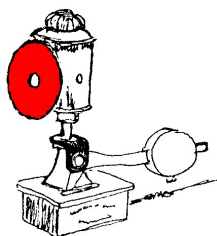


McKENZIE & HOLLAND GROUND SIGNALS



Cast & etched parts for two signals

For the NER, GER, GCR, HR etc.

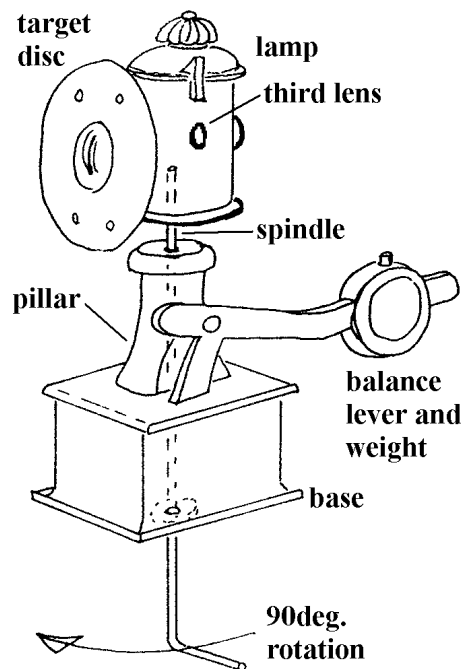
This kit represents the standard McKenzie & Holland rotating ground signal, as supplied to a large number of railway companies. Many were still in use in BR days, but the type is now extinct on Network Rail. Note that the LNER modernised some on its territory by fitting them with a square-cased lamp (available as MSE SC025).

The parts are designed for soldered assembly. Use a 25-50W 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 levers) are intended to operate.

Parts supplied:

Etched brass fret of target discs
2 x cast whitmetal bases
2 x cast whitmetal lamps
2 x cast whitmetal balance levers
2 x 0.7mm dia. x 6cm spindle wire
1.2mm dia. x 1cm lens wire

Assembly instructions:



The lamp:

Orient the lamp with the lid clip vertical and the larger lens to the left. Drill 1.2mm below the clip, level with the lens centre line as shown above. Solder in the 1.2mm wire, cut it close to the lamp surface, and then file smooth. This provides the lamp's missing third lens. Remember to save the remaining wire for the second lamp!

Drill the centre of the lamp base spigot to 0.7mm. Solder in the 0.7mm wire spindle, taking great care to keep it concentric. Solder

the target disc around the more rounded lamp lens. You may wish to punch out the four bolt heads first.

The base:

Remove any flash from the bottom. From the top, carefully drill 0.75mm down the centre of the pillar and right through the entire casting. Insert the spindle, and check for free rotation.

The balance lever and bracket:

The balance lever may be attached to either side of the base, but always points to the rear. Solder it to the top of the base, with the centre hole in line with the pillar.

Painting:

Wash the two assemblies thoroughly. The lamp and base were usually painted white, grey or black, so prime and topcoat accordingly. The target front is either red, or yellow for signals that could be passed at danger, such as those leading into a headshunt. With a black lamp, it was usual to paint a white rectangle around the third lens, to provide a more visible daytime indication. Touch in each lens with silver.

Final assembly:

Drill a 1mm hole in the baseboard at the correct location. With some suitable glue on the bottom of the base, insert the spindle into the base and through the baseboard hole and stick the base to the baseboard. Temporarily remove the spindle until the glue has set.

Replace the spindle and push a piece of stripped wire insulation onto the spindle from below, to act as a retaining washer. The spindle may then be coupled to a crank and connected to your chosen means of operation.