

Figure 2 Stimulus Output connection diagram.

Contents and Information for use of Accessories for EPS320 Cardiac Stimulator Accessories Box MP3055

CAUTION: Federal (U.S.A) law restricts this device to sale, distribution and use by or on order of a physician.

This document describes the contents of Accessory Box, MP3055 and gives instructions on how to connect and use the cables and components. Please read this document in its entirety prior to installation.

Installation is to be done by qualified representatives of Miropace Pty Ltd or its authorized Distributor. Refer to the Installation Procedure for EPS320 document for full installation instructions.

Please read the Micropace User Instruction Manual prior to using the stimulator.

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The revision number of this document is on the title page at the bottom. Refer to the User Instruction Manual and any supplements therein for the latest revision number and / or supplemental information.

Accessories Box Contents & Information for use

This booklet applies to EPS320 Cardiac Stimulator configuration EPS320B-US, which contains a Stimulus Generator Unit (SGU), Bona Light PC, LCD Display Screen, Isolation Transformer and UL recognised power leads.

Refer to Figure 1 for an overview of interconnections.

PACKED IN ACCESSORIES BOX, Cat No. MP3055US:

MP3014	Stimulus Connection Box	1
MP3033A	Cable Serial RS232	1
MP3034	ECG Signal Cable with 6.5mm phone plugs	1
MP3109	ECG Signal Cable, BNC to Phone	1
MP3030	Isolated Mains Power Lead IEC 3 to 3 Pin	1
MP3066US	Isolated Mains Power Lead IEC 3 to 2 Pin US Style.....	1
MP3074	Power Supply for SGU	1
MP3059US	Isolation Transformer Power Lead, US Style	1
MP3064US	Accessories Booklet (This booklet)	1
MP3063	Installation Kit	1

Caution: No EPS320 components or accessories are suitable for sterilization or immersion in fluids.

Unpacking and Inspection

- 1 Open the Accessories Box carton and remove the contents.
- 2 Ensure all contents listed in the table above are present in the box.
- 3 Do not use any component if it appears damaged

output terminals; pace at 20mA and 10ms pulse width for brightest indication and yellow LED will flash when pacing with correct polarity; red LED will flash when pacing but with incorrect polarity and no LED will flash when pacing circuit is incomplete.

This is intended for testing system installation and as an aid to diagnosing the location of faults when a failure to pace problem arises. See Installation Procedure document and Troubleshooting section of User Instruction Manual.

Caution: This device is not intended for use on equipment while patients are connected to the equipment.

MP3125 Fuses for Isolation Transformer

Four (4) spare T1.25AL 250V LBC (semi-delay) fuses for the MP3107 isolation transformer, are supplied.

MP3039 Cable Ties

These items are supplied for use with the MP3061 Cable tie adhesive anchors to (i) anchor the keyboard cable to the side of the computer to reduce possibility of disconnection of keyboard during stimulation and thus inability by operator to stop pacing, (ii) tidy up loose cables surrounding the stimulator.

MP3061 Cable tie adhesive anchors

This item is for use in conjunction with MP3039 Cable Ties. Refer to notes for that item.

MP3066US Isolated Mains Power Lead, (IEC 3 to 2 pin)

Use this power lead only to connect the SGU Power Supply Unit , MP3074 to the Isolation Transformer (MP3107) power outlet.

Warning: In order to avoid patient electrocution, connect all EPS320 components and accessories and any connected equipment only to isolated mains power.

MP3030 Isolated Mains Power Lead IEC 3 to 3 Pin

This power lead is an IEC 3 pin male to IEC 3 pin female for connection of the Computer power supply mains power to the isolation transformer (MP3107). The computer mains power input must never be connected to mains power outlets directly, as this could lead to patient and operator electrocution hazard.

MP3059US Isolation Transformer Power Lead, US Style

This power lead connects between the Mains Power outlet and the isolation transformer, MP3107.

MP3074 Power Supply for SGU

Power supply for the Stimulus Generator Box, MP3008 to be connected to the Isolation Transformer, MP3107.

ITEMS PACKED IN INSTALLATION KIT (MP3063)

MP3056 6.5mm Mono Phono Plug to RCA Socket

These are for use together with MP3057 (BNC Adaptor Socket to RCA Plug) to provide compatibility between BNC connector-terminated cables and 6.5mm Phono sockets on the EPS320 SGU inputs. They may be used in the ECG 1 INPUT, ECG 2 INPUT and SYNC 1 OUTPUT sockets.

MP3057 BNC Socket to RCA Plug Adaptor

Used together with MP3056 (6.5mm Mono Phono Plug to RCA Socket) to provide compatibility between BNC connector-terminated cables and 6.5mm Phono sockets on the EPS320 SGU inputs. They may be used in the ECG 1 INPUT, ECG 2 INPUT and SYNC 1 OUTPUT sockets.

MP3058 Yellow/Red Test LED

This is a helpful test component consisting of a yellow and a red LED (light emitting diode) wired in parallel and terminated in a red (+ve) and a black (-ve) 2mm banana plug. It may be useful in testing for the presence of stimulus output at the Stimulus Connection Box or at the patient interface connector. Connect red plug to positive and black plug to negative pacing

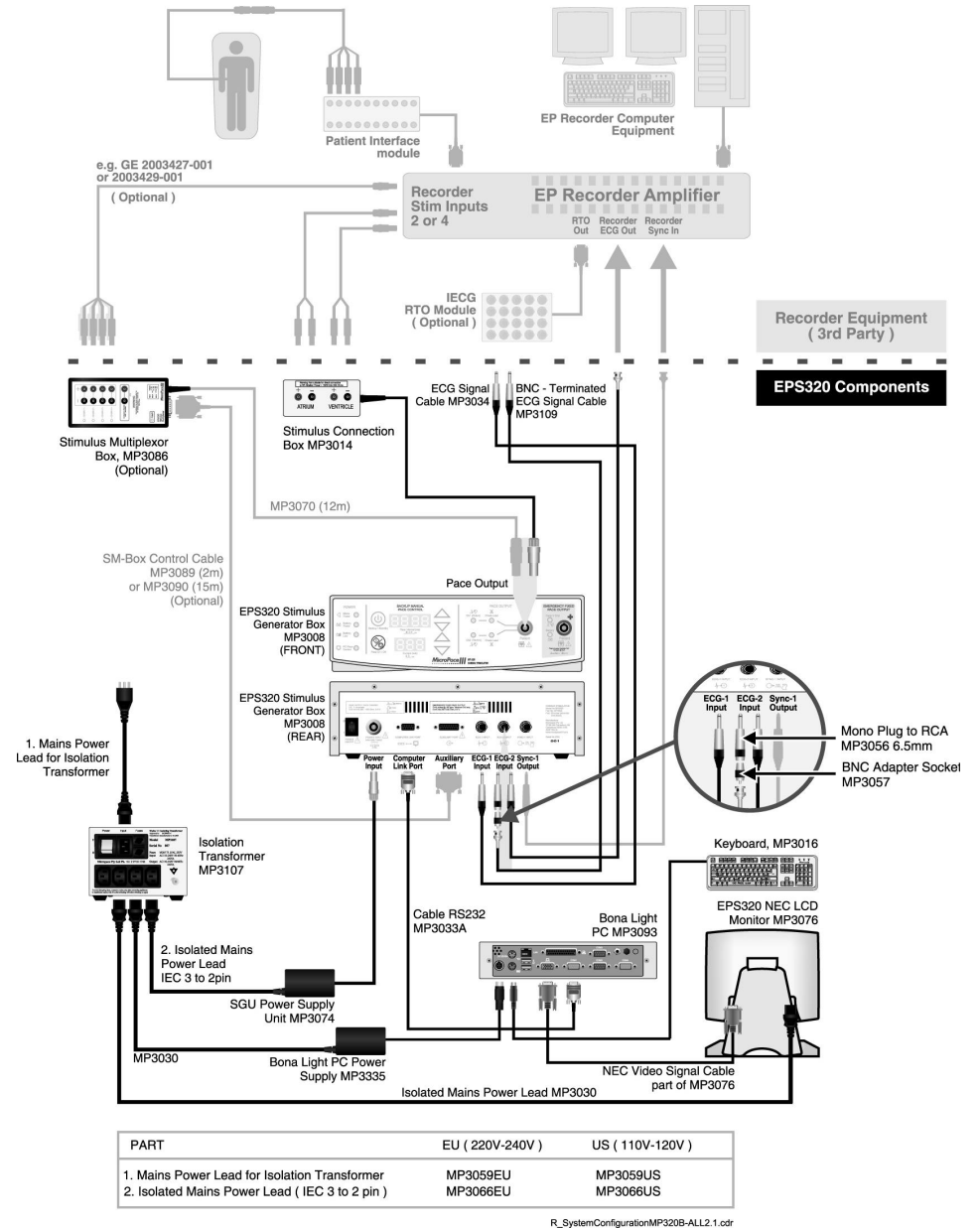


Figure 1 Connection Diagram for EPS320B-US Systems

ITEMS PACKED IN ACCESSORIES BOX (MP3055US)

MP3014 Stimulus Connection Box

This connection box provides stimulus outputs for Ch1-Atrium and Ch2-Ventricle stimulation channels via two pairs of 2mm shrouded sockets and contains RF Suppression filters against interference from RF ablation systems.

The stimulus outputs must only be connected via this box, either directly to electrode catheters or to suitably electrically classified and legally marketed EP Recording and switching equipment. Figure 2 show the connector wiring diagram.

An optional Micropace 12m (39ft) Stimulus Extension Cable (MP3070) may be used with the Stimulus Connection Box to extend its nominal 2.5m (8 ft) length. Refer to the EPS320 Installation Procedure.

The Stimulus Connection Box and cable may be cleaned using one of the following solutions:

- Ammonia (diluted to 10% strength)
- Cidex
- Sodium hypochlorite bleach (diluted to 10% strength)
- Mild soap
- Isopropyl alcohol

Specifications: L-C low pass filter with nominal response - 20dB at 500kHz (common mode) and -50dB at 500kHz (differential mode), overvoltage protected by gas arrestors for voltage > 350VAC. It is suitable for use with RF Ablation energies of up to 150W into loads up to 300 Ohm (producing a voltage of up to 350V peak to peak).

Warning: Use of RF ablation energies above specified limits with the MP3014 may cause reduction of RF energy available for ablation and overheating and a fire hazard within the MP3014.

Warning: Use only supplied Stimulus Connection Box (Micropace Parts MP3014) or alternative optional In-line RF Filter (MP3065) components to connect Stimulator output to patient circuits. These components contain RF suppression filters to prevent large RF energies from RF Ablation equipment not equipped with RF filters from reaching the Stimulator output circuits. Use of other, including custom made connectors may bypass RF filtering and potentially lead to repeated alarms and shutdowns of the Stimulator and possible induction of unintended life-threatening

arrhythmias during delivery of RF ablation energy.

Caution: In order to prevent patient micro-electrocution, use only touch-proof shrouded 2mm plugs to make stimulus connections.

Caution: Do not use this part if it appears damaged or has become contaminated with fluids. Surface contamination may be cleaned as described above.

MP3033A RS232 Serial Cable

This cable connects between the supplied computer's COM port and the Computer Link Port on the rear of the EPS320 Stimulus Generator Unit (SGU). It is a straight through connections cable containing an EMI suppressing ferrite within the connector on the computer side.

Caution: In order to comply with FCC regulations regarding electromagnetic interference, only use cables supplied by Micropace.

MP3034 & MP3109 ECG Signal Cable

These cables are for connection of the EPS320 SGU - ECG1 INPUT, or ECG2 INPUT on the rear panel to external amplified ECG signals usually provided by EP recording systems. The MP3034 cable has 6.5mm mono Phone plugs on both ends and is typically suitable for connection to the EP Recorder's RTO (Real Time Output) box. The MP3109 cable has a 6.5mm mono Phone plug on one end and a BNC plug on the other and is typically suitable for direct connection to the EP Recorder Amplifier module.

One of each MP3034 and MP3109 are provided for connection of both ECG input channels. For optimal operation of the EPS320 it is recommended to connect the ECG1 INPUT to amplified IECG from the high right atrium (HRA) and the ECG2 INPUT to IECG from the right ventricular apex (RVA).

Conversion connectors are provided in the Installation Kit MP3063US, for conversion of the BNC-terminated cable to a second Phone to Phone plug cable.

Warning: Connect Stimulator system only to legally marketed, mains-isolated electrical equipment. To avoid electrocution hazards and system malfunction, the Stimulator outputs, RS232 communication port, Auxiliary port and ECG Input and Sync Output ports may be connected to other equipment provided the other equipment is also isolated from the mains power supply, and complies with IEC601-1 standards and is legally marketed in the country of use and CE marked for installations in the EU countries.