



# OWNER'S MANUAL



## CDL'S MAPLE SUGAR MACHINES

Les Équipements d'Érablière CDL inc.

Thank you for choosing a CDL cream machine. Our 40 years of experience working with sugarmakers ensures you that you acquired a performant and quality piece of equipment. Before using this product, make sure you understand all the following instructions. If there is any problem upon reception of this product, please immediately contact CDL or your local representative.

## FINDING INFORMATION

### Make a record for future use

Brand: \_\_\_\_\_

Purchased Date: \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

### Serial number location

The serial number is located on the side of the machine



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## SAFETY

Even if it doesn't seem dangerous, an accident can happen while operating a sugar machine. So, it is necessary to take a few precautions. Never introduce in the barrel or the grate a foreign object when the machine is running. Never put your fingers through the grate. Never modify or disable any electrical safety protection from the machine

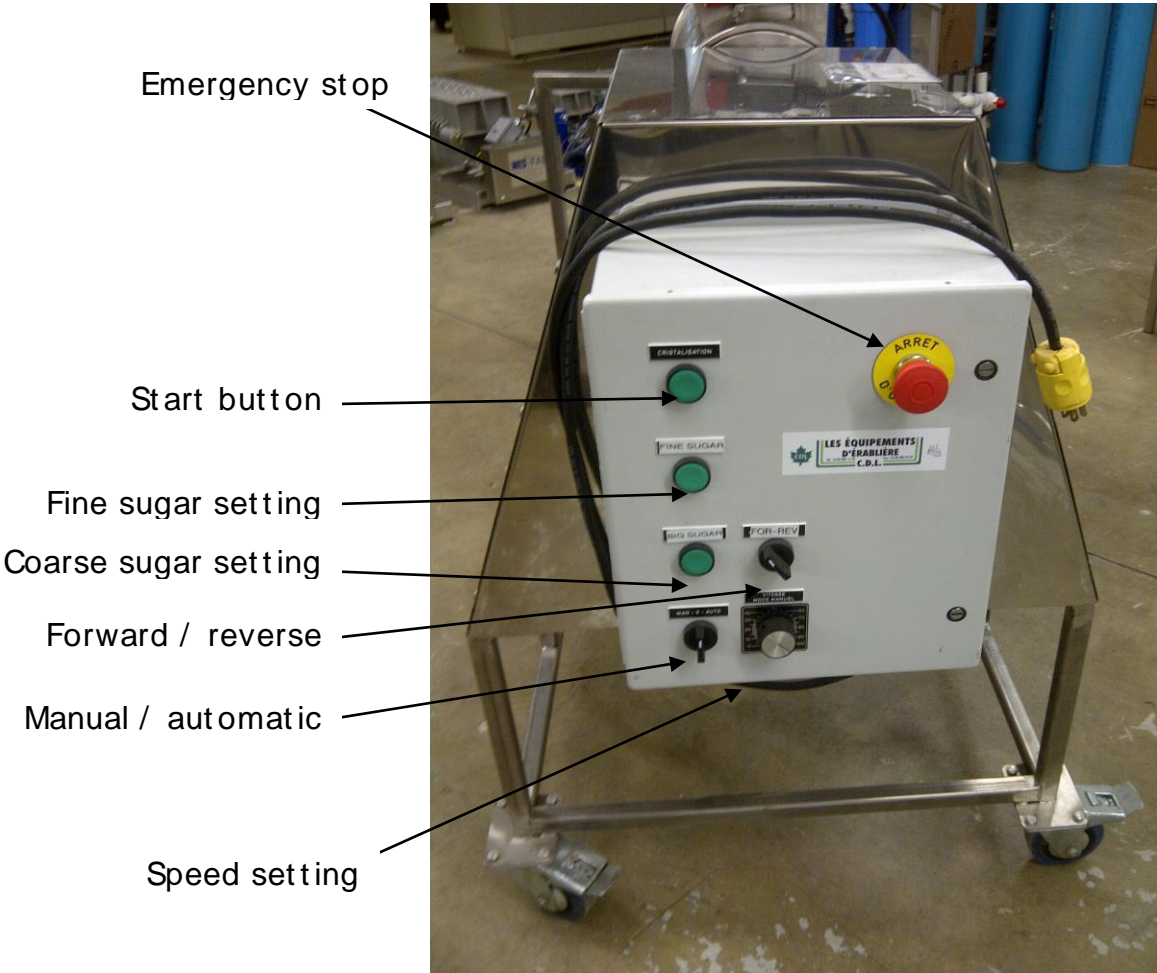
Do not turn the machine on its side or upside down. Oil from the motor speed reducer will be spilled.

Manipulate hot maple syrup can also be hazardous. Always wear heat resistant gloves and be very careful not to spill any hot liquid on you or someone nearby. Serious burns can be caused by hot maple syrup.



# INSTALLATION

No special installation required. Set the cream machine on an even flat and stable surface. It is recommended to clean the machine with hot water before using it for the first time. Fill half the barrel with hot water. Plug the machine in a 120 volt outlet. Close the cover and turn on the machine to clean the paddles for about a minute. Turn off the machine and clean with a clean cloth any residues in the barrel, if necessary. Then, remove the lock from the barrel and just flip over the barrel and let the water flow to a floor drain or a pan. When all the water is out, just wipe out with a clean cloth the remaining moisture. You are ready to go.



# OPERATING THE SUGAR MACHINE

## HOW TO MAKE MAPLE SYRUP WITH THE CDL SUGAR MACHINE

1. Before you start, make sure the sugar machine is clean.
2. Take a cooking container. It has to be twice as high as the level of syrup you'll put in.
3. Calibrate the cooking thermometer. Ideally take a maple syrup cooking thermometer. To calibrate, boil water and make sure the needle shows 0°F (where 0°F is 212°F).
4. Pour the syrup in. Use between 2 and 2.5 gallon of syrup for the small machine and twice as much for the double machine.
5. Ideally cook the syrup on a propane cooker
6. Open the gas at maximum
7. Put in a table spoon of Koscher anti-foam (2 for the big machine)
8. Butter all around the container 1 inch wide above the syrup
9. Put the thermometer in the syrup
10. Let the temperature go up
11. When the temperature gets to 2°F above the water boiling point reduce the heat to half
12. **BE VERY CAREFULL, WHEN THE SYRUP STARTS TO BOIL, MAKE SURE IT DOESN'T OVERFLOW, THE FIRE HAS TO BE REDUCED BEFORE THIS HAPPENS AND IT HAPPENS VERY FAST.** If syrup overflows on the burner, it will burn, very dangerous.
13. To help, put in another tea spoon of defoamer or a ¼ tea spoon of butter directly in the syrup.
14. The boiling should start around 5°F.
15. When the boiling bubbles starts breaking when they are small, the syrup is stabilized and you can turn up the heat to maximum again. (around 10°F)
16. The syrup will be ready at 42°F above the boiling point.
17. Take rubber gloves to handle the container, it's very hot and spilled syrup will go through cloth gloves
18. **IMPORTANT, DO NO GO OVER 42°F. IT'S BETTER TO STOP AT 41.5°F, IT WILL CONTINUE TO GO UP A LITTLE AFTER IT'S REMOVE FROM THE COOKER.** If you go over 42°F, the syrup will jam in the machine. If it happens, pour some water into the syrup and bring it back to 42°F.
19. When the syrup reaches 42°F, pour it right away in the machine.
20. Turn to top knob on auto and press the cristalisation button. (make sure the red emergency stop button is not pushed in)
21. The machine will mix for about 10 minutes.



22. The machine will stop after 10 minutes. Take a hard wood spatula and scrape of the syrup that stuck on the paddles and the shafts. (it will take approximatively 10 minutes to clean it well). It's the only manual operation you'll have to do. To get access to all the paddles, close the cover set the mode to manual and turn the paddles where you want them to get access to another section of the shaft. Repeat the operation until all the machine is cleaned.
23. When done, turn the knob back to auto.
24. Press the cristalisation button. Make sure the safety cover is back on before restarting the machine.
25. The machine will start a 1 hour cristalisation cycle.
26. When the cycle is finished, the sugar is ready.
27. Remove the locking pin and turn over the mixing barrel to empty the content in one of the white plastic pans.
28. Install the locking pin back to lock the barrel in the down position.
29. Put the top knob to manual and let the machine turn to help empty the barrel.
30. Bring the barrel back up and lock it with the nut.
31. Scrape the excess sugar to recuperate it by repeating steps 28 to 31 or pour a new batch in and start over.
32. When done, pour hot water in the machine to dissolve all excess sugar. Start the machine in manual mode.
33. When all the sugar is removed, empty the water following steps 28 to 31.
34. Press the emergency stop button.
35. Wipe out the excess water.
36. Keep your sugar in a sealed container to preserve it longer.
37. You can sift the sugar to remove the bigger chunks.

## MAINTENANCE

The only maintenance you need to do is to keep your machine clean. After your maple cream production, or after each day of use, pour hot water (not boiling) in the barrel and let the machine run until all the maple leftovers are dissolved. Then shut down the machine and flip the barrel over and let the water out. Wipe dry all the components.



# TROUBLESHOOTING GUIDE

## Motor won't turn

Check electric switch or the breaker.

## Motor hums but doesn't move

Gear problem in the gear reducer or the motor coupling is broken; check gears or coupling. Replace coupling or gear reducer.

Paddles are stuck. Sugar is too thick. Remove content and start over. Pour hot water in the sugar and reboil. Verify the thermometer

## Machine keep running but content doesn't turn to sugar

Syrup wasn't cooked enough, try seeding the batch with a cup of sugar and restart the machine. If it still doesn't work, empty the sugar machine, pour some hot water in the syrup, reboil to proper temperature and reprocess. Change or recalibrate the thermometer.

Syrup with too much invert sugar content was used. It is common with late season or dark syrup. Invert sugar content can be measured with a measuring kit available on the market. The maximum invert value is 2.0, above that, you can't use that syrup to make cream or sugar.

The ambient conditions are too humid. Sugar must be made in a controlled environment, ideally air conditioned. If the air is too damped, the sugar will not crystallize.

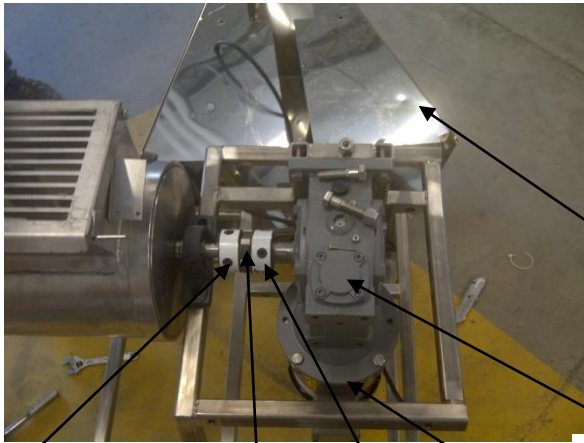
## The batch in the sugar machine turned solid

Syrup was cooked too much. Empty the content of the barrel, add hot water and reboil the batch.





Part # 668855A: Single sugar machine



Cover:  
698811

Gearbox: 668868

3/4" coupling:  
429099 668868

Motor 3/4 HP:  
66G582

Rubber coupling:  
429022

1" coupling:  
429021



White pail: 60302

4" wheels swivel:  
6074449



Pillow block:  
60S43/ 4FT

Shaft: 698814A

Cover: 698811



Pen switch: 667282

Bearing: 662448

Paddles: 698819 Washers: 60WS1434  
Les Equipements d'Erablière CDL inc.





## WARRANTY

Your cream machine is covered by a two year limited warranty. For two years from your original date of purchase, Les Équipements d'Érablière CDL (CDL), will replace or replace any parts of this equipment that prove to be defective in materials or workmanship when such evaporator is installed, used and maintained in accordance with the provided instructions.

### Exclusions

This warranty does not cover the following:

1. Products with original serial number that have been removed altered or cannot be readily determined.
2. Product that has been transferred from its original owner to another party or removed outside the USA or Canada.
3. Production loss due to any kind of failure of the machine.
4. Revenu losses due to syrup or sugar quality.
5. Service calls which do not involve malfunction or defect in materials or workmanship, or used other than in accordance with the provided instructions.
6. Any service beyond the first two years.
7. Damages caused by: services performed by unauthorized service companies; use of parts other than genuine CDL parts or parts obtained from persons other than authorized service companies; or external causes such as abuse, misuse, inadequate power supply, accidents, fires, or acts of God.
8. It doesn't cover the consumable products or accessories.
9. If the product was damaged by abusive use, negligence, accident caused by the customer, modification made by the customer, variation in the electric power.
10. Damage cause by the use of products that are not meant for use with our equipment or a bad use of cleaning products.
11. Damage cause by a use of the machine that it was not intended for.



**Disclaimer of implied warranties; limitation of remedies**

Customer's sole and exclusive remedy under this limited warranty shall be repair or replacement as provided herein. Claims based on implied warranties, including warranties of merchantability or fitness for a particular purpose, are limited to two years or the shortest period allowed by law, but not less than two years. CDL shall not be liable for consequential or incidental damages such as property damages and incidental expenses or loss or revenues caused by any event covered by this warranty. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitations on the duration of implied warranties, so these limitations or exclusions may not apply to you. This written warranty gives you specific legal rights. You may also have other rights that vary from states to states.

**If you need service**

Keep your receipt, delivery slip or some other appropriate payment record to establish the warranty period should service be required. If service is performed, it is in your best interest to obtain and keep all receipts. Service under this warranty must be obtained by contacting CDL at the addresses or phone numbers below. Obligations for service and parts under this warranty will be performed by CDL in Canada. Products features or specifications as described or illustrated are subject to change without notice.

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