



HOW TO **PATENT** A PRODUCT

NEWBURY ELECTRONICS LIMITED
50 YEARS OF MANUFACTURING QUALITY PRINTED CIRCUIT BOARDS

Golden Rule:**Consult a
Patent
Attorney**

Introduction

This white paper has been written as a follow-up to our well-received [CE marking paper](#). It is intended to give the reader an overview of the journey from idea to granted patent.

Please note that the information here does not replace the expertise of a **professional patent attorney** (e.g. www.dehns.com, www.biosciencepatents.co.uk), who should be consulted if you wish to patent an idea. Such professionals are normally very willing to give a free session to scope your needs and answer your most pressing questions. There are many of them, and you shouldn't feel obliged to use a large firm.

You should bear in mind that patent attorneys have to cover the whole of technology, so it may be advisable to consult one specialising in your field.

As initial interviews are generally free (if not I suggest you reconsider the attorney in question) don't hesitate to benchmark them against each other.

Take your time selecting a patent attorney; they can have a huge bearing on the success or failure of your project.

If you need any further help or advice with the process, please do not hesitate to get in touch with us at info@newburyelectronics.co.uk.



Intellectual Property (IP)

Golden Rule:

Complete secrecy. Tell the minimum number of people about your idea, and only tell those you think you need to after following the instructions of your patent attorney.

Before describing what I.P. is, there is a golden rule to be observed on the left.

The problem is that if you tell people, particularly in writing, and it is deemed that the information is in the public domain, the patent is lost. Your application will be denied. All those hopes and dreams dashed!

Your patent attorney will probably write a patent for you (circa £500) based on the information you give him. He will make the application on your behalf (application should cost nothing, and making the application - not writing it - is easy to do yourself), and then advise you to use a document called an NDA (**non-disclosure agreement**). This is not a substitute patent, but rather a document through which the parties involved legally agree that they will not divulge any of the information disclosed between themselves.

A non-disclosure agreement is useful because it puts the recipients under a legal obligation not to divulge what you tell them. For example, you may go and see a potential supplier, but don't want them to talk to other suppliers without your express permission. There are many example NDAs on the web, but it probably makes sense to bounce yours off your patent attorney to make sure it adequately covers your needs.

What is Intellectual Property?

Intellectual property is a combination of the experience, knowledge and ideas of the owner that is a novel, commercially viable and inventive idea, and can therefore be protected by a patent.

Alternatively, I.P. defines the works of the owner in a unique way which can be protected by copyright (also design right). We will look at Copyright / design right in a future white paper.



Do I need a Patent?

If you have an idea and are wondering whether a patent is appropriate, there are three tests to apply to confirm that the idea is patentable:

1. It must be **novel**. So it is no good if someone else has already done it. A lot of money, but not time, can be saved by doing some amateur searching. The best place to start is the Intellectual Property Office www.ipo.gov.uk. It has a search engine that will help. Bear in mind that not all those patents shown are necessarily active. If the owner doesn't pay the fees the patent will expire, meaning no one owns the intellectual property and it can be used by anyone.

Of course there comes a point when it is essential that you have a high degree of confidence that no one else has explored and published material on your idea before.

At this point it is necessary to commission a professional search, which your patent attorney will help you organise. Bear in mind that during the course of your development, more than one of these will be done. They cost in the region of £400 and they become obsolete as soon as they are complete.

2. It must be **commercially applicable**. This is obvious in its intent (it needs to be possible to make it and likely someone might buy it) and not onerous to meet. This condition does not require that the idea will be commercially viable, that is something else.
3. It must have an **inventive step**. Having straddled the novelty requirement, inventive step is the next and final step, which requires that a person skilled in the discipline of the patent would not find the innovation obvious. A fictitious example should help to illustrate this. Imagine an invention involving the design of some electronics that minimises the current drawn by a television when in standby, and also imagine that it hadn't been done before. The question that would be posed is would it be obvious to an electronics engineer that this could be done. If so, the patent would be denied on the basis of an insufficient inventive step.

Golden Rule:

Do some of your own research on novelty before spending money on professional searches. Use national patent office websites and web search engines.



Application Process

Golden Rule:

If you have made an application and done all possible searches you still can't know that your idea is novel for at least 18 months.

It is necessary to explain this in some detail because it will have a bearing on commercial and technical decisions you may make during the course of the development.

Very basically, a patent application is made which is easy to do and inexpensive. It is held in an unopened state by the Patent Office for 12 months, and if you allow it, after 18 months it will proceed to publication. Let's call this **Phase One**.

Is Your Idea Novel or Unique?

Because your patent is unopened for 12 months, as is everyone else's, it's impossible to know whether or not someone else has had the idea before you for at least 18 months after you have made the application. If someone else filed an application for exactly the same idea one day before you (date x) it would not be published until date x + 18 months, so you wouldn't be able to prove that your idea was novel until then.

Having been published, it goes through patent office examinations during which it is either approved and recommended for grant, or challenged.

Let's call this **Phase Two**. This process can be time consuming and is expensive (there are many variables which can mean a given patent is either more or less expensive than I am about to suggest, but you should crudely budget on £20k to £50k depending on the countries you want to cover and the complexity of the application).

Phase One is important, because many entrepreneurs and business people let the patent application get ahead of the commercial situation and are burdened with the costs of Phase Two before their product is developed.

Golden Rule:

Consider cancelling patent applications and re-applying to delay the onerous costs of Phase Two until you are ready for them. There is a risk to this – take patent attorney advice. Note that you don't have to include Claims (see below) in your initial application.



Application Process (cont.)

Product Development Time

Reading the detail of Phase One, you may have the impression that from application, you only have a year to develop your product. This is not so, providing you are prepared to take some calculated risks. You can formally cancel an application during the first 12 months and then re-apply with a new date on the patent.

The risk is that you lose the date of the first application, and if someone has made an application for the same idea between your initial application and your latest one, you have lost the IP. The benefit is that, assuming no one has made an application for the same idea, you can delay publishing your patent until your commercial position suits it. It is a fact that numerous ideas fail because of premature entry to Phase Two and insufficient funds to support it.

Golden Rule:

Phase Two really is in the realm of your patent attorney – listen hard to the advice they give.

Golden Rule:

If your examining officer doesn't challenge your claims and moves your patent straight through to 'grant', question whether or not you are claiming enough. Examining officers have a role which encourages them to try and restrict your claims, and if they see no restrictions it suggests you may have a weak patent.



Application Process (cont.)

The Contents of a Patent

A patent has three sections, a summary, a description and claims.

The summary, as the name suggests, is just a brief overview of your idea. It is useful when doing searches of other people's patents.

The description is an example of how the idea can actually be used (in some detail). You will have a significant input into what is written in this section because it is your invention.

The claims are very important statements, usually very few lines, of the inventive and novel elements of your idea.

Value of the Patent

It is quite natural for an entrepreneur to see value in his patent; not surprising at all. But there are some basic rules regarding value as follows.

A patent that is just a patent, and has no proof of principle prototype, or any commercial credibility (letters of intent, or conditional orders from prospective customers), will likely be of very low value; no matter how clever the idea.

The value of the patent will increase as the missing elements from the preceding paragraph are realised until, when all are in place, the patent may have significant value. The list below illustrates this.

- a. Patent with no development or market credibility – lowest value
- b. Patent with proof of principle prototype but no market credibility – higher than a.
- c. Patent with fully developed product but no market credibility – higher than b.
- d. Patent with a fully developed product and letters of intent to purchase – higher than c.
- e. Patent with a fully developed product and established sales – highest value.

This may be difficult for an entrepreneur to accept, believing, maybe correctly, that the idea has the potential for a big impact; but the essential truth is patents at state 'a' have high risk of failure associated with them, leading to much lower risk at state 'e'.

Golden Rule:

You must get your patent attorney to write your claims. It's a highly skilled process.



About Newbury Electronics

Newbury Electronics offers full printed circuit board (PCB) services, from design to manufacture, assembly and testing. The company's origins began in 1956 and every year we produce over 10,000 PCB designs for our clients.

For more information about Newbury electronics and the services we offer please visit www.newburyelectronics.co.uk.

Questions & Comments

After downloading this white paper you can leave feedback and ask questions regarding the patents process [here](#).

