



Arc4Sports User Manual

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What Is Arc4Sports?

Arc4Sports is a compact, portable, battery operated device, which delivers drug free, non-invasive treatment using Microcurrent Technology. Arc4Sports has EC Certification as a Class 11a Medical Device.

What Can It Be Used For?

Microcurrent Technology can be used to facilitate the repair of all tissues, including tendons, ligaments, fractures and wounds. In addition, it is effective at reducing pain.

How Does Arc4Sports Work?

When there is tissue damage and inflammation, the electrical resistance increases in that area, and this affects normal cellular activity. Microcurrent Technology utilises electrical currents measured in millionths of an amp (microamps) that mimic the body's normal electrical circuitry. This can dramatically increase ATP (energy) production in the cells of your body, and significantly accelerates the tissue's healing rate. The current is so low you cannot normally feel it.

What Is In The Box?

Please check the seals when unpacking your Unit for the first time. If these are broken, please contact the office on 01580 755504 and a replacement will be sent.

- 1 x Delivery Unit
- 1 x Arm Strap with press studs
- 4 x Sticky Electrode Pads
- 1 x Plug Charger
- 1 x User Manual

In addition, and as an alternative to the sticky Electrode Pads:

- 1 x Bottle of AE Conductive Gel
- 2 x Carbon Rubber Electrodes (ArcPads)

Attach the Carbon Rubber Electrodes to the Arm Strap in the same way as the sticky Electrode Pads. Before attaching the Arm Strap to the arm or leg, cover the surface of the Carbon Rubber Electrodes with a thin film of the AE Conductive Gel.

After use, wipe the surface of the Carbon Rubber Electrodes with a damp cloth to remove all gel residue.

Quick Start Guide

***Please charge fully before first use.**

- 1 Make sure you have received everything in the box (Page 2)
- 2 Attach sticky Electrode Pads to the Arm Strap using the press studs
- 3 Fully insert the Delivery Unit into the pouch and connect to the Arm Strap
- 4 Turn the Delivery Unit ON by pressing and holding the left-hand button until it beeps, then release. The button will show green (Page 4)
- 5 Select desired Treatment Option 1-4 by single presses of the left-hand button (Page 9)
- 6 Activate Treatment Option by pressing and releasing the right-hand button
- 7 Attach the Arm Strap – this has been designed to fit around the upper / lower arm or lower leg only (wherever it is most comfortable)
- 8 Check for successful connectivity, and that the red light under the right-hand button turns to a solid green light, as will the LED of the selected Treatment Option
- 9 After 30 seconds the green light under the right-hand button will turn OFF (to conserve battery life). The green light of the appropriate LED will begin to flash and continue to do so throughout the delivery programme

NB: Tighten the Arm Strap to a point where a connection is maintained and where it is comfortable for the user

How To Turn The Delivery Unit ON

Insert the Delivery Unit into the pouch of the Arm Strap and connect with lead. Attach sticky Electrode Pads using press studs and place on the arm/leg.

Press and hold the left-hand button until it beeps, then release. Once the battery charge indication has been shown (a number of the LEDs will show GREEN for 3 seconds) the left-hand button will light either GREEN or AMBER (along with one Treatment Option LED 1 – 4). After 30 seconds these lights will flash to conserve battery life.

Green: Indicates the Delivery Unit has sufficient battery to deliver the next Treatment Option and is ready to use

Amber: Indicates the Delivery Unit requires charging

How To Turn The Delivery Unit OFF

Press and hold the left-hand button. After a couple of seconds you will hear a confirmation beep, then release. All lights will then turn OFF.

Turning Audible Beep Alert ON and OFF:

- Ensure the Delivery Unit is turned ON
- Press and hold both buttons at the same time
- After three seconds you will hear three short beeps

High-High-High = Audible Beep Alert enabled

High-High-Low = Audible Beep Alert disabled

Treatment Option indicator LEDs 1 – 4

Battery Charge Indication

When the Unit is turned ON all LEDs and BUTTONS will momentarily illuminate GREEN then RED to show they are functioning correctly. Then the Treatment Option LEDs will flash GREEN or AMBER for 3 seconds to indicate the percentage charge remaining.

The LED of the last Treatment Option delivered will then show AMBER.

100% charge

75% charge approx

50% charge approx

25% charge or less.
To be recharged after next Delivery Period

Charging the Delivery Unit

Only use the Plug Charger supplied.

Insert the lead of the Plug Charger into the base of the Delivery Unit, then insert the Charger into a wall socket, and switch ON. You will hear two short beeps. The left-hand button will indicate Amber, as will the LED of the last Treatment Option delivered.

After a few seconds the button will begin to flash Amber and will continue to do so until the unit is fully charged. A full charge takes approximately 4 – 5 hours.

During charging, the battery charge status will be indicated by the LEDs (1 – 4)

-  charging first quarter (Left button flashing amber)
-  charging second quarter (Left button flashing amber)
-  charging third quarter (Left button flashing amber)
-  charging fourth quarter (Left button flashing amber)
-  charging complete. Remain flashing for 5 minutes (Left button flashing green)

When the left-hand button has turned green your unit is fully charged and can be unplugged.

When your Delivery Unit is unplugged you will hear a beep to indicate that the unit is OFF.

A full charge will enable approximately 35 hours of treatment delivery.

**Note: The Delivery Unit is supplied with the Audible Beep Alert ON.
If you require this function turned OFF, go to Page 4.**

After Use

Always ensure that the Delivery Unit is switched OFF (if it has not already automatically turned OFF). Place the sticky Electrode Pads back onto the plastic sheet.

Life Of The Sticky Electrode Pads

The Electrode Pads have been specifically designed for comfort and connectivity. They are fixed to the Arm Strap with 2 press studs. The Electrode Pads are water based and can dry out if left out in the open. If they lose their adhesive quality in this way, it is possible to reactivate their adhesiveness by applying a fine spray of water. Replace the Electrode Pads when they stop sticking as this can affect the connectivity of the Delivery Unit. They should be removed after each session.

Useful Tip – to best preserve your Electrode Pads and for ease of use - on first use, cut the plastic film in half then, with film still in place connect to press studs on Arm Strap. Remove plastic film before applying to the skin. At the end of each Treatment delivery, replace plastic film on pads while not in use. This keeps them clean and maintains adhesiveness.

Guide To Treatment Options

The **Arc4Sports** uses two different sequences of electrical current, both delivered in two slightly different ways (= 4 Treatment Options).

These TREATMENT OPTIONS are indicated by the 4 LEDs at the top of the Delivery Unit.

1. The first sequence (**Treatment Options 1 and 2**) is designed and intended to disperse pain. This should be used for all initial TRAUMA.
2. The second sequence (**Treatment Options 3 and 4**) is designed to kick-start and accelerate REPAIR, enabling rapid closure to all tissue with little (and often no) scar tissue.

Treatment Protocols – Pain

Treatment Option 1. Use daily for 3 hours for 3 weeks.

It is expected that you would notice a tangible improvement within 3 weeks.

If this is not observed, or if the problem has not been fully resolved, please use

Treatment Option 2 for a further 3 weeks.

Tissue Repair

Treatment Option 1. Use daily for 3 hours, for 2 weeks. Follow this with:-

Treatment Option 2. Use daily for 3 hours, for 1 week. Follow this with:-

Treatment Option 3. Use daily for 3 hours, for 2 weeks. Follow this with:-

Treatment Option 4. Use daily for 3 hours, for 1 week.

If the problem has not fully resolved by the end of week 6, repeat the use of **Treatment Options 3 and 4** as above (an additional 3 weeks)

Selecting The Treatment Options

Treatment Option 1 and 2 - pain, bruising, swelling and inflammation.

Treatment Option 3 and 4 - tissue repair.

Programming The Delivery Unit

At the top of the Delivery Unit there are 4 Treatment Option LEDs.

To select your Treatment Option give a single press/release of the left-hand button and continue until the LED of the required Treatment Option shows **Amber**.

As the Treatment Options are selected you will hear a sequence of short, sharp beeps. The number of beeps corresponds to the Treatment Option selected.

For example, 3 beeps = Treatment Option 3.

Subsequently, when the Delivery Unit is first switched ON, the LED corresponding to the last Treatment Option delivered will show **Amber**.

Activating Delivery Of The Treatment Option

Give a single press / release of the right hand button. This will begin delivery of a 3 hour Treatment Programme.

Once activated, the light under the left-hand button will turn OFF and the light under the right-hand button and the LED Treatment Option indicator (1 – 4), will turn either:

Green: to indicate correct connectivity, and delivery; or

Amber: to indicate no connectivity at one or more of the Electrode Pads.

After 30 seconds, the light under the right-hand button will turn OFF and the Treatment Option Indicator LED (1 – 4) will begin to flash **green**, and continue to do so throughout the delivery period.

When the Treatment is complete the Unit will beep and then automatically turn OFF.

The Treatment can be manually stopped at any time by pressing and holding the right hand button until it beeps.

Please consult a Physiotherapist if you require guidance with rehabilitative exercises.

Warnings, Cautions and Contraindications

i) Contraindications

- a. Do not use this device on people with a cardiac pacemaker, implanted defibrillator, or other implanted electronic devices, because this may cause electrical interference.
- b. Do not use this device on infants.
- c. The safety of electrical stimulation during pregnancy has not been established.
- d. Users with suspected or diagnosed epilepsy should follow precautions recommended by their physicians.

ii) Warnings

- a. Do not apply therapy directly over open wounds or rashes, or over swollen, red, infected, inflamed areas, skin lesions or skin eruptions (e.g. phlebitis, thrombophlebitis, varicose veins).
- b. Do not apply therapy when in the bath or shower.
- c. Do not apply therapy while driving, operating machinery, or during any activity in which electrical stimulation can put the user at risk or injury.
- d. Use of Arc4Sports is in addition to, and in no way a substitute for your normal, existing practice of seeking help, guidance and support from your GP, or other Clinical Practitioner.
- e. Research shows that a minority percentage of the population are, or can become, sensitised to the sticky electrode pads. In order to minimise the likelihood of any sensitisation, we recommend that the arm/ or leg used be alternated daily.
- f. Arc4Sports is only for use as directed.
- g. Users should stop using the device and should consult with the Arc4Sports office if they experience any adverse reactions to the device.

iii) Precautions

- a. Users with suspected or diagnosed heart disease should follow precautions recommended by their physicians.
- b. Apply therapy only to normal, intact, clean, healthy skin.
- c. Use caution if therapy is applied over areas of skin with less than normal sensitivity.
- d. Keep this device out of the reach of children.

iv) General Warnings

- a. Do not immerse any part of the unit in water.
- b. Do not place the unit close to excessive heat.
- c. Use this device only with the leads, electrodes and accessories recommended by the manufacturer. Use of other parts or materials not supplied by the manufacturer will invalidate the warranty.
- d. Keep the device away from a fireplace or radiant heater, as the heat may affect the device.
- e. Temperature & Relative Humidity for storage and transportation: -20oC - +40oC, 8% - 70% R.H.
- f. The use of Microcurrent Technology can cause dehydration. Please ensure that you regularly drink fresh water when using Arc4Sports.
- g. Use of Arc4Sports is in addition to, and in no way a substitute for, your normal, existing practice of seeking help, guidance and support from your GP, or other Clinical Practitioner.

Troubleshooting

If the Treatment Option indicator LED has changed from **GREEN** to **AMBER** during the treatment **AND left-hand button has lit up AMBER:**

This indicates that there is insufficient power in the battery to complete delivery of the selected treatment. Please charge the Delivery Unit.

OR the right-hand button has lit up AMBER:

This indicates a loss of connectivity. Either the lead has become disconnected or one, or both, of the electrode pads is/are not making a good enough connection to the skin to complete the circuit. Re-position the pads ensuring that there is enough adhesive.

Should you require any assistance please contact sports@arc-family.com

Consumables:

The unit must be used only with the original accessories, supplied by the manufacturer. Replacement accessories are available from www.Arc4Sports.com

Apart from these items, there are no user-serviceable parts or calibration.

- Maintenance and all repairs should only be carried out by Arc4Sports. The manufacturer will not be held responsible for the results of maintenance or repairs by unauthorised persons.
- The user must not attempt any repairs to the device or accessories. Please contact Arc4Sports.
- Opening of the equipment by unauthorised persons is not allowed and will terminate any claim to warranty.
- Check the unit before each use for signs of wear and/or damage. Replace worn items as required.

Important Information

General advice on the pads and straps:

- Only put the Arm Strap on your arms or lower legs and no other part of your body.
- In order to obtain the best conductivity through the pads always ensure that they are in good condition and adhesive.
- Before use make sure your skin is clean, dry and free of moisturising creams.
- Peel the sticky Electrode Pads from their protective plastic shield by holding and lifting one corner of the pad and pulling. If the pads dry out then it is best to buy a replacement pack of electrodes. In an emergency it may be possible to restore some of the adhesiveness of the pad by adding a tiny drop of water on each pad and spreading around. In very hot weather the gel on the pads may become soft. In such cases place the pads, still on their plastic liners and in their bag, into a fridge until they return to their normal condition.
- Protect your Arc4Sports from wet and damp conditions. It is not waterproof.
- A PDF of this manual, along with further information, is available on our website: www.Arc4Sports.com
- The 2 year Warranty period on your Delivery Unit will commence on the date of purchase.

Cleaning:

- The Arm Strap can be cleaned by wiping with a damp cloth, antibacterial wipe or mild disinfectant. Wipe dry. **DO NOT** put your arm strap in the washing machine.
- **DO NOT** immerse your Arc4Sports in water.

Disclaimers - Arc4Sports is only for use as directed.

Specifications:

Arc4Sports unit	
Battery	Li-ion Rechargeable, 3.7V (fully traceable) - non removable
Pad connection	Via 2.1 x 5.5 mm (centre positive) plug on unit
Maximum Pad Voltage	+/- 9 V
Programme selection	Via push buttons
Modes	4 programmes
	Pulse duration 0.11 msec
	Pulse to pulse spacing 0.86 msec
	Pulse polarity bipolar
Output channels	Single channel
Output voltage	0 - 9 V (+/-), controlled to maintain the specified current
	Max = 4V for R = 10kohm (typical)
	Max = 0.2V for R = 500 ohms
Output current	0 - 400 uA
Tolerances	All output parameters less than +/- 10%
Physical Dimensions:	45 mm (W) x 15 mm (D) x 105 mm (L)
Approximate weight:	65 g
Operating Temperature	0°C to 40°C
Storage Temperature	0°C to 55°C
Relative humidity	10 to 65%
IP rating	IP 3X
Expected life of unit	5 years under normal usage
DC Power Supply	
Connection	Via 2.1 x 5.5 mm (centre positive) plug on unit (pads removed whilst charging)
Mains supply	100-240VAC, 50-60Hz, 0.15A
Output supply	12VDC, 0.5A
Compliance	EN 60950

Warranty

Arc4Sports offers a 2-year guarantee on the Delivery Unit, commencing on the date of purchase.

In addition to your statutory rights, the manufacturer, Applied Microcurrent Technology Ltd agrees that if any defect in materials or workmanship appears in this product within two years after the original date of consumer purchase, it will be repaired or if necessary, replaced, free of charge. This applies only if the product has been used for domestic purposes and has not been damaged through misuse, accident or neglect and has not been modified or repaired by anyone other than the manufacturer or its authorised agents.

If a defect appears, please make sure that the unit is being used in accordance with the instructions. If so, return it with this warranty and the proof of purchase to Arc4Sports.

Exclusions: the Electrode Pads, Arm Strap and Plug Charger are not covered by this warranty – only the Delivery Unit.

Electromagnetic Compatibility: Precautions

The equipment complies with the requirements of EN 60601-1-2, however, it should be noted, hence it is recommended that close proximity to such devices (WiFi hubs, mobile and cordless telephones, etc) be restricted during treatments.



WEEE Statement

The symbol on the product indicates that it should not be disposed of with your normal household waste but should be taken to a designated collection point for the recycling of waste electrical and electronic equipment.

Standard Symbols



Notes:

Notes:

CE 0088

EC Declaration of Conformity

The Arc4Sports Microcurrent Therapy System complies with the requirements of the Medical Devices Directive 93/42/EEC as amended. Arc4Sports is considered to be a Class 11a Medical device. Compliance has been demonstrated with reference to the following harmonised standards

- EN 60601-1:2006+A12:2014
- EN 60601-2-10:2015.
- EN 60601-1-2: 2007+AC:2010



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