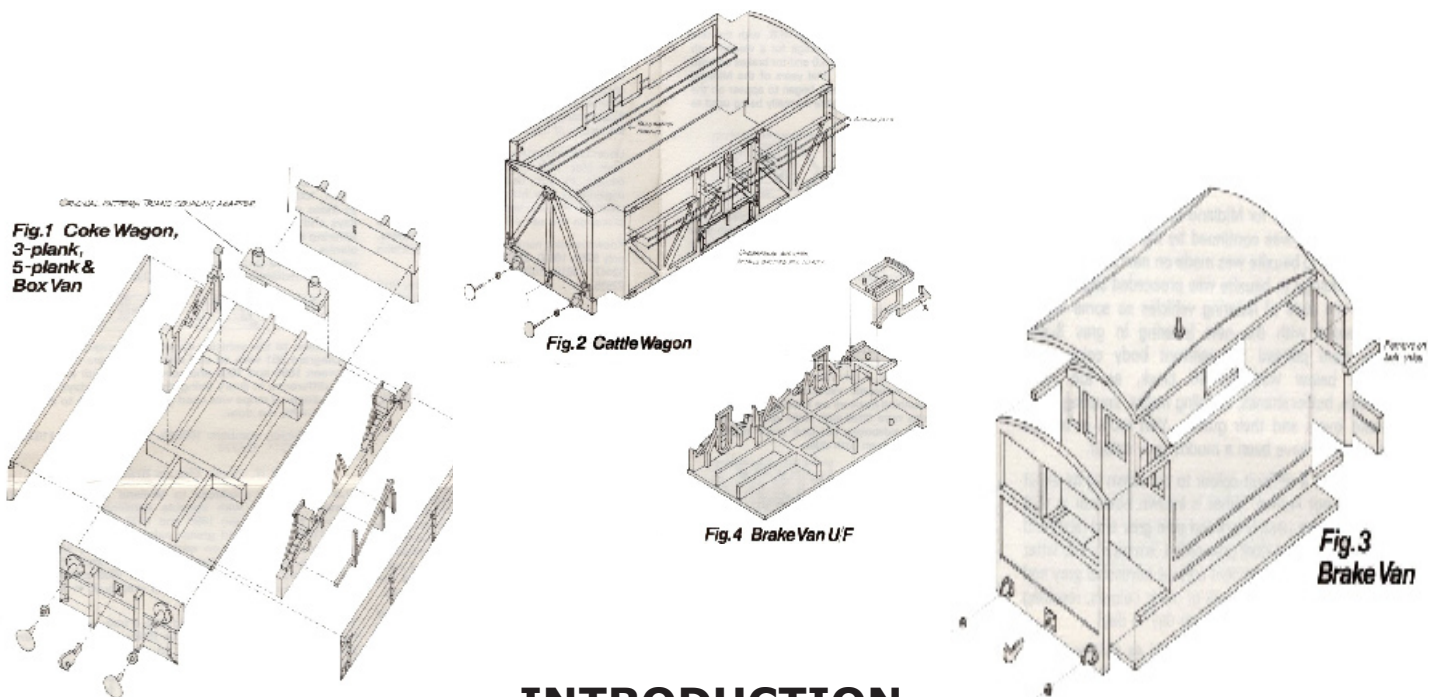


## Midland Railway Wagons Ref. 4026, 4027, 4029, 4030, 4031, 4032

Before beginning to assemble your model please read these instructions carefully, and study the diagrams relating to the kit you are building. A small sheet of plate glass will ensure that all components go together accurately and that all four wheels are level. We recommend Slater's Mek-Pak fluid cement. Clean off all ejector pips and any flash on the mouldings, carefully file the mitred edges of the sides and ends to a knife edge.



## INTRODUCTION

### Parts required to complete:

1. 3 link coupling as/if required Slater's ref 4155 will suit
2. 4026. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4027. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4029. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4030. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4031. 1 Pair of 3'1" 8 plain spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4000.  
4032. 1 Pair of 3'7" 8 split spoke wagon wheels. Alan Gibson produces suitable wheels Ref 4003.

### Livery Details

#### General Livery Details for MR. and L.M.S. Wagons

The basic body colour for the Midland Railway goods vehicles was grey and this was continued by the L.M.S. until 1936, when a change to bauxite was made on new and repainted stock. The change to bauxite was preceded slightly by a change in the style of lettering vehicles so some would have appeared with the new lettering in grey livery. Solebars were painted the relevant body colour and everything below was painted black, as too were buffer heads, buffer shanks, coupling hooks, coupling links, and brake levers and their guards. Van roofs in service would generally have a muddy grey colour.

Midland Grey is a difficult colour to pin down as its exact 'make-up' is not known. What is known however is that new vehicles were usually painted pale grey and repainted stock was painted in a dark grey called 'smudge'. The latter was made up from government surplus battleship grey and various scrapings and left overs of other colours, resulting in a colour that could change from day to day.

Lettering in Midland days was applied as follows: Open wagons from 3-plank upwards had a 21" M.R. with their running

number carried on a numberplate on the solebar; Covered Vans had a 12 ½" M.R. with the running number on the body in 4" numerals; Cattle Wagons had a 7" M.R. with 4" numerals and the word 'Large' in 3" letters; Tariff Vans and Goods Brakes had a 21" M.R. with the running number carried on the upper body side in a 6" wide white edged black panel the number being prefixed by the letter 'M'. The tariff vans and brake vans had their own type of numberplate with the word 'Brake' as well as 'Midland'.

From 1917 it was decided that M.R. Open Wagons should carry their running number on the body, and numbers were usually painted on the bottom plank centrally under the 'M'. At the grouping in 1923 Midland wagons retained their existing running numbers the only change being that the 'M' prefix of Brake Van numbers was dropped. Additionally from 1920's onwards the letter 'X' was applied to vacuum fitted stock.

In L.M.S. days up until 1935/6 wagons had grey bodies with the initials 'L.M.S.' in various sizes- 18", 12" and 6"- with the running number in 4" numerals. The carrying capacity was now added to the livery in 3" characters; either written out full e.g. LOAD 8 TONS or in abbreviated form, e.g. 8T. The tare weight was sometimes applied to the bottom plank and sometimes left on the solebar as in Midland days. In the post 1936 bauxite bodied period wagons carried a 4" L.M.S., a 4" running number, and a 3" carrying capacity (either as 8T or 8 TONS). As a wartime economy measure the size of lettering above were reduced to 3", 3" ,and 2" respectively.

Just like the varying colour of Midland Grey the style and positioning of the letter seemed to be open to change, so the only really safe way to ensure absolute accuracy is to have a photograph of the vehicle being modelled at the period being modelled. Reference works which will be of use are: 'Midland style', published by the HMRS; 'The L.M.S. Wagon' by Bob Essery and Ken Morgan, published by David & Charles; and 'The Midland Wagon- an Illustrated history' by Bob Essery in 1978 by OPC

## **MODEL INFORMATION**

This kit will enable you to build an accurate replica of Midland Railway Wagons in original condition,

### **Tools Needed**

The following tools are needed, most of which will already be in the toolkit of the average modeller.

"Stanley" type knife for removing polystyrene parts from their sprue.

Assortment of small files for finishing removal of tabs, and general cleaning up.

Cyanoacrylate (Loctite Superglue or similar) for fixing of brass parts to polystyrene mouldings.

Liquid Polystyrene Cement (not the tube type) for joining plastic parts together. Naturally, we recommend our own MekPak which is applied with a fine brush (which we can also supply).

## **M.R. 8 TON HIGH SIDED COKE WAGON**

This distinctive Midland Railway Wagon dates from 1888 and during the following years 2476 were produced, with the final construction entering traffic in 1912. However, all except the final 150 were built before 1900 and these wagons would have entered traffic with the brake on one side only. Some would have been altered to both side brakes. In the Midland era livery was a large capital M.R. with the tare weight on the solebar - the average for a wagon with brakes on one side only being 5.4.0 and for brakes on both sides 5.6.0. It was only in the final years of the Midland Railway that the running numbers began to appear on the body side, the wagon number plate normally being used to identify the vehicle. Under L.M.S. ownership the coke wagons remained grey and were lettered as in diagram A but a few were later painted bauxite (e.g. 100410) and were lettered as in diagram B. Known running numbers 59472 85467 90050 100410 101294 104620.



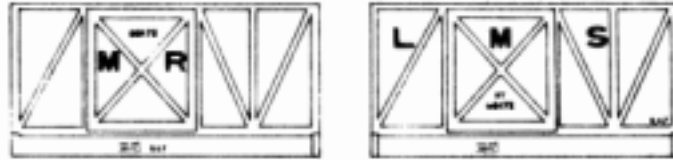
Under L.M.S. ownership the coke wagons remained grey and were lettered as in diagram A, but a few were later painted bauxite (e.g. 100410) and were lettered as in diagram B.

Known running numbers: 59472, 85467, 90050, 100410, 101294, 104620.

## **M.R. 8 TON BOX VAN**

The Midland Railway produced 164 vehicles in 1893 with roof doors- some with a lift- off hatch and some with a sliding door- before building in 193/6 some 2967 vans as represented by our kit. A few vans were built in 1893 with side vents and automatic vacuum through pipes, but regrettable no running numbers are known. When originally built all vehicles

were fitted with brake gear on one side only and grease axleboxes, but later many received oil axleboxes and brakes on both sides.



These vehicles lasted in service until about 1950 and in L.M.S days some were given 'T' section bracing bolted to the end stanchions and running half way up the body end.

Known running numbers, tare weights in brackets where known: 5095 (5.9), 30338, 32399 (5.5.1), 60172 (5.11), 78179, 100384 (5.14), 102321, 114193 (5.7.0) 144438.

**M.R. 8 TON VENTILATED VAN**

These vehicles were identical to the standard 8 ton Box Van except that they had ventilators placed in the sides and ends of the body. Only one running number is known: 30177.

**M.R. 8 TON 3 PLANK WAGON**

The Midland low goods wagon dates back to earliest days of the company and our model covers vehicles built between 1877 and 1915, when the design was changed and the wagon lengthened by 13".

The earliest construction of this type of vehicle, not represented by our model, had grease axleboxes, single sided brake, single 'V' hanger, no stops against which the side fell, and extended headstocks. 4750 were built in this condition.

The next style saw double 'V' hangers, still a short brake handle but now with stops at the end of the sides which fell against the headstock. By now the large M.R. was being used, the running number was only on the numberplate and tare weight- average 4.16.0. - was painted on the solebar. 5100 of this version were built and they lasted until 1947 by which time they would have had brakes fitted on both sides.

In 1909 a further design occurred - oil axleboxes replaced grease boxes and brakes were fitted on both sides from new. The brake lever was lengthened and the ratchet was now to the right of the crown plates. Further variations occurred in that central stop block was fitted, and some vehicles had single and others double spring controllers. These changes combined with the Axlebox change make the history of this class confusing.

Under the L.M.S. ownership the wagons were initially grey, and from May 1936 onwards were gradually repainted in bauxite. In B.R. days they would have been either unpainted or grey. Many went into departmental use in red oxide, often having tarpaulin covers over the axleboxes and brakes on one side only to the end of their days.

Known running numbers, all short brake levers: End blocks only 9363, 16600, 32470, 119497, Additional centre clocks, 12447, 13615, 102005, Double spring controllers, 17034, 22535.

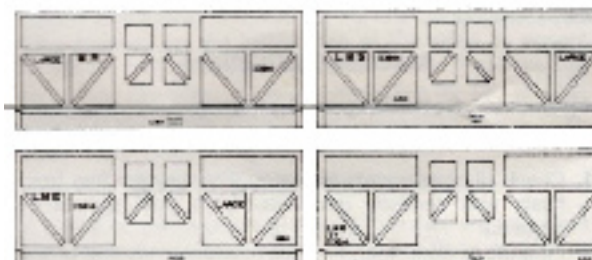


**M.R. LARGE CATTLE WAGON**

The vehicle represented by our kit was built between 1905 and 1910 and is the later version of Midland Railway cattle wagon, superceding an earlier but similar type which had an extra plank on the side and only one rail. Some vehicles had guard rails taken through the actual frame of the sides while the others had their guard rails simply bolted on to the outside of the frame. Some wagons of this type lasted into B.R. days, and the L.M.S. at one time converted some for use for Ale traffic. A total of 420 of these wagons were built in the period mentioned and the design formed the basis for the standard L.M.S. cattle wagon of later years.

The livery of these vehicles went through a number of changes over the years and some of the variations are shown. Photographic evidence shows that when built brake gear was fitted on one side only, a single 'V' hanger was fitted, as too were the screw couplings. A later photograph of 17906 in Ale livery shows brakes on both sides, a double 'V' hanger and three link couplings.

Known running numbers: With guard rails through frame 8456, 17902, 23014, 23159, With guard rails bolted on: 1621, 8190, 17906, type of rails not known 14411, 14432. Tare weights for some of these wagons are known as follows: 14411-6.13.0, 14432-6.6.0, 17902-6.9.0, 17906-6.6.0, 23014-6.5.2.



## **M.R. 8 TON 5 PLANK MINERAL WAGON**

The Midland Railway produced 63,000 wagons to Diagram 299 of which 62,000 were of the type represented by our kit, being placed in traffic between 1882 and 1905. All were built with brakes on one side only and it is doubtful if any ever received brakes on both sides.

The original Midland livery was the 21" M.R. with the tare weight - average being 5.2.0 - painted on the solebar.

From 1917 onwards the running numbers began to appear in 4" numerals beneath the 'M' and this was retained when they were lettered L.M.S. The tare weight in the L.M.S. period varied from beneath the running number to the extreme right hand end on the bottom plank. There is no evidence to suggest any correct L.M.S. bauxite livery.

Known running numbers: 3783, 35899, 39783, 40757, 43468, 60311, 67137, 74418, 78114, 83531, 89714, 91062, 97491, 100406, 111936, 122967, 124124, 138073. NB Many of these wagons ran as Loco Coal Wagons in Midland days and carried the lettering 'Loco Coal Only' in 12½" lettering along the length of the wagon on the 3rd or 4th planks, with 12½" R centrally above only 'Stores Dept.' was written on the 5th plank immediately under the word Loco.

In addition to the vehicle above 9000 wagons were built to Diagram 351 with an end door. They were constructed between 1890 and 1900 and some lasted until 1938, the only difference in livery being that L.M.S. days a broad white diagonal stripe was used on the body side to indicate the end with the door.

Known running numbers: 100000, 105563, 112534, 115286, 123984, 126311, 126774.

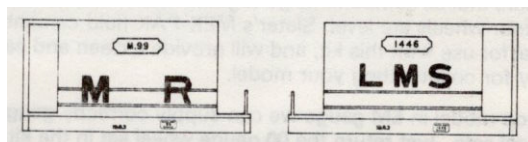


## **M.R. 10 TON GOODS BRAKE VAN**

This model was produced to Midland railway drawing number 753 and with suitable detailing will represent vehicles built between 1888 and 1902. First construction from 188 to 1892 had grease axleboxes, sandboxes, and only the top handrail on each side. Vehicles were then produced without the sandboxes and then the lower handrail was added to vans built from 1899 onwards. The final version of this vehicle which was built in 1902 was fitted with vacuum brakes. The Midland had experimented with a train control system for goods trains in 1907 and from 1909 onwards brake vans were fitted with tablet racks to carry their train code. Basically the system was composed of three groups of letters, the first signifying the train's departure time was based on a clock face whose number from 1-12 were lettered from A-M respectively and afternoon departures were suffixed with the letter P. Thus a train leaving at 5.40a.m. would have the letters EH and one leaving at 2.30pm would have BFP. The second and third groups were arranged on one line below the first group and showed the originating and destination stations of the train, usually made up of the first and last letters of the name, e.g. Kettering-Nottingham would have been KG NM. A full list of codes appears in the HMRS publication 'Midland Style' along with a photograph of the brake van with tablet racks.

Other detail changes took place from 1904 onwards when oil axleboxes replaced the earlier grease boxes, from 1907 onwards desks were installed and from 1910 onwards the side lamp irons at the open end of the vans were removed. All early construction was eventually fitted with the second handrail.

Known running numbers: 7, 50, 68, 73, 99, 142, 151, 241, 284, 368, 628, 1332, 1408, 1434, 1435, 1446, 1482, 1566, 2046. Goods brake vans carried their running numbers in a radiused cornered black panel edge with a white on the upper side of the body. In the Midland days the number was prefixed by the letter M, but this was discontinued in L.M.S. days although the use of the black panel continued and was applied to many other L.M.S. vans. A sample tare weight for one of these brake vans would be 10.8.3.



## **ASSEMBLY INSTRUCTIONS**

### **MATERIALS**

Many different materials are used in our range of kits and are selected as appropriate for the detail and strength requirements of the individual components they depict. In addition material is also chosen to provide a suitable running weight for the model. These general notes apply to our complete range of kits and may well include superfluous information with regard to some individual kits.

### **ASSEMBLY NOTES**

Before commencing assembly read the instructions carefully and familiarise yourself with the parts. The following general notes are offered to help you construct an accurate and attractive model:

- A. Always cut parts from sprues with a SHARP knife; do not be tempted to break parts from sprues as the risk of damage is high. Clean off small pips with a knife or a fine file.

- B. Do not remove parts from sprues until the instructions call for it; this will help identification of parts and minimise chances of loss.
- C. Painting is rarely best left until construction is complete. The latest stage at which it is advisable to paint a model is before small detail, glazing etc. is applied. The suggested order of assembly is designed for this.
- D. Any flat surface to assemble your model and to ensure squareness and accuracy.
- E. Use a liquid, not tube, cement. Slater's MEK PAK is ideal and will provide a clean and easy to use adhesive medium.

### **TRANSFERS**

The transfers are of the waterslide type and should be applied as follows:

- These transfers work best on a gloss or semi-gloss paint finish. There is a glossy carrier film which will be virtually invisible on a gloss surface, but on a matt surface it will be visible and the transfer will not adhere so well. Ensure the surface is clean - dust and finger prints will prevent proper adhesion.
- Cut the transfer from the sheet; usually around the glossy carrier film. Some groups of figures are printed on a common piece of carrier film, most are individual figures which have to be applied separately.
- Immerse the transfer in a saucer or other container of warm water for a few seconds. The container should be large enough to accommodate the full, flat transfer. The transfer will initially curl up and then partially flatten out. Test whether the transfer has become loose from the backing sheet and will slide off smoothly, by gentle pressure with a finger. In cold water, the separation will take longer, but never use very hot water to try to speed it up.
- When separation has occurred, position the transfer and backing paper as one item to the required location retaining the transfer in position whilst gently sliding out the backing paper. Remove excess water.
- Make final adjustments to the position, at the same time dabbing off further excess water with an absorbent cloth or blotting paper. If there are any air bubbles trapped under the transfer, remove these by a gentle outward stroking of the cloth or blotter to the edges of the transfer.
- Allow to dry completely for several hours, such as overnight. When all transfers have been applied and allowed to dry, a protective coat of a suitable varnish in gloss, satin or matt finish should be applied over the transfer. Most varnishes sold for model painting should be suitable and should not damage the transfer, but you must ascertain this for yourself.

### **M.R. 8 TON COKE WAGON, 5- PLANK MINERAL WAGON, 3- PLANK DROPSIDE WAGON, & BOX VAN.**

1. Check all components to ensure that they are free from flash, and carefully cut away from their sprues as required.
2. Fit ends to floor, then fit sides between ends and to the floor at the same time.
3. Fit bearings into axleboxes- they need not be glued but a dab of MEK-PAK may help retain them until the wheels are fitted.
4. Assemble one solebar to the wagon chassis. Place the axles in the axleboxes of the assembled solebar and then fit the other solebar to the wagon chassis, checking that the axles are set square on the chassis.
5. Position brake gear according to gauge- fit brakes on one side only for early period and on both sides for later periods (see notes).
6. Fit brake lever on the same side as the brakes.
7. Press buffer collars over the buffers, then fix buffer heads to the buffer beams.
8. BOX VAN ONLY; Fix roof in place.
9. Fit couplings of your choice- a dummy hook and tension lock coupling type are supplied.

### **M.R. LARGE CATTLE WAGON**

Assembly is as in the previous section except that before fitting the sides in place the Guard rails should be fitted. Some vehicles had the Guard rails bolted onto the outside of the frames and some had the rails passing through the frames (see notes). If modelling the latter you will have to make grooves on the inside face of the sides to accept the plastic rod bars, at 5.1mm and 7.3mm from the top edge of the moulding. If you are modelling the former then the rod should be simple cemented to the outside face of the frames at the same spacing as above.

**M.R. 10 TON GOODS BRAKE VAN**

1. Check all components to ensure that they are free from flash, and carefully cut away from their sprues as required.
2. Take the sides (1) and cut away the verandah support at the left hand end of one of and the right hand end of the other. Cut at 45° to continue the mitre of the side. Glue end (2) to the end without the verandah supports and end (3) to the other end, completing the main body. Make sure that this assembly sits square.
3. Glue the completed body to the floor (4) locating the bottom edges of the sides along the edge of the floor. It may be advisable at this stage to paint the parts already assembled.
4. Cut two pieces of glazing material size 27.5mm x 10mm and glue behind the window spaces in each end. Cement the end section (5) to the end of the body with verandah supports, making sure to locate the buffer beam flush with the underframe. Repeat this procedure at the other end with the individual buffer beam (6),
5. Fit bearings into the axleboxes, then glue one solebar in position on the underframe and allow to dry. Offer up the axles into the bearings in the first solebar, locate the axles in the second solebar and cement this in position, ensuring that the axles are set square. Locate the brake shoes on buffer beams and floor supports according to gauge.
6. Carefully cut out the footboard unit and glue these to the solebars and axleboxes. Paint the verandah, Floors and van interior, then cement the roof (12) in place.
7. Press buffer collars over the buffers and cement into buffer bodies, pressing the collars right up to the body.
8. Fit couplings of your choice- a dummy hook and tension lock coupling type are supplied.

**FITTING THE SLATER'S TENSION LOCK COUPLING**

Place the coupling hook A in the bearing of the coupling bar unit B, then cement to the carrying plate C making sure that no cement comes in contact with the hook, thus preventing it from pivoting freely. Mount this assembly onto the longitudinal floor ribs- Note that by positioning the coupling unit more towards the centre of the underframe very close coupling can be achieved. It may be advisable however to experiment on your minimum radius curve to discover the optimum position for your couplings (assembly diagram - Fig. 4).

## Packing List For 4026

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4026A	Side And End.....	2	
	4026/4027/4029/4030		
	Floor/ Solebar etc. ....	1	
X4072	Tension Lock Coupling .....	1	
<b>Other Parts</b>			
X407051	Buffers.....	4	
40146	Transfers .....	1	
Instructions	.....	1	
Customer Response Form	.....	1	

## Packing List For 4027

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4027	Side And End.....	2	_____
	4026/4027/4029/4030		
	Floor/ Solebar etc. ....	1	_____
X4072	Tension Lock Coupling .....	1	_____
<b>Other Parts</b>			
X407051	Buffers.....	4	_____
40146	Transfers .....	1	_____
Instructions	.....	1	_____
Customer Response Form	.....	1	_____

## Packing List For 4029

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4029	Side And End.....	2	_____
	4026/4027/4029/4030		
	Floor/ Solebar etc. ....	1	_____
X4072	Tension Lock Coupling .....	1	_____
<b>Other Parts</b>			
X407051	Buffers.....	4	_____
40146	Transfers .....	1	_____
Instructions	.....	1	_____
Customer Response Form	.....	1	_____

## Packing List For 4030

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4030A	Side & Ends.....	2	_____
	4026/4027/4029/4030		
	Floor/ Solebar etc. ....	1	_____
X4030C	Roof .....	1	_____
X4072	Tension Lock Coupling .....	1	_____
<b>Other Parts</b>			
X407051	Buffers.....	4	_____
40146	Transfers .....	1	_____
Instructions	.....	1	_____
Customer Response Form	.....	1	_____

## Packing List 4031

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4031A	Solebars.....	2	_____
X4031B	Sides & Ends .....	2	_____
X4031C	Roof .....	1	_____
X4031D	Floor.....	1	_____
X4072	Tension Lock Coupling .....	1	_____
 <b>Other Parts</b>			
-	15 thou Piano wire 4" lengths.....	4	_____
X407051	Buffers.....	4	_____
40146	Transfers .....	1	_____
Instructions	.....	1	_____
Customer Response Form	.....	1	_____

## Packing List 4032

Part No.	Description	No in Kit	
<b>Plastic Mouldings</b>			
X4032A	Floor and Roof.....	1	_____
X4032B	Sides & Solebars.....	2	_____
X4032C	Ends .....	1	_____
X4072	Tension Lock Coupling .....	1	_____
 <b>Other Parts</b>			
-	Platiglaz 1" x 4" .....	1	_____
X407051	Buffers.....	4	_____
40146	Transfers .....	1	_____
Instructions	.....	1	_____
Customer Response Form	.....	1	_____

Please see box for kit reference, for which packing list to follow.