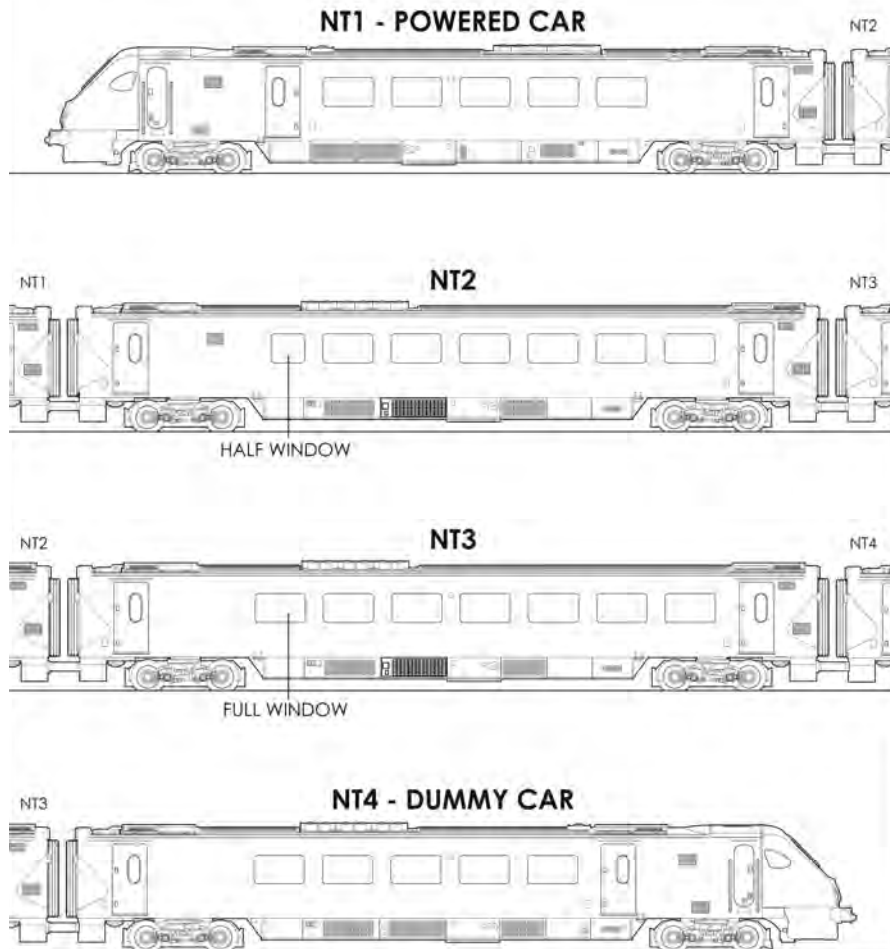


**Figure 4 Arrangement of cars**



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F7167-IS001  
 REV 1 0908

Thank you for your choice of the Graham Farish Class 220 'Voyager' diesel multiple unit.

**Running in**

The mechanism of this model requires running in (without a load) for approximately 1 hour in each direction at moderate speed.

**Curves**

This locomotive is recommended for use on 12" radius curves but will operate on 9" radius curves.

**Body removal - driving end cars**

Remove the fairing and cosmetic coupler and air dam as shown in fig 1. The body will then unclip from the chassis.

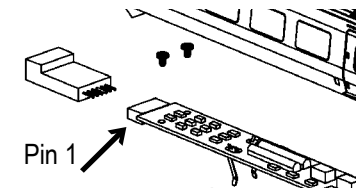
**Lubrication**

When required, sparingly lubricate the motor bearings using plastic compatible light oil and the gear train with model grease. Suitable lubricants are Bachmann E-Z Lube item 99984 or Woodland Scenics 'HobbyLube' Lite Oil item HL654.

**DCC Decoder fitting**

The model has a NMRA/NEM 651 6-pin decoder socket in both powered and unpowered driving end cars.

**Figure 1 Decoder alignment**



Follow the instructions supplied with the decoder. Remove the blanking board and fit the decoder, aligning as shown. It's recommended that the model is run in first using a DC supply before fitting a decoder.

**Coupling cars together**

The correct order of the cars is shown in Figure 4. It's recommended to insert a drawbar to a receptacle on each car and complete the joining of cars in situ on the track.

**Alternative functional front coupler**

A standard 'Arnold' pattern coupler on a bracket is included should it be wished to couple to other stock. To fit to either end car follow the directions in Figure 2, steps 1 and 2.

Figure 2 Removal of driving car bodyshell

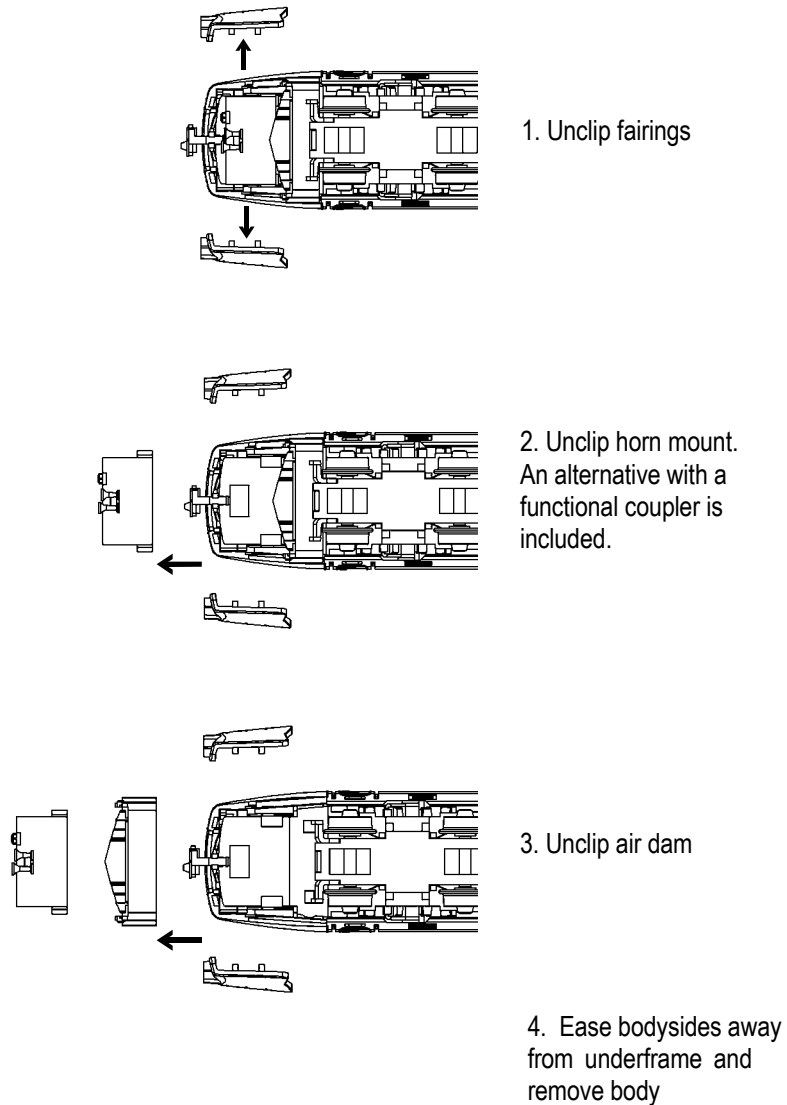


Figure 3 Exploded view

Parts

- 1 Motor
- 2 Driving wheels
- 3 PCB
- 4 Bogie
- 5 DC blanking board
- 6 Coupler bar
- 7 Worm and housing
- 8 Driveshaft

**The model should be handled carefully as it has many finely detailed parts. It is not suitable for persons under 14 years**

When ordering parts please quote the catalogue number together with the livery of the model (if appropriate) and number of the part required.

Parts may be subject to availability.

