

Many thanks for purchasing one of our **Graham Farish** Class 31 Diesel Locomotives. A lot of care was taken producing your model and we hope you enjoy it for many years to come.

Please note: This model has been designed to run on curves of **no less than 2nd Radius (263.5mm)**. We recommend that you don't use anything smaller as this may result in the model derailling.

For analogue use we recommend using a controller with a smoothed output. If you have any doubts please consult the controller manufacturer before operating this model. Do not use with Electronic Track Cleaners.

1. Locomotive Information

Motor Type: Coreless

DCC Compatibility: Next18 Decoder socket (SOUND FITTED models come pre-fitted with Sound Decoder)

Recommended Decoder: Bachmann **36-567** Next18 DCC Decoder.

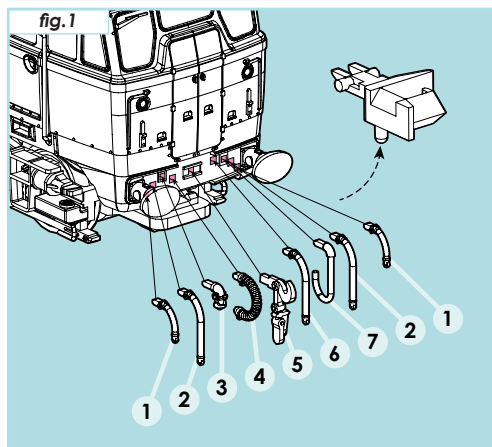
Speaker: Factory Fitted to all models (0.7/1 Watt / 8 Ohm)

Electrical Pickup: All wheels

2. Accessories

Although our models are highly detailed and ready to run straight from the box, we also supply optional accessories to be fitted by the owner if they wish. Some of the accessories should only be fitted for static display as they may affect coupling or running quality, these parts will be labelled as such below.

Please note: PVA based adhesive should be used for the fitting of accessories.



1. **Air Pipe** - Standard coupling must be removed.
2. **Reservoir Pipe** - Standard coupling must be removed.
3. **Multiple Working Socket** - Check prototype photos
4. **Vac. Brake Pipe** - Standard coupling must be removed.
5. **Screwlink Coupling** - Remove standard coupling
6. **Brake Pipe** (Dual Brake Locos Only)
7. **Multiple Working Cable** - Check prototype photos
8. **Snowplough** - Only Supplied with refurbished Class 31s
Standard coupling must be removed.
- 9-11. **ETH Jumper Equipment** - Only supplied with relevant locomotives. **Coupling & Mount must be removed (fig.3).**
12. **Next18 DCC Blanking Plate** - Supplied with SOUND FITTED models only. Can be used to replace the Sound Decoder for use on analogue control without sound effects.

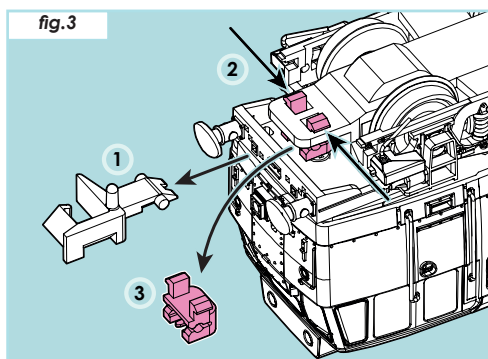
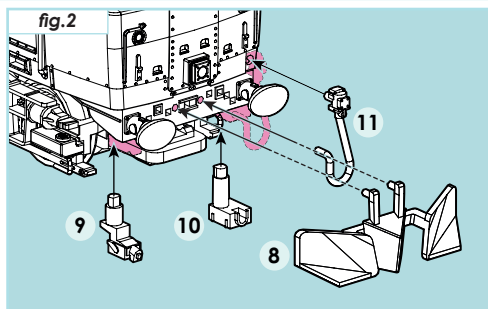


fig.4

12 Next18 Blanking Plate.



Coupling Pocket Removal

1. Pull out Coupling.
2. Squeeze clips inwards.
3. Pull out pocket.

3. Running-in

It is necessary that this locomotive is 'run-in' to allow the mechanism and gears to settle. This requires the model to be run without a load (wagons, coaches, etc.) for 30mins in each direction at half speed.

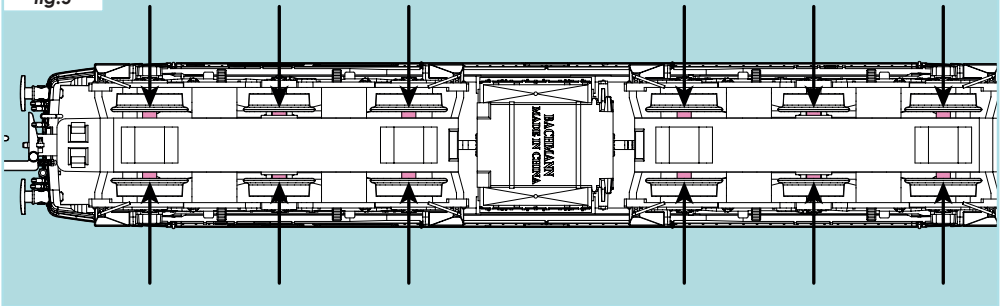
4. Lubrication

All Graham Farish locomotives are supplied ready lubricated and can be used straight from the box. Over time your locomotive will require some additional lubrication, when will depend on the frequency of use and storage so please inspect your model on a regular basis.

If the driving wheel axles appear dry and no lubricant is visible, (where shown in **fig.5**) it would be advisable to lubricate your model. To do this simply push the set of wheels to one side and apply a single drop of **plastic compatible lubricant** to the exposed axle. Then repeat on the other side.

We recommend the use of either **Bachmann Trains 99984 E-Z Lube Light Gear Oil** or **Woodland Scenics Hob-E-Lube Lite Oil WHL654**.

fig.5



5. DCC Decoder & Sound Decoder Fitting - Next18

Please Note: SOUND FITTED models come with a DCC Decoder already fitted.

Digital Command Control (DCC) allows for greater functionality and control over the models on your layout: such as the simultaneous control of speed & direction of multiple Locomotives, enables the use of DCC controlled track, points and other DCC Decoder fitted accessories and unlocks the full potential of SOUND FITTED models bringing a whole new level of realism to your model railway.

This Class 31 Diesel model comes with a factory fitted speaker, all that is required to bring Sound to your model is a Next18 DCC Sound Decoder pre-programmed with the sound file of your choice.

fig.6

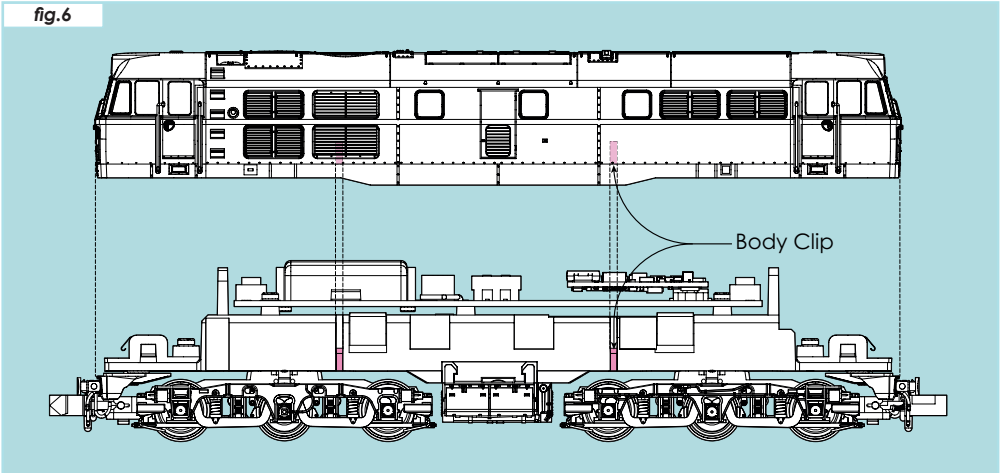
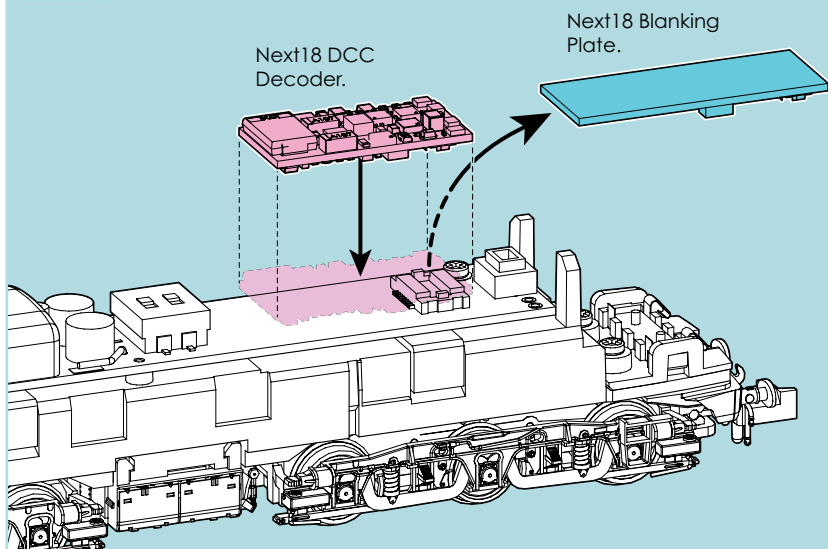


fig.7



1. Remove the Locomotive body from the Chassis, the body is secured with two small clips on each side of the locomotive, gently ease out the sides of the body and slide off the Chassis (**fig.6**).

2. Remove the Next18 DCC decoder blanking plate.

3. Push fit your Next18 DCC Decoder (36-567) or Sound Decoder.

6. Directional Lights - DCC Control and Chassis Switches.

DC / Analogue

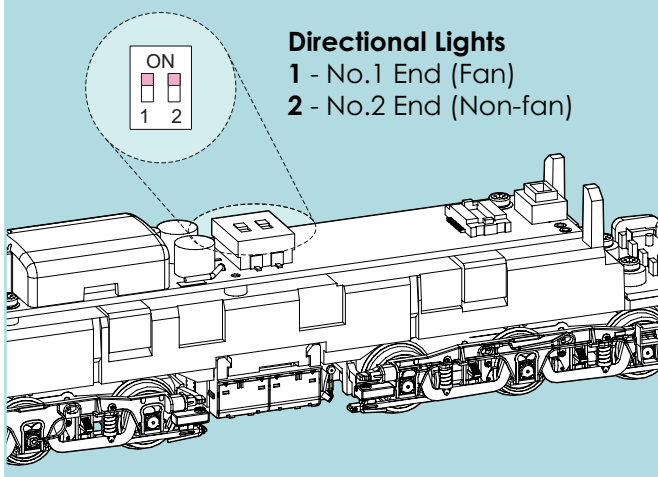
The internal Printed Circuit Board (PCB) houses two small switches which allow the user to turn off the Directional lights at either end. Remove the Body, as shown in **Fig.6**, and turn off the directional lights at the desired end of your locomotive before replacing the body (**fig.8**).

DCC Control.

When this locomotive is fitted with a **36-567 Bachmann Next18 DCC Decoder** the following DCC functions are available.

F0 On	Directional Lights - On
F1 On	No.1 End (Fan) Directional Lights - Off
F2 On	No.2 End (Non-Fan) Directional Lights - Off

fig.8



7. Retail Accessories

Selected accessories are available to purchase from your local Bachmann stockist to keep your new model in good order for years to come including:

36-567 – Bachmann Next18 DCC Decoder, add a DCC decoder to use your model on a DCC system such as Bachmann's Dynamis Ultima system.

379-401 – NEM Couplings Standard (x20)

8. Spare Parts

Selected spare parts are available from the Bachmann Europe Service Department. For further information and enquiries please contact the Service Department directly by email on service@bachmann-europe.co.uk or by phone **01455 245575**.

9. Warranty

This product has a Warranty for 12 months from the date of purchase against faulty materials or workmanship subject to the following conditions. During this period such defects that occur will be repaired or defective parts replaced free of charge.

1. This Warranty applies only if the item was purchased from an authorised retailer of Bachmann Europe plc ('Bachmann') within the United Kingdom, European Union & European Economic Area. This Warranty does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. The Warranty is offered as an additional benefit and does not affect your statutory rights as a consumer.

2. For claims under this Warranty, in the first instance the product must be returned to the retailer with evidence of the purchase date in the form of retailer receipt/invoice accompanied by a letter or Service Request form setting out the date and place of purchase, giving a brief explanation of the problem that has led to the claim. It is essential that the claim reach the retailer on or before the last day of this Warranty period. Late claims will not be considered.

3. This Warranty is only available to the original retail purchaser of this product and is non-transferable.

4. The Warranty does not extend to cover damage resulting from misuse or careless handling, accidental damage, wear and tear, or use on a voltage supply other than that stamped on the product.

5. The Warranty may be considered void if repairs have been attempted other than by Bachmann staff.

6. The Warranty is on the original product in its entirety and does not extend to individual components removed from the product. In respect of train sets the warranty applies to motorized units and controllers only.

7. If Bachmann chooses to replace a product it will be with the nearest appropriate model of its choice.

8. Bachmann reserves the right to decline service to any model that has been fitted with a decoder after manufacture.

9. Bachmann will not be held responsible for damage to or loss of an after market decoder fitted to a model submitted for service under the Warranty.

10. The fitting of a Bachmann decoder with a current Warranty shall not be deemed to change the position regarding a product that is otherwise outside its own Warranty. It may be necessary to change decoder settings during service.

11. Bachmann's liability under this Warranty will in no case exceed the price paid for the product as originally manufactured.