

TRAINING HANDBOOK

Accu-Chek® Solo micropump system



SCREEN FOR BOLUS ENTRY

Getting to know the bolus entry screen



	Name	Description
①	Blood glucose result	If no current test result exists, --- is displayed.
②	Active Insulin	If no active insulin exists, --- is displayed. This screen element is only available with activated bolus advice feature.
③	Carbohydrate amount	If no carbohydrate amount is entered, --- is displayed.
④	Total amount	Tap this entry field to enter the total amount for the bolus. The total amount is the sum from correction bolus and meal bolus.
⑤	Correction insulin	Tap this entry field to enter the amount of insulin needed to return from an out-of-target blood glucose value back to values within target. Correction insulin can be negative, if the BG value is below the target value. This will be taken away from a pending meal bolus.
⑥	Meal insulin	Tap this entry field to enter the amount of insulin to compensate for the food ingested.
⑦	Bolus type	Tap this element to select one of the following bolus types: standard bolus, extended bolus, multiwave bolus, quick bolus, pen/syringe bolus.

The information displayed on the diabetes manager for the carbohydrate amount (③), is only visible if you have entered it in the detailed BG test result screen.

Note

When the screen for bolus entry appears for the first time, there are no bolus amounts specified. You must enter the bolus amount.

If you first set the correction bolus or the meal bolus, the total bolus amount is deactivated and cannot be adjusted. The value, however, is updated accordingly.

If you first set the total amount, all insulin will be set as correction bolus. The entry fields for correction bolus and meal bolus are deactivated.

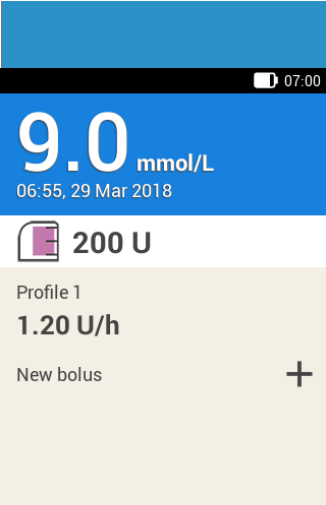
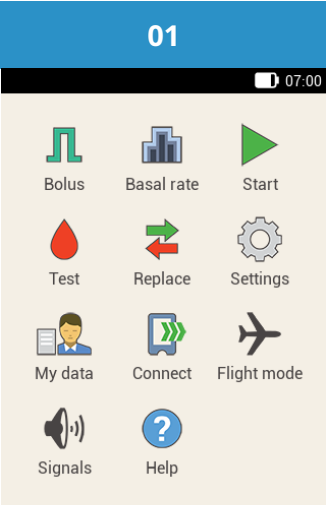
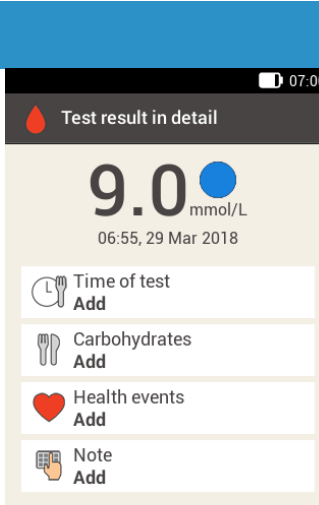
Therefore, it is recommended to start by entering correction bolus and meal bolus, separately. Without Bolus advice setup, distinguishing between correction and meal insulin mainly affects the bolus types you can use. With Bolus advice set up, it may help to better control high BG values after meals.

STANDARD BOLUS

What is the standard bolus

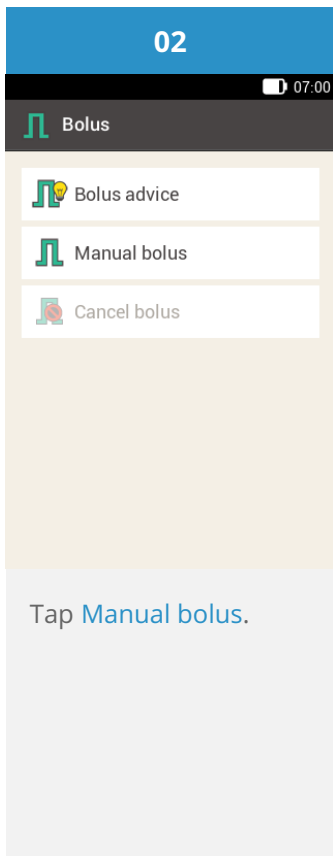
The standard bolus delivers the programmed insulin dose all at once, similar to an injection. This bolus can be helpful for foods that contain rapid-acting carbohydrates, such as cake or bread. The standard bolus is also the right bolus for correcting high blood glucose levels.

Initiating a bolus

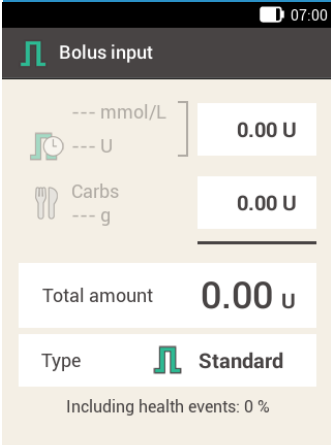
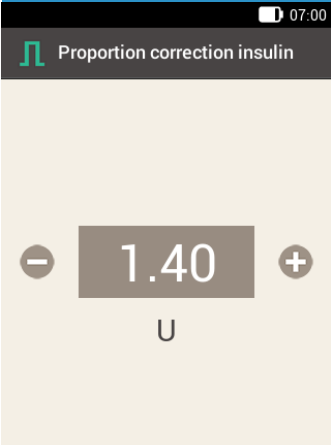

01		
 <p>9.0 mmol/L 06:55, 29 Mar 2018</p> <p>200 U</p> <p>Profile 1 1.20 U/h</p> <p>New bolus +</p>	 <p>Bolus Basal rate Start</p> <p>Test Replace Settings</p> <p>My data Connect Flight mode</p> <p>Signals Help</p>	 <p>Test result in detail</p> <p>9.0 mmol/L 06:55, 29 Mar 2018</p> <p>Time of test Add</p> <p>Carbohydrates Add</p> <p>Health events Add</p> <p>Note Add</p>
<p>Main menu Add data</p>	<p>Status screen Add data</p>	<p>Done Bolus</p>
<p>Status screen > Bolus</p> <p>Option 1:</p> <p>Tap New bolus or + on the Status screen.</p> <p>Continue with Step 2.</p>	<p>Main menu > Bolus</p> <p>Option 2:</p> <p>Tap the Bolus menu from within the Main menu.</p> <p>Continue with Step 2.</p>	<p>Test result > Bolus</p> <p>Option 3:</p> <p>After testing your blood glucose: Tap Bolus on the Test result in detail screen.</p> <p>Continue with Step 3.</p>

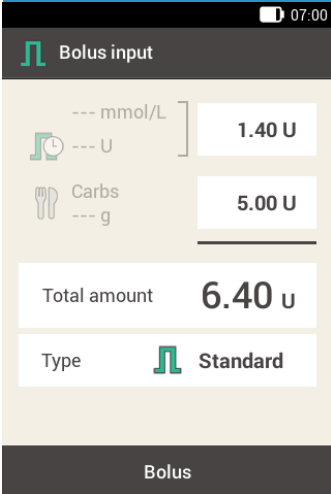
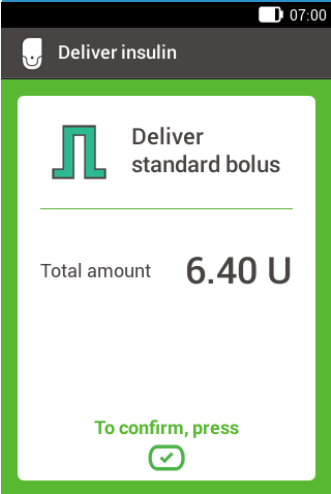
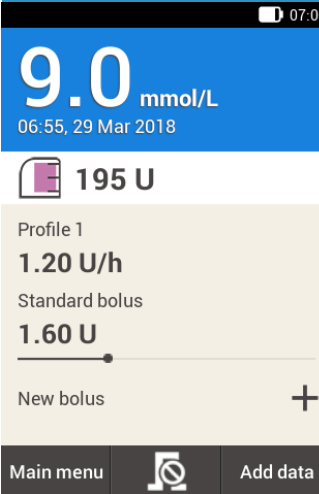
Note

If you have already set up the Bolus advice function, tapping "Bolus", in option 3, will lead you directly to the bolus advice result screen. (For more information on Bolus advice, see [\(Accu-Chek Solo micropump system\) Chapter 9.1](#)).



Entering the bolus

03	04	05
 <p>--- mmol/L --- U Carbs --- g</p> <p>0.00 U</p> <p>0.00 U</p> <p>Total amount 0.00 U</p> <p>Type Standard</p> <p>Including health events: 0 %</p>	 <p>1.40 U</p>	 <p>5.00 U</p>
Bolus	Save	Save
<p>Tap the entry field that is appropriate for your situation: enter the correction bolus, the meal bolus or the total bolus amount.</p>	<p>Use and to set the desired amount for the correction bolus.</p> <p>Tap Save.</p>	<p>Use and to set the desired amount for the meal bolus.</p> <p>Tap Save.</p>

06	07	08
 <p>07:00</p> <p>Bolus input</p> <p>--- mmol/L] 1.40 U</p> <p>--- U</p> <p>Carbs --- g 5.00 U</p> <p>Total amount 6.40 U</p> <p>Type Standard</p> <p>Bolus</p>	 <p>07:00</p> <p>Deliver insulin</p> <p>Deliver standard bolus</p> <p>Total amount 6.40 U</p> <p>To confirm, press</p> <p>✓</p>	 <p>07:00</p> <p>9.0 mmol/L</p> <p>06:55, 29 Mar 2018</p> <p>195 U</p> <p>Profile 1</p> <p>1.20 U/h</p> <p>Standard bolus</p> <p>1.60 U</p> <p>New bolus +</p> <p>Main menu Add data</p>
<p>Tap Bolus.</p>	<p>This screen shows you the details of the bolus. Check that they are correct and then press the insulin button to deliver the bolus.</p>	<p>The micropump delivers the standard bolus. The display shows the Status screen with a progress bar illustrating the progress of the bolus delivery.</p>

EXTENDED BOLUS

What is the extended bolus

For situations that require delivery of bolus insulin over a period of time instead of all at once, you can use an extended bolus. The extended bolus is a feature special to insulin infusion pumps where the amount is delivered over a period of time that you can adjust, as necessary. This can be especially useful for slowly digestible meals, e.g. foods with complex carbohydrates or foods that are high in fat and protein. An extended bolus can also be helpful for meals that extend over a longer period of time (e.g. a buffet). The duration of bolus delivery can be programmed in 15-minute increments for a period of up to 24 hours. Delivery begins immediately after you confirm the bolus. Throughout bolus delivery, the Status screen shows the remaining time and amount of the extended bolus. You can add a standard or quick bolus to an ongoing extended bolus and one additional extended or multiwave bolus.

Note

You can only program an Extended bolus when you program insulin for carbohydrates and no insulin for corrections. Therefore do not start by programming the total bolus.

01		
<p>Status screen > Bolus</p> <p>Option 1:</p> <p>Tap New bolus or + on the Status screen.</p> <p>Continue with Step 2.</p>	<p>Main menu > Bolus</p> <p>Option 2:</p> <p>Tap the Bolus menu from within the Main menu.</p> <p>Continue with Step 2.</p>	<p>Test result > Bolus</p> <p>Option 3:</p> <p>After testing your blood glucose:</p> <p>Tap Bolus on the Test result in detail screen.</p> <p>Continue with Step 3.</p>

Note

If you have already set up the Bolus advice function, tapping "Bolus", in option 3, will lead you directly to the bolus advice result screen. (For more information on Bolus advice, see [\(Accu-Chek Solo micropump system\) Chapter 9.1](#)).

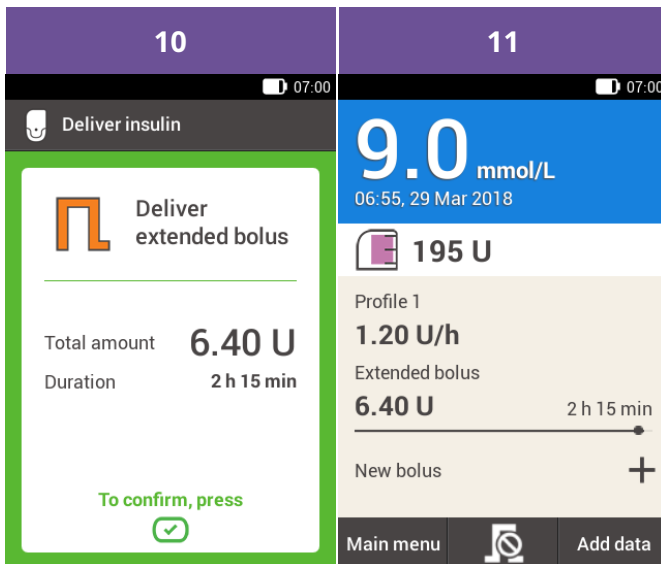
02	03
<p data-bbox="304 174 395 208">Bolus</p> <ul style="list-style-type: none"> <li data-bbox="304 241 603 293">Bolus advice <li data-bbox="304 300 603 351">Manual bolus <li data-bbox="304 358 603 409">Cancel bolus 	<p data-bbox="639 174 778 208">Bolus input</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="639 241 815 293"> <p>--- mmol/L</p> <p>--- U</p> </div> <div data-bbox="815 241 938 293"> <p>0.00 U</p> </div> </div> <div style="display: flex; justify-content: space-between;"> <div data-bbox="639 315 815 367"> <p>Carbs</p> <p>--- g</p> </div> <div data-bbox="815 315 938 367"> <p>0.00 U</p> </div> </div> <hr/> <div data-bbox="639 405 938 456"> <p>Total amount 0.00 U</p> </div> <div data-bbox="639 479 938 530"> <p>Type Standard</p> </div> <p data-bbox="683 530 895 560">Including health events: 0 %</p>
<p data-bbox="304 669 536 703">Tap Manual bolus.</p>	<p data-bbox="639 669 927 842">Tap the entry field that is appropriate for your situation: enter meal bolus.</p>

Note

You cannot deliver correction insulin over a period of time. Therefore, do not enter insulin in the correction or total field. If you need a correction bolus rather use the Standard or Multiwave bolus.

04	05	06
Save	Bolus	Save
<p>Use - and + to set the desired amount for the meal bolus.</p> <p>Tap Save.</p>	<p>Tap Type.</p>	<p>Tap Extended bolus.</p> <p>Then tap Save.</p>

07	08	09
Bolus	Save	Bolus
<p>Tap Duration.</p>	<p>Use - and + to set the hours and minutes for the extended bolus duration.</p> <p>Tap Save.</p>	<p>Tap Bolus.</p>



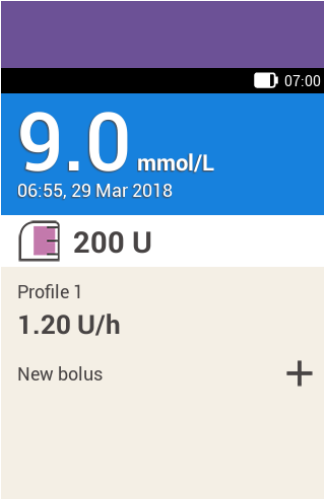
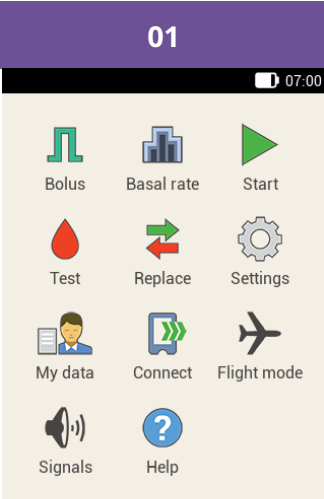
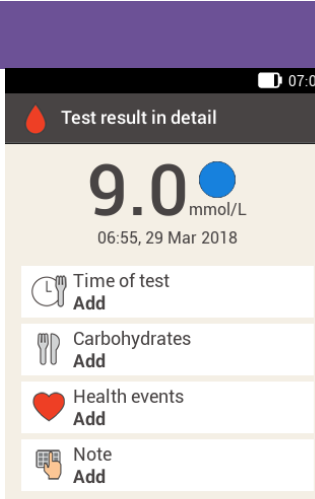

This screen shows you the details of the bolus. Check that they are correct and then press the insulin button to deliver the bolus.

The micropump delivers the extended bolus. The display shows the Status screen with a progress bar illustrating the progress of the bolus delivery and the time remaining until completion.

MULTIWAVE BOLUS

What is the multiwave bolus?



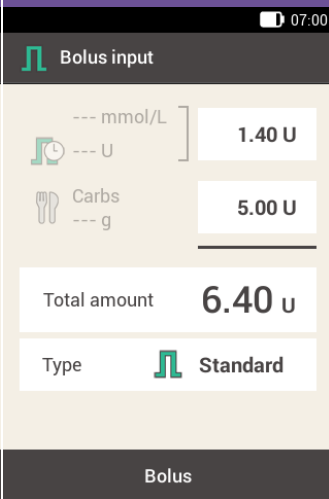
The multiwave bolus is another feature unique to insulin pumps and combines a standard bolus with an extended bolus: part of the bolus amount is delivered immediately while the other part is delivered over a specified period of time. This kind of bolus can be helpful when you eat meals that contain both fast and slowly digestible carbohydrates as well as proteins and fats or long meals with several courses. You can also use this bolus type when you are planning to eat slowly digestible carbohydrates, but have an elevated blood glucose level before the meal. You then program the immediate part of the bolus for the correction of the blood glucose level and the extended part for the carbohydrates. The duration of the delayed bolus delivery can be programmed in 15-minute increments for a period of up to 24 hours, and begins immediately after you confirm the bolus. You can add a standard or quick bolus to an ongoing multiwave bolus, and one additional extended or multiwave bolus.

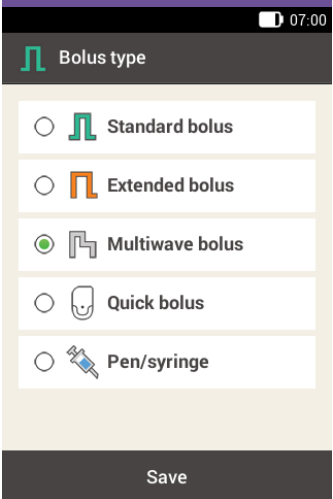
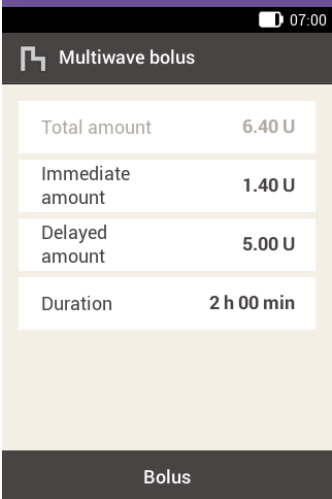

01		
		
Main menu  Add data	Status screen Add data	Done Bolus
Status screen > Bolus Option 1: Tap New bolus or + on the Status screen. Continue with Step 2.	Main menu > Bolus Option 2: Tap the Bolus menu from within the Main menu. Continue with Step 2.	Test result > Bolus Option 3: After testing your blood glucose: Tap Bolus on the Test result in detail screen. Continue with Step 3.

 **Note**

If you have already set up the Bolus advice function, tapping "Bolus", in option 3, will lead you directly to the bolus advice result screen. (For more information on Bolus advice, see [\(Accu-Chek Solo micropump system\) Chapter 9.1](#)).

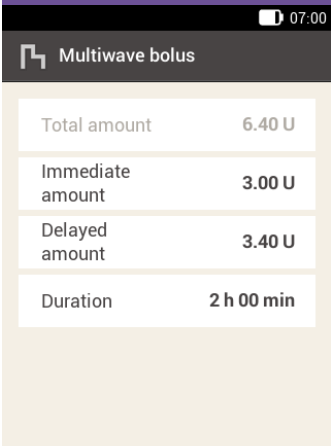
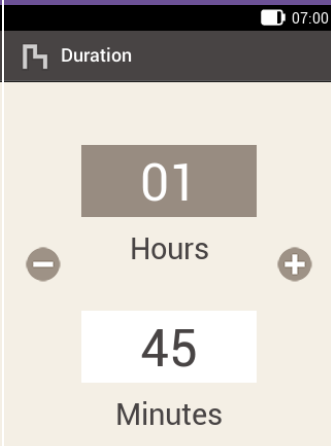
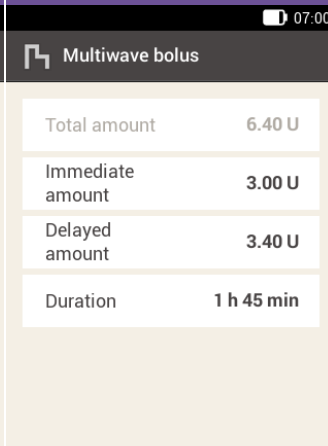
<p>02</p> <p>07:00</p> <p>Bolus</p> <ul style="list-style-type: none">Bolus adviceManual bolusCancel bolus <p>Tap Manual bolus.</p>	<p>Note</p> <p>You can only program a multiwave bolus if the bolus contains meal insulin. Therefore, do not start by programming the total bolus.</p>	<p>03</p> <p>07:00</p> <p>Bolus input</p> <p>--- mmol/L } 0.00 U</p> <p>--- U }</p> <p>Carbs } 0.00 U</p> <p>--- g }</p> <hr/> <p>Total amount 0.00 U</p> <p>Type Standard</p> <p>Including health events: 0 %</p> <p>Bolus</p> <p>Tap the entry field that is appropriate for your situation: enter the correction bolus or the meal bolus.</p>
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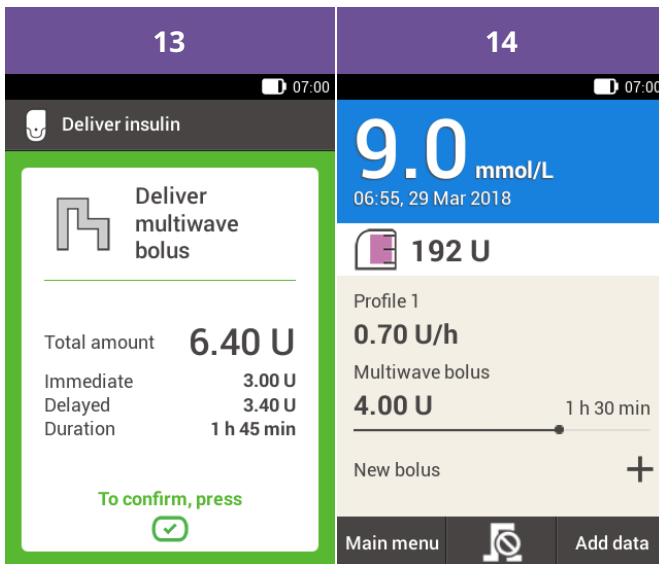
04	05	06
		
<p>Use and to set the desired amount for the meal bolus.</p> <p>Tap Save.</p>	<p>Use and to set the desired amount for the correction bolus.</p> <p>Tap Save.</p>	<p>Tap Type.</p>

07	08	09
		
<p>Tap Multiwave bolus.</p> <p>Then tap Save.</p>	<p>Tap Immediate amount or Delayed amount.</p>	<p>Use and to set the Immediate amount or Delayed amount.</p> <p>Tap Save.</p>

 **Note**

Since the **Total amount** will remain the same, it does not matter whether you set the **Delayed amount** or the **Immediate amount**, as the other will be calculated accordingly. You cannot set an immediate amount that is lower than the correction insulin.

10	11	12
		
<p>Tap Duration.</p>	<p>Use - and + to set the duration of the delayed part of the multiwave bolus.</p> <p>Tap Save.</p>	<p>Tap Bolus.</p>



This screen shows you the details of the bolus. Check that they are correct and then press the insulin button to deliver the bolus.

The micropump delivers the multiwave bolus. The display shows the Status screen with a progress bar illustrating the progress of the bolus delivery and the remaining time until completion.

QUICK BOLUS

What is a quick bolus



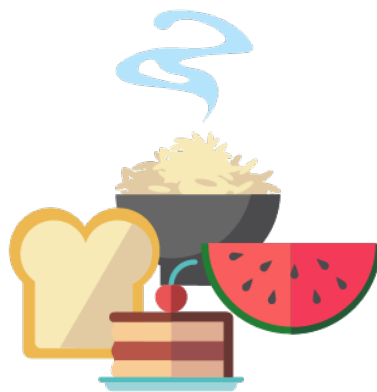
QUICK BOLUS



A BOLUS

which is programmed using the buttons on the micropump

WHY AND WHEN YOU NEED IT



FAST

digestible
carbohydrates



HIGH

blood glucose
level



NOT AVAILABLE
or cannot communicate

OR



FLIGHTMODE
is activated on your device

please note

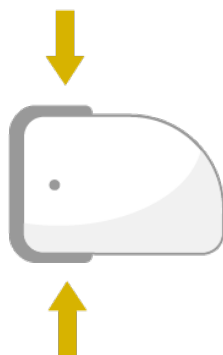
0.2 UNITS
basic setting for
quick bolus increment



if needed change the
quick bolus to

- 0.5 UNITS**
- 1.0 UNITS**
- 2.0 UNITS**

WHAT YOU NEED TO DO



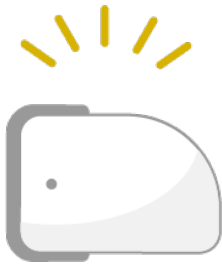
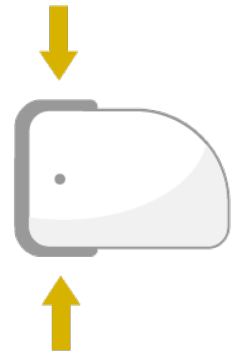
TO ACTIVATE
press 3s until beep

----- **1**

2

TO DOSE

press both quick bolus buttons at once
1 press = 1 amount of insulin increment



CONFIRMES

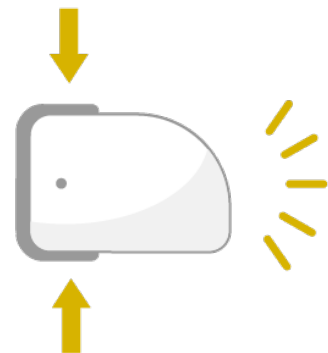
1 beep = 1 amount of insulin increment

3

4

TO AGREE

press both quick bolus buttons again until beep



✓ QUICK BOLUS DELIVERY STARTS

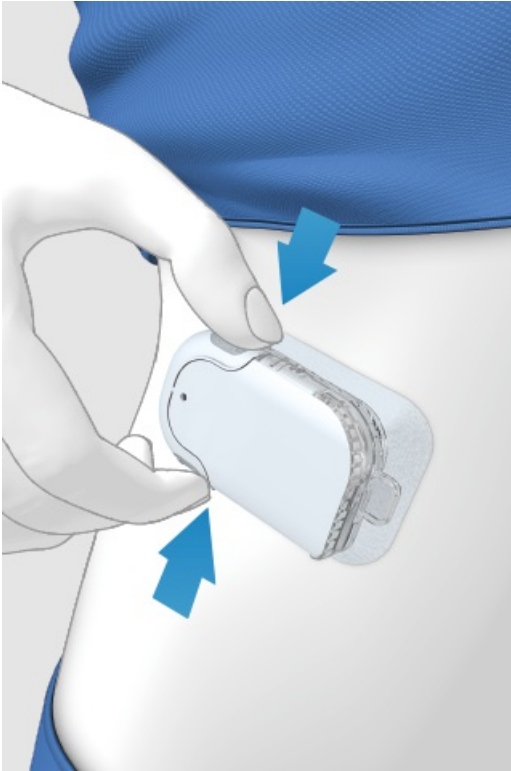
Warning

Make sure that you know and use the correct quick bolus increment suitable for your personal insulin need. Using the incorrect bolus increment will deliver a wrong insulin dose.

i Note

If you use the quick bolus to cover carbohydrates, you should later adjust the meal amount in the diary in order to get optimum bolus advice. See [\(Accu-Chek Solo micropump system\) Chapter 9.7](#) for more information.

Using quick bolus



- 1 Press and hold the two quick bolus buttons for 3 seconds until you hear a beep.
- 2 After hearing the beep, simultaneously press both quick bolus buttons – once per increment, until the desired insulin dose has been reached.
- 3 3 seconds after the last button press, the micropump will then confirm the number of button presses with one beep per press to confirm the amount of insulin entered.
- 4 If you agree with the amount of insulin: press both quick bolus buttons again to deliver the quick bolus. The pump will confirm the start of the bolus delivery with a sound.

 **Note**

If you do not confirm the quick bolus by pressing both buttons within 5 seconds, the programmed quick bolus will be cancelled and an according tone will be issued.

CANCELLING A BOLUS

Canceling a bolus using the “Cancel Bolus” menu

You have two options to cancel a bolus using the diabetes manager:

Facing either the status screen or the main menu, you can cancel a bolus by tapping the .

In the Cancel bolus menu, you can cancel one or all boluses.

Canceling a bolus while programming

Standard, extended and multiwave bolus

While programming, press  to go back to the last step and enter a new value.


Quick bolus

If you have not confirmed the quick bolus by pressing both quick bolus buttons within 5 seconds, the programmed quick bolus will be cancelled.

Prevent bolus delivery without the diabetes manager

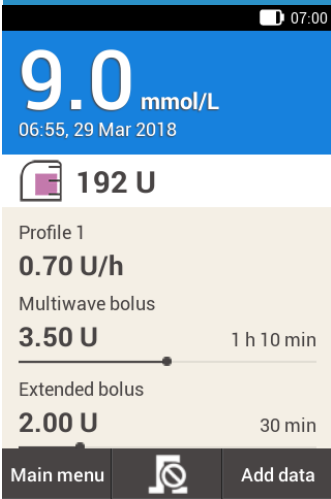

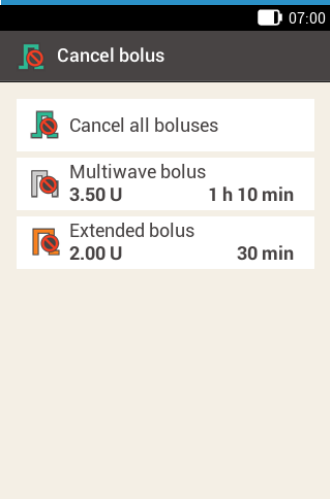
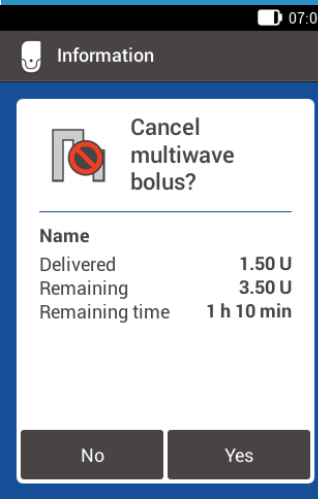

If you do not have the diabetes manager at hand and want to interrupt bolus delivery, remove the micropump from the pump holder as long as the bolus is being delivered. Then re-attach the pump into the pump holder.

Cancelling all boluses

01	02	03
<p>On the Status screen or main menu, tap .</p>	<p>If you want to cancel all running boluses at the same time, tap Cancel all boluses.</p>	<p>Tap Yes if you want to cancel all boluses.</p>

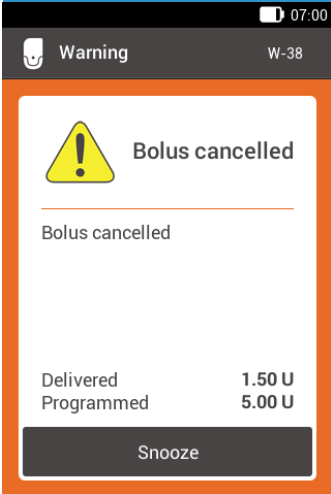
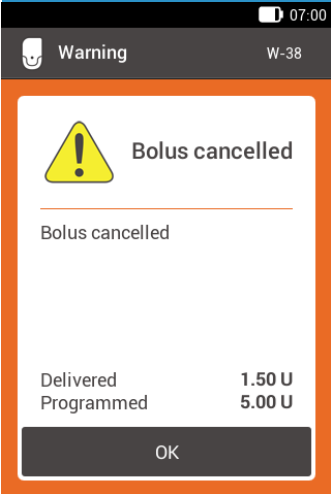
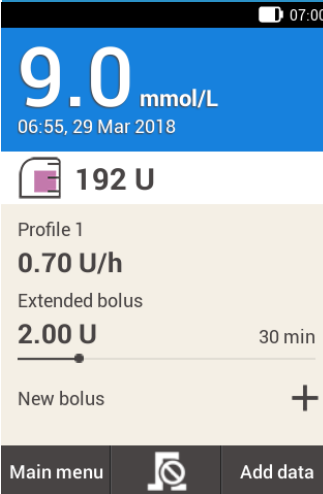
04	05	06
<p>The W-38 warning is displayed. Tap Snooze in order to mute the warning.</p>	<p>Tap OK to confirm.</p>	<p>All boluses have been cancelled and deleted from the Status screen.</p>

Cancelling single boluses

01	02	03
 <p>06:55, 29 Mar 2018</p> <p>9.0 mmol/L</p> <p>192 U</p> <p>Profile 1 0.70 U/h</p> <p>Multiwave bolus 3.50 U 1 h 10 min</p> <p>Extended bolus 2.00 U 30 min</p> <p>Main menu  Add data</p>	 <p>Cancel bolus</p> <p>Cancel all boluses</p> <p>Multiwave bolus 3.50 U 1 h 10 min</p> <p>Extended bolus 2.00 U 30 min</p>	 <p>Information</p> <p>Cancel multiwave bolus?</p> <p>Name</p> <p>Delivered 1.50 U</p> <p>Remaining 3.50 U</p> <p>Remaining time 1 h 10 min</p> <p>No Yes</p>
<p>On the Status screen or main menu, tap .</p>	<p>Tap the bolus you want to cancel.</p>	<p>Tap Yes if you want to cancel the bolus.</p>

Note

The bolus is proceeding until you tap Yes.

04	05	06
 <p>Warning W-38</p> <p>Bolus cancelled</p> <p>Bolus cancelled</p> <p>Delivered 1.50 U Programmed 5.00 U</p> <p>Snooze</p>	 <p>Warning W-38</p> <p>Bolus cancelled</p> <p>Bolus cancelled</p> <p>Delivered 1.50 U Programmed 5.00 U</p> <p>OK</p>	 <p>9.0 mmol/L 06:55, 29 Mar 2018</p> <p>192 U</p> <p>Profile 1 0.70 U/h</p> <p>Extended bolus 2.00 U 30 min</p> <p>New bolus +</p> <p>Main menu Add data</p>
<p>The W-38 warning is displayed. Tap Snooze in order to mute the warning.</p>	<p>Tap OK to confirm the warning.</p>	<p>The bolus has been cancelled and deleted from the Status screen.</p>

USING LAG TIME

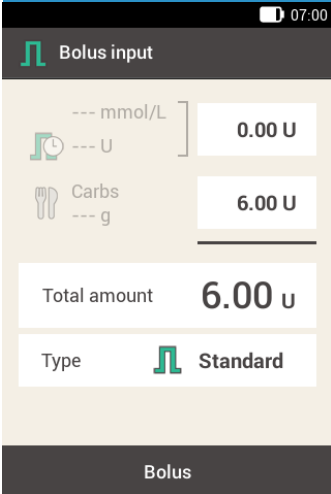
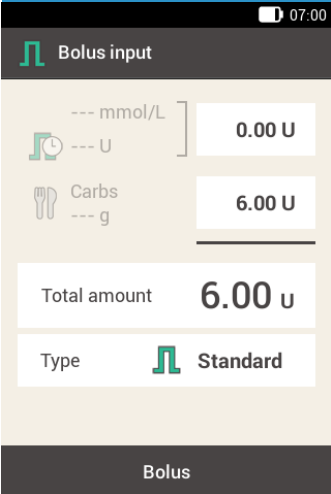
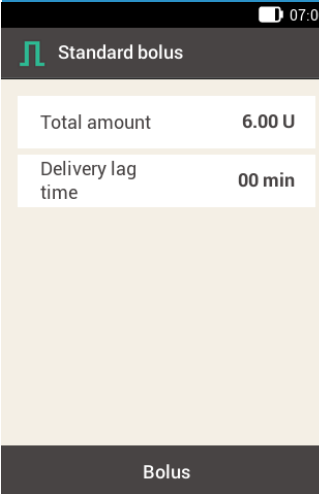
What is delivery lag time?

In some situation (e.g. gastroparesis) it may be helpful to start a meal bolus after you started eating. With the delivery lag time setting, you can specify a delay between programming a bolus and the actual beginning of the bolus delivery. With Lag setting switched on the delivery lag time field will appear each time you program a bolus in addition to the bolus amount and duration. You can set the lag time to 0, 15, 30, 45 or 60 minutes. Discuss using the delivery lag time setting with your healthcare professional. Before you can use this feature, you need to activate it: See ([Accu-Chek Solo micropump system](#)) Chapter 13.5, Bolus Settings.

Note

Boluses containing correction insulin can not be delayed via the lag time.

Delaying bolus delivery

01	02	03
		
<p>Select one of the 3 options for bolus delivery that are mentioned in the “Standard Bolus” section. Perform the appropriate steps until the Bolus input screen is displayed.</p>	<p>Tap Bolus.</p>	<p>Tap Delivery lag time.</p>

04	05	06
<p>Use - and + to set the Delivery lag time.</p> <p>Tap Save.</p>	<p>Tap Bolus.</p>	<p>To confirm this step and deliver the standard bolus, press the insulin button.</p>

The display shows the Status screen with the current bolus details.

Approved/listed/registered under the product name:
Accu-Chek Solo micropump system

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