# ELECTRASTIM

## ELECTRA STIMULATION

# ElectraStim FLUX EM180

## Instructions

### (Firmware Version 1.0)
### Read These Instructions Before Use

⚠️

**Warning - Do Not Use…**
- If you have any heart problems or arrhythmia
- If you wear medical devices (e.g. a pacemaker) or have metallic surgical implants
- If you are pregnant
- If you suffer from epilepsy
- If pain exists
- Above the waist area
- Over inflamed, swollen or damaged skin
- If you suffer from any penile, vaginal or anal disorders

# FLUX Φ

**What Is FLUX?**

FLUX is a high-specification dual output electro sex stimulator incorporating no less than 6 different user modes and customisable configuration options. Sit back and relax while FLUX takes care of things for you with over 20 pre-programmed stimulation patterns. Alternatively you can use the flick of your wrist, the angle of your body or the sound of your/your partners voice to create sensations tailored to your own needs. FLUX gives you the freedom to control your electro play your way. The only limit is your imagination!

The stimulator has two independently controllable outputs allowing the stimulation intensity of accessories to be fine tuned as required. The stimulator connects to body attached or inserted electrodes by means of highly flexible detachable cables. Power is provided by an internal lithium-ion battery cell which is charged via a micro USB cable.

**Pack Contents**



*Diagram 1*

Your ElectraStim FLUX will have been supplied with the following items…

A - Zipped protective storage case
B - ElectraStim FLUX stimulator
C - Detachable belt clip
D - Output cable (x2)
E - Micro USB charging/data cable

F - Stereo line-in audio cable
G - Self-adhesive ElectraPads (EM2118)
H - Firmware update/reset pin
I - Quick Start Guide
J - Free 3 year warranty upgrade

## How to Operate FLUX

Before attempting to apply stimulation to any body parts it is essential that you understand how FLUX works. Refer to diagrams 1 (above) and 2 (below) as you read this instruction manual.

1. Power On/Off
2. Option Select
3. Output 1 Intensity Controls
4. OLED Graphics Display
5. Output 1 (CH1) Connection Socket
6. Output 2 (CH2) Connection Socket
7. Tactile Overlay
8. Mode Select
9. Output 2 Intensity Controls
10. Microphone
11. Update/Reset Port
12. Status LEDs
13. Micro USB Charging Socket
14. Audio Line-in Socket

*Diagram 2*

## Charging the Internal Battery

Before using FLUX it is recommended that you charge the internal lithium battery to at least 90% capacity to avoid it running flat during play. To do this simply plug the micro USB cable (E) into the socket on the bottom edge of FLUX (13) and connect the other end to a USB socket on either a computer or USB outlet. Be careful when connecting and never apply excessive force to avoid damaging the charging socket.

Once connected the charging progress screen will appear on the display. If the battery starts at 0% it will take less than an hour to get to 80% capacity. To get to 100% will take up to 3 hours. Pressing the CH2 -/+ buttons will allow you to scroll through other key battery statistics. **Note** - During charging FLUX will not function as a stimulator so ensure that your FLUX is well charged prior to use.

## Switching On

To switch on your FLUX simply press the power button (1). After a second or two the FLUX logo will appear whilst the system is booting up and then you will be taken to the user Mode and Option that was active when last switched off. If powering for the very first time you will see the "Wave" mode screen. Wave Mode has several different selectable patterns but the default pattern is "Continuous". This enables you to get a feel of things before getting a little more adventurous.

## Intensity Control

The default output intensity is 0 (zero). To apply intensity to either output 1 or output 2 simply press the associated "+" button (3/9) to increase the level by one each time. If you wish to increase the intensity several levels then you can press and hold the required

intensity button for one second and it will automatically increment at a rate of 4 levels per second.  Likewise you can decrease the intensity by pressing the associated "-" button.  The press and hold feature will also work when reducing intensity and will decrease at a rate of 16 levels per second.  The intensity has 100 levels ranging from 0 to 99.

**Attaching Accessories/Electrodes**
Always attach/insert accessories before applying stimulation to ensure a fully controlled experience.  When removing accessories either reduce intensity levels to 0 or switch FLUX off (1).  All ElectraStim accessories come with their own instructions which should be followed carefully.

**Using the Included ElectraPads**
Four uni-polar ElectraPads (G) are included in the EM180 pack. These self-adhesive electrodes can be placed anywhere below the waist and are the ideal way to experience erotic electro stimulation for the first time. You will need to connect 2 ElectraPads and apply them both to your body to complete the circuit.  Insert one of the 2mm pins on the connecting wire (D) into an ElectraPad and then repeat with a second pad. Peel off the backing and apply the self-adhesive side to your body anywhere below the waist. For the best conductivity, use the pads on a hairless area. Place the pads along the penis or on the labia majora to maximise erotic sensations.  Each ElectraPad can be used up to 6 times by the same person by replacing the clear plastic backing after use.  Connect the cable (D) to Output 1 (5) and you are ready to go.  Output 2 can be left un-used or can be used with the other two pads if desired.

**Navigating the Operating Modes**
FLUX has numerous different operating modes which are selected by pressing the "Mode" button (8).  Pressing the "Mode" button will bring up the menu screen and advance to the next mode. If no subsequent presses are made within a 3 second time period the new user screen will appear showing the selected mode.  To advance through several of the modes simply keep pressing the "Mode" button until you get to the one you wish to use.  The progress bar at the top of the menu screen will show how far through the mode options you have navigated.

**Stimulation Options**
Each of the operating modes has a number of available options that can be selected by pressing the "Option" button (2).  The first press of the "option" button will bring up the current mode menu screen such you can see which option is selected.  Subsequent presses will highlight the available options in sequence until you arrive at the one you wish to use.  Simply wait 3 seconds and that option will be selected and the screen will revert to the user screen.

The selectable Modes and their basic descriptions are as follows…

| Mode Name | No. of Options | Description |
| --- | --- | --- |
| Wave | 11 | Built-in e-stim patterns that have a general wave format |
| Pulse | 12 | Built-in e-stim patterns that have a general pulse format |
| Flick | 5 | Patented motion feature for wrist controlled electro sympathetic play |
| Tilt | 5 | Stimulation strength varies with the degrees of tilt along the Y AXIS |

| Mode Name | No. of Options | Description |
|-----------|----------------|-------------|
| Microphone | 5 | Stimulation strength varies in relation to external sounds/music |
| Line-In | 4 | Stimulation strength varies in relation to direct feed sounds/music |
| Configure | 8 | Customise settings, enable gesture control, enable beeper, tech info. |

## Wave Mode

FLUX comes with a wide selection of pre-defined or built-in stimulation patterns.  When in Wave Mode there are 11 selectable options/patterns that have a general wave or massage type format.  For some of the patterns the outputs will be synchronised or in harmony with one another, whereas for others the outputs will alternate (180 degrees out of phase).
The selectable Wave pattern options are as follows…

| # | Option Name | Description |
|---|-------------|-------------|
| 1 | Continuous | Continuous output to get the feel of things |
| 2 | Synchronised Slow | Slow waves where output 1 and 2 are in sync. |
| 3 | Synchronised Fast | Fast waves where output 1 and 2 are in sync. |
| 4 | Alternating Slow | Slow waves where output 1 and 2 alternate |
| 5 | Alternating Fast | Fast waves where output 1 and 2 alternate |
| 6 | Escalate Sync. | Synchronised waves that start slow, get increasingly faster then repeat |
| 7 | Escalate Alt. | Alternating waves that start slow, get increasingly faster then repeat |
| 8 | Builder Sync. | Synchronised waves that grow in number as they get faster |
| 9 | Builder Alt. | Alternating waves that grow in number as they get faster |
| 10 | Triple Sync. | Synchronised waves, 3 slow, 3 medium, 3 fast |
| 11 | Triple Alt. | Alternating waves, 3 slow, 3 medium, 3 fast |

## Pulse Mode

FLUX also has a selection of built-in Pulse patterns.  When in Pulse Mode there are 12 selectable options/patterns that have a pulsing or on/off type format.  For some of the patterns the outputs will be synchronised or in harmony with one another, whereas for others the outputs will alternate (180 degrees out of phase).

The selectable Pulse pattern options are as follows…

| # | Option Name | Description |
|---|---|---|
| 1 | Synchronised Slow | Slow pulses where output 1 and 2 are in sync. |
| 2 | Synchronised Fast | Fast pulses where output 1 and 2 are in sync. |
| 3 | Alternating Slow | Slow pulses where output 1 and 2 alternate |
| 4 | Alternating Fast | Fast pulses where output 1 and 2 alternate |
| 5 | Escalate Sync. | Sync. pulses that start slow, get increasingly faster then slow again |
| 6 | Escalate Alt. | Alternating pulses that start slow, get increasingly faster then slow again |
| 7 | Penetrate Sync. | Synchronised pulses with increasing "on" time |
| 8 | Penetrate Alt. | Alternating pulses with increasing "on" time |
| 9 | Cascade Sync. | Sync. pulses that start slow, get increasingly faster then repeat |
| 10 | Cascade Alt. | Alternating pulses that start slow, get increasingly faster then repeat |
| 11 | Spank Sync. | Synchronised 1 pulse and rest, 2 pulses and rest, 3 pulses and rest |
| 12 | Spank Alt. | Alternating 1 pulse and rest, 2 pulses and rest, 3 pulses and rest |

**Flick Mode**

As with our ElectraStim "Flick" stimulators (EM60/EM80), FLUX is also equipped with our patented motion feature.  Simply make forward motions with the stimulator and you will see the display bars respond in sympathy with the aggression of the motions and the stimulation outputs will vary at the same time.  It is important to note that no stimulation will be felt until motions are applied to the FLUX unit so set the intensity to a level that you (or your sub) are comfortable with.  If you then "Flick" FLUX such that the display bars go to maximum, the output intensity will only reach your set level.



Use this mode for electro spanking your partner or to add your own theme to solo play.

The selectable Flick options are as follows…

| # | Option Name | Description |
|---|---|---|
| 1 | CH1 + CH2 | CH1 and CH2 increase in stimulation strength |
| 2 | CH1 Only | CH1 increases in stimulation strength, CH2 has static stimulation |
| 3 | CH2 Only | CH2 increases in stimulation strength, CH1 has static stimulation |
| 4 | CH1 + CH2 Inverted | CH1 increases in stimulation strength, CH2 decreases |
| 5 | CH1 Inverted + CH2 | CH2 increases in stimulation strength, CH1 decreases |

*Interactive Control Options (Flick/Tilt/Prox/Mic)*

**Tilt Mode**
FLUX utilises a triple-axis accelerometer which can be used to measure the angle at which the stimulator is held. Tilt the stimulator upwards and see the display levels rise in proportion to the angle. Tilt the stimulator downwards and you will see the levels fall. If you start off with the intensity set to say level 10 and the display bars at midpoint, it will only feel like level 5. If you were then to tilt FLUX such that the display bars go to maximum, the output intensity will feel like level 10, keeping you in full control of the maximum level. If you tilt FLUX such that the display bars disappear, the output intensity will fall to zero.
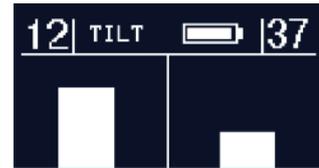
Use this mode to add your own theme to play. Try attaching FLUX to your arm using the belt clip and a sweatband or elastic band. Now stroke/wave your arm in an up/down fashion such that the angle changes with each motion to add a fully synchronised element to your electro play sessions. You can attach FLUX to any part of your body that is easy to change the angle to provide a highly effective means of stimulation control.

The selectable Tilt options are shown in the table above (*Interactive Control Options*).

**Microphone Mode**
As with the ElectraStim SensaVox (EM140), FLUX is also equipped with audio input options. Due to the integrated high fidelity solid state microphone your voice has never been more powerful. The sensitivity is so good that we have provided 10 levels to choose from. To get the optimum sensitivity from the microphone, point the lower edge of FLUX towards the audio source as this is where the microphone and sound ports are located (10). To adjust the microphone sensitivity you will need to enter the Configure Menu. See the Configure Menu section to find out how this is done.

Use this mode to control the strength of stimulation in sympathy with external sounds. Whether talking softly to your partner or shouting loudly at your sub, you can tailor the strength of stimulation with every word, whisper or musical beat.

The selectable Microphone options are shown in the table above (*Interactive Control Options*).

**Line-In Mode**
FLUX utilises digital signal processing (DSP) techniques to provide the best in stereo-stim functionality. Feeding sounds in directly using the supplied 3.5mm audio cable (F) via the 3.5mm audio socket (14) means all external sounds are ignored. Feed in your favorite tunes or use specialised e-stim stereo files for endless possibilities of dynamic play. The stereo nature of the input means that left and right audio tracks directly control the stimulation strength of the left (CH1) and right (CH2) stimulation outputs. If you are familiar with digital audio mixing software then you will be able to create your own sound files to suit your play preferences. However, there are plenty of stimulation sound files available on the internet that most authors are happy to share. There is a sample collection of FLUX stereo-stim audio files that you are free to play or download and try on the ElectraStim website… https://www.electrastim.com/flux

Use this mode to take a stereo-stim journey as slow and gentle or as fast and hard as you like. Patterns can be created to suit every taste and can last from a few seconds to a few hours. If you don't have the skills or time to make your own files then search and download license free ones from trusted sources. Note that some files will work better than others as it will depend on the stimulator make and model that the files were originally intended for.

You can also use mono (non-stereo) audio files which are fine if you are only using one accessory or are happy to have the same stimulation pattern on two accessories.

The selectable Line-In options are shown below…

| # | Option Name | Description |
|---|---|---|
| 1 | Stereo | CH1 controlled by left audio, CH2 controlled by right audio |
| 2 | Stereo reversed | CH1 controlled by right audio, CH2 controlled by left audio |
| 3 | Dual Mono Left | CH1 and CH2 both controlled by left audio |
| 4 | Dual Mono Right | CH1 and CH2 both controlled by right audio |

## Configure Menu

The Configure menu is used to change the way that your FLUX works or to view battery/technical info.  To scroll through the below options simply press the Option button (2) until you get to the feature that you wish to change or view, then pause for 3 seconds to invoke the feature. The selectable options are as follows…

| Configure Option Name | Description |
|---|---|
| > About Config. | This will show a screen with a brief description of how to use this menu |
| 1. Beeper ON/OFF | Enable/Disable the audible acknowledge beeper (default = OFF) |
| 2. Nerd Mode ON/OFF | Display some technical stimulation info (default = OFF) |
| 3. Zero Override ON/OFF | Intensity auto-zero override when changing Modes (advanced) |
| 4. Setup Microphone | Adjust the microphone sensitivity and offset level |
| 5. Setup Line-in | Adjust the Line-in audio offset levels |
| 6. View Tech Info. | This screen will show you battery information, serial no. etc. |
| 7. View Usage Info | This shows you your usage information |

To exit the Configure menu simply press the "Mode" button which will take you back to the Wave pattern mode etc.

### > **About Config**
This simply shows a text screen that explains what this Menu is all about.  There is nothing more to do here other than read the text and then press the Option button again to go to the first user configuration option.
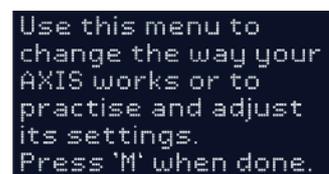


### 1. Beeper ON/OFF
Selecting this feature will enable/disable an audible confirmation beeper.  When enabled you will hear a beep every time a button is pressed or a Gesture is made.  The tone of the beeps will vary in accordance with the setting being changed which can be useful if you are visually impaired but it also adds good feedback when not looking at the display.  FLUX will also make an audible sound when powering on and off.  This feature is remembered so
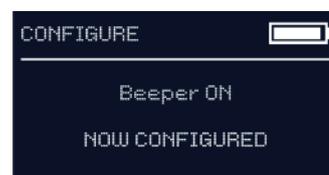
the beeper feature will always be set as it was when last switched off.  The default setting is off so you will need to enable this feature to use it.
Note that the audible beeper is disabled when in Microphone Mode.

### 2. Nerd Mode ON/OFF
If you would like to see a little more information displayed when using the Wave, Pulse or Tilt Modes then enable this feature to see the pulse frequency (Hz), cycle times (in either seconds or milliseconds) and degrees of tilt.  You will also notice when viewing the normal user screen that the vertical centre line has a thicker portion at the bottom.  This shows the current being consumed by the battery and will vary in accordance with the intensity levels being used.

```
CONFIGURE        ▭▭

     Nerd Mode ON

   NOW CONFIGURED
```
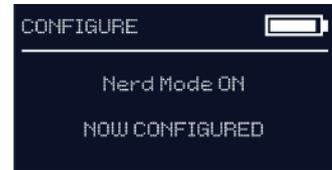
### 3. Zero Override ON/OFF
When changing Modes you can choose whether the intensity levels reset to zero or to leave them unchanged.  To leave the levels unchanged between modes (Zero Override ON) is only recommended for more experienced users as stimulation levels may fluctuate as you navigate the Modes.  Stimulation is paused while in the Configuration Menu and is resumed again as soon as you exit by pressing the Mode button.

```
CONFIGURE        ▭▭

    Zero Override ON

   NOW CONFIGURED
```
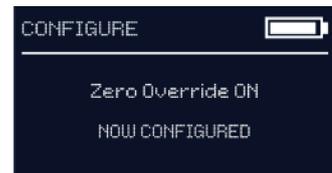
### 4. Setup Microphone
The microphone has 10 different sensitivity levels to match the volume of the audible input to the level of stimulation strength.  The default factory setting is level 5 but this can be increased to 10 or reduced to 1 by pressing the CH1+/- buttons.  As you adjust the sensitivity you can speak or play music and see the detected Microphone Level in the centre column.
If there is a detected microphone level when there is no sound,

```
  7   Microphone  -5


 Amp    Level    Adj
```

then you need to adjust the amplifier offset until the centre column is at zero as shown.  Use the CH2+/- buttons to do this.  Avoid using high mic sensitivity levels at high stimulation intensity levels as the internal transformer hum will be detected by the microphone which is not desirable.

### 5. Setup Line-in
On rare occasions it is possible to see a small level of Line-in audio input even though no sound is actually being applied.  This is known as an input offset error and it can be removed using this feature.  Simply press the CH1+/- buttons to trim off any left channel offset and CH2+/- buttons to trim off any right channel offsets.

```
0 |LINE-IN ▭▭| 0
```

```
 -4    Line-In    0


  0      mVpp      0
```
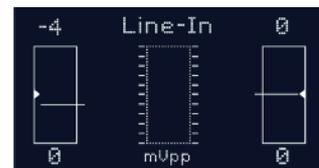
### 6. View Tech. Info
If you want to check your actual battery percentage reserve or view other technical information such as the battery voltage or firmware version then this is the place to see it.  Use the CH2+/- buttons to scroll up/down.

```
TECHNICAL INFO   ▭▭
Rating    850mAh
Reserve   633mAh 82%
Voltage   3957mV
Serial    111111
Firmware  1.0
```
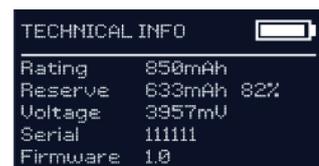
### 7. View Usage Info
This screen shows your usage statistics including the number of times you have powered FLUX up, total usage in days/hours/minutes/seconds/milliseconds and your current e-stimming

```
RUN TIME         ▭▭

Powered   1 times

Total     0 days
          00:01:01:905
Session   00:01:01:905
```
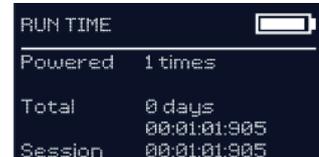
session time.  When you first get your new FLUX all of this data will normally be at zero or just have a few seconds of usage from a final factory inspection.

**Firmware Updates**
FLUX is equipped with a 32-bit ARM Cortex micro processor that can be updated by a computer using the supplied USB cable (E).  We will release firmware updates to improve performance, add new features and fix any minor issues.  To ensure you are aware of updates you should make sure you are subscribed to our mailing list.  Instructions on how to update your FLUX firmware can be found here… https://www.electrastim.com/flux

**Cleaning**
Your ElectraStim FLUX EM180 stimulator can be cleaned using a lightly-dampened cloth.  Do not immerse the unit in water and keep moisture away from all sockets and ports.  We recommend cleaning all ElectraStim accessories with our special e-stim toy cleaner (EM3116).

**Warranty**
ElectraStim FLUX EM180 is guaranteed for 1 year from date of purchase against defects arising from faulty workmanship or materials. This excludes moisture ingress, misuse and wear and tear of cables.  NOTE: There are no user serviceable parts inside and any attempt to open the enclosure will invalidate the warranty.  Tamper evident precautions have been made.  Attempts to "hack" the installed firmware or EEPROM data will lock FLUX from further use and may permanently damage the electronics and is not covered by the warranty.

**Safety**
FLUX has been designed with safety and the environment in mind…

Conforms to European Safety Standard BS EN 60601-1:2006+A12:2014

Type BF Isolated Safety Outputs

**Risk of Hazardous Substances (RoHS)**
No hazardous material as laid out in the RoHS Directive have been used in the manufacture of this product

**Waste of Electrical and Electronic Equipment (WEEE)**
This equipment should be taken to a recycling centre at the end of its useful life and not discarded with normal household waste

**Liability**
Cyrex Limited/Cyrex Inc. will not be held responsible or liable for any injury, harm or accident resulting from the use of any of its products how so ever caused. Use of Cyrex products implies that you have read the instructions and accept these terms. No medical claims are expressed or implied.

**Specification**

| | |
|---|---|
| Battery Voltage | 3.7V nominal |
| Battery Capacity | 850mAh |
| Battery Type | Lithium rechargeable |
| Battery Runtime | 2 - 8 hours depending on stimulation levels etc. |
| Charging Current | 400mA (max.) |
| Charging Voltage | 5V USB |
| Charging Time | 1 hour to 80%, 3 hours max. to 100% |
| Output Current | 0-125mA peak instantaneous/channel into 560 ohm load |
| Intensity Levels | 100 (0-99) per channel |
| Intensity Auto + Rate | 4 levels per second |
| Intensity Auto - Rate | 16 levels per second |
| Output Voltage | 0-70V peak into 560 ohm load |
| Output Frequency | 50Hz - 180Hz |
| Output Pulse Width | 50us - 180us |
| Output Type | Asynchronous bi-phasic, zero net DC, interpolated |
| Accelerometer Spec. | Triple axis, 12-bit, +- 8g |
| Microphone Sensitivity | 10 selectable levels with input offset trim feature |
| Line-In Sensitivity | 0-280mVpp with input offset trim feature |
| Beeper Frequency | 2.73KHz nominal |
| Microprocessor | ARM Cortex 32-bit, 48MHz |
| Weight | 116g (4.1oz) |
| Dimensions | 25mm x 68mm 118mm (1” x 2.7” x 4.7”) |