

Sentinel 0-4-0 Steam Shunter
O Gauge Model

Owner's manual

dapol

Authentic Scale Model

Sentinel 0-4-0 Steam Shunter

Owners Guide

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Thank you for purchasing this Dapol Model

Section A: All versions and quick start.

This section is applicable to all versions including those with factory fitted DCC.

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.*

- There is no accessory pack included with this model.

Icons used in this booklet:



Information: Hints and tips



Caution: Take care when performing this step



Warning: A risk of damage may exist



To install a DCC decoder refer to section A-5.

- The DCC ready version is shipped ready to run using DC or to accept an (optional) DCC decoder.
- Factory fitted DCC, Refer to Section B (Page 8)
- DCC decoder fitting instructions are on page 6.


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.




We suggest that before you operate your model for an extended time, you first run it in both directions at a low speed whilst checking for correct operation. This can be performed in either DC or DCC after fitting a decoder (see page 6).

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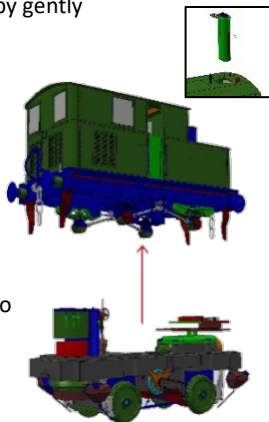
- 2. Couplings:** Prototypical 3-link couplings are fitted as standard and are designed to use the coupling hook of the rolling stock to be attached.
- 3. Removing the body:** (For DCC fitting instructions, please read paragraph 4, page 6).

 **Info:** It is not necessary to remove the body to install a DCC Decoder.

 **Warning:** Take care not to damage the chimney rain flap (if fitted)

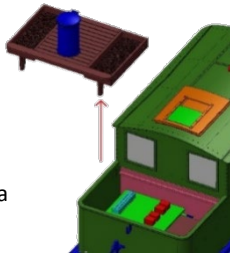
 **When placing the body on a flat surface take care not to damage the guard irons**

- Remove the chimney by gently pulling upwards.
- Using a PH00 sized screwdriver remove the 4 retaining screws found on the underside, inboard of the sanders.
- The body is now free to lift away from the chassis.
- Replacement of the body: Reverse the procedure described in 3a-3c.



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- 4. Fitting a DCC decoder:** The model requires a 21-pin decoder with a minimum of 2 functions. (4 or 6 function decoders may also be used). Regardless of the type, fitting remains the same. After fitting a sound decoder, please read paragraph 6, fitting a speaker.



- Remove the bunker and water filler by lifting. The panel is a friction fit.
- Remove DC blanking plate using the tool provided.

! Take care to align Pin 1 of the decoder with the mark on the PCB. Do not force it into place. If in doubt, stop and re-check alignment

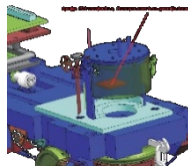
- Insert decoder, aligning the decoder plug with the in-board pins.

- 5. Programming your decoder:** Your decoder should be configured to use the following decoder output:

- AUX 1 = Firebox flicker

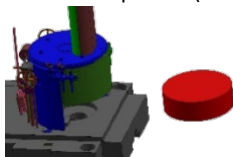
- 6. Fitting a speaker:** The model is designed so that a speaker can be fitted with a minimum of difficulty.

- Remove the body (paragraph 3).
- A PCB mounted on two 'flying' leads will be found inside the boiler. It can be accessed through the slot at the rear of the boiler, use of tweezers may make this easier.



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- c. Solder the speaker leads to the PCB, if + & - are not marked on your speaker it is not important which polarity is used.
- d. The design allows a 23mm diameter speaker (DCC Supplies part:110100) to fit into the base of the boiler, other sizes will require alternative fitting methods.
- e. Fit the sound decoder after removing the decoder blanking plate.



Info: This is the easiest stage to fit any 'keep-alive' components.

7. **Maintenance:** We have designed the model using components requiring little maintenance, however we suggest that after every 100 hours running a lubrication service is performed using a light synthetic lubricating oil such as Dapoil or **Locolube™**.

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

- Remove any surplus or spilt oil immediately using a lint free cloth.

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

- Regularly check your model for build-up of dust or loose scenic materials around moving parts.

Info: When applying lubrication only 1 or 2 drops are required on the gear-train, this will migrate through the gear train during operation.

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- 8. Spare parts:** Refer to Section D, pages 11 to 14 for exploded views and parts list.
- 9. Warranty:** Details are in Section E. Page 15.

Section B Factory Fitted DCC:

- 1. DCC Address:** The model is factory set to address 3.
- 2. Function key summary:**

F0 Fire Box Flicker On/Off

Decoder Reset: **Setting CV 8 to a value of 8 will reset the CV to default settings.**



The decoder in your model has been factory programmed to operate in a prototypical fashion. A decoder reset will not delete these settings.

Section C Factory Fitted DCC Sound:

- 1. DCC Address:** The model is factory set to address 3.
- 2. The decoder fitted** is a Zimo **MX638D**

The factory fitted sound decoder and speaker provide authentic sound effects for the locomotive's movement and other ancillary functions. These functions are listed below. Please note that this decoder may operate in a different fashion than you may be used to.

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Manual sounds		Comments
F1	Sound fade in/fade out	Simulate the effect of going into the distance. On entering the scenic section, this can be used to fade the sound back in.
F2	Whistle 1	
F3	Whistle 2	
F4	Coal shovelling	The coal shovelling will continue until F4 is turned off.
F5	Injector	The sound of the water injector will continue until F5 is turned off.
F6	Ejector	The sound of the ejector will continue until F6 is turned off.
F7	Brakes	When F7 is pressed, the sound of the brakes being applied will be heard. If 'RealDrive' is active, the working brake will also be applied
F8	Buffer up/coupling up	F8 On: the sound of the buffer clash will be heard. F8 OFF: the sound of coupling up will be heard.
F9	Light engine mode	With F9 ON, lighter chuffs will be heard, and the inertia will be reduced to simulate a lightly loaded engine or train. Use CV390 to determine the inertia change. As supplied, this has a value of 70.
F10	Firebox door open/close	F10 On: The sound of the firebox door being opened, together with the firebox flicker effect. F10 OFF, the sound of the firebox door closing and the 'firebox flicker' effect will extinguish.
F11	Safety valves	The sound of safety valves operating will continue until F11 is turned off
F12	Manual draincocks	Manual draincock sound whilst F12 is turned on.
F13	Distant whistle 1	The sound of a distant whistle. This can be used to give the impression of distance.
F14	Guard's whistle	
F15	Flange squeal	
F16	Rail 'crump'	The sound of rails 'groaning' and the wheel flanges squealing.
F17	More steam'	On pressing F17, the sound of coal shovelling and the injector will be heard.
F18	Distant whistle 2	The sound of a distant whistle. This can be used to give the impression of distance.

Table of manual sounds

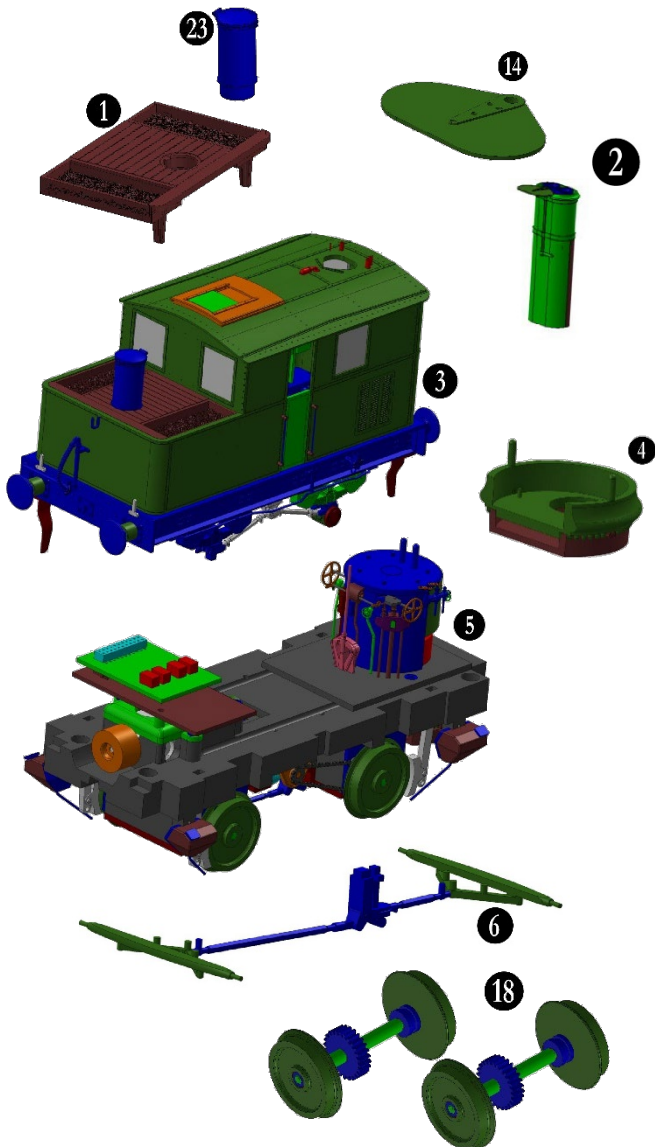
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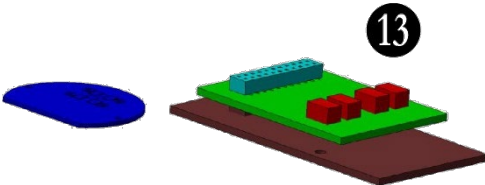
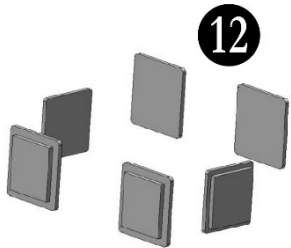
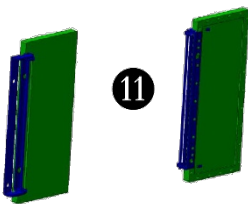
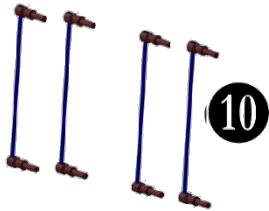
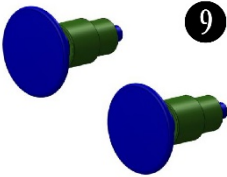
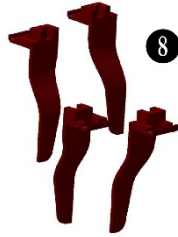
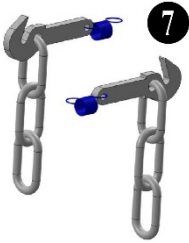
Automatic functions	Comments
Draincocks when starting off.	Operates as speed increases from 0 AND the locomotive has been static over 25 seconds
Brake squeal	Heard when the speed of the locomotive drops below the threshold AND the locomotive is decelerating. The threshold is set via CV287 and will reduce or increase the amount of brake squeal.
Chuff intensities.	There are 3 chuff intensities on this sound project. Heavy chuffs will be heard when the locomotive is accelerating. Lighter chuffs will be heard when the target speed is reached. On deceleration, no chuffs are heard.

Table of automatic sounds

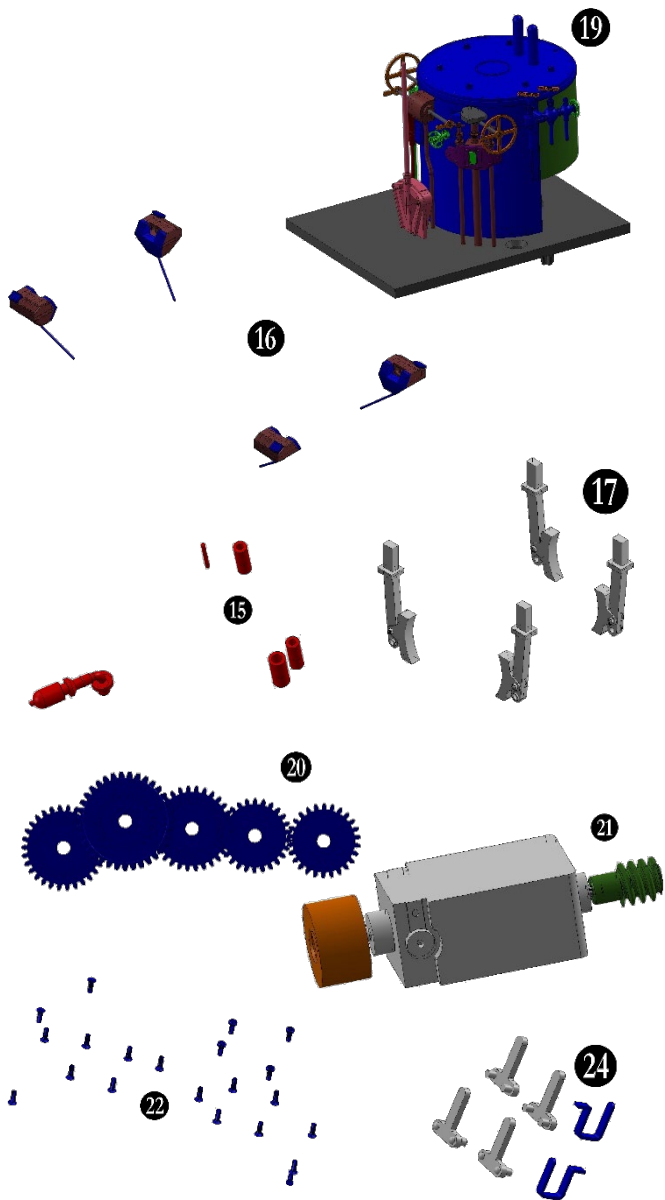
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Section D: Parts view





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Due to variances between liveries and original equipment not all spares are available for every livery. Please quote the part number of the model to ensure you receive correctly decorated parts.

Part	Description	Part Number
1	Bunker deck	114626
2	Chimney and rain flap	114627
3	Body shell assembly	114628
4	Ashpan	114629
5	Rolling chassis (motor and PCBs)	114630
6	Brake fret assembly	114631
7	Coupling hooks	114632
8	Guard iron set (4x)	114633
9	Buffers (2x)	114634
10	Cab handrail set (4x)	114635
11	Cab doors (2x)	114636
12	Cab glazing set	114637
13	PCB set with ashpan glow PCB	114638
14	Rain flap	114639
15	Cab roof detail set (Inc. Whistle)	114640
16	Sandbox set of 4 with pipes etc.	114641
17	Brake block Assembly (4x)	114642
18	Wheelset & gear assembly (2x)	114643
19	Boiler assembly	114644
20	Gear set	114645
21	Motor	114646
22	Screw set	114647
23	Filler pipe and cap (long or short)	114648
24	Lamp iron set (4 x footplate, 2 x body mounting)	114649

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Section E: 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. 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 warranty for your model.



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



VERY IMPORTANT: Please ensure that your dealer has supplied a proper printed receipt with your ...

(Cont.) 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.

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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 model locomotives 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 locomotive 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)
 - e. Routine maintenance and faults due to foreign bodies i.e. Drive tyres, Dirty wheels, Pickups etc.

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- 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.

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: www.dccsupplies.com FastLink: dapolspares.dccsupplies.com
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