



# The very versatile PM10D Digital Solenoid

The PM10D point motor has been created to make installation and wiring as easy as possible for all modellers in all scales.

Based on the very efficient "Universal fit" PM10, the PM10D also incorporates a DCC-Digital decoder that makes wiring very simple.

However, DC modellers have not been forgotten - At Gaugemaster we understand that while ALL modellers want easy wiring, many who still prefer to drive their trains with DC need simple wiring too, so the PM10D has also been designed to be 100% DC compatible!

How simple is PM10D? How about fewer wires and less soldering!

- Installation can be either directly to your pointwork via the sleeper tabs OR "under-board" using the in-built fixing points.
  (We even supply you with screws and a drive-pin extension)
- Basic wiring of power to your PM10D for point operation is super-easy and needs only TWO wires, not three as is usual.
- PM10D has built-in connections for added "Control Panel Switches" as well as LEDs on your mimic panel for position indicators, and all terminals are "Screw connections".
- Power is stored in the built-in CDU, so power wiring can be lighter (We recommend GM09RB or similar) - and LED and panel switches carry almost NO current at all, so they can be wired with GM11 (Available in various colours).
- Of course, PM10D users also benefit from Gaugemaster's well regarded customer service for back-up, support and advice.





## You can power your PM10D with DCC or DC

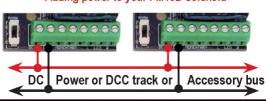
The PM10D point motor can be powered with DC or DCC.

For DCC Users: Every PM10D incorporates its own CDU, which stores power ready to change the points, so while larger layouts will still benefit from an "DCC Accessory Power Bus", DCC modellers can also choose to connect their PM10D directly to DCC track power as it will NOT affect the driving of trains. Safe DCC track voltages are 12~21v. and we recommend 14~16v DCC track power.

For DC Users: This same benefit makes DC wiring really simple too. Power and control are separated, so there's no need for heavy power wires to run back to all of your switches. Apart from light wire for the switches they all wire directly to your "DC Power bus" and you just link them to it with short wires. 15~21v Regulated DC @ 2A recommended.

For BOTH DCC and DC users: Adding standard "press to make" pushbutton switches and LEDs will need only light wire (7x 0.2mm is fine). As this will need 6 wires in total, we recommend that you either use GM09RB or think about colour-coding your wiring so that you can easily maintain your installation. (See diagram on last page)

#### Adding power to your PM10D Solenoid





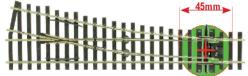


### **Installing your PM10D Digital Point Motor**

Providing that your baseboard is not thicker than 15mm you can install PM10D directly to your pointwork using the "Legs".

Because PM10D has a connector and lead between the motor and PCB, it is easier to drill a round hole rather than cut a slot.

We recommend you use a 45mm hole saw with the centre position at the middle of the tie-bar of the point. Cover the hole with a ballast sticker (Within the PM52 pack) - It will be invisible.



If you prefer a rectangular hole, please mark and cut a hole that is 40mm by 30mm then install the motor directly to the point.

If you would prefer to do an "Under-board" mount needing only a small hole or slot, you can. Just separate the motor and DCC Decoder. This is done by removing the two bolts (see picture).

Space in the hole will be quite tight so it will be easier for you to connect the cable before installing the Motor.

Once the motor is installed, attach its cable and fix the DCC decoder under the board with the adhesive foam pad that we have pre-fitted to it.







## Giving your PM10D its own DCC Address

Please follow THESE instructions and NOT the "Set Accessory Decoder" instructions that came with your DCC Control System.

PM10D's default # is 1. To set your PM10D's new address is a very simple process and it is done with the Decoder installed & connected to the DCC Track power or DCC Accessor power bus.

At NO time is it necessary to connect PM10D to the program track.

- (1) Choose a number within the parameters of your DCC System (not all DCC systems can control up to PM10D's limit of 2044)
  - (2) Move the "Set-Run" switch to the "Set" position.
- (3) Using your DCC controller, follow instructions for changing a point at the NEW number you wish to give to your PM10D. Because the PM10D is in "Set" mode, it will accept that address command and add it to memory as its new number.
- (4) Return the "Set-Run" Switch to the "Run" position.
- (5) Your PM10D will now respond to its new address.

#### **Operating your PM10D Digital Point Motor**

The address is set & your PM10D will remember it for next time.

You can choose to install momentary switches for control or you can use your DCC system instructions for changing a point.

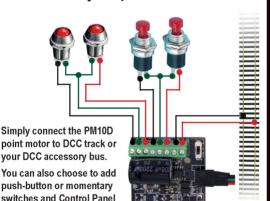
If you have "Loops" or crossovers, It is a good idea to set both point motors to the same number to make operation simpler.





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

PM10D is very simple to install and wire.



GMC-PM10 D

DCC Digital Solenoid point motor with all installation Accessories

LEDs as well if you wish to.



Gaugemaster Controls Ltd., Ford Rd, Arundel West Sussex BN18 0BN, United Kingdom