



**London & North Western Railway
(LNWR) 4 Compartment 3rd Class
coach kit
7mm scale("O" gauge)**



Era 1
Pre-grouping

7mm Scale
Pre-coloured 3D
printed parts

OTM701

Diagram3D.com



Introduction

These instructions begin with a list of contents. **Please examine your kit** to ensure that you have received all the components listed.

The instructions use images of actual kits. The construction procedure is similar for most kits. If special parts or procedures apply then that will be noted for this kit.

The current version of documentation for this and any other of our products can be downloaded from our website: <https://www.Diagram3D.com>.

Not included

- Adhesive to attach the parts. PVA is recommended for the MDF parts, contact adhesive for plastic parts.
- Craft knife, Clamps, weights or any other tools.
- Paint and filler
- Wheels, bearings, couplings etc.

Intended Audience

This kit is intended to reduce the time, complication and labour associated with the construction of a detailed model of a carriage body using prepared parts which can be conveniently assembled without specialist knowledge .

This is not a complete kit of parts. The choice of some details (wheels, couplings) is left to the modeller. This kit includes small parts and requires the use of sharp tools. It is not suitable for children without adult supervision.

Hints on assembly

Separate MDF parts by cutting the reverse side of the fret.

Separating MDF components cleanly is more easily accomplished by completing the half etched portions on the reverse of the fret rather than cutting from the front.

At each stage, once the required components have been separated from the frets, test the assembly without glue to ensure that the parts are trimmed correctly and fit properly before final assembly with adhesive.

Pre-assemble and check parts at each stage.

Allow as much time as needed for the adhesive to set.

The assembly steps below are strong recommendations but should not be taken as definitive or prescriptive.

Allow adhesive time to set

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Current Documents

The current version of documentation for this and any other of our products can be downloaded from www.Diagram3D.com in PDF format.

Feedback

We welcome your comments and suggestions, especially images of models "in progress" or completed.



Contents

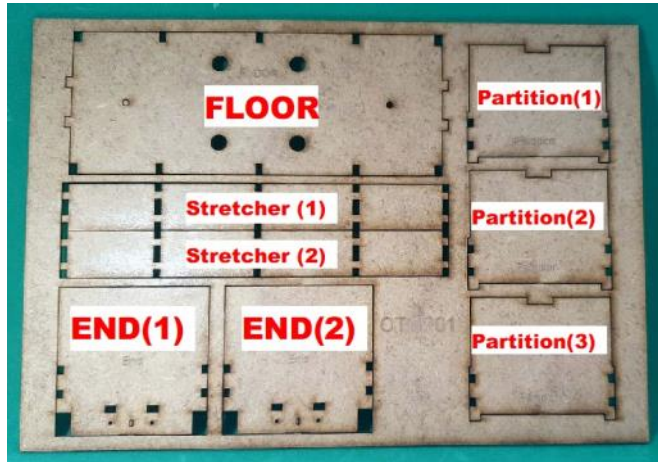
MDF Components

Check your kit to confirm its contents using the information below

MDF parts are supplied pre-cut, partially attached to a panel which preserves their integrity and ensures that the correct parts are present. Please do not separate these parts until it is time to use them.

Refer to the illustration below to identify the components listed below.

Component	Quantity
Floor	1
Ends	2
Stretchers	2
Partitions	3



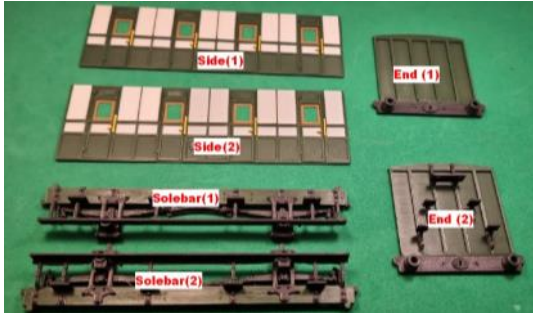
3D printed Components

Refer to the illustration on the next page to identify the components listed below.

Component	Quantity
Coach Sides	2
Coach Ends	2
Solebars including axleguard details	2
Solebar Mounting clips + screws	1 set
Roof	1
Roof mounting clips+ Buffer Heads	1 set
Oil lamps	2
wheels + axles (for display usage only)	1 set

Other Components

2 x Glazing Bars, normally included with the 3D printed parts.



Assembly

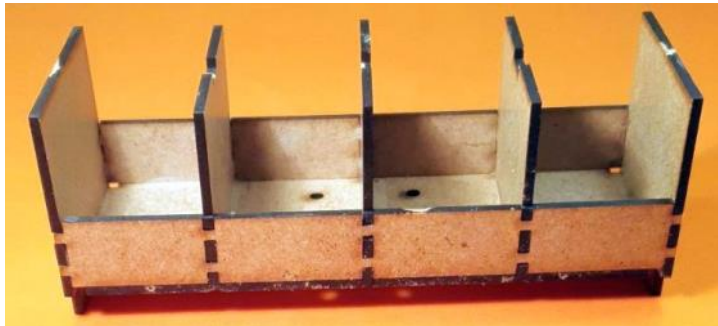
MDF Body

Total preparation and assembly time about 5 minutes.

Detach the MDF partitions, floor and stretchers. Insert the partitions into the floor, glue in position and allow to set.

Now attach the stretchers, Finally attach the ends. The resulting box structure forms the central core of the coach body. Hint: This is a good time to add any interior detail.

Allow sufficient time for the adhesive to dry thoroughly





Assembly

Solebars

*Total preparation
and assembly time
about 10 minutes.*

Using the solebar mounting set and solebars, attach each solebar to a mounting clip. Ensure that the clip is flush with edge of the solebar. See (generic) image.



Take the each of the two upper mounting clips and attach to the corresponding holes in the floor. See (generic) image.



Finally, using the screws provided, screw the solebars into place. (They are removable for maintenance)



Assembly

Roof

*Total preparation
and assembly time
about 5 minutes.*

The roof has locating points for oil lamps on top.



Underneath it has locating points for the soft rubber clips provided.

Attach the clips and lamps and then the roof can be clipped into position.





Final assembly

Allow sufficient time for the adhesive to dry thoroughly

The final assembly consists of attaching the sides and ends to the MDF body. Begin with the ends ensuring that they line up with the holes in the MDF ends. The sides can then be positioned on the bufferbeams. The sides overlap the ends.

The roof clips onto the partitions. Removing the roof allows the glazing to be slotted into position.

Finally, the flexible buffer heads are inserted into the bufferbeams to complete assembly.



Display Wheels

This kit includes two axles with four 3D printed wheels which can be used for display purposes. Otherwise it is recommended that appropriate wheels are used instead.



Historical Notes

This kit is based on information gathered about a grounded coach body at a location near Towcester by the LNWR society. The underframe details are based on LNWR practice and information about similar vehicles of this era.

There is no information about the exact age of the vehicle. However an approximate date can be established using the fact that the surviving paintwork was a light colour for the upper part and green for the lower panels. The change in livery to the familiar plum and cream livery began around the early 1870's so it is reasonable to assume that this particular coach and others like it were already in service before this date.

Underframe

This was a four wheeled coach. No specific details survive for the underframe. However the LNWR had a distinctive common standard for axleguards. Early coaches would have had metal steps below the doors and a lower footboard at axlebox level. The coaches would have had side chains as well as the central couplings. In the 1880's new legislation required coaches to have continuous footboards following the accidental death of a prominent Member of Parliament in 1878.

Livery

This model is depicted in an early version of LNWR livery. Examination of a grounded body by the LNWR society discovered that the livery was a light colour for upper panels and green for lower panels. The green is referred to as "Quaker Green" in LNWR minutes.

Finally...

Congratulations on completing this kit. We hope you enjoyed making it as much as we did.. If you enjoyed making this kit then take time to visit www.Diagram3D.com to find similar items. Our website has downloads of historical information and downloadable assembly instructions for all of our products.