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**QUALITY KITS FOR  
THE RAILWAY MODELLER**

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**N,00&0 scales**



## INTRODUCTION

Welcome to the latest edition of the Ratio Catalogue. The presentation has changed very little since the introduction of this new style and believe the specific contents that you wish to refer to can easily be found on the colour coded pages. A few of the pages have updated pictures and all the latest releases are fully illustrated on the inside back cover.

For those new to Ratio, we are a small family business dedicated to manufacturing plastic kits for railway modelling enthusiasts to use on their layouts. At this time the range covers three different scales – N, OO and O. In N and OO scales we make railway buildings, wagons, coaches and most importantly a detailed range of signals for which we have become famous. O Gauge at present has a limited range but when time permits, developments are envisaged. All kits are designed to be straight forward to assemble and the finished results look good, even before painting. Our Catalogue illustrates many models "weathered" in the traditional manner which makes them look even more realistic when in a setting.

Ratio models are supplied to all good model shops around the United Kingdom but if you have difficulty in buying your needs, you can obtain them direct from the Factory. You can even visit our production unit at Buckfastleigh to make your purchases including the famous handbook "Getting The Best From Ratio Plastic Models" (Irwell Press), and study the many models and dioramas on display.

We are constantly producing new kits and looking for prototypes to copy so do not hesitate to contact us for updates or even give us your ideas for new products. Study our advertisement in the RAILWAY MODELLER magazine each month for the latest information.

Ratio wishes you every success with your modelling projects.



### VISIT OUR FACTORY SHOP

**MANY DIORAMAS &  
N GAUGE 'NETHER STOWEY'  
ON DISPLAY**

**OPEN  
MON-THUR 8am-5pm FRI 8am-2pm  
CLOSED**

**WEEKENDS & BANK HOLIDAYS**

**Address & Directions on back cover**

RATIO PLASTIC MODELS

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Cover: Kit 536 Midland Signal Box Left: some of our displays & N gauge layout 'Nether Stowey'

RATIO PLASTIC MODELS



## COMPANY HISTORY



A wooden GWR 'SIPHON G' Bogie van



Wooden 'INSULFISH' (white) and GWR Horse Box vans



Early Ratio plastic wagons. A 3-plank Coke wagon, an Iron Ore Tippler and an Empty Cask (brewers) wagon



Our factory is located in part of the Old Mill Building

'Ratio Scale Models' was started in 1950 by Jack and Deva Webster. The first kits were coaches, constructed with sheet ply wood pressings and were acclaimed at the time as being the finest models available.

In 1959 Ratio started making plastic kits and so the name was changed to 'Ratio Plastic Models.' Since then, our range of kits has expanded from just 00 wagons, coaches and signals to what is now a large selection of Trackside buildings and accessories in both 00 and N scales, as well as signals and Builder packs in N and a few items in 0 Gauge.

Originally the moulding tools were made of brass, but with our new machinery we make all our new moulds from steel. This means that the moulds have a long life span, retaining the detail well with little wear.

Ratio has moved four times. We began operating in North West London at Chorley Wood, Hertfordshire, then in 1961 moved to Goring-on-Thames, Oxfordshire and on to Sturminster Newton, Dorset in 1972. We have now been in Buckfastleigh, Devon since 1986, located in an old woollen mill. As can be seen, Ratio has been moving steadily westwards over the years!

RATIO PLASTIC MODELS

## RATIO QUALITY

High Quality is the Ratio standard, exemplified by the workmanship and attention to detail in our kits. We employ our own toolmakers who take the time and trouble to get the kits as near to the prototype as is possible using the injection moulding process. The use of injection moulding allows us to mass-produce kits which have crisp outlines and fine detail.

In the following 'Ratio Shows You How' pages, we tell you the best way to make our kits, showing the kind of tools needed, the best glues to use and how to paint our models. Using these tips you can produce truly excellent models without the need for scratch building. However, many people do use our kits as a basis for their own building designs by joining more than one kit together or by using selected parts. We can supply the separate moulding sprues from a kit for those wanting only certain parts, direct from our factory. See the General page in this catalogue, inside the back cover, for more details.

Which ever way you use our kits, we are confident that you will be impressed by our high standards and good design.

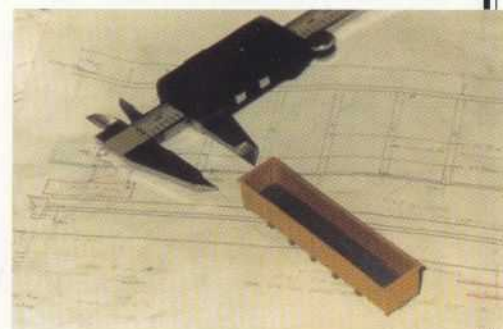
We are always pleased to quote for tool-making and/or plastic injection moulding production.



Our moulding machines



One of our tools (moulds)



A contract wagon model in development

RATIO PLASTIC MODELS



## RATIO SHOWS YOU HOW

even before they are cut from the sprues. Flashing can also be cut away and holes drilled whilst the part is still on the sprue.

Cut the parts from the sprues on a firm flat surface, plate glass is ideal. By having a 'dry run' assembly first, you can see how things are going to fit together. Often the moulding 'feed' points will need filing to get a good fit. When you are gluing it is best to hold the two parts together first, then lightly brush the liquid into the joint whilst holding them firmly together.

If you decide to paint your kit, then you will need the following basic items:

- **BENCH** - at a comfortable height to work at with a thick paper or plastic covering to protect table.
- **BRUSHES** - Good Quality Sable Nos 00-1 with pointed round tips for detail work and 0-2 with wide round/flat tips for applying washes and large areas of paint
- **WATER/SPIRIT HOLDER**
  - wide base or with a clip to discourage spillage, possibly with an artists brush holder to stop damage to brush tips

There are several types of paint available and different methods of applying them....



*Gluing the parts together*



*Some of the types of paint available*



*Cleaning the assembled kit for painting*

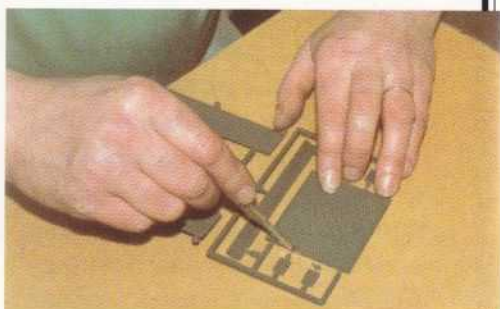
## RATIO SHOWS YOU HOW

A few basic items are required for the assembly of our kits. We recommend the following items:

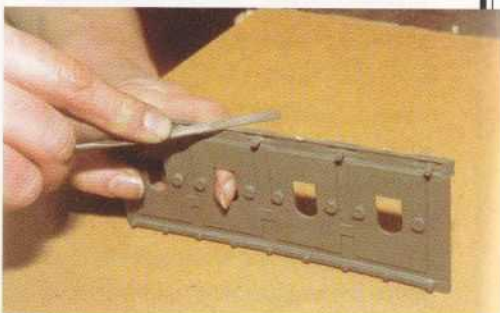
- **HOBBY KNIFE** - X-ACTO
  - for heavy cutting work
- **SCALPEL** - Swan Morton No.3 handle with 10 or 10A blades
  - for subtle slicing and pairing
- **RAZOR SAW** - X-ACTO
  - for heavy cutting/kit conversion
- **TWEEZERS &/OR SMALL JEWELLERS PLIERS**
  - for holding & placing small parts
- **PIN CHUCK AND DRILLS**
  - 50-80 or 0.3-1.6mm
- **NEEDLE FILES** - cut 4
  - Flat, Round, ½ round, Square & Triangular are the best to have



*The minimum recommended tools*



*Cutting parts from the sprue*



*Filing the 'feed' points off the parts*

There are several glues that you can use; we sell Polsol liquid cement (not by post), but there are other makes available. We do not recommend tube polystyrene cement and Super glue is best only used for attaching metal parts. Fillers can be used to fill gaps, but they are expensive and messy to use.

Construction should start by reading the instructions carefully. Try to avoid rushing into making your kit, familiarise yourself with the assembly order and the parts involved.

Small parts are best painted before they are assembled, some



## RATIO SHOWS YOU HOW

Below is a list of the most common paints used and their best use:

### • CELLULOSE UNDERCOAT

- car spray can is best to use - in matt white, grey & red oxide. All parts to be painted need a thin undercoating.

• **ENAMEL** - Humbrol enamels are recommended for all areas of solid colour (not washes).

• **ACRYLIC** - a water based paint best used for weathering and small areas.

Painting should start by thoroughly cleaning the surface to be painted. Then apply thin coats of cellulose undercoat, usually from a car spray can. The top coat can be Enamel (Humbrol) or Acrylic. Enamel is the easiest to use and is sold in many model shops in railway colours. Acrylic is more thick and opaque, is water based and comes in artists colours, so is best used for weathering. Apply Enamel in thin coats and then Acrylic in washes to weather the kit. Clean brushes in white spirit (enamel) and then warm soapy water (all paints).

There are many techniques involved in painting, too many to mention here. A more detailed painting guide is included with 00 and N Trackside kits, but is also available direct from us for 10p and S.A.E.



*Applying a thin layer of undercoat*



*Applying Enamel to the kit*



*Putting on the 'weathering' wash*

## TRACKSIDE

N



### 204 STATION BUILDING

Our model is based upon GWR Castle Cary and is typical of many companies' buildings. It is suitable for many layouts, be it a small village station or a town station, with several kits joined together.

Size 110 x 32mm

### 205 STATION CANOPY

The canopy is available separately so the modeller can convert the station to an island platform or use it for other buildings.

Size 104 x 22mm

### 208

### APEX PLATFORM CANOPY

Apex canopy with valancing, stanchions and girders. The glazed sections can be placed at will. Although typical of the GWR, this canopy can be used for almost any railway company.

Size 200 x 43mm



### 209 PLATFORM

To make a wide or long platform. Size 240 x 40mm

### 210 PLATFORM RAMPS

Two ramps to go with 209. Each sized 120 x 40mm

### SET 1 STATION AREA (Not Illustrated)

This boxed set includes the kits listed below. The best way to start off a new layout - a perfect gift. (see also SET 2)

204 Station Building  
208 Apex Platform Canopy  
209 Platform

210 Platform Ramps  
213 Station/Street Lamps  
219 Concrete Fencing, Gates

223 GWR Wooden Signal Box  
260 L/Q Home/Dist.. Signal



## TRACKSIDE

N

**225 FLAT PLATFORM CANOPY**

This type of canopy is to be found across the country on many stations with island and bay platforms. It will match in well with the station building and its similar canopy. For larger stations, several canopies can be joined with ease.

Size 210 x 43mm

**222 CONCRETE FOOTBRIDGE**

This type of bridge was typical on the Southern Railway in the thirties. Many examples still exist in use today all over the south of England. It will span two tracks and has two smoke deflectors. It can easily be extended with additional kits.

RATIO PLASTIC MODELS

## TRACKSIDE

N

**236 MIDLAND SIGNAL BOX**

The model is of the standard 4d Midland Railway signal box, based on the prototype at Swadlincote Junction, Leics. This fine kit will assemble with ease with the panels moulded in authentic MR cream colour. The interior is not included.

Size 60 x 25mm

223

**GWR WOODEN SIGNAL BOX**

An authentic replica of a standard GWR signal box No 8/28b installed from the 1920's up until WW2. Some still exist today, but they were a common sight into the late 60's. Our kit is modelled on the signal box at Goodrington Yard, Devon. Includes interior details such as levers, stove and desk and finely etched windows.

Size 60 x 20mm



224

**SIGNAL BOX INTERIOR FITTINGS**

Accessory pack which includes all the interior fittings seen and the window etchings etc. These fittings are included with the GWR box, but not with the Midland box.



RATIO PLASTIC MODELS



## TRACKSIDE

N

**230 ROUND WATER TOWER**

This common type of water tower can be used platform or ground mounted and is supplied with stove, drain, hose and etched ladder.

**215 SQUARE WATER TOWER**

This type of water tower is usually ground mounted to supply water cranes in stations and loco depots. Two cranes are included.

**231****CARRIAGE SHED**

Protect carriages from the weather with this two road shed, complete with centre walkway and guttering. The shed can easily be extended in length and width with further kits.

Size 178 x 60mm

**SET 2 ENGINE SHED AREA (Not Illustrated)**

This boxed set includes the kits listed below. Kit out your engine shed area in one (see also SET 1) - a perfect gift.

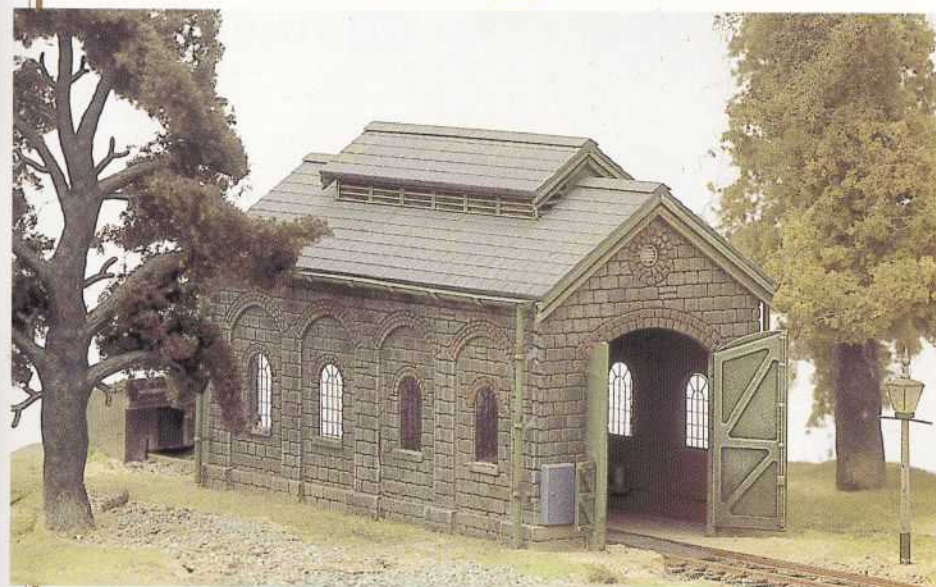
203 Engine Shed  
206 Loco Servicing Depot

213 Station Street Lamps  
215 Rectangular water tower

+ Lineside  
Hut

## TRACKSIDE

N

**203 ENGINE SHED**

Put your engines 'on shed' in this model of a typical stone engine shed with a louvred slate roof, wooden doors and lamp. The shed can easily be extended to make loco depots for those with larger layouts. Size 95 x 48mm

**206 LOCO SERVICING DEPOT**

Complement your engine shed with this depot, which includes a rectangular water tower, water crane, coaling stage with coal staithes and hoist with buckets. For those with many engines to service, the kit can be extended. Size 90 x 30mm



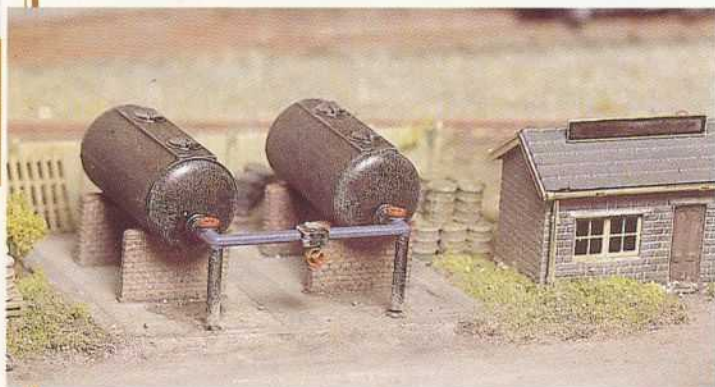
## TRACKSIDE

N

**227 WEIGH BRIDGE**

A common sight in many goods yards for weighing-in goods before loading onto hired company wagons for transit. Includes guttering and brass etched scales and weighing plate, barge-boards, windows and door.

Also available from 'Builder' range shown in the pictures on this page

**315 OIL TANKS****316 COAL STAITHES****228 OIL DEPOT**

Two oil tanks and a hut make up this essential item for areas where fuel oil was used. The tanks can also be bought separately as 315.

**229 COAL DEPOT**

No goods yard can be without its coal staithes for the local merchant to use. The kit has two staithes and a hut as shown.

**214 YARD CRANE**

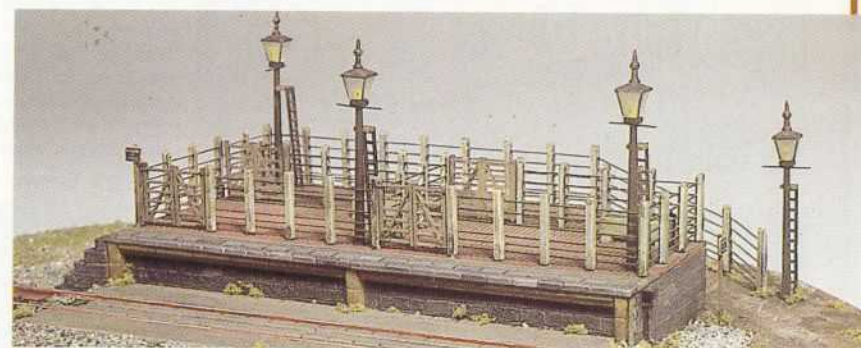
RATIO PLASTIC MODELS

## TRACKSIDE

N

**220 GOODS SHED**

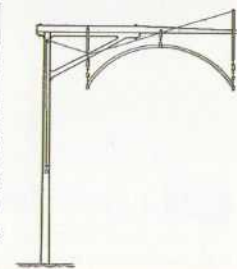
A typical goods shed, essential to most railway stations for the transfer of 'dry' goods to road vehicles for distribution. Larger versions were to be found at big stations, so extensions are quite prototypical. Size 90 x 70mm

**202 CATTLE DOCK**

Also a common feature of many stations, cattle docks could be very large in some market towns. Most country stations had a cattle pen, our version being that at Yeovil Pen Mill. Extensions are simple to construct. Size 90 x 55mm

**233 LOADING GAUGE**

Used to check the height of loaded wagons to make sure they fall within the 'Loading Gauge'

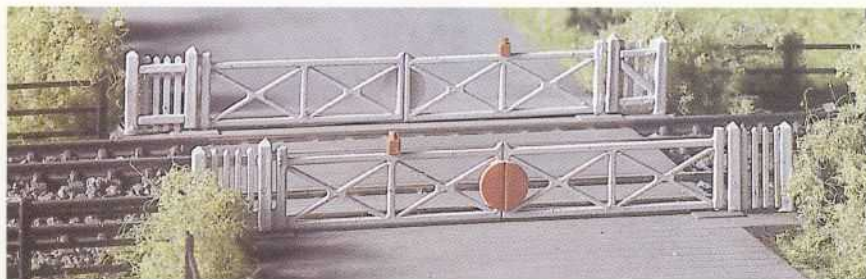


RATIO PLASTIC MODELS



## TRACKSIDE

N

**234 LEVEL CROSSING GATES**

Level crossings were most popular with the light railways, such as those in Kent, but were also to be found on express routes. Gates were often opened by hand, but some were operated by a hand wheel alongside the crossing. A few are still in use today, usually on branch lines and in industrial locations. They would normally be left closed to rail traffic, with the crossing being protected by stop signals either side.

**235 LEVEL CROSSING BARRIERS**

The modern style of gate is very simple, this being a two barrier version. Only one barrier per side is used for small crossings. Colour light signals protect the crossing and operation is automatic, often with closed circuit cameras.

**237 2 LINESIDE HUTS**

Can have many uses, such as platelayers huts, tool stores, lamp huts etc.

NEW

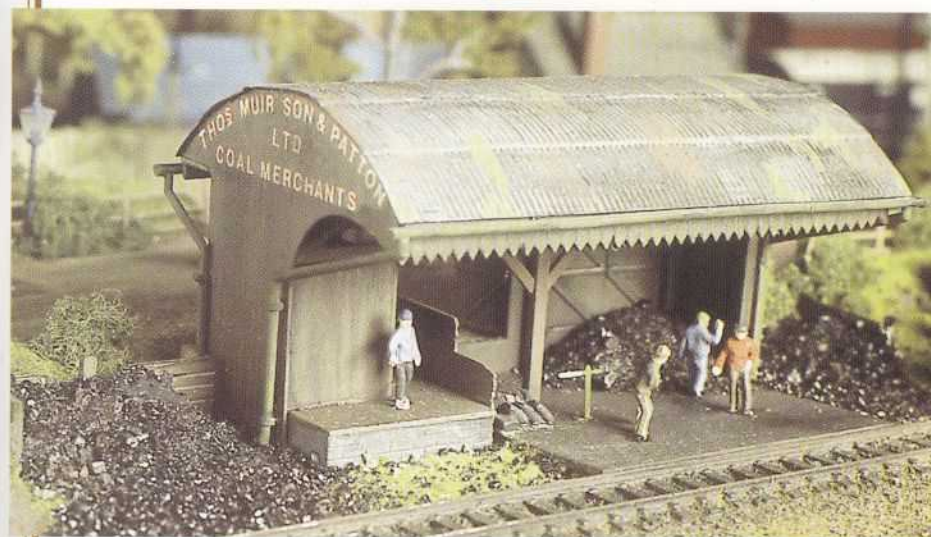
**238 2 CONCRETE HUTS**

A post-war Southern design, used as platelayers huts etc.

RATIO PLASTIC MODELS

## TRACKSIDE

N

**232 COAL/BUILDERS MERCHANTS**

Where business warranted it, traders were able to have their own premises connected by rail, often next to the station goods yard. This speeded up the transfer from rail to stores, without the need for road transport before distribution to customers. It comes with hoist, office with loading platform. Can be constructed in a number of ways, as per the instructions  
Size 85 x 60mm

Also available from 'Builder' range shown in the pictures on this page

**317 CORRUGATED ROOF****314 INDUSTRIAL CHIMNEY****226 PUMP/BOILER HOUSE**

A useful building to fill the odd corner of a layout. It boasts a brick chimney, water tank and wooden out-building. It might have contained a boiler for heating a factory and/or provide a power source to drive machinery. Pump machinery would be used for mine workings and for raising water from a well, lake or river.

Size 95 x 65mm



RATIO PLASTIC MODELS



## TRACKSIDE

N



### 221 PALLET, SACKS & BARRELS

Includes 10 Pallets, 42 Sacks and 24 Barrels. Adds the finishing touch to an empty space in your goods yard, station etc.

### 213 STATION OR STREET LAMPS

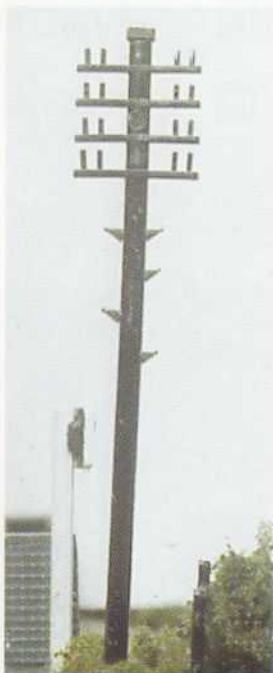
Now you can furnish your layout with lamps. They can represent oil, gas or electric lights.

### 219 CONCRETE FENCING

The Southern Railway used this simple slab fencing in abundance, much of which is still visible today. On slopes, the fence was always stepped. 4 Gates included. Length 356mm

### 211 TELEGRAPH POLES

The most simple addition to any layout, to add that finishing touch. For those that wish to add wires, you can use fine fuse wire or fishing 'wire'. 10 poles per pack



### 216 217 FLEXIBLE LINESIDE WOODEN FENCING

A common style of fencing which can be used in any part of the layout, not just marking out railway property. Length 840mm  
Available in: 216 white 217 brown



## SIGNALS

N



### 260 LOWER QUADRANT HOME/DISTANT

Kit makes one home or Distant Signal.



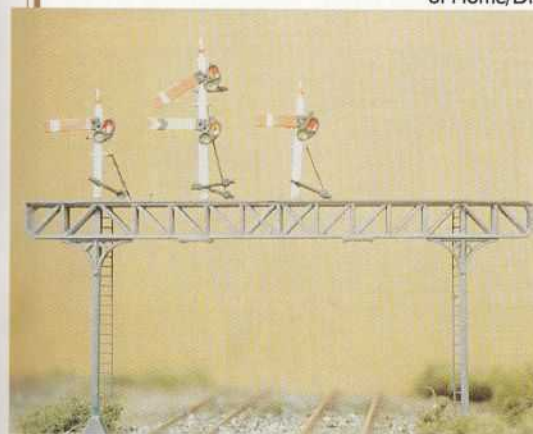
### 262 LOWER QUADRANT JUNC/BRACKET

Kit makes one Junction or Bracket signal, with a choice of Home/Distant arms.



### 270 UPPER QUADRANT HOME/DISTANT

Makes one Home or Distant signal.



### 271 SIGNAL GANTRY

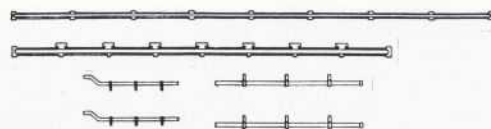
Spans two tracks, but can be extended.  
Signals not included



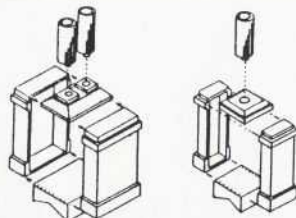
### 250 SIGNAL REMOTE CONTROL

Includes Lever, cord and screw eyes  
- all that is needed to work one signal.

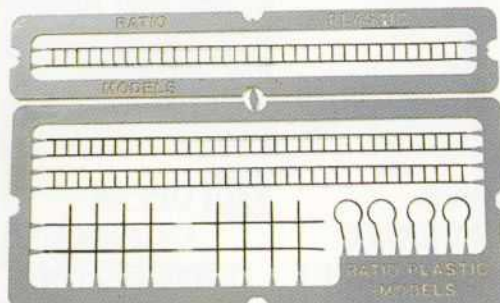
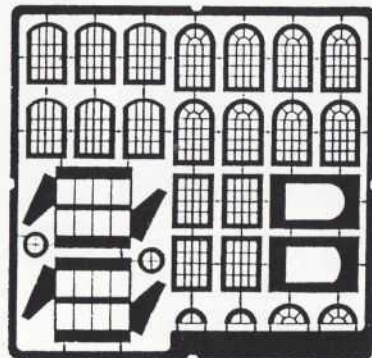
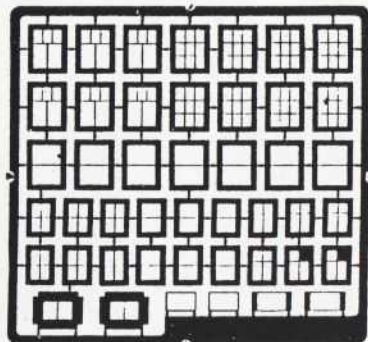
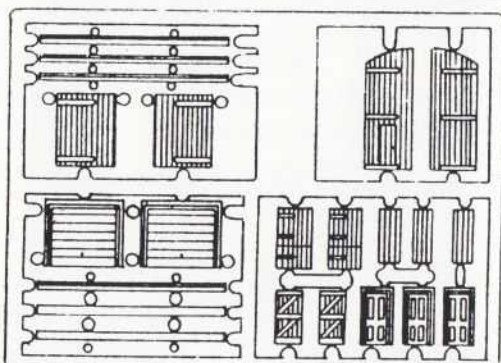


**BUILDER****N****300 GUTTERING & DOWN PIPES**

Includes Guttering: 2 x 110mm, 2 x 90mm  
Pipes: 4 x Straight 35mm, 4 x Curved 23mm

**307 CHIMNEYS**

The following 218, 309 & 310 are one sheet of brass etchings.  
311 is two plastic mouldings.

**218 LADDERING****INDUSTRIAL WINDOWS 309****310 DOMESTIC WINDOWS****DOORS 311**

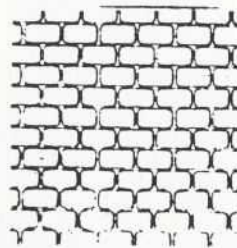
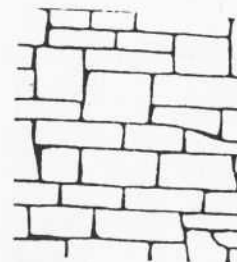
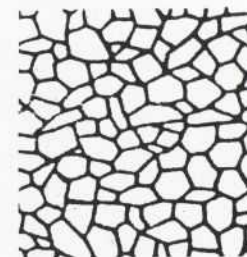
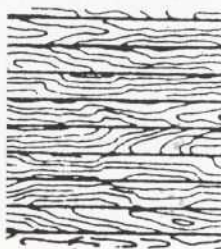
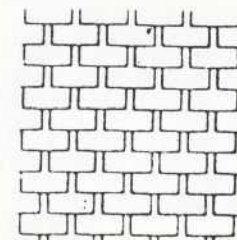
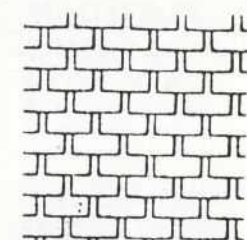
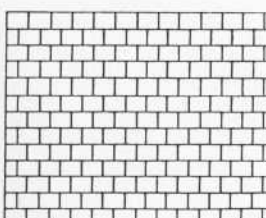
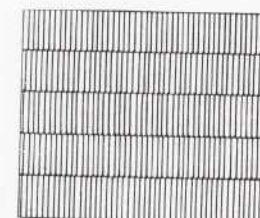
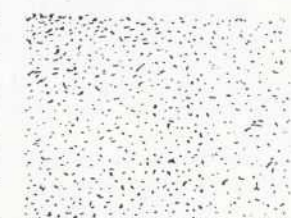
The following items are illustrated as part of the kits in the preceding pages

**314 INDUSTRIAL CHIMNEY****316 COAL STAITHES****315 OIL TANKS****317 CORRUGATED ROOF**

RATIO PLASTIC MODELS

**BUILDER****N****SHEET PLASTIC SURFACES**

All the Builder packs on this page are supplied as a set of four sheets, each one sized 90 x 75mm

**301 BRICK WALLING****302 COARSE STONE****303 CRAZY PAVING****304 WOODEN PLANKING****305 SLATE ROOFING****306 TILE ROOFING****308 FLAGSTONES****312 CORRUGATED IRON/PLASTIC****313 ROUGHCAST WALLING**

RATIO PLASTIC MODELS