

Class 156 D.M.U. - DCC Ready Twin Car Set

IMPORTANT INSTRUCTIONS

Please read before using the model

THIS MODEL NEEDS LIGHT OILING BEFORE USE:

Whilst this model has been lubricated at manufacture, it is required that you add a small amount of oil directly into the exposed gears on the underside of the chassis on the powered car. There are several brands of synthetic oil in the market and your local model shop will be able to advise you. Please note there is no need to oil any Dummy Car.

IMPORTANT NOTES:

Failure to oil may affect any warranty claim. Please use caution when applying oil as some types can cause damage to plastic. If oil touches the body then immediately wipe off using a non-fluffy cloth. No part of the motor requires lubrication. Do not operate the model on track laid onto carpet as the dust and fibres will impare the mechanism.

POWER TYPES (DC) and OPERATION:

If you wish to run the model on standard DC - then do nothing. Our PCB will automatically recognise you have a DC controller and will allow operation at normal DC requirements. * **PLEASE NOTE:** When using standard 12v DC power, it is important that you use an appropriate 'N' gauge controller as '00' controllers will not allow the measure of control required for our super-fine 'N' motors.

POWER TYPES (DCC) and OPERATION:

Our model is fully DCC Ready. Each coach is fitted with a DCC board which features a 6-pin NEM socket pre-fitted with a DC 'Blanking Plug'. Carefully remove the blanking plug and insert the decoder of your choice. The PCB also has a solder table for those wishing to hard-wire their decoder. Before converting to DCC please ensure that your decoder will fit the model, as some decoders are large and could have a thick protective outer shroud. The decoder chosen should be below 11.25mm wide x 13.10mm long (excluding pins) x 3mm thick.

To expose the PCB, simply remove the roof using finger pressure and noting which way the roof should re-fit. Fit your decoder and repeat the process for the second car. Then programme both decoders to the same address and operate as normal. Please Note * Some DCC controls will not register the 'load' of the dummy car and may refuse to programme. If this happens then programme the decoder in the powered unit and then move the programmed decoder into the dummy unit before fitting a new decoder into the powered unit and programming.

LIGHT BARS:

This model is 'Light Bar Ready'. The Dapol Light Bars operate on both DC and DCC power without any external modification. Instructions for fitting Dapol Light Bars are contained within the packaging of the Light Bar packs.

CLOSE COUPLING:

This model is supplied with alternate corridor connectors and closer coupling for those modellers that have larger radius curves on their layout and wish to have tighter gaps between the two cars. To change the corridor connectors please unclip the roof using finger pressure. At the rear of the coach you will see the corridor connector. This is placed into a vertical pin located onto the inside of the chassis. Simply pull the corridor connector vertically away from the chassis and insert the replacement in the same position, ensuring that it locates correctly onto the pin. Please note that there is a fine 'Hair' wire attached to the corridor connector that fits into a cut groove on a pillar just inside of the opening. Ensure that the wire returns to fit inside of the cut groove. Replace the roof, ensuring that the pin on the underside of the roof engages into the top of the corridor connector, as this is crucial to allow the corridor connector to 'Free Pivot' on curves.

The end bogie of each car will now need their pre-fitted coupling arm replacing; this is a simple 'clip-in' type held in place by a retention pin. Upright the model, gently push the retention clip into the body and slide out the coupling arm. Then get the smaller retention arm supplied in the accessory pack and fit in place of the original. However please take care not to break the pin on removal and insertion.

SCHARFENBURG COUPLERS:

This model is fitted with working 'Scharfenburg' couplers. It will allow your model to not only look prototypically correct when viewed from the front, but to also couple up with other Class 156 units from our range as well as our Class 153 model. Each 'Scharfenburg' coupler is designed to 'click' into its opposite coupler when presented to each other on straight level track. To uncouple, you simply pull them apart (again on straight and level track).

DUMMY UNITS:

Our range of Class 156 models will incorporate a range of Twin-Car Dummy Units and which will allow the creation of prototypically correct four-car units. You will couple the two twin-car sets via the 'Scharfenburg' couplers described above. The dummy sets are also DCC Ready and Light Bar Ready and the installation of both of these follows exactly the method used in these instructions.

WARRANTY:

Dapol Ltd will remedy any defect or malfunction occurring with the set during a period of six months from the date of purchase. This guarantee does NOT extend to defects or malfunctions caused by damage or unreasonable use, including failure to provide correct lubrication. If for any reason the model develops any fault within the warranty period, please return it to **THE PLACE OF PURCHASE** with your **PROOF OF PURCHASE** (till receipt / credit card slip etc). Do **NOT** return it to Dapol Ltd. The seller will then, if appropriate, return it to Dapol Ltd under their agreed returns policy. Without a suitable proof of purchase Dapol Ltd cannot guarantee to offer any warranty service. The Dapol warranty is given in addition to all legal rights of the purchaser under the 'Sale of Goods act' and shall expire six months from the date of purchase. Dapol Ltd shall not be responsible for any consequential loss or damages arising in regard to any Dapol Ltd product.

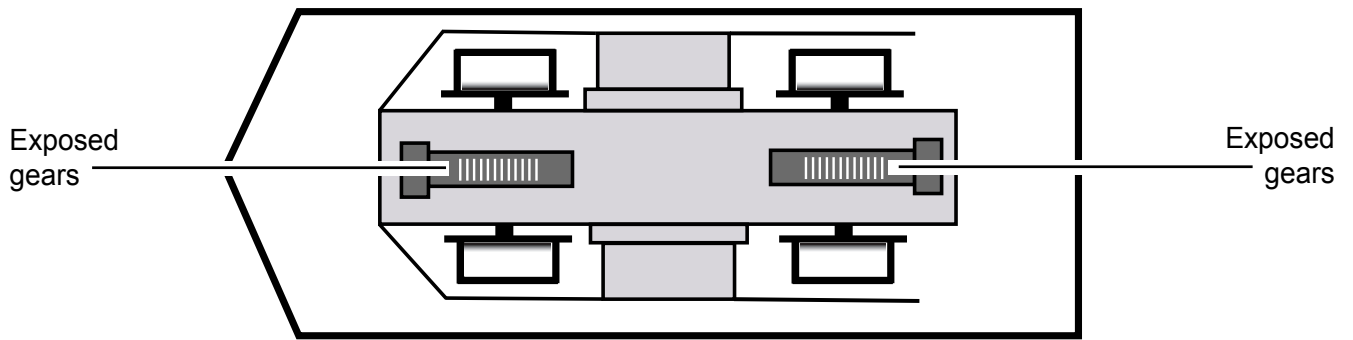
EUROPEAN REGULATIONS:

Dapol products conform to WEEE and RoHS requirements. If you have a need to dispose of any electrical part, please do so correctly.

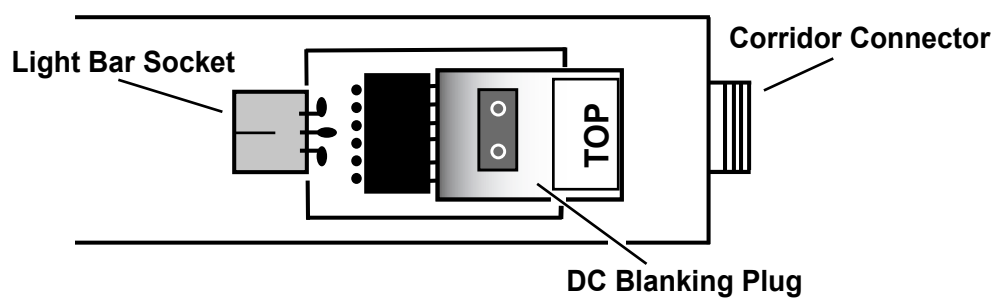


Please refer to the various photos / drawings overleaf for any clarification on these written instructions

OILING: Please oil into the exposed gears as shown on the sketch.



DCC - Fitting of Decoder: Please refer to the sketch and note the position of the Light Bar Socket.

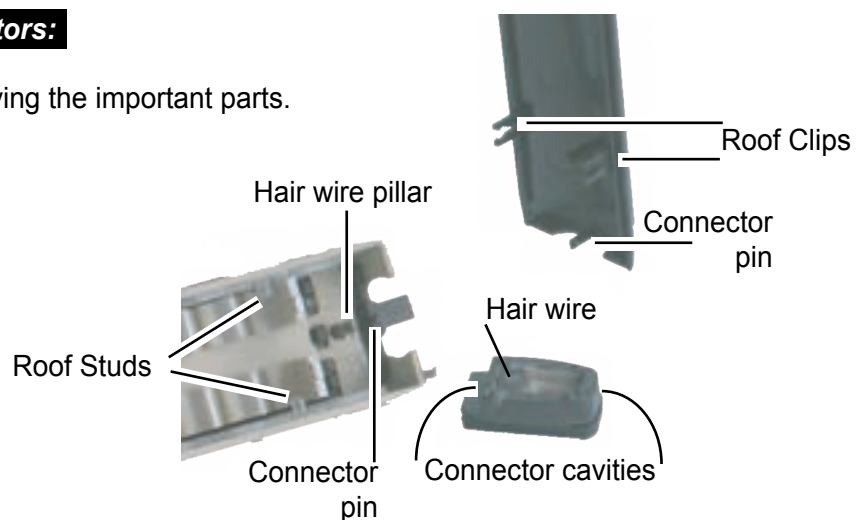


Scharfenburg Couplers: Please refer to the photos showing the positions for pre-coupling and post-coupling.



Changing of Corridor Connectors:

Please refer to the photo identifying the important parts.





Class 156 Locomotive

IMPORTANT INSTRUCTIONS

Please read **BEFORE** using this model

UNPACKING & HANDLING YOUR LOCOMOTIVE:

Your model contains delicate precision parts. Please handle accordingly.

Removing your model from its case: Remove the model from the plastic case along with its foam packing. The model can then be removed from the foam above a soft surface to prevent damage if dropped.

- Take care to ensure that detail parts do not catch on the foam as the model is removed.
- Do not use the Buffers or other parts as handles or levers when removing the model from its packaging.

YOUR MODEL NEEDS LIGHT LUBRICATION AFTER EVERY 50 HOURS RUNNING:

This model has been factory lubricated and requires no initial lubrication. Maintenance requires an extremely light application of plastic safe * oil, such as Dapoil or Locolube after every 50 hours of running (Storage in hot environments may require more frequent applications). Please be aware that over-oiling the wheel bearings will interfere with the electrical pickup of your model. Therefore, we recommend you use a very fine artist's paintbrush to apply only the tiniest amount of lubricating oil precisely between the bearing surfaces, as follows:

- Place a droplet of plastic safe oil onto a hard, non-absorbent, surface;
- Use a very fine pointed paintbrush to transfer a very small amount of oil, precisely, onto the bearings at the points indicated in the diagram overleaf. (The oil should not be painted on but, rather, capillary action should be used to draw the tiniest amount of oil out of the tip of the brush into the bearing.)
- Dry the paintbrush by blotting with absorbent paper, such as kitchen towel;
- Re-apply the dry paintbrush onto the oiled bearing, to 'wick away' any excess oil. Repeat steps 3 and 4 until the only remaining oil is an extremely fine (almost invisible) coating at the precise point where the two components rub together.

Please keep oils and lubricants away from the Motor and electronic circuitry located inside the body. The motor is of advanced self-lubrication design, 'sealed-for-life', and lubricants may damage the delicate circuitry. Also, be aware that N gauge track should never be laid directly onto carpet, as dust and fibres will become entangled in your locomotive's finely detailed mechanisms.

*Your model supplier can advise on the best 'plastic safe' oils and lubricants available in your country.

RUNNING IN' YOUR LOCOMOTIVE:

You will obtain quieter and smoother performance from your Dapol locomotive if you invest a little time 'running in' the motor and the motion parts. We recommend that you begin the 'running in' period by operating the locomotive on its own, at a moderate speed, for a period of at least half an hour in each direction. (The complete 'settling in' process often continues beyond the initial 'running in' period, and you will notice that the locomotive gradually runs quieter and smoother over several weeks of normal coach/wagon hauling operation.)

WARRANTY:

Please refer to separately provided warranty paperwork for details.

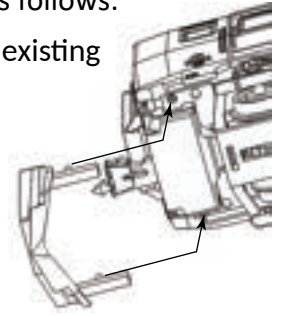
ACCESSORY PARTS:

Additional detail parts are supplied in plastic bags within the outer case & fitted as follows:

- Couplings can be removed or supplied alternatives fitted by simply pulling the existing Scharfenburg type away from the locomotive. Alternatives simply push fit.

Please note that the following parts may interfere if a coupling is fitted.

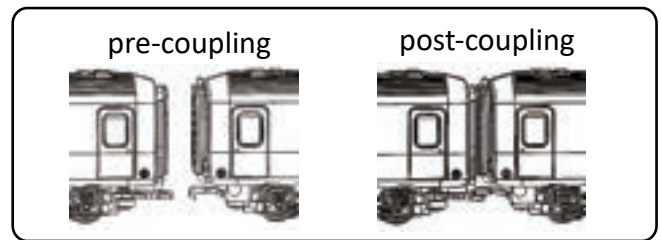
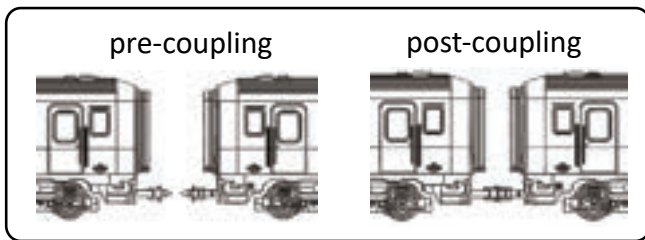
- **Snowplough:** The snowploughs fit under the cabs of both external ends. You will see two small locating holes under the chassis which match the two small poles on the snowplough.



COUPLING: Pls refer to the photos showing the positions for pre-coupling and post-coupling.

Front End

Rear End



Light Bar:

The model is 'Light Bar Ready'. The Dapol Light Bar operates on both DC and DCC power without any external modification. Instructions for fitting Dapol Light Bars are contained within the packaging of the Light Bar packs.

DC OPERATION:

If you wish to run the model on standard DC – then do nothing. Our PCB will automatically recognise that you have DC controller and will allow operation at normal DC parameters. **Important Note:** This model should only be used with a DC controller designed for model railways rated at 12V DC nominal voltage. When (optionally) fitted with an appropriate DCC decoder it may also be used with a compatible DCC control system. You can turn the rear light off by pulling the DIP switch to the 'OFF' position.



DCC OPERATION:

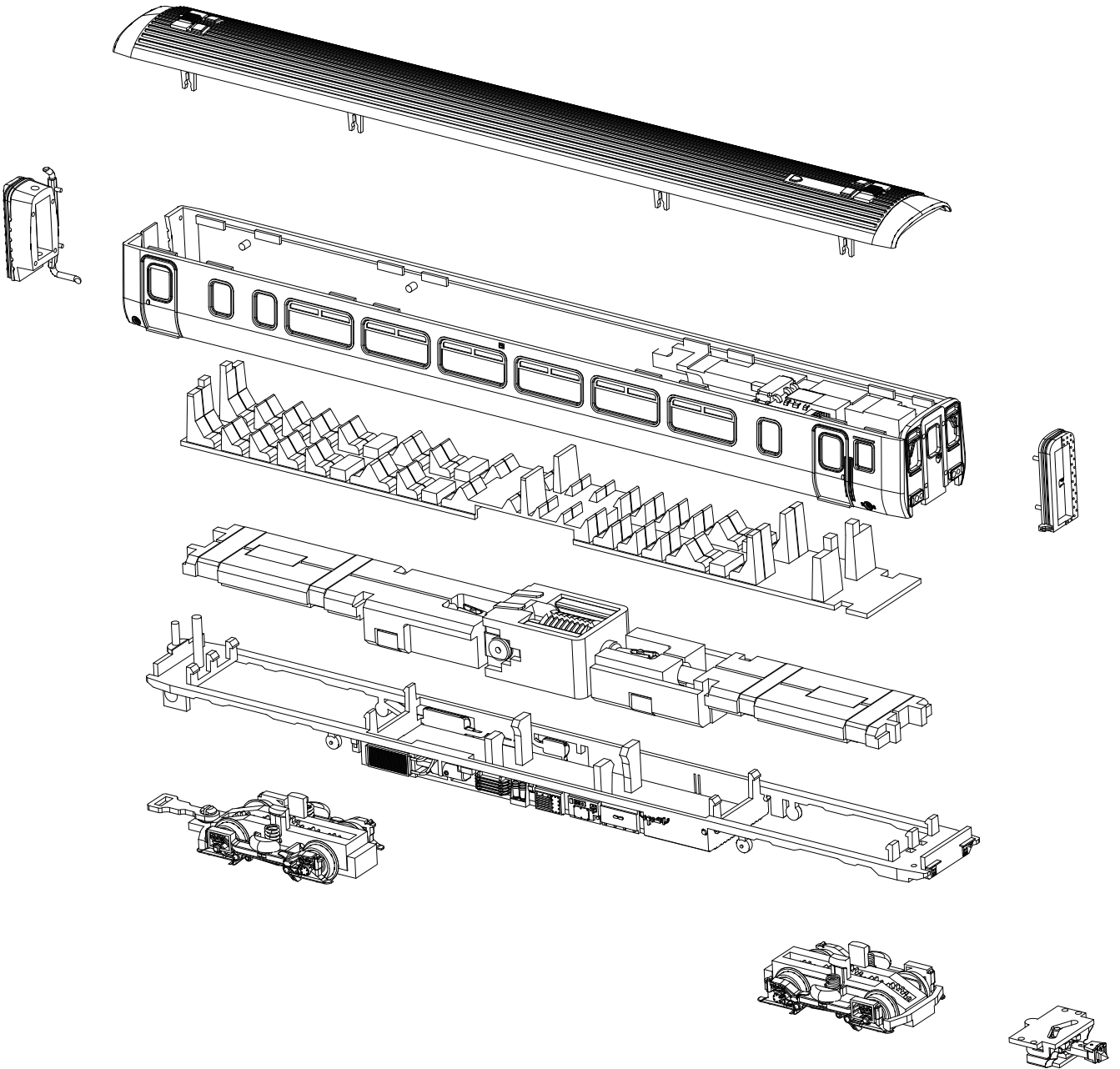
Our model is fully DCC ready. The model is fitted with a DCC board which features a Next 18 plug pre-fitted with a 'blanking plug'. Carefully remove the blanking plug and insert the decoder of your choice. Before converting to DCC please ensure that your decoder will fit the model, as some decoders are large and could have a thick protective outer shroud. To expose the PCB, simply pull the body away from the chassis using finger pressure. Fit your decoder and programme as normal. Reclip the body.

We have designed this model to have independent control of front and rear lamps. For best operation, we recommend a 4 function (or greater) decoder is fitted (for example a 6 function Dapol Imperium Next-18) to your model. If you have purchased the Dapol factory fitted decoder it has been fitted with a pre-programmed Imperium decoder (Please refer to separate DCC operation instructions supplied). If fitting a decoder (including a non-factory fitted Imperium) you will need to consult the decoder manual to correctly configure the decoder for operation of the locomotive lighting.

For reference, the model's lighting assignments are below:

Decoder output	Front light (FLf)	Rear Light (FLr)	AUX 1	AUX 2	AUX3	AUX 4
Lighting	Front white lamps	Front red lamps	Rear white lamps	Rear red lamps	No connection	Light Bar

Class 156

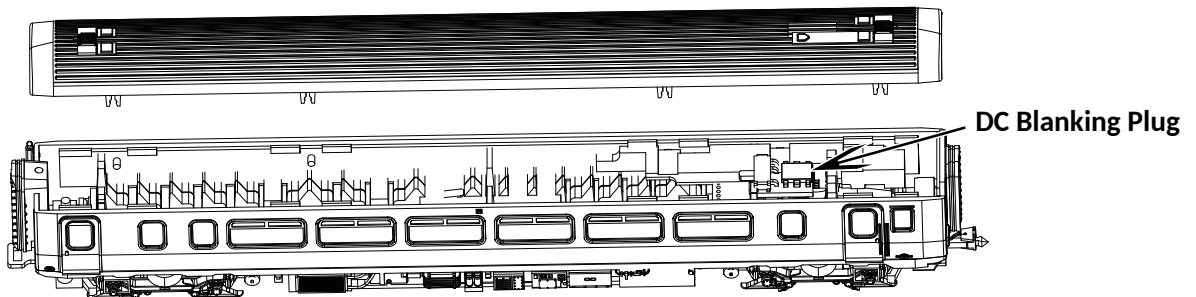


Oiling points for gears before test running, and removal of body for DCC installation



Normal oiling points into exposed gears without removing body

To remove roof, simply pull roof away from body to leave exposed body as image.



To expose drive worms and chassis for routine maintenance, simply pull the complete bogie assembly away from the chassis. The bogies are a pull out & push in fitting method. When refitting, ensure that the gear on top of the bogie tower meshes with the worm.

EUROPEAN REGULATIONS:

Dapol products conform to WEEE and RoHS requirements.
If you have a need to dispose of any electrical part, please do so correctly.



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