81, G and BL Classes

Maintenance Notes

Fitting Detail Parts
Your Powerline Model is provided with a number of detail parts including steps and brake wheels for the bogies and MU ("Multiple Unit") cables for the cab ends.

81 Class
(Models are marked 8101 to 8184)
Bogie steps and handbrake wheels are provided and should be fitted as per the diagram below. Note that steps come in "Left-hand" and "Right-hand" versions. ZAP-A-GAP® or similar "superglue" is recommended.

MU cables are provided for the cab ends. These should be glued into the chassis, using "plastic cement" and left to "sit" unglued in the body. Take care not to damage these cables when removing or replacing the body.

G1 and BL Class
(Models are marked G511 to G515 and BL26 to BL35)

Bogie steps and auxillary control houses are provided.

Note that steps come in "Left-hand" and "Right-hand" versions and should be glued with ZAP-A-GAP® into the locating holes at the coupler ends of the bogies.

The a.c. hoses also come in left and right hand versions and are fitted to the pilots – one each side of the coupler and with the large tab towards the coupler – using "plastic cement".

G1 and BL Class models also include cab end MU cables which were not fitted to these locos when built. All locos have since been fitted and modellers may find these cables useful if they want to "kit bash".

G2 Class
(Models are marked G516 to G525)

All details supplied are the same as G1/BL, and are fitted the same, as with the G1 and BL Class models. The only difference is that G2's had the MU cable fitted when built and therefore the model has mounting holes on the cab ends for the mouldings to be glued in with "plastic cement".

Lubrication
Your Powerline Model Locomotive is thoroughly lubricated during production, however for best performance and motor life it is advisable to very lightly lubricate the model after every 10 running hours.

The most important thing to remember about lubrication is **not to over do it, and ensure it is a plastic compatible oil**. Too much oil will result in poor electrical contact, oily track, damaged traction tyres and possibly motor damage. A non plastic compatible oil can damage gears and other damage to plastic parts it comes into contact with.

To lubricate your loco:

1. Using the original box liner as a cradle, turn the loco upside down (watch out for horn damage) and remove two Phillips head screws in the chassis, one at each end of the fuel tank. The body will cleanly separate from the chassis.

2. Using a pin or very small watchmakers screwdriver (1mm blade) apply a drop of "sewing machine", special "model locomotive oil" (available from your dealer), or similar light machine oil to each motor bearing and a little more to the worm gear. A further small drop should be applied to the ends of the gear axles.

3. You can now turn the chassis over and place one small drop of oil on the main axles behind each wheel.

4. Test run the chassis before re-attaching to the body.

5. If you experience poor electrical contact after oiling the wheels, or at any other time, clean the wheels and pickups in accordance with the traction tyre fitting instructions below.

6. When re-attaching the body note that it has a "front" and a "back" and the body securing screws are offset so that if you put it on the wrong way around it will not fit.

Replacing Traction Tyres

NB: Only use genuine Powerline P1206 traction tyres.

1. Place the loco upside down in the original foam packing tray – which will help protect the top of the loco.

2. Unto the coupling screw on the relevant bogie and remove the coupling.

3. Undo the three screws on the underside of the bogie and remove the side-frame moulding. The wheels and possibly the intermediate drive gears will now fall out.

4. Remove the old tyres with a small watch-makers screwdriver (1mm blade) or the tip of a pen-knife blade.

5. Clean the wheel set (including the axle) free of all oil and dirt using a facial tissue. A track cleaning rubber may be used to remove dirt from the un-tyred wheel.

6. You can now stretch the new tyre onto the wheel, making sure it fits cleanly and smoothly into the groove and there are no bumps left in the tyre.

7. Clean the pickup strip with a facial tissue.

8. Re-assemble the bogie taking note of the relationship of the pickup strip to the axles as shown in the diagram. It works best by slipping the centre wheels into the pickup strip first and then laying the outer wheels on top. Take care that the intermediate drive gears go into their correct positions.

Replacing Light Bulbs

Powerline 81, G and BL Class models are fitted with “constant brightness” reversing headlights and red and white tail lights. This means that the lights start to glow (at close to their full brightness) in the direction of travel when only a few volts are applied to the track, and will not get too bright at full speed.

On 81 and G2 Class models, the centre globe is for the headlight and the white marker lights, and the two outer globes are for the red marker lights. On G1 and BL Class models, the two outer globes are for the headlight and the white marker lights, and the centre globe is for the red marker lights. G1/BL have two wires in one hole at each end.

Use only 1.5V (ONE POINT FIVE VOLT, NOT 12 VOLT) “grain of wheat” bulbs (Powerline P1209C) replacement globes.

1. Release the bogie at the relevant end by unscrewing the coupling plus the bogie pivot screw (through the printed circuit board).

2. The bogie can stay attached to the PCB by the linking wires, but be careful not to damage the soldered connections.

3. Unsolder the wires from the failed light globe and pull them out through the underside of the PCB.

4. Remove the globe by pulling the PCB end of the wire out through the bottom of the chassis and then pulling the bulb and wire out through the top of the chassis.

5. Fit the new globe from above, and return the wire up through the chassis, trimming with about 10mm of “slack” and soldering back onto the PCB.

6. Refit the bogie and test run the chassis before re-attaching the body.