

Révisé

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1724

ELECTRICAL CONNECTIONS FOR VEHICLES WITH 6 OR 12 V ELECTRICAL EQUIPMENT
PARTICULARLY FOR PRIVATE MOTOR-CARS AND LIGHT TRAILERS OR CARAVANS

1st EDITION

April 1970

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BRIEF HISTORY

The ISO Recommendation R 1724, *Electrical connections for vehicles with 6 or 12 V electrical equipment particularly for private motor-cars and light trailers or caravans*, was drawn up by Technical Committee ISO/TC 22, *Automobiles*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question led to the adoption of Draft ISO Recommendation No. 1724, which was circulated to all the ISO Member Bodies for enquiry in October 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Italy	Switzerland
Belgium	Netherlands	Thailand
Chile	New Zealand	U.A.R.
France	Portugal	United Kingdom
Greece	Romania	U.S.A.
Hungary	Spain	U.S.S.R.
Israel	Sweden	

The following Member Body opposed the approval of the Draft :

Germany

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

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ISO Recommendation

R 1724

April 1970

ELECTRICAL CONNECTIONS FOR VEHICLES WITH 6 OR 12 V ELECTRICAL EQUIPMENT PARTICULARLY FOR PRIVATE MOTOR-CARS AND LIGHT TRAILERS OR CARAVANS

1. SCOPE

This ISO Recommendation establishes the specifications which will permit, by means of a connector socket and a plug, the interchangeability of electrical connections between prime movers and towed vehicles (see Fig. 3).

The connector socket which is described hereafter applies more particularly to light towing vehicles or private motor-cars, and light trailers or caravans.

2. FIELD OF APPLICATION

These specifications apply to vehicles with electrical equipment operating at a nominal voltage of 6 or 12 V.

3. GENERAL REQUIREMENTS

3.1 Number of necessary contacts

The essential signalling lights which warrant road security require six contacts, the functions of which are :

- 1 - Left hand direction indicator
- 2 - Spare*
- 3 - Common return
- 4 - Right hand direction indicator
- 5 - Right hand tail and marker lamps and number plate lamp
- 6 - Stop lamp
- 7 - Left hand tail and marker lamps.

A seven-contact plug can be adopted. It is desirable to have one contact in reserve.

3.2 Basis for the specifications

The standard DIN 72 577 was taken as a basis for the following specifications.

3.3 Arrangement of the contacts

The arrangement of the contacts is shown on Figures 1 and 2 (socket and plug).

The numbers shown correspond to those indicated in clause 3.1 : number of necessary contacts.

* A specific purpose might be found for the contact in reserve, which will be mentioned when necessary in an addendum to this ISO Recommendation.

3.4 Socket

The socket is attached to the rear of the towing vehicle.

It is provided with :

- 4 sockets numbered 1, 3, 4, 6
- 3 spring pins numbered 2, 5, 7.

The diameter of the pins should be such that the corresponding sockets may be connected with a moderate push, but they should ensure a good electrical contact.

The contact designations should be permanently marked on the inside of the socket cover and on the terminal face in digits not less than 2 mm high.

These marks, which are not necessarily numbers, may be different from those indicated on Figures 1 and 2 of this ISO Recommendation.

Contact No. 3 should be insulated, as are the other contacts. After fitting, it should be connected to the common earth return of the vehicle by a special connection.

The rear terminals of the contact pins should be capable of receiving two conductors of 1.5 mm² area respectively.

Ferrous metallic parts of the socket should be adequately protected against corrosion.

Socket and pin design details are given on Figure 1. Pins should be able to spring back over a minimum length of 8.5 mm.

The socket should be provided with a water-tight cover which should close automatically when the plug is disengaged. The hinged cover on the socket should be provided with a register to retain the plug when it is engaged.

3.5 Plug

The plug is integral with the trailer and is provided with :

- 4 pins numbered 1, 3, 4, 6
- 3 sockets numbered 2, 5, 7.

The pins and sockets of the plug correspond to the pins and sockets of the socket.

The diameter of the pins should be such that the corresponding sockets may be connected with a moderate effort, but they should ensure a good electrical contact.

The contact designations should be permanently marked on the terminal face of the plug in digits not less than 2 mm high, on the connecting cable side.

The rear terminals of the contact pins should be capable of receiving two conductors of 1.5 mm² respectively.

Ferrous metallic parts of the plug should be adequately protected against corrosion.

The manufacturer may choose the appropriate method for connecting and sealing the cable.