Alert and alarm conditions

When the ALERT activates:

1. The infusion continues
2. Three beeps are heard approximately every three/four minutes
3. A screen message alternates with the infusion running screen until the end alarm activates

Alerts activate approximately 15-30 before end alarm

When the ALARM activates:

1. The infusion stops
2. The LED indicator light turns from green to red
3. The alarm sound continuously until either the pump is paused or the problem is rectified
4. A screen message indicates the alarm cause

Troubleshooting

Screen Prompts

Keypad Locked	Only the **STOP**, **START** and **INFO** keys are accessible.	Disengage keypad lock if further access required.
Press YES to Resume, NO for New Syringe	The current programme has been interrupted and two options are available for programming	Press **YES** resumes the current programme. Press **NO** to delete the current programme (to allow a new programme to be set up).
Pump Stopped Press YES to Resume	The infusion has been stopped.	Press **YES** to Resume the infusion or press **NO** to continue stopped sate.

Alerts and Alarms

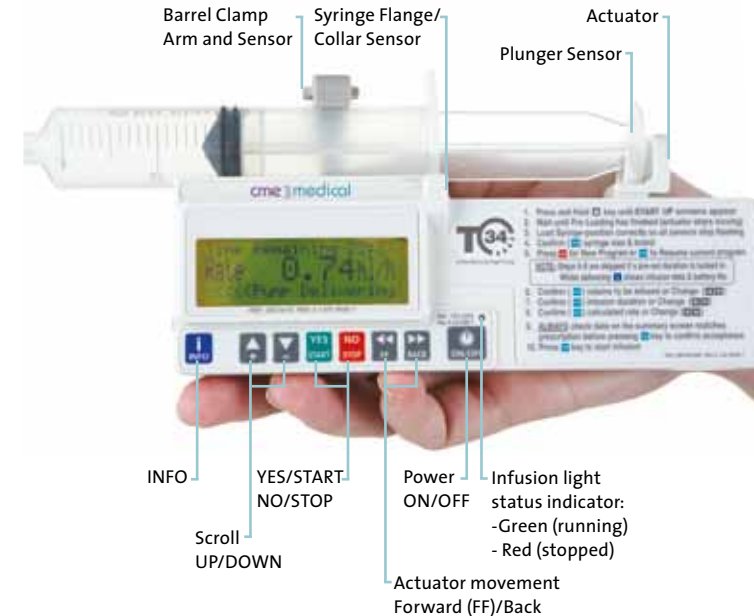|		
Program Nearly Complete	**Alert:** Programme is about to end/syringe is almost empty.	Prepare to change syringe or discontinue pump use.
Low Battery	**Alert:** Battery is almost depleted.	Prepare to change battery.
Pump Paused Too Long	**Alarm:** The pump has been stopped/paused for kore than 2 minutes without any key presses.	Either press **YES** to resume the infusion, press **NO** to continue pause for another two minutes or turn the power off.
Syringe Empty, Remove Syringe	**Alarm:** Current infusion programme has completed/syringe is empty.	Prepare to change syringe or discontinue pump use.
End Battery	**Alarm:** Battery will fail imminently.	Change battery.
Syringe Displaced, Check Syringe	**Alarm:** One or more of the syringe detection sensors is not detecting.	Check the syringe and re-seat as necessary. Check screen messages for assistance.
Occlusion/Empty Syringe, Check Line	**Alarm:** Clamped line, occluded or kinked. Actuator has reached the minimum travel position.	Release the clamp, flush/replace the access device or clear the occlusion.
System Error. Press & Hold INFO for Details. If problem persists send pump for service.	**Alarm:** An internal system error has occurred.	The user may be prompted to power off and restart, which may rectify the error. If error recurs: Take pump out of use. Press INFO to obtain error message, record error code and summary of fault and return pump to designated service centre.
ERROR Startup MotMov Fail If problem persists send pump for service.	*Two examples of system failure screen messages are shown here, refer to the T34 service manual for a full list.*	

Ambulatory Syringe Pump

LOCK ON (Prime and Load)

Quick user guide

Feature recognition

Barrel Clamp Arm and Sensor
Syringe Flange/Collar Sensor
Actuator
Plunger Sensor
INFO
YES/START NO/STOP
Power ON/OFF
Infusion light status indicator:
-Green (running)
- Red (stopped)
Scroll UP/DOWN
Actuator movement Forward (FF)/Back

CME Medical Device and Advanced User training is RCN accredited and Skills for Health Quality Marked

The information contained in this guide is a summary only, based on default settings. Refer to Operating Manual for full operating instructions. Users must have undertaken training before operating this device.

Screen information is representative only and some text wording/screen information may vary slightly with different software versions. You must refer to local policy and procedures for specific guidance on pump settings/set-up and use of accessories (e.g. cannula and administration lines).

Always follow screen prompts. Before pressing keys to proceed, ensure selections made correspond with what is required.

Starting an infusion LOCK ON (Prime and Load)

Scenario

Pump settings: Lock ON, default duration 24 hours

Infusion required: Deliver syringe contents over 24 hours

Syringe and volume: 20ml BD Plastipak, 17mL volume

Set priming volume: Priming volume 0.5mL

1. **Prepare syringe and manually prime the set**

2. **Check the pump:** ensure that the device is clean, visually intact and appropriate for the intended use.

3. **Insert battery**

4. **Power on and observe Pre-Loading**

   Press the **ON/OFF** key until the screen illuminates (with no syringe in place and barrel clamp arm down).

   WARNING: During Pre-Loading, keep fingers away from actuator moving parts.

   Observe Pre-Loading: automatic actuator movement and the screen information that displays:

   > **T34**
   > **Version NCAT xxxxx**
   > **ID: (Hospital name)**

   > **Pre-Loading**
   > **Use NO to Interrupt**

   > **Occlusion   XXX mmHg**
   > **Max rate   5ml/h**
   > **Program lock   ON**
   > **Battery status   90%**

   > **Load Syringe**

5. **Check battery level**

   Press **INFO**

   > **Info Menu**
   > **Battery Level**
   > **Select ↑/↓ Press YES**

   Press **YES**

   > **Battery Level**
   > **80%**
   > **Empty   Full**

   Wait for the "Load Syringe" prompt to display

6. **Align the syringe** to pump syringe fitting sensors. Use the **FF/BACK** keys to move the actuator as necessary.

   Fit the syringe into the correct position.

   Confirm syringe brand/size

   If the syringe size/brand displayed matches the one used, confirm by pressing **YES**

   > **20ml BD Plastipak**
   > **Select ↑/↓, Press YES**

   If they do not match, use ↑/↓ keys to select the matching syringe.

7. **Check and confirm the infusion summary**

   If the programme is correct for the prescription, press **YES**

   *If purging, press FF key **before** pressing YES and follow screen prompts*

   > **Volume   16.5ml**
   > **Duration   24:00**
   > **Rate   0.69ml/h**
   > **Confirm, Press YES**

8. **Connect set/cannula to patient and start infusion**

   When ready, start the infusion by pressing **YES**

   > **Start infusion?**

   To confirm the infusion is running, this screen is visible and the green light flashes intermittently.

   > **Time Remaining 23:59**
   > **Rate 0.69ml/h**
   > **<<< Pump Delivering**

   NOTE: The bottom line alternates with the syringe brand/size confirmed

Monitoring whilst infusion is running

Press **INFO** key *once:*

> **Infusion Summary**
> **VTBI 15.50   VI 1.0**

Press **INFO** key *twice:*

> **Battery Level**
> **80%**
> **Empty   Full**

Pump features and functions

Programme protection

There is only the current "programme" available in the pump memory at any one time and it is possible to resume a programme in certain circumstances.

- Pre-Loading (automatic actuator movement) will clear a programme from the pump memory.

- Power interruption or failure does not clear a programme. When "Resume" is pressed, the **mL/hour** rate resumes.

Key press options of "Resume" and " New Syringe"

A programme (infusion) may be interrupted, for example, by alarm activation (e.g. syringe displacement or occlusion) or the pump is powered off for any reason and powered on with a syringe in place.

Following an interruption to the programme and during the start-up sequence, the user will be prompted to re-confirm the correct syringe brand and size:

> **20ml BD Plastipak**
> **Select ↑/↓, Press YES**

When the syringe brand and size matches the one placed into the pump, press **YES**.

> **Press YES to Resume, NO for New Syringe**

The user has two options:

Press YES to retain the current programme (ml/hr rate is protected)

Press NO to delete the current programme. A new programme is then calculated.

The important feature to remember is that "Resume" protects the infusion rate for the current programme, so:

- If the syringe volume is increased and the infusion is resumed, the **duration of delivery will increase**

- If the syringe volume is decreased and the infusion is resumed, the **duration of delivery will decrease**

NOTE: Follow local policy/procedure for the appropriate option to press when this screen displays following purge.