## smiths medical cadd<sup>:</sup>



# CADD<sup>®</sup>-Solis Pump

### Quick Reference Guide

Continuous infusion pain management with or without clinician bolus and/or patient controlled doses. Intermittent boluses are available. Pump programmed by choosing a protocol: therapy, qualifier and drug, or programmed manually.

### Insert batteries

- Open the battery compartment and insert four AA batteries matching the + and markings inside the battery compartment.
- Close the compartment cover when the batteries are in place.

## Switch on

- To switch the pump on, press and hold the power switch.
- The pump carries out self-tests and sounds six beeps when the tests are complete.
- Screen shows Start New Patient?

### Attaching the cassette / administration set

- Clamp the tubing, make sure the cassette latch is unlocked and open the cassette latch to 90 degrees.
- 2. Insert the cassette hooks into the hinge pins on the bottom of the pump.
- 3. Without holding the cassette latch, push up on the cassette until it firmly clicks into place.
- 4. Lift the cassette latch up into the closed position.
- 5. Insert the pump key and turn it clockwise to lock the cassette.







## Filling 50ml and 100ml medication cassettes

### This should be a clean/aseptic technique.

- 1. Open and inspect the cassette to ensure that it is intact and sterile.
- 2. Attach a Luer lock syringe containing the medication to the end of the line.
- Tilt the cassette to approx 70° angle and fill. When 3/4 of the fluid is inserted, clamp the line. Gently tap the cassette to collect air in the outlet point.
- 4. Open the clamp and withdraw the air into the syringe.
- 5. Hold the syringe with the tip down-wards and finish filling the reservoir.
- 6. Clamp the line and disconnect the syringe. Cap the line with a sterile cap, or attach an extension line.

### External reservoir adaptor

### For infusion of larger volumes of fluid, an administration set can be used to attach a non-vented fluid bag. This should be a clean/aseptic technique.

- Open and inspect the administration set to ensure it is intact and sterile.
- 2. Close clamp to stop flow of fluid down the line.
- 3. Remove sterile cap and spike the fluid bag.







### Set up the pump for a new patient

Ensure you have the pump, a fresh set of 4 AA batteries, a filled medication cassette (or administration set and fluid bag). You also need to know the keyboard access code for the pump, or have the pump key.

- 1. Insert batteries and press the power switch to turn pump on.
- 2. Do you want to start a new patient? Press Yes.
- 3. Choose a **Therapy** and press (e) Qualifier and press (e) a **Drug** and press (e)

50 mL Stopped 🕞	50 mL Stopped 📢 💳	50 mL Stopped
	in ros	Post-Surgical Adults
Select Therapy Press "select" to choose	Select Qualifier Press 'select' to choose	Select Drug Press 'select' to choose
IV PCA	Normal Dose	
Epidural PCA	High Dose	Morphine 1 mg/m
Peripheral Nerve Block	Opioid - Naive Adult	
Epidural	Post-Surgical Adults	
Back 🤝	Back 🔶	Back

- 4. Unlock the keypad.
- 5. Are these correct? Verify the chosen protocol and press Yes.
- 6. Review pump settings. Press Review.
- 7. Carefully check the patient specific parameters. Press Accept Value on each parameter, or press (accept to change.
- 8. When you have finished the review, press Next to continue.
- 9. **Cassette not attached. Attach cassette before starting pump.** Attach, latch and lock cassette to the pump.
- 10. **Prime Tubing?** Press **Prime**. Press **Stop Priming** when complete.
- 11. Continue Priming? Press No.
- 12. **Start Pump?** Press **Yes** when you have connected the tubing to the patient, and are ready to start the infusion.

### Change the program with the pump stopped

### You can change settings when the pump is stopped. Before you restart the pump, the screen displays all the patient specific parameters which you must review and accept.

- 1. Use ( ) and ( ) to highlight the patient specific parameter you want to change, for example, Continuous Rate and press ().
- Unlock the keypad. The screen shows the current setting of your selected parameter. For rates, the range of soft limits for the protocol are shown in green, and the range of hard limits are in amber.
- 3. Use ( ) and ( ) to set the new value and press Confirm.
- If a soft limit is exceeded, you see the message Confirm soft limit override? Press Yes.
- 5. When the change is complete, press 🔘
- 6. Review pump settings. Press Review.
- Carefully check the patient specific parameters. Press Accept Value on each parameter, or press is to change.
- 8. When you have finished the review, press Next.
- Start Pump? Press Yes to start the infusion. The Home screen is displayed, showing the Reports and Tasks menu keys.







## Changing medication cassette / administration set

### Follow your standard protocol for preparing the cassette.

- 1. Press 🖲. Pump displays Stop pump?
- 2. Press Yes. Pump displays Pump is stopping.
- 3. Clamp the tubing and disconnect from the patient.
- 4. Unlock the cassette latch and remove the empty cassette.
- Attach a new cassette (see Attaching cassette / administration set).
- 6. Set Reservoir Volume? press Yes.
- 7. Enter security code (see Unlocking the pump).
- 8. Press select to reset to the protocol volume displayed, or ( and ) to adjust.
- When the reservoir volume is correct, press Save. Pump displays Reservoir volume.....saving.



- 10. Prime the tubing when prompted (see Prime the tubing).
- 11. Review pump setting and start pump? Press Yes.
- 12. Press Review, then check the patient specific parameters and Accept Value on each parameter.
- When you have finished the review, press Next to continue.Start pump? Press Yes.

### Prime the tubing

# Ensure that the pump is stopped, the tubing is disconnected from the patient, and the clamp is open on the patient tubing.

- 1. Press Tasks use ( ) and ( ) to highlight the **Prime Tubing** option, then press ( ).
- 2. When prompted, unlock the pump.
- 3. Press Prime to start priming.
- 4. Press Stop Priming when the air is removed, or the delivery will stop automatically at 10 ml.

### Unlocking the pump

You can start and stop the pump, and deliver a PCA dose (if one is programmed) without unlocking the pump. For all other tasks, you must enter the security code. When the security code is required, the pump displays Enter Code to Continue.

- 1. Use ( ) and ( ) until the first digit of the code is shown on the screen.
- 2. Press (elect) to advance to the next digit.
- 3. Repeat with the second and third digits, then press erect or Accept Value to finish entering the code.

Note: If the pump displays Use Key or Code to Continue, you can unlock the keypad using the pump key, or enter the code, as above.







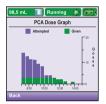
### Reports

### The **Reports** function is on the Home screen and also appears as an option on the **Tasks** menu. Reports can be displayed when the pump is running, or when it is stopped.

- 1. Press Reports to display the **Select Report** menu.
- 2. Use ( ) and ( ) to highlight a report title and press ( ). The report is displayed on the screen.



### Examples:



PCA Dose Graph



Delivery History & Pie Chart

3. Press Back to return to the Select Report menu.

### Troubleshooting

Air in-line. Press 'Acknowledge' then prime tubing.

### There may be air bubbles in the line; the pump will not run.

- 1. Press Acknowledge to silence the alarm.
- Before clearing the air from the tubing, clamp the tubing and disconnect from the patient. Open the clamp on tubing when disconnected.
- 3. Press **Tasks**, use **(a)** and **(b)** to highlight the **Prime Tubing** option, then press **(e)** (see Prime the tubing).
- 4. Reconnect tubing to patient and start pump.

### Battery low. Replace battery.

### The battery power is low but the pump is still operable.

- 1. Press Acknowledge to silence the alarm.
- 2. Change the batteries or recharge the battery pack as soon as possible.

# Downstream occlusion. Clear occlusion between pump and patient.

# High pressure may be due to blockage, kink in line or closed clamp.

- Remove the obstruction to resume operation without stopping the pump or,
- Stop the pump, remove obstruction, review the program settings then restart the pump.

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