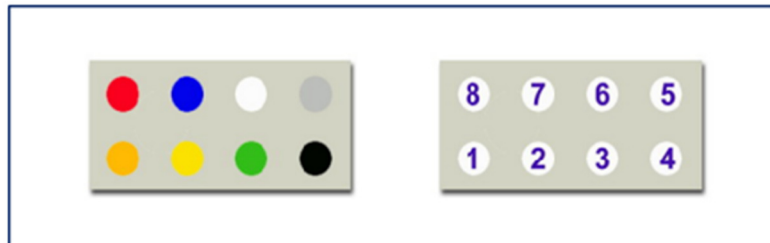


Basic wiring and description of related wire colour codes

Whilst locomotive manufacturers may not always follow correct colour codes, they do generally comply with the standards covering the use of “DCC ready” decoder sockets within locomotives.

This illustration shows the correct connection structure for an NMRA compatible 8 pin plug when it is viewed from the top (wire side) of the decoder plug, and therefore also represents the socket viewed from the top.



To make it easier for you to correctly insert the plug first time, manufacturers will usually mark the #1 or Orange pin with an asterisk, a star or the number 1. Look carefully... it's not always obvious!

Accidentally inserting the plug wrong way round will not harm the locomotive or decoder, however the loco will run backwards when the control system indicates forwards and lighting will not work correctly.

If this happens simply remove carefully, rotate it 180 degrees and re-insert.

Where we mention left or right side of the loco, it is relative to the view from the loco drivers cab.

| Pin Number | Colour | Operation |
|------------|--------|---|
| 1 | Orange | Motor wire, usually the top or right brush. |
| 2 | Yellow | Rear light function (also known as function 2). Default setting, operate with “light” button |
| 3 | Green | Function 3 (also known as Aux 1). Default setting, operate with Function1 button |
| 4 | Black | To track/Loco pickups, By convention usually the left side of the loco |
| 5 | Grey | Motor wire, usually the lower or left brush |
| 6 | White | Front light function (also known as function 1). Default setting, operate with “light” button |
| 7 | Blue | Common positive wire for all active functions. |
| 8 | Red | To track/Loco pickups, By convention usually the right side of the loco |

4 Function decoders also have a purple wire which is not attached to the connector. This is used for activating a 4th active function and should also be paired with the blue wire to complete a circuit. Default settings have this function operated with Function 2 button. If you do not use this wire, insulate it.