

St George's Implantable Cardiac Pacemaker

Axilla type

Uses permanent
indwelling electrode
catheter.

Involves only simple
installation surgery.

24 hour despatch
service. 595.00

The Axilla Pacemaker was developed at St George's Hospital, London, after experience with the abdominal type of implanted unit connected to the heart by a flexible wire stitched on to the myocardium. The Axilla unit uses a permanent indwelling electrode catheter which is introduced into the ventricle via an external jugular vein. At the point of emergence from the vein, the catheter is taken subcutaneously to the main unit which is implanted in the axilla.

One of the major advantages offered by this method of pacing is that only minor surgery is involved in the installation procedure, thus obviating the need for thoracotomy with its attendant complications.

To enable a pacemaker to be accommodated in the axilla the physical size of the unit is kept to a minimum. This has been achieved by taking advantage of the low power requirement for endocardial pacing and the reduced number of batteries therefore necessary. Their expected useful life is 3-5 years. The main unit contains a well-proved blocking oscillator pulse generator circuit together with 3 certified mercury batteries, the whole

being encased in epoxy resin coated with silicone rubber.

Unipolar stimulation is employed, the electrode catheter being made of stainless steel in helical spring form. The indifferent electrode is made of platinum iridium. Both electrode leads are secured in the main unit with nylon screws to facilitate easy exchange of units when the batteries are exhausted.

Despatch of pacemakers set to a pulse rate of approximately 70 per minute can normally be effected immediately on receipt of instructions.

Reference "A New Technique for Internal Cardiac Pacing", H. Siddons and J. G. Davies. *Lancet* (December 7th 1963).

DETAILS

Electrode catheter: stainless steel triple helical spring (separate leaflet).

Pulse recurrence frequency: adjusted at factory, 40-120 pulses/minute (70 standard).

Pulse amplitude: 3.5 volts min. with open circuit output. 2.5 volts min. into a 150 ohm load.

Dimensions and approximate weight: 4.3 x 4.3 x 2.5 cm; 80 gm (3 oz).

The Company reserves the right to introduce modifications without prior notification

CARDIAC ELECTRONICS, INC.
4915 RANSOM ROAD
CLARENCE, N. Y. 14031

Devices **Implants** Limited

Distributed by
P. J. Reynolds Ltd, 22 Waverley Road, Enfield, Middlesex, England
Telephone Enfield 4040
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approximately full size

St George's Implantable Cardiac Pacemaker

Abdominal type

Used throughout
the world.

Duplicated myocardial
and indifferent leads
for extra safety.

24 hour despatch
service.

595.00

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Developed at St George's Hospital, London, this unit measures 4.6 x 5.8 x 2.6 cm and weighs only 120 gm (4.2 oz).

It comprises an epoxy resin block which completely encapsulates the electronic circuitry together with four certified Mallory batteries. The exterior is coated with a special grade silicone rubber. The transistor pulse generator has a low output impedance which ensures constant pulse amplitude under variable output load conditions.

A special stainless steel coiled spring of proven reliability is used for the construction of the myocardial lead. The indifferent leads are made of coiled platinum wire. Both myocardial and indifferent leads are duplicated for additional safety; being easily transferable from one pacemaker to another when battery exhaustion demands the fitting of a new unit.

The useful life of the pacemaker depends on the output load which varies among patients, but an average load of approximately 300 ohms would allow an expected useful life of

two to three years before replacement is necessary. An indication of approaching battery exhaustion is given by a gradual reduction in the pulse recurrence frequency. Pacemakers set to a nominal pulse rate of 70 per minute can normally be despatched immediately from stock.

Unless otherwise specified an emergency myocardial lead is included in each pacemaker pack. This lead is attached independently to the heart so that it can be quickly brought out for external pacing or interchanged with the myocardial lead attached to the pacemaker.

DETAILS

Pulse recurrence frequency: adjusted at factory, 40-120 pulses/minute (70 standard).

Pulse width: 0.8 to 1.0 milliseconds.

Pulse amplitude: 4.5 volts min. with 330 ohm load. 2.5 volts min. into a 47 ohm load.

Electrode wires: double stainless steel myocardial 30 cm long. Double platinum indifferent, 10 cm long.

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approximately three-quarters of full size