LAPIERRE

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AUTOFLO

USER MANUAL

August 2025 | Version 02

LAPIERRE

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A leader in equipment and products for the maple syrup industry, LAPIERRE EQUIPMENT distinguishes itself by its ability to innovate and develop high-performance solutions. This is what enables it to make significant changes in production techniques and processes in order to increase crop yield of high quality syrup.

LAPIERRE EQUIPMENT has a wealth of experience accumulated over three generations of maple syrup producers. These are also people driven by passion and a deep desire to help the industry evolve with the utmost respect for nature.

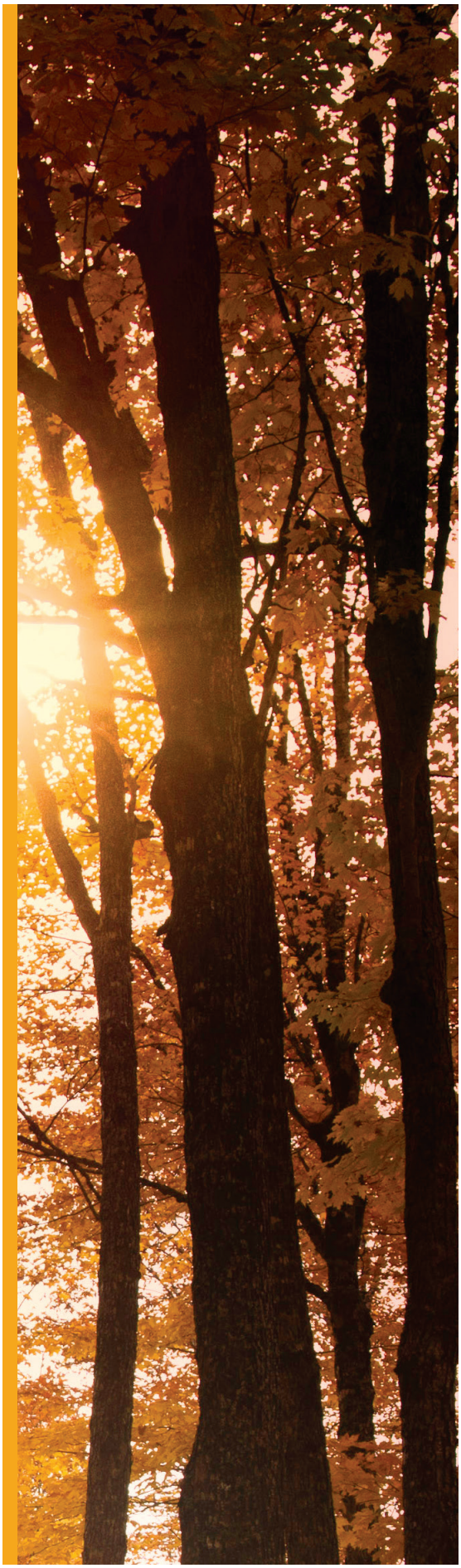
Honoured to serve your customers

LAPIERRE EQUIPMENT is honoured to actively assist maple syrup producers during the sugar season.

Today you have made a wise choice for at least two good reasons: the superior quality of our products and the exceptional quality of all our expert advisers in the region.

We sincerely appreciate your trust. And we will be happy to serve you again in your future equipment purchases, regardless of the size of your sugar bush.

Thank you!



Lapierre Equipment Inc.

99 Rue de l'Escale, Saint-Ludger (QC) Canada G0M 1W0

819 548.5454 | 1 833 548.5454 | info@elapierre.com

www.elapierre.com

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AUTOFLO

Please note the information required below when dealing with customer service professionals. You can easily find this information on **your invoice**.

The model shown may differ from your model.

IMPORTANT INFORMATION ABOUT YOUR AUTOFLO

Customer Service: 819 548.5454 | 1 833 548.5454 | info@elapierre.com

Serial number: _____

Purchase date: _____

Invoice number: _____

We will be pleased to answer any of your questions, please do not hesitate to contact us.

AUTOFLO

Some instructions apply to models sold from 2025.

LATEST VERSION OF THIS USER'S MANUAL: Please refer to our website for the latest version of this user's manual.

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TABLE OF ILLUSTRATIONS

TABLE OF WARNINGS

1.1 INSTRUCTIONS

- It is important to read, understand and follow the instructions and warnings contained in this user manual.
- This manual must be stored in a known place and accessible at all times by staff.
- All product operators must be familiar with the contents of this manual.
- Certain instructions may not apply to your equipment, depending on your model.

1.2 WARNING: ELECTRICITY, LIQUIDS, OTHER

Electricity

- Never connect the electrical cords to overloaded electrical circuits.
- Never use extension cords that are longer than necessary or of low gauge.
- Make sure that the electrical cords are in good working order, that they are not pinched or stripped, and that they are not altered in any way that could affect their safe use.
- Never touch a stripped wire when it is live. Then turn off the power and repair the equipment before turning it back on and using it.
- The user must check the grounding circuit. Some equipment must be used or connected to other equipment that is also equipped with a grounding circuit. Disabling or a malfunctioning of this circuit may cause equipment operating conditions that are hazardous to its users.
- Always unplug the power cord from the equipment when it is not going to be used for a long period of time.

Liquids

- Never expose AutoFlo to rain or excessive condensation.
- Never bring liquids into contact with the electronic components.

Other

- Never place heavy objects on your equipment as their weight could damage parts of your AutoFlo.

1.3 REPAIRS AND MAINTENANCE

- Stop using the equipment immediately if a malfunction is detected.
- Only LAPIERRE EQUIPMENT authorized personnel may carry out repairs on this equipment.
- Unauthorized modifications or repairs may result in hazardous operating conditions. These conditions may also cause varying degrees of injury to users.
- Always disconnect the power supply before performing any maintenance or repairs.
- It is recommended that equipment inspections and maintenance be carried out diligently to ensure optimal operational integrity. See *Section 6: Rinsing and cleaning the electronic valves* for more information.
- Never disassemble the electrical components of this equipment.

PROTECT CHILDREN

- Never allow children to use this equipment.
- Never leave children unattended in proximity to this equipment, whether it is switched on or not.

SECTION 2 **AUTOFLO**

Developed by LAPIERRE EQUIPMENT, AutoFlo is installed directly on the supply manifold outlets of your water jacketed bottling tank.

It allows for the automatic filling of one to four containers up to a level that you have pre-adjusted for each of them. This type of container may be for example a can, a bottle, or a 4-litre container.

1. AutoFlo control box.
2. On/Off push-button, powering up the AutoFlo control box.

Automatic filling or jog mode push-buttons

3. Push-button for electronic valve No. 1 (8), integrated into the AutoFlo control box (1).
4. Push-button for additional electronic valve No. 2.
5. Push-button for additional electronic valve No. 3.
6. Push-button for additional electronic valve No. 4.
7. Valve actuator.
8. Electronic valve No. 1, pre-installed on the AutoFlo control box (1).
9. Pouring elbow.
10. Liquid level adjustment probe in the container, rod and spring.

Model shown may differ from your model.

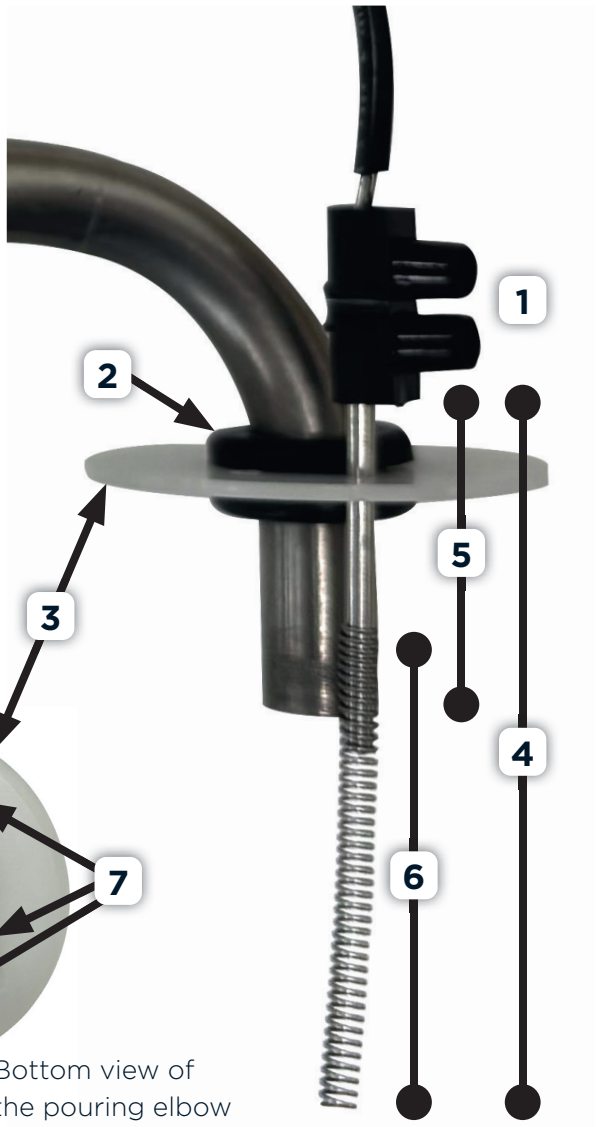
ILLUSTRATION 2 | Additional electronic valve connectors

Removable protective caps are provided and factory-installed for each connector.

Right side of AutoFlo control box

1. Additional electronic valve connector No. 2
2. Additional electronic valve connector No. 3
3. Additional electronic valve connector No. 4

ILLUSTRATION 3 | Additional electronic valve



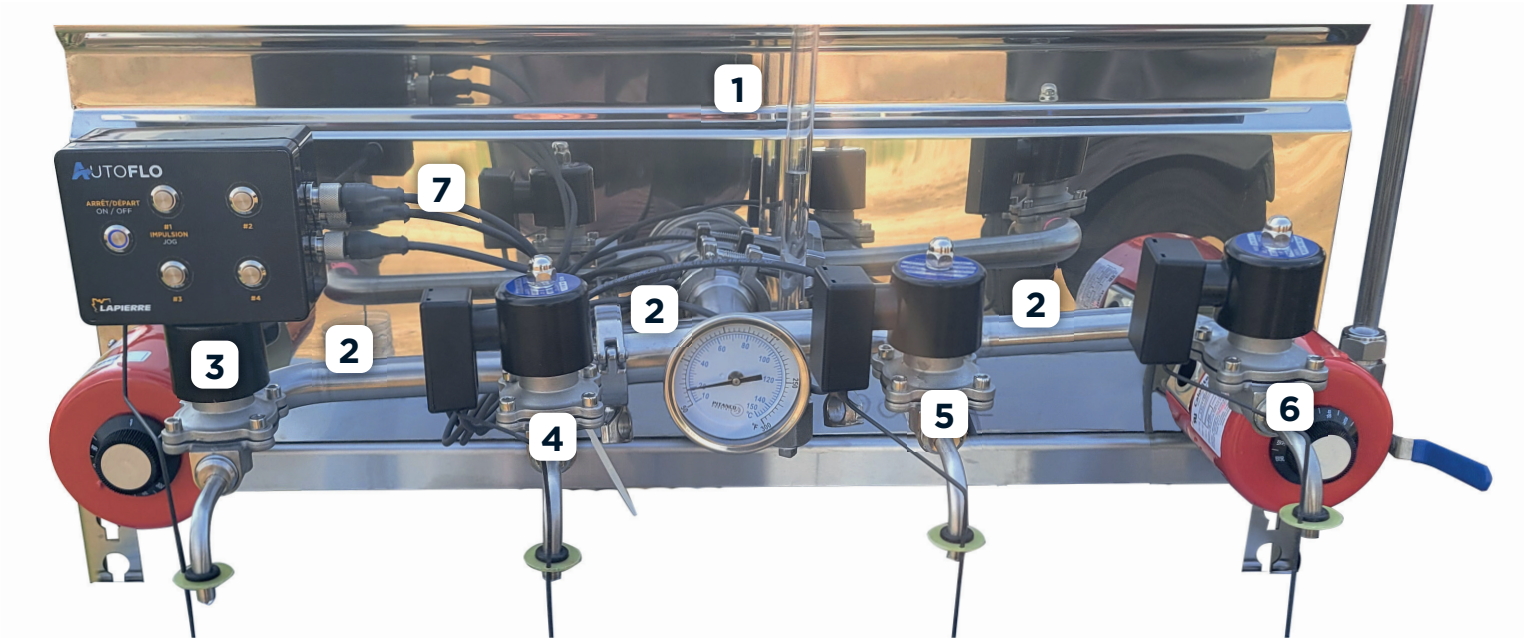
Bottom view of the pouring elbow

1. Wire-probe connector
2. Black rubber eyelet
3. Flat washer

Probe

4. Probe (rod and spring)
5. Probe rod
6. Probe spring
7. Flat washer holes

ILLUSTRATION 4 | Syrup tank, AutoFlo, and additional electronic valves



Model shown may differ from your model.

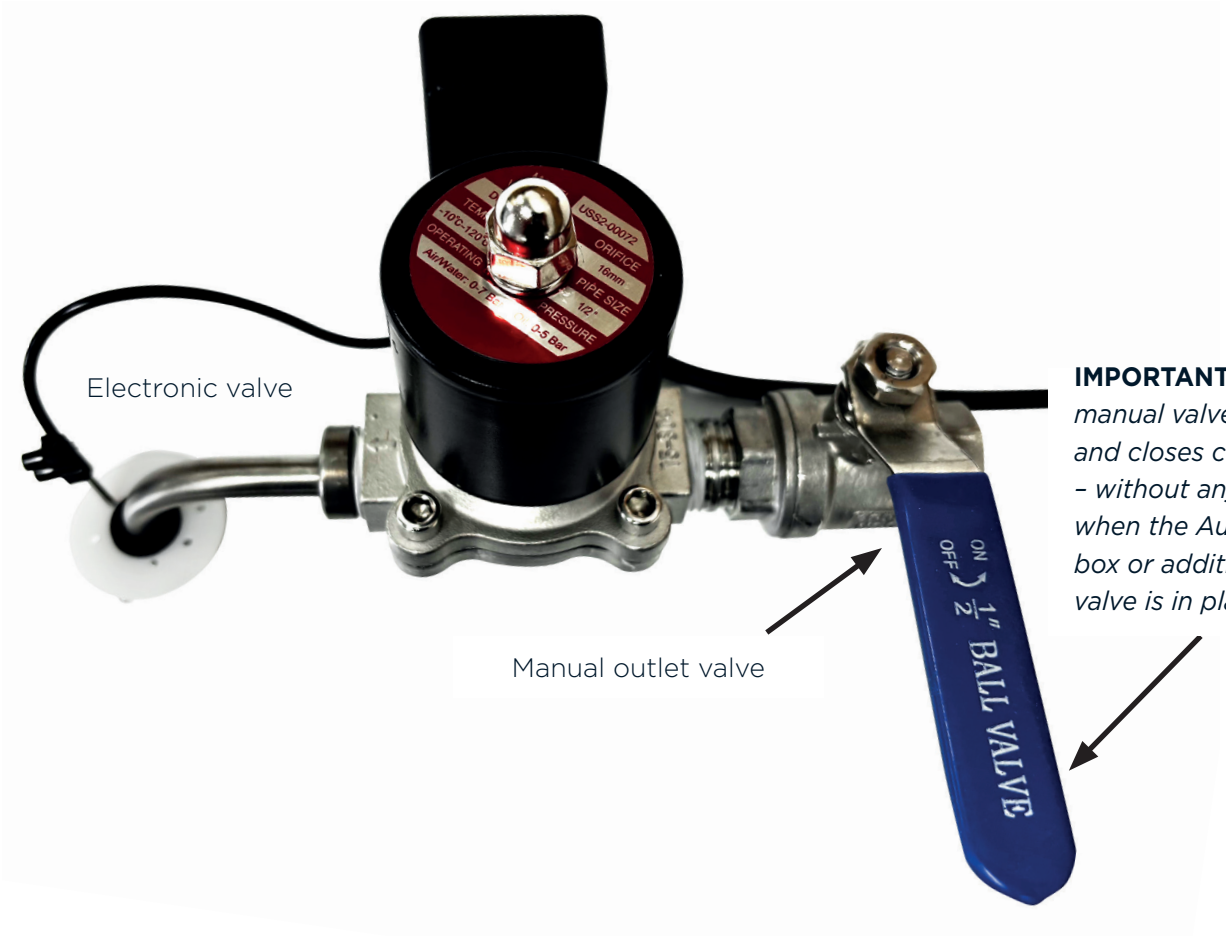
1. Syrup tank
2. Supply manifold
3. AutoFlo control box and valve No. 1
4. Valve No. 2
5. Valve No. 3
6. Valve No. 4
7. 3 additional electronic valve connectors

LOCATION | The AutoFlo control box is placed following one of the manual outlet valves (*Illustrations 5 below and 4 Nos. 3, 4, 5, and 6*) installed on the supply manifold of your equipment. The same goes for all other additional electronic valves that you are installing, up to three depending on your configuration. This manual is drafted taking into account three other additional electronic valves.

These manual outlet valves are useful to control the flow or block the entry of syrup arriving at each electronic valve.

TIP | Since the three additional electronic valve connectors are located on the right side of the AutoFlo control box (*Illustrations 2 and 4 No. 7*), we recommend installing this box on the leftmost outlet of the supply manifold when you are facing it (*Illustration 4 No. 3*). This allows for smoother installation of the wires between the connectors and additional electronic valves Nos. 2, 3, and 4, which are installed to the right of the AutoFlo control box.

ILLUSTRATION 5 | Installation of an electronic valve following a manual outlet valve



IMPORTANT | *Ensure that the manual valve handle opens and closes completely – without any obstacles – when the AutoFlo control box or additional electronic valve is in place.*

4 ELECTRONIC VALVES | The AutoFlo control box can operate up to 4 electronic valves. First, electronic valve No. 1 (*Illustration 4 No. 3*) integrated under the AutoFlo control box, as well as three other additional valves (*Illustration 4 Nos. 4, 5, and 6*) controlled by each of the three connectors located on the right side of the box (*Illustrations 2 and 4 No. 7*).

WHAT YOU NEED TO PREPARE | To install the AutoFlo control box and the additional electronic valves, you'll need:

- the AutoFlo box and the additional electronic valves, from one to three, depending on your configuration,
  - the pouring elbows (*Illustration 1 No. 9*) are pre-installed at the factory on the electronic valves, including the one on the control box,
- 1.27 cm (1/2 in.) male-male fittings (nipples) provided, one for each electronic valve including the one on the control box,
- sealant tape (plumbing),
- tie wraps long enough to secure the wires of the additional electronic valves.

To install the AutoFlo box and the additional electronic valves, proceed as follows:

NOTE | Always place sealant tape on each of the male threads during installation. The tape must in no way impede the free circulation of the syrup inside the pipe.

■ Pre-installation checks

1. First, check the condition and integrity of the AutoFlo box and each of the additional electronic valves.
2. Then, temporarily connect the AutoFlo box power supply to an electrical outlet.
   - Continue the operation if, upon connection, all the indicator lights on the 5 push-buttons blink once and go out.
   - Check the voltage of your adapter if the On/Off push-button indicator light blinks continuously. In this case, the AutoFlo will not work.
   - If the indicator lights do not illuminate, it is possible that your wire is poorly connected or that your adapter is defective.
3. Then, turn the AutoFlo on by pressing the On/Off push-button (*Illustration 1 No. 2*) once. The indicator light on the button will then illuminate continuously. Continue in this manner.
   - You must hear a click in the electronic valve located under the AutoFlo box when you press the valve No. 1 push-button (*Illustration 1 No. 3*).
   - In order to hear the click in each of the other additional electronic valves, connect them one by one temporarily to one of the connectors (*Illustration 2*) and press the corresponding push-button (*Illustration 1 Nos. 4, 5, or 6*).

■ Installation

4. Install the AutoFlo box on the first manual outlet on the left of the supply manifold (*see Tip* at the start of *Section 4*) so that it is vertical in its final position. Tighten without excess.

   NOTE | *Ensure that the manual valve handle opens and closes completely – without any obstacles – once the AutoFlo box is in place* (*Illustration 5*).

5. Install each of the additional electronic valves – up to three depending on your configuration – on the other manual outlets of the supply manifold. Tighten without excess.

   NOTE | *Ensure that the manual valve handle opens and closes completely – without any obstacles – once the additional electronic valve is in place.*

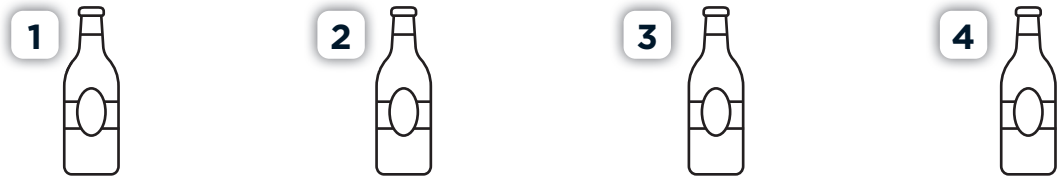
6. Connect the wire from each of the additional electronic valves to connectors Nos. 2, 3, and 4 (*Illustration 6*), depending on the number of valves in your configuration. Tighten without excess.
   - Ideally, connect the second electronic valve on the left (*Illustrations 4 No. 4* and *6 No. 2*) to connector No. 2. Connect the third (*Illustrations 4 No. 5* and *6 No. 3*) to connector No. 3. And connect the fourth (*Illustrations 4 No. 6* and *6 No. 4*) to connector No. 4.

     In this way, it will be visually more intuitive to connect each of the 4 push-buttons to the order of the 4 containers (*Illustration 6, gold arrows*) on your equipment during AutoFlo operation.

ILLUSTRATION 6 | Connecting the electronic valves to the connectors

AutoFlo control box

Valve CONNECTORS Nos. 2, 3, and 4
Right side



VALVE NO. 1
container

VALVE NO. 2
container

VALVE NO. 3
container

VALVE NO. 4
container

ORDER OF THE CONTAINERS ON YOUR EQUIPMENT

Order of connection (GREY ARROWS) of the valves (GOLD ARROWS), from left to right, to your equipment.

- Valve No. 1 is connected by default to the AutoFlo control box.
  You do not have to connect it.
- Connect VALVE NO. 2 to CONNECTOR NO. 2.
- Connect VALVE NO. 3 to CONNECTOR NO. 3.
- Connect VALVE NO. 4 to CONNECTOR NO. 4.

7. Use tie wraps to secure the wires so that they cannot accidentally be snagged.
8. Connect the AutoFlo control box. Connect the power cable to the box first, then connect it to the power outlet.
9. Each probe (*Illustration 3 No. 4*) consists of two parts: its rod (*Illustration 3 No. 5*) and its spring (*Illustration 3 No. 6*). The probes are already pre-installed at the factory in one of the holes (*Illustration 3 No. 7*) of the flat washers (*Illustration 3 No. 3*). If it is necessary to move a probe to another hole, then proceed as follows.
    - Remove the spring from the probe rod. To do so, turn it delicately counter-clockwise. Then, gently remove the rod from the washer with your fingers and insert it into the hole that best meets your needs according to what is described below.
    - Turn the flat washer to the left or right as needed to facilitate the insertion of the rod into the chosen hole and promote the proper alignment of the probe toward the neck of the container.
    - You will notice that several holes are pre-drilled on the flat washer at different distances from the centre of the washer (*Illustration 3 No. 7*). While the choice of hole is less important for a can, except that the spring must never touch the conductive metal of a can, it can be an issue for a bottle with a narrow neck.
    - Indeed, when filling a bottle with a narrow neck, this neck must necessarily be centred in relation to the spout of the pouring elbow. The passage of the probe into the narrow neck must therefore not hinder the proper position of the container under the spout of the pouring elbow.
    - Finally, put the spring back in place on the rod by gently turning it counter-clockwise.

      IMPORTANT | Whether removing the spring or putting it back in place on the rod, never turn it clockwise.

At this stage, it is recommended to check the airtightness of the sealant tape. To do so, use the AutoFlo with water that you have put in your syrup tank.

Hot syrup can cause severe burns. Always wear **SAFETY GOGGLES and HEAT-RESISTANT GLOVES AND CLOTHING** when working with this equipment.

AVOID CONTACT WITH METAL PARTS in which hot syrup is circulating.

AVOID CONTACT WITH THE ACTUATOR (*Illustration 1 No. 7*), **THE ELECTRONIC VALVE** *(Illustration 1 No. 8)* **AND THE POURING ELBOW** *(Illustration 1 No. 9).* These parts become very hot when using the AutoFlo.

5.1 CONTAINERS WITH IDENTICAL SHAPES AND VOLUMES FOR EACH VALVE

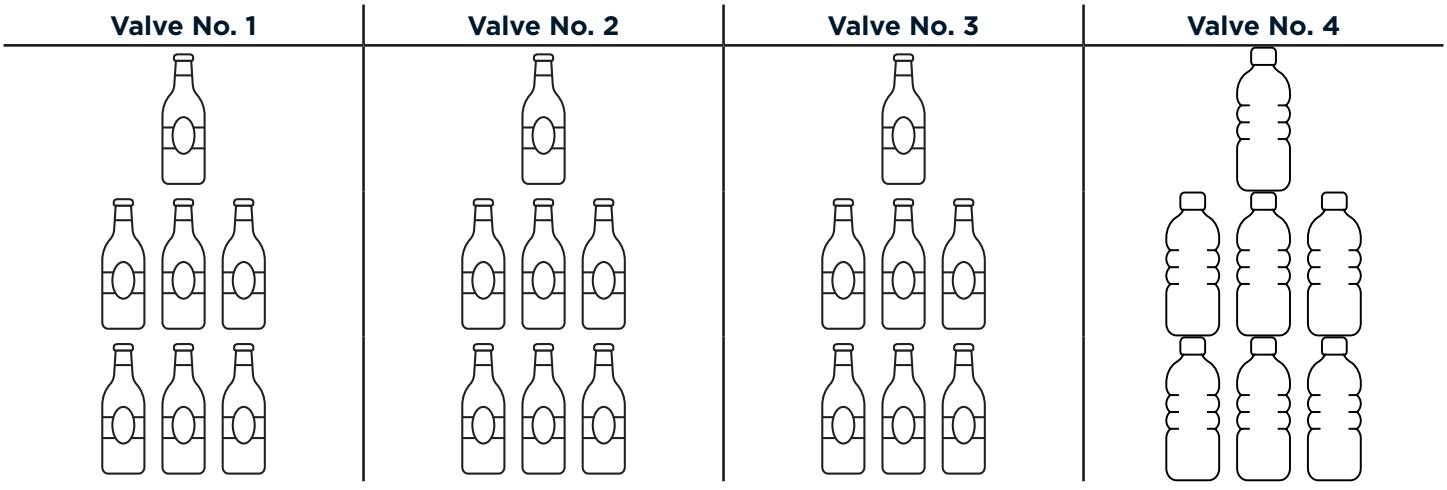
In *Subsection 5.2* below, you will adjust the liquid level in the container located under each of the 4 valves taken separately. You will make an adjustment for valve No. 1, a second adjustment for valve No. 2, another for valve No. 3, and a final adjustment for valve No. 4.

Take valve No. 1 for example. For this valve, throughout your filling operation, it is logical for you to use a *container identical to the one that you used to carry out your level adjustment.* The same goes for the other 3 valves.

To that end, as seen in *Illustration 7*, you could use identically shaped 500 mL containers for valves Nos. 1, 2, and 3, and a differently shaped 650 mL container for valve No. 4. This choice is at your discretion. The principle is to use *containers with identical shapes and volumes for the same valve throughout your filling operation.* You could obviously use the same container for all 4 valves.

NOTE | For practical reasons, it is preferable to use a bottle with a neck measuring at least 19.05 mm (3/4 in.) wide.

ILLUSTRATION 7 | Containers with identical shapes and volumes for each valve



Use containers with identical shapes and volumes for the same valve.

5.2 ADJUSTING THE LIQUID LEVEL IN THE CONTAINER

The probe must have been inserted beforehand into one of the holes (*Section 4 point No. 9* and *Illustration 3 No. 7*) in the flat washer located at the end of the pouring elbow.

The sensitivity of the probe is located at the end of its spring. The electronic valve closes automatically when maple syrup comes into contact with this end.

Consequently, manually adjust the height of the probe to obtain the desired syrup level in the container under each of the valves. To do so:

- place a sample of your bottling container under each of the valves, inserting the probe into the neck,
  - move the probe into another hole in the flat washer if necessary (*Section 4 point No. 9* and *Illustration 3 No. 7*),
- then, adjust the height of the probe using one or more of the following tips:
  - raising or lowering the probe spring (*Illustration 3 No. 6*) by gently turning it counter-clockwise,

    IMPORTANT| Whether raising or lowering the spring, never turn it clockwise.
  - gently raising or lowering the probe rod (*Illustration 3 No. 5*) in the flat washer (*Illustration 3 No. 3*) using your fingers,
  - gently raising or lowering the black rubber eyelet (*Illustration 3 No. 2*) on the vertical part of the pouring elbow using your fingers,
- carry out filling tests until the desired liquid level is achieved. During these tests, return the syrup to the syrup tank.

5.2.1 Air evacuation and heating of the piping

This adjustment of the desired liquid level in the containers should be sufficient to evacuate any air found in the piping. A few additional fillings may be necessary to sufficiently heat the piping through which the syrup circulates. You can then immediately proceed to the operation of filling your containers.

5.3 SYRUP TEMPERATURE

The maple syrup must be AT LEAST 85 °C (185 °F) IN THE CONTAINER when you tightly secure the lid onto the can or screw the cap onto the bottle or container.

Always check the temperature of a maple syrup sample in the container using a thermometer (not provided).

5.4 FILLING THE CONTAINERS

- Prepare your containers with identical shapes and volumes for each valve (*Section 5.1*).
- Connect AutoFlo to the power supply, if this has not already been done.
- Make sure that the manual outlet valves (*Illustration 5*) corresponding to the electronic valves you intend to use are open.
- Adjust the liquid level in the container (*Section 5.2*), if this has not already been done.
- Evacuate the air and heat the piping (*Section 5.2.1*).
- Ensure that the syrup is the correct temperature (*Section 5.3*).

THEN, PROCEED AS FOLLOWS:

1. Turn the AutoFlo on by pressing the On/Off push-button (*Illustration 1 No. 2*) once. The indicator light on the button will then light up continuously.
2. Place a first bottling container under the electronic valves that you plan to use. Insert the probe into the neck.

   NOTE | You can use the number of valves that you wish during your filling operation.

   IMPORTANT | Overflow is guaranteed if the probe is not inserted into the neck.
3. Proceed with the individual filling of your containers by pressing the push-button for the corresponding electronic valve Nos. 1, 2, 3, or 4 once (*Illustration 1 Nos. 3, 4, 5, or 6*). The indicator light on the button then lights up continuously during filling.

   Filling stops automatically at the previously adjusted fill level (*Section 5.2*) for each valve.
4. Replace the full container with an identical empty container (*Section 5.1*) under each valve.

   IMPORTANT | Ensure that the probe is inserted into each container that you place under each valve.
5. Repeat steps 2 to 4 as desired.

5.4.1 Filling from a valve stops unexpectedly

If the filling from a valve stops unexpectedly before the syrup has touched the end of the probe, it is possible to continue the container filling operation by pressing the push-button for the corresponding electronic valve once (*Illustration 1 Nos. 3, 4, 5, or 6*).

In this case, the filling will stop once the syrup touches the end of the probe.

5.4.2 Manually continuing the filling of a full container

It is possible that your container has been filled correctly, but you still want to add a small amount of syrup to it.

- ADDING a SINGLE portion of syrup | Press the push-button for the corresponding electronic valve once (*Illustration 1 Nos. 3, 4, 5, or 6*).
- ADDING MULTIPLE portions of syrup | Continuously press the push-button for the corresponding electronic valve. Several quick opening/closing sequences will then follow each other until you stop pressing the button.

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5.4.3 Stopping and restarting an electronic valve during the filling operation

To stop an electronic valve during the filling operation, simply press the push-button for the corresponding electronic valve once (*Illustration 1 Nos. 3, 4, 5, or 6*).

To restart this same valve, simply press its push-button again. The filling operation then continues and stops automatically at the previously adjusted fill level (*Section 5.2*).

5.4.4 Stopping all the valves at the same time during the filling operation

If, for any reason, you wish to stop all the electronic valves at the same time, simply press the On/Off push-button (*Illustration 1 No. 2*), which then turns off the AutoFlo control box.

To continue filling your containers, simply turn the AutoFlo on again by pressing the On/Off push-button, then activate each valve by pressing each of the push-buttons for the corresponding electronic valves (*Illustration 1 Nos. 3, 4, 5, or 6*).

5.5 PROGRAMMED AUTOFLO AND VALVE SHUTDOWNS

The AutoFlo control box shuts down after 60 minutes of inactivity.

The electronic valves shut down after 5 minutes of activity.

It is recommended to rinse all the electronic valves after each filling operation. A deep cleaning is also recommended at the end of the season.

6.1 RINSING AFTER A FILLING OPERATION

At the end of each filling operation, it is recommended to rinse all the valves.

WHAT YOU NEED TO PREPARE | To clean the electronic valves, you will need:

- any containers to put under each valve,
- very hot water in the syrup tank,
- a soft cloth.

To do so, proceed as follows:

1. 1. Empty the syrup tank of its contents and rinse it thoroughly.
2. Add a sufficient amount of **very hot water** to the syrup tank to rinse the valves.
3. Place your empty containers under each valve.
   - At this stage, the type of container does not matter, since they are only used to recover the hot water under each valve.
4. Press the On/Off push-button (*Illustration 1 No. 2*) once to turn on the AutoFlo control box.
5. Continuously press each of the electronic valve push-buttons (*Illustration 1 Nos. 3, 4, 5, and 6*) so that they work in jog mode. Continue this action for at least 30 seconds or as long as you deem necessary.
   - Empty your containers when it is necessary to do so.
6. Once the operation is complete, drain your syrup tank completely through the valves by pressing each of the 4 electronic valve push-buttons once. Press the push-buttons again once no more liquid is flowing through the valves.
7. Turn off the AutoFlo control box by pressing the On/Off push-button.
8. Let the actuators (*Illustration 1 No. 7*), valves, and pouring elbows cool before touching them.
9. Carefully clean your probes using a soft, clean cloth soaked in hot water.
   - If necessary, remove the spring from the probe rod as described in *Section 4, point No. 9*, then clean it by immersing it in very hot water or with very hot water pressure under the tap, then put it back in place on the probe rod as described in the same place.

AVOID CONTACT WITH THE ACTUATOR (*Illustration 1 No. 7*), **THE ELECTRONIC VALVE** *(Illustration 1 No. 8)* **AND THE POURING ELBOW** *(Illustration 1 No. 9).* These parts become very hot when using the AutoFlo.

6.2 END-OF-SEASON CLEANING

At the end of the season, it is recommended to clean all the electronic valves thoroughly.

This cleaning can also be carried out during the season, if necessary, particularly when a reduction in valve flow performance is noted.

Although, in practice, this cleaning is the same for all four valves, slight differences apply to the one located under the AutoFlo control box vs. the other three additional electronic valves.

WHAT YOU NEED TO PREPARE | To clean the electronic valves, you will need:

- a 5 mm hexagonal Allen key (steps 5 and 11 | 16 and 21),
- a container (steps 6 | 17),
- very hot water (steps 6 | 17),
- a soft cloth (steps 6 | 17),
- a twisted cloth (steps 7 | 17),
- a pipe cleaner-type brush (steps 7 | 17),
- a food-grade silicone lubricant (optional: **DV**491-000284**XX**) (steps 9 | 19).
- sealing tape, if necessary (steps 12 | 23),
- a 14 mm key (steps 14 and 22).

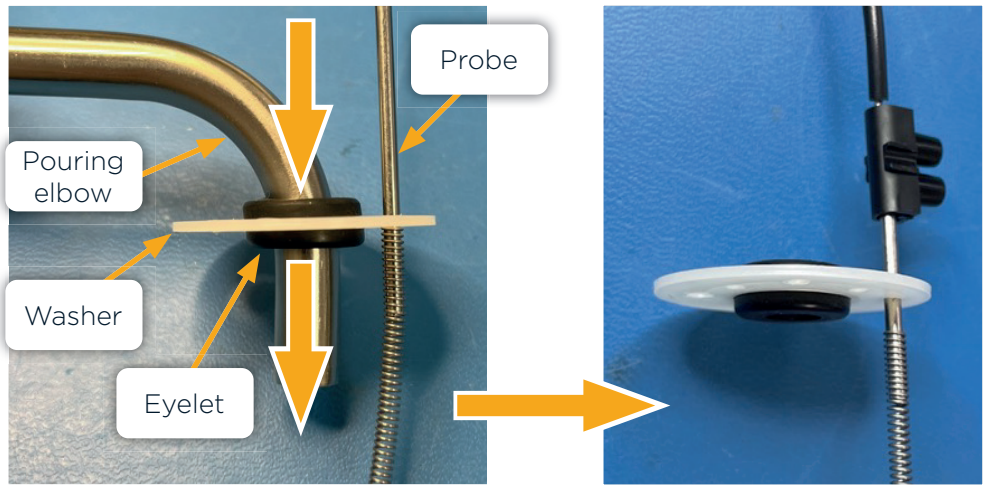
To do so, proceed as follows:

1. EMPTY THE SYRUP TANK of its contents and RINSE THOROUGHLY.
2. LET the ACTUATORS (*Illustration 1 No. 7*), VALVES, and POURING ELBOWS COOL before touching them.

> **AVOID CONTACT WITH THE ACTUATOR** (*Illustration 1 No. 7*), **THE ELECTRONIC VALVE** *(Illustration 1 No. 8)* **AND THE POURING ELBOW** *(Illustration 1 No. 9).* These parts become very hot when using the AutoFlo.

3. RELEASE THE FLAT WASHERS FROM THE POURING ELBOWS | Using your fingers, gently lower and release the eyelets, washers, and probes from the pouring elbows. *Release the eyelet-washer-probe sets as a block without disassembling them from each other.* Pay special attention to the probe springs during handling to avoid damaging them.

ILLUSTRATION 8 | Releasing the eyelet-washer-probe set from the pouring elbow



Release the eyelet-washer-probe sets as a block without disassembling them from each other.

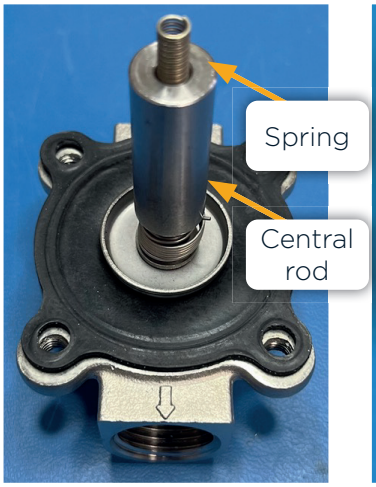
4. REMOVE THE POURING ELBOWS IF NECESSARY | Unscrew and remove the pouring elbows only if it is necessary to do so.

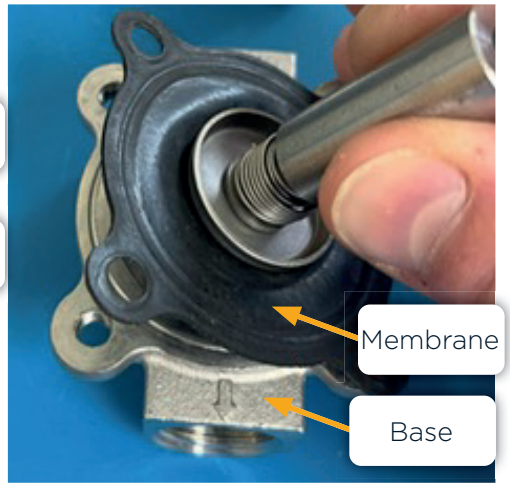
→ Electronic valve under the AutoFlo control box

5. SEPARATE THE TWO PARTS OF THE ELECTRONIC VALVE | Using the Allen key, unscrew the 4 bolts of the electronic valve (1). Then, **carefully** *open the valve* (2), since some parts, with a sudden movement, could detach and fall. Special attention should be paid to the spring inserted freely into the central rod of the valve. Finally, gently separate the central rod and its membrane from the base of the electronic valve.

ILLUSTRATION 9 | Separating the two parts of the electronic valve

Carefully *open the valve*





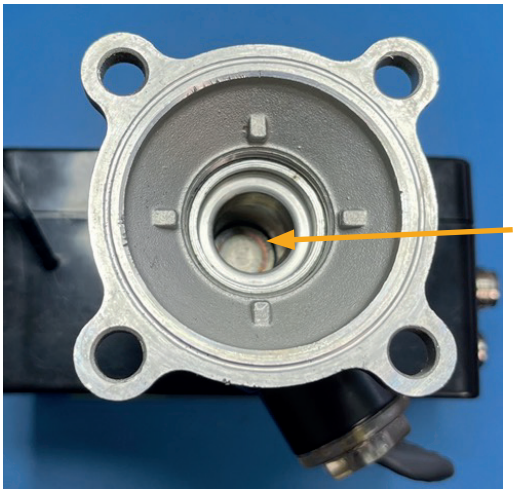
6. SOAK THE DETACHED PARTS IN VERY HOT WATER | In a container, soak all the parts that have now been detached from the electronic valve in very hot water. Gently clean each part. Use a soft, damp cloth if necessary. Take special care with the spring. Let the parts dry completely before re-assembling the electronic valve.

ILLUSTRATION 10 | All the parts of the electronic valve (under the AutoFlo) disassembled

7. CLEAN THE UPPER PART OF THE VALVE | The upper part of the electronic valve attached to the AutoFlo control box is cleaned using a twisted cloth soaked in hot water and a pipe cleaner-type brush (*Illustration 12*). Note that the cavity in the upper part which accommodates the central valve rod and the spring is 14 mm (0.55 in.) in diameter. This measurement could be useful in choosing your pipe cleaner.

NEVER IMMERSE THE AUTOFLO CONTROL BOX IN WATER.

ILLUSTRATION 11 | Upper part of the electronic valve of the AutoFlo control box



Cavity
(14 mm/0.55 in.
in diameter)

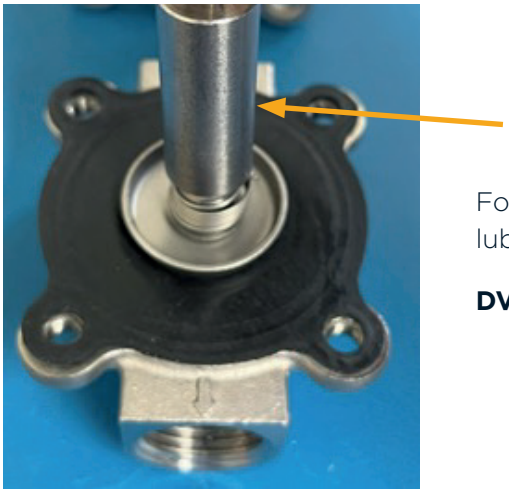
ILLUSTRATION 12 | Pipe cleaner-type brush

8. PUT THE MEMBRANE BACK IN PLACE ON THE BASE OF THE ELECTRONIC VALVE | At this stage, pay attention to the following indication: the location of the valve outlet (indicated by an arrow grooved directly into the base of the valve outlet) vs. that of the small hole in the membrane.

ILLUSTRATION 13 | Position of the valve outlet vs. the hole in the membrane

9. LUBRICATE THE CENTRAL ROD OF THE VALVE | At this stage, although it is optional, it is recommended to lubricate the central rod of the electronic valve without excess. You can acquire the recommended lubricant from your Lapierre distributor.

ILLUSTRATION 14 | Lubricating the central rod of the valve



Food-grade silicone lubricant

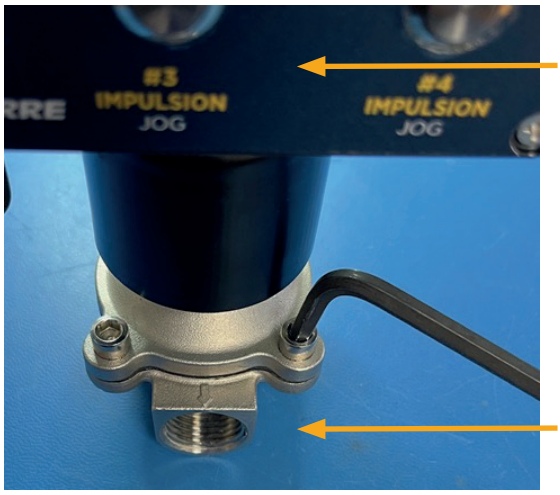
DV491-000284**XX**

10. INSERT THE SPRING INTO THE CENTRAL ROD OF THE VALVE

ILLUSTRATION 15 | Inserting the spring into the central rod of the valve

11. CONNECT THE TWO PARTS OF THE ELECTRONIC VALVE | Using the Allen key, screw in the 4 bolts of the electronic valve. Tighten without excess. *Take care to position the valve outlet facing forward, on the same side as the front of the AutoFlo control box.*

ILLUSTRATION 16 | Connecting the two parts of the electronic valve



Front of the AutoFlo control box

Take care to position the valve outlet facing forward, on the same side as the front of the AutoFlo control box.

Valve outlet

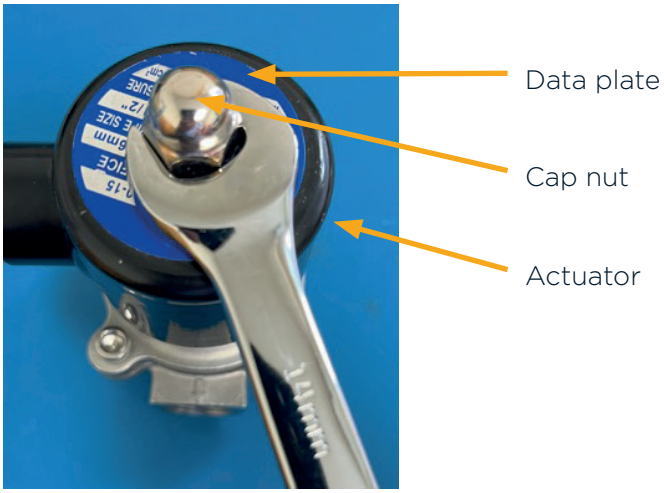
12. REPLACE THE POURING ELBOW IN THE VALVE OUTLET | If you removed the pouring elbow in step 4, put it back in place on the valve outlet using sealing tape. Tighten without excess.

13. PUT THE FLAT WASHER BACK IN PLACE ON THE POURING ELBOW | Using your fingers, gently put the eyelet-washer-probe set back in place on the pouring elbow. Pay special attention to the probe spring during handling.

→ **Additional electronic valves**

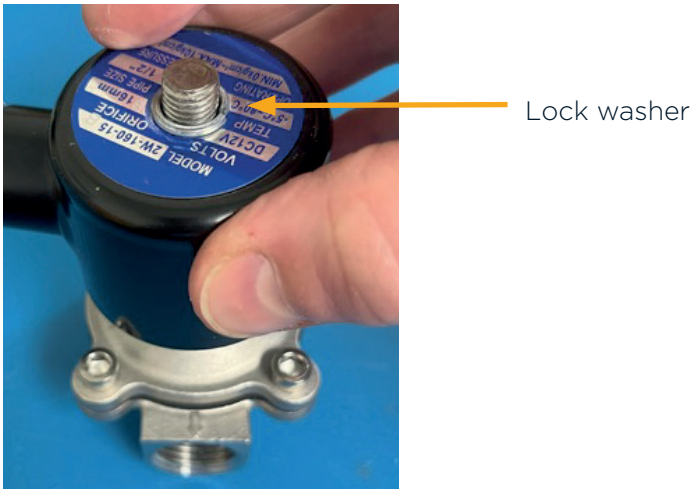
14. UNSCREW THE CAP NUTS | Using the 14 mm key, unscrew the cap nuts above each of the actuators. Set aside the nuts, lock washers, and data plates. The data plates can be reinstalled on any of the electronic valves without distinction.

ILLUSTRATION 17 | Unscrewing the cap nuts



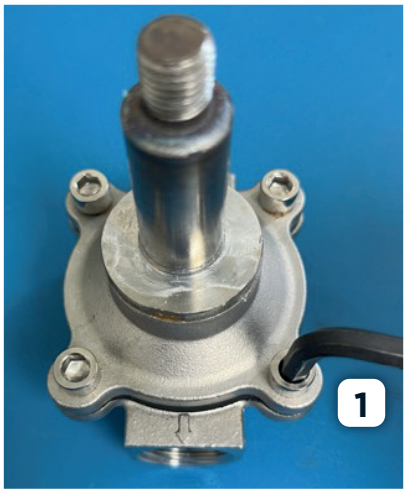
15. REMOVE THE ACTUATORS | Gently lift and remove the actuators.

ILLUSTRATION 18 | Removing the actuators and lock washers

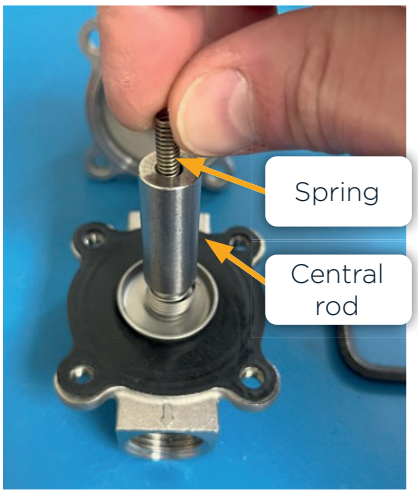


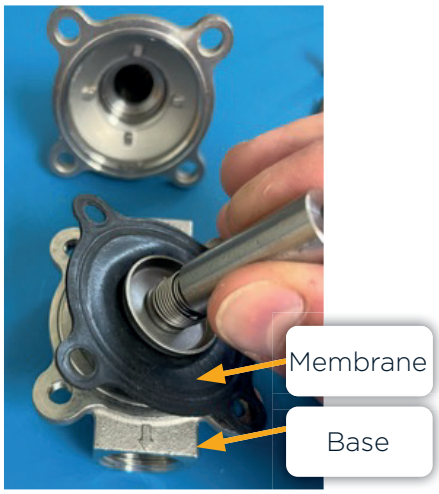
16. SEPARATE THE TWO PARTS OF THE ADDITIONAL ELECTRONIC VALVES | Using the Allen key, unscrew the 4 bolts of the electronic valves (1). Then, **carefully** *open the valve* (2), since some parts, with a sudden movement, could detach and fall. Special attention should be paid to the spring inserted freely into the central rod of the valve. Finally, gently separate the central rod and its membrane from the base of the electronic valve.

ILLUSTRATION 19 | Separating the two parts of the additional electronic valves



***Carefully** open the valve*





17. SOAK THE DETACHED PARTS IN VERY HOT WATER | In a container, soak all the parts that have now been detached from the electronic valves in very hot water. Gently clean each part. Use a soft, damp cloth, a twisted cloth, and a pipe cleaner if necessary. Take special care with the springs. Let the parts dry completely before re-assembling the electronic valves.

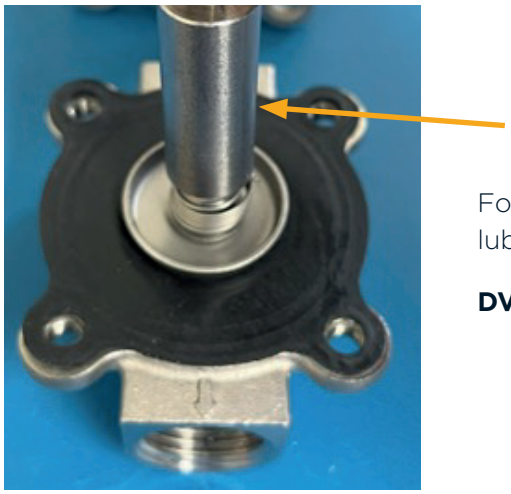
ILLUSTRATION 20 | All the parts of an additional electronic valve disassembled

18. PUT THE MEMBRANES BACK IN PLACE ON THE BASES OF THE ELECTRONIC VALVES | At this stage, pay attention to the following indication: the position of the valve outlets (indicated by an arrow grooved directly into the base of the valve outlet) vs. those of the small holes in the membranes.

ILLUSTRATION 21 | Position of the valve outlet vs. the hole in the membrane

19. LUBRICATE THE CENTRAL RODS OF THE VALVES | At this stage, although it is optional, it is recommended to lubricate the central rods of the electronic valves without excess. You can acquire the recommended lubricant from your Lapierre distributor.

ILLUSTRATION 22 | Lubricating the central rod of the valve



Food-grade silicone lubricant

DV491-000284**XX**

20. INSERT THE SPRINGS INTO THE CENTRAL RODS OF THE VALVES

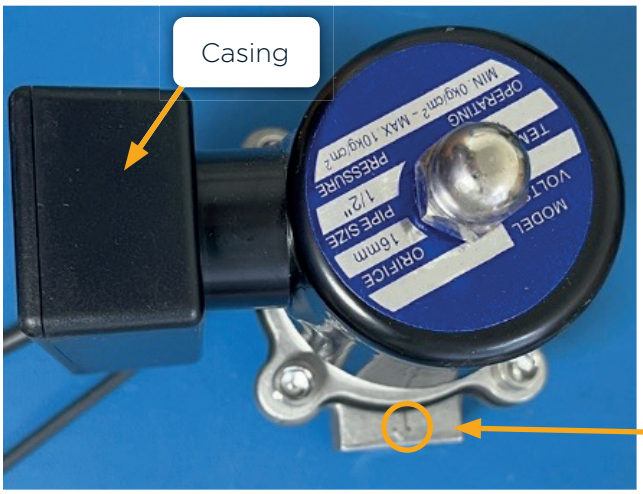
ILLUSTRATION 23 | Inserting the spring into the central rod of the valve

21. ATTACH THE TWO PARTS OF THE ADDITIONAL ELECTRONIC VALVES | Using the Allen key, screw in the 4 bolts of each of the electronic valves. Tighten without excess.

ILLUSTRATION 24 | Attaching the two parts of the electronic valve

22. PUT THE ACTUATORS BACK IN PLACE | Put the actuators, data plates, and lock washers back in place on each of the valves. The data plates can be reinstalled on any of the valves without distinction. *Take care to position the casing to the left of the valve outlet.* Then, tighten each of the cap nuts without excess using the 14 mm key.

ILLUSTRATION 25 | Positioning the casing to the left of the valve outlet



Take care to position the casing to the left of the valve outlet.

Valve outlet (grooved arrow)

23. REPLACE THE POURING ELBOWS IN THE VALVE OUTLETS | If you removed the pouring elbows in step 4, put them back in place on the valve outlets using sealing tape. Tighten without excess.

24. PUT THE FLAT WASHERS BACK IN PLACE ON THE POURING ELBOWS | Using your fingers, gently put the eyelet-washer-probe sets back in place on the pouring elbows. Pay special attention to the probe springs during handling.

SECTION 7 **PART CODES**

Find below the codes for some of the parts needed to use your AutoFlo. These codes are useful when ordering from our main factory and our various service centres.

Part description	**Part code**
Pouring elbow (without black rubber eyelet or flat washer)	**CS**020-060800**ST**
Available as a complete set only: • Wire-probe connector (*Illustration 3 No. 1*) • Probe rod (*Illustration 3 No. 5*) • Probe spring (*Illustration 3 No. 6*) • Black rubber eyelet (*Illustration 3 No. 2*) • Flat washer (*Illustration 3 No. 3*)	**EM**134-010201**XX**
1.27 cm (1/2 in.) male-male fittings x CL (nipples)	**RA**778-000800**S**6
Electronic valve	**EM**134-000002**XX**
20V adapter without power cord	**SW**4325**C**

8.1 SYRUP IS OVERFLOWING FROM THE CONTAINER

Solutions

- Lower the probe (*Illustration 1 No. 10*) so as to detect the level of liquid rising in the container more quickly.
- Reduce the flow of syrup reaching the electronic valve by slightly closing the manual outlet valve (*Illustration 5*).

8.2 YOUR CONTAINER IS EMPTY AND AUTOFLO IS OPERATING IN JOG MODE

In this case, it is likely that an unwanted electrical conduction is connecting the probe to the pouring elbow. AutoFlo then deduces that your container is full.

Since your container is perceived as full, the valve operates in jog mode when activated with the push-button instead of filling it. AutoFlo then operates according to the method described in *Section 5.4.2 Manually continuing the filling of a full container.*

Solutions

- Check for the existence of an unwanted syrup conductive link between the probe and the pouring elbow. If applicable, it must be removed.
- Check that the probe spring is not touching your container (can), if it is made of conductive metal, during filling.

8.3 YOU PRESS THE ON/OFF PUSH-BUTTON AND THE BLUE INDICATOR LIGHT DOES NOT ILLUMINATE

Solution

- Ensure that the power cable of the AutoFlo control box is connected to the box and the outlet.

8.4 YOU PRESS THE ON/OFF PUSH-BUTTON AND THE BLUE INDICATOR LIGHT FLASHES

Solution

- Check that the voltage of your adapter corresponds to that indicated on the back of the AutoFlo control box. If this is not the case, obtain an adapter with the recommended voltage.

8.5 YOU PRESS THE PUSH-BUTTON FOR AN ELECTRONIC VALVE FOR A FILL AND THE VALVE DOES NOT ACTIVATE

Solutions

- Check the power supply to the AutoFlo control box.
- Check that the AutoFlo is turned on by pressing the On/Off push-button once (*Illustration 1 No. 2*). The indicator light on the button will then light up continuously.
- FOR ADDITIONAL ELECTRONIC VALVES NOS. 2, 3, and 4 – Check that the power cable for the corresponding additional electronic valve is correctly plugged into the connector located on the right side of the AutoFlo control box.

8.6 AN ADDITIONAL ELECTRONIC VALVE IS NOT DETECTING THE SYRUP LEVEL

Solution

- The syrup level detection mechanism by the additional electronic valves works by electrical conduction. This conduction must, among other factors, lead from the end of the probe spring into the AutoFlo control box. It is therefore essential that all plumbing between these two parts be made of conductive metal.

8.7 AUTOFLO IS SWITCHED ON, ELECTRONIC VALVE IS ACTIVE, BUT SYRUP IS NOT FLOWING

Solution

- Check that your manual outlet valve is open (*Illustration 5*).

GENERAL WARRANTY
(WARRANTY CERTIFICATE)

KEEP YOUR PURCHASE INVOICE It is very important to keep the original invoice for the purchase of your equipment or a legible copy of it. **Otherwise, LAPIERRE EQUIPMENT INC. will not accept your warranty claim.**

The term MANUFACTURER is used for LAPIERRE EQUIPMENT to simplify the text.

1. TWO-YEAR LIMITED WARRANTY

The MANUFACTURER warrants that *all new products that it manufactures* are free of defects in manufacturing, materials, and workmanship. The warranty is valid for the end user for a period of two years, on parts and workshop labour, from the date of invoice of the product.

Furthermore, the warranty on parts and labour carried out on site, at the customer's location, is valid for a period of up to two years, depending on the product.

The warranty only applies when the product meets normal conditions of installation, use, and maintenance.

PRODUCT DEFECT | The appearance of a defect before the expiry date of the warranty must be reported to the MANUFACTURER immediately. The latter then repairs or replaces the defective parts with new equivalent parts.

DEFECTIVE PARTS | The defective parts replaced become the property of the MANUFACTURER. They are recovered during the after-sales service operation.

AESTHETICS | The aesthetic appearance of the products — parts and equipment — is covered by a 5-day warranty from the date of invoice.

Refer to *Section 10 — WARRANTY SUMMARY TABLE* for more information about the warranties.

2. ONE-YEAR LIMITED WARRANTY

NEW PRODUCTS AND EQUIPMENT | This warranty applies to certain products from our suppliers, certain wearing parts of our evaporators, extractor pumps, and certain labour services performed either by the MANUFACTURER or one of our suppliers.

The MANUFACTURER warrants that all new products are free of defects in manufacturing, materials, and workmanship. The warranty is valid for the end user for a period of one year, on parts and labour, from the date of invoice of the product. It only applies when the product meets normal conditions of installation, use, and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS, DEFECTIVE PARTS*, and *AESTHETICS* also apply.

USED PRODUCTS AND EQUIPMENT | This warranty applies to used products, unless otherwise stated.

The MANUFACTURER warrants that all used products are free of defects in manufacturing and materials. The warranty is valid for the end user for a period of one year, on parts and workshop labour, from the date of invoice of the product. It only applies when the product meets normal conditions of installation, use, and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS* and *DEFECTIVE PARTS* apply. *The AESTHETICS* provision does not apply.

OUT-OF-WARRANTY REPAIRS | This warranty also applies to out-of-warranty repairs, unless otherwise stated.

The MANUFACTURER warrants all out-of-warranty repairs for a period of one year, on replaced parts and their respective workshop labor, from the date of invoice of the repair. It only applies when the product meets normal conditions of installation, use and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS* and *DEFECTIVE PARTS* apply. *The AESTHETICS* provision does not apply.

Refer to *Section 10 — WARRANTY SUMMARY TABLE* for more information about the warranties.

3. THREE-MONTH LIMITED WARRANTY

Hardware and accessories from suppliers.

4. ORIGINAL MANUFACTURER'S WARRANTY

Tools and instruments from suppliers.

5. OTHER WARRANTY

Collection tubing and fittings have their own warranty — warranty certificate. Refer to the document: *WARRANTY CERTIFICATE — Collection tubing and fittings*.

6. WARRANTY TRANSFERABILITY

This warranty is transferable and applicable upon presentation of the original purchase invoice or a legible copy of it.

7. ELIGIBILITY FOR WARRANTY REPAIRS AND MODIFICATIONS

To be eligible for the warranty, any warranty repair or modification must MANDATORILY BE APPROVED BEFOREHAND by the MANUFACTURER, whether it is carried out by one of ITS AUTHORIZED DISTRIBUTORS or by other third parties.

8. EXCLUSIONS TO THE WARRANTY CERTIFICATE

8.1 OBSERVED CONDITIONS

This warranty becomes null and void when one or more of the following conditions are observed.

8.1.1 An altered, modified, or removed serial number

8.1.2 A product damaged by:

8.1.2.1 The user

- Usage deemed abusive or negligent.
- An accident caused by the user.

8.1.2.2 Negligence in following the instructions in the user manual

- Negligence on the part of the user to follow the instructions in the user manual: safety instructions, equipment installation, start-up and operating procedures, equipment maintenance and cleaning, and all other recommendations provided by the MANUFACTURER.

8.1.2.3 The installation, modification, or repair of the equipment

- Installation in a location unsuitable for normal use.
- A modification or repair not authorized by the MANUFACTURER.

8.1.2.4 A non-compliant equipment part

- The use of equipment parts other than the original parts from the MANUFACTURER.
- The use of equipment parts obtained through a service centre, technician, or distributor not authorized by the MANUFACTURER.
- The use of equipment parts likely to alter or damage the equipment.

8.1.2.5 An electrical problem

- A variation, an electrical surge, or excessive voltage.
- Poor quality of the power supply or electrical connection.

8.1.2.6 A problem with the cleaning products

- The use of cleaning products or acids likely to alter or damage the equipment, or used without following the recommendations of their respective manufacturer.

8.1.2.7 Inappropriate storage of corrosive products

- Corrosive products such as chlorine, for example, must not be stored in the same room as your equipment.

8.1.2.8 An event beyond control

- Events which are beyond the control of the MANUFACTURER, such as a mechanical shock (impact, collision, vibrations), water damage or a flood, a fire, lightning, a storm, an earthquake, or any other natural or human disaster.

8.2 EXPENSES AND LOSSES

This warranty does not cover the following expenses or losses.

8.2.1 Expenses for:

- transporting the equipment to the repair site and bringing it back to the customer,
- making the product accessible during a service call,
- service calls for reasons other than those provided for in the warranty. The warranty applies when a flaw, malfunction, or defect in manufacturing, materials, or workmanship appears,
- service calls associated with product start-up at the beginning of the season and product shutdown at the end of the season or after the season. However, these expenses may be covered if they are specified in the purchase contract,
- service calls received upon expiry of the warranty,
- annual equipment tune-ups.

8.2.2 Losses:

- revenue losses caused by:
  - maple sap harvest losses,
  - syrup quality;
- production losses, in terms of quantity or quality, related to the provisions covered by this warranty.

8.3 EVAPORATORS

Please find below three conditions of exclusions to the warranty certificate specific to evaporators.

8.3.1 Use of inappropriate wood, agents, and fuels

This warranty becomes null and void if a defect appears caused by the use:

- of wood that is painted or treated, or which contains chemicals or adhesive substances (glue),
- of any agent added to the evaporators,
- of any material, substance or fuel other than natural wood, for wood-fired evaporators,
- of any fuel other than No. 2 fuel oil, for oil-fired evaporators.

8.3.2 Interior aesthetics of the pans

The interior aesthetic appearance of the pans is not covered by the warranty.

8.3.3 Ceramic glass of Vision® evaporator

The ceramic glass of Vision® evaporator is not covered by the warranty.

8.4 EXTRACTORS AND TRANSFER TANKS

The complete seal of an extractor or a transfert tank is not covered by this warranty.

9. PRODUCTS WITHOUT WARRANTIES

The MANUFACTURER does not offer any warranty on the following products:

- batteries installed on the equipment,
- pH sensors,
- electronic parts such as repair components purchased individually,
- products marked “Liquidation/Final sale” on the invoice — no returns, no warranty.

10. WARRANTY SUMMARY TABLE

The following *Warranty Summary Table* illustrates whether or not a warranty applies to a product or service, as well as its duration, if applicable.

WARRANTY SUMMARY TABLE

LAPIERRE naturally innovative	PARTS	LABOUR		
		In workshop	**On-site support** (diagnostic, repair)	**Remote support**
R. O. Concentrators	2 years	2 years	2 years	2 years
Datacer	2 years	2 years	1 year	2 years
Finishing and processing equipment, including maple cream makers, bottling systems, candy machines, water jacketed bottling tanks, etc.	2 years	2 years	1 year	N/A
Evaporators including parts and pan washers	2 years *Wearing parts*: 1 year*	2 years *Wearing parts*: 1 year*	2 years *Wearing parts*: 1 year* *Burners adjustment: 1 year*	2 years
Extractors	2 years *Pump: 1 year*	2 years *Pump: 1 year*	2 years *Pump: 1 year*	2 years
Vacuum pumps **	2 years	2 years	2 years	2 years
Tanks (basins)	Structure: 2 years Leaks: 5 years	N/A	2 years *Structure only*	N/A
Transport tanks	1 year	N/A	1 year	N/A
Silos	1 year	N/A	1 year	N/A
Used products and equipment	1 year *Unless otherwise stated*	1 year *Unless otherwise stated*	N/A	N/A
Listed chimneys	20 years *Prorated*	N/A	N/A	N/A
Tools and instruments	From the original manufacturer	N/A	N/A	N/A
Hardware and accessories from suppliers	3 months	N/A	N/A	N/A
Fittings*** and accessories for tubing	1 to 5 years *Prorated*	N/A	N/A	N/A
Tubing***	10 to 15 years *Prorated*	N/A	N/A	N/A
Out-of-warranty repairs	1 year *Unless otherwise stated*	1 year *Unless otherwise stated*	N/A	N/A

SEALS | All seals, regardless of the equipment, are wearing parts that come with a one-year warranty.

BATTERIES, pH SENSORS, ELECTRONIC PARTS | There is **no warranty** on batteries, pH sensors, and electronic parts such as repair components purchased individually.

SUBMERSIBLE SENSORS | The **2-year** warranty applicable to submersible sensors **is voided** when they freeze or are damaged by poor handling or negligent maintenance.

* Wearing parts gradually deteriorate as the equipment is used. Those found on evaporators are as follows: seals and refractory materials such as bricks and concrete.

** The warranty is that of the original manufacturer. This warranty is null and void if water is present in the pump.

*** Collection tubing and fittings have their own warranty. See point No. 5.

11. DISCLAIMER

The MANUFACTURER may not be held liable for incidental or indirect damage, nor for implied material damage.

In the event of a warranty claim, the MANUFACTURER bears no responsibility for:

- the direct or consequential loss of time, production, or profits,
- inconveniences,
- the costs of acquiring equipment, replacing parts, or storage.

12. SUBMITTING YOUR WARRANTY CLAIM

Here is the procedure to submit your warranty claim.

- Contact your representative or distributor, our service centre, or our head office to submit your warranty claim and schedule the after-sales service operation, if necessary.
- **IMPORTANT |** For any claim, you must submit your original purchase invoice or a legible copy of it. Otherwise, the MANUFACTURER will not accept your claim.
- If applicable, the MANUFACTURER will inspect your equipment and confirm whether your warranty claim is accepted.

  If **so**, the MANUFACTURER will carry out an after-sales service operation according to the provisions specified in *sections 1. TWO-YEAR LIMITED WARRANTY* or *2. ONE-YEAR LIMITED WARRANTY.*

  If **not**, you will be offered a cost estimate. This may include the travel expenses of a technician and their mileage, the working time of the technician at the hourly rate in effect, a daily allowance for meals, and other expenses, if applicable.
- If applicable, the functional equipment is then returned to the customer in a condition comparable to that in which it was found when it was received. This *comparable condition* was determined beforehand by the MANUFACTURER and/or one of its representatives or distributors.
- This after-sales service operation under warranty does not extend the duration of the warranty on the equipment. The end date of the warranty remains the same.

Warranty certificate: July 2025 (V08)

SECTION 10 **PARTS AND CONSUMABLES**

Parts for your AutoFlo or any other equipment manufactured at LAPIERRE EQUIPMENT are available at our main plant in Saint-Ludger, Quebec, Canada and our service centers in Waterloo, Quebec, Canada and Swanton, Vermont, USA. However, do not hesitate to contact us or visit our website to locate the distributor nearest you.

HEAD OFFICE and MAIN PLANT
Lapierre Equipment Inc.
99 Rue de l'Escale
Saint-Ludger (QC)
G0M 1W0

Toll Free 1 833 548.5454
Telephone 819 548.5454
Fax 819 548.5460
info@elapierre.com

SERVICE CENTER and PRODUCTION PLANT
Lapierre-Waterloo-Small Inc.
201 Rue Western
Waterloo (QC)
J0E 2N0

Toll Free 1 833 548.5454
Telephone 450 539.3663
Fax 450 539.2660
info.lws@elapierre.com

SERVICE and DISTRIBUTION CENTER
Lapierre USA Swanton
102 Airport Access Road
Swanton, VT
05488

Telephone 802 868-2328
Fax 802 868-9281
info.usa@elapierre.com

www.elapierre.com

NOTES

LAPIERRE

naturally innovative

We sincerely appreciate your trust.

Thank you!

MADE IN CANADA

99 Rue de l'Escale, Saint-Ludger (QC) Canada G0M 1W0

819 548.5454 | 1 833 548.5454 | info@elapierre.com | www.elapierre.com