WORKSHEET TO GIVE TO YOUR ELECTRICIAN: Work to be planned

<table>
<tr><th colspan="3">ALWAYS INCLUDED</th></tr>
<tr><td>PUMP</td><td>
<table>
<tr><th colspan="2">VOLTS</th><th>AMPÉRAGE DES FUSIBLES DE DÉRIVATION</th></tr>
<tr><td rowspan="2">1HP</td><td>115 VCA</td><td>20 A</td></tr>
<tr><td>230 VCA</td><td>15 A</td></tr>
</table>
</td><td>☐ Supply of the power cable
☐ Supply of the electrical wall outlet
☐ Electrical connection of the pump
☐ Grounding</td></tr>
<tr><td>POOL BOND</td><td></td><td>☐ Independent grounding not connected to equipment or house ground</td></tr>
<tr><th colspan="3">IF OPTIONS ON THE CUSTOMER'S ORDER FORM</th></tr>
<tr><td>MINI LED LIGHT</td><td>Transformer input:
120v - 5A
Transformer output to light:
12v</td><td rowspan="3">☐ Additional wire length if the 100 feet supplied with the light are not enough
☐ Waterproof electrical connection of the light wire inside the deck box
☐ Connection of cables from the deck box (Mandatory 1 input wire PER light in the transformer)
☐ Supply of the transformer power cable
☐ Electrical connection of the transformer</td></tr>
<tr><td>MINI BRIO 2 LIGHT</td><td>Transformer input:
120v - 5A
Transformer output to light:
12v/13v/14v
Depending on the distance between the 2 elements
(Refer to the manufacturer's light manual)</td></tr>
<tr><td>BRIO PLUG IN POOL LIGHT</td><td>Transformer input:
120v - 5A
Transformer output to light: 24v</td></tr>
<tr><td>BLUETOOTH/WIFI CONTROLLER</td><td></td><td>☐ Installation and electrical connection</td></tr>
<tr><td>SALT SYSTEM</td><td>120v - 5A</td><td>☐ Installation of an electrical outlet
☐ Grounding</td></tr>
<tr><td>HEAT PUMP</td><td>- 50 000 btu: 230v – 20A
- 65 000 btu: 230v – 30A
- 80 000 btu: 230v – 40A</td><td>☐ Supply of power cable
☐ Electrical connection
☐ Supply and installation of a circuit breaker - GFCIif required, to be validated by an electrician
☐ Grounding</td></tr>
<tr><td>GAS WATER HEATER</td><td>240v – 1A
OR
120v – 2A</td><td>☐ Supply of power cable
☐ Electrical connection
☐ Grounding</td></tr>
<tr><th colspan="3">ALWAYS PROVIDED BY THE CUSTOMER</th></tr>
<tr><td>SUMP PUMP</td><td>Depending on the material provided by the customer <u>for a permanent installation under the landscaping</u></td><td>☐ Supply and installation of the power cable
☐ Electrical connection</td></tr>
</table>

VIII. ELECTRICITY

After the pool and the filtration system have been installed, you will need
TO CALL AN ELECTRICIAN
because we are not authorized to make the electrical connections.

We will provide you with some information about the electrical requirements, but the final choice of the electrical installation and the power of the circuit breakers must be made by a certified electrician, so that he can consider the different constraints of your installation.

INCLUDED EQUIPMENT:

- **Pump**:

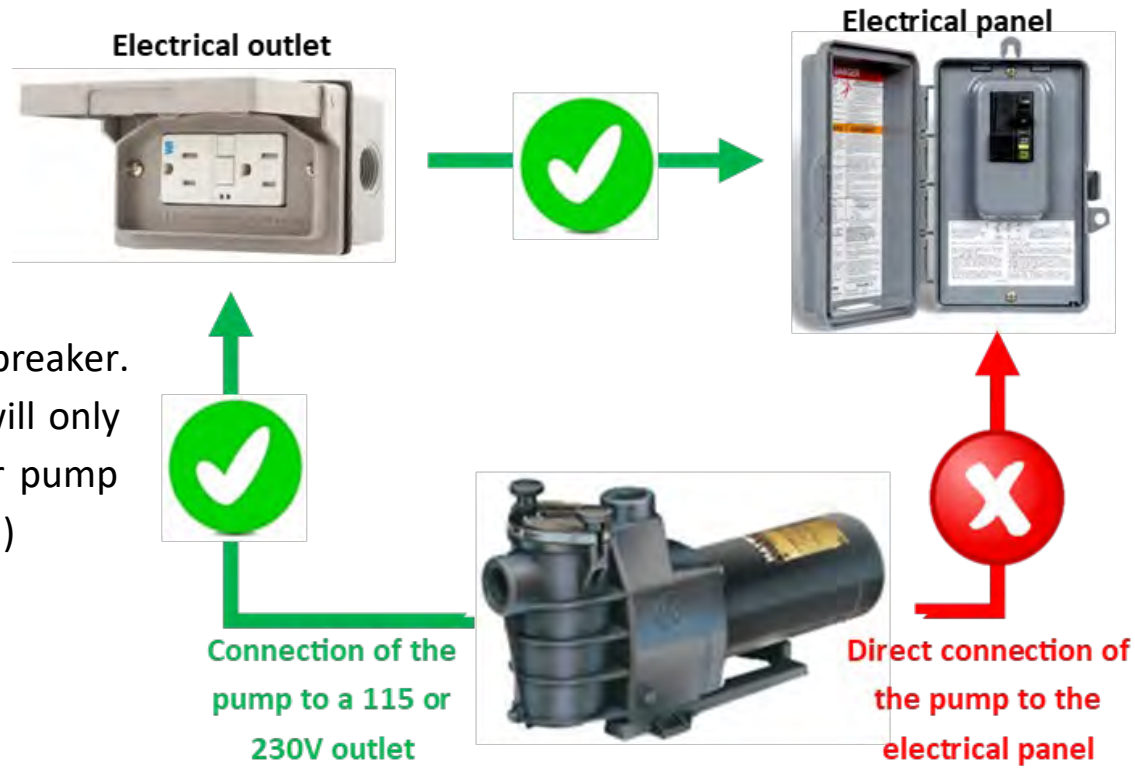
*Contact your sales representative if you plan to position your pump **more than 40 feet from your pool** before the day of installation. An adjustment of the power of your pump and of the quotation may be necessary.*

VOLTS		BRANCH FUSE AMPERAGE
1HP	115 VCA	20 A
	230 VCA	15 A

The power cable must be provided by your electrician.

WARNING: Please ask your electrician to **plug it with a cable into an outlet and not directly into a circuit breaker**.

Your outlet will be powered by your circuit breaker. This will facilitate pool closures because you will only need to unplug it from the outlet to put your pump under cover (shed or unheated garage are good)



A WIRING DIAGRAM FROM THE MANUFACTURER WILL BE GIVEN TO YOU ON THE INSTALLATION DAY. YOU MUST GIVE IT TO YOUR ELECTRICIAN.

- **<u>Pool bond</u>:**

During the installation of the equipment, our technicians will install a pool bond (*also called Aquaterre*).

WHAT IS A POOL BOND?
This device is a functional grounding system that eliminates the electrical streams created in the water by the various equipment in your pool. These electrical streams can be created by the pump of your filtration system, static currents or the electrolysis of salt to chlorine in the cell of your salt system.

WHY A POOL BOND IS SO IMPORTANT?
If the "wandering" flows created by the various equipment in your pool are not neutralized, then the metal ions generated by this static electricity or naturally present in the water gather and end up staining the pool walls.
This device therefore contributes greatly to the **proper maintenance of the pool surface**.

WARNING

THE GROUNDING OF YOUR POOL BOND SHOULD BE INDEPENDENT OF THE GROUNDING OF ALL YOUR OTHER EQUIPMENT.

See page 21 of this guide

OPTIONAL EQUIPMENT:

- **LED light**: 120v - 5A

Your light will be delivered with:

1 length 100' of cable per light		If the 100' are not enough, your electrician will have to provide you with the extra cable.
1 deck box per light		**An installation diagram** will be provided during the installation: show it to your electrician and your landscaper.
1 transformer		The control of your lights will be done with the **I/0** button of the transformer. *(Unless you add the option: BLUETOOTH/WIFI controller presented below)*

OPTIONAL FOR LIGHTING

BLUETOOTH/WIFI controller		This option allows you to control your light remotely.

Note that the 100' of cable will be cut to 3' so that you can install the deck box near the pool, and the remaining 97' of cable will be placed in your pipe trench so that your electrician can make the connection to the transformer.

Your electrician will also need to make the connection to the cut in the deck box.

- **Salt system chlorination**: 120v - 5A

The salt system panel has its own electrical cable, so your electrician will not have to do anything at this level, but he will have to plan an electrical outlet near the installation.

*Refer to the **manufacturer's manual**, which will be given to you on the day of installation, before the first start-up.*

- **Electric heat pump:**

Here is the electrical information provided by the manufacturer. They should, in all cases, be validated by a certified electrician.

- 50 000 btu heat pump: 230v – 20A
- 65 000 btu heat pump: 230v – 30A
- 80 000 btu heat pump: 230v – 40A

The power cable must be provided by your electrician.

IMPORTANT INFORMATION
80 000 BTU

GFCI connection information - Siemens 2nd Generation circuit breakers.

To prevent hazard caused by electrical shocks, the Canadian electrical code requires that all « heat pump» appliances be connected to a GFCI.

To ensure proper operation of your variable speed heat pump, we recommend that you use a second generation Siemens GFCI. Although all Class A GFCIs have a standardized 5 mA current differential threshold, most GFCIs are overly sensitive and cut off the current well before the 5 mA differential (but still meet the standard for Class A). The second generation Siemens GFCIs are more accurate and will cut the current when there is a current differential of 5 mA or more and not before.

Variable speed heat pumps are equipped with an inverter compressor that operates on DC current and will often cause a current differential that is too high for the majority of GFCIs on the market, which is why we strongly recommend Siemens 2nd Generation GFCIs.

- **<u>Gas water heaters:</u>**

Here is the electrical information provided by the manufacturer. They should, in all cases, be validated by a certified electrician.

All models can be connected to 120v or 240v.

- 240v – 1A
- 120v – 2A

The power cable must be provided by your electrician.

The electrical installation must be done by your electrician and the gas part must be done by a heating specialist.

YOUR EQUIPMENT NEEDS TO BE GROUNDED

Your electrician will have to connect the **equipment you have to a grounding rod or a grounding plate**.

Here are the 2 grounding forms concerning your installation:

- **Grounding for electrical safety:**

All the electrical equipment in your home is concerned. The same applies to the electrical devices used to manage your pool. They must be connected to it in the usual way by a ground cable.

Items that must be grounded for the electrical safety of the various electrical equipment:

- The pump
- The salt chlorination system
- The heat pump
- The gas water heater

- **Local functional grounding :**

THE POOL BOND is a local functional ground.

It must be different from the electrical safety grounding. It allows the evacuation of induced currents created by the water and the devices in contact with the water.

The grounding of your pool bond should be done with one or more iron stakes to be planted in the ground near your pool. This stake must be long enough, depending on the nature of the soil, to be in permanent contact with the wet ground. This is an important condition for it to play its role fully. It must obviously be driven in along its entire length for total effectiveness.

The 2 grounds will not be interconnected to avoid the phenomena of possible return of ground coming from an electrical device of the house.