BUFFERS MODEL RAILWAYS 01297 35557

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How to fit a DCC decoder to one of our Exclusive 00 gauge GWR Halls

DCC fitting one of our beautiful limited edition Halls is very easy and is a great introduction into 'chipping' DCC ready locos. You only need a couple of tools and about quarter of an hour to complete this task.

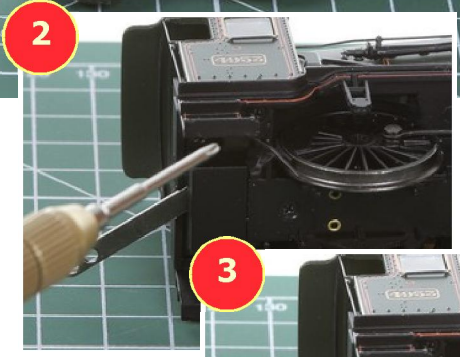
First of all we need to separate the body from the chassis. On these Bachmann Halls, there are three screws that need to be removed in order to achieve this goal.

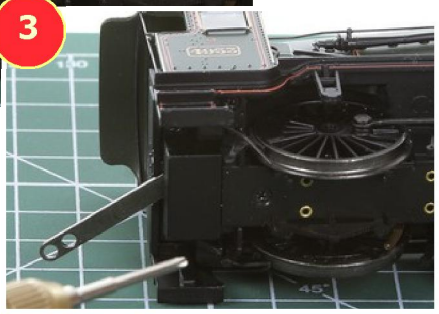
The first is located dead centre under the front pony truck and can be accessed via a slot in the trucks leading edge. (Picture 1).

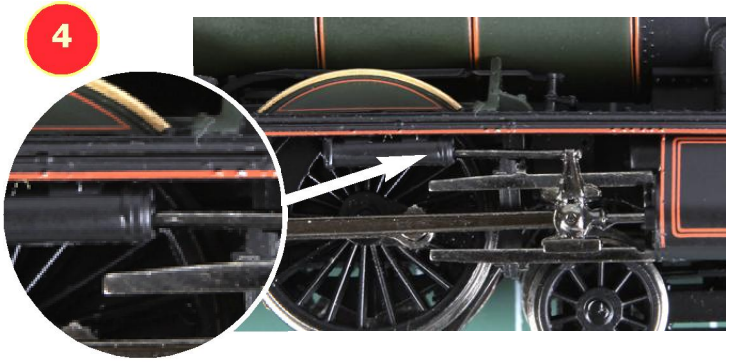
The two remaining screws are located at the rear ether side of the draw bar as indicated in pictures 2 and 3.

Once removed the chassis can be pulled clear of the body being very careful not to break the rod on the right hand motion as shown in picture 4.

Don't panic when the draw bar falls off as this is quite normal.

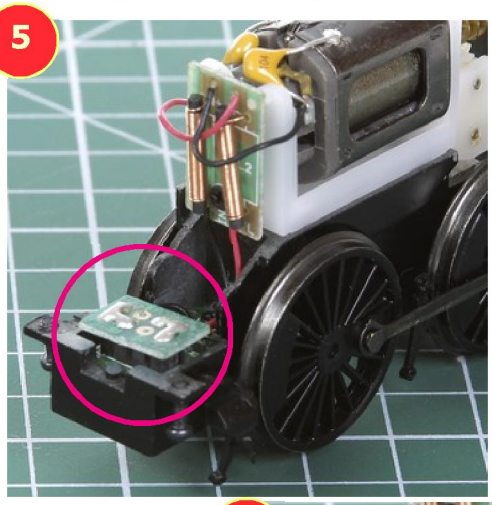






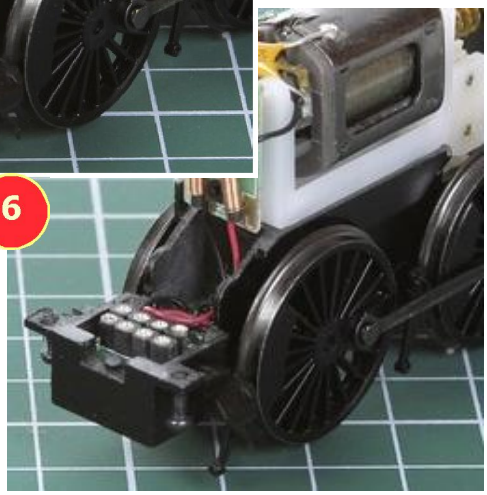
Once the body has been separated, set it aside in a safe place where it will not get damaged.

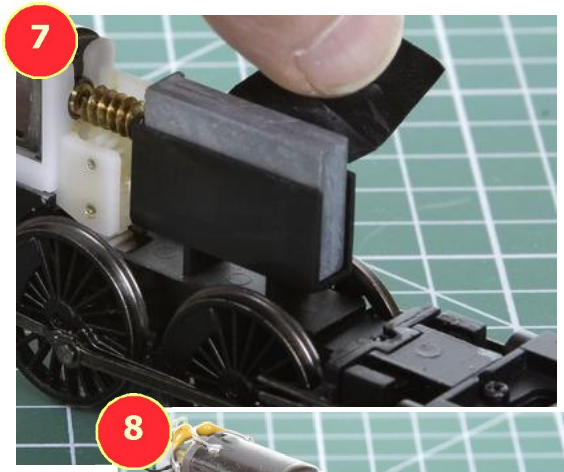
As you look at the rear of the locomotive, you will see the DCC blanking plate (circled in picture 5). This is required in order to allow the locomotive to run on 12v analogue layouts we, however do not need it anymore as we are converting it to DCC.



Carefully prize the blanking plate out of the decoder 8 pin socket. To facilitate this, you can slide a pair of tweezers from the rear and under the blanking plate, and, as you push the tweezers toward the motor, the plate will simply rise out of the socket.

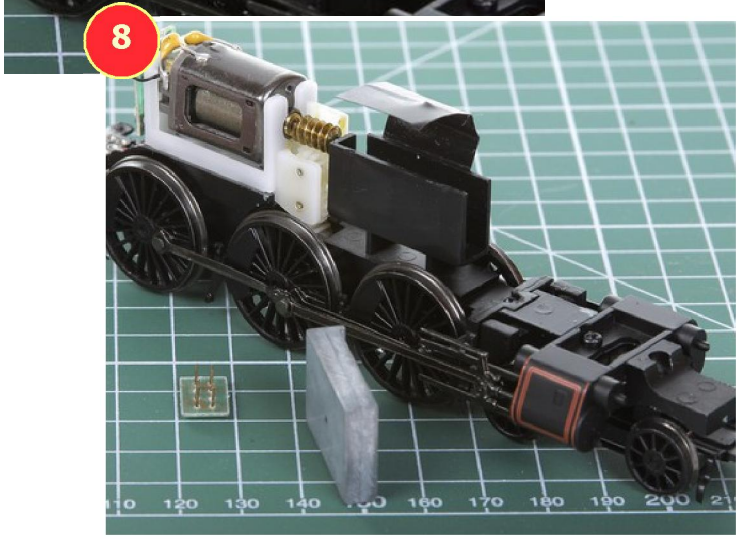
Once out, place the blanking plate in a safe place, for instance you can push it into the polystyrene inlay in which the locomotive came in.

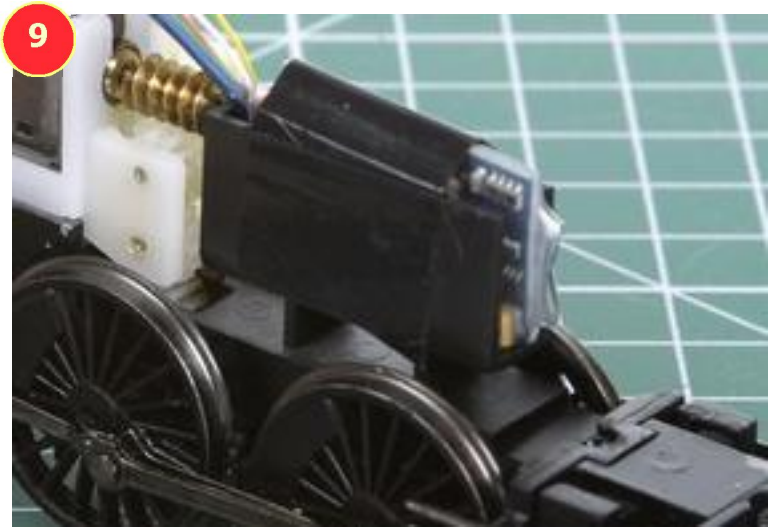




Now peel back the insulating tape that holds the additional weight into the centre of the chassis, lift out the weight and set it aside as we no longer need it (Pictures 7 and 8).

Insert the decoder into the now empty slot (decoder/weight-housing) and stick the tape back down to hold it in place (picture 9).

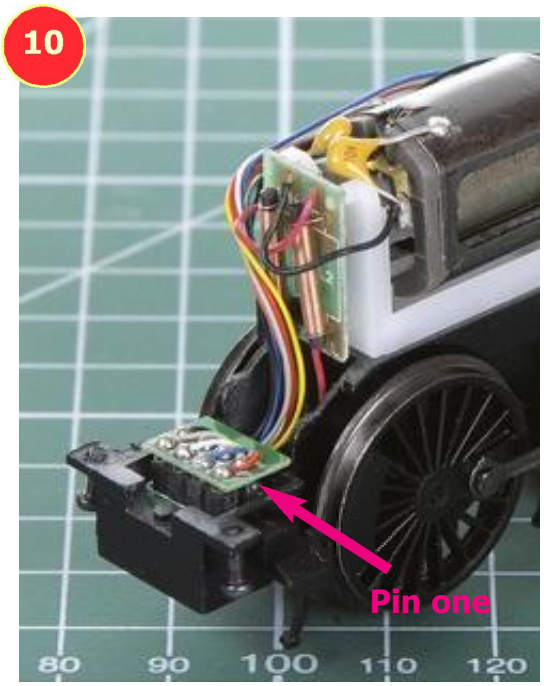




Route the wires back along the left hand side of the motor and push the 8 pin plug into the decoder socket noting that Pin 1 is at the end of the socket to the right (arrowed) and should correspond with the orange wire on the plug. (Picture 10).

The socket does confirm this as you should just be able to see the number 1 printed on the PCB (Printed Circuit Board) to which the socket is soldered.

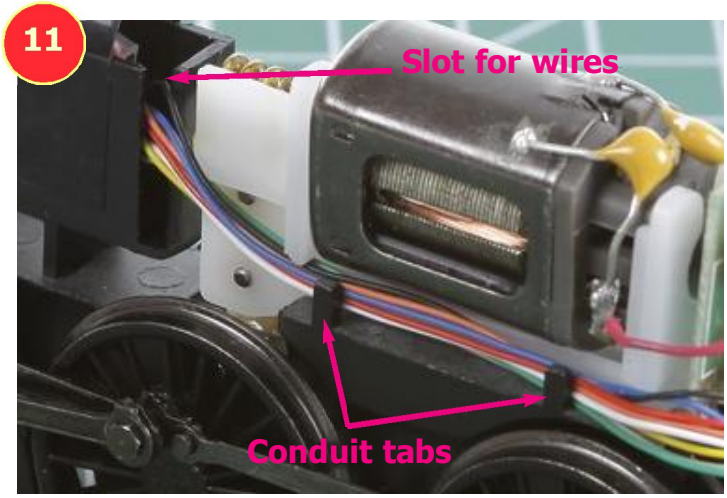
Take a good look at the plug and confirm that it has pushed all the way home and that none of the pins look out of place.



Now all that is left to do is to route the wires so that they do not snag on the moving parts of the motion mechanics. Thankfully, there is a purpose built conduit provided at the base of the motor on the left hand side.

Simply slip the wires behind the black tabs (Picture 11) and under the motor's frame to ensure they stay put. Note the cut out provided in the decoder housing through which the wires can exit.

Confirm that the worm drive and motor can not interfere with the wires.



Now would be a good time to test your installation so put the DCC chassis onto your layout and select locomotive number 3 (all new decoder's come pre programmed with this number). See your controller's manual "selecting a locomotive" section for further details. Run the chassis in both directions for a while.

Once you are happy with the installation, refit the body which is the reverse of the removal procedure. Don't forget to re insert the draw bar.

That's it you are done, you can now enjoy your new Buffers exclusive Hall in full DCC mode.

To further enhance the installation you may wish to do all or some of the following modifications:

1) Add additional weight to the locomotives body shell using *Deluxe Materials BD-38 Liquid Gravity.*
2) Change the following CVs to these values: CV2=3, CV5=63, CV54=12 and CV55=63.
3) Remove all the capacitors and chokes from the PCB on the back of the motor - this actually does improve running and to a lesser extent pulling power, we recommend this practice for all conversions. Be aware you will need to also move the wires or provide jumpers in place of the the chokes. (if enough interest in this is shown we will add a page showing how this is done.)

Model shown is a Bachmann 32-003Z *"Pitchford Hall"* and is exclusive to Buffers Model Railways Ltd.
Decoder shown is a Bachmann 36-553 8 pin, 3 function decoder, but any of the decoders we offer will work just fine.
Tools required - Mat, Philips number 00 screwdriver (Tweezers optional for the fiddly bits).