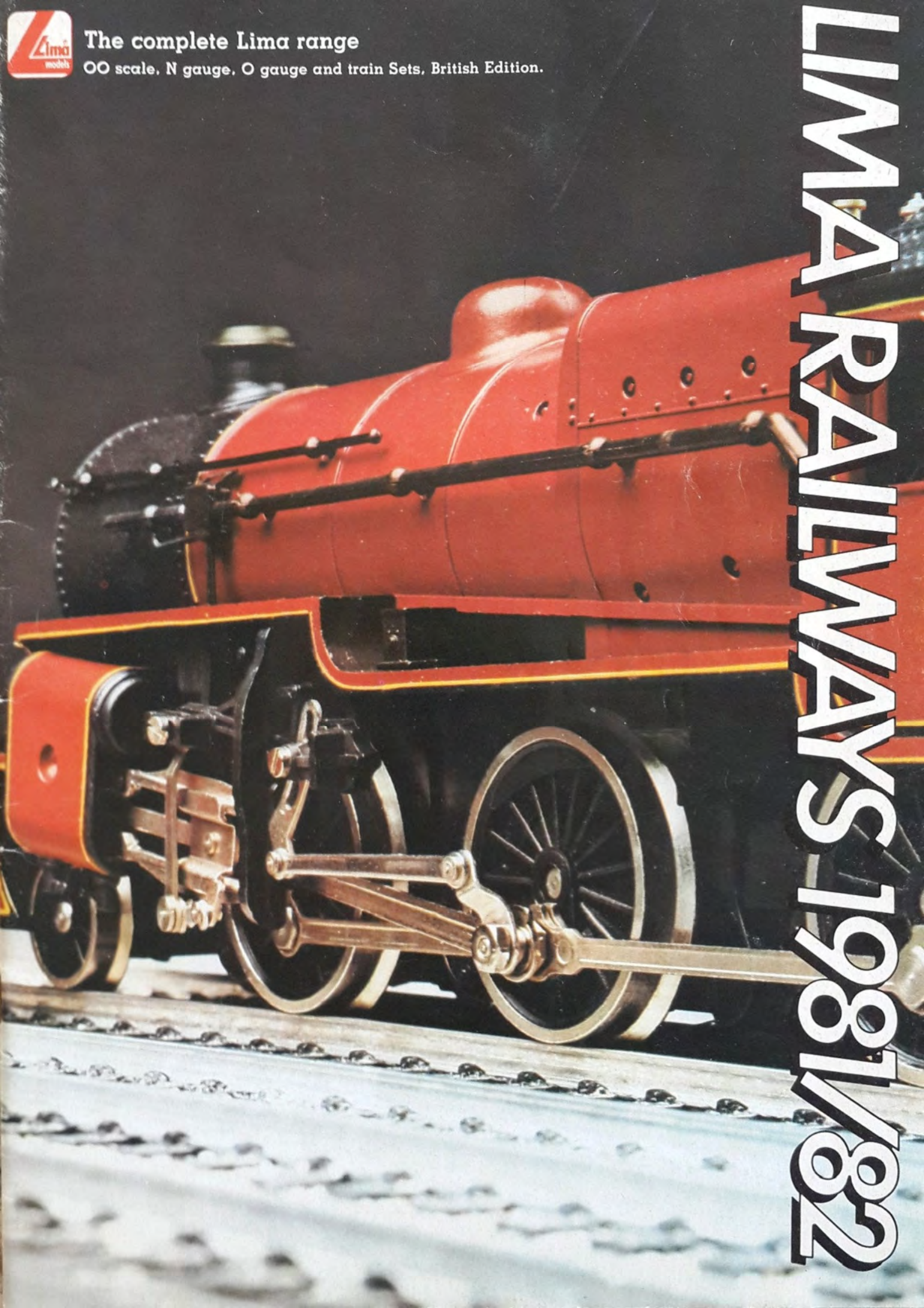
The complete Lima range

OO scale, N gauge, O gauge and train Sets, British Edition.



LIMA RAILWAYS 1981/82

THE COMPLETE GUIDE TO LIMA RAILWAYS

COLOUR CODING

00 Scale

N Gauge

0 Gauge

Whilst every attempt is made to ensure the complete accuracy of all items in the Lima range, the manufacturers have altered/amended designs, specifications, materials, etc., as necessary, to enable them to produce such models by current production methods.

Items marked NEW are not necessary readily available at this time.



Pages 6-21 00 Scale Locomotives



Pages 22-27 00 Passenger Stock



Pages 28-33 00 Freight Stock



Pages 34-42 00 Accessories



Pages 43-58 Train Sets



Pages 59-61 N Gauge Locomotives



Pages 62-63 N Passenger Stock



Pages 64-66 N Freight Stock



Page 67 N Accessories



Pages 68-69 0 Gauge Locomotives



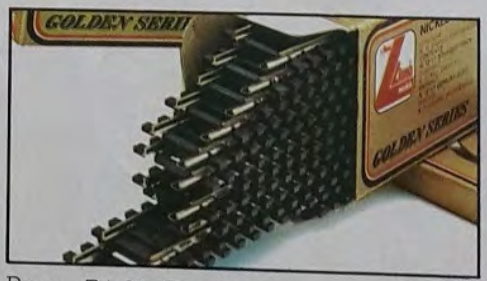
Page 70 0 Passenger Stock



Pages 71-72 0 Freight Stock



Page 73 Power Controllers



Pages 74-81 Tracks



Pages 82-99 Building Layouts, Track Installations


CCT
M 84292
6574

WHY LIMA ARE NO

Model railways on a grand scale.

The beautiful and historic city of Vicenza in Italy is probably not the first place in which you would expect to find the world's largest manufacturer of model railways.

Yet from here, Lima now produce and export their famous models throughout the world. A range which is based on prototypes from



South America to Europe and Australia to Norway.

Perhaps nowhere else in the world is there a stronger passion for railways than in Great Britain, and the demands for such detailed engineering in British outline have been a constant challenge to Lima's technicians.

Today you can enjoy the rewards of that challenge with our fine selection of British outline models. And, as well as having the largest range produced by any manufacturer, we are also the only one to offer a choice of three scales in British outlinè - the ever-popular "00" scale, space-saving "N" gauge and the enthusiasts' "0" gauge.

Truly model railways on a grand scale!

From prototype to finished model.

Nothing is overlooked in the effort to produce a superbly detailed and accurate model which will stand the test of any enthusiast's discerning eye.

Plans, photographs and first-hand studies of contemporary or preserved stock will have been gathered during months of research, even before a hand-built model prototype can be made.

Wood and metal mock-ups are given trials to check track clearances and compatability with other models and only after successful results will the first hand-finished steel mould be made and tested.

After spray-painting the final model, colour detail is screen printed in place - a process far more accurate and longer-lasting than conventional decals.

Chassis, bogies, wheels and motors all receive the same detailed attention and testing, until finally the model is ready to earn its place on your railway.

New 'Supertraction' and 'High Speed' gearing.

New this year, and another first from Lima is SUPERTRACTION, which has a two-fold advantage for modellers who want true realism.

Locomotives fitted with SUPERTRACTION low-ratio gearing, can recreate true scale speeds, from a smooth crawling start through to realistic top speeds.

SUPERTRACTION diverts more power to the axles, to haul a greater number of coaches and wagons at scale speeds, even up inclines.

HIGH SPEED gearing will be found in models where speed itself is important. Here again the emphasis is on realism, and true express speeds can be simulated with locomotives using HIGH SPEED gearing.

Both gearing systems are made from Self-lubricating plastic needing no maintenance.

The Lima G motor, to which both gear versions are coupled, is the culmination of many years of



development and improvement, and responds consistently to currents between 3.5 and 12 volts dc. Its design provides very efficient noise reductions, TV and radio suppression and ensures long life.



Comparison between HIGH SPEED and SUPERTRACTION gearing.

HIGH SPEED Gear Ratio = 1:9.6
SUPERTRACTION Gear Ratio = 1:13.68

Length of Test Circuit: 8.65 m

HIGH SPEED With 0-8 Passenger Coaches
Starting Voltage 4.2. V

Volt	Amp	Seconds for Circuit	KM/h	KM/h x 87 Scale Speed
6V	0.21	37	0.841	73
9V	0.26	18	1.728	149
12V	0.31	12	2.594	225

SUPERTRACTION With up to 28 Passenger Coaches
Starting Voltage 4.7 V - 15%

Amp	%	Seconds for Circuit	KM/h	KM/h x 87 Scale Speed
0.25	-12	80	0.360	31
0.30	-10	31	0.972	84
0.35	-8	21	1.476	128

1 IN THE WORLD.

Lima Railways recreate the scene for you.

With 61 locomotives and 57 coaches to choose from, Lima railways give you a great opportunity to accurately model the period of your choice, whether it be the halcyon days of Great Western holiday expresses bound for the South West, or today's modern image of Inter-City trains and container freight services.

Action-packed Lima accessories will bring the layout to life for younger modellers, while the more dedicated enthusiast can add a wealth of line side detail with Lima buildings, lamps and even a true-to-life, fully functional signalling system.

railway modelling, and they also represent the same all-round value you find in every Lima product.

Nowhere else will you find a choice which covers so many aspects of real railway operation - from modern express passenger and container sets through to the connoisseur "Golden Series" reflecting classic trains like the Great Western's Cornish Riviera Express.

Lima Train Sets are the best introduction you could have to the fascinating world of model railways, and many include action accessories based on real-life railway practice.

"The Lima model of a 'Western' is without doubt the most realistic locomotive model to come, so far, from this Italian manufacturer. The makers are to be congratulated on producing such a fine replica at such low cost."

Model Trains February 1980

"(The Lima Prairie) well reproduces in miniature the qualities which Churchward and Collett set out to achieve with the real thing".

Model Trains March 1980

"The model is faithful to the 1:1 original". (The Yeoman Hopper).

"The Bogie Bolster is another 'must' ".

Scale Models February 1980



Lima reliability - at the right price!

Our investment in modern, sophisticated machinery means that production costs can be kept to a minimum - especially as models are manufactured in huge quantities to meet demand.

At the same time, nothing is lost in either detail or reliability, and every model is individually tested and checked before it leaves our factory.

Lima Train Sets - the great way to start.

Lima Train Sets solve all the problems of where to begin in

What the papers say.

"...the hopper is visually fascinating, with a host of 'bits and pieces' and the model exploits this to the full, with many separately fitted parts including end galleries (with 'see through' gratings), ladders, handrails, etc. The underframe is also very well detailed, with hopper doors, operating gear and the authentic style of axle guards.

Altogether a splendid model of an interesting modern prototype...".

Railway Modeller, August 1980.

"...Lima coaches (00) have recently been given a facelift. These are nicely finished in the correct liveries and lining. ...a big improvement ...this has resulted in a large increase in sales."

Stedfast Magazine, August 1979.

"Performance on the track (00 coaches) is faultless with their free running enabling the best to be made of loco performance."

British Toys & Hobbies, July 1979.

00 SCALE LOCOMOTIVES

Lima's fine models of classic locomotives like the Great Western Kings and LMS Crabs, truly bring to life the glorious days of thundering steam power.

The early days of the diesels, even now just a memory, are also captured in the superb Warship and Western models, and modern day traction is well represented in the Lima range.

In all, we offer the biggest selection of British outline locomotives and liveries in 00, which has long been the most popular scale in the U.K.

In 00 scale, the distance between the rails is 16.5 mm and models are built to the exact scale of 4 mm to one foot. Every British loco is, of course, fitted with a standard coupling compatible with all other British makes.

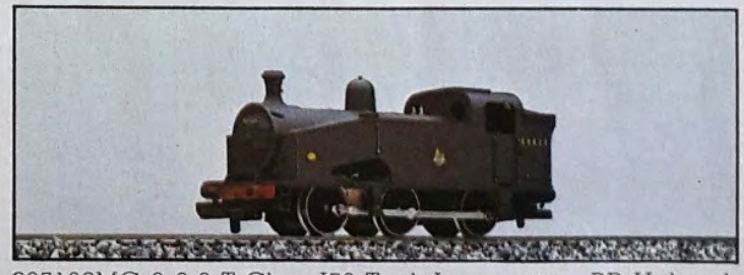


CLASS J.50

Designed by Sir Nigel Gresley in 1914, the J-50 Class were adapted for use on the steep inclines of West Riding. An increase in cylinder size and the tank engine design provided the extra adhesion. Lima's model is of engine No. 8920 built at Doncaster works in 1924, re-numbered by B.R. in 1948, and finally withdrawn from service in July 1961.



205101MG 0-6-0 T Class J50 Tank Locomotive. LNER Lined Apple Green Livery.



205102MG 0-6-0 T Class J50 Tank Locomotive. BR Unlined Black Livery.

CLASS 94xx

94xx Class, intended for heavy shunting work and passenger traffic, was last in the line of Pannier Tanks produced for the G.W.R. at Swindon. Designed by F.W. Hawksworth and built in 1947 engine No. 9400 had all-welded tanks, an incredible coal capacity of 3½ tons, was super-heated and was fitted with Automatic Train Control. It was withdrawn from service in 1959 and is now preserved at the Great Western Railway, Museum at Swindon.



205117MG 0-6-0 T 94xx Class Tank Locomotive. Original GWR Livery.



205118MG 0-6-0 T 94xx Class Tank Locomotive. BR Unlined Black Livery.









45xx PRAIRIE

One of G.W.R.'s Standard Tank locomotives for cross country and branch line passenger work. The 45 xx Class was designed by G.J. Churchward and 175 were built at Swindon Works between 1906 - 1929. These small Prairie tanks weighed 57 tons, produced a pressure of 200 lbs and had tractive effort of 21250 lbs superheated. They were a lighter and smaller development of the earlier 31xx.



205110MG 2-6-2 T Class 45xx Prairie Tank Loco. BR Lined Black Livery.



205111MG 2-6-2 T Class 45xx GWR Prairie Tank Locomotive in Original Livery.

'KING' CLASS

Possibly the most famous of all G.W.R. locomotives, these magnificent express passenger engines were built by C.B. Collett at Swindon and introduced in 1927. The original No. 6000 King George V represented Gt. Britain at the Baltimore and Ohio Railroad centenary celebrations in 1927, where its unusual warning bell was fitted. Withdrawn for preservation in 1962 this loco can still be seen on periodical excursions.



205103MG 4-6-0 'King' Class Express Locomotive. No. 6000 "King George V" in Lined GWR Green Livery.



205104M 4-6-0 'King' Class Express Locomotive No. 6009 "King Charles II". Experimental BR Lined Blue Livery





'CRAB' CLASS

These impressive mixed traffic locomotives were the first new design of main line engine on the L.M.S.R. after grouping. Introduced in 1926 and designed by George Hughes C.M.E., they were hard working, and highly successful. Over 240 were built at Horwich and their unusual valve gear led to the nickname "Horwich Crab".



205119MG 2-6-0 'Crab' Class Express Locomotive.
LMS Lined Maroon Livery.



205120MG 2-6-0 'Crab' Class Express Locomotive.
BR Lined Black Livery.



00

V.2 CLASS

These V.2 Class 2-6-2 locomotives were designed by Sir Nigel Gresley and the first, No. 700 "Green Arrow", entered service in 1936. After giving Yeoman service during the Second World War, it was re-numbered 4771 in 1945 and continued in service until 1962. Over 180 of this class of engine were built and many underwent various modifications. Green Arrow is preserved at the National Railway Museum and can be seen under steam on its periodic excursions.



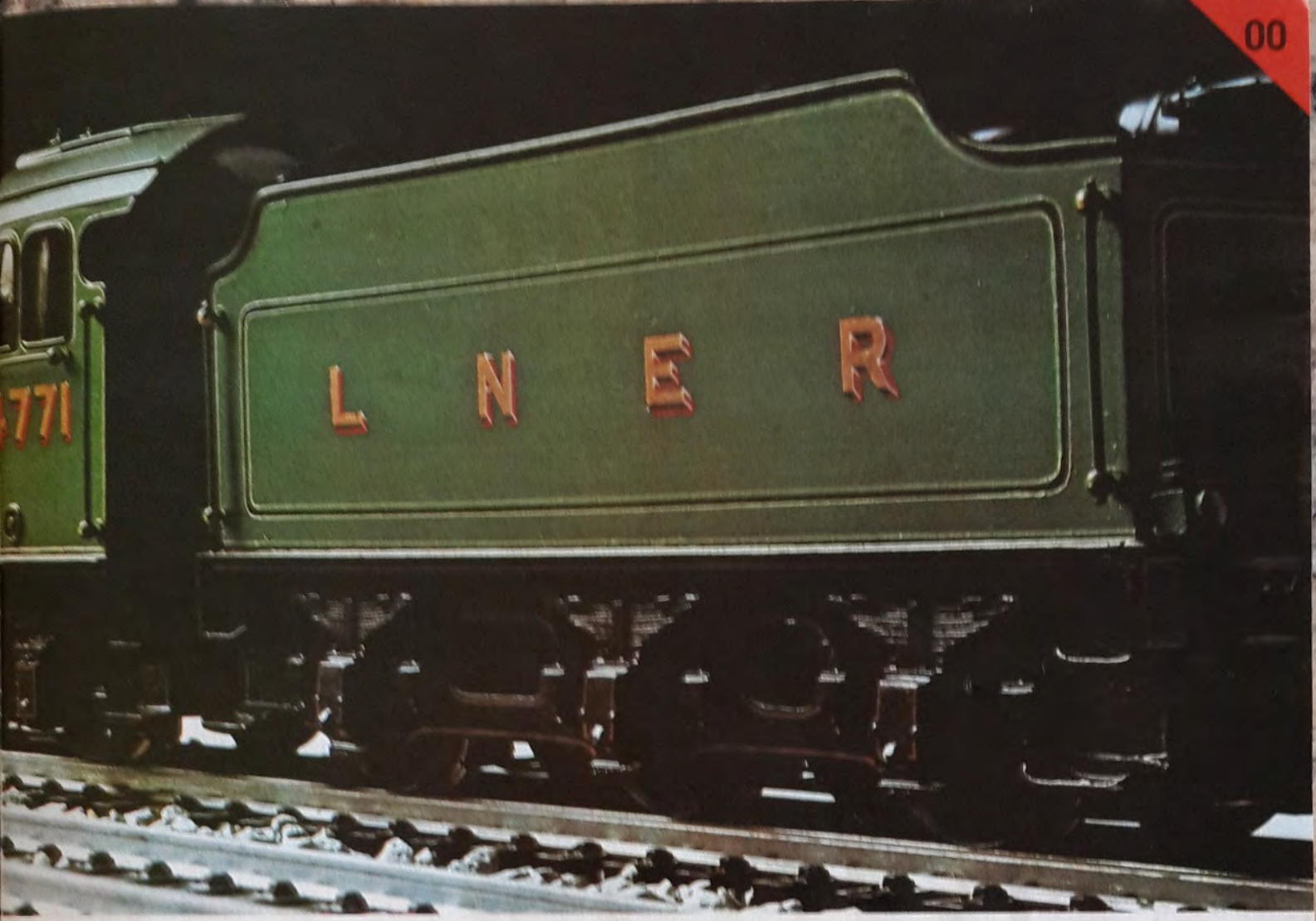
205130MG L.N.E.R. V.2 Class 2-6-2 Green Arrow No. 4771. NEW



205131MG V.2. Class 2-6-2 in Lined B.R. Livery. No. 60964. "The Durham Light Infantry". NEW









CLASS 50

The Class 50 diesel electric Co-Co's were built by the English Electric Company Limited from designs developed in conjunction with BR. Introduced in 1967 they incorporated several new features which allowed remotely controlled working on push-pull trains. Power is from the E.E. 16 CYL engine which produces a top speed of over 100 mph.
Locomotives of this Class have been allocated to the Western and Southern Regions, where they carry the names of famous Royal Navy battleships.



205141MG Class 50 Co-Co Diesel no. 50020 "Revenge".
NEW



205142MG Class 50 Co-Co Diesel 1981 Railfreight livery no. 50043 "Eagle".
NEW

CLASS 33

Based on the earlier Class 26 these diesel-electric Class 33 Bo-Bo's were manufactured by the Birmingham Carriage Company. They are largely based on the Southern region because their unique control system enables them to inter-work in multiple with Southern electric-diesel locomotives and electric multiple-unit trains. They weigh 73 tons, have a fuel capacity of 800 galls and a top speed of 80 mph.



205114MG BR Class 33 Bo-Bo Diesel Locomotive in BR Livery of the late 1960's.



205115MG BR Class 33 Bo-Bo Diesel Locomotive in original Livery.



'SHUNTERS'

Manufactured by the English Electric Company at Derby works in 1945 these diesel electric units producing a tractive effort of 35,000 lbs, formed the basis for many more shunters built by various regions of B.R.





205107MG 0-6-0 Class 09
350 BHP Diesel Shunter.
BR Livery.



205108MG 0-6-0 Class 09
350 BHP Diesel Shunter.
Early BR Livery.



205109MG 0-6-0 Class 09
350 BHP Diesel Shunter.
LMS Livery.



'DELTIC'

The Class 55 "Deltics", considered by many the 'King' of the diesels, were built by English Electric and entered service in 1961. They are the most powerful on B.R., with two 1650 hp 18-cylinder engines' and were the first Diesels built for regular working at 100 mph. They proudly carry the names and insignias of famous Scottish Regiments.



205105MG Class 55 "Deltic" Co-Co Diesel n. D9008 "The Green Howards". NEW



205106MG Class 55 "Deltic" Co-Co Diesel n. 55022 "Royal Scots Grey". NEW

'WESTERN'

Developed from the "Warships" the diesel-hydraulic "Westerns" were built at Swindon and Crewe and introduced in 1961. In early years their Voith hydraulic transmissions and bogies gave trouble and to improve availability they were restricted to West of England service. Their two engines produced 1350 b.h.p. and their coach-profile body, recessed windscreen and clean styling make them the most handsome diesels built.



205134MG BR Class 52 'Western' Diesel-Hydraulic Locomotive No. D 1003 "Western Pioneer".



205121MG Class 52 'Western' Diesel-Hydraulic Locomotive. Western Maroon Livery. No. D1016 "Western Gladiator".



205126MG Class 52 'Western' Diesel-Hydraulic Co-Co No. D1000 "Western Enterprise".





205122MG BR Class 52 'Western' Diesel-Hydraulic Locomotive. No. D1071 "Western Renown".



'WARSHIP'

The "Warships" were built between 1959 and 1962; Class 42 at Swindon and Class 43 at North British. Their engines produced 2,200 b.h.p. with with a tractive effort of 52,000 lbs. They were BR's first real success in diesels, with a top speed of 90 mph. Unusually, the bogies are without axle-boxes, bolsters or central pivots and they incorporate laminated coil springs to transmit body weight to bogie frames.





205135MG BR Class 42/43 'Warship' Diesel-Hydraulic Bo-Bo No. D843. "Sharpshooter".



205128MG Class 42/43 'Warship' Diesel-Hydraulic Bo-Bo, Rail Blue Livery, No. D814 "Dragon".



205127MG Class 42/43 'Warship' Diesel-Hydraulic Bo-Bo, Original Western Region Maroon No. D838 "Rapid".





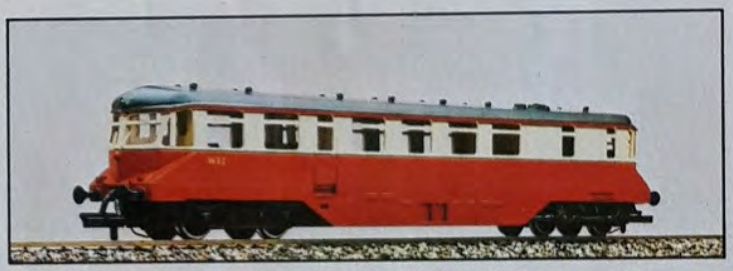
GWR RAILCAR

G.W.R. was the only Company to produce a really successful diesel powered rail car, first in service in 1933. No. 22 was built at Swindon in 1941. It had second class seating for 48 with limited luggage space, saw continuous service throughout the War and was withdrawn for preservation in 1962.
No. 34, was also built at Swindon in 1941 and carried up to 10 tons. It first ran in original GWR Chocolate and Cream livery until nationalisation when it was relined to BR's standard Maroon livery.

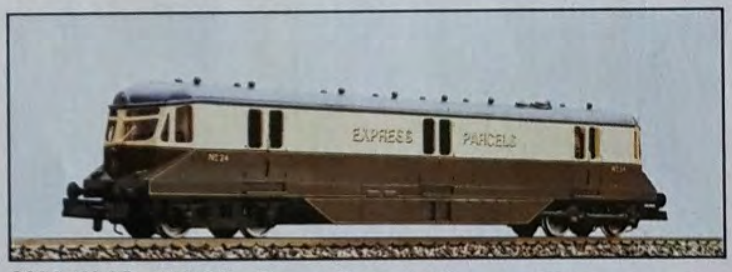




205132MG G.W.R. Rail Car No. 22 original Livery. NEW



205133MG G.W.R. Rail Car No. 22 1948 Crimson/Cream Livery. NEW



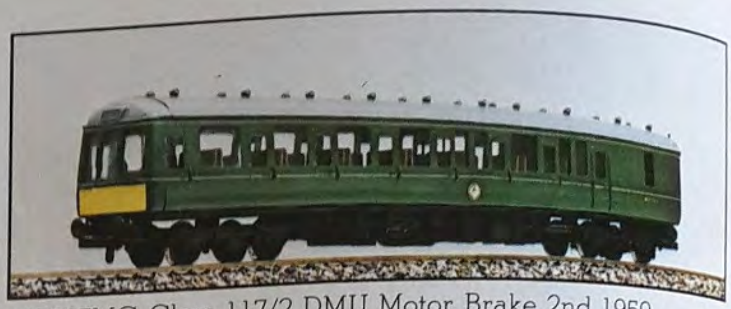
205143MG G.W.R. Diesel Parcels Car no. 34 in original livery. NEW



205144MG Diesel Parcels Car no. 34 in 1948 livery. NEW

DIESEL MULTIPLE UNIT

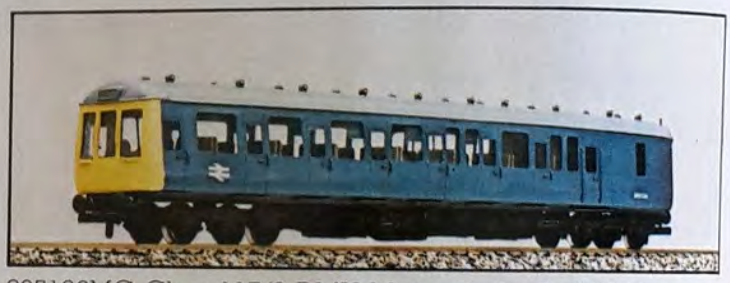
The last few years has seen a continuous growth in cross country and suburban diesel multiple services. These have proved to be a popular and cost effective method of passenger movement, especially over local commuter and shopper routes. Most types look basically similar and are built on two standard length underframes. Many combinations can be seen, including 2, 3 and 4 car sets. Our models are of the Pressed Steel Company's Motor Brake 2nd and the Lavatory Composite Car, which have seen service in most parts of the country. The Power Car was introduced in 1959, and powered by 2 BUT (Leyland) 6 cylinder 150 BHP engines. These mechanical transmission units weigh 36 tons and have an overall length of 64ft.



205137MG Class 117/2 DMU Motor Brake 2nd 1959 Livery.



205147MG Class 117/2 D.M.U. Motor Brake 2nd 1981 NEW livery.



205136MG Class 117/2 DMU Motor Brake 2nd 1974 Livery.





205146 Composite Coach type 117TC 1959 livery. NEW



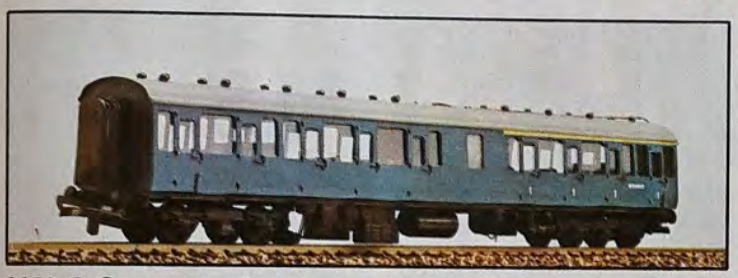
205139 Class 117/2 DMU Motor Brake 2nd Non Powered Trailer.



205148 Composite Coach type 117TC 1981 livery. NEW



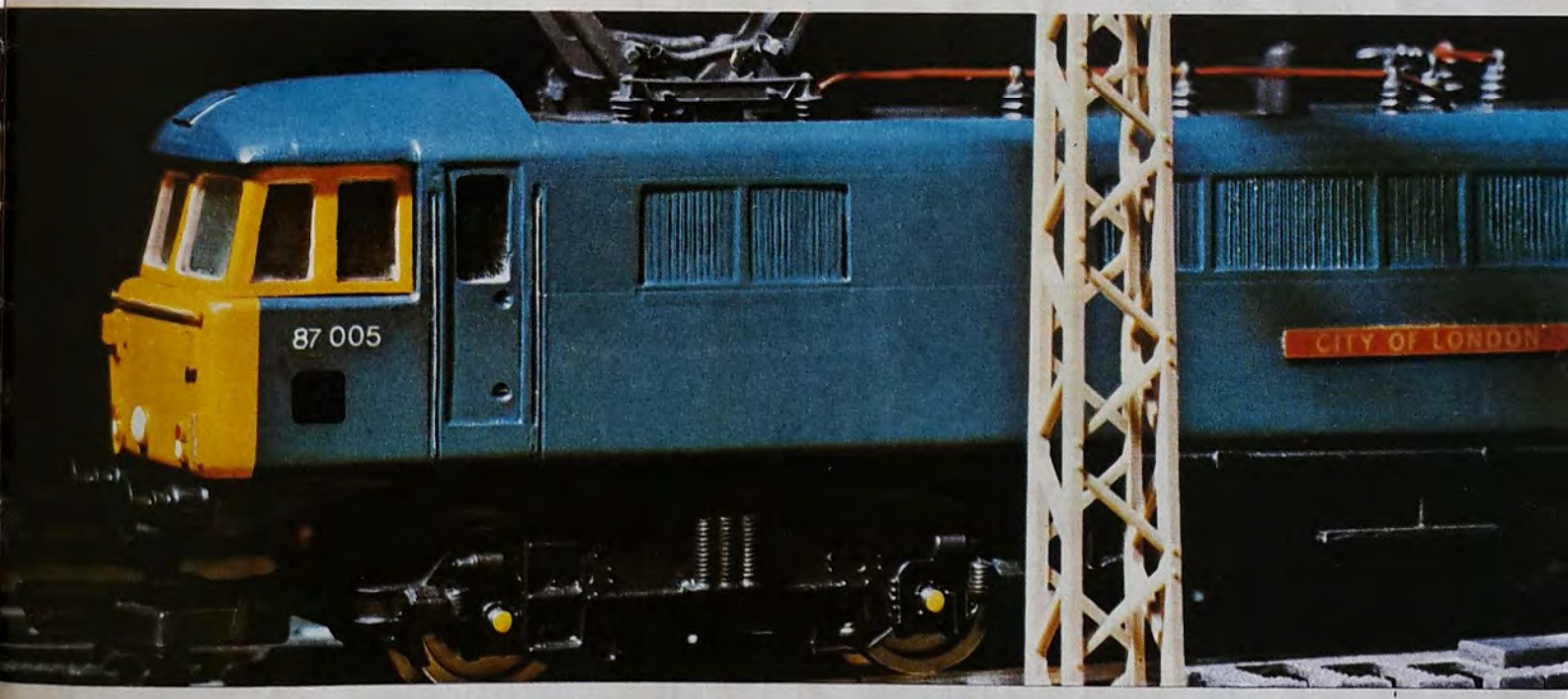
205149 Class 117/2 D.M.U. Motor Brake 2nd Non Powered Trailer 1981 livery. NEW



205145 Composite Coach type 117TC 1974 livery. NEW



205138 Class 117/2 DMU Motor Brake 2nd Non Powered Trailer.



CLASS 87

British Rail's latest design of overhead electric locomotive, the Class 87 Bo-Bo's, were introduced in 1973 and were based on the previous Class 86/1. Their motive power is from four frame - mounted GEC 1250 h.p. traction motors producing a maximum speed of 100 mph. These pollution-free locomotives are the most sophisticated in full operation today.



205125MG BR Class 87 Electric Locomotive No. 87005, NEW "City of London".

OO SCALE PASSENGER STOCK

When you add Lima passenger stock to your layout, you are adding the coach-making experience of the world s largest manufacturer.

Liveries are matched after months of research on original blueprints and real-life prototypes, and every coach is hand finished to ensure complete accuracy in lining and lettering.

Lima passenger stock runs smoothly and quietly, too, because their steel axles have special conical points which reduces friction.

Lima's range of coaches faithfully reproduces the liveries of the London Midland, Western and Southern regions enabling you to make up authentic trains from many parts of the country.

The BR Mark 1 coaches are also available in the crimson and cream livery of early British Railways, and as early blue-grey Inter-City stock.

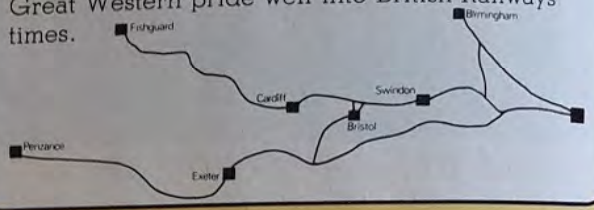
Finally, Lima's superb Mark II Inter-City coaches complete the scene for the modern railway enthusiast.

G.W.R.

The Great Western Railway was the only pre-grouping name to survive unchanged, and it absorbed some of the smaller railways of Wales into its territory, which already served the west of England and Birmingham routes.

The elegant chocolate and cream livery was replaced by chocolate brown in 1909, but the loss of publicity value was soon realised and colours reverted to the original by 1921.

This livery remained one of the hallmarks of Great Western pride well into British Railways times.



INTER-CITY

The name Inter-City was first used in 1951 when a train was named "The Inter-City" for the Festival of Britain.

In 1965 the first campaign was launched to present Inter-City on a national basis and the service now generates more than 8,400 million passenger miles per year.

New Mark II Inter-City designs were introduced in 1966, the Mark IIB following in 1968.

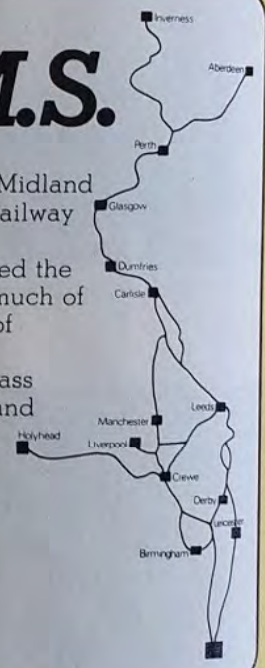
They were the first coaches to incorporate fully integral chassis/body construction, and featured several innovations such as air-braking, pressure heating and ventilation and wider doors.

These coaches are seen today on many Inter-City routes, along with the latest Mark III stock.

L.M.S.

The London Midland and Scottish Railway was the largest of the new companies of 1923, and served the Midlands, North West, and much of Scotland - over 7,800 miles of track.

The LMS led the way in mass production of rolling stock, and earned an enviable reputation for carriage design and comfort through the work of designers David Clayton, David Bain and C.A. Park.



EARLY B.R.

On 1st January 1948, British Railways was born; and was divided into six regions, each retaining the livery of its previous owner company.

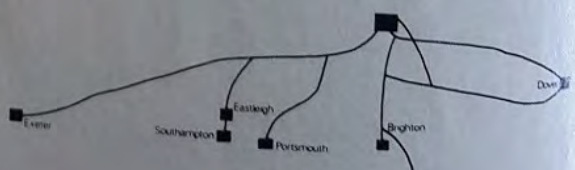
The Southern and Western regions were the old Southern and Greater Western Railways; the London Midland region corresponded to the LMS in England; the Eastern and North Eastern Regions ran on the former LNER lines in England, and the Scottish region took over the LMS and LNER lines in Scotland.

British Railways produced their own crimson and cream livery when BR Mark 1 coaches were introduced in 1951. Later the prototype XP64 version became the basis for the new Mark II designs and the current livery.

S.R.

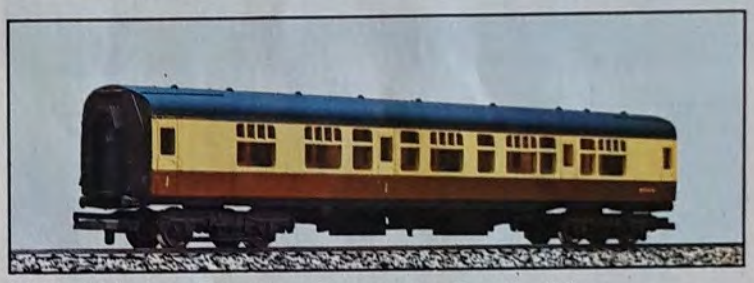
The Southern Railways was formed by the amalgamation of the London Brighton and South Coast. London and South Western, and South Eastern and Chatham Railways.

Southern's green livery was a common sight in the south and by the time nationalisation came the company boasted a fine fleet of modern carriages designed by Surrey Warner.





WESTERN REGION



305313 Mark 1 Corridor Composite Coach. Western Region Livery.



305333 Mark I Corridor Brake Coach. Western Region Livery.



305322 Mark I Restaurant Car. Western Region Livery.



305345 Standard Gangwayed Brake Van. Western Region Livery.



305362 MK 1 Corridor 3rd Western Region Livery. NEW

HOW TO MAKE UP AN AUTHENTIC WESTERN REGION TRAIN:



205121MG 305333 305322 305322 305345 305333



205103MG 305333 305313 305322 305313 305333



205111MG 305333 305313 305333



INTER-CITY



305301 BR Mark 2B Inter-City First Class Corridor Coach.



305321 BR Mark 1 Restaurant/Buffet Car.



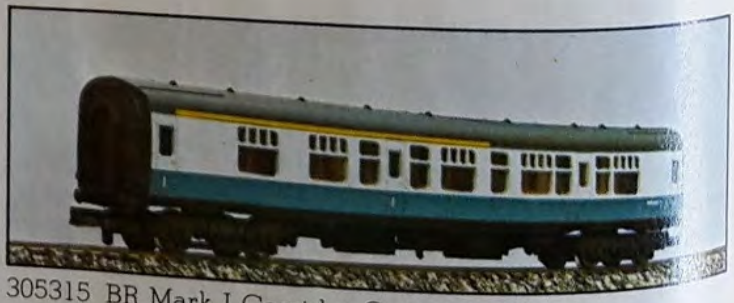
305302 BR Mark 2B Inter-City Open Coach.



305335 BR Mark I Corridor Brake Coach.



305303 BR Mark 2B Inter-City Corridor Brake Coach.



305315 BR Mark I Corridor Composite Coach.



305343 BR Standard Gangwayed Brake Van.



305361 BR Mark 1 Corridor 2nd Coach.



L.M.S.



305312 Mark I Corridor Composite Coach. LMS Maroon Livery.



305332 Mark I Corridor Brake Coach. LMS Maroon Livery.



305323 Mark 1 Dining Car. LMS Maroon Livery.



305342 Standard Gangwayed Brake Van. LMS Maroon Livery.



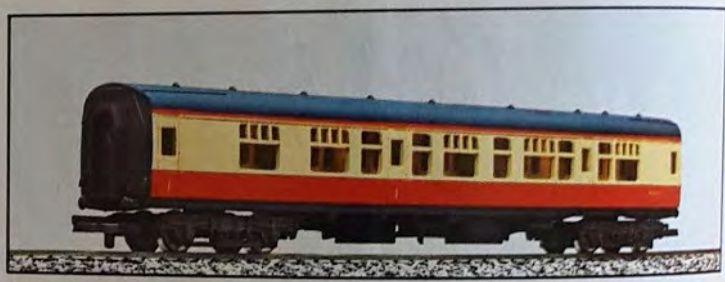
305364 Mark I Corridor 3rd. LMS maroon Livery. NEW

HOW TO MAKE UP AN AUTHENTIC LMS TRAIN:





EARLY BRITISH RAIL



305311 Mark 1 Corridor Composite Coach. Crimson and Cream Livery.



305331 Mark I Corridor Brake Coach. Crimson and Cream livery.



305325 Mark I Restaurant Car. Crimson and Cream Livery.

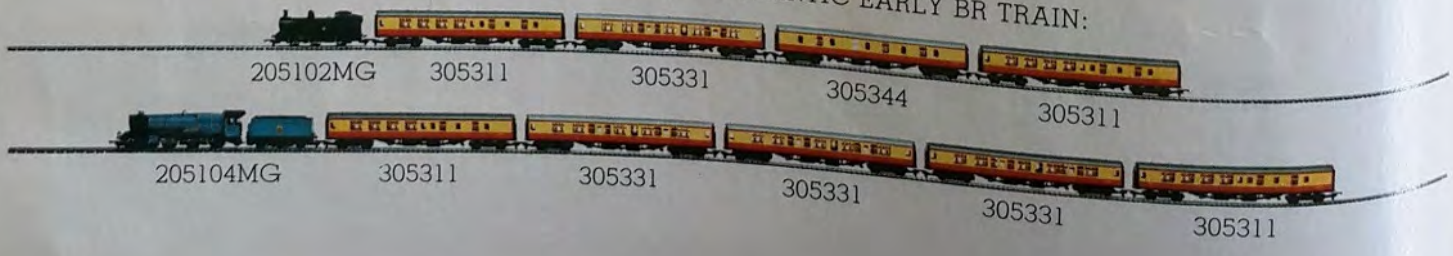


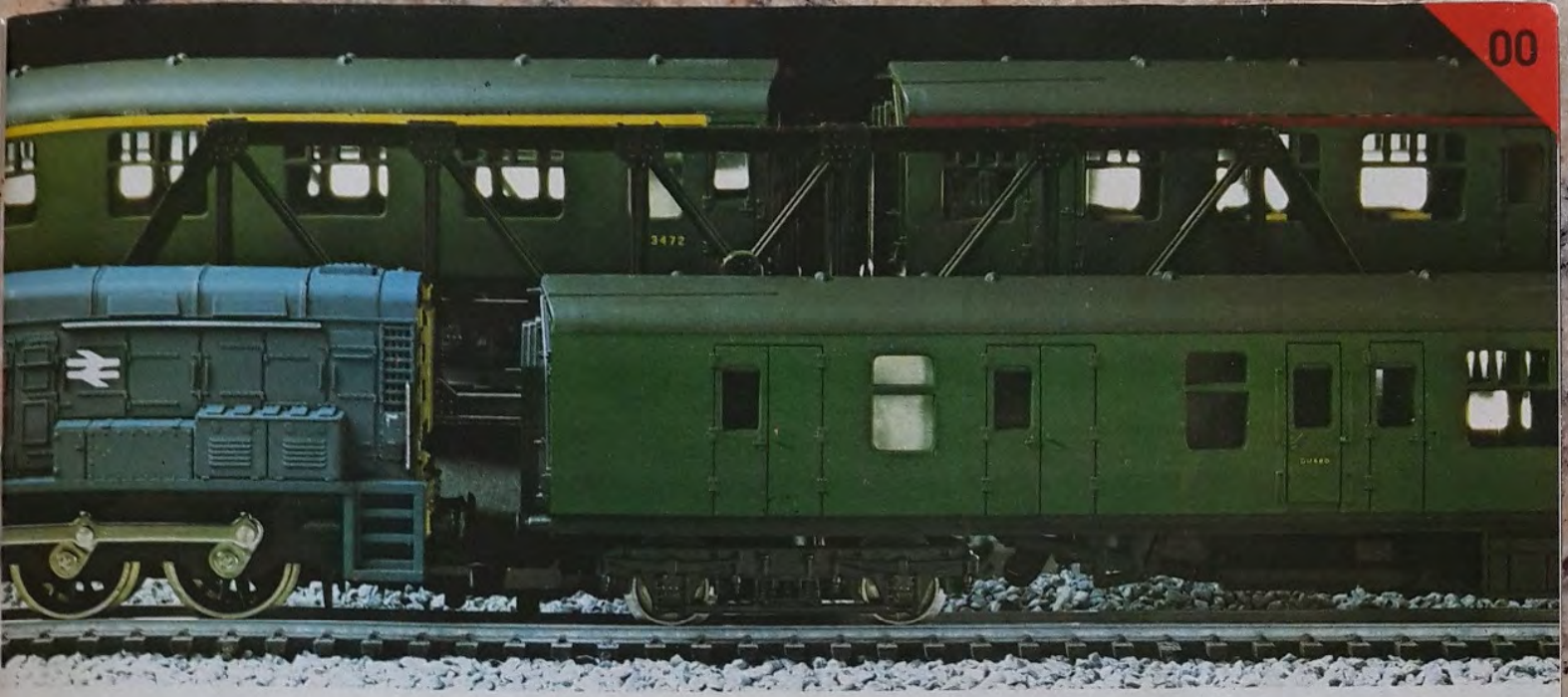
305344 Standard Gangwayed Brake Van. Crimson and Cream Livery.



305363 BR Mark I Corridor 3rd. Crimson and Cream Livery. NEW

HOW TO MAKE UP AN AUTHENTIC EARLY BR TRAIN:





S.R.



305314 SR Mark 1 Corridor Composite Coach.



305334 SR Mark 1 Corridor Brake Coach.



305324 SR Mark 1 Restaurant Car.



305348 SR Standard Gangwayed Brake Van.



305365 SR Mark I Corridor 3rd Coach. NEW

HOW TO MAKE UP AN AUTHENTIC SOUTHERN REGION TRAIN:



205115MG 305334 305314 305324 305314 305334



205103MG 305314 305324 305314 305314 305334

OO SCALE FREIGHT STOCK

Freight business has always been a most important factor in the successful running of a railway system.

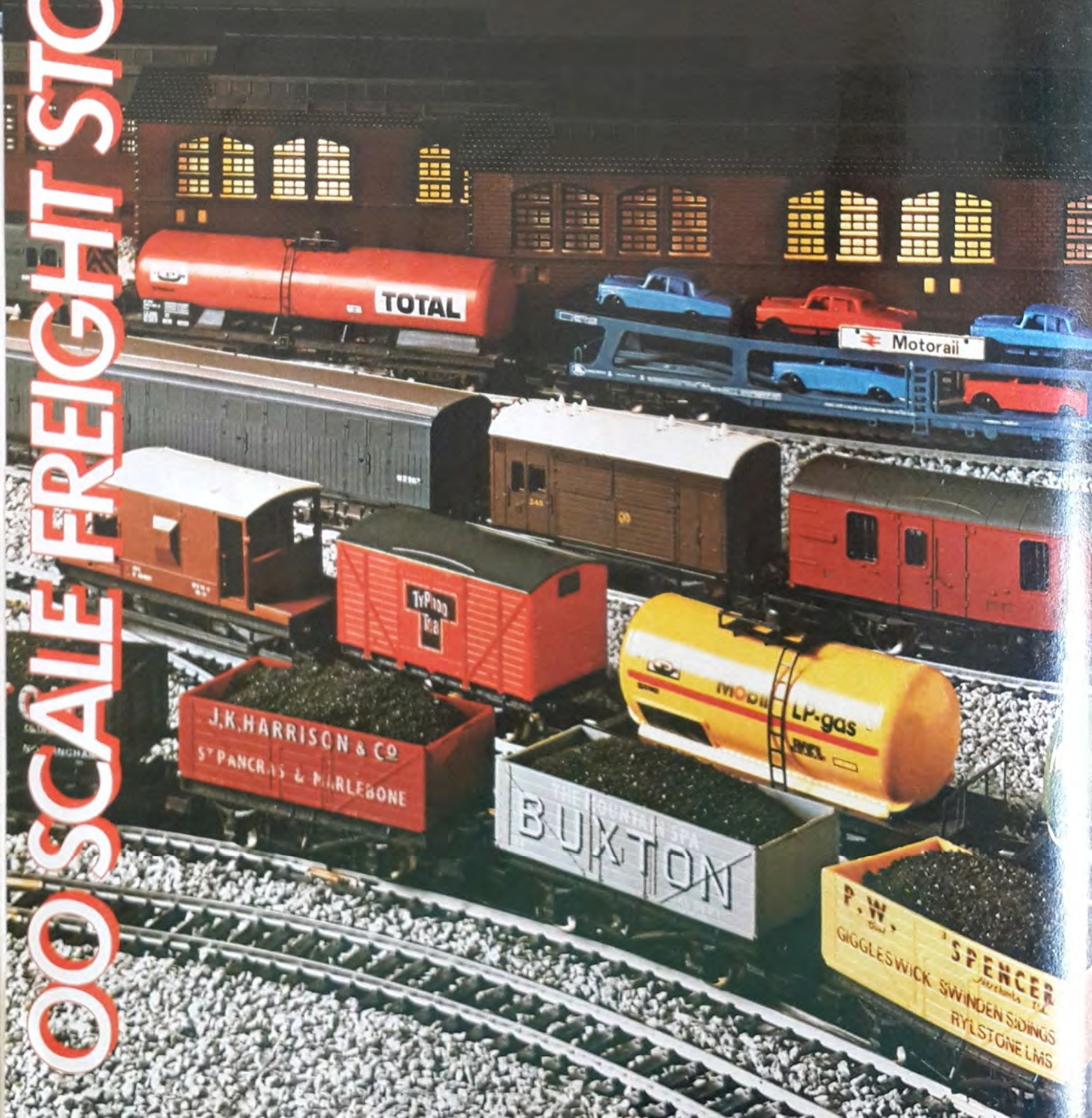
Close examination shows that freight stock has a unique character and history all of its own, and this is particularly well portrayed in the variety and fine detailing of Lima models.

You can recreate the days when Britain was criss-crossed with railways, and rail freight was practically the only way to move goods in bulk. Mixed trains of "private owner" wagons each proudly displaying its owner company, were an often colourful sight throughout the country.

The progress in freight transport made by the four post-grouping companies is well reflected in the Lima range, with models like the GWR Siphon G and LMS GUV Parcel Vans - many of which are still running today.

British Rail still handle over 100,000 freight movements every year, often involving large and heavy payloads such as road stone, oil, cars and containers. Lima keeps you right up to date, too, with fine models of modern freight stock.

Just take a look at the full range and you'll see how easy it is to operate your own freight service on a realistically grand scale!





302908 'Esso B.R.T.' bogie tank wagon.



302913 'Amoco' bogie tank wagon.



302911 'Milk' bogie tank wagon.



302909 'Total Oil' bogie tank wagon.



305351 GWR Bogie parcel van 'Siphon G'.



305352 GWR Bogie parcel van 'Siphon G' Palethorpes Sausages.



305353 Bogie parcel van 'Siphon G'. BR Livery.



305354 GWR Bogie parcel van 'Siphon G' 'Enparts'.



305350 Bogie parcel van 'Siphon G' NEW
early BR livery.



305656 BR Standard 57ft Bogie GUV NEW
"Express Parcels".



305657 BR Standard 57ft Bogie GUV NEW
1958 lined maroon livery.



305658 BR Standard 57ft Bogie GUV NEW
"Theakstons Beer" livery.



309057 'British Leyland' car carrier.



309053 'Motorail' car carrier.



309068 Multiple wagon with 'GEC' transformer load.



309067 'British Steel Corporation' foundry wagon.



303204 BR Rail freight van with 4 doors.



302892 'NCB' coal-hopper wagon with operating doors.



309059 35 ton breakdown crane and flat car. LNER Livery.







305612 'Black Park Colliery' 7 plank wagon.



305632 'P.W. Spencer' 7 plank wagon.



305614 'Barrow Barnsley' 7 plank wagon.



305633 'Pinxton Collieries' 7 plank wagon.



305631 'J.K. Harrison' 7 plank wagon.



305634 'Buxton Gas Dept' 7 plank wagon.



305601 'Typhoo Tea' 20 ton box van.



305608 'Castrol GTX' 20 ton box van.



305603 20 ton box 'Lucas Batteries'.



305607 20 ton box van. 'Birds Custard Powder'.



305625 GWR 2 axle horse box.



305628 2 Axle Horse Box SR Livery.



305626 2 Axle Horse Box LMS Livery.



305638 50 ton 'Tilcon' stone hopper wagon.



305635 50 Ton stone hopper wagon 'Yeoman'.



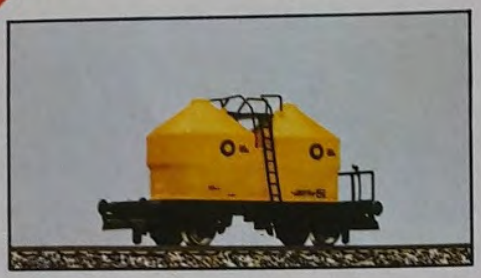
305639 50 ton Stone hopper wagon "Tarmac". NEW



305636 50 Ton stone hopper wagon 'A.R.C. Roadstone'.



305637 50 Ton stone hopper wagon B.R.



302805 'Blue Circle' twin tank cement wagon.



302715 'BP' tank wagon.



302717 'Mobil P. Gas' tank wagon.



305355 CCT parcels wagon 'Tartan Arrow'.



305356 CCT parcels wagon 'Rail Blue Livery'.



305357 CCT parcels wagon 'Early BR Livery'.



302822 'Watneys' triple cask beer wagon.



305650 Procor 45 ton Whisky Grain Hopper Wagon "VAT 69". NEW



305651 Procor 45 ton Whisky Grain Hopper Wagon "Haig". NEW



305359 LMS GUV Bogie parcels van. BR Crimson/Cream.



305358 LMS GUV bogie parcels van, maroon.



305652 Procor 45 ton Whisky Grain Hopper Wagon "Black & White" NEW



305360 LMS GUV bogie parcels van. BR Blue.



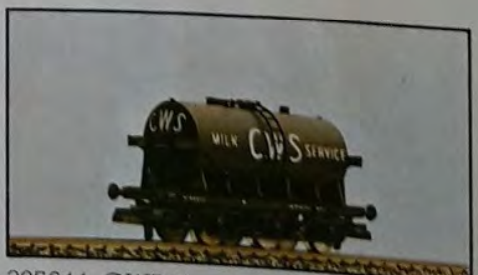
305641 GWR 3 axle Milk tank wagon 'St. Ivel'.



305642 GWR 3 axle Milk tank wagon 'I.M.S.'.



305643 GWR 3 axle Milk tank wagon 'Express Dairies'.



305644 GWR 3 axle Milk tank wagon "C.W.S. LTD". NEW



303173 'National Coal Board' mineral wagon.



303175 BR Long Wheelbase mineral wagon.



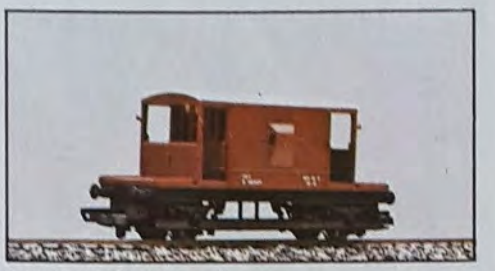
302870 40 container wagon 'A.C.L.'.



302871 'Freightliners Ltd.' container wagon.



303545 'Heinz' closed wagon.



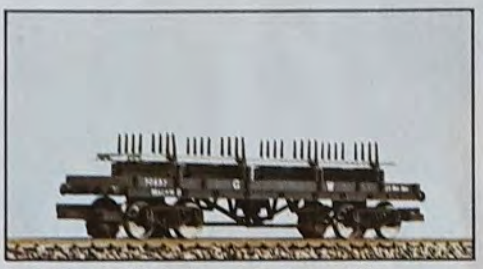
305620 BR 20 ton brake van.



305621 LNER 20 ton brake van.



305630 Bogie bolster wagon Bobel "B" steel load.



305629 GWR Bogie Bolster Wagon with steel load. NEW





Every real-life railway line was built for a purpose, and you can add that realism to your layout with Lima's great choice of accessories, whether it be a lazy country station, a bustling container terminal or a fully operational coal depot.

OO SCALE ACCESSORIES



BRIDGES

The simple answer to lack of space, and an exciting scenic addition, is to build a raised section of track into your layout using Lima bridges and inclines.

Be careful not to make your gradients too steep or your trains will lose their grip. To help here Lima supply three basic sets of incline ramps, together with three bridge spans:-

Gradual Incline

Use item 600911. Every Lima locomotive can climb such an incline, even when loaded with a normal complement of wagons and coaches.

The bridge and piers of item 600911 give a track height of 8.6 cm and allow a train to pass under the top tracks. There are nine piers for each ramp, limiting the gradient to 4%.

Please note that if you are using an electric locomotive with a pantograph, the pantograph must be lowered to avoid collision with the bridge.

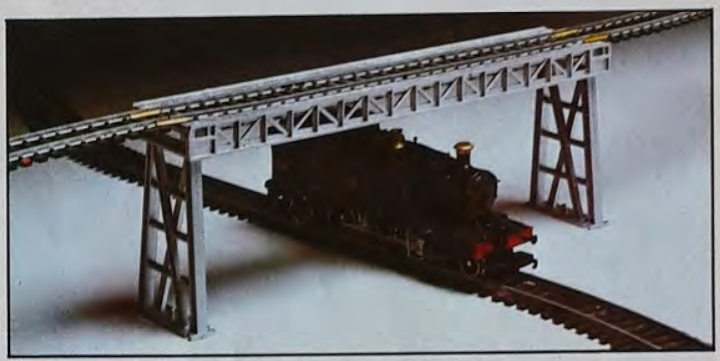


600057 Banked Bridge in a straight stretch

You can transform a small circle into an oval by adding a straight piece of viaduct and two straight pieces of track (item 403020).



600055 Banked Bridge in a curved stretch
For use with 720mm curved track.
Track height 2.8cm.



600911 Bridge for a figure 8 banked circuit

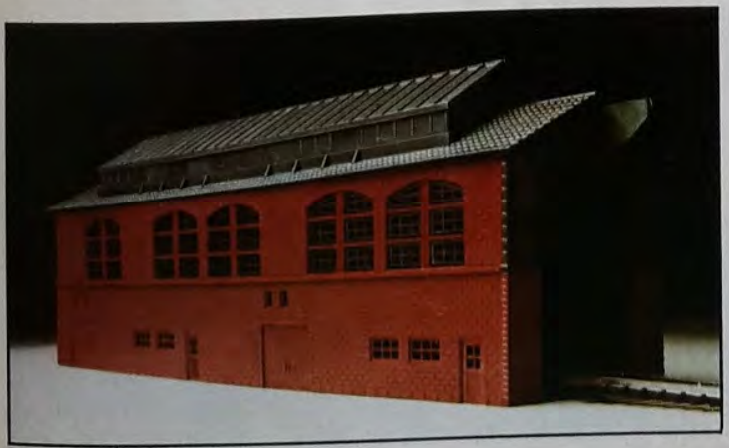
Using a 600911 you can construct a figure "8" circuit passing over the track by means of a straight viaduct and nine trestles of increasing height for each one of the two ramps. A height of 65mm in necessary to allow trains to run on the lower track.



602080 De-Luxe Tunnel
With special scenic finish.



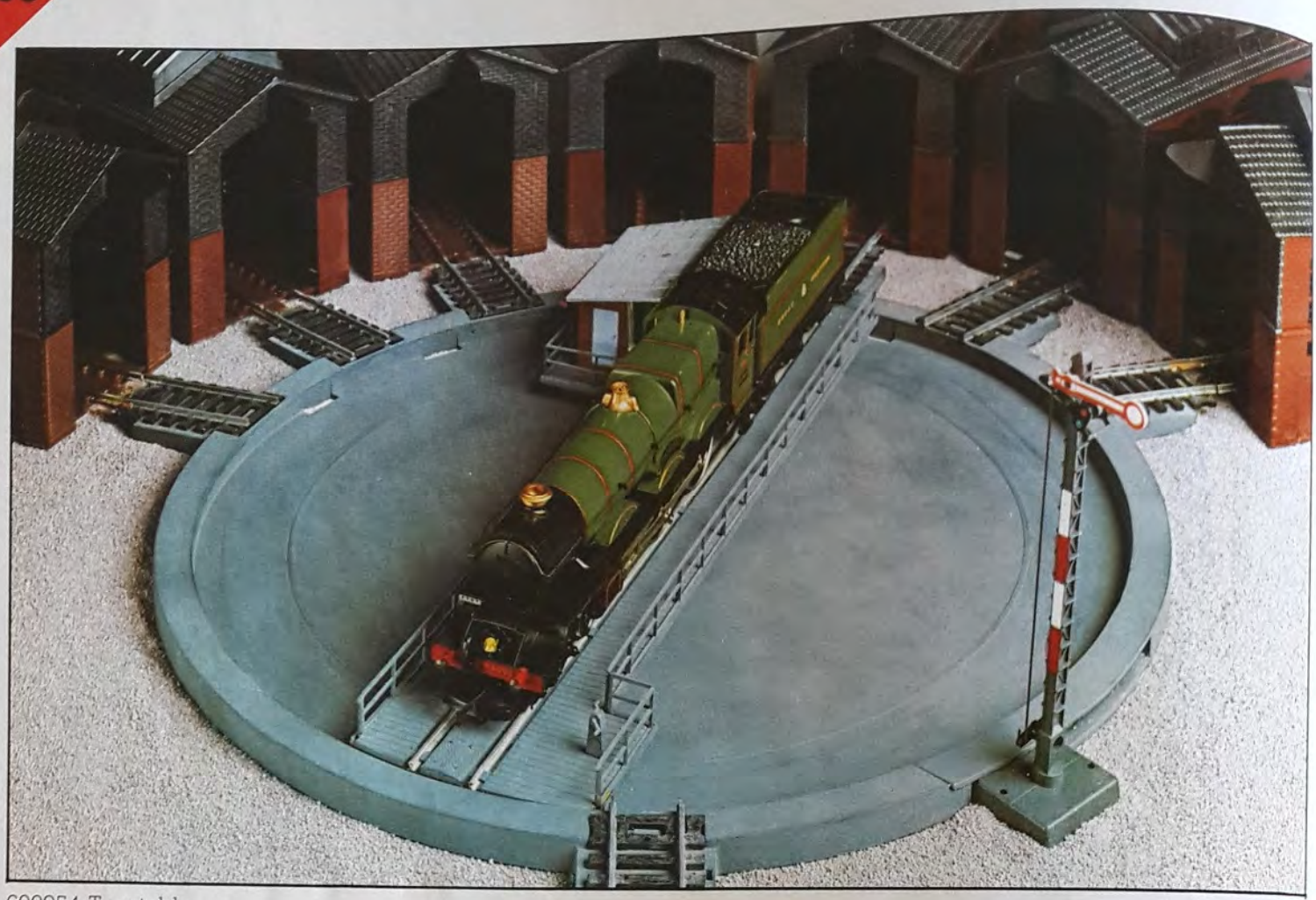
600021 Automatic Level Crossing
Barriers close to stop the traffic as your train speeds across.



600955 Engine Shed
Can also be used in conjunction with Turntable 600954.

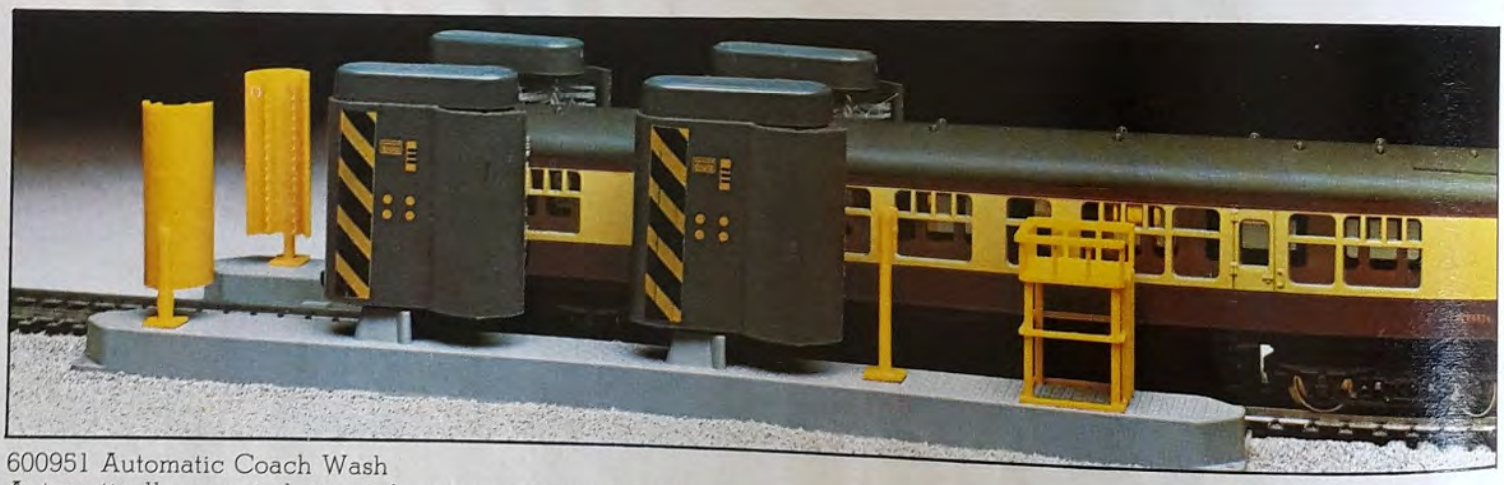


600052 Mechanical Swing Bridge. Automatically stops trains approaching when bridge is across track.



600954 Turntable
Manually operated with 8 access points.

NEW



600951 Automatic Coach Wash
Automatically operated as coach movement activates brushes.



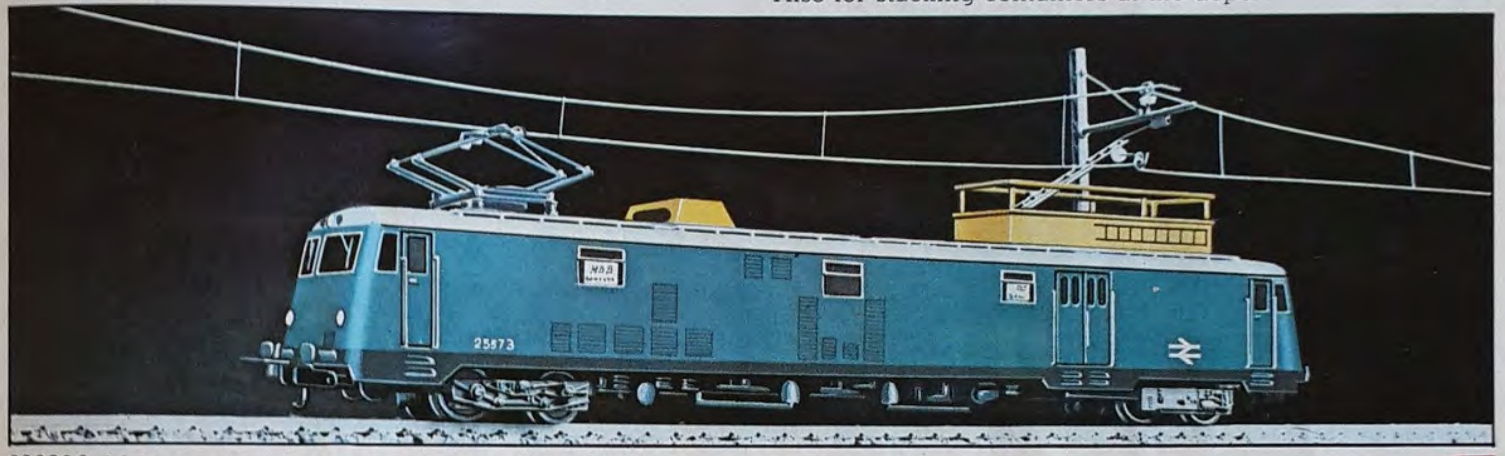
600963 Container Terminal and Unloading Siding
Fast transfer of Freight from rail to road with this special bogie transporter, terminus and container lorry



600830, 600831, 600832 Scale Containers.
For trackside stacking or for transportation. Four assorted in each pack.



600990 Container Unloading Crane.
Easy transfer from road to rail on any part of your layout. Also for stacking containers at the depot.



600996 Maintenance locomotive for track and Catenary cleaning NEW

600801 Atlantic Container Lorry.

600807 Dunlop Container Lorry.

600805 Seatrain Container Lorry.

600802 Boat Transporter.

600806 Circus Animal Transporter.



600822 Ford Capri.
(Two car pack).

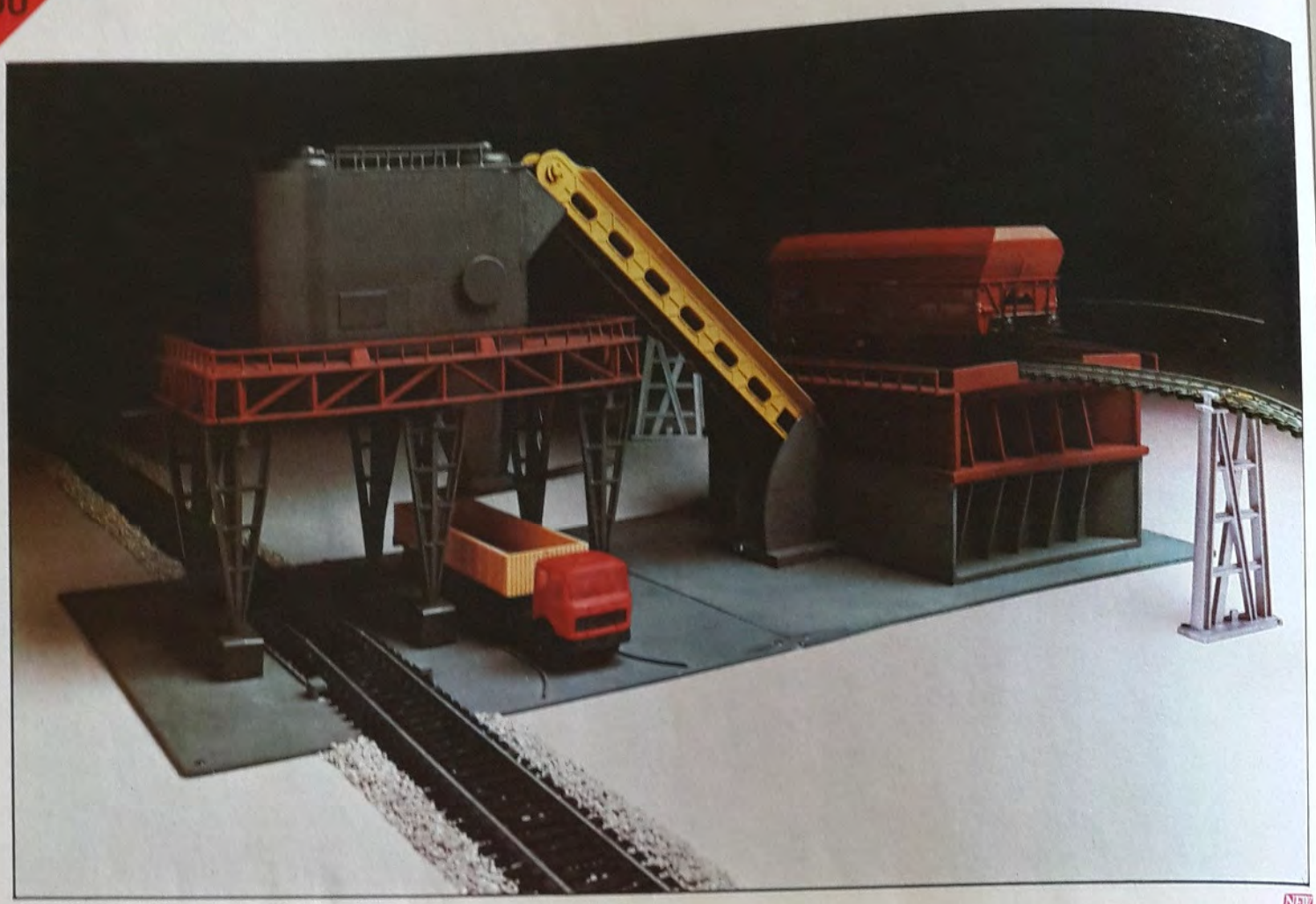
600804 Shell Petrol Tanker.

600823 Fiat 131
(Two car pack).



600820 Mercedes.
(Two car pack).

600803
Builders Merchant Lorry.



NEW

602892 Fully Operational Coal Depot
Double action transfer of coal from NCB Hopper Wagon to storage silo and back to road. Wagon and two lorries included



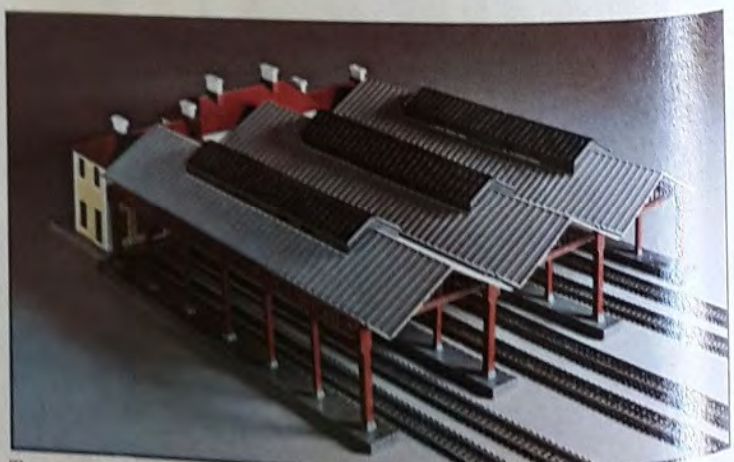
600031 Platforms with Canopy



600033 Main Line Station Building



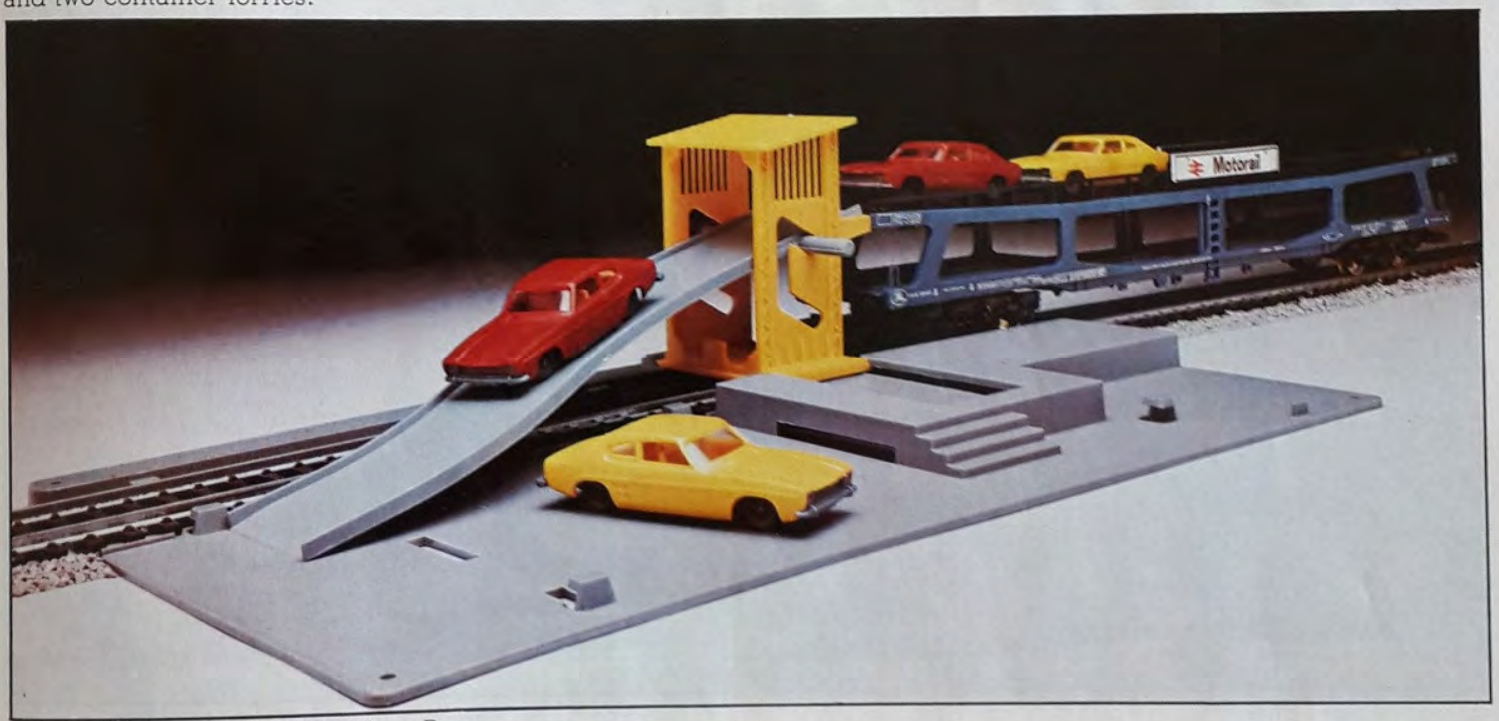
Main Line station with 1 section 600033 and 1 section 600031.



Terminal station with 1 section 600033 and 3 sections 600031.



600960 Freightliner Terminal
Your fully-equipped terminal makes light work of the flow of container traffic from road to rail. With rail transporter and two container lorries.



600941 Automatic Car Unloading Base
Complete with Motorail car transporter and four cars. Ramp adjusts to both levels of transporter as your passengers drive on and off.



600957 Diesel refuelling point. NEW



600956 Diesel maintenance depot. NEW





600034 Country Station



600037 Water Tower

600032 Signal Box



600068 Provincial Bank

600067 Tudor Style House

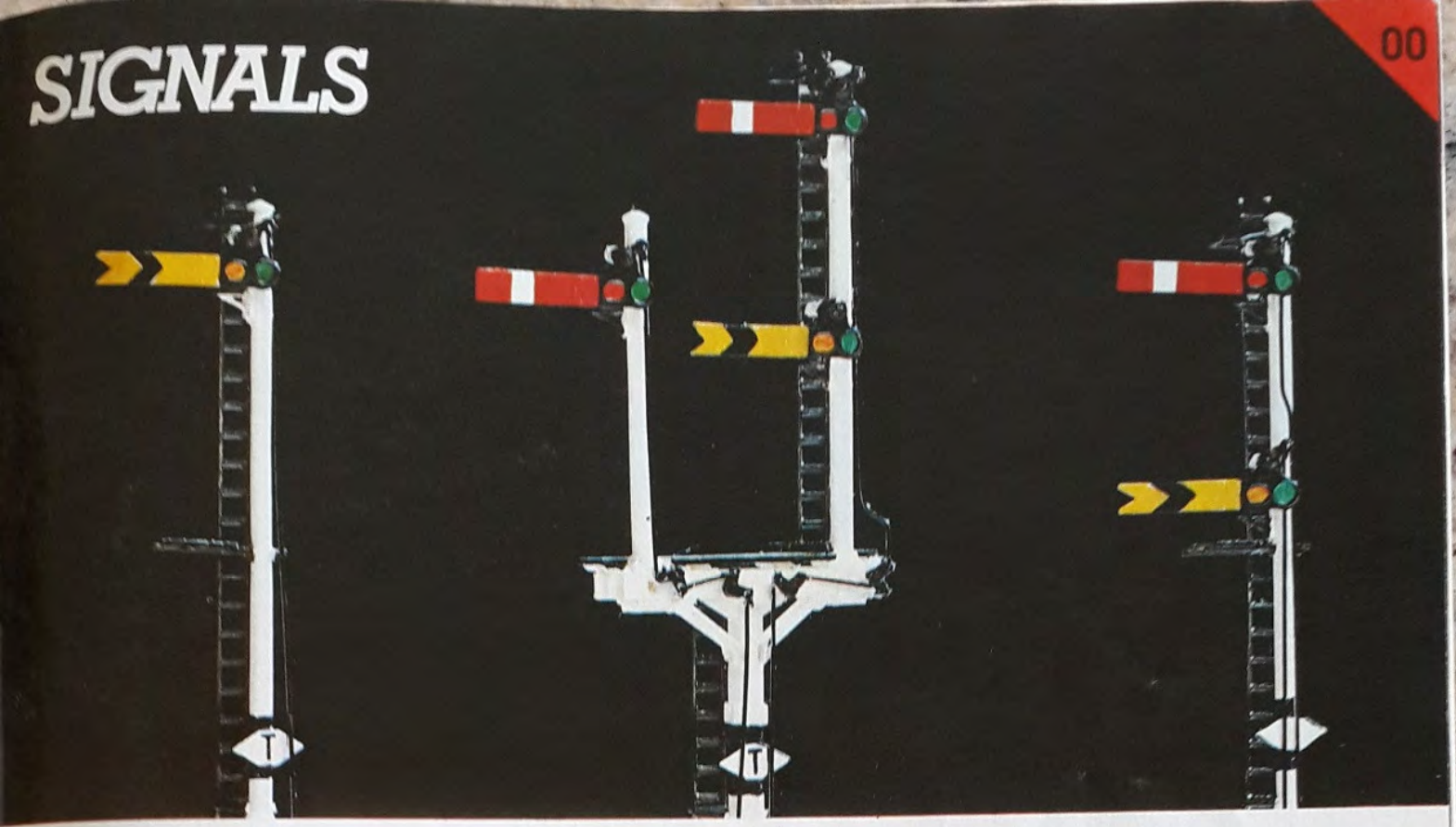


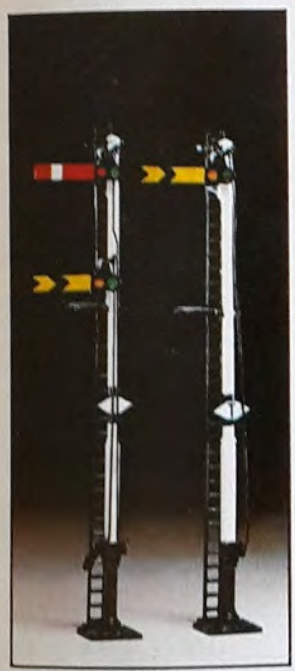
600069 Country Pub



600070 Parade of Village Stores

SIGNALS





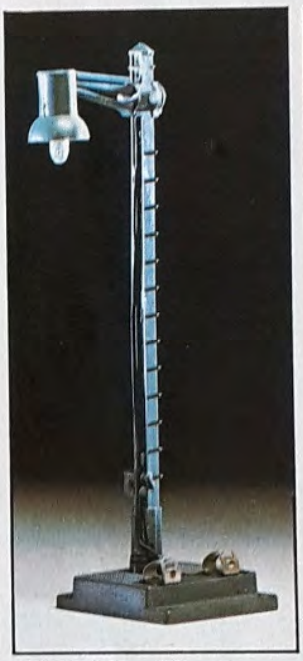
600035 LMS/BR Upper Quadrant Signals Home/Distant: Distant NEW



600036 LMS/BR Upper Quadrant Main Line/Branch Gantry. NEW



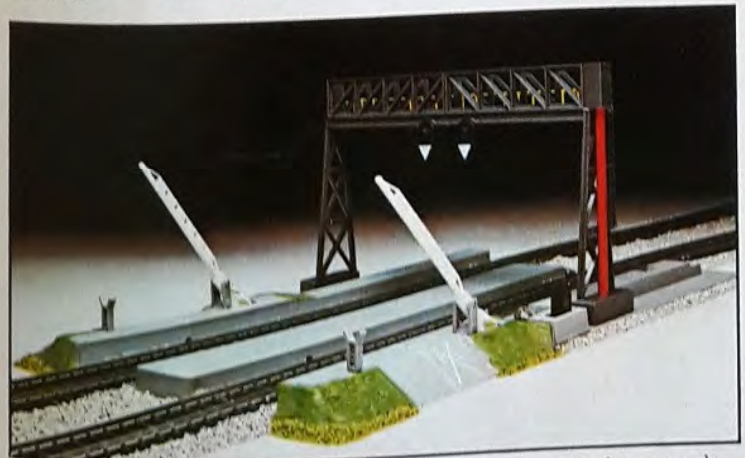
600029 Working two-aspect colour-light signal.



600026 Yard lamp with bulb and wiring.



600027 Double yard lamp with bulb and wiring.



600025 Overhead gantry with working colour light signals, for stopping train before crossing barriers operate.



600046 Station with signal. When the signal is switched to red, the train will automatically stop in the station.

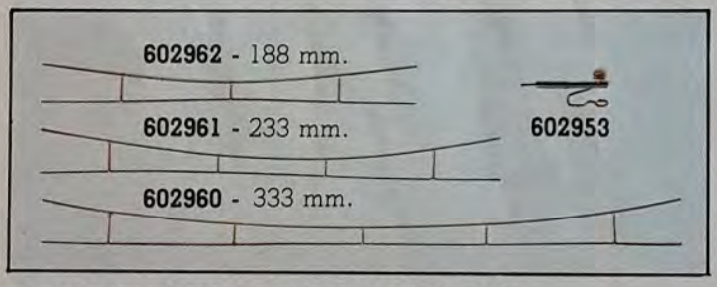
CATENARY SYSTEM NEW



THE CATENARY AS A SCENIC ACCESSORY

The Catenary system can quickly turn an ordinary layout into an exciting system because the Catenary itself enhances the scenery and overall appearance. Many modellers like to use the Catenary system purely as a scenic accessory without the use of the electric current and this is made possible by the fact that Lima have taken great care to produce Catenary accessories and parts of supreme quality and style.

If, however, you are a modeller with some experience and wish to adapt your existing locos for use with the electrified Catenary system then you should purchase the special LIMA Pantograph adaptor kit shown opposite.



ELECTRIFICATION OF THE CATENARY

The Catenary is the system used to support overhead wires which carry one pole of the electric current to the locomotive (the other pole being supplied through the track) and which can add an exciting new dimension to your model railway. The overhead wires are supported by a series of insulated posts along the sides of the track and the current passes from the overhead wires to the locomotive through a 'Pantograph' which is housed on top of the locomotive.



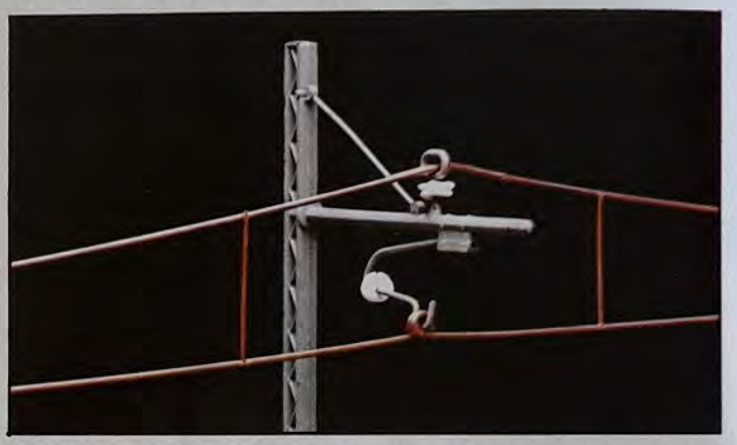


When two locos are used on the same track, one of the locos, fitted with a Pantograph can collect its current from one rail and the overhead wires, whilst the other loco will collect its current from the track.

The Lima conductor wire connected to the Catenary is made from copper-covered steel, and the Catenary supports are specially produced to fit with each type of track unit, straight, curved, short or long.

Lima produce 4 different types of Catenary support post

602950 - with short support brackets
602951 - with long support brackets
602952 - with electrical terminals
602953 - variable length support bracket
602954 - main catenary support.



All the posts must be arranged on the same side of the track and if, for example they are located on the outside of the track they must be of the short support type in order to maintain a taut overhead wire.

In Figs. A and B we illustrate the use of the Catenary at points and crossings, and the use of various posts through a long stretch of track and curves which include points and crossings.

ELECTRIFICATION OF YOUR LOCOMOTIVE

If you wish to convert your existing Lima locomotive to operate with the Catenary under electric current you may purchase the special Lima Pantograph adaptor kit. There are three different types of Pantograph available as follows:-





Each kit contains a switch, the necessary cable, the Pantograph and a detailed instruction leaflet. Great care should be taken to follow the instructions when altering your locomotive and fitting the Pantograph.

A train set is by far the best introduction to model railways. From the outset you have a complete system which will give hours of pleasure, and can easily be extended into a much larger layout. Lima Train Sets represent the widest choice available, and great value for money!

Many of the 00 sets - by far the most popular scale - contain action-packed accessories that will really make your railway come to life. No other manufacturer offers you so much for your money! As your layout grows you can add the names of some famous trains, past and present, with the 00 "*Golden Series*". These specially assembled packs are again unique to Lima and they enable you to buy complete and authentic trains to run on your existing track.

Where lack of space is a problem N gauge sets still offer the same realism as 00, but in only half the equivalent area. And, when you eventually have room to extend your layout, N gauge will give you proportionately many more track "miles" on which to run your trains.

For the very young imagination - strong and reliable clockwork sets, and electric "Starter Sets" in 00, are guaranteed to give hours of fun.

There's something for everybody in the Lima range!



Lima models

1981/82
British Edition
00 Scale,
00 Golden Series
N Gauge
Clockwork.

TRAIN SETS

STEAM FREIGHT

101607





Ø cm. 75

103307 Lima's popular freight set, now with the powerful BR Class 33 Bo-Bo Diesel Locomotive pulling a big payload of wagons and featuring an automatic level crossing with a Dunlop Container lorry.

Set 103307 contains: 205115MG Class 33 Bo-Bo Diesel in Early BR livery, 305634 Buxton Plank Wagon, 305607 Birds Custard Van, Dunlop Lorry, automatic Level Crossing, 10 pieces of Curved Track including rerailer and a 2 speed forward and reverse Battery powered Controller. Requires 6×HP11 Batteries, not included.



MIDLAND EXPRESS

102606



This super set features the 0-4-0 Steam Tank Loco and 3 private owner wagons. Lima sets are the ideal way to begin the hobby and this inexpensive set can form the basis of a more complicated layout.

Set 101607 contains: 203005IG 0-4-0 Steam Tank Locomotive, 305612 Black Park 7 Plank Wagon, 305601 Typhoo Tea Van, 302805 Blue Circle Cement Wagon, 10 pieces of Curved Track including re-railer and a 2 speed forward and reverse Battery powered Controller. Requires 6 x HP11 Batteries, not included.



Ø cm. 75



MAINLINE FREIGHT

BRITISH 00 COUPLING



Another highly popular set this time featuring the fascinating world of "steam" power and passenger coaches from the best days of the London Midland Scottish Railway. A superb 0-6-0T J50 class Tank Loco and three passenger coaches in LMS maroon livery.

Set 102606 contains: 205100G LMS J50 Loco, 3×309433 LMS Passenger Coaches, 10 pieces of Curved Track including rerailer and a 2 speed forward and reverse Battery powered Controller. Requires 6×HP11 Batteries, not included.



Ø cm. 75



BRITISH 00 COUPLING

ROAD TO RAIL

104607



BRITISH 00 COUPLING

SUPER FREIGHT FLYER

105407



BRITISH 00 COUPLING

DELUXE MOTORAIL EXPRESS

105206



Terrific action and play value are featured in this Lima Set as special crane unloads the Container lorry from the nearby flatbed freight wagon.

Set 104607 contains: 205114MG Class 33 Bo-Bo Diesel Loco in BR livery, 305620 BR Brake Van, 305603 20 ton Box Van, Lucas Batteries, 302908 Esso Oil Bogie Tank Wagon, 305631 J.K. Harrison 7 Plank Wagon, an oval of track including rerailer and 2 speed forward and reverse battery powered Controller. Requires 6×HP11 Batteries, not included.



cm. 98x75



This super Express Freight Train hauled by the famous Class 55 Deltic Locomotive features special automatic unloading siding which transfers pipes to the waiting lorry.

Set 105407 contains: 205106MG Deltic Locomotive in BR livery, 303173 National Coal Board Mineral Wagon, 305620 BR 20 Ton Brake Van, 305633 Pinxton Plank Wagon, 305601 Typhoo Tea Van, 305607 Birds Custard Van, 600803 Builders Merchant Lorry, Automatic Pipe Transfer Terminal, an oval of Track including rerailer and a Mains Power Controller.



cm. 120x75



More excitement and play value is built into this authentic Motorail Express train, featuring a manually operated two tiered Car Unloading Terminal.

Set 105206 contains: 205106MG Deltic Locomotive in BR livery, 305301 Mk2B Inter-city Corridor Coach, 305302 Mk2B Inter-City Open Coach 300941 Motorail Car Carrier with 4 Ford Capri Cars, unloading terminal and an oval of track including rerailer and a Mains Power Controller.



cm. 120x75



BRITISH 00 COUPLING

SUPER FREIGHTLINER TERMINAL

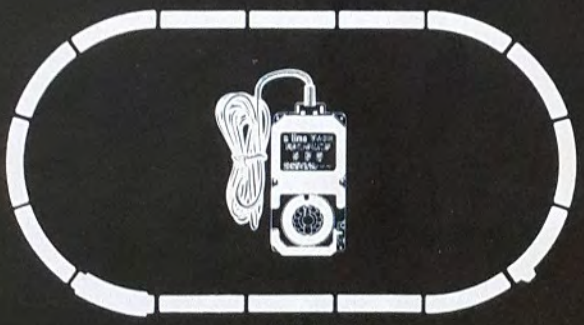
107507



BRITISH 00 COUPLING

COAL UNLOADING DEPOT

107307

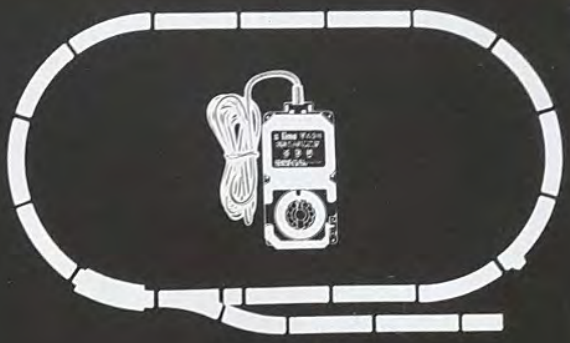


cm. 142x75



The freight set to beat them all! A fantastic line up for the goods yard with the powerful Class 55 'Deltic' Loco, a host of wagons, container lorries, track and sidings and the fully operational Container Unloading Terminal.

Set 107507 contains: 205106MG BR Class 55 'Deltic' Diesel Loco, 302822 Watney's Wagon, 302871 Freightliners Ltd Container Wagon, 302909 Total Oil Bogie Tank Wagon, 305633 Pinxton Wagon, 303545 Heinz Closed Wagon, 305631 J K Harrison Wagon, 305632 P W Spencer Wagon, 600960 Container Unloading Terminal, oval of Track with siding including rerailer and a Mains Power Controller.



cm. 142x83



Lima's action packed Coal Unloading Depot Set features a realistic Coal Train with the powerful Class 42 Diesel Locomotive leading 7 wagons through a working Coal terminal, transferring loads from the hopper wagons to waiting lorries.

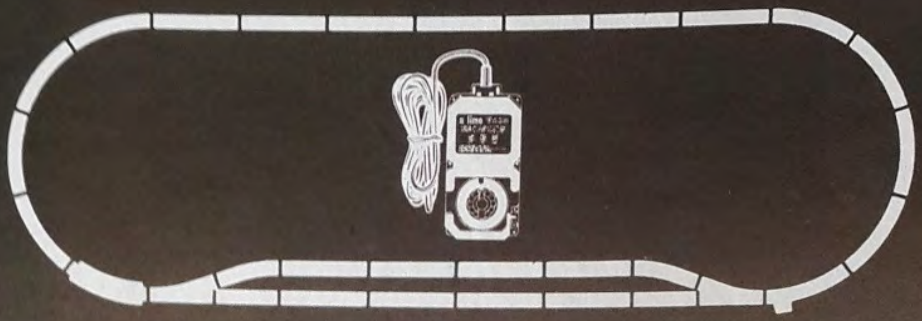
Set 107307 contains: 205127MG Class 42 Warship Locomotive in BR livery, 2×302892 NCB Working Coal Hoppers, 303173 NCB Open Coal Wagon, 305620 BR Brake Van, 305637 BR Stone Hopper, 305636 ARC Stone Hopper, 305635 Yeoman Stone Hopper, a manually operated Coal Terminal with Bridge Supports, 1 Lorry, a large oval of track including rerailer and a Mains Power Controller.



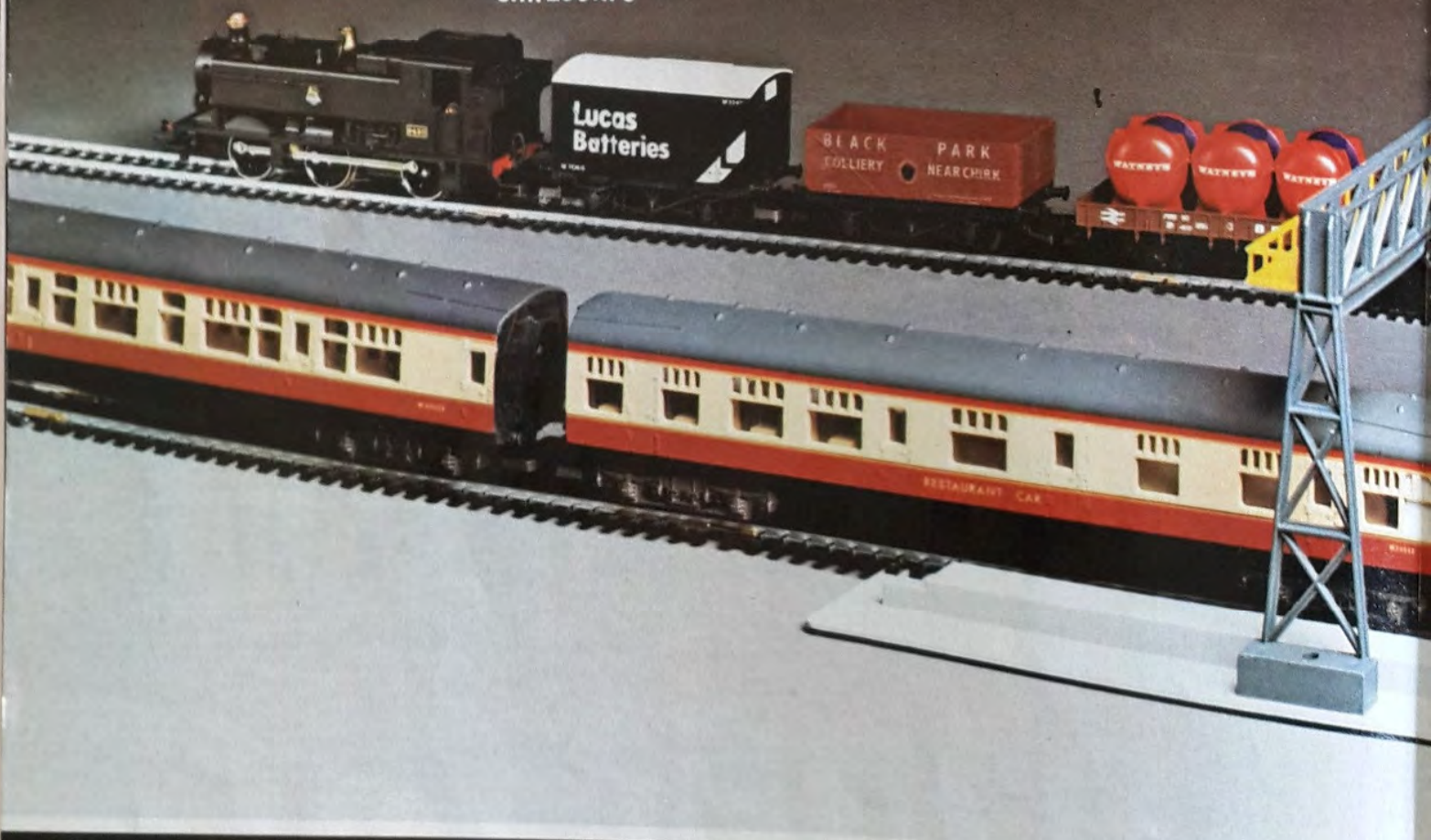
BRITISH 00 COUPLING

DELUXE DOUBLE TRAIN

107106



cm. 230x75



BRITISH 00 COUPLING

THE CORNISH RIVIERA EXPRESS

104506



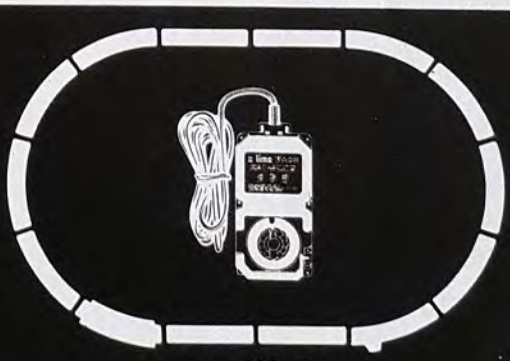
Twice the action with Lima's Double Train Pack combining the majesty of steam age and early days of diesel power. This magnificent set includes a large double oval of Track, an electrically operated signal gantry incorporating an automatic level crossing and a Mains Power Controller for 2 train operation.

Set 107106 contains: *Passenger Train*, 205134MG Class 52 Western Locomotive in Early BR livery, 305311 Crimson and Cream Composite Coach, 305325 Crimson and Cream Restaurant Coach. *Freight Train*, 205118MG 0-6-0 94XX Tank Locomotive in early BR livery, 305603 Lucas Batteries Van, 305612 Black Park Wagon, 302717 Mobil Tank Wagon, 305620 BR Brake Van, 302822 Watney's Wagon, 303545 Heinz Closed Wagon, an electrically operated signal gantry incorporating an automatic level crossing, a large double oval of Track including rerailer and a Mains Power Controller.



GWR's most popular Train, the classic Cornish Riviera Express. The famous 4-6-0 King Class Locomotive, which was built in Swindon and introduced in the summer of 1927, was recognised as the fastest express passenger locomotive of its day, reducing journey times to all parts of the Great Western Region dramatically.

Set 104506 contains: 205103MG 4-6-0 King Class Locomotive in GWR livery, 305313 GWR Composite Coach, 305333 GWR Brake Coach, 305322 GWR Restaurant Coach, an oval of Track including rerailer and a Mains Power Controller.



cm. 120x75



BRITISH 00 COUPLING

MIDLANDER

149734G



BRITISH 00 COUPLING

MILK TRAIN

149736G



BRITISH 00 COUPLING

WESTERN EXPRESS

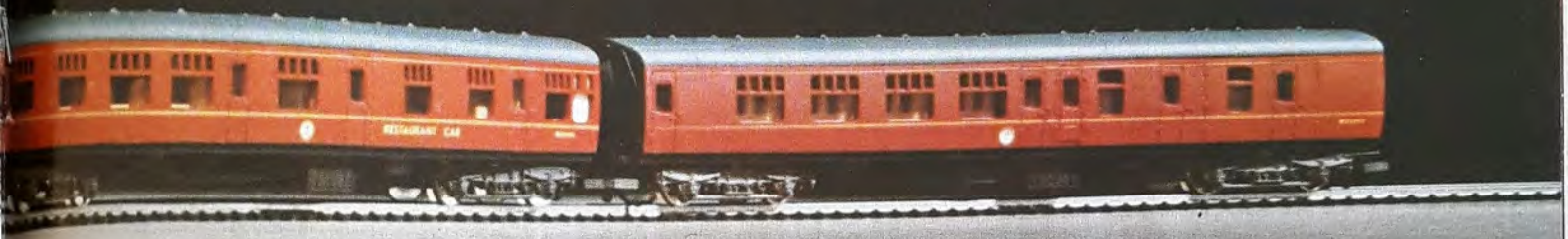
149741G



GOLDEN SERIES

The 1930's saw rapid improvements in passenger services between Scotland and the Capital with the LMS introducing more powerful locomotives such as the Hughes 2-6-0 'Crab' Class which was built at the Horwich works. The Midlander had an enviable reputation for good time keeping and was a magnificent sight leaving Euston Station under steam.

Set. 149734G contains: 205119MG 2-6-0 Crab Class Express Locomotive, 305332 BR Mark I Corridor Brake Coach, 305312 BR Mark I Corridor Composite Coach, 305323 Mark I Dining Car. Track and Power Unit not included.



GOLDEN SERIES

So called because the original service carried milk churns overnight from the West Country to the dairies in London. This service soon became very popular for the transportation of many other types of perishable produce ensuring fast delivery to London's markets and food processors. The Milk Train often consisted of many unusual combinations of passenger and freight stock.

Set 149736G contains: 205111MG 2-6-2T Class 45XX GWR Prairie Tank Locomotive, 305351 GWR Bogie Parcel Van Siphon G, 305352 GWR Bogie Parcel Van Siphon G Palethorpes Sausages, 305345 Standard Gangwayed Brake Van. Track and Power Unit not included.



GOLDEN SERIES

Probably the most famous of all Western Region Diesels, the Class 42 Warship entered service in 1959. This mixed traffic locomotive is seen here hauling a convoy of crimson and cream coaches capturing the magnificent livery of early BR on the Western Region.

Set 149741G contains: 205128MG Maroon Warship, 305311 Crimson and Cream Composite Coach, 305325 Crimson and Cream Restaurant Coach, 305331 Crimson and Cream Brake Coach. Track and Power Unit not included.



BRITISH 00 COUPLING

INTER-CITY

149707G



BRITISH 00 COUPLING

SOUTHERN REGION

149735G



BRITISH 00 COUPLING

THE TALISMAN

149708G



GOLDEN SERIES

Considered by many the 'King' of the diesel, the Class 55 'Deltic' was introduced in 1961. The 100 mph Deltics pull their BR Blue/Grey Coaches currently on Inter-city services between King's Cross and Edinburgh and the locomotives carry the name and insignia of famous Scottish Regiments.

Set 149707G contains: 205106MG BR Class 'Deltic' Co-Co Diesel Locomotive, 305301 BR Mark 2B Inter-city First Class Corridor Coach, 305321 BR Mark I Restaurant/Buffet Car, 305303 BR Mark 2B Inter-city Corridor Brake Coach. Track and Power Unit not included.



GOLDEN SERIES

Of Southern Region's named trains, the Southern and Brighton Belles were probably the best known. With the passing of the steam age diesel and electric locomotives were gradually introduced and in 1960 the Southern Belle was headed by the Birmingham Carriage Company's latest diesel the Class 33. This enabled faster passenger services to the South Coast and reached speeds of up to 80 m.p.h.

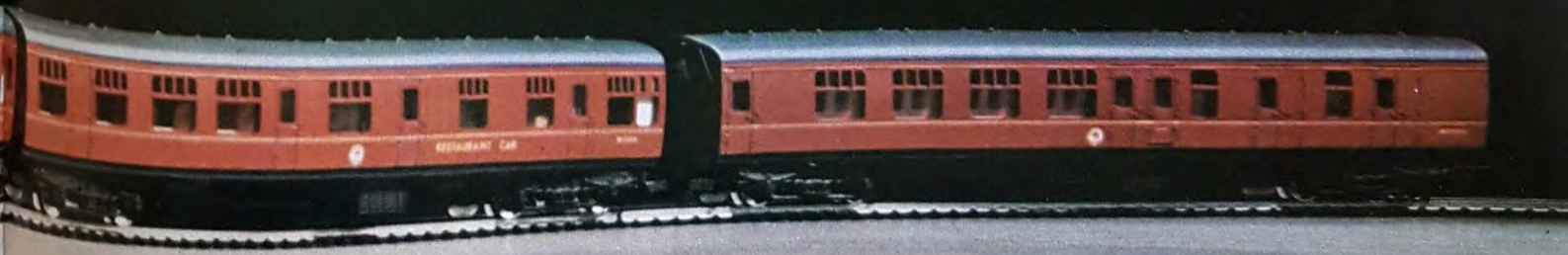
Set 149135G contains: 205115MG BR Class 33 Bo-Bo diesel locomotive in original livery, 305314 SR Mark I Corridor Composite coach, 305324 SR Mark I Restaurant car, 305334 SR Mark I Corridor Brake coach.
Track and Power Unit not included.



GOLDEN SERIES

Named after Sir Walter Scott's novel. The Talisman was introduced into service in September 1956 and ran between King's Cross and Edinburgh. In 1962 the steam locos were replaced by 'Deltic' diesels in green livery and the changeover to the new Inter-City livery took place three or four years later.

Set 149708G contains: 205105MG BR Class 55 'Deltic' Co-Co Diesel Locomotive. 305312 LMS Mark I Corridor Brake Coach. 305332 LMS Mark I Corridor Composite Coach. 305323 Mark I Restaurant car.
Track and Power Unit not included.



N MAINLINE FREIGHT

121207





cm. 105x47

123206

A fantastic line up in N gauge. Our compact work horse, the famous A1A-A1A Brush Diesel Loco pulls an elegant train of Blue/Grey Inter-city Coaches - two Composites, a Buffet Car and a Brake Coach.

Set 123206 contains: 220209 A1A-A1A Brush Diesel Locomotive, 2×320306 BR Composite Coaches, 320307 BR Second Class Brake Coach, 320313 BR Buffet Car, large oval of Track with passing loop, including rerailer and 2 speed forward and reverse Battery powered Controller. Requires 6×HP11 Batteries, not included.



N MIDLAND SPECIAL

124206

Another new idea from Lima is this N gauge Double Train pack from the LMS era. A Steam Passenger Train and a Diesel Freight Train, a large double oval of Track and a 2 speed Battery powered Controller are all included. A unique idea for the N gauge modeller packed with play value and realism.



The powerful A1A-A1A Brush Diesel just devours work, and is ideally suited to its freight hauling duties.

Set 121207 contains: 220209 A1A-A1A Brush Diesel Locomotive, 320729 Blue Circle Twin Tank Cement Wagon, 320405 BR 20 Ton Brake Van, 320454 BP Tank Wagon, 320739 GTX Box van, 10 pieces of Track making an oval including rerailer and a 2 speed forward and reverse Battery powered Controller. Requires 6×HP11 Batteries, not included.



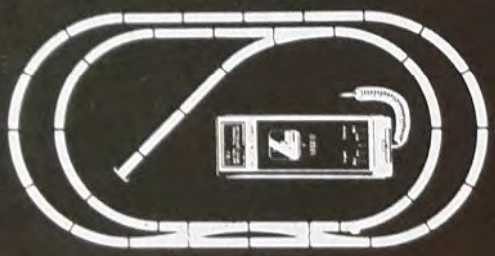
cm. 55x43



INTER-CITY N

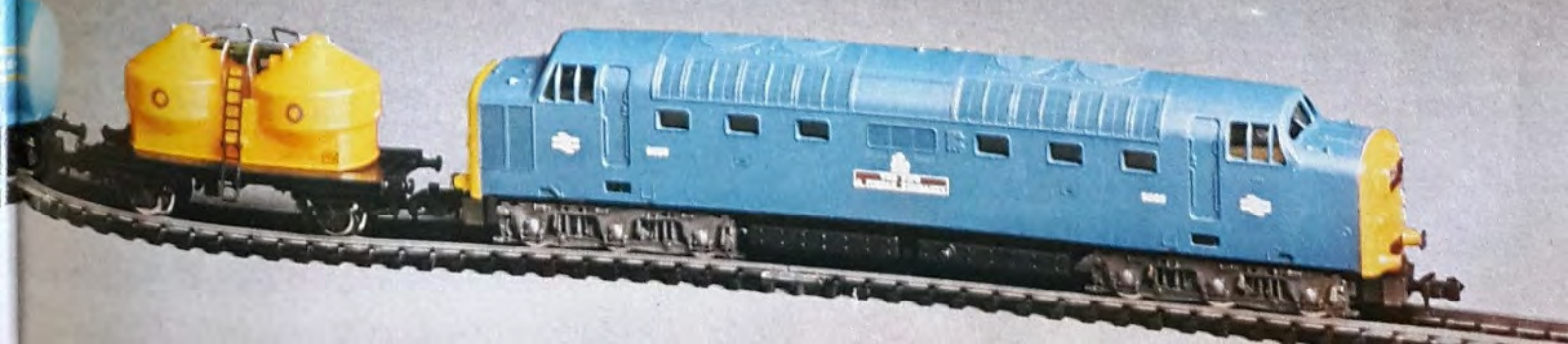


Set 124206 contains: *Passenger Train:* 220259 0-6-0 Class 4F Tender Locomotive, LMS unlined maroon livery, 320314 BR Composite Coach, LMS maroon livery, 320315 BR Second Class Brake Coach, LMS maroon livery, 320316 BR Buffet Car, LMS maroon livery
Freight Train: 220217 BR Class 55 Deltic Co-Co Diesel Locomotive, 320729 Blue Circle Twin Tank Cement Wagon, 320625 Milk Bogie Tank Wagon, 320617 2 Axle Horse Box LMS livery, 320869 BR Parcel Wagon, early BR livery, 320405 BR 20 ton Brake Van, large double oval of track including rerailer and 2 speed forward and reverse battery powered Controller. Requires 6×HP11 Batteries, not included.



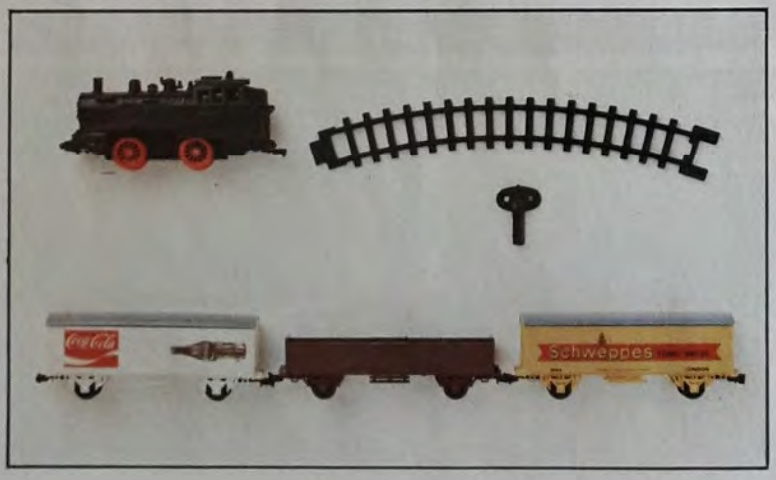
cm. 105x58





CLOCKWORK





STEAM FREIGHT

131001

This beginner's set is ideal for the young ones. A beautifully detailed Steam Tank loco pulls 3 colourful wagons with a circle of easy-assembled link-lock track.

Set 131001 contains: Clockwork Steam Loco with on/off switch, 3 wagons and 10 pieces of Curved Track makin.

FIGURE 8 FREIGHT

132051

A realistic swing-gate level crossing complements this exciting de-luxe clockwork set. Watch the Tank Loco haul 3 wagons through the Figure 8 circuit and over the level crossing. Fun and realism for the beginner to model railways.

Set 132051 contains: Clockwork Steam Loco with on/off switch, 3 wagons swing-gate level crossing and 18 pieces of curved, easy-assembled link-lock track.



"N" gauge is a fairly recent development in model railways, and models are based on a scale of 2mm to 1ft; exactly half that of "00" scale.

Many people just don't have room for a permanent 00/H0 system - but a really intricate 'N' gauge layout can easily fit onto a baseboard as small as 92cm × 61cm.

Another important factor is that the modeller who wants to be creative with his scenery can incorporate much more into an 'N' gauge layout with its facility to create a larger 'backdrop'.

Lima have an enviable world-wide reputation for packing both reliability and a wealth of fine detail into their 'N' gauge models; a reputation built up over many years of experience with this scale.



N GAUGE



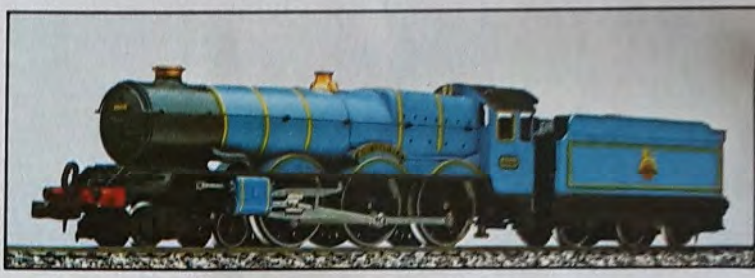
220259G 0-6-0 Class 4F Tender Locomotive. LMS Maroon Livery.



220258G 0-6-0 Class 4F Tender Locomotive. Unlined Black Livery.



220256G 4-6-0 'King' Class Express Locomotive. No. 6000 "King George V" in Lined GWR Green Livery. NEW



220257G 4-6-0 'King' Class Express Locomotive Experimental BR Lined Blue Livery No. 6009 'King Charles II'. NEW



220217G BR Class 55 'Deltic' Co-Co Diesel Locomotive. No. 9006 "The Fife and Forfar Yeomanry".



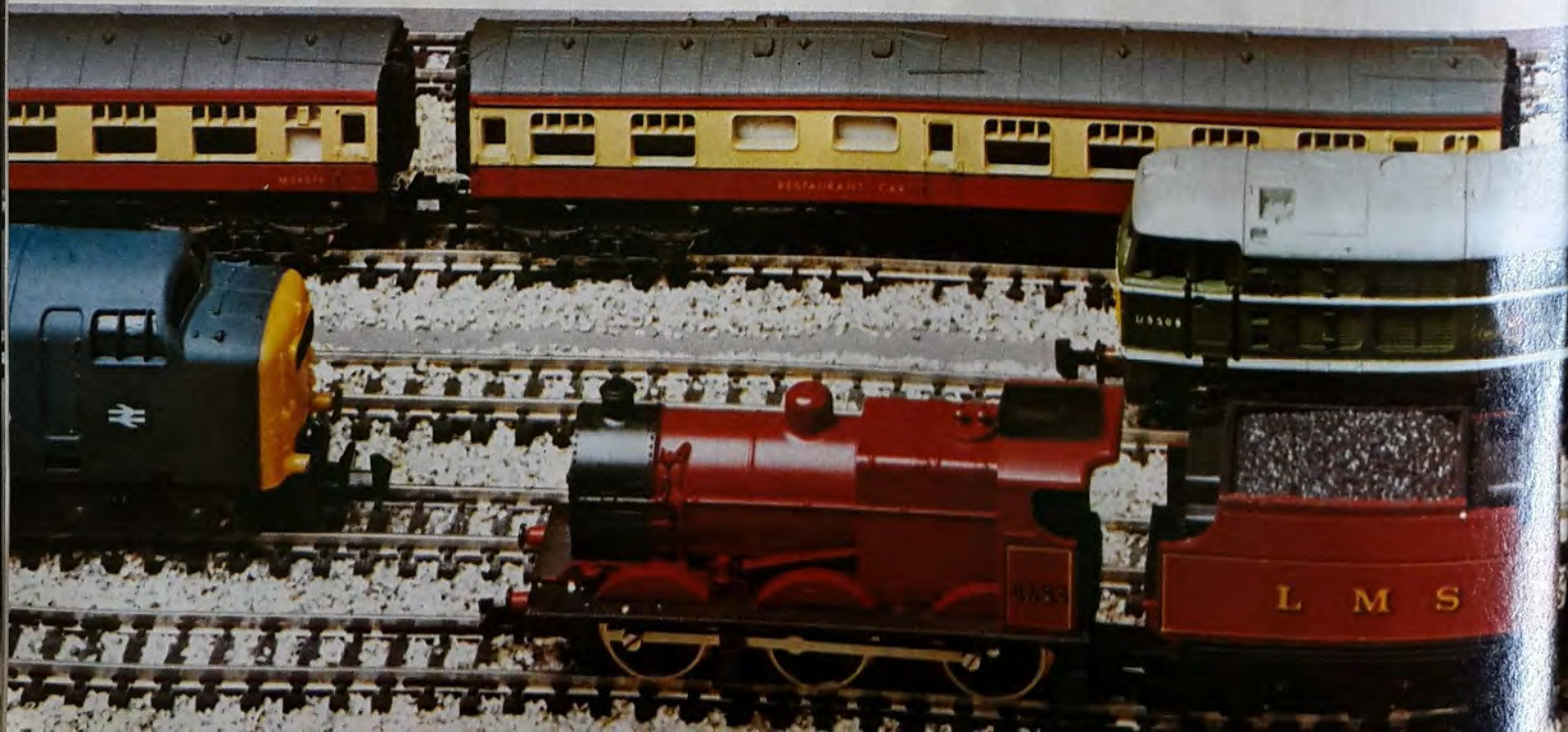
220253G BR Class 55 'Deltic' Co-Co Diesel Locomotive No. D9003 "Meld". Early Livery.



220209G Class 31 AIA-AIA Diesel Locomotive. BR Blue Livery.



220214G Class 31 AIA-AIA Diesel Locomotive. Early BR Livery.





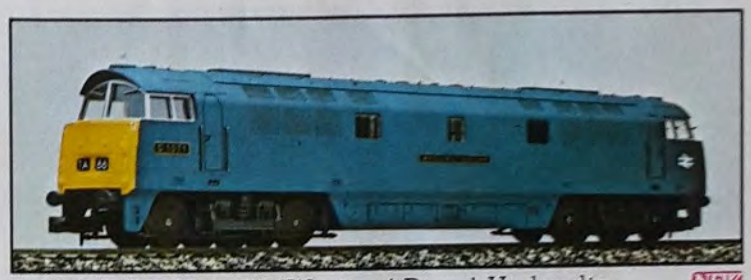
220210G 0-4-0 Diesel Shunter. Early BR Livery.



220211G 0-4-0 Diesel Shunter. BR Livery.



220242G Class 52 'Western' Diesel Hydraulic Locomotive. Western Maroon Livery. No. D1016 "Western Gladiator". NEW



220243G BR Class 52 'Western' Diesel Hydraulic Locomotive. No. D1071 "Western Renown". NEW



220299G Class 52 "Western" Diesel-Hydraulic Co-Co No. D1000 "Western Enterprise". NEW

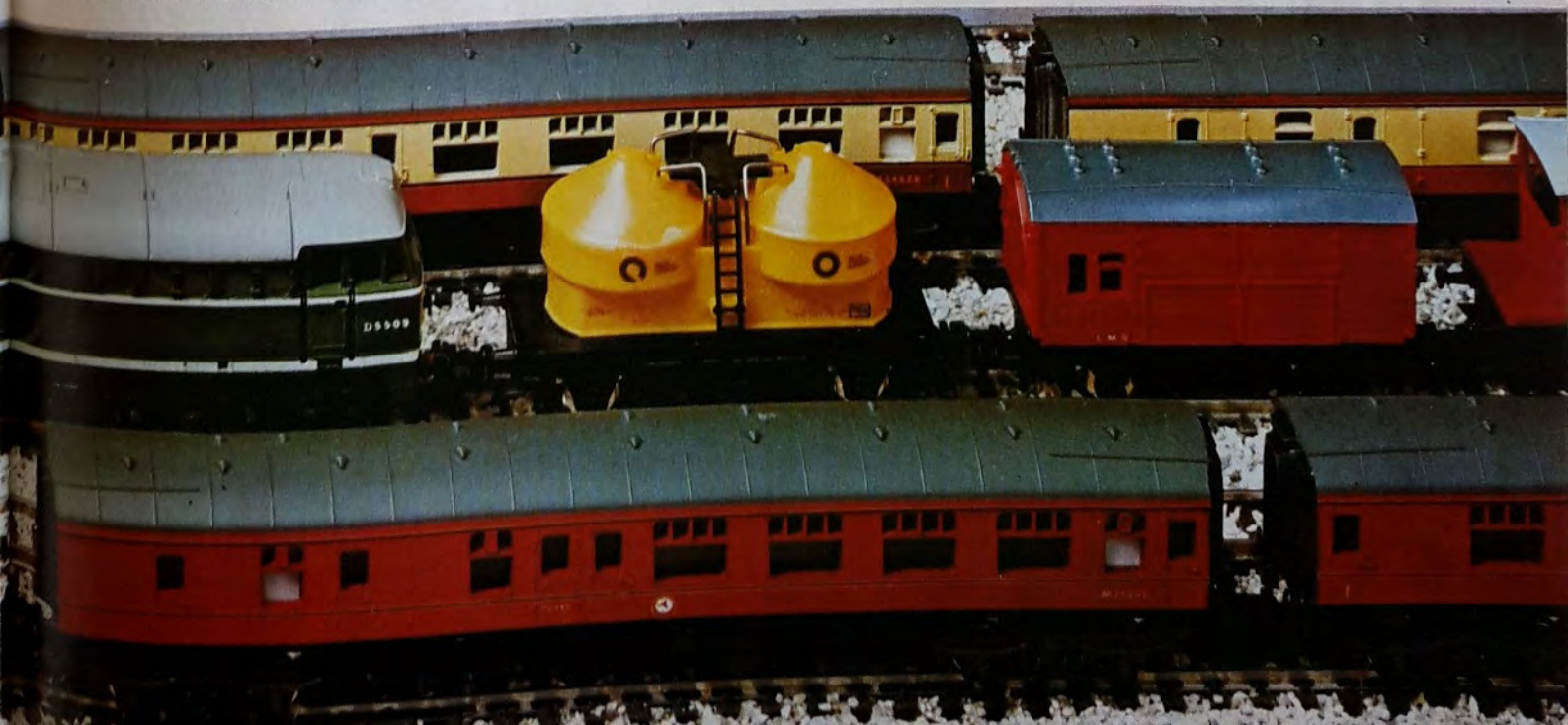


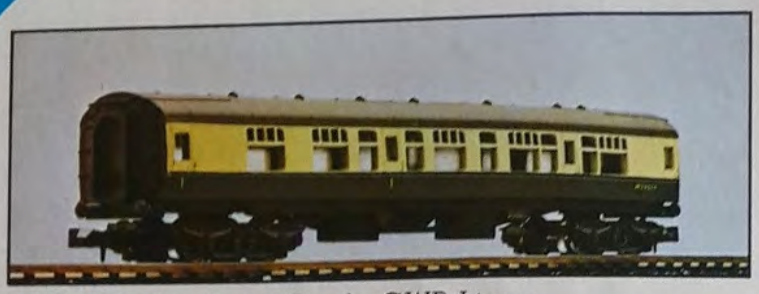
220205G BR Class 81 Electric Locomotive (standard rail pick-up).



220244G BR Class 52 'Western' Diesel Hydraulic Locomotive No. D1003 "Western Pioneer". NEW







320361 BR Composite Coach. GWR Livery.



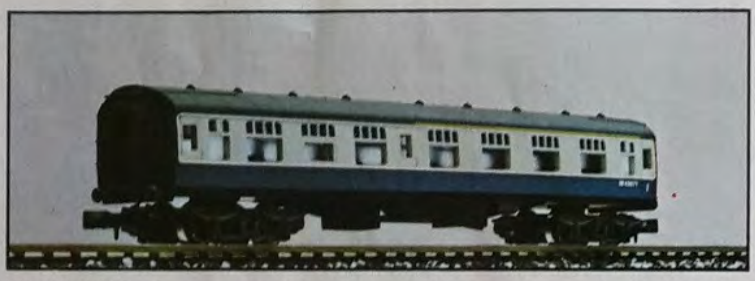
320362 BR 2nd Class Brake Coach. GWR Livery.



320363 BR Restaurant Car. GWR Livery.



320366 BR Standard Gangwayed Brake Van. GWR Livery.



320306 BR Composite Coach.



320313 BR Buffet Car.



320307 BR 2nd Class Brake Coach.



320368 BR Standard Gangwayed Brake Van.



320314 BR Composite Coach. LMS Maroon Livery.



320316 BR Buffet Car. LMS Maroon Livery.



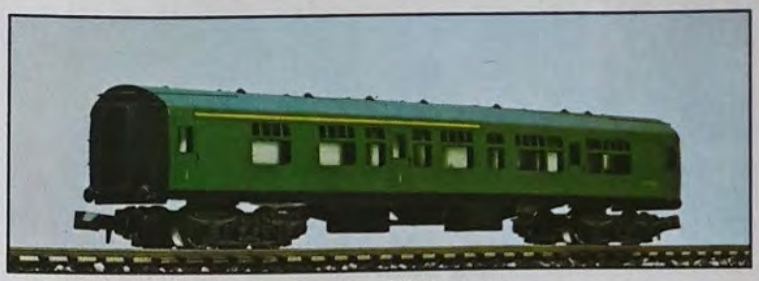
320315 BR Second Class Brake Coach. LMS Maroon Livery.



320367 BR Standard Gangwayed Brake Van. LMS Maroon Livery



320357 BR Composite Coach. Early Crimson & Cream Livery.



320352 BR Composite Coach. SR Livery.



320359 BR Buffet Car. Early Crimson & Cream Livery.



320354 BR Buffet Car. SR Livery.



320358 BR 2nd Class Brake Coach. Early Crimson & Cream Livery.

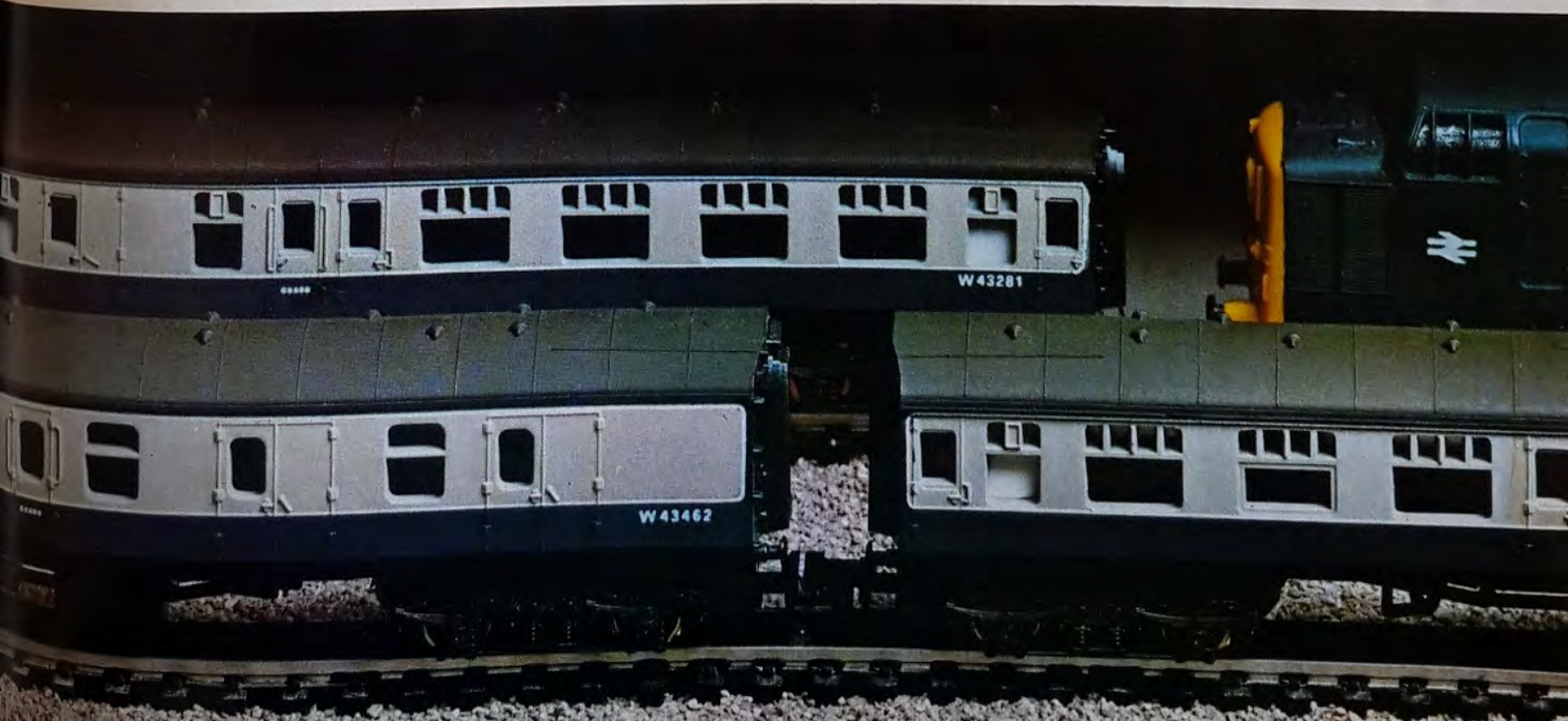


320353 BR 2nd Class Brake Coach. SR Livery.



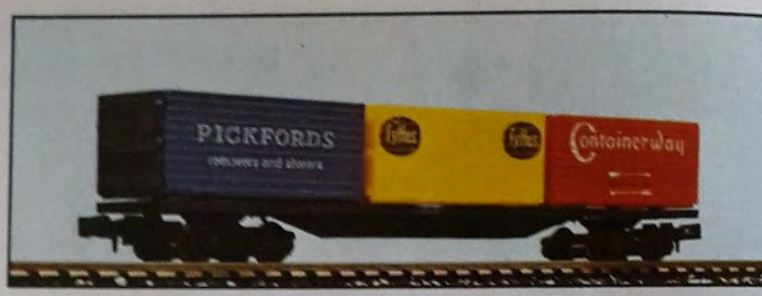
320369 BR Standard Gangwayed Brake Van. Early Crimson & Cream Livery.







320792 'British Leyland' car carrier.



320795 Bogie container transporter.



320484 Bogie Freightliner transporter.



320720 'London Brick' bogie wagon.



320622 'Amoco' bogie tank wagon.



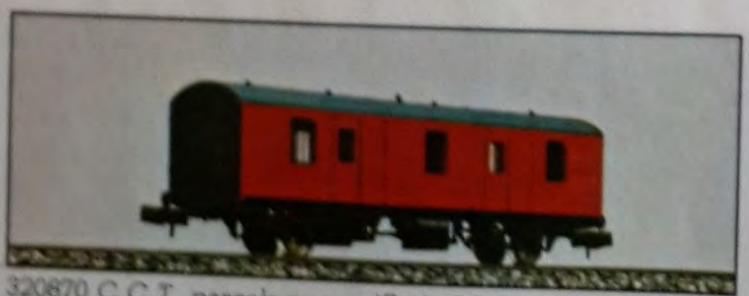
320625 'Milk' bogie tank wagon.



320868 C.C.T. parcels wagon 'Tartan Arrow'.



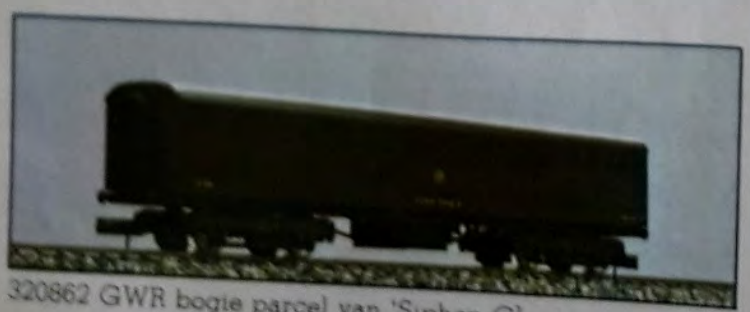
320869 C.C.T. parcels wagon. 'Rail Blue Livery'.



320870 C.C.T. parcels wagon.'Early BR Livery'.



320863 GWR bogie parcel van 'Siphon G'. Palethorpes Sausage.



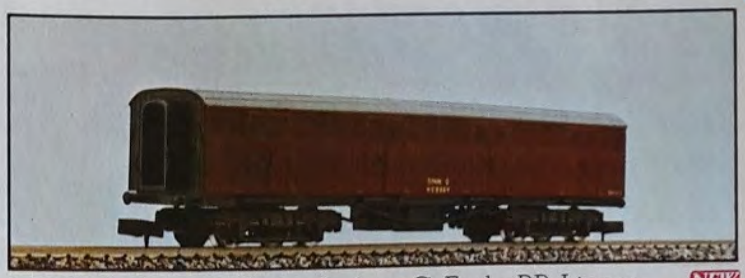
320862 GWR bogie parcel van 'Siphon G'.



320864 bogie parcel van 'Siphon G'. BR Livery



320867 Bogie parcel van Siphon G 'Enparts'.



320865 Bogie parcel van Siphon G Early BR Livery. NEW



320602 'Black Park' 7 plank wagon.



320604 'Barrow Barnsley' 7 plank wagon.



320607 'J.K. Harrison' 7 plank wagon.



320608 'P.W. Spencer' 7 plank wagon.



320609 'Pinxton Collieries' 7 plank wagon.



320610 'Buxton Gas Dept.' 7 plank wagon.



320739 'Castrol GTX' 20 ton box van.



320611 'Typhoo Tea' box van.



320614 'St Ivel Dairy Products' box van.





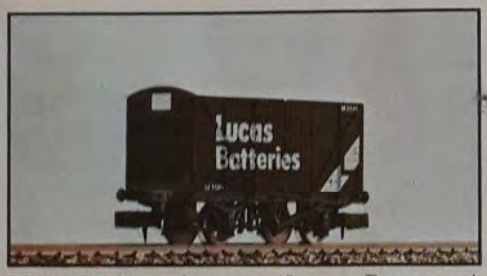
320615 GWR box van.



320405 BR 20 ton brake van.



320410 GWR Brake Van. Long wheelbase version.



320618 20 ton box van 'Lucas Batteries'. NEW



320619 20 ton box van. 'Birds Custard Powder'. NEW



320616 GWR 2 Axle Horse Box.



320617 2 Axle Horse Box LMS Livery.



320454 'BP' tank wagon.



320784 'Mobil LP Gas' tank wagon.



320780 'Gulf' tank wagon.



320782 'ICI Chemicals' tank wagon.



320729 'Blue Circle' twin tank cement wagon.



ACCESSORIES



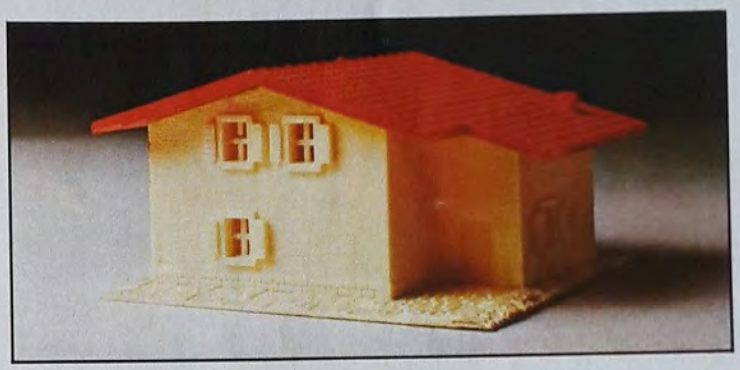
620702 Station roof.



620714 Station.



620705 Tunnel.



620715 House.



620707 Platform truck carrying containers "LHB-SCOTCH BEEF", gantry crane loading/unloading, and road transporters. NEW



620722 Level crossing.



620709 Semaphore Signal



620710 Single Street NEW



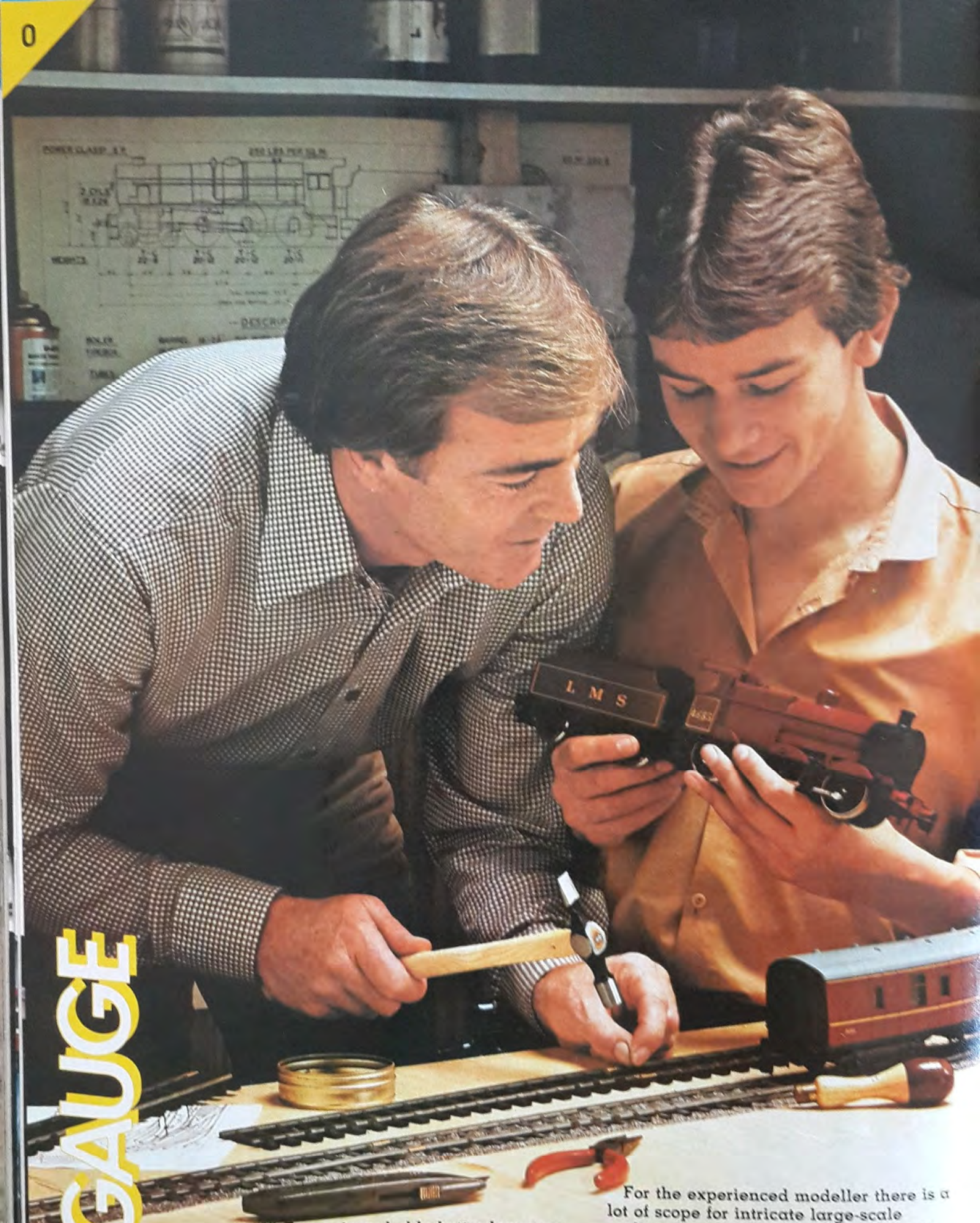
620711 Double Street Lamp. NEW



620712 Signal with Four Lights. NEW



620713 Signal with Two Lights. NEW



O GAUGE

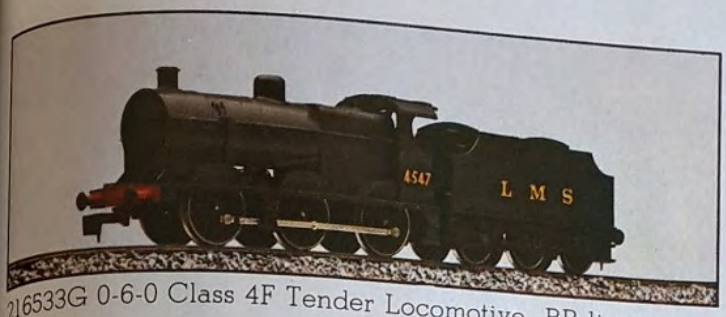
"0" Gauge is probably better known as the true enthusiast's scale, relying for a long time on hand built models.

With Lima every modeller can now share the excitement of this, the largest gauge popularly available (Scale 1:45th).

The pure size of the detailed locomotives and rolling stock makes an "0" gauge railway really come alive.

For the experienced modeller there is a lot of scope for intricate large-scale realism, and, with Lima's strong, sturdy construction, "0" Gauge is also an ideal choice for very young children who may find smaller trains difficult to handle.

You can design your own layout from scratch using Lima brass track, and, because it is completely rust-proof, you can even run trains in the garden. There are endless possibilities with Lima "0" Gauge.



216533G 0-6-0 Class 4F Tender Locomotive. BR livery.





216534G 0-6-0 (Fowler) Steam Locomotive w/tender - L.M.S. Livery.



216576G BR Class 33 Bo'-Bo' Diesel Locomotive Early Livery.



216577G BR Class33 Bo'-Bo' Diesel Locomotive. BR Livery.





316616 Mark I Corridor Composite Coach. LMS Maroon Livery.



316645 Mark I Corridor Brake Coach. LMS Maroon Livery.



316619 Mark 1 Corridor Composite Coach. Crimson and Cream Livery.



316654 Mark I Corridor Brake Coach. Crimson and Cream livery.



316620 Mark 1 Corridor Composite Coach. Western Region Livery.



316646 Mark I Corridor Brake Coach. Western Region Livery.



316618 BR Mark I Corridor Composite Coach.



316644 BR Mark I Corridor Brake Coach.







316730 "Chas, Kendall" Mineral Wagon.



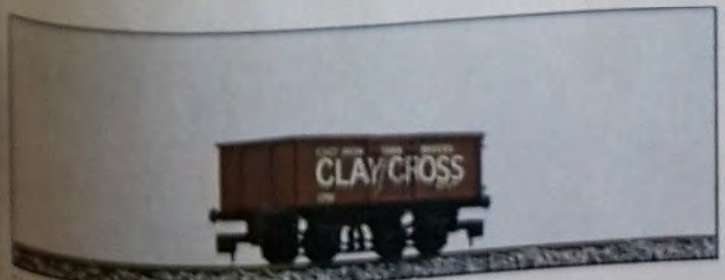
316731 "Caxton" Mineral Wagon.



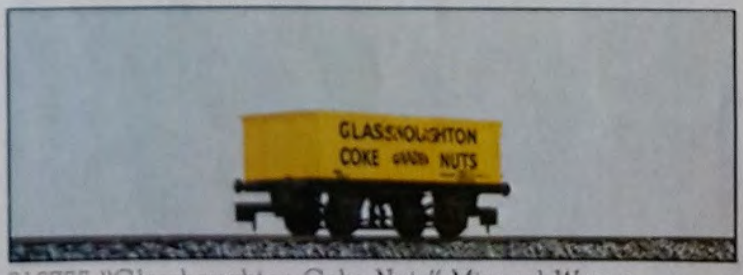
316733 "Hall & Dean" Mineral Wagon.



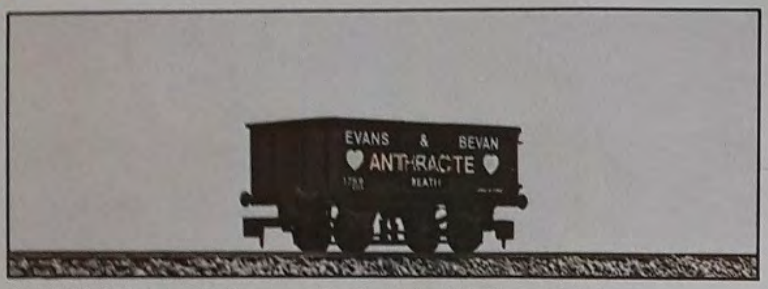
316739 GWR Mineral Wagon.



316754 "Clay Cross Co. Ltd." Mineral Wagon.



316755 "Glasshoughton Coke Nuts" Mineral Wagon.



316756 "Evans & Bevan Anthracite" Mineral Wagon.





316746 GWR Brake Van.



316745 BR Closed Van.



316726 NCB Wagon with Coal.





316766 "BP" Bogie Tank Wagon.



316768 "Mobil Oil" Bogie Tank Wagon.



316765 "Shell" Tank-Wagon.



316770 "Texaco" Tank wagon .

POWER CONTROLLERS



The power controller is basically a piece of equipment which takes current from the mains and converts it to the appropriate voltage, A.C. or D.C., to feed the various locomotives and accessories of a model railway system.

Lima manufacture two different controllers to cover the needs of most applications. Each one is protected from any possible short-circuit or overload by means of fuses or automatic cutouts. This ensures complete safety of operation, and conforms to British Standard 4435

502060 Electronic Train Controller Lima's new Electronic Train Controller has the very latest in electronic circuitry for train control, together with uncontrolled AC output for trackside accessories.

Power Unit Class II. Type 502060. Input primary 220/240V 50/60 Hz Ac only. Output I, 0-12V. DC = 7.5 VA. Output II 14 V AC 7VA. For indoor use only. Protected by automatic cut-outs. Conforms to British Standard BS 4435.

NEW



502054 Transformer. Power 3.6VA. Input 220v AC. Output 0-12V DC. Designed to operate one train.



503066 Junction box.



503065 Control Box. Suitable for operating up to 2 accessories (electric points, etc.).

CONTROL PANEL

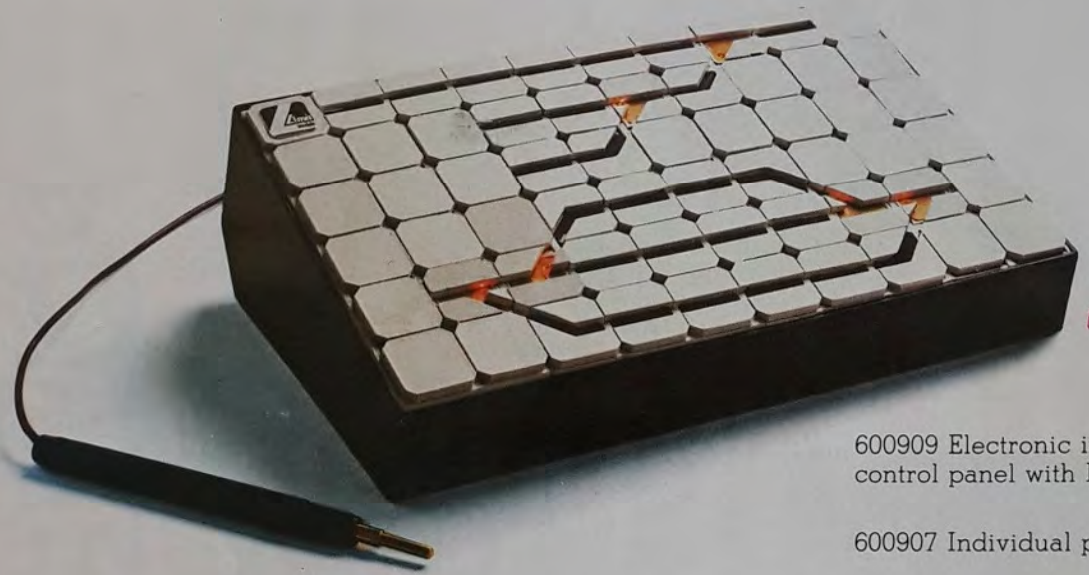
Lima's new multiple point control panel allows fast automatic point operation and is designed from the actual system used by real railways.

The control panel has changeable sections which allow the reproduction in miniature of the main track sections of the layout, then using a special electronic pointer the train can be guided along the chosen section of tracks.

600910 Automatic Point Control Panel

600906 Individual point control unit

600908 Panel track sections.



NEW

600909 Electronic integrated circuit automatic poi
control panel with LED light system

600907 Individual point control unit with LED ligh

SCENIC LAYOUT



A complete printed scenic layout with space for track, accessories and buildings.
Turns a basic train set into a proper train layout.

608500 Track layout plan

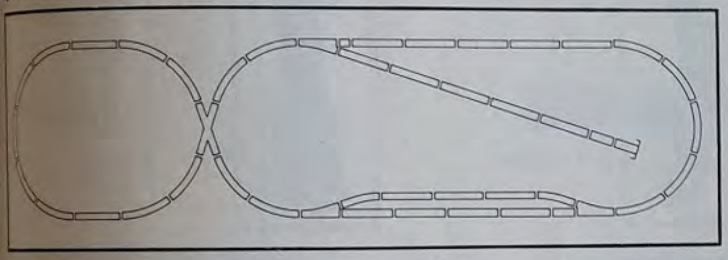


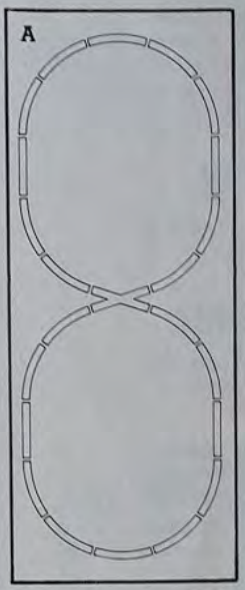
TRACK EXTENSION PACKS

If you have purchased a simple Lima set, perhaps containing only a circle or an oval of track, it's a good idea to consider at the same time the range of Lima track extension packs. In this way you are able to instantly turn your simple layout into an exciting system with designs suitable for passenger terminals, goods yards, signal gantries and much more. These packs contain all the necessary pieces of track to add to your original train set to build it up into a much more complete system.

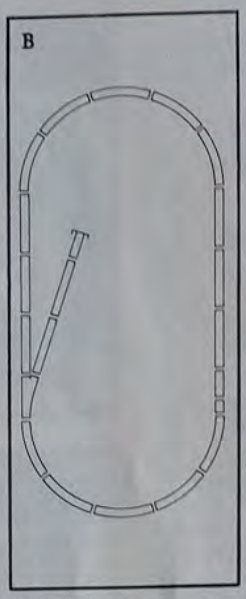
Additionally, our new scenic layouts, shown below, allow you to transform your existing train convoy or set into an exciting system.

This layout is built by adding the track packs A + B + C to your existing circle.

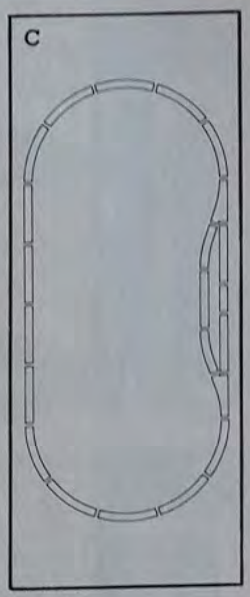




404051 8 pieces curved track (Dia. 720 mm) 403030, 4 pieces straight track (220 mm) 403020, 1 piece diamond crossing (36° 403041.



404052 8 pieces straight track (2020 mm) 403020, 1 piece 1/2 straight track (110 mm) 403021, 2 pieces 1/4 straight track 403022, 1 piece 1/2 straight track with buffer stop 403025, 1 piece right-hand point (manual) 403050.



404057 7 pieces straight track (220 mm) 403020, 1 piece 1/2 straight track (110 mm) 403020, 1 piece right-hand point (manual) 403050, 1 piece left hand point.

COMPLETE LAYOUTS

Here is a complete scenic layout to add to your Lima Train Set or existing train convoy.

Layout 404002 contains:
10 403020
12 403011
9 403030
1 403030C
2 403021
2 403022
2 403050
2 403051
plus printed layout plan and Buildings.



Layout 404001 contains:
15 of track 403020
12 403011
1 403030C
17 403030
2 403050
2 403051
2 403021
1 600911
plus printed layout plan and bridge.

STEEL TRACK



403070
6 pieces straight track (222 mm) 403020.



403080
6 pieces curved track (diameter 720 mm) 403030. 36°.



403086
6 pieces curved track (diameter) 862 mm. 403011 30°



403075
1 curved track with power clip 403030C.
1 straight tracks with power clip 403024.
l. 55,5 mm.



403076
1 straight track 403020.
1 straight track with buffer stop 403025.
1 straight isolating track 403024R.



403078
1 straight track (222 mm) 403020.
1 hand - operated uncopler 403028.



403033
Rerailer.



403038
Crossing 18° right hand.

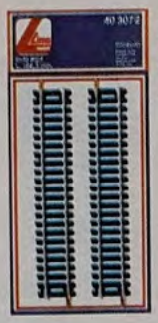
403039
Crossing 18° left hand.



403041
Crossing 36°.



403087
6 × 403012 curved ∅ 862 mm 22°, 1/2.



403072
6 × 403023 straight standard l. 166,5 mm.



403050
Right hand point, hand operated.

403050E
Right hand point, electrically operated.



403051
Left hand point, hand operated.

403051E
Left hand point, electrically operated.

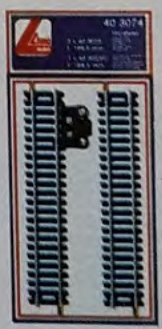


403048
1 × 403050,
1 × 403051,
1 × 403036,
1 × 403035.

403048E
1 × 403050E,
1 × 403051E,
1 × 403036,
1 × 403035.



403079
2 × 403035 (right compensating track).
2 × 403036 (left compensating track).



403074
1 × 403023C
3 × 403023



403077
4 pieces straight track l. 55,5 mm. 403022.
2 pieces curved track ∅ 720 mm. 403032
insulated fishplates



403026
Variable lenght track.



403081
6 pieces curved track 403031 ∅ 720 mm. 18°



403071
6 pieces straight track (111 mm) 403021.



3×600875
Motor springs and brushes



3×600877
Insulating fishplates



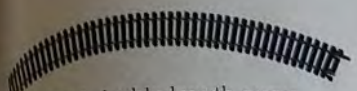
3×600870
4 axles



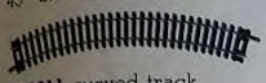
3×600876
24 metal rail joiners



3×600874
Clips



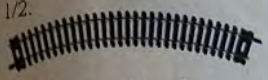
403017 double length curve 45° 2nd radius.



403011 curved track (Dia. 862 mm). 30°.



403012 2nd radius, curved track (Dia. 862 mm). 22.5° 1/2.



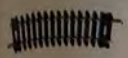
403030 curved track (Dia. 720 mm). 36°.



403030C curved track with power clip. 36°.



403033 rerailer.



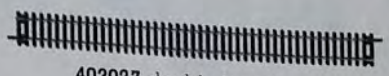
403031 curved track (Dia. 720 mm). 18°.



403032 curved track (dia. 720 mm). 9°.



403042 flexible track 90 cm.



403027 double length straight 333 mm.



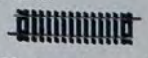
403020 straight track 222 mm.



403023 strandard straight track 166,5 mm.



403023C standard straight track with power clip 166,5 mm.



403021 straight track 111 mm.



403022 straight track 55,5 mm.



600002 Railer.



403024 straight with power clip 55,5 mm.



403024R straight isolating track 55,5 mm.



403025 straight with buffer stop 111 mm.



403026 extendable track 111 to 166,5 mm.



403028 Wagon uncoupler 222 mm.



403035 compensating left track.



403036 compensating right track.



403038 right diamond crossing (18°).



403039 left diamond crossing (18°).



403041 diamond crossing (36°).



403050 right-hand point (manual).
403050E right-hand point (electric).



403051 left-hand point (manual).
403051E left-hand point (electric).

NICKEL SILVER TRACK

THE NEW SUPER TRACK

New Super Track - in Nickel Silver - has a number of distinct advantages over any other type of track - both in technical specification and in performance.

To begin with, Nickel Silver Track achieves a degree of precision and uniformity of modelling that is just not found in other tracks. (The only reason this is possible is because in addition to nickel, a special metal alloy is also used in making the track.) It also has a very high degree of elasticity which gives it a greater resistance to stress and strain than other tracks.

New Nickel Silver Track can be purchased individually, or in multiples in gold presentation boxes. The complete range of track is shown on the next page.



A BETTER CONDUCTOR

Because nickel has a high degree of electrical conductivity, it ensures even distribution of power all round the layout.

It terms of appearance it also stands out. Its long lasting bright finish adds realism to any layout - and it can be easily wiped clean with a rag and spirit.



RESISTANCE TO CORROSION

It's completely rust-proof. What's more, since its appearance and performance are impervious to damage -either by atmospheric factors or grease - you can depend on Nickel Silver Track to have a very long life.

Lima Nickel Silver Track is also available in a flexible version with a standard length of 900 mm. This type of

track, as the name suggests, can be "bent" and adapted to curves of a different radius to those available in regular track section.

This characteristic is especially useful for the more difficult circuits, with many curves, and provides a particularly realistic effect, as well as eliminating difficult joints.

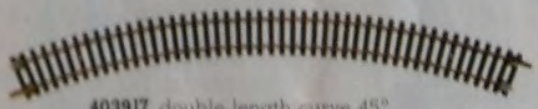
Flexible track can be adapted to any desired length simply by cutting it with an ordinary small metal saw, being careful, of course, to trim off sharp corners or pieces of waste material.

And thanks to its flexibility, this type of track can be simply shaped by hand with no need to use any special tools.

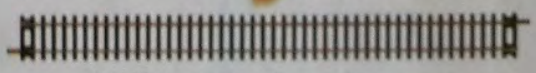
Remember however, to bear in mind the correct distance between track centres when using two or more parallel tracks. This will avoid your trains touching one another when passing.

At a time when more and more hobbyists are demanding perfection, it's good to know that here at last is a track that comes closest to it - new Super Track!





403917 double length curve 45° 2nd radius.



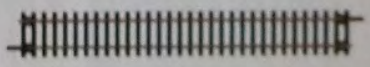
403927 double length straight 333 mm.



403938 right diamond crossing (18°).



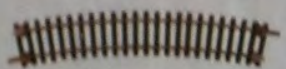
403911 curved track (Dia. 862 mm), 30°.



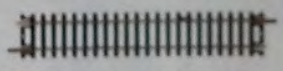
403920 straight track 222 mm.



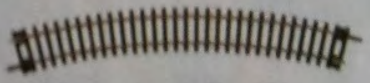
403939 left diamond crossing (18°).



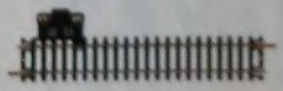
403912 2nd radius, curved track (Dia. 862 mm), 22,5°, 1/2.



403923 standard straight track 166,5 mm.



403930 curved track (Dia. 720 mm), 30°.



403923C standard straight track with power clip 166,5 mm.



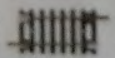
403941 diamond crossing (36°).



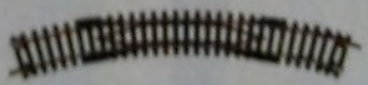
403930C curved track with power clip, 30°.



403921 straight track 111 mm.



403922 straight track 55,5 mm.



403933 reseller.



403924 straight with power clip 55,5 mm.

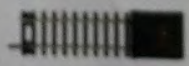


403924R straight isolating track 55,5 mm.



403950 right-hand point (manual).

403950E right-hand point (electric).



403925 straight with buffer stop 111 mm.



403931 curved track (Dia. 720 mm), 18°.



403932 curved track (dia. 720 mm), 9°.

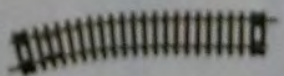


403926 extendable track 111 to 166,5 mm.



403951 left-hand point (manual).

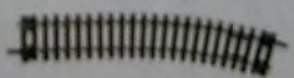
403951E left-hand point (electric).



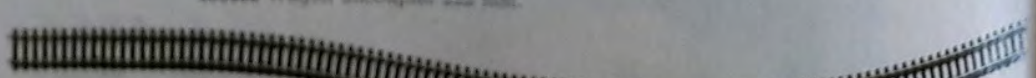
403935 compensating left track.



403928 Wagon uncoupler 222 mm.



403936 compensating right track.



403942 flexible track 90 cm.

N GAUGE TRACK



420580
6 pieces straight track (124 mm.) 420561.



420581
6 pieces 1/2 straight track (62 mm.) 420562.



420590
6 pieces curved track (45°) 420571.



420591
6 pieces curved track (Ø 472 mm.) 420551.



420593
6 pieces curved track (Ø 472 mm.) 420552.



420585
1 piece curved track, (45°) 420571,
1 piece curved track with power connecting terminal 420571C.



420586
1 piece 1/2 straight track with power connecting terminal 420564R.
2 pieces 1/4 straight track 420563.
Insulated fish plates 420017.



420587
1 piece straight track (124 mm.) 420561.
1 piece isolating track with power connecting terminal 420564R,
1 piece 1/2 straight track with buffer stop 420565.



420524
LEFT diamond crossing (15°).

420521
RIGHT diamond crossing (15°).



420522
Diamond crossing (30°)



420525
Right-hand point (manual) +compensating track 420553.
420525E
Right-hand point (electric) +compensating track 420553.



420526
Left-hand point (manual) +compensating track 420553
420526E
Left-hand point (electric) +compensating track 420553.



420592
6 pieces curved track (15°) (Ø 406 mm.) 420572



3×620703
4 axles.



3×620704
Motor springs and brushes.

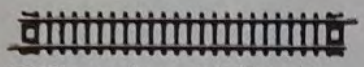


3×620717
Insulating fishplates.

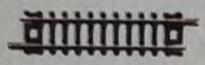


3×620718
24 metal rail joiners.

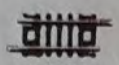
TRACK STAINLESS STEEL PROFILE



420561 straight track (124 mm).



420562 1/2 straight track (62 mm).



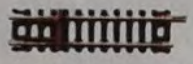
420563 1/4 straight track.



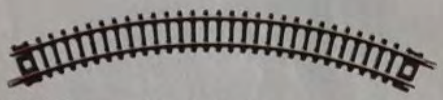
420564 1/2 straight with power clip.



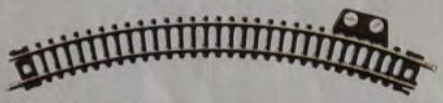
420564R 1/2 straight with power terminal.



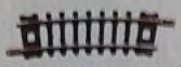
420565 1/2 straight with buffer stop.



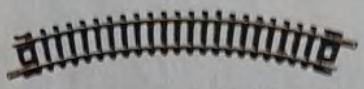
420571 curved track (45°).



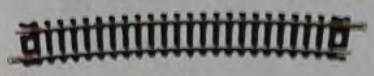
420571C curved track with power terminal.



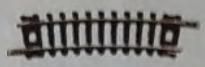
420572 1/3 curved track (15°).



420551 curved track (Ø 472 mm).



420553 compensating curved track.



420552 1/2 curved track (Ø 472 mm).



420524 left diamond crossing (15°).



420521 right diamond crossing (15°).



420522 diamond crossing (30°).



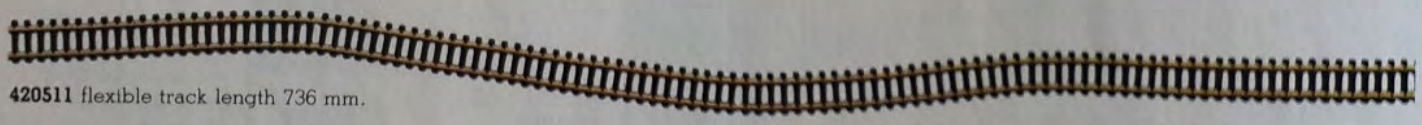
420526 left-hand point (manual).
420526E left-hand point (electric).



420525 right-hand point (manual).
420525E right-hand point (electric).



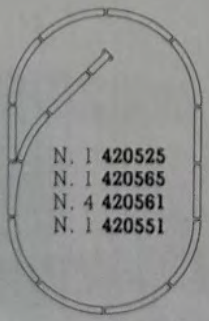
620721 Railer.



420511 flexible track length 736 mm.

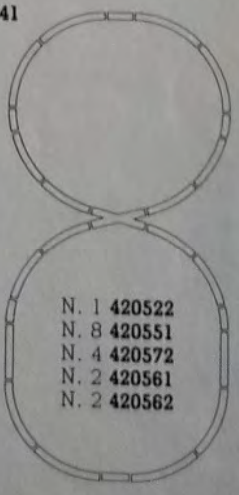
TRACK EXTENSION PACKS

N. 1
420540



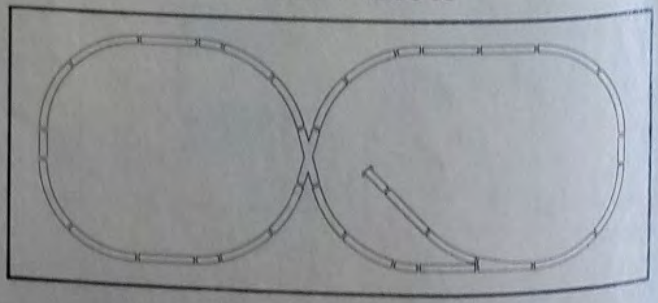
N. 1 **420525**
N. 1 **420565**
N. 4 **420561**
N. 1 **420551**

N. 2
420541

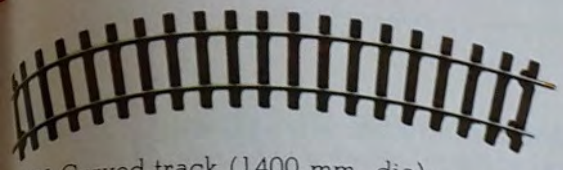


N. 1 **420522**
N. 8 **420551**
N. 4 **420572**
N. 2 **420561**
N. 2 **420562**

420540 + 420541



O GAUGE TRACK



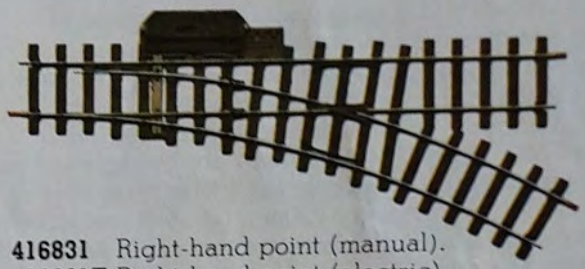
416811 Curved track (1400 mm. dia).



416822 Diamond crossing (30°).



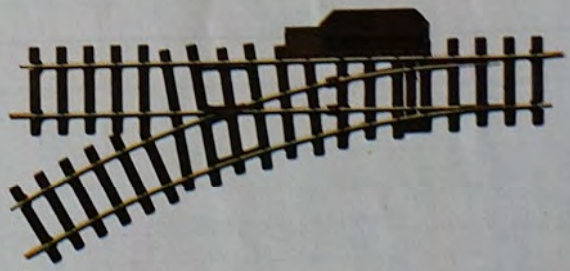
416811C Curved track with power clip.



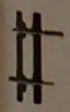
416831 Right-hand point (manual).
416831E Right-hand point (electric).



416801 Straight track (350 mm.).



416832 Left-hand point (manual).
416832E Left-hand point (electric).



416805 Compensating track.



416841 Buffer stop.



The Lima Track System, 00 Scale.

The track is the foundation of your model railway. It is therefore essential to ensure that the track system you install is the finest you can buy. Lima track is just that.

It has been carefully developed over the years by experts, whose painstaking research means that the Lima track system is unique and unsurpassed by any other. You'll find the time and trouble taken at this stage of your hobby amply repaid by smooth running and increased enjoyment later.

Even the smallest layout can provide hours of enjoyment, but the development of larger and more complex layouts will give you all the excitement of running a real railway network.

There are various gauges in use for model railways, the measurements of the two most popular types being "00/H0" 16,5mm, "N" 9mm between the rails.

In the Lima "00/H0" system there are two types of curve with respective radii of 360mm (14 1/5ins) and 431mm (17ins). To build a circle of 720mm (28 2/5" ins) diameter 10 sections of 1st radius curves are required, each with an arc of 36°. For a larger circle of 862mm (34ins) diameter we use 16 sections of 2nd radius curve which have an arc of 22½°. Alternatively we can use 8 sections of curves with a 45° arc.

All the elements of the Lima track system are shown in figure 1.

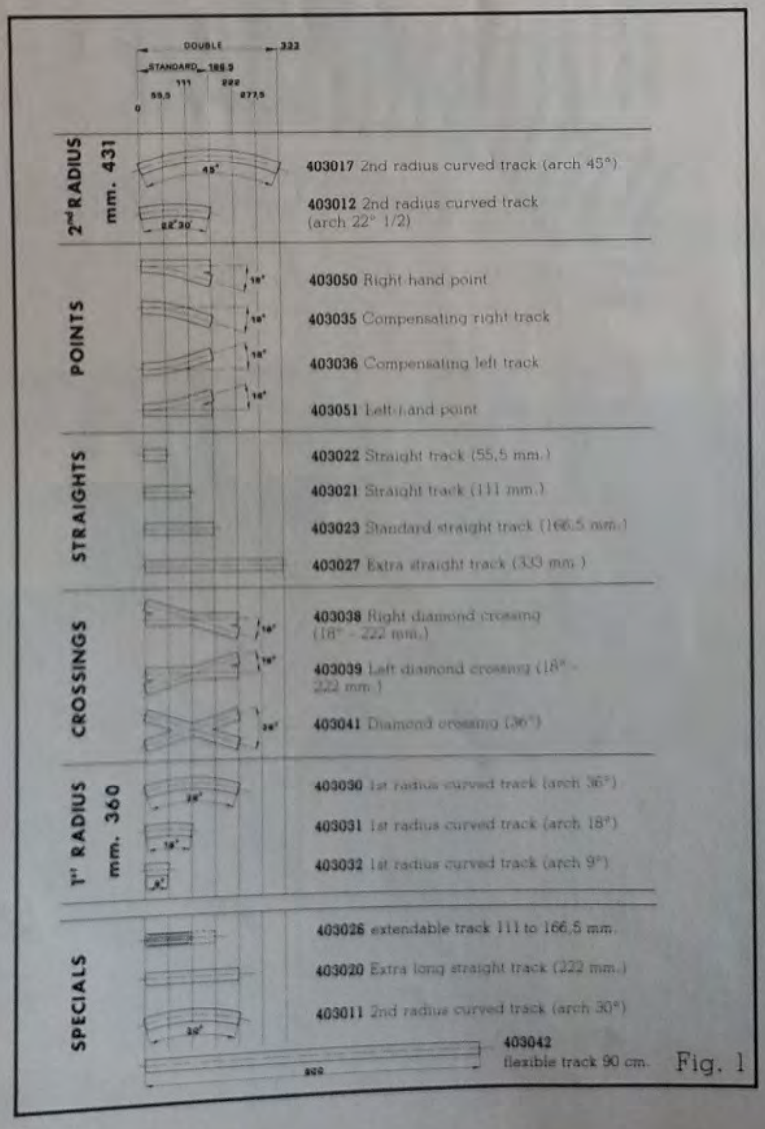


Fig. 1

Track dimensions have been co-ordinated in order to achieve smoother running trains and better electrical conductivity by reducing the number of joints.

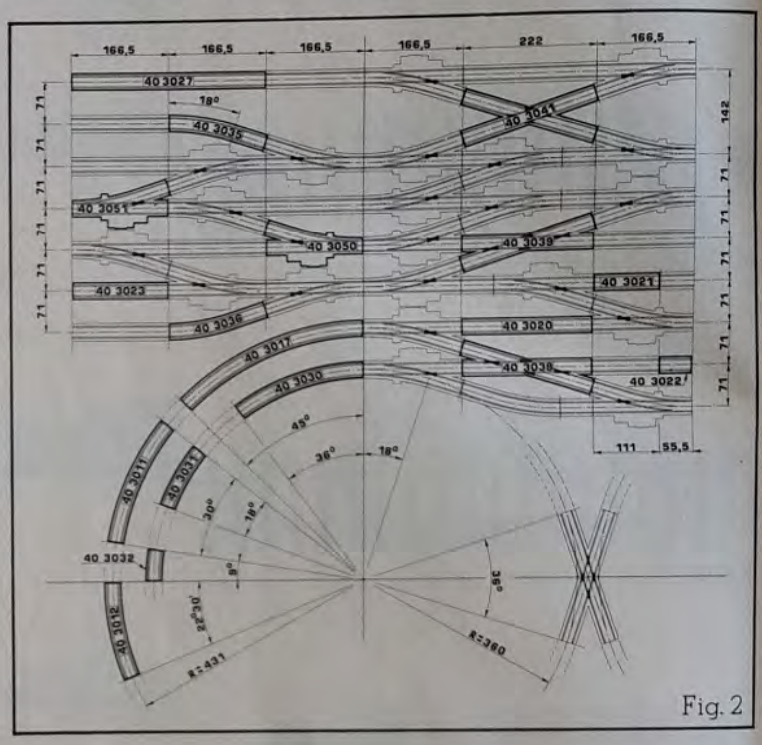


Fig. 2

Lima Track Geometry

One of the main essentials to remember when installing your track is to ensure that the trains on adjoining tracks can circulate freely without touching. For example, in a Lima "00/H0" scale system the correct distance between track centres is 71mm (2.8ins), maintained both in straight runs and through curves, (Fig. 2).

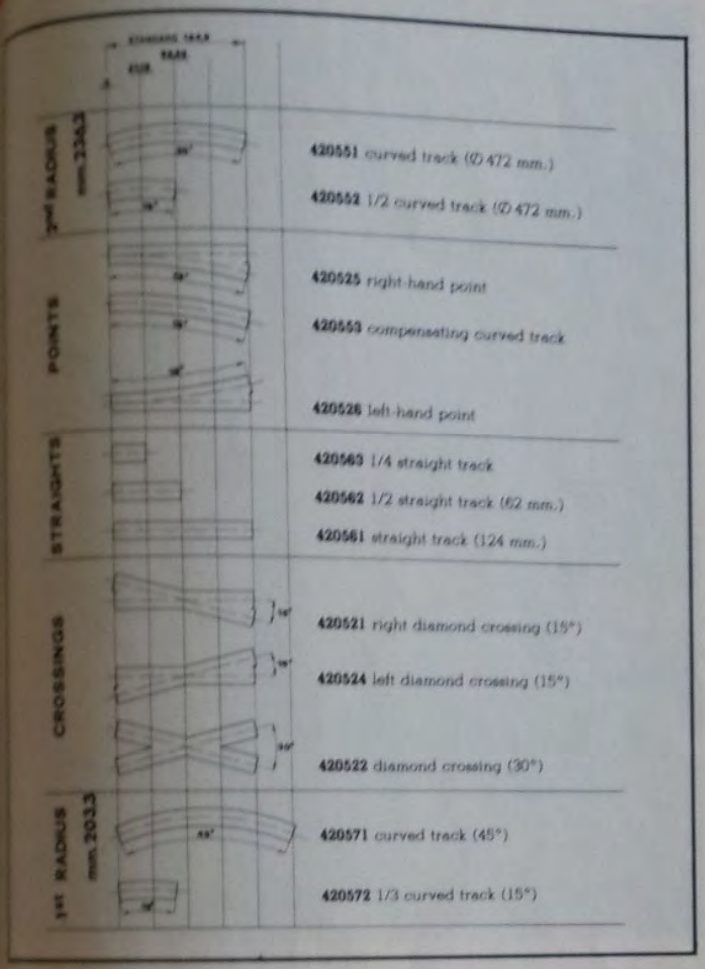
Advanced Track Layouts

For advanced track layouts, including gradients, "extendable track" (item 403026) may be useful. This can be increased from half straight to three quarter straight length by means of a sliding section.

Groups of points and crossings can be used to convert a double track main line into six tracks at the entrance to a station

In other cases, flexible track can be used to produce special curves and can be cut to size with an ordinary (fine-tooth) hack-saw.

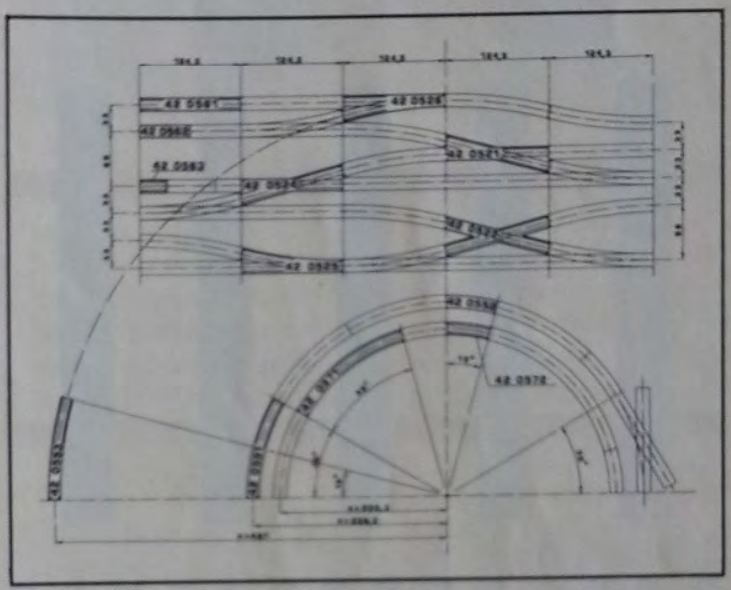
STALLATION

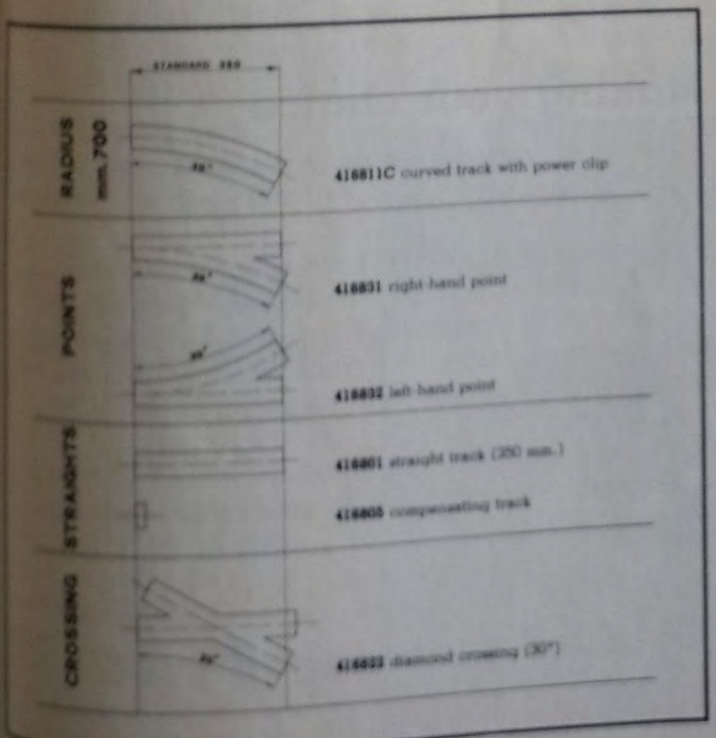


The Lima Track System, N Gauge.

In Lima "N" Gauge the critical measurement to be born in mind is the distance between tracks of 33mm., maintained both in straight lines and through the curves.

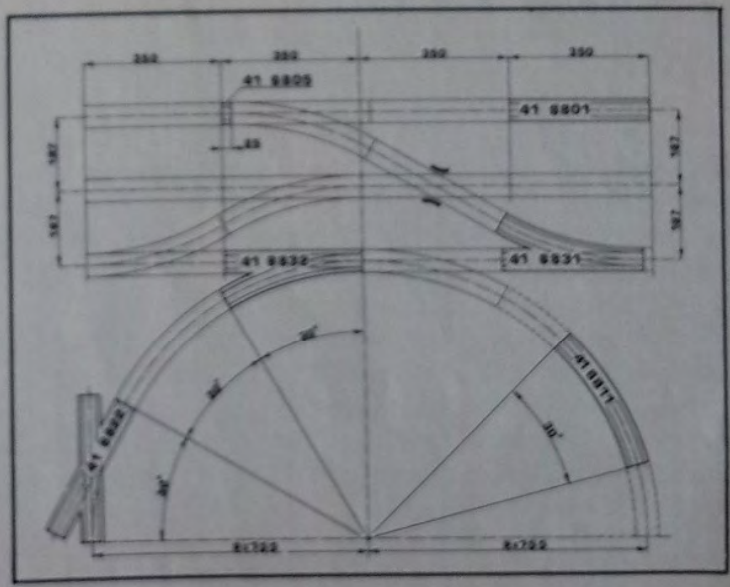
For instance the compensating curve 420533 when used with points 420525 and 420526 maintains this basic 33mm spacing.





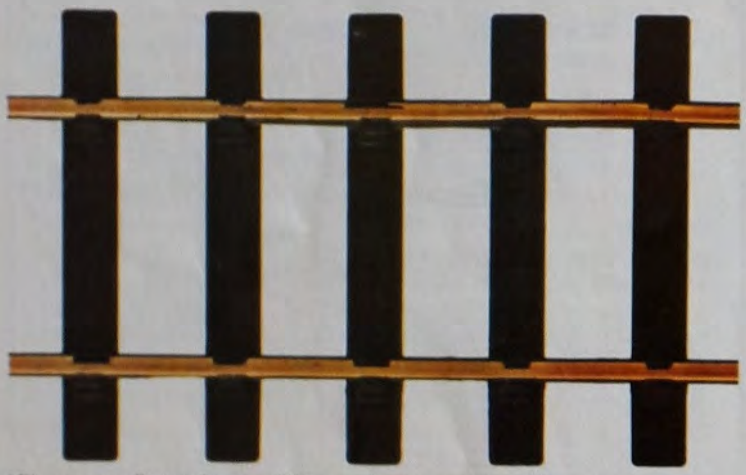
The Lima Track System, 0 Gauge.

The distance between tracks for 0 Gauge is 187mm.

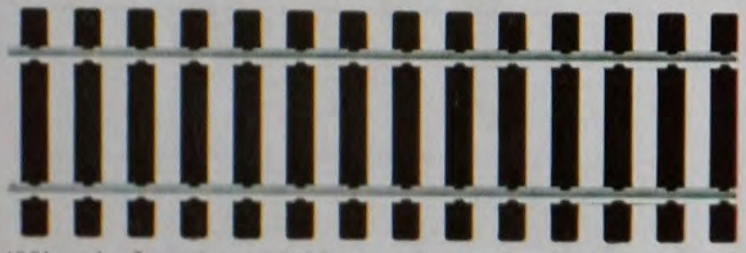


The relative sizes of scales

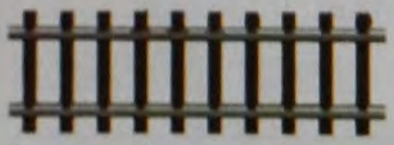
Now that you have seen everything that Lima has to offer, it's probably a good time to recap on the relative advantages of the three different scales. Your choice of either 00, N or 0 gauge will certainly be the most important one you take in planning your layout.



'0' gauge Actual size (32 mm between track).



'00' scale Actual size (16,5 mm between track).



'N' gauge Actual size (9 mm between track).

Remember that 00 scale (scale 4mm:1ft) is probably the most universal choice and will suit any reasonable space. Having been popular for a long time, the Lima range of 00 locomotives, rolling stock, accessories and extensions is now unparalleled.

However, if you are short of space, or would prefer a smaller scale to make room for more scenery and greater scale running distances, N gauge can still provide a very varied solution. Even though "N" (at 2mm:1ft) is only half the size of "00" you lose nothing in detail or overall effect.



Finally "0" gauge, 7mm:1ft (a little under twice the size of 00) provides the real enthusiast with scope for a highly detailed railway system, although it must be remembered that considerable running space will be required for a permanent layout - a loft or converted garage, or in the garden.

Making your choice

It pays to take the trouble to work out exactly how much running area you have before you start buying.

Measure the space you have allocated for your layout and then, using graph paper, rough out the relative size of the railways you could accomodate with the three scales. The track information given on the previous two pages will be useful here.

You will then be in the ideal situation to choose the scale which comes nearest to your original ideas for your railway.

Detailed planning of your layout

Having chosen your scale, the next step is to

UR LAYOUT



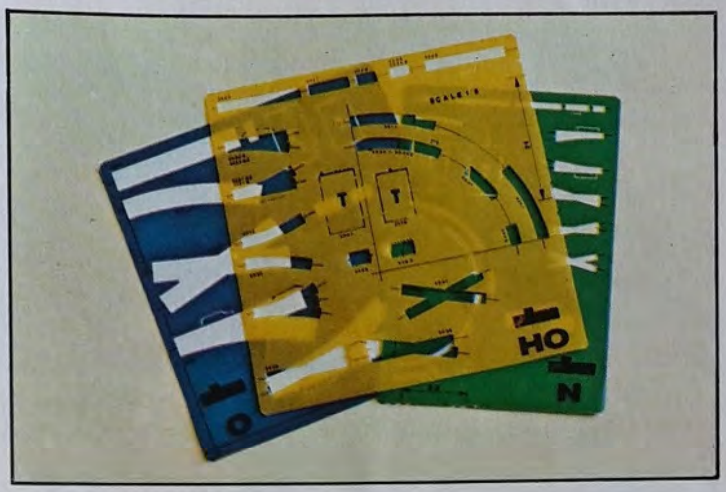
carefully plan your track routes, working in sidings, branch lines, inclines, etc. to get the maximum effect from the space you are using.

Lima produce three plastic stencils, one each for 00/H0, N, and 0 gauge. By using the appropriate stencil you can accurately plan your layout and make a note of the various track items you will need to buy.

600062 = **00 Scale**
600063 = **N Gauge**
600064 = **0 Gauge**

The materials you will need

Finally, before you start building your layout it's a good idea to assemble all the various materials you will need- then construction need never be halted by a vital missing item!



Most important of all is the baseboard material for which insulation board is the most suitable. A wooden panel 1.5-2cm thick, size 181 × 141 cm. is ideal, either on legs, fixed to the wall, or hung from the ceiling on a pulley. Decide whether or not the baseboard will need strengthening, in which case you may need to buy some lengths of timber (2" × 1" or metric equivalent is usually ideal for making a baseboard frame.)

Other items you will need are: hand tools (hammer, pliers, files, screwdriver, drill, small saw), glue (perhaps a wood glue and one suitable for scenery), chicken wire and newspaper (for hills, tunnels, etc.), electrical wiring and switches (for signals, lights, etc.), coloured flock powder, ballast material, paints and brushes (for scenery), track pins (cat. no. 400003) for permanent track fixture, patterned glass (for water) and wire and lichen for trees.

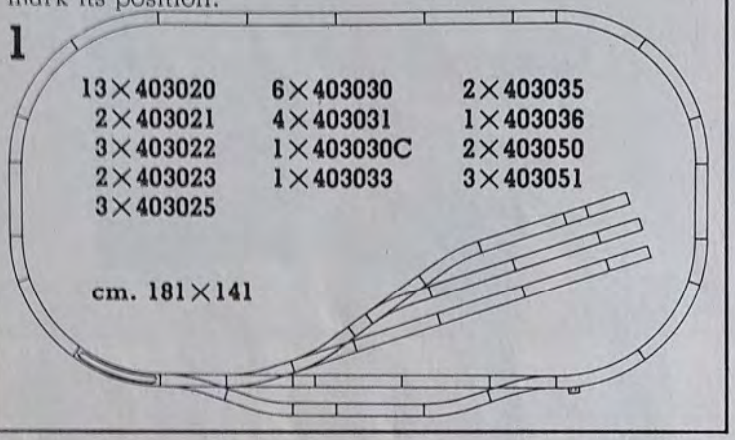
With these items you should be able to construct a realistic railway setting, although other materials may be required depending on your individual plans.



HOW TO BUILD AN EX

A permanent scenic layout will add so much more life and character to your daily train services.

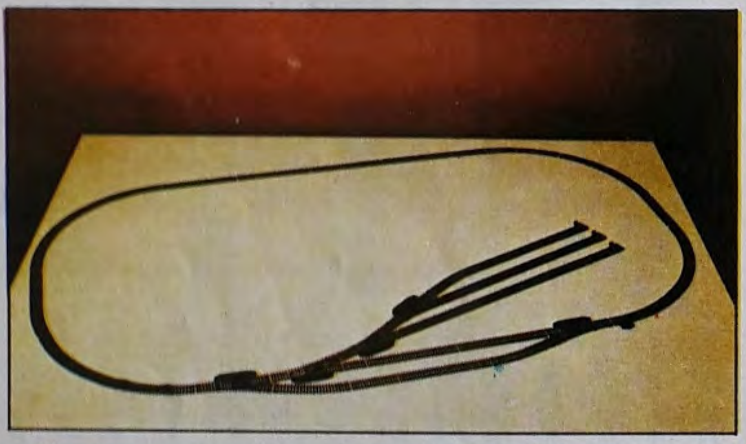
Having drawn a scale plan of your intended layout, assemble the track temporarily on the baseboard, and mark its position.





Once the track is in position, run a test train to ensure that the alignment is correct, and that there is adequate clearance in tunnels and on curves.

Now you can begin creating your landscape.



Turning your track layout at a slight angle to the baseboard can help improve the effect of depth.

Make sections of wooden trackbed, of 5mm to 8mm thickness, following the course of your track. Support raised sections on wooden pillars.



RELIEFS

The best method is to mould chicken wire over the contour sections, covering it with alternate layers of newspaper and wallpaper paste.



Now cut out shapes for the main contours of high ground. It is important to include openings so that covered section of track are accessible.

Before fixing the track permanently, paint the trackbed a dark colour.

The station square and roads should be at the same height as the tracks, so build them on a raised base supported by small wooden blocks.

Fix wooden strips at ground level to support the chicken wire which will form the basis of hills and tunnel entrances.

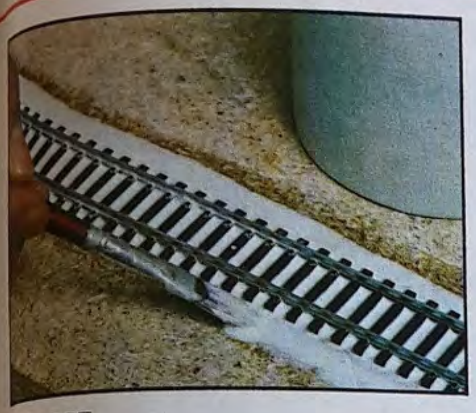


WATER

Textured glass, shaped and painted underneath, give a good impression of water.

Alternatively, paint the river or lake bed, making the deepest points darker than the banks, and pour on layers of colourless resin.

CITING LIMA LAYOUT



BALLAST

Spread glue over the areas to be ballasted.



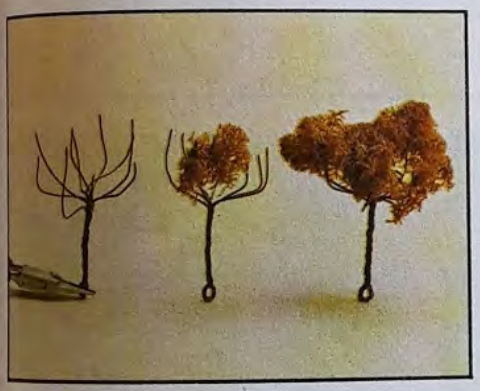
Scatter sand or ballast over the track, between the sleepers and at the sides.

Push the ballast material into corners with your fingers.



Brush away excess ballast and remove any unslightly remnants of glue and sand, paying special attention to the rails.

Once the glue has dried the effect will be most realistic - just like real ballast.



TREES

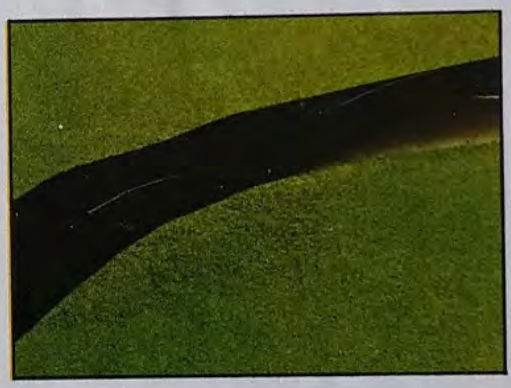
Lichen makes very good trees.

- Twist several strands of wire together to form a trunk.
- Leave branches of irregular single strands at one end.
- Stick pieces of lichen to the branches, and colour.



FIELDS

Ready made scenic mats are available, but an equally effective way of producing fields is to spread coloured sawdust over the glued surface.



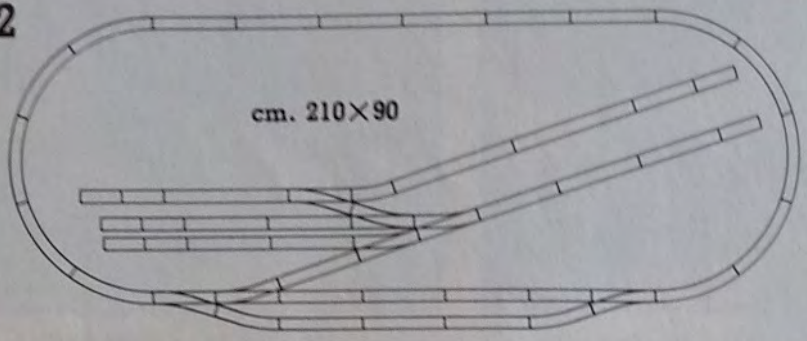
ROADS

Roads can be constructed by cutting lengths from readily available scenic mats, fastened down with suitable adhesive.



OO SCALE

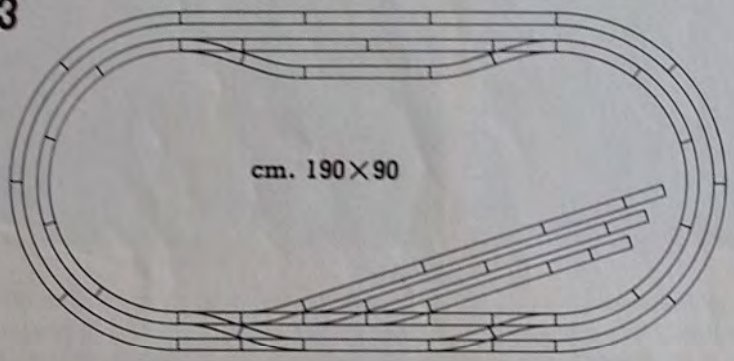
2



20×403020	3×403027	1×403031	1×403036
3×403021	8×403030	1×403033	5×403050
2×403023	1×403030C	1×403035	2×403051
5×403025			



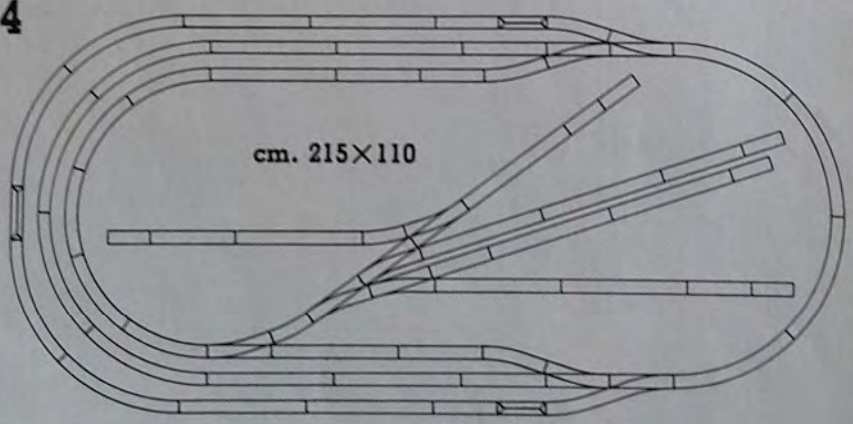
3



1×403020	12×403027	1×403030C	1×403036
1×403021	8×403017	1×403033	3×403050
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3×403025			



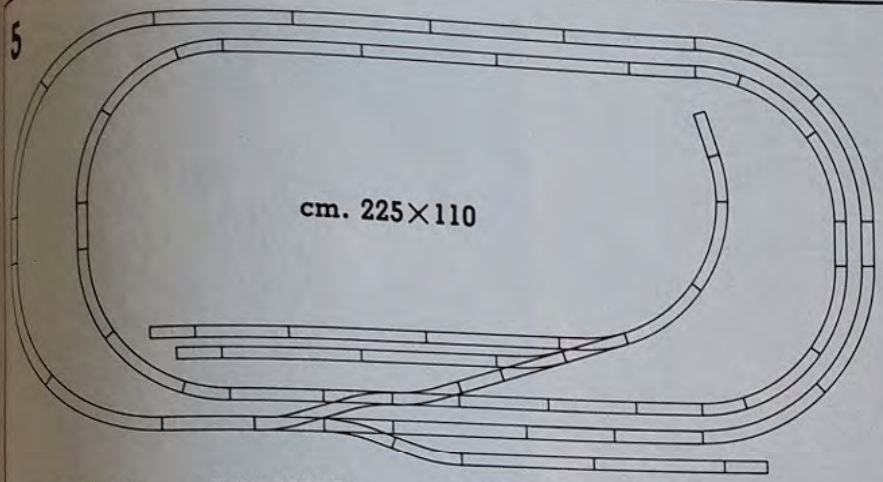
4



6×403020	18×403027	1×403030C	2×403036
1×403021	3×403026	2×403031	5×403050
5×403023	12×403017	1×403033	3×403051
5×403025	3×403030	2×403035	



5



7×403020
4×403021
2×403023
4×403025

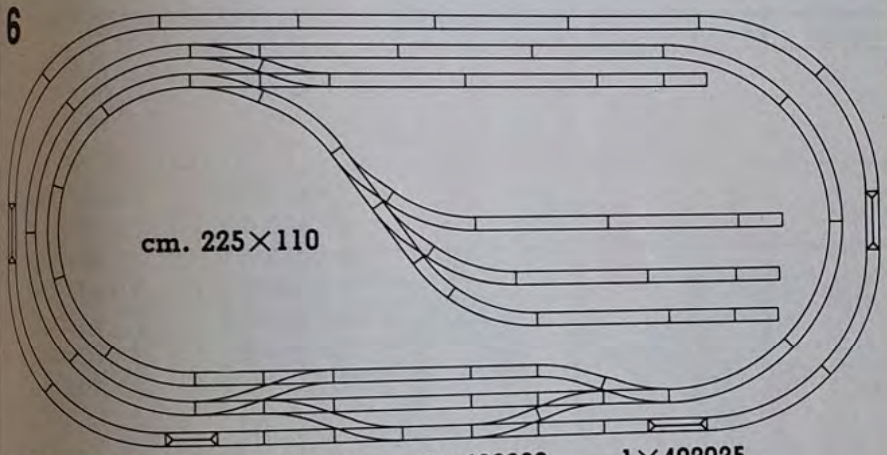
14×403027
8×403017
8×403030

1×403030C
5×403031
1×403035

1×403033
3×403050
3×403051



6

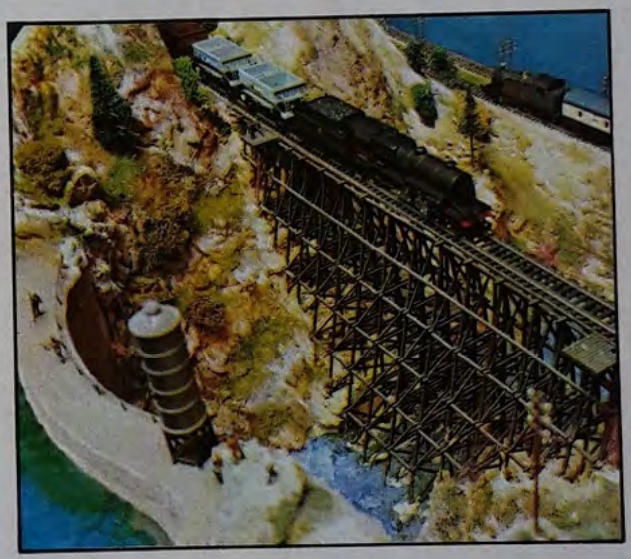


1×403020
2×403021
4×403025
8×403023

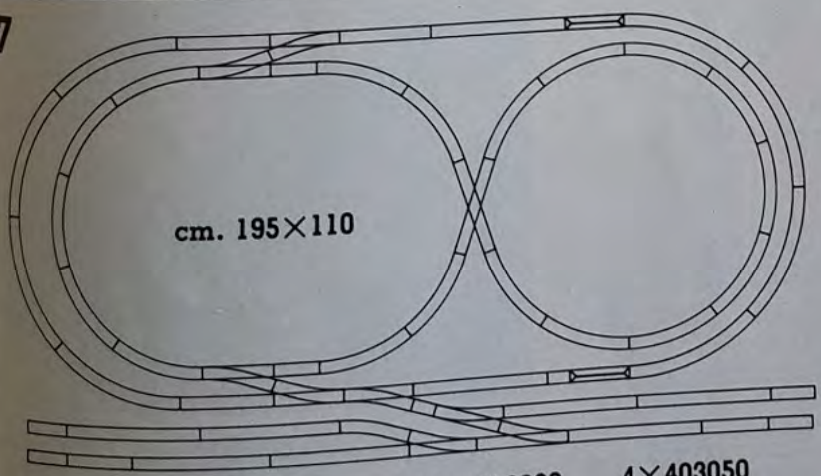
15×403027
4×403026
16×403017

7×403030
1×403030C
1×403033

1×403035
6×403050
6×403051



7



3×403020
2×403021
2×403022
4×403025

2×403026
2×403023
9×403027
8×403017

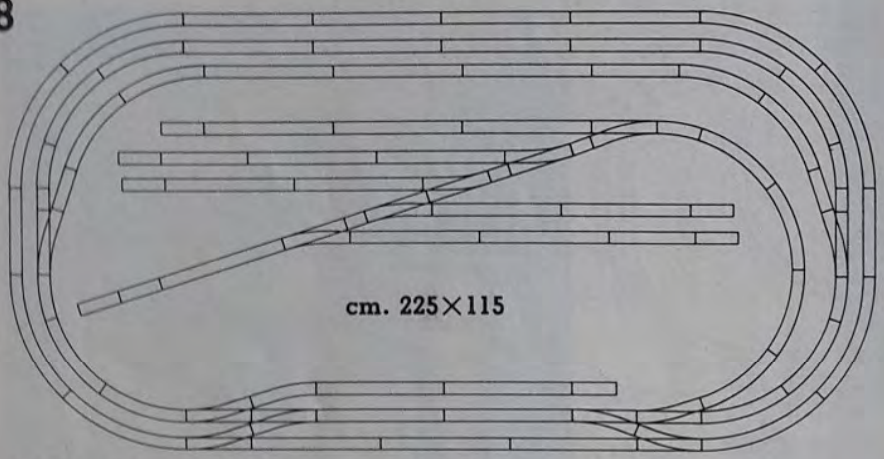
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1×403033
1×403035

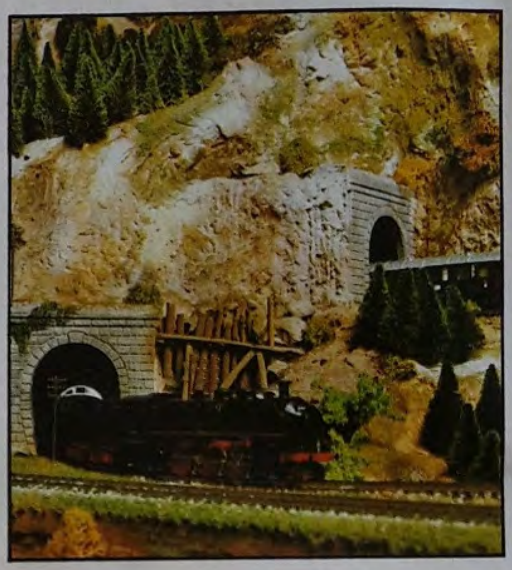
4×403050
3×403051
1×403041



OO SCALE

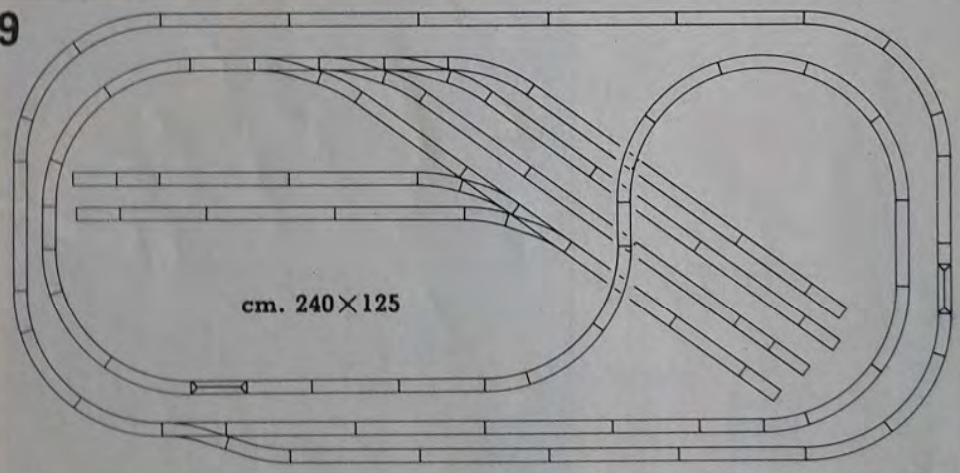
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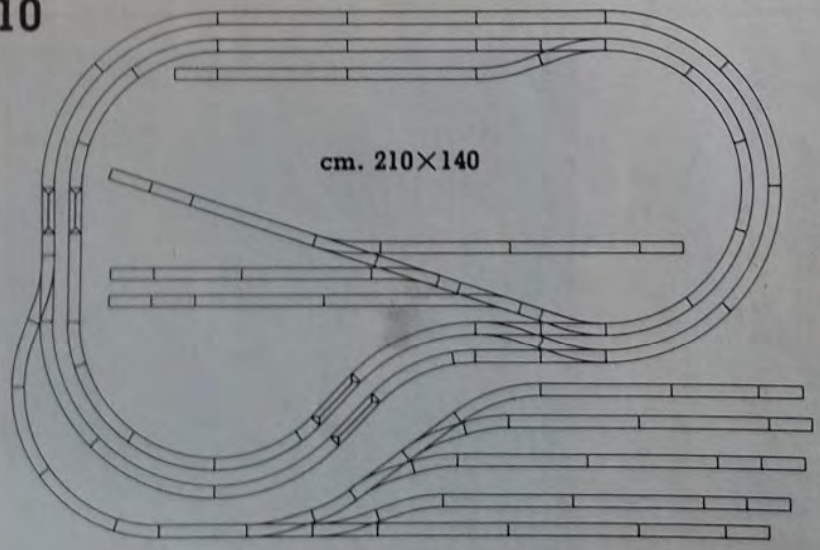
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4×403021	8×403017	4×403031	7×403050
5×403022	14×403030	1×403033	6×403051
7×403025			

9



27×403027	1×403030C
8×403020	1×403033
4×403021	6×403025
1×403022	13×403031
3×403023	1×403035
2×403026	4×403050
20×403030	2×403051

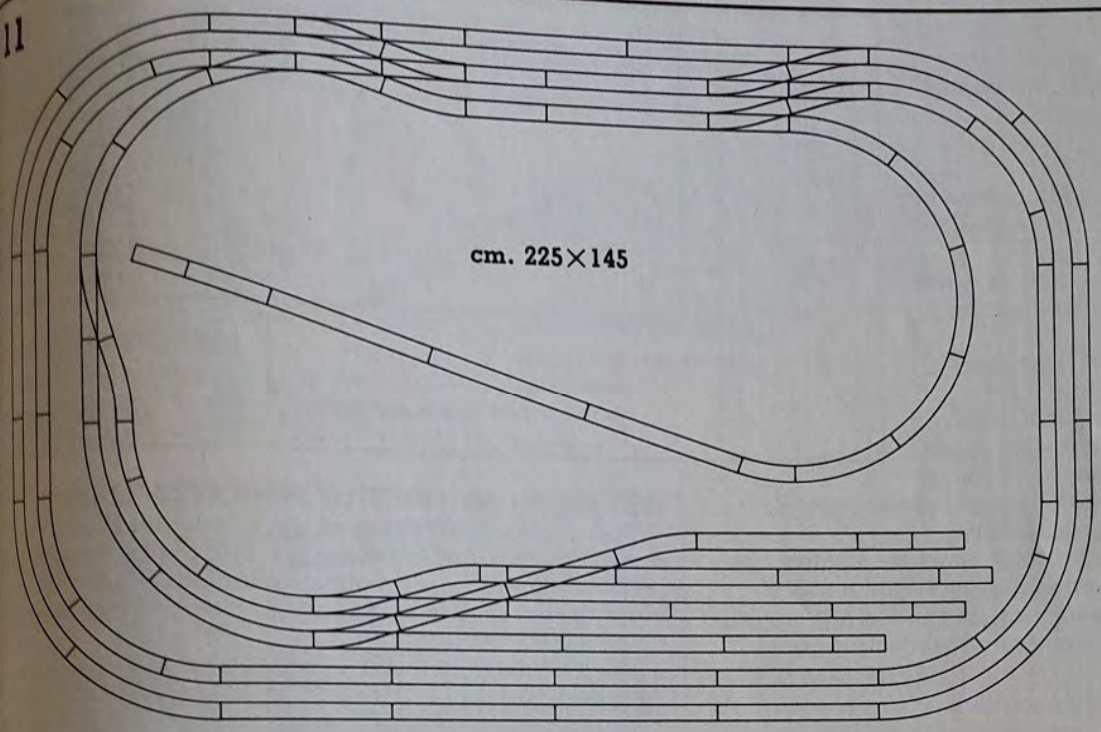
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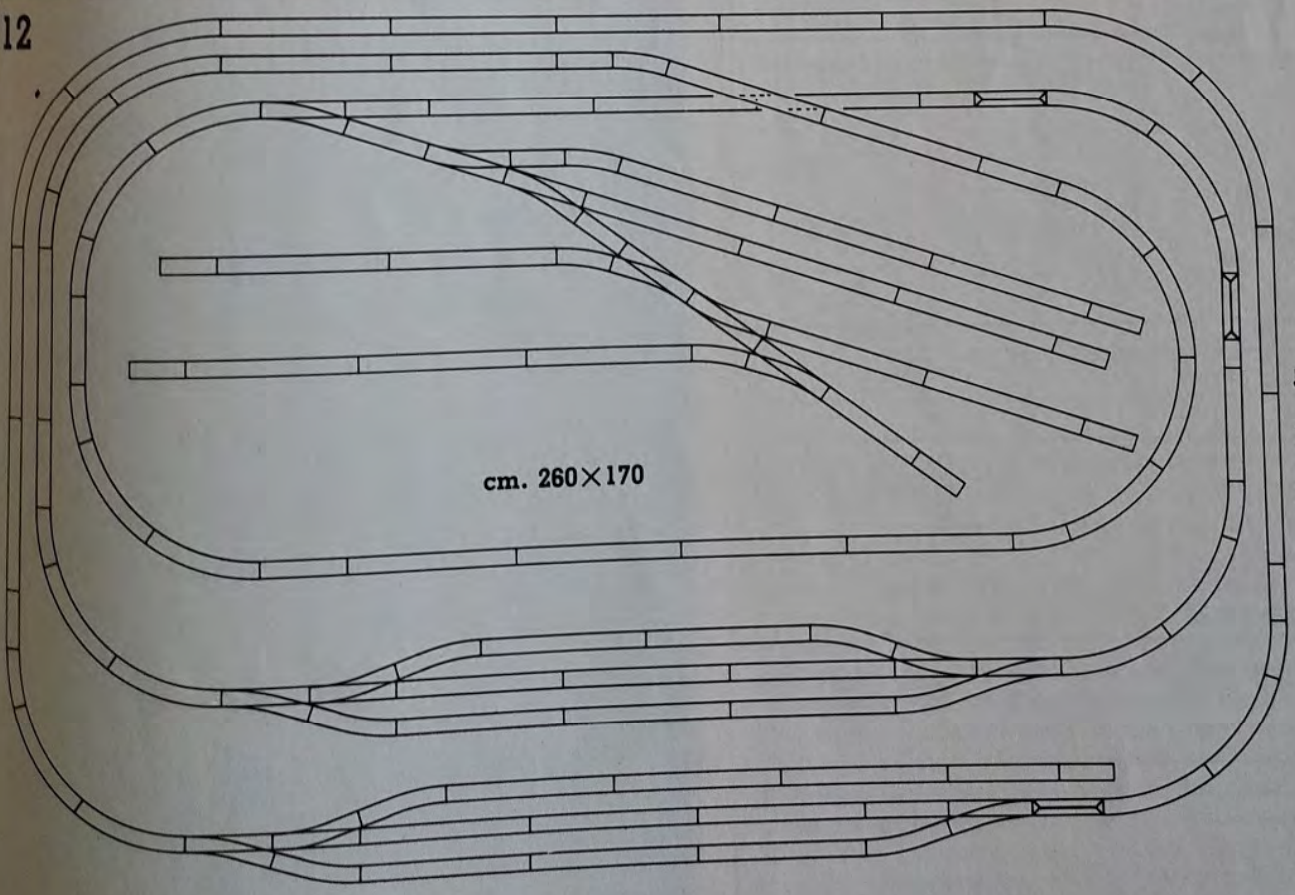
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4×403021	10×403017	1×403035
3×403022	12×493030	2×403036
2×403023	1×403030C	6×403050
4×403026	6×403031	5×403051
10×403025	1×403032	

11



1×403020
1×403021
1×403022
11×403023
26×403027
5×403025
10×403017
15×403030
1×403030C
6×403031
1×403033
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3×403050
8×403051

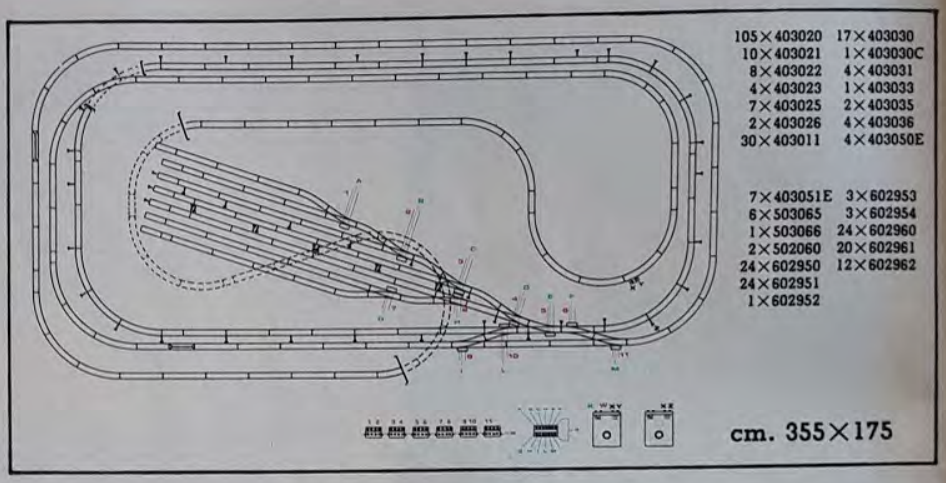
12



3×403020
6×403021
7×403023
7×403025
3×403026
51×403027
4×403017
18×403030
1×403030C
13×403031
1×403033
3×403035
4×403036
5×403050
8×403051

WIRING YO

You can add a great deal of realism and life to your layout with the special Lima electrical systems for operating individual trains, points, lights and signals.



LIMA POINT SYSTEM

Points are the most basic addition you can make towards giving your layout a realistic look.

Lima make two types - manually operated points, and those which can be electrically switched by remote control.

Both types are available as "left hand" and "right hand" turns.

The electrically operated points, more accurately called "electromagnetic" points, have three connecting terminals - a common central terminal, and two others which correspondingly control the positions of the point blades.

The electromagnets are fed directly from the control box and are activated by push-buttons. Only a light touch is needed when pressing these buttons, as too much pressure can cause overheating and damage in the electromagnet coils.

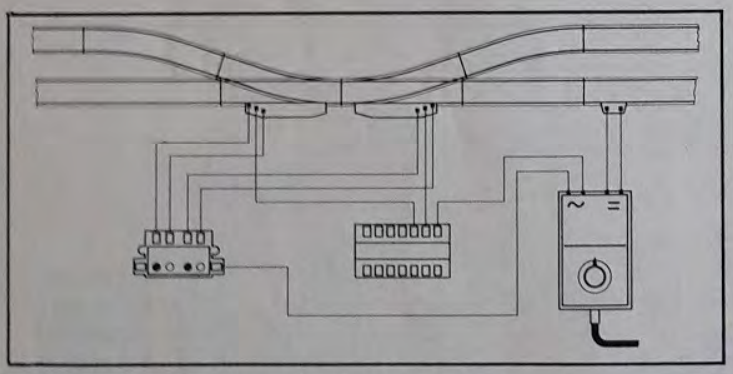
INSTALLING SECTIONS OF INSULATED TRACK

With insulated stretches of track, it is possible to run more than one train on the same line, giving a much more realistic approach to shunting operations. Care must be taken, however, to ensure enough clearance for passing trains to avoid collision.

The best place to insert a section of insulated track is in a siding (Straight Insulated Track Ref. 403024R). One train can then still run, while another is isolated from the current.

Operation is simple. When the button is not depressed the current is cut off. Once past the insulated point, the train will automatically stop.

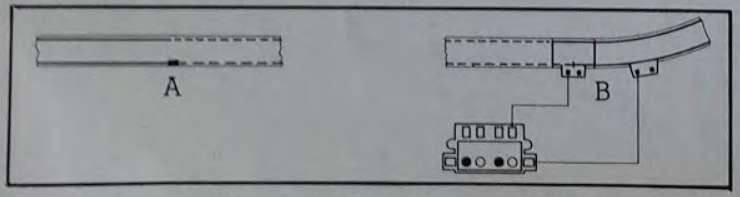
Press the button and the current is restored.



Supplying current to the track and to an electromagnetic point.



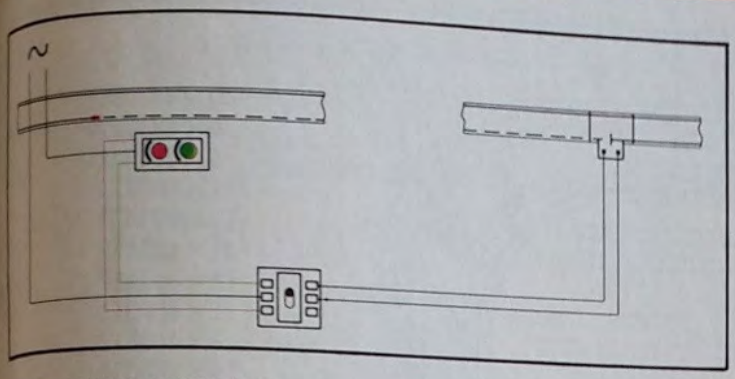
Section isolated with insulated track: In the section A-B the train will only move when the control box is pressed (ref. 503065).



Having arrived in section A-B, the train will automatically stop.



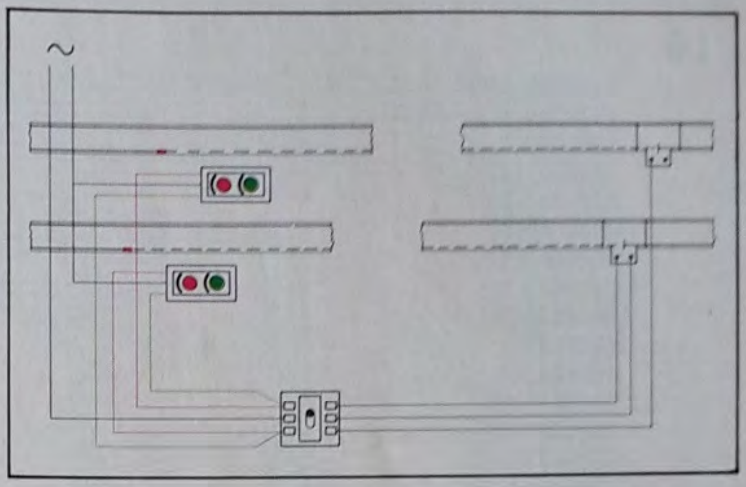
UR LAYOUT



INSTALLING SIGNALS

Signals are indispensible on any layout - both in scenic terms and in true to scale running of your trains. Every railway relies on the safety factor of precise signalling.





Sections controlled by signals should be at least 40-50cms long, and can be inserted between isolating tracks ref. 403022A and 403024R.

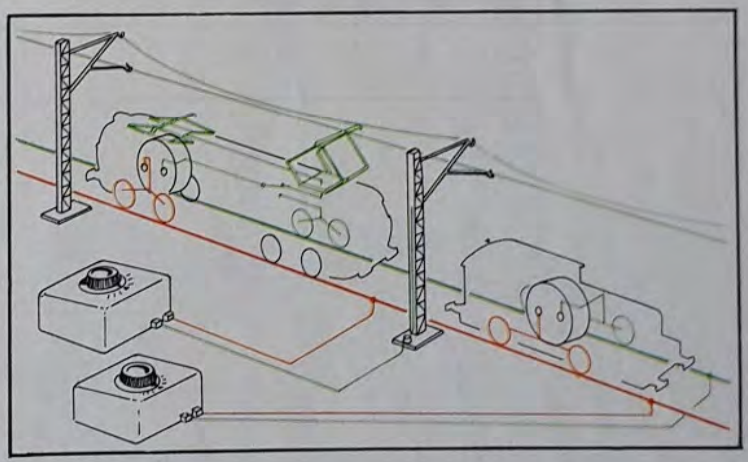
Signals can be wired to control individual sections of track, or to work in tandem over two sections.

CONTROL PANEL

To speed up the operation of points, LIMA have reproduced in kit form the system of route selection used by real-life railways.

The main elements of the track layout can be slotted into the control box, then, by selecting a particular run, the points along the way will automatically be switched.





ELECTRIFICATION OF THE CATENARY

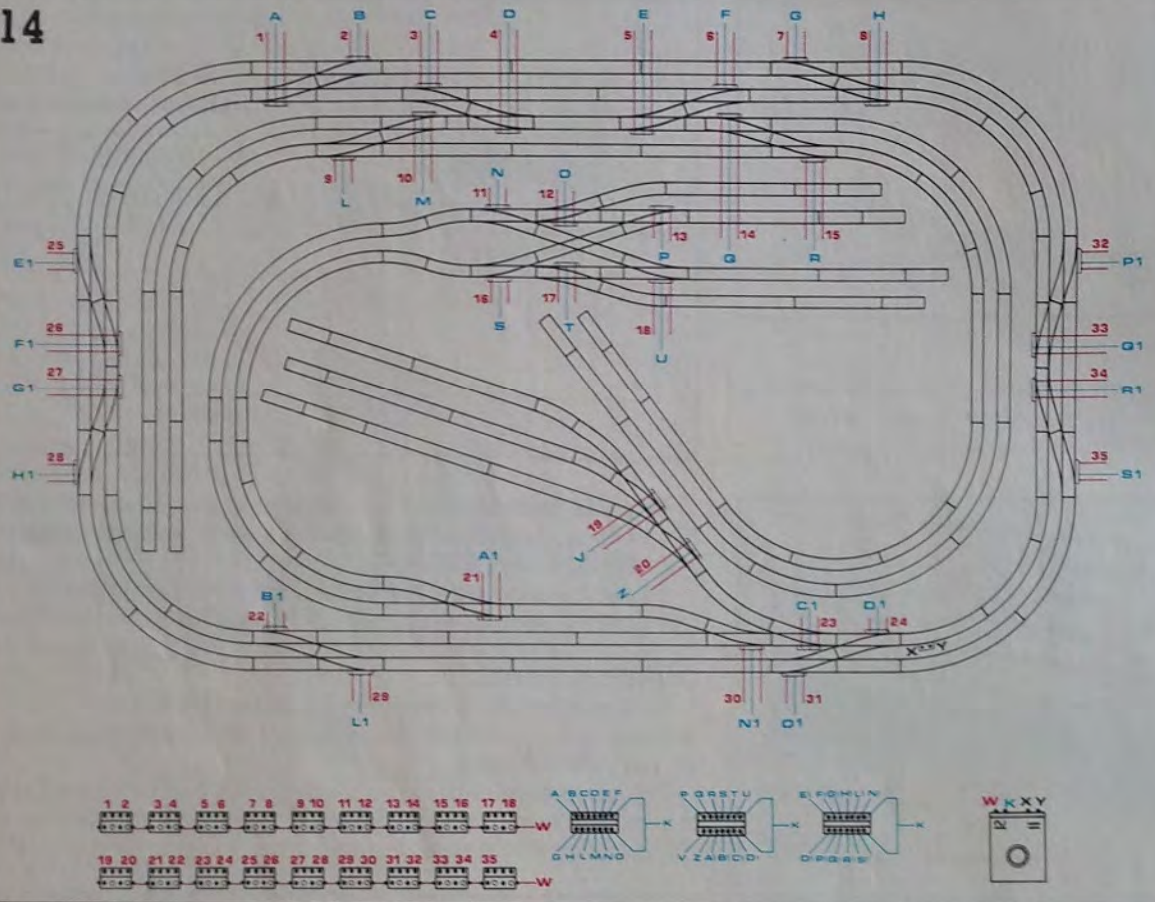
Experienced modellers can adapt their existing electric outline locos for use with the electrified Catenary system, by purchasing the special Lima Pantograph adaptor kit shown on page 42 . There are three different types of Pantograph available, and each kit contains a switch, the necessary cable, the Pantograph and a detailed instruction leaflet. Great care should be taken to follow these instructions when converting locomotives.

When two locos are used on the same track, one of them fitted with a Pantograph can collect its current from one rail and the overhead wires, whilst the other loco will collect its current from the track only.

The Lima conductor wire connected to the Catenary is made from copper covered steel, and the Catenary supports are specially designed to fit with each type of track unit, straight, curved, short or long.

OO SCALE

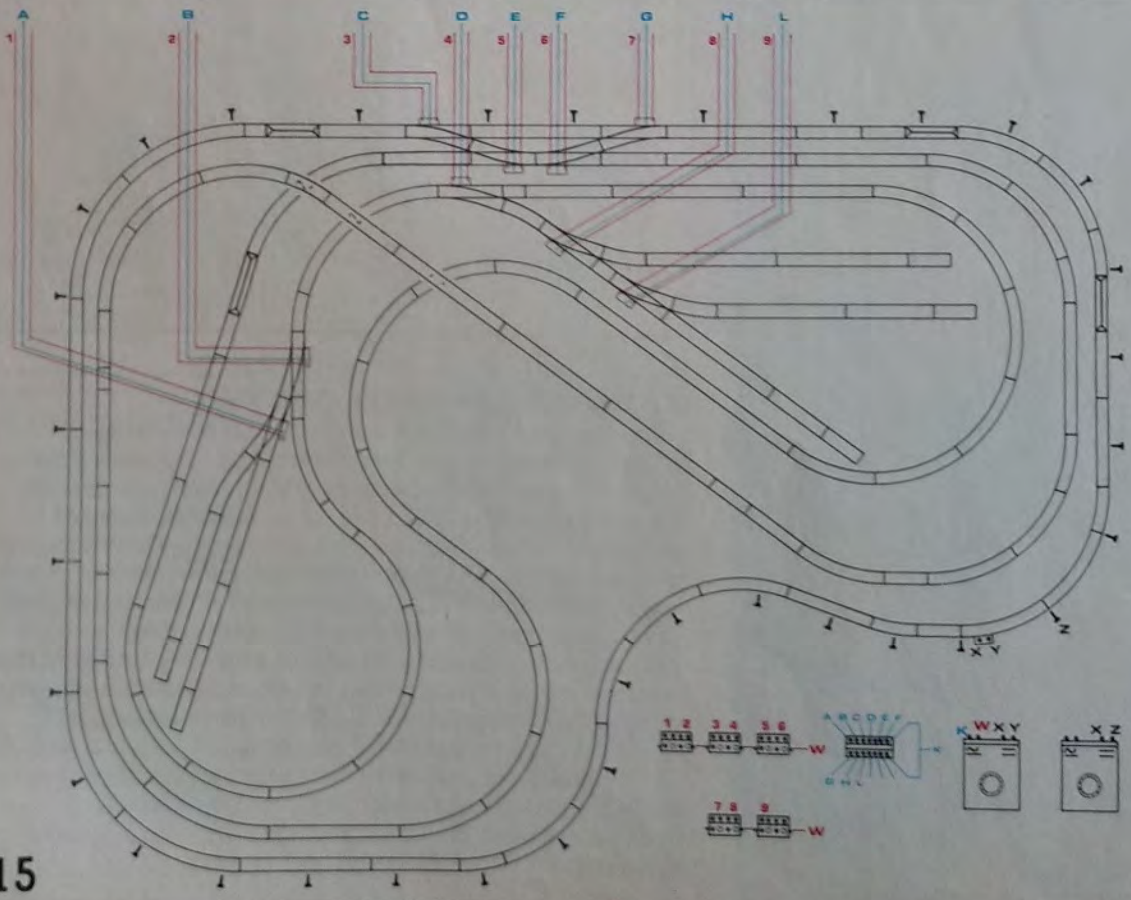
14



10×403020
4×403021
4×403022
12×403023
11×403025
31×403027
18×403017
1×403011
1×403012
19×403030
1×403030C
15×403031
1×403041
3×403035
1×403033
2×403036
18×403050E
17×403051E
18×503065
3×503066
1×502060

cm. 260×160

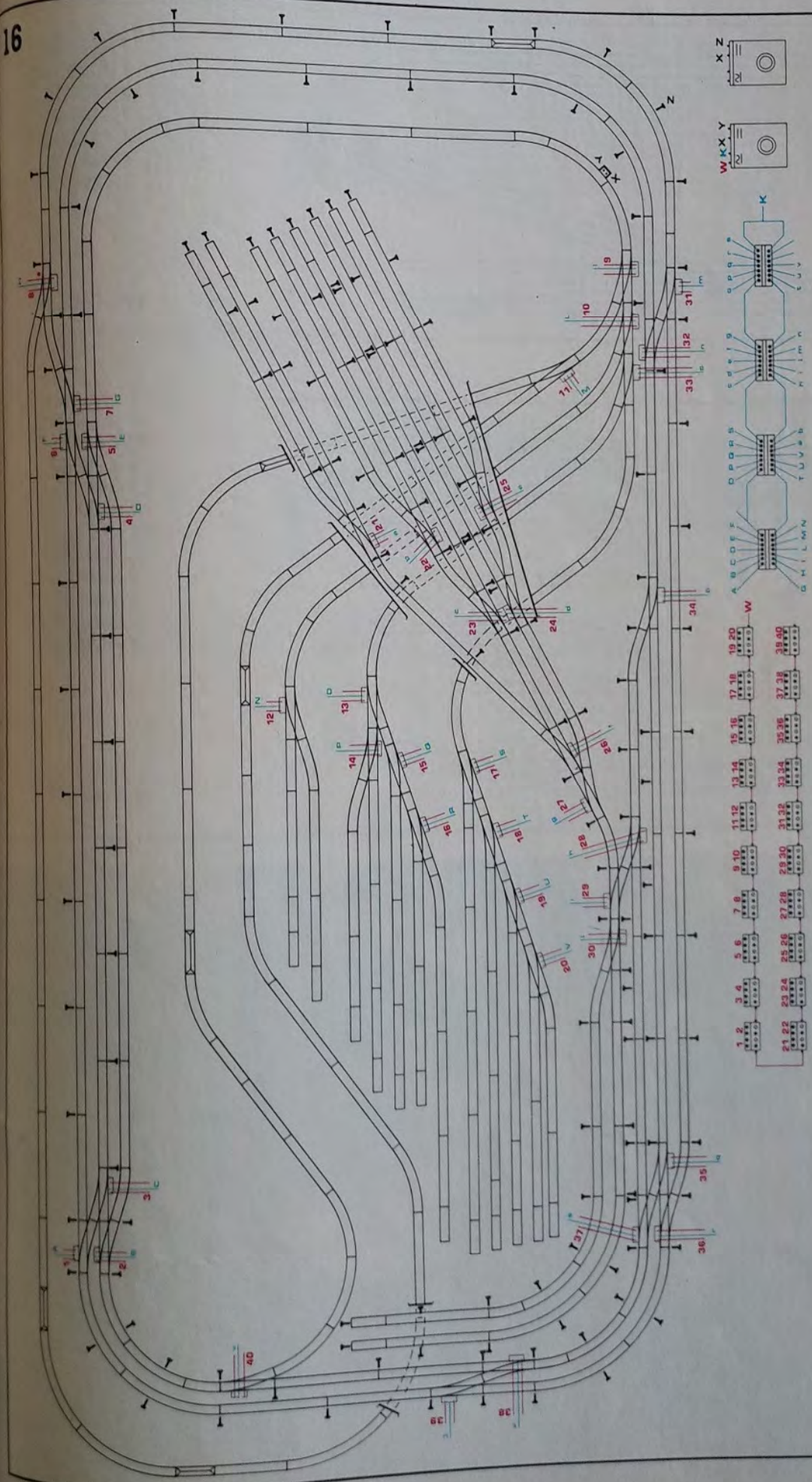
15



13×403020
5×403021
4×403022
5×403023
5×403025
4×403026
25×403027
6×403017
42×403030
1×403030C
12×403031
1×403033
1×403035
4×403050
4×403051
1×602952
16×602950
17×602951
24×602961
7×602960
3×602962
5×503065
1×503066
2×502060

cm. 200×275

16

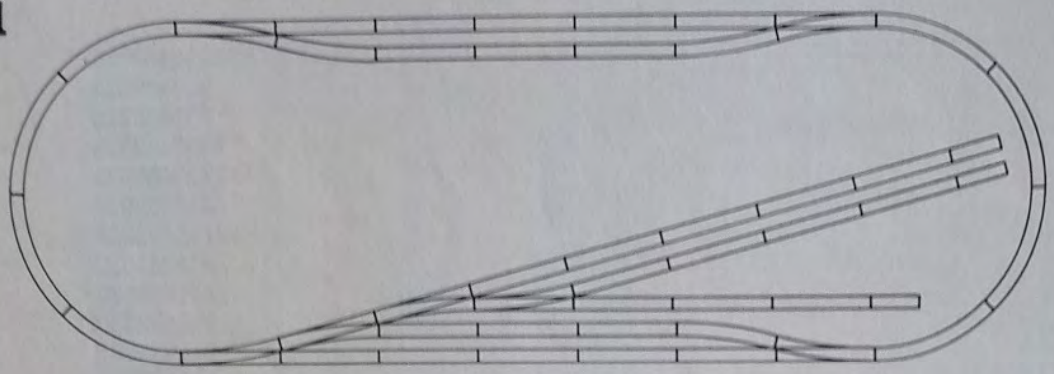


22×403020
6×403021
7×403022
15×403023
22×403025
6×403026
121×403027
18×403017
25×403030
1×403030C
9×403031
1×403033
9×403035
9×403036
28×403050
12×403051E
20×503065
4×503066
2×502060
78×602950
18×602951
10×602953
10×602954
1×602952
88×602962
40×602961
58×602960

cm. 440×190

N GAUGE

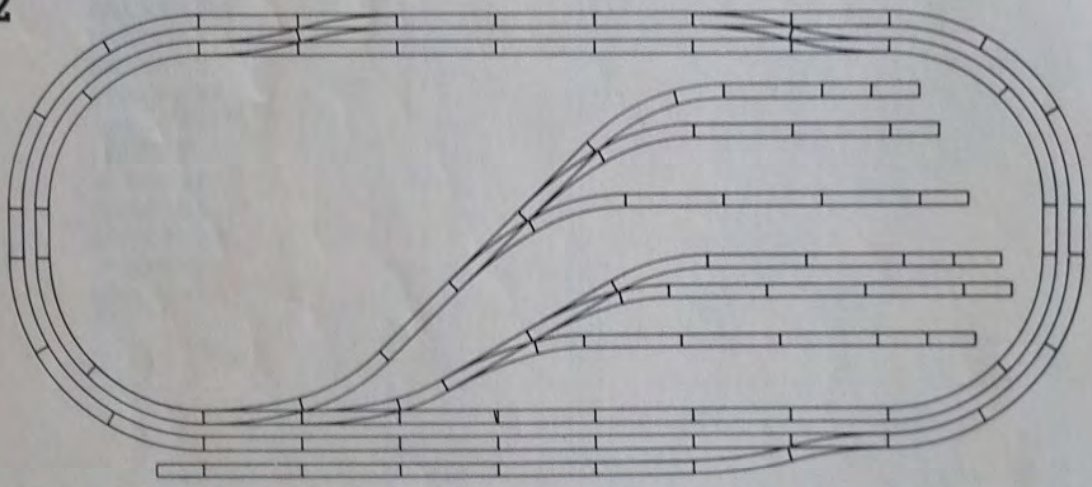
1



7×420571
1×420571C
28×420561
3×420565
3×420553
4×420525
3×420526

cm. 135×45

2

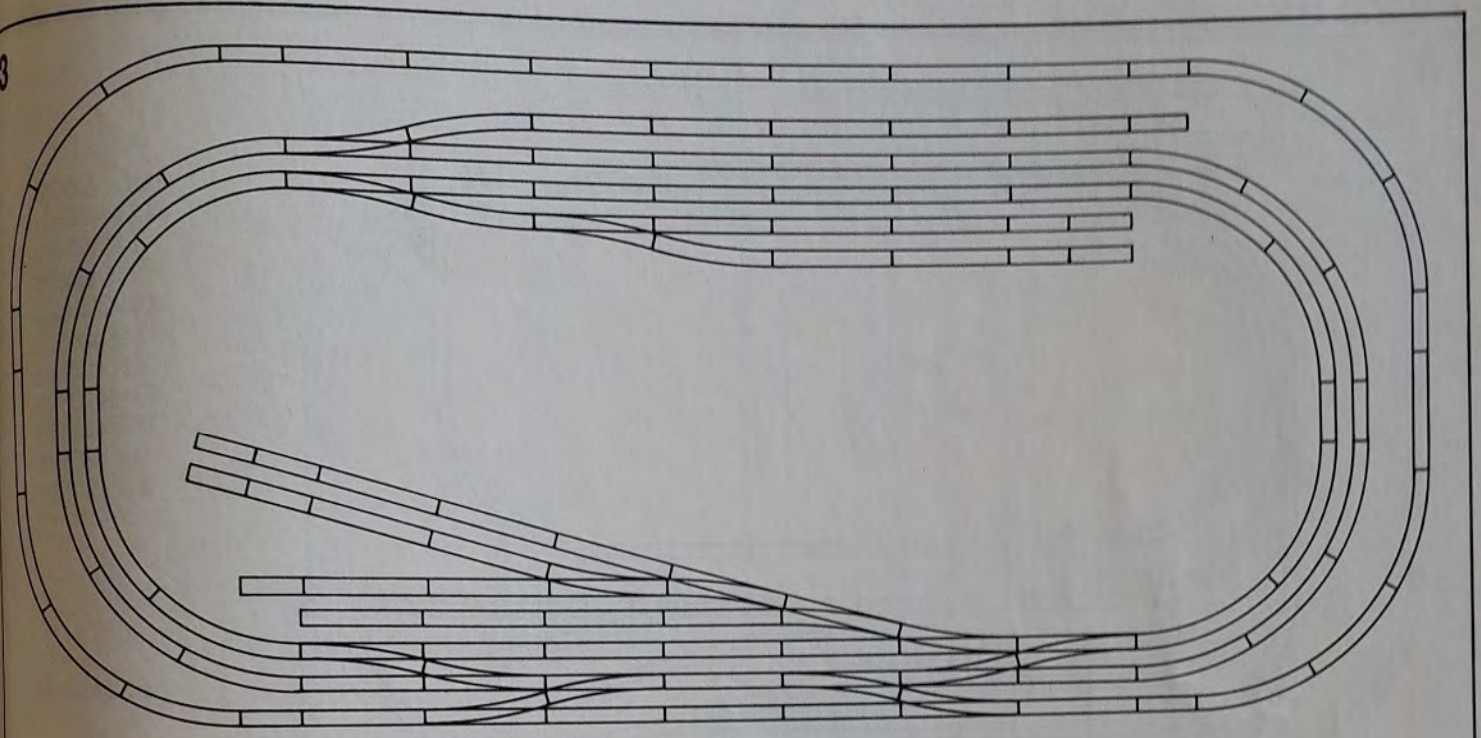


17×420551
4×420552
7×420571
1×420571C
41×420561
3×420562
7×420565
6×420525
5×420526
2×420553

cm. 140×60



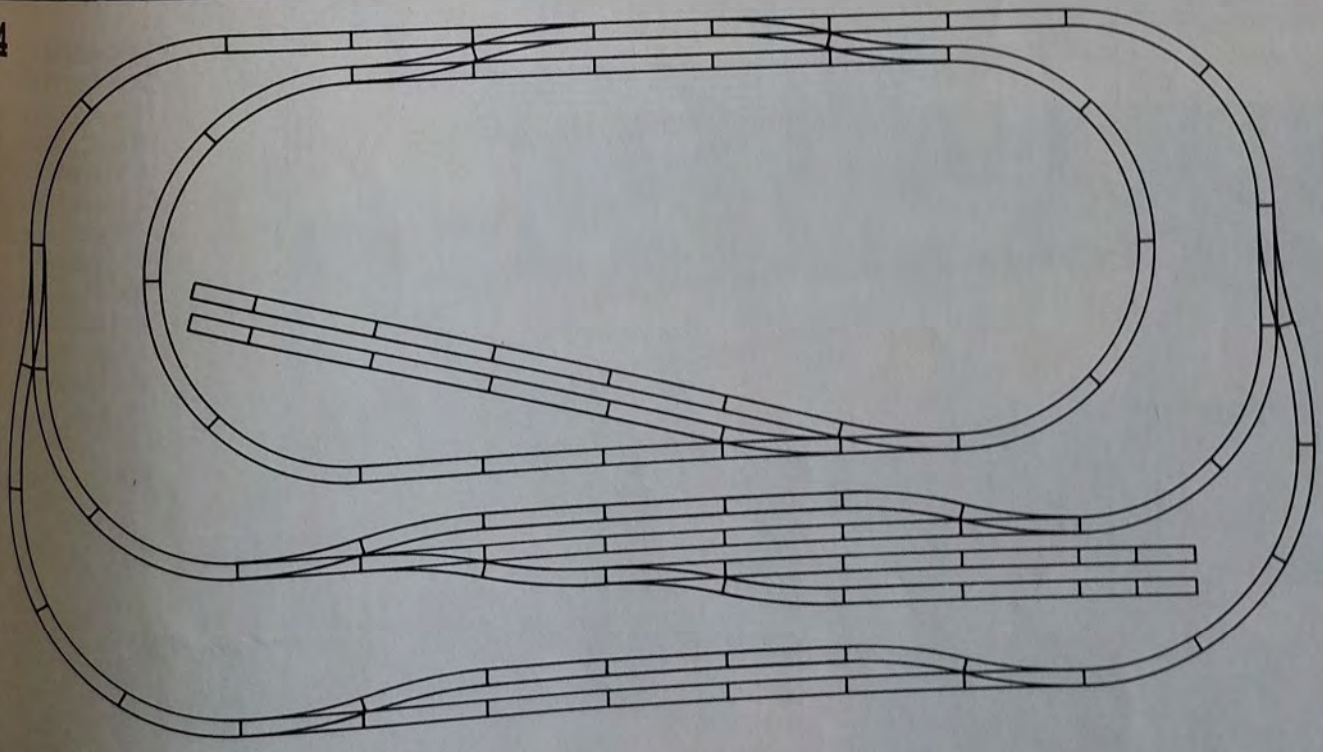
3



24×420551
7×420571
1×420571C
54×420561
14×420562
7×420565
3×420553
8×420525
5×420526

cm. 150×70

4

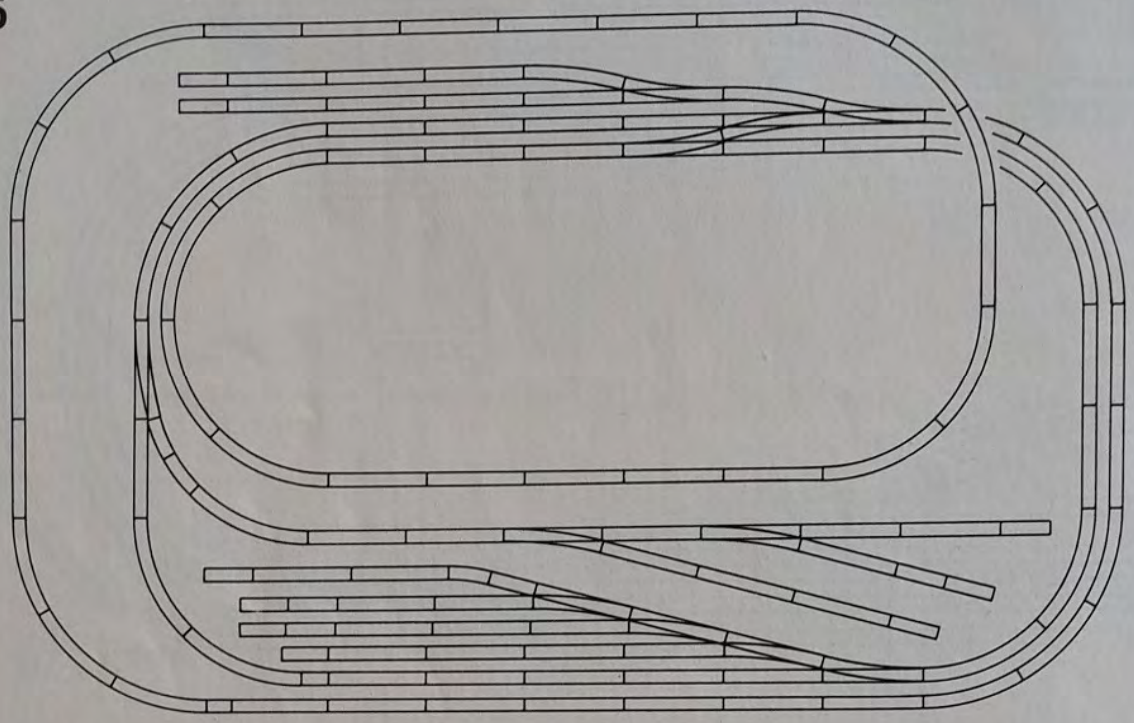


6×420551
15×420571
1×420571C
8×420553
40×420561
2×420562
4×420565
9×420525
5×420526

cm. 140×80

N GAUGE

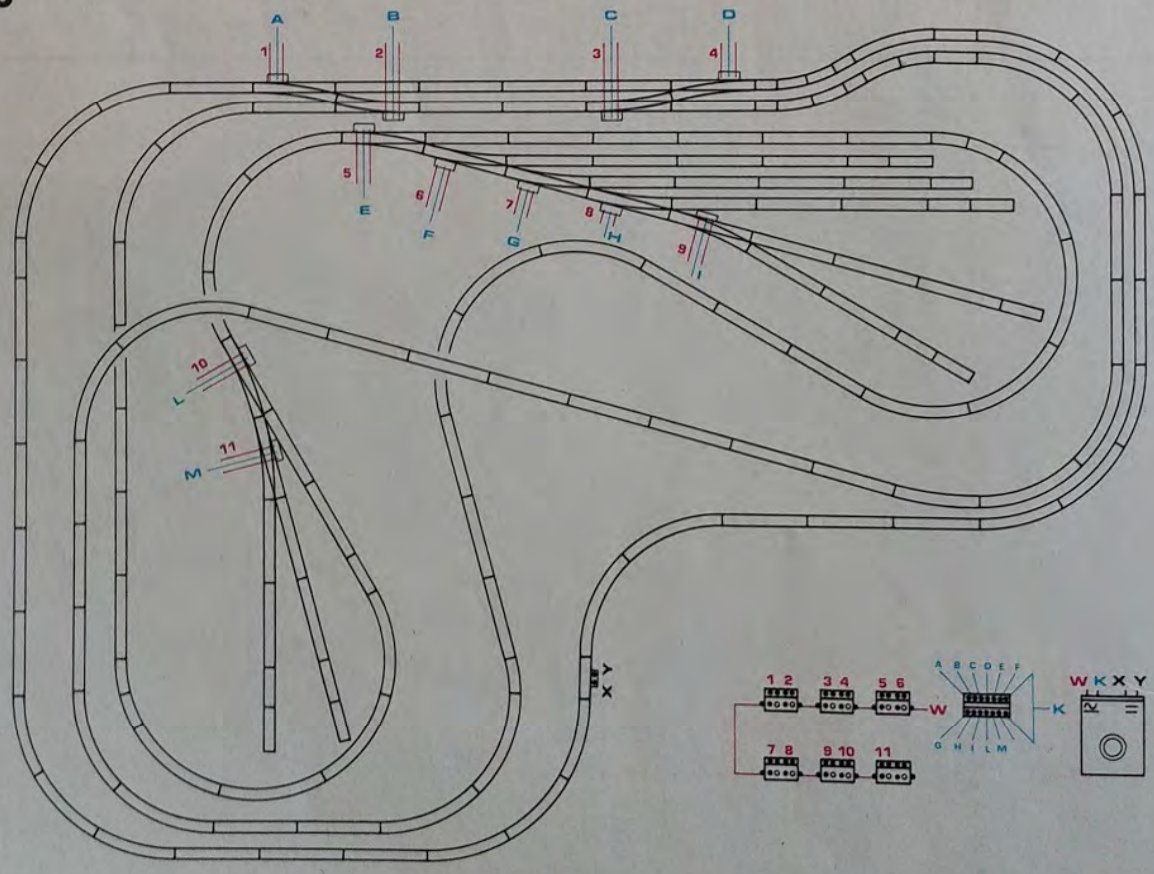
5



18×420551
12×420571
1×420571C
3×420572
69×420561
5×420562
2×420563
9×420565
2×420553
.5×420525
6×420526

cm. 145×90

6

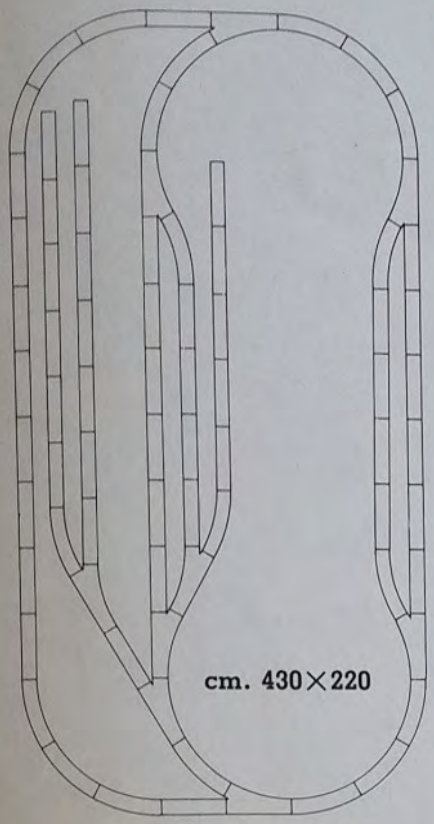


18×420551
28×420571
11×420572
76×420561
9×420562
4×420563
1×420564
7×420565
6×420525E
5×420526E
5×503065
1×503066
1×502053

cm. 175×140

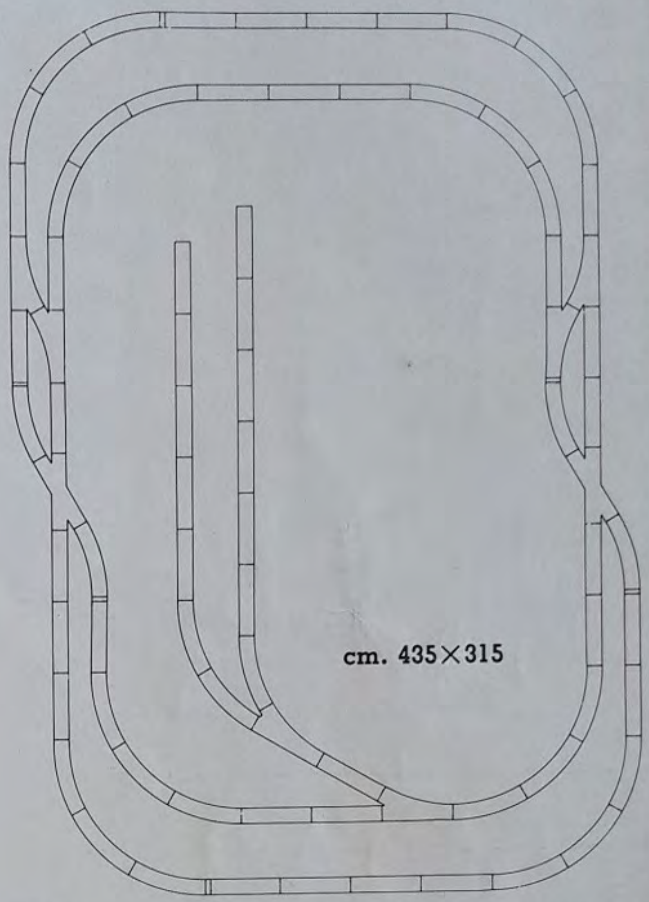
O GAUGE

1



19×416811	4×416831	3×416841
49×416801	5×416832	1×416811C

2



1×416811C	41×416801	2×416822	2×416832
30×416811	6×416805	4×416831	2×416841



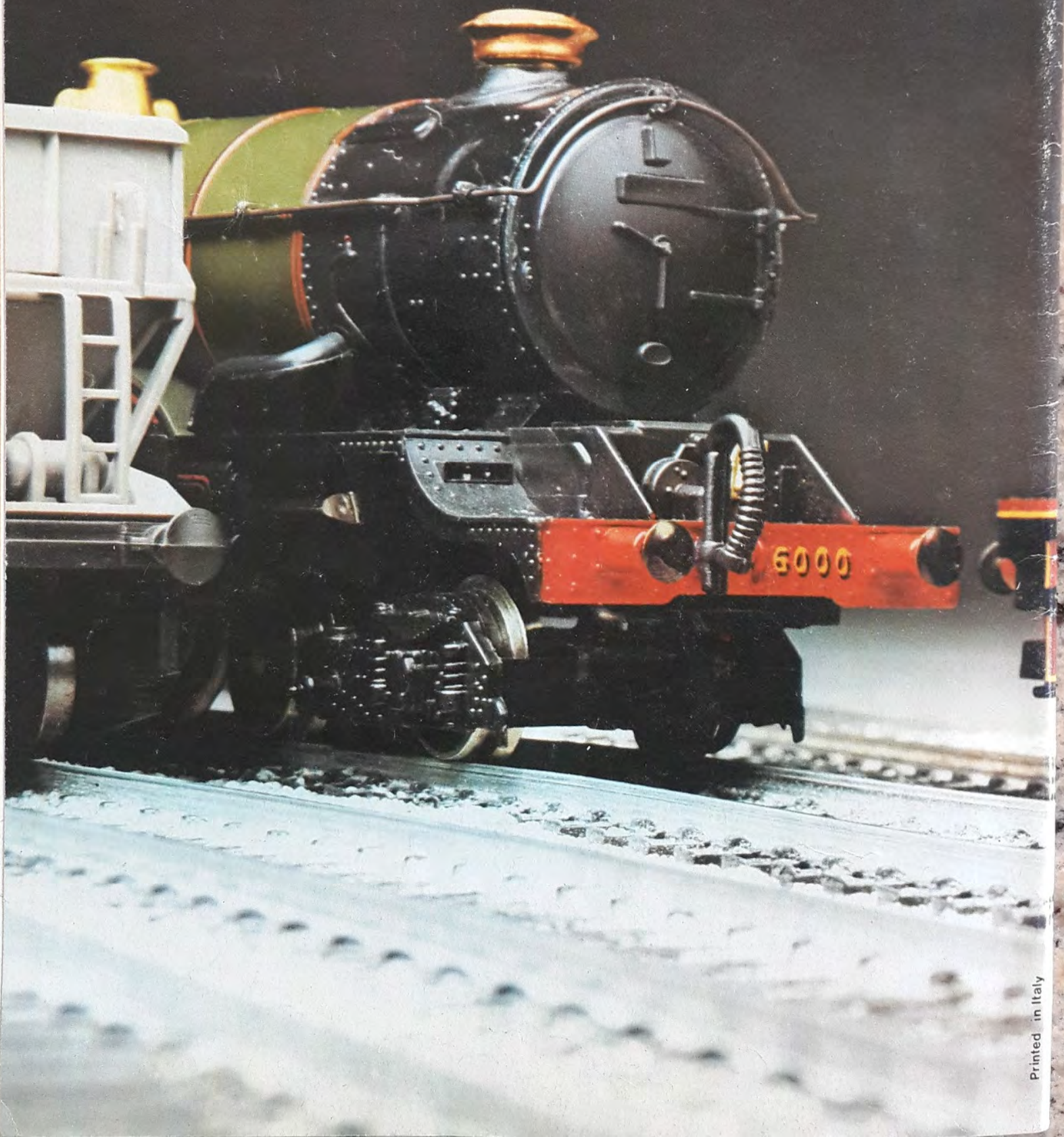
Lima models

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600280

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Designed by Bowman/Harris Partnership Ltd.



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