

If you are planning to lay a railway, read our Buying Guide on PNP Railways Narrow Gauge Track System



PNP Railways track is a modern, robust system of easy-to-assemble parts. Each component mimics the appearance of its full-size counterpart.

We have taken all the hard work out of laying track. All components are manufactured to the correct size. No cutting, drilling, treating required. Assemble and lay and enjoy years of trouble-free running.

Track components are available for both standard and narrow gauge. This guide is about our narrow-gauge system.

What is Narrow Gauge?

It is a railway gauge which is narrower than the standard gauge of 4ft 8 1/2 inches (1.435 m).

We use the term narrow gauge to describe rolling stock and locomotives that run on the same gauge as standard gauge but are built to a larger scale and are usually from an industrial heritage.

What gauges can the track components be used for?

We produce narrow gauge components for:

- 7 1/4" Narrow Gauge
- 7 1/4" & 5" Narrow Gauge.
- 10 1/4" Gauge



What is in the range?

We can offer the following options for a narrow gauge track.

- Surrey Track System
- Bar Rail System
- Rail Clips and Sole Plates



We produce one plastic injection-moulded sleeper designed for 7 1/4" Narrow Gauge only or 7 1/4" and 5" Narrow Gauge. It is manufactured from a high-grade polymer that is UV-stabilised and frost—and rot-resistant. The sleeper has pilot holes moulded in for both gauges.

The sleepers can be used with 5.2lb/yard steel rail or 12mm x 30mm bar rail. Dimensions - L 460mm x W 75mm x D 55mm

This sleeper is only compatible with our designed 'Surrey' and bar rail chairs. We also produce 3 different types of rail clips and sole plates which are suitable for many different profiled rail types and are designed to be used with wooden or recycled plastic sleepers.



What is the Surrey System?

The Surrey System is a complete set of parts for large-scale model railways. It consists of the 7 1/4" & 5" Narrow-Gauge sleeper, Surrey Chair, 5.2lb/Yard rail, and fish plates.

This system is ideal for well-used club tracks and private railways. It can carry heavy narrow-gauge loads yet still accepts standard scale models with fine wheel profiles.

Easy to assemble, the chairs can also be used on wooden or recycled plastic sleepers.



The rail chair for the system was designed in conjunction with Roger Hardwick of the Surrey Society of Model Engineers. The 'Surrey' chair, as it is now called, is a close-scale rail chair based on the two-bolt GWR type, with a simulated wooden wedge that is moulded in two parts.

The chair has a 3-degree cant to correctly present the rail to the wheel's tread, just like full size. This creates the parameters for a smooth ride and very little flange contact. Having a detachable side allows the chair to be fitted or removed from a length of rail without disturbing any more chairs than is necessary. The chair is moulded from a tough, rot and frost-resistant, UV-stabilised polymer.

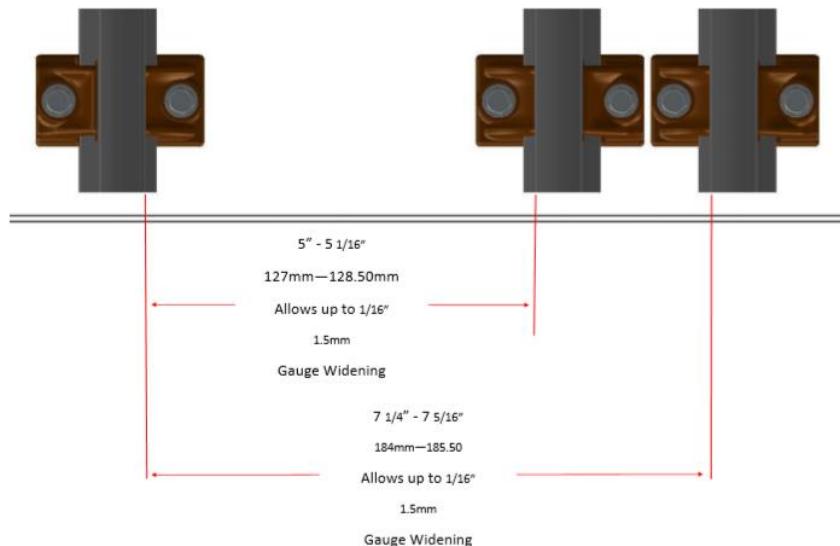


little flange contact. Having a detachable side allows the chair to be fitted or removed from a length of rail without disturbing any more chairs than is necessary. The chair is moulded from a tough, rot and frost-resistant, UV-stabilised polymer.

The chairs are fixed using a high tensile hexagon head screw with a flange under the head, so no washers are required.

What special features does the 'Surrey Track' system have?

Apart from being very easy to assemble, using the plastic sleepers and chairs together allows for automatic gauge widening.



To achieve gauge widening, there is a certain amount of clearance in the fixing holes of the chair when used with the recommended screws.

The chairs should be pushed in towards one another whilst assembling to create the correct gauge.

Push the chair out for gauge widening.

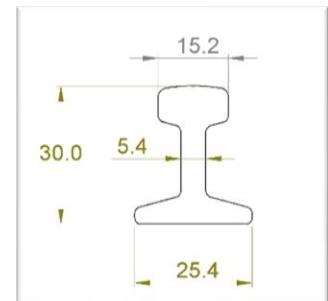
Once the desired gauge is achieved all screws should be tightened and the gauge re-checked.

What rail profile can be used with the Surrey System?

The system has been designed only to be used with 5.2lb/yard steel rail or aluminium rail.



It is a flat-bottom rail with a prototypical crowned rail head of 15mm. It is strong enough to carry heavy 7¼" locomotives yet fine enough in section to accommodate standard scale models, including 5" gauge. It comes in 4m lengths. It is recommended to use a roller gauge when laying a long track; shorter lengths can be laid by gauging manually.



Do you supply fish plates to suit 5.2lb Yard Rail?

We can supply a set of 4 steel fish plates with bolts and nuts. The fish plates have elongated holes to allow for expansion.

What sleeper spacing is recommended for the Surrey System?

We recommend that the sleepers are laid at approximately 300mm centres.

What is the bar rail system?

The bar rail system consists of the narrow-gauge sleeper and bar rail chair. The chairs can also be used on wooden or recycled plastic sleepers.

Bar rail does have some advantages over the prototypical-shaped rail. It can cost less, due to local availability, which will save on transport costs. The black mill scale finish helps make it resistant to corrosion. It does not need bending with rolls when creating curves and it welds easily. The disadvantages are not looking prototypical when used with some stock. Should the sleepers on ground level track not be on a firm substrate it can move down the bar which has no foot.



The system is very easy to assemble, push the bar into the chair, locate the chair onto the sleeper and screw down.

What size bar rail is used with this system?

12mm x 30mm or if you would like to lay a dual gauge 7¼" & 5" gauge line it will also take 10mm x 20mm bar rail, should you wish to not use the larger rail for the third rail.

What chair is used to secure the bar rail?

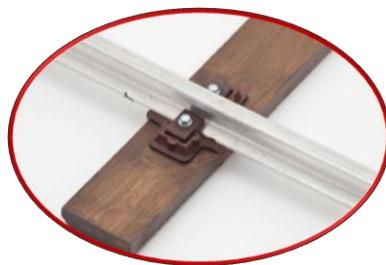
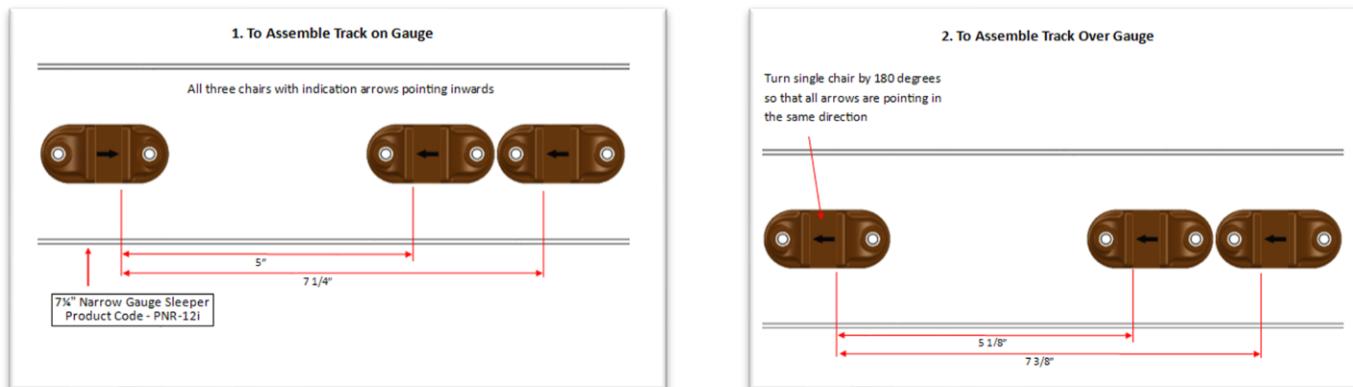


The bar rail chair is manufactured from a high-grade polymer. It has a compact design and a pleasing appearance, embodying many full-size features. If used with our plastic sleepers, it has automatic gauge widening built in. If you want to lay a 5" Gauge line as well in the smaller 10mm x 20mm bar rail, then we can provide a packer that lifts the rail up.



What special features does the bar rail system have?

Apart from being very easy to assemble, using the plastic sleepers and bar rail chairs together allows automatic gauge widening, as shown below.



I have a different rail profile, and I don't want to use bar rail; what other options are available?

We can supply a rail clip in three clamping areas, 6, 8 & 10mm. The rail clip is manufactured from an extremely tough polymer, highly suited to accept loads imparted by the fastening screws. The clip can be used on its own or with a sole plate. There are three types of sole plates available: Standard,

raised and 3-degree cant.



What are the different types of sole plates?

The sole plate is moulded in plastic with slightly softer characteristics; therefore, cushions impact at the railhead. Stops moulded into the sole plate provide a secure fit for the rail clip.



Standard Sole Plate - This sole plate has a flat base, so the rail will sit flat.



Raised Sole Plate—The raised panel accommodates thinner foot profile rails, preventing the clips from tipping at an adverse angle.



3 Degree Cant Sole Plate—This sole plate has 3 degrees of cant to enable the rail to match the angle of the wheel coning on the wheels of locomotives and rolling stock in 7 1/4" and 10 1/4" gauge. The angle should improve running by minimizing flange contact (squealing) and hunting (side-to-side movement).

What type of sleeper are the rail clips and chairs suitable for?

These rail fixings are only suitable for wooden or recycled plastic sleepers.

What is the track system manufactured from?



The sleepers and rail chairs are plastic injection moulded. The sleepers have a wood grain finish to give them a realistic appearance. Together with the two-tone colouring of the rail chairs, this gives them a rusty/weathered look.

Is the sleeper solid?

The sleepers are not solid. They have a hollow ribbed underside that allows the ballast to enter, creating a very stable base for running on and limiting the amount of track movement.



How long will the sleepers and chairs last, being plastic?

The sleepers and chairs are both manufactured from virgin engineering polymers, and their properties can be guaranteed. Our system will provide you with many years of trouble-free running. Our customers have relied on our track system for 20 years, and it continues to perform well.

What happens if you drop fire onto the sleepers?

As with wooden sleepers, the fire should only be dropped in the appropriate place. Should hot coals drop onto the track, they will mark but should not burn.

How do I work out how many sleepers, chairs, and rail I will need?

If you need assistance working out how many sleepers, chairs, and rail you will require, below are the recommended sleeper spacings. Alternatively, you can email us with your enquiry.

- 7¼" or 7¼" & 5" Dual Gauge 200mm – 300mm Centres

I would like to create a siding. Are points available?

Unfortunately, we do not supply points for narrow gauge.



Point Lever

We can supply a point lever as an unpainted kit. It is based on full size and is suitable for standard and narrow-gauge equipment in both 7¼" & 10¼" gauge due to its adjustable weight facility and is self-adjusting over a wide range of gapping.



Can I add a buffer stop?

We supply a set of laser cuts to make a 7¼" Gauge buffer stop.

I have a good idea of what I am looking for. Before I commit, can I see a sample?

If you would like to receive a sample, please send us a message via our Contact Us page on the website with details of the items you are looking at.

PNP Railways also attend several exhibitions throughout the year. Please refer to our news page for details.

How do I purchase?

We hope we have provided a good overview of the PNP Railways Narrow Gauge Track range.

All our products are available to [buy online](#), with worldwide delivery. If you are outside the UK, please contact us for a quotation. Collections from our premises in Stroud, Gloucestershire, are by prior arrangement. The prices quoted in this Buying Guide include VAT at the current rate.

If you have any further questions or would like a quotation, please send us an email at hello@pnp-railways.co.uk

Safety

While all reasonable steps have been taken to produce a product for permanent use on miniature railways, it is the responsibility of the end user to ensure that the track components are assembled correctly, laid on a stable and secure base, and only used for the purpose for which they are intended. Frequent inspection of the track components for defects, loose fasteners, damage, and stability should be carried out regularly.

Narrow Gauge Track Price List

Narrow Gauge Sleeper

Discount for Quantity – (301 – 600 – 5%) - (601 – 1000 – 8%) - (1000+ - 10%)

PNR-12I	7¼" Narrow Gauge Sleepers (Also suitable for 7½" & 5" Gauge Sleepers Sleeper Dimensions: L 353mm x W 50mm x D25mm	£3.43 each
---------	--	------------

Surrey Track System – The items below can be used with the PNR-12I Sleeper or with wooden or recycled plastic sleepers

PNR-11Z	Surrey Rail Chair to suit 5.2lb a Yard Steel Profile Rail Discount for Quantity – (301 – 600 – 5%) - (601 – 1000 – 8%) - (1000+ - 10%)	£0.47 each
PNR-12E	5.2lb a Yard Steel Profile Rail – 4m Length	£34.57
PNR-12J	Fish Plates to suit 5.2lb a Yard Flat Bottom Rail	£14.04 a set
PNR12JD	Technical Drawings to make Fish Plates to 5.2lb a Yard Flat Bottom Rail	£12.00
INSERT/4034	Fixing Screws	£6.75 per 100

Bar Rail System - The items below can be used with the PNR-12I Sleeper or with wooden or recycled plastic sleepers.

Discount for Quantity – (301 – 600 – 5%) - (601 – 1000 – 8%) - (1000+ - 10%)

PNR-12K	Bar Rail Chair – to suit 12mm x 30mm Bar Rail	£0.36 each
PNR-12L	Bar Rail Packer for 5" Gauge Line – to suit 10mm x 20mm Bar Rail	£0.18 each

Rail Clips and Sole Plates

Discount for Quantity – (301 – 600 – 5%) - (601 – 1000 – 8%) - (1000+ - 10%)

PNR-3M-SHORT	Rail Clip – 6.5mm Hole & 6mm Clamping Area	£0.19 each
PNR-1F-D	Rail Clip – 6.5mm Hole and 8mm Clamping Area	£0.19 each
PNR-3M-LONG	Rail Clip – 6.5mm Hole and 10mm Clamping Area	£0.19 each
PNR-1F-B	Standard Sole Plate	£0.32 each
PNR-3L	Raised Sole Plate	£0.32 each
PNR-11J	Sole Plate with 3 Degree Cant	£0.32 each

Buffer Stops

PNR-BSK-003	7¼" Gauge Buffer Stop Laser Cuts	£40.25
-------------	----------------------------------	--------

Point Levers

PNR-10M	Point Lever – Unpainted Kit	£87.50
---------	-----------------------------	--------

Kits for 10mm x 20mm Black Mild Steel Bar – RAIL NOT INCLUDED

12m Kits – Bar Rail Chairs

The kits contain - sleepers, chairs, rail, fish plates and screws.

PNR-12T	12m 7 1/4" Narrow Gauge - Heavy Duty - Track Kit with 5.2lb Yard Rail	£430.60
PNR-12U	12m - 7 1/4" & 5" Narrow Gauge Track Kit for 5.2lb/yd Steel Profile Rail (Surrey Track System)	£586.00

Kits for 10mm x 20mm Black Mild Steel Bar – RAIL NOT INCLUDED

The kits contain - sleepers, chairs, packers (if applicable) and screws

PNR-12V	12m 7 1/4" Narrow Gauge - Heavy - Track Kit for 12mm x 30mm Black Mild Steel Bar	£173.00
PNR-12W	12m 7 1/4" Narrow Gauge - Light - Track Kit for 10mm X 20mm Black Mild Steel Bar	£187.00
PNR-12X	12m 7 1/4" & 5" Narrow Gauge - Heavy- Track Kit for 12mm x 30mm Black Mild Steel Bar	£193.00
PNR-12Y	12m 7 1/4" & 5" Narrow Gauge - Light - Track Kit for 10mm x 20mm Black Mild Steel Bar	£214.00
PNR-12Z	12m 7 1/4" & 5" Narrow Gauge - Heavy - Track Kit for (12mm x 30mm outer rails) (10mm x 20mm for 5" line (Black Mild Steel Bar)	£200.00

The prices quoted include VAT - Valid from April 2025

Carriage is extra and is calculated based on weight and destination.

If ordering from outside the UK, please contact us for a carriage quote.

Orders can be placed online at www.pnp-railways.co.uk or by telephone 01453 83 33 88