



Compact Numeric Keypad MP3393

Contents and Instructions for Use
for Micropace EPS320
Series of Cardiac Stimulators



For Stimulators with touch screens, this Compact Numeric Keypad MP3393 may be substituted for the standard Keyboard to reduce desktop footprint. The user then must use the touch screen to select pacing protocols, stimulation channels and required extra stimuli, but may use the Keypad for rapid adjustment or entry of numeric values and starting and stopping stimulation / pacing.

This Numeric Keypad is intended for use as a permanent replacement to the Standard Keyboard. These Input Devices require software configuration at installation and are not swappable while running the Stimulator. We recommend that once you have your input device (Numeric Keypad or Standard Keyboard) installed correctly, you move the other input device to a safe place to prevent inadvertent swapping.

Certain functions such as naming protocols and pace sites will require use of the Standard Keyboard. If these functions are needed, the Standard Keyboard can be swapped back after configuring the software as described in this IFU.

Compatibility

1. Numeric Keypad MP3393 is compatible with EPS320 Stimulator Software 3.21 SR1 or above only.
2. The Numeric Keypad MP3393 has been tested with all Bona Light Computers, MP3093.
3. Numeric Keypad MP3393 may be used with EPS320BT, StimLab™ (Local Touch Screen) and StimCor™ products.
4. The Keypad may be connected using up to 10 metre extension PS/2 cable, such as MP3403(StimLab local 10m Cable bundle) and MP3169-10 StimCor Local 10m extension cable bundle.
Note: Unfortunately, StimLab™ Remote (trunk) Cable, MP3164-17 does not have a provision for connecting this Keypad. If you require a keypad at the bedside, contact your distributor or Micropace for alternatives.

Caution

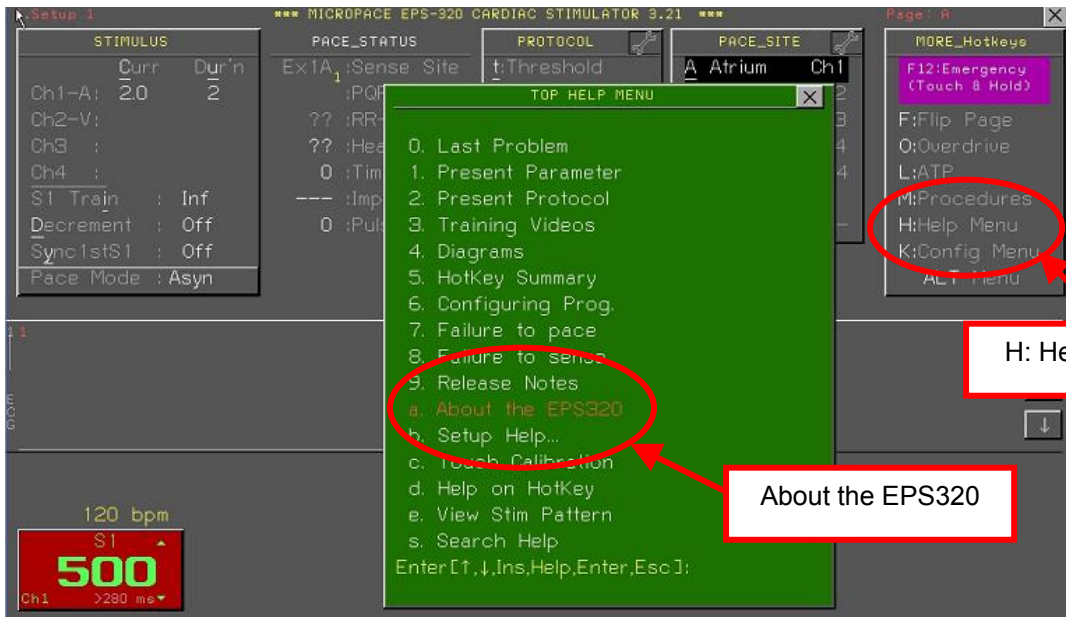
1. In order to prevent unexpected pacing with the ENTER key, ensure correct configuration is set when changing between Standard Keyboard and Numeric Keypad. For Standard Keyboard set CSV20 = 0, for Numeric Keypad set set CSV20 = 1.
2. In order to prevent unreliable and unpredictable key operation:
 - a) Do not use concurrently with keyboard (either with ‘Y’ splitter or by simultaneous use of PS2 and USB ports).
 - b) Do not exceed maximum PS2 cable extension length 10m. Longer extensions require special extender equipment.
 - c) Do not use with a PS2 to USB adaptor, as unexpected actions, including inadvertent toggling of pacing, may result.
 - d) Do not use with Micropace computer other than the Bona Light PC’s.
 - e) Use only with Micropace EPS320 software 3.21 SR1 or higher.
 - f) In order to comply with FCC regulations regarding electromagnetic interference, only use cables supplied by Micropace.

Installation of MP3393 Numeric Keypad

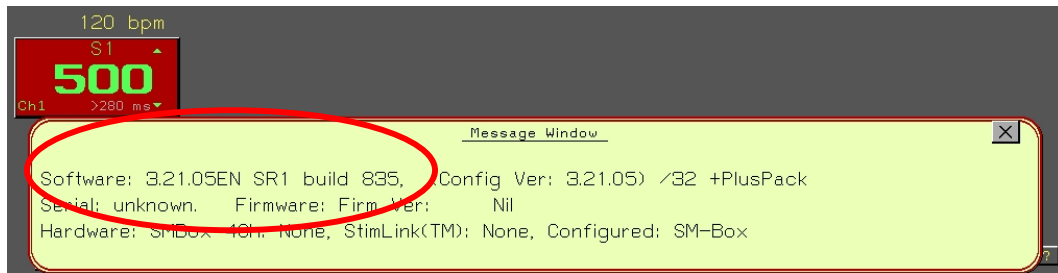
	Numeric Keypad	Standard Keyboard
Config Service Variable 20 “En Keypad Input”	1	0

1. Verify that the system has software **3.21 SR1** or higher before installation. This can be verified by:
 - a. Boot the system as normal using the Standard Keyboard. Clear any informational messages by pressing ESC until the main stimulator screen is displayed.

- b. Press “H” on the keyboard or the “Help” icon on the upper right of the Touch Screen.
- c. The context help menu will be displayed. Press ESC once to reach the main Help screen.
- d. Press “a” or touch “About the EPS320” on the Touch Screen.



- e. Verify that the message shows “3.21.05EN SR1 Build 835”



2. Turn off the Bona PC computer MP3093 before connecting this Keypad.
3. Confirm that the Caution label has been placed on the end of the PS/2 connector cable. If not already attached, carefully apply the supplied label as shown in the photo below. If using an EPS320 system (Keypad plugged directly into blue Bona PC) then attach the label to the Keypad PS/2 cable.



Figure 1: Caution Label



Figure 2: Caution Label Location

- Connect the Keypad's PS/2 connector where your keyboard is plugged in; it may be into the purple Keyboard PS/2 socket on the rear of the Bona Light Computer, or into the extension cable PS/2 in-line socket as shown.



Figure 3: PS/2 port on Bona PC

OR



Figure 4: PS/2 extension cable

- Set 'Config Service Var 20 Enable Keypad Input' to '1' to enable correct use of this keypad. Enter 'k' for User Configuration (password 'henry') and then press PGDN for Service Configuration (password 'service'). See Figure 1 below.
- Note: For initial installation of EPS320 Family of Cardiac Stimulators, you will need to connect the full sized keyboard supplied with the stimulator.

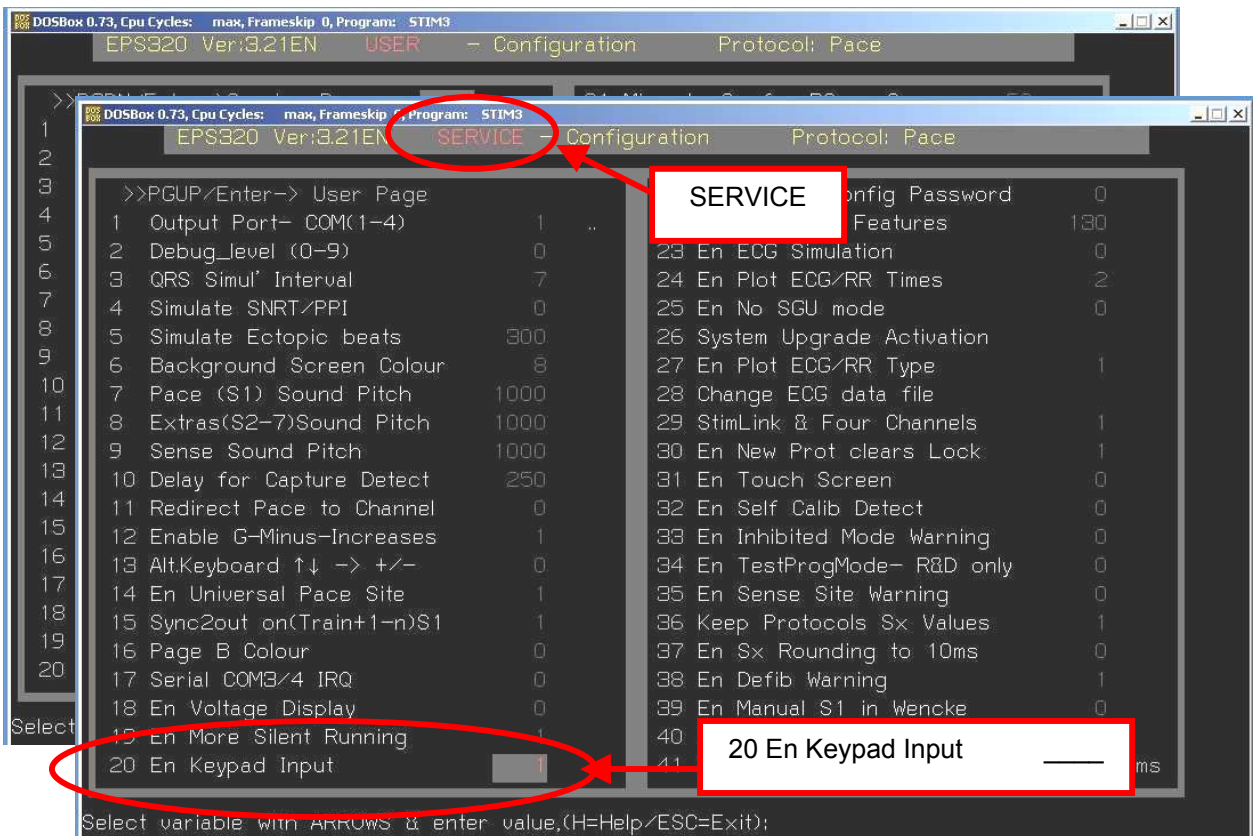


Figure 5: Config Service Var 20 Enable Keypad Input' to '1'

- Note: NumLock Selection switch on the rear of the Keypad has been set permanently to the 'ON' position.

Using the Numeric Keypad

Service Config Var 20 'Enable Keypad Input' set to '1', enables Keypad mapping which does following:

1. NumLock is fixed to ON – the key is non-functional.
2. Enter key works as Enter key during entry of numbers, and at all other times as the Space key (Start/Stop PACING & push to burst pace).
3. Star key is remapped and labeled as 'ESC Home' Key – exits menus
4. Forward Slash Key remapped and relabeled as 'INS/Edit' – for editing properties
5. - / + keys are reversed, so increment '+' key is above the decrement '-' key.

CAUTION: In order to avoid unexpected pacing with the Enter key, if you revert from using Numeric Keypad back to using a Standard Keyboard, you must revert Enable Keypad Input CSV20 to '0' to disable pacing from Enter key.

Re-Installation of Standard Keyboard

1. Disconnect the Numeric Keypad PS/2 connector and connect the Standard Keyboard.
2. Set 'Config Service Var 20 Enable Keypad Input' to '0' to enable the Standard Keyboard. Enter 'k' for User Configuration (password 'henry') and then press PGDN for Service Configuration (password 'service'). See Figure 1 above for reference.

Troubleshooting

Symptom	Potential Cause	Remedy
Enter on Numeric Keypad does not toggle pacing On/Off	'Config Service Var 20 Enable Keypad Input' has not been set to '1'	Set it to '1'
Engaging touchscreen buttons occasionally toggles pacing On/Off	You are using the Numeric Keypad with Software 3.21.04	You should upgrade Software to Ver 3.21 SR1
Keypad does not work	Disconnection at extension cable or at PC	Check and reconnect
Numeric Keypad keys behave unexpectedly – wrong digits, arrows instead of digits etc.	Using Numeric Keypad connected to USB port may cause unexpected behaviour.	Use only the PS2 port – i.e. using the supplied USB to PS2 adaptor
	You are using the Numeric Keypad with Software 3.21.04 or previous	You should upgrade Software to Ver 3.212 SR1
	You may be using an extension cable longer than 10m	Ensure you use extension cable less than 10m long.
Touch calibration menu appears unexpectedly	You have mis-touched a touchscreen key 5 times. This suggests touch is not calibrated well, automatically triggering calibration menu.	Calibrate screen.
	Touch screen requests continue and are annoying	Disable feature: Set "En Self Calib Detect" Service Configuration Variable 32 to '0'. (password 'henry' then 'service')
Enter Key paces unexpectedly	User may have disconnected Numeric Keypad and connected standard keyboard without changing back CSV20 to '0'.	Set CSV20 'Enable Keypad Input' back to '0'.

Maintenance

Inspect keypad once a month and do not use if it appears damaged. Clean cable with soft cloth lightly moistened with ethyl alcohol or similar non-aggressive solvent. Do not use water, strong solvents or abrasive cleaning agents.



Original Manufacturer

Micropad 630-21 Model # 630 (Version 5.0), USB/PS2 Auto-Detecting

FCC CERTIFICATION: The USB Micropad has been certified to comply with FCC and other test standards. See label on the product for confirmation.

FCC CERTIFICATION REQUIRED STATEMENT WARNING: This equipment has been certified to comply with the limits for a Class B Computing Device, pursuant to Subpart J of Part 15 of the FCC rules. Only peripherals (computer, computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this device. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

NOTE: This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B computing devices in accordance with the specifications in Subpart J of part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off or on, the user is encouraged to try to correct the interference by one or more of the following measures:

- * Reorient the receiving antennas
- * Relocate the computer with respect to the receiver
- * Move the computer away from the receiver
- * Plug the computer and receiver into different circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

MicroPace Numeric Keypad #200MP3393 Installation Checklist

Upon completion of the upgrade forward this completed document to your company's records department for retention.

Serial Number of Micropace StimCor, StimLab, or EPS320: _____

Serial Number of Micropace MP3393 Compact Numeric Keypad: _____

Facility Name: _____ Address: _____

Installed by: _____ Date: _____

Verify Compatibility

_____ Boot the system using a Standard Keyboard and clear any info messages by pressing ESC.

_____ Access Help menu and select "About the EPS320"

_____ Software is verified as **3.21 SR1** or above. Refer to IFU above for help.

Install the MP3393 Compact Numeric Keypad

_____ Turn off the system and connect the MP3393 Numeric Keypad.

_____ Set Config Service Var 20 to "1" to enable the Numeric Keypad as the input device.

Verify Installation & Training

_____ Verify correct installation by pressing "Enter/Pace" on the keypad. Pacing should commence.

NOTE: If pacing does not commence using the Enter/Pace key, check the correct setting of the Config Service Var 20 is set to "1" and verify all hardware connections. See "Troubleshooting" in this IFU.

_____ No Y-Splitter is installed or PS/2 to USB adapter is installed.

_____ No extension cable(s) longer than 10m is connected to the Numeric Keypad.

_____ User(s) has been provided the Instructions for Use (IFU).

_____ User(s) has been instructed **not** to swap the Numeric Keypad for any other input device without changing the appropriate settings noted in the product IFU, contacting their Distributor, or contacting Micropace.

Signed: _____ Date: _____