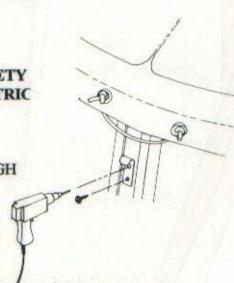
## ▲ WARNING!!!▲

FOLLOW MANUFACTURER'S SAFETY RULES WHEN USING YOUR ELECTRIC DRILL NEAR WATER.

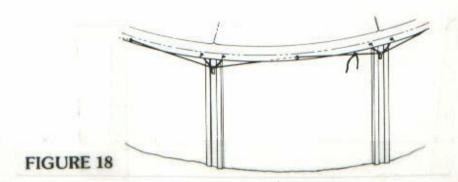
#### CAUTION!!

TAKE CARE NOT TO DRILL THROUGH THE OUTER WALL OF THE POOL

G. Install the remaining tiedown hooks at each cord.



H. Thread the 3/16" polypropylene line slowly through the grommets located between the rafters all around the pool. Fit the 3/16" polypropylene line under each tiedown hook and then draw the line up tight. You will need to go from grommet to grommet gently feeding the line through so as not to cause a rope burn or cut the grommet from friction.
See Figure 18.



#### WHEN YOU USE YOUR SUN DOME AND POOL:

- Follow all normal pool safety measures.
- Do not allow children in the pool without Adult supervision.
- Do not swim or stay in the pool alone.
- If the air inside the dome becomes too hot and humid, open the dome's door and windows. You can also release the tiedown line and neoprene cords and fold the cover up onto the rafters. See Figure 19.

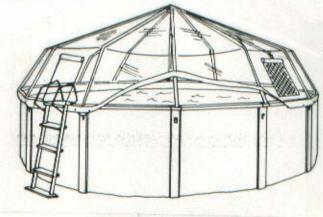


FIGURE 19

- When opening the door and windows, roll them up neatly and snap the fasteners.
- Be careful not to pull very hard on the door and window tabs, you might damage your dome.
- Always use two hands when opening the door zippers.
- Always open the door zipper all the way to the top. Leaving the door zipper partially open
  while entering and leaving the pool is hazardous and could cause damage to your dome.
- Never use the rafters to assist you in getting in and out of your pool. Install a proper ladder.
- Do not hang from or climb on the rafters or the vinyl dome.

#### TAKE CARE OF YOUR FABRICO SUN DOME

- Keep the Sun Dome door and windows closed when you are not using your pool. You will cut
  down on your usage of chlorine consumption and pool maintenance and keep wind-carried
  algae out of the water. Use your pool water test kit often and make sure your testing solutions
  are fresh each season.
- Care for the vinyl dome.
  - Vinyl will stretch in hot weather and shrink in cold weather. Be sure the vinyl is properly tensioned when cool weather arrives. You may need to loosen the neoprene cords, but be sure the tension is not too loose.
  - Periodically clean the vinyl outside with a vac pole and wall brush, using a mild detergent such as car wash soap.
  - Never use any type of alcohol or petroleum based solvent or bleach on your vinyl cover.
     It will cause the vinyl to cloud.
  - Remove the vinyl cover when the swimming season is over and carefully store it for the winter. Be sure the vinyl is clean and dry before removing it from the frame. Also, be sure the vinyl is clean and dry before folding the cover for storage, to prevent mold and mildew growth.
  - Removal of the vinyl cover should be in the opposite order of the installation. To prevent
    possible damage to your pool in the winter, the rafter system should be taken down and
    stored for the winter also.
- Care for the rafter and brackets. If rust develops on the rafter bracket, sand the rusted area lightly and tough up with an anti-rust paint.

\*\*THE SUN DOME IS NOT A WINTER COVER! It extends your swimming season! Sun Dome Inc. will not be responsible for failures or damage due to snow load.

If at any time during the installation of your Sun Dome you encounter problems, contact your local pool dealer or your place of purchase.