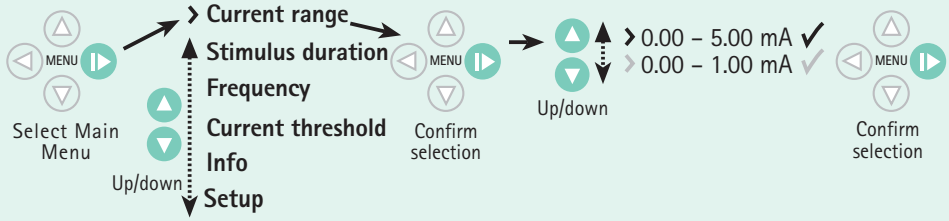
Brief Instructions for Use: Stimuplex® HNS 12

Configuring the basic settings for current range (example):

-> Switch on: Display: 0.00, Basic settings.
-> Press right menu key, select current range (with up-down menu key),
-> Confirm current range with right menu key,
-> Select desired value with up/down key › confirm with right menu key ✓.



Menu structure:

Current range

0.00 – 5.00 mA; 0.00 – 1.00 mA

Stimulus duration

1.00 ms, 0.50 ms (optional), 0.30 ms, 0.10 ms, 0.05 ms (optional)

Frequency

2 Hz, 1 Hz, SENSe (3Hz)

Current threshold on/off

Info

Battery, Date, Serial No., Version, Distributor, Manufacturer, User Info Infrared

Setup

- Tone: Volume (0-8), mode (click, beep), variable tone
- Dial Turns: 1,2
- Contrast: 0 – 8
- Auto Switch-off: 0 – 30
- Date: Hour, minute, ...
- Language: English, German, ...
- Options: Factory standard, El. charge nC, Auto adjust current, Add. stimulus duration, SENSe

Left key: One step back
Right key: Select menu, confirm
Up/down key: Select desired value

mA key: Set current range

ms key: Set stimulus duration

Hz key: Set stimulation frequency

Stand-by key

Factory settings on delivery:

Maximum current	5 mA
Stimulus duration:	SENSe (0.10ms - 0.10ms - 0.15ms to 1.0ms)
Stimulation frequency:	SENSe (3Hz)
Scale range:	1 turn
Auto shut-off:	After 20 Min.

Battery 9 V alkaline

If the stimulus duration-dependent current threshold is out of tolerance, the target current is displayed as contoured digits and the yellow LED blinks.
A warning signal is additionally sounded.

For procedure refer to reverse page.

B BRAUN

The physician is responsible for ensuring that Stimuplex® HNS 12 is used properly.

1. **Apply skin electrode.**
2. **Plug electrode cable into the stimulator and connect skin electrodes.**
3. Switch on Stimuplex® HNS 12. Display: **0.00**; the basic settings are displayed in the upper right.
4. **Changing the settings during use:**
   (Only framed values can be changed and are immediately active.)

4.1 Change maximum current (mA key): 5 mA / 1 mA possible

Press mA | 5 mA | immediately press mA again | 1 mA |

4.2 Change stimulus duration for 1Hz/2Hz (ms key): 0.10 ms / 0.30 ms / 1.00 ms for stimulation frequency 1 Hz and 2 Hz. When using SENSe the pre-defined impulse sequence is 0.10 ms - 0.10 ms - 0.15 to 1.0 ms

Press ms | 0.10 ms | press ms again | 0.30 ms | –> ms | 1.00 ms |

Additional stimulation duration values (ms key): 0.05 ms / 0.10 ms / 0.30 ms / 0.50ms / 1.00ms

Menu: Setup –> Options –> Set Extra stimulus duration ✓.

Press ms | 0.05ms | press ms immediately again | 0.10ms | –> ms | 0.30ms | –> | 0.50ms | –> | .... |

Alternatively: Select the values with the up/down menu keys ms –> ▲ ▼

4.3 Changing the frequency (Hz key): 2 Hz / 1Hz / SENSe (if SENSe option enabled)

Press Hz | 2Hz | press | 1Hz | again –> Hz | ⎍⎍⎍ | (for SENSe)

5. Plug electrode cable into stimulation needle.
6. Set the stimulation current to the desired value by turning dial.
   Red LED blinks; clear warning pitch, warning message: Patient current 0.00
7. Perform puncture with stimulation needle. Warning message disappears. Green LED, Tone sounds at stimulation frequency.
8. Advance the needle until you observe the desired muscle contractions.
9. When the desired current is reached, turn the dial to reduce the stimulation current until weak contractions are noticeable.
   Use CAUTION in the lower stimulus current range.
10. Inject test dose. Motor responses disappear. Set stimulation current back to maximum. (no motor responses should be observed) Inject remaining dose.
11. Switch-off: Hold down key for 1 second (the last basic menu settings are reactivated). Stimulator switches off.

Note:
If the circuit is interrupted or the impedance too high: Red light, warning pitch, warning message appear.
Please check: Is skin electrode dry? – Loose? Stimulation needle plugged in? Cable defective?

Rx only

B BRAUN

B. Braun Melsungen AG · Carl-Braun-Straße 1 · 34212 Melsungen · Germany · Tel +49 (0) 56 61 71-0 · www.bbraun.com
B. Braun Medical Inc. · 824 Twelfth Avenue · Bethlehem, PA 18018-3524 · USA · Phone: 1-800-854-6851 · www.bbraunusa.com

W. 01.01.08/8 6043571 0115 Date of last revision: January 2015