

CRONO PAR



CE
0476

Ambulatory
infusion pump

PUMP DESCRIPTION

The **CRONO PAR** ambulatory infusion pump is designed for the subcutaneous infusion of apomorphine (active ingredient) in the treatment of Parkinson's disease.

CRONO PAR uses specific 20 ml syringes called reservoirs. Its smaller size and reduced weight make **CRONO PAR** ideal for home use, thus giving the patient the freedom to engage in everyday activities during the treatment.

Below is a list of the main technical features of the pump.

- The possibility of selecting two different operation modes: the **FrEE** mode, with base-level functions, and the **Auto** mode, with advanced functions for patients with greater therapeutic demands;
- A clock allowing administration of different flow rates over a 24-hour period;
- Twin microcontrollers making the device safer and more reliable.
- Two wings to protect the reservoir.

The pusher mechanism acts directly on the plunger of the reservoir, allowing for an accurate administration of the drug. To improve the absorption of the drug, the pump administers 22µl shots at intervals which depend on the chosen flow rate. If the programmed flow rate is increased, the time interval between the shots decreases proportionally.

CRONO PAR features a liquid crystal display (LCD) which shows practical information viewable by the doctor and the patient about the settings, operation and diagnostics of the pump.

TECHNICAL FEATURES

Pump dimensions	76 x 49 x 29 mm.
Pump dimensions with protective wings	138 x 49 x 29 mm.
Pump weight (with protective wings)	127 g, including the battery.
Battery	Lithium CR 123A 3V (battery life approx. 100 infusions).
Single-use reservoir	Dedicated, with 20 ml capacity and "Luer-Lock" universal safety fitting.
Administration doses	Selectable, from 1 to 20 ml with 1 ml increments.
Flow rates in FrEE mode (F1, F2, F3)	Programmable from: <ul style="list-style-type: none">• 0.05 ml/h to 1.00 ml/h with 0.01 ml/h increments;• 1.00 ml/h to 3.00 ml/h with 0.02 ml/h increments;• 3.00 ml/h to 5.00 ml/h with 0.05 ml/h increments;• F2 and F3 may also be programmed to 0.00 ml/h or to oFF (flow rate display disabled).
Selectable flow rates in FrEE mode	3, all programmable.
Flow rates in Auto mode (F1, F2, F3)	Programmable from: <ul style="list-style-type: none">• 0.05 ml/h to 1.00 ml/h with 0.01 ml/h increments;• 1.00 ml/h to 3.00 ml/h with 0.02 ml/h increments;• 3.00 ml/h to 5 ml/h with 0.05 ml/h increments;
Selectable flow rates in Auto mode	4, of which 3 are programmable and 1 is fixed to 0 ml/h.
Bolus dose volume	Programmable from 0.00 to 2.00 ml with 0.022 ml increments.
Interval between bolus doses	Programmable from: <ul style="list-style-type: none">• 5 minutes to 1 hour with 5 minute increments;• 1 hour to 24 hours with 15 minute increments. This function can be disabled by setting no,Lt.
Flow rate precision	+/-2%.
Occlusion pressure	3 selectable values. The pump is set to PL2 (4.0 bar +/-2).
Post-occlusion bolus	About 0.9 ml (in PL2 mode).
Electronic circuit	Managed by twin microcontrollers with dedicated software.
Memory	All selected values are automatically stored in a memory which is retained even if the battery is removed from the device.
Display	Liquid Crystal Display (LCD - 11 x 28 mm).
Motor	Coreless DC motor. The microcontroller controls the rotation speed using an infrared encoder.
Settings lock	Two configurable levels.
Safety circuits	They check that the device is correctly operational and trip in case of fault, generating acoustic signals and messages shown on the display.
Protection rating of the pump	IP 42.
Supplied standard equipment	Ambulatory infusion pump with reservoir, infusion pump carry-case, elastic belt, collar strap, fabric case, 2 batteries, battery cover opening tool and user guide.
Guarantee	Two years for manufacturing defects.

