



# ECHOSID<sup>2008</sup>

Double syringe pump capable of infusing

## Applications

**ECHOSID<sup>2008</sup>** is ideal for performing ultrasound examinations simply and rapidly. The device finds its application in the field of radiological, hepatic and ultrasonography with harmonic imaging and second generation contrast agents.

## Features

**ECHOSID<sup>2008</sup>** is a double syringe pump capable of infusing contrast agent and saline in sequence. Alongside the precision of the syringe pumps, **ECHOSID<sup>2008</sup>** also ensures stability of the fluid-gas mixture of the contrast agent thanks to the particular system of rocking the syringe during stand-by. The system is designed to allow multiple infusion speeds which can be programmed at the physician's discretion according to the specific examination. Programming of the functions is simple and rapid because at each stage the control panel provides all the information for the subsequent stage. In order to make the operator's work easier in the limited space available, the apparatus has rechargeable batteries so that no cable can be present during use to impede normal movement of personnel in the ultrasonography room. Battery operation is guaranteed for at least 5 hours of continuous operation. Although **ECHOSID<sup>2008</sup>** is designed to work without any wire connection, it is also possible to use it when battery charger is connected. The system is equipped with safety sensors which operate if a threshold pressure is exceeded due to occlusion of the infusion system or the vein. The system is complete with a remote pedal control to activate the cycle previously programmed on the control panel, allowing the physician to perform the examination without the aid of nursing staff.

## Economy of use

**ECHOSID<sup>2008</sup>** is equipped with rechargeable battery which doesn't suffer of the so-called "memory effect", so they can be recharged at any time. This feature is also useful if the battery charger is connected for a very long time: battery will not suffer of that.



## Operating cycle

The two syringes are filled, manually flushed and suitably connected to the infusion line.

Once they have been correctly positioned in the special seats, the physician is invited to follow the instructions that appear on the display. The Y-line can be automatically flushed, then the contrast agent syringe starts tilting.

The physician chooses the appropriate injection speed and both contrast agent and saline volumes, depending on the patient's physical characteristics and/or specific examination. Subsequently, by simply pressing the foot pedal beneath the patient's couch (or the Start button on the front panel), the two injections will be started.

This leaves both the physician's hands free to operate the front panel and ultrasound probe. Once injection of contrast agent has been completed, a second injection of saline will be performed automatically in order to improve the ultrasound examination and allow complete use of the contrast agent.

At the end of the two injections, if the volume contained in the two syringe has not been used up completely, the infusion line must simply be replaced in order to continue with a second infusion cycle.

During the subsequent infusion cycles the device control logic is able to calculate the remaining volume of liquid, in order to prevent the operator from selecting volumes outside the range.

## General specifications

- Contrast agent volume can be set irrespective of saline volume.
- Maximum injectable volume:
  - 10 ml for contrast agent;
  - 10 ml for saline.
- Contrast agent and saline injection speeds selectable from the display:
  - From 0,1 ml/sec
  - To 3,0 ml/sec
  - Incremental steps: 0,1 ml/sec

## Advantages

- 1) Contrast agent is maintained absolutely intact;
- 2) A wide range of different operating conditions are possible according to specific examinations;
- 3) Repeatability of examinations is absolutely guaranteed;
- 4) The pedal control leaves both the operator's hands free to work with the ultrasound device, allowing a reduction in personnel.

## **ECHOSID<sup>2008</sup>** includes

- A remote control pedal with relative connecting cable
- A battery charger
- Two syringe-holders

## Disposable kit

Kit composed of:

- 10 ml luer-lock syringe for contrast agent;
- 10 ml luer-lock syringe for saline;
- Y-line with double check valve for syringe patient connection

## ECHOSID<sup>2008</sup> Ordering guide

CODE	DESCRIPTION	QUANTITY PER PACKAGE
ECHOSID <sup>2008</sup>	Pump complete with battery charger power supply, remote control pedal and syringe holders	01
01033520	Disposable kit consisting of: Y line - Contrast agent syringe - Saline syringe	4 boxes (25 per box)

