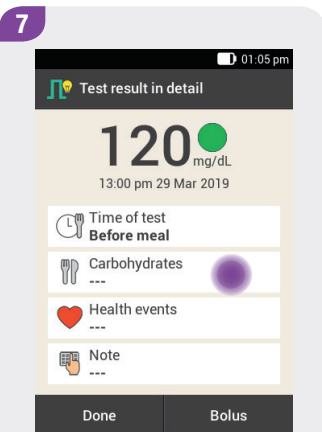
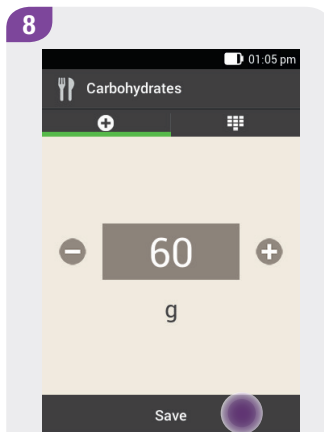


Entering carbohydrates

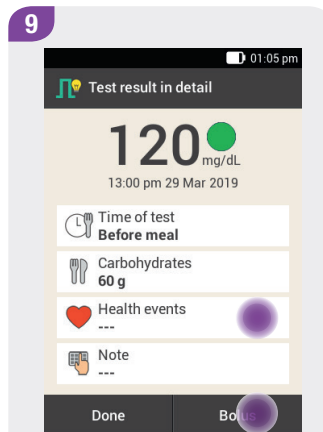


Tap the **Carbohydrates** entry.



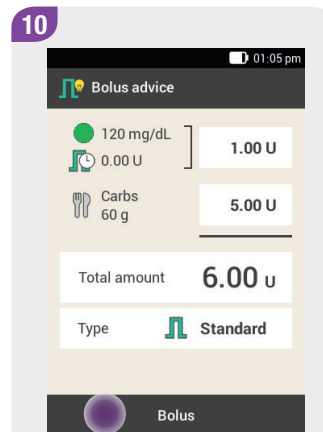
Use **−** or **+** to set the carbohydrate amount you want to eat. Alternatively, you can enter the carbohydrate amount using the numeric keypad. To do so, tap the **⌨** symbol.

Tap **Save**.



If necessary, enter any health events.

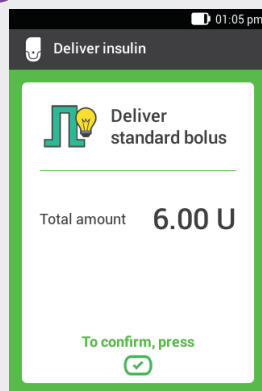
Tap **Bolus**.



Once all entries are correct, tap **Bolus**.

Confirming the bolus

11

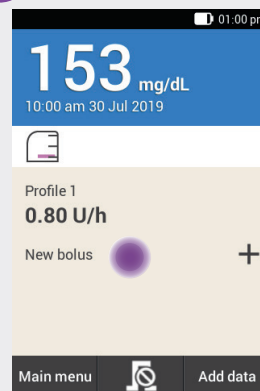


To confirm this step and deliver the bolus, press the insulin button lit up in green  below the diabetes manager display.

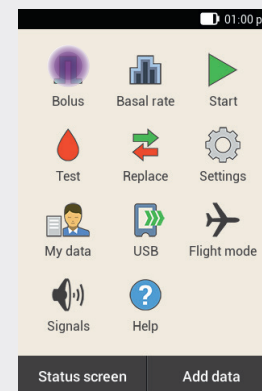
7.4.3 Starting Bolus Advice Without a BG Result

1

If you do not want to test or enter your blood glucose, you can enter the carbohydrate amount you wish to eat. If you then tap **Bolus** on the **Bolus advice** display, a suggestion for a meal bolus is displayed.



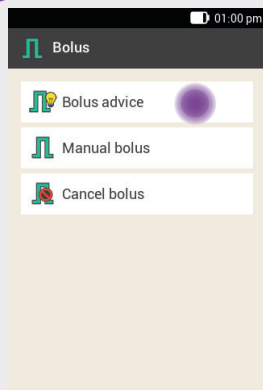
or



On the Status screen, tap **New bolus** or the **+** symbol.

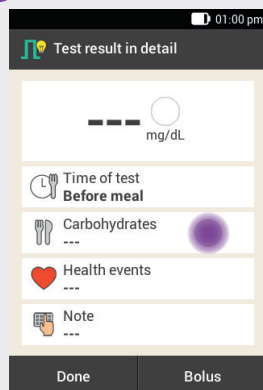
In the Main menu, tap the **Bolus** menu.

2



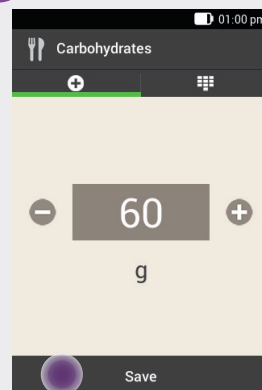
Tap **Bolus advice**.

3



Tap **Carbohydrates**.

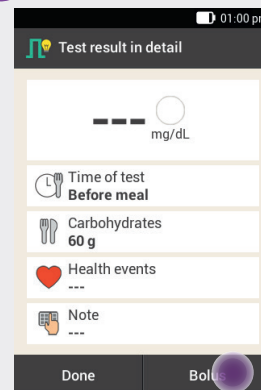
4



Use **-** or **+** to set the carbohydrate amount you want to eat. Alternatively, you can enter the carbohydrate amount using the numeric keypad. To do so, tap the **⌨** symbol.

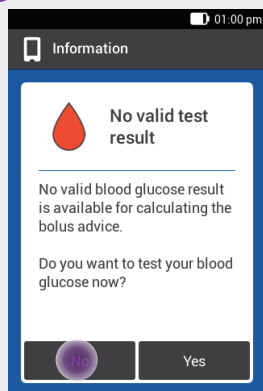
Tap **Save**.

5



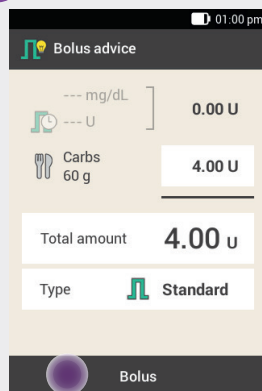
Tap **Bolus**.

6



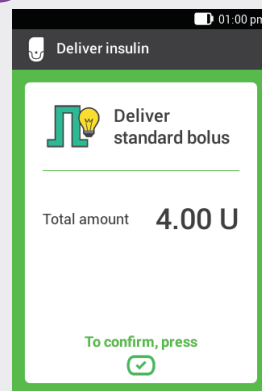
Tap **No** to use bolus advice without performing a blood glucose test.

7



Once all entries are correct, tap **Bolus**.

8



To confirm this step and deliver the bolus, press the insulin button lit up in green  below the diabetes manager screen.

7.4.4 Bolus Advice for Pen/Syringe

You can also deliver the bolus with a pen or syringe. Make sure that the insulin amount saved by the micropump system is identical to the amount you delivered.

Also consult the instructions for use for your insulin pen or syringe.

1

Bolus advice

15 mg/dL
0.00 U
Carbs 40 g

1.50 U
3.00 U

Total amount **4.50 U**

Type **Standard**

Bolus

Start bolus advice with or without testing your blood glucose.

Tap **Type**.

2

Bolus type

Standard bolus
Extended bolus
Multiwave bolus
Quick bolus
Pen/syringe

OK

Tap **Pen/syringe**.

3

Bolus advice

15 mg/dL
0.00 U } 1.50 U

Carbs
40 g } 3.00 U

Total amount 4.50 U

Type Pen

Bolus

Once you have completed your entries, tap **Bolus**.

4

Information

Deliver bolus

Total amount 4.50 U

Deliver the insulin amount with a pen or a syringe.

OK

Tap **OK**.

This way you confirm to the system that you are delivering this insulin amount. The bolus advice feature will take the corresponding insulin amount into account in the next calculations.

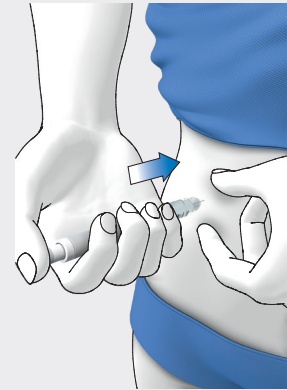
5

153 mg/dL
10:00 am 30 Jul 2019

Main menu Add data

The Status screen is displayed.

6



Inject the insulin units you confirmed with a pen or syringe.

7.5 Turning Off Bolus Advice

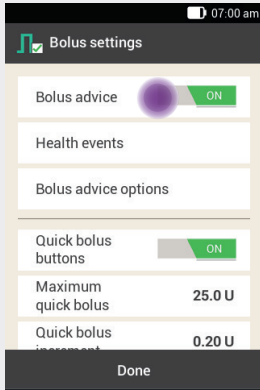
Main menu > Settings > Bolus settings

This section describes how to turn off bolus advice.

Note

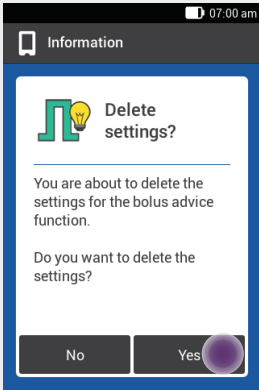
If you turn off bolus advice, all bolus advice options will be deleted. If you want to use bolus advice again, you must set it up once again.

1



Tap **Bolus advice**.

2



Tap **Yes** if you want to turn off bolus advice now.

The bolus advice options will be deleted.

8

Basal Rate Profiles and Temporary Basal Rates

8.1 Basal Rate Profiles

In this chapter you will learn how you can adapt your basal insulin supply to your life situations using different basal rate profiles and Temporary Basal Rates (TBR).

The basal rate covers the basal, meal-independent insulin requirement. The size of the basal rate depends on your personal circumstances and the time of day.

A basal rate profile consists of a combination of basal rates that are defined according to your personal requirements and cover 24 hours a day. If your insulin needs differ on certain weekdays, on weekends, during illness or on holiday, you can create and use different basal rate profiles. You can program up to 5 basal rate profiles in the diabetes manager.

Basal rate profiles are defined through time blocks. Each time block needs a start time and an end time as well as an hourly basal rate, which is specified in insulin units per hour (U/h).



WARNING

Wrong basal rate settings may lead to hyperglycemia or hypoglycemia.

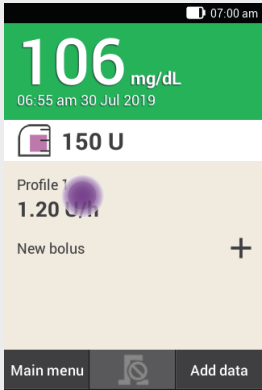
Note

If you activate a different basal rate profile, all ongoing insulin deliveries (basal rate, boluses) will be canceled.

8.2 Creating and Editing a Basal Rate Profile

A basal rate profile can be programmed, edited and deleted in different ways. Start by using one of the following two options:

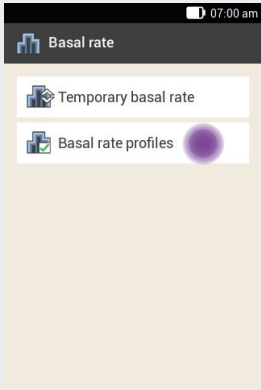
1



On the Status screen, tap the area indicating the basal rate.

or

2



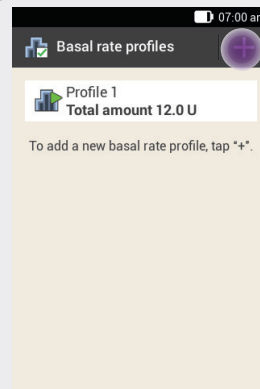
In the Basal rate menu, tap Basal rate profiles.

8.2.1 Programming a Basal Rate Profile

Note

- ▶ Basal rate time blocks are not identical to or shared with the time blocks for bolus advice. You can set up a maximum of 24 time blocks, each of which may be between 15 minutes and 24 hours long. When supplied, the system shows 24 time blocks of 1 hour each.
- ▶ You are only able to edit the end times of basal rate time blocks. The start time of each time block is identical to the end time of the previous time block.
- ▶ To add a new time block, set the end time of the last time block to the desired start time of the new time block.
- ▶ To delete a time block, decrease the end time of the time block to equal the start time of the same time block.

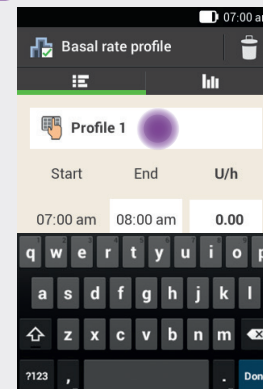
1



Tap + to add a basal rate profile.

Once the maximum possible number of 5 basal rate profiles has been reached, the **Basal rate profiles** display does not show the + symbol.

2

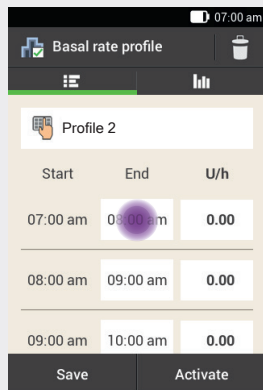


Tap the item with the  symbol.

Enter the desired name for the basal rate profile (for example, Weekend). The name may have up to 12 characters.

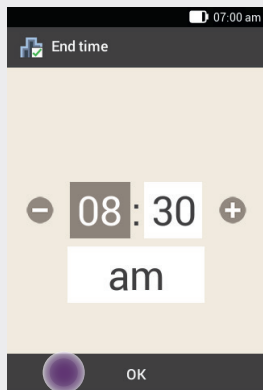
Tap **Done**.

3



Tap the first time block. Set the end time and the insulin amount.

4



Use **−** and **+** to set the end time for the time block.

Tap **OK**.

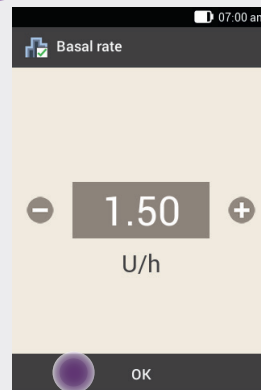
5



When the end time of a time block shortens or overwrites the next time block, this display appears.

Tap **Yes**.

6



Use **−** and **+** to set the basal rate for the time block (for example, 1.50 U/h).

Tap **OK**.

7

Basal rate profile

Profile 2

Start	End	U/h
07:00 am	08:30 am	1.50
08:30 am	09:00 am	0.00
09:00 am	10:00 am	0.00

Save Activate

Repeat this process until the correct basal rate has been programmed for all 24 hours of the day.

Tap **Save**.

8

Basal rate profiles

Profile 1
Total amount 12.0 U

Profile 2
Total amount 16.0 U

To add a new basal rate profile, tap "+".

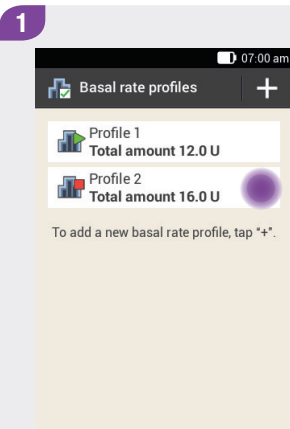
The newly programmed basal rate profile is displayed in the overview of the existing basal rate profiles.

Check whether the total amount displayed corresponds to the total amount defined by your healthcare professional.

Note

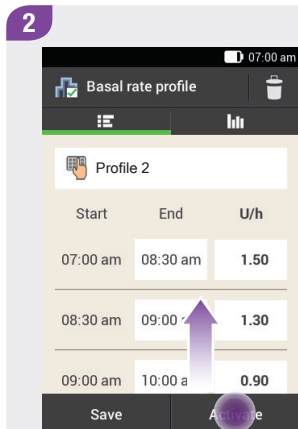
If the total amount displayed does not correspond to the total amount defined by your healthcare professional, check all the time blocks and correct the entries. For more information, see chapter *8.2.3 Changing a Basal Rate Profile*.

8.2.2 Activating a Basal Rate Profile



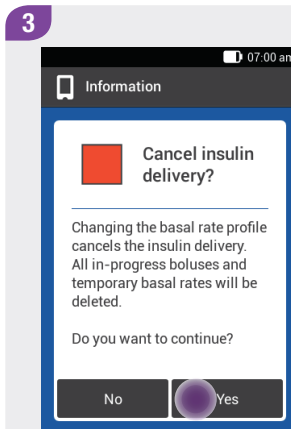
Tap the basal rate profile you want to select (for example, Profile 2).

The currently selected basal rate profile is indicated by the  symbol.



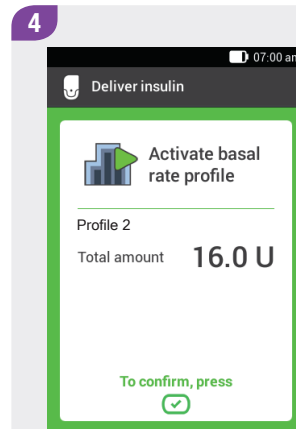
If required, scroll the display upwards to check all time blocks of the basal rate profile.

Once all settings are correct, tap **Activate**.



While a basal rate profile is being activated, insulin delivery is interrupted. Note that ongoing boluses are also interrupted.

Tap **Yes**.

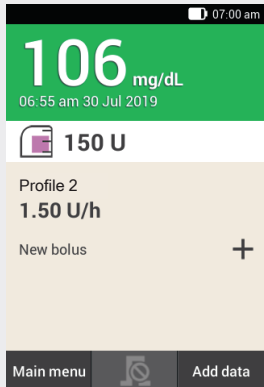


To confirm this step and activate the basal rate profile, press the insulin button lit up in green  below the diabetes manager screen.

Note

Tapping  cancels the activation of the selected basal rate profile and takes you to the previous display. The basal rate profile that was previously active, remains active.

5

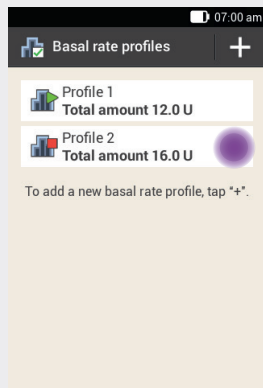


The screenshot shows a mobile application interface for a glucose pump. At the top, a green bar displays a glucose reading of 106 mg/dL and the time 06:55 am 30 Jul 2019. Below this, a white bar shows a bolus of 150 U. The main area is a light beige color and displays 'Profile 2' with a basal rate of 1.50 U/h. Below this, it says 'New bolus' with a plus sign icon. At the bottom, there is a dark grey bar with three buttons: 'Main menu', a pump icon, and 'Add data'.

The activated basal rate profile is displayed on the Status screen.

8.2.3 Changing a Basal Rate Profile

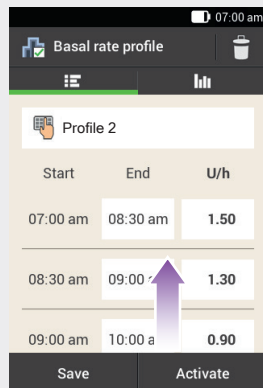
1



Tap the basal rate profile you want to change (for example, Profile 2).

The currently selected basal rate profile is indicated by the  symbol.

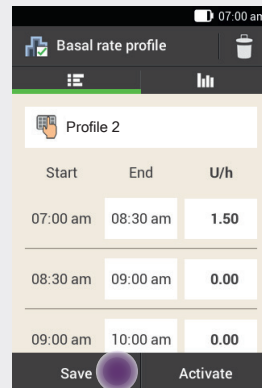
2



If required, scroll the display upwards to check all time blocks of the basal rate profile.

Tap an end time to change the end time for the time block.
Tap a basal rate to change the basal rate for the time block.

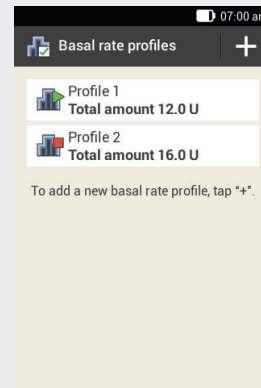
3



Repeat this process until the correct basal rate has been programmed for all 24 hours of the day.

Tap **Save**.

4

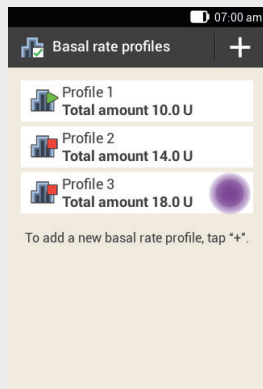


The changed basal rate profile is displayed in the overview of existing basal rate profiles.

Check whether the total amount displayed corresponds to the total amount defined by your healthcare professional.

8.2.4 Deleting a Basal Rate Profile

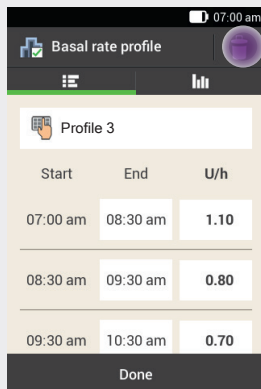
1



Tap the basal rate profile you want to delete (for example, Profile 3).

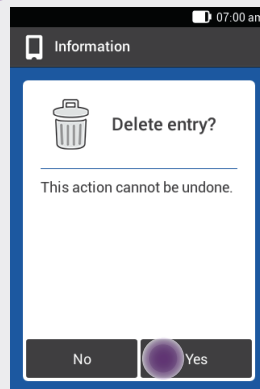
Note that the active basal rate profile cannot be deleted. The active basal rate profile is indicated by the  symbol.

2



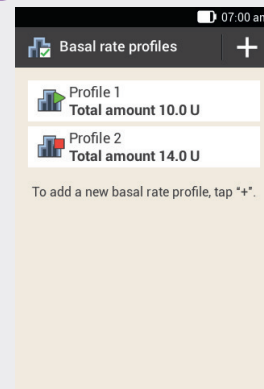
Tap the  symbol in the upper right corner of the screen.

3



Tap **Yes** to delete the basal rate profile.

4



The selected basal rate profile was deleted from the list of available basal rate profiles.

8.3 Temporary Basal Rates

A Temporary Basal Rate (TBR) allows you to temporarily increase or decrease your active basal rate profile on a percentage basis for a specific duration. This helps you to better control your blood glucose level during illness, physical activity or in other situations. Temporary Basal Rates can be set in increments of 10% over a period of 15 minutes to 24 hours.

If you activate a Temporary Basal Rate of less than 100 % in addition to a low basal rate, this may be less than the minimum possible output amount of the micropump.

TBR	Settings range
Decrease	0–90%
Increase	110–250%

The percentage and the duration of a TBR are saved. Each time a Temporary Basal Rate is selected, the last used settings are displayed.

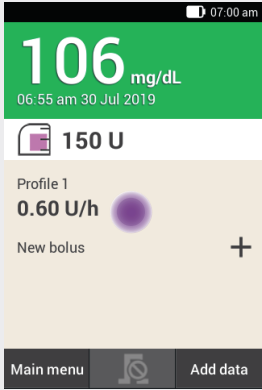
Note

- ▶ A TBR cannot be programmed if the micropump is in STOP mode.
- ▶ Stopping the pump (STOP mode) stops TBR delivery as well as any bolus delivery.
- ▶ When the duration of the TBR has expired, you are informed that the programmed basal rate has finished.

8.4 Creating and Editing a TBR

A temporary basal rate can be programmed, edited and deleted in different ways. Start by using one of the following two options:

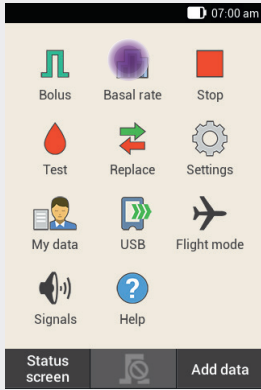
1



On the Status screen, tap the area indicating the basal rate.

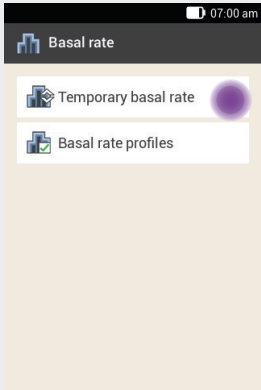
or

2



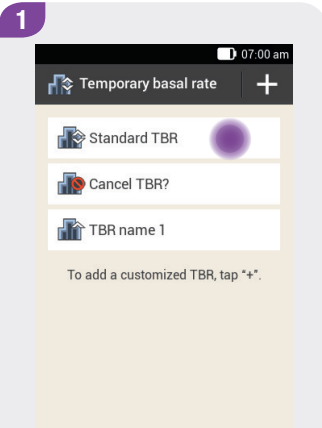
In the Main menu, tap the **Basal rate** menu.

2

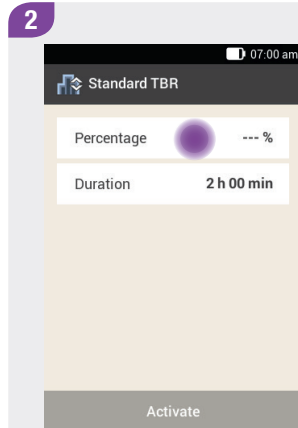


Tap **Temporary basal rate**.

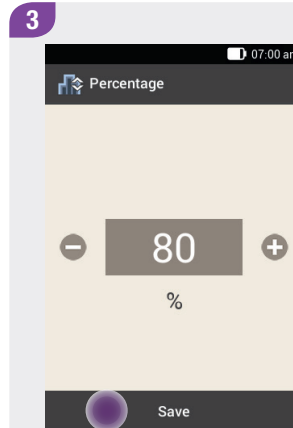
8.4.1 Programming a TBR



Tap **Standard TBR**.

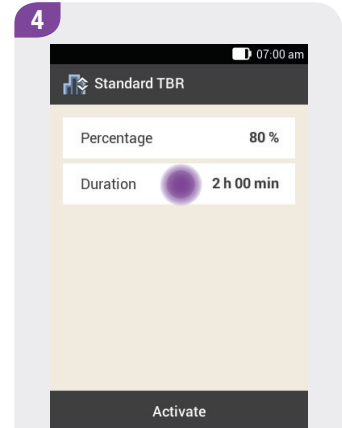


Tap **Percentage** to enter the percentage of the temporary basal rate.



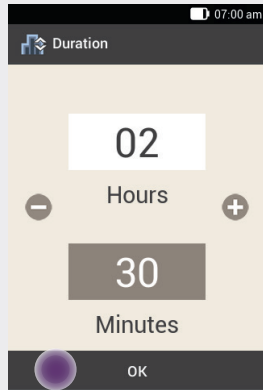
Use **−** and **+** to set the percentage for adjusting the Temporary Basal Rate.

Tap **Save**.



Tap **Duration** to enter the running time for the temporary basal rate.

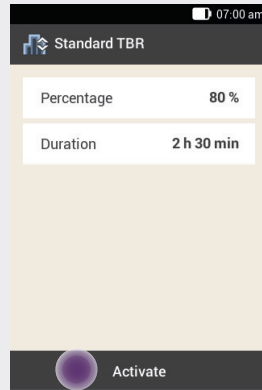
5



Use **−** and **+** to set the hours and minutes for the duration of the standard TBR.

Tap **OK**.

6



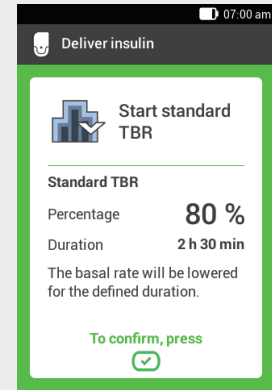
Tap **Activate**.

Note

You can only activate the TBR if the percentage is less than or greater than 100% (for example, 90% or 110%).

Tapping  cancels the activation and takes you to the previous display.

7



To confirm this step and start the standard TBR, press the insulin button lit up in green  below the diabetes manager screen.

8.4.2 Programming a Customized TBR

You can program and save customized Temporary Basal Rates for recurring situations that change your insulin needs. For a customized TBR, the percentage and the duration are saved. These settings are used as default values each time you select this TBR. You also have the option of entering a name for a customized TBR.

Example

You go running for 1 hour twice a week. You know that your body needs 20% less insulin during this activity and the subsequent recovery phase of 2 hours. You program a TBR of 80% for 3 hours.

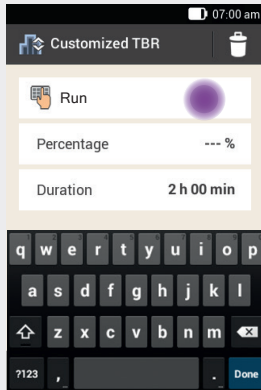
The diabetes manager shows the Status screen with the current TBR information.

8

1

Tap **+** to add a customized TBR.

2

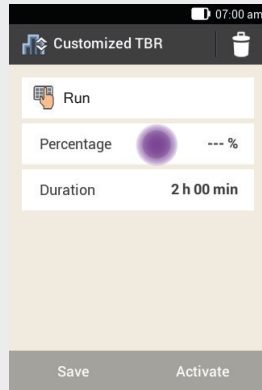


Tap the  symbol.

Enter the desired name for the customized TBR (for example, Run). The name may have up to 12 characters.

Tap **Done**.

3



Tap **Percentage** to enter the percentage for the customized TBR.

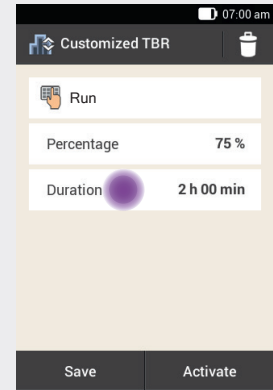
4



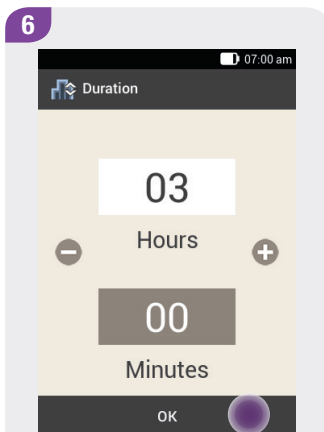
Use  and  to set the percentage for adjusting the customized TBR.

Tap **Save**.

5

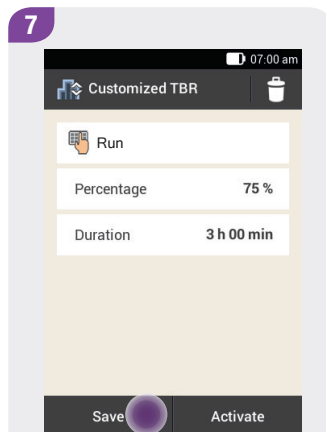


Tap **Duration** to enter the running time for the customized TBR.

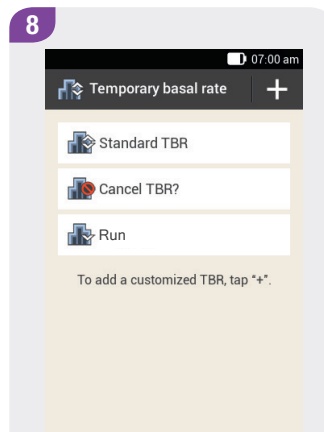


Use and to set the hours and minutes for the duration of the customized TBR.

Tap **OK**.



To save your settings for the customized TBR without starting it, tap **Save**.



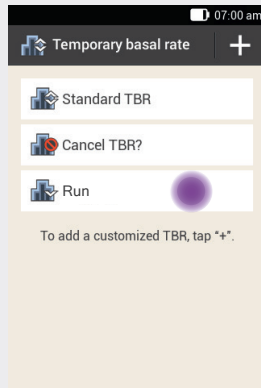
The newly programmed customized TBR is displayed.

Note

A customized TBR less than 100% is indicated by this symbol . A TBR greater than 100% is indicated by this symbol .

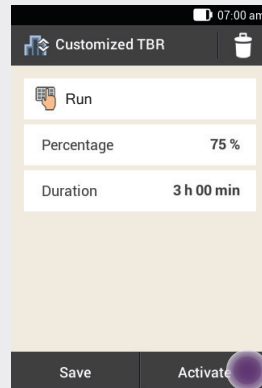
8.4.3 Activating a Customized TBR

1



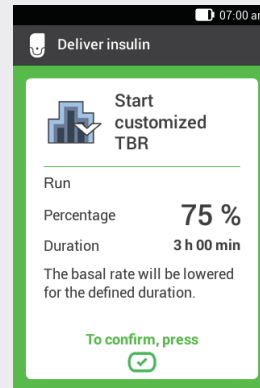
To activate a saved TBR, tap the desired entry in the list of Temporary Basal Rates.

2



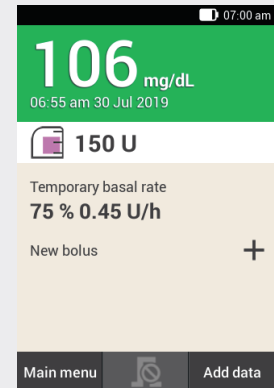
To save and start the TBR immediately, tap **Activate**.

3



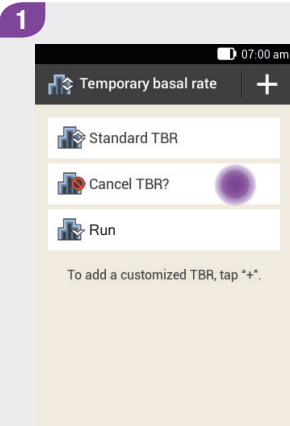
To confirm this step and start the TBR, press the insulin button lit up in green  below the diabetes manager screen.

4

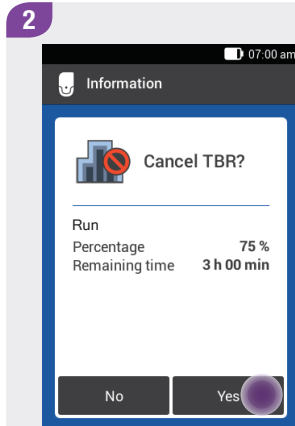


The activated TBR is displayed on the Status screen.

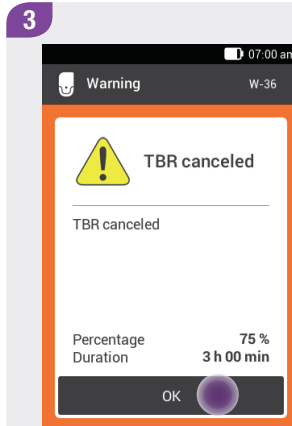
8.4.4 Canceling a TBR



Tap **Cancel TBR?**.

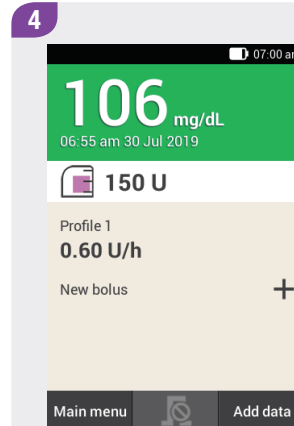


Tap **Yes**.



The percentage and the duration of the TBR so far are displayed in the W-36 warning.

Tap **OK** to confirm the warning.



The TBR has been canceled and deleted from the Status screen.

9 Replacing System Components

In this chapter you will learn when and how to replace the infusion assembly, reservoir, pump base and insertion device.

The following table contains guidelines on the period of use of these system components:

System component		Period of use
Insertion device		approx. 1 year
Pump base		up to 4 months
Reservoir		up to 4 days
Infusion assembly		up to 3 days

Always have enough consumables ready so that a replacement is available after a given period of use.



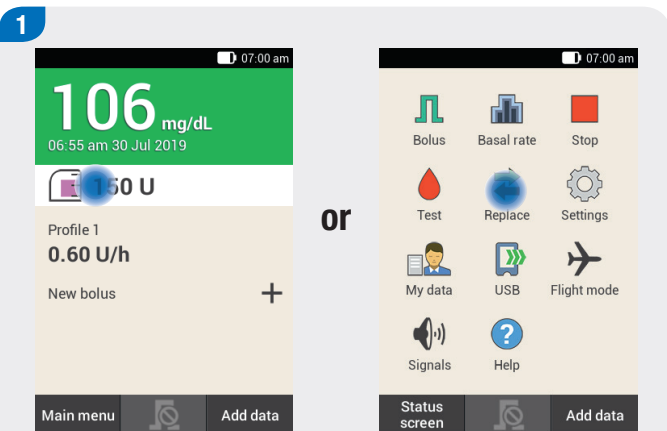
WARNING

Check your blood glucose level after replacing system components at least once within 1 to 3 hours.

Note

- ▶ The average life expectancy of the battery used to supply the micropump with power is 4 days. It may last longer than this, depending on your usage pattern and the insulin amount needed daily.
- ▶ Replace the system components in the early morning. Do not replace the system components before going to bed.
- ▶ You will find animated Help videos on replacing system components and operating the micropump system in the Main menu of the diabetes manager under the [Help](#) menu item.
- ▶ In order to receive a timely reminder to replace the insertion device, you can set a reminder in the diabetes manager. For more information, see chapter *12 Reminders*.

9.1 Starting the Replacement of System Components



Note

Always use the diabetes manager to start the process of replacing one or more system components. This is the only way that the micropump system will be able to give you a timely reminder to replace a component.

Always start as follows when replacing the infusion assembly, reservoir or pump base:

On the Status screen, tap the reservoir symbol .

or

In the Main menu, tap the **Replace**  menu.

9.2 Replacing the Infusion Assembly

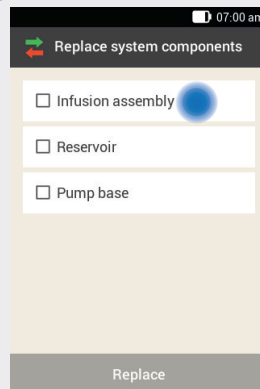
Have the following system components at hand for this process:

- ▶ Pump holder
- ▶ Cannula
- ▶ Insertion device
- ▶ Diabetes manager
- ▶ Disinfectant or sterile alcohol wipe

Note

- ▶ Check the pulled out cannula to ensure that it has been completely removed.
- ▶ If you dampen the infusion assembly with warm water or apply an oily ointment, it becomes easier to pull off the adhesive pad.
- ▶ Refer to General Warnings for guidance on safe handling and disposal of the used infusion assembly.

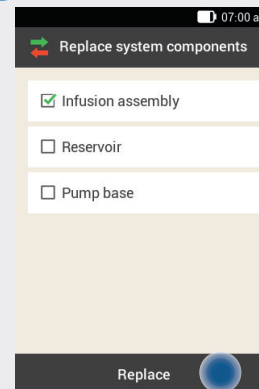
1



The display for selecting the system components appears.

Tap **Infusion assembly**.

2

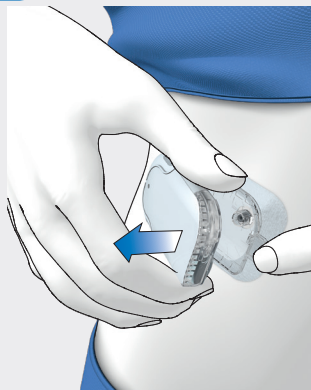


Tap **Replace**.

The micropump switches to STOP mode and issues the “Cancel” signal sequence.

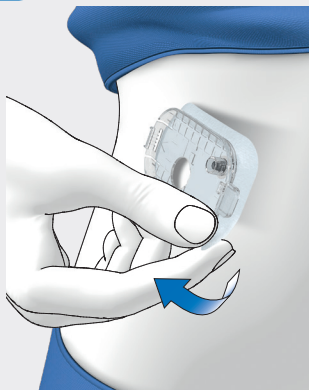
Removing the used infusion assembly

3



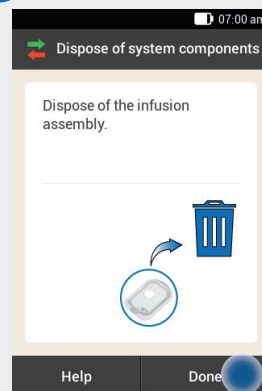
Press the tab to detach the micropump and remove the pump from the infusion assembly.

4



Remove the infusion assembly by loosening the edges of the adhesive pad and pulling it off towards the center.

5

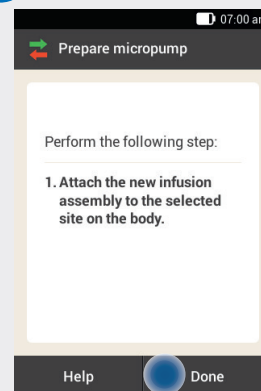


Dispose of the used infusion assembly.

Contact your local waste management authority for guidance on how to recycle or dispose of used infusion assemblies in an environmentally responsible manner.

Tap **Done**.

6



If you want to see an animated video on how to replace the infusion assembly, tap [Help](#).

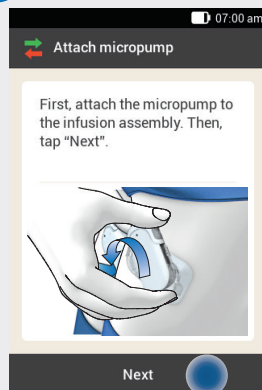
Tap **Done** when you have finished the action step shown on the screen.

Attaching the infusion assembly to the body

7

Follow the action steps in chapter 4.3.1 *Attaching the Infusion Assembly to the Body*.

8

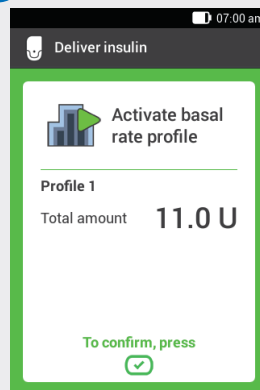


Attach the micropump to the infusion assembly.

Tap [Next](#).

The infusion assembly is now filled automatically.

9



To confirm this step and then restart the micropump and return to the Status screen, press the insulin button lit up in green  below the diabetes manager screen.

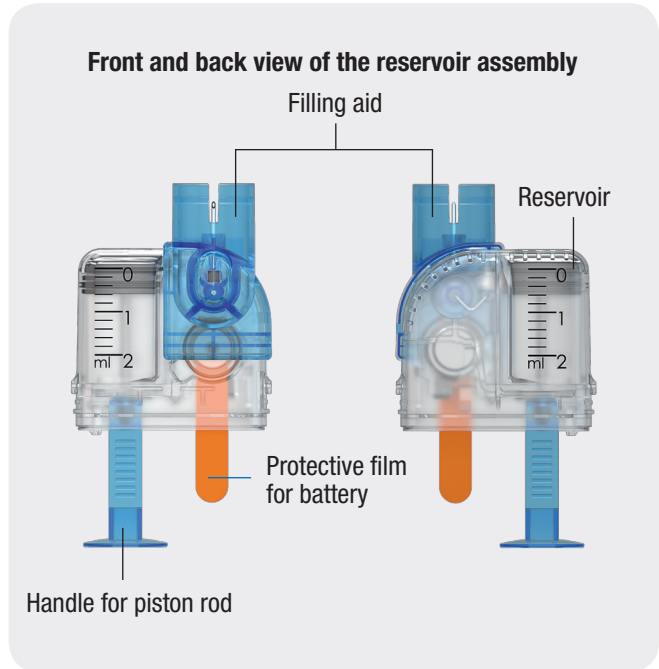
9.3 Replacing the Reservoir

Have the following at hand for this process:

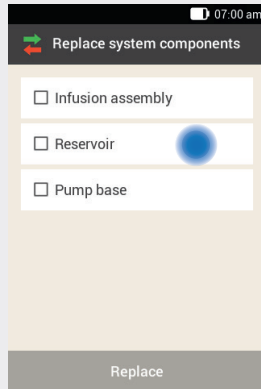
- ▶ Reservoir assembly
- ▶ Insulin vial with U100 insulin
- ▶ Disinfectant or sterile alcohol wipe

Note

Always fill the reservoir with at least 80 U. The reservoir has a maximum holding capacity of 200 U (2.0 ml).



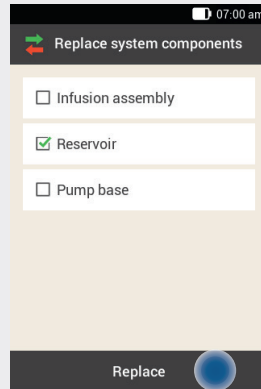
1



The display for selecting the system components appears.

Tap **Reservoir**.

2



Tap **Replace**.

The micropump switches to STOP mode and issues the “Cancel” signal sequence.

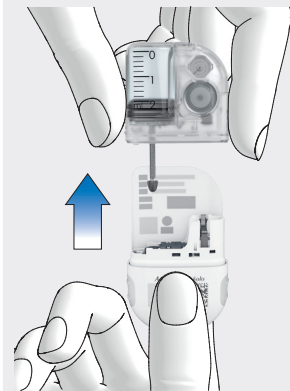
Removing the reservoir

3



Press the tab to detach the micropump and remove the pump from the infusion assembly.

4



Remove the used reservoir from the pump base.

Wait at least 15 seconds after removing the used reservoir before you connect a new reservoir to the pump base.

5

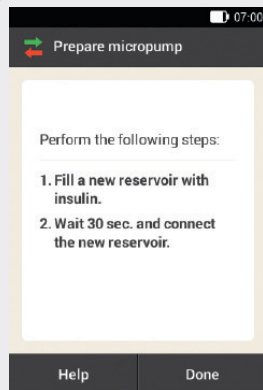


Dispose for the used reservoir.

Contact your local waste management authority for guidance on how to recycle or dispose of used reservoirs in an environmentally responsible manner.

Tap [Done](#).

6



If you want to see an animated video on how to replace the reservoir, tap [Help](#).

Wait 30 seconds before connecting the new reservoir to the pump base.

When the pump base beeps, tap [Done](#).

7

Replacing the reservoir

Follow the action steps in chapters

- 4.3.2 Filling the Reservoir with Insulin,*
- 4.3.3 Connecting the Reservoir to the Pump Base,*
- 4.3.5 Filling the Reservoir Needle,*
- 4.3.6 Attaching the Micropump,*
- 4.3.7 Activating the Basal Rate Profile.*

9.4 Replacing the Pump Base

The pump base can be used for up to 4 months. It must not be used for longer than 4 months because otherwise the delivery accuracy may be impaired. You will be reminded regularly to replace the pump base before the deadline expires. For information on the remaining running time of the micropump, see the settings in the [System information](#) menu. If you replace the pump base, you must also replace the reservoir.

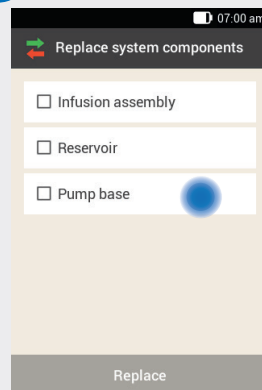
Before starting this process, have the following components ready:

- ▶ A new pump base
- ▶ A new reservoir assembly
- ▶ An insulin vial with U100 insulin
- ▶ Disinfectant or a sterile alcohol wipe

Note

- ▶ Refer to the information in chapter 4 *Putting the Micropump into Operation*.
- ▶ When you replace the pump base, all settings saved for the pump in the diabetes manager are preserved.
- ▶ Each pump base can only be paired once with a diabetes manager.

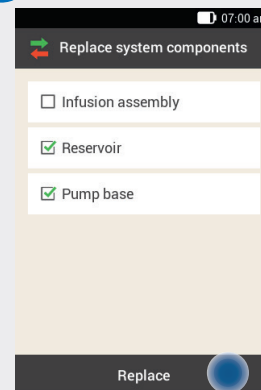
1



The display for selecting the system components appears.

Tap [Pump base](#). The reservoir is automatically selected as well.

2



Tap [Replace](#).

The micropump switches to STOP mode and issues the "Cancel" signal sequence.

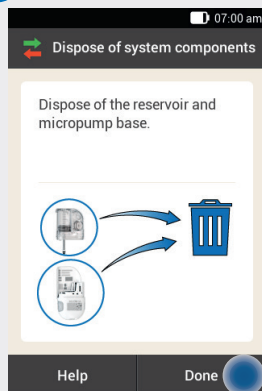
Removing the pump

3



Press the tab of the infusion assembly. Remove the used micropump from the infusion assembly.

4

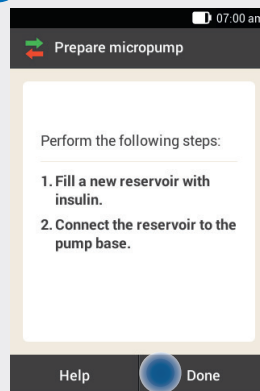


Dispose of the used reservoir and the used pump base.

Contact your local waste management authority for guidance on how to recycle or dispose of the used reservoir and the used pump base in an environmentally responsible manner.

Tap **Done**.

5



Follow the instructions on the screen.

Tap **Done**.

6

Follow the action steps in chapters

- 4.3.2 Filling the Reservoir with Insulin,*
- 4.3.3 Connecting the Reservoir to the Pump Base,*
- 4.3.4 Pairing the Diabetes Manager and Micropump,*
- 4.3.5 Filling the Reservoir Needle,*
- 4.3.6 Attaching the Micropump,*
- 4.3.7 Activating the Basal Rate Profile.*

10 My Data

10.1 Overview

Analyzing your therapy data saved in the diabetes manager is an effective way for you and your healthcare professional to determine how your diabetes is progressing. This analysis is a valuable tool for making adjustments to the treatment of your diabetes.

The diabetes manager generates charts and reports to help you analyze the information saved in the device. Each event in the logbook can be viewed separately. The diabetes manager can also display compilations of therapy data in the form of charts and overviews.

10.2 Logbook

You can display each single logbook entry on the screen of the diabetes manager. There, you will find all the information about blood glucose results along with time of test, carbohydrates, health events and boluses. In addition, you can change the entries in the logbook or add new ones.

The diabetes manager automatically stores up to 5,000 logbook entries with the time and date. You can view the most recent 250 logbook entries in the diabetes manager. If you are using a PC with compatible software, you can view all logbook entries.

A logbook entry can contain the following information: date and time, blood glucose result, time of test, carbohydrate intake, health events, bolus amounts, bolus type and notes.

Note the following:

- ▶ The **Logbook** display shows the entries in the order in which they occurred with the most recent entry shown on top.
- ▶ If you want to add data to a logbook entry, you can also tap the **Add data** button on the Status screen or in the Main menu.
- ▶ Bolus data from the micropump is automatically saved on the diabetes manager. However, the bolus advice feature will treat quick boluses that you deliver manually as correction insulin. Therefore, you should edit the quick boluses recorded in the logbook with regard to bolus distribution (meal/correction insulin) and carbohydrates consumed.
- ▶ Logbook data that has been used for bolus advice cannot be subsequently adjusted.
- ▶ You should enter any boluses that were delivered independently of the diabetes manager using an insulin pen or syringe as new data in the logbook.
- ▶ Once 5,000 entries have been saved in the logbook, adding a new entry causes the oldest logbook entry to be deleted. Save the entries on a PC if you want to keep all entries.
- ▶ Although control results are saved in the diabetes manager, they can only be viewed on a computer with suitable software.
- ▶ Before reviewing logbook entries on a PC, you first have to transfer the saved logbook entries to a PC that has specific diabetes management software.

10.2.1 Understanding the Logbook

Main menu > My data > Logbook

The screenshot shows the Logbook app interface. At the top, there's a header bar with a 'Logbook' title and a '+' icon. Below this, there are three columns for units: mg/dL, U, and g. The main area displays a list of log entries for two dates: 30 Jul 2019 and 28 Mar 2019. Each entry includes a time, a blood glucose result, a bolus amount, and a carbohydrate amount. Various icons are used to represent different modes and events, such as a lightbulb for STOP mode, a heart for health events, and a notepad for notes. Numbered callouts (1-16) point to specific UI elements: 1 points to the mg/dL column header, 2 to the U column header, 3 to the g column header, 4 to the blood glucose result range icon, 5 to the bolus advice icon, 6 to the bolus type icon, 7 to the carbohydrate icon, 8 to the carbohydrate amount, 9 to the bolus amount, 10 to the blood glucose result, 11 to the STOP mode icon, 12 to the health event icon, 13 to the note icon, 14 to the time of entry, 15 to the general time of test icon, and 16 to the date of entry.

	1	2	3
	mg/dL	U	g
30 Jul 2019			
06:30 pm	106	2.50	20
01:00 pm	157	5.00	65
07:00 am	76		
28 Mar 2019			
07:00 pm	148	6.00	52
12:30 pm	108	2.50	15

1 Column for displaying blood glucose information
Blood glucose result range and blood glucose result.

2 Column for displaying bolus information
Bolus type, bolus advice and bolus amount.

3 Column for displaying carbohydrate information
Symbol for carbohydrates and carbohydrate amount.

4 Symbol for blood glucose result range information

5 Symbol for bolus advice

6 Symbol for bolus type

7 Symbol for carbohydrates

8 Carbohydrate amount

9 Bolus amount

10 Blood glucose result

11 Symbol for STOP mode

12 Symbol for health event

13 Symbol for note

14 Time of entry

15 Symbol for general time of test

16 Date of entry