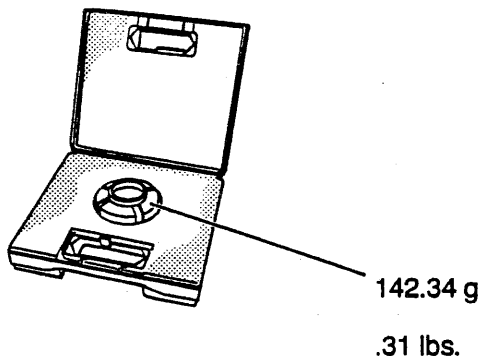## Calibration of milk meters

During calibration you check and adjust the milk meter setting so that the displayed value corresponds to actual weight, sensed by the strain gauge of the milk meter.
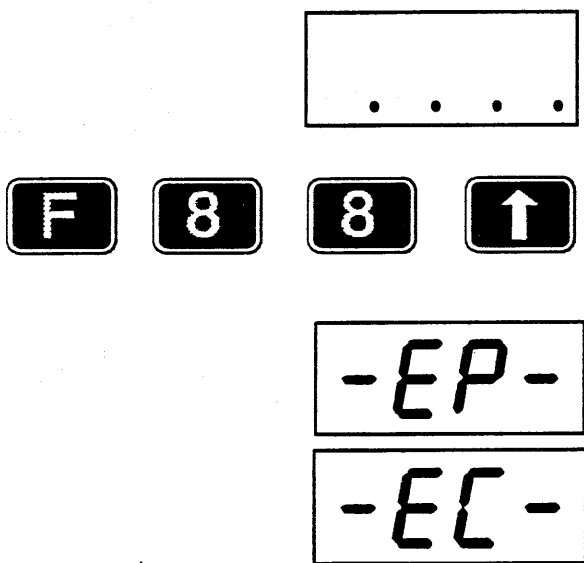
However, if there is a leakage or a fault in the milk meter function, the recorded milk yield may be wrong, even if the calibration is correct. Therefore, periodical checks must be performed in which the weight is checked by the water test.

Weight

Be careful always to keep the weight in its case. If you scratch it, for example, by putting it down on a rough surface, it will no longer be a precise reference weight.

The value is stamped on the weight.

142.34 g

.31 lbs.

Calibration

If the displayed weight is out of limits for any of the milk meters, these must be recalibrated.

The MPC should be in standby mode.

— Enter F88↑ on the MPC. The sign "-EP-" for enter password will appear.

— Enter password 6285↑.

If the password is incorrect, the sign "-EP-" will appear again.

If the password is correct, the MPC shows the sign "-EC-" (enter calibration weight).
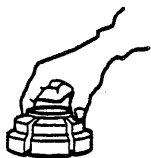
— Enter the value stamped on the calibration weight
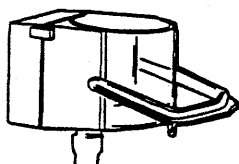
Example
The weight is stamped with the value 142.34 g (.31 lb.).
Round off to 142.3 g (.31 lb.). Enter 1423↑ on the MPC.

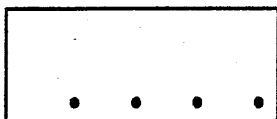The MPC first displays "——", and then "0.0" for no weight; cup is empty.

— Carefully place the weight in the measuring cup.

The MPC now senses the weight of the calibration weight, compares it with the entered value, and calculates and stores the correct calibration factor for this milk meter.

When this is ready, the MPC displays "-CF-" (calibration finished) for a few seconds and then leaves the function F88.
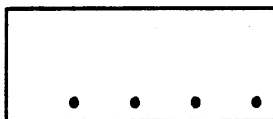
— Now remove the weight.

Now the milk meter is calibrated. To check this, you can do the weight check with F89↑, if desired.
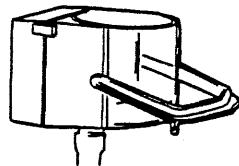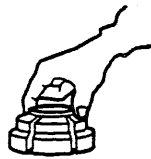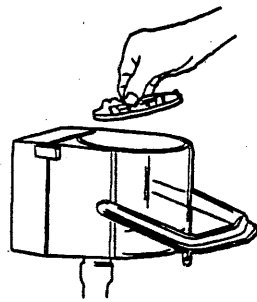
Repeat calibration for the other milk meters if necessary.

Check calibration

Check with a gauge weight that the milk meter displays the correct value.
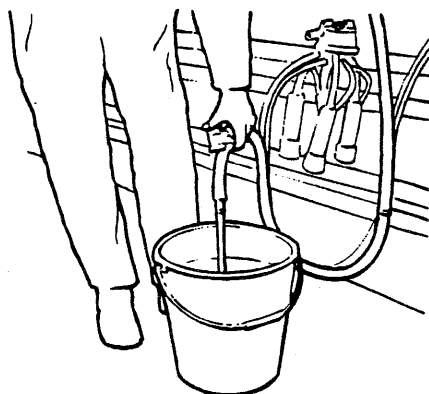
The milk meter should be in stand-by mode.

— Remove meter cover and spoiler. Do this on all meters that are to be checked.

— Wait for about 10 minutes (to let the temperature stabilize), or until ambient temperature has been achieved.

| F | 8 | 9 | ↑ |

— Enter F89↑. This will set the milk meter in check calibration mode.

— — — —

Then "- - - -" is shown on the display.

0.0

— Wait until "0.0" is displayed, and then carefully place the gauge weight in the meter cup.

— Read off the weight. It must be:
the value stamped on the weight ±0.8 g (.0018 lb.). If the weight difference is more than ±0.8 g (.0018 lb.), a calibration must be done (see section Calibration).

— Remove the weight.

— — — —

— The sign "- - - -" will be shown for a short while.

0.0

— Wait for "0.0" to be displayed, and put the weight back again.

— Do this at least three times, or until you get good repeatability.

— Leave the function with F↑

— Repeat the procedure on all meters to be checked.

Water test

Checking the milk meter's recording accuracy with water should be done each time the milk meter has been dismantled, or if you suspect an incorrect yield recording.

Periodical checks should also be carried out according to demands from authorities.
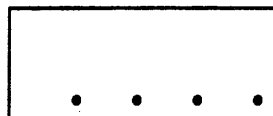
Equipment needed:
— Test pipe
— Shutoff clip for the milk tube
— Electronic scale with an accuracy of ±20 g (.04 lb.)
— Bucket about 20 liters (5.3 gallons)

Test procedure

The whole test is done locally in the MPC which should be in standby mode.

⚠️ **Note! It is important that air is not sucked into the milk meter during or at the end of the test.**

The MPC should be in standby mode.

Remove the cluster from the end of the long milk tube and apply a shut-off tube clip on the milk tube. Close the clip.

— Fit the test pipe on the milk tube.

— Start the vacuum pump.

— Fill a bucket with approximately 15 kg (33 lbs.) of water.

— Weigh the bucket and make a note of the weight.

— Make sure that no cleaning mode signal is received from the cleaning unit (shut off the cleaning unit).

— Press F87↑ on the MPC to make the MPC ready for milking with water.

— Put the pipe in the bucket and open the tube clip.

— Press the cluster release key.

⚠️ **Note!** *Too large a flow - outside a normal milking flow - will activate the sweep blocking, and no recording will take place.*

— Watch the display. When about 10 kg (22 lbs.) has been sucked up, shut off the water flow with the tube clip.

— Make sure that no water remains in the tube. Lift the tube so that the water flows back to the bucket from one side of the clip and into the milk meter from the other side.

F **4** **↑** — Press F4↑ to confirm the recorded weight. (It is possible to repeat a water milking with F4↑.)

— Weigh the bucket with the remaining water and subtract this from the original weight. This gives you the real weight of the water that has been measured by the meter.

— Compare the real weight with the weight displayed on the meter.
Note! *The value must not differ more than ±0.2 kg (.4 lb.)*

— Repeat the test again.

If any of the two tests gives a larger difference than 0.2 kg (.4 lb.), check the meter for leaks or other faults, and then repeat the two tests.

If everything seems correct and the milk meter still is out of tolerances, check the calibration. *See the section, Calibration.*

F **2** **↑** — Repeat the water test with all milk meters, then press F↑ to leave the milking mode and go to standby.