Ray Storey Lighting

Bringing the Past to the Present

Introduction

Hello and welcome to the world of dolls house lighting. It has always been my passion to be able to provide collectors with quality period lighting for their dolls house and since joining the world of miniatures I personally feel I have been able to combine my skills as a glass blower in reflecting and developing a vast range of styles to compliment the creative vision you have for your house. No dolls house would be complete without the ability to be able to light the house and throughout my time within the miniature world the question I am asked the most at fairs, from emails and via telephone calls is “How do I wire my dolls house?” This simple process appears to provide a stumbling block for customers in completing or even getting started on the process of owing the dolls house of their dreams and one that they can be proud of.

Whilst I am more than happy to talk to people and explain the wiring process, I have developed this simple booklet as an aid to help and support you in lighting your dolls house. I hope via the small explanations supported by coloured images and diagrams that wiring your house will no longer be the greatest challenge many of you appear to face and it will now become an enjoyable experience from which you will gain confidence and knowledge.

Buying your dolls house

Buying the kind of dolls house that will suit your vision can often be a daunting task. There are many house builders within the world of miniatures that offer a wide variety of styles and sizes of home, most being built from birch ply or MDF. So, from Castles to Mansions, Tudor to Gothic, Georgian to Victorian this is a point worth considering as the larger the house the more costly it can be to fill it with works of art made by dedicated crafts people. It's important to take time to view what is on offer before deciding which is the right house for you.

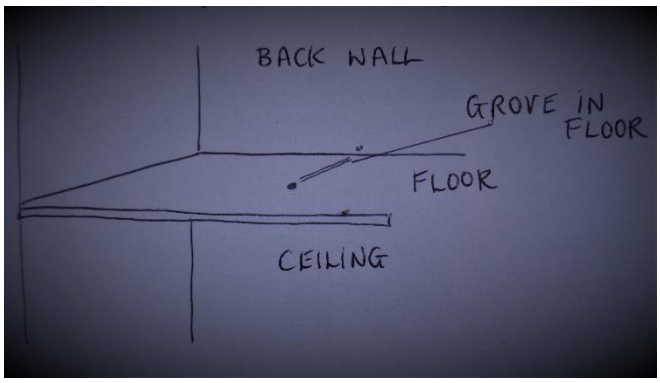
When viewing houses it is important to consider the following points:-

*does the house have a front opening which is ideal for attaching the lighting system to the back of the house

*material the house is made from

*is the outside of the house going to be tiled, bricked, etc

*ideally houses designed and made by miniaturists would come with a centre hole drilled in the floors and a grove running from the centre to a hole drilled in the back wall of the house. NOT all makers provide homes with these ready drilled holes and groves therefore the following diagram will support you in preparing this stage and requirement for the wiring system



You may find the following websites of *House Builders* useful to view which illustrate just a small range of what is on offer as far as house designs before exploring further yourself.

Anglia Dolls Houses *www.angliadollshouses.co.uk*

Dolls House Direct *www.dollshousedirect.co.uk*

The Dolls House Builder *www.thedollshousebuilder.com*

Next Steps

At this point your house will probably look very empty and quite daunting as you envisage the process ahead of you. Having already prior to buying your house decided on a design and period the next step is to consider your options further. Georgian homes were very much lit by candle and oil, whereas Victorian homes tend to lend themselves to having lights with decorative shades and a more bronze than brass finish. Both Georgian and Victorian style homes allow you creative avenues to explore throughout the world of miniatures.

www.angliadollshouses.co.uk

Lighting & Wiring

Historically throughout the Dolls House industry there has always been more than one method of wiring and lighting your dolls house. Copper tape used to be more widely used along with the hard wire system. Despite copper tape still being available I personally thoroughly recommend that you wire your dolls house using hard wire. This system is simple, effective and results in a more professional finish. It is easy to install using products available from *Ray Storey Lighting* which can be purchased online or at the many fairs that I attend. The hard wire system is also suitable if you choose to use the Remote Control System.

Before you purchase any resources to light your house it is best to consider what kind of lighting you would like. If you have purchased a Georgian style house, you may decide on candle chandeliers in your downstairs rooms. You might like to add table lamps and fires etc so it is important that you have a rough idea of the style of lights and additions that you might make as this decision will help inform you as to the size of transformer needed. For example: a six arm chandelier counts as one light but it is the amount of bulbs the lights burn that you need to consider and in the case of a six arm chandelier the amount of bulbs it burns would be six.

Transformers

Transformers come in different sizes. The larger your dolls house the larger the transformer you will need. The deciding factor is the number of bulbs you think you will burn. All transformers I supply are 12V DC and fitted with a standard 2.1 jack plug. The following is a guide to help you in making your decision.

1 Amp - will light up to 16 grain of wheat (60 milli amp) bulbs

2 Amp - will light up to 32 grain of wheat (60 milli amp) bulbs

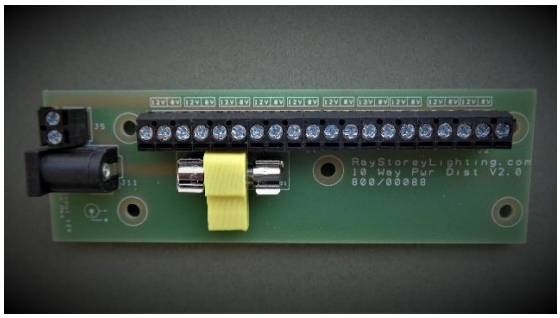
3 Amp - will light up to 50 grain of wheat (60 milli amp) bulbs

5 Amp - will light up to 80 grain of wheat (6o milli amp) bulbs

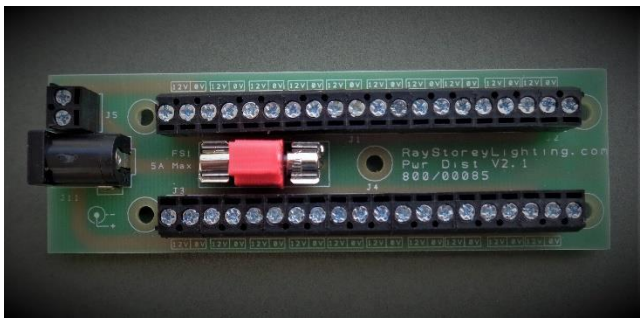
Distribution Boards

Now that you have decided on the size of your transformer the next item to purchase is a 10 Way or 20 Way distribution board. This connecter simply sticks on the back of your dolls house and the jack plug from the transformer

is plugged into the special fitting on the connecter. The small screws on the board are released by use of a small screwdriver enabling you now to fit the two wires from the light.



10 Way Distribution Board



20 Way Distribution Board

Remote Control

For those who wish to progress further with lighting options we offer a Remote Control System. Using this method of wiring and lighting your dolls house allows you the opportunity of having lights illuminated independently in different rooms. We offer 3 variations of sizes (1 – 50 bulbs, 1 – 100 bulbs & 1 – 160 bulbs) allowing you to use the system on larger houses. Data sheets offering more information about the Remote Control System can be found on our Web Site.

Adding a light to your wiring system

By purchasing a house that is already prepared by having the hole drilled in the centre, the grove leading to the back wall and a hole through the wall you are now ready to fit a light in your house.

Thread the two wires from the light up through the hole in the floor, this will leave the light hanging from the ceiling below. Lie the wires along the prepared grove and thread them through the hole on the back wall. The light can be attached to the ceiling now and I recommend that you use clear silicone (bath sealant) to do this. PLEASE DO NOT USE ANY TYPE OF SUPER GLUES. As most of my lights are lit using replaceable bi-pin bulbs the lights can become permanent fixtures in the house as bulbs are accessible from the inside of the house. However, although my lights have screw on shades which allow easy access to change the bulbs NOT all lights that you purchase will have this facility and for that reason NEVER glue anything onto a floor that has wires running along it. The solution to this issue is that you now need to make

a false floor out of birch ply which can be purchased from local model shops. Once made and placed on top of the original floor the wires are now lying in between the two layers allowing continued access and the ability to stick whatever materials you would like onto the top of the false floor.

Do I buy the 10 Way or 20 Way Distribution Board?

More than one light can be added to each pair of terminals exceeding what many customers think is the limit of the board. However, it is the size of the transformer that allows or restricts additional lights being wired into the terminals. For instance, a 20 way distribution board running from a 5 Amp transformer can have several lights wired into each pair of terminal as long as no more than 80 bulbs are added as the capacity limit of a 5 Amp transformer is 80 bulbs.

Helpful Tips

If your transformer has wires at the end & not a jack plug, wires simply fit into the pair of terminals adjacent to the jack plug female on the distribution board.

When fitting a light into your dolls house you may find that the amount of wire extending out the back of the house is too long. To keep the back looking neat, you can simply coil up the excess wire & secure using small pieces of masking tape.

Occasionally you may require the removal of plastic coating on wires. This simple task is easily completed by cutting the excess wire to a required shorter length. Next bare the plastic coating from the ends of the wire by use of a lighter flame. As the coating starts to melt using your finger and thumb simply gently scrape the melted plastic to remove it thus exposing the metal core. Finally trim the core length before inserting.

Shorter wires can also be extended using suitable wire and heat shrink tubing. Heat shrink is a valuable resource which enables a more professional approach to wire extension. It is simple and easy to use and the accompanying video link on my Web Site will give you a supporting visual explanation of how to incorporate the addition of the tubing when wiring your house.

By using the hard wire system, you can add lights when you purchase them and decorate your house as you develop your creative thoughts. Remember it pays to look around at fairs and online to develop ideas to see just what is on offer.

There are often customers who wish to add to their lighting systems as they develop their skills and knowledge of wiring therefore, I also supply flicker

units. With the addition of a flicker unit candle bulbs on your chandeliers and fires can look more realistic and again the remote control offers you the options of lighting specific rooms as opposed to the whole house being lit at once.

Light Bulbs

Grain of Wheat (GOW)

There are a variety of bulbs available which illuminate lights, specifically lights by *Ray Storey Lighting* these include Grain of Wheat bulbs which are probably the most used bulbs in the dolls house industry. The bulbs are 60 milli amp bulbs are available as a Bi Pin bulb or as a bulb attached to a 9 inch or 18 inch wire. Bi Pin bulbs have two short wires attached and fit specifically into a socket allowing them to be interchangeable and accessible when they need replacing.

Grain of Rice

Grain of Rice bulbs are identical to Grain of Wheat bulbs the only difference being that the glass bulb is smaller.

LEDs

Although there may well be a place for the use of LEDs within the dolls house industry, I personally would not use them. LEDs have a polarity i.e. positive and negative and this is the reason why they have a long and short wire. LEDs tend to burn either too bright or not bright enough. Like all bulbs LEDs have a life span and will need to be replaced at some point.

If you are unable to attend any of the Dolls House & Miniature Shows, then all transformers and electrical accessories are available on my web site. Hopefully this small booklet has given you the information you need to take the first steps to wiring your dolls house.

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www.raystoreylighting.com

Email – sales @raystoreylighting.com