GAUGEMASTER

GM500 UNIVERSAL RELAY SWITCH

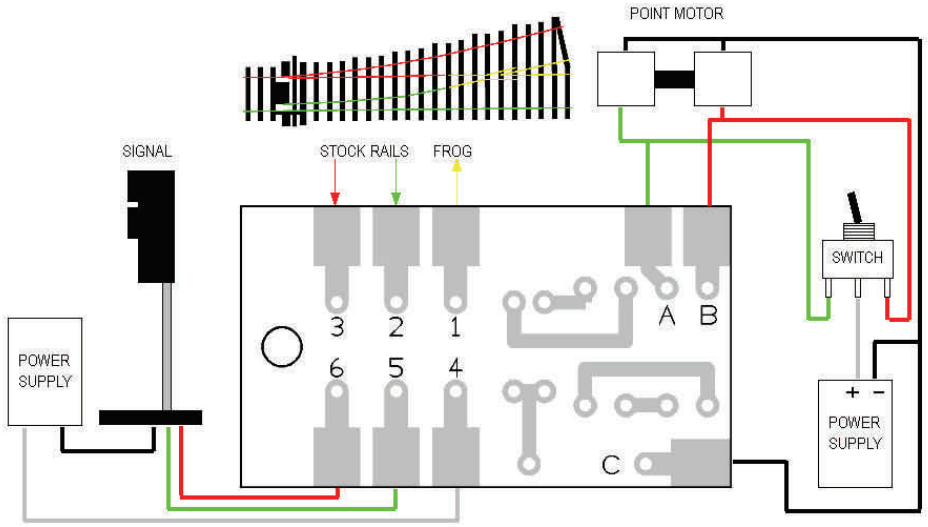
The GM500 is a simple low power latching relay designed to switch items ON or Off using only the momentary power being sent to a point motor. Point motors typically use either a fixed AC or CDU for operation and this unit is designed to work with either. Note that most CDU's have a DC output even if they have an AC input.
The diagram shows the underside of the unit with the user connections labelled 1 to 6 and A B & C, these connections are solder pads and are designed to have wire soldered on directly much like many of the point motors commonly used.

Let's first look at the terminals A B & C which are used to operate the relay itself, the C terminal needs to be connected to common or negative side of the motor and the A & B to the individual solenoids or positive feeds. The A & B can be connected either directly to the motor or on the output of your desired switch, if using a CDU check it's a positive supply or the relay will not operate. The C terminal will typically go onto the common return circuit or directly back to the power source, if a CDU is used it will go to the negative. Once you have made these connections it would be a good idea to operate your point motor and listen or feel for a small click from the relay before completion.

The terminals numbered 1-6 acts like a double throw double pole switch with 1 being the input to terminals 2 & 3 and 4 being the input to 5 & 6. The most common use for these will be to provide frog polarity on a point or to switch a signal and other indication devices. So starting with a frog you simply connect the frog to terminal 1 and the track feeds to 2 and 3, if the polarity is incorrect simply reverse connections 2 & 3. (For reference energizing terminal A will result in circuit 1 & 3 or B - 1 & 2).

Now don't forget you are using this as a switch and many of the manufactures instructions that indication the use of a switch can be directly related to the 1 -6 connections. For a typical signal and mimic panel light you will no doubt have a power source which needs to be connected to one of the input terminals, for this we are using terminal 4 with the output going out via terminals 5 or 6. The signals wires connect to terminal 5 & 6 and any return wires back to your power source to complete the circuit. A simplified diagram shows all the above and can be used as a guide to basic instillation.

As the GM500 only takes minimal power and is regarded as a DPDT switch other applications using reed switch activation will be a natural progression, crossing gates or reversing polarity are all possible and we hope to cover these and other uses in more detail on our website as the list of uses grow.



colors are for clarity only / refer to manufacturer's instructions before connection

The relay coils (A- B terminals) require only a momentary pulse of power and permanent voltage to these will cause damage to the unit. The switch contacts can be used for switching devices in the stated range but never connect high pulse items such as CDU's or high frequency track cleaners as this will cause premature failure.

Relay input voltage (terminals A B C) 9v to 24v AC/DC including CDU
Switch contact rating (terminals 1 to 6) 0 -30v @ 2Amp max

If you find a new or interesting way to use them please let us know and as we will share as many as possible in our download section
http://www.gaugemaster.com/download.asp

GUARANTEE: We undertake to replace or repair, at our discretion, free of charge, any unit found defective by manufacture providing the item has not been tampered with. This guarantee covers only the supply of replacement, replacement parts, labour cost for fitting of same and the cost of returning the unit to the customer or retailer. This Guarantee does not affect your Statutory Rights. We reserve the right to vary design or specification without notice.

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