8.1 Overview

8.1.1 Commands

Operation	Кеу
Access menu or exit menu	MENU
Select	
Confirm	(corresponds to enter on the screen)
Select ☑ / Deselect □	

8.1.2 Menu Description

Menu	Symbol	Stop Infusion Required	Associated Procedure
Profile	Pro	NO	 Displaying active profile information, page 80.
Pressure	0	NO	 Modifying the pressure limit, page 81.
Keypad lock status	â	NO	Locking / Unlocking the keypad, page 83.
Battery life		NO	 Viewing the battery life, page 85.
Volume Infused		NO	 Viewing and clearing the volume or dose infused,
Dose Infused	mL?	NO	page 86.
Pause	×	YES	 Programming a pause, page 87.
Programmed bolus		NO	 Programming a bolus, page 88.
Patient	Ŧ	NO	 Changing a patient's weight or body surface area, page 89.
Day/Night mode	C	NO	 Switching between day mode and night mode, page 90.
Volume/Time	V/T	YES	 Programming a Volume/Time or Dose/Time infusion,
Dose/Time	D/T	YES	page 92.
Volume limit	VL	YES	Programming a Volume Limit infusion, page 93.
Alarm volume	1	NO	 Adjusting the alarm volume, page 94.
Volume-Dose history		YES	 Viewing the infusion history, page 95.

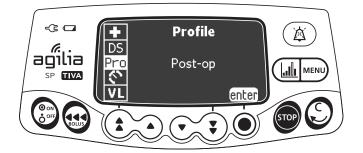
Menu	Symbol	Stop Infusion Required	Associated Procedure
View flow rate history	Ŀ~_	NO	 Viewing flow rate history, page 96.
View pressure history	<u>⊳</u> ©	NO	 Viewing pressure history, page 97.
View concentration history		NO	 Viewing concentration history, page 98.
Syringe	ф	NO	 Displaying on-pump syringe information, page 99.
View event log	أسلان	NO	Viewing the event log, page 100.
Date / Time	۲	NO	Setting the date and time, page 101.
Maintenance	-	NO	 Displaying maintenance information, page 102.
Library information	+	NO	 Displaying drug library information, page 103.
Clinical information	∔ 4	NO	 Viewing remaining time before clinical information display, page 104.
Data Set	DS	NO	 Displaying active data set information, page 105.
Wake up concentration	Q	NO	 Modifying the wake up concentration / Viewing the wake up duration, page 106.
TCI setup	TCI	NO	 Modifying or viewing the induction time, page 107.

<u>Note</u>: The displayed menu may change depending on the pump configuration.

For more information on factory configuration, refer to Appendix 1: Factory Configuration, page 168.

8.2 Profile

Symbol	Pro
Procedure	Displaying active profile information



You can display the active profile name as follows:

- 1. Press MENU.
- 2. Press the arrow keys to select Pro .
- 3. Press enter.

The active profile information is displayed.



8.3 Pressure

Symbol	0
Procedure	Modifying the pressure limit

The pump pressure limit is pre-defined in the pump options in one of the following modes:

3 levels (low \$\$\vec{Q}_P\$, medium \$\$\vec{Q}_P\$, high \$\$\vec{Q}_P\$.
 The pressure limit is adjustable according to 3 pre-set values.

Variable ()

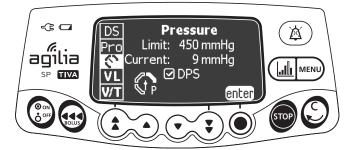
The pressure limit is adjustable within a pre-defined range. When the pressure limit is reached, an occlusion alarm is triggered. You must silence the alarm, resolve the occlusion and start the infusion again.

To consult the pressure settings, see section 15.8, page 131.

Warning

When addressing or clearing an occlusion:

- Ensure the fluid flow to the patient is OFF to prevent administering an unintended bolus. An occlusion may pressurize the infusion tubing and syringe, which can result in an unintended bolus of drug when the occlusion is cleared. In order to prevent this additional bolus, disconnect the tubing, or relieve the excess pressure through a stopcock, if present. The health care professional should weigh the relative risks of disconnection with the risks of an unintended bolus of drug.
- Be aware that using larger size syringes on a high plunger force setting may produce a larger post occlusion bolus due to excessive syringe plunger head compliance.



You can modify the pressure limit as follows:

- 1. Press MENU.
- 2. Press the arrow keys to select 🔇
- 3. Press enter to access the pressure limit screen.



4. Press the arrow keys to increase or decrease the pressure limit.

5. Press OK to validate.



6. Press O to enable or disable the DPS function (optional).

7. Press OK to confirm.

Warning

To avoid the presence of air and to minimize the amount of time it takes the pump to recognize an occlusion and generate an alarm while infusing at low rates (e.g., less than 5 mL per hour, and especially flow rates less than 0.5 mL per hour):

- Consider occlusion pressure threshold setting and adjust it, as necessary. The lower the occlusion pressure threshold setting, the shorter the occlusion detection time. However, when infusing viscous or thick fluids (e.g., lipids), the occlusion pressure threshold setting may need to be adjusted to reduce false alarms.
- Use the smallest compatible syringe size necessary to deliver the fluid or medication. This minimizes the amount of friction and compliance (i.e., stiffness) of the syringe plunger head. Because syringe pumps infuse fluids by precisely controlling the plunger, smaller syringes provide more precise fluid delivery than larger syringes.
- Use the prime feature on the pump when changing a syringe and/or tubing.
- Use extension set which have the smallest internal volume or deadspace (e.g., use microbore tubing when infusing at low rates, shorter length of tubing, etc.).

Information

 The Dynamic Pressure System (DPS) informs the user of any sudden rise or drop in pressure before the pressure limit is reached.



- If variable pressure mode is enabled, a pre alarm is triggered when the pressure reaches 50 mmHg below maximum pressure (25 mmHg when maximum pressure is 50 mmHg).
- If other pumps are used in parallel, it is recommended that their pressure limits be adjusted to the same level.

8.4 Keypad Lock Status

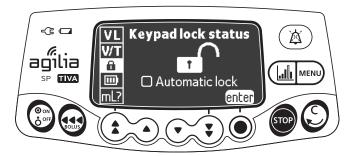
Symbol	8
Procedure	Locking / Unlocking the keypad

You can use this feature to avoid inadvertent key presses.

<u>Note</u>: The following features can be activated or deactivated in the pump options:

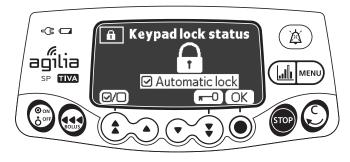
- Automatic lock: The keypad will lock automatically at infusion start, or after a time-out.
- Unlock code: The user must enter a code to unlock the keypad.

Locking the Keypad



You can lock the keypad as follows:

- **1.** Press MENU.
- **2.** Press the arrow keys to select $\mathbf{\hat{h}}$.
- 3. Press enter.

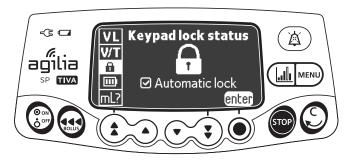


- **4.** Lock the keypad as follows:
 - Press **—**0 to lock the keypad.

The keypad is locked and the screen displays $\ \mathbf{\widehat{h}}$.

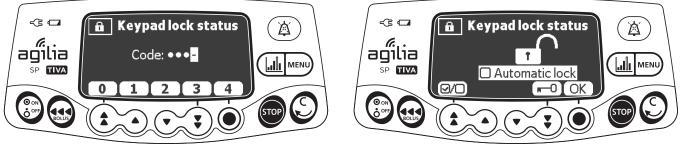
- Press I/D to activate the automatic lock. The keypad will lock automatically at infusion start. If the keypad is unlocked during the infusion, it will lock again automatically after a time-out.
- 5. Press OK to confirm.

Unlocking the Keypad



You can unlock the keypad as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select $\mathbf{\hat{h}}$.
- 3. Press enter.



Unlock code enabled

Unlock code disabled

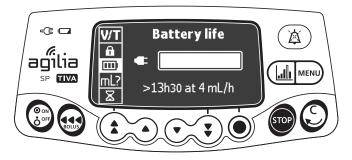
- 4. Unlock the keypad as follows:
 - If a code is required, press the keys to enter the unlock code.
 The keypad is unlocked.
 - If no code is required, press **■** , and press **OK** to confirm. The keypad is unlocked and the screen displays **■**.

Information

- The and keys remain functional when the keypad is locked.
- During keypad lock, the key is functional when the infusion is stopped.
- 0
- During keypad lock, the skey is functional when an alarm occurs, or at the end of infusion.
- The keypad locked status is memorized when the pump is powered off.
- In case of forgotten unlock code, contact your biomedical department.

8.5 Battery Life

Symbol	
Procedure	Viewing the battery life



You can view the battery life as follows:

- **1.** Press MENU.
- **2.** Use the arrow keys to select **IIII**. *The time remaining under current flow rate conditions is displayed.*

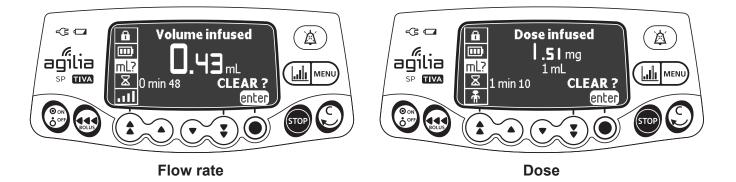
The bar graph shows a visual representation of battery life.

The symbol displayed shows the following:

- The pump is plugged into the AC power supply.
- The pump is operating on battery.

8.6 Volume Infused / Dose Infused

Symbol	mL?
Procedure	Viewing and clearing the volume or dose infused



You can view and clear the volume or dose infused as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select mL? . The total volume, or total dose, infused includes the programmed infusion, induction doses and boluses. The length of time over which they were infused is also displayed.
- 3. To clear the volume or dose infused, press enter.
- 4. Press OK to confirm.

- When the pump is powered off or a new drug is selected, the volume or dose infused is cleared.
- In TCI mode, clearing the dose infused is not allowed.

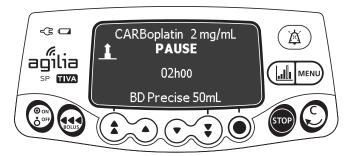


Symbol Image: Constraint of the interview Symbol Image: Constraint of the interview Procedure Programming a pause Image: Constraint of the interview Image: Constraint of the interview



You can program a pause as follows:

- **1.** Press **or** to stop the infusion.
- 2. Press MENU.
- 3. Press the arrow keys to select Σ .
- 4. Press enter.
- **5.** Press the arrow keys to program the pause duration in hours and minutes, and press **OK**.
- 6. For Flow rate and Dose infusion rates, press the D/D button to activate the "Start infusion at pause end" feature. (optional)
- 7. Press OK to begin the programmed pause.
- 8. To restart the infusion before the end of the pause period, press () then start.





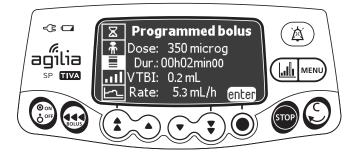
- If you do not activate the "Start infusion at pause end" option, an audible alarm is generated at the end of the pause. The infusion must be started manually to continue the infusion.
- "Start infusion at pause end" option is not available in TCI Mode. Pause feature is not available during an infusion in TCI Mode.

8.8 Programmed Bolus



Procedure

Programming a bolus



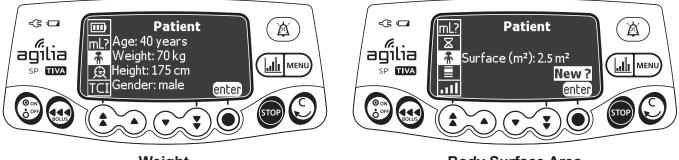
To program a bolus, see section 7.9.3.2, page 66.

8.9 Patient

Symbol	
Procedure	Changing a patient's weight or body surface area

Information

- If the selected dose rate unit is weight-based (kg), the screen displays the patient's weight.
- If the selected dose rate unit is body surface area-based (m²), the screen displays the patient's body surface area.



Weight

Body Surface Area

You can change the patient's weight or body surface area as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select \mathbf{A} .
- 3. Press enter.
- 4. Press **OK** to change the patient's weight or body surface area.
- 5. Press OK to confirm the infusion settings.

8.10 Day/Night Mode

Symbol	C
Procedure	Switching between day mode and night mode

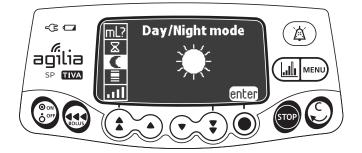
This function switches between day mode # and night mode \blacksquare .

The default night mode settings are as follows:

- The key-press beep is silenced.
- Infusion indicators and screen brightness are dimmed.

Depending on your pump configuration, the switch between day and night mode may be managed either through this menu (manual mode), or according to pre-defined settings (auto mode). For more information, refer to the technical manual.

Switching from Day Mode to Night Mode



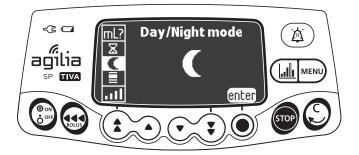
You can switch to night mode as follows:

- 1. Press MENU.
- 2. Press the arrow keys to select **(**.
- 3. Press enter.



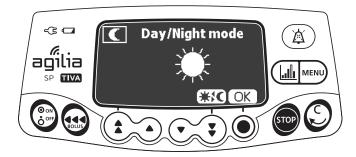
- **4.** Press **★C** to activate night mode. *The screen displays* **€**.
- 5. Press OK to confirm.

Switching from Night Mode to Day Mode



You can switch to day mode as follows:

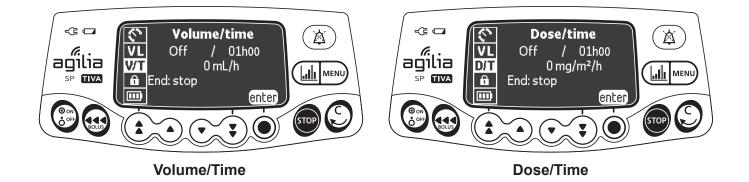
- **1.** Press MENU.
- 2. Press the arrow keys to select \mathbf{C} .
- 3. Press enter.



- **4.** Press **★: C** to activate day mode. *The screen displays* **★***.*
- 5. Press OK to confirm.

8.11 Volume/Time & Dose/Time

Symbols	V/T D/T
Procedure	Programming a Volume/Time or Dose/Time infusion

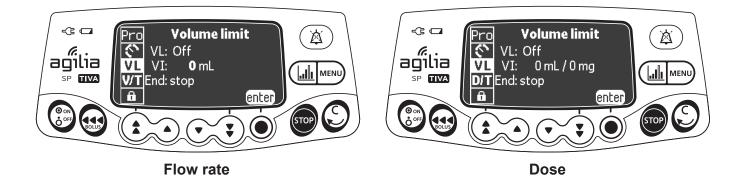


- 1. Press MENU.
- **2.** Press the arrow keys to select V/T (or D/T).
- 3. Press enter.

For more information on how to program a Volume/Time or Dose/Time infusion, see section 7.11.2, page 71.

8.12 Volume Limit

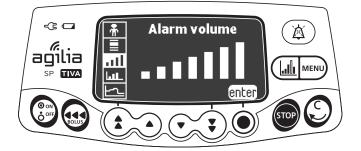
Symbol	VL
Procedure	Programming a Volume Limit infusion



- 1. Press MENU.
- 2. Press the arrow keys to select VL .
- 3. Press enter.

For more information on how to program a Volume Limit infusion, see section 7.11.3, page 72.

Symbol	.11
Procedure	Adjusting the alarm volume



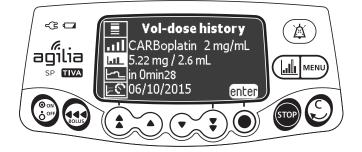
You can adjust the alarm volume as follows:

- 1. Press MENU.
- 2. Press the arrow keys to select **...**
- 3. Press enter.
- **4.** Press the arrow keys to select the alarm volume. *The pump emits an alarm at the selected volume level.*
- 5. Press OK.

8.14 Volume-Dose History

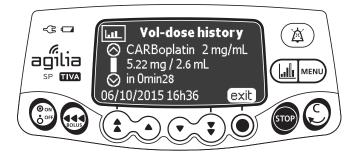
Symbol	
Procedure	Viewing the infusion history

This function allows the user to view the infusion history on the pump.



You can view the infusion history as follows:

- **1.** Press MENU.
- 2. Press the arrow keys to select **LIL**.
- 3. Press enter.

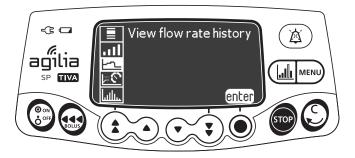


- **4.** Press the arrow keys to select the desired infusion. *The selected infusion's details are displayed:*
 - Drug name
 - Drug concentration
 - Volume or dose infused
 - Infusion total duration
 - Infusion date & time
- 5. Press exit to return to the menu.

8.15 Flow Rate History

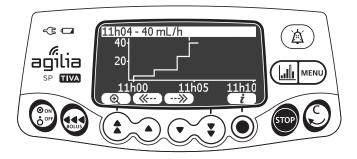
Symbol	<u>F</u>
Procedure	Viewing flow rate history

This function allows the user to check the current infusion's history information in order to verify the dose administered.



You can view flow rate history as follows:

- **1.** Press MENU.
- **2.** Press the arrow keys to select **____**.
- 3. Press enter.
 - The following information is displayed: - An event marker (cursor)
 - The event details (time and flow rate)
 - The measured flow rate (solid line)



- **4.** Press the *((--)* and *(--)* buttons to browse the events.
- 5. Press *i* to view information about the selected event.

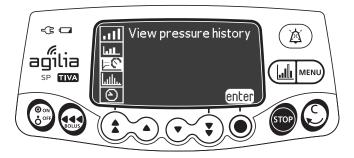


- The history is not refreshed while the history screen is displayed. To refresh the history data, exit and select the history again.
- Flow rate history is not stored after powering off.

8.16 Pressure History

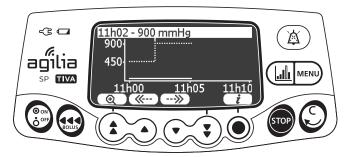
Symbol	<u>FC</u>
Procedure	Viewing pressure history

This function allows the user to check the current infusion's history information in order to verify changes in pressure.



You can view pressure history as follows:

- **1.** Press MENU.
- **2.** Press the arrow keys to select $\models \mathfrak{C}$.
- 3. Press enter.
 - The following information is displayed:
 - An event marker (cursor)
 - The event details (time and pressure limit)
 - The pressure limit (dotted line)
 - The measured pressure (solid line)



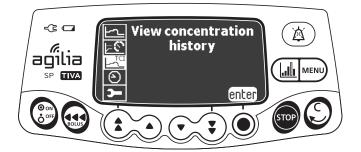
- **4.** Press the *(* **.**--*)* and *(* **.**--*)* buttons to browse the events.
- 5. Press *i* to view information about the selected event.



- The history is not refreshed while the history screen is displayed. To refresh the history data, exit and select the history again.
- Pressure history is not stored after powering off.

8.17 Concentration History

Symbol	
Procedure	Viewing concentration history

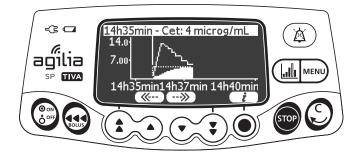


You can view concentration history as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select -
- 3. Press enter.

The following information is displayed:

- An event marker (cursor)
- The event details (time and target concentration)
- The target concentration (dotted line)
- The plasma concentration (Cp) evolution (solid line)
- The effect-site concentration (Ce) evolution (solid form)



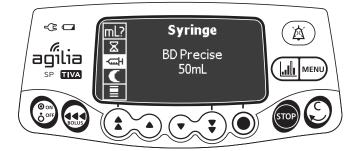
- **4.** Press the <u>--</u> and <u>--</u> buttons to browse the events.
- 5. Press *i* to view information about the selected event.



- The history is not refreshed while the history screen is displayed. To refresh the history data, exit and select the history again.
- Concentration history is not stored after powering off.

8.18 Syringe

Symbol	
Procedure	Displaying on-pump syringe information



You can display on-pump syringe information as follows:

- 1. Press MENU.
- **2.** Use the arrow keys to select **••••**.
- 3. Press enter.

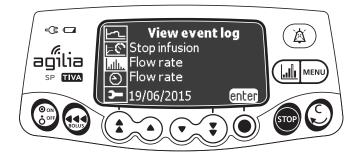
The following information is displayed:

- Syringe capacity
- Syringe brand / name

Symbol	ևորություններությունենենենենենենենենենենենենենենենենենենե
Procedure	Viewing the event log

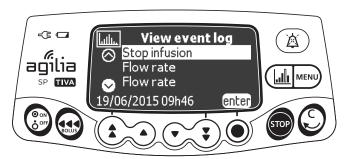
The event log displays details of the last events that occurred on the pump. Events are stored in the log even after the pump is powered off and on again. The log can store up to 1500 events. Older events are overwritten.

<u>Note</u>: When the AC Power is disconnected for a period of time, or when the batteries are not operating, the log file is kept in a non-volatile memory for approximately 10 years.



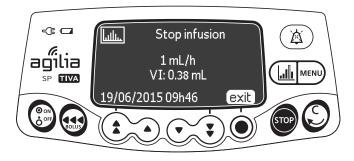
You can view the event log as follows:

- **1.** Press MENU.
- 2. Press the arrow keys to select **11**
- 3. Press enter.



- 4. Press the arrow keys to select the desired event.
- 5. Press enter.

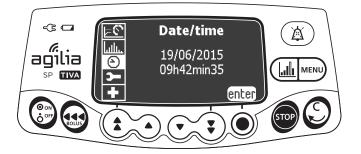
The details of the event are displayed.



6. Press exit to return to the previous screen.

8.20 Date / Time

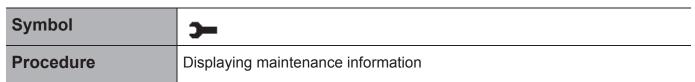
Symbol	\odot
Procedure	Setting the date and time

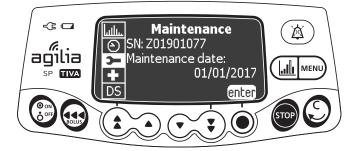


You can set the date and time as follows:

- **1.** Press MENU.
- **2.** Press the arrow keys to select \bigcirc .
- 3. Press enter.
- **4.** Press the arrow keys to set the following:
 - Day
 - Month
 - Year
 - Hours
 - Minutes
- 5. Press OK to confirm.

8.21 Maintenance





You can display maintenance information as follows:

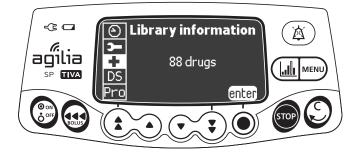
- 1. Press MENU.
- 2. Press the arrow keys to select **>**.
- 3. Press enter.
- 4. Press the arrow keys to scroll through the maintenance information.

The following information is displayed:

- Pump serial number
- Next maintenance date (dd/mm/yyyy)
- Pump model
- Software version
- Total operating time since last maintenance

8.22 Library Information

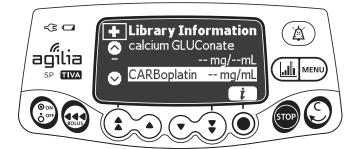
Symbol	+
Procedure	Displaying drug library information



You can display drug library information as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select \clubsuit . *The number of drugs contained in the drug library is displayed.*
- 3. Press enter.

All the drugs contained in the drug library are displayed.

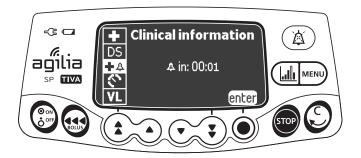


- **4.** Use the arrow keys to select a drug.
- **5.** Press (i) to view information on the selected drug.

8.23 Clinical Information

Symbol	◆ ↓
Procedure	Viewing remaining time before clinical information display

If configured for the selected drug with Agilia Vigilant Drug'Lib, a protocol message will be displayed on the pump screen after a predefined period of time.



You can view the remaining time before clinical information display as follows:

- 1. Press MENU.
- **2.** Press the arrow keys to select **↓***𝔅*. *The remaining time before clinical information is displayed.*
- 3. Press enter.

The clinical information message is displayed.



8.24 Data Set

Symbol	DS
Procedure	Displaying active data set information



You can display active data set information as follows:

- 1. Press MENU.
- 2. Press the arrow keys to select DS .
- 3. Press enter.

The active data set information is displayed.



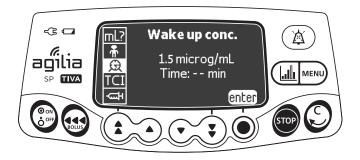
8.25 Wake up Concentration

Symbol	Q
Procedure	Modifying the wake up concentration / Viewing the wake up duration

Wake up concentration is the estimated drug concentration at which the patient will wake up.

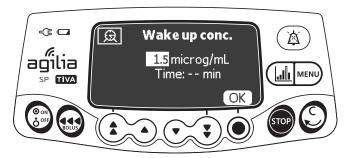
Wake up duration is the time left to reach the wake up concentration.

The pump automatically calculates the wake up duration, in accordance with the information entered in this menu. The wake up duration is only displayed if relevant.



You can modify the wake up concentration as follows:

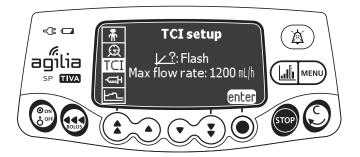
- 1. Press MENU.
- **2.** Press the arrow keys to select \mathfrak{Q} .
- **3.** Press the arrow keys to modify the wake up concentration. *The wake up duration is automatically calculated.*



8.26 TCI Setup

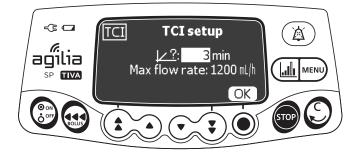
Symbol	TCI
Procedure	Modifying or viewing the induction time

You can modify the induction time before the infusion start (plasma mode only). Once the infusion has started, you can only display the programmed induction time.



You can modify the induction time as follows:

- **1.** Press MENU.
- 2. Press the arrow keys to select TCI .



- **3.** Press the arrow keys to modify the induction time.
- 4. Press OK to confirm.