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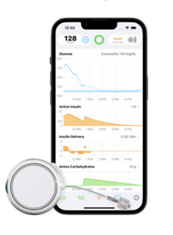
Information is specific to use of each pump's AID features

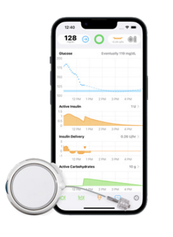
CALCULATE

	Basal automation?	Bolus automation?	Algorithm target glucose/target range?	Which insulin does the user give?
MiniMed™ 780G 	"Auto Basal" calculated from total daily insulin, which is updated each day at midnight. Auto Basal is adjusted every 5 min based on recent CGM glucose trends, aiming for the target glucose value.	Auto correction boluses (max. every 5 min) if glucose is >120 mg/dL. Auto corrections can be turned on or off.	3 target options: 100, 110, 120 mg/dL	User gives boluses for meals by entering total grams of carbs in the bolus menu / bolus calculator. User can deliver correction boluses as needed in the bolus menu / bolus calculator.
t:slim X2™ & Mobi 	Increases or decreases the programmed basal rates every 5 minutes based on a 30 min prediction of CGM glucose, aiming for the target glucose range.	Auto correction boluses (max once/hr) if glucose is predicted to be >180 mg/dL in 30 min.	Target range: 112.5-160 mg/dL	User gives boluses for meals by entering total grams of carbs in the bolus menu / bolus calculator. User can deliver correction boluses as needed in the bolus menu / bolus calculator.
Omnipod® 5 	"Adaptive Basal" calculated from total daily insulin, which is updated at each Pod change. Adaptive Basal is adjusted every 5 min based on a 60 min prediction of CGM glucose, aiming for the target glucose value.	No automated boluses. Algorithm will increase basal doses up to 400% to help correct hyperglycemia.	5 target options: 110, 120, 130, 140, 150 mg/dL Can set multiple target settings throughout 24 hr period	User gives boluses for meals by entering total grams of carbs in the bolus menu / bolus calculator. User can deliver correction boluses as needed in the bolus menu / bolus calculator.
twiist™ AID System powered by Tidepool 	Adjusts basal rates every 5 minutes based on a 6-hour predicted CGM glucose, aiming for the correction target (middle of correction range).	No automated boluses. Algorithm will increase basal doses up to the max basal rate programmed in the pump to help correct hyperglycemia.	Target range (called "Correction Range"), can set any range between 87-180 mg/dL. Algorithm targets middle of the range. Can set multiple ranges throughout 24 hour day.	User gives boluses for meals by entering total grams of carbs in the bolus menu. User can deliver correction boluses as needed in the bolus menu.
iLet Bionic Pancreas 	Insulin Automation is initialized by entering user's weight. Basal insulin delivery adjusts every 5 minutes based on CGM glucose trends and adapts over time based on the iLet's analysis of the user's daily glucose patterns.	All meal bolus doses and correction bolus doses are automated. Auto correction boluses max. every 5 minutes as needed if glucose > CGM target setting.	3 target options: Usual (120 mg/dL), Lower (110 mg/dL), Higher (130 mg/dL) User can set up to 2 target settings per 24 hr period	User completes a meal "announcement" to prompt the iLet to deliver a meal bolus, which involves estimating the carbohydrate amount for each meal ("Usual for Me"/"More" than usual/"Less" than usual).

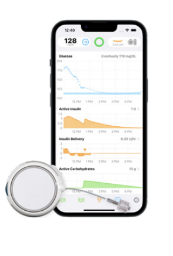
ADJUST

When using AID:	• Can users adjust basal rates?	• Can users adjust I:C ratios?	• Can users adjust correction factor (sensitivity)?	• Can users adjust active insulin time?	• Can users adjust the correction bolus target?	What are the special features in automated insulin delivery?	Which pump settings can be adjusted to impact automated insulin delivery (automated insulin delivered by the algorithm)?
MiniMed™ 780G 	**No** (programmed basal rates are not used in Smart-Guard)	**Yes**	**No** (the programmed sensitivity is not used for correction bolus calculations when in SmartGuard)	**Yes**	**No**, fixed at 120 mg/dL	Temp Target: Changes target glucose to 150 mg/dL to reduce auto-basal delivery for chosen duration (30 min – 24 hr) and disables auto correction boluses.	Auto Basal Target: 100, 110, 120 mg/dL; only 1 target can be set. Active Insulin Time (2 hrs for most aggressive insulin delivery)
t:slim X2™ & Mobi 	**Yes**	**Yes**	**Yes**	**No**, fixed at 5 hrs when Control-IQ is on	**No**, fixed at 110 mg/dL	Exercise Activity: Changes target range to 140-160 mg/dL to reduce basal delivery. Sleep Activity: Narrows target range to 112.5-120 mg/dL and disables auto correction boluses. Can program a sleep schedule or manually start/stop.	Basal rates Correction factor
Omnipod® 5 	**No** (programmed basal rates are not used in Automated Mode)	**Yes**	**Yes**	**Yes**	**Yes**, same as algorithm target ("Target Glucose")	Activity Feature: Changes target glucose to 150 mg/dL and decreases the doses by ~50% to reduce adaptive basal delivery for chosen duration (1–24 hrs).	Target Glucose 5 target options: 110, 120, 130, 140, 150 mg/dL
twiist™ AID System powered by Tidepool 	**Yes**	**Yes**	**Yes**	**No**, fixed at 6 hours	**Yes**, same as algorithm target ("Correction Range")	Pre-Meal Preset (correction range for up to 1 hour before meals, 67-110 mg/dL, typically set lower than general correction range). Workout Preset (set a correction range to use for exercise, 87-250 mg/dL). Modify Carbohydrate entries retrospectively (algorithm tracks active carbohydrates to use for glucose predictions. Can correct or change carbohydrate entries as needed).	Basal rates Maximum Basal Rate (used as max basal for basal automation). Recommended to set at 3-4x highest basal rate. Correction Range. Consider a 20mg/dL range (e.g., 90-110 mg/dL).
iLet Bionic Pancreas 	N/A There are no pump settings programmed into the iLet. All insulin delivery is automated by the algorithm and continuously adapted without the use of any programmed pump settings.				**Yes**, same as algorithm target ("CGM Target")	Pause Insulin Feature: Users can pause (suspend) insulin delivery for a specified timeframe.	User can set up to 2 target settings per 24 hr period: "CGM Target" and "Secondary CGM Target".

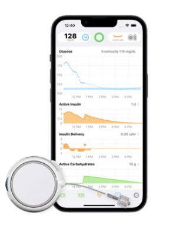
REVERT

	Is there a limited automation mode the system may revert to if there is a loss of CGM communication or other reasons?	When will the system automatically revert to manual mode (conventional pump therapy using programmed basal rates — no insulin dose automation)?
MiniMed™ 780G 	Yes, Safe Basal: the pump will deliver a basal rate determined by the algorithm, but without glucose-dependent basal adjustments and no auto correction boluses. May activate due to max/min insulin delivery constraints, loss of CGM data or system concerns about sensor accuracy. User needs to enter a BG value into the pump before the "time to exit" expires to prevent SmartGuard exit.	If the "time to exit" expires without a BG entry, the pump will revert to manual mode. User must enter a BG value into the pump to return to SmartGuard following an exit to manual mode.
t:slim X2™ & Mobi 	No, there is no limited automation mode. If there is loss of CGM data, the pump will deliver the programmed basal rates without glucose-dependent basal adjustments and no auto correction boluses (manual mode).	If there is no CGM data ≥ 20 min, the pump will revert to manual mode. When CGM data returns, Control-IQ will automatically turn back on.
Omnipod® 5 	Yes, Automated Limited: the Pod will deliver a basal rate determined by the algorithm, but without glucose-dependent basal adjustments. May activate for two reasons: 1. If no CGM data for ≥ 20 min. Pod will resume full insulin automation once CGM data returns. 2. If there is an "Automated Delivery Restriction" alarm (if insulin has been suspended too long or if max delivery too long). Will remain in Automated Limited until the user clears the alarm.	If there is an "Automated Delivery Restriction" alarm, the user will be prompted to confirm CGM accuracy, and then will have to switch to manual mode. The user must switch back to automated mode after 5 min in manual mode (the Pod will not return to automated mode on its own).
twiist™ AID System powered by Tidepool 	No. If there is loss of CGM data for more than 15 minutes, the pump will revert to the programmed basal rates.	When there is no CGM data > 15 min, the pump will revert to manual mode. Loop automation resumes when CGM data returns.
iLet Bionic Pancreas 	Yes, BG-run mode: If the iLet loses communication with the CGM, it will prompt the user to enter BG values periodically. As long as the user enters BG values into the iLet, it will continue to automate all insulin delivery based on the entered BG values and previously stored information on the user's basal insulin needs. The user can continue to announce meals in BG-run mode to receive meal boluses from the iLet. iLet can operate in BG-run mode for up to 72 hrs.	There is no option for manual mode in the iLet. After 72 hours in BG-run mode, the iLet can no longer deliver insulin. It will resume insulin delivery once the CGM is re-connected. The iLet will display total daily insulin dose, basal insulin and meal insulin doses, which could be used to inform multiple daily injection doses, if needed.

EDUCATE

All Pumps	Consider treating mild hypoglycemia with less carbohydrates (5-10 g) than the traditional rule of 15g. If hypoglycemia occurs, the algorithm will have already decreased or suspended insulin delivery and treating with too many carbs may result in large rebound hyperglycemia.
MiniMed™ 780G 	Pre-bolus for all meals and snacks, ideally 10-15 min before eating. The sensor glucose value auto-populates into the bolus menu for correction bolus calculation. SmartGuard will adjust the bolus dose based on the CGM value and insulin on board. The user is not able to change or override the suggested dose. Follow system prompts for "BG Required" to stay in SmartGuard. Consider using the 100 mg/dL Target and Active Insulin Time of 2 hours for optimal system performance as long as hypoglycemia is not >4%. Do not enter "fake carbs" to try to get more insulin from the system. This will result in an increased risk of hypoglycemia, and greater glucose variability.
t:slim X2™ & Mobi 	Pre-bolus for all meals and snacks, ideally 10-15 min before eating. The sensor glucose value auto-populates into the bolus menu for correction bolus calculation. Program the sleep schedule to ensure Sleep Activity activates each day automatically. It is best NOT to override the bolus calculator's suggested dose (although there may be exceptions). The bolus calculator will subtract IOB from increased automated insulin delivery, helping to reduce the chance of hypoglycemia. t:slim X2: can give bolus doses remotely from a cell phone when using the t:connect mobile app. Mobi: requires Mobi app on personal cell phone (iOs only) for pump control. Control-IQ allows programming of more than 1 personal profile, where different basal rates, carb ratios and correction factors can be used. Additional profile to help with changing insulin needs (e.g., menstrual cycle, illness, long sporting events, etc.).
Omnipod® 5 	Pre-bolus for all meals and snacks, ideally 10-15 min before eating. Tap "Use Sensor" to add the sensor glucose value and trend into the bolus. The bolus calculator may adjust the recommended correction bolus dose based on the CGM trend arrow. Consider turning the reverse correction OFF. The reverse correction will reduce the meal bolus dose if the glucose level is below the target glucose. It is best NOT to override the bolus calculator's suggested dose (although there may be exceptions). The bolus calculator will subtract IOB from increased automated insulin delivery, helping to reduce the chance of hypoglycemia. Insulin suspension may occur if glucose is trending down, even if the glucose level is above the programmed Target Glucose. This is expected and will be short in duration (e.g. 5-15 min) if the glucose level does not continue to drop. Wear Pod and Dexcom in "line of sight" to optimize Bluetooth communication.
twiist™ AID System powered by Tidepool 	Pre-bolus for all meals and snacks. Use the Pre-Meal Preset up to 1 hour before meals to help reduce post-prandial glucose spikes. Pre-Meal Preset is a lower correction range allowing more aggressive basal insulin leading up to mealtime only. Indicate expected carbohydrate absorption for meals to better match insulin delivery to food type and help algorithm track active carbohydrates more accurately. • Emoji options: Lollipop: Fast (30 min), Taco: Medium (3 hours), Pizza: Slow (5 hours); or manually enter absorption time 30 min-8 hours Pump button available to bolus on pump. One press = 1 unit. Can give max of 10 unit bolus via pump button. twiist app only compatible with iOs. Must have an iPhone to use twiist system. Apple Watch compatibility – can bolus via Apple watch.
iLet Bionic Pancreas 	User should "announce" meals at the start of the meal by indicating meal type ("Breakfast" "Lunch" or "Dinner") and meal size ("Usual for me", "More" than usual, or "Less" than usual) relative to the user's typical carbohydrate intake for each meal type. Do not announce the meal if > 30 min. after eating. In the first week of using iLet, space meals at least 4 hours apart and eat primarily "Usual for me" meals to help the iLet learn meal bolus doses. The iLet is designed to automate all insulin delivery, and continuously adapts with no user interaction except for meal announcements. Users cannot give a manual bolus. A hands-off approach is necessary. Don't use meal announcements to try to correct high glucose levels; this will disrupt the system's adaptation and increase the chance of hypoglycemia. It's important to carry a BG meter at all times so the user can use the BG-run mode if there are unexpected problems with the CGM at any time. BG-run mode lasts max. 72 hours, so if CGM wear is interrupted for longer, a back up insulin delivery plan is vital.

SENSOR/SHARE

	Which CGM is compatible? **CGM options may vary by region*	Can user see real-time data on personal cell phone?	Can others see data remotely?	Is data automatically stored in the cloud?
MiniMed™ 780G 	Guardian 4 Simplera Sync	MiniMed mobile app (pump + CGM data)	CareLink Connect app (pump + CGM data)	Automatic uploads to CareLink via MiniMed mobile app
t:slim X2™ & Mobi 	Dexcom G6 and G7: Use of Dexcom G6 or G7 mobile app is optional; cannot use the Dexcom receiver when the Dexcom is paired to the pump. Freestyle Libre 2 Plus (t:slim only): Must connect CGM to the pump via t:connect Mobile app. Cannot use Freestyle Libre apps or reader.	Dexcom G6/G7 mobile app (CGM data) t:slim = t:Connect mobile app (pump + CGM data) Mobi = Mobi app (pump + CGM data)	Dexcom Follow app (CGM data) *If using Freestyle Libre 2 Plus, there is no option for remote data sharing	Automatic uploads to Source via t:connect mobile app or via Mobi app
Omnipod® 5 	Dexcom G6 and G7: Must use Dexcom G6/G7 mobile app (on personal cell phone) to use Automated Mode. Cannot use the Dexcom receiver when the Dexcom is paired to the Pod. Freestyle Libre 2 Plus: Must start sensor on Omnipod 5 controller; cannot use Freestyle Libre apps or reader.	Omnipod 5 app (pump + CGM data, also used to operate pump; availability of app varies by region) Dexcom G6/G7 mobile app (CGM data)	Dexcom Follow app (CGM data) *If using Freestyle Libre 2 Plus, there is no option for remote data sharing	Automatic uploads to Glooko or Discover after linking device
twiist™ AID System powered by Tidepool 	Freestyle Libre 3+: Must pair on twiist app, cannot use Libre apps or reader	twiist app (pump + CGM data)	twiist insight app for remote pump and sensor data sharing	Automatic uploads to Tidepool Data Platform
iLet Bionic Pancreas 	Dexcom G6 and G7: Use of Dexcom G6 or G7 mobile app is optional; cannot use the Dexcom receiver when the Dexcom is paired to the iLet. Freestyle Libre 3 Plus: Must pair on iLet app only; cannot use Freestyle Libre apps or reader.	Dexcom G6/G7 mobile app (CGM data) iLet Mobile app (pump + CGM data)	Dexcom Follow app (CGM data) Bionic Circle app (pump + CGM data)	Automatic uploads to the Beta Bionics portal via iLet app

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