

GWR class 4300 2-6-0 Mogul

OO Gauge Model

Owner's manual

dapol

Authentic Scale Model

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History

Thank you for purchasing this Dapol product.

A history of the GWR Mogul

A total of 342 locomotives were built by the Great Western Railway (GWR) at its Swindon works between 1911 & 1932. The 4300 class soon became known as 'Moguls' (after the wheel formation of 2-6-0).

Designed by G.J. Churchward for use on mixed traffic duties, they could reach a top speed of 70 mph with passenger stock.

Ultimately the class found use across the GWR and continued usage under British railways throughout the Western region.

Withdrawal began in 1936 with 100 locomotives used as the basis for the Grange and Manor classes. The last 6 examples ceased operational life in 1964. All but two (now preserved) were scrapped.

Specification

Specification:

- Diecast metal chassis
- Diecast wheels, motion and connecting rods
- Sprung centre driving wheels
- Sprung bogie frame, with 2nd radius ability
- Sprung buffers
- Pickup from Loco. driving and tender wheels
- Brass bearings
- DCC Ready (Next-18)
- 'Toolless' DCC decoder and speaker fitting
- Optional speaker in tender (standard with factory-fitted sound)
- Compact, push-fit electrical tender drawbar
- Close coupled tender
- Close coupling arrangement for tender coupling
- Highly detailed body and cab interior
- Firebox flicker effect

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

Lot number	Loco Numbers
211	5390 – 6317
212	6318 – 6341
216	6342 – 6361
230	6362 – 6369
218	6370 – 7304
222	7305 – 7319

Quick start

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 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 and tender separately from the packaging.
- 5) The tender must be separated from the locomotive before re-packaging.

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An accessory pack is supplied with your model containing the following items: (See *fitting of accessory items* for further detail)

- 1 x Hook and loop coupling
- 1 x Smokebox door / PCB tool

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.

i Before operating your model, first run in both directions at a low speed checking for correct operation using either DC or DCC.

If a DCC or sound fitted version has been purchased it will operate correctly on both DC and DCC.

i **DCC address** is factory set to address #3.
The decoder fitted is a Zimo MX658N18

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

If operating a DCC fitted model on DC, please follow the DC operating procedure.

Further information is available in the relevant sections.


i A DCC fitted model will 'autodetect' and operate on both analogue (DC) and DCC

Maintenance:


We have designed the model using components which require little maintenance. We suggest that the

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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.

- Lubrication can be applied to axle bearings and connecting rods without removing covers. Use only 1 small drop of oil on each point.
- To lubricate the worm gear, unclip the brake rodding, remove the keeper plate cover screws (below).

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

- Only 1 or 2 drops of oil are required on the gear-train, this will migrate through the gear train during operation.

-  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.

- Check the pony truck slides to ensure that no build-up of debris is apparent. If found to be dry, then a little light grease can be used between the chassis and the washer.


Fitting of accessory items:

Couplings: The model is fitted with one hook and loop style coupling to the tender and a second in the accessory pack. Both Tender and front pony truck are fitted with NEM coupling boxes, permitting exchange for any compatible NEM style coupling.

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All other accessories are factory fitted to the model.

Tender Coal Load: The tender coal load is removable and simply lifts out.

 Use of the smokebox door tool will assist removal without marking the finish. We suggest lifting from the front of the coal load.


A detailed representation of the coal hopper profile will be found beneath, allowing you to custom fill the tender to the level you require with the material of your choice.

Attaching the tender to the locomotive:

Place the locomotive and tender on a straight section of track, with the drawbar halves facing each other.

Gently push the tender to the locomotive, whilst steadying the loco with your other hand.

The drawbar coupling will self-locate and a soft 'click' will be heard when it is connected.

 **Caution:** If the tender requires any more than a little force to connect then stop and check the alignment of the coupling and the tender coupling box for obstruction or damage.

Installing a DCC decoder (DCC Ready models)

Dapol recommend a Dapol Imperium decoder.

The decoder chosen must offer a minimum of 2 functions.

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

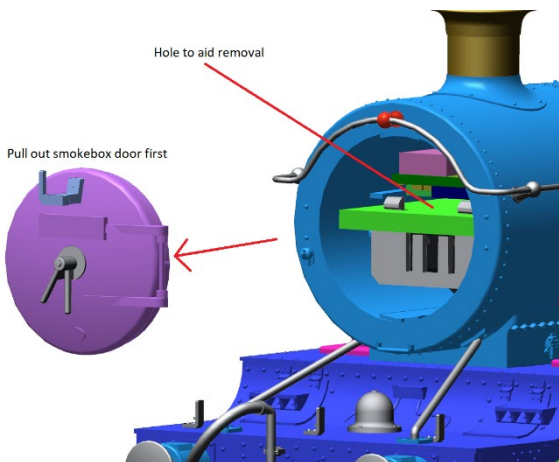
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- 1) Remove the smokebox door.
This is a friction fit, (use the wedge end of the smokebox door tool under the hinge if required.)

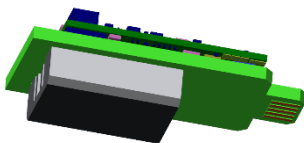


i The smokebox door tool is made from soft plastic, which avoids scratching the paint finish.

- 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.



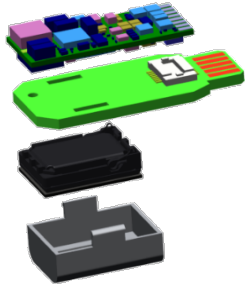
Speaker installation: If using a sound decoder an 8-ohm 'Sugar cube' type speaker should be installed (DCC Supplies Product Code: **112965**). If it is intended to fit a 2nd speaker in the tender it must be correctly matched with

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the speaker fitted in the smokebox to produce a total impedance suitable for your decoder's amplifier.

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

- 1) The speaker enclosure is removed by unclipping (it is held by 2 clips).
- 2) After fitting the sealing gasket, 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.



Fitting an optional tender mounted

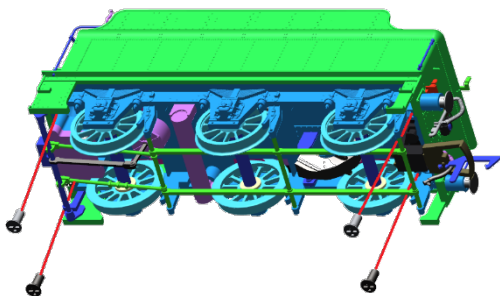
speaker: If required, an optional 8-ohm bass enhanced speaker can be fitted into the tender (DCC Supplies part No: 100790)

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- i** Refer to the warning on page 11 and check your chosen decoders manual to carefully select the additional speaker.

For example: Using 2 x 8 ohm speakers will produce a decoder load of 4 ohms.

- 1) Using a Phillips 00 screwdriver, remove the four cross head tender top retaining screws.



- i** If preferred, the brake rodding can be unclipped from the brake hangers first to improve access to the screws

- 2) The speaker leads are soldered to the PCB located on the tender chassis.
- 3) The speaker is screwed into the cast recess using the locating lugs moulded into the speaker.
- 4) Re-assemble the tender top. The speaker will operate automatically without any further configuration.

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DCC Factory Fitted models: Are fitted with an imperium DCC decoder (address 3) to control the locomotive. The following function keys on your controller operates special functions.

F1	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 key summary (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 Long and short 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

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stop and the firebox door will be heard to close, as the same time as the flicker extinguishes.

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.

F7 Brake application/release: When first pressed the sound of a brake application will be heard, when pressed again (turned off) the sound of the brakes being released will be heard.

F8 Flange squeal on/off

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. A factory value of 140 is set for this.

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.

F14 Coach door slam

F15 Guards whistle

F16 Distant whistle 1

F17 Distant whistle 2

Automatic sounds:

Brake squeal: This sound will be produced when the locomotive speed drops below a

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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.





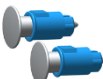



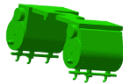


With F9 ON, even lighter chuffs will be produced, with more 'cut-off'.

Spare parts:





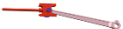



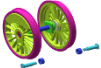






When ordering parts, please ensure you quote Dapol's part number and the model's running number/livery, as parts and colours will vary between versions.

Additional parts to those illustrated may be available, please check dapolspares.dccsupplies.com for full list.

GWR class 43xx Spare parts

OO 43xx mogul spares list		
DCC Part Number	Part	Description
LOCOMOTIVE		
115042		Chimney
115043		Whistles (set)
115044		Boiler stay (Pair)
115045		Buffers Churchward (pair)
115046		Buffers Collett (Pair)
115047		Buffer beam set
115048		Lamp bracket set (loco) Version dependent
115049		Front pony frame and adjustment Assembly
115050		Cylinder & drain cock moulding
115051		Handrail and standoff set
115052		Smokebox door













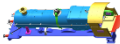
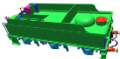
GWR class 43xx Spare parts

115053		Smokebox door lamp slot
115054		Smokebox door Plate
115055		Smokebox door Plate & lamp slot
115056		Connecting rods (Pair)
115057		Piston, crosshead and main rod assembly (left or right)
115058		Slide bar set
115059		Connecting rod bolt set
115060		Front driving wheel set
115061		Centre Driving wheel set
115062		Rear Driving wheel set
115063		Axle stub covers
115064		Locomotive brake rod
115065		Locomotive "keeper" plate
115066		Body & keeper plate screws (set)
115067		Body retaining screw

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115068		Pony truck wheels and axle set
115069		Cab fall plate
115070		Cab number plate (Pair)
ELECTRICAL		
115071		Motor, worm & flywheel assy
115072		Motor mounting set
115073		Loco "motherboard PCB" & mounting
115074		OO "Pullout" PCB DC blanking plate
115075		OO "Pullout" PCB
115076		OO "Pullout" PCB speaker housing
115077		Loco pickups (Pair)
115078		Gearbox cover and screws (Set)
115079		Gear set
115080		Electrical drawbar (Locomotive) set

GWR class 43xx Spare parts

TENDER		
115081		Wheelset (Single Axle)
115082		Tender Brake rodding (Set)
115083		Buffers Churchward (pair)
115084		Buffers Collett (Pair)
115085		Tender Handrail set
115086		Tender footplate detail set
115087		Coal load
115088		Tender rear detail set
ELECTRICAL		
115089		Pickups
115090		Electrical drawbar (Tender) set
115091		Tender coupling (train) assembly
MISC.		
115092		GWR OO gauge Loco Lamp (dummy) set of 6
DECORATED PARTS		
115093		Loco Body shell (Complete state part number)
115094		Tender Body and chassis (Complete, state part number)

Warranty

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 (Cont.) 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

Warranty

range of spare parts is available for purchase.

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. Only Dapol models packaged with this warranty or marked with a 'W' are covered under this scheme.
2. 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.
3. 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.
4. On issuance of a replacement model or refund voucher the original model and all associated accessories shall become the property of Dapol Ltd.
5. The replacement or repair of a model shall not extend the original warranty period under any circumstance.
6. This warranty covers the model's electronics, chassis and mechanisms for manufacturing defect or premature failure. The following situations shall invalidate 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)

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- e. Routine maintenance and faults due to foreign bodies i.e. Drive tyres, Dirty wheels, Pickups etc.
 - f. Mishandling: Inclusive of broken wires, dislocated driveshaft's, damaged valve gear.
 - 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.
7. This warranty is not transferable and is valid only for purchases made from authorised Dapol dealers when accompanied by a proof of purchase.
 8. 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).
 9. Dapol and its agents shall be the sole arbiters as to the warranty status of the model and their decision is final.
 10. 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.
 11. Dapol and its agents shall not be held liable for damage caused to inadequately packaged models.
 12. Dapol and its agents shall not be held liable for models lost in the post unless a proof of posting can be supplied.
 13. 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.
 14. All repairs and/or replacements are subject to availability

Contacts

Contact information:

Dapol Customer service
Telephone: 01691 774455
Email: sales@dapol.co.uk
Website: www.dapol.co.uk

Service and Spares Centre:
DCC Supplies Ltd.
Telephone: 01905 621999
Email: dapol@dccsupplies.com
Website: dapolspares.dccsupplies.com

Notes

Dapol Limited.

Unit 7 Gledrid Industrial Park, Chirk, Wrexham
LL14 5DG

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Website: www.dapol.co.uk

Email: sales@dapol.co.uk

Spares: dapolspares.dccsupplies.com