



User manual

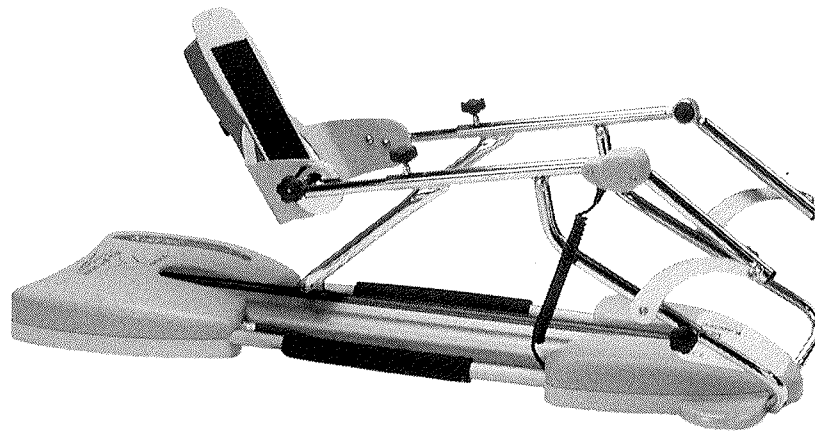
Before use, please read this document.  
Kinetec reserves the right to effect technical modifications.

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Serie 1 - 2

# Spectra

## Spectra DC (Data Capture)



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## Definition

The KINETEC Spectra and Spectra DC (Data Capture) are devices for the PASSIVE mobilisation of the KNEE, enabling extension and flexion movements from -10° to 120°.

With the Spectra DC (Data Capture) linked to a computer, you can:

- program the device,
- monitor a list of patients,
- produce device usage reports per patient.

For more information, refer to the instruction manual for the Kinetec Data Capture software.

## Indications

- Knee replacement surgery.
- Fractures (patellar, tibia plateau, femoral).
- Arthrolysis.
- Hip surgery, including hip replacement, hip pinning, osteotomy.
- Ligament repairs.
- Arthroscopic surgery (menisectomies, patellectomies).
- Burns, joints sepsis.

## Clinical Benefits

- Breaks the cycle of trauma, inflammation and the loss of range of motion.
- Prevents joint stiffness.
- Speeds the recovery of post-operative range of motion.
- Maintains the quality of the joint surface.
- Reduces pain and oedema.
- Promotes joint cartilage healing.
- Reduces hospitalization time
- Reduces the need for pain medication.
- Provides immediate post-operative continuous passive motion.
- Digital ROM readout on the patient hand control for positive reinforcement.
- Maintains desired positions for stretching and muscular rest.

## Contraindications

Bone Cancer, warped joint surfaces, spastic paralyses, unstable fractures, uncontrolled infection.  
The machine is not suitable for patients over 2 m(6'7") or under 1,40m (4'7").

## Warning and Safety instructions



- Warning: The physician/physiotherapist defines the protocol and ensures that it is correctly implemented (adjustments, session time and frequency of use).
- Warning: Run a cycle with the device unloaded before installing the patient on the machine.
- Warning: For optimum safety, always give the hand control to the patient before starting the system. The patient must know the start/stop/reverse function on the hand control, see page 5.
- Warning: To avoid the parameters being changed, lock the machine's hand control before giving it to the patient, see page 5.
- Warning: Danger, risk of explosion: Do not use the machine with anaesthetic gas or in an environment that is rich in oxygen.
- Warning: To avoid all risks of electric shock, the machine should only be connected to a power supply that has protective grounded pin.
- Warning: Before using this machine, always check that the electrical socket is in good condition and is suitable for the splint power supply cord. Only use the original cable supplied with the machine. Check that the cables remain free around the device so that they do not get damaged.
- Warning: Before using this machine, always check that the machine is not damaged, in particular the protective housings.
- Warning: In case of electromagnetic interference with other devices move the device.
- Warning: Please do not touch the moving parts while the unit is running, pinching risk.
- Warning: Modifying the machine in any way is strictly forbidden.
- Warning: Always check the motion parameters displayed on the remote control before starting the session.

## Compliance:

The KINETEC Spectra and Spectra DC (Data Capture) comply with the standards of Directive 93/42/EEC, and bear the CE mark.

The KINETEC Spectra and Spectra DC (Data Capture) comply with the standards in force (IEC 601.1.2) concerning the electromagnetic compatibility of medical devices and IEC 60601-1 concerning electrical safety.

The KINETEC Spectra and Spectra DC (Data Capture) meet the requirements of the Machinery Directive No. 2006/42/EC.



With respect to electric shock, fire mechanical and other specified hazards only in accordance with CAN/CSA C22.2 NO. 601.1, medical equipment certified for Canada. 1QD5.

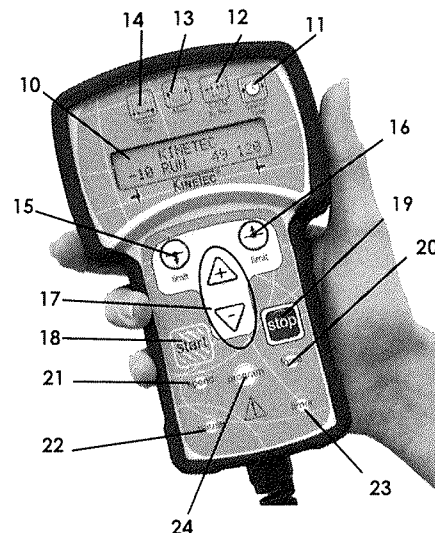
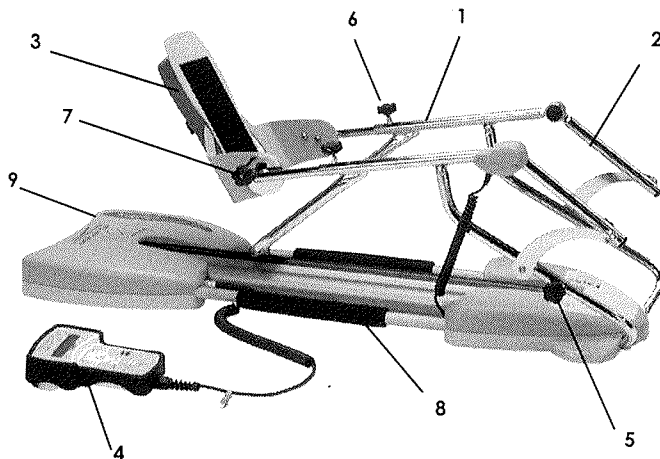
With respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1 1QD5.



## Description

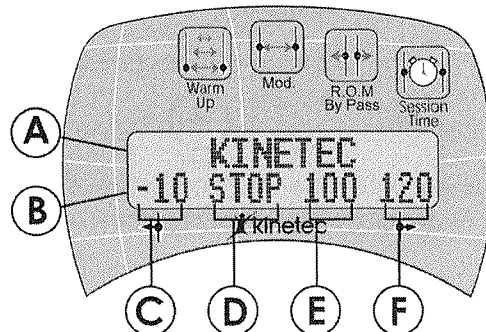
The KINETEC Spectra and Spectra DC consist of the following components:

- 1 • Lower limb support.
- 2 • Thigh support.
- 3 • Foot support and hand control location for transport.
- 4 • Hand control.
- 5 • Thigh support setting lock.
- 6 • Lower limb support setting lock.
- 7 • Foot support positioning setting lock.
- 8 • Transport handle.
- 9 • ON/OFF switch and fuses.
- 10 • Liquid-crystal display (2 lines of 16 characters).
- 11 • SESSION TIME display key
- 12 • BYPASS mode key.
- 13 • MODULATION key.
- 14 • WARM UP key.
- 15 • EXTENSION setting key.
- 16 • FLEXION setting key.
- 17 • Increase / decrease keys.
- 18 • START key.
- 19 • STOP key.
- 20 • FORCE key.
- 21 • SPEED key.
- 22 • PAUSE key.
- 23 • TIMER key.
- 24 • PROGRAM access key.



### Display Details:

- A • 16-character line, used to display various messages when starting up the machine, then the type of movement during operation (Kinetec or Warm Up).
- B • 16-character line, used to display various messages when starting up the machine; then it displays the operational parameters.
- C • 3-character area showing the extension limit.
- D • 4-character area showing various messages: RUN, STOP, EXT, FLEX ...
- E • 3-character area showing the real-time angle of the knee; this value changes in line with the movement.
- F • 3-character area showing the flexion limit.

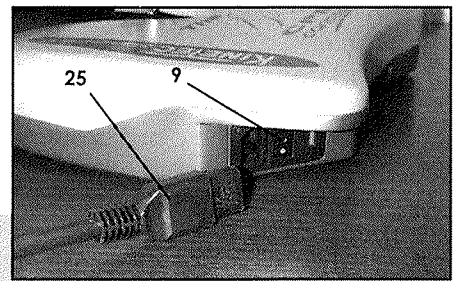


### Electrical connection: SAFETY FIRST.

The KINETEC Spectra and Spectra DC are type B, class I devices. Before connecting the device to the power supply, check that the mains voltage matches that shown on the identification plate (100-240 V~ 50-60Hz).

Connect the hand control (4)

Connect the power supply cable (25).



### IMPORTANT

Check that the electrical socket is in good condition and is suitable for the splint power supply cord. The latter complies with current standards and has a grounding socket.

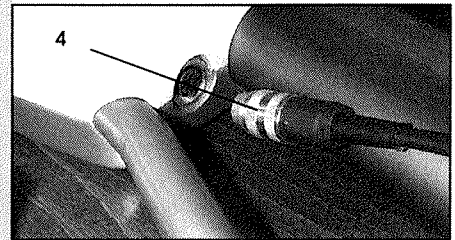
The plug may be connected to any standard socket.

The socket must however have a grounded pin.

To connect the power supply, only use the original cable supplied with the machine.

Check that the cables remain free around the device so that they do not get damaged.

Check that the machine is not damaged, in particular the protective housings.



### Starting the unit

Switch on the unit (9).

The display comes on, the machine carries out a self-test and the display shows in succession

KINETEC  
Spectra Vxx.x

Then

Movement Verify.  
Please Wait

Then,

Nom            xx  
Prenom        xx

Only for Kinetec Spectra DC\*

Then

KINETEC  
30 STOP 15 70

Your KINETEC Spectra or Spectra DC is ready to be used with the parameters from the previous session, unless you are using an optimised program on the Spectra DC (see the instruction manual for the Kinetec Data Capture software).

**WARNING:** Always check the motion parameters displayed on the remote control before starting the session.

\*Note: Before using the device with data recording, please refer to the instruction manual for the Kinetec Data Capture software. The splint can be used immediately without being connected to a computer, but the movement data will be recorded under patient 01 and may be incomplete. See page 6 on selecting the patient.

### Changing the display language

Press the following buttons simultaneously: **speed** and **force**, followed by **+** or **-** to change the display language.

Press the  button to confirm,

then switch the machine off and then on again to apply the changed display language.

Available languages: English, French, German, Italian and Spanish.