

Dana Diabecare RS

Quick guide



This quick reference guide is an easy to follow step by step guide to the most common and frequently used features within the DANA Diabecare RS Insulin Pump.

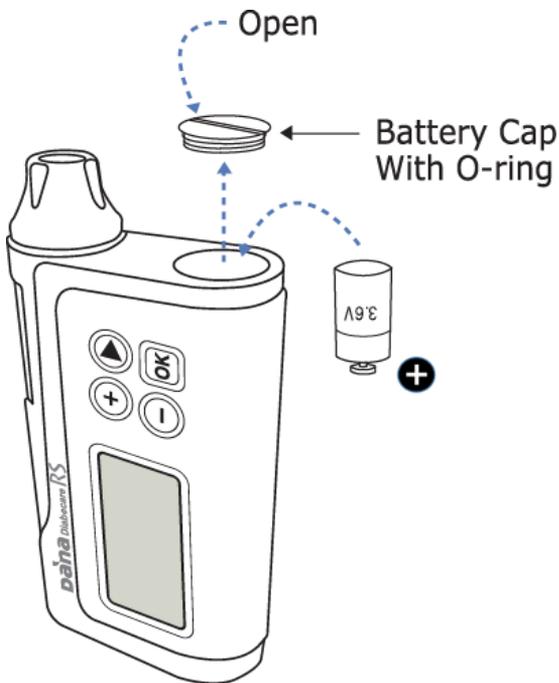
The 'Quick Reference Guide' (QRG) is supplementary to the IFU (Instruction For Use). All precautions and warnings within the IFU must be read and adhered to always. Read the entire IFU before commencing or using the DANA Diabecare RS Insulin Pump.

Refer to the DANA RS IFU for advanced features instruction and more complex operation of the DANA Diabecare RS Insulin Pump.

Inserting a battery and turning the pump on...

- 1) Using the supplied DANA battery key – open the battery compartment.
- 2) Install a new DANA lithium battery.
- 3) Place the battery cap back onto the pump and tighten firmly.

Once the battery is correctly inserted, the pump turns on automatically and performs “self-checks” to make sure all the systems are working properly.

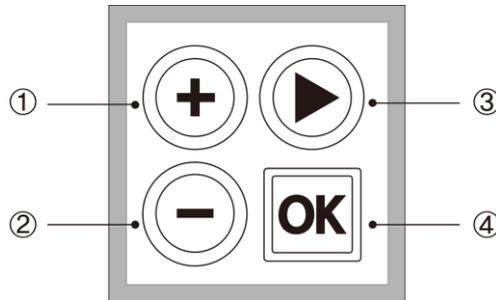


1. Use the battery key to open the battery cap by turning counter-clockwise.
2. Insert the battery with terminals facing down.
3. Tighten the battery cap, using the battery key, until it is firm and flush with the top of the pump.

When changing the battery – clean the inside thread of the pump and the O-ring

Pump main keypad – navigating the pump

This picture shows how the buttons are used to navigate through the menus.

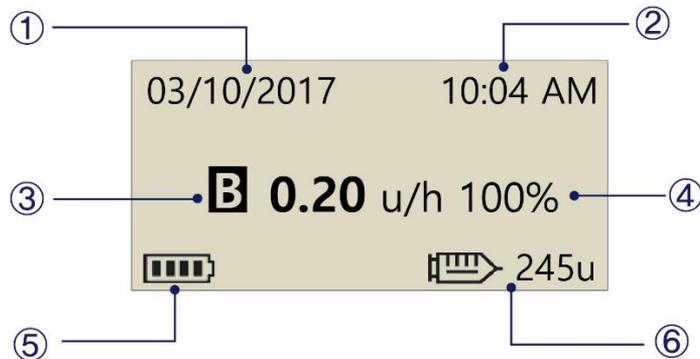


- ① Press to increase insulin dosages, time and date.
- ② Press to decrease insulin dosages, time and date or to exit to previous menu. (cancel/stop button)
- ③ Press to move to the next function on the LCD screen or to scroll to the right in menus.
- ④ Press to select the function highlighted on the LCD screen.
Confirmation button to confirm settings or start a bolus.

The DANA RS insulin pump has a new and improved UI. The  button does not operate as a backwards button. The new UI menu works in a circular rotation through the menu's using .

Pump initial screen – *what does it all mean?*

This image shows what is displayed on the DANA RS home screen.



① Date(MM/DD/YYYY)

② Time

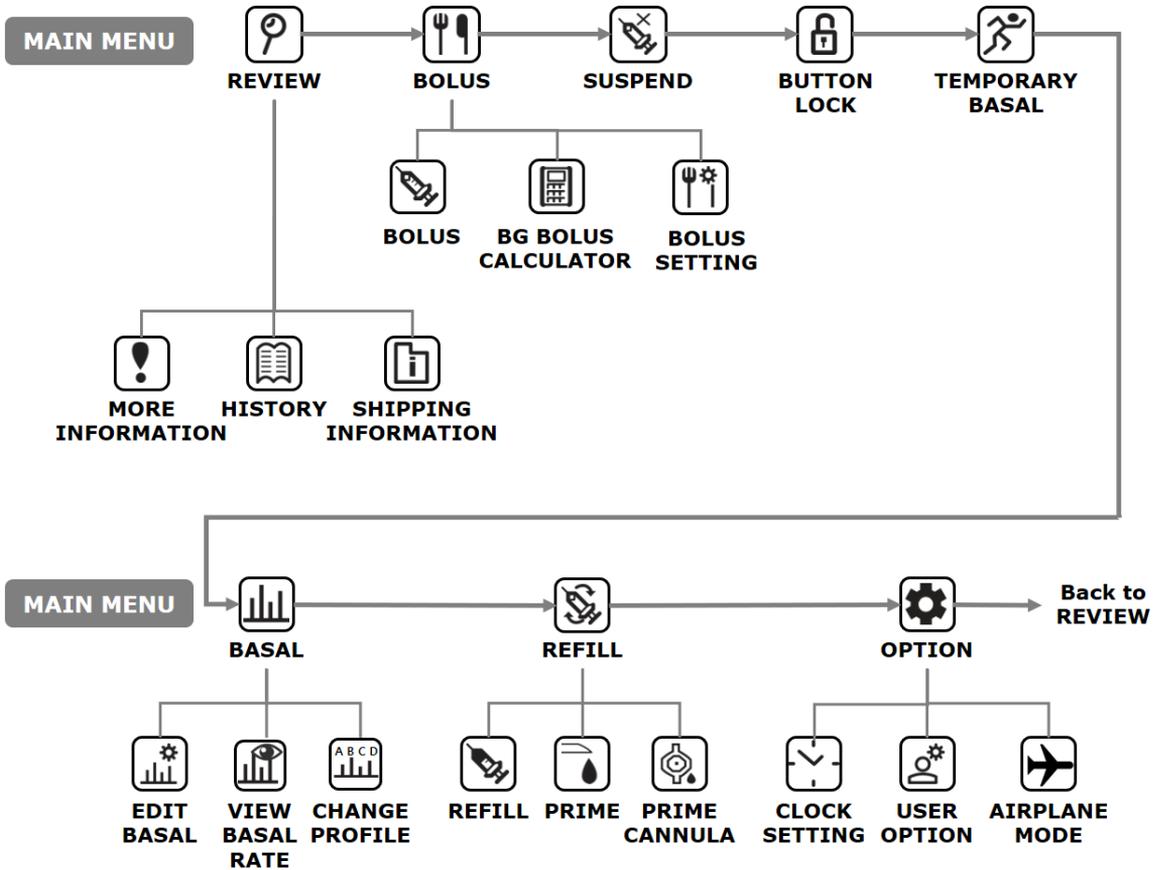
③ Current basal rate in units per hour. The flashing **B** indicates the basal is active

④ Percentage of basal rate. (100% is normal basal delivery without a temporary rate active)

⑤ Battery Indicator

⑥ Units remaining in the pump reservoir

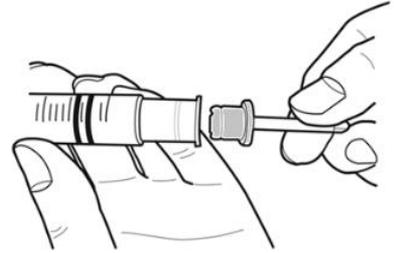
Pump Menu ICON's



Loading an Insulin Reservoir

Preparation - things to get ready before starting

- Analog Insulin (room temperature)
- DANA Reservoir (3ml)
- DANA Easy Setter / Auto Setter
- Linking Screw
- DANA Infusion Set and Alcohol Swab (if required)
- DANA Insulin Pump



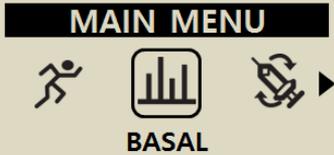
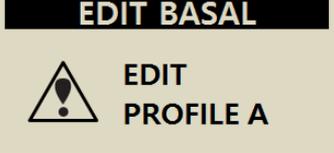
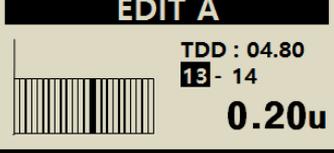
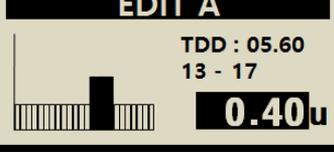
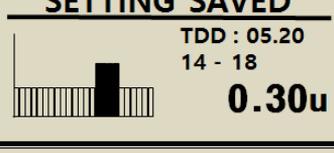
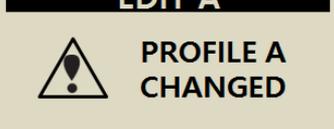
Procedure

1. Remove the round cap at the bottom (back) end of the Insulin Reservoir and discard.
2. Remove the thin white plastic cap from within the reservoir (place aside for using once full of insulin).
3. Holding the reservoir plunger barrel firmly – attach the linking screw, ensure that it fits firmly and the teeth are aligned and engaged.
4. Push the linking screw (and barrel of the reservoir) to the top – ready to fill with insulin. This process ensures that the double O-ring is moving freely and will not cause an occlusion within the pump.
5. Remove the needle protective cap and insert into the 3ml vial of room temperature insulin.
6. Using the needle protective cap – push the insulin plunger down so that the insulin is slowly pushed into the DANA 3ml reservoir. Draw the last bit out by pulling on the linking screw and barrel.
7. Place the clear needle protective cover back onto the needle. Gently tap the reservoir with your finger in order to make the air bubbles rise to the top of the reservoir. And push the plunger up gently to remove the air bubbles from the reservoir.

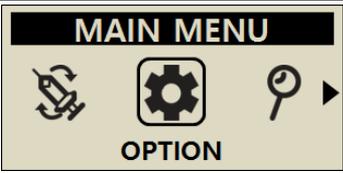
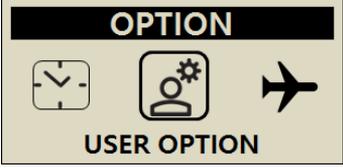
8. Twist and pull to remove the needle from the reservoir and use the small white plastic stopper put aside earlier to seal the top of the reservoir.
9. Insert the reservoir into the Auto Setter. (the reservoir will protrude from the top of the Auto Setter)
10. Press the button on the Auto Setter. The reservoir will wind down, continue pressing the button for a further 3 seconds. Then retrieve the adjusted reservoir from the DANA Auto Setter.
11. Remove the reservoir from Auto Setter. (Be gentle and do not move the plunger or adjust the linking screw).
12. Insert the reservoir into the pump and screw the reservoir cap down tightly.
13. Input the volume of insulin by refill sub menu and then select the prime option from within the refill menu and attach the new Infusion set tube to the pump. Start the prime...
14. Stop or suspend the prime when the tube is full of insulin and there are no air bubbles visible in the tube. Using the (-) key will pause the prime. (5cm of insulin tube = 1 unit insulin)
15. If using a Teflon (plastic) cannula select the prime cannula menu, this fills the empty needle within the cannula after it has been inserted and after the tubing has been connected.

Priming of new infusion set tube is very important – it displaces air within the tube with insulin ready for infusion. If this is not properly completed it is likely that the pump will not deliver insulin as accurately as expected. Ensure that during PRIME insulin can be seen moving through the tube and that a puddle/droplet of insulin is displaced from the end of the infusion set tubing.

Setting Basal Rates

	<p>Select the 'Basal' option from main menu</p>
	<p>Select the 'Edit Basal' option from within the 'Basal' menu</p>
	<p>Confirm the current Basal profile.</p>
	<p>Adjust the start time and end time for the section (period) being changed or amended. (Note: TDD = Total Daily Dose)</p>
	<p>Next adjust the Basal rate (u/hr) for the period selected.</p>
	<p>When press  to save, a 'SETTING SAVED' screen appears. Press  to finish the setting, or press  to move to the start time to set next Basal rate.</p>
	<p>To confirm changes, select </p>

Setting up and personalizing the DANA pump

 <p>MAIN MENU</p> <p>OPTION</p>	<p>Select the 'Option' from main menu</p>
 <p>OPTION</p> <p>USER OPTION</p>	<p>Select the 'User Option' from within the 'Setting' menu</p>

Within the 'User Option' menu there are 14 options that can be personalized and configured. These options are specific to individual preferences – such as pump alerts as beep or vibration and clock display as 12 or 24 hour format?

Note – it is necessary to scroll through all options (even if no changes are made, and confirm and/all changes by selected 'Exit' and confirming 'YES' to save options configured.

When setting or changing any of the selected options the  or  key changes the selected option. The  key moves to the next option.  confirms exit from option (14) exit.

DANA pump Setup – User Options menu

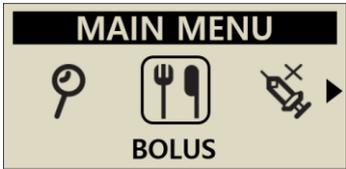
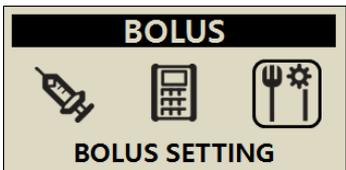
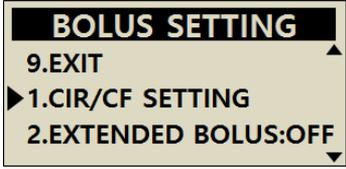
Top RH  button moves through this menu,  or  changes individual option. Select Exit at bottom to save any/all changes.

1. **Time display** 12 or 24 hour clock
2. **Button Scroll** On or Off – enables button press and hold to change levels or dial up Carbohydrate – scrolling quickly.
3. **Beep** On or Off – this is individual key depression beeps
4. **Alarm** Sound, Vibration or Both
5. **LCD On** Time that LCD display remains active before defaulting to sleep mode
6. **Backlight On** Time that LCD backlight remains on (in-between button press)
7. **Language** Default language options for pump operation and menu
8. **Glucose Unit** mmol or MgdI – usually default setting based upon country of origin
9. **Shutdown** Time setting before pump alarms due to no button presses. If alarm not acknowledged – basal will suspend
10. **Low Reservoir** Personalized low volume level for alarm, 10, 20 30 units in 10u increments
11. **Password** Enables change to the password for unlocking the Pump
12. **Cannula Vol** Enables the preset volume for filling cannula to be pre-set (max 1.0 unit)
13. **Modify Rate** Change the volume of insulin within the pump reservoir.
14. **Exit** Use this to save any/all changes made

DANA pump Setup – Personalizing CIR and CF

CIR = **C**arbohydrate to **I**nsulin **R**atio

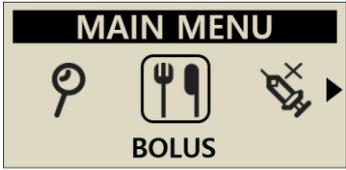
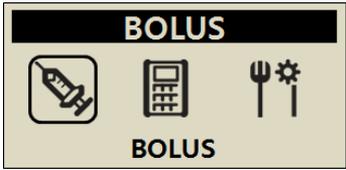
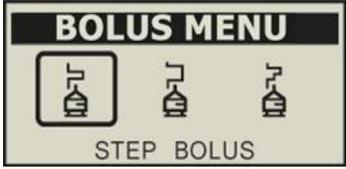
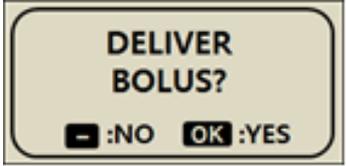
CF = **C**orrection **F**actor

 <p>MAIN MENU</p> <p>BOLUS</p>	Select the 'Bolus' option from main menu
 <p>BOLUS</p> <p>BOLUS SETTING</p>	Select the 'Bolus Setting' option from BolusOption menu
 <p>BOLUS SETTING</p> <p>9.EXIT</p> <p>▶1.CIR/CF SETTING</p> <p>2.EXTENDED BOLUS:OFF</p>	Select the first option = 'CIR/CF' from setting menu. Set and personalize CF and CIR ratios for each specific time of day.

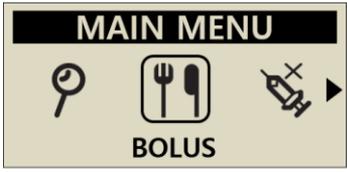
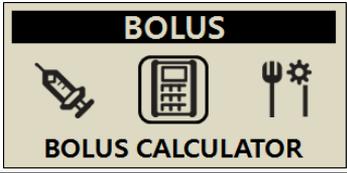
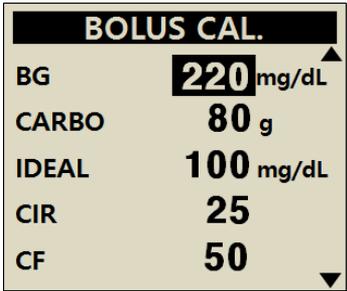
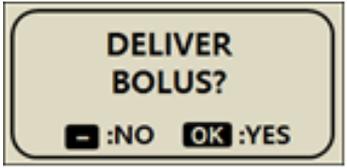
A Healthcare Professional and or Insulin Pump trainer will configure some additional settings within the DANA 'Dr. Mode'. These include daily, hourly and bolus maximums, Basal and Bolus increments, decreasing ratio (duration of active insulin) and target or Ideal BG.

Quick Bolus - delivering a Food Bolus without a Correction

(This bolus ignores any residual Active Insulin)

 <p>MAIN MENU</p> <p>BOLUS</p>	<p>From the main menu select 'Bolus'</p>
 <p>BOLUS</p> <p>BOLUS</p>	<p>Select 'Bolus' to deliver a standard food bolus without including a correction dose and without reducing the dose for Active Insulin.</p>
 <p>BOLUS MENU</p> <p>STEP BOLUS</p>	<p>If enabled (extended bolus) in user options the pump will offer a range of bolus types.</p> <ol style="list-style-type: none">1. 'Step' is a standard bolus.2. 'Extended' enables the bolus to be delivered over a long period.3. 'Dual Pattern' is a combination of both above bolus types.
 <p>DELIVER BOLUS?</p> <p><input type="checkbox"/> :NO <input type="checkbox"/> OK :YES</p>	<p>Select <input type="checkbox"/> OK to start the delivery.</p>

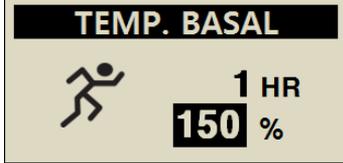
Delivering a Food Bolus with a Correction

	<p>Select the 'Bolus' option from the main menu.</p>
	<p>Select the 'BG Bolus Calculator' option from the Bolus menu.</p>
	<p>Input actual BG and grams of carbohydrate in meal. The next screen shows the pre-programmed Ideal BG, Carb to Insulin ratio and Correction factor. Each of these can be altered or select (OK) to confirm settings. The pump calculates the suggested dose. (G + C - A) This can be adjusted up or down if change is needed.</p>
	<p>Select <input type="button" value="OK"/> to start the delivery.</p>

DANA Insulin Pumps are set to display Blood Glucose in either mmol/L or mg/dl – depending upon the region they are sold, some regions the option can be changed from within the 'user option menu'.

Temporary Rate Start and Stop

Starting a new temporary rate

 <p>MAIN MENU TEMPORARY BASAL</p>	<p>Select TEMPORARY BASAL from the main menu.</p>
 <p>TEMP. BASAL 1 HR 150%</p>	<p>Select the duration of the intended temporary rate and the percentage of standard basal rate. Ex) 150% is a 50% increase in standard rate. 80% is a 20% reduction in standard rate</p>
 <p>START TEMP. RATE? - :NO OK :YES</p>	<p>Select <input type="checkbox"/>OK to start the TEMP. RATE</p>

Stopping a temporary rate

 <p>MAIN MENU TEMPORARY BASAL</p>	<p>Select TEMPORARY BASAL from the main menu.</p>
 <p>TEMP. STATE 00:35 00:25 150%</p>	<p>The TEMP. STATE screen is displayed, press <input type="checkbox"/>OK to STOP the TEMPORARY RATE.</p>
 <p>STOP TEMP. RATE? - :NO OK :YES</p>	<p>Confirm the STOP TEMP. RATE with <input type="checkbox"/>OK.</p>

Flying with an Insulin Pump



1. Refill the pump before flight.
 - a. Ensure there is no air in reservoir.
 - b. Only load enough insulin for 1 or 2 days (preferably only about 1ml).
2. Upon aircraft take off – disconnect pump for ½ hour or until cruising altitude is reached.
3. Prior to aircraft decent – disconnect pump and prime the tubing once landed before reconnecting.
4. Always carry plenty of supplies and spare insulin.
5. In the event of a mid-air emergency and if the oxygen masks fall – disconnect the pump. Reconnect after departed from the aircraft or when normal cabin pressure is achieved.
6. Take a medical certificate advising use of an Insulin Pump.
7. Ensure to test BG levels frequently – especially during long haul flights.
8. On all flights carry non-liquid hypo treatment in accessible carry-on luggage.
9. Get comprehensive travel insurance and ensure that it covers diabetes and wearing an Insulin Pump and make sure it is named/listed on the policy.
10. Change the pump time to destination time once at cruising altitude – Complete this for each separate flight with successive long haul flights.
11. Take at least one spare glucose meter, batteries and test strips. Change the time on the glucose meter at the same time as pump.
12. Before departure, enquire about how to get supplies from each destination travelling to. If necessary, ensure someone back at home knows exactly what supplies and medication is required and make arrangements so they can freight extra supplies if required.

DANA Pump Battery

Ok - so here is some battery advice that I trust helps all people with DANA insulin pumps. All batteries when manufactured are subjected to a long dirty process. This process often involves close contact with highly toxic and corrosive chemicals. For this reason specific tooling is often covered with wax and/or grease to prevent deterioration. IMO some of this ends up on the battery. Therefore wipe a new battery clean using an alcohol swab. Also within the DANA lithium batteries - they have a passivation film - which separates the chemicals within the battery. This prevents any loss of energy whilst in storage. This passivation film gets stronger the longer from manufacture. When first loading a new battery, the DANA pump startup procedure draws a high current across the battery, to purposefully break the passivation film. Unfortunately sometimes this just doesn't complete the process perfectly, so the battery appears to be depleted in a short time. Within the IFU instructions suggest checking that a new battery displays 100% following the first bolus? If it does not remove and reinsert 2-3 times. This often achieves the purpose of breaking the passivation film and will ensure the batteries last as expected.

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