



English Electric Class 40 1Co-Co1 Diesel Locomotive

Thank you for your choice of the Bachmann Branchline Class 40 diesel locomotive.

General

The mechanism of this model requires running in (without a load) for approximately 1 hour, in each direction, at moderate speed to allow the gear train to bed in.

Bachmann Branchline locomotives are not suitable for use on track tighter than second radius (approx. 18 inches).

Body removal

Remove the screws indicated the bogies and at each end of the locomotive

DCC Decoder fitting to non DCC fitted loco

This model has a 21-pin interface for a decoder with an appropriate fitting. Fit the decoder as indicated with the black socket fitting uppermost. It is recommended that the running in as above be carried out using a DC power supply before moving on to fit a DCC decoder. If this is a 'DCC Onboard' or 'DCC Sound' model please also refer the accompanying DCC instruction sheet.

Lights

When the locomotive is fitted with a DCC decoder the lights can be turned on/off with these handset keys:

F0 Directional head and tail lights

F1 Cablights

The tail lights and / or cablights can be separately turned off using the switches beneath the fuel/water tank

Lubrication

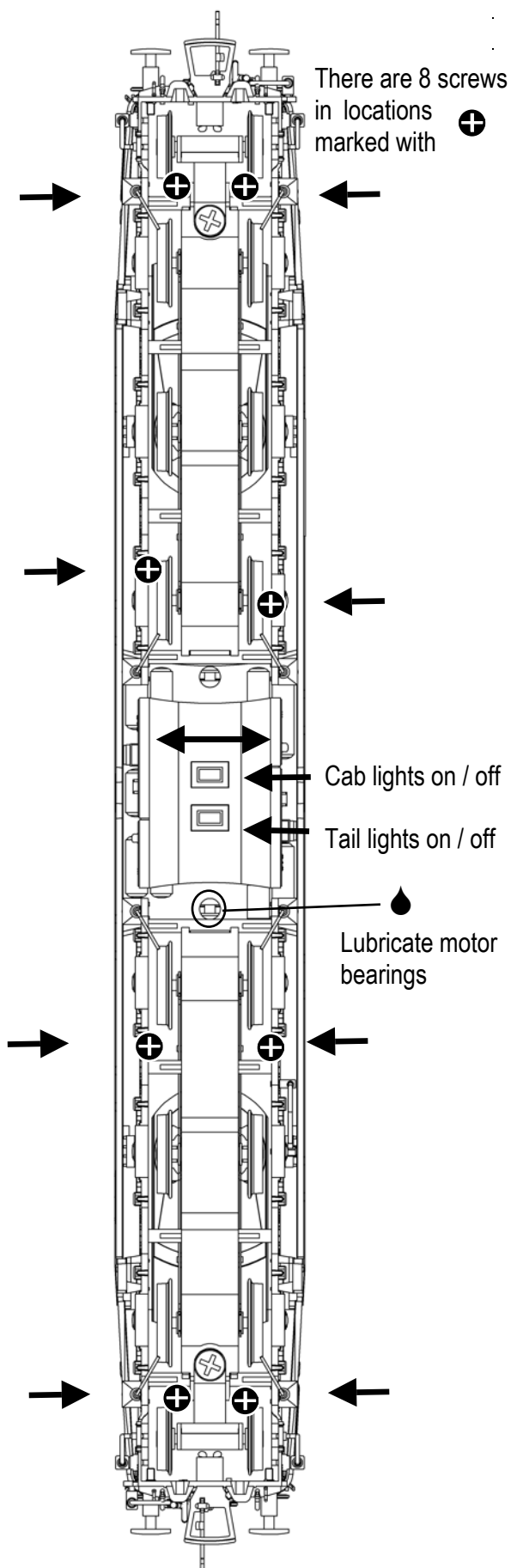
When required, sparingly lubricate the motor bearings using plastic compatible light oil and the gear train with model grease as indicated on the diagram.

Bufferbeam parts

The brake pipes fit as shown on the diagram. The pipes are not suitable for use with the functional coupler on tight curves.

The model should be handled carefully as it has many finely detailed parts. It is not suitable for persons under 14 years.

Location of body fixing screws



Replacement Parts

- | | |
|----|-------------------------|
| 1 | 475-006 motor |
| 2 | 475-008 PCB |
| 3 | 475-010 motor bracket |
| 4 | 475-009 driveshaft |
| 5 | 475-013 underframe |
| 6 | 475-013 bogie tower top |
| 7 | 475-032 driving wheels |
| 8 | 475-022 bogie |
| 9 | BL2007 drive cup |
| 10 | 475-030 bogie frame |

A spare blanking board is included with DCC decoder fitted models

When ordering parts please quote the catalogue number together with the livery of the model (if appropriate) and number of the part required.

Parts are subject to availability.

Packets of couplers (item 36-030) suitable for this model are available from retailers

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12V

Headcode discs

A selection of disc headcode arrangements applicable to the Class 40s with discs

○ open disc ◐ closed disc

○ ◐ ○ Express passenger

○
◐ ◐ Ordinary / branch passenger

◐ ○ ○ Fully brake fitted parcels / perishables

◐ ○ ◐ Express freight

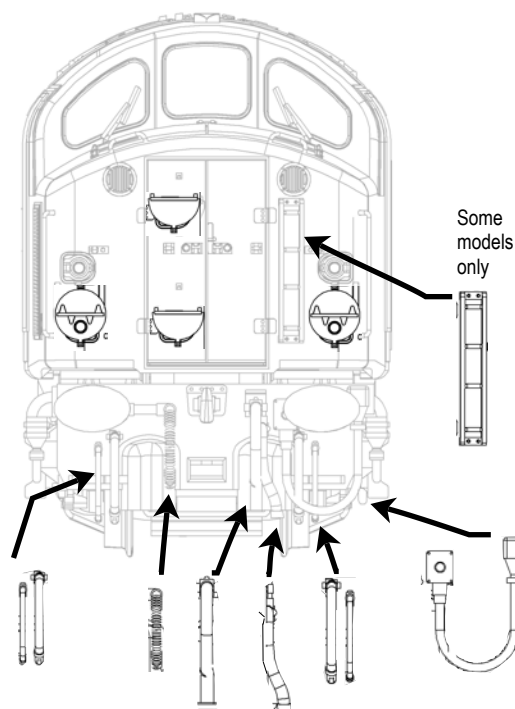
○
◐ ◐ Freight, mineral, or ballast.

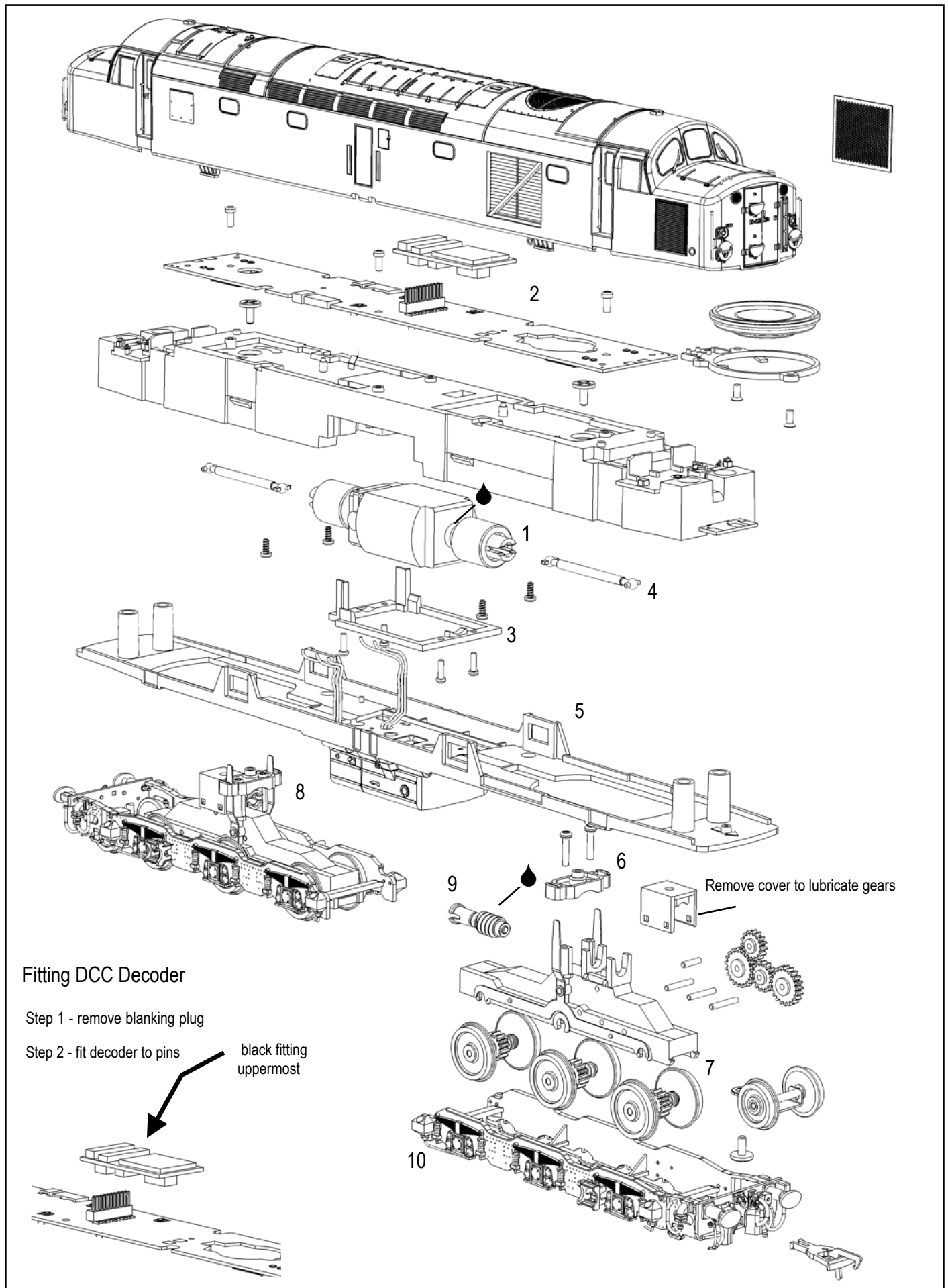
◐ ○ ○ Light engine(s)

◐
○ ◐ Freight, mineral or ballast stopping at intermediate stations

◐
◐ ○ Ballast or freight stopping in section
Branch freight.

Location for add on parts







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IMPORTANT - please read this sheet before running your locomotive

Features

- Complies with NMRA DCC requirements
- Automatic detection of speed steps (14, 28, 128 steps)
- 2-digit and 4-digit addresses
- Program on main or programming track
- Uses 4ohm speakers

Technical specification

Current carrying capacity:

Motor Output 1.1A

Function outputs 250mA each, 500mA total

Speed steps 14, 28, 128

Addresses 1-9999

Dimensions 31 x 15.5 x 6.5

CV Programming

The full CV list for the LokSound 4 is available from www.bachmann.co.uk.

Hints for using the model

Select the address of the loco (default is 03).

When ready to start press F5 to turn on the fuel pump, then F1 on for engine warm start, F1 on / off for a failed start or F1 on / off / on for a cold start.

Wait for the loco to settle into an idle rhythm then press F4 brakes off and increase the throttle to speed step 9/14 if in a yard, to 15/30 if pulling a train on a small layout or 30 upwards if on a large or continuous layout. Reducing or closing the throttle just a few digits will coast or return to running sound according to throttle position. If more power is

required open up again, but be patient to allow the sounds to play.

If buffering up stop approx 2 inches in front of your train. Open the throttle slowly wait for buffer contact and press F4 on (Train brake on). Return throttle to zero, wait for 5 seconds and the press F6 coupling. Your train is now coupled and ready to depart.

At the end of your running session reduce the throttle to zero and allow the loco to idle for approx 10 seconds before pressing F13 air dryer and then F1 for shut down. Wait 5 seconds and turn off F5 and F13 when ready.

Be patient and wait for the sound to reach your throttle position before making sudden changes, drive to the sound produced by the model.

Sound functions

F0	Loco lights on/off
F1	Engine on / off (If pressed whilst on move sound will fade in / out)
F2	Horn 1
F3	Horn 2
F4	Brakes on / off
F5	Fuel pump on / off
F6	Coupling
F7	Cab lights
F8	AUX 2 (no feature on this model)
F9	Flange squeal
F10	Guard Whistle
F11	Notch up
F12	Notch down
F13	Air dryer
F14	Fan
Random	Fan and compressor
Note	Starting: press F5 pump on F1 on warm start F1 on - off failed start F1 on - off - on cold start

CV	Name	Min	Max	Default
1	Primary Address	1	127	3
2	Start voltage Sets minimum speed	1	255	
3	Acceleration rate	1	255	
4	Deceleration rate	1	255	
5	Max voltage sets maximum speed	0	64	
6	Medium speed	0	64	
7	Version number		255	
8	Manufacturer ID		151	
29	Configuration (see below)			14
63	Volume	0	192	128
	Decoder reset: write a value of 8 to CV8			

CV 29 Summary		Default				
Bit	Feature	14	Effect when bit is set to 0	Effect when bit is set to 1		Decimal value when set
0	Direction of operation	0	Normal	Reversed	0	1
1	Speed steps	1	14	28/128	0	2
2	DC Operation	1	Disabled	Enabled	0	4
3	Railcom	1	Disabled	Enabled	0	8
4	Speed curve selection	0	CVs 2,5,6	CVs 67 – 96	0	16
5	Short / long address	0	Short (CV1)	Long (CVs 17/18)	0	32
6		0				
7		0				

Add the decimal values of the bits to be set and write this to CV29