

INSTRAMED

DEFIBRILLATOR •

MULTIFUNCTIONAL •
PADS

BIPHASIC SHOCK •

MONITOR
CONNECTION •

OPTION OF PADS
FOR INTERNAL
DEFIBRILLATION

apolus

Biphasic
Defibrillator



HIGHLIGHTS



The most cost-effective equipment for basic function of defibrillation without compromising the safety of a reputable manufacturer.



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- Integrated adult and child multifunctional pads.
 - Charge ready and patient contact indicator on pads.
 - Optional pads for internal defibrillation (adult and child).
 - Connection for synchronization with external cardiac monitor (cardioversion).



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PRACTICAL

- Instant initialization.
- Ready for shock in less than 6 seconds.
- Biphasic energy delivered of up to 360 J, electronically limited to 50 J when used with child pads.
- Light and robust, it has a low and wide base, which facilitates use and allows horizontal operation or vertical attachment.
- Large handles on both sides and no sharp edges design for emergency transport.

EASY TO USE

- Main functions concentrated in just one selector button.
- Infocenter - Through the LCD display the user receives information (in Portuguese) about the operation of the equipment and alerts of the functional test.
- Operation on 1, 2, 3 pattern - uses the same command layout of the CardioMax/DualMax line of defibrillators, facilitating use by professionals already familiar with equipment from Instramed, resulting in less training time.

RELIABLE

- Reliability - Instramed is a brand present in hundreds of medical organizations on more than 60 countries.
- Dependable products developed for the reality of emergency care.
- A wide network of dealers providing sales and parts, along with the factory-certified technical assistance, provides excellent post- sales service.
- With more than 30 years in the business, Instramed is a manufacturer that maintains stock parts and components even for discontinued products.

KNOW MORE ABOUT THIS PRODUCT AT WWW.INSTRAMED.COM.BR

GENERAL SPECIFICATIONS

- **Dimension with pads:**
 - 44.5 cm (W).
 - 24.5 cm (D).
 - 20.0 cm (H).
- **Weight:**
 - Device: 3.0 Kg.
 - External set: 0.85 Kg.
 - Complete set: 4.75 Kg.
- **Removable rechargeable battery:**
 - Type: NiMH, 14.4V DC 4.5 A/h.
- **Duration (fully charged battery):**
 - Minimum of 140 shocks at 360 J or a minimum of 200 shocks at 200 J.
 - Time to fully charge the battery (when fully depleted): 8 hours.
 - Battery level indication on display.
- **Optional rechargeable battery*:**
 - Type: Li-Ion, 14.8 VDC 4.4 A/h
 - Duration: 3 hours (fully charged battery), without the printer or a minimum of 140 shocks at 360 J or a minimum of 200 shocks at 200 J.
 - Time to fully charge the battery (when fully depleted): 8 hours.
 - * Consult availability.
- **Consumption (maximum):**
 - AC: 400 W.
 - Battery 15 A.
- **Fuse:**
 - 5 A power supply
- **Battery storage:**
 - Storing the battery for long periods of time in temperatures higher than 35° C will reduce its capacity and lifetime.
- **Protection index:**
 - IPX1.
- **Classification:**
 - Class I, internally energized.
 - CF Type.
- **Operating mode:**
 - Continuous operation.

ENVIRONMENTAL SPECIFICATIONS

- **Temperature:**
 - Operational: 0 to 50°C.
 - Storage: 0 to 70°C.
- **Humidity:**
 - Operational: 10 to 95% RH, without condensation.
 - Storage: 10 to 95% RH, without condensation.

DEFIBRILLATOR

- **Waveform:**
 - Biphasic truncated exponential.
 - Wave shaped parameters adjusted according to the patient's impedance.
- **Shock application:**
 - By means of multifunction pads or external adult/child pads.
- **Scales for adult/external defibrillation:**
 - 5, 10, 15, 20, 30, 40, 50, 80, 100, 150, 200, 250, 300 and 360 J.
 - Maximum energy limited to 50 J in internal or child pads.
- **Operation:**
 - Standard sequence "1-2-3".

- **Selector key:**
 - Allows turning the equipment on and off, selecting energy scales and activating functional test mode.
- **Command keys:**
 - Charge, Shock, Disarm and Sync (Synchronism).
- **Charge command:**
 - CHARGE button in front panel, button in external pads.
- **Shock command:**
 - SHOCK button in front panel, buttons in external pads.
- **Disarm command:**
 - DISARM button in front panel.
- **Synchronized command:**
 - SYNC button in front panel.
- **Charge indicators:**
 - Audio indication of equipment being charged, audio indication of charge completed, LED on external pads and charge level indicated on display.
- **Maximum charge time in maximum energy:**
 - < 6s with 90% to 100% of the minimum specified voltage.
 - < 6s with a full charge.
 - < 13s from equipment initialization.
- **External pads size:**
 - Adult = 10.3 cm x 8.5 cm – Area: 81.9 cm²
 - Children = 4.5 cm x 4 cm – Area: 18 cm²
- **Automatic internal discharge:**
 - 30 seconds.
- **Synchronism:**
 - Synchronism circuit with external signal of 1V/mV of a cardiograph or electrocardiograph.
- **Time of synchronized discharge:**
 - < 60 ms after R wave peak.
- **Maximum output voltage:**
 - 2000 V.
- **Maximum output electric current:**
 - 80 A (25 Ω).
- **Defibrillation pads:**
 - External adult and child (included).
 - Internal adult and child (optional).

DISPLAY

- **Battery level indication:**
 - Yes.
- **Size:**
 - 99 mm x 19 mm.
- **Type:**
 - Alphanumeric LCD.
 - 12.5, 25 e 50 mm/s.

STANDARDS

- NBR IEC 60601-1
- NBR IEC 60601-1-2
- NBR IEC 60601-1-6
- NBR IEC 60601-2-4 or equivalent IECs.