

# Crono 30

AMBULATORY INFUSION PUMP



 **CANE**

USER GUIDE

MEDICAL TECHNOLOGY



# *Crono 30*

USER GUIDE



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## FOREWORD

**CAUTION:** US Federal law restricts this device for sale by or on order of a physician.

This manual is written with the aim of informing the user of this pump. The instructions and details given here are fundamental for the correct and safe use of this device.

Please take time to read all the information before using the pump and moreover keep this guide in a safe place for future reference.

## NOTE

The manufacturer only considers itself responsible for the safety and reliable working of this pump, provided that it is used in accordance with the current instructions for use.

The manufacturer declines all responsibility towards the purchaser and any third party for any damage to the pump caused by tampering, improper use, modifications and/or reparations by unauthorised personnel.

## INTENDED USE

The ambulatory infusion pump **Crono 30** has been designed for subcutaneous drug infusions. Canè S.r.l. declines all responsibility for the administration of drugs and solutions and/or methods of drug infusions other than those described in this manual.

## USER ASSISTANCE INFORMATION

### Intra Pump Infusion Systems

920 Minters Chapel Rd, Suite 200  
Grapevine, TX 76051

Toll Free: 1-866-211-7867(pump)  
Fax: (630) 845-2768

[www.intrapump.com](http://www.intrapump.com)

## PUMP DESCRIPTION

**Crono 30** is an ambulatory syringe infusion pump intended for the controlled administration of liquids into the patient. This means that the pump can be worn during the infusion.

Infusion pumps using normal commercial syringes are bulky and cumbersome and thus difficult to use in the true sense of "ambulatory". This can have a negative impact on patient compliance and treatment goals.

A special syringe, an integral part of **Crono 30**, provides an efficient reduction of overall pump size. Whether day or night infusion is required, **Crono 30** offers more conveniences and advantages than other bulkier, heavier pumps.

**Crono 30** has a particular mechanism which pushes directly the rubber syringe piston, so it is possible to reach a high thrust force and high accuracy of administration.

For better absorption of the drug **Crono 30** administers 30 µl per impulse.

In case of infusion set occlusion, an innovative infusion control system makes it possible to proceed with the infusion automatically and, after the occlusion is eliminated, to complete it.

**Crono 30** is fitted with a liquid cristal display which shows the time it takes to complete the delivery and the battery charge status.

## FACTORY SETTINGS

The following features were set at the factory but can be re-programmed:

Audible signal for end infusion	AL.0 (non active)
Delivery time	10 hours
Number of infusions	0
Key-pad lock level	Lo,0 (key-pad unlocked)

## TECHNICAL FEATURES

Pump size	80x48x35 mm.
Weight	125 g (battery included).
Battery	3 V type CR 123 A lithium battery.
Syringe	Dedicated with 30 ml capacity with universal male "luer-lock" connector.
Volume administration	Drug volume can be programmed from 1 to 30 ml.
Delivery time	Programmable from 1 to 99 hours, in 15 minutes steps.
Accuracy	+/-2%.
Available occlusion pressure	4 bar +/-1.
Data storage	Programmable data are automatically stored in the pump's memory; the data are not lost when the battery is removed.
Safety circuits	To control the regular working of the device, alarming in the event of anomaly and displaying error message.
Tamper resistant feature	Allows the pump to be "locked" by disambing the buttons.
Operating conditions	+10°C / +45 °C ; 30% / 75% RH ; 700 hPa / 1060 hPa.
Storage conditions	-10°C / +60 °C ; 10% / 100% RH ; 500 hPa / 1060 hPa.

## STANDARD EQUIPMENT SUPPLIED

1. Ambulatory infusion pump
2. Pump case
3. Elastic belt
4. Collar strap
5. Fabric holder
6. 2 batteries (one already inserted in the pump)
7. Battery tool
8. User guide

Fig.1

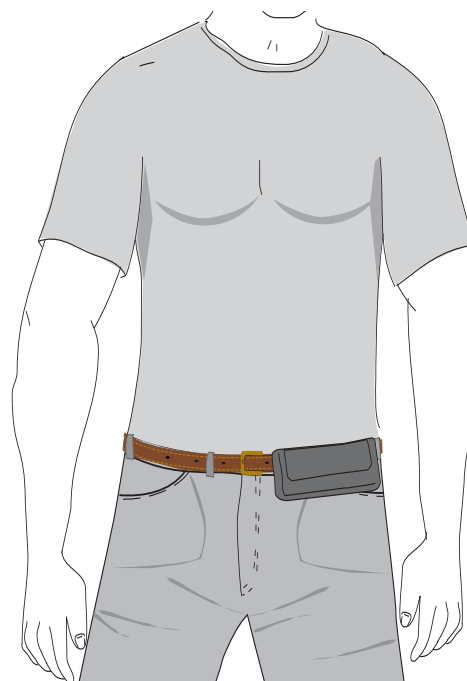
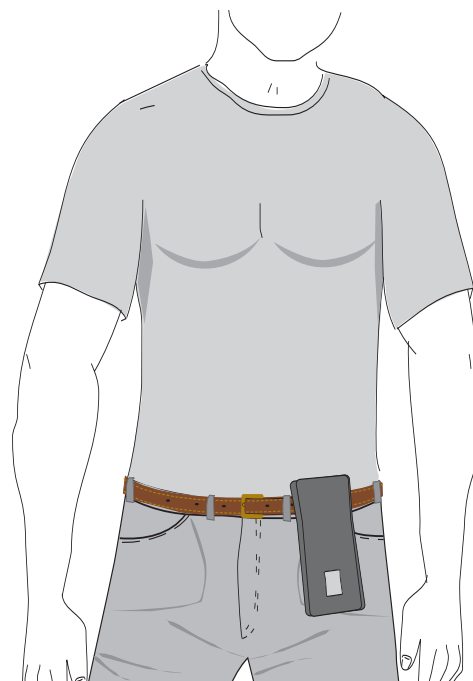


## OPTIONAL ACCESSORIES

Optional accessories are available upon request:

1. Upright leather holder similar to a mobile telephone holder.
2. Horizontal leather holder similar to a spectacle case.

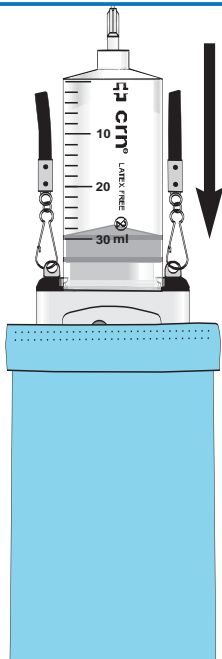
Fig.2



**HOW TO USE THE STANDARD EQUIPMENT SUPPLIED**

The following illustrations show how the pump and its accessories can be set up.

Fig.3



How to attach collar strap to the pump and the fabric holder

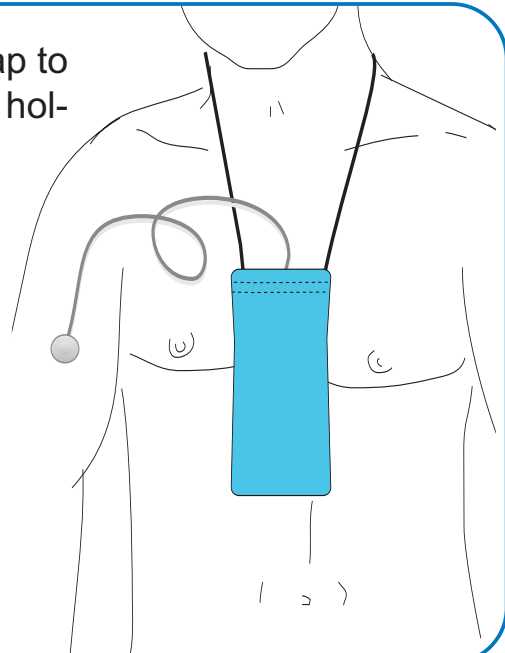
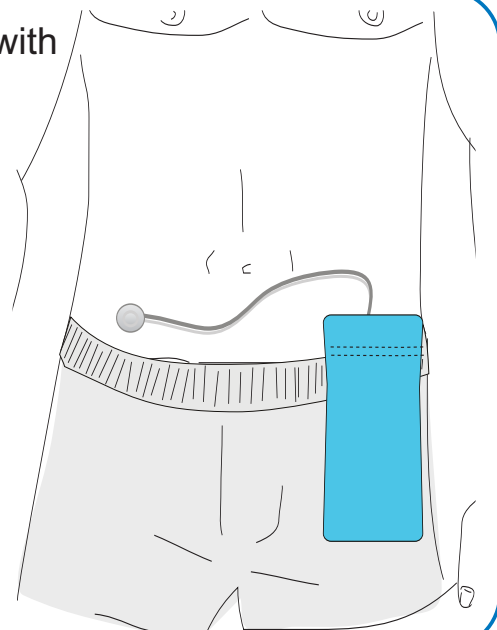
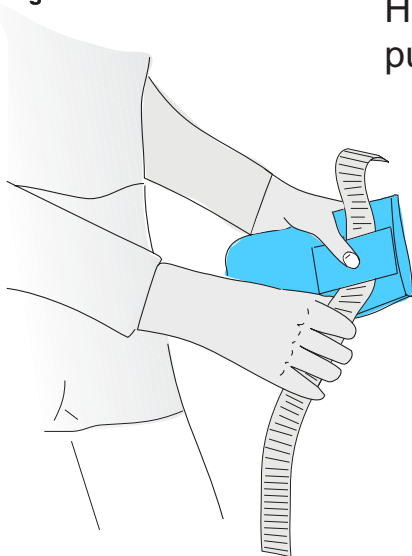


Fig.4

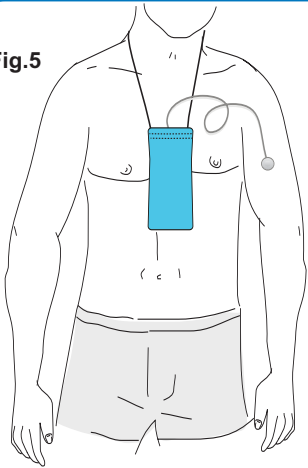
How to use elastic belt with pump and fabric holder



## HOW TO WEAR THE PUMP

The following pictures show the different ways the pump can be worn.

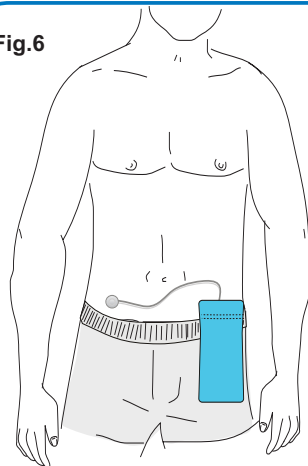
Fig.5



### WEARING THE PUMP AROUND THE NECK

Wearing the pump around the neck with collar strap and fabric holder.

Fig.6

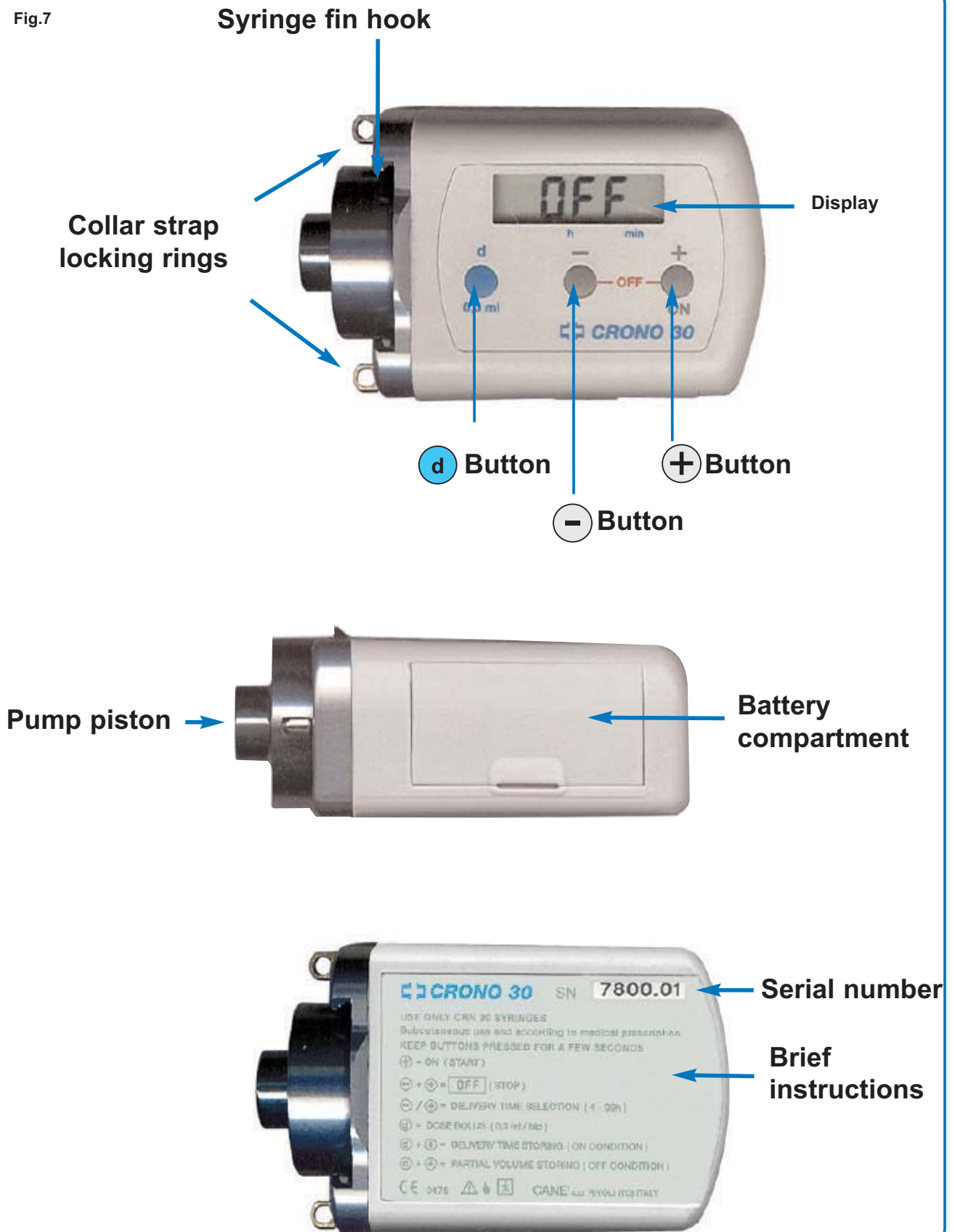


### WEARING THE PUMP AT THE WAIST

Wearing the pump at the waist with elastic belt and fabric holder.

**PUMP PARTS**

Fig.7



## LIQUID CRYSTAL DISPLAY

This is a screen on the front of the pump displaying symbols which inform the patient of operations in progress as well as showing warnings and alarm messages.



**“Battery” symbol:** appears when the battery is nearly expired (see the related paragraph, page 29)



**“Drip” symbol:** flashes when the device is on; it alternates with indication of hours and minutes.

## MAIN SCREEN INDICATIONS

13.15	DELIVERY TIME AND/OR TIME LEFT TO END OF INFUSION
24cc	PARTIAL VOLUME
OFF	OFF INDICATION
AL0	END OF INFUSION AUDIBLE SIGNAL (OFF)
AL1	END OF INFUSION AUDIBLE SIGNAL (ON)
Err	ERROR MESSAGE
OCCL	OCCLUSION
←---	BACKWARDS/FORWARDS MOVEMENTS OF THE PUMP PISTON
End	END OF INFUSION
🔋	LOW BATTERY
0bAtt	BATTERY DISCHARGED
0124	DISPLAYING THE NUMBER OF INFUSIONS
L0.0	KEY-PAD UNLOCKED
L0.1	KEY-PAD LOCKED: LEVEL 1
53	KEY-PAD LOCK SETTING

## SECTION 6

### SYRINGE PARTS

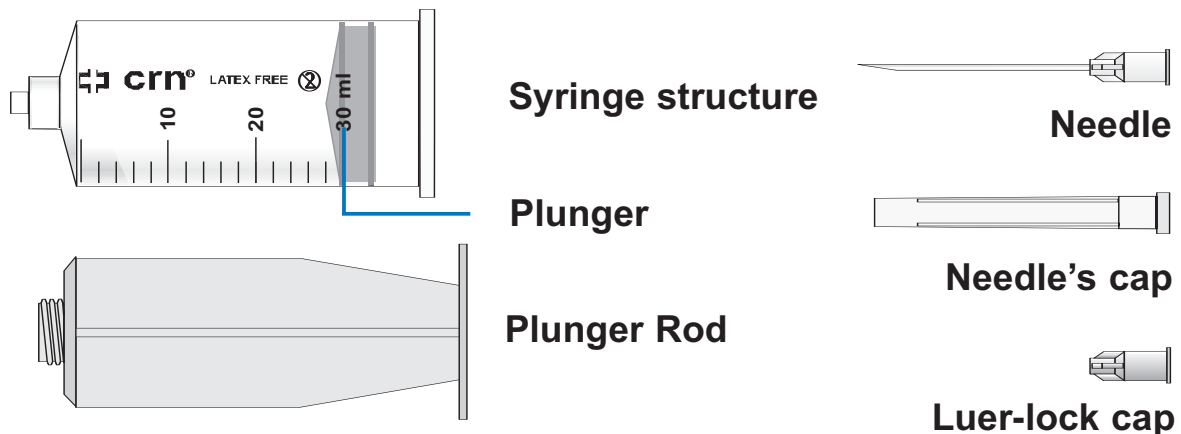
The Crono 30 pump uses dedicated syringes available with the following specifications:

- CRN<sup>®</sup> 30 ml CRONO<sup>®</sup> Syringe.

The syringes are:

- Single use only
- To be used only if packaging is not damaged
- Pyrogen-free

Fig.8



### LUER LOCK CAP FUNCTIONS

- Can be used after the syringe has been filled, in order to unscrew the plunger rod from the plunger with ease.
- To protect the drug in the syringe if infusion is not imminent.

Fig.9



Luer-Lock cap

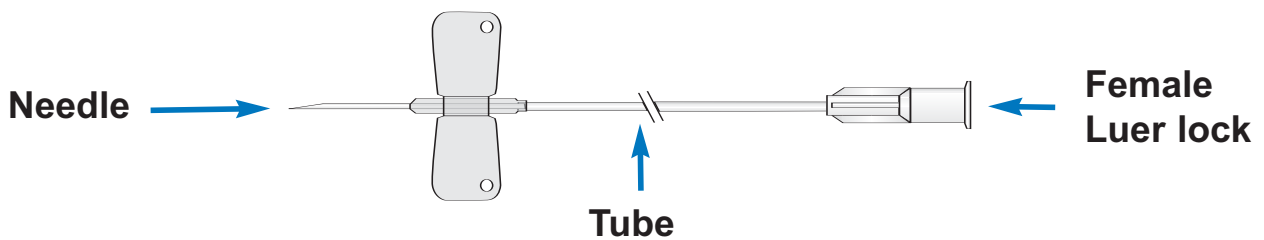
## INFUSION SET

It is advisable to use infusion sets which have the following specification:

- Tube with internal diameter of limited dimensions (optimum 0.36 mm, maximum 0.6 mm);
- Length of the tube not exceeding 90 cm;
- Tube with dead space lower than 0.5 ml;
- Anti-kink tube.

## INFUSION SET PARTS

Fig.10



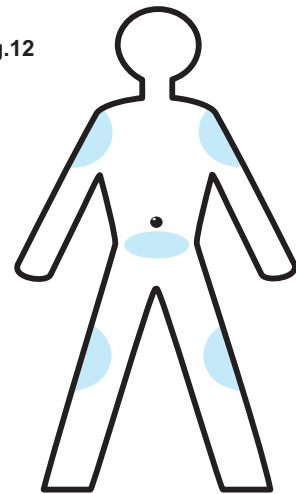
## INFUSION SITES

Infusion sites can be any of the following:

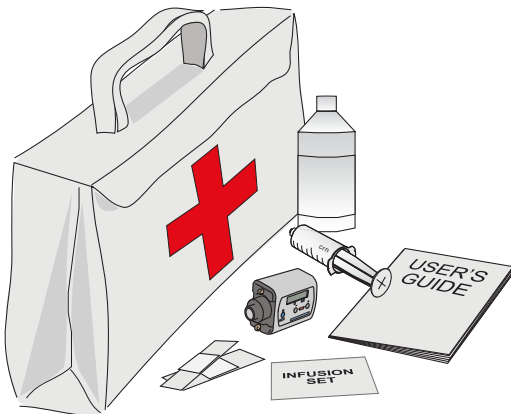
- Anterior aspects of upper arm
- Anterior abdominal wall
- Anterior aspect of thighs

It is advisable to change infusion site after each drug administration in order to avoid skin irritation.

Fig.12



## INFUSION PREPARATION



Before preparing the equipment for infusion, it is advisable to follow these precautions:

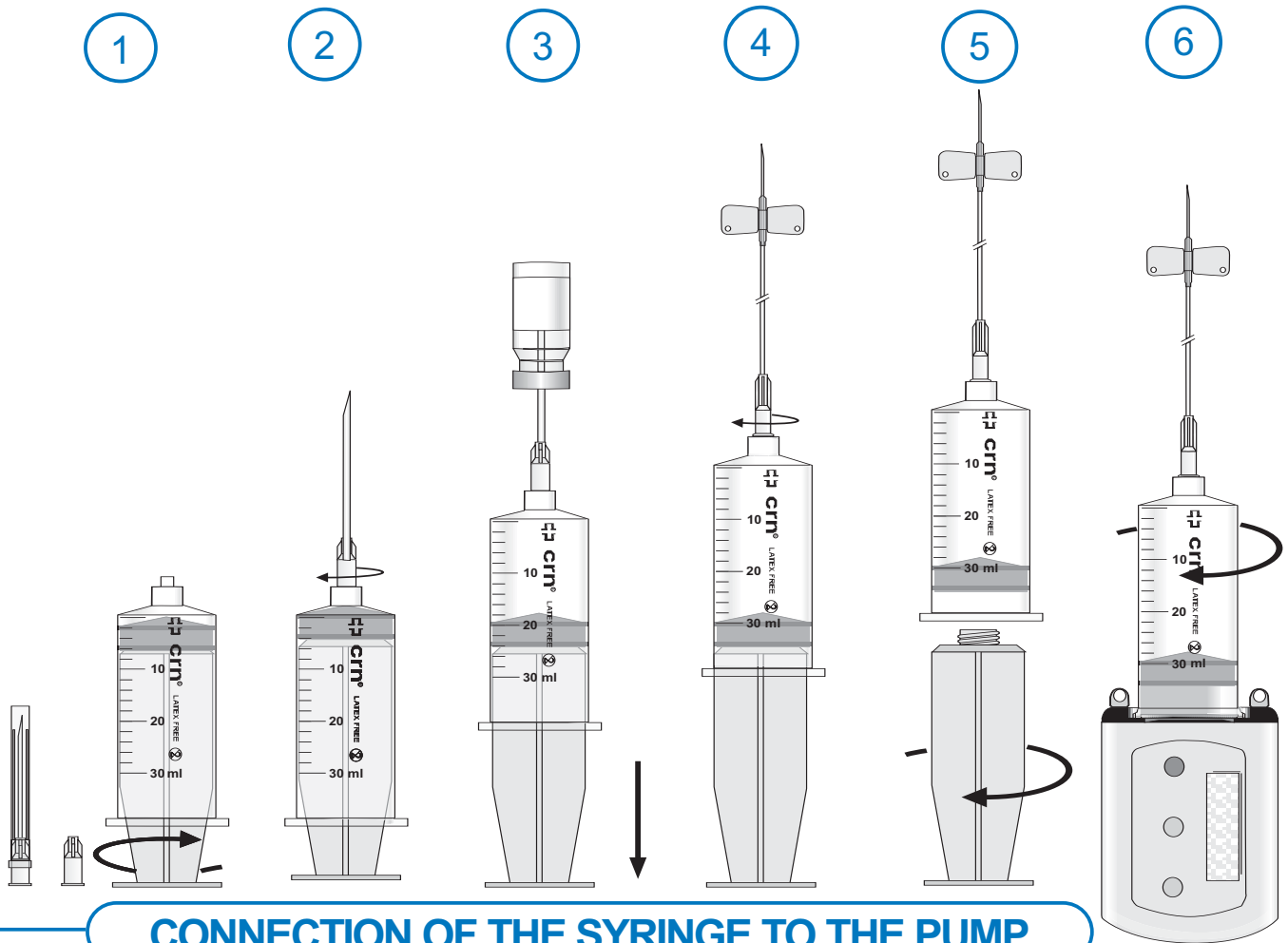
- 1 - Wash your hands
- 2 - Prepare a clean working area

## SYRINGE PREPARATION

1. Complete the screwing of the plunger rod with the plunger;
2. put the supplied needle on the syringe with a clockwise rotation;
3. fill up the syringe, aspirating the drug slowly to avoid disconnection between the rubber plunger and the plunger rod. Verify the drug inside does not exceed 30 ml capacity;
4. put the female Luer Lock connector - supplied with the infusion set - on the syringe;
5. unscrew the plunger rod with a brisk counter-clockwise rotation with a fairly swift movement;
6. insert the syringe into the instrument with a 90° rotation, making sure to detect a "click" which indicates the syringe is locked into the pump.

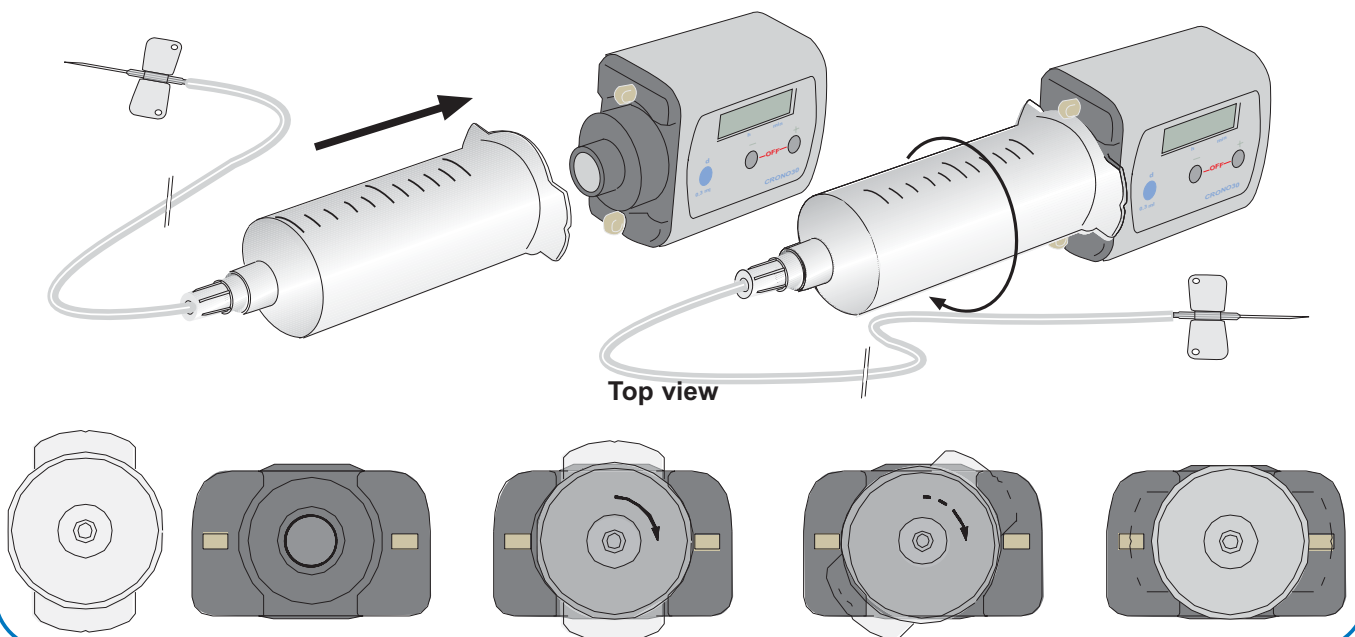
## SYRINGE PREPARATION

Fig.13



## CONNECTION OF THE SYRINGE TO THE PUMP

Fig.14



## WORKING INSTRUCTIONS

- Press the buttons with your finger-tips only, do not use sharp or pointed objects.

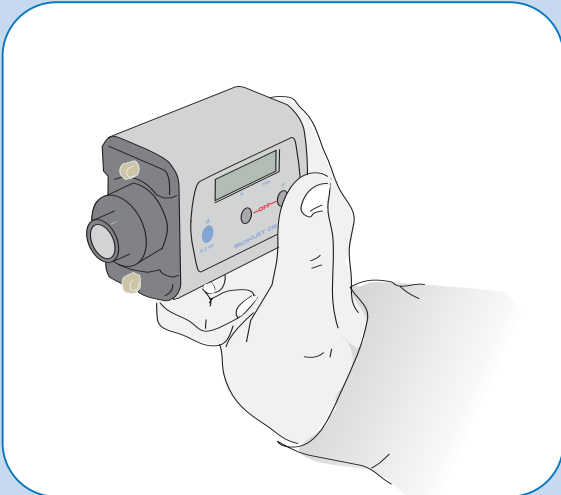
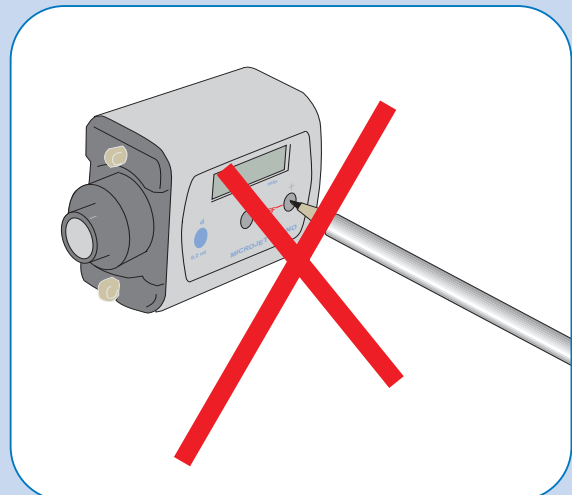


Fig.15







- **Time-controlled buttons:** keep buttons pressed for a few seconds to activate commands.
- Button activation is confirmed by a ticking sound, except in the phase of battery insertion.
- Command execution is confirmed by a brief audible signal.
- The pump is supplied with a battery already inserted.

## PUMP ACTIVATION

During the device activation phase it is possible to select the audible signal warning the end of infusion.


It is only possible to make such a selection immediately after battery insertion.

In order to activate the pump and/or program the audible signal for end of infusion proceed as follows:

1. Insert or remove the battery and re-insert it after 10/15".
2. The pump will carry out a self-test during which the display will emit brief audible signals and the display will show all readable symbols. 
3. The display shows the selection you made to warn the end of infusion; while the signal is blinking you may decide whether to activate or deactivate the audible signal for end of infusion. Use the  or  buttons to make your selection. 

 Audible signal ON

 Audible signal OFF

4. After a few seconds the pump automatically returns the pump piston to its starting position, then the screen displays OFF. 

The selected data are automatically stored in memory.





## PROGRAMMING






- Delivery time
- Partial volume

### PROGRAMMING THE DELIVERY TIME



Delivery time can be programmed from 1 to 99 hours with steps of 15 minutes

Program the delivery time proceeding as follows:

1. Switch on the pump by briefly pressing the  button.
2. You may set the delivery time by pressing  or  buttons.   
The time blinks on the screen.

3. When the screen is showing the delivery time (hours and minutes), you may press button  or button . The screen will flash for 5 seconds, during which the delivery time can be increased or decreased. Press button  or button  to decrease or increase delivery time. 












Continuous button pressure causes a rapid change of the delivery time. When the buttons are not pushed for a five second period, the time is set and the display stops flashing.

4. To store the delivery time press the  and  buttons simultaneously, the device issues a sound signal and the indication on the screen disappears for a short while; this to confirm that data have been successfully stored.


## PROGRAMMING PARTIAL SYRINGE VOLUME



If the therapy requires the use of a partially filled syringe, the infusion starting point of the pump piston can be stored into the pump's memory.

Proceed as follows:

1. Switch the device on by pressing the  button.
2. Press the  button: the pump piston will advance up to the position corresponding to the volume of drug to be infused. 
3. Switch off the pump by pressing the  and  buttons. The screen will display OFF. 
4. Press the  and  buttons simultaneously. The device will issue an audible signal and the screen will display the stored volume 
5. At the end of the infusion the pump piston will return to the stored position. 
6. The stored position can be changed by repeating the procedure above.
7. Any time the pump is switched on, the screen will display the cc stored volume. 
8. Such setting will be maintained until the battery is removed.


## SWITCHING ON THE DEVICE


By pressing  button, the screen will swiftly display the following order of sequence:

- Stored syringe volume given in cc (appears only if formerly stored) 
- The instrument will emit a brief sound and show the delivery time (hours and minutes), with the blinking “drip” symbol separating hours from minutes. 

The infusion time on the display decreases every 15 minutes.

## PRIMING THE INFUSION SET

Before beginning the infusion, you must check whether the pump piston is in contact with the plunger. If this is not the case, move the pump piston forward by pressing button .

Any time you press this button the pump piston moves forward with increments of 0.45 mm corresponding to 0.3 ml. 

Continue this process until a few drops of the fluid to be infused comes out of the needle.

### WARNING

Make sure the infusion set is not connected to the patient during priming!

## END OF INFUSION

If the acoustic signal is activated 10 minutes prior to the end of infusion, the device will emit a two second lasting intermittent signal.

The same signal will be repeated twice 5 minutes before the infusion ends.

At the end of infusion a continuous acoustic alert lasting a few seconds will be emitted. The screen will display the message **END**.



The pump piston will automatically return to its starting position.



The screen will read OFF.





The pump piston reversal time is about: 10 minutes

## STORING DATA


Information regarding syringe size, delivery time and number of infusions already administered will be automatically stored in the memory. Stored data are not lost even when battery is removed.

## SWITCH OFF

Press the  and  buttons simultaneously to switch off the pump during the infusion. The display will show OFF.



## READING THE NUMBER OF INFUSION

Keep the  button pressed for 8 seconds in OFF condition: the display will show the number of infusions already administered.




## RE-SETTING THE NUMBER OF INFUSIONS


As each infusion is finished a record of this is automatically kept by the pump, even if the battery is removed.

Instructions on how to retrieve this information is on page 28.

However, there are some situations in which it is helpful to be able to re-set the number of infusions back to the factory setting of 0000 infusions.

1. With the pump switched OFF, press the  button until the number of infusions appear on the screen.






2. Without releasing the  button, press the  button.

3. The number of infusions will flash on the screen.



4. Release the  button.

5. In sequence press the  button, the  button and finally the  button for about 2 seconds each. (If the audio alarm is activated, there will be a “ticking” sound during each of these 2 second periods. When this sound stops, the button can be released).

6. The screen will show 0000 infusions if the procedure is done correctly.





The screen will show UNDO if the procedure is done incorrectly



## REVERSAL OF PUMP PISTON

### 1. Partial reversal

While the pump is ON, it is possible to make the pump piston reverse with decrements of 0.45 mm (0.2 ml) by pressing the  and  buttons simultaneously





### 2. Total reversal

It is possible to interrupt the infusion already in progress and make the pump piston return to its starting position. Proceed in the following way:

a. Switch off the pump by pressing the  and  buttons simultaneously.



b. Press the  and  buttons, simultaneously. The display will show END.



c. The pump piston will return to its starting position.



3. Automatic reversal of pump piston at the END of infusion  
When infusion ends you will read END on the display.



The pump piston will automatically return to its starting position, and the display will show OFF.



## PISTON MOVEMENTS

When the pump piston has to move either backwards or forwards you will read a symbol on the display indicating this.



## INFUSION SET OCCLUSION

When the infusion set occludes, Crono indicates the status of occlusion by emitting an audible acoustic alarm and a message on the display. Every two minutes the device attempts to advan-



ce the pump piston. When the occlusion is cleared and the pump resumes regular delivery, the screen will alternate the occlusion warning message with the information regarding the delivery time.

## TAMPER RESISTANT FEATURE





The tamper resistant feature allows the pump to be “locked” by disabling the buttons.

Putting the pump in the tamper resistant mode does not alter or impede any of the normal functions or alarms of the pump. It is designed to reduce the risk of inappropriate button pressing.

IT IS RECOMMENDED THAT SMALL CHILDREN BE INSTRUCTED TO NOT TOUCH BUTTONS REGARDLESS OF WHETHER THIS FEATURE IS ACTIVATED OR NOT.

First of all, “Lo,0” message on the screen means that the pump is in normal, unlocked mode. “Lo,1” means that the pump is locked.

### TO LOCK THE PUMP:

1. Turn the pump on and set the delivery time.
2. When you are satisfied that the pump is working properly,
3. Press the  button for about 7 seconds.
4. Will appear on the screen.
5. Without releasing the  button, press the  button.
6. “Lo,0” will appear on the screen.
7. Press  button and “Lo,1” will appear.
8. If you wish to leave the pump locked, simply stop pushing buttons.
9. The pump will resume operation in lock mode.



## TO UN-LOCK THE PUMP

This procedure is similar to locking the pump.

1. Press the  button for about 7 seconds.




2. Will appear on the screen.



3. Without releasing the  button, press the  button.

4. "Lo,1" will appear on the screen.



5. Press  button and "Lo,0" will appear.



## LOW BATTERY ALERT

The LOW BATTERY warning will appear on the screen to indicate that battery level is low. It is time to change the battery as soon as possible.

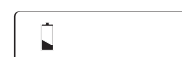


If the battery is not replaced soon after the screen warning, a subsequent infusion could be interrupted.

If the battery is allowed to fail completely, the screen will show the message “BATTERY DISCHARGED”. In such a situation the pump has stopped. The battery must be replaced immediately .



It is advisable to change the battery as soon as the “LOW BATTERY” symbol appears.



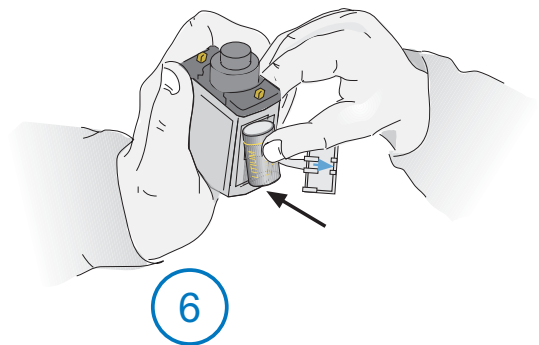
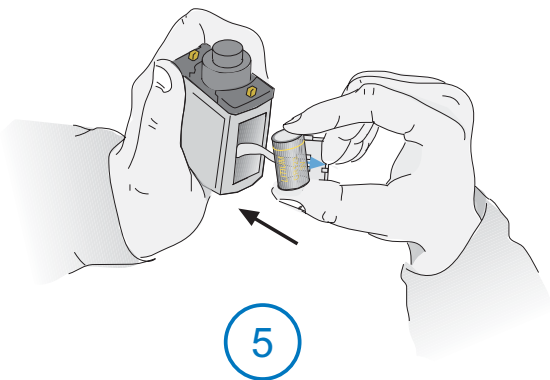
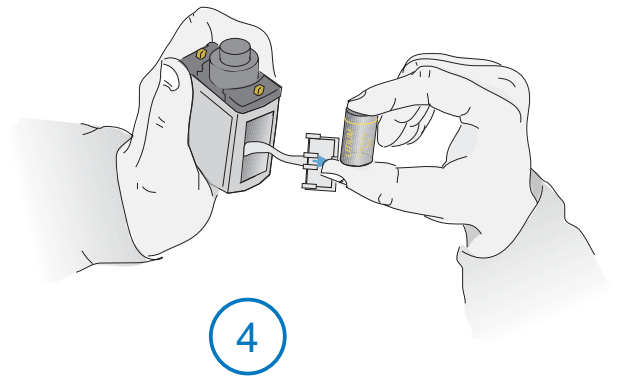
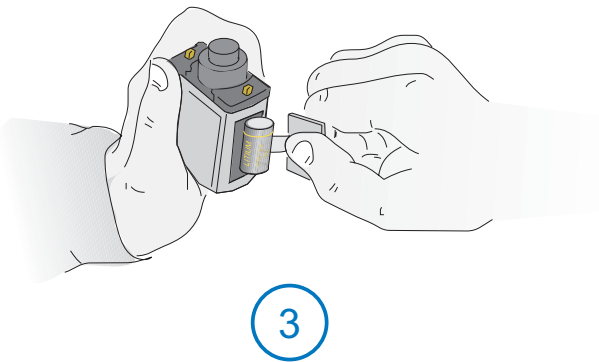
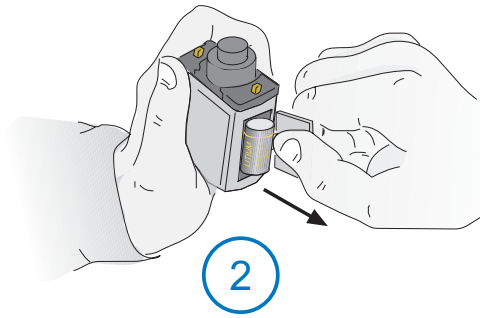
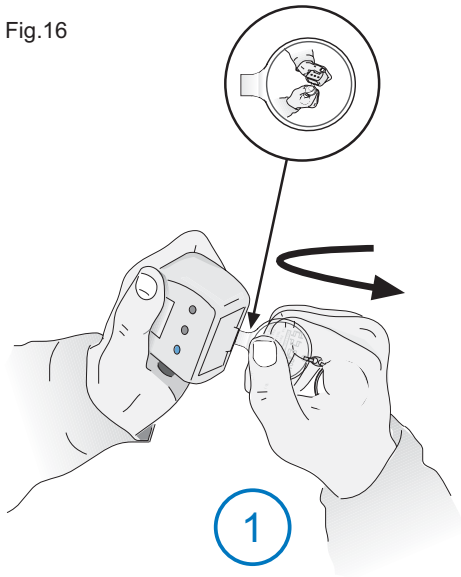
## BATTERY REPLACEMENT

1. Open the battery compartment using the supplied tool.
2. Pull out the cover.
3. Use the small ribbon strap (which lies under the battery) to facilitate the removal of the battery.
4. Remove the discharged battery and discard it properly.
5. Insert the new battery checking that it is correctly placed in accordance with polarity and that the ribbon strap is under the battery.
6. After having installed the battery, close the cover.

If the battery cannot be removed by pulling the strap, do not try to lever with an object or tool. Take the pump firmly in one hand and, as gently as possible, shake the battery out onto your other hand.

## BATTERY REPLACEMENT

Fig.16



**CAUTIONS**

- Use only a lithium 3 Volt CR 123 A battery.
- Batteries other than this type may cause the pump to malfunction.
- Batteries of the above-mentioned type are readily available in camera stores and most pharmacies.
- Under average operating conditions, each battery should last about 150 infusions. Keep a spare battery in a convenient place.
- If the pump is not used for long periods of time, it is highly recommended to remove the battery from the pump.
- Remove the pump before taking a bath or shower: the pump may be damaged upon contact with water. Should the pump accidentally come into contact with any liquid (drug solution, sweat, bed wetting) the pump must be checked by the manufacturer or a qualified personnel authorised by the manufacturer.
- If you suspect that liquid has penetrated into the pump (a leakage or spill), please contact the appropriate person within your specialist health care team or your authorized distributor for advice.
- The pump must be kept away from:
  - heating devices (radiators, oven rings, stoves);
  - direct sunlight;
  - high electromagnetic fields (magnets, loud-speakers, portable radio devices, cell phones);
  - ionogenic radiations;
  - supersonant devices
  - magnetic resonance devices (MRI)
- The pump does not need to be sterilized.
- Syringes, infusion sets, needles, and all material used during the infusion process must be discarded properly.

## MAINTENANCE AND CLEANING

The Crono 30 pump requires no particular maintenance operation, owing to its technical features.

To clean the instrument, use a soft cloth slightly moistened with a mild detergent.

Avoid the risk of liquid penetration into the instrument.

In the event the instrument becomes wet, absorb the liquid with blotting-paper.

## STORAGE

If the pump is not going to be used for a long period of time (more than 1 or 2 months), it is advisable to remove the battery, put it inside the device case and store it in a dry place.

## USER ASSISTANCE INFORMATION

### Intra Pump Infusion Systems

920 Minters Chapel Rd, Suite 200  
Grapevine, TX 76051

Toll Free: 1-866-211-7867(pump)  
Fax: (630) 845-2768

[www.intrapump.com](http://www.intrapump.com)

## MANUFACTURER'S GUARANTEE

With this consumer guarantee, Canè S.r.l. guarantees that this product is free from defects in materials and workmanship for a period of 2 (TWO) YEARS beginning from the date of purchase.

If during this period of guarantee the product proves defective due to improper materials or workmanship, Canè S.r.l. will without charge for labour or parts, repair or replace the defective parts upon the terms and conditions set out below.

Canè S.r.l. reserves the right to modify the characteristics or the model of the pump and accessories without obligation to make similar modifications to pumps and accessories previously manufactured or sold.

Conditions:

1. This guarantee will be granted only if the defect is brought to the attention of Canè S.r.l.
2. This guarantee will not be in effect if the pump and accessories have been damaged as a result of modifications or adjustments made without prior written consent from Canè S.r.l.





3. This guarantee will not apply if the type or serial number on the product has been altered, deleted, removed or made illegible.

4. This guarantee does not cover any of the following:

- Periodic maintenance
- Damage resulting from misuse, including but not limited to:
  - Failure to use the product for its normal purpose or in accordance with this user's guide;
  - Repair done by non-authorized Service Stations or Dealers, or the customer himself;
  - Accidental events, dropping, liquid infiltration.
- Natural calamity, fraudulent or premeditated action

5. Once the warranty period has expired, Canè S.r.l. will provide the service debiting the costs of components being replaced, expenses of labour charges and freight charges.

## ALARM MESSAGE

ALARM MESSAGE	DESCRIPTION	ACTION
Err	OPERATION NOT POSSIBLE	-----
Er. 1	UNCORRECTED RESET	RE-START DEVICE
Er. 2	CRITICAL CONDITION OF THE SECURITY SYSTEM	PRESS BUTTON 
Er. 3	IRREGULARITY OF THE MOTOR CIRCUIT	PRESS BUTTON 
Er. 4	MECHANICAL BLOCK DURING "END" PHASE CAUSED BY FOREIGN MATTER OBSTRUCTING THE PISTON'S REVERSAL	1. REMOVE THE CAUSE 2. RE-START DEVICE
Er. 5	IRREGULARITY OF THE PUMP PISTON'S ADVANCEMENT	PRESS BUTTON 
0001	OCCLUSION	PRESS BUTTON 
Er. 8	READING MEMORY ERROR (EEPROM)	RE-START DEVICE*
Er. 9	ERROR WITHIN THE MOTOR PILOTING CIRCUIT	RE-START DEVICE

Alarm messages are accompanied by audible signals.

To re-start the device following an alarm message, remove the battery and wait least 15 seconds before re-inserting.

\* **Please note:** if your pump shows Err8, and you subsequently re-start it, the programmed settings will revert to the factory settings (see page 8). Therefore, whenever this condition takes place, you must re-program the settings assigned by your doctor or PD nurse.

If the device will not re-start, contact your authorized distributor.

## SUMMARY OF FUNCTIONS AND BUTTONS

The follow brief instructions are by no means an alternative to reading the information supplied in this manual. The following tables are both a concise and quick reference with regard to pump use and its buttons.

Time control buttons: the buttons must be pressed for a few seconds if a command is to be carried out. This ensures that if the patient accidentally touches a button, no commands will be activated.

INSERTING BATTERY PHASE	<b>BUTTONS</b>	<b>ACTIVATION/SELECTION OF END INFUSION SIGNAL</b>	<b>SCREEN</b>
	<ul style="list-style-type: none"> <li>- / +</li> </ul>	<p>To activate and select the end of infusion signal you need to remove the battery wait least 15 seconds and then re-insert it.</p> <ul style="list-style-type: none"> <li>The screen will show all symbols</li> <li>Setting the acoustic signal of end infusion</li> <li>Piston self-adjust</li> <li>Pump switches OFF</li> </ul>	<p>8888</p> <p>ALD AL.1</p> <p>1---</p> <p>OFF</p>
PUMP OFF	<b>BUTTONS</b>	<b>STORING OF SYRINGE PARTIAL VOLUME /NUMBER OF INFUSION</b>	<b>SCREEN</b>
	<ul style="list-style-type: none"> <li>d and - depress simultaneously</li> <li>d and + depress simultaneously</li> <li>- depressed for 8 seconds</li> </ul>	<ul style="list-style-type: none"> <li>Reversing of the pump piston to the start position</li> <li>Storing of the syringe partial volume</li> <li>Reading of no. of infusions delivered</li> </ul>	<p>End 1--- OFF</p> <p>24cc</p> <p>0015</p>
PUMP ON	<b>BUTTONS</b>	<b>PROGRAMMING THE DELIVERY TIME / PRIME</b>	<b>SCREEN</b>
	<ul style="list-style-type: none"> <li>- / +</li> <li>d and + depress simultaneously</li> <li>d</li> </ul>	<ul style="list-style-type: none"> <li>Decreasing or increasing of the delivery time</li> <li>Delivery time storing</li> <li>Prime (0,3 ml)</li> </ul>	<p>13.15</p> <p>1---</p>
END OF INFUSION	<b>BUTTONS</b>	<b>END OF INFUSION</b>	<b>DISPLAY</b>
	<ul style="list-style-type: none"> <li>- and + depress simultaneously</li> </ul>	<ul style="list-style-type: none"> <li>End of infusion</li> <li>Piston automatic reversing</li> <li>Automatic switch OFF</li> </ul>	<p>End</p> <p>1---</p> <p>OFF</p>

## PUMP ICON TABLE

SN

Pump serial number

**Drip-proof instrument**

It can withstand occasional liquid dripping or splashing.  
It must not be immersed in liquid.

**Electromedical equipment**

BF type

**Warning: see instructions for use**

**Dispose of used electric and electronic devices  
in an environmentally safe manner, using the  
appropriate containers and according to any  
regulations that may apply.**

## SYRINGE BLISTER ICON TABLE



Read the instructions

CE 0123

CE mark



Recycle



Do not re-use this device



Pyrogen free



Protection against moisture



Do not expose to direct sunlight



Expiration date

STERILE EO

Sterilized by Ethylene oxide

PP

Polypropylene

LOT

Lot number

REF

Ref number

NEEDLE

Needle dimensions

## A GLOSSARY OF TERMS

### Alarm

An alarm is a condition that warrants the user's attention, and is critical enough that it requires that the pump be shut down or reset.

When an alarm occurs, an alarm beep is sounded and a descriptive message appears on the display screen.

### Display screen

The pump's liquid crystal display screen is located on the front panel of the pump, providing the information about the functioning of the pump.

### Infusion pump for ambulatory use

Pump intended to be carried continuously by the patient.

### Infusion set

An infusion set consists of a length of thin plastic tubing with a luer lock connector at one end. At the other end, there is a very small needle that is placed under the skin. The infusion set is connected to the pump and used to deliver drugs, in fluid form, to the body.

### Infusion site

The infusion site is the place on the body where the infusion set needle is inserted under the skin.

### Luer-lock connector

A luer-lock connector is a special threaded fitting used to connect the infusion set to the syringe.

### Occlusion

Occlusion means "blockage". The pump is designed to be able to sense when delivery of the drug is being blocked for some reason. The pump will automatically stop delivering drug and sound an alarm to alert you to clear the occlusion and restart the pump.

## Subcutaneous

Subcutaneous means beneath the skin. The infusion set needle is placed subcutaneously.

## Syringe pump

Pump intended for controlled infusion of liquids into the patient by a syringe, and in which the delivery time is set by the operator.

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