

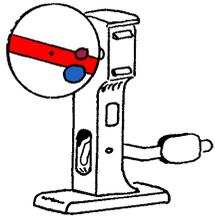
MODEL SIGNAL ENGINEERING



Part of WIZARD MODELS LIMITED
 PO BOX 70 BARTON upon HUMBER DN18 5XY
 01652 635885 www.wizardmodels.ltd

SCALE	CODE	
7mm	GS09	

LMS GROUND SIGNALS



1934 Westinghouse single disc pattern

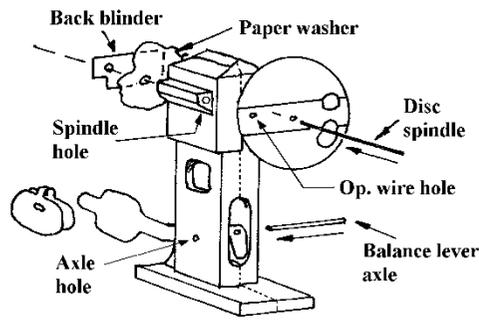
Cast & etched parts for two signals

This pattern of ground signal was introduced by the LMS in 1934 as a replacement for the existing pre-Grouping variety. In turn, it was replaced in 1941 by a new, stackable design. Some are probably still in use today.

Assembly instructions:

The parts are designed for soldered assembly. Use a 25-40W pencil bit iron with 70° and 145° solders and a liquid flux. Burnish both sides of the fret before removing any parts. The signals (but not the balance weights) are intended to operate.

If the signal is to operate, drill a no.76 (0.50mm) hole in the disc face as indicated. Open out the spindle hole in the disc centre to no.72 (0.65mm). From the rear, solder (145°) in a 2cm long spindle made from the straightened 23swg nickel silver wire. Clean up the disc's front face.



Clean any mould lines or flash from the body castings, and solder (70°) them together. Open out the marked holes to no.72 (0.65mm), although for a working signal, the arm bearing is best replaced with a suitable piece of brass tube. Open out the holes in the corner of the etched balance lever and the back blinder to no.72 (0.65mm). Tin (145°) the balance weight, fold it in half, and solder (145°) it to the lever as shown, with the holes to the top.

Push a 23swg nickel silver axle through the holes in the body, trapping the balance lever with the weight to the rear and the crank pointing downwards. Solder (70°) the axle to both sides of the casting. Remove any excess wire and tidy up.

Wash the two assemblies thoroughly in detergent water. Spray the disc assembly with white matt car primer, then add the horizontal red band (yellow for signals that could be passed at danger, e.g. into a head shunt - note that signals in areas with overhead lighting often had the face of the disc painted black, to make the yellow band more visible). Using the material supplied and MSE's GSA adhesive or gloss varnish, glaze the top spectacle hole red or yellow to match the stripe, and the lower one green. Spray the body assembly with matt black car primer.

Insert the disc spindle into its bearing, then with a paper washer over the end against the casting, solder (70°) the back blinder to the spindle. Tear away the paper washer, and paint the back blinder white. Lightly oil the spindle bearing. The signal is now ready for installation and connection to your chosen means of operation via a 0.45mm operating wire.