

## Rear of LARGE Card

HAND  
MADE  
in  
CHINA



FOR LOW VOLTAGE INDOOR USE ONLY



This product is not a toy. It is not recommended for use by children under 14 unless supervised.

**The Gaugemaster Value Pack:** Congratulations on your purchase of this Gaugemaster Value Pack.

With the equivalent of three standard Gaugemaster lamp packs contained within each Value Pack they offer a considerable saving - and just one of these packs contains enough lamps for many smaller stations.

This Value Pack includes standard-type lamps, wall lamps and even soft warm-white lamps for inside each building, so it really is the best possible way for you to add the realism of accurate lighting to your models. If you need more, then lamps are also available in 3-packs (standard-type lamps) or 2-packs (wall lamps)

**About these Lamps:** All lamps in this range have been carefully created using original drawings. We are confident that they are the most realistic and well detailed 4mm scale lamps available. To preserve the true finess of the original lamps we also used the best possible materials. We chose to use incandescent lamps for the traditional lamp styles so that the warm soft lighting of the real thing has been preserved too.

**Planning the installation - Modern:** Our highly realistic "Modern lamps" have a continuous adjustment ability.

Use a fine drill to properly match the lamp shaft diameter. Keep the holes properly vertical! Plan lamp heights depending on use (e.g. car park or platform), move the base moulding high on the shaft, add a small smear of PVA or similar below the base and move it down over the glue to its final position. Allow to dry then mount. Colouring of base and details is best done by airbrush, and striping is much easier with decal strips or fine tape.

**Planning the installation - Traditional:** Use a fine drill to closely match the lamp's metal shaft diameter.

Our Traditional lamps all have prototypical "extension bases". Keep the holes properly vertical! Use without any extension base for platform use, or you can choose to use either of the extensions for use beside footbridges or access stairways etc. These simply slip on and are a perfect fit so they do not need glue. If you have oil lamps, these were most often retained in yards and are usually set higher using the bases.

**How many to use?** We find approx. at 200mm intervals right for platforms, but check prototype images too.

**Powering these lamps:** A lower voltage is required to achieve the soft, warm lighting of the originals. We recommend the Gaugemaster WM2 - a low voltage wall mounted Power Supply. The WM2 output is 9v DC so it is also suitable for the warm white LEDs also included in some packs.

You may of course use other wall-plug power supplies rated from 3-12v DC with equal success if their power delivery ability is also OK, but please do NOT use uncontrolled AC outputs from your controller.

**Connecting your lamps:** Always use the small control PCBs provided, as they will ensure long life and realistic light levels. Failure to do so may cause the lamps to overheat, causing damage or failure.

There may be two types of Mini-PCB in your lamp pack if it also contains building-light LEDs. If so, they will be clearly marked for LED or LAMP. Use the correct PCB for your application. Each small PCB has 3 solder pads giving you a choice of three different light levels via different resistor values. Experiment with them to find the light level you like, but do remember that realism needs soft, subtle lighting!

**Stripping the lamp wires:** These highly detailed lamps use a fine enamelled wire. You can strip this wire easily by scraping, dipping the end into solvent or by gently rubbing with very fine abrasives.

We strongly recommend that each joint is insulated with heat-shrink. We also strongly recommend that you plan your wiring so that wire joints are also anchored/supported close to the lamp itself so that there is no undue strain on the fine lamp wire should your wiring be accidentally pulled at any time.

### Gaugemaster Controls Ltd.

Ford Road, Arundel,  
West Sussex BN18 0BN  
United Kingdom  
Ph +44 (0) 1903 884 321

[www.gaugemaster.com](http://www.gaugemaster.com)

# GAUGEMASTER

## Rear of medium Card

HAND  
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in  
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This product is not a toy. It is not recommended for use by children under the age of 14 unless supervised by an adult.

**About these lamps:** All lamps in this range have been carefully created using original drawings. To preserve the finess of the original lamps we have used the best possible materials and we chose to use incandescent lamps for the traditional lamp styles so that the warm soft lighting of the real thing was preserved.

**Planning the installation:** Our highly realistic "Modern Lamps" have a continuous adjustment ability. Plan the heights depending on use (example car park or platform), move the base moulding high on the shaft, add a small smear of PVA or similar below the base and move it down over the glue to its final position. Allow to dry then mount. Colouring of base and details is best done by airbrush, and striping is much easier with decal strips or fine tape.

Our traditional lamps all have prototypical "Extension bases". Use them without any base for platform use, or choose either of the extensions for use beside footbridges or access stairways etc. If you have oil lamps, these were most often retained in yards and are usually set higher using the bases.

**How many to use?** We find approx 200mm intervals a good guide.

**Powering these lamps:** Only low voltage is required to achieve the soft lighting of the originals. We recommend Gaugemaster WM2 – a reasonably priced low voltage wall mount power supply. The WM2 output is 9 volts DC so it is also suitable for the warm white LEDs included in some packs.

You may of course use any wall plug power supply from 3-12v DC with equal success but please do not use uncontrolled AC outputs from your controller.

**Connecting your lamps:** Always use the small control PCBs provided, which ensure long life and realistic light levels. Failure to do so may cause the lamps to overheat, causing damage or failure.

There may be two types of Mini-PCB in your lamp pack if it also contains building-light LEDs. If so, they will be clearly marked for LED or LAMP. Use the correct PCB for your application.

Each small PCB has 3 solder pads giving you a choice of three different light levels via different resistor values. Experiment with them to find the light level you like most, but do remember that realism needs soft, subtle lighting!

**Stripping the lamp wires:** These highly detailed lamps use a fine enamelled wire. You can strip this wire easily by scraping, dipping the end into solvent or by gently rubbing with very fine abrasives.

We recommend that each joint is insulated with heat-shrink. We strongly recommend that you plan the wiring so that wire joints are also anchored close to the lamp so that there is no undue strain on the fine lamp wire if your wiring is accidentally pulled at any time.

Gaugemaster Controls Ltd., Ford Rd, Arundel  
West Sussex BN18 0BN, United Kingdom  
[www.gaugemaster.com](http://www.gaugemaster.com)

## Rear of Small Card

HAND  
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in  
CHINA

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This product is not a toy. It is not recommended for use by children under the age of 14 unless supervised by an adult.

**Using these lighting control PCBs:** The control PCB has clearly marked, separate connections for Lamps or LEDs. As a guide, at 9v input you may connect up to 12 LEDs and 6 Lamps to a PCB.

If you use higher voltages reduce the limit to 6 LEDs and 4 Lamps.

**Power Supply Choice:** This control PCB is able to use a wide range of DC input voltages however the lamps themselves will draw less current and look more realistic at 6-9v, so we recommend that you use a 9v power supply such as the Gaugemaster WM2.

**Adjusting the final output level:** Looking at the PCB you will see a small blue device with a screw adjustment. This is a multi-turn potentiometer with more than 20 turns from low to high, so you can finely adjust lamps to the exact level you wish to achieve.

**Stripping the Lamp wires:** These highly detailed lamps use a fine enamelled wire. You can strip this wire easily by scraping, dipping the end into solvent or by gently rubbing with very fine abrasives.

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