

# Technical Support Questions

## What Do I Do When I Get A Call Service Alarm?

- ✿ Disconnect from the pump at the infusion site
- ✿ Remove the battery to silence the alarm
- ✿ Replace the battery and go through the rewind/load/prime sequence
- ✿ Check the basal rate settings and the date and time on your pump
- ✿ Call the Toll Free technical support number if unsure what to do next or the alarm recurs.

## When Do I Do A Cannula Fill?

Whenever you insert a new infusion set. You do not need to fill the cannula each time you reconnect to pump unless you have just put in a new infusion set.

## What Happens If I Put In A New Infusion Set But Don't Fill The Cannula?

Your blood sugar will rise. When you insert a new infusion set under the skin, the cannula is full of air. The air won't harm you but if you do not fill the cannula, you will receive air instead of insulin until the insulin has been pushed down the cannula as part of normal delivery. For example if you use a comfort set and your basal rate is 0.35u/hr, you will not receive any insulin for 2 hours because that is the time it will take for the insulin to reach the end of the cannula.

## Why Does The Pump Sometimes Give No Prime Warnings?

When you prime the pump, as well as replacing the air in a new line with insulin, the pump also calculates how much pressure is needed to deliver the insulin i.e. it sets the baseline for normal delivery. Pumps detect occlusions (blockage) by detecting the increasing amount of back pressure when attempting to deliver insulin. An occlusion is detected when that pressure reaches a certain threshold. Several things can happen which cause the pump to lose this prime status therefore requiring the pump to be re-primed.

### Insufficient Priming

If you do not prime sufficient insulin during a prime, then you may experience repeated no prime warnings. Priming sufficient insulin (>10 units or counting 5 elephants) will rectify this problem.

### Sudden Impact

A sudden impact can also cause loss of prime status. This is easily rectified by re-priming the pump. It would pay to check the pump to see if any damage has been sustained by the drop.

### Air Bubbles

We recommend that you also check for air bubbles. Pumps cannot reliably detect air bubbles but we have noticed that air bubbles can cause loss of prime status.

### Battery Cap Not Secure

If the cap is not secured properly or there is crack in the battery casing, the no prime warning will occur if the battery loses contact with the battery cap. If this happens a verify screen will appear before the no prime warning.

### Cartridge Cap Not Secure

If the cap is not secured properly or removed, the no prime warning will occur.

### After Certain Alarms

Occlusion, Auto-off and Empty Cartridge alarms will require priming to be done once the alarm has been cleared.

## Why Does The Pump Say Locked?

Pumps do not lock themselves. Like a cell phone, it is possible to inadvertently press buttons on the pump by activities such as leaning against a bench surface. If you go to use the pump and find it is locked when you haven't intentionally locked it, then this is a clear indicator that you have inadvertently pressed buttons. We always recommend that the pump be key-guard locked when it is not being programmed or used for bolusing to avoid this.

### How To Lock The Pump

From any screen while the pump display is active, press and hold the up and down arrows at the same time until the pump beeps and the screen displays [LOCKED]

### How To Unlock The Pump

Press any button to wake up the pump. [LOCKED] will appear on the screen. Press and hold the up and down arrows at the same time until the pump beeps and the home screen is displayed.

## What Batteries Can Be Used In The Pump?

Your pump is designed to achieve optimum performance and battery longevity with an Energizer Lithium L91 AA battery (1.5v). A conventional alkaline 1.5V battery can be used but the battery life is significantly reduced.

**DO NOT USE** rechargeable, carbon zinc or high energy 3.6V AA batteries in your pump. Use of these batteries could damage your pump and will void your warranty.

## Why Does The Pump Say Low Battery When It Has Just Been Changed?

The two main causes are using a battery with low power before insertion or forgetting to change the battery type to Alkaline on the VERIFY screen when you change the battery.

## Why Can I Not Program Basal Rates Or Bolus Doses Larger Than A Set Amount?

There are three limits that are programmed into the pump. These limits are programmed into the pump as an extra safety step. This is done at the pump start but may need to be changed after a period of time and can easily be altered in the Advanced Setup Menu and progressing to Screen 3 Insulin Limits where you can change some or all of the limits.

The three limits programmed are:

- Maximum basal delivery per hour
- Maximum bolus amount per dose
- Maximum daily amount (midnight – midnight)

## Why Does The Pump Alarm And Display Exceeds Max (amount of insulin)?

The pump is warning that the maximum amount of insulin delivery as programmed in the pump has been reached. All deliveries will cease at this point.



The most common of these to occur is the Maximum Daily Amount and usually if this alarm occurs, it will often be in the later stages of the evening and usually on a day that you have had more insulin than normal eg larger food boluses, temporary basal increases or more corrections.

If this alarm occurs, it is because you have had more insulin than you would normally have. Think about how much insulin you have had that day, if it does not make sense you should check your history to see what has occurred during the day. The limits can be easily reprogrammed after clearing the alarm by going to the Advanced Setup Menu and progressing to Screen 3 Insulin Limits where you can change some or all of the limits.

## Why Do Air Bubbles Occur?

- ✿ Air bubbles will form in the cartridge if cold insulin is used because air bubbles will form as thermal expansion occurs. This will also occur if the insulin is exposed to dramatic temperature differences eg warm bed to cold room to warm body in winter.
- ✿ If insulin is introduced into the cartridge too quickly, lots of tiny air bubbles can coalesce into a larger air bubble with time
- ✿ When changing the cartridge but keeping the same line an air bubble can form at the luer lock connection point, so it is important to prime this out before reconnecting.

## Why Do I Go High After A Site Change?

If you forget to fill the cannula you will not be getting insulin until it reaches the end of the cannula which in most circumstances will cause your blood glucose to rise.

If you have filled the cannula but still experience rises in glucose levels after you do a site change, schedule it for a time when you need to deliver a bolus. The action of the bolus clears the space around the end of the cannula.

## Why Do My Blood Sugars Rise As My Site Gets Older?

As the site begins to go off you will notice that you need to do more corrections and that your boluses don't seem to work as well. This is a clear indication that your site is failing and needs to be changed. Sites need to be changed every 2-3 days or as recommended by your health care professional. Leaving a site in too long also increases the risk of infection developing at the site.

## Why Does My Basal History Sometimes Show 0:00u/hr For A Brief Period?

The basal history records every change that happens in the basal delivery. The basal delivery will not occur when some functions are being accessed by you at the same time as the scheduled basal delivery. Reasons for 0:00u/hr to display include

- ✿ Changing the battery
- ✿ After a No Prime warning
- ✿ Priming the pump
- ✿ Making changes to the basal program
- ✿ Delivering a bolus
- ✿ Suspending the pump
- ✿ After an alarm

## Why Should I Wear A Safety Loop?

Not wearing a safety loop is a very common cause of increased scarring, nasty irritations, site infections and tunnelling.

Inserting a site causes minor trauma to the body which usually goes unnoticed by the pump user. After insertion, the body naturally begins to heal the damage. This results in the hardening of the surface along the cannula and a small path forms alongside. If movement at the site then occurs eg from sport or snagging the line, the gap can become large enough that insulin begins to leak from the end of the insertion set back to the surface of the skin. This is called tunneling.

Constant tugging at the site can also cause a leak in the set by rupturing the cannula where it connects to the set.

## What Are Some Of The Basic Things I Should Remember When Doing Consumable Changes?

- ✿ Always use aseptic technique
- ✿ Make sure you rotate your sites
- ✿ Put in new site before taking out old site
- ✿ Do not put cold insulin into the pump
- ✿ Make sure you fill the cannula
- ✿ Test two hours after changing anything on pump

## How Do I Get My Sites To Stay In Better?

- Use IV prep. Not only does this contain isopropyl alcohol to clean the site, it also contains an adhesive to help the site adhere better.
- Do not expose the site to water for up to two hours after site insertion to allow the site to adhere properly.
- Make sure you get all the puckers out of the site. If water gets into the site, it will lose its adhesiveness earlier.
- Do not put a site in after a hot shower when your skin is still clammy.
- If your site is hairy, you could shave it the night before.
- If you find you sweat a lot, you could spray an antiperspirant on the site after you have cleaned it but before you insert the site

## How Often Do I Need To Change My Battery Cap?

The battery cap holds the yellow o-ring which keeps your pump waterproof. It is recommended that you change your battery cap every 6 months. If you work in a dusty environment or are a frequent swimmer, it is recommended that you replace the battery cap every 3 months