



Centurion

The Centurion 4PH EQUINE SYSTEM

INDEX

Introduction	2
Three Month Rental Program	2
Ionisation in a Cell	3
Explaining Magnetic Field Therapy	3
ABC's of Magneto-therapy	5
How to Use Your Centurion System 4 PH	5
The Equipment	8
Application of Equipment	11
Commonly Asked Questions	13
Warranty	13



Centurion 4PH System

Introduction

Congratulations on purchasing your Centurion Equine System from the leader in the field of magneto-therapy equipment! Around the world, equine clinics, veterinarians and colleges are using Magnetic Field Therapy for the treatment of soft tissue and bone damage conditions.

This manual will give you a much better understanding of the Centurion System, how to properly use the therapy to achieve maximum benefits and how to take care of the equipment so that you can continue to enjoy the benefits for years to come.

The settings recommended in this owner's manual have been derived from three sources:

- * By working with thousands of trainers over the past decade and seeing first hand the benefits from the therapy;
- * By analysing the results of numerous equine clinics, veterinarians and colleges testing on numerous combination frequency/intensity settings;
- * From the research done worldwide by hundreds of professional people.

The settings suggested are intended to be a guide to help you achieve the best possible results.

This manual explains in a simple, easy-to-read manner, how to use the equipment. The better you understand, the easier it will be to achieve the results you want.

Three-Month Rental Program

If you are like most people, you probably aren't sure if this is the type of therapy you want to have in your stable or practice for a lifetime. You've probably heard a lot of positive things being said about the Centurion System and you might wonder if the therapy will work for you.

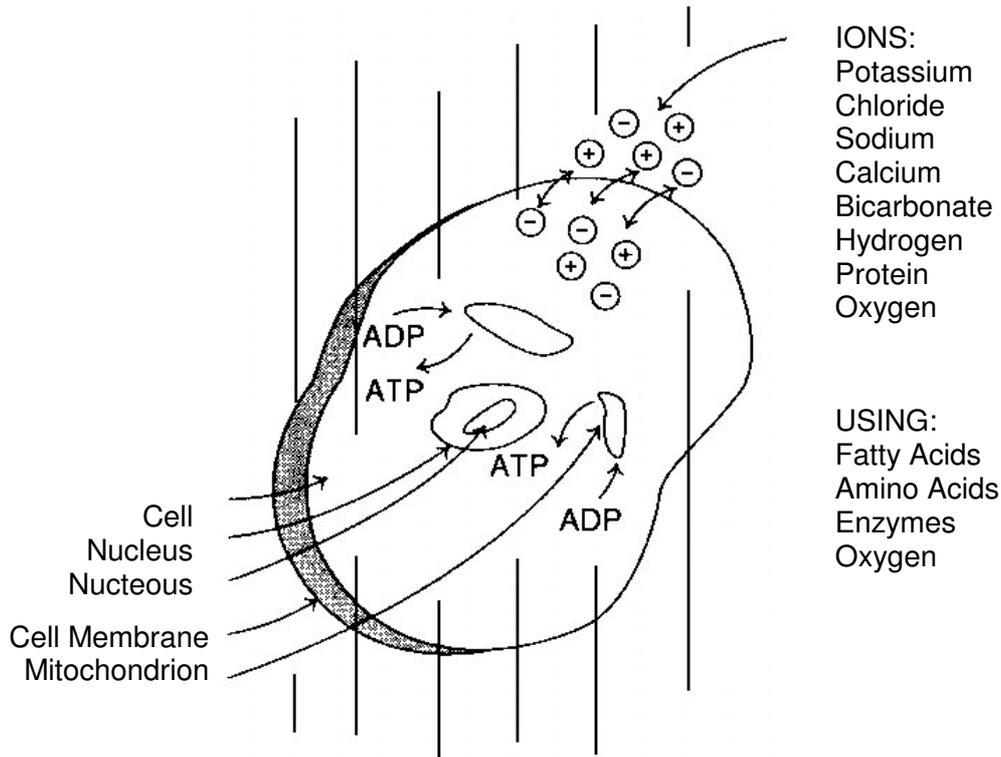
Our three-month rental program will allow you to use the therapy in your stable or practice on a trial basis. This program is long enough to enable you to experience the benefits of magnetic field therapy first hand, and short enough that you are not bound to a long-term agreement.

At the end of the three-month rental period, there are a number of programs available to help you acquire the Centurion System for your stable or practice on a lifetime basis.

Ionisation in a Cell

Magnetic Field Therapy (MFT) permeates all cells, enhances ion exchange, normalizes circulation, and increases the oxygen utilisation of the cell.

Normal cell potential = about 90 MV (millivolts)
Inflammatory condition = about 120 MV
Degenerative condition = about 30 MV



Invisible magnetic field lines 'permeate' all cells in the body simultaneously, down to the last molecular level, reaching parts of the body that cannot be influenced efficiently with other methods.

Explaining Magnetic Field Therapy

Therapy with pulsating magnetic fields (PMF) is a relatively new and very effective form of physical therapy. It is not a miracle, but simply a physical (or better, biophysical) modality used for accelerated therapeutic purposes.

PMF is a very efficient and simple therapy method. By influencing the body either generally or locally with a magnetic field packed in impulse bundles, the cellular functions can be improved considerably. The pulsating magnetic field has a high biological effectiveness and is being used in the medical field as a means of therapy and as a diagnostics tool.

Magnetic fields cannot be absorbed. Therefore, it is difficult to produce field-free spaces when magnetic fields strike a material. We differentiate between paramagnetic substances, in which a bundling or a concentration of magnetic field lines occur, and the diamagnetic substances, in which a decentralization of the field lines results.

The horse's body is only insignificantly diamagnetic and paramagnetic; basically, it is neutral. So whenever field lines impact on the organism, or on parts of it, they absolutely permeate these areas. Compared to known methods, this is the

first important discovery. Within the range of magnetic fields, all parts of the body are penetrated completely by the field lines.

Human and animal organisms consist of a large number of cells which function electrically. If there is no electrical potential left in the cell, it is no longer viable. These cells have a basic (or rest) potential that is necessary for normal cellular metabolism.

Diseased or damaged cells have an altered rest potential. If the ions (electrically charged particles surrounding the cells) move into an area of pulsating magnetic fields, they will be influenced by the rhythm of the pulsation. The rest potential of the cell is proportional to the ion exchange occurring at the cell membrane.

The ion exchange is also responsible for the oxygen utilization of the cell. Pulsating magnetic fields can dramatically influence the ion exchange at the cellular level and thereby greatly improve the oxygen utilization of diseased or damaged tissues. The deterioration of the oxygen utilization is known to be a problem in several medical branches, especially delayed healing and arthritis of joints. Thus, the wide range of indications include:

1. Orthopaedic conditions - fractures and bone damage conditions;
2. Open wounds and circulatory problems;
3. Soft tissue problems - sore backs, muscle tightness, body soreness;
4. Acute inflammation;
5. Chronic pain.

From clinical experiments, we know that pulsating magnetic fields can reduce pain sensations almost immediately. This is due in part to the increase in the oxygen partial pressure in the terminal tissue and the increase in the local perfusion and velocity of the capillary blood flow alleviating the accumulation of metabolites due to small vascularization and blood flow (transmitted by the sympathetic nervous system).

There are no contra-indications to magnetic therapy except in cases of haemorrhage. In contrast to chemical medicaments, there is no chance of over dosage, at least within the field range that is presently used for treatments.

The PMF therapy is heatless; therefore all implants (metal or plastic) can be treated. Hospitals use PMF therapy to accelerate the healing of patients with pins and bone plates because no damaging heat is produced in the implants. Fractures can be treated, even through a leg wrap, since magnetic fields permeate all materials.

The therapeutic effect of such treatments lasts for approximately six to eight hours. Most chronic cases require treatments twice a day. Only after five to ten days can the treatment regime be reduced to one treatment daily or every other day. In chronic or extremely difficult cases, this may take longer.

ABC's of Magneto-therapy

It is important to understand the effects that each setting will have upon the cells of the horse's body. By knowing your horse and how the equipment works, you can more effectively use the therapy.

To effectively treat most conditions, and to enhance the success rate, please follow these priorities.

PRIORITIES:

1. Reduce Pain and Inflammation
2. Stimulation
3. Increase Circulation
4. Rehabilitation (4PH only)

Centurion Equine System equipment has 3 settings:

- A. Frequency
- B. Intensity
- C. Time

How to Use Your Centurion System 4 PH

A. Frequency:

Frequency measures the number of pulses per second. (Hertz-Hz). The frequency is by far the most important setting - so important in fact, that if only this setting is correct and the other two settings are wrong, you may still have the desired result.

On Centurion System 4 PH, the settings are 2 - 60 (Hz). Normal magnetic energy measures at 8 - 10 Hz. Settings of 2 - 5 are below normal magnetic energy and cause the capillaries to constrict. This is very important when dealing with the priority of 'Pain and Inflammation." Many people find that these settings are used a great deal in their stable.

It's extremely important to always start at the Frequency setting of 2 Hz for the following reasons:

1. It has a very calming, relaxing effect on the body and will precondition the horse to the therapy;
2. It will reduce the pain and inflammation in the body very quickly in most cases;
3. This setting will induce constriction of the capillaries.

The horse should stay on this Low (2 Hz) setting for a minimum of three days and then be evaluated. At the end of three days, look for heat in the tissue. If the leg is still warm, you must stay on Low (2 Hz) until the heat comes out.

Sometimes when starting the therapy the legs are already cold and you may wonder if you can miss this first priority or stage. ABSOLUTELY NOT. You must always use the frequency of 2 Hz for the first three days for the reasons mentioned previously, and for one additional reason: there might be some latent inflammation in the leg (i.e. a problem below the surface), and when you apply magnetic field therapy it will bring the problem to the surface very quickly where it can be successfully treated.

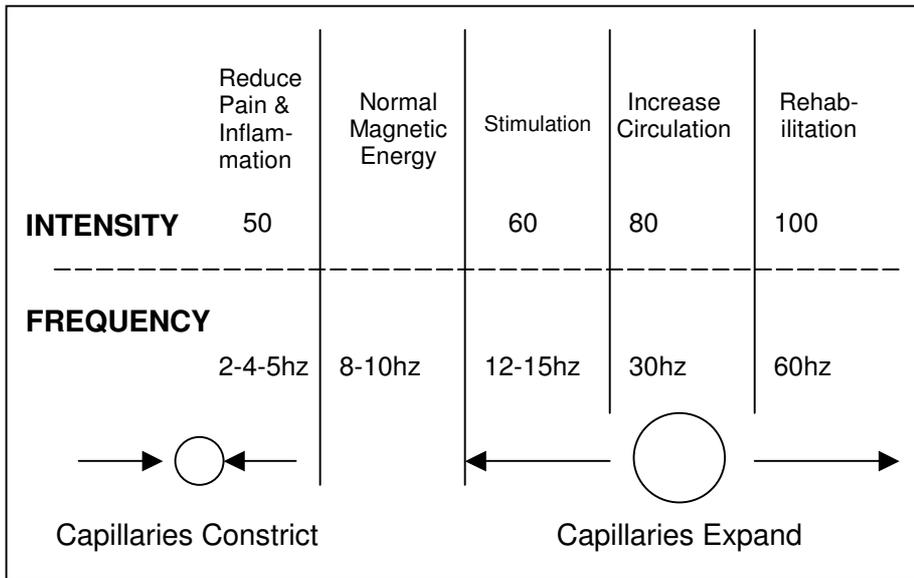
After the heat has come out of the legs, you can proceed on through the first stage. Move up to 4 Hz for two days, and then to 5 Hz for two days. Once the legs are cold you can go on to the "Stimulation" priority or stage.

During the 'Stimulation' stage, the settings start to slowly increase blood circulation and stimulate tissue, muscles and glands. Use 12 Hz for three days and 15 Hz for three days. Note: 15 Hz is also a pre-race or pre-event setting designed to increase body energy.

Next you can proceed to the 'Increase Circulation' priority or stage where the therapy will cause the blood vessels to expand. Stay on 30 Hz for seven to twenty-one days.

NOTE: While the settings are being slowly increased, if a new injury should occur or heat appears again in the tissue, the frequency must be reduced immediately to 2 Hz.

This graph provides a quick reference for the Centurion 4PH settings.



It is extremely important to be on the right setting at the right time. The settings may be adjusted each day depending on what's happening. Work the settings up slowly; don't be in a hurry. If heat returns, place the settings back to Low.

From the preceding you now know that if there is swelling in the knee, hock or fetlock, then the frequency will be on 2 Hz to restrict the blood circulation and reduce the pain and inflammation. However, once in a while you will encounter swelling with no heat. After remaining on 2 Hz for three days, begin to increase the frequency in order to increase blood circulation and reduce the swelling.

When the frequency settings are being increased, normally the highest setting used would be 30 Hz. In working with bone damage conditions, the frequency may be increased to 60 Hz but ONLY after working through the first three priorities.

Finally, it is important to understand the REACTIVE PHASE, which only occurs with chronic conditions. You will notice as you go through the list of PRIORITIES that the condition will appear to get worse. This is normal and happens because there is increased blood circulation through a part of the body where, due to the original injury, a loss of circulation had occurred. The REACTIVE PHASE can easily be recognized by either a dramatic increase in heat or by swelling in the area. If this happens, there is no need for alarm. Simply go off the therapy for one day and allow that part of the body to adjust to the increase of blood in the area, then go down to 2 Hz for three days and then immediately up to 30 Hz. This REACTIVE PHASE will only happen once with any particular injury.

B. Intensity:

The intensity or pulling power of the magnetic field is measured in Gauss or Gz and is designed to work with the frequency. The intensities on the equine machines are 50-60-80-100.

Priorities:

Reduce Pain and Inflammation	-	50
Stimulation	-	60
Increase Circulation	-	80
Rehabilitation	-	100

C. Time

The normal treatment time is thirty minutes but there are some exceptions:

1. For serious problems, the therapy should be used twice a day. This might continue for the first seven to fourteen days or longer.
2. If a brand new injury should occur, the faster you can get the animal on therapy the better. Use two one-hour treatments during the first two days, then return to the normal treatment program.
3. For bone damage problems, it is advisable to use one-hour treatments.

Settings for specific body parts:

1. **Throat** - When treating any breathing or sinus problems or neck soreness, use only one setting which will never vary:

50 - 5 - 30

2. **Back** - Because the back is a solid muscle mass, you can move up through the settings much faster:

First 3 days 50 - 2 - 30

Second 3 days 60 - 15 - 30

Seventh day on 80 - 30 - 30

If you are working on a couple of horses, both of which have leg and back problems, the ideal way of treating them would be as follows:

Have the animals stabled side by side and treat the front legs of both (usually on a lower setting), then do the backs of both (usually on a higher setting).

When using Magnetotherapy, it is not necessary to stop using any rubs or solutions, with one exception. When using a 2, 4 or 5 Hz setting, do not use any iodine based leg paints. The iodine induces heat and you want to take the heat out of the leg. You may use these paints while on a high setting.

Some things to watch for when you start therapy:

1. Your horse will probably become a lot more relaxed;
2. Your horse may urinate more often during the first week. This is due to the fact that all the cells in the cleansing organs are being exposed to the magnetic field and should work more effectively;
3. The horse's hooves may grow more quickly;
4. Hair growth will accelerate.

The Equipment

What's included with the **Centurion 4PH:**

Portable carrying case

Digital display with full range of settings

4 spats (leg wraps)

2 splitter boxes

Magnet

Body blanket

Carrying bag

The generator is plugged into any normal electrical outlet. The ABC'S of Magnetic Field Therapy will explain how to change the Frequency and Intensity buttons on the front of the machine. To begin each treatment, push the start button gently. The buzzer will make a sound when the treatment is complete. You may either turn off the machine at that time or press the start button to begin another treatment.

The accompanying magnet is used strictly as a testing device. Each time the machine is turned on, use the magnet in your hand to make sure the spats are pulsing correctly.

Your Centurion Equine System is designed and manufactured to provide you with years of trouble free service. However, if a maintenance problem does occur, simply call the service number on the machine or call (+44 (0)28 944 33 666). Tell the service engineer:

Your name

Your phone number

The problem.

It will be handled promptly.

The machine can be cleaned with a damp cloth.

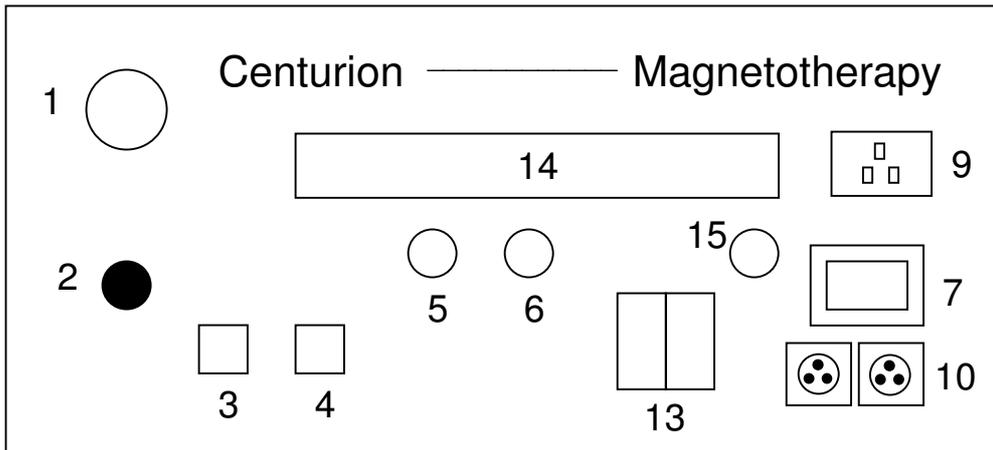
Cautions:

1. It is important not to spill any liquids onto the generator; this could damage the electronics. If this does happen, it might be wise to call the service number.
2. It is also important not to cut or tear the cords of the machine. If a break does occur, please call the service number immediately. It is unwise to use the equipment when the cords are torn or chewed.

Your Centurion Equine System has a one-year warranty from the date of purchase. Any problems with the generator, spats or splitter boxes are covered under the warranty.

An extended warranty package is available to cover any problems, which might arise after the first year. This inexpensive plan covers all parts and will facilitate fast and easy service.

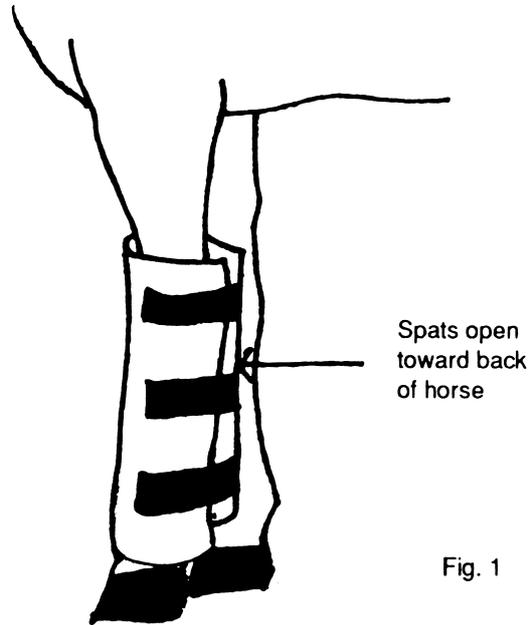
Front View of Centurion System 4PH Generator



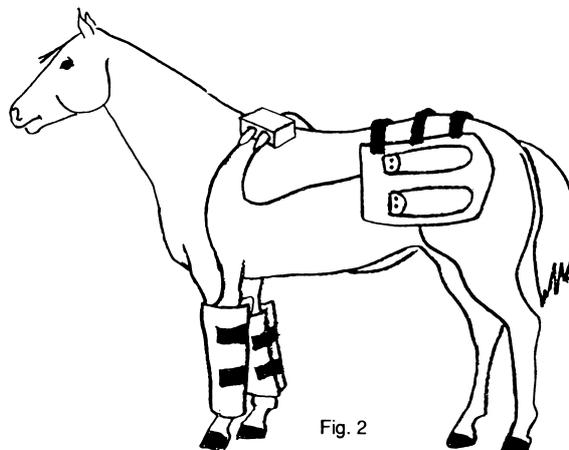
1. Centurion brand name and logo
2. LED display - This red lens will pulse off and on according to the frequency level setting.
3. Start Switch - This activates the magnetic field.
4. Stop Switch - In case the treatment is to be stopped before the allotted time is up.
5. Intensity Control Knob - The far left is the low setting - the far right is the high setting.
6. Frequency Control Knob - The far left is the low setting - the far right is the high setting.
7. Power Switch - Push to turn on the unit.
9. Receptacle - The power cord is to be plugged into this receptacle.
10. Outlet - The cord from the splitter box should be attached here.
13. Timer Switch
14. Digital Display
15. Fuse holder - 250 V, 3 AMP fuse

Application of Equipment

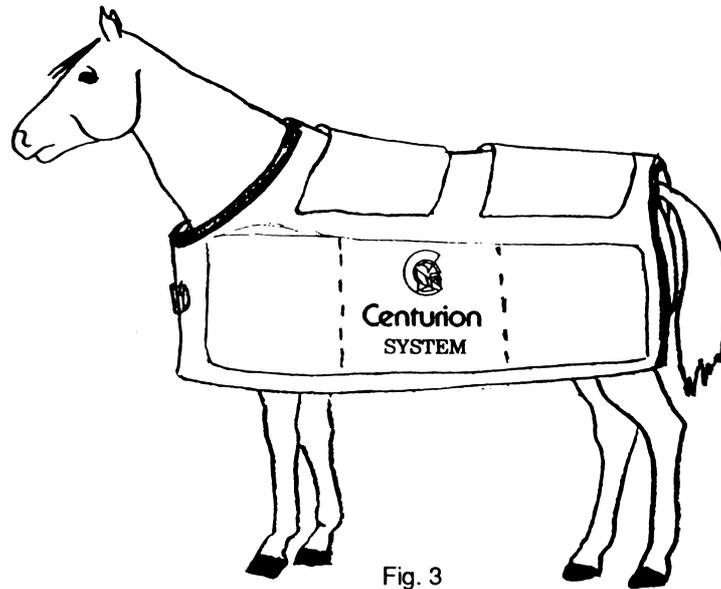
The Centurion System is easy to apply to the horse's body. The leather spats go around the leg with the opening to the back of the horse, and are held place with the Velcro strips. They may easily be placed over existing leg wraps (Fig. 1).



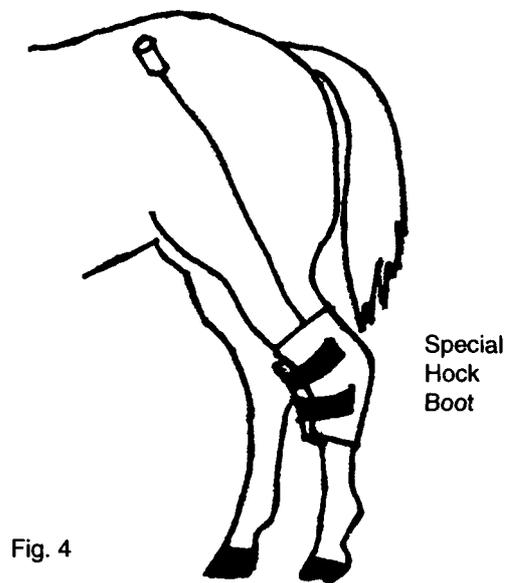
The spats can also be attached together with their Velcro, about 6" apart, and laid across the back, shoulder or neck area (Fig. 2). Owners of Centurion System 4 PH can use this arrangement instead of the blanket when the blanket would be too hot (e.g. during the summer).



The Centurion blanket has large pockets into which the spats may be inserted either lengthwise or crosswise. Simply open the spats and place them in the pockets over the area to be treated (Fig. 3).



As soon as the spats have been applied to the body, plug the cord ends into the splitter box - two for each box. These splitter boxes, in turn, plug into the generator.



For each treatment, select the intensity, frequency and time, then press the start button to begin the treatment. The 4PH may be set for any desired treatment time.

Hock boots are also available from Centurion and are almost essential for treating hock problems. (Fig. 4).

Commonly Asked Questions

Q 1. Is it normal for a horse to feel very relaxed during or after a treatment - especially on low settings?

ANS: Yes. The low frequency setting has an extremely relaxing effect on the body and it is common to see an animal hang its head slightly and look extremely relaxed.

Q 2. Can Magnetic Field Therapy be used in conjunction with other therapies?

ANS: Yes. The therapy can be used by itself or in combination with other therapies.

Q 3. Will I have guaranteed results from using Magnetic Field Therapy?

ANS: No! No therapy or drug will ever be 100% successful. In treating all conditions. As each animal is different, the results can vary from one to another. The three-month rental program allows you to find out if this therapy will benefit your horses with the particular problems you experience in your stable.

WARRANTY

Your Centurion 4 PH and Centurion 9 PH have a one-year warranty from the date of purchase or first day of rental. The unconditional warranty covers any and all problems and includes labour and replacement parts (freight excluded).

Any repairs or service work done by an unauthorized person or company will void the warranty immediately.

An extended warranty package is available to cover any problems, which might arise after the first year. This inexpensive plan covers all parts and will facilitate service.

The warranty is honoured from any of our service centres in North America or dealers around the world.

Centurion Systems UK & Ireland Ltd
51 Connor Road, Parkgate,
Templepatrick, Ballyclare,
Co Antrim BT39 0EA
Northern Ireland - UK

Phone - +44 (0)28 944 33 666

Fax - +44 (0)28 944 32 817

www.centurion-systems.co.uk