### 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

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

#### Alerts and Alarms

<table>
<thead>
<tr>
<th>Program Nearly Complete</th>
<th>Low Battery</th>
<th>Pump Paused Too Long</th>
<th>Syringe Empty, Remove Syringe</th>
<th>End Battery</th>
<th>Syringe Displaced, Check Syringe</th>
<th>Occlusion/Empty Syringe, Check Line</th>
<th>System Error, Press &amp; Hold INFO for Details. If problem persists send pump for service.</th>
<th>ERROR Startup MotMov Fail If problem persists send pump for service.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert: Programme is about to end/syringe is almost empty.</td>
<td>Alert: Battery is almost depleted.</td>
<td>Alarm: The pump has been stopped/paused for more than 2 minutes without any key presses.</td>
<td>Alarm: Current infusion programme has completed/syringe is empty.</td>
<td>Alarm: Battery will fail imminently.</td>
<td>Alarm: One or more of the syringe detection sensors is not detecting.</td>
<td>Alarm: Clamped line, occluded or kinked. Actuator has reached the minimum travel position.</td>
<td>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.</td>
<td>Two examples of system failure screen messages are shown here, refer to the T34 service manual for a full list.</td>
</tr>
<tr>
<td>Prepare to change syringe or discontinue pump use.</td>
<td>Prepare to change battery.</td>
<td>Either press YES to resume the infusion, press NO to continue pause for another two minutes or turn the power off.</td>
<td>Prepare to change syringe or discontinue pump use.</td>
<td>Change battery.</td>
<td>Check the syringe and re-seat as necessary. Check screen messages for assistance.</td>
<td>Release the clamp, flush/replace the access device or clear the occlusion.</td>
<td>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.</td>
<td>Two examples of system failure screen messages are shown here, refer to the T34 service manual for a full list.</td>
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Starting an infusion LOCK OFF (Prime and Load)

Scenario

Pump settings: Lock OFF, default duration 24 hours
Infusion required: Deliver syringe contents over 12 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:
5. Check battery level
   - Press INFO
   - Press YES
   - 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
If they do not match, use ↑/↓ keys to select the matching syringe.

7. Programme the pump
   - Visibly check if the volume in the syringe matches the volume displayed. Change if necessary, confirm by pressing YES
   - Change duration
     - Confirm by pressing YES
   - If the default duration is changed this screen displays for a few seconds
     - Check and confirm by pressing YES
   - If the programme is correct for the prescription, press YES
   - If purging, press FF key before pressing YES and follow screen prompts

8. Connect set/cannula to patient and start infusion
   - When ready, start the infusion by pressing YES
   - To confirm the infusion is running, this screen is visible and the green light flashes intermittently.
   - NOTE: The bottom line alternates "Resume" with the syringe brand and 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%

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:

- 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.

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

The user has two options:

- Press YES to Resume, NO for New Syringe
- Press YES to Resume, NO for New Syringe

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