

## INITIAL TECHNICAL STAFF CALIBRATION & SET UP

This device is CE marked suitable for clinical use although not currently used in the NHS.

It is important that the device is appropriately configured, and that the device is calibrated for use with the associated infusion giving sets, in accordance with the manufacturer's instructions.



Supporting information can be found at: <https://portal.e-lfh.org.uk/Component/Details/613880>, including:

1. Manufacturer User Guide
2. Manufacturer training videos

**Technical support** for the device is available from the manufacturer using the following contact details:

Tel: 0086 13823167592  
tony@hawkmedical.cn

# HAWKMED: HK-100I/II VOLUMETRIC PUMP

## QUICK START GUIDE



### CAUTION

- **Calibration and essential performance assurance for each administration set intended for use is required.** Organisations must label device with respective calibrated administration set. Administration sets verified to meet the requirements of this infusion device:

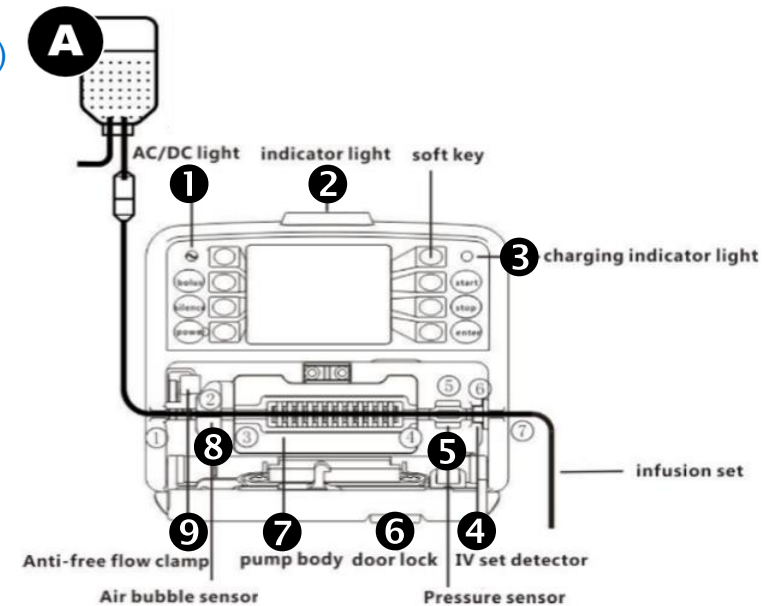
Manufacturer	Description	Product Ref.	Supply Chain Ref.
B Braun Medical Ltd.	Intrafix SafeSet	4063000	FKA083
Codan Ltd.	None	433030	FSB1040

- Device settings selected **do not** require double confirmation by user.
- Selected administration set is not displayed; device assumption same set will always be used.
- No warning/alarm if administration set is loaded incorrectly.
- **Administration sets must be repositioned every 6 hours**/replaced to prevent delivery inaccuracy.
- **Drug library contents must be reviewed** by organisations and may not be suitable for use.
- Receiving organisations must make provision for local training of users pre-deployment. Particular focus areas: Loading/ Repositioning/ Utilisation of calibrated administration set and viewing of display.

### CONNECT AND SET UP

#### 1 How do I Install a Giving Set? (Image A)

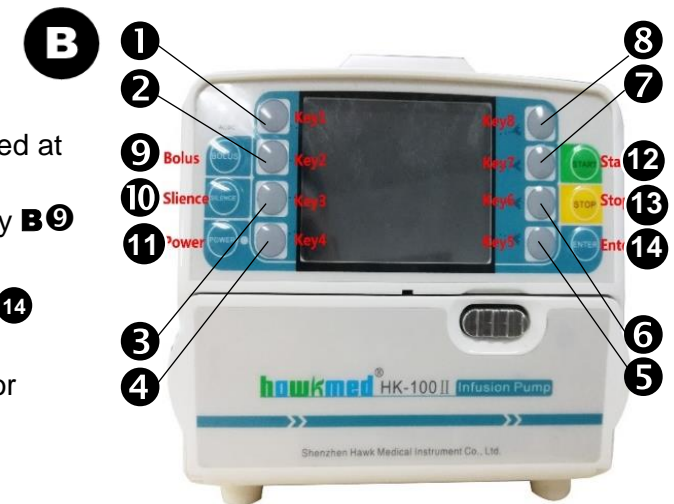
- Make sure IV set is primed and free flow clamp is on.
- Press door lock **A6** to open door.
- Install giving set as per Image A, ensuring clamp **A9** positioned and correct direction of tubing from left to right.
- Close door.



### SET THE CONTROLS

#### 2 How to Set Giving Rate? (Image B)

- Press Power key **B11**
- Ensure correct IV Set brand displayed at the top left of the screen
- Purge set of air by holding Bolus key **B9**
- Press Key **B1** for Rate
- Input Rate value and press Enter **B14** to save value
- (VTBI can also be set at this stage or remain 0ml to infuse all fluid)
- Open giving set free flow clamp.
- Press Start key **B12**



### OPERATE

#### 3 What do the Alarm Codes Mean?

- **No Operate Alarm**  
Pump has not been started after being switched on for 2 minutes.
  - **Door Open Alarm**  
Pump door opened during infusion.
  - **Almost Done Alarm**  
Three minutes before end of infusion if VTBI set.
  - **Finished Alarm**  
VTBI complete if VTBI value set or Volume infused reaches 36000ml – to reset VTBI press clear key.
  - **Air Bubble Alarm**  
Air detected in tube.
  - **Occlusion Alarm** –  
Blocked giving set.
  - **Use Battery Alarm**  
Plug into AC supply
  - **Low Battery**  
Plug into AC supply
- Any error codes such as 0xE0 on screen remove pump from service.**

#### 4 Front of Device (Images A & B):

##### A Key & Function

- A01 AC / DC indicator light**  
If on, indicates there is AC/DC input; if off, indicates there is no AC/DC input
- A02 Indicator light**  
Indicator light on top of the pump indicates operating status/alarms cases. If the IV set is correct installation and with no air in line, the indicator light shall be green after the door is closed, which also indicates the pump is ready for operation. The green indicator light flashes when the infusion is in normal progress.  
If high-priority alarm occurs during operation, the indicator light shall turn red and flash.  
If middle-priority alarm occurs during operation, the indicator light shall turn yellow and flash.  
If low-priority alarm occurs during operation, the indicator light shall turn yellow but not flash.
- A03 Charging indicator light**  
This indicator light on means the battery is recharging.
- A04 IV set detector**  
It can identify the dedicated IV set, or prevent the IV set from being installed in the wrong direction. This function is optional.
- A05 Pressure Sensor**  
IV set pressure / occlusion sensor.
- A06 Door lock**  
Pressing the door lock, the door shall pop open automatically. Press the door with a bit of force to close the door. A 'click' sound indicates the door is well closed.
- A07 Pump body**  
Body of pump and peristaltic fingers.
- A08 Air bubble sensor**  
Sensor for the detection of air bubbles in line.
- A09 Anti-free flow clamp**  
Clamp for the prevention of IV set free-flow.

##### B Key & Function

- B01-08 Soft keys**  
The soft keys have various functions. Pressing the key next to the text displayed in the LCD, the text will be highlighted for further parameters setting by pressing soft keys again.
- B09 BOLUS key**  
In 'stop' status, press & keep finger on 'bolus' key, the pump starts purging (default purge rate: 600ml/h). After releasing the finger, purging stops. During operation, press & keep finger on 'bolus' key, the pump starts bolus infusion (bolus rate pre-set by the user). Release the finger, bolus infusion stops and the pump continues infusion at original rate.
- B10 SILENCE key**  
Press this key to silence the alarm signal.
- B11 POWER key**  
Switch on / off the Infusion Pump. In 'power off' status, press this key until LCD screen displays, which means the pump is switched on. In 'power on' & 'stop' status, or in 'alarm' case, press this key for about 2 seconds, the pump shall be switched off.
- B12 START key**  
In 'stop' status, press this key to start infusion.
- B13 STOP key**  
Press this key to stop infusion.
- B14 ENTER key**  
Press this key to confirm / save the new parameter setting.

### FUNCTIONS

#### 5 Back of Device (Image C):

##### 1 Pole clamp & adjuster

It is used to fix the Infusion Pump on IV stand. Draw the adjusting spanner outward or upward; then rotate clamp for 90° for horizontal bar or vertical stand; then draw the spanner back in place to fix the clamp. Adjusting spanner Rotate 180°, used to adjust the clamp direction.

##### 2 Battery Compartment

Battery location. Open it from the bottom of machine.

##### 3 AC Power Connector

The socket for connecting to AC power source.

