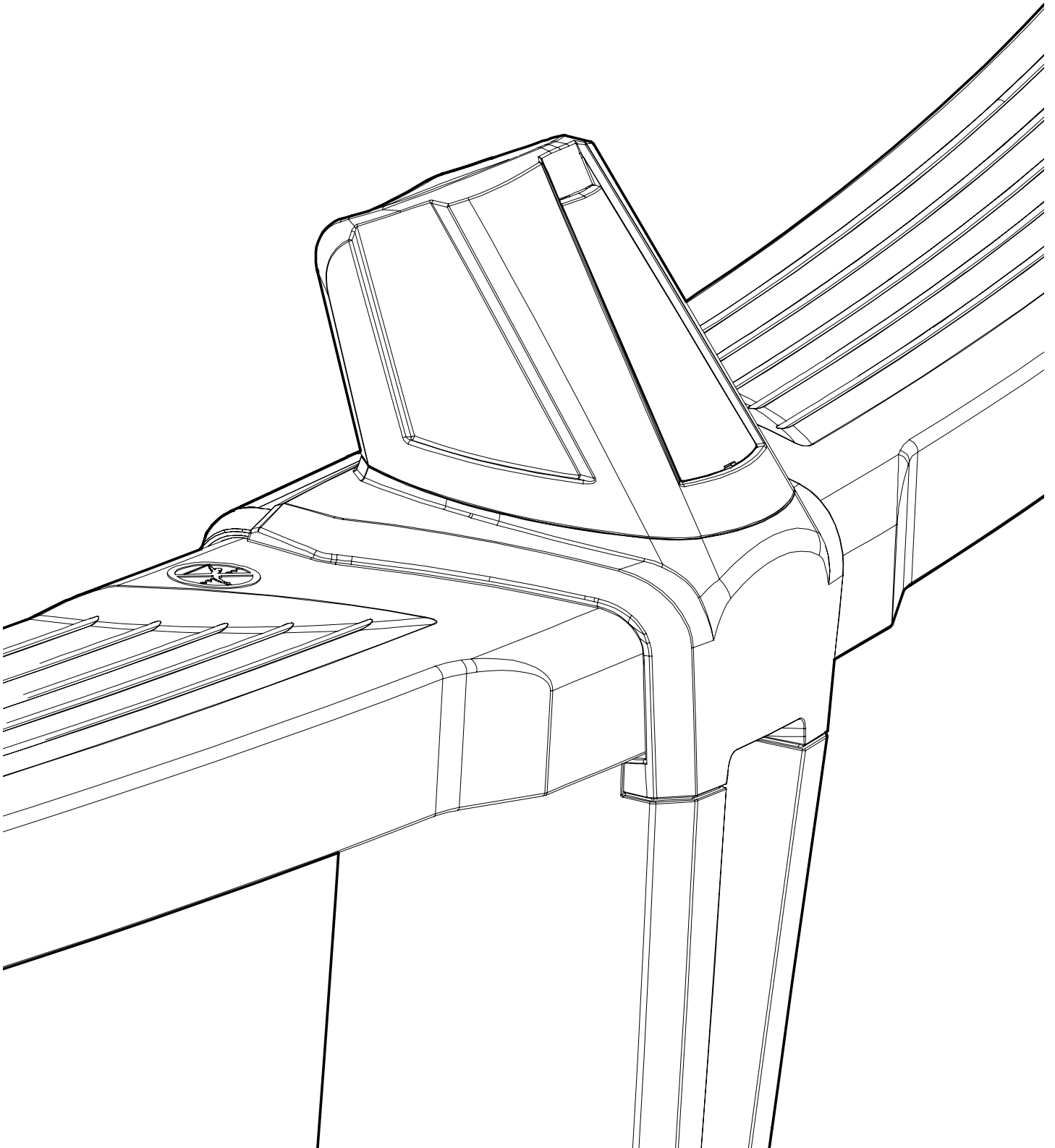
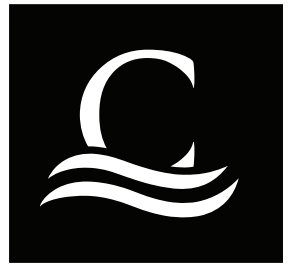


# **STARJET™**

## USER MANUAL FOR POOL WATER JET



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## INTRODUCTION

Thank you for purchasing the CARVIN® STARJET™ back lit water jet bundle.

We want to help you get the best results from your new product and operate it safely. This manual contains information on how to do that; please read it carefully before installing and using the pool. If a problem should arise, or if you have any questions about your product, consult an authorized CARVIN® retailer or distributor.

All the information in this manual is based on the latest product information available at the time of publication. The manufacturer reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

## READ AND FOLLOW ALL INSTRUCTIONS

Review all instructions provided with the product prior to its installation, startup, operation, shutdown, maintenance or winterizing

Failure to follow warnings and safety messages may result in property damage or personal injury. The user assumes the bodily or material risks arising from any improper use of this product.

## IMPORTANT SAFETY INSTRUCTIONS

Your safety and the safety of others are very important.

This manual provides important safety messages. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is identified by a black box and one of three words, WARNING.

## SUPPORT

To obtain support for this product, visit [www.carvinpool.com/support](http://www.carvinpool.com/support) and refer to Consumer Information section of this manual.

## COMPATIBILITY

### ⚠ WARNING

This Product is compatible with a variety of CARVIN® above ground pools. Check with your authorized CARVIN® retailer or distributor for a list of compatible models. Only connect the Products submersible light to a CARVIN® Star Series Starter Kit. Consult its User Manual for power capacity and light controls.

The CARVIN® Star Series Starter Kit, water tubing, pipes, manifold and other plumbing accessories are sold separately.

The water jet feature will not work as intended if the light is not connected to a controller.

## RECOMMENDATIONS

Only use CARVIN® 12mm tubing for this installation. Other tubing will reduce performances of the Product or affect the water circulation of your pool.

We recommend using a 3-way valve with our 4-way manifold to manage the water return to the pool. You can install up to 4 STARJET™ on a CARVIN® pool. For the STARJET™ 4-way manifold (sold separately) connection, use any 1½" PVC SCH40 pipe.

We recommend maintaining water flow through the STARJET™ when the lights are on.

## INSTALLATION

### ⚠ WARNING

The electrical installation must be done in accordance with the Canadian Electrical Code, the National Electrical Code (USA) or any other local or national requirements.

### TOOLS

- Power drill with Philips head #2 or a screwdriver #2
- Small straight screwdriver;
- Tubing cutter or knife.
- Hand saw
- 

### REQUIRED MATERIALS

**If you have purchased the STARJET™ Bundle Kit.**

- PVC Glue
- 3-way Valve
- 1½ PVC Pipe SCH 40 (+/- 24 inches long)
- 1½" deg. Elbow PVC
- 

**If you have purchased a STARJET™ back lit water jet.**

- CARVIN® STAR SERIES Starter Kit
- CARVIN® 4-way Manifold
- CARVIN® Manifold Fitting Kit
- CARVIN® Extension Cable
- CARVIN® PU Tube 12x9mm X 16mm
- CARVIN® UNS S15 HALF KIT (31175607R)
- Tie Wraps
- PVC Glue
- 3-Way Valve
- 1½" PVC pipe SCH 40 (+/- 24" long)
- 1½" 90 deg. Elbow PVC

## PREPARATION

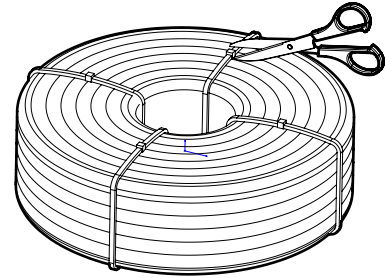
### CARVIN® PU TUBE 12 X 9MM X 16M

### ⚠ WARNING

**THIS INSTALLATION SHOULD BE DONE AT A TEMPERATURE ABOVE 20°C (68 °F). IT COULD BE DIFFICULT TO INSTALL THE TUBING INTO THE PUSH TO CONNECT FITTING IF TUBING IS TOO COLD.**

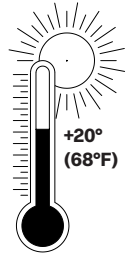
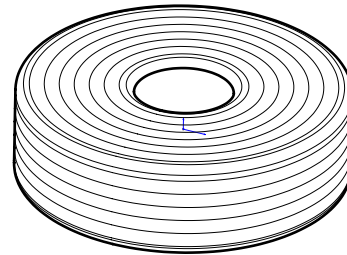
#### STEP 1

Unpack the tube roll by cutting the tie wraps.



#### STEP 2

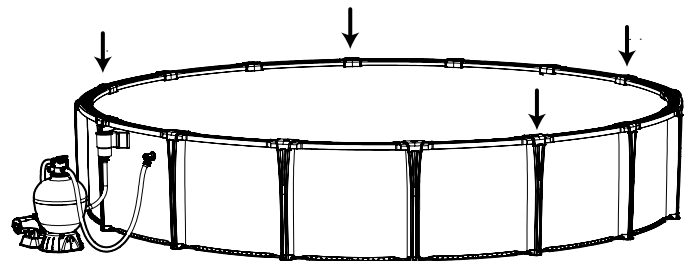
Place the unpacked tube roll in a sunny area while you proceed with the other step of this installation.



## STARJET™ INSTALLATION STEPS

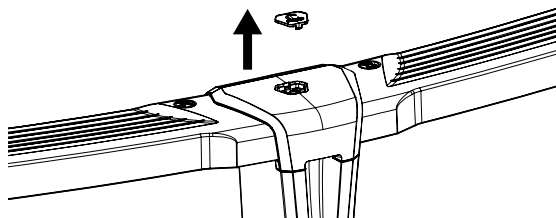
#### STEP 1

Select the positions where you want to install your STARJET™.

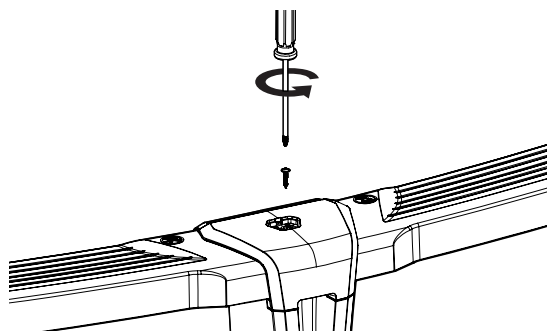


**STEP 2**

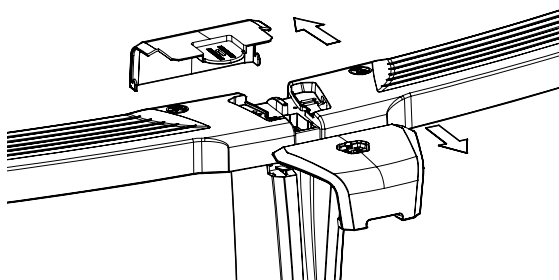
For each selected position, remove the Top Ledge Cover Cap.

**STEP 3**

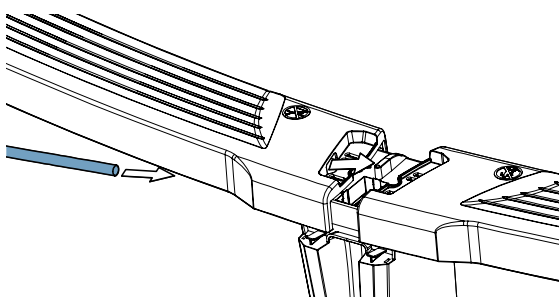
Unscrew the Top Ledge Cover screw.

**STEP 4**

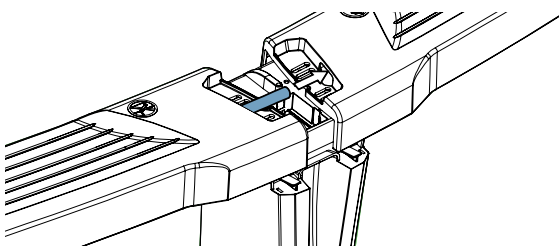
Remove the Top Ledge Cover.

**STEP 5**

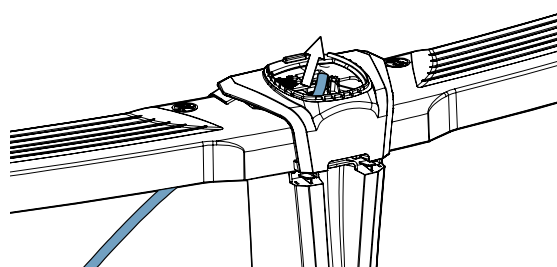
Pass the water tubing under the Top Ledge to the furthest location of a STARJET™.

**STEP 6**

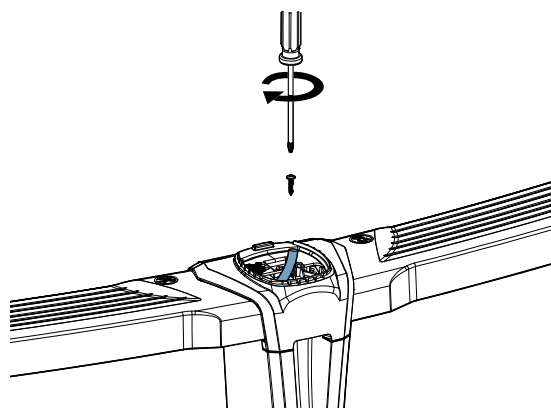
Pass the tubing through the Top Seat cable and through from Top Ledge to Top Ledge all around the pool, until you reach the STARJET™ 4-Way Manifold.

**STEP 7**

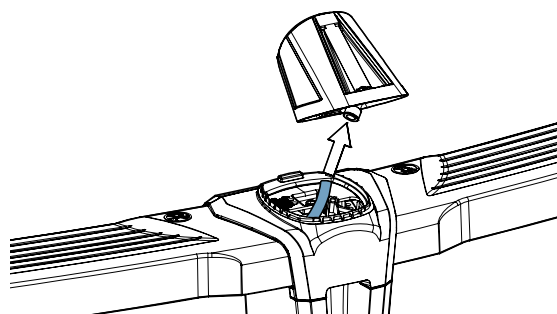
Cut a 30cm (12in) section from the water tubing roll. Pass this piece of tubing through the Top Ledge and through the STARJET™ Top Ledge cover.

**STEP 8**

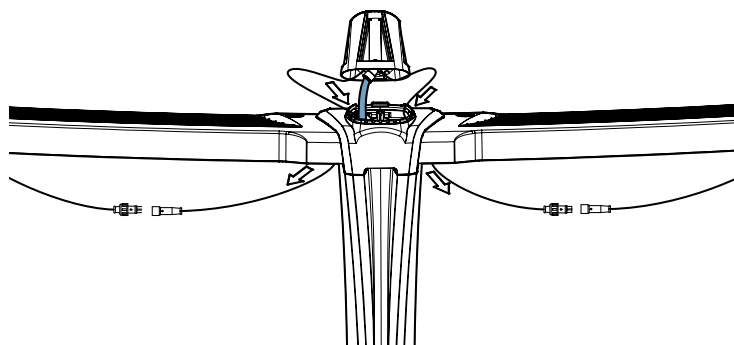
Screw the STARJET™ Top Ledge Cover adaptor to the front Top Ledge cover.

**STEP 9**

Connect the water tubing to the 45° fitting under the STARJET™ tank.

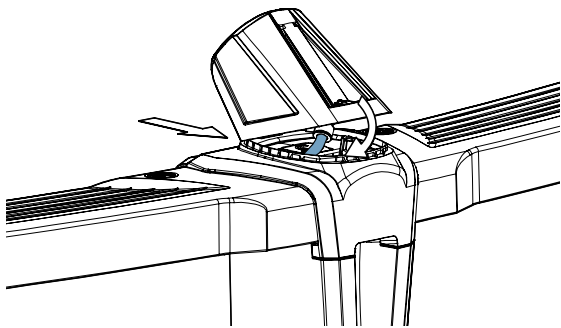
**STEP 10**

If STARGLOW™ lights are already installed on the pool, you can connect the STARJET™ light in line with the STARGLOW™ lights. Refer to STARGLOW™ or Star Series Starter Kit user manual to learn more about how to connect cables to the STARJET™. Respect the power chart recommendations from those in our user manuals.

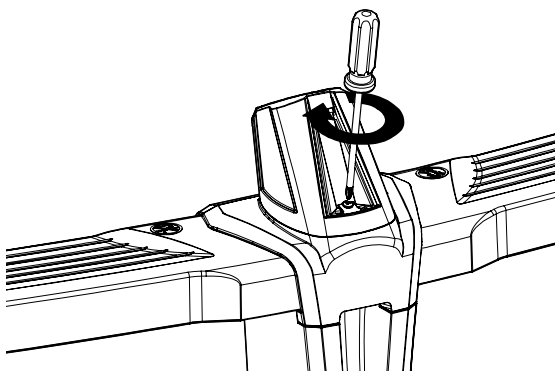


**STEP 11**

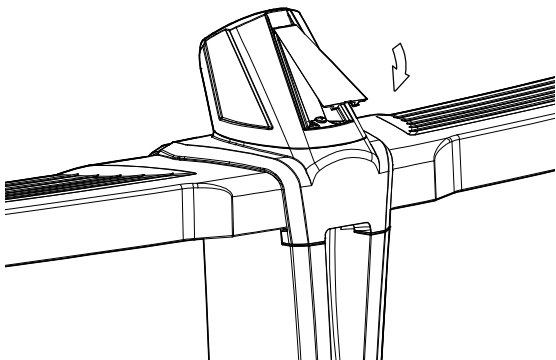
Hide the cable and tubing under the STARJET™ shell.

**STEP 12**

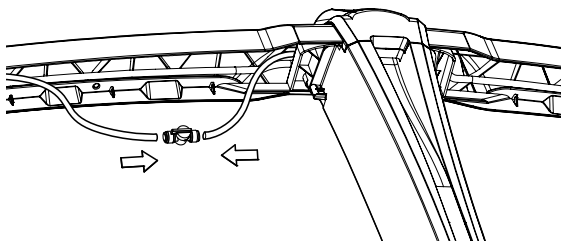
Screw the STARJET™ shell assembly to the StarJet™ Top Ledge Cover.

**STEP 13**

Install the STARJET™ screw cap.

**STEP 14**

Connect the 12-inch tubing with the tubing passed around the pool.

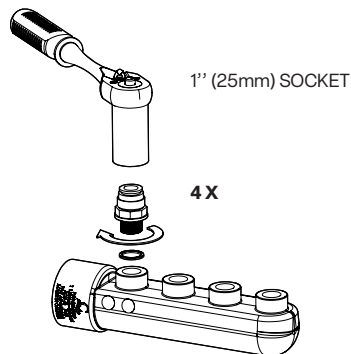


# PLUMBING CONFIGURATION

## STARJET™ 4-WAY MANIFOLD ASSEMBLY

**STEP 1**

Install the 4 connectors to the manifold.



## CONNECTING THE STARJET™ TO THE PLUMBING SETUP

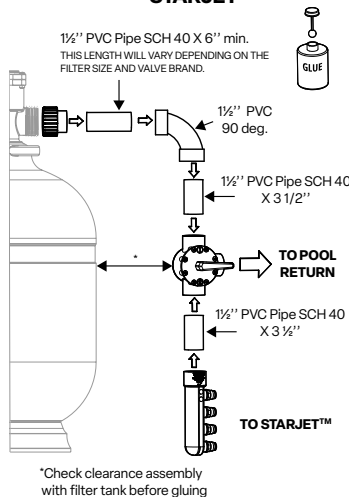
**WARNING**

Plumbing configuration may vary depending on your pool filtration system installation and 3-way valve brand. The diagrams below illustrate examples of possible setup assemblies.

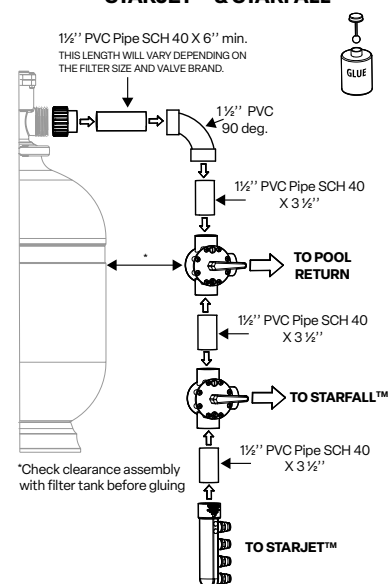
**STEP 2**

Cut the PVC pipe and pre assemble the parts accordingly for verification. Once confirmed, adhere all the parts together using the PVC glue.

### PLUMBING DIAGRAM FOR STARJET™

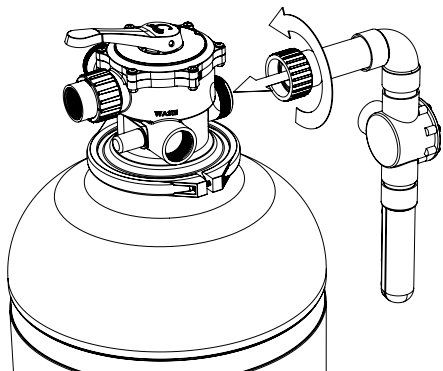


### PLUMBING DIAGRAM FOR STARJET™ & STARFALL™

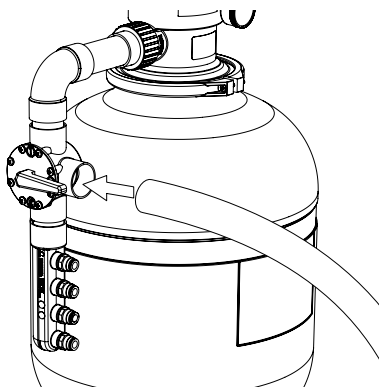


**STEP 3**

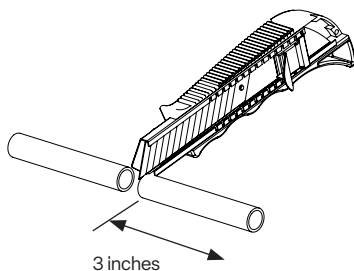
Make sure the 3-way valve is facing down before tightening the nut on the filter head.

**STEP 4**

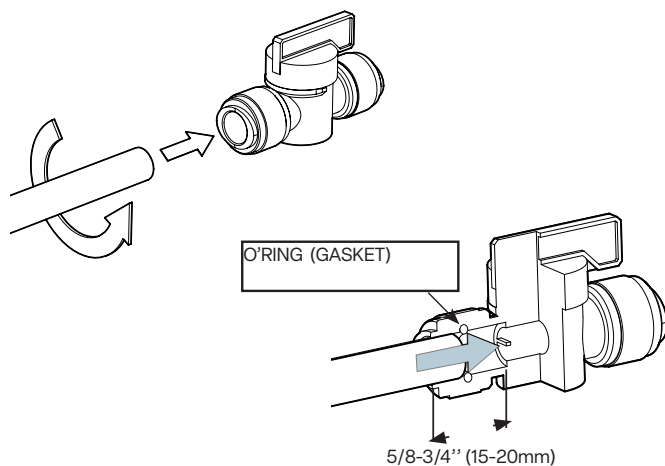
Glue return pipe in the outlet of the 3-way valve.

**STEP 5**

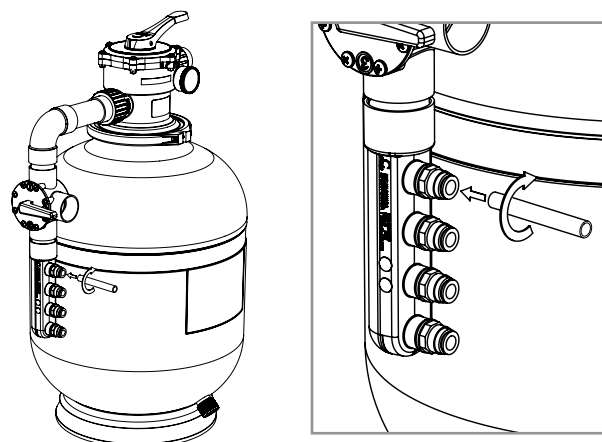
Cut the length of the 3" tube to connect to the manifold fitting assembly.

**⚠ WARNING**

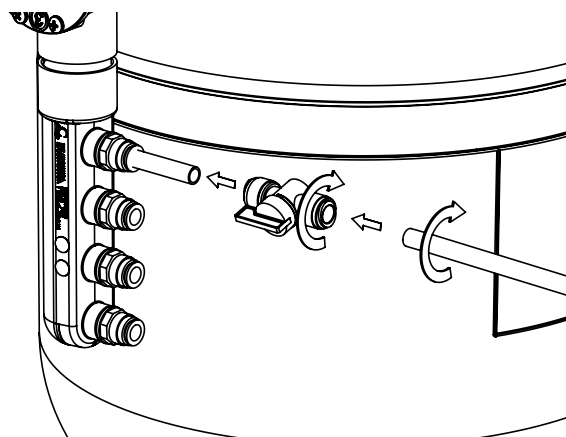
The valve and the manifold distributor are push-connect fittings. When inserting the tube, rotate it to push it in. Ensure that the tube has at least an insert of 5/8 to 3/4 inches (15 to 20 mm).

**STEP 6**

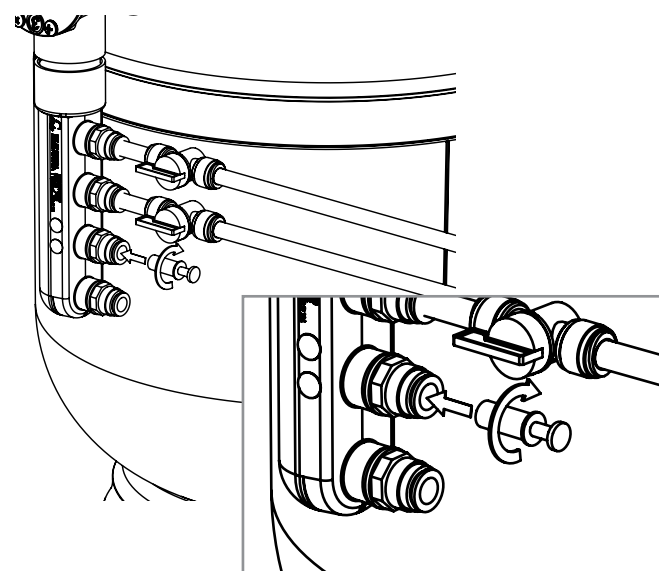
Insert the previously cut 3 inch tube into the fittings.

**STEP 7**

Connect the valve to the 3-inch tube and insert the tube from the STARJET™ at the other end of the valve.

**STEP 6**

Seal the unused connectors with the provided caps.



OPERATING

 **WARNING**

Do not energize the submersible light if the water tank is empty.

 **WARNING**

Keep debris out of the pool water circulation system.

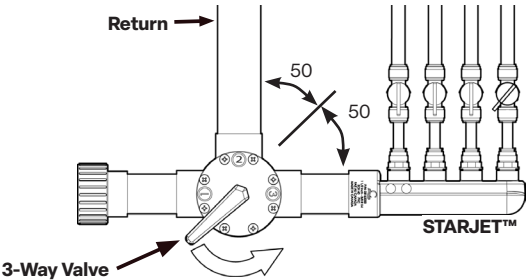
 **WARNING**

Before flowing water in a STARJET™, do the following inspections:

- Check pool skimmer basket and remove all debris.
- Check pump basket and remove all debris.
- Check pool filter pressure, if need make a backwash.
- As recommended, the STARJET™ is designed to be used with a 3-way valve.

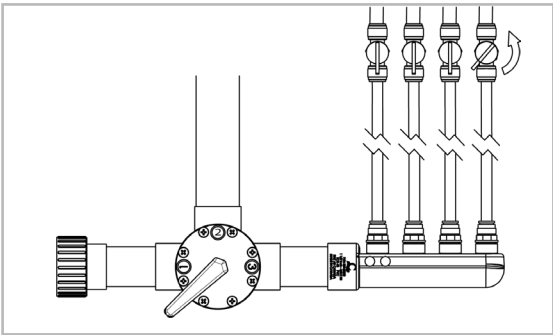
STEP 1

We recommend splitting the return water 50/50 when the STARJET™ are used.



STEP 2

Use the flow valves on the manifold to regulate the distance of each STARJET™ water jet. If more pressure is need open more the 3-way valve by turning the handle in direction of the position 2.



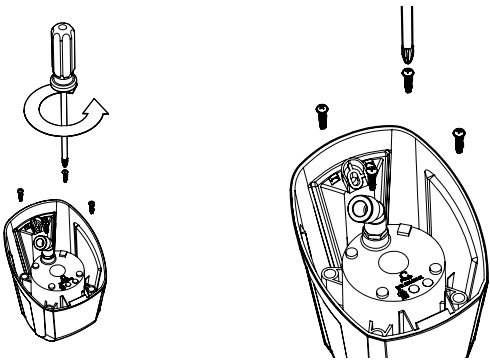
| TROUBLESHOOTING                  |   |   |
|----------------------------------|---|---|
| SYMPTOM                          | POSSIBILITIES   | SOLUTIONS   |
| Water jet quality is poor        | Debris in the circulation system prevent the water to flow adequately | Check pool skimmer basket, pump basket, and remove any visible debris.  |
|                                  |   | Check the filter pressure and perform a backwash if needed.             |
|                                  | Debris in the STARJET™ prevent the water to flow adequately.          | Clean the water tank and its diffusers as prescribed in this manual.    |
|                                  | Water tubing is kinked or flat.                                       | Inspect the installation and correct the water line for optimized flow. |
| Light is not working as intended | Refer to the Star Series Starter Kit or the Starglow™ Manual.         |   |

CLEANING THE WATER TANK AND DIFFUSERS

Before disassembling the STARJET™, make sure you have checked the points mentioned in the 'TROUBLESHOOTING'. If you have debris in your STARJET™ that means you filtration system is not operating correctly. Fix your system before starting the cleaning operation. Other wise you will have to repeat the cleaning regularly.

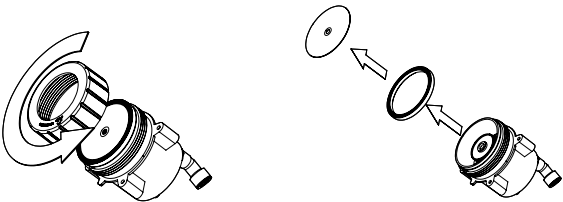
STEP 1

Refer to the installation steps in order to remove the STARJET™ Body from the STARJET™ Ledge cover. Using a Phillips head screwdriver, unscrew the four screws of the reservoir.



STEP 2

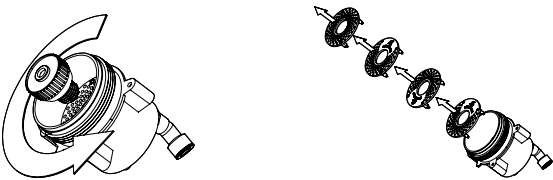
Unscrew the tank nut. Separate the flat washer and the tank gasket from the tank.



STEP 3

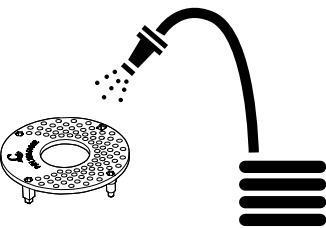
Unscrew the light from the tank. When reassembling, do not over tight the light.

Pull out the four diffusers. Take note of the filters order. Place them on a surface so you can stack them back in the same order.



STEP 4

Rinse the diffusers and tank with a garden hose. Repeat the step backward to reassemble the tank.



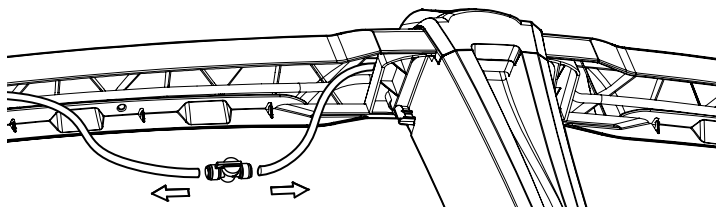


# WINTERIZING

Water freezing and winter precipitation can damage some components of the STARJET™. If you live in an area where winter is cold, the STARJET™ must be removed from the pool and stored in a sheltered room at a temperature above freezing. Water tubing needs to be purged.

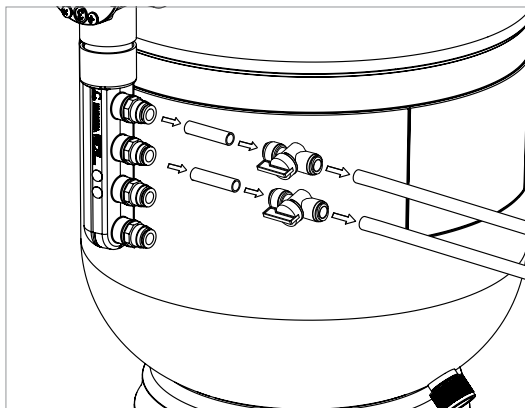
## STEP 1

Disconnect the 30cm (12in) tubing from the STARJET™.



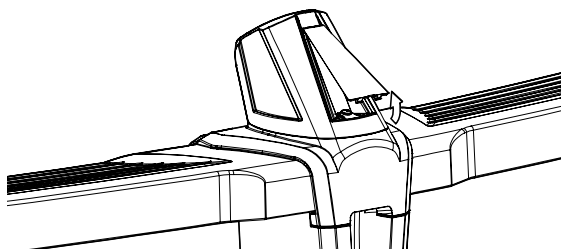
## STEP 2

Disconnect all the tubing from the manifold. Open the valve to drain the water.



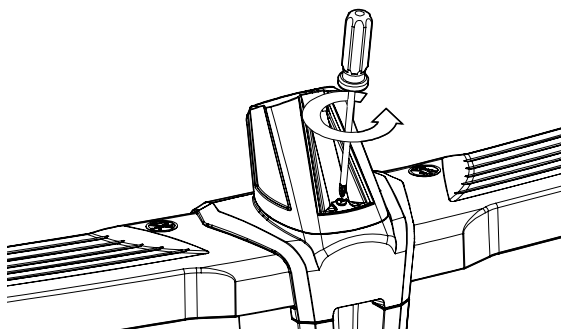
## STEP 3

Using a flat screwdriver, remove the STARJET™ screw cap.



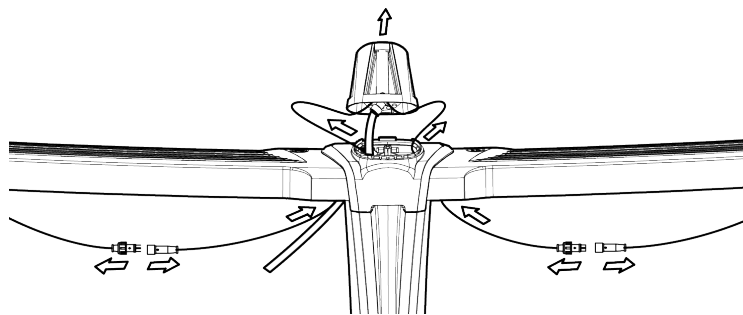
## STEP 4

Unscrew STARJET™ shell from the Top Ledge adaptor.



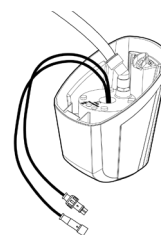
## STEP 5

Disconnect the electric connection from Starglow™ lights or from the STAR SERIES Starter kit.



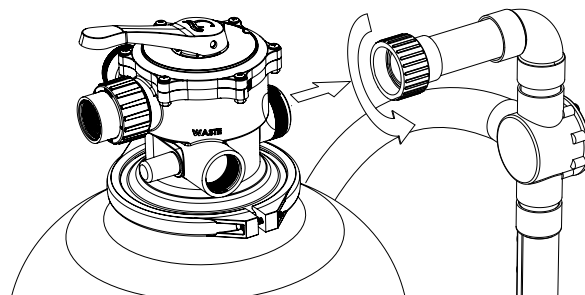
## STEP 6

Remove and store all the STARJET™ units facing down.



## STEP 7

Disconnect the plumbing assembly from the filter head and the water return to the pool and store it for the winter.



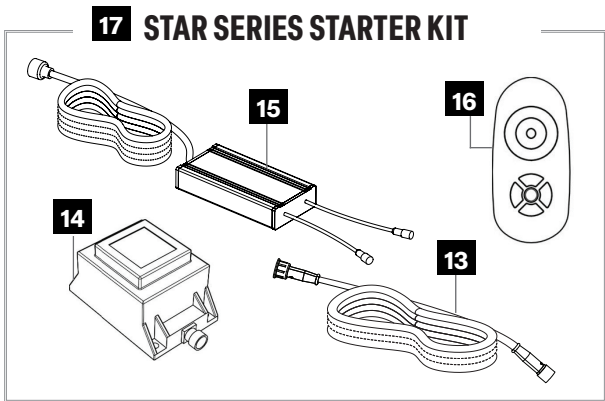
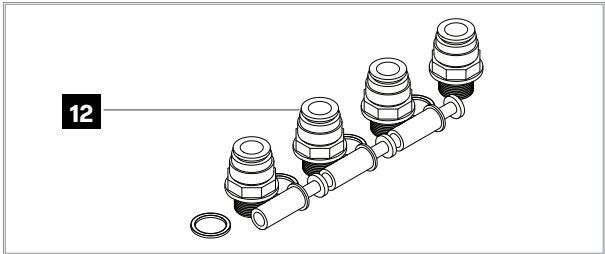
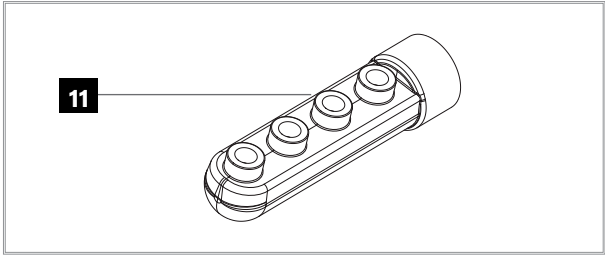
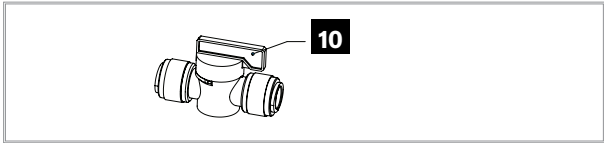
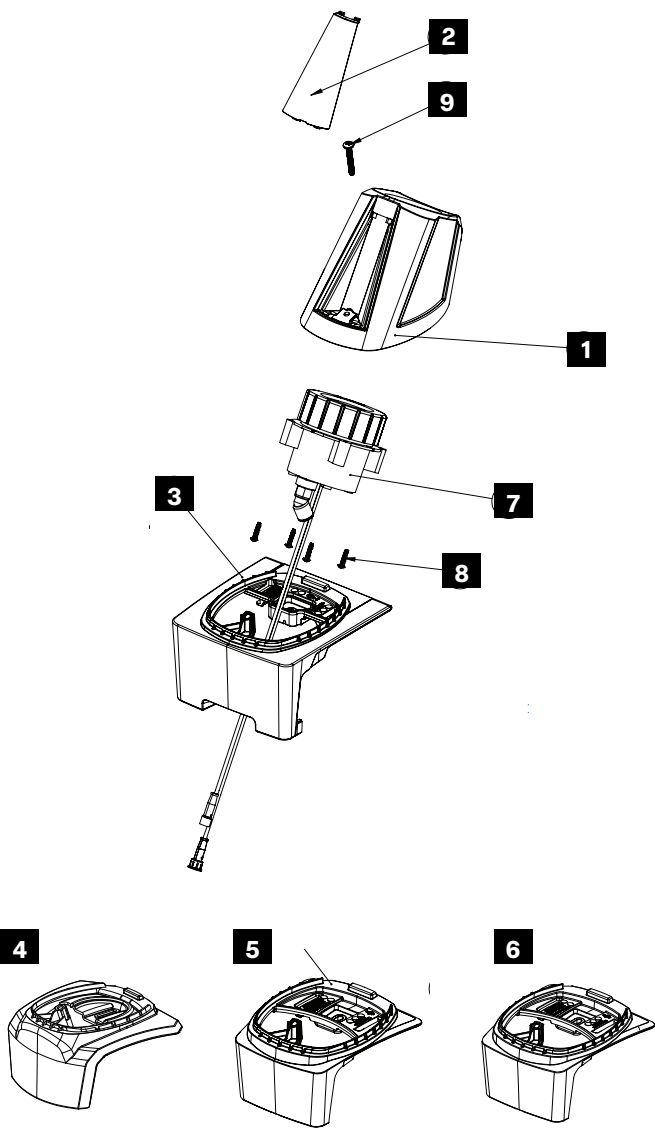
## TECHNICAL INFORMATION

| SPECIFICATIONS                         |                                   | PARAMETERS                              |
|--|-----------------------------------|---|
| Dimensions<br>(Height x Width x Depth) | Water Jet                         | 137 x 144 x 199mm<br>5.4 x 5.7 x 7.8in  |
|  | Ledge adapter for Gold Series     | 126 x 227 x 186mm<br>5.0 x 8.9 x 7.3in  |
|  | Ledge adapter for Diamond Series  | 128 x 268 x 185mm<br>5.0 x 10.6 x 7.3in |
|  | Ledge adapter for Platinum Series |   |
| Operating temperature                  |                                   | +5°C to +50°C<br>+41°F to +122°F        |
| Storage temperature                    |                                   | -25°C to +50°C<br>-13°F to +122°F       |
| Input voltage                          |                                   | 0.1-5V                                  |
| Maximum current                        |                                   | 0.5A                                    |
| Maximum power                          |                                   | 5W                                      |
| Compatible water tubing                |                                   | OD 12mm, ID 9mm                         |



# STARJET™

## REPLACEMENT PARTS



| STARJET™    |  |           |             |           |
|-------------|--|-----------|-------------|-----------|
| No          | Description                                    | GRAY 11C  | BROWN 476   | BLACK 6C  |
| 1           | STARJET™ BODY SHELL                            | 23160001R | 23160011R   | 23160021R |
| 2           | STARJET™ SHELL CAP                             | 23160002R | 23160012R   | 23160022R |
| 3           | STARJET™ DIAMOND SERIES TOP FRONT LEDGE COVER  | 94160003R |             | 94160042R |
| 4           | STARJET™ GOLD SERIES TOP FRONT LEDGE COVER     | 94160002R | 94160012R   | 94160023R |
| 5           | STARJET™ RUBY SERIES TOP FRONT LEDGE COVER     | -         | -           | 23173006R |
| 6           | STARJET™ PLATINUM SERIES TOP FRONT LEDGE COVER | 23162111R | 23162476R   | 23162106R |
| 7           | STARJET™ TANK ASSEMBLY (WITH LIGHT)            |           | 23161000R   |           |
| 8           | #8 SCREW PHILLIPS THREAD-FORMING               |           | 14174002R4  |           |
| 9           | M6 PHILLIPS SCREW                              |           | 250000340R  |           |
| 10          | VALVE ON OFF                                   |           | 23162006R   |           |
| 11          | STARJET™ 4 WAY MANIFOLD                        |           | 23162000R   |           |
| 12          | MANIFOLD FITTING KIT                           |           | 23162010R   |           |
| STARTER KIT |  |           |             |           |
| 13          | STAR SERIES – EXTENSION CABLE 5FT              |           | 9413612070  |           |
| 14          | STAR SERIES POWER SUPPLY                       |           | 9413612071R |           |
| 15          | STAR SERIES CONTROLLER                         |           | 9413612072R |           |
| 16          | REMOTE CONTROL                                 |           | 94132070    |           |
| 17          | STAR SERIES STARTER KIT                        |           | 9413612075  |           |

# CONSUMER INFORMATION

Authorized CARVIN® retailer or distributor personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your retailer or distributor does not solve to your satisfaction, please discuss it with the retailer's or distributor's management. The Service Manager, General Manager, or Owner can help. Almost all problems are solved in this way.

If you are not satisfied with the decision made by the retailer's or distributor's management, contact the CARVIN® technical support.

When you write or call, please provide the following information:

- Product model, serial number and date code.
- Name of retailer or distributor who sold the Product to you.
- The original proof of purchase showing the date of purchase.
- Your name, address and telephone number.
- A detailed description of the problem.
- If sending an email, any relevant photos of the Product and its surroundings.

## REPLACEMENT PARTS AVAILABILITY

Replacement parts are available through your CARVIN® retailer or distributor.

## WARRANTY

A digital warranty is provided for your product.

[https://carvinpool.com/link\\_waranty](https://carvinpool.com/link_waranty)

## TECHNICAL SUPPORT INFORMATION

After contacting your dealer or distributor, if you have any problems with your Product, contact CARVIN® Technical Support.

### AMERICA

Web: [carvinpool.com/support](https://carvinpool.com/support)

Email: [help@carvinpool.com](mailto:help@carvinpool.com)

Phone: 1 (450) 250-4500 option 2

Fax: 1 (450) 250-4501

Toll Free: 1 866 979-4501

Mail: CARVIN® POOL EQUIPMENT

#### Technical Support

4000 boul. Casavant West,  
Saint-Hyacinthe, Quebec, Canada, J2S 9E3



### Le Groupe VIF Inc.

4000, boulevard Casavant West, Saint-Hyacinthe  
Québec, Canada, J2S 9E3

### [www.carvinpool.com](https://www.carvinpool.com)

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