

**GWR 7800 (Manor) locomotive**  
OO Gauge Model

**Owner's manual**

***dapol***

***Authentic Scale Model***



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# GWR Manor

*Thank you for purchasing this Dapol product.*

## A history of the 4-6-0 GWR Manor

The 'Manor' class of locomotives were designed as a lighter version of the 'Grange' class, for this purpose a new number 14 lightweight boiler was



introduced. Initially, the superheating surface was 190 square feet but this was reduced to 182.3 square feet when the elements were shortened. Like the 'Granges', the 'Manors' used reconditioned parts from the 43XX Moguls but just on first batch of twenty. These parts came from numbers 4302/ 7/ 12/ 16/ 19/ 21/ 22/ 25/ 42/ 43/ 49/ 55/ 60/ 69/ 79/ 82/ 89/ 99, 8301/ 63. The last ten engines of the class did not use reconditioned parts. The power classification of the 'Manor' class was 5-MT, the G.W.R. power class was D and the route availability was BLUE.



### **Detail Alterations:**

Modifications to the blastpipe and firebars in 1952 gave a greatly improved performance, while

experiments with the smokebox on No. 7818 led to improved steaming. Modifications also included reducing the blastpipe jumper ring and the nozzle diameter from 5 and 1/8 inches to 4 and 5/8 inches and together these alterations increased the steam rate from 10,000 pounds per hour to 20,400 pounds per hour.

**Preservation:** Amazingly from a class of just 30 locomotives, 9 'Manor' class engines were saved for preservation and these are numbers 7802, 7808, 7812, 7819, 7820, 7821, 7822, 7827 and 7828.

## Specification:

- Diecast metal chassis
- Diecast wheels, motion and connecting rods
- Sprung centre driving wheels
- Sprung bogie frame, with 2<sup>nd</sup> radius ability
- Front pony cam mounting
- Sprung buffers
- Pickup from all 6 driving and tender wheels
- Brass bearings
- DCC Ready (Next-18)
- Factory fitted DCC and DCC sound options
- 'Toolless' DCC decoder and speaker fitting
- Optional 2<sup>nd</sup> speaker in tender (Inclusive with factory fitted sound models)
- Diecast footplate
- Kinematic tender drawbar
- Conductive tender drawbar
- Body detailed to authentically represent operating number and its operating period
- Tender choice reflecting locomotive operational era
- Highly detailed cab interior
- Firebox flicker effect

**Dapol are producing models from the following GWR build lots**  
(at the time of writing)

<b><i>Lot</i></b>	<b><i>Number</i></b>	<b><i>Year built</i></b>
326	7800 to 7819	1938 - 1939
377	7820 to 7829	1950

# GWR Manor

*Please read this section before you go any further!*

**Quick start:** *We know you would like to have your model running as quickly as possible; please spare a moment to read this section first.*

- An accessory pack containing a coupling and PCB tool is supplied.
- Models fitted with optional DCC or DCC sound will operate on DC\* or DCC

\* When operating on DC, the factory sound fitted model will produce exhaust sounds automatically.

## Icons used in this booklet:



**Information:** Hints and tips



**Caution:** Take care when performing this step



**Warning:** A risk of damage may exist

The model is packed in a two-part blister pack. Please unpack as below. *Please re-pack in the same way before sending for warranty or service*

## Unboxing


- 1) Remove the model whilst in its clear packaging from the foam insert.
- 2) Slide the outer clear shell from the inner clamshell.
- 3) Lift the clamshell 'latch' (top right of package).
- 4) Carefully lift the locomotive from the packaging.


**An accessory pack** is supplied in the packaging of your model and contains the following items: (See page 10, *fitting of accessory items* for further detail)


- 2 etched Cab side numbers
- 1 x Vacuum hose
- 1 x speaker baffle box
- 1 x Smokebox door / PCB tool
- 1 x Sanding lever
- DC Blanking PCB (If Sound or DCC fitted)


## Operation:

- 1. Running in / First use:** No special running in or initial lubrication is required; our 'new generation' locomotives have been designed with care to offer many years of service with minimal maintenance. (See Maintenance section)

 We suggest a check run in both directions using either DC or DCC power is performed before placing into service.

 Factory fit DCC or DCC sound models will 'autodetect' and operate on both analogue (DC) and DCC layouts.

 **DCC address** is factory set to address #3.  
**The sound decoder fitted** is a Zimo MX658N18 (or a Dapol Imperium for DCC fitted versions).


 **Caution:** A Non-DCC fitted model will not operate on a DCC controlled track.



If operating a non factory fitted DCC fitted model on DC, please follow the DC operating procedure for your decoder.


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## Maintenance:


The model uses components which require little maintenance. We suggest that the drive train and gear box are lubricated after every 100 hours running using a light synthetic lubricating oil such as Dapoil or Locolube™

 **Warning:** Mineral oil types or thicker oils may damage your locomotive paint finish or components and invalidate your warranty.

-  Remove any surplus or spilt oil immediately using a lint free cloth.
-  Regularly check your model for build-up of dust of loose scenic material around moving parts.

 **Caution:** Do not over oil. Over oiling may damage paint finishes and/or cause build-up of dust.

- Lubrication can be applied to axle bearings and connecting rods without removing covers. Use only 1 small drop of oil on each point.

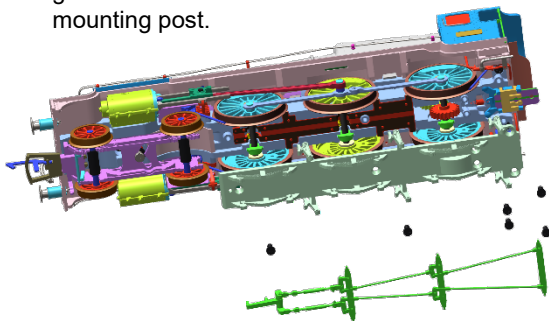
 **Caution:** Whilst the keeper plate is removed take care not to dislodge items such as axles and drawbar etc.

- To lubricate the worm gear, the brake rodding and keeper plate should be removed. It unclips from the brake blocks at the points shown below. The 6 keeper plate cover screws are then removed(below).
- Place 1 or 2 drops of oil on the large rear gear, this will migrate through the gear train to the worm during operation.



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- Whilst the keeper plate is removed check the pony truck slide to ensure no build-up of debris is apparent. If found to be dry, then a little light grease can be used on the mounting post.



- It is important to keep all moving parts clear of debris and lint. Regularly check for build ups behind the wheels and other moving parts. A black insulating gum will tend to build on the running surface of the wheels and will affect running. This should be removed with a proprietary wheel cleaning tool or use of a non-scratch tool.
- Cleaning pickups: Using a strip of paper (or contact cleaning strip), rub gently between the pickup and the wheel rim. Locomotive pickups are located behind the wheel, and contact the tyre. Tender pickups are located at the top of the wheels.

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## Fitting accessory items:

**Couplings:** The model is fitted with hook and loop style couplings. Both pony truck and tender are fitted with NEM coupling boxes, permitting exchange for any compatible NEM style coupling.

**Number Plates:** The model has printed plates applied to the cab sides. Two etched plates are provided in the accessory pack which can be fitted using a small amount of adhesive using the (slightly undersize) printed plates as a guide.

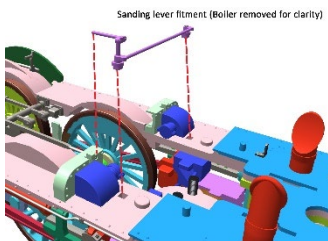
**Vacuum hose:** This is optionally fitted to the front of the model. It may interfere with the hook and loop coupling, so it is recommended both are not fitted together.

**Speaker baffle box:** Fits a standard sugar cube speaker (DCC Supplies 115530) See sound fitting section.

**Bunker Coal Load:** The bunker coal load is removable. A detailed representation of the coal hopper will be found beneath the dummy coal load, allowing you to custom fill the bunker to the level you require with the material of your choice.

### Sanding Lever:

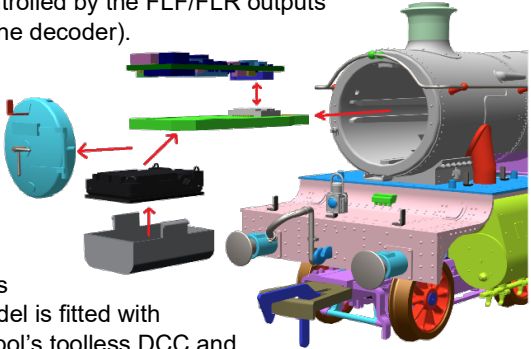
This is fitted in the position shown. Once fitted, this lever must be removed before separating the boiler from the chassis.



**i** If required, a small amount of adhesive maybe used to fix number plates, hoses, and sanding lever permanently in place.

## Fitting a DCC decoder (DCC Ready models)

Dapol recommend a Dapol Imperium decoder. The decoder chosen must offer a minimum of 2 functions for the firebox flicker to operate. (this is controlled by the FLF/FLR outputs of the decoder).



This model is fitted with Dapol's toolless DCC and speaker fitting system. To install a decoder and/or optional speaker follow these steps:

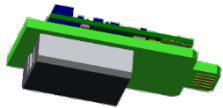
- 1) Remove the smokebox door.  
This is a friction fit, removal maybe eased by using the wedge end of the smokebox door tool (supplied) under the hinge if required.



**i** The smokebox door tool is made from soft plastic, which avoids scratching the paint finish.

- 2) Using the 'hook' end of the smokebox tool to engage with the hole in the PCB (highlighted white), pull out the decoder PCB.

- 3) When the PCB is fully removed from the smokebox the decoder blanking plate can be removed in the usual way.

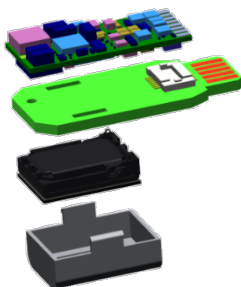


**⚠** Incorrect speaker selection may result in damage to the decoder.

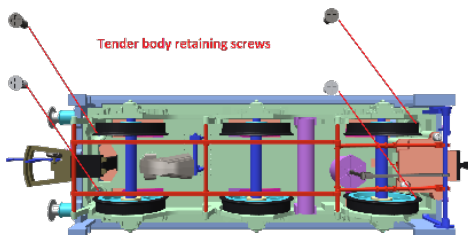
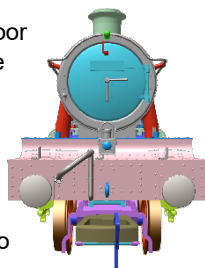
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**Speaker Installation:** If using a sound decoder an 8-ohm 'Sugar cube' type speaker should be installed (Not supplied. DCC Supplies Product Code: 112965). If an alternative type is fitted, it must produce a total impedance suitable for your decoder's amplifier.

- 1) The speaker enclosure is removed by unclipping (it is held by 2 clips).
- 2) After fitting the sealing gasket (not supplied - DCC supplies product code: 115530) drop the sugar-cube speaker into place with the contacts uppermost and facing the rear of the PCB.



- 3) Clip the speaker enclosure back in place on the PCB
- 4) Slide the PCB into the locomotive, with the speaker on the lower side.
- 5) Finally, refit the smokebox door with the hinge on the left side of the model.
- 6) An optional 8 ohm Bass enhanced speaker (DCC Supplies 100790) can be fitted into the recess in the tender weight and soldered to the existing wires provided.



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**DCC Factory Fitted models:** Are fitted with a Dapol Imperium DCC decoder (address 3) to control the locomotive. The following function key on your controller will operate special functions.

F0	Firebox flicker On/ Off
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### DCC Sound Factory Fitted models

This model is pre-fitted with a Zimo sound decoder, sugar cube speaker in the smokebox and bass enhanced speaker in the tender. Authentic sounds from an operating locomotive have been recorded as both manual and automatic sounds. Manual sounds are operated by the following keys on your DCC controller.

**i** When operating your locomotive on a DC (analogue) layout the decoder will autodetect the power source and produce a synchronised exhaust sound.

### Function keys (Manual sounds):

**F1 Sound fade in/out:** Useful when loco is going 'on or off scene' or into / out of a tunnel.

**F2 Short whistle**

**F3 Medium whistle**

**F4 Coal shovelling:** The sound of the firebox door being opened, followed by the firebox flicker effect operating. During this time the sound of shovelling coal will be heard. When F4 is turned off, the shovelling will stop and the firebox door will be heard to close, at the same time the flicker will extinguish.

**F5 Injector on/off:** The injector is used when topping up the water level of the boiler.

**F6 Steam ejector on/off:** Used for creation of a vacuum and for blastpipe draft creation.

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**F7 Brake application/release:** When first pressed the sound of a brake application will be heard. If RealDrive is enabled, the working brake will be applied.

**F8 Flange squeal on/off** (whilst the model is moving) The sound will vary depending on F9

**F9 Light engine mode:** with F9 ON lighter chuffs will be heard and the locomotive will accelerate and decelerate more readily. CV390 can be adjusted to change this 'inertia' effect. (Factory value 128).

**F10 Safety valve 'blow off'**

**F11 'More steam' sequence:** Injector sound with coal shovelling sound.

**F12 Manual draincocks:** Additional to the automatic draincocks. Enables the sound of steam 'blast' from the cylinder drains to be triggered.

**F13 Buffering up:** Sound of buffers clashing. If turned on whilst in motion, the sound will be heard when the locomotive comes to a halt (unless turned off before). Sound will vary depending on F20.

**F14 Coach door slam**

**F15 Guards whistle:** One of 2 randomly selected whistles.

**F16 Uncoupling:** Only whilst stationary. Sound will vary depending on F20

**F17 Firebox door Open/close:** Sounds of firebox door opening/closing with flicker. No coal shovelling sound.

**F18 Brake whistle:** A signal used if the driver requests braking assistance from the Guard.

**F19 Firebox flap Up/Down**

**F20 Passenger/Freight train:** Customises certain sounds to either Passenger (F20=ON) or Freight (F20=OFF)

**F21 Long Whistle**

## **Automatic sounds:**

**Brake squeal:** This sound will be produced when the locomotive speed drops below a pre-set value, only whilst the locomotive is decelerating. The threshold value can be set using CV 287 and can be increased or decreased from the factory value of 20.

## **Chuff intensities:**

The locomotive can produce 3 intensities of exhaust 'chuff'. Heavy chuffs will be heard whilst accelerating, lighter ones when the target speed is reached. Upon deceleration, no chuffs will be heard.

With F9 ON, even lighter chuffs will be produced, with more 'cut-off'.

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## Body removal:

**i** Body removal is not required for DCC decoder, speaker installation or regular maintenance

**⚠** **Caution:** Dapol do not recommend disassembly or body removal. Care should be taken to avoid damage to delicate assemblies and detail parts.

**i** During reassembly check to ensure the decoder PCB socket is correctly located to avoid difficulty whilst re-fitting the body to the chassis.

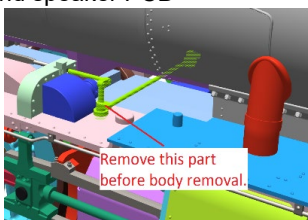
**⚠** If fitted, the sanding lever must be removed before dis-assembly of the body/chassis. Further spares can be obtained from DCC supplies (Part No. 200047)

The body of this model can be removed by following this sequence. When refitting ensure that PCBs and wiring are correctly located.

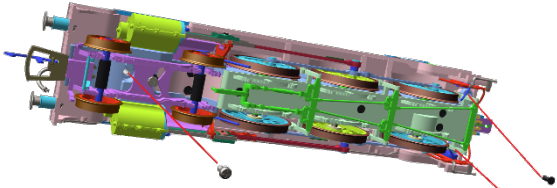
1. Remove the smokebox door
2. Remove the Decoder and speaker PCB

3. If fitted, remove the sanding lever from under the boiler.

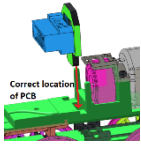
4. Remove the three body retaining screws (One under pony truck and two at rear of the chassis), using a 00 or 000 Phillips screwdriver as shown.





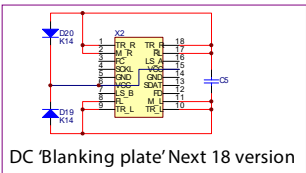
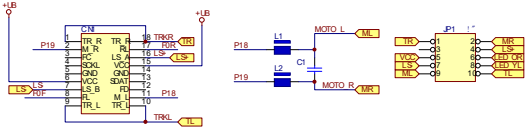
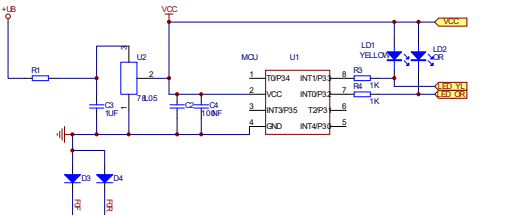


5. When re-assembling take care that the main PCB is located correctly.



## Electrical diagram:

**⚠ Provided for reference purposes only.**



N.B. this diagram is subject to continuous change. E&OE

## Spare parts:

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When ordering parts, please ensure you quote Dapol's part number and the model's running number/livery, as parts and colours will vary between versions.















Many parts (especially electrical) are shared with other models in the Dapol range. Parts which are unique to this model are highlighted green, shared parts are highlighted in other colours as below.

	Part can be used on any OO model
	Part is unique to Manor
	Shared part: Manor, Mogul & Prairie
	Shared part: Manor & Prairie
	Shared part: Manor & Mogul

Shared parts may be decorated with different liveries, ensure the model part number is quoted at the time of ordering.

Additional parts to those illustrated may be available, please check [dapolspares.dccsupplies.com](http://dapolspares.dccsupplies.com) for full list.










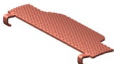

# GWR Manor Spare parts

Part Number	Photo	Description
200001		Chimney CM1
200002		Chimney CM2
200003		Whistle Pair
200004		Steam Deflector Pplate
200005		Buffer Beam Detail Set Front
200006		Lamps Bracket Set Front
200007		Pony Spring
200008		Pony Retaining Bolt
200009		Cylinder & Drain Cock Moulding
200010		Handrail & Standoff Set
200011		Smokebox Dart
200044	TBA	Smokebox Door
200012		Smokebox Door Complete (Moulded Plate with Dart & Lamp Bracket)
200013		Piston Assembly Left Hand (Crosshead & Main Rod)
200014		Piston Assembly Right Hand (Crosshead & Main Rod)




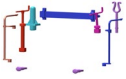

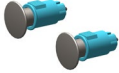



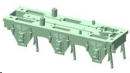

# GWR Manor Spare parts

200015		Slide Bar & Cylinder Set Left Hand
200016		Slide Bar & Cylinder Set Right Hand
115971		Front Driving Wheel Type 1 (Prairie/Manor/Mogul)
115972		Centre Driving Wheel Type 1 (Prairie/Manor/Mogul)
115973		Rear Driving Wheel Type 1 (Prairie/Manor/Mogul)
200017		Front Driving Wheel Set Type 2
200018		Centre Driving Wheel Set Type 2
200019		Rear Driving Wheel Set Type 2
115063		Axle Stub Covers
200045		Gear Set
115059		Connecting Rod Bolt Set
115056		Connecting Rod Pair (Left & Right)
200020		Name Plate
200046		Cab Number Plate Pair (with number)
200021		Keeper Plate & Brake Gear

# GWR Manor Spare parts

200022		Screw Set (Keeper & Body)
200023		Safety Valve Assembly
200024		Steam Pipe Pair
200025		Collett Taper Buffer Pair
115046		Collett Straight Buffer Pair
200026		Slidebar Backing Plate Pair (Left & Right)
200027		Pony Truck Assembly
115068		Pony Truck Wheelset
200028		Cab Handrail Set
200029		Reversing Rod
115069		Cab Fall Plate
200030		Cab Glazing Set
200047		Sanding leverg
	<b>Other items</b>	
112208		Tension Lock Coupling

# GWR Manor Spare parts

	Tender	
200032		Rear Buffer Beam Set
200033		Tender Detail Set Rear
115081		Tender Wheel Set
200034		Tender Footplate Detail Set
115045		Churchwood Taper Buffer Pair
115046		Collett Straight Buffer Pair
200035		Tender Vent Pair
200036		Tender Brake Rodding
200037		Tender Chassis (Narrow Hornplates)
200038		Tender Chassis (Wide Hornplates)
115087		Coal Load

# GWR Manor Spare parts

	Electrical	
115071		Motor Assembly (Worm & Fly Wheel)
115072		Motor Mounting Set
115073		Locomotive PCB Motherboard & Mounting
115074		OO DC Blanking Plate (Pullout PCB)
115075		OO Pullout PCB
115076		OO Speaker Housing (Pullout PCB)
115077		Loco Pickup Set
115089		Tender Pickup Set
115090		Electrical Drawbar Set (Tender)
115091		Tender Coupling Assembly (Train)
115530		Sugar Cube Speaker Gasket
	<b>DECORATED PARTS</b>	
200039		Loco Body Shell - without number & name plates (State model number)
200040		Rivettted Tender Body Shell
200041		Smooth Sided Tender Body Shell
200042		Tender Body & Chassis Complete (Hornplate and construction per: model part number specified)
200043		Accessory Pack Manor OO Gauge 2pcs Cab Number Plates 1pc PCB Tool 1pc PCB Speaker Box 1pc Vacuum Hose 1pc Sanding lever

## Manufacturer's warranty

**Description:** We want you to be completely satisfied with your purchase and obtain many years of pleasure from its operation. If you experience any problems with your model, we suggest that your first point of contact is your retailer; they will be able to advise on any teething problems and will use their experience to quickly solve many of your questions or concerns.

Your dealer is also the fastest way to exchange a model which is found to be missing components, accessories, or is otherwise defective after purchase. But we recognise that you may require more: If a replacement model is not available you may find a refund disappointing, or you may simply prefer to deal directly with Dapol. For these reasons, we offer a 12-month manufacturer's repair warranty on this product in addition to your statutory rights.



Our Manufacturer's warranty in simple terms: If your model experiences a mechanical or electrical fault within one year of purchase, other than returning to the place of purchase, we offer you have the option of a free repair at our service agents which is (within the UK) also post free.

2nd year service (locomotives only). An option exists to have your locomotive serviced by our authorised agent (a service fee is payable). Simply contact our agent and you will be advised of the current cost and given a freepost address. The model will be serviced and returned with a validated warranty certificate for a second year of no-quibble warranty for your model.



Please note: Year 2 warranties cannot be issued more than 13 months after the original date of purchase.



## Warranty



**VERY IMPORTANT:** Please ensure that your dealer has supplied a proper printed receipt with your purchase. Without this, our service agents are unable to offer warranty service. Repairs will be charged at the prevailing rate. Your statutory rights with the place of purchase are unaffected.

### How to claim:

- Locate the proof of purchase (copies acceptable)
- Year 2 claims: Return with validated 2nd year certificate (or service fee if within 13 months of purchase).
- Contact our service agent for a Job ID number.
- Write the Job ID number on the outside of the package, and enclose your name, contact information, proof of purchase and if applicable your year 2 certificate.
- When posting, ensure that you obtain proof of posting and the model is adequately packed. If you require proof of delivery or insurance, you will need to purchase the additional service (at your cost) from your post office.

**What happens next?** If you have supplied an email address, receipt will be acknowledged, you will be advised when work commences and is completed. They will contact you in case of unforeseen difficulties during repair. Using your email address, you can use the online enquiry system to check the status of your model at any time via the internet.

If you have not supplied an email address, your model will be repaired and returned, you will only be contacted in case of a problem. You may of course contact our agent (quoting the job ID) at any time. What happens when the warranty expires? Our service agent offers a comprehensive repair service at reasonable cost. Alternatively, a comprehensive range of spare parts is available for purchase.

# Warranty

**The small print!** (Terms and conditions) We intend this 'No Quibble' warranty to be a simple and fair addition to your statutory rights, however some situations simply cannot be covered as they are outside of our control. We've listed these below.



We're reasonable folks, so if in doubt, please contact either our customer service or service agents for advice on your situation and we'll suggest the best course of action.

## Terms and conditions:

1. This manufacturer's warranty is in addition to your existing statutory rights and offers a repair service for your model. Requests for outright refund or replacement should be directed to the place of purchase.
2. In the event the model cannot be repaired, at Dapol's sole option, you may be offered: a new replacement model (subject to availability), a refund voucher (for exchange at the place of purchase) or the return of the model in an unrepaired condition.
3. On issuance of a replacement model or refund voucher the original model and all associated accessories shall become the property of Dapol Ltd.
4. The replacement or repair of a model shall not extend the original warranty period under any circumstance.
5. This warranty covers the model's electronics, chassis and mechanisms for manufacturing defect or premature failure. The following situations are not covered by this warranty:
  - a. Accidental damage
  - b. Missing accessories (i.e. accessory packs) – Please return to your dealer.
  - c. Over or under oiling, incorrect oil type (use a thin synthetic oil i.e. Dapoil, LocoLube™ or similar)
  - d. Fair wear and tear (unless deemed to be premature by Dapol or our service agent)
  - e. Routine maintenance and/or faults due to presence of foreign bodies i.e. Replacement drive tyres, Dirty wheels, Pickups etc.
  - f. Mishandling: Inclusive of broken wires, dislocated driveshafts, damaged valve gear. Broken detail parts.

## Warranty

- g. Mechanical or electrical modification; inclusive of fitting of DCC to a non DCC ready model.  
(Reasonable modifications inclusive of: Weathering, super detailing etc. are permitted, however any adverse effects of such modification shall invalidate the warranty.)
  - h. Unauthorised attempts to repair or modify the model.
- 6. This warranty is not transferable and is valid only for purchases made from authorised Dapol dealers when accompanied by a proof of purchase.
- 7. This warranty does not cover: Used models, models purchased from private individuals or auction sites (unless a 'Buy It Now' purchase of a new model from an authorised dealer when supplied with supporting proof of purchase).
- 8. Dapol and its agents shall be the sole arbiters as to the warranty status of the model and their decision is final.
- 9. Whilst every effort will be made to protect such, Dapol and its agents shall not be liable for damage or alteration to any 'super detailing' or other aftermarket cosmetic, mechanical or electrical enhancements.
- 10. Dapol and its agents shall not be held liable for damage caused to inadequately packaged models.
- 11. Dapol and its agents shall not be held liable for models lost in the post unless a proof of posting can be supplied.
- 12. All repairs will be repaired on a first in-first out basis, within a reasonable period after receipt by our agent. Unless agreed in writing by Dapol or its agent prior to receipt of the model time shall not be of the essence in any contract.
- 13. All repairs and/or replacements are subject to availability

# Contacts

## Contact information:

Dapol Customer service  
Telephone: 01691 774455  
Email: [sales@dapol.co.uk](mailto:sales@dapol.co.uk)  
Website: [www.dapol.co.uk](http://www.dapol.co.uk)

**Service and Spares Centre:**  
DCC Supplies Ltd.  
Telephone: 01905 621999  
Email: [dapol@dccsupplies.com](mailto:dapol@dccsupplies.com)  
Website: [dapolspares.dccsupplies.com](http://dapolspares.dccsupplies.com)

# Notes





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