

NATO Trailer Socket

by **Clive Elliott**

Unfortunately circuit diagrams in User Handbooks do not generally include the connections for the NATO trailer socket. Perhaps it is just as well because many of the circuit diagrams are of appalling quality, and some have errors, which rather shatters ones faith in the whole publication. However with a multimeter, one can soon sort which lead is which, but there are a few connections which are not so obvious, or are not reciprocated in the trailer plug. Particularly pins C & H, which have no connection on the trailer plug, and pin F which sometimes is treated as a spare connection. Pin L is used in certain vehicles so that when the trailer is plugged in, an earth connection is completed allowing a relay to energise in the towing vehicle; this switches additional power to the trailer turn-lights. Most turn-light flashers are based on a bi-metal strip, which is dependent on the resistance of the turn-light bulbs. In some applications the flasher would not work properly having an additional load from the trailer turn-lights, so a relay is required.

It is quite difficult to find an authoritative guide to the connections, Electrical & Mechanical Engineering Regulations (EMERs), Wheeled Vehicles Section A 027 covers the conversion of a wide range of vehicles to the NATO trailer socket in 1963-68, although the use of some of the pins varies. At last I have found the official requirements which are in EMER Workshops Section F 100 Chapter 105, there is also info in Defence Standard 25-5.

<u>Pin</u>	<u>Self-propelled vehicles</u>	<u>Trailers & towed equipments</u>
A	CONVOY LIGHT (to be interconnected with C & H)	CONVOY LIGHT
B	LEFT-HAND STOP LIGHT	LEFT-HAND STOP LIGHT
C	To be interconnected with A & H	NO CONNECTION
D	EARTH	EARTH
E	REAR LIGHTS	SIDE & REAR LIGHTS
F	BLACKOUT STOP LIGHT	BLACKOUT STOP LIGHT
H	To be interconnected with A & C	NO CONNECTION
J	RIGHT-HAND STOP LIGHT	RIGHT-HAND STOP LIGHT
K	12V or 24V feed	12V or 24V feed
L	RESERVED	EARTH
M	LEFT-HAND TURN LIGHT	LEFT-HAND TURN LIGHT
N	RIGHT-HAND TURN LIGHT	RIGHT-HAND TURN LIGHT

If desired by a particular nation, pin L on tractors or prime movers only may be used for compensation purposes where pins M and N are used for Turn Signal Circuits.

This item is exempt from the keyway earthing requirement, where normally the EARTH contact should be directly above or nearest to the locating keyway, (or master keyway in the case of multi-keyway types).

View looking at socket mating surface:

