

SURFACE VEHICLE RECOMMENDED PRACTICE

Submitted for recognition as an American National Standard

SAE J895

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Five Conductor Electrical Connectors for Automotive Type Trailers

Foreword—This document has been changed only to reflect the new SAE Technical Standards Board format. Definitions were added as Section 2. All other section numbers have changed accordingly.

1. **Scope**—This SAE Recommended Practice covers the wiring and connector standards for nonpassenger carrying trailers, SAE Classes 1–3¹, with circuit loads not to exceed 7.5 amp per circuit. It provides the lighting circuits of these trailers with a universal connecting device, standard circuit coding and protection for the wiring from hazards and shorts.

2. References

2.1 **Applicable Publication**—The following publication forms a part of the specification to the extent specified herein. Unless otherwise indicated, the latest revision of SAE publications shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J684—Trailer Couplings, Hitches and Safety Chains—Automotive Type

3. **Receptacle**—The receptacle shall be of the design as shown in Figure 1 and shall be attached to the towing vehicle as follows:

- a. White - Ground to frame
- b. Brown - Spliced to tail and license light circuit
- c. Yellow - Spliced to left turn and stop circuit
- d. Green - Spliced to right turn and stop circuit
- e. Blue - Auxiliary

The receptacle leads shall be attached to the vehicle wiring harness in a workmanlike manner, mechanically and electrically secure. Further, a well insulated strain relief shall be provided between the receptacle and the towing vehicle wiring harness connections so that there will be no strain on the vehicle harness in the event of an abnormal pull on the receptacle. The receptacle shall be placed in a location where it will not be exposed to road hazards either when connected or loose. The receptacle leads must be properly routed and protected against damage from cutting and pinching where they leave the vehicle body. No receptacle leads shall be smaller than 16 gage (single) or smaller than 18 gage (in multiconductor cables) heavy duty SAE insulated automotive primary wire.

1. See SAE J684

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4. **Plug**—The plug shall be as shown in Figure 2, and wiring, shall be attached to the trailer so that the wires have the maximum protection against road splash, stones, abrasion, grease, oil, and fuel. The wiring shall be secured to the trailer frame at intervals not greater than 18 in so that the wiring does not shift or sag. The circuits used shall be color coded as follows:

- a. White - Ground
- b. Brown - The tail and license light
- c. Yellow - Left turn and stop light
- d. Green - Right turn and stop light
- e. Blue - Auxiliary

No plug leads shall be smaller than 16 gage (single) or smaller than 18 gage (in multiconductor cables) heavy duty SAE insulated automotive primary wire. Extra insulation should be provided between the strain relief at the trailer hitch and the wiring assembly so that an abnormal pull on the plug will not damage the wiring.

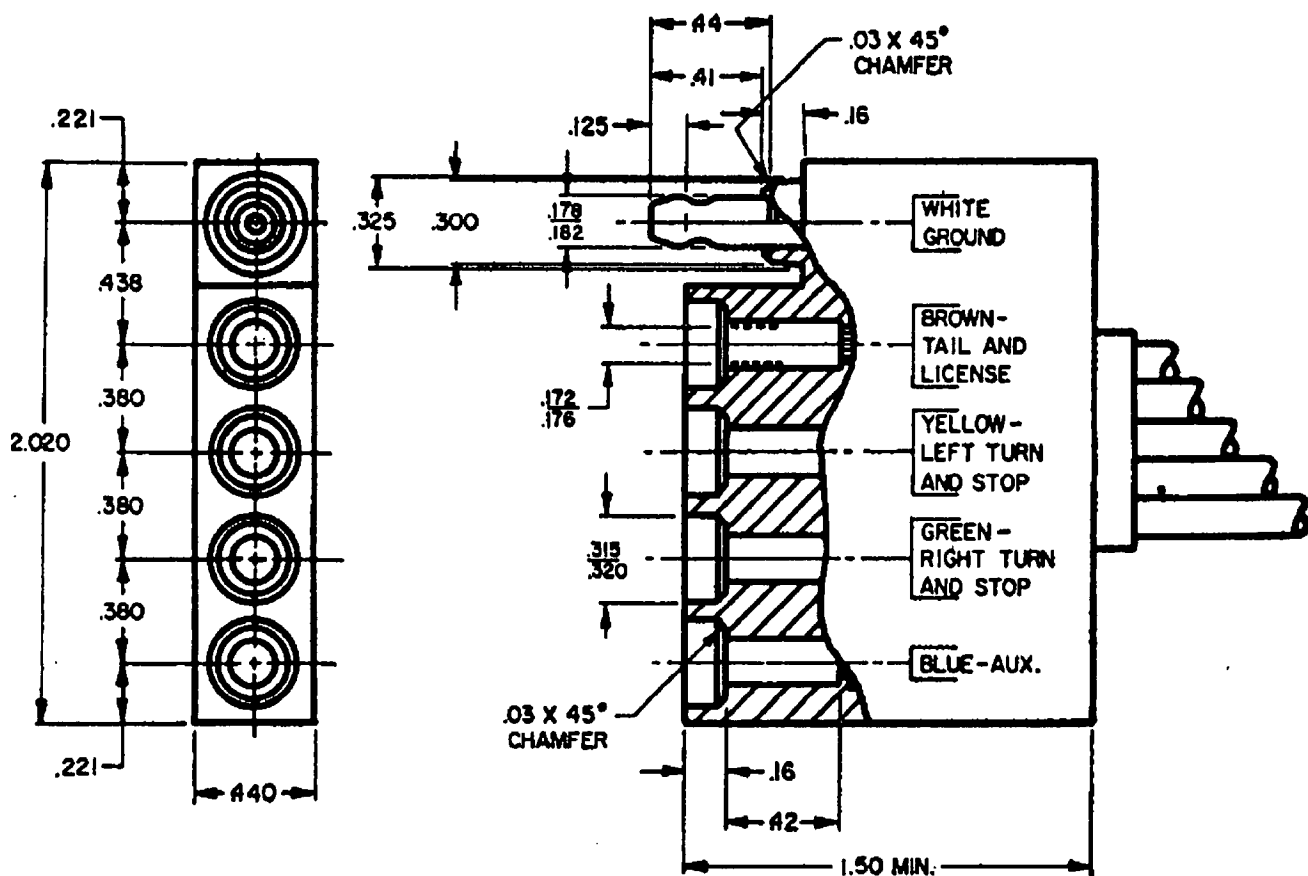


FIGURE 1—RECEPTACLE